Electronics
'69
Buyers' Guide

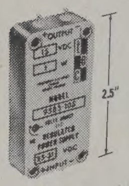
A McGr[illegible]Hill Market Directed Publication

TRANSFORMER
ELECTRONICS
COMPANY

MINIATURE REGULATED POWER SUPPLIES

T. E. C. POWER SUPPLIES ARE IMMEDIATELY AVAILABLE FOR AEROSPACE, MILITARY AND INDUSTRIAL SYSTEMS — All Silicon Semiconductors • 100% Inspection and Testing Program • Total Encapsulation in Silicon Rubber • Extruded Aluminum Case • Meets Extreme Aerospace Environment Requirements • Reduces System Design Effort • High Power to Volume Ratio • Reverse Input Polarity Protected • Input Transient Protected (up to 50v) • Wide Range of Output Voltages • M.T.B.F. (Mil-HDBK 217) over 110,000 hours • **(T. E. C. POWER SUPPLIES HAVE MET APPLICABLE MILITARY SPECIFICATIONS)** • ALSO AVAILABLE—MODIFICATION OF STANDARDS AND CUSTOM UNITS. Write for Complete Details to **TRANSFORMER ELECTRONICS COMPANY.**

9583 SERIES / 1 WATT



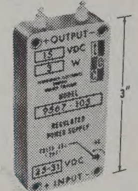
Output Power Capability: 1 watt
Operating Temperature: —55°C to 100°C
Input Voltage: 25-31 VDC
Line Regulation: ±0.25%
Load Regulation (½ to Full Load): 3%
Output Ripple: 0.6% p-p
Efficiency: 45%
No Load Current: 24 ma
Voltage Adjustability: ±10%
Volume: 1.6 cu. in. (1.25 x 2.5 x 0.5)
Weight: 2.4 oz.

For Quantity Discounts (up to 65%) Contact Factory

Part No.	Output Voltage (VDC)	Output Current (MA)	Price 1 ea.
9583101	3	330	$196.00
9583102	5	200	185.00
9583103	7.5	130	180.00
9583104	10	100	180.00
9583105	15	67	175.00
9583106	30	33	168.00
9583107	50	20	185.00
9583108	75	13	192.00
9583109	100	10	192.00
9583110	150	6.7	177.00
9583111	300	3.3	177.00
9583112	500	2.0	201.00
9583113	750	1.3	202.00
9583114	1000	1.0	232.00
9583115	1500	0.67	248.00
9583116	2000	0.50	254.00
9583117	2500	0.40	258.00
9583118	3000	0.33	270.00
9583121	±15	±33	209.00

NOTE: Specifications indicate nominal values. For individual specifications contact factory.

9567 SERIES / 3 WATT

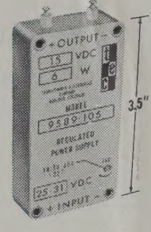


Output Power Capability: 3 watts
Operating Temperature: —55°C to 100°C
Input Voltage: 25-31 VDC
Line Regulation: ±0.25%
Load Regulation (½ to Full Load): 3%
Output Ripple: 0.9% p-p
Efficiency: 46%
No Load Current: 35 ma
Voltage Adjustability: ±10%
Volume: 2.7 cu. in. (1.5 x 3 x 0.6)
Weight: 4 oz.

For Quantity Discounts (up to 65%) Contact Factory

Part No.	Output Voltage (VDC)	Output Current (MA)	Price 1 ea.
9567101	3	1000	$178.00
9567102	5	600	168.00
9567103	7.5	400	164.00
9567104	10	300	164.00
9567105	15	200	159.00
9567106	30	100	153.00
9567107	50	60	168.00
9567108	75	40	175.00
9567109	100	30	175.00
9567110	150	20	161.00
9567111	300	10	161.00
9567112	500	6	183.00
9567113	750	4	184.00
9567114	1000	3	211.00
9567115	1500	2	226.00
9567116	2000	1.5	231.00
9567117	2500	1.2	235.00
9567118	3000	1.0	246.00
9567119	4000	0.75	256.00
9567120	5000	0.60	267.00
9567121	±15	±100	190.00
9567122	±25	±60	190.00
9567123	±50	±30	207.00
9567124	±100	±15	216.00

9589 SERIES / 6 WATT

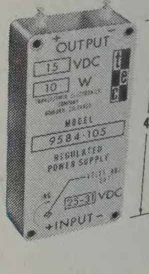


Output Power Capability: 6 watts
Operating Temperature:—55°C to 100°C
Input Voltage: 25-31 VDC
Line Regulation: ±0.1%
Load Regulation (½ to Full Load): 3%
Output Ripple: 0.6% p-p
Efficiency: 46%
No Load Current: 70 ma
Voltage Adjustability: ±10%
Volume: 4.3 cu. in. (1.75 x 3.5 x 0.7)
Weight: 7 oz.

For Quantity Discounts (up to 65%) Contact Factory

Part No.	Output Voltage (VDC)	Output Current (MA)	Price 1 ea.
9589102	5	1200	$177.00
9589103	7.5	800	172.00
9589104	10	600	172.00
9589105	15	400	167.00
9589106	30	200	161.00
9589107	50	120	176.00
9589108	75	80	184.00
9589109	100	60	184.00
9589110	150	40	169.00
9589111	300	20	169.00
9589112	500	12	192.00
9589113	750	8.0	193.00
9589114	1000	6.0	222.00
9589115	1500	4.0	238.00
9589116	2000	3.0	243.00
9589117	2500	2.4	247.00
9589118	3000	2.0	259.00
9589119	4000	1.5	269.00
9589120	5000	1.2	281.00
9589121	±15	±200	198.00
9589122	±25	±120	198.00
9589123	±50	±60	218.00
9589124	±100	±30	227.00

9584 SERIES / 10 WATT



Output Power Capability: 10 watts
Operating Temperature: —55°C to 100°C
Input Voltage: 25-31 VDC
Line Regulation: ±0.1%
Load Regulation (½ to Full Load): 3%
Output Ripple: 0.3%
Efficiency: 50%
No Load Current: 95 ma
Voltage Adjustability: ±10%
Volume: 6.4 cu. in. (2 x 4 x 0.8)
Weight: 9.6 oz.

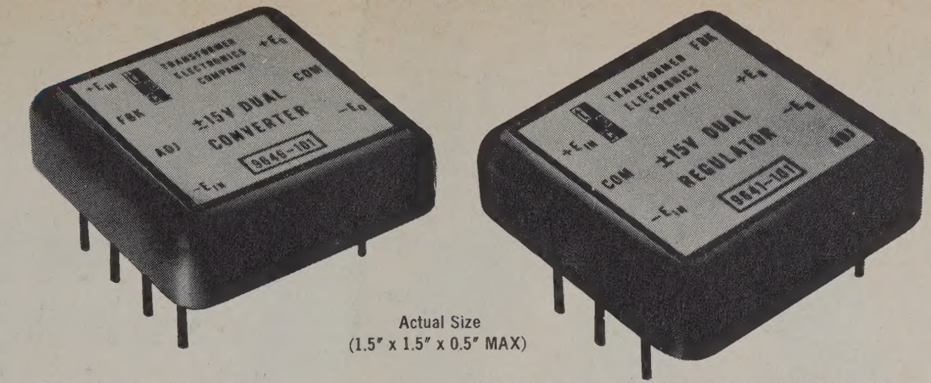
For Quantity Discounts (up to 65%) Contact Factory

Part No.	Output Voltage (VDC)	Output Current (MA)	Price 1 ea.
9584102	5	2000	$192.00
9584103	7.5	1300	187.00
9584104	10	1000	187.00
9584105	15	670	182.00
9584106	30	330	175.00
9584107	50	200	192.00
9584108	75	130	200.00
9584109	100	100	200.00
9584110	150	67	184.00
9584111	300	33	184.00
9584112	500	20	209.00
9584113	750	13	210.00
9584114	1000	10	241.00
9584115	1500	6.7	258.00
9584116	2000	5.0	264.00
9584117	2500	4.0	268.00
9584118	3000	3.3	280.00
9584119	4000	2.5	288.00
9584120	5000	2.0	299.00
9584121	±15	±335	217.00
9584122	±25	±200	217.00
9584123	±50	±100	238.00
9584124	±100	±50	243.00

TRANSFORMER ELECTRONICS COMPANY BOULDER INDUSTRIAL PARK • P.O. BOX 910, BOULDER, COLO. 80302
TWX 910-940-3246 • PHONE (303) 442-3837
POWER SUPPLIES • INVERTERS • CONVERTERS • TRANSFORMERS • HYBRID INTEGRATED CIRCUITS

NO. 8-68

OP AMP DUAL REGULATORS AND CONVERTERS



Actual Size
(1.5" x 1.5" x 0.5" MAX)

TEC DUAL CONVERTER 9646-101
$50.00 (100 quan.)

Features: • input, +24V to +32V • line regulated • output adj. ±14V to ±21V@ ±100MA • single external resistor adjustment • low temperature coefficient • input reverse polarity protected • input-output isolation >500 megohms • metal shielded package • miniature-P.C. mounting • −25°C to +85°C operation

Also available—Military version. Other input voltages.

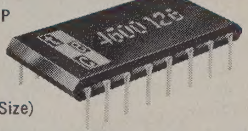
TEC DUAL REGULATOR 9641-101
$50.00 (100 quan.)

Features: • output, ±15 volts at ±100MA • short circuit proof • fold back current limiting • single external resistor adjustment • voltage ratio regulation • low temp coefficient • high ripple reduction-40db • low output impedance • metal shielded package • −25°C to +85°C operation

Also available—Military version.

THICK FILM HYBRID CIRCUITS

2XDIP



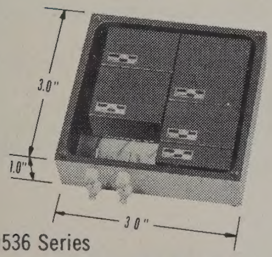
(Actual Size)

- Compatible with monolithic I/C's-DIP package
- High power capability—30 watts/in²
- Wide range of resistance values—10 ohms to megohms
- Wide range of capacitance values—to 0.1 mfd
- Wide selection of NPN/PNP and FET devices
- Parasitic capacitance and inductance negligible
- Low "set-up" and unit costs in moderate quantities

Rapid response is given to your microelectronic circuit requirements within the above definition. Your circuit prototypes are rapidly optimized by our experienced semiconductor and hybrid integrated circuit staff, with quality production units supplied from our modern hybrid circuit production facility in Boulder, Colorado.

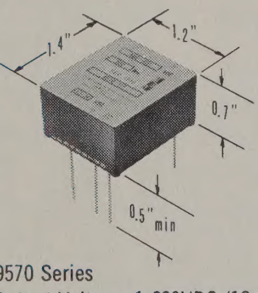
Watch for new **Hybrid Circuit Products** from TEC during 1969 in "Electronics" and other major electronics publications.

Photo-Multiplier Power Supplies



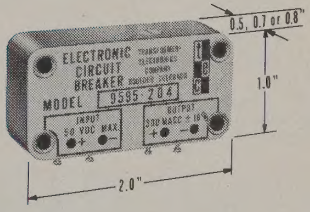
9536 Series
Output Voltage: 750-3,500 VDC
(16 models available)
Output Power Capability: to 350 mw.
Operating Temperature: −30°C to +70°C
Input Voltage: 25-31VDC
Line Regulation: 0.007%/volt
Output Ripple: 0.07%
Efficiency: 50%
Voltage Adjustability
Volume: "A" Case 7.8 cu.in (Shown)
"B" Case 6.5 cu.in.
Weight: 8 oz. Typical
Price: $650.00

Low Power Converters



9570 Series
Output Voltage: 1-800VDC (18 models available)
Output Power Capability: 300 mw.
Operating Temperature: −50°C to +70°C
Input Voltage: 12-24VDC
Output Ripple: 0.6% P.P.
Efficiency: 70%
No Load Current: 2.2ma. max.
Volume: 1.2 cu.in.
Weight: 1 oz.
Price: $82.00—$112.00

Circuit Breakers



9595 Series
Input Voltage: 10 to 50VDC
Operating Temperature: −55°C to 100°C
Current: 25 to 1000 ma.
Voltage Drop Across Unit: 3VDC
Volume: varies 1 cu.in. to 1.8 cu.in. depending on model
Weight: varies 1.3 oz. to 1.9 oz. depending on model
Price: $50.00

"Tentative Data"—Subject to change at anytime without notice.

Terms: Net 30 days.
F.O.B. Boulder, Colorado, U.S.A.

VECO®

VICTORY ENGINEERING CORPORATION

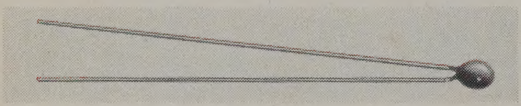
VICTORY ROAD
SPRINGFIELD, NEW JERSEY 07081
(201) 379-5900
TWX: 710-983-4430

Thermistors and varistors for mil. and industrial applications

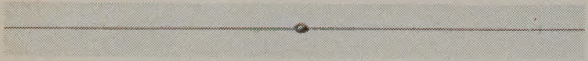
To help you evaluate which of Victory Engineering Corporation's wide range of thermistors and varistors is most suited to your particular application, shown here is a brief description of the general features of several VECO products.

Each is solidly backed by VECO's long-held reputation as the industry leader solely devoted to the research, development, and precision manufacture of temperature and voltage sensitive solid state components.

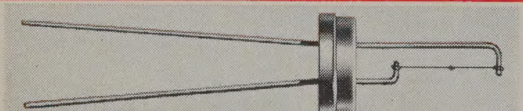
All VECO products are manufactured to meet or exceed government and industry standards.



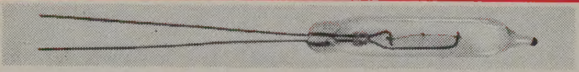
MILITARY GRADE DISK (MIL-T-23648)
Rugged, high reliability, general purpose thermistors . . . temperature range, —55°C to 125°C . . . well-suited for temperature measurement & control applications . . . particularly in transistor circuitry.



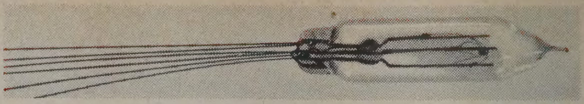
BEAD THERMISTORS
For applications involving temperature measurement and control . . . and liquid or gas flow . . . where space is minimal and medium cannot be disturbed by the sensor element . . . such as gas chromatography and thermal conductivity gas analysis. Available in diameters from .005" to .043" for different time constants. Available also with adjacent leads.



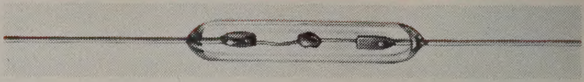
BUTT-MOUNTED THERMISTORS
For simplified application . . . where feedthrough terminals are required . . . bead thermistors are available ready-mounted . . . for gas chromatography and thermal conductivity gas analysis.



BEAD-IN-GLASS BULB
Bead-in-glass bulb thermistors . . . are most advantageous . . . in applications where power sensitivity is a primary concern. Also available in nitrogen atmospheres.



INDIRECTLY HEATED BEAD THERMISTOR
Thermistor bead with separate heater . . . for changing or controlling thermistor temperature . . . where electrical circuit resistance needs adjustment without use of moving parts.



BEAD-IN-GLASS RODS
Bead thermistors . . . with sintered-in platinum alloy leads . . . embedded in solid glass structures . . . air or gas never come in contact with thermistor bead.

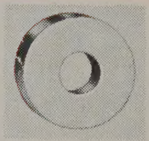
BEAD-IN-GLASS PROBES
Hermetically sealed in solid glass . . . with dumet leads . . . resist external mediums, harsh environments . . . impervious to conductive or corrosive mediums . . . unaffected by high density radiation. Available in various diameters and lengths, also moisture-proof seal.

THERMISTOR SENSOR ASSEMBLIES
Complete . . . ready-to-mount . . . for a variety of applications and mounting methods. "SS" series for surface mounting . . . heat sealing or process controls, heat sink and mold temperature measurements, other applications . . . "SF" series for use in temperature measurement and control, liquid level and gas control.

VECO LOX THERMISTORS
Thermistor beads & probes . . . developed specifically for measurement and control of fluid temperature . . . level and flow in the temperature ranges of liquid oxygen and liquid nitrogen.

THERMISTOR DISKS
Characterized by long time constant . . . high power dissipation. Used for temperature compensation of electronic components.

THERMISTOR RODS
Characterized by moderate power dissipation, long time constant, high resistance . . . for greatest application use in temperature measurement and control elements . . . or in temperature compensators and time delay devices of electronic circuits.



THERMISTOR WASHERS
Designed for mounting in bolted pile-ups . . . in any combination of series or parallel . . . for applications requiring higher power dissipation ratings.

THINSTOR® THIN FILM THERMISTORS
The latest advance in thermistor technology . . . two basic types . . . 5 micron thick films and 20 micron freestanding . . . both featuring relatively high dissipation constants, short thermal response times, extreme sensitivity . . . for application in microcircuitry, gas chromatography, infrared energy detection, medical instrumentation, many, many more.

VARISTORS
Voltage sensitive resistors . . . exhibit a symmetrical, non-linear change in electrical resistance with an applied voltage change . . . typically applied as noise suppressor in telephone circuits. Useful in volume limiting and metering protection.

Electronics
'69
Buyers' Guide

The most up-to-date, accurate and comprehensive reference on product sources available to the electronics industry. It contains 4,000 products and cross references which enable you to quickly find a specific product. All specifications on a given product will be found next or near to the listings for that product. Electronics Buyers' Guide is the quickest and easiest to use directory available today.

Published annually by Electronics.

October 1968 • Volume 41, Number 22A

Title ® registered U.S. Patent Office; © copyright 1968 by McGraw-Hill Inc. All rights reserved, including the right to reproduce the contents of this publication, in whole or in part.

Executive, editorial, circulation and advertising addresses: McGraw-Hill Building, 330 W. 42nd Street, New York, N. Y. 10036. Telephone (212) 971-3333. Teletype TWX N.Y. 710-581-4235. Cable Address: MCGRAWHILL, N.Y. Officers of McGraw-Hill Publications: Joseph H. Allen, President; J. Elton Tuohig, Executive Vice President; David J. McGrath, Senior Vice-President-Operations; Vice Presidents: John R. Callaham, Editorial; John M. Holden, Marketing; Paul F. Cowie, Circulation; David G. Jensen, Manufacturing; Jerome D. Luntz, Planning and Development; John R. Emery, Administration; Robert M. Wilhelmy, Controller.
Officers of the Corporation: Shelton Fisher, President and Chief Executive Officer; John L. McGraw, Chairman; Robert E. Slaughter, Executive Vice-President; Daniel F. Crowley, Donald C. McGraw, Jr., Bayard E. Sawyer, Senior Vice-Presidents; John J. Cooke, Vice President & Secretary; Gordon W. McKinley, Vice President & Treasurer.

EBG —— A McGraw-Hill Market Directed Publication.

Electronics '69 Buyers' Guide

G. L. Jones, publisher
G. F. Werner, general manager
R. Hera, directory manager
E. Hill, asst. directory manager
Business Manager: W. C. Carmichael
Promotion Manager: Donald J. Austerman
Production Manager: Thomas M. Egan
Classified Business Manager: F. J. Eberle
Circulation Manager: I. Siegel
Market Research Mgr: D. Strassler

Advertising Sales Staff

Frank E. LeBeau (212) 971-6464
Advertising Sales Manager

Warren H. Gardner (215) LO 8-6161
Eastern Adv. Sales Mgr.
Atlanta, Ga. 30309: Michael H. Miller
1375 Peachtree St. N.E. (404) 892-2868
Boston, Mass. 02116:
McGraw-Hill Building, Copley Square (617) CO 2-1160
Cleveland, Ohio 44113: William J. Boyle
55 Public Square (216) SU 1-7000
New York, N.Y. 10036:
500 Fifth Ave. (212) 971-3615
Philadelphia, Pa. 19103:
6 Penn Center Plaza (215) LO 8-6161
Pittsburgh, Pa. 15222:
4 Gateway Center (412) 391-1314
Rochester, N.Y. 14534: William J. Boyle
9 Greylock Ridge, Pittsford, N.Y. (716) 586-5040

Donald R. Furth (312) MO 4-5800
Midwest Adv. Sales Manager
Chicago, Ill. 60611: Robert Denmead
645 North Michigan Ave., (312) MO 4-5800
Dallas, Texas 75201: Richard P. Poole
1800 Republic National Bank Tower (214) RI 7-9721
Houston, Texas 77002: Robert Wallin
2270 Humble Bldg. (713) CA 4-8381
Detroit, Mich. 48226: Robert Denmead
856 Penobscot Bldg. (313) 962-1793
Minneapolis, Minn. 55402: Robert Denmead
1104 Northstar Center (612) 332-7425
St. Louis, Mo. 63105: Robert Denmead
The Clayton Tower, 7751 Carondelet Ave. (314) PA 5-7285

James T. Hauptli (415) DO 2-4600
Western Adv. Sales Mgr.
Denver, Colo. 80202:
Tower Bldg., 1700 Bdwy. (303) 255-5484
Los Angeles, Calif. 90017
1125 W. 6th St. (213) HU 2-5450
Portland, Oregon 97204:
218 Mohawk Bldg., 222 S.W. Morrison St. (503) 223-5118
San Francisco, Calif. 94111:
255 California St. (415) DO 2-4600

Pierre Braude, Tel: 225 85 88: Paris
European Director
Paris: Ken Davey
88-90 Avenue Des Champs-Elysees, Paris 8
United Kingdom and Scandinavia
Brian Bowes, Tel: Hyde Park 1451
34 Dover Street, **London W1**
Milan: Robert Saidel
1 via Baracchini Phone 86-90-656
Brussels: F. I. H. Huntjens
27 Rue Ducale Tel: 136503
Frankfurt/Main: Hans Haller
Elsa-Brandstroem Str. 2
Phone 72 01 81
Geneva: Ken Davey
1, rue du temple Phone: 31 95 60
Tokyo: Takeji Kinoshita 1 Kotohiracho
Shiba, Minato-Ku Tokyo (502) 0656
Osaka: Ryoji Kobayashi 163, Umegae-cho
Kita-Ku (362) 8771

Contents

YELLOW PAGES

Advertisers Index **Page 3**
A complete listing of all advertisers with the page number of their advertisements.

Directory of Products **Page 9**
A listing of 4,000 products and services connected with electronics technology, including cross-references. All information on any product (who makes it, specification advertising, etc.) is contained by the listing for that product. Advertisers information is also referenced by page number. All products indexed alphabetically at top of each page.

Searchlight Section **Page 819**

GREEN PAGES

Directory of Manufacturers and Sales Offices **Page 1001**
An alphabetical listing of over 6,000 manufacturers including company name, address and telephone number, person to call for sales information, and total number of engineers, employees and sales volume. Also includes a listing of sales offices for each company plus page references for advertisers.

Directory of Trade Names **Page 1397**
An alphabetical list of product and brand trade names together with the manufacturers to whom they belong.

EBG —— A McGraw-Hill Market Directed Publication.

Advertisers Index

Accurate Electronics Corp. 697
Acopian Corp. 541
Agile Division, Nalge Co. 141,381,690
Airflyte Electronics Co. 641
Air-Ground Electronics Co., Inc. 824
Albano Honeycomb Div., Aerospace Technology Corp. 343
Alden Products Co. 193
Alexander Hamilton Institute 273
Allen Avionics Inc., Div. A. K. Allen Co., Inc. 250,251,291
Allen Electronics Div., Allen Organ Co. 716
Allied Electronics Corp. 261,594
All-Tronics, Inc. 307,366
Aluminum Design Corp. 72,799
Alvaradio Industries, Inc. 825
Amco Engineering Co. 276
Americana X-Ray Co. 710
American Lava Corp. 132
American Time Products, Electronics Div., Bulova Watch Co., Inc. 138,310,361,448, 498,626,655,710
American Zettler, Inc. 587
Ammon Instruments, Inc. 405
Amperex Electronic Corp. 96,98,617, 747,748,749,764,765,766
Amperite Co., Inc. 612
Amphenol Corp. 82,85,87,90,165, 168,180,181,182,184,186,187, 192,195,260,296,334,398,483, 484,485,624,643,646,658, 665,684,720,757,758,800,810
AMP Incorporated 69,180,183, 185,186,192,385,559,697
AMP Inc., Capitron Div. 107,372,499
Analog Devices, Inc. 36,37
Anaren Microwave Inc. 32,234,419,658
Andersen Laboratories, Inc. 253
Anker Electronics 822
Anritsu Electric Co., Ltd. 218,231, 238,407,610,689
Ansley Mfg. Co., Arthur 149,674
API Instruments Co. 401
Art Wire & Stamping Co. 814
Associated Research, Inc. 702
Astrodyne, Inc. 342
Atlas Chemical Industries, Inc., Aerospace Components Div. 629
Augat, Inc. 644
Autodyne Engineering & Mfg. Co. 826
Automation Development Co. 439
Axel Electronics, Inc. 105,305

Babcock Relays Div., Babcock Electronics Corp. 590,593,595 606,609
Barnes Corp. 645
Barry Electronics Corp. 770
Barnstead Co., Div., Ritter Pfaudler Corp. 382
Beckman Instruments, Inc., Helipot Div. 40,145,208,217, 259,260,313,415,482, 484,485,553,586,616, 622,632,633
Bell Inc., F. W. 318,387,443,798
Belling Electronics 828
Bird Electronic Corp. 408,409
Birnbach Co., Inc. 333,812
Blackburn Inc., P. W. 318
Blackstone Ultrasonics Inc. 782
Bliss Gamewell Div., E. W. Bliss Co. 491
Blue M Engineering Co. 136
Bodine Electric Co. 430
Borg-Warner Corp., Ingersoll Products Div. 78
Bowmar Instrument Corp. 230,268,436
Buckbee-Mears Corp. 280
Bulova Watch Co., Inc., Electronics Div., Frequency Control Products 236,238,241, 248,289,291,296,297,300, 301,304,305,352,451,453, 456,459,466,729,742
Bulova Watch Co., Inc., Electronics Div., Servo Products 20,28,40,43, 143,209,421,630
Burndy Corp. 183,186,187, 194,694,697
Burr-Brown Research Corp. 33,288,423
Burroughs Corp., Electronic Components Div. 268,347,391
Bussmann Mfg. Div. McGraw-Edison Co. 314,315,1059
Caddell-Burns Mfg. Co., Inc. 162,163
Caig Labs., Inc. 151
Calabro Plastics Inc. 330,555
Calfonex, Inc. 141
Capitol Machine & Switch Co. 662
Captor Corp. 306
Carr Fastener Co., Div., United Carr Inc. 284,285
Centralab Div., Globe-Union, Inc. 411
Cerro Copper & Brass Co., Div., Cerro Corp., Alloys Dept. 14,648
Cerro Wire & Cable Div., Cerro Corp. 88
CGS Units Inc. 137,245
C & H Sales Co. 823
Chassis-Trak Inc. 640
Chemtree Corp. 636
Cherry Electrical Products Corp. 679
Chester Cable Co., Div. Tennessee Corp. 84,85
Chicago Dynamic Industries, Precision Products Div. 682
Chicago Switch Div., F & F Enterprises Inc. 667,669,680
Cinch Mfg. Co. 188,189
Circon Component Corp. 332
Clairex Electronics Inc. 127
Clevite Corp., Brush Instruments Div. 336,570,571
Clevite Corp., Piezoelectric Div. 294
Clifton Div., Litton Industries, Litton Precision Products Inc. 437,631,686
CML, Inc. 496,497
Coil Winding Equipment Co. 378
Columbia Electronics Sales 819
Communication Devices Co., Inc. 826
Component Research Co., Inc. 108
Computer Instruments Corp. 488-490
Computer Laboratories 40,215,217
Computer Mechanisms Corporation 560
Computer Products Inc. 541
Conrad Co. 134
Consolidated Reactive Metals Inc. 545,804
Consolidated Wire & Associated Corps. 808
Contemporary Electronics Inc. 534,740
Control Knobs, Inc. 365
Cosmicar Optical Co., Ltd. 374
Couch Ordnance Inc. 609

Crescent Tool Co., Div. Crescent Niagara Corp. 714
Crown International Radio & Electronics Corp. 19,20,575
CTS Corporation 146,623,677
CTS Knights, Inc. 239
Culligan Inc. 255
Curry, McLaughlin & Len, Inc., See Microwave/Systems, Inc. 653
Curtis Instruments, Inc. 347

Daburn Electronics & Cable Corp. 777,809
Dainichi-Nippon Cables, Ltd. 799
Dale Electronics, Inc. 486,487,618,619
Dale Electronics Inc. Sioux Div. 160
Datapulse Inc., Sub. Systron-Donner Corp. 324
Data Technology, Inc. 278
Daven Div., McGraw-Edison Co. 56, 60,247,390,621,675
DeCoursey Engineering Lab. 293
Digitran Co. 683
Dimco-Gray Co. 282
Discon Corp. 246,267
Dolinko & Wilkens, Inc. 118
Dorne & Margolin, Inc. 49,54
Douglas Microwave Co., Inc., Div. Struthers Electronics Corp. 58,59
Douglas Randall Inc., Sub. Walter Kidde & Co., Inc. 602,603
Dranetz Engineering Labs., Inc. 74, 174,322,397,407,796
DX Antenna Co., Ltd. 50
Dynage, Inc. 507

Eagle-Picher Industries Inc., Electronics Div. 396
Eagle Signal Div., E. W. Bliss Co. 600,711
Edal Industries, Inc. 580
Edsyn, Inc. 713
Eldre Components, Inc. 77,185
Electrical Industries Div., Philips Electronics & Pharmaceutical Industries Corp. 628
Electrical Insulation Co., Inc. 475
Electro-Craft Corp. 436
Electro-Craft Inc. 822
Electro-Mechanical Instrument Co., Inc. 795
Electro Motive Mfg. Co., Inc. 110
Electro Netic Steel, Inc. 368
Electronic Closures, Inc. 96
Electronicraft Inc. 828
Electronic Crystals Corp. 241
Electronic Enterprises, Inc. 776
Electronic Measurements Div., Rowan Controller Co. 498,536,731,733
Electronic Molding Corp. 695
Electronic Research Co., A Textron Co. 209,241,298, 448,468,709
Electro-Tec Corp. 593
Elgenco, Inc. 320,321
Elmwood Sensors Inc. 709
Ewald Instruments Corp. 659,801
E-Z-Hook Test Products 152

Fairmont Electronic Sales Corp. 97,751
Federal Tool Engineering Co., Div. Arvin Industries 376,385,801
Ferrotec Inc. 666
Film Microelectronics, Inc. 416
Flex Products Corp. 469
Fluke Mfg. Co., Inc., John 270,317, 514,565,654,688,787,789,793
Fork Standards Inc. 138,269, 310,361,452,457,655
Formica Metal Products Co., Inc. 68
Fusite Corp. 327,629

Gagne Associates, Inc. 669
Gar Enterprises, Inc. 507
General Electric Co., ESCO 7,64, 103,431,585,610,771
General Instrument Corp., Semiconductor Products Group 3rd Cover Inleaf
General Microwave Corp. 60,400, 407,801
General Reed Co. 601,674
Georator Corp. 213
Geotech A Teledyne Co. 576
Goodheart Co., Inc., R. E. 824
Graphite Metallizing Corp. 76
Grayhill, Inc. 673,676
Greenray Industries, Inc. 450,460,467
Grigsby Barton Inc. 608
Guardian Electric Mfg. Co. 601,649,661
Gudebrod Bros. Silk Co., Inc. Electronics Div. 223,342,747

Hackensack Cable Corp. 83,222,807
Hamamatsu TV Co., Ltd. 774
Hansen Mfg. Co., Inc. 441
Haydon Switch & Instrument Inc. 433,681
Heath Co. 322,400,464,793
Helical Products Co., Inc. 235
Hewlett-Packard 232,266,421,546 572,574,575,576,657,689
Hickok Electrical Instrument Co. 231,397,447,791
Hill Electronics Inc. 238
Hisonic, Inc. 248,292,717,737,1179
Hoffman Co., P. R. Div. Aiken Industries 236,376,554
Honeywell Test Instruments Div. 8,406,790
Hopkins Engineering Co. 306
Houston Instrument Div., Bausch & Lomb 573
Hughes Connecting Devices 83,180, 183,185,192,194
Hurst Mfg. Corp. 434
Hydra Electric Co. 668

IBM, Industrial Products Marketing 604,605
IMC Magnetics Corp 68,69,439, 440,649,686
Imtra Corp. 680
Indiana General Corp. 388,429
Industrial Test Equipment Co. 495
Industrial Timer Corp. 560,712
Instrument Specialties Co., Inc. 636
Integrated Circuit Electronics, Inc. 229,267
Interelectronics Inc. 535
International Communication Corp. 166
International Crystal Mfg. Co., Inc. 399
International Data Products, Inc. 335
Intronics Inc. 39
Ithaco, Inc. 26
ITT Cannon Electric Div., Int'l Tel & Tel Corp. 179,182,186 191,192,414
ITT Jennings Div., Int'l Tel & Tel Corp. 121,589,613,614,684,794

Jaco Electronics Inc. 100
Japan Resistor Mfg. Co., Ltd. 620
J-B-T Instruments, Inc. 400,675,684

JFD Electronics Co., Components Div. 115-117
Johanson Mfg. Corp. 119

Kappa Networks, Inc. 252,302
Kavlico Electronics Inc. 724
Keller Inc., Hugo P. 66
Kenton Engineering Corp. 568
Kentucky Electronics, Inc. 767
Kepco, Inc. 38,501,508-513, 539,540,542,543, 550,551,552,1206, 4th Cover
Keystone Electronics 699
KGS Electronics, Inc. 736
Kilo Engineering Co. 260
Kinelogic Corp. 432
Kinetron Corp. 96
Kintron Div., Kinelogic Corp. 432
Knowles Electronics, Inc. 417
Kressilk Products, Inc. 383
Kulka Electric Corp. 698
Kyoto Ceramic Co., Ltd. 130

Lake States Industries Div., Lake States Oil Co. 73
Lambda Electronics Corp. 515-525
Lansdale Transistor & Electronics Inc. 754
LaPointe Industries, Inc. 120
Lapp Insulator Co., Inc. 109,356,357, 358,359,720
Lavin Associates, Inc., Henry 1215
Leach Corp. 596-599
Leesona Corp., Coil Winding Machine Div. 377
Lel Div., Varian Associates 24,25,30, 32,41,42,228,233,266,270,419,420
Liberty Electronics, Inc. 827
Linair Design Corp. 615
Linear Networks Co. 288
Ludlow Charts Div., Ludlow Corp. 472

Machlett Labs., Inc., The 774
Magnecraft Electric Co. 595
Magnetic Shield Div., Perfection Mica Co. 345,635
Magnetics Inc. 226,227
Maguire & Co., J. A. 1227
Mallory & Co., Inc., P. R. 102
Markwik Corp. 813
Mastech, Inc. 705
Matsuo Electric Co., Ltd. 113
Matsushita Electric Industrial Co., Ltd. 295
Megadyne Industries, Inc. 415
Melcor Electronics Corp. 33
Melpar Inc. 145,204,310,355,458
Meson Electronics Co., Inc. 613
Microbeads Div., Cataphote Corp. 10
Micro Contacts, Inc. 196,393,394
Micro-Now Instrument Co., Inc. 685
Microsonics Inc. 248,298,452
Micro Switch Div., Honeywell 662,663, 665,667,671,672, 674,678,681,683
Microwave Cavity Labs, Inc. 124,125
Microwave/Systems, Inc. 653
Midwestern Instruments Inc., Div., Telex Corp. 577
Milgo Electronic Corp. 166
Milgray Electronics Inc. 97,265, 333,416,483,589,616, 661,729,750,771,805
Missimers, Inc. 137
Mitsubishi Electric Corp. 785
Mitsumi Electric Co., Ltd. 779
MM Electronic Enclosures, Inc. 122
Modutec, Inc. 402,403
Molex Products Co. 190,670
Mosley Electronics, Inc. 50
Motorola Communications & Electronics, Precision Instrument Products 465
Motorola, Government Electronics Div. 329
Murata Mfg. Co., Ltd. 311

National Electronics Inc., Varian Sub. 267,579
National Lead Co. 647
National Tel-Tronics Corp. 362,481, 482,696
Ney Co., J. M. 197
NGK Spark Plug Co., Ltd. 660
Nippon Coil Co., Inc. 745
Nippon Electric Co., Ltd. 752,753
Nitine Inc. 142
Nitsuko Ltd. 102
NJE Corporation 530,531
Non-Linear Systems, Inc. 244,412,792
North Atlantic Industries, Inc. 218, 407,625,706
Northern Engineering Labs Inc. 242
Northfield Precision Instrument Corp. 67,154
North Hills Electronics Inc. 746
Norton Associates, Inc. 337-339
Nortronics Co., Inc. 340
Nothelfer Winding Labs., Inc. 743
Numar Corp. 343

OAL Associates, Inc. 468
Obata Electric Co., Ltd. 56
Omtronics Mfg. Inc. 622
Opad Electric Co., Inc. 537
Oven Industries 467

Pacific Plantronics, Inc. 273
Parker Instrument Corp. 406
Peerless Electrical Products Div., LTV Ling-Altec, Inc. 288,494,728
Perfection Mica Co., Magnetic Shield Div. 345,635
Permacor Div., Radio Cores, Inc. 225
Permag Corp. 388
Petersen Radio Co., Inc. 451
Pfizer Minerals, Pigments & Metals Div. 10
Philbrick/Nexus Research A Teledyne Co. 34,35
Plastic Capacitors, Inc. 106
Poly Scientific Div., Litton Industries 642
Pomona Electronics Co., Inc. 12, 83,223,277,480,643
Porta-Trace Div., Gagne Associates, Inc. 271
Potter & Brumfield Div., American Machine & Foundry Co. 589,591, 592,593,595,601,611,612
Power Designs, Inc. 532,533
Power/Mate Corp. 506,536
Precision Metal Products Co. of Malden Inc. 333,474,475,695
Precision Tube Co., Inc. 86
Premier Microwave Corp. 51,363,419
Primo Co., Ltd. 417

Printact Relay Div., Executone, Inc. 591
Printed Motors, Inc. 435
Progress Electronics, Inc. . 87,109,195
Pyle-National Co. 181,182

Radar Design Corp. ... 10,57,233,699
Radio Research Instrument Co. .. 828
Rapid Specialties Co. 153
RCL Electronics, Inc. 621,675
Reeves-Hoffman Div., Dynamics Corp. of America 241
Rembar Co., Inc. 427
Republic Electronics Corp. 99
Republic Foil Inc. 15
Resistors, Inc. 621
RFD, Inc. 454
RF Interonics Inc. 305B
R H G Electronics Lab., Inc. 563
Richfield Coined Products Co. ... 392
Robertshaw Controls Co., Acro Div. 661
Rogan Brothers, Inc. 365

Saki Magnetics Inc. 335
Sangamo Electric Co. 101,111
Sarex Corp. 81
Scientific Atlanta, Inc. 80
Secs, Inc. 319
Seg Electronics Div., E. J. Howles Inc. 290
Semtech Corp. 582
Servo Corporation of America . 32,323
Sherold Crystals, Inc. 240
Sherold Filters Inc. 299
Signalite, Inc. 369,769
Sorensen Operation, Raytheon Co. 528,529
Space Electronics Co. 822
Specific Products Div., Dr. Henry L. Richter Corp. 656
Spectra Electronics 389,453
Spectrol Electronics Corp. 484
Spellman High Voltage Electronics Corp. 502,503
Spencer-Kennedy Labs, Inc. 303
Sprayon Products, Inc. 151
Stackpole Carbon Co. ... 224,616,675
Standard Cabinet Co., Inc. 137
Standard Condenser Corp. .. 113,592
Standard Grigsby Co. 672
Star Porcelain Co. 131
Star Stainless Screw Co. 286
Stevens-Arnold, Inc. 144
Stimpson Co., Inc., Edwin B. 283
Stow Labs. 724
Superior Electric Co. ... 184,201,206, 384,386,440,482,585,738
Superior Steatite & Ceramic Corp. . 130
Superior Tube Co. 762
Susumu Industrial Co., Ltd. 620
Syntronic Instruments Inc. 817
Systron-Donner Corp. 11,175, 231,326,399,791

Taber Instruments A Teledyne Co. 725
Takamisawa Electric Co., Ltd. 610
Tansitor Electronics Corp. 104
Taylor Electronics Corp. 413,750
Tech Laboratories Inc. 664
Techmetric Co. 203
Technic, Inc. 479
Technipower Inc., Sub. Benrus Watch Co., Inc. 544
Technical Systems Corp. 820,821
Technitrol, Inc. 249,740
Tektronix, Inc. 462,463,1348
Tele-Signal Corp. 44,167, 220,319,364,614
Texas Instruments Incorporated, Industrial Products Div. 324
Texscan Corp. 61,258,293, 297,325,464,569
Times Wire & Cable Div., International Silver Co. ... 82,84,85, 87,179,249
Toa Electric Co., Ltd. 651
Tobe Deutschmann Labs., Inc. 106,445
Tohoku Metal Industries, Ltd. 225
Tokyo Electric Co., Ltd. 712
Toroidal Specialties, Inc. 716
Torotel, Inc. 157,238,353, 716,718,730
Torwico Electronics, Inc. . 161,719,735
Towson Laboratories, Inc. 214
Toyo Musen Co., Ltd. 370
Tracor, Inc. 45,46,173,174,297, 300,565,567,572,576,655,656,657
Transco Products Inc. 49,54, 296,429,666
Transformer Electronics Co. 2nd Cover & Facing Page
Transmagnetics Inc. 218,254,443
TRG Div of Control Data Corp. ... 418
Trygon Electronics, Inc. 506,536
Trymetrics Corp. 791
Tung-Sol Div., Wagner Electric Corp. 371,534,538,579,583,775

Umeda Nameplate Mfg. Co., Ltd... 444
Uniform Tubes, Inc. 84,395
United Transformer Corp. 31,157, 289,301,307,559,718, 727,733,740
Unitrode Corp. 263
Universal Relay Corp. 588
Universal Voltronics Corp. ... 504,505

Vacap Corp. 118
Vactec, Inc. 126
Vanguard Relay Corp. 595
Vari-L, Inc. 352,419,746
Varo, Inc. Semiconductor Div. 581
Vent-Rak Inc. 79
Vero Electronics Co., Inc. 72,312
Viatran Corp. 724
Victor Comptometer Corp., Business Machines Group 547
Victory Engineering Corp. Advertisement Facing Page 1

Wagner Electric Corp., Tung-Sol Div. 371,534,538,579,583,775
Waldom Electronics, Inc. 73,191
Wanlass Electric Co. 526,527
Weinschel Engineering Co., Inc. 57,63,187,442
Weston Components Division . 492,493
Weston Instruments Div., Weston Instruments Inc. .. 404,607
White Instruments, Inc. 287,290
Whittaker Corp., GenCom Div. 772,773,797
Wilgreen Industries, Inc. 824
Williams Gold Refining Co., Inc., Precious Metals Div. 14,394
Wire Cloth Enterprises, Inc. 281

Yardney Electric Corp. 65
Yokowo Mfg. Co., Ltd. 53
Y. S. Porcelain Tubes Mfg. Co., Ltd. 129

NEW IDEAS IN ELECTRONICS

Take advantage of General Electric's total capability in electronics

What is total capability?

Simply put, it's a wide range of GE electronic products supported by technical back-up service—available to you through a single source, the Electronic Components Sales Operation.

How can it help your business?

In products—GE's variety of quality components, consistent in design and manufacture, makes economical one-stop buying a reality. And, continuous innovation confirms our ability to provide what you want, when you want it, the way you want it.

In service—Your GE representative is more than a salesman. He's a trained manager available to work on *your* team, oriented to finding the best circuit solutions to your design problems.

Put this total capability to work.

Look over the products indexed at the right. Then notify your nearest GE Electronic Components Sales Operation Office of your needs.

INDEX

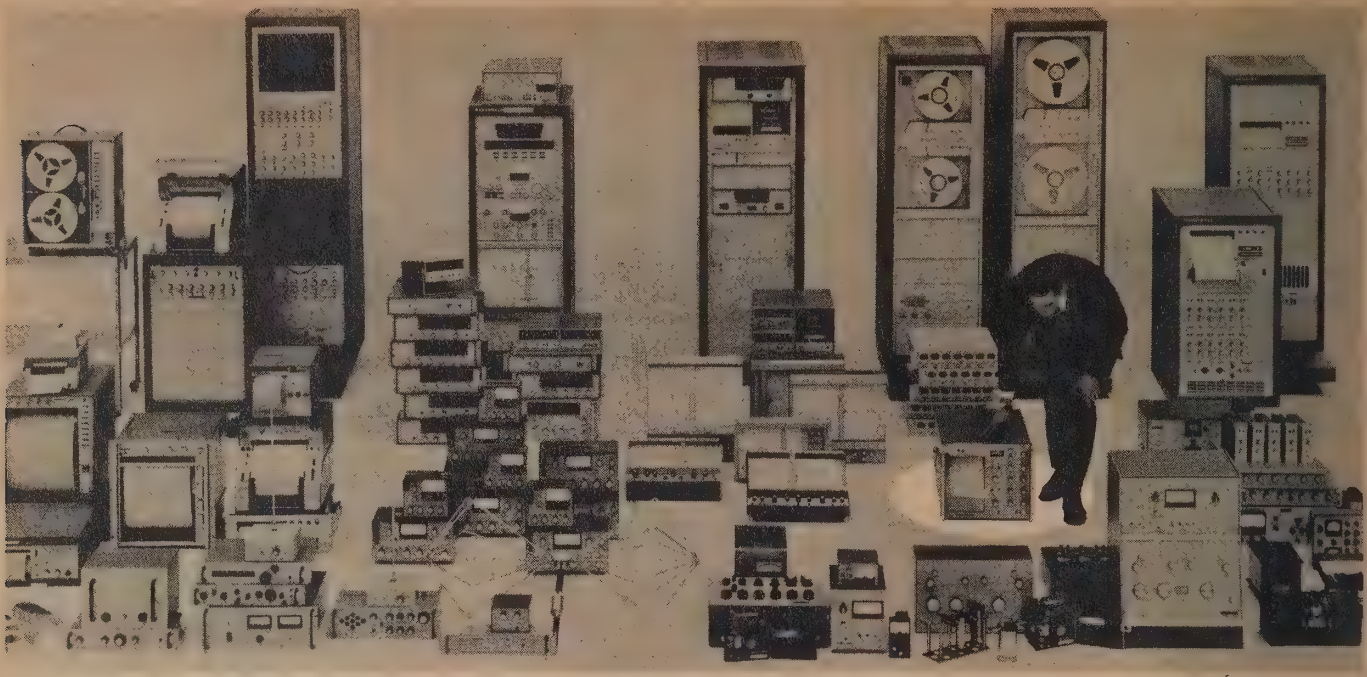
TO GENERAL ELECTRIC PRODUCTS

BATTERIES	64
CAPACITORS	103
MOTORS AND COOLING-FAN ASSEMBLIES	431
RELAYS	610
TUBES	771
VOLTAGE REGULATORS	585

GENERAL ELECTRIC ELECTRONIC COMPONENTS SALES OPERATION OFFICES

Location	Address	AC	Phone
ALABAMA			
Huntsville, 35801	3322 Memorial Parkway, S. Suite 13	205	883-3131
ARIZONA			
Phoenix, 85012	3550 N. Central Ave., Suite 712 Guaranty Bank Building	602	264-1751
CALIFORNIA			
Los Angeles, 90064	11840 W. Olympic Boulevard	213	479-7763
Redwood City, 94063	555 Veterans Boulevard	415	369-7151
COLORADO			
Denver, 80201	201 University Blvd., P.O. Box 2331	303	388-5771
CONNECTICUT			
Bridgeport, 06602	1285 Boston Avenue	203	344-1012
DISTRICT OF COLUMBIA			
Washington, 20005	777 14th Street, N.W.	202	393-3600
FLORIDA			
North Palm Beach, 33403	321 N. Lake Blvd., Rm. 201	305	844-5202
Orlando, 32806	14 West Gore Street	305	425-8634
Tampa, 33609	2104 S. Lois Ave., P.O. Box 10577	813	877-8311
GEORGIA			
Atlanta, 30309	1330 W. Peachtree St., N.W.	404	892-0101
ILLINOIS			
Chicago, 60641	3800 N. Milwaukee Avenue	312	777-1600
INDIANA			
Fort Wayne, 46806	3606 S. Calhoun Street	219	744-2346
Indianapolis, 46208	3750 N. Meridian Street	317	923-7221
IOWA			
Cedar Rapids, 52401	210 Second St., S.E.	319	364-9149
KENTUCKY			
Owensboro, 42301	316 East Ninth Street	502	683-2401
LOUISIANA			
New Orleans, 70112	613 Hibernia National Bank Building	504	525-4324
MASSACHUSETTS			
Wellesley, 02181	1 Washington St.	617	237-2050
MICHIGAN			
Detroit, 48237	15160 West 8 Mile Road	313	564-5228
MINNESOTA			
Minneapolis, 55424	4900 Viking Drive, Rm. 108	612	927-5458
MISSOURI			
Kansas City, 64199	911 Main St., Suite 518 P.O. Box 13566	816	221-4033
NEW JERSEY			
Clifton, 07014	200 Main Avenue	201	472-8100
NEW YORK			
Buffalo, 14240	625 Delaware Avenue	716	883-9210
Great Neck, 11021	425 Northern Boulevard	516	466-8800
North Syracuse, 13212	Northern Concourse Office Building	315	456-3412
NORTH CAROLINA			
Greensboro, 27408	1842 Banking Street, P.O. Box 9242	919	275-0835
OHIO			
Cincinnati, 45206	2621 Victory Parkway, Room 211	513	281-2547
Cleveland, 44117	25000 Euclid Avenue	216	266-2900
Dayton, 45439	3440 S. Dixie Highway, P.O. Box 2143 Kettering Branch, 45429	513	298-0311
OKLAHOMA			
Oklahoma City, 73112	3022 N.W. Expressway, May-Ex Bldg., Room 412	405	943-9015
PENNSYLVANIA			
Philadelphia, 19102	3 Penn Center Plaza	215	568-1800
Pittsburgh, 15220	875 Greentree Road, 3 Parkway Center	412	921-8594
TENNESSEE			
Memphis, 38104	1420 Union Avenue, Rm. 202	901	272-9641
TEXAS			
Dallas, 75205	4447 N. Central Expressway	214	521-1931
Houston, 77006	3100 Richmond Avenue, Room 108	713	524-3061
VIRGINIA			
Charlottesville, 22903	Terrace Level 6A 1932 Arlington Blvd. P.O. Box 319	703	296-8118
WASHINGTON			
Seattle, 98188	112 Andover Park East, P.O. Box 6100	206	244-7750
WISCONSIN			
Milwaukee, 53202	615 East Michigan Street	414	271-5000

GENERAL ELECTRIC



We build 847 instruments to be sure we have the exact 1 you need.

Your Honeywell sales engineer can zero in on the precise solution to your instrumentation problems quickly and efficiently. He's not handicapped by a limited line. He can choose the right solution from our 847 basic instruments whose combinations and permutations approach the infinite. Below, we've listed selected product lines, by category, plus a number of helpful services. For full information on items of interest, call your local Honeywell sales engineer, or write: Honeywell, Test Instruments Division, P. O. Box 5227, Denver, Colo. 80217.

☐ **Amplifiers/Preamplifiers**
AC
DC—Wideband
Differential
Galvanometer
Medical
RFI/EMI
Subaudio
Transducer
VHF/UHF

☐ **Analyzers**
Auto-Cross Correlation
Spectrum

☐ **Biomedical Instrumentation**
Analog and Digital Recording Systems
Analytical Measuring Instrumentation
Computers
Magnetic Tape Recorders
Patient Monitoring Monitors
Physiological Data Channels
Readouts
Signal Conditioning
Transducers

☐ **Bridges**
Conductance
Kelvin
Wheatstone

☐ **Converters**
AC
A/D
Milliohm
Ohms
Phase
Physical to Electrical

☐ **Detectors**
Interference
Null
RF
RFI/EMI

☐ **Digital Voltmeters**
Accessories/Converters
Multimeters
Panel Readouts
Ratiometers
System-Compatible
Temperature Reading

☐ **Filters**
Band Pass
Power Line
RFI
Signal Line

☐ **Galvanometers**
Electronic
Oscillographic Recording

☐ **Laboratory Standards**
Accessories
Bridges
Measuring Systems
Null Detectors
Potentiometers

☐ **Magnetic Tape Recorders**
Analog, FM, Direct, Wideband
Digital

☐ **Metrology Service**
Certified Calibration, NBS Traceable
Contract Service
Installation Service
Instrumentation Calibration & Repair

☐ **Monitors**
Analog
Digital

☐ **Null Detectors**
Electronic
Light Beam

☐ **Oscillators**
Sweep
Sweep/Function

☐ **Oscillograph Recorders (Visicorders)**
Accessories
Fiber Optic—X-Y-Y'-Z axes
Ink Writing
Light Beam—Visicorders
Microfilm
Systems

☐ **Oscilloscopes, Monitor**
Multi-CRT
Single-Screen Multichannel

☐ **Oscilloscopes, Recording**
Fiber Optic—X-Y-Y'-Z axes

☐ **Potentiometers**
Accessories
Laboratory Standards
Portable
Temperature Calibrated
Test Sets

☐ **Power Supplies**
AC Line Regulator
Decade Adjustable
High Voltage
Precision AC
Precision DC
Strain Gage

☐ **Receivers**
VHF
VLF

☐ **Recorders**
Accessories
Digital
Magnetic Tape
Microfilm
Oscillograph—Ink Writing
Oscillograph—Light Beam
Recording Oscilloscope
Strip Chart
X-Y Graphic

☐ **RFI/EMI Instrumentation**
Accessories
Amplifiers
Antennas
Filters
Generators
Power Line Test Sets
Preamplifiers
Receivers
RFI Compliance Testing
Stabilization Networks
Surveillance Systems

☐ **Signal Conditioning**
AC—Amplifiers
Attenuators
Bridge Balances
DC—Wideband Amplifiers
Excitation Units
Galvanometer Amplifiers
Strain Gage Amplifiers
Thermocouple Amplifiers
Transducer Amplifiers

☐ **Systems, Automatic Measuring and Recording**
Analog
Biomedical
Die-Casting
RFI
RF Surveillance
Specialized Industrial

☐ **Training Courses**
Instrumentation Operation and Service

☐ **Transducers**
Accessories
Biomedical
Excitation Units
Linear Accelerometers
Linear Displacement
Load Cell
Micro-Scale
Pressure, Absolute
Pressure, Differential
Pressure, Gage
Readouts
Thermocouples
Universal Transducing Cell

☐ **Voltmeters**
Digital
Potentiometric
Tuned RF

Honeywell engineers sell solutions

Honeywell

Electronics '69 Buyers' Guide

Product Directory

Up to date buying information on Products, Materials and Services from over 6,000 manufacturers. 4,000 product headings and cross references are used.

Products, Materials, Services—

Listed alphabetically by their generic names, as in "Actuators-Servo."

Cross References—

End use terms, synonyms and newly devised terms are listed as cross-references to the generic names of the products.

Specification Information—

Advertisers product information is displayed next to or near to the listings for each product. All advertisers listings are in boldface type for quick referral plus page numbers of advertisements.

Index—

A built-in index is supplied by reading the top of each page. Simply turn alphabetically until you arrive at the product of interest.

An advertisers index appears on pages 3-6.

EBG — A McGraw-Hill Market Directed Publication.

If you're not using GLAS-SHOT®
GLASS BEAD ABRASIVE
you're behind the times

Modern electronic manufacturing techniques need modern abrasives, and they especially need GLAS-SHOT. GLAS-SHOT cleans, peens, finishes components, preparing a uniform surface with better conductivity. GLAS-SHOT saves money by increasing production efficiency.

For complete information, write or call collect, 601/939-4631, Jackson, Miss.; 419/-244-3003, Toledo, Ohio; or 416/251-1681, Toronto, Ontario, Canada.

MICROBEADS DIVISION
CATAPHOTE CORPORATION
P.O. Box 2369, Jackson, Miss. 39205
M–6713 I–29

ABRASIVES

SEE ALSO WHEELS, DIAMOND

MICROBEADS DIV, CATAPHOTE CORP, JACKSON MISS	**ADV PG 10**
PFIZER MINERALS, PIGMENTS & METALS DIV, NEW YORK NY	**ADV PG 10**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
American Instrument Co, Inc, Silver Spring	Md
Automation Services Inc, Endicott	N Y
Avco Bay State Abrasives Div, Westboro	Mass
Barton Mines Corp, North Creek	N Y
Bronwill Scientific, Rochester	N Y
Continental Sensing Inc, Melrose Park	Ill
Diamonds Unlimited Inc, Rochester	N Y
DoAll Co, Des Plaines	Ill
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Geoscience Instruments Corp, Mt Vernon	N Y
Greenlee Diamond Tool Co, Chicago	Ill
Inland Industrial Products Div Inland Mfg Co Omaha	Neb
Jonard Industries Corp, Bronx	N Y
Lea Mfg Co, Waterbury	Conn
MDC Industries, Philadelphia	Pa
Metal Removal Co, Chicago	Ill
Microbeads Div, Cataphote Corp, Jackson	Miss
3M Company, St Paul	Minn
Mitchell Co, E C, Middleton	Mass
Norton Co, Worcester	Mass
Pangborn Corp, Hagerstown	Md
Pfizer Minerals, Pigments & Metals Div, New York	NY
Servo Corp of America, Hicksville	N Y
Sittler Corp, Chicago	Ill
Speedfam Corp, Des Plaines	Ill
Taft-Peirce Mfg Co, Woonsocket	R I
Techni-Tool Inc, Philadelphia	Pa
United Mineral & Chemical Corp, New York	N Y
Universal Shellac & Supply Co Inc, Brooklyn	N Y
Vapor Blast Mfg Co, Milwaukee	Wis
White Industrial, S S, New York	N Y

ABSORBERS--MICROWAVE

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE	**NY**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
RADAR DESIGN CORP, SYRACUSE, N Y	**ADV PG 10**
Aircom Inc, Union	N H
Airtec Inc, Roselle	N J
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Astrolab Inc, Linden	N J
Chemalloy Electronics Corp, Santee	Cal
Chomerics, Inc, Arlington	Mass
Coax Devices, Chelsea	Mass
Conductron Corp, Ann Arbor	Mich
Custom Components Inc, Caldwell	N J
Custom Materials Inc, Chelmsford	Mass
Dbm Research Corp, Cocoa Beach	Fla
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Eckel Industries Inc, Cambridge	Mass
Electromagnetic Radiation Labs Inc, West Acton	Mass
Emerson & Cuming Inc, Canton	Mass
Film Components Div Reon Resister Corp, Yonkers	N Y
Filmohm Corp, Long Island City	N Y
Goodrich Industrial Prods Co, B F, Akron	Ohio
Goodrich Co, B F, Sponge Prod Div, Shelton	Conn
Herley Industries, Inc, Westbury	N Y
Lieco Inc, West Babylon	N Y
McMillan Radiation Labs Inc, Ipswich	Mass
MCS Corp, Monrovia	Cal
Metavac Inc, Flushing	N Y
Microwave Filter Co Inc, East Syracuse	NY
Nippon Electric Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Portchester Instrument Corp, Port Chester	N Y
Radar Design Corp, Syracuse	N Y
Reon Resistor Corp, Yonkers	N Y
Shielding Corp, Moorestown	N J
Topper Mfg Co Inc, Great Neck	N Y
United Products Co, Orange	N J
Waveline Inc, West Caldwell	N J
Whittaker Corp Technical Products Div, Chatsworth	Cal

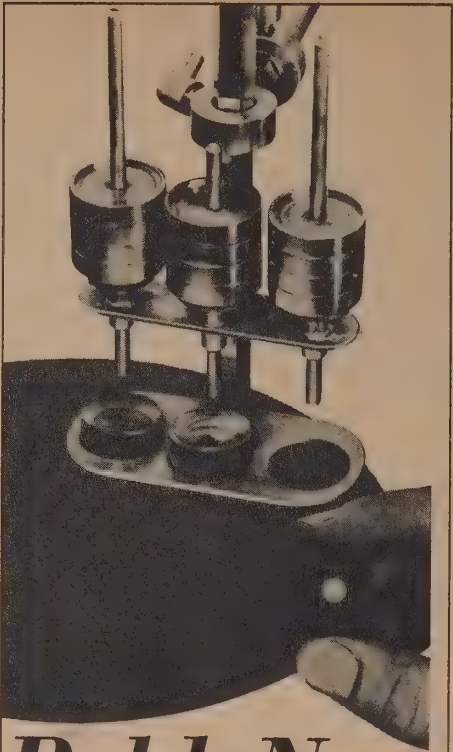
ABSORBERS--SHOCK SEE MOUNTS--VIBRATION & SHOCK

ABSORBERS--SOUND

Allied Witan Co, Inc, Cleveland	Ohio
Eckel Industries Inc, Cambridge	Mass
Emerson & Cuming Inc, Canton	Mass
Korfund Dynamics Corp, Westbury	N Y
Proudfoot Co, Inc, Greenwich	Conn
Robintech Inc, Burbank	Cal

ACCELERATORS--PARTICLE

Cober Electronics Inc, Stamford	Conn
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France



Bold, New Fine-Coat Abrasive!

Pfizer's *new* Ultralap® has fine abrasive oxides dispersed in a polyester binder and deposited on a tough polyester base.

Ultralap's fine abrasive particles are of such *precisely uniform size* that their action is radically different from conventional fine-coat abrasives.

Ultralap does a far *better job*, in far *less time* than any other abrasive you have ever used.

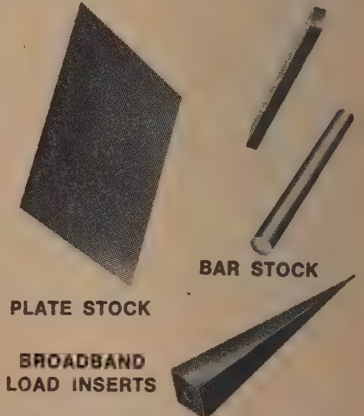
Ultralap, in sheets, discs or rolls, may be the *answer* to your production polishing and lapping problems.

Let us give you all the details about this new material. Just write:

Pfizer
MINERALS, PIGMENTS & METALS DIVISION
235 East 42nd Street
New York, N.Y. 10017

RADITE from RDC

for dependability in microwave absorption stock and functional parts.



Prompt delivery on standard or engineered Radite products.

Send for complete information . . .
RADAR DESIGN CORPORATION
510 PICKARD DR ■ SYRACUSE, N.Y. 13211
PHONE: 315-454-4418

Electro-Optical Systems Inc, Pasadena	Cal
Everson Electric Co, Allentown	Pa
Field Emission Corp, McMinnville	Ore
Fuji Electric Co Ltd, Tokyo	Japan
High Voltage Engineering Corp, Burlington	Mass
Instrument Research Co, Lincoln	Mass
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs	Colo
Nuclear-Chicago Corp, Des Plaines	Ill
Physicon Co, Boston	Mass
Radiation Dynamics Inc, Westbury	N Y
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Thomson Electric Co, Sub Cie Fran Thomson Houston New York	N Y
TRW Systems Group, Redondo Beach	Cal
20th Century Electronics Ltd New Addington, Surrey	England
Varian, Palo Alto	Cal

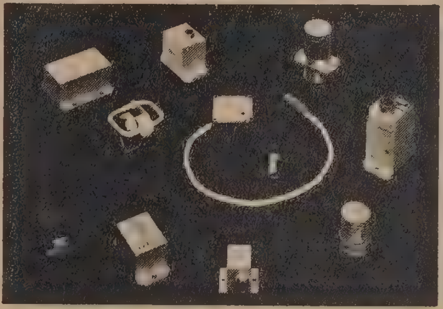
ACCELEROMETERS SEE ALSO

TRANSDUCERS

DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
NUMAR CORP, NEW YORK	**N Y**
SYSTRON DONNER CORP, CONCORD, CAL	**ADV PG 11**
Acco Gyro Div, Amer Chain & Cable Co Inc Waterbury	Conn
Agac-Derritron Inc, Alexandria	Va
Applied Devices Corp, College Point	n y
Assembly Engineers Div Rucker Co, Los Angeles	Cal
Astro-Space Labs Inc, Huntsville	Ala
Aviation Electric Ltd, St Laurent, Montreal	Que
Bell Aerosystems Co, Buffalo	N Y
Bendix Corp Navigation & Control Div, Teterboro,	N J
B & F Instruments, Inc, Cornwells Heights	Pa
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio
Bourns Inc Instrument Div, Riverside	Cal
Brys Instrument Corp, Brooklyn	N Y
Columbia Research Labs Inc, Woodlyn	Pa
Conductron Corp, Ann Arbor	Mich
Conrac Corp, New York	N Y
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Decker Corp, Bala Cynwyd	Pa
Dranetz Engineering Labs Inc, Plainfield	N J
Endevco Corp, Pasadena	Cal
Fairchild Controls, Hicksville	N Y
Ferranti, Ltd, Lancashire	England
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
Garrett Corp, Los Angeles	Cal
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Genisco Technology Corp, Compton	Cal
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Gulton Industries Inc, Metuchen	N J
Gulton Industries Inc Controls & Instru Grp Costa Mesa	Cal
Humphrey Inc, San Diego	Cal
Instrumentation Div West Gulton Indus Inc Costa Mesa	Cal
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs	Colo
Kistler Instrument Corp, Clarence	N Y
Kollsman Instrument Ltd, Southampton	England
Larson Aero Development, Concord	Cal
Lear Siegler Inc, Santa Monica	Cal
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Litton Systems (Canada) Ltd, Rexdale	Ont
Massa Div Dynamics Corp of America, Hingham	Mass
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Metrix Instrument Co, Houston	Tex
Nortronics Div, Northrop Corp, Prec Prods Dept Norwood	Mass
Numar Corp, New York	N Y
Pcb Electronics, Cheektowaga	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pickering & Co Inc, Plainview	N Y
Reeves Instrument Div, DCA, Garden City	N Y
Sanders Associates, Inc, Nashua	N H
Schaevitz Engineering, Pennsauken	N J
Shure Brothers Inc, Evanston	Ill
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Sparton Corp, Jackson	Mich
Sparton Southwest Inc, Albuquerque	NM
Sperry Flight Systems Div Sperry Rand Corp Phoenix	Ariz
Sprengnether Instrument Co Inc, W F, St Louis	Mo
Statham Instruments Inc, Los Angeles	Cal
Stoelting Co, C H, Chicago	Ill
Systron Donner Corp, Concord	Cal
Unholtz-Dickie Corp, Hamden	Conn
United Control Corp, Redmond	Wash
United Control-Data Div, South El Monte	Cal
United Mfg Div, UMC Electronics Co North Haven	Conn
U S Time Corp, Waterbury	Conn
Whittaker Corp Instrument Sys Div North Hollywood	Cal
Whittaker Corp Technical Products Div, Chatsworth	Cal
Wilcoxon Research, Bethesda	Md

A-C CONVERTERS SEE CONVERTERS--A-C OUTPUT

A-C GENERATORS SEE GENERATORS--POWER



Precision servo-accelerometers

Systron-Donner servo-accelerometers, offering accuracies from .05% to 0.5%, have flown in all major U.S. space exploration programs. Units include sensor and electronics to detect linear or angular acceleration using either pivot-and-jewel or flexure mechanisms. Ouput circuitry delivers signals representing acceleration, velocity, or "jerk." Systron-Donner builds a variety of inertial control systems in which the primary inputs are S-D accelerometers.

Send for catalog

SYSTRON DONNER

Inertial Division, 888 Galindo St.,
Concord, Calif. 94520.
Phone (415) 682-6161. TWX 415-687-3200.

ACIDS SEE CHEMICALS

ACTUATORS, SERVO--LINEAR

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL,	**PA**
Adel Div De Laval Turbine Calif Inc, Burbank	Cal
Advance Gear & Machine corp, Los Angeles	Cal
Aeroflex Labs, Inc, Plainview	N Y
Applied Devices Corp, College Point	n y
Automation Development Co, Culver City	Cal
Barber-Colman Co, EMP Div, Rockford	Ill
Barry Controls Div Barry Wright Corp, Watertown	Mass
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Bendix Corp Navigation & Control Div, Teterboro,	N J
Bowmar Instrument Corp, Fort Wayne	Ind
Cadillac Gage Co, Warren	Mich
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
Compudyne Corp, Hatboro	Pa
Conductron Corp, Ann Arbor	Mich
Curry Engineering Co, N Hollywood	Cal
Dynamic Gear Co Inc, Amityville	N Y
Electro-Kinetics Corp Div EPD Ind Inc, Long Beach	Cal
Electronic Specialty Co, Los Angeles	Cal
Electro-Pacific Inc, Goleta	Cal
EMR-Hatboro Div Weston Insts Inc, Hatboro	Pa
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Farrand Controls Inc, Valhalla	N Y
Garrett Corp, Los Angeles	Cal
General Design Inc, Sun Valley	Cal
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Globe Industries Div TRW Inc, Dayton	Ohio
Hagan Computer Systems Div Westinghouse Pittsburgh	Pa
Hoover Electric Co, Los Angeles	Cal
Industrial Control Co, Farmingdale	N Y
Instru-Lec Corp, Mt Vernon	N Y
Jordan Controls Inc, Milwaukee	Wis
Kidde & Co Inc, Walter, Belleville	N J
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Romec Div, Elyria	Ohio
Ledex Div Ledex Inc, Dayton	Ohio
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Lundy Electronics & Systems Inc, Glen Head	N Y
Lunkenheimer Co Sub Condec Corp, Cincinnati	Ohio
Magnetic Technology Inc, Canoga Park	Cal
McMaster Products Corp, Chicago	Ill
Mechanics for Electronics Inc, Cambridge	Mass
Meltronics Inc, Massapequa	NY
Memcor Div LTV Electrosystems Inc, Huntington	Ind
3M Company, St Paul	Minn
Moog Inc, Industrial Div, East Aurora	N Y
Nash Controls Inc, Caldwell	N J
Plessey Airborne Corp, Hillside	NJ
Precision Mechanisms Corp, Westbury	N Y
Reflex Controls Corp, Huntington Station	NY
Robintech Inc, Burbank	Cal
Rotating Components Div Instrument Sys Corp Bay Shore	N Y
Servo Development Corp, Hicksville	N Y
Servo Labs Inc, Van Nuys	Cal
Servonetics Inc, Los Angeles	Cal
Servotronics Inc, Buffalo	N Y
SieBelAir Co, Los Angeles	Cal
Siemon Mfg Co, Wayne	Ill
Skinner Polynoid Div, New Britain	Conn
Sperry Flight Systems Div Sperry Rand Corp Phoenix	Ariz
Standard Precision Div Electronic Commun Inc Wichita	Kan
Sulzer Brothers Ltd, Industrial Elctns Div Winterthur	Switzerland
Sunbeam Electronics, Fort Lauderdale	Fla
Superior Mfg & Instrument Co, Long Island City	N Y
Task Corp, Anaheim	Cal
Taylor Instrument Cos, Rochester	N Y
Telstar Electronics Corp, Southold	N Y
Varo Inc, Garland	Tex
vB Actuators, Inc, Long Beach	Cal
Vega Servo-Control Inc, Troy	Mich
Warner Electric Brake & Clutch Co, Beloit	Wisc
Western Gear Corp Electro Products Div, Pasadena	Cal
Weston Hydraulics, Van Nuys	Cal
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

ACTUATORS, SERVO--ROTARY

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL,	**PA**
IMC MAGNETICS CORP EASTERN DIV, WESTBURY	**N Y**
PRINTED MOTORS INC, GLEN COVE	**N Y**
Adel Div De Laval Turbine Calif Inc, Burbank	Cal
Advance Gear & Machine corp, Los Angeles	Cal
Aeroflex Labs, Inc, Plainview	N Y
American Electronics, Inc, Fullerton	Cal
American Precision Industries Inc, East Aurora	NY
Analog General Corp, East Rockaway	N Y
Applied Devices Corp, College Point	n y
Automation Development Co, Culver City	Cal
Barber-Colman Co, EMP Div, Rockford	Ill
Bendix Corp Navigation & Control Div, Teterboro,	N J
Bowmar Instrument Corp, Fort Wayne	Ind
Carco Electronics, Menlo Park	Cal
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
Conductron Corp, Ann Arbor	Mich
Consolidated Controls Corp, Bethel	Conn
Control Technology Co Inc, Long Island City	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Daco Instrument Co Inc, Trumbull	Conn
Electric Tachometer Corp, Philadelphia	Pa
Electro-Kinetics Corp Div EPD Ind Inc, Long Beach	Cal
Electronic Specialty Co, Los Angeles	Cal
Electro-Pacific Inc, Goleta	Cal
EMR-Hatboro Div Weston Insts Inc, Hatboro	Pa
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Farrand Controls Inc, Valhalla	N Y
Fluid Power Accessories Inc, Wheeling	Ill
Gap Instrument Corp, Westbury	N Y
Garrett Corp, Los Angeles	Cal
General Design Inc, Sun Valley	Cal
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Globe Industries Div TRW Inc, Dayton	Ohio
Holtzer-Cabot Corp, Boston	Mass
Hoover Electric Co, Los Angeles	Cal
IMC Magnetics Corp Eastern Div, Westbury	N Y
Industrial Control Co, Farmingdale	N Y
Instru-Lec Corp, Mt Vernon	N Y
Jordan Controls Inc, Milwaukee	Wis
Kidde & Co Inc, Walter, Belleville	N J
Kollsman Motor Corp, Dublin	Pa
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
Ledex Div Ledex Inc, Dayton	Ohio
Lundy Electronics & Systems Inc, Glen Head	N Y
Lunkenheimer Co Sub Condec Corp, Cincinnati	Ohio
Magnetic Technology Inc, Canoga Park	Cal
McMaster Products Corp, Chicago	Ill
Mechanics for Electronics Inc, Cambridge	Mass
Meltronics Inc, Massapequa	NY
Memcor Div LTV Electrosystems Inc, Huntington	Ind
3M Company, St Paul	Minn
Muirhead Instruments Inc, Mountainside	N J
Nash Controls Inc, Caldwell	N J
Photocircuits Corp, Glen Cove	N Y
Plessey Airborne Corp, Hillside	NJ
Precision Mechanisms Corp, Westbury	N Y
Printed Motors Inc, Glen Cove	N Y
Rae Motor Corp, McHenry	Ill
Ramcon Corp, Elgin	Ill
Reflex Controls Corp, Huntington Station	NY
Robintech Inc, Burbank	Cal
Rotating Components Div Instrument Sys Corp Bay Shore	N Y
Servo Development Corp, Hicksville	N Y
Servo Labs Inc, Van Nuys	Cal
Servonetics Inc, Los Angeles	Cal
Standard Precision Div Electronic Commun Inc Wichita	Kan

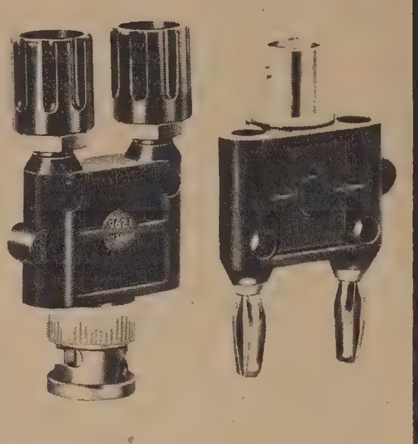
Sunbeam Electronics, Fort Lauderdale ..... Fla
Superior Mfg & Instrument Co, Long Island City ..... N Y
Task Corp, Anaheim ..... Cal
Taylor Instrument Cos, Rochester ..... N Y
United Shoe Machinery Corp, Harmonic Drive Div Beverly ..... Mass
Vactric Control Equipment Ltd, Morden ..... England
Vapor Corp, Chicago Ill
Varo Inc, Garland ..... Tex
Vega Servo-Control Inc, Troy ..... Mich
Western Gear Corp Electro Products Div, Pasadena ..... Cal
Weston Hydraulics, Van Nuys ..... Cal
Weston-Transicoil, Weston Instruments Inc Worcester ..... Pa
White Industrial, S S, New York ..... N Y

A-C VOLTMETERS SEE VOLTMETERS

ADAPTERS--CONNECTOR

AMPHENOL, BROADVIEW ILL
AMPHENOL, CHICAGO ILL
AMPHENOL, DANBURY ..... CONN
BARNES CORP, LANSDOWNE ..... PA
BIRD ELECTRONIC CORP, CLEVELAND (SOLON) ..... OHIO
ELECTRONIC MOLDING CORP, PAWTUCKET ..... R I
POMONA ELECTRONICS CO INC, POMONA, CAL ..... ADV PG 12
SUPERIOR ELECTRIC CO THE, BRISTOL ..... CONN
WALDOM ELECTRONICS INC, CHICAGO ILL
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG ..... MD
Alford Mfg Co, Winchester ..... Mass
Alloys Unlimited Inc, Melville ..... N Y
Ameco Inc, Phoenix ..... Ariz
American Cable Electronic Supply Inc, Sacramento ..... Cal
American Instrument Co, Inc, Silver Spring ..... Md
Amphenol, Broadview Ill
Amphenol, Chicago Ill
Amphenol, Danbury ..... Conn
Andrew California Corp, Claremont ..... Cal
Applied Engineering Prods Div Samarius Inc Ansonia ..... Conn
Ark-Les Switch Corp, Watertown ..... Mass
Astrolab Inc, Linden ..... N J
Automatic Metal Products Corp, Brooklyn ..... N Y
Aviation Electric Ltd, St Laurent, Montreal ..... Que
Avionics, Inc, South Bend ..... Ind
Barnes Corp, Lansdowne ..... Pa
Bendix Corp, Microwave Devices Div, Franklin ..... Ind
Bird Electronic Corp, Cleveland (Solon) ..... Ohio
Bishop Instrument, Portland ..... Maine
Blonder-Tongue Labs Inc, Newark ..... N J
CBC Industries Inc, Philadelphia ..... Pa
Coax Devices, Chelsea ..... Mass
Cole-Hersee Co, S Boston ..... Mass
Communication Dynamics Corp, Yonkers ..... N Y
Compagnie Generale de Metrologie Haute Savoie ..... France
Connector Accessories Corp, Gardena ..... Cal
Dowa Trading Co Ltd, Kobe ..... Japan
Eagle Electric Mfg Co Inc, Long Island City ..... N Y
Ecco Electronic Components Corp, Mount Vernon ..... N Y
Electronic Molding Corp, Pawtucket ..... R I
Entron Inc, Silver Spring ..... Md
Ercona Corp, New York ..... N Y
Florida General Electronics Inc, Daytona Beach ..... Fla
Forway Industries Inc, Woodbury ..... N J
General Radio Co, West Concord ..... Mass
General RF Fittings Inc, Port Salerno ..... Fla
Glenair Inc, Glendale ..... Cal
Greenpar Engineering Ltd, Electronics Div Essex ..... England
Gremar Mfg Co Inc, Wakefield ..... Mass
Gulton Industries Inc, Metuchen ..... N J
Hayakawa Electric Co Ltd, Osaka ..... Japan
Indit Corp, Albertson ..... N Y
Kings Electronics Co Inc, Tuckahoe ..... N Y
K L A Labs Inc, Detroit ..... Mich
Leviton Mfg Co Inc, Brooklyn ..... N Y
Lieco Inc, West Babylon ..... N Y
Marlin Mfg Corp, Cleveland ..... Ohio
Maury Microwave Corp, Montclair ..... Cal
Methode Electronics Inc, Chicago Ill
Microdot, Inc, South Pasadena ..... Cal
Micro Parts Inc, Los Angeles ..... Cal
Microwave Associates Inc, Burlington ..... Mass
Mohawk Electronics Corp, Frederica ..... Del
Narda Microwave Corp, Plainview ..... N Y
National Connector Corp, Minneapolis ..... Minn
Norrich Plastics Corp, Roosevelt ..... N Y
Omni Spectra Inc, Farmington ..... Mich
Oneida Electronic Mfg Co, Meadville ..... Pa
Ottawa, Paris ..... France
Pacific Electricord Co, Gardena ..... Cal
Phelps Dodge Electronic Products Corp North Haven ..... Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven ..... Holland
Pomona Electronics Co Inc, Pomona ..... Cal
Reynolds Industries Inc, Santa Monica ..... Cal
Robinson-Nugent Inc, New Albany ..... Ind
Robintech Inc, Burbank ..... Cal
Rohde & Schwarz Sales Co USA Inc, Passaic ..... N J
Schjeldahl Co, G T, Northfield ..... Minn
Schjeldahl Co G T, Connector Dept, Osseo ..... Minn
Sealectro Corp, Mamaroneck ..... N Y
Shigoto Industries Ltd, New York ..... N Y
Showa Musen Kogyo Co Ltd, Tokyo ..... Japan
Smith Inc, Herman H, Brooklyn ..... N Y
Star-A Electric Mfg Co Inc, Brooklyn ..... N Y
Star Tronics Inc, Georgetown ..... Mass
Sunbank Electronics Inc, Burbank ..... Cal
Superior Continental Corp, Hickory ..... N C
Superior Electric Co The, Bristol ..... Conn
Switchcraft Inc, Chicago Ill
Taffet Electronics Inc, Woodside ..... N Y
Ted Mfg Corp, Shawnee Mission ..... Kans
Teledata Inc, Queens Village ..... N Y
Terra Corp, Albuquerque ..... N M
Trico Fuse Mfg Co, Milwaukee ..... Wis
Trompeter Electronics Inc, Chatsworth ..... Cal
Vector Electronic Co Inc, Los Angeles ..... Cal
Vikoa Inc, Hoboken ..... N J
VP Co, Pasadena ..... Cal
Waber Electronics Inc, Philadelphia ..... Pa
Waldom Electronics Inc, Chicago Ill
Weinschel Engineering Co Inc, Gaithersburg ..... Md
Wiggins Inc, E B, Los Angeles ..... Cal
Winslow Tele-Tronics Inc, Asbury Park ..... NJ

ADAPTERS
BNC, TNC, TYPE "N", UHF



Featured in our 1968 general catalog. Listing a complete line of ¾" and ½" banana plugs and accessories • adapters • test probes • jumpers • patch cords • shielded component-mounting "Black Boxes" • cable assemblies • miscellaneous test accessories. Write for your free copy.

POMONA
ELECTRONICS CO., INC.
1500 E. Ninth Street, Pomona, Calif. 91766

ADAPTERS--FLEXIBLE SHAFT

Aviation Electric Ltd, St Laurent, Montreal ..... Que
Avionics, Inc, South Bend ..... Ind
Bendix Corp Fluid Power Div, Utica ..... N Y

Electric Tachometer Corp, Philadelphia ..... Pa
Robintech Inc, Burbank ..... Cal
Smith Inc, Herman H, Brooklyn ..... N Y
White Industrial, S S, New York ..... N Y

ADAPTERS--F-M STEREO

Atlas Sound Div Amer Trading & Prod Corp Parsippany ..... N J
Belar Electronics Lab Inc, Upper Darby ..... Pa
Dowa Trading Co Ltd, Kobe ..... Japan
EICO Electronic Instrument Co Inc, Brooklyn ..... NY
Ercona Corp, New York ..... N Y
Hayakawa Electric Co Ltd, Osaka ..... Japan
Karg Labs Inc, South Norwalk ..... Conn
K L A Labs Inc, Detroit ..... Mich
Lear Jet Industries Inc, Detroit ..... Mich
McIntosh Laboratory Inc, Binghamton ..... N Y
Sanyo Electric Co Ltd, Osaka ..... Japan
Sherwood Electronic Labs Inc, Chicago Ill
Tenna Corp, Warrensville Hts ..... Ohio
V-M Corp, Benton Harbor ..... Mich

ADAPTERS--PANORAMIC

HEATH CO, BENTON HARBOR ..... MICH
Electro-Data Inc, Garland ..... Tex
Heath Co, Benton Harbor ..... Mich
Racal Communications Inc, Silver Spring ..... Md
Rohde & Schwarz Sales Co USA Inc, Passaic ..... N J
Squires-Sanders Inc, Liberty Corner ..... N J

ADAPTERS--TEST

BARNES CORP, LANSDOWNE ..... PA
E-Z-HOOK TEST PRODUCTS, COVINGTON ..... KY
POMONA ELECTRONICS CO INC, POMONA ..... CAL
Amatom Electronic Hardware, New Rochelle ..... N Y
A & M Instruments Inc, Great Neck ..... N Y
Automech Associates, Inc, North Haven ..... Conn
Barnes Corp, Lansdowne ..... Pa
Bruno-New York Industries Corp, New York ..... N Y
Digitech Inc, Ridgefield ..... Conn
Dowa Trading Co Ltd, Kobe ..... Japan
E-Z-Hook Test Products, Covington ..... KY
Forway Industries Inc, Woodbury ..... N J
G C Electronics Div, Hydrometals Inc, Rockford Ill
Photologic Co, Orange ..... Cal
Pomona Electronics Co Inc, Pomona ..... Cal
Robinson-Nugent Inc, New Albany ..... Ind
Rye Industries, Inc, Mamaroneck ..... N Y
Simpson Electric Co, Chicago Ill
Terra Corp, Albuquerque ..... N M
Trico Fuse Mfg Co, Milwaukee ..... Wis
Vector Electronic Co Inc, Los Angeles ..... Cal
VP Co, Pasadena ..... Cal
Winslow Tele-Tronics Inc, Asbury Park ..... NJ

ADAPTERS--TUBE

POMONA ELECTRONICS CO INC, POMONA ..... CAL
Antronic Corp, Chicago Ill
Dowa Trading Co Ltd, Kobe ..... Japan
Eby Co Hugh H, Philadelphia ..... Pa
EICO Electronic Instrument Co Inc, Brooklyn ..... NY
Electronic Training Aids Co, Cambridge ..... Mass
Forway Industries Inc, Woodbury ..... N J
G C Electronics Div, Hydrometals Inc, Rockford Ill
Livingston Electronic Div Jettron Prods Inc Hanover ..... N J
Pomona Electronics Co Inc, Pomona ..... Cal
Silver Glo Picture Tubes Ltd, Edmonton ..... Alb
Stark Electronic Instruments Ltd, Ajax ..... Ont
Taffet Electronics Inc, Woodside ..... N Y
Vector Electronic Co Inc, Los Angeles ..... Cal

ADF SEE AVIONIC EQUIPMENT

ADHESIVES

ASTRODYNE INC, BURLINGTON ..... MASS
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH ..... VA
Ablestik Adhesive Co, Gardena ..... Cal
Adhesive Engineering Co, San Carlos ..... Cal
Allaco Products, Braintree ..... Mass
Ambroid Co, Inc, Boston ..... Mass
American Cable Electronic Supply Inc, Sacramento ..... Cal
American Cyanamid Co, Wayne ..... N J
Amicon Corp, Lexington ..... Mass
Anchor Alloys Inc, Brooklyn ..... N Y
Anchor Metal Co, Inc Div, Brooklyn ..... N Y
Armstrong Cork Co, Lancaster ..... Pa
Armstrong Products Co, Inc, Warsaw ..... Ind
Astro Chemical Co, Schenectady ..... N Y
Astrodyne Inc, Burlington ..... Mass
Bacon Industries, Inc, Watertown ..... Mass
Baker Castor Oil Co, Bayonne ..... N J
Biggs Co, Santa Monica ..... Cal
Biwax Corp, Des Plaines Ill
Borden Chemical Co, New York ..... N Y
Carboline Co, St Louis ..... Mo
Castall Research Lab Inc, Brockton ..... Mass
Central Coil Co Inc, Martinsville ..... Ind
Chase & Sons Inc, Randolph ..... Mass
Chemplast Inc, Wayne ..... N J

Chemtronics Inc, Brooklyn ..... NY
Chomerics, Inc, Arlington ..... Mass
Clarkson Labs Inc, Camden ..... NJ
Conap Inc, Allegany ..... N Y
Custom Materials Inc, Chelmsford ..... Mass
Daubert Chemical Co, Oak Brook Ill
Dbm Research Corp, Cocoa Beach ..... Fla
Dennis Chemical Co, St Louis ..... Mo
Devcon Corp, Danvers ..... Mass
Dolph Co, John C, Monmouth Junction ..... N J
Dow Chemical Co, Midland ..... Mich
Dow Corning Corp, Midland ..... Mich
Du Pont De Nemours & Co Inc E I, Wilmington ..... Del
Dynaloy, Inc, Hanover ..... N J
Electrofilm, Inc, North Hollywood ..... Cal
Electro Science Labs Inc, Philadelphia ..... Pa
Emerson & Cuming Inc, Canton ..... Mass
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark ..... N J
EPD Industries Inc, Long Beach ..... Cal
Fel Pro Inc Div Felt Products Mfg Co, Skokie Ill
Fenwal Inc, Ashland ..... Mass
Fuller Co, H B, St Paul ..... Minn
Furane Plastics Inc, Los Angeles ..... Cal
G C Electronics Div, Hydrometals Inc, Rockford Ill
General Compounds Co, Div Kai R Kuhl Co Los Angeles ..... Cal
General Electric Co Silicone Prods Dept, Waterford ..... N Y
Goodrich Industrial Prods Co, B F, Akron ..... Ohio
Hightemp Resins Inc, Stamford ..... Conn
Hughson Chemical Co Div Lord Corp, Erie ..... Pa
Hysol Div, The Dexter Corp, Olean ..... N Y
Isochem Resins Co, Lincoln ..... RI
Koppers Co Inc, Pittsburgh ..... Pa
Lash Labs, Inc, San Diego ..... Cal
Leffingwell Chemical Co, Brea ..... Cal
Loctite Corp, Newington ..... Conn

Marblette Co Div Allied Prods Corp Long Island City .... N Y
Melpar Inc, Special Prods Dept, Falls Church .... Va
Mereco Prods Inc, Div Metachem Resins Corp Cranston .... RI
Metalphoto Corp, Cleveland .... Ohio
Micro-Circuits Co, New Buffalo .... Mich
Miller-Stephenson Chemical Co Inc, Danbury .... Conn
3M Company, St Paul .... Minn
Mystik Tape, Borden Inc, Northfield Ill
National Laminating Mfg Co, Beverly Hills .... Cal
Pennsylvania Industrial Chemical Corp, Clairton .... Pa
Pierce & Stevens Chemical Corp, Buffalo .... N Y
Polysciences Inc, Warrington .... Pa
PPG Industries, Pittsburgh .... Pa
PPG Industries Inc, Adhesive Prods, Bloomfield .... N J
Preco Chemical Corp, Plainview .... N Y
Products Research Co, Burbank .... Cal
Raybestos-Manhattan Inc, Passaic .... N J
Roberts & Associates Inc, E V, Culver City .... Cal
Roosevelt Metal Co Inc, Brooklyn .... N Y
Schjeldahl Co, G T, Northfield .... Minn
Seezak Products Inc, Los Angeles .... Cal
Spectra-Strip Corp, Garden Grove .... Cal
Sterling Varnish Co, Sewickley .... Pa
Techform Labs Inc, Venice .... Cal
Technical Wire Products Inc, Cranford .... N J
Topper Mfg Co Inc, Great Neck .... N Y
Tra-Con, Inc, Medford .... Mass
Transene Co Inc, Rowley .... Mass
UBS Chemical Co, Div A E Staley Mfg Co Cambridge .... Mass
United American Metals Div, Brooklyn .... N Y
Westinghouse Electric Corp Insulating Materials Div Trafford .... Pa
Wornow Process Paint Co, Los Angeles .... Cal

A-F AMPLIFIERS-- SEE AMPLIFIERS--A-F

A-F ATTENUATORS-- SEE ATTENUATORS

A-F CABLES SEE CABLES--SHIELDED;CABLES--UNSHIELDED

A-F CALIBRATORS SEE CALIBRATORS--FREQUENCY

A-F EQUALIZERS SEE FILTERS--EQUALIZER

A-F OSCILLATORS SEE OSCILLATORS--A-F

A-F POWER MONITORS SEE MONITORS--POWER

A-F SIGNAL GENERATORS SEE GENERATORS--SIGNAL

AGING RACKS SEE RACKS--AGING

AIRBORNE PRESSURIZATION UNITS SEE PRESSURIZATION SYSTEMS

AIR CLEANERS SEE CLEANERS--AIR

AIR CLEANING FILTERS SEE FILTERS--FLUID

AIRFREIGHT SEE SHIPPING SERVICES

AIRPORT TRAFFIC CONTROL SYSTEMS SEE COMMUNICATIONS SYSTEMS

ALARMS--ELECTRONIC AUDIBLE SIGNAL

KNOWLES ELECTRONICS INC, FRANKLIN PARK ILL
TELE-SIGNAL CORP, WOODBURY .... N Y
Action Systems Co Div Conn Consolidated Inds Inc Meriden .... Conn
Advanced Purification System Co Inc, Great Neck .... N Y
Aerolite Electronics Corp, Union City .... N J
Aerospace Research, Inc, Boston .... Mass
Alarmtronics Engineering Inc, Newton .... Mass
Alcatel, Paris 8eme .... France
American Machine & Foundry Co Alexandria Div Alexandria .... Va
Astro Lab, Westminster .... Cal
Atlas Sound Div Amer Trading & Prod Corp Parsippany .... N J
Bendix Corp, Communications Div, Towson .... Md
Block Engineering Inc, Cambridge .... Mass
B/W Controller Corp, Birmingham .... Mich
Canadian Motorola Electronics Co, Agincourt .... Ont
Cognitronics Corp, Mount Kisco .... NY
Continental Instruments Corp, Lynbrook .... NY
Cryolab Div, Statics-Dynamics Inc, Los Osos .... Cal
Data Sensors Inc, Addison Ill
Decca Radar, Inc, New York .... N Y
Deltron, Inc, North Wales .... Pa
Develco, Inc, Norwalk .... Conn
Dewey Corp, G C, New York .... N Y
Digitech Inc, Ridgefield .... Conn
Dowa Trading Co Ltd, Kobe .... Japan
Dynamco Ltd, Chertsey Surrey .... Eng
Electro-Neutronics Inc, Oakland .... Cal
Electronic Control Systems Inc, Fairmont .... W Va
Faraday Div The Gray Mfg Co, Tecumseh .... Mich
Guardian Electric Mfg Co of Cal Inc, Culver City .... Cal
Hamilton Electronics Corp, Chicago Ill
Hamilton Industries, Winter Haven .... Fla
Helm Instrument Co Inc, Toledo .... Ohio
Hersey-Sparling Meter Co, El Monte .... Cal
Hi-Tek Corp, Santa Ana .... Cal
Honeywell Inc Electropac Operation, Peterborough .... N H
Industrial Gauging & Control Inc, Norwalk .... Conn
Intelect Inc, Honolulu .... Hawaii
Kameco Ltd, Montreal .... Que
Kidde & Co Inc, Walter, Belleville .... N J
Knowles Electronics Inc, Franklin Park Ill
Liquid Level Lectronics Inc, Richardson .... Tex
Lundy Electronics & Systems Inc, Glen Head .... N Y
Martin-Decker Corp, Santa Ana .... Cal
Mast Development Co, Davenport .... Iowa
Mennen-Greatbatch Electronics Inc, Clarence .... N Y
Molecular Research Inc, Palm Beach Gardens .... Fla
Mosler Electronic Systems Div Mosler Safe Co Danbury .... Conn
Motorola Communications & Electronics Div Chicago Ill
Nelson-Hershfield Electronics Co, Phoenix .... Ariz
Notifier Co Sub Emhart Corp, Lincoln .... Neb
Oppenheimer, Inc, Willow Grove .... Pa
Panther Electronics Inc, Burbank .... Cal
Partrick & Wilkins Co, Philadelphia .... Pa
Plessey Airborne Corp, Hillside .... NJ
Precision Mecanique Labinal, 93 Saint-Ouen .... France
Pulse Communications Inc, Falls Church .... Va
Reach Electronics Inc, Lexington .... Neb
Robertshaw Controls Co, Aero & Instrument Div Anaheim .... Cal
Rouge Electronics Co, Oklahoma City .... Okla
Rovalco Controls, Torrance .... Cal
Rundel Electric Co, Millbrae .... Cal
Scam Instrument Corp, Skokie Ill
Silver Glo Picture Tubes Ltd, Edmonton .... Alb
Simplex Time Recorder Co, Gardner .... Mass
Solid State Research Corp, Albuquerque .... N M
Swanson Engineering & Mfg Co, Inglewood .... Cal
Sweeney Mfg Co, B K, Denver .... Colo
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn .... N Y
Tele-Signal Corp, Woodbury .... N Y
Utility Communication Systems Inc, Essington .... Pa
Versatek Industries Inc, Indianapolis .... Ind
Versatron Inc, Monterey .... Cal
Waber Electronics Inc, Philadelphia .... Pa
Westinghouse Brake & Signal Co Ltd Automation Div Chippenham .... England
West Instrument Corp, Schiller Park Ill
Wheelock Signals Inc, Long Branch .... N J

ALARMS--INTRUDER

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE .... N Y
BLISS-GAMEWELL, DIV E W BLISS CO NEWTON UPPER FALLS .... MASS
HEATH CO, BENTON HARBOR .... MICH
NUMAR CORP, NEW YORK .... N Y
SPENCER-KENNEDY LABS INC, BOSTON .... MASS
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK .... N J
Action Systems Co Div Conn Consolidated Inds Inc Meriden .... Conn
Adcor Electronics Inc, Atlanta .... Ga
Advanced Devices Lab, San Jose .... Cal
Aerolite Electronics Corp, Union City .... N J
Alarmtronics Engineering Inc, Newton .... Mass
Alpha Relays Inc, Jersey City .... N J
American Machine & Foundry Co Alexandria Div Alexandria .... Va
American Time Products, Elctns Div Bulova Watch Co Inc Woodside .... N Y
Astro Lab, Westminster .... Cal
Auth Electric Co, Inc, Long Island City .... N Y
Bliss-Gamewell, Div E W Bliss Co Newton Upper Falls .... Mass
Block Engineering Inc, Cambridge .... Mass
Cleverly Electrical Works Inc, Philadelphia .... Pa
Continental Instruments Corp, Lynbrook .... NY
Control Science Corp, Alexandria .... Va
Data Sensors Inc, Addison Ill
Dewey Corp, G C, New York .... N Y
DuKane Corp, St Charles Ill
Edwards Co Inc, Unit of General Signal Corp Norwalk .... Conn
Electronic Control Corp, Detroit .... Mich
En-Cer Inc, South Holland Ill
Endevco Corp, Pasadena .... Cal
Engineering Associates, Dayton .... Ohio
Euphonics Corp, Guaynabo .... P R
Executone Inc, Long Island City .... N Y
Fairchild Controls, Hicksville .... N Y
Faraday Div The Gray Mfg Co, Tecumseh .... Mich
Gillette Electronic Products Co, Beverly .... N J
Hamilton Industries, Winter Haven .... Fla
Heath Co, Benton Harbor .... Mich
Honig Laboratories Inc, Westbury .... N Y
Huppert Co, K H, South Holland Ill
Ikor, Inc, Burlington .... Mass
Kidde & Co Inc, Walter, Belleville .... N J
Lek-Trol, Inc, Grapevine .... Tex
Mosler Electronic Systems Div Mosler Safe Co Danbury .... Conn
Motorola Communications & Electronics Div Chicago Ill
Nelson-Hershfield Electronics Co, Phoenix .... Ariz
Numar Corp, New York .... N Y
Panther Electronics Inc, Burbank .... Cal
Partrick & Wilkins Co, Philadelphia .... Pa
Perfectone Sound Labs, Allendale .... NJ
Photobell Co Inc, New York .... N Y
Pierpont Television Co, Birmingham .... Ala
Precision Research Inc, Stamford .... Conn
Pulse Communications Inc, Falls Church .... Va
RCA, Defense Electronic Products, Moorestown .... N J
Scope Inc, Reston .... Va
Solid State Research Corp, Albuquerque .... N M
Sonus Corp, Natick .... Mass
Spencer-Kennedy Labs Inc, Boston .... Mass
Surface Conduction Inc, New York .... N Y
Sylvania Electronic Systems, Waltham .... Mass
Tapeswitch Corp of America, Farmingdale .... N Y
Thorn Automation Ltd, Rugeley, Staffs .... England
Trott Electronics Inc, Rochester .... N Y
Tung-Sol Div Wagner Electric Corp, Newark .... N J
Universal Transistor Products Div Link, Copiague .... N Y
Utility Communication Systems Inc, Essington .... Pa
Versatek Industries Inc, Indianapolis .... Ind
Versatron Inc, Monterey .... Cal
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh .... Pa
Worner Electronic Devices, Rankin Ill

ALARM SYSTEMS SEE DETECTORS--FIRE; GAS;LEAK, ETC

ALLIGATOR CLIPS SEE CLIPS--TEST

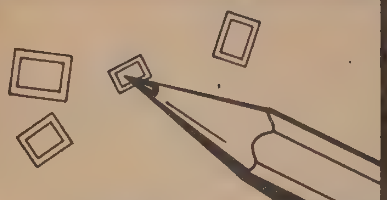
ALLOYS SEE SPECIFIC METAL

ALLOYS--BRAZING

CERRO COPPER & BRASS CO DIV CERRO CORP ALLOYS DEPT SPRINGDALE, CONN .... ADV PG 14
CONSOLIDATED REACTIVE METALS INC, MAMARONECK .... N Y
NATIONAL LEAD CO, NEW YORK .... N Y
WILLIAMS GOLD REFINING CO INC PRECIOUS METALS DIV BUFFALO, N Y .... ADV PG 14
Alloys Unlimited Inc, Melville .... N Y
All-State Welding Alloys Co, Inc, White Plains .... N Y
Alpha Metals Inc, Jersey City .... NJ
Aluminum Co of America, Pittsburgh .... Pa
American Brazing Alloys Corp, Pelham .... N Y
American Lamotite Corp, Cleveland .... Ohio
American Silver Co Div, Flushing .... N Y
Anaconda American Brass Co, Waterbury .... Conn
Anchor Alloys Inc, Brooklyn .... N Y
Anchor Metal Co, Inc Div, Brooklyn .... N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights .... NY
Cerro Copper & Brass Co Div Cerro Corp Alloys Dept Springdale .... Conn
Cerro Corp, New York .... NY
Chase Brass & Copper Co, Cleveland .... Ohio
Chase Metals Service Div Chase Brass & Copper Co Cleveland .... Ohio
Chemalloy Electronics Corp, Santee .... Cal
Consolidated Reactive Metals Inc, Mamaroneck .... N Y
Degussa Zweigniederlassung Hanau, D-6450 Hanau .... Fed Rep Ger
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark .... N J
Driver-Harris Co, Harrison .... N J
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark .... N J
Glidden Metals, SCM Corp, Cleveland .... Ohio
Handy & Harman, New York .... N Y
Improved Seamless Wire Co, Providence .... R I
Indium Corp of America, Utica .... N Y
Johnson Matthey & Mallory Ltd, Toronto 15 .... Ont
Kawecki Chemical Co, New York .... N Y
Leach & Garner Co, Industrial Div, Attleboro .... Mass
Lucas-Milhaupt Inc, Cudahy .... Wis
Metal Ceram Inc, Mount Vernon .... N Y
Metz Refining Co, South Plainfield .... N J
Microwave Development Labs Inc Needham Heights .... Mass
National Lead Co, New York .... N Y
Nuclear Materials & Equipment Corp, Apollo .... Pa
Pyromet Industries, San Carlos .... Cal
Revere Copper & Brass, Inc, New York .... N Y
Roosevelt Metal Co Inc, Brooklyn .... N Y
Semi-Alloys Inc, Mt Vernon .... N Y
Semicon Associates Inc, Lexington .... Ky
Simmons Refining Corp, Chicago Ill
United American Metals Div, Brooklyn .... N Y
United Wire & Supply Corp, Providence .... R I
Ventron Corp Metal Hydrides Div, Beverly .... Mass
Vitta Corp, Wilton .... Conn
Wagner Industries, San Jose .... Cal
Western Gold & Platinum Co, Belmont .... Cal
Wilkinson Co, Westlake Village .... Cal
Williams Gold Refining Co Inc Precious Metals Div Buffalo .... N Y

IC SEALING PROBLEMS SOLVED

WITH WILLIAMS' IMPROVED ALLOYS FOR MICROELECTRONIC DESIGN.



- ★ 80% GOLD— 20% TIN EUTECTIC
MELTING POINT 280 °C
- ★ 88% GOLD— 12% GERMANIUM EUTECTIC
MELTING POINT 356 °C
- ★ SOLDER PREFORMS FOR SEALING INTEGRATED CIRCUIT PACKAGES
- ★ TOOLING AVAILABLE ON MOST STANDARD SIZES
4 to 6 Weeks Delivery on New Tooling

PARTIAL LIST OF AVAILABLE ALLOYS & SOLDER PREFORMS

88% Gold 12% Germanium (Eutectic Alloy)
Strip and solder preforms in all sizes

80% Gold 20% Tin (Eutectic Alloy)
Strip, wire and solder preforms in all sizes

Gold with .1 to 1.2% Antimony
Wire, strip and solder preforms all sizes

Gold—.05% Min. Phosphorous
Wire, strip and solder preforms all sizes

95% Gold 5% Nickel
Wire, strip and solder preforms all sizes

Gold and up to .5% Arsenic
Strip and solder preforms all sizes

Silver with .1 to 1.2% Antimony
Wire, strip and solder preforms all sizes

Silver—.1% Min. Phosphorous
Wire, strip and solder preforms all sizes

95% Silver 5% Nickel
Wire, strip and solder preforms all sizes

Silver and up to .5% Arsenic
Strip and solder preforms all sizes

Special alloys produced on request at minimum charge.

Precious Metals in 99.9% Pure, 99.99% Pure, and 99.999% Pure.

Modern, up-to-date refining of precious metals and complete spectrographic facilities available.

HIGH PURITY METALS USED ON ALL ALLOYS

WRITE FOR COMPLETE PRECIOUS METALS CATALOG AND SPECIFICATION SHEETS. PHONE 716-834-7204

OVER 50 YEARS OF PRECIOUS METALS EXPERIENCE

WILLIAMS
PRECIOUS
METALS

2978 MAIN ST. BUFFALO, NEW YORK 14214
Division of Williams Gold Refining Co., Inc.

The Material of Unlimited Uses...

INSTANT DIP-A-MOLD

In seconds, you can make perfect molds, like this one, for potting any encapsulation, *and* make them economically, with low-melting CERRO® Alloys. Just dip the master in molten alloy. A thin coating of alloy clings to the pattern. Withdraw the pattern, and you have a perfect high fidelity mold. When the encapsulating plastic cures, simply remove the CERRO Alloy. Use it over and over again, almost without limit.

This particular alloy—CERROTRU®—does not shrink, slips easily from the pattern without parting or contaminating compounds or coatings. Because of its low melting point, it is safe and easy to handle.

You can reproduce such unusual details as positioning lugs for transformer-cases, as shown above, without the use of cores, inserts or secondary operations.

Instant molding is just one of the many uses for CERRO Alloys. To find out more, contact Cerro Copper & Brass Co., Cerro Alloy Dept., Stamford, Conn. 06907... R. S. Darnell (203) 327-0550.

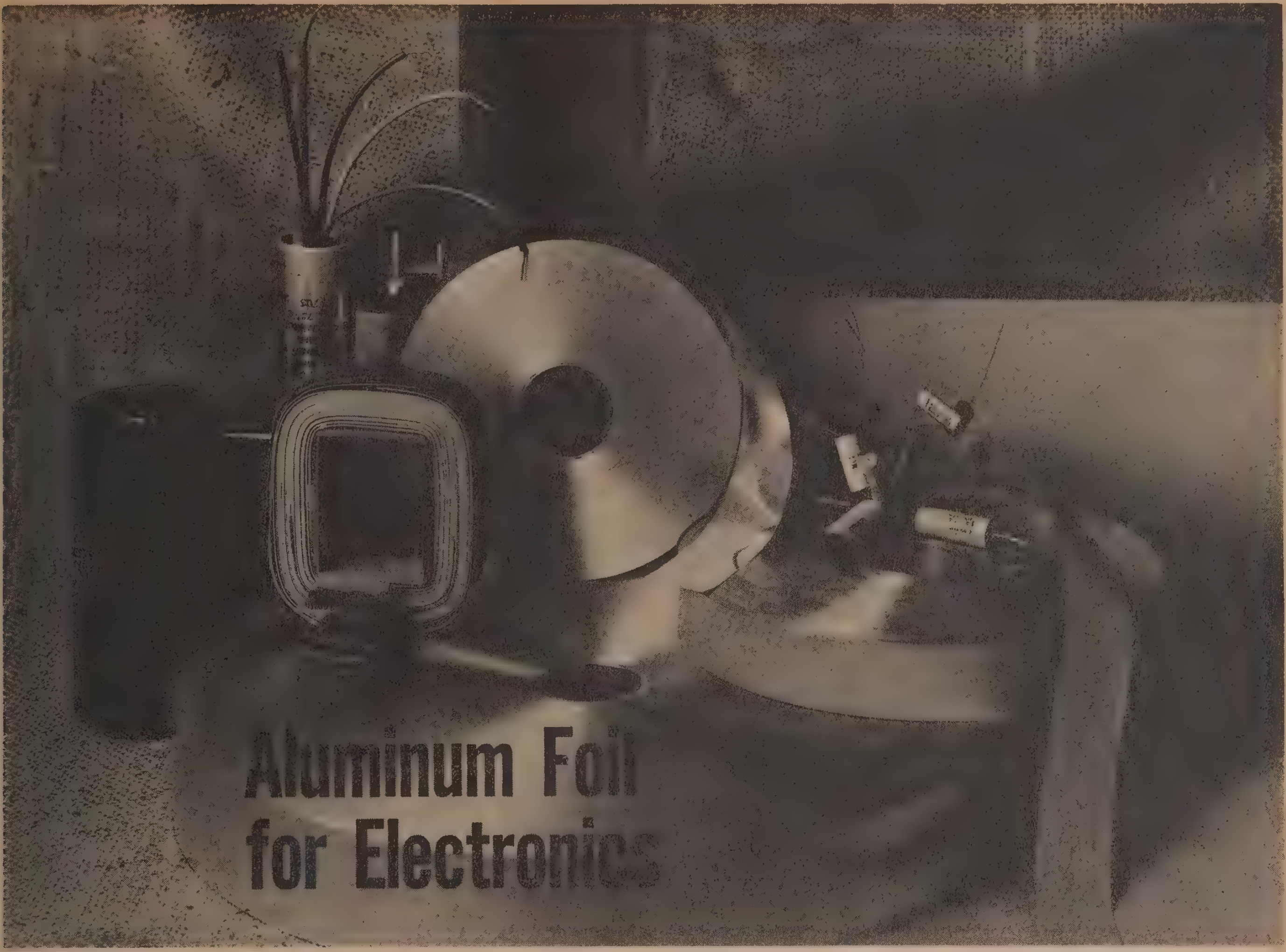
CERRO®

ALLOYS--GLASS SEALING

CERRO COPPER & BRASS CO DIV CERRO CORP ALLOYS DEPT SPRINGDALE	**CONN**
MAGNETICS INC, BUTLER	**PA**
PFIZER MINERALS, PIGMENTS & METALS DIV NEW YORK	**NY**
SUPERIOR TUBE CO, NORRISTOWN	**PA**
UNIFORM TUBES INC, COLLEGEVILLE	**PA**
Alloys Unlimited Inc, Melville	N Y
Aluminum Co of America, Pittsburgh	Pa
American Silver Co Div, Flushing	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Carpenter Steel Co, Reading	Pa
Cerro Copper & Brass Co Div Cerro Corp Alloys Dept Springdale	Conn
Cerro Copper & Brass Co, Stamford Wks Stamford,	Conn
Cerro Corp, New York	NY
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Cramco Solder Alloys, Scarborough	Ont
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Driver-Harris Co, Harrison	N J
Fansteel Metallurgical Corp, North Chicago	Ill
Howmet Corp Austenal Microcast Div, Dover	N J
Indium Corp of America, Utica	N Y
Kawecki Chemical Co, New York	N Y
Magnetics Inc, Butler	Pa
Metal Ceram Inc, Mount Vernon	N Y
Pfizer Minerals, Pigments & Metals Div, New York	NY
Rodney Metals A Teledyne Co, New Bedford	Mass
Semi-Alloys Inc, Mt Vernon	N Y
Silver Glo Picture Tubes Ltd, Edmonton	Alb
Special Metals Corp, New Hartford	NY
Superior Tube Co, Norristown	Pa
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Uniform Tubes Inc, Collegeville	Pa
Universal-Cyclops Specialty Steel Div Cyclops Corp Pittsburgh	Pa
Westinghouse Electric Corp, Materials Mfg Div Blairsville	Pa

ALLOYS--SEMICONDUCTOR

EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
MAGNETICS INC, BUTLER	**PA**
WILLIAMS GOLD REFINING CO INC PRECIOUS METALS DIV BUFFALO, N Y	**ADV PG 14**
Alloys Unlimited Inc, Melville	N Y
Alpha Metals Inc, Jersey City	NJ
American Silver Co Div, Flushing	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Asarco Intermetallics Corp, New York	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
Carpenter Steel Co, Reading	Pa
Cerac Inc, Butler	Wis
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Cohn Corp, Sigmund, Mt Vernon	N Y
Cominco American Inc Electronic Matls Div, Spokane	Wash
Cramco Solder Alloys, Scarborough	Ont
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Driver-Harris Co, Harrison	N J
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Electronic Metals & Alloys Inc, North Attleboro	Mass
Electronic Space Products Inc, Los Angeles	Cal
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Geoscience Instruments Corp, Mt Vernon	N Y
Hayakawa Electric Co Ltd, Osaka	Japan
Henley & Co Inc, New York	N Y
Indium Corp of America, Utica	N Y
Kawecki Chemical Co, New York	N Y
Leach & Garner Co, Industrial Div, Attleboro	Mass
Mackay Inc, A D, New York	N Y
Magnetics Inc, Butler	Pa
Materials Research Corp, Orangeburg	N Y
Metal Ceram Inc, Mount Vernon	N Y
Montgomery Co, Windsor Locks	Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Rocky Mountain Research Inc, Denver	Colo
Roosevelt Metal Co Inc, Brooklyn	N Y
Sanyo Electric Co Ltd, Osaka	Japan
Semi-Alloys Inc, Mt Vernon	N Y
Semiconductor Specialties Corp, Fair Lawn	NJ
Semi-Elements Inc, Saxonburg	Pa
Simmons Refining Corp, Chicago	Ill
Sylvania Elec Prods Inc, Chem & Met Div, Towanda	Pa
Texas Instruments Incorporated, Dallas	Tex
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
United Refining & Smelting Co, Franklin Park	Ill
Universal-Cyclops Specialty Steel Div Cyclops Corp Pittsburgh	Pa
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Corp Metal Hydrides Div, Beverly	Mass
Vitta Corp, Wilton	Conn
Western Gold & Platinum Co, Belmont	Cal
Western Semiconductors Inc, Santa Ana	Cal
Wilkinson Co, Westlake Village	Cal
Williams Gold Refining Co Inc Precious Metals Div Buffalo	N Y



PLAIN FOIL

Republic has three types of standard purity (99.45% aluminum) capacitor foil available for the manufacture of paper and film wound capacitors.

ELECTRO-DRY® — A foil that has negligible organic and inorganic residues on the surface. This type can be used for high reliability and standard units. Electro-Dry is a superior dry foil.

SILWYND® — A foil that has a controlled lubricated surface made by a patented process. Silwynd is used for a free unwind and where a slight lubricant is essential to winding. The slip coating is a high grade silicone which makes Silwynd particularly suited to silicone impregnated capacitors.

ELECTRO-SLIK® — A foil that has a controlled residue produced from the rolling lubricant. The slight residue facilitates unwinding.

ELECTROGAGE® — Super-thin foil .00015" and .00017" features guaranteed gage for critical capacitor requirements. Available in Electro-Dry, Silwynd, and Electro-Slik.

Widths — Republic manufactures all commercial widths from 1/16" in .00015" thru .00035" gages, from 1/8" in .0004" thru .0007" gages, and from 1/4" in .00075" thru .005" gages.

Alloys — Plain capacitor foil is available in commercial alloys 1145, 1180, 1188, 1199 and 0191 (99.45%, 99.80%, 99.88%, 99.99% and 99.93% minimum aluminum content, respectively.)

HIGH PURITY FOIL FOR ETCHING

The following high purity alloys and gages are produced in commercial quantities at Republic:

Alloy	Gage in Inches
1180	.00040 — .0050
1188	.00065 — .0050
1199	.0010 — .0050
0191	.00065 — .0050

Widths — Widths are available in some alloys from ⅛".

FOIL FOR COIL WINDING

Republic supplies both precision slit* and edge contoured* aluminum strip conductor for coil winding.

Gages - up to .040" — **Widths** - from 1"
Outside Diameters - up to 42" — **Alloy** - EC
* Depends on width and gage.

ETCHED ALUMINUM FOIL

Republic Foil produces a complete line of etched foils including high voltage, mid-range, low voltage and cathode. These foils are custom made to customer specifications and are available in several different alloys.

Gages — Etched foil is available in the following gages.

Cathode — .0011" thru .002"
Anode — .002" thru .0035"

Widths — Etched foil is available in all commercial widths from 1/8".

The consistent high quality of Republic's standard and high purity aluminum foils is maintained through the utilization of advanced test methods and meticulous inspection procedures.

Republic Foil Inc. is one of the world's leading producers of aluminum foils for the electronics industry and has the most complete line available from any one source. Experienced engineers are available to offer technical assistance and to tailor foil requirements to fill the most critical customer specifications.

REPUBLIC

REPUBLIC FOIL INC.

GENERAL OFFICES DANBURY, CONN. 06810: TEL. 203-743-2731
BRANCH SALES OFFICES: Chicago, Ill. 312-545-2142 • Salisbury, N. C. 704-633-6020 • Cleveland, Ohio 216-671-6268
WEST COAST . Electrical Specialty Co., 213 E. Harris Ave., So. San Francisco, Cal.; 2820 E. 12th St., Los Angeles, Cal.
PLANTS . - Danbury, Conn. - Salisbury, N. Carolina - Somerville, Mass.

ALNICO SEE MAGNETS--PERMANENT

ALTERNATORS SEE CONVERTERS; INVERTERS

ALTIMETERS SEE AVIONIC EQUIPMENT

ALUMINA CERAMICS SEE CERAMICS

ALUMINUM

CONSOLIDATED REACTIVE METALS INC, MAMARONECK .... N Y
LAPOINTE INDUSTRIES, INC, ROCKVILLE .... CONN
REPUBLIC FOIL INC, DANBURY, CONN .... ADV PG 15
UNIFORM TUBES INC, COLLEGEVILLE .... PA
Alloys Unlimited Inc, Melville .... N Y
Alpha Metals Inc, Jersey City .... NJ
Aluminum Co of America, Pittsburgh .... Pa
Alusuisse Metals Inc, Fort Lee .... N J
American Brazing Alloys Corp, Pelham .... N Y
American Lamotite Corp, Cleveland .... Ohio
American Metal Climax Inc, New York .... N Y
American Silver Co Div, Flushing .... N Y
Anaconda Aluminum Co, Louisville .... Ky
Anchor Alloys Inc, Brooklyn .... N Y
Anchor Metal Co, Inc Div, Brooklyn .... N Y
Applied Research, Inc, Port Washington .... N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place .... N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights .... NY
Cerac Inc, Butler .... Wis
Chase Metals Service Div Chase Brass & Copper Co Cleveland .... Ohio
Cominco American Inc Electronic Matls Div, Spokane .... Wash
Consolidated Reactive Metals Inc, Mamaroneck ...... N Y
Cross Co, H, Weehawken .... N J
Degussa Zweigniederlassung Hanau, D-6450 Hanau .... Fed Rep Ger
Dow Chemical Co, Midland .... Mich
Eastern Rolling Mills Inc, New York .... N Y
Electronic Space Products Inc, Los Angeles .... Cal
Extrudonics Inc, New Brunswick .... N J
Hamilton Precision Metals Div Hamilton Watch Co Lancaster .... Pa
Henley & Co Inc, New York .... N Y
Hermes Plastics Inc, New York .... N Y
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia .... Pa
Kaiser Aluminum & Chem Corp Electrical Prods Div Oakland .... Cal
Koch Light Labs Ltd, Colnbrook, Bucks .... England
LaPointe Industries, Inc, Rockville .... Conn
Mackay Inc, A D, New York .... N Y
Materials Research Corp, Orangeburg .... N Y
Metal Ceram Inc, Mount Vernon .... N Y
Metalphoto Corp, Cleveland .... Ohio
National Steel Service Center Inc, Evanston Ill
Paul & Stein Bros Inc, F H, New York .... N Y
Permaluster Inc, Burbank .... Cal
Republic Foil Inc, Danbury .... Conn
Revere Copper & Brass, Inc, New York .... N Y
Reynolds Metals Co, Richmond .... Va
Rodney Metals A Teledyne Co, New Bedford .... Mass
Roosevelt Metal Co Inc, Brooklyn .... N Y
Ryerson & Son Inc, J T, Chicago Ill
Semi-Alloys Inc, Mt Vernon .... N Y
Semi-Elements Inc, Saxonburg .... Pa
Steel Heddle Mfg Co, Philadelphia .... Pa
Uniform Tubes Inc, Collegeville .... Pa
United American Metals Div, Brooklyn .... N Y
United Mineral & Chemical Corp, New York .... N Y
Var-Lac-Oid Chemical Co, Elizabeth .... N J
Victor Metal Products Corp, Harrisonburg .... Va
Wellington Electronics Inc, Engelwood .... N J
Wilkinson Co, Westlake Village .... Cal

ALUMINUM OXIDE

AMERICAN LAVA CORP, CHATTANOOGA .... TENN
NGK SPARK PLUG CO LTD, MIZUHO-KU NAGOYA .... JAPAN

Alberox Corp, New Bedford .... Mass
Alloys Unlimited Inc, Melville .... N Y
Aluminum Co of America, Pittsburgh .... Pa
Alusuisse Metals Inc, Fort Lee .... N J
American Lava Corp, Chattanooga .... Tenn
Anchor Alloys Inc, Brooklyn .... N Y
Anchor Metal Co, Inc Div, Brooklyn .... N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place .... N Y
Baker Chemical Co, J T, Phillipsburg .... N J
Basic Ceramics Inc Sub Basic Inc, Hawthorne .... NJ
Bio-Rad Laboratories, Richmond .... Cal
Carborundum Co Electrical & Elctns Br, Niagara Falls .... NY
Castall Research Lab Inc, Brockton .... Mass
Cerac Inc, Butler .... Wis
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park .... N J
Electronic Space Products Inc, Los Angeles .... Cal
Geoscience Instruments Corp, Mt Vernon .... N Y
Inland Industrial Products Div Inland Mfg Co Omaha .... Neb
Jonard Industries Corp, Bronx .... N Y
Koch Light Labs Ltd, Colnbrook, Bucks .... England
Mackay Inc, A D, New York .... N Y
MDC Industries, Philadelphia .... Pa
Meller Co, Adolf, Providence .... R I
Metal Ceram Inc, Mount Vernon .... N Y
Metalized Ceramics Corp, Providence .... R I
Mitronics Inc, Murray Hill .... N J
National Beryllia Corp, Haskell .... N J
NGK Spark Plug Co Ltd, Mizuho-ku Nagoya .... Japan
Norton Co, Worcester .... Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven ..... Holland
Reynolds Metals Co, Richmond .... Va
Roosevelt Metal Co Inc, Brooklyn .... N Y
Royal Worcester Industrial Ceramics Inc, New York . NY
Saxonburg Ceramics Inc, Pittsburgh .... Pa
Semi-Alloys Inc, Mt Vernon .... N Y
Semi-Elements Inc, Saxonburg .... Pa
Topper Mfg Co Inc, Great Neck .... N Y
United American Metals Div, Brooklyn .... N Y
United Mineral & Chemical Corp, New York .... N Y
Universal Shellac & Supply Co Inc, Brooklyn .... N Y
Var-Lac-Oid Chemical Co, Elizabeth .... N J
Ventron Electronics Corp, Bradford .... Pa
Vitro Labs Div Vitro Corp of America, W Orange .... N J
Xtalonix Products Div Harshaw Chemical Co Columbus .... Ohio

A-M AMPLIFIERS SEE AMPLIFIERS

A-M ANTENNAS SEE ANTENNAS

AMATEUR RADIO ANTENNAS SEE ANTENNAS--COMMUNICATION

AMATEUR RECEIVERS SEE RECEIVERS--RADIO COMMUNICATION

AMATEUR TRANSMITTERS SEE TRANSMITTERS--RADIO COMMUNICATION

AMMETERS--A-C

API INSTRUMENTS CO, CHESTERLAND .... OHIO
ELECTRO-MECHANICAL INSTRUMENT CO, INC, PERKASIE ... PA
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND .... OHIO
PARKER INSTRUMENT CORP, STAMFORD .... CONN
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK .... N J
A & M Instruments Inc, Great Neck .... N Y
Amprobe Instrument Div Soss Mfg Co, Lynbrook ...... N Y
API Instruments Co, Chesterland .... Ohio
Ballantine Laboratories, Inc, Boonton .... N J
Beede Electrical Instrument Co, Inc, Penacook ..... N H
Bitronics Inc, Bethlehem .... Pa
Bristol Div, American Chain & Cable Co Waterbury .... Conn
Bruno-New York Industries Corp, New York .... N Y
California Instruments Corp, San Diego .... Cal
Canadian Research Institute, Don Mills .... Ont
Central Scientific Co, Chicago Ill
Compagnie Generale de Metrologie Haute Savoie .... France
Components Specialties Inc, Freeport .... N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles .... France
Dixson Inc Meter Div, Grand Junction .... Colo
Dowa Trading Co Ltd, Kobe .... Japan
E I L Instrument Div Unitec Industries, Timonium .. Md
Electro-Mechanical Instrument Co, Inc, Perkasie ... Pa
Electronic Space Products Inc, Los Angeles .... Cal
En-Cer Inc, South Holland Ill
Epic Inc, New York .... N Y
Esterline Angus Div Esterline Corp, Indianapolis .. Ind
Ferranti Electric Inc, Plainview .... N Y
Ferranti, Ltd, Lancashire .... England
Filmohm Corp, Long Island City .... N Y
Fuji Electric Co Ltd, Tokyo .... Japan
General Electric Co, ECSO, Schenectady .... N Y
Hallmark Standards Inc, Mamaroneck .... N Y
Hickok Electrical Instrument Co, Cleveland .... Ohio
Hickok Teaching Systems Inc, Cambridge .... Mass
Honeywell Precision Meter Div, Manchester .... N H
Hoyt Electrical Instrument Works Inc Burton-Rogers Co Sls Div, Cambridge .... Mass
Impectron Inc, New York .... N Y
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Kyoritsu Electrical Instruments Works Ltd, Tokyo .. Japan
Lake Engineering Co Ltd, Scarborough .... Ont
LaPine Scientific Co, Chicago Ill
Mastercraft Instrument Co, Dubuque .... Iowa
Metermaster, Inc, Los Angeles .... Cal
Mura Corp, Great Neck .... N Y
Nelson Electronic Labs Inc, Plano .... Tex
Nichols Co Ltd, R H, Downsview .... Ont
Oki Electric Industry Co Ltd, Tokyo .... Japan
Parker Instrument Corp, Stamford .... Conn
Phaostron Instrument & Electronic Co South Pasadena .... Cal
Q V S Inc, East Orange .... N J
Scientific Columbus Inc, Columbus .... Ohio
Shurite Meters, New Haven .... Conn
Sigma Instruments Canada Ltd, Toronto 18 Ont ...... Canada
Simpson Electric Co, Chicago Ill
Singer Co, Metrics Div, Bridgeport .... Conn
Stark Electronic Instruments Ltd, Ajax .... Ont
Sterling Mfg Co, Cleveland .... Ohio
Sun Electric Corp, Chicago Ill
Sunshine Scientific Instruments Inc, Philadelphia . Pa
Telstar Electronics Corp, Southold .... N Y
Triplett Electrical Instrument Co, Bluffton .... Ohio
Voltron Products Inc, Pasadena .... Cal
Wac Line Div Simmonds Precision Prods, Dayton ..... Ohio
Welch Scientific Co, Skokie Ill
Western Reserve Electronics, Inc, Cleveland .... Ohio
Westinghouse Electric Corp, Relay & Instr Dept Newark .... N J
Weston Instruments Div Weston Instr Inc, Newark ... N J
Yokogawa Electric Works Inc, Larchmont .... N Y

AMMETERS--A-C RECTIFIER-TYPE

API INSTRUMENTS CO, CHESTERLAND .... OHIO
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND .... OHIO
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK .... N J
Alco Electronic Products, Inc, Lawrence .... Mass
A & M Instruments Inc, Great Neck .... N Y
Amprobe Instrument Div Soss Mfg Co, Lynbrook ...... N Y
API Instruments Co, Chesterland .... Ohio
Bartlett-Emery Instrument Co, Fort Madison .... Iowa
Beede Electrical Instrument Co, Inc, Penacook ..... N H
Bitronics Inc, Bethlehem .... Pa
Canadian Research Institute, Don Mills .... Ont
Compagnie Generale de Metrologie Haute Savoie .... France
Dixson Inc Meter Div, Grand Junction .... Colo
Dowa Trading Co Ltd, Kobe .... Japan
E I L Instrument Div Unitec Industries, Timonium .. Md
En-Cer Inc, South Holland Ill
Epic Inc, New York .... N Y
Esterline Angus Div Esterline Corp, Indianapolis .. Ind
Ferranti, Ltd, Lancashire .... England
Filmohm Corp, Long Island City .... N Y
Fuji Electric Co Ltd, Tokyo .... Japan
General Electric Co, ECSO, Schenectady .... N Y
Hallmark Standards Inc, Mamaroneck .... N Y
Hickok Electrical Instrument Co, Cleveland .... Ohio
Honeywell Precision Meter Div, Manchester .... N H
Hoyt Electrical Instrument Works Inc Burton-Rogers Co Sls Div, Cambridge .... Mass
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Kyoritsu Electrical Instruments Works Ltd, Tokyo .. Japan
LaPine Scientific Co, Chicago Ill
Lewis Engineering Co, Naugatuck .... Conn
Mastercraft Instrument Co, Dubuque .... Iowa
Metermaster, Inc, Los Angeles .... Cal
Mura Corp, Great Neck .... N Y
Nelson Electronic Labs Inc, Plano .... Tex
Nichols Co Ltd, R H, Downsview .... Ont
Phaostron Instrument & Electronic Co South Pasadena .... Cal
PMF Electronics Inc, Dayton .... Ohio
Q V S Inc, East Orange .... N J
Scientific Columbus Inc, Columbus .... Ohio
Sigma Instruments Canada Ltd, Toronto 18 Ont ...... Canada
Simpson Electric Co, Chicago Ill
Singer Co, Metrics Div, Bridgeport .... Conn
Stark Electronic Instruments Ltd, Ajax .... Ont
Sun Electric Corp, Chicago Ill
Sunshine Scientific Instruments Inc, Philadelphia . Pa
Telstar Electronics Corp, Southold .... N Y
Triplett Electrical Instrument Co, Bluffton .... Ohio
Voltron Products Inc, Pasadena .... Cal
Wac Line Div Simmonds Precision Prods, Dayton ..... Ohio
Western Reserve Electronics, Inc, Cleveland .... Ohio
Westinghouse Electric Corp, Relay & Instr Dept Newark .... N J
Weston Instruments Div Weston Instr Inc, Newark ... N J
Yokogawa Electric Works Inc, Larchmont .... N Y

AMMETERS--A-C THERMOCOUPLE TYPE

API INSTRUMENTS CO, CHESTERLAND .... OHIO
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND .... OHIO
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK .... N J
A & M Instruments Inc, Great Neck .... N Y
API Instruments Co, Chesterland .... Ohio
Bartlett-Emery Instrument Co, Fort Madison .... Iowa
Beede Electrical Instrument Co, Inc, Penacook ..... N H
Canadian Research Institute, Don Mills .... Ont
Components Specialties Inc, Freeport .... N Y
Dowa Trading Co Ltd, Kobe .... Japan
E I L Instrument Div Unitec Industries, Timonium .. Md
En-Cer Inc, South Holland Ill
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark .... N J
Esterline Angus Div Esterline Corp, Indianapolis .. Ind
Ferranti, Ltd, Lancashire .... England
Filmohm Corp, Long Island City .... N Y
Hallmark Standards Inc, Mamaroneck .... N Y
Hickok Electrical Instrument Co, Cleveland .... Ohio
Holt Instrument Labs, Oconto .... Wis
Ideal Precision Meter Co Inc, Brooklyn .... N Y
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Kyoritsu Electrical Instruments Works Ltd, Tokyo .. Japan
Lewis Engineering Co, Naugatuck .... Conn
Metermaster, Inc, Los Angeles .... Cal
Nelson Electronic Labs Inc, Plano .... Tex
Nichols Co Ltd, R H, Downsview .... Ont
Plessey Airborne Corp, Hillside .... NJ
Rawson-Lush Instrument Co Inc, Acton .... Mass
Sigma Instruments Canada Ltd, Toronto 18 Ont ...... Canada
Simpson Electric Co, Chicago Ill

Singer Co, Metrics Div, Bridgeport .... Conn
Stark Electronic Instruments Ltd, Ajax .... Ont
Sun Electric Corp, Chicago Ill
Sunshine Scientific Instruments Inc, Philadelphia .... Pa
Triplett Electrical Instrument Co, Bluffton .... Ohio
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio
Westinghouse Electric Corp, Relay & Instr Dept
Newark .... N J
Weston Instruments Div Weston Instr Inc, Newark .... N J

AMMETERS--CLAMP-ON TYPE(SNAP ON) A-C & D-C

GENERAL ELECTRIC CO, ECSO, SCHENECTADY
N Y .... ADV PGS 7
HEWLETT-PACKARD, PALO ALTO .... CAL
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND .... OHIO
WESTON INSTRUMENTS DIV WESTON INSTR INC
NEWARK .... N J
A & M Instruments Inc, Great Neck .... N Y
Amprobe Instrument Div Soss Mfg Co, Lynbrook .... N Y
Bruno-New York Industries Corp, New York .... N Y
Columbia Electric Mfg Co, Cleveland .... Ohio
Condor Industrial Corp, West Chicago Ill
Dowa Trading Co Ltd, Kobe .... Japan
E I L Instrument Div Unitec Industries, Timonium .... Md
Epic Inc, New York .... N Y
Esterline Angus Div Esterline Corp, Indianapolis .... Ind
Ferranti Electric Inc, Plainview .... N Y
Ferranti, Ltd, Lancashire .... England
General Electric Co, ECSO, Schenectady .... N Y
Halmar Electronics Inc, Columbus .... Ohio
Hewlett-Packard, Palo Alto .... Cal
Hickok Electrical Instrument Co, Cleveland .... Ohio
Keithley Instruments Inc, Cleveland .... Ohio
Kyoritsu Electrical Instruments Works Ltd, Tokyo .... Japan
Magnetics Div Instrument Systems Corp
Huntington .... NY
Martindale Electric Co, Cleveland .... Ohio
Metermaster, Inc, Los Angeles .... Cal
Nelson Electronic Labs Inc, Plano .... Tex
Ohio Semitronics Inc, Columbus .... Ohio
Rohde & Schwarz Sales Co USA Inc, Passaic .... N J
Scientific Columbus Inc, Columbus .... Ohio
Simpson Electric Co, Chicago Ill
Sperry Instruments Inc A W, New York .... N Y
Sticht Co Inc, Herman H, New York .... N Y
Sunshine Scientific Instruments Inc, Philadelphia .... Pa
Triplett Electrical Instrument Co, Bluffton .... Ohio
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio
Weston Instruments Div Weston Instr Inc, Newark .... N J

AMMETERS--CONTACT-MAKING,A-C & D-C

API INSTRUMENTS CO, CHESTERLAND .... OHIO
PARKER INSTRUMENT CORP, STAMFORD .... CONN
WESTON INSTRUMENTS DIV WESTON INSTR INC
NEWARK .... N J
Alco Electronic Products, Inc, Lawrence .... Mass
A & M Instruments Inc, Great Neck .... N Y
API Instruments Co, Chesterland .... Ohio
Beede Electrical Instrument Co, Inc, Penacook .... N H
Bitronics Inc, Bethlehem .... Pa
Canadian Research Institute, Don Mills .... Ont
Compagnie Generale de Metrologie
Haute Savoie .... France
Dowa Trading Co Ltd, Kobe .... Japan
E I L Instrument Div Unitec Industries, Timonium .... Md
Esterline Angus Div Esterline Corp, Indianapolis .... Ind
Metermaster, Inc, Los Angeles .... Cal
Nelson Electronic Labs Inc, Plano .... Tex
Parker Instrument Corp, Stamford .... Conn
Plessey Airborne Corp, Hillside .... NJ
PMF Electronics Inc, Dayton .... Ohio
Scientific Columbus Inc, Columbus .... Ohio
Sigma Instruments Canada Ltd, Toronto 18 Ont .... Canada
Simpson Electric Co, Chicago Ill
Singer Co, Metrics Div, Bridgeport .... Conn
Sunshine Scientific Instruments Inc, Philadelphia .... Pa
Voltron Products Inc, Pasadena .... Cal
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio
Westinghouse Electric Corp, Relay & Instr Dept
Newark .... N J
Weston Instruments Div Weston Instr Inc, Newark .... N J

AMMETERS--D-C

AMMON INSTRUMENTS INC, MANCHESTER .... N H
API INSTRUMENTS CO, CHESTERLAND .... OHIO
ELECTRO-MECHANICAL INSTRUMENT CO, INC, PERKASIE .... PA
GENERAL ELECTRIC CO, ECSO, SCHENECTADY
N Y .... ADV PGS 7
HEWLETT-PACKARD, PALO ALTO .... CAL
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND .... OHIO
MODUTEC INC, NORWALK .... CONN
PARKER INSTRUMENT CORP, STAMFORD .... CONN
WESTON INSTRUMENTS DIV WESTON INSTR INC
NEWARK .... N J
Abbey Electronics Corp, Westbury .... NY
Alco Electronic Products, Inc, Lawrence .... Mass
Amark Corp, Plainview .... N Y
A & M Instruments Inc, Great Neck .... N Y
Ammon Instruments Inc, Manchester .... N H
Amprobe Instrument Div Soss Mfg Co, Lynbrook .... N Y
API Instruments Co, Chesterland .... Ohio
Atlantic Instruments & Electronics, Inc
Watertown .... Mass
Aul Instruments Inc, Long Island City .... NY
Ballantine Laboratories, Inc, Boonton .... N J
Bartlett-Emery Instrument Co, Fort Madison .... Iowa
Beede Electrical Instrument Co, Inc, Penacook .... N H
Bitronics Inc, Bethlehem .... Pa
California Instruments Corp, San Diego .... Cal
Canadian Research Institute, Don Mills .... Ont
Central Scientific Co, Chicago Ill
Compagnie Generale de Metrologie
Haute Savoie .... France
Components Specialties Inc, Freeport .... N Y
C S F-Cie Gen de Telegraphie Sans Fil
78 Versailles .... France
Dixson Inc Meter Div, Grand Junction .... Colo
Dowa Trading Co Ltd, Kobe .... Japan
E G & G Inc Laboratory Prods Div, Goleta .... Cal
EICO Electronic Instrument Co Inc, Brooklyn .... NY
E I L Instrument Div Unitec Industries, Timonium .... Md
Electro-Mechanical Instrument Co, Inc, Perkasie .... Pa
Electronic Space Products Inc, Los Angeles .... Cal
Electro Scientific Industries Inc, Portland .... Ore
En-Cer Inc, South Holland Ill
Epic Inc, New York .... N Y
Esterline Angus Div Esterline Corp, Indianapolis .... Ind
Ferranti, Ltd, Lancashire .... England
Filmohm Corp, Long Island City .... N Y
Fuji Electric Co Ltd, Tokyo .... Japan
General Electric Co, ECSO, Schenectady .... N Y
Hallmark Standards Inc, Mamaroneck .... N Y
Halmar Electronics Inc, Columbus .... Ohio
Hewlett-Packard, Palo Alto .... Cal
Hickok Electrical Instrument Co, Cleveland .... Ohio
Hickok Teaching Systems Inc, Cambridge .... Mass
Honeywell Precision Meter Div, Manchester .... N H
Hoyt Electrical Instrument Works Inc Burton-Rogers Co Sls
Div, Cambridge .... Mass
Ideal Precision Meter Co Inc, Brooklyn .... N Y
Impectron Inc, New York .... N Y
International Instruments Div Sigma Instr Inc,
Orange .... Conn
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Keithley Instruments Inc, Cleveland .... Ohio
Kyoritsu Electrical Instruments Works Ltd, Tokyo .... Japan
Lafayette Radio Electronics, Syosset .... NY
Lake Engineering Co Ltd, Scarborough .... Ont
Lewis Engineering Co, Naugatuck .... Conn
Mastercraft Instrument Co, Dubuque .... Iowa
Medistor Instrument Co, Seattle .... Wash
Metermaster, Inc, Los Angeles .... Cal
Modutec Inc, Norwalk .... Conn
Mura Corp, Great Neck .... N Y
Nelson Electronic Labs Inc, Plano .... Tex
Nichols Co Ltd, R H, Downsview .... Ont
Parker Instrument Corp, Stamford .... Conn
Phaostron Instrument & Electronic Co
South Pasadena .... Cal
PMF Electronics Inc, Dayton .... Ohio
Q V S Inc, East Orange .... N J
Rawson-Lush Instrument Co Inc, Acton .... Mass
Scientific Columbus Inc, Columbus .... Ohio
Shurite Meters, New Haven .... Conn
Sigma Instruments Canada Ltd, Toronto 18 Ont .... Canada
Simpson Electric Co, Chicago Ill
Singer Co, Metrics Div, Bridgeport .... Conn
Stark Electronic Instruments Ltd, Ajax .... Ont
Sterling Mfg Co, Cleveland .... Ohio
Sun Electric Corp, Chicago Ill
Sunshine Scientific Instruments Inc, Philadelphia .... Pa
Takeda Riken Industry Co Ltd, Tokyo .... Japan
Telstar Electronics Corp, Southold .... N Y
Triplett Electrical Instrument Co, Bluffton .... Ohio
Voltron Products Inc, Pasadena .... Cal
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio
Welch Scientific Co, Skokie Ill
Western Reserve Electronics, Inc, Cleveland .... Ohio
Westinghouse Electric Corp, Relay & Instr Dept
Newark .... N J
Weston Instruments Div Weston Instr Inc, Newark .... N J
Yokogawa Electric Works Inc, Larchmont .... N Y

AMMETERS--MICROAMMETERS

AMMON INSTRUMENTS INC, MANCHESTER .... N H
API INSTRUMENTS CO, CHESTERLAND .... OHIO
ELECTRO-MECHANICAL INSTRUMENT CO, INC, PERKASIE .... PA
GENERAL ELECTRIC CO, ECSO, SCHENECTADY .... N Y
HEWLETT-PACKARD, PALO ALTO .... CAL
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND .... OHIO
MODUTEC INC, NORWALK .... CONN
PARKER INSTRUMENT CORP, STAMFORD .... CONN
WESTON INSTRUMENTS DIV WESTON INSTR INC
NEWARK .... N J
Abbey Electronics Corp, Westbury .... NY
Alco Electronic Products, Inc, Lawrence .... Mass
Amark Corp, Plainview .... N Y
A & M Instruments Inc, Great Neck .... N Y
Ammon Instruments Inc, Manchester .... N H
Amprobe Instrument Div Soss Mfg Co, Lynbrook .... N Y
API Instruments Co, Chesterland .... Ohio

Atlantic Instruments & Electronics, Inc
Watertown .... Mass
Aul Instruments Inc, Long Island City .... NY
Ballantine Laboratories, Inc, Boonton .... N J
Bartlett-Emery Instrument Co, Fort Madison .... Iowa
Beede Electrical Instrument Co, Inc, Penacook .... N H
Bitronics Inc, Bethlehem .... Pa
Boonton Electronics Corp, Parsippany .... N J
Brower Labs Inc, Westboro .... Mass
California Instruments Corp, San Diego .... Cal
Canadian Research Institute, Don Mills .... Ont
Central Scientific Co, Chicago Ill
Cohu Electronics Inc, San Diego .... Cal
Compagnie Generale de Metrologie
Haute Savoie .... France
Components Specialties Inc, Freeport .... N Y
Dixson Inc Meter Div, Grand Junction .... Colo
Dowa Trading Co Ltd, Kobe .... Japan
Dynamics Instrumentation Co, Monterey Park .... Cal
E G & G Inc Laboratory Prods Div, Goleta .... Cal
EICO Electronic Instrument Co Inc, Brooklyn .... NY
E I L Instrument Div Unitec Industries, Timonium .... Md
Elcor, Div Halliburton Co, Silver Spring .... Md
Electro-Mechanical Instrument Co, Inc, Perkasie .... Pa
En-Cer Inc, South Holland Ill
Esterline Angus Div Esterline Corp, Indianapolis .... Ind
Ferranti, Ltd, Lancashire .... England
Filmohm Corp, Long Island City .... N Y
Fuji Electric Co Ltd, Tokyo .... Japan
General Electric Co, ECSO, Schenectady .... N Y
General Radio Co, West Concord .... Mass
Grace Electronics Inc, Cleveland .... Ohio
Hallmark Standards Inc, Mamaroneck .... N Y
Hewlett-Packard, Palo Alto .... Cal
Hickok Electrical Instrument Co, Cleveland .... Ohio
Hickok Teaching Systems Inc, Cambridge .... Mass
Honeywell Precision Meter Div, Manchester .... N H
Hoyt Electrical Instrument Works Inc Burton-Rogers Co Sls
Div, Cambridge .... Mass
IB Instruments Inc, Cleveland .... Ohio
Ideal Precision Meter Co Inc, Brooklyn .... N Y
Impectron Inc, New York .... N Y
International Instruments Div Sigma Instr Inc,
Orange .... Conn
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Keithley Instruments Inc, Cleveland .... Ohio
Kyoritsu Electrical Instruments Works Ltd, Tokyo .... Japan
Lake Engineering Co Ltd, Scarborough .... Ont
Lewis Engineering Co, Naugatuck .... Conn
Mastercraft Instrument Co, Dubuque .... Iowa
Medistor Instrument Co, Seattle .... Wash
Metermaster, Inc, Los Angeles .... Cal
Millivac Instruments Inc, Schenectady .... N Y
Modutec Inc, Norwalk .... Conn
Monroe Electronics Inc, Middleport .... N Y
Mura Corp, Great Neck .... N Y
Nelson Electronic Labs Inc, Plano .... Tex
Nichols Co Ltd, R H, Downsview .... Ont
Parker Instrument Corp, Stamford .... Conn
Phaostron Instrument & Electronic Co
South Pasadena .... Cal
Philips Electronic Instruments, Test & Measuring Inst
Mount Vernon .... NY
PMF Electronics Inc, Dayton .... Ohio
Q V S Inc, East Orange .... N J
Radio Corp of America, Electronic Components,
Harrison .... N J
Radiometer A/S, Copenhagen NV .... Denmark
Rawson-Lush Instrument Co Inc, Acton .... Mass
Shurite Meters, New Haven .... Conn
Sigma Instruments Canada Ltd, Toronto 18 Ont .... Canada
Simpson Electric Co, Chicago Ill
Singer Co, Metrics Div, Bridgeport .... Conn
Solid State Radiations Inc, Los Angeles .... Cal
Stark Electronic Instruments Ltd, Ajax .... Ont
Sterling Mfg Co, Cleveland .... Ohio
Sun Electric Corp, Chicago Ill
Sunshine Scientific Instruments Inc, Philadelphia .... Pa
Takeda Riken Industry Co Ltd, Tokyo .... Japan
Telstar Electronics Corp, Southold .... N Y
Triplett Electrical Instrument Co, Bluffton .... Ohio
Victoreen Instrument Div, Cleveland .... Ohio
Voltron Products Inc, Pasadena .... Cal
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio
Welch Scientific Co, Skokie Ill
Western Reserve Electronics, Inc, Cleveland .... Ohio
Westinghouse Electric Corp, Relay & Instr Dept
Newark .... N J
Weston Instruments Div Weston Instr Inc, Newark .... N J
Yokogawa Electric Works Inc, Larchmont .... N Y

AMMETERS--MILLIAMMETERS, A-C

API INSTRUMENTS CO, CHESTERLAND .... OHIO
ELECTRO-MECHANICAL INSTRUMENT CO, INC, PERKASIE .... PA
GENERAL ELECTRIC CO, ECSO, SCHENECTADY
N Y .... ADV PGS 7
HEWLETT-PACKARD, PALO ALTO .... CAL
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND .... OHIO
MODUTEC INC, NORWALK .... CONN
PARKER INSTRUMENT CORP, STAMFORD .... CONN
WESTON INSTRUMENTS DIV WESTON INSTR INC
NEWARK .... N J
Alco Electronic Products, Inc, Lawrence .... Mass
A & M Instruments Inc, Great Neck .... N Y
API Instruments Co, Chesterland .... Ohio
Aul Instruments Inc, Long Island City .... NY
Ballantine Laboratories, Inc, Boonton .... N J
Beede Electrical Instrument Co, Inc, Penacook .... N H
Bitronics Inc, Bethlehem .... Pa
California Instruments Corp, San Diego .... Cal
Canadian Research Institute, Don Mills .... Ont
Central Scientific Co, Chicago Ill
Compagnie Generale de Metrologie
Haute Savoie .... France
Components Specialties Inc, Freeport .... N Y
Dixson Inc Meter Div, Grand Junction .... Colo

Dowa Trading Co Ltd, Kobe .... Japan
E I L Instrument Div Unitec Industries, Timonium .... Md
Electro-Mechanical Instrument Co, Inc, Perkasie .... Pa
Electronic Space Products Inc, Los Angeles .... Cal
En-Cer Inc, South Holland Ill
Esterline Angus Div Esterline Corp, Indianapolis .... Ind
Ferranti Electric Inc, Plainview .... N Y
Ferranti, Ltd, Lancashire .... England
Filmohm Corp, Long Island City .... N Y
Fuji Electric Co Ltd, Tokyo .... Japan
General Electric Co, ECSO, Schenectady .... N Y

Hallmark Standards Inc, Mamaroneck ... N Y
Hewlett-Packard, Palo Alto ... Cal
Hickok Electrical Instrument Co, Cleveland ... Ohio
Hickok Teaching Systems Inc, Cambridge ... Mass
Honeywell Precision Meter Div, Manchester ... N H
Hoyt Electrical Instrument Works Inc Burton-Rogers Co Sls Div, Cambridge ... Mass
Impectron Inc, New York ... N Y
ITT Europe Inc Components Gp, Brussels 1 ... Belgium
Kyoritsu Electrical Instruments Works Ltd, Tokyo ... Japan
Lake Engineering Co Ltd, Scarborough ... Ont
Lewis Engineering Co, Naugatuck ... Conn
Mastercraft Instrument Co, Dubuque ... Iowa
Metermaster, Inc, Los Angeles ... Cal
Modutec Inc, Norwalk ... Conn
Mura Corp, Great Neck ... N Y
Nelson Electronic Labs Inc, Plano ... Tex
Nichols Co Ltd, R H, Downsview ... Ont
Oki Electric Industry Co Ltd, Tokyo ... Japan
Parker Instrument Corp, Stamford ... Conn
Phaostron Instrument & Electronic Co South Pasadena ... Cal
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon ... NY
PMF Electronics Inc, Dayton ... Ohio
Q V S Inc, East Orange ... N J
Rawson-Lush Instrument Co Inc, Acton ... Mass
Shurite Meters, New Haven ... Conn
Sigma Instruments Canada Ltd, Toronto 18 Ont ... Canada
Simpson Electric Co, Chicago ... Ill
Singer Co, Metrics Div, Bridgeport ... Conn
Stark Electronic Instruments Ltd, Ajax ... Ont
Sterling Mfg Co, Cleveland ... Ohio
Sun Electric Corp, Chicago ... Ill
Sunshine Scientific Instruments Inc, Philadelphia ... Pa
Triplett Electrical Instrument Co, Bluffton ... Ohio
Voltron Products Inc, Pasadena ... Cal
Wac Line Div Simmonds Precision Prods, Dayton ... Ohio
Welch Scientific Co, Skokie ... Ill
Western Reserve Electronics, Inc, Cleveland ... Ohio
Westinghouse Electric Corp, Relay & Instr Dept Newark ... N J
Weston Instruments Div Weston Instr Inc, Newark ... N J
Yokogawa Electric Works Inc, Larchmont ... N Y

AMMETERS--MILLIAMMETERS, D-C

AMMON INSTRUMENTS INC, MANCHESTER ... N H
API INSTRUMENTS CO, CHESTERLAND ... OHIO
ELECTRO-MECHANICAL INSTRUMENT CO, INC, PERKASIE ... PA
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
HEATH CO, BENTON HARBOR ... MICH
HEWLETT-PACKARD, PALO ALTO ... CAL
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND ... OHIO
MODUTEC INC, NORWALK ... CONN
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO ... ILL
PARKER INSTRUMENT CORP, STAMFORD ... CONN
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK ... N J
Abbey Electronics Corp, Westbury ... NY
Advanced Technology Corp, Chambersburg ... Pa
Alco Electronic Products, Inc, Lawrence ... Mass
A & M Instruments Inc, Great Neck ... N Y
Ammon Instruments Inc, Manchester ... N H
Amprobe Instrument Div Soss Mfg Co, Lynbrook ... N Y
API Instruments Co, Chesterland ... Ohio
Atlantic Instruments & Electronics, Inc Watertown ... Mass
Aul Instruments Inc, Long Island City ... NY
Ballantine Laboratories, Inc, Boonton ... N J
Bartlett-Emery Instrument Co, Fort Madison ... Iowa
Beede Electrical Instrument Co, Inc, Penacook ... N H
Bitronics Inc, Bethlehem ... Pa
Boonton Electronics Corp, Parsippany ... N J
California Instruments Corp, San Diego ... Cal
Canadian Research Institute, Don Mills ... Ont
Central Scientific Co, Chicago ... Ill
Compagnie Generale de Metrologie Haute Savoie ... France
Components Specialties Inc, Freeport ... N Y
Dixson Inc Meter Div, Grand Junction ... Colo
Dowa Trading Co Ltd, Kobe ... Japan
Dynamics Instrumentation Co, Monterey Park ... Cal
E G & G Inc Laboratory Prods Div, Goleta ... Cal
EICO Electronic Instrument Co Inc, Brooklyn ... NY
E I L Instrument Div Unitec Industries, Timonium ... Md
Electro-Mechanical Instrument Co, Inc, Perkasie ... Pa
Electronic Space Products Inc, Los Angeles ... Cal
Electro Scientific Industries Inc, Portland ... Ore
En-Cer Inc, South Holland ... Ill
Esterline Angus Div Esterline Corp, Indianapolis ... Ind
Ferranti Electric Inc, Plainview ... N Y
Ferranti, Ltd, Lancashire ... England
Filmohm Corp, Long Island City ... N Y
Fuji Electric Co Ltd, Tokyo ... Japan
General Electric Co, ECSO, Schenectady ... N Y
Hallmark Standards Inc, Mamaroneck ... N Y
Heath Co, Benton Harbor ... Mich
Hewlett-Packard, Palo Alto ... Cal
Hickok Electrical Instrument Co, Cleveland ... Ohio
Hickok Teaching Systems Inc, Cambridge ... Mass
Honeywell Industrial Div, Fort Washington ... Pa
Honeywell Precision Meter Div, Manchester ... N H
Hoyt Electrical Instrument Works Inc Burton-Rogers Co Sls Div, Cambridge ... Mass
Ideal Precision Meter Co Inc, Brooklyn ... N Y
International Instruments Div Sigma Instr Inc, Orange ... Conn
ITT Europe Inc Components Gp, Brussels 1 ... Belgium
Keithley Instruments Inc, Cleveland ... Ohio
Kyoritsu Electrical Instruments Works Ltd, Tokyo ... Japan
Lake Engineering Co Ltd, Scarborough ... Ont
Lewis Engineering Co, Naugatuck ... Conn
Mastercraft Instrument Co, Dubuque ... Iowa
Medistor Instrument Co, Seattle ... Wash
Metermaster, Inc, Los Angeles ... Cal
Millivac Instruments Inc, Schenectady ... N Y
Modutec Inc, Norwalk ... Conn
Monroe Electronics Inc, Middleport ... N Y
Motorola Commun & Elctns Inc Prec Instr Prods Chicago ... Ill
Mura Corp, Great Neck ... N Y
Nelson Electronic Labs Inc, Plano ... Tex
Nichols Co Ltd, R H, Downsview ... Ont
Oki Electric Industry Co Ltd, Tokyo ... Japan
Parker Instrument Corp, Stamford ... Conn
Phaostron Instrument & Electronic Co South Pasadena ... Cal
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon ... NY
PMF Electronics Inc, Dayton ... Ohio
Q V S Inc, East Orange ... N J
Rawson-Lush Instrument Co Inc, Acton ... Mass
Shurite Meters, New Haven ... Conn
Sigma Instruments Canada Ltd, Toronto 18 Ont ... Canada
Simpson Electric Co, Chicago ... Ill
Singer Co, Metrics Div, Bridgeport ... Conn
Stark Electronic Instruments Ltd, Ajax ... Ont
Sterling Mfg Co, Cleveland ... Ohio
Sun Electric Corp, Chicago ... Ill
Sunshine Scientific Instruments Inc, Philadelphia ... Pa
Taylor Instrument Cos, Rochester ... N Y
Telstar Electronics Corp, Southold ... N Y
Triplett Electrical Instrument Co, Bluffton ... Ohio
Voltron Products Inc, Pasadena ... Cal
Wac Line Div Simmonds Precision Prods, Dayton ... Ohio
Welch Scientific Co, Skokie ... Ill
Western Reserve Electronics, Inc, Cleveland ... Ohio
Westinghouse Electric Corp, Relay & Instr Dept Newark ... N J
Weston Instruments Div Weston Instr Inc, Newark ... N J
Yokogawa Electric Works Inc, Larchmont ... N Y

AMMETERS--R-F

HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND ... OHIO
A & M Instruments Inc, Great Neck ... N Y
Ballantine Laboratories, Inc, Boonton ... N J
Bartlett-Emery Instrument Co, Fort Madison ... Iowa
Beede Electrical Instrument Co, Inc, Penacook ... N H
Canadian Research Institute, Don Mills ... Ont
Dowa Trading Co Ltd, Kobe ... Japan
E I L Instrument Div Unitec Industries, Timonium ... Md
En-Cer Inc, South Holland ... Ill
Ferranti, Ltd, Lancashire ... England
Filmohm Corp, Long Island City ... N Y
Hallmark Standards Inc, Mamaroneck ... N Y
Hickok Electrical Instrument Co, Cleveland ... Ohio
Honeywell Precision Meter Div, Manchester ... N H
Ideal Precision Meter Co Inc, Brooklyn ... N Y
Kyoritsu Electrical Instruments Works Ltd, Tokyo ... Japan
Metermaster, Inc, Los Angeles ... Cal
Nelson Electronic Labs Inc, Plano ... Tex
Nichols Co Ltd, R H, Downsview ... Ont
Seco Electronics Corp, Hopkins ... Minn
Simpson Electric Co, Chicago ... Ill
Singer Co, Metrics Div, Bridgeport ... Conn
Stark Electronic Instruments Ltd, Ajax ... Ont
Sterling Mfg Co, Cleveland ... Ohio
Sun Electric Corp, Chicago ... Ill
Sunshine Scientific Instruments Inc, Philadelphia ... Pa
Triplett Electrical Instrument Co, Bluffton ... Ohio
Wac Line Div Simmonds Precision Prods, Dayton ... Ohio
Westinghouse Electric Corp, Relay & Instr Dept Newark ... N J
Yokogawa Electric Works Inc, Larchmont ... N Y

AMMETERS--S METERS

AMMON INSTRUMENTS INC, MANCHESTER ... N H
PARKER INSTRUMENT CORP, STAMFORD ... CONN
A & M Instruments Inc, Great Neck ... N Y
Ammon Instruments Inc, Manchester ... N H
Dixson Inc Meter Div, Grand Junction ... Colo
Dowa Trading Co Ltd, Kobe ... Japan
E I L Instrument Div Unitec Industries, Timonium ... Md
En-Cer Inc, South Holland ... Ill
Kyoritsu Electrical Instruments Works Ltd, Tokyo ... Japan
Lafayette Radio Electronics, Syosset ... NY
Mastercraft Instrument Co, Dubuque ... Iowa
Mura Corp, Great Neck ... N Y
Parker Instrument Corp, Stamford ... Conn
Q V S Inc, East Orange ... N J
Shurite Meters, New Haven ... Conn
Sterling Mfg Co, Cleveland ... Ohio
Wac Line Div Simmonds Precision Prods, Dayton ... Ohio
Yokogawa Electric Works Inc, Larchmont ... N Y

AMPLIFIERS, A-F--GENERAL PURPOSE

ALLEN ELECTRONICS DIV ALLEN ORGAN CO, MACUNGIE PA ... ADV PG 716
ALLIED ELECTRONICS CORP, CHICAGO ... ILL
ANALOG DEVICES INC, CAMBRIDGE ... MASS

BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS WOODSIDE ... NY
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL ... PA
C M L INC, PLAINFIELD ... N J
CROWN INT'L RADIO & ELECTRONICS CORP, ELKHART IND ... ADV PG 19
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y ... ADV PGS 3RD COVER INLEAF
HEATH CO, BENTON HARBOR ... MICH
HEWLETT-PACKARD, PALO ALTO ... CAL
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON ... N Y
ITHACO INC, ITHACA ... N Y
MALLORY & CO INC, P R, INDIANAPOLIS ... IND
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
MELCOR ELECTRONICS CORP, FARMINGDALE ... N Y
NORTH HILLS ELECTRONICS INC, GLEN COVE ... N Y
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM ... MASS
TELE-SIGNAL CORP, WOODBURY ... N Y
TOA ELECTRIC CO LTD, KOBE ... JAPAN
TRACOR INC, AUSTIN ... TEX
Acoustech Div Koss Electronics Inc, Milwaukee ... Wis
Action Systems Co Div Conn Consolidated Inds Inc Meriden ... Conn
ADEC Inc, Newark ... N J
Aerocom, Miami ... Fla
Aerolite Electronics Corp, Union City ... N J
Aerospace Research, Inc, Boston ... Mass
Agac-Derritron Inc, Alexandria ... Va
Aikow Shoji Kaisha Ltd, Osaka ... Japan
AIM Electronics Ltd, Cambridge ... U K
Alcatel, Paris 8eme ... France
Allen Electronics Div Allen Organ Co, Macungie ... Pa
Allied Electronics Corp, Chicago ... Ill
Alma Engineering Inc, San Diego ... Cal
Alpine Geophysical Assoc Inc, Norwood ... N J
Altec Lansing Div LTV Ling Altec Inc, Anaheim ... Cal
Amelco Semiconductor, A Teledyne Co Mountain View ... Cal
American Geloso Electronics Inc, New York ... N Y
Ampex Corp, Redwood City ... Cal
Amplifier Corp of America, Westbury ... N Y
Amtron Inc, Midlothian ... Ill
Analog Devices Inc, Cambridge ... Mass
Ando Electric Co Ltd, Ohta-ku, Tokyo ... Japan
Antlab, Inc, Worthington ... Ohio
Applied Control Co, Cedar Grove ... NJ
Applied Cybernetics Systems AMF, Alexandria ... Va
Applied Electro Mechanics Inc, Alexandria ... Va
Applied Electronics Corp of N J, Metuchen ... N J
Argonaut Associates, Inc, Beaverton ... Ore
Arvee Engineering Co, Torrance ... Cal
Astrodata Inc, Anaheim ... Cal
Atlantic Instruments & Electronics, Inc Watertown ... Mass
Audio Equipment Co Div Walter Kidde & Co Inc Port Washington ... NY
Audio Vox Intercom Inc, Montreal 12 ... Que
Automatic Radio Sales Inc, Melrose ... Mass
Auto-Vox Inc, Quebec City ... Que
A V Electronics, Inc, Fresno ... Cal
Ballantine Laboratories, Inc, Boonton ... N J
Bauer Broadcast Div Granger Assoc, Palo Alto ... Cal
Bayly Engineering Ltd, Ajax ... Ontario
Beckwith Electric Co Inc, Mt Prospect ... Ill
Bell P/A Products Corp, Columbus ... Ohio
Bogen Communications Div Lear Siegler Inc Paramus ... N J
Brookdeal of America Inc, North Falmouth ... Mass
Brower Labs Inc, Westboro ... Mass
Browning Laboratories Inc, Laconia ... N H
Bruno-New York Industries Corp, New York ... N Y
Bulova Watch Co Inc Elctns Div Servo Products Woodside ... NY
B & W Electronic Research Labs, Dallas ... Tex
C C A Electronics Corp, Gloucester ... NJ
Clavier Corp, Richmond Hill ... NY
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill ... Pa
C M L Inc, Plainfield ... N J
Continental Electronics Corp, Brooklyn ... N Y
Control Electronics Co Inc, Farmingdale ... N Y
Control Panel Corp, Chicago ... Ill
Control Technology Co Inc, Long Island City ... N Y
Crown Int'l Radio & Electronics Corp, Elkhart ... Ind
Daltronics Inc, Providence ... R I
Data Device Corp, Hicksville ... N Y
Data Royal Corp, San Diego ... Cal
Dayton Electronics Products Co, Dayton ... Ohio
Dewey Corp, G C, New York ... N Y
Dorsett Electronics Inc, Tulsa ... Okla
Dowa Trading Co Ltd, Kobe ... Japan
DuKane Corp, St Charles ... Ill
Dynaco Inc, Philadelphia ... Pa
Dynavox Electronics Corp, Long Island City ... N Y
EICO Electronic Instrument Co Inc, Brooklyn ... NY
Electronic Homes Co, New York ... N Y
EMI Cossor Electronics Ltd, Dartmouth, N S ... Can
Ercona Corp, New York ... N Y
Fairlane Electronics, Inc, Long Valley ... N J
Fanon Electronic Industries Div Courier Commun Inc Newark ... N J
Fargo Co, San Francisco ... Cal
Fen-Tone Corp, New York ... N Y
Ferrotran Electronics Co Inc, New York ... N Y
Fidelity Amplifier Co, Chicago ... Ill
Fisher Berkeley Corp, Emeryville ... Cal
Forway Industries Inc, Woodbury ... N J
Gai-Tronics Corp, Reading ... Pa
Gates Radio Co, Quincy ... Ill
General Electric Co, ECSO, Schenectady ... N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville ... N Y
General Radio Co, West Concord ... Mass
Good Electronic Corp, Bedford ... Mass
Gray Research & Development Co Div East Hartford ... Conn
Hartman Systems Co Inc, Huntington Station ... N Y
Heath Co, Benton Harbor ... Mich

Hewlett-Packard, Palo Alto ... Cal
Holmin Corp, Wm A, Rockford ... Ill
Holt Instrument Labs, Oconto ... Wis

Industrial Test Equipment Co, Port Washington	N Y
Instruments Inc, San Diego	Cal
Ithaco Inc, Ithaca	N Y
I T I Electronics Inc, Clifton	N J
ITT Terryphone Corp, Harrisburg	Pa
Jetronic Industries Inc, Philadelphia	Pa
Johnson Electronics Inc, Casselberry	Fla
Keithley Instruments Inc, Cleveland	Ohio
K L A Labs Inc, Detroit	Mich
Krohn-Hite Corp, Cambridge	Mass
Lake Mfg Co, Oakland	Cal
Lane Industries,Electronics Div, North Hollywood	Cal
Langevin Div, Scientific Ind, Inc, Santa Ana	Cal
Larago Electronics Mfgrs Inc, Melbourne	Fla
Lek-Trol, Inc, Grapevine	Tex
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
Loge Electronics, Los Angeles	Cal
Lowrance Electronic Mfg Corp, Tulsa	Okla
Magnasync/Moviola Corp, North Hollywood	Cal
Magnetic Engineering Corp, Danbury	Conn
Mallory & Co Inc, P R, Indianapolis	Ind
Marquardt Industrial Products Co, Chicago	Ill
Marti Electronics, Cleburne	Tex
Matrix Corp, Beech Grove	Ind
Matsushita Electric Industrial Co Ltd, Osaka	Japan
MB Electronics A Textron Co, New Haven	Conn
McIntosh Laboratory Inc, Binghamton	N Y
McMartin Industries Inc, Omaha	Neb
Melcor Electronics Corp, Farmingdale	N Y
Mennen-Greatbatch Electronics Inc, Clarence	N Y
Midwest Audio Corp, Chicago	Ill
Milletron, Inc, Pittsburgh	Pa
Millivac Instruments Inc, Schenectady	N Y
M & M Electronics Corp, Amityville,	N Y
M Ten Bosch, Inc, Pleasantville	N Y
Multiper N V, Den Haag	Netherlands
Murdock Corp, Chelsea	Mass
Natel Engineering Co Inc, Van Nuys	Cal
Nelson-Hershfield Electronics Co, Phoenix	Ariz
Neptune Electronics Co, New York	N Y
Newcomb Audio Products Co, Sylmar	Cal
Newport Labs Inc, Newport Beach	Cal
NH Research Inc, Santa Ana	Cal
Northeast Electronics Corp, Concord	N H
Northern Radio Co Inc, New York	N Y
North Hills Electronics Inc, Glen Cove	N Y
Novatronics Inc, Pompano Beach	Fla
NUS Corp, Underwater Sys Div, Paramus	N J
Optimation, Inc, Sun Valley	Cal
Perry Amplifier, Brookline	Mass
P & H Electronics, Lafayette	Ind
Philbrick/Nexus Research A Teledyne Co Dedham	Mass
Philco-Ford Corp, Washington	D C
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pioneer Electronic Corp, Ohta-ku, Tokyo	Japan
Princeton Applied Research Corp, Princeton	N J
Private Tele Communications Inc, Chicago	Ill
Pulse Communications Inc, Falls Church	Va
Pulse Techniques Inc, West Englewood	N J
Quan-Tech Labs Inc, Whippany	N J
Quindar Electronics Inc, Springfield	NJ
Raecord Inc, Paterson	N J
Randam Electronics Inc, Cincinnati	Ohio
Rauland-Borg Corp, Chicago	Ill
Remler Co, San Francisco	Cal
Rho Engineering Co, Los Angeles	Cal
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Rosemount Plug-In Inc, Nashville	Tenn
Round Hill Associates, Inc, New York	N Y
Roveti Instruments, Annapolis	Md
Rowe Industries Inc, Toledo	Ohio
SBD Systems Inc, Farmingdale	N Y
Schober Organ Corp, New York	N Y
Scott Inc, H H, Maynard	Mass
Siltronics Inc, Oakmont	Pa
Solar Electronics Co, Hollywood	Cal
Solid State Electronics Corp, Sepulveda	Cal
Sonex Inc, Philadelphia	Pa
Sparta Electronic Corp, Sacramento	Cal
Stancil-Hoffman Corp, Hollywood	Cal
Standard Industries, Buena Park	Cal
Standard Telephones & Cables Ltd London WC 2	England
Stanford International, San Carlos	Cal
Stark Electronic Instruments Ltd, Ajax	Ont
States Electronics Corp, Bludworth Marine Div Linden	N J
Stephens Electronics, Burbank	Cal
Sweep Systems Inc, Indianapolis	Ind
Taffet Electronics Inc, Woodside	N Y
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Telectro Systems Corp, Corona	N Y
Teledata Inc, Queens Village	N Y
Telephonics Div, Instrument Systems Corp Huntington	NY
Tele-Signal Corp, Woodbury	N Y
Telstar Electronics Corp, Southold	N Y
Toa Electric Co Ltd, Kobe	Japan
Topping Electronics Ltd, Toronto 17	Ont
Touchmaster Labs, Los Angeles	Cal
Tracor Inc, Austin	Tex
Trott Electronics Inc, Rochester	N Y
Trutone Electronics Inc, Van Nuys	Cal
Unholtz-Dickie Corp, Hamden	Conn
Union Carbide Electronics, Semiconductor Prods Mountain View	Cal
Universal Audio, North Hollywood	Cal
Versatek Industries Inc, Indianapolis	Ind
Virginia Electronics Co Inc, Falls Church	Va
Vital Industries Inc, Gainesville	Fla
VP Co, Pasadena	Cal
Webster Electric Co, Racine	Wisc
Westrex Div Litton Industries, Inc, Hollywood	Cal
Wilcox Electric Co Inc, Kansas City	Mo
Wilder Engineering Products, Chicago	Ill
Win-Elco, Gold Hill	Ore

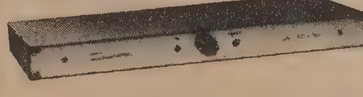
Crown

Leadership

PRESENTS...

The IDEAL Amplifier

SA30-30



- 2 channels 30w ea 8Ω
- ±0.1db 20Hz to 20,000Hz
- Typical HD 0.05%, IM 0.3%
- Signal to noise 100db
- 1¾" high, 19" wide, 8¼ lbs.

Price $199.00

Crown International
BOX 1000, DEPT. EBG-68
ELKHART, INDIANA 46514

MADE ONLY IN AMERICA

AMPLIFIERS, A-F--HIGH FIDELITY,MONAURAL & STEREO

CROWN INT'L RADIO & ELECTRONICS CORP, ELKHART	**IND**
HEATH CO, BENTON HARBOR	**MICH**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MELCOR ELECTRONICS CORP, FARMINGDALE	**N Y**
Aerolite Electronics Corp, Union City	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
Alma Engineering Inc, San Diego	Cal
Altec Lansing Div LTV Ling Altec Inc, Anaheim	Cal
American Geloso Electronics Inc, New York	N Y
Ampex Corp, Redwood City	Cal
Amplifier Corp of America, Westbury	N Y
Amtron Inc, Midlothian	Ill
Automatic Radio Sales Inc, Melrose	Mass
A V Electronics, Inc, Fresno	Cal
Bayly Engineering Ltd, Ajax	Ontario
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio
Bogen Communications Div Lear Siegler Inc Paramus	N J
Calbest Electronics, Los Angeles	Cal
Clavier Corp, Richmond Hill	NY
CM Laboratories, Norwalk	Conn
Crown Int'l Radio & Electronics Corp, Elkhart	Ind
Dowa Trading Co Ltd, Kobe	Japan
Dynaco Inc, Philadelphia	Pa
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electron Enterprises Inc, Berwyn	Ill
Electronic Homes Co, New York	N Y
Electro-Voice Inc Sub Gulton Industries Buchanan	Mich
Ercona Corp, New York	N Y
Fen-Tone Corp, New York	N Y
Fidelity Amplifier Co, Chicago	Ill
Foster Electric Co Ltd, Tokyo	Japan
Gates Radio Co, Quincy	Ill
Goodmans Loudspeakers Ltd, Middlesex	Eng
Gulton Industries Inc, Metuchen	N J
Hamilton Electronics Corp, Chicago	Ill
Hayakawa Electric Co Ltd, Osaka	Japan
Heath Co, Benton Harbor	Mich
Impectron Inc, New York	N Y
Instruments Inc, San Diego	Cal
Jetronic Industries Inc, Philadelphia	Pa
Johnson Electronics Inc, Casselberry	Fla
K L A Labs Inc, Detroit	Mich
Koss Electronics Inc, Milwaukee	Wis
Lafayette Radio Electronics, Syosset	NY
Langevin Div, Scientific Ind, Inc, Santa Ana	Cal
Larago Electronics Mfgrs Inc, Melbourne	Fla
Lear Siegler Inc, Santa Monica	Cal
Magnetic Engineering Corp, Danbury	Conn
Major Electronics Corp, Brooklyn	N Y
Mallory & Co Inc, P R, Indianapolis	Ind
Marantz Co Inc, Sun Valley	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McIntosh Laboratory Inc, Binghamton	N Y
Melcor Electronics Corp, Farmingdale	N Y
Merchant Co, Robert C, Carmel Valley	Cal
MP Audio Corp, Fairfield	Conn
Nelson-Hershfield Electronics Co, Phoenix	Ariz
Neotec Corp, Rockville	Md
Newcomb Audio Products Co, Sylmar	Cal
Opamp Labs, Los Angeles	Cal
Osaka Onkyo Co, Ltd, Asahi-Ku, Osaka	Japan
Perfectone Sound Labs, Allendale	NJ
Permoflux Corp, Glendale	Cal
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Pioneer Electronic Corp, Ohta-ku, Tokyo	Japan
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Rauland-Borg Corp, Chicago	Ill
Raytheon Learning Systems Co, Michigan City	Ind
Round Hill Associates, Inc, New York	N Y
Rowe Industries Inc, Toledo	Ohio
Rye Industries, Inc, Mamaroneck	N Y
Sampson Electronic Products Div, Chicago	Ill
Schober Organ Corp, New York	N Y
Scott Inc, H H, Maynard	Mass
Sherwood Electronic Labs Inc, Chicago	Ill
Shrader Sound Inc, Washington	D C
Shure Brothers Inc, Evanston	Ill
Sony Corp, Tokyo	Japan
Sparta Electronic Corp, Sacramento	Cal
Stancil-Hoffman Corp, Hollywood	Cal
Standard Industries, Buena Park	Cal
Stanford International, San Carlos	Cal
Stuart, Matthew & Co Inc, Bronx	NY
Tape-Athon, Inglewood	Cal
Telectro Systems Corp, Corona	N Y
Telex Communications Div, Minneapolis	Minn
Tokyo Cosmos Electric Co Ltd, Tokyo	Japan
Trutone Electronics Inc, Van Nuys	Cal
Ultra Electronics Ltd, London, W 3	England
Universal Audio, North Hollywood	Cal
Versatek Industries Inc, Indianapolis	Ind
V-M Corp, Benton Harbor	Mich
Wilder Engineering Products, Chicago	Ill

AMPLIFIERS, A-F--REVERBERATION UNITS

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Altec Lansing Div LTV Ling Altec Inc, Anaheim	Cal
Amplifier Corp of America, Westbury	N Y
Audio Instrument Co Inc, Union City	N J
Automatic Radio Sales Inc, Melrose	Mass
Bauer Broadcast Div Granger Assoc, Palo Alto	Cal
Dowa Trading Co Ltd, Kobe	Japan
Electronic Homes Co, New York	N Y
Foster Electric Co Ltd, Tokyo	Japan
Gotham Audio Corp, New York	N Y
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Micro-Magna Electronics Corp, Cleveland	Ohio
Mura Corp, Great Neck	N Y
Perfectone Sound Labs, Allendale	NJ
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Rowe Industries Inc, Toledo	Ohio
Schober Organ Corp, New York	N Y
Shrader Sound Inc, Washington	D C
Stuart, Matthew & Co Inc, Bronx	NY
Wilder Engineering Products, Chicago	Ill

AMPLIFIERS--COHERENT

ITHACO INC, ITHACA	**N Y**
AIM Electronics Ltd, Cambridge	U K
Applied Microwave Lab, Inc, Andover	Mass
Brookdeal of America Inc, North Falmouth	Mass
Brower Labs Inc, Westboro	Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Ithaco Inc, Ithaca	N Y
Parzen Research Inc. Sub Ovitron Corp, Westbury	N Y
Perfectone Sound Labs, Allendale	NJ
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Teltronics Inc, Nashua	N H

AMPLIFIERS--COMPRESSOR

BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
ITHACO INC, ITHACA	**N Y**
MELCOR ELECTRONICS CORP, FARMINGDALE	**N Y**
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM	**MASS**
TELE-SIGNAL CORP, WOODBURY	**N Y**
Acoustronics Inc, Huntington	N Y
Aerocom, Miami	Fla
Altec Lansing Div LTV Ling Altec Inc, Anaheim	Cal
Amplifier Corp of America, Westbury	N Y
A V Electronics, Inc, Fresno	Cal
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Bauer Broadcast Div Granger Assoc, Palo Alto	Cal
Bayly Engineering Ltd, Ajax	Ontario
Bogen Communications Div Lear Siegler Inc Paramus	N J
Burr-Brown Research Corp, Tucson	Ariz
C C A Electronics Corp, Gloucester	NJ

Comdel Inc, Beverly	Mass
Dowa Trading Co Ltd, Kobe	Japan
Dranetz Engineering Labs Inc, Plainfield	N J
Ebauches SA Dept Oscilloquartz 2001 Neuchatel	Switz
Fabrication Labs Inc, Camino	Cal
Gates Radio Co, Quincy	Ill
Gotham Audio Corp, New York	N Y
Hamilton Electronics Corp, Chicago	Ill
Hybrid Systems Corp, Cambridge	Mass
Ithaco Inc, Ithaca	N Y
Kel Corp, Belmont	Mass
K L A Labs Inc, Detroit	Mich
Langevin Div, Scientific Ind, Inc, Santa Ana	Cal
Lear Siegler Inc, Santa Monica	Cal
Marti Electronics, Cleburne	Tex
Melcor Electronics Corp, Farmingdale	N Y
Midland International Corp, North Kansas City	Mo
Midwest Audio Corp, Chicago	Ill
Nelson-Hershfield Electronics Co, Phoenix	Ariz
Optical Electronics Inc, Tuscon	Ariz
Perfectone Sound Labs, Allendale	NJ
Perry Amplifier, Brookline	Mass
Philbrick/Nexus Research A Teledyne Co Dedham	Mass
Philips Electronics Industries Ltd, Toronto 17	Ont
Private Tele Communications Inc, Chicago	Ill
Quindar Electronics Inc, Springfield	NJ
Shrader Sound Inc, Washington	D C
Shure Brothers Inc, Evanston	Ill
Stancil-Hoffman Corp, Hollywood	Cal
Stelma Inc, Stamford	Conn
Stephens Electronics, Burbank	Cal
Tele-Signal Corp, Woodbury	N Y
Trepac Corp of America, Englewood	N J
Unholtz-Dickie Corp, Hamden	Conn
Universal Audio, North Hollywood	Cal
Vega Electronics Corp, Santa Clara	Cal
Webster Electric Co, Racine	Wisc
Westrex Div Litton Industries, Inc, Hollywood	Cal
Wilcox Electric Co Inc, Kansas City	Mo
Mayberry Electronics Co, Inglewood	Cal
Melcor Electronics Corp, Farmingdale	N Y
Monroe Electronics Inc, Middleport	N Y
M Ten Bosch, Inc, Pleasantville	N Y
Newport Labs Inc, Newport Beach	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Novatronics Inc, Pompano Beach	Fla
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nytron, Palo Alto	Cal
Optical Electronics Inc, Tuscon	Ariz
Pacific Data & Controls, Redwood City	Cal
Pastoriza Electronics Inc, Newton Upper Falls	Mass
Philbrick/Nexus Research A Teledyne Co Dedham	Mass
Potter Instrument Co, Inc, Plainview	N Y
Quantum Devices, Bergenfield	NJ
Radix Electronics Corp, Anaheim	Cal
Redcor Corp, Canoga Park	Cal
RO Associates Inc, Menlo Park	Cal
Roback Corp, Huntingdon Valley	Pa
Rosemount Plug-In Inc, Nashville	Tenn
Schlumberger, 92-Montrouge 32	France
Scientific Control Corp, Dallas	Tex
Scientific Data Systems Inc, El Segundo	Cal
Sedco Systems Inc, Farmingdale	N Y
Self-Organizing Systems Inc, Dallas	Tex
Solid State Electronics Corp, Sepulveda	Cal
Sunbeam Electronics, Fort Lauderdale	Fla
Systems Engineering Labs Inc, Ft Lauderdale	Fla
Systron Donner Corp, Concord	Cal
Varo Inc, Garland	Tex
Zeltex inc, Concord	Cal

AMPLIFIERS--COMPUTER SEE

ALSO AMPLIFIERS--OPERATIONAL

ANALOG DEVICES INC, CAMBRIDGE	**MASS**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS WOODSIDE	**NY**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL	**PA**
HEATH CO, BENTON HARBOR	**MICH**
INTRONICS INC, NEWTON	**MASS**
MELCOR ELECTRONICS CORP, FARMINGDALE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM	**MASS**
SYSTRON DONNER CORP, CONCORD	**CAL**
Adage Inc, Boston	Mass
American Astrionics Inc, Palo Alto	Cal
American Machine & Foundry Co Alexandria Div Alexandria	Va
Amtron Inc, Midlothian	Ill
Analog Devices Inc, Cambridge	Mass
Applied Devices Corp, College Point	n y
Applied Dynamics, Inc, Ann Arbor	Mich
Applied Electronics Corp of N J, Metuchen	N J
Argonaut Associates, Inc, Beaverton	Ore
Astrodata Inc, Anaheim	Cal
Atlantic Instruments & Electronics, Inc Watertown	Mass
Automated Specialties A Teledyne Co Charlottesville	Va
Automation Development Co, Culver City	Cal
Beckman Instruments Inc, Fullerton,	Cal
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bulova Watch Co Inc Elctns Div Servo Products Woodside	NY
Burr-Brown Research Corp, Tucson	Ariz
B & W Electronic Research Labs, Dallas	Tex
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill	Pa
Computer Dynamics Inc, Torrington	Conn
Continental Device Corp, Hawthorne	Cal
Control Technology Co Inc, Long Island City	N Y
Data Device Corp, Hicksville	N Y
Dayton Electronics Products Co, Dayton	Ohio
Diamond Repeater Co, Madison	N J
Dowa Trading Co Ltd, Kobe	Japan
Dynamics Instrumentation Co, Monterey Park	Cal
Dynamic System Electronics Corp, Tempe	Ariz
Electro Circuits Inc, Lowell	Mass
Electronic Associates Inc, West Long Branch	N J
Ensco Inc, Salt Lake City	Utah
Epsco Inc, Westwood	Mass
Fairlane Electronics, Inc, Long Valley	N J
Fenlow Electronics Ltd, Weybridge	England
General Devices Inc, Instrumentation Div Princeton	N J
Geo Space Corp, Houston	Tex
Glentek Inc, Santa Monica	Cal
GPS Instrument Co Inc, Newton	Mass
Hagan Computer Systems Div Westinghouse Pittsburgh	Pa
Hartman Systems Co Inc, Huntington Station	N Y
Heath Co, Benton Harbor	Mich
Hybrid Systems Corp, Cambridge	Mass
Incor Inc, Plainview	N Y
Industrial Control Co, Farmingdale	N Y
International Data Systems Inc, Dallas	Tex
Intronics Inc, Newton	Mass
Keithley Instruments Inc, Cleveland	Ohio
Laben S p A, Milan	Italy
Loral Electronic Systems, Div Loral Corp, New York	NY

AMPLIFIERS--D-C

ANALOG DEVICES INC, CAMBRIDGE	**MASS**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS WOODSIDE	**NY**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
CLEVITE CORP, BRUSH INSTRUMENTS DIV, CLEVELAND	**OHIO**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL	**PA**
CROWN INT'L RADIO & ELECTRONICS CORP, ELKHART IND	**ADV PG 20**
FLUKE MFG CO INC, JOHN, SEATTLE,	**WASH**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PG 7**
HEATH CO, BENTON HARBOR	**MICH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PG 8**
INTRONICS INC, NEWTON	**MASS**
ITHACO INC, ITHACA	**N Y**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MELCOR ELECTRONICS CORP, FARMINGDALE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM	**MASS**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
SYSTRON DONNER CORP, CONCORD	**CAL**
TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA	**N Y**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
Acromag Inc, Wixom	Mich
Adage Inc, Boston	Mass
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Aeroscience Electronics Inc, Atlanta	Ga
Aikow Shoji Kaisha Ltd, Osaka	Japan
AIM Electronics Ltd, Cambridge	U K
Airmec Instruments Ltd, Buckinghamshire	England
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
Alma Engineering Inc, San Diego	Cal
Alpine Geophysical Assoc Inc, Norwood	N J
Amark Corp, Plainview	N Y
Amelco Semiconductor, A Teledyne Co Mountain View	Cal
American Astrionics Inc, Palo Alto	Cal
American Electronic Controls Inc, Philadelphia	Pa
Analog Devices Inc, Cambridge	Mass
Antlab, Inc, Worthington	Ohio
Applied Devices Corp, College Point	n y
Applied Dynamics, Inc, Ann Arbor	Mich
Applied Electronics Corp of N J, Metuchen	N J
Argonaut Associates, Inc, Beaverton	Ore
Arvee Engineering Co, Torrance	Cal
Astrodata Inc, Anaheim	Cal
Atlantic Instruments & Electronics, Inc Watertown	Mass
Automation Development Co, Culver City	Cal
Avien, Inc, Woodside	N Y
Ballantine Laboratories, Inc, Boonton	N J
Bauer Broadcast Div Granger Assoc, Palo Alto	Cal
Bay Laboratories, Inc, Rocky River	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bioelectric Instruments Inc, Hastings-on-Hudson	N Y
Bruno-New York Industries Corp, New York	N Y
Bulova Watch Co Inc Elctns Div Servo Products Woodside	NY
Burr-Brown Research Corp, Tucson	Ariz
B & W Electronic Research Labs, Dallas	Tex
California Electronic Mfg Co Inc, Alamo	Cal
California Instruments Corp, San Diego	Cal

DC Amplifiers?

Try Bulova First!

CALL:

Ariz Tech-Ser Inc, 1805 E Indian School Rd Phoenix ... 602-265-3629
Cal El Com Sales Co, 3600 Motor Ave Los Angeles ... 213-870-4707
Fla Perrott Assoc, 1607 Forsyth Rd, Orlando ... 305-275-1132
Fla Perrott Assoc, Box 4532, Clearwater. 813-531-5513
Fla Perrott Assoc, Box 6277 West Palm Beach ... 305-967-1770

Ill Communications Eng, 7100 N Western Ave Chicago ... 312-R01-0548
Md Callas Electronics Inc, 6409 Frederick Ave Baltimore ... 301-744-7711
Mich Sheridan Assoc., 25625 Southfield Rd., Southfield ... 313-358-3333
Mass Aborn Labs Inc, 223 Crescent St Waltham ... 891-4850
Minn Wenco Sales Inc, 7728 Morgan Ave S Minneapolis ... 612-866-3639
Mo J C Mankus & Assoc, 400 Brooks La Hazelwood ... 314-PE1-4334
NY L-Tron Corp, 2-4 Fennell St, Skaneateles ... 315-685-6172
NY Comtronic Assoc, 1551 Franklin Ave Mineola ... 516-P11-8966
Ohio Sheridan Assoc., 10 Knollcrest Dr., Reading ... 513-761-5432
Pa Garrettson Co Inc, 92-14 Masland St Philadelphia ... H04-2275
Tex Tech-Ser Inc, 10210 Monroe Dr Dallas ... 214-358-2504
Can Canadian Micro Elctns, 1390 Raven Ave Ottawa, Ont ... 725-2332

BULOVA WATCH CO INC
SERVO PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

Crown

Leadership

PRESENTS...

Crown
DC 300

DC300

LAB STANDARD AMP

- 2 channels 300w ea 4 Ω
- ±0.5db 0 to 100,000Hz
- Typical HD 0.01%, IM 0.05%
- Signal to noise 100db
- Short and mismatch proof, stable with any load
- 7" high, 19" wide, 40 lbs.

Crown International
BOX 1000, DEPT. EBG-68
ELKHART, INDIANA 46514

MADE ONLY IN AMERICA

Century Electronics & Instruments Inc, Tulsa .... Okla
Chronetics Inc, Mount Vernon .... N Y
Cie De Signaux Et D'Entreprises Electriques
Paris 17eme .... France
Clavier Corp, Richmond Hill .... NY
Clevite Corp, Brush Instruments Div, Cleveland ...... Ohio
Clifton Div Litton Industries Litton Prec Prods Inc
Drexel Hill .... Pa
Cohu Electronics Inc, San Diego .... Cal
Component Technology Corp, Sunnyvale .... Cal
Computer Dynamics Inc, Torrington .... Conn
Condor Industrial Corp, West Chicago Ill
Conic Corp, San Diego .... Cal
Consolidated Electrodynamics Corp Sub Bell & Howell Co
Pasadena .... Cal
Control Technology Co Inc, Long Island City .... N Y
Crown Int'l Radio & Electronics Corp, Elkhart .... Ind
C S F-Cie Gen de Telegraphie Sans Fil
78 Versailles .... France
Daltronics Inc, Providence .... R I
Dana Laboratories Inc, Irvine .... Cal
Darcy Industries Inc, Behlman Div, Santa Monica ..... Cal
Data Device Corp, Hicksville .... N Y
Dayton Electronics Products Co, Dayton .... Ohio
Deltron, Inc, North Wales .... Pa
De-Tec-Tronic Corp, Chicago Ill
Doric Scientific Corp, San Diego .... Calif
Dorsett Electronics Inc, Tulsa .... Okla
Dowa Trading Co Ltd, Kobe .... Japan
Dynamics Instrumentation Co, Monterey Park .... Cal
Dynamic System Electronics Corp, Tempe .... Ariz
Ectron Corp, San Diego .... Cal
E G & G Inc, Systems Devel Div, Bedford .... Mass
Electro Development Corp, Lynnwood .... Wash
Electronic Modules Corp, Timonium .... Md
Endevco Corp, Pasadena .... Cal
Ensco Inc, Salt Lake City .... Utah
Epsco Inc, Westwood .... Mass
Esterline Angus Div Esterline Corp, Indianapolis ...... Ind
Fairchild Controls, Hicksville .... N Y
Fairchild Semiconductor Div Fairchild Cam & Inst Corp
Mountain View .... Cal
Fairlane Electronics, Inc, Long Valley .... N J
Fenlow Electronics Ltd, Weybridge .... England
Fluke Mfg Co Inc, John, Seattle .... Wash
Fujitsu Ltd, Tokyo .... Japan
General Devices Inc, Instrumentation Div
Princeton .... N J
General Electric Co, ECSO, Schenectady .... N Y
General Precision Systems Inc, Kearfott Gp
Little Falls .... N J
General Radio Co, West Concord .... Mass
Geo Space Corp, Houston .... Tex
Glentek Inc, Santa Monica .... Cal
Good Electronic Corp, Bedford .... Mass
GPS Instrument Co Inc, Newton .... Mass
Guildline Instruments Ltd, Smiths Falls .... Ont
Gulton Industries Inc, Metuchen .... N J
Gulton Industries Inc Engineered Magnetics Div
Hawthorne .... Cal
Hagan Computer Systems Div Westinghouse
Pittsburgh .... Pa
Hallmark Standards Inc, Mamaroneck .... N Y
Harrel Inc, East Norwalk .... Conn
Hartman Systems Co Inc, Huntington Station .... N Y
Harvard Apparatus Co Inc, Millis .... Mass
Heath Co, Benton Harbor .... Mich
Helix Research Assoc Inc, La Mesa .... Cal
Hewlett-Packard, Palo Alto .... Cal
Honeywell Test Instruments Div, Denver .... Colo
Hybrid Systems Corp, Cambridge .... Mass
Incor Inc, Plainview .... N Y
Industrial Control Co, Farmingdale .... N Y
Information Instruments, Inc, Ann Arbor .... Mich
Inland Controls Inc Sub Kollmorgen Corp
Brighton .... Mass
Instruments Inc, San Diego .... Cal
International Data Systems Inc, Dallas .... Tex
International Tel & Tel Corp Industrial Prods Div
San Fernando .... Cal
Intronics Inc, Newton .... Mass
Ithaco Inc, Ithaca .... N Y
Jordan Controls Inc, Milwaukee .... Wis
Julie Research Labs, Inc, New York .... N Y
Keithley Instruments Inc, Cleveland .... Ohio
Kelk Ltd, George, Don Mills .... Ont
Kollsman Motor Corp, Dublin .... Pa
Krohn-Hite Corp, Cambridge .... Mass
Laben S p A, Milan .... Italy
Landis & Gyr AG, Zug .... Switzerland
Lear Siegler Inc, Santa Monica .... Cal
Lear Siegler Inc, Cimron Div, San Diego .... Cal
Lear Siegler Inc, Electronic Instrumentation Div
Anaheim .... Cal
Leeds & Northrup Co, Philadelphia .... Pa
Ling Electronics Div LTV Altec Inc, Anaheim .... Cal
Loral Electronic Systems, Div Loral Corp, New York .... NY
Lundy Electronics & Systems Inc, Glen Head .... N Y
Malaker Corp, High Bridge .... N J
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Mayberry Electronics Co, Inglewood .... Cal
MB Electronics A Textron Co, New Haven .... Conn
McFadden Electronics Co, South Gate .... Cal
McKee-Pedersen Instruments, Danville .... Cal
Measurement Control Devices Inc, Philadelphia .... Pa
Measurement Systems Inc, Norwalk .... Conn
Medistor Instrument Co, Seattle .... Wash
Melcor Electronics Corp, Farmingdale .... N Y
Millen Mfg Co Inc, James, Malden .... Mass
Milletron, Inc, Pittsburgh .... Pa
Monroe Electronics Inc, Middleport .... N Y
Moog Inc, Industrial Div, East Aurora .... N Y
M Ten Bosch, Inc, Pleasantville .... N Y
Nash Controls Inc, Caldwell .... N J
Natel Engineering Co Inc, Van Nuys .... Cal
Neff Instrument Corp, Duarte .... Cal
Neptune Electronics Co, New York .... N Y
Newmarket Transistors Ltd
Newmarket, Suffolk .... England

Newport Labs Inc, Newport Beach .... Cal
Nichols Co Ltd, R H, Downsview .... Ont
Nihon Kohden Kogyo Co Ltd, Tokyo .... Japan
Nippon Electric Co Ltd, Tokyo .... Japan
Norbatrol Electronics Corp, Murrysville .... Pa
Northern Scientific Inc, Middleton .... Wis
North Hills Electronics Inc, Glen Cove .... N Y
Northrop Nortronics, Palos Verdes Peninsula .... Cal
Novatronics Inc, Pompano Beach .... Fla
Nuclear Enterprises Ltd, Edinburgh 11 .... Scotland
Nytron, Palo Alto .... Cal
Opamp Labs, Los Angeles .... Cal
Optical Electronics Inc, Tuscon .... Ariz
Optimation, Inc, Sun Valley .... Cal
Pacific Electro Dynamics Inc, Seattle .... Wash
Pastoriza Electronics Inc, Newton Upper Falls ...... Mass
Perfectone Sound Labs, Allendale .... NJ
Perry Amplifier, Brookline .... Mass
Philbrick/Nexus Research A Teledyne Co
Dedham .... Mass
Philco-Ford Corp, Washington .... D C
Philips Electronic Instruments, Test & Measuring Inst
Mount Vernon .... NY
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Photron Instrument Co, Cleveland .... Ohio
Plessey Airborne Corp, Hillside .... NJ
Power Control Corp, Pittsburgh .... Pa
Precision Mecanique Labinal, 93 Saint-Ouen ...... France
Quan-Tech Labs Inc, Whippany .... N J
Quantum Devices, Bergenfield .... NJ
Radix Electronics Corp, Anaheim .... Cal
Randam Electronics Inc, Cincinnati .... Ohio
Rawco Instruments Inc, Fort Worth .... Tex
RdF Corp, Hudson .... N H
Redcor Corp, Canoga Park .... Cal
RIL Electronics Inc, Southampton .... Pa
RO Associates Inc, Menlo Park .... Cal
Robicon Corp, Pittsburgh .... Pa
Rosemount Engineering Co, Minneapolis .... Minn
Rosemount Plug-In Inc, Nashville .... Tenn
Roveti Instruments, Annapolis .... Md
Rustrak Instrument Div Gulton Ind Inc, Manchester .... NH
San-Ei Instrument Co Ltd, Tokyo .... Japan
Schaevitz Engineering, Pennsauken .... N J
Schlumberger, 92-Montrouge 32 .... France
Scientific-Atlanta Inc, Atlanta .... Ga
Scientific Control Corp, Dallas .... Tex
Scientific Data Systems Inc, El Segundo .... Cal
Sedco Systems Inc, Farmingdale .... N Y
Solid State Electronics Corp, Sepulveda .... Cal
Spatron Inc, Alhambra .... Cal
Spencer-Kennedy Labs Inc, Boston .... Mass
Sprague Electric Co, North Adams .... Mass
Standard Industries, Buena Park .... Cal
Stelma Inc, Stamford .... Conn
Streeter-Amet, Grayslake Ill
Sunbeam Electronics, Fort Lauderdale .... Fla
Sweeney Mfg Co, B K, Denver .... Colo
Systems Engineering Labs Inc, Ft Lauderdale .... Fla
Systron Donner Corp, Concord .... Cal
Taber Instruments A Teledyne Co
North Tonawanda .... N Y
Takeda Riken Industry Co Ltd, Tokyo .... Japan
Taylor Instrument Cos, Rochester .... N Y
Techni-Rite Electronics Inc, Warwick .... R I
Telectro Systems Corp, Corona .... N Y
Tele-Dynamics Div, American Bosch Arma Corp
Philadelphia .... Pa
Teledyne Telemetry Co, Los Angeles .... Cal
TRW Systems Group, Redondo Beach .... Cal
Ultra Electronics Ltd, London, W 3 .... England
Union Carbide Electronics, Semiconductor Prods
Mountain View .... Cal
Vari Tech Co, Grand Rapids .... Mich
Varo Inc, Garland .... Tex
Vector Engineering Inc, Springfield .... N J
Versatek Industries Inc, Indianapolis .... Ind
Vidar Corp, Mountain View .... Cal
Virginia Electronics Co Inc, Falls Church .... Va
Vitro Labs Div Vitro Corp of America, W Orange ..... N J
Ward Leonard Electric Co, Mount Vernon .... N Y
Warner Electric Brake & Clutch Co, Beloit .... Wisc
Watesta Electronics Ltd, London-E 11 .... England
Westamp Inc, Santa Monica .... Cal
Weston Instruments Div Weston Instr Inc, Newark .... N J
Winsco Instruments & Controls Co Inc
Santa Monica .... Cal
Zeltex inc, Concord .... Cal

AMPLIFIERS, D-C--CHOPPER STABILIZED

ANALOG DEVICES INC, CAMBRIDGE .... MASS
BURR-BROWN RESEARCH CORP, TUCSON .... ARIZ
CLEVITE CORP, BRUSH INSTRUMENTS DIV, CLEVELAND ... OHIO
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC
DREXEL HILL .... PA
HEATH CO, BENTON HARBOR .... MICH
HEWLETT-PACKARD, PALO ALTO .... CAL
HONEYWELL TEST INSTRUMENTS DIV, DENVER
COLO .... ADV PG 8
ITHACO INC, ITHACA .... N Y
MELCOR ELECTRONICS CORP, FARMINGDALE .... N Y
MILGO ELECTRONIC CORP, MIAMI .... FLA
NORTH HILLS ELECTRONICS INC, GLEN COVE .... N Y
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO
DEDHAM .... MASS
SCIENTIFIC-ATLANTA INC, ATLANTA .... GA
SYSTRON DONNER CORP, CONCORD .... CAL
AB Atomenergi, 10072 Stockholm 43 .... Sweden
Adage Inc, Boston .... Mass
AIM Electronics Ltd, Cambridge .... U K
Airpax Electronics Inc, Cambridge Div, Cambridge .... Md
Airpax Electronics Inc Seminole Div
Fort Lauderdale .... Fla

American Astrionics Inc, Palo Alto .... Cal
Analog Devices Inc, Cambridge .... Mass
Antlab, Inc, Worthington .... Ohio
Applied Devices Corp, College Point .... n y
Applied Dynamics, Inc, Ann Arbor .... Mich
Astrodata Inc, Anaheim .... Cal
Avien, Inc, Woodside .... N Y
Beckman Instruments Intl SA,
1207 Geneva .... Switzerland
Bioelectric Instruments Inc, Hastings-on-Hudson ..... N Y
Burr-Brown Research Corp, Tucson .... Ariz
B & W Electronic Research Labs, Dallas .... Tex
California Instruments Corp, San Diego .... Cal
Cie De Signaux Et D'Entreprises Electriques
Paris 17eme .... France
Clevite Corp, Brush Instruments Div, Cleveland ...... Ohio
Clifton Div Litton Industries Litton Prec Prods Inc
Drexel Hill .... Pa
Cohu Electronics Inc, San Diego .... Cal
Compudyne Corp, Hatboro .... Pa
Computer Dynamics Inc, Torrington .... Conn
Continental Device Corp, Hawthorne .... Cal
Control Technology Co Inc, Long Island City .... N Y
Darcy Industries Inc, Behlman Div, Santa Monica ..... Cal
Data Device Corp, Hicksville .... N Y
Disa Elektronik A/S, Herlev .... Denmark
Doric Scientific Corp, San Diego .... Calif
Dowa Trading Co Ltd, Kobe .... Japan
Dynamics Instrumentation Co, Monterey Park .... Cal
Dynamic System Electronics Corp, Tempe .... Ariz
Ectron Corp, San Diego .... Cal
Endevco Corp, Pasadena .... Cal
Engineering Associates, Dayton .... Ohio
Fairchild Semiconductor Div Fairchild Cam & Inst Corp
Mountain View .... Cal
Fairlane Electronics, Inc, Long Valley .... N J
Fenlow Electronics Ltd, Weybridge .... England
General Devices Inc, Instrumentation Div
Princeton .... N J
Geo Space Corp, Houston .... Tex
Glentek Inc, Santa Monica .... Cal
Good Electronic Corp, Bedford .... Mass
GPS Instrument Co Inc, Newton .... Mass
Hagan Computer Systems Div Westinghouse
Pittsburgh .... Pa
Hartman Systems Co Inc, Huntington Station .... N Y
Heath Co, Benton Harbor .... Mich
Hewlett-Packard, Palo Alto .... Cal
Honeywell Test Instruments Div, Denver .... Colo
Hybrid Systems Corp, Cambridge .... Mass
Incor Inc, Plainview .... N Y
Industrial Control Co, Farmingdale .... N Y
International Data Systems Inc, Dallas .... Tex
Intertechnique, Plaisir, 78 .... France
Ithaco Inc, Ithaca .... N Y
Julie Research Labs, Inc, New York .... N Y
Keithley Instruments Inc, Cleveland .... Ohio
Kollsman Motor Corp, Dublin .... Pa
Laben S p A, Milan .... Italy
Lear Siegler Inc, Santa Monica .... Cal
Lear Siegler Inc, Cimron Div, San Diego .... Cal
Lear Siegler Inc, Electronic Instrumentation Div
Anaheim .... Cal
Leeds & Northrup Co, Philadelphia .... Pa
Mayberry Electronics Co, Inglewood .... Cal
McFadden Electronics Co, South Gate .... Cal
McKee-Pedersen Instruments, Danville .... Cal
Medistor Instrument Co, Seattle .... Wash
Melcor Electronics Corp, Farmingdale .... N Y
Milgo Electronic Corp, Miami .... Fla
Millivac Instruments Inc, Schenectady .... N Y
Moog Inc, Industrial Div, East Aurora .... N Y
Moseley Associates Inc, Goleta .... Cal
M Ten Bosch, Inc, Pleasantville .... N Y
Neff Instrument Corp, Duarte .... Cal
Norbatrol Electronics Corp, Murrysville .... Pa
North Hills Electronics Inc, Glen Cove .... N Y
Novatronics Inc, Pompano Beach .... Fla
Philbrick/Nexus Research A Teledyne Co
Dedham .... Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Photron Instrument Co, Cleveland .... Ohio
Plessey Airborne Corp, Hillside .... NJ
Power Control Corp, Pittsburgh .... Pa
Precision Mecanique Labinal, 93 Saint-Ouen ...... France
Preston Scientific, Inc, Anaheim .... Cal
Radix Electronics Corp, Anaheim .... Cal
Rawco Instruments Inc, Fort Worth .... Tex
Redcor Corp, Canoga Park .... Cal
Roveti Instruments, Annapolis .... Md
Scientific-Atlanta Inc, Atlanta .... Ga
Servo Development Corp, Hicksville .... N Y
Space Craft Inc, Huntsville .... Ala
Standard Industries, Buena Park .... Cal
Systems Engineering Labs Inc, Ft Lauderdale .... Fla
Systron Donner Corp, Concord .... Cal
Takeda Riken Industry Co Ltd, Tokyo .... Japan
Teledyne Telemetry Co, Los Angeles .... Cal
Union Carbide Electronics, Semiconductor Prods
Mountain View .... Cal
Vector Engineering Inc, Springfield .... N J
Zeltex inc, Concord .... Cal

AMPLIFIERS, D-C--INSTRUMENT

ACCURATE ELECTRONICS CORP, ELYRIA .... OHIO
ANALOG DEVICES INC, CAMBRIDGE .... MASS
AUTOMATION DEVELOPMENT CO, CULVER CITY .... CAL
BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS
WOODSIDE .... NY
BURR-BROWN RESEARCH CORP, TUCSON .... ARIZ
CLEVITE CORP, BRUSH INSTRUMENTS DIV, CLEVELAND ... OHIO
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC
DREXEL HILL .... PA
GENERAL ELECTRIC CO, ECSO, SCHENECTADY
N Y .... ADV PG 7

HEWLETT-PACKARD, PALO ALTO .... **CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO .... **ADV PGS 8**
INTRONICS INC, NEWTON .... **MASS**
ITHACO INC, ITHACA .... **N Y**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA .... **JAPAN**
NORTH HILLS ELECTRONICS INC, GLEN COVE .... **N Y**
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM .... **MASS**
SPENCER-KENNEDY LABS INC, BOSTON .... **MASS**
TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA .... **N Y**
Accurate Electronics Corp, Elyria .... Ohio
Acromag Inc, Wixom .... Mich
Adage Inc, Boston .... Mass
Aerometrics Div Aerojet-General Corp, San Ramon .... Cal
Aeroscience Electronics Inc, Atlanta .... Ga
Airpax Electronics Inc, Cambridge Div, Cambridge .... Md
Airpax Electronics Inc Seminole Div Fort Lauderdale .... Fla
Alpine Geophysical Assoc Inc, Norwood .... N J
Amark Corp, Plainview .... N Y
American Astrionics Inc, Palo Alto .... Cal
American Electronic Controls Inc, Philadelphia .... Pa
A & M Instruments Inc, Great Neck .... N Y
Analog Devices Inc, Cambridge .... Mass
Antlab, Inc, Worthington .... Ohio
Applied Control Co, Cedar Grove .... NJ
Applied Devices Corp, College Point .... n y
Applied Electronics Corp of N J, Metuchen .... N J
Argonaut Associates, Inc, Beaverton .... Ore
Astrodata Inc, Anaheim .... Cal
Audn Corp, Hamburg .... N Y
Automation Development Co, Culver City .... Cal
Ballantine Laboratories, Inc, Boonton .... N J
Bay Laboratories, Inc, Rocky River .... Ohio
Beckman Instruments Inc, Fullerton, ... Cal
Beckman Instruments Intl SA, 1207 Geneva .... Switzerland
Bioelectric Instruments Inc, Hastings-on-Hudson .... N Y
Bourns Inc Instrument Div, Riverside .... Cal
Bulova Watch Co Inc Elctns Div Servo Products Woodside .... NY
Burr-Brown Research Corp, Tucson .... Ariz
B & W Electronic Research Labs, Dallas .... Tex
California Electronic Mfg Co Inc, Alamo .... Cal
California Instruments Corp, San Diego .... Cal
C-E Electronics Inc, Glenside .... Pa
Celtic Industries Inc, Van Nuys .... Cal
Century Electronics & Instruments Inc, Tulsa .... Okla
Chronetics Inc, Mount Vernon .... N Y
Cie De Signaux Et D'Entreprises Electriques Paris 17eme .... France
Clevite Corp, Brush Instruments Div, Cleveland .... Ohio
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill .... Pa
Cohu Electronics Inc, San Diego .... Cal
Component Technology Corp, Sunnyvale .... Cal
Computer Dynamics Inc, Torrington .... Conn
Condor Industrial Corp, West Chicago Ill
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena .... Cal
Control Technology Co Inc, Long Island City .... N Y
Dana Laboratories Inc, Irvine .... Cal
Darcy Industries Inc, Behlman Div, Santa Monica .... Cal
Data-Control Systems Inc, Danbury .... Conn
Data Device Corp, Hicksville .... N Y
Datum Inc, Anaheim .... Cal
De-Tec-Tronic Corp, Chicago Ill
Don Bosco Electronics Inc, Hanover .... N J
Doric Scientific Corp, San Diego .... Calif
Dorsett Electronics Inc, Tulsa .... Okla
Dowa Trading Co Ltd, Kobe .... Japan
Dynalectron Corp Aerospace Prods Div San Leandro .... Cal
Dynamics Instrumentation Co, Monterey Park .... Cal
Dynamic System Electronics Corp, Tempe .... Ariz
Ectron Corp, San Diego .... Cal
Electro Development Corp, Lynnwood .... Wash
Electronic Modules Corp, Timonium .... Md
Endevco Corp, Pasadena .... Cal
Epsco Inc, Westwood .... Mass
Esterline Angus Div Esterline Corp, Indianapolis .... Ind
Fairchild Controls, Hicksville .... N Y
Fairlane Electronics, Inc, Long Valley .... N J
Fenlow Electronics Ltd, Weybridge .... England
General Devices Inc, Instrumentation Div Princeton .... N J
General Electric Co, ECSO, Schenectady .... N Y
Genisco Technology Corp, Compton .... Cal
Glentek Inc, Santa Monica .... Cal
Good Electronic Corp, Bedford .... Mass
GPS Instrument Co Inc, Newton .... Mass
Grace Electronics Inc, Cleveland .... Ohio
Gulton Industries Inc, Metuchen .... N J
Hagan Computer Systems Div Westinghouse Pittsburgh .... Pa
Hallmark Standards Inc, Mamaroneck .... N Y
Hewlett-Packard, Palo Alto .... Cal
Honeywell Industrial Div, Fort Washington .... Pa
Honeywell Test Instruments Div, Denver .... Colo
Hybrid Systems Corp, Cambridge .... Mass
Incor Inc, Plainview .... N Y
Industrial Control Co, Farmingdale .... N Y
Industrial Electronetics Corp, Satellite Beach .... Fla
Instruments Inc, San Diego .... Cal
International Data Systems Inc, Dallas .... Tex
Intronics Inc, Newton .... Mass
Ithaco Inc, Ithaca .... N Y
Julie Research Labs, Inc, New York .... N Y
Keithley Instruments Inc, Cleveland .... Ohio
Kokuyo Electric Co Ltd, Tokyo .... Japan
Krohn-Hite Corp, Cambridge .... Mass
Laben S p A, Milan .... Italy
Lear Siegler Inc, Santa Monica .... Cal
Lear Siegler Inc, Cimron Div, San Diego .... Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim .... Cal
Lear Siegler Inc, Instrument Div, Grand Rapids .... Mich
Leeds & Northrup Co, Philadelphia .... Pa
Loral Electronic Systems, Div Loral Corp, New York .... NY
Lundy Electronics & Systems Inc, Glen Head .... N Y
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Mayberry Electronics Co, Inglewood .... Cal
McKee-Pedersen Instruments, Danville .... Cal
Measurement Control Devices Inc, Philadelphia .... Pa
Medistor Instrument Co, Seattle .... Wash
Milletron, Inc, Pittsburgh .... Pa
Monroe Electronics Inc, Middleport .... N Y
M Ten Bosch, Inc, Pleasantville .... N Y
Natel Engineering Co Inc, Van Nuys .... Cal
Neff Instrument Corp, Duarte .... Cal
Newport Labs Inc, Newport Beach .... Cal
Nihon Kohden Kogyo Co Ltd, Tokyo .... Japan
Norbatrol Electronics Corp, Murrysville .... Pa
North Hills Electronics Inc, Glen Cove .... N Y
Novatronics Inc, Pompano Beach .... Fla
Nuclide Corp, AGV Div, Acton .... Mass
Nytron, Palo Alto .... Cal
Perfectone Sound Labs, Allendale .... NJ
Perry Amplifier, Brookline .... Mass
Philbrick/Nexus Research A Teledyne Co Dedham .... Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Photron Instrument Co, Cleveland .... Ohio
Plessey Airborne Corp, Hillside .... NJ
Preston Scientific, Inc, Anaheim .... Cal
Quan-Tech Labs Inc, Whippany .... N J
Quantum Devices, Bergenfield .... NJ
Radix Electronics Corp, Anaheim .... Cal
Randam Electronics Inc, Cincinnati .... Ohio
Rawco Instruments Inc, Fort Worth .... Tex
Redcor Corp, Canoga Park .... Cal
RIL Electronics Inc, Southampton .... Pa
RO Associates Inc, Menlo Park .... Cal
Rosemount Plug-In Inc, Nashville .... Tenn
Rustrak Instrument Div Gulton Ind Inc, Manchester .... NH
San-Ei Instrument Co Ltd, Tokyo .... Japan
Scientific Columbus Inc, Columbus .... Ohio
Scientific Instruments Co, Chatsworth .... Cal
Sedco Systems Inc, Farmingdale .... N Y
Sonex Inc, Philadelphia .... Pa
Space Craft Inc, Huntsville .... Ala
Spatron Inc, Alhambra .... Cal
Spencer-Kennedy Labs Inc, Boston .... Mass
Standard Industries, Buena Park .... Cal
Statham Instruments Inc, Los Angeles .... Cal
Sunbeam Electronics, Fort Lauderdale .... Fla
Systems Engineering Labs Inc, Ft Lauderdale .... Fla
Taber Instruments A Teledyne Co North Tonawanda .... N Y
Technical Products Co of L A, Los Angeles .... Cal
Techni-Rite Electronics Inc, Warwick .... R I
Teledyne Telemetry Co, Los Angeles .... Cal
Texas Instruments Incorporated, Dallas .... Tex
United Detector Technology Inc, Santa Monica .... Cal
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio
Ward Leonard Electric Co, Mount Vernon .... N Y
Winsco Instruments & Controls Co Inc Santa Monica .... Cal
Woodward Machine Inc, Elctns Div, Detroit .... Mich
Zeltex inc, Concord .... Cal

AMPLIFIERS, D-C--MAGNETIC

MAGNETICS INC, BUTLER .... **PA**
NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
TORWICO ELECTRONICS, INC, LAKEWOOD .... **N J**
TRANSMAGNETICS INC, FLUSHING .... **N Y**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK .... **N Y**
Acme Electric Corp, Cuba .... N Y
Acromag Inc, Wixom .... Mich
ADC Electronics, Inc, Harbor City .... Cal
ADC Products, Minneapolis .... Minn
Airpax Electronics Inc, Cambridge Div, Cambridge .... Md
Airpax Electronics Inc Seminole Div Fort Lauderdale .... Fla
Arnold Magnetics Corp, Los Angeles .... Cal
Ballastran Corp, Fort Wayne .... Ind
Bogue Electric Mfg Co, Paterson .... N J
Bullock Magnetics Corp, Pomona .... Cal
Bush Transformer Div, Gladding-Keystone Corp Oneonta .... NY
B & W Electronic Research Labs, Dallas .... Tex
Clark Control Div, A O Smith Corp, Cleveland .... Ohio
Coil Co of America Inc, Northvale .... N J
Conductron Corp, Ann Arbor .... Mich
Controlomag Labs, Roslyn .... Pa
Daltronics Inc, Providence .... R I
Darcy Industries Inc, Behlman Div, Santa Monica .... Cal
Decitron Electronics Corp, Brooklyn .... N Y
Dorsett Electronics Inc, Tulsa .... Okla
Dowa Trading Co Ltd, Kobe .... Japan
Electronic Transformer Corp, Paterson .... N J
Electro-Pacific Inc, Goleta .... Cal
ElectroSyn Technology Labs, Inc, Canton .... Mass
Esterline Angus Div Esterline Corp, Indianapolis .... Ind
Fisher Engineering Inc, Huntington .... Ind
Forbes & Wagner Inc, Silver Creek .... N Y
General Devices Inc, Instrumentation Div Princeton .... N J
General Magnetics Inc, Bloomfield .... N J
Gladding Corp, South Otselic .... N Y
Hagan Computer Systems Div Westinghouse Pittsburgh .... Pa
Harrel Inc, East Norwalk .... Conn
Industrial Control Co, Farmingdale .... N Y
Instruments Inc, San Diego .... Cal
La Telemecanique Electrique, 92 Rueil .... France
Leeds & Northrup Co, Philadelphia .... Pa
Magnetics Inc, Butler .... Pa
Marin Controls Co, Belmont .... Cal
Nippon Electric Co Ltd, Tokyo .... Japan
Norbatrol Electronics Corp, Murrysville .... Pa
PCA Electronics Inc, Sepulveda .... Cal
Polyphase Instrument Co, Bridgeport .... Pa
Power Control Corp, Pittsburgh .... Pa
Qutronic Transformer Corp, Oneonta .... N Y
RIL Electronics Inc, Southampton .... Pa
Robicon Corp, Pittsburgh .... Pa
San-Ei Instrument Co Ltd, Tokyo .... Japan
SBD Systems Inc, Farmingdale .... N Y
Scott Electronics Corp, Orlando .... Fla
Sigma Instruments Inc, Braintree .... Mass
S K G Associates Inc, Boston .... Mass
Spatron Inc, Alhambra .... Cal
Sprague Electric Co, North Adams .... Mass
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo .... Japan
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn .... N Y
Telectro Systems Corp, Corona .... N Y
Torelco Inc, Irvington .... N J
Toroid-Trans Electronics Co Inc, Danbury .... Conn
Torwico Electronics, Inc, Lakewood .... N J
Transformer Engineers, San Gabriel .... Cal
Transformers Inc, Vestal .... N Y
Transmagnetics Inc, Flushing .... N Y
Triad Transformer Corp, Venice .... Cal
Ultra Electronics Ltd, London, W 3 .... England
United Transformer Co Div TRW Inc, New York .... N Y
Varo Inc, Garland .... Tex
Ward Leonard Electric Co, Mount Vernon .... N Y

AMPLIFIERS, D-C--NARROWBAND

ANALOG DEVICES INC, CAMBRIDGE .... **MASS**
BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS WOODSIDE .... **NY**
BURR-BROWN RESEARCH CORP, TUCSON .... **ARIZ**
HEWLETT-PACKARD, PALO ALTO .... **CAL**
MELCOR ELECTRONICS CORP, FARMINGDALE .... **N Y**
NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
NORTH HILLS ELECTRONICS INC, GLEN COVE .... **N Y**
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM .... **MASS**
TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA .... **N Y**
TEKTRONIX INC, BEAVERTON .... **ORE**
Airpax Electronics Inc, Cambridge Div, Cambridge .... Md
Airpax Electronics Inc Seminole Div Fort Lauderdale .... Fla
Alpine Geophysical Assoc Inc, Norwood .... N J
Analog Devices Inc, Cambridge .... Mass
Applied Devices Corp, College Point .... n y
Argonaut Associates, Inc, Beaverton .... Ore
Astrodata Inc, Anaheim .... Cal
Bay Laboratories, Inc, Rocky River .... Ohio
Beckman Instruments Intl SA, 1207 Geneva .... Switzerland
Bulova Watch Co Inc Elctns Div Servo Products Woodside .... NY
Burr-Brown Research Corp, Tucson .... Ariz
B & W Electronic Research Labs, Dallas .... Tex
Chesapeake Instrument Corp, Shadyside .... Md
Cie De Signaux Et D'Entreprises Electriques Paris 17eme .... France
Cohu Electronics Inc, San Diego .... Cal
Coldspring Instrument Corp, Huntington .... N Y
Component Technology Corp, Sunnyvale .... Cal
Computer Dynamics Inc, Torrington .... Conn
Condor Industrial Corp, West Chicago Ill
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena .... Cal
Dana Laboratories Inc, Irvine .... Cal
Data Device Corp, Hicksville .... N Y
Dayton Electronics Products Co, Dayton .... Ohio
Dorsett Electronics Inc, Tulsa .... Okla
Dowa Trading Co Ltd, Kobe .... Japan
Dynamics Instrumentation Co, Monterey Park .... Cal
Dynamic System Electronics Corp, Tempe .... Ariz
Ectron Corp, San Diego .... Cal
Electronic Modules Corp, Timonium .... Md
Endevco Corp, Pasadena .... Cal
Fairchild Controls, Hicksville .... N Y
General Devices Inc, Instrumentation Div Princeton .... N J
General Precision Systems Inc, Kearfott Gp Little Falls .... N J
Gladding Corp, South Otselic .... N Y
Glentek Inc, Santa Monica .... Cal
Hagan Computer Systems Div Westinghouse Pittsburgh .... Pa
Helix Research Assoc Inc, La Mesa .... Cal
Hewlett-Packard, Palo Alto .... Cal
Incor Inc, Plainview .... N Y
Industrial Control Co, Farmingdale .... N Y
Instrumentation Lab Inc, Watertown .... Mass
International Data Systems Inc, Dallas .... Tex
Julie Research Labs, Inc, New York .... N Y
Lear Siegler Inc, Cimron Div, San Diego .... Cal
Loral Electronic Systems, Div Loral Corp, New York .... NY
Mayberry Electronics Co, Inglewood .... Cal
Melcor Electronics Corp, Farmingdale .... N Y
Micro State Electronics Oper Raytheon Co Murray Hill .... N J
Millen Mfg Co Inc, James, Malden .... Mass
Natel Engineering Co Inc, Van Nuys .... Cal
Neff Instrument Corp, Duarte .... Cal
Neptune Electronics Co, New York .... N Y
Newport Labs Inc, Newport Beach .... Cal
Nihon Kohden Kogyo Co Ltd, Tokyo .... Japan
Nippon Electric Co Ltd, Tokyo .... Japan
North Hills Electronics Inc, Glen Cove .... N Y
Novatronics Inc, Pompano Beach .... Fla
Nytron, Palo Alto .... Cal
Perfectone Sound Labs, Allendale .... NJ
Perry Amplifier, Brookline .... Mass
Philbrick/Nexus Research A Teledyne Co Dedham .... Mass
Philco-Ford Corp, Washington .... D C
Plessey Airborne Corp, Hillside .... NJ

Power Control Corp, Pittsburgh	Pa
Redcor Corp, Canoga Park	Cal
RO Associates Inc, Menlo Park	Cal
Space Craft Inc, Huntsville	Ala
Taber Instruments A Teledyne Co North Tonawanda	N Y
Tektronix Inc, Beaverton	Ore
Vector Engineering Inc, Springfield	N J
Vega Precision Labs, Vienna	Va

AMPLIFIERS, D-C--WIDEBAND

ANALOG DEVICES INC, CAMBRIDGE	**MASS**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
CROWN INT'L RADIO & ELECTRONICS CORP, ELKHART	**IND**
ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK	**KAN**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
INTRONICS INC, NEWTON	**MASS**
ITHACO INC, ITHACA	**N Y**
KINELOGIC CORP, PASADENA	**CAL**
MELCOR ELECTRONICS CORP, FARMINGDALE	**N Y**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM	**MASS**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
SYSTRON DONNER CORP, CONCORD	**CAL**
TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA	**N Y**
TEKTRONIX INC, BEAVERTON	**ORE**
Adage Inc, Boston	Mass
Aeromarine Electronics, Inc, San Diego	Cal
Aeroscience Electronics Inc, Atlanta	Ga
Alma Engineering Inc, San Diego	Cal
Alpine Geophysical Assoc Inc, Norwood	N J
Amelco Semiconductor, A Teledyne Co Mountain View	Cal
American Astrionics Inc, Palo Alto	Cal
Amtron Inc, Midlothian	Ill
Analog Devices Inc, Cambridge	Mass
Applied Devices Corp, College Point	n y
Applied Dynamics, Inc, Ann Arbor	Mich
Applied Electronics Corp of N J, Metuchen	N J
Argonaut Associates, Inc, Beaverton	Ore
Astrodata Inc, Anaheim	Cal
Atlantic Instruments & Electronics, Inc Watertown	Mass
Bay Laboratories, Inc, Rocky River	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bioelectric Instruments Inc, Hastings-on-Hudson	N Y
Burns & Towne, Inc, Malden	Mass
Burr-Brown Research Corp, Tucson	Ariz
B & W Electronic Research Labs, Dallas	Tex
California Instruments Corp, San Diego	Cal
Century Electronics & Instruments Inc, Tulsa	Okla
Chesapeake Instrument Corp, Shadyside	Md
Chronetics Inc, Mount Vernon	N Y
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Cohu Electronics Inc, San Diego	Cal
Component Technology Corp, Sunnyvale	Cal
Computer Dynamics Inc, Torrington	Conn
Conductron Corp, Ann Arbor	Mich
Conic Corp, San Diego	Cal
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Controlomag Labs, Roslyn	Pa
Control Technology Co Inc, Long Island City	N Y
Crown Int'l Radio & Electronics Corp, Elkhart	Ind
Dana Laboratories Inc, Irvine	Cal
Darcy Industries Inc, Behlman Div, Santa Monica	Cal
Data Device Corp, Hicksville	N Y
Dayton Electronics Products Co, Dayton	Ohio
De-Tec-Tronic Corp, Chicago	Ill
Doric Scientific Corp, San Diego	Calif
Dorsett Electronics Inc, Tulsa	Okla
Dowa Trading Co Ltd, Kobe	Japan
Dynalectron Corp Aerospace Prods Div San Leandro	Cal
Dynamics Instrumentation Co, Monterey Park	Cal
Dynamic System Electronics Corp, Tempe	Ariz
Ectron Corp, San Diego	Cal
E F Assoc Inc, Scotch Plains	N J
E G & G Inc, Systems Devel Div, Bedford	Mass
Electronic Research co, A Textron Co Overland Park	Kan
Epsco Inc, Westwood	Mass
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Fairlane Electronics, Inc, Long Valley	N J
General Devices Inc, Instrumentation Div Princeton	N J
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Gladding Corp, South Otselic	N Y
Glentek Inc, Santa Monica	Cal
Good Electronic Corp, Bedford	Mass
GPS Instrument Co Inc, Newton	Mass
Gralex Industries Inc, Copiague	N Y
Hagan Computer Systems Div Westinghouse Pittsburgh	Pa
Hewlett-Packard, Palo Alto	Cal
Honeywell Test Instruments Div, Denver	Colo
Hybrid Systems Corp, Cambridge	Mass
Incor Inc, Plainview	N Y
Industrial Control Co, Farmingdale	N Y
Inland Controls Inc Sub Kollmorgen Corp Brighton	Mass
Instrumentation Lab Inc, Watertown	Mass
Instruments Inc, San Diego	Cal
International Data Systems Inc, Dallas	Tex
Intronics Inc, Newton	Mass
Ithaco Inc, Ithaca	N Y
Iwatsu Electric Co Ltd, Tokyo	Japan
Julie Research Labs, Inc, New York	N Y
Keithley Instruments Inc, Cleveland	Ohio
Kinelogic Corp, Pasadena	Cal
Krohn-Hite Corp, Cambridge	Mass
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div , Anaheim	Cal
LeCroy Research Systems Corp, West Nyack	N Y
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
Link Group Gen Precision Sys Inc, Binghamton	N Y
Loral Electronic Systems, Div Loral Corp, New York	NY
Massa Div Dynamics Corp of America, Hingham	Mass
Mayberry Electronics Co, Inglewood	Cal
McKee-Pedersen Instruments, Danville	Cal
Measurement Control Devices Inc, Philadelphia	Pa
Melcor Electronics Corp, Farmingdale	N Y
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Milgo Electronic Corp, Miami	Fla
Millen Mfg Co Inc, James, Malden	Mass
Monroe Electronics Inc, Middleport	N Y
Neff Instrument Corp, Duarte	Cal
Neptune Electronics Co, New York	N Y
Newport Labs Inc, Newport Beach	Cal
Nippon Electric Co Ltd, Tokyo	Japan
North Hills Electronics Inc, Glen Cove	N Y
Novatronics Inc, Pompano Beach	Fla
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nytron, Palo Alto	Cal
Optical Electronics Inc, Tuscon	Ariz
Optimation, Inc, Sun Valley	Cal
Pastoriza Electronics Inc, Newton Upper Falls	Mass
Perfectone Sound Labs, Allendale	NJ
Perry Amplifier, Brookline	Mass
Philbrick/Nexus Research A Teledyne Co Dedham	Mass
Philco-Ford Corp, Washington	D C
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Photron Instrument Co, Cleveland	Ohio
Plessey Airborne Corp, Hillside	NJ
Power Control Corp, Pittsburgh	Pa
Preston Scientific, Inc, Anaheim	Cal
Quan-Tech Labs Inc, Whippany	N J
Raytheon Co, Components Div, Semiconductor Oper Mountain View	Cal
Redcor Corp, Canoga Park	Cal
R F S Engineering Co, Philadelphia	Pa
Riker Video Div, Hauppauge	N Y
RO Associates Inc, Menlo Park	Cal
Roveti Instruments, Annapolis	Md
Rustrak Instrument Div Gulton Ind Inc, Manchester	NH
Schaevitz Engineering, Pennsauken	N J
Scientific Data Systems Inc, El Segundo	Cal
Solid State Radiations Inc, Los Angeles	Cal
Space Craft Inc, Huntsville	Ala
Spencer-Kennedy Labs Inc, Boston	Mass
Systems Engineering Labs Inc, Ft Lauderdale	Fla
Systron Donner Corp, Concord	Cal
Taber Instruments A Teledyne Co North Tonawanda	N Y
Taffet Electronics Inc, Woodside	N Y
Takeda Riken Industry Co Ltd, Tokyo	Japan
Tektronix Inc, Beaverton	Ore
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Teledyne Telemetry Co, Los Angeles	Cal
Union Carbide Electronics, Semiconductor Prods Mountain View	Cal
Vega Precision Labs, Vienna	Va
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh	Pa
Zeltex inc, Concord	Cal

ACCUVOLT

BESPONDER

CINDERELLA

If you're confused over product trade names, locate the source easily in EBG's Trade Name Listing in the back of the green section.

AMPLIFIERS--DECADE SEE AMPLIFIERS--INSTRUMENTATION

AMPLIFIERS--DIFFERENTIAL SEE AMPLIFIERS--INSTRUMENTATION

AMPLIFIERS--DISTRIBUTED

HEWLETT-PACKARD, PALO ALTO	**CAL**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
SPENCER-KENNEDY LABS INC, BOSTON, MASS	**ADV PG 303**
Aerospace Research, Inc, Boston	Mass
American Astrionics Inc, Palo Alto	Cal
Avantek Inc, Santa Clara	Cal
Blonder-Tongue Labs Inc, Newark	N J
Broadcast Electronics Inc, Silver Spring	Md
C-Cor Electronics Inc, State College	Pa
Cober Electronics Inc, Stamford	Conn
Conductron Corp, Ann Arbor	Mich
Cooke Engineering Co, Alexandria	Va
Daltronics Inc, Providence	R I
Dowa Trading Co Ltd, Kobe	Japan
Frequency Electronics Inc, New Hyde Park	N Y
General Devices Inc, Instrumentation Div Princeton	N J
General Instrument Corp Radio Receptor Div Hicksville	N Y
Granger Associates, Palo Alto	Cal
Hewlett-Packard, Palo Alto	Cal
Instruments for Industry Inc, Farmingdale	N Y
Jerrold Electronics Corp, Philadelphia	Pa
Marconi Div, English Electric Corp, New York	N Y
Matrix Corp, Beech Grove	Ind
Microwave/Systems Inc, East Syracuse	N Y
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Philco-Ford Corp, Washington	D C
Private Tele Communications Inc, Chicago	Ill
Spencer-Kennedy Labs Inc, Boston	Mass
Squires-Sanders Inc, Liberty Corner	N J
Takeda Riken Industry Co Ltd, Tokyo	Japan
Telemet Co, Video Prods & Airborne Telemetry Amityville	N Y
TRW Systems Group, Redondo Beach	Cal
Vikoa Inc, Hoboken	N J

EBG — the industry's store.

Your marketplace for products

AMPLIFIERS--FLUID

GAGNE ASSOCIATES INC, BINGHAMTON	**N Y**
Corning Glass Works, Corning	N Y
Dowa Trading Co Ltd, Kobe	Japan
Gagne Associates Inc, Binghamton	N Y
Sovcor Electronique, Le Vesinet 78	France

AMPLIFIERS--GALVANOMETER

BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
MIDWESTERN INSTRUMENTS INC, DIV TELEX CORP TULSA	**OKLA**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
A & M Instruments Inc, Great Neck	N Y
Astrodata Inc, Anaheim	Cal
Bay Laboratories, Inc, Rocky River	Ohio
Burr-Brown Research Corp, Tucson	Ariz
California Instruments Corp, San Diego	Cal
Century Electronics & Instruments Inc, Tulsa	Okla
Cohu Electronics Inc, San Diego	Cal
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Data Device Corp, Hicksville	N Y
Doric Scientific Corp, San Diego	Calif
Dowa Trading Co Ltd, Kobe	Japan
Endevco Corp, Pasadena	Cal
Fenlow Electronics Ltd, Weybridge	England
Guildline Instruments Ltd, Smiths Falls	Ont
Honeywell Test Instruments Div, Denver	Colo
Incor Inc, Plainview	N Y
Industrial Electronetics Corp, Satellite Beach	Fla
Kistler Instrument Corp, Clarence	N Y
Kokuyo Electric Co Ltd, Tokyo	Japan
Midwestern Instruments Inc, Div Telex Corp Tulsa	Okla
Newport Labs Inc, Newport Beach	Cal
North Hills Electronics Inc, Glen Cove	N Y
Nytron, Palo Alto	Cal
Photron Instrument Co, Cleveland	Ohio
Plessey Airborne Corp, Hillside	NJ
Unholtz-Dickie Corp, Hamden	Conn

AMPLIFIERS, I-F--LINEAR

ANDERSEN LABORATORIES, INC, BLOOMFIELD	**CONN**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
LEL DIV VARIAN ASSOCIATES, COPIAGUE, N Y	**ADV PG 24**
MICROSONICS INC, WEYMOUTH	**MASS**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
Aerospace Research, Inc, Boston	Mass
Aertech, Sunnyvale	Cal
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Amelco Semiconductor, A Teledyne Co Mountain View	Cal
American Astrionics Inc, Palo Alto	Cal
Andersen Laboratories, Inc, Bloomfield	Conn
Applied Cybernetics Systems AMF, Alexandria	Va
Applied Devices Corp, College Point	n y
Applied Research, Inc, Port Washington	N Y
Autronics Corp, Pasadena	Cal
Avantek Inc, Santa Clara	Cal
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Berkeley Nucleonics Corp, Berkeley	Cal
C-Cor Electronics Inc, State College	Pa
Comdel Inc, Beverly	Mass
Communication Electronics Inc, Rockville	Md
Dayton Electronics Products Co, Dayton	Ohio
Defense Electronics Inc, Rockville	Md
Don Bosco Electronics Inc, Hanover	N J
Dowa Trading Co Ltd, Kobe	Japan
Dynalectron Corp Aerospace Prods Div San Leandro	Cal
E & M Labs, North Hollywood	Cal
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Frequency Engineering Labs, Farmingdale	N J
General Devices Inc, Instrumentation Div Princeton	N J
General Electric Co, ECSO, Schenectady	N Y
General Instrument Corp Radio Receptor Div Hicksville	N Y
International Microwave Corp, Cos Cob	Conn
Kay Electric Co, Pine Brook	N J
Lel Div Varian Associates, Copiague	N Y
Micronetics Div Teledyne Systems Co, San Diego	Cal
Microsonics Inc, Weymouth	Mass
Microwave Products Group Div C A S Inc Carle Place	N Y
Microwave/Systems Inc, East Syracuse	N Y
Mini-Circuits Lab, New York	N Y
Neptune Electronics Co, New York	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Optimax Inc, Ambler	Pa
Perry Amplifier, Brookline	Mass
Philco-Ford Corp, Washington	D C
Radio Engineering Labs, Div DCA, Long Island City	N Y
RF Amplifier Co, Lake Grove	N Y
R H G Electronics Lab Inc, Farmingdale	N Y
Sedco Systems Inc, Farmingdale	N Y
Space Craft Inc, Huntsville	Ala
Spacekom Inc, Goleta	Cal
Sprague Electric Co, North Adams	Mass
Squires-Sanders Inc, Liberty Corner	N J
Sweep Systems Inc, Indianapolis	Ind
Topping Electronics Ltd, Toronto 17	Ont
Varian, Palo Alto	Cal
Varo Inc, Garland	Tex
Vega Precision Labs, Vienna	Va
Virginia Electronics Co Inc, Falls Church	Va
Wilcox Electric Co Inc, Kansas City	Mo

AMPLIFIERS, I-F--NARROWBAND

ANDERSEN LABORATORIES, INC, BLOOMFIELD	**CONN**
LEL DIV VARIAN ASSOCIATES, COPIAGUE	**N Y**
MICROSONICS INC, WEYMOUTH	**MASS**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
Aerospace Research, Inc, Boston	Mass
Aertech, Sunnyvale	Cal
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
American Astrionics Inc, Palo Alto	Cal
Andersen Laboratories, Inc, Bloomfield	Conn
Applied Devices Corp, College Point	n y
Applied Research, Inc, Port Washington	N Y
Automatic Radio Sales Inc, Melrose	Mass
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
B F Electronics, Solana Beach	Cal
C-Cor Electronics Inc, State College	Pa
Comdel Inc, Beverly	Mass
Communication Electronics Inc, Rockville	Md
Dayton Electronics Products Co, Dayton	Ohio
Decitron Electronics Corp, Brooklyn	N Y
Defense Electronics Inc, Rockville	Md
Dowa Trading Co Ltd, Kobe	Japan
E & M Labs, North Hollywood	Cal
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
General Devices Inc, Instrumentation Div Princeton	N J
General Radio Co, West Concord	Mass
Keithley Instruments Inc, Cleveland	Ohio
Lel Div Varian Associates, Copiague	N Y
Loral Electronic Systems, Div Loral Corp, New York	NY
Micro Communications Co, Denver	Colo
Micronetics Div Teledyne Systems Co, San Diego	Cal
Microsonics Inc, Weymouth	Mass
Microwave Associates Inc, Burlington	Mass
Microwave Products Group Div C A S Inc Carle Place	N Y
Microwave/Systems Inc, East Syracuse	N Y
Mini-Circuits Lab, New York	N Y
Neptune Electronics Co, New York	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Optimax Inc, Ambler	Pa
Perry Amplifier, Brookline	Mass
Philco-Ford Corp, Washington	D C
Radio Engineering Labs, Div DCA, Long Island City	N Y
Raven Industries Inc, Sioux Falls	SD
RF Amplifier Co, Lake Grove	N Y
R H G Electronics Lab Inc, Farmingdale	N Y
Roveti Instruments, Annapolis	Md
Sedco Systems Inc, Farmingdale	N Y
Space Craft Inc, Huntsville	Ala
Squires-Sanders Inc, Liberty Corner	N J
Sweep Systems Inc, Indianapolis	Ind
Topping Electronics Ltd, Toronto 17	Ont
TRW Systems Group, Redondo Beach	Cal
Varian, Palo Alto	Cal
Varo Inc, Garland	Tex
Vega Precision Labs, Vienna	Va
Waller Corp, Crystal Lake	Ill
Wilcox Electric Co Inc, Kansas City	Mo

If Preamplifiers

for quality, low noise, long term performance in such applications as radar, communications, guidance and navigation systems.

standard models

Model No.	Center Freq. MHz	Bandwidth @ 3 dB MHz	Gain dB	Max. Noise Figure dB
■ miniature tube type				
IF-31-30-08-S	30	8	40	1.5
IF-31-60-08-S	60	8	40	2.5
IF-31-60-20-S	60	20	40	3.0
IF-31-70-08-S	70	8	40	3.0
IF-31-70-20-S	70	20	40	3.5
IF-31-30-08-P	30	8	40	1.5
IF-31-60-08-P	60	8	40	2.5
IF-31-60-20-P	60	20	40	3.0
IF-31-70-08-P	70	8	40	3.0
IF-31-70-20-P	70	20	40	3.5
IF-31-30-08-PP	30	8	40	1.5
IF-31-60-08-PP	60	8	40	2.5
IF-31-60-20-PP	60	20	40	3.0
IF-31-70-08-PP	70	8	40	3.0
IF-31-70-20-PP	70	20	40	3.5
IF-31-30-08-50	30	8	40	2.0
IF-31-60-08-50	60	8	40	3.0
IF-31-60-20-50	60	20	40	3.5
IF-31-70-08-50	70	8	40	3.5
IF-31-70-20-50	70	20	40	4.0
■ solid state				
ITP-3-60-10-50	60	10	30	2.5
ITP-3-60-20-50	60	20	30	2.5
ITP-3-60-100-50	60	100	30	2.5
■ variable bandwidth – tube type				
1MV-1-30-10-50	30	0.3-10	30	1.5
1MV-1-60-20-50	60	0.8-20	30	2.5
1MV-1-70-20-50	70	0.8-20	30	3.5
■ variable bandwidth – solid state				
ITV-1-30-10-50	30	0.3-10	20	7
ITV-1-60-10-50	60	0.8-15	20	7
ITV-1-70-10-50	70	1.0-20	20	7

Source impedances:

-S = single ended mixer,
-P = balanced mixer, reversed diodes,
-PP = balanced mixer, push-pull diodes,
-50 = IF 50 ohms.

LEL DIVISION
VARIAN associates
AKRON ST., COPIAGUE, L. I., NEW YORK 11726
For prompt information
CALL 516 AM 4-2517

EBG — the industry's store.

Your marketplace for products

AMPLIFIERS, I-F--WIDEBAND

ANDERSEN LABORATORIES, INC, BLOOMFIELD	**CONN**
ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK	**KAN**
LEL DIV VARIAN ASSOCIATES, COPIAGUE, N Y	**ADV PG 25**
MICROSONICS INC, WEYMOUTH	**MASS**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
Aerospace Research, Inc, Boston	Mass
Aertech, Sunnyvale	Cal
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Amelco Semiconductor, A Teledyne Co Mountain View	Cal
American Astrionics Inc, Palo Alto	Cal
Amtron Inc, Midlothian	Ill
Andersen Laboratories, Inc, Bloomfield	Conn
Anzac Electronics, Waltham	Mass
Applied Devices Corp, College Point	n y
Applied Research, Inc, Port Washington	N Y
Arenberg Ultrasonic Lab, Inc, Jamaica Plain	Mass
Arvee Engineering Co, Torrance	Cal
Automatic Radio Sales Inc, Melrose	Mass
Avantek Inc, Santa Clara	Cal
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
B F Electronics, Solana Beach	Cal
California Electronic Mfg Co Inc, Alamo	Cal
C-Cor Electronics Inc, State College	Pa
Chronetics Inc, Mount Vernon	N Y
Comdel Inc, Beverly	Mass
Communication Electronics Inc, Rockville	Md
Conductron Corp, Ann Arbor	Mich
Dayton Electronics Products Co, Dayton	Ohio
Decitron Electronics Corp, Brooklyn	N Y
Defense Electronics Inc, Rockville	Md
Dowa Trading Co Ltd, Kobe	Japan
Electronic Research co, A Textron Co Overland Park	Kan
E & M Labs, North Hollywood	Cal
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
General Devices Inc, Instrumentation Div Princeton	N J
General Instrument Corp Radio Receptor Div Hicksville	N Y
Granger Associates, Palo Alto	Cal
Hayakawa Electric Co Ltd, Osaka	Japan
Instruments for Industry Inc, Farmingdale	N Y
International Microwave Corp, Cos Cob	Conn
Jerrold Electronics Corp, Philadelphia	Pa
Karg Labs Inc, South Norwalk	Conn
Kay Electric Co, Pine Brook	N J
Keithley Instruments Inc, Cleveland	Ohio
Lel Div Varian Associates, Copiague	N Y
Loral Electronic Systems, Div Loral Corp, New York	NY
Lorch Electronics Corp, Englewood	N J

Micro Communications Co, Denver	Colo
Micronetics Div Teledyne Systems Co, San Diego	Cal
Microsonics Inc, Weymouth	Mass
Microwave Associates Inc, Burlington	Mass
Microwave Products Group Div C A S Inc Carle Place	N Y
Microwave/Systems Inc, East Syracuse	N Y
Mini-Circuits Lab, New York	N Y
Neptune Electronics Co, New York	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Optimax Inc, Ambler	Pa
Perry Amplifier, Brookline	Mass
Philco-Ford Corp, Washington	D C
Radio Engineering Labs, Div DCA, Long Island City	N Y
Raven Industries Inc, Sioux Falls	SD
R H G Electronics Lab Inc, Farmingdale	N Y
Sedco Systems Inc, Farmingdale	N Y
Space Craft Inc, Huntsville	Ala
Spacekom Inc, Goleta	Cal
Squires-Sanders Inc, Liberty Corner	N J
Sweep Systems Inc, Indianapolis	Ind
Telectro Systems Corp, Corona	N Y
TRW Systems Group, Redondo Beach	Cal
Varian, Palo Alto	Cal
Varo Inc, Garland	Tex
Waller Corp, Crystal Lake	Ill
Wilcox Electric Co Inc, Kansas City	Mo

AMPLIFIERS, INSTRUMENTATION &CONTROL--CHARGE SENSITIVE

BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS WOODSIDE	**NY**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
ITHACO INC, ITHACA, N Y	**ADV PG 26**
PHILBRICK NEXUS RESEARCH A TELEDYNE CO DEDHAM	**MASS**
AB Atomenergi, 10072 Stockholm 43	Sweden
Acromag Inc, Wixom	Mich
Aerospace Research, Inc, Boston	Mass
Agac-Derritron Inc, Alexandria	Va
Air Technology Corp, Waltham	Mass
Alpine Geophysical Assoc Inc, Norwood	N J
A & M Instruments Inc, Great Neck	N Y
Amtron Inc, Midlothian	Ill
Analog Technology Corp, Pasadena	Cal
Applied Cybernetics Systems AMF, Alexandria	Va
Bay Laboratories, Inc, Rocky River	Ohio
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio
Bulova Watch Co Inc Elctns Div Servo Products Woodside	NY
Burr-Brown Research Corp, Tucson	Ariz
B & W Electronic Research Labs, Dallas	Tex
Canberra Industries, Middletown	Conn
Coast Electronics Inc, Manhattan Beach	Cal
Columbia Research Labs Inc, Woodlyn	Pa
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Controlotron Corp, Farmingdale	N Y
Control Technology Co Inc, Long Island City	N Y
Data-Control Systems Inc, Danbury	Conn
Data Device Corp, Hicksville	N Y
Datum Inc, Anaheim	Cal
Dowa Trading Co Ltd, Kobe	Japan
Dynamics Instrumentation Co, Monterey Park	Cal
Dynamic System Electronics Corp, Tempe	Ariz
Dynasciences Corp, Blue Bell	Pa
E G & G Inc Laboratory Prods Div, Goleta	Cal
E G & G Inc, Systems Devel Div, Bedford	Mass
Electro Development Corp, Lynnwood	Wash
Endevco Corp, Pasadena	Cal
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Gap Instrument Corp, Westbury	N Y
General Devices Inc, Instrumentation Div Princeton	N J
General Electric Co, ECSO, Schenectady	N Y
Gulton Industries Inc, Metuchen	N J
Hybrid Systems Corp, Cambridge	Mass
Industrial Control Co, Farmingdale	N Y
Instruments Inc, San Diego	Cal
Ircon Inc, Niles	Ill
Ithaco Inc, Ithaca	N Y
Janus Control Div Tyco, Waltham	Mass
Johnston Labs, Inc, Baltimore	Md
Keithley Instruments Inc, Cleveland	Ohio
Kistler Instrument Corp, Clarence	N Y
Krohn-Hite Corp, Cambridge	Mass
Landis & Gyr AG, Zug	Switzerland
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
Loral Electronic Systems, Div Loral Corp, New York	NY
Metrix Instrument Co, Houston	Tex
Monroe Electronics Inc, Middleport	N Y
NH Research Inc, Santa Ana	Cal
Norbatrol Electronics Corp, Murrysville	Pa
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
NUS Corp, Underwater Sys Div, Paramus	N J
Nytron, Palo Alto	Cal
Pcb Electronics, Cheektowaga	N Y
Perfectone Sound Labs, Allendale	NJ
Philbrick/Nexus Research A Teledyne Co Dedham	Mass
Plessey Airborne Corp, Hillside	NJ

Main and Post IF Amplifiers

- low noise
- high gain stability
- wide bandwidth
- high gain
- fast recovery
- light weight

LEL main amplifiers provide sufficient amplification to bring weak signals to levels adequate for detection. LEL post amplifiers, for use with pre-amplifiers, provide the major portion of system gain.

standard models

main amplifiers

Model No.	Center Freq. MHz	Bandwidth @ 3 dB MHz	Gain dB	NF dB	Input	Description
IF-30-30-02-50	30*	2	110	2.0	50 ohms	General purpose
IF-30-30-02-S	30*	2	110	1.5	300 ohms, 12pf	Single ended mixer
IF-30-30-02-P	30*	2	110	1.5	Parallel diodes	Bal. mixer
IF-30-30-02-PP	30*	2	110	1.5	Push-pull diodes	Bal. mixer
IMK-1-30-10-50	30	10	100	3	50 ohms	internal AGC
IMK-1-60-10-50	60	10	100	3	50 ohms	internal AGC
IMK-1-70-10-50	70	10	100	3	50 ohms	internal AGC
IMM-2-30-10-50	30*	10	90	2.0	50 ohms	Fast recovery
IMM-3-30-10-50	30*	10	80	2.0	50 ohms	Hi gain stability
IF301-30-10-50	30	10	80	3.0	50 ohms	narrow band
IF301-60-10-50	60	10	80	3.0	50 ohms	narrow band
IF301-70-10-50	70	10	80	3.5	50 ohms	narrow band
IF-302-60-20-50	60	20	80	3.0	50 ohms	Wide band, high gain
IF-302-70-20-50	70	20	80	3.5	50 ohms	Wide band, high gain
ITM-2-30-10-50	30	10	100	2.5	50 ohms	Solid state
ITM-2-60-10-50	60	10	100	2.5	50 ohms	Solid state
ITM-3-30-10-50	30	10	100	2.5	50 ohms	sol. state, miniature
ITM-3-60-10-50	60	10	100	2.5	50 ohms	sol. state, miniature

standard models

post amplifiers (50 ohm inputs)

Model No.	Center Freq. MHz	Bandwidth @ 3 dB MHz	Gain dB	Max. NF dB	Gain Control Range dB	Output	Output Capability dBm
IMD-1-30-08-50	30	8	25	—	0	IF	+30
IMD-1-60-08-50	60	8	25	—	0	IF	+30
ITA-5-60-20-50	60	20	70	7	40	IF, Video	+ 7
ITA-5-160-30-50	160	30	70	7	40	IF, Video	+ 7
ITA-7-30-03-50	30	3	75	9	50	IF, Video	+10
ITA-7-30-10-50	30	10	75	9	50	IF, Video	+10
ITA-7-60-10-50	60	10	75	9	50	IF, Video	+10
ITA-9-30-40-50	30	40	30	—	0	IF	+30
ITA-34-21.4-03-50	21.4	3	75	7	50	IF, Video	+10
ITA-34-21.4-08-50	21.4	8	75	7	50	IF, Video	+10
ITA-34-30-03-50	30	3	75	7	50	IF, Video	+10
ITA-34-30-08-50	30	8	75	7	50	IF, Video	+10
ITA-34-60-03-50	60	3	75	7	50	IF, Video	+10
ITA-34-60-08-50	60	8	75	7	50	IF, Video	+10
ITA-35-30-03-50	30	3	75	15	75	IF, Video	+10
ITA-35-30-08-50	30	8	75	15	75	IF, Video	+10
ITA-35-60-03-50	60	3	75	15	75	IF, Video	+10
ITA-35-60-08-50	60	8	75	15	75	IF, Video	+10

Outputs: IMM-2 = video. All others = IF and video.
* also available with 60 or 70 MHz IF CF.

LEL DIVISION
varian / akron street / copiague / new york 11726
For prompt information
CALL 516 AM 4-2517

INSTRUMENTATION ELECTRONICS FOR SIGNAL CONDITIONING AND DYNAMIC DATA ACQUISITION

FOR UNDERWATER ACOUSTICS, VIBRATION TESTING, ACOUSTIC TESTING, DYNAMIC STRAIN MEASUREMENT, I R DETECTION, SEISMIC MEASUREMENTS, BIO-MEDICAL MEASUREMENTS, AND EXTRACTION OF PERIODIC SIGNALS FROM HIGH LEVELS OF BACKGROUND NOISE.

PREMIUM NOISE PERFORMANCE – WIDE DYNAMIC RANGES – EXCELLENT GAIN STABILITY

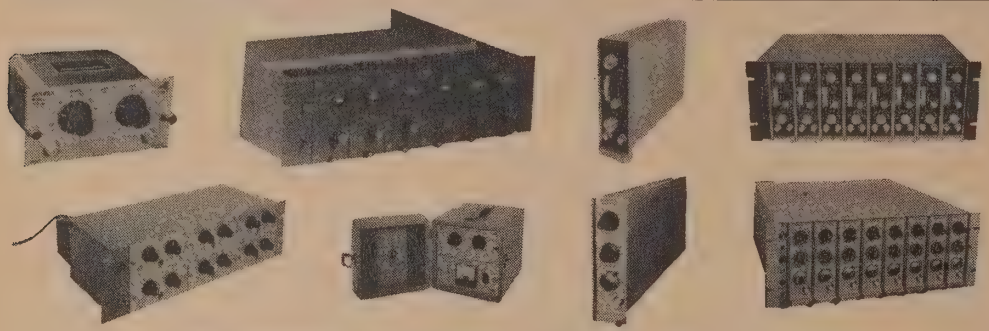
HIGH INPUT IMPEDANCE, LOW NOISE, MODULAR PREAMPLIFIERS FOR USE WITH HYDROPHONES, ACCELEROMETERS, I R DETECTORS, AND OTHER HIGH, MEDIUM AND LOW IMPEDANCE TRANSDUCERS.

Charge amplifiers are used with piezoelectric accelerometers and other capacitive transducers. Attenuation by cable capacity loading the transducer is effectively eliminated by making input capacitance very high, compared to cable capacity. Substantially all the charge generated by the transducer flows into the amplifier, and cable loading has negligible effect.

MODEL 139 CHARGE PREMPLIFIER

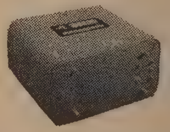
For use with piezoelectric accelerometers, this preamplifier delivers an output proportional to velocity over an extended frequency range. A locking potentiometer adjusts sensitivity over a 4:1 range. Premium noise performance and stability provided in a shielded, encapsulated, hermetically sealed module.

MODEL 145
VELOCITY PREAMPLIFIER



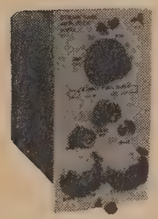
AC INSTRUMENTATION VOLTAGE AND CHARGE AMPLIFIERS

A wideband A-C amplifier with gain in decibels directly proportional to a control voltage input. Amplifier gain is controlled over a 0 to 80 db range by a D.C. control input of 0 to +5 volts. Control characteristic departs from the best straight line by only ±0.5 db max. over the entire 80 db range. Amplitude and phase of the A-C signal output are unaffected by gain.

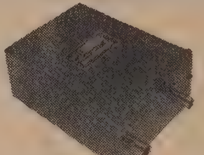


MODEL 314
VOLTAGE
CONTROLLED
AMPLIFIER

MODEL 241
DYNAMIC STRAIN GAGE AMPLIFIER

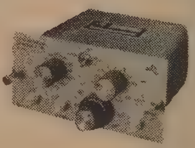


Specifically designed for dynamic measurements, the Model 241 Amplifier eliminates many of the problems associated with static systems. Gages are excited single ended by a precise current source, and outputs conditioned by a low noise A-C amplifier with 1% gain stability. Advantages include:
No bridge balancing—no balance drift, minimum temperature effects. No inaccuracy due to resistance of wiring to gage. Gage resistance and gage factor dialed by operator on multi-turn controls. Full scale output of 1 volt for microstrain in ranges from 10 to 30,000. Greater sensitivity, stability, and lower noise than other equipment.

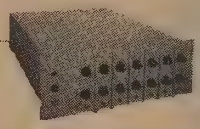


ULTRA
LOW-NOISE
SEISMIC
PREAMPLIFIERS

PEAK
HOLDING
ANALOG
MEMORIES

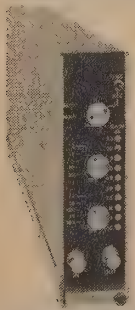


DETECT PERIODIC
SIGNALS BURIED
IN HIGH LEVELS
OF BACKGROUND
NOISE.

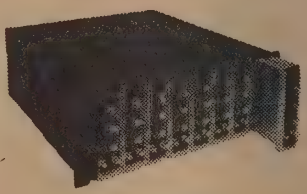


MAY BE USED TO GENERATE UP TO 6 COPY TAPES, (PER CHANNEL) OF WIDEBAND, 2 MHz, INSTRUMENTATION MAGNETIC TAPE RECORDINGS.

NEW! AUTO GAIN AMPLIFIER – MODEL 441



ITHACO'S new model 441 AUTO-GAIN AMPLIFIER changes gain automatically in accurate 10 db steps to condition wide-dynamic range signals to levels suitable for recording, display, or processing. The primary application is for fully automated data acquisition—without loss of data due to operator error and response time. Provision is made for electronic readout of the gain and rolloff settings of each amplifier for multiplexing and recording in automatic data acquisition systems. Also available: Remote gain switching amplifiers and preamplifiers.



ITHACO INSTRUMENTATION PRODUCTS ARE AVAILABLE CONFIGURED FOR HIGH-REL, FLIGHT-QUALIFIED, AND SEVERE ENVIRONMENTAL APPLICATIONS

ITHACO INC.
413 TAUGHANNOCK BOULEVARD, ITHACA, N. Y. 14850
607-AR 2-7640

Quantum Devices, Bergenfield	NJ
Randam Electronics Inc, Cincinnati	Ohio
Schaevitz Engineering, Pennsauken	N J
Sonex Inc, Philadelphia	Pa
Space Craft Inc, Huntsville	Ala
Sunbeam Electronics, Fort Lauderdale	Fla
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
TRW Systems Group, Redondo Beach	Cal
20th Century Electronics Ltd New Addington, Surrey	England
Unholtz-Dickie Corp, Hamden	Conn
United Detector Technology Inc, Santa Monica	Cal
Vibrasonics Inc, Needham	Mass

AMPLIFIERS, INSTRUMENTATION &CONTROL--DECADE

BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL,	**PA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INTRONICS INC, NEWTON	**MASS**
ITHACO INC, ITHACA, N Y	**ADV PG 26**
KINELOGIC CORP, PASADENA	**CAL**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM	**MASS**
TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA	**N Y**
Aerospace Research, Inc, Boston	Mass
Alpine Geophysical Assoc Inc, Norwood	N J
A & M Instruments Inc, Great Neck	N Y
Amtron Inc, Midlothian	Ill
Applied Cybernetics Systems AMF, Alexandria	Va
Applied Electronics Corp of N J, Metuchen	N J
Argonaut Associates, Inc, Beaverton	Ore
Arvee Engineering Co, Torrance	Cal
Atlantic Instruments & Electronics, Inc Watertown	Mass
Audn Corp, Hamburg	N Y
Bay Laboratories, Inc, Rocky River	Ohio
Beckman Instruments Inc, Fullerton,	Cal
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio
Burr-Brown Research Corp, Tucson	Ariz
B & W Electronic Research Labs, Dallas	Tex
California Instruments Corp, San Diego	Cal
Chesapeake Instrument Corp, Shadyside	Md
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
Cohu Electronics Inc, San Diego	Cal
Computer Dynamics Inc, Torrington	Conn
Control Technology Co Inc, Long Island City	N Y
Data Device Corp, Hicksville	N Y
Datametrics Inc, Waltham	Mass
De-Tec-Tronic Corp, Chicago	Ill
Doric Scientific Corp, San Diego	Calif
Dowa Trading Co Ltd, Kobe	Japan
Dynamics Instrumentation Co, Monterey Park	Cal
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee	Ill
Ectron Corp, San Diego	Cal
E G & G Inc Laboratory Prods Div, Goleta	Cal
Electro Development Corp, Lynnwood	Wash
General Devices Inc, Instrumentation Div Princeton	N J
General Electric Co, ECSO, Schenectady	N Y
Gladding Corp, South Otselic	N Y
Gulton Industries Inc, Metuchen	N J
Hewlett-Packard, Palo Alto	Cal
Hybrid Systems Corp, Cambridge	Mass
Incor Inc, Plainview	N Y
Intronics Inc, Newton	Mass
Ithaco Inc, Ithaca	N Y
Janus Control Div Tyco, Waltham	Mass
Julie Research Labs, Inc, New York	N Y
Keithley Instruments Inc, Cleveland	Ohio
Kinelogic Corp, Pasadena	Cal
Lear Siegler Inc, Cimron Div, San Diego	Cal
Loral Electronic Systems, Div Loral Corp, New York	NY
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Milgo Electronic Corp, Miami	Fla
Milletron, Inc, Pittsburgh	Pa
Neotec Corp, Rockville	Md
NH Research Inc, Santa Ana	Cal
Nuclide Corp, AGV Div, Acton	Mass
Nytron, Palo Alto	Cal
Optical Electronics Inc, Tuscon	Ariz
Perfectone Sound Labs, Allendale	NJ
Philbrick/Nexus Research A Teledyne Co Dedham	Mass
Quan-Tech Labs Inc, Whippany	N J
Randam Electronics Inc, Cincinnati	Ohio
Rustrak Instrument Div Gulton Ind Inc, Manchester	NH
Schaevitz Engineering, Pennsauken	N J
Scott Inc, H H, Maynard	Mass
Sedco Systems Inc, Farmingdale	N Y
Solid State Radiations Inc, Los Angeles	Cal
Space Craft Inc, Huntsville	Ala
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Sunbeam Electronics, Fort Lauderdale	Fla
Taber Instruments A Teledyne Co North Tonawanda	N Y
TRW Systems Group, Redondo Beach	Cal
United Detector Technology Inc, Santa Monica	Cal
Wilcoxon Research, Bethesda	Md
Worner Electronic Devices, Rankin	Ill

AMPLIFIERS, INSTRUMENTATION &CONTROL--DIFFERENTIAL

ANALOG DEVICES INC, CAMBRIDGE	**MASS**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL,	**PA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
INTRONICS INC, NEWTON	**MASS**
ITHACO INC, ITHACA, N Y	**ADV PG 26**
MELCOR ELECTRONICS CORP, FARMINGDALE	**N Y**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM	**MASS**
TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA	**N Y**
Adage Inc, Boston	Mass
Aeroscience Electronics Inc, Atlanta	Ga
Aerospace Research, Inc, Boston	Mass
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
Alma Engineering Inc, San Diego	Cal
Alpine Geophysical Assoc Inc, Norwood	N J
Amelco Semiconductor, A Teledyne Co Mountain View	Cal
American Electronic Controls Inc, Philadelphia	Pa
A & M Instruments Inc, Great Neck	N Y
Amtron Inc, Midlothian	Ill
Analog Devices Inc, Cambridge	Mass
Antlab, Inc, Worthington	Ohio
Applied Cybernetics Systems AMF, Alexandria	Va
Applied Electronics Corp of N J, Metuchen	N J
Argonaut Associates, Inc, Beaverton	Ore
Astrodata Inc, Anaheim	Cal
Astronautics Corp of America, Milwaukee	Wis
Audn Corp, Hamburg	N Y
Automation Development Co, Culver City	Cal
Avien, Inc, Woodside	N Y
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Bay Laboratories, Inc, Rocky River	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Biocom, Inc, Culver City	Cal
Bioelectric Instruments Inc, Hastings-on-Hudson	N Y
Bio-Physical Research Instruments Inc, Houston	Tex
Bourns Inc Instrument Div, Riverside	Cal
Burr-Brown Research Corp, Tucson	Ariz
B & W Electronic Research Labs, Dallas	Tex
California Electronic Mfg Co Inc, Alamo	Cal
California Instruments Corp, San Diego	Cal
Celtic Industries Inc, Van Nuys	Cal
Century Electronics & Instruments Inc, Tulsa	Okla
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
Cohu Electronics Inc, San Diego	Cal
Component Technology Corp, Sunnyvale	Cal
Computer Dynamics Inc, Torrington	Conn
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Consolidated Ohmic Devices Inc, Carle Place	N Y
Control Electronics Co Inc, Farmingdale	N Y
Control Technology Co Inc, Long Island City	N Y
Cooke Engineering Co, Alexandria	Va
Crescent Technology Corp, Newport Beach	Cal
Dana Laboratories Inc, Irvine	Cal
Darcy Industries Inc, Behlman Div, Santa Monica	Cal
Data-Control Systems Inc, Danbury	Conn
Data Device Corp, Hicksville	N Y
Datum Inc, Anaheim	Cal
Davidson Electronic Development Co, Erie	Pa
De-Tec-Tronic Corp, Chicago	Ill
Doric Scientific Corp, San Diego	Calif
Dorsett Electronics Inc, Tulsa	Okla
Dowa Trading Co Ltd, Kobe	Japan
Dynamics Instrumentation Co, Monterey Park	Cal
Dynamic System Electronics Corp, Tempe	Ariz
Ectron Corp, San Diego	Cal
E G & G Inc Laboratory Prods Div, Goleta	Cal
Electro Development Corp, Lynnwood	Wash
Electronic Control Systems Inc, Fairmont	W Va
Electronic Modules Corp, Timonium	Md
Endevco Corp, Pasadena	Cal
Fairchild Controls, Hicksville	N Y
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Fenlow Electronics Ltd, Weybridge	England
General Devices Inc, Instrumentation Div Princeton	N J
General Electric Co, ECSO, Schenectady	N Y
Genisco Technology Corp, Compton	Cal
Giannini-Voltex, Whittier	Cal
Gladding Corp, South Otselic	N Y
GPS Instrument Co Inc, Newton	Mass
Hagan Computer Systems Div Westinghouse Pittsburgh	Pa
Hartman Systems Co Inc, Huntington Station	N Y
Harvard Apparatus Co Inc, Millis	Mass
Helix Research Assoc Inc, La Mesa	Cal
Hewlett-Packard, Palo Alto	Cal
Honeywell Test Instruments Div, Denver	Colo
Hybrid Systems Corp, Cambridge	Mass
Incor Inc, Plainview	N Y
Industrial Measurements Corp, Pomona	Cal
Information Instruments, Inc, Ann Arbor	Mich
Inland Controls Inc Sub Kollmorgen Corp Brighton	Mass
Instruments Inc, San Diego	Cal
International Data Systems Inc, Dallas	Tex
Intronics Inc, Newton	Mass
Ithaco Inc, Ithaca	N Y
Janus Control Div Tyco, Waltham	Mass
Jordan Controls Inc, Milwaukee	Wis
Julie Research Labs, Inc, New York	N Y
Keithley Instruments Inc, Cleveland	Ohio
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Leeds & Northrup Co, Philadelphia	Pa
Loral Electronic Systems, Div Loral Corp, New York	NY
Lundy Electronics & Systems Inc, Glen Head	N Y
Mayberry Electronics Co, Inglewood	Cal
MB Electronics A Textron Co, New Haven	Conn
McFadden Electronics Co, South Gate	Cal
McKee-Pedersen Instruments, Danville	Cal
Melcor Electronics Corp, Farmingdale	N Y
Mennen-Greatbatch Electronics Inc, Clarence	N Y
Monroe Electronics Inc, Middleport	N Y
M Ten Bosch, Inc, Pleasantville	N Y
Natel Engineering Co Inc, Van Nuys	Cal
Neff Instrument Corp, Duarte	Cal
Neotec Corp, Rockville	Md
Newport Labs Inc, Newport Beach	Cal
NH Research Inc, Santa Ana	Cal
Nippon Coil Co Ltd, Higashi-ku, Osaka	Japan
Norbatrol Electronics Corp, Murrysville	Pa
North Hills Electronics Inc, Glen Cove	N Y
Novatronics Inc, Pompano Beach	Fla
Nytron, Palo Alto	Cal
Opamp Labs, Los Angeles	Cal
Optical Electronics Inc, Tuscon	Ariz
Pegasus Labs Inc, Berkley	Mich
Perfectone Sound Labs, Allendale	NJ
Philbrick/Nexus Research A Teledyne Co Dedham	Mass
Plessey Airborne Corp, Hillside	NJ
Potter Instrument Co, Inc, Plainview	N Y
Preston Scientific, Inc, Anaheim	Cal
Quantum Devices, Bergenfield	NJ
Ramsay Engineering Co, Anaheim	Cal
Randam Electronics Inc, Cincinnati	Ohio
Redcor Corp, Canoga Park	Cal
Rosemount Plug-In Inc, Nashville	Tenn
Roveti Instruments, Annapolis	Md
Schlumberger, 92-Montrouge 32	France
Sedco Systems Inc, Farmingdale	N Y
Servo Development Corp, Hicksville	N Y
Sigma Instruments Canada Ltd, Toronto 18 Ont	Canada
Solid State Electronics Corp, Sepulveda	Cal
Solid State Radiations Inc, Los Angeles	Cal
Sonex Inc, Philadelphia	Pa
Space Craft Inc, Huntsville	Ala
Spatron Inc, Alhambra	Cal
Sunbeam Electronics, Fort Lauderdale	Fla
Symetrics Engineering Corp, Satellite Beach	Fla
Taber Instruments A Teledyne Co North Tonawanda	N Y
Techni-Rite Electronics Inc, Warwick	R I
Teledyne Telemetry Co, Los Angeles	Cal
TRW Systems Group, Redondo Beach	Cal
Unholtz-Dickie Corp, Hamden	Conn
Vari Tech Co, Grand Rapids	Mich
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Winsco Instruments & Controls Co Inc Santa Monica	Cal
Woodward Machine Inc, Elctns Div, Detroit	Mich
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan
Zeltex inc, Concord	Cal

AMPLIFIERS, INSTRUMENTATION &CONTROL--NULL

ANALOG DEVICES INC, CAMBRIDGE	**MASS**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS WOODSIDE, NY	**ADV PG 28**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON	**N Y**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM	**MASS**
TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA	**N Y**
Acromag Inc, Wixom	Mich
Adage Inc, Boston	Mass
Aerospace Research, Inc, Boston	Mass
Alpine Geophysical Assoc Inc, Norwood	N J
Altec Lansing Div LTV Ling Altec Inc, Anaheim	Cal
A & M Instruments Inc, Great Neck	N Y
Analog Devices Inc, Cambridge	Mass
Applied Cybernetics Systems AMF, Alexandria	Va
Applied Research Austin Inc, Austin	Tex
Astrodata Inc, Anaheim	Cal
Astro-Space Labs Inc, Huntsville	Ala
Audn Corp, Hamburg	N Y
Automation Development Co, Culver City	Cal
Bailey Meter Co, Wickliffe	Ohio
Bay Laboratories, Inc, Rocky River	Ohio
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Brower Labs Inc, Westboro	Mass
Bulova Watch Co Inc Elctns Div Servo Products Woodside	NY
Burr-Brown Research Corp, Tucson	Ariz
B & W Electronic Research Labs, Dallas	Tex

Null Amplifiers?

Try Bulova First!

CALL:

Ariz	Tech-Ser Inc, 1805 E Indian School Rd Phoenix	602-265-3629
Cal	El Com Sales Co, 3600 Motor Ave Los Angeles	213-870-4707
Fla	Perrott Assoc, 1607 Forsyth Rd, Orlando	305-275-1132
Fla	Perrott Assoc, Box 4532, Clearwater	813-531-5513
Fla	Perrott Assoc, Box 6277 West Palm Beach	305-967-1770
Ill	Communications Eng, 7100 N Western Ave Chicago	312-R01-0548
Md	Callas Electronics Inc, 6409 Frederick Ave Baltimore	301-744-7711
Mich	Sheridan Assoc., 25625 Southfield Rd., Southfield	313-358-3333
Mass	Aborn Labs Inc, 223 Crescent St Waltham	891-4850
Minn	Wenco Sales Inc, 7728 Morgan Ave S Minneapolis	612-866-3639
Mo	J C Mankus & Assoc, 400 Brooks La Hazelwood	314-PE1-4334
NY	L-Tron Corp, 2-4 Fennell St, Skaneateles	315-685-6172
NY	Comtronic Assoc, 1551 Franklin Ave Mineola	516-P11-8966
Ohio	Sheridan Assoc., 10 Knollcrest Dr., Reading	513-761-5432
Pa	Garrettson Co Inc, 92-14 Masland St Philadelphia	H04-2275
Tex	Tech-Ser Inc, 10210 Monroe Dr Dallas	214-358-2504
Can	Canadian Micro Elctns, 1390 Raven Ave Ottawa, Ont	725-2332

BULOVA WATCH CO INC
SERVO PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

California Electronic Mfg Co Inc, Alamo	Cal
Canadian Research Institute, Don Mills	Ont
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Cohu Electronics Inc, San Diego	Cal
Computer Dynamics Inc, Torrington	Conn
Control Technology Co Inc, Long Island City	N Y
Crescent Technology Corp, Newport Beach	Cal
Data Device Corp, Hicksville	N Y
Datametrics Inc, Waltham	Mass
Design Products Corp, Troy	Mich
Dorsett Electronics Inc, Tulsa	Okla
Dowa Trading Co Ltd, Kobe	Japan
Dynamics Instrumentation Co, Monterey Park	Cal
Dynamic System Electronics Corp, Tempe	Ariz
Electro Development Corp, Lynnwood	Wash
Electronic Control Systems Inc, Fairmont	W Va
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Fairbanks Morse Weighing Sys, Div Colt Indus Fair Lawn	NJ
Farrand Controls Inc, Valhalla	N Y
General Devices Inc, Instrumentation Div Princeton	N J
General Radio Co, West Concord	Mass
Gladding Corp, South Otselic	N Y
GPS Instrument Co Inc, Newton	Mass
Hartman Systems Co Inc, Huntington Station	N Y
Helm Instrument Co Inc, Toledo	Ohio
Honeywell Industrial Div, Fort Washington	Pa
Hybrid Systems Corp, Cambridge	Mass
Incor Inc, Plainview	N Y
Industrial Electronetics Corp, Satellite Beach	Fla
Industrial Test Equipment Co, Port Washington	N Y
Janus Control Div Tyco, Waltham	Mass
Jordan Controls Inc, Milwaukee	Wis
Julie Research Labs, Inc, New York	N Y
Keithley Instruments Inc, Cleveland	Ohio
Lear Siegler Inc, Cimron Div, San Diego	Cal
Leeds & Northrup Co, Philadelphia	Pa
Loral Electronic Systems, Div Loral Corp, New York	NY
Lundy Electronics & Systems Inc, Glen Head	N Y
Medistor Instrument Co, Seattle	Wash
Meteorology Research Inc, Altadena	Cal
Milgo Electronic Corp, Miami	Fla
Milletron, Inc, Pittsburgh	Pa
Muirhead Instruments Inc, Mountainside	N J
Natel Engineering Co Inc, Van Nuys	Cal
Neff Instrument Corp, Duarte	Cal
Newport Labs Inc, Newport Beach	Cal
Norbatrol Electronics Corp, Murrysville	Pa
North Hills Electronics Inc, Glen Cove	N Y
Novatronics Inc, Pompano Beach	Fla
Nuclide Corp, AGV Div, Acton	Mass
Optical Electronics Inc, Tuscon	Ariz
Parko Electronics Co Inc, Santa Ana	Cal
Pastoriza Electronics Inc, Newton Upper Falls	Mass
Pegasus Labs Inc, Berkley	Mich
Perfectone Sound Labs, Allendale	NJ
Philbrick/Nexus Research A Teledyne Co Dedham	Mass
Photron Instrument Co, Cleveland	Ohio
Plessey Airborne Corp, Hillside	NJ
Quantum Devices, Bergenfield	NJ
Redcor Corp, Canoga Park	Cal
Reflex Controls Corp, Huntington Station	NY
RIL Electronics Inc, Southampton	Pa
Robicon Corp, Pittsburgh	Pa
Roveti Instruments, Annapolis	Md
Sedco Systems Inc, Farmingdale	N Y
Servo Development Corp, Hicksville	N Y
Sigma Instruments Canada Ltd, Toronto 18 Ont	Canada
Singer Co, Diehl Div, Somerville	N J
Solar Electronics Co, Hollywood	Cal
Solid State Electronics Corp, Sepulveda	Cal
Space Craft Inc, Huntsville	Ala
Streeter-Amet, Grayslake	Ill
Sunbeam Electronics, Fort Lauderdale	Fla
Symetrics Engineering Corp, Satellite Beach	Fla
Taber Instruments A Teledyne Co North Tonawanda	N Y
Taffet Electronics Inc, Woodside	N Y
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan
Zeltex inc, Concord	Cal

AMPLIFIERS, INSTRUMENTATION &CONTROL--SERVO

ANALOG DEVICES INC, CAMBRIDGE	**MASS**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS WOODSIDE, NY	ADV PG 28
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL	**PA**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
CROWN INT'L RADIO & ELECTRONICS CORP, ELKHART	**IND**
DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
MELCOR ELECTRONICS CORP, FARMINGDALE	**N Y**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA	**N Y**
Aerospace Research, Inc, Boston	Mass
Aetna Electronics Corp, North Branch	N J
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
Allied Research Associates, Inc, Concord	Mass
A & M Instruments Inc, Great Neck	N Y

Servo Amplifiers?

Try Bulova First!

CALL:

Ariz	Tech-Ser Inc, 1805 E Indian School Rd Phoenix	602-265-3629
Cal	El Com Sales Co, 3600 Motor Ave Los Angeles	213-870-4707
Fla	Perrott Assoc, 1607 Forsyth Rd, Orlando	305-275-1132
Fla	Perrott Assoc, Box 4532, Clearwater	813-531-5513
Fla	Perrott Assoc, Box 6277 West Palm Beach	305-967-1770
Ill	Communications Eng, 7100 N Western Ave Chicago	312-R01-0548
Md	Callas Electronics Inc, 6409 Frederick Ave Baltimore	301-744-7711
Mich	Sheridan Assoc., 25625 Southfield Rd., Southfield	313-358-3333
Mass	Aborn Labs Inc, 223 Crescent St Waltham	891-4850
Minn	Wenco Sales Inc, 7728 Morgan Ave S Minneapolis	612-866-3639
Mo	J C Mankus & Assoc, 400 Brooks La Hazelwood	314-PE1-4334
NY	L-Tron Corp, 2-4 Fennell St, Skaneateles	315-685-6172
NY	Comtronic Assoc, 1551 Franklin Ave Mineola	516-P11-8966
Ohio	Sheridan Assoc., 10 Knollcrest Dr., Reading	513-761-5432
Pa	Garrettson Co Inc, 92-14 Masland St Philadelphia	H04-2275
Tex	Tech-Ser Inc, 10210 Monroe Dr Dallas	214-358-2504
Can	Canadian Micro Elctns, 1390 Raven Ave Ottawa, Ont	725-2332

BULOVA WATCH CO INC
SERVO PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

Amtron Inc, Midlothian	Ill
Analog Devices Inc, Cambridge	Mass
Antlab, Inc, Worthington	Ohio
Applied Control Co, Cedar Grove	NJ
Astrodata Inc, Anaheim	Cal
Astronautics Corp of America, Milwaukee	Wis
Astro-Space Labs Inc, Huntsville	Ala
Audn Corp, Hamburg	N Y
Automation Development Co, Culver City	Cal
Avien, Inc, Woodside	N Y
Bailey Meter Co, Wickliffe	Ohio
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bendix Corp, Flight & Engine Instr Div South Montrose	Pa
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio
Bowmar Instrument Corp, Fort Wayne	Ind
Bulova Watch Co Inc Elctns Div Servo Products Woodside	NY
Burr-Brown Research Corp, Tucson	Ariz
B & W Electronic Research Labs, Dallas	Tex
Canadian Research Institute, Don Mills	Ont
Cedar Engineering Div Control Data Corp Minneapolis	Minn
C-E Electronics Inc, Glenside	Pa
Celtic Industries Inc, Van Nuys	Cal
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
Computer Dynamics Inc, Torrington	Conn
Computer Instruments Corp, Hempstead	N Y
Connor-Winfield Corp, Winfield	Ill
Control Technology Co Inc, Long Island City	N Y
Crescent Technology Corp, Newport Beach	Cal
Crown Int'l Radio & Electronics Corp, Elkhart	Ind
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Darcy Industries Inc, Behlman Div, Santa Monica	Cal
Data Device Corp, Hicksville	N Y
Dayton Electronics Products Co, Dayton	Ohio
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Dowa Trading Co Ltd, Kobe	Japan
Dranetz Engineering Labs Inc, Plainfield	N J
Dresser Systems, Inc, Houston	Tex
Dynalectron Corp Aerospace Prods Div San Leandro	Cal
Dynamic Precision Controls Corp, Hagerstown	Ind
Dynamic System Electronics Corp, Tempe	Ariz
Dynasciences Corp, Blue Bell	Pa
Electro Development Corp, Lynnwood	Wash
Electronic Specialty Co, Los Angeles	Cal
ElectroSyn Technology Labs, Inc, Canton	Mass
EMR-Hatboro Div Weston Insts Inc, Hatboro	Pa
Endevco Corp, Pasadena	Cal
Ensco Inc, Salt Lake City	Utah
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Exactel Instrument Co Div Statham Instrs Inc Mountain View	Cal
Fairbanks Morse Weighing Sys, Div Colt Indus Fair Lawn	NJ
Fairchild Controls, Hicksville	N Y
Farrand Controls Inc, Valhalla	N Y
General Devices Inc, Instrumentation Div Princeton	N J
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Gladding Corp, South Otselic	N Y
Glentek Inc, Santa Monica	Cal
Goerz Optical Co Inc, Inwood	N Y
Gulton Industries Inc, Metuchen	N J
Harrel Inc, East Norwalk	Conn
Hartman Systems Co Inc, Huntington Station	N Y
Henschel Corp, Amesbury	Mass
Honeywell Industrial Div, Fort Washington	Pa
Hybrid Systems Corp, Cambridge	Mass
Industrial Control Co, Farmingdale	N Y
Industrial Electronetics Corp, Satellite Beach	Fla
Industrial Measurements Corp, Pomona	Cal
Inland Controls Inc Sub Kollmorgen Corp Brighton	Mass
Instrumentation Lab Inc, Watertown	Mass
Jordan Controls Inc, Milwaukee	Wis
Julie Research Labs, Inc, New York	N Y
Kollsman Motor Corp, Dublin	Pa
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
Leeds & Northrup Co, Philadelphia	Pa
Loral Electronic Systems, Div Loral Corp, New York	NY
Lundy Electronics & Systems Inc, Glen Head	N Y
Magnetico Inc, East Northport	N Y
Mayberry Electronics Co, Inglewood	Cal
McFadden Electronics Co, South Gate	Cal
Measurement Systems Inc, Norwalk	Conn
Melcor Electronics Corp, Farmingdale	N Y
Milgo Electronic Corp, Miami	Fla
Milletron, Inc, Pittsburgh	Pa
M Ten Bosch, Inc, Pleasantville	N Y
Muirhead Instruments Inc, Mountainside	N J
Nash Controls Inc, Caldwell	N J
Natel Engineering Co Inc, Van Nuys	Cal
Neff Instrument Corp, Duarte	Cal
NH Research Inc, Santa Ana	Cal
Norbatrol Electronics Corp, Murrysville	Pa
Norden Div, United Aircraft Corp, Norwalk	Conn
North Hills Electronics Inc, Glen Cove	N Y
Nuclear Research Instruments, Berkeley	Cal
Optical Electronics Inc, Tuscon	Ariz
Pegasus Labs Inc, Berkley	Mich
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Photocircuits Corp, Glen Cove	N Y
Pyro-Serv Instruments, Inc, North Arlington	N J
Quantum Devices, Bergenfield	NJ
Randam Electronics Inc, Cincinnati	Ohio
Rawco Instruments Inc, Fort Worth	Tex
Reflex Controls Corp, Huntington Station	NY

Robicon Corp, Pittsburgh .... Pa
Rosemount Plug-In Inc, Nashville .... Tenn
Scientific-Atlanta Inc, Atlanta .... Ga
Sedco Systems Inc, Farmingdale .... N Y
Seneca Falls Machine Co, Seneca Falls .... N Y
Servo Development Corp, Hicksville .... N Y
Servonetics Inc, Los Angeles .... Cal
Sigma Instruments Canada Ltd, Toronto 18 Ont .... Canada
Singer Co, Diehl Div, Somerville .... N J
Smiths Industries Ltd, Aviation Div Wembley, Mdsx .... England
Solar Electronics Co, Hollywood .... Cal
Space Craft Inc, Huntsville .... Ala
Sperry Flight Systems Div Sperry Rand Corp Phoenix .... Ariz
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia .... Pa
Streeter-Amet, Grayslake Ill
Sunbeam Electronics, Fort Lauderdale .... Fla
Sunshine Scientific Instruments Inc, Philadelphia .... Pa
Superior Mfg & Instrument Co, Long Island City .... N Y
Symétrics Engineering Corp, Satellite Beach .... Fla
Taber Instruments A Teledyne Co North Tonawanda .... N Y
Thwing-Albert Instrument Co, Philadelphia .... Pa
Torotron Co Div Struthers Electronics Corp, Mamaroneck .... N Y
Ultra Electronics Ltd, London, W 3 .... England
Vapor Corp, Chicago Ill
Vari Tech Co, Grand Rapids .... Mich
Westamp Inc, Santa Monica .... Cal
Weston-Transicoil, Weston Instruments Inc Worcester .... Pa
Westronics Inc, Fort Worth .... Tex
Wilcox Electric Co Inc, Kansas City .... Mo
Woodward Machine Inc, Elctns Div, Detroit .... Mich
Yaskawa Electric Mfg Co Ltd, Tokyo .... Japan

AMPLIFIERS, INSTRUMENTATION &CONTROL--STRAIN GAGE

ACCURATE ELECTRONICS CORP, ELYRIA .... OHIO
ANALOG DEVICES INC, CAMBRIDGE .... MASS
BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS WOODSIDE .... NY
BURR-BROWN RESEARCH CORP, TUCSON .... ARIZ
CLEVITE CORP, BRUSH INSTRUMENTS DIV, CLEVELAND .... OHIO
HEWLETT-PACKARD, PALO ALTO .... CAL
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO .... ADV PG 8
INTRONICS INC, NEWTON .... MASS
ITHACO INC, ITHACA, N Y .... ADV PG 26
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM .... MASS
TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA .... N Y
Accurate Electronics Corp, Elyria .... Ohio
Aeroscience Electronics Inc, Atlanta .... Ga
AIM Electronics Ltd, Cambridge .... U K
Airpax Electronics Inc, Cambridge Div, Cambridge .... Md
Airpax Electronics Inc Seminole Div Fort Lauderdale .... Fla
Alpine Geophysical Assoc Inc, Norwood .... N J
A & M Instruments Inc, Great Neck .... N Y
Amtron Inc, Midlothian Ill
Analog Devices Inc, Cambridge .... Mass
Astrodata Inc, Anaheim .... Cal
Astro-Space Labs Inc, Huntsville .... Ala
Audn Corp, Hamburg .... N Y
Bay Laboratories, Inc, Rocky River .... Ohio
Beckman Instruments Inc, Fullerton, ... Cal
Beckman Instruments Intl SA, 1207 Geneva .... Switzerland
B & F Instruments, Inc, Cornwells Heights .... Pa
Binary Electronics of Cal Div Avionic Structures Inc Anaheim .... Cal
B & K Instruments Inc of Bruel & Kjaer Cleveland .... Ohio
Bourns Inc Instrument Div, Riverside .... Cal
Bullock Magnetics Corp, Pomona .... Cal
Bulova Watch Co Inc Elctns Div Servo Products Woodside .... NY
Burr-Brown Research Corp, Tucson .... Ariz
B & W Electronic Research Labs, Dallas .... Tex
California Electronic Mfg Co Inc, Alamo .... Cal
California Instruments Corp, San Diego .... Cal
C-E Electronics Inc, Glenside .... Pa
Celtic Industries Inc, Van Nuys .... Cal
Century Electronics & Instruments Inc, Tulsa .... Okla
Cie De Signaux Et D'Entreprises Electriques Paris 17eme .... France
Clevite Corp, Brush Instruments Div, Cleveland .... Ohio
Cohu Electronics Inc, San Diego .... Cal
Component Technology Corp, Sunnyvale .... Cal
Compudyne Corp, Hatboro .... Pa
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena .... Cal
Control Technology Co Inc, Long Island City .... N Y
Crescent Technology Corp, Newport Beach .... Cal
Dana Laboratories Inc, Irvine .... Cal
Data-Control Systems Inc, Danbury .... Conn
Data Device Corp, Hicksville .... N Y
Datametrics Inc, Waltham .... Mass
Datum Inc, Anaheim .... Cal
Daytronic Corp, Dayton .... Ohio
Doric Scientific Corp, San Diego .... Calif
Dorsett Electronics Inc, Tulsa .... Okla
Dowa Trading Co Ltd, Kobe .... Japan
Dresser Systems, Inc, Houston .... Tex
Dynamics Instrumentation Co, Monterey Park .... Cal
Dynamic System Electronics Corp, Tempe .... Ariz
Ectron Corp, San Diego .... Cal
Electro Development Corp, Lynnwood .... Wash
Electronic Control Systems Inc, Fairmont .... W Va
Electronic Modules Corp, Timonium .... Md
Endevco Corp, Pasadena .... Cal
Ensco Inc, Salt Lake City .... Utah
Fairbanks Morse Weighing Sys, Div Colt Indus Fair Lawn .... NJ
Fairchild Controls, Hicksville .... N Y
Fairlane Electronics, Inc, Long Valley .... N J
Fenlow Electronics Ltd, Weybridge .... England
General Devices Inc, Instrumentation Div Princeton .... N J
Giannini-Voltex, Whittier .... Cal
Glentek Inc, Santa Monica .... Cal
Good Electronic Corp, Bedford .... Mass
Gulton Industries Inc, Metuchen .... N J
Gulton Industries Inc Engineered Magnetics Div Hawthorne .... Cal
Hewlett-Packard, Palo Alto .... Cal
Honeywell Test Instruments Div, Denver .... Colo
Hybrid Systems Corp, Cambridge .... Mass
Incor Inc, Plainview .... N Y
Industrial Control Co, Farmingdale .... N Y
Industrial Electronetics Corp, Satellite Beach .... Fla
Information Instruments, Inc, Ann Arbor .... Mich
International Data Systems Inc, Dallas .... Tex
Intronics Inc, Newton .... Mass
Ithaco Inc, Ithaca .... N Y
Iwatsu Electric Co Ltd, Tokyo .... Japan
Janus Control Div Tyco, Waltham .... Mass
Kelk Ltd, George, Don Mills .... Ont
Korfund Dynamics Corp, Westbury .... N Y
Lear Siegler Inc, Electronic Instrumentation Div Anaheim .... Cal
Lebow Associates Inc, Oak Park .... Mich
Matrix Corp, Beech Grove .... Ind
Mayberry Electronics Co, Inglewood .... Cal
MB Electronics A Textron Co, New Haven .... Conn
McFadden Electronics Co, South Gate .... Cal
M Ten Bosch, Inc, Pleasantville .... N Y
Natel Engineering Co Inc, Van Nuys .... Cal
Neff Instrument Corp, Duarte .... Cal
Newport Labs Inc, Newport Beach .... Cal
Norbatrol Electronics Corp, Murrysville .... Pa
Novatronics Inc, Pompano Beach .... Fla
Nytron, Palo Alto .... Cal
Optical Electronics Inc, Tuscon .... Ariz
Pacific Electro Magnetics Co Inc, Palo Alto .... Cal
Pastoriza Electronics Inc, Newton Upper Falls .... Mass
Pegasus Labs Inc, Berkley .... Mich
Perfectone Sound Labs, Allendale .... NJ
Philbrick/Nexus Research A Teledyne Co Dedham .... Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Photron Instrument Co, Cleveland .... Ohio
Plessey Airborne Corp, Hillside .... NJ
Quantum Devices, Bergenfield .... NJ
Ramapo Instrument Co Inc, Bloomingdale .... NJ
Randam Electronics Inc, Cincinnati .... Ohio
Rosemount Plug-In Inc, Nashville .... Tenn
Roveti Instruments, Annapolis .... Md
Schlumberger, 92-Montrouge 32 .... France
Space Craft Inc, Huntsville .... Ala
Statham Instruments Inc, Los Angeles .... Cal
Streeter-Amet, Grayslake Ill
Taber Instruments A Teledyne Co North Tonawanda .... N Y
Teledyne Telemetry Co, Los Angeles .... Cal
Trelcom Engineering Co Inc, Baltimore .... Md
Tylan Corp, Torrance .... Cal
Unholtz-Dickie Corp, Hamden .... Conn
West Coast Research Corp, Los Angeles .... Cal
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh .... Pa
Woodward Machine Inc, Elctns Div, Detroit .... Mich

AMPLIFIERS--KEYING

C M L INC, PLAINFIELD .... N J
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO .... ADV PG. 8
Alpine Geophysical Assoc Inc, Norwood .... N J
C M L Inc, Plainfield .... N J
Dowa Trading Co Ltd, Kobe .... Japan
Fujitsu Ltd, Tokyo .... Japan
General Devices Inc, Instrumentation Div Princeton .... N J
General Instrument Corp Radio Receptor Div Hicksville .... N Y
Honeywell Test Instruments Div, Denver .... Colo
Philips Electronics Industries Ltd, Toronto 17 .... Ont
Taffet Electronics Inc, Woodside .... N Y
Telemet Co, Video Prods & Airborne Telemetry Amityville .... N Y

AMPLIFIERS--LINEAR

ANALOG DEVICES INC, CAMBRIDGE .... MASS
BURR-BROWN RESEARCH CORP, TUCSON .... ARIZ
CLEVITE CORP, BRUSH INSTRUMENTS DIV, CLEVELAND .... OHIO
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL .... PA
C M L INC, PLAINFIELD .... N J
CROWN INT'L RADIO & ELECTRONICS CORP, ELKHART .... IND
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PG 7
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y .... ADV PGS 3RD COVER INLEAF
HEATH CO, BENTON HARBOR .... MICH
HEWLETT-PACKARD, PALO ALTO .... CAL
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO .... ADV PG 8
INTRONICS INC, NEWTON .... MASS
ITHACO INC, ITHACA .... N Y
KINELOGIC CORP, PASADENA .... CAL
LEL DIV VARIAN ASSOCIATES, COPIAGUE .... N Y
MELCOR ELECTRONICS CORP, FARMINGDALE .... N Y
MICROSONICS INC, WEYMOUTH .... MASS
MICROWAVE CAVITY LABS INC, LA GRANGE ILL
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM .... MASS
R H G ELECTRONICS LAB INC, FARMINGDALE .... N Y
SYSTRON DONNER CORP, CONCORD .... CAL
Acromag Inc, Wixom .... Mich
Adage Inc, Boston .... Mass
Aerocom, Miami .... Fla
Aeroscience Electronics Inc, Atlanta .... Ga
Aerospace Research, Inc, Boston .... Mass
Aertech, Sunnyvale .... Cal
Air Technology Corp, Waltham .... Mass
Alpine Geophysical Assoc Inc, Norwood .... N J
Altec Lansing Div LTV Ling Altec Inc, Anaheim .... Cal
Amelco Semiconductor, A Teledyne Co Mountain View .... Cal
Amtron Inc, Midlothian Ill
Analog Devices Inc, Cambridge .... Mass
Analog Technology Corp, Pasadena .... Cal
Applied Devices Corp, College Point .... n y
Applied Electronics Corp of N J, Metuchen .... N J
Applied Research, Inc, Port Washington .... N Y
Argonaut Associates, Inc, Beaverton .... Ore
Autronics Corp, Pasadena .... Cal
Baird-Atomic, Inc, Cambridge .... Mass
Beckman Instruments Intl SA, 1207 Geneva .... Switzerland
Berkeley Nucleonics Corp, Berkeley .... Cal
Bogen Communications Div Lear Siegler Inc Paramus .... N J
Brookdeal of America Inc, North Falmouth .... Mass
Burr-Brown Research Corp, Tucson .... Ariz
Canberra Industries, Middletown .... Conn
C-Cor Electronics Inc, State College .... Pa
Century Electronics & Instruments Inc, Tulsa .... Okla
Chronetics Inc, Mount Vernon .... N Y
Clevite Corp, Brush Instruments Div, Cleveland .... Ohio
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill, ... Pa
C M L Inc, Plainfield .... N J
Comdel Inc, Beverly .... Mass
Component Technology Corp, Sunnyvale .... Cal
Continental Device Corp, Hawthorne .... Cal
Continental Electronics Mfg Co Sub LTV Electrosystems Inc, Dallas .... Tex
Courier Communications Inc Sub Whittaker Corp Newark .... N J
Crown Int'l Radio & Electronics Corp, Elkhart .... Ind
Data Device Corp, Hicksville .... N Y
Dayton Electronics Products Co, Dayton .... Ohio
Dowa Trading Co Ltd, Kobe .... Japan
Dumont Mobile Communications Div LTV Ling Altec Inc Anaheim .... Cal
Dynamics Instrumentation Co, Monterey Park .... Cal
E G & G Inc Laboratory Prods Div, Goleta .... Cal
Electronic Communications Inc (ECI), St Petersburg .... Fla
Electronics Missiles & Communications Inc White Haven .... Pa
EMI Electronics Ltd, Hayes, Middlesex .... England
Ensco Inc, Salt Lake City .... Utah
Fabrication Labs Inc, Camino .... Cal
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View .... Cal
Fairlane Electronics, Inc, Long Valley .... N J
Fanon Electronic Industries Div Courier Commun Inc Newark .... N J
Fenlow Electronics Ltd, Weybridge .... England
Frequency Engineering Labs, Farmingdale .... N J
FRL Inc Fisher Research Lab, Palo Alto .... Cal
Fujitsu Ltd, Tokyo .... Japan
Galaxy Electronics Inc, Council Bluffs .... Iowa
General Devices Inc, Instrumentation Div Princeton .... N J
General Electric Co, ECSO, Schenectady .... N Y
General Instrument Corp Radio Receptor Div Hicksville .... N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville .... N Y
General Precision Systems Inc, Kearfott Gp Little Falls .... N J
GPS Instrument Co Inc, Newton .... Mass
Granger Associates, Palo Alto .... Cal
Gulton Industries Inc, Metuchen .... N J
Hammarlund Mfg Co, Mars Hill .... N C
Hamner Electronics Co Inc, Cleveland .... Ohio
Hartman Systems Co Inc, Huntington Station .... N Y
Heath Co, Benton Harbor .... Mich
Hewlett-Packard, Palo Alto .... Cal
Honeywell Test Instruments Div, Denver .... Colo
Humphrey Electronics Inc, Raleigh .... N C
Hybrid Systems Corp, Cambridge .... Mass
Incor Inc, Plainview .... N Y
International Data Systems Inc, Dallas .... Tex
International Microwave Corp, Cos Cob .... Conn
Intronics Inc, Newton .... Mass
Ithaco Inc, Ithaca .... N Y
Jerrold Electronics Corp, Philadelphia .... Pa
Kay Electric Co, Pine Brook .... N J
Keithley Instruments Inc, Cleveland .... Ohio
Kinelogic Corp, Pasadena .... Cal
Laben S p A, Milan .... Italy
Landis & Gyr AG, Zug .... Switzerland
Lear Siegler Inc, Santa Monica .... Cal
LeCroy Research Systems Corp, West Nyack .... N Y
Lel Div Varian Associates, Copiague .... N Y
Linear Systems Inc, Watsonville .... Cal
Lorch Electronics Corp, Englewood .... N J
Marconi Co Ltd, Chelmsford .... England
Marconi Div, English Electric Corp, New York .... N Y
Matrix Corp, Beech Grove .... Ind
McKee-Pedersen Instruments, Danville .... Cal
Melcor Electronics Corp, Farmingdale .... N Y
Mepco Inc, Morristown .... N J
Micronetics Div Teledyne Systems Co, San Diego .... Cal
Microsonics Inc, Weymouth .... Mass
Microwave Cavity Labs Inc, La Grange Ill
Milletron, Inc, Pittsburgh .... Pa
Monroe Electronics Inc, Middleport .... N Y
Montedoro Corp, San Luis Obispo .... Cal
M Ten Bosch, Inc, Pleasantville .... N Y

Newport Labs Inc, Newport Beach	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Norbatrol Electronics Corp, Murrysville	Pa
Novatronics Inc, Pompano Beach	Fla
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nuclear Supplies, Encino	Cal
NUS Corp, Underwater Sys Div, Paramus	N J
Optical Electronics Inc, Tuscon	Ariz
Optimation, Inc, Sun Valley	Cal
Pacific Electro Dynamics Inc, Seattle	Wash
Palomar Instrument Co, Escondido	Cal
Pastoriza Electronics Inc, Newton Upper Falls	Mass
Perry Amplifier, Brookline	Mass
Philbrick/Nexus Research A Teledyne Co Dedham	Mass
Philco-Ford Corp, Washington	D C
Princeton Applied Research Corp, Princeton	N J
Racal Communications Inc, Silver Spring	Md
Radio Engineering Labs, Div DCA, Long Island City	N Y
Radio Research Co, Rockaway	NJ
Raytheon Co, Components Div, Semiconductor Oper Mountain View	Cal
R F Communications Inc, Rochester	N Y
R H G Electronics Lab Inc, Farmingdale	N Y
Riker Video Div, Hauppauge	N Y
Rosemount Plug-In Inc, Nashville	Tenn
Science Accessories Corp, Southport	Conn
Sedco Systems Inc, Farmingdale	N Y
Solid State Electronics Corp, Sepulveda	Cal
Solid State Radiations Inc, Los Angeles	Cal
Space Craft Inc, Huntsville	Ala
Sprague Electric Co, North Adams	Mass
Squires-Sanders Inc, Liberty Corner	N J
SunAir Electronics Inc, Ft Lauderdale	Fla
Systron Donner Corp, Concord	Cal
Technical Materiel Corp, Mamaroneck	N Y
Universal Audio, North Hollywood	Cal
Varian, Palo Alto	Cal
Ward Leonard Electric Co, Mount Vernon	N Y
Wilcox Electric Co Inc, Kansas City	Mo
Zeltex inc, Concord	Cal

AMPLIFIERS--LOGARITHMIC

ANALOG DEVICES INC, CAMBRIDGE	**MASS**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
CLEVITE CORP, BRUSH INSTRUMENTS DIV, CLEVELAND	**OHIO**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PG : 7**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INTRONICS INC, NEWTON	**MASS**
ITHACO INC, ITHACA	**N Y**
LEL DIV VARIAN ASSOCIATES, COPIAGUE, N Y	**ADV PG 30**
MICROSONICS INC, WEYMOUTH	**MASS**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO, DEDHAM MASS	**ADV PGS 34,35**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
Aerospace Research, Inc, Boston	Mass
AIM Electronics Ltd, Cambridge	U K
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Air Technology Corp, Waltham	Mass
Alcatel, Paris 8eme	France
Alpine Geophysical Assoc Inc, Norwood	N J
American Astrionics Inc, Palo Alto	Cal
Analog Devices Inc, Cambridge	Mass
Analog Technology Corp, Pasadena	Cal
Applied Devices Corp, College Point	n y
Applied Research, Inc, Port Washington	N Y
Audio Instrument Co Inc, Union City	N J
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Burr-Brown Research Corp, Tucson	Ariz
B & W Electronic Research Labs, Dallas	Tex
C B S Labs Div Columbia Bdcstg Sys Inc Stamford	Conn
Clevite Corp, Brush Instruments Div, Cleveland	Ohio
Computer Dynamics Inc, Torrington	Conn
Control Science Corp, Alexandria	Va
Data Device Corp, Hicksville	N Y
Dowa Trading Co Ltd, Kobe	Japan
Dynamic System Electronics Corp, Tempe	Ariz
E G & G Inc Laboratory Prods Div, Goleta	Cal
E G & G Inc, Systems Devel Div, Bedford	Mass
EMI Electronics Ltd, Hayes, Middlesex	England
Frequency Engineering Labs, Farmingdale	N J
General Devices Inc, Instrumentation Div Princeton	N J
General Electric Co, ECSO, Schenectady	N Y
Hewlett-Packard, Palo Alto	Cal
Hybrid Systems Corp, Cambridge	Mass
Intertechnique, Plaisir, 78	France
Intronics Inc, Newton	Mass
Ithaco Inc, Ithaca	N Y
Jerrold Electronics Corp, Philadelphia	Pa
Kay Electric Co, Pine Brook	N J
Keithley Instruments Inc, Cleveland	Ohio
Laben S p A, Milan	Italy
Landis & Gyr AG, Zug	Switzerland
Lel Div Varian Associates, Copiague	N Y
McKee-Pedersen Instruments, Danville	Cal
Microsonics Inc, Weymouth	Mass
Milletron, Inc, Pittsburgh	Pa
Nippon Electric Co Ltd, Tokyo	Japan
Optical Electronics Inc, Tuscon	Ariz
Optimax Inc, Ambler	Pa
Pacific Measurements Inc, Palo Alto	Cal
Perry Amplifier, Brookline	Mass
Philbrick/Nexus Research A Teledyne Co Dedham	Mass
Quan-Tech Labs Inc, Whippany	N J
Quantum Devices, Bergenfield	NJ
Rawco Instruments Inc, Fort Worth	Tex
R H G Electronics Lab Inc, Farmingdale	N Y
Sedco Systems Inc, Farmingdale	N Y
Smyth Research Associates, San Diego	Cal
Solid State Radiations Inc, Los Angeles	Cal
Space Craft Inc, Huntsville	Ala
Sprague Electric Co, North Adams	Mass
Squires-Sanders Inc, Liberty Corner	N J
Teledyne Telemetry Co, Los Angeles	Cal
TRF Inc, Springfield	Va
Unholtz-Dickie Corp, Hamden	Conn
Varian, Palo Alto	Cal

Log Amplifiers and Limiters

for
- Wide dynamic range
- Exceptional accuracy

LEL log amplifiers are sequential detection type units. Most solid state models offer logging accuracy of ±1 dB. Input impedances are 50 ohms. Outputs are video.

standard models

Model No.	Center Freq. MHz	Band-width @ 3 dB MHz	Input dynamic range dB	Sensi-tivity mV/dB
solid state				
ITL-1-30-04-50	30	4	60	50
ITL-1-30-08-50	30	8	60	50
ITL-1-60-04-50	60	4	60	50
ITL-1-60-08-50	60	8	60	50
ITL-2-30-10-50	30	10	80	20
ITL-2-30-18-50	30	18	80	20
ITL-2-60-10-50	60	10	80	20
ITL-2-60-20-50	60	20	80	20
ITL-2-70-10-50	70	10	80	20
ITL-2-70-30-50	70	30	80	20
ITL-2-160-10-50	160	10	80	20
ITL-2-160-30-50	160	30	80	20
ITL-3-30-03-50	30	3	50	50
ITL-4-30-10-50	30	10	80	20
ITL-4-60-10-50	60	10	80	20
ITL-4-70-10-50	70	10	80	20
ITL-5-30-08-50	30	8	70	40
ITL-5-60-08-50	60	8	70	40
ITL-6-80-20-50	80	20	–70 to 0	35

limiters, IF, constant phase

Series ITLM limiters have extremely low phase shift, typically less than 7.5° over a dynamic range of 70 dB. For both phase and amplitude information, specify model ITLL which combines a log amplifier with the ITLM constant phase limiter in a single chassis.

Model No.	CF MHz	BW MHz	Input dynamic range dBm	Limited output dBm
ITLM-2-30-10-50	30	10	–70 to 0	0
ITLM-2-60-10-50	60	10	–70 to 0	0

LEL DIVISION
VARIAN associates
AKRON ST., COPIAGUE, L. I., NEW YORK 11726
For prompt information
CALL 516 AM 4-2517

AMPLIFIERS, MAGNETIC--POWER SUPPLY

ANALOG DEVICES INC, CAMBRIDGE	**MASS**
C M L INC, PLAINFIELD	**N J**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH COVER**
K G S ELECTRONICS INC, PASADENA	**CAL**
MAGNETICS INC, BUTLER	**PA**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SORENSEN OPERATION, RAYTHEON CO., NORWALK	**CONN**
TORWICO ELECTRONICS, INC, LAKEWOOD	**N J**
TRANSMAGNETICS INC, FLUSHING	**N Y**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
ACDC Electronics, Inc, Burbank	Cal
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
Allis-Chalmers Mfg Co, Milwaukee	Wis
Analog Devices Inc, Cambridge	Mass
Applied Devices Corp, College Point	n y
Applied Electronics Corp of N J, Metuchen	N J
Astro-Metrix Corp, Burbank	Cal
Atlas Coil Corp, Ansonia	Conn
Atlas Controls Div Atlas Engrg Co Inc, Dorchester	Mass
Avionics, Inc, South Bend	Ind
Ballastran Corp, Fort Wayne	Ind
Barwood Electronics, Inc, Glendale	Cal
Basler Electric Co, Highland	Ill
Bullock Magnetics Corp, Pomona	Cal
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Caledonia Electronics & Transformer Div Caledonia	N Y
C M L Inc, Plainfield	N J
Cober Electronics Inc, Stamford	Conn
Conductron Corp, Ann Arbor	Mich
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Daltronics Inc, Providence	R I
Dowa Trading Co Ltd, Kobe	Japan
Electro Networks Inc, Caledonia	N Y
Electronic Transformer Corp, Paterson	N J
Electro-Pacific Inc, Goleta	Cal
Electro Windings & Components Inc, Kenilworth	N J
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Fen-Tone Corp, New York	N Y
Fisher Engineering Inc, Huntington	Ind
Freed Transformer Co Inc, Brooklyn	N Y
Fullmer Electronics Inc, Northridge	Cal
Gladding Corp, South Otselic	N Y
Green Electric Corp, Fairlawn	NJ
Guide Industries Inc, Sun Valley	Cal
Gulton Industries Inc, Metuchen	N J
Hagan Computer Systems Div Westinghouse Pittsburgh	Pa
Hill Magnetics, Inc, Redwood City	Cal
Hirst Electric Industries Ltd, Crawley, Sussex	England
Kepco Inc, Flushing	N Y
K G S Electronics Inc, Pasadena	Cal
Lear Siegler Inc, Santa Monica	Cal
Light Electric Corp, Newark	N J
Litton Industries, Electron Tube Div, San Carlos	Cal
Macarr Inc, Bronx	N Y
Magnetic Devices Inc, Lemon Grove	Cal
Magnetico Inc, East Northport	N Y
Magnetics Inc, Butler	Pa
Magnetic Specialties Inc, Trenton	N J
Magnetika Inc, Venice	Cal
Marin Controls Co, Belmont	Cal
Microdot Magnetics Inc, Los Angeles	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Norbatrol Electronics Corp, Murrysville	Pa
Pacific Instrument Co, Oakland	cal
Pacific Magnetic Corp, Romoland	Cal
PCA Electronics Inc, Sepulveda	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polyphase Instrument Co, Bridgeport	Pa
Powertec Div, Airtronics Corp, Chatsworth	Cal
Preferred Electronics Inc, Westfield	Mass
Prototype Transformer Corp, East Orange	NJ
Quartz Radiation Corp, Fairfield	N J
Qutronic Transformer Corp, Oneonta	N Y
Robicon Corp, Pittsburgh	Pa
Sanken Electric Co, Ltd, Toshima-ku, Tokyo	Japan
Sartron Inc, Newberg	Ore
SBD Systems Inc, Farmingdale	N Y
Scientific Instruments Co, Chatsworth	Cal
Scott Electronics Corp, Orlando	Fla
S K G Associates Inc, Boston	Mass
Sorensen Operation, Raytheon Co., Norwalk	Conn
Spatron Inc, Alhambra	Cal
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Thiem-Transrex Inc, El Segundo	Cal
Torelco Inc, Irvington	N J
Toroid-Trans Electronics Co Inc, Danbury	Conn
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y

Torwico Electronics, Inc, Lakewood ... N J
Transmagnetics Inc, Flushing ... N Y
United Transformer Co Div TRW Inc, New York ... N Y
Universal Toroid Coil Winding Inc, Irvington ... NJ
Utrad Corp, Huntington ... Ind
Varo Inc, Garland ... Tex
Virginia Electronics Co Inc, Falls Church ... Va
Ward Leonard Electric Co, Mount Vernon ... N Y
Zaring Industries Inc, Carmel ... Ind

AMPLIFIERS, MAGNETIC--PREAMPLIFIERS& LOW LEVEL

BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS WOODSIDE ... NY
C M L INC, PLAINFIELD ... N J
MAGNETICS INC, BUTLER ... PA
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
TORWICO ELECTRONICS, INC, LAKEWOOD ... N J
TRANSMAGNETICS INC, FLUSHING ... N Y
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK ... N Y
Acromag Inc, Wixom ... Mich
ADC Electronics, Inc, Harbor City ... Cal
ADC Products, Minneapolis ... Minn
Ad-Yu Electronics Inc, Passaic ... N J
Aerolite Electronics Corp, Union City ... N J
Airpax Electronics Inc, Cambridge Div, Cambridge ... Md
Airpax Electronics Inc Seminole Div Fort Lauderdale ... Fla
Alpine Geophysical Assoc Inc, Norwood ... N J
Altec Lansing Div LTV Ling Altec Inc, Anaheim ... Cal
Ampex Corp, Redwood City ... Cal
Audio Instrument Co Inc, Union City ... N J
Ballastran Corp, Fort Wayne ... Ind
Basler Electric Co, Highland ... Ill
Bendix Corp, Communications Div, Towson ... Md
Brookdeal of America Inc, North Falmouth ... Mass
Bullock Magnetics Corp, Pomona ... Cal
Bulova Watch Co Inc Elctns Div Servo Products Woodside ... NY
Bush Transformer Div, Gladding-Keystone Corp Oneonta ... NY
C M L Inc, Plainfield ... N J
Coilcraft Inc, Cary ... Ill
Controlomag Labs, Roslyn ... Pa
Control Technology Co Inc, Long Island City ... N Y
Cooke Vacuum Products Inc, South Norwalk ... Conn
Daltronics Inc, Providence ... R I
Daytron Inc, Mountain View ... Cal
Don Bosco Electronics Inc, Hanover ... N J
Dorsett Electronics Inc, Tulsa ... Okla
Dowa Trading Co Ltd, Kobe ... Japan
Electronic Control Systems Inc, Fairmont ... W Va
Electro-Pacific Inc, Goleta ... Cal
Electro Windings & Components Inc, Kenilworth ... N J
Esterline Angus Div Esterline Corp, Indianapolis ... Ind
Fen-Tone Corp, New York ... N Y
Fisher Engineering Inc, Huntington ... Ind
Flow Technology Inc, Tempe ... Ariz
Freed Transformer Co Inc, Brooklyn ... N Y
Fullmer Electronics Inc, Northridge ... Cal
General Magnetics Inc, Bloomfield ... N J
Geo Space Corp, Houston ... Tex
Hagan Computer Systems Div Westinghouse Pittsburgh ... Pa
Harrel Inc, East Norwalk ... Conn
Inductor Engineering Inc, Lewes ... Del
Industrial Control Co, Farmingdale ... N Y
Instruments Inc, San Diego ... Cal
Macarr Inc, Bronx ... N Y
Magnasync/Moviola Corp, North Hollywood ... Cal
Magnetics Inc, Butler ... Pa
Magnetika Inc, Venice ... Cal
Microdot Magnetics Inc, Los Angeles ... Cal
Milletron, Inc, Pittsburgh ... Pa
Nippon Electric Co Ltd, Tokyo ... Japan
Norbatrol Electronics Corp, Murrysville ... Pa
Nytron, Palo Alto ... Cal
Pacific Instrument Co, Oakland ... cal
Pacific Magnetic Corp, Romoland ... Cal
PCA Electronics Inc, Sepulveda ... Cal
Perfectone Sound Labs, Allendale ... NJ
Prototype Transformer Corp, East Orange ... NJ
Qutronic Transformer Corp, Oneonta ... N Y
Raecord Inc, Paterson ... N J
Robicon Corp, Pittsburgh ... Pa
Sartron Inc, Newberg ... Ore
Scott Electronics Corp, Orlando ... Fla
Shrader Sound Inc, Washington ... D C
Sigma Instruments Inc, Braintree ... Mass
Singer Co, Diehl Div, Somerville ... N J
S K G Associates Inc, Boston ... Mass
Spatron Inc, Alhambra ... Cal
Telex Communications Div, Minneapolis ... Minn
Tenco Electronics Inc, Boston ... Mass
Torelco Inc, Irvington ... N J
Toroid-Trans Electronics Co Inc, Danbury ... Conn
Torotron Co Div Struthers Electronics Corp, Mamaroneck ... N Y
Torwico Electronics, Inc, Lakewood ... N J
Transmagnetics Inc, Flushing ... N Y
United Transformer Co Div TRW Inc, New York ... N Y
Universal Audio, North Hollywood ... Cal
Utrad Corp, Huntington ... Ind
Varo Inc, Garland ... Tex
Ward Leonard Electric Co, Mount Vernon ... N Y
Westrex Div Litton Industries, Inc, Hollywood ... Cal
Zaring Industries Inc, Carmel ... Ind

AMPLIFIERS, MAGNETIC--REGULATORS

C M L INC, PLAINFIELD ... N J
KEPCO INC, FLUSHING, N Y ... ADV PGS 4TH COVER
K G S ELECTRONICS INC, PASADENA ... CAL
MAGNETICS INC, BUTLER ... PA
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
SORENSEN OPERATION, RAYTHEON CO., NORWALK ... CONN
TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA ... N Y
TORWICO ELECTRONICS, INC, LAKEWOOD ... N J
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK ... N Y
ACDC Electronics, Inc, Burbank ... Cal
ADC Electronics, Inc, Harbor City ... Cal
ADC Products, Minneapolis ... Minn
Applied Electronics Corp of N J, Metuchen ... N J
Atlas Controls Div Atlas Engrg Co Inc, Dorchester ... Mass
Avionics, Inc, South Bend ... Ind
Ballastran Corp, Fort Wayne ... Ind
Barwood Electronics, Inc, Glendale ... Cal
Basler Electric Co, Highland ... Ill
Bullock Magnetics Corp, Pomona ... Cal
Bush Transformer Div, Gladding-Keystone Corp Oneonta ... NY
C M L Inc, Plainfield ... N J
Coast Coil Co Atlantic Research Corp, Los Angeles ... Cal
Collins Radio Co, Electronic Components Newport Beach ... Cal
Control Data Corp, LaJolla Div, Minneapolis ... Minn
Daytron Inc, Mountain View ... Cal
Dowa Trading Co Ltd, Kobe ... Japan
Electronic Control Systems Inc, Fairmont ... W Va
Electro-Pacific Inc, Goleta ... Cal
Electro Windings & Components Inc, Kenilworth ... N J
Esterline Angus Div Esterline Corp, Indianapolis ... Ind
Euro Cedag, Milan ... Italy
Fisher Engineering Inc, Huntington ... Ind
Freed Transformer Co Inc, Brooklyn ... N Y
Fullmer Electronics Inc, Northridge ... Cal
Geo Space Corp, Houston ... Tex
Gulton Industries Inc, Metuchen ... N J
Hagan Computer Systems Div Westinghouse Pittsburgh ... Pa
Hirst Electric Industries Ltd, Crawley, Sussex ... England
Kepco Inc, Flushing ... N Y
K G S Electronics Inc, Pasadena ... Cal
Kurz & Root Co, Appleton ... Wis
Lear Siegler Inc, Santa Monica ... Cal
Leeds & Northrup Co, Philadelphia ... Pa
Macarr Inc, Bronx ... N Y
Magnetico Inc, East Northport ... N Y
Magnetics Inc, Butler ... Pa
Magnetic Specialties Inc, Trenton ... N J
Magnetika Inc, Venice ... Cal
Marin Controls Có, Belmont ... Cal
Microdot Magnetics Inc, Los Angeles ... Cal
Nippon Electric Co Ltd, Tokyo ... Japan
Norbatrol Electronics Corp, Murrysville ... Pa
Pacific Instrument Co, Oakland ... cal
Pacific Magnetic Corp, Romoland ... Cal
PCA Electronics Inc, Sepulveda ... Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Powertec Div, Airtronics Corp, Chatsworth ... Cal
Quantum Devices, Bergenfield ... NJ
Qutronic Transformer Corp, Oneonta ... N Y
Robicon Corp, Pittsburgh ... Pa
Sanken Electric Co, Ltd, Toshima-ku, Tokyo ... Japan
Sartron Inc, Newberg ... Ore
SBD Systems Inc, Farmingdale ... N Y
Scott Electronics Corp, Orlando ... Fla
S K G Associates Inc, Boston ... Mass
Sorensen Operation, Raytheon Co., Norwalk ... Conn
Spatron Inc, Alhambra ... Cal
Taber Instruments A Teledyne Co North Tonawanda ... N Y
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo ... Japan
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn ... N Y
Thiem-Transrex Inc, El Segundo ... Cal
Torelco Inc, Irvington ... N J
Toroid-Trans Electronics Co Inc, Danbury ... Conn
Torotron Co Div Struthers Electronics Corp, Mamaroneck ... N Y
Torwico Electronics, Inc, Lakewood ... N J
United Transformer Co Div TRW Inc, New York ... N Y
Universal Toroid Coil Winding Inc, Irvington ... NJ
Utrad Corp, Huntington ... Ind
Zaring Industries Inc, Carmel ... Ind

AMPLIFIERS, MAGNETIC--SERVO

TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA ... N Y
TRANSMAGNETICS INC, FLUSHING ... N Y
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK N Y ... ADV PG 31
ADC Electronics, Inc, Harbor City ... Cal
ADC Products, Minneapolis ... Minn
Airpax Electronics Inc, Cambridge Div, Cambridge ... Md
Airpax Electronics Inc Seminole Div Fort Lauderdale ... Fla
Applied Devices Corp, College Point ... n y
Applied Electronics Corp of N J, Metuchen ... N J
Arnold Magnetics Corp, Los Angeles ... Cal
Astro-Metrix Corp, Burbank ... Cal
Avionics, Inc, South Bend ... Ind
Barwood Electronics, Inc, Glendale ... Cal
Bullock Magnetics Corp, Pomona ... Cal
Cedar Engineering Div Control Data Corp Minneapolis ... Minn
Collins Radio Co, Electronic Components Newport Beach ... Cal
Control Data Corp, LaJolla Div, Minneapolis ... Minn
Daylen Co, South Gate ... Cal
Daytron Inc, Mountain View ... Cal
Dowa Trading Co Ltd, Kobe ... Japan
Electronic Control Systems Inc, Fairmont ... W Va
Electro-Pacific Inc, Goleta ... Cal
ElectroSyn Technology Labs, Inc, Canton ... Mass
Electro Windings & Components Inc, Kenilworth ... N J
Esterline Angus Div Esterline Corp, Indianapolis ... Ind
Fisher Engineering Inc, Huntington ... Ind
Freed Transformer Co Inc, Brooklyn ... N Y
Fullmer Electronics Inc, Northridge ... Cal
General Magnetics Inc, Bloomfield ... N J
General Precision Systems Inc, Kearfott Gp Little Falls ... N J
Geo Space Corp, Houston ... Tex
Gladding Corp, South Otselic ... N Y
Hagan Computer Systems Div Westinghouse Pittsburgh ... Pa
Harrel Inc, East Norwalk ... Conn
Inductor Engineering Inc, Lewes ... Del
Industrial Control Co, Farmingdale ... N Y
Lear Siegler Inc, Santa Monica ... Cal
Magnetico Inc, East Northport ... N Y
Magnetika Inc, Venice ... Cal
Norbatrol Electronics Corp, Murrysville ... Pa
Pacific Instrument Co, Oakland ... cal
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Qutronic Transformer Corp, Oneonta ... N Y
Robicon Corp, Pittsburgh ... Pa
Sartron Inc, Newberg ... Ore
Scott Electronics Corp, Orlando ... Fla
S K G Associates Inc, Boston ... Mass
Taber Instruments A Teledyne Co North Tonawanda ... N Y
Tenco Electronics Inc, Boston ... Mass
Toroid-Trans Electronics Co Inc, Danbury ... Conn
Torotron Co Div Struthers Electronics Corp, Mamaroneck ... N Y
Transformers Inc, Vestal ... N Y
Transmagnetics Inc, Flushing ... N Y
Ultra Electronics Ltd, London, W 3 ... England
United Transformer Co Div TRW Inc, New York ... N Y
Universal Toroid Coil Winding Inc, Irvington ... NJ
Varo Inc, Garland ... Tex
Ward Leonard Electric Co, Mount Vernon ... N Y
Yaskawa Electric Mfg Co Ltd, Tokyo ... Japan
Zaring Industries Inc, Carmel ... Ind

UTC
PIONEERS IN MINIATURIZATION

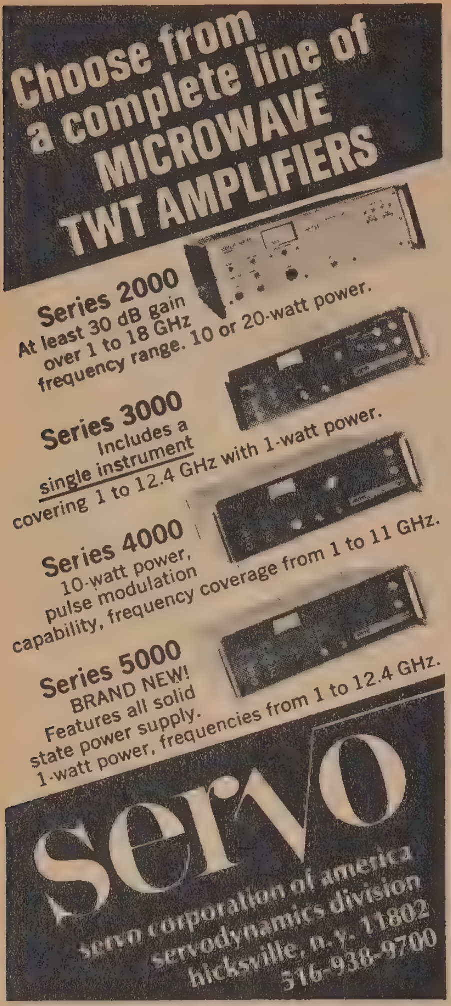
MAGNETIC AMPLIFIERS

HIGH GAIN
SATURABLE REACTORS
SERVO MOTOR

- MIL-T-27B & industrial types
- Immediate delivery from stock
- Specials made to specs.
- Microwatts to 100 KVA

Over 1300 top quality ironcore inductance devices available from stock.

UNITED TRANSFORMER COMPANY
DIVISION OF TRW INC.
150 Varick Street, New York, N. Y. 10013
TWX: 710-581-2722 / (212) AL 5-3500
For nearest Rep see UTC ad, page 727


Choose from a complete line of MICROWAVE TWT AMPLIFIERS
Series 2000 At least 30 dB gain over 1 to 18 GHz frequency range. 10 or 20-watt power.
Series 3000 Includes a single instrument covering 1 to 12.4 GHz with 1-watt power.
Series 4000 10-watt power, pulse modulation capability, frequency coverage from 1 to 11 GHz.
Series 5000 BRAND NEW! Features all solid state power supply. 1-watt power, frequencies from 1 to 12.4 GHz.
servo
servo corporation of america
servodynamics division
hicksville, n.y. 11802
516-938-9700

AMPLIFIERS, MAGNETIC--SPEED CONTROL

MAGNETICS INC, BUTLER	**PA**
TORWICO ELECTRONICS, INC, LAKEWOOD	**N J**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
Acromag Inc, Wixom	Mich
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
Allis-Chalmers Mfg Co, Milwaukee	Wis
Applied Electronics Corp of N J, Metuchen	N J
Arnold Magnetics Corp, Los Angeles	Cal
Basler Electric Co, Highland	Ill
Bullock Magnetics Corp, Pomona	Cal
Coilcraft Inc, Cary	Ill
Control Data Corp, LaJolla Div, Minneapolis	Minn
Control Technology Co Inc, Long Island City	N Y
Daytron Inc, Mountain View	Cal
Dowa Trading Co Ltd, Kobe	Japan
Electro-Pacific Inc, Goleta	Cal
Electro Windings & Components Inc, Kenilworth	N J
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Fullmer Electronics Inc, Northridge	Cal
Geo Space Corp, Houston	Tex
Green Electric Corp, Fairlawn	NJ
Hagan Computer Systems Div Westinghouse Pittsburgh	Pa
Industrial Control Co, Farmingdale	N Y
La Telemecanique Electrique, 92 Rueil	France
Leeds & Northrup Co, Philadelphia	Pa
Macarr Inc, Bronx	N Y
Magnetics Inc, Butler	Pa
Magnetika Inc, Venice	Cal
Microdot Magnetics Inc, Los Angeles	Cal
Norbatrol Electronics Corp, Murrysville	Pa
Pacific Instrument Co, Oakland	cal
Pacific Magnetic Corp, Romoland	Cal
PCA Electronics Inc, Sepulveda	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Prototype Transformer Corp, East Orange	NJ
Qutronic Transformer Corp, Oneonta	N Y
Robicon Corp, Pittsburgh	Pa
Sartron Inc, Newberg	Ore
Scott Electronics Corp, Orlando	Fla
Servo-Tek Products Co, Hawthorne	N J
S K G Associates Inc, Boston	Mass
Thiem-Transrex Inc, El Segundo	Cal
Toroid-Trans Electronics Co Inc, Danbury	Conn
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
Torwico Electronics, Inc, Lakewood	N J

Phase-and-Gain Matched Amplifiers
for multi-channel gain-and-phase tracking systems.
LEL gain-and-phase matched amplifiers may be used in varying combinations of the basic 2- or 3-channel units. Characteristics of these amplifiers are matched over the temperature and gain control ranges. Associated matched mixer-preamplifiers and monopulse comparators are also available from LEL.
specifications:
Phase match: (Dual) 2.5°, (Triple) 3.5°
Amplitude match: (Dual) 1 dB, (Triple) 1.5 dB
IF center freq. 30, 60 or 70 MHz
IF bandwidth 3 or 10 MHz
Gain 65 dB
Gain control 40 dB
Input 50 ohms
Output capability +10 dBm
Power req. –20 V @ 80 mA and 0 to +10 VDC/channel
LEL DIVISION VARIAN associates
AKRON ST., COPIAGUE, L. I., NEW YORK 11726
For prompt information CALL 516 AM 4-2517

ANAREN* AMPLIFIERS
High power • Low noise
• Bandwidths up to octave
• Frequencies up to 3000 MHz
• Solid state reliability
• Stripline technique for size/weight reduction.
Look to ANAREN* for dependability and quick delivery of:
Couplers (Hybrids)
Mixers
Power Combiners/Dividers
Correlators
Discriminators
Antenna Feeds
Stripline Components
SSB Modulators
ANAREN MICROWAVE, INC.
478 EAST BRIGHTON AVE., SYRACUSE, N Y 13210
Phone 315-475-1621 TWX 710 541 1507
TM ANAREN MICROWAVE INC

Ultra Electronics Ltd, London, W 3	England
United Transformer Co Div TRW Inc, New York	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Varo Inc, Garland	Tex
Ward Leonard Electric Co, Mount Vernon	N Y
Zaring Industries Inc, Carmel	Ind

AMPLIFIERS--MASER

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Alcatel, Paris 8eme	France
Crystalab Products Corp, Rochelle Park	N J
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Mullard Ltd, London, WC 1	Eng
Nippon Electric Co Ltd, Tokyo	Japan
RCA, Defense Electronic Products, Moorestown	N J

AMPLIFIERS--MICROWAVE (EXCEPT MASERS) SEE ALSO TUBES--MICROWAVE

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE	**NY**
ANAREN MICROWAVE INC, SYRACUSE, N Y	**ADV PG 32**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO.	**ADV PGS 8**
LEL DIV VARIAN ASSOCIATES, COPIAGUE, N Y	**ADV PG 32**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
RFD INC, TAMPA	**FLA**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
SERVO CORP OF AMERICA, HICKSVILLE, N Y	**ADV PG 32**
Aertech, Sunnyvale	Cal
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alfred Electronics, Palo Alto	Cal
Allied Research Associates, Inc, Concord	Mass
Alto Scientific Co, Inc, Palo Alto	Cal
Amerac, Inc, Beverly	Mass
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Anaren Microwave Inc, Syracuse	N Y
Applied Microwave Lab, Inc, Andover	Mass
Applied Research, Inc, Port Washington	N Y
Avantek Inc, Santa Clara	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Beckman Instruments Inc, Fullerton,	Cal
California Microwave, Sunnyvale	Cal
Cardion Communications, Woodbury	N Y
Cober Electronics Inc, Stamford	Conn
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Dowa Trading Co Ltd, Kobe	Japan
E-H Research Labs Inc, Oakland	Cal
EMI Electronics Ltd, Hayes, Middlesex	England
E & M Labs, North Hollywood	Cal
Energy Systems Inc, Palo Alto	Cal
Fairchild Instrumentation, Sunnyvale	Cal
Fujitsu Ltd, Tokyo	Japan
General Instrument Corp Radio Receptor Div Hicksville	N Y
General Microwave Corp, Farmingdale	N Y
Guide Industries Inc, Sun Valley	Cal
Hewlett-Packard, Palo Alto	Cal
Honeywell Test Instruments Div, Denver	Colo
Honig Laboratories Inc, Westbury	N Y
International Microwave Corp, Cos Cob	Conn
Itek Corp, Lexington	Mass
Kobe Industries Corp, Kobe	Japan
Lel Div Varian Associates, Copiague	N Y
Litton Industries, Electron Tube Div, San Carlos	Cal
Loral Electronic Systems, Div Loral Corp, New York	NY
L P Associates Inc, Los Angeles	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Melabs, Palo Alto	Cal
Metcom Inc, Salem	Mass
Micronetics Div Teledyne Systems Co, San Diego	Cal
Micro-Radionics Inc, Van Nuys	Cal
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Control Co, Red Bank	N J
Microwave Electronics A Teledyne Co, Palo Alto	Cal
Microwave Products Group Div C A S Inc Carle Place	N Y
Microwave/Systems Inc, East Syracuse	N Y
Mullard Ltd, London, WC 1	Eng
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Optimax Inc, Ambler	Pa
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Electronic Components, Harrison	N J
Radio Engineering Labs, Div DCA, Long Island City	N Y
RCA, Defense Electronic Products, Moorestown	N J
Resdel Engineering Corp, Pasadena	Cal
RFD Inc, Tampa	Fla
R H G Electronics Lab Inc, Farmingdale	N Y

Servo Corp of America, Hicksville	N Y
Shiba Electric Co Ltd, Woodside	N Y
Shrader Sound Inc, Washington	D C
Somerset Radiation Lab Inc, Arlington	Va
Spacekom Inc, Goleta	Cal
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Terra Corp, Albuquerque	N M
Trak Microwave Corp, Tampa	Fla
TRW Systems Group, Redondo Beach	Cal
Varian, Palo Alto	Cal
Watkins-Johnson Co, Palo Alto	Cal

AMPLIFIERS--MULTICOUPLER

ANAREN MICROWAVE INC, SYRACUSE	**N Y**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
LEL DIV VARIAN ASSOCIATES, COPIAGUE	**N Y**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
Aerospace Research, Inc, Boston	Mass
Anaren Microwave Inc, Syracuse	N Y
Applied Research, Inc, Port Washington	N Y
Avantek Inc, Santa Clara	Cal
Blonder-Tongue Labs Inc, Newark	N J
C-Cor Electronics Inc, State College	Pa
Communication Electronics Inc, Rockville	Md
Conductron Corp, Ann Arbor	Mich
Defense Electronics Inc, Rockville	Md
Dowa Trading Co Ltd, Kobe	Japan
Electronics of Clearfield Inc, Clearfield	Pa
Epsco Inc, Westwood	Mass
Finney Co, Bedford	Ohio
General Devices Inc, Instrumentation Div Princeton	N J
General Microwave Corp, Farmingdale	N Y
Lel Div Varian Associates, Copiague	N Y
Loral Electronic Systems, Div Loral Corp, New York	NY
Lorch Electronics Corp, Englewood	N J
Micronetics Div Teledyne Systems Co, San Diego	Cal
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Products Group Div C A S Inc Carle Place	N Y
Montedoro Corp, San Luis Obispo	Cal
Optimax Inc, Ambler	Pa
Resdel Engineering Corp, Pasadena	Cal
R H G Electronics Lab Inc, Farmingdale	N Y
Space Craft Inc, Huntsville	Ala
Symetrics Engineering Corp, Satellite Beach	Fla
Technical Materiel Corp, Mamaroneck	N Y
Wiltek, Inc, Wilton	Conn
Winegard Co, Burlington	Iowa

AMPLIFIERS--NULL SEE AMPLIFIERS--INSTRUMENTATION

AMPLIFIERS--OPERATIONAL

ACOPIAN CORP, EASTON	**PA**
ANALOG DEVICES INC, CAMBRIDGE, MASS.	**ADV PGS 36,37**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BECKMAN INSTRUMENTS INC, HELIPOT DIV, FULLERTON CAL	**ADV PG 40**
BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS WOODSIDE N Y	**ADV PG 40**
BURR-BROWN RESEARCH CORP, TUCSON, ARIZ.	**ADV PG 33**
COMPUTER LABS, GREENSBORO, N C	**ADV PG 40**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
HEATH CO, BENTON HARBOR	**MICH**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
INTRONICS INC, NEWTON, MASS	**ADV PG 39**
KEPCO INC, FLUSHING, N Y	**ADV PGS '38, 4TH COVER**
MASTECH INC, SYRACUSE	**N Y**
MELCOR ELECTRONICS CORP, FARMINGDALE N Y	**ADV PG 33**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM	**MASS**
SYSTRON DONNER CORP, CONCORD	**CAL**
TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA	**N Y**
TEKTRONIX INC, BEAVERTON	**ORE**
TELE-SIGNAL CORP, WOODBURY	**N Y**
Acopian Corp, Easton	Pa
Adage Inc, Boston	Mass
A D Data Systems Inc, Rochester	N Y
Aerojet-General Corp Electronics Div, Azusa	Cal
AIM Electronics Ltd, Cambridge	U K
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
Air Technology Corp, Waltham	Mass
Altec Lansing Div LTV Ling Altec Inc, Anaheim	Cal
Amelco Semiconductor, A Teledyne Co Mountain View	Cal
Amtron Inc, Midlothian	Ill
Analog Devices Inc, Cambridge	Mass
Analogic Corp, Waltham	Mass
Applied Dynamics, Inc, Ann Arbor	Mich
Applied Electronics Corp of N J, Metuchen	N J
Astrodata Inc, Anaheim	Cal
Automation Development Co, Culver City	Cal
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Burns & Towne, Inc, Malden	Mass
Burr-Brown Research Corp, Tucson	Ariz
B & W Electronic Research Labs, Dallas	Tex
Cohu Electronics Inc, San Diego	Cal
Compudyne Corp, Hatboro	Pa
Computer Dynamics Inc, Torrington	Conn
Computer Labs, Greensboro	N C
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Continental Device Corp, Hawthorne	Cal
Control Science Corp, Alexandria	Va
Control Technology Co Inc, Long Island City	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Daltronics Inc, Providence	R I
Data Device Corp, Hicksville	N Y
De-Tec-Tronic Corp, Chicago	Ill
Dorsett Electronics Inc, Tulsa	Okla
Dowa Trading Co Ltd, Kobe	Japan
Dynamics Instrumentation Co, Monterey Park	Cal
Dynamic System Electronics Corp, Tempe	Ariz
E G & G Inc, Electronic Prods Div, Boston	Mass
Electro Development Corp, Lynnwood	Wash
Electronic Control Systems Inc, Fairmont	W Va
Ensco Inc, Salt Lake City	Utah
Epsco Inc, Westwood	Mass
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Fairchild Controls, Hicksville	N Y
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Fairlane Electronics, Inc, Long Valley	N J
Fenlow Electronics Ltd, Weybridge	England
Ferranti, Ltd, Lancashire	England
General Devices Inc, Instrumentation Div Princeton	N J
General Electric Co, ECSO, Schenectady	N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
Geo Space Corp, Houston	Tex
Glentek Inc, Santa Monica	Cal
Good Electronic Corp, Bedford	Mass
GPS Instrument Co Inc, Newton	Mass
Hagan Computer Systems Div Westinghouse Pittsburgh	Pa
Hartman Systems Co Inc, Huntington Station	N Y
Heath Co, Benton Harbor	Mich
Honeywell Test Instruments Div, Denver	Colo
Howie Corp, Norristown	Pa
Hybrid Systems Corp, Cambridge	Mass
Incor Inc, Plainview	N Y
Industrial Electronetics Corp, Satellite Beach	Fla
International Data Systems Inc, Dallas	Tex
Intronics Inc, Newton	Mass
Julie Research Labs, Inc, New York	N Y
Keithley Instruments Inc, Cleveland	Ohio
Kepco Inc, Flushing	N Y
K & M Electronics Corp, Hackensack	N J
Leeds & Northrup Co, Philadelphia	Pa

Look To
BURR-BROWN
for
Operational
Amplifiers

- BB IC OP AMPS
- BB BI-POLAR INPUT OP AMPS
- BB FET INPUT OP AMPS
- BB CHOPPER STABILIZED OP AMPS
- BB UNIVERSAL OP AMPS
- BB MICROMINIATURE OP AMPS
- BB HIGH VOLTAGE OP AMPS
- BB HIGH POWER OP AMPS
- BB MILITARY TYPE OP AMPS
- BB ECONOMY OP AMPS
- BB CUSTOM OP AMPS

AND

- BB DC INSTRUMENTATION AMPLIFIERS

For up-to-the-minute product and application information, phone your nearest Burr-Brown Engineering Representative.

ENGINEERING REPRESENTATIVES: ALABAMA, HUNTSVILLE (205) 534-1648 / **ARIZONA,** PHOENIX (602) 254-6085 / **CALIF.,** LOS ANGELES (213) 665-5181, SAN DIEGO (714) 232-2017, SAN FRANCISCO (408) 244-1505 / **COLO.,** DENVER (303) 399-4391 / **CONN.,** EAST HARTFORD (203) 874-9222 / **D.C.,** WASHINGTON (SEE MARYLAND) / **FLORIDA,** ORLANDO (305) 425-2764 / **ILLINOIS,** CHICAGO (312) 286-6824 / **LA.,** NEW ORLEANS (504) 888-2266 / **MD.,** SILVER SPRINGS (301) 588-8134 / **MASS.,** BOSTON (617) 245-4870 / **MICH.,** DETROIT (313) 358-3333 / **MINN.,** MINNEAPOLIS (612) 781-1611 / **MO.,** ST. LOUIS (314) 524-4800 / **N.C.** GREENSBORO (919) 273-1918 / **N.J.,** CAMDEN (215) 925-8711 / **N.M.,** ALBUQUERQUE (505) 255-1638 / **N.Y.,** ALBANY (518) 489-4777, BINGHAMTON (607) 723-9661, MT. VERNON (914) 968-2200, NEWBURGH (914) 562-6604, NEW HARTFORD (315) 732-3775, ROCHESTER (716) 473-2115 / **OHIO,** CINCINNATI (513) 761-5432, CLEVELAND (216) 237-9145, DAYTON (513) 277-8911 / **PENN.,** PHILADELPHIA (SEE CAMDEN, N.J.), PILLSBURGH (412) 243-6655 / **TEXAS,** DALLAS (214) 357-6451, HOUSTON (713) 774-2568 / **UTAH,** SALT LAKE CITY (801) 466-8709 / **VIRGINIA,** (SEE MARYLAND) / **WASH.,** SEATTLE (206) 767-4260 / **CANADA,** DOWNSVIEW, ONT. (416) 636-4910, MONTREAL, QUE. (514) 739-6776, OTTAWA, ONT. (613) 725-1288, VANCOUVER, B.C. (604) 291-7161

BB

BURR-BROWN
RESEARCH CORPORATION
International Airport Industrial Park
Tucson, Arizona 85706
TELEPHONE: 602-294-1431
TWX: 910-952-1111 • CABLE: BBRCORP

MELCOR
ELECTRONICS
"The Amplifier Company"

- Servo
- Computing
- DC Differential
- DC Operational
- DC Power
- Audio Preamps
- Audio Monitor
- Audio Equalization
- Audio Compression

If you have an amplifier problem, find out what Melcor is doing about it.

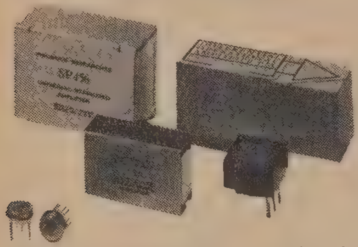
MELCOR ELECTRONICS CORPORATION
AMPLIFIERS FOR INDUSTRY
1750 New Highway,
Farmingdale,
New York 11735
516 694-5570

M E C

PHILBRICK/NEXUS: BEST SOURCE FOR YOUR

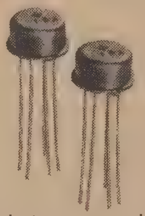
Philbrick/Nexus can fill your needs for anything analog from the industry's broadest range of analog products — ranging from simple operational amplifiers to the most sophisticated analog systems. Philbrick/Nexus' 25 years of combined experience offer you the advanced-technology of the pioneer and the vitality of a customer-oriented organization dedicated to producing the answers to any of your unsolved problems. For prompt, competent applications engineering assistance or advice, call your local Philbrick/Nexus field-engineering representative or write, Philbrick/Nexus Research, 16 Allied Drive at Route 128, Dedham, Massachusetts 02026.

DISCRETE-COMPONENT OPERATIONAL AMPLIFIERS



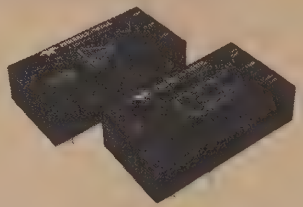
Philbrick/Nexus offers a complete line of high-gain, low-gain, low-drift amplifiers for stable feedback loops. They provide precise, predictable operations on one or more input signals.
The solid state discrete component amplifiers employ all silicon semiconductors and are available in a wide variety of economy or premium grades ranging from economical general purpose types such as PF55AU and SQ10A to the most sophisticated designs such as the high speed chopper-stabilized SP456 and the parametric P2A. They come in plug-in or wire-in models in every style of package.

IC OPERATIONAL AMPLIFIERS

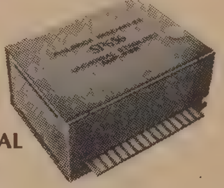


Monolithic devices offer the promise of high performance, reliability and small size at low cost. Philbrick/Nexus now offers these state of the art IC op amps.
Monolithics are available in two models. T-52's are packaged in TO-5 cans. S-52's come in dual in-line packages. The Q25AH and Q85AH are micro-hybrids which combine linear monolithic chip and discrete microminiature component technologies to offer immunity to overloads, shorts and supply voltage stresses. They are available in TO-8 size cans.

DC POWER SUPPLIES, REGULATORS AND BOOSTER AMPLIFIERS



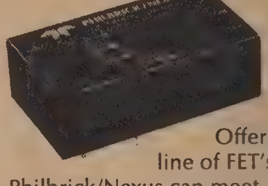
Compound-regulated, stable, noise-free power supplies designed to meet the needs of high-performance, low-level analog systems. The Philbrick/Nexus 2001 current booster with 500 ma power is the only one of its kind in the industry. The 2101 is an encapsulated 100 ma dual voltage regulator that is completely short-circuit protected. Rack, cabinet, modular, plug-in or built-in models available.
NPS 300 is a dual voltage power supply for powering analog circuits.



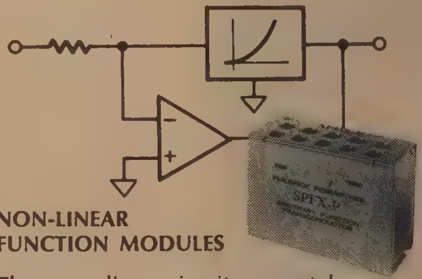
LOW-ERROR OPERATIONAL AMPLIFIERS

Ideal where drift and offset must be held over long operating periods through wide ambient temperature fluctuations. Philbrick/Nexus offers 19 stock models — offset-stabilized, mechanical chopper, parametrically modulated RD carrier, temperature-compensated, FET front-end. With a range so wide, there's a "low-error" model for virtually every design situation. The SP2B is an outstanding example offering unusually high input impedance and low input current. The SP456 offers high-speed chopper stabilization.

FET OPERATIONAL AMPLIFIERS



Offering the broadest line of FET's in the industry, Philbrick/Nexus can meet — and exceed — nearly every needed specification. Whether its lowest noise, lowest offset voltages, lowest input current, or highest CMRR .... you'll find your needs here. QFT-2B's, for example, offer the lowest offset voltage — 5uv/°c max. 1003's exhibit the highest CMRR you'll find anywhere — 1,000,000:1. The industry's lowest priced FET operational amplifier is the QFT-5, selling at $15 in lots of 100.

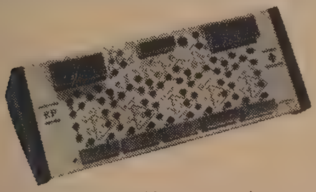


NON-LINEAR FUNCTION MODULES

These non-linear circuits accurately implement such operations as multi-quadrant squaring, generating sine and cosine functions, quadratic or logarithmic response and the linearization of a multitude of non-linear transducers. They fall into two general classes: (1) natural continuous function types, based on the continuous-function characteristics inherent in certain semiconductors operated in specific parametric regions, and (2) precise-linear-approximation types, using diode-resistor networks proportioned to approximate the desired function by a series of straight lines. Scaled and biased for use in conjunction with ± 10-volt operational amplifiers, they constitute a convenient and effective means for generation of exponential, transcendental, and high-order mathematical functions. Except for Type (P) PL3, all units are manufactured in two forms — "P" and "N" — one for each polarity of input signal.

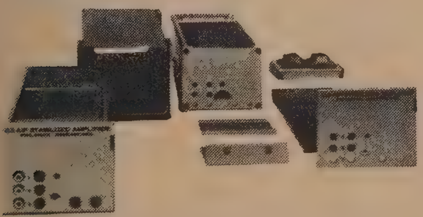
ANALOG NEEDS

MODEL RP OPERATIONAL MANIFOLDS

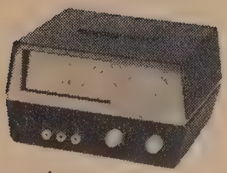


These 5-amplifier self-powered units are self-contained analog instruments for research, development, industrial control, simulation and teaching that virtually eliminate wiring problems. They are real whizzes as lab assistants. They are also excellent for breadboarding. Complex problems can be breadboarded in a fraction of the time required by conventional methods. They combine high reliability, small size, low drift and noise, light weight and low power-requirements. A variety of amplifier combinations meet specific requirements.

Q3 MODULAR SYSTEMS

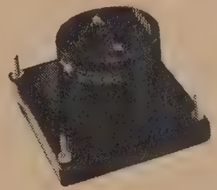


These are modular components for use in both analog and hybrid computors, simulators and analyzers. Each package consists of a carefully optimized combination of amplifiers, networks, components, and power supplies. Representative units include a self-powered, chopper-stabilized amplifier; self-powered low noise, low current-offset, differential amplifier; switch-programable, self-powered integrator-differentiator; switch-programable, self-powered unit capable of performing non-linear functions.



New
METERED INSTRUMENTS

Among the many metered instruments in the Philbrick/Nexus line are the 5101 log null meter and the 5100 log ratio meter. The 5101 will permit nulling to 10 uv with a sensitive and stable null. The 5100 provides a four-decade display of voltage, current, voltage ratio and current ratio of resistance.



New
METERMATES

Series 4100 Metermates are packaged signal conditioning units that adapt standard panel meters to making certain types of non-linear measurements and/or to extend sensitivity. They convert standard meters into very high impedance instruments. They bolt to meter studs and mount flush at the rear. Metermates are available in a variety of configurations: single-ended D.C. amplifier, log scale D.C., high linearity A.C., log ratio-meter D.C. and point-to-point logarithmic A.C.

TECHNICAL SUPPORT SERVICES

Philbrick/Nexus Research welcomes opportunities to bid on special systems requirements and help you apply analog techniques and products in such areas as industrial and scientific instrumentation, process and quality control systems and in-line analog data processing. Customer services of Philbrick/Nexus include: applications engineering, technical bulletins, applications manuals, the "Lightning Empiricist", and factory or on-site applications seminars.

PHILBRICK/NEXUS REPRESENTATIVES:

ALA., Huntsville (205) 536-8393 • (205) 539-6884
ALAS., Anchorage (907) 272-5231
ARIZ., Phoenix (603) 253-6104
CAL., Palo Alto (415) 968-7116 • Pasadena (213) 684-2840 • San Diego (714) 297-4619
COL., Denver (303) 388-4081
CONN., W. Hartford (203) 233-5503
FLA., Ft. Lauderdale (305) 564-8000 • Ft. Walton Beach (904) 243-6424
FLA., Orlando (305) 425-5505
GA., Tucker (404) 939-1674
ILL., Northfield (312) 446-8450
IND., Indianapolis (317) 241-0725
KAN., Mission (913) 262-5643
MD., Baltimore (301) 727-1999
MASS., Wakefield (617) 245-5100
MICH., Southfield (313) 357-3700
MINN., Minneapolis (612) 920-1046
MO., St. Louis (314) 426-7055
N.M., Albuquerque (505) 268-3941
NEW YORK, Elmont (516) 488-2100 • Palmyra (315) 597-9776 • No. Syracuse (315) 458-6214 • Whitesboro (315) 736-2450
N.C., Winston-Salem (919) 725-5384
OKLA., Tulsa (918) 627-6199
OHIO, Cleveland (216) 442-8080 • Dayton (513) 298-7573
ORE., Portland (503) 292-8762
PA., Conshohocken (215) 277-0559 • Pittsburgh (412) 884-5515
TEXAS, Dallas (214) 526-8316 • Houston (713) 781-1441
UTAH, Salt Lake City (801) 476-4924
VA., Alexandria (703) 836-1800 • Newport News (703) 245-8272
WASH., Seattle (206) 622-0177
CANADA
ALB., Calgary (403) 265-6470
ONT., Don Mills (416) 444-4403 • Ottawa (613) 722-6531
QUE., Montreal (514) 482-8430

PHILBRICK/NEXUS RESEARCH
A TELEDYNE COMPANY

10
MORE
NEW
PRODUCTS
YOU
SHOULD
KNOW
ABOUT
ANALOG
DEVICES

Analog Devices now offers well over 100 Models of operational amplifiers, power supplies, function modules, and other packaged circuits. A comprehensive catalog is available as well as data sheets and application notes for most products.

Contact your local sales representative or write: Analog Devices, 221 Fifth Street, Cambridge, Mass. Phone (collect) 617/492-6000.

ANALOG DEVICES, INC. , 221 FIFTH STREET, CAMBRIDGE, MASS. 02142

1

DUAL OP-AMP POWER SUPPLY

Model 901 connects directly to the 115VAC line, delivers ±15VDC @ 40mA (each output). Combined regulation spec of ±0.2% with ripple and noise <2mV rms is better than needed for most modern op-amps. The package size is just 3.5 X 2.5 X 0.88 in., but most surprising is the low cost . . . just $49/unit, $39 in lots of 10 pieces.

2

NEED MORE CURRENT?

The new Model 902 ("big brother" to the 901) is now available for applications which require higher output current. ±100mA (each output) means that you can power several op-amps . . . often an entire system or instrument . . . from one compact (3.5 X 2.5 X 1.25 in.) supply. Like the 901, the 902 is an epoxy cast module for easy P.C. installation. Cost is only $69(1-9), $59(10-24).

3

4 QUADRANT WIDEBAND MULTIPLIER

The Model 420 is an all solid state, four quadrant, wideband multiplier. Key features are fast response (250kHz), small size (1.5 X 1.5 X 0.62 in.), and very low cost $165 (1-9). Multiplication and squaring are achieved by the 420 directly, division and square-rooting use an auxiliary op-amp. Linearity is 0.25% for 5V output, 1% for 10V output.

4

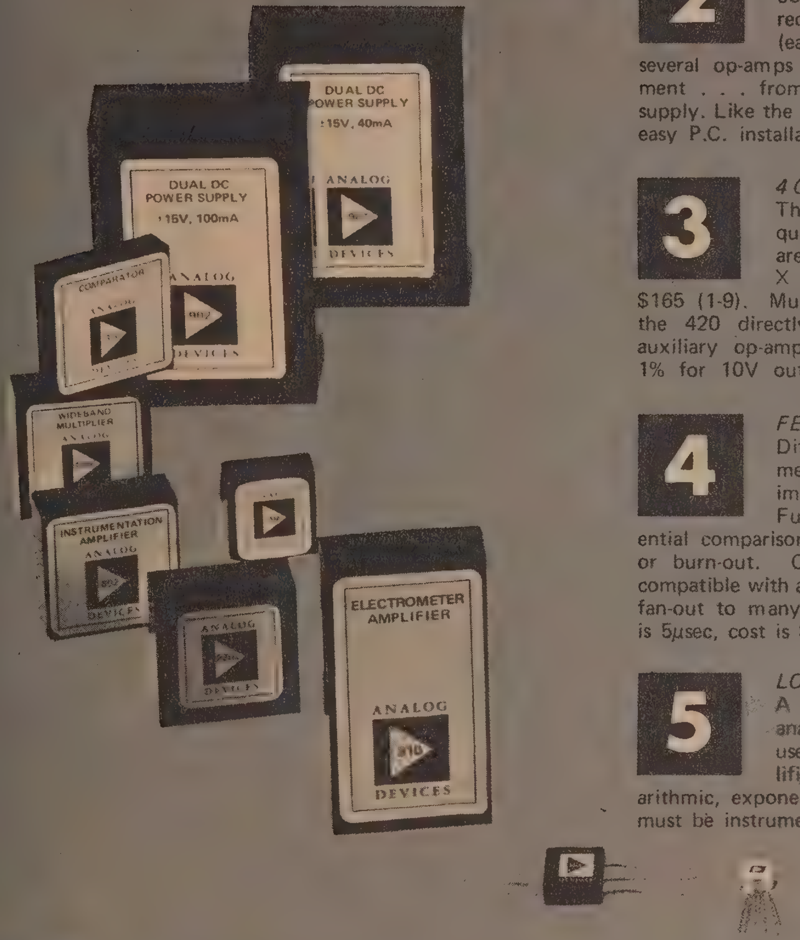
FET COMPARATOR MODULE

Differential FET inputs of the Model 350 means that voltage levels from high source impedances can be accurately compared. Full 10V common mode range allows differential comparisons to be made without fear of latch-up or burn-out. Clamped logic level outputs (0,5V) are compatible with all modern logic and 20mA output permits fan-out to many gates and external devices. Delay time is 5μsec, cost is $35 (1-9).

5

LOGARITHM MODULE

A new log module, Model 751, is another analog function module. These devices, used in conjunction with operational amplifiers, have wide application where logarithmic, exponential (e.g., quadratic) or ratio functions must be instrumented. Cost is $38(1-9), $20(100 pieces).



6

LOW COST DATA AMPLIFIER

A low cost, modular instrumentation amplifier is now available from Analog Devices. Model 602 offers fixed gains of 10 or 100, common mode rejection of 100dB and 10V output. Most significant is the small size and low cost; the module measures just 1.5 X 1.5 X 0.62 in., and costs from $75 (1-9).

7

LOW COST CHOPPER STABILIZED

One of the most significant new developments of 1968, the Model 230 is chopper stabilized, yet is but a fraction of the size and cost of previous units. Just $67 in 100 piece quantities, means the OEM designer need not "design around" the high drift of low cost differentials. Voltage drift is 0.1μV/°C, current drift of 0.5pA/°C, size is 1.5 X 1.5 X 0.62 in., unit cost $89 (230J).

8

ELECTROMETER AMPLIFIER

Now available, an inexpensive, solid state alternative to electrometer tubes and MOSFET devices. The Model 310, with varactor bridge input features bias current of <10^{-14}A max. (10 femto amps); and input Z of $3 \times 10^{11}\Omega$. Applications include many types of scientific instrumentation where infinitesimal currents must be measured. 30μV/°C voltage drift. $50 (100 pieces).

9

FET MICROCIRCUIT OP-AMP

Completely self-contained in a package only 0.6 X 0.6 X 0.25 in., the new Model 501 requires no external compensation. Three models are available: lowest cost Model 501A (2mV offset voltage; 75μV/°C; 25pA offset current; 2.5pA/°C), a higher performance 501B (1mV; 25μV/°C; 10pA; 1pA/°C). The unit costs are $30 and $35 respectively. A third Model, 501C offers 5pA offset at $50. This series is designed to combine the small size/low cost of I.C. op-amps and the high performance of discrete types.

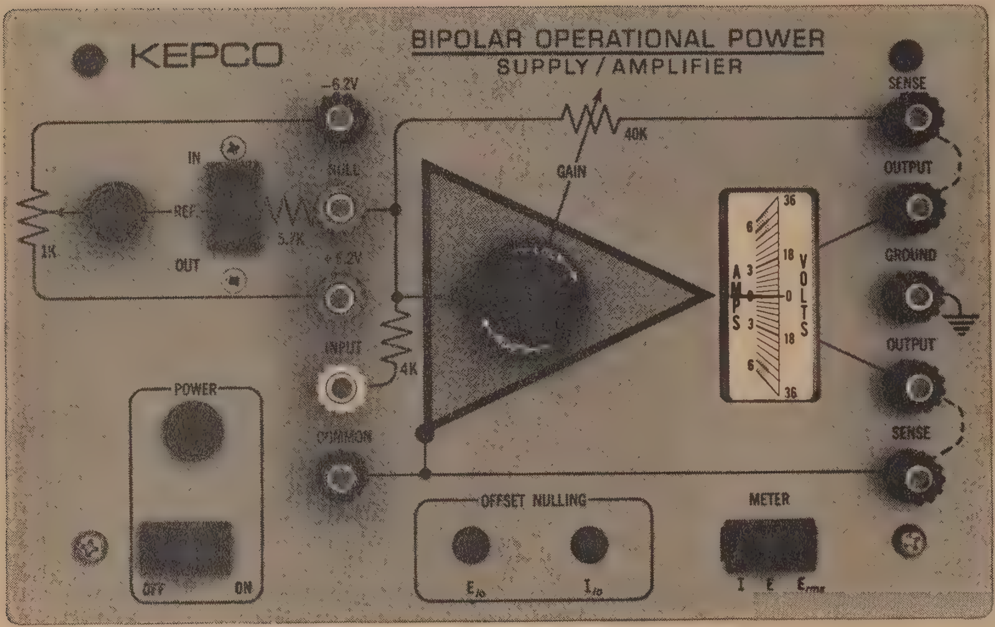
10

NOW AN I.C. OP-AMP WITH 4nA I_{BIAS}

Analog Devices enters the integrated circuit field with the new Model 801. Initial bias current of <4nA max. (0.15nA/°C), difference current of 0.15nA (0.05nA/°C), is two orders-of-magnitude better than 709 types. At last I.C. types can be used in high impedance circuits. All other specs (except gain) meet or exceed those of the 709 types. In fact, the 801 is directly interchangeable *including compensation values* with the 709. Three models are available, full mil spec version is $16 (100 pieces).

KEPCO BIPOLAR POWER

The Kepco Bipolar Operational Power Supply, Model BOP 36-5M, employs a new complementary PNP-NPN output stage to offer you:


KEPCO
BIPOLAR OPERATIONAL POWER
SUPPLY / AMPLIFIER
−6.2V
IN
NULL
REF.
1K
5.7K
OUT
+6.2V
INPUT
4K
COMMON
POWER
OFF
ON
40K
GAIN
SENSE
OUTPUT
GROUND
OUTPUT
SENSE
AMPS
VOLTS
36
18
6
3
0
OFFSET NULLING
E_{io}
I_{io}
METER
I
E
E_{rms}

Model BOP 36–5M   Price: $585.00

- **low distortion:** *unmeasurable at crossover*
- **high power:** *+36 to −36 volts*
  +5 to −5 amps
- **high gain:** *more than 88 db open loop*
- **low offset drift:** *less than 50 microvolts per °C.*
- **fast slewing:** *4 volts per microsecond*
- **wide bandwidth:** *d-c −20 kHz*
- **low ripple:** *80 db below peak output*
- **op-amp accessibility:** *a 10-pin patch panel*

Kepco's Model BOP 36–5M offers a whole new dimension in power regulation . . . Bipolarity. The output can be continuously and linearly varied from +36V to −36V *through zero* without switching; delivers a full 5 amperes in either direction and can sink 1 ampere.

Suitable for many interesting tasks, the bi-directional output can be oscillator-driven and transformer-coupled as a variable frequency a-c power supply — for instrument testing, shake-table drive or lab simulation. Its d-c −20 kHz response will pass a square wave 72V peak-to-peak with less than 20 microsecond rise/fall time and a perfectly flat top no matter how long extended. Add a mike and speaker (a *big* speaker) and you've got a dandy PA amplifier. Bring some feedback from a d-c motor and you can make a position servo or drive a torque motor, or x-y deflection coils. The patch panel makes it easy to sum two signals — or sum with a selectable d-c bias. The BOP even has a built-in 40K ohm vernier feedback (gain) control and output bounding circuits.

WHAT CAN YOU DO WITH OUR BOP?

For a full data sheet, write Dept. BG
and turn your imagination loose!

kepco

KEPCO, INC. • 131-38 SANFORD AVENUE • FLUSHING, N.Y. 11352
(212) 461-7000 • TWX # 710-582-2631
Telex: 12-6055 • Cable: KEPCOPOWER NEWYORK

MAKE OR BUY?

CONSIDER THESE BLACK BOX ANSWERS FIRST

Your design and scheduling problems are simplified when you specify Intronics compatible function modules. Proven specifications, stock delivery, and firm prices help you meet your cost and delivery schedules.

Intronics modules feature MIL quality construction and advanced solid state circuit design. Operation from ±15 Volt supply is standard with ±12 Volt optional. Modules are designed for compatible operation minimizing interface problems. No customer furnished feedback networks, pots or other adjustments are normally required. All units have short-circuit proof outputs. Standard units operate over a temperature range of −25°C to +85°C with −55°C to 125°C operation available in most models.

MULTIPLICATION/DIVISION SQUARING/SQUARE ROOTING

All models feature four quadrant operation, linear operation through zero volts, and ±10 volts AC or DC inputs and outputs (Eout = $\frac{XY}{10}$). All types except Model M401 function in multiply, divide, square, or square root mode by appropriate pin interconnection. Model M401 requires external potentiometers to adjust gain and offset, and is available as Model D401 for division applications.

Model	Type	Accuracy	Linearity	X = Y = 0V Output Offset	Output Offset Temperature Drift	Input Impedance	Output Impedance	Case Size	Price 1 - 9
M301	High Accuracy Pulse Modulation	.5%	.1%	±10 mV max	200 µV/°C	M301 X: 1 meg. Y: 10K	1 ohm max	3" x 2" x .625"	$245.00
M302		.25%	.1%	±5 mV max	200 µV/°C	M302			$295.00
M303		.1%	.1%	±3 mV max	200 µV/°C	M303			$325.00
M401	Economy General Purpose	2%	.5%	(adjustable to 0)	2 mV/°C	M401 20K	1 ohm max	1.5" x 1.5" x .5"	$ 95.00
M501	Wide Bandwidth Transconductance	1%	.25%	±50 mV max	500 µV/°C	M501 10K	1 ohm max	3" x 2" x .625"	$295.00
M502		.5%	.25%	±25 mV max	500 µV/°C	M502 10K	1 ohm max	3" x 2" x .625"	$325.00

SAMPLE AND HOLD

Model	Type	Sample Command	Input Range	Input Impedance	Output	Acquisition Time	Aperture Time	Output Decay	Case Size	Price 1 - 9
FS101	0.1% accuracy fast acquisition non-inverting.	on: +3.5V to +7.5V off: 0 to +0.5V	±10V, AC or DC	Sample: 500pf +100 Hold: 10^{10} ohm min	±10 V, 5 mA 0.1 ohm output impedance	2 µsec for ±10 volt, 0.1% accuracy	50 nsec.	0.1V/sec, max with internal 500 pf capacitor, provision for external capacitor	2.05" x 1.15" x .625"	$185.00

IMPEDANCE BUFFERING (Voltage Follower)

Model	Type	Accuracy	Linearity	Voltage Gain	Input/Output	Input Impedance	Input Current	Frequency Response	Case Size	Price 1 - 9
FA101	FET, Non Inverting	.05%	.005%	+.0 Unity, −.0005	±10V, AC or DC, ±5 mA out	10^{11} ohm min	30 pA max	DC to 200 kHz	1.12" x 1.12" x .625"	$78.50
FA102	FET, Non Inverting	.1%	.01%	+.0 Unity, −.001	±10V, AC or DC, ±5 mA out	10^{11} ohm min	50 pA max	DC to 200 kHz	1.12" x 1.12" x .625"	$68.50

MODULAR OP AMP POWER SUPPLIES, ±15VDC

Plug in, encapsulated with a low profile suitable for PC mounting.

Model	Input Voltage	Output Current	Accuracy	Regulation	Ripple	Operating Temp.	Case Size	Price 1 - 9
SM50	105 to 125 VAC 50 to 440 Hz	50 mA	1%	0.1%	1 mV p-p max	−25°C to +65°C	3.5" x 2.5" x 0.875"	$55.00
SM100		100 mA	1%	0.1%	1 mV p-p max	−25°C to +65°C	3.5" x 2.5" x 0.875"	$75.00

ANALOG TO DIGITAL CONVERSION

Model	Type	Input Voltage	Input Impedance	Output	Conversion Time	Accuracy	Temp. Drift	Power Input	Case Size	Price 1 - 9
AC101	100 kHz complete conversion rate, 10 bit successive approximation, with internal clock and reference	0 to −10.23V (0 to +10.23V optional)	10 K	10 bit serial and parallel binary, complete pulse	10 µsec (includes settling time)	0.1% or 1 bit −25°C to +85°C	10ppm/°C max −25°C to +85°C	±15V, 125 mA +5V, 50 mA	3" x 4" x .625"	$995.00

Other solid state function modules available for: precision voltage / current amplification, linear-log conversion, sin/cos generation, absolute value, D-A conversion, Binary -BCD conversion, coordinate rotation and transformation subsystems.

Contact our applications engineering department to discuss your requirements.

intronics

57 Chapel Street, Newton, Massachusetts 02158
TEL.: 617 - 332 - 7350 TWX: 710 - 335 - 6835

Operational Amplifiers?

Try Bulova First!

CALL:

Ariz Tech-Ser Inc, 1805 E Indian School Rd Phoenix 602-265-3629
Cal El Com Sales Co, 3600 Motor Ave Los Angeles 213-870-4707
Fla Perrott Assoc, 1607 Forsyth Rd, Orlando 305-275-1132
Fla Perrott Assoc, Box 4532, Clearwater. 813-531-5513
Fla Perrott Assoc, Box 6277 West Palm Beach 305-967-1770

Ill Communications Eng, 7100 N Western Ave Chicago 312-R01-0548
Md Callas Electronics Inc, 6409 Frederick Ave Baltimore 301-744-7711
Mich Sheridan Assoc., 25625 Southfield Rd., Southfield 313-358-3333
Mass Aborn Labs Inc, 223 Crescent St Waltham 891-4850
Minn Wenco Sales Inc, 7728 Morgan Ave S Minneapolis 612-866-3639
Mo J C Mankus & Assoc, 400 Brooks La Hazelwood 314-PE1-4334
NY L-Tron Corp, 2-4 Fennell St, Skaneateles 315-685-6172
NY Comtronic Assoc, 1551 Franklin Ave Mineola 516-P11-8966
Ohio Sheridan Assoc., 10 Knollcrest Dr., Reading 513-761-5432
Pa Garrettson Co Inc, 92-14 Masland St Philadelphia H04-2275
Tex Tech-Ser Inc, 10210 Monroe Dr Dallas 214-358-2504
Can Canadian Micro Elctns, 1390 Raven Ave Ottawa, Ont 725-2332

BULOVA WATCH CO INC
SERVO PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

BOOST IC OP AMP POWER WITH HELIPOT'S MINIATURE HYBRID AMPLIFIER

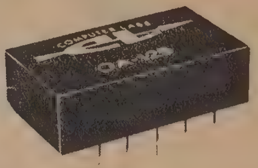
It's compatible with flat pack and dual in-line package and features:

- 2.5 or 5 watt outputs
- 30 MHz bandwidth
- ±16V voltage swing
- Less than 90° phase shift
- Unity voltage gain
- −55° to +125°C operation
- Short-circuit proof
- Protects op amp and power supply from overload reflections
- Small size (1" x 0.5" x 0.170" high)
- Low cost and local stock availability

For complete information contact the Helipot representative nearest you. He's listed in EBG's Manufacturers' Index.

Beckman®
INSTRUMENTS, INC.
HELIPOT DIVISION
FULLERTON, CALIFORNIA • 92634

Model numbers can't tell everything.



There IS a limit to what a model number tells you. On our OA-125, for example, the OA tells you it's an op amp. The 125 tells you its useful gain bandwith product is 125 MHz. The model number doesn't tell you it also has:

OUTPUT VOLTAGE RANGE:
±2.0 volts into 100 ohms (±15 volt supply)
±1.5 volts into 100 ohms (±12 volt supply)
VOLTAGE GAIN (DC open loop): 100,000 with 100-ohm load
SLEW RATE: 250 volts/u sec
INPUT VOLTAGE OFFSET: 3 mv max.
INPUT CURRENT OFFSET: 100 na max.
INPUT IMPEDANCE (DC): 50,000 ohms min.
INPUT-OUTPUT STRUCTURE: Single-ended
SMALL QUANTITY PRICE: $135

The model number can't tell you all that. But an ad can. Didn't it?

COMPUTER LABS
for tomorrow's technology today

(919) 292-6427 • 1109 VALLEY PARK DRIVE
GREENSBORO, N. C. 27403

Link Group Gen Precision Sys Inc, Binghamton	N Y
Loral Electronic Systems, Div Loral Corp, New York	NY
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Magnasync/Moviola Corp, North Hollywood	Cal
Mastech Inc, Syracuse	N Y
Mayberry Electronics Co, Inglewood	Cal
McFadden Electronics Co, South Gate	Cal
McKee-Pedersen Instruments, Danville	Cal
Melcor Electronics Corp, Farmingdale	N Y
Mepco Inc, Morristown	N J
Microwave Cavity Labs Inc, La Grange	Ill
Milgo Electronic Corp, Miami	Fla
Monroe Electronics Inc, Middleport	N Y
Motorola Semiconductor Products Inc, Phoenix	Ariz
M Ten Bosch, Inc, Pleasantville	N Y
Nanosecond Systems Inc, Fairfield	Conn
Newport Labs Inc, Newport Beach	Cal
NH Research Inc, Santa Ana	Cal
North Hills Electronics Inc, Glen Cove	N Y
Novatronics Inc, Pompano Beach	Fla
Opamp Labs, Los Angeles	Cal
Optical Electronics Inc, Tuscon	Ariz
Optimized Devices, Inc, Pleasantville	N Y
Pastoriza Electronics Inc, Newton Upper Falls	Mass
PCA Electronics Inc, Sepulveda	Cal
Philbrick/Nexus Research A Teledyne Co Dedham	Mass
Philco-Ford Corp, Washington	D C
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Quantum Devices, Bergenfield	NJ
Radix Electronics Corp, Anaheim	Cal
Raecord Inc, Paterson	N J
Randam Electronics Inc, Cincinnati	Ohio
Raytheon Co, Components Div, Semiconductor Oper Mountain View	Cal
RCA, Defense Electronic Products, Moorestown	N J
Redcor Corp, Canoga Park	Cal
RO Associates Inc, Menlo Park	Cal
Schlumberger, 92-Montrouge 32	France
Scientific Data Systems Inc, El Segundo	Cal
Sedco Systems Inc, Farmingdale	N Y
Signetics Corp, Sunnyvale	Cal
Solid State Electronics Corp, Sepulveda	Cal
Space Craft Inc, Huntsville	Ala
Sprague Electric Co, North Adams	Mass
Symetrics Engineering Corp, Satellite Beach	Fla
Systems Engineering Labs Inc, Ft Lauderdale	Fla
Systron Donner Corp, Concord	Cal
Taber Instruments A Teledyne Co North Tonawanda	N Y
Takeda Riken Industry Co Ltd, Tokyo	Japan
Taylor Instrument Cos, Rochester	N Y
Tektronix Inc, Beaverton	Ore
Teledyne Telemetry Co, Los Angeles	Cal
Tele-Signal Corp, Woodbury	N Y
Union Carbide Electronics, Semiconductor Prods Mountain View	Cal
Western Microwave Labs Inc, Santa Clara	Cal
Zeltex inc, Concord	Cal

AMPLIFIERS--PARAMETRIC

ITHACO INC, ITHACA	**N Y**
Aerojet-General Corp Electronics Div, Azusa	Cal
AIM Electronics Ltd, Cambridge	U K
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Alcatel, Paris 8eme	France
American Electronic Labs Inc, Lansdale	Pa
Avco Corp Electronics Div, Cincinnati	Ohio
Bradley Ltd G & E, London NW 10	England
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dowa Trading Co Ltd, Kobe	Japan
Electro-Data Inc, Garland	Tex
Ferranti Electric Inc, Plainview	N Y
Ferranti, Ltd, Lancashire	England
Fujitsu Ltd, Tokyo	Japan
General Devices Inc, Instrumentation Div Princeton	N J
Ithaco Inc, Ithaca	N Y
Julie Research Labs, Inc, New York	N Y
Melabs, Palo Alto	Cal
Micromega Div Amphenol Corp, Venice	Cal
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Mullard Ltd, London, WC 1	Eng
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Engineering Labs, Div DCA, Long Island City	N Y
RCA, Defense Electronic Products, Moorestown	N J
Roveti Instruments, Annapolis	Md
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Siemens America Inc, New York	N Y
Spacekom Inc, Goleta	Cal
Squires-Sanders Inc, Liberty Corner	N J
TRW Systems Group, Redondo Beach	Cal
Watkins-Johnson Co, Palo Alto	Cal
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

AMPLIFIERS, R-F--GENERAL PURPOSE

C M L INC, PLAINFIELD	**N J**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
INTERELECTRONICS CORP, CONGERS	**N Y**
LEL DIV VARIAN ASSOCIATES, COPIAGUE	**N Y**
MICROSONICS INC, WEYMOUTH	**MASS**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
Ad-Yu Electronics Inc, Passaic	N J
Aerospace Research, Inc, Boston	Mass
Aertech, Sunnyvale	Cal
Aikow Shoji Kaisha Ltd, Osaka	Japan
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Altec Lansing Div LTV Ling Altec Inc, Anaheim	Cal
Amelco Semiconductor, A Teledyne Co Mountain View	Cal
American Systems, Inc, Van Nuys	Cal
Applied Research, Inc, Port Washington	N Y
Arvee Engineering Co, Torrance	Cal
Avantek Inc, Santa Clara	Cal
Babcock Electronic Corp, Costa Mesa	Cal
Ballantine Laboratories, Inc, Boonton	N J
Bauer Broadcast Div Granger Assoc, Palo Alto	Cal
Bendix Corp, Communications Div, Towson	Md
Blonder-Tongue Labs Inc, Newark	N J
Bogen Communications Div Lear Siegler Inc Paramus	N J
C C A Electronics Corp, Gloucester	NJ
C-Cor Electronics Inc, State College	Pa
Clavier Corp, Richmond Hill	NY
C M L Inc, Plainfield	N J
Comdel Inc, Beverly	Mass
Conic Corp, San Diego	Cal
Continental Electronics Mfg Co Sub LTV Electrosystems Inc, Dallas	Tex
Daltronics Inc, Providence	R I
Darcy Industries Inc, Behlman Div, Santa Monica	Cal
Dayton Electronics Products Co, Dayton	Ohio
Defense Electronics Inc, Rockville	Md
Dorsett Electronics Inc, Tulsa	Okla
Dowa Trading Co Ltd, Kobe	Japan
Electronic Communications Inc (ECI), St Petersburg	Fla
E & M Labs, North Hollywood	Cal
Fairchild Instrumentation, Sunnyvale	Cal
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Fisher Engineering Inc, Huntington	Ind
Gates Radio Co, Quincy	Ill
General Devices Inc, Instrumentation Div Princeton	N J
General Instrument Corp Radio Receptor Div Hicksville	N Y
General Radio Co, West Concord	Mass
Giannini-Voltex, Whittier	Cal
Granger Associates, Palo Alto	Cal
Guide Industries Inc, Sun Valley	Cal
Hewlett-Packard, Palo Alto	Cal
Honeywell Test Instruments Div, Denver	Colo
Instruments for Industry Inc, Farmingdale	N Y
Interelectronics Corp, Congers	N Y
Jerrold Electronics Corp, Philadelphia	Pa
Kay Electric Co, Pine Brook	N J
Keithley Instruments Inc, Cleveland	Ohio
Kokusai Electric Co Ltd, Tokyo	Japan
Krohn-Hite Corp, Cambridge	Mass
Lear Siegler Inc, Santa Monica	Cal
Lel Div Varian Associates, Copiague	N Y
Litton Industries, Electron Tube Div, San Carlos	Cal
Lorch Electronics Corp, Englewood	N J
L P Associates Inc, Los Angeles	Cal
Matrix Corp, Beech Grove	Ind
Measurement Technology Corp, Canoga Park	Cal

Micromega Div Amphenol Corp, Venice .... Cal
Micronetics Div Teledyne Systems Co, San Diego .... Cal
Microsonics Inc, Weymouth .... Mass
Micro State Electronics Oper Raytheon Co Murray Hill .... N J
Microwave Associates Inc, Burlington .... Mass
Microwave Control Co, Red Bank .... N J
Microwave Products Group Div C A S Inc Carle Place .... N Y
Microwave/Systems Inc, East Syracuse .... N Y
Millen Mfg Co Inc, James, Malden .... Mass
Millivac Instruments Inc, Schenectady .... N Y
Multronics Inc, Rockville .... Md
Neptune Electronics Co, New York .... N Y
Newmarket Transistors Ltd Newmarket, Suffolk .... England
Optimax Inc, Ambler .... Pa
Parzen Research Inc Sub Ovitron Corp, Westbury .... N Y
Perry Amplifier, Brookline .... Mass
Philco-Ford Corp, Washington .... D C
Radio Engineering Labs, Div DCA, Long Island City .... N Y
Rantec Div Emerson Electric Co, Calabasas .... Cal
Raytheon Co, Components Div, Semiconductor Oper Mountain View .... Cal
Resdel Engineering Corp, Pasadena .... Cal
R F Communications Inc, Rochester .... N Y
R H G Electronics Lab Inc, Farmingdale .... N Y
Rowe Industries Inc, Toledo .... Ohio
Sartron Inc, Newberg .... Ore
Servo Corp of America, Hicksville .... N Y
Solid State Radiations Inc, Los Angeles .... Cal
Spacekom Inc, Goleta .... Cal
Spencer-Kennedy Labs Inc, Boston .... Mass
Squires-Sanders Inc, Liberty Corner .... N J
Sweep Systems Inc, Indianapolis .... Ind
Symetrics Engineering Corp, Satellite Beach .... Fla
Taffet Electronics Inc, Woodside .... N Y
Topping Electronics Ltd, Toronto 17 .... Ont
Trak Microwave Corp, Tampa .... Fla
Trans-Tek Mfg Co Inc, Garwood .... N J
TRW Electronic Components Div TRW Inc, Camden .... N J
TRW Systems Group, Redondo Beach .... Cal
Varian, Palo Alto .... Cal
Vikoa Inc, Hoboken .... N J
Virginia Electronics Co Inc, Falls Church .... Va
VP Co, Pasadena .... Cal
Wilcox Electric Co Inc, Kansas City .... Mo
Winegard Co, Burlington .... Iowa

AMPLIFIERS, R-F--MIXER

LEL DIV VARIAN ASSOCIATES, COPIAGUE .... N Y
MICROWAVE CAVITY LABS INC, LA GRANGE ILL
RFD INC, TAMPA .... FLA
R H G ELECTRONICS LAB INC, FARMINGDALE .... N Y
Aerospace Research, Inc, Boston .... Mass
Aertech, Sunnyvale .... Cal
Applied Research, Inc, Port Washington .... N Y
Avantek Inc, Santa Clara .... Cal
Bendix Corp, Communications Div, Towson .... Md
B F Electronics, Solana Beach .... Cal
Conic Corp, San Diego .... Cal
Dayton Electronics Products Co, Dayton .... Ohio
Dowa Trading Co Ltd, Kobe .... Japan
Electronic Specialty Co, Los Angeles .... Cal
E & M Labs, North Hollywood .... Cal
Fisher Engineering Inc, Huntington .... Ind
General Devices Inc, Instrumentation Div Princeton .... N J
General Instrument Corp Radio Receptor Div Hicksville .... N Y
Guide Industries Inc, Sun Valley .... Cal
International Microwave Corp, Cos Cob .... Conn
Kobe Industries Corp, Kobe .... Japan
Lear Siegler Inc, Santa Monica .... Cal
Lel Div Varian Associates, Copiague .... N Y
Lorch Electronics Corp, Englewood .... N J
Micronetics Div Teledyne Systems Co, San Diego .... Cal
Micro State Electronics Oper Raytheon Co Murray Hill .... N J
Microwave Associates Inc, Burlington .... Mass
Microwave Cavity Labs Inc, La Grange Ill
Microwave Development Labs Inc Needham Heights .... Mass
Microwave Products Group Div C A S Inc Carle Place .... N Y
Neptune Electronics Co, New York .... N Y
Optimax Inc, Ambler .... Pa
Parzen Research Inc Sub Ovitron Corp, Westbury .... N Y
Philco-Ford Corp, Washington .... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Racal Communications Inc, Silver Spring .... Md
Radio Engineering Labs, Div DCA, Long Island City .... N Y
Resdel Engineering Corp, Pasadena .... Cal
RFD Inc, Tampa .... Fla
R H G Electronics Lab Inc, Farmingdale .... N Y
Rouge Electronics Co, Oklahoma City .... Okla
Rowe Industries Inc, Toledo .... Ohio
Spacekom Inc, Goleta .... Cal
Squires-Sanders Inc, Liberty Corner .... N J
Sweep Systems Inc, Indianapolis .... Ind
Topping Electronics Ltd, Toronto 17 .... Ont
Varian, Palo Alto .... Cal

AMPLIFIERS, R-F--POWER

C M L INC, PLAINFIELD .... N J
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK .... N Y
HEATH CO, BENTON HARBOR .... MICH
HEWLETT-PACKARD, PALO ALTO .... CAL
INTERELECTRONICS CORP, CONGERS .... N Y
MICROWAVE CAVITY LABS INC, LA GRANGE ILL
R H G ELECTRONICS LAB INC, FARMINGDALE .... N Y
SERVO CORP OF AMERICA, HICKSVILLE .... N Y
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG .... MD
Aerospace Research, Inc, Boston .... Mass
Altec Lansing Div LTV Ling Altec Inc, Anaheim .... Cal
Alto Scientific Co, Inc, Palo Alto .... Cal
Amelco Semiconductor, A Teledyne Co Mountain View .... Cal
Amerac, Inc, Beverly .... Mass
Anzac Electronics, Waltham .... Mass
Applied Microwave Lab, Inc, Andover .... Mass
Applied Research, Inc, Port Washington .... N Y
Arenberg Ultrasonic Lab, Inc, Jamaica Plain .... Mass
Automatic Metal Products Corp, Brooklyn .... N Y
Avantek Inc, Santa Clara .... Cal
Babcock Electronic Corp, Costa Mesa .... Cal
Bauer Broadcast Div Granger Assoc, Palo Alto .... Cal
Bendix Corp, Communications Div, Towson .... Md
Cardion Communications, Woodbury .... N Y
C C A Electronics Corp, Gloucester .... NJ
C-Cor Electronics Inc, State College .... Pa
C M L Inc, Plainfield .... N J
Cober Electronics Inc, Stamford .... Conn
Communication Associates Inc, New Hyde Park .... N Y
Continental Electronics Mfg Co Sub LTV Electrosystems Inc, Dallas .... Tex
Crystalab Products Corp, Rochelle Park .... N J
Daltronics Inc, Providence .... R I
Dayton Electronics Products Co, Dayton .... Ohio
Dorsett Electronics Inc, Tulsa .... Okla
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck .... N Y
Dowa Trading Co Ltd, Kobe .... Japan
Dumont Mobile Communications Div LTV Ling Altec Inc Anaheim .... Cal
Electronic Communications Inc (ECI), St Petersburg .... Fla
Electronics Missiles & Communications Inc White Haven .... Pa
E & M Labs, North Hollywood .... Cal
EMR Div Weston Instruments Inc, Princeton .... N J
Energy Systems Inc, Palo Alto .... Cal
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View .... Cal
Farinon Electric, San Carlos .... Cal
Fisher Engineering Inc, Huntington .... Ind
Galaxy Electronics Inc, Council Bluffs .... Iowa
Gates Radio Co, Quincy Ill
General Devices Inc, Instrumentation Div Princeton .... N J
General Instrument Corp Radio Receptor Div Hicksville .... N Y
General Radio Co, West Concord .... Mass
Genisco Technology Corp, Compton .... Cal
Giannini-Voltex, Whittier .... Cal
Granger Associates, Palo Alto .... Cal
Heath Co, Benton Harbor .... Mich
Hewlett-Packard, Palo Alto .... Cal
Industrial Electronetics Corp, Satellite Beach .... Fla
Industron Corp, Needham Heights .... Mass
Instruments for Industry Inc, Farmingdale .... N Y
Instruments Inc, San Diego .... Cal
Interelectronics Corp, Congers .... N Y
International Electro-Magnetics Inc, Palatine Ill
Johnson Co, E F, Waseca .... Minn
Kaar Electronics Corp, Linden .... N J
Kay Electric Co, Pine Brook .... N J
Kobe Industries Corp, Kobe .... Japan
Kokusai Electric Co Ltd, Tokyo .... Japan
Krohn-Hite Corp, Cambridge .... Mass
Lear Siegler Inc, Santa Monica .... Cal
Litton Industries, Electron Tube Div, San Carlos .... Cal
Louis Allis Co Div Litton Industries, Milwaukee .... Wisc
L P Associates Inc, Los Angeles .... Cal
Micronetics Div Teledyne Systems Co, San Diego .... Cal
Microwave Associates Inc, Burlington .... Mass
Microwave Cavity Labs Inc, La Grange Ill
Microwave Products Group Div C A S Inc Carle Place .... N Y
Millen Mfg Co Inc, James, Malden .... Mass
Multronics Inc, Rockville .... Md
National Radio Co Inc, Melrose .... Mass
Neptune Electronics Co, New York .... N Y
Philco-Ford Corp, Washington .... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Polytronics Communications, Baltimore Div Baltimore .... Md
Radio Engineering Labs, Div DCA, Long Island City .... N Y
Resdel Engineering Corp, Pasadena .... Cal
R F Communications Inc, Rochester .... N Y
R H G Electronics Lab Inc, Farmingdale .... N Y
Rowe Industries Inc, Toledo .... Ohio
Sartron Inc, Newberg .... Ore
Servo Corp of America, Hicksville .... N Y
Sony Corp, Tokyo .... Japan
Squires-Sanders Inc, Liberty Corner .... N J
Symetrics Engineering Corp, Satellite Beach .... Fla
Technical Materiel Corp, Mamaroneck .... N Y
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia .... Pa
Telemet Co, Video Prods & Airborne Telemetry Amityville .... N Y
Topping Electronics Ltd, Toronto 17 .... Ont
Trak Microwave Corp, Tampa .... Fla
TRF Inc, Springfield .... Va
TRW Electronic Components Div TRW Inc, Camden .... N J
United Aircraft Corp Electronic Components Div Trevose .... PA
Varo Inc, Garland .... Tex
Warner Electric Brake & Clutch Co, Beloit .... Wisc
Weinschel Engineering Co Inc, Gaithersburg .... Md
Wilcox Electric Co Inc, Kansas City .... Mo
Winegard Co, Burlington .... Iowa

AMPLIFIERS, R-F--PREAMPLIFIERS(BOOSTERS) A-M, F-M &COMMUNICATION

INTERELECTRONICS CORP, CONGERS .... N Y
LEL DIV VARIAN ASSOCIATES, COPIAGUE, N Y .... ADV PG 41
MICROWAVE CAVITY LABS INC, LA GRANGE ILL
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
R H G ELECTRONICS LAB INC, FARMINGDALE .... N Y
SPENCER-KENNEDY LABS INC, BOSTON .... MASS
Aerospace Research, Inc, Boston .... Mass
Aertech, Sunnyvale .... Cal
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park .... N Y
Air Technology Corp, Waltham .... Mass
Alto Scientific Co, Inc, Palo Alto .... Cal
Ameco Inc, Phoenix .... Ariz
American Electronic Labs Inc, Lansdale .... Pa
Antennacraft Co Inc, Burlington .... Iowa
Applied Cybernetics Systems AMF, Alexandria .... Va
Applied Research, Inc, Port Washington .... N Y
Arvee Engineering Co, Torrance .... Cal
Avantek Inc, Santa Clara .... Cal
Beama Engineering Ltd, Toronto 15 .... Ont
Belar Electronics Lab Inc, Upper Darby .... Pa
Bendix Corp, Communications Div, Towson .... Md
B F Electronics, Solana Beach .... Cal
Blonder-Tongue Labs Inc, Newark .... N J
California Electronic Mfg Co Inc, Alamo .... Cal
Canoga Electronics Corp, Chatsworth .... Cal
C-Cor Electronics Inc, State College .... Pa
Comdel Inc, Beverly .... Mass
Communication Electronics Inc, Rockville .... Md
Courier Communications Inc Sub Whittaker Corp Newark .... N J
Daltronics Inc, Providence .... R I
Defense Electronics Inc, Rockville .... Md
Disan Engineering Corp, Nowata .... Okla
Dowa Trading Co Ltd, Kobe .... Japan
Electronic Communications Inc (ECI), St Petersburg .... Fla
E & M Labs, North Hollywood .... Cal
Entron Inc, Silver Spring .... Md
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View .... Cal
Finney Co, Bedford .... Ohio
Fisher Engineering Inc, Huntington .... Ind
General Devices Inc, Instrumentation Div Princeton .... N J
General Instrument Corp Radio Receptor Div Hicksville .... N Y
Interelectronics Corp, Congers .... N Y
International Microwave Corp, Cos Cob .... Conn
ITT Federal Labs, Fort Wayne .... Ind
Jerrold Electronics Corp, Philadelphia .... Pa
Johnson Co, E F, Waseca .... Minn
Kay Electric Co, Pine Brook .... N J
Kobe Industries Corp, Kobe .... Japan
Kokusai Electric Co Ltd, Tokyo .... Japan
Lear Siegler Inc, Santa Monica .... Cal
Lel Div Varian Associates, Copiague .... N Y
Marti Electronics, Cleburne .... Tex
Matrix Corp, Beech Grove .... Ind
Micromega Div Amphenol Corp, Venice .... Cal
Micronetics Div Teledyne Systems Co, San Diego .... Cal
Microwave Associates Inc, Burlington .... Mass
Microwave Cavity Labs Inc, La Grange Ill
Microwave Products Group Div C A S Inc Carle Place .... N Y
Millen Mfg Co Inc, James, Malden .... Mass
Moseley Associates Inc, Goleta .... Cal
Nippon Electric Co Ltd, Tokyo .... Japan
Optimax Inc, Ambler .... Pa

Antenna RF Preamplifiers

for superior performance in telemetry and long range communications.

Series TP-5 thru TP-7 are weatherproof units for pole mounting. Series TP-8 and RTP-3 are small, light, solid-state amplifiers with very low power drain.

standard models

Model No.	Center Freq. MHz	Bandpass @ 3 dB MHz	Gain dB	Max. N.F. dB
TP-5-237	237	215-260	23	4.0
TP-6-136	136	131-141	23	2.5
TP-6-400	400	395-405	23	4.0
TP-7-108	108-162	3	23	2.5-3.5
TP-7-160	160-225	4	23	2.0-3.5
TP-7-225	225-400	4	20	2.5-4.5
TP-7-400	400-550	5	18	4.5-6.5
TP-8-1435	1485	100	25	5.5
TP-8-2200	2250	100	25	6.0
RTP-3-10	10-400	10	20-28	4.0

LEL division
VARIAN associates
AKRON ST., COPIAGUE, L. I., NEW YORK 11726
For prompt information
CALL 516 AM 4-2517

Palomar Instrument Co, Escondido	Cal
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polytronics Communications, Baltimore Div Baltimore	Md
Radio Engineering Labs, Div DCA, Long Island City	N Y
Rantec Div Emerson Electric Co, Calabasas	Cal
Resdel Engineering Corp, Pasadena	Cal
R F Communications Inc, Rochester	N Y
RFL Industries Inc, Communications Div, Boonton	N J
R H G Electronics Lab Inc, Farmingdale	N Y
Shrader Sound Inc, Washington	D C
Sinclair Radio Labs Inc, Tonawanda	N Y
Smyth Research Associates, San Diego	Cal
Spencer-Kennedy Labs Inc, Boston	Mass
Squires-Sanders Inc, Liberty Corner	N J
Stoddart Electro Systems, Gardena	Cal
Symetrics Engineering Corp, Satellite Beach	Fla
Tape-Athon, Inglewood	Cal
Teledyne Telemetry Co, Los Angeles	Cal
Telemet Co, Video Prods & Airborne Telemetry Amityville	N Y
Topping Electronics Ltd, Toronto 17	Ont
Varian, Palo Alto	Cal
VP Co, Pasadena	Cal
Winegard Co, Burlington	Iowa
Woodward Machine Inc, Elctns Div, Detroit	Mich

AMPLIFIERS, R-F--PULSE

ANDERSEN LABORATORIES, INC, BLOOMFIELD	**CONN**
C M L INC, PLAINFIELD	**N J**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
INTERELECTRONICS CORP, CONGERS	**N Y**
LEL DIV VARIAN ASSOCIATES, COPIAGUE	**N Y**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
RFD INC, TAMPA	**FLA**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
Aerospace Research, Inc, Boston	Mass
Alma Engineering Inc, San Diego	Cal
Alto Scientific Co, Inc, Palo Alto	Cal
Amerac, Inc, Beverly	Mass
American Astrionics Inc, Palo Alto	Cal
American Electronic Labs Inc, Lansdale	Pa
Andersen Laboratories, Inc, Bloomfield	Conn
Applied Microwave Lab, Inc, Andover	Mass
Applied Research, Inc, Port Washington	N Y
Arenberg Ultrasonic Lab, Inc, Jamaica Plain	Mass
Arvee Engineering Co, Torrance	Cal
Avantek Inc, Santa Clara	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Blass Antenna Electronics Corp, Leonia	N J
California Electronic Mfg Co Inc, Alamo	Cal
C-Cor Electronics Inc, State College	Pa
Chronetics Inc, Mount Vernon	N Y
C M L Inc, Plainfield	N J
Cober Electronics Inc, Stamford	Conn
Communication Electronics Inc, Rockville	Md
Continental Electronics Mfg Co Sub LTV Electrosystems Inc, Dallas	Tex
Control Science Corp, Alexandria	Va
Crystalab Products Corp, Rochelle Park	N J
Dinion Coil Co Inc, Caledonia	N Y
Dowa Trading Co Ltd, Kobe	Japan
E-H Research Labs Inc, Oakland	Cal
E & M Labs, North Hollywood	Cal
Energy Systems Inc, Palo Alto	Cal
Fisher Engineering Inc, Huntington	Ind
General Devices Inc, Instrumentation Div Princeton	N J
General Instrument Corp Radio Receptor Div Hicksville	N Y
Granger Associates, Palo Alto	Cal
Hewlett-Packard, Palo Alto	Cal
Honeywell Test Instruments Div, Denver	Colo
Instruments for Industry Inc, Farmingdale	N Y
Interelectronics Corp, Congers	N Y
Kay Electric Co, Pine Brook	N J
Keithley Instruments Inc, Cleveland	Ohio
Keltec Florida Div Aiken Industries Ft Walton Beach	Fla
Kobe Industries Corp, Kobe	Japan
Lad Electronics Corp, Hicksville	N Y
Lel Div Varian Associates, Copiague	N Y
Litton Industries, Electron Tube Div, San Carlos	Cal
Loral Electronic Systems, Div Loral Corp, New York	NY
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
L P Associates Inc, Los Angeles	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Control Co, Red Bank	N J
Microwave Products Group Div C A S Inc Carle Place	N Y
Nanosecond Systems Inc, Fairfield	Conn
Neptune Electronics Co, New York	N Y
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Optical Electronics Inc, Tuscon	Ariz
Optimax Inc, Ambler	Pa
Perry Amplifier, Brookline	Mass
Resdel Engineering Corp, Pasadena	Cal
R F Communications Inc, Rochester	N Y
RFD Inc, Tampa	Fla
R H G Electronics Lab Inc, Farmingdale	N Y
Sartron Inc, Newberg	Ore
Servo Corp of America, Hicksville	N Y
Solid State Radiations Inc, Los Angeles	Cal
Spencer-Kennedy Labs Inc, Boston	Mass
Squires-Sanders Inc, Liberty Corner	N J
Taffet Electronics Inc, Woodside	N Y
Takeda Riken Industry Co Ltd, Tokyo	Japan
Teledyne Telemetry Co, Los Angeles	Cal
Trak Microwave Corp, Tampa	Fla
TRW Systems Group, Redondo Beach	Cal
Vital Industries Inc, Gainesville	Fla
Warner Electric Brake & Clutch Co, Beloit	Wisc
Wilcox Electric Co Inc, Kansas City	Mo

Octave RF Amplifiers

for maximum gain bandwidth coverage, more power and greater dynamic range.

Model No.	Passband MHz	Gain dB	N.F.* Matched dB	Power Output dBm
CERAMIC TUBE TYPE				
OCX-4-200	200-400	24	6.5	+9
OCX-4-320	320-640	18	7.5	+6
OCX-4-400	400-700	18	8.0	+6
OCX-4-700	700-1000	18	9.5	+5
MINIATURE TUBE TYPE				
OMX-4-040	40-80	35	5.0	+16
OMX-4-080	80-160	29	5.0	+13
OMX-4-100	100-200	28	5.0	+13
OMX-4-160	160-320	24	6.0	+10
SOLID STATE				
OTX-1-10	10-250	24	3-4	0
OTX-1-250	250-500	20	3-5	0
OTX-1-500	500-1000	20	3-5	0
OTX-1-1000	1000-2000	25	4-6	0

*NF variation across band: ±1 dB.

LEL DIVISION
VARIAN associates
AKRON ST., COPIAGUE, L. I. NEW YORK 11726
For prompt information
CALL 516 AM 4-2517

AMPLIFIERS, R-F--SWEEP

INTERELECTRONICS CORP, CONGERS	**N Y**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
TEXSCAN CORP, INDIANAPOLIS	**IND**
Aerospace Research, Inc, Boston	Mass
American Astrionics Inc, Palo Alto	Cal
American Electronic Labs Inc, Lansdale	Pa
Avco Corp Electronics Div, Cincinnati	Ohio
C-Cor Electronics Inc, State College	Pa
Communication Electronics Inc, Rockville	Md
Dowa Trading Co Ltd, Kobe	Japan
E & M Labs, North Hollywood	Cal
Fisher Engineering Inc, Huntington	Ind
General Devices Inc, Instrumentation Div Princeton	N J
General Instrument Corp Radio Receptor Div Hicksville	N Y
Instruments for Industry Inc, Farmingdale	N Y
Interelectronics Corp, Congers	N Y
Jerrold Electronics Corp, Philadelphia	Pa
Kay Electric Co, Pine Brook	N J
Kobe Industries Corp, Kobe	Japan
Loral Electronic Systems, Div Loral Corp, New York	NY
Micronetics Div Teledyne Systems Co, San Diego	Cal
Microwave Products Group Div C A S Inc Carle Place	N Y
Neptune Electronics Co, New York	N Y
Resdel Engineering Corp, Pasadena	Cal
RIL Electronics Inc, Southampton	Pa
Servo Corp of America, Hicksville	N Y
Squires-Sanders Inc, Liberty Corner	N J
Sweep Systems Inc, Indianapolis	Ind
Texscan Corp, Indianapolis	Ind
Watkins-Johnson Co, Palo Alto	Cal
Wiltek, Inc, Wilton	Conn

AMPLIFIERS, R-F--WIDEBAND

C M L INC, PLAINFIELD, N J. .	
ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK	**KAN**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INTERELECTRONICS CORP, CONGERS	**N Y**
LEL DIV VARIAN ASSOCIATES, COPIAGUE, N Y	**ADV PG 42**
MICROSONICS INC, WEYMOUTH	**MASS**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
TEKTRONIX INC, BEAVERTON	**ORE**
Advanced Measurement Instruments, Inc Somerville	Mass
Aerospace Research, Inc, Boston	Mass
Aertech, Sunnyvale	Cal
Aikow Shoji Kaisha Ltd, Osaka	Japan
Alfred Electronics, Palo Alto	Cal
Alma Engineering Inc, San Diego	Cal
Alto Scientific Co, Inc, Palo Alto	Cal
Ameco Inc, Phoenix	Ariz
Amelco Semiconductor, A Teledyne Co Mountain View	Cal
American Astrionics Inc, Palo Alto	Cal
American Electronic Labs Inc, Lansdale	Pa
Applied Research, Inc, Port Washington	N Y
Arenberg Ultrasonic Lab, Inc, Jamaica Plain	Mass
Arvee Engineering Co, Torrance	Cal
Avantek Inc, Santa Clara	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
B F Electronics, Solana Beach	Cal
Blonder-Tongue Labs Inc, Newark	N J
California Electronic Mfg Co Inc, Alamo	Cal
California Microwave, Sunnyvale	Cal
C-Cor Electronics Inc, State College	Pa
Chronetics Inc, Mount Vernon	N Y
C M L Inc, Plainfield	N J
Comdel Inc, Beverly	Mass
Communication Electronics Inc, Rockville	Md
Conic Corp, San Diego	Cal
Continental Electronics Mfg Co Sub LTV Electrosystems Inc, Dallas	Tex
Crystalab Products Corp, Rochelle Park	N J
Don Bosco Electronics Inc, Hanover	N J
Dorsett Electronics Inc, Tulsa	Okla
Dowa Trading Co Ltd, Kobe	Japan
Electronic Communications Inc (ECI), St Petersburg	Fla
Electronic Research co, A Textron Co Overland Park	Kan
E & M Labs, North Hollywood	Cal
Fairchild Instrumentation, Sunnyvale	Cal
Fisher Engineering Inc, Huntington	Ind
General Devices Inc, Instrumentation Div Princeton,	N J
General Instrument Corp Radio Receptor Div Hicksville	N Y
General Radio Co, West Concord	Mass
Giannini-Voltex, Whittier	Cal
Granger Associates, Palo Alto	Cal
Hewlett-Packard, Palo Alto	Cal
Instruments for Industry Inc, Farmingdale	N Y
Instruments Inc, San Diego	Cal
Intercontinental Electronics Corp, Fairport	N Y
Interelectronics Corp, Congers	N Y
International Microwave Corp, Cos Cob	Conn
Itek Corp, Lexington	Mass
Jerrold Electronics Corp, Philadelphia	Pa
Kay Electric Co, Pine Brook	N J
Keithley Instruments Inc, Cleveland	Ohio
Keltec Florida Div Aiken Industries Ft Walton Beach	Fla
Kokusai Electric Co Ltd, Tokyo	Japan
Krohn-Hite Corp, Cambridge	Mass
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Lel Div Varian Associates, Copiague	N Y
Lorch Electronics Corp, Englewood	N J
L P Associates Inc, Los Angeles	Cal
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Matrix Corp, Beech Grove	Ind
McMartin Industries Inc, Omaha	Neb
Micromega Div Amphenol Corp, Venice	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Microsonics Inc, Weymouth	Mass
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Microwave Products Group Div C A S Inc Carle Place	N Y
Neptune Electronics Co, New York	N Y
Optimax Inc, Ambler	Pa
Perry Amplifier, Brookline	Mass
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Radio Engineering Labs, Div DCA, Long Island City	N Y
Rantec Div Emerson Electric Co, Calabasas	Cal
Resdel Engineering Corp, Pasadena	Cal
R F Communications Inc, Rochester	N Y
R H G Electronics Lab Inc, Farmingdale	N Y
Rowe Industries Inc, Toledo	Ohio
Servo Corp of America, Hicksville	N Y
Solid State Radiations Inc, Los Angeles	Cal
Spacekom Inc, Goleta	Cal
Spencer-Kennedy Labs Inc, Boston	Mass
Squires-Sanders Inc, Liberty Corner	N J
Stoddart Electro Systems, Gardena	Cal
Sweep Systems Inc, Indianapolis	Ind
Taffet Electronics Inc, Woodside	N Y
Takeda Riken Industry Co Ltd, Tokyo	Japan

Tektronix Inc, Beaverton	Ore
Teledyne Telemetry Co, Los Angeles	Cal
Teltronics Inc, Nashua	N H
Trans-Tek Mfg Co Inc, Garwood	N J
TRW Electronic Components Div TRW Inc, Camden	N J
TRW Systems Group, Redondo Beach	Cal
Varian, Palo Alto	Cal
Vikoa Inc, Hoboken	N J
VP Co, Pasadena	Cal
Watkins-Johnson Co, Palo Alto	Cal
Wiltek, Inc, Wilton	Conn

AMPLIFIERS--SERVO SEE AMPLIFIERS--INSTRUMENTATION

AMPLIFIERS--STRAIN-GAGE SEE AMPLIFIERS--INSTRUMENTATION

AMPLIFIERS--TRANSISTORIZED SEE AMPLIFIERS--PROVIDING FUNCTION: MODULES--ACTIVE

AMPLIFIERS--TRAVELING WAVE TUBE

HEWLETT-PACKARD, PALO ALTO	**CAL**
Advanced Energy Conversion, Menlo Park	Cal
Alfred Electronics, Palo Alto	Cal
Alto Scientific Co, Inc, Palo Alto	Cal
American Electronic Labs Inc, Lansdale	Pa
Avantek Inc, Santa Clara	Cal
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
E-H Research Labs Inc, Oakland	Cal
Energy Systems Inc, Palo Alto	Cal
Ferranti, Ltd, Lancashire	England
Hewlett-Packard, Palo Alto	Cal
Hughes Aircraft Co, Electron Dynamics Div Torrance	Cal
Litton Industries, Electron Tube Div, San Carlos	Cal
Microwave Associates Inc, Burlington	Mass
Microwave Electronics A Teledyne Co, Palo Alto	Cal
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
RCA, Defense Electronic Products, Moorestown	N J
Siemens America Inc, New York	N Y

AMPLIFIERS, TV--BOOSTER

ANAREN MICROWAVE INC, SYRACUSE	**N Y**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
Aerolite Electronics Corp, Union City	N J
Anaren Microwave Inc, Syracuse	N Y
Antennacraft Co Inc, Burlington	Iowa
Beama Engineering Ltd, Toronto 15	Ont
Benco Television Assoc Div Redifon Can Ltd Rexdale	Ont
Blonder-Tongue Labs Inc, Newark	N J
CBC Industries Inc, Philadelphia	Pa
C-Cor Electronics Inc, State College	Pa
Channel Master Corp, Ellenville	N Y
Dalto Electronics Corp, Norwood	N J
Dowa Trading Co Ltd, Kobe	Japan
Entron Inc, Silver Spring	Md
Finney Co, Bedford	Ohio
General Instrument Europe SPA, Milano	Italy
Jerrold Electronics Corp, Philadelphia	Pa
Lindsay Specialty Products Ltd, Lindsay	Ontario
MacKay Research Labs, Wickenburg	Ariz
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Products Group Div C A S Inc Carle Place	N Y
Montedoro Corp, San Luis Obispo	Cal
Multi Media Engineering Inc, Rockville	Md
Precision Mecanique Labinal, 93 Saint-Ouen	France
RMS Electronics Inc, Bronx	N Y
Shrader Sound Inc, Washington	D C
Spencer-Kennedy Labs Inc, Boston	Mass
Telemet Co, Video Prods & Airborne Telemetry Amityville	N Y
Vikoa Inc, Hoboken	N J
Wald Sound, Sun Valley	Cal
Winegard Co, Burlington	Iowa

AMPLIFIERS, TV--DISTRIBUTION

ANAREN MICROWAVE INC, SYRACUSE	**N Y**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
SPENCER-KENNEDY LABS INC, BOSTON, MASS	**ADV PG 303**
Aerolite Electronics Corp, Union City	N J
Aeroscience Electronics Inc, Atlanta	Ga
Ameco Inc, Phoenix	Ariz
Anaren Microwave Inc, Syracuse	N Y
Antennacraft Co Inc, Burlington	Iowa
Avantek Inc, Santa Clara	Cal
Beama Engineering Ltd, Toronto 15	Ont
Benco Television Assoc Div Redifon Can Ltd Rexdale	Ont
Blonder-Tongue Labs Inc, Newark	N J
C-Cor Electronics Inc, State College	Pa
Central Dynamics Ltd, Pte Claire	Que
Channel Master Corp, Ellenville	N Y
Cohu Electronics Inc, San Diego	Cal
Dowa Trading Co Ltd, Kobe	Japan
Dynair Electronics Inc, San Diego	Cal
Dynasciences Corp, Blue Bell	Pa
Entron Inc, Silver Spring	Md
Finney Co, Bedford	Ohio
General Instrument Europe SPA, Milano	Italy
Inelco S p A, Tavernerio	Italy
Jerrold Electronics Corp, Philadelphia	Pa
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Lindsay Specialty Products Ltd, Lindsay	Ontario
Merchant Co, Robert C, Carmel Valley	Cal
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Montedoro Corp, San Luis Obispo	Cal
Multi Media Engineering Inc, Rockville	Md
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pierpont Television Co, Birmingham	Ala
Randam Electronics Inc, Cincinnati	Ohio
Riker Video Div, Hauppauge	N Y
Shrader Sound Inc, Washington	D C
Spencer-Kennedy Labs Inc, Boston	Mass
Tele Measurements Inc, Clifton	N J
Tel-Instrument Electronics Corp, Carlstadt	N J
Vikoa Inc, Hoboken	N J
Vital Industries Inc, Gainesville	Fla
Wald Sound, Sun Valley	Cal
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh	Pa
Winegard Co, Burlington	Iowa

AMPLIFIERS--VIDEO

ANAREN MICROWAVE INC, SYRACUSE	**N Y**
COMPUTER LABS, GREENSBORO	**N C**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
ITHACO INC, ITHACA	**N Y**
LEL DIV VARIAN ASSOCIATES, COPIAGUE	**N Y**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MICROSONICS INC, WEYMOUTH	**MASS**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
Aeroscience Electronics Inc, Atlanta	Ga
Aerospace Research, Inc, Boston	Mass
Alma Engineering Inc, San Diego	Cal
Ameco Inc, Phoenix	Ariz
Amelco Semiconductor, A Teledyne Co Mountain View	Cal
American Electronic Labs Inc, Lansdale	Pa
Anaren Microwave Inc, Syracuse	N Y
Applied Electro Mechanics Inc, Alexandria	Va
Applied Research, Inc, Port Washington	N Y
Arvee Engineering Co, Torrance	Cal
Ballantine Laboratories, Inc, Boonton	N J
Beta Instrument Corp, Newton Upper Falls	Mass
Brown Engineering-A Teledyne Co, Huntsville	Ala
C B S Labs Div Columbia Bdcstg Sys Inc Stamford	Conn
C-Cor Electronics Inc, State College	Pa
Central Dynamics Ltd, Pte Claire	Que
Cohu Electronics Inc, San Diego	Cal
Comdel Inc, Beverly	Mass
Computer Labs, Greensboro	N C
Conductron Corp, Ann Arbor	Mich
Controlomag Labs, Roslyn	Pa
Crystalab Products Corp, Rochelle Park	N J
Dalto Electronics Corp, Norwood	N J
Dayton Electronics Products Co, Dayton	Ohio
Defense Electronics Inc, Rockville	Md
Dowa Trading Co Ltd, Kobe	Japan
Dynair Electronics Inc, San Diego	Cal
Dynasciences Corp, Blue Bell	Pa
E & M Labs, North Hollywood	Cal
Energy Systems Inc, Palo Alto	Cal
Entron Inc, Silver Spring	Md
Fen-Tone Corp, New York	N Y
General Instrument Corp Radio Receptor Div Hicksville	N Y
Hartman Systems Co Inc, Huntington Station	N Y
Honeywell Test Instruments Div, Denver	Colo
Instruments for Industry Inc, Farmingdale	N Y
Ithaco Inc, Ithaca	N Y
Kay Electric Co, Pine Brook	N J
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Lel Div Varian Associates, Copiague	N Y
Litton Industries, Electron Tube Div, San Carlos	Cal
Loral Electronic Systems, Div Loral Corp, New York	NY
Matrix Corp, Beech Grove	Ind
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Measurement Technology Corp, Canoga Park	Cal
Merchant Co, Robert C, Carmel Valley	Cal
Microsonics Inc, Weymouth	Mass
Microwave Associates Inc, Burlington	Mass
Motorola Semiconductor Products Inc, Phoenix	Ariz
Multi Media Engineering Inc, Rockville	Md
Neptune Electronics Co, New York	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Northeastern Engineering Inc, Manchester	NH
North Hills Electronics Inc, Glen Cove	N Y
Optical Electronics Inc, Tuscon	Ariz
Perry Amplifier, Brookline	Mass
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Radio Research Co, Rockaway	NJ
Randam Electronics Inc, Cincinnati	Ohio
Resdel Engineering Corp, Pasadena	Cal
Research Industrolectronics, Roslyn	Pa
R F Communications Inc, Rochester	N Y
R H G Electronics Lab Inc, Farmingdale	N Y
Riker Video Div, Hauppauge	N Y
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Sartron Inc, Newberg	Ore
Sedco Systems Inc, Farmingdale	N Y
Shiba Electric Co Ltd, Woodside	N Y
Shrader Sound Inc, Washington	D C
Sweep Systems Inc, Indianapolis	Ind
Systems Research Labs Inc, Dayton	Ohio
Takeda Riken Industry Co Ltd, Tokyo	Japan
Tele Measurements Inc, Clifton	N J
Telemet Co, Video Prods & Airborne Telemetry Amityville	N Y
Tel-Instrument Electronics Corp, Carlstadt	N J
Teltronics Inc, Nashua	N H
Trans-Tek Mfg Co Inc, Garwood	N J
TRF Inc, Springfield	Va
Vega Precision Labs, Vienna	Va
Vital Industries Inc, Gainesville	Fla
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh	Pa
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

AMPLIFIERS--VOLTAGE CONTROLLED

BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS WOODSIDE, NY	**ADV PG 43**
INTERELECTRONICS CORP, CONGERS	**N Y**
ITHACO INC, ITHACA	**N Y**
KINELOGIC CORP, PASADENA	**CAL**
LEL DIV VARIAN ASSOCIATES, COPIAGUE	**N Y**
MAGNETICS INC, BUTLER	**PA**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
Bogen Communications Div Lear Siegler Inc Paramus	N J
Bulova Watch Co Inc Elctns Div Servo Products Woodside	NY
Data Device Corp, Hicksville	N Y
De-Tec-Tronic Corp, Chicago	Ill
Dowa Trading Co Ltd, Kobe	Japan
Dresser Systems, Inc, Houston	Tex
General Devices Inc, Instrumentation Div Princeton	N J
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Gulton Industries Inc Engineered Magnetics Div Hawthorne	Cal

Volt. Cont. Amplifiers?

Try Bulova First!

CALL:

Ariz Tech-Ser Inc, 1805 E Indian School Rd Phoenix 602-265-3629
Cal El Com Sales Co, 3600 Motor Ave Los Angeles 213-870-4707
Fla Perrott Assoc, 1607 Forsyth Rd, Orlando 305-275-1132
Fla Perrott Assoc, Box 4532, Clearwater 813-531-5513
Fla Perrott Assoc, Box 6277 West Palm Beach 305-967-1770
Ill Communications Eng, 7100 N Western Ave Chicago 312-R01-0548
Md Callas Electronics Inc, 6409 Frederick Ave Baltimore 301-744-7711
Mich Sheridan Assoc., 25625 Southfield Rd., Southfield 313-358-3333
Mass Aborn Labs Inc, 223 Crescent St Waltham 891-4850
Minn Wenco Sales Inc, 7728 Morgan Ave S Minneapolis 612-866-3639
Mo J C Mankus & Assoc, 400 Brooks La Hazelwood 314-PE1-4334
NY L-Tron Corp, 2-4 Fennell St, Skaneateles 315-685-6172
NY Comtronic Assoc, 1551 Franklin Ave Mineola 516-P11-8966
Ohio Sheridan Assoc., 10 Knollcrest Dr., Reading 513-761-5432
Pa Garrettson Co Inc, 92-14 Masland St Philadelphia H04-2275
Tex Tech-Ser Inc, 10210 Monroe Dr Dallas 214-358-2504
Can Canadian Micro Elctns, 1390 Raven Ave Ottawa, Ont 725-2332

BULOVA WATCH CO INC
SERVO PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

Honig Laboratories Inc, Westbury .... N Y
Hybrid Systems Corp, Cambridge .... Mass
Interelectronics Corp, Congers .... N Y
Ithaco Inc, Ithaca .... N Y
Kinelogic Corp, Pasadena .... Cal
Lel Div Varian Associates, Copiague .... N Y
Listening Inc, Arlington .... Mass
Magnetics Inc, Butler .... Pa
Microdot Magnetics Inc, Los Angeles .... Cal
Moog Co, R A, Trumansburg .... N Y
North Hills Electronics Inc, Glen Cove .... N Y
Optimax Inc, Ambler .... Pa
Perfectone Sound Labs, Allendale .... NJ
Power Control Corp, Pittsburgh .... Pa
Prototype Transformer Corp, East Orange .... NJ
Squires-Sanders Inc, Liberty Corner .... N J
Streeter-Amet, Grayslake Ill
Symetrics Engineering Corp, Satellite Beach .... Fla
Trans-Tek Mfg Co Inc, Garwood .... N J

A-M RECEIVERS SEE RECEIVERS--RADIO

A-M RECEIVING ANTENNAS SEE ANTENNAS--RADIO RECEIVING

A-M TRANSMITTERS SEE TRANSMITTERS--BROADCAST; RADIO COMMUNICATION

A-M TUNERS SEE TUNERS

ANALOG COMPUTERS SEE COMPUTERS

ANALYZERS--CAPACITOR SEE TESTERS--CAPACITOR

ANALYZERS--CIRCUIT SEE TESTERS

ANALYZERS--COINCIDENCE

AUTOMATION DEVELOPMENT CO, CULVER CITY .... CAL
HEWLETT-PACKARD, PALO ALTO .... CAL
American Cable Electronic Supply Inc, Sacramento .... Cal
Automation Development Co, Culver City .... Cal
Block Engineering Inc, Cambridge .... Mass
Canberra Industries, Middletown .... Conn
Chronetics Inc, Mount Vernon .... N Y
Dayton Electronics Products Co, Dayton .... Ohio
EMI Electronics Ltd, Hayes, Middlesex .... England
Gardner Lab Inc, Bethesda .... Md
Goodyear Aerospace Corp, Akron .... Ohio
Guardian Electric Mfg Co of Cal Inc, Culver City .... Cal
Hamner Electronics Co Inc, Cleveland .... Ohio
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland .... Ohio
Hewlett-Packard, Palo Alto .... Cal
Isotopes A Teledyne Co, Westwood .... N J
Kahl Scientific Instrument Córp, El Cajon .... Cal
Kobe Industries Corp, Kobe .... Japan
Nanosecond Systems Inc, Fairfield .... Conn
Nuclear-Chicago Corp, Des Plaines Ill

Nuclear Enterprises Ltd, Edinburgh 11 .... Scotland
Nuclear Equipment Chemical Corp, Farmingdale .... N Y
Nuclear Supplies, Encino .... Cal
Packard Instrument Co, Inc, Downers Grove Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland

ANALYZERS--COLOR SEE COLORIMETERS

ANALYZERS--CRYSTAL SEE CRYSTAL ANALYSISEQUIPMENT

ANALYZERS, DIFFERENTIAL--ELECTRONIC

AUTOMATION DEVELOPMENT CO, CULVER CITY .... CAL
DRANETZ ENGINEERING LABS INC, PLAINFIELD .... N J
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y .... ADV PGS 3RD COVER INLEAF
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO .... ADV PGS 8
Airpax Electronics Inc, Cambridge Div, Cambridge .... Md
Airpax Electronics Inc Seminole Div Fort Lauderdale .... Fla
Analog Technology Corp, Pasadena .... Cal
Applied Dynamics, Inc, Ann Arbor .... Mich
Audn Corp, Hamburg .... N Y
Automation Development Co, Culver City .... Cal
Boston Digital Corp, Ashland .... Mass
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena .... Cal
Dranetz Engineering Labs Inc, Plainfield .... N J
Elastronics Labs, Tarzana .... Cal
Electron Machine Co, Umatilla .... Fla
Garrett Corp, Los Angeles .... Cal
General Atronics Corp, Philadelphia .... Pa
General Instrument Corp, Semiconductor Prods Grp, Hicksville .... N Y
Geo Space Corp, Houston .... Tex
Goodyear Aerospace Corp, Akron .... Ohio
Guardian Electric Mfg Co of Cal Inc, Culver City .... Cal
Hathaway Instruments Inc, Denver .... Colo
Hexacon Electric Co, Roselle Park .... N J
Honeywell Test Instruments Div, Denver .... Colo
Laben S p A, Milan .... Italy
Loral Electronic Systems, Div Loral Corp, New York .... NY
Manufacturers Eng & Equip Corp, Warrington .... Pa
Meteorology Research Inc, Altadena .... Cal
Nuclear-Chicago Corp, Des Plaines Ill
Nuclear Enterprises Ltd, Edinburgh 11 .... Scotland
Philco-Ford Corp, Washington .... D C
Voltron Products Inc, Pasadena .... Cal
Zeltex inc, Concord .... Cal

ANALYZERS, DIFFERENTIAL--MECHANICAL

Du Pont De Nemours & Co Inc E I, Wilmington .... Del
Fae Instrument Corp, Huntington Station .... N Y
Instru-Lec Corp, Mt Vernon .... N Y

ANALYZERS--DISTORTION

HEATH CO, BENTON HARBOR .... MICH
HEWLETT-PACKARD, PALO ALTO .... CAL
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO .... ADV PGS 8
TELE-SIGNAL CORP, WOODBURY, N Y .... ADV PG 44
TRACOR INC, AUSTIN .... TEX
AIM Electronics Ltd, Cambridge .... U K
Audio Instrument Co Inc, Union City .... N J
B & K Instruments Inc of Bruel & Kjaer Cleveland .... Ohio
Digitech Inc, Ridgefield .... Conn
EICO Electronic Instrument Co Inc, Brooklyn .... NY
Electronics Communications Div Atlantic Research Corp Alexandria .... Va
Frequency Engineering Labs, Farmingdale .... N J
General Radio Co, West Concord .... Mass
Heath Co, Benton Harbor .... Mich
Hewlett-Packard, Palo Alto .... Cal
Honeywell Test Instruments Div, Denver .... Colo
Kokuyo Electric Co Ltd, Tokyo .... Japan
Lab Electro-Acoustique, 92 Rueil-Malmaison .... France
London Co, Westlake .... Ohio
Meguro Denpa Sokki K K, Meguro-ku, Tokyo .... Japan
Muirhead Instruments Inc, Mountainside .... N J
Nelson-Ross Electronics Inc, Hicksville .... NY

DISTORTION ANALYZER

Model 820B is a stable, highly accurate instrument for measuring all types of distortion on all types of random signal characters or individually selected transitions within a character and displays measurements directly in digital form from 0-50% in 1% increments on both S/S and sync TTY and data channels at all speeds up to 10K baud. Solid state IC's and crystal controlled time base generator to ensure extreme accuracy.

TELE-SIGNAL CORPORATION
A Subsidiary of The Singer Company
250 Crossways Park Drive
Woodbury, L. I., New York 11797

Probescope Co Inc, Syosset .... N Y
Quan-Tech Labs Inc, Whippany .... N J
Radiometer A/S, Copenhagen NV .... Denmark
Roveti Instruments, Annapolis .... Md
Sennheiser Electronic Corp (NY), New York .... N Y
Shiba Electric Co Ltd, Woodside .... N Y
Siemens America Inc, New York .... N Y
Singer Co, Metrics Div, Bridgeport .... Conn
Stelma Inc, Stamford .... Conn
Technical Products Co of L A, Los Angeles .... Cal
Tecnica Elettronica Systems S a s, Milan .... Italy
Tel-Com Instruments Inc, Hanover .... N J
Teledata Inc, Queens Village .... N Y
Tele-Signal Corp, Woodbury .... N Y
Towaco Electronics, Towaco .... N J
Tracor Inc, Austin .... Tex
Trepac Corp of America, Englewood .... N J
Vibration Instruments Co, Anaheim .... Cal

ANALYZERS--FLUTTER

KENTON ENGINEERING CORP, SKOKIE ILL
Kenton Engineering Corp, Skokie Ill
Vidar Corp, Mountain View .... Cal

ANALYZERS--GAS

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
HEWLETT-PACKARD, PALO ALTO .... CAL
TRACOR INC, AUSTIN .... TEX
Aero Vac Corp, Troy .... N Y
Air Products & Chemicals, Inc, Allentown .... Pa
American Instrument Co, Inc, Silver Spring .... Md
Automation Products, Inc, Houston .... Tex
Bacharach Instrument Co, Pittsburgh .... Pa
Bailey Meter Co, Wickliffe .... Ohio
Beckman Instruments Inc, Fullerton, ... Cal
Beckman Instruments Intl SA, 1207 Geneva .... Switzerland
Bendix Corp, Vacuum Div, Rochester .... N Y
Cambridge Systems Inc, Newton .... Mass
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena .... Cal
Devco Engineering Inc, Fairfield (Caldwell) .... N J
Dohrmann Instruments Co, Mountain View .... Cal
Dynatronic Instruments Corp Div Lab-Line Inst Inc Melrose Park Ill
Edwards High Vacuum Inc, Grand Island .... N Y
Electro-Med Instruments Inc, Houston .... Tex
Electronic Associates Inc Scien Instr, Palo Alto .... Cal
Electronic Associates Inc, West Long Branch .... N J
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark .... N J
Erdco Engineering Corp, Addison Ill
Fischer & Porter Co, Warminster .... Pa
Fuji Electric Co Ltd, Tokyo .... Japan
Gas Analysis Systems Inc, Basking Ridge .... NJ
GCA Technology Div GCA Corp, Bedford .... Mass
General Electric Co, ECSO, Schenectady .... N Y
General Electric Co Vacuum Prods Business Section Schenectady .... N Y
Gow-Mac Instrument Co, Madison .... N J
Granville-Philips Co, Boulder .... Colo
Harvard Apparatus Co Inc, Millis .... Mass
Hays Corp, Michigan City .... Ind
Hewlett-Packard, Palo Alto .... Cal
Horiba Instruments Inc, Kyoto .... Japan
Houston Atlas Inc, Houston .... Tex
Hydro Products Div Dillingham Corp, San Diego .... Cal
Instrumentation Lab Inc, Watertown .... Mass
In-Val-Co, Tulsa .... Okla
ITT Barton Controls & Instr Div, Monterey Park .... Calif
Japan Vacuum Engineering Co Ltd, Tokyo .... Japan
Kahn & Co Inc, Wethersfield .... Conn
Kokusai Electric Co Ltd, Tokyo .... Japan
Laboratory Equipment Corp, St Joseph .... Mich
Landis & Gyr AG, Zug .... Switzerland
Leeds & Northrup Co, Philadelphia .... Pa
Lion Research Corp, Newton .... Mass
Lucci & Co, Sarasota .... Fla
Manufacturers Eng & Equip Corp, Warrington .... Pa
Mast Development Co, Davenport .... Iowa
Milton Roy Co, St Petersburg .... Fla
Mine Safety Appliances Co, Pittsburgh .... Pa
Norton Co Vacuum Equip Div, Newton .... Mass
Nuclide Corp, AGV Div, Acton .... Mass
Ovitron Corp Industrial Syst Div, Cheshire .... Conn
Perkin-Elmer Corp, Norwalk .... Conn
Perkin-Elmer Corp, Optical Group, Norwalk .... Conn
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon .... NY
Precision Scientific Co Sub GCA Corp, Chicago Ill
Process & Instruments Corp, Brooklyn .... N Y
Servomex Controls Ltd, Sussex .... England
Sloan Instruments Corp, Santa Barbara .... Cal
Statham Instruments Inc, Los Angeles .... Cal
Sunshine Scientific Instruments Inc, Philadelphia .... Pa
Technicon Corp, Ardsley .... N Y
Tracor Inc, Austin .... Tex
20th Century Electronics Ltd New Addington, Surrey .... England
Ultek Div Perkin-Elmer, Palo Alto .... Cal
Varian, Palo Alto .... Cal
Varian Aerograph, Walnut Creek .... Cal
Veeco Instruments Inc, Plainview .... N Y
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh .... Pa

ANALYZERS--HARMONIC

HEWLETT-PACKARD, PALO ALTO	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
AIM Electronics Ltd, Cambridge	U K
Airmec Instruments Ltd, Buckinghamshire	England
Conn Corp, Elkhart	Ind
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam	N Y
Fenlow Electronics Ltd, Weybridge	England
General Radio Co, West Concord	Mass
Hewlett-Packard, Palo Alto	Cal
Industrial Electronetics Corp, Satellite Beach	Fla
Lab Electro-Acoustique, 92 Rueil-Malmaison	France
London Co, Westlake	Ohio
Meguro Denpa Sokki K K, Meguro-ku, Tokyo	Japan
Milletron, Inc, Pittsburgh	Pa
Muirhead Instruments Inc, Mountainside	N J
Nelson-Ross Electronics Inc, Hicksville	NY
Nippon Electric Co Ltd, Tokyo	Japan
Probescope Co Inc, Syosset	N Y
Quan-Tech Labs Inc, Whippany	N J
Radiometer A/S, Copenhagen NV	Denmark
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Signal Analysis Industries Corp, Copiague	N Y
Singer Co, Metrics Div, Bridgeport	Conn
Spectral Dynamics Corp of San Diego, San Diego	Cal
Stoddart Electro Systems, Gardena	Cal
Technical Products Co of L A, Los Angeles	Cal
Tel-Com Instruments Inc, Hanover	N J
20th Century Electronics Ltd New Addington, Surrey	England
Vibration Instruments Co, Anaheim	Cal
Wandel & Goltermann/Tel-Com, Hanover	N J

ANALYZERS--INFRARED

Alden Electronic & Impulse Recording Equip Co Inc Westboro	Mass
American Instrument Co, Inc, Silver Spring	Md
Audn Corp, Hamburg	N Y
Barnes Engineering Co Def & Space Div Stamford	Conn
Bausch & Lomb, Inc, Rochester	N Y
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Device Development Corp, Waltham	Mass
Dynatronic Instruments Corp Div Lab-Line Inst Inc Melrose Park	Ill
Edwin Industries Corp, Silver Spring	Md
E G & G Inc, Electronic Prods Div, Boston	Mass
Electron Machine Co, Umatilla	Fla
Farrand Optical Co Inc, Bronx	N Y
Fuji Electric Co Ltd, Tokyo	Japan
Grace Electronics Inc, Cleveland	Ohio
Horiba Instruments Inc, Kyoto	Japan
Kobe Industries Corp, Kobe	Japan
Leeds & Northrup Co, Philadelphia	Pa
Measurement Systems Inc, Norwalk	Conn
Mine Safety Appliances Co, Pittsburgh	Pa
Oriel-Optics Corp, Stamford	Conn
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Perkin-Elmer Corp, Norwalk	Conn
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Philco-Ford Corp, Washington	D C
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Varo Inc, Garland	Tex
Wilks Scientific Corp, South Norwalk	Conn

ANALYZERS--INTERMODULATION

HEATH CO, BENTON HARBOR	**MICH**
Audio Instrument Co Inc, Union City	N J
Heath Co, Benton Harbor	Mich
London Co, Westlake	Ohio
Marconi Instruments Div, English Electric Corp Englewood	N J
Measurements A McGraw-Edison Div, Boonton	N J
Meguro Denpa Sokki K K, Meguro-ku, Tokyo	Japan
Nelson-Ross Electronics Inc, Hicksville	NY
Polarad Electronic Instruments Div Long Island City	N Y
Probescope Co Inc, Syosset	N Y
Radiometer A/S, Copenhagen NV	Denmark
Signal Analysis Industries Corp, Copiague	N Y
Singer Co, Metrics Div, Bridgeport	Conn
Squires-Sanders Inc, Liberty Corner	N J

ANALYZERS--MAGNETIC

BELL, INC F W, COLUMBUS	**OHIO**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
Acoustronics Inc, Huntington	N Y
Alpha Scientific Labs Inc, Oakland	Cal
American Instrument Co, Inc, Silver Spring	Md
Bell, Inc F W, Columbus	Ohio
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Electro-Mechanics Co, Austin	Tex
Hallmark Standards Inc, Mamaroneck	N Y
High Voltage Engineering Corp, Burlington	Mass
Irwin Labs Inc, Los Angeles	Cal
Nuclide Corp, AGV Div, Acton	Mass
Pacific Electric Motor Co, Oakland	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Rawson-Lush Instrument Co Inc, Acton	Mass
R F S Engineering Co, Philadelphia	Pa
Scientific-Atlanta Inc, Atlanta	Ga
Singer Co, Metrics Div, Bridgeport	Conn
Stoddart Electro Systems, Gardena	Cal
Sunshine Scientific Instruments Inc, Philadelphia	Pa
White Electromagnetics Inc, Rockville	Md

ANALYZERS--NOISE

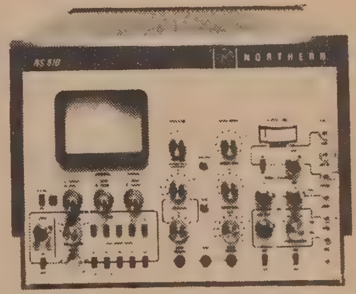
ELGENCO INC, SANTA MONICA	**CAL**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
SPECTRA-ELECTRONICS INC, LOS ALTOS	**CAL**
TRACOR INC, AUSTIN	**TEX**
Aerospace Research, Inc, Boston	Mass
AIM Electronics Ltd, Cambridge	U K
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Bearing Inspection, Inc, Santa Fe Springs	Cal
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio
Brower Labs Inc, Westboro	Mass
Chesapeake Instrument Corp, Shadyside	Md
Dawe Instruments Ltd, London W3	England
Don Bosco Electronics Inc, Hanover	N J
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam	N Y
Elgenco Inc, Santa Monica	Cal
ELIT-Elettronica Italiana S r l, 20151 Milan	Italy
EMR-Hatboro Div Weston Insts Inc, Hatboro	Pa
Federal Scientific Corp, New York	N Y
Fenlow Electronics Ltd, Weybridge	England
General Atronics Corp, Philadelphia	Pa
General Radio Co, West Concord	Mass
GPS Instrument Co Inc, Newton	Mass
Hewlett-Packard, Palo Alto	Cal
Honeywell Test Instruments Div, Denver	Colo
Industrial Electronetics Corp, Satellite Beach	Fla
Korfund Dynamics Corp, Westbury	N Y
Lab Electro-Acoustique, 92 Rueil-Malmaison	France
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
Marconi Instruments Div, English Electric Corp Englewood	N J
Milletron, Inc, Pittsburgh	Pa
Mine Safety Appliances Co, Pittsburgh	Pa
MPB Corp, Keene	N H
Muirhead Instruments Inc, Mountainside	N J
Nelson-Ross Electronics Inc, Hicksville	NY
Philco-Ford Corp, Washington	D C
Polarad Electronic Instruments Div Long Island City	N Y
Probescope Co Inc, Syosset	N Y
Quan-Tech Labs Inc, Whippany	N J
Radiometer A/S, Copenhagen NV	Denmark
Roveti Instruments, Annapolis	Md
Scott Inc, H H, Maynard	Mass
Signal Analysis Industries Corp, Copiague	N Y
Singer Co, Metrics Div, Bridgeport	Conn
Spectra-Electronics Inc, Los Altos	Cal
Spectral Dynamics Corp of San Diego, San Diego	Cal
Stoddart Electro Systems, Gardena	Cal
Tracor Inc, Austin	Tex
Vibration Instruments Co, Anaheim	Cal
White Electromagnetics Inc, Rockville	Md
Wiltron Co, Palo Alto	Cal

ANALYZERS--PARTICLE

Advanced Purification System Co Inc, Great Neck	N Y
American Instrument Co, Inc, Silver Spring	Md
Bausch & Lomb, Inc, Rochester	N Y
Block Engineering Inc, Cambridge	Mass
Canberra Industries, Middletown	Conn
Coulter Electronics Inc, Hialeah	Fla
E G & G Inc, Electronic Prods Div, Boston	Mass
Envirco Div Becton, Dickinson & Co, Albuquerque	N M
Gam Rad Inc, Detroit	Mich
GCA Technology Div GCA Corp, Bedford	Mass
Intertechnique, Plaisir, 78	France
Meteorology Research Inc, Altadena	Cal
Particle Technology Inc, Mountain View	Cal
Phoenix Precision Instrument Co, Inc, Philadelphia	Pa
Royco Instruments Inc, Menlo Park	Cal
Thermo-Systems Inc, St Paul	Minn
Zeiss Inc, Carl, New York	N Y

ANALYZERS--PULSE-HEIGHT

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HEWLETT-PACKARD, PALO ALTO	**CAL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
TRACOR INC, AUSTIN, TEX	**ADV PG 45**
AB Atomenergi, 10072 Stockholm 43	Sweden
Adar Associates Inc, Somerville	Mass
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Alden Electronic & Impulse Recording Equip Co Inc Westboro	Mass
Analog Technology Corp, Pasadena	Cal
Applied Research Labs, Sunland	Cal
Baird-Atomic, Inc, Cambridge	Mass
Canberra Industries, Middletown	Conn
Digital Equipment Corp, Maynard	Mass
EMI Electronics Ltd, Hayes, Middlesex	England
Fabri-Tek Inc, Minneapolis	Minn
General Electric Co, ECSO, Schenectady	N Y


NORTHERN SCIENTIFIC PULSE-HEIGHT ANALYZERS

NS-610 Series features digital stabilization circuitry (optional) to keep overall system gain and zero level within precise limits. There is no system drift. Circuitry built-in for wide range of optional input and output equipment; 5″ CRT display standard. A factor-of-two conversion gain included on all models for more resolution in selected waveform section. Unit available with 512, 1024, 2048 and 4096 channels. 16 MHz converter and 4 MHz multi-channel scaling. Silicon semiconductors insure reliability. 0-100 millivolts (negative) low level input; 0-10 volts and 0-100 volts positive or bipolar) hi-level input; 20,000 ohms impedance. Integral linearity: better than ±0.25% over top 98% of channels. Differential linearity: ±2% over same range. Readouts include linear analog with 3-digit decoding, 0.5 volt XY plotter, CRT display, and various digital devices including typewriter, Teletype page printer, Teletype BRPE and Tally hi-speed punch, Teletype and Tally lo-speed punch.

NS-601 less expensive analyzer is nevertheless a complete system and ideal for signal amplitude distribution analysis, Mossbauer studies, and various multichannel scaling experiments in lab and classroom. Other pulse height analyzers available for specific applications.

TRACOR™

6500 TRACOR LANE/AUSTIN, TEXAS 78721
512-926-2800/TWX 512-926-0441

Hamner Electronics Co Inc, Cleveland	Ohio
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland	Ohio
Hewlett-Packard, Palo Alto	Cal
Hill Inc E Vernon, San Francisco	Cal
Humphrey Electronics Inc, Raleigh	N C
Intertechnique, Plaisir, 78	France
Kicksort, Inc, Alsip	Ill
Kobe Industries Corp, Kobe	Japan
Laben S p A, Milan	Italy
Landis & Gyr AG, Zug	Switzerland
Loral Electronic Systems, Div Loral Corp, New York	NY
Ludlum Measurements Inc, Sweetwater	Tex
Matsushita Electric Industrial Co Ltd, Osaka	Japan
MCG Electronics, Deer Park	N Y
Measurement Technology Corp, Canoga Park	Cal
Micro Instrument Co, Hawthorne	Cal
Nanosecond Systems Inc, Fairfield	Conn
Northern Scientific Inc, Middleton	Wis
Nuclear-Chicago Corp, Des Plaines	Ill
Nuclear Data Inc, Palatine	Ill
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Nuclear Measurements Corp, Indianapolis	Ind
Nuclear Supplies, Encino	Cal
Packard Instrument Co, Inc, Downers Grove	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Phoenix Precision Instrument Co, Inc, Philadelphia	Pa
Picker Nuclear, White Plains	N Y
Pioneer Magnetics Inc, Santa Monica	Cal
Quan-Tech Labs Inc, Whippany	N J
Quantum Electronics Corp, San Ramon	Cal
Randam Electronics Inc, Cincinnati	Ohio
R F S Engineering Co, Philadelphia	Pa
Tracerlab, Div Lab for Electronics Inc, Waltham	Mass
Tracor Inc, Austin	Tex
Troxler Electronic Labs Inc, Raleigh	N C
Victoreen Instrument Div, Cleveland	Ohio

ANALYZERS--R-F INTERFERENCE

HEWLETT-PACKARD, PALO ALTO	**CAL**
Airmec Instruments Ltd, Buckinghamshire	England
Applied Research, Inc, Port Washington	N Y
Electro-Data Inc, Garland	Tex
Electro-Mechanics Co, Austin	Tex
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam	N Y
Electronics Communications Div Atlantic Research Corp Alexandria	Va
Hewlett-Packard, Palo Alto	Cal
Loral Electronic Systems, Div Loral Corp, New York	NY
Micro Tel Corp, Baltimore	Md

Works in Seconds.

The '69 Electronics Buyers' Guide lets you find people, places, and things in seconds. In the Directory of Manufacturers and Sales Offices, for example, more than 6,000 manufacturers are listed, including addresses, telephone numbers, sales offices, the people to call for information, the total number of engineers and employees and sales volumes. So use your EBG. It works in seconds.

Electronics Buyers' Guide

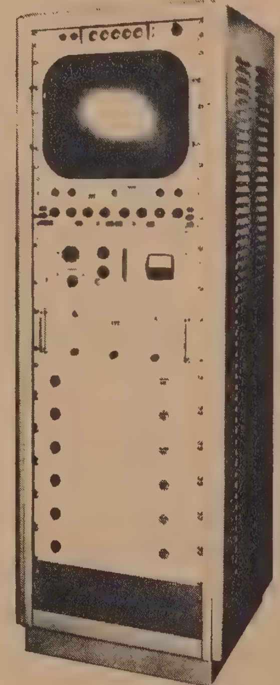
Nelson-Ross Electronics Inc, Hicksville	NY
Philco-Ford Corp, Washington	D C
Polarad Electronic Instruments Div Long Island City	N Y
Probescope Co Inc, Syosset	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Solar Electronics Co, Hollywood	Cal
Sprague Electric Co, North Adams	Mass
Stoddart Electro Systems, Gardena	Cal
Welex Electronics, Div Halliburton Co Silver Spring	Md
White Electromagnetics Inc, Rockville	Md

ANALYZERS--SERVO

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
CLEVITE CORP, BRUSH INSTRUMENTS DIV, CLEVELAND	**OHIO**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW	**N Y**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
Aetna Electronics Corp, North Branch	N J
AIM Electronics Ltd, Cambridge	U K
Automation Development Co, Culver City	Cal
Canoga Electronics Corp, Chatsworth	Cal
Clevite Corp, Brush Instruments Div, Cleveland	Ohio
Control Technology Co Inc, Long Island City	N Y
EMR-Hatboro Div Weston Insts Inc, Hatboro	Pa
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Honeywell Test Instruments Div, Denver	Colo
Industrial Control Co, Farmingdale	N Y
Industrial Measurements Corp, Pomona	Cal
Kollsman Motor Corp, Dublin	Pa
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
Marconi Instruments Div, English Electric Corp Englewood	N J
Moog Inc, Industrial Div, East Aurora	N Y
Muirhead Instruments Inc, Mountainside	N J
North Atlantic Industries Inc, Plainview	N Y
Palisades Engineering Co Inc, Pacific Palisades	Cal
Philco-Ford Corp, Washington	D C
Servo Corp of America, Hicksville	N Y
Singer Co, Diehl Div, Somerville	N J
Theta Instrument Corp, Fairfield	N J
Vernitron Corp Precision Comp Group, Farmingdale	N Y

ANALYZERS--SPECTRUM

ANAREN MICROWAVE INC, SYRACUSE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
SPECTRA-ELECTRONICS INC, LOS ALTOS	**CAL**
TEKTRONIX INC, BEAVERTON	**ORE**
TRACOR INC, AUSTIN, TEX	**ADV PG 46**
WHITE INSTRUMENTS, INC, AUSTIN,	**TEX**
Acton Laboratories Inc, Acton	Mass
Agac-Derritron Inc, Alexandria	Va
AIM Electronics Ltd, Cambridge	U K
Alden Electronic & Impulse Recording Equip Co Inc Westboro	Mass
American Instrument Co, Inc, Silver Spring	Md
Analog Technology Corp, Pasadena	Cal
Anaren Microwave Inc, Syracuse	N Y
Applied Research, Inc, Port Washington	N Y
Applied Research Labs, Sunland	Cal
Astrodata Inc, Anaheim	Cal
Aul Instruments Inc, Long Island City	NY
Beckman Instruments Inc, Fullerton,	Cal
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio
Collins Radio Co, Dallas	Tex
Conductron Corp, Ann Arbor	Mich
Damon Engineering Inc, Needham Heights	Mass
Data-Control Systems Inc, Danbury	Conn
Decitron Electronics Corp, Brooklyn	N Y
Defense Electronics Inc, Rockville	Md
Electro-Data Inc, Garland	Tex
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam	N Y
Electro Technic Products, Chicago	Ill
EMI Electronics Ltd, Hayes, Middlesex	England
EMR-Hatboro Div Weston Insts Inc, Hatboro	Pa
Farrand Optical Co Inc, Bronx	N Y
Federal Scientific Corp, New York	N Y
Fenlow Electronics Ltd, Weybridge	England
GPL Div Gen Precision Systems Inc, Pleasantville	N Y
Gulton Industries Inc, Metuchen	N J
Hewlett-Packard Palo Alto	Cal
Honeywell Test Instruments Div, Denver	Colo
Honig Laboratories Inc, Westbury	N Y
Horiba Instruments Inc, Kyoto	Japan
Industrial Electronetics Corp, Satellite Beach	Fla
International Light Inc, Newburyport	Mass
International Research & Development Corp Worthington	Ohio
Jarrell-Ash Co, Waltham	Mass
Jetronic Industries Inc, Philadelphia	Pa
Kay Electric Co, Pine Brook	N J
Kobe Industries Corp, Kobe	Japan
Kokuyo Electric Co Ltd, Tokyo	Japan
Lab Electro-Acoustique, 92 Rueil-Malmaison	France
Laben S p A, Milan	Italy
Lavoie Labs Div Spedcor, Morganville	N J
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
Listening Inc, Arlington	Mass
Marconi Instruments Div, English Electric Corp Englewood	N J
MB Electronics A Textron Co, New Haven	Conn
Meguro Denpa Sokki K K, Meguro-ku, Tokyo	Japan
Micro Tel Corp, Baltimore	Md
Microwave Labs of America, Brooklyn	N Y



ALLISON SPECTRUM ANALYZERS

NEW AL-8100 SERIES The Model 844 Data Scanner is a solid state multiplexer and monitor display unit designed for use with the 814 Series Spectrum Analyzer or other multiple-output systems.

The unit sequentially scans up to 80 data channels and presents a linear or logarithmic DC voltage for external recording or processing. A built-in monitor oscilloscope simultaneously displays output levels of the sampled channels. A digital channel selector switch identifies, by CRT intensification, individual data channels displayed on the monitor oscilloscope.

Outputs are provided for X-Y or strip chart recorder, A/D converter, and external oscilloscope display.

The Model 814 Spectrum Analyzer contains all of the basic elements for spectral analysis of a complex waveform. The frequency spectrum may be divided into 1-, 1/2-, 1/3-, 1/6-, or 1/12- octave contiguous or separated segments. All channels operate in parallel for simultaneous and continuous analysis. Any number of these modules can be combined to accurately define power spectral density to various degrees of resolution, in real time, over the entire 1 Hz to 100kHz frequency range.

814 Spectrum Analyzers may be combined with the Model 844 Data Scanner/Monitor Display unit for sequential sampling, display, and recording of each channel.

2% (1/30- octave) filter sets are available on special order.

TRACOR

6500 TRACOR LANE
AUSTIN, TEXAS 78721

512-926-2800/TWX 512-926-0441

Milletron, Inc, Pittsburgh	Pa
Muirhead Instruments Inc, Mountainside	N J
Nelson-Ross Electronics Inc, Hicksville	NY
New London Instr Co Div Crescent Comm Corp Newton	Mass
Northeastern Engineering Inc, Manchester	NH
Novatronics Inc, Pompano Beach	Fla
Nuclear-Chicago Corp, Des Plaines	Ill
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Oki Electric Industry Co Ltd, Tokyo	Japan
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Philco-Ford Corp, Washington	D C
Philips', Gloeilampenfabrieken, N V, Eindhoven	Holland
Phoenix Precision Instrument Co, Inc, Philadelphia	Pa
Polarad Electronic Instruments Div Long Island City	N Y
Probescope Co Inc, Syosset	N Y
Procedyne Corp, New Brunswick	N J
Quan-Tech Labs Inc, Whippany	N J
Santa Rita Technology Inc, Menlo Park	Cal
Schoeffel Instrument Co, Westwood	NJ
Scope Inc, Reston	Va
Sierra Research Corp, Buffalo	N Y
Signal Analysis Industries Corp, Copiague	N Y
Singer Co, Metrics Div, Bridgeport	Conn
Spectra-Electronics Inc, Los Altos	Cal
Spectral Dynamics Corp of San Diego, San Diego	Cal
Spectrum Instruments Inc, Tuckahoe	N Y
Spedcor Electronics Inc, Glendale	N Y
Squires-Sanders Inc, Liberty Corner	N J
Stoddart Electro Systems, Gardena	Cal
Straza Industries Div Ametek Inc, El Cajon	Cal
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Technical Materiel Corp, Mamaroneck	N Y
Technical Products Co of L A, Los Angeles	Cal
Tektronix Inc, Beaverton	Ore
Tel-Com Instruments Inc, Hanover	N J
Tracor Inc, Austin	Tex
TRW Systems Group, Redondo Beach	Cal
Unholtz-Dickie Corp, Hamden	Conn
Vibration Instruments Co, Anaheim	Cal
Wandel & Goltermann/Tel-Com, Hanover	N J
White Electromagnetics Inc, Rockville	Md
White Instruments, Inc, Austin	Tex
Wilks Scientific Corp, South Norwalk	Conn
Wiltron Co, Palo Alto	Cal

ANALYZERS--SURFACE

American Instrument Co, Inc, Silver Spring	Md
Bausch & Lomb, Inc, Rochester	N Y
Bearing Inspection, Inc, Santa Fe Springs	Cal
Bendix Corp Industrial Metrology Div, Ann Arbor	Mich
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Gardner Lab Inc, Bethesda	Md
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Sloan Instruments Corp, Santa Barbara	Cal
Varian, Palo Alto	Cal
Wilks Scientific Corp, South Norwalk	Conn
Zeiss Inc, Carl, New York	N Y

ANALYZERS--THYRATRON SEE TESTERS--TUBE

ANALYZERS--TORQUE

Bergen Lab, Inc, Paterson	N J
Himmelstein & Co, S, Elk Grove Village	Ill
Kahn & Co Inc, Wethersfield	Conn
Korfund Dynamics Corp, Westbury	N Y
Matrix Corp, Beech Grove	Ind
MPB Corp, Keene	N H
Murphy Industries G W Cleco Pneumatic Div Houston	Tex

ANALYZERS--TRANSISTOR SEE TESTERS--TRANSISTOR

ANALYZERS--ULTRASONIC SEE ULTRASONIC EQUIPMENT

ANALYZERS--ULTRAVIOLET

Advanced Purification System Co Inc, Great Neck	N Y
Air Technology Corp, Waltham	Mass
American Instrument Co, Inc, Silver Spring	Md
Bausch & Lomb, Inc, Rochester	N Y
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Black Light Corp of America, San Gabriel	Cal
Black Light Products, Chicago	Ill
Block Engineering Inc, Cambridge	Mass
Buchler Instruments Inc, Fort Lee	N J
Durrum Instrument Corp, Palo Alto	Cal
E G & G Inc, Electronic Prods Div, Boston	Mass
Electro Technic Products, Chicago	Ill
Farrand Optical Co Inc, Bronx	N Y
Gardner Lab Inc, Bethesda	Md
GCA Technology Div GCA Corp, Bedford	Mass
Grace Electronics Inc, Cleveland	Ohio
International Light Inc, Newburyport	Mass
Jarrell-Ash Co, Waltham	Mass
Measurement Systems Inc, Norwalk	Conn
Nanosecond Systems Inc, Fairfield	Conn
Oriel-Optics Corp, Stamford	Conn
Perkin-Elmer Corp, Norwalk	Conn
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Process & Instruments Corp, Brooklyn	N Y
Schoeffel Instrument Co, Westwood	NJ
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Ultra-Violet Products Inc, San Gabriel	Cal

ANALYZERS--VIBRATION

ELGENCO INC, SANTA MONICA	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
TEKTRONIX INC, BEAVERTON	**ORE**
TRACOR INC, AUSTIN	**TEX**
Advanced Electronics, Inc, Rocky Hill	Conn
Ad-Yu Electronics Inc, Passaic	N J
Agac-Derritron Inc, Alexandria	Va
AIM Electronics Ltd, Cambridge	U K
Bearing Inspection, Inc, Santa Fe Springs	Cal
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio
Chrysler Corp, Space Div, Huntsville Oper Huntsville	Ala
Columbia Research Labs Inc, Woodlyn	Pa
Conn Corp, Elkhart	Ind
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Dawe Instruments Ltd, London W3	England
Decca Radar, Inc, New York	N Y
Dytronics Co Inc, Columbus	Ohio
Electrac Inc, Anaheim	Cal
Elgenco Inc, Santa Monica	Cal
EMR-Hatboro Div Weston Insts Inc, Hatboro	Pa
Federal Scientific Corp, New York	N Y
Fenlow Electronics Ltd, Weybridge	England
General Radio Co, West Concord	Mass
Geoscience Instruments Corp, Mt Vernon	N Y
Gulton Industries Inc, Metuchen	N J
Honeywell Test Instruments Div, Denver	Colo
Industrial Electronetics Corp, Satellite Beach	Fla
International Research & Development Corp Worthington	Ohio
Kay Electric Co, Pine Brook	N J
Korfund Dynamics Corp, Westbury	N Y
Laben S p A, Milan	Italy
Leeds & Northrup Co, Philadelphia	Pa
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
MB Electronics A Textron Co, New Haven	Conn
Mechanical Technology Inc, Latham	N Y
Muirhead Instruments Inc, Mountainside	N J
Nelson-Ross Electronics Inc, Hicksville	NY
Nippon Electric Co Ltd, Tokyo	Japan
Novatronics Inc, Pompano Beach	Fla
Precision Mecanique Labinal, 93 Saint-Ouen	France
Precision Systems Corp, Columbus	Ohio
Probescope Co Inc, Syosset	N Y
Quan-Tech Labs Inc, Whippany	N J
Reliance Electric Co, Cleveland	Ohio
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Signal Analysis Industries Corp, Copiague	N Y
Singer Co, Metrics Div, Bridgeport	Conn
Spectral Dynamics Corp of San Diego, San Diego	Cal
Spectrum Instruments Inc, Tuckahoe	N Y
Spencer-Kennedy Labs Inc, Boston	Mass
Sperry Flight Systems Div Sperry Rand Corp Phoenix	Ariz
Sprengnether Instrument Co Inc, W F, St Louis	Mo
Tektronix Inc, Beaverton	Ore
Thermionic Products Electronics Ltd Southampton	England
Tracor Inc, Austin	Tex
Unholtz-Dickie Corp, Hamden	Conn
Vibration Instruments Co, Anaheim	Cal

ANALYZERS--VIDEO

HEWLETT-PACKARD, PALO ALTO	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SPECTRA-ELECTRONICS INC, LOS ALTOS	**CAL**
TEKTRONIX INC, BEAVERTON	**ORE**
B & K Mfg Co Div Dynascan Corp, Chicago	Ill
Colorado Video Inc, Boulder	Colo
Dayton Electronics Products Co, Dayton	Ohio
Hewlett-Packard, Palo Alto	Cal
MVR Corp, Palo Alto	Cal
NanoFast, Inc, Chicago	Ill
Nelson-Ross Electronics Inc, Hicksville	NY
Nippon Electric Co Ltd, Tokyo	Japan
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Philco-Ford Corp, Washington	D C
Photo Research Corp, Burbank	Cal
Probescope Co Inc, Syosset	N Y
Riker Video Div, Hauppauge	N Y
Scope Inc, Reston	Va
Shiba Electric Co Ltd, Woodside	N Y
Singer Co, Metrics Div, Bridgeport	Conn
Spectra-Electronics Inc, Los Altos	Cal
Tektronix Inc, Beaverton	Ore
Tele Measurements Inc, Clifton	N J
Telemet Co, Video Prods & Airborne Telemetry Amityville	N Y
White Electromagnetics Inc, Rockville	Md

ANALYZERS--WAVE

ANAREN MICROWAVE INC, SYRACUSE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW	**N Y**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
Airmec Instruments Ltd, Buckinghamshire	England
Air Technology Corp, Waltham	Mass
Anaren Microwave Inc, Syracuse	N Y
Decca Radar, Inc, New York	N Y
Dynair Electronics Inc, San Diego	Cal
Elastronics Labs, Tarzana	Cal
Electrac Inc, Anaheim	Cal
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam	N Y
Fenlow Electronics Ltd, Weybridge	England
General Radio Co, West Concord	Mass
Geoscience Instruments Corp, Mt Vernon	N Y
Gulton Industries Inc, Metuchen	N J
Hewlett-Packard, Palo Alto	Cal
Honeywell Test Instruments Div, Denver	Colo
Kokuyo Electric Co Ltd, Tokyo	Japan
Lab Electro-Acoustique, 92 Rueil-Malmaison	France
Leeds & Northrup Co, Philadelphia	Pa
Link Group Gen Precision Sys Inc, Binghamton	N Y
London Co, Westlake	Ohio
Meguro Denpa Sokki K K, Meguro-ku, Tokyo	Japan
Muirhead Instruments Inc, Mountainside	N J
Nippon Electric Co Ltd, Tokyo	Japan
North Atlantic Industries Inc, Plainview	N Y
Philco-Ford Corp, Washington	D C
Polarad Electronic Instruments Div Long Island City	N Y
Precision Mecanique Labinal, 93 Saint-Ouen	France
Princeton Applied Research Corp, Princeton	N J
Quan-Tech Labs Inc, Whippany	N J
Radiometer A/S, Copenhagen NV	Denmark
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Rycom Instruments, Raytown	Mo
San-Ei Instrument Co Ltd, Tokyo	Japan
Santa Rita Technology Inc, Menlo Park	Cal
Signal Analysis Industries Corp, Copiague	N.Y
Spectral Dynamics Corp of San Diego, San Diego	Cal
Spencer-Kennedy Labs Inc, Boston	Mass
Stoddart Electro Systems, Gardena	Cal
Technical Products Co of L A, Los Angeles	Cal
Tel-Com Instruments Inc, Hanover	N J
Thermionic Products Electronics Ltd Southampton	England
Vibration Instruments Co, Anaheim	Cal
Wandel & Goltermann/Tel-Com, Hanover	N J

ANNUNCIATORS--AURAL

KNOWLES ELECTRONICS INC, FRANKLIN PARK	**ILL**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
American Machine & Foundry Co Alexandria Div Alexandria	Va
Artisan Electronics Corp, Parsippany	N J
Astro Lab, Westminster	Cal
Audichron Co, Atlanta	Ga
Cognitronics Corp, Mount Kisco	NY
Compudyne Corp, Hatboro	Pa
Data Sensors Inc, Addison	Ill
Delco Radio Div General Motors Corp, Kokomo	Ind
DuKane Corp, St Charles	Ill
Hathaway Pacific Corp, Palo Alto	Cal
Honeywell Inc Electropac Operation, Peterborough	N H
Knowles Electronics Inc, Franklin Park	Ill
Laben S p A, Milan	Italy
Leviton Mfg Co Inc, Brooklyn	N Y
Master Specialties Co, Costa Mesa	Cal
Nelson-Hershfield Electronics Co, Phoenix	Ariz
Private Tele Communications Inc, Chicago	Ill
Rovalco Controls, Torrance	Cal
Rundel Electric Co, Millbrae	Cal
Scam Instrument Corp, Skokie	Ill
Swanson Engineering & Mfg Co, Inglewood	Cal
Tapeswitch Corp of America, Farmingdale	N Y
Thermionic Products Electronics Ltd Southampton	England
Tokyo Electric Co Ltd, Tokyo	Japan
United Control-Data Div, South El Monte	Cal
Utility Communication Systems Inc, Essington	Pa
Viking Instruments Inc, East Haddam	Conn
Waber Electronics Inc, Philadelphia	Pa

ANNUNCIATORS--MECHANICAL

TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
Action Systems Co Div Conn Consolidated Inds Inc Meriden	Conn
Allard Instrument Corp, Westbury	N Y
Atmar Engraving Co Inc, Richmond Hill	N Y
Auth Electric Co, Inc, Long Island City	N Y
Beta Corp, Dallas	Tex
Euro Cedag, Milan	Italy
Helm Instrument Co Inc, Toledo	Ohio
Miniature Electronic Components Corp, Holbrook	Mass
Partrick & Wilkins Co, Philadelphia	Pa
Penn Keystone Corp, Ansonia	Conn
Rundel Electric Co, Millbrae	Cal
Swanson Engineering & Mfg Co, Inglewood	Cal
Tokyo Electric Co Ltd, Tokyo	Japan
Truco Inc, Simsbury	Conn
Utility Communication Systems Inc, Essington	Pa

ANNUNCIATORS--VISUAL

TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
Action Systems Co Div Conn Consolidated Inds Inc Meriden	Conn
Aircraft Instruments Co, Montgomeryville	Pa
Allard Instrument Corp, Westbury	N Y
Artisan Electronics Corp, Parsippany	N J
Astro Lab, Westminster	Cal
Atmar Engraving Co Inc, Richmond Hill	N Y
Auth Electric Co, Inc, Long Island City	N Y
Autocon Industries, Inc, St Paul	Minn
A V Electronics, Inc, Fresno	Cal
Aviation Electric Ltd, St Laurent, Montreal	Que
Bennett Laboratories, Inc, Emeryville	Cal
Beta Corp, Dallas	Tex
Bloomingdale Instruments Inc Div Metatronics Mfg Corp Hicksville	N Y
Burtek Inc, Tulsa	Okla
California Electro-Scientific Corp, Santa Ana	Cal
Clare-Pendar Co, Post Falls	Idaho
Compudyne Corp, Hatboro	Pa
Control Panel Corp, Chicago	Ill
Daco Instrument Co Inc, Trumbull	Conn
Data Sensors Inc, Addison	Ill
Delco Radio Div General Motors Corp, Kokomo	Ind
Deltron, Inc, North Wales	Pa
Devco Engineering Inc, Fairfield (Caldwell)	N J
DuKane Corp, St Charles	Ill
Electronic Control Systems Inc, Fairmont	W Va
Euro Cedag, Milan	Italy
Faraday Div The Gray Mfg Co, Tecumseh	Mich
Fisher Berkeley Corp, Emeryville	Cal
Godfrey Mfg Co, Chicago	Ill
Grimes Mfg Co, Urbana	Ohio
Hathaway Instruments Inc, Denver	Colo
Hathaway Pacific Corp, Palo Alto	Cal
Heuer Electronics Corp, Norwalk	Conn
Howell Instruments Co, Fort Worth	Tex
J-Omega Co, Mountain View	Cal
Kameco Ltd, Montreal	Que
Kirkland Co, H R, Morristown	N J
Koppers Co Inc, Pittsburgh	Pa
Korry Mfg Co, Seattle	Wash
Laben S p A, Milan	Italy
Ledex Div Ledex Inc, Dayton	Ohio
Luminator Inc Display-Control Div, Plano	Tex
Master Dynamics, Sunnyvale	Cal
Master Specialties Co, Costa Mesa	Cal
Miniature Electronic Components Corp, Holbrook	Mass
Naybor Laboratories Inc, E V, Port Washington	N Y
Nelson-Hershfield Electronics Co, Phoenix	Ariz
Nichols Co Ltd, R H, Downsview	Ont
Notifier Co Sub Emhart Corp, Lincoln	Neb
Opcalite Inc, Santa Ana	Cal
Oppenheimer, Inc, Willow Grove	Pa
Partrick & Wilkins Co, Philadelphia	Pa
Penn Keystone Corp, Ansonia	Conn
Photo Chemical Products Inc, Santa Monica	Cal
Private Tele Communications Inc, Chicago	Ill
Radar Relay Div, Teledyne Inc, Santa Monica	Cal
Rochester Instrument Systems Inc, Rochester	N Y
Rovalco Controls, Torrance	Cal
Scam Instrument Corp, Skokie	Ill
Standard Electric Time Co, Springfield	Mass
Sun Dial & Panel Corp, Caldwell	N J
Swanson Engineering & Mfg Co, Inglewood	Cal
Switchcraft Inc, Chicago	Ill
Tokyo Electric Co Ltd, Tokyo	Japan
Utility Communication Systems Inc, Essington	Pa
Vemaline Products Co, Inc, Wycoff	N J
Versatron Inc, Monterey	Cal
Visiontron Corp, New York	N Y
Waber Electronics Inc, Philadelphia	Pa

ANODES, ELECTROPLATING--COMMON METALS

NATIONAL LEAD CO, NEW YORK	**N Y**
TECHNIC INC, CRANSTON	**RI**
Allied Research Products Inc Sub Richardson Co Baltimore	Md
Alpha Metals Inc, Jersey City	NJ
Anaconda American Brass Co, Waterbury	Conn
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Chase Brass & Copper Co, Cleveland	Ohio
Chase Metals Service Div Chase Brass & Copper Co Cleveland	Ohio
Division Lead Co, Summit	Ill
Enthone Inc, New Haven	Conn
Hi-Grade Alloy Corp, East Hazelcrest	Ill
Lea Mfg Co, Waterbury	Conn
Metal Ceram Inc, Mount Vernon	N Y
M & T Chemicals Inc Sub American Can Co Rahway	N J
National Lead Co, New York	N Y
Poco Graphite, Inc, Garland	Tex
Ramyr Mfg Co, Buena Park	Cal
Revere Copper & Brass, Inc, New York	N Y
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Technic Inc, Cranston	RI
United American Metals Div, Brooklyn	N Y
United Refining & Smelting Co, Franklin Park	Ill

ANODES, ELECTROPLATING--PRECIOUS METALS

TECHNIC INC, CRANSTON	**RI**
WILLIAMS GOLD REFINING CO INC PRECIOUS METALS DIV BUFFALO	**N Y**
Alloys Unlimited Inc, Melville	N Y
American Silver Co Div, Flushing	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Attleboro Refining Co, Inc, Attleboro	Mass
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Cerro Corp, New York	NY
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Enthone Inc, New Haven	Conn
Handy & Harman, New York	N Y
Hilton Inc, H H, Glens Falls	N Y
Johnson Matthey & Mallory Ltd, Toronto 15	Ont
Kester Solder Co, Chicago	Ill
Leach & Garner Co, Industrial Div, Attleboro	Mass
Lea Mfg Co, Waterbury	Conn
Mackay Inc, A D, New York	N Y
Matthey Bishop Inc, Malvern	Pa
Metz Refining Co, South Plainfield	N J
Poco Graphite, Inc, Garland	Tex
Ramyr Mfg Co, Buena Park	Cal
Roosevelt Metal Co Inc, Brooklyn	N Y
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Sel-Rex International S A, Geneve	Switzerland
Semi-Alloys Inc, Mt Vernon	N Y
Simmons Refining Corp, Chicago	Ill
Standard Metals Div Edw N Cook Plate Co, Inc North Attleboro	Mass
Technic Inc, Cranston	RI
Transene Co Inc, Rowley	Mass
United American Metals Div, Brooklyn	N Y
United Refining & Smelting Co, Franklin Park	Ill
Var-Lac-Oid Chemical Co, Elizabeth	N J
Williams Gold Refining Co Inc Precious Metals Div Buffalo	N Y

ANODES, ELECTROPLATING--SOLDER

NUMAR CORP, NEW YORK	**N Y**
Alloys Unlimited Inc, Melville	N Y
Alpha Metals Inc, Jersey City	NJ
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bow Solder Products Co Inc, Newark	N J
Chase Brass & Copper Co, Cleveland	Ohio
Chase Metals Service Div Chase Brass & Copper Co Cleveland	Ohio
Cramco Solder Alloys, Scarborough	Ont
Division Lead Co, Summit	Ill
Enthone Inc, New Haven	Conn
Gardiner Solder Co, Chicago	Ill
Hi-Grade Alloy Corp, East Hazelcrest	Ill
Kester Solder Co, Chicago	Ill
Metal Ceram Inc, Mount Vernon	N Y
Numar Corp, New York	N Y
Ramyr Mfg Co, Buena Park	Cal
Roosevelt Metal Co Inc, Brooklyn	N Y
Schurter AG, H, 6002 Lucerne	Switzerland
Semi-Alloys Inc, Mt Vernon	N Y
Sifco Metachemical Div Steel Improvement & Forge Co Cleveland	Ohio
United American Metals Div, Brooklyn	N Y

ANODES--TUBE SEE TUBE PARTS

ANTENNA CONNECTORS SEE CONNECTORS

ANTENNA DUMMY LOADS SEE TERMINATIONS

ANTENNA FILTERS SEE FILTERS

ANTENNA HOUSINGS SEE HOUSINGS--ANTENNA

ANTENNA INSULATORS SEE INSULATORS--ANTENNA

ANTENNA LENSES SEE LENSES--MICROWAVE

ANTENNA LOADING COILS SEE COILS--ANTENNA LOADING

ANTENNA MOUNTS SEE MOUNTS--ANTENNA

ANTENNA POSITION INDICATORS SEE INDICATORS--ANTENNA POSITION

ANTENNA RADOMES SEE RADOMES

ANTENNA ROTATORS SEE ROTATORS--ANTENNA

ANTENNAS--AIRBORNE RADAR SEE ANTENNAS, AVIONIC--RADAR

ANTENNAS, AVIONIC--COMMUNICATION

DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
DORNE & MARGOLIN INC, BOHEMIA	**N Y**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK	**N Y**
LAPOINTE INDUSTRIES, INC, ROCKVILLE	**CONN**
TRANSCO PRODUCTS INC, VENICE, CAL	**ADV PG 49**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
Ainslie Corp, Braintree	Mass
Aircraft Components Inc, Benton Harbor	Mich
Aircraft Radio Corp, Boonton	N J
Amecom Div Litton Industries, Silver Spring	Md
American Electronic Labs Inc, Lansdale	Pa
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Antenna Specialists Co, Cleveland	Ohio
Avco Corp Electronics Div, Cincinnati	Ohio
Aviation Electric Ltd, St Laurent, Montreal	Que
Bendix Corp Avionics Div, Fort Lauderdale	Fla
Bendix Corp, Communications Div, Towson	Md
Blaw-Knox Co, Blaw-Knox Equip Div, Pittsburgh	Pa
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Canoga Electronics Corp, Chatsworth	Cal
Chu Associates Inc, Littleton	Mass
Clavier Corp, Richmond Hill	NY
Clear Beam Antenna, Sylmar	Cal
Collins Radio Co, Dallas	Tex
Conductron Corp, Ann Arbor	Mich
C/P Corp, Columbia	S C
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Dorne & Margolin Inc, Bohemia	N Y
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Dowa Trading Co Ltd, Kobe	Japan
Dynair Aviation Products, El Cajon	Cal
Eastern Microwave Corp, Winchester	Mass
Electronic Communications Inc (ECI), St Petersburg	Fla
Electronic Specialty Co, Los Angeles	Cal
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Gladding Corp, South Otselic	N Y
Goodyear Aerospace Corp, Akron	Ohio
Itek Corp, Lexington	Mass
Jasik Labs Inc, Westbury	N Y
Jerrold Electronics Corp, Philadelphia	Pa
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs	Colo
Keltec Industries, Alexandria Div, Alexandria	Va
Kreckman Co, Herb, Cresco	Pa
LaPointe Industries, Inc, Rockville	Conn
Loral Electronic Systems, Div Loral Corp, New York	NY
L P Associates Inc, Los Angeles	Cal
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Micronetics Div Teledyne Systems Co, San Diego	Cal
Micro-Radionics Inc, Van Nuys	Cal
Miller Industries Inc, R A, Grand Haven	Mich
Narco Avionics Div Natl Scientific Industries Fort Washington	Pa
Nurad Inc, Baltimore	Md
Phelps Dodge Electronic Products Corp North Haven	Conn
Premax Products Div, Chisholm-Ryder Co Inc Niagara Falls	N Y
Radiation Systems Inc, McLean	Va
Rantec Div Emerson Electric Co, Calabasas	Cal
Raven Electronics Inc, Burbank	Cal
Raytheon Co, Government Marketing, Lexington	Mass
Regency Electronics Inc, Indianapolis	Ind
R F Systems Inc, Cohasset	Mass
Sanders Associates, Inc, Nashua	N H
Sensor Systems Inc, Canoga Park	Cal
Sparton Electronics, Jackson	Mich
Standard Telephones & Cables Ltd London WC 2	England
SunAir Electronics Inc, Ft Lauderdale	Fla
Sylvania Electronic Systems, Waltham	Mass
Symetrics Engineering Corp, Satellite Beach	Fla
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Technical Materiel Corp, Mamaroneck	N Y
Ted Mfg Corp, Shawnee Mission	Kans
T M C Systems & Power Corp, Springfield	Va
Transco Products Inc, Venice	Cal
TRG Div Control Data Corp, East Boston	Mass
Utica Electronics Inc, Chicago	Ill
Vacuum Metallizing, Van Nuys	Cal
Vega Precision Labs, Vienna	Va
Ward Products Corp, Amsterdam	N Y
Whittaker Corp Technical Products Div, Chatsworth	Cal
Wilcox Electric Co Inc, Kansas City	Mo

ANTENNAS, AVIONIC--NAVIGATIONAL

DORNE & MARGOLIN INC, BOHEMIA	**N Y**
LAPOINTE INDUSTRIES, INC, ROCKVILLE	**CONN**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
TRANSCO PRODUCTS INC, VENICE	**CAL**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
Aircraft Components Inc, Benton Harbor	Mich
Aircraft Radio Corp, Boonton	N J
Amecom Div Litton Industries, Silver Spring	Md
American Electronic Labs Inc, Lansdale	Pa
Antenna Specialists Co, Cleveland	Ohio
Avco Corp Electronics Div, Cincinnati	Ohio
Aviation Electric Ltd, St Laurent, Montreal	Que
Bendix Corp Avionics Div, Fort Lauderdale	Fla
Blaw-Knox Co, Blaw-Knox Equip Div, Pittsburgh	Pa
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Canadian Marconi Co, Montreal 16	Quebec
Canoga Electronics Corp, Chatsworth	Cal
Chu Associates Inc, Littleton	Mass
Clavier Corp, Richmond Hill	NY
Collins Radio Co, Dallas	Tex
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Decitron Electronics Corp, Brooklyn	N Y
Denki Kogyo Co Ltd, Tokyo	Japan
Dorne & Margolin Inc, Bohemia	N Y
Dowa Trading Co Ltd, Kobe	Japan
Eastern Microwave Corp, Winchester	Mass
Electronic Specialty Co, Los Angeles	Cal
Ferranti, Ltd, Lancashire	England
Gladding Corp, South Otselic	N Y
Goodyear Aerospace Corp, Akron	Ohio
GPL Div Gen Precision Systems Inc, Pleasantville	N Y
Hornet Antenna Products Co Inc, Duncan	Okla
Itek Corp, Lexington	Mass
ITT Defense Communications Div, Nutley	N J
Jasik Labs Inc, Westbury	N Y
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs	Colo
Keltec Industries, Alexandria Div, Alexandria	Va
LaPointe Industries, Inc, Rockville	Conn
Loral Electronic Systems, Div Loral Corp, New York	NY
Marconi Div, English Electric Corp, New York	N Y
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Micronetics Div Teledyne Systems Co, San Diego	Cal
Micro-Radionics Inc, Van Nuys	Cal
Miller Industries Inc, R A, Grand Haven	Mich
Narco Avionics Div Natl Scientific Industries Fort Washington	Pa
New Tronics Corp, Cleveland	Ohio
Nurad Inc, Baltimore	Md
Philco-Ford Corp, Washington	D C
Radiation Systems Inc, McLean	Va
Rantec Div Emerson Electric Co, Calabasas	Cal
Raven Electronics Inc, Burbank	Cal
Regency Electronics Inc, Indianapolis	Ind
Sensor Systems Inc, Canoga Park	Cal
Servo Corp of America, Hicksville	N Y
Southern Avionics Co, Beaumont	Tex
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Standard Telephones & Cables Ltd London WC 2	England
Sylvania Electronic Systems, Waltham	Mass
Symetrics Engineering Corp, Satellite Beach	Fla
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Ted Mfg Corp, Shawnee Mission	Kans
Transco Products Inc, Venice	Cal
TRG Div Control Data Corp, East Boston	Mass
Vacuum Metallizing, Van Nuys	Cal
Vega Precision Labs, Vienna	Va
Wilcox Electric Co Inc, Kansas City	Mo

ANTENNAS, AVIONIC--RADAR

DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK	**N Y**
LAPOINTE INDUSTRIES, INC, ROCKVILLE	**CONN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
Ainslie Corp, Braintree	Mass
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alcatel, Paris 8eme	France
Amecom Div Litton Industries, Silver Spring	Md
American Electronic Labs Inc, Lansdale	Pa
Andrew Corp, Orland Park	Ill
Avco Corp Electronics Div, Cincinnati	Ohio
Bendix Corp Avionics Div, Fort Lauderdale	Fla
Bendix Corp, Communications Div, Towson	Md
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Bendix Corp Navigation & Control Div, Teterboro,	N J
Blass Antenna Electronics Corp, Leonia	N J
Blaw-Knox Co, Blaw-Knox Equip Div, Pittsburgh	Pa
Brooks & Perkins Inc, Detroit	Mich
Canadian Marconi Co, Montreal 16	Quebec
Canoga Electronics Corp, Chatsworth	Cal
Chu Associates Inc, Littleton	Mass
Clavier Corp, Richmond Hill	NY
Clear Beam Antenna, Sylmar	Cal
Collins Radio Co, Dallas	Tex
Conductron Corp, Ann Arbor	Mich
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dalmo Victor, A Textron Div, Belmont	Cal
Decatur Electronics Inc, Decatur	Ill
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Dowa Trading Co Ltd, Kobe	Japan
Eastern Microwave Corp, Winchester	Mass
Ferranti, Ltd, Lancashire	England
Goodyear Aerospace Corp, Akron	Ohio
GPL Div Gen Precision Systems Inc, Pleasantville	N Y
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Itek Corp, Lexington	Mass
ITT Federal Labs, Fort Wayne	Ind
ITT Gilfillan Inc, Van Nuys	Cal
Jasik Labs Inc, Westbury	N Y
Jerrold Electronics Corp, Philadelphia	Pa
Keltec Industries, Alexandria Div, Alexandria	Va
Kobe Industries Corp, Kobe	Japan
LaPointe Industries, Inc, Rockville	Conn
Loral Electronic Systems, Div Loral Corp, New York	NY
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Meridian Metalcraft Inc, Whittier	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Micro-Radionics Inc, Van Nuys	Cal
Miller Industries Inc, R A, Grand Haven	Mich
Nippon Electric Co Ltd, Tokyo	Japan
Omega-t Systems Inc, Richardson	Tex
Philco-Ford Corp, Washington	D C
Premier Microwave Corp, Port Chester	N Y
Radiation Systems Inc, McLean	Va
Rantec Div Emerson Electric Co, Calabasas	Cal
Raven Electronics Inc, Burbank	Cal
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
R F Systems Inc, Cohasset	Mass
Sanders Associates, Inc, Nashua	N H
Sedco Systems Inc, Farmingdale	N Y
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Sensor Systems Inc, Canoga Park	Cal
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Standard Telephones & Cables Ltd London WC 2	England
Sylvania Electronic Systems, Waltham	Mass
Symetrics Engineering Corp, Satellite Beach	Fla
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Tasker Industries, Van Nuys	Cal
TRG Div Control Data Corp, East Boston	Mass
Vacuum Metallizing, Van Nuys	Cal
Vega Precision Labs, Vienna	Va
Wilcox Electric Co Inc, Kansas City	Mo

ANTENNAS, AVIONIC

...all types of airborne antennas designed to meet your requirements.

TRANSCO PRODUCTS, INC.
TRANSCO®
4241 Glencoe Ave.
Venice, Calif. 90291
213/391-7291•TWX910-343-6469

ANTENNAS, AVIONIC--TELEMETRY

DORNE & MARGOLIN INC, BOHEMIA, N Y	**ADV PG 49**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TRANSCO PRODUCTS INC, VENICE	**CAL**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
AAI Corp, Cockeysville	Md
Ainslie Corp, Braintree	Mass
Aircom Inc, Union	N H
Amecom Div Litton Industries, Silver Spring	Md
American Electronic Labs Inc, Lansdale	Pa
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Avco Corp Electronics Div, Cincinnati	Ohio
Aviation Electric Ltd, St Laurent, Montreal	Que
Bendix Corp, Communications Div, Towson	Md
Blaw-Knox Co, Blaw-Knox Equip Div, Pittsburgh	Pa
Canoga Electronics Corp, Chatsworth	Cal
Chu Associates Inc, Littleton	Mass
Coax Devices, Chelsea	Mass
Conductron Corp, Ann Arbor	Mich
Dbm Research Corp, Cocoa Beach	Fla
Dorne & Margolin Inc, Bohemia	N Y
Dowa Trading Co Ltd, Kobe	Japan
Eastern Microwave Corp, Winchester	Mass
Electronic Specialty Co, Los Angeles	Cal
Ferranti, Ltd, Lancashire	England
GCA Technology Div GCA Corp, Bedford	Mass
Goodyear Aerospace Corp, Akron	Ohio
Guide Industries Inc, Sun Valley	Cal
Hornet Antenna Products Co Inc, Duncan	Okla
Jasik Labs Inc, Westbury	N Y
Jerrold Electronics Corp, Philadelphia	Pa
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs	Colo
Keltec Industries, Alexandria Div, Alexandria	Va
Loral Electronic Systems, Div Loral Corp, New York	NY
MCS Corp, Monrovia	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Micro-Radionics Inc, Van Nuys	Cal
Miller Industries Inc, R A, Grand Haven	Mich
Nippon Electric Co Ltd, Tokyo	Japan
Nurad Inc, Baltimore	Md
Omega-t Systems Inc, Richardson	Tex
Philco-Ford Corp, Washington	D C
Radiation Inc Systems Div, Melbourne	Fla
Radiation Systems Inc, McLean	Va
Rantec Div Emerson Electric Co, Calabasas	Cal
Raven Electronics Inc, Burbank	Cal
Raytheon Co, Government Marketing, Lexington	Mass
Sanders Associates, Inc, Nashua	N H
Scala Radio Corp, San Leandro	Cal
Sensor Systems Inc, Canoga Park	Cal
Space Craft Inc, Huntsville	Ala

DM
20 Years of Leadership in Aircraft and Missile Antennas

Aircraft Antennas

COMM • VOR/LOC
DME/TRANSPONDER
MARKER BEACON
RADIO ALTIMETER
GLIDE SLOPE

dorne and margolin
INCORPORATED
2950 VETERANS MEMORIAL HWY, BOHEMIA, N. Y. 11716
TEL. 516 585-4000 TWX 510 228-6502
9730 COZYCROFT AVE., CHATSWORTH, CALIF. 91311
TEL 213 341-4010 TWX 213 341-4646

For addresses, phones & sales offices see green pages

AT YOUR COMMAND . . .

MOSLEY COMMERCIAL, INDUSTRIAL, MILITARY AND BUSINESS ANTENNAS

Looking for a highly efficient, directional HF, UHF, VHF antenna? Choose from a wide variety of Quality Mosley ground planes, yagis, dipoles, verticals, WWV, and whip antennas on stock . . . or send your proposal for consideration.

Make Mosley your single source for commercial, industrial, military, business band, citizens band and amateur antennas . . . . TV and Audio accessories.

DEPT. NO. 122

Mosley Electronics Inc

4610 N. Lindbergh Blvd.,
Bridgeton Missouri 63042

WEST COAST BRANCH
1406-08 South Grand Avenue
Los Angeles, California, 90015

INTERNATIONAL DIVISION
64-14 Woodside Avenue
Woodside, New York, 11377

Sylvania Electronic Systems, Waltham	Mass
Symetrics Engineering Corp, Satellite Beach	Fla
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Ted Mfg Corp, Shawnee Mission	Kans
Transco Products Inc, Venice	Cal
TRG Div Control Data Corp, East Boston	Mass
TRW Systems Group, Redondo Beach	Cal
Vacuum Metallizing, Van Nuys	Cal
Vega Precision Labs, Vienna	Va
Whittaker Corp Technical Products Div, Chatsworth	Cal

ANTENNAS--BROADCAST STATION,A-M, F-M & TV

DX ANTENNA CO LTD, HYOGO-KU, KOBE	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Aerospace Research, Inc, Boston	Mass
Alford Mfg Co, Winchester	Mass
Ampex Corp, Redwood City	Cal
Andrew California Corp, Claremont	Cal
Austin-Craft Co, Kingman	Ariz
Aviation Electric Ltd, St Laurent, Montreal	Que
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Denki Kogyo Co Ltd, Tokyo	Japan
Dowa Trading Co Ltd, Kobe	Japan
Dresser, Crane, Hoist & Tower Div, columbus	Ohio
DX Antenna Co Ltd, Hyogo-Ku, Kobe	Japan
Electronics Missiles & Communications Inc White Haven	Pa
EMI Electronics Ltd, Hayes, Middlesex	England
E-Z Way Products Inc, Tampa	Fla
Gates Radio Co, Quincy	Ill
Granger Associates, Palo Alto	Cal
Jampro Antenna Co, Sacramento	Cal
Kobe Industries Corp, Kobe	Japan
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Marti Electronics, Cleburne	Tex
Microwave Associates Inc, Burlington	Mass
Multronics Inc, Rockville	Md
Nippon Electric Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Radiation Systems Inc, McLean	Va
Radio Corp of America, Comml Elctn Prods Div Camden	N J
R F Systems Inc, Cohasset	Mass
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Rye Industries, Inc, Mamaroneck	N Y
Scala Radio Corp, San Leandro	Cal
Siemens America Inc, New York	N Y
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Technical Materiel Corp, Mamaroneck	N Y
Telefunken Sales Corp, Garden City	N Y
Thomson Electric Co, Sub Cie Fran Thomson Houston New York	N Y
Tri-Ex Tower Corp, Visalia	Cal
Trylon Inc, Elverson	Pa

ANTENNAS--COMMUNICATION

DORNE & MARGOLIN INC, BOHEMIA	**N Y**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK	**N Y**
DX ANTENNA CO LTD, HYOGO-KU, KOBE JAPAN	**ADV PG 50**
LAPOINTE INDUSTRIES, INC, ROCKVILLE	**CONN**
MOSLEY ELECTRONICS INC, BRIDGETON, MO	**ADV PG 50**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TRANSCO PRODUCTS INC, VENICE	**CAL**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
YOKOWO MFG CO LTD, TOKYO	**JAPAN**
Adronics Inc, Elrob Mfg Corp, Verona	N J
Aerospace Research, Inc, Boston	Mass
Ainslie Corp, Braintree	Mass
Aircraft Radio Corp, Boonton	N J
Amecom Div Litton Industries, Silver Spring	Md
American Cable Electronic Supply Inc, Sacramento	Cal
American Electronic Labs Inc, Lansdale	Pa
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Antenna Products Co Div All Products Co Mineral Wells	Tex
Antenna Specialists Co, Cleveland	Ohio
Au-Tenna System Co, New Canaan	Conn
Avco Corp Electronics Div, Cincinnati	Ohio
Aviation Electric Ltd, St Laurent, Montreal	Que
Ball Brothers Research Corp, Boulder	Colo
Bendix Corp, Communications Div, Towson	Md
Blass Antenna Electronics Corp, Leonia	N J
Blaw-Knox Co, Blaw-Knox Equip Div, Pittsburgh	Pa
Canoga Electronics Corp, Chatsworth	Cal
Chu Associates Inc, Littleton	Mass
Clavier Corp, Richmond Hill	NY
Clear Beam Antenna, Sylmar	Cal
Collins Radio Co, Dallas	Tex
Communication Associates Inc, New Hyde Park	N Y
Communication Structures Inc, West Concord	Mass
Conductron Corp, Ann Arbor	Mich
C/P Corp, Columbia	S C
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Cubex Co, Altadena	Cal
Cush Craft, Manchester	N H
Dalmo Victor, A Textron Div, Belmont	Cal
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Decibel Products Inc, Dallas	Tex
Delta Electronics Inc, Alexandria	Va

DX ANTENNA - WITH ITS SUPERB TECHNOLOGY AND IDEAS RECOGNIZED THE WORLD OVER

DX
ANTENNA

DX ANTENNA CO., LTD.

MANUFACTURERS, EXPORTERS CABLE DXANTENNA KOBE, JAPAN

DX ANTENNA

DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Denki Kogyo Co Ltd, Tokyo	Japan
Diamond Antenna & Microwave Corp, Winchester	Mass
Dorne & Margolin Inc, Bohemia	N Y
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Dowa Trading Co Ltd, Kobe	Japan
Dresser, Crane, Hoist & Tower Div, columbus	Ohio
DX Antenna Co Ltd, Hyogo-Ku, Kobe	Japan
Eastern Microwave Corp, Winchester	Mass
Electro-Mechanics Co, Austin	Tex
Electronic Communications Inc (ECI), St Petersburg	Fla
Electronics Communications Div Atlantic Research Corp Alexandria	Va
Electronic Specialty Co, Los Angeles	Cal
EMI Cossor Electronics Ltd, Dartmouth, N S	Can
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Finney Co, Bedford	Ohio
Francis Industries, Pataskala	Ohio
Gates Radio Co, Quincy	Ill
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Gladding Corp, South Otselic	N Y
Goodyear Aerospace Corp, Akron	Ohio
Granger Associates, Palo Alto	Cal
Hornet Antenna Products Co Inc, Duncan	Okla
Hunter Spring Div Ametek Inc, Hatfield	Pa
Hy-Gain Electronic Corp, Lincoln	Neb
ITT Defense Communications Div, Nutley	N J
JaMac Products Co, Portland	Ore
Jasik Labs Inc, Westbury	N Y
Jerrold Electronics Corp, Philadelphia	Pa
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs	Colo
Keltec Industries, Alexandria Div, Alexandria	Va
Kobe Industries Corp, Kobe	Japan
Kreckman Co, Herb, Cresco	Pa
Lance Antenna Corp, Sylmar	Cal
LaPointe Industries, Inc, Rockville	Conn
Lindsay Specialty Products Ltd, Lindsay	Ontario
Loral Electronic Systems, Div Loral Corp, New York	NY
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Marti Electronics, Cleburne	Tex
Master Mobile Mounts Div, Fort Myers	Fla
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Meridian Metalcraft Inc, Whittier	Cal
Micro-Radionics Inc, Van Nuys	Cal
Miller Industries Inc, R A, Grand Haven	Mich
Montedoro Corp, San Luis Obispo	Cal
Mosley Electronics Inc, Bridgeton	Mo
Nippon Electric Co Ltd, Tokyo	Japan
Nurad Inc, Baltimore	Md
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Omega-t Systems Inc, Richardson	Tex
Phelps Dodge Electronic Products Corp North Haven	Conn
Phelps Dodge Electronic Prods Corp, Commun Prods Div Marlboro	N J
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Premax Products Div, Chisholm-Ryder Co Inc Niagara Falls	N Y
Prodelin Inc, Hightstown	N J
Prod-El, Prodotti Elettronici Spa, 20132 Milan	Italy
Radiation Systems Inc, McLean	Va
Rantec Div Emerson Electric Co, Calabasas	Cal
Ratelco Inc, Seattle	Wash
Raven Electronics Inc, Burbank	Cal
R F Communications Inc, Rochester	N Y
R F Systems Inc, Cohasset	Mass
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
S & A Electronics Inc, Toledo	Ohio
Sanders Associates, Inc, Nashua	N H
Scala Radio Corp, San Leandro	Cal
Schjeldahl Co, G T, Northfield	Minn
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Sensor Systems Inc, Canoga Park	Cal
Sinclair Radio Labs Inc, Tonawanda	N Y
Spar Aerospace Products Ltd, Toronto	Ont
Stainless Inc, North Wales	Pa
Storno, Copenhagen S	Den
Sylvania Electronic Systems, Waltham	Mass
Symetrics Engineering Corp, Satellite Beach	Fla
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Taffet Electronics Inc, Woodside	N Y
Technical Materiel Corp, Mamaroneck	N Y
Telefunken Sales Corp, Garden City	N Y
T M C Systems & Power Corp, Springfield	Va
Transco Products Inc, Venice	Cal
TRG Div Control Data Corp, East Boston	Mass
TRW Systems Group, Redondo Beach	Cal
Trylon Inc, Elverson	Pa
Vega Precision Labs, Vienna	Va
Video Industries Co, Port Chester	N Y
Virginia Electronics Co Inc, Falls Church	Va
Ward Products Corp, Amsterdam	N Y
Wheeler Laboratories Inc, Great Neck	N Y
White Electromagnetics Inc, Rockville	Md
Whittaker Corp Technical Products Div, Chatsworth	Cal
Yokowo Mfg Co Ltd, Tokyo	Japan

ANTENNAS--CONICAL HELIX SEE ANTENNAS--TELEMETRY; TRACKING

ANTENNAS--DIRECTIONAL COUPLERS SEE COUPLERS

ANTENNAS--DIRECTIONAL, PHASING NETWORKS SEE NETWORKS

ANTENNAS--DUMMY LOADS SEE TERMINATIONS

ANTENNAS--FEED SYSTEMS

ANAREN MICROWAVE INC, SYRACUSE	**N Y**
DORNE & MARGOLIN INC, BOHEMIA	**N Y**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK	**N Y**
LAPOINTE INDUSTRIES, INC, ROCKVILLE	**CONN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PREMIER MICROWAVE CORP, PORT CHESTER N Y	**ADV PG 51**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
TRANSCO PRODUCTS INC, VENICE	**CAL**
TRG DIV CONTROL DATA CORP, EAST BOSTON MASS	**ADV PG 000**
Aerolite Electronics Corp, Union City	N J
Aerospace Research, Inc, Boston	Mass
Ainslie Corp, Braintree	Mass
Aircom Inc, Union	N H
Amecom Div Litton Industries, Silver Spring	Md
American Electronic Labs Inc, Lansdale	Pa
Anaren Microwave Inc, Syracuse	N Y
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Bendix Corp, Communications Div, Towson	Md
Budwig Mfg Co, Ramona	Cal
Canoga Electronics Corp, Chatsworth	Cal
Chu Associates Inc, Littleton	Mass
Clear Beam Antenna, Sylmar	Cal
Coax Devices, Chelsea	Mass
Communication Structures Inc, West Concord	Mass
Dalmo Victor, A Textron Div, Belmont	Cal
Denki Kogyo Co Ltd, Tokyo	Japan
Diamond Antenna & Microwave Corp, Winchester	Mass
Dorne & Margolin Inc, Bohemia	N Y
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Dowa Trading Co Ltd, Kobe	Japan
Eastern Microwave Corp, Winchester	Mass
Electronics Communications Div Atlantic Research Corp Alexandria	Va
Electronic Specialty Co, Los Angeles	Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Gabriel Electronics Div Maremont Corp, Saco	Maine
Gates Radio Co, Quincy	Ill
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Goodyear Aerospace Corp, Akron	Ohio
Herley Industries, Inc, Westbury	N Y
Hornet Antenna Products Co Inc, Duncan	Okla
Hy-Gain Electronic Corp, Lincoln	Neb
Hyletronics Corp, Wilmington	Mass
ITT Defense Communications Div, Nutley	N J
Jasik Labs Inc, Westbury	N Y
Jerrold Electronics Corp, Philadelphia	Pa
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs	Colo
Keltec Industries, Alexandria Div, Alexandria	Va
LaPointe Industries, Inc, Rockville	Conn
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
MCS Corp, Monrovia	Cal
Meridian Metalcraft Inc, Whittier	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Micro-Radionics Inc, Van Nuys	Cal
Microwave Associates Inc, Burlington	Mass
Multronics Inc, Rockville	Md
Neico Microwave Co, Waltham	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Nurad Inc, Baltimore	Md
Omega Laboratories Inc, Rowley	Mass
Omega-t Systems Inc, Richardson	Tex
Phelps Dodge Electronic Products Corp North Haven	Conn
Philco-Ford Corp, Washington	D C
Premier Microwave Corp, Port Chester	N Y
Prodelin Inc, Hightstown	N J
Radiation Systems Inc, McLean	Va
Rantec Div Emerson Electric Co, Calabasas	Cal
R F Systems Inc, Cohasset	Mass
Rowe Industries Inc, Toledo	Ohio
Scala Radio Corp, San Leandro	Cal
Schjeldahl Co, G T, Northfield	Minn
Scientific-Atlanta Inc, Atlanta	Ga
Sedco Systems Inc, Farmingdale	N Y
Surface Conduction Inc, New York	N Y
Sylvania Electronic Systems, Waltham	Mass
Symetrics Engineering Corp, Satellite Beach	Fla
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
T M C Systems & Power Corp, Springfield	Va
Transco Products Inc, Venice	Cal
TRG Div Control Data Corp, East Boston	Mass
TRW Systems Group, Redondo Beach	Cal
Vega Precision Labs, Vienna	Va
Wheeler Laboratories Inc, Great Neck	N Y
Whittaker Corp Technical Products Div, Chatsworth	Cal

ANTENNAS--HORN

DORNE & MARGOLIN INC, BOHEMIA	**N Y**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	**ADV PGS 58,59**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
TRANSCO PRODUCTS INC, VENICE	**CAL**
TRG DIV CONTROL DATA CORP, EAST BOSTON MASS	**ADV PG 418**
Aerospace Research, Inc, Boston	Mass
Ainslie Corp, Braintree	Mass
Aircom Inc, Union	N H
Airtec Inc, Roselle	N J
Amecom Div Litton Industries, Silver Spring	Md

PREMIER for PROFICIENCY in MICROWAVE ANTENNA FEEDS

No matter what your requirements in Antenna Feeds, PREMIER MICROWAVE has the know-how, facilities and manpower to meet them. Over 25 years of production experience is available to you. PREMIER has successfully produced all types of feeds — Dipole, both waveguide and co-ax construction — Horns — Linear Arrays and End Fire Feeds. These feeds are available in frequency ranges from 1 GHz to 30 GHz. Power capacity from milliwatts to megawatts and all with low VSWR.

PREMIER's modern test facilities, including an anechoic pattern range, insure you of reliable, pre-tested designs to meet your specs. Put PREMIER capability to work on your microwave needs.

PMC

For complete information on the full line of PREMIER MICROWAVE products write:

Premier Microwave Corp.

35 New Broad St., Port Chester, N. Y. 10573

American Electronic Labs Inc, Lansdale	Pa
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Antlab, Inc, Worthington	Ohio
Arra, Inc, Bayshore	NY
Bart Microwave Div Bart Mfg Corp, Newark	N J
Bean & Co, Morris, Yellow Springs	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Blaw-Knox Co, Blaw-Knox Equip Div, Pittsburgh	Pa
Canoga Electronics Corp, Chatsworth	Cal
Cardwell Condenser Corp, Lindenhurst	N Y
Chu Associates Inc, Littleton	Mass
Clear Beam Antenna, Sylmar	Cal
Communication Structures Inc, West Concord	Mass
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Denki Kogyo Co Ltd, Tokyo	Japan
Diamond Antenna & Microwave Corp, Winchester	Mass
Dorne & Margolin Inc, Bohemia	N Y
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Dowa Trading Co Ltd, Kobe	Japan
Eastern Microwave Corp, Winchester	Mass
Electronic Specialty Co, Los Angeles	Cal
Gabriel Electronics Div Maremont Corp, Saco	Maine
General Microwave Corp, Farmingdale	N Y
Goodyear Aerospace Corp, Akron	Ohio
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hornet Antenna Products Co Inc, Duncan	Okla
ITT Defense Communications Div, Nutley	N J
ITT Federal Labs, Fort Wayne	Ind
Jasik Labs Inc, Westbury	N Y
Jerrold Electronics Corp, Philadelphia	Pa
Lieco Inc, West Babylon	N Y
MCS Corp, Monrovia	Cal
Meridian Metalcraft Inc, Whittier	Cal
Micro-Radionics Inc, Van Nuys	Cal
Microwave Labs of America, Brooklyn	N Y
Mitsubishi Electric Corp, Tokyo	Japan
Narda Microwave Corp, Plainview	N Y
Neico Microwave Co, Waltham	Mass
Nurad Inc, Baltimore	Md
Omega Laboratories Inc, Rowley	Mass
Omega-t Systems Inc, Richardson	Tex
Polarad Electronic Instruments Div Long Island City	N Y
Premier Microwave Corp, Port Chester	N Y
Prodelin Inc, Hightstown	N J
Radiation Systems Inc, McLean	Va
Rantec Div Emerson Electric Co, Calabasas	Cal
R F Systems Inc, Cohasset	Mass
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst	NY
Scientific-Atlanta Inc, Atlanta	Ga
Sedco Systems Inc, Farmingdale	N Y
Stainless Inc, North Wales	Pa
Stoddart Electro Systems, Gardena	Cal
Sylvania Electronic Systems, Waltham	Mass
Symetrics Engineering Corp, Satellite Beach	Fla
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Transco Products Inc, Venice	Cal
TRG Div Control Data Corp, East Boston	Mass
Vega Precision Labs, Vienna	Va
Victor R F & Microwave Co, Wakefield	Mass
Waveline Inc, West Caldwell	N J

ANTENNAS--LOG PERIODIC

DORNE & MARGOLIN INC, BOHEMIA	**N Y**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
Aerospace Research, Inc, Boston	Mass
Amecom Div Litton Industries, Silver Spring	Md
American Electronic Labs Inc, Lansdale	Pa
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Antenna Products Co Div All Products Co Mineral Wells	Tex
Arra, Inc, Bayshore	NY
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Blonder-Tongue Labs Inc, Newark	N J
Borders Electronics Co Inc, Pennsauken	N J
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Canoga Electronics Corp, Chatsworth	Cal
Chu Associates Inc, Littleton	Mass
Clear Beam Antenna, Sylmar	Cal
Collins Radio Co, Dallas	Tex
Conductron Corp, Ann Arbor	Mich
Denki Kogyo Co Ltd, Tokyo	Japan
Dewey Corp, G C, New York	N Y
Dorne & Margolin Inc, Bohemia	N Y
Dowa Trading Co Ltd, Kobe	Japan
Dresser, Crane, Hoist & Tower Div, columbus	Ohio
Eastern Microwave Corp, Winchester	Mass
Electro-Data Inc, Garland	Tex
Electronic Specialty Co, Los Angeles	Cal
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Granger Associates, Palo Alto	Cal
Hornet Antenna Products Co Inc, Duncan	Okla
Hy-Gain Electronic Corp, Lincoln	Neb
Itek Corp, Lexington	Mass
Jasik Labs Inc, Westbury	N Y
Jerrold Electronics Corp, Philadelphia	Pa
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs	Colo
Lindsay Specialty Products Ltd, Lindsay	Ontario
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
MCS Corp, Monrovia	Cal
Nurad Inc, Baltimore	Md
Omega-t Systems Inc, Richardson	Tex
Parker Metal Goods Co, Worcester	Mass
Philco-Ford Corp, Washington	D C
Polarad Electronic Instruments Div Long Island City	N Y
Prodelin Inc, Hightstown	N J
Radiation Systems Inc, McLean	Va
Raven Electronics Inc, Burbank	Cal
R F Systems Inc, Cohasset	Mass
RMS Electronics Inc, Bronx	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Sanders Associates, Inc, Nashua	N H
Scala Radio Corp, San Leandro	Cal
Schjeldahl Co, G T, Northfield	Minn
Scientific-Atlanta Inc, Atlanta	Ga
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Singer Co, Metrics Div, Bridgeport	Conn
Stainless Inc, North Wales	Pa
Sylvania Electronic Systems, Waltham	Mass
Symetrics Engineering Corp, Satellite Beach	Fla
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Telrex Communication Engineering Labs Asbury Park	N J
TRG Div Control Data Corp, East Boston	Mass
Trylon Inc, Elverson	Pa
Vega Precision Labs, Vienna	Va
Video Industries Co, Port Chester	N Y

ANTENNAS--MARINE

HEATH CO, BENTON HARBOR	**MICH**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
Aeromarine Electronics, Inc, San Diego	Cal
Ainslie Corp, Braintree	Mass
Andrew California Corp, Claremont	Cal
Antenna Specialists Co, Cleveland	Ohio
Au-Tenna System Co, New Canaan	Conn
CEC-Benmar, Santa Ana	Cal
C/P Corp, Columbia	S C
Delta Electronics Inc, Alexandria	Va
Dowa Trading Co Ltd, Kobe	Japan
Francis Industries, Pataskala	Ohio
Gladding Corp, South Otselic	N Y
Goodyear Aerospace Corp, Akron	Ohio
Heath Co, Benton Harbor	Mich
Henry Engineering Co, Burbank	Cal
Hi-Lo Mfg Corp, Chicago	Ill
Hy-Gain Electronic Corp, Lincoln	Neb
Impectron Inc, New York	N Y
ITT Defense Communications Div, Nutley	N J
Jasik Labs Inc, Westbury	N Y
Jetronic Industries Inc, Philadelphia	Pa
Kaar Electronics Corp, Linden	N J
Kobe Industries Corp, Kobe	Japan
Kreckman Co, Herb, Cresco	Pa
Laminair, Inc, Los Angeles	Cal
Master Mobile Mounts Div, Fort Myers	Fla
Miller Industries Inc, R A, Grand Haven	Mich
Phelps Dodge Electronic Prods Corp, Commun Prods Div Marlboro	N J
Premax Products Div, Chisholm-Ryder Co Inc Niagara Falls	N Y
Prodelin Inc, Hightstown	N J
Radiation Systems Inc, McLean	Va
Raytheon Co, Marine Products Operation S San Francisco	Cal
RCA, Defense Electronic Products, Moorestown	N J
Rowe Industries Inc, Toledo	Ohio
Rye Industries, Inc, Mamaroneck	N Y
Scala Radio Corp, San Leandro	Cal
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Servo-Tek Products Co, Marine Div, Hawthorne	N J
Servo-Tek Products Co, Hawthorne	N J
Simpson Electronics, Inc, Miami	Fla
Sinclair Radio Labs Inc, Tonawanda	N Y
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
States Electronics Corp, Bludworth Marine Div Linden	N J
SunAir Electronics Inc, Ft Lauderdale	Fla
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
TRG Div Control Data Corp, East Boston	Mass
Tricraft Products Corp, Chicago	Ill
Vocaline Co of America Inc, Old Saybrook	Conn
Ward Products Corp, Amsterdam	N Y
Webster Mfg, South San Francisco	Cal

ANTENNAS--MASTER COMMUNITY SEE ANTENNAS--TV

ANTENNAS--MICROWAVE

ALUMINUM DESIGN CORP, BROOKFIELD	**ILL**
DORNE & MARGOLIN INC, BOHEMIA	**N Y**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	**ADV PGS 58,59**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
LAPOINTE INDUSTRIES, INC, ROCKVILLE	**CONN**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
TRANSCO PRODUCTS INC, VENICE	**CAL**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
AAI Corp, Cockeysville	Md
Aerojet-General Corp Electronics Div, Azusa	Cal
Ainslie Corp, Braintree	Mass
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Aircom Inc, Union	N H
Airtec Inc, Roselle	N J
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alford Mfg Co, Winchester	Mass
Allied Research & Engineering Co, Los Angeles	Cal
Aluminum Design Corp, Brookfield	Ill
Amecom Div Litton Industries, Silver Spring	Md
American Electronic Labs Inc, Lansdale	Pa
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Automatic Metal Products Corp, Brooklyn	N Y
Avco Corp Electronics Div, Cincinnati	Ohio
Bart Microwave Div Bart Mfg Corp, Newark	N J
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Birdair Structures Inc, Buffalo	N Y
Blass Antenna Electronics Corp, Leonia	N J
Blaw-Knox Co, Blaw-Knox Equip Div, Pittsburgh	Pa
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Canadian Motorola Electronics Co, Agincourt	Ont
Canoga Electronics Corp, Chatsworth	Cal
Cardwell Condenser Corp, Lindenhurst	N Y
Chrysler Corp, Missile Div, Detroit	Mich
Chu Associates Inc, Littleton	Mass
Coax Devices, Chelsea	Mass
Communication Structures Inc, West Concord	Mass
Conductron Corp, Ann Arbor	Mich
Costelow Co Inc, Topeka	Kans
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Decibel Products Inc, Dallas	Tex
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Denki Kogyo Co Ltd, Tokyo	Japan
Diamond Antenna & Microwave Corp, Winchester	Mass
Dorne & Margolin Inc, Bohemia	N Y
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Dresser, Crane, Hoist & Tower Div, columbus	Ohio
Dynalectron Corp Aerospace Prods Div San Leandro	Cal
Eastern Microwave Corp, Winchester	Mass
Electro-Data Inc, Garland	Tex
Electro-Mechanics Co, Austin	Tex
Electronic Specialty Co, Los Angeles	Cal
Elpac Inc Systems Div RF, Irvine	Cal
Emerson & Cuming Inc, Canton	Mass
Ferranti, Ltd, Lancashire	England
Gabriel Electronics Div Maremont Corp, Saco	Maine
General Microwave Corp, Farmingdale	N Y
Gombos Microwave Inc, Clifton	N J
Goodyear Aerospace Corp, Akron	Ohio
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Honeywell Test Instruments Div, Denver	Colo
Hornet Antenna Products Co Inc, Duncan	Okla
Itek Corp, Lexington	Mass
ITT Defense Communications Div, Nutley	N J
ITT Federal Labs, Fort Wayne	Ind
Jampro Antenna Co, Sacramento	Cal
Jasik Labs Inc, Westbury	N Y
Jerrold Electronics Corp, Philadelphia	Pa
Karlson Research & Mfg Div KRC Corp, Hempstead	NY
Keltec Industries, Alexandria Div, Alexandria	Va
LaPointe Industries, Inc, Rockville	Conn
Lieco Inc, West Babylon	N Y
Loral Electronic Systems, Div Loral Corp, New York	NY
Marconi Co Ltd, Chelmsford	England
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
MCS Corp, Monrovia	Cal
Meridian Metalcraft Inc, Whittier	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Micro-Radionics Inc, Van Nuys	Cal
Microwave Associates Inc, Burlington	Mass
Microwave Products Inc, Chatsworth	Cal
Miller Industries Inc, R A, Grand Haven	Mich
Mitsubishi Electric Corp, Tokyo	Japan
Nippon Electric Co Ltd, Tokyo	Japan
Nurad Inc, Baltimore	Md
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Omega Laboratories Inc, Rowley	Mass
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polarad Electronic Instruments Div Long Island City	N Y
Portchester Instrument Corp, Port Chester	N Y
Premier Microwave Corp, Port Chester	N Y
Prodelin Inc, Hightstown	N J
Radiation Systems Inc, McLean	Va
Ramcor Inc, Huntington	NY
Rantec Div Emerson Electric Co, Calabasas	Cal
Raven Electronics Inc, Burbank	Cal
Raytheon Co, Government Marketing, Lexington	Mass
R F Systems Inc, Cohasset	Mass
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Sanders Associates, Inc, Nashua	N H
Schjeldahl Co, G T, Northfield	Minn
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst	NY
Scientific-Atlanta Inc, Atlanta	Ga
Scope Inc, Reston	Va
Sedco Systems Inc, Farmingdale	N Y
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Shiba Electric Co Ltd, Woodside	N Y
Stoddart Electro Systems, Gardena	Cal
Sylvania Electronic Systems, Waltham	Mass
Symetrics Engineering Corp, Satellite Beach	Fla
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Taffet Electronics Inc, Woodside	N Y
Tasker Industries, Van Nuys	Cal
Torngren Co Inc, C W, Somerville	Mass
Transco Products Inc, Venice	Cal
TRG Div Control Data Corp, East Boston	Mass
Vega Precision Labs, Vienna	Va
Victor R F & Microwave Co, Wakefield	Mass
Waveline Inc, West Caldwell	N J
Wheeler Laboratories Inc, Great Neck	N Y
White Electromagnetics Inc, Rockville	Md
Whittaker Corp Technical Products Div, Chatsworth	Cal

ANTENNAS--MOBILE

DORNE & MARGOLIN INC, BOHEMIA	**N Y**
MOSLEY ELECTRONICS INC, BRIDGETON	**MO**
YOKOWO MFG CO LTD, TOKYO	**JAPAN**
ADEC Inc, Newark	N J
Adronics Inc, Elrob Mfg Corp, Verona	N J
Amecom Div Litton Industries, Silver Spring	Md
American Electronic Labs Inc, Lansdale	Pa
Andrew California Corp, Claremont	Cal
Antenna Specialists Co, Cleveland	Ohio
Automatic Radio Sales Inc, Melrose	Mass
Aviation Electric Ltd, St Laurent, Montreal	Que
Blaw-Knox Co, Blaw-Knox Equip Div, Pittsburgh	Pa
Borders Electronics Co Inc, Pennsauken	N J
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Canadian Motorola Electronics Co, Agincourt	Ont
Canoga Electronics Corp, Chatsworth	Cal
Communication Associates Inc, New Hyde Park	N Y
Communication Structures Inc, West Concord	Mass
Costelow Co Inc, Topeka	Kans
C/P Corp, Columbia	S C
Cush Craft, Manchester	N H
Decibel Products Inc, Dallas	Tex
Denki Kogyo Co Ltd, Tokyo	Japan
Dorne & Margolin Inc, Bohemia	N Y
Dowa Trading Co Ltd, Kobe	Japan
Electro-Mechanics Co, Austin	Tex
Electronic Specialty Co, Los Angeles	Cal
Francis Industries, Pataskala	Ohio
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Goodyear Aerospace Corp, Akron	Ohio
Hornet Antenna Products Co Inc, Duncan	Okla
Hy-Gain Electronic Corp, Lincoln	Neb
ITT Defense Communications Div, Nutley	N J
Jasik Labs Inc, Westbury	N Y
Johnson Co, E F, Waseca	Minn
Kobe Industries Corp, Kobe	Japan
K-W Engineering Works, Menonomee Falls	Wis
Lindsay Specialty Products Ltd, Lindsay	Ontario
Marti Electronics, Cleburne	Tex
Master Mobile Mounts Div, Fort Myers	Fla
Microwave Associates Inc, Burlington	Mass
Mosley Electronics Inc, Bridgeton	Mo
New Tronics Corp, Cleveland	Ohio
Nurad Inc, Baltimore	Md
Phelps Dodge Electronic Products Corp North Haven	Conn
Phelps Dodge Electronic Prods Corp, Commun Prods Div Marlboro	N J
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Premax Products Div, Chisholm-Ryder Co Inc Niagara Falls	N Y
Prodelin Inc, Hightstown	N J
Radiation Systems Inc, McLean	Va
Raytheon Co, Marine Products Operation S San Francisco	Cal
Regency Electronics Inc, Indianapolis	Ind
R F Systems Inc, Cohasset	Mass
Rowe Industries Inc, Toledo	Ohio
Rye Industries, Inc, Mamaroneck	N Y
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Sinclair Radio Labs Inc, Tonawanda	N Y
Spar Aerospace Products Ltd, Toronto	Ont
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Stinger Antenna Co Inc, Dallas	Tex
Storno, Copenhagen S	Den
SunAir Electronics Inc, Ft Lauderdale	Fla
Technical Materiel Corp, Mamaroneck	N Y
Tenatronics Ltd, Cleveland	Ohio
Utica Electronics Inc, Chicago	Ill
Versatek Industries Inc, Indianapolis	Ind
Ward Products Corp, Amsterdam	N Y
Waters Mfg Inc, Wayland	Mass
Webster Mfg, South San Francisco	Cal
Yokowo Mfg Co Ltd, Tokyo	Japan

ANTENNAS--PARABOLIC

DORNE & MARGOLIN INC, BOHEMIA	**N Y**
LAPOINTE INDUSTRIES, INC, ROCKVILLE	**CONN**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
TRG DIV CONTROL DATA CORP, EAST BOSTON MASS	**ADV PG 418**
Ainslie Corp, Braintree	Mass
Amecom Div Litton Industries, Silver Spring	Md
American Electronic Labs Inc, Lansdale	Pa
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Arra, Inc, Bayshore	NY
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Birdair Structures Inc, Buffalo	N Y
Blaw-Knox Co, Blaw-Knox Equip Div, Pittsburgh	Pa
Brooks & Perkins Inc, Detroit	Mich
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Canoga Electronics Corp, Chatsworth	Cal
Cardwell Condenser Corp, Lindenhurst	N Y
Chu Associates Inc, Littleton	Mass
Clear Beam Antenna, Sylmar	Cal
Communication Structures Inc, West Concord	Mass
Conductron Corp, Ann Arbor	Mich
Costelow Co Inc, Topeka	Kans
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dalmo Victor, A Textron Div, Belmont	Cal
Decatur Electronics Inc, Decatur	Ill
Denki Kogyo Co Ltd, Tokyo	Japan
Diamond Antenna & Microwave Corp, Winchester	Mass
Dorne & Margolin Inc, Bohemia	N Y
Dresser, Crane, Hoist & Tower Div, columbus	Ohio
Eastern Microwave Corp, Winchester	Mass
Electronic Specialty Co, Los Angeles	Cal
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Ferranti, Ltd, Lancashire	England
Gabriel Electronics Div Maremont Corp, Saco	Maine
Goodyear Aerospace Corp, Akron	Ohio
Hornet Antenna Products Co Inc, Duncan	Okla
ITT Defense Communications Div, Nutley	N J
Jasik Labs Inc, Westbury	N Y
Jerrold Electronics Corp, Philadelphia	Pa
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs	Colo
Keltec Industries, Alexandria Div, Alexandria	Va
Kling Metal Spinning & Stpg Corp, New York	N Y
Laminair, Inc, Los Angeles	Cal
LaPointe Industries, Inc, Rockville	Conn
LTV Electrosystems Inc, Garland Div, Dallas	Tex
MCS Corp, Monrovia	Cal
Meridian Metalcraft Inc, Whittier	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Miller Industries Inc, R A, Grand Haven	Mich
Mitsubishi Electric Corp, Tokyo	Japan
Neotec Corp, Rockville	Md
Nippon Electric Co Ltd, Tokyo	Japan
Nurad Inc, Baltimore	Md
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Omega-t Systems Inc, Richardson	Tex
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Prodelin Inc, Hightstown	N J
Radiation Systems Inc, McLean	Va
RCA, Defense Electronic Products, Moorestown	N J
R F Systems Inc, Cohasset	Mass
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Scala Radio Corp, San Leandro	Cal
Schjeldahl Co, G T, Northfield	Minn
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst	NY
Scientific-Atlanta Inc, Atlanta	Ga
Sedco Systems Inc, Farmingdale	N Y
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Sylvania Electronic Systems, Waltham	Mass
Symetrics Engineering Corp, Satellite Beach	Fla
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Tasker Industries, Van Nuys	Cal
Telefunken Sales Corp, Garden City	N Y
Torngren Co Inc, C W, Somerville	Mass
TRG Div Control Data Corp, East Boston	Mass
Vega Precision Labs, Vienna	Va
Whittaker Corp Technical Products Div, Chatsworth	Cal

ANTENNAS--RADAR SEE ANTENNAS, AVIONIC--RADAR

ANTENNAS, RADIO RECEIVING--A-M

CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
HEATH CO, BENTON HARBOR	**MICH**
MOSLEY ELECTRONICS INC, BRIDGETON	**MO**
SPECIFIC PRODUCTS DIV DR H L RICHTER CORP MONROVIA	**CAL**
YOKOWO MFG CO LTD, TOKYO	**JAPAN**
Adronics Inc, Elrob Mfg Corp, Verona	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
ALA Industries Inc, Harrison	NY
Andrew California Corp, Claremont	Cal
Aristo-Craft Distinctive Miniatures, New York	N Y
Automatic Radio Sales Inc, Melrose	Mass
Avco Corp Electronics Div, Cincinnati	Ohio
Aviation Electric Ltd, St Laurent, Montreal	Que
Bel-Tronics Corp, Addison	Ill
Consolidated Wire & Associated Corps, Chicago	Ill
Daburn Electronics & Cable Corp, Bronx	N Y
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Dowa Trading Co Ltd, Kobe	Japan
El-Rad Mfg Co, Chicago	Ill
Gavitt Wire & Cable Co Div Amerace Corp Brookfield	Mass
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Hayakawa Electric Co Ltd, Osaka	Japan
Heath Co, Benton Harbor	Mich
Lance Antenna Corp, Sylmar	Cal
Miller Co, J W, Los Angeles	Cal
Mosley Electronics Inc, Bridgeton	Mo
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Prodelin Inc, Hightstown	N J
Rollan Electric Co, Chicago	Ill
Rye Industries, Inc, Mamaroneck	N Y
Sanyo Electric Co Ltd, Osaka	Japan
Saxton Products Inc, Congers	N Y
Sierra Electric Inc, Gardena	Cal
Specific Products Div Dr H L Richter Corp Monrovia	Cal
Stainless Inc, North Wales	Pa
Technical Materiel Corp, Mamaroneck	N Y
Telrex Communication Engineering Labs Asbury Park	N J
Tenatronics Ltd, Cleveland	Ohio
T M C Systems & Power Corp, Springfield	Va
Ward Products Corp, Amsterdam	N Y
White Electromagnetics Inc, Rockville	Md
Yokowo Mfg Co Ltd, Tokyo	Japan

YOKOWO
Telescopic Rod Antenna
●For TV SET
Dipole Antenna (SA-106)
Dipole Antenna (TW-40)
Monopole Antenna (SA-127A)
●For FM RADIO
Monopole Antenna (64R-78)
Monopole Antenna (D208-98.5)
Monopole Antenna (YS68336)
●FOR TRANSCEIVER
Monopole Antenna (Y42729S)
Monopole Antenna (Y42728S)
Loading Coil Antenna (CRC-27)
YOKOWO MFG. CO. LTD.
No. 5, 7-chome, Takinogawa, Kita-ku, Tokyo, Japan
Tel. 984-3111 Telex: 272-2197
Cable: "SHINEBRIGHT" Tokyo

SPIKES

BLADES

SPIRALS

DIPOLES

HORNS

SLOTS, RIDGE LOADED

SCIMITARS

ANTENNAS, TELEMETRY

...we design and manufacture telemetry antennas, VHF & UHF (L-S Band).

TRANSCO PRODUCTS, INC.
TRANSCO®
4241 Glencoe Ave.
Venice, Calif. 90291
213/391-7291•TWX910-343-6469

ANTENNAS, RADIO RECEIVING--F-M

DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DX ANTENNA CO LTD, HYOGO-KU, KOBE	**JAPAN**
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN	**N Y**
YOKOWO MFG CO LTD, TOKYO, JAPAN	**ADV PG 53**
Adronics Inc, Elrob Mfg Corp, Verona	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
Andrew California Corp, Claremont	Cal
Antennacraft Co Inc, Burlington	Iowa
Automatic Radio Sales Inc, Melrose	Mass
Aviation Electric Ltd, St Laurent, Montreal	Que
Bel-Tronics Corp, Addison	Ill
CBC Industries Inc, Philadelphia	Pa
Channel Master Corp, Ellenville	N Y
Daburn Electronics & Cable Corp, Bronx	N Y
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Denki Kogyo Co Ltd, Tokyo	Japan
Dowa Trading Co Ltd, Kobe	Japan
DX Antenna Co Ltd, Hyogo-Ku, Kobe	Japan
Finney Co, Bedford	Ohio
Gavin Instruments Inc, Somerville	N J
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Hayakawa Electric Co Ltd, Osaka	Japan
Hi-Lo Mfg Corp, Chicago	Ill
Jerrold Electronics Corp, Philadelphia	Pa
JFD Electronics Co, Components Div, Brooklyn	N Y
Lindsay Specialty Products Ltd, Lindsay	Ontario
Parker Metal Goods Co, Worcester	Mass
Peerless Products Industries, Chicago	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Prodelin Inc, Hightstown	N J
Regency Electronics Inc, Indianapolis	Ind
R F Systems Inc, Cohasset	Mass
RMS Electronics Inc, Bronx	N Y
Rollan Electric Co, Chicago	Ill
Rye Industries, Inc, Mamaroneck	N Y
S & A Electronics Inc, Toledo	Ohio
Sanyo Electric Co Ltd, Osaka	Japan
Saxton Products Inc, Congers	N Y
Scala Radio Corp, San Leandro	Cal
Sitco Antennas, Portland	Ore
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Telrex Communication Engineering Labs Asbury Park	N J
Tenatronics Ltd, Cleveland	Ohio
Tricraft Products Corp, Chicago	Ill
Trio Mfg Co, Griggsville	Ill
Video Industries Co, Port Chester	N Y
Waber Electronics Inc, Philadelphia	Pa
Ward Products Corp, Amsterdam	N Y
White Electromagnetics Inc, Rockville	Md
Yokowo Mfg Co Ltd, Tokyo	Japan

ANTENNAS--TELEMETRY

DORNE & MARGOLIN INC, BOHEMIA, N Y	**ADV PG 54**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN	**N Y**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
TRANSCO PRODUCTS INC, VENICE, CAL	**ADV PG 54**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
AAI Corp, Cockeysville	Md
Aeroscience Electronics Inc, Atlanta	Ga
Ainslie Corp, Braintree	Mass
Amecom Div Litton Industries, Silver Spring	Md
American Electronic Labs Inc, Lansdale	Pa
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Antenna Products Co Div All Products Co Mineral Wells	Tex
Ball Brothers Research Corp, Boulder	Colo
Bendix Corp, Communications Div, Towson	Md
Blass Antenna Electronics Corp, Leonia	N J
Blaw-Knox Co, Blaw-Knox Equip Div, Pittsburgh	Pa
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Canoga Electronics Corp, Chatsworth	Cal
Chrysler Corp, Missile Div, Detroit	Mich
Chu Associates Inc, Littleton	Mass
Communication Structures Inc, West Concord	Mass
Conductron Corp, Ann Arbor	Mich
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dbm Research Corp, Cocoa Beach	Fla
Denki Kogyo Co Ltd, Tokyo	Japan
Dorne & Margolin Inc, Bohemia	N Y
Dowa Trading Co Ltd, Kobe	Japan
Dresser, Crane, Hoist & Tower Div, columbus	Ohio
Electro-Mechanics Co, Austin	Tex
Electronics Communications Div Atlantic Research Corp Alexandria	Va
GCA Technology Div GCA Corp, Bedford	Mass
Goodyear Aerospace Corp, Akron	Ohio
Honeywell Test Instruments Div, Denver	Colo
Hornet Antenna Products Co Inc, Duncan	Okla
Jasik Labs Inc, Westbury	N Y
Jerrold Electronics Corp, Philadelphia	Pa
JFD Electronics Co, Components Div, Brooklyn	N Y
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs	Colo
Keltec Industries, Alexandria Div, Alexandria	Va
Laminair, Inc, Los Angeles	Cal
Loral Electronic Systems, Div Loral Corp, New York	NY
McMaster Products Corp, Chicago	Ill
MCS Corp, Monrovia	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Miller Industries Inc, R A, Grand Haven	Mich
Mitsubishi Electric Corp, Tokyo	Japan
Nippon Electric Co Ltd, Tokyo	Japan
Nurad Inc, Baltimore	Md
Omega-t Systems Inc, Richardson	Tex
Phelps Dodge Electronic Products Corp North Haven	Conn
Philco-Ford Corp, Washington	D C
Prodelin Inc, Hightstown	N J
Radiation Inc Systems Div, Melbourne	Fla
Radiation Systems Inc, McLean	Va
Rantec Div Emerson Electric Co, Calabasas	Cal
Raven Electronics Inc, Burbank	Cal
Raytheon Co, Government Marketing, Lexington	Mass
Reeves Instrument Div, DCA, Garden City	N Y
R F Systems Inc, Cohasset	Mass
Sanders Associates, Inc, Nashua	N H
Scala Radio Corp, San Leandro	Cal
Schjeldahl Co, G T, Northfield	Minn
Scientific-Atlanta Inc, Atlanta	Ga
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Sylvania Electronic Systems, Waltham	Mass
Symetrics Engineering Corp, Satellite Beach	Fla
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Transco Products Inc, Venice	Cal
TRG Div Control Data Corp, East Boston	Mass
TRW Systems Group, Redondo Beach	Cal
Vega Precision Labs, Vienna	Va
Whittaker Corp Technical Products Div, Chatsworth	Cal

DM

20 Years of Leadership in Aircraft and Missile Antennas

Missile & Rocket Antennas

LOW DRAG BLADES
FLUSH CAVITIES
FOR TELEMETRY
COMMAND • DESTRUCT
MDI • BEACON

dorne and margolin
INCORPORATED
2950 VETERANS MEMORIAL HWY., BOHEMIA, N. Y. 11716
TEL. 516 588-4000 TWX 510 228-6502
9730 COZYCROFT AVE., CHATSWORTH, CALIF. 91311
TEL. 213 341-4010 TWX 213 341-4646

ANTENNAS--TRACKING

DORNE & MARGOLIN INC, BOHEMIA	**N Y**
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN	**N Y**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
Aeroflex Labs, Inc, Plainview	N Y
Ainslie Corp, Braintree	Mass
Amecom Div Litton Industries, Silver Spring	Md
American Electronic Labs Inc, Lansdale	Pa
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Antenna Products Co Div All Products Co Mineral Wells	Tex
Antlab, Inc, Worthington	Ohio
Bendix Corp, Communications Div, Towson	Md
Blass Antenna Electronics Corp, Leonia	N J
Blaw-Knox Co, Blaw-Knox Equip Div, Pittsburgh	Pa
Canoga Electronics Corp, Chatsworth	Cal
Cardwell Condenser Corp, Lindenhurst	N Y
Chu Associates Inc, Littleton	Mass
Communication Structures Inc, West Concord	Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Cush Craft, Manchester	N H
Denki Kogyo Co Ltd, Tokyo	Japan
Dorne & Margolin Inc, Bohemia	N Y
Dowa Trading Co Ltd, Kobe	Japan
Electronic Specialty Co, Los Angeles	Cal
General Electric Co Ordnance Dept, Pittsfield	Mass
Goodyear Aerospace Corp, Akron	Ohio
Henry Engineering Co, Burbank	Cal
Jasik Labs Inc, Westbury	N Y
Jerrold Electronics Corp, Philadelphia	Pa
JFD Electronics Co, Components Div, Brooklyn	N Y
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs	Colo
Keltec Industries, Alexandria Div, Alexandria	Va
Loral Electronic Systems, Div Loral Corp, New York	NY
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Micronetics Div Teledyne Systems Co, San Diego	Cal
Mitsubishi Electric Corp, Tokyo	Japan
Nippon Electric Co Ltd, Tokyo	Japan
Omega-t Systems Inc, Richardson	Tex
Phelps Dodge Electronic Products Corp North Haven	Conn
Philco-Ford Corp, Washington	D C
Prodelin Inc, Hightstown	N J
Radiation Inc Systems Div, Melbourne	Fla
Radiation Systems Inc, McLean	Va
Rantec Div Emerson Electric Co, Calabasas	Cal
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Reeves Instrument Div, DCA, Garden City	N Y
R F Systems Inc, Cohasset	Mass
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst	NY
Scientific-Atlanta Inc, Atlanta	Ga
Sedco Systems Inc, Farmingdale	N Y
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Sylvania Electronic Systems, Waltham	Mass
Symetrics Engineering Corp, Satellite Beach	Fla
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Tasker Industries, Van Nuys	Cal
Telrex Communication Engineering Labs Asbury Park	N J
TRG Div Control Data Corp, East Boston	Mass
TRW Systems Group, Redondo Beach	Cal
Vega Precision Labs, Vienna	Va
Whittaker Corp Technical Products Div, Chatsworth	Cal

ANTENNAS--TROPOSCATTER

JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN	**N Y**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
Ainslie Corp, Braintree	Mass
Andrew Corp, Orland Park	Ill

Antenna Products Co Div All Products Co Mineral Wells	Tex
Blaw-Knox Co, Blaw-Knox Equip Div, Pittsburgh	Pa
Chu Associates Inc, Littleton	Mass
Communication Structures Inc, West Concord	Mass
Cush Craft, Manchester	N H
Denki Kogyo Co Ltd, Tokyo	Japan
Dowa Trading Co Ltd, Kobe	Japan
Dresser, Crane, Hoist & Tower Div, columbus	Ohio
Electronic Specialty Co, Los Angeles	Cal
Gabriel Electronics Div Maremont Corp, Saco	Maine
Herley Industries, Inc, Westbury	N Y
ITT Defense Communications Div, Nutley	N J
Jampro Antenna Co, Sacramento	Cal
Jasik Labs Inc, Westbury	N Y
Jerrold Electronics Corp, Philadelphia	Pa
JFD Electronics Co, Components Div, Brooklyn	N Y
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs	Colo
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Mitsubishi Electric Corp, Tokyo	Japan
Nippon Electric Co Ltd, Tokyo	Japan
Nurad Inc, Baltimore	Md
Philco-Ford Corp, Washington	D C
Prodelin Inc, Hightstown	N J
R F Systems Inc, Cohasset	Mass
Stainless Inc, North Wales	Pa
Sylvania Electronic Systems, Waltham	Mass
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Telrex Communication Engineering Labs Asbury Park	N J
TRG Div Control Data Corp, East Boston	Mass
Vega Precision Labs, Vienna	Va

ANTENNAS, TV--MASTER COMMUNITY

JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
Andrew California Corp, Claremont	Cal
Antenna Products Co Div All Products Co Mineral Wells	Tex
Benco Television Assoc Div Redifon Can Ltd Rexdale	Ont
Blonder-Tongue Labs Inc, Newark	N J
Clear Beam Antenna, Sylmar	Cal
Cush Craft, Manchester	N H
Dowa Trading Co Ltd, Kobe	Japan
EMI Electronics Ltd, Hayes, Middlesex	England
Goodyear Aerospace Corp, Akron	Ohio
Jerrold Electronics Corp, Philadelphia	Pa
JFD Electronics Co, Components Div, Brooklyn	N Y
K L A Labs Inc, Detroit	Mich
Lance Antenna Corp, Sylmar	Cal
Lindsay Specialty Products Ltd, Lindsay	Ontario
Nippon Electric Co Ltd, Tokyo	Japan
Nurad Inc, Baltimore	Md
Panther Electronics Inc, Burbank	Cal
R F Systems Inc, Cohasset	Mass
Scala Radio Corp, San Leandro	Cal
Scientific-Atlanta Inc, Atlanta	Ga
Sitco Antennas, Portland	Ore
Spencer-Kennedy Labs Inc, Boston	Mass
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Telrex Communication Engineering Labs Asbury Park	N J
Vikoa Inc, Hoboken	N J
Wald Sound, Sun Valley	Cal
Winegard Co, Burlington	Iowa

ANTENNAS, TV--RECEIVING

DX ANTENNA CO LTD, HYOGO-KU, KOBE	**JAPAN**
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN	**N Y**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
YOKOWO MFG CO LTD, TOKYO	**JAPAN**
Adronics Inc, Elrob Mfg Corp, Verona	N J
Andrew California Corp, Claremont	Cal
Antennacraft Co Inc, Burlington	Iowa
Blonder-Tongue Labs Inc, Newark	N J
Channel Master Corp, Ellenville	N Y
Clear Beam Antenna, Sylmar	Cal
Denki Kogyo Co Ltd, Tokyo	Japan
Dowa Trading Co Ltd, Kobe	Japan
DX Antenna Co Ltd, Hyogo-Ku, Kobe	Japan
Gavin Instruments Inc, Somerville	N J
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Hayakawa Electric Co Ltd, Osaka	Japan
Hi-Lo Mfg Corp, Chicago	Ill
Jerrold Electronics Corp, Philadelphia	Pa
JFD Electronics Co, Components Div, Brooklyn	N Y
Kay-Townes Antenna Co, Rome	Ga
Lafayette Radio Electronics, Syosset	NY
Lance Antenna Corp, Sylmar	Cal
Lindsay Specialty Products Ltd, Lindsay	Ontario
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Microwave Associates Inc, Burlington	Mass
Osaka Onkyo Co, Ltd, Asahi-Ku, Osaka	Japan
Parker Metal Goods Co, Worcester	Mass
Peerless Products Industries, Chicago	Ill
Permonite Mfg Co, Chicago	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
R F Systems Inc, Cohasset	Mass
RMS Electronics Inc, Bronx	N Y
S & A Electronics Inc, Toledo	Ohio
Sanyo Electric Co Ltd, Osaka	Japan
Scala Radio Corp, San Leandro	Cal
Sensor Systems Inc, Canoga Park	Cal
Snyder Mfg Co, Philadelphia	Pa
Spencer-Kennedy Labs Inc, Boston	Mass
Spirling Products Co Inc, Hicksville	N Y
Stainless Inc, North Wales	Pa
Sylvania Electric Prods Inc, Coml Elctns Div Bedford	Mass
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Taffet Electronics Inc, Woodside	N Y
Telrex Communication Engineering Labs Asbury Park	N J
Telvision Labs Inc, Wauconda	Ill
Tricraft Products Corp, Chicago	Ill
Trio Mfg Co, Griggsville	Ill
Video Industries Co, Port Chester	N Y
Vikoa Inc, Hoboken	N J
Waber Electronics Inc, Philadelphia	Pa
Winegard Co, Burlington	Iowa
Yokowo Mfg Co Ltd, Tokyo	Japan

ANTENNAS--VLF

HEWLETT-PACKARD, PALO ALTO	**CAL**
SPECIFIC PRODUCTS DIV DR H L RICHTER CORP MONROVIA	**CAL**
TRACOR INC, AUSTIN	**TEX**
Aerospace Research, Inc, Boston	Mass
Antenna Products Co Div All Products Co Mineral Wells	Tex
Canoga Electronics Corp, Chatsworth	Cal
Clear Beam Antenna, Sylmar	Cal
Dowa Trading Co Ltd, Kobe	Japan
Dresser, Crane, Hoist & Tower Div, columbus	Ohio
Geo Space Systems Inc, St Petersburg	Fla
Hewlett-Packard, Palo Alto	Cal
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs	Colo
Spar Aerospace Products Ltd, Toronto	Ont
Specific Products Div Dr H L Richter Corp Monrovia	Cal
Stoddart Electro Systems, Gardena	Cal
Taffet Electronics Inc, Woodside	N Y
Technical Materiel Corp, Mamaroneck	N Y
T M C Systems & Power Corp, Springfield	Va
Tracor Inc, Austin	Tex
Trylon Inc, Elverson	Pa

ANTENNA TOWERS SEE TOWERS

ANTENNA TUNING UNITS SEE COILS--ANTENNA LOADING

ANTENNA WIRE SEE WIRE--ANTENNA

ANTIMONDIES SEE INTERMETALLICS

ANTIMONY

NATIONAL LEAD CO, NEW YORK	**N Y**
Alloys Unlimited Inc, Melville	N Y
Alpha Metals Inc, Jersey City	NJ
American Smelting & Refining Co, New York	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bow Solder Products Co Inc, Newark	N J
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerac Inc, Butler	Wis
Cerro Corp, New York	NY
Cominco American Inc Electronic Matls Div, Spokane	Wash
Corco Chemical Corp, Fairless Hills	Pa
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Division Lead Co, Summit	Ill
Gardiner Solder Co, Chicago	Ill
Kester Solder Co, Chicago	Ill
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Metal Ceram Inc, Mount Vernon	N Y
National Lead Co, New York	N Y
Ohio Semitronics Inc, Columbus	Ohio
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Electronics Corp, Bradford	Pa

ANTISTATIC COATINGS SEE COATINGS

ARSENIC

Alloys Unlimited Inc, Melville	N Y
Alpha Metals Inc, Jersey City	NJ
American Smelting & Refining Co, New York	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerac Inc, Butler	Wis
Cominco American Inc Electronic Matls Div, Spokane	Wash
Corco Chemical Corp, Fairless Hills	Pa
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Gardiner Solder Co, Chicago	Ill
Henley & Co Inc, New York	N Y
Kawecki Chemical Co, New York	N Y
Kester Solder Co, Chicago	Ill
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Metal Ceram Inc, Mount Vernon	N Y
Ohio Semitronics Inc, Columbus	Ohio
Rocky Mountain Research Inc, Denver	Colo
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Electronics Corp, Bradford	Pa

ARSENIDES SEE INTERMETALLICS

ASBESTOS

Auburn Mfg Co, Middletown	Conn
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
Porter Co Inc H K Thermoid Div, Pittsburgh	Pa
Raybestos-Manhattan Inc, Passaic	N J
Union Carbide Corp Chemicals & Plastics New York	N Y

ATOMIC CLOCKS SEE STANDARDS--FREQUENCY,ATOMIC

ATTENUATION METERS SEE METERS--ATTENUATION

ATTENUATORS--AUDIO

CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE	**WIS**
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER N H	**ADV PG 56**
HEWLETT-PACKARD, PALO ALTO	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
OBATA ELECTRIC CO LTD, TOKYO, JAPAN	**ADV PG 56**
R C L ELECTRONICS INC, IRVINGTON	**N J**
TECH LABORATORIES INC, PALISADES PARK	**N J**
TELE-SIGNAL CORP, WOODBURY	**N Y**
TEXSCAN CORP, INDIANAPOLIS	**IND**
TRACOR INC, AUSTIN	**TEX**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Ad-Yu Electronics Inc, Passaic	N J
Allen-Bradley Co, Milwaukee	Wis
Altec Lansing Div LTV Ling Altec Inc, Anaheim	Cal
American Aerospace Controls Inc, Farmingdale	N Y
Astrolab Inc, Linden	N J
Aul Instruments Inc, Long Island City	NY
Barwood Electronics, Inc, Glendale	Cal
Bayly Engineering Ltd, Ajax	Ontario
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Clarostat Mfg Co Inc, Dover	N H
Condor Industrial Corp, West Chicago	Ill
Control Science Corp, Alexandria	Va
Data Royal Corp, San Diego	Cal
Daven Div McGraw-Edison Co, Manchester	N H
Don Bosco Electronics Inc, Hanover	N J
Electronic Applications Co, Pine Brook	N J
Fujitsu Ltd, Tokyo	Japan
General Radio Co, West Concord	Mass
General Resistance Inc, New York	NY
Goodmans Loudspeakers Ltd, Middlesex	Eng
Gotham Audio Corp, New York	N Y
Grason Stadler Co Inc, West Concord	Mass
Hewlett-Packard, Palo Alto	Cal
Impectron Inc, New York	N Y
Incor Inc, Plainview	N Y
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Javex Electronics, Cherry Valley	Cal
Jerrold Electronics Corp, Philadelphia	Pa
Kay Electric Co, Pine Brook	N J
Langevin Div, Scientific Ind, Inc, Santa Ana	Cal
Marconi Instruments Div, English Electric Corp Englewood	N J
Measurements A McGraw-Edison Div, Boonton	N J
Muirhead Instruments Inc, Mountainside	N J
Nippon Electric Co Ltd, Tokyo	Japan
Nytronics Inc, Berkeley Heights	N J
Nytronics Inc, Precision Resistor Div, Kutztown	Pa
Obata Electric Co Ltd, Tokyo	Japan
Ohmite Mfg Co, Skokie	Ill
Painton & Co, Ltd, Northampton	England
Pioneer Electronic Corp, Ohta-ku, Tokyo	Japan
R C L Electronics Inc, Irvington	N J
Resistance Products Co, Harrisburg	Pa
Rho Engineering Co, Los Angeles	Cal

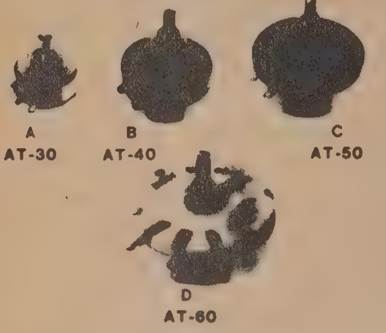
Plumtex

Symbol of Precision Carbon Control, Wire Wound Control & Attenuators

Presents

A Spectacular line of Hi-Fi ACCESSORIES

ATTENUATORS



(A) AT-30 L PAD	Impedance 4 – 16 ohms, Rated 2 watts Continuous, 6 watts audio peak. Housed in metal case. Diameter 11/8 inch, Mechanical rotation. 130
(B) AT-40 L PAD	Impedance 4 – 16 ohms, Rated at 3 watts Continuous, 10 watts audio peak. Continuous range from 0.5 to 30 dB's attenuation.
(C) AT-50 T PAD	Impedance 4— 16 ohms, Rated 4 watts Continuous, 30 watts audio peak. Continuous range from 0.5 to 60 dB's attenuation.
(D) AT-60 L PAD	Impedance 4 – 16 ohms, Rated at 30 watts Continuous, 100 watts audio peak. Continuous range from 0.5 to 30 dB's attenuation.

WIRE WOUND POTENTIOMETERS

A
H-16
B
H-25
C
H-30
H-30C
D
R-300

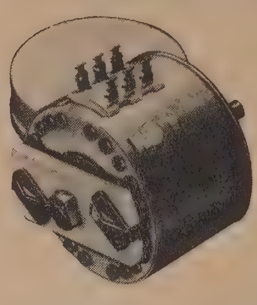
(A) H-16 POT.,	0.5 watts DC, 1.5 watts audio. Available in 2 to 100 ohms. Inexpensive Open type.
(B) H-25 POT.,	0.8 watts DC, 3 watts audio. Available in 2 to 300 ohms. Inexpensive Open type.
(C) H-30 POT.,	1.0 watts DC, 3 watts audio. Available in 2 to 300 ohms. Inexpensive Open type or cover type.
(D) R-300 POT.,	2 watts DC, 6 watts audio. Available in 10 to 2K ohms. Inexpensive cover type.

OBATA ELECTRIC CO., LTD.

348, Tomoda, Ohme-city, Tokyo, Japan
TEL: (0428) 2-6155/7

attenuators

Audio-Video



Audio/video attenuators and potentiometers — performance proven components featuring noise levels below circuit noises. Balanced and unbalanced ladders; "T" and balanced "H" types in bridged, cueing and precision (±1%) models; step type potential dividers in ±5% and ±2% models; straight line slide attenuators; decade attenuators; video variable attenuators. Catalog No. A-15

DAVEN McGRAW-EDISON

DIVISION OF THOMAS A. EDISON INDUSTRIES
GRENIER FIELD, MANCHESTER, N.H. 03103
(603) 669-0940 • TWX 710-220-1747

Shrader Sound Inc, Washington .... D C
Soundolier Inc, St Louis .... Mo
Standard Telephones & Cables Ltd London WC 2 .... England
Stelma Inc, Stamford .... Conn
Taffet Electronics Inc, Woodside .... N Y
Tech Laboratories Inc, Palisades Park .... N J
Tele-Signal Corp, Woodbury .... N Y
Telonic Instruments Div Telonic Indus Inc Beech Grove .... Ind
Texscan Corp, Indianapolis .... Ind
Tracor Inc, Austin .... Tex
Versatek Industries Inc, Indianapolis .... Ind
Waveline Inc, West Caldwell .... N J
Weinschel Engineering Co Inc, Gaithersburg .... Md
Welwyn Electric Ltd, Northumberland .... England

ATTENUATORS--DECADE

DAVEN DIV MCGRAW-EDISON CO, MANCHESTER .... N H
GENERAL MICROWAVE CORP, FARMINGDALE .... N Y
HEWLETT-PACKARD, PALO ALTO .... CAL
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO .... ADV PGS 8
OBATA ELECTRIC CO LTD, TOKYO, JAPAN .... ADV PG 56
R C L ELECTRONICS INC, IRVINGTON .... N J
TECH LABORATORIES INC, PALISADES PARK .... N J
Alcatel, Paris 8eme .... France
Altec Lansing Div LTV Ling Altec Inc, Anaheim .... Cal
Ando Electric Co Ltd, Ohta-ku, Tokyo .... Japan
Astrolab Inc, Linden .... N J
Aul Instruments Inc, Long Island City .... NY
Brys Instrument Corp, Brooklyn .... N Y
Compagnie Generale de Metrologie Haute Savoie .... France
Data Royal Corp, San Diego .... Cal
Daven Div McGraw-Edison Co, Manchester .... N H
Electronic Applications Co, Pine Brook .... N J
Fujitsu Ltd, Tokyo .... Japan
General Microwave Corp, Farmingdale .... N Y
General Radio Co, West Concord .... Mass
General Resistance Inc, New York .... NY
Gillette Electronic Products Co, Beverly .... N J
Hewlett-Packard, Palo Alto .... Cal
Honeywell Test Instruments Div, Denver .... Colo
Incor Inc, Plainview .... N Y
International Tel & Tel Corp Industrial Prods Div San Fernando .... Cal
Jerrold Electronics Corp, Philadelphia .... Pa
Julie Research Labs, Inc, New York .... N Y
Kay Electric Co, Pine Brook .... N J
Lab Electro-Acoustique, 92 Rueil-Malmaison .... France
LeCroy Research Systems Corp, West Nyack .... N Y
Lorch Electronics Corp, Englewood .... N J
Measurements A McGraw-Edison Div, Boonton .... N J
Muirhead Instruments Inc, Mountainside .... N J
Nytronics Inc, Berkeley Heights .... N J
Nytronics Inc, Precision Resistor Div, Kutztown .... Pa
Obata Electric Co Ltd, Tokyo .... Japan
Ottawa, Paris .... France
R C L Electronics Inc, Irvington .... N J
Resistance Products Co, Harrisburg .... Pa
Rho Engineering Co, Los Angeles .... Cal
RLC Electronics Inc, Port Chester .... N Y
Rohde & Schwarz Sales Co USA Inc, Passaic .... N J
Siemens America Inc, New York .... N Y
Singer Co, Metrics Div, Bridgeport .... Conn
Standard Telephones & Cables Ltd London WC 2 .... England
Stark Electronic Instruments Ltd, Ajax .... Ont
Stoddart Electro Systems, Gardena .... Cal
Taffet Electronics Inc, Woodside .... N Y
Tech Laboratories Inc, Palisades Park .... N J
Telonic Instruments Div Telonic Indus Inc Beech Grove .... Ind
Wandel & Goltermann/Tel-Com, Hanover .... N J
Winslow Tele-Tronics Inc, Asbury Park .... NJ

ATTENUATORS--FIXED

BIRD ELECTRONIC CORP, CLEVELAND (SOLON) .... OHIO
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER .... N H
GENERAL MICROWAVE CORP, FARMINGDALE .... N Y
HEWLETT-PACKARD, PALO ALTO .... CAL
PREMIER MICROWAVE CORP, PORT CHESTER .... N Y
RADAR DESIGN CORP, SYRACUSE .... N Y
R C L ELECTRONICS INC, IRVINGTON .... N J
TECH LABORATORIES INC, PALISADES PARK .... N J
TEXSCAN CORP, INDIANAPOLIS .... IND
TRG DIV CONTROL DATA CORP, EAST BOSTON .... MASS
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG .... MD
Ad-Yu Electronics Inc, Passaic .... N J
Airmec Instruments Ltd, Buckinghamshire .... England
Airtec Inc, Roselle .... N J
Altec Lansing Div LTV Ling Altec Inc, Anaheim .... Cal
Ameco Inc, Phoenix .... Ariz
American Trans-Coil Corp, Richmond Hill .... NY
Ando Electric Co Ltd, Ohta-ku, Tokyo .... Japan
Applied Research, Inc, Port Washington .... N Y
Arra, Inc, Bayshore .... NY
Astrolab Inc, Linden .... N J
Automatic Metal Products Corp, Brooklyn .... N Y
Bayly Engineering Ltd, Ajax .... Ontario
Bellaire Electronics, Inc, Red Bank .... N J
Bird Electronic Corp, Cleveland (Solon) .... Ohio
Compagnie Generale de Metrologie Haute Savoie .... France
Daven Div McGraw-Edison Co, Manchester .... N H
Diamond Antenna & Microwave Corp, Winchester .... Mass
Ecco Electronic Components Corp, Mount Vernon .... N Y
E-H Research Labs Inc, Oakland .... Cal
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam .... N Y
Electronic Specialty Co, Los Angeles .... Cal
Film Components Div Reon Resister Corp, Yonkers .... N Y
Filmohm Corp, Long Island City .... N Y
Finney Co, Bedford .... Ohio
Fujitsu Ltd, Tokyo .... Japan
General Microwave Corp, Farmingdale .... N Y
General Radio Co, West Concord .... Mass
General Resistance Inc, New York .... NY
Genisco Technology Corp Components, Genistron Divs Compton .... Cal
Gombos Microwave Inc, Clifton .... N J
Greenpar Engineering Ltd, Electronics Div Essex .... England
Gremar Mfg Co Inc, Wakefield .... Mass
Herley Industries, Inc, Westbury .... N Y
Hewlett-Packard, Palo Alto .... Cal
Holland Electronics, Brooklyn .... N Y
Jerrold Electronics Corp, Philadelphia .... Pa
Julie Research Labs, Inc, New York .... N Y
Kay Electric Co, Pine Brook .... N J
Langevin Div, Scientific Ind, Inc, Santa Ana .... Cal
Maury Microwave Corp, Montclair .... Cal
MCS Corp, Monrovia .... Cal
Measurements A McGraw-Edison Div, Boonton .... N J
Meca Electronics, Inc, Denville .... N J
Merrimac Research & Development Inc West Caldwell, ... N J
Microwave Associates Inc, Burlington .... Mass
Microwave Filter Co Inc, East Syracuse .... NY
Microwave Labs of America, Brooklyn .... N Y
Narda Microwave Corp, Plainview .... N Y
Neico Microwave Co, Waltham .... Mass
Nytronics Inc, Berkeley Heights .... N J
Nytronics Inc, Precision Resistor Div, Kutztown .... Pa
Omni Spectra Inc, Farmington .... Mich
Ottawa, Paris .... France
Phelps Dodge Electronic Products Corp North Haven .... Conn
PRD Electronics Inc, Sub H-I Corp, Westbury .... N Y
Premier Microwave Corp, Port Chester .... N Y
Radar Design Corp, Syracuse .... N Y
R C L Electronics Inc, Irvington .... N J
Reon Resistor Corp, Yonkers .... N Y
Resistance Products Co, Harrisburg .... Pa
Rho Engineering Co, Los Angeles .... Cal
RLC Electronics Inc, Port Chester .... N Y
Rohde & Schwarz Sales Co USA Inc, Passaic .... N J
Singer Co, Metrics Div, Bridgeport .... Conn
Stelma Inc, Stamford .... Conn
Stoddart Electro Systems, Gardena .... Cal
Sweep Systems Inc, Indianapolis .... Ind
Tech Laboratories Inc, Palisades Park .... N J
Telonic Instruments Div Telonic Indus Inc Beech Grove .... Ind
Texscan Corp, Indianapolis .... Ind
TRG Div Control Data Corp, East Boston .... Mass
Varian, Palo Alto .... Cal

Waveline Inc, West Caldwell	N J
Weinschel Engineering Co Inc, Gaithersburg	Md
Welwyn Electric Ltd, Northumberland	England
Welwyn International Inc, Westlake	Ohio
Winslow Tele-Tronics Inc, Asbury Park	NJ

ATTENUATORS--I-F

DAVEN DIV MCGRAW-EDISON CO, MANCHESTER	**N H**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
LEL DIV VARIAN ASSOCIATES, COPIAGUE	**N Y**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
TECH LABORATORIES INC, PALISADES PARK	**N J**
TEXSCAN CORP, INDIANAPOLIS	**IND**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Ad-Yu Electronics Inc, Passaic	N J
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Applied Research, Inc, Port Washington	N Y
Arenberg Ultrasonic Lab, Inc, Jamaica Plain	Mass
Arra, Inc, Bayshore	NY
Astrolab Inc, Linden	N J
Aul Instruments Inc, Long Island City	NY
Daven Div McGraw-Edison Co, Manchester	N H
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam	N Y
Film Components Div Reon Resister Corp, Yonkers	N Y
Fujitsu Ltd, Tokyo	Japan
General Microwave Corp, Farmingdale	N Y
Jerrold Electronics Corp, Philadelphia	Pa
Kay Electric Co, Pine Brook	N J
Lel Div Varian Associates, Copiague	N Y
Marconi Instruments Div, English Electric Corp Englewood	N J
Measurements A McGraw-Edison Div, Boonton	N J
Merrimac Research & Development Inc West Caldwell,	N J
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Muirhead Instruments Inc, Mountainside	N J
Narda Microwave Corp, Plainview	N Y
Nytronics Inc, Berkeley Heights	N J
Nytronics Inc, Precision Resistor Div, Kutztown	Pa
Ottawa, Paris	France
Phelps Dodge Electronic Products Corp North Haven	Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
R H G Electronics Lab Inc, Farmingdale	N Y
Standard Telephones & Cables Ltd London WC 2	England
Sweep Systems Inc, Indianapolis	Ind
Tech Laboratories Inc, Palisades Park	N J
Telonic Instruments Div Telonic Indus Inc Beech Grove	Ind
Texscan Corp, Indianapolis	Ind
TRW Electronic Components Div TRW Inc, Camden	N J
Weinschel Engineering Co Inc, Gaithersburg	Md
Welwyn International Inc, Westlake	Ohio
White Electromagnetics Inc, Rockville	Md
Wiltron Co, Palo Alto	Cal

ATTENUATORS--IMPEDANCE MATCHING

CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE	**WIS**
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER	**N H**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
RADAR DESIGN CORP, SYRACUSE	**N Y**
TECH LABORATORIES INC, PALISADES PARK	**N J**
TEXSCAN CORP, INDIANAPOLIS	**IND**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Ad-Yu Electronics Inc, Passaic	N J
Airmec Instruments Ltd, Buckinghamshire	England
Allen-Bradley Co, Milwaukee	Wis
Altec Lansing Div LTV Ling Altec Inc, Anaheim	Cal
Applied Research, Inc, Port Washington	N Y
Astrolab Inc, Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
Aviel Electronics, Inc, Van Nuys	Cal
Barwood Electronics, Inc, Glendale	Cal
Bayly Engineering Ltd, Ajax	Ontario
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Clarostat Mfg Co Inc, Dover	N H
Coax Devices, Chelsea	Mass
Condor Industrial Corp, West Chicago	Ill
Daven Div McGraw-Edison Co, Manchester	N H
Ecco Electronic Components Corp, Mount Vernon	N Y
Fujitsu Ltd, Tokyo	Japan
General Microwave Corp, Farmingdale	N Y
General Resistance Inc, New York	NY
Greenpar Engineering Ltd, Electronics Div Essex	England
Hewlett-Packard, Palo Alto	Cal
Holland Electronics, Brooklyn	N Y
Jerrold Electronics Corp, Philadelphia	Pa
Measurements A McGraw-Edison Div, Boonton	N J
Merrimac Research & Development Inc West Caldwell,	N J
Microwave Labs of America, Brooklyn	N Y
Nytronics Inc, Berkeley Heights	N J
Nytronics Inc, Precision Resistor Div, Kutztown	Pa
Ottawa, Paris	France
Phelps Dodge Electronic Products Corp North Haven	Conn
Radar Design Corp, Syracuse	N Y
Resistance Products Co, Harrisburg	Pa
Rho Engineering Co, Los Angeles	Cal
RLC Electronics Inc, Port Chester	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Stoddart Electro Systems, Gardena	Cal
Tech Laboratories Inc, Palisades Park	N J

Texscan Corp, Indianapolis	Ind
Weinschel Engineering Co Inc, Gaithersburg	Md
Welwyn Electric Ltd, Northumberland	England
Welwyn International Inc, Westlake	Ohio
Winslow Tele-Tronics Inc, Asbury Park	NJ

ATTENUATORS--LOGARITHMIC

DAVEN DIV MCGRAW-EDISON CO, MANCHESTER	**N H**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
Altec Lansing Div LTV Ling Altec Inc, Anaheim	Cal
Arenberg Ultrasonic Lab, Inc, Jamaica Plain	Mass
Astrolab Inc, Linden	N J
Brys Instrument Corp, Brooklyn	N Y
Daven Div McGraw-Edison Co, Manchester	N H
General Microwave Corp, Farmingdale	N Y
Jerrold Electronics Corp, Philadelphia	Pa
Nytronics Inc, Berkeley Heights	N J
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Resistance Products Co, Harrisburg	Pa
Rho Engineering Co, Los Angeles	Cal
Wandel & Goltermann/Tel-Com, Hanover	N J

ATTENUATORS--MICROWAVE

ALUMINUM DESIGN CORP, BROOKFIELD	**ILL**
AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE	**NY**
AMPHENOL, DANBURY	**CONN**
ANAREN MICROWAVE INC, SYRACUSE	**N Y**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	**ADV PGS 58,59**
FERROTEC INC, NEWTON	**MASS**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
RADAR DESIGN CORP, SYRACUSE, N Y	**ADV PG 57**
TEXSCAN CORP, INDIANAPOLIS	**IND**
TRANSCO PRODUCTS INC, VENICE	**CAL**
TRG DIV CONTROL DATA CORP, EAST BOSTON MASS	**ADV PG 418**
UNIFORM TUBES INC, COLLEGEVILLE	**PA**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG MD	**ADV PG 57**
Ad-Yu Electronics Inc, Passaic	N J
Aircom Inc, Union	N H
Airtec Inc, Roselle	N J
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alford Mfg Co, Winchester	Mass
Alfred Electronics, Palo Alto	Cal

SUPERIOR
COAXIAL
ATTENUATORS

DC-18 GHz

- precision
fixed attenuators
- precision
attenuator sets
- precision
continuously
variable attenuators
- precision
miniature
motorized
stepattenuators

*Designers and
Manufacturers of Precision
Microwave Equipment*

WEINSCHEL
ENGINEERING

Gaithersburg, Md. 20760
Tel: (301) 948-3434
TWX: 710-828-9705

ATTENUATORS

FIXED, Coaxial
Complete coverage
0-10 Gc/s
Rugged and reliable

D5033
VSWR: 1.20 Max.
Polarity: Bi-Directional
(Jack is Input)
Peak Power: 3 KW
Environmental: Per
Mil-E-5272B

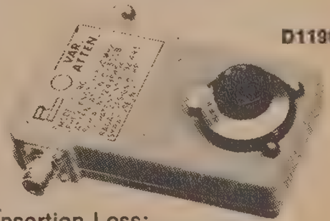
VSWR: 1.25 Max.
Polarity:
Bi-Directional
Peak Power: 2 KW
Environmental:
Per Mil-E-5272B
Connectors:
Type N Plug/Jack
D5019

VARIABLE, Coaxial
Low VSWR
Economically priced

D5165

Frequency: 2-12 GHz
Insertion Loss: 0.5 db Max. to 10.0 GHz
Impedance: 50 OHMS
VSWR: 1.33 (1.15 Typical)
Connectors Available: OSM, N, TNC, Plugs and/or Jacks
Readout: Turns, counting dial-100 div/turn
Body Size: 5⅝" x 3⅞" x 1⁵⁄₁₆"
Weight: 2 lbs., 8 oz.
Finish: Gray enamel or black and gray wrinkle
Power: 5 Watts Avg.
Rack mounting holes available on request

D1136



Insertion Loss:
0.3 db Max. 0-500 MHz
0.8 db Max. 0-1000 MHz
VSWR: 1.5 Max. (Calib. Range)
Power: 3 Watts Avg. (2 KW Peak)
Impedance: 50 OHMS (75 and 90 OHMS available)
Accuracy: (10 db model) 0.85 db
(20 db model) 1.0 db
Body Size: 6¹⁄₁₆" x 3¾" x 1⅛"
Weight: 2/25 lbs.
Finish: Gray epoxy enamel

Send for complete information . . .
RADAR DESIGN
CORPORATION
510 PICKARD DR ■ SYRACUSE, N.Y 13211
PHONE· 315-454-4418

Now, a new important, expanded

Struthers ELECTRONICS

Struthers: Prime source for systems and subsystems

The new advances in microwave technology have made integrated microwave subsystems completely feasible. In fact, today's complex microwave components, no longer considered laboratory curiosities, make the integrated microwave system a "must" for sophisticated electronic systems.

Today, every program is QRC, and both schedules and Pert control techniques are employed in order to adapt to the volatile electronics industry.

Struthers Electronics corporation has the capability to answer the latest demands, as well as the required engineering and manufacturing techniques. And the Douglas division of Struthers Electronics, using microwave module concepts, has developed integrated microwave systems and subsystems. Now, we have the organization to provide you with both microwave modules and systems. Please send us your requirements.

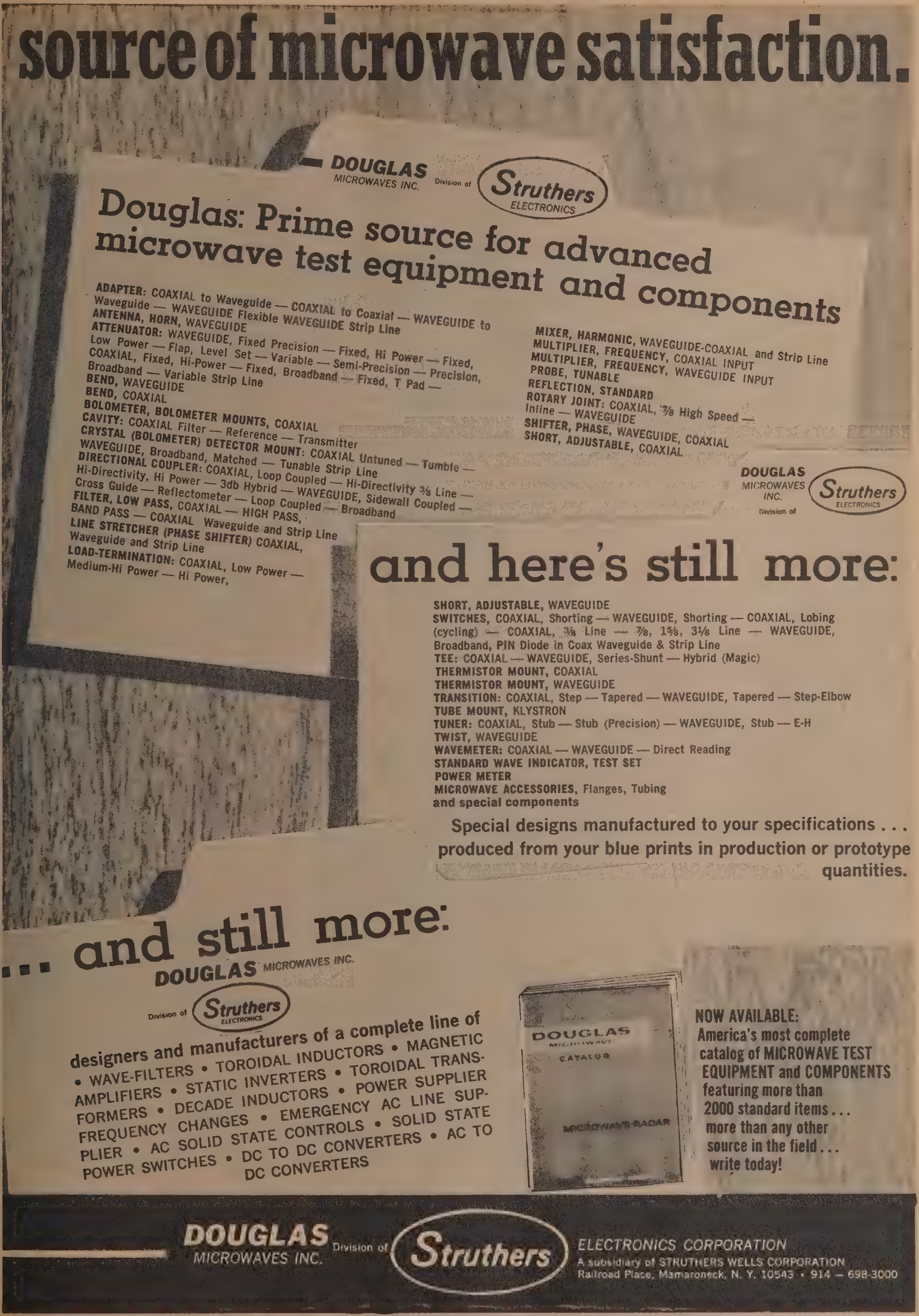
Struthers ELECTRONICS

...and here's more:

Areas of system and program capability

- RF TEST SET
- GROUND SUPPORT AND INTEGRATED BUILT IN TEST SYSTEMS
- CHECKOUT SYSTEMS FOR RADARS
- CONTROL MONITOR SYSTEMS
- ELINT RECEIVING SYSTEMS
- RECONNAISSANCE RECEIVING SYSTEMS
- PENETRATION AID RECEIVERS SYSTEMS
- METEOROLOGICAL RADAR SYSTEMS
- TUNABLE RF DISCRIMINATORS
- PROXIMITY FUSE JAMMING SYSTEM
- VOICE COMMUNICATION JAMMING SYSTEM
- SIGNAL GENERATORS
- CLOUD HEIGHT RADAR SYSTEMS
- MODULATING SYSTEMS FOR SOPHISTICATED TRANSMITTERS
- BEACON SYSTEMS
- POWER MONITORING SYSTEMS
- SPECTRUM ANALYZER AND PULSE ANALYSIS DISPLAY SYSTEM

Struthers *ELECTRONICS CORPORATION*
A subsidiary of STRUTHERS WELLS CORPORATION
Railroad Place, Mamaroneck, N. Y. 10543 • 914 — 698-3000



source of microwave satisfaction.

DOUGLAS MICROWAVES INC. Division of **Struthers** ELECTRONICS

Douglas: Prime source for advanced microwave test equipment and components

ADAPTER: COAXIAL to Waveguide — COAXIAL to Coaxial — WAVEGUIDE to Waveguide — WAVEGUIDE Flexible WAVEGUIDE Strip Line
ANTENNA, HORN, WAVEGUIDE
ATTENUATOR: WAVEGUIDE, Fixed Precision — Fixed, Hi Power — Fixed, Low Power — Flap, Level Set — Variable — Semi-Precision — Precision, COAXIAL, Fixed, Hi-Power — Fixed, Broadband — Fixed, T Pad — Broadband — Variable Strip Line
BEND, WAVEGUIDE
BEND, COAXIAL
BOLOMETER, BOLOMETER MOUNTS, COAXIAL
CAVITY: COAXIAL Filter — Reference — Transmitter
CRYSTAL (BOLOMETER) DETECTOR MOUNT: COAXIAL Untuned — Tumble — WAVEGUIDE, Broadband, Matched — Tunable Strip Line
DIRECTIONAL COUPLER: COAXIAL, Loop Coupled — Hi-Directivity ⅜ Line — Hi-Directivity, Hi Power — 3db Hybrid — WAVEGUIDE, Sidewall Coupled — Cross Guide — Reflectometer — Loop Coupled — Broadband
FILTER, LOW PASS, COAXIAL — HIGH PASS, BAND PASS — COAXIAL Waveguide and Strip Line
LINE STRETCHER (PHASE SHIFTER) COAXIAL, Waveguide and Strip Line
LOAD-TERMINATION: COAXIAL, Low Power — Medium-Hi Power — Hi Power,

MIXER, HARMONIC, WAVEGUIDE-COAXIAL and Strip Line
MULTIPLIER, FREQUENCY, COAXIAL INPUT
MULTIPLIER, FREQUENCY, WAVEGUIDE INPUT
PROBE, TUNABLE
REFLECTION, STANDARD
ROTARY JOINT: COAXIAL, ⅞ High Speed — Inline — WAVEGUIDE
SHIFTER, PHASE, WAVEGUIDE, COAXIAL
SHORT, ADJUSTABLE, COAXIAL

DOUGLAS MICROWAVES INC. Division of **Struthers** ELECTRONICS

and here's still more:

SHORT, ADJUSTABLE, WAVEGUIDE
SWITCHES, COAXIAL, Shorting — WAVEGUIDE, Shorting — COAXIAL, Lobing (cycling) — COAXIAL, ⅜ Line — ⅞, 1⅝, 3⅛ Line — WAVEGUIDE, Broadband, PIN Diode in Coax Waveguide & Strip Line
TEE: COAXIAL — WAVEGUIDE, Series-Shunt — Hybrid (Magic)
THERMISTOR MOUNT, COAXIAL
THERMISTOR MOUNT, WAVEGUIDE
TRANSITION: COAXIAL, Step — Tapered — WAVEGUIDE, Tapered — Step-Elbow
TUBE MOUNT, KLYSTRON
TUNER: COAXIAL, Stub — Stub (Precision) — WAVEGUIDE, Stub — E-H
TWIST, WAVEGUIDE
WAVEMETER: COAXIAL — WAVEGUIDE — Direct Reading
STANDARD WAVE INDICATOR, TEST SET
POWER METER
MICROWAVE ACCESSORIES, Flanges, Tubing
and special components

Special designs manufactured to your specifications . . . produced from your blue prints in production or prototype quantities.

... and still more:

DOUGLAS MICROWAVES INC. Division of **Struthers** ELECTRONICS

designers and manufacturers of a complete line of • WAVE-FILTERS • TOROIDAL INDUCTORS • MAGNETIC AMPLIFIERS • STATIC INVERTERS • TOROIDAL TRANSFORMERS • DECADE INDUCTORS • POWER SUPPLIER FREQUENCY CHANGES • EMERGENCY AC LINE SUPPLIER • AC SOLID STATE CONTROLS • SOLID STATE POWER SWITCHES • DC TO DC CONVERTERS • AC TO DC CONVERTERS

NOW AVAILABLE:
America's most complete catalog of MICROWAVE TEST EQUIPMENT and COMPONENTS featuring more than 2000 standard items . . . more than any other source in the field . . . write today!

DOUGLAS MICROWAVES INC. Division of **Struthers** ELECTRONICS CORPORATION
A subsidiary of STRUTHERS WELLS CORPORATION
Railroad Place, Mamaroneck, N. Y. 10543 • 914 — 698-3000

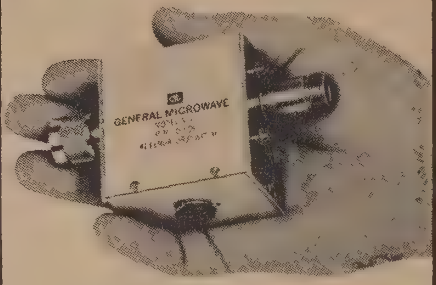
Alpha Industries Inc, Newton Upper Falls	Mass
Aluminum Design Corp, Brookfield	Ill
Amerac, Inc, Beverly	Mass
Americon Corp, Waltham	Mass
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Amphenol, Danbury	Conn
Anaren Microwave Inc, Syracuse	N Y
Applied Research, Inc, Port Washington	N Y
Arra, Inc, Bayshore	NY
Astrolab Inc, Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
Aviel Electronics, Inc, Van Nuys	Cal
Barth Electronics, Inc, Cleveland	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp, Microwave Devices Div, Franklin	Ind
Canoga Electronics Corp, Chatsworth	Cal
Cardwell Condenser Corp, Lindenhurst	N Y
Coax Devices, Chelsea	Mass
Core-Tronics, Inc, Orange	N J
Culbertson Products Inc, Bernardsville	N J
Custom Materials Inc, Chelmsford	Mass
Decca Radar, Inc, New York	N Y
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Diamond Antenna & Microwave Corp, Winchester	Mass
Don Bosco Electronics Inc, Hanover	N J
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Eastern Microwave Corp, Winchester	Mass
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electromagnetic Technology Corp, Mountain View	Cal
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam	N Y
Electronic Specialty Co, Los Angeles	Cal
Electronic Standards Corp, Plainfield	N J
Elpac Inc Systems Div RF, Irvine	Cal
EMC Technology Inc, Philadelphia	Pa
Emerson & Cuming Inc, Canton	Mass
E & M Labs, North Hollywood	Cal
Ferrotec Inc, Newton	Mass
Film Components Div Reon Resister Corp, Yonkers	N Y
Filmohm Corp, Long Island City	N Y
Fujitsu Ltd, Tokyo	Japan
General Microwave Corp, Farmingdale	N Y
General Radio Co, West Concord	Mass
Gombos Microwave Inc, Clifton	N J
Greenpar Engineering Ltd, Electronics Div Essex	England
Gremar Mfg Co Inc, Wakefield	Mass
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hewlett-Packard, Palo Alto	Cal
Hyletronics Corp, Wilmington	Mass
Jerrold Electronics Corp, Philadelphia	Pa
Kay Electric Co, Pine Brook	N J
Lieco Inc, West Babylon	N Y
Litton Industries, Electron Tube Div, San Carlos	Cal
Maury Microwave Corp, Montclair	Cal
MCS Corp, Monrovia	Cal
Meca Electronics, Inc, Denville	N J
Meridian Metalcraft Inc, Whittier	Cal
Merrimac Research & Development Inc West Caldwell,	N J
Microlab/F X R, Livingston	N J
Micromega Div Amphenol Corp, Venice	Cal
Micrometals Inc, Sierra Madre	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Micro-Radionics Inc, Van Nuys	Cal
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Development Labs Inc Needham Heights	Mass
Microwave Filter Co Inc, East Syracuse	NY
Microwave Labs of America, Brooklyn	N Y
Microwave Products Inc, Chatsworth	Cal
M-O Valve Co Ltd, Hammersmith, London W6	Eng
M Tech Corp, Pomona	Cal
Narda Microwave Corp, Plainview	N Y
Neico Microwave Co, Waltham	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Nytronics Inc, Berkeley Heights	N J
O'Dell Brothers, Mountain View	Cal
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Omega Laboratories Inc, Rowley	Mass
Omni Spectra Inc, Farmington	Mich
Ottawa, Paris	France
Phelps Dodge Electronic Products Corp North Haven	Conn
Philco-Ford Corp, Washington	D C
Polarad Electronic Instruments Div Long Island City	N Y
Portchester Instrument Corp, Port Chester	N Y
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Premier Microwave Corp, Port Chester	N Y
Pyroferric-New York, Inc, New York	N Y
Quantatron Div, Teledyne Inc, Santa Monica	Cal
Radar Design Corp, Syracuse	N Y
Radiation Systems Inc, McLean	Va
Ramcor Inc, Huntington	NY
Rantec Div Emerson Electric Co, Calabasas	Cal
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Reon Resistor Corp, Yonkers	N Y
RLC Electronics Inc, Port Chester	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Sanders Associates, Inc, Nashua	N H
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst	NY
Singer Co, Metrics Div, Bridgeport	Conn
Somerset Radiation Lab Inc, Arlington	Va
Standard Telephones & Cables Ltd London WC 2	England
Stoddart Electro Systems, Gardena	Cal
Sweep Systems Inc, Indianapolis	Ind
Texscan Corp, Indianapolis	Ind
Transco Products Inc, Venice	Cal
TRG Div Control Data Corp, East Boston	Mass
Uniform Tubes Inc, Collegeville	Pa
Vac-Ohm Electronics Co, Haddonfield	N J
Varian, Palo Alto	Cal
Vector Industries A Teledyne Co, Palo Alto	Cal
Victor R F & Microwave Co, Wakefield	Mass
Waveline Inc, West Caldwell	N J
Weinschel Engineering Co Inc, Gaithersburg	Md
Welwyn Electric Ltd, Northumberland	England
Western Microwave Labs Inc, Santa Clara	Cal
Wiltron Co, Palo Alto	Cal
Winslow Tele-Tronics Inc, Asbury Park	NJ

ATTENUATORS--PIN DIODE

GENERAL MICROWAVE CORP, FARMINGDALE N Y	**ADV PG 60**
General Microwave Corp, Farmingdale	N Y

MICROWAVE

PIN DIODE COAXIAL ATTENUATOR/MODULATOR/SWITCH



.05 to 8.0 GHz Frequency

Model N172A-L features built-in driver with logarithmic transfer function for accurate control of attenuation level by means of a single input DC voltage—at rate of 10 dB per volt, linear to ± 1 dB. Dynamic range is 35 dB. Typical applications include: continuously variable or programmable attenuator; amplitude modulator. Model N172A-S has built-in module for switching speeds as fast as 20 nsec. All models feature low insertion loss, low VSWR, flat attenuation characteristics, small size: 1.7" x 2.3" x 2.3". Other models with dynamic ranges to 110 dB and frequencies to 12.4 GHz are available.

GENERAL MICROWAVE CORPORATION

155 Marine St . Farmingdale, N. Y. • 516 694 3600

ATTENUATORS--R-F

ALUMINUM DESIGN CORP, BROOKFIELD	**ILL**
ANAREN MICROWAVE INC, SYRACUSE	**N Y**
BIRD ELECTRONIC CORP, CLEVELAND (SOLON)	**OHIO**
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER N H	**ADV PG 60**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	**ADV PGS 58,59**
FERROTEC INC, NEWTON	**MASS**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
RADAR DESIGN CORP, SYRACUSE	**N Y**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
TECH LABORATORIES INC, PALISADES PARK	**N J**
TEXSCAN CORP, INDIANAPOLIS	**IND**
UNIFORM TUBES INC, COLLEGEVILLE	**PA**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Ad-Yu Electronics Inc, Passaic	N J
Airmec Instruments Ltd, Buckinghamshire	England
Aluminum Design Corp, Brookfield	Ill
Ameco Inc, Phoenix	Ariz
Americon Corp, Waltham	Mass
Anaren Microwave Inc, Syracuse	N Y
Ando Electric Co Ltd, Ohta-ku, Tokyo	Japan
Applied Research, Inc, Port Washington	N Y
Arra, Inc, Bayshore	NY
Astrolab Inc, Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
Aviation Electric Ltd, St Laurent, Montreal	Que
Aviel Electronics, Inc, Van Nuys	Cal
Barth Electronics, Inc, Cleveland	Ohio
Bendix Corp, Microwave Devices Div, Franklin	Ind
Bird Electronic Corp, Cleveland (Solon)	Ohio
Blonder-Tongue Labs Inc, Newark	N J
Core-Tronics, Inc, Orange	N J
Culbertson Products Inc, Bernardsville	N J
Custom Materials Inc, Chelmsford	Mass
Daven Div McGraw-Edison Co, Manchester	N H
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Dumont Mobile Communications Div LTV Ling Altec Inc Anaheim	Cal
Ecco Electronic Components Corp, Mount Vernon	N Y
Electro Impulse Lab Inc, Red Bank	N J
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam	N Y
Electronic Applications Co, Pine Brook	N J
Electronic Specialty Co, Los Angeles	Cal
Entron Inc, Silver Spring	Md
Ferrotec Inc, Newton	Mass
Film Components Div Reon Resister Corp, Yonkers	N Y
Filmohm Corp, Long Island City	N Y
Finney Co, Bedford	Ohio
Fujitsu Ltd, Tokyo	Japan
General Microwave Corp, Farmingdale	N Y
General Radio Co, West Concord	Mass
General RF Fittings Inc, Port Salerno	Fla
Greenpar Engineering Ltd, Electronics Div Essex	England
Gremar Mfg Co Inc, Wakefield	Mass
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hewlett-Packard, Palo Alto	Cal
Hexcel, Dublin	Cal
Holland Electronics, Brooklyn	N Y
Honeywell Test Instruments Div, Denver	Colo
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Jerrold Electronics Corp, Philadelphia	Pa
Kay Electric Co, Pine Brook	N J
Kings Electronics Co Inc, Tuckahoe	N Y
Kyoritsu Electric Works Ltd, Tokyo	Japan
Lab Electro-Acoustique, 92 Rueil-Malmaison	France
Litton Industries, Electron Tube Div, San Carlos	Cal
Lorch Electronics Corp, Englewood	N J
Marconi Instruments Div, English Electric Corp Englewood	N J
Maury Microwave Corp, Montclair	Cal
Measurements A McGraw-Edison Div, Boonton	N J
Meca Electronics, Inc, Denville	N J
Meridian Metalcraft Inc, Whittier	Cal
Merrimac Research & Development Inc West Caldwell,	N J
Micromega Div Amphenol Corp, Venice	Cal
Micro-Radionics Inc, Van Nuys	Cal

attenuators

R.F.

Precision attenuators and special devices for operating over the frequency range of D.C. to 500 MC and higher. R.F. attenuators include: rotary; miniature rotary (single, dual); multi-dial assemblies; precision coaxial multi-dial rotary; fixed pad; remote programmable; high impedance step; electronic attenuator and switch. Specials include: switch matrices; bias and power pads; automatic programming; switch assemblies; power splitters; step delay assemblies; attenuator test instrument. Catalog RFA768.

DAVEN McGRAW-EDISON

DIVISION OF THOMAS A. EDISON INDUSTRIES
GRENIER FIELD, MANCHESTER, N.H. 03103
(603) 669-0940 • TWX 710-220-1747

Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
M Tech Corp, Pomona	Cal
Muirhead Instruments Inc, Mountainside	N J
Narda Microwave Corp, Plainview	N Y
New London Instr Co Div Crescent Comm Corp Newton	Mass
Nytronics Inc, Berkeley Heights	N J
Nytronics Inc, Precision Resistor Div, Kutztown	Pa
Philco-Ford Corp, Washington	D C
Portchester Instrument Corp, Port Chester	N Y
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Premier Microwave Corp, Port Chester	N Y
Radar Design Corp, Syracuse	N Y
Radio Research Co, Rockaway	NJ
Rantec Div Emerson Electric Co, Calabasas	Cal
Relcom, Mountain View	Cal
R H G Electronics Lab Inc, Farmingdale	N Y
RLC Electronics Inc, Port Chester	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Scientific-Atlanta Inc, Atlanta	Ga
Seven Associates Inc, Sunnyvale	Cal
Singer Co, Metrics Div, Bridgeport	Conn
Spencer-Kennedy Labs Inc, Boston	Mass
Standard Telephones & Cables Ltd London WC 2	England
Stoddart Electro Systems, Gardena	Cal
Sweep Systems Inc, Indianapolis	Ind
Tech Laboratories Inc, Palisades Park	N J
Tel-Com Instruments Inc, Hanover	N J
Telonic Instruments Div Telonic Indus Inc Beech Grove	Ind
Texscan Corp, Indianapolis	Ind
Uniform Tubes Inc, Collegeville	Pa
Victor R F & Microwave Co, Wakefield	Mass
Vikoa Inc, Hoboken	N J
Wald Sound, Sun Valley	Cal
Wandel & Goltermann/Tel-Com, Hanover	N J
Waveline Inc, West Caldwell	N J
Weinschel Engineering Co Inc, Gaithersburg	Md
Welwyn Electric Ltd, Northumberland	England
White Electromagnetics Inc, Rockville	Md
Wiltron Co, Palo Alto	Cal
Winslow Tele-Tronics Inc, Asbury Park	NJ

ATTENUATORS--TELEVISION

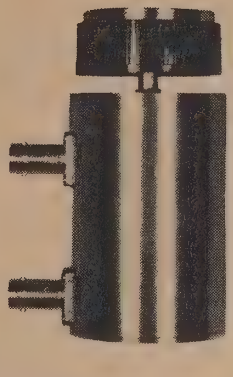
DX ANTENNA CO LTD, HYOGO-KU, KOBE	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TEXSCAN CORP, INDIANAPOLIS	**IND**
Ad-Yu Electronics Inc, Passaic	N J
Ameco Inc, Phoenix	Ariz
Astrolab Inc, Linden	N J
Benco Television Assoc Div Redifon Can Ltd Rexdale	Ont
Blonder-Tongue Labs Inc, Newark	N J
DX Antenna Co Ltd, Hyogo-Ku, Kobe	Japan
Electronic Applications Co, Pine Brook	N J
Entron Inc, Silver Spring	Md
Fairlane Electronics, Inc, Long Valley	N J
Finney Co, Bedford	Ohio
Holland Electronics, Brooklyn	N Y
Jerrold Electronics Corp, Philadelphia	Pa
Nippon Electric Co Ltd, Tokyo	Japan
Telonic Instruments Div Telonic Indus Inc Beech Grove	Ind
Texscan Corp, Indianapolis	Ind
Welwyn Electric Ltd, Northumberland	England

ATTENUATORS--TURRET

DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	**ADV PGS 58,59**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
RADAR DESIGN CORP, SYRACUSE	**N Y**
TECH LABORATORIES INC, PALISADES PARK	**N J**
TEXSCAN CORP. INDIANAPOLIS	**IND** **ADV PG 61**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Arra, Inc, Bayshore	NY
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam	N Y
Filmohm Corp, Long Island City	N Y
General Microwave Corp, Farmingdale	N Y
Herley Industries, Inc, Westbury	N Y
Hewlett-Packard, Palo Alto	Cal
Jerrold Electronics Corp, Philadelphia	Pa
Kay Electric Co, Pine Brook	N J
Microwave Associates Inc, Burlington	Mass
Narda Microwave Corp, Plainview	N Y
Ottawa, Paris	France
Radar Design Corp, Syracuse	N Y
RLC Electronics Inc, Port Chester	N Y
Singer Co, Metrics Div, Bridgeport	Conn
Stoddart Electro Systems, Gardena	Cal
Sweep Systems Inc, Indianapolis	Ind
Tech Laboratories Inc, Palisades Park	N J
Telonic Instruments Div Telonic Indus Inc Beech Grove	Ind
Texscan Corp, Indianapolis	Ind
Weinschel Engineering Co Inc, Gaithersburg	Md
Winslow Tele-Tronics Inc, Asbury Park	NJ

Attenuators

- ROTARY
- ROCKER SWITCH
- DC—4 GHz
- FIXED



Texscan
CORPORATION
2446 North Shadeland Avenue
Indianapolis, Indiana 46219
Phone (317) 357-8781
TWX: 810-341-3184

ATTENUATORS--VIDEO

DAVEN DIV MCGRAW-EDISON CO, MANCHESTER	**N H**
INTRONICS INC, NEWTON	**MASS**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TEXSCAN CORP, INDIANAPOLIS	**IND**
Ad-Yu Electronics Inc, Passaic	N J
Applied Research, Inc, Port Washington	N Y
Astrolab Inc, Linden	N J
Dalto Electronics Corp, Norwood	N J
Daven Div McGraw-Edison Co, Manchester	N H
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam	N Y
Electronic Applications Co, Pine Brook	N J
Fairlane Electronics, Inc, Long Valley	N J
Finney Co, Bedford	Ohio
Holland Electronics, Brooklyn	N Y
Intronics Inc, Newton	Mass
Jerrold Electronics Corp, Philadelphia	Pa
Kay Electric Co, Pine Brook	N J
Nippon Electric Co Ltd, Tokyo	Japan
Telonic Instruments Div Telonic Indus Inc Beech Grove	Ind
Texscan Corp, Indianapolis	Ind
Welwyn Electric Ltd, Northumberland	England

ATTENUATORS--VOLTAGE CONTROLLED

ANAREN MICROWAVE INC, SYRACUSE	**N Y**
DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INTRONICS INC, NEWTON	**MASS**
LEL DIV VARIAN ASSOCIATES, COPIAGUE	**N Y**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
American Aerospace Controls Inc, Farmingdale	N Y
Anaren Microwave Inc, Syracuse	N Y
Anidus Engineering, Arlington	Mass
Anzac Electronics, Waltham	Mass
Automatic Metal Products Corp, Brooklyn	N Y
Bayly Engineering Ltd, Ajax	Ontario
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Dowa Trading Co Ltd, Kobe	Japan
Dranetz Engineering Labs Inc, Plainfield	N J
E & M Labs, North Hollywood	Cal
General Microwave Corp, Farmingdale	N Y
Hewlett-Packard, Palo Alto	Cal
Incor Inc, Plainview	N Y
Intronics Inc, Newton	Mass
Kay Electric Co, Pine Brook	N J
Lel Div Varian Associates, Copiague	N Y
Lorch Electronics Corp, Englewood	N J
Micromega Div Amphenol Corp, Venice	Cal
Microwave Associates Inc, Burlington	Mass
Mini-Circuits Lab, New York	N Y
North Hills Electronics Inc, Glen Cove	N Y
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Relcom, Mountain View	Cal
R H G Electronics Lab Inc, Farmingdale	N Y
Sprague Electric Co, North Adams	Mass
Straza Industries Div Ametek Inc, El Cajon	Cal
Tel-Com Instruments Inc, Hanover	N J
Wandel & Goltermann/Tel-Com, Hanover	N J
Waveline Inc, West Caldwell	N J

AUDIO SEE A-F LISTINGS

AUDIOMETERS

INTERELECTRONICS CORP, CONGERS	**N Y**
TRACOR INC, AUSTIN	**TEX**
Ambco Electronics, Los Angeles	Cal
Bausch & Lomb, Inc, Rochester	N Y
Beltone Electronics Corp, Chicago	Ill
Centroid Inc, Garden City Park	N Y
Eckstein Bros, Hawthorne	Cal
Electronic Homes Co, New York	N Y
ELIT-Elettronica Italiana S r l, 20151 Milan	Italy
Grason Stadler Co Inc, West Concord	Mass
Interelectronics Corp, Congers	N Y
Massey Dickinson Co Inc, Saxonville	Mass
Perfectone Sound Labs, Allendale	NJ
Princeton Applied Research Corp, Princeton	N J
Telex Communications Div, Minneapolis	Minn
Tracor Inc, Austin	Tex
Wac Line Div Simmonds Precision Prods, Dayton	Ohio

AUTOMATIC ALARM RECEIVERS SEE RECEIVERS--RADIO

AUTOMATIC ASSEMBLY SEE MACHINES

AUTOMATIC CHECKOUT EQUIPMENT SEE TEST SYSTEMS

AUTOMATIC CIRCUIT-TESTING BRIDGES SEE COMPARATORS

AUTOMATIC FEED MACHINES SEE MACHINES--AUTOMATIC FEED

AUTOMATIC POSITIONING CONTROLS SEE CONTROLS--POSITIONING

AUTOMATIC RECORD CHANGERS SEE PHONOGRAPHS

AUTOMATIC RESISTANCE COMPARATORS SEE COMPARATORS

AUTOMATIC TUNING CONTROLS SEE CONTROLS--AUTOMATIC TUNING

AUTOPILOTS--AIRBORNE

Aircraft Radio Corp, Boonton	N J
Aviation Electric Ltd, St Laurent, Montreal	Que
Bendix Corp Avionics Div, Fort Lauderdale	Fla
Bendix Corp Navigation & Control Div, Teterboro,	N J
Collins Radio Co, Dallas	Tex
Conductron Corp, Ann Arbor	Mich
Dynasciences Corp, Blue Bell	Pa
Gyrotron Corp, Waterbury	Conn
Kaiser-Aerospace & Electronics Corp, Palo Alto	Cal
Larson Aero Development, Concord	Cal
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Lek-Trol, Inc, Grapevine	Tex
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Smiths Industries North America Ltd, Jamaica	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Sperry Flight Systems Div Sperry Rand Corp Phoenix	Ariz

AUTOPILOTS--SHIP

Bendix Corp Electrodynamics Div, North Hollywood	Cal
CEC-Benmar, Santa Ana	Cal
Decca Radar, Inc, New York	N Y
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Garrett Corp, Los Angeles	Cal
Gyrotron Corp, Waterbury	Conn
Kidde & Co Inc, Walter, Belleville	N J
Konigsberg Electronics Inc, So San Francisco	Cal
Larson Aero Development, Concord	Cal
Raytheon Co, Marine Products Operation S San Francisco	Cal
Signet Scientific Co, Burbank	Cal

AUTO RADIOS SEE RECEIVERS--RADIO ENTERTAINMENT

AVIONIC EQUIPMENT--ALTIMETERS

COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
Aero Mechanism, Inc, Van Nuys	Cal
Aircraft Components Inc, Benton Harbor	Mich
Amecom Div Litton Industries, Silver Spring	Md
A & M Instruments Inc, Great Neck	N Y
Aviation Electric Ltd, St Laurent, Montreal	Que
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Bendix Corp, Flight & Engine Instr Div South Montrose	Pa
Canadian Marconi Co, Montreal 16	Quebec
Collins Radio Co, Dallas	Tex
Computer Instruments Corp, Hempstead	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Del Electronics Corp, Mt Vernon	N Y
Electronic Assistance Corp, Red Bank	N J
GPL Div Gen Precision Systems Inc, Pleasantville	N Y
Hartman Systems Co Inc, Huntington Station	N Y
Kollsman Instrument Corp, Syosset	N Y
Kollsman Instrument Ltd, Southampton	England
Laboratory for Electronics Inc Elctns Div, Boston	Mass
Lear Siegler Inc, Santa Monica	Cal
LFE Electronics Div, Lab for Electronics Inc Waltham	Mass
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Litton Systems (Canada) Ltd, Rexdale	Ont
NanoFast, Inc, Chicago	Ill
Occo Mfg Corp, South Hackensack	N J
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Servo Development Corp, Hicksville	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Space Craft Inc, Huntsville	Ala
Spectra-Physics, Mountain View	Cal
Sylvania Electronic Systems, Waltham	Mass
TRW Systems Group, Redondo Beach	Cal
Vega Precision Labs, Vienna	Va
Weston Instruments Div Weston Instr Inc, Newark	N J

AVIONIC EQUIPMENT--FLIGHT PANEL INSTRUMENTS

AMMON INSTRUMENTS INC, MANCHESTER	**N H**
BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
PARKER INSTRUMENT CORP, STAMFORD	**CONN**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Advanced Energy Conversion, Menlo Park	Cal
Aero Mechanism, Inc, Van Nuys	Cal
Aerospace Avionics Inc, Bohemia	NY
Aircraft Components Inc, Benton Harbor	Mich
Aircraft Radio Corp, Boonton	N J
A & M Instruments Inc, Great Neck	N Y
Ammon Instruments Inc, Manchester	N H
Astronautics Corp of America, Milwaukee	Wis
Automated Specialties A Teledyne Co Charlottesville	Va
Aviation Electric Ltd, St Laurent, Montreal	Que
Aviation Instrument Mfg Corp, Houston	Tex
Avien, Inc, Woodside	N Y
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Bendix Corp Environmental Science Div, Baltimore	Md
Bendix Corp, Flight & Engine Instr Div South Montrose	Pa
Bendix Corp Navigation & Control Div, Teterboro	N J
Bowmar Instrument Corp, Fort Wayne	Ind
Canadian Marconi Co, Montreal 16	Quebec
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Computer Instruments Corp, Hempstead	N Y
Conductron Corp, Ann Arbor	Mich
Consolidated Airborne Systems, Carle Place	N Y
Delta Products Inc, Grand Junction	Colo
Divac Electronics, Hawthorne	Cal
Dynamic Controls Corp, South Windsor	Conn
En-Cer Inc, South Holland	Ill
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Ferranti Electric Inc, Plainview	N Y
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
General Design Inc, Sun Valley	Cal
General Electric Co, ECSO, Schenectady	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
GPL Div Gen Precision Systems Inc, Pleasantville	N Y
Hartman Systems Co Inc, Huntington Station	N Y
Haydon Co The, A W, Waterbury	Conn
Howell Instruments Co, Fort Worth	Tex
International Instruments Div Sigma Instr Inc, Orange	Conn
Kahl Scientific Instrument Corp, El Cajon	Cal
Kaiser-Aerospace & Electronics Corp, Palo Alto	Cal
Kollsman Instrument Corp, Syosset	N Y
Kollsman Instrument Ltd, Southampton	England
Kollsman Motor Corp, Dublin	Pa
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Lewis Engineering Co, Naugatuck	Conn
Livingston Electronic Div Jettron Prods Inc Hanover	N J
National Water Lift Co, Instr & Control Oper Grand Rapids	Mich
Neptune Electronics Co, New York	N Y
Occo Mfg Corp, South Hackensack	N J
Oppenheimer, Inc, Willow Grove	Pa
Parker Instrument Corp, Stamford	Conn
Penn Keystone Corp, Ansonia	Conn
Photo Chemical Products Inc, Santa Monica	Cal
Precision Mechanisms Corp, Westbury	N Y
Servo Development Corp, Hicksville	N Y
Smiths Industries North America Ltd, Jamaica	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Sparton Southwest Inc, Albuquerque	NM
Sperry Flight Systems Div Sperry Rand Corp Phoenix	Ariz
Standard Precision Div Electronic Commun Inc Wichita	Kan
Stark Electronic Instruments Ltd, Ajax	Ont
Sunbeam Electronics, Fort Lauderdale	Fla
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
Telephonics Div, Instrument Systems Corp Huntington	NY
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Weston Instruments Div Weston Instr Inc, Newark	N J
Weston-Transicoil, Weston Instruments Inc Worcester	Pa
Whittaker Corp Technical Products Div, Chatsworth	Cal
Zaring Industries Inc, Carmel	Ind

AVIONIC EQUIPMENT--FLIGHT RECORDERS

KINELOGIC CORP, PASADENA	**CAL**
TRACOR INC, AUSTIN	**TEX**
American Astrionics Inc, Palo Alto	Cal
Astronautics Corp of America, Milwaukee	Wis
Aviation Electric Ltd, St Laurent, Montreal	Que
Avien, Inc, Woodside	N Y
Bendix Corp Navigation & Control Div, Teterboro	N J
Borg-Warner Controls Div Borg-Warner Corp Santa Ana	Cal
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Collins Radio Co, Dallas	Tex
Conductron Corp, Ann Arbor	Mich
Conrac Corp, New York	N Y
Data Science Corp, San Diego	Cal
Dynamco Ltd, Chertsey Surrey	Eng
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Industrial Products, Plainview	N Y
Garrett Corp, Los Angeles	Cal
General Instrument Corp Radio Receptor Div Hicksville	N Y
Itek Corp, Lexington	Mass
Kinelogic Corp, Pasadena	Cal
Kollsman Instrument Ltd, Southampton	England
Lear Siegler Inc, Santa Monica	Cal
Northrop Nortronics, Palos Verdes Peninsula	Cal
Precision Instrument Co, Palo Alto	Cal
Raymond Engineering Inc, Middletown	Conn
Reeves Instrument Div, DCA, Garden City	N Y
Sanders Associates, Inc, Nashua	N H
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Sunbeam Electronics, Fort Lauderdale	Fla
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
Thermionic Products Electronics Ltd Southampton	England
Tracor Inc, Austin	Tex
United Control Corp, Redmond	Wash
United Control-Data Div, South El Monte	Cal

AVIONIC EQUIPMENT--NAVIGATION

BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
PARKER INSTRUMENT CORP, STAMFORD	**CONN**
TRACOR INC, AUSTIN	**TEX**
Acco Gyro Div, Amer Chain & Cable Co Inc Waterbury	Conn
A C Electronics Div GM, Milwaukee	Wis
Advanced Energy Conversion, Menlo Park	Cal
Aircraft Components Inc, Benton Harbor	Mich
Aircraft Radio Corp, Boonton	N J
Astronautics Corp of America, Milwaukee	Wis
Aviation Electric Ltd, St Laurent, Montreal	Que
Avien, Inc, Woodside	N Y
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Becker Flugfunkwerk GMBH, 757 Baden-Baden-Oos	Germany
Bell Aerosystems Co, Buffalo	N Y
Bendix Corp Avionics Div, Fort Lauderdale	Fla
Bendix Corp Navigation & Control Div, Teterboro	N J
Bowmar Instrument Corp, Fort Wayne	Ind
Brelonix Inc, Seattle	Wash
Bruno-New York Industries Corp, New York	N Y
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Canadian Marconi Co, Montreal 16	Quebec
Collins Radio Co, Dallas	Tex
Conductron Corp, Ann Arbor	Mich
Consolidated Airborne Systems, Carle Place	N Y
Cosmos Industries Inc, Brooklyn	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dalmo Victor, A Textron Div, Belmont	Cal
Dinsmore Instrument Co, Flint	Mich
Edo Corp, College Point	NY
Electrospace Corp, Glen Cove	N Y
Ewen-Knight Corp, East Natick	Mass
Farrand Optical Co Inc, Bronx	N Y
Ferranti Electric Inc, Plainview	N Y
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
Gap Instrument Corp, Westbury	N Y
General Design Inc, Sun Valley	Cal
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Goodyear Aerospace Corp, Akron	Ohio
GPL Div Gen Precision Systems Inc, Pleasantville	N Y
Hartman Systems Co Inc, Huntington Station	N Y
Haydon Co The, A W, Waterbury	Conn
ITT Gilfillan Inc, Van Nuys	Cal
Janus Control Div Tyco, Waltham	Mass
Keltec Industries, Alexandria Div, Alexandria	Va
Kollsman Instrument Corp, Syosset	N Y
Kollsman Instrument Ltd, Southampton	England
Laboratory for Electronics Inc Elctns Div, Boston	Mass
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
LFE Electronics Div, Lab for Electronics Inc Waltham	Mass
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Litton Systems (Canada) Ltd, Rexdale	Ont
Livingston Electronic Div Jettron Prods Inc Hanover	N J
Loral Electronic Systems, Div Loral Corp New York	NY
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
M Ten Bosch, Inc, Pleasantville	N Y
Narco Avionics Div Natl Scientific Industries Fort Washington	Pa
Northrop Nortronics, Palos Verdes Peninsula	Cal
Nortronics Div, Northrop Corp, Prec Prods Dept Norwood	Mass
Parker Instrument Corp, Stamford	Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Quantic Industries Inc, San Carlos	Cal
RCA, Defense Electronic Products, Moorestown	N J
Reeves Instrument Div, DCA, Garden City	N Y
Regency Electronics Inc, Indianapolis	Ind
Rodale Electronics Inc, Garden City	NY
Sierra Research Corp, Buffalo	N Y
Sigma Systems Corp, Sub Applied Science Inc Dallas	Tex
Smiths Industries North America Ltd, Jamaica	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Standard Precision Div Electronic Commun Inc Wichita	Kan
Sunbeam Electronics, Fort Lauderdale	Fla
Sylvania Electronic Systems, Waltham	Mass
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
Topping Electronics Ltd, Toronto 17	Ont
Tracor Inc, Austin	Tex
TRW Systems Group, Redondo Beach	Cal
Vega Precision Labs, Vienna	Va
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Westinghouse Electric Corp, Aerospace Div Baltimore	Md
Wickes Industries Inc, Camden	N J
Wilcox Electric Co Inc, Kansas City	Mo
Zaring Industries Inc, Carmel	Ind

BACKWARD-WAVE OSCILLATORS SEE OSCILLATORS--MICROWAVE

BACKWARD-WAVE TUBES SEE TUBES--MICROWAVE

BALANCING MACHINES SEE MACHINES--BALANCING

BALLAST TUBES SEE TUBES--BALLAST

BALLISTIC VOLTMETERS SEE VOLTMETERS

BALUNS

DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
INDIANA GENERAL CORP ELECTRONICS DIV/FERRITES, KEASBEY	**N J**
NORTH HILLS ELECTRONICS INC, GLEN COVE N Y	
RADAR DESIGN CORP, SYRACUSE	**N Y**
TECHNITROL INC, PHILADELPHIA	**PA**
TRANSCO PRODUCTS INC, VENICE	**CAL**
Aerocom, Miami	Fla
ALA Industries Inc, Harrison	NY
Anidus Engineering, Arlington	Mass
Antenna Products Co Div All Products Co Mineral Wells	Tex
Anzac Electronics, Waltham	Mass
Astrolab Inc, Linden	N J
Blonder-Tongue Labs Inc, Newark	N J
Brown & Wiley Inc, Langhorne	Pa
Burns & Towne, Inc, Malden	Mass
Cambridge Thermionic Corp, Cambridge	Mass
Cardwell Condenser Corp, Lindenhurst	N Y
Central Coil Co Inc, Martinsville	Ind
Channel Master Corp, Ellenville	N Y
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Daytron Inc, Mountain View	Cal
Delta Coils, Philadelphia	Pa
Delta Electronics Inc, Alexandria	Va
Denki Kogyo Co Ltd, Tokyo	Japan
Edwin Industries Corp, Silver Spring	Md
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electronic Applications Co, Pine Brook	N J
Finney Co, Bedford	Ohio
Fugle-Miller Labs Inc, Kenilworth	N J
General Coil Products Corp, Brooklyn	N Y
General Instrument Corp Radio Receptor Div Hicksville	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
General Radio Co, West Concord	Mass
Granger Associates, Palo Alto	Cal
Guide Industries Inc, Sun Valley	Cal
Hy-Gain Electronic Corp, Lincoln	Neb
Hyletronics Corp, Wilmington	Mass
Icore Electro-Plastics, Sunnyvale	Cal
Indiana General Corp Electronics Div/Ferrites, Keasbey	N J
Jampro Antenna Co, Sacramento	Cal
Lindsay Specialty Products Ltd, Lindsay	Ontario
Measurements A McGraw-Edison Div, Boonton	N J
Merrimac Research & Development Inc West Caldwell,	N J
Micronetics Div Teledyne Systems Co, San Diego	Cal
Millen Mfg Co Inc, James, Malden	Mass
Miller Co, J W, Los Angeles	Cal
Montedoro Corp, San Luis Obispo	Cal
Multronics Inc, Rockville	Md
North Hills Electronics Inc, Glen Cove	N Y
Novatronics Inc, Pompano Beach	Fla
Phelps Dodge Electronic Products Corp North Haven	Conn
Radar Design Corp, Syracuse	N Y
Radio Research Co, Rockaway	NJ
Raven Electronics Inc, Burbank	Cal
Renco Electronics Inc, Hicksville	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Scala Radio Corp, San Leandro	Cal
Schjeldahl Co, G T, Northfield	Minn
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst	NY
Technical Materiel Corp, Mamaroneck	N Y
Technitrol Inc, Philadelphia	Pa
Telonic Instruments Div Telonic Indus Inc Beech Grove	Ind
Transco Products Inc, Venice	Cal
Vikoa Inc, Hoboken	N J
Waber Electronics Inc, Philadelphia	Pa

Forget the manufacturer's phone number?

Check the green pages.

BAND-ELIMINATION FILTERS SEE FILTERS

BANDPASS FILTERS SEE FILTERS

BARIUM COMPOUNDS

CLEVITE CORP PIEZOELECTRIC DIV, BEDFORD	**OHIO**
PFIZER MINERALS, PIGMENTS & METALS DIV NEW YORK	**NY**
Aceto Chemical Co, Inc, Flushing	NY
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Baker Chemical Co, J T, Phillipsburg	N J
Barium and Chemicals, Inc, Steubenville	Ohio
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerac Inc, Butler	Wis
City Chemical Corp, New York	N Y
Clevite Corp Piezoelectric Div, Bedford	Ohio
Edo Corp, College Point	NY
Gulton Industries Inc, Metuchen	N J
Keleket Div Laboratory For Electronics Inc Waltham	Mass
King Laboratories Inc, Syracuse	N Y
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Mallinckrodt Chemical Works, St Louis	Mo
3M Company, St Paul	Minn
Pfizer Minerals, Pigments & Metals Div, New York	NY
Rocky Mountain Research Inc, Denver	Colo
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Elements Inc, Saxonburg	Pa
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Corp Metal Hydrides Div, Beverly	Mass

BARIUM TITANATE CRYSTALS SEE CRYSTAL BLANKS;CRYSTALS--PIEZOELECTRIC

BARIUM TITANATES SEE TITANATES

BAROGRAPHS

Belfort Instrument Co, Baltimore	Md
Bendix Corp Environmental Science Div, Baltimore	Md
Bristol Div, American Chain & Cable Co Waterbury	Conn
Control Equipment Corp, Needham Heights	Mass
Datametrics Inc, Waltham	Mass
Epic Inc, New York	N Y
Hill Inc E Vernon, San Francisco	Cal
Kahl Scientific Instrument Corp, El Cajon	Cal
Schjeldahl Co, G T, Northfield	Minn
Taylor Instrument Cos, Rochester	N Y
Whittaker Corp Instrument Sys Div North Hollywood	Cal

BAROMETERS

Airguide Instrument Co, Chicago	Ill
Bendix Corp Environmental Science Div, Baltimore	Md
Bristol Div, American Chain & Cable Co Waterbury	Conn
Central Scientific Co, Chicago	Ill
Datametrics Inc, Waltham	Mass
Decker Corp, Bala Cynwyd	Pa
Epic Inc, New York	N Y
Exactel Instrument Co Div Statham Instrs Inc Mountain View	Cal
Gardner Lab Inc, Bethesda	Md
Hill Inc E Vernon, San Francisco	Cal
Ideal Aerosmith, Cheyenne	Wyo
Kahl Scientific Instrument Corp, El Cajon	Cal
Metox, Paris 20	France
MKS Instruments Inc, Burlington	Mass
Precision Thermometer & Instrument Co Southampton	Pa
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Statham Instruments Inc, Los Angeles	Cal
Taylor Instrument Cos, Rochester	N Y
Wallace & Tiernan Inc, Belleville	N J
Welch Scientific Co, Skokie	Ill

BARREL-PLATING SERVICES SEE PLATING SERVICES

BARRETTERS

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG MD	**ADV PG 63**
Anritsu Electric Co Ltd, Tokyo	Japan
Narda Microwave Corp, Plainview	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Weinschel Engineering Co Inc, Gaithersburg	Md

precision barretters & thermistors

WEINSCHEL BARR
1191P-A

ALL MODELS IN STOCK
- Constant Reliability
- Unvarying Stability
- High Sensitivity
- Interchangeability
- Symmetrical Assembly
- High Power Handling Capacity
- Choice of Bias Current
- Choice of Cartridge Styles
- No Dual Element Error

Designers and Manufacturers of Precision Microwave Equipment

WEINSCHEL ENGINEERING

Gaithersburg, Md. 20760
Tel: (301) 948-3434
TWX: 710-828-9705

BARS--BUS SEE BUS BAR SYSTEMS

BASES--DIODE & TRANSISTOR

BARNES CORP, LANSDOWNE	**PA**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
Alloys Unlimited Inc, Melville	N Y
Barnes Corp, Lansdowne	Pa
Bigelow Components Co, Newark	N J
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Crystal Components Saegertown Div GTI Corp Warren	Pa
Diebel Mfg Co, Morton Grove	Ill
Do-Rite Mfg Co, East Paterson	N J
Eimac Div, Varian Associates, San Carlos	Cal
Emporium Specialties Co Inc, Cleveland	Ohio
Epoxy Products Co Div Allied Prod Inc New Haven	Conn
Frenchtown/CFI Inc, Frenchtown	N J
Greenfield Components Corp, Greenfield	Mass
Hermetite Corp, Avon	Mass
Impectron Inc, New York	N Y
Isotronics Inc, New Bedford	Mass
Metal Ceram Inc, Mount Vernon	N Y
Metalized Ceramics Corp, Providence	R I
National Tel-Tronics Corp, Great Neck	N Y
Nippert Electric Products Co, Delaware	Ohio
Norrich Plastics Corp, Roosevelt	N Y
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Royal Worcester Industrial Ceramics Inc, New York	NY
Sanyo Electric Co Ltd, Osaka	Japan
Semi-Alloys Inc, Mt Vernon	N Y
Shelly Associates, Inc, El Segundo	Cal
Staver Co Inc, Bay Shore	N Y
Steel Industries Inc, Crawfordsville	Ind
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
T & E Industries, Inc, Hillside	N J
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal

Trans-Tek Mfg Co Inc, Garwood	N J
Uni-Seal Div G-V Controls, Dover	N J
Vacuum Ceramics Div, Cary	Ill
Veritron West Inc, Chatsworth	Cal

BASES--RELAY

ALDEN PRODUCTS CO, INC, BROCKTON	**MASS**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
POMONA ELECTRONICS CO INC, POMONA	**CAL**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
AirBorn Inc, Dallas	Tex
Alden Products Co, Inc, Brockton	Mass
Alloys Unlimited Inc, Melville	N Y
Curtis Development & Mfg Co, Milwaukee	Wis
Do-Rite Mfg Co, East Paterson	N J
Epoxy Products Co Div Allied Prod Inc New Haven	Conn
Franklin Fibre-Lamitex Corp, Wilmington	Del
Greenfield Components Corp, Greenfield	Mass
Hermetite Corp, Avon	Mass
Isotronics Inc, New Bedford	Mass
Keystone Electronics Corp, New York	N Y
Life Instrument Co Inc, Franklin	Mass
Metal Ceram Inc, Mount Vernon	N Y
Norrich Plastics Corp, Roosevelt	N Y
Pomona Electronics Co Inc, Pomona	Cal
Royal Worcester Industrial Ceramics Inc, New York	NY
Schrack Electrical Sales Corp, New York	N Y
Schurter AG, H, 6002 Lucerne	Switzerland
Semi-Alloys Inc, Mt Vernon	N Y
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
T & E Industries, Inc, Hillside	N J
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Uni-Seal Div G-V Controls, Dover	N J
Vacuum Ceramics Div, Cary	Ill
Veritron West Inc, Chatsworth	Cal
Waldom Electronics Inc, Chicago	Ill

BASES--TUBE SEE TUBE PARTS

BATHS--CONSTANT TEMPERATURE

BLUE M ENGINEERING CO, BLUE ISLAND	**ILL**
HEWLETT-PACKARD, PALO ALTO	**CAL**
NUMAR CORP, NEW YORK	**N Y**
American Instrument Co, Inc, Silver Spring	Md
AO Instruments Co Analytical Instr Div, Richmond	Cal
Atlas Engineering Corp, West Hartford	Conn
Bayley Instrument Co, Danville	Cal
Beckman Instruments Inc, Fullerton,	Cal
Blue M Engineering Co, Blue Island	Ill
Brinkmann Instruments Inc, Westbury	N Y
Brookfield Engineering Labs Inc, Stoughton	Mass
Cambridge Thermionic Corp, Cambridge	Mass
Central Scientific Co, Chicago	Ill
Consolidated Controls Corp, El Segundo	Cal
E G & G Inc, Electronic Prods Div, Boston	Mass
Eppley Lab Inc, Newport	R I
Gruenberg Electric Co Inc, Garden City	N Y
Guildline Instruments Ltd, Smiths Falls	Ont
Hallikainen Instruments, Richmond	Cal
Hallmark Standards Inc, Mamaroneck	N Y
Harris Mfg Co Inc, Cambridge	Mass
Hayakawa Electric Co Ltd, Osaka	Japan
Hewlett-Packard, Palo Alto	Cal
Hotpack Corp, Philadelphia	Pa
Interlab Inc, Pleasantville	N Y
Jersey Technical Consultants, Morristown	NJ
Kahl Scientific Instrument Corp, El Cajon	Cal
Numar Corp, New York	N Y
Phoenix Precision Instrument Co, Inc, Philadelphia	Pa
Precision Scientific Co Sub GCA Corp, Chicago	Ill
Procedyne Corp, New Brunswick	N J
Temperature Engineering Corp, Riverton	N J
Tenney Engineering Inc, Union	N J
Thermolyne Corp, Dubuque	Iowa
Tia Electric Co, Princeton	N J

BATTERIES--DRY

MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
YARDNEY ELECTRIC CORP, NEW YORK	**N Y**
Acme Battery Corp, Stamford	Conn
Bright Star Industries Inc, Clifton	N J
Burgess Battery Div Clevite Corp, Freeport	Ill
Carbone Corp, Boonton	N J
Catalyst Research Corp, Baltimore	Md
Dowa Trading Co Ltd, Kobe	Japan
Electronic Homes Co, New York	N Y
Fuji Electric Co Ltd, Tokyo	Japan
Fuji Electrochemical Co Ltd, Tokyo	Japan
Gould Marathon Battery Co Div Gould-Natl Batteries Inc St Paul	Minn
Hayakawa Electric Co Ltd, Osaka	Japan
Industrial Electronetics Corp, Satellite Beach	Fla
Lafayette Radio Electronics, Syosset	NY
LaPine Scientific Co, Chicago	Ill
Leclanche SA, Ch - 1401 Yverdon	Switz
Leesona Moos Labs, Great Neck	N Y
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Battery Co, Tarrytown	N Y
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Midland International Corp, North Kansas City	Mo
Molecular Energy Corp, Livingston	NJ
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Power Inc, Electronics Div, Burnsville	Minn
Radio Corp of America, Electronic Components, Harrison	N J
Ray-O-Vac Div ESB Inc, Madison	Wis
Sanyo Electric Co Ltd, Osaka	Japan
Shigoto Industries Ltd, New York	N Y
Svenska Ackumulator Aktiebolaget Jungner Oskarshamn	Sweden
Union Carbide Corp, Consumer Products Div New York	N Y
Yardney Electric Corp, New York	N Y

BATTERIES--LEAD OXIDE

CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE	**WIS**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
C & D Batteries Div Eltra Corp, Conshohocken	Pa
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Electronic Batteries Inc, Brooklyn	N Y
General Battery & Ceramic Corp, Reading	Pa
Globe-Union Inc, Battery Div, Milwaukee	Wis
Gould Marathon Battery Co Div Gould-Natl Batteries Inc St Paul	Minn
LaPine Scientific Co, Chicago	Ill
Leclanche SA, Ch - 1401 Yverdon	Switz
Mallory & Co Inc, P R, Indianapolis	Ind
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Optical Products A Teledyne Co, Monrovia	Cal
Power Inc, Electronics Div, Burnsville	Minn
Union Carbide Corp, Consumer Products Div New York	N Y
Wisco Div ESB Inc, Racine	Wis

BATTERIES--MANGANESE ALKALINE

MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Bright Star Industries Inc, Clifton	N J
Burgess Battery Div Clevite Corp, Freeport	Ill
Fuji Electrochemical Co Ltd, Tokyo	Japan
Gould Marathon Battery Co Div Gould-Natl Batteries Inc St Paul	Minn
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Battery Co, Tarrytown	N Y
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Radio Corp of America, Electronic Components, Harrison	N J
Ray-O-Vac Div ESB Inc, Madison	Wis
Union Carbide Corp, Consumer Products Div New York	N Y

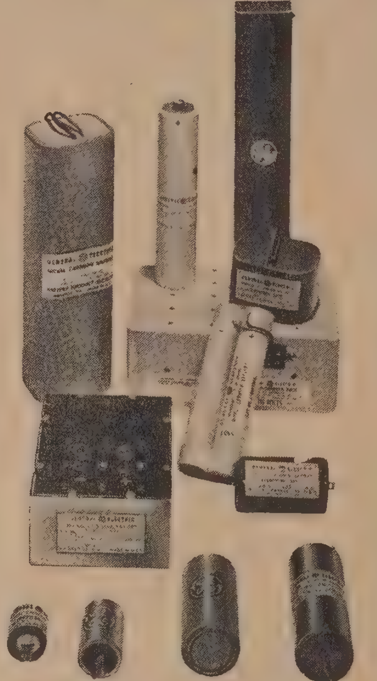
BATTERIES--MERCURY

MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Bright Star Industries Inc, Clifton	N J
Burgess Battery Div Clevite Corp, Freeport	Ill
Electrochimica Corp, Menlo Park	Cal
Fuji Electrochemical Co Ltd, Tokyo	Japan
Hayakawa Electric Co Ltd, Osaka	Japan
Leclanche SA, Ch - 1401 Yverdon	Switz
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Battery Co, Tarrytown	N Y
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Power Inc, Electronics Div, Burnsville	Minn
Radio Corp of America, Electronic Components, Harrison	N J
Ray-O-Vac Div ESB Inc, Madison	Wis
Sanyo Electric Co Ltd, Osaka	Japan
Union Carbide Corp, Consumer Products Div New York	N Y

BATTERIES--NICKEL-CADMIUM

EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7, 64**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
YARDNEY ELECTRIC CORP, NEW YORK	**N Y**
Alkaline Batteries Corp, Mountain View	Cal
Berkey Technical Div Berkey Photo Inc, Woodside	N Y
Bright Star Industries Inc, Clifton	N J
Burgess Battery Div Clevite Corp, Freeport	Ill
Cambridge Thermionic Corp, Cambridge	Mass
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
General Electric Co, ECSO, Schenectady	N Y
Gould Marathon Battery Co Div Gould-Natl Batteries Inc St Paul	Minn
Gulton Industries Inc, Metuchen	N J
Hayakawa Electric Co Ltd, Osaka	Japan
LaPine Scientific Co, Chicago	Ill
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Power Inc, Electronics Div, Burnsville	Minn
Primec Corp, Los Angeles	Cal
Ramsay Engineering Co, Anaheim	Cal
Ray-O-Vac Div ESB Inc, Madison	Wis
Sanyo Electric Co Ltd, Osaka	Japan
Semi-Elements Inc, Saxonburg	Pa
Shigoto Industries Ltd, New York	N Y
Sonotone Corp, Battery Div, Elmsford	N Y

RECHARGEABLE NICKEL-CADMIUM BATTERIES



Typical sealed-cell battery designs.

- Thin sintered-plate construction
- Operate over a wide temperature range
- High discharge rate capability with constant voltage output
- Long cycle life
- Meets severe environmental requirements
- Shock resistant
- Custom battery designs available

GE rechargeable nickel-cadmium batteries are suitable for a wide variety of commercial, military, and areospace applications. Available battery types include sealed, pressure relieved, and vented cells nominally rated from 0.08 ampere-hours to 160 ampere-hours (at the one-hour rate). Charge/discharge cycles normally exceed 1000.

Write for Bulletin GEA-7678

For information contact nearest GE Sales Office, see list on page 7, or write to Marketing Section, General Electric Co., Gainesville, Florida 32601

GENERAL ELECTRIC

Standard Relay Corp, Brooklyn	N Y
Svenska Ackumulator Aktiebolaget Jungner Oskarshamn	Sweden
Texas Instruments Incorporated, Dallas	Tex
TRW Systems Group, Redondo Beach	Cal
Union Carbide Corp, Consumer Products Div New York	N Y
Yardney Electric Corp, New York	N Y

BATTERIES--SILVER CADMIUM

EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NUMAR CORP, NEW YORK	**N Y**
YARDNEY ELECTRIC CORP, NEW YORK, N Y	**ADV PG 65**
Carbone Corp, Boonton	N J
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Electrochimica Corp, Menlo Park	Cal
ESB Inc Exide Missile & Electronics Div, Raleigh	N C
Gulton Industries Inc, Metuchen	N J
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Numar Corp, New York	N Y
Power Inc, Electronics Div, Burnsville	Minn
Ray-O-Vac Div ESB Inc, Madison	Wis
TRW Systems Group, Redondo Beach	Cal
Whittaker Corp, Power Sources Div, Denver	Colo
Yardney Electric Corp, New York	N Y

BATTERIES--SILVER ZINC

EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
YARDNEY ELECTRIC CORP, NEW YORK	**N Y**
Carbone Corp, Boonton	N J
Catalyst Research Corp, Baltimore	Md
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Electrochimica Corp, Menlo Park	Cal
Epic Inc, New York	N Y
ESB Inc Exide Missile & Electronics Div, Raleigh	N C
Gould Marathon Battery Co Div Gould-Natl Batteries Inc St Paul	Minn
Mallory Battery Co, Tarrytown	N Y
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Power Inc, Electronics Div, Burnsville	Minn
Ray-O-Vac Div ESB Inc, Madison	Wis
Semi-Elements Inc, Saxonburg	Pa
TRW Systems Group, Redondo Beach	Cal
Union Carbide Corp, Consumer Products Div New York	N Y
Whittaker Corp, Power Sources Div, Denver	Colo
Yardney Electric Corp, New York	N Y

BATTERIES--STANDARD CELL

Bailey Co, Washington	D C
Don Bosco Electronics Inc, Hanover	N J
Eppley Lab Inc, Newport	R I
Fuji Electrochemical Co Ltd, Tokyo	Japan
Hallmark Standards Inc, Mamaroneck	N Y
Julie Research Labs, Inc, New York	N Y
LaPine Scientific Co, Chicago	Ill
Leclanche SA, Ch - 1401 Yverdon	Switz
Leeds & Northrup Co, Philadelphia	Pa
Muirhead Instruments Inc, Mountainside	N J
Svenska Ackumulator Aktiebolaget Jungner Oskarshamn	Sweden

BATTERIES--STORAGE

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
YARDNEY ELECTRIC CORP, NEW YORK	**N Y**
Aircraft Components Inc, Benton Harbor	Mich
Alkaline Batteries Corp, Mountain View	Cal
Aristo-Craft Distinctive Miniatures, New York	N Y
C & D Batteries Div Eltra Corp, Conshohocken	Pa
Don Bosco Electronics Inc, Hanover	N J
Dowa Trading Co Ltd, Kobe	Japan
Electrochimica Corp, Menlo Park	Cal
Electronic Batteries Inc, Brooklyn	N Y
ESB Inc Exide Missile & Electronics Div, Raleigh	N C
Exide Industrial Mktg Div ESB Inc, Philadelphia	Pa
General Battery & Ceramic Corp, Reading	Pa
General Electric Co, ECSO, Schenectady	N Y
Globe-Union Inc, Battery Div, Milwaukee	Wis
Gould Marathon Battery Co Div Gould-Natl Batteries Inc St Paul	Minn
Gulton Industries Inc, Metuchen	N J
Hayakawa Electric Co Ltd, Osaka	Japan
LaPine Scientific Co, Chicago	Ill
Leclanche SA, Ch - 1401 Yverdon	Switz
Leesona Moos Labs, Great Neck	N Y
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Molecular Energy Corp, Livingston	NJ
Power Inc, Electronics Div, Burnsville	Minn
Sonotone Corp, Battery Div, Elmsford	N Y
Svenska Ackumulator Aktiebolaget Jungner Oskarshamn	Sweden
Texas Instruments Incorporated, Dallas	Tex
Whittaker Corp, Power Sources Div, Denver	Colo
Wisco Div ESB Inc, Racine	Wis
Yardney Electric Corp, New York	N Y

LIGHT WEIGHT RECHARGEABLE
3 Volt, 5 and 2 ampere-hour Silicad® Battery
Extra-powerful new Spiracel® Battery rated 1.5 volts at 5.3 & 2 ampere-hours.
Yardney Batteries...for true portability
• Highest Energy • Compact Size • Light Weight • Steady Power
Unlimited Applications — for commercial, consumer, industrial and military applications
SILCAD® BATTERIES
One of the latest energy sources to advance the design of portable equipment.
ZYNOXEL® BATTERIES
Advanced zinc-air battery systems give maximum output at minimum weight.
NYZIN™ BATTERIES
New rechargeable nickel-zinc battery with High power characteristics for heavy duty current requirements.
SILVERCEL® BATTERIES
Modern high-powered energy sources, including the new Spiracel® line, ideal for cordless products.
*Yardney has a full line of BATTERY CHARGERS
YARDNEY ELECTRIC CORPORATION
40-52 Leonard Street, New York, N. Y. 10013
Tel. (212) WO 6-3100
U.S. Patents Granted & Pending
U.S. Patents Granted & Pending

BATTERIES--WATER ACTIVATED

NUMAR CORP, NEW YORK	**N Y**
YARDNEY ELECTRIC CORP, NEW YORK	**N Y**
ACR Electronics Corp, New York	N Y
Aristo-Craft Distinctive Miniatures, New York	N Y
ESB Inc Exide Missile & Electronics Div, Raleigh	N C
General Electric Co Ordnance Dept, Pittsfield	Mass
Globe-Union Inc, Battery Div, Milwaukee	Wis
Gould Marathon Battery Co Div Gould-Natl Batteries Inc St Paul	Minn
Leesona Moos Labs, Great Neck	N Y
Molecular Energy Corp, Livingston	NJ
Numar Corp, New York	N Y
Optical Products A Teledyne Co, Monrovia	Cal
Ray-O-Vac Div ESB Inc, Madison	Wis
Ultra Electronics Ltd, London, W 3	England
Yardney Electric Corp, New York	N Y

BATTERY CHARGERS SEE CHARGERS--BATTERY

BATTERY CLIPS SEE CLIPS

BATTERY ELIMINATORS SEE POWER SUPPLIES--D-C

BATTERY TESTERS SEE TESTERS--BATTERY

BEACON RECEIVERS SEE RECEIVERS--RADIO NAVIGATION

BEACONS--RADAR SEE RADAR

BEACONS--RADIO NAVIGATION SEE TRANSMITTERS--RADIO NAVIGATION, DIRECTION-FINDING

BEACONS--TRANSPONDER

Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Alpine Geophysical Assoc Inc, Norwood	N J
Aquadyne Inc, East Falmouth	Mass
A R F Products, Inc, Raton	N M
Aviation Electric Ltd, St Laurent, Montreal	Que
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Ball Brothers Research Corp, Boulder	Colo
Bell Aerosystems Co, Buffalo	N Y
Bendix Corp, Communications Div, Towson	Md
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Conductron Corp, Ann Arbor	Mich
Control Science Corp, Alexandria	Va
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Decca Radar, Inc, New York	N Y
E G & G Inc Custom Equip Div, Bedford	Mass
E G & G Int'l Inc Geodyne Div, Waltham	Mass
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
General Instrument Corp Radio Receptor Div Hicksville	N Y
Geodyne Div EG&G Int'l, Waltham	Mass
Hydro Products Div Dillingham Corp, San Diego	Cal
ITT Federal Labs, Fort Wayne	Ind
Keltec Industries, Alexandria Div, Alexandria	Va
Lek-Trol, Inc, Grapevine	Tex
Micronetics Div Teledyne Systems Co, San Diego	Cal
Oki Electric Industry Co Ltd, Tokyo	Japan
RCA, Defense Electronic Products, Moorestown	N J
Rodale Electronics Inc, Garden City	NY
Scope Inc, Reston	Va
Sierra Research Corp, Buffalo	N Y
Straza Industries Div Ametek Inc, El Cajon	Cal
Tasker Industries, Van Nuys	Cal
TRW Systems Group, Redondo Beach	Cal
Vega Precision Labs, Vienna	Va

BEAD CHAIN SEE CHAINS

BEADS, INSULATING--CERAMIC

AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
BIRNBACH CO INC, FREEPORT	**N Y**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE	**WIS**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
FUSITE CORP, CINCINNATI	**OHIO**
KYOTO CERAMIC CO LTD, NAKAGYO-KU, KYOTO	**JAPAN**
MICROBEADS DIV, CATAPHOTE CORP, JACKSON	**MISS**
NGK SPARK PLUG CO LTD, MIZUHO-KU NAGOYA	**JAPAN**
STAR PORCELAIN CO, TRENTON, N J	**ADV PG 131**
Alloys Unlimited Inc, Melville	N Y
American Lava Corp, Chattanooga	Tenn
Atlantic Optical Moulding Co, Dudley	Mass

Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Birnbach Co Inc, Freeport	N Y
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Ceramics International Corp, Mahwah	NJ
Continental Sensing Inc, Melrose Park	Ill
Coors Co Inc, H F, Inglewood	Cal
Coors Porcelain Co, Golden	Colo
Daburn Electronics & Cable Corp, Bronx	N Y
Du-Co Ceramics Co, Saxonburg	Pa
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park	N J
Electrical Refractories Co, East Palestine	Ohio
Emerson & Cuming Inc, Canton	Mass
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Ferricore Div Natl Moldite Co Inc, Newark	N J
Frenchtown/CFI Inc, Frenchtown	N J
Fusite Corp, Cincinnati	Ohio
Glass Beads Co, Latrobe	Pa
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead	Cal
Impectron Inc, New York	N Y
Isolantite Mfg Corp, Stirling	N J
Keith Co Inc, W P, Pico Rivera	Cal
Kyoto Ceramic Co Ltd, Nakagyo-ku, Kyoto	Japan
Maryland Lava Co Inc, Bel Air	Md
Materials for Electronics, Inc, Jamaica	N Y
McDanel Refractory Porcelain Co, Beaver Falls	Pa
Meller Co, Adolf, Providence	R I
Metalized Ceramics Corp, Providence	R I
Microbeads Div, Cataphote Corp, Jackson	Miss
Mitronics Inc, Murray Hill	N J
National Beryllia Corp, Haskell	N J
National Moldite Co Inc, Newark	N J
NGK Spark Plug Co Ltd, Mizuho-ku Nagoya	Japan
Norton Co, Worcester	Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pyrometer Co of America Inc, Penndel	Pa
Quartzite Processing, Inc, Malden	Mass
Royal Worcester Industrial Ceramics Inc, New York	NY
Saxonburg Ceramics Inc, Pittsburgh	Pa
Semi-Alloys Inc, Mt Vernon	N Y
Star Porcelain Co, Trenton	N J
Stettner-Trush Inc, Cazenovia	N Y
Steward Mfg Co, D M, Chattanooga	Tenn
Technical Ceramic Corp, South El Monte	Cal
U S Stoneware Inc, Orville Plant, Orrville	Ohio
Veritron West Inc, Chatsworth	Cal

BEADS, INSULATING--PLASTIC

Chemplast Inc, Wayne	N J
Crane Packing Co, Morton Grove	Ill
Dow Chemical Co, Midland	Mich
Emerson & Cuming Inc, Canton	Mass
Emerson Plastics Corp, Bronx	New York
Franklin Fibre-Lamitex Corp, Wilmington	Del
Insulating Shapes Inc, Bronx	N Y
Koppers Co Inc, Pittsburgh	Pa
Leed Insulator Corp, Los Angeles	Cal
Maryland Lava Co Inc, Bel Air	Md
Norrich Plastics Corp, Roosevelt	N Y
Polymer Corp, Reading	Pa
Product Components Corp, Hastings-on-Hudson	N Y
Severna Div Amphenol Corp, East Orange	N J
Standard Polymer Inc, Van Nuys	Cal
Tri-Point Industries Inc, Commack	NY

BEAM ANTENNAS SEE ANTENNAS--COMMUNICATION

BEAM SWITCHING TUBES SEE TUBES--COUNTER

BEARINGS--BALL OR ROLLER

KELLER INC, HUGO P, NEW YORK	**N Y**
SECS, INC, LONG ISLAND CITY	**N Y**
Aircraft Components Inc, Benton Harbor	Mich
Ardel Corp, Glendale	Cal
Barden Corp, Danbury	Conn
B & B Motor & Control Corp, New York	N Y
Bearing Inspection, Inc, Santa Fe Springs	Cal
Bemol Co, Newton	Mass
Everlube Corp of America, North Hollywood	Cal
Fafnir Bearing Co, New Britain	Conn
Fafnir-Ina Needle Roller Bearing Co, New Britain	Conn
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Kaydon Engineering Corp, Muskegon	Mich
Keller Inc, Hugo P, New York	N Y
Landis & Gyr, Inc, New York	N Y
Lear Siegler Inc, Santa Monica	Cal
Marlin-Rockwell Div TRW Inc, Jamestown	N Y
MPB Corp, Keene	N H
New Departure-Hyatt Bearings Div GMC, Sandusky	Ohio
New Hampshire Ball Bearings Inc, Peterborough	N H
PIC Design Corp, East Rockaway	N Y
Raway Bearing Co Inc, New York	N Y
Rex Chainbelt Inc, Milwaukee	Wis
Secs, Inc, Long Island City	N Y
Shigoto Industries Ltd, New York	N Y
SKF Industries Inc, Philadelphia	Pa
Sterling Instrument Div, Designatronics Inc Mineola	N Y
Timken Roller Bearing Co, Canton	Ohio

Pain Killer.

If vendors have you in a pinch and another source of supply will help, turn to the Electronics Buyers' Guide. You'll find all the information you need on over 1,363 sources of power supplies, listed under 11 headings from *AC Regulated Power Supplies to Laser Power Supplies.*

Electronics Buyers' Guide

BEARINGS--GLASS

KELLER INC, HUGO P, NEW YORK	**N Y**
Atlantic Optical Moulding Co, Dudley	Mass
Bird Co Inc, Richard H, Waltham	Mass
Friedrich & Dimmock, Inc, Mays Landing	N J
Keller Inc, Hugo P, New York	N Y
Moser Jewel Co, Perth Amboy	N J
Syncor Products Co, Inc, Malden	Mass

BEARINGS--JEWEL, DIAMOND

KELLER INC, HUGO P, NEW YORK	**N Y**
Bruce Diamond Corp, Attleboro	Mass
Duotone Co Inc, Miami	Fla
Keller Inc, Hugo P, New York	N Y
Moser Jewel Co, Perth Amboy	N J

BEARINGS--JEWEL, SAPPHIRE

KELLER INC, HUGO P, NEW YORK, N Y	**ADV PG 66**
Avionics Ltd, Niagara-on-the-Lake	Ont
Bird Co Inc, Richard H, Waltham	Mass
Bruce Diamond Corp, Attleboro	Mass
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park	N J
Eastern Specialty Co, Philadelphia	Pa
Keller Inc, Hugo P, New York	N Y
Meller Co, Adolf, Providence	R I
Moran Co Inc, T R, El Segundo	Cal
Moser Jewel Co, Perth Amboy	N J
Parechoc S A, Ch 1347 Le Sentier	Switzerland
Swiss Jewel Co, Philadelphia	Pa

BEARINGS--MINIATURE NEEDLE

KELLER INC, HUGO P, NEW YORK	**N Y**
Fafnir Bearing Co, New Britain	Conn
Fafnir-Ina Needle Roller Bearing Co, New Britain	Conn
Kaydon Engineering Corp, Muskegon	Mich
Keller Inc, Hugo P, New York	N Y
Landis & Gyr, Inc, New York	N Y
Micronics Corp of America, Providence	RI
Origin Electric Co Ltd, Tokyo	Japan
Raway Bearing Co Inc, New York	N Y
SKF Industries Inc, Philadelphia	Pa
Torrington Co, Specialties Div, Torrington	Conn

SAPPHIRE

WEAR PARTS
Tape Guides Textile Guides Spray Nozzles
Stylii Phonopoints Orifices

OPTICS
IR/UV Windows, lenses, prisms, laser rods, domes
Viewports, Windows for high pressure or corrosive applications.

ELECTRONICS
Insulators for electron tubes, spectrometer, nuclear applications
Substrates for IC or IR

JEWEL BEARINGS
Rings, Cups, Vees, Endstones, Spheres
For Aircraft, Automotive, Compass, Computers, Gyro
From sapphire, ruby, tungsten carbide, glass, ceramic

Your needs in every form imaginable:
BALLS - CYLINDERS - RINGS - RODS - PLATES - TUBES

HPK 1853

HUGO P. KELLER INC.
41 EAST 42nd STREET, NEW YORK, N. Y. 10017 • PHONE: 212 - 682-8450
Telex: 12-6856 Cable Code: ONONIS (Answer back)
FACTORIES IN U.S.A. AND SWITZERLAND
Representatives in principal cities thruout the United States

BEARINGS--PRECISION INSTRUMENT

GRAPHITE METALLIZING CORP, YONKERS	**N Y**
KELLER INC, HUGO P, NEW YORK	**N Y**
NORTHFIELD PRECISION INSTRUMENT CORP, ISLAND PARK N Y	**ADV PG 67**
SECS, INC, LONG ISLAND CITY	**N Y**
A & M Instruments Inc, Great Neck	N Y
Atomite Electronics Corp, Roosevelt	N Y
Barden Corp, Danbury	Conn
Beemer Engineering Co, Fort Washington	Pa
Bemol Co, Newton	Mass
Bird Co Inc, Richard H, Waltham	Mass
Cambridge Thermionic Corp, Cambridge	Mass
Castall Research Lab Inc, Brockton	Mass
Duotone Co Inc, Miami	Fla
Dynamic Gear Co Inc, Amityville	N Y
Euro Cedag, Milan	Italy
Fafnir Bearing Co, New Britain	Conn
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Graphite Metallizing Corp, Yonkers	N Y
Kaydon Engineering Corp, Muskegon	Mich
Keller Inc, Hugo P, New York	N Y
Landis & Gyr, Inc, New York	N Y
Marlin-Rockwell Div TRW Inc, Jamestown	N Y
Moran Co Inc, T R, El Segundo	Cal
MPB Corp, Keene	N H
New Hampshire Ball Bearings Inc, Peterborough	N H
Northfield Precision Instrument Corp, Island Park	N Y
Origin Electric Co Ltd, Tokyo	Japan
Parechoc S A, Ch 1347 Le Sentier	Switzerland
PIC Design Corp, East Rockaway	N Y
Polymer Corp, Reading	Pa
Raway Bearing Co Inc, New York	N Y
Rex Chainbelt Inc, Milwaukee	Wis
Secs, Inc, Long Island City	N Y
Shigoto Industries Ltd, New York	N Y
SKF Industries Inc, Philadelphia	Pa
Sterling Instrument Div, Designatronics Inc Mineola	N Y
Swiss Jewel Co, Philadelphia	Pa

BEARINGS--TAPERED

KELLER INC, HUGO P, NEW YORK	**N Y**
Everlube Corp of America, North Hollywood	Cal
Kaydon Engineering Corp, Muskegon	Mich
Keller Inc, Hugo P, New York	N Y
Raway Bearing Co Inc, New York	N Y
Shigoto Industries Ltd, New York	N Y
SKF Industries Inc, Philadelphia	Pa
Timken Roller Bearing Co, Canton	Ohio

BELLOWS

GAGNE ASSOCIATES INC, BINGHAMTON	**N Y**
SECS, INC, LONG ISLAND CITY	**N Y**
Abesto Corp, Bloomfield	N J
Acushnet Process Co, New Bedford	Mass
Allied Research & Engineering Co, Los Angeles	Cal
Belfab A Unit of Bailey Meter Co, Daytona Beach	Fla
Burke & James Inc, Chicago	Ill
Dixon Corp, Bristol	R I
Electroforms Inc, Gardena	Cal
Emerson Plastics Corp, Bronx	New York
Ethylene Corp, Murray Hill	N J
Fae Instrument Corp, Huntington Station	N Y
Flexaust Co, Div Callahan Mining Corp, New York	NY
Flexible Metal Hose Mfg Co, CostaMesa	Cal
Fulton Sylphon Div Robertshaw Controls Co Knoxville	Tenn
Gagne Associates Inc, Binghamton	N Y
Insulating Shapes Inc, Bronx	N Y
Mason-Renshaw Industries, Carpinteria	Cal
Mechanical Rubber Products Co, Inc, Warwick	NY
Metal Bellows Corp, Sharon	Mass
Mini-Flex Corp, Van Nuys	Cal
Minor Rubber Co Inc, Bloomfield	N J
Multi - Flex Seals Inc, Bronx	N Y
National Bellows Co, Stratford	Conn
Sealol Inc, Providence	R I
Secs, Inc, Long Island City	N Y
Servometer Corp, Clifton	N J
Silver & Assoc Inc G H, Newtonville	Mass
Sterling Instrument Div, Designatronics Inc Mineola	N Y

BELTS--DIAL DRIVE

KINELOGIC CORP, PASADENA	**CAL**
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Gentape Corp, Bloomfield	N J
Kinelogic Corp, Pasadena	Cal
PIC Design Corp, East Rockaway	N Y
Raybestos-Manhattan Inc, Passaic	N J
Shigoto Industries Ltd, New York	N Y

You can pay $2.00 for a miniature precision bearing.

Why? Northfield will sell you one for 70 cents.

1. Cut bearing costs by ⅔ without loss of accuracy. Northfield miniature bearings are *directly interchangeable with miniature precision ball bearings.* **2.** I.D., O.D., concentricity and facial squareness held to .0002″. **3.** Precision made of sintered bronze (MIL-B-5687, Type I, Comp. A) with 4% Molybdenum Disulphide added at sintering. **4.** Vacuum impregnated with instrument oil (MIL-L-6085A). **5.** Low coefficient of friction and excellent resistance to radial loads and impact. **6.** Full range of miniature sizes—flanged and sleeve types.

Immediate delivery. Write for catalog & prices to Northfield Precision Instrument Corp., 4400 Austin Blvd., Island Pk., L.I., N.Y. 11558. Tele. (516) 431-1112.

NORTHFIELD
PRECISION INSTRUMENT CORPORATION

BENCHES & STOOLS

FORMICA METAL PRODUCTS CO INC, MEDFORD MASS	**ADV PG 68**
Alden Systems, Inc, Brockton	Mass
Baker Co, Inc, Biddeford	Me
Bay Products, Philadelphia	Pa
Clean Room Products Inc, Farmingdale	N Y
Cramer Industries Inc, Kansas City	Kansas
DoAll Co, Des Plaines	Ill
Eugene Engineering Co Inc, Rockland	Mass
Falstrom Co, Passaic	N J
Flotron Industries Inc, El Segundo	Cal
Formica Metal Products Co Inc, Medford	Mass
Goldsman Inc, Philadelphia	Pa
Lyon Metal Products Inc, Aurora	Ill
Metalab Equipment Co, Hicksville	N Y
Pressteel Co, El Monte	Cal
Production Associates Inc, Madison	Wis
Sandefur Engineering Co, Inc, Lawndale	Cal
Wickes Industries Inc, Camden	N J
Workplace Systems, Inc, Manchester	N H

BENDING MACHINES SEE MACHINES--BENDING

BENDS--WAVEGUIDE SEE WAVEGUIDE FITTINGS

BERYLLIUM

Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Beryllium Corp, Reading	Pa
Bram Metallurgical Chemical Co, Philadelphia	Pa
Brush Beryllium Co, Cleveland	Ohio
City Chemical Corp, New York	N Y
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Electronic Space Products Inc, Los Angeles	Cal
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Metal Ceram Inc, Mount Vernon	N Y
Semi-Alloys Inc, Mt Vernon	N Y
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J

BERYLLIUM COPPER

INSTRUMENT SPECIALTIES CO INC, LITTLE FALLS	**N J**
UNIFORM TUBES INC, COLLEGEVILLE	**PA**
Alloys Unlimited Inc, Melville	N Y
Alpha Metals Inc, Jersey City	NJ
American Silver Co Div, Flushing	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Beryllium Corp, Reading	Pa
Bram Metallurgical Chemical Co, Philadelphia	Pa
Braun Tool & Instrument Co Inc, H, Hawthorne	N J
Brush Beryllium Co, Cleveland	Ohio
Chase Metals Service Div Chase Brass & Copper Co Cleveland	Ohio
General Findings Co Industrial Div, Attleboro	Mass
Hamilton Precision Metals Div Hamilton Watch Co Lancaster	Pa
Instrument Specialties Co Inc, Little Falls	N J
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia	Pa
Leach & Garner Co, Industrial Div, Attleboro	Mass
Little Falls Alloys Inc, Paterson	N J
Mackay Inc, A D, New York	N Y
Metal Ceram Inc, Mount Vernon	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Somers Thin Strip Inc Sub Olin, Waterbury	Conn
Steel Heddle Mfg Co, Philadelphia	Pa
Sumitomo Special Metals Co Ltd, Osaka	Japan
Uniform Tubes Inc, Collegeville	Pa

BERYLLIUM OXIDE

AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
KYOTO CERAMIC CO LTD, NAKAGYO-KU, KYOTO	**JAPAN**
NGK SPARK PLUG CO LTD, MIZUHO-KU NAGOYA	**JAPAN**
Alloys Unlimited Inc, Melville	N Y
American Lava Corp, Chattanooga	Tenn
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Beryllium Corp, Reading	Pa
Blinn Co Inc, Delbert, Pomona	Cal
Brush Beryllium Co, Cleveland	Ohio
City Chemical Corp, New York	N Y
Consolidated Ceramics & Metalizing Corp Flemington	N J
Electronic Space Products Inc, Los Angeles	Cal
Frenchtown/CFI Inc, Frenchtown	N J
Koch Light Labs Ltd, Colnbrook, Bucks	England
Kyoto Ceramic Co Ltd, Nakagyo-ku, Kyoto	Japan
Mackay Inc, A D, New York	N Y
Metal Ceram Inc, Mount Vernon	N Y
National Beryllia Corp, Haskell	N J
NGK Spark Plug Co Ltd, Mizuho-ku Nagoya	Japan
Semi-Alloys Inc, Mt Vernon	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J

BETA GAGES SEE GAGES--BETA; INDICATORS--THICKNESS

BEZELS

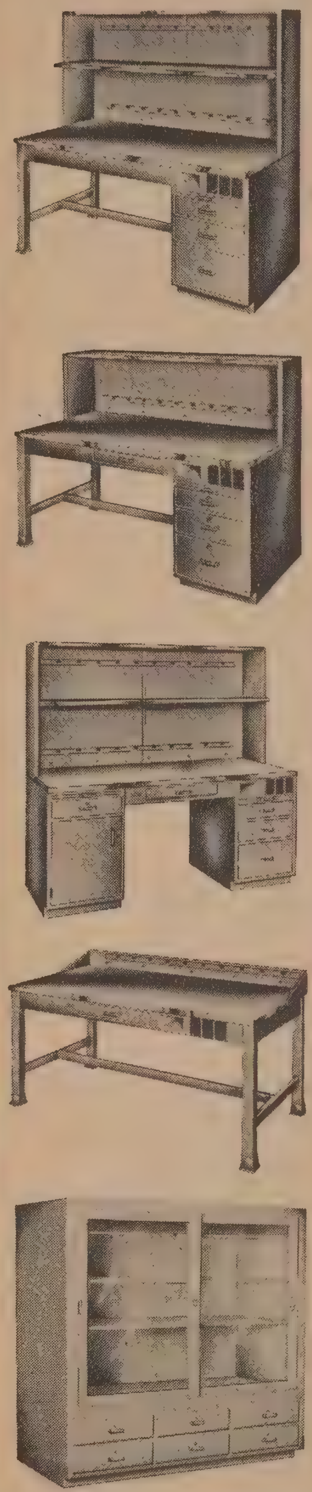
CHICAGO DYNAMIC INDUSTRIES INC, PRECISION PRODS DIV CHICAGO	**ILL**
CONTROL KNOBS INC, JAMAICA	**N Y**
Aikow Shoji Kaisha Ltd, Osaka	Japan
Amatom Electronic Hardware, New Rochelle	N Y
A & M Instruments Inc, Great Neck	N Y
Baird-Atomic, Inc, Cambridge	Mass
Chicago Dynamic Industries Inc, Precision Prods Div Chicago	Ill
Control Knobs Inc, Jamaica	N Y
Devco Engineering Inc, Fairfield (Caldwell)	N J
Electrix Corp, Esmond	R I
Emerson Plastics Corp, Bronx	New York
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Griffith Plastic Products Co, Burlingame	Cal
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead	Cal
Industrial Electronic Engineers Inc, Van Nuys	Cal
Insulating Shapes Inc, Bronx	N Y
Jan Hardware Mfg Co Inc, Long Island City	N Y
Jones Inc, Norman, South Merrimack	N H
Micro Parts Inc, Los Angeles	Cal
Millen Mfg Co Inc, James, Malden	Mass
Shelly Associates, Inc, El Segundo	Cal
Taylor Instrument Cos, Rochester	N Y
Technical Wire Products Inc, Cranford	N J
Waterbury Pressed Metal Co, Waterbury	Conn

BI-METALS SEE THERMOSTATS

BINARY SCALERS SEE COUNTERS--ELECTRONIC

BINARY-TO-DECIMAL DECODERS SEE DECODERS--BINARY-TO-DECIMAL

SECTIONAL



Many other styles and sizes available.

Electronic

LABORATORY TEST FURNITURE

FOR

. INDUSTRIAL

. MILITARY . SCHOOL

APPLICATIONS

Formica's sectional electronic test furniture is designed *by* engineers *for* engineers to provide the utmost in serviceability. Individual prefabricated sections are constructed to afford the greatest possible number of combinations, then factory assembled to suit the exact requirements of your laboratory or classroom. Design features also provide at least 50% more available working area over other types now in use. Made of heavy gauge furniture steel, Formica's rugged construction means many extra years of service even in hard use.

For school purposes, the unusual adaptability of Formica's many specialized turrets and pedestals — whether for single or double set-ups are available.

Write for brochures and further specifications to Dept. A.

fmp

FORMICA METAL PRODUCTS COMPANY, INC.

CORPORATION WAY • MEDFORD, MASS. 02155

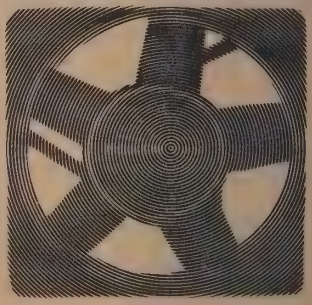
BISMUTH

Aceto Chemical Co, Inc, Flushing	NY
Alpha Metals Inc, Jersey City	NJ
American Aerospace Controls Inc, Farmingdale	N Y
American Smelting & Refining Co, New York	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bow Solder Products Co Inc, Newark	N J
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerac Inc, Butler	Wis
Cerro Copper & Brass Co, Stamford Wks Stamford,	Conn
Cerro Corp, New York	NY
Cerro Sales Corp, New York	NY
City Chemical Corp, New York	N Y
Cominco American Inc Electronic Matls Div, Spokane	Wash
Division Lead Co, Summit	Ill
Electronic Space Products Inc, Los Angeles	Cal
Gardiner Solder Co, Chicago	Ill
Indium Corp of America, Utica	N Y
Kawecki Chemical Co, New York	N Y
Kester Solder Co, Chicago	Ill
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Mallinckrodt Chemical Works, St Louis	Mo
Metal Ceram Inc, Mount Vernon	N Y
Ohio Semitronics Inc, Columbus	Ohio
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
United Refining & Smelting Co, Franklin Park	Ill
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Electronics Corp, Bradford	Pa

BLACK BODY SOURCES SEE INFRARED EQUIPMENT

BLANKS--CRYSTAL SEE CRYSTAL BLANKS

BLOCKS--FUSE BLOCKS & HOLDERS SEE HOLDERS



BOXER®

Fans knock out heat problems, Whether they're Super, Mini, Skeleton, Tandem, or Grand Prix Boxers.

Immediately available from Distributor Stock, as are IMC air propeller fans and centrifugal blowers.

New Hampshire Division
IMC Magnetics Corp.
Route 16B
Rochester, N. H. 03867
Tel (603) 332-5300

imc

BLOWERS & FANS--SMALL

AMCO ENGINEERING CO, CHICAGO	**ILL**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL	**PA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
IMC MAGNETICS CORP EASTERN DIV, WESTBURY N Y	**ADV PG 69**
IMC MAGNETICS CORP, NEW HAMPSHIRE DIV, ROCHESTER NH	**ADV PG 68**
INDIANA GENERAL CORP ELECTRO-MECHANICAL DIV OGLESBY	**ILL**
Ace-Sycamore Inc, Sycamore	Ill
Alpha Components Corp, Venice	Cal
Amco Engineering Co, Chicago	Ill
American Instrument Co, Inc, Silver Spring	Md
American Lincoln Corp, Elec Motor Div Watertown	New York
Ashland Electric Products, Inc, Long Island City	N Y
A V Electronics, Inc, Fresno	Cal
Barber-Colman Co, EMP Div, Rockford	Ill
Benson Mfg Div E C I Inc, Kansas City	Mo
Bud Radio Inc, Willoughby	Ohio
Cabtron Corp, Chicago	Ill
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill	Pa
C & N Electrical Ltd, Hants	England
Condor Industrial Corp, West Chicago	Ill
Decker Corp, Bala Cynwyd	Pa
Dynacool Mfg Co Inc, Saugerties	N Y
Dynamic Air Engineering Inc, Santa Ana	Cal
Eastern Air Devices Inc, Dover	N H
Eastern Industries Div Lab for Electronics Inc Hamden	Conn
Electronic Enclosures, El Segundo	Cal
Enclosure Corp, Pennsauken	N J
Equipment & Service Co, Dallas	Tex
Equipto Enclosure Systems Div Equipto Elctns Corp Aurora	Ill
Ferranti, Ltd, Lancashire	England
Garrett Corp, Los Angeles	Cal
General Electric Co, ECSO, Schenectady	N Y
Globe Industries Div TRW Inc, Dayton	Ohio
Hammond Mfg Co Ltd, Guelph, Ont	Can
Hoffman Industries Inc Div Clarkson Ind Inc New York	N Y
Howard Industries MSL Indus Inc, Motor Grp Racine	Wis
Ilg Industries Inc, Chicago	Ill
IMC Magnetics Corp Eastern Div, Westbury	N Y
IMC Magnetics Corp, New Hampshire Div Rochester	NH
Indiana General Corp Electro-Mechanical Div Oglesby	Ill
Kooltronic Fan Co, Princeton	N J
Lamb Electric Div Ametek Inc, Kent	Ohio
Martindale Electric Co, Cleveland	Ohio
McLean Engineering Labs, Princeton Junction	N J
MGD Pneumatics Inc, Racine	Wis
Molon Motor & Coil Corp, Rolling Meadows	Ill
Morrison Products Inc, Cleveland	Ohio
Pabst Engineering Equipment Co Inc, Elizabeth	NJ
Pamotor Inc, San Francisco	Cal
Perfectaire Equipment Co Inc, Cambridge	Mass
Philmore Mfg Co Inc, Richmond Hill	N Y
Plannair, Ltd, Leatherhead, Surrey	England
Porter Co Inc, H K Electrical Div, Pittsburgh	Pa
Premier Metal Products Co Inc, New York	N Y
Rett Electronics Inc, Warren	Mich
Ripley Co Inc, Middletown	Conn
Roberts & Associates Inc, E V, Culver City	Cal
Rotating Components Div Instrument Sys Corp Bay Shore	N Y
Rotron Mfg Co Inc, Woodstock	N Y
Sanders Associates, Inc, Nashua	N H
Singer Co, Diehl Div, Somerville	N J
Skurka Engineering Co, Los Angeles	Cal
Small Motors Inc Sub Sigma Instr Inc, Chicago	Ill
Standard Electric Mfg Co Inc, West Berlin	N J
Sunbeam Electronics, Fort Lauderdale	Fla
Task Corp, Anaheim	Cal
Torque Tronics, San Gabriel	Cal
Torrington Mfg Co, Torrington	Conn
Uppco Inc, Chicago	Ill
Vactric Control Equipment Ltd, Morden	England
Varo Inc, Garland	Tex
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan
Zero Mfg Co, Burbank	Cal

BLUEPRINT MACHINES SEE MACHINES--COPYING

BOARDS--CAPACITOR OR RESISTOR(NOT PRINTED WIRING)

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE	**WIS**
DALE ELECTRONICS INC, COLUMBUS	**NEB**
ELECTRICAL INSULATION CO INC, COPIAGUE	**N Y**
FILM MICROELECTRONICS, INC, BURLINGTON	**MASS**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
MESON ELECTRONICS CO, INC, ROCHESTER	**N Y**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
Abacus Electronics Corp, Dobbs Ferry	N Y
Accurate Electronics Corp, Elyria	Ohio
Aerolite Electronics Corp, Union City	N J
Allegri-Tech Inc, Nutley	N J
Atlantic Instruments & Electronics, Inc Watertown	Mass
Atomite Electronics Corp, Roosevelt	N Y
Automation Services Inc, Endicott	N Y
Buckeye Bobbin & Mfg Div Prec Paper Tube Co Westlake	Ohio
Cambridge Thermionic Corp, Cambridge	Mass
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Concord Electronics Corp, New York	N Y
Condor Industrial Corp, West Chicago	Ill
Dale Electronics Inc, Columbus	Neb
Decitron Electronics Corp, Brooklyn	N Y
DeSoto Electrical Products, DeSoto	Mo
Doran Mfg Co, Cincinnati	Ohio
Eby Co Hugh H, Philadelphia	Pa
Electrical Insulation Co Inc, Copiague	N Y
Film Microelectronics, Inc, Burlington	Mass
Gamble Industries, Charles T, Riverside	N J
Geo Space Corp, Houston	Tex
Hampden Mfg Co Inc, Thompsonville	Conn
Ikor, Inc, Burlington	Mass
Insulating Fabricators of N E Inc, Watertown	Mass
Insulating Shapes Inc, Bronx	N Y
Keystone Electronics Corp, New York	N Y
Lake Engineering Co Ltd, Scarborough	Ont
Long Inc, Thomas J, Carle Place	N Y
Meson Electronics Co, Inc, Rochester	N Y
M & M Electronics Corp, Amityville,	N Y
Molex Products Co, Downers Grove	Ill
Morey Corp, Downers Grove	Ill
National Tel-Tronics Corp, Great Neck	N Y
Neptune Electronics Co, New York	N Y
Randam Electronics Inc, Cincinnati	Ohio
Renco Electronics Inc, Hicksville	N Y
Resistance Products Co, Harrisburg	Pa
Rho Engineering Co, Los Angeles	Cal
Round Hill Associates, Inc, New York	N Y
S K G Associates Inc, Boston	Mass
Taffet Electronics Inc, Woodside	N Y
Tele Coil Co Inc, Camden	N J
Tri-Dex Co, Visalia	Cal
Vector Electronic Co Inc, Los Angeles	Cal

COOL IT

With an IMC vaneaxial fan—
40 models, from IMCUBE (1-inch cube) to 14.5-inch diameter, up to 3450 cfm.

Or a tubeaxial or propeller fan, or a centrifugal blower.
147 pages of catalog airmovers can't be listed in this space

Eastern Division
IMC Magnetics Corp.
570 Main Street
Westbury, N. Y. 11591
Tel (516) 334-7070
TWX 510-222-4469
imc

BOARDS, COMPUTER--PLOTTING

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
DISCON CORP, FORT LAUDERDALE	**FLA**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
Accurate Electronics Corp, Elyria	Ohio
Applied Devices Corp, College Point	n y
Automation Development Co, Culver City	Cal
Brooks & Perkins Inc, Detroit	Mich
Canadian Marconi Co, Montreal 16	Quebec
Concord Control Inc, Boston	Mass
Cosmos Industries Inc, Brooklyn	N Y
Discon Corp, Fort Lauderdale	Fla
Electronic Associates Inc, West Long Branch	N J
Felsenthal Instruments Co, Chicago	Ill
Gap Instrument Corp, Westbury	N Y
Geo Space Corp, Houston	Tex
Gerber Scientific Instrument Co, Hartford	Conn
Hartman Systems Co Inc, Huntington Station	N Y
IBM Corp, Armonk	N Y
IKL Inc, Newport Beach	Cal
Loral Electronic Systems, Div Loral Corp, New York	NY
Luminator Inc Display-Control Div, Plano	Tex
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Milgo Electronic Corp, Miami	Fla
Morey Corp, Downers Grove	Ill

BOARDS, COMPUTER--PLUG & PATCH

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AMP INCORPORATED, HARRISBURG, PA	**ADV PG 69**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
Accurate Electronics Corp, Elyria	Ohio
Allied Systems Corp, Greensboro	N C
AMP Incorporated, Harrisburg	Pa
Applied Dynamics, Inc, Ann Arbor	Mich
Astrodata Inc, Anaheim	Cal
Atlantic Instruments & Electronics, Inc Watertown	Mass
Auburn Plastics, Inc, Auburn	N Y
Cambridge Thermionic Corp, Cambridge	Mass
Canadian Marconi Co, Montreal 16	Quebec
Carter Precision Electric Co, Skokie	Ill
Condor Industrial Corp, West Chicago	Ill
Co-Ord Div LVC Industries Inc, Corona	NY
Cosmos Industries Inc, Brooklyn	N Y
Digital Equipment Corp, Maynard	Mass
Electronic Associates Inc, West Long Branch	N J
Eugene Engineering Co Inc, Rockland	Mass
Geo Space Corp, Houston	Tex
IBM Corp, Armonk	N Y
Ikor, Inc, Burlington	Mass
Mac Panel Co Div Adams-Millis Corp, High Point	N C
Malco Mfg Co Inc, Chicago	Ill
Molex Products Co, Downers Grove	Ill
Morey Corp, Downers Grove	Ill
National Tel-Tronics Corp, Great Neck	N Y
SAE Advanced Packaging Inc, Santa Ana	Cal
Sealectro Corp, Mamaroneck	N Y
Vector Electronic Co Inc, Los Angeles	Cal
Virginia Electronics Co Inc, Falls Church	Va
Whistler Electronics Inc, Northridge	Cal

PATCHBOARD SYSTEMS

AMP is a one-source supplier for a complete line of programming devices from single fixed panels through rack and panel mount systems with removable front patchboards. AMP's Shielded and Coaxial Patchboard Systems provide rapid re-programming of high frequency circuits with low cross talk.

DISTRICT OFFICES

MID-ATLANTIC
Camden, N.J. 08102
(609) WOodlawn 4-5955

CENTRAL
Columbus, Ohio 43212
(614) 486-0276

EASTERN
Stratford, Conn. 06497
(203) DRexel 8-2691

MID-WESTERN
Chicago, Ill. 60630
(312) SPring 4-1800
TWX: 312-265-1195

SOUTHERN PACIFIC
Hawthorne,
Calif. 90250
(213) 675-1186 and
772-4261
TWX: 213-647-5125

SOUTHERN
Atlanta, Ga. 30054
(404) 261-4151
or 4152

NORTHERN PACIFIC
Palo Alto, Calif. 94303
(415) 321-6292
TWX: 415-492-9447

WORLD HEADQUARTERS
Harrisburg, Pa. 17105
(717) 564-0101
TWX: 717-564-4103

AMP
INCORPORATED
Harrisburg, Pennsylvania

BOARDS, COMPUTER--PROBLEM

Acme Tool & Specialties Co, Des Plaines	Ill
Berg Electronics, Inc, New Cumberland	Pa
Canadian Marconi Co, Montreal 16	Quebec
Computer Logic Corp, Santa Monica	Cal
Co-Ord Div LVC Industries Inc, Corona	NY
Cosmos Industries Inc, Brooklyn	N Y
Flexible Circuits Inc, Warrington	Pa
Geo Space Corp, Houston	Tex
Honeywell Inc, Computer Control Div Framingham	Mass
Ikor, Inc, Burlington	Mass
Loral Electronic Systems, Div Loral Corp, New York	NY
Luminator Inc Display-Control Div, Plano	Tex
Morey Corp, Downers Grove	Ill
Systems Engineering Labs Inc, Ft Lauderdale	Fla
Tokyo Print Industrial Co Ltd, Tokyo	Japan
Virginia Panel Corp, Waynesboro	Va

BOARDS--MATRIX PROGRAM

Allied Systems Corp, Greensboro	N C
Co-Ord Div LVC Industries Inc, Corona	NY
Darcy Industries Inc, TSI Div, Santa Monica	Cal
Delevan Electronics Div Amer Prec Indus Inc East Aurora	N Y
Elco Corp, Willow Grove	Pa
Mid-West Metal Products Inc, Kansas City	Kans
Sealectro Corp, Mamaroneck	N Y
Virginia Panel Corp, Waynesboro	Va

BOARDS--PRINTED-CIRCUIT SEE LAMINATES;CIRCUITS--PRINTED WIRING

BOARDS--TERMINAL STRIP SEE TERMINAL STRIPS

BOATS & CRUCIBLES--SEMICONDUCTOR

STACKPOLE CARBON CO, ST MARYS	**PA**
Advance Carbon Products, Inc, San Francisco	Cal
Alch Instrument Co, Inc, Westbury	N Y
Allen-Jones Electronics Corp, Gardena	Cal
Alloys Unlimited Inc, Melville	N Y
Aremco Products Inc, Briarcliff Manor	N Y
Associated Engineering & Mfg Corp, Glen Ridge	N J
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Babcock & Wilcox Co Refractories Div, Augusta	Ga
Carler Products Corp, E Syracuse	N Y
Cerac Inc, Butler	Wis
C M Mfg Co, Bloomfield	N J
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park	N J
Dynasil Corp of America, Berlin	N J
Electronic Space Products Inc, Los Angeles	Cal
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Fansteel Metallurgical Corp, North Chicago	Ill
General Electric Co, Lamp Glass Dept Willoughby	Ohio
High Vacuum Equipment Corp, Hingham	Mass
Impectron Inc, New York	N Y
Kawecki Chemical Co, New York	N Y
Maryland Lava Co Inc, Bel Air	Md
McDanel Refractory Porcelain Co, Beaver Falls	Pa
Metal Ceram Inc, Mount Vernon	N Y
Met-Bay Inc, Bay City	Mich
Newark Wire Cloth Co, Newark	N J
Norton Co, Worcester	Mass
Ohio Carbon Co, Cleveland	Ohio
Poco Graphite, Inc, Garland	Tex
Quartzite Processing, Inc, Malden	Mass
Quartz & Silice, Paris 8 eme	France
Saxonburg Ceramics Inc, Pittsburgh	Pa
Semi-Alloys Inc, Mt Vernon	N Y
Semiconductor Specialties Corp, Fair Lawn	NJ
Stackpole Carbon Co, St Marys	Pa
Sylvania Elec Prods Inc, Chem & Met Div, Towanda	Pa
Syncor Products Co, Inc, Malden	Mass
Textool Products Inc, Irving	Tex
Thermal American Fused Quartz Co, Montville	N J
Ultra Carbon Corp, Bay City	Mich
Union Carbide Corp, Carbon Products Div New York	N Y
Wilkinson Co, Westlake Village	Cal

BOBBINS--COIL & TRANSFORMER **SEE ALSO FORMS**

AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
GRAYHILL INC, LA GRANGE	**ILL**
INDIANA GENERAL CORP ELECTRONICS DIV/FERRITES, KEASBEY	**N J**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
PICO PRODUCTS INC, RONKONKOMA	**NY**
SUPERIOR STEATITE & CERAMIC CORP, ENGLEWOOD	**N J**
American Lava Corp, Chattanooga	Tenn
Asheville-Schoonmaker Mica Co, Newport News	Va
Atomite Electronics Corp, Roosevelt	N Y
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Boonton Molding Co Inc, Boonton	N J
Buckeye Bobbin & Mfg Div Prec Paper Tube Co Westlake	Ohio
Cambridge Thermionic Corp, Cambridge	Mass
Carborundum Co Electrical & Elctns Br, Niagara Falls	NY
Ceram Corp, La Mesa	Cal
Chemplast Inc, Wayne	N J
Cincinnati Development & Mfg Co, Cincinnati	Ohio
Control Electronics Co Inc, Farmingdale	N Y
Cosmo Plastics Co, Cleveland	Ohio
Dinion Coil Co Inc, Caledonia	N Y
Dixon Corp, Bristol	R I
Dorco Electronics Inc, Compton	Cal
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park	N J
Electrical Plastics Corp, Lyndhurst	N J
Emerson Plastics Corp, Bronx	New York
EpoxyCast Electronic Case Co, Yonkers	N Y
Epoxy Products Co Div Allied Prod Inc New Haven	Conn
Ferricore Div Natl Moldite Co Inc, Newark	N J
Ferroxcube Corp, Saugerties	N Y
Francis Industries, Pataskala	Ohio
Franklin Fibre-Lamitex Corp, Wilmington	Del
Grayhill Inc, La Grange	Ill
Gries Reproducer Co Div Coats & Clark Inc New Rochelle	N Y
Gyrotron Corp, Waterbury	Conn
Hydro Molding Co Inc, Plattsburgh	N Y
Impectron Inc, New York	N Y
Indiana General Corp Electronics Div/Ferrites, Keasbey	N J
Insulating Shapes Inc, Bronx	N Y
Isolantite Mfg Corp, Stirling	N J
Kawecki Chemical Co, New York	N Y
Keystone Electronics Corp, New York	N Y
Leed Insulator Corp, Los Angeles	Cal
Maryland Lava Co Inc, Bel Air	Md
Metal Ceram Inc, Mount Vernon	N Y
Micro Parts Inc, Los Angeles	Cal
National Moldite Co Inc, Newark	N J
Niemand Bros Inc, Elmhurst	N Y
Norrich Plastics Corp, Roosevelt	N Y
Ny-Glass, Inc, Paramount	Cal
Orega Electronique & Mecanique Vincennes, Seine	France
Pico Products Inc, Ronkonkoma	NY
Precision Paper Tube Co, Wheeling	Ill
Product Components Corp, Hastings-on-Hudson	N Y
Quality Components Inc, St Marys	Pa
Resdel Corp, Rio Grande	N J
Richards Metal Products Inc, Wolcott	Conn
Rostone Corp, Lafayette	Ind
Sanyo Electric Co Ltd, Osaka	Japan
Saxonburg Ceramics Inc, Pittsburgh	Pa
Semi-Alloys Inc, Mt Vernon	N Y
Severna Div Amphenol Corp, East Orange	N J
Sierra Electric Inc, Gardena	Cal
Slocum Industries, Inc, Reseda	Cal
Smallwood Ltd, S G, Kitchener	Ont
Space Products Inc, Long Beach	Cal
Spaulding Fibre Co Inc, Tonawanda	N Y
Staffall, Inc, Providence	R I
Stettner-Trush Inc, Cazenovia	N Y
Stevens Products Inc, East Orange	N J
Stevens Tubing Corp, East Orange	N J
Superior Steatite & Ceramic Corp, Englewood	N J
Synthane Corp, Oaks	Pa
United Products Co, Orange	N J
Washington Electrical Products Co, Washington	Mo
Zaring Industries Inc, Carmel	Ind

BOLOMETERS--MICROWAVE

SEE ALSO INFRARED EQUIPMENT

GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Bruno-New York Industries Corp, New York	N Y
Film Components Div Reon Resister Corp, Yonkers	N Y
Filmohm Corp, Long Island City	N Y
General Microwave Corp, Farmingdale	N Y
Hewlett-Packard, Palo Alto	Cal
Maury Microwave Corp, Montclair	Cal
MSI Electronics Inc, Woodside	N Y
Mutron Corp, Brockton	Mass
Narda Microwave Corp, Plainview	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
TRG Div Control Data Corp, East Boston	Mass
Victor R F & Microwave Co, Wakefield	Mass
Weinschel Engineering Co Inc, Gaithersburg	Md

BOLOMETER MOUNTS SEE MOUNTS--BOLOMETER

BOLTS

STAR STAINLESS SCREW CO, PATERSON	**N J**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Abbott Products, Inc, College Point	N Y
Abscoa Industries, Inglewood	Cal
Adjustable Bushing Corp, North Hollywood	Cal
Aikow Shoji Kaisha Ltd, Osaka	Japan
Allmetal Screw Products Co Inc, Garden City	N Y
Aluminum Co of America, Pittsburgh	Pa
Anti-Corrosive Metal Products Co, Inc, Albany	N Y
Atomite Electronics Corp, Roosevelt	N Y
Camcar Screw & Mfg, Á Textron Div, Rockford	Ill
Central Screw Co, Broadview	Ill
Chase Metals Service Div Chase Brass & Copper Co Cleveland	Ohio
Elco Tool & Screw Corp, Rockford	Ill
Federal Screw Products Inc, Chicago	Ill
Gillette Electronic Products Co, Beverly	N J
Gries Reproducer Co Div Coats & Clark Inc New Rochelle	N Y
Harper Co, H M, Morton Grove	Ill
Heli-Coil Products, Div Heli-Coil Corp, Danbury	Conn
Hi-Shear Corp, Torrance	Cal
Huck Mfg Co, Detroit	Mich
Lehigh Metal Products Corp, Cambridge	Mass
Long-Lok Corp Sub Whittaker Corp, Los Angeles	Cal
MacLean-Fogg Lock Nut Co, Mundelein	Ill
Mercury Div Whittaker Corp, Culver City	Cal
Multi - Flex Seals Inc, Bronx	N Y
Norrich Plastics Corp, Roosevelt	N Y
Pennwood Numechron Co Tymeter Electronics Pittsburgh	Pa
Product Components Corp, Hastings-on-Hudson	N Y
Pylon Co, Inc, Attleboro	Mass
Ramsay Engineering Co, Anaheim	Cal
Republic Industrial Corp, Lathrup Village	Mich
Republic Steel Corp, Cleveland	Ohio
Rosan Inc, Newport Beach	Cal
Russell, Burdsall & Ward, Bolt & Nut Co Port Chester	N Y
Sanyo Electric Co Ltd, Osaka	Japan
Shigoto Industries Ltd, New York	N Y
Smith Inc, Herman H, Brooklyn	N Y
Stake Fastener Co, S El Monte	Cal
Standard Polymer Inc, Van Nuys	Cal
Star Stainless Screw Co, Paterson	N J
Tridair Industries Fastener Div, Torrance	Cal
Waldom Electronics Inc, Chicago	Ill
Wenco Mfg Co (Simplex), Chicago	Ill

BONDING JUMPERS SEE JUMPERS

BOOSTERS SEE AMPLIFIERS--R-F; AMPLIFIERS--TV

BORON

EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
Alloys Unlimited Inc, Melville	N Y
American Potash & Chemical Corp, Los Angeles	Cal
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerac Inc, Butler	Wis
Corco Chemical Corp, Fairless Hills	Pa
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Electronic Space Products Inc, Los Angeles	Cal
Kawecki Chemical Co, New York	N Y
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Mallinckrodt Chemical Works, St Louis	Mo
Metal Ceram Inc, Mount Vernon	N Y
Molybdenum Corp of America, New York	N Y
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
Shieldalloy Corp, Newfield	N J
20th Century Electronics Ltd New Addington, Surrey	England
Union Carbide Corp, Mining & Metals Div New York	N Y
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Electronics Corp, Bradford	Pa
Wacker Chemical Corp, New York	N Y

BORON CARBIDE

Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
Carborundum Co Electrical & Elctns Br, Niagara Falls	NY
Cerac Inc, Butler	Wis
Electronic Space Products Inc, Los Angeles	Cal
Geoscience Instruments Corp, Mt Vernon	N Y
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Metal Ceram Inc, Mount Vernon	N Y
3M Company, St Paul	Minn
Norton Co, Worcester	Mass
Nuclear Materials & Equipment Corp, Apollo	Pa
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
Shieldalloy Corp, Newfield	N J
Union Carbide Corp, Mining & Metals Div New York	N Y
Universal Shellac & Supply Co Inc, Brooklyn	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J

BORON NITRIDE

Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Bel-Ray Co, Inc, Farmingdale	N J
Bemol Co, Newton	Mass
Bram Metallurgical Chemical Co, Philadelphia	Pa
Carborundum Co Electrical & Elctns Br, Niagara Falls	NY
Cerac Inc, Butler	Wis
City Chemical Corp, New York	N Y
C M Mfg Co, Bloomfield	N J
Continental Sensing Inc, Melrose Park	Ill
Corco Chemical Corp, Fairless Hills	Pa
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park	N J
Kawecki Chemical Co, New York	N Y
Metal Ceram Inc, Mount Vernon	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Semiconductor Specialties Corp, Fair Lawn	NJ
Semi-Elements Inc, Saxonburg	Pa
Shieldalloy Corp, Newfield	N J
Sylvania Elec Prods Inc, Chem & Met Div, Towanda	Pa
Union Carbide Corp, Carbon Products Div New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Electronics Corp, Bradford	Pa

BOXES, DECADE--CAPACITOR

HEATH CO, BENTON HARBOR	**MICH**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
Aerovox Corp Distr Sales, New Bedford	Mass
Arco Electronics, Inc, Great Neck	N Y
Beckman Instruments Inc, Fullerton,	Cal
Biddle Co, James G, Plymouth Meeting	Pa
Canadian Research Institute, Don Mills	Ont
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electro Scientific Industries Inc, Portland	Ore
Electro Technic Products, Chicago	Ill
Freed Transformer Co Inc, Brooklyn	N Y
General Radio Co, West Concord	Mass
General Resistance Inc, New York	NY
Heath Co, Benton Harbor	Mich
Honeywell Test Instruments Div, Denver	Colo
Lafayette Radio Electronics, Syosset	NY
Leeds & Northrup Co, Philadelphia	Pa
Muirhead Instruments Inc, Mountainside	N J
Nichols Co Ltd, R H, Downsview	Ont
Philmore Mfg Co Inc, Richmond Hill	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Siemens America Inc, New York	N Y
Sprague Electric Co, North Adams	Mass
Stark Electronic Instruments Ltd, Ajax	Ont
Telstar Electronics Corp, Southold	N Y
Transformers Inc, Vestal	N Y
Waterbury Pressed Metal Co, Waterbury	Conn

BOXES, DECADE--COIL

UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
Aerovox Corp Distr Sales, New Bedford	Mass
Arnold Magnetics Corp, Los Angeles	Cal
Freed Transformer Co Inc, Brooklyn	N Y
General Radio Co, West Concord	Mass
Nichols Co Ltd, R H, Downsview	Ont
Solid State Electronics Corp, Sepulveda	Cal
Sprague Electric Co, North Adams	Mass
United Transformer Co Div TRW Inc, New York	N Y
Waterbury Pressed Metal Co, Waterbury	Conn
Winslow Tele-Tronics Inc, Asbury Park	NJ

BOXES, DECADE--RESISTOR

HEATH CO, BENTON HARBOR	**MICH**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
Aerovox Corp Distr Sales, New Bedford	Mass
Beckman Instruments Inc, Fullerton,	Cal
Biddle Co, James G, Plymouth Meeting	Pa
Brys Instrument Corp, Brooklyn	N Y
Canadian Research Institute, Don Mills	Ont
Clarostat Mfg Co Inc, Dover	N H
Ealing Corp, Cambridge	Mass
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electro Scientific Industries Inc, Portland	Ore
General Radio Co, West Concord	Mass
General Resistance Inc, New York	NY
Guildline Instruments Ltd, Smiths Falls	Ont
Hallmark Standards Inc, Mamaroneck	N Y
Heath Co, Benton Harbor	Mich
Honeywell Test Instruments Div, Denver	Colo
Jordan Electric Co, Van Nuys	Cal
Julie Research Labs, Inc, New York	N Y
Lafayette Radio Electronics, Syosset	NY
Leeds & Northrup Co, Philadelphia	Pa
Marma Electronic Co, Chicago	Ill
Marstan Electronics Div Balco Elctns Inc, Orange	N J
Monroe Electronics Inc, Middleport	N Y
Muirhead Instruments Inc, Mountainside	N J
Neptune Electronics Co, New York	N Y
Nichols Co Ltd, R H, Downsview	Ont
Ohmite Mfg Co, Skokie	Ill
Philmore Mfg Co Inc, Richmond Hill	N Y
Resistance Products Co, Harrisburg	Pa
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Shallcross Mfg Co Sub Cutler-Hammer, Selma	N C
Siemens America Inc, New York	N Y
Stark Electronic Instruments Ltd, Ajax	Ont
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taffet Electronics Inc, Woodside	N Y
Telstar Electronics Corp, Southold	N Y
Transformers Inc, Vestal	N Y
Vishay Resistor Prods Div Vishay Intertechnology Inc, Malvern	Pa
Waterbury Pressed Metal Co, Waterbury	Conn
Winslow Tele-Tronics Inc, Asbury Park	NJ

BOXES, DECADE--TIME DELAY

ANDERSEN LABORATORIES, INC, BLOOMFIELD	**CONN**
TECHMETRIC CO, REDWOOD CITY	**CAL**
ADC Electronics, Inc, Harbor City	Cal
Ad-Yu Electronics Inc, Passaic	N J
Andersen Laboratories, Inc, Bloomfield	Conn
Condor Industrial Corp, West Chicago	Ill
Control Logic Inc, Natick	Mass
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Lektra Labs Inc Div Kriser Corp, College Point	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Techmetric Co, Redwood City	Cal
Waterbury Pressed Metal Co, Waterbury	Conn

BOXES--SHIPPING & STORAGE

FLEX PRODUCTS CORP, CARLSTADT	**N J**
MM ELECTRONIC ENCLOSURES INC, HICKSVILLE N Y	**ADV PG 122**
Air Control Inc, Norristown	Pa
Akro-Mils, Inc, Akron	Ohio
Alden Systems, Inc, Brockton	Mass
Althor Products, Brooklyn	N Y
Anglo American Vulcanized Fibre Co Ltd London EC 1	England
Bal Corp, William, Elizabeth	N J
Ballonoff Metal Products Co, Cleveland	Ohio
Bay Products, Philadelphia	Pa
Buckeye Stamping Co, Columbus	Ohio
Calcor Space Facility Inc, Whittier	Cal
Champion Co, Springfield	Ohio
Corrugated Paper Products Inc, Roosevelt	N Y
Cutler Metal Products Co, Camden	N J
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Donnelly Mfg Co, Waltham	Mass
Eugene Engineering Co Inc, Rockland	Mass
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Falstrom Co, Passaic	N J
Federal Package Corp, Minneapolis	Minn
Fibre Products Div Ikelheimer-Ernst Inc, New York	N Y
Flex Products Corp, Carlstadt	N J
Flotron Industries Inc, El Segundo	Cal
Fox Co, C J, Providence	R I
Fry Plastics International Inc, Los Angeles	Cal
Goldsman Inc, Philadelphia	Pa
GTI Corp, Clover Industries Div, Tonawanda	N Y
Halliburton Enterprises Inc, Mfg Div, Los Angeles	Cal
Insulating Fabricators Inc, East Rutherford	N J
Lyon Metal Products Inc, Aurora	Ill
Middlesex Paper Tube Co Inc, Lowell	Mass
MM Electronic Enclosures Inc, Hicksville	N Y
Muckle Mfg Co, Owatonna	Minn
NVF Co, Wilmington	Del
Panel Controls Corp, Detroit	Mich
Plastofilm Inc, Wheaton	Ill
Rectico Inc, Cedar Grove	N J
Republic Steel Corp, Cleveland	Ohio
Skydyne Inc, Port Jervis	N Y
Stafford Mfg Co Inc, Brooklyn	N Y
Taffet Electronics Inc, Woodside	N Y
Vlchek Plastics Co, Middlefield	Ohio
Wickes Industries Inc, Camden	N J
Zero Mfg Co, Burbank	Cal

BRAKES--MAGNETIC

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
INDIANA GENERAL CORP ELECTRO-MECHANICAL DIV OGLESBY	**ILL**
SECS, INC, LONG ISLAND CITY	**N Y**
Altair Research & Mfg Co, Ontario	Cal
American Precision Industries Inc, East Aurora	NY
Autotronics Inc, Joplin	Mo
B & B Motor & Control Corp, New York	N Y
Clark Control Div, A O Smith Corp, Cleveland	Ohio
Conductron Corp, Ann Arbor	Mich
Consolidated Electric Corp, Seattle	Wash
Cutler-Hammer Inc, Milwaukee	Wisc
Delevan Electronics Div Amer Prec Indus Inc East Aurora	N Y
Dial Products Co, Bayonne	N J
Dynamic Instrument Corp, Plainview	N Y
Electroid Corp, Union	N J
Electro-Pacific Inc, Goleta	Cal
Fae Instrument Corp, Huntington Station	N Y
General Electric Co, ECSO, Schenectady	N Y
General-Electro Mechanical Corp, Buffalo	N Y
General Time, Industrial Controls Div, Torrington	Conn
Globe Industries Div TRW Inc, Dayton	Ohio
Haydon Products, Ind Controls Div Gen Time Corp, Torrington	Conn
Indiana General Corp Electro-Mechanical Div Oglesby	Ill
Kollsman Motor Corp, Dublin	Pa
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
LEM Instrument Corp, Farmingdale	N Y
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Magtrol Inc, Buffalo	N Y
Meltronics Inc, Massapequa	NY
Memcor Div LTV Electrosystems Inc, Huntington	Ind
Midwest Automatic Inc of Iowa, Des Moines	Iowa
Orbit Instrument Corp, Syosset	N Y
Precision Specialties Inc, Pitman	N J
Reliance Electric Co, Cleveland	Ohio
Robot Industries Inc, Dearborn	Mich
Safety Electrical Equipment Corp, New Haven	Conn
Secs, Inc, Long Island City	N Y
Simplatrol Products Corp, Worcester	Mass
Skurka Engineering Co, Los Angeles	Cal
Square D Co, Park Ridge	Ill
Sterling Instrument Div, Designatronics Inc Mineola	N Y
Technology Instrument Corp Sub Bowmar Instr Corp Newbury Park	Cal
Transco Motor Mfg Inc, Arcadia	Cal
Vibrac Corp, Chelmsford	Mass
Vogue Instrument Corp, Plainview	NY
Warner Electric Brake & Clutch Co, Beloit	Wisc

BRASS & BRONZE

UNIFORM TUBES INC, COLLEGEVILLE	**PA**
American Silver Co Div, Flushing	N Y
Anaconda American Brass Co, Waterbury	Conn
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Beemer Engineering Co, Fort Washington	Pa
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bristol Brass Co, Bristol	Conn
Cerro Corp, New York	NY
Chase Brass & Copper Co, Cleveland	Ohio
Chase Metals Service Div Chase Brass & Copper Co Cleveland	Ohio
Eastern Rolling Mills Inc, New York	N Y
General Findings Co Industrial Div, Attleboro	Mass
Hamilton Precision Metals Div Hamilton Watch Co Lancaster	Pa
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia	Pa
Leach & Garner Co, Industrial Div, Attleboro	Mass
Little Falls Alloys Inc, Paterson	N J
Mackay Inc, A D, New York	N Y
Metal Ceram Inc, Mount Vernon	N Y
Montgomery Co, Windsor Locks	Conn
M & T Chemicals Inc Sub American Can Co Rahway	N J
Phelps Dodge Copper Products Corp, New York	N Y
Porter Co Inc H K, Fabricated Metals Div Pittsburgh	Pa
Revere Copper & Brass, Inc, New York	N Y
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Somers Thin Strip Inc Sub Olin, Waterbury	Conn
Steel Heddle Mfg Co, Philadelphia	Pa
Unibraze Corp, New Rochelle	N Y
Uniform Tubes Inc, Collegeville	Pa
United American Metals Div, Brooklyn	N Y

BRAZING ALLOYS SEE ALLOYS--BRAZING

BRAZING FLUXES SEE FLUXES

Electronics Buyers' Guide

Your black book of
6500 manufacturers
addresses and phone
numbers.

Check the green section

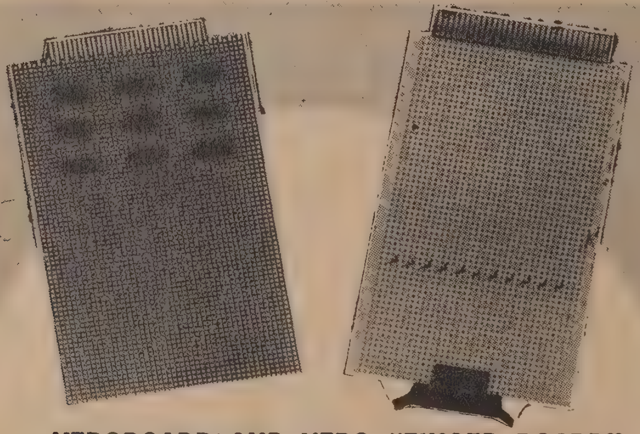
DIP BRAZING

Unquestioned
RELIABILITY
in
- **ALUMINUM FLUX-DIP BRAZING**
- Electro-Mechanical Assemblies
- Microwave Components

Ask for Bulletin
ADC-R5-1267

aluminum design corporation

9300 W. 47th Street, Brookfield, Illinois 60513
PHONE: 312 - 485-6290



VEROBOARD* AND VERO "FINGER BOARD" NOW OFFER TOTAL FLEXIBILITY FOR ALL PROTOTYPE AND PRODUCTION REQUIREMENTS

FEATURES INCLUDE:

VEROBOARD*
Hole Patterns — .050 x .050, .1 x .1, .150 x .150, .156 x .1, .2 x .2, .2 x .1
Over 200 Standard Sizes — Single and Double Sided x-y pattern
Material—XXXP and FR-4 Epoxy Glass.
*Patented

VERO "FINGER BOARDS"
Hole Patterns—.1 x .1, .052 dia.
Material—1/16 Epoxy Glass, FR-4.
Connector Fingers — 22 x .156, 44 x .156, 16 x .1, 32 x .1

OFF THE SHELF IN SIZES TO FIT ALL CARD FILE SYSTEMS

vero **VERO ELECTRONICS INC.**
176 Central Avenue, Farmingdale, New York 11735
Tel. 516 MY 4-6550 **TWX 510-224-6425**

BRAZING SERVICES

ALUMINUM DESIGN CORP, BROOKFIELD, ILL	**ADV PG 72**
Aluminum Design Corp, Brookfield	Ill

Forget the manufacturer's

phone number?

Check the green pages.

BREADBOARDS

AUGAT, INC, ATTLEBORO, MASS	**ADV PG 644**
BARNES CORP, LANSDOWNE	**PA**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
LAKE STATE INDUSTRIES DIV LAKE STATES OIL CO IRON MOUNTAIN MICH	**ADV PG 73**
VERO ELECTRONICS, INC, FARMINGDALE, N Y	**ADV PG 72**
WALDOM ELECTRONICS INC, CHICAGO, ILL	**ADV PG 73**
Aetna Electronics Corp, North Branch	N J
Augat, Inc, Attleboro	Mass
Barnes Corp, Lansdowne	Pa
Chemical & Aerospace Products Inc, Wilmington	Cal
Circuit Structures Lab, Burbank	Cal
DoAll Co, Des Plaines	Ill
Douglas Electronics Inc, San Leandro	Cal
Gamco Industries Datamate Div, Big Spring	Texas
General Electronic Labs Inc, Boston	Mass
Goodyear Aerospace Corp, Akron	Ohio
Keystone Electronics Corp, New York	N Y
Philmore Mfg Co Inc, Richmond Hill	N Y
Precision Mechanisms Corp, Westbury	N Y
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Stark Electronic Instruments Ltd, Ajax	Ont
Sterling Instrument Div, Designatronics Inc Mineola	N Y
Vector Electronic Co Inc, Los Angeles	Cal
Vero Electronics, Inc, Farmingdale	N Y
Waldom Electronics Inc, Chicago	Ill

If it isn't in EBG's

product directory,

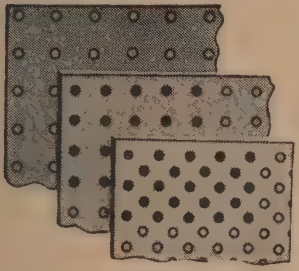
it probably hasn't

been invented yet.

BREAKDOWN TESTERS SEE TESTERS--INSULATION

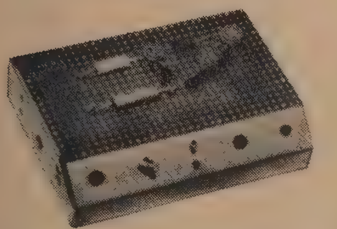
see your waldom distributor for . . .

waldom circuit boards



A wide selection of Phenolic, Epoxy, Glass Epoxy & Copper Clad circuit boards for O.E.M., R & D, Experimenters and Hobbyists. Available in punched and unpunched styles in many standard sizes. Can be precut to your specifications on quantity orders. Copper clad boards are sealed in polly bags for protection.

breadboarding kits & accessories



An exceptional selection of sizes and types. All-metal bases, available in both straight-sided and slanted front panel models. Each kit prepacked with a wide variety of assembly accessories.

See your Waldom distributor for complete catalog or write . . .

waldom
4627 West 53rd Street
Chicago, Illinois 60632
312—585-1212

The FASKONEX Electronic Circuit Connecting System

FASKONEX provides reliable, solderless, electrical connections. Designed for fast, stable, compact connections, the FASKONEX system is presented in a kit containing circuit panels, tie plates, binding posts, mounting bracket, insertion tool, and associated hardware necessary for circuit building. Advantages of the system include low contract resistance and wide frequency range. Pressure contacts eliminate soldered joints and make interconnection of circuit elements fast and easy. The simplicity of component changing with the FASKONEX system is an attractive feature for educational, research and development applications.

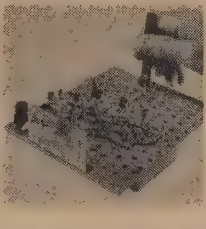


Fig. 1. Kit ECP-K1 showing mounting of typical components and use of pin insertion tool.

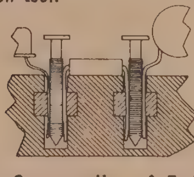


Fig. 2. Cross section of Faskonex junction.

The Principal advantages of the FASKONEX system are:

- Fast assembly of circuit is facilitated.
- Low contact resistance is obtained both initially and over a long period of time.
- Repeated re-use of components is facilitated.
- Wide Frequency range is accommodated by the FASKONEX system; recommended for circuits over the range from zero to ten million hertz including d-c amplifier applications.

THIS SYSTEM IS IN USE AT THESE INSTITUTIONS.

Bell Laboratory • M. I. T. • Williams College • U. S. Air Force (Hill AFB) • Parks College of Aeronautical Tech. • University of Pacific • Research Triangle Institute • California State Polytechnic College • California State College • University of New Mexico • Stanford University • Northeastern University • Kansas State University • Vadys Associates Ltd. • Univ. of Pennsylvania Moore School of Electrical Eng. • Mississippi State University • Brown University • Auburn University • Brigham Young University • North Dakota State University

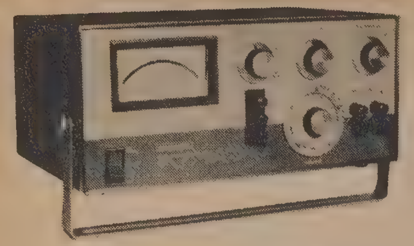
LAKE STATES INDUSTRIES
Division of Lake States Oil Company
Iron Mountain, Michigan 49801 Tel: (906) 774-0454

BRIDGES--CAPACITANCE

DRANETZ ENGINEERING LABS INC, PLAINFIELD .... N J
GENERAL ELECTRIC CO, ECSO, SCHENECTADY
N Y .... ADV PGS 7
HEATH CO, BENTON HARBOR .... MICH
HEWLETT-PACKARD, PALO ALTO .... CAL
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND .... OHIO
HONEYWELL TEST INSTRUMENTS DIV, DENVER
COLO .... ADV PGS [illegible]
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON .... N Y
Advanced Technology & Systems Corp
Old Greenwich .... Conn
A & M Instruments Inc, Great Neck .... N Y
Ando Electric Co Ltd, Ohta-ku, Tokyo .... Japan
Beckman Instruments Inc, Fullerton, ... Cal
Boonton Electronics Corp, Parsippany .... N J
Canadian Research Institute, Don Mills .... Ont
Clinton Instrument Co, Clinton .... Conn
Clough-Brengle Co, Chicago Ill
Cornell-Dubilier Electronics Div Federal Pacific Electric
Co, Newark .... N J
Davidson Electronic Development Co, Erie .... Pa
Dowa Trading Co Ltd, Kobe .... Japan
Dranetz Engineering Labs Inc, Plainfield .... N J
Ecco Electronic Components Corp, Mount Vernon .... N Y
EICO Electronic Instrument Co Inc, Brooklyn ...... NY
Electronic Measurements Corp, New York .... N Y
Electro Scientific Industries Inc, Portland ...... Ore
Epic Inc, New York .... N Y
Freed Transformer Co Inc, Brooklyn .... N Y
General Electric Co, ECSO, Schenectady .... N Y
General Radio Co, West Concord .... Mass
Hallmark Standards Inc, Mamaroneck .... N Y
Heath Co, Benton Harbor .... Mich
Hewlett-Packard, Palo Alto .... Cal
Hickok Electrical Instrument Co, Cleveland .... Ohio
Honeywell Test Instruments Div, Denver .... Colo
Ikor, Inc, Burlington .... Mass
Industrial Control Co, Farmingdale .... N Y
Industrial Test Equipment Co, Port Washington .... N Y
Landis & Gyr, Inc, New York .... N Y
LaPine Scientific Co, Chicago Ill
Leeds & Northrup Co, Philadelphia .... Pa
Lion Research Corp, Newton .... Mass
London Co, Westlake .... Ohio
Marconi Instruments Div, English Electric Corp
Englewood .... N J
Micro Instrument Co, Hawthorne .... Cal
Muirhead Instruments Inc, Mountainside .... N J
Nichols Co Ltd, R H, Downsview .... Ont
Optimized Devices, Inc, Pleasantville .... N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Radiometer A/S, Copenhagen NV .... Denmark
Rohde & Schwarz Sales Co USA Inc, Passaic .... N J
Roveti Instruments, Annapolis .... Md
Siemens America Inc, New York .... N Y
Sprague Electric Co, North Adams .... Mass
Stark Electronic Instruments Ltd, Ajax .... Ont
Transformers Inc, Vestaf .... N Y
Tresco Inc, Philadelphia .... Pa
Wayne Kerr Corp, Montclair .... NJ
Winslow Tele-Tronics Inc, Asbury Park .... NJ

BRIDGES--DEVIATION

DRANETZ ENGINEERING LABS INC, PLAINFIELD .... N J
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON .... N Y
Advanced Technology & Systems Corp
Old Greenwich .... Conn
Ad-Yu Electronics Inc, Passaic .... N J
Angstrohm Precision, Inc, Van Nuys .... Cal
Beckman Instruments Inc, Fullerton, ... Cal
B & K Instruments Inc of Bruel & Kjaer
Cleveland .... Ohio
Clinton Instrument Co, Clinton .... Conn
Davidson Electronic Development Co, Erie .... Pa
Dranetz Engineering Labs Inc, Plainfield .... N J
Electro Scientific Industries Inc, Portland ...... Ore
General Radio Co, West Concord .... Mass
General Resistance Inc, New York .... NY
Hallmark Standards Inc, Mamaroneck .... N Y
Industrial Test Equipment Co, Port Washington .... N Y
Julie Research Labs, Inc, New York .... N Y
Plessey Airborne Corp, Hillside .... NJ
Radiometer A/S, Copenhagen NV .... Denmark
Rohde & Schwarz Sales Co USA Inc, Passaic .... N J
Slaughter Co, Ardmore .... Okla
Taffet Electronics Inc, Woodside .... N Y
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio
Wayne Kerr Corp, Montclair .... NJ



MODEL 320 VECTOR
IMPEDANCE METER
for direct reading from
5 Hz to 500 kHz.

☐ Resistance or impedance range: 1 ohm to 10 megohms; Capacitance to 10,000 mfd; Inductance to 100,000 henries; ☐ Also measures transfer function; ☐ Reads phase and amplitude with 301 Phase Meter; ☐ All solid-state; ☐ DC outputs for recording; ☐ Sampling instruments also available; ☐ Write Dept. DEB. (See also: Comparators-Impedance)

DRANETZ
ENGINEERING LABORATORIES, INC.
1233 North Ave., Plainfield, N.J. 07062
Telephone Area Code: (201) 755 7080

IMPEDANCE – ADMITTANCE METERS ■ PHASE METERS ■ TRANSFER FUNCTION COMPUTERS ■ INSTRUMENT TRANSFORMERS ■ OSCILLATORS ■ SAMPLING VOLTMETERS ■ PULSE INSTRUMENTATION ■ FROM SINGLE INSTRUMENTS TO COMPLETE SYSTEMS

BRIDGES--IMPEDANCE, A-F, R- F & VHF

ANAREN MICROWAVE INC, SYRACUSE	**N Y**
DRANETZ ENGINEERING LABS INC, PLAINFIELD N J	**ADV PG 74**
FLUKE MFG CO INC, JOHN, SEATTLE	**WASH**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEATH CO, BENTON HARBOR	**MICH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
TEXSCAN CORP, INDIANAPOLIS	**IND**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Alcatel, Paris 8eme	France
Alford Mfg Co, Winchester	Mass
Anaren Microwave Inc, Syracuse	N Y
Ando Electric Co Ltd, Ohta-ku, Tokyo	Japan
Anzac Electronics, Waltham	Mass
Bayly Engineering Ltd, Ajax	Ontario
Beckman Instruments Inc, Fullerton,	Cal
Blonder-Tongue Labs Inc, Newark	N J
Boonton Electronics Corp, Parsippany	N J
Canadian Research Institute, Don Mills	Ont
Compagnie Generale de Metrologie Haute Savoie	France
Delta Electronics Inc, Alexandria	Va
Dranetz Engineering Labs Inc, Plainfield	N J
Edwin Industries Corp, Silver Spring	Md
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electro Scientific Industries Inc, Portland	Ore
Fluke Mfg Co Inc, John, Seattle	Wash
General Microwave Corp, Farmingdale	N Y
General Radio Co, West Concord	Mass
Heath Co, Benton Harbor	Mich
Hewlett-Packard, Palo Alto	Cal
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Jerrold Electronics Corp, Philadelphia	Pa
Kyoritsu Electric Works Ltd, Tokyo	Japan
Lab Electro-Acoustique, 92 Rueil-Malmaison	France
London Co, Westlake	Ohio
Marconi Instruments Div, English Electric Corp Englewood	N J
Millen Mfg Co Inc, James, Malden	Mass
Muirhead Instruments Inc, Mountainside	N J
Quindar Electronics Inc, Springfield	NJ
Radiometer A/S, Copenhagen NV	Denmark
Rantec Div Emerson Electric Co, Calabasas	Cal
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Roveti Instruments, Annapolis	Md
Siemens America Inc, New York	N Y
Solar Electronics Co, Hollywood	Cal
Systems Electronics Inc, Cleveland	Ohio
Tecnica Elettronica Systems S a s, Milan	Italy
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach	Cal
Texscan Corp, Indianapolis	Ind
Transformers Inc, Vestal	N Y
Wayne Kerr Corp, Montclair	NJ
Weinschel Engineering Co Inc, Gaithersburg	Md
Wiltron Co, Palo Alto	Cal
Winslow Tele-Tronics Inc, Asbury Park	NJ

BRIDGES--IMPEDANCE, MICROWAVE

ANAREN MICROWAVE INC, SYRACUSE	**N Y**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
TEXSCAN CORP, INDIANAPOLIS	**IND**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Alford Mfg Co, Winchester	Mass
Anaren Microwave Inc, Syracuse	N Y
Anzac Electronics, Waltham	Mass
Chrysler Corp, Space Div, Huntsville Oper Huntsville	Ala
Compagnie Generale de Metrologie Haute Savoie	France
General Microwave Corp, Farmingdale	N Y
General Radio Co, West Concord	Mass
Hewlett-Packard, Palo Alto	Cal
Merrimac Research & Development Inc West Caldwell,	N J
Micronetics Div Teledyne Systems Co, San Diego	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Rantec Div Emerson Electric Co, Calabasas	Cal
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach	Cal
Texscan Corp, Indianapolis	Ind
Weinschel Engineering Co Inc, Gaithersburg	Md
Wiltron Co, Palo Alto	Cal

BRIDGES--INDUCTANCE

DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON	**N Y**
Ando Electric Co Ltd, Ohta-ku, Tokyo	Japan
Beckman Instruments Inc, Fullerton,	Cal
Boonton Electronics Corp, Parsippany	N J
Clough-Brengle Co, Chicago	Ill
Dranetz Engineering Labs Inc, Plainfield	N J
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electro Scientific Industries Inc, Portland	Ore
Freed Transformer Co Inc, Brooklyn	N Y
General Radio Co, West Concord	Mass
Hewlett-Packard, Palo Alto	Cal
Industrial Test Equipment Co, Port Washington	N Y
Malaker Corp, High Bridge	N J
Marconi Instruments Div, English Electric Corp Englewood	N J
Muirhead Instruments Inc, Mountainside	N J
Nichols Co Ltd, R H, Downsview	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radiometer A/S, Copenhagen NV	Denmark
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Siemens America Inc, New York	N Y
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Transformers Inc, Vestal	N Y
Wayne Kerr Corp, Montclair	NJ
Winslow Tele-Tronics Inc, Asbury Park	NJ

BRIDGES--POWER MICROWAVE

GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Carco Electronics, Menlo Park	Cal
General Microwave Corp, Farmingdale	N Y
Hewlett-Packard, Palo Alto	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Narda Microwave Corp, Plainview	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Weinschel Engineering Co Inc, Gaithersburg	Md

BRIDGES--POWER, R-F

BIRD ELECTRONIC CORP, CLEVELAND (SOLON)	**OHIO**
DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
A & M Instruments Inc, Great Neck	N Y
Bendix Corp, Microwave Devices Div, Franklin	Ind
Bird Electronic Corp, Cleveland (Solon)	Ohio
Bruno-New York Industries Corp, New York	N Y
Delta Electronics Inc, Alexandria	Va
Dranetz Engineering Labs Inc, Plainfield	N J
General Microwave Corp, Farmingdale	N Y
Hewlett-Packard, Palo Alto	Cal
Measurements A McGraw-Edison Div, Boonton	N J
Narda Microwave Corp, Plainview	N Y
New Tronics Corp, Cleveland	Ohio
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Servo Corp of America, Hicksville	N Y
Weinschel Engineering Co Inc, Gaithersburg	Md
Wiltron Co, Palo Alto	Cal

BRIDGES--RESISTANCE

DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PG 7**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PG 8**
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON	**N Y**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
Advanced Technology & Systems Corp Old Greenwich	Conn
Amstro Corp, Fairfield	N J
Angstrohm Precision, Inc, Van Nuys	Cal
Astro-Space Labs Inc, Huntsville	Ala
Bayly Engineering Ltd, Ajax	Ontario
Beckman Instruments Inc, Fullerton,	Cal
Biddle Co, James G, Plymouth Meeting	Pa
Boonton Electronics Corp, Parsippany	N J
Bristol Div, American Chain & Cable Co Waterbury	Conn
Canadian Research Institute, Don Mills	Ont
Central Scientific Co, Chicago	Ill
Clinton Instrument Co, Clinton	Conn
Clough-Brengle Co, Chicago	Ill
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Dranetz Engineering Labs Inc, Plainfield	N J
Ealing Corp, Cambridge	Mass
Electro Scientific Industries Inc, Portland	Ore
Engineering Associates, Dayton	Ohio
Epic Inc, New York	N Y
Eppley Lab Inc, Newport	R I
General Electric Co, ECSO, Schenectady	N Y
General Radio Co, West Concord	Mass
General Resistance Inc, New York	NY
Guildline Instruments Ltd, Smiths Falls	Ont
Hallmark Standards Inc, Mamaroneck	N Y
Helm Instrument Co Inc, Toledo	Ohio
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Honeywell Test Instruments Div, Denver	Colo
IB Instruments Inc, Cleveland	Ohio
Industrial Test Equipment Co, Port Washington	N Y
Julie Research Labs, Inc, New York	N Y
Keithley Instruments Inc, Cleveland	Ohio
Landis & Gyr, Inc, New York	N Y
Leeds & Northrup Co, Philadelphia	Pa
Malaker Corp, High Bridge	N J
Marconi Instruments Div, English Electric Corp Englewood	N J
Marstan Electronics Div Balco Elctns Inc, Orange	N J
McKee-Pedersen Instruments, Danville	Cal
Medistor Instrument Co, Seattle	Wash
Mepco Inc, Morristown	N J
Millivac Instruments Inc, Schenectady	N Y
Muirhead Instruments Inc, Mountainside	N J
Nichols Co Ltd, R H, Downsview	Ont
Nytronics Inc, Precision Resistor Div, Kutztown	Pa
Pacific Metrology Labs, Inc, San Diego	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Precision Standards Corp, San Marino	Cal
Pulse Communications Inc, Falls Church	Va
Quindar Electronics Inc, Springfield	NJ
RdF Corp, Hudson	N H
Resistance Products Co, Harrisburg	Pa
RFL Industries Inc, Instrumentation Div, Boonton	N J
Robertson Instrument Co, Azusa	Cal
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Rosemount Engineering Co, Minneapolis	Minn
Shallcross Mfg Co Sub Cutler-Hammer, Selma	N C
Stark Electronic Instruments Ltd, Ajax	Ont
Sticht Co Inc, Herman H, New York	N Y
Streeter-Amet, Grayslake	Ill
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taffet Electronics Inc, Woodside	N Y
Takeda Riken Industry Co Ltd, Tokyo	Japan
Temtech, Santa Ana	Cal
Thermal Systems Inc, Los Angeles	Cal
Transformers Inc, Vestal	N Y
Vishay Resistor Prods Div Vishay Intertechnology Inc, Malvern	Pa
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Wayne Kerr Corp, Montclair	NJ
Western Reserve Electronics, Inc, Cleveland	Ohio
Weston Instruments Div Weston Instr Inc, Newark	N J
Winsco Instruments & Controls Co Inc Santa Monica	Cal
Winslow Tele-Tronics Inc, Asbury Park	NJ
Yokogawa Electric Works Inc, Larchmont	N Y

BRIDGES--SELF-BALANCING

DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PG 8**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW	**N Y**
Advanced Technology & Systems Corp Old Greenwich	Conn
A & M Instruments Inc, Great Neck	N Y
Beckman Instruments Inc, Fullerton,	Cal
Bristol Div, American Chain & Cable Co Waterbury	Conn
Cambridge Systems Inc, Newton	Mass
CEA Div Berkleonics Inc, Monrovia	Cal
Davidson Electronic Development Co, Erie	Pa
Dranetz Engineering Labs Inc, Plainfield	N J
Electro Scientific Industries Inc, Portland	Ore
General Microwave Corp, Farmingdale	N Y
General Radio Co, West Concord	Mass
Hickok Electrical Instrument Co, Cleveland	Ohio
Hickok Teaching Systems Inc, Cambridge	Mass
Honeywell Test Instruments Div, Denver	Colo
Julie Research Labs, Inc, New York	N Y
Leeds & Northrup Co, Philadelphia	Pa
3M Company, St Paul	Minn
Narda Microwave Corp, Plainview	N Y
North Atlantic Industries Inc, Plainview	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Precision Mecanique Labinal, 93 Saint-Ouen	France
Robertson Instrument Co, Azusa	Cal
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Wayne Kerr Corp, Montclair	NJ
Westronics Inc, Fort Worth	Tex

BRIDGES--THERMISTOR

GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Advanced Technology & Systems Corp Old Greenwich	Conn
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Atkins Technical, Inc, Gainesville	Fla
Cambridge Systems Inc, Newton	Mass
Canadian Research Institute, Don Mills	Ont
Gas Analysis Systems Inc, Basking Ridge	NJ
General Microwave Corp, Farmingdale	N Y
General Resistance Inc, New York	NY
Hallmark Standards Inc, Mamaroneck	N Y
Hewlett-Packard, Palo Alto	Cal
Innes Instruments, Pasadena	Cal
Meteorology Research Inc, Altadena	Cal
Narda Microwave Corp, Plainview	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Precision Mecanique Labinal, 93 Saint-Ouen	France
Ramsay Engineering Co, Anaheim	Cal
Signet Scientific Co, Burbank	Cal
Temtech, Santa Ana	Cal
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Weinschel Engineering Co Inc, Gaithersburg	Md
West Coast Research Corp, Los Angeles	Cal
Winsco Instruments & Controls Co Inc Santa Monica	Cal

BRIDGES--VACUUM-TUBE &TRANSISTOR COEFFICIENT

HEWLETT-PACKARD, PALO ALTO	**CAL**
Asheville-Schoonmaker Mica Co, Newport News	Va
Compagnie Generale de Metrologie Haute Savoie	France
Hewlett-Packard, Palo Alto	Cal
Plessey Airborne Corp, Hillside	NJ
Taffet Electronics Inc, Woodside	N Y

Check the top of

the pages for

alphabetical listing

of product categories

BROADCAST PROGRAMMING SYSTEMS

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
Altec Lansing Div LTV Ling Altec Inc, Anaheim	Cal
Ampex Corp, Redwood City	Cal
Anritsu Electric Co Ltd, Tokyo	Japan
Ball Brothers Research Corp, Boulder	Colo
Bauer Broadcast Div Granger Assoc, Palo Alto	Cal
Broadcast Electronics Inc, Silver Spring	Md
Central Dynamics Ltd, Pte Claire	Que
Chrono-Log Corp, Broomall	Pa
Continental Electronics Mfg Co Sub LTV Electrosystems Inc, Dallas	Tex
Disan Engineering Corp, Nowata	Okla
EMI Electronics Ltd, Hayes, Middlesex	England
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Gates Radio Co, Quincy	Ill
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
Kobe Industries Corp, Kobe	Japan
Marathon Products Corp, West Boylston	Mass
Oki Electric Industry Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Raecord Inc, Paterson	N J
RFL Industries Inc, Communications Div, Boonton	N J
Riker Video Div, Hauppauge	N Y
Sparta Electronic Corp, Sacramento	Cal
Tape-Athon, Inglewood	Cal
Tele Measurements Inc, Clifton	N J
Trepac Corp of America, Englewood	N J
Vikoa Inc, Hoboken	N J
Visual Electronics Labs Audio Div, Pasadena	Cal

BROADCAST RECEIVERS SEE RECEIVERS--RADIO

BROADCAST STUDIO TV SEE TV SYSTEMS

BROADCAST TRANSMITTERS SEE TRANSMITTERS--BROADCAST

BRONZE SEE BRASS & BRONZE: PHOSPHOR BRONZE

BRUSHES--CARBON

AIRFLYTE ELECTRONICS CO, BAYONNE	**N J**
ELECTRO-TEC CORP, ORMOND BEACH	**FLA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GRAPHITE METALLIZING CORP, YONKERS, N Y	**ADV PG 76**
STACKPOLE CARBON CO, ST MARYS	**PA**
Advance Carbon Products, Inc, San Francisco	Cal
Airflyte Electronics Co, Bayonne	N J
Aviation Electric Ltd, St Laurent, Montreal	Que
B & B Motor & Control Corp, New York	N Y
Carbone Corp, Boonton	N J
Consolidated Electric Corp, Seattle	Wash
Eagle Electric Mfg Co Inc, Long Island City	N Y
Electro-Tec Corp, Ormond Beach	Fla
General Electric Co, ECSO, Schenectady	N Y
Graphite Metallizing Corp, Yonkers	N Y
Helwig Carbon Products Inc, Milwaukee	Wisc
Metal Ceram Inc, Mount Vernon	N Y
Ohio Carbon Co, Cleveland	Ohio
Pure Carbon Co Inc, St Marys	Pa
St Marys Carbon Co, St Marys	Pa
Sanyo Electric Co Ltd, Osaka	Japan
Semi-Alloys Inc, Mt Vernon	N Y
Stackpole Carbon Co, St Marys	Pa
Superior Carbon Products Inc, Cleveland	Ohio
Union Carbide Corp, Carbon Products Div New York	N Y
U S Graphite Co Div The Wickes Corp, Saginaw	Mich

BRUSHES--GRAPHITE

AIRFLYTE ELECTRONICS CO, BAYONNE	**N J**
ELECTRO-TEC CORP, ORMOND BEACH	**FLA**
GRAPHITE METALLIZING CORP, YONKERS, N Y	**ADV PG 76**
STACKPOLE CARBON CO, ST MARYS	**PA**
Advance Carbon Products, Inc, San Francisco	Cal
Airflyte Electronics Co, Bayonne	N J
Aviation Electric Ltd, St Laurent, Montreal	Que
Bemol Co, Newton	Mass
Carbone Corp, Boonton	N J
Electro-Tec Corp, Ormond Beach	Fla
Graphite Metallizing Corp, Yonkers	N Y
Helwig Carbon Products Inc, Milwaukee	Wisc
Metal Ceram Inc, Mount Vernon	N Y
Ohio Carbon Co, Cleveland	Ohio
Pure Carbon Co Inc, St Marys	Pa
St Marys Carbon Co, St Marys	Pa
Sanyo Electric Co Ltd, Osaka	Japan
Semi-Alloys Inc, Mt Vernon	N Y
Stackpole Carbon Co, St Marys	Pa
Superior Carbon Products Inc, Cleveland	Ohio
Textool Products Inc, Irving	Tex
Union Carbide Corp, Carbon Products Div New York	N Y
U S Graphite Co Div The Wickes Corp, Saginaw	Mich

BRUSHES--METAL

AIRFLYTE ELECTRONICS CO, BAYONNE	**N J**
ELECTRO-TEC CORP, ORMOND BEACH	**FLA**
MICRO CONTACTS, INC, HICKSVILLE	**N Y**
NEY CO, J M, BLOOMFIELD	**CONN**
STACKPOLE CARBON CO, ST MARYS	**PA**
Advance Carbon Products, Inc, San Francisco	Cal
Airflyte Electronics Co, Bayonne	N J
Alloys Unlimited Inc, Melville	N Y
Bemol Co, Newton	Mass
Carbone Corp, Boonton	N J
Electro-Tec Corp, Ormond Beach	Fla
General Findings Co Industrial Div, Attleboro	Mass
Helwig Carbon Products Inc, Milwaukee	Wisc
Hit Products Corp, South Norwalk	Conn
Jonard Industries Corp, Bronx	N Y
Metal Ceram Inc, Mount Vernon	N Y
Micro Contacts, Inc, Hicksville	N Y
Ney Co, J M, Bloomfield	Conn
Ohio Carbon Co, Cleveland	Ohio
Pure Carbon Co Inc, St Marys	Pa
St Marys Carbon Co, St Marys	Pa
Sanyo Electric Co Ltd, Osaka	Japan
Semi-Alloys Inc, Mt Vernon	N Y
Stackpole Carbon Co, St Marys	Pa
Superior Carbon Products Inc, Cleveland	Ohio
Techni-Tool Inc, Philadelphia	Pa
U S Graphite Co Div The Wickes Corp, Saginaw	Mich

BRUSHES--METAL-GRAPHITE

AIRFLYTE ELECTRONICS CO, BAYONNE	**N J**
ELECTRO-TEC CORP, ORMOND BEACH	**FLA**
GRAPHITE METALLIZING CORP, YONKERS, N Y	**ADV PG 76**
STACKPOLE CARBON CO, ST MARYS	**PA**
Advance Carbon Products, Inc, San Francisco	Cal
Airflyte Electronics Co, Bayonne	N J
Alloys Unlimited Inc, Melville	N Y
Bemol Co, Newton	Mass
Carbone Corp, Boonton	N J
Electro-Tec Corp, Ormond Beach	Fla
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Fabricast Inc, South El Monte	Cal
Graphite Metallizing Corp, Yonkers	N Y
Helwig Carbon Products Inc, Milwaukee	Wisc
Lind Electro Development A Teledyne Co Mountain View	Cal
Metal Ceram Inc, Mount Vernon	N Y
Ohio Carbon Co, Cleveland	Ohio
Ostby & Barton Co, Providence	R I
Pure Carbon Co Inc, St Marys	Pa
St Marys Carbon Co, St Marys	Pa
Sanyo Electric Co Ltd, Osaka	Japan
Semi-Alloys Inc, Mt Vernon	N Y
Stackpole Carbon Co, St Marys	Pa
Superior Carbon Products Inc, Cleveland	Ohio
Union Carbide Corp, Carbon Products Div New York	N Y
U S Graphite Co Div The Wickes Corp, Saginaw	Mich

BRUSHES--SLIP RING

AIRFLYTE ELECTRONICS CO, BAYONNE, N J	**ADV PG 641**
CHICAGO SWITCH F & F, CHICAGO	**ILL**
ELECTRO-TEC CORP, ORMOND BEACH	**FLA**
GRAPHITE METALLIZING CORP, YONKERS, N Y	**ADV PG 76**
MICRO CONTACTS, INC, HICKSVILLE	**N Y**
NEY CO, J M, BLOOMFIELD	**CONN**
POLY SCIENTIFIC DIV LITTON INDUSTRIES, BLACKSBURG	**VA**
STACKPOLE CARBON CO, ST MARYS	**PA**
Advance Carbon Products, Inc, San Francisco	Cal
Airflyte Electronics Co, Bayonne	N J
Alloys Unlimited Inc, Melville	N Y
American Circuit-Tronics Corp, Royal Oak	Mich
Bemol Co, Newton	Mass
Brainin Corp, C S, Mt Vernon	N Y
Carbone Corp, Boonton	N J
Chicago Switch F & F, Chicago	Ill
Collectron Corp, New York	N Y
Electro-Tec Corp, Ormond Beach	Fla
Fabricast Inc, South El Monte	Cal
General Findings Co Industrial Div, Attleboro	Mass
Graphite Metallizing Corp, Yonkers	N Y
Helwig Carbon Products Inc, Milwaukee	Wisc
Hit Products Corp, South Norwalk	Conn
Lind Electro Development A Teledyne Co Mountain View	Cal
Metal Ceram Inc, Mount Vernon	N Y
Micro Contacts, Inc, Hicksville	N Y
Ney Co, J M, Bloomfield	Conn
Northern Precision Labs Inc, Fairfield	N J
Occo Mfg Corp, South Hackensack	N J
Ohio Carbon Co, Cleveland	Ohio
Ostby & Barton Co, Providence	R I
Poly Scientific Div Litton Industries, Blacksburg	VA
Pure Carbon Co Inc, St Marys	Pa
St Marys Carbon Co, St Marys	Pa
Sanyo Electric Co Ltd, Osaka	Japan
Semi-Alloys Inc, Mt Vernon	N Y
Stackpole Carbon Co, St Marys	Pa
Superior Carbon Products Inc, Cleveland	Ohio
Union Carbide Corp, Carbon Products Div New York	N Y
Wendon Co Inc, Stamford	Conn

GRAPHALLOY

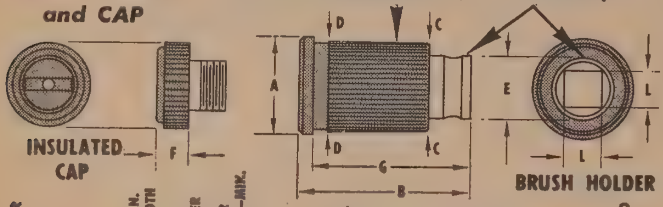
SILVER GRAPHALLOY BRUSHES and BRUSH & SLIP-RING ASSEMBLIES . . .

GRAPHALLOY BRUSHES

are used on such equipment as . . . SERVO SYSTEMS • SYNCHROS • CHOPPERS • RADAR • GYROS • INVERTERS • THERMOCOUPLE and STRAIN GAGE CIRCUITS • GUIDED MISSILES • PULSE SYSTEMS • DIGITAL COMPUTERS • WAVE GUIDES • SONAR • TRANSDUCERS • TORQUE INDICATORS

Silver GRAPHALLOY Brushes have been widely used because *of* LOW *and* CONSTANT CONTACT DROP, EXTREMELY LOW ELECTRICAL NOISE *and* LONG LIFE. Over 200 grades are now serving in a wide variety of applications. Silver GRAPHALLOY Brushes on ½"-diameter coin silver slip rings have operated successfully in highly critical electrical circuits at speeds up to 100,000 R.P.M. *Our Engineering Department will assist in determining the exact grade of* GRAPHALLOY *for your needs.* Ask for our Brush Inquiry Form 109.

BRUSH HOLDER and CAP



Other Sizes Available

BRUSH HOLDER & CAP NO.	BRUSH SIZE	SUGGESTED MIN. SLIP-RING WIDTH	**MOUNTING HOLE DIAMETER	BRUSH HOLDER TO SLIP RING—MIN.	A	B (OVERALL LENGTH)	F	C	D	E	G	L (BROACHED HOLE)
14326	1/8" sq.	3/16"	13/32"	1/16"	.437"	7/8"	3/16"	.404"	.418"	.281"	25/32"	.129"
11509†	5/32" sq.	1/4"	13/32"	1/16"	.437"	7/8"	3/16"	.404"	.418"	.281"	25/32"	.160"
11570†	3/16" sq.	1/4"	7/16"	1/16"	.484"	7/8"	3/16"	.441"	.451"	.313"	25/32"	.193"
19011†	1/4" x 3/16"	5/16"	9/16"	1/8"	.616"	1 5/16"	3/16"	.561"	.573"	.438"	1 3/16"	.256 x .193"
11527†	1/4" sq.	5/16"	9/16"	1/8"	.616"	1 5/16"	3/16"	.561"	.573"	.438"	1 3/16"	.256"
14292†	3/8" x 1/4"	7/16"	43/64"	1/8"	.718"	1 7/16"	1/4"	.672"	.682"	.533"	1 5/16"	.382 x .256"
12166†	3/8" sq.	7/16"	13/16"	1/8"	.921"	1 13/16"	1/4"	.813"	.828"	.628"	1 5/8"	.382"
31392†	1/2" sq.	9/16"	1 1/8"	1/8"	1.237"	1 13/16"	1/4"	1.126"	1.141"	.878"	1 9/16"	.503"
35439†	3/4" x 1/2"	7/8"	1 33/64"	1/8"	1.661"	2 1/32"	5/16"	1.508"	1.528"	1.253"	1 25/32"	.753"
35440†	3/4" sq.	7/8"	1 33/64"	1/8"	1.661"	2 1/32"	5/16"	1.508"	1.528"	1.253"	1 25/32"	.753"

†Shunts are provided. **Mounting hole diameter for brush holder dimension D.

Request and fill in Brush Inquiry Sheet, Form 109, so that we can supply the proper grade of brush material.

BRUSH ASSEMBLIES

135-10
218-21
135-6

CONTACTS

GRAPHALLOY, because of its inherent non-welding and arc-quenching characteristics, is used widely for contacts. Ask for Data Sheet 950.

BUSHINGS, Oil-free

Replace oil-lubricated bushings in synchros, instruments, timers and missiles.

Advantages: 1) Lower friction at room temperatures. 2) No oil to solidify at low temperatures. 3) No oil to carbonize at prolonged elevated temperatures.

*Ask for Data Sheets 270 and 277 on Miniature Bronze-*GRAPHALLOY *Bushings.*

CONNECTORS (garter springs)

These silver-plated coil spring Connectors make for positive electrical connection to the brass body of the brush holder by snapping into the groove on the holder. The connecting lead can be pre-soldered to the Connector.

GARTER SPRING CONNECTORS	BRUSH SIZE	BRUSH HOLDER NO.
127-9	1/8" sq.	14326
127-9	5/32" sq.	11509
127-10	3/16" sq.	11570
127-14	1/4" x 3/16"	19011
127-14	1/4" sq.	11527
127-18	3/8" x 1/4"	14292
127-20	3/8" sq.	12166
127-24	1/2" sq.	31392
127-32	3/4" x 1/2"	35439
127-32	3/4" sq.	35440

CLUTCH FACINGS and CLUTCH GEAR ASSEMBLIES

Torque remains same within close operating limits despite changes in temperature and humidity. For instrumentation, guided missiles, constant friction devices.

SLIP RINGS
Solid Coin Silver

Standard Coin Silver Slip Rings, both *cylindrical* and *flat* types, are illustrated at right. We recommend the cylindrical type rings with three brushes per ring . . . spaced at 120°. The cylindrical type are designed for press fitting over standard steel shafting. The flat type rings are designed for nesting either on an insulated plate or for molding into insulation. Insulated slip rings of either type or slip-ring assemblies can be furnished with leads attached.

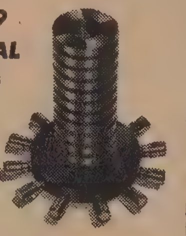
No. 168 Series flat type to 20" O.D.

Standard "Flat" rings have ¼" radial contact surface and ⅛" radial spacing between adjacent rings.

No. 116 Series cylindrical type to 36" O.D.

Copper Slip Rings, flat or cylindrical, are available.

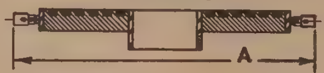
Model 319 CYLINDRICAL SLIP-RING assembly



MODEL	RINGS	LENGTH
319-4	4	2 9/16"
319-6	6	3 5/16"
319-10	10	4 13/16"
319-14	14	6 5/16"

O.D.
Slip-ring 1⅝"
Terminal 4"
Assembly I.D.: .814"/.813"
Range: Same as for Model 399

Model 409 FLAT SLIP-RING assembly



Solid Coin Silver Rings

MODEL	RINGS	OVERALL O.D.—"A"
409-2	2	5½"
409-4	4	7"
409-6	6	8½"
409-10	10	11½"

Hub: O.D. 2"
I.D. 1.753"/1.751"
Length 1⅛"
To 5 amps., 125 v.
More rings on application.

SPRING BINDING POSTS

(with or without Insulated Cap)

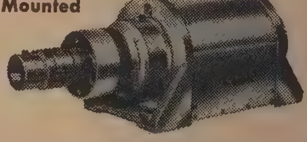
O.D.: ⅜", ½", 17/32"
Lgth.: ⅝", ¾", 25/32"

Also Miniature Spring Type!

19185
22978

Model 399 BRUSH and SLIP-RING assembly

Pedestal Mounted



MODEL	RINGS	bolt slot distances CL to CL: WIDTH	bolt slot distances CL to CL: LENGTH	**OVERALL LENGTH
399-4	4	4½"	7¾"	13¼"
399-6	6	4½"	8½"	14"
399-10	10	4½"	10"	16"
399-14	14	4½"	11½"	18"

Specifications: Width 6½"—Height 6½". Shaft CL above base 3¼".
Applications: from strain gage or thermocouple up to 5 amperes, 125 volts, 250°F.
Speeds to 5,000 RPM.
Three Silver-GRAPHALLOY Brushes per solid coin silver slip ring.
Extraneous noise level low.
Rugged in design and construction.
Readily connected mechanically and electrically.
Complete coupling provided for 15/16" shaft.
More rings and higher speeds available upon application.

Write for data sheets

CALL ON OUR OVER 50 YEARS OF DESIGN EXPERIENCE FOR HELP IN SOLVING YOUR BRUSH PROBLEMS!

GRAPHITE METALLIZING CORPORATION

1052 NEPPERHAN AVENUE
YONKERS, NEW YORK

BRUSH HOLDERS SEE HOLDERS-BRUSH

BULBS SEE LAMPS

BUS BAR SYSTEMS

ELDRE COMPONENTS INC, ROCHESTER, N Y	**ADV PG 77**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PG 7**
ACI, Inc, Princeton	N J
Anaconda American Brass Co, Waterbury	Conn
Chemical & Aerospace Products Inc, Wilmington	Cal
Consolidated Electric Corp, Seattle	Wash
Cutler-Hammer Inc, Milwaukee	Wisc
Douglas Electronics Inc, San Leandro	Cal
Elco Corp, Willow Grove	Pa
Eldre Components Inc, Rochester	N Y
Flexible Circuits Inc, Warrington	Pa
General Electric Co, ECSO, Schenectady	N Y
Janco Corp, Burbank	Cal
Jettron Products Inc, Hanover	N J
La Telemecanique Electrique, 92 Rueil	France
Methode Electronics Inc, Chicago	Ill
Porter Co Inc, H K Electrical Div, Pittsburgh	Pa
Robinson-Nugent Inc, New Albany	Ind
Rogers Corp, Rogers	Conn
Seastrom Mfg Co Inc, Glendale	Cal
Sprague Electric Co, North Adams	Mass
Washington Electrical Products Co, Washington	Mo
Westinghouse Electric Corp, Standard Control Div Beaver	Pa

BUSHINGS--METAL

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
BIRNBACH CO INC, FREEPORT	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
SECS, INC, LONG ISLAND CITY	**N Y**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Abacus Electronics Corp, Dobbs Ferry	N Y
Abesto Corp, Bloomfield	N J
Accurate Electronics Corp, Elyria	Ohio
Acme Tool & Specialties Co, Des Plaines	Ill
Adjustable Bushing Corp, North Hollywood	Cal
Amatom Electronic Hardware, New Rochelle	N Y
Atomite Electronics Corp, Roosevelt	N Y
Bemol Co, Newton	Mass
Birnbach Co Inc, Freeport	N Y
Chase Metals Service Div Chase Brass & Copper Co Cleveland	Ohio
Cox Mfg Co, San Antonio	Tex
Daburn Electronics & Cable Corp, Bronx	N Y
DoAll Co, Des Plaines	Ill
Eagle Electric Mfg Co Inc, Long Island City	N Y
Everlube Corp of America, North Hollywood	Cal
Federal Screw Products Inc, Chicago	Ill
Forway Industries Inc, Woodbury	N J
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Heli-Coil Products, Div Heli-Coil Corp, Danbury	Conn
Keystone Electronics Corp, New York	N Y
Lavezzi Machine Works Inc, Chicago	Ill
Lear Siegler Inc, Santa Monica	Cal
Metal Ceram Inc, Mount Vernon	N Y
Micro Parts Inc, Los Angeles	Cal
Norrich Plastics Corp, Roosevelt	N Y
Parechoc S A, Ch 1347 Le Sentier	Switzerland
Phelps Mfg Div, Heli-Coil Corp, Danbury	Conn
Philips Metalonics, Mount Vernon	N Y
PIC Design Corp, East Rockaway	N Y
Red Devil Mfg Co, Chicago	Ill
Richards Metal Products Inc, Wolcott	Conn
St Marys Carbon Co, St Marys	Pa
Seastrom Mfg Co Inc, Glendale	Cal
Secs, Inc, Long Island City	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Smith Inc, Herman H, Brooklyn	N Y
Spring City Electrical Mfg Co, Spring City	Pa
Triangle Instrument Co Inc, Syosset	N Y
Union Carbide Corp, Materials Systems Div Kokomo	Ind
U S Graphite Co Div The Wickes Corp, Saginaw	Mich
Waldom Electronics Inc, Chicago	Ill

EBG — one stop shopping center.

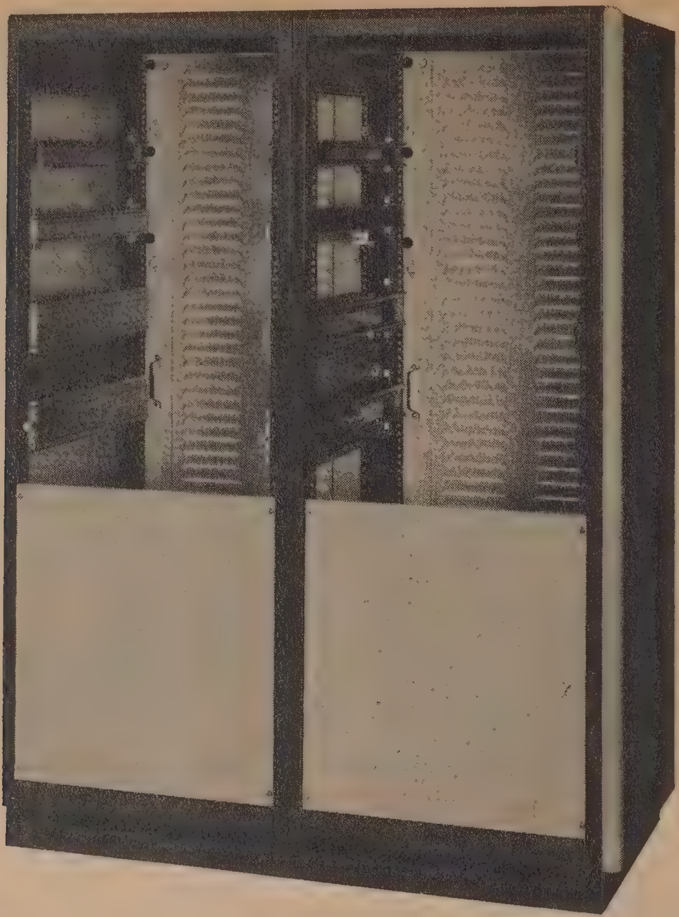
Find a product listing
and advertiser's message
together

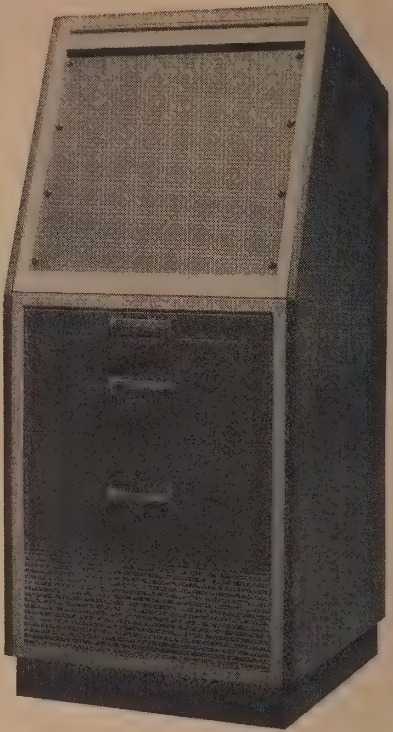
bus bars
for NOISE CONTROL

ELDRE
COMPONENTS. INC.
1239 University Ave. / Rochester, N. Y. 14607

BUSHINGS--NONMETALLIC

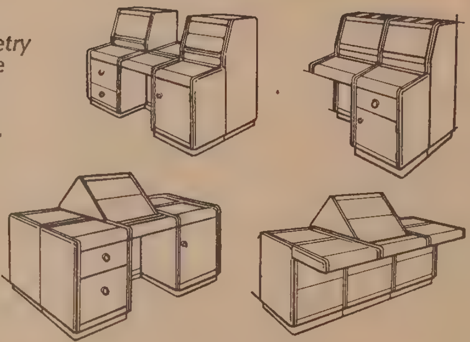
ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
BIRNBACH CO INC, FREEPORT	**N Y**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE	**WIS**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
ELECTRICAL INSULATION CO INC, COPIAGUE	**N Y**
GRAPHITE METALLIZING CORP, YONKERS, N Y	**ADV PG 76**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
NGK SPARK PLUG CO LTD, MIZUHO-KU NAGOYA	**JAPAN**
SECS, INC, LONG ISLAND CITY	**N Y**
STAR PORCELAIN CO, TRENTON, N J	**ADV PG 131**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Abacus Electronics Corp, Dobbs Ferry	N Y
Abesto Corp, Bloomfield	N J
Accurate Electronics Corp, Elyria	Ohio
Acme Tool & Specialties Co, Des Plaines	Ill
Adalet Mfg Co, Div Scott & Fetzer Co, Cleveland	Ohio
Adjustable Bushing Corp, North Hollywood	Cal
Alberox Corp, New Bedford	Mass
Alloys Unlimited Inc, Melville	N Y
Amatom Electronic Hardware, New Rochelle	N Y
American Lava Corp, Chattanooga	Tenn
Anchor Alloys Inc, Brooklyn	N Y
Asheville-Schoonmaker Mica Co, Newport News	Va
Atomite Electronics Corp, Roosevelt	N Y
Auburn Mfg Co, Middletown	Conn
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Beemer Engineering Co, Fort Washington	Pa
Bendix Corp Rubber Prods Plant, Toledo	Ohio
Birnbach Co Inc, Freeport	N Y
Blinn Co Inc, Delbert, Pomona	Cal
Cadillac Plastic & Chemical Co, Detroit	Mich
Carbone Corp, Boonton	N J
C E M Co, Inc, Danielson	Conn
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Cleveland Mica Co, Lakewood	Ohio
Cox Mfg Co, San Antonio	Tex
Crane Packing Co, Morton Grove	Ill
Daburn Electronics & Cable Corp, Bronx	N Y
Dixon Corp, Bristol	R I
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park	N J
Eagle Electric Mfg Co Inc, Long Island City	N Y
Electrical Insulation Co Inc, Copiague	N Y
Emerson Plastics Corp, Bronx	New York
Fastex Div Illinois Tool Works, Des Plaines	Ill
Federal Screw Products Inc, Chicago	Ill
Forway Industries Inc, Woodbury	N J
Franklin Fibre-Lamitex Corp, Wilmington	Del
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Graphite Metallizing Corp, Yonkers	N Y
Gries Reproducer Co Div Coats & Clark Inc New Rochelle	N Y
GTI Corp, Clover Industries Div, Tonawanda	N Y
Heyman Mfg Co, Kenilworth	N J
Insulating Fabricators of N E Inc, Watertown	Mass
Insulating Shapes Inc, Bronx	N Y
Jones Inc, Norman, South Merrimack	N H
Keystone Electronics Corp, New York	N Y
LCC-CICE, 93 Montreuil-sous-Bois	France
Leed Insulator Corp, Los Angeles	Cal
Long Inc, Thomas J, Carle Place	N Y
Maryland Lava Co Inc, Bel Air	Md
Mechanical Rubber Products Co, Inc, Warwick	NY
Metal Ceram Inc, Mount Vernon	N Y
Moxness Products Inc, Racine	Wis
National Beryllia Corp, Haskell	N J
NGK Spark Plug Co Ltd, Mizuho-ku Nagoya	Japan
Niemand Bros Inc, Elmhurst	N Y
Norrich Plastics Corp, Roosevelt	N Y
NVF Co, Wilmington	Del
Nylogrip Products, Waltham	Mass
Nylomatic Corp, Morrisville	Pa
Ohio Carbon Co, Cleveland	Ohio
Penn Fibre & Specialty Co, Philadelphia	Pa
Pennsylvania Fluorocarbon Co Inc, Clifton Heights	Pa
PIC Design Corp, East Rockaway	N Y
Plastiglide Mfg Corp, Santa Monica	Cal
Polymer Corp, Reading	Pa
Product Components Corp, Hastings-on-Hudson	N Y
Pure Carbon Co Inc, St Marys	Pa
Pylon Co, Inc, Attleboro	Mass
Raybestos-Manhattan Inc, Passaic	N J
Resdel Corp, Rio Grande	N J
Richardson Company, Melrose Park	Ill
Royal Worcester Industrial Ceramics Inc, New York	NY
St Marys Carbon Co, St Marys	Pa
Saxonburg Ceramics Inc, Pittsburgh	Pa
Seastrom Mfg Co Inc, Glendale	Cal
Secs, Inc, Long Island City	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Shamban & Co, W S, Los Angeles	Cal
Southwest Products Co, Monrovia	Cal
Spaulding Fibre Co Inc, Tonawanda	N Y
Standard Polymer Inc, Van Nuys	Cal
Star Porcelain Co, Trenton	N J
Superite Gear & Instrument Corp, Syosset	N Y
Syncor Products Co, Inc, Malden	Mass
Synthane Corp, Oaks	Pa
Tekna Products Co, Rochester	N Y
Union Carbide Corp, Carbon Products Div New York	N Y
U S Graphite Co Div The Wickes Corp, Saginaw	Mich
U S Stoneware Inc, Orrville Plant, Orrville	Ohio
Veritron West Inc, Chatsworth	Cal
Waldom Electronics Inc, Chicago	Ill
Weckesser Co Inc, Chicago	Ill
Western Sky Industries, Hayward	Cal
Wilmington Fibre Specialty Co, New Castle	Del





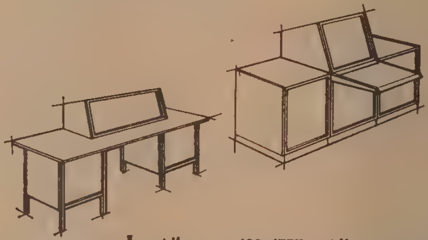
EMCOR I Series.

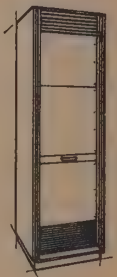
A complete line of cabinetry with the versatility of the modular system and the strength of prime steel construction throughout.



EMCOR II Series.

Most advanced modular enclosure system available. You can create a "custom look" with various components and designs of your own choosing.





EMCOR® MODULAR ENCLOSURE SYSTEMS

attractive cabinetry for electronic, instrumentation and electro-mechanical applications

EMCOR originated the time-saving, money-saving idea of the modular enclosure system. Now, EMCOR contemporary designs, plus superior craftsmanship, have made EMCOR cabinetry an art. Convenient, flexible, solidly built cabinets provide maximum protection for your precision instruments. Here are handsome designs for instrument housings, consoles, integrated equipment banks, and simple or elaborate control centers.

There are two distinct lines, each with thousands of modular cabinets...and a wide choice of quietly rich colors. Both EMCOR lines come in nearly unlimited sizes and configurations, yet they are simple to assemble, and remain strong and dependable for many, many years. EMCOR also has a full line of chassis slides to complement your system.

EMCOR/distinguished cabinetry

Albany: 489-4777; Albuquerque: 265-7766; Alexandria: 836-1800; Atlanta: 939-1674; Baltimore: 727-1999; Beaverton: 646-1345; Binghamton: 723-9661; Bridgeport: 368-4582; Buffalo: 632-2727; Chicago: 676-1100; Cleveland: 442-8080; Dallas: 631-7450; Dayton: 298-7573; Del Mar: 454-2191; Denver: 934-5505; Detroit: 357-3700; Fort Lauderdale: 564-8000; Ft. Lee (No. N.J.): 944-1600; Ft. Walton Beach: 243-6424; Houston: 526-2959; Huntsville: 536-8393; Indianapolis: 924-3568; Kansas City: 444-9494; Los Angeles: 836-6170; Minneapolis: 545-4481; Newburgh: 561-4510; Newport News: 245-8272; N. Y. C. area: 695-0082; Orlando: 425-5505; Palo Alto: 968-8304; Philadelphia: 242-0150; Pittsburgh: 922-5720; Phoenix: 273-1673; Rochester, N. Y.: 473-2115; St. Louis: 647-4350; Seattle (Bellevue): 454-5224; Syracuse: 471-7274; Tulsa: 742-4657; Utica: 732-3775; Valley Forge (So. N. J.): 265-5800; Wilmington, Mass.: 944-3930; Winston-Salem: 725-5384.
EMCOR Reg. U. S. Pat. Off.

Ingersoll Products 1002 West 120th St., Chicago, Illinois 60643 DIVISION OF BORG-WARNER CORPORATION

BORG WARNER®

VENT RAK®

VENT-RAK CABINET LINE ENGINEERING DATA SHEET

VENT-RAK OFFERS A FULL LINE OF ELECTRONIC PACKAGING COMPONENTS

Included in Vent-Rak's full line of electronic packaging components are cabinets, slides, chassis, cable retractors, handles, dollies, blower assemblies and front panels.

The Vent-Rak line of heavy-duty enclosures meets commercial and military specifications. The heart of the Vent-Rak line is the unique frame design, rugged construction, ease of accessibility and economy.

Offering a single source for all your electronic packaging requirements, Vent-Rak will supply standard or semi-standard cabinets as shown on this page, or will custom design an enclosure to meet your own specifications.

1000 Series—All heli-arc welded fabrication—Perfect for military application—Steel fabrication is standard, aluminum optional—Side panels engineered for ease of installation and accessibility, front door optional—Flush chrome door latches with or without keylock—In forced-ventilation models, air flow panel is permanently fastened to side panel, and does not sacrifice interior space—

3000 Series—Medium-duty industrial or military cabinet—heli-arc welded fabrication—precision drilled and tapped RETMA pattern on front rails—hinged rear door—solid side panels—provisions for casters and eyebolts—optional louvered top or sides—optional rear mounting angles—

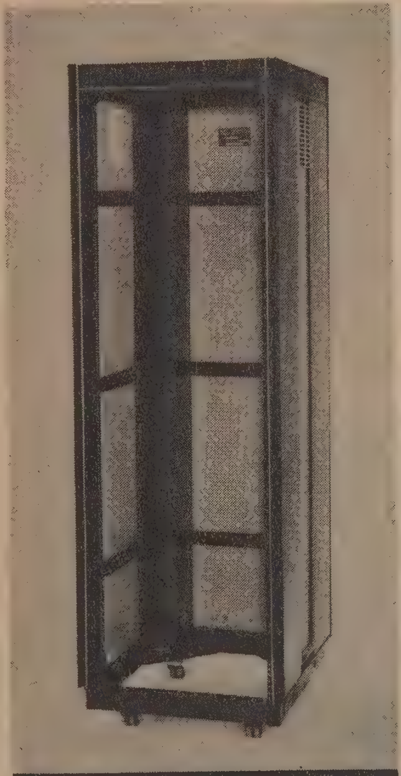
5000 Series—Rugged, self-aligning, all-steel frame with unique cross-section construction—Assembled quickly with ordinary hand tools—Instantly removable side panels—Louvers standard on sides and optional on tops—Single or multiple installation—Full line of accessories—

5050 Series—Used for housing complete package, or supplement to your present installation—Exceptionally rugged frame and all-steel construction—Removable side panels—Interior components interchangeable with Vent-Rak 5000 Series Cabinets—

Some of these models are available from distributors, or for more information, write:

1000 SERIES

3000 SERIES



5000 SERIES

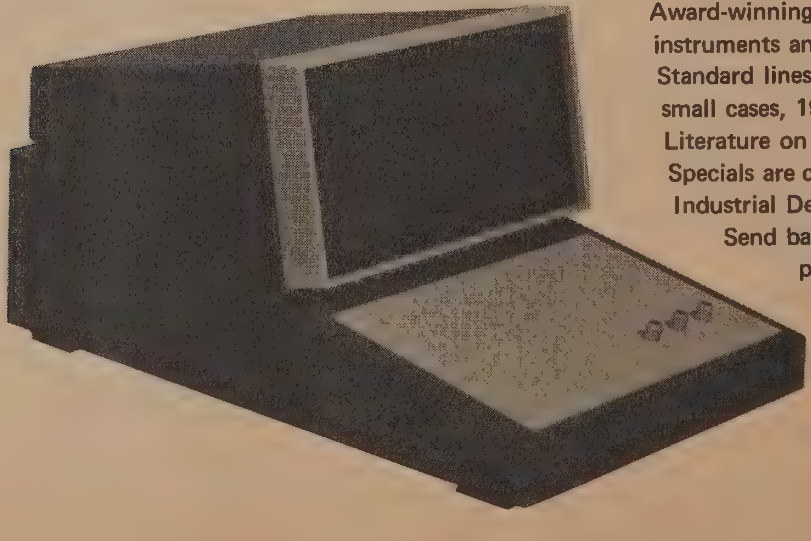
5050 SERIES

VENT RAK®

525 South Webster Avenue • Indianapolis, Indiana 46219

Optima enclosures

A product of Scientific-Atlanta, Inc., Box 13654, Atlanta, Georgia 30324, Tel. 404-938-2930, TWX 810-766-4912



Award-winning designs for
instruments and systems of all sizes and shapes.
Standard lines include
small cases, 19″ cases, consoles and racks.
Literature on request.
Specials are custom-tailored by our
Industrial Design section.
Send basic information for
proposal sketches and quotes.
Marty Bethune, Marketing Mgr.

CABINETS--METAL

ALDEN PRODUCTS CO, INC, BROCKTON, MASS	**ADV PG 193**
AMCO ENGINEERING CO, CHICAGO, ILL	**ADV PG 276**
BORG-WARNER CORP, INGERSOLL PRODUCTS DIV, CHICAGO ILL	**ADV PG 78**
FORMICA METAL PRODUCTS CO INC, MEDFORD	**MASS**
HEATH CO, BENTON HARBOR	**MICH**
KINETRON CORP, ASBURY PARK	**N J**
MM ELECTRONIC ENCLOSURES INC, HICKSVILLE N Y	**ADV PG 122**
SAREX CORP, CARTERET, NJ	**ADV PG 81**
SCIENTIFIC-ATLANTA INC, ATLANTA, GA	**ADV PG 80**
VENT-RAK INC, INDIANAPOLIS, IND	**ADV PG 79**
VERO ELECTRONICS, INC, FARMINGDALE	**N Y**
Abalon Precision Mfg Corp, Bronx	N Y
Abtronics, Inc, Livermore	Cal
Ace Engineering & Machine Co, Inc Huntingdon Valley	Pa
Acme Tool & Specialties Co, Des Plaines	Ill
Adalet Mfg Co, Div Scott & Fetzer Co, Cleveland	Ohio
Akro-Mils, Inc, Akron	Ohio
Alden Products Co, Inc, Brockton	Mass
Amco Engineering Co, Chicago	Ill
Ameco Inc, Phoenix	Ariz
Anchor Specialty Mfg Co Inc, Teterboro	N J
Antlab, Inc, Worthington	Ohio
Applied Research, Inc, Port Washington	N Y
Atlee Corp, Winchester	Mass
Avco Aerostructures Div, Nashville	Tenn
A V Electronics, Inc, Fresno	Cal
Baker Co, Inc, Biddeford	Me
Ballonoff Metal Products Co, Cleveland	Ohio
Baltic Metal Products Co, Brooklyn	N Y
Barnes Engineering Co, Santa Ana	Cal
Bay Products, Philadelphia	Pa
Beama Engineering Ltd, Toronto 15	Ont
Bell Aerosystems Co, Buffalo	N Y
Bennett Mfg Co, Inc, Alden	N Y
Betts & Betts Corp, Woodbury	Conn
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Borg-Warner Corp, Ingersoll Products Div, Chicago	Ill
Boston Precision Parts Co Inc, Hyde Park	Mass
Brooks & Perkins Inc, Detroit	Mich
Bud Radio Inc, Willoughby	Ohio
Cabtron Corp, Chicago	Ill
Calcor Space Facility Inc, Whittier	Cal
California Chassis Co, Lynwood	Cal
Churchill Corp, Melrose	Mass
C & N Electrical Ltd, Hants	England
Compudyne Corp, Hatboro	Pa
Continental X-Ray Corp, Chicago	Ill
Control Panel Corp, Chicago	Ill
Corry Jamestown Corp, Corry	Pa
Custom Metal Products Div Tyco Labs Inc Garden City Park	N Y
Cutler Metal Products Co, Camden	N J
Dahlstrom Mfg Corp, Jamestown	N Y
Donnelly Mfg Co, Waltham	Mass
Dressen-Barnes Electronics Corp, Pasadena	Cal
Edo Corp, College Point	NY
Electro-Chemical Engraving Co Inc, Bronx	N Y
Electro Mechanical Corp, Sayre	Pa
Electronic Enclosures, El Segundo	Cal
Electro Rack Products Co, Anaheim	Cal
Electro Scientific Industries Inc, Portland	Ore
Elzee Metal Products Co Inc, Brooklyn	N Y
Enclosure Corp, Pennsauken	N J
Equipment & Service Co, Dallas	Tex
Equipto Enclosure Systems Div Equipto Elctns Corp Aurora	Ill
Erie Artisan Corp, Cleveland	Ohio
Eugene Engineering Co Inc, Rockland	Mass
Falstrom Co, Passaic	N J
Formica Metal Products Co Inc, Medford	Mass
Gates Radio Co, Quincy	Ill
Glentek Inc, Santa Monica	Cal
Golden Corp, I, Brooklyn	N Y
Golding Mfg Co, North Arlington	N J
Goldsman Inc, Philadelphia	Pa
Graphics, Inc, Poteau	Okla
Hake Products Inc, Cincinnati	Ohio
Halliburton Enterprises Inc, Mfg Div, Los Angeles	Cal
Hamilton Mfg Co, Two Rivers	Wis
Hammond Mfg Co Ltd, Guelph, Ont	Can
Hayakawa Electric Co Ltd, Osaka	Japan
Heath Co, Benton Harbor	Mich
Hoffman Engineering Co, Div Fed Cartridge Corp Anoka	Minn
Holbrook Merrill Co, Sunnyvale	Cal
Janel Inc, Stirling	N J
Jan Hardware Mfg Co Inc, Long Island City	N Y
Keystone Mfg Co Div Avis Industrial Corp Warren	Mich
Kinetron Corp, Asbury Park	N J
Kirk & Blum Mfg Co, Cincinnati	Ohio
Kleer-Vue Mfg Co Inc, Pittsburgh	Pa
Lake Engineering Co Ltd, Scarborough	Ont
Lake Erie Electric Mfg, Inc, Erie	Pa
Lear Siegler Inc, Santa Monica	Cal
Lectro Magnetics Inc, Los Angeles	Cal
Lindsay Structures Div, Intl Steel Co, Evansville	Ind
Lowell Mfg Co, St Louis	Mo
Lynch Mfg Co, R H, South San Gabriel	Cal
Lyon Metal Products Inc, Aurora	Ill
Machinery Electrification Inc, Northboro	Mass
Markon Mfg Inc, Englewood	Colo
Metalab Equipment Co, Hicksville	N Y
Metal Fab Div, Artisan Industries Inc, Waltham	Mass
Metal Works Inc, Hermann	Mo
Mid-West Metal Products Inc, Kansas City	Kans
MM Electronic Enclosures Inc, Hicksville	N Y
Mobil Electronics Inc, Anderson	Ind
Muckle Mfg Co, Owatonna	Minn
Nassau Precision Metal Products, Port Washington	N Y
Nelson-Hershfield Electronics Co, Phoenix	Ariz
Neotec Corp, Rockville	Md

MINI-COOL
ENCLOSURES FOR ELECTRONICS

MANY SIZES AVAILABLE

HUNDREDS OF USES: Chassis Box • Heat Sink • Experimental Designs • Shielding Components • Relay Enclosure • Transformer Shields • Modular Kits • Plug Boxes • Cable Junctions • Transistor Circuitry • Etc.

FEATURES: • Easy to Assemble and Disassemble, all you need is a screw driver. • Solidity and Strength - can withstand a crushing force of over 2 tons. • Disassembles to 6 FLAT parts for easy drilling, punching and assembly. • Simplifies mounting and testing of Electronic Components. • Interchangeability - 6 separate parts allow for flexibility of uses. • Finned MINI-COOL Provides large Heat Sink area.

AVAILABLE AT YOUR LOCAL DISTRIBUTOR

SAREX CORPORATION
1001 Roosevelt Avenue
Carteret, New Jersey 07008
(212) 227 6354 (201) 969 2440

Newcomb Audio Products Co, Sylmar	Cal
Pabst Engineering Equipment Co Inc, Elizabeth	NJ
Par-Metal Products Div EON Corp Long Island City	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pneumafil Corp, Charlotte	N C
Premier Metal Products Co Inc, New York	N Y
Private Tele Communications Inc, Chicago	Ill
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Republic Steel Corp, Cleveland	Ohio
Research Inc, R-I Controls Div, Minneapolis	Minn
Riester & Thesmacher Co, Cleveland	Ohio
Rosemount Plug-In Inc, Nashville	Tenn
Rosselli Del Turco Rossello, Rome	Italy
Rotary Co, Inc, Buffalo	N Y
Sanyo Electric Co Ltd, Osaka	Japan
Sarex Corp, Carteret	NJ
Scientific-Atlanta Inc, Atlanta	Ga
Siltronics Inc, Oakmont	Pa
Simplex Time Recorder Co, Gardner	Mass
Skydyne Inc, Port Jervis	N Y
Skyline Products Inc, Deer Park	N Y
Spring City Electrical Mfg Co, Spring City	Pa
Stafford Mfg Co Inc, Brooklyn	N Y
Strandberg Engineering Labs Inc, Greensboro	N C
Swanson Engineering & Mfg Co, Inglewood	Cal
System Enclosures Inc, Div Anetsberger Bros Inc Northbrook	Ill
Taffet Electronics Inc, Woodside	N Y
Taylor Instrument Cos, Rochester	N Y
Techmar Corp, Los Angeles	Cal
Technical Materiel Corp, Mamaroneck	N Y
Technical Wire Products Inc, Cranford	N J
Titchener & Co, E H, Binghamton	N Y
Utility Communication Systems Inc, Essington	Pa
Vent-Rak Inc, Indianapolis	Ind
Vero Electronics, Inc, Farmingdale	N Y
Vero Electronics Ltd, Southampton	England
Vidmar Div Volkert Stampings Inc, Williamsport	Pa
Waber Electronics Inc, Philadelphia	Pa
Watson Mfg Co Inc, Jamestown	N Y
Workplace Systems, Inc, Manchester	N H
Wyco Metal Products, North Hollywood	Cal
York Metal Products Inc, Long Island City	N Y
Zero Mfg Co, Burbank	Cal

CABINETS--PLASTIC

KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
Aikow Shoji Kaisha Ltd, Osaka	Japan
Akro-Mils, Inc, Akron	Ohio
Althor Products, Brooklyn	N Y
Anchor Specialty Mfg Co Inc, Teterboro	N J
Auburn Plastics, Inc, Auburn	N Y
Ballonoff Metal Products Co, Cleveland	Ohio
Boonton Molding Co Inc, Boonton	N J
Cincinnati Milling Machine Co Cimastra Div Cincinnati	Ohio
Edcraft Industries Inc, Linden	N J
Eljay Corp, Baltimore	Md
Fibre Products Div Ikelheimer-Ernst Inc, New York	N Y
Fourjay Industries, Dayton	Ohio
Goodyear Aerospace Corp, Akron	Ohio
Hayakawa Electric Co Ltd, Osaka	Japan
Janel Inc, Stirling	N J
Jones Inc, Norman, South Merrimack	N H
Keystone Electronics Corp, New York	N Y
Kleer-Vue Mfg Co Inc, Pittsburgh	Pa
Long Inc, Thomas J, Carle Place	N Y
Mann Co, Henry, Cornwell Heights	Pa
Micronics Corp of America, Providence	RI
Miller Co, W A, Oquossoc	Maine
Panel Controls Corp, Detroit	Mich
Pure Aire Corp of America, Van Nuys	Cal
Ray Products Inc, Alhambra	Cal
Sanyo Electric Co Ltd, Osaka	Japan
Saxton Products Inc, Congers	N Y
Sierra Electric Inc, Gardena	Cal
Skydyne Inc, Port Jervis	N Y
Techni-Tool Inc, Philadelphia	Pa

CABINETS; PORTABLE CASES SEE CASES--PORTABLE

CABINETS--SPEAKER SEE ENCLOSURES--LOUDSPEAKER

CABLE ASSEMBLIES (WITH CONNECTORS, INCL UMBILICAL) SEE ALSO HARNESSES

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ALDEN PRODUCTS CO, INC, BROCKTON, MASS	**ADV PG 193**
AMPHENOL, CHICAGO, ILL	**ADV PG 82**
AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
BIRNBACH CO INC, FREEPORT	**N Y**
BURNDY CORP, NORWALK	**CONN**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT	**IOWA**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HUGHES CONNECTING DEVICES, NEWPORT BEACH CAL	**ADV PG83**
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES	**CAL**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL**
MESON ELECTRONICS CO, INC, ROCHESTER	**N Y**
POMONA ELECTRONICS CO INC, POMONA, CAL	**ADV PG 83**
PRECISION TUBE CO INC, NORTH WALES	**PA**
PYLE-NATIONAL CO, CHICAGO	**ILL**
TIMES WIRE & CABLE DIV, INT L SILVER CO, WALLINGFORD CONN	**ADV PG 82**
UNIFORM TUBES INC, COLLEGEVILLE	**PA**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Abbott & Co, Prospect	Ohio
Abilities Inc, Albertson	N Y
Accurate Electronics Corp, Elyria	Ohio
ACI, Inc, Princeton	N J
Acme Products Co, Kensington	Conn
Action Systems Co Div Conn Consolidated Inds Inc Meriden	Conn
Adronics Inc, Elrob Mfg Corp, Verona	N J
Advanced Electronics, Inc, Rocky Hill	Conn
Advance Ross Electronics Corp, Chicago	Ill
Aerolite Electronics Corp, Union City	N J
Aerospace Avionics Inc, Bohemia	NY
Aero/Space Devices, Inc, Miami	Fla
Aerospace Systems A Teledyne Co, Fairmont	Minn
Aetna Electronics Corp, North Branch	N J
Aircraft & Electronic Specialties, Inc, Plainfield	Ind
Alden Products Co, Inc, Brockton	Mass
Allegri-Tech Inc, Nutley	N J
Allied Research Associates, Inc, Concord	Mass
Allied Systems Corp, Greensboro	N C
Almor Development Co Inc, Long Beach	Cal
American Cable Electronic Supply Inc, Sacramento	Cal
American Circuit-Tronics Corp, Royal Oak	Mich
American Electric Cable Co, Holyoke	Mass
Americon Corp, Waltham	Mass
Amphenol, Endicott	NY
Amphenol, Chicago	Ill
Amphenol Space & Missile Systems, Chatsworth	Cal
AMP Inc, Capitron Div, Elizabethtown	Pa
Amtron Inc, Midlothian	Ill
Anchor Specialty Mfg Co Inc, Teterboro	N J
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Antlab, Inc, Worthington	Ohio
Applied Engineering Prods Div Samarius Inc Ansonia	Conn
Artisan Electronics Corp, Parsippany	N J
Associated Engineering Corp, Brookline	Mass
Astrolab Inc, Linden	N J
Astro-Space Labs Inc, Huntsville	Ala
Atomite Electronics Corp, Roosevelt	N Y
Ault, Inc, Minneapolis	Minn
Automatic Metal Products Corp, Brooklyn	N Y
Automation Services Inc, Endicott	N Y
Ava Electronics & Machine Corp, Upper Darby	Pa
Avco Corp Electronics Div, Cincinnati	Ohio
A V Electronics, Inc, Fresno	Cal
Aviation Electric Ltd, St Laurent, Montreal	Que
Avionics, Inc, South Bend	Ind
Azimuth Electronics, Denville	N J
Barker Products Co, Saugus	Mass
B & B Electronics Corp, Gardena	Cal
BeMan Mfg, Inc, New Cumberland	Pa

Cable assemblies

Times' custom engineering service is qualified to design cable assemblies for the most critical applications, using any combinations of wire and connector constructions. We can take over the complete systems capability from layout to complete construction of cable assembly, which often results in lower engineering, shipping and installation costs.

WRITE OR PHONE FOR TECHNICAL DATA.

TIMES WIRE & CABLE

DIVISION OF THE INTERNATIONAL SILVER COMPANY
WALLINGFORD, CONNECTICUT

Bendix Corp Electrical Components Div, Sidney	N Y
Bendix Corp, Microwave Devices Div, Franklin	Ind
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Bimbach Co Inc, Freeport	N Y
Borders Electronics Co Inc, Pennsauken	N J
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bruno-New York Industries Corp, New York	N Y
Burndy Corp, Norwalk	Conn
Burtek Inc, Tulsa	Okla
Cable Electric Products Inc, Providence	R I
Caltron Industries, Berkeley	Cal
Cardinal Control Co Inc, Kensington	Conn
Carol Cable Co, Pawtucket	R I
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Castall Research Lab Inc, Brockton	Mass
CBC Industries Inc, Philadelphia	Pa
Centroid Inc, Garden City Park	N Y
Cico Corp, Sun Valley	Cal
Cicoil Corp, Chatsworth	Cal
Cinch-Nuline Div United-Carr, Minneapolis	Minn
Clare-Electroseal Corp, Des Plaines	Ill
Clavier Corp, Richmond Hill	NY
Coaxco Inc, Portland	Ore
Cole-Hersee Co, S Boston	Mass
Columbia Wire Products Co, Chicago	Ill
Communication Dynamics Corp, Yonkers	N Y
Component Technology Corp, Sunnyvale	Cal
Compton Industries, Inc, Vestal	N Y
Computing Devices of Canada Ltd, Ottawa	Ont
Condor Industrial Corp, West Chicago	Ill
Consolidated Products Corp, Gardena	Cal
Continental Sensing Inc, Melrose Park	Ill
Control Panel Corp, Chicago	Ill
Co-Operative Industries Inc, Chester	N J
Cordex, Inc; Mount Eaton	Ohio
Crest Mfg Co, East Berlin	Conn
Custom Control Mfg Inc, Merriam	Kan
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
D-Cemco Inc, Burbank	Cal
Dearborn Wire & Cable Co, Chicago	Ill
Detoronics Corp, S El Monte	Cal
Digital Sensors Inc, Los Angeles	Cal
Dill Products Inc, Norristown	Pa
Dinion Coil Co Inc, Caledonia	N Y
Divac Electronics, Hawthorne	Cal
Dorsett Electronics Inc, Tulsa	Okla
Dowa Trading Co Ltd, Kobe	Japan
DuCom Inc, Salem	Mass
Dynalectron Corp Aerospace Prods Div San Leandro	Cal
Eagle Electric Mfg Co Inc, Long Island City	N Y
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Eastern Specialty Co, Philadelphia	Pa
Ecco Electronic Components Corp, Mount Vernon	N Y
Edison, Thomas A Industries, Instr Div West Orange	N J
Elasco Inc, Boston	Mass
Elco Corp, Willow Grove	Pa
Electro Circuits Inc, Lowell	Mass

Electro Connective Systems Inc, Brockton	Mass
Electro-Mechanisms, Inc, Nashua	N H
Electronic Applications Co, Pine Brook	N J
Electronics Inc of Pa, Willow Grove	Pa
Electronic Specialty Co, Los Angeles	Cal
Electro-Oceanics, Santa Monica	Cal
Electro Scientific Industries Inc, Portland	Ore
Electrospace Corp, Glen Cove	N Y
Electro-Standards Labs Inc, Miami	Fla
Electrovert Inc, Mt Vernon	N Y
EMP Electronics Inc, Tempe	Ariz
Empire Electronics Co Inc, Paterson	N J
Estes Engineering Co, Gardena	Cal
Fairchild Cable Div Fairchild Camera & Inst, Joplin	Mo
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Fairhill Products Corp, Philadelphia	Pa
Fidelity Amplifier Co, Chicago	Ill
Finney Co, Bedford	Ohio
First Electronics Corp, Boston	Mass
Fisher Engineering Inc, Huntington	Ind
Flexible Circuits Inc, Warrington	Pa
Flexible Products Inc, North St Paul	Minn
Florida General Electronics Inc, Daytona Beach	Fla
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Flow Electronic Cable Corp, Cambridge	Mass
Forney Industries Inc, Fort Collins	Colo
Frost Engineering Development Corp, Englewood	Colo
Gavitt Wire & Cable Co Div Amerace Corp Brookfield	Mass
GCA Technology Div GCA Corp, Bedford	Mass
General Cable Corp, New York	N Y
General Coil Products Corp, Brooklyn	N Y
General Laboratory Assoc Inc, Norwich	N Y
General Products Corp, Union Springs	N Y
General Radio Co, West Concord	Mass
General Reliance Div Gen Relay Corp, Dover	N J
Gillette Electronic Products Co, Beverly	N J
Glenair Inc, Glendale	Cal
Godfrey Mfg Co, Chicago	Ill
Gore & Assoc Inc, W L, Newark	Del
Gray & Huleguard Inc, Santa Monica	Cal
Greenpar Engineering Ltd, Electronics Div Essex	England
Gremar Mfg Co Inc, Wakefield	Mass
Gulton Industries Inc, Metuchen	N J
Gunnar Labs Inc, Bradenton	Fla
Hallett, Inglewood	Cal
Halmar Electronics Inc, Columbus	Ohio
Hammarlund Mfg Co, Mars Hill	N C
Henry Engineering Co, Burbank	Cal
Hewlett-Packard, Palo Alto	Cal
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Holland Electronics, Brooklyn	N Y
Holyoke Wire & Cable Corp, Holyoke	Mass

Specify Amphenol. The leading name in Cable Assemblies.

High reliability through know-how and experience.
The utmost in laboratory facilities to simulate all environmental conditions.
Let the Amphenol team help you get the special you need.

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL™

Works in Seconds.

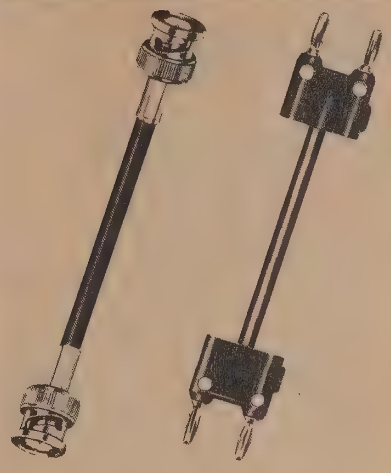
The '68 Electronics Buyers' Guide lets you find people, places, and things in seconds. In the Directory of Manufacturers and Sales Offices, for example, more than 6,000 manufacturers are listed, including addresses, telephone numbers, sales offices, the people to call for information, the total number of engineers and employees and sales volumes. So use your EBG. It works in seconds.

Electronics Buyers' Guide

Hughes Connecting Devices, Newport Beach	Cal
Hycon, Monrovia	Cal
Ikor, Inc, Burlington	Mass
Indit Corp, Albertson	N Y
Industrial Circuits Co, Fairfield	N J
Industrial Electronic Hardware Corp, New York	N Y
Inso Electronic Products Inc, Nutley	N J
International Energy Conversion Inc, Garland	Tex
Isolation Products, Mountain View	Cal
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
Jetronics Co Div J L Hall Co Inc, Redwood City	Cal
Jettron Products Inc, Hanover	N J
Jones Inc, Norman, South Merrimack	N H
JPM Co, Lewisburg	Pa
Judd Wire Div Electronized Chem Corp Turners Falls	Mass
Jutco Inc, Gardena	Cal
Kaiser Aluminum & Chem Corp Electrical Prods Div Oakland	Cal
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs	Colo
Kameco Ltd, Montreal	Que
Keiser's Industries Inc, Mt Holly Springs	Pa
Keltec Industries, Alexandria Div, Alexandria	Va
Kings Electronics Co Inc, Tuckahoe	N Y
Lafayette Radio Electronics, Syosset	NY
Lane Industries,Electronics Div, North Hollywood	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Lieco Inc, West Babylon	N Y
Loudin Electric Co, Stamford	Conn
Manger Electric Co Inc, Stamford	Conn
Matrix Science Corp, Torrance	Cal
Maytronics Inc, Colorado Springs	Colo
McCullough Aero Corp, Hawthorne	Cal
Mercury Electronics Corp; York	Pa
Meson Electronics Co, Inc, Rochester	N Y
Methode Electronics Inc, Chicago	Ill
Microdot, Inc, South Pasadena	Cal
Micro-Magna Electronics Corp, Cleveland	Ohio
Micro Parts Inc, Los Angeles	Cal
Miles Industries Inc, Garnerville	N Y
Milletron, Inc, Pittsburgh	Pa
Missouri Research Labs Inc, St Louis	Mo
M & M Electronics Corp, Amityville,	N Y
Modelectric Products Corp, Asbury Park	N J
Mohawk Electronics Corp, Frederica	Del
Molecular Research Inc, Palm Beach Gardens	Fla
Morey Corp, Downers Grove	Ill
M-T Electronics Co, San Leandro	Cal
Mutron Corp, Brockton	Mass
National Wire & Cable Corp, Los Angeles	Cal
Nelson Electronic Labs Inc, Plano	Tex
Neotec Corp, Rockville	Md
Neptune Electronics Co, New York	N Y
Network Industries Inc, Bayonne	N J
Nichols Co Ltd, R H, Downsview	Ont
Omega Industries Inc, Newport Beach	Cal

Omega Laboratories Inc, Rowley	Mass
Omega Leads Inc, Culver City	Cal
Oneida Electronic Mfg Co, Meadville	Pa
Ottawa, Paris	France
Pacific Automation Products Inc, Glendale	Cal
Pacific Electricord Co, Gardena	Cal
Paraplegics Mfg Co Inc, Bensenville	Ill
Pastoriza Electronics Inc, Newton Upper Falls	Mass
Permonite Mfg Co, Chicago	Ill
Phalo Corp, Shrewsbury	Mass
Phelps Dodge Electronic Products Corp North Haven	Conn
Philips Electronics Industries Ltd, Toronto 17	Ont
Philmore Mfg Co Inc, Richmond Hill	N Y
Physical Sciences Corp, Arcadia	Cal
Plastic Wire & Cable Corp, Jewett City	Conn
P M C Electronics Corp, Philadelphia	Pa
Pomona Electronics Co Inc, Pomona	Cal
Positive Connector Co, Derby	Conn
Precision Mecanique Labinal, 93 Saint-Ouen	France
Precision Tube Co Inc, North Wales	Pa
Pyle-National Co, Chicago	Ill
Pyrometer Co of America Inc, Penndel	Pa
Pyxis, Inc, Berkeley	Cal
Quantatron Div, Teledyne Inc, Santa Monica	Cal
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Randam Electronics Inc, Cincinnati	Ohio
Rauland-Borg Corp, Chicago	Ill
Raven Industries Inc, Sioux Falls	SD
Raychem Corp, Menlo Park	Cal
Rectico Inc, Cedar Grove	N J
Regdon Corp, Brookfield	Ill
Rem-Tronics Inc, Silver Creek	N Y
Renco Electronics Inc, Hicksville	N Y
Ren Electronics Corp, South Hadley Falls	Mass
Republic Industrial Corp, Lathrup Village	Mich
Revere Corp of America, Wallingford	Conn
Reynolds Industries Inc, Santa Monica	Cal
Robinson-Nugent Inc, New Albany	Ind
Rogers Corp, Rogers	Conn
Rowe Industries Inc, Toledo	Ohio
Rye Industries, Inc, Mamaroneck	N Y
Saturn Electronics Corp, Garland	Tex
Saxton Products Inc, Congers	N Y
Schaevitz Engineering, Pennsauken	N J
Schjeldahl Co, G T, Northfield	Minn
Sealectro Corp, Mamaroneck	N Y
Servotronics Inc, Buffalo	N Y
Seven Associates Inc, Sunnyvale	Cal
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Siltronics Inc, Oakmont	Pa
Sittler Corp, Chicago	Ill
Smith Inc, Herman H, Brooklyn	N Y
South Bay Cable Corp, Gardena	Cal
Space Craft Inc, Huntsville	Ala
Spectra-Strip Corp, Garden Grove	Cal
Spedcor Electronics Inc, Glendale	N Y
Standard Connector Corp, North Haven	Conn
Standard Telephones & Cables Ltd London WC 2	England
Stratocon Corp, Newark	N J
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Swiss Industries, Costa Mesa	Cal
Switchcraft Inc, Chicago	Ill
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Taffet Electronics Inc, Woodside	N Y
Technical Components Co Inc, Chicago Ridge	Ill
Teledata Inc, Queens Village	N Y
Telephonics Div, Instrument Systems Corp Huntington	NY
Teletronics Labs Inc, El Segundo	Cal
Telonic Instruments Div Telonic Indus Inc Beech Grove	Ind
Thermal Wire & Electronics Corp, South Hero	Vt
Tilton Electronics Corp, Winnisquam	N H
Times Wire & Cable Div, Int L Silver Co Wallingford	Conn
Titeflex Inc, Springfield	Mass
Topping Electronics Ltd, Toronto 17	Ont
Trelcom Engineering Co Inc, Baltimore	Md
Triangle Electronic Mfg Co Inc, Poughkeepsie	N Y
Tri-Dex Co, Visalia	Cal
Trim Line Connectors Ltd, Weston	Ont
Trompeter Electronics Inc, Chatsworth	Cal
Tru-Connector Corp, Peabody	Mass
Tynax Engineering Co, Monrovia	Cal
Ucinite Co Div United-Carr, Newtonville	Mass
Uniform Tubes Inc, Collegeville	Pa
United-Carr Inc, Plaxial Cable Dept Newton Highlands	Mass
U S Dielectric Inc, Worcester	Mass
Universal Precision, Inc, Endicott	N Y
Univox Corp, New York	N Y
Utility Communication Systems Inc, Essington	Pa
Vacco Electronics Div, Vacco Industries South El Monte	Cal
Vector Electronic Co Inc, Los Angeles	Cal
Victor Electric Wire & Cable Corp, West Warwick	R I
Victor R F & Microwave Co, Wakefield	Mass
Viking Industries Inc, Chatsworth	Cal
Viking Instruments Inc, East Haddam	Conn
Vikoa Inc, Hoboken	N J
Virginia Electronics Co Inc, Falls Church	Va
Waber Electronics Inc, Philadelphia	Pa
Waldom Electronics Inc, Chicago	Ill
Washington Electrical Products Co, Washington	Mo
Weinschel Engineering Co Inc, Gaithersburg	Md
Welco Electric Corp, South Bend	Ind
Wells Industries Corp, North Hollywood	Cal
Wendon Co Inc, Stamford	Conn
Western Reserve Electronics, Inc, Cleveland	Ohio
Wiegand Co, Edwin L, Pittsburgh	Pa
Winsco Instruments & Controls Co Inc Santa Monica	Cal
Zaring Industries Inc, Carmel	Ind
Zippertubing Co, Los Angeles	Cal

CABLE ASSEMBLIES
COAXIAL & TEST



Featured in our 1968 general catalog. Listing a complete line of ¾" and ½" banana plugs and accessories • adapters • test probes • jumpers • patch cords • shielded component-mounting "Black Boxes" • cable assemblies • miscellaneous test accessories. Write for your free copy.

POMONA
ELECTRONICS CO., INC.
1500 E. Ninth Street, Pomona, Calif. 91766

We bend over backwards.

Contour Cable™ happened here first. Flexible etched flat cable. Flexible flat continuous cable. Custom cable/harness assemblies. Flexibility is a thing with us.

HUGHES
HUGHES AIRCRAFT COMPANY
CONNECTING DEVICES

CABLE CLAMPS SEE CLAMPS

CABLE REELS--RETRACTILE SEE REELS

CABLES SEE ALSO WIRE

CABLES--AIRCRAFT CONTROL

CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN,	**CONN**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
HACKENSACK CABLE CORP, HACKENSACK, N J	**ADV PG 83**
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Consolidated Products Corp, Gardena	Cal
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dielectric Materials Co, Chicago	Ill
General Reliance Div Gen Relay Corp, Dover	N J
Hackensack Cable Corp, Hackensack	N J
ITT Wire & Cable Div, Pawtucket	R I
Kameco Ltd, Montreal	Que

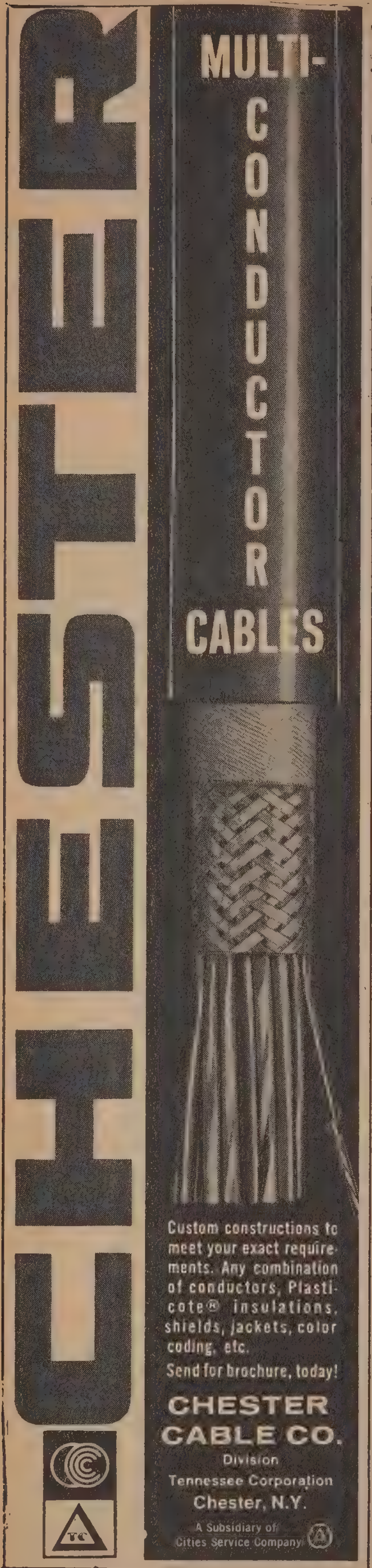
HACKENSACK
CABLES and
WIRE ROPES

CALL ON US FOR . . .
Aircraft Control Cables
Extra-Flexible Small Diameter Cables
Antenna Cables • Dial Cables
Guy Cables
MADE OF
STAINLESS STEEL
standard, non-magnetic
and special heat and
corrosion-resistant types
GALVANIZED AND TINNED
CARBON STEEL CABLES
PHOSPHOR, SILICON, CADMIUM
AND ALUMINUM BRONZE ALLOYS
MONEL AND OTHER
NICKEL ALLOYS
NYLON AND VINYL COATINGS
• • • • • • • • • • • •
See Our Catalog In Sweet's
Product Design File Or
Send for your own copy

MANUFACTURERS OF WIRE ROPE
HACKENSACK Cable CORPORATION
110 Orchard Street
Hackensack, N. J.
Telephone
201 HUbbard 7-1100

CABLES, COAXIAL--FLEXIBLE,SEMI-SOLID

AMPHENOL, CHICAGO	**ILL**
BIRNBACH CO INC, FREEPORT	**N Y**
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN,	**CONN**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER N Y	**ADV PG 84**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
DX ANTENNA CO LTD, HYOGO-KU, KOBE	**JAPAN**
TIMES WIRE & CABLE DIV, INT L SILVER CO, WALLINGFORD CONN	**ADV PG 84**
UNIFORM TUBES INC, COLLEGEVILLE	**PA**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Abilities Inc, Albertson	N Y
ACI, Inc, Princeton	N J
Aircraft & Electronic Specialties, Inc, Plainfield	Ind
Alpha Wire, Elizabeth	N J
Ameco Inc, Phoenix	Ariz
American Cable Electronic Supply Inc, Sacramento	Cal
American Electric Cable Co, Holyoke	Mass



Custom constructions to meet your exact requirements. Any combination of conductors, Plasticote® insulations, shields, jackets, color coding, etc.

Send for brochure, today!

CHESTER CABLE CO.
Division
Tennessee Corporation
Chester, N.Y.
A Subsidiary of
Cities Service Company

MicroCoax

solid-jacketed, miniature coaxial cable

Total shielding. Improved environmental stability. Close dimensional tolerances. Seamless, solid tubular jackets of copper, aluminum and stainless steel eliminate crosstalk and attenuation problems. 25 standard combinations of solid metal jackets, dielectrics and conductors stocked for fast shipment in O.D.'s from 0.008" to 0.390". Also specializing in custom cable requirements. Order from:

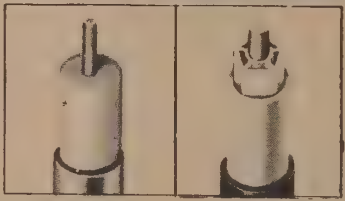
506R

MicroDelay Division

UNIFORM TUBES, INC.

Collegeville, Pa. 19426 • TWX 510-660-6107
Phone: (215) 489-7293 • TELEX: 84-6428

Seamless metal tube sheathed coaxial cable


ALUMIFOAM® ALUMISPLINE®

What ordinary flexible coaxial cable won't do . . . Times semiflexible will! Here are 7 reasons why: More isolation—at least 80 db more than ordinary coaxial cable. Uniformly average—VSWR 1.1 or less. Stability—10 times better. Lower loss—30% less. Pulse reflection—less than 1%. Less distortion.

Available in three standard versions:

ALUMIFOAM®—Foam polyethylene dielectric where pressurizing isn't practical.

ALUMISPINE®—Air dielectric where pressurizing is practical. Superior because the dielectric is uniformly extruded directly on the center conductor, guaranteeing lowest attenuation, VSWR, and good nanosecond pulse response.

ALUMISOL®—Solid dielectric
All semiflexibles are available for high temperature applications.

WRITE OR PHONE FOR TECHNICAL DATA.

TIMES WIRE & CABLE

DIVISION OF THE INTERNATIONAL SILVER COMPANY
WALLINGFORD, CONNECTICUT

Amphenol, Chicago	Ill
Anaconda Wire and Cable Co, New York	N Y
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Associated Engineering Corp, Brookline	Mass
Automation Services Inc, Endicott	N Y
Aviation Electric Ltd, St Laurent, Montreal	Que
Avnet Electronics, Westbury	N Y
Belden Mfg Co, Chicago	Ill
Birnbach Co Inc, Freeport	N Y
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Cablerie Charbonnet, Lyon 4	France
Calcon Mfg Corp, Washington	Pa
Cardwell Condenser Corp, Lindenhurst	N Y
Cerro Corp, New York	NY
Cerro Sales Corp, New York	NY
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Chester Cable Co Div Tennessee Corp, Chester	N Y
Coaxco Inc, Portland	Ore
Co-Ax Inc, Roslyn	N Y
Columbia Wire Products Co, Chicago	Ill
Communication Dynamics Corp, Yonkers	N Y
Consolidated Controls Corp, El Segundo	Cal
Consolidated Products Corp, Gardena	Cal
Consolidated Wire & Associated Corps, Chicago	Ill
Continental Wire & Cable, York	Pa
Co-Operative Industries Inc, Chester	N J
Costelow Co Inc, Topeka	Kans
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Decibel Products Inc, Dallas	Tex
DX Antenna Co Ltd, Hyogo-Ku, Kobe	Japan
Dynalectron Corp Aerospace Prods Div San Leandro	Cal
E-H Research Labs Inc, Oakland	Cal
Endevco Corp, Pasadena	Cal
Ethylene Corp, Murray Hill	N J
Fairhill Products Corp, Philadelphia	Pa
Finney Co, Bedford	Ohio
Flexible Circuits Inc, Warrington	Pa
Frost Engineering Development Corp, Englewood	Colo
Gates Radio Co, Quincy	Ill
General Cable Corp, New York	N Y
General Electric Co Wire & Cable Dept Bridgeport	Conn
Gore & Assoc Inc, W L, Newark	Del
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Holyoke Wire & Cable Corp, Holyoke	Mass
Inso Electronic Products Inc, Nutley	N J
ITT Wire & Cable Div, Clinton	Mass
ITT Wire & Cable Div, Pawtucket	R I
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
Judd Wire Div Electronized Chem Corp Turners Falls	Mass
Lake Engineering Co Ltd, Scarborough	Ont
Lundy Electronics & Systems Inc, Glen Head	N Y
Mackworth Rees Div, Madison Heights	Mich
Microdot, Inc, South Pasadena	Cal
Mohawk Wire & Cable Corp, Leominster	Mass
Paraplegics Mfg Co Inc, Bensenville	Ill
Phelps Dodge Copper Products Corp, New York	N Y
Phelps Dodge Electronic Products Corp North Haven	Conn
Phelps Dodge Electronic Prods Corp, Commun Prods Div Marlboro	N J
Philadelphia Insulated Wire Co, Moorestown	N J
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Physical Sciences Corp, Arcadia	Cal
Plastoid Corp, Long Island City	N Y
Prodelin Inc, Hightstown	N J
Ren Electronics Corp, South Hadley Falls	Mass
Rome Cable Div Cyprus Mines Corp, Rome	N Y
Saxton Products Inc, Congers	N Y
Schjeldahl Co, G T, Northfield	Minn
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst	NY
Signet Scientific Co, Burbank	Cal
South Bay Cable Corp, Gardena	Cal
Standard Wire & Cable Co, Los Angeles	Cal
Superior Continental Corp, Hickory	N C
Superior Insulated Wire Corp, Stony Point	N Y
Surface Conduction Inc, New York	N Y
Taffet Electronics Inc, Woodside	N Y
Tatsuta Electric Wire & Cable Co Ltd, Osaka	Japan
Technical Components Co Inc, Chicago Ridge	Ill
Tensolite Insulated Wire Co Inc, Tarrytown	N Y
Texas Instruments Incorporated, Dallas	Tex
Thermal Wire & Electronics Corp, South Hero	Vt
Times Wire & Cable Div, Int L Silver Co Wallingford	Conn
Tru-Connector Corp, Peabody	Mass
Uniform Tubes Inc, Collegeville	Pa
Univox Corp, New York	N Y
Vikoa Inc, Hoboken	N J
Wald Sound, Sun Valley	Cal
Weinschel Engineering Co Inc, Gaithersburg	Md
Whitney Blake Co, New Haven	Conn

Who Do You Call?

Find his name and telephone number in EBG's Manufacturer's index (green pages).

CABLES, COAXIAL--FLEXIBLE,SOLID

AMPHENOL, CHICAGO, ILL	**ADV PG 85**
BIRNBACH CO INC, FREEPORT	**N Y**
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN,	**CONN**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER N Y	**ADV PG 85**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
DX ANTENNA CO LTD, HYOGO-KU, KOBE	**JAPAN**
TIMES WIRE & CABLE DIV, INT L SILVER CO, WALLINGFORD CONN	**ADV PG 85**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Abilities Inc, Albertson	N Y
ACI, Inc, Princeton	N J
Aircraft & Electronic Specialties, Inc, Plainfield	Ind
Alpha Wire, Elizabeth	N J
American Cable Electronic Supply Inc, Sacramento	Cal
American Electric Cable Co, Holyoke	Mass
Amphenol, Chicago	Ill
Anaconda Wire and Cable Co, New York	N Y
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Ansonia Wire & Cable Co, Ashton	R I
Belden Mfg Co, Chicago	Ill
Birnbach Co Inc, Freeport	N Y
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Cablerie Charbonnet, Lyon 4	France
Calcon Mfg Corp, Washington	Pa
Cardwell Condenser Corp, Lindenhurst	N Y
Cerro Corp, New York	NY
Cerro Sales Corp, New York	NY
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Chester Cable Co Div Tennessee Corp, Chester	N Y
Coaxco Inc, Portland	Ore
Coax Devices, Chelsea	Mass
Co-Ax Inc, Roslyn	N Y
Columbia Wire Products Co, Chicago	Ill
Consolidated Products Corp, Gardena	Cal
Consolidated Wire & Associated Corps, Chicago	Ill
Continental Sensing Inc, Melrose Park	Ill
Continental Wire & Cable, York	Pa
Co-Operative Industries Inc, Chester	N J
Costelow Co Inc, Topeka	Kans
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Dielectric Materials Co, Chicago	Ill
DX Antenna Co Ltd, Hyogo-Ku, Kobe	Japan
Edison, Thomas A Industries, Instr Div West Orange	N J
Electronized Chemicals Corp, Burlington	Mass
Endevco Corp, Pasadena	Cal
Ethylene Corp, Murray Hill	N J
Finney Co, Bedford	Ohio
Flexible Circuits Inc, Warrington	Pa
Frost Engineering Development Corp, Englewood	Colo
Gates Radio Co, Quincy	Ill
Gavitt Wire & Cable Co Div Amerace Corp Brookfield	Mass
General Cable Corp, New York	N Y
General Radio Co, West Concord	Mass
Gore & Assoc Inc, W L, Newark	Del
Gulton Industries Inc, Metuchen	N J
Haveg Industries Inc, Super Temp Wire Div Winooski	Vt
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Holyoke Wire & Cable Corp, Holyoke	Mass
ITT Wire & Cable Div, Clinton	Mass
ITT Wire & Cable Div, Pawtucket	R I
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
Judd Wire Div Electronized Chem Corp Turners Falls	Mass
Lenz Electric Mfg Co, Chicago	Ill
Lundy Electronics & Systems Inc, Glen Head	N Y
Mackworth Rees Div, Madison Heights	Mich
Meridian Metalcraft Inc, Whittier	Cal
Microdot, Inc, South Pasadena	Cal
Mohawk Wire & Cable Corp, Leominster	Mass
Phalo Corp, Shrewsbury	Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plastoid Corp, Long Island City	N Y
Porter Co (Can) Ltd, H K, Guelph	Ont
Raychem Corp, Menlo Park	Cal
Ren Electronics Corp, South Hadley Falls	Mass
Rome Cable Div Cyprus Mines Corp, Rome	N Y
Saxton Products Inc, Congers	N Y
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst	NY
Signet Scientific Co, Burbank	Cal
South Bay Cable Corp, Gardena	Cal
Standard Telephones & Cables Ltd London WC 2	England
Standard Wire & Cable Co, Los Angeles	Cal
Superior Continental Corp, Hickory	N C
Superior Insulated Wire Corp, Stony Point	N Y
Surface Conduction Inc, New York	N Y
Tatsuta Electric Wire & Cable Co Ltd, Osaka	Japan
Technical Components Co Inc, Chicago Ridge	Ill
Tensolite Insulated Wire Co Inc, Tarrytown	N Y
Tevco Insulated Wire, Glendale	Cal
Texas Instruments Incorporated, Dallas	Tex
Thermal Wire & Electronics Corp, South Hero	Vt
Thermax Wire Corp, New York	N Y
Times Wire & Cable Div, Int L Silver Co Wallingford	Conn
Tru-Connector Corp, Peabody	Mass
United-Carr Inc, Boston	Mass
United-Carr Inc, Plaxial Cable Dept Newton Highlands	Mass
Victor Electric Wire & Cable Corp, West Warwick	R I
Vikoa Inc, Hoboken	N J
Weinschel Engineering Co Inc, Gaithersburg	Md

Coaxial cable

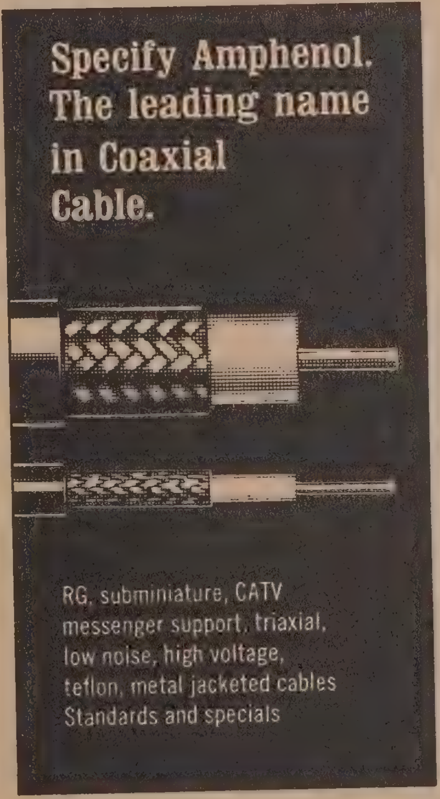
RG/U. Over 50 Teflon insulated—and over 125 polyethylene insulated—to MIL-C-17. Over 120 types available from stock. T-Line—Improved RG cable equivalents—specially designed, improved characteristic cable equivalent to RG cables.

Miniaturized low capacitance, low attenuation cables; shielded, low capacitance twisted pairs. Special: Custom engineered coaxial cable is a Times specialty.

WRITE OR PHONE FOR TECHNICAL DATA.

TIMES WIRE & CABLE

DIVISION OF THE INTERNATIONAL SILVER COMPANY
WALLINGFORD, CONNECTICUT



Specify Amphenol. The leading name in Coaxial Cable.

RG, subminiature, CATV messenger support, triaxial, low noise, high voltage, teflon, metal jacketed cables Standards and specials

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL™

COAXIAL CABLES

CHESTER

Accepted by industry as the quality line of Coaxial cables.

Conform to Military Specifications including MIL-C-17 – or your own special requirements.

Send for complete Coaxial Cable catalog

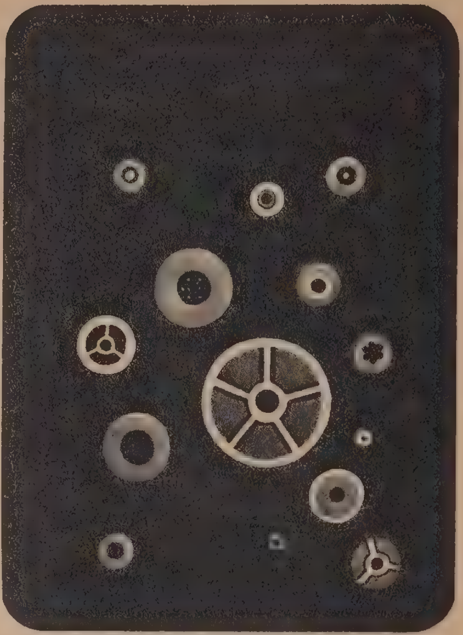
CHESTER CABLE CO.
Division
Tennessee Corporation
Chester, N.Y.
A Subsidiary of
Cities Service Company

Semi-Rigid COAXITUBE Coaxial Cable

COAXITUBE is Precision Tube Company's version of semi-rigid coaxial cables employing solid TFE Teflon* dielectric and an outer conductor from seamless copper (CU) or aluminum (AL) tubing.

Compared to cables employing braided outer conductors, COAXITUBE offers greater shielding effectiveness, thereby reducing attenuation and increasing the power rating. In addition, COAXITUBE construction minimizes variations in the characteristic impedance profile, thus significantly reducing VSWR.

The COAXITUBE types shown below are those currently in most common demand. All have a nominal characteristic impedance of 50 ohms, a nominal capacitance of 29.3 pf/ft, and nominal propagation velocity of 69.5%. Individual properties are listed in the table.



Other available constructions:

Cables having outer diameters from .020 to .500 inches; employing conductor and dielectric materials other than those shown in this bulletin; having characteristic impedance ranging from 4 to 125 ohms; designed to survive under extreme vibration; designed to withstand exposure to temperatures in excess of those shown in the table below.

Outer conductor finishes; (gold, silver, cadmium, tin, plastic tubing available).

Special constructions, such as lossy or minimum-loss cables.

Finished and semi-finished coaxial cable components such as delay lines, dummy loads, and preformed and terminated assemblies to your drawings, including environmental testing.

	Part Number:	PT6585-HP		PT119141-HP		1163T1403-20		G143T215CU		G143T215AL		G87T325CU		G87T325AL	
MECHANICAL PROPERTIES	Inner Conductor	#24 AWG SC (.51 mm)		#19 AWG SCW (.91 mm)		#20 AWG SC (.81 mm)		#15 AWG SCW (1.41 mm)		#15 AWG SCW (1.41 mm)		7/.0312 SC		7/.0312 SC	
	Diameter of Dielectric	.065″ ± .001″ (1.65 mm)		.119″ ± .001″ (3.02 mm)		.118″ ± .003″ (2.99 mm)		.185″ ± .003″ (4.69 mm)		.185″ ± .003″ (4.69 mm)		.285″ ± .005″ (7.23 mm)		.285″ ± .005″ (7.23 mm)	
	Outer Conductor	.085″ ± .001″ (2.16 mm)		.141″ ± .001″ (3.58 mm)		.140″ ± .003″ (3.55 mm)		.215″ ± .003″ (5.46 mm)		.215″ ± .003″ (5.46 mm)		.325″ ± .005″ (8.25 mm)		.325″ ± .005″ (8.25 mm)	
	Safe Bend Radius (that produced with proper tooling)	.125″ (3.17 mm)		.250″ (6.35 mm)		.250″ (6.35 mm)		.375″ (9.52 mm)		.375″ (9.52 mm)		.500″ (12.70 mm)		.500″ (12.70 mm)	
	Weight—Ounces per foot Grams per meter	.201 (18.7)		.439 (40.8)		.430 (39.9)		1.09 (101.5)		1.09 (101.5)		2.34 (217.7)		1.54 (143.18)	
	Maximum Operating Temperature (°C)	150		175		175		200		200		200		200	
ELECTRICAL CHARACTERISTICS	Impedance (Ohms)	50 ± 1		50 ± 1		50 ± 2		50 ± 2.5		50 ± 2.5		50 ± 2.5		50 ± 2.5	
	Dielectric Strength Rating—KVRMS 60 Hz	5.0		5.0		5.0		7.0		7.0		7.5		7.5	
	Corona Extinction Voltage—KVRMS 60 Hz	1.5		1.9		1.9		3.0		3.0		3.3		3.3	
	90% Higher Mode Cutoff Frequency—Ghz	44.9		30.4		30.4		19.5		19.5		12.5		12.5	
	A (Attenuation, db/100 ft.) and P (Average Power Rating, KW)														
		A	P	A	P	A	P	A	P	A	P	A	P	A	P
	.010 Ghz	1.9	—	1.1	8.2	1.2	8.1	.60	14.9	.66	13.6	.46	23	.46	19
	.050 Ghz	4.4	—	2.5	3.3	2.6	3.2	1.5	6.2	1.7	5.7	1.0	9.0	1.1	7.6
	.10 Ghz	6.4	.75	3.6	2.2	3.7	2.1	2.1	4.2	2.3	4.0	1.5	6.1	1.6	5.1
	.40 Ghz	13.0	.35	7.2	1.0	7.7	.93	4.5	2.0	4.8	1.9	3.3	2.7	3.5	2.3
	1.0 Ghz	21.0	.21	11.6	.60	12.2	.52	7.4	1.2	8.1	1.1	5.4	1.6	5.9	1.3
	3.0 Ghz	38.5	.11	21.5	.31	22.1	.28	13.9	.64	15.0	.60	10.5	.83	11.3	.70
	5.0 Ghz	50.5	.085	28.5	.23	29.1	.22	19.0	.45	21.0	.41	14.0	.59	15.5	.49
	10.0 Ghz	78.0	.045	44.5	.16	45.2	.16	31.0	.27	34.0	.25	22.0	.34	24.0	.27

NOTES: AWG is American Wire Gage; SC is Silvered Copper Wire; SCW is Silvered Copper-clad Steel (Copperweld) Wire.
It is recommended that, unless special precautions are taken, the maximum continuous operating voltage does not exceed the corona extinction voltage.
Attenuation measured at 25°C ambient, by procedure outlined in par. 4.6.10 of MIL-C-17D.
Power ratings calculated for 40°C ambient still air and 1.1 to 1 VSWR; partial test data available and indicating calculated data to be conservative.
Part Numbers PT6585-HP and PT119141-HP, are available with outer diameter tolerances of ± .003 inch and characteristic impedance tolerance of ± 2 ohm. Order 0653ST0853 and 1163T1413-19 respectively. PT119141-HP is also offered with an impedance tolerance of ± ½ ohm.

*du Pont T.M.

PRECISION TUBE COMPANY, INC.
NORTH WALES, PA. 19454
Phone—215-699-5801 • Telex—84-381 • TWX—510-661-8427

We shall gladly send additional data, samples and prices. Call, write or wire for prompt action.

CABLES, COAXIAL

HIGH TEMPERATURE

AMPHENOL, CHICAGO	**ILL**
BIRNBACH CO INC, FREEPORT	**N Y**
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN,	**CONN**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER	**N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
TIMES WIRE & CABLE DIV, INT L SILVER CO, WALLINGFORD CONN	**ADV PG 87**
UNIFORM TUBES INC, COLLEGEVILLE	**PA**
Abilities Inc, Albertson	N Y
ACI, Inc, Princeton	N J
Aero Research Instrument Dept American Standard Franklin Park	Ill
Aerospace Systems A Teledyne Co, Fairmont	Minn
Alpha Wire, Elizabeth	N J
American Cable Electronic Supply Inc, Sacramento	Cal
Amphenol, Chicago	Ill
Anaconda Wire and Cable Co, New York	N Y
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Aviation Electric Ltd, St Laurent, Montreal	Que
Avnet Electronics, Westbury	N Y
Belden Mfg Co, Chicago	Ill
Birnbach Co Inc, Freeport	N Y
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Cablerie Charbonnet, Lyon 4	France
Carol Cable Co, Pawtucket	R I
Cerro Corp, New York	NY
Cerro Sales Corp, New York	NY
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Chester Cable Co Div Tennessee Corp, Chester	N Y
Cicoil Corp, Chatsworth	Cal
Cimco Wire & Cable Co, Allendale	N J
Co-Ax Inc, Roslyn	N Y
Columbia Wire Products Co, Chicago	Ill
Communication Dynamics Corp, Yonkers	N Y
Consolidated Controls Corp, El Segundo	Cal
Consolidated Products Corp, Gardena	Cal
Consolidated Wire & Associated Corps, Chicago	Ill
Continental Sensing Inc, Melrose Park	Ill
Continental Wire & Cable, York	Pa
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Dielectric Materials Co, Chicago	Ill
Electronic Specialty Co, Los Angeles	Cal
Fairhill Products Corp, Philadelphia	Pa
Flexible Circuits Inc, Warrington	Pa
Flexible Products Inc, North St Paul	Minn
Gavitt Wire & Cable Co Div Amerace Corp Brookfield	Mass
General Cable Corp, New York	N Y
General Electric Co Wire & Cable Dept Bridgeport	Conn
Geo Space Corp, Houston	Tex
Gore & Assoc Inc, W L, Newark	Del
Gulton Industries Inc, Metuchen	N J
Harbour Industries Inc, Shelburne	Vt
Haveg Industries Inc, Super Temp Wire Div Winooski	Vt
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Holyoke Wire & Cable Corp, Holyoke	Mass
Inso Electronic Products Inc, Nutley	N J
ITT Wire & Cable Div, Clinton	Mass
ITT Wire & Cable Div, Pawtucket	R I
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
Judd Wire Div Electronized Chem Corp Turners Falls	Mass
Lake Engineering Co Ltd, Scarborough	Ont
Mackworth Rees Div, Madison Heights	Mich
Markel & Sons Inc L Frank, Norristown	Pa
Microdot, Inc, South Pasadena	Cal
Phelps Dodge Copper Products Corp, New York	N Y
Phelps Dodge Electronic Products Corp North Haven	Conn
Philadelphia Insulated Wire Co, Moorestown	N J
Physical Sciences Corp, Arcadia	Cal
Plastoid Corp, Long Island City	N Y
Prodelin Inc, Hightstown	N J
Raychem Corp, Menlo Park	Cal
Ren Electronics Corp, South Hadley Falls	Mass
Reuter-Stokes Electronic Components Inc Cleveland	Ohio
Rowe Industries Inc, Toledo	Ohio
Rye Industries, Inc, Mamaroneck	N Y
Saxton Products Inc, Congers	N Y
Standard Telephones & Cables Ltd London WC 2	England
Standard Wire & Cable Co, Los Angeles	Cal
Superior Insulated Wire Corp, Stony Point	N Y
Tatsuta Electric Wire & Cable Co Ltd, Osaka	Japan
Technical Components Co Inc, Chicago Ridge	Ill
Tensolite Insulated Wire Co Inc, Tarrytown	N Y
Thermal Wire & Electronics Corp, South Hero	Vt
Thermax Wire Corp, New York	N Y
Times Wire & Cable Div, Int L Silver Co Wallingford	Conn
Tru-Connector Corp, Peabody	Mass
Uniform Tubes Inc, Collegeville	Pa
United-Carr Inc, Plaxial Cable Dept Newton Highlands	Mass
Univox Corp, New York	N Y
Wirecraft Products Inc, West Brookfield	Mass

Coaxial cable

RG/U. Over 50 Teflon insulated—and over 125 polyethylene insulated—to MIL-C-17. Over 120 types available from stock. T-Line—improved RG cable equivalents—specially designed, improved characteristic cable equivalent to RG cables.

Miniaturized low capacitance, low attenuation cables; shielded, low capacitance twisted pairs. Special: Custom engineered coaxial cable is a Times specialty.

WRITE OR PHONE FOR TECHNICAL DATA.

TIMES
WIRE & CABLE

DIVISION OF THE INTERNATIONAL SILVER COMPANY
WALLINGFORD, CONNECTICUT

CABLES, COAXIAL--SEMI-RIGID

AMPHENOL, CHICAGO, ILL	**ADV PG 87**
BIRNBACH CO INC, FREEPORT	**N Y**
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN,	**CONN**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
PRECISION TUBE CO INC, NORTH WALES, PA	**ADV PG 86**
TIMES WIRE & CABLE DIV, INT L SILVER CO WALLINGFORD	**CONN**
UNIFORM TUBES INC, COLLEGEVILLE, PA	**ADV PG 84**
Amphenol, Chicago	Ill
Anaconda Wire and Cable Co, New York	N Y
Birnbach Co Inc, Freeport	N Y
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Electronized Chemicals Corp, Burlington	Mass
Ethylene Corp, Murray Hill	N J
Holyoke Wire & Cable Corp, Holyoke	Mass
ITT Wire & Cable Div, Pawtucket	R I
Phelps Dodge Copper Products Corp, New York	N Y
Phelps Dodge Electronic Products Corp North Haven	Conn
Phelps Dodge Electronic Prods Corp, Commun Prods Div Marlboro	N J
Precision Tube Co Inc, North Wales	Pa
Saxton Products Inc, Congers	N Y
Standard Wire & Cable Co, Los Angeles	Cal
Superior Continental Corp, Hickory	N C
Times Wire & Cable Div, Int L Silver Co Wallingford	Conn
Uniform Tubes Inc, Collegeville	Pa

Check the top of the pages for alphabetical listing of product categories

DEPEND ON
PROGRESS
Electronics
for sure delivery

CABLES

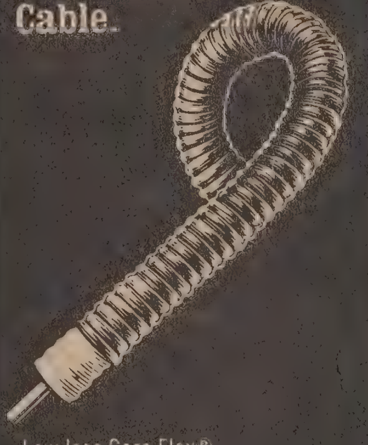
- COAXIAL
- TEFLON
- and WIRE

Supermarket stocks available for prompt delivery from our new expanded location.

Call (516) GE 3-1700
TWX No. 510-221-1896

PROGRESS Electronics
Engineers Hill / Plainview, L.I., N.Y.

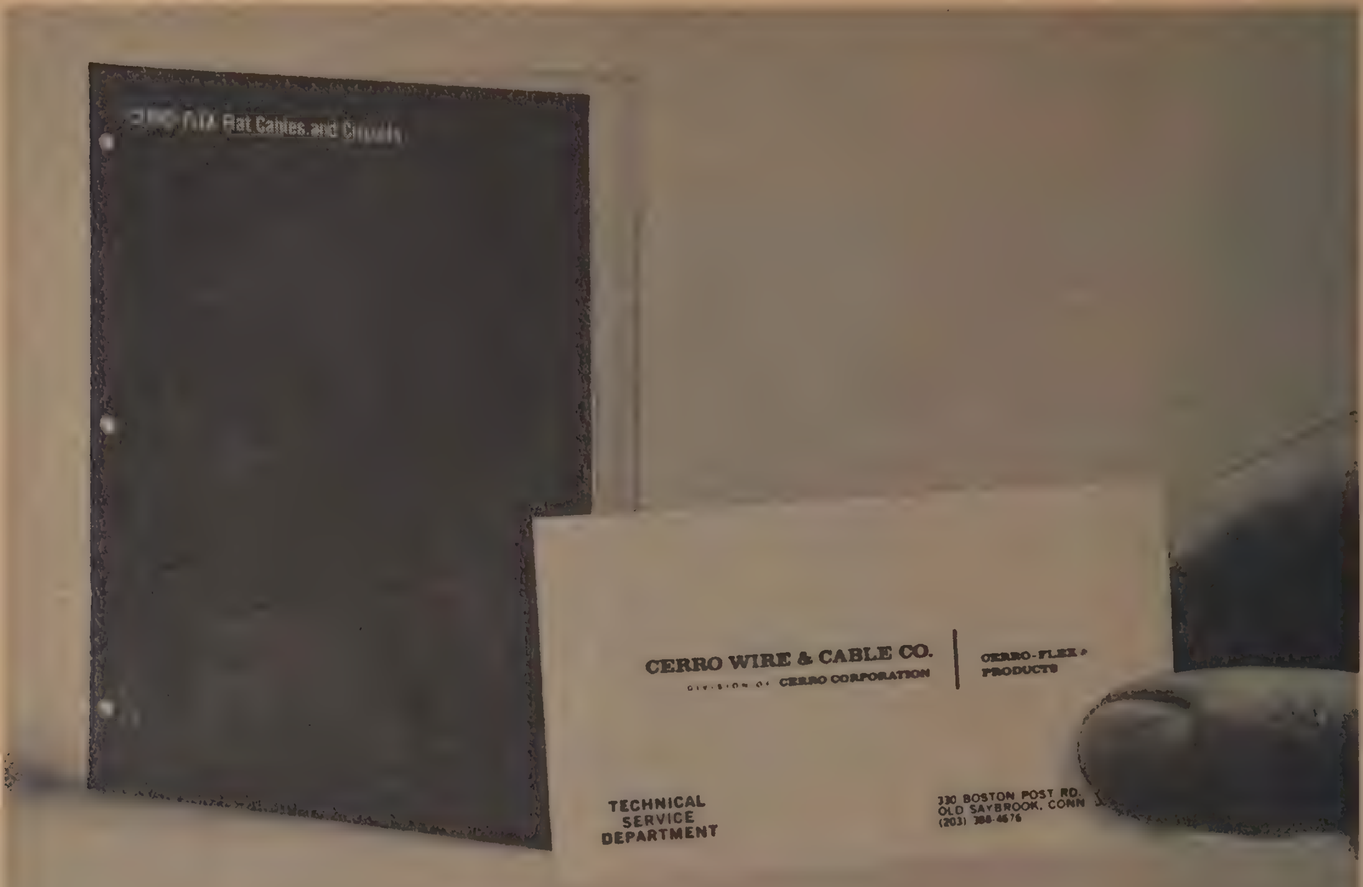
Specify Amphenol. The leading name in Semi-Rigid Cable.



Low loss Coro-Flex® cable offers:
flexible metal jacket,
crush-resistant strength,
100% shielded signal

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL™


Cerro-Flex Flat Cables and Circuits
CERRO WIRE & CABLE CO.
DIVISION OF CERRO CORPORATION
CERRO-FLEX PRODUCTS
TECHNICAL SERVICE DEPARTMENT
330 BOSTON POST RD. OLD SAYBROOK, CONN (203) 388-4676

Get ideas here on flexible cables.

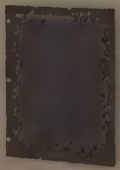
Get help here when you need it.

Our catalog on flat flexible cables and printed wiring will show you how to cut the cost, size and weight of your products. It will stimulate your thinking about this modern way to package electronic circuitry.

A Cerro-Flex® Technical Man can help you design your flexible circuit and fulfill your needs from our modern plant.

Send today for a copy of the Cerro-Flex Flat Cables and Circuits Catalog.

Cerro-Flex Products, Cerro Wire & Cable Co.
330 Boston Post Road, Old Saybrook, Conn. 06475



Gentlemen:

☐ Please send me a copy of "Cerro-Flex Flat Cables and Circuits."

☐ Please have a Cerro-Flex Technical Man call.

Name ....

Title ....

Company ....

Address ....

CERRO®
WIRE & CABLE

CABLES--FLAT, PRINTED & RIBBON

BIRNBACH CO INC, FREEPORT	**N Y**
BUCKBEE MEARS CO, ST PAUL	**MINN**
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN, CONN	**ADV PG 88**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
HUGHES CONNECTING DEVICES, NEWPORT BEACH CAL.	
ACI, Inc, Princeton	N J
Aerospace Systems A Teledyne Co, Fairmont	Minn
Almor Development Co Inc, Long Beach	Cal
Alpha Wire, Elizabeth	N J
American Cable Electronic Supply Inc, Sacramento	Cal
American Electric Cable Co, Holyoke	Mass
Automation Services Inc, Endicott	N Y
Avionics Ltd, Niagara-on-the-Lake	Ont
Birnbach Co Inc, Freeport	N Y
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Brown Engineering-A Teledyne Co, Huntsville	Ala
Buckbee Mears Co, St Paul	Minn
Calcon Mfg Corp, Washington	Pa
Cerro Corp, New York	NY
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Cico Corp, Sun Valley	Cal
Cicoil Corp, Chatsworth	Cal
Clear Beam Antenna, Sylmar	Cal
Columbia Wire Products Co, Chicago	Ill
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Digital Sensors Inc, Los Angeles	Cal
Eagle Electric Mfg Co Inc, Long Island City	N Y
Electro Connective Systems Inc, Brockton	Mass
Electro-Mechanisms, Inc, Nashua	N H
Electronized Chemicals Corp, Burlington	Mass
Fairchild Cable Div Fairchild Camera & Inst, Joplin	Mo
Flexible Circuits Inc, Warrington	Pa
Flexible Products Inc, North St Paul	Minn
Frost Engineering Development Corp, Englewood	Colo
Gavitt Wire & Cable Co Div Amerace Corp Brookfield	Mass
Geo Space Corp, Houston	Tex
Gore & Assoc Inc, W L, Newark	Del
Haveg Industries Inc, Super Temp Wire Div Winooski	Vt
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Holyoke Wire & Cable Corp, Holyoke	Mass
Hughes Connecting Devices, Newport Beach	Cal
International Energy Conversion Inc, Garland	Tex
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
Judd Wire Div Electronized Chem Corp Turners Falls	Mass
Lake Engineering Co Ltd, Scarborough	Ont
Lane Industries,Electronics Div, North Hollywood	Cal
Lockheed Electronics Co, Avionics & Ind Prods Div Los Angeles	Cal
Methode Electronics Inc, Chicago	Ill
Minco Products Inc, Minneapolis	Minn
3M Company, St Paul	Minn
Plastic Wire & Cable Corp, Jewett City	Conn
Raychem Corp, Menlo Park	Cal
Ren Electronics Corp, South Hadley Falls	Mass
Revere Corp of America, Wallingford	Conn
Rogers Corp, Rogers	Conn
Sanders Associates, Inc, Nashua	N H
Schjeldahl Co, G T, Northfield	Minn
Spectra-Strip Corp, Garden Grove	Cal
Standard Wire & Cable Co, Los Angeles	Cal
Superior Continental Corp, Hickory	N C
Superior Insulated Wire Corp, Stony Point	N Y
Tape Cable Corp, Rochester	N Y
Tapecon Inc, Rochester	N Y
Tensolite Insulated Wire Co Inc, Tarrytown	N Y
Texas Instruments Incorporated, Dallas	Tex
Thermax Wire Corp, New York	N Y
Universal Precision, Inc, Endicott	N Y
Victor Electric Wire & Cable Corp, West Warwick	R I
Vikoa Inc, Hoboken	N J

CABLES, HIGH TEMPERATURE--SHIELDED

AMPHENOL, CHICAGO	**ILL**
BIRNBACH CO INC, FREEPORT	**N Y**
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN,	**CONN**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER	**N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
PRECISION TUBE CO INC, NORTH WALES	**PA**
TIMES WIRE & CABLE DIV, INT L SILVER CO WALLINGFORD	**CONN**
UNIFORM TUBES INC, COLLEGEVILLE	**PA**
Abilities Inc, Albertson	N Y
ACI, Inc, Princeton	N J
Aero Research Instrument Dept American Standard Franklin Park	Ill
Aerospace Systems A Teledyne Co, Fairmont	Minn
Aircraft & Electronic Specialties, Inc, Plainfield	Ind
Alpha Wire, Elizabeth	N J
American Cable Electronic Supply Inc, Sacramento	Cal
American Electric Cable Co, Holyoke	Mass
Amphenol, Chicago	Ill
Anaconda Wire and Cable Co, New York	N Y
Aviation Electric Ltd, St Laurent, Montreal	Que
Belden Mfg Co, Chicago	Ill
Birnbach Co Inc, Freeport	N Y
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Cablerie Charbonnet, Lyon 4	France
Calmont Wire & Cable Inc, Santa Ana	Cal
Caltron Industries, Berkeley	Cal
Carol Cable Co, Pawtucket	R I
Cerro Corp, New York	NY
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Chester Cable Co Div Tennessee Corp, Chester	N Y
Cicoil Corp, Chatsworth	Cal
Cimco Wire & Cable Co, Allendale	N J
Co-Ax Inc, Roslyn	N Y
Columbia Wire Products Co, Chicago	Ill
Consolidated Controls Corp, El Segundo	Cal
Consolidated Controls Corp, Bethel	Conn
Consolidated Products Corp, Gardena	Cal
Consolidated Wire & Associated Corps, Chicago	Ill
Continental Sensing Inc, Melrose Park	Ill
Continental Wire & Cable, York	Pa
Co-Operative Industries Inc, Chester	N J
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Dielectric Materials Co, Chicago	Ill
Estes Engineering Co, Gardena	Cal
Fairhill Products Corp, Philadelphia	Pa
First Electronics Corp, Boston	Mass
Flexible Circuits Inc, Warrington	Pa
Flexible Metal Hose Mfg Co, CostaMesa	Cal
Flexible Products Inc, North St Paul	Minn
Gavitt Wire & Cable Co Div Amerace Corp Brookfield	Mass
General Cable Corp, New York	N Y
General Electric Co Wire & Cable Dept Bridgeport	Conn
General Laboratory Assoc Inc, Norwich	N Y
General Reliance Div Gen Relay Corp, Dover	N J
Geo Space Corp, Houston	Tex
Gladding Corp, South Otselic	N Y
Gore & Assoc Inc, W L, Newark	Del
Gulton Industries Inc, Metuchen	N J
Hallett, Inglewood	Cal
Harbour Industries Inc, Shelburne	Vt
Haveg Industries Inc, Super Temp Wire Div Winooski	Vt
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Holyoke Wire & Cable Corp, Holyoke	Mass
Inso Electronic Products Inc, Nutley	N J
ITT Wire & Cable Div, Clinton	Mass
ITT Wire & Cable Div, Pawtucket	R I
Jettron Products Inc, Hanover	N J
Judd Wire Div Electronized Chem Corp Turners Falls	Mass
Kaiser Aluminum & Chem Corp Electrical Prods Div Oakland	Cal
Lake Engineering Co Ltd, Scarborough	Ont
Lane Industries,Electronics Div, North Hollywood	Cal
Lundy Electronics & Systems Inc, Glen Head	N Y
Markel & Sons Inc L Frank, Norristown	Pa
Microdot, Inc, South Pasadena	Cal
Moore & Co, Samuel, Mantua	Ohio
Pacific Automation Products Inc, Glendale	Cal
Phelps Dodge Electronic Products Corp North Haven	Conn
Philadelphia Insulated Wire Co, Moorestown	N J
Physical Sciences Corp, Arcadia	Cal
Plastic Wire & Cable Corp, Jewett City	Conn
Plastoid Corp, Long Island City	N Y
Precision Tube Co Inc, North Wales	Pa
Prestolite Wire & Cable, Prestolite Div, Eltra Corp Port Huron	Mich
Prodelin Inc, Hightstown	N J
Raychem Corp, Menlo Park	Cal
Ren Electronics Corp, South Hadley Falls	Mass
Revere Corp of America, Wallingford	Conn
Rye Industries, Inc, Mamaroneck	N Y
Saxton Products Inc, Congers	N Y
Schjeldahl Co, G T, Northfield	Minn
South Bay Cable Corp, Gardena	Cal
Spectra-Strip Corp, Garden Grove	Cal
Standard Telephones & Cables Ltd London WC 2	England
Standard Wire & Cable Co, Los Angeles	Cal
Tatsuta Electric Wire & Cable Co Ltd, Osaka	Japan
Technical Components Co Inc, Chicago Ridge	Ill
Tensolite Insulated Wire Co Inc, Tarrytown	N Y
Tevco Insulated Wire, Glendale	Cal
Thermal Wire & Electronics Corp, South Hero	Vt
Thermax Wire Corp, New York	N Y
Times Wire & Cable Div, Int L Silver Co Wallingford	Conn
Titeflex Inc, Springfield	Mass
Uniform Tubes Inc, Collegeville	Pa
Western Insulated Wire Co, Los Angeles	Cal
Wiegand Co, Edwin L, Pittsburgh	Pa
Wirecraft Products Inc, West Brookfield	Mass

CABLES, HIGH TEMPERATURE--UNSHIELDED

AMPHENOL, CHICAGO	**ILL**
BIRNBACH CO INC, FREEPORT	**N Y**
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN,	**CONN**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER	**N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
TIMES WIRE & CABLE DIV, INT L SILVER CO WALLINGFORD	**CONN**
Abilities Inc, Albertson	N Y
ACI, Inc, Princeton	N J
Aircraft & Electronic Specialties, Inc, Plainfield	Ind
Alpha Wire, Elizabeth	N J
American Cable Electronic Supply Inc, Sacramento	Cal
American Electric Cable Co, Holyoke	Mass
Amphenol, Chicago	Ill
Anaconda Wire and Cable Co, New York	N Y
Aviation Electric Ltd, St Laurent, Montreal	Que
Belden Mfg Co, Chicago	Ill
Birnbach Co Inc, Freeport	N Y
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Calmont Wire & Cable Inc, Santa Ana	Cal
Caltron Industries, Berkeley	Cal
Cerro Corp, New York	NY
Cerro Sales Corp, New York	NY
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Chester Cable Co Div Tennessee Corp, Chester	N Y
Cico Corp, Sun Valley	Cal
Cicoil Corp, Chatsworth	Cal
Cimco Wire & Cable Co, Allendale	N J
Co-Ax Inc, Roslyn	N Y
Columbia Wire Products Co, Chicago	Ill
Consolidated Products Corp, Gardena	Cal
Consolidated Wire & Associated Corps, Chicago	Ill
Continental Wire & Cable, York	Pa
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Dielectric Materials Co, Chicago	Ill
Elgiloy Co, Elgin	Ill
Fairhill Products Corp, Philadelphia	Pa
First Electronics Corp, Boston	Mass
Flexible Circuits Inc, Warrington	Pa
Flexible Products Inc, North St Paul	Minn
Gavitt Wire & Cable Co Div Amerace Corp Brookfield	Mass
General Cable Corp, New York	N Y
General Electric Co Wire & Cable Dept Bridgeport	Conn
General Reliance Div Gen Relay Corp, Dover	N J
Geo Space Corp, Houston	Tex
Gore & Assoc Inc, W L, Newark	Del
Hallett, Inglewood	Cal
Harbour Industries Inc, Shelburne	Vt
Haveg Industries Inc, Super Temp Wire Div Winooski	Vt
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Holyoke Wire & Cable Corp, Holyoke	Mass
Inso Electronic Products Inc, Nutley	N J
ITT Wire & Cable Div, Clinton	Mass
ITT Wire & Cable Div, Pawtucket	R I
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
Jettron Products Inc, Hanover	N J
Judd Wire Div Electronized Chem Corp Turners Falls	Mass
Kaiser Aluminum & Chem Corp Electrical Prods Div Oakland	Cal
Lake Engineering Co Ltd, Scarborough	Ont
Lane Industries,Electronics Div, North Hollywood	Cal
Lundy Electronics & Systems Inc, Glen Head	N Y
Markel & Sons Inc L Frank, Norristown	Pa
National Wire & Cable Corp, Los Angeles	Cal
Pacific Automation Products Inc, Glendale	Cal
Philadelphia Insulated Wire Co, Moorestown	N J
Physical Sciences Corp, Arcadia	Cal
Plastic Wire & Cable Corp, Jewett City	Conn
Plastoid Corp, Long Island City	N Y
Prestolite Wire & Cable, Prestolite Div, Eltra Corp Port Huron	Mich
Raychem Corp, Menlo Park	Cal
Ren Electronics Corp, South Hadley Falls	Mass
Revere Corp of America, Wallingford	Conn
Rowe Industries Inc, Toledo	Ohio
Rye Industries, Inc, Mamaroneck	N Y
Saxton Products Inc, Congers	N Y
Schjeldahl Co, G T, Northfield	Minn
South Bay Cable Corp, Gardena	Cal
Spectra-Strip Corp, Garden Grove	Cal
Standard Telephones & Cables Ltd London WC 2	England
Standard Wire & Cable Co, Los Angeles	Cal
Technical Components Co Inc, Chicago Ridge	Ill
Tensolite Insulated Wire Co Inc, Tarrytown	N Y
Tevco Insulated Wire, Glendale	Cal
Thermal Wire & Electronics Corp, South Hero	Vt
Thermax Wire Corp, New York	N Y
Times Wire & Cable Div, Int L Silver Co Wallingford	Conn
Western Insulated Wire Co, Los Angeles	Cal
Wirecraft Products Inc, West Brookfield	Mass

CABLES--MULTICONDUCTOR

AMPHENOL, CHICAGO, ILL	**ADV PG 90**
BIRNBACH CO INC, FREEPORT	**N Y**
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN,	**CONN**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER N Y	**ADV PG 84**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
TIMES WIRE & CABLE DIV, INT L SILVER CO WALLINGFORD	**CONN**
ACI, Inc, Princeton	N J
Aerospace Systems A Teledyne Co, Fairmont	Minn
Aluminum Co of America, Pittsburgh	Pa
Amphenol, Chicago	Ill
Anaconda Wire and Cable Co, New York	N Y
Birnbach Co Inc, Freeport	N Y
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Caltron Industries, Berkeley	Cal
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Chester Cable Co Div Tennessee Corp, Chester	N Y
Cicoil Corp, Chatsworth	Cal
Consolidated Products Corp, Gardena	Cal
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dielectric Materials Co, Chicago	Ill
Electronized Chemicals Corp, Burlington	Mass

Specify Amphenol.
The leading name
in Multi-conductor
Cable.

4-205 conductors
PVC insulated
Polyurethane, polyethylene
or PVC jacket
Shielding, armor available

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL™

Fairchild Cable Div Fairchild Camera & Inst, Joplin	Mo
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairhill Products Corp, Philadelphia	Pa
Flexible Products Inc, North St Paul	Minn
Flow Electronic Cable Corp, Cambridge	Mass
General Cable Corp, New York	N Y
General Reliance Div Gen Relay Corp, Dover	N J
Gulton Industries Inc, Metuchen	N J
Holyoke Wire & Cable Corp, Holyoke	Mass
Hydro Products Div Dillingham Corp, San Diego	Cal
ITT Wire & Cable Div, Pawtucket	R I
Jutco Inc, Gardena	Cal
Kaiser Aluminum & Chem Corp Electrical Prods Div Oakland	Cal
Lake Engineering Co Ltd, Scarborough	Ont
Markel & Sons Inc L Frank, Norristown	Pa
Miller Electric Co, Woonsocket	R I
Moore & Co, Samuel, Mantua	Ohio
National Wire & Cable Corp, Los Angeles	Cal
Pacific Electricord Co, Gardena	Cal
Phelps Dodge Copper Products Corp, New York	N Y
Plastic Wire & Cable Corp, Jewett City	Conn
Revere Corp of America, Wallingford	Conn
Saxton Products Inc, Congers	N Y
Standard Wire & Cable Co, Los Angeles	Cal
Superior Continental Corp, Hickory	N C
Tensolite Insulated Wire Co Inc, Tarrytown	N Y
Tevce Insulated Wire, Glendale	Cal
Thermax Wire Corp, New York	N Y
Times Wire & Cable Div, Int L Silver Co Wallingford	Conn
Wiegand Co, Edwin L, Pittsburgh	Pa
Wirecraft Products Inc, West Brookfield	Mass

CABLES, SHIELDED (NOT COAXIAL)--A-F (INCL MICROPHONE)

AMPHENOL, CHICAGO	**ILL**
BIRNBACH CO INC, FREEPORT	**N Y**
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN,	**CONN**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER	**N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
MAGNETIC SHIELD DIV, PERFECTION MICA CO. CHICAGO	**ILL**
TIMES WIRE & CABLE DIV, INT L SILVER CO WALLINGFORD	**CONN**
Abilities Inc, Albertson	N Y
ACI, Inc, Princeton	N J
Aerospace Systems A Teledyne Co, Fairmont	Minn
Aircraft & Electronic Specialties, Inc, Plainfield	Ind
Alpha Wire, Elizabeth	N J
American Cable Electronic Supply Inc, Sacramento	Cal
American Electric Cable Co, Holyoke	Mass
Amphenol, Chicago	Ill
Ansonia Wire & Cable Co, Ashton	R I
Automation Services Inc, Endicott	N Y
Belden Mfg Co, Chicago	Ill
Birnbach Co Inc, Freeport	N Y
Bogen Communications Div Lear Siegler Inc Paramus	N J
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Cablerie Charbonnet, Lyon 4	France
Calcon Mfg Corp, Washington	Pa
Calmont Wire & Cable Inc, Santa Ana	Cal
Caltron Industries, Berkeley	Cal
Carol Cable Co, Pawtucket	R I
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Chester Cable Co Div Tennessee Corp, Chester	N Y
Cicoil Corp, Chatsworth	Cal
Coaxco Inc, Portland	Ore
Co-Ax Inc, Roslyn	N Y
Columbia Wire Products Co, Chicago	Ill
Consolidated Wire & Associated Corps, Chicago	Ill
Continental Wire & Cable, York	Pa
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Dielectric Materials Co, Chicago	Ill
Electronized Chemicals Corp, Burlington	Mass
Estes Engineering Co, Gardena	Cal
Fabrication Labs Inc, Camino	Cal
Fairhill Products Corp, Philadelphia	Pa
First Electronics Corp, Boston	Mass
Flexible Circuits Inc, Warrington	Pa
Flexible Products Inc, North St Paul	Minn
Flow Electronic Cable Corp, Cambridge	Mass
Gavitt Wire & Cable Co Div Amerace Corp Brookfield	Mass
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Cable Corp, New York	N Y
Geo Space Corp, Houston	Tex
Gladding Corp, South Otselic	N Y
Gore & Assoc Inc, W L, Newark	Del
Gotham Audio Corp, New York	N Y
Hallett, Inglewood	Cal
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Holyoke Wire & Cable Corp, Holyoke	Mass
Inso Electronic Products Inc, Nutley	N J
ITT Wire & Cable Div, Clinton	Mass
ITT Wire & Cable Div, Pawtucket	R I
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
Judd Wire Div Electronized Chem Corp Turners Falls	Mass
Jutco Inc, Gardena	Cal
Kaiser Aluminum & Chem Corp Electrical Prods Div Oakland	Cal
Koiled Kords Inc, New Haven	Conn
Lenz Electric Mfg Co, Chicago	Ill
Magnetic Shield Div, Perfection Mica Co, Chicago	Ill
Mohawk Wire & Cable Corp, Leominster	Mass
National Wire & Cable Corp, Los Angeles	Cal
Pacific Electricord Co, Gardena	Cal
Phalo Corp, Shrewsbury	Mass
Philadelphia Insulated Wire Co, Moorestown	N J
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plastic Wire & Cable Corp, Jewett City	Conn
Plastoid Corp, Long Island City	N Y
Porter Co (Can) Ltd, H K, Guelph	Ont
Prestolite Wire & Cable, Prestolite Div, Eltra Corp Port Huron	Mich
Raychem Corp, Menlo Park	Cal
Ren Electronics Corp, South Hadley Falls	Mass
Rhode Island Insulated Wire Co, Cranston	R I
Rockland Insulated Wire & Cable Co, Haverstraw	N Y
Rome Cable Div Cyprus Mines Corp, Rome	N Y
Rye Industries, Inc, Mamaroneck	N Y
Saxton Products Inc, Congers	N Y
Schjeldahl Co, G T, Northfield	Minn
South Bay Cable Corp, Gardena	Cal
Standard Wire & Cable Co, Los Angeles	Cal
Superior Continental Corp, Hickory	N C
Switchcraft Inc, Chicago	Ill
Taffet Electronics Inc, Woodside	N Y
Tatsuta Electric Wire & Cable Co Ltd, Osaka	Japan
Technical Components Co Inc, Chicago Ridge	Ill
Tensolite Insulated Wire Co Inc, Tarrytown	N Y
Tevco Insulated Wire, Glendale	Cal
Thermal Wire & Electronics Corp, South Hero	Vt
Thermax Wire Corp, New York	N Y
Times Wire & Cable Div, Int L Silver Co Wallingford	Conn
Universal Precision, Inc, Endicott	N Y
Victor Electric Wire & Cable Corp, West Warwick	R I
Vikoa Inc, Hoboken	N J
Whitney Blake Co, New Haven	Conn

CABLES, SHIELDED (NOT COAXIAL)--D-C & POWER

AMPHENOL, CHICAGO	**ILL**
BIRNBACH CO INC, FREEPORT	**N Y**
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN,	**CONN**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER	**N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
TENSOLITE INSULATED WIRE CO INC, TARRYTOWN	**N Y**
Abilities Inc, Albertson	N Y
Aerospace Systems A Teledyne Co, Fairmont	Minn
Aircraft & Electronic Specialties, Inc, Plainfield	Ind
Alpha Wire, Elizabeth	N J
American Cable Electronic Supply Inc, Sacramento	Cal
American Electric Cable Co, Holyoke	Mass
Amphenol, Chicago	Ill
Anaconda Wire and Cable Co, New York	N Y
Ansonia Wire & Cable Co, Ashton	R I
Automation Services Inc, Endicott	N Y
Belden Mfg Co, Chicago	Ill
Birnbach Co Inc, Freeport	N Y
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Calcon Mfg Corp, Washington	Pa
Calmont Wire & Cable Inc, Santa Ana	Cal
Caltron Industries, Berkeley	Cal
Carol Cable Co, Pawtucket	R I
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Chester Cable Co Div Tennessee Corp, Chester	N Y
Cicoil Corp, Chatsworth	Cal
Co-Ax Inc, Roslyn	N Y
Columbia Wire Products Co, Chicago	Ill
Consolidated Products Corp, Gardena	Cal
Consolidated Wire & Associated Corps, Chicago	Ill
Continental Sensing Inc, Melrose Park	Ill
Continental Wire & Cable, York	Pa
Co-Operative Industries Inc, Chester	N J
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Dielectric Materials Co, Chicago	Ill
Electronized Chemicals Corp, Burlington	Mass
Estes Engineering Co, Gardena	Cal
Fabrication Labs Inc, Camino	Cal
Fairhill Products Corp, Philadelphia	Pa
Flexible Circuits Inc, Warrington	Pa
Flexible Products Inc, North St Paul	Minn
General Cable Corp, New York	N Y
General Electric Co Wire & Cable Dept Bridgeport	Conn
General Laboratory Assoc Inc, Norwich	N Y
General Reliance Div Gen Relay Corp, Dover	N J
Geo Space Corp, Houston	Tex
Gore & Assoc Inc, W L, Newark	Del
Gulton Industries Inc, Metuchen	N J
Hallett, Inglewood	Cal
Haveg Industries Inc, Super Temp Wire Div Winooski	Vt
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Holyoke Wire & Cable Corp, Holyoke	Mass
ITT Wire & Cable Div, Clinton	Mass
ITT Wire & Cable Div, Pawtucket	R I
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
Judd Wire Div Electronized Chem Corp Turners Falls	Mass
Jutco Inc, Gardena	Cal
Kaiser Aluminum & Chem Corp Electrical Prods Div Oakland	Cal
Lenz Electric Mfg Co, Chicago	Ill
Lundy Electronics & Systems Inc, Glen Head	N Y
Markel & Sons Inc L Frank, Norristown	Pa
National Wire & Cable Corp, Los Angeles	Cal
Pacific Automation Products Inc, Glendale	Cal
Pacific Electricord Co, Gardena	Cal
Phalo Corp, Shrewsbury	Mass
Phelps Dodge Copper Products Corp, New York	N Y
Philadelphia Insulated Wire Co, Moorestown	N J
Plastic Wire & Cable Corp, Jewett City	Conn
Plastoid Corp, Long Island City	N Y
Porter Co (Can) Ltd, H K, Guelph	Ont
Prestolite Wire & Cable, Prestolite Div, Eltra Corp Port Huron	Mich
Raychem Corp, Menlo Park	Cal
Ren Electronics Corp, South Hadley Falls	Mass
Rhode Island Insulated Wire Co, Cranston	R I
Rockland Insulated Wire & Cable Co, Haverstraw	N Y
Rome Cable Div Cyprus Mines Corp, Rome	N Y
Rye Industries, Inc, Mamaroneck	N Y
Saxton Products Inc, Congers	N Y
Schjeldahl Co, G T, Northfield	Minn
South Bay Cable Corp, Gardena	Cal
Standard Wire & Cable Co, Los Angeles	Cal
Superior Continental Corp, Hickory	N C
Tatsuta Electric Wire & Cable Co Ltd, Osaka	Japan
Technical Components Co Inc, Chicago Ridge	Ill
Tensolite Insulated Wire Co Inc, Tarrytown	N Y
Tevco Insulated Wire, Glendale	Cal
Thermal Wire & Electronics Corp, South Hero	Vt
Thermax Wire Corp, New York	N Y
Universal Precision, Inc, Endicott	N Y
Victor Electric Wire & Cable Corp, West Warwick	R I
Western Insulated Wire Co, Los Angeles	Cal
Wiegand Co, Edwin L, Pittsburgh	Pa

CABLES, SHIELDED (NOT COAXIAL)--R-F (INCL UHF)

AMPHENOL, CHICAGO	**ILL**
BIRNBACH CO INC, FREEPORT	**N Y**
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN,	**CONN**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER	**N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
TIMES WIRE & CABLE DIV, INT L SILVER CO WALLINGFORD	**CONN**
Abilities Inc, Albertson	N Y
ACI, Inc, Princeton	N J
Aerospace Systems A Teledyne Co, Fairmont	Minn
Aircraft & Electronic Specialties, Inc, Plainfield	Ind
Alpha Wire, Elizabeth	N J
American Cable Electronic Supply Inc, Sacramento	Cal
American Electric Cable Co, Holyoke	Mass
Amphenol, Chicago	Ill
Anaconda Wire and Cable Co, New York	N Y
Automation Services Inc, Endicott	N Y
Belden Mfg Co, Chicago	Ill
Birnbach Co Inc, Freeport	N Y
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Cablerie Charbonnet, Lyon 4	France

Calmont Wire & Cable Inc, Santa Ana	Cal
Carol Cable Co, Pawtucket	R I
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Chester Cable Co Div Tennessee Corp, Chester	N Y
Cicoil Corp, Chatsworth	Cal
Cimco Wire & Cable Co, Allendale	N J
Coaxco Inc, Portland	Ore
Co-Ax Inc, Roslyn	N Y
Columbia Wire Products Co, Chicago	Ill
Consolidated Products Corp, Gardena	Cal
Consolidated Wire & Associated Corps, Chicago	Ill
Continental Sensing Inc, Melrose Park	Ill
Continental Wire & Cable, York	Pa
Co-Operative Industries Inc, Chester	N J
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Dielectric Materials Co, Chicago	Ill
Electronized Chemicals Corp, Burlington	Mass
Estes Engineering Co, Gardena	Cal
Fabrication Labs Inc, Camino	Cal
Fairhill Products Corp, Philadelphia	Pa
First Electronics Corp, Boston	Mass
Flexible Circuits Inc, Warrington	Pa
Flexible Metal Hose Mfg Co, CostaMesa	Cal
Flexible Products Inc, North St Paul	Minn
Gavitt Wire & Cable Co Div Amerace Corp Brookfield	Mass
General Cable Corp, New York	N Y
General Reliance Div Gen Relay Corp, Dover	N J
Gladding Corp, South Otselic	N Y
Gore & Assoc Inc, W L, Newark	Del
Hallett, Inglewood	Cal
Haveg Industries Inc, Super Temp Wire Div Winooski	Vt
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Holyoke Wire & Cable Corp, Holyoke	Mass
ITT Wire & Cable Div, Clinton	Mass
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
Jettron Products Inc, Hanover	N J
Judd Wire Div Electronized Chem Corp Turners Falls	Mass
Kaiser Aluminum & Chem Corp Electrical Prods Div Oakland	Cal
Lundy Electronics & Systems Inc, Glen Head	N Y
Microdot, Inc, South Pasadena	Cal
Mohawk Wire & Cable Corp, Leominster	Mass
National Wire & Cable Corp, Los Angeles	Cal
Pacific Automation Products Inc, Glendale	Cal
Pacific Electricord Co, Gardena	Cal
Phalo Corp, Shrewsbury	Mass
Phelps Dodge Copper Products Corp, New York	N Y
Philadelphia Insulated Wire Co, Moorestown	N J
Plastic Wire & Cable Corp, Jewett City	Conn
Plastoid Corp, Long Island City	N Y
Porter Co (Can) Ltd, H K, Guelph	Ont
Raychem Corp, Menlo Park	Cal
Ren Electronics Corp, South Hadley Falls	Mass
Rockland Insulated Wire & Cable Co, Haverstraw	N Y
Rome Cable Div Cyprus Mines Corp, Rome	N Y
Saxton Products Inc, Congers	N Y
Schjeldahl Co, G T, Northfield	Minn
South Bay Cable Corp, Gardena	Cal
Standard Telephones & Cables Ltd London WC 2	England
Standard Wire & Cable Co, Los Angeles	Cal
Superior Continental Corp, Hickory	N C
Technical Components Co Inc, Chicago Ridge	Ill
Technical Wire Products Inc, Cranford	N J
Tensolite Insulated Wire Co Inc, Tarrytown	N Y
Tevco Insulated Wire, Glendale	Cal
Thermax Wire Corp, New York	N Y
Times Wire & Cable Div, Int L Silver Co Wallingford	Conn
Titeflex Inc, Springfield	Mass
Trompeter Electronics Inc, Chatsworth	Cal
Victor Electric Wire & Cable Corp, West Warwick	R I
Wirecraft Products Inc, West Brookfield	Mass

CABLES--SUBMARINE

AMPHENOL, CHICAGO	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
TIMES WIRE & CABLE DIV, INT L SILVER CO WALLINGFORD	**CONN**
Aerospace Systems A Teledyne Co, Fairmont	Minn
American Cable Electronic Supply Inc, Sacramento	Cal
Amphenol, Chicago	Ill
Azimuth Electronics, Denville	N J
Consolidated Products Corp, Gardena	Cal
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Flexible Circuits Inc, Warrington	Pa
General Cable Corp, New York	N Y
Gulton Industries Inc, Metuchen	N J
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Hydro Products Div Dillingham Corp, San Diego	Cal
ITT Wire & Cable Div, Pawtucket	R I
National Wire & Cable Corp, Los Angeles	Cal
O'Brien Inc, D G, Framingham	Mass
Phelps Dodge Copper Products Corp, New York	N Y
Plastoid Corp, Long Island City	N Y
Research Mfg Corp, San Diego	Cal
Saxton Products Inc, Congers	N Y
Space & Systems Div General Time Corp Stamford	Conn
Superior Continental Corp, Hickory	N C
Texas Instruments Incorporated, Dallas	Tex
Times Wire & Cable Div, Int L Silver Co Wallingford	Conn
U S Steel Corp, Pittsburgh	Pa
Western Insulated Wire Co, Los Angeles	Cal

CABLES--TELEPHONE

BIRNBACH CO INC, FREEPORT	**N Y**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER	**N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
Aerospace Systems A Teledyne Co, Fairmont	Minn
Alcatel, Paris 8eme	France
Alpha Wire, Elizabeth	N J
Ameco Inc, Phoenix	Ariz
American Cable Electronic Supply Inc, Sacramento	Cal
American Electric Cable Co, Holyoke	Mass
Anaconda Wire and Cable Co, New York	N Y
Ansonia Wire & Cable Co, Ashton	R I
Automation Services Inc, Endicott	N Y
Birnbach Co Inc, Freeport	N Y
Bogen Communications Div Lear Siegler Inc Paramus	N J
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Calcon Mfg Corp, Washington	Pa
Carol Cable Co, Pawtucket	R I
Chester Cable Co Div Tennessee Corp, Chester	N Y
Columbia Wire Products Co, Chicago	Ill
Consolidated Products Corp, Gardena	Cal
Consolidated Wire & Associated Corps, Chicago	Ill
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Electronized Chemicals Corp, Burlington	Mass
Electrospace Corp, Glen Cove	N Y
Flexible Circuits Inc, Warrington	Pa
General Cable Corp, New York	N Y
Gulton Industries Inc, Metuchen	N J
Holyoke Wire & Cable Corp, Holyoke	Mass
ITT Wire & Cable Div, Clinton	Mass
ITT Wire & Cable Div, Pawtucket	R I
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
Judd Wire Div Electronized Chem Corp Turners Falls	Mass
Koiled Kords Inc, New Haven	Conn
Lenz Electric Mfg Co, Chicago	Ill
Lignes Telegraphiques et Telephoniques Paris 16	France
3M Company, St Paul	Minn
Mohawk Wire & Cable Corp, Leominster	Mass
National Wire & Cable Corp, Los Angeles	Cal
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Pacific Electricord Co, Gardena	Cal
Phalo Corp, Shrewsbury	Mass
Phelps Dodge Copper Products Corp, New York	N Y
Plastic Wire & Cable Corp, Jewett City	Conn
Plastoid Corp, Long Island City	N Y
Porter Co (Can) Ltd, H K, Guelph	Ont
Rhode Island Insulated Wire Co, Cranston	R I
Saxton Products Inc, Congers	N Y
Siemens America Inc, New York	N Y
South Bay Cable Corp, Gardena	Cal
Standard Wire & Cable Co, Los Angeles	Cal
Stromberg-Carlson Sub Gen Dynamics, Rochester	N Y
Superior Continental Corp, Hickory	N C
Taffet Electronics Inc, Woodside	N Y
Tatsuta Electric Wire & Cable Co Ltd, Osaka	Japan
Tevco Insulated Wire, Glendale	Cal
Texas Instruments Incorporated, Dallas	Tex
Victor Electric Wire & Cable Corp, West Warwick	R I
Whitney Blake Co, New Haven	Conn

CABLES, UNSHIELDED--A-F

AMPHENOL, CHICAGO	**ILL**
BIRNBACH CO INC, FREEPORT	**N Y**
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN,	**CONN**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER	**N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
ACI, Inc, Princeton	N J
Aerospace Systems A Teledyne Co, Fairmont	Minn
Aircraft & Electronic Specialties, Inc, Plainfield	Ind
Alpha Wire, Elizabeth	N J
American Cable Electronic Supply Inc, Sacramento	Cal
American Electric Cable Co, Holyoke	Mass
Amphenol, Chicago	Ill
Ansonia Wire & Cable Co, Ashton	R I
Automation Services Inc, Endicott	N Y
Belden Mfg Co, Chicago	Ill
Birnbach Co Inc, Freeport	N Y
Bogen Communications Div Lear Siegler Inc Paramus	N J
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Cablerie Charbonnet, Lyon 4	France
Calcon Mfg Corp, Washington	Pa
Calmont Wire & Cable Inc, Santa Ana	Cal
Caltron Industries, Berkeley	Cal
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Chester Cable Co Div Tennessee Corp, Chester	N Y
Cicoil Corp, Chatsworth	Cal
Co-Ax Inc, Roslyn	N Y
Columbia Wire Products Co, Chicago	Ill
Consolidated Products Corp, Gardena	Cal
Consolidated Wire & Associated Corps, Chicago	Ill
Continental Wire & Cable, York	Pa
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Dielectric Materials Co, Chicago	Ill
Electronized Chemicals Corp, Burlington	Mass
Estes Engineering Co, Gardena	Cal
Fairhill Products Corp, Philadelphia	Pa
First Electronics Corp, Boston	Mass
Flexible Circuits Inc, Warrington	Pa
Flexible Products Inc, North St Paul	Minn
Gavitt Wire & Cable Co Div Amerace Corp Brookfield	Mass
General Cable Corp, New York	N Y
General Reliance Div Gen Relay Corp, Dover	N J
Gore & Assoc Inc, W L, Newark	Del
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Holyoke Wire & Cable Corp, Holyoke	Mass
ITT Wire & Cable Div, Clinton	Mass
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
Judd Wire Div Electronized Chem Corp Turners Falls	Mass
Kaiser Aluminum & Chem Corp Electrical Prods Div Oakland	Cal
Lenz Electric Mfg Co, Chicago	Ill
Lewis Engineering Co, Naugatuck	Conn
3M Company, St Paul	Minn
Mohawk Wire & Cable Corp, Leominster	Mass
National Wire & Cable Corp, Los Angeles	Cal
Oneida Electronic Mfg Co, Meadville	Pa
Pacific Automation Products Inc, Glendale	Cal
Pacific Electricord Co, Gardena	Cal
Phalo Corp, Shrewsbury	Mass
Philadelphia Insulated Wire Co, Moorestown	N J
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plastic Wire & Cable Corp, Jewett City	Conn
Plastoid Corp, Long Island City	N Y
Porter Co (Can) Ltd, H K, Guelph	Ont
Prestolite Wire & Cable, Prestolite Div, Eltra Corp Port Huron	Mich
Rhode Island Insulated Wire Co, Cranston	R I
Rockland Insulated Wire & Cable Co, Haverstraw	N Y
Rome Cable Div Cyprus Mines Corp, Rome	N Y
Saxton Products Inc, Congers	N Y
Schjeldahl Co, G T, Northfield	Minn
South Bay Cable Corp, Gardena	Cal
Standard Telephones & Cables Ltd London WC 2	England
Standard Wire & Cable Co, Los Angeles	Cal
Superior Continental Corp, Hickory	N C
Taffet Electronics Inc, Woodside	N Y
Tatsuta Electric Wire & Cable Co Ltd, Osaka	Japan
Technical Components Co Inc, Chicago Ridge	Ill
Tensolite Insulated Wire Co Inc, Tarrytown	N Y
Tevco Insulated Wire, Glendale	Cal
Texas Instruments Incorporated, Dallas	Tex
Thermax Wire Corp, New York	N Y
Victor Electric Wire & Cable Corp, West Warwick	R I

CABLES, UNSHIELDED--D-C & POWER(EXCEPT LINE CORDS)

AMPHENOL, CHICAGO	**ILL**
BIRNBACH CO INC, FREEPORT	**N Y**
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN,	**CONN**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER	**N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
ACI, Inc, Princeton	N J
Aerospace Systems A Teledyne Co, Fairmont	Minn
Aircraft & Electronic Specialties, Inc, Plainfield	Ind
Alpha Wire, Elizabeth	N J
American Cable Electronic Supply Inc, Sacramento	Cal
American Electric Cable Co, Holyoke	Mass
Amphenol, Chicago	Ill
Anaconda Wire and Cable Co, New York	N Y
Automation Services Inc, Endicott	N Y
Belden Mfg Co, Chicago	Ill
Birnbach Co Inc, Freeport	N Y
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Calcon Mfg Corp, Washington	Pa
Calmont Wire & Cable Inc, Santa Ana	Cal
Caltron Industries, Berkeley	Cal
Carol Cable Co, Pawtucket	R I
Cerro Corp, New York	NY
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Chester Cable Co Div Tennessee Corp, Chester	N Y
Cicoil Corp, Chatsworth	Cal
Co-Ax Inc, Roslyn	N Y
Columbia Wire Products Co, Chicago	Ill
Consolidated Products Corp, Gardena	Cal
Consolidated Wire & Associated Corps, Chicago	Ill
Continental Wire & Cable, York	Pa
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Dielectric Materials Co, Chicago	Ill
Electronized Chemicals Corp, Burlington	Mass
Estes Engineering Co, Gardena	Cal
Fairhill Products Corp, Philadelphia	Pa
First Electronics Corp, Boston	Mass
Flexible Circuits Inc, Warrington	Pa
Flexible Products Inc, North St Paul	Minn
General Cable Corp, New York	N Y
General Electric Co Wire & Cable Dept Bridgeport	Conn
General Reliance Div Gen Relay Corp, Dover	N J
Geo Space Corp, Houston	Tex
Gore & Assoc Inc, W L, Newark	Del
Haveg Industries Inc, Super Temp Wire Div Winooski	Vt
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Holyoke Wire & Cable Corp, Holyoke	Mass
ITT Wire & Cable Div, Clinton	Mass
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
Judd Wire Div Electronized Chem Corp Turners Falls	Mass
Jutco Inc, Gardena	Cal
Kaiser Aluminum & Chem Corp Electrical Prods Div Oakland	Cal
Lenz Electric Mfg Co, Chicago	Ill

Markel & Sons Inc L Frank, Norristown ... Pa
National Wire & Cable Corp, Los Angeles ... Cal
Pacific Automation Products Inc, Glendale ... Cal
Pacific Electricord Co, Gardena ... Cal
Phalo Corp, Shrewsbury ... Mass
Phelps Dodge Copper Products Corp, New York ... N Y
Philadelphia Insulated Wire Co, Moorestown ... N J
Plastic Wire & Cable Corp, Jewett City ... Conn
Plastoid Corp, Long Island City ... N Y
Porter Co (Can) Ltd, H K, Guelph ... Ont
Prestolite Wire & Cable, Prestolite Div, Eltra Corp
  Port Huron ... Mich
Reynolds Metals Co, Richmond ... Va
Rockland Insulated Wire & Cable Co, Haverstraw ... N Y
Rome Cable Div Cyprus Mines Corp, Rome ... N Y
Rye Industries, Inc, Mamaroneck ... N Y
Saxton Products Inc, Congers ... N Y
Schjeldahl Co, G T, Northfield ... Minn
South Bay Cable Corp, Gardena ... Cal
Standard Wire & Cable Co, Los Angeles ... Cal
Superior Continental Corp, Hickory ... N C
Tatsuta Electric Wire & Cable Co Ltd, Osaka ... Japan
Technical Components Co Inc, Chicago Ridge ... Ill
Tensolite Insulated Wire Co Inc, Tarrytown ... N Y
Tevco Insulated Wire, Glendale ... Cal
Texas Instruments Incorporated, Dallas ... Tex
Thermax Wire Corp, New York ... N Y
Triple A Specialty Co, Chicago ... Ill
Universal Precision, Inc, Endicott ... N Y
Victor Electric Wire & Cable Corp, West Warwick ... R I
Welco Electric Corp, South Bend ... Ind
Western Insulated Wire Co, Los Angeles ... Cal
Whitney Blake Co, New Haven ... Conn

CABLES, UNSHIELDED--TRANSMISION LINE (INCL TV TWIN LINE & OTHER LOW CAPACITANCE R-F & UHF CABLES)

AMPHENOL, CHICAGO ... ILL
BIRNBACH CO INC, FREEPORT ... N Y
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER ... N Y
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO ... ILL
DABURN ELECTRONICS & CABLE CORP, BRONX ... N Y
DAINICHI-NIPPON CABLES, LTD, TOKYO ... JAPAN
DX ANTENNA CO LTD, HYOGO-KU, KOBE ... JAPAN
Aircraft & Electronic Specialties, Inc, Plainfield ... Ind
Alpha Wire, Elizabeth ... N J
American Cable Electronic Supply Inc, Sacramento ... Cal
American Electric Cable Co, Holyoke ... Mass
Amphenol, Chicago ... Ill
Anaconda Wire and Cable Co, New York ... N Y
Andrew California Corp, Claremont ... Cal
Andrew Corp, Orland Park ... Ill
Ansonia Wire & Cable Co, Ashton ... R I
Belden Mfg Co, Chicago ... Ill
Birnbach Co Inc, Freeport ... N Y
Brand-Rex Div Amer Enka Corp, Willimantic ... Conn
Cablerie Charbonnet, Lyon 4 ... France
Calcon Mfg Corp, Washington ... Pa
Carol Cable Co, Pawtucket ... R I
Channel Master Corp, Ellenville ... N Y
Chester Cable Co Div Tennessee Corp, Chester ... N Y
Co-Ax Inc, Roslyn ... N Y
Columbia Wire Products Co, Chicago ... Ill
Consolidated Products Corp, Gardena ... Cal
Consolidated Wire & Associated Corps, Chicago ... Ill
Continental Sensing Inc, Melrose Park ... Ill
Daburn Electronics & Cable Corp, Bronx ... N Y
Dainichi-Nippon Cables, Ltd, Tokyo ... Japan
Dearborn Wire & Cable Co, Chicago ... Ill
Dielectric Materials Co, Chicago ... Ill
DX Antenna Co Ltd, Hyogo-Ku, Kobe ... Japan
Finney Co, Bedford ... Ohio
Flexible Circuits Inc, Warrington ... Pa
Flexible Products Inc, North St Paul ... Minn
Gavitt Wire & Cable Co Div Amerace Corp
  Brookfield ... Mass
General Cable Corp, New York ... N Y
Gore & Assoc Inc, W L, Newark ... Del

Haveg Industries Inc, Super Temp Wire Div
  Winooski ... Vt
Hitemp Div Simplex Wire & Cable Co, Westbury ... N Y
Holyoke Wire & Cable Corp, Holyoke ... Mass
ITT Wire & Cable Div, Clinton ... Mass
Jefferson Wire & Cable Corp Sub Okonite Co
  Worcester ... Mass
Judd Wire Div Electronized Chem Corp
  Turners Falls ... Mass
Kaiser Aluminum & Chem Corp Electrical Prods Div
  Oakland ... Cal
Miller Electric Co, Woonsocket ... R I
Mohawk Wire & Cable Corp, Leominster ... Mass
National Wire & Cable Corp, Los Angeles ... Cal
Oneida Electronic Mfg Co, Meadville ... Pa
Pacific Electricord Co, Gardena ... Cal
Parker Metal Goods Co, Worcester ... Mass
Phalo Corp, Shrewsbury ... Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Plastic Wire & Cable Corp, Jewett City ... Conn
Plastoid Corp, Long Island City ... N Y
Porter Co (Can) Ltd, H K, Guelph ... Ont
Ren Electronics Corp, South Hadley Falls ... Mass
Rye Industries, Inc, Mamaroneck ... N Y
Saxton Products Inc, Congers ... N Y
Schjeldahl Co, G T, Northfield ... Minn
South Bay Cable Corp, Gardena ... Cal
Standard Telephones & Cables Ltd
  London WC 2 ... England
Standard Wire & Cable Co, Los Angeles ... Cal

Superior Continental Corp, Hickory ... N C
Superior Insulated Wire Corp, Stony Point ... N Y
Surface Conduction Inc, New York ... N Y
Tatsuta Electric Wire & Cable Co Ltd, Osaka ... Japan
Tevco Insulated Wire, Glendale ... Cal
Texas Instruments Incorporated, Dallas ... Tex
Transcon Electronics Inc, Escondido ... Cal
Victor Electric Wire & Cable Corp, West Warwick ... R I
Vikoa Inc, Hoboken ... N J
Welco Electric Corp, South Bend ... Ind

CABLE TESTERS SEE TESTERS--CABLE

CABLE WRAPPINGS SEE WRAPPINGS

CADMIUM

Aceto Chemical Co, Inc, Flushing ... NY
Alpha Metals Inc, Jersey City ... NJ
American Metal Climax Inc, New York ... N Y
American Silver Co Div, Flushing ... N Y
American Smelting & Refining Co, New York ... N Y
Anadite, Inc, South Gate ... Cal
Anchor Alloys Inc, Brooklyn ... N Y
Anchor Metal Co, Inc Div, Brooklyn ... N Y
Atomergic Chemetals Co Div Gallard-Schlesinger
  Chemical Mfg Corp, Carle Place ... N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr
  Roslyn Heights ... NY
Bram Metallurgical Chemical Co, Philadelphia ... Pa
Cambridge Plating Co Inc, Belmont ... Mass
Cerac Inc, Butler ... Wis
Cerro Corp, New York ... NY
Cerro Sales Corp, New York ... NY
City Chemical Corp, New York ... N Y
Cominco American Inc Electronic Matls Div,
  Spokane ... Wash
Degussa Zweigniederlassung Hanau, D-
  6450 Hanau ... Fed Rep Ger
Division Lead Co, Summit ... Ill
Electronic Space Products Inc, Los Angeles ... Cal
Gardiner Solder Co, Chicago ... Ill
Kester Solder Co, Chicago ... Ill
Koch Light Labs Ltd, Colnbrook, Bucks ... England
Mackay Inc, A D, New York ... N Y
Mallinckrodt Chemical Works, St Louis ... Mo
Metal Ceram Inc, Mount Vernon ... N Y
M & T Chemicals Inc Sub American Can Co
  Rahway ... N J
Roosevelt Metal Co Inc, Brooklyn ... N Y
Semi-Alloys Inc, Mt Vernon ... N Y
Semi-Elements Inc, Saxonburg ... Pa
United American Metals Div, Brooklyn ... N Y
United Mineral & Chemical Corp, New York ... N Y
United Refining & Smelting Co, Franklin Park ... Ill
Var-Lac-Oid Chemical Co, Elizabeth ... N J
Ventron Electronics Corp, Bradford ... Pa

CALCIUM

PFIZER MINERALS, PIGMENTS & METALS DIV
NEW YORK ... NY
Aceto Chemical Co, Inc, Flushing ... NY
Anchor Alloys Inc, Brooklyn ... N Y
Anchor Metal Co, Inc Div, Brooklyn ... N Y
Atomergic Chemetals Co Div Gallard-Schlesinger
  Chemical Mfg Corp, Carle Place ... N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr
  Roslyn Heights ... NY
Bram Metallurgical Chemical Co, Philadelphia ... Pa
Cerac Inc, Butler ... Wis
City Chemical Corp, New York ... N Y
Degussa Zweigniederlassung Hanau, D-
  6450 Hanau ... Fed Rep Ger
Henley & Co Inc, New York ... N Y
Koch Light Labs Ltd, Colnbrook, Bucks ... England
Mackay Inc, A D, New York ... N Y
Mallinckrodt Chemical Works, St Louis ... Mo
Metal Ceram Inc, Mount Vernon ... N Y
Pfizer Minerals, Pigments & Metals Div, New York ... NY
Roosevelt Metal Co Inc, Brooklyn ... N Y
Semi-Alloys Inc, Mt Vernon ... N Y
Semi-Elements Inc, Saxonburg ... Pa
Union Carbide Corp, Mining & Metals Div
  New York ... N Y
United American Metals Div, Brooklyn ... N Y
United Mineral & Chemical Corp, New York ... N Y
Var-Lac-Oid Chemical Co, Elizabeth ... N J
Ventron Corp Metal Hydrides Div, Beverly ... Mass

CALCULATORS--ELECTRICAL & ELECTRONIC SEE COMPUTERS--DESK TOP

HEWLETT-PACKARD, PALO ALTO ... CAL
VICTOR COMPTOMETER CORP, BUSINESS MACH GROUP
CHICAGO, ILL ... ADV PG 547
Alcatel, Paris 8eme ... France
Automated Business Sys Div Litton Industries
  Carlstadt ... N J
Electro Circuits Inc, Lowell ... Mass
Friden Inc, San Leandro ... Cal
Hewlett-Packard, Palo Alto ... Cal
Logic Corp, Haddonfield ... N J
Nanosecond Systems Inc, Fairfield ... Conn
Tad Products Corp, Cambridge ... Mass
Victor Comptometer Corp, Business Mach Group
  Chicago ... Ill
Wang Labs Inc, Tewksbury ... Mass

CALIBRATION SERVICES--FREQUENCY

HEWLETT-PACKARD, PALO ALTO ... CAL
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG ... MD
Advanced Communications Inc Sub Conductron Corp
  Chatsworth ... Cal
Aerojet-General Corp Electronics Div, Azusa ... Cal
A & M Instruments Inc, Great Neck ... N Y
Beckman Instruments Intl SA,
  1207 Geneva ... Switzerland
Compton Industries, Inc, Vestal ... N Y
Data Instrument Div, Pennsauken ... N J
Douglas Instrument Lab, Boston ... Mass
E G & G Inc Custom Equip Div, Bedford ... Mass
E I L Instrument Div Unitec Industries, Timonium ... Md
Electrical Testing Labs Inc, New York ... N Y
Electronic Applications Co, Pine Brook ... N J
Elite Electronic Engineering Co, Chicago ... Ill
EMI Cossor Electronics Ltd, Dartmouth, N S ... Can
Engineering Associates, Dayton ... Ohio
Frequency Electronics Inc, New Hyde Park ... N Y
Frequency Engineering Labs, Farmingdale ... N J
Gulton Industries Inc, Metuchen ... N J
Hewlett-Packard, Palo Alto ... Cal
Industrial Electronetics Corp, Satellite Beach ... Fla
Interference Measurement Lab Inc, Brooklyn ... N Y
J A C Electronics Ltd, Camberley ... England
Microlab/F X R, Livingston ... N J
Microwave Associates Inc, Burlington ... Mass
National Astro Labs Inc, Burbank ... Cal
National Radio Co Inc, Melrose ... Mass
New York Testing Labs Inc, Westbury ... N Y
Parzen Research Inc Sub Ovitron Corp, Westbury ... N Y
Philco-Ford Corp, Washington ... D C
PRD Electronics Inc, Sub H-I Corp, Westbury ... N Y
Razdow Labs Inc, Newark ... N J
Riverbank Labs, Dept of Engrg, Geneva ... Ill
Spedcor Electronics Inc, Glendale ... N Y
SSCO Standards Lab, Inc, Detroit ... Mich
Stabro Labs Inc, Salt Lake City ... Utah
States Electronics Corp, Bludworth Marine Div
  Linden ... N J
Sunshine Scientific Instruments Inc, Philadelphia ... Pa
Takeda Riken Industry Co Ltd, Tokyo ... Japan
U S Testing Co Inc, Hoboken ... N J
Weinschel Engineering Co Inc, Gaithersburg ... Md
Wyle Laboratories, El Segundo ... Cal

CALIBRATION SERVICES--INSTRUMENT

DALE ELECTRONICS INC, COLUMBUS ... NEB
HEWLETT-PACKARD, PALO ALTO ... CAL
HONEYWELL TEST INSTRUMENTS DIV, DENVER
COLO ... ADV PG : 8
Acton Laboratories Inc, Acton ... Mass
Aerojet-General Corp Electronics Div, Azusa ... Cal
Aerometrics Div Aerojet-General Corp, San Ramon ... Cal
Air Technology Corp, Waltham ... Mass
Altron Electronics Co, Woodlyn ... Pa
American Instrument Co, Inc, Silver Spring ... Md
A & M Instruments Inc, Great Neck ... N Y
Arra, Inc, Bayshore ... NY
Avien, Inc, Woodside ... N Y
Ballantine Laboratories, Inc, Boonton ... N J
Ball Brothers Research Corp, Boulder ... Colo
Black Light Corp of America, San Gabriel ... Cal
BLH Electronics Inc Sub Baldwin-Lima-Hamilton
  Waltham ... Mass
Booth Co, Arthur E, Los Angeles ... Cal
Bradley Ltd G & E, London NW 10 ... England
Brown Engineering-A Teledyne Co, Huntsville ... Ala
Bunker-Ramo Corp Defense Systems Div
  Canoga Park ... Cal
Canadian Research Institute, Don Mills ... Ont
Century Electronics & Instruments Inc, Tulsa ... Okla
Collins & Assoc Don L, Glendale ... Cal
Compton Industries, Inc, Vestal ... N Y
Cox Instruments Div Lynch Corp, Detroit ... Mich
Dale Electronics Inc, Columbus ... Neb
Data Instrument Div, Pennsauken ... N J
DoAll Co, Des Plaines ... Ill
Douglas Instrument Lab, Boston ... Mass
Eberline Instrument Corp, Santa Fe ... N M
E G & G Inc Custom Equip Div, Bedford ... Mass
E I L Instrument Div Unitec Industries, Timonium ... Md
Electrical Testing Labs Inc, New York ... N Y
Electric Tachometer Corp, Philadelphia ... Pa
Electronic Applications Co, Pine Brook ... N J
Elite Electronic Engineering Co, Chicago ... Ill
EMI Cossor Electronics Ltd, Dartmouth, N S ... Can
Endevco Corp, Pasadena ... Cal
Eppley Lab Inc, Newport ... R I
Epsco Inc, Westwood ... Mass
Fairchild Hiller Corp, Space & Electronics Sys Div
  Germantown ... Md
Flow Technology Inc, Tempe ... Ariz
Futurecraft Corp, City of Industry ... Cal
General Resistance Inc, New York ... NY
Hallmark Standards Inc, Mamaroneck ... N Y
Hewlett-Packard, Palo Alto ... Cal
Honeywell Test Instruments Div, Denver ... Colo
Hygrodynamics Inc, Silver Spring ... Md
Industrial Electronetics Corp, Satellite Beach ... Fla
Industrial Instrument Corp, Austin ... Tex
Instrument Labs Corp, Chicago ... Ill
Julie Research Labs, Inc, New York ... N Y
Kahl Scientific Instrument Corp, El Cajon ... Cal
Kelk Ltd, George, Don Mills ... Ont
Kollsman Instrument Ltd, Southampton ... England
Leeds & Northrup Co, Philadelphia ... Pa
LFE Electronics Div, Lab for Electronics Inc
  Waltham ... Mass

Lion Research Corp, Newton	Mass
Marlin Mfg Corp, Cleveland	Ohio
National Astro Labs Inc, Burbank	Cal
Nelson Electronic Labs Inc, Plano	Tex
New York Testing Labs Inc, Westbury	N Y
Nichols Co Ltd, R H, Downsview	Ont
Ogden Technical Labs Inc, Monterey Park	Cal
Philco-Ford Corp, Washington	D C
Procedyne Corp, New Brunswick	N J
Ram Meter Inc, Ferndale	Mich
Ramsay Engineering Co, Anaheim	Cal
Rawson-Lush Instrument Co Inc, Acton	Mass
Razdow Labs Inc, Newark	N J
RIL Electronics Inc, Southampton	Pa
Rockwell Engineering Co, Indianapolis	Ind
Schoeffel Instrument Co, Westwood	NJ
Scientific Instruments Co, Chatsworth	Cal
Simpson Electric Co, Chicago	Ill
Singer Co, Metrics Div, Bridgeport	Conn
SSCO Standards Lab, Inc, Detroit	Mich
Stabro Labs Inc, Salt Lake City	Utah
Stark Electronic Instruments Ltd, Ajax	Ont
States Electronics Corp, Bludworth Marine Div Linden	N J
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Takeda Riken Industry Co Ltd, Tokyo	Japan
Taylor Instrument Cos, Rochester	N Y
Thwing-Albert Instrument Co, Philadelphia	Pa
Trott Electronics Inc, Rochester	N Y
Ultra-Violet Products Inc, San Gabriel	Cal
U S Testing Co Inc, Hoboken	N J
Wavelabs Co Div Systron-Donner Corp, San Diego	Cal
Welex Electronics, Div Halliburton Co Silver Spring	Md
Wyle Laboratories, El Segundo	Cal
Yokogawa Electric Works Inc, Larchmont	N Y

CALIBRATION SERVICES--STANDARDS

DALE ELECTRONICS INC, COLUMBUS	**NEB**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PG 8**
SIGNALITE INC, NEPTUNE	**N J**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Aerojet-General Corp Electronics Div, Azusa	Cal
Air Technology Corp, Waltham	Mass
American Atomics Corp, Tucson	Ariz
A & M Instruments Inc, Great Neck	N Y
Baird-Atomic, Inc, Cambridge	Mass
Brookfield Engineering Labs Inc, Stoughton	Mass
Brown Engineering-A Teledyne Co, Huntsville	Ala
Columbia Research Labs Inc, Woodlyn	Pa
Compton Industries, Inc, Vestal	N Y
Consolidated Controls Corp, El Segundo	Cal
Cox Instruments Div Lynch Corp, Detroit	Mich
Dale Electronics Inc, Columbus	Neb
Data Instrument Div, Pennsauken	N J
Douglas Instrument Lab, Boston	Mass
Eberline Instrument Corp, Santa Fe	N M
E G & G Inc Custom Equip Div, Bedford	Mass
E I L Instrument Div Unitec Industries, Timonium	Md
Electrical Testing Labs Inc, New York	N Y
Endevco Corp, Pasadena	Cal
Eppley Lab Inc, Newport	R I
Fredericks Co, Huntingdon Valley	Pa
General Resistance Inc, New York	NY
Gilmore Industries Inc, Cleveland	Ohio
Hallmark Standards Inc, Mamaroneck	N Y
Hewlett-Packard, Palo Alto	Cal
Honeywell Test Instruments Div, Denver	Colo
Hy-Cal Engineering, Santa Fe Springs	Cal
Instrument Labs Corp, Chicago	Ill
International Light Inc, Newburyport	Mass
Julie Research Labs, Inc, New York	N Y
Kahl Scientific Instrument Corp, El Cajon	Cal
Leeds & Northrup Co, Philadelphia	Pa
Malaker Corp, High Bridge	N J
Marlin Mfg Corp, Cleveland	Ohio
Microdot, Inc, South Pasadena	Cal
Microwave Associates Inc, Burlington	Mass
National Astro Labs Inc, Burbank	Cal
Nelson Electronic Labs Inc, Plano	Tex
New York Testing Labs Inc, Westbury	N Y
Nortronics Div, Northrop Corp, Prec Prods Dept Norwood	Mass
Ogden Technical Labs Inc, Monterey Park	Cal
Optomechanisms Inc, Plainview	N Y
Pyrometer Co of America Inc, Penndel	Pa
Razdow Labs Inc, Newark	N J
Rockwell Engineering Co, Indianapolis	Ind
Scherr Tumico Inc, St James	Minn
Signalite Inc, Neptune	N J
Simpson Electric Co, Chicago	Ill
Singer Co, Metrics Div, Bridgeport	Conn
SSCO Standards Lab, Inc, Detroit	Mich
Stabro Labs Inc, Salt Lake City	Utah
Stark Electronic Instruments Ltd, Ajax	Ont
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Thwing-Albert Instrument Co, Philadelphia	Pa
U S Testing Co Inc, Hoboken	N J
Weinschel Engineering Co Inc, Gaithersburg	Md
Wickes Industries Inc, Camden	N J
Yokogawa Electric Works Inc, Larchmont	N Y
York Research Corp, Stamford	Conn

CALIBRATION SERVICES--TIME

HEWLETT-PACKARD, PALO ALTO	**CAL**
Aerojet-General Corp Electronics Div, Azusa	Cal
Aerospace Research, Inc, Boston	Mass
Bulova Watch Co Inc, Watchmaster Products Div Jackson Heights	N Y
Compton Industries, Inc, Vestal	N Y
Douglas Instrument Lab, Boston	Mass
E G & G Inc Custom Equip Div, Bedford	Mass
E I L Instrument Div Unitec Industries, Timonium	Md
Electronic Applications Co, Pine Brook	N J
Hewlett-Packard, Palo Alto	Cal
National Astro Labs Inc, Burbank	Cal
New York Testing Labs Inc, Westbury	N Y
Ogden Technical Labs Inc, Monterey Park	Cal
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Razdow Labs Inc, Newark	N J
SSCO Standards Lab, Inc, Detroit	Mich
Stabro Labs Inc, Salt Lake City	Utah
Wyle Laboratories, El Segundo	Cal

CALIBRATION STANDARDS SEE STANDARDS

CALIBRATORS, FREQUENCY--A-F

FLUKE MFG CO INC, JOHN, SEATTLE	**WASH**
FORK STANDARDS INC, WEST CHICAGO	**ILL**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH	**VA**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TRACOR INC, AUSTIN	**TEX**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Accutronics, Inc, Geneva	Ill
Aerospace Research, Inc, Boston	Mass
A & M Instruments Inc, Great Neck	N Y
Anadex Instruments, Inc, Van Nuys	Cal
Astrodata Inc, Anaheim	Cal
Cushman Electronics Inc, Sunnyvale	Cal
Dynamics Instrumentation Co, Monterey Park	Cal
Electronic Applications Co, Pine Brook	N J
Fluke Mfg Co Inc, John, Seattle	Wash
Fork Standards Inc, West Chicago	Ill
General Radio Co, West Concord	Mass
Gulton Industries Inc, Metuchen	N J
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Melpar Inc, Special Prods Dept, Falls Church	Va
Nippon Electric Co Ltd, Tokyo	Japan
Norrman Laboratories, Ernst, Williams Bay	Wis
Northeast Electronics Corp, Concord	N H
Philco-Ford Corp, Washington	D C
Riverbank Labs, Dept of Engrg, Geneva	Ill
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Singer Co, Metrics Div, Bridgeport	Conn
Sonex Inc, Philadelphia	Pa
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taffet Electronics Inc, Woodside	N Y
Takeda Riken Industry Co Ltd, Tokyo	Japan
Telstar Electronics Corp, Southold	N Y
Tracor Inc, Austin	Tex
Weinschel Engineering Co Inc, Gaithersburg	Md

CALIBRATORS, FREQUENCY--F-M DEVIATION

MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Advanced Measurement Instruments, Inc Somerville	Mass
Bendix Corp, Communications Div, Towson	Md
Century Electronics & Instruments Inc, Tulsa	Okla
Cushman Electronics Inc, Sunnyvale	Cal
Data-Control Systems Inc, Danbury	Conn
EMR Div Weston Instruments Inc, Princeton	N J
Frequency Engineering Labs, Farmingdale	N J
Industrial Electronetics Corp, Satellite Beach	Fla
Measurements A McGraw-Edison Div, Boonton	N J
Meguro Denpa Sokki K K, Meguro-ku, Tokyo	Japan
Microwave/Systems Inc, East Syracuse	N Y
New London Instr Co Div Crescent Comm Corp Newton	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Philco-Ford Corp, Washington	D C
Probescope Co Inc, Syosset	N Y
Radio Specialty Mfg Co, Portland	Ore
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Singer Co, Metrics Div, Gertsch Dept, Los Angeles	Cal
Sonex Inc, Philadelphia	Pa
Vidar Corp, Mountain View	Cal
Video Research Corp, Rockville	Md
Weinschel Engineering Co Inc, Gaithersburg	Md

CALIBRATORS, FREQUENCY--MICROWAVE

GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
MICRO-NOW INSTRUMENT CO INC, CHICAGO	**ILL**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Amerac, Inc, Beverly	Mass
Ewen-Knight Corp, East Natick	Mass
Frequency Engineering Labs, Farmingdale	N J
General Microwave Corp, Farmingdale	N Y
General Radio Co, West Concord	Mass
Guide Industries Inc, Sun Valley	Cal
Hathaway Instruments Inc, Denver	Colo
Hewlett-Packard, Palo Alto	Cal
J A C Electronics Ltd, Camberley	England
Microlab/F X R, Livingston	N J
Micro-Now Instrument Co Inc, Chicago	Ill
Microwave Control Co, Red Bank	N J
Microwave/Systems Inc, East Syracuse	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Philco-Ford Corp, Washington	D C
Polarad Electronic Instruments Div Long Island City	N Y
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Singer Co, Metrics Div, Bridgeport	Conn
Squires-Sanders Inc, Liberty Corner	N J
Takeda Riken Industry Co Ltd, Tokyo	Japan
Weinschel Engineering Co Inc, Gaithersburg	Md

CALIBRATORS, FREQUENCY--R-F

FLUKE MFG CO INC, JOHN, SEATTLE	**WASH**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SPECIFIC PRODUCTS DIV DR H L RICHTER CORP MONROVIA	**CAL**
TRACOR INC, AUSTIN	**TEX**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Advanced Measurement Instruments, Inc Somerville	Mass
Aerospace Research, Inc, Boston	Mass
Cushman Electronics Inc, Sunnyvale	Cal
Electronic Applications Co, Pine Brook	N J
Fluke Mfg Co Inc, John, Seattle	Wash
Galaxy Electronics Inc, Council Bluffs	Iowa
General Microwave Corp, Farmingdale	N Y
General Radio Co, West Concord	Mass
Guide Industries Inc, Sun Valley	Cal
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
J A C Electronics Ltd, Camberley	England
Lectrotech Inc, Chicago	Ill
Measurements A McGraw-Edison Div, Boonton	N J
Meguro Denpa Sokki K K, Meguro-ku, Tokyo	Japan
Microdot, Inc, South Pasadena	Cal
Micro-Radionics Inc, Van Nuys	Cal
Microwave/Systems Inc, East Syracuse	N Y
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
New London Instr Co Div Crescent Comm Corp Newton	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Norrman Laboratories, Ernst, Williams Bay	Wis
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Philco-Ford Corp, Washington	D C
Singer Co, Metrics Div, Bridgeport	Conn
Specific Products Div Dr H L Richter Corp Monrovia	Cal
Squires-Sanders Inc, Liberty Corner	N J
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taffet Electronics Inc, Woodside	N Y
Takeda Riken Industry Co Ltd, Tokyo	Japan
Tracor Inc, Austin	Tex
Weinschel Engineering Co Inc, Gaithersburg	Md

CALIBRATORS--METER

C M L INC, PLAINFIELD	**N J**
FLUKE MFG CO INC, JOHN, SEATTLE	**WASH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
NON-LINEAR SYSTEMS INC, DEL MAR	**CAL**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
Abbey Electronics Corp, Westbury	NY
A & M Instruments Inc, Great Neck	N Y
Ballantine Laboratories, Inc, Boonton	N J
Black Light Corp of America, San Gabriel	Cal
Bradley Ltd G & E, London NW 10	England
Bristol Div, American Chain & Cable Co Waterbury	Conn
Canadian Research Institute, Don Mills	Ont
C M L Inc, Plainfield	N J
Cohu Electronics Inc, San Diego	Cal
Compton Industries, Inc, Vestal	N Y
Cox Instruments Div Lynch Corp, Detroit	Mich
Eastern Specialty Co, Philadelphia	Pa
Electro-Neutronics Inc, Oakland	Cal
Electro Scientific Industries Inc, Portland	Ore
Fluke Mfg Co Inc, John, Seattle	Wash
Hallmark Standards Inc, Mamaroneck	N Y
Hewlett-Packard, Palo Alto	Cal
High Voltage Power Supply Co, Van Nuys	Cal
Holt Instrument Labs, Oconto	Wis
Horex Electronics Inc, Santa Monica	Cal
Idalee Electronics Corp, Valley Stream	NY
Julie Research Labs, Inc, New York	N Y
Mast Development Co, Davenport	Iowa
Medistor Instrument Co, Seattle	Wash

Meguro Denpa Sokki K K, Meguro-ku, Tokyo	Japan
National Instrument Labs Inc, Rockville	Md
Nelson Electronic Labs Inc, Plano	Tex
Non-Linear Systems Inc, Del Mar	Cal
North Hills Electronics Inc, Glen Cove	N Y
Optimation, Inc, Sun Valley	Cal
Optomechanisms Inc, Plainview	N Y
Precision Standards Corp, San Marino	Cal
RFL Industries Inc, Instrumentation Div, Boonton	N J
Scientific Instruments Co, Chatsworth	Cal
Simpson Electric Co, Chicago	Ill
Singer Co, Metrics Div, Bridgeport	Conn
Stark Electronic Instruments Ltd, Ajax	Ont
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Trott Electronics Inc, Rochester	N Y
Twinco Inc, Dorchester	Mass
Ultra-Violet Products Inc, San Gabriel	Cal
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Wallace & Tiernan Inc, Belleville	N J
West Instrument Corp, Schiller Park	Ill
Weston Instruments Div Weston Instr Inc, Newark	N J
Weston Lexington Weston Instruments Div Lexington	Mass
Yokogawa Electric Works Inc, Larchmont	N Y

CALIBRATORS--PYROMETER

A & M Instruments Inc, Great Neck	N Y
Bristol Div, American Chain & Cable Co Waterbury	Conn
Canadian Research Institute, Don Mills	Ont
Epic Inc, New York	N Y
Howell Instruments Co, Fort Worth	Tex
Infrared Industries Inc, Santa Barbara	Cal
Instrument Development Labs Div Kollmorgen Corp Attleboro	Mass
Milletron, Inc, Pittsburgh	Pa
Nichols Co Ltd, R H, Downsview	Ont
Pyrotel Corp c/o Milletron Inc, Pittsburgh	Pa
Scientific Engineering Mfg Co Inc North Hollywood	Cal
Sigma Instruments Canada Ltd, Toronto 18 Ont	Canada
Sunshine Scientific Instruments Inc, Philadelphia	Pa
West Instrument Corp, Schiller Park	Ill

CALIBRATORS--RADAR-RANGE

MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
CMC/Rutherford, San Fernando	Cal
Cosmos Industries Inc, Brooklyn	N Y
Eldorado Electronics, Concord	Cal
Metric Systems Corp, Fort Walton Beach	Fla
Missouri Research Labs Inc, St Louis	Mo
Mitsubishi Electric Corp, Tokyo	Japan
Orbitran Co, Inc, Lakeside	Cal
Philco-Ford Corp, Washington	D C
Philips Electronics Industries Ltd, Toronto 17	Ont
RCA, Defense Electronic Products, Moorestown	N J
Spectra-Physics, Mountain View	Cal
Weinschel Engineering Co Inc, Gaithersburg	Md

CALIBRATORS--SWEEP SEE GENERATORS--SIGNAL

CALIBRATORS--TELEMETRY

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Aeromarine Electronics, Inc, San Diego	Cal
Applied Electronics Corp of N J, Metuchen	N J
Century Electronics & Instruments Inc, Tulsa	Okla
Chrysler Corp, Space Div, Huntsville Oper Huntsville	Ala
Data-Control Systems Inc, Danbury	Conn
Datametrics Inc, Waltham	Mass
Defense Electronics Inc, Rockville	Md
Electronic Specialty Co, Los Angeles	Cal
EMR Div Weston Instruments Inc, Princeton	N J
General Devices Inc, Instrumentation Div Princeton	N J
Industrial Electronetics Corp, Satellite Beach	Fla
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Monitor Systems Inc, Fort Washington	Pa
Nippon Electric Co Ltd, Tokyo	Japan
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Philco-Ford Corp, Washington	D C
Sonex Inc, Philadelphia	Pa
Teledyne Telemetry Co, Los Angeles	Cal
Telstar Electronics Corp, Southold	N Y
Vidar Corp, Mountain View	Cal
Video Research Corp, Rockville	Md

CALIBRATORS--TRANSDUCER(INCL ACCELEROMETERS, MICROPHONES & STRAIN GAGES)

DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
ITHACO INC, ITHACA	**N Y**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
Agac-Derritron Inc, Alexandria	Va
Automatic Clerical Systems Inc, Pasadena	Cal
B & F Instruments, Inc, Cornwells Heights	Pa
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham	Mass
Bytrex Inc, Waltham	Mass
C-E Electronics Inc, Glenside	Pa
Columbia Research Labs Inc, Woodlyn	Pa
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Cryogenic Engineering Co, Denver	Colo
Datametrics Inc, Waltham	Mass
Delta Semiconductors Div Natl Instr Corp Costa Mesa	Cal
Doric Scientific Corp, San Diego	Calif
Dranetz Engineering Labs Inc, Plainfield	N J
Elastronics Labs, Tarzana	Cal
Electronics Communications Div Atlantic Research Corp Alexandria	Va
Endevco Corp, Pasadena	Cal
Flow Technology Inc, Tempe	Ariz
Futurecraft Corp, City of Industry	Cal
General Instrument Corp, Harris ASW Div Westwood	Mass
General Radio Co, West Concord	Mass
Gilmore Industries Inc, Cleveland	Ohio
Gulton Industries Inc, Metuchen	N J
Gulton Industries Inc Controls & Instru Grp Costa Mesa	Cal
Hygrodynamics Inc, Silver Spring	Md
Inca Engineering Corp, San Gabriel	Cal
Incor Inc, Plainview	N Y
Industrial Electronetics Corp, Satellite Beach	Fla
Inland Controls Inc Sub Kollmorgen Corp Brighton	Mass
Ithaco Inc, Ithaca	N Y
Kahl Scientific Instrument Corp, El Cajon	Cal
Kistler Instrument Corp, Clarence	N Y
Kollsman Instrument Ltd, Southampton	England
Lebow Associates Inc, Oak Park	Mich
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
MB Electronics A Textron Co, New Haven	Conn
MKS Instruments Inc, Burlington	Mass
Ormond, Inc, Santa Fe Springs	Cal
Pacific Metrology Labs, Inc, San Diego	Cal
Razdow Labs Inc, Newark	N J
Strainsert Co, Bryn Mawr	Pa
Systems Electronics Inc, Cleveland	Ohio
Texas Instruments Incorporated, Dallas	Tex
Texas Instruments Inc Indl Prods Div, Houston	Tex
Theta Instrument Corp, Fairfield	N J
Thwing-Albert Instrument Co, Philadelphia	Pa
Unholtz-Dickie Corp, Hamden	Conn
Volumetrics, Inglewood	Cal
West Coast Research Corp, Los Angeles	Cal
Whittaker Corp Instrument Sys Div North Hollywood	Cal

CALIBRATORS--VSWR SEE DETECTORS--STANDING-WAVE

CALORIMETERS

BIRD ELECTRONIC CORP, CLEVELAND (SOLON)	**OHIO**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
Aerospace Controls Corp, Los Angeles	Cal
Andonian Associates, Inc, Waltham	Mass
Astro Industries, Inc, Santa Barbara	Cal
Barnes Engineering Co Def & Space Div Stamford	Conn
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bendix Corp, Microwave Devices Div, Franklin	Ind
Bird Electronic Corp, Cleveland (Solon)	Ohio
Chemalloy Electronics Corp, Santee	Cal
Cutler-Hammer Inc, Milwaukee	Wisc
Elastronics Labs, Tarzana	Cal
Electro Impulse Lab Inc, Red Bank	N J
Ellison Instrument Div Dieterich Std Corp New Buffalo	Mich
General Microwave Corp, Farmingdale	N Y
Hektor Scientific Co Inc, Foxboro	Mass
Hy-Cal Engineering, Santa Fe Springs	Cal
Kahl Scientific Instrument Corp, El Cajon	Cal
Marconi Co Ltd, Chelmsford	England
MSI Electronics Inc, Woodside	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Perkin-Elmer Corp, Norwalk	Conn
Philco-Ford Corp, Washington	D C
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Precision Scientific Co Sub GCA Corp, Chicago	Ill
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
RdF Corp, Hudson	N H
TRG Div Control Data Corp, East Boston	Mass
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh	Pa

CAMERAS--COPYING (FOR PRINTED CIRCUIT & ETCHED PRODUCTION)

FILM MICROELECTRONICS, INC, BURLINGTON	**MASS**
KRESSILK PRODUCTS INC, ELMSFORD	**N Y**
Berkey Technical Div Berkey Photo Inc, Woodside	N Y
Borrowdale Co Inc, RW, Chicago	Ill
Brown Mfg Co, Evanston	Ill
Burke & James Inc, Chicago	Ill
Complex Instrument Co Inc, Burlington	Mass
Film Microelectronics, Inc, Burlington	Mass
Kressilk Products Inc, Elmsford	N Y
Lambert Co, Inc, Boston	Mass
3M Company, St Paul	Minn
Podgor Co Inc, Joseph E, Philadelphia	Pa
Ramyr Mfg Co, Buena Park	Cal
Royal Zenith Corp, New Hyde Park	N Y
Xerox Corp, Rochester	N Y

CAMERAS--DATA RECORDING(EXCEPT OSCILLOSCOPE)

Abrams Instrument Corp, Lansing	Mich
Abtronics, Inc, Livermore	Cal
Aeroflex Labs, Inc, Plainview	N Y
Canoga Electronics Corp, Chatsworth	Cal
Chicago Aerial Industries Inc, Barrington	Ill
Coleman Engineering Co Inc, Santa Ana	Cal
Conductron Corp, Ann Arbor	Mich
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dbm Research Corp, Cocoa Beach	Fla
E G & G Int'l Inc Geodyne Div, Waltham	Mass
Electronic Instrument Div Gen Atronics Corp Philadelphia	Pa
Ercona Corp, New York	N Y
Fairchild Space & Defense Sys Div Fairchild Cam Instr Corp, Syosset	NY
General Binding Corp, Northbrook	Ill
Geodyne Div EG&G Int'l, Waltham	Mass
Geo Space Corp, Houston	Tex
Giannini Scientific Corp, Flight Rsch Div, Richmond	Va
Gordon Enterprises, North Hollywood	Cal
Hycon, Monrovia	Cal
IBM Corp, Armonk	N Y
Leitz Canada Ltd, Ernst, Midland	Ont
Milliken D B A Teledyne Co, Arcadia	Cal
3M Company, St Paul	Minn
National Cine Equipment Inc, New York	N Y
Optomechanisms Inc, Plainview	N Y
Perkin-Elmer Corp, Norwalk	Conn
Photo Control Corp, Minneapolis	Minn
Photo Electronics Corp, Los Angeles	Cal
Photo-Sonics Inc, Burbank	Cal
RCA, Defense Electronic Products, Moorestown	N J
Red Lake Labs Inc, Santa Clara	Cal
Sprengnether Instrument Co Inc, W F, St Louis	Mo
Technical Operations Inc, Burlington	Mass
TRW Instruments, El Segundo	Cal

CAMERAS--HIGH-SPEED STOP-MOTION & RESEARCH

A V Electronics, Inc, Fresno	Cal
Chadwick Helmuth Co Inc, Monrovia	Cal
Conductron Corp, Ann Arbor	Mich
Dyna Metric Inc, Pasadena	Cal
E G & G Inc Custom Equip Div, Bedford	Mass
E G & G Int'l Inc Geodyne Div, Waltham	Mass
Elastronics Labs, Tarzana	Cal
Electronics & Alloys Inc, Englewood	N J
Ercona Corp, New York	N Y
Fairchild Industrial Products, Plainview	N Y
Field Emission Corp, McMinnville	Ore
Giannini Scientific Corp, Flight Rsch Div, Richmond	Va
Goodyear Aerospace Corp, Akron	Ohio
Gordon Enterprises, North Hollywood	Cal
Kappa Scientific Corp, Goleta	Cal
Meteorology Research Inc, Altadena	Cal
Mico Instrument Co, Cambridge	Mass
Milliken D B A Teledyne Co, Arcadia	Cal
3M Company, St Paul	Minn
MVR Corp, Palo Alto	Cal
National Cine Equipment Inc, New York	N Y
Optomechanisms Inc, Plainview	N Y
Photo Electronics Corp, Los Angeles	Cal
Photo-Sonics Inc, Burbank	Cal
Red Lake Labs Inc, Santa Clara	Cal
Technical Operations Inc, Burlington	Mass
TRW Instruments, El Segundo	Cal

CAMERAS--INFRARED SEE INFRARED EQUIPMENT

CAMERAS--OSCILLOSCOPE

HEWLETT-PACKARD, PALO ALTO	**CAL**
TEKTRONIX INC, BEAVERTON	**ORE**
Chicago Aerial Industries Inc, Barrington	Ill
Coleman Engineering Co Inc, Santa Ana	Cal
Conductron Corp, Ann Arbor	Mich
Disa Elektronik A/S, Herlev	Denmark
E G & G Inc Custom Equip Div, Bedford	Mass

Electronic Instrument Div Gen Atronics Corp Philadelphia	Pa
Fairchild Industrial Products, Plainview	N Y
Geo Space Corp, Houston	Tex
Giannini Scientific Corp, Flight Rsch Div, Richmond	Va
Gordon Enterprises, North Hollywood	Cal
Hewlett-Packard, Palo Alto	Cal
Lehigh Valley Electronics Engrg & Mfg Co, Inc Fogelsville	Pa
3M Company, St Paul	Minn
Motorola Communications & Electronics Div Chicago	Ill
Nihon Kohden Kogyo Co Ltd, Tokyo	Japan
Optomechanisms Inc, Plainview	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Photo-Sonics Inc, Burbank	Cal
Red Lake Labs Inc, Santa Clara	Cal
San-Ei Instrument Co Ltd, Tokyo	Japan
Singer Co, Metrics Div, Bridgeport	Conn
Technical Operations Inc, Burlington	Mass
Tektronix Inc, Beaverton	Ore

CAMERAS--RADAR RECORDING

Abrams Instrument Corp, Lansing	Mich
Atmospherics Inc, Fresno	Cal
Canoga Electronics Corp, Chatsworth	Cal
Chicago Aerial Industries Inc, Barrington	Ill
Coleman Engineering Co Inc, Santa Ana	Cal
Conductron Corp, Ann Arbor	Mich
Decca Radar, Inc, New York	N Y
Eastman Kodak Co, Rochester	N Y
Ercona Corp, New York	N Y
Fairchild Space & Defense Sys Div Fairchild Cam Instr Corp, Syosset	NY
Giannini Scientific Corp, Flight Rsch Div, Richmond	Va
Gordon Enterprises, North Hollywood	Cal
Hycon, Monrovia	Cal
Leitz Canada Ltd, Ernst, Midland	Ont
Meteorology Research Inc, Altadena	Cal
3M Company, St Paul	Minn
Motorola Communications & Electronics Div Chicago	Ill
Optomechanisms Inc, Plainview	N Y
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Photo Control Corp, Minneapolis	Minn
Photo-Sonics Inc, Burbank	Cal
RCA, Defense Electronic Products, Moorestown	N J
Shiba Electric Co Ltd, Woodside	N Y
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

CAMERAS--TV

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Admiral Corp, Gov Electronics Div, Chicago	Ill
Ampex Corp, Redwood City	Cal
Ball Brothers Research Corp, Boulder	Colo
Bendix Corp, Communications Div, Towson	Md
Blonder-Tongue Labs Inc, Newark	N J
Brown Engineering-A Teledyne Co, Huntsville	Ala
Canadian Marconi Co, Montreal 16	Quebec
Canadian Motorola Electronics Co, Agincourt	Ont
Canoga Electronics Corp, Chatsworth	Cal
C B S Labs Div Columbia Bdcstg Sys Inc Stamford	Conn
Channel Master Corp, Ellenville	N Y
Cohu Electronics Inc, San Diego	Cal
Colorado Video Inc, Boulder	Colo
Concord Electronics Corp, Los Angeles	Cal
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dalmo Victor, A Textron Div, Belmont	Cal
Dalto Electronics Corp, Norwood	N J
Dbm Research Corp, Cocoa Beach	Fla
Diamond Power Sub Babcock & Wilcox Lancaster	Ohio
EMI Electronics Ltd, Hayes, Middlesex	England
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus	N J
General Electric Co, Aerospace Elctns Dept, Utica	N Y
General Electrodynamics Corp, Garland	Tex
Giannini Scientific Corp, Flight Rsch Div, Richmond	Va
Gordon Enterprises, North Hollywood	Cal
GPL Div Gen Precision Systems Inc, Pleasantville	N Y
Hydro Products Div Dillingham Corp, San Diego	Cal
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
Inelco S p A, Tavernerio	Italy
ITT Industrial Labs Div, Fort Wayne	Ind
Keleket Div Laboratory For Electronics Inc Waltham	Mass
K L A Labs Inc, Detroit	Mich
Kobe Industries Corp, Kobe	Japan
Lake Systems Corp, Newton	Mass
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Maryland Telecommunications Inc, Cockeysville	Md
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Midland International Corp, North Kansas City	Mo
Montedoro Corp, San Luis Obispo	Cal
Motorola Communications & Electronics Div Chicago	Ill
Multi Media Engineering Inc, Rockville	Md
Nippon Electric Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pierpont Television Co, Birmingham	Ala
Precision Mecanique Labinal, 93 Saint-Ouen	France
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Raytheon Learning Systems Co, Michigan City	Ind
RCA, Defense Electronic Products, Moorestown	N J
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Shiba Electric Co Ltd, Woodside	N Y
Sony Corp, Tokyo	Japan
Squires-Sanders Inc, Liberty Corner	N J
States Electronics Corp, Bludworth Marine Div Linden	N J
Sylvania Electric Prods Inc, Coml Elctns Div Bedford	Mass
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
Tele Measurements Inc, Clifton	N J
Thomson Electric Co, Sub Cie Fran Thomson Houston New York	N Y
Westinghouse Electric Corp, Aerospace Div Baltimore	Md
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh	Pa
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

CAMERAS--X-RAY

Admiral Corp, Gov Electronics Div, Chicago	Ill
Balteau Electric Corp, Stamford	Conn
Canoga Electronics Corp, Chatsworth	Cal
Coleman Engineering Co Inc, Santa Ana	Cal
Electronics & Alloys Inc, Englewood	N J
Electro Optics Inc, Medford	Mass
Ercona Corp, New York	N Y
Field Emission Corp, McMinnville	Ore
General Electric Co X-Ray Dept, Milwaukee	Wis
Giannini Scientific Corp, Flight Rsch Div, Richmond	Va
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
Jarrell-Ash Co, Waltham	Mass
Keleket Div Laboratory For Electronics Inc Waltham	Mass
Materials Research Corp, Orangeburg	N Y
Milliken D B A Teledyne Co, Arcadia	Cal
3M Company, St Paul	Minn
Philips Electronic Instruments, Anal Inst, Mount Vernon	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Picker Nuclear, White Plains	N Y
St John X-Ray Laboratory, Califon	N J
Shiba Electric Co Ltd, Woodside	N Y
Standard X-Ray Co, Chicago	Ill
Thomson Electric Co, Sub Cie Fran Thomson Houston New York	N Y
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

CAMS & GEARS

SECS, INC, LONG ISLAND CITY	**N Y**
Advance Gear & Machine corp, Los Angeles	Cal
Analog General Corp, East Rockaway	N Y
Applied Devices Corp, College Point	n y
Cunningham Industries Inc, Stamford	Conn
Eisler Engineering Co, Newark	N J
Electric Tachometer Corp, Philadelphia	Pa
Forway Industries Inc, Woodbury	N J
Franklin Fibre-Lamitex Corp, Wilmington	Del
Geartronics Corp, N Billerica	Mass
Gibson-Egan CO, Arcadia	Cal
Hydro Molding Co Inc, Plattsburgh	N Y
Insco Corp, Groton	Mass
Kahle Engineering Co, Union City	N J
Laminated Sheet Products Corp, Norwood	Mass
Lavezzi Machine Works Inc, Chicago	Ill
parker-hartford corp, windsor	conn
PIC Design Corp, East Rockaway	N Y
Polymer Corp, Reading	Pa
Precision Mechanisms Corp, Westbury	N Y
Sanyo Electric Co Ltd, Osaka	Japan
Secs, Inc, Long Island City	N Y
Sterling Instrument Div, Designatronics Inc Mineola	N Y
Stevens Mfg Co Inc, Geo, Chicago	Ill
Superite Gear & Instrument Corp, Syosset	N Y
Telephonics Div, Instrument Systems Corp Huntington	NY
Triangle Instrument Co Inc, Syosset	N Y

CANS--CAPACITOR & COIL

KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
NUMAR CORP, NEW YORK	**N Y**
Eugene Engineering Co Inc, Rockland	Mass
Eyelematic Mfg Co Inc, Oakville	Conn
Fansteel Metallurgical Corp, North Chicago	Ill
Keystone Electronics Corp, New York	N Y
Kling Metal Spinning & Stpg Corp, New York	N Y
Mason Mfg Co Div Fram Corp, East Providence	R I
Northwest Plastics Inc, St Paul	Minn
Numar Corp, New York	N Y
Paul & Beekman Inc, Philadelphia	Pa
Paul & Stein Bros Inc, F H, New York	N Y
Richards Metal Products Inc, Wolcott	Conn
Sexton Can Co Inc, Everett	Mass
Staver Co Inc, Bay Shore	N Y
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
United Mineral & Chemical Corp, New York	N Y
Vector Electronic Co Inc, Los Angeles	Cal
Victor Metal Products Corp, Harrisonburg	Va
Waterbury Pressed Metal Co, Waterbury	Conn

CANS--CRYSTAL

Amuneal Mfg Corp, Philadelphia	Pa
Crystal Components Plant, GTI Corp, Warren	Pa
Crystal Components Saegertown Div GTI Corp Warren	Pa
Eugene Engineering Co Inc, Rockland	Mass
Eyelematic Mfg Co Inc, Oakville	Conn
Isotronics Inc, New Bedford	Mass
Magnetic Metals Co, Camden	N J
Richards Metal Products Inc, Wolcott	Conn
Sanyo Electric Co Ltd, Osaka	Japan
Staver Co Inc, Bay Shore	N Y
Veritron West Inc, Chatsworth	Cal
Victor Metal Products Corp, Harrisonburg	Va
Waterbury Pressed Metal Co, Waterbury	Conn

CANS--DIODE & TRANSISTOR

Alloys Unlimited Inc, Melville	N Y
Amuneal Mfg Corp, Philadelphia	Pa
Crystal Components Saegertown Div GTI Corp Warren	Pa
Do-Rite Mfg Co, East Paterson	N J
Electronic Metals & Alloys Inc, North Attleboro	Mass
Eugene Engineering Co Inc, Rockland	Mass
Eyelematic Mfg Co Inc, Oakville	Conn
Isotronics Inc, New Bedford	Mass
Johnson & Hoffman Mfg Corp, Carle Place	N Y
Magnetic Metals Co, Camden	N J
Paul & Beekman Inc, Philadelphia	Pa
Research Instrument Co Inc, Westbury	N Y
Richards Metal Products Inc, Wolcott	Conn
Sanyo Electric Co Ltd, Osaka	Japan
Semi-Alloys Inc, Mt Vernon	N Y
Staver Co Inc, Bay Shore	N Y
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Tavco, Inc, Santa Monica	Cal
Texas Instruments Incorporated, Dallas	Tex
Veritron West Inc, Chatsworth	Cal
Waterbury Pressed Metal Co, Waterbury	Conn
Youngwood Electronic Metals Inc, Youngwood	Pa

CANS--RELAY

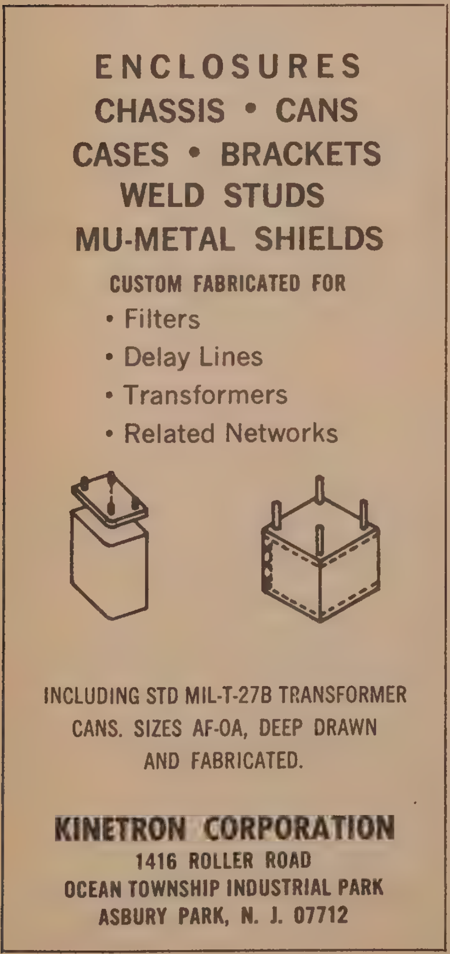
ELECTRONIC CLOSURES, SPRINGFIELD	**NJ**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
Amuneal Mfg Corp, Philadelphia	Pa
Buckeye Stamping Co, Columbus	Ohio
Electronic Closures, Springfield	NJ
Eugene Engineering Co Inc, Rockland	Mass
Eyelematic Mfg Co Inc, Oakville	Conn
Gemp Terminals Inc, Yonkers	N Y
Great Eastern Metal Products Co, Yonkers	N Y
Insulating Shapes Inc, Bronx	N Y
Isotronics Inc, New Bedford	Mass
Johnson & Hoffman Mfg Corp, Carle Place	N Y
Keystone Electronics Corp, New York	N Y
Magnetic Metals Co, Camden	N J
Mobil Electronics Inc, Anderson	Ind
Paul & Beekman Inc, Philadelphia	Pa
Richards Metal Products Inc, Wolcott	Conn
Schrack Electrical Sales Corp, New York	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Silicone Seals Inc, Chicago	Ill
Slocum Industries, Inc, Reseda	Cal
Staver Co Inc, Bay Shore	N Y
Stromberg-Carlson Sub Gen Dynamics, Rochester	N Y
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Tavco, Inc, Santa Monica	Cal
Vector Electronic Co Inc, Los Angeles	Cal
Veritron West Inc, Chatsworth	Cal
Victor Metal Products Corp, Harrisonburg	Va
Waterbury Pressed Metal Co, Waterbury	Conn

Seamless Heli-arc welded Enclosures

- Terminal assembly for ceramic or teflon compression types and glass-to-metal seal types
- Drawn cans can be modified with stud-welding, holes, brackets, terminals, cover-stops, die-stamping

Excellent prices, quality and delivery on any custom sheet metal fabrications. Call for fast quote.

ELECTRONIC CLOSURES, Inc.
44 Fadem Rd.,
Springfield, N. J. 07081
(201) 376-4042


ENCLOSURES
CHASSIS • CANS
CASES • BRACKETS
WELD STUDS
MU-METAL SHIELDS
CUSTOM FABRICATED FOR
- Filters
- Delay Lines
- Transformers
- Related Networks

INCLUDING STD MIL-T-27B TRANSFORMER CANS. SIZES AF-OA, DEEP DRAWN AND FABRICATED.

KINETRON CORPORATION
1416 ROLLER ROAD
OCEAN TOWNSHIP INDUSTRIAL PARK
ASBURY PARK, N. J. 07712

CANS--TRANSFORMER

ELECTRONIC CLOSURES, SPRINGFIELD, NJ	**ADV PG 96**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
KINETRON CORP, ASBURY PARK, N J	**ADV PG 96**
MAGNETIC SHIELD DIV, PERFECTION MICA CO, CHICAGO	**ILL**
Algo Div, Hamilton Electronic Corp, S Hackensack	N J
Amuneal Mfg Corp, Philadelphia	Pa
Arnold Engineering Co, Marengo	Ill
Arnold Engineering Co Pacific Div, Fullerton	Cal
Baltic Metal Products Co, Brooklyn	N Y
Buckeye Stamping Co, Columbus	Ohio
Cly-Del Mfg Co, Waterbury	Conn
Cycle Products Co Inc, Newark	N J
Electronic Closures, Springfield	NJ
EPD Industries Inc, Long Beach	Cal
Eugene Engineering Co Inc, Rockland	Mass
Eyelematic Mfg Co Inc, Oakville	Conn
Gemp Terminals Inc, Yonkers	N Y
Great Eastern Metal Products Co, Yonkers	N Y
Insulating Shapes Inc, Bronx	N Y
Jan Hardware Mfg Co Inc, Long Island City	N Y
Johnson & Hoffman Mfg Corp, Carle Place	N Y
Keystone Electronics Corp, New York	N Y
Kinetron Corp, Asbury Park	N J
Lectro Magnetics Inc, Los Angeles	Cal
Magnetic Metals Co, Camden	N J
Magnetic Shield Div, Perfection Mica Co, Chicago	Ill
Mason Mfg Co Div Fram Corp, East Providence	R I
Mobil Electronics Inc, Anderson	Ind
MSL Steel Co, MSL Industries Inc, Chicago	Ill
Nassau Precision Metal Products, Port Washington	N Y
Ny-Glass, Inc, Paramount	Cal
Olympic Prods Co Div J B Schaefer Indus, Alpha	N J
Paul & Beekman Inc, Philadelphia	Pa
Porter Co Inc, H K Electrical Div, Pittsburgh	Pa
Richards Metal Products Inc, Wolcott	Conn
Sanyo Electric Co Ltd, Osaka	Japan
Sexton Can Co Inc, Everett	Mass
Silicone Seals Inc, Chicago	Ill
Spring City Electrical Mfg Co, Spring City	Pa
Staver Co Inc, Bay Shore	N Y
Tavco, Inc, Santa Monica	Cal
Teiner Co Inc, Roland, Everett	Mass
Victor Metal Products Corp, Harrisonburg	Va
Wadsworth Electric Mfg Co Inc, Covington	Ky
Waterbury Pressed Metal Co, Waterbury	Conn
Zero Mfg Co, Burbank	Cal

CAPACITANCE BRIDGES SEE BRIDGES

CAPACITANCE METERS SEE BRIDGES; METERS

CAPACITOR ANALYZERS SEE TESTERS--CAPACITOR

CAPACITOR DISKS SEE CAPACITORS--FIXED

CAPACITOR-MANUFACTURING MACHINES SEE MACHINES--CAPACITOR-MANUFACTURING

When you find it in EBG,
Tell our advertisers —
They appreciate it.
So do we.

CAPACITORS, FIXED--AIR

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Aikow Shoji Kaisha Ltd, Osaka	Japan
Cardwell Condenser Corp, Lindenhurst	N Y
Castall Research Lab Inc, Brockton	Mass
Dowa Trading Co Ltd, Kobe	Japan
General Radio Co, West Concord	Mass
Impectron Inc, New York	N Y
International Electronics Corp, Melville	NY
ITT Europe Inc Components Gp, Brussels 1	Belgium
Jackson Brothers (London) Ltd, New York	N Y
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Mullard Ltd, London, WC 1	Eng
Oneida Electronic Mfg Co, Meadville	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Sanyo Electric Co Ltd, Osaka	Japan
Stettner-Trush Inc, Cazenovia	N Y

CONDENSED CATALOG
Quick Reference Guide to Amperex Components

CAPACITORS
Electrolytic: Miniature, small.
Film: Radial and axial-metalized-polyester, and metalized polycarbonate.
Ceramic: Pin-up.
Variable: Tubular ceramic, film-dielectric trimmers.

RESISTORS
Linear: Deposited carbon, ½ Watt, ¼ Watt. Variable Pots
Non-Linear: Varistors, Thermistors (NTC/PTC), Photocells

SPEAKERS
Midget, Standard, High Fidelity, and Special

KNOBS
Contemporary industrial types

INDUSTRIAL COMPONENTS
Various input and output devices

For your free copy, write:
Amperex Electronic Corporation,
Components Division
Hauppauge, L.I., N.Y. 11787

Regional Offices:
Calif.: 801 E. Charleston, Palo Alto
Ill.: 360 E. North Ave. Northlake

Amperex®
TOMORROW'S THINKING IN TODAY'S PRODUCTS

EBG

What's

in it

for you?

1. Listing of more than 4,000 products.

2. 6,500 manufacturers with local outlets, addresses and phone numbers.

3. Complete and up-to-date Trade Name Directory

4. The most complete industry source of supply and product specs.

Electronics Buyers' Guide

CAPACITORS, FIXED--CERAMIC DISK

AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE WIS	**ADV PG 411**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MURATA MFG CO, LTD, KYOTO	**JAPAN**
NIPPON ELECTRIC CO LTD. TOKYO. JAPAN	**ADV PGS 752,753**
REPUBLIC ELECTRONICS CORP, PATERSON, N J	**ADV PG 99**
Aerovox Corp Distr Sales, New Bedford	Mass
Aikow Shoji Kaisha Ltd, Osaka	Japan
Allen-Bradley Co, Milwaukee	Wis
American Lava Corp, Chattanooga	Tenn
Arco Electronics, Inc, Great Neck	N Y
Automation Components, Inc, Peckville	Pa
Cambridge Thermionic Corp, Cambridge	Mass
Castall Research Lab Inc, Brockton	Mass
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Components Specialties Inc, Freeport	N Y
Daylen Co, South Gate	Cal
Dilectron Div, Bestran Corp, Monrovia	Cal
Dowa Trading Co Ltd, Kobe	Japan
Erie Technological Products Inc, Erie	Pa
Gulton Industries Inc, Metuchen	N J
Hayakawa Electric Co Ltd, Osaka	Japan
Impectron Inc, New York	N Y
International Electronics Corp, Melville	NY
Ionetics Corp, Avenel	N J
ITT Europe Inc Components Gp, Brussels 1	Belgium
KCK Co Ltd, Tokyo	Japan
LCC-CICE, 93 Montreuil-sous-Bois	France
Maida Development Co, Hampton	Va
Mallory & Co Inc, P R, Indianapolis	Ind
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Mepco Inc, Morristown	N J
Metal Ceram Inc, Mount Vernon	N Y
Mial S P A, I 20124 Milano	Italy
Mial USA Inc, Nutley	N J
Monolithic Dielectrics Inc, Burbank	Cal
Murata Mfg Co, Ltd, Kyoto	Japan
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Nippon Electric Co Ltd, Tokyo	Japan
Nippon Ferrite Industrial Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oneida Electronic Mfg Co, Meadville	Pa
Pac Electronics Corp, Celina	Tenn
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plessey Inc, Farmingdale	N Y
Radio Materials Co, Chicago	Ill
Republic Electronics Corp, Paterson	N J
Rosenthal-Isolatoren GMBH, 8672 Selb	W Germany
Sampson Electronic Products Div, Chicago	Ill
Sanyo Electric Co Ltd, Osaka	Japan
Skottie Electronics Inc, Archbald	Pa
Solar Mfg Corp, Los Angeles	Cal
Sprague Electric Co, North Adams	Mass
Sprague of Wisconsin Inc, Grafton	Wis
Stettner-Trush Inc, Cazenovia	N Y
Taiyo Yuden Co Ltd, Chiyoda-ku, Tokyo	Japan
TDK Electronics Co Ltd, Chiyoda-ku, Tokyo	Japan
Telefunken Sales Corp, Garden City	N Y
Transitron Electronic Corp, Wakefield	Mass
TRW Electronic Components Div TRW Inc, Camden	N J
United Mineral & Chemical Corp, New York	N Y

CAPACITORS, FIXED--CERAMIC TEMPERATURE COMPENSATED

AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
AMPEREX ELECTRONIC CORP, COMPONENT DIV, HAUPPAUGE N Y	**ADV PG 98**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE WIS	**ADV PG 411**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MURATA MFG CO, LTD, KYOTO	**JAPAN**
REPUBLIC ELECTRONICS CORP, PATERSON, N J	**ADV PG 99**
Aerovox Corp Distr Sales, New Bedford	Mass
American Components, Inc, Conshohocken	Pa
American Lava Corp, Chattanooga	Tenn
American Technical Ceramics, Huntington Station	N Y
Amperex Electronic Corp, Component Div Hauppauge	N Y
Arco Electronics, Inc, Great Neck	N Y
Automation Components, Inc, Peckville	Pa
Castall Research Lab Inc, Brockton	Mass
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Dilectron Div, Bestran Corp, Monrovia	Cal
Electro Cube Inc, San Gabriel	Cal
Electro Materials Corp, San Diego	Cal
Erie Technological Products Inc, Erie	Pa
Gulton Industries Inc, Metuchen	N J
Impectron Inc, New York	N Y
International Electronics Corp, Melville	NY
Ionetics Corp, Avenel	N J
ITT Europe Inc Components Gp, Brussels 1	Belgium
KCK Co Ltd, Tokyo	Japan
LCC-CICE, 93 Montreuil-sous-Bois	France
Maida Development Co, Hampton	Va

CAPACITORS
CAPACITORS
capacitors
CAPACITORS
CAPACITORS
CAPACITORS
CAPACITORS
CAPACITORS
WHY
WORRY!
CALL

FAIRMONT
ELECTRONIC SALES CORP

60 Smith Street / Farmingdale, N.Y. 11735
(516) 694-8200

1560 Missile Way / Anaheim, Calif 92801
(714) 871-0050

MILGRAY
STOCKS
CAPACITORS

Every kind you can imagine. (And some you can't.) From stockpiles strategically located for overnight or faster delivery to anywhere in the world. We stock more so you can worry less. A call to your local Milgray man will start the motion.

MILGRAY

Milgray/New York 212-YU 9-1600
Milgray/Delaware Valley 215-BA 8-2000
Milgray/Washington 301-864-1111
Milgray/Cleveland 216-881-8800
Milgray/International 212-YU 9-1600
Milgray/New England, Inc. 617-272-6800

Amperex Capacitors

ELECTROLYTIC CAPACITORS

Amperex high quality, low cost electrolytic capacitors feature small size, high capacitance and long service life. Low leakage currents are achieved through the use of highly purified materials and carefully controlled manufacturing processes. They are the "dry" type with the liquid electrolyte absorbed into a layer of paper between cathode and anode foils. Winding is sealed in an aluminum can.

They are designed to operate at varied efficiencies over a temperature range of −40°C to +85°C. The min. and max. temp. depends on the application; increase of impedance and losses are the limiting factors.

C426AR Series

CAN SIZE	DIMENSIONS*		CAPACITANCES — μf							
	Length (in.)	Dia. (in.)	2.5 Volts	4.0 Volts	6.4 Volts	10 Volts	16 Volts	25 Volts	40 Volts	64 Volts
1	0.394	0.122	10	8	6.4	4	2.5	1.6	1	0.64
2	0.394	0.173	40	32	25	16	10	6.4	4	2.5
3	0.394	0.228	80	64	50	32	20	12.5	8	5
4	0.709	0.248	160	125	100	64	40	25	16	10
5	0.709	0.315	320	250	200	125	80	50	32	20
6	0.709	0.394	500	400	320	200	125	80	50	32

C437AR Series

CAN SIZE	DIMENSIONS*		CAPACITANCES — μf							
	Length (in.)	Dia. (in.)	2.5 Volts	4.0 Volts	6.4 Volts	10 Volts	16 Volts	25 Volts	40 Volts	64 Volts
00	1.18	0.394	1000	800	640	400	250	160	100	64
01	1.18	0.492	1600	1250	1000	640	400	250	160	100
02	1.18	0.591	2500	2000	1600	1000	640	400	250	160
03	1.18	0.709	4000	3200	2500	1600	1000	640	400	250

**Includes Insulation*

FILM CAPACITORS

Fixed Film Dielectric Capacitors

METALLIZED POLYCARBONATE

Metallized polycarbonate capacitors offer 125°C operation with no voltage de-rating, extreme capacitance stability with temperature, and low dissipation factor. High insulation resistance coupled with small physical size make these capacitors ideally suited for the most critical applications.

C280M Series

C281 Series

100VDC from .047 mfd to 6.8 mfd
400VDC from .01 mfd to 1.0 mfd
630VDC from .01 mfd to .47 mfd

METALLIZED POLYESTER

Available in 250VDC rating from .001 mfd to 2.2 mfd. Offer small size and cost advantages and are suitable for all general purpose applications.

C280AE Series

(Also available in C280M and C281 packaging configuration)

Variable Capacitors

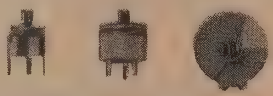
CERAMIC DIELECTRIC

For high freq. temp.-compensating applications requiring low Zero capacitance. Feature high breakdown voltage, stability and accuracy of adjustment.

C004 Series
(typical configurations)

FILM DIELECTRIC

The CO10 is a general trimmer used when large Delta 'C' variations are required and space is limited. Adjustable top and bottom, available in following min.-max. ranges: 2pf-10pf, 5pf-20pf, 5pf-60pf.



C010/HT10 Series

HT10 TEFLON® SERIES

For applications requiring guaranteed Delta 'C' and where capacitance-variation is unaffected by temp. of 125° and higher. Same ranges as CO10 (above).

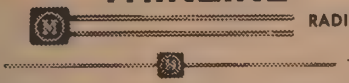
®Dupont Trademark

AMPEREX ELECTRONIC CORPORATION
Component Division: 35 Hoffman Ave., Hauppauge, N.Y.
Telephone: 516-234-7000 TWX 510-227-8552

Amperex®
TOMORROW'S THINKING IN TODAY'S PRODUCTS

MUCON® SUBminiature CERAMIC CAPACITORS

THINLINE



Mucon's Thinline Capacitors are made of the following 13 different ceramic bodies for a broad choice of size and electrical properties:

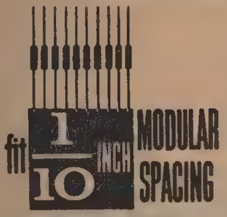
Temperature-Compensating Materials:	NPO	N080	N150
	N220	N330	N450
	N750	N1400	N2400
	N3300	N4700	N5600

General Purpose Materials LOW-VAR, STABLE-K, HIGH-K & SUPER-K for wide range of stability and capacitance.

SPECIFICATIONS

Capacitance:
Range: TEMP.-COMP. BODIES
1/2 pf - 2200 pf
GEN. PURPOSE BODIES
50 pf - 150,000 pf
Voltages: 25 WVDC, 50WVDC, 200 WVDC and 500 WVDC
Leads: Tinned Copper, Nickel or Dumet to MIL Spec.
Shapes: Square, rectangular, single or multiple element.

NARROW-CAPS®

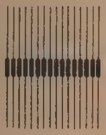


NARROW-CAPS are designed for 1/10" modular spacing on printed circuits, or for cordwood applications.

SPECIFICATIONS

Capacitance:
Range: 5 pf - 100.000 pf
Voltages: 10 WVDC - 50 WVDC
Sizes: .095" max. wide x 1/4" max. long x .095" max. thick through 750 pf. Larger values 5/16" max. long.
Leads: #26 Tinned Copper, Nickel or Dumet to MIL Spec.

SLIM-CAPS ®



Designed for applications which require capacitors slimmer than NARROW-CAPS. SLIM-CAPS are .065" wide x .065" thick max. Body lengths from .100"—.250" max.

SPECIFICATIONS

Capacitance
Range: 1/2 pf - 20,000 pf
Voltages: 50 WVDC
Leads: #30 Tinned Copper, Nickel or Dumet to MIL Spec.

MU-CAPS ®

RADIAL
AXIAL

Mucon MU-CAPS consist of capacitor elements made of Mucon Stable-K ceramic encased in a specially formulated epoxy. Meet MIL-C-11015/18 and /19.

SPECIFICATIONS

Capacitance
Range: 10 pf - 10 MF.
Voltages: 50 WVDC, 100 WVDC, and 200 WVDC
Sizes: from .200" square x .100" thick
Leads: #22 Tinned Copper, Nickel or Dumet to MIL Spec.

HI-PuFs

RADIAL
AXIAL

HI-PuFs represent today's ultimate in highest capacitance per unit of volume. They are made by a new monolithic technique which, through the use of noble metal electrodes, creates a multi-layered ceramic body which is fired as a unit.

SPECIFICATIONS

Capacitance
Range: NPO CAPACITORS
(Zero ± 30PPM/°C)
100pf - 4,700 pf
STABLE - K CAPACITORS
.01 mf - .15 mf
SUPER - K CAPACITORS
.047 mf - 1.0 mf
Voltages: 25 WVDC, 50 WVDC, 100 WVDC
Leads: Tinned Copper, Nickel or Dumet to MIL Spec.

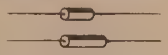
STANDOFFS

Standoffs are furnished in the shapes shown above, using any one of the Mucon temperature-compensating bodies or general purpose bodies.

RIBBON LEADS

Size and specifications same as "Thinline" capacitors shown above, except radial and axial tinned copper ribbon leads, approximately .006" thick x 3/32" wide for units with max. size of .150" and up; .045" wide for smaller units.

MOLDED TUBULAR



MT12 & MT13 capacitors have .090" diameter for modular spacing as small as 1/10". MT12 is .160" long and MT13 is .250" long to suit various cordwood packages. Meet MIL-C-11015/20.

SPECIFICATIONS

Capacitance:
Range: To 3.3 MF.
Voltages: 50 WVDC, and 100 WVDC
Sizes: MT12, .160" L. x .090" D.
MT13, .250" L. x .090"D.
MT14, .390" L. x .140" D.
MT15, .500" L. x .250" D.
MT16, .690" L. x .350" D.
Leads: Tinned Copper, Nickel or Dumet to MIL Spec.
Stability ±15% max.,—55°C tc+125°C.

SUB-MINIATURE CERAMIC CAPACITOR ELEMENTS

Ceramic capacitor elements used in MUCON sub-miniature capacitors are available for applications such as hybrid circuits, where leads and coating are not desired. Available in 16 MUCON ceramic materials—capacitance from 1 pf thru 2 mf.

GENERAL INFORMATION

NARROW-CAPS, SLIM-CAPS and **MU-CAPS** are stock items, and reasonable quantities are furnished in a few days.

MU-CAPS are available with up to .1 MF in the CK05 case, 1.0 MF in the CK06 case and up to 10 MF in larger cases.

HIGH FREQUENCY characteristics of axial ribbon lead units as well as standoffs, are excellent due to their low lead inductance.

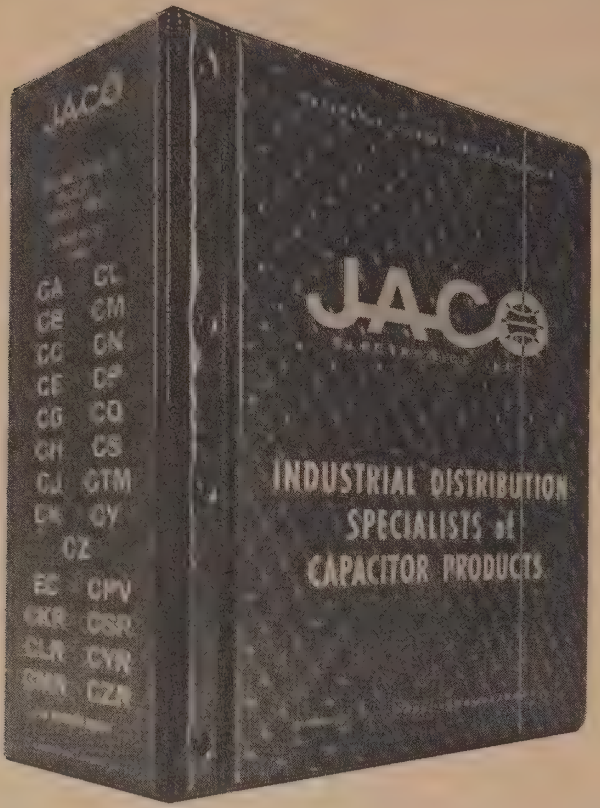
DELIVERY: All catalog items are stocked in reasonable quantities for shipment within a few days.

WRITE FOR FREE CATALOG LISTING COMPLETE DETAILED SPECIFICATIONS FOR ALL MUCON SUB-MINIATURE CERAMIC CAPACITORS and ELEMENTS

REPUBLIC ELECTRONICS CORP.

176 E. 7th St. PATERSON, N. J. 07524
201 - 279-0300 TWX 710-988-5908

DON'T LOOK ANY FURTHER.


JACO
CA CL
CB CM
CC CN
CE CP
CG CQ
CH CS
CJ CTM
CK CY
CZ
EC CPV
CKR CSR
CLR CYW
CZR
JACO
INDUSTRIAL DISTRIBUTION
SPECIALISTS of
CAPACITOR PRODUCTS

All the Military and Commercial Specifications for Capacitors you need are right here!

MIL-SPEC types

CA • CB • CC • CE • CG • CH • CHR • CJ • CK • CKR • CL • CLR • CM • CMR CN • CP • CPV • CQ • CS • CSR • CTM • CT • CU • CV • CY • CZ • CZR • PC

Commercial types

ALUMINUM • CERAMIC • GLASS • MICA • MYLAR • PAPER POLYSTYRENE • POLYCARBONATE • TANTALUM METALIZED FILMS

Priced right. Delivered *now.* Any size. Any type. Because JACO specializes in capacitors. Just capacitors. That's all we sell and service.

What do we mean by *service?* If you need information about which capacitor to use under specific conditions or what performance to expect from a MIL-SPEC or commercial type—whatever your questions may be—our telephone specialists have the answers at their fingertips. One call will make you a believer. Try us today!

CALL JACO FIRST FOR CAPACITORS
from these dependable manufacturers:

Aerovox Corporation • Arizona Division, Components, Inc.
Centralab • Cornell-Dubilier Electronics
Dickson Electronics • General Instrument Corporation
L.R.C. • San Fernando Electric Mfg. Co.
Sangamo Electric Company • Tansitor Electronics, Inc.

JACO
ELECTRONICS, INC.
ENGINEERS ROAD • HAUPPAUGE • LONG ISLAND, N. Y. 11787
TEL: 516-273-5500 • TWX: 510-227-6232

Marshall Industries Capacitor Div, Monrovia .... Cal
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Mepco Inc, Morristown .... N J
Metal Ceram Inc, Mount Vernon .... N Y
Mial S P A, I 20124 Milano .... Italy
Mial USA Inc, Nutley .... N J
Murata Mfg Co, Ltd, Kyoto .... Japan
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto .... Japan
Nippon Ferrite Industrial Co Ltd, Tokyo .... Japan
Nytronics Inc, Berkeley Heights .... N J
Pac Electronics Corp, Celina .... Tenn
Palmer Ltd, G A Stanley, W Molesey, Surrey .... England
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Plessey Inc, Farmingdale .... N Y
Potter Co, Northfield Ill
Potter Co Chem Electro Research Div, Sun Valley .... Cal
Radio Materials Co, Chicago Ill
Republic Electronics Corp, Paterson .... N J
Rosenthal-Isolatoren GMBH, 8672 Selb .... W Germany
Sampson Electronic Products Div, Chicago Ill
Sanyo Electric Co Ltd, Osaka .... Japan
Skottie Electronics Inc, Archbald .... Pa
Solar Mfg Corp, Los Angeles .... Cal
Sprague Electric Co, North Adams .... Mass
Sprague of Wisconsin Inc, Grafton .... Wis
Taiyo Yuden Co Ltd, Chiyoda-ku, Tokyo .... Japan
TDK Electronics Co Ltd, Chiyoda-ku, Tokyo .... Japan
Transitron Electronic Corp, Wakefield .... Mass
TRW Electronic Components Div TRW Inc, Camden .... N J
United Mineral & Chemical Corp, New York .... N Y
U S Capacitor Corp, Burbank .... Cal
Vitramon Inc, Bridgeport .... Conn
West-Cap Arizona Div San Fernando Elec Mfg Co
  Tucson .... Ariz

CAPACITORS, FIXED-- CERAMIC GENERAL PURPOSE

AMERICAN LAVA CORP, CHATTANOOGA .... TENN
AMPEREX ELECTRONIC CORP, COMPONENT DIV, HAUPPAUGE
  N Y .... ADV PG 98
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE
  WIS .... ADV PG 411
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN .... N Y
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA .... JAPAN
MURATA MFG CO, LTD, KYOTO .... JAPAN
REPUBLIC ELECTRONICS CORP, PATERSON, N J .... ADV PG 99
STACKPOLE CARBON CO, ST MARYS .... PA
Aerovox Corp Distr Sales, New Bedford .... Mass
Aikow Shoji Kaisha Ltd, Osaka .... Japan
Airco Speer Electronic Components, Dubois .... Pa
American Components, Inc, Conshohocken .... Pa
American Lava Corp, Chattanooga .... Tenn
American Technical Ceramics, Huntington Station .... N Y
Amperex Electronic Corp, Component Div
  Hauppauge .... N Y
Arco Electronics, Inc, Great Neck .... N Y
Automation Components, Inc, Peckville .... Pa
Cambridge Thermionic Corp, Cambridge .... Mass
Castall Research Lab Inc, Brockton .... Mass
Centralab, Div Globe-Union Inc, Milwaukee .... Wis
Components Specialties Inc, Freeport .... N Y
Corning Glass Works, Corning .... N Y
Cosmic Radio Corp, New York .... N Y
Denes Co Inc, Burbank .... Cal
Dilectron Div, Bestran Corp, Monrovia .... Cal
Dowa Trading Co Ltd, Kobe .... Japan
Electro Cube Inc, San Gabriel .... Cal
Electro Materials Corp, San Diego .... Cal
EMC Technology Inc, Philadelphia .... Pa
Erie Technological Products Inc, Erie .... Pa
Gulton Industries Inc; Metuchen .... N J
Impectron Inc, New York .... N Y
International Electronics Corp, Melville .... NY
Ionetics Corp, Avenel .... N J
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
JFD Electronics Co, Components Div, Brooklyn .... N Y
KCK Co Ltd, Tokyo .... Japan
LCC-CICE, 93 Montreuil-sous-Bois .... France
Maida Development Co, Hampton .... Va
Marshall Industries Capacitor Div, Monrovia .... Cal
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Mepco Inc, Morristown .... N J
Metal Ceram Inc, Mount Vernon .... N Y
Mial S P A, I 20124 Milano .... Italy
Mial USA Inc, Nutley .... N J
3M Company, St Paul .... Minn
Monolithic Dielectrics Inc, Burbank .... Cal
Mullard Ltd, London, WC 1 .... Eng
Murata Mfg Co, Ltd, Kyoto .... Japan
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto .... Japan
Nippon Ferrite Industrial Co Ltd, Tokyo .... Japan
Nytronics Inc, Berkeley Heights .... N J
Pac Electronics Corp, Celina .... Tenn
Palmer Ltd, G A Stanley, W Molesey, Surrey .... England
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Potter Co, Northfield Ill
Potter Co Chem Electro Research Div, Sun Valley .... Cal
Radio Materials Co, Chicago Ill
Republic Electronics Corp, Paterson .... N J
Rosenthal-Isolatoren GMBH, 8672 Selb .... W Germany
Sampson Electronic Products Div, Chicago Ill
San Fernando Electric Mfg Co, San Fernando .... Cal
Sanyo Electric Co Ltd, Osaka .... Japan
Skottie Electronics Inc, Archbald .... Pa
Solar Mfg Corp, Los Angeles .... Cal
Southern Electronics Corp, Burbank .... Cal
Sprague Electric Co, North Adams .... Mass
Sprague of Wisconsin Inc, Grafton .... Wis
Stackpole Carbon Co, St Marys .... Pa
Stettner-Trush Inc, Cazenovia .... N Y
Taiyo Yuden Co Ltd, Chiyoda-ku, Tokyo .... Japan
TDK Electronics Co Ltd, Chiyoda-ku, Tokyo .... Japan

Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City .... Japan
Telefunken Sales Corp, Garden City .... N Y
Transitron Electronic Corp, Wakefield .... Mass
TRW Electronic Components Div TRW Inc, Camden .... N J
Ultronix Inc, Grand Junction .... Colo
Union Carbide Corp, Electronics Div, Compnts Dept
  Greenville .... S C
United Mineral & Chemical Corp, New York .... N Y
U S Capacitor Corp, Burbank .... Cal
Vitramon Inc, Bridgeport .... Conn
West-Cap Arizona Div San Fernando Elec Mfg Co
  Tucson .... Ariz

CAPACITORS, FIXED-- ELECTROLYTIC ALUMINUM

AMPEREX ELECTRONIC CORP, COMPONENT DIV, HAUPPAUGE
  N Y .... ADV PG 98
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE
  WIS .... ADV PG 411
GENERAL ELECTRIC CO, ECSO, SCHENECTADY
  N Y .... ADV PG 7
MALLORY & CO INC, P R, INDIANAPOLIS, IND .... ADV PG 102
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA .... JAPAN
NITSUKO LTD, KANAGAWA-PREF, JAPAN .... ADV PG 102
SANGAMO ELECTRIC CO, CAPACITOR DIV, PICKENS .... S C
  ADV PG 101

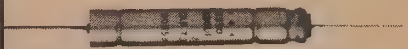
Aerovox Corp Distr Sales, New Bedford .... Mass
Aerovox Corp New Bedford Div, New Bedford .... Mass
Aikow Shoji Kaisha Ltd, Osaka .... Japan
Ajax Condenser Co, Inc, Chicago Ill
Amperex Electronic Corp, Component Div
  Hauppauge .... N Y
Arco Electronics, Inc, Great Neck .... N Y
Barco, Inc, Milwaukee .... Wisc
Callins Industries Inc, Greenfield .... Tenn
Centralab, Div Globe-Union Inc, Milwaukee .... Wis
Coggins Co, George F, Portland .... Ore
Components Specialties Inc, Freeport .... N Y
Condensateurs F A C O N, Paris 12e .... France
Cornell-Dubilier Electronics Div Federal Pacific Electric
  Co, Newark .... N J
Cosmic Radio Corp, New York .... N Y
Dowa Trading Co Ltd, Kobe .... Japan
Elna-Fox Electronics Co Ltd, Tokyo .... Japan
Emihus Microcomponents Ltd
  Hounslow, Middx .... England
Fujitsu Ltd, Tokyo .... Japan
General Electric Co, ECSO, Schenectady .... N Y
General Instrument Corp, Capacitor Grp, Newark .... N J
General Instrument Europe SPA, Milano .... Italy
Genisco Technology Corp Components, Genistron Divs
  Compton .... Cal
Hayakawa Electric Co Ltd, Osaka .... Japan
Industrial Condenser Corp, Chicago Ill
International Electronics Corp, Melville .... NY
International Electronics Industries Div Callins Ind Inc
  Greenfield .... Tenn
International Rectifier Semiconductor Div
  El Segundo .... Cal
Ion Capacitor Corp, Columbia City .... Ind
Ionetics Corp, Avenel .... N J
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Johnson Matthey & Mallory Ltd, Toronto 15 .... Ont
Leclanche SA, Ch - 1401 Yverdon .... Switz
Mallory & Co Inc, P R, Indianapolis .... Ind
Mallory Capacitor Co, Indianapolis .... Ind
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
M E C, Nashville .... Tenn
Metal Ceram Inc, Mount Vernon .... N Y
Model Rectifier Corp, Brooklyn .... N Y
Mullard Ltd, London, WC 1 .... Eng

Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto .... Japan
Nippon Chemical Condenser Co Ltd, Tokyo .... Japan
Nitsuko Ltd, Kanagawa-Pref .... Japan
Oneida Electronic Mfg Co, Meadville .... Pa
Pac Electronics Corp, Celina .... Tenn
Paktron Div, Illinois Tool Works Inc, Alexandria .... Va
Palmer Ltd, G A Stanley, W Molesey, Surrey .... England
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Priester Corp, H E, Scarsdale .... N Y
Sampson Electronic Products Div, Chicago Ill
San Fernando Electric Mfg Co, San Fernando .... Cal
Sangamo Electric Co, Springfield Ill
Sangamo Electric Co, Capacitor Div, Pickens .... S C
Sanyo Electric Co Ltd, Osaka .... Japan
Shizuki Electrical Mfg Co Ltd
  Nishinomiya, Hyogo Pre .... Japan
Siemens America Inc, New York .... N Y
Sprague Electric Co, North Adams .... Mass
Standard Telephones & Cables Ltd
  London WC 2 .... England
Stettner-Trush Inc, Cazenovia .... N Y
STM Corp, Oakland .... Cal
Syncro Capacitor Corp, Hicksville .... Ohio
Telefunken Sales Corp, Garden City .... N Y
Texas Capacitor Co Inc, Houston .... Tex
Tokyo Denki Co Ltd, Tokyo .... Japan
United Electronic Mfg Corp, Union City .... N J
United Mineral & Chemical Corp, New York .... N Y
Wellington Electronics Inc, Engelwood .... N J
Wells Co Inc, Gary, Yonkers .... N Y
West-Cap Arizona Div San Fernando Elec Mfg Co
  Tucson .... Ariz
Whale Electronics Inc, Nashville .... Tenn

SANGAMO
ELECTRIC

Aluminum Electrolytic Capacitors

Miniatures for Audio, Airborne, Radar, Data Processing, Power Supplies

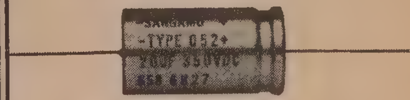

Type 557 Computer/Military Grade

Type CU 12 & 13 Mil-C-39018/1 Grade

Type 556 Computer/Communications Grade

Type 056 Computer/Communications Grade

Type 066 Industrial Grade


Type 052 Commercial Grade

Computer Grade For Power Supplies

TYPE DCM
TYPE 500

NEW
High Ripple
Computer Grade
TYPE 100

EC 68-5

Sangamo Electric Company
Capacitor Division
P. O. Box 128
Pickens, South Carolina 29671

MALLORY ELECTROLYTIC CAPACITORS

Aluminum Electrolytics

TC—tubular axial lead, metal case for entertainment electronics
FP—original 85°C, twist prong, vertical mount
AC—motor start
TT—miniature axial lead tubulars
HC—heavy-duty, high reliability type (polarized)
Type NP is non-polarized.
PG—premium grade capacitors for high reliability uses in instruments, telephone circuits
TCW—axial lead tubular for transistor circuits
CG and CGS—computer grade high reliability types
TPG—axial lead miniature computer grade
MTA/MTV—molded tubular electrolytics
TTQ—high reliability axial lead type for industrial and military uses

Tantalum Electrolytics

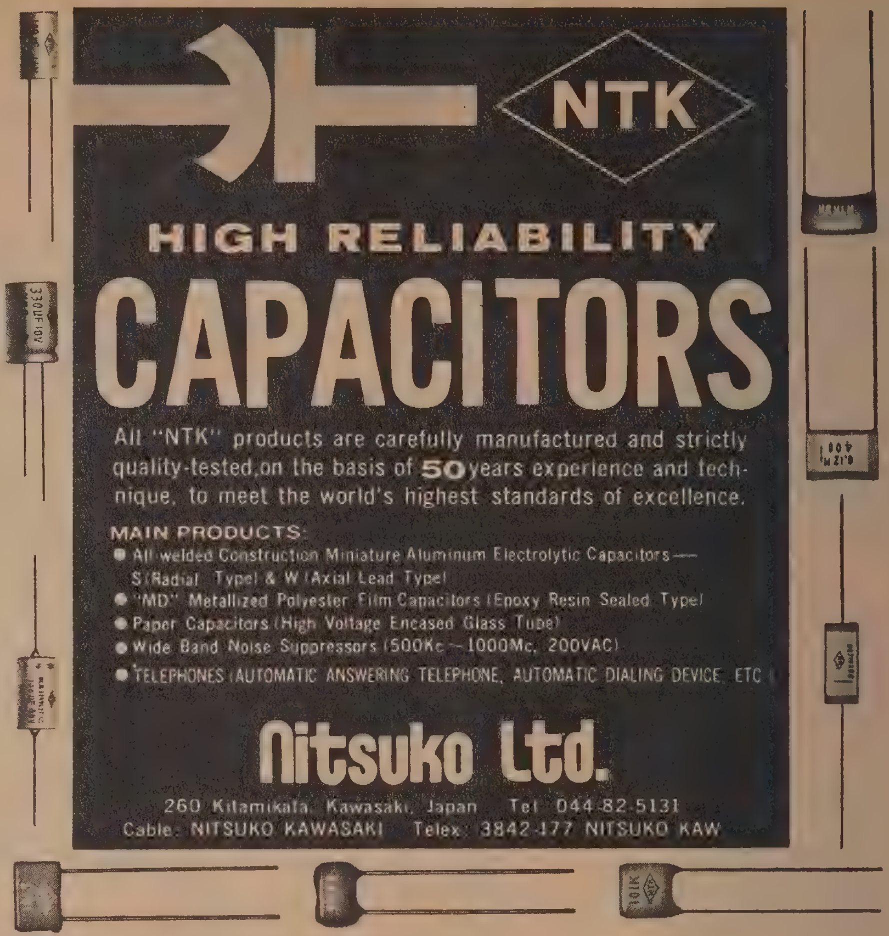
Foil types—plain or etched foil, polarized or non-polarized

Solid types—
TAS—axial lead, sealed metal case
TAM—parallel lead molded case
TUR—micro-size for hybrid circuits
TIM and TAC—miniature molded case
THF—high frequency type

Wet slug types—
TNT—subminiature axial lead
TAP—miniature axial lead
TAH—high temperature axial lead
XTG—radiation resistant
MTP—miniature high capacitance
TLS—C164 and C165 MIL types
TL—hermetically sealed, equivalent to CL55
XT—series for extreme environments, −55° to +200°C
XTH, XTL, XTV, XTM, XTK

For data, write or call
Mallory Capacitor Company,
a division of P. R. Mallory & Co. Inc.,
Indianapolis, Indiana 46206.

MALLORY


NTK

HIGH RELIABILITY CAPACITORS

All "NTK" products are carefully manufactured and strictly quality-tested,on the basis of **50** years experience and technique, to meet the world's highest standards of excellence.

MAIN PRODUCTS:
- All welded Construction Miniature Aluminum Electrolytic Capacitors—S(Radial Type) & W (Axial Lead Type)
- "MD" Metallized Polyester Film Capacitors (Epoxy Resin Sealed Type)
- Paper Capacitors (High Voltage Encased Glass Tube)
- Wide Band Noise Suppressors (500Kc—1000Mc, 200VAC)
- TELEPHONES (AUTOMATIC ANSWERING TELEPHONE, AUTOMATIC DIALING DEVICE, ETC.)

Nitsuko Ltd.

260 Kitamikata, Kawasaki, Japan Tel 044-82-5131
Cable: NITSUKO KAWASAKI Telex: 3842-177 NITSUKO KAW

Fast acting.

The Electronics Buyers' Guide can get you on the right frequency in a hurry. For example, there are 14 different kinds of oscillators listed. Everything from AF oscillators to voltage controlled crystal oscillators. There are three sections in your EBG, devoted to products, manufacturers and trade names. So see your fast-acting EBG.

Electronics Buyers' Guide

CAPACITORS, FIXED--ELECTROLYTIC TANTALUM FOIL

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7,103**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO, JAPAN	ADV PGS 752,753
NITSUKO LTD, KANAGAWA-PREF	**JAPAN** ADV PG 102
TANSITOR ELECTRONICS INC, BENNINGTON, VT	ADV PG 104
Aikow Shoji Kaisha Ltd, Osaka	Japan
Barco, Inc, Milwaukee	Wisc
Callins Industries Inc, Greenfield	Tenn
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Dowa Trading Co Ltd, Kobe	Japan
Elna-Fox Electronics Co Ltd, Tokyo	Japan
Emihus Microcomponents Ltd Hounslow, Middx	England
Fujitsu Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Gentronics Inc, Clinton	Conn
Hunter Stanley Electronics Inc, Nashville	Tenn
International Electronics Corp, Melville	NY
International Electronics Industries Div Callins Ind Inc Greenfield	Tenn
ITT Europe Inc Components Gp, Brussels 1	Belgium
Johnson Matthey & Mallory Ltd, Toronto 15	Ont
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Capacitor Co, Indianapolis	Ind
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Metal Ceram Inc, Mount Vernon	N Y
Mullard Ltd, London, WC 1	Eng
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Nippon Chemical Condenser Co Ltd, Tokyo	Japan
Nippon Electric Co Ltd, Tokyo	Japan
Nitsuko Ltd, Kanagawa-Pref	Japan
Ohmite Mfg Co, Skokie	Ill
Pac Electronics Corp, Celina	Tenn
Palmer Ltd, G A Stanley, W Molesey, Surrey	England
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Sampson Electronic Products Div, Chicago	Ill
Sanyo Electric Co Ltd, Osaka	Japan
Sprague Electric Co, North Adams	Mass
Standard Telephones & Cables Ltd London WC 2	England
Tansitor Electronics Inc, Bennington	Vt
Texas Instruments France, Villeneuve-Loubet	France
Tokyo Denki Co Ltd, Tokyo	Japan
United Mineral & Chemical Corp, New York	N Y

ELECTRONIC
CAPACITORS-FIXED

GRADES:
- Military
- Industrial
- Entertainment

TYPES:
- ELECTROLYTIC
  - Tantalum Foil
    - Tubular
    - Packaged
  - Tantalum Wet Slug
    - Tubular
    - Packaged
  - High Reliability Tantalum
    - Tubular
    - Packaged
  - Aluminum Foil
    - Computer Grade
    - Miniature
    - Can Style
    - Tubular
    - A-c Motor Start
    - Photoflash
- FILM
  - Polyester
    - Metalized Film
    - Film/Foil
  - Polycarbonate
    - Metalized Film
    - Film/Foil
- PAPER
  - Paper/Mylar*
  - Metalized Paper
  - Energy Storage
  - Power Supply
  - Motor Run
  - SCR Applications
- SPECIAL CONFIGURATIONS, DESIGNS, APPLICATIONS

*Trade-mark of DuPont Co.

For information contact nearest GE Sales Office, see list on page 7, or your local G-E Distributor, or write to Section 998-38, General Electric Co., Schenectady, N. Y. 12305

GENERAL ELECTRIC

CAPACITORS, FIXED-- ELECTROLYTIC TANTALUM SLUG DRY

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PG 7**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
MATSUO ELECTRIC CO, LTD, TOYONAKA-SHI, OSAKA	**JAPAN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NITSUKO LTD, KANAGAWA-PREF	**JAPAN**
TANSITOR ELECTRONICS INC, BENNINGTON, VT	**ADV PG 104**
Aikow Shoji Kaisha Ltd, Osaka	Japan
Avnet Electronics, Westbury	N Y
Barco, Inc, Milwaukee	Wisc
Callins Industries Inc, Greenfield	Tenn
Components Inc Arizona Div, Phoenix	Ariz
Components Inc Capacitor Prods, Biddeford	Me
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Dickson Electronics Corp, Scottsdale	Ariz
Elna-Fox Electronics Co Ltd, Tokyo	Japan
Emihus Microcomponents Ltd Hounslow, Middx	England
Erie Technological Products Inc, Erie	Pa
Fujitsu Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
General Instrument Europe SPA, Milano	Italy
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Gentronics Inc, Clinton	Conn
International Electronics Corp, Melville	NY
International Electronics Industries Div Callins Ind Inc Greenfield	Tenn
ITT Europe Inc Components Gp, Brussels 1	Belgium
Johnson Matthey & Mallory Ltd, Toronto 15	Ont
LCC-CICE, 93 Montreuil-sous-Bois	France
Leclanche SA, Ch - 1401 Yverdon	Switz
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Capacitor Co, Indianapolis	Ind
Matsuo Electric Co, Ltd, Toyonaka-shi, Osaka	Japan
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Metal Ceram Inc, Mount Vernon	N Y
National Capacitors Inc, West Palm Beach	Fla
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Nippon Chemical Condenser Co Ltd, Tokyo	Japan
Nitsuko Ltd, Kanagawa-Pref	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Oneida Electronic Mfg Co, Meadville	Pa
Pac Electronics Corp, Celina	Tenn
Palmer Ltd, G A Stanley, W Molesey, Surrey	England
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Siemens America Inc, New York	N Y
Sprague Electric Co, North Adams	Mass
Standard Telephones & Cables Ltd London WC 2	England
Stettner-Trush Inc, Cazenovia	N Y
Tansitor Electronics Inc, Bennington	Vt
Telefunken Sales Corp, Garden City	N Y
Texas Instruments Incorporated, Dallas	Tex
Ti-Tal Inc, Santa Monica	Cal
Tokyo Denki Co Ltd, Tokyo	Japan
T R W Capacitor Div, Ogallala	Neb
Union Carbide Corp, Electronics Div, Compnts Dept Greenville	S C
United Mineral & Chemical Corp, New York	N Y

EBG

'the industry's

only computer

compiled directory.

This makes information in the Electronics Buyers' Guide the latest and most accurate anywhere.

Electronics Buyers' Guide

CAPACITORS, FIXED-- ELECTROLYTIC TANTALUM SLUG WET

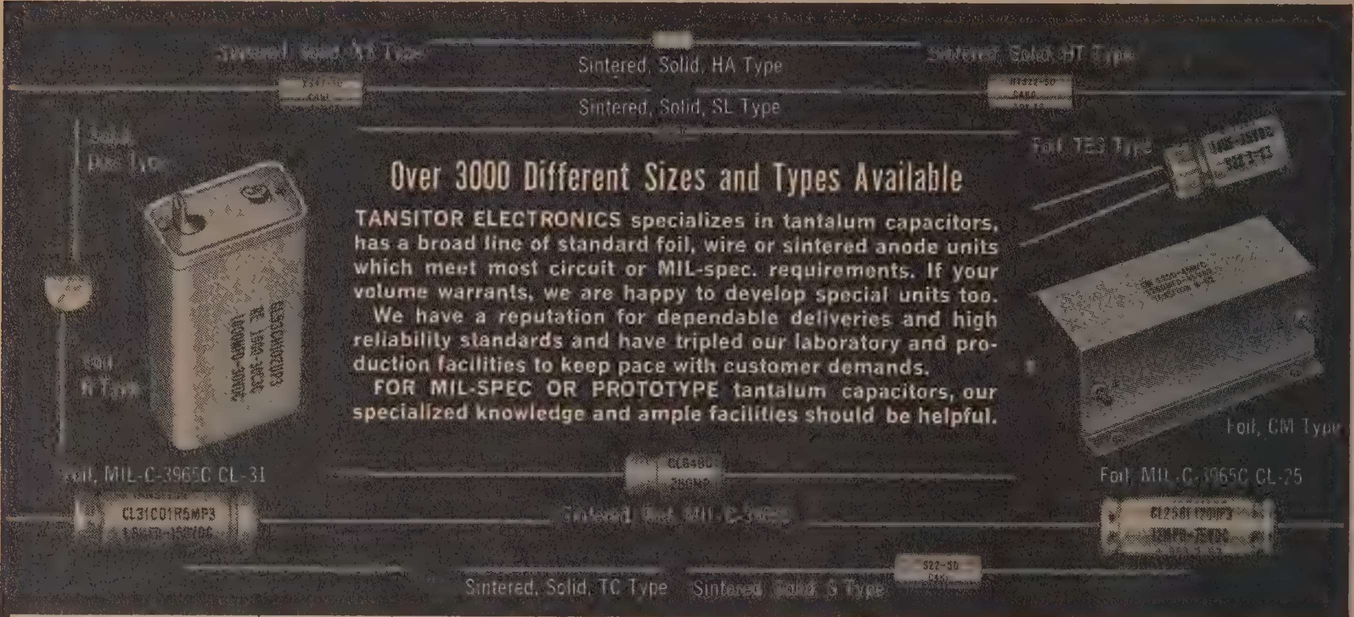
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PG 7**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
MATSUO ELECTRIC CO, LTD, TOYONAKA-SHI, OSAKA	**JAPAN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
TANSITOR ELECTRONICS INC, BENNINGTON, VT	**ADV PG 104**
Avnet Electronics, Westbury	N Y
Barco, Inc, Milwaukee	Wisc
Callins Industries Inc, Greenfield	Tenn
Components Inc Arizona Div, Phoenix	Ariz
Components Inc Capacitor Prods, Biddeford	Me
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Emihus Microcomponents Ltd Hounslow, Middx	England
General Electric Co, ECSO, Schenectady	N Y
General Instrument Europe SPA, Milano	Italy
Gentronics Inc, Clinton	Conn
Hilton Inc, H H, Glens Falls	N Y
Hunter Stanley Electronics Inc, Nashville	Tenn
International Electronics Corp, Melville	NY
International Electronics Industries Div Callins Ind Inc Greenfield	Tenn
ITT Europe Inc Components Gp, Brussels 1	Belgium
Johnson Matthey & Mallory Ltd, Toronto 15	Ont
LCC-CICE, 93 Montreuil-sous-Bois	France
Leclanche SA, Ch - 1401 Yverdon	Switz
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Capacitor Co, Indianapolis	Ind
Matsuo Electric Co, Ltd, Toyonaka-shi, Osaka	Japan
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Metal Ceram Inc, Mount Vernon	N Y
National Capacitors Inc, West Palm Beach	Fla
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Nippon Chemical Condenser Co Ltd, Tokyo	Japan
Nytronics Inc Capacitor Div, Darlington	S C
Ohmite Mfg Co, Skokie	Ill
Oki Electric Industry Co Ltd, Tokyo	Japan
Pac Electronics Corp, Celina	Tenn
Palmer Ltd, G A Stanley, W Molesey, Surrey	England
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Sprague Electric Co, North Adams	Mass
Standard Telephones & Cables Ltd London WC 2	England
Tansitor Electronics Inc, Bennington	Vt
Ti-Tal Inc, Santa Monica	Cal
United Mineral & Chemical Corp, New York	N Y

CAPACITORS, FIXED-- ELECTROLYTIC TANTALUM WIRE

Avnet Electronics, Westbury	N Y
Barco, Inc, Milwaukee	Wisc
Components Inc Arizona Div, Phoenix	Ariz
Components Inc Capacitor Prods, Biddeford	Me
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Elna-Fox Electronics Co Ltd, Tokyo	Japan
Gentronics Inc, Clinton	Conn
International Electronics Corp, Melville	NY
Metal Ceram Inc, Mount Vernon	N Y
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Nytronics Inc Capacitor Div, Darlington	S C
Ohmite Mfg Co, Skokie	Ill
Sampson Electronic Products Div, Chicago	Ill
United Mineral & Chemical Corp, New York	N Y

TANTALUM CAPACITORS?

Your choice is practically unlimited at TANSITOR



Over 3000 Different Sizes and Types Available

TANSITOR ELECTRONICS specializes in tantalum capacitors, has a broad line of standard foil, wire or sintered anode units which meet most circuit or MIL-spec. requirements. If your volume warrants, we are happy to develop special units too.

We have a reputation for dependable deliveries and high reliability standards and have tripled our laboratory and production facilities to keep pace with customer demands.

FOR MIL-SPEC OR PROTOTYPE tantalum capacitors, our specialized knowledge and ample facilities should be helpful.

Type	Tansitor Cat. No.	Temperature Rating, °C	Voltage Range	Capacitance Range, Mfds.		Size Range Inches
				Plain	Etched	
Foil, Axial Leads	TEF	−55 to +85	3 to 150	0.25 to 440	0.5 to 1,750	0.188 x 0.688 to 0.531 x 2.750
MIL-C-3965C Foil, CL24, 25, 26, 27 CL34, 35, 36, 37	MF85	−55 to +85	3 to 150	0.25 to 440	0.5 to 580	0.188 x 0.688 to 0.375 x 2.750
Foil, Axial Leads	TH	−55 to +125	3 to 150	0.15 to 350	0.28 to 1,750	0.188 x 0.688 to 0.531 x 2.781
MIL-C-3965C Foil, CL20, 21, 22, 23 CL30, 31, 32, 33	MF125	−55 to +125	3 to 150	0.15 to 160	0.5 to 580	0.188 x 0.688 to 0.375 x 2.781
Foil, Radial Leads	TES	−55 to +85	6 to 150	1.0 to 90	1.8 to 14,000	0.312 x 0.650 to 0.625 x 2.438
Foil, Axial Leads	THH	−55 to +150	3 to 150	0.15 to 350	0.28 to 580	0.187 x 1.00 to 0.375 x 3.250
Foil, Axial Leads	HV	−55 to +125	200 to 300	0.13 to 35	None	0.187 x 0.750 to 0.531 x 2.875
Foil, Custom Made	CM	−55 to +125	3 to 300	19 to 1,400	120 to 310,000	1.062 x 1.062 x 3.875 to 3.562 x 3.875
Foil, Rectangular	R	−55 to +125	10 to 100	13 to 460	6 to 3,500	1.312 x 0.75 x 1.375 to 1.312 x 0.75 x 250
MIL-C-3965C Foil, CL51, 52, 53, 54	MR	−55 to +125	10 to 100	13 to 460	6 to 3,500	1.312 x 0.75 x 1.37 to 51.312 x 0.75 x 2.50
Foil, Axial Leads	WF	−55 to +125	6 to 300	0.1 to 560		0.188 x 0.453 to 0.375 x 0.766
Foil, Axial Leads	WFHS	−55 to +125	6 to 300	0.1 to 5,600		0.188 x 0.453 to 0.375 x 3.000
Sintered, Solid (P)	S	−80 to +125	6 to 75	0.0047 to 330		0.125 x 0.250 to 0.341 x 0.75
Sintered, Solid (NP)	S	−80 to +125	6 to 50	0.16 to 160		0.145 x 0.540 to 0.366 x 1.520
MIL-C-26655 Solid, CS12, 13	MS	−80 to +125	6 to 75	0.33 to 330		0.125 x 0.250 to 0.0341 x 0.750
Sintered, Solid (P & NP)	MM	−55 to +125	1 to 30	0.001 to 10		0.054 x 0.110 to 0.093 x 0.250
Sintered, Solid (P & NP)	XS	−80 to +125	6 to 50	1.2 to 450		0.125 x 0.250 to 0.341 x 0.750
Sintered, Solid MIL-C-39003	CSR13	−80 to +125	6 to 20	0.0047 to 15		0.125 x 0.250 to 0.175 x 0.438
Economy, Solid (P)	SL	−55 to +85	6 to 50	0.33 to 330		0.140 x 0.350 to 0.375 x 0.800
Sintered, Solid	HA	−55 to +125	2 to 50	0.010 to 47		0.067 x 0.110 to 0.150 x 0.250
Sintered, Solid	TC	−55 to +85	2 to 20	0.0047 to 1.5		0.125 x 0.070 x 0.040 to 0.475 x 0.375 x 0.150
Sintered, Solid	Disc	−80 to +175	3 to 35	0.12 to 40		0.100 x 0.06 to 0.50 x 0.10
Sintered, Wet	W	−55 to +125	6 to 125	1.7 to 1,200		0.188 x 0.453 to 0.375 x 1.250
MIL-C-3965C Wet, CL64, 65	MW	−55 to +125	6 to 125	1.7 to 560		0.188 x 0.453 to 0.375 x 0.766
Sintered, Wet	RW	−55 to +125	6 to 150	130 to 22,000		0.720 x 1.305 x 1.062 to 1.0 x 1.593 x 3.75
MIL-C-3965C Wet, CL55	MRW	−55 to +125	10 to 100	35 to 2,400		0.720 x 1.305 x 1.062 to 0.720 x 1.305 x 2.50

FOR TECHNICAL DATA . . .
and further information or prices
write to TANSITOR ELECTRONICS, INC.
at the address on right.

TANSITOR
ELECTRONICS INCORPORATED
Where Reliability Comes First
Tantalum Capacitors

TANSITOR ELECTRONICS, INC.
WEST ROAD / BENNINGTON, VERMONT
TEL. 802-442-5473 • TWX 710-360-1782

EBG

What's

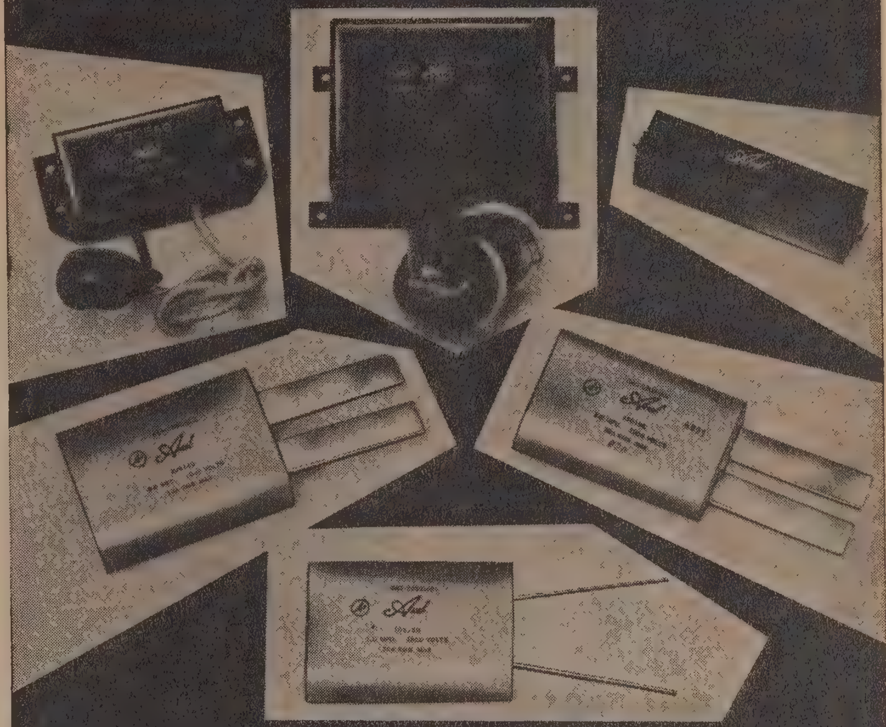
in it

for you?

1. Listing of more than 4,000 products.
2. 6,500 manufacturers with local outlets, addresses and phone numbers.
3. Complete and up-to-date Trade Name Directory
4. The most complete industry source of supply and product specs.

Electronics Buyers' Guide

ACCEPTED & PROVEN WHEREVER CRITICAL PERFORMANCE IS REQUIRED



Reconstituted MICA CAPACITORS

Applications are unlimited . . . Whether your need is on a Military or Commercial program. AXEL engineers will make a reconstituted Mica capacitor to fit your specific need. All within a minimum size and weight factor at the most economical prices.

APPLICATIONS
- High Voltage DC
- DC Energy Storage
- High Current AC Applications
- Low Inductance Energy Storage
- High Voltage Pulse

CONSTRUCTION
- Mylar-Wraps
- Epoxy Case
- Epoxy Molded

CHARACTERISTICS
- High Insulation Resistance
- Low Dissipation Factor
- High Capacitance per Unit volume
- Operating Temperature —55° to 125°C without derating
- Meets Environmental requirements of Mil-C-25 and Mil-C-19978

Our staff of highly imaginative engineers are fully capable of guiding any capacitor problem . . . no matter how complex . . . through various phases of prototype, fabrication, testing and manufacturing. Send us your specifications and applications requirements . . . engineering prototypes are our specialty.

Write for comprehensive brochure

Axel

AXEL ELECTRONICS, INC.
A UNIT OF GENERAL SIGNAL CORPORATION
134-20 Jamaica Ave., Jamaica, N.Y. 11418

Manufacturers of
CAPACITORS • PRECISION WAVE FILTERS • R.F.I. FILTERS • PULSE NETWORKS • PULSE TRANSFORMERS • PULSE PACKAGES • PULSE MODULATORS

NEED HIGH VOLTAGE CAPACITORS FAST?

... Prompt Delivery – NO!

... Immediate Delivery YES!

GLASS CONTAINERS

METAL CAN CONTAINERS

Our list of satisfied "blue chip" customers is growing and growing which necessitated a large expansion of our manufacturing and engineering facilities. Now, we can supply a complete range of voltages from 2,000 to 50,000 volt capacitors from our expanded "stock on hand". Don't take excuses, we'll supply you faster than at any time in our many years in the field—BETTER PRODUCTION FROM US—BETTER DELIVERY FOR YOU!

Write for complete list of Standard High Voltage Capacitors in stock—or, send specifications for custom quotations.

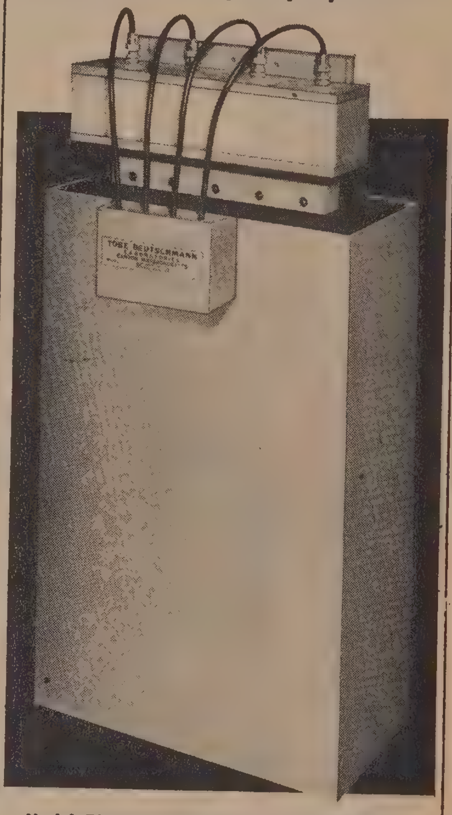
Plastic Capacitors INC

Plastic Capacitors, INC.

2620 N. Clybourn • Chicago 14, Ill.
DI 8-3735

Low-inductance Capacitors

and auxiliary equipment



Model ESC-248A 3-kilojoule, 5-nanohenry capacitor with Model SBG-5 discharge-switch and trigger assembly.

TOBE DEUTSCHMANN energy-storage capacitors provide every desirable characteristic:

- ***Self-inductance as low as 0.5 nanohenry***
- ***Energy—2.5 to 7200 joules***
- ***Voltage—to 1 megavolt***
- ***All styles—coaxial or parallel-plate output***

Our units have proved their reliability, world-wide, in research installations. Write or call us, with your requirement for energy-storage capacitors, discharge switches, or complete banks. We also make PFN's and low-Z pulse lines.

TOBE
—DEUTSCHMANN—
LABORATORIES
CANTON, MASS. 02021: Tel. (617) 828-3366

CAPACITORS, FIXED--ENERGY STORAGE

AMP INCORPORATED, HARRISBURG	**PA**
AXEL ELECTRONICS, INC, JAMAICA N Y	**ADV PG 105**
COMPONENT RESEARCH CO INC, SANTA MONICA CAL	**ADV PG 108**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PG. 7**
INTERELECTRONICS CORP, CONGERS	**N Y**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NITSUKO LTD, KANAGAWA-PREF	**JAPAN**
PLASTIC CAPACITORS INC, CHICAGO, ILL	**ADV PG 106**
R F INTERONICS INC, BAY SHORE	**N Y**
SANGAMO ELECTRIC CO, CAPACITOR DIV, PICKENS	**S C**
TOBE DEUTSCHMANN LABS INC, CANTON MASS	**ADV PG 106**
Aerovox Corp Distr Sales, New Bedford	Mass
Aerovox Corp New Bedford Div, New Bedford	Mass
Alcor Aviation, Inc, San Antonio	Texas
AMP Incorporated, Harrisburg	Pa
Axel Electronics, Inc, Jamaica	N Y
Chicago Condenser Corp, Chicago	Ill
Component Research Co Inc, Santa Monica	Cal
Condensateurs F A C O N, Paris 12e	France
Condenser Products Corp, Brooksville	Fla
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Corson Electric Mfg Corp, East Hampton	Conn
Daytron Inc, Mountain View	Cal
Dearborn Electronics Inc Sub Sprague Elec Co, Orlando	Fla
Del Electronics Corp, Mt Vernon	N Y
Electrical Utilities Co, La Salle	Ill
Electronic Corp of America, Los Angeles	Cal
Emihus Microcomponents Ltd Hounslow, Middx	England
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Film Capacitors Inc, Passaic	N J
General Electric Co, ECSO, Schenectady	N Y
General Laboratory Assoc Inc, Norwich	N Y
Genisco Technology Corp, Compton	Cal
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Gudeman Div Gulton Industries, Inc, Chicago	Ill
High Energy Inc, Malvern	Pa
Industrial Condenser Corp, Chicago	Ill
Interelectronics Corp, Congers	N Y
International Electronics Corp, Melville	NY
ITT Europe Inc Components Gp, Brussels 1	Belgium
Lad Electronics Corp, Hicksville	N Y
Leclanche SA, Ch - 1401 Yverdon	Switz
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McGraw-Edison Power Systems Div, Milwaukee	Wis
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Nitsuko Ltd, Kanagawa-Pref	Japan
Pac Electronics Corp, Celina	Tenn
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plastic Capacitors Inc, Chicago	Ill
Potter Co, Northfield	Ill
R F Interonics Inc, Bay Shore	N Y
San Fernando Electric Mfg Co, San Fernando	Cal
Sangamo Electric Co, Capacitor Div, Pickens	S C
Shinyei Electric Div Shinyei Kaisha Ltd, Kobe	Japan
Sprague Electric Co, North Adams	Mass
STM Corp, Oakland	Cal
Syncro Capacitor Corp, Hicksville	Ohio
Texas Capacitor Co Inc, Houston	Tex
Tobe Deutschmann Labs Inc, Canton	Mass
Tokyo Denki Co Ltd, Tokyo	Japan
U S Capacitor Corp, Burbank	Cal
Wesco Electrical Co Inc, Greenfield	Mass
West-Cap Arizona Div San Fernando Elec Mfg Co Tucson	Ariz

CAPACITORS, FIXED--FEED-THROUGH

AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
AMPEREX ELECTRONIC CORP, COMPONENT DIV, HAUPPAUGE N Y	**ADV PG 98**
AXEL ELECTRONICS, INC, JAMAICA	**N Y**
CAPTOR CORP, TIPP CITY	**OHIO**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE WIS	**ADV PG 411**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PG. 7**
HOPKINS ENGINEERING CO, SAN FERNANDO	**CAL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NITSUKO LTD, KANAGAWA-PREF	**JAPAN**
R F INTERONICS INC, BAY SHORE	**N Y**
STANDARD CONDENSER CORP, CHICAGO	**ILL**
TANSITOR ELECTRONICS INC, BENNINGTON, VT	**ADV PG 104**
Aerovox Corp Distr Sales, New Bedford	Mass
Aerovox Corp New Bedford Div, New Bedford	Mass
Allen-Bradley Co, Milwaukee	Wis
American Components, Inc, Conshohocken	Pa
American Lava Corp, Chattanooga	Tenn
Amperex Electronic Corp, Component Div Hauppauge	N Y
Arco Electronics, Inc, Great Neck	N Y
Axel Electronics, Inc, Jamaica	N Y
Cambridge Thermionic Corp, Cambridge	Mass
Capcon Inc, New York	N Y
Captor Corp, Tipp City	Ohio
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Chicago Condenser Corp, Chicago	Ill
Components Inc Arizona Div, Phoenix	Ariz
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J

Daylen Co, South Gate	Cal
Del Electronics Corp, Mt Vernon	N Y
Denes Co Inc, Burbank	Cal
Electrical Utilities Co, La Salle	Ill
Electro Cube Inc, San Gabriel	Cal
Electro Materials Corp, San Diego	Cal
Elmag Corp, Newark	N J
Elpac Inc, Components Div, Irvine	Cal
Erie Technological Products Inc, Erie	Pa
Estes Engineering Co, Gardena	Cal
Film Capacitors Inc, Passaic	N J
Filtron Co Inc Sub Liquidonics Ind Inc, Flushing	N Y
General Electric Co, ECSO, Schenectady	N Y
General Products Corp, Union Springs	N Y
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Gudeman Div Gulton Industries, Inc, Chicago	Ill
Gulton Industries Inc, Metuchen	N J
Hallett, Inglewood	Cal
Hopkins Engineering Co, San Fernando	Cal
Impectron Inc, New York	N Y
Industrial Condenser Corp, Chicago	Ill
International Electronics Corp, Melville	NY
KCK Co Ltd, Tokyo	Japan
LCC-CICE, 93 Montreuil-sous-Bois	France
Leclanche SA, Ch - 1401 Yverdon	Switz
Maida Development Co, Hampton	Va
Marshall Industries Capacitor Div, Monrovia	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Micromagnetics Div Gulton Ind, Visalia	Cal
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Nitsuko Ltd, Kanagawa-Pref	Japan
Palmer Ltd, G A Stanley, W Molesey, Surrey	England
Phelon Co Inc, R E, East Longmeadow	Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Potter Co, Northfield	Ill
Reliable Capacitors Co, Van Nuys	Cal
R F Interonics Inc, Bay Shore	N Y
Rosenthal-Isolatoren GMBH, 8672 Selb	W Germany
San Fernando Electric Mfg Co, San Fernando	Cal
SEI Manufacturing, Northridge	Cal
Shizuki Electrical Mfg Co Ltd Nishinomiya, Hyogo Pre	Japan
Solar Mfg Corp, Los Angeles	Cal
Sprague Electric Co, North Adams	Mass
Standard Condenser Corp, Chicago	Ill
Stettner-Trush Inc, Cazenovia	N Y
Tansitor Electronics Inc, Bennington	Vt
TDK Electronics Co Ltd, Chiyoda-ku, Tokyo	Japan
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
Transitron Electronic Corp, Wakefield	Mass
United Mineral & Chemical Corp, New York	N Y
U S Capacitor Corp, Burbank	Cal
West-Cap Arizona Div San Fernando Elec Mfg Co Tucson	Ariz

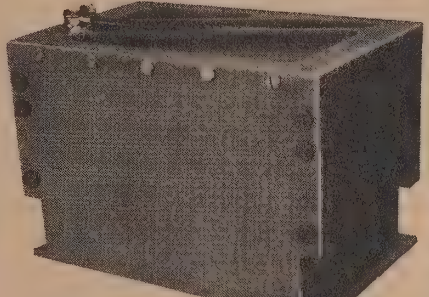
CAPACITORS, FIXED--FILM,METALIZED

AMPEREX ELECTRONIC CORP, COMPONENT DIV, HAUPPAUGE N Y	**ADV PG 98**
AMP INC, CAPITRON DIV, ELIZABETHTOWN, PA	**ADV PG 107**
COMPONENT RESEARCH CO INC, SANTA MONICA CAL	**ADV PG 108**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY [illegible] Y	**ADV PG 7**
HOPKINS ENGINEERING CO, SAN FERNANDO	**CAL**
INTERELECTRONICS CORP, CONGERS	**N Y**
MATSUO ELECTRIC CO, LTD, TOYONAKA-SHI, OSAKA	**JAPAN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MEGADYNE INDUSTRIES INC, ROCHESTER	**N Y**
NITSUKO LTD, KANAGAWA-PREF	**JAPAN**
PLASTIC CAPACITORS INC, CHICAGO	**ILL**
R F INTERONICS INC, BAY SHORE	**N Y**
STANDARD CONDENSER CORP, CHICAGO	**ILL**
Aerovox Corp Distr Sales, New Bedford	Mass
Aerovox Corp New Bedford Div, New Bedford	Mass
Aikow Shoji Kaisha Ltd, Osaka	Japan
Alcor Aviation, Inc, San Antonio	Texas
Amperex Electronic Corp, Component Div Hauppauge	N Y
AMP Inc, Capitron Div, Elizabethtown	Pa
Arco S P A, Milano	Italy
Balco Capacitors, Orange	NJ
British Radio Electronics (BREL), Washington	D C
Capco Inc, Denver	Colo
Capcon Inc, New York	N Y
Chicago Condenser Corp, Chicago	Ill
Component Research Co Inc, Santa Monica	Cal
Condensateurs F A C O N, Paris 12e	France
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Dearborn Electronics Inc Sub Sprague Elec Co, Orlando	Fla
Del Electronics Corp, Mt Vernon	N Y
Dowa Trading Co Ltd, Kobe	Japan
Electrical Utilities Co, La Salle	Ill
Electro Cube Inc, San Gabriel	Cal
Electronic Associates Inc, West Long Branch	N J
Electronic Components Div United Aircraft Corp Trevose	Pa
Elmag Corp, Newark	N J
Elpac Inc, Components Div, Irvine	Cal
Film Capacitors Inc, Passaic	N J
Film Components Div Reon Resister Corp, Yonkers	N Y
Filtron Co Inc Sub Liquidonics Ind Inc, Flushing	N Y
Frankel J M, Nanterre	France
Fujitsu Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
General Products Corp, Union Springs	N Y
Genisco Technology Corp, Compton	Cal
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Gudeman Div Gulton Industries, Inc, Chicago	Ill
High Energy Inc, Malvern	Pa
Hopkins Engineering Co, San Fernando	Cal
Industrial Condenser Corp, Chicago	Ill
Interelectronics Corp, Congers	N Y
International Electronics Corp, Melville	NY
Ionetics Corp, Avenel	N J
ITT Europe Inc Components Gp, Brussels 1	Belgium
Lake Engineering Co Ltd, Scarborough	Ont
LCC-CICE, 93 Montreuil-sous-Bois	France
Leclanche SA, Ch - 1401 Yverdon	Switz
Marshall Industries Capacitor Div, Monrovia	Cal
Matsuo Electric Co, Ltd, Toyonaka-shi, Osaka	Japan
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Megadyne Industries Inc, Rochester	N Y
Mullard Ltd, London, WC 1	Eng
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Nitsuko Ltd, Kanagawa-Pref	Japan
Nytronics Inc Capacitor Div, Darlington	S C
Pac Electronics Corp, Celina	Tenn
Paktron Div, Illinois Tool Works Inc, Alexandria	Va
Palmer Ltd, G A Stanley, W Molesey, Surrey	England
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plastic Capacitors Inc, Chicago	Ill
Plessey Airborne Corp, Hillside	NJ
Potter Co, Northfield	Ill
Priester Corp, H E, Scarsdale	N Y
Reliable Capacitors Co, Van Nuys	Cal
R F Interonics Inc, Bay Shore	N Y
San Fernando Electric Mfg Co, San Fernando	Cal
Sanyo Electric Co Ltd, Osaka	Japan
Seacor Inc, Norwood	NJ
SEI Manufacturing, Northridge	Cal
Shinyei Electric Div Shinyei Kaisha Ltd, Kobe	Japan
Shizuki Electrical Mfg Co Ltd Nishinomiya, Hyogo Pre	Japan
Siemens America Inc, New York	N Y
Southern Electronics Corp, Burbank	Cal
Sprague Electric Co, North Adams	Mass
Standard Condenser Corp, Chicago	Ill
Texas Capacitor Co Inc, Houston	Tex
T R W Capacitor Div, Ogallala	Neb
United Mineral & Chemical Corp, New York	N Y
Vac-Ohm Electronics Co, Haddonfield	N J
Wesco Electrical Co Inc, Greenfield	Mass
West-Cap Arizona Div San Fernando Elec Mfg Co Tucson	Ariz

CAPACITORS, FIXED--FILM,NONMETALIZED

AMPEREX ELECTRONIC CORP, COMPONENT DIV, HAUPPAUGE N Y	**ADV PG 98**
AMP INCORPORATED, HARRISBURG	**PA**
AMP INC, CAPITRON DIV, ELIZABETHTOWN, PA	**ADV PG 107**
CAPTOR CORP, TIPP CITY	**OHIO**
COMPONENT RESEARCH CO INC, SANTA MONICA CAL	**ADV PG 108**
ELECTRO MOTIVE MFG CO INC, WILLIMANTIC CONN	**ADV PG 110**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
INTERELECTRONICS CORP, CONGERS	**N Y**
MATSUO ELECTRIC CO, LTD, TOYONAKA-SHI, OSAKA	**JAPAN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NITSUKO LTD, KANAGAWA-PREF	**JAPAN**
PLASTIC CAPACITORS INC, CHICAGO	**ILL**
R F INTERONICS INC, BAY SHORE	**N Y**
STANDARD CONDENSER CORP, CHICAGO	**ILL**
A A A Capacitor, Inc, Cherry Tree	Pa
ADC Electronics, Inc, Harbor City	Cal
Aerovox Corp Distr Sales, New Bedford	Mass
Aerovox Corp New Bedford Div, New Bedford	Mass
Aikow Shoji Kaisha Ltd, Osaka	Japan
Ajax Condenser Co, Inc, Chicago	Ill
Alcor Aviation, Inc, San Antonio	Texas
Amperex Electronic Corp, Component Div Hauppauge	N Y
AMP Incorporated, Harrisburg	Pa
AMP Inc, Capitron Div, Elizabethtown	Pa
Arco Electronics, Inc, Great Neck	N Y
Arco S P A, Milano	Italy
Balco Capacitors, Orange	NJ
British Radio Electronics (BREL), Washington	D C
Capco Inc, Denver	Colo
Capcon Inc, New York	N Y
Captor Corp, Tipp City	Ohio
Chicago Condenser Corp, Chicago	Ill
Component Research Co Inc, Santa Monica	Cal
Condenser Products Corp, Brooksville	Fla
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Corson Electric Mfg Corp, East Hampton	Conn
Cosmic Radio Corp, New York	N Y
Dearborn Electronics Inc Sub Sprague Elec Co, Orlando	Fla
Del Electronics Corp, Mt Vernon	N Y
Dowa Trading Co Ltd, Kobe	Japan
Electrical Utilities Co, La Salle	Ill
Electro Cube Inc, San Gabriel	Cal
Electro Motive Mfg Co Inc, Willimantic	Conn
Elmag Corp, Newark	N J
Elpac Inc, Components Div, Irvine	Cal
Film Capacitors Inc, Passaic	N J
Filtron Co Inc Sub Liquidonics Ind Inc, Flushing	N Y
Fujitsu Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
General Instrument Corp, Capacitor Grp, Newark	N J
General Products Corp, Union Springs	N Y
Gudeman Div Gulton Industries, Inc, Chicago	Ill
High Energy Inc, Malvern	Pa
Industrial Condenser Corp, Chicago	Ill
Interelectronics Corp, Congers	N Y
International Electronics Corp, Melville	NY
Ionetics Corp, Avenel	N J
Lake Engineering Co Ltd, Scarborough	Ont
LCC-CICE, 93 Montreuil-sous-Bois	France

We design high energy density capacitors to fit.



A typical AMPLIFILM* capacitor assembly. Even un-encapsulated, the exclusive dielectric construction provides moisture resistance meeting MIL-STD-202 (Method 106), making possible an energy efficiency greater than 0.6 joules per cubic inch without the encumbrance of a metal case.

- Capacitance: 0.1 μf ±5%
- Voltage rating: 40,000 volts DC
- Power factor: 0.5% max.
- Temperature Range: −55°C to +100°C
- Size: 4½" x 4½" x 6½" max.
- Weight: 9½ lbs.

We can supply units rated from 4,000 to 60,000 Volts DC with capacitances from 100 pf to 1.0 μf and higher. Ask us to build you a high-energy-density capacitor that makes the best use of your available space. Call or write, today.

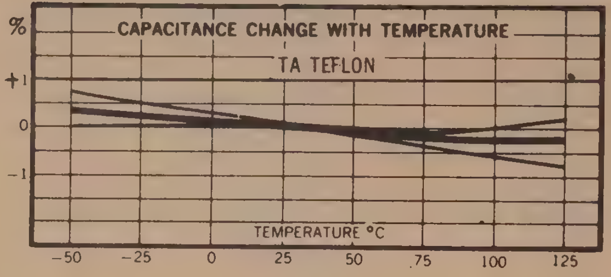
*Trademark of AMP Incorporated

AMP
INCORPORATED

CAPITRON DIVISION
155 Park Street • Elizabethtown, Pa.
717-367-1105 • TWX: 510-675-4561

COMPONENT RESEARCH COMPANY, INC.

HIGH RELIABILITY FILM CAPACITORS



Component Research Company specializes in high quality polycarbonate and teflon film capacitors for space and defense which exceed military specifications. A large stock of high reliability capacitors with burn-in cycling and test data approved for Apollo, F-111 and many other programs is maintained including standard and non-standard values.

Listed below are the condensed specifications covering three popular 50 volt capacitor styles. For complete information, additional types and voltage ratings, see our EEM (Electronic Engineers Master) listing containing 20 pages of catalog data.

COMPONENT RESEARCH CO.

1717 19th STREET / SANTA MONICA, CALIFORNIA 90404
(213) 393-3755 TWX (910) 343-6864

05TA TEFLON SPECIFICATIONS

OPERATING TEMPERATURE
-62°C to 125°C

TEMPERATURE COEFFICIENT
±0.6% -55°C to 125°C

STABILITY
0.1% Max drift with 5 cycles at -55°C to 125°C

INSULATION RESISTANCE
200,000 Megohms minimum at 25°C,
10,000 Megohms minimum at 125°C

DIELETRIC ABSORPTION
0.02% Maximum at 25°C

DISSIPATION FACTOR
0.03% Maximum at 25°C

HERMETIC SEAL TEST
1 x 10^{-6} ATM-CC/sec Max leak rate

Quality Assurance

"TA" TEFLON CAPACITORS ARE 100% PROCESSED AND TESTED AS FOLLOWS:

1. Stabilization by temperature cycling from -62°C to 125°C, 5 cycles minimum.
2. Mass spectrometer hermetic seal test per MIL-STD-202, Method 112, condition C. procedure III A.
3. Dielectric strength test at a minimum of 200% of rated voltage, lead to lead and leads to case.
4. Insulation resistance at rated voltage and 25°C.
5. Capacitance tolerance at 1 KHz and 25°C.
6. Dissipation factor at 25°C.
7. Visual inspection for dimensions, marking, and packaging.
8. Traceability to production and test records by permanent marking of parts with lot control number.
9. Process and inspection data is maintained on file per NPC-200-3 and Mil-Q-9858 quality control standards.

50 VOLT TA TEFLON

*ADD TOLERANCE LETTER AFTER PART NO.

				PRICES 1-6			
Part No.	MFD	± .01 Diam.	± .03 Length	2% tol. *GN	1% tol. *FN	½% tol. *DN	¼% tol. *BN
05TA102	.001	.235	.687	$5.10	$5.70	$7.50	$9.95
05TA202	.002	.235	.687	5.10	5.70	7.50	9.95
05TA502	.005	.235	.687	5.10	[illegible]	7.50	9.95
05TA103	.01	.235	.687	5.10	5.70	7.50	9.95
05TA123	.012	.235	.687	5.10	5.70	7.50	9.95
05TA153	.015	.312	.687	5.40	[illegible]	7.75	9.95
05TA203	.02	.312	.687	5.60	[illegible]	7.95	9.95
05TA223	.022	.312	.687	5.70	[illegible]	8.35	9.95
05TA333	.033	.312	.687	[illegible]	7.20	8.95	10.85
05TA473	.047	.312	.687	[illegible]	[illegible]	9.60	11.80
05TA503	.05	.312	.687	[illegible]	[illegible]	9.60	11.80
05TA683	.068	.312	.813	[illegible]	9.50	11.50	13.10
05TA823	.082	.312	.937	[illegible]	[illegible]	12.75	14.95
05TA104	.1	.312	.937	9.90	10.75	12.75	14.95
05TA154	.15	.312	1.063	11.10	[illegible]	14.00	16.00
05TA204	.2	.400	1.063	13.35	14.25	16.15	18.10
05TA224	.22	.400	1.063	[illegible]	14.90	16.85	18.80
05TA334	.33	.500	1.125	16.75	17.75	19.75	21.60
05TA474	.47	.562	1.125	[illegible]	[illegible]	21.95	23.85
05TA504	.5	.562	1.125	[illegible]	[illegible]	21.95	23.85
05TA105	1.0	.67	1.375	[illegible]	[illegible]	33.95	36.90
05TA205	2.0	.67	1.875	[illegible]	[illegible]	50.60	52.25

05PL POLYCARBONATE SPECIFICATIONS

OPERATING TEMPERATURE
-62°C to 125°C

TEMPERATURE COEFFICIENT
±0.5% -25°C to 85°C

STABILITY
0.25% Max drift with 5 cycles at -55°C to 125°C

INSULATION RESISTANCE
100,000 Megohms X Mfd minimum at 25°C,
1,000 Megohms X Mfd minimum at 125°C

DIELECTRIC ABSORPTION
0.2% Maximum at 25°C

DISSIPATION FACTOR
0.2% Maximum at 25°C

HERMETIC SEAL TEST
1 x 10^{-6} ATM-CC/Max leak rate

Quality Assurance

"PL" POLYCARBONATE CAPACITORS ARE 100% PROCESSED AND TESTED AS FOLLOWS:

1. Stabilization by temperature cycling from -62°C to 125°C, 5 cycles minimum.
2. Mass spectrometer hermetic seal test per MIL-STD-202, Method 112, condition C. procedure III A.
3. Dielectric strength test at a minimum of 200% of rated voltage, lead to lead and leads to case.
4. Insulation resistance at rated voltage and 25°C.
5. Capacitance tolerance at 1 KHz and 25°C.
6. Dissipation factor at 25°C.
7. Visual inspection for dimensions, marking and packaging.
8. Traceability to production and test records by permanent marking of parts with lot control number.
9. Process and inspection data is maintained on file per NPC-200-3 and Mil-Q-9858 quality control standards.

50 VOLT PL POLYCARBONATE

*ADD TOLERANCE LETTER AFTER PART NO.

				PRICES 1-6			
Part No.	MFD	± .01 Diam.	± .03 Length	5% tol. *J	2% tol. *G	1% tol. *F	½% tol. *D
05PL102	.001	.170	.500	$4.15	$4.90	$5.85	$7.50
05PL202	.002	.170	.500	4.15	4.90	5.85	7.50
05PL502	.005	.170	.500	4.15	4.90	5.85	7.50
05PL103	.01	.170	.562	4.15	4.90	5.85	7.50
05PL153	.015	.170	.562	4.15	4.90	5.85	7.50
05PL223	.022	.193	.562	4.15	4.90	5.85	7.50
05PL273	.027	.193	.562	4.15	4.90	5.85	7.50
05PL333	.033	.193	.562	4.15	4.90	5.85	7.50
05PL393	.039	.170	.687	4.15	4.90	5.85	7.50
05PL473	.047	.170	.687	4.15	4.90	5.85	7.50
05PL503	.05	.170	.687	4.15	4.90	5.85	7.50
05PL683	.068	.193	.687	4.15	4.90	5.85	7.50
05PL823	.082	.193	.813	4.15	4.90	5.85	7.50
05PL104	.1	.193	.813	4.25	4.95	5.90	7.60
05PL154	.15	.235	.687	4.37	5.05	6.00	7.80
05PL224	.22	.235	.813	4.46	5.15	6.15	8.05
05PL274	.27	.312	.687	4.66	5.35	6.35	8.25
05PL334	.33	.312	.687	4.92	5.75	6.75	8.55
05PL474	.47	.312	.813	5.29	6.20	7.20	9.10
05PL504	.50	.400	.813	5.29	6.20	7.20	9.10
05PL105	1.0	.400	1.063	5.78	7.40	8.40	10.30
05PL155	1.5	.400	1.063	6.90	7.95	8.95	10.95
05PL205	2.0	.500	1.125	7.43	8.60	9.60	11.65
05PL305	3.0	.500	1.375	8.60	9.65	10.65	12.70
05PL405	4.0	.562	1.375	9.75	10.80	11.80	13.85
05PL505	5.0	.670	1.375	10.95	12.50	13.50	15.55
05PL106	10.0	.670	1.875	16.65	18.95	19.95	21.05

05PA POLYSTYRENE SPECIFICATIONS

OPERATING TEMPERATURE
-62°C to 85°C

TEMPERATURE COEFFICIENT
±0.5% Maximum -25°C to 70°C

STABILITY
0.15% Max drift with 5 cycles at -62°C to 85°C

INSULATION RESISTANCE
1,000,000 Megohms x Mfd min at 25°C,
250,000 Megohms X Mfd min at 85°C

DIELECTRIC ABSORPTION
0.02% Maximum at 25°C

DISSIPATION FACTOR
0.02% Maximum at 25°C

HERMETIC SEAL TEST
1 x 10^{-6} ATM-CC/sec Max leak rate

Quality Assurance

"PA" POLYSTYRENE CAPACITORS ARE 100% PROCESSED AND TESTED AS FOLLOWS:

1. Temperature cycling from -62°C to 85°C, 5 cycles minimum.
2. Mass spectrometer hermetic seal test per MIL-STD-202, Method 112, condition C. Procedure III A.
3. Dielectric strength test at a minimum of 200% of rated voltage, lead to lead and leads to case.
4. Insulation resistance at rated voltage and 25°C.
5. Capacitance tolerance at 1KHz and 25°C.
6. Dissipation factor at 1KHz and 25°C.
7. Visual inspection for dimensions, marking, and packaging.
8. Traceability to production and test records by permanent marking of parts with lot control number.
9. Process and inspection data is maintained on file per NPC-200-3 and Mil-Q-9858 quality control standards.

50 VOLT PA POLYSTYRENE

*ADD TOLERANCE LETTER AFTER PART NO.

				PRICES 1-6			
Part No.	MFD.	± .01 Diam.	± .03 Length	5% tol. *J	2% tol. *G	1% tol. *F	½% tol. *D
05PA102	.001	.193	.687	$3.75	$4.50	$5.50	$6.90
05PA222	.0022	.193	.687	3.75	4.50	5.50	6.90
05PA332	.0033	.193	.687	3.75	4.50	5.50	6.90
05PA502	.005	.193	.687	3.75	4.50	5.50	6.90
05PA103	.01	.193	.813	3.75	4.50	5.50	6.90
05PA153	.015	.235	.813	3.75	4.50	5.50	6.90
05PA223	.022	.312	.813	3.75	4.50	5.50	6.90
05PA333	.033	.312	.813	3.75	4.50	5.50	6.90
05PA393	.039	.312	.813	3.75	4.50	5.50	6.90
05PA473	.047	.312	.813	3.75	4.50	5.50	6.90
05PA503	.05	.312	.813	3.75	4.50	5.50	6.90
05PA683	.068	.400	.813	3.75	4.50	5.50	6.90
05PA104	.1	.400	1.063	3.75	4.50	5.50	6.90
05PA154	.15	.400	1.375	3.85	4.60	5.60	7.00
05PA224	.22	.500	1.375	3.90	4.65	5.65	7.05
05PA334	.33	.562	1.375	3.95	4.70	5.70	7.10
05PA474	.47	.562	1.875	4.10	4.85	5.85	7.25
05PA504	.5	.562	1.875	4.10	4.85	5.85	7.25
05PA105	1.0	.750	1.875	5.20	6.10	7.15	9.10
05PA205	2.0	1.0	2.250	7.85	8.30	9.10	11.40

Leclanche SA, Ch - 1401 Yverdon	Switz
Marshall Industries Capacitor Div, Monrovia	Cal
Matsuo Electric Co, Ltd, Toyonaka-shi, Osaka	Japan
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Mial S P A, I 20124 Milano	Italy
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Nitsuko Ltd, Kanagawa-Pref	Japan
Pac Electronics Corp, Celina	Tenn
Paktron Div, Illinois Tool Works Inc, Alexandria	Va
Palmer Ltd, G A Stanley, W Molesey, Surrey	England
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plastic Capacitors Inc, Chicago	Ill
Potter Co, Northfield	Ill
Reliable Capacitors Co, Van Nuys	Cal
R F Interonics Inc, Bay Shore	N Y
San Fernando Electric Mfg Co, San Fernando	Cal
Sanyo Electric Co Ltd, Osaka	Japan
Seacor Inc, Norwood	NJ
SEI Manufacturing, Northridge	Cal
Shinyei Electric Div Shinyei Kaisha Ltd, Kobe	Japan
Shizuki Electrical Mfg Co Ltd Nishinomiya, Hyogo Pre	Japan
Siemens America Inc, New York	N Y
Southern Electronics Corp, Burbank	Cal
Sprague Electric Co, North Adams	Mass
Standard Condenser Corp, Chicago	Ill
Sun Capacitors, Chicago	Ill
Telefunken Sales Corp, Garden City	N Y
Texas Capacitor Co Inc, Houston	Tex
T R W Capacitor Div, Ogallala	Neb
Union Carbide Corp, Electronics Div, Compnts Dept Greenville	S C
United Mineral & Chemical Corp, New York	N Y
Wesco Electrical Co Inc, Greenfield	Mass
West-Cap Arizona Div San Fernando Elec Mfg Co Tucson	Ariz
York Electronics Corp, Brooklyn	N Y

CAPACITORS, FIXED--GAS-FILLED

LAPP INSULATOR CO, INC, LE ROY, N Y	**ADV PGS 109,356,357**
Energy Labs Inc, Woodside	N Y
International Electronics Corp, Melville	NY
ITT Europe Inc Components Gp, Brussels 1	Belgium
Lapp Insulator Co, Inc, Le Roy	N Y

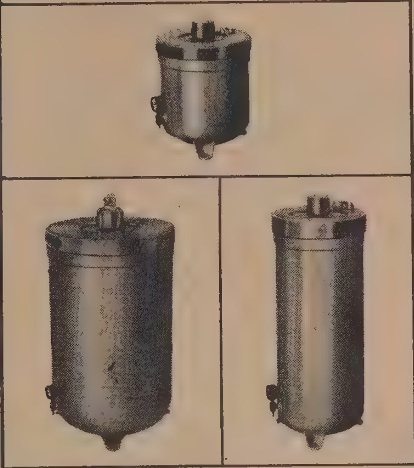
CAPACITORS, FIXED--GLASS

American Technical Ceramics, Huntington Station	N Y
Condenser Products Corp, Brooksville	Fla
Corning Glass Works, Corning	N Y
Electrosil Ltd, Sunderland, Durham	England
High Energy Inc, Malvern	Pa
Hughes Aircraft Co, Newport Beach	Cal
International Electronics Corp, Melville	NY
Lake Engineering Co Ltd, Scarborough	Ont
Shinyei Electric Div Shinyei Kaisha Ltd, Kobe	Japan
Sovcor Electronique, Le Vesinet 78	France
Syncor Products Co, Inc, Malden	Mass
Texas Instruments France, Villeneuve-Loubet	France

CAPACITORS, FIXED--HERMETICALLY SEALED

AMP INCORPORATED, HARRISBURG	**PA**
AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
COMPONENT RESEARCH CO INC, SANTA MONICA CAL	**ADV PG 108**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HOPKINS ENGINEERING CO, SAN FERNANDO	**CAL**
INTERELECTRONICS CORP, CONGERS	**N Y**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
NITSUKO LTD, KANAGAWA-PREF	**JAPAN**
PLASTIC CAPACITORS INC, CHICAGO	**ILL**
R F INTERONICS INC, BAY SHORE	**N Y**
STANDARD CONDENSER CORP, CHICAGO	**ILL**
TANSITOR ELECTRONICS INC, BENNINGTON, VT	**ADV PG 104**
TOBE DEUTSCHMANN LABS INC, CANTON	**MASS**
Aerovox Corp Distr Sales, New Bedford	Mass
Aerovox Corp New Bedford Div, New Bedford	Mass
Alcor Aviation, Inc, San Antonio	Texas
AMP Incorporated, Harrisburg	Pa
AMP Inc, Capitron Div, Elizabethtown	Pa
Arco Electronics, Inc, Great Neck	N Y
Arco S P A, Milano	Italy
Balco Capacitors, Orange	NJ
Capco Inc, Denver	Colo
Capcon Inc, New York	N Y
Chicago Condenser Corp, Chicago	Ill
Component Research Co Inc, Santa Monica	Cal
Components Inc Arizona Div, Phoenix	Ariz
Components Inc Capacitor Prods, Biddeford	Me
Condenser Products Corp, Brooksville	Fla
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Corning Glass Works, Corning	N Y
Daytron Inc, Mountain View	Cal
Dearborn Electronics Inc Sub Sprague Elec Co, Orlando	Fla
Del Electronics Corp, Mt Vernon	N Y
Dickson Electronics Corp, Scottsdale	Ariz
Electrical Utilities Co, La Salle	Ill
Electro Cube Inc, San Gabriel	Cal
Electro Materials Corp, San Diego	Cal
Electronic Corp of America, Los Angeles	Cal
Electrosil Ltd, Sunderland, Durham	England
Elmag Corp, Newark	N J
Elpac Inc, Components Div, Irvine	Cal
Erie Technological Products Inc, Erie	Pa
Film Capacitors Inc, Passaic	N J
Filtron Co Inc Sub Liquidonics Ind Inc, Flushing	N Y
Fujitsu Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
General Laboratory Assoc Inc, Norwich	N Y
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Gudeman Div Gulton Industries, Inc, Chicago	Ill
High Energy Inc, Malvern	Pa
Hopkins Engineering Co, San Fernando	Cal
Hughes Aircraft Co, Newport Beach	Cal
Industrial Condenser Corp, Chicago	Ill
Interelectronics Corp, Congers	N Y
International Electronics Corp, Melville	NY
ITT Europe Inc Components Gp, Brussels 1	Belgium
Johnson Matthey & Mallory Ltd, Toronto 15	Ont
Lad Electronics Corp, Hicksville	N Y
Lake Engineering Co Ltd, Scarborough	Ont
Leclanche SA, Ch - 1401 Yverdon	Switz
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Capacitor Co, Indianapolis	Ind
Marshall Industries Capacitor Div, Monrovia	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Mial S P A, I 20124 Milano	Italy
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Nippon Electric Co Ltd, Tokyo	Japan
Nitsuko Ltd, Kanagawa-Pref	Japan
Nytronics Inc Capacitor Div, Darlington	S C
Palmer Ltd, G A Stanley, W Molesey, Surrey	England
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plastic Capacitors Inc, Chicago	Ill
Plessey Airborne Corp, Hillside	NJ
Potter Co, Northfield	Ill
Reliable Capacitors Co, Van Nuys	Cal
R F Interonics Inc, Bay Shore	N Y
San Fernando Electric Mfg Co, San Fernando	Cal
SEI Manufacturing, Northridge	Cal
Shizuki Electrical Mfg Co Ltd Nishinomiya, Hyogo Pre	Japan
Siemens America Inc, New York	N Y
Southern Electronics Corp, Burbank	Cal
Sprague Electric Co, North Adams	Mass
Sprague of Wisconsin Inc, Grafton	Wis
Standard Condenser Corp, Chicago	Ill
STM Corp, Oakland	Cal
Sun Capacitors, Chicago	Ill
Tansitor Electronics Inc, Bennington	Vt
Texas Capacitor Co Inc, Houston	Tex
Tobe Deutschmann Labs Inc, Canton	Mass
T R W Capacitor Div, Ogallala	Neb
United Electronic Mfg Corp, Union City	N J
United Mineral & Chemical Corp, New York	N Y
U S Capacitor Corp, Burbank	Cal
Wesco Electrical Co Inc, Greenfield	Mass
West-Cap Arizona Div San Fernando Elec Mfg Co Tucson	Ariz
York Electronics Corp, Brooklyn	N Y

LAPP
GAS
FILLED
CAPACITORS
FIXED and VARIABLE TYPES
for high voltage, high current,
high capitance applications.



LAPP INSULATOR CO., INC.
Lapp
LeRoy, N. Y.
14482

CAPACITORS, FIXED--MICA DISK

ELECTRO MOTIVE MFG CO INC, WILLIMANTIC CONN	**ADV PG 110**
SANGAMO ELECTRIC CO, CAPACITOR DIV, PICKENS	**S C**
TOBE DEUTSCHMANN LABS INC, CANTON	**MASS**
Aerovox Corp New Bedford Div, New Bedford	Mass
American Technical Ceramics, Huntington Station	N Y
Anglo American Vulcanized Fibre Co Ltd London EC 1	England
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Electro Motive Mfg Co Inc, Willimantic	Conn
Erie Technological Products Inc, Erie	Pa
Film Components Div Reon Resister Corp, Yonkers	N Y
Fujitsu Ltd, Tokyo	Japan
General Instrument Europe SPA, Milano	Italy
International Electronics Corp, Melville	NY
ITT Europe Inc Components Gp, Brussels 1	Belgium
LCC-CICE, 93 Montreuil-sous-Bois	France
Model Rectifier Corp, Brooklyn	N Y
Morey Corp, Downers Grove	Ill
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Reon Resistor Corp, Yonkers	N Y
Sangamo Electric Co, Capacitor Div, Pickens	S C
Sanyo Electric Co Ltd, Osaka	Japan
Tobe Deutschmann Labs Inc, Canton	Mass
United Mineral & Chemical Corp, New York	N Y

DEPEND ON
PROGRESS
Electronics
for sure delivery
DEPEND ON
SPRAGUE
THE MARK OF RELIABILITY
for quality performance
▪ CAPACITORS
▪ RESISTORS
SUPERMARKET INVENTORIES
SHELF STOCKED IN BREADTH
AND DEPTH FOR SPOT DELIVERY
Call (516) GE 3-1700
TWX No. 510-221-1896
PROGRESS Electronics
Engineers Hill / Plainview, L. I., N. Y.

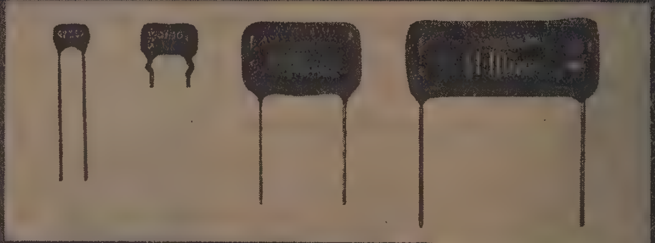
For Capacitors with GREATER RELIABILITY . . .

Choose

El-Menco

The Capacitors You Find Wherever There's Electronics!

EL-MENCO DUR-MICA CAPACITORS



Only 1 Failure Per 43,000,000 Unit-Hours!

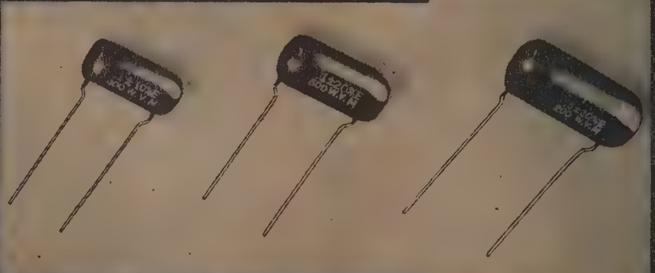
- It has been computed that "debugged" DM30, 10,000 MMF units, when subjected to 257,000 hours of life at 85°C with 100% of the rated DC voltage applied, will yield only 1 FAILURE PER 43,000,000 UNIT-HOURS!
- DM15, DM16, DM19, DM20 . . . perfect for miniaturization and for new designs using printed wiring circuits. Also available in DM30, DM42 and DM43.
- New "hairpin" parallel leads insure easy application.
- Exceed all electrical requirements of military specification MIL-C-5A.

EL-MENCO TRIMMERS & PADDERS

Design Versatility!

- Available in 350 VDC and 500 VDC as well as other test voltages.
- All bases are of low-loss steatite.
- Special lugs are obtainable for printed circuitry.
- Miniature units are available.
- Solder Lugs can be bent in any position without affecting the capacity setting due to the rigid construction.
- Various types of mounting brackets are available for all trimmers.
- Units can be constructed for special applications.

EL-MENCO *MYLAR-PAPER DIPPED CAPACITORS

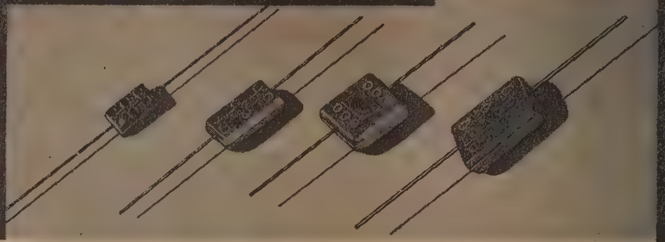


Only 1 Failure in 14,336,000 Unit-Hours!

- Life tests at 105°C with rated voltage applied have yielded only 1 FAILURE PER 1,433,600 UNIT-HOURS for 1 MFD. Since the number of unit-hours for these capacitors is inversely proportional to the capacitance, 0.1 MFD Mylar-Paper Dipped capacitors will yield only 1 FAILURE PER 14,336,000 UNIT-HOURS!
- Working volts DC: 200, 400, 600, 1000 and 1600.
- Durez phenolic resin impregnated.
- Tolerances: ± 10% and ± 20% (closer tolerances available).
- Dielectric strength: 2 or 2½ times rated voltage, depending upon working voltage.
- Exceed all electrical requirements of E.I.A. specification RS-164 and military specifications MIL-C-91A and MIL-C-25A.

*Registered Trademark of DuPont Co.

EL-MENCO MOLDED MICA CAPACITORS



Superior Performance!

- Unmatched for excellent stability, dielectric strength, high insulation resistance, extremely high "Q" and correspondingly low power factor.
- Units can be subjected to a short 'debugging" life test at elevated voltage and temperature for removal of early life failures and for improved reliability.

Write for Free Samples and Booklets on Any of The Above Capacitors

THE ELECTRO MOTIVE MFG. CO., INC.

WILLIMANTIC, CONNECTICUT 06226

Dipped Mica • Molded Mica • Silvered Mica Films • Mica Trimmers & Padders
Mylar-Paper Dipped • Paper Dipped • Mylar Dipped • Tubular Paper

West Coast Manufacturers contact: COLLINS & HYDE CO., 900 N. San Antonio Rd., Los Altos, California 94022
5380 Whittier Blvd., Los Angeles, California 90022

ALSO SOLD NATIONALLY THROUGH ELECTRONIC PARTS DISTRIBUTORS

CAPACITORS, FIXED--MICA GENERAL PURPOSE

AMP INCORPORATED, HARRISBURG	**PA**
ELECTRO MOTIVE MFG CO INC, WILLIMANTIC CONN	**ADV PG 110**
NITSUKO LTD, KANAGAWA-PREF	**JAPAN**
SANGAMO ELECTRIC CO, CAPACITOR DIV, PICKENS	**S C** **ADV PG 111**
Aerovox Corp Distr Sales, New Bedford	Mass
Aerovox Corp New Bedford Div, New Bedford	Mass
Aikow Shoji Kaisha Ltd, Osaka	Japan
AMP Incorporated, Harrisburg	Pa
Anglo American Vulcanized Fibre Co Ltd London EC 1	England
Arco Electronics, Inc, Great Neck	N Y
British Radio Electronics (BREL), Washington	D C
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Electro Motive Mfg Co Inc, Willimantic	Conn
Fujitsu Ltd, Tokyo	Japan
General Instrument Corp, Capacitor Grp, Newark	N J
General Instrument Europe SPA, Milano	Italy
International Electronics Corp, Melville	NY
ITT Europe Inc Components Gp, Brussels 1	Belgium
LCC-CICE, 93 Montreuil-sous-Bois	France
Leeds & Northrup Co, Philadelphia	Pa
Materials for Electronics, Inc, Jamaica	N Y
Mial S P A, I 20124 Milano	Italy
Model Rectifier Corp, Brooklyn	N Y
Morey Corp, Downers Grove	Ill
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Nitsuko Ltd, Kanagawa-Pref	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Plessey Airborne Corp, Hillside	NJ
Sangamo Electric Co, Springfield	Ill
Sangamo Electric Co, Capacitor Div, Pickens	S C
Sprague Electric Co, North Adams	Mass
Sprague of Wisconsin Inc, Grafton	Wis
Standard Telephones & Cables Ltd London WC 2	England
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
Transitron Electronic Corp, Wakefield	Mass
United Mineral & Chemical Corp, New York	N Y

CAPACITORS, FIXED--MYLAR SEE CAPACITORS, FIXED--POLYESTER FILM

CAPACITORS, FIXED--MYLAR METALIZED

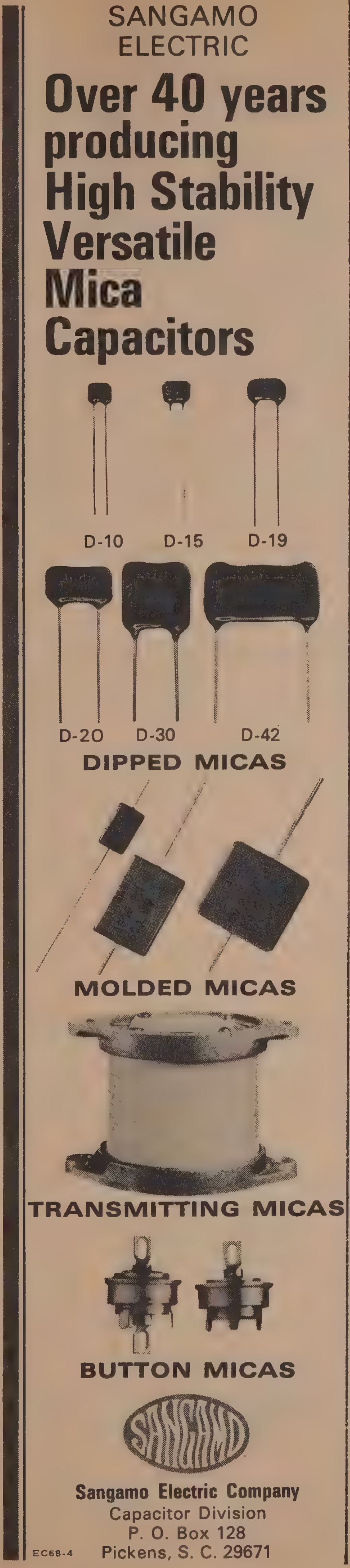
AMPEREX ELECTRONIC CORP, COMPONENT DIV, HAUPPAUGE N Y	**ADV PG 98**
COMPONENT RESEARCH CO INC, SANTA MONICA CAL	**ADV PG 108**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PG 7**
HOPKINS ENGINEERING CO, SAN FERNANDO	**CAL**
MATSUO ELECTRIC CO, LTD, TOYONAKA-SHI, OSAKA	**JAPAN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
NITSUKO LTD, KANAGAWA-PREF	**JAPAN**
PLASTIC CAPACITORS INC, CHICAGO	**ILL**
R F INTERONICS INC, BAY SHORE	**N Y**
STANDARD CONDENSER CORP, CHICAGO	**ILL**
Aerovox Corp Distr Sales, New Bedford	Mass
Aerovox Corp New Bedford Div, New Bedford	Mass
Aikow Shoji Kaisha Ltd, Osaka	Japan
Alcor Aviation, Inc, San Antonio	Texas
Amperex Electronic Corp, Component Div Hauppauge	N Y
Arco S P A, Milano	Italy
Balco Capacitors, Orange	NJ
Callins Industries Inc, Greenfield	Tenn
Capco Inc, Denver	Colo
Capcon Inc, New York	N Y
Chicago Condenser Corp, Chicago	Ill
Component Research Co Inc, Santa Monica	Cal
Condensateurs F A C O N, Paris 12e	France
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Dearborn Electronics Inc Sub Sprague Elec Co, Orlando	Fla
Del Electronics Corp, Mt Vernon	N Y
Dowa Trading Co Ltd, Kobe	Japan
Electrical Utilities Co, La Salle	Ill
Electro Cube Inc, San Gabriel	Cal
Electronic Associates Inc,.West Long Branch	N J
Elmag Corp, Newark	N J
Elpac Inc, Components Div, Irvine	Cal
Film Capacitors Inc, Passaic	N J
Filtron Co Inc Sub Liquidonics Ind Inc, Flushing	N Y
Frankel J M, Nanterre	France
Fujitsu Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
General Products Corp, Union Springs	N Y
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Gudeman Div Gulton Industries, Inc, Chicago	Ill
Gulton Industries Inc, Metuchen	N J
Hopkins Engineering Co, San Fernando	Cal
Industrial Condenser Corp, Chicago	Ill
International Electronics Corp, Melville	NY
International Electronics Industries Div Callins Ind Inc Greenfield	Tenn
Ionetics Corp, Avenel	N J
ITT Europe Inc Components Gp, Brussels 1	Belgium
Lake Engineering Co Ltd, Scarborough	Ont
LCC-CICE, 93 Montreuil-sous-Bois	France
Marshall Industries Capacitor Div, Monrovia	Cal
Matsuo Electric Co, Ltd, Toyonaka-shi, Osaka	Japan
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Model Rectifier Corp, Brooklyn	N Y
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Nippon Electric Co Ltd, Tokyo	Japan
Nitsuko Ltd, Kanagawa-Pref	Japan
Nytronics Inc Capacitor Div, Darlington	S C
Okaya Electric Industries Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Paktron Div, Illinois Tool Works Inc, Alexandria	Va
Palmer Ltd, G A Stanley, W Molesey, Surrey	England
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plastic Capacitors Inc, Chicago	Ill
Plessey Airborne Corp, Hillside	NJ
Potter Co, Northfield	Ill
Presin Co Inc, Shelton	Conn
Priester Corp, H E, Scarsdale	N Y
Reliable Capacitors Co, Van Nuys	Cal
R F Interonics Inc, Bay Shore	N Y
Sampson Electronic Products Div, Chicago	Ill
San Fernando Electric Mfg Co, San Fernando	Cal
Seacor Inc, Norwood	NJ
SEI Manufacturing, Northridge	Cal
Shinyei Electric Div Shinyei Kaisha Ltd, Kobe	Japan
Shizuki Electrical Mfg Co Ltd Nishinomiya, Hyogo Pre	Japan
Siemens America Inc, New York	N Y
Southern Electronics Corp, Burbank	Cal
Sprague Electric Co, North Adams	Mass
Standard Condenser Corp, Chicago	Ill
Stettner-Trush Inc, Cazenovia	N Y
Texas Capacitor Co Inc, Houston	Tex
Transitron Electronic Corp, Wakefield	Mass
T R W Capacitor Div, Ogallala	Neb
United Mineral & Chemical Corp, New York	N Y
Wesco Electrical Co Inc, Greenfield	Mass
West-Cap Arizona Div San Fernando Elec Mfg Co Tucson	Ariz

CAPACITORS, FIXED--NIOBIUM

Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
International Electronics Corp, Melville	NY

CAPACITORS, FIXED--OIL-FILLED

AMP INCORPORATED, HARRISBURG	**PA**
AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
AXEL ELECTRONICS, INC, JAMAICA	**N Y**
CAPTOR CORP, TIPP CITY	**OHIO**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PG 7**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NITSUKO LTD, KANAGAWA-PREF	**JAPAN**
PLASTIC CAPACITORS INC, CHICAGO	**ILL**
R F INTERONICS INC, BAY SHORE	**N Y**
SANGAMO ELECTRIC CO, CAPACITOR DIV, PICKENS	**S C**
STANDARD CONDENSER CORP, CHICAGO	**ILL**
TOBE DEUTSCHMANN LABS INC, CANTON	**MASS**
Aerovox Corp Distr Sales, New Bedford	Mass
Aerovox Corp New Bedford Div, New Bedford	Mass
AMP Incorporated, Harrisburg	Pa
AMP Inc, Capitron Div, Elizabethtown	Pa
Arco S P A, Milano	Italy
Axel Electronics, Inc, Jamaica	N Y
Captor Corp, Tipp City	Ohio
Chicago Condenser Corp, Chicago	Ill
Condenser Products Corp, Brooksville	Fla
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Corson Electric Mfg Corp, East Hampton	Conn
Daytron Inc, Mountain View	Cal
Dearborn Electronics Inc Sub Sprague Elec Co, Orlando	Fla
Dowa Trading Co Ltd, Kobe	Japan
Electrical Utilities Co, La Salle	Ill
Electronic Corp of America, Los Angeles	Cal
Elmag Corp, Newark	N J
Elpac Inc, Components Div, Irvine	Cal
Film Capacitors Inc, Passaic	N J
Filtron Co Inc Sub Liquidonics Ind Inc, Flushing	N Y
General Electric Co, ECSO, Schenectady	N Y
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Gudeman Div Gulton Industries, Inc, Chicago	Ill
Hallett, Inglewood	Cal
High Energy Inc, Malvern	Pa
Industrial Condenser Corp, Chicago	Ill
International Electronics Corp, Melville	NY
Lad Electronics Corp, Hicksville	N Y
Lake Engineering Co Ltd, Scarborough	Ont
Leclanche SA, Ch - 1401 Yverdon	Switz
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Capacitor Co, Indianapolis	Ind
Marshall Industries Capacitor Div, Monrovia	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McGraw-Edison Power Systems Div, Milwaukee	Wis
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Nitsuko Ltd, Kanagawa-Pref	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland


SANGAMO
ELECTRIC

Over 40 years producing High Stability Versatile Mica Capacitors

D-10 D-15 D-19

D-20 D-30 D-42

DIPPED MICAS

MOLDED MICAS

TRANSMITTING MICAS

BUTTON MICAS

SANGAMO

Sangamo Electric Company
Capacitor Division
P. O. Box 128
Pickens, S. C. 29671

EC68-4

Plastic Capacitors Inc, Chicago	Ill
Potter Co, Northfield	Ill
R F Interonics Inc, Bay Shore	N Y
San Fernando Electric Mfg Co, San Fernando	Cal
Sangamo Electric Co, Capacitor Div, Pickens	S C
Shinyei Electric Div Shinyei Kaisha Ltd, Kobe	Japan
Shizuki Electrical Mfg Co Ltd Nishinomiya, Hyogo Pre	Japan
Southern Electronics Corp, Burbank	Cal
Sprague Electric Co, North Adams	Mass
Standard Condenser Corp, Chicago	Ill
Standard Telephones & Cables Ltd London WC 2	England
Sun Capacitors, Chicago	Ill
Tobe Deutschmann Labs Inc, Canton	Mass
Tokyo Denki Co Ltd, Tokyo	Japan
T R W Capacitor Div, Ogallala	Neb
United Mineral & Chemical Corp, New York	N Y
Wesco Electrical Co Inc, Greenfield	Mass
West-Cap Arizona Div San Fernando Elec Mfg Co Tucson	Ariz
York Electronics Corp, Brooklyn	N Y

EBG — the industry's store.

Your marketplace for products

CAPACITORS, FIXED-- PAPER,METALIZED

AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PG 7**
HOPKINS ENGINEERING CO, SAN FERNANDO	**CAL**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
MATSUO ELECTRIC CO, LTD, TOYONAKA-SHI, OSAKA	**JAPAN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NITSUKO LTD, KANAGAWA-PREF	**JAPAN**
PLASTIC CAPACITORS INC, CHICAGO	**ILL**
R F INTERONICS INC, BAY SHORE	**N Y**
Aerovox Corp Distr Sales, New Bedford	Mass
Aerovox Corp New Bedford Div, New Bedford	Mass
Aikow Shoji Kaisha Ltd, Osaka	Japan
AMP Inc, Capitron Div, Elizabethtown	Pa
Arco S P A, Milano	Italy
Chicago Condenser Corp, Chicago	Ill
Condensateurs F A C O N, Paris 12e	France
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Dearborn Electronics Inc Sub Sprague Elec Co, Orlando	Fla
Del Electronics Corp, Mt Vernon	N Y
Dowa Trading Co Ltd, Kobe	Japan
Electrical Utilities Co, La Salle	Ill
Electro Cube Inc, San Gabriel	Cal
Elmag Corp, Newark	N J
Elpac Inc, Components Div, Irvine	Cal
Film Capacitors Inc, Passaic	N J
Filtron Co Inc Sub Liquidonics Ind Inc, Flushing	N Y
Frankel J M, Nanterre	France
Fujitsu Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
General Products Corp, Union Springs	N Y
Gudeman Div Gulton Industries, Inc, Chicago	Ill
Gulton Industries Inc, Metuchen	N J
Hopkins Engineering Co, San Fernando	Cal
International Electronics Corp, Melville	NY
ITT Europe Inc Components Gp, Brussels 1	Belgium
Lake Engineering Co Ltd, Scarborough	Ont
Leclanche SA, Ch - 1401 Yverdon	Switz
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Capacitor Co, Indianapolis	Ind
Marshall Industries Capacitor Div, Monrovia	Cal
Matsuo Electric Co, Ltd, Toyonaka-shi, Osaka	Japan
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Nippon Chemical Condenser Co Ltd, Tokyo	Japan
Nitsuko Ltd, Kanagawa-Pref	Japan
Nytronics Inc Capacitor Div, Darlington	S C
Oneida Electronic Mfg Co, Meadville	Pa
Pac Electronics Corp, Celina	Tenn
Plastic Capacitors Inc, Chicago	Ill
Potter Co, Northfield	Ill
Presin Co Inc, Shelton	Conn
Priester Corp, H E, Scarsdale	N Y
R F Interonics Inc, Bay Shore	N Y
SEI Manufacturing, Northridge	Cal
Shinyei Electric Div Shinyei Kaisha Ltd, Kobe	Japan
Shizuki Electrical Mfg Co Ltd Nishinomiya, Hyogo Pre	Japan
Siemens America Inc, New York	N Y
Sprague Electric Co, North Adams	Mass
Standard Telephones & Cables Ltd London WC 2	England
Stettner-Trush Inc, Cazenovia	N Y
Tokyo Denki Co Ltd, Tokyo	Japan
T R W Capacitor Div, Ogallala	Neb
United Mineral & Chemical Corp, New York	N Y
Wesco Electrical Co Inc, Greenfield	Mass
West-Cap Arizona Div San Fernando Elec Mfg Co Tucson	Ariz

CAPACITORS, FIXED-- PAPER,NONMETALIZED

AMP INCORPORATED, HARRISBURG	**PA**
AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
ELECTRO MOTIVE MFG CO INC, WILLIMANTIC CONN	**ADV PG 110**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PG 7**
MATSUO ELECTRIC CO, LTD, TOYONAKA-SHI, OSAKA	**JAPAN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NITSUKO LTD, KANAGAWA-PREF	**JAPAN**
PLASTIC CAPACITORS INC, CHICAGO	**ILL**
R F INTERONICS INC, BAY SHORE	**N Y**
SANGAMO ELECTRIC CO, CAPACITOR DIV, PICKENS	**S C**
STANDARD CONDENSER CORP, CHICAGO	**ILL**
A A A Capacitor, Inc, Cherry Tree	Pa
Aerovox Corp Distr Sales, New Bedford	Mass
Aerovox Corp New Bedford Div, New Bedford	Mass
Ajax Condenser Co, Inc, Chicago	Ill
AMP Incorporated, Harrisburg	Pa
AMP Inc, Capitron Div, Elizabethtown	Pa
Chicago Condenser Corp, Chicago	Ill
Condensateurs F A C O N, Paris 12e	France
Condenser Products Corp, Brooksville	Fla
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Cosmic Radio Corp, New York	N Y
Dearborn Electronics Inc Sub Sprague Elec Co, Orlando	Fla
Dowa Trading Co Ltd, Kobe	Japan
Electrical Utilities Co, La Salle	Ill
Electro Motive Mfg Co Inc, Willimantic	Conn
Electronic Corp of America, Los Angeles	Cal
Elmag Corp, Newark	N J
Elpac Inc, Components Div, Irvine	Cal
Film Capacitors Inc, Passaic	N J
Filtron Co Inc Sub Liquidonics Ind Inc, Flushing	N Y
Fujitsu Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
Gudeman Div Gulton Industries, Inc, Chicago	Ill
Gulton Industries Inc, Metuchen	N J
High Energy Inc, Malvern	Pa
Industrial Condenser Corp, Chicago	Ill
International Electronics Corp, Melville	NY
Lake Engineering Co Ltd, Scarborough	Ont
Leclanche SA, Ch - 1401 Yverdon	Switz
Marshall Industries Capacitor Div, Monrovia	Cal
Matsuo Electric Co, Ltd, Toyonaka-shi, Osaka	Japan
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McGraw-Edison Power Systems Div, Milwaukee	Wis
New York Coil Co Inc, Phoenixville	Pa
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Nitsuko Ltd, Kanagawa-Pref	Japan
Nytronics Inc Capacitor Div, Darlington	S C
Palmer Ltd, G A Stanley, W Molesey, Surrey	England
Phelon Co Inc, R E, East Longmeadow	Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plastic Capacitors Inc, Chicago	Ill
Potter Co, Northfield	Ill
Priester Corp, H E, Scarsdale	N Y
R F Interonics Inc, Bay Shore	N Y
San Fernando Electric Mfg Co, San Fernando	Cal
Sangamo Electric Co, Capacitor Div, Pickens	S C
Shinyei Electric Div Shinyei Kaisha Ltd, Kobe	Japan
Shizuki Electrical Mfg Co Ltd Nishinomiya, Hyogo Pre	Japan
Sprague Electric Co, North Adams	Mass
Standard Condenser Corp, Chicago	Ill
Stettner-Trush Inc, Cazenovia	N Y
Sun Capacitors, Chicago	Ill
Tokyo Denki Co Ltd, Tokyo	Japan
T R W Capacitor Div, Ogallala	Neb
Wesco Electrical Co Inc, Greenfield	Mass
West-Cap Arizona Div San Fernando Elec Mfg Co Tucson	Ariz
York Electronics Corp, Brooklyn	N Y

Electronics Buyers' Guide

Your black book of 6500 manufacturers addresses and phone numbers.

Check the green section

CAPACITORS, FIXED-- POLYSTYRENE

COMPONENT RESEARCH CO INC, SANTA MONICA CAL	**ADV PG 108**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PG 7**
INTERELECTRONICS CORP, CONGERS	**N Y**
MATSUO ELECTRIC CO, LTD, TOYONAKA-SHI, OSAKA	**JAPAN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
NITSUKO LTD, KANAGAWA-PREF	**JAPAN**
PLASTIC CAPACITORS INC, CHICAGO	**ILL**
STANDARD CONDENSER CORP, CHICAGO	**ILL**
A A A Capacitor, Inc, Cherry Tree	Pa
Aerovox Corp Distr Sales, New Bedford	Mass
Aerovox Corp New Bedford Div, New Bedford	Mass
Arco Electronics, Inc, Great Neck	N Y
Arco S P A, Milano	Italy
Balco Capacitors, Orange	NJ
Capco Inc, Denver	Colo
Capcon Inc, New York	N Y
Chicago Condenser Corp, Chicago	Ill
Component Research Co Inc, Santa Monica	Cal
Condensateurs F A C O N, Paris 12e	France
Condenser Products Corp, Brooksville	Fla
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Cosmic Radio Corp, New York	N Y
Dearborn Electronics Inc Sub Sprague Elec Co, Orlando	Fla
Del Electronics Corp, Mt Vernon	N Y
Dowa Trading Co Ltd, Kobe	Japan
Electro Cube Inc, San Gabriel	Cal
Electronic Corp of America, Los Angeles	Cal
Erie Technological Products Inc, Erie	Pa
Film Capacitors Inc, Passaic	N J
Fujitsu Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
General Products Corp, Union Springs	N Y
General Radio Co, West Concord	Mass
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Gudeman Div Gulton Industries, Inc, Chicago	Ill
High Energy Inc, Malvern	Pa
Industrial Condenser Corp, Chicago	Ill
Interelectronics Corp, Congers	N Y
International Electronics Corp, Melville	NY
Ionetics Corp, Avenel	N J
ITT Europe Inc Components Gp, Brussels 1	Belgium
Lake Engineering Co Ltd, Scarborough	Ont
LCC-CICE, 93 Montreuil-sous-Bois	France
Leclanche SA, Ch - 1401 Yverdon	Switz
Lignes Telegraphiques et Telephoniques Paris 16	France
Marshall Industries Capacitor Div, Monrovia	Cal
Matsuo Electric Co, Ltd, Toyonaka-shi, Osaka	Japan
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Mial S P A, I 20124 Milano	Italy
Mial USA Inc, Nutley	N J
Model Rectifier Corp, Brooklyn	N Y
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Nippon Electric Co Ltd, Tokyo	Japan
Nitsuko Ltd, Kanagawa-Pref	Japan
Nytronics Inc Capacitor Div, Darlington	S C
Okaya Electric Industries Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plastic Capacitors Inc, Chicago	Ill
Potter Co, Northfield	Ill
Presin Co Inc, Shelton	Conn
Priester Corp, H E, Scarsdale	N Y
Reliable Capacitors Co, Van Nuys	Cal
Sampson Electronic Products Div, Chicago	Ill
San Fernando Electric Mfg Co, San Fernando	Cal
Seacor Inc, Norwood	NJ
SEI Manufacturing, Northridge	Cal
Shinyei Electric Div Shinyei Kaisha Ltd, Kobe	Japan
Siemens America Inc, New York	N Y
Southern Electronics Corp, Burbank	Cal
Sprague Electric Co, North Adams	Mass
Standard Condenser Corp, Chicago	Ill
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
Telefunken Sales Corp, Garden City	N Y
Texas Capacitor Co Inc, Houston	Tex
Transitron Electronic Corp, Wakefield	Mass
T R W Capacitor Div, Ogallala	Neb
United Mineral & Chemical Corp, New York	N Y
Wesco Electrical Co Inc, Greenfield	Mass
West-Cap Arizona Div San Fernando Elec Mfg Co Tucson	Ariz
York Electronics Corp, Brooklyn	N Y

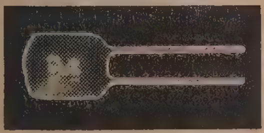
CAPACITORS, FIXED--POLYESTER FILM

AMPEREX ELECTRONIC CORP, COMPONENT DIV, HAUPPAUGE N Y	**ADV PG 98**
AMP INCORPORATED, HARRISBURG	**PA**
AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
COMPONENT RESEARCH CO INC, SANTA MONICA CAL	**ADV PG 108**
ELECTRO MOTIVE MFG CO INC, WILLIMANTIC CONN	**ADV PG 110**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PG 7**
INTERELECTRONICS CORP, CONGERS	**N Y**
MATSUO ELECTRIC CO, LTD, TOYONAKA-SHI, OSAKA JAPAN	**ADV PG 113**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO, JAPAN	
NIPPON ELECTRIC CO LTD, TOKYO, JAPAN	
NITSUKO LTD, KANAGAWA-PREF	**JAPAN**
PLASTIC CAPACITORS INC, CHICAGO	**ILL**
R F INTERONICS INC, BAY SHORE	**N Y**
STANDARD CONDENSER CORP, CHICAGO, ILL	**ADV PG 113**
TOBE DEUTSCHMANN LABS INC, CANTON	**MASS**
A A A Capacitor, Inc, Cherry Tree	Pa
Aerovox Corp Distr Sales, New Bedford	Mass
Aerovox Corp New Bedford Div, New Bedford	Mass
Aikow Shoji Kaisha Ltd, Osaka	Japan
Ajax Condenser Co, Inc, Chicago	Ill
Alcor Aviation, Inc, San Antonio	Texas
Amperex Electronic Corp, Component Div Hauppauge	N Y
AMP Incorporated, Harrisburg	Pa
AMP Inc, Capitron Div, Elizabethtown	Pa
Arco Electronics, Inc, Great Neck	N Y
Arco S P A, Milano	Italy
Balco Capacitors, Orange	NJ
Callins Industries Inc, Greenfield	Tenn
Capco Inc, Denver	Colo
Capcon Inc, New York	N Y
Chicago Condenser Corp, Chicago	Ill
Component Research Co Inc, Santa Monica	Cal
Condensateurs F A C O N, Paris 12e	France
Condenser Products Corp, Brooksville	Fla
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Corson Electric Mfg Corp, East Hampton	Conn
Cosmic Radio Corp, New York	N Y
Daytron Inc, Mountain View	Cal
Dearborn Electronics Inc Sub Sprague Elec Co, Orlando	Fla
Del Electronics Corp, Mt Vernon	N Y
Dowa Trading Co Ltd, Kobe	Japan
Electrical Utilities Co, La Salle	Ill
Electro Cube Inc, San Gabriel	Cal
Electro Motive Mfg Co Inc, Willimantic	Conn
Electronic Associates Inc, West Long Branch	N J
Elmag Corp, Newark	N J
Elpac Inc, Components Div, Irvine	Cal
Erie Technological Products Inc, Erie	Pa
Film Capacitors Inc, Passaic	N J
Filtron Co Inc Sub Liquidonics Ind Inc, Flushing	N Y
Flexible Circuits Inc, Warrington	Pa
Fujitsu Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
General Laboratory Assoc Inc, Norwich	N Y
General Products Corp, Union Springs	N Y
Gudeman Div Gulton Industries, Inc, Chicago	Ill
Gulton Industries Inc, Metuchen	N J
High Energy Inc, Malvern	Pa
Industrial Condenser Corp, Chicago	Ill
Insulating Shapes Inc, Bronx	N Y
Interelectronics Corp, Congers	N Y
International Electronics Corp, Melville	NY
International Electronics Industries Div Callins Ind Inc Greenfield	Tenn
Ionetics Corp, Avenel	N J
Lake Engineering Co Ltd, Scarborough	Ont
LCC-CICE, 93 Montreuil-sous-Bois	France
Marshall Industries Capacitor Div, Monrovia	Cal
Matsuo Electric Co, Ltd, Toyonaka-shi, Osaka	Japan
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Mial S P A, I 20124 Milano	Italy
Mial USA Inc, Nutley	N J
Model Rectifier Corp, Brooklyn	N Y
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Nippon Electric Co Ltd, Tokyo	Japan
Nitsuko Ltd, Kanagawa-Pref	Japan
Okaya Electric Industries Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Pac Electronics Corp, Celina	Tenn
Paktron Div, Illinois Tool Works Inc, Alexandria	Va
Palmer Ltd, G A Stanley, W Molesey, Surrey	England
Phelon Co Inc, R E, East Longmeadow	Mass
Philmore Mfg Co Inc, Richmond Hill	N Y
Plastic Capacitors Inc, Chicago	Ill
Potter Co, Northfield	Ill
Priester Corp, H E, Scarsdale	N Y
Reliable Capacitors Co, Van Nuys	Cal
R F Interonics Inc, Bay Shore	N Y
Sampson Electronic Products Div, Chicago	Ill
San Fernando Electric Mfg Co, San Fernando	Cal
Seacor Inc, Norwood	NJ
SEI Manufacturing, Northridge	Cal
Shinyei Electric Div Shinyei Kaisha Ltd, Kobe	Japan
Shizuki Electrical Mfg Co Ltd Nishinomiya, Hyogo Pre	Japan
Siemens America Inc, New York	N Y
Sprague Electric Co, North Adams	Mass
Standard Condenser Corp, Chicago	Ill
Stettner-Trush Inc, Cazenovia	N Y
Sun Capacitors, Chicago	Ill
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
Telefunken Sales Corp, Garden City	N Y
Texas Capacitor Co Inc, Houston	Tex
Tobe Deutschmann Labs Inc, Canton	Mass

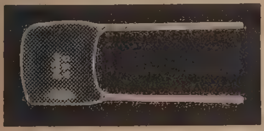
—MATSUO— SPECIALISTS IN FILM AND TANTALUM CAPACITORS

POLYESTER FILM CAPACITORS

Type MFL epoxy dipped



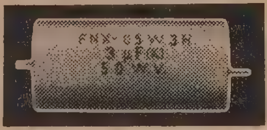
Type MFK epoxy dipped, non inductive



Type MXT encased in plastic tube, non-inductive

METALIZED POLYESTER FILM CAPACITOR

Type FNX-H mylar wrapped

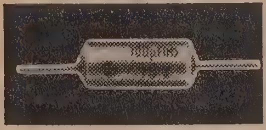


MATSUO capacitors, widely used for automatic controllers, measurement equipment and computers, enjoy great popularity among their numerous consumers.

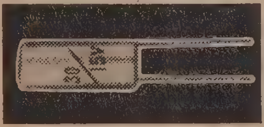
SOLID TANTALUM CAPACITORS

Type TAX hermetically sealed in metallic case

Type TSX encased in metallic case and sealed with epoxy resin



Type TSL encased in metallic case and sealed with epoxy resin



MATSUO ELECTRIC CO., LTD.

Head Office: 3-5, 3-chome, Sennari-cho, Toyonaka-shi, Osaka, Japan
Cable: "NCCMATSUO" OSAKA Telex: 523-4164 OSA
Tokyo Office: 7, 3-chome, Nishi-Gotanda, Shinagawa-ku, Tokyo

METALIZED MYLAR CAPACITORS

ACTUAL SIZE

STANDARD
2.0-200V
TYPE M2W

M2W SERIES

ANY SIZE, VALUE, VOLTAGE AND TOLERANCE

to your exact specifications... at stock prices

Unique, self-healing units that remain in circuit during voltage surges with little or no loss of electrical properties. Use the M2W's where size and weight are limiting factors and long life and dependability are required. The units utilize metalized Mylar* Dielectric with film wrap and custom formulated epoxy resin end fill. Available in round and flat styles.

*Du Pont Trademark for Polyester Film

Samples available on your letterhead request

Standard
CONDENSER CORPORATION

Dept. BG-9, 1065 W. Addison St.,
Chicago, Ill. 60613 • 312-327-5440

Transitron Electronic Corp, Wakefield .... Mass
T R W Capacitor Div, Ogallala .... Neb
United Mineral & Chemical Corp, New York .... N Y
Wesco Electrical Co Inc, Greenfield .... Mass
West-Cap Arizona Div San Fernando Elec Mfg Co Tucson .... Ariz
York Electronics Corp, Brooklyn .... N Y

CAPACITORS, FIXED--PULSE-FORMING NETWORKS

AMP INCORPORATED, HARRISBURG .... PA
AMP INC, CAPITRON DIV, ELIZABETHTOWN .... PA
AXEL ELECTRONICS, INC, JAMAICA .... N Y
COMPONENT RESEARCH CO INC, SANTA MONICA CAL .... ADV PG 108
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PG 7
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE .... CAL
PLASTIC CAPACITORS INC, CHICAGO ILL
R F INTERONICS INC, BAY SHORE .... N Y
STANDARD CONDENSER CORP, CHICAGO ILL
TOBE DEUTSCHMANN LABS INC, CANTON .... MASS
Aerovox Corp Distr Sales, New Bedford .... Mass
Aerovox Corp New Bedford Div, New Bedford .... Mass
American Technical Ceramics, Huntington Station .... N Y
AMP Incorporated, Harrisburg .... Pa
AMP Inc, Capitron Div, Elizabethtown .... Pa
Axel Electronics, Inc, Jamaica .... N Y
Chicago Condenser Corp, Chicago Ill
Component Research Co Inc, Santa Monica .... Cal
Condensateurs F A C O N, Paris 12e .... France
Condenser Products Corp, Brooksville .... Fla
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark .... N J
Corson Electric Mfg Corp, East Hampton .... Conn
Daytron Inc, Mountain View .... Cal
Dilectron Div, Bestran Corp, Monrovia .... Cal
Electrical Utilities Co, La Salle Ill
Electronic Corp of America, Los Angeles .... Cal
General Electric Co, ECSO, Schenectady .... N Y
Genisco Technology Corp Components, Genistron Divs Compton .... Cal
Gudeman Div Gulton Industries, Inc, Chicago Ill
High Energy Inc, Malvern .... Pa
International Electronics Corp, Melville .... NY
ITT Jennings Div, Intl Tel & Tel Corp, San Jose .... Cal
Lad Electronics Corp, Hicksville .... N Y
Lake Engineering Co Ltd, Scarborough .... Ont
LCC-CICE, 93 Montreuil-sous-Bois .... France
Leclanche SA, Ch - 1401 Yverdon .... Switz
McGraw-Edison Power Systems Div, Milwaukee .... Wis
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto .... Japan
Plastic Capacitors Inc, Chicago Ill
R F Interonics Inc, Bay Shore .... N Y
San Fernando Electric Mfg Co, San Fernando .... Cal
Shizuki Electrical Mfg Co Ltd Nishinomiya, Hyogo Pre .... Japan
Sprague Electric Co, North Adams .... Mass
Standard Condenser Corp, Chicago Ill
Texas Capacitor Co Inc, Houston .... Tex
Tobe Deutschmann Labs Inc, Canton .... Mass
T R W Capacitor Div, Ogallala .... Neb
United Mineral & Chemical Corp, New York .... N Y
U S Capacitor Corp, Burbank .... Cal
Wesco Electrical Co Inc, Greenfield .... Mass

CAPACITORS, FIXED--TEFLON

AMP INC, CAPITRON DIV, ELIZABETHTOWN .... PA
AXEL ELECTRONICS, INC, JAMAICA .... N Y
COMPONENT RESEARCH CO INC, SANTA MONICA CAL .... ADV PG 108
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PG 7
INTERELECTRONICS CORP, CONGERS .... N Y
PLASTIC CAPACITORS INC, CHICAGO ILL
TOBE DEUTSCHMANN LABS INC, CANTON .... MASS
Alcor Aviation, Inc, San Antonio .... Texas
AMP Inc, Capitron Div, Elizabethtown .... Pa
Arco Electronics, Inc, Great Neck .... N Y
Axel Electronics, Inc, Jamaica .... N Y
Balco Capacitors, Orange .... NJ
Capco Inc, Denver .... Colo
Capcon Inc, New York .... N Y
Chicago Condenser Corp, Chicago Ill
Component Research Co Inc, Santa Monica .... Cal
Condensateurs F A C O N, Paris 12e .... France
Condenser Products Corp, Brooksville .... Fla
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark .... N J
Corson Electric Mfg Corp, East Hampton .... Conn
Daytron Inc, Mountain View .... Cal
Dearborn Electronics Inc Sub Sprague Elec Co, Orlando .... Fla
Del Electronics Corp, Mt Vernon .... N Y
Electrical Utilities Co, La Salle Ill
Electronic Corp of America, Los Angeles .... Cal
Elpac Inc, Components Div, Irvine .... Cal
Film Capacitors Inc, Passaic .... N J
Flexible Circuits Inc, Warrington .... Pa
General Electric Co, ECSO, Schenectady .... N Y
General Products Corp, Union Springs .... N Y
Genisco Technology Corp Components, Genistron Divs Compton .... Cal
Gudeman Div Gulton Industries, Inc, Chicago Ill
High Energy Inc, Malvern .... Pa
Insulating Shapes Inc, Bronx .... N Y
Interelectronics Corp, Congers .... N Y
International Electronics Corp, Melville .... NY
Lake Engineering Co Ltd, Scarborough .... Ont
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto .... Japan

Okaya Electric Industries Co Ltd, Tokyo .... Japan
Plastic Capacitors Inc, Chicago Ill
Plessey Airborne Corp, Hillside .... NJ
Potter Co, Northfield Ill
San Fernando Electric Mfg Co, San Fernando .... Cal
SEI Manufacturing, Northridge .... Cal
Southern Electronics Corp, Burbank .... Cal
Texas Capacitor Co Inc, Houston .... Tex
Tobe Deutschmann Labs Inc, Canton .... Mass
Wesco Electrical Co Inc, Greenfield .... Mass
West-Cap Arizona Div San Fernando Elec Mfg Co Tucson .... Ariz

CAPACITORS, FIXED--VACUUM

DOLINKO & WILKENS INC, UNION CITY .... N J
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE .... CAL
Cardwell Condenser Corp, Lindenhurst .... N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles .... France
Dolinko & Wilkens Inc, Union City .... N J
English Electric Valve Co, Ltd Chelmsford, Essex .... England
Fivre Dept Fabbrica Ital Mag Marelli, I - 27100 - Pavia .... Italy
International Electronics Corp, Melville .... NY
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
ITT Jennings Div, Intl Tel & Tel Corp, San Jose .... Cal
Telefunken Sales Corp, Garden City .... N Y

CAPACITORS, FIXED--VITREOUS ENAMEL

American Technical Ceramics, Huntington Station .... N Y
Electro Science Labs Inc, Philadelphia .... Pa
EMC Technology Inc, Philadelphia .... Pa
International Electronics Corp, Melville .... NY
Vitramon Inc, Bridgeport .... Conn

CAPACITORS, VARIABLE--AIR

AMPEREX ELECTRONIC CORP, COMPONENT DIV, HAUPPAUGE N Y .... ADV PG 98
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN N Y .... ADV PG 115-117
JOHANSON MFG CORP, BOONTON, N J .... ADV PG 119
LAPOINTE INDUSTRIES, INC, ROCKVILLE, CONN .... ADV PG 120
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA .... JAPAN
All Star Products Inc, Defiance .... Ohio
Amperex Electronic Corp, Component Div Hauppauge .... N Y
Ando Electric Co Ltd, Ohta-ku, Tokyo .... Japan
Bud Radio Inc, Willoughby .... Ohio
Cardwell Condenser Corp, Lindenhurst .... N Y
Components Specialties Inc, Freeport .... N Y
Del Electronics Corp, Mt Vernon .... N Y
Dowa Trading Co Ltd, Kobe .... Japan
Erie Technological Products Inc, Erie .... Pa
General Instrument Corp Automatic Mfg Div Newark .... N J
General Radio Co, West Concord .... Mass
Hammarlund Mfg Co, Mars Hill .... N C
Hammond Mfg Co Ltd, Guelph, Ont .... Can
Impectron Inc, New York .... N Y
International Electronics Corp, Melville .... NY
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Jackson Brothers (London) Ltd, New York .... N Y
JFD Electronics Co, Components Div, Brooklyn .... N Y
Johanson Mfg Corp, Boonton .... N J
Johnson Co, E F, Waseca .... Minn
LaPointe Industries, Inc, Rockville .... Conn
Leeds & Northrup Co, Philadelphia .... Pa
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Measurements A McGraw-Edison Div, Boonton .... N J
Millen Mfg Co Inc, James, Malden .... Mass
Muirhead Instruments Inc, Mountainside .... N J
Nichols Co Ltd, R H, Downsview .... Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Philmore Mfg Co Inc, Richmond Hill .... N Y
Precision Mecanique Labinal, 93 Saint-Ouen .... France
Sanyo Electric Co Ltd, Osaka .... Japan
Squires-Sanders Inc, Liberty Corner .... N J
Stettner-Trush Inc, Cazenovia .... N Y
Taffet Electronics Inc, Woodside .... N Y
Telefunken Sales Corp, Garden City .... N Y
TRW Electronic Components Div TRW Inc, Camden .... N J
United Mineral & Chemical Corp, New York .... N Y
Voltronics Corp, Hanover .... N J

CAPACITORS, VARIABLE--CERAMIC

AMERICAN LAVA CORP, CHATTANOOGA .... TENN
AMPEREX ELECTRONIC CORP, COMPONENT DIV, HAUPPAUGE N Y .... ADV PG 98
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE WIS .... ADV PG 411
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN N Y .... ADV PG 115-117
JOHANSON MFG CORP, BOONTON, N J .... ADV PG 119
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA .... JAPAN
MURATA MFG CO, LTD, KYOTO .... JAPAN
American Lava Corp, Chattanooga .... Tenn
Amperex Electronic Corp, Component Div Hauppauge .... N Y

Automation Components, Inc, Peckville .... Pa
Cambridge Thermionic Corp, Cambridge .... Mass
Cardwell Condenser Corp, Lindenhurst .... N Y
Centralab, Div Globe-Union Inc, Milwaukee .... Wis
Del Electronics Corp, Mt Vernon .... N Y
Energy Labs Inc, Woodside .... N Y
Erie Technological Products Inc, Erie .... Pa
Impectron Inc, New York .... N Y
International Electronics Corp, Melville .... NY
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
JFD Electronics Co, Components Div, Brooklyn .... N Y
Johanson Mfg Corp, Boonton .... N J
KCK Co Ltd, Tokyo .... Japan
Maida Development Co, Hampton .... Va
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Metal Ceram Inc, Mount Vernon .... N Y
Murata Mfg Co, Ltd, Kyoto .... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Rosenthal-Isolatoren GMBH, 8672 Selb .... W Germany
Solar Mfg Corp, Los Angeles .... Cal
Stettner-Trush Inc, Cazenovia .... N Y
Taiyo Yuden Co Ltd, Chiyoda-ku, Tokyo .... Japan
TDK Electronics Co Ltd, Chiyoda-ku, Tokyo .... Japan
Transitron Electronic Corp, Wakefield .... Mass
United Products Co, Orange .... N J

CAPACITORS, VARIABLE--MICA

ELECTRO MOTIVE MFG CO INC, WILLIMANTIC CONN .... ADV PG 110
Arco Electronics, Inc, Great Neck .... N Y
Cardwell Condenser Corp, Lindenhurst .... N Y
Electro Motive Mfg Co Inc, Willimantic .... Conn
International Electronics Corp, Melville .... NY
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Jackson Brothers (London) Ltd, New York .... N Y
Leeds & Northrup Co, Philadelphia .... Pa
Stettner-Trush Inc, Cazenovia .... N Y

CAPACITORS, VARIABLE--NEUTRALIZING

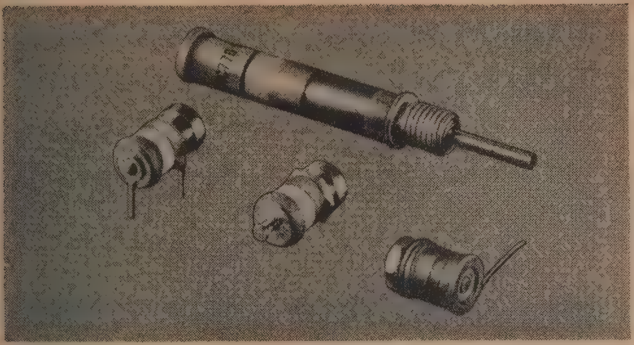
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE .... CAL
All Star Products Inc, Defiance .... Ohio
Bud Radio Inc, Willoughby .... Ohio
Cardwell Condenser Corp, Lindenhurst .... N Y
Hammarlund Mfg Co, Mars Hill .... N C
Hammond Mfg Co Ltd, Guelph, Ont .... Can
International Electronics Corp, Melville .... NY
ITT Jennings Div, Intl Tel & Tel Corp, San Jose .... Cal
Jackson Brothers (London) Ltd, New York .... N Y
Millen Mfg Co Inc, James, Malden .... Mass
Voltronics Corp, Hanover .... N J

CAPACITORS, VARIABLE--TRIMMER,AIR

AMPEREX ELECTRONIC CORP, COMPONENT DIV, HAUPPAUGE N Y .... ADV PG 98
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN N Y .... ADV PG 115-117
JOHANSON MFG CORP, BOONTON, N J .... ADV PG 119
LAPOINTE INDUSTRIES, INC, ROCKVILLE, CONN .... ADV PG 120
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA .... JAPAN
All Star Products Inc, Defiance .... Ohio
Amperex Electronic Corp, Component Div Hauppauge .... N Y
Bud Radio Inc, Willoughby .... Ohio
Cardwell Condenser Corp, Lindenhurst .... N Y
Del Electronics Corp, Mt Vernon .... N Y
Erie Technological Products Inc, Erie .... Pa
Impectron Inc, New York .... N Y
International Electronics Corp, Melville .... NY
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Jackson Brothers (London) Ltd, New York .... N Y
JFD Electronics Co, Components Div, Brooklyn .... N Y
Johanson Mfg Corp, Boonton .... N J
Johnson Co, E F, Waseca .... Minn
LaPointe Industries, Inc, Rockville .... Conn
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Millen Mfg Co Inc, James, Malden .... Mass
Mullard Ltd, London, WC 1 .... Eng
Oneida Electronic Mfg Co, Meadville .... Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Philmore Mfg Co Inc, Richmond Hill .... N Y
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington .... Ind
Squires-Sanders Inc, Liberty Corner .... N J
TRW Electronic Components Div TRW Inc, Camden .... N J
United Mineral & Chemical Corp, New York .... N Y
Voltronics Corp, Hanover .... N J

JFD

JFD ELECTRONICS CO./COMPONENTS DIVISION

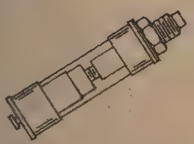
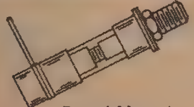
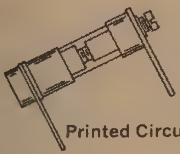
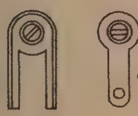


PISTON TRIMMER

JFD has available the largest selection of Precision Piston Trimmers in the industry—more than 2,500 standard and special designs that meet or exceed MIL-C-14409B.

JFD's unique capacitor-design-capability offers an unmatched number of exclusive features—Seven drive mechanisms incorporating advanced construction . . . Matched metalizing / homogeneous bond with dielectric . . . High level shock and vibration resistance . . . Clean room high reliability units available.

Write for complete catalog #C-67-A "Precision Piston Trimmer and Tuning Capacitors."

SERIES	PANEL MOUNT					PRINTED CIRCUIT				
	JFD No.	Mil. Spec.	Cap. (pf) Min.	Cap. (pf) Max.	Body Length	JFD No.	Mil. Spec.	Cap. (pf) Min.	Cap. (pf) Max.	Body Length
Max-C High Range Miniature Telescopic Sealed Capacitor Series	GLASS				±1/32 in.	GLASS				±1/32 in.
	NMC601	PC39J160	1.0	16.0	15/32	NMC621	PC43J160	1.0	16.0	.750
	NMC603	PC39J360	1.0	36.0	45/64	NMC623	PC43J360	1.0	36.0	.990
	NMC604	PC39J520	1.0	52.0	59/64	NMC624	PC43J520	1.0	52.0	1.205
	NMC606	PC39J750	1.0	75.0	1 11/64	NMC626	PC43J750	1.0	75.0	1.450
	NMC609	PC39J121	1.0	120.0	1 49/64	NMC629	PC43J121	1.0	120.0	2.050
	MC601Y	PC39J140	1.0	14.0	15/32	MC621Y	PC43J140	1.0	14.0	.750
	MC603Y	PC39J280	1.0	28.0	45/64	MC621	PC43J140	1.0	14.0	.700
	MC604Y	PC39J420	1.0	42.0	59/64	MC623Y	PC43J280	1.0	28.0	.990
	MC606Y	PC39J600	1.0	60.0	1 11/64	MC623	PC43J280	1.0	28.0	.940
	MC609Y	PC39J900	1.0	90.0	1 49/64	MC624Y	PC43J420	1.0	42.0	1.205
(Dia. 5/16 in.)	MC601	PC39J140	1.0	14.0	15/32	MC624	PC43J420	1.0	42.0	1.155
	MC603	PC39J280	1.0	28.0	45/64	MC626Y	PC43J600	1.0	60.0	1.450
	MC604	PC39J420	1.0	42.0	59/64	MC626	PC43J600	1.0	60.0	1.400
	MC606	PC39J600	1.0	60.0	1 11/64	MC629Y	PC43J900	1.0	90.0	2.050
	MC609	PC39J900	1.0	90.0	1 49/64	MC629	PC43J900	1.0	90.0	2.000
Miniature Telescopic Capacitor Series*	GLASS				+3/64—1/32	GLASS				±1/32 in.
	NVC20G	PC50J110	0.8	11.0	35/64	NVC9GW	PC51J110	0.8	11.0	9/16
	NVC21G	PC50J5R5	0.8	5.5	19/64	NVC10GW	PC51J5R5	0.8	5.5	5/16
	NVC22G	PC50H160	0.8	16.0	3/4	NVC31GW	PC51H160	0.8	16.0	49/64
	NVC23G	PC50H230	0.8	23.0	63/64	NVC32GW	PC51H230	0.8	23.0	1
Panel Mount	NVC24G	PC50H380	1.0	38.0	1 19/32	NVC43GW	PC51H380	1.0	38.0	1 39/64
	VC20GY	PC40J8R5	0.8	8.5	35/64	VC9GWY	PC41J8R5	0.8	8.5	9/16
	VC21GY	PC40J4R5	0.8	4.5	19/64	VC10GWY	PC41J4R5	0.8	4.5	5/16
	VC22GY	PC40H120	0.8	12.0	3/4	VC31GWY	PC41H120	0.8	12.0	49/64
	VC23GY	PC40H180	0.8	18.0	63/64	VC32GWY	PC41H180	0.8	18.0	1
	VC24GY	PC40H300	1.0	30.0	1 19/32	VC43GWY	PC41H300	1.0	30.0	1 39/64
	VC20G	PC40J8R5	0.8	8.5	35/64	VC9GW	PC41J8R5	0.8	8.5	5/16
	VC21G	PC40J4R5	0.8	4.5	19/64	VC10GW	PC41J4R5	0.8	4.5	9/16
	VC22G	PC40H120	0.8	12.0	3/4	VC31GW	PC41H120	0.8	12.0	49/64
	VC23G	PC40H180	0.8	18.0	63/64	VC32GW	PC41H180	0.8	18.0	1
Printed Circuit	VC24G	PC40H300	1.0	30.0	1 19/32	VC43GW	PC41H300	1.0	30.0	1 39/64
	QUARTZ				+3/64—1/32	QUARTZ				±1/32 in.
	NMQ101	PC40Q1R8	0.6	1.8	19/64	NMQ121	PC41Q1R8	0.6	1.8	5/16
	NMQ103	PC40Q5R5	0.6	5.5	35/64	NMQ123	PC41Q5R5	0.6	5.5	9/16
Wire Series Lug & Lead Series	NMQ106	PC40Q9R5	0.6	9.5	63/64	NMQ126	PC41Q9R5	0.6	9.5	1
	NMQ109	PC40Q160	0.8	16.0	1 19/32	NMQ129	PC41Q160	0.8	16.0	1 19/32
	MQ101	PC40Q1R8	0.6	1.8	19/64	MQ121	PC41Q1R8	0.6	1.8	5/16
	MQ103	PC40Q5R5	0.6	5.5	35/64	MQ123	PC41Q5R5	0.6	5.5	9/16
	MQ106	PC40Q9R5	0.6	9.5	63/64	MQ126	PC41Q9R5	0.6	9.5	1
(Dia. ¼ in.)	MQ109	PC40Q160	0.8	16.0	1 19/32	MQ129	PC41Q160	0.8	16.0	1 39/64

TYPICAL SPECIFICATIONS	GLASS	QUARTZ
JFD No./Prefix 'N'	Green Glass dielectric & Hi-Life mechanism	Hi-Life mechanism only
JFD No./Suffix 'Y'	Hi-Life mechanism only	
WVDC	750	750
Dielectric Strength VDC	1,500	1,500
"Q" Minimum at 20 MC	500 min.	1,500 min.
Temperature Coefficient PPM/°C	±50 (—55 to +125°C)	+25 ±25 (—55 to +150°C)
Insulation Resistance megohms	10^6	10^6
Turning Torque inch ounces	1-10	1-10

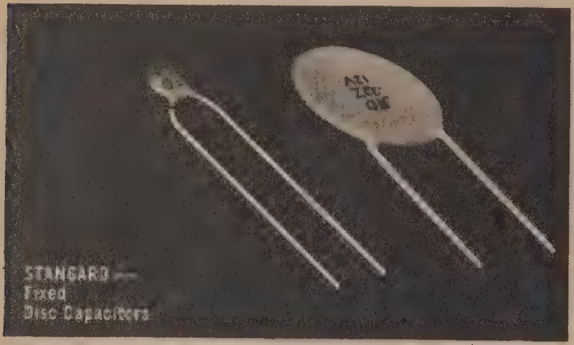
Body length indicated on Panel Mount only is exclusive of mounting bushing. 'N' and 'Y' Series mounting bushing dimension: 9/32 in. All other ¼ in. ¼ in.
*Miniature Telescopic Capacitor Series available sealed.

JFD

JFD ELECTRONICS CO./COMPONENTS DIVISION

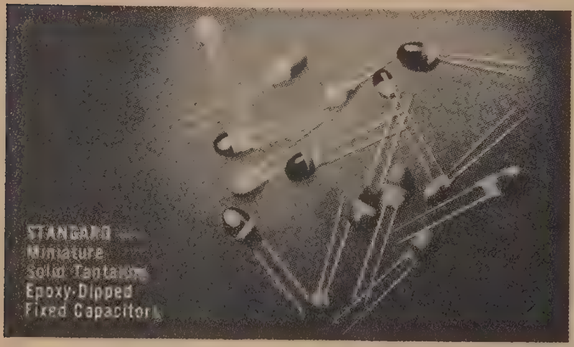
STANGARD —
Miniature
Variable Ceramic
Disc Capacitors

Low-cost for commercial and industrial applications. 9 △ Cs are available from 2.0 to 60.0 pf in 4 versatile configurations. DV11 Series meets or exceeds applicable MIL-C-81A. Write for catalogs STD-DV/67-A and DVJ-300/66.



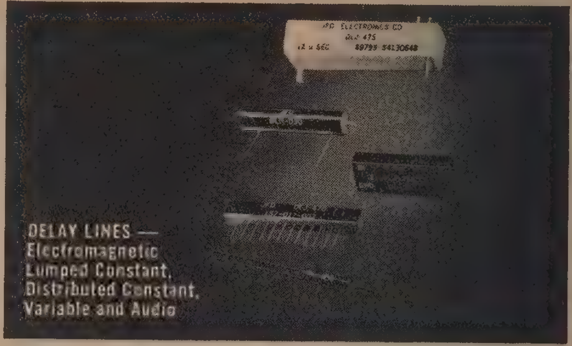
STANGARD —
Fixed
Disc Capacitors

Low-cost for transistor and general commercial circuitry. High K. Available in voltage ratings from 3 volts and higher. Write for catalog STD-FD/67-A.



STANGARD —
Miniature
Solid Tantalum
Epoxy-Dipped
Fixed Capacitors

Low-cost for instrument, control, communication systems as well as general commercial circuitry. Capacitance range from 0.1 to 50.0 mfd. Write for catalog STD-TR/67.

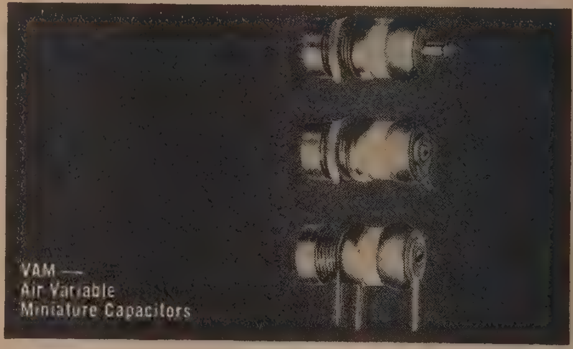


DELAY LINES —
Electromagnetic
Lumped Constant,
Distributed Constant,
Variable and Audio

Top quality, rugged, precision components of proven dependability. High delay to rise time ratios. Mounting methods for a wide variety of circuit applications. Write for catalog DL-68.

PICOLINE —
Nanosecond
Delay Lines

Ideal for nanosecond delay in high pulse circuitry. Rise time is less than one nanosecond. TC less than 20 PPM/°C. Operating temperature range —55°C to +125°C. Impedance 50 Ω. Write for catalog PL-67.



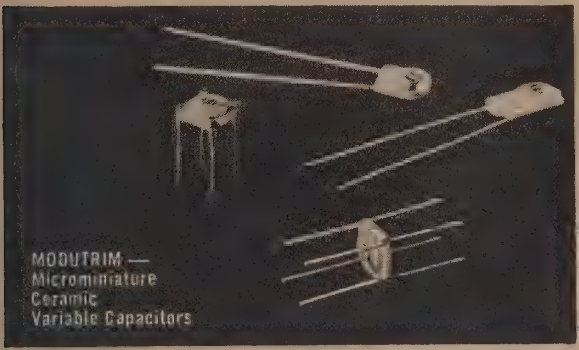
VAM —
Air Variable
Miniature Capacitors

Specially designed for high frequency applications that demand extreme stability, small size and high Q capacitance. Range measured at 1 MHz is 0.8 through 10.0 pf, Q measured at 10 pf and 100 MHz is greater than 2,000. Write for catalog VAM-67-B.

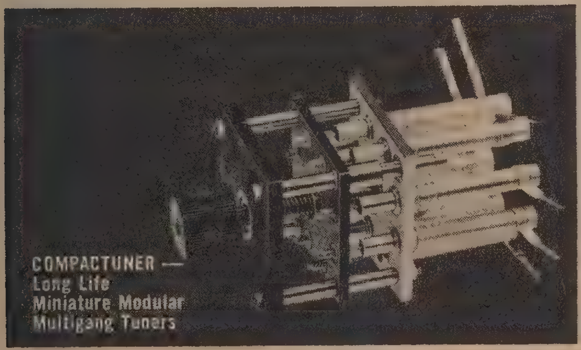
"TODAY'S COMPONENTS BUILT FOR TOMORROW'S CHALLENGES"

"TODAY'S COMPONENTS BUILT FOR TOMORROW'S CHALLENGES"

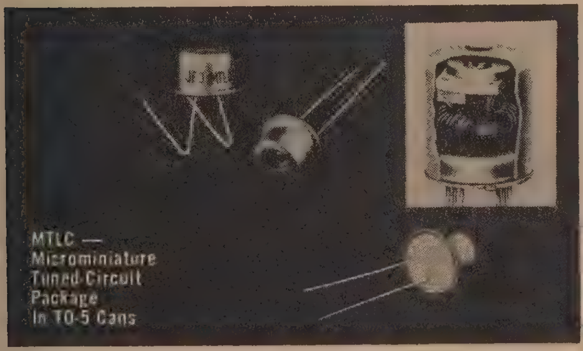
JFD


MODUTRIM —
Microminiature
Ceramic
Variable Capacitors

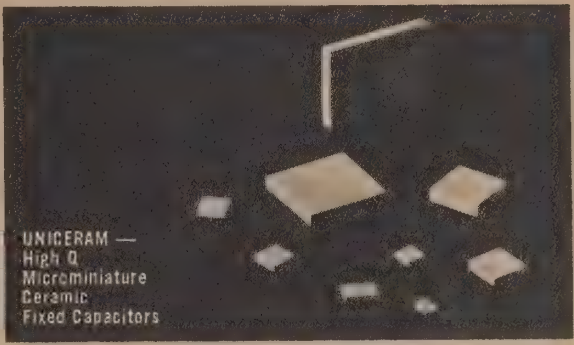
Offer micromodule and hybrid circuit designers a choice of wide △ Cs in extremely small and stable units. Capacitance ranges from 1.1 to 60.0 pf. Meet or exceed applicable MIL-C-81. Write for catalogs MT-67-A and MT-500-68.


COMPACTUNER —
Long Life
Miniature Modular
Multigang Tuners

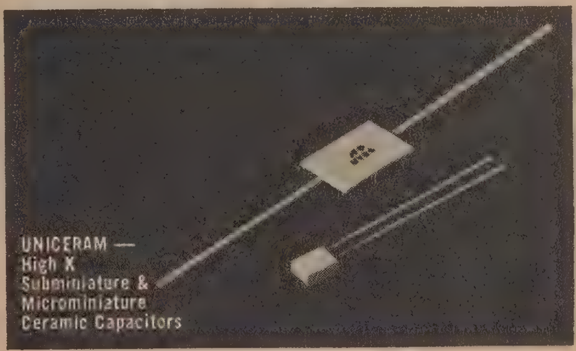
4 and 8 gang models for SLC and SLF tuning. Each provides stability and accuracy of tuning in a smaller sized package, unobtainable before Compactuner! Write for catalog LLCT-68.


MTLC —
Microminiature
Tuned Circuit
Package
In TO-5 Cans

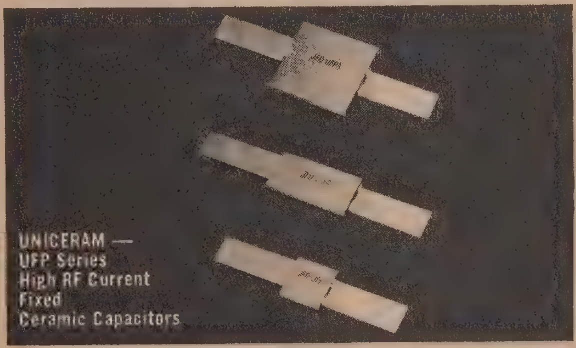
Complete LC tuned circuits within TO-5 cans. Standard frequency ranges from 2 to 300 MHz. Various other complex networks such as discriminators, phase detectors are also available on special order. Write for catalog MTLC-67-A.


UNICERAM —
High Q
Microminiature
Ceramic
Fixed Capacitors

Offer a high ratio of capacitance per unit volume. They combine exceptional stability and a guaranteed minimum Q in a smaller size package than competitive units. Over 1,000 glass encapsulated models with capacitance values from 0.5 to 3,000 pf. Write for catalog UNM-H/Q-67-A.


UNICERAM —
High K
Subminiature &
Microminiature
Ceramic Capacitors

Multi-layer 'chips' and glass encapsulated leaded units are available in 5 square and 12 rectangular configurations. Ideal for hybrid integrated circuits. Capacitance range is 10 pf to 1.5 mfd. Meet or exceed applicable MIL-C-11015C. Write for catalog UNM-H/K-67.


UNICERAM —
UFP Series
High RF Current
Fixed
Ceramic Capacitors

The smallest high RF power capacitors available! Typical UFP1 rating is 12 KVAR at +25°C. Recommended 'space-savers' for use in military communications, mobile, commercial broadcast and amateur radio transmitters. Write for catalog UNM-UFP-68.

JFD JFD ELECTRONICS CO./COMPONENTS DIVISION

1484 62nd Street • Brooklyn, New York 11219 / Phone 212-331-1000 • TWX 710-584-2426

SALES OFFICES — Arcadia, California / Sunnyvale, California / Chicago, Illinois / Ellicott City, Maryland / Saxonville, Massachusetts / Brooklyn, New York / New Hartford, New York / Cincinnati, Ohio / Philadelphia, Pennsylvania / Paris, France / Azor, Israel

FIXED and VARIABLE VACUUM CAPACITORS

Completely symmetrical bulb for mounting ease; exhaust tabulation is out of sight and protected against accidental damage.

D & W BRAND

TYPE	CAPACITY MMFD	PEAK KILOVOLTS	RMS AMPS.	DIMENSIONS LENGTH	DIMENSIONS DIA.	CONTACT DIA.
VC6-32	6	32	45	6½	2⅞*	1 3/16
VC12-32	12	32	45	6½	2⅞	1 3/16
VC25-32	25	32	45	6½	2⅞	1 3/16
VC50-32	50	32	65	6½	2⅞	1 3/16
VC75-32	75	32	65	6½	2⅞	1 3/16
VC100-32	100	32	65	6½	2⅞	1 3/16
VC150-32	150	32	65	6½	2⅞	1 3/16
VC200-32	200	32	65	6½	2⅞	1 3/16
VC250-32	250	32	65	6½	2⅞	1 3/16
VC500-32	500	32	120	7½	3 9/16	2 1/32
VC750-32	750	32	120	8⅞	3 9/16	2 1/32
VC1000-30	1000	30	120	8⅞	4	2 1/32
VC1000-30A	1000	30	125	7½	4½	2 1/32
VC1000-30S	1000	30	125	8⅞	4½	2 1/32
VC250-A	250	32	100	6⅝	2⅞	1 23/32
VC100-A	100	32	100	6⅝	2⅞	1 23/32
VC6-20	6	20	30	4½	2⅝	1 3/16
VC12-20	12	20	30	4½	2⅝	1 3/16
VC25-20	25	20	30	4½	2⅝	1 3/16
VC50-20	50	20	60	4½	2⅝	1 3/16
VC75-20	75	20	60	4½	2⅝	1 3/16
VC100-20	100	20	60	4½	2⅝	1 3/16
VC250-20	250	20	65	6½	2⅞	1 3/16
VC500-20	500	20	120	7½	3 9/16	2 1/32
VC750-20	750	20	120	8⅞	3 9/16	2 1/32
VC1000-20	1000	20	120	8⅞	4	2 1/32
VC1000-20A	1000	20	125	7½	4½	2 1/32
VC1000-20S	1000	20	125	8⅞	4½	2 1/32
VC6-16	6	16	25	4⅝	1 15/16	9/16
VC12-16	12	16	25	4⅝	1 15/16	9/16
VC25-16	25	16	25	4⅝	1 15/16	9/16
VC50-16	50	16	45	4⅝	1 15/16	9/16
VC100-16	100	16	45	4⅝	2¼	9/16
VC100-7.5	100	7½	35	4⅝	1⅝	9/16
VC25-10**	25	10	20	2¾	1½	1 1/32
VC50-10	50	10	20	2¾	1½	1 1/32
VC50-10-A	50	10	40	3¾	2⅛	⅞
VC100-10-A	100	10	40	3¾	2⅛	⅞
VC150-10-A	150	10	40	3¾	2⅛	⅞
VC250-10	250	10	42	4	2⅝	⅞
VC500-10	500	10	42	4⅛	3¼	⅞
VC80-30-10	80	10	30	1 9/16	1⅜	8-32 TAP
VC120-30-10	120	10	30	1 11/16	1 11/16	8-32 TAP

VACAP BRAND

TYPE	CAPACITY MAX.	CAPACITY MIN.	RMS AMPERES	PEAK KILOVOLTS	DIMENSIONS Length	DIMENSIONS Dia.
VVC700-42-7.5	700	25	42	7.5	$9\frac{1}{16}{}^{+0}_{-1/2}$	4"
VVC700-42-10	700	25	42	10	"	4"
VVC700-42-15	700	25	42	15	"	4"
VVC500-45-7.5	500	12	45	7.5	"	3⅝"
VVC500-45-10	500	12	45	10	"	3⅝"
VVC500-45-15	500	12	45	15	"	3⅝"
VVC500-42-5	500	15	42	5	"	3⅝"
VVC500-42-7.5	500	15	42	7.5	"	3⅝"
VVC500-42-10	500	15	42	10	"	3⅝"
VVC500-42-15	500	15	42	15	"	3⅝"
VVC400-42-5	400	12	42	5	"	3"
VVC400-42-7.5	400	12	42	7.5	"	3"
VVC400-42-10	400	12	42	10	"	3"
VVC400-42-15	400	12	42	15	"	3"
VVC300-42-5	300	10	42	5	"	2⅝"
VVC300-42-7.5	300	10	42	7.5	"	2⅝"
VVC300-42-10	300	10	42	10	"	2⅝"
VVC300-42-15	300	10	42	15	"	2⅝"
VVC200-42-5	200	10	42	5	"	2⅝"
VVC200-42-7.5	200	10	42	7.5	"	2⅝"
VVC200-42-10	200	10	42	10	"	2⅝"
VVC200-42-15	200	10	42	15	"	2⅝"
VVC200-42-30	200	10	42	20	"	4"
VVC200-42-20	200	10	42	30	"	4"
VVC150-42-30	150	10	42	30	"	3⅝"
VVC150-42-20	150	10	42	20	"	3⅝"
VVC100-42-30	100	7	42	30	"	3 1/16"
VVC100-42-20	100	7	42	20	"	3 1/16"
VVC75-42-30	75	5	42	30	"	2⅝"
VVC75-42-20	75	5	42	20	"	2⅝"
VVC50-42-30	50	5	42	30	"	2⅝"
VVC50-42-20	50	5	42	20	"	2⅝"

WRITE FOR FULL DETAILS

DOLINKO and WILKENS, INC.

MANUFACTURERS OF VARIABLE AND FIXED CAPACITORS SINCE 1947

1901-07 SUMMIT AVE., UNION CITY, N. J. 07087 201-867-6630

When Reliability is the Rule . . . Specify

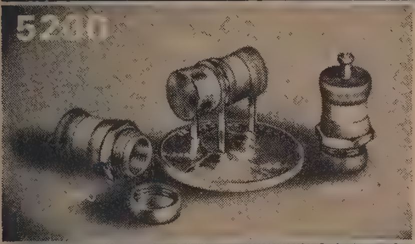
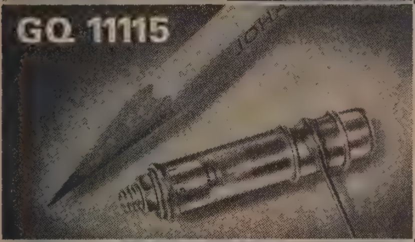
Johanson

A Complete Line of

HIGH Q VARIABLE CAPACITORS

AIR • GLASS • QUARTZ

IMPORTANT
All models feature 570° F Solder. Prevents distortion. Not affected by conventional soldering temperature.

SERIES	FEATURES	SPECIFICATIONS
5200 	Improved one piece rotor construction with built-in torque for longer and more reliable adjustment life. Reliability tested and certified by independent laboratory. (results available on request)	**CAPACITANCE RANGE:** 0.8 to 10.0 pF. **BREAKDOWN:** > 500 VDC **INSULATION RESISTANCE:** > 1,000,000 Megohms @ 500 VDC **Q @ 100 MC:** > 3000 **TEMPERATURE COEFFICIENT:** 0 ± 20 ppm/°C **TORQUE:** .5 —5 in. oz. **SHOCK:** > 275 g (6.0 millisec.) **ROTATIONAL LIFE:** > 1000 Revolutions rotor screw
4700 4700 4701 4702	10:1 capacitance ratio in micro miniature size — extra fine tuning < .35 pF per turn. High Q, (greater than 1500 at 500 mc)	**CAPACITANCE RANGE:** 0.35 pF to 3.5 pF **WORKING VOLTAGE:** 250 VDC (test voltage, 500 VDC) **Q @ 100 MC,** > 5000; @ 250 MC, > 2000 **INSULATION RESISTANCE:** >10^6 Megohms **TEMPERATURE RANGE:** —55°C to 125°C **TEMPERATURE COEFFICIENT:** 50 ± 50 ppm/°C
GQ 11115 	Solid metal electrode bands. Meets or exceeds applicable requirements of MIL-C 14409/B. Low minimum capacitance (.5 pF). High current (up to 2 amps).	**CAPACITANCE RANGE:** 0.5 pF to 5.0 pF **WORKING VOLTAGE:** 2500 VDC & 2500 v peak RF @ 30 MC applied simultaneously **Q @ 1 MC:** 2000 minimum **INSULATION RESISTANCE:** 10^6 Megohms **TEMPERATURE COEFFICIENT:** 0 ± 100 ppm/°C **OPERATING TEMPERATURE:** —40 to +200°C
4600 	High capacity in a small package — exclusive round nut permits installation in tight places or miniaturized packaging. Ultra-rugged construction.	**CAPACITANCE RANGE:** .4 pF to 6 pF (> 8 Turns) **WORKING VOLTAGE:** 250 VDC (Test Voltage 500 VDC) **Q @ 100 MC:** > 5000 **INSULATION RESISTANCE:** > 10^6 Megohms **TEMPERATURE COEFFICIENT:** 50 ± 50 ppm/°C **TEMPERATURE RANGE:** —65°C to +125°C
6100 	Modular design. Available in one to five section modules in a wide variety of capacitance range and plate configurations.	**CAPACITANCE RANGE:** Max. 145 pF, Min. 9.5 pF per section (180° Rotation) **CAPACITY VARIATION:** Straight Line Capacity **TEMPERATURE RANGE:** —55°C to +125°C **BREAKDOWN:** 1000 VDC **LOW TORQUE:** 3-5 oz. in.

OTHER LINES

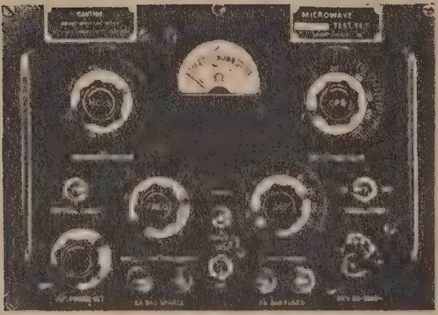
2950 SERIES: CAP: 0.8 —10 pF • 250 VDC • Q > 2000 @ 100 MC • TC: 0 ± 20 ppm/°C
3901 SERIES: CAP: 1.0 —14 pF • 250 VDC • Q RANGE > 1500 to > 3000 max. to min. C @ 100 MC • TC: 0 ± 50 ppm/°C
3906 SERIES: CAP: 1.0 —20 pF • 250 VDC • Q RANGE > 1200 to > 3000 max. to min. C @ 100 MC • TC: 0 ± 50 ppm/°C
3908 SERIES: CAP: 1.0 —30 pF • 250 VDC • Q RANGE > 750 to > 3000 max. to min. C @ 100 MC • TC: 0 ± 50 ppm/°C
2902 SERIES: CAP: 1.0 —10 pF • 400 VDC • Q > 2000 @ 100 MC • TC: 0 ± 20 ppm/°C
MH —112 SERIES: .1 —1 pF • 250 VDC • .075 dia.

All lines available with special high reliability processing. Includes 100% burn-in and screening and historical test data.

Johanson **MANUFACTURING CORPORATION**
400 Rockaway Valley Road, Boonton, N. J. • Phone (201) 334-2676

LaPOINTE

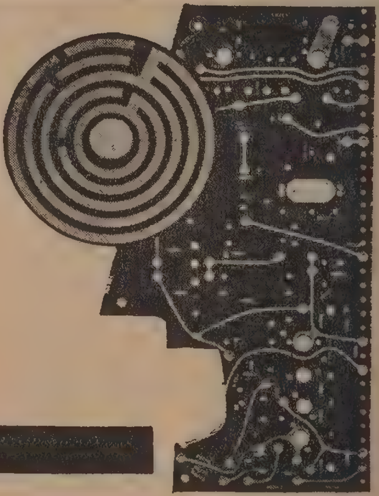
PROVEN DEPENDABILITY



COMMUNICATIONS

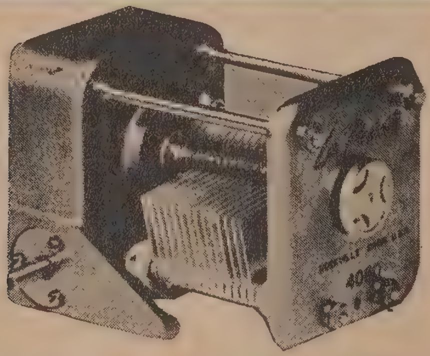
- Drone Command Systems
- Airborne Radio Communications
- Rawin Ground Meteorological Devices
- Microwave Test Sets
- Tube Analyzers

PRINTED CIRCUITS



- Printed Circuits
- Electrical and Electronic Assemblies
- Flexible Printed Circuit Assemblies

LaPointe will simplify your wiring requirements, improve your circuit reliability and durability, miniaturize your electrical and electronic assemblies and lower your costs.



CAPACITORS

- Dual
- Single and Dual
- Single and Multiple
- Variable Air Precision

We have proven experience and dependability. Our facilities are complete. Our engineering staff has the "know-how." Our manufacturing is carefully executed. Our products are precision made. You can rely on LaPointe.

LaPointe INDUSTRIES, INC., ROCKVILLE, CONN.

CAPACITORS, VARIABLE--TRIMMER,CERAMIC

AMERICAN LAVA CORP, CHATTANOOGA .... **TENN**
AMPEREX ELECTRONIC CORP, COMPONENT DIV, HAUPPAUGE N Y .... **ADV PG 98**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE WIS .... **ADV PG 411**
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN N Y .... **ADV PG 115-117**
JOHANSON MFG CORP, BOONTON, N J .... **ADV PG 119**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... **JAPAN**
MURATA MFG CO, LTD, KYOTO .... **JAPAN**
American Lava Corp, Chattanooga .... Tenn
Amperex Electronic Corp, Component Div Hauppauge .... N Y
Arco Electronics, Inc, Great Neck .... N Y
Automation Components, Inc, Peckville .... Pa
Cambridge Thermionic Corp, Cambridge .... Mass
Cardwell Condenser Corp, Lindenhurst .... N Y
Centralab, Div Globe-Union Inc, Milwaukee .... Wis
Ceram Corp, La Mesa .... Cal
Del Electronics Corp, Mt Vernon .... N Y
Electro Materials Corp, San Diego .... Cal
Erie Technological Products Inc, Erie .... Pa
Hopt KG, R E, Rottweil a Neckar .... Germany
Impectron Inc, New York .... N Y
International Electronics Corp, Melville .... NY
ITT Europe Inc Components Gp, Brussels 1 .... Belgium

Jackson Brothers (London) Ltd, New York .... N Y
JFD Electronics Co, Components Div, Brooklyn .... N Y
Johanson Mfg Corp, Boonton .... N J
LCC-CICE, 93 Montreuil-sous-Bois .... France
Maida Development Co, Hampton .... Va
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Metal Ceram Inc, Mount Vernon .... N Y
Murata Mfg Co, Ltd, Kyoto .... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Rosenthal-Isolatoren GMBH, 8672 Selb ...... W Germany
Sanyo Electric Co Ltd, Osaka .... Japan
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington .... Ind
Solar Mfg Corp, Los Angeles .... Cal
Stettner-Trush Inc, Cazenovia .... N Y
TDK Electronics Co Ltd, Chiyoda-ku, Tokyo .... Japan
Telefunken Sales Corp, Garden City .... N Y
United Products Co, Orange .... N J
Voltronics Corp, Hanover .... N J

CAPACITORS, VARIABLE--TRIMMER,GLASS OR QUARTZ

JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN N Y .... **ADV PG 115-117**
JOHANSON MFG CORP, BOONTON, N J .... **ADV PG 119**
MURATA MFG CO, LTD, KYOTO .... **JAPAN**
Cambridge Thermionic Corp, Cambridge .... Mass
Cardwell Condenser Corp, Lindenhurst .... N Y
Electrosil Ltd, Sunderland, Durham .... England
Erie Technological Products Inc, Erie .... Pa
International Electronics Corp, Melville .... NY
JFD Electronics Co, Components Div, Brooklyn .... N Y
Johanson Mfg Corp, Boonton .... N J
Lake Engineering Co Ltd, Scarborough .... Ont
LRC Electronics Inc, Horseheads .... N Y
Murata Mfg Co, Ltd, Kyoto .... Japan
Portchester Instrument Corp, Port Chester .... N Y
Sovcor Electronique, Le Vesinet 78 .... France
Stettner-Trush Inc, Cazenovia .... N Y
Syncor Products Co, Inc, Malden .... Mass
United Products Co, Orange .... N J
Voltronics Corp, Hanover .... N J

CAPACITORS, VARIABLE--TRIMMER,MICA

ELECTRO MOTIVE MFG CO INC, WILLIMANTIC CONN .... **ADV PG 110**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... **JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
Anglo American Vulcanized Fibre Co Ltd London EC 1 .... England
Arco Electronics, Inc, Great Neck .... N Y
Cardwell Condenser Corp, Lindenhurst .... N Y
Electro Motive Mfg Co Inc, Willimantic .... Conn
International Electronics Corp, Melville .... NY
Jackson Brothers (London) Ltd, New York .... N Y
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Nippon Electric Co Ltd, Tokyo .... Japan
Sanyo Electric Co Ltd, Osaka .... Japan
Stettner-Trush Inc, Cazenovia .... N Y
United Mineral & Chemical Corp, New York .... N Y

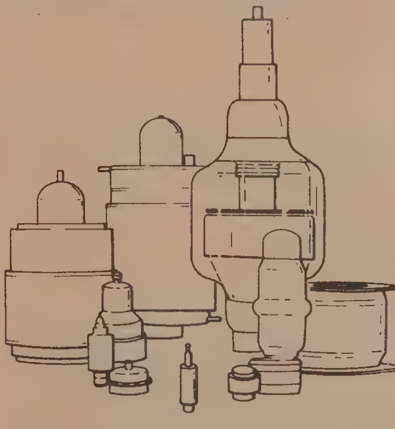
CAPACITORS, VARIABLE--TUNING

AMPEREX ELECTRONIC CORP, COMPONENT DIV, HAUPPAUGE N Y .... **ADV PG 98**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE ..... **CAL**
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN N Y .... **ADV PG 115-117**
JOHANSON MFG CORP, BOONTON, N J .... **ADV PG 119**
LAPOINTE INDUSTRIES, INC, ROCKVILLE, CONN .. **ADV PG 120**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... **JAPAN**
MITSUMI ELECTRIC CO LTD, TOKYO .... **JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
All Star Products Inc, Defiance .... Ohio
Amperex Electronic Corp, Component Div Hauppauge .... N Y
British Radio Electronics (BREL), Washington .... D C
Bud Radio Inc, Willoughby .... Ohio
Cardwell Condenser Corp, Lindenhurst .... N Y
Components Specialties Inc, Freeport .... N Y
Computer Diode Corp, Fairlawn .... NJ
Del Electronics Corp, Mt Vernon .... N Y
Dowa Trading Co Ltd, Kobe .... Japan
Eastron Corp, Haverhill .... Mass
Energy Labs Inc, Woodside .... N Y
General Instrument Corp Automatic Mfg Div Newark .... N J
Hammarlund Mfg Co, Mars Hill .... N C
Hammond Mfg Co Ltd, Guelph, Ont .... Can
Impectron Inc, New York .... N Y
International Electronics Corp, Melville .... NY
ITT Jennings Div, Intl Tel & Tel Corp, San Jose ...... Cal
Jackson Brothers (London) Ltd, New York .... N Y
JFD Electronics Co, Components Div, Brooklyn .... N Y
Johanson Mfg Corp, Boonton .... N J
Johnson Co, E F, Waseca .... Minn
LaPointe Industries, Inc, Rockville .... Conn
Lieco Inc, West Babylon .... N Y
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Millen Mfg Co Inc, James, Malden .... Mass
Mitsumi Electric Co Ltd, Tokyo .... Japan
Motorola Semiconductor Products Inc, Phoenix ...... Ariz
Nippon Electric Co Ltd, Tokyo .... Japan
Parametric Industries Inc, Winchester .... Mass
Philco-Ford Corp, Washington .... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland

Philmore Mfg Co Inc, Richmond Hill .... N Y
Rosenthal-Isolatoren GMBH, 8672 Selb ...... W Germany
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington .... Ind
Squires-Sanders Inc, Liberty Corner .... N J
Taffet Electronics Inc, Woodside .... N Y
Telefunken Sales Corp, Garden City .... N Y
TRW Electronic Components Div TRW Inc, Camden .. N J
United Mineral & Chemical Corp, New York .... N Y
Voltronics Corp, Hanover .... N J

CAPACITORS, VARIABLE--VACUUM OR GAS-FILLED

DOLINKO & WILKENS INC, UNION CITY, N J ... **ADV PG 118**
DRANETZ ENGINEERING LABS INC, PLAINFIELD .... **N J**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE CAL .... **ADV PG121**
LAPP INSULATOR CO, INC, LE ROY .... **N Y**
MACHLETT LABS INC, THE, STAMFORD .... **CONN**
NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
VACAP CORP, UNION CITY, N J .... **ADV PG 118**
Cardwell Condenser Corp, Lindenhurst .... N Y
Dolinko & Wilkens Inc, Union Citv .... N J



VACUUM CAPACITORS

ITT Jennings offers more than 450 types of fixed and variable vacuum capacitors to solve your high frequency capacity problems. This complete line includes operation voltages from 1 KV to 120 KV and capacities from 1 pf to 25000 pf.

Our latest fully illustrated catalog offers application information and complete specifications. Write for catalog No. 101. ITT Jennings, a division of International Telephone and Telegraph Corporation, 970 McLaughlin Avenue, San Jose, California 95108. Phone (408) 292-4025. TWX 910-338-0159.

JENNINGS ITT

Dranetz Engineering Labs Inc, Plainfield .... N J
Energy Labs Inc, Woodside .... N Y
English Electric Valve Co, Ltd Chelmsford, Essex .... England
International Electronics Corp, Melville .... NY
ITT Jennings Div, Intl Tel & Tel Corp, San Jose ...... Cal
Lapp Insulator Co, Inc, Le Roy .... N Y
Machlett Labs Inc, The, Stamford .... Conn
Nippon Electric Co Ltd, Tokyo .... Japan
Torr Labs Inc, Los Angeles .... Cal
Vacap Corp, Union City .... N J

CAPS--CONNECTOR

AMPHENOL, BROADVIEW .... **ILL**
AMPHENOL, CHICAGO .... **ILL**
NUMAR CORP, NEW YORK .... **N Y**
Allmetal Screw Products Co Inc, Garden City .... N Y
Amphenol, Broadview Ill
Amphenol, Chicago Ill
Beauchaine & Sons Inc, Laconia .... NH
Bendix Corp Electrical Components Div, Sidney .... N Y
Bud Radio Inc, Willoughby .... Ohio
Carol Cable Co, Pawtucket .... R I
Electronized Chemicals Corp, Burlington .... Mass
Eugene Engineering Co Inc, Rockland .... Mass
Eyelematic Mfg Co Inc, Oakville .... Conn
Ferranti, Ltd, Lancashire .... England
Greenpar Engineering Ltd, Electronics Div Essex .... England
GTI Corp, Clover Industries Div, Tonawanda .... N Y
Jettron Products Inc, Hanover .... N J
Jones Inc, Norman, South Merrimack .... N H
Kings Electronics Co Inc, Tuckahoe .... N Y
Leviton Mfg Co Inc, Brooklyn .... N Y
Metal Ceram Inc, Mount Vernon .... N Y
Microwave Development Labs Inc Needham Heights .... Mass
Millen Mfg Co Inc, James, Malden .... Mass
Miller Electric Co, Woonsocket .... R I
Mohawk Electronics Corp, Frederica .... Del
Numar Corp, New York .... N Y
Oneida Electronic Mfg Co, Meadville .... Pa
Richards Metal Products Inc, Wolcott .... Conn
Semi-Alloys Inc, Mt Vernon .... N Y
Sta-Tite Mfg Co, Lexington .... Mo
Sunbank Electronics Inc, Burbank .... Cal
Sylvania Electric Prods Inc, Parts Div, Warren .... Pa
Transitron Electronic Corp, Wakefield .... Mass
Tru-Connector Corp, Peabody .... Mass
Volkert Stampings Inc Sub Stanley Works Queens Village .... N Y
Washington Electrical Products Co, Washington .... Mo

CARDIAC EQUIPMENT

COMPUTER INSTRUMENTS CORP, HEMPSTEAD .... **N Y**
HEWLETT-PACKARD, PALO ALTO .... **CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO .... **ADV PGS 8**
TEKTRONIX INC, BEAVERTON .... **ORE**
VICTORY ENGINEERING CORP, SPRINGFIELD N J .... **ADV PG FACING PG 1**

Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park .... N Y
American Electronic Labs Inc, Lansdale .... Pa
Astrodata Inc, Anaheim .... Cal
Astro-Space Labs Inc, Huntsville .... Ala
Beckman Instruments Inc, Fullerton, ... Cal
Beckman Instruments Intl SA, 1207 Geneva .... Switzerland
Biocom, Inc, Culver City .... Cal
Bionic Instruments Inc, Bala Cynwyd .... Pa
Birtcher Corp Medical Div, Los Angeles .... Cal
Computer Instruments Corp, Hempstead .... N Y
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena .... Cal
Datascope Corp, Saddle Brook .... NJ
Dynamic Controls Corp, South Windsor .... Conn
Electrodyne Div Becton, Dickinson Co, Westwood ... Mass
Electronic Homes Co, New York .... N Y
Ensco Inc, Salt Lake City .... Utah
Flow Corp, Watertown .... Mass
Giannini-Voltex, Whittier .... Cal
Gulton Industries Inc, Metuchen .... N J
Hewlett-Packard, Palo Alto .... Cal
Honeywell Test Instruments Div, Denver .... Colo
Hycon, Monrovia .... Cal
Instrumentation Lab Inc, Watertown .... Mass
International Rectifier Semiconductor Div El Segundo .... Cal
Massey Dickinson Co Inc, Saxonville .... Mass
Measurement Technology Corp, Canoga Park .... Cal
Medtronic Inc, Minneapolis .... Minn
Mennen-Greatbatch Electronics Inc, Clarence .... N Y
Nihon Kohden Kogyo Co Ltd, Tokyo .... Japan
Optical Electronics Inc, Tuscon .... Ariz
Picker Nuclear, White Plains .... N Y
Stoelting Co, C H, Chicago Ill
Tektronix Inc, Beaverton .... Ore
Thermionic Products Electronics Ltd Southampton .... England
Victory Engineering Corp, Springfield .... N J

CARD READERS SEE READERS--PUNCHED-CARD

CARRIER SYSTEMS SEE COMMUNICATION SYSTEMS

CARTONS--SHIPPING SEE BOXES;PACKAGING MATERIALS

CARTRIDGES--MAGNETIC TAPE

Ampex Corp, Redwood City .... Cal
Audio Devices Inc Sub Capitol Indus, New York ..... N Y
Audio Magnetics Corp, Gardena .... Cal

mm MILITARY CASES

mm
MULTI-MEASURE METAL ENCLOSURES

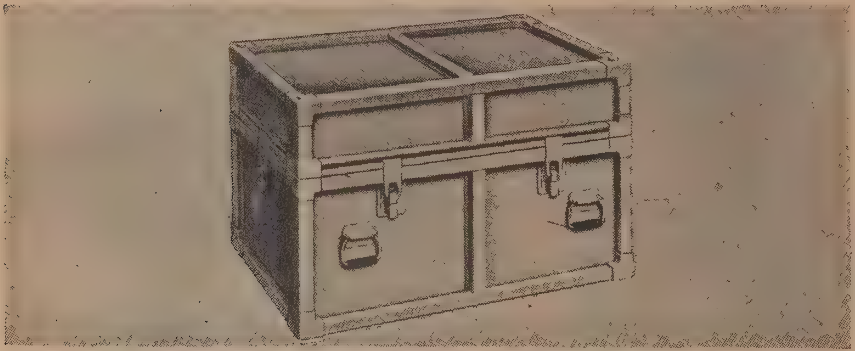
mm COMBINATION, TRANSIT, INSTRUMENT CASES
to MIL-T-945A, T-4734, T-21200, STD-108, C-4150

Over 1,000,000 variations in sizes, shapes and materials for lightweight military cases. MM manufacturing methods provide high production savings on runs as low as 25 units.

NO DIE CHARGE

USED FOR:
- Ground Support Equipment
- Field Test Equipment
- Control Systems
- Communication Systems
- Instrumentation
- Storage and Transport

mm MODULAR METAL CONTAINERS
to MIL-C-22443 (WEP)



A re-usable shipping and storage container system providing maximum component protection and dimensional variability with minimum weight and cubage.

USED FOR:
- Weapons and Components
- Ground Support Equipment
- Communication Systems
- Field Test Equipment
- Radar Equipment
- Storage and Transport

Custom Details

MOUNTING:
Holes, brackets, flanges, anchor nuts, etc.

FOOTING:
Rubber and aluminum feet, dimples, etc.

SHOCK PROOFING:
Rubber pads, molded urethane cushions, vibration isolators, shock mounts, etc.

VENTILATING:
Manual and automatic relief valves, louvres, perforations, vents, etc.

HINGING:
Separable hinges, piano hinges, integral hinges

WATERPROOFING:
Closure gaskets, panel gaskets, humidity indicators, etc.

LOCKING:
Latches, fasteners, locks, etc.

CARRYING:
Handles, recessed handles, hand grips, etc.

IDENTIFYING:
Stencilling, engraving, silk screens, nameplates, etc.

FINISHING:
Painting, iriditing, anodizing, plating, etc.

SEND FOR FREE CATALOG AND DIMENSION SPECIFICATION SHEETS

Reproducible vellums are included for customer convenience in detailing their special dimensions in cases and containers. Use of these vellums speeds up quotes.

mm ELECTRONIC ENCLOSURES, INC.

111 BLOOMINGDALE RD., HICKSVILLE, L. I., N. Y. 11801 • 516 WElls 5-9400

Bell P/A Products Corp, Columbus ... Ohio
Casco Music Systems Inc, Hyde Park ... Mass
Dowa Trading Co Ltd, Kobe ... Japan
Duotone Co Inc, Miami ... Fla
Gates Radio Co, Quincy ... Ill
Lear Jet Industries Inc, Detroit ... Mich
Marathon Products Corp, West Boylston ... Mass
Mincom Div 3M Co, Camarillo ... Cal
Orrtronics Inc, Toledo ... Ohio
Sony Corp, Tokyo ... Japan
Sparta Electronic Corp, Sacramento ... Cal
Superscope Inc, Sun Valley ... Cal
Telex Communications Div, Minneapolis ... Minn
Visual Electronics Labs Audio Div, Pasadena ... Cal

CARTRIDGES SEE PICKUPS--PHONOGRAPH

CASES, PORTABLE--ELECTRONIC EQUIPMENT

GAGNE ASSOCIATES INC, BINGHAMTON ... N Y
KEYSTONE ELECTRONICS CORP, NEW YORK ... N Y
KINETRON CORP, ASBURY PARK ... N J
MM ELECTRONIC ENCLOSURES INC, HICKSVILLE N Y ... ADV PG 122
PORTA-TRACE DIV, GAGNE ASSOCIATES INC BINGHAMTON ... N Y
SCIENTIFIC-ATLANTA INC, ATLANTA ... GA
WALDOM ELECTRONICS INC, CHICAGO ... ILL
Argos Products Co, Inc, Genoa ... Ill
Arwood Corp, Rockleigh ... NJ
A V Electronics, Inc, Fresno ... Cal
Bal Corp, William, Elizabeth ... N J
Baltic Metal Products Co, Brooklyn ... N Y
Binary Electronics of Cal Div Avionic Structures Inc Anaheim ... Cal
Bogen Communications Div Lear Siegler Inc Paramus ... N J
Boston Precision Parts Co Inc, Hyde Park ... Mass
Brooks & Perkins Inc, Detroit ... Mich
Buckeye Stamping Co, Columbus ... Ohio
Bud Radio Inc, Willoughby ... Ohio
California Chassis Co, Lynwood ... Cal
Champion Co, Springfield ... Ohio
Churchill Corp, Melrose ... Mass
C & N Electrical Ltd, Hants ... England
Compagnie Generale de Metrologie Haute Savoie ... France
Components Specialties Inc, Freeport ... N Y
Control Logic Inc, Natick ... Mass
Craig Systems Corp, Lawrence ... Mass
Daniels Inc, C R, Daniels ... Md
Davies Molding Co, Harry, Chicago ... Ill
Electro Mechanical Corp, Sayre ... Pa
Electro Rack Products Co, Anaheim ... Cal
Elzee Metal Products Co Inc, Brooklyn ... N Y
Enclosure Corp, Pennsauken ... N J
Eugene Engineering Co Inc, Rockland ... Mass
Falstrom Co, Passaic ... N J
Fibre Products Div Ikelheimer-Ernst Inc, New York ... N Y
Gagne Associates Inc, Binghamton ... N Y
Gardner Lab Inc, Bethesda ... Md
Golding Mfg Co, North Arlington ... N J
Goldsman Inc, Philadelphia ... Pa
Goodyear Aerospace Corp, Akron ... Ohio
Halliburton Enterprises Inc, Mfg Div, Los Angeles ... Cal
Hammond Mfg Co Ltd, Guelph, Ont ... Can
Insulating Fabricators Inc, East Rutherford ... N J
Jan Hardware Mfg Co Inc, Long Island City ... N Y
Jones Inc, Norman, South Merrimack ... N H
Keystone Electronics Corp, New York ... N Y
Kinetron Corp, Asbury Park ... N J
Metal Works Inc, Hermann ... Mo
Mid-West Metal Products Inc, Kansas City ... Kans
Miller Co, W A, Oquossoc ... Maine
MM Electronic Enclosures Inc, Hicksville ... N Y
Mobil Electronics Inc, Anderson ... Ind
Muckle Mfg Co, Owatonna ... Minn
Neotec Corp, Rockville ... Md
New-Berg Leather Products Co, Brooklyn ... N Y
Porta-Trace Div, Gagne Associates Inc Binghamton ... N Y
Riester & Thesmacher Co, Cleveland ... Ohio
Robertson Instrument Co, Azusa ... Cal
Rosemount Plug-In Inc, Nashville ... Tenn
Rosselli Del Turco Rossello, Rome ... Italy
Rotary Co, Inc, Buffalo ... N Y
Scientific-Atlanta Inc, Atlanta ... Ga
Skydyne Inc, Port Jervis ... N Y
Skyline Products Inc, Deer Park ... N Y
Slocum Industries, Inc, Reseda ... Cal
Smiths Industries Ltd, Aviation Div Wembley, Mdsx ... England
Spring City Electrical Mfg Co, Spring City ... Pa
Stafford Mfg Co Inc, Brooklyn ... N Y
Taffet Electronics Inc, Woodside ... N Y
Technical Materiel Corp, Mamaroneck ... N Y
Utility Communication Systems Inc, Essington ... Pa
Vector Electronic Co Inc, Los Angeles ... Cal
Vero Electronics Ltd, Southampton ... England
Waber Electronics Inc, Philadelphia ... Pa
Waldom Electronics Inc, Chicago ... Ill
Watson Mfg Co Inc, Jamestown ... N Y
Western Reserve Electronics, Inc, Cleveland ... Ohio
Whitman Saddle Mfg Co, Cincinnati ... Ohio
Zero Mfg Co, Burbank ... Cal

CASTINGS--METAL & ALLOY

NATIONAL LEAD CO, NEW YORK ... N Y
POMONA ELECTRONICS CO INC, POMONA ... CAL
Aluminum Co of America, Pittsburgh ... Pa
Anadite, Inc, South Gate ... Cal
Arwood Corp, Rockleigh ... NJ
Bean & Co, Morris, Yellow Springs ... Ohio
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights ... NY
Cerro Corp, New York ... NY
Chase Electronics Motor Div Inc, Elmhurst ... N Y
Coiltronics Inc, Buena Park ... Cal
Colbert Die Cast Co Inc, South Gate ... Cal
Control Engineering Div J B Webb Co, Detroit ... Mich
DCMT Machinery Div Avnet Inc, Plainview ... N Y
Division Lead Co, Summit ... Ill
Driver-Harris Co, Harrison ... N J
Electronic Specialty Co, Los Angeles ... Cal
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark ... N J
Fansteel Metallurgical Corp, North Chicago ... Ill
Ferranti, Ltd, Lancashire ... England
Gries Reproducer Co Div Coats & Clark Inc New Rochelle ... N Y
Howmet Corp Austenal Microcast Div, Dover ... N J
Howmet Corp Misco Div, Muskegon ... Mich
Investment Casting Co, Springfield ... N J
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia ... Pa
Metal Ceram Inc, Mount Vernon ... N Y
Microwave Associates Inc, Burlington ... Mass
National Lead Co, New York ... N Y
Nuclear Fuel Services, Inc, Wheaton ... Md
Nuclear Materials & Equipment Corp, Apollo ... Pa
Peco Inc, Portland ... Ore
Pomona Electronics Co Inc, Pomona ... Cal
Semi-Alloys Inc, Mt Vernon ... N Y
Sims Casting Corp, Syracuse ... N Y
Spring City Electrical Mfg Co, Spring City ... Pa
Steel Heddle Mfg Co, Philadelphia ... Pa
Union Carbide Corp, Materials Systems Div Kokomo ... Ind
Westinghouse Electric Corp, Materials Mfg Div Blairsville ... Pa
Wilkinson Co, Westlake Village ... Cal

CATHODE-RAY TUBES SEE TUBES--CATHODE-RAY

CATHODES SEE TUBE PARTS

CATHODE-RAY TUBE SHIELDS SEE SHIELDS--TUBE

CATHODE-RAY TUBE TESTERS SEE TESTERS--TUBE

CAVITIES, MICROWAVE--FIXED

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE ... NY
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y ... ADV PGS 58,59
GENERAL MICROWAVE CORP, FARMINGDALE ... N Y
MICROWAVE CAVITY LABS INC, LA GRANGE ILL ... ADV PGS 124,125
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
RADAR DESIGN CORP, SYRACUSE ... N Y
RFD INC, TAMPA ... FLA
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG ... MD
Airtron, Div of Litton Industries, Inc, Morris Plains ... N J
Amerac, Inc, Beverly ... Mass
Amperex Electronic Corp, Professional Tube Div, Hicksville ... NY
Applied Microwave Lab, Inc, Andover ... Mass
Astrolab Inc, Linden ... N J
Automatic Metal Products Corp, Brooklyn ... N Y
Avion Electronics Inc, Unit Gen Signal Corp Paramus ... NJ
Bendix Corp, Microwave Devices Div, Franklin ... Ind
Bomac Div Varian Associates, Beverly ... Mass
Cardwell Condenser Corp, Lindenhurst ... N Y
Cavitron Electronics, Inc, Costa Mesa ... Cal
Control Science Corp, Alexandria ... Va
Cosmos Industries Inc, Brooklyn ... N Y
DeMornay-Bonardi Div Datapulse Inc, Pasadena ... Cal
Diamond Antenna & Microwave Corp, Winchester ... Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck ... N Y
Electromagnetic Radiation Labs Inc, West Acton ... Mass
Electronic Specialty Co, Los Angeles ... Cal
Forway Industries Inc, Woodbury ... N J
Frequency Engineering Labs, Farmingdale ... N J
General Microwave Corp, Farmingdale ... N Y
Gombos Microwave Inc, Clifton ... N J
Guide Industries Inc, Sun Valley ... Cal
Gyrotronics Inc, Asbury Park ... N J
Herley Industries, Inc, Westbury ... N Y
Ikor, Inc, Burlington ... Mass
ITT Europe Inc Components Gp, Brussels 1 ... Belgium
Lieco Inc, West Babylon ... N Y
Litton Industries, Electron Tube Div, San Carlos ... Cal
Maury Microwave Corp, Montclair ... Cal
MCS Corp, Monrovia ... Cal
Metcom Inc, Salem ... Mass
Microlab/F X R, Livingston ... N J
Micronetics Div Teledyne Systems Co, San Diego ... Cal
Microwave Associates Inc, Burlington ... Mass
Microwave Cavity Labs Inc, La Grange ... Ill
Microwave Control Co, Red Bank ... N J
Microwave Development Labs Inc Needham Heights ... Mass
Microwave Filter Co Inc, East Syracuse ... NY
Microwave Labs of America, Brooklyn ... N Y
Neico Microwave Co, Waltham ... Mass
N-H Microwave Inc, Red Bank ... N J
Nippon Electric Co Ltd, Tokyo ... Japan
Omega Laboratories Inc, Rowley ... Mass
Pabst Engineering Equipment Co Inc, Elizabeth ... NJ
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Polarad Electronic Instruments Div Long Island City ... N Y
Portchester Instrument Corp, Port Chester ... N Y
PRD Electronics Inc, Sub H-I Corp, Westbury ... N Y
Radar Design Corp, Syracuse ... N Y
Radio Corp of America, Electronic Components, Harrison ... N J
Radio Engineering Labs, Div DCA, Long Island City ... N Y
Ramcor Inc, Huntington ... NY
Resdel Engineering Corp, Pasadena ... Cal
RFD Inc, Tampa ... Fla
RLC Electronics Inc, Port Chester ... N Y
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst ... NY
Short Wave Plastic Forming Co, Costa Mesa ... Cal
Teledata Inc, Queens Village ... N Y
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach ... Cal
Trak Microwave Corp, Tampa ... Fla
TRW Electronic Components Div TRW Inc, Camden ... N J
Varian, Palo Alto ... Cal
Victor R F & Microwave Co, Wakefield ... Mass
Waveline Inc, West Caldwell ... N J
Weinschel Engineering Co Inc, Gaithersburg ... Md
Wilcox Electric Co Inc, Kansas City ... Mo

CAVITIES, MICROWAVE--TUNEABLE

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE ... NY
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y ... ADV PGS 58,59
GENERAL MICROWAVE CORP, FARMINGDALE ... N Y
LAPOINTE INDUSTRIES, INC, ROCKVILLE ... CONN
MICROWAVE CAVITY LABS INC, LA GRANGE ILL ... ADV PGS 124,125
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
RADAR DESIGN CORP, SYRACUSE ... N Y
RFD INC, TAMPA ... FLA
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG ... MD
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park ... N Y
Airtron, Div of Litton Industries, Inc, Morris Plains ... N J
Amerac, Inc, Beverly ... Mass
Amperex Electronic Corp, Professional Tube Div, Hicksville ... NY
Applied Microwave Lab, Inc, Andover ... Mass
Automatic Metal Products Corp, Brooklyn ... N Y
Avion Electronics Inc, Unit Gen Signal Corp Paramus ... NJ
Bendix Corp, Microwave Devices Div, Franklin ... Ind
Bomac Div Varian Associates, Beverly ... Mass
Cardwell Condenser Corp, Lindenhurst ... N Y
Cavitron Electronics, Inc, Costa Mesa ... Cal
Control Science Corp, Alexandria ... Va
Cosmos Industries Inc, Brooklyn ... N Y
DeMornay-Bonardi Div Datapulse Inc, Pasadena ... Cal
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck ... N Y
Electromagnetic Radiation Labs Inc, West Acton ... Mass
Electro-Mechanics Co, Austin ... Tex
EMI Electronics Ltd, Hayes, Middlesex ... England
Frequency Engineering Labs, Farmingdale ... N J
General Microwave Corp, Farmingdale ... N Y
Gombos Microwave Inc, Clifton ... N J
Guide Industries Inc, Sun Valley ... Cal
Herley Industries, Inc, Westbury ... N Y
Honig Laboratories Inc, Westbury ... N Y
Hyletronics Corp, Wilmington ... Mass
ITT Europe Inc Components Gp, Brussels 1 ... Belgium
LaPointe Industries, Inc, Rockville ... Conn
Lieco Inc, West Babylon ... N Y
Litton Industries, Electron Tube Div, San Carlos ... Cal
Livingston Electronic Div Jettron Prods Inc Hanover ... N J
Maury Microwave Corp, Montclair ... Cal
MCS Corp, Monrovia ... Cal
Metcom Inc, Salem ... Mass
Microdot, Inc, South Pasadena ... Cal
Microlab/F X R, Livingston ... N J
Micronetics Div Teledyne Systems Co, San Diego ... Cal
Microwave Associates Inc, Burlington ... Mass
Microwave Cavity Labs Inc, La Grange ... Ill
Microwave Control Co, Red Bank ... N J
Microwave Development Labs Inc Needham Heights ... Mass
Microwave Filter Co Inc, East Syracuse ... NY
Microwave Labs of America, Brooklyn ... N Y
Neico Microwave Co, Waltham ... Mass
N-H Microwave Inc, Red Bank ... N J
Nippon Electric Co Ltd, Tokyo ... Japan
Oki Electronics of America, Inc, Fort Lauderdale ... Fla
Omega Laboratories Inc, Rowley ... Mass
Pabst Engineering Equipment Co Inc, Elizabeth ... NJ
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Polarad Electronic Instruments Div Long Island City ... N Y
Portchester Instrument Corp, Port Chester ... N Y
PRD Electronics Inc, Sub H-I Corp, Westbury ... N Y
Radar Design Corp, Syracuse ... N Y
Radio Corp of America, Electronic Components, Harrison ... N J
Radio Engineering Labs, Div DCA, Long Island City ... N Y
Ramcor Inc, Huntington ... NY
Resdel Engineering Corp, Pasadena ... Cal
RFD Inc, Tampa ... Fla
RLC Electronics Inc, Port Chester ... N Y
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst ... NY
Short Wave Plastic Forming Co, Costa Mesa ... Cal
Teledata Inc, Queens Village ... N Y
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach ... Cal
Trak Microwave Corp, Tampa ... Fla
TRW Electronic Components Div TRW Inc, Camden ... N J
Varian, Palo Alto ... Cal
Vector Industries A Teledyne Co, Palo Alto ... Cal
Victor R F & Microwave Co, Wakefield ... Mass
Weinschel Engineering Co Inc, Gaithersburg ... Md
Wilcox Electric Co Inc, Kansas City ... Mo

MICROWAVE

"Dynamic Disciplines" Products that

HIGH POWER, RF TETRODE PULSE, CW CAVITIES

Up to 125 KW Output (Pulse Service)

- Tunable from 30-1350 MHz over entire range on most units.
- Input VSWR, 2:1 or better.
- Gang tuning available.
- Input and output coupling matched
- No neutralizing.
- Servo tuned models available.*
- Temperature stable.
- Optimum cooling.
- MIL Spec design.

MODEL	FREQ. RANGE MHz	OPERATION	POWER OUTPUT	SERVICE
11023	40-200	Class B	1.0 KW	CW Amp.
11022	230	Class C	15 KW Peak	Pulse Amp.
11024	30-200	Class B	0.1 KW	CW Amp.
11050	150	Class C	30 KW	Pulse Osc.
11051	150	Class C	125 KW	Pulse Amp.
11055	200-400	Class B lin.	1.0 KW	CW Amp.
11006	225-400	Class B lin.	.12 KW	CW Amp.
11009*	225-400	Class C	1.2 KW Peak	Pulse Amp.
11010*	225-400	Class B lin.	.12 KW	CW Amp.
11012	225-400	Class B lin.	2.5 KW	CW Amp.
11018	280-315	Class B	1.0 KW	CW Amp.
11029	360-480	Class B	.15 KW	CW Amp.
11030	360-480	Class B	1.5 KW	CW Amp.
11056	375	Class B	0.1 KW	CW Amp.
11057	375	Class B	1.4 KW	CW Amp.
11001	400-450	Class B lin.	2.5 KW	CW Amp.
11031	400-800	Class C	15 KW	Pulse Amp.
11019	400-800	Class B lin.	1.0 KW	CW Amp.
11004	410-460	Class C	14 KW	Pulse Amp.
11005	410-460	Class C	2.5 KW	Pulse Osc.
11205	420	Class C	35 KW	Pulse Osc.
11046	800-1000	Class B	1.0 KW	CW Amp.
11011	1250-1350	Class C	10 KW Peak	Pulse Amp.

SERIES "N" STANDARD TRIODE CAVITIES

Amplifiers, oscillators and multipliers designed for narrow band operation. Minimum range: 10%.

STANDARD OPERATING CONDITIONS

	Application	Series Number	High Frequency Limit	P in mw	GAIN DB 1GHz	2GHz	3GHz	4GHz
AMPLIFIER, CW	Lo Noise	1000-	3400 MHZ	1	17	16	11	
	Med. Power	2000-		100	13	11	8	
	Med. Power	2001-	2240 MHZ	200	13	10		
	Med. Power	2002-		2000	13	8		

	Application	Series Number	High Frequency Limit	Pulse width = 1 microsecond DUTY-CYCLE	POWER OUT WATTS 1GHz	2GHz	3GHz	4GHz
OSCILLATOR, CW	Lo-Power	6000- *7000-	5250 MHZ		.4	.3	1	.05
	Med. Power	6001- *7001-	4500 MHZ		1.2	.8	5	.2
	Med. Power	6002- *7002-	2000 MHZ		1.5	.8		
	Med. Power	6003- *7003-	2520 MHZ		33	24		
OSCILLATOR, PULSE	Lo-Power	8000- *9000-	5250 MHZ	.001	18	12	8	5
	Med. Power	8001- *9001-	4500 MHZ	.001	900	700	600	400
	Hi-Power	8002- *9002-	4500 MHZ	.001	2000	1800	1700	1400
	Hi-Power	8003- *9003-	2520 MHZ	.003	2000	1800	1500	

*Re-entrant

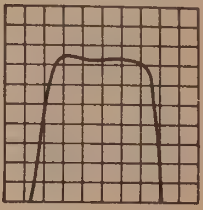
"MINI-CAV" OSCILLATOR, AMPLIFIER, TRIPLER CAVITIES

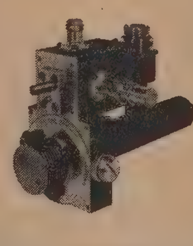
Meet rigid demands for reliability, small size and light weight in airborne and similar equipment.

MODEL	FREQ. GHz	POWER OUTPUT	SIZE DIA.	LENGTH	WEIGHT (APPROX.)
9010*	.988-1.012	3.5 KW min.	1½"	4½"	1 lb.
9012*	2.84-3.18	10 W peak min.	1"	6 3/16"	12 oz.
9013*	4.82-5.22	5 W peak	1"	6 3/16"	14 oz.
9017*	.960-1.06	2.5 KW peak min.	1½"	5 1/16"	2 lbs.
9019*	2.84-3.00	10 W peak	1"	6 3/16"	12 oz.
9022B*	5.40	15 W	⅝"	2 3/32"	3 oz.
9023*	9.0	3 W min.	11/16"	2 3/16"	4 oz.
9024*	2.8	10 W peak	1"	3 13/16"	7 oz.
8207†	.940-.980	6KW peak	1½"	5 9/16"	20 oz.
9009A†	4.30	1 KW min.	1⅜"	3 9/16"	12 oz.
9018†	4.30	.25 KW peak	1"	2 9/32"	5 oz.
6016**	1.75-1.80	5 W	1½"	6 1/16"	2 lbs.
7009**	1.23-1.37	1 W min.	1½"	10½"	1½ lbs.
9015**	4.30	2 MW	⅝"	2 11/32"	3 oz.
1004††	1.80-2.00	25 MW min.	1¼"	3"	12 oz.
1005††	1.075-1.10	1 W	1 9/32"	2"	12 oz.
5015***	2.12-2.35 output .7083-.7833 input	150 MW min.	1½"	7"	2 lbs.

*Grid Pulsed Oscillators
†Plate Pulsed Oscillators
**CW Oscillators
††CW Amplifiers
***CW Tripler

BROAD BAND AMPLIFIER CAVITIES





Give ***maximum utilization of the gain-band-width product,*** VHF through S-Band. Band-widths more than double ordinary cavities. Flat-top response for easy cascading, with minimum reduction in over-all system band-width. Eliminate mechanical tuning in many uses. Excellent phase stability, linearity. Compact.

Model	Freq (MHz)	Gain (db)	Bandwidth (1db)	Power Output
11026*	425	6	50 MHz	10 kw
3003†	1800	10	30 MHz	2.2 watts
3015†	1800	10	30 MHz	22 watts
3006†	2106	10	20 MHz (3db)	10 watts
3012*	425	8	50 MHz	2.5 kw
3014*	425	26	50 MHz	400 watts
3022*	420	23	20 MHz	200 watts
3021*	420	10	18 MHz	2.0 kw
11033*	430.5	7	33 MHz	8.0 kw
11034*	420	8	12 MHz	10 kw
3026†	410	9	42 MHz (3db)	60 watts

*Pulse Operation †CW Operation

MICROWAVE CAVITY LABORATORIES, Inc.

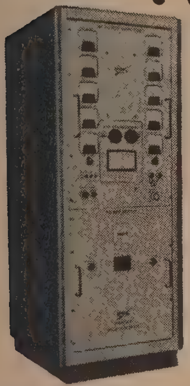
10 North Beach Avenue
LaGrange, Illinois 60525
Area Code 312 354-4350

MARKETPLACE

Carry the MCL Seal of Quality

HIGH POWER, RF ADD-ON AMPLIFIER SYSTEMS

- ***40-18,000 MHz Coverage***
- ***100 WATTS to 2.5 KW***
- ***CW or Pulse Operation***



An exclusive MCL advancement which affords quick, economical modernization of older installations. Replaces multi-unit lashups with neat, standard 19" rack-mounted, high power amplifier systems. Complete with power supply, cooling source, sequential circuitry, fusing and protective interlock.

CW TETRODE AMPLIFIER SYSTEMS

Model	Freq. Range MHz	Power Output	Gain db.	Bandwidth at 3 db.
10038	200-260	125 watts	13	5 MHz
10039	220-400	125 watts	13	5 MHz
10270-11043	40-200	1.0 KW	13	1 MHz
10270-11044	200-400	1.0 KW	13	5 MHz
10270-11045	400-800	1.0 KW	13	6 MHz
10270-11046	800-1000	1.0 KW	12	4 MHz
11017	400-450	2.5 KW	13	6 MHz

KLYSTRON AMPLIFIER SYSTEMS

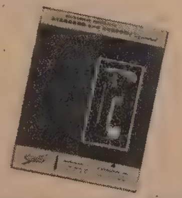
High Gain, High Efficiency
Or Broad Band Tuning Modes

Model	Tube Type	Freq. MHz	Power Output	Max. Gain Tuned		Max. B.W. Tuned	
				Gain db.	BW MHz	Gain db.	BW MHz
10282	4K3SJ	1700-2400	1.0 KW	47-45	4-6	—	—
10283	4K3SL	1700-2400	1.0 KW	41-38	9-12	38.3	13-14
10284	4K3SK	2400-2700	1.0 KW	43-42	10-15	—	—
10285	4K3SN	2850-3050	1.0 KW	45	7	—	—
10276	VA888	4400-5000	1.0 KW	51	6-8	41	13-19
10233	VA834B	4400-5000	1.0 KW	51	5.5-7.5	41	11-17
10277	VA834D	5500-5850	1.0 KW	51	5.5-7.5	41	11-17
10278	VA861	5900-6400	1.0 KW	58	7-8	48	11
10286	VA866	7100-8500	1.0 KW	59	12	50	20
10287	VA930	15000-18000	0.5 KW	50	12	40	20

MCL CUSTOM CAPABILITIES

Any of the components or systems advertised on these pages can be fabricated to your individual requirements.

Write for complete catalog covering more than 50 standard and custom engineered product varieties including solid state components and accessories such as preselectors, diplexers, low, high and bandpass filters, switches, mixers, power dividers, power samplers, detectors, attenuators and loads.



SERIES "E" RF TRIODE OSCILLATORS, AMPLIFIERS

150-4000 MHz Coverage With Extended Range Tuning

Use as system components or test equipment.
Modified to your requirements.

PULSE OSCILLATORS

Available from stock

Model Number	Frequency MHz	Min Power Output KW	Model Number	Frequency MHz	Min. Power Output KW
8038	150-300	1.5	8019	600-1200	1.0
8021	200-400	1.5	8028	1000-1500	1.0
8026	250-500	1.5	8029	1450-2000	1.0
8018	300-600	1.5	8027	2000-3500	1.0
8022	400-800	1.5	8030	3000-4000	1.0
8024	500-1000	1.5			

CW OSCILLATORS

Model Number	Frequency MHz	Power Output	Model Number	Frequency MHz	Power Output
6020	200-550	80 W	7015	550-1000	100 Mw
6021	550-1215	50 W	7016	1000-2500	100 Mw
6022	1215-2500	25 W	7017	2500-3500	100 Mw

CW AMPLIFIERS

Model Number	Frequency MHz	Power Output
2026	200-550	80 W
2027	550-1215	50 W
2028	1215-2500	40 W

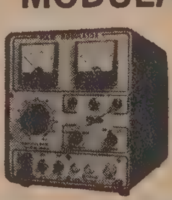
SERIES "E" SIGNAL GENERATORS

Built around Series "E" triode oscillators. Available as complete, rack-mounted signal source, with integral pulse modulator. Interchangeable RF heads.

Model Number	Frequency MHz	Power Output KW (max.)	Model Number	Frequency MHz	Power Output KW (max.)
10066	150-300	1.5	10072	600-1200	1.0
10067	200-400	1.5	10073	1000-1500	1.0
10068	250-500	1.5	10074	1450-2000	1.0
10069	300-600	1.5	10075	2000-3500	1.0
10070	400-800	1.5	10076	3000-4000	1.0
10071	500-1000	1.5			

MODEL 10230 PULSE MODULATOR

All solid state — designed as companion modulator to Series "E" pulse oscillators.
Output: 3 KV @ 2.5 amps.
Pulse width: plug-in assemblies: .5, 1, 2, 3, 4, 5 microseconds.
Pulse rep. rate: 200 Hz to 10kHz.
Duty cycle: up to .01.



MICROWAVE CAVITY LABORATORIES, Inc.

10 North Beach Avenue
LaGrange, Illinois 60525
Area Code 312 354-4350

VACTEC

PHOTOCONDUCTIVE CELLS

Five types, ranging from CdS to CdSe with resistance tolerance ±33⅓%

HOW TO ORDER (example)

VT-102
series material resistance

MATERIAL		PEAK SPECTRAL RESPONSE
Type 0	CdS	5650 A
Type 1	CdSe	7350 A
Type 2	CdS	5150 A
Type 3	CdSe	5150 A
Type 4	CdSe	6750 A

VT-100 Series (Plastic)

200 MW @ 25°C

Part No.	2 Ft.-C Resis. KΩ	Max. Volt.
VT-10L	1.6	200
VT-101	3	200
VT-101H	6	200
VT-102L	9	300
VT-102	16	300
VT-103L	32	300
VT-103	66	300
VT-104	136	300
VT-111	2.3	200
VT-111H	4.6	200
VT-112L	9.2	300
VT-112	22	300
VT-113L	44	300
VT-113	60	300
VT-121	3	200
VT-121H	6	200
VT-122L	9	300
VT-122	16	300
VT-123L	32	300
VT-123	66	300
VT-124	136	300
VT-132	10	200
VT-133L	14	200
VT-133	28	200
VT-14L	.6	200
VT-141	1.2	200
VT-141H	2.4	200
VT-142L	4.8	300
VT-142	7	300
VT-143L	14	300
VT-143	28	300

VT-100
(.065" Thickness)
(Diam. .368")
Plastic

VT-100E Series (Epoxy)

200 MW @ 25°C

Part No.	2 Ft.-C Resis. KΩ	Max. Volt.
VT-101E	3.3	100
VT-101HE	6.6	100
VT-102LE	9.9	300
VT-102E	17.6	300
VT-111E	2.5	200
VT-111HE	5.0	200
VT-112LE	10.0	300
VT-112E	24.2	300
VT-121E	3.3	100
VT-121HE	6.6	100
VT-122LE	9.9	300
VT-122E	17.6	300
VT-133LE	15.4	200
VT-133E	30.8	200
VT-14LE	.66	200
VT-141E	1.32	200
VT-141HE	2.64	200
VT-142LE	5.3	200

VT-100 E
(Diam. ½")
(¼" Thick)

VT-200 Series (TO-18)

50 MW @ 25°C

Part No.	2 Ft.-C Resis. KΩ	Max. Volt.
VT-201	4.3	100
VT-202	8	100
VT-202H	15	100
VT-203	22	300
VT-203H	44	300
VT-204L	88	300
VT-204	110	300
VT-205	1000	300
VT-211	2.3	100
VT-211H	3.5	100
VT-212L	6	100
VT-212	7.8	100
VT-213L	16	100
VT-213	22	300
VT-213H	32	300
VT-214L	64	300
VT-214	140	300
VT-221	6.8	100
VT-222	10	100
VT-222H	20	100
VT-223	40	300
VT-223H	65	300
VT-224L	80	300
VT-224	500	300

VT-200
TO-18
(Diam. .183)

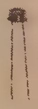
VT-200 Series (TO-18) cont.

VT-225	1000	300
VT-232	100	100
VT-233L	150	100
VT-233	350	100
VT-234	700	100
VT-235	1400	300
VT-241	2	100
VT-241H	4	100
VT-242L	8	100
VT-242	15	100
VT-242H	30	300

VT-300 Series (TO-5)

125 MW @ 25°C

Part No.	2 Ft.-C Resis. KΩ	Max. Volt.
VT-30L	1.8	200
VT-301	3	200
VT-301H	6	200
VT-302L	10	300
VT-302	16	300
VT-303L	32	300
VT-303	70	300
VT-304	144	300
VT-305	1000	300
VT-311L	2.1	200
VT-311	4.2	200
VT-312L	8.4	300
VT-312	22	300
VT-312H	30	300
VT-313L	60	300
VT-314	140	300
VT-32L	1.95	200
VT-321	3.9	200
VT-321H	7.8	200
VT-322L	15.6	300
VT-322	31.2	300
VT-325	1000	300
VT-333L	14	200
VT-333	28	200
VT-34L	.6	200
VT-341	1.2	200
VT-341H	2.4	300
VT-342L	4.8	300
VT-342	7	300
VT-343L	14	300
VT-343	28	300



VT-300
TO-5
(Diam. .325)

VT-500 Series (TO-8)

500 MW @ 25°C

Part No.	2 Ft.-C Resis. KΩ	Max. Volt.
VT-50L	1.3	200
VT-501	2.6	200
VT-501H	4	300
VT-502L	8	300
VT-502	16	300
VT-503L	32	300
VT-503	66	300
VT-51L	.7	200
VT-511L	1.4	200
VT-511	2.3	300
VT-511H	4.6	300
VT-512L	9.2	300
VT-521	2.6	200
VT-521H	5	300
VT-522L	9	300
VT-522	18	300
VT-523L	36	300
VT-533L	12.5	200
VT-533	25	200
VT-54L	.25	200
VT-541	.5	200
VT-541H	1	200
VT-542L	1.5	300
VT-542	2	300

VT-500
TO-8
(Low Profile)

DUAL ELEMENT CELLS

Part No.	2 Ft.-C Resis. KΩ	Max. Volt.
VT-302/2	16	200 (ea. ½)
VT-303L	32	200 (ea. ½)
VT-312/2	5	200 (ea. ½)
VT-313L/2	10	200 (ea. ½)
VT-34L/2	1.5	200 (ea. ½)
VT-341/2	3	200 (ea. ½)

PHOTOVOLTAIC CELLS

Photovoltaic cells start with a layer of selenium onto which a junction of CdSe is formed. A subsequent layer of CdO or Au acts as a current collector. The two types are specified as A for the Au layer and B for the CdO type. B is high output for low light and best for amplifier use. Specify A or B after part number, e.g. S100 EB.

STANDARD SIZES

	Part Number	Size (Inches)	Sensitive Area	Minimum Microamp Output
UNMOUNTED SIZES	RX5	.250 diameter	.05	12
	RX10	.375 diameter	.11	20
	RX15	.500 diameter	.16	30
	RX80	1.000 diameter	.52	130
	R1	1.130 diameter	.70	220
	R5	1.375 diameter	1.18	305
	R10	1.500 diameter	1.35	360
	R75	1.770 diameter	1.83	400
	R100	2.000 diameter	2.40	750
	SX10	.250 x .484	.06	14
	S1	.440 x .730	.31	80
	S2	.654 x 765	.48	110
	S3	.622 x 1.118	.66	150
	S4	.654 x 1.160	.74	250
	S5	.535 x .875	.45	100
	S7	.843 x .875	.69	205
	S8	.875 x .875	.74	220
	S10	.640 x 1.459	.87	240
	S11	.890 x 1.118	.97	250
	S13	1.500 x 1.500	2.21	650
	S14	1.437 x 1.937	2.68	730
	S17	.281 x .875	.24	75
	S50	.250 x 4.188	1.12	305
	S55	.500 x 5.859	2.75	720
	S56	.437 x 6.000	2.43	725
	S100	.886 x 1.689	1.35	360
	S150	.250 x 6.000	1.31	360

NOTE: Unmounted Cells less than 045″ thick

	Part Number	Description	Dimensions (Inches) Thickness	Dimensions (Inches) Diameter
MOUNTED SIZES	R10M	Plastic case — Acrylic window	¾	1¾
	R100M	Plastic case — Acrylic window	¾	2¼
	R10M1	Plastic case — Acrylic window	13/32	1¾
	R10E	R10M1 case—Epoxy encapsulated cell	13/32	1¾
	R75E	Plastic case—Epoxy encapsulated cell	7/16	2
	RX80H	Hermetic case—Glass to metal seals	¼	1⅛
	RX80T	RX80H on an octal base plug	1¼	1¼
	R100K	Plastic case on octal base plug and epoxy encapsulated cell	1 9/32	2 5/16
	R100G	Metal case on octal base plug and epoxy encapsulated cell	23/32	2 9/16
	S100M	Plastic case—Acrylic window	T(¼) x W(1 3/32) x L(1 29/32)	
	S100E	S100M case—Epoxy encapsulated cell	same as S100M	

NOTE: All Mounted Cells slightly lower in output than Unmounted

PAM-1 PHOTOCELL AMPLIFIER MODULE

The Vactec Photocell amplifier module (PAM) consists of a matched selenium photocell and a high gain operational amplifier. All solid state unit replacement for phototube and associated amplifier.

Specifications

Input	± 15 VDC; ± 15 ma max.
Output	0-10 VDC; 2 K min. load resistance (1)
Sensitivity	Below 0.001 fc.
Linearity error	Less than 1% to 100 fc.
Photometric Response (min. with 2850° K Source)	6u V/fc/ohm
Radiometric Response (min. at 575° Angstroms)	0.3u V/fc/ohm
Rise Time	100 Microseconds
Temperature Coefficient	— .2%/°C.
Ambient Temperature	— 25°C. to +65°C.

(1) Load resistance is the parallel combination of feedback and external load.

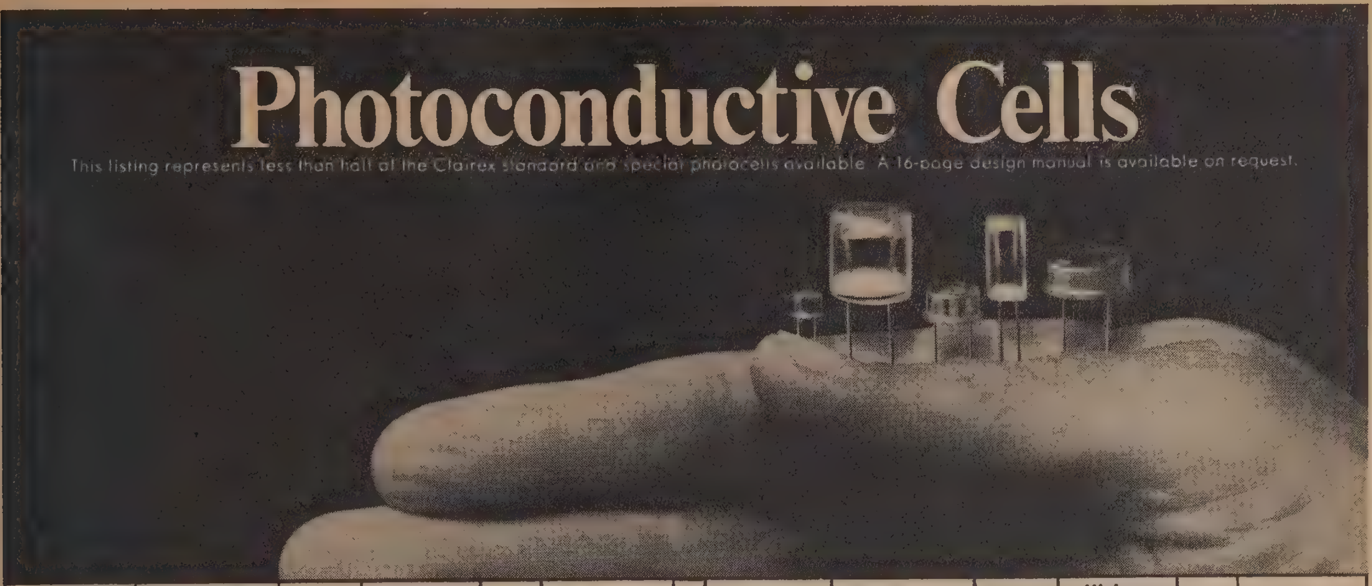
NOTE: The above microampere output based upon a cell temperature of 75°F., a color temperature of the light source of 2850°K, 100 foot candles, 150 ohm load.

Write for Se bulletin SPV4A or CdS & CdSe bulletin PCD4 for complete information.

VACTEC, INC.
2423 Northline Industrial Blvd., Maryland Hgts., Mo. 63042
Phone Area 314, 432-4200

Photoconductive Cells

This listing represents less than half of the Clairex standard and special photocells available. A 16-page design manual is available on request.



Photocell ordering abbreviation	Diam. X Length (inches)	Resistance @ 2 fc ± 33⅓%	Minimum resistance ratio from 2 ftc to Dark within 5 sec.	Maximum voltage	Power Dissipation @ 25°C (mw)
CL5M2	.55 X .18	55K	1:100	250	2000-500[1]
CL602	.25 X .5	1 meg.		300	75
CL702	.36 X .18	1 meg.		300	125
CL902	.21 X .15	1 meg.		250	50

Type 2 CdS (photosensitive material designated by last number in ordering abbreviation, i.e. CL5M2). Peak spectral response 5150 angstroms, bluest response photosensitive material, high stability, lowest temperature error.

CL503	.5 X .5	7.2K	1:10,000	250	500-250[1]
CL5M3	.55 X .18	7.2K		250	2000-500[1]
CL603	.25 X .5	133K		300	75
CL603A	.25 X .5	75K		300	75
CL603AL	.25 X .5	3.5K		170	75
CL703	.36 X .18	133K		300	125
CL703A	.36 X .18	67K		300	125
CL703L	.36 X .18	2.7K		100	125
CL903	.21 X .15	133K		250	50
CL903A	.21 X .15	67K		250	50
CL903L	.21 X .15	6.0K		100	50

Type 3 CdSe, peak spectral response 7350 angstroms, fast response, and very high light-to-dark resistance ratio. Can be used for high speed switching or counting. Sensitive to near infra red. For use with incandescent or neon lamps.

CL504	.5 X .5	1.5K	1:1000	250	500-250[1]
CL5M4	.55 X .18	1.5K		250	2000-500[1]
CL504L	.5 X .5	0.25K		170	500-250[1]
CL5M4L	.55 X .18	0.25K		170	2000-500[1]
CL604	.25 X .5	30K		300	75
CL604L	.25 X .5	1.5K		170	75
CL704	.36 X .18	30K		300	125
CL704L	.36 X .18	0.6K		100	125
CL904	.21 X .15	30K		250	50
CL904L	.21 X .15	2K		100	50

Type 4 CdSe, peak spectral response 6900 angstroms, lowest resistance photocells available. Can be used for "on-off" applications when low resistance is desired. For use with incandescent or neon lamps.

CL505	.5 X .5	9K	1:100	250	500-250[1]
CL5M5	.55 X .18	9K		250	2000-500[1]
CL505L	.5 X .5	1.5K		170	500-250[1]
CL5M5L	.55 X .18	1.5K		170	2000-500[1]
CL605	.25 X .5	166K		300	75
CL605L	.25 X .5	7.5K		170	75
CL705	.36 X .18	166K		300	125
CL705L	.36 X .18	3.3K		100	125
CL905	.21 X .15	166K		250	50
CL905L	.21 X .15	10K		100	50

Type 5 CdS, peak spectral response 5500 angstroms (closely matches the human eye), most stable, lowest memory photocell available. Can be used in light measuring applications and precision low speed switching. For use with incandescent, fluorescent or neon lamps.

CL705HL	.36 X .18	28K	1:1000	100	125
CL905HL	.21 X .15	100K		100	50
CL905HN	.21 X .15	700K		100	50

Type 5H CdS, peak spectral response 5500 angstroms (closely matches the human eye). Combines high speed, stability, linearity, and uniform color temperature response.

Photocell ordering abbreviation	Diam. X Length (inches)	Resistance @ 2 fc ± 33⅓%	Minimum resistance ratio from 2 ftc to Dark within 5 sec.	Maximum voltage	Power Dissipation @ 25°C (mw)
CL507	.5 X .5	7.2K	1:1000	250	500-250[1]
CL5M7	.55 X .18	7.2K		250	2000-500[1]
CL607	.25 X .5	133K		300	75
CL707	.36 X .18	133K		300	125
CL707L	.36 X .18	2.7K		100	125
CL907	.21 X .15	133K		250	50
CL907N	.21 X .15	66K		100	50

Type 7 CdS, peak spectral response 6150 angstroms, moderate speed and ratio. Can be used in general beam breaking applications. For use with incandescent, neon or fluorescent lamps.

CL707H	.36 X .18	500K	1:1000	300	125
CL707HM	.36 X .18	100K		250	125
CL707HL	.36 X .18	10K		100	125
CL907H	.21 X .15	600K		250	50
CL907HN	.21 X .15	300K		100	50
CL907HL	.21 X .15	24K		100	50

Type 7H CdS Peak Spectral response 6200 angstroms. Very fast decay time coupled with low resistance and high linearity. Ideal for beam breaking applications.

Photocell ordering abbreviation	Diam. X Length (inches)	Resistance @ 2 fc ± 33⅓%	Minimum resistance ratio from 2 ftc to Dark within 5 sec.	Maximum voltage	Power Dissipation @ 25°C (mw)	Type
CL703/2	.36 X .18	50K	1:10,000	300	125	3 CdSe
CL703L/2	.36 X .18	6.5K	1:10,000	100	125	3 CdSe
CL704/2	.36 X .18	17K	1:1000	300	125	4 CdSe
CL704L/2	.36 X .18	1.5K	1:1000	100	125	4 CdSe
CL705/2	.36 X .18	166K	1:100	300	125	5 CdSe
CL705L/2	.36 X .18	7.5K	1:100	100	125	5 CdS

DUAL ELEMENT

Photocells contain two separate elements with two separate leads and one common lead.

CELL
CLAIREX
PHOTOMOD
CLM3024
LAMP

PHOTO MOD®

PHOTOCELL-LAMP ASSEMBLIES

Part No.	Rated Lamp Voltage	Resistance (Max. Ohms) @ Rated Lamp Voltage	Max. Allowable Cell Voltage @ Peak AC
CLM3006A	6	160	120V
CLM4006A	6	55	120V
CLM4012A	12	30	120V
CLM3012A	12	160	120V
CLM5H10A	10	3000	120V
CLM7H16A	16	550	170V
CLM3120A	120	1150	120V
CLM4120A	120	160	120V

FOOTNOTE: [1] With and without heat sink.

CLAIREX ELECTRONICS, INC.

1239 BROADWAY, NEW YORK, N.Y. 10001 • WRITE FOR NAME OF YOUR NEAREST CLAIREX REPRESENTATIVE OR DISTRIBUTOR.

CELLS, PHOTOELECTRIC--PHOTOCONDUCTIVE(INCL SELENIUM)

AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE ... N Y
CLAIREX ELECTRONICS INC, NEW YORK, N Y ... ADV PG 127
GENERAL ELECTRIC CO, ECSO, SCHENECTADY ... N Y
HAMAMATSU TV CO LTD, SHIZUOKA ... PRE JAPAN
HEWLETT-PACKARD, PALO ALTO ... CAL
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
MITSUMI ELECTRIC CO LTD, TOKYO ... JAPAN
TOKYO ELECTRIC CO LTD, TOKYO ... JAPAN
VACTEC INC, MARYLAND HEIGHTS, MO ... ADV PG 126
American Instrument Co, Inc, Silver Spring ... Md
Amperex Electronic Corp, Component Div Hauppauge ... N Y
Catron Electronic Corp, Geneva ... Ill
Clairex Electronics Inc, New York ... N Y
Data Sensors Inc, Addison ... Ill
Eagle Electric Mfg Co Inc, Long Island City ... N Y
Electronic Space Products Inc, Los Angeles ... Cal
EMI Electronics Ltd, Hayes, Middlesex ... England
Farmer Electric Products Co Inc, Natick ... Mass
Ferranti, Ltd, Lancashire ... England
Frost Electronics Corp, Rockaway ... N J
General Electric Co, ECSO, Schenectady ... N Y
Hamamatsu TV Co Ltd, Shizuoka ... Pre Japan
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland ... Ohio
Heliotek Div Textron Inc, Sylmar ... Cal
Hewlett-Packard, Palo Alto ... Cal
Impectron Inc, New York ... N Y
Infrared Industries Inc, Santa Barbara ... Cal
International Electronics Corp, Melville ... NY
International Rectifier Semiconductor Div El Segundo ... Cal
LaPine Scientific Co, Chicago ... Ill
Lektra Labs Inc Div Kriser Corp, College Point ... N Y
MacKay Research Labs, Wickenburg ... Ariz
Matsushita Electric Industrial Co Ltd, Osaka ... Japan
Milton Roy Co, St Petersburg ... Fla
Mitsumi Electric Co Ltd, Tokyo ... Japan
Mori Physics & Chemistry Lab Co Ltd, Yokohama ... Japan
Mullard Ltd, London, WC 1 ... Eng
Networks Electronic Corp, Chatsworth ... Cal
Philco-Ford Corp, Washington ... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Pioneer Electric & Research Corp, Forest Park ... Ill
Precision Research Inc, Stamford ... Conn
Radio Corp of America, Electronic Components, Harrison ... N J
Raytheon Co, Components Div, Ind Compnts Oper Quincy ... Mass
Sanken Electric Co, Ltd, Toshima-ku, Tokyo ... Japan
Schjeldahl Co, G T, Northfield ... Minn
Semi-Elements Inc, Saxonburg ... Pa
Sigma Instruments Inc, Braintree ... Mass
Solar Systems Div Tyco, Skokie ... Ill
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia ... Pa
Telefunken Sales Corp, Garden City ... N Y
Texas Instruments Incorporated, Dallas ... Tex
Tokyo Electric Co Ltd, Tokyo ... Japan
Vactec Inc, Maryland Heights ... Mo
Westinghouse Electric Corp, Tube Div, Elmira ... NY

ACCUVOLT

BESPONDER

CINDERELLA

If you're confused over product trade names, locate the source easily in EBG's Trade Name Listing in the back of the green section.

CELLS, PHOTOELECTRIC--PHOTOVOLTAIC (INCL SELENIUM)

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
VACTEC INC, MARYLAND HEIGHTS, MO ... ADV PG 126
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK ... N J
Avco Corp Electronics Div, Cincinnati ... Ohio
Block Engineering Inc, Cambridge ... Mass
Centralab Semiconductor Prods, Elctn Div, Globe-Union Inc, El Monte ... Cal
Data Sensors Inc, Addison ... Ill
Don Bosco Electronics Inc, Hanover ... N J
Electronic Space Products Inc, Los Angeles ... Cal
Electro-Nuclear Lab Inc, Menlo Park ... Cal
Ferranti, Ltd, Lancashire ... England
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland ... Ohio
Heliotek Div Textron Inc, Sylmar ... Cal
Infrared Industries Inc, Santa Barbara ... Cal
International Electronics Corp, Melville ... NY
International Rectifier Semiconductor Div El Segundo ... Cal
Ion Physics Corp, Burlington ... Mass
LaPine Scientific Co, Chicago ... Ill
Lektra Labs Inc Div Kriser Corp, College Point ... N Y
MacKay Research Labs, Wickenburg ... Ariz
Matsushita Electric Industrial Co Ltd, Osaka ... Japan
Mori Physics & Chemistry Lab Co Ltd, Yokohama ... Japan
Mullard Ltd, London, WC 1 ... Eng
Networks Electronic Corp, Chatsworth ... Cal
Philco-Ford Corp, Washington ... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Sigma Instruments Inc, Braintree ... Mass
Solar Systems Div Tyco, Skokie ... Ill
Texas Instruments Incorporated, Dallas ... Tex
TRW Systems Group, Redondo Beach ... Cal
20th Century Electronics Ltd New Addington, Surrey ... England
Vactec Inc, Maryland Heights ... Mo
Wer Industrial Corp, Buffalo ... N Y
Westinghouse Electric Corp, Tube Div, Elmira ... NY
Weston Instruments Div Weston Instr Inc, Newark ... N J

CELLS--STANDARD VOLTAGE

WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK ... N J
Bailey Co, Washington ... D C
Canadian Research Institute, Don Mills ... Ont
Dowa Trading Co Ltd, Kobe ... Japan
Eppley Lab Inc, Newport ... R I
Guildline Instruments Ltd, Smiths Falls ... Ont
Hallmark Standards Inc, Mamaroneck ... N Y
Leeds & Northrup Co, Philadelphia ... Pa
Muirhead Instruments Inc, Mountainside ... N J
Nelson Electronic Labs Inc, Plano ... Tex
Weston Instruments Div Weston Instr Inc, Newark ... N J
Winslow Tele-Tronics Inc, Asbury Park ... NJ

CELLS--THERMAL

EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN ... MO
VICTORY ENGINEERING CORP, SPRINGFIELD N J ... ADV PGS FACING PG 1
Andonian Associates, Inc, Waltham ... Mass
Eagle-Picher Industries Inc, Electronics Div, Joplin ... Mo
Milton Roy Co, St Petersburg ... Fla
Ovitron Corp Industrial Syst Div, Cheshire ... Conn
Varian Aerograph, Walnut Creek ... Cal
Victory Engineering Corp, Springfield ... N J

CELLULOSE ACETATE SEE PLASTICS

CELLULOSE NITRATE SEE PLASTICS

CEMENTS--CONDUCTIVE

Ablestik Adhesive Co, Gardena ... Cal
Acheson Colloids Co, Port Huron ... Mich
Acme Chemicals & Insulation, New Haven ... Conn
Allaco Products, Braintree ... Mass
Alloys Unlimited Inc, Melville ... N Y
Anchor Alloys Inc, Brooklyn ... N Y
Anchor Metal Co, Inc Div, Brooklyn ... N Y
Bacon Industries, Inc, Watertown ... Mass
Biggs Co, Santa Monica ... Cal
Chemtronics Inc, Brooklyn ... NY
Chomerics, Inc, Arlington ... Mass
Conap Inc, Allegany ... N Y
Du Pont De Nemours & Co Inc E I, Wilmington ... Del
Dynaloy, Inc, Hanover ... N J
Electrofilm, Inc, North Hollywood ... Cal
Electro Science Labs Inc, Philadelphia ... Pa
Emerson & Cuming Inc, Canton ... Mass
Furane Plastics Inc, Los Angeles ... Cal
G C Electronics Div, Hydrometals Inc, Rockford ... Ill
General Compounds Co, Div Kai R Kuhl Co Los Angeles ... Cal
Goodrich Industrial Prods Co, B F, Akron ... Ohio
Hysol Div, The Dexter Corp, Olean ... N Y
Isochem Resins Co, Lincoln ... RI
Mann Co, Henry, Cornwell Heights ... Pa
Mereco Prods Inc, Div Metachem Resins Corp Cranston ... RI
Metal Ceram Inc, Mount Vernon ... N Y
Micro-Circuits Co, New Buffalo ... Mich
Roberts & Associates Inc, E V, Culver City ... Cal
Roosevelt Metal Co Inc, Brooklyn ... N Y
Semi-Alloys Inc, Mt Vernon ... N Y
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo ... Japan
Technical Wire Products Inc, Cranford ... N J
Topper Mfg Co Inc, Great Neck ... N Y
Tra-Con, Inc, Medford ... Mass
Transene Co Inc, Rowley ... Mass
UBS Chemical Co, Div A E Staley Mfg Co Cambridge ... Mass
United American Metals Div, Brooklyn ... N Y

CEMENTS--HIGH TEMPERATURE

MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH ... VA
Ablestik Adhesive Co, Gardena ... Cal
Acheson Colloids Co, Port Huron ... Mich
Allaco Products, Braintree ... Mass
Aremco Products Inc, Briarcliff Manor ... N Y
Armite Laboratories, Los Angeles ... Cal
Babcock & Wilcox Co Refractories Div, Augusta ... Ga
Biggs Co, Santa Monica ... Cal
Castall Research Lab Inc, Brockton ... Mass
Chemtronics Inc, Brooklyn ... NY
Corning Glass Works, Corning ... N Y
Dolph Co, John C, Monmouth Junction ... N J
Dow Corning Corp, Midland ... Mich
Du Pont De Nemours & Co Inc E I, Wilmington ... Del
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park ... N J
Dynaloy, Inc, Hanover ... N J
Electro Science Labs Inc, Philadelphia ... Pa
Emerson & Cuming Inc, Canton ... Mass
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark ... N J
EPD Industries Inc, Long Beach ... Cal
Fel Pro Inc Div Felt Products Mfg Co, Skokie ... Ill
Fuller Co, H B, St Paul ... Minn
General Compounds Co, Div Kai R Kuhl Co Los Angeles ... Cal
General Electric Co Silicone Prods Dept, Waterford ... N Y
Goodrich Industrial Prods Co, B F, Akron ... Ohio
Isochem Resins Co, Lincoln ... RI
Keith Co Inc, W P, Pico Rivera ... Cal
Mann Co, Henry, Cornwell Heights ... Pa
Melpar Inc, Special Prods Dept, Falls Church ... Va
Mereco Prods Inc, Div Metachem Resins Corp Cranston ... RI
Metal Ceram Inc, Mount Vernon ... N Y
Norton Co, Worcester ... Mass
Omega Engineering Inc, Stamford ... Conn
Pelmor Labs Inc, Newtown ... Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Rector Engineering & Plastics Co, Washington ... D C
Roberts & Associates Inc, E V, Culver City ... Cal
Semi-Alloys Inc, Mt Vernon ... N Y
Semicon Associates Inc, Lexington ... Ky
Shamban & Co, W S, Los Angeles ... Cal
Thermal American Fused Quartz Co, Montville ... N J
Topper Mfg Co Inc, Great Neck ... N Y
Tra-Con, Inc, Medford ... Mass
UBS Chemical Co, Div A E Staley Mfg Co Cambridge ... Mass
Universal Shellac & Supply Co Inc, Brooklyn ... N Y
Varian, Palo Alto ... Cal
Winsco Instruments & Controls Co Inc Santa Monica ... Cal

CEMENTS--INSULATING

MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH ... VA
Ablestik Adhesive Co, Gardena ... Cal
Acme Chemicals & Insulation, New Haven ... Conn
Allaco Products, Braintree ... Mass
Alloys Unlimited Inc, Melville ... N Y
Ambroid Co, Inc, Boston ... Mass
Aremco Products Inc, Briarcliff Manor ... N Y
Babcock & Wilcox Co Refractories Div, Augusta ... Ga
Bacon Industries, Inc, Watertown ... Mass
Biggs Co, Santa Monica ... Cal
Biwax Corp, Des Plaines ... Ill
Chemtronics Inc, Brooklyn ... NY
Conap Inc, Allegany ... N Y
Dolph Co, John C, Monmouth Junction ... N J
Dow Corning Corp, Midland ... Mich
Dynaloy, Inc, Hanover ... N J
Electro Science Labs Inc, Philadelphia ... Pa
Emerson & Cuming Inc, Canton ... Mass
EPD Industries Inc, Long Beach ... Cal
Fuller Co, H B, St Paul ... Minn
Furane Plastics Inc, Los Angeles ... Cal
G C Electronics Div, Hydrometals Inc, Rockford ... Ill
General Compounds Co, Div Kai R Kuhl Co Los Angeles ... Cal
General Electric Co Silicone Prods Dept, Waterford ... N Y
Goodrich Industrial Prods Co, B F, Akron ... Ohio

Hysol Div, The Dexter Corp, Olean .... N Y
Isochem Resins Co, Lincoln .... RI
Keith Co Inc, W P, Pico Rivera .... Cal
Martindale Electric Co, Cleveland .... Ohio
Melpar Inc, Special Prods Dept, Falls Church .... Va
Mereco Prods Inc, Div Metachem Resins Corp Cranston .... RI
Metal Ceram Inc, Mount Vernon .... N Y
Norton Co, Worcester .... Mass
Omega Engineering Inc, Stamford .... Conn
Pennsylvania Industrial Chemical Corp, Clairton .... Pa
Roberts & Associates Inc, E V, Culver City .... Cal
Semi-Alloys Inc, Mt Vernon .... N Y
Semicon Associates Inc, Lexington .... Ky
Sterling Varnish Co, Sewickley .... Pa
Topper Mfg Co Inc, Great Neck .... N Y
Tra-Con, Inc, Medford .... Mass
Transene Co Inc, Rowley .... Mass
UBS Chemical Co, Div A E Staley Mfg Co Cambridge .... Mass
Universal Shellac & Supply Co Inc, Brooklyn .... N Y
Westinghouse Electric Corp Insulating Materials Div Trafford .... Pa

CENTRIFUGES

Beckman Instruments Inc, Fullerton, ... Cal
Beckman Instruments Intl SA, 1207 Geneva .... Switzerland
Custom Scientific Instruments Inc, Whippany .... N J
Dynatronic Instruments Corp Div Lab-Line Inst Inc Melrose Park Ill
EMR-Hatboro Div Weston Insts Inc, Hatboro .... Pa
Gardner Lab Inc, Bethesda .... Md
Garrett Corp, Los Angeles .... Cal
Genisco Technology Corp, Compton .... Cal
Inland Controls Inc Sub Kollmorgen Corp Brighton .... Mass
International Equipment Co, Needham Heights .... Mass
Kahl Scientific Instrument Corp, El Cajon .... Cal
LaPine Scientific Co, Chicago Ill
London Co, Westlake .... Ohio
Pennsalt Chemicals Corp Equipment Div Philadelphia .... Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Precision Scientific Co Sub GCA Corp, Chicago Ill
Raymond Engineering Inc, Middletown .... Conn
Schaevitz Engineering, Pennsauken .... N J
Sequential Electronic Systems Inc, Elmsford .... N Y
Sorvall Inc, Ivan, Norwalk .... Conn
Trio-Tech Inc of California, Burbank .... Cal
Varo Inc, Garland .... Tex

CERAMIC BEADS SEE BEADS--INSULATING

CERAMIC BOBBINS SEE BOBBINS

CERAMIC CAPACITOR DISKS SEE CAPACITORS--FIXED

CERAMIC FORMS SEE FORMS--COIL & RESISTOR

CERAMIC-INSULATED WIRE SEE WIRE--HIGH-TEMPERATURE

CERAMIC MAGNETIC CORES SEE CORES--MOLDED MAGNETIC

CERAMIC MAGNETS SEE MAGNETS--PERMANENT

CERAMIC SPACERS SEE TUBE PARTS

CERAMICS--ALUMINA

AMERICAN LAVA CORP, CHATTANOOGA, TENN .... ADV PG 132
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE WIS .... ADV PG 411
KYOTO CERAMIC CO LTD, NAKAGYO-KU, KYOTO .... JAPAN
NGK SPARK PLUG CO LTD, MIZUHO-KU NAGOYA .... JAPAN
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
SUPERIOR STEATITE & CERAMIC CORP, ENGLEWOOD .... N J
Y S PORCELAIN TUBES MFG CO, LTD, AICHI PREF .... JAPAN
Aerospace Controls Corp, Los Angeles .... Cal
Alberox Corp, New Bedford .... Mass
Alloys Unlimited Inc, Melville .... N Y
American Feldmuehle Corp, Glenbrook .... Conn
American Lava Corp, Chattanooga .... Tenn
Aremco Products Inc, Briarcliff Manor .... N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place .... N Y
Avco Bay State Abrasives Div Indus Prods Sub Div Westboro .... Mass
Babcock & Wilcox Co Refractories Div, Augusta .... Ga
Basic Ceramics Inc Sub Basic Inc, Hawthorne .... NJ
Carborundum Co Electrical & Elctns Br, Niagara Falls .... NY
Centralab, Div Globe-Union Inc, Milwaukee .... Wis
Ceram Corp, La Mesa .... Cal
Consolidated Ceramics & Metalizing Corp Flemington .... N J
Coors Co Inc, H F, Inglewood .... Cal
Coors Porcelain Co, Golden .... Colo
Corning Glass Works, Corning .... N Y
Diamonite Products Mfg Co, Shreve .... Ohio
Du-Co Ceramics Co, Saxonburg .... Pa
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park .... N J
Eimac Div, Varian Associates, San Carlos .... Cal
Electrical Refractories Co, East Palestine .... Ohio
Electronic Space Products Inc, Los Angeles .... Cal
Erie Technological Products Inc, Erie .... Pa
Ferro Corp Ref Div, East Liverpool .... Ohio
Frenchtown/CFI Inc, Frenchtown .... N J
General Electric Co, Lamp Glass Dept Willoughby .... Ohio
General Laboratory Assoc Inc, Norwich .... N Y
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead .... Cal
Hitachi Ltd, Chiyoda-Ku, Tokyo .... Japan
Insaco Inc, Quakertown .... Pa
Jones Optical Works Inc A D, Burlington .... Mass
Keith Co Inc, W P, Pico Rivera .... Cal
Kidco Inc, Medford .... N J
Kyoto Ceramic Co Ltd, Nakagyo-ku, Kyoto .... Japan
Lake Engineering Co Ltd, Scarborough .... Ont
LCC-CICE, 93 Montreuil-sous-Bois .... France
Mackay Inc, A D, New York .... N Y
Materials for Electronics, Inc, Jamaica .... N Y
McDanel Refractory Porcelain Co, Beaver Falls .... Pa
Meller Co, Adolf, Providence .... R I
Metal Ceram Inc, Mount Vernon .... N Y
Metalized Ceramics Corp, Providence .... R I
3M Company, St Paul .... Minn
Mitronics Inc, Murray Hill .... N J
National Beryllia Corp, Haskell .... N J
National Ceramic Co, Trenton .... N J
NGK Spark Plug Co Ltd, Mizuho-ku Nagoya .... Japan
Nippon Electric Co Ltd, Tokyo .... Japan
Norton Co, Worcester .... Mass
Omega Engineering Inc, Stamford .... Conn
Paul & Stein Bros Inc, F H, New York .... N Y
Quartzite Processing, Inc, Malden .... Mass
Radio Corp of America, Electronic Components, Harrison .... N J
Rosenthal-Isolatoren GMBH, 8672 Selb .... W Germany
Royal Worcester Industrial Ceramics Inc, New York .... NY
Saxonburg Ceramics Inc, Pittsburgh .... Pa
Semi-Alloys Inc, Mt Vernon .... N Y
Sola-Basic Industries, Milwaukee .... Wis
Stettner-Trush Inc, Cazenovia .... N Y
Steward Mfg Co, D M, Chattanooga .... Tenn
Superior Steatite & Ceramic Corp, Englewood .... N J
Thermal American Fused Quartz Co, Montville .... N J
United Mineral & Chemical Corp, New York .... N Y
U S Stoneware Inc, Orville Plant, Orrville .... Ohio
Vacuum Ceramics Div, Cary Ill
Veritron West Inc, Chatsworth .... Cal
Vitta Corp, Wilton .... Conn
Washington Electrical Products Co, Washington .... Mo
Western Gold & Platinum Co, Belmont .... Cal
Xtalonix Products Div Harshaw Chemical Co Columbus .... Ohio
Y S Porcelain Tubes Mfg Co, Ltd, Aichi Pref .... Japan

CERAMICS--FINISHED PARTS INCL INSULATORS

AMERICAN LAVA CORP, CHATTANOOGA, TENN .... ADV PG 132
BIRNBACH CO INC, FREEPORT .... N Y
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE WIS .... ADV PG 411
DABURN ELECTRONICS & CABLE CORP, BRONX .... N Y
KYOTO CERAMIC CO LTD, NAKAGYO-KU, KYOTO JAPAN .... ADV PG 130
LAPP INSULATOR CO, INC, LE ROY .... N Y
MURATA MFG CO, LTD, KYOTO .... JAPAN
NGK SPARK PLUG CO LTD, MIZUHO-KU NAGOYA .... JAPAN
PRECISION METAL PRODUCTS CO OF MALDEN INC STONEHAM .... MASS
STAR PORCELAIN CO, TRENTON, N J .... ADV PG 131
SUPERIOR STEATITE & CERAMIC CORP, ENGLEWOOD N J .... ADV PG 130
Y S PORCELAIN TUBES MFG CO, LTD, AICHI PREF JAPAN .... ADV PG 129
Aerospace Controls Corp, Los Angeles .... Cal
Alberox Corp, New Bedford .... Mass
American Feldmuehle Corp, Glenbrook .... Conn
American Lava Corp, Chattanooga .... Tenn
Applied Magnetics Corp, Ferrite Head Div Santa Barbara .... Cal
Aremco Products Inc, Briarcliff Manor .... N Y
Atlantic Optical Moulding Co, Dudley .... Mass
Basic Ceramics Inc Sub Basic Inc, Hawthorne .... NJ
Birnbach Co Inc, Freeport .... N Y
Brush Beryllium Co, Cleveland .... Ohio
Cambridge Thermionic Corp, Cambridge .... Mass
Canadian Porcelain Co Ltd, Hamilton .... Ont
Carborundum Co Electrical & Elctns Br, Niagara Falls .... NY
Centralab, Div Globe-Union Inc, Milwaukee .... Wis
Cerac Inc, Butler .... Wis
Ceram Corp, La Mesa .... Cal
Ceramaseal Inc, Sub Lapp Insulator Co Inc New Lebanon Center .... N Y
Consolidated Ceramics & Metalizing Corp Flemington .... N J
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena .... Cal
Coors Co Inc, H F, Inglewood .... Cal
Coors Porcelain Co, Golden .... Colo
Daburn Electronics & Cable Corp, Bronx .... N Y
Delta Coils, Philadelphia .... Pa

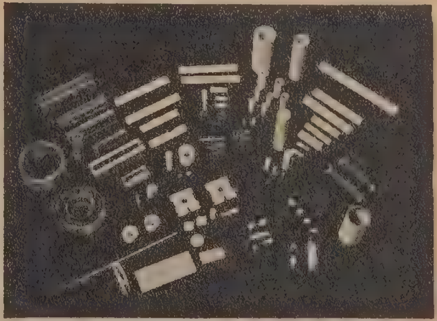
Y.S. Porcelain Tubes, Rods & Substrates for Electrical Resistors

CREATE and MAINTAIN QUALITY behind the VISION and SOUND!

We offer a wide choice of custom-made special ceramics for all kinds of resistors. Our products are manufactured under a system of rigid quality control and modern production management. We are currently supplying approximately 70% of the demand in Japan.

THE MOST EXPERIENCED AND RELIABLE MANUFACTURER SPECIALIZING IN ANY KIND OF CERAMIC MATERIALS FOR ELECTRICAL AND ELECTRONIC APPLICATIONS

Alkaliless Mullite
Forsterite
Steatite
Cordierite
High Alumina Porcelain
Magnesia Oxides
Carbon-ceramic Semi-conductor



• *For further information, please write to*

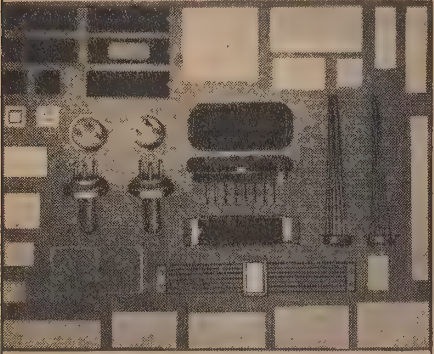
Y.S. PORCELAIN TUBES MFG. CO., LTD.

No. 58 Izumi-cho, Seto City, Aichi Pref., Japan
Phone: Seto(0561)-82-2620
Cable: YSPORCELAINTUBE NAGOYA

Kyocera

Ceramic Products

from Alumina, Forsterite, Beryllia, Steatite, Zircon, Spinel, Magnesia, etc.



Japan's largest ceramic manufacturer of Flat Packs, Dual-in line Packages, Substrates and Ceramics for electronic applications. *For better performance.*

KYOTO CERAMIC CO., LTD.

101 Haramachi, Nishinokyo, Nakagyo-ku,
Kyoto, Japan Telex; 5422-479

Device Seals Inc, Sun Valley	Cal
Diamonite Products Mfg Co, Shreve	Ohio
Du-Co Ceramics Co, Saxonburg	Pa
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park	N J
Eimac Div, Varian Associates, San Carlos	Cal
Electrical Refractories Co, East Palestine	Ohio
Fansteel Metallurgical Corp, North Chicago	Ill
Ferro Corp Ref Div, East Liverpool	Ohio
Frenchtown/CFI Inc, Frenchtown	N J
General Electric Co, Lamp Glass Dept Willoughby	Ohio
Genisco Technology Corp, Compton	Cal
Goodyear Aerospace Corp, Akron	Ohio
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead	Cal
Impectron Inc, New York	N Y
Insaco Inc, Quakertown	Pa
International Electronic Research Corp, Burbank	Cal
Isolantite Mfg Corp, Stirling	N J
Kawecki Chemical Co, New York	N Y
Kidco Inc, Medford	N J
Kyoto Ceramic Co Ltd, Nakagyo-ku, Kyoto	Japan
Lake Engineering Co Ltd, Scarborough	Ont
Lapp Insulator Co, Inc, Le Roy	N Y
LCC-CICE, 93 Montreuil-sous-Bois	France
Maryland Lava Co Inc, Bel Air	Md
Mason-Renshaw Industries, Carpinteria	Cal
Materials for Electronics, Inc, Jamaica	N Y
Metal Ceram Inc, Mount Vernon	N Y
Metalized Ceramics Corp, Providence	R I
Millen Mfg Co Inc, James, Malden	Mass
Mindrum Precision Products, Cucamonga	Cal
Molecular Dielectrics Inc, Clifton	N J
Murata Mfg Co, Ltd, Kyoto	Japan
Mycalex Corp of Amer Sub Spaulding Fibre Co Inc Clifton	N J
Mykroy Inc, Wheeling	Ill
National Beryllia Corp, Haskell	N J
National Ceramic Co, Trenton	N J
NGK Spark Plug Co Ltd, Mizuho-ku Nagoya	Japan
Omega Engineering Inc, Stamford	Conn
Palmer Electronics Inc, Garfield	N J
Porcelain Products Co Div Clarken Co, Carey	Ohio
Precision Metal Products Co of Malden Inc Stoneham	Mass
Pyrometer Co of America Inc, Penndel	Pa
Quartzite Processing, Inc, Malden	Mass
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Rosenthal-Isolatoren GMBH, 8672 Selb	W Germany
Rostone Corp, Lafayette	Ind
Royal Worcester Industrial Ceramics Inc, New York	NY
Saxonburg Ceramics Inc, Pittsburgh	Pa
Semi-Alloys Inc, Mt Vernon	N Y
Semiconductor Specialties Corp, Fair Lawn	NJ
Smith Inc, Herman H, Brooklyn	N Y
Sola-Basic Industries, Milwaukee	Wis
Spectra-Mat Inc, Watsonville	Cal
Star Porcelain Co, Trenton	N J
Statham Instruments Inc, Los Angeles	Cal
Stettner-Trush Inc, Cazenovia	N Y
Steward Mfg Co, D M, Chattanooga	Tenn
Superior Steatite & Ceramic Corp, Englewood	N J
Syncor Products Co, Inc, Malden	Mass
Technical Ceramic Corp, South El Monte	Cal
Thermal American Fused Quartz Co, Montville	N J
Thermalloy Co, Dallas	Tex
Trylon Inc, Elverson	Pa
Union Carbide Corp, Carbon Products Div New York	N Y
United Mineral & Chemical Corp, New York	N Y
United Products Co, Orange	N J
U S Stoneware Inc, Orville Plant, Orrville	Ohio
Vacuum Ceramics Div, Cary	Ill
Varian, Palo Alto	Cal
Veritron West Inc, Chatsworth	Cal
Washington Electrical Products Co, Washington	Mo
Western Gold & Platinum Co, Belmont	Cal
Y S Porcelain Tubes Mfg Co, Ltd, Aichi Pref	Japan

CERAMICS--FOAM

AMERICAN LAVA CORP, CHATTANOOGA, TENN	**ADV PG 132**
American Lava Corp, Chattanooga	Tenn
Coax Devices, Chelsea	Mass
Emerson & Cuming Inc, Canton	Mass
Metal Ceram Inc, Mount Vernon	N Y
National Beryllia Corp, Haskell	N J
Spectra-Mat Inc, Watsonville	Cal

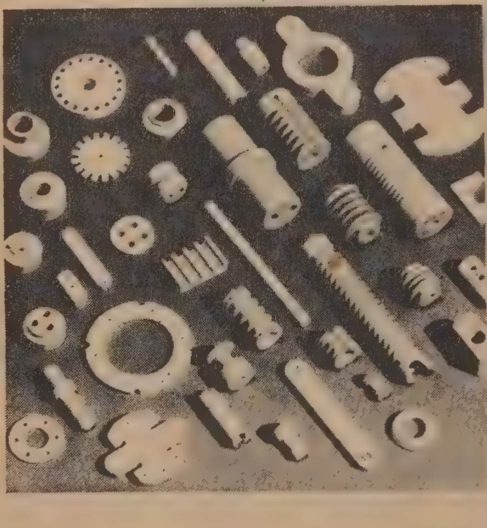
CERAMICS--GRANULAR OR POWDERED

CGS UNITS INC, ROCHESTER	**N Y**
STAR PORCELAIN CO, TRENTON, N J	**ADV PG 131**
Aremco Products Inc, Briarcliff Manor	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Avco Bay State Abrasives Div Indus Prods Sub Div Westboro	Mass
Brush Beryllium Co, Cleveland	Ohio
Carborundum Co Electrical & Elctns Br, Niagara Falls	NY
Cerac Inc, Butler	Wis
CGS Units Inc, Rochester	N Y
Corning Glass Works, Corning	N Y
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park	N J
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs	Colo
LCC-CICE, 93 Montreuil-sous-Bois	France
Linden Labs Inc, State College	Pa
Mackay Inc, A D, New York	N Y
Maryland Lava Co Inc, Bel Air	Md
Metal Ceram Inc, Mount Vernon	N Y
M & T Chemicals Inc Sub American Can Co Rahway	N J
Mykroy Inc, Wheeling	Ill
National Beryllia Corp, Haskell	N J
Norton Co, Worcester	Mass
Nuclear Materials & Equipment Corp, Apollo	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Saxonburg Ceramics Inc, Pittsburgh	Pa
Star Porcelain Co, Trenton	N J
Thermal American Fused Quartz Co, Montville	N J
Topper Mfg Co Inc, Great Neck	N Y
Union Carbide Corp, Carbon Products Div New York	N Y

CERAMICS--METALIZED PARTS

AMERICAN LAVA CORP, CHATTANOOGA, TENN	**ADV PG 132**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE WIS	**ADV PG 411**
FILM MICROELECTRONICS, INC, BURLINGTON	**MASS**
KYOTO CERAMIC CO LTD, NAKAGYO-KU, KYOTO	**JAPAN**
MURATA MFG CO, LTD, KYOTO	**JAPAN**
NGK SPARK PLUG CO LTD, MIZUHO-KU NAGOYA	**JAPAN**
Y S PORCELAIN TUBES MFG CO, LTD, AICHI PREF	**JAPAN**
Alberox Corp, New Bedford	Mass
Alcatel, Paris 8eme	France
Alloys Unlimited Inc, Melville	N Y
American Feldmuehle Corp, Glenbrook	Conn
American Lava Corp, Chattanooga	Tenn
Automation Components, Inc, Peckville	Pa
Avco Bay State Abrasives Div Indus Prods Sub Div Westboro	Mass
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Ceram Corp, La Mesa	Cal
Ceramaseal Inc, Sub Lapp Insulator Co Inc New Lebanon Center	N Y
Ceramics International Corp, Mahwah	NJ
Consolidated Ceramics & Metalizing Corp Flemington	N J
Coors Porcelain Co, Golden	Colo
Culbertson Products Inc, Bernardsville	N J
Device Seals Inc, Sun Valley	Cal
Eimac Div, Varian Associates, San Carlos	Cal
Electro Materials Corp of America, Mamaroneck	N Y
Electro Science Labs Inc, Philadelphia	Pa
EMI Electronics Ltd, Hayes, Middlesex	England
Film Microelectronics, Inc, Burlington	Mass
Frenchtown/CFI Inc, Frenchtown	N J
General Laboratory Assoc Inc, Norwich	N Y

steatite, alumina, ceramic & lava insulators



for electrical and electronic applications

Custom-molded, extruded or machined to close tolerances to meet your exact specifications. Prompt delivery at low cost on large or small orders. Over half a century of service is your guarantee of complete satisfaction.

FIND OUT TODAY. Illustrated bulletin with complete technical data will be sent on request.

SUPERIOR STEATITE & CERAMIC CORP.

91 West Forest Avenue, Englewood, N. J. • 'phone: (201) 568-4555

West Coast Representative:
Yarbrough Sales Co., 1608 Orange Street, Alhambra, California • 'phone (213) 283-0668

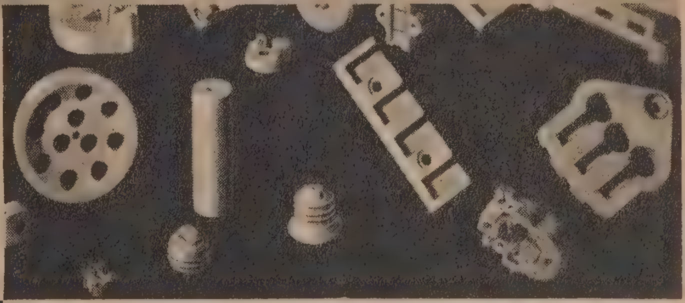
STAR CERAMICS

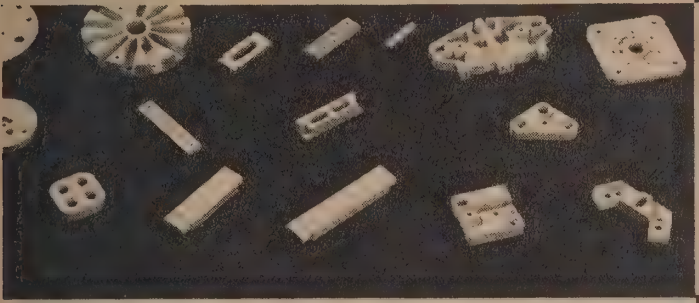
THE VERSATILE ENGINEERING MATERIALS

The Star Porcelain Company
61 Muirhead Ave.
Trenton 9, New Jersey

COMMERCIAL WHITE PORCELAIN (148)

Most economical porcelain body. Good dielectric and mechanical strength. Resistant to all chemicals except hydrofluoric acid. Uniform color and texture. Used for wide variety of electrical and mechanical applications.





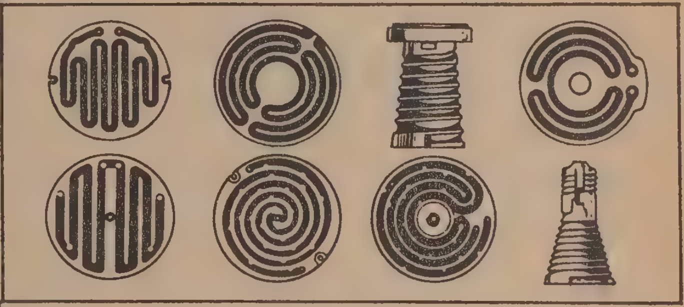
STEATITE (350)

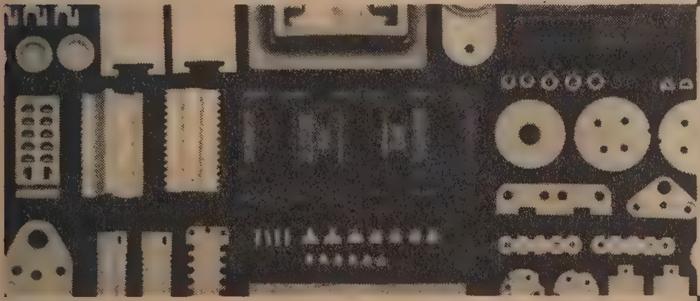
Economical Grade L-4 steatite. Excellent dielectric and mechanical strength properties. Strength far surpasses that of ordinary white porcelain. Available glazed or unglazed. Excellent for wide variety of electronic applications.

THERMOLAIN® (5301)

STANDARD SHAPES FOR HEATING DEVICES

Complete line of standard shapes for heating devices are available. Rectangular shapes and radiant coils also available. Thermolain is used in special shapes where very rapid changes of temperature take place.





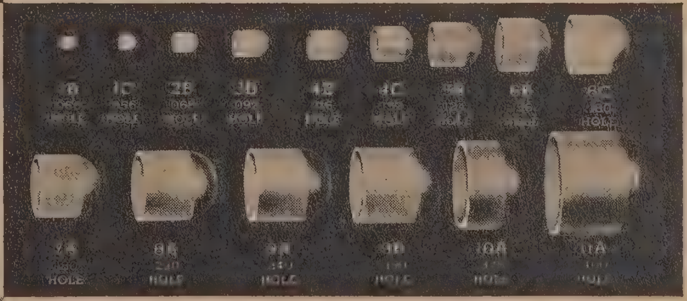
STEATITE (360)

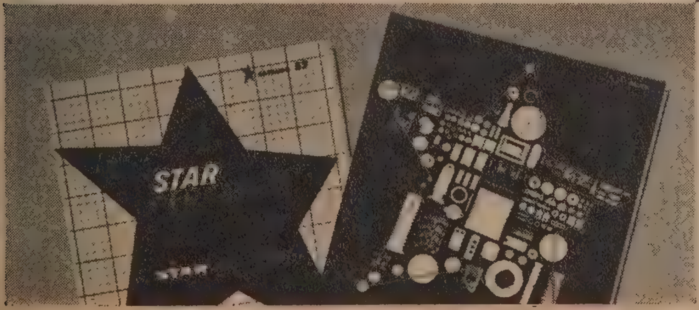
Excellent Grade L-5 steatite. Very low dielectric losses. This body is used in radio and other high frequency applications.

LAVOLAIN® (595)

BALL AND SOCKET INSULATING BEADS

Mechanically strong. Economical steatite. Complete line steatite ball and socket insulating beads with high dielectric strength combined with good mechanical strength and thermal shock resistance. 15 Sizes are available with lengths from .110″ to .750″; holes from .056″ to .400″. Ask about Star Center Shoulder Bushings, Insulating Shoulder Bushings and Insulating Washers and Bushings.





WRITE FOR FREE LITERATURE

Complete details on the entire Starline of quality ceramics are contained in our Bulletin #62. Write for your free copy today. We would be pleased to provide engineering assistance as required.

MECHANICAL AND ELECTRICAL PROPERTIES OF
AlSiMag CERAMICS
CHART NO. 671
ALSIMAG CERAMICS—CHART NO. 671
ALUMINA

NEW

PROPERTY CHART OF ALSIMAG® TECHNICAL CERAMICS

FREE ON REQUEST!

This chart gives data which is valuable to any design engineer . . . in electronic, electrical, chemical and mechanical fields. American Lava Corporation offers you the widest choice in technical ceramic materials and processes available from any single source. American Lava has been a custom manufacturer of technical ceramics for more than 65 years and has always stressed engineering, research and close control of quality.

AlSiMag ceramics are unexcelled in electronic and electrical applications because of their superior dielectric properties, especially at high frequencies and elevated temperatures. They are suited to many mechanical and chemical applications. In addition to the many ceramic compositions shown in this new Property Chart, there are a number of other compositions of a more specialized nature that are suggested on an individual basis when the more commonly used compositions do not match the specific requirements of a critical application.

The new Property Chart No. 671 contains factual and comprehensive mechanical and electrical characteristics of the most frequently used AlSiMag ceramic compositions. If your work includes design, production or purchasing of precision technical ceramics, you will find this chart a valuable working tool.

CODE IDENT. NO. 70371

American Lava Corporation 3M COMPANY

PHONE 615 265-3411, CHATTANOOGA, TENN. 37405 A SUBSIDIARY OF

For service, contact American Lava representatives in Offices of Minnesota Mining and Manufacturing Company in these cities (see your local telephone directory): Boston: Needham Heights, Mass. • Chicago: Elmhurst, Ill. • Dallas, Texas • Chagrin Falls, Ohio • Harvard, Mass. • Laurens, S. C. • Los Angeles, Calif. • Metropolitan New York: Ridgefield, N. J. • Up-State New York and Canada: Phoenix, N. Y. • Orange, Conn. • Philadelphia, Penn. • Roanoke, Va. • St. Louis: Lee's Summit, Mo. So. San Francisco, Calif. • 3M International: c/o American Lava Corporation, Chattanooga, Tenn. 37405, U.S.A., 615/265-3411.

67th YEAR
OF
CERAMIC
LEADERSHIP

Glass Beads Co, Latrobe .... Pa
GTI Corp, Advac Div, Stamford .... Conn
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead .... Cal
Impectron Inc, New York .... N Y
International Electronic Research Corp, Burbank .... Cal
Isotronics Inc, New Bedford .... Mass
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs .... Colo
Keith Co Inc, W P, Pico Rivera .... Cal
Kidco Inc, Medford .... N J
Kyoto Ceramic Co Ltd, Nakagyo-ku, Kyoto .... Japan
Latronics Corp, Latrobe .... Pa
LCC-CICE, 93 Montreuil-sous-Bois .... France
Linden Labs Inc, State College .... Pa
Materials for Electronics, Inc, Jamaica .... N Y
Metal Ceram Inc, Mount Vernon .... N Y
Metalized Ceramics Corp, Providence .... R I
3M Company, St Paul .... Minn
Mitronics Inc, Murray Hill .... N J
Motson Co, J Frank, Flourtown .... Pa
Murata Mfg Co, Ltd, Kyoto .... Japan
Mycalex Corp of Amer Sub Spaulding Fibre Co Inc Clifton .... N J
Mykroy Inc, Wheeling Ill
National Beryllia Corp, Haskell .... N J
National Ceramic Co, Trenton .... N J
NGK Spark Plug Co Ltd, Mizuho-ku Nagoya .... Japan
Nuclear Materials & Equipment Corp, Apollo .... Pa
Palmer Electronics Inc, Garfield .... N J
Paul & Stein Bros Inc, F H, New York .... N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Priester Corp, H E, Scarsdale .... N Y
Radio Corp of America, Electronic Components, Harrison .... N J
Rosenthal-Isolatoren GMBH, 8672 Selb .... W Germany
Royal Worcester Industrial Ceramics Inc, New York .... NY
Semi-Alloys Inc, Mt Vernon .... N Y
Spectra-Mat Inc, Watsonville .... Cal
Stettner-Trush Inc, Cazenovia .... N Y
Steward Mfg Co, D M, Chattanooga .... Tenn
Syncor Products Co, Inc, Malden .... Mass
United Mineral & Chemical Corp, New York .... N Y
United Products Co, Orange .... N J
U S Stoneware Inc, Orville Plant, Orrville .... Ohio
Vacuum Ceramics Div, Cary Ill
Varian, Palo Alto .... Cal
Veritron West Inc, Chatsworth .... Cal
Vitta Corp, Wilton .... Conn
Western Gold & Platinum Co, Belmont .... Cal
Y S Porcelain Tubes Mfg Co, Ltd, Aichi Pref .... Japan

CERAMICS--RODS

AMERICAN LAVA CORP, CHATTANOOGA, TENN .... ADV PG 132
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE WIS .... ADV PG 411
KYOTO CERAMIC CO LTD, NAKAGYO-KU, KYOTO .... JAPAN
MURATA MFG CO, LTD, KYOTO .... JAPAN
NGK SPARK PLUG CO LTD, MIZUHO-KU NAGOYA .... JAPAN
STAR PORCELAIN CO, TRENTON, N J .... ADV PG 131
SUPERIOR STEATITE & CERAMIC CORP, ENGLEWOOD .... N J
Y S PORCELAIN TUBES MFG CO, LTD, AICHI PREF .... JAPAN
Alcatel, Paris 8eme .... France
Alloys Unlimited Inc, Melville .... N Y
American Feldmuehle Corp, Glenbrook .... Conn
American Lava Corp, Chattanooga .... Tenn
Aremco Products Inc, Briarcliff Manor .... N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place .... N Y
Basic Ceramics Inc Sub Basic Inc, Hawthorne .... NJ
Brush Beryllium Co, Cleveland .... Ohio
Carborundum Co Electrical & Elctns Br, Niagara Falls .... NY
Centralab, Div Globe-Union Inc, Milwaukee .... Wis
Cerac Inc, Butler .... Wis
Ceram Corp, La Mesa .... Cal
Coax Devices, Chelsea .... Mass
Consolidated Ceramics & Metalizing Corp Flemington .... N J
Coors Porcelain Co, Golden .... Colo
Corning Glass Works, Corning .... N Y
Diamonite Products Mfg Co, Shreve .... Ohio
Du-Co Ceramics Co, Saxonburg .... Pa
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park .... N J
Electrical Refractories Co, East Palestine .... Ohio
Ferricore Div Natl Moldite Co Inc, Newark .... N J
Ferro Corp Ref Div, East Liverpool .... Ohio
Frenchtown/CFI Inc, Frenchtown .... N J
General Electric Co, Lamp Glass Dept Willoughby .... Ohio
Impectron Inc, New York .... N Y
Insaco Inc, Quakertown .... Pa
Isolantite Mfg Corp, Stirling .... N J
Kawecki Chemical Co, New York .... N Y
Keith Co Inc, W P, Pico Rivera .... Cal
Kyoto Ceramic Co Ltd, Nakagyo-ku, Kyoto .... Japan
LCC-CICE, 93 Montreuil-sous-Bois .... France
Mackay Inc, A D, New York .... N Y
Maryland Lava Co Inc, Bel Air .... Md
Materials for Electronics, Inc, Jamaica .... N Y
McDanel Refractory Porcelain Co, Beaver Falls .... Pa
Metal Ceram Inc, Mount Vernon .... N Y
3M Company, St Paul .... Minn
Molecular Dielectrics Inc, Clifton .... N J
Murata Mfg Co, Ltd, Kyoto .... Japan
Mycalex Corp of Amer Sub Spaulding Fibre Co Inc Clifton .... N J
Mykroy Inc, Wheeling Ill
National Beryllia Corp, Haskell .... N J
National Ceramic Co, Trenton .... N J
NGK Spark Plug Co Ltd, Mizuho-ku Nagoya .... Japan
Norton Co, Worcester .... Mass
Nuclear Materials & Equipment Corp, Apollo .... Pa
Paul & Stein Bros Inc, F H, New York .... N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Quartzite Processing, Inc, Malden .... Mass
Rosenthal-Isolatoren GMBH, 8672 Selb .... W Germany
Royal Worcester Industrial Ceramics Inc, New York .... NY
Saxonburg Ceramics Inc, Pittsburgh .... Pa
Semi-Alloys Inc, Mt Vernon .... N Y
Star Porcelain Co, Trenton .... N J
Stettner-Trush Inc, Cazenovia .... N Y
Steward Mfg Co, D M, Chattanooga .... Tenn
Superior Steatite & Ceramic Corp, Englewood .... N J
Thermal American Fused Quartz Co, Montville .... N J
Union Carbide Corp, Carbon Products Div New York .... N Y
United Mineral & Chemical Corp, New York .... N Y
U S Stoneware Inc, Orville Plant, Orrville .... Ohio
Western Gold & Platinum Co, Belmont .... Cal
Y S Porcelain Tubes Mfg Co, Ltd, Aichi Pref .... Japan

CERAMICS--SHEETS

AMERICAN LAVA CORP, CHATTANOOGA, TENN .... ADV PG 132
KYOTO CERAMIC CO LTD, NAKAGYO-KU, KYOTO .... JAPAN
NGK SPARK PLUG CO LTD, MIZUHO-KU NAGOYA .... JAPAN
REPUBLIC ELECTRONICS CORP, PATERSON .... N J
Y S PORCELAIN TUBES MFG CO, LTD, AICHI PREF .... JAPAN
Alloys Unlimited Inc, Melville .... N Y
American Lava Corp, Chattanooga .... Tenn
Aremco Products Inc, Briarcliff Manor .... N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place .... N Y
Basic Ceramics Inc Sub Basic Inc, Hawthorne .... NJ
Carborundum Co Electrical & Elctns Br, Niagara Falls .... NY
Ceram Corp, La Mesa .... Cal
Coax Devices, Chelsea .... Mass
Corning Glass Works, Corning .... N Y
Diamonite Products Mfg Co, Shreve .... Ohio
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park .... N J
Emerson & Cuming Inc, Canton .... Mass
General Electric Co, Lamp Glass Dept Willoughby .... Ohio
Impectron Inc, New York .... N Y
Kawecki Chemical Co, New York .... N Y
Kyoto Ceramic Co Ltd, Nakagyo-ku, Kyoto .... Japan
LCC-CICE, 93 Montreuil-sous-Bois .... France
Linden Labs Inc, State College .... Pa
Maryland Lava Co Inc, Bel Air .... Md
Metal Ceram Inc, Mount Vernon .... N Y
Metalized Ceramics Corp, Providence .... R I
3M Company, St Paul .... Minn
Molecular Dielectrics Inc, Clifton .... N J
Mycalex Corp of Amer Sub Spaulding Fibre Co Inc Clifton .... N J
Mykroy Inc, Wheeling Ill
National Beryllia Corp, Haskell .... N J
NGK Spark Plug Co Ltd, Mizuho-ku Nagoya .... Japan
Republic Electronics Corp, Paterson .... N J
Rosenthal-Isolatoren GMBH, 8672 Selb .... W Germany
Royal Worcester Industrial Ceramics Inc, New York .... NY
Saxonburg Ceramics Inc, Pittsburgh .... Pa
Semi-Alloys Inc, Mt Vernon .... N Y
Union Carbide Corp, Carbon Products Div New York .... N Y
U S Stoneware Inc, Orville Plant, Orrville .... Ohio
Veritron West Inc, Chatsworth .... Cal
Vitta Corp, Wilton .... Conn
Western Gold & Platinum Co, Belmont .... Cal
Y S Porcelain Tubes Mfg Co, Ltd, Aichi Pref .... Japan

CERAMICS--STAMPINGS & PUNCHINGS

AMERICAN LAVA CORP, CHATTANOOGA, TENN .... ADV PG 132
KYOTO CERAMIC CO LTD, NAKAGYO-KU, KYOTO .... JAPAN
STAR PORCELAIN CO, TRENTON, N J .... ADV PG 131
SUPERIOR STEATITE & CERAMIC CORP, ENGLEWOOD .... N J
Alloys Unlimited Inc, Melville .... N Y
American Feldmuehle Corp, Glenbrook .... Conn
American Lava Corp, Chattanooga .... Tenn
Anchor Alloys Inc, Brooklyn .... N Y
Anchor Metal Co, Inc Div, Brooklyn .... N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place .... N Y
Basic Ceramics Inc Sub Basic Inc, Hawthorne .... NJ
Carborundum Co Electrical & Elctns Br, Niagara Falls .... NY
Consolidated Ceramics & Metalizing Corp Flemington .... N J
Diamonite Products Mfg Co, Shreve .... Ohio
Du-Co Ceramics Co, Saxonburg .... Pa
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park .... N J
Electrical Refractories Co, East Palestine .... Ohio
Ferro Corp Ref Div, East Liverpool .... Ohio
Frenchtown/CFI Inc, Frenchtown .... N J
Impectron Inc, New York .... N Y
Kyoto Ceramic Co Ltd, Nakagyo-ku, Kyoto .... Japan
Materials for Electronics, Inc, Jamaica .... N Y
Metal Ceram Inc, Mount Vernon .... N Y
Metalized Ceramics Corp, Providence .... R I
Molecular Dielectrics Inc, Clifton .... N J
Mykroy Inc, Wheeling Ill
National Beryllia Corp, Haskell .... N J
National Ceramic Co, Trenton .... N J
Paul & Stein Bros Inc, F H, New York .... N Y
Porcelain Products Co Div Clarken Co, Carey .... Ohio
Roosevelt Metal Co Inc, Brooklyn .... N Y
Royal Worcester Industrial Ceramics Inc, New York .... NY
Saxonburg Ceramics Inc, Pittsburgh .... Pa
Semi-Alloys Inc, Mt Vernon .... N Y
Star Porcelain Co, Trenton .... N J
Steward Mfg Co, D M, Chattanooga .... Tenn
Superior Steatite & Ceramic Corp, Englewood .... N J
Technical Ceramic Corp, South El Monte .... Cal
United American Metals Div, Brooklyn .... N Y
U S Stoneware Inc, Orville Plant, Orrville .... Ohio
Veritron West Inc, Chatsworth .... Cal
Western Gold & Platinum Co, Belmont .... Cal

CERAMIC TUBES--ELECTRON SEE TUBES--CERAMIC

CERAMIC TUBING SEE TUBING--NONMETALLIC

CERAMOPLASTIC SEE MICA--GLASS-BONDED

CERIUM

Aceto Chemical Co, Inc, Flushing .... NY
American Potash & Chemical Corp, Los Angeles .... Cal
American Potash & Chemical Corp Rare Earth Div West Chicago Ill
Anchor Alloys Inc, Brooklyn .... N Y
Anchor Metal Co, Inc Div, Brooklyn .... N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place .... N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights .... NY
Bram Metallurgical Chemical Co, Philadelphia .... Pa
Cerac Inc, Butler .... Wis
Electronic Space Products Inc, Los Angeles .... Cal
Koch Light Labs Ltd, Colnbrook, Bucks .... England
Mackay Inc, A D, New York .... N Y
Molybdenum Corp of America, New York .... N Y
Ring, Inc, Bernard, New York .... N Y
Ronson Metals Corp, Newark .... N J
Roosevelt Metal Co Inc, Brooklyn .... N Y
Semi-Alloys Inc, Mt Vernon .... N Y
Semi-Elements Inc, Saxonburg .... Pa
United American Metals Div, Brooklyn .... N Y
United Mineral & Chemical Corp, New York .... N Y
Universal Shellac & Supply Co Inc, Brooklyn .... N Y
Var-Lac-Oid Chemical Co, Elizabeth .... N J

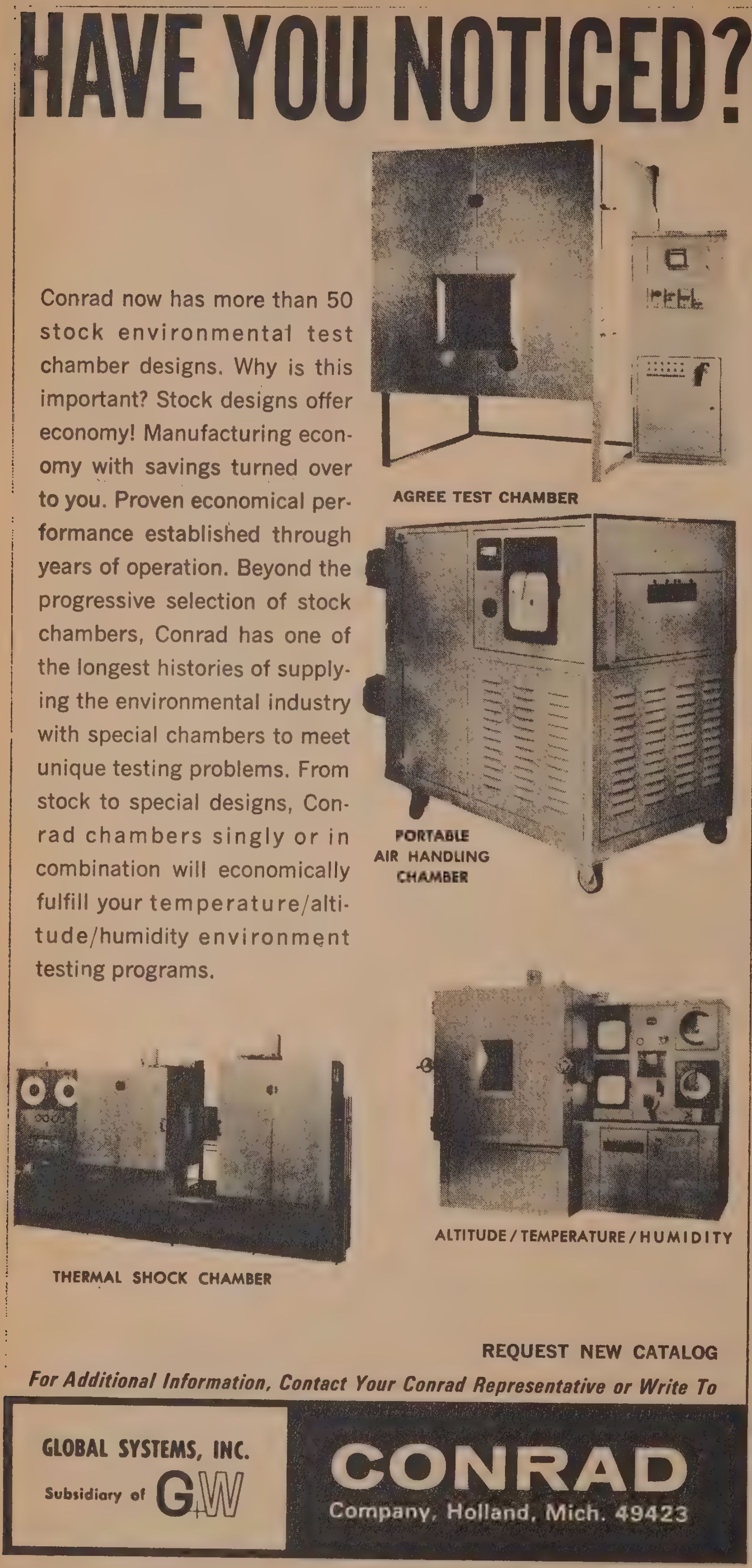
CESIUM COMPOUNDS

Aceto Chemical Co, Inc, Flushing .... NY
American Potash & Chemical Corp, Los Angeles .... Cal
American Potash & Chemical Corp Rare Earth Div West Chicago Ill
Anchor Alloys Inc, Brooklyn .... N Y
Anchor Metal Co, Inc Div, Brooklyn .... N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place .... N Y
Bram Metallurgical Chemical Co, Philadelphia .... Pa
Cerac Inc, Butler .... Wis
Electronic Space Products Inc, Los Angeles .... Cal
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland .... Ohio
Henley & Co Inc, New York .... N Y
Kawecki Chemical Co, New York .... N Y
King Laboratories Inc, Syracuse .... N Y

Koch Light Labs Ltd, Colnbrook, Bucks .... England
Lockheed Georgia Nuclear Lab, Marietta .... Ga
Mackay Inc, A D, New York .... N Y
Rocky Mountain Research Inc, Denver .... Colo
Roosevelt Metal Co Inc, Brooklyn .... N Y
Semi-Elements Inc, Saxonburg .... Pa
United American Metals Div, Brooklyn .... N Y
United Mineral & Chemical Corp, New York .... N Y
Var-Lac-Oid Chemical Co, Elizabeth .... N J

CHAINS--DRIVE, SMALL, LINK OR BEAD

Bead Chain Mfg Co, Bridgeport .... Conn
Kerrco Inc, Lincoln .... Nebr
Rex Chainbelt Inc, Milwaukee .... Wis



HAVE YOU NOTICED?

Conrad now has more than 50 stock environmental test chamber designs. Why is this important? Stock designs offer economy! Manufacturing economy with savings turned over to you. Proven economical performance established through years of operation. Beyond the progressive selection of stock chambers, Conrad has one of the longest histories of supplying the environmental industry with special chambers to meet unique testing problems. From stock to special designs, Conrad chambers singly or in combination will economically fulfill your temperature/altitude/humidity environment testing programs.

AGREE TEST CHAMBER

PORTABLE AIR HANDLING CHAMBER

THERMAL SHOCK CHAMBER

ALTITUDE/TEMPERATURE/HUMIDITY

REQUEST NEW CATALOG

For Additional Information, Contact Your Conrad Representative or Write To

GLOBAL SYSTEMS, INC.
Subsidiary of G+W

CONRAD
Company, Holland, Mich. 49423

CHAMBERS, ENVIRONMENTAL--ACOUSTIC TEST

CONRAD CO, HOLLAND, MICH	**ADV PG 134**
Advanced Purification System Co Inc, Great Neck	N Y
Allied Engineering & Production Corp, Alameda	Cal
American Instrument Co, Inc, Silver Spring	Md
Ardel Corp, Glendale	Cal
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio
Conrad Co, Holland	Mich
Eckel Industries Inc, Cambridge	Mass
Filtron Co Inc Sub Liquidonics Ind Inc, Flushing	N Y
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
General Acoustics Corp, Los Angeles	Cal
Koppers Co Inc, Pittsburgh	Pa
Korfund Dynamics Corp, Westbury	N Y
Lehigh Valley Electronics Engrg & Mfg Co, Inc Fogelsville	Pa
Lindsay Structures Div, Intl Steel Co, Evansville	Ind
Ray Proof Corp, Norwalk	Conn
West Coast Research Corp, Los Angeles	Cal
Wyle Laboratories, El Segundo	Cal

CHAMBERS, ENVIRONMENTAL--ALTITUDE

CONRAD CO, HOLLAND	**MICH**
MISSIMERS INC, GLENDALE	**CAL**
STANDARD CABINET CO INC, TOTOWA	**N J**
Aircraft Components Inc, Benton Harbor	Mich
Aireco, Inc, North Miami Beach	Fla
Alcatel, Paris 8eme	France
Allied Engineering & Production Corp, Alameda	Cal
American Research Corp, Farmington	Conn
Ardel Corp, Glendale	Cal
Associated Testing Labs, Inc, Wayne	N J
Atlas Engineering Corp, West Hartford	Conn
Auto-Control Labs Div Rucker Co, Los Angeles	Cal
Bendix Vacuum Div, Rochester	N Y
Bethlehem Corp, Bethlehem	Pa
CHA Industries, Div Carl Herrmann Assoc Menlo Park	Cal
Churchill Corp, Melrose	Mass
Cincinnati Sub-Zero Products Inc, Cincinnati	Ohio
Conrad Co, Holland	Mich
Consolidated Vacuum Corp, Rochester	N Y
Cooke Vacuum Products Inc, South Norwalk	Conn
Cosmodyne Corp, Torrance	Cal
CVI Corp, Columbus	Ohio
Develco, Inc, Norwalk	Conn
Energy Beams Inc, Haskell	N J
Firewel Co Inc, Buffalo	N Y
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Gruenberg Electric Co Inc, Garden City	N Y
Heraeus-Engelhard Vacuum Inc, Monroeville	Pa
High Vacuum Equipment Corp, Hingham	Mass
Hotpack Corp, Philadelphia	Pa
Hull Corp, Hatboro	Pa
Ideal Aerosmith, Cheyenne	Wyo
Inca Engineering Corp, San Gabriel	Cal
Industrial Refrigeration Co Inc, Los Angeles	Cal
Japan Vacuum Engineering Co Ltd, Tokyo	Japan
Kidde & Co Inc, Walter, Belleville	N J
Materials Research Corp, Orangeburg	N Y
Missimers Inc, Glendale	Cal
Nuclide Corp, AGV Div, Acton	Mass
Pennsalt Chemicals Corp Equipment Div Philadelphia	Pa
Precision Scientific Co Sub GCA Corp, Chicago	Ill
Rocket Research Corp, Redmond	Wash
Standard Cabinet Co Inc, Totowa	N J
Sunbeam Vacuum Furnace Corp, North Billerica	Mass
Tenney Engineering Inc, Union	N J
Tenvac, Inc, Pembroke	Mass
Thermotron Corp, Holland	Mich
Thermo-Vac Inc, South Holland	Ill
T-M Vacuum Products, Riverton	N J
20th Century Electronics Ltd New Addington, Surrey	England
Ultek Div Perkin-Elmer, Palo Alto	Cal
Vacuum/Atmospheres Corp, N Hollywood	Cal
Vacuum Industries Inc Sub GCA Corp, Somerville	Mass
Varian, Palo Alto	Cal
Webber Mfg Co Inc, Indianapolis	Ind

CHAMBERS, ENVIRONMENTAL--CONTROLLED MAGNETIC FIELD

MAGNETIC SHIELD DIV, PERFECTION MICA CO, CHICAGO	**ILL**
Ace Engineering & Machine Co, Inc Huntingdon Valley	Pa
Andonian Associates, Inc, Waltham	Mass
Cincinnati Sub-Zero Products Inc, Cincinnati	Ohio
Emerson & Cuming Inc, Canton	Mass
Energy Beams Inc, Haskell	N J

Ercona Corp, New York	N Y
Falstrom Co, Passaic	N J
Filtron Co Inc Sub Liquidonics Ind Inc, Flushing	N Y
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Gardner Cryogenics Corp, Bethlehem	Pa
Kinney Vacuum Div New York Air Brake Co Boston	Mass
LaPine Scientific Co, Chicago	Ill
Magnetic Shield Div, Perfection Mica Co, Chicago	Ill
Thermal Research Inc, Union Beach	N J

CHAMBERS, ENVIRONMENTAL--EXPLOSION

STANDARD CABINET CO INC, TOTOWA	**N J**
Atlas Engineering Corp, West Hartford	Conn
Auto-Control Labs Div Rucker Co, Los Angeles	Cal
Bethlehem Corp, Bethlehem	Pa
BTU Engineering Corp, Waltham	Mass
Churchill Corp, Melrose	Mass
Cincinnati Sub-Zero Products Inc, Cincinnati	Ohio
Dynatronic Instruments Corp Div Lab-Line Inst Inc Melrose Park	Ill
Hektor Scientific Co Inc, Foxboro	Mass
Hotpack Corp, Philadelphia	Pa
LaPine Scientific Co, Chicago	Ill
Lindsay Structures Div, Intl Steel Co, Evansville	Ind
Standard Cabinet Co Inc, Totowa	N J
Temperature Engineering Corp, Riverton	N J
Tenney Engineering Inc, Union	N J
Thermal Research Inc, Union Beach	N J
Vacuum/Atmospheres Corp, N Hollywood	Cal
Webber Mfg Co Inc, Indianapolis	Ind

CHAMBERS, ENVIRONMENTAL--FUNGUS

CONRAD CO, HOLLAND	**MICH**
STANDARD CABINET CO INC, TOTOWA	**N J**
American Instrument Co, Inc, Silver Spring	Md
Atlas Engineering Corp, West Hartford	Conn
Auto-Control Labs Div Rucker Co, Los Angeles	Cal
Bethlehem Corp, Bethlehem	Pa
Churchill Corp, Melrose	Mass
Conrad Co, Holland	Mich
Develco, Inc, Norwalk	Conn
Gardner Lab Inc, Bethesda	Md
Hotpack Corp, Philadelphia	Pa
LaPine Scientific Co, Chicago	Ill
Lindsay Structures Div, Intl Steel Co, Evansville	Ind
Matthews Research Inc, Alexandria	Va
Standard Cabinet Co Inc, Totowa	N J
Temperature Engineering Corp, Riverton	N J
Tenney Engineering Inc, Union	N J
Thermal Research Inc, Union Beach	N J
Thermo-Vac Inc, South Holland	Ill

CHAMBERS, ENVIRONMENTAL--HUMIDITY

BLUE M ENGINEERING CO, BLUE ISLAND	**ILL**
CONRAD CO, HOLLAND	**MICH**
MISSIMERS INC, GLENDALE	**CAL**
STANDARD CABINET CO INC, TOTOWA	**N J**
Advanced Purification System Co Inc, Great Neck	N Y
Aircraft Components Inc, Benton Harbor	Mich
Aireco, Inc, North Miami Beach	Fla
American Instrument Co, Inc, Silver Spring	Md
American Research Corp, Farmington	Conn
Amlab Inc, Rahway	NJ
Associated Testing Labs, Inc, Wayne	N J
Atlas Engineering Corp, West Hartford	Conn
Atmosphere Control Co, Inc, Philadelphia	Pa
Auto-Control Labs Div Rucker Co, Los Angeles	Cal
Bethlehem Corp, Bethlehem	Pa
Blue M Engineering Co, Blue Island	Ill
Cincinnati Sub-Zero Products Inc, Cincinnati	Ohio
Conrad Co, Holland	Mich
Custom Scientific Instruments Inc, Whippany	N J
Develco, Inc, Norwalk	Conn

Dynatronic Instruments Corp Div Lab-Line Inst Inc Melrose Park	Ill
Forma Scientific Inc, Marietta	Ohio
Gardner Lab Inc, Bethesda	Md
Gruenberg Electric Co Inc, Garden City	N Y
Hotpack Corp, Philadelphia	Pa
Hygrodynamics Inc, Silver Spring	Md
Industrial Refrigeration Co Inc, Los Angeles	Cal
Japan Vacuum Engineering Co Ltd, Tokyo	Japan
Jersey Technical Consultants, Morristown	NJ
Kahl Scientific Instrument Corp, El Cajon	Cal

Kidde & Co Inc, Walter, Belleville	N J
Koppers Co Inc, Pittsburgh	Pa
Kulicke & Soffa Industries Inc, Fort Washington	Pa
LaPine Scientific Co, Chicago	Ill
Lindsay Structures Div, Intl Steel Co, Evansville	Ind
Matthews Research Inc, Alexandria	Va
Missimers Inc, Glendale	Cal
Precision Scientific Co Sub GCA Corp, Chicago	Ill
Ramney Industries Corp, Farmingdale	N J
Ray Products Inc, Alhambra	Cal
Standard Cabinet Co Inc, Totowa	N J
System Enclosures Inc, Div Anetsberger Bros Inc Northbrook	Ill
Temperature Engineering Corp, Riverton	N J
Tenney Engineering Inc, Union	N J
Tenvac, Inc, Pembroke	Mass
Thermal Research Inc, Union Beach	N J
Thermotron Corp, Holland	Mich
Thermo-Vac Inc, South Holland	Ill
Tipptronic Inc, Chagrin Falls	Ohio
Vestal Modern Design Corp, Vestal	N Y
Webber Mfg Co Inc, Indianapolis	Ind

CHAMBERS, ENVIRONMENTAL--PRESSURE

STANDARD CABINET CO INC, TOTOWA	**N J**
Aireco, Inc, North Miami Beach	Fla
Allied Engineering & Production Corp, Alameda	Cal
American Instrument Co, Inc, Silver Spring	Md
American Research Corp, Farmington	Conn
Associated Testing Labs, Inc, Wayne	N J
Atlas Engineering Corp, West Hartford	Conn
Auto-Control Labs Div Rucker Co, Los Angeles	Cal
Benthos Inc, North Falmouth	Mass
Bethlehem Corp, Bethlehem	Pa
BTU Engineering Corp, Waltham	Mass
Churchill Corp, Melrose	Mass
Cincinnati Sub-Zero Products Inc, Cincinnati	Ohio
Cryogenic Engineering Co, Denver	Colo
CVI Corp, Columbus	Ohio
Develco, Inc, Norwalk	Conn
Energy Beams Inc, Haskell	N J
Firewel Co Inc, Buffalo	N Y
Hektor Scientific Co Inc, Foxboro	Mass
High Vacuum Equipment Corp, Hingham	Mass
Hotpack Corp, Philadelphia	Pa
Hull Corp, Hatboro	Pa
Industrial Refrigeration Co Inc, Los Angeles	Cal
Japan Vacuum Engineering Co Ltd, Tokyo	Japan
Kahl Scientific Instrument Corp, El Cajon	Cal
Kahn & Co Inc, Wethersfield	Conn
Koppers Co Inc, Pittsburgh	Pa
LaPine Scientific Co, Chicago	Ill
Matthews Research Inc, Alexandria	Va
Ray Products Inc, Alhambra	Cal
Research Instrument Co Inc, Westbury	N Y
Standard Cabinet Co Inc, Totowa	N J
Systems Research Labs Inc, Dayton	Ohio
Temperature Engineering Corp, Riverton	N J
Tenney Engineering Inc, Union	N J
Thermotron Corp, Holland	Mich
Vacuum Industries Inc Sub GCA Corp, Somerville	Mass
Wells Industries Corp, North Hollywood	Cal

CHAMBERS, ENVIRONMENTAL--RADIATION

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
Ardel Corp, Glendale	Cal
Bethlehem Corp, Bethlehem	Pa
CVI Corp, Columbus	Ohio
Energy Beams Inc, Haskell	N J
General Electric Co, ECSO, Schenectady	N Y
High Vacuum Equipment Corp, Hingham	Mass
High Voltage Engineering Corp, Burlington	Mass
Ion Physics Corp, Burlington	Mass
Kewaunee Scientific Equipment, Adrian	Mich
Lockheed Georgia Nuclear Lab, Marietta	Ga
Nuclear Corp of America, Nuclear Div, Denville	N J
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Nuclear Supplies, Encino	Cal
Nuclear Technology Corp, White Plains	N Y
Packard Instrument Co, Inc, Downers Grove	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Ray Proof Corp, Norwalk	Conn
Reuter-Stokes Electronic Components Inc Cleveland	Ohio
Thermal Research Inc, Union Beach	N J
Vacuum/Atmospheres Corp, N Hollywood	Cal
Victoreen Instrument Div, Cleveland	Ohio

CHAMBERS, ENVIRONMENTAL--SALT SPRAY

CONRAD CO, HOLLAND	**MICH**
STANDARD CABINET CO INC, TOTOWA	**N J**
Associated Testing Labs, Inc, Wayne	N J
Auto-Control Labs Div Rucker Co, Los Angeles	Cal
Bethlehem Corp, Bethlehem	Pa
Conrad Co, Holland	Mich
Develco, Inc, Norwalk	Conn
Dynatronic Instruments Corp Div Lab-Line Inst Inc Melrose Park	Ill
Gardner Lab Inc, Bethesda	Md
Kidde & Co Inc, Walter, Belleville	N J
Standard Cabinet Co Inc, Totowa	N J
Tenney Engineering Inc, Union	N J

CHAMBERS, ENVIRONMENTAL--SAND & DUST

STANDARD CABINET CO INC, TOTOWA	**N J**
Advanced Purification System Co Inc, Great Neck	N Y
American Research Corp, Farmington	Conn
Atlas Engineering Corp, West Hartford	Conn
Auto-Control Labs Div Rucker Co, Los Angeles	Cal
Bethlehem Corp, Bethlehem	Pa
Edcraft Industries Inc, Linden	N J
Farr Co, El Segundo	Cal
Kewaunee Scientific Equipment, Adrian	Mich
Koppers Co Inc, Pittsburgh	Pa
Lindsay Structures Div, Intl Steel Co, Evansville	Ind
Matthews Research Inc, Alexandria	Va
Micronics Corp of America, Providence	RI
Ray Products Inc, Alhambra	Cal
Standard Cabinet Co Inc, Totowa	N J
Tenney Engineering Inc, Union	N J

CHAMBERS, ENVIRONMENTAL--SHIELDED SCREEN

Ace Engineering & Machine Co, Inc Huntingdon Valley	Pa
Air Inflatable Products Co, East Haven	Conn
Auto-Control Labs Div Rucker Co, Los Angeles	Cal
Churchill Corp, Melrose	Mass
Emerson & Cuming Inc, Canton	Mass
Ercona Corp, New York	N Y
Filtron Co Inc Sub Liquidonics Ind Inc, Flushing	N Y
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Interference Measurement Lab Inc, Brooklyn	N Y
Lindgren & Associates Inc, Erik A, Chicago	Ill
Lindsay Structures Div, Intl Steel Co, Evansville	Ind
Ray Proof Corp, Norwalk	Conn
Shielding Corp, Moorestown	N J
Siemens America Inc, New York	N Y
Sprague Electric Co, North Adams	Mass
Stark Electronic Instruments Ltd, Ajax	Ont
Thermal Research Inc, Union Beach	N J
Topatron Inc, Costa Mesa	Cal
Tyler Co, W S, Mentor	Ohio

CHAMBERS, ENVIRONMENTAL--SUNSHINE

STANDARD CABINET CO INC, TOTOWA	**N J**
American Research Corp, Farmington	Conn
Ardel Corp, Glendale	Cal
Associated Testing Labs, Inc, Wayne	N J
Atlas Engineering Corp, West Hartford	Conn
Auto-Control Labs Div Rucker Co, Los Angeles	Cal
Bethlehem Corp, Bethlehem	Pa
Dynatronic Instruments Corp Div Lab-Line Inst Inc Melrose Park	Ill
Gardner Lab Inc, Bethesda	Md
Hotpack Corp, Philadelphia	Pa
Japan Vacuum Engineering Co Ltd, Tokyo	Japan
Schoeffel Instrument Co, Westwood	NJ
Spectrolab Div, Textron Electronics Inc, Sylmar	Cal
Standard Cabinet Co Inc, Totowa	N J
Tenney Engineering Inc, Union	N J
Thermal Research Inc, Union Beach	N J
Thermotron Corp, Holland	Mich
Tipptronic Inc, Chagrin Falls	Ohio
Vestal Modern Design Corp, Vestal	N Y

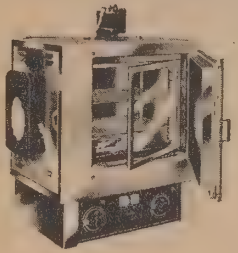
BLUE M

ENVIRONMENTAL CHAMBERS THAT WORK!

FULL RANGE CONSTANT TEMPERATURE/HUMIDITY CABINETS

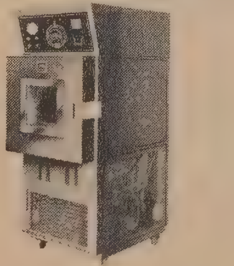
Easily meet every current MIL humidity spec . . . plus a host of even tougher industrial requirements. Automatically perform MIL-202C, Method 106B, Steps 1-7, including Step 7-A (—10°C.) without changing cams. Patented wet and dry bulb POWER-O-MATIC 60® Saturable Reactor Controls provide ±½%°C. performance from —10°C. to +93°C. and ±½% relative humidity throughout 20% to 98% range. Quality features include cam-type programming, separate monitoring recorder, non-cycling mechanical refrigeration, and elapsed time meter.

HUMIDAIRE *AIR-COOLED* TEMPERATURE/HUMIDITY CABINETS



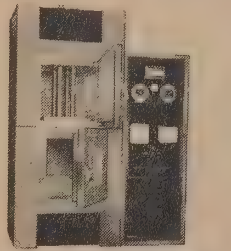
The most accurate, reliable and economical chamber ever developed for long-term high temperature humidity testing. Ideal for such steady state requirements as MIL-202C, Method 103B, Condition D—continuous operation for 56 days. Unique design uses air, not costly conditioned water. Saves thousands of gallons a year, minimizes operating costs. POWER-O-MATIC 60 Control automatically regulates temperature from +12°C. above ambient to +93°C. (±½°C.) . . . R.H. from 40% to 98% (±½%).

VERSA-RANGE REFRIGERATED TEST CHAMBERS



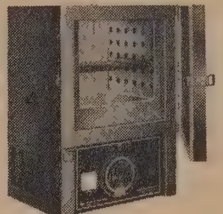
Ranges: —73°C. to +204°C., —40°C. to +93°C., —73°C. to +93°C. and ambient to —85°C. or —40°C. with cascade or single stage mechanical refrigeration. Front and top opening models. Sizes to 64 cu. ft. Above ambient units feature POWER-O-MATIC 60 Control. Also front opening and chest type CO2/LN2 chambers with —73°C. to +204°C., —73°C. to +204°C., —73°C. to +300°C. and —185°C. to +200°C. ranges.

THERMAL SHOCK TEST CHAMBERS



For MIL-202C. Dual Shock Cabinets meet Method 107B, Conditions A, B, C and F. Move 2.3 cu. ft. work chamber vertically from cold chamber to heat chamber per spec. —73°C. to +204°C. range. CO2 or LN2 for cooling, POWER-O-MATIC 60 for heating. Also 3-stage Thermal Cycling Chambers for Method 102A, Preferred Conditions C and D.

LIFE-TEST OVENS



The basic building block for any life-test capability . . . assure any test (regardless how long) will be completed successfully. POWER-O-MATIC 60 Control for unmatched performance throughout +204°C. range. Two sizes: 1.0 and 2.8 cu. ft. U.L. listed.

SEND FOR FULL INFORMATION

BLUE M

BLUE M *Engineering Company*
A Division of Blue M Electric Company
CORPORATE HEADQUARTERS: Blue Island, Illinois 60406
Offices strategically located to serve you.

CHAMBERS, ENVIRONMENTAL--TEMPERATURE

BLUE M ENGINEERING CO, BLUE ISLAND, ILL	**ADV PG 136**
CGS UNITS INC, ROCHESTER, N Y	**ADV PG 137**
CONRAD CO, HOLLAND	**MICH**
MISSIMERS INC, GLENDALE, CAL	**ADV PG 137**
OAL ASSOCIATES INC, WESTBURY	**N Y**
STANDARD CABINET CO INC, TOTOWA, N J	**ADV PG 137**
TRACOR INC, AUSTIN	**TEX**
VICTORY ENGINEERING CORP, SPRINGFIELD N J	**ADV PG: FACING PG 1**
Advanced Purification System Co Inc, Great Neck	N Y
Aerotronic Associates, Inc, Contoocook	N H
Aircraft Components Inc, Benton Harbor	Mich
Aireco, Inc, North Miami Beach	Fla
American Instrument Co, Inc, Silver Spring	Md
American Research Corp, Farmington	Conn
Andonian Associates, Inc, Waltham	Mass
Ardel Corp, Glendale	Cal
Associated Testing Labs, Inc, Wayne	N J
Atlas Engineering Corp, West Hartford	Conn
Atmosphere Control Co, Inc, Philadelphia	Pa
Auto-Control Labs Div Rucker Co, Los Angeles	Cal
Bailey Co, Washington	D C
Bethlehem Corp, Bethlehem	Pa
Blue M Engineering Co, Blue Island	Ill
BTU Engineering Corp, Waltham	Mass
CGS Units Inc, Rochester	N Y
Cincinnati Sub-Zero Products Inc, Cincinnati	Ohio
Conrad Co, Holland	Mich
Continental Device Corp, Hawthorne	Cal
Continental Testing Labs, Fern Park	Fla
Cryogenic Engineering Co, Denver	Colo
Custom Scientific Instruments Inc, Whippany	N J
CVI Corp, Columbus	Ohio
Delta Design Inc, La Mesa	Cal
Develco, Inc, Norwalk	Conn
Dynatronic Instruments Corp Div Lab-Line Inst Inc Melrose Park	Ill
E G & G Inc, Electronic Prods Div, Boston	Mass
Firewel Co Inc, Buffalo	N Y
Forma Scientific Inc, Marietta	Ohio
Gardner Lab Inc, Bethesda	Md
Gruenberg Electric Co Inc, Garden City	N Y
Hafstrom Technical Products Inc, San Diego	Cal
Harris Mfg Co Inc, Cambridge	Mass
Hektor Scientific Co Inc, Foxboro	Mass
High Vacuum Equipment Corp, Hingham	Mass
Hotpack Corp, Philadelphia	Pa
Hull Corp, Hatboro	Pa
Industrial Refrigeration Co Inc, Los Angeles	Cal
International Energy Conversion Inc, Garland	Tex
Jersey Technical Consultants, Morristown	NJ
Kahl Scientific Instrument Corp, El Cajon	Cal
Kahn & Co Inc, Wethersfield	Conn
Kidde & Co Inc, Walter, Belleville	N J
Koppers Co Inc, Pittsburgh	Pa
LaPine Scientific Co, Chicago	Ill
Lindsay Structures Div, Intl Steel Co, Evansville	Ind
Marin Controls Co, Belmont	Cal
Matthews Research Inc, Alexandria	Va
Missimers Inc, Glendale	Cal
North American Philips Co Inc Cryogenic Div Ashton	R I
OAL Associates Inc, Westbury	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Precision Scientific Co Sub GCA Corp, Chicago	Ill
Ramney Industries Corp, Farmingdale	N J
Research Inc, R-I Controls Div, Minneapolis	Minn
Research Instrument Co Inc, Westbury	N Y
Rocket Research Corp, Redmond	Wash
Scionics Corp, Northridge	Cal
Standard Cabinet Co Inc, Totowa	N J
Statham Instruments Inc, Los Angeles	Cal
Steiner-Ives Co, Riverton	NJ
System Enclosures Inc, Div Anetsberger Bros Inc Northbrook	Ill
Systems Research Labs Inc, Dayton	Ohio
Tafa Div Humphreys Corp, Concord	N H
Temperature Engineering Corp, Riverton	N J
Tenney Engineering Inc, Union	N J
Thermal Research Inc, Union Beach	N J
Thermotron Corp, Holland	Mich
Thermo-Vac Inc, South Holland	Ill
Tia Electric Co, Princeton	N J
Tipptronic Inc, Chagrin Falls	Ohio
Tracor Inc, Austin	Tex
Transistor Automation A Teledyne Co, Woburn	Mass
Vacuum Industries Inc Sub GCA Corp, Somerville	Mass
Varo Inc, Garland	Tex
Vestal Modern Design Corp, Vestal	N Y
Victory Engineering Corp, Springfield	N J
Webber Mfg Co Inc, Indianapolis	Ind
West Coast Research Corp, Los Angeles	Cal
Winslow Tele-Tronics Inc, Asbury Park	NJ

CHAMBERS, ENVIRONMENTAL--THERMAL SHOCK (FAST-HIGH-LOW)

BLUE M ENGINEERING CO, BLUE ISLAND	**ILL**
CONRAD CO, HOLLAND	**MICH**
MISSIMERS INC, GLENDALE	**CAL**
STANDARD CABINET CO INC, TOTOWA	**N J**
Aerotronic Associates, Inc, Contoocook	N H
Aireco, Inc, North Miami Beach	Fla
American Research Corp, Farmington	Conn
Associated Testing Labs, Inc, Wayne	N J
Atlas Engineering Corp, West Hartford	Conn

Blue M Engineering Co, Blue Island	Ill
Cincinnati Sub-Zero Products Inc, Cincinnati	Ohio
Conrad Co, Holland	Mich
Continental Device Corp, Hawthorne	Cal
CVI Corp, Columbus	Ohio
Delta Design Inc, La Mesa	Cal
Develco, Inc, Norwalk	Conn
Forma Scientific Inc, Marietta	Ohio
Gruenberg Electric Co Inc, Garden City	N Y
Hafstrom Technical Products Inc, San Diego	Cal
Harris Mfg Co Inc, Cambridge	Mass
Hektor Scientific Co Inc, Foxboro	Mass
Hotpack Corp, Philadelphia	Pa
Industrial Refrigeration Co Inc, Los Angeles	Cal
International Energy Conversion Inc, Garland	Tex
Missimers Inc, Glendale	Cal
Ormond, Inc, Santa Fe Springs	Cal
Research Inc, R-I Controls Div, Minneapolis	Minn
Standard Cabinet Co Inc, Totowa	N J
Temperature Engineering Corp, Riverton	N J
Tenney Engineering Inc, Union	N J
Thermotron Corp, Holland	Mich
Thermo-Vac Inc, South Holland	Ill
Webber Mfg Co Inc, Indianapolis	Ind
Winslow Tele-Tronics Inc, Asbury Park	NJ

CHAMBERS, ENVIRONMENTAL--VACUUM

BLUE M ENGINEERING CO, BLUE ISLAND	**ILL**
CONRAD CO, HOLLAND	**MICH**
STANDARD CABINET CO INC, TOTOWA	**N J**
Aero Vac Corp, Troy	N Y
Airco Temescal, Berkeley	Cal
Aircraft Components Inc, Benton Harbor	Mich
Aireco, Inc, North Miami Beach	Fla
Alcatel, Paris 8eme	France
American Research Corp, Farmington	Conn
Andar/ITI Inc, Palo Alto	Cal
Andonian Associates, Inc, Waltham	Mass
Ardel Corp, Glendale	Cal
Associated Testing Labs, Inc, Wayne	N J
Atlas Engineering Corp, West Hartford	Conn
Auto-Control Labs Div Rucker Co, Los Angeles	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Bendix Vacuum Div, Rochester	N Y
Bendix Corp, Vacuum Div, Rochester	N Y
Blue M Engineering Co, Blue Island	Ill
CHA Industries, Div Carl Herrmann Assoc Menlo Park	Cal
Cincinnati Sub-Zero Products Inc, Cincinnati	Ohio
Conrad Co, Holland	Mich
Consolidated Vacuum Corp, Rochester	N Y
Cooke Vacuum Products Inc, South Norwalk	Conn
Cryogenic Engineering Co, Denver	Colo
CVI Corp, Columbus	Ohio

Continuous Refrigeration

at **ultra-low**

Temperatures

Model "L-4.5."

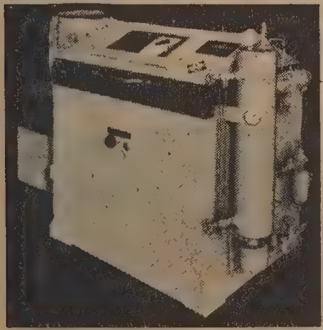
STORAGE FREEZER

For storing frozen sealants, adhesives, encapsulating compounds, medical and research specimens, pharmaceuticals, hospital supplies and other substances requiring continuous refrigeration at low temperatures.

Down to —45F (—43C), —100F (—74C) or —120F (—85C) available on order. Full 4.5 cu. ft. storage space. Plug into 115 VAC. No CO_2 required.

MISSIMERS
Incorporated
3737 San Fernando Rd., Glendale, Calif. 91204
(213) 245-8471 TWX 213-240-2187

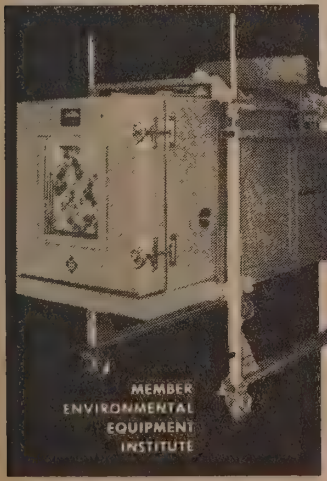
ENVIRONMENTAL TEST CHAMBERS



HIGH AND LOW TEMPERATURE • ALTITUDE • SAND AND DUST • RAIN AND SUNSHINE • FUNGUS • HUMIDITY • SALT SPRAY • VIBRATION VIBRATION/AGREE • EXPLOSION • WALK IN • SPECIAL APPLICATIONS LIQUID CO_2 • BRINE SYSTEMS • MECHANICAL & LCO_2 COOLING PORTABLE LCO_2 SUPPLY TANKS • CUSTOM BUILT CABINETS

Standard cabinets provide extreme accuracy and reliability. Expert engineering and quality materials and construction assure you of trouble-free performance.

With twenty-five years of service, **Standard** has the experience and unusual technical skills for solving your present and future environmental problems. Whatever simulated condition you need, **Standard** can provide the right cabinet for the job.



MEMBER
ENVIRONMENTAL
EQUIPMENT
INSTITUTE

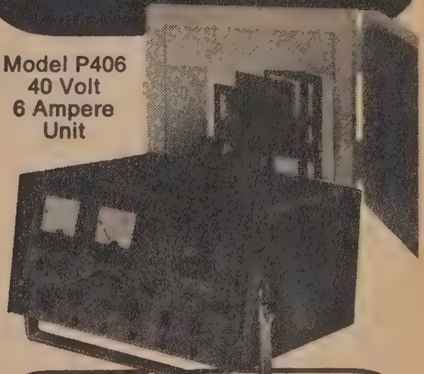
Call or Write for latest catalog.

Standard
CABINET COMPANY
INC.

201-256-2200 **377 MINNISINK ROAD, TOTOWA, N.J. 07512**

new

with Front-Panel Switch Programming



Model P406
40 Volt
6 Ampere
Unit

VERSATILE

Environmental Testing

POWER SOURCE

- Regulated DC or Pulse power, with variable pulse amplitude, width and duty cycle. Cycle times from seconds to several days available.
- Both automatic and manual operational modes for pulses.
- Floating outputs: one direct plus 5 lines with separate adjustable load resistors.
- Programming switch for remote operation.
- Short circuit protection.
- Lower and higher power rating models available.
- Optional modular component test rack usable without modification with any oven or test chamber.

APPLICATIONS

- Circuit and component burn-in, aging, and life testing.
- Thick and thin film resistor pulse trimming.
- Programmable power supply.

OTHER PRODUCTS

- High speed binary to BCD and other converters.
- Electromechanical component and circuit test probe stations.
- Power supplies and modules.
- High purity silicon monoxide.

CGS UNITS, INC.

73 SAGINAW DRIVE
ROCHESTER, N.Y. 14623
Phone: 716-244-2080

Delta Design Inc, La Mesa ... Cal
Denton Vacuum Inc, Cherry Hill ... N J
Develco, Inc, Norwalk ... Conn
Dynatronic Instruments Corp Div Lab-Line Inst Inc
  Melrose Park ... Ill
Edwards High Vacuum Inc, Grand Island ... N Y
Edwards High Vacuum 9Canada0 Ltd, Oakville ... Ont
Energy Beams Inc, Haskell ... N J
Ferranti, Ltd, Lancashire ... England
Firewel Co Inc, Buffalo ... N Y
Forma Scientific Inc, Marietta ... Ohio
General Electric Co Vacuum Prods Business Section
  Schenectady ... N Y
Granville-Philips Co, Boulder ... Colo
Gruenberg Electric Co Inc, Garden City ... N Y
High Vacuum Equipment Corp, Hingham ... Mass
Hotpack Corp, Philadelphia ... Pa
Hughes Aircraft Co Vacuum Tube Prods Div Vacuum
  Devices Dept, Oceanside ... Cal
Hull Corp, Hatboro ... Pa
Ilikon Corp, Natick ... Mass
Industrial Refrigeration Co Inc, Los Angeles ... Cal
Japan Vacuum Engineering Co Ltd, Tokyo ... Japan
Kewaunee Scientific Equipment, Adrian ... Mich
Kinney Vacuum Div New York Air Brake Co
  Boston ... Mass
Kollsman Instrument Corp, Syosset ... N Y
LaPine Scientific Co, Chicago ... Ill
Lockheed Georgia Nuclear Lab, Marietta ... Ga
Matthews Research Inc, Alexandria ... Va
Mt Vernon Research Co, Alexandria ... Va
Nelson Vacuum Pump Co, Berkeley ... Cal
Norton Co Vacuum Equip Div, Newton ... Mass
Nuclear Diodes, Inc, Prairie View ... Ill
Nuclide Corp, AGV Div, Acton ... Mass
Pennsalt Chemicals Corp Equipment Div
  Philadelphia ... Pa
Precision Scientific Co Sub GCA Corp, Chicago ... Ill
Research Instrument Co Inc, Westbury ... N Y
Sloan Instruments Corp, Santa Barbara ... Cal
Standard Cabinet Co Inc, Totowa ... N J
Sunbeam Vacuum Furnace Corp, North Billerica ... Mass
Systems Research Labs Inc, Dayton ... Ohio
Temperature Engineering Corp, Riverton ... N J
Tenney Engineering Inc, Union ... N J
Tenvac, Inc, Pembroke ... Mass
Thermotron Corp, Holland ... Mich
Thermo-Vac Inc, South Holland ... Ill
T-M Vacuum Products, Riverton ... N J
20th Century Electronics Ltd
  New Addington, Surrey ... England
Ultek Div Perkin-Elmer, Palo Alto ... Cal
Vacuum/Atmospheres Corp, N Hollywood ... Cal
Vacuum Industries Inc Sub GCA Corp, Somerville ... Mass
Vacuum Metallizing, Van Nuys ... Cal
Varian, Palo Alto ... Cal
Veeco Instruments Inc, Plainview ... N Y
Webber Mfg Co Inc, Indianapolis ... Ind

CHAMBERS, ENVIRONMENTAL--VIBRATION

CONRAD CO, HOLLAND ... MICH
MISSIMERS INC, GLENDALE ... CAL
STANDARD CABINET CO INC, TOTOWA ... N J
American Research Corp, Farmington ... Conn
Associated Testing Labs, Inc, Wayne ... N J
Atlas Engineering Corp, West Hartford ... Conn
Auto-Control Labs Div Rucker Co, Los Angeles ... Cal
Cincinnati Sub-Zero Products Inc, Cincinnati ... Ohio
Conrad Co, Holland ... Mich
Hektor Scientific Co Inc, Foxboro ... Mass
Industrial Refrigeration Co Inc, Los Angeles ... Cal
Lindsay Structures Div, Intl Steel Co, Evansville ... Ind
Missimers Inc, Glendale ... Cal
Ormond, Inc, Santa Fe Springs ... Cal
Standard Cabinet Co Inc, Totowa ... N J
Temperature Engineering Corp, Riverton ... N J
Tenney Engineering Inc, Union ... N J
Thermotron Corp, Holland ... Mich
Webber Mfg Co Inc, Indianapolis ... Ind

CHAMBERS, ENVIRONMENTAL--WHITE ROOM

BLUE M ENGINEERING CO, BLUE ISLAND ... ILL
Advanced Purification System Co Inc, Great Neck ... N Y
Agnew-Higgins Inc, Garden Grove ... Cal
Amsco Industrial Co Div Amer Sterilizer Co, Erie ... Pa
Auto-Control Labs Div Rucker Co, Los Angeles ... Cal
Baker Co, Inc, Biddeford ... Me
Birdair Structures Inc, Buffalo ... N Y
Blue M Engineering Co, Blue Island ... Ill
Clean Room Products Inc, Farmingdale ... N Y
Controlled Environment Equipment Corp, Brockton ... Mass
Edcraft Industries Inc, Linden ... N J
Envirco Div Becton, Dickinson & Co, Albuquerque ... N M
Evans Equipment Co, Brookfield ... Conn
Farr Co, El Segundo ... Cal
General Acoustics Corp, Los Angeles ... Cal
Gruenberg Electric Co Inc, Garden City ... N Y
Interlab Inc, Pleasantville ... N Y
Kewaunee Scientific Equipment, Adrian ... Mich
Koppers Co Inc, Pittsburgh ... Pa
Kulicke & Soffa Industries Inc, Fort Washington ... Pa
Matthews Research Inc, Alexandria ... Va
Micronics Corp of America, Providence ... RI
M S & R Inc, Irwin ... Pa

Pure Aire Corp of America, Van Nuys ... Cal
Ramney Industries Corp, Farmingdale ... N J
Ray Products Inc, Alhambra ... Cal
Siemens America Inc, New York ... N Y
Techni-Tool Inc, Philadelphia ... Pa
Tipptronic Inc, Chagrin Falls ... Ohio
Torit Mfg Co, St Paul ... Minn
Vacuum/Atmospheres Corp, N Hollywood ... Cal
Zicon Corp, Mt Vernon ... N Y

CHAMBERS--IONIZATION

GENERAL ELECTRIC CO, ECSO, SCHENECTADY
** N Y ... ADV PGS 7**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH ... VA
Alcatel, Paris 8eme ... France
Ardel Corp, Glendale ... Cal
Bailey Co, Washington ... D C
Beckman Instruments Inc, Fullerton, ... Cal
Cary Instruments a Varian Sub, Monrovia ... Cal
Collins & Assoc Don L, Glendale ... Cal
Electro-Neutronics Inc, Oakland ... Cal
Electron Technology Inc, Kearny ... N J
Electrospace Corp, Glen Cove ... N Y
Energy Beams Inc, Haskell ... N J
EON Corp, Brooklyn ... N Y
GCA Technology Div GCA Corp, Bedford ... Mass
General Electric Co, ECSO, Schenectady ... N Y
General Electric Co Vacuum Prods Business Section
  Schenectady ... N Y
General Electric Co X-Ray Dept, Milwaukee ... Wis
Harshaw Chemical Co, Div Kewanee Oil Co
  Cleveland ... Ohio
Intertechnique, Plaisir, 78 ... France
Isotopes A Teledyne Co, Westwood ... N J
Landis & Gyr, Inc, New York ... N Y
Landis & Gyr AG, Zug ... Switzerland
Landsverk Electrometer Co, Glendale ... Cal
Lockheed Georgia Nuclear Lab, Marietta ... Ga
Melpar Inc, Special Prods Dept, Falls Church ... Va
Nuclear-Chicago Corp, Des Plaines ... Ill
Nuclear Corp of America, Nuclear Div, Denville ... N J
Nuclear Enterprises Ltd, Edinburgh 11 ... Scotland
Nuclear Equipment Chemical Corp, Farmingdale ... N Y
Nuclear Supplies, Encino ... Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Reuter-Stokes Electronic Components Inc
  Cleveland ... Ohio
RIL Electronics Inc, Southampton ... Pa
Science Accessories Corp, Southport ... Conn
Takeda Riken Industry Co Ltd, Tokyo ... Japan
20th Century Electronics Ltd
  New Addington, Surrey ... England
Victoreen Instrument Div, Cleveland ... Ohio
Westinghouse Electric Corp, Electronic Tube Div
  Pittsburgh ... Pa
Westinghouse Electric Corp, Tube Div, Elmira ... NY

CHAMBERS--MICROWAVE TEST

Ace Engineering & Machine Co, Inc
  Huntingdon Valley ... Pa
Emerson & Cuming Inc, Canton ... Mass
Filtron Co Inc Sub Liquidonics Ind Inc, Flushing ... N Y
Goodrich Co, B F, Sponge Prod Div, Shelton ... Conn
Lindsay Structures Div, Intl Steel Co, Evansville ... Ind
McMillan Radiation Labs Inc, Ipswich ... Mass
Ray Proof Corp, Norwalk ... Conn
Shielding Corp, Moorestown ... N J
Short Wave Plastic Forming Co, Costa Mesa ... Cal
Topatron Inc, Costa Mesa ... Cal

CHANGERS--FREQUENCY

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO
** INC, WOODSIDE, N Y ... ADV PG 138**
C M L INC, PLAINFIELD ... N J
FORK STANDARDS INC, WEST CHICAGO, ILL ... ADV PG 138
GENERAL ELECTRIC CO, ECSO, SCHENECTADY
** N Y ... ADV PGS 7**
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON ... N Y

INTERELECTRONICS CORP, CONGERS ... N Y
SORENSEN OPERATION, RAYTHEON CO., NORWALK ... CONN
Advanced Energy Conversion, Menlo Park ... Cal
Airmec Instruments Ltd, Buckinghamshire ... England
American Time Products, Elctns Div Bulova Watch Co Inc
  Woodside ... N Y
Astro-Metrix Corp, Burbank ... Cal
Austron, Inc, Austin ... Tex
Avtel Corp, Covina ... Cal
Basler Electric Co, Highland ... Ill
Borg-Warner Controls Div Borg-Warner Corp
  Santa Ana ... Cal
California Instruments Corp, San Diego ... Cal
C M L Inc, Plainfield ... N J
Coil Co of America Inc, Northvale ... N J
Consolidated Electric Corp, Seattle ... Wash
Electronic Research Associates Inc, Cedar Grove ... N J
Electronic Specialty Co, Los Angeles ... Cal
Elgar Corp, San Diego ... Cal
Fansteel Metallurgical Corp, North Chicago ... Ill
Field Electronics Inc, Chatham ... N J
Fork Standards Inc, West Chicago ... Ill
Fuji Electric Co Ltd, Tokyo ... Japan
General Electric Co, ECSO, Schenectady ... N Y
General Precision Systems Inc, Kearfott Gp
  Little Falls ... N J

Frequency Changers?
Try Bulova First!

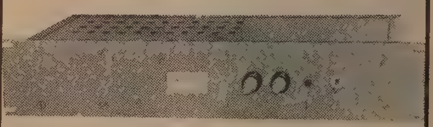
CALL:

Ariz Tech-Ser Inc, 1805 E Indian School Rd
  Phoenix ... 602-265-3629
Cal Straube Assoc., Inc., 483 Willow Rd.,
  Menlo Pk ... 213-323-2476
Cal Cardinal Assoc, 16024 Ventura Blvd
  Encino ... 213-788-4540
Conn Samuel C Hooker Inc, Box 369
  West Hartford ... 203-233-8000
Fla Perrott Assoc, 1607 Forsyth Rd,
  Orlando ... 305-275-1132
Fla Perrott Assoc, Box 4532, Clearwater ... 813-531-5513
Fla Perrott Assoc, Box 6277
  West Palm Beach ... 305-967-1770
Ga Emmett Rushin Co, Box 486
  Roswell ... 404-993-6498
Ill Communications Eng, 7100 N Western Ave
  Chicago ... 312-R01-0548
Md Daniel & Co, Box 124, Lutherville ... 301-825-8330
Mass Samuel Hooker, Inc, Box 352
  Winchester ... 617-729-5482
Minn Wenco Sales Inc, 7728 Morgan Ave S
  Minneapolis ... 612-866-3639
Mo J C Mankus & Assoc, 400 Brooks La
  Hazelwood ... 314-PE1-4334
NY H C Johnson Agencies Inc, 111 Mt Hope Ave
  Rochester ... 716-232-2688
NY Cane Technical Sales, 555 E Boston Post Rd
  Mamaroneck ... 914-698-4411
NY H C Johnson Agencies Inc, Box 86
  Brandywine Sta, Schenectady ... 518-882-9303
NY H C Johnson Agencies Inc, Box 215
  Fayetteville ... 315-637-9595
NY H C Johnson Agencies Inc, 8 Los Robles St
  Williamsville ... 716-632-7880
Pa Daniel & Co, Box 3, Glenside ... 215-TU7-0550
Tex Applied Eng Sales, 1st Bank & Trust,
  Richardson ... 214-AD1-1322
Wash Jas J Backer Co, 221 W Galer St
  Seattle ... 206-AT3-6470

AMERICAN TIME PRODUCTS
BULOVA WATCH CO INC
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

FREQUENCY CHANGERS?

Yes . . .



Select your precision-frequency
FREQUENCY CHANGER
from Fork Standards' comprehensive product display.

See page 457

FORK STANDARDS, INC.
251 Main St., West Chicago Ill. 60185
Telephone Area Code 312—231-3511

Geo Space Corp, Houston ... Tex
Industrial Test Equipment Co, Port Washington ... N Y
Inet Power A Teledyne Co, Gardena ... Cal
Interelectronics Corp, Congers ... N Y
Kato Engineering Co, Mankato ... Minn
Leland Airborne Products Div AMF, Vandalia ... Ohio
Louis Allis Co Div Litton Industries, Milwaukee ... Wisc
Madigan Electronic Corp, Washington ... D C
Microdot, Inc, South Pasadena ... Cal
Microdot Magnetics Inc, Los Angeles ... Cal
Mid-Eastern Industries Inc, Springfield ... N J
Optimation, Inc, Sun Valley ... Cal
Pacific Electro Dynamics Inc, Seattle ... Wash
Parzen Research Inc Sub Ovitron Corp, Westbury ... N Y
Powertec Div, Airtronics Corp, Chatsworth ... Cal
Solid State Electronics Corp, Sepulveda ... Cal
Sorensen Operation, Raytheon Co., Norwalk ... Conn
Standard Industries, Buena Park ... Cal
Tel-Instrument Electronics Corp, Carlstadt ... N J
Topaz Inc, San Diego ... Cal
Valradio Ltd, Feltham, Mdsx ... Eng
Varo Inc, Garland ... Tex
Varo Inc, Static Power Div, Plano ... Tex
Westinghouse Electric Corp, Tube Div, Elmira ... NY

CHARACTER TUBES SEE TUBES—CATHODE RAY

CHARGERS, BATTERY--ENGINE-DRIVEN GENERATOR

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
Aircraft Components Inc, Benton Harbor ... Mich
Automatic Switch Co, Florham Park ... N J
Bronson Corp, Sub Kurz & Root Co, Appleton ... Wisc
Denki Kogyo Co Ltd, Tokyo ... Japan
General Electric Co, ECSO, Schenectady ... N Y
Guardian Electric Mfg Co of Cal Inc, Culver City ... Cal
Inet Power A Teledyne Co, Gardena ... Cal
Kato Engineering Co, Mankato ... Minn
Motor Generator Div Hobart Bros Co, Troy ... Ohio
Onan Div, Studebaker Corp, Minneapolis ... Minn
Rett Electronics Inc, Warren ... Mich
Safety Electrical Equipment Corp, New Haven ... Conn
Sun Electric Corp, Chicago ... Ill
Thermo Electron Engineering Corp, Waltham ... Mass
Varo Inc, Garland ... Tex

CHARGERS, BATTERY--MOTOR-GENERATOR

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
Automatic Switch Co, Florham Park ... N J
Bronson Corp, Sub Kurz & Root Co, Appleton ... Wisc
ESB Inc Exide Missile & Electronics Div, Raleigh ... N C
Fansteel Metallurgical Corp, North Chicago ... Ill
General Electric Co, ECSO, Schenectady ... N Y
General Precision Systems Inc, Kearfott Gp Little Falls ... N J
Gould Marathon Battery Co Div Gould-Natl Batteries Inc St Paul ... Minn
Inet Power A Teledyne Co, Gardena ... Cal
Kato Engineering Co, Mankato ... Minn
Motor Generator Div Hobart Bros Co, Troy ... Ohio
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Sun Electric Corp, Chicago ... Ill
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn ... N Y
Thermo Electron Engineering Corp, Waltham ... Mass
Varo Inc, Garland ... Tex

CHARGERS, BATTERY--PORTABLE

C M L INC, PLAINFIELD ... N J
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
KEPCO INC, FLUSHING, N Y ... ADV PGS 4TH COVER
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
OPAD ELECTRIC CO, INC, NEW YORK ... N Y
YARDNEY ELECTRIC CORP, NEW YORK ... N Y

Aircraft Components Inc, Benton Harbor ... Mich
Alkaline Batteries Corp, Mountain View ... Cal
Allen/UTI, Kalamazoo ... Mich
American Monarch Div Mpls Scientific Controls Minneapolis ... Minn
American Rectifier Corp, College Point ... N Y
Applied Electronics Corp of N J, Metuchen ... N J
Aristo-Craft Distinctive Miniatures, New York ... N Y
Astro-Metrix Corp, Burbank ... Cal
ATR Electronics, Inc, St Paul ... Minn
Berg Gibson Mfg Co, Kansas City ... Mo
Brys Instrument Corp, Brooklyn ... N Y
Bullock Magnetics Corp, Pomona ... Cal
Carol Electronics Div Weeco Inc, Martinsburg ... W Va
CEA Div Berkleonics Inc, Monrovia ... Cal
Christie Electric Corp, Los Angeles ... Cal
C M L Inc, Plainfield ... N J
Coil Co of America Inc, Northvale ... N J
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark ... N J
Dowa Trading Co Ltd, Kobe ... Japan
Dresser Electric Co, Detroit ... Mich
Eastern Delta Corp, Fair Lawn ... N J
EICO Electronic Instrument Co Inc, Brooklyn ... NY
Electro-Mechanics Co, Austin ... Tex
Electronic Components Corp, Addison ... Ill
Electronic Measurements Corp, New York ... N Y
Electronic Research Associates Inc, Cedar Grove ... N J
Electro-Standards Labs Inc, Miami ... Fla
Elgin Electronics Inc, Erie ... Pa
ESB Inc Exide Missile & Electronics Div, Raleigh ... N C
Fansteel Metallurgical Corp, North Chicago ... Ill
Fedtro Inc, Rockville Centre ... N Y
Field Electronics Inc, Chatham ... N J
Gates Electronic Co Inc, Bronx ... N Y
General Battery & Ceramic Corp, Reading ... Pa
General Electric Co, ECSO, Schenectady ... N Y
General Precision Systems Inc, Kearfott Gp Little Falls ... N J
Gould Marathon Battery Co Div Gould-Natl Batteries Inc St Paul ... Minn
Green Electric Corp, Fairlawn ... NJ
Gulton Industries Inc, Metuchen ... N J
Hydro Products Div Dillingham Corp, San Diego ... Cal
Industrial Electronetics Corp, Satellite Beach ... Fla
Inet Power A Teledyne Co, Gardena ... Cal
Kato Engineering Co, Mankato ... Minn
Kepco Inc, Flushing ... N Y
Macarr Inc, Bronx ... N Y
Marche Mfg Co, Des Plaines ... Ill
Matsushita Electric Industrial Co Ltd, Osaka ... Japan
Mega Engineering Co, Mountain View ... Cal
Mid-Eastern Industries Inc, Springfield ... N J
Motor Generator Div Hobart Bros Co, Troy ... Ohio
Onan Div, Studebaker Corp, Minneapolis ... Minn
Opad Electric Co, Inc, New York ... N Y
Philmore Mfg Co Inc, Richmond Hill ... N Y
Power Inc, Electronics Div, Burnsville ... Minn
Ratelco Inc, Seattle ... Wash
Resdel Engineering Corp, Pasadena ... Cal
Schauer Mfg Corp, Cincinnati ... Ohio
Sel-Rex Corp & Sub The Meaker Co, Nutley ... N J
Shigoto Industries Ltd, New York ... N Y
Solidstate Controls Inc, Columbus ... Ohio
Sonotone Corp, Battery Div, Elmsford ... N Y
Sterling Mfg Co, Cleveland ... Ohio
Sun Electric Corp, Chicago ... Ill
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn ... N Y
Terado Corp, St Paul ... Minn
Ther Electric & Machine Works Inc, Chicago ... Ill
Tilton Electronics Corp, Winnisquam ... N H
Topping Electronics Ltd, Toronto 17 ... Ont
Triple A Specialty Co, Chicago ... Ill
Ultra Electronics Ltd, London, W 3 ... England
Varo Inc, Garland ... Tex
Vinco Industries, Orange ... Cal
Ward Leonard Electric Co, Mount Vernon ... N Y
Washington Electrical Products Co, Washington ... Mo
Woodward-Schumacher Electric Corp, Chicago ... Ill
Workman Electronic Products Inc, Sarasota ... Fla
Yardney Electric Corp, New York ... N Y

CHARGERS, BATTERY--SOLID STATE, REGULATED

ACCURATE ELECTRONICS CORP, ELYRIA ... OHIO
C M L INC, PLAINFIELD ... N J
EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN ... MO
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
INTERELECTRONICS CORP, CONGERS ... N Y
KEPCO INC, FLUSHING, N Y ... ADV PGS 4TH COVER
OPAD ELECTRIC CO, INC, NEW YORK ... N Y
WAGNER ELECTRIC CORP, TUNG-SOL DIV, LIVINGSTON ... N J
YARDNEY ELECTRIC CORP, NEW YORK ... N Y
Accurate Electronics Corp, Elyria ... Ohio
Air Technology Corp, Waltham ... Mass
Alkaline Batteries Corp, Mountain View ... Cal
Allen/UTI, Kalamazoo ... Mich
American Monarch Div Mpls Scientific Controls Minneapolis ... Minn
American Rectifier Corp, College Point ... N Y
Applied Electro Mechanics Inc, Alexandria ... Va
Applied Electronics Corp of N J, Metuchen ... N J
Astro-Metrix Corp, Burbank ... Cal
Audn Corp, Hamburg ... N Y
Ault, Inc, Minneapolis ... Minn
Aviation Electric Ltd, St Laurent, Montreal ... Que
Basler Electric Co, Highland ... Ill
Bergen Lab, Inc, Paterson ... N J
Berg Gibson Mfg Co, Kansas City ... Mo
Bronson Corp, Sub Kurz & Root Co, Appleton ... Wisc
Brys Instrument Corp, Brooklyn ... N Y
Bullock Magnetics Corp, Pomona ... Cal
Cal-Power Corp, El Segundo ... Cal
Canadian Research Institute, Don Mills ... Ont
Carol Electronics Div Weeco Inc, Martinsburg ... W Va
C & D Batteries Div Eltra Corp, Conshohocken ... Pa
CEA Div Berkleonics Inc, Monrovia ... Cal
Christie Electric Corp, Los Angeles ... Cal
C I T E, Santa Margherita Ligure ... Italy
C M L Inc, Plainfield ... N J
Darcy Industries Inc, Behlman Div, Santa Monica ... Cal
Dinion Coil Co Inc, Caledonia ... N Y
Dresser Electric Co, Detroit ... Mich
Dynamic Instrument Corp, Plainview ... N Y
Eagle-Picher Industries Inc, Electronics Div, Joplin ... Mo
Eastern Dynamics, Inc, Bloomfield ... Conn
Edo Corp, College Point ... NY
Electro Development Corp, Lynnwood ... Wash
Electro Marine Corp, Falmouth ... Mass
Electro-Mechanics Co, Austin ... Tex
Electronic Components Corp, Addison ... Ill
Electronic Research Associates Inc, Cedar Grove ... N J
Electro Powerpacs Corp, Cambridge ... Mass
Elgin Electronics Inc, Erie ... Pa
Euro Cedag, Milan ... Italy
Fansteel Metallurgical Corp, North Chicago ... Ill
Field Electronics Inc, Chatham ... N J
Gates Electronic Co Inc, Bronx ... N Y
General Battery & Ceramic Corp, Reading ... Pa
General Electric Co, ECSO, Schenectady ... N Y
General Precision Systems Inc, Kearfott Gp Little Falls ... N J
Gould Marathon Battery Co Div Gould-Natl Batteries Inc St Paul ... Minn
Green Electric Corp, Fairlawn ... NJ
Guardian Electric Mfg Co of Cal Inc, Culver City ... Cal
Gulton Industries Inc, Metuchen ... N J
Gulton Industries Inc Engineered Magnetics Div Hawthorne ... Cal
Hirst Electric Industries Ltd, Crawley, Sussex ... England
Hughes Electronics Co, Los Angeles ... Cal
Industrial Electronetics Corp, Satellite Beach ... Fla
Inet Power A Teledyne Co, Gardena ... Cal
Instruments Inc, San Diego ... Cal
Interelectronics Corp, Congers ... N Y
Kepco Inc, Flushing ... N Y
Leland Airborne Products Div AMF, Vandalia ... Ohio
Macarr Inc, Bronx ... N Y
Marche Mfg Co, Des Plaines ... Ill
Mega Engineering Co, Mountain View ... Cal
Mid-Eastern Industries Inc, Springfield ... N J
Motor Generator Div Hobart Bros Co, Troy ... Ohio
Nichols Co Ltd, R H, Downsview ... Ont
North Electric Co, Galion ... Ohio
Opad Electric Co, Inc, New York ... N Y
Origin Electric Co Ltd, Tokyo ... Japan
Pacific Electro Dynamics Inc, Seattle ... Wash
Parametrics, Costa Mesa ... Cal
Power Control Corp, Pittsburgh ... Pa
Power Inc, Electronics Div, Burnsville ... Minn
Power Sources Div, Technical Operations Inc Burlington ... Mass
Powertec Div, Airtronics Corp, Chatsworth ... Cal
Precision Mecanique Labinal, 93 Saint-Ouen ... France
Radix Electronics Corp, Anaheim ... Cal
Ratelco Inc, Seattle ... Wash
RCA, Defense Electronic Products, Moorestown ... N J
Resdel Engineering Corp, Pasadena ... Cal
RIL Electronics Inc, Southampton ... Pa
Sanken Electric Co, Ltd, Toshima-ku, Tokyo ... Japan
Schauer Mfg Corp, Cincinnati ... Ohio
Sel-Rex Corp & Sub The Meaker Co, Nutley ... N J
Servo-Tek Products Co, Marine Div, Hawthorne ... N J
Servo-Tek Products Co, Hawthorne ... N J
Siltronics Inc, Oakmont ... Pa
Solidstate Controls Inc, Columbus ... Ohio
Solid State Research Corp, Albuquerque ... N M
Sonotone Corp, Battery Div, Elmsford ... N Y
Space Craft Inc, Huntsville ... Ala
Svenska Ackumulator Aktiebolaget Jungner Oskarshamn ... Sweden
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn ... N Y
Ther Electric & Machine Works Inc, Chicago ... Ill
Thiem-Transrex Inc, El Segundo ... Cal
Tilton Electronics Corp, Winnisquam ... N H
Topping Electronics Ltd, Toronto 17 ... Ont
Triple A Specialty Co, Chicago ... Ill
Utah Research & Development Co Inc Salt Lake City ... Utah
Vapor Corp, Chicago ... Ill
Varo Inc, Garland ... Tex
Varo Inc, Static Power Div, Plano ... Tex
Vinco Industries, Orange ... Cal
Wagner Electric Corp, Tung-Sol Div, Livingston ... N J
Ward Leonard Electric Co, Mount Vernon ... N Y
Warren Mfg Co Div Dielectric Prods Eng Co Inc Littleton ... Mass
Westinghouse Electric Corp, Aerospace Electrical Div Lima ... Ohio
Woodward-Schumacher Electric Corp, Chicago ... Ill
Yardney Electric Corp, New York ... N Y

CHARGERS, BATTERY--SOLID STATE, UNREGULATED

ACCURATE ELECTRONICS CORP, ELYRIA ... OHIO
C M L INC, PLAINFIELD ... N J
DECOURSEY ENGINEERING LAB, CULVER CITY ... CAL
EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN ... MO
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
HEATH CO, BENTON HARBOR ... MICH
INTERELECTRONICS CORP, CONGERS ... N Y
KEPCO INC, FLUSHING, N Y ... ADV PGS 4TH COVER
OPAD ELECTRIC CO, INC, NEW YORK ... N Y
WAGNER ELECTRIC CORP, TUNG-SOL DIV, LIVINGSTON ... N J
YARDNEY ELECTRIC CORP, NEW YORK ... N Y
Accurate Electronics Corp, Elyria ... Ohio
Air Technology Corp, Waltham ... Mass
All American Eng Co, Coml Prods Div, Wilmington ... Del
Allen/UTI, Kalamazoo ... Mich
American Monarch Div Mpls Scientific Controls Minneapolis ... Minn
American Rectifier Corp, College Point ... N Y
Applied Electronics Corp of N J, Metuchen ... N J
Astro-Metrix Corp, Burbank ... Cal
ATR Electronics, Inc, St Paul ... Minn
Audn Corp, Hamburg ... N Y
Ault, Inc, Minneapolis ... Minn
Aviation Electric Ltd, St Laurent, Montreal ... Que
Basler Electric Co, Highland ... Ill
Berg Gibson Mfg Co, Kansas City ... Mo
Bullock Magnetics Corp, Pomona ... Cal
Cal-Power Corp, El Segundo ... Cal
Canadian Research Institute, Don Mills ... Ont
Carol Electronics Div Weeco Inc, Martinsburg ... W Va
CEA Div Berkleonics Inc, Monrovia ... Cal

Christie Electric Corp, Los Angeles	Cal
C I T E, Santa Margherita Ligure	Italy
C M L Inc, Plainfield	N J
Coil Co of America Inc, Northvale	N J
Darcy Industries Inc, Behlman Div, Santa Monica	Cal
DeCoursey Engineering Lab, Culver City	Cal
Dresser Electric Co, Detroit	Mich
Dynamic Instrument Corp, Plainview	N Y
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Eastern Delta Corp, Fair Lawn	N J
Eastern Dynamics, Inc, Bloomfield	Conn
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electro Development Corp, Lynnwood	Wash
Electronic Components Corp, Addison	Ill
Electronic Research Associates Inc, Cedar Grove	N J
Electro Powerpacs Corp, Cambridge	Mass
Electro-Standards Labs Inc, Miami	Fla
Fansteel Metallurgical Corp, North Chicago	Ill
Field Electronics Inc, Chatham	N J
Gates Electronic Co Inc, Bronx	N Y
General Battery & Ceramic Corp, Reading	Pa
General Electric Co, ECSO, Schenectady	N Y
General Railway Signal Co, Rochester	N Y
Gould Marathon Battery Co Div Gould-Natl Batteries Inc St Paul	Minn
Green Electric Corp, Fairlawn	NJ
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Gulton Industries Inc, Metuchen	N J
Gulton Industries Inc Engineered Magnetics Div Hawthorne	Cal
Heath Co, Benton Harbor	Mich
Hirst Electric Industries Ltd, Crawley, Sussex	England
Industrial Electronetics Corp, Satellite Beach	Fla
Inet Power A Teledyne Co, Gardena	Cal
Interelectronics Corp, Congers	N Y
Kepco Inc, Flushing	N Y
Lad Electronics Corp, Hicksville	N Y
Leland Airborne Products Div AMF, Vandalia	Ohio
Macarr Inc, Bronx	N Y
Marche Mfg Co, Des Plaines	Ill
Mega Engineering Co, Mountain View	Cal
Mid-Eastern Industries Inc, Springfield	N J
Motor Generator Div Hobart Bros Co, Troy	Ohio
Opad Electric Co, Inc, New York	N Y
Power Control Corp, Pittsburgh	Pa
Power Inc, Electronics Div, Burnsville	Minn
Powertec Div, Airtronics Corp, Chatsworth	Cal
Precision Mecanique Labinal, 93 Saint-Ouen	France
Primec Corp, Los Angeles	Cal
Radix Electronics Corp, Anaheim	Cal
Ramsay Engineering Co, Anaheim	Cal
RCA, Defense Electronic Products, Moorestown	N J
Resdel Engineering Corp, Pasadena	Cal
Sanken Electric Co, Ltd, Toshima-ku, Tokyo	Japan
Schauer Mfg Corp, Cincinnati	Ohio
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Solidstate Controls Inc, Columbus	Ohio
Space Craft Inc, Huntsville	Ala
Svenska Ackumulator Aktiebolaget Jungner Oskarshamn	Sweden
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Terado Corp, St Paul	Minn
Ther Electric & Machine Works Inc, Chicago	Ill
Thiem-Transrex Inc, El Segundo	Cal
Tilton Electronics Corp, Winnisquam	N H
Topping Electronics Ltd, Toronto 17	Ont
Triple A Specialty Co, Chicago	Ill
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Vinco Industries, Orange	Cal
Wagner Electric Corp, Tung-Sol Div, Livingston	N J
Ward Leonard Electric Co, Mount Vernon	N Y
Westinghouse Electric Corp, Aerospace Electrical Div Lima	Ohio
Woodward-Schumacher Electric Corp, Chicago	Ill
Workman Electronic Products Inc, Sarasota	Fla
Yardney Electric Corp, New York	N Y

CHARGERS--DOSIMETER

Collins & Assoc Don L, Glendale	Cal
Kahl Scientific Instrument Corp, El Cajon	Cal
Landsverk Electrometer Co, Glendale	Cal
Nuclear-Chicago Corp, Des Plaines	Ill
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Nuclear Supplies, Encino	Cal
RIL Electronics Inc, Southampton	Pa
Stark Electronic Instruments Ltd, Ajax	Ont
Victoreen Instrument Div, Cleveland	Ohio

CHASSIS--METAL, FORMED

ALDEN PRODUCTS CO, INC, BROCKTON, MASS	**ADV PG 193**
ALUMINUM DESIGN CORP, BROOKFIELD	**ILL**
FORMICA METAL PRODUCTS CO INC, MEDFORD	**MASS**
KINETRON CORP, ASBURY PARK	**N J**
VENT-RAK INC, INDIANAPOLIS, IND	**ADV PG 79**
Abalon Precision Mfg Corp, Bronx	N Y
Acme Model Engineering Co, Ridgefield	N J
Alden Products Co, Inc, Brockton	Mass
All American Eng Co, Coml Prods Div, Wilmington	Del
All Star Products Inc, Defiance	Ohio
Aluminum Design Corp, Brookfield	Ill
Applied Research, Inc, Port Washington	N Y
A V Electronics, Inc, Fresno	Cal
Baltic Metal Products Co, Brooklyn	N Y
Barnes Engineering Co, Santa Ana	Cal
Barry Controls Div Barry Wright Corp, Watertown	Mass
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Boston Precision Parts Co Inc, Hyde Park	Mass
Brooks & Perkins Inc, Detroit	Mich
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bud Radio Inc, Willoughby	Ohio
California Chassis Co, Lynwood	Cal
California Systems Components, Inc, Chatsworth	Cal
Churchill Corp, Melrose	Mass
C & N Electrical Ltd, Hants	England
Component Technology Corp, Sunnyvale	Cal
Control Logic Inc, Natick	Mass
Control Panel Corp, Chicago	Ill
Corry Jamestown Corp, Corry	Pa
Custom Metal Products Div Tyco Labs Inc Garden City Park	N Y
Dahlstrom Mfg Corp, Jamestown	N Y
Diotran Pacific, Mountain View	Cal
Donnelly Mfg Co, Waltham	Mass
Dressen-Barnes Electronics Corp, Pasadena	Cal
Edo Corp, College Point	NY
Elco Corp, Willow Grove	Pa
Electro Rack Products Co, Anaheim	Cal
Elzee Metal Products Co Inc, Brooklyn	N Y
Erie Artisan Corp, Cleveland	Ohio
Estes Engineering Co, Gardena	Cal
Eugene Engineering Co Inc, Rockland	Mass
Extrudonics Inc, New Brunswick	N J
Falstrom Co, Passaic	N J
Feay Co, Neal, Goleta	Cal
Formica Metal Products Co Inc, Medford	Mass
Forway Industries Inc, Woodbury	N J
General Systems Inc, Erie	Pa
Glentek Inc, Santa Monica	Cal
Golden Corp, I, Brooklyn	N Y
Golding Mfg Co, North Arlington	N J
Gyrotronics Inc, Asbury Park	N J
Hammond Mfg Co Ltd, Guelph, Ont	Can
Holbrook Merrill Co, Sunnyvale	Cal
Jan Hardware Mfg Co Inc, Long Island City	N Y
Kameco Ltd, Montreal	Que
Kinetron Corp, Asbury Park	N J
Kirk & Blum Mfg Co, Cincinnati	Ohio
Lockhart Industries Inc, Paramount	Cal
Lynch Mfg Co, R H, South San Gabriel	Cal
Markon Mfg Inc, Englewood	Colo
Metal Fab Div, Artisan Industries Inc, Waltham	Mass
Metal Works Inc, Hermann	Mo
Mid-West Metal Products Inc, Kansas City	Kans
Mobil Electronics Inc, Anderson	Ind
M-T Electronics Co, San Leandro	Cal
Muckle Mfg Co, Owatonna	Minn
Nassau Precision Metal Products, Port Washington	N Y
Olympic Prods Co Div J B Schaefer Indus, Alpha	N J
Panelgraphic Corp, Caldwell	N J
Par-Metal Products Div EON Corp Long Island City	N Y
Premier Metal Products Co Inc, New York	N Y
Richards Metal Products Inc, Wolcott	Conn
Riester & Thesmacher Co, Cleveland	Ohio
Rosemount Plug-In Inc, Nashville	Tenn
Rosselli Del Turco Rossello, Rome	Italy
Rotary Co, Inc, Buffalo	N Y
Sanyo Electric Co Ltd, Osaka	Japan
Scanbe Mfg Corp, Monterey Park	Cal
Seastrom Mfg Co Inc, Glendale	Cal
Seezak Products Inc, Los Angeles	Cal
Siltronics Inc, Oakmont	Pa
S K G Associates Inc, Boston	Mass
Skyline Products Inc, Deer Park	N Y
Slocum Industries, Inc, Reseda	Cal
Stafford Mfg Co Inc, Brooklyn	N Y
Strandberg Engineering Labs Inc, Greensboro	N C
System Enclosures Inc, Div Anetsberger Bros Inc Northbrook	Ill
Taffet Electronics Inc, Woodside	N Y
Techmar Corp, Los Angeles	Cal
Technical Wire Products Inc, Cranford	N J
Titchener & Co, E H, Binghamton	N Y
Topping Electronics Ltd, Toronto 17	Ont
Vent-Rak Inc, Indianapolis	Ind
Waterbury Pressed Metal Co, Waterbury	Conn
Watson Mfg Co Inc, Jamestown	N Y
Wells Industries Corp, North Hollywood	Cal
Wyco Metal Products, North Hollywood	Cal
York Metal Products Inc, Long Island City	N Y
Zero Mfg Co, Burbank	Cal

CHASSIS SLIDES SEE SLIDES--CHASSIS

CHEMICAL PROCESS CONTROLS SEE CONTROLS--PROVIDING DESIRED FUNCTION

CHEMICALS--DEGREASING SEE SOLVENTS

CHEMICALS--ELECTRONIC

CAIG LABS INC, WESTBURY	**N Y**
CALFONEX INC, ENGLEWOOD, N J	**ADV PG 141**
EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
NITINE INC, WHIPPANY	**N J**
PFIZER MINERALS, PIGMENTS & METALS DIV NEW YORK	**NY**
Aceto Chemical Co, Inc, Flushing	NY
Alpha Metals Inc, Jersey City	NJ
American Potash & Chemical Corp, Los Angeles	Cal
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Associated Engineering & Mfg Corp, Glen Ridge	N J
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Baker Chemical Co, J T, Phillipsburg	N J
Barco Chemical Products Co, Chicago	Ill
Barium and Chemicals, Inc, Steubenville	Ohio
Bemol Co, Newton	Mass
Brinkmann Instruments Inc, Westbury	N Y
Caig Labs Inc, Westbury	N Y
Calfonex Inc, Englewood	N J
Cerac Inc, Butler	Wis
Channel Master Corp, Ellenville	N Y
City Chemical Corp, New York	N Y
Clarkson Labs Inc, Camden	NJ
Cominco American Inc Electronic Matls Div, Spokane	Wash
Conap Inc, Allegany	N Y
Corco Chemical Corp, Fairless Hills	Pa
Dolph Co, John C, Monmouth Junction	N J
Dow Chemical Co, Midland	Mich
Dow Corning Corp, Midland	Mich
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Electrolube Ltd, Slough	England
Electronic Chemical Corp, Jersey City	N J
Electronic Space Products Inc, Los Angeles	Cal
Electro Science Labs Inc, Philadelphia	Pa
Emerson & Cuming Inc, Canton	Mass
Enthone Inc, New Haven	Conn
EPD Industries Inc, Long Beach	Cal
Etchomatic Inc, Waltham	Mass
Fidelity Chemical Products Corp, Newark	N J
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Electric Co Lamp Metals & Components Dept Cleveland	Ohio
General Electric Co Silicone Prods Dept, Waterford	N Y
Henley & Co Inc, New York	N Y
H M H Industries, Huntington Beach	Cal
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Injectorall Electronics Corp, Great Neck	NY
Isochem Resins Co, Lincoln	RI
Kawecki Chemical Co, New York	N Y
Kester Solder Co, Chicago	Ill
Kulicke & Soffa Industries Inc, Fort Washington	Pa
London Chemical Co Inc, Melrose Park	Ill
Mackay Inc, A D, New York	N Y
Mallinckrodt Chemical Works, St Louis	Mo
Materials for Electronics, Inc, Jamaica	N Y
Micronics Corp of America, Providence	RI
Miller-Stephenson Chemical Co Inc, Danbury	Conn
Nitine Inc, Whippany	N J
Oakite Products Inc, Berkeley Heights	N J
Oneida Electronic Mfg Co, Meadville	Pa
Pennsylvania Industrial Chemical Corp, Clairton	Pa
Pfizer Minerals, Pigments & Metals Div, New York	NY
Philadelphia Quartz Co, Philadelphia	Pa
Phoenix Materials Corp, Monroeville	Pa
Polysciences Inc, Warrington	Pa
Quietrole Co, Spartanburg	S C
Rocky Mountain Research Inc, Denver	Colo
Roosevelt Metal Co Inc, Brooklyn	N Y
Seezak Products Inc, Los Angeles	Cal
Semi-Elements Inc, Saxonburg	Pa
Shannon Luminous Materials Co, Hollywood	Cal
Shipley Co Inc, Newton	Mass
Sperex Corp, Los Angeles	Cal
Sylvania Elec Prods Inc, Chem & Met Div, Towanda	Pa
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Corp Metal Hydrides Div, Beverly	Mass
Ventron Electronics Corp, Bradford	Pa
Workman Electronic Products Inc, Sarasota	Fla

CHEMICALS--FLOURESCENT SEE FLOURESCENT COMPOUNDS

CHEMICALS--FUNGICIDAL SEE COATINGS--FUNGICIDAL; FUNGIPROOFING SERVICES

CHEMICALS, PLATING--ELECTROLESS PLATING

NITINE INC, WHIPPANY	**N J**
TECHNIC INC, CRANSTON	**RI**
Allied Research Products Inc Sub Richardson Co Baltimore	Md
Anadite, Inc, South Gate	Cal
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Baker Chemical Co, J T, Phillipsburg	N J
City Chemical Corp, New York	N Y
Corco Chemical Corp, Fairless Hills	Pa
Enthone Inc, New Haven	Conn
Etchomatic Inc, Waltham	Mass
Fidelity Chemical Products Corp, Newark	N J
Henley & Co Inc, New York	N Y
Hull & Co Inc, R O, Cleveland	Ohio
Lea Mfg Co, Waterbury	Conn
Lea-Ronal Inc, Freeport	N Y
London Chemical Co Inc, Melrose Park	Ill
MacDermid Inc, Waterbury	Conn
Mallinckrodt Chemical Works, St Louis	Mo
Metaplast Electrochemicals Corp, Bronx	N Y
3M Company, St Paul	Minn
Nitine Inc, Whippany	N J
Nopco Chemical Div Diamond Shamrock Chem Co Newark	N J
Oakite Products Inc, Berkeley Heights	N J
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Sel-Rex International S A, Geneve	Switzerland
Semi-Elements Inc, Saxonburg	Pa
Shipley Co Inc, Newton	Mass
Solutec Corp, St Petersburg	Fla
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Technic Inc, Cranston	RI
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J

AGILE
MOLDED POLYETHYLENE
TANKS
FOR PROCESSING PRINTED CIRCUITS

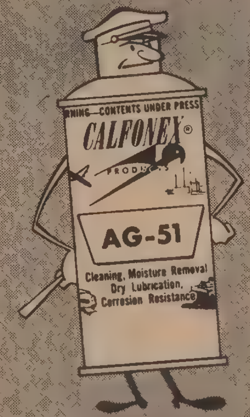
- Chemically inert—even to HF
- Rugged and leak-proof
- Easy to clean and handle
- Immediate delivery—over 120 sizes, rectangular and cylindrical, 5 to 1000 gal.
- Economical custom molding
- Write for our 16-page catalog for complete details and prices.

AGILE
NALGE COMPANY
a division of Ritter Pfaudler Corporation
82 Panorama Creek Dr., Rochester, N.Y. 14602
(716) 586-8800

CHEMICALS, PLATING--ELECTROPLATING

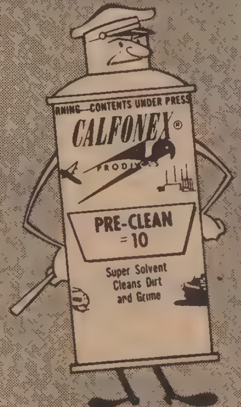
TECHNIC INC, CRANSTON	RI
Allied Research Products Inc Sub Richardson Co Baltimore	Md
Anadite, Inc, South Gate	Cal
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Barco Chemical Products Co, Chicago	Ill
Barium and Chemicals, Inc, Steubenville	Ohio
Bart Microwave Div Bart Mfg Corp, Newark	N J
Chemclean Corp, College Point	N Y
City Chemical Corp, New York	N Y
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Conversion Chemical Corp, Rockville	Conn
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Electrolube Ltd, Slough	England
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Enthone Inc, New Haven	Conn
Fidelity Chemical Products Corp, Newark	N J
Henley & Co Inc, New York	N Y
Hull & Co Inc, R O, Cleveland	Ohio
Johnson Matthey & Mallory Ltd, Toronto 15	Ont
Lea Mfg Co, Waterbury	Conn
London Chemical Co Inc, Melrose Park	Ill
MacDermid Inc, Waterbury	Conn
Marlane Development Co Inc, New York	N Y
Matthey Bishop Inc, Malvern	Pa
Metaplast Electrochemicals Corp, Bronx	N Y
M & T Chemicals Inc Sub American Can Co Rahway	N J
Nopco Chemical Div Diamond Shamrock Chem Co Newark	N J
Oakite Products Inc, Berkeley Heights	N J
Richardson Company, Melrose Park	Ill
Selectrons Ltd, New York	N Y
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Sel-Rex International S A, Geneve	Switzerland
Semi-Elements Inc, Saxonburg	Pa
Special Chemicals Corp, Ossining	N Y
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Technic Inc, Cranston	RI
Transene Co Inc, Rowley	Mass
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J

SAFEGUARD
Electrical and Electronic Equipment
with *CALFONEX*® "Chemical Tools"



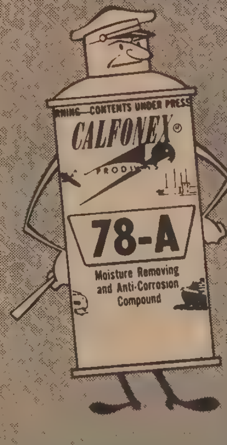
AG-51

This highly concentrated liquid is most effective for preventive maintenance of light electrical and electronic equipment and precision instruments. Improves electrical contacts, mechanically lubricates, prevents contact burn and corrosion and reduces contact resistance. Protects the conductivity of commutators and contacts. Restores equipment inoperative due to moisture, dust, dirt or corrosive oxidation. Cleans, seals surfaces with a molecular film that preserves equipment, reduces repair and maintenance costs. Dry lubrication reduces layers of tarnish, increases life of contact surfaces.



Pre-Clean #10

This is an unexcelled "wipe-down" cleaner for metal parts, motors, engines, machinery. Does not require water rinse. A powerful solvent, it removes grease, oil, tar, wax, resins or adhesives by wiping, dipping, spraying or slushing; penetrates deeply and quickly; dries rapidly and cleanly. Does not affect soft reactive metals. Easy-to-use, non-staining, non-corrosive, non-hazardous, non-flammable.



78-A

Multi-purpose liquid ideal for preventive maintenance of heavy electrical gear. Dislodges water and moisture, penetrates, seals, lubricates all surfaces; protects against corrosion and rust. Especially recommended for control panels, switches, relays, solenoids, rectifiers, transformers, coils, motors. Frees parts bound by corrosion, loosens dirt and scale from painted and plated surfaces. Will not harm metals, rubber, lacquers, enamels, ceramics or most plastics. Non-combustible, has no flash point, high dielectric strength, low evaporation, non hazardous.

Available in 16 oz. aerosol spray cans (12 per carton); 1 gal. cans, 5 gal. pails and 55 gal. drums.

Write for name of our distributor in your area and free literature.

CALFONEX, INC.
Specialty Products Division
166 Coolidge Ave., Englewood, N. J. 07631
201 - 567-5190

CHEMICALS, PRINTED CIRCUIT--CLEANERS-ASSEMBLIES(AFTER DIP-SOLDERING)

CAIG LABS INC, WESTBURY	**N Y**
CALFONEX INC, ENGLEWOOD, N J	**ADV PG 141**
NITINE INC, WHIPPANY	**N J**
Allaco Products, Braintree	Mass
Alpha Metals Inc, Jersey City	NJ
Barco Chemical Products Co, Chicago	Ill
Bow Solder Products Co Inc, Newark	N J
Caig Labs Inc, Westbury	N Y
Calfonex Inc, Englewood	N J
Chemclean Corp, College Point	N Y
City Chemical Corp, New York	N Y
Clarkson Labs Inc, Camden	NJ
Cobehn Inc, Fairfield	N J
Corco Chemical Corp, Fairless Hills	Pa
Cramco Solder Alloys, Scarborough	Ont
Crest Ultrasonics Corp, Trenton	N J
Delonics Corp, New York	N Y
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Dynaloy, Inc, Hanover	N J
Electronic Space Products Inc, Los Angeles	Cal
Enthone Inc, New Haven	Conn
Etchomatic Inc, Waltham	Mass
Hi-Grade Alloy Corp, East Hazelcrest	Ill
Hunt Chemical Corp, Philip A, Palisades Park	N J
Industrial Formulations Corp, Plainview	N Y
Isochem Resins Co, Lincoln	RI
Kester Solder Co, Chicago	Ill
Lear Siegler Inc, Santa Monica	Cal
London Chemical Co Inc, Melrose Park	Ill
Micronics Corp of America, Providence	RI
Miller-Stephenson Chemical Co Inc, Danbury	Conn
Nitine Inc, Whippany	N J
Nopco Chemical Div Diamond Shamrock Chem Co Newark	N J
Oakite Products Inc, Berkeley Heights	N J
Pennsalt Chemicals Corp, Philadelphia	Pa
Pro-Chem Inc, Cleveland	Ohio
Seezak Products Inc, Los Angeles	Cal
Sel-Rex International S A, Geneve	Switzerland
Semi-Elements Inc, Saxonburg	Pa
Solutec Corp, St Petersburg	Fla
Var-Lac-Oid Chemical Co, Elizabeth	N J

CHEMICALS, PRINTED CIRCUIT--CLEANERS-BOARD (AFTER ETCHING)

CALFONEX INC, ENGLEWOOD	**N J**
NITINE INC, WHIPPANY	**N J**
Alpha Metals Inc, Jersey City	NJ
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Bow Solder Products Co Inc, Newark	N J
Calfonex Inc, Englewood	N J
Chemclean Corp, College Point	N Y
City Chemical Corp, New York	N Y
Clarkson Labs Inc, Camden	NJ
Cobehn Inc, Fairfield	N J
Corco Chemical Corp, Fairless Hills	Pa
Cramco Solder Alloys, Scarborough	Ont
Crest Ultrasonics Corp, Trenton	N J
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Dynaloy, Inc, Hanover	N J
Electronic Space Products Inc, Los Angeles	Cal
Enthone Inc, New Haven	Conn
Etchomatic Inc, Waltham	Mass
Fidelity Chemical Products Corp, Newark	N J
Hi-Grade Alloy Corp, East Hazelcrest	Ill
Hunt Chemical Corp, Philip A, Palisades Park	N J
Industrial Formulations Corp, Plainview	N Y
Injectorall Electronics Corp, Great Neck	NY
Isochem Resins Co, Lincoln	RI
Kepro Circuit Systems Inc, St Louis	Mo
Kester Solder Co, Chicago	Ill
London Chemical Co Inc, Melrose Park	Ill
MacDermid Inc, Waterbury	Conn
Micronics Corp of America, Providence	RI
Miller-Stephenson Chemical Co Inc, Danbury	Conn
3M Company, St Paul	Minn
Multisonic Cleaning Systems, Cleveland	Ohio
Nitine Inc, Whippany	N J
Nopco Chemical Div Diamond Shamrock Chem Co Newark	N J
Oakite Products Inc, Berkeley Heights	N J
Preco Chemical Corp, Plainview	N Y
Roosevelt Metal Co Inc, Brooklyn	N Y
Seezak Products Inc, Los Angeles	Cal
Semi-Elements Inc, Saxonburg	Pa
Shipley Co Inc, Newton	Mass
Solutec Corp, St Petersburg	Fla
United American Metals Div, Brooklyn	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J

CHEMICALS, PRINTED CIRCUIT--ETCHING ACIDS

FILM MICROELECTRONICS, INC, BURLINGTON	**MASS**
NITINE INC, WHIPPANY, N J	**ADV PG 142**
City Chemical Corp, New York	N Y
Conversion Chemical Corp, Rockville	Conn
Corco Chemical Corp, Fairless Hills	Pa
Dow Chemical Co, Midland	Mich
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Electronic Space Products Inc, Los Angeles	Cal
Enthone Inc, New Haven	Conn
Etchomatic Inc, Waltham	Mass
Film Microelectronics, Inc, Burlington	Mass
FMC Corp, Inorganic Chemicals Div, New York	N Y
Hunt Chemical Corp, Philip A, Palisades Park	N J
Injectorall Electronics Corp, Great Neck	NY
Kepro Circuit Systems Inc, St Louis	Mo
Lake Engineering Co Ltd, Scarborough	Ont
MacDermid Inc, Waterbury	Conn
Nitine Inc, Whippany	N J
Oakite Products Inc, Berkeley Heights	N J
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Semi-Elements Inc, Saxonburg	Pa
Shipley Co Inc, Newton	Mass
Techniques, Inc, Englewood	N J
Vector Electronic Co Inc, Los Angeles	Cal

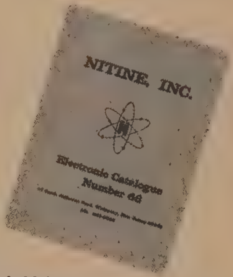
ELECTRONIC GRADE* ACID ETCHES FOR *Semiconductor Processing*

*

Spectrographic analysis on all products with less than 0.1 ppm Boron and other metal impurities, plus low electrical conductivity solvents.

A complete line of pre-mixed, homogeneous acids, solvents and plating solutions for electronics.

Send for complete new catalog and price list – JUST ISSUED!



NITINE INC.

Subsidiary of
Shulton, Inc.
Route 46, Clifton, N.J., 07015 • 201-777-6400

CHEMICALS, PRINTED CIRCUIT--LIGHT-SENSITIVE

FILM MICROELECTRONICS, INC, BURLINGTON	**MASS**
WIRE CLOTH ENTERPRISES INC, PITTSBURGH	**PA**
City Chemical Corp, New York	N Y
Etchomatic Inc, Waltham	Mass
Film Microelectronics, Inc, Burlington	Mass
Hunt Chemical Corp, Philip A, Palisades Park	N J
Industrial Chemical Specialties Corp, Fairfield	Conn
Kepro Circuit Systems Inc, St Louis	Mo
Lake Engineering Co Ltd, Scarborough	Ont
Oakite Products Inc, Berkeley Heights	N J
Semi-Elements Inc, Saxonburg	Pa
Shipley Co Inc, Newton	Mass
Var-Lac-Oid Chemical Co, Elizabeth	N J
Wire Cloth Enterprises Inc, Pittsburgh	Pa

CHEMICALS, PRINTED CIRCUITS--RESISTS

CALFONEX INC, ENGLEWOOD	**N J**
KRESSILK PRODUCTS INC, ELMSFORD	**N Y**
NITINE INC, WHIPPANY	**N J**
Allaco Products, Braintree	Mass
Alpha Metals Inc, Jersey City	NJ
Bow Solder Products Co Inc, Newark	N J
Calfonex Inc, Englewood	N J
Chemical Products Corp, E Providence	R I
City Chemical Corp, New York	N Y
Colonial Printing Ink Co, East Rutherford	NJ
Cramco Solder Alloys, Scarborough	Ont
Dry Screen Process Inc, Pittsburgh	Pa
Dynaloy, Inc, Hanover	N J
Etchomatic Inc, Waltham	Mass
Fidelity Chemical Products Corp, Newark	N J
FMC Corp, Inorganic Chemicals Div, New York	N Y
Hi-Grade Alloy Corp, East Hazelcrest	Ill
Hunt Chemical Corp, Philip A, Palisades Park	N J
Industrial Chemical Specialties Corp, Fairfield	Conn
Injectorall Electronics Corp, Great Neck	NY
Isochem Resins Co, Lincoln	RI
Kepro Circuit Systems Inc, St Louis	Mo
Kester Solder Co, Chicago	Ill
Kressilk Products Inc, Elmsford	N Y
Lake Engineering Co Ltd, Scarborough	Ont
Lambert Co, Inc, Boston	Mass
London Chemical Co Inc, Melrose Park	Ill
Miller-Stephenson Chemical Co Inc, Danbury	Conn
Naz-Dar Co, Chicago	Ill
Nitine Inc, Whippany	N J
Oakite Products Inc, Berkeley Heights	N J
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Semi-Elements Inc, Saxonburg	Pa
Shipley Co Inc, Newton	Mass
Techniques, Inc, Englewood	N J
Tra-Con, Inc, Medford	Mass
Var-Lac-Oid Chemical Co, Elizabeth	N J
Vector Electronic Co Inc, Los Angeles	Cal
Wornow Process Paint Co, Los Angeles	Cal
Zeva Electric Corp, New York	N Y

CHEMICALS--WIRE STRIPPING SEE STRIPPERS

CHOKES-- SEE COILS

CHOKES--WAVEGUIDE

PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
Airtec Inc, Roselle	N J
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Canadian Marconi Co, Montreal 16	Quebec
Cardwell Condenser Corp, Lindenhurst	N Y
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal

Gabriel Electronics Div Maremont Corp, Saco ... Maine
Herley Industries, Inc, Westbury ... N Y
Magnetika Inc, Venice ... Cal
MCS Corp, Monrovia ... Cal
Meridian Metalcraft Inc, Whittier ... Cal
Microlab/F X R, Livingston ... N J
Microwave Development Labs Inc
Needham Heights ... Mass
Microwave Guide Inc, Lowell ... Mass
Omega Laboratories Inc, Rowley ... Mass
Portchester Instrument Corp, Port Chester ... N Y
Premier Microwave Corp, Port Chester ... N Y
R F Systems Inc, Cohasset ... Mass
Schutter Microwave Div, Cardwell Condenser Corp
Lindenhurst ... NY
Victor R F & Microwave Co, Wakefield ... Mass
Waveline Inc, West Caldwell ... N J

CHOPPERS, D-C TO A-C-- DIODE TYPE (CRYSTAL & TUBE)

Arra, Inc, Bayshore ... NY
Atlas Coil Corp, Ansonia ... Conn
Continental Device Corp, Hawthorne ... Cal
Control Technology Co Inc, Long Island City ... N Y
Glentek Inc, Santa Monica ... Cal
Industrial Control Co, Farmingdale ... N Y
Loral Electronic Systems, Div Loral Corp, New York ... NY
Varo Inc, Garland ... Tex

CHOPPERS, D-C TO A-C-- MAGNETIC AMPLIFIER TYPE

BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS
WOODSIDE ... NY
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
TRANSMAGNETICS INC, FLUSHING ... N Y
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK ... N Y
ADC Products, Minneapolis ... Minn
Airpax Electronics Inc, Cambridge Div, Cambridge ... Md
Airpax Electronics Inc Seminole Div
Fort Lauderdale ... Fla
Atlas Coil Corp, Ansonia ... Conn
Autronics Corp, Pasadena ... Cal
Barden Co, Hermosa Beach ... Cal
Bulova Watch Co Inc Elctns Div Servo Products
Woodside ... NY
Coilcraft Inc, Cary ... Ill
Daytron Inc, Mountain View ... Cal
Electro-Pacific Inc, Goleta ... Cal
Impectron Inc, New York ... N Y
Industrial Transformer Corp, Gouldsboro ... Pa
Kollsman Motor Corp, Dublin ... Pa
Microdot Magnetics Inc, Los Angeles ... Cal
Modelectric Products Corp, Asbury Park ... N J
Nippon Electric Co Ltd, Tokyo ... Japan
Qutronic Transformer Corp, Oneonta ... N Y
Scott Electronics Corp, Orlando ... Fla
Signet Controls Inc, Tulsa ... Okla
S K G Associates Inc, Boston ... Mass
Torotron Co Div Struthers Electronics Corp,
Mamaroneck ... N Y
Transmagnetics Inc, Flushing ... N Y
United Transformer Co Div TRW Inc, New York ... N Y
Varo Inc, Garland ... Tex

CHOPPERS D-C TO A-C-- PHOTOELECTRIC

BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS
WOODSIDE ... NY
CLAIREX ELECTRONICS INC, NEW YORK ... N Y
HEWLETT-PACKARD, PALO ALTO ... CAL
Airpax Electronics Inc, Cambridge Div, Cambridge ... Md
Airpax Electronics Inc Seminole Div
Fort Lauderdale ... Fla
Barden Co, Hermosa Beach ... Cal
Bulova Watch Co Inc Elctns Div Servo Products
Woodside ... NY
Clairex Electronics Inc, New York ... N Y
Hewlett-Packard, Palo Alto ... Cal
Industrial Control Co, Farmingdale ... N Y
James Electronics Inc, Chicago ... Ill
Loral Electronic Systems, Div Loral Corp, New York ... NY
Mesur-Matic Electronic Corp, Warner ... N H
Rawco Instruments Inc, Fort Worth ... Tex
Raytheon Co, Components Div, Ind Compnts Oper
Quincy ... Mass
Slocum Industries, Inc, Reseda ... Cal
Texas Instruments France, Villeneuve-Loubet ... France
Yokogawa Electric Works Inc, Larchmont ... N Y

CHOPPERS, D-C TO A-C-- REED RELAY TYPE

NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
STEVENS-ARNOLD INC, SOUTH BOSTON, MASS ... ADV PG 144
Barden Co, Hermosa Beach ... Cal
Leeds & Northrup Co, Philadelphia ... Pa
Nippon Electric Co Ltd, Tokyo ... Japan
Slocum Industries, Inc, Reseda ... Cal
Solid State Electronics Corp, Sepulveda ... Cal
Stevens-Arnold Inc, South Boston ... Mass

CHOPPERS, D-C TO A-C-- SOLID STATE

BELL, INC F W, COLUMBUS ... OHIO
BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS
WOODSIDE, NY ... ADV PG 143
FORK STANDARDS INC, WEST CHICAGO ... ILL
INTRONICS INC, NEWTON ... MASS
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
TRANSMAGNETICS INC, FLUSHING ... N Y
Airpax Electronics Inc, Cambridge Div, Cambridge ... Md
Airpax Electronics Inc Seminole Div
Fort Lauderdale ... Fla
Applied Electronics Corp of N J, Metuchen ... N J
Arra, Inc, Bayshore ... NY
Atlas Coil Corp, Ansonia ... Conn
Ault, Inc, Minneapolis ... Minn
Autronics Corp, Pasadena ... Cal
Avien, Inc, Woodside ... N Y
Barden Co, Hermosa Beach ... Cal
Bell, Inc F W, Columbus ... Ohio
Biddle Co, James G, Plymouth Meeting ... Pa
Brower Labs Inc, Westboro ... Mass
Bulova Watch Co Inc Elctns Div Servo Products
Woodside ... NY
Cambridge Scientific Industries Inc, Cambridge ... Md
Continental Device Corp, Hawthorne ... Cal
Control Technology Co Inc, Long Island City ... N Y
Crane Electronics Corp, Santa Barbara ... Cal
Daytron Inc, Mountain View ... Cal
Fork Standards Inc, West Chicago ... Ill
General Laboratory Assoc Inc, Norwich ... N Y
General Precision Systems Inc, Kearfott Gp
Little Falls ... N J

DC/AC Choppers?

Try Bulova First!

CALL:

Ariz Tech-Ser Inc, 1805 E Indian School Rd
Phoenix ... 602-265-3629
Cal El Com Sales Co, 3600 Motor Ave
Los Angeles ... 213-870-4707
Fla Perrott Assoc, 1607 Forsyth Rd,
Orlando ... 305-275-1132
Fla Perrott Assoc, Box 4532, Clearwater. 813-531-5513
Fla Perrott Assoc, Box 6277
West Palm Beach ... 305-967-1770

Ill Communications Eng, 7100 N Western Ave
Chicago ... 312-R01-0548
Md Callas Electronics Inc, 6409 Frederick Ave
Baltimore ... 301-744-7711
Mich Sheridan Assoc., 25625 Southfield Rd.,
Southfield ... 313-358-3333
Mass Aborn Labs Inc, 223 Crescent St
Waltham ... 891-4850
Minn Wenco Sales Inc, 7728 Morgan Ave S
Minneapolis ... 612-866-3639
Mo J C Mankus & Assoc, 400 Brooks La
Hazelwood ... 314-PE1-4334
NY L-Tron Corp, 2-4 Fennell St,
Skaneateles ... 315-685-6172
NY Comtronic Assoc, 1551 Franklin Ave
Mineola ... 516-P11-8966
Ohio Sheridan Assoc., 10 Knollcrest Dr.,
Reading ... 513-761-5432
Pa Garrettson Co Inc, 92-14 Masland St
Philadelphia ... H04-2275
Tex Tech-Ser Inc, 10210 Monroe Dr
Dallas ... 214-358-2504
Can Canadian Micro Elctns, 1390 Raven Ave
Ottawa, Ont ... 725-2332

BULOVA WATCH CO INC
SERVO PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

Glentek Inc, Santa Monica ... Cal
Howell Instruments Co, Fort Worth ... Tex
International Data Systems Inc, Dallas ... Tex
International Rectifier Semiconductor Div
El Segundo ... Cal
Intronics Inc, Newton ... Mass
Kollsman Motor Corp, Dublin ... Pa
Lear Siegler Inc, Power Equipment Div, Cleveland ... Ohio
Leeds & Northrup Co, Philadelphia ... Pa
Mayberry Electronics Co, Inglewood ... Cal
Microdot Magnetics Inc, Los Angeles ... Cal
Natel Engineering Co Inc, Van Nuys ... Cal
National Semiconductor Corp, Santa Clara ... Cal
Nippon Electric Co Ltd, Tokyo ... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Power Control Corp, Pittsburgh ... Pa
Precision Transformers Inc, Anaheim ... Cal
Radix Electronics Corp, Anaheim ... Cal
Rawco Instruments Inc, Fort Worth ... Tex
RO Associates Inc, Menlo Park ... Cal
Solid State Electronics Corp, Sepulveda ... Cal
Space Craft Inc, Huntsville ... Ala
Sprague Electric Co, North Adams ... Mass
Torotron Co Div Struthers Electronics Corp,
Mamaroneck ... N Y
Transmagnetics Inc, Flushing ... N Y
Valradio Ltd, Feltham, Mdsx ... Eng
Varo Inc, Garland ... Tex
Varo Inc, Static Power Div, Plano ... Tex
Zeltex inc, Concord ... Cal

CHOPPERS, D-C TO A-C-- TUBE TYPE

Atlas Coil Corp, Ansonia ... Conn
Barden Co, Hermosa Beach ... Cal
Valradio Ltd, Feltham, Mdsx ... Eng

CHOPPERS, D-C TO A-C-- VIBRATING ARMATURE (ELECTROMAGNETIC)

ANRITSU ELECTRIC CO LTD, TOKYO ... JAPAN
POLY SCIENTIFIC DIV LITTON INDUSTRIES, BLACKSBURG ... VA
STEVENS-ARNOLD INC, SOUTH BOSTON, MASS ... ADV PG 144
Adams & Westlake Co, Elkhart ... Ind
Airpax Electronics Inc, Cambridge Div, Cambridge ... Md
Airpax Electronics Inc Seminole Div
Fort Lauderdale ... Fla
Anritsu Electric Co Ltd, Tokyo ... Japan
Astrodata Inc, Anaheim ... Cal
ATR Electronics, Inc, St Paul ... Minn
Barden Co, Hermosa Beach ... Cal
Bristol Div, American Chain & Cable Co
Waterbury ... Conn
Cambridge Scientific Industries Inc, Cambridge ... Md
Engineering Associates, Dayton ... Ohio
Honeywell Industrial Div, Fort Washington ... Pa
James Electronics Inc, Chicago ... Ill
Mechanics for Electronics Inc, Cambridge ... Mass
Oak Mfg Co, Div Oak Electro/Netics Corp
Crystal Lake ... Ill
Poly Scientific Div Litton Industries, Blacksburg ... VA
Stevens-Arnold Inc, South Boston ... Mass

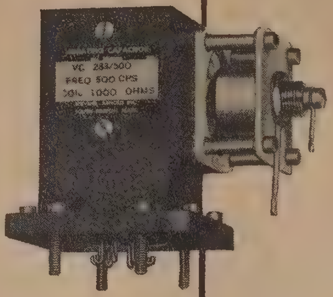
CHOPPERS, D-C TO A-C-- VIBRATING ARMATURE WITH TRANSISTOR D-C DRIVE

BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS
WOODSIDE ... NY
STEVENS-ARNOLD INC, SOUTH BOSTON, MASS ... ADV PG 144
Airpax Electronics Inc, Cambridge Div, Cambridge ... Md
Airpax Electronics Inc Seminole Div
Fort Lauderdale ... Fla
Barden Co, Hermosa Beach ... Cal
Bulova Watch Co Inc Elctns Div Servo Products
Woodside ... NY
Control Technology Co Inc, Long Island City ... N Y
Loral Electronic Systems, Div Loral Corp, New York ... NY
RO Associates Inc, Menlo Park ... Cal
Singer Co, Diehl Div, Somerville ... N J
Solid State Electronics Corp, Sepulveda ... Cal
Stevens-Arnold Inc, South Boston ... Mass
Texas Instruments France, Villeneuve-Loubet ... France
Torotron Co Div Struthers Electronics Corp,
Mamaroneck ... N Y
Varo Inc, Garland ... Tex

VIBRATING CAPACITORS

A vibrating-reed type capacitance modulator used to measure currents as low as 10^{-16} amperes. Drift never exceeds ±0.2 millivolts per day, noncumulative. Thus it is ideal where stable performance without recalibration is required for periods of a month or more.

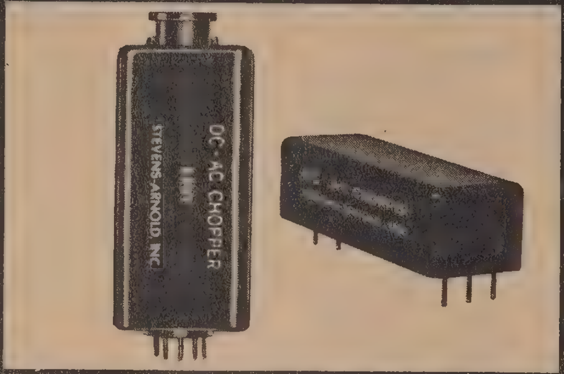
Please write for Catalog 523.



STEVENS
INCORPORATED
ARNOLD

QUALITY SINCE 1943

7 ELKINS ST., SO. BOSTON 27, MASS.



DC-AC CHOPPERS For 50/60/94/120 CPS

These miniature Choppers are outstanding. Long life is assured by our exclusive twin-contact construction. Noise level is less than 1 microvolt into 100,000 ohms with circuit capabilities of .01 microvolt. Packaged two ways, as shown. Built to rigid commercial specifications, there is a selection of types for all applications. Single pole, double pole, make-before-break, break-before-make, AC or DC drive.

DC DRIVEN CHOPPERS

For portable and transistorized instruments. A modification of our service proven AC driven type, these have a 94 cycle chopping rate to eliminate offsets in DC amplifiers and null-seeking equipment. Drive Unit operates from 12 volts DC.

Please write for Catalog 554.

DC DRIVE UNIT
DC AC CHOPPER

MILLISEC RELAY
STEVENS-ARNOLD INC.

MILLISEC RELAYS

Amazingly fast, from 200 microseconds to 1 millisecond. Available in both commercial and military models, single-pole and double-pole, with shielded or unshielded coils. They are factory sealed and may be mounted in any position.

Please write for Catalog 337

NEW

TONE REEDS

Miniature components for frequency stabilizing and frequency sensing. Used to construct lifetime encoders and decoders. Frequencies from 300-3000 Hz. Please write for Catalog 590.

S/A-42

NANOTRAN ISOLATION TRANSFORMERS

Have −190 dB common mode rejection capabilities plus all other special features needed to minimize thermal noise and microphonics. Highest levels of magnetic shielding supplied. For less exacting applications, less expensive types are available. Please write for Catalog 589.

CHOPPERS--LIGHT

FORK STANDARDS INC, WEST CHICAGO	**ILL**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH VA	**ADV PG 145**
Brower Labs Inc, Westboro	Mass
Flexi Optics Labs Inc, Somerville	Mass
Fork Standards Inc, West Chicago	Ill
Heuer Electronics Corp, Norwalk	Conn
Isomet Corp, Palisades Park	N J
Melpar Inc, Special Prods Dept, Falls Church	Va
Meteorology Research Inc, Altadena	Cal
Ransom Labs, John H, Los Angeles	Cal
Schoeffel Instrument Co, Westwood	NJ

MELPAR

ECONOMICAL LIGHT CHOPPER

Features:
- Size
- Jeweled Bearings
- Low Power Input
- Wide Angle of Excursion
- Optical Quality
- High Reflectivity

Specifications:

Mirror Excursion: Up to 20°
Mirror Finish: Optical
Aluminized Front Surface
Minor
Mirror Size: Approx. 1 Cm²
Frequency: To 500 HZ (standard)
Input Power: Sine Wave
Size: 1-29/32" x 1-15/32" x 0.8

Distributor quantities
available from
Newark Electronics Corp.,
500 N. Pulaski Road,
Chicago, Illinois 60624

PRODUCT MARKETING DEPARTMENT

MELPAR, INC.
7785 Arlington Blvd.
Fall Church, Va. 22046
AC 703-534-6000

CHROMATOGRAPHS

HEWLETT-PACKARD, PALO ALTO	**CAL**
TRACOR INC, AUSTIN	**TEX**
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bio-Rad Laboratories, Richmond	Cal
Brinkmann Instruments Inc, Westbury	N Y
Corning Glass Works, Corning	N Y
Farrand Optical Co Inc, Bronx	N Y
Gardner Lab Inc, Bethesda	Md
Gas Analysis Systems Inc, Basking Ridge	NJ
Gelman Instrument Co, Ann Arbor	Mich
Hewlett-Packard, Palo Alto	Cal
International Light Inc, Newburyport	Mass
Mine Safety Appliances Co, Pittsburgh	Pa
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Packard Instrument Co, Inc, Downers Grove	Ill
Perkin-Elmer Corp, Norwalk	Conn
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Phoenix Precision Instrument Co, Inc, Philadelphia	Pa
Precision Scientific Co Sub GCA Corp, Chicago	Ill
Schoeffel Instrument Co, Westwood	NJ
Servomex Controls Ltd, Sussex	England
Technical Operations Inc, Burlington	Mass
Tracor Inc, Austin	Tex
Varian, Palo Alto	Cal
Varian Aerograph, Walnut Creek	Cal
Victoreen Instrument Div, Cleveland	Ohio

CHROMIUM

Active Alloys Inc, Brooklyn	N Y
Anadite, Inc, South Gate	Cal
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bram Metallurgical Chemical Co, Philadelphia	Pa
City Chemical Corp, New York	N Y
Kawecki Chemical Co, New York	N Y
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
M & T Chemicals Inc Sub American Can Co Rahway	N J
Ronson Metals Corp, Newark	N J
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
Sylvania Elec Prods Inc, Chem & Met Div, Towanda	Pa
Union Carbide Corp, Mining & Metals Div New York	N Y
United Mineral & Chemical Corp, New York	N Y
Universal Shellac & Supply Co Inc, Brooklyn	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J

CHRONOGRAPHS & CHRONOSCOPES

Aircraft Components Inc, Benton Harbor	Mich
Avtron Mfg, Inc, Cleveland	Ohio
Bently Nevada Corp, Minden	Nev
Ebauches SA Dept Oscilloquartz 2001 Neuchatel	Switz
Electronic Counters Inc, Englewood	N J
Kahl Scientific Instrument Corp, El Cajon	Cal
Philips Electronics Industries Ltd, Toronto 17	Ont
Sticht Co Inc, Herman H, New York	N Y

CIRCUIT ANALYZERS SEE COMPARATORS;TESTERS—CIRCUIT

CIRCUIT BREAKERS

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
TRANSFORMER ELECTRONICS CO, BOULDER COLO	**ADV PGS 2ND COVER & FACING PG**
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK	**N J**
Aircraft Components Inc, Benton Harbor	Mich
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
Appleton Electric Co, Chicago	Ill
Avnet Electronics, Westbury	N Y
B & B Motor & Control Corp, New York	N Y
Carter Precision Electric Co, Skokie	Ill
Cole-Hersee Co, S Boston	Mass
Consolidated Electric Corp, Seattle	Wash
Curtis Development & Mfg Co, Milwaukee	Wis
Cutler-Hammer Inc, Milwaukee	Wisc
Dickson Electronics Corp, Scottsdale	Ariz
E-T-A Products Co of America, Chicago	Ill
Fuji Electric Co Ltd, Tokyo	Japan
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Electric Co, ECSO, Schenectady	N Y
Heinemann Electric Co, Trenton	N J
I-T-E Circuit Breaker Co, Philadelphia	Pa
Kessler-Ellis Products Co, Atlantic Highlands	N J
Lake Engineering Co Ltd, Scarborough	Ont
Littelfuse Inc, Des Plaines	Ill
Mechanical Products Inc, Jackson	Mich
Mel-Rain Corp, Indianapolis	Ind
Mitsumi Electric Co Ltd, Tokyo	Japan
Modern Mfg Co Inc, Willow Grove	Pa
Murray Mfg Corp, Jericho	NY
Ross Co, Milton, Southampton	Pa
Ross Engineering Corp, Saratoga	Cal
Rowan Controller Co, Oceanport	N J
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Square D Co, Park Ridge	Ill
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Texas Instruments Incorporated, Dallas	Tex
Transformer Electronics Co, Boulder	Colo
Tung-Sol Div Wagner Electric Corp, Newark	N J
Waber Electronics Inc, Philadelphia	Pa
Wadsworth Electric Mfg Co Inc, Covington	Ky
Westinghouse Electric Corp, Aerospace Electrical Div Lima	Ohio
Westinghouse Electric Corp, Standard Control Div Beaver	Pa
Wood Electric Corp, Lynn	Mass
Workman Electronic Products Inc, Sarasota	Fla
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

CIRCUIT DEMONSTRATORS SEE DEMONSTRATORS

CIRCUITS--INTEGRATED

SEE ALSO **MICROELECTRONIC CIRCUITS**

BECKMAN INSTRUMENTS INC, HELIPOT DIV, FULLERTON CAL	**ADV PG 145**
CTS CORP, ELKHART, IND	**ADV PG 146**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
LAPOINTE INDUSTRIES, INC, ROCKVILLE	**CONN**
LEL DIV VARIAN ASSOCIATES, COPIAGUE	**N Y**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
MEGADYNE INDUSTRIES INC, ROCHESTER	**N Y**
NGK SPARK PLUG CO LTD, MIZUHO-KU NAGOYA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO, JAPAN	ADV PGS 752,753
Aerojet-General Corp Electronics Div, Azusa	Cal
Aerovox Corp Distr Sales, New Bedford	Mass
Akers Electronics, Horten	Norway
Alcatel, Paris 8eme	France
Amelco Semiconductor, A Teledyne Co Mountain View	Cal
American Micro-Systems, Inc, Santa Clara	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Burroughs Corp Component Sales Dept Los Angeles	Cal
Canadian Marconi Co, Montreal 16	Quebec
Components Specialties Inc, Freeport	N Y
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Control Logic Inc, Natick	Mass
Crystalonics A Teledyne Co, Cambridge	Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
CTS Corp, Elkhart	Ind
CTS Research Inc, West LaFayette	Ind
Dahlberg Electronics Inc, Minneapolis	Minn
Data Technology Corp, Mountain View	Cal
Delta Semiconductors Div Natl Instr Corp Costa Mesa	Cal
Dinion Coil Co Inc, Caledonia	N Y
Electronic Components Div United Aircraft Corp Trevose	Pa
Electro-Optical Systems Inc, Pasadena	Cal
Electrosil Ltd, Sunderland, Durham	England
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Fairlane Electronics, Inc, Long Valley	N J
Ferranti Electric Inc, Plainview	N Y
Ferranti, Ltd, Lancashire	England

LOOKING FOR MICROCIRCUITS?

Helipot has, in addition to an excellent custom capability, a wide selection of standard microcircuits available from "off-the-shelf."

- DC Voltage Regulators (see our ad under Regulators)
- Amplifiers to boost IC op amp power (see our ad under Amplifiers, Operational)
- Ladder Networks and Switches (see our ad under Converters, D to A)
- Circuit Protectors, i.e., Crowbars and Fuses (see our ad under Protection, Voltage and Current)

Custom Capability: When a standard circuit won't do the job, Helipot has the experience and capability to handle your custom circuit requirements. Our exclusive cermet thick film construction will save you time and money.

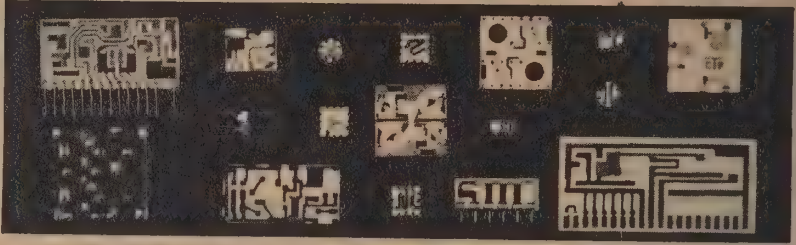
For complete information contact the Helipot representative nearest you. He's listed in EBG's Manufacturers' Index.

Beckman

INSTRUMENTS, INC.
HELIPOT DIVISION
FULLERTON, CALIFORNIA • 92634

CTS CORPORATION ELKHART, INDIANA

Specialists In Precision Mass Production Of Microcircuits

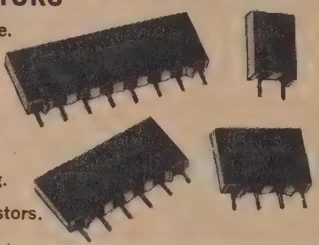


Designing Circuits with Cermet Passive Elements
10 to 300,000 ohms per square sheet resistance range improves performance, saves space and provides design flexibility.
192,400,000 hours of unmatched reliability.
Lower Costs due to CTS mass production techniques and low tooling costs.
Unaffected by the most severe environmental conditions and oxidizing atmospheres up to 500°C. Cermet element is virtually indestructible.
An infinite array of package designs to fit every designer's need.

Cermet Microcircuit Products
A broad line of cermet hybrid microcircuit modules combining the unusual stability of cermet resistors and capacitors with the economics of firing complete circuits on passive substrates in custom designs for your application.
Active devices in leaded or chip form can be assembled by conventional methods.

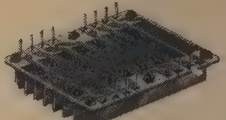
PRODUCT DESCRIPTION	Data Sheet	Manufactured By (see plant listings)
Resistor or Capacitor Microelements (.310" x .310" RCA Micromodule Style)	Cermet Cat.	(4) (6)
Metalized Substrates (No Resistors or Capacitors)	Cermet Cat.	(4) (6)
CERADOT Resistor (all types)	Cermet Cat.	(4) (6)
Circuit Modules (With Resistors Only)	Cermet Cat.	(3) (4) (6)
Circuit Modules (With Resistors and Capacitors, No Discrete Components)	Cermet Cat.	(4) (6)
Circuit Modules (With Discrete Components Assembled by CTS)	Cermet Cat.	(4) (9)

CTS SERIES 750 INDESTRUCTIBLE CERMET SEMI-PRECISION RESISTORS



Cermet film screened on thick alumina substrate.
For circuit engineers using resistor networks.
Extreme stability and reliability.
High power capability: up to 1 watt per resistor.
Space saving — a single module replaces up to 7 discrete resistors.
Available in an infinite number of circuit combinations.
Custom-built to your exact requirement.
Ideally suited for cost-saving automatic handling.
Cover coating unaffected by solvents.
Priced to compete with discrete metal film resistors.

CTS SERIES 770 HIGH-POWER PRECISION CERMET RESISTOR MODULES



For power applications.
Proven in 3rd generation computers.

Compact modular packaging — overall dimensions are only 1.500" by 1.225" by 0.370" with heat sink.

High power — 8 to 10 watts per module depending upon allowable operating temperature, air flow, duty cycle and number of pins used.

Low inductance — less than 10 nanohenries up to 200 megacycles.

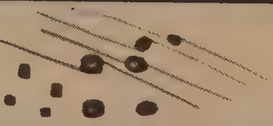
Layout flexibility — up to 24 external pins on .125" centers can accommodate 12 or more cermet resistors.

ENVIRONMENTAL PERFORMANCE SPECIFICATIONS

Test	Hybrid Integrated Circuitry & Resistor Networks		Series 750 Resistor Networks		Series 770 Resistor Networks	
	Average Δ R	Max. Δ R	Average Δ R	Max. Δ R	Average Δ R	Max. Δ R
Load life: 0.1 watt @ 70°C 1000 hours	±0.20%	±0.50%	±0.20%	±0.40%		
Load life: 9 watts for 1000 hours at 55°C ambient in 300fpm air flow					0.1%	0.40%
Moisture Resistance: Mil-Std-202B Method 106A	±0.20%	±0.50%				
Moisture Resistance: .1 rated wattage @ 70°C, 90-98% humidity, 1000 hours			±0.20%	±0.50%		
Moisture Resistance: 95% R.H. @ 70°C, 10 days load, 10 days no load					0.05%	0.20%
Thermal Cycling: —63°C +125°C no load	±0.03%	±0.10%	±0.03%	±0.10%	±0.03%	±0.10%
Low Temperature Exposure: —63°C, 4 hours	±0.04%	±0.10%	±0.05%	±0.25%	±0.04%	±0.10%
Short Time Overload: 2.5 times rated voltage, 5 sec.	±0.05%	±0.25%	±0.05%	±0.25%	±0.05%	±0.25%
Temperature Coefficient: —63°C to +125°C		±300ppm/°C		±300ppm/°C		—50 to +300ppm/°C

(3) Berne, Indiana. (4) Streetsville, Ontario, Canada. (6) Lafayette, Indiana.

CERADOT® Microminiature Solid Cermet Discrete Pellet Resistors



To ±1% tolerance.
15 watts/cm³ power to size ratio.
Won't short out under any operating conditions.
Extreme stability under extreme environments.
15 ohms to 200K ohms resistance range.
Not affected by radiation.
Operates at 175°C hot spot without leads.
Available with leads or terminating surfaces for soldering or welding.

Standard Sizes	Size	Power Rating	Data Sheet
A	.050" x .030"	1/10 Watt	Cermet Cat.
B	.100" x .062"	1/8 Watt	Cermet Cat.
C	.050" x .062"	1/10 Watt	Cermet Cat.
E	.100" x .030"	1/10 Watt	Cermet Cat.

Produced by CTS Research in Lafayette, Indiana

General Electric Co, ECSO, Schenectady	N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
Good Electronic Corp, Bedford	Mass
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
H J Electronic Seal Co, South Norwalk	Conn
Hughes Aircraft Co, Newport Beach	Cal
Industrial Circuits Co, Fairfield	N J
Integrated Circuit Engineering Corp, Phoenix	Ariz
ITT Semiconductors, West Palm Beach	Fla
LaPointe Industries, Inc, Rockville	Conn
Lear Siegler Inc, Santa Monica	Cal
Lel Div Varian Associates, Copiague	N Y
Mallory & Co Inc, P R, Indianapolis	Ind
Megadyne Industries Inc, Rochester	N Y
Micro-Radionics Inc, Van Nuys	Cal
Microsemiconductor Corp, Culver City	Cal
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Motorola Semiconductor Products Inc, Phoenix	Ariz
Neptune Electronics Co, New York	N Y
NGK Spark Plug Co Ltd, Mizuho-ku Nagoya	Japan
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Nippon Electric Co Ltd, Tokyo	Japan
Philco-Ford Corp, Washington	D C
P M C Electronics Corp, Philadelphia	Pa
Power Control Corp, Pittsburgh	Pa
Priester Corp, H E, Scarsdale	N Y
Quantum Devices, Bergenfield	NJ
Raytheon Co, Components Div, Semiconductor Oper Mountain View	Cal
Raytheon Computer, Santa Ana	Cal
RCA, Defense Electronic Products, Moorestown	N J
Scientific Data Systems Inc, El Segundo	Cal
Semiconductor Specialists Inc, Chicago	Ill
Siemens America Inc, New York	N Y
Sprague Electric Co, North Adams	Mass
Swiss Industries, Costa Mesa	Cal
Techron Corp, Boston	Mass
Texas Instruments Incorporated, Dallas	Tex
TRW Systems Group, Redondo Beach	Cal
Union Carbide Electronics, Semiconductor Prods Mountain View	Cal
United Aircraft Corp Electronic Components Div Trevose	PA
Varo Inc, Garland	Tex
Warlock Systems Inc, Danbury	Conn
Welwyn Electric Ltd, Northumberland	England
Western Microwave Labs Inc, Santa Clara	Cal

CIRCUITS--PACKAGES SEE MODULES--ACTIVE;MODULES--

PASSIVE

CIRCUITS, PRINTED WIRING--ETCHED

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ANSLEY MFG CO, ARTHUR, NEW HOPE, PA	**ADV PG 149**
BUCKBEE MEARS CO, ST PAUL	**MINN**
EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
LAPOINTE INDUSTRIES, INC, ROCKVILLE, CONN	**ADV PG 120**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
VERO ELECTRONICS, INC, FARMINGDALE	**N Y**
Abacus Electronics Corp, Dobbs Ferry	N Y
Accurate Electronics Corp, Elyria	Ohio
ACI, Inc, Princeton	N J
Acme Tool & Specialties Co, Des Plaines	Ill
Advanced Space Age Products Inc, Alexandria	Va
Aerolite Electronics Corp, Union City	N J
Agard Electronics Corp, New Hyde Park	N Y
Aikow Shoji Kaisha Ltd, Osaka	Japan
Allegri-Tech Inc, Nutley	N J
Alloys Unlimited Inc, Melville	N Y
American Circuit-Tronics Corp, Royal Oak	Mich
American Systems, Inc, Van Nuys	Cal
Ampex Corp, Redwood City	Cal
Amtron Inc, Midlothian	Ill
Ansley Mfg Co, Arthur, New Hope	Pa
Applied Devices Corp, College Point	n y
Applied Electro Mechanics Inc, Alexandria	Va
Applied Electronics Corp of N J, Metuchen	N J
A R F Products, Inc, Raton	N M
Aries Industries Inc, Gardena	Cal
Astrodata Inc, Anaheim	Cal
Astro-Space Labs Inc, Huntsville	Ala
Audn Corp, Hamburg	N Y
Avco Corp Electronics Div, Cincinnati	Ohio
A V Electronics, Inc, Fresno	Cal
Avionics Ltd, Niagara-on-the-Lake	Ont
Barnes Engineering Co, Santa Ana	Cal
Bartlett Mfg Co, Elk Grove Village	Ill
Brown Engineering-A Teledyne Co, Huntsville	Ala
Buckbee Mears Co, St Paul	Minn
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Bureau of Engraving Inc, Industrial Div Minneapolis	Minn
Burtek Inc, Tulsa	Okla
Chemical & Aerospace Products Inc, Wilmington	Cal
Chemical Micro Milling Co, Pennsauken	N J
Chicago Etching Corp, Chicago	Ill
Chrysler Corp, Space Div, Huntsville Oper Huntsville	Ala
Cimron Div LSI, San Diego	Cal
Cinch-Graphik Div United-Carr Inc, City of Industry	Cal
Circuitron Inc, Baldwin	Wisc
Circuits, Inc, Berlin	Conn
Circuit Technology Inc, San Carlos	Cal
Circuit-Wise Inc, North Haven	Conn
Cleveland Metal Specialties Co, Cleveland	Ohio
C & N Electrical Ltd, Hants	England
Coastal Dynamics Corp, Venice	Cal
Comco Plastics Inc, Richmond Hill	N Y
Condor Industrial Corp, West Chicago	Ill
Conductorlab Inc, Groton	Mass
Conductron Corp, Ann Arbor	Mich
Continental Device Corp, Hawthorne	Cal
Control Logic Inc, Natick	Mass
Custom Control Mfg Inc, Merriam	Kan
Data Sensors Inc, Addison	Ill
Defiance Circuit Corp, Lawrence	Mass
Delonics Corp, New York	N Y
Delta Semiconductors Div Natl Instr Corp Costa Mesa	Cal
Di/An Controls Inc, Boston	Mass
Diceon Electronics Inc, Costa Mesa	Cal
Dietz Design Inc, Belton	Mo
Digital Equipment Corp, Maynard	Mass
Digital Products, San Pedro	Cal
Digital Sensors Inc, Los Angeles	Cal
Diventco Inc, New Milford	Conn
Dorsett Electronics Inc, Tulsa	Okla
Douglas Electronics Inc, San Leandro	Cal
Dry Screen Process Inc, Pittsburgh	Pa
Dutchess Design & Develop Inc, Poughkeepsie	N Y
Dynamic System Electronics Corp, Tempe	Ariz
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Eastern Reproduction Corp, Waltham	Mass
Eby Co Hugh H, Philadelphia	Pa
E D P Corp, Orlando	Fla
Electralab Div Tyco Labs Inc, Encinitas	Cal
Electro-Chemical Engraving Co Inc, Bronx	N Y
Electro Circuits Inc, Lowell	Mass
Electro-Etch Circuits Inc, Los Angeles	Cal
Electro-Mechanisms, Inc, Nashua	N H
Electronic Communications Inc (ECI), St Petersburg	Fla
Electronic Ideas Inc, Wyncote	Pa
Electronic Modules Corp, Timonium	Md
Electronic Precision Circuitry Inc, Providence	RI
Electronics Inc of Pa, Willow Grove	Pa
Electro-Sonics, Inc, Spofford	N H
Elgin Electronics Inc, Erie	Pa
Elna-Fox Electronics Co Ltd, Tokyo	Japan
El-Tech Mfg Co Inc, Norristown	Pa
EPEC Industries Inc, New Bedford	Mass
Ferranti, Ltd, Lancashire	England
Flexible Circuits Inc, Warrington	Pa
Flexible Products Inc, North St Paul	Minn
Gamco Industries Datamate Div, Big Spring	Texas
General Circuits Inc, Rochester	N Y
General Components, Inc, St Petersburg	Fla
Globe Electrical Mfg Co, Gardena	Cal
Golden Technology Inc, Santa Rosa	Cal
Good Electronic Corp, Bedford	Mass
Greene Electronics Inc, Cranston	R I
Gridcraft Inc, Fort Wayne	Ind
GTI Corp Dytronics Div, Leesburg	Ind
Hampden Mfg Co Inc, Thompsonville	Conn
Hartzell Electronics Inc, Minneapolis	Minn
Hayakawa Electric Co Ltd, Osaka	Japan
Honeywell Inc, Computer Control Div Framingham	Mass
Honeywell Inc Electropac Operation, Peterborough	N H
Industrial Circuits Co, Fairfield	N J
Infotronics Corp, Houston	Texas
Instrumentation & Control Systems Inc, Addison	Ill
Intellux Inc, Goleta	Cal
Intercontinental Electronics Corp, Fairport	N Y
Interstate Circuits Inc, Rochester	N Y
Itek Corp, Lexington	Mass
ITT Federal Labs, Fort Wayne	Ind
ITT Telecommunications, New York	N Y
Keil Engineering Products Inc, St Louis	Mo
Komak Inc, Philadelphia	Pa
Lake Engineering Co Ltd, Scarborough	Ont
LaPointe Industries, Inc, Rockville	Conn
LCC-CICE, 93 Montreuil-sous-Bois	France
Lear Siegler Inc, Santa Monica	Cal
Lek-Trol, Inc, Grapevine	Tex
LFE Electronics Div, Lab for Electronics Inc Waltham	Mass
Lightning Circuits, Niagara on the Lake	Ont
Link Group Gen Precision Sys Inc, Binghamton	N Y
Litton Industries, Advanced Circuitry Div Springfield	Mo
Lockheed Electronics Co, Plainfield	N J
Lockheed Electronics Co, Avionics & Ind Prods Div Los Angeles	Cal
Lowrance Electronic Mfg Corp, Tulsa	Okla
Mahler Research Inc, New York	N Y
Methode Electronics Inc, Chicago	Ill
Micro Instrument Co, Hawthorne	Cal
Micro-Radionics Inc, Van Nuys	Cal
Mid-West Metal Products Inc, Kansas City	Kans
Minco Products Inc, Minneapolis	Minn
Molecular Research Inc, Palm Beach Gardens	Fla
Morey Corp, Downers Grove	Ill
National Technology, Inc, Santa Ana	Cal
Navigation Computer Corp, Norristown	Pa
Nippon Electric Co Ltd, Tokyo	Japan
North Hills Electronics Inc, Glen Cove	N Y
Novatronics Inc, Pompano Beach	Fla
Nucleonic Industries, Tucson	Ariz
Oki Electric Industry Co Ltd, Tokyo	Japan
Paraplegics Mfg Co Inc, Bensenville	Ill
Pelley Co Inc, E H, Cambridge	Mass
Pentronics Corp, Dorchester	Mass
Performance Measurements Co, Detroit	Mich
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philway Products Inc, Ashland	Ohio
Photocircuits Corp, Glen Cove	N Y
Pho-Tronics Inc, Butler	Wisc
P M C Electronics Corp, Philadelphia	Pa
Power Control Corp, Pittsburgh	Pa
Precision Circuits Inc, New Rochelle	N Y
Printed Circuits Inc, Minneapolis	Minn
Printex Corp, Mountain View	Cal
Radiation Systems Inc, McLean	Va
RCA, Defense Electronic Products, Moorestown	N J
RG Circuits Co, El Segundo	Cal
Roback Corp, Huntingdon Valley	Pa
Robintech Inc, Owego	N Y
Rogers Corp, Rogers	Conn
Root Co, A I, Medina	Ohio
Rosemount Plug-In Inc, Nashville	Tenn
Rowe Industries Inc, Toledo	Ohio
Sampson Electronic Products Div, Chicago	Ill
Sanders Associates, Inc, Nashua	N H
Schjeldahl Co, G T, Northfield	Minn
Scientific Data Systems Inc, El Segundo	Cal
Solid State Research Corp, Albuquerque	N M
Sparton Southwest Inc, Albuquerque	NM
Superior Plastics Inc, Paramount	Cal
Swiss Industries, Costa Mesa	Cal
Systems Engineering Labs Inc, Ft Lauderdale	Fla
Tech-Etch, Inc, Hingham	Mass
Techniques, Inc, Englewood	N J
Technograph, Inc, Winston-Salem	N C
Teltronics Inc, Nashua	N H
Texas Instruments Incorporated, Dallas	Tex
Thermal Systems Inc, Los Angeles	Cal
Thermo Products Co Div Web Press Eng Cedarburg	Wisc
Towne Labs Inc, Somerville	N J
Tri-Tronics Lab Inc, Euless	Tex
Trueline Instruments Inc, Englewood	Colo
Universal Circuits Inc, Minneapolis	Minn
Vactric Control Equipment Ltd, Morden	England
Vector Electronic Co Inc, Los Angeles	Cal
Vero Electronics, Inc, Farmingdale	N Y
Vero Electronics Ltd, Southampton	England
Victoria Co, West Chicago	Ill
Waber Electronics Inc, Philadelphia	Pa
Warlock Systems Inc, Danbury	Conn
Wyle Laboratories, El Segundo	Cal
X Cal Controls Inc, South Bend	Ind
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

CIRCUITS, PRINTED WIRING--FLEXIBLE

ANSLEY MFG CO, ARTHUR, NEW HOPE, PA	**ADV PG 149**
BUCKBEE MEARS CO, ST PAUL	**MINN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
ACI, Inc, Princeton	N J
American Circuit-Tronics Corp, Royal Oak	Mich
American Systems, Inc, Van Nuys	Cal
Ansley Mfg Co, Arthur, New Hope	Pa
Avionics Ltd, Niagara-on-the-Lake	Ont
Bartlett Mfg Co, Elk Grove Village	Ill
Bemis Co, Inc, Minneapolis	Minn
Brown Engineering-A Teledyne Co, Huntsville	Ala
Buckbee Mears Co, St Paul	Minn
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Bureau of Engraving Inc, Industrial Div Minneapolis	Minn
Cerro Corp, New York	NY
Cerro Sales Corp, New York	NY
Chemical & Aerospace Products Inc, Wilmington	Cal
Chemical Micro Milling Co, Pennsauken	N J
Circuitron Inc, Baldwin	Wisc
Circuits, Inc, Berlin	Conn
Coastal Dynamics Corp, Venice	Cal
Conductron Corp, Ann Arbor	Mich
Digital Sensors Inc, Los Angeles	Cal
Dorsett Electronics Inc, Tulsa	Okla
Dry Screen Process Inc, Pittsburgh	Pa
Eastern Reproduction Corp, Waltham	Mass
Electralab Div Tyco Labs Inc, Encinitas	Cal
Electro Circuits Inc, Lowell	Mass
Electro Connective Systems Inc, Brockton	Mass
Electro-Etch Circuits Inc, Los Angeles	Cal
Electro-Mechanisms, Inc, Nashua	N H
Electronics Inc of Pa, Willow Grove	Pa
EPEC Industries Inc, New Bedford	Mass
Flexible Circuits Inc, Warrington	Pa
Flexible Products Inc, North St Paul	Minn
General Circuits Inc, Rochester	N Y
General Components, Inc, St Petersburg	Fla
Golden Technology Inc, Santa Rosa	Cal
Good Electronic Corp, Bedford	Mass
GTI Corp Dytronics Div, Leesburg	Ind
Hartzell Electronics Inc, Minneapolis	Minn
Industrial Circuits Co, Fairfield	N J
Interstate Circuits Inc, Rochester	N Y
ITT Federal Labs, Fort Wayne	Ind
Keil Engineering Products Inc, St Louis	Mo
Komak Inc, Philadelphia	Pa
Lash Labs, Inc, San Diego	Cal
LCC-CICE, 93 Montreuil-sous-Bois	France
Lek-Trol, Inc, Grapevine	Tex
Litton Industries, Advanced Circuitry Div Springfield	Mo
Lockheed Electronics Co, Plainfield	N J
Lockheed Electronics Co, Avionics & Ind Prods Div Los Angeles	Cal
Methode Electronics Inc, Chicago	Ill
Minco Products Inc, Minneapolis	Minn
National Technology, Inc, Santa Ana	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Orega Electronique & Mecanique Vincennes, Seine	France
Performance Measurements Co, Detroit	Mich
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philway Products Inc, Ashland	Ohio
Photocircuits Corp, Glen Cove	N Y
Printed Circuits Inc, Minneapolis	Minn
Printex Corp, Mountain View	Cal
Rogers Corp, Rogers	Conn

Sanders Associates, Inc, Nashua .... N H
Schjeldahl Co, G T, Northfield .... Minn
Solitron Devices Inc, Tappan .... NY
Sparton Southwest Inc, Albuquerque .... NM
Swiss Industries, Costa Mesa .... Cal
Technograph, Inc, Winston-Salem .... N C
Thermal Systems Inc, Los Angeles .... Cal
Tri-Tronics Lab Inc, Euless .... Tex
Universal Circuits Inc, Minneapolis .... Minn
Victoria Co, West Chicago Ill

CIRCUITS, PRINTED WIRING--INLAID, FLUSH OR EMBEDDED

AIRFLYTE ELECTRONICS CO, BAYONNE .... N J
ANSLEY MFG CO, ARTHUR, NEW HOPE, PA .... ADV PG 149
BUCKBEE MEARS CO, ST PAUL .... MINN
LAPOINTE INDUSTRIES, INC, ROCKVILLE, CONN .... ADV PG 120
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
Agard Electronics Corp, New Hyde Park .... N Y
Airflyte Electronics Co, Bayonne .... N J
American Circuit-Tronics Corp, Royal Oak .... Mich
Ansley Mfg Co, Arthur, New Hope .... Pa
Applied Electronics Corp of N J, Metuchen .... N J
Astrodata Inc, Anaheim .... Cal
Atlantic Laminates Inc, Franklin .... N H
Avionics Ltd, Niagara-on-the-Lake .... Ont
Bartlett Mfg Co, Elk Grove Village Ill
Buckbee Mears Co, St Paul .... Minn
Bunker-Ramo Corp Defense Systems Div
Canoga Park .... Cal
Bureau of Engraving Inc, Industrial Div
Minneapolis .... Minn
Chemical & Aerospace Products Inc, Wilmington .... Cal
Circuitron Inc, Baldwin .... Wisc
Circuits, Inc, Berlin .... Conn
Circuit Technology Inc, San Carlos .... Cal
Circuit-Wise Inc, North Haven .... Conn
Cleveland Metal Specialties Co, Cleveland .... Ohio
Coastal Dynamics Corp, Venice .... Cal
Conductorlab Inc, Groton .... Mass
Conductron Corp, Ann Arbor .... Mich

Data Sensors Inc, Addison Ill
Diventco Inc, New Milford .... Conn
Eastern Reproduction Corp, Waltham .... Mass
Electralab Div Tyco Labs Inc, Encinitas .... Cal
Electro Circuits Inc, Lowell .... Mass
Electro-Etch Circuits Inc, Los Angeles .... Cal
Electro-Mechanisms, Inc, Nashua .... N H
Electronic Communications Inc (ECI), St Petersburg .... Fla
Electronic Precision Circuitry Inc, Providence .... RI
El-Tech Mfg Co Inc, Norristown .... Pa
EPEC Industries Inc, New Bedford .... Mass
Flexible Circuits Inc, Warrington .... Pa
Flexible Products Inc, North St Paul .... Minn
General Circuits Inc, Rochester .... N Y
General Components, Inc, St Petersburg .... Fla
Globe Electrical Mfg Co, Gardena .... Cal
Good Electronic Corp, Bedford .... Mass
GTI Corp Dytronics Div, Leesburg .... Ind
Hartzell Electronics Inc, Minneapolis .... Minn
Industrial Circuits Co, Fairfield .... N J
Intellux Inc, Goleta .... Cal
Interstate Circuits Inc, Rochester .... N Y
Komak Inc, Philadelphia .... Pa
LaPointe Industries, Inc, Rockville .... Conn
Lockheed Electronics Co, Avionics & Ind Prods Div
Los Angeles .... Cal
McCullough Aero Corp, Hawthorne .... Cal
Metalized Ceramics Corp, Providence .... R I
Methode Electronics Inc, Chicago Ill
Molecular Dielectrics Inc, Clifton .... N J
National Technology, Inc, Santa Ana .... Cal
Nippon Electric Co Ltd, Tokyo .... Japan
Performance Measurements Co, Detroit .... Mich
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Philway Products Inc, Ashland .... Ohio
Photocircuits Corp, Glen Cove .... N Y
Pho-Tronics Inc, Butler .... Wisc
Printed Circuits Inc, Minneapolis .... Minn
RCA, Defense Electronic Products, Moorestown .... N J
Rogers Corp, Rogers .... Conn
Solitron Devices Inc, Tappan .... NY
Superior Plastics Inc, Paramount .... Cal
Swiss Industries, Costa Mesa .... Cal
Technograph, Inc, Winston-Salem .... N C
Techron Corp, Boston .... Mass
Thermal Systems Inc, Los Angeles .... Cal
Tri-Tronics Lab Inc, Euless .... Tex
Universal Circuits Inc, Minneapolis .... Minn
Vactric Control Equipment Ltd, Morden .... England

CIRCUITS, PRINTED WIRING--LAMINATED

ANSLEY MFG CO, ARTHUR, NEW HOPE, PA .... ADV PG 149
BUCKBEE MEARS CO, ST PAUL .... MINN
LAPOINTE INDUSTRIES, INC, ROCKVILLE, CONN .... ADV PG 120
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
VERO ELECTRONICS, INC, FARMINGDALE .... N Y
Abacus Electronics Corp, Dobbs Ferry .... N Y
ACI, Inc, Princeton .... N J
Aerovox Corp Distr Sales, New Bedford .... Mass
Agard Electronics Corp, New Hyde Park .... N Y
Alloys Unlimited Inc, Melville .... N Y
American Circuit-Tronics Corp, Royal Oak .... Mich
Ansley Mfg Co, Arthur, New Hope .... Pa
Applied Electronics Corp of N J, Metuchen .... N J
Astrodata Inc, Anaheim .... Cal
Avco Corp Electronics Div, Cincinnati .... Ohio
Avionics Ltd, Niagara-on-the-Lake .... Ont
Brown Engineering-A Teledyne Co, Huntsville .... Ala
Buckbee Mears Co, St Paul .... Minn
Bunker-Ramo Corp Defense Systems Div
Canoga Park .... Cal
Bureau of Engraving Inc, Industrial Div
Minneapolis .... Minn
Cerro Corp, New York .... NY
Cerro Sales Corp, New York .... NY
Chemical & Aerospace Products Inc, Wilmington .... Cal
Cinch-Graphik Div United-Carr Inc, City of Industry .... Cal
Circuitron Inc, Baldwin .... Wisc
Circuits, Inc, Berlin .... Conn
Circuit Technology Inc, San Carlos .... Cal
Circuit-Wise Inc, North Haven .... Conn
Cleveland Metal Specialties Co, Cleveland .... Ohio
Coastal Dynamics Corp, Venice .... Cal
Conductorlab Inc, Groton .... Mass
Dietz Design Inc, Belton .... Mo
Diventco Inc, New Milford .... Conn
Electralab Div Tyco Labs Inc, Encinitas .... Cal
Electro Circuits Inc, Lowell .... Mass
Electro-Etch Circuits Inc, Los Angeles .... Cal
Electro-Mechanisms, Inc, Nashua .... N H
Electronic Precision Circuitry Inc, Providence .... RI
El-Tech Mfg Co Inc, Norristown .... Pa
EPEC Industries Inc, New Bedford .... Mass
Ferranti, Ltd, Lancashire .... England
Flexible Circuits Inc, Warrington .... Pa
Flexible Products Inc, North St Paul .... Minn
General Circuits Inc, Rochester .... N Y
General Components, Inc, St Petersburg .... Fla
Globe Electrical Mfg Co, Gardena .... Cal
Golden Technology Inc, Santa Rosa .... Cal
Good Electronic Corp, Bedford .... Mass
GTI Corp Dytronics Div, Leesburg .... Ind
Hartzell Electronics Inc, Minneapolis .... Minn
Industrial Circuits Co, Fairfield .... N J
Intellux Inc, Goleta .... Cal
Interstate Circuits Inc, Rochester .... N Y
LaPointe Industries, Inc, Rockville .... Conn
LCC-CICE, 93 Montreuil-sous-Bois .... France
Lek-Trol, Inc, Grapevine .... Tex
Litton Industries, Advanced Circuitry Div
Springfield .... Mo
Lockheed Electronics Co, Plainfield .... N J
Lockheed Electronics Co, Avionics & Ind Prods Div
Los Angeles .... Cal
McCullough Aero Corp, Hawthorne .... Cal
Metalized Ceramics Corp, Providence .... R I

Minco Products Inc, Minneapolis .... Minn
Morey Corp, Downers Grove Ill
National Technology, Inc, Santa Ana .... Cal
Nippon Electric Co Ltd, Tokyo .... Japan
Novatronics Inc, Pompano Beach .... Fla
Orega Electronique & Mecanique
Vincennes, Seine .... France
Pelley Co Inc, E H, Cambridge .... Mass
Performance Measurements Co, Detroit .... Mich
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Philway Products Inc, Ashland .... Ohio
Photocircuits Corp, Glen Cove .... N Y
Pho-Tronics Inc, Butler .... Wisc
P M C Electronics Corp, Philadelphia .... Pa
Precision Circuits Inc, New Rochelle .... N Y
Printed Circuits Inc, Minneapolis .... Minn
Printex Corp, Mountain View .... Cal
Radiation Systems Inc, McLean .... Va
RCA, Defense Electronic Products, Moorestown .... N J
Rogers Corp, Rogers .... Conn
Sanders Associates, Inc, Nashua .... N H
Schjeldahl Co, G T, Northfield .... Minn
Scientific Data Systems Inc, El Segundo .... Cal
Sparton Southwest Inc, Albuquerque .... NM
Swiss Industries, Costa Mesa .... Cal
Technograph, Inc, Winston-Salem .... N C
Texas Instruments Incorporated, Dallas .... Tex
Thermal Systems Inc, Los Angeles .... Cal
Universal Circuits Inc, Minneapolis .... Minn
Ventron Electronics Corp, Bradford .... Pa
Vero Electronics, Inc, Farmingdale .... N Y
Victoria Co, West Chicago Ill

CIRCUITS, PRINTED WIRING--PLATED

ACCURATE ELECTRONICS CORP, ELYRIA .... OHIO
ANSLEY MFG CO, ARTHUR, NEW HOPE, PA .... ADV PG 149
BUCKBEE MEARS CO, ST PAUL .... MINN
EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV
JOPLIN .... MO
LAPOINTE INDUSTRIES, INC, ROCKVILLE, CONN .... ADV PG 120
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
VERO ELECTRONICS, INC, FARMINGDALE .... N Y
Abacus Electronics Corp, Dobbs Ferry .... N Y
Accurate Electronics Corp, Elyria .... Ohio
ACI, Inc, Princeton .... N J
Advanced Space Age Products Inc, Alexandria .... Va
Agard Electronics Corp, New Hyde Park .... N Y
Allegri-Tech Inc, Nutley .... N J
Alloys Unlimited Inc, Melville .... N Y
American Circuit-Tronics Corp, Royal Oak .... Mich
American Systems, Inc, Van Nuys .... Cal
Ansley Mfg Co, Arthur, New Hope .... Pa
Applied Electronics Corp of N J, Metuchen .... N J
A R F Products, Inc, Raton .... N M
Astrodata Inc, Anaheim .... Cal
Audn Corp, Hamburg .... N Y
Avco Corp Electronics Div, Cincinnati .... Ohio
Avionics Ltd, Niagara-on-the-Lake .... Ont
Barnes Engineering Co, Santa Ana .... Cal
Bartlett Mfg Co, Elk Grove Village Ill
Brown Engineering-A Teledyne Co, Huntsville .... Ala
Buckbee Mears Co, St Paul .... Minn
Bureau of Engraving Inc, Industrial Div
Minneapolis .... Minn
CAE Industries Ltd, Montreal 3 .... Que
Chemical & Aerospace Products Inc, Wilmington .... Cal
Chemical Micro Milling Co, Pennsauken .... N J
Chrysler Corp, Space Div, Huntsville Oper
Huntsville .... Ala
Cimron Div LSI, San Diego .... Cal
Cinch-Graphik Div United-Carr Inc, City of Industry .... Cal
Circuitron Inc, Baldwin .... Wisc
Circuits, Inc, Berlin .... Conn
Circuit Technology Inc, San Carlos .... Cal
Circuit-Wise Inc, North Haven .... Conn
Cleveland Metal Specialties Co, Cleveland .... Ohio
Conductorlab Inc, Groton .... Mass
Continental Device Corp, Hawthorne .... Cal

Defiance Circuit Corp, Lawrence .... Mass
Diceon Electronics Inc, Costa Mesa .... Cal
Dietz Design Inc, Belton .... Mo
Diventco Inc, New Milford .... Conn
Dorsett Electronics Inc, Tulsa .... Okla
Dry Screen Process Inc, Pittsburgh .... Pa
Dutchess Design & Develop Inc, Poughkeepsie .... N Y
Dynatronics Oper Elctns Div Gen Dynamics Corp
Orlando .... Fla
Eagle-Picher Industries Inc, Electronics Div, Joplin .... Mo
Eastern Reproduction Corp, Waltham .... Mass
Electralab Div Tyco Labs Inc, Encinitas .... Cal
Electro Circuits Inc, Lowell .... Mass
Electro-Etch Circuits Inc, Los Angeles .... Cal
Electronic Precision Circuitry Inc, Providence .... RI
Electro-Sonics, Inc, Spofford .... N H
Elgin Electronics Inc, Erie .... Pa
El-Tech Mfg Co Inc, Norristown .... Pa
EPEC Industries Inc, New Bedford .... Mass
Flexible Circuits Inc, Warrington .... Pa
Flexible Products Inc, North St Paul .... Minn
General Circuits Inc, Rochester .... N Y
General Components, Inc, St Petersburg .... Fla
Globe Electrical Mfg Co, Gardena .... Cal
Golden Technology Inc, Santa Rosa .... Cal
Good Electronic Corp, Bedford .... Mass
Greene Electronics Inc, Cranston .... R I
GTI Corp Dytronics Div, Leesburg .... Ind
Hartzell Electronics Inc, Minneapolis .... Minn
Hopwood Retinning Corp, Malden .... Mass
Industrial Circuits Co, Fairfield .... N J
Intellux Inc, Goleta .... Cal
Interstate Circuits Inc, Rochester .... N Y
ITT Federal Labs, Fort Wayne .... Ind
Keil Engineering Products Inc, St Louis .... Mo
Lake Engineering Co Ltd, Scarborough .... Ont
LaPointe Industries, Inc, Rockville .... Conn
Lek-Trol, Inc, Grapevine .... Tex

LFE Electronics Div, Lab for Electronics Inc
Waltham .... Mass
Lightning Circuits, Niagara on the Lake .... Ont
Litton Industries, Advanced Circuitry Div
Springfield .... Mo
Lockheed Electronics Co, Avionics & Ind Prods Div
Los Angeles .... Cal
Lowrance Electronic Mfg Corp, Tulsa .... Okla
Mahler Research Inc, New York .... N Y
Methode Electronics Inc, Chicago Ill
Micro-Radionics Inc, Van Nuys .... Cal
Molecular Dielectrics Inc, Clifton .... N J
Molecular Research Inc, Palm Beach Gardens .... Fla
National Technology, Inc, Santa Ana .... Cal
Nippon Electric Co Ltd, Tokyo .... Japan
Novatronics Inc, Pompano Beach .... Fla
Orega Electronique & Mecanique
Vincennes, Seine .... France
Pelley Co Inc, E H, Cambridge .... Mass
Performance Measurements Co, Detroit .... Mich
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Philway Products Inc, Ashland .... Ohio
Photocircuits Corp, Glen Cove .... N Y
Pho-Tronics Inc, Butler .... Wisc
P M C Electronics Corp, Philadelphia .... Pa
Precision Circuits Inc, New Rochelle .... N Y
Printed Circuits Inc, Minneapolis .... Minn
Printex Corp, Mountain View .... Cal
Radiation Systems Inc, McLean .... Va
RG Circuits Co, El Segundo .... Cal
Robintech Inc, Owego .... N Y
Rogers Corp, Rogers .... Conn
Root Co, A I, Medina .... Ohio
Sanders Associates, Inc, Nashua .... N H
Schjeldahl Co, G T, Northfield .... Minn
Solitron Devices Inc, Tappan .... NY
Sparton Southwest Inc, Albuquerque .... NM
Superior Plastics Inc, Paramount .... Cal
Swiss Industries, Costa Mesa .... Cal
Techniques, Inc, Englewood .... N J
Texas Instruments Incorporated, Dallas .... Tex
Thermal Systems Inc, Los Angeles .... Cal
Triad Distributor Div Litton Industries, Huntington .... Ind
Tri-Tronics Lab Inc, Euless .... Tex
Universal Circuits Inc, Minneapolis .... Minn
Vero Electronics, Inc, Farmingdale .... N Y
Victoria Co, West Chicago Ill
Yaskawa Electric Mfg Co Ltd, Tokyo .... Japan

CIRCUITS, PRINTED WIRING--STAMPED OR EMBOSSED

MOLEX PRODUCTS CO, DOWNERS GROVE ILL
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
Ackerman Gould Co, Inc, Oceanside .... N Y
Alloys Unlimited Inc, Melville .... N Y
Avionics Ltd, Niagara-on-the-Lake .... Ont
Barnes Engineering Co, Santa Ana .... Cal

YOUR SOURCE FOR ALL TYPES OF CHEMICALLY ETCHED CIRCUITRY . . .

- **EXPANDED FACILITIES**
- **COMPLETE SERVICE**
- **SPECIALIZED TO MEET YOUR REQUIREMENTS**

Ansley has for many years been a major supplier to leading manufacturers of Military and Industrial Electronic Equipment requiring Mil Spec compliance, UL listing or individual specs. A new production plant with the latest and most modern equipment enables us to handle larger orders and serve new customers. Rigid quality control and constant inspection assure adherence to Military or Customer Specifications.

Ansley services include all phases of the design and manufacture of Printed Circuits. From layout and design through printing, by direct photographic or screen process, plating, fabrication, assembly and encapsulation.

PRINTED CIRCUITS

The entire field of printed circuitry for military and industrial (to required Mil Specs or UL) use is available from Ansley.

- **ONE AND TWO SIDES**
- **PLATED THROUGH HOLES**
- **MULTI-LAYER BOARDS**
- **FLUSH SWITCH CIRCUITS**
- **COMBINATIONS OF RIGID AND FLEXIBLE CIRCUITRY**

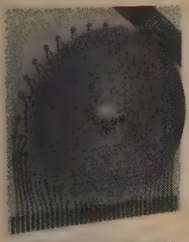
Ansley produces prototypes or thousands, utilizing all standard base materials and copper thicknesses, by the direct photographic or screen process. Ansley's physical facilities are up-to-date and contain the latest equipment for plating, plated through holes, drilling, routing, punching, and machining of single or multi-layer boards. Mounting of components, dip soldering and encapsulation can also be handled.

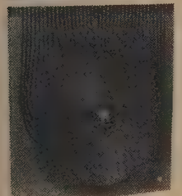
FREE-FLEX® PRINTED CIRCUITRY

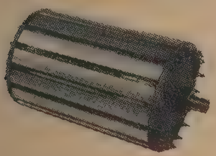
Ansley Free-Flex® Printed Circuitry rounds out the Ansley capability for producing either rigid or flexible circuitry. Teflon*, Epoxy, Mylar*, Kapton* and other base substrate materials can be used for either single or multiple layered circuitry. Ultimate reliability at minimum cost and the virtual elimination of human error in wiring are inherent advantages of Free-Flex Circuitry. The wiring of equipment or components can be an integral part of the design since a Free-Flex Printed Circuit can bend, fold, wrap around or be in between parts for circuitry interconnection. Free-Flex Printed Circuitry can also be combined with rigid circuitry. Free-Flex Circuitry is labelled by Underwriters' Laboratories Inc. under Appliance Wiring Materials Classification.

*DuPont Trademark

OTHER ANSLEY PRODUCTS







ROTO-REED® SWITCHES

Patent No. 3,281,734

Using Magnetically Actuated Reed Switches.

Ideal for applications such as selection of input or output signals, pulse generation or any sequential switching of circuits within current and voltage limitations.

Features:

- Hermetically Sealed Contacts
- Long life: in the hundred-million range!
- High speed: up to 10,000 RPM!
- Adjustable: exclusive variable dwell feature for make-before-break or break-before-make action!
- Standard models or specials readily available: 10, 12, 16, 20, 24, 30, 36, 50, 60 and 100 reed switches standard.
- High reliability . . . no sliding contact . . . low torque!
- Cost: Detailed size and price information available immediately.

PLUS/MODULES Patent No. 2,958,013

High Strength P.C. Modules

Ansley Plus Modules give printed circuitry the ruggedness of structural columns and dramatic space reductions. Whether you are using discrete components or integrated circuits you should investigate the advantages of the Plus Module structure before deciding on your packaging approach. The size and type of connector is open to wide variation.

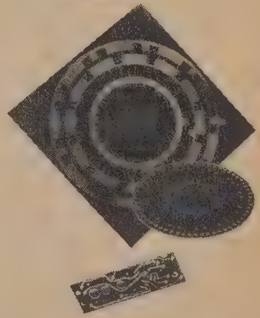
PERMA-FLUSH™ Patent Applied for

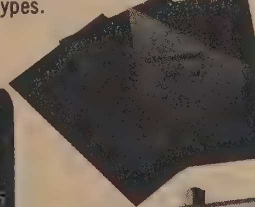
Flush Printed Circuit Switches

The flushness, reliability and long life of Ansley Perma-Flush p. c. switches (Patent applied for) is the result of an exclusive Ansley manufacturing method.

Advantages:

- Remain flush permanently even under extreme temperature environments up to 250°F.
- Surface Finish: 10 micro inches or better.
- Long Life—no excessive wear to brushes; they ride smoothly and require only light pressure.
- Intimate Contact—super flatness without gaps or interruptions due to high speed.
- Low Torque—super flatness allows brushes to wipe lightly and continuously.
- Cost—only slightly higher than common press-in types.





Our technical booklets on printed circuitry are standard references throughout the industry. Send for a set.

PRINTED CIRCUITS
FREE-FLEX FLEXIBLE CIRCUITS
ROTO REED SWITCHES
PLUS MODULES
PERMA-FLUSH™ CIRCUITS

ANSLEY

ARTHUR ANSLEY MFG. CO.
New Hope, Pa. 18938. Phone 215-297-5606

AN AFFILIATE OF THE THOMAS & BETTS CORPORATION

The new Ansley plant at Perkasie, Pa.

Chemical & Aerospace Products Inc, Wilmington ...... Cal
Circuit Technology Inc, San Carlos ...... Cal
Comco Plastics Inc, Richmond Hill ...... N Y
Dorsett Electronics Inc, Tulsa ...... Okla
Good Electronic Corp, Bedford ...... Mass
GTI Corp Dytronics Div, Leesburg ...... Ind
Industrial Circuits Co, Fairfield ...... N J
Interstate Circuits Inc, Rochester ...... N Y
ITT Federal Labs, Fort Wayne ...... Ind
Molex Products Co, Downers Grove Ill
Nippon Electric Co Ltd, Tokyo ...... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Printex Corp, Mountain View ...... Cal
Rogers Corp, Rogers ...... Conn
Sylvania Electric Prods Inc, Parts Div, Warren ...... Pa
Systems Research Labs Inc, Dayton ...... Ohio
Thermal Systems Inc, Los Angeles ...... Cal
Victoria Co, West Chicago Ill
Yaskawa Electric Mfg Co Ltd, Tokyo ...... Japan

CIRCUITS--THIN FILM

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE ...... R I
BUCKBEE MEARS CO, ST PAUL ...... MINN
FILM MICROELECTRONICS, INC, BURLINGTON ...... MASS
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ...... ADV PGS 7
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y ...... ADV PGS 3RD COVER INLEAF
GENERAL MICROWAVE CORP, FARMINGDALE ...... N Y
LAPOINTE INDUSTRIES, INC, ROCKVILLE ...... CONN
LEL DIV VARIAN ASSOCIATES, COPIAGUE ...... N Y
MEGADYNE INDUSTRIES INC, ROCHESTER ...... N Y
NIPPON ELECTRIC CO LTD, TOKYO ...... JAPAN
Aerojet-General Corp Electronics Div, Azusa ...... Cal
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park ...... N Y
Akers Electronics, Horten ...... Norway
Alcatel, Paris 8eme ...... France
Amelco Semiconductor, A Teledyne Co Mountain View ...... Cal
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville ...... R I
Buckbee Mears Co, St Paul ...... Minn
Bunker-Ramo Corp Defense Systems Div Canoga Park ...... Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli ...... Pa
Caddock Electronics Inc, Riverside ...... Cal
Canadian Marconi Co, Montreal 16 ...... Quebec
Circuitron Inc, Baldwin ...... Wisc
Collins Radio Co, Electronic Components Newport Beach ...... Cal
Complex Instrument Co Inc, Burlington ...... Mass
Conductron Corp, Ann Arbor ...... Mich
Electro-Optical Systems Inc, Pasadena ...... Cal
Electro-Sonics, Inc, Spofford ...... N H
El-Tech Mfg Co Inc, Norristown ...... Pa
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown ...... Md
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View ...... Cal
Film Components Div Reon Resister Corp, Yonkers ...... N Y
Film Microelectronics, Inc, Burlington ...... Mass
Flexible Circuits Inc, Warrington ...... Pa
General Circuits Inc, Rochester ...... N Y
General Components, Inc, St Petersburg ...... Fla
General Electric Co, Aerospace Elctns Dept, Utica ...... N Y
General Electric Co, ECSO, Schenectady ...... N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville ...... N Y
General Microwave Corp, Farmingdale ...... N Y
Haddon Tool & Mfg Co, Merchantville ...... N J
Halex Inc, Torrance ...... Cal
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead ...... Cal
Hitachi Ltd, Chiyoda-Ku, Tokyo ...... Japan
Hughes Aircraft Co, Newport Beach ...... Cal
Industrial Circuits Co, Fairfield ...... N J
Integrated Circuit Engineering Corp, Phoenix ...... Ariz
Intellux Inc, Goleta ...... Cal
Interstate Circuits Inc, Rochester ...... N Y
ITT Europe Inc Components Gp, Brussels 1 ...... Belgium
LaPointe Industries, Inc, Rockville ...... Conn
LCC-CICE, 93 Montreuil-sous-Bois ...... France
Lear Siegler Inc, Instrument Div, Grand Rapids ...... Mich
Lek-Trol, Inc, Grapevine ...... Tex
Lel Div Varian Associates, Copiague ...... N Y
Megadyne Industries Inc, Rochester ...... N Y
Mepco Inc, Morristown ...... N J
Methode Electronics Inc, Chicago Ill
Mial S P A, I 20124 Milano ...... Italy
Micro-Radionics Inc, Van Nuys ...... Cal
Microsemiconductor Corp, Culver City ...... Cal
Mullard Ltd, London, WC 1 ...... Eng
Nippon Electric Co Ltd, Tokyo ...... Japan
Oki Electric Industry Co Ltd, Tokyo ...... Japan
Performance Measurements Co, Detroit ...... Mich
Philco-Ford Corp, Washington ...... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
P M C Electronics Corp, Philadelphia ...... Pa
Quantum Devices, Bergenfield ...... NJ
Radiation Systems Inc, McLean ...... Va
Raytheon Co, Components Div, Ind Compnts Oper Quincy ...... Mass
RCA, Defense Electronic Products, Moorestown ...... N J
Schjeldahl Co, G T, Northfield ...... Minn
Seacor Inc, Norwood ...... NJ
Sprague Electric Co, North Adams ...... Mass
Swiss Industries, Costa Mesa ...... Cal
Technograph, Inc, Winston-Salem ...... N C
Tek-Wave Inc, Princeton ...... N J
Texas Instruments Incorporated, Dallas ...... Tex
TRW Systems Group, Redondo Beach ...... Cal
United Aircraft Corp Electronic Components Div Trevose ...... PA
Varo Inc, Garland ...... Tex

CIRCUITS--WOVEN WIRE

Wire Cloth Manufacturers Inc, Parsippany ...... N J

CIRCUIT TESTERS SEE TESTERS--CIRCUIT

CIRCUIT-TESTING BRIDGES SEE COMPARATORS

CIRCULATORS--MICROWAVE

FERROTEC INC, NEWTON ...... MASS
MITSUBISHI ELECTRIC CORP, TOKYO ...... JAPAN
NIPPON ELECTRIC CO LTD, TOKYO ...... JAPAN
PREMIER MICROWAVE CORP, PORT CHESTER ...... N Y
SCIENTIFIC-ATLANTA INC, ATLANTA ...... GA
TRG DIV CONTROL DATA CORP, EAST BOSTON MASS ...... ADV PG 418
Addington Labs Inc, Sunnyvale ...... Cal
Advanced Microwave Labs, Sunnyvale ...... Cal
Airtron, Div of Litton Industries, Inc, Morris Plains ...... N J
Alpha Industries Inc, Newton Upper Falls ...... Mass
Andrew California Corp, Claremont ...... Cal
Arra, Inc, Bayshore ...... NY
Astrolab Inc, Linden ...... N J
Aviation Electric Ltd, St Laurent, Montreal ...... Que
Avion Electronics Inc, Unit Gen Signal Corp Paramus ...... NJ
Bendix Corp, Microwave Devices Div, Franklin ...... Ind
E & M Labs, North Hollywood ...... Cal
Ewen-Knight Corp, East Natick ...... Mass
Ferranti Electric Inc, Plainview ...... N Y
Ferranti, Ltd, Lancashire ...... England
Ferrotec Inc, Newton ...... Mass
Guide Industries Inc, Sun Valley ...... Cal
Herley Industries, Inc, Westbury ...... N Y
Hyletronics Corp, Wilmington ...... Mass
LCC-CICE, 93 Montreuil-sous-Bois ...... France
Lignes Telegraphiques et Telephoniques Paris 16 ...... France
Marconi Co Ltd, Chelmsford ...... England
Marconi Div, English Electric Corp, New York ...... N Y
MCS Corp, Monrovia ...... Cal
Melabs, Palo Alto ...... Cal
Meridian Metalcraft Inc, Whittier ...... Cal
Microlab/F X R, Livingston ...... N J
Micromega Div Amphenol Corp, Venice ...... Cal
Micronetics Div Teledyne Systems Co, San Diego ...... Cal
Micro-Radionics Inc, Van Nuys ...... Cal
Microwave Associates Inc, Burlington ...... Mass
Microwave Development Labs Inc Needham Heights ...... Mass
Microwave Products Inc, Chatsworth ...... Cal
Mitsubishi Electric Corp, Tokyo ...... Japan
M-O Valve Co Ltd, Hammersmith, London W6 ...... Eng
N-H Microwave Inc, Red Bank ...... N J
Nippon Electric Co Ltd, Tokyo ...... Japan
Nippon Ferrite Industrial Co Ltd, Tokyo ...... Japan
O'Dell Brothers, Mountain View ...... Cal
Oki Electronics of America, Inc, Fort Lauderdale ...... Fla
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Portchester Instrument Corp, Port Chester ...... N Y
Premier Microwave Corp, Port Chester ...... N Y
Ramcor Inc, Huntington ...... NY
Rantec Div Emerson Electric Co, Calabasas ...... Cal
Raytheon Co, Microwave & Power Tube Div Waltham ...... Mass
RCA, Defense Electronic Products, Moorestown ...... N J
Scientific-Atlanta Inc, Atlanta ...... Ga
Sedco Systems Inc, Farmingdale ...... N Y
Sperry Microwave Electronics Div, Clearwater ...... Fla
Symetrics Engineering Corp, Satellite Beach ...... Fla
TRG Div Control Data Corp, East Boston ...... Mass
Vega Precision Labs, Vienna ...... Va
Western Microwave Labs Inc, Santa Clara ...... Cal

CITIZENS' RADIO SEE COMMUNICATION SYSTEMS--CITIZENS' BAND; RECEIVERS--CITIZENS' BAND; TRANCEIVERS--CITIZENS' BAND; TRANSMITTERS--CITIZENS' BAND

CLAD METALS SEE METALS--CLAD

CLAMP-ON AMMETERS SEE AMMETERS

CLAMPS--CABLE

AMPHENOL, CHICAGO ILL
BIRNBACH CO INC, FREEPORT ...... N Y
BURNDY CORP, NORWALK ...... CONN
DABURN ELECTRONICS & CABLE CORP, BRONX ...... N Y
WALDOM ELECTRONICS INC, CHICAGO ILL
Acme Model Engineering Co, Ridgefield ...... N J
Allmetal Screw Products Co Inc, Garden City ...... N Y
Amatom Electronic Hardware, New Rochelle ...... N Y
Amphenol, Chicago Ill
Appleton Electric Co, Chicago Ill
Bendix Corp Electrical Components Div, Sidney ...... N Y
Birnbach Co Inc, Freeport ...... N Y
Budwig Mfg Co, Ramona ...... Cal
Burndy Corp, Norwalk ...... Conn
Cable Electric Products Inc, Providence ...... R I
Camloc Div Rex Chainbelt Inc, Paramus ...... N J
Cole-Hersee Co, S Boston ...... Mass
Commercial Plastics Co, Mundelein Ill
Daburn Electronics & Cable Corp, Bronx ...... N Y
Dek Inc, Lombard Ill
Electrovert Inc, Mt Vernon ...... N Y
Emerson Plastics Corp, Bronx ...... New York
Estes Engineering Co, Gardena ...... Cal
ETC Inc, Cleveland ...... Ohio
Extrudonics Inc, New Brunswick ...... N J
Fastex Div Illinois Tool Works, Des Plaines Ill
Federal Screw Products Inc, Chicago Ill
G C Electronics Div, Hydrometals Inc, Rockford Ill
Glenair Inc, Glendale ...... Cal
Gries Reproducer Co Div Coats & Clark Inc New Rochelle ...... N Y
Hartwell Corp, Los Angeles ...... Cal
Heyman Mfg Co, Kenilworth ...... N J
Hit Products Corp, South Norwalk ...... Conn
Holub Industries Inc, Sycamore Ill
Hydro Molding Co Inc, Plattsburgh ...... N Y
Icore Electro-Plastics, Sunnyvale ...... Cal
Ideal-Hellerman Canada Ltd, Ajax ...... Ontario
Ideal Industries Inc, Sycamore Ill
Kenwood Mfg Co, Inc, Linden ...... N J
Lake Engineering Co Ltd, Scarborough ...... Ont
MacDonald & Co, Glendale ...... Cal
Olympic Plastics Co, Los Angeles ...... Cal
Oneida Electronic Mfg Co, Meadville ...... Pa
Panduit Corp, Tinley Park Ill
Parker Metal Goods Co, Worcester ...... Mass
Penn-Union Electric A Teledyne Co, Edinboro ...... Pa
Phelps Dodge Electronic Products Corp North Haven ...... Conn
Porter Co Inc, H K Electrical Div, Pittsburgh ...... Pa
Preformed Line Products Co, Cleveland ...... Ohio
Product Components Corp, Hastings-on-Hudson ...... N Y
Pyrometer Co of America Inc, Penndel ...... Pa
Richco Plastic Co, Chicago Ill
Seastrom Mfg Co Inc, Glendale ...... Cal
Shamban & Co, W S, Los Angeles ...... Cal
Shigoto Industries Ltd, New York ...... N Y
Smith Inc, Herman H, Brooklyn ...... N Y
Standard Polymer Inc, Van Nuys ...... Cal
Sunbank Electronics Inc, Burbank ...... Cal
Superior Continental Corp, Hickory ...... N C
Thomas & Betts Co Inc, Elizabeth ...... N J
Tinnerman Products Inc, Cleveland ...... Ohio
Trico Fuse Mfg Co, Milwaukee ...... Wis
Tru-Connector Corp, Peabody ...... Mass
Vemaline Products Co, Inc, Wycoff ...... N J
Victor-Bernard Industries Inc, Philadelphia ...... Pa
Vikoa Inc, Hoboken ...... N J
Waldom Electronics Inc, Chicago Ill
Waterbury Pressed Metal Co, Waterbury ...... Conn
Weckesser Co Inc, Chicago Ill
Whitso Inc, Schiller Park Ill
Zierick Mfg Corp, Mount Kisco ...... N Y

CLAMPS--COMPONENT

AUGAT, INC, ATTLEBORO ...... MASS
DABURN ELECTRONICS & CABLE CORP, BRONX ...... N Y
KEYSTONE ELECTRONICS CORP, NEW YORK ...... N Y
SECS, INC, LONG ISLAND CITY ...... N Y
WALDOM ELECTRONICS INC, CHICAGO ILL
Acme Model Engineering Co, Ridgefield ...... N J
Atlee Corp, Winchester ...... Mass
Augat, Inc, Attleboro ...... Mass
Birtcher Corp, Industrial Div, Monterey Park ...... Cal
Daburn Electronics & Cable Corp, Bronx ...... N Y
Dek Inc, Lombard Ill
De-Sta-Co Div Dover Corp, Detroit ...... Mich
Dynamic Gear Co Inc, Amityville ...... N Y
Hit Products Corp, South Norwalk ...... Conn
Industrial Devices Inc, Edgewater ...... N J
Instru-Lec Corp, Mt Vernon ...... N Y
International Electronic Research Corp, Burbank ...... Cal
Kestler Electronics, Rosemead ...... Cal
Keystone Electronics Corp, New York ...... N Y
Lake Engineering Co Ltd, Scarborough ...... Ont
Marman Div Aeroquip Corp, Los Angeles ...... Cal
Millen Mfg Co Inc, James, Malden ...... Mass
Naugler Engineering Inc, Beverly ...... Mass
Panduit Corp, Tinley Park Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
PIC Design Corp, East Rockaway ...... N Y
Product Components Corp, Hastings-on-Hudson ...... N Y
Samarius, Inc, Derby ...... Conn
Seastrom Mfg Co Inc, Glendale ...... Cal
Secs, Inc, Long Island City ...... N Y
Shamban & Co, W S, Los Angeles ...... Cal
Shur-Lok Corp, Santa Ana ...... Cal
Smith Inc, Herman H, Brooklyn ...... N Y
Standard Polymer Inc, Van Nuys ...... Cal
Sterling Instrument Div, Designatronics Inc Mineola ...... N Y
Victor-Bernard Industries Inc, Philadelphia ...... Pa
Waldom Electronics Inc, Chicago Ill
Waterbury Pressed Metal Co, Waterbury ...... Conn

CLAMPS--SYNCHRO

SECS, INC, LONG ISLAND CITY ...... N Y
Amatom Electronic Hardware, New Rochelle ...... N Y
Dynamic Gear Co Inc, Amityville ...... N Y
Fae Instrument Corp, Huntington Station ...... N Y
Muirhead Instruments Inc, Mountainside ...... N J
Precision Mechanisms Corp, Westbury ...... N Y
Seastrom Mfg Co Inc, Glendale ...... Cal
Secs, Inc, Long Island City ...... N Y
Sterling Instrument Div, Designatronics Inc Mineola ...... N Y
Theta Instrument Corp, Fairfield ...... N J
Timber-Top Inc, Freeport ...... N Y
Vemaline Products Co, Inc, Wycoff ...... N J
Waterbury Pressed Metal Co, Waterbury ...... Conn

CLAMPS--TUBE

AUGAT, INC, ATTLEBORO .... **MASS**
DABURN ELECTRONICS & CABLE CORP, BRONX .... **N Y**
Accurate Spring Mfg Co Div United Greenfield Corp River Grove Ill
Atlee Corp, Winchester .... Mass
Augat, Inc, Attleboro .... Mass
Birtcher Corp, Industrial Div, Monterey Park .... Cal
Commercial Plastics Co, Mundelein Ill
Daburn Electronics & Cable Corp, Bronx .... N Y
Dek Inc, Lombard Ill
De-Sta-Co Div Dover Corp, Detroit .... Mich
Eaton Yale & Towne Inc Reliance Div, Massillon .... Ohio
Fastex Div Illinois Tool Works, Des Plaines Ill
Holub Industries Inc, Sycamore Ill
International Electronic Research Corp, Burbank .... Cal
Jan Hardware Mfg Co Inc, Long Island City .... N Y
Kestler Electronics, Rosemead .... Cal
Lake Engineering Co Ltd, Scarborough .... Ont
Marman Div Aeroquip Corp, Los Angeles .... Cal
Millen Mfg Co Inc, James, Malden .... Mass
Panduit Corp, Tinley Park Ill
Remler Co, San Francisco .... Cal
Republic Industrial Corp, Lathrup Village .... Mich
Sanyo Electric Co Ltd, Osaka .... Japan
Seastrom Mfg Co Inc, Glendale .... Cal
Smith Inc, Herman H, Brooklyn .... N Y
Staver Co Inc, Bay Shore .... N Y
Thomas & Betts Co Inc, Elizabeth .... N J
Tinnerman Products Inc, Cleveland .... Ohio
Trought Associates Inc, Belleville .... N J
USECO Div, Litton Industries, Van Nuys .... Cal
Waterbury Pressed Metal Co, Waterbury .... Conn
Weckesser Co Inc, Chicago Ill
York Metal Products Inc, Long Island City .... N Y
Zierick Mfg Corp, Mount Kisco .... N Y

CLEANER--CONTACT

CAIG LABS INC, WESTBURY, N Y .... **ADV PG 151**
SPRAYON PRODUCTS INC, BEDFORD HEIGHTS OHIO .... **ADV PG 151**
Caig Labs Inc, Westbury .... N Y

Chemtronics Inc, Brooklyn .... NY
Clean Room Products Inc, Farmingdale .... N Y
Cobehn Inc, Fairfield .... N J
CRC Chemicals, Dresher .... Pa
G C Electronics Div, Hydrometals Inc, Rockford Ill
Ideal-Hellerman Canada Ltd, Ajax .... Ontario
L & R Mfg Co, Kearny .... N J
Sprayon Products Inc, Bedford Heights .... Ohio

REDUCE CONTACT RESISTANCE

CRAMOLIN®
CONTACT CLEANER
THE LESS YOU USE . . .
THE BETTER IT WORKS

- CLEANER
- LUBRICANT
- PRESERVATIVE
- ANTI-CORROSIVE
- LIQUID OR SPRAY

FSN-9G6850-880-7007

Cramolin has a world-wide reputation for excellence in performance. Used by the professionals who want only the best — Army, Air Force, Navy, Bureau of Standards and hundreds of top known manufacturers of electronic equipment.

Removes oxide films caused by most corrosive atmospheres such as sulphur dioxide, etc. Effective on all metal contacts of most electronic or electric apparatus. Safe to use. Will not harm plastics. Free of acids. Wide operating temperature range.

WRITE FOR TECHNICAL LITERATURE

CAIG LABORATORIES INC.
155 SULLIVAN LANE, WESTBURY, N. Y. 11590
TEL. 516 742 0278

CLEANERS--AIR, ELECTRONIC(ELECTROSTATIC)

SPELLMAN HIGH VOLTAGE ELECTRONICS CORP, BRONX .... **N Y**
Alconox Inc, New York .... N Y
Cambridge Filter Corp, Syracuse .... N Y
Carey Electronic Engineering Co, Springfield .... Ohio
Dow Chemical Co, Midland .... Mich
Electro-Air Div Emerson Electric Co, McKees Rocks ... Pa
Electronic Homes Co, New York .... N Y
Haydu Products Inc, Opa Locka .... Fla
Koppers Co Inc, Pittsburgh .... Pa
Pangborn Corp, Hagerstown .... Md
Perfectaire Equipment Co Inc, Cambridge .... Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Preco Chemical Corp, Plainview .... N Y
Ramney Industries Corp, Farmingdale .... N J
Sigma Instruments Inc, Braintree .... Mass
Solutec Corp, St Petersburg .... Fla
Spellman High Voltage Electronics Corp, Bronx ...... N Y
Texwipe Co, Hillsdale .... N J
Thermo Electron Engineering Corp, Waltham .... Mass
Trion Inc, McKees Rocks .... Pa
United States Dynamics, Needham Heights .... Mass
Waterbury Pressed Metal Co, Waterbury .... Conn
Wheelabrator Corp Wheelabrator Div, Mishawaka ..... Ind

CLEANERS--ULTRASONIC SEE ULTRASONIC EQUIPMENT

CLEANING FLUIDS SEE SOLVENTS

CLEANING MACHINES SEE MACHINES--PRINTED-CIRCUIT PRODUCTION; MACHINES--CLEANING

CLEAN ROOMS

Advanced Purification System Co Inc, Great Neck .... N Y
Agnew-Higgins Inc, Garden Grove .... Cal
Air Control Inc, Norristown .... Pa
Baker Co, Inc, Biddeford .... Me
Birdair Structures Inc, Buffalo .... N Y
Clean Room Products Inc, Farmingdale .... N Y
Controlled Environment Equipment Corp, Brockton ... Mass
Envirco Div Becton, Dickinson & Co, Albuquerque .... N M
Evans Equipment Co, Brookfield .... Conn
Haydu Products Inc, Opa Locka .... Fla

NEW! a complete family of aids to space age circuitry

Specialized Sprayon aerosols. Engineered, tested and proved to do dozens of critical jobs in electronic and electrical production and maintenance. Compatible with plastics, elastomers, etc. Sprayon's new line includes cleaners . . . demoisturants . . . lubricants . . . protective and insulating coatings . . . anti-static sprays, etc. Save time, trouble and money. Send for catalog today.

ORDER FROM YOUR SPRAYON DISTRIBUTOR
Industrial Supply Division, Sprayon Products, Inc.
26300 Fargo Ave., Bedford Heights, Ohio 44146
Plants: Bedford Heights (Cleveland), Ohio and Anaheim, California
Sprayon
AEROSOLS FOR ELECTRONICS
No. 2003 Circuit Cooler
No. 2008 Freon T.B.1 Cutting Fluid
No. 2005 Fluorocarbon Dry Lubricant
No. 2009 Freon T.M.C. Cleaner (Rosin Flux Remover)
No. 2002 Freon T.F. Degreaser
No. 2004 Quik-Dri Demoisturant
No. 608 Moisture and Fungus-Proof Varnish
No. 2000 Clear Acrylic
No. 610 Anti-Static Spray
No. 601 Red Insulating Varnish
No. 2001 Electrical Contact Cleaner

Janel Inc, Stirling	N J
Kidde & Co Inc, Walter, Belleville	N J
Koppers Co Inc, Pittsburgh	Pa
Matrix Engineering Corp, Gardena	Cal
Pure Aire Corp of America, Van Nuys	Cal
Ramney Industries Corp, Farmingdale	N J
Stark Electronic Instruments Ltd, Ajax	Ont
Zicon Corp, Mt Vernon	N Y

CLEAN ROOMS--BENCHES & ACCESSORIES

Acoustica Associates Inc, Los Angeles	Cal
Adjusto Equipment Co, Bowling Green	Ohio
Advanced Purification System Co Inc, Great Neck	N Y
Agnew-Higgins Inc, Garden Grove	Cal
Air Control Inc, Norristown	Pa
Baker Co, Inc, Biddeford	Me
Clauss Cutlery Co Div Alco Standard Corp Fremont	Ohio
Clean Room Products Inc, Farmingdale	N Y
Controlled Environment Equipment Corp, Brockton	Mass
Cramer Industries Inc, Kansas City	Kansas
Edcraft Industries Inc, Linden	N J
Envirco Div Becton, Dickinson & Co, Albuquerque	N M
Evans Equipment Co, Brookfield	Conn
Farr Co, El Segundo	Cal
Flotron Industries Inc, El Segundo	Cal
Gelman Instrument Co, Ann Arbor	Mich
Janel Inc, Stirling	N J
Kidde & Co Inc, Walter, Belleville	N J
Koppers Co Inc, Pittsburgh	Pa
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Mann Co, Henry, Cornwell Heights	Pa
Matthews Research Inc, Alexandria	Va
Millipore Corp, Bedford	Mass
3M Company, St Paul	Minn
Panel Controls Corp, Detroit	Mich
Phoenix Precision Instrument Co, Inc, Philadelphia	Pa
Pure Aire Corp of America, Van Nuys	Cal
Ramney Industries Corp, Farmingdale	N J
Sandefur Engineering Co, Inc, Lawndale	Cal
Seelye Plastic Fab Inc, Minneapolis	Minn
Techni-Tool Inc, Philadelphia	Pa
Texwipe Co, Hillsdale	N J
Workplace Systems, Inc, Manchester	N H

CLIPS--ALLIGATOR

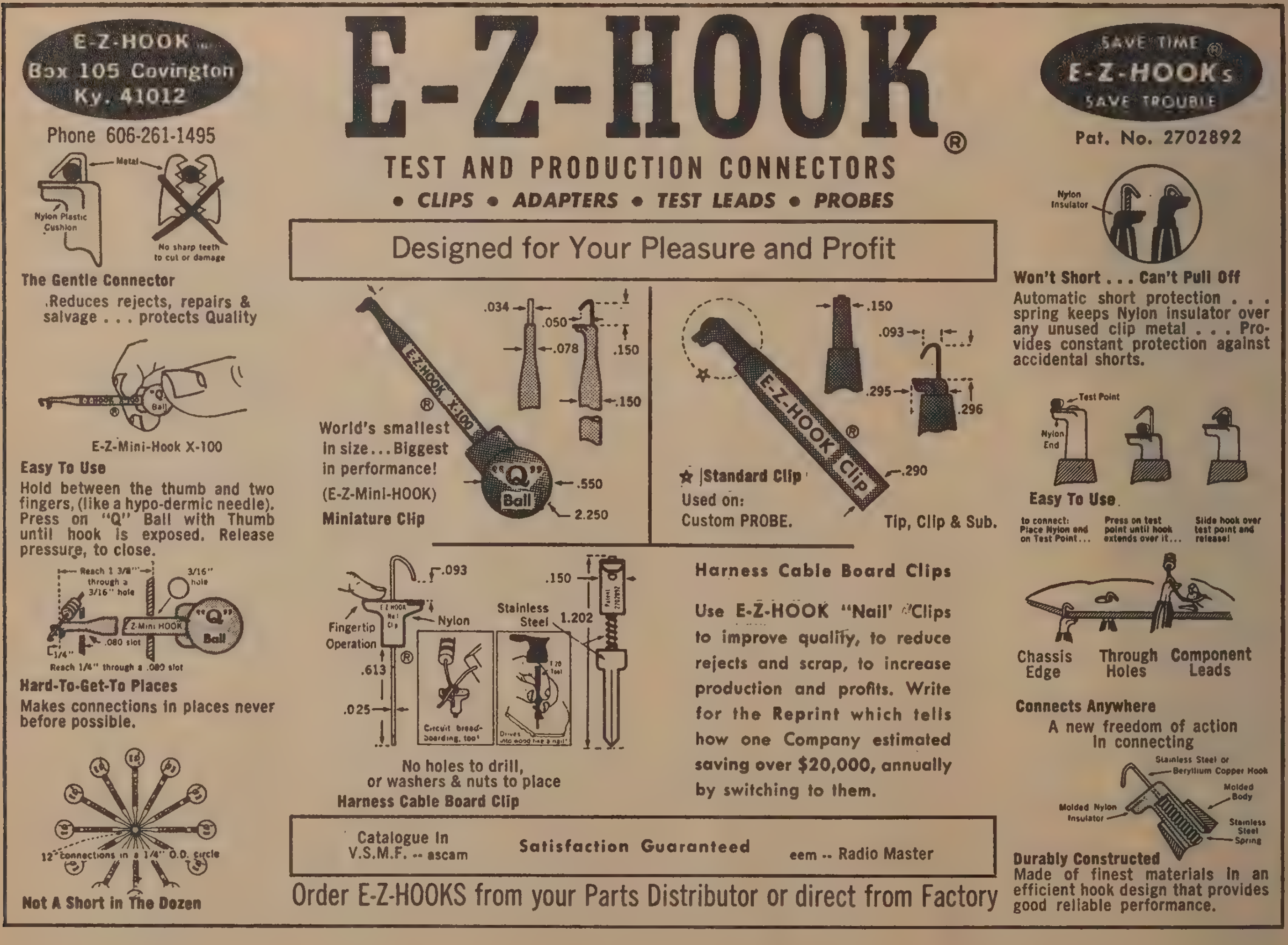
BIRNBACH CO INC, FREEPORT	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
POMONA ELECTRONICS CO INC, POMONA	**CAL**
Aerolite Electronics Corp, Union City	N J
Amatom Electronic Hardware, New Rochelle	N Y
Associated Engineering Corp, Brookline	Mass
BEC Inc, Brooklyn	NY
Birnbach Co Inc, Freeport	N Y
Components Specialties Inc, Freeport	N Y
Daburn Electronics & Cable Corp, Bronx	N Y
Dowa Trading Co Ltd, Kobe	Japan
Federal Screw Products Inc, Chicago	Ill
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Gelman Instrument Co, Ann Arbor	Mich
Mueller Electric Co, Cleveland	Ohio
National Tel-Tronics Corp, Great Neck	N Y
Penn-Union Electric A Teledyne Co, Edinboro	Pa
Philmore Mfg Co Inc, Richmond Hill	N Y
Pomona Electronics Co Inc, Pomona	Cal
Rye Industries, Inc, Mamaroneck	N Y
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Smith Inc, Herman H, Brooklyn	N Y
Triple A Specialty Co, Chicago	Ill
Vikoa Inc, Hoboken	N J
Workman Electronic Products Inc, Sarasota	Fla
Zierick Mfg Corp, Mount Kisco	N Y

CLIPS--BATTERY

DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
Acme Model Engineering Co, Ridgefield	N J
Allmetal Screw Products Co Inc, Garden City	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Anchor Plastics Co Inc, Long Island City	N Y
Anchor Specialty Mfg Co Inc, Teterboro	N J
Austin-Craft Co, Kingman	Ariz
BEC Inc, Brooklyn	NY
Cable Electric Products Inc, Providence	R I
Cambridge Thermionic Corp, Cambridge	Mass
Daburn Electronics & Cable Corp, Bronx	N Y
Dowa Trading Co Ltd, Kobe	Japan
Essex Wire Corp Terminal Sales, Chicago	Ill
Federal Screw Products Inc, Chicago	Ill
Forney Industries Inc, Fort Collins	Colo
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Keystone Electronics Corp, New York	N Y
Mueller Electric Co, Cleveland	Ohio
Oneida Electronic Mfg Co, Meadville	Pa
Penn-Union Electric A Teledyne Co, Edinboro	Pa
Philmore Mfg Co Inc, Richmond Hill	N Y
Positive Connector Co, Derby	Conn
Precision Mecanique Labinal, 93 Saint-Ouen	France
Richco Plastic Co, Chicago	Ill
Roosevelt Metal Co Inc, Brooklyn	N Y
Rye Industries, Inc, Mamaroneck	N Y
Seastrom Mfg Co Inc, Glendale	Cal
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Smith Inc, Herman H, Brooklyn	N Y
Star-A Electric Mfg Co Inc, Brooklyn	N Y
Triple A Specialty Co, Chicago	Ill
Ucinite Co Div United-Carr, Newtonville	Mass
United American Metals Div, Brooklyn	N Y
Workman Electronic Products Inc, Sarasota	Fla
Zierick Mfg Corp, Mount Kisco	N Y

CLIPS--TEST

BARNES CORP, LANSDOWNE	**PA**
BIRNBACH CO INC, FREEPORT	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
E-Z-HOOK TEST PRODUCTS, COVINGTON, KY	**ADV PG 152**
GRAYHILL INC, LA GRANGE	**ILL**
POMONA ELECTRONICS CO INC, POMONA	**CAL**
RAPID SPECIALTIES CO, CHICAGO, ILL	**ADV PG 153**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Abacus Electronics Corp, Dobbs Ferry	N Y
Anchor Specialty Mfg Co Inc, Teterboro	N J
Associated Engineering Corp, Brookline	Mass
Barnes Corp, Lansdowne	Pa
BEC Inc, Brooklyn	NY
Birnbach Co Inc, Freeport	N Y
Cambridge Thermionic Corp, Cambridge	Mass
Cleverly Electrical Works Inc, Philadelphia	Pa
Contact, Inc, Hudson	N H
Daburn Electronics & Cable Corp, Bronx	N Y
Dowa Trading Co Ltd, Kobe	Japan
Electronic Molding Corp, Pawtucket	R I
Electronic Training Aids Co, Cambridge	Mass
Electro Scientific Industries Inc, Portland	Ore
E-Z-Hook Test Products, Covington	KY
Fairhill Products Corp, Philadelphia	Pa
Federal Screw Products Inc, Chicago	Ill
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Grayhill Inc, La Grange	Ill
Industrial Devices Inc, Edgewater	N J



E-Z-HOOK
Box 105 Covington
Ky. 41012

Phone 606-261-1495

E-Z-HOOK®

TEST AND PRODUCTION CONNECTORS

• CLIPS • ADAPTERS • TEST LEADS • PROBES

Designed for Your Pleasure and Profit

SAVE TIME
E-Z-HOOKs
SAVE TROUBLE

Pat. No. 2702892

The Gentle Connector
Reduces rejects, repairs & salvage . . . protects Quality

E-Z-Mini-Hook X-100

Easy To Use
Hold between the thumb and two fingers, (like a hypo-dermic needle). Press on "Q" Ball with Thumb until hook is exposed. Release pressure, to close.

Hard-To-Get-To Places
Makes connections in places never before possible.

Not A Short in The Dozen

World's smallest in size . . . Biggest in performance!
(E-Z-Mini-HOOK)
Miniature Clip

☆ **Standard Clip**
Used on:
Custom PROBE.

Tip, Clip & Sub.

Won't Short . . . Can't Pull Off
Automatic short protection . . . spring keeps Nylon insulator over any unused clip metal . . . Provides constant protection against accidental shorts.

Easy To Use

No holes to drill, or washers & nuts to place
Harness Cable Board Clip

Harness Cable Board Clips

Use E-Z-HOOK "Nail" Clips to improve quality, to reduce rejects and scrap, to increase production and profits. Write for the Reprint which tells how one Company estimated saving over $20,000, annually by switching to them.

Chassis Edge / Through Holes / Component Leads

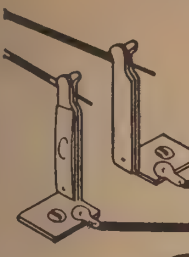
Connects Anywhere
A new freedom of action in connecting

Catalogue in V.S.M.F. -- ascam
Satisfaction Guaranteed
eem -- Radio Master

Order E-Z-HOOKS from your Parts Distributor or direct from Factory

Durably Constructed
Made of finest materials in an efficient hook design that provides good reliable performance.

Metal
Nylon Plastic Cushion
No sharp teeth to cut or damage
"Q" Ball
Reach 1 3/8" through a 3/16" hole
3/16" hole
Z-Mini HOOK
.080 slot
1/4"
Reach 1/4" through a .080 slot
12 connections in a 1/4" O.D. circle
E-Z-HOOK X-100
.034
.050
.078
.150
.150
.550
2.250
E-Z-HOOK Clip
.150
.093
.295
.296
.290
Nylon Insulator
Test Point
Nylon End
to connect: Place Nylon end on Test Point...
Press on test point until hook extends over it...
Slide hook over test point and release!
.093
Fingertip Operation
Nylon
.613
.025
Stainless Steel
.150
1.202
Circuit bread-boarding, too!
Drives into wood like a nail
Stainless Steel or Beryllium Copper Hook
Molded Body
Molded Nylon Insulator
Stainless Steel Spring



Rapid

TEST CLIPS

for MOTORS, COILS, ELECTRICAL UNITS

• Positive Connection • Long Life
For Any Size Lead, Solid or Braided Wire.
Tension Spring for Quick, Easy Setting.
40 amp. Polished brass • Angle or straight

Write for literature

Rapid SPECIALTIES COMPANY
327 W. HURON ST., CHICAGO 10, ILLINOIS

Jettron Products Inc, Hanover	N J
Mueller Electric Co, Cleveland	Ohio
Penn-Union Electric A Teledyne Co, Edinboro	Pa
Philmore Mfg Co Inc, Richmond Hill	N Y
Pomona Electronics Co Inc, Pomona	Cal
Rapid Specialties Co, Chicago	Ill
Rye Industries, Inc, Mamaroneck	N Y
Seastrom Mfg Co Inc, Glendale	Cal
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Smith Inc, Herman H, Brooklyn	N Y
Teradyne Inc, Boston	Mass
Transitron Electronic Corp, Wakefield	Mass
Triple A Specialty Co, Chicago	Ill
Vector Electronic Co Inc, Los Angeles	Cal
Waldom Electronics Inc, Chicago	Ill
Workman Electronic Products Inc, Sarasota	Fla

CLOCKS--ATOMIC SEE STANDARDS

CLOCKS--DIGITAL SEE ALSO TIMERS

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
FORK STANDARDS INC, WEST CHICAGO	**ILL**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH	**VA**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
TECHMETRIC CO, REDWOOD CITY	**CAL**
TELE-SIGNAL CORP, WOODBURY	**N Y**
TRACOR INC, AUSTIN	**TEX**
Adcole Corp, Waltham	Mass
A D Data Systems Inc, Rochester	N Y
Aeroflex Labs, Inc, Plainview	N Y
Aerospace Research, Inc, Boston	Mass
Amark Corp, Plainview	N Y
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Astrodata Inc, Anaheim	Cal
Automation Development Co, Culver City	Cal
Barden Co, Hermosa Beach	Cal
Bayside Timers, Inc, Flushing	N Y
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
California Systems Components, Inc, Chatsworth	Cal
Canberra Industries, Middletown	Conn
Central Dynamics Ltd, Pte Claire	Que
Chrono-Log Corp, Broomall	Pa
C & K Components Inc, Watertown	Mass
Clare & Co, C P, Chicago	Ill
Coldspring Instrument Corp, Huntington	N Y
Computer Logic Corp, Santa Monica	Cal
Conductron Corp, Ann Arbor	Mich
Control Logic Inc, Natick	Mass
Datatron Inc, Santa Ana	Cal
Datum Inc, Anaheim	Cal
Digital Equipment Corp, Maynard	Mass
DuKane Corp, St Charles	Ill
Durant Mfg Co, Milwaukee	Wis
Dynamco Ltd, Chertsey Surrey	Eng
Dyna Metric Inc, Pasadena	Cal
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee	Ill
E D P Corp, Orlando	Fla
E G & G Inc Custom Equip Div, Bedford	Mass
E G & G Int'l Inc Geodyne Div, Waltham	Mass
Electric Tachometer Corp, Philadelphia	Pa
Electronic Modules Corp, Timonium	Md
Elesta Ltd Electronics, Bad Ragaz	Switzerland
Fairchild Space & Defense Sys Div Fairchild Cam Instr Corp, Syosset	NY
Fisher-Akin Co, Manhattan Beach	Cal
Flow Corp, Watertown	Mass
Fork Standards Inc, West Chicago	Ill
Frequency Electronics Inc, New Hyde Park	N Y
General Radio Co, West Concord	Mass
Geodyne Div EG&G Int'l, Waltham	Mass
Gibbs Mfg & Research Corp, Janesville	Wis
Hathaway Pacific Corp, Palo Alto	Cal
Haydon Co The, A W, Waterbury	Conn
Haydon Switch & Instrument Inc, Waterbury	Conn
Heuer Electronics Corp, Norwalk	Conn
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Hird-Brown Ltd, Bolton, Lancs	England
Honeywell Inc, Computer Control Div Framingham	Mass
Humphrey Electronics Inc, Raleigh	N C
Information Control Corp, El Segundo	Cal
Information Instruments, Inc, Ann Arbor	Mich
International Data Systems Inc, Dallas	Tex
J A C Electronics Ltd, Camberley	England
Laben S p A, Milan	Italy
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Logitek Inc, Farmingdale	N Y
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Machinery Electrification Inc, Northboro	Mass
Measurement Technology Corp, Canoga Park	Cal
Melpar Inc, Special Prods Dept, Falls Church	Va
Milgo Electronic Corp, Miami	Fla
Model Rectifier Corp, Brooklyn	N Y
Navigation Computer Corp, Norristown	Pa
Numex Corp, Waltham	Mass
Okaya Electric Industries Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Parabam Inc, Hawthorne	Cal
Pennwood Numechron Co Tymeter Electronics Pittsburgh	Pa
Philco-Ford Corp, Washington	D C
Precision Scientific Co Sub GCA Corp, Chicago	Ill
Radix Electronics Corp, Anaheim	Cal
Rosemount Plug-In Inc, Nashville	Tenn
Schneider Radio-Television Div, Ivry	France
Signet Controls Inc, Tulsa	Okla
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Solari & C/Udine, Udine	Italy
Solid State Electronics Corp, Sepulveda	Cal
Space Craft Inc, Huntsville	Ala
Space & Systems Div General Time Corp Stamford	Conn
Stelma Inc, Stamford	Conn
Takeda Riken Industry Co Ltd, Tokyo	Japan
Techmetric Co, Redwood City	Cal
Tele-Signal Corp, Woodbury	N Y
Time-O-Matic Inc, Danville	Ill
Tracor Inc, Austin	Tex
United Systems Corp, Dayton	Ohio
Varo Inc Time & Frequency Products Santa Barbara	Cal
Venner Electronics Ltd, New Malden, Surrey	Eng
Vidar Corp, Mountain View	Cal
Vitro Labs Div Vitro Corp of America, Silver Spring	Md
Vitro Labs Div Vitro Corp of America, W Orange	N J
Wang Labs Inc, Tewksbury	Mass
Watesta Electronics Ltd, London-E 11	England
Wickes Industries Inc, Camden	N J
Zehntel Inc, Berkeley	Cal

If it isn't in EBG's

product directory,

it probably hasn't

been invented yet.

CLOSED-CIRCUIT TV SEE TV SYSTEMS

CLOTHING--LINT FREE

Angelica Uniform Co, St Louis	Mo
Clean Room Products Inc, Farmingdale	N Y
Edmont-Wilson, Coshocton	Ohio
Micronics Corp of America, Providence	RI
3M Company, St Paul	Minn
Techni-Tool Inc, Philadelphia	Pa
Victor Gloves Inc, New York	N Y
Vidaro Corp, Kent	Ohio

CLUTCHES--FRICTION

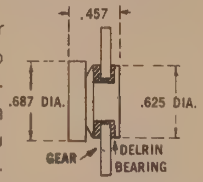
GRAPHITE METALLIZING CORP, YONKERS, N Y	**ADV PG 76**
NORTHFIELD PRECISION INSTRUMENT CORP ISLAND PARK	**N Y**
American Precision Industries Inc, East Aurora	NY
Autotronics Inc, Joplin	Mo
Cutler-Hammer Inc, Milwaukee	Wisc
Delevan Electronics Div Amer Prec Indus Inc East Aurora	N Y
Dynamic Gear Co Inc, Amityville	N Y
Dynamic Instrument Corp, Plainview	N Y
Fae Instrument Corp, Huntington Station	N Y
Gap Instrument Corp, Westbury	N Y
Geartronics Corp, N Billerica	Mass
General-Electro Mechanical Corp, Buffalo	N Y
Graphite Metallizing Corp, Yonkers	N Y
Insco Corp, Groton	Mass
Kollsman Motor Corp, Dublin	Pa
LEM Instrument Corp, Farmingdale	N Y
Magtrol Inc, Buffalo	N Y
Meltronics Inc, Massapequa	NY
Northfield Precision Instrument Corp, Island Park	N Y
Precision Mechanisms Corp, Westbury	N Y
Precision Specialties Inc, Pitman	N J
Sterling Instrument Div, Designatronics Inc Mineola	N Y
Superite Gear & Instrument Corp, Syosset	N Y
Technology Instrument Corp Sub Bowmar Instr Corp Newbury Park	Cal
Vogue Instrument Corp, Plainview	NY
Warner Electric Brake & Clutch Co, Beloit	Wisc
Wer Industrial Corp, Buffalo	N Y
Zero-Max Co, Minneapolis	Minn

CLUTCHES--MAGNETIC

SECS, INC, LONG ISLAND CITY	**N Y**
Altair Research & Mfg Co, Ontario	Cal
American Precision Industries Inc, East Aurora	NY
Applied Devices Corp, College Point	n y
Autotronics Inc, Joplin	Mo
Aviation Electric Ltd, St Laurent, Montreal	Que
B & B Motor & Control Corp, New York	N Y
Borg-Warner Controls Div Borg-Warner Corp Santa Ana	Cal
Chet Engineering Co, Sepulveda	Cal
Conductron Corp, Ann Arbor	Mich
Cutler-Hammer Inc, Milwaukee	Wisc
Delevan Electronics Div Amer Prec Indus Inc East Aurora	N Y
Dial Products Co, Bayonne	N J
Dynamic Instrument Corp, Plainview	N Y
Electroid Corp, Union	N J
Fae Instrument Corp, Huntington Station	N Y
Ferranti, Ltd, Lancashire	England
General-Electro Mechanical Corp, Buffalo	N Y
General Time, Industrial Controls Div, Torrington	Conn
Haydon Products, Ind Controls Div Gen Time Corp, Torrington	Conn
Ideal Electric & Mfg Co, Mansfield	Ohio
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
LEM Instrument Corp, Farmingdale	N Y
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Magtrol Inc, Buffalo	N Y
Meltronics Inc, Massapequa	NY
Northern Precision Labs Inc, Fairfield	N J
Orbit Instrument Corp, Syosset	N Y
Permanent Magnet Co Inc, Indianapolis	Ind
PIC Design Corp, East Rockaway	N Y
Precision Specialties Inc, Pitman	N J
Reliance Electric Co, Cleveland	Ohio
Secs, Inc, Long Island City	N Y
Simplatrol Products Corp, Worcester	Mass
Sterling Instrument Div, Designatronics Inc Mineola	N Y
Technology Instrument Corp Sub Bowmar Instr Corp Newbury Park	Cal
Vibrac Corp, Chelmsford	Mass
Vogue Instrument Corp, Plainview	NY
Warner Electric Brake & Clutch Co, Beloit	Wisc
Wer Industrial Corp, Buffalo	N Y

Now! A top quality miniature adjustable slip clutch.

Just the amount of slip you want for the exact amount of torque you need.



You can pre-set for any torque from 0 to 50 inch ozs. The Delrin bearing and clutch plate will give you smooth torque transmission with minimum change from that setting. Precision engineered to MIL-E-5272C. Stainless steel gear. Anodized aluminum hub and clamp. Low cost. Quantity prices. Immediate shipment.

Write or call for prices and additional specifications. Northfield Precision Instrument Corp., 4400 Austin Blvd., Island Park, L.I., New York 11558. Telephone (516) 431-1112.

NORTHFIELD
PRECISION INSTRUMENT CORPORATION

CLUTCHES--SLIP

COMPUTER INSTRUMENTS CORP, HEMPSTEAD N Y	**ADV PGS 488-490**
NORTHFIELD PRECISION INSTRUMENT CORP, ISLAND PARK N Y	**ADV PG 154**
SECS, INC, LONG ISLAND CITY	**N Y**
Automatic Locking Devices, Bridgeport	Conn
Computer Instruments Corp, Hempstead	N Y
Delevan Electronics Div Amer Prec Indus Inc East Aurora	N Y
Dynamic Gear Co Inc, Amityville	N Y
Dynamic Instrument Corp, Plainview	N Y
Fae Instrument Corp, Huntington Station	N Y
General-Electro Mechanical Corp, Buffalo	N Y
LEM Instrument Corp, Farmingdale	N Y
Meltronics Inc, Massapequa	NY
Midwest Automatic Inc of Iowa, Des Moines	Iowa
Millitest Co, Hempstead	N Y
Northfield Precision Instrument Corp, Island Park	N Y
Overload Controls Inc, Bronxville	N Y
PIC Design Corp, East Rockaway	N Y
Precision Mechanisms Corp, Westbury	N Y
Precision Specialties Inc, Pitman	N J
Secs, Inc, Long Island City	N Y
Sterling Instrument Div, Designatronics Inc Mineola	N Y
Vogue Instrument Corp, Plainview	NY
Wer Industrial Corp, Buffalo	N Y
Zero-Max Co, Minneapolis	Minn

COATINGS--ANTISTATIC

CALFONEX INC, ENGLEWOOD	**N J**
SPRAYON PRODUCTS INC, BEDFORD HEIGHTS	**OHIO**
Acheson Colloids Co, Port Huron	Mich
American Cyanamid Co, Wayne	N J
Amicon Corp, Lexington	Mass
Avco Bay State Abrasives Div Indus Prods Sub Div Westboro	Mass
Beaver Labs, Inc, Plainview	NY
Calfonex Inc, Englewood	N J
Camie Co Inc, St Louis	Mo
Castall Research Lab Inc, Brockton	Mass
Cico Corp, Sun Valley	Cal
Columbia Technical Corp, Woodside	N Y
Custom Materials Inc, Chelmsford	Mass
Denton Vacuum Inc, Cherry Hill	N J
Electrolube Ltd, Slough	England
Everlube Corp of America, North Hollywood	Cal
Fish-Schurman Corp, New Rochelle	N Y
Furane Plastics Inc, Los Angeles	Cal
Huron Industries, Port Huron	Mich
Industrial Formulations Corp, Plainview	N Y
Injectorall Electronics Corp, Great Neck	NY
Isochem Resins Co, Lincoln	RI
Lea Mfg Co, Waterbury	Conn
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
Lithoid Corp, Lima	Pa
Metavac Inc, Flushing	N Y
Product Techniques, Inc, Downey	Cal
Simco Co Inc, Lansdale	Pa
Sprayon Products Inc, Bedford Heights	Ohio
Techni-Tool Inc, Philadelphia	Pa
Tra-Con, Inc, Medford	Mass

COATINGS--CONDUCTIVE

INTERELECTRONICS CORP, CONGERS	**N Y**
KRESSILK PRODUCTS INC, ELMSFORD	**N Y**
Acheson Colloids Co, Port Huron	Mich
Acme Chemicals & Insulation, New Haven	Conn
Adhesive Engineering Co, San Carlos	Cal
Allaco Products, Braintree	Mass
Allied Engineering & Production Corp, Alameda	Cal
Alloys Unlimited Inc, Melville	N Y
Alpha Metals Inc, Jersey City	NJ
Amicon Corp, Lexington	Mass
Anadite, Inc, South Gate	Cal
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Avco Bay State Abrasives Div Indus Prods Sub Div Westboro	Mass
Bacon Industries, Inc, Watertown	Mass
Bel-Ray Co, Inc, Farmingdale	N J
Bemol Co, Newton	Mass
Biggs Co, Santa Monica	Cal
Broomer Research Corp, Plainview	N Y
Carboline Co, St Louis	Mo
Chase & Sons Inc, Randolph	Mass
Chemtronics Inc, Brooklyn	NY
Chomerics, Inc, Arlington	Mass
Cico Corp, Sun Valley	Cal
Columbia Technical Corp, Woodside	N Y
Conap Inc, Allegany	N Y
Custom Coating & Laminating Corp, Worcester	Mass
Custom Materials Inc, Chelmsford	Mass
Denton Vacuum Inc, Cherry Hill	N J
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Dynaloy, Inc, Hanover	N J
Electrofilm, Inc, North Hollywood	Cal
Electrolube Ltd, Slough	England
Electro Materials Corp of America, Mamaroneck	N Y
Electro Science Labs Inc, Philadelphia	Pa
Emerson & Cuming Inc, Canton	Mass
Enthone Inc, New Haven	Conn
Epoxy Products Co Div Allied Prod Inc New Haven	Conn
Etchomatic Inc, Waltham	Mass
Everlube Corp of America, North Hollywood	Cal
Fansteel Metallurgical Corp, North Chicago	Ill
Film Components Div Reon Resister Corp, Yonkers	N Y
Fish-Schurman Corp, New Rochelle	N Y
Fitchburg Coated Products Inc, Scranton	Pa
Franklin Fibre-Lamitex Corp, Wilmington	Del
Fredericks Co, Huntingdon Valley	Pa
Fuller Co, H B, St Paul	Minn
Grafo Colloids Corp, Sharon	Pa
Hopwood Retinning Corp, Malden	Mass
Huron Industries, Port Huron	Mich
Hysol Div, The Dexter Corp, Olean	N Y
Interelectronics Corp, Congers	N Y
International Electronic Research Corp, Burbank	Cal
Isochem Resins Co, Lincoln	RI
Isomet Corp, Palisades Park	N J
Kressilk Products Inc, Elmsford	N Y
Laser Optics Inc, Danbury	Conn
Lek-Trol, Inc, Grapevine	Tex
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
Lundy Electronics & Systems Inc, Glen Head	N Y
Mann Co, Henry, Cornwell Heights	Pa
Materials for Electronics, Inc, Jamaica	N Y
Mereco Prods Inc, Div Metachem Resins Corp Cranston	RI
Metalized Ceramics Corp, Providence	R I
Metaplast Electrochemicals Corp, Bronx	N Y
Metavac Inc, Flushing	N Y
Motson Co, J Frank, Flourtown	Pa
Multi - Flex Seals Inc, Bronx	N Y
Nuclear Materials & Equipment Corp, Apollo	Pa
Optical Coating Lab Inc, Santa Rosa	Cal
Philadelphia Quartz Co, Philadelphia	Pa
Pierce & Stevens Chemical Corp, Buffalo	N Y
Product Techniques, Inc, Downey	Cal
Radio Corp of America, Electronic Components, Harrison	N J
Reon Resistor Corp, Yonkers	N Y
Roosevelt Metal Co Inc, Brooklyn	N Y
Seezak Products Inc, Los Angeles	Cal
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Semi-Alloys Inc, Mt Vernon	N Y
Shipley Co Inc, Newton	Mass
Sierracin Corp, Sylmar	Cal
Sterling Varnish Co, Sewickley	Pa
Stevenson Bro & Co, Philadelphia	Pa
Techform Labs Inc, Venice	Cal
Technical Wire Products Inc, Cranford	N J
Techni-Tool Inc, Philadelphia	Pa
Thermal American Fused Quartz Co, Montville	N J
Topper Mfg Co Inc, Great Neck	N Y
Tra-Con, Inc, Medford	Mass
Transene Co Inc, Rowley	Mass
Union Carbide Corp, Materials Systems Div Kokomo	Ind
United American Metals Div, Brooklyn	N Y
Vacuum Metallizing, Van Nuys	Cal
Vitta Corp, Wilton	Conn
Wornow Process Paint Co, Los Angeles	Cal

COATINGS--FUNGICIDAL

KRESSILK PRODUCTS INC, ELMSFORD	**N Y**
SPRAYON PRODUCTS INC, BEDFORD HEIGHTS	**OHIO**
Acme Chemicals & Insulation, New Haven	Conn
Amatom Electronic Hardware, New Rochelle	N Y
American Cyanamid Co, Wayne	N J
Carboline Co, St Louis	Mo
Castall Research Lab Inc, Brockton	Mass
Chemtronics Inc, Brooklyn	NY
Cico Corp, Sun Valley	Cal
Columbia Technical Corp, Woodside	N Y
Conap Inc, Allegany	N Y
Dolph Co, John C, Monmouth Junction	N J
Dow Chemical Co, Midland	Mich
Emerson & Cuming Inc, Canton	Mass
Everlube Corp of America, North Hollywood	Cal
Franklin Fibre-Lamitex Corp, Wilmington	Del
Furane Plastics Inc, Los Angeles	Cal
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Injectorall Electronics Corp, Great Neck	NY
International Electronic Research Corp, Burbank	Cal
Isochem Resins Co, Lincoln	RI
Kressilk Products Inc, Elmsford	N Y
Millen Mfg Co Inc, James, Malden	Mass
M & T Chemicals Inc Sub American Can Co Rahway	N J
Oakite Products Inc, Berkeley Heights	N J
Pierce & Stevens Chemical Corp, Buffalo	N Y
Product Techniques, Inc, Downey	Cal
Sperex Corp, Los Angeles	Cal
Sprayon Products Inc, Bedford Heights	Ohio
Sterling Varnish Co, Sewickley	Pa
Stevenson Bro & Co, Philadelphia	Pa
Techni-Tool Inc, Philadelphia	Pa
Westinghouse Electric Corp Insulating Materials Div Trafford	Pa
Zicon Corp, Mt Vernon	N Y

COATINGS--PROTECTIVE,PERMANENT & SEALING

CALFONEX INC, ENGLEWOOD	**N J**
KRESSILK PRODUCTS INC, ELMSFORD	**N Y**
SPRAYON PRODUCTS INC, BEDFORD HEIGHTS	**OHIO**
TECHNIC INC, CRANSTON	**RI**
Acme Chemicals & Insulation, New Haven	Conn
Adhesive Engineering Co, San Carlos	Cal
Allaco Products, Braintree	Mass
Allied Engineering & Production Corp, Alameda	Cal
Allied Research Products Inc Sub Richardson Co Baltimore	Md
Alpha Metals Inc, Jersey City	NJ
American Solder & Flux Co, Philadelphia	Pa
Amicon Corp, Lexington	Mass
Anadite, Inc, South Gate	Cal
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Armite Laboratories, Los Angeles	Cal
Armstrong Products Co, Inc, Warsaw	Ind
Avco Bay State Abrasives Div, Westboro	Mass
Avco Bay State Abrasives Div Indus Prods Sub Div Westboro	Mass
Bacon Industries, Inc, Watertown	Mass
Baker Castor Oil Co, Bayonne	N J
Ball Brothers Research Corp, Boulder	Colo
Barrett Varnish Co, Cicero	Ill
Biggs Co, Santa Monica	Cal
Biwax Corp, Des Plaines	Ill
Borden Chemical Co, New York	N Y
Calfonex Inc, Englewood	N J
Camie Co Inc, St Louis	Mo
Carboline Co, St Louis	Mo
Castall Research Lab Inc, Brockton	Mass
Cerac Inc, Butler	Wis
Chase & Sons Inc, Randolph	Mass
Chemtronics Inc, Brooklyn	NY
Cico Corp, Sun Valley	Cal
Clarkson Labs Inc, Camden	NJ
Clean Room Products Inc, Farmingdale	N Y
Columbia Research Corp, Gaithersburg	Md
Columbia Technical Corp, Woodside	N Y
Conap Inc, Allegany	N Y
Continental Sensing Inc, Melrose Park	Ill
Conversion Chemical Corp, Rockville	Conn
Coors Porcelain Co, Golden	Colo
Cramco Solder Alloys, Scarborough	Ont
CRC Chemicals, Dresher	Pa
Dennis Chemical Co, St Louis	Mo
Devcon Corp, Danvers	Mass
Dilectrix Corp, Farmingdale	N Y
Division Lead Co, Summit	Ill
Dolph Co, John C, Monmouth Junction	N J
Dow Chemical Co, Midland	Mich
Dow Corning Corp, Midland	Mich
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park	N J
Dynaloy, Inc, Hanover	N J
Electro Materials Corp of America, Mamaroneck	N Y
Emerson & Cuming Inc, Canton	Mass
EPD Industries Inc, Long Beach	Cal
Etchomatic Inc, Waltham	Mass
Everlube Corp of America, North Hollywood	Cal
Fel Pro Inc Div Felt Products Mfg Co, Skokie	Ill
Fidelity Chemical Products Corp, Newark	N J
Forest City Foam Products, Wellington	Ohio
Fuller Co, H B, St Paul	Minn
Furane Plastics Inc, Los Angeles	Cal
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal

General Electric Co Silicone Prods Dept, Waterford ... N Y
General Plastics Corp, Bloomfield ... N J
Goodrich Industrial Prods Co, B F, Akron ... Ohio
Hightemp Resins Inc, Stamford ... Conn
Hopwood Retinning Corp, Malden ... Mass
Hughson Chemical Co Div Lord Corp, Erie ... Pa
Hunt Chemical Corp, Philip A, Palisades Park ... N J
Hysol Div, The Dexter Corp, Olean ... N Y
Industrial Formulations Corp, Plainview ... N Y
Injectorall Electronics Corp, Great Neck ... NY
Insulating Fabricators of N E Inc, Watertown ... Mass
International Electronic Research Corp, Burbank ... Cal
Isochem Resins Co, Lincoln ... RI
Isocyanate Products Inc, New Castle ... Del
Kester Solder Co, Chicago ... Ill
Koppers Co Inc, Pittsburgh ... Pa
Kressilk Products Inc, Elmsford ... N Y
Laser Optics Inc, Danbury ... Conn
Lash Labs, Inc, San Diego ... Cal
Lithoid Corp, Lima ... Pa
London Chemical Co Inc, Melrose Park ... Ill
MacDermid Inc, Waterbury ... Conn
Mann Co, Henry, Cornwell Heights ... Pa
Marblette Co Div Allied Prods Corp Long Island City ... N Y
Markal Co, Chicago ... Ill
Mereco Prods Inc, Div Metachem Resins Corp Cranston ... RI
Millen Mfg Co Inc, James, Malden ... Mass
Miller-Stephenson Chemical Co Inc, Danbury ... Conn
3M Company, St Paul ... Minn
Monsanto Co, St Louis ... Mo
M & T Chemicals Inc Sub American Can Co Rahway ... N J
National Engineering Products Inc, Washington ... D C
Norton Co, Worcester ... Mass
Oakite Products Inc, Berkeley Heights ... N J
Pelmor Labs Inc, Newtown ... Pa
Pennsylvania Industrial Chemical Corp, Clairton ... Pa
Penntube Plastics Co Div Penna Fluorocarbon Co Clifton Heights ... Pa
Philadelphia Quartz Co, Philadelphia ... Pa
Photo Chemical Products Inc, Santa Monica ... Cal
Pierce & Stevens Chemical Corp, Buffalo ... N Y
Polymer Corp, Reading ... Pa
Preco Chemical Corp, Plainview ... N Y
Products Research Co, Burbank ... Cal
Product Techniques, Inc, Downey ... Cal
Republic Industrial Corp, Lathrup Village ... Mich
Roberts & Associates Inc, E V, Culver City ... Cal
Roosevelt Metal Co Inc, Brooklyn ... N Y
Saunders Corp, Los Angeles ... Cal
Schenectady Chemicals Inc, Schenectady ... N Y
Seezak Products Inc, Los Angeles ... Cal
Sparta Mfg Co, Dover ... Ohio
Sperex Corp, Los Angeles ... Cal
Sprayon Products Inc, Bedford Heights ... Ohio
Standard Polymer Inc, Van Nuys ... Cal
Stauffer Chemical Co Silicone Div, New York ... N Y
Sterling Varnish Co, Sewickley ... Pa
Stevenson Bro & Co, Philadelphia ... Pa
Techform Labs Inc, Venice ... Cal

Technic Inc, Cranston ... RI
Techni-Tool Inc, Philadelphia ... Pa
Tempil Corp, New York ... N Y
Tra-Con, Inc, Medford ... Mass
Transene Co Inc, Rowley ... Mass
UBS Chemical Co, Div A E Staley Mfg Co Cambridge ... Mass
United American Metals Div, Brooklyn ... N Y
Vacuum Metallizing, Van Nuys ... Cal
Vitta Corp, Wilton ... Conn
Westinghouse Electric Corp Insulating Materials Div Trafford ... Pa
Wornow Process Paint Co, Los Angeles ... Cal
Zicon Corp, Mt Vernon ... N Y

COATINGS--PROTECTIVE, REMOVABLE

CALFONEX INC, ENGLEWOOD ... **N J**
KRESSILK PRODUCTS INC, ELMSFORD ... **N Y**
Allied Engineering & Production Corp, Alameda ... Cal
Allied Research Products Inc Sub Richardson Co Baltimore ... Md
Alpha Metals Inc, Jersey City ... NJ
Anadite, Inc, South Gate ... Cal
Barrett Varnish Co, Cicero ... Ill
Bel-Ray Co, Inc, Farmingdale ... N J
Biggs Co, Santa Monica ... Cal
Biwax Corp, Des Plaines ... Ill
Calfonex Inc, Englewood ... N J
Carboline Co, St Louis ... Mo
Chase & Sons Inc, Randolph ... Mass
Chemclean Corp, College Point ... N Y
Chemtronics Inc, Brooklyn ... NY
Clarkson Labs Inc, Camden ... NJ
Columbia Technical Corp, Woodside ... N Y
CRC Chemicals, Dresher ... Pa
Daubert Chemical Co, Oak Brook ... Ill
Dennis Chemical Co, St Louis ... Mo
Dolph Co, John C, Monmouth Junction ... N J
Dow Chemical Co, Midland ... Mich
Du Pont De Nemours & Co Inc E I, Wilmington ... Del
Electrolube Ltd, Slough ... England
Electronic Chemical Corp, Jersey City ... N J
Emerson & Cuming Inc, Canton ... Mass
Etchomatic Inc, Waltham ... Mass
Everlube Corp of America, North Hollywood ... Cal
Fidelity Chemical Products Corp, Newark ... N J
General Compounds Co, Div Kai R Kuhl Co Los Angeles ... Cal
General Electric Co Silicone Prods Dept, Waterford ... N Y
Goodrich Industrial Prods Co, B F, Akron ... Ohio
Humble Oil & Refining Co, Houston ... Tex
Hunt Chemical Corp, Philip A, Palisades Park ... N J
Industrial Formulations Corp, Plainview ... N Y
Isochem Resins Co, Lincoln ... RI
Kano Labs, Inc, Nashville ... Tenn
Kester Solder Co, Chicago ... Ill
Koppers Co Inc, Pittsburgh ... Pa
Kressilk Products Inc, Elmsford ... N Y
Laser Optics Inc, Danbury ... Conn
Lithoid Corp, Lima ... Pa
London Chemical Co Inc, Melrose Park ... Ill
Marblette Co Div Allied Prods Corp Long Island City ... N Y
Markal Co, Chicago ... Ill
Mereco Prods Inc, Div Metachem Resins Corp Cranston ... RI
3M Company, St Paul ... Minn
M & T Chemicals Inc Sub American Can Co Rahway ... N J
Oakite Products Inc, Berkeley Heights ... N J
Optics Electronics Corp, Dallas ... Tex
Pemco Inc, Englewood ... Colo
Pennsalt Chemicals Corp, Philadelphia ... Pa
Pennsylvania Industrial Chemical Corp, Clairton ... Pa
Product Techniques, Inc, Downey ... Cal
Ramyr Mfg Co, Buena Park ... Cal
Scherr Tumico Inc, St James ... Minn
Seezak Products Inc, Los Angeles ... Cal
Semi-Alloys Inc, Mt Vernon ... N Y
Sperex Corp, Los Angeles ... Cal
Stauffer Chemical Co Silicone Div, New York ... N Y
Stevenson Bro & Co, Philadelphia ... Pa
UBS Chemical Co, Div A E Staley Mfg Co Cambridge ... Mass
Universal Shellac & Supply Co Inc, Brooklyn ... N Y
Vacuum Metallizing, Van Nuys ... Cal
Wornow Process Paint Co, Los Angeles ... Cal
Zeva Electric Corp, New York ... N Y

COATINGS--SALT SPRAY RESISTANT

CALFONEX INC, ENGLEWOOD ... **N J**
KRESSILK PRODUCTS INC, ELMSFORD ... **N Y**
Allaco Products, Braintree ... Mass
Allied Engineering & Production Corp, Alameda ... Cal
Allied Research Products Inc Sub Richardson Co Baltimore ... Md
Amatom Electronic Hardware, New Rochelle ... N Y
Anadite, Inc, South Gate ... Cal
Armstrong Products Co, Inc, Warsaw ... Ind
Bel-Ray Co, Inc, Farmingdale ... N J
Biggs Co, Santa Monica ... Cal
Broomer Research Corp, Plainview ... N Y
Calfonex Inc, Englewood ... N J
Camie Co Inc, St Louis ... Mo
Carboline Co, St Louis ... Mo
Castall Research Lab Inc, Brockton ... Mass
Chase & Sons Inc, Randolph ... Mass
Chemtronics Inc, Brooklyn ... NY
Cico Corp, Sun Valley ... Cal
Clean Room Products Inc, Farmingdale ... N Y

Columbia Research Corp, Gaithersburg ... Md
Columbia Technical Corp, Woodside ... N Y
Conap Inc, Allegany ... N Y
CRC Chemicals, Dresher ... Pa
Devcon Corp, Danvers ... Mass
Dilectrix Corp, Farmingdale ... N Y
Dolph Co, John C, Monmouth Junction ... N J
Dow Corning Corp, Midland ... Mich
Electrolube Ltd, Slough ... England
Electronic Chemical Corp, Jersey City ... N J
Emerson & Cuming Inc, Canton ... Mass
Everlube Corp of America, North Hollywood ... Cal
Franklin Fibre-Lamitex Corp, Wilmington ... Del
Fuller Co, H B, St Paul ... Minn
Furane Plastics Inc, Los Angeles ... Cal
General Compounds Co, Div Kai R Kuhl Co Los Angeles ... Cal
General Electric Co Silicone Prods Dept, Waterford ... N Y
General Plastics Corp, Bloomfield ... N J
Hightemp Resins Inc, Stamford ... Conn
Hopwood Retinning Corp, Malden ... Mass
Hughson Chemical Co Div Lord Corp, Erie ... Pa
Humble Oil & Refining Co, Houston ... Tex
Hysol Div, The Dexter Corp, Olean ... N Y
Industrial Optics Corp, Newark ... N J
International Electronic Research Corp, Burbank ... Cal
Isochem Resins Co, Lincoln ... RI
Koppers Co Inc, Pittsburgh ... Pa
Kressilk Products Inc, Elmsford ... N Y
Laser Optics Inc, Danbury ... Conn
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge ... Pa
Lithoid Corp, Lima ... Pa
Mann Co, Henry, Cornwell Heights ... Pa
Markal Co, Chicago ... Ill
Mereco Prods Inc, Div Metachem Resins Corp Cranston ... RI
Miller-Stephenson Chemical Co Inc, Danbury ... Conn
3M Company, St Paul ... Minn
M & T Chemicals Inc Sub American Can Co Rahway ... N J
Oakite Products Inc, Berkeley Heights ... N J
Optics Electronics Corp, Dallas ... Tex
Pennsalt Chemicals Corp, Philadelphia ... Pa
Pennsylvania Industrial Chemical Corp, Clairton ... Pa
Perfectaire Equipment Co Inc, Cambridge ... Mass
Photo Chemical Products Inc, Santa Monica ... Cal
Polymer Corp, Reading ... Pa
Preco Chemical Corp, Plainview ... N Y
Product Techniques, Inc, Downey ... Cal
Roberts & Associates Inc, E V, Culver City ... Cal
Saunders Corp, Los Angeles ... Cal
Seezak Products Inc, Los Angeles ... Cal
Semi-Alloys Inc, Mt Vernon ... N Y
Shamban & Co, W S, Los Angeles ... Cal
Spectrum Systems, Inc, Waltham ... Mass
Sperex Corp, Los Angeles ... Cal
Standard Polymer Inc, Van Nuys ... Cal
Sterling Varnish Co, Sewickley ... Pa
Stevenson Bro & Co, Philadelphia ... Pa
Tra-Con, Inc, Medford ... Mass
Tri-Point Industries Inc, Commack ... NY
Vacuum Metallizing, Van Nuys ... Cal
Vitro Labs Div Vitro Corp of America, W Orange ... N J
Wornow Process Paint Co, Los Angeles ... Cal

COATINGS--VACUUM METALIZED

INTERELECTRONICS CORP, CONGERS ... **N Y**
Airco Temescal, Berkeley ... Cal
Alcatel, Paris 8eme ... France
Allen-Jones Electronics Corp, Gardena ... Cal
Allied Engineering & Production Corp, Alameda ... Cal
American Optical Co Space Defense Div Southbridge ... Mass
Anadite, Inc, South Gate ... Cal
Associated Engineering & Mfg Corp, Glen Ridge ... N J
Bausch & Lomb, Inc, Rochester ... N Y
Broomer Research Corp, Plainview ... N Y
Denton Vacuum Inc, Cherry Hill ... N J
Edwards High Vacuum 9Canada0 Ltd, Oakville ... Ont
Eimac Div, Varian Associates, San Carlos ... Cal
Electro Science Labs Inc, Philadelphia ... Pa
Film Components Div Reon Resister Corp, Yonkers ... N Y
Filmohm Corp, Long Island City ... N Y
Fish-Schurman Corp, New Rochelle ... N Y
Franklin Fibre-Lamitex Corp, Wilmington ... Del
General Electrodynamics Corp, Garland ... Tex
Green Rectifier Corp, Fair Lawn ... N J
Grimes Mfg Co, Urbana ... Ohio
Heraeus-Engelhard Vacuum Inc, Monroeville ... Pa
High Vacuum Equipment Corp, Hingham ... Mass
Howmet Corp Misco Div, Muskegon ... Mich
Industrial Optics Corp, Newark ... N J
Infrared Industries Inc, Santa Barbara ... Cal
Interelectronics Corp, Congers ... N Y
Isomet Corp, Palisades Park ... N J
Japan Vacuum Engineering Co Ltd, Tokyo ... Japan
Jarrell-Ash Co, Waltham ... Mass
Kinney Vacuum Div New York Air Brake Co Boston ... Mass
Laser Optics Inc, Danbury ... Conn
Lek-Trol, Inc, Grapevine ... Tex
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge ... Pa
Lundy Electronics & Systems Inc, Glen Head ... N Y
Materials Research Corp, Orangeburg ... N Y
Meller Co, Adolf, Providence ... R I
Metal Ceram Inc, Mount Vernon ... N Y
Metavac Inc, Flushing ... N Y
Nuclear Materials & Equipment Corp, Apollo ... Pa
Optical Coating Lab Inc, Santa Rosa ... Cal
Optics Technology Inc, Palo Alto ... Cal
Oriel-Optics Corp, Stamford ... Conn
Pacific Universal Products Corp, Pasadena ... Cal
Pennsalt Chemicals Corp Equipment Div Philadelphia ... Pa

Perkin-Elmer Corp, Optical Group, Norwalk ... Conn
Ransom Labs, John H, Los Angeles ... Cal
Reon Resistor Corp, Yonkers ... N Y
Schjeldahl Co, G T, Northfield ... Minn
Semi-Alloys Inc, Mt Vernon ... N Y
Semicon Associates Inc, Lexington ... Ky
Sierracin Corp, Sylmar ... Cal
Silver Glo Picture Tubes Ltd, Edmonton ... Alb
Spectrum Systems, Inc, Waltham ... Mass
Tenvac, Inc, Pembroke ... Mass
Towne Labs Inc, Somerville ... N J
20th Century Electronics Ltd New Addington, Surrey ... England
Universal Shellac & Supply Co Inc, Brooklyn ... N Y
Vac-Ohm Electronics Co, Haddonfield ... N J
Vacuum Industries Inc Sub GCA Corp, Somerville ... Mass
Vacuum Metallizing, Van Nuys ... Cal
Wah Chang Corp, Glen Cove ... N Y
Zenith Optical Laboratory, Dobbs Ferry ... N Y

COAXIAL ATTENUATORS SEE ATTENUATORS--MICROWAVE

COAXIAL CABLES SEE CABLES--COAXIAL

COAXIAL FILTERS SEE FILTERS

COAXIAL PLUGS SEE PLUGS--COAXIAL

COBALT

PFIZER MINERALS, PIGMENTS & METALS DIV NEW YORK ... **NY**
Active Alloys Inc, Brooklyn ... N Y
Anchor Alloys Inc, Brooklyn ... N Y
Anchor Metal Co, Inc Div, Brooklyn ... N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place ... N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights ... NY
Bram Metallurgical Chemical Co, Philadelphia ... Pa

Cerac Inc, Butler	Wis
City Chemical Corp, New York	N Y
Cross Co, H, Weehawken	N J
Electronic Space Products Inc, Los Angeles	Cal
Elgiloy Co, Elgin	Ill
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia	Pa
Koch Light Labs Ltd, Colnbrook, Bucks	England
Lockheed Georgia Nuclear Lab, Marietta	Ga
Mackay Inc, A D, New York	N Y
Materials Research Corp, Orangeburg	N Y
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Nuclear Technology Corp, White Plains	N Y
Pfizer Minerals, Pigments & Metals Div, New York	NY
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J

CODE CONVERTERS SEE CONVERTERS--SIGNAL

CODERS--COMPUTERS SEE ENCODERS

CODING EQUIPMENT SEE KEYERS

COEFFICIENT METALS(TEMPERATURE-EXPANSION)

Alloys Unlimited Inc, Melville	N Y
American Silver Co Div, Flushing	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
Carpenter Steel Co, Reading	Pa
Cerro Corp, New York	NY
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Driver-Harris Co, Harrison	N J
Hamilton Precision Metals Div Hamilton Watch Co Lancaster	Pa
Howmet Corp Austenal Microcast Div, Dover	N J
Inter-Technical Group Inc, Irvington-on-Hudson	N Y
Metal Ceram Inc, Mount Vernon	N Y
Rodney Metals A Teledyne Co, New Bedford	Mass
Semi-Alloys Inc, Mt Vernon	N Y
Spectra-Mat Inc, Watsonville	Cal
Thermo-Physics Corp, Cambridge	Mass
Var-Lac-Oid Chemical Co, Elizabeth	N J

COIL BOBBINS SEE BOBBINS

COIL FORMS SEE FORMS--COIL

COILS--ANTENNA LOADING

CADDELL BURNS MFG CO INC, MINEOLA N Y	**ADV PGS 162,163**
DALE ELECTRONICS INC, COLUMBUS	**NEB**
LAPOINTE INDUSTRIES, INC, ROCKVILLE	**CONN**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
MOSLEY ELECTRONICS INC, BRIDGETON	**MO**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
TOROTEL, INC, GRANDVIEW	**MO**
AC Electronics Co, Los Angeles	Cal
Aetna Electronics Corp, North Branch	N J
ALA Industries Inc, Harrison	NY
American Trans-Coil Corp, Richmond Hill	NY
Artted Co, Inc, Springfield	Mass
Atlas Coil Corp, Ansonia	Conn
Avco Corp Electronics Div, Cincinnati	Ohio
Caddell Burns Mfg Co Inc, Mineola	N Y
Clear Beam Antenna, Sylmar	Cal
Coil Co of America Inc, Northvale	N J
Computer Components Inc, Jamaica	N Y
Dale Electronics Inc, Columbus	Neb
Delevan Electronics Div Amer Prec Indus Inc East Aurora	N Y
Delta Coils, Philadelphia	Pa
Denki Kogyo Co Ltd, Tokyo	Japan
Dinion Coil Co Inc, Caledonia	N Y
Fugle-Miller Labs Inc, Kenilworth	N J
General Coil Products Corp, Brooklyn	N Y
Helix Spring Corp, Long Island City	NY
Hydro Molding Co Inc, Plattsburgh	N Y
Icore Electro-Plastics, Sunnyvale	Cal
Johnson Co, E F, Waseca	Minn
K-W Engineering Works, Menonomee Falls	Wis
LaPointe Industries, Inc, Rockville	Conn
Master Mobile Mounts Div, Fort Myers	Fla
Mitsumi Electric Co Ltd, Tokyo	Japan
Morey Corp, Downers Grove	Ill
Mosley Electronics Inc, Bridgeton	Mo
Multronics Inc, Rockville	Md
National Coil Co Inc, Sheridan	Wyo
Nippon Electric Co Ltd, Tokyo	Japan
Nippon Ferrite Industrial Co Ltd, Tokyo	Japan
North Hills Electronics Inc, Glen Cove	N Y
Precision Coil Mfg Co, Santa Monica	Cal
Premax Products Div, Chisholm-Ryder Co Inc Niagara Falls	N Y
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Renco Electronics Inc, Hicksville	N Y
Rowe Industries Inc, Toledo	Ohio
Sanyo Electric Co Ltd, Osaka	Japan
Standard Winding Co Div Ovitron Corp, Newburgh	N Y
Swanson Electronics Co, Chicago	Ill
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
Tele Coil Co Inc, Camden	N J
Torotel, Inc, Grandview	Mo
Universal Precision, Inc, Endicott	N Y
Virginia Electronics Co Inc, Falls Church	Va
Waber Electronics Inc, Philadelphia	Pa
Wilcox Electric Co Inc, Kansas City	Mo
Workman Electronic Products Inc, Sarasota	Fla
Y T & T Corp, Roslyn Heights	NY

COILS--CHOKE, A-F

ALLEN AVIONICS INC,DIV A K ALLEN CO INC, MINEOLA	**N Y**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE	**N Y**
CAPTOR CORP, TIPP CITY	**OHIO**
DALE ELECTRONICS INC, COLUMBUS	**NEB**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON S DAK	**ADV PG 160**
DECOURSEY ENGINEERING LAB, CULVER CITY	**CAL**
HISONIC INC, OLATHE	**KAN**
K G S ELECTRONICS INC, PASADENA	**CAL**
LAPOINTE INDUSTRIES, INC, ROCKVILLE	**CONN**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
NOTHELFER WINDING LABS INC, TRENTON	**N J**
SEG ELECTRONICS DIV, E J HOWLES INC, BROOKLYN	**NY**
TOROTEL, INC, GRANDVIEW	**MO**
TORWICO ELECTRONICS, INC, LAKEWOOD, N J	**ADV PG 161**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
ACDC Electronics, Inc, Burbank	Cal
AC Electronics Co, Los Angeles	Cal
ADC Products, Minneapolis	Minn
Advanced Electronics, Inc, Rocky Hill	Conn
Aetna Electronics Corp, North Branch	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
Allen Avionics Inc,Div A K Allen Co Inc, Mineola	N Y
American Trans-Coil Corp, Richmond Hill	NY
Amk Electronics Co Inc, Edison	N J
Artted Co, Inc, Springfield	Mass
Atlas Coil Corp, Ansonia	Conn
Automation Services Inc, Endicott	N Y
Avco Corp Electronics Div, Cincinnati	Ohio
Barwood Electronics, Inc, Glendale	Cal
Basler Electric Co, Highland	Ill
Bayly Engineering Ltd, Ajax	Ontario
Bourns Inc Trimpot Div, Riverside	Cal
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Canadian Marconi Co, Montreal 16	Quebec
Captor Corp, Tipp City	Ohio
Carol Electronics Div Weeco Inc, Martinsburg	W Va
CBC Industries Inc, Philadelphia	Pa
Central Coil Co Inc, Martinsville	Ind
Central Transformer Co, Chicago	Ill
Chu Associates Inc, Littleton	Mass
Coast Coil Co Atlantic Research Corp, Los Angeles	Cal
Coil Co of America Inc, Northvale	N J
Component Specialties Corp, Temple City	Cal
Computer Components Inc, Jamaica	N Y
CP Electronics Inc, Columbus	Ind
Custom Coil Co, Zanesville	Ohio
Cycle Transformer Corp, West Orange	N J
Dale Electronics Inc, Columbus	Neb
Dale Electronics Inc, Sioux Div, Yankton	S Dak
DeCoursey Engineering Lab, Culver City	Cal
Delevan Electronics Div Amer Prec Indus Inc East Aurora	N Y
Delta Coils, Philadelphia	Pa
Dietz Design Inc, Belton	Mo
Dinion Coil Co Inc, Caledonia	N Y
Dormeyer Industries, Chicago	Ill
Dresser Systems, Inc, Houston	Tex
Electrical Windings Inc, Chicago	Ill
Electronic Transformer Corp, Paterson	N J
Electro Winders Co Inc, Covina	Cal
Elgin Electronics Inc, Erie	Pa
Epco Products Inc, Wallkill	N Y
Field Electronics Inc, Chatham	N J
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Freed Transformer Co Inc, Brooklyn	N Y
Fugle-Miller Labs Inc, Kenilworth	N J
Fullmer Electronics Inc, Northridge	Cal
General Coil Products Corp, Brooklyn	N Y
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Geo Space Corp, Houston	Tex
Gladding Corp, South Otselic	N Y
Grand Transformers Inc, Grand Haven	Mich
Hadley Co Inc, Robert M, Los Angeles	Cal
Hammond Mfg Co Ltd, Guelph, Ont	Can
Harder Co, Inc, Donald C, San Diego	Cal
Hisonic Inc, Olathe	Kan
Inductor Engineering Inc, Lewes	Del
Industrial Transformer Corp, Gouldsboro	Pa
JB Electronic Transformers Inc, Chicago	Ill
Kapitol Magnetic Corp, Chicago	Ill
K G S Electronics Inc, Pasadena	Cal
Kidde & Co Inc, Walter, Belleville	N J
Lake Engineering Co Ltd, Scarborough	Ont
LaPointe Industries, Inc, Rockville	Conn
Larago Electronics Mfgrs Inc, Melbourne	Fla
Laselco Pacific, Palo Alto	Cal
LTV-Electrosystems Inc Memcor Div, Huntington	Ind
Magnetic Circuit Elements Inc, Montrose	Cal
Magnetic Devices Inc, Lemon Grove	Cal
Magnetic Engineering Corp, Danbury	Conn
Magnetico Inc, East Northport	N Y
Magnetika Inc, Venice	Cal
Merit Coil & Transformer Corp, Hollywood	Fla
Merrimack Magnetics Corp, Lowell	Mass
Micromagnetics Div Gulton Ind, Visalia	Cal
Microtran Co Inc, Valley Stream	N Y
Morey Corp, Downers Grove	Ill
National Coil Co Inc, Sheridan	Wyo
Neshaminy Electronic Corp, Furlong	Pa
New York Coil Co Inc, Phoenixville	Pa
Nippon Ferrite Industrial Co Ltd, Tokyo	Japan
North Hills Electronics Inc, Glen Cove	N Y
Nothelfer Winding Labs Inc, Trenton	N J
Novatronics Inc, Pompano Beach	Fla
Nytronics of Canada Ltd, Trenton	Ont
Orega Electronique & Mecanique Vincennes, Seine	France
Otis Radio & Electric Corp, Hawarden	Iowa
Pacific Magnetic Corp, Romoland	Cal
PCA Electronics Inc, Sepulveda	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Phoenix Transformer Co, Phoenix	Ariz
Polyphase Instrument Co, Bridgeport	Pa
Precision Coil Mfg Co, Santa Monica	Cal
Precision Electronics Co, Marshfield	Mass
Precision Inc, Minneapolis	Minn
Profile Electronics Inc, Concord	N H
Prototype Transformer Corp, East Orange	NJ
Ratel Inc, Goleta	Cal
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Robinson Electronic Components, Temple City	Cal
Sanyo Electric Co Ltd, Osaka	Japan
Schott Co Inc, Oscar A, Minneapolis	Minn
Scott Electronics Corp, Orlando	Fla
Seg Electronics Div, E J Howles Inc, Brooklyn	NY
S K G Associates Inc, Boston	Mass
Skyway Magnetics, Inglewood	Cal
Solid State Electronics Corp, Sepulveda	Cal
Southern Electronics Co Inc, Greeneville	Tenn
Sparton Electronics, Jackson	Mich
Stancor Controls Div Essex Wire Corp, Chicago	Ill
Standard Industries, Buena Park	Cal
Standard Winding Co Div Ovitron Corp, Newburgh	N Y
Sterling Transformer Corp, Brooklyn	N Y
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Tele Coil Co Inc, Camden	N J
Tenco Electronics Inc, Boston	Mass
Tilton Electronics Corp, Winnisquam	N H
Torelco Inc, Irvington	N J
Toroid-Trans Electronics Co Inc, Danbury	Conn
Torotel, Inc, Grandview	Mo
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
Torwico Electronics, Inc, Lakewood	N J
Tranex Inc, Mountain View	Cal
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Manufacturers Inc, Chicago	Ill
Transformer Technicians Inc, Chicago	Ill
Tresco Inc, Philadelphia	Pa
Triad Distributor Div Litton Industries, Huntington	Ind
Triad Transformer Corp, Venice	Cal
Triwec Transformer Co, Chicago	Ill
United Transformer Co Div TRW Inc, New York	N Y
Universal Precision, Inc, Endicott	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Virginia Electronics Co Inc, Falls Church	Va
Wabash Magnetics Inc, Wabash	Ind
Wescoil Co Inc, Tinley Park	Ill
Woodward-Schumacher Electric Corp, Chicago	Ill
Workman Electronic Products Inc, Sarasota	Fla
Y T & T Corp, Roslyn Heights	NY
Zaring Industries Inc, Carmel	Ind

COILS--CHOKE, POWER FREQUENCY

CADDELL BURNS MFG CO INC, MINEOLA N Y	**ADV PGS 162,163**
CAPTOR CORP, TIPP CITY	**OHIO**
LAPOINTE INDUSTRIES, INC, ROCKVILLE	**CONN**
NOTHELFER WINDING LABS INC, TRENTON	**N J**
SPELLMAN HIGH VOLTAGE ELECTRONICS CORP, BRONX	**N Y**
TOROTEL, INC, GRANDVIEW	**MO**
TORWICO ELECTRONICS, INC, LAKEWOOD, N J	**ADV PG 161**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y** **ADV PG 157**
ACDC Electronics, Inc, Burbank	Cal
AC Electronics Co, Los Angeles	Cal
ADC Products, Minneapolis	Minn
Aetna Electronics Corp, North Branch	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
ALA Industries Inc, Harrison	NY
American Trans-Coil Corp, Richmond Hill	NY
Andover Corp, Lafayette	Ind
Atlas Coil Corp, Ansonia	Conn
Automation Services Inc, Endicott	N Y
Avco Corp Electronics Div, Cincinnati	Ohio
Barwood Electronics, Inc, Glendale	Cal
Basler Electric Co, Highland	Ill
B & B Magnetics Co, La Habra	Cal
Bicron Electronics Co, Canaan	Conn
Bourns Inc Trimpot Div, Riverside	Cal
Brown Engineering-A Teledyne Co, Huntsville	Ala
Caddell Burns Mfg Co Inc, Mineola	N Y
Caledonia Electronics & Transformer Div Caledonia	N Y
Canadian Marconi Co, Montreal 16	Quebec
Captor Corp, Tipp City	Ohio
Carol Electronics Div Weeco Inc, Martinsburg	W Va
CBC Industries Inc, Philadelphia	Pa
Central Coil Co Inc, Martinsville	Ind
Central Transformer Co, Chicago	Ill
Chu Associates Inc, Littleton	Mass

Clavier Corp, Richmond Hill	NY
Coast Coil Co Atlantic Research Corp, Los Angeles	Cal
Coil Co of America Inc, Northvale	N J
Coiltronics Inc, Buena Park	Cal
Computer Components Inc, Jamaica	N Y
Continental X-Ray Corp, Chicago	Ill
Custom Coil Co, Zanesville	Ohio
Cycle Transformer Corp, West Orange	N J
Daytron Inc, Mountain View	Cal
Delevan Electronics Div Amer Prec Indus Inc East Aurora	N Y
Dietz Design Inc, Belton	Mo
Dinion Coil Co Inc, Caledonia	N Y
Dormeyer Industries, Chicago	Ill
Dressen-Barnes Electronics Corp, Pasadena	Cal
Dresser Systems, Inc, Houston	Tex
Electrical Windings Inc, Chicago	Ill
Electronic Transformer Corp, Paterson	N J
Electro-Pacific Inc, Goleta	Cal
Elgin Electronics Inc, Erie	Pa
EMP Electronics Inc, Tempe	Ariz
Epco Products Inc, Wallkill	N Y
Ferroxcube Corp, Saugerties	N Y
Field Electronics Inc, Chatham	N J
Filtron Co Inc Sub Liquidonics Ind Inc, Flushing	N Y
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Forbes & Wagner Inc, Silver Creek	N Y
Freed Transformer Co Inc, Brooklyn	N Y
Fugle-Miller Labs Inc, Kenilworth	N J
Genisco Technology Corp, Compton	Cal
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Geo Space Corp, Houston	Tex
Gladding Corp, South Otselic	N Y
Grand Transformers Inc, Grand Haven	Mich
Hadley Co Inc, Robert M, Los Angeles	Cal
Hammond Mfg Co Ltd, Guelph, Ont	Can
Harder Co, Inc, Donald C, San Diego	Cal
Icore Electro-Plastics, Sunnyvale	Cal
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
Inductor Engineering Inc, Lewes	Del
Industrial Transformer Corp, Gouldsboro	Pa
Jefferson Electric Co, Bellwood	Ill
Johnson Electric Coil Co, Elmhurst	Ill
Kapitol Magnetic Corp, Chicago	Ill
Kidde & Co Inc, Walter, Belleville	N J
Lake Engineering Co Ltd, Scarborough	Ont
LaPointe Industries, Inc, Rockville	Conn
Larago Electronics Mfgrs Inc, Melbourne	Fla
Magnetic Circuit Elements Inc, Montrose	Cal
Magnetic Devices Inc, Lemon Grove	Cal
Magnetic Engineering Corp, Danbury	Conn
Magnetico Inc, East Northport	N Y
Magnetic Specialties Inc, Trenton	N J
Merit Coil & Transformer Corp, Hollywood	Fla
Merrimack Magnetics Corp, Lowell	Mass
Meteor Transformer Mfg Co, Detroit	Mich
Microtran Co Inc, Valley Stream	N Y
Morey Corp, Downers Grove	Ill
National Coil Co Inc, Sheridan	Wyo
Neshaminy Electronic Corp, Furlong	Pa
New York Coil Co Inc, Phoenixville	Pa
Nippon Ferrite Industrial Co Ltd, Tokyo	Japan
Nothelfer Winding Labs Inc, Trenton	N J
Novatronics Inc, Pompano Beach	Fla
Orega Electronique & Mecanique Vincennes, Seine	France
Osborne Electric Co, Ltd, Toronto 18	Ont
Otis Radio & Electric Corp, Hawarden	Iowa
Pacific Magnetic Corp, Romoland	Cal
PCA Electronics Inc, Sepulveda	Cal
Phoenix Transformer Co, Phoenix	Ariz
Precision Electronics Co, Marshfield	Mass
Profile Electronics Inc, Concord	N H
Prototype Transformer Corp, East Orange	NJ
Ratel Inc, Goleta	Cal
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Re-Al Electronics Co, Waterbury	Conn
Robinson Electronic Components, Temple City	Cal

Sag Harbor Industries, Inc, Sag Harbor	N Y
Sanken Electric Co, Ltd, Toshima-ku, Tokyo	Japan
Sanyo Electric Co Ltd, Osaka	Japan
Schott Co Inc, Oscar A, Minneapolis	Minn
Scott Electronics Corp, Orlando	Fla
S K G Associates Inc, Boston	Mass
Skyway Magnetics, Inglewood	Cal
Sparton Electronics, Jackson	Mich
Spellman High Voltage Electronics Corp, Bronx	N Y
Stancor Controls Div Essex Wire Corp, Chicago	Ill
Standard Industries, Buena Park	Cal
Sterling Transformer Corp, Brooklyn	N Y
Tele Coil Co Inc, Camden	N J
Tilton Electronics Corp, Winnisquam	N H
Toroid-Trans Electronics Co Inc, Danbury	Conn
Torotel, Inc, Grandview	Mo
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
Torwico Electronics, Inc, Lakewood	N J
Tranex Inc, Mountain View	Cal
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Manufacturers Inc, Chicago	Ill
Transformers Inc, Vestal	N Y
Transformer Technicians Inc, Chicago	Ill
Triad Distributor Div Litton Industries, Huntington	Ind
Triad Transformer Corp, Venice	Cal
Triwec Transformer Co, Chicago	Ill
United Transformer Co Div TRW Inc, New York	N Y
Universal Precision, Inc, Endicott	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Varo Inc, Garland	Tex
Virginia Electronics Co Inc, Falls Church	Va
Wintron Co Inc, S El Monte	Cal
Woodward-Schumacher Electric Corp, Chicago	Ill
Workman Electronic Products Inc, Sarasota	Fla
Y T & T Corp, Roslyn Heights	NY
Zaring Industries Inc, Carmel	Ind

UTC
PIONEERS IN MINIATURIZATION

TEMPERATURE-STABLE

COILS

HIGH Q COILS
TOROIDS
FIXED & VARIABLE
TAPPED
TAPPED VARIABLE
VERNIER VARIABLE
FILTER - AUDIO
CHARGING

- MIL-T-27B & industrial
- Immediate delivery from stock
- Specials made to specs.
- DC to 400 MHz

Over 1300 top quality ironcore inductance devices available from stock.

UNITED TRANSFORMER COMPANY

DIVISION OF **TRW** *INC.*

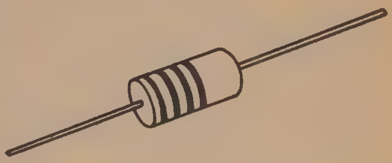
150 Varick Street, New York, N. Y. 10013
TWX: 710-581-2722 / (212) AL 5-3500
For nearest Rep see UTC ad, page 727

COILS--CHOKE, R-F (INCL SLUG ADJUSTED SINGLE TV CENTERING,LINEARITY PEAKING WITH CONTROL COILS)

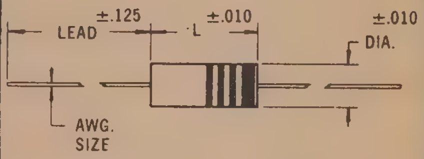
CADDELL BURNS MFG CO INC, MINEOLA N Y	**/ADV PGS 162,163**
CAPTOR CORP, TIPP CITY	**OHIO**
DALE ELECTRONICS INC, COLUMBUS	**NEB**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON S DAK	**ADV PG 160**
LAPOINTE INDUSTRIES, INC, ROCKVILLE	**CONN**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
TOROTEL, INC, GRANDVIEW, MO	**ADV PG 157**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
Abilities Inc, Albertson	N Y
Ace Coil & Electronics Co, Metuchen	N J
AC Electronics Co, Los Angeles	Cal
Aetna Electronics Corp, North Branch	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
Airco Speer Electronic Components, Dubois	Pa
Aladdin Electronics Div Aladdin Industries, Inc Nashville	Tenn
ALA Industries Inc, Harrison	NY
Allmetal Screw Products Co Inc, Garden City	N Y
American Trans-Coil Corp, Richmond Hill	NY
Amk Electronics Co Inc, Edison	N J
Arco S P A, Milano	Italy
Artted Co, Inc, Springfield	Mass
Astro-Space Labs Inc, Huntsville	Ala
Atlas Coil Corp, Ansonia	Conn
Avco Corp Electronics Div, Cincinnati	Ohio
Avionics, Inc, South Bend	Ind
Beebe Electronics Co, White Plains	N Y
Bel-Tronics Corp, Addison	Ill
Bicron Electronics Co, Canaan	Conn
Bud Radio Inc, Willoughby	Ohio
Caddell Burns Mfg Co Inc, Mineola	N Y
Cambridge Thermionic Corp, Cambridge	Mass
Canadian Marconi Co, Montreal 16	Quebec
Captor Corp, Tipp City	Ohio
CBC Industries Inc, Philadelphia	Pa
Central Coil Co Inc, Martinsville	Ind
Clavier Corp, Richmond Hill	NY
Clippard Instrument Inc, Cincinnati	Ohio
Coil Co of America Inc, Northvale	N J
Coilcraft Inc, Cary	Ill
CP Electronics Inc, Columbus	Ind
Dale Electronics Inc, Columbus	Neb

TOROTEL INC.

MOLDED
R.F. CHOKES



- DESIGNED TO MEET MIL-C-15305C, GRADE 1, CLASS B.
- EPOXY MOLDED FOR HIGH RELIABILITY. EXCELLENT RESISTANCE TO IMMERSION, MOISTURE RESISTANCE, VIBRATION AND SHOCK TESTS.
- OPERATING TEMPERATURE EXTREMES FROM −55°C TO 125°C (35°C RISE AT 90°C AMBIENT).
- OPERATION TO ALTITUDES OF 70,000 FEET.
- COLOR CODED PER MIL-C-15305C.
- TINNED COPPER LEADS. WELDABLE LEADS AVAILABLE UPON REQUEST.



Series	Inductance Range (nh)	Power Rating (W)	D	L	AWG Size
RA	.15-1000	.17	.095	.250	24
RB	.15-240	.25	.155	.375	22
*SB	.10-100000	.25	.157	.395 ±.020	22
RC	270-1000	.25	.190	.440	22
RD	1100-3600	.40	.215	.560	22
RF	3900-10000	.45	.240	.740	20
RG	47-150	.30	.250	.560	22
RH	1.2-120	.33	.280	.900	21
RJ	180-390	.40	.310	.560	21
RK	470-1000	.45	.375	.625	21
RL	1500-10000	.55	.468	.687	21

*SHIELDED INDUCTOR

LEAD LENGTH: 1.44 inches on all series except RA. 1.50 inches on RA series.

OTHER TOROTEL PRODUCTS

- TOROIDAL INDUCTORS AND TRANSFORMERS
- LAMINATED INDUCTORS AND TRANSFORMERS
- WAVE FILTERS AND PRECISION NETWORKS
- CONVERTER TRANSFORMERS
- PULSE TRANSFORMERS
- MAGNETIC AMPLIFIERS
- DELAY LINES
- REED RELAYS

WRITE OR TELEPHONE FOR OUR GENERAL CATALOG. WE INVITE YOUR INQUIRIES REGARDING CUSTOM APPLICATIONS.

TOROTEL, Inc.
13402 SOUTH 71 HIGHWAY
GRANDVIEW, MO. 64030
PHONE 816 SO 1-6314 TWX 910-7777037

Dale Electronics Inc, Sioux Div, Yankton	S Dak
DB Products Inc, Pasadena	Cal
Delevan Electronics Div Amer Prec Indus Inc East Aurora	N Y
Delta Coils, Philadelphia	Pa
Denki Kogyo Co Ltd, Tokyo	Japan
Dietz Design Inc, Belton	Mo
Dinion Coil Co Inc, Caledonia	N Y
Electro Assemblies Inc, Chicago	Ill
Electronic Coil Co, Burbank	Cal
Electro Winders Co Inc, Covina	Cal
Endicott Coil Co Inc, Binghamton	N Y
Fisher Engineering Inc, Huntington	Ind
Fivre Dept Fabbrica Ital Mag Marelli, I - 27100 - Pavia	Italy
Forbes & Wagner Inc, Silver Creek	N Y
Fugle-Miller Labs Inc, Kenilworth	N J
General Coil Products Corp, Brooklyn	N Y
General Instrument Corp Automatic Mfg Div Newark	N J
General Instrument Corp F W Sickles Div Chicopee	Mass
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Hammond Mfg Co Ltd, Guelph, Ont	Can
Helix Spring Corp, Long Island City	NY
Hydro Molding Co Inc, Plattsburgh	N Y
Icore Electro-Plastics, Sunnyvale	Cal
Inductor Engineering Inc, Lewes	Del
Lake Engineering Co Ltd, Scarborough	Ont
LaPointe Industries, Inc, Rockville	Conn
Laselco Pacific, Palo Alto	Cal
LCC-CICE, 93 Montreuil-sous-Bois	France
Lenox-Fugle Electronics Inc, South Plainfield	N J
Lowrance Electronic Mfg Corp, Tulsa	Okla
LTV-Electrosystems Inc Memcor Div, Huntington	Ind
Magnetic Circuit Elements Inc, Montrose	Cal
Magnetic Devices Inc, Lemon Grove	Cal
Merit Coil & Transformer Corp, Hollywood	Fla
Micromagnetics Div Gulton Ind, Visalia	Cal
Millen Mfg Co Inc, James, Malden	Mass
Miller Co, J W, Los Angeles	Cal
Mitsumi Electric Co Ltd, Tokyo	Japan
Morey Corp, Downers Grove	Ill
National Coil Co Inc, Sheridan	Wyo
National Radio Co Inc, Melrose	Mass
Nippon Ferrite Industrial Co Ltd, Tokyo	Japan
North Hills Electronics Inc, Glen Cove	N Y
Novatronics Inc, Pompano Beach	Fla
Nytronics Inc, Berkeley Heights	N J
Nytronics of Canada Ltd, Trenton	Ont
Ohmite Mfg Co, Skokie	Ill
Orega Electronique & Mecanique Vincennes, Seine	France
Otis Radio & Electric Corp, Hawarden	Iowa
Precision Coil Mfg Co, Santa Monica	Cal
Preferred Electronics Inc, Westfield	Mass
Profile Electronics Inc, Concord	N H
Radio Television Products Corp, Grass Lake	Mich
Ratel Inc, Goleta	Cal
Redman Electronics Corp, Thompsonville	Conn
Rem-Tronics Inc, Silver Creek	N Y
Renco Electronics Inc, Hicksville	N Y
Sanyo Electric Co Ltd, Osaka	Japan
Schwalm Electronics Inc, Highland Park	Ill
Smallwood Ltd, S G, Kitchener	Ont
Southern Electronics Co Inc, Greeneville	Tenn
Stancor Controls Div Essex Wire Corp, Chicago	Ill
Standard Winding Co Div Ovitron Corp, Newburgh	N Y
Stanwyck Winding Co, Newburgh	N Y
Swanson Electronics Co, Chicago	Ill
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
Tele Coil Co Inc, Camden	N J
Torotel, Inc, Grandview	Mo
United Transformer Co Div TRW Inc, New York	N Y
Vanguard Electronics Co, Inglewood	Cal
Varo Inc, Garland	Tex
Virginia Electronics Co Inc, Falls Church	Va
Warsaw Coil Co, Warsaw	Ind
Wells Electronics Inc, Components Div, South Bend	Ind
Whitewater Electronics Inc, Whitewater	Wis
Wilco Corp, Indianapolis	Ind
Wilcox Electric Co Inc, Kansas City	Mo
Workman Electronic Products Inc, Sarasota	Fla
Y T & T Corp, Roslyn Heights	NY

COILS--DEFLECTION

AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE	**N Y**
SYNTRONIC INSTRUMENTS INC, ADDISON	**ILL**
Advance Ross Electronics Corp, Chicago	Ill
Amperex Electronic Corp, Component Div Hauppauge	N Y
Arco S P A, Milano	Italy
Atlas Coil Corp, Ansonia	Conn
Bel-Tronics Corp, Addison	Ill
Carol Electronics Div Weeco Inc, Martinsburg	W Va
CELCO, Mahwah	N J
Centroid Inc, Garden City Park	N Y
Cleveland Electronics Inc Deflection Components Div Twinsburg	Ohio
Coil Co of America Inc, Northvale	N J
Electro-Mechanics Co, Austin	Tex
Energy Beams Inc, Haskell	N J
Ferranti, Ltd, Lancashire	England
Fivre Dept Fabbrica Ital Mag Marelli, I - 27100 - Pavia	Italy
General Instrument Corp F W Sickles Div Chicopee	Mass
General Instrument Europe SPA, Milano	Italy
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
Lake Engineering Co Ltd, Scarborough	Ont
LCC-CICE, 93 Montreuil-sous-Bois	France
Merit Coil & Transformer Corp, Hollywood	Fla
Morey Corp, Downers Grove	Ill
Orega Electronique & Mecanique Vincennes, Seine	France
Penn Transformer Co, Bellefonte	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Sanyo Electric Co Ltd, Osaka	Japan
Stancor Controls Div Essex Wire Corp, Chicago	Ill
Syntronic Instruments Inc, Addison	Ill
Tele Coil Co Inc, Camden	N J
Triad Distributor Div Litton Industries, Huntington	Ind
TRW Electronic Components Div TRW Inc, Camden	N J
Y T & T Corp, Roslyn Heights	NY

COILS--DEGAUSSING

DALE ELECTRONICS INC, SIOUX DIV, YANKTON S DAK	**ADV PG 160**
K G S ELECTRONICS INC, PASADENA	**CAL**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
ACDC Electronics, Inc, Burbank	Cal
AC Electronics Co, Los Angeles	Cal
Aetna Electronics Corp, North Branch	N J
ALA Industries Inc, Harrison	NY
Atlas Coil Corp, Ansonia	Conn
B & B Magnetics Co, La Habra	Cal
Bel-Tronics Corp, Addison	Ill
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Central Coil Co Inc, Martinsville	Ind
Chu Associates Inc, Littleton	Mass
Coil Co of America Inc, Northvale	N J
Computer Components Inc, Jamaica	N Y
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Daytron Inc, Mountain View	Cal
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Hammond Mfg Co Ltd, Guelph, Ont	Can
Hirst Electric Industries Ltd, Crawley, Sussex	England
K G S Electronics Inc, Pasadena	Cal
LCC-CICE, 93 Montreuil-sous-Bois	France
Merit Coil & Transformer Corp, Hollywood	Fla
Microtran Co Inc, Valley Stream	N Y
Morey Corp, Downers Grove	Ill
Penn Transformer Co, Bellefonte	Pa
Precision Coil Mfg Co, Santa Monica	Cal
Rawson-Lush Instrument Co Inc, Acton	Mass
Sanyo Electric Co Ltd, Osaka	Japan
Schott Co Inc, Oscar A, Minneapolis	Minn
Smallwood Ltd, S G, Kitchener	Ont
Southern Electronics Co Inc, Greeneville	Tenn
Stancor Controls Div Essex Wire Corp, Chicago	Ill
Tele Coil Co Inc, Camden	N J
Transformer Manufacturers Inc, Chicago	Ill
United Transformer Co Div TRW Inc, New York	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Videocraft Mfg Co, Chicago	Ill
Wescoil Co Inc, Tinley Park	Ill
Wilco Corp, Indianapolis	Ind
Woodward-Schumacher Electric Corp, Chicago	Ill

COILS--FOCUSING, TV

SYNTRONIC INSTRUMENTS INC, ADDISON	**ILL**
ALA Industries Inc, Harrison	NY
Arco S P A, Milano	Italy
Atlas Coil Corp, Ansonia	Conn
Bel-Tronics Corp, Addison	Ill
Carol Electronics Div Weeco Inc, Martinsburg	W Va
CELCO, Mahwah	N J
Central Coil Co Inc, Martinsville	Ind
Cleveland Electronics Inc Deflection Components Div Twinsburg	Ohio
Coil Co of America Inc, Northvale	N J
Coilcraft Inc, Cary	Ill
Conrac Corp, New York	N Y
Electro Winders Co Inc, Covina	Cal
Ferranti, Ltd, Lancashire	England
General Instrument Europe SPA, Milano	Italy
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
Lake Engineering Co Ltd, Scarborough	Ont
LCC-CICE, 93 Montreuil-sous-Bois	France
Marconi Co Ltd, Chelmsford	England
Merit Coil & Transformer Corp, Hollywood	Fla
Morey Corp, Downers Grove	Ill
Otis Radio & Electric Corp, Hawarden	Iowa
Penn Transformer Co, Bellefonte	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Radio Television Products Corp, Grass Lake	Mich
Reliable Spring & Wire Forms Co, Cleveland	Ohio
Sanyo Electric Co Ltd, Osaka	Japan
Smallwood Ltd, S G, Kitchener	Ont
Syntronic Instruments Inc, Addison	Ill
Tele Coil Co Inc, Camden	N J
TRW Electronic Components Div TRW Inc, Camden	N J
Whitewater Electronics Inc, Whitewater	Wis
Wilco Corp, Indianapolis	Ind
Y T & T Corp, Roslyn Heights	NY

COILS--FOIL WOUND

CAPTOR CORP, TIPP CITY	**OHIO**
NOTHELFER WINDING LABS INC, TRENTON	**N J**
TOROTEL, INC, GRANDVIEW	**MO**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Advanced Electronics, Inc, Rocky Hill	Conn
Alpha Scientific Labs Inc, Oakland	Cal
Arnold Engineering Co, Marengo	Ill
Atlas Coil Corp, Ansonia	Conn
Ballastran Corp, Fort Wayne	Ind
Basler Electric Co, Highland	Ill
Bel-Tronics Corp, Addison	Ill
Brown Engineering-A Teledyne Co, Huntsville	Ala
Captor Corp, Tipp City	Ohio
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Central Transformer Co, Chicago	Ill
Chu Associates Inc, Littleton	Mass
Coil Co of America Inc, Northvale	N J
Continental X-Ray Corp, Chicago	Ill
Dinion Coil Co Inc, Caledonia	N Y
Electronic Corp of America, Los Angeles	Cal
Elgin Electronics Inc, Erie	Pa
Energy Beams Inc, Haskell	N J
Fisher Engineering Inc, Huntington	Ind
Hammond Mfg Co Ltd, Guelph, Ont	Can
ITT Telecommunications, New York	N Y
JB Electronic Transformers Inc, Chicago	Ill
Jefferson Electric Co, Bellwood	Ill
Johnson Electric Coil Co, Elmhurst	Ill
Kapitol Magnetic Corp, Chicago	Ill
Larago Electronics Mfgrs Inc, Melbourne	Fla
Litton Industries, Electron Tube Div, San Carlos	Cal
Metal Ceram Inc, Mount Vernon	N Y
Mid-Eastern Industries Inc, Springfield	N J
Morey Corp, Downers Grove	Ill
Nothelfer Winding Labs Inc, Trenton	N J
Ogallala Electronics Mfg Inc, Ogallala	Nebr
Permaluster Inc, Burbank	Cal
Precision Electronics Co, Marshfield	Mass
Prototype Transformer Corp, East Orange	NJ
Qutronic Transformer Corp, Oneonta	N Y
Reynolds Metals Co, Richmond	Va
Sag Harbor Industries, Inc, Sag Harbor	N Y
Sanyo Electric Co Ltd, Osaka	Japan
Scott Electronics Corp, Orlando	Fla
Skyway Magnetics, Inglewood	Cal
Sparton Electronics, Jackson	Mich
Sterling Transformer Corp, Brooklyn	N Y
Torotel, Inc, Grandview	Mo
Tranex Inc, Mountain View	Cal
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Technicians Inc, Chicago	Ill
United Transformer Co Div TRW Inc, New York	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Ventron Instruments Corp Magnion Div, Burlington	Mass
Waldom Electronics Inc, Chicago	Ill
Washington Electrical Products Co, Washington	Mo

COILS--HIGH TEMPERATURE (500F)

CADDELL BURNS MFG CO INC, MINEOLA N Y	**ADV PGS 162,163**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON S DAK	**ADV PG 160**
K G S ELECTRONICS INC, PASADENA	**CAL**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
RANDALL INC, DOUGLAS, SUB WALTER KIDDE & CO INC WESTERLY	**R I**
TOROTEL, INC, GRANDVIEW	**MO**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
AC Electronics Co, Los Angeles	Cal
ADC Products, Minneapolis	Minn
Advanced Electronics, Inc, Rocky Hill	Conn
ALA Industries Inc, Harrison	NY
Andover Corp, Lafayette	Ind
A P W Co Inc, Rockaway	N J
Arnold Engineering Co, Marengo	Ill
Atlas Coil Corp, Ansonia	Conn
Automatic Coil Co Div Designatronics, Inc Mineola	N Y
Avionics, Inc, South Bend	Ind
Ballastran Corp, Fort Wayne	Ind
Barwood Electronics, Inc, Glendale	Cal
Basler Electric Co, Highland	Ill
Bourns Inc Trimpot Div, Riverside	Cal
Brown Engineering-A Teledyne Co, Huntsville	Ala
Caddell Burns Mfg Co Inc, Mineola	N Y
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Cico Corp, Sun Valley	Cal
C M Mfg Co, Bloomfield	N J
Coil Co of America Inc, Northvale	N J
Component Specialties Corp, Temple City	Cal
Computer Components Inc, Jamaica	N Y
Coto-Coil Co Inc, Providence	R I
Cycle Transformer Corp, West Orange	N J
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Dano Electric Co, Winsted	Conn
Daylen Co, South Gate	Cal
Daytron Inc, Mountain View	Cal
DB Products Inc, Pasadena	Cal
Dixon Corp, Bristol	R I
Electro Winders Co Inc, Covina	Cal
Endicott Coil Co Inc, Binghamton	N Y
Energy Beams Inc, Haskell	N J

Fisher Engineering Inc, Huntington	Ind
Flow Technology Inc, Tempe	Ariz
General Laboratory Assoc Inc, Norwich	N Y
Hadley Co Inc, Robert M, Los Angeles	Cal
Icore Electro-Plastics, Sunnyvale	Cal
Industrial Coils Inc, Baraboo	Wisc
Industrial Transformer Corp, Gouldsboro	Pa
JB Electronic Transformers Inc, Chicago	Ill
Jefferson Electric Co, Bellwood	Ill
Kapitol Magnetic Corp, Chicago	Ill
K G S Electronics Inc, Pasadena	Cal
Lisk Co Inc, G W, Clifton Springs	N Y
Merrimack Magnetics Corp, Lowell	Mass
Metal Ceram Inc, Mount Vernon	N Y
Meteor Transformer Mfg Co, Detroit	Mich
Mode Electronics Inc, Cincinnati	Ohio
Morey Corp, Downers Grove	Ill
National Coil Co Inc, Sheridan	Wyo
New York Coil Co Inc, Phoenixville	Pa
North Hills Electronics Inc, Glen Cove	N Y
Ogallala Electronics Mfg Inc, Ogallala	Nebr
Pacific Magnetic Corp, Romoland	Cal
Permaluster Inc, Burbank	Cal
Precision Electronics Inc, Amityville	N Y
Profile Electronics Inc, Concord	N H
Prototype Transformer Corp, East Orange	NJ
Qutronic Transformer Corp, Oneonta	N Y
Randall Inc, Douglas, Sub Walter Kidde & Co Inc Westerly	R I
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Rem-Tronics Inc, Silver Creek	N Y
Renco Electronics Inc, Hicksville	N Y
Rodon Electronics Corp, Gardena	Cal
Sag Harbor Industries,Inc, Sag Harbor	N Y
Sanyo Electric Co Ltd, Osaka	Japan
Schott Co Inc, Oscar A, Minneapolis	Minn
Standard Industries, Buena Park	Cal
Sterling Transformer Corp, Brooklyn	N Y
Tele Coil Co Inc, Camden	N J
Topper Mfg Co Inc, Great Neck	N Y
Torotel, Inc, Grandview	Mo
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Technicians Inc, Chicago	Ill
Tur-Bo Jet Products Co Inc, Rosemead	Cal
U S Electronics Corp, Lyndhurst	N J
United Transformer Co Div TRW Inc, New York	N Y
Varo Inc, Garland	Tex
Wabash Magnetics Inc, Wabash	Ind
Warsaw Coil Co, Warsaw	Ind
Winatic Corp, Vestal	N Y
Y T & T Corp, Roslyn Heights	NY

COILS--METALIZED GLASS

Coil Co of America Inc, Northvale	N J
Culbertson Products Inc, Bernardsville	N J
Fredericks Co, Huntingdon Valley	Pa
Metal Ceram Inc, Mount Vernon	N Y
Mindrum Precision Products, Cucamonga	Cal
Morey Corp, Downers Grove	Ill
PCA Electronics Inc, Sepulveda	Cal
Sag Harbor Industries,Inc, Sag Harbor	N Y
Syncor Products Co, Inc, Malden	Mass
United Products Co, Orange	N J
Wabash Magnetics Inc, Wabash	Ind

COILS--MOTOR & GENERATOR FIELD

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
PICO PRODUCTS INC, RONKONKOMA	**NY**
Atlas Coil Corp, Ansonia	Conn
Avionics, Inc, South Bend	Ind
B & B Motor & Control Corp, New York	N Y
Coil Co of America Inc, Northvale	N J
Computer Components Inc, Jamaica	N Y
Consolidated Electric Corp, Seattle	Wash
Everson Electric Co, Allentown	Pa
General Electric Co, ECSO, Schenectady	N Y
Morey Corp, Downers Grove	Ill
Osborne Electric Co, Ltd, Toronto 18	Ont
Pico Products Inc, Ronkonkoma	NY
Sag Harbor Industries,Inc, Sag Harbor	N Y
Sanyo Electric Co Ltd, Osaka	Japan
Singer Co, Diehl Div, Somerville	N J
Southern Electronics Co Inc, Greeneville	Tenn
U S Electronics Corp, Lyndhurst	N J
Varo Inc, Garland	Tex

COILS--PICKUP, PROXIMITY(DETECT METAL PARTS)

DALE ELECTRONICS INC, SIOUX DIV, YANKTON S DAK	**ADV PG 160**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
Abilities Inc, Albertson	N Y
A P W Co Inc, Rockaway	N J
Atlas Coil Corp, Ansonia	Conn
Avionics, Inc, South Bend	Ind
Bionic Instruments Inc, Bala Cynwyd	Pa
Coil Co of America Inc, Northvale	N J
Coilcraft Inc, Cary	Ill
Coiltronics Inc, Buena Park	Cal
Component Specialties Corp, Temple City	Cal
Computer Components Inc, Jamaica	N Y
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Ebauches SA Dept Oscilloquartz 2001 Neuchatel	Switz
Electro-Mechanics Co, Austin	Tex
Electro Products Labs Inc Transducer Div, Chicago	Ill
Electro Winders Co Inc, Covina	Cal
Endicott Coil Co Inc, Binghamton	N Y
General Electric Co, ECSO, Schenectady	N Y
Ikor, Inc, Burlington	Mass
International Electro-Magnetics Inc, Palatine	Ill
Kapitol Magnetic Corp, Chicago	Ill
Life Instrument Co Inc, Franklin	Mass
Microdot, Inc, South Pasadena	Cal
Microtran Co Inc, Valley Stream	N Y
Mode Electronics Inc, Cincinnati	Ohio
Morey Corp, Downers Grove	Ill
Ogallala Electronics Mfg Inc, Ogallala	Nebr
PCA Electronics Inc, Sepulveda	Cal
Pickering & Co Inc, Plainview	N Y
Precision Coil Mfg Co, Santa Monica	Cal
Precision Inc, Minneapolis	Minn
Rawson-Lush Instrument Co Inc, Acton	Mass
Regdon Corp, Brookfield	Ill
Sensor Corp, Greenwich	Conn
Solid State Electronics Corp, Sepulveda	Cal
Tele Coil Co Inc, Camden	N J
Trelcom Engineering Co Inc, Baltimore	Md
Tri-Dex Co, Visalia	Cal
Tur-Bo Jet Products Co Inc, Rosemead	Cal
United Transformer Co Div TRW Inc, New York	N Y

COILS--Q STANDARD

HEWLETT-PACKARD, PALO ALTO	**CAL**
TOROTEL, INC, GRANDVIEW	**MO**
American Trans-Coil Corp, Richmond Hill	NY
Atlas Coil Corp, Ansonia	Conn
Automatic Coil Co Div Designatronics, Inc Mineola	N Y
Brown Engineering-A Teledyne Co, Huntsville	Ala
Coiltronics Inc, Buena Park	Cal
Hewlett-Packard, Palo Alto	Cal
Kapitol Magnetic Corp, Chicago	Ill
Magnetic Engineering Corp, Danbury	Conn
Morey Corp, Downers Grove	Ill
National Coil Co Inc, Sheridan	Wyo
Nytronics of Canada Ltd, Trenton	Ont
Tele Coil Co Inc, Camden	N J
Torotel, Inc, Grandview	Mo
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
Wescoil Co Inc, Tinley Park	Ill

COILS--R-F WORK, INDUCTION HEATING

ALLEN AVIONICS INC,DIV A K ALLEN CO INC, MINEOLA	**N Y**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
Allen Avionics Inc,Div A K Allen Co Inc, Mineola	N Y
American Trans-Coil Corp, Richmond Hill	NY
Atlas Coil Corp, Ansonia	Conn
Automatic Coil Co Div Designatronics, Inc Mineola	N Y
Brown Engineering-A Teledyne Co, Huntsville	Ala
Cleveland Container Corp, New York	N Y
Computer Components Inc, Jamaica	N Y
Denki Kogyo Co Ltd, Tokyo	Japan
Electro Winders Co Inc, Covina	Cal
Fisher Engineering Inc, Huntington	Ind
General Coil Products Corp, Brooklyn	N Y
Griffiths Electronics Inc, Linden	N J
Industron Corp, Needham Heights	Mass
Johnson Co, E F, Waseca	Minn
Kokusai Electric Co Ltd, Tokyo	Japan
Larago Electronics Mfgrs Inc, Melbourne	Fla
Lepel High Frequency Labs, Inc, Maspeth	N Y
Meteor Transformer Mfg Co, Detroit	Mich
Miller Co, L C, Monterey Park	Cal
Mitsumi Electric Co Ltd, Tokyo	Japan
Modelectric Products Corp, Asbury Park	N J
Morey Corp, Downers Grove	Ill
National Coil Co Inc, Sheridan	Wyo
North Hills Electronics Inc, Glen Cove	N Y
Nytronics of Canada Ltd, Trenton	Ont
Ogallala Electronics Mfg Inc, Ogallala	Nebr
Precision Coil Mfg Co, Santa Monica	Cal
Reeve Electronics Inc, Chicago	Ill
R F L Industries Inc Components Div, Brandon	Vt
Standard Industries, Buena Park	Cal
Taylor-Winfield Corp, Warren	Ohio
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
United Transformer Co Div TRW Inc, New York	N Y
Washington Electrical Products Co, Washington	Mo
Whitewater Electronics Inc, Whitewater	Wis

COILS--SPEAKER VOICE COIL

WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Action Systems Co Div Conn Consolidated Inds Inc Meriden	Conn
ADC Products, Minneapolis	Minn
Altec Lansing Div LTV Ling Altec Inc, Anaheim	Cal
Atlas Sound Div Amer Trading & Prod Corp Parsippany	N J
B & B Magnetics Co, La Habra	Cal
Coiltronics Inc, Buena Park	Cal
Delta Coils, Philadelphia	Pa
General Coil Products Corp, Brooklyn	N Y
Industrial Transformer Corp, Gouldsboro	Pa
ITT Telecommunications, New York	N Y
Kapitol Magnetic Corp, Chicago	Ill
Keiser's Industries Inc, Mt Holly Springs	Pa
Kidde & Co Inc, Walter, Belleville	N J
Merit Coil & Transformer Corp, Hollywood	Fla
Mode Electronics Inc, Cincinnati	Ohio
Morey Corp, Downers Grove	Ill
New York Coil Co Inc, Phoenixville	Pa
Ogallala Electronics Mfg Inc, Ogallala	Nebr
Permaluster Inc, Burbank	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Precision Coil Mfg Co, Santa Monica	Cal
Profile Electronics Inc, Concord	N H
Prototype Transformer Corp, East Orange	NJ
R F L Industries Inc Components Div, Brandon	Vt
Sanyo Electric Co Ltd, Osaka	Japan
Tele Coil Co Inc, Camden	N J
Toroid-Trans Electronics Co Inc, Danbury	Conn
Toyo Cone Paper Co Ltd, Osaka	Japan
Transformer Technicians Inc, Chicago	Ill
Waldom Electronics Inc, Chicago	Ill

COILS--SUPERCONDUCTING

Andonian Associates, Inc, Waltham	Mass
Arnold Engineering Co, Marengo	Ill
Automatic Coil Co Div Designatronics, Inc Mineola	N Y
Computer Components Inc, Jamaica	N Y
Gardner Cryogenics Corp, Bethlehem	Pa
Kawecki Chemical Co, New York	N Y
Morey Corp, Downers Grove	Ill
Ogallala Electronics Mfg Inc, Ogallala	Nebr
Varian, Palo Alto	Cal
Ventron Instruments Corp Magnion Div, Burlington	Mass
Westinghouse Electric Corp, Cryogenic Systems Pittsburgh	Pa
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh	Pa

COILS--TELEPHONE PICKUP

BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE	**N Y**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON S DAK	**ADV PG 160**
K G S ELECTRONICS INC, PASADENA	**CAL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TORWICO ELECTRONICS, INC, LAKEWOOD, N J	**ADV PG 161**
Abilities Inc, Albertson	N Y
ADC Products, Minneapolis	Minn
ALA Industries Inc, Harrison	NY
A P W Co Inc, Rockaway	N J
Automatic Coil Co Div Designatronics, Inc Mineola	N Y
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Coiltronics Inc, Buena Park	Cal
Components Specialties Inc, Freeport	N Y
Computer Components Inc, Jamaica	N Y
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Dresser Systems, Inc, Houston	Tex
Electro Winders Co Inc, Covina	Cal
Endicott Coil Co Inc, Binghamton	N Y
Fen-Tone Corp, New York	N Y
ITT Telecommunications, New York	N Y
James Electronics Inc, Chicago	Ill
JB Electronic Transformers Inc, Chicago	Ill
Kapitol Magnetic Corp, Chicago	Ill
Kessler Co, Inc, Frank, Long Island City	N Y
K G S Electronics Inc, Pasadena	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Microtran Co Inc, Valley Stream	N Y
Mode Electronics Inc, Cincinnati	Ohio
Morey Corp, Downers Grove	Ill
New York Coil Co Inc, Phoenixville	Pa
Nippon Electric Co Ltd, Tokyo	Japan
North Electric Co, Galion	Ohio
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Precision Coil Mfg Co, Santa Monica	Cal
Precision Inc, Minneapolis	Minn
Prototype Transformer Corp, East Orange	NJ
R F L Industries Inc Components Div, Brandon	Vt
Robins Industries Corp, Flushing	N Y
Sag Harbor Industries,Inc, Sag Harbor	N Y
Sanyo Electric Co Ltd, Osaka	Japan
Superscope Inc, Sun Valley	Cal
Swanson Electronics Co, Chicago	Ill
Tele Coil Co Inc, Camden	N J
Toroid-Trans Electronics Co Inc, Danbury	Conn
Torwico Electronics, Inc, Lakewood	N J
Tur-Bo Jet Products Co Inc, Rosemead	Cal
U S Electronics Corp, Lyndhurst	N J
Wabash Magnetics Inc, Wabash	Ind
Y T & T Corp, Roslyn Heights	NY

COILS--TOROID SEE TOROIDS

DALE® SIOUX DIVISION

PRECISION INDUCTIVE COMPONENTS

RF & IF INDUCTORS/TRANSFORMERS

Miniature Shielded Tunable

Two basic models,
3/8″ round, 1/4″ square.
Meet MIL-C-15305C,
Grade 2, Class O.

Miniature Unshielded Tunable

Meet MIL-C-15305C.
Vertically tuned model = Grade 2, Class B; horizontally tuned model = Grade 2, Class O (phenolic); Grade 2, Class B (ceramic).

Miniature Unshielded Fixed

Toroidal and bobbin versions meet
MIL-C-15305C,
Grade 2, Class O.

RF Chokes

Four versions meet MIL-C-15305C. Molded = Grade 2, Class B; Varnished = Grade 3, Class B; Epoxy Coated = Grade 1, Class B; Shielded = Grade 1, Class B.

SPECIAL DESIGN RF & IF COILS/TRANSFORMERS

Series Resonant Trap

Combines electrical characteristics of an inductor and a capacitor in series. Can be designed for any resonant frequency from .4 MHz to 50 MHz. Readily available in 455 kHz, 10.7, 12, 14, 18 MHz models.

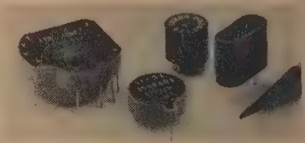
Variable Pitch Coils

For permeability-tuned circuits. Minimum space, excellent environmental protection.

TRANSFORMER/ INDUCTORS

Hermetically Sealed

Meet MIL-T-27B.
Available in Grades 1 and 4, Class Q, R, S, V.



Encapsulated

Meet MIL-T-27B.
Available in Grades 2 and 5, Class Q, R, S, V.

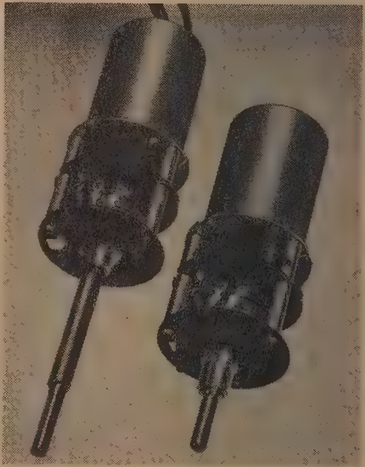
Industrial and Commercial Bobbin Coils

Produced to your specification at low cost on our automated equipment.

ELECTROMECHANICAL PRODUCTS

Write for new catalog describing:

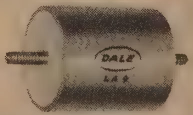
- **Reversible AC Motor Driven Potentiometers** for home entertainment appliances, instrumentation, control systems.
- **Reversible AC Gearhead Motors** for switches, potentiometers, light industrial and consumer product controls.
- **Reversible AC Hysteresis Synchronous Motors** for low power driving mechanisms, entertainment appliances, control circuits.
- **AC & DC Stepping Relays.** Unidirectional or bidirectional for control circuits and entertainment appliances.
- **DC Sensitive Relays** for electronic signalling, entertainment appliances, lighting and control circuits.
- **Specialized Miniature Solenoids** for remote circuits, cameras, card and tape perforators.



AC & DC SURGE ARRESTERS for AIRCRAFT/CIRCUITS/COMPONENTS

- Patented design. Much more efficient than conventional spark gap arresters. Will bypass repeated overvoltages without significant change in breakdown levels.
- **New AC Arrester** provides most reliable low cost protection yet available for industrial uses.

Write for catalog or contact factory for special design assistance.



SUBMIT YOUR SPECIFICATIONS TO: **DALE ELECTRONICS, INC.**

Prototypes will be promptly designed and submitted for tests and evaluation. *SIOUX DIVISION*

Box 180, Yankton, So. Dak. 57078 Phone 605—665-9301

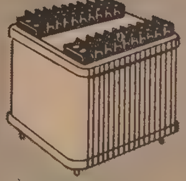
TORWICO

TORODIAL INDUCTORS

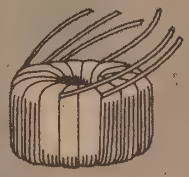
Torwico Electronics offers a complete line of toroidal inductors for use in commercial or military applications. The standard inductance values range from 1 MH to 50 HY and can be supplied in any of the following configurations:

- Open Construction (MIL-T-27B, Grade 6)
- Epoxy Encapsulated (MIL-T-27B, Grade 5)
- Encapsulated for P.C. Mounting (MIL-T-27B, Grade 5)
- Steel Cased (MIL-T-27B, Grade 4)

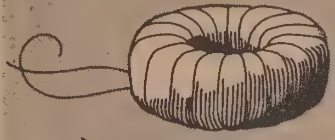
Please phone or write
for prompt quotations



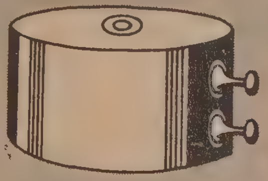
MAGNETIC AMPLIFIERS



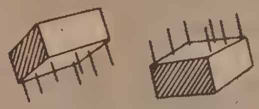
SATURABLE REACTORS



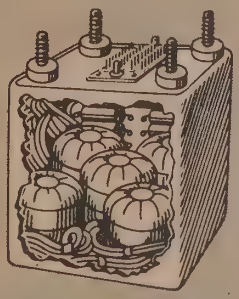
TOROIDAL COILS



TOROIDAL INDUCTORS



MINIATURE INDUCTORS AND TRANSFORMERS



MAGNETIC AMPLIFIER CONTROL ASSEMBLIES

TORODIAL COILS

Specialist in the design and manufacture of toroidal magnetic components since 1951 with an engineering team devoted to creating the practical component for your application . . . whether one, or ten thousand.

Torwico's engineering staff stands ready to assist you in the solution of your particular application problem or to provide custom design service in accordance with your specifications.

. . . Fast Delivery on prototype quantities. Performance Guaranteed.

Please phone or write
for prompt quotations

TORWICO ELECTRONICS, INC.

HWY #70, LAKEWOOD, NEW JERSEY

201-364-1800 • TWX-201-363-1611

CADDELL-BURNS

40 East 2nd Street Mineola, N. Y. 11501— Area Code 516 Pioneer 6-2310

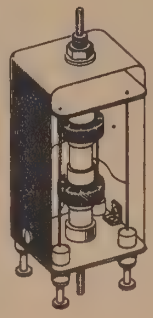
RF AND IF STOCK TRANSFORMER ASSEMBLIES

C-B MULTITRANS

Transformer kits which enable the engineer to design a prototype or small production run to desired gain and bandwidth. All have internal core frictioning. Individual coils on phenolic tubing slide on central coil form to adjust coupling. Cores vary the inductance. These assemblies are supplied less coils. Select appropriate coils from the listing.

When the required design has been achieved, send the specifications to Caddell-Burns for quotations on production runs.

In addition to the wide variety of stock units available, Caddell-Burns specializes in filling custom requirements promptly and economically. Call or submit specifications for quotations.



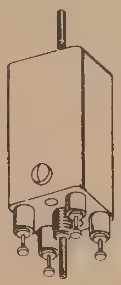
MULTITRAN COILS

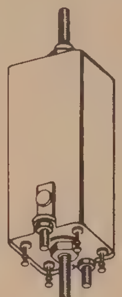
These coils are wound with **C-B NO-STRIP** Coil Wire.

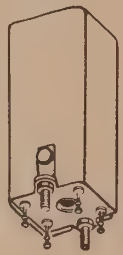
Nominal Inductance	Net Price Each (2 required for transformers)
1 Microhenry	$.30
5 Microhenries	.30
10 Microhenries	.30
25 Microhenries	.30
50 Microhenries	.30
100 Microhenries	.35
250 Microhenries	.35
500 Microhenries	.40
1 Millihenry	.40
2.5 Millihenries	.45
5.0 Millihenries	.45
10.0 Millihenries	.55

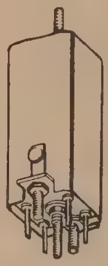
In ordering give quantity, coil type and inductance i.e., 6 Type 676-250 microhenries.

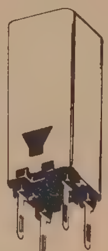
Coil can be supplied center tapped @ $.15 additional.

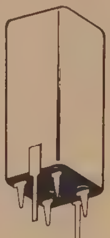

A

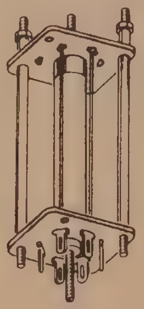

B

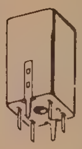

C

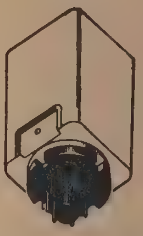

D


E


F


G


H


J

Stock No.	Style	SHIELD Size	SHIELD Material and Finish	Form Dia.	Description	Mounting Method	Tuning Method	Use Coil Type	extra *Term. Price	Net Price
610	A	7/8" sq. x 1¾" H.	Alum. Iridite	.250	Completely shielded, Aluminum base plate, insulated turret terminals, top terminal board and strut construction, materials and finishes to MIL specs.	¼-28 Bushing	Slotted Stud Cores	675	X	$2.40
673		1¼" sq. x 2½" H.		.281				676	.10	3.00
621	B	¾" sq. x 2" H.	Alum.	.250	Phenolic terminal board, turret terminals.	4-40 Spade Bolts	Slotted Stud Cores	675	X	1.50
650		7/8" sq. x 2¼" H.		.281				676	.05	1.70
625		1¼" sq. x 2½" H.				6-32 Spade Bolts			.05	1.80
809		1⅛" sq. x 2½" H.			Top terminal board, struts and turret terminals.	4-40 Spade Bolts			.08	2.10
627		1¼" sq. x 2½" H.		.375		6-32 Spade Bolts		699	.08	2.10
679	C	¾" sq. x 2" H.	Alum.	.281	Phenolic terminal board, turret terminals, threaded cores and coil forms permit adjustment without projecting stud.	4-40 Spade Bolts	Hex Hole Cores. Use Tuning Tool #2101	676	.05	1.25
672		7/8" sq. x 2¼" H.				6-32 Spade Bolts			.05	1.35
690	D	¾" sq. x 2" H.	Alum. Iridite	.250	Top terminal board and feed-thru strut construciton.	4-40 Spade Bolts	Slotted Stud Cores	675	X	1.75
801	E	¾" sq. x 2" H.	Alum.	.281	Molded phenolic base, threaded cores.	Clip Supplied	Hex Hole Cores, Use Tuning Tool #2101	676	.03	.75
802	F					Printed Circuit Lugs		676	.04	.75
803	G	1⅜" sq. x 3½" H.	Alum. Iridite	.375	Heavy construction, top terminal board and struts. Tie rods.	4-40 Studs	Slotted Stud Cores	699	.05	3.00
810		1⅛" sq. x 2½" H.							.08	2.50
678	H	½" sq. x 1" H.	Alum.	.218	Miniature mylar coil form, nylon base.	Printed Circuit Tabs	Threaded Cores. Use Tuning Tool #2102	677	.03	1.00
815		½" sq. x 1½" H.			phenolic base top,term.board and struts.			696	X	1.50
811	J	1⅜" sq. x 2" H.	Alum.	.281	Top terminal board and struts. Top tuning.	Octal Base Plug-In	Hex Hole Cores.	676	X	2.80

* These kits come with a 4 terminal base. With the exception of Type 610, 621, 690, 811 and 815 they can be supplied with 5 or 6 terminals at extra cost per terminal as shown in TERMINAL PRICE column.

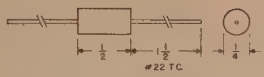
COILS & COIL FORMS

HIGH - Q MINIATURE FERRITE CHOKES, 10% Tol.

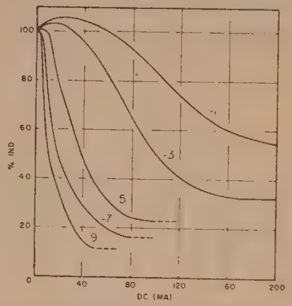
HIGH INDUCTANCE AND LOW D.C. RESISTANCE IN A MAGNETICALLY SHIELDED PACKAGE ESPECIALLY SUITED FOR LOW FREQUENCY FILTER APPLICATIONS AND TRANSISTORIZED CIRCUITS.

1. All inductance and Q measurements made on General Radio Type 1650-A Impedance Bridge at 1 KHz using 0.5 V rms input (measured with unknown terminals open). Corresponding voltages across test units are tabulated in column 4 at right.
2. Graphs at far right show average variation of inductance with D.C.
3. Current ratings are nominal, based on 5 MA per circular mil.
4. In addition to the stock items listed at right, units of any intermediate inductance can be supplied on special order. Data sheets are available upon request.

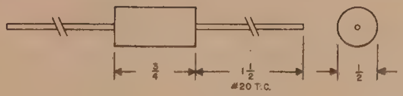
TYPE 1670



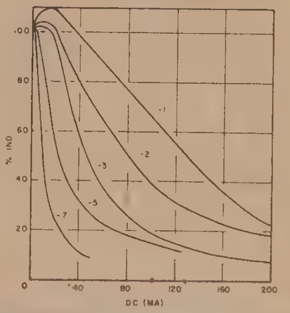
Stock No.	Inductance Milli-henries	Min. Q	A.C. Test Volts	Max. D.C. Res. Ohms	Current Rating MA	Wire Size AWG	Net Price
1670-1	.25	3.0	.007	.22	800	28	$1.45
1670-2	.50	3.0	.014	.40	500	30	1.50
1670-3	1.0	3.0	.028	.75	315	32	1.55
1670-4	2.5	3.5	.07	2.2	250	33	1.60
1670-5	5.0	3.5	.14	3.9	200	34	1.65
1670-6	10.0	3.5	.15	7.0	125	36	1.75
1670-7	25.0	3.5	.30	18	125	36	1.85
1670-8	50.0	4.0	.40	35	75	38	1.95
1670-9	100.0	4.0	.24	60	50	40	2.50



TYPE 1662



Stock No.	Inductance Milli-henries	Min. Q	A.C. Test Volts	Max. D.C. Res. Ohms	Current Rating MA	Wire Size AWG	Net Price
1662-1	5.0	10.0	.14	.75	800	28	$1.60
1662-2	10.0	10.0	.16	2.2	500	30	1.65
1662-3	25.0	10.0	.32	4.0	315	32	1.71
1662-4	50.0	10.0	.42	9.5	200	34	1.76
1662-5	100.0	10.0	.24	26	125	36	1.82
1662-6	250.0	10.0	.40	50	75	38	1.93
1662-7	500.0	10.0	.46	150	50	40	2.04
1662-8	1000.0	10.0	.25	220	30	42	2.15



TYPE - 400

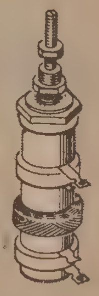
Ceramic

Stock No.	Induct. Range Microhenries Min.	Max.	Q′	Q″	Wire Size AWG	Net Price
4001	0.1	0.13	65	70	22	.79
4002	0.13	0.18	70	70	22	
4003	0.17	0.25	65	70	22	
4004	0.25	0.37	85	65	22	
4005	0.36	0.50	85	50	22	
4006	0.45	0.7	75	75	30	
4007	0.7	1.2	75	50	30	
4008	1.2	2.0	55	45	30	
4009	2.0	3.2	60	40	30	
40010	2.5	4.0	50	55	36	
40011	3.6	6.0	50	50	36	
40012	6.0	10.5	60	45	36	
40013	9	15	40	45	36	.86
40014	11	18	35	45	36	
40015	17	28	35	40	36	
40016	26	42	30	35	36	
40017	32	52	30	35	36	
40018	48	70	25	30	36	
40019	60	90	25	30	36	
40020	80	120	25	30	36	
40021	95	136	30	35	36	
40022	120	170	30	35	36	
40023	160	220	25	30	36	.92
40024	200	280	25	30	36	
40025	250	340	25	30	36	
40026	310	420	25	30	36	
40027	410	540	20	25	36	
40028	520	680	20	20	36	

TYPE - 402

Ceramic

Stock No.	Induct. Range Microhenries Min.	Max.	Q′	Q″	Wire Size AWG	Net Price
4021	0.24	0.38	125	120	18	1.28
4022	0.40	0.70	150	115	18	
4026	0.65	1.10	160	110	20	
4027	0.95	1.70	130	160	20	
4028	1.4	2.3	150	160	20	
40211	2.3	4.4	130	140	24	
40212	3.1	6.0	145	135	24	
40213	5.0	8.0	140	115	24	
40214	6.0	12.0	115	90	24	
40215	11.4	25	75	90	30	1.34
40216	22	49	95	85	30	
40217	29	60	85	110	36	
40218	55	130	95	110	36	
40219	90	190	55	95	36	
40220	160	300	65	95	36	
40221	250	400	65	95	36	
40222	130	270	45	45	36	1.39
40223	280	600	35	30	36	
40224	500	1100	30	25	36	
40225	900	1700	50	65	36	
40226	1300	2500	55	65	36	
40227	1800	3600	55	50	36	
40228	2700	4700	50	60	36	1.46
40229	3600	6000	60	70	36	
40230	5000	8600	60	65	36	
40231	7600	13000	50	50	36	



TYPE - 401

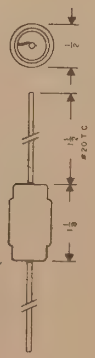
Ceramic

Stock No.	Induct. Range Microhenries Min.	Max.	Q′	Q″	Wire Size AWG	Net Price
4011	0.30	0.50	100	90	22	.92
4012	0.48	0.88	110	80	22	
4013	0.65	1.15	95	90	30	
4014	0.99	1.8	50	60	30	
4015	1.8	3.5	55	60	30	
4016	2.7	5.2	65	60	30	.98
4017	3.3	7.1	65	85	36	
4018	5.5	11.0	60	70	36	
4019	7.3	15.6	65	70	36	
40110	13.0	26.0	55	65	36	
40111	18.5	34.0	60	60	36	1.04
40112	30	62	30	40	36	
40113	39	78	30	35	36	
40114	75	120	25	55	36	
40115	110	200	35	50	36	
40116	190	330	35	50	36	1.10
40117	280	480	35	40	36	
40118	410	690	30	40	36	
40119	580	960	30	35	36	
40120	720	1150	30	35	36	

TYPE 6150

HI CURRENT CHOKES — 10% Tolerance
VINYL INSULATED JACKET
Ferrite Form Size 3/8″ D x 1″ L

Stock No.	Inductance Micro-henries	Max. D.C. Res. Ohms	Current Rating Amps.	Min. Q	Wire Size AWG	Net Price
6150-1	10.0	0.020	10.6	32	18	$.75
6150-2	20.0	0.035	6.0	25	20	.70
6150-3	30.0	0.060	4.0	28	22	.70
6150-4	40.0	0.105	2.5	30	24	.65
6150-5	50.0	0.110	2.5	20	24	.65
6150-6	75.0	0.180	1.5	25	26	.65
6150-7	100.0	0.360	1.0	30	28	.65



Send Your Prints—Coils Made to Your Specs

COILS--TRAVELING WAVE TUBE FOCUSING

K G S ELECTRONICS INC, PASADENA	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Arnold Engineering Co, Marengo	Ill
Carter Co, J C, Electronics Div, Costa Mesa	Cal
Energy Beams Inc, Haskell	N J
K G S Electronics Inc, Pasadena	Cal
Litton Industries, Electron Tube Div, San Carlos	Cal
Morey Corp, Downers Grove	Ill
Nippon Electric Co Ltd, Tokyo	Japan
Ogallala Electronics Mfg Inc, Ogallala	Nebr
Varian, Palo Alto	Cal
Y T & T Corp, Roslyn Heights	NY

COILS--WINDINGS, ONLY

ALLEN AVIONICS INC, DIV A K ALLEN CO INC, MINEOLA	**N Y**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE	**N Y**
CADDELL BURNS MFG CO INC, MINEOLA N Y	**ADV PGS 162,163**
CAPTOR CORP, TIPP CITY	**OHIO**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON S DAK	**ADV PG 160**
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT	**IOWA**
K G S ELECTRONICS INC, PASADENA	**CAL**
LAPOINTE INDUSTRIES, INC, ROCKVILLE	**CONN**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
PICO PRODUCTS INC, RONKONKOMA	**NY**
RANDALL INC, DOUGLAS, SUB WALTER KIDDE & CO INC WESTERLY	**R I**
TOROTEL, INC, GRANDVIEW	**MO**
TORWICO ELECTRONICS, INC, LAKEWOOD, N J	**ADV PG 161**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Ace Coil & Electronics Co, Metuchen	N J
AC Electronics Co, Los Angeles	Cal
ADC Products, Minneapolis	Minn
Advanced Electronics, Inc, Rocky Hill	Conn
Advance Ross Electronics Corp, Chicago	Ill
Aetna Electronics Corp, North Branch	N J
ALA Industries Inc, Harrison	NY
Allen Avionics Inc, Div A K Allen Co Inc, Mineola	N Y
Alpha Scientific Labs Inc, Oakland	Cal
American Trans-Coil Corp, Richmond Hill	NY
Andover Corp, Lafayette	Ind
Applied Electro Mechanics Inc, Alexandria	Va
Applied Magnetics Corp, Ferrite Head Div Santa Barbara	Cal
A P W Co Inc, Rockaway	N J
Arco S P A, Milano	Italy
Atlas Coil Corp, Ansonia	Conn
Ault, Inc, Minneapolis	Minn
Automatic Coil Co Div Designatronics, Inc Mineola	N Y
Automation Services Inc, Endicott	N Y
Avionics, Inc, South Bend	Ind
Barwood Electronics, Inc, Glendale	Cal
Basler Electric Co, Highland	Ill
Bicron Electronics Co, Canaan	Conn
Brown Engineering-A Teledyne Co, Huntsville	Ala
Brys Instrument Corp, Brooklyn	N Y
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Caddell Burns Mfg Co Inc, Mineola	N Y
Cambridge Thermionic Corp, Cambridge	Mass
Captor Corp, Tipp City	Ohio
Carol Electronics Div Weeco Inc, Martinsburg	W Va
CBC Industries Inc, Philadelphia	Pa
Central Coil Co Inc, Martinsville	Ind
Chet Engineering Co, Sepulveda	Cal
Cico Corp, Sun Valley	Cal
Climco Inc, Morrison	Ill
Coil Co of America Inc, Northvale	N J
Coilcraft Inc, Cary	Ill
Coil-O-Matic Co, Pawtucket	R I
Coiltronics Inc, Buena Park	Cal
Comar Electric Co, Chicago	Ill
Component Specialties Corp, Temple City	Cal
Computer Components Inc, Jamaica	N Y
Connor Spring Mfg Co Div Sloss & Britain San Francisco	Cal
Continental X-Ray Corp, Chicago	Ill
Coto-Coil Co Inc, Providence	R I
Custom Coil Co, Zanesville	Ohio
Cycle Transformer Corp, West Orange	N J
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Dano Electric Co, Winsted	Conn
DB Products Inc, Pasadena	Cal
Delevan Electronics Div Amer Prec Indus Inc East Aurora	N Y
Delta Coils, Philadelphia	Pa
DeSoto Electrical Products, DeSoto	Mo
Dietz Design Inc, Belton	Mo
Dinion Coil Co Inc, Caledonia	N Y
Dormeyer Industries, Chicago	Ill
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Eastern Specialty Co, Philadelphia	Pa
Electran Mfg Co, Chicago	Ill
Electrical Windings Inc, Chicago	Ill
Electro Assemblies Inc, Chicago	Ill
Electronic Coils Inc, Springfield	Mass
Electronic Transformer Corp, Paterson	N J
Electro Technic Products, Chicago	Ill
Electro Winders Co Inc, Covina	Cal
Electro Windings & Components Inc, Kenilworth	N J
EMP Electronics Inc, Tempe	Ariz
Endicott Coil Co Inc, Binghamton	N Y
Filtron Co Inc Sub Liquidonics Ind Inc, Flushing	N Y
Fisher Engineering Inc, Huntington	Ind
Fleishman Electric Co, Clifton	N J
Forney Industries Inc, Fort Collins	Colo
Fullmer Electronics Inc, Northridge	Cal
Geo Space Corp, Houston	Tex
German Machine Corp, Randolph	Mass
Grand Transformers Inc, Grand Haven	Mich
Gyrotron Corp, Waterbury	Conn
Hammond Mfg Co Ltd, Guelph, Ont	Can
Helix Spring Corp, Long Island City	NY
Hydro Molding Co Inc, Plattsburgh	N Y
Icore Electro-Plastics, Sunnyvale	Cal
Impectron Inc, New York	N Y
Inductor Engineering Inc, Lewes	Del
Industrial Coils Inc, Baraboo	Wisc
Industrial Transformer Corp, Gouldsboro	Pa
Industrial Winding Machinery Corp, River Edge	N J
Instrument Resistors Co, Brick Town	NJ
Ionics Inc, Electronics Div, Watertown	Mass
K G S Electronics Inc, Pasadena	Cal
Kidde & Co Inc, Walter, Belleville	N J
LaPointe Industries, Inc, Rockville	Conn
LCC-CICE, 93 Montreuil-sous-Bois	France
Magnetic Engineering Corp, Danbury	Conn
Magnetika Inc, Venice	Cal
Merit Coil & Transformer Corp, Hollywood	Fla
Meteor Transformer Mfg Co, Detroit	Mich
Miller Co, J W, Los Angeles	Cal
Mitsumi Electric Co Ltd, Tokyo	Japan
Mode Electronics Inc, Cincinnati	Ohio
Morey Corp, Downers Grove	Ill
Multronics Inc, Rockville	Md
National Coil Co Inc, Sheridan	Wyo
New York Coil Co Inc, Phoenixville	Pa
Northern Engineering Co, Baraboo	Wis
Ogallala Electronics Mfg Inc, Ogallala	Nebr
Ohmite Mfg Co, Skokie	Ill
Oki Electric Industry Co Ltd, Tokyo	Japan
Orega Electronique & Mecanique Vincennes, Seine	France
Osborne Electric Co, Ltd, Toronto 18	Ont
Pacific Electric Motor Co, Oakland	Cal
Pacific Instrument Co, Oakland	cal
Paraplegics Mfg Co Inc, Bensenville	Ill
PCA Electronics Inc, Sepulveda	Cal
Photron Instrument Co, Cleveland	Ohio
Pico Products Inc, Ronkonkoma	NY
Precision Coil Mfg Co, Santa Monica	Cal
Precision Electronics Co, Marshfield	Mass
Precision Inc, Minneapolis	Minn
Preferred Electronics Inc, Westfield	Mass
Profile Electronics Inc, Concord	N H
Qutronic Transformer Corp, Oneonta	N Y
Radio Television Products Corp, Grass Lake	Mich
Randall Inc, Douglas, Sub Walter Kidde & Co Inc Westerly	R I
Redman Electronics Corp, Thompsonville	Conn
Regdon Corp, Brookfield	Ill
Regency Electronics Inc, Indianapolis	Ind
Rem-Tronics Inc, Silver Creek	N Y
Renco Electronics Inc, Hicksville	N Y
Reynolds Metals Co, Richmond	Va
Robinson Electronic Components, Temple City	Cal
Rodon Electronics Corp, Gardena	Cal
Rollan Electric Co, Chicago	Ill
Sag Harbor Industries, Inc, Sag Harbor	N Y
Sartron Inc, Newberg	Ore
Schott Co Inc, Oscar A, Minneapolis	Minn
Silicone Seals Inc, Chicago	Ill
S K G Associates Inc, Boston	Mass
Slocum Industries, Inc, Reseda	Cal
Smallwood Ltd, S G, Kitchener	Ont
Southern Electronics Co Inc, Greeneville	Tenn
Sparton Electronics, Jackson	Mich
Standard Industries, Buena Park	Cal
Stanwyck Winding Co, Newburgh	N Y
Sterling Transformer Corp, Brooklyn	N Y
Swanson Electronics Co, Chicago	Ill
Tech-Ohm Electronics Inc, Long Island City	N Y
Tele Coil Co Inc, Camden	N J
Tilton Electronics Corp, Winnisquam	N H
Torelco Inc, Irvington	N J
Toroidal Components Co, Pasadena	Cal
Toroid-Trans Electronics Co Inc, Danbury	Conn
Torotel, Inc, Grandview	Mo
Torwico Electronics, Inc, Lakewood	N J
Tranex Inc, Mountain View	Cal
Transformers Inc, Vestal	N Y
Tresco Inc, Philadelphia	Pa
Tri-Dex Co, Visalia	Cal
Triwec Transformer Co, Chicago	Ill
Tur-Bo Jet Products Co Inc, Rosemead	Cal
United Standard Industries Inc, Glenview	Ill
U S Electronics Corp, Lyndhurst	N J
Universal Precision, Inc, Endicott	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Varo Inc, Garland	Tex
Wabash Magnetics Inc, Wabash	Ind
Waldom Electronics Inc, Chicago	Ill
Warsaw Coil Co, Warsaw	Ind
Washington Electrical Products Co, Washington	Mo
Wellington Electronics Inc, Engelwood	N J
Wells Electronics Inc, Components Div, South Bend	Ind
Wescoil Co Inc, Tinley Park	Ill
Whitewater Electronics Inc, Whitewater	Wis
Winatic Corp, Vestal	N Y
Wintron Co Inc, S El Monte	Cal
Woodward-Schumacher Electric Corp, Chicago	Ill
Workman Electronic Products Inc, Sarasota	Fla
Y T & T Corp, Roslyn Heights	NY
Zaring Industries Inc, Carmel	Ind

COILS--VARIABLE SEE INDUCTANCES--VARIABLE

COIL WINDERS SEE MACHINES COIL-WINDING

COINCIDENCE ANALYZERS SEE ANALYZERS

COLLECTOR RINGS SEE RINGS--COLLECTOR

COLLIMATORS

AMERICANA X-RAY CO, ENGLEWOOD	**N J**
Americana X-Ray Co, Englewood	N J
American Optical Co Space Defense Div Southbridge	Mass
Barnes Engineering Co Def & Space Div Stamford	Conn
Buhl Optical Co, Pittsburgh	Pa
Canoga Electronics Corp, Chatsworth	Cal
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Davidson Optronics Inc, West Covina	Cal
Digital Development Corp, San Diego	Cal
DoAll Co, Des Plaines	Ill
Ealing Corp, Cambridge	Mass
Fairchild Space & Defense Sys Div Fairchild Cam & Inst Corp, El Segundo	Cal
Farrand Optical Co Inc, Bronx	N Y
Gaertner Scientific Corp, Chicago	Ill
General Electrodynamics Corp, Garland	Tex
Goerz Optical Co Inc, Inwood	N Y
H H Controls Co Inc, Arlington	Mass
Hycon, Monrovia	Cal
Infrared Industries Inc, Santa Barbara	Cal
Jungner Instrument AB, S-10440 Stockholm 14	Sweden
Keleket Div Laboratory For Electronics Inc Waltham	Mass
Keuffel & Esser Co, Hoboken	N J
Kollsman Instrument Corp, Syosset	N Y
Laser Optics Inc, Danbury	Conn
National Cine Equipment Inc, New York	N Y
National Instrument Labs Inc, Rockville	Md
Optics Electronics Corp, Dallas	Tex
Optomechanisms Inc, Plainview	N Y
Opto-Metric Tools Inc, New York	N Y
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Ransom Labs, John H, Los Angeles	Cal
Razdow Labs Inc, Newark	N J
Schoeffel Instrument Co, Westwood	NJ
Spectra-Physics, Mountain View	Cal
Te Company, Santa Barbara	Cal
Tropel Inc, Fairport	N Y
TRW Systems Group, Redondo Beach	Cal
Zeiss Inc, Carl, New York	N Y

COLORIMETERS (COLOR ANALYZERS)

HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
American Instrument Co, Inc, Silver Spring	Md
Automated Specialties A Teledyne Co Charlottesville	Va
Bausch & Lomb, Inc, Rochester	N Y
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Canadian Research Institute, Don Mills	Ont
Central Scientific Co, Chicago	Ill
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Gardner Lab Inc, Bethesda	Md
Grace Electronics Inc, Cleveland	Ohio
Hallikainen Instruments, Richmond	Cal
H H Controls Co Inc, Arlington	Mass
Honeywell Test Instruments Div, Denver	Colo
Instrument Development Labs Div Kollmorgen Corp Attleboro	Mass
Jarrell-Ash Co, Waltham	Mass
Lektra Labs Inc Div Kriser Corp, College Point	N Y
Lion Research Corp, Newton	Mass
Manufacturers Eng & Equip Corp, Warrington	Pa
McKee-Pedersen Instruments, Danville	Cal
Milletron, Inc, Pittsburgh	Pa
Milton Roy Co, St Petersburg	Fla
Neotec Corp, Rockville	Md
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Phoenix Precision Instrument Co, Inc, Philadelphia	Pa
Schoeffel Instrument Co, Westwood	NJ
Sencore Inc, Addison	Ill
Technical Operations Inc, Burlington	Mass
Technicon Corp, Ardsley	N Y
Zeiss Inc, Carl, New York	N Y

COLUMBIUM SEE NIOBIUM

COMBUSTION CONTROLS SEE CONTROLS--COMBUSTION

COMMUNICATION RECEIVERS SEE RECEIVERS--RADIO COMMUNICATION

COMMUNICATION SYSTEMS-- AIRCRAFT

LEACH CORP, SOUTH PASADENA	**CAL**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
TELE-SIGNAL CORP, WOODBURY	**N Y**
Admiral Corp, Gov Electronics Div, Chicago	Ill
Advanced Energy Conversion, Menlo Park	Cal
Aerocom, Miami	Fla
Aerojet-General Corp Electronics Div, Azusa	Cal
Aircraft Components Inc, Benton Harbor	Mich
Aircraft Radio Corp, Boonton	N J
Avco Corp Electronics Div, Cincinnati	Ohio
Becker Flugfunkwerk GMBH, 757 Baden-Baden-Oos	Germany
Bandix Corp, Communications Div, Towson	Md
Brelonix Inc, Seattle	Wash
Broadcast Electronics Inc, Silver Spring	Md
C C A Electronics Corp, Gloucester	NJ
Collins Radio Co, Dallas	Tex
Communications Co, Coral Gables	Fla
Conductron Corp, Ann Arbor	Mich
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dorsett Electronics Inc, Tulsa	Okla
Dynair Aviation Products, El Cajon	Cal
Dynamco Ltd, Chertsey Surrey	Eng
Edo Corp, College Point	NY
Electronic Communications Inc (ECI), St Petersburg	Fla
Emcee Electronics Inc, New Castle	Del
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
General Aviation Electronics Inc, Indianapolis	Ind
General Devices Inc, Instrumentation Div Princeton	N J
General Instrument Corp Radio Receptor Div Hicksville	N Y
Genisco Technology Corp, Compton	Cal
Goodyear Aerospace Corp, Akron	Ohio
Honeywell Inc, Computer Control Div Framingham	Mass
Kobe Industries Corp, Kobe	Japan
Lane Industries, Electronics Div, North Hollywood	Cal
Leach Corp, South Pasadena	Cal
Linear Systems Inc, Watsonville	Cal
Loral Electronic Systems, Div Loral Corp, New York	NY
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Melabs, Palo Alto	Cal
Miles Industries Inc, Garnerville	N Y
Mitsubishi Electric Corp, Tokyo	Japan
Narco Avionics Div Natl Scientific Industries Fort Washington	Pa
Norden Div, United Aircraft Corp, Norwalk	Conn
North Electric Co, Galion	Ohio
Otis Elevator Co, Defense Oper, Stamford	Conn
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Prod-El, Prodotti Elettronici Spa, 20132 Milan	Italy
Radiation Systems Inc, McLean	Va
Randam Electronics Inc, Cincinnati	Ohio
RCA, Defense Electronic Products, Moorestown	N J
Resdel Engineering Corp, Pasadena	Cal
R F Communications Inc, Rochester	N Y
Schjeldahl Co, G T, Northfield	Minn
Sierra Research Corp, Buffalo	N Y
Sparton Electronics, Jackson	Mich
Squires-Sanders Inc, Liberty Corner	N J
Standard Telephones & Cables Ltd London WC 2	England
SunAir Electronics Inc, Ft Lauderdale	Fla
Sylvania Electronic Systems, Waltham	Mass
Technical Materiel Corp, Mamaroneck	N Y
Telephonics Div, Instrument Systems Corp Huntington	NY
Tele-Signal Corp, Woodbury	N Y
Ultra Electronics Ltd, London, W 3	England
Vega Precision Labs, Vienna	Va
Westinghouse Electric Corp, Aerospace Div Baltimore	Md
Wickes Industries Inc, Camden	N J
Wilcox Electric Co Inc, Kansas City	Mo

COMMUNICATION SYSTEMS-- AIRPORT TRAFFIC CONTROL

LEACH CORP, SOUTH PASADENA	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
VICTOR COMPTOMETER CORP, BUSINESS MACH GROUP CHICAGO	**ILL**
Admiral Corp, Gov Electronics Div, Chicago	Ill
Aerocom, Miami	Fla
Aircraft Components Inc, Benton Harbor	Mich
Becker Flugfunkwerk GMBH, 757 Baden-Baden-Oos	Germany
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
C C A Electronics Corp, Gloucester	NJ
Cognitronics Corp, Mount Kisco	NY
Communication Associates Inc, New Hyde Park	N Y
Communications Co, Coral Gables	Fla
Conductron Corp, Ann Arbor	Mich
Crouse-Hinds Co, Syracuse	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dynair Aviation Products, El Cajon	Cal
Dynamco Ltd, Chertsey Surrey	Eng
Ferranti, Ltd, Lancashire	England
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
General Aviation Electronics Inc, Indianapolis	Ind
General Instrument Corp Radio Receptor Div Hicksville	N Y
GPL Div Gen Precision Systems Inc, Pleasantville	N Y
IBM Corp, Armonk	N Y
Kaar Electronics Corp, Linden	N J
Kameco Ltd, Montreal	Que
Kokusai Electric Co Ltd, Tokyo	Japan
Leach Corp, South Pasadena	Cal
LFE Electronics Div, Lab for Electronics Inc Waltham	Mass
Marconi Co Ltd, Chelmsford	England
Melabs, Palo Alto	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Otis Elevator Co, Defense Oper, Stamford	Conn
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Quindar Electronics Inc, Springfield	NJ
Radiation Systems Inc, McLean	Va
RCA, Defense Electronic Products, Moorestown	N J
Resdel Engineering Corp, Pasadena	Cal
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Siemens America Inc, New York	N Y
Sierra Research Corp, Buffalo	N Y
Siltronics Inc, Oakmont	Pa
Standard Telephones & Cables Ltd London WC 2	England
Storno, Copenhagen S	Den
Tasker Industries, Van Nuys	Cal
Technical Materiel Corp, Mamaroneck	N Y
Telautograph Corp, Los Angeles	Cal
Topping Electronics Ltd, Toronto 17	Ont
Trepac Corp of America, Englewood	N J
Victor Comptometer Corp, Business Mach Group Chicago	Ill
Virginia Electronics Co Inc, Falls Church	Va
Visiontron Corp, New York	N Y
Watkins-Johnson Co, Palo Alto	Cal
Whittaker Corp Technical Products Div, Chatsworth	Cal
Wickes Industries Inc, Camden	N J
Wilcox Electric Co Inc, Kansas City	Mo

Forget the manufacturer's

phone number?

Check the green pages.

COMMUNICATION SYSTEMS-- AMATEUR RADIO

HEATH CO, BENTON HARBOR	**MICH**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
American Geloso Electronics Inc, New York	N Y
Automatic Radio Sales Inc, Melrose	Mass
Collins Radio Co, Dallas	Tex
Destron Co, Rolling Hills Estate	Cal
Dynamco Ltd, Chertsey Surrey	Eng
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Applications Co, Pine Brook	N J
Frederick Electronics Corp, Frederick	Md
Galaxy Electronics Inc, Council Bluffs	Iowa
Hammarlund Mfg Co, Mars Hill	N C
Heath Co, Benton Harbor	Mich
Johnson Co, E F, Waseca	Minn
Lafayette Radio Electronics, Syosset	NY
Linear Systems Inc, Watsonville	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McElroy Electronics Corp, Shirley	Mass
National Radio Co Inc, Melrose	Mass
Squires-Sanders Inc, Liberty Corner	N J
Utica Electronics Inc, Chicago	Ill
Watkins-Johnson Co, Palo Alto	Cal
Weitermann Electronics, Milwaukee	Wis

COMMUNICATION SYSTEMS-- CITIZENS' BAND

AMPHENOL, BROADVIEW, ILL	**ADV PG 165**
HEATH CO, BENTON HARBOR	**MICH**
INTERNATIONAL CRYSTAL MFG CO INC OKLAHOMA CITY	**OKLA**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Aircraft Components Inc, Benton Harbor	Mich
Amphenol, Broadview	Ill
Autronics Corp, Pasadena	Cal
B & K Mfg Co Div Dynascan Corp, Chicago	Ill
Browning Laboratories Inc, Laconia	N H
Channel Master Corp, Ellenville	N Y
Courier Communications Inc Sub Whittaker Corp Newark	N J
Dowa Trading Co Ltd, Kobe	Japan
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Applications Co, Pine Brook	N J
Electronic Homes Co, New York	N Y
Fanon Electronic Industries Div Courier Commun Inc Newark	N J
Fujitsu Ltd, Tokyo	Japan
Heath Co, Benton Harbor	Mich
International Crystal Mfg Co Inc, Oklahoma City	Okla
Johnson Co, E F, Waseca	Minn
Kaar Electronics Corp, Linden	N J
Lafayette Radio Electronics, Syosset	NY
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Melabs, Palo Alto	Cal
Midland International Corp, North Kansas City	Mo
Mobil Electronics Inc, Anderson	Ind
Multi-Elmac Co, Oak Park	Mich
Oki Electric Industry Co Ltd, Tokyo	Japan
Pearce-Simpson Inc, Miami	Fla
Polytronics Communications, Baltimore Div Baltimore	Md
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Raytheon Co, Marine Products Operation S San Francisco	Cal
Realtone Electronics Corp, Jersey City	NJ
Round Hill Associates, Inc, New York	N Y
Sanyo Electric Co Ltd, Osaka	Japan
Squires-Sanders Inc, Liberty Corner	N J
States Electronics Corp, Bludworth Marine Div Linden	N J
Trott Electronics Inc, Rochester	N Y
Utica Electronics Inc, Chicago	Ill
Webster Mfg, South San Francisco	Cal

Specify Amphenol. The leading name in CB Radio.

only $79 95

Model 750 6 channels
Power input: 5 watts max.
Power output 2.5 watts min.
Antenna impedance: 50 ohms
Modulations: 90% min. 100% max.
Solid-state receiver
Sensitivity: .5 uv. for 10 db $\frac{S+N}{N}$

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL

MODEM 4400 Data Sets

2000 bps,
2400 bps,
4800 bps
...and higher

MODEM 4400/48

These synchronous data sets, developed by Milgo, deliver maximum throughput over typical unconditioned phone lines. Standard interface meets EIA RS232B and CCITT V.24. MIL-STD-188B and special interfaces are available. No software restrictions.

MODEM 4400 data sets offer advantages in:

- Dial-up applications (for normal operating mode or back-up).
- Multi-station polled networks and point to point operation.
- Circuits with normally unusable distortion characteristics.
- Installations where highly conditioned lines are difficult to obtain.
- Lines with characteristics that change frequently.
- Shared use of a single phone line (or other VF circuit) with voice conversation.

MODEM 4400 data sets operating at 2000 bps and 2400 bps offer the additional advantage of:

- Simultaneous use of a single phone line (or other VF circuit) with voice conversation or multiple low speed data channels.

	MODEM 4400/20L	MODEM 4400/20H	MODEM 4400/20PB	MODEM 4400/24PB	MODEM 4400/48
Data Rate (bits/second):	2000	2000	2000	2400	4800
Frequency Spectrum (Hz):	767 - 1433	1967 - 2633	1366 - 2034	1300 - 2100	900 - 2500
Simultaneous Transmission on same line:	Add'l 2000 bps or 12 TTYS	Add'l 2000 bps or 12 TTYS	Voice or 12 TTYS	Voice or 8 TTYS	1 or 2 TT'S

Other ICC data communication products and services include:

Data Concentrators — Multiple data channels of the same or different speeds can be combined to eliminate extra equipment, computer channels and telephone lines by either frequency or time multiplexing.

Interface — Buffering to communications equipment is available for equipment such as computer to modem; paper tape or magnetic tape to modem; card reader to modem; and combinations of these utilized with time division multiplexing.

System Design — Our custom engineering services integrate a variety of communication and digital hardware, adapting your existing equipment to operate with new products.

Accessories — Companion equipment allows users of Modem 4400 data sets to take full advantage of the data sets' features. Other equipment available includes special purpose data modems and transmission test equipment.

ICC

International Communications Corporation
7620 N.W. 36th Avenue
Miami, Florida 33147
Phone: 305 • 691-1220
TWX: 810-848-6588

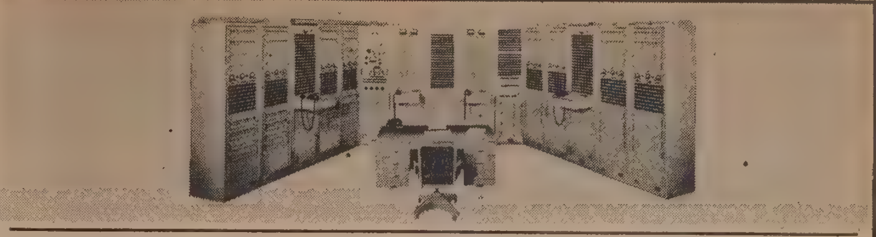
a milgo company

COMMUNICATION SYSTEMS-- DATA TRANSMISSION

INTERNATIONAL COMMUNICATIONS CORP, MIAMI FLA	**ADV PG 166**
LEACH CORP, SOUTH PASADENA	**CAL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MILGO ELECTRONIC CORP, MIAMI, FLA	**ADV PG 166**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TELE-SIGNAL CORP, WOODBURY, N Y	**ADV PG 167**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
TOWSON LABS INC, BALTIMORE	**MD**
VICTOR COMPTOMETER CORP, BUSINESS MACH GROUP CHICAGO	**ILL**
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Advanced Space Age Products Inc, Alexandria	Va
Aerojet-General Corp Electronics Div, Azusa	Cal
Aeroscience Electronics Inc, Atlanta	Ga
Aerospace Research, Inc, Boston	Mass
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Alden Electronic & Impulse Recording Equip Co Inc Westboro	Mass
Alto Scientific Co, Inc, Palo Alto	Cal
Amtron Inc, Midlothian	Ill
Anderson-Jacobson Inc, Mountain View	Cal
Astrodata Inc, Anaheim	Cal
Automated Business Sys Div Litton Industries Carlstadt	N J
Automatic Electric Co, Northlake	Ill
Automation Management, Inc, Westboro	Mass
Avco Corp Electronics Div, Cincinnati	Ohio
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Babcock Electronic Corp, Costa Mesa	Cal
Ball Brothers Research Corp, Boulder	Colo
Beckman Instruments Inc, Fullerton,	Cal
Bell Aerosystems Co, Buffalo	N Y
Bendix Corp, Communications Div, Towson	Md
Bendix Corp Environmental Science Div, Baltimore	Md
Biocom, Inc, Culver City	Cal
Bionic Instruments Inc, Bala Cynwyd	Pa
Bristol Div, American Chain & Cable Co Waterbury	Conn
Brown Engineering-A Teledyne Co, Huntsville	Ala
Burroughs Corp Component Sales Dept Los Angeles	Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
CAE Industries Ltd, Montreal 3	Que
Canadian Motorola Electronics Co, Agincourt	Ont
Canberra Industries, Middletown	Conn
Canoga Electronics Corp, Chatsworth	Cal
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
C B S Labs Div Columbia Bdcstg Sys Inc Stamford	Conn
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Cognitronics Corp, Mount Kisco	NY
Cohu Electronics Inc, San Diego	Cal
Collins Radio Co, Dallas	Tex
Communitype Corp, New York	N Y
Compudyne Corp, Hatboro	Pa
Computer Equipment Corp, Houston	Tex
Computer Test Corp, Cherry Hill	N J
Concord Electronics Corp, Los Angeles	Cal
Conductron Corp, Ann Arbor	Mich
Conic Corp, San Diego	Cal
Connecticut Technical Corp, Hartford	Conn
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Control Data Corp, Minneapolis	Minn
Control Logic Inc, Natick	Mass
Control Science Corp, Alexandria	Va
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Cunningham Son & Co Inc, James, Honeoye Falls	N Y
Dasa Corp, Andover	Mass
Data-Control Systems Inc, Danbury	Conn
Data Mark Inc, Westbury	N Y
Data Trends Inc, Parsippany	N J
Data-Vox Corp, Sarasota	Fla
Decca Radar, Inc, New York	N Y
Defense Electronics Inc, Rockville	Md
Diamond Repeater Co, Madison	N J
Digi-Data Corp, Bladensburg	Md
Digitech Inc, Ridgefield	Conn
Digitronics Corp, Albertson	N Y
Dorsett Electronics Inc, Tulsa	Okla
Dresser Controls, Houston	Texas
Dynamco Ltd, Chertsey Surrey	Eng
E G & G Inc, Systems Devel Div, Bedford	Mass
Electrac Inc, Anaheim	Cal
Electronic Communications Inc (ECI), St Petersburg	Fla
Electronics Communications Div Atlantic Research Corp Alexandria	Va
EMR Div Weston Instruments Inc, Princeton	N J
Energy Systems Inc, Palo Alto	Cal
Epsco Inc, Westwood	Mass
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus	N J
Ferranti, Ltd, Lancashire	England
Fisher-Akin Co, Manhattan Beach	Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Frederick Electronics Corp, Frederick	Md
Friden Inc, San Leandro	Cal
Fujitsu Ltd, Tokyo	Japan
General Atronics Corp, Philadelphia	Pa
General Devices Inc, Instrumentation Div Princeton	N J

General Electric Co Communication Products Dept Lynchburg .... Va
General Electric Co Info Sys Equip Div, Phoenix .... Ariz
General Electric Co, Printer-Reader Bus Sec Philadelphia .... Pa
General Instrument Corp Radio Receptor Div Hicksville .... N Y
Giannini-Voltex, Whittier .... Cal
GPL Div Gen Precision Systems Inc, Pleasantville .... N Y
Gulton Industries Inc, Metuchen .... N J
Hammarlund Mfg Co Data Communications Div Amityville .... N Y
Hathaway Pacific Corp, Palo Alto .... Cal
H B Engineering Corp, Silver Spring .... Md
Hersey-Sparling Meter Co, El Monte .... Cal
Honeywell-EDP Div, Wellesley Hills .... Mass
Honeywell Inc, Computer Control Div Framingham .... Mass
IBM Corp, Armonk .... N Y
IBM Data Processing Div, White Plains .... N Y
Industrial Electronetics Corp, Satellite Beach .... Fla
International Communications Corp, Miami .... Fla
International Scanatron Systems Corp, Wyandanch .... N Y
Invac Corp, Waltham .... Mass
ITT Defense Communications Div, Nutley .... N J
ITT Industrial Labs Div, Fort Wayne .... Ind
Kameco Ltd, Montreal .... Que
Karkar Electronics Inc, San Francisco .... Cal
Kennedy Co, Altadena .... Cal
Kleinschmidt, Div SCM Corp, Deerfield Ill
Kobe Industries Corp, Kobe .... Japan
Landis & Gyr AG, Zug .... Switzerland
Leach Corp, South Pasadena .... Cal
Lear Siegler Inc, Santa Monica .... Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim .... Cal
Lenkurt Electric Co Inc, San Carlos .... Cal
Link Group Gen Precision Sys Inc, Binghamton .... N Y
Logic Corp, Haddonfield .... N J
Loral Electronic Systems, Div Loral Corp, New York .... NY
LTV Electrosystems Inc, Garland Div, Dallas .... Tex
Lynch Communication Systems, San Francisco .... Cal
Marconi Co Ltd, Chelmsford .... England
Marconi Div, English Electric Corp, New York .... N Y
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Maxson Electronics Div, Maxson Electronics Corp Great River .... N Y
Melabs, Palo Alto .... Cal
Meteorology Research Inc, Altadena .... Cal
Microwave Associates Inc, Burlington .... Mass
Mid-West Metal Products Inc, Kansas City .... Kans
Milgo Electronic Corp, Miami .... Fla
Missouri Research Labs Inc, St Louis .... Mo
Mitsubishi Electric Corp, Tokyo .... Japan
Monitor Systems Inc, Fort Washington .... Pa
Moore Associates Div Rocker Co, San Carlos .... Cal
Muirhead Instruments Inc, Mountainside .... N J
Navigation Computer Corp, Norristown .... Pa
Neotec Corp, Rockville .... Md
Nippon Electric Co Ltd, Tokyo .... Japan
Noller Control Systems Inc, Richmond .... Cal
Norden Div, United Aircraft Corp, Norwalk .... Conn
North Electric Co, Galion .... Ohio
Northern Radio Co Inc, New York .... N Y

Northridge Engineering Co Div Republic Corp Northridge .... Cal
Ohr-Tronics Inc, Montvale .... N J
Oki Electric Industry Co Ltd, Tokyo .... Japan
Oki Electronics of America, Inc, Fort Lauderdale .... Fla
Omega-t Systems Inc, Richardson .... Tex
Omnitec Corp, Phoenix .... Ariz
Otis Elevator Co, Defense Oper, Stamford .... Conn
Pacific Data & Controls, Redwood City .... Cal
Philco-Ford Corp, Washington .... D C
Philips Electronics Industries Ltd, Toronto 17 .... Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Pioneer Electric & Research Corp, Forest Park Ill
Potter Instrument Co, Inc, Plainview .... N Y
Pulse Communications Inc, Falls Church .... Va
Quindar Electronics Inc, Springfield .... NJ
Racal Communications Inc, Silver Spring .... Md
Radiation Inc Systems Div, Melbourne .... Fla
Radio Engineering Labs, Div DCA, Long Island City .... N Y
Raytheon Co, Government Marketing, Lexington .... Mass
RCA, Defense Electronic Products, Moorestown .... N J
RC-95 Inc, New York .... N Y
Resdel Engineering Corp, Pasadena .... Cal
RFL Industries Inc, Communications Div, Boonton .... N J
Rixon Electronics Inc, Silver Spring .... Md
Robertshaw Controls Co, Aero & Instrument Div Anaheim .... Cal
Sangamo Electric Co, Springfield Ill
Schjeldahl Co, G T, Northfield .... Minn
Scientific Data Systems Inc, El Segundo .... Cal
Sci-Tek Computer Center Inc, Wilmington .... Del
Selenia - Industrie Elettroniche Assoc, Rome .... Italy
Sesco Inc, Friday Harbor .... Wash
Siemens America Inc, New York .... N Y
Sierra Research Corp, Buffalo .... N Y
Sonex Inc, Philadelphia .... Pa
Soroban Engineering, Inc, Melbourne .... Fla
Squires-Sanders Inc, Liberty Corner .... N J
Standard Telephones & Cables Ltd London WC 2 .... England
Stelma Inc, Stamford .... Conn
Storno, Copenhagen S .... Den
Stromberg-Carlson Sub Gen Dynamics, Rochester .... N Y
Surface Conduction Inc, New York .... N Y
Sylvania Electronic Systems, Waltham .... Mass
Symetrics Engineering Corp, Satellite Beach .... Fla
Systematics & Magne-Head Divs Gen Instrument Corp Hawthorne .... Cal
Tally Corp, Seattle .... Wash
Tally Corp, Business Systems, Seattle .... Wash
Technical Materiel Corp, Mamaroneck .... N Y
Telautograph Corp, Los Angeles .... Cal
Telecontrol Corp, Old Greenwich .... Conn



TELE-SIGNAL DATA AND COMMUNICATIONS SYSTEMS

Complete systems management from concept through engineering, fabrication, erection, operations and maintenance.

TELE-SIGNAL CORPORATION
A Subsidiary of The Singer Company
250 Crossways Park Drive, Woodbury, L. I., New York 11797

Tele-Dynamics Div, American Bosch Arma Corp Philadelphia .... Pa
Tele-Signal Corp, Woodbury .... N Y
Teletype Corp, Skokie Ill
Texas Instruments Incorporated, Dallas .... Tex
Texas Instruments Inc Indl Prods Div, Houston .... Tex
Towson Labs Inc, Baltimore .... Md
Trepac Corp of America, Englewood .... N J
TRW Systems Group, Redondo Beach .... Cal
U S Microwave, Delran .... N J
Univac Div, Sperry Rand Corp, Philadelphia .... Pa
Utility Communication Systems Inc, Essington .... Pa
Vega Precision Labs, Vienna .... Va
Vernitron Corp Precision Comp Group, Farmingdale .... N Y
Victor Comptometer Corp, Business Mach Group Chicago Ill
Vidar Corp, Mountain View .... Cal
Video Research Corp, Rockville .... Md
Vitro Labs Div Vitro Corp of America, Silver Spring .... Md
Vitro Labs Div Vitro Corp of America, W Orange .... N J
Western Telematic Inc, Arcadia .... Cal
Westinghouse Brake & Signal Co Ltd Automation Div Chippenham .... England
Wilcox Electric Co Inc, Kansas City .... Mo
Wiltek, Inc, Wilton .... Conn

COMMUNICATION SYSTEMS--FACSIMILE

ANRITSU ELECTRIC CO LTD, TOKYO .... JAPAN
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
Advanced Technology Corp, Chambersburg .... Pa
Alden Electronic & Impulse Recording Equip Co Inc Westboro .... Mass
Anritsu Electric Co Ltd, Tokyo .... Japan
Automation Management, Inc, Westboro .... Mass
Bendix Corp Environmental Science Div, Baltimore .... Md
Cardion Electronics Div Gen Signal Corp, Woodbury .... N Y
C B S Labs Div Columbia Bdcstg Sys Inc Stamford .... Conn
Concord Electronics Corp, Los Angeles .... Cal
Dynamco Ltd, Chertsey Surrey .... Eng
E G & G Inc, Systems Devel Div, Bedford .... Mass
Electro-Optical Systems Inc, Pasadena .... Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas .... Tex
Goodyear Aerospace Corp, Akron .... Ohio
International Scanatron Systems Corp, Wyandanch .... N Y
ITT Defense Communications Div, Nutley .... N J
Karkar Electronics Inc, San Francisco .... Cal
Lenkurt Electric Co Inc, San Carlos .... Cal
Maxson Electronics Div, Maxson Electronics Corp Great River .... N Y
Metox, Paris 20 .... France
Microwave Associates Inc, Burlington .... Mass
3M Company, St Paul .... Minn
Muirhead Instruments Inc, Mountainside .... N J
Nippon Electric Co Ltd, Tokyo .... Japan
Northern Radio Co Inc, New York .... N Y
Omega-t Systems Inc, Richardson .... Tex
Philco-Ford Corp, Washington .... D C
Plessey Co Ltd, Telecommunications Group, Liverpool 7 .... England

Racal Communications Inc, Silver Spring .... Md
Resdel Engineering Corp, Pasadena .... Cal
R F Communications Inc, Rochester .... N Y
Rixon Electronics Inc, Silver Spring .... Md
Technical Materiel Corp, Mamaroneck .... N Y
Telautograph Corp, Los Angeles .... Cal
Telectro Systems Corp, Corona .... N Y
Topping Electronics Ltd, Toronto 17 .... Ont
Trepac Corp of America, Englewood .... N J
Xerox Corp, Rochester .... N Y

COMMUNICATION SYSTEMS--FREQUENCY SHIFT

ANRITSU ELECTRIC CO LTD, TOKYO .... JAPAN
INTERNATIONAL COMMUNICATIONS CORP, MIAMI .... FLA
MILGO ELECTRONIC CORP, MIAMI .... FLA
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
TELE-SIGNAL CORP, WOODBURY .... N Y
VICTOR COMPTOMETER CORP, BUSINESS MACH GROUP CHICAGO ILL
Advanced Communications Inc Sub Conductron Corp Chatsworth .... Cal
Advanced Technology Corp, Chambersburg .... Pa
Aerocom, Miami .... Fla
Aerospace Research, Inc, Boston .... Mass
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park .... N Y
American Astrionics Inc, Palo Alto .... Cal
Anritsu Electric Co Ltd, Tokyo .... Japan
Aquadyne Inc, East Falmouth .... Mass
Audio Instrument Co Inc, Union City .... N J
Automatic Electric Co, Northlake Ill
Bendix Corp, Communications Div, Towson .... Md
Bramco Controls Div Ledex Inc, Piqua .... Ohio
Canadian Motorola Electronics Co, Agincourt .... Ont
Cardion Electronics Div Gen Signal Corp, Woodbury .... N Y
Cie De Signaux Et D'Entreprises Electriques Paris 17eme .... France
Communication Associates Inc, New Hyde Park .... N Y
Computer Equipment Corp, Houston .... Tex
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles .... France
Dorsett Electronics Inc, Tulsa .... Okla
Electrac Inc, Anaheim .... Cal
Electronic Communications Inc (ECI), St Petersburg .... Fla
Energy Systems Inc, Palo Alto .... Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas .... Tex
Frederick Electronics Corp, Frederick .... Md
Fujitsu Ltd, Tokyo .... Japan
Gates Radio Co, Quincy Ill
General Atronics Corp, Philadelphia .... Pa
General Electric Co Communication Products Dept Lynchburg .... Va
General Instrument Corp Radio Receptor Div Hicksville .... N Y
Hammarlund Mfg Co, Mars Hill .... N C
Hammarlund Mfg Co Data Communications Div Amityville .... N Y
Hathaway Pacific Corp, Palo Alto .... Cal
International Communications Corp, Miami .... Fla
International Scanatron Systems Corp, Wyandanch .... N Y
Karkar Electronics Inc, San Francisco .... Cal
Kokusai Electric Co Ltd, Tokyo .... Japan
Landis & Gyr AG, Zug .... Switzerland
Lear Siegler Inc, Electronic Instrumentation Div Anaheim .... Cal
Lenkurt Electric Co Inc, San Carlos .... Cal
Loral Electronic Systems, Div Loral Corp, New York .... NY
Lynch Communication Systems, San Francisco .... Cal
Marconi Co Ltd, Chelmsford .... England
Marconi Div, English Electric Corp, New York .... N Y
Microwave Associates Inc, Burlington .... Mass
Milgo Electronic Corp, Miami .... Fla
Moore Associates Div Rocker Co, San Carlos .... Cal
Nippon Electric Co Ltd, Tokyo .... Japan
Noller Control Systems Inc, Richmond .... Cal
Northern Radio Co Inc, New York .... N Y
Oki Electric Industry Co Ltd, Tokyo .... Japan
Omega-t Systems Inc, Richardson .... Tex
Philco-Ford Corp, Washington .... D C
Philips Electronics Industries Ltd, Toronto 17 .... Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Quindar Electronics Inc, Springfield .... NJ
Racal Communications Inc, Silver Spring .... Md
RCA, Defense Electronic Products, Moorestown .... N J
Resdel Engineering Corp, Pasadena .... Cal
RFL Industries Inc, Communications Div, Boonton .... N J
Rixon Electronics Inc, Silver Spring .... Md
Selenia - Industrie Elettroniche Assoc, Rome .... Italy
Siemens America Inc, New York .... N Y
Sierra Research Corp, Buffalo .... N Y
Sonex Inc, Philadelphia .... Pa
Squires-Sanders Inc, Liberty Corner .... N J
Stelma Inc, Stamford .... Conn
Stromberg-Carlson Sub Gen Dynamics, Rochester .... N Y
Technical Materiel Corp, Mamaroneck .... N Y
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia .... Pa
Tele-Signal Corp, Woodbury .... N Y
Topping Electronics Ltd, Toronto 17 .... Ont
Trepac Corp of America, Englewood .... N J
Utility Communication Systems Inc, Essington .... Pa
Victor Comptometer Corp, Business Mach Group Chicago Ill

Westinghouse Brake & Signal Co Ltd Automation Div Chippenham	England
Wilcox Electric Co Inc, Kansas City	Mo

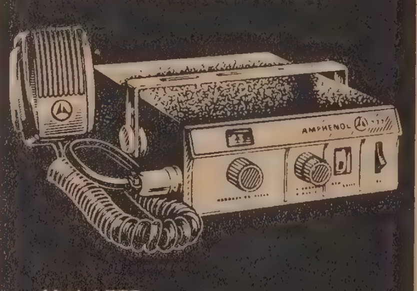
COMMUNICATION SYSTEMS--INTERCOMMUNICATION

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
VICTOR COMPTOMETER CORP, BUSINESS MACH GROUP CHICAGO	**ILL**
Action Systems Co Div Conn Consolidated Inds Inc Meriden	Conn
Advanced Purification System Co Inc, Great Neck	N Y
Advanced Technology Corp, Chambersburg	Pa
American Geloso Electronics Inc, New York	N Y
American Systems, Inc, Van Nuys	Cal
Amtron Inc, Midlothian	Ill
Anritsu Electric Co Ltd, Tokyo	Japan
Audio Equipment Co Div Walter Kidde & Co Inc Port Washington	NY
Audio Vox Intercom Inc, Montreal 12	Que
Automatic Clerical Systems Inc, Pasadena	Cal
Automatic Electric Co, Northlake	Ill
Automation Management, Inc, Westboro	Mass
Auto-Vox Inc, Quebec City	Que
A V Electronics, Inc, Fresno	Cal
Beama Engineering Ltd, Toronto 15	Ont
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp, Communications Div, Towson	Md
Bogen Communications Div Lear Siegler Inc Paramus	N J
Bruno-New York Industries Corp, New York	N Y
Calbest Electronics, Los Angeles	Cal
Canoga Electronics Corp, Chatsworth	Cal
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
C B S Labs Div Columbia Bdcstg Sys Inc Stamford	Conn
Clavier Corp, Richmond Hill	NY
Collins Radio Co, Dallas	Tex
Components Specialties Inc, Freeport	N Y
Concord Electronics Corp, Los Angeles	Cal
Continental Electronics Corp, Brooklyn	N Y
Cosmos Industries Inc, Brooklyn	N Y
Daltronics Inc, Providence	R I
Data Trends Inc, Parsippany	N J
Dewey Corp, G C, New York	N Y
Dowa Trading Co Ltd, Kobe	Japan
DuKane Corp, St Charles	Ill
Edwards Co Inc, Unit of General Signal Corp Norwalk	Conn
Ericsson Centrum Inc, New York	N Y
Executone Inc, Long Island City	N Y
Fabrication Labs Inc, Camino	Cal
Fanon Electronic Industries Div Courier Commun Inc Newark	N J
Fisher Berkeley Corp, Emeryville	Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Fujitsu Ltd, Tokyo	Japan
Gai-Tronics Corp, Reading	Pa
Gates Radio Co, Quincy	Ill
General Instrument Corp Radio Receptor Div Hicksville	N Y
Godfrey Mfg Co, Chicago	Ill
Hamilton Electronics Corp, Chicago	Ill
Henschel Corp, Amesbury	Mass
Instrument Labs Corp, Chicago	Ill
ITT Terryphone Corp, Harrisburg	Pa
Iwatsu Electric Co Ltd, Tokyo	Japan
Kameco Ltd, Montreal	Que
Kokusai Electric Co Ltd, Tokyo	Japan
Lake Systems Corp, Newton	Mass
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Marquardt Industrial Products Co, Chicago	Ill
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Midland International Corp, North Kansas City	Mo
Missouri Research Labs Inc, St Louis	Mo
Multiper N V, Den Haag	Netherlands
Nelson-Hershfield Electronics Co, Phoenix	Ariz
Nippon Electric Co Ltd, Tokyo	Japan
North Electric Co, Galion	Ohio
Northrop Nortronics, Palos Verdes Peninsula	Cal
Oki Electric Industry Co Ltd, Tokyo	Japan
Perry-Briggs Co, Cleveland	Ohio
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Private Tele Communications Inc, Chicago	Ill
Randam Electronics Inc, Cincinnati	Ohio
Ratelco Inc, Seattle	Wash
Rauland-Borg Corp, Chicago	Ill
RCA, Defense Electronic Products, Moorestown	N J
Remler Co, San Francisco	Cal
RFL Industries Inc, Communications Div, Boonton	N J
Round Hill Associates, Inc, New York	N Y
Shrader Sound Inc, Washington	D C
Siemens America Inc, New York	N Y
Siltronics Inc, Oakmont	Pa
Simplex Time Recorder Co, Gardner	Mass
Standard Telephones & Cables Ltd London WC 2	England
Stelma Inc, Stamford	Conn
Stromberg-Carlson Sub Gen Dynamics, Rochester	N Y
Symetrics Engineering Corp, Satellite Beach	Fla
Talk-A Phone Co, Chicago	Ill
Telautograph Corp, Los Angeles	Cal
Telectro Systems Corp, Corona	N Y
Telefunken Sales Corp, Garden City	N Y
Tele-Norm Corp, Woodside	N Y
Telephonics Div, Instrument Systems Corp Huntington	NY
Teletype Corp, Skokie	Ill
University Sound Div Ltv Ling Altec Inc Oklahoma City	Okla
Victor Comptometer Corp, Business Mach Group Chicago	Ill
Virginia Electronics Co Inc, Falls Church	Va
Visual Electronics Labs Audio Div, Pasadena	Cal
Watkins-Johnson Co, Palo Alto	Cal
Westinghouse Brake & Signal Co Ltd Automation Div Chippenham	England

COMMUNICATION SYSTEMS--LAND MOBILE

AMPHENOL, BROADVIEW, ILL	**ADV PG 168**
ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TELE-SIGNAL CORP, WOODBURY	**N Y**
Aircraft Components Inc, Benton Harbor	Mich
Amphenol, Broadview	Ill
Anritsu Electric Co Ltd, Tokyo	Japan
Autronics Corp, Pasadena	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Aviation Electric Ltd, St Laurent, Montreal	Que
Beckman Instruments Inc, Fullerton,	Cal
B & K Mfg Co Div Dynascan Corp, Chicago	Ill
Brelonix Inc, Seattle	Wash
Canadian Marconi Co, Montreal 16	Quebec
Canadian Motorola Electronics Co, Agincourt	Ont
Canoga Electronics Corp, Chatsworth	Cal
C B S Labs Div Columbia Bdcstg Sys Inc Stamford	Conn
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Clavier Corp, Richmond Hill	NY
Communication Associates Inc, New Hyde Park	N Y
Communications Co, Coral Gables	Fla
Cosmos Industries Inc, Brooklyn	N Y
Courier Communications Inc Sub Whittaker Corp Newark	N J
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dayton Electronics Products Co, Dayton	Ohio
Defense Electronics Inc, Rockville	Md
Dumont Mobile Communications Div LTV Ling Altec Inc Anaheim	Cal
Dynalectron Corp Aerospace Prods Div San Leandro	Cal
Dynamco Ltd, Chertsey Surrey	Eng
Electronic Communications Inc (ECI), St Petersburg	Fla
Electrospace Corp, Glen Cove	N Y
Energy Systems Inc, Palo Alto	Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Fujitsu Ltd, Tokyo	Japan
Galaxy Electronics Inc, Council Bluffs	Iowa
General Electric Co Communication Products Dept Lynchburg	Va
General Instrument Corp Radio Receptor Div Hicksville	N Y
Goodyear Aerospace Corp, Akron	Ohio
Hammarlund Mfg Co, Mars Hill	N C
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
International Scanatron Systems Corp, Wyandanch	N Y
ITT Defense Communications Div, Nutley	N J
Johnson Co, E F, Waseca	Minn
Kaar Electronics Corp, Linden	N J
Kobe Industries Corp, Kobe	Japan
Kokusai Electric Co Ltd, Tokyo	Japan
Linear Systems Inc, Watsonville	Cal
Marconi Co Ltd, Chelmsford	England
Marti Electronics, Cleburne	Tex
Melabs, Palo Alto	Cal
Memcor Div LTV Electrosystems Inc, Huntington	Ind
Micro Communications Co, Denver	Colo
Microwave Associates Inc, Burlington	Mass
Mitsubishi Electric Corp, Tokyo	Japan
Mobil Electronics Inc, Anderson	Ind
Moseley Associates Inc, Goleta	Cal
Motorola Communications & Electronics Div Chicago	Ill
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Pearce-Simpson Inc, Miami	Fla
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polytronics Communications, Baltimore Div Baltimore	Md
Racal Communications Inc, Silver Spring	Md
Radiation Systems Inc, McLean	Va
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Radio Engineering Labs, Div DCA, Long Island City	N Y
Raytheon Co, Communications & Data Processing Oper Norwood	Mass
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Reeves Instrument Div, DCA, Garden City	N Y
Resdel Engineering Corp, Pasadena	Cal
R F Communications Inc, Rochester	N Y
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Siemens America Inc, New York	N Y
Sierra Research Corp, Buffalo	N Y
Signal & Communications Div Westinghouse Air Brake Co Pittsburgh	Pa
Squires-Sanders Inc, Liberty Corner	N J
Standard Telephones & Cables Ltd London WC 2	England
Stelma Inc, Stamford	Conn
Storno, Copenhagen S	Den
SunAir Electronics Inc, Ft Lauderdale	Fla
Symetrics Engineering Corp, Satellite Beach	Fla
Systems Engineering Ltd, Grouse Creek	Utah
Technical Materiel Corp, Mamaroneck	N Y
Tele-Signal Corp, Woodbury	N Y
T M C Systems & Power Corp, Springfield	Va
Ultra Electronics Ltd, London, W 3	England
Utica Electronics Inc, Chicago	Ill
Vinco Industries, Orange	Cal
Watkins-Johnson Co, Palo Alto	Cal
Wickes Industries Inc, Camden	N J
Wilcox Electric Co Inc, Kansas City	Mo

Specify Amphenol. The leading name in Mobile CB Transceivers.



Model 777
Power input: 5 watts max.
Power output: 3 watts min.
Modulation: 100% max.
Antenna impedance: 52 ohms
Superheterodyne receiver
Sensitivity: .5 uv. max. for 10db $\frac{S+N}{N}$
Selectivity: 40db @ ± 10KC

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL™

COMMUNICATION SYSTEMS--MARINE RADIOTELEPHONE

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
HEATH CO, BENTON HARBOR	**MICH**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Aeromarine Electronics, Inc, San Diego	Cal
American Systems, Inc, Van Nuys	Cal
Anritsu Electric Co Ltd, Tokyo	Japan
Atlantic Instruments & Electronics, Inc Watertown	Mass
Aviation Electric Ltd, St Laurent, Montreal	Que
Brelonix Inc, Seattle	Wash
Canadian Marconi Co, Montreal 16	Quebec
Canoga Electronics Corp, Chatsworth	Cal
CEC-Benmar, Santa Ana	Cal
Communication Associates Inc, New Hyde Park	N Y
Communications Co, Coral Gables	Fla
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Daltronics Inc, Providence	R I
Decitron Electronics Corp, Brooklyn	N Y
Dynamco Ltd, Chertsey Surrey	Eng
Electronics Communications Div Atlantic Research Corp Alexandria	Va
Gates Radio Co, Quincy	Ill
General Coil Products Corp, Brooklyn	N Y
Hammarlund Mfg Co, Mars Hill	N C
Heath Co, Benton Harbor	Mich
Hydro Products Div Dillingham Corp, San Diego	Cal
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
International Scanatron Systems Corp, Wyandanch	N Y
Jetronic Industries Inc, Philadelphia	Pa
Kaar Electronics Corp, Linden	N J
Kidde & Co Inc, Walter, Belleville	N J
Kobe Industries Corp, Kobe	Japan
Kokusai Electric Co Ltd, Tokyo	Japan
Konigsberg Electronics Inc, So San Francisco	Cal
Linear Systems Inc, Watsonville	Cal
Marconi Div, English Electric Corp, New York	N Y
Motorola Communications & Electronics Div Chicago	Ill

Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Pearce-Simpson Inc, Miami	Fla
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Prod-El, Prodotti Elettronici Spa, 20132 Milan	Italy
Racal Communications Inc, Silver Spring	Md
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Radio Corp of America, Radiomarine Dept Camden	N J
Raytheon Co, Marine Products Operation S San Francisco	Cal
RCA, Defense Electronic Products, Moorestown	N J
R F Communications Inc, Rochester	N Y
Servo-Tek Products Co, Marine Div, Hawthorne	N J
Servo-Tek Products Co, Hawthorne	N J
Simpson Electronics, Inc, Miami	Fla
Squires-Sanders Inc, Liberty Corner	N J
Standard Telephones & Cables Ltd London WC 2	England
States Electronics Corp, Bludworth Marine Div Linden	N J
Storno, Copenhagen S	Den
SunAir Electronics Inc, Ft Lauderdale	Fla
Technical Materiel Corp, Mamaroneck	N Y
T M C Systems & Power Corp, Springfield	Va
Topping Electronics Ltd, Toronto 17	Ont
Watkins-Johnson Co, Palo Alto	Cal

COMMUNICATION SYSTEMS--MICROWAVE

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
Aerojet-General Corp Electronics Div, Azusa	Cal
Aertech, Sunnyvale	Cal
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Aircom Inc, Union	N H
Alto Scientific Co, Inc, Palo Alto	Cal
American Electronic Labs Inc, Lansdale	Pa
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Beckman Instruments Inc, Fullerton,	Cal
Canadian Marconi Co, Montreal 16	Quebec
Canadian Motorola Electronics Co, Agincourt	Ont
Canoga Electronics Corp, Chatsworth	Cal
Cardion Communications, Woodbury	N Y
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Clavier Corp, Richmond Hill	NY
Cober Electronics Inc, Stamford	Conn
Collins Radio Co, Dallas	Tex
Conductron Corp, Ann Arbor	Mich
Conic Corp, San Diego	Cal
Cosmos Industries Inc, Brooklyn	N Y
Costelow Co Inc, Topeka	Kans
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Dewey Corp, G C, New York	N Y
Electrac Inc, Anaheim	Cal
Electronics Communications Div Atlantic Research Corp Alexandria	Va
Energy Systems Inc, Palo Alto	Cal
Epsco Inc, Westwood	Mass
Ewen-Knight Corp, East Natick	Mass
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Farinon Electric, San Carlos	Cal
Ferranti Electric Inc, Plainview	N Y
Ferranti, Ltd, Lancashire	England
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Fujitsu Ltd, Tokyo	Japan
General Atronics Corp, Philadelphia	Pa
General Electric Co Communication Products Dept Lynchburg	Va
General Instrument Corp Radio Receptor Div Hicksville	N Y
Goodyear Aerospace Corp, Akron	Ohio
GPL Div Gen Precision Systems Inc, Pleasantville	N Y
Hickok Teaching Systems Inc, Cambridge	Mass
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
Intelect Inc, Honolulu	Hawaii
International Microwave Corp, Cos Cob	Conn
ITT Defense Communications Div, Nutley	N J
Karkar Electronics Inc, San Francisco	Cal
Kobe Industries Corp, Kobe	Japan
Lake Systems Corp, Newton	Mass
Lenkurt Electric Co Inc, San Carlos	Cal
Loral Electronic Systems, Div Loral Corp, New York	NY
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Marti Electronics, Cleburne	Tex
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Melabs, Palo Alto	Cal
Micro Communications Co, Denver	Colo
Micronetics Div Teledyne Systems Co, San Diego	Cal
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Development Labs Inc Needham Heights	Mass
Mitsubishi Electric Corp, Tokyo	Japan
Motorola Communications & Electronics Div Chicago	Ill
M Tech Corp, Pomona	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Norden Div, United Aircraft Corp, Norwalk	Conn
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polarad Electronic Instruments Div Long Island City	N Y
Quindar Electronics Inc, Springfield	NJ
Radiation Systems Inc, McLean	Va
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Radio Engineering Labs, Div DCA, Long Island City	N Y
Ramcor Inc, Huntington	NY
Raven Electronics Inc, Burbank	Cal
Raytheon Co, Communications & Data Processing Oper Norwood	Mass
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Reeves Instrument Div, DCA, Garden City	N Y
Resdel Engineering Corp, Pasadena	Cal
R H G Electronics Lab Inc, Farmingdale	N Y
Robertshaw Controls Co, Aero & Instrument Div Anaheim	Cal
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Sedco Systems Inc, Farmingdale	N Y
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Servo Corp of America, Hicksville	N Y
Shrader Sound Inc, Washington	D C
Siemens America Inc, New York	N Y
Sierra Research Corp, Buffalo	N Y
Standard Telephones & Cables Ltd London WC 2	England
Stromberg-Carlson Sub Gen Dynamics, Rochester	N Y
Surface Conduction Inc, New York	N Y
Sylvania Electronic Systems, Waltham	Mass
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Telefunken Sales Corp, Garden City	N Y
TRF Inc, Springfield	Va
TRG Div Control Data Corp, East Boston	Mass
TRW Systems Group, Redondo Beach	Cal
Varian, Palo Alto	Cal
Vega Precision Labs, Vienna	Va
Watkins-Johnson Co, Palo Alto	Cal
Wickes Industries Inc, Camden	N J

COMMUNICATION SYSTEMS--MULTIPLEX RADIO CARRIER

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TELE-SIGNAL CORP, WOODBURY	**N Y**
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Aerospace Research, Inc, Boston	Mass
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Anritsu Electric Co Ltd, Tokyo	Japan
Astrodata Inc, Anaheim	Cal
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Beckman Instruments Inc, Fullerton,	Cal
Belar Electronics Lab Inc, Upper Darby	Pa
Browning Laboratories Inc, Laconia	N H
Canadian Motorola Electronics Co, Agincourt	Ont
Cardion Communications, Woodbury	N Y
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Collins Radio Co, Dallas	Tex
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dayton Electronics Products Co, Dayton	Ohio
Dorsett Electronics Inc, Tulsa	Okla
Dynamco Ltd, Chertsey Surrey	Eng
Electronic Communications Inc (ECI), St Petersburg	Fla
Energy Systems Inc, Palo Alto	Cal
Epsco Inc, Westwood	Mass
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Farinon Electric, San Carlos	Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Fujitsu Ltd, Tokyo	Japan
Gates Radio Co, Quincy	Ill
General Devices Inc, Instrumentation Div Princeton	N J
General Electric Co Communication Products Dept Lynchburg	Va
General Instrument Corp Radio Receptor Div Hicksville	N Y
Gulton Industries Inc, Metuchen	N J
Hathaway Pacific Corp, Palo Alto	Cal
Intelect Inc, Honolulu	Hawaii
Jetronics Co Div J L Hall Co Inc, Redwood City	Cal
Karkar Electronics Inc, San Francisco	Cal
Kokusai Electric Co Ltd, Tokyo	Japan
Lenkurt Electric Co Inc, San Carlos	Cal
Lynch Communication Systems, San Francisco	Cal
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Moseley Associates Inc, Goleta	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Northern Radio Co Inc, New York	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Radio Engineering Labs, Div DCA, Long Island City	N Y
Raytheon Co, Communications & Data Processing Oper Norwood	Mass
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Resdel Engineering Corp, Pasadena	Cal
RFL Industries Inc, Communications Div, Boonton	N J
Rixon Electronics Inc, Silver Spring	Md
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Siemens America Inc, New York	N Y
Sierra Research Corp, Buffalo	N Y
Squires-Sanders Inc, Liberty Corner	N J
Standard Telephones & Cables Ltd London WC 2	England
Stromberg-Carlson Sub Gen Dynamics, Rochester	N Y
Surface Conduction Inc, New York	N Y
Systems Engineering Ltd, Grouse Creek	Utah
Technical Materiel Corp, Mamaroneck	N Y
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Telefunken Sales Corp, Garden City	N Y
Tele-Signal Corp, Woodbury	N Y
Utility Communication Systems Inc, Essington	Pa
Westinghouse Brake & Signal Co Ltd Automation Div Chippenham	England
Wilcox Electric Co Inc, Kansas City	Mo

COMMUNICATION SYSTEMS--MULTIPLEX WIRELINE CARRIER

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
INTERNATIONAL COMMUNICATIONS CORP, MIAMI	**FLA**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TELE-SIGNAL CORP, WOODBURY	**N Y**
Alto Scientific Co, Inc, Palo Alto	Cal
Anritsu Electric Co Ltd, Tokyo	Japan
Astrodata Inc, Anaheim	Cal
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp, Communications Div, Towson	Md
Bionic Instruments Inc, Bala Cynwyd	Pa
Canoga Electronics Corp, Chatsworth	Cal
Cardion Communications, Woodbury	N Y
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Collins Radio Co, Dallas	Tex
Computer Equipment Corp, Houston	Tex
Data Trends Inc, Parsippany	N J
Defense Electronics Inc, Rockville	Md
Dorsett Electronics Inc, Tulsa	Okla
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Fujitsu Ltd, Tokyo	Japan
General Devices Inc, Instrumentation Div Princeton	N J
Gulton Industries Inc, Metuchen	N J
International Communications Corp, Miami	Fla
Jetronics Co Div J L Hall Co Inc, Redwood City	Cal
Karkar Electronics Inc, San Francisco	Cal
Landis & Gyr AG, Zug	Switzerland
Lenkurt Electric Co Inc, San Carlos	Cal
Lynch Communication Systems, San Francisco	Cal
Marconi Co Ltd, Chelmsford	England
Milgo Electronic Corp, Miami	Fla
Nippon Electric Co Ltd, Tokyo	Japan
Northern Radio Co Inc, New York	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Philco-Ford Corp, Washington	D C
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Quindar Electronics Inc, Springfield	NJ
RCA, Defense Electronic Products, Moorestown	N J
RFL Industries Inc, Communications Div, Boonton	N J
Rixon Electronics Inc, Silver Spring	Md
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Siemens America Inc, New York	N Y
Standard Telephones & Cables Ltd London WC 2	England
Stelma Inc, Stamford	Conn
Stromberg-Carlson Sub Gen Dynamics, Rochester	N Y
Superior Continental Corp, Hickory	N C
Surface Conduction Inc, New York	N Y
Systems Engineering Ltd, Grouse Creek	Utah
Teledata Inc, Queens Village	N Y
Tele-Signal Corp, Woodbury	N Y
Utility Communication Systems Inc, Essington	Pa
Vidar Corp, Mountain View	Cal
Westinghouse Brake & Signal Co Ltd Automation Div Chippenham	England

COMMUNICATION SYSTEMS--OPTICAL

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
American Optical Co Space Defense Div Southbridge	Mass
Anritsu Electric Co Ltd, Tokyo	Japan
Bausch & Lomb, Inc, Rochester	N Y
Broomer Research Corp, Plainview	N Y
Canoga Electronics Corp, Chatsworth	Cal
Cohu Electronics Inc, San Diego	Cal
Crystalab Products Corp, Rochelle Park	N J
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
E G & G Inc Custom Equip Div, Bedford	Mass

Flexi Optics Labs Inc, Somerville	Mass
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
Infrared Industries Inc, Santa Barbara	Cal
Isomet Corp, Palisades Park	N J
Kollsman Instrument Corp, Syosset	N Y
Motorola Communications & Electronics Div Chicago	Ill
Optomechanisms Inc, Plainview	N Y
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Ransom Labs, John H, Los Angeles	Cal
RCA, Defense Electronic Products, Moorestown	N J
Resalab Inc, Menlo Park	Cal
Schoeffel Instrument Co, Westwood	NJ
Seed Electronics Corp, Lexington	Mass
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Sylvania Electronic Systems, Waltham	Mass
TRW Systems Group, Redondo Beach	Cal
Varo Inc, Garland	Tex
Westinghouse Electric Corp, Aerospace Div Baltimore	Md

COMMUNICATION SYSTEMS--RAILROAD

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
VICTOR COMPTOMETER CORP, BUSINESS MACH GROUP CHICAGO	**ILL**
Anritsu Electric Co Ltd, Tokyo	Japan
Automatic Electric Co, Northlake	Ill
Bayly Engineering Ltd, Ajax	Ontario
Canadian Motorola Electronics Co, Agincourt	Ont
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Compudyne Corp, Hatboro	Pa
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dumont Mobile Communications Div LTV Ling Altec Inc Anaheim	Cal
Dynamco Ltd, Chertsey Surrey	Eng
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Executone Inc, Long Island City	N Y
Farinon Electric, San Carlos	Cal
General Electric Co Communication Products Dept Lynchburg	Va
Gulton Industries Inc, Metuchen	N J
Hamilton Electronics Corp, Chicago	Ill
Honeywell Inc, Computer Control Div Framingham	Mass
Karkar Electronics Inc, San Francisco	Cal
Kokusai Electric Co Ltd, Tokyo	Japan
Lenkurt Electric Co Inc, San Carlos	Cal
Lynch Communication Systems, San Francisco	Cal
Marquardt Industrial Products Co, Chicago	Ill
McElroy Electronics Corp, Shirley	Mass
Micro Communications Co, Denver	Colo
Microwave Associates Inc, Burlington	Mass
Mitsubishi Electric Corp, Tokyo	Japan
Motorola Communications & Electronics Div Chicago	Ill
Nippon Electric Co Ltd, Tokyo	Japan
North Electric Co, Galion	Ohio
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polytronics Communications, Baltimore Div Baltimore	Md
Rauland-Borg Corp, Chicago	Ill
Raytheon Co, Communications & Data Processing Oper Norwood	Mass
Raytheon Co, Government Marketing, Lexington	Mass
RFL Industries Inc, Communications Div, Boonton	N J
Siemens America Inc, New York	N Y
Signal & Communications Div Westinghouse Air Brake Co Pittsburgh	Pa
Standard Telephones & Cables Ltd London WC 2	England
Storno, Copenhagen S	Den
Stromberg-Carlson Sub Gen Dynamics, Rochester	N Y
Superior Continental Corp, Hickory	N C
Surface Conduction Inc, New York	N Y
Telefunken Sales Corp, Garden City	N Y
Trepac Corp of America, Englewood	N J
TRG Div Control Data Corp, East Boston	Mass
Utica Electronics Inc, Chicago	Ill
Victor Comptometer Corp, Business Mach Group Chicago	Ill
Visiontron Corp, New York	N Y
Watkins-Johnson Co, Palo Alto	Cal
Westinghouse Brake & Signal Co Ltd Automation Div Chippenham	England

COMMUNICATION SYSTEMS--SELECTIVE CALLING

AMPHENOL, BROADVIEW	**ILL**
ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TELE-SIGNAL CORP, WOODBURY	**N Y**
VICTOR COMPTOMETER CORP, BUSINESS MACH GROUP CHICAGO	**ILL**
American Systems, Inc, Van Nuys	Cal
Amphenol, Broadview	Ill
Anritsu Electric Co Ltd, Tokyo	Japan
Automatic Clerical Systems Inc, Pasadena	Cal
Automatic Electric Co, Northlake	Ill
Bayly Engineering Ltd, Ajax	Ontario
Bennett Laboratories, Inc, Emeryville	Cal
Bogen Communications Div Lear Siegler Inc Paramus	N J
Bramco Controls Div Ledex Inc, Piqua	Ohio
CAE Industries Ltd, Montreal 3	Que
Canadian Marconi Co, Montreal 16	Quebec
Canadian Motorola Electronics Co, Agincourt	Ont
Canoga Electronics Corp, Chatsworth	Cal
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Codamite Div Pacific Ordnance & Elctns Co Anaheim	Cal
Collins Radio Co, Dallas	Tex
Compudyne Corp, Hatboro	Pa
Computer Equipment Corp, Houston	Tex
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dasa Corp, Andover	Mass
Data Trends Inc, Parsippany	N J
DuKane Corp, St Charles	Ill
Dumont Mobile Communications Div LTV Ling Altec Inc Anaheim	Cal
Ericsson Centrum Inc, New York	N Y
Executone Inc, Long Island City	N Y
Faraday Div The Gray Mfg Co, Tecumseh	Mich
Fisher Berkeley Corp, Emeryville	Cal
Fujitsu Ltd, Tokyo	Japan
General Electric Co Communication Products Dept Lynchburg	Va
H B Engineering Corp, Silver Spring	Md
ITT Telecommunications, New York	N Y
ITT Terryphone Corp, Harrisburg	Pa
Johnson Co, E F, Waseca	Minn
Kaar Electronics Corp, Linden	N J
Kobe Industries Corp, Kobe	Japan
Lake Systems Corp, Newton	Mass
Lear Siegler Inc, Santa Monica	Cal
Lynch Communication Systems, San Francisco	Cal
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Marquardt Industrial Products Co, Chicago	Ill
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Melabs, Palo Alto	Cal
Mobil Electronics Inc, Anderson	Ind
Motorola Communications & Electronics Div Chicago	Ill
Multiper N V, Den Haag	Netherlands
Multitone Electronics Ltd, New York	N Y
Nelson-Hershfield Electronics Co, Phoenix	Ariz
Nippon Electric Co Ltd, Tokyo	Japan
North Electric Co, Galion	Ohio
Oki Electric Industry Co Ltd, Tokyo	Japan
Pearce-Simpson Inc, Miami	Fla
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plectron Corp, Overton	Nebr
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Polytronics Communications, Baltimore Div Baltimore	Md
Private Tele Communications Inc, Chicago	Ill
Pulse Communications Inc, Falls Church	Va
Quindar Electronics Inc, Springfield	NJ
Rauland-Borg Corp, Chicago	Ill
RCA, Defense Electronic Products, Moorestown	N J
Reach Electronics Inc, Lexington	Neb
Round Hill Associates, Inc, New York	N Y
Shrader Sound Inc, Washington	D C
Standard Telephones & Cables Ltd London WC 2	England
Stelma Inc, Stamford	Conn
Storno, Copenhagen S	Den
Stromberg-Carlson Sub Gen Dynamics, Rochester	N Y
Talk-A Phone Co, Chicago	Ill
Tele-Signal Corp, Woodbury	N Y
Teletype Corp, Skokie	Ill
Trepac Corp of America, Englewood	N J
Utica Electronics Inc, Chicago	Ill
Victor Comptometer Corp, Business Mach Group Chicago	Ill
Vinco Industries, Orange	Cal
Watkins-Johnson Co, Palo Alto	Cal
Westinghouse Brake & Signal Co Ltd Automation Div Chippenham	England
Worner Electronic Devices, Rankin	Ill

COMMUNICATION SYSTEMS--SINGLE SIDEBAND

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
HEATH CO, BENTON HARBOR	**MICH**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Aerocom, Miami	Fla
Aeroscience Electronics Inc, Atlanta	Ga
Aerospace Research, Inc, Boston	Mass
Anritsu Electric Co Ltd, Tokyo	Japan
Automatic Electric Co, Northlake	Ill
Avco Corp Electronics Div, Cincinnati	Ohio
Aviation Electric Ltd, St Laurent, Montreal	Que
Bendix Corp, Communications Div, Towson	Md
Brelonix Inc, Seattle	Wash
Canadian Marconi Co, Montreal 16	Quebec
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
CEC-Benmar, Santa Ana	Cal
Collins Radio Co, Dallas	Tex
Communication Associates Inc, New Hyde Park	N Y
Continental Electronics Corp, Brooklyn	N Y
Continental Electronics Mfg Co Sub LTV Electrosystems Inc, Dallas	Tex
Cosmos Industries Inc, Brooklyn	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Decitron Electronics Corp, Brooklyn	N Y
Drake Co, R L, Miamisburg	Ohio
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electrac Inc, Anaheim	Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Fujitsu Ltd, Tokyo	Japan
Galaxy Electronics Inc, Council Bluffs	Iowa
Gates Radio Co, Quincy	Ill
General Atronics Corp, Philadelphia	Pa
General Electric Co Communication Products Dept Lynchburg	Va
General Instrument Corp Radio Receptor Div Hicksville	N Y
Granger Associates, Palo Alto	Cal
Hammarlund Mfg Co, Mars Hill	N C
Heath Co, Benton Harbor	Mich
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
International Scanatron Systems Corp, Wyandanch	N Y
Johnson Co, E F, Waseca	Minn
Kaar Electronics Corp, Linden	N J
Kahn Research Labs Inc, Freeport	N Y
Karkar Electronics Inc, San Francisco	Cal
Kobe Industries Corp, Kobe	Japan
Kokusai Electric Co Ltd, Tokyo	Japan
Lenkurt Electric Co Inc, San Carlos	Cal
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Otis Elevator Co, Defense Oper, Stamford	Conn
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polarad Electronic Instruments Div Long Island City	N Y
Premier Microwave Corp, Port Chester	N Y
Racal Communications Inc, Silver Spring	Md
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Radio Corp of America, Radiomarine Dept Camden	N J
Raytheon Co, Marine Products Operation S San Francisco	Cal
RCA, Defense Electronic Products, Moorestown	N J
Reeves Instrument Div, DCA, Garden City	N Y
R F Communications Inc, Rochester	N Y
RFL Industries Inc, Communications Div, Boonton	N J
Siemens America Inc, New York	N Y
Squires-Sanders Inc, Liberty Corner	N J
SunAir Electronics Inc, Ft Lauderdale	Fla
Superior Continental Corp, Hickory	N C
Sylvania Electronic Systems, Waltham	Mass
Symetrics Engineering Corp, Satellite Beach	Fla
Technical Materiel Corp, Mamaroneck	N Y
Thomson Electric Co, Sub Cie Fran Thomson Houston New York	N Y
T M C Systems & Power Corp, Springfield	Va
TRW Systems Group, Redondo Beach	Cal
Watkins-Johnson Co, Palo Alto	Cal
Weitermann Electronics, Milwaukee	Wis
Wickes Industries Inc, Camden	N J
Wilcox Electric Co Inc, Kansas City	Mo

COMMUNICATION SYSTEMS--TELEMETERING

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
TELE-SIGNAL CORP, WOODBURY	**N Y**
TOWSON LABS INC, BALTIMORE	**MD**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
Accurate Electronics Corp, Elyria	Ohio
Aeromarine Electronics, Inc, San Diego	Cal
Aeroscience Electronics Inc, Atlanta	Ga
Aerospace Research, Inc, Boston	Mass
Aertech, Sunnyvale	Cal
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
Alto Scientific Co, Inc, Palo Alto	Cal
American Electronic Labs Inc, Lansdale	Pa
American Systems, Inc, Van Nuys	Cal
Anritsu Electric Co Ltd, Tokyo	Japan
Applied Electronics Corp of N J, Metuchen	N J
Astrodata Inc, Anaheim	Cal
Autocon Industries, Inc, St Paul	Minn
Automatic Electric Co, Northlake	Ill
Avco Corp Electronics Div, Cincinnati	Ohio
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Avtel Corp, Covina	Cal
Ball Brothers Research Corp, Boulder	Colo
Bayly Engineering Ltd, Ajax	Ontario
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp, Communications Div, Towson	Md
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Bendix Corp Environmental Science Div, Baltimore	Md
B I F Unit General Signal Corp, Providence	R I
Biocom, Inc, Culver City	Cal
Bionic Instruments Inc, Bala Cynwyd	Pa
Bissett-Berman Corp, Santa Monica	Cal
Borg-Warner Controls Div Borg-Warner Corp Santa Ana	Cal

Bradley Ltd G & E, London NW 10	England
Bramco Controls Div Ledex Inc, Piqua	Ohio
Bristol Div, American Chain & Cable Co Waterbury	Conn
CAE Industries Ltd, Montreal 3	Que
Canadian Motorola Electronics Co, Agincourt	Ont
Canoga Electronics Corp, Chatsworth	Cal
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Chrysler Corp, Missile Div, Detroit	Mich
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Compudyne Corp, Hatboro	Pa
Computer Equipment Corp, Houston	Tex
Conductron Corp, Ann Arbor	Mich
Conic Corp, San Diego	Cal
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Control Science Corp, Alexandria	Va
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Cunningham Son & Co Inc, James, Honeoye Falls	N Y
Data-Control Systems Inc, Danbury	Conn
Defense Electronics Inc, Rockville	Md
Destron Co, Rolling Hills Estate	Cal
Dorsett Electronics Inc, Tulsa	Okla
Dresser Controls, Houston	Texas
Dynamco Ltd, Chertsey Surrey	Eng
Dynatronics Oper Elctns Div Gen Dynamics Corp Orlando	Fla
Electrac Inc, Anaheim	Cal
Electronics Communications Div Atlantic Research Corp Alexandria	Va
Electronic Specialty Co, Los Angeles	Cal
Elpac Inc Systems Div Data, Irvine	Cal
EMR Div Weston Instruments Inc, Princeton	N J
Energy Systems Inc, Palo Alto	Cal
Epsco Inc, Westwood	Mass
Ewen-Knight Corp, East Natick	Mass
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Fifth Dimension Inc, Princeton	N J
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Fuji Electric Co Ltd, Tokyo	Japan
Fujitsu Ltd, Tokyo	Japan
Gates Radio Co, Quincy	Ill
GCA Technology Div GCA Corp, Bedford	Mass
General Devices Inc, Instrumentation Div Princeton	N J
General Instrument Corp Radio Receptor Div Hicksville	N Y
General Railway Signal Co, Rochester	N Y
Genisco Technology Corp, Compton	Cal
Giannini-Voltex, Whittier	Cal
Goodyear Aerospace Corp, Akron	Ohio
Gulton Industries Inc, Metuchen	N J
Hammarlund Mfg Co Data Communications Div Amityville	N Y
Hathaway Pacific Corp, Palo Alto	Cal
H B Engineering Corp, Silver Spring	Md
Hersey-Sparling Meter Co, El Monte	Cal
Industrial Electronetics Corp, Satellite Beach	Fla
International Data Systems Inc, Dallas	Tex
Kameco Ltd, Montreal	Que
Karkar Electronics Inc, San Francisco	Cal
Kokusai Electric Co Ltd, Tokyo	Japan
Laben S p A, Milan	Italy
Landis & Gyr, Inc, New York	N Y
Landis & Gyr AG, Zug	Switzerland
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Lenkurt Electric Co Inc, San Carlos	Cal
Lind Electro Development A Teledyne Co Mountain View	Cal
Listening Inc, Arlington	Mass
Loral Electronic Systems, Div Loral Corp, New York	NY
Lynch Communication Systems, San Francisco	Cal
Marconi Co Ltd, Chelmsford	England
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Melabs, Palo Alto	Cal
Meteorology Research Inc, Altadena	Cal
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Mitsubishi Electric Corp, Tokyo	Japan
Monitor Systems Inc, Fort Washington	Pa
Moore Associates Div Rocker Co, San Carlos	Cal
Motorola Communications & Electronics Div Chicago	Ill
Nichols Co Ltd, R H, Downsview	Ont
Nippon Electric Co Ltd, Tokyo	Japan
Noller Control Systems Inc, Richmond	Cal
Norden Div, United Aircraft Corp, Norwalk	Conn
North Electric Co, Galion	Ohio
Northern Radio Co Inc, New York	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polarad Electronic Instruments Div Long Island City	N Y
Probescope Co Inc, Syosset	N Y
Quindar Electronics Inc, Springfield	NJ
Radiation Inc Systems Div, Melbourne	Fla
Radiation Systems Inc, McLean	Va
Ramsay Engineering Co, Anaheim	Cal
Ransom Labs, John H, Los Angeles	Cal
Raven Electronics Inc, Burbank	Cal
RCA, Defense Electronic Products, Moorestown	N J
RC-95 Inc, New York	N Y
Reeves Instrument Div, DCA, Garden City	N Y
Resdel Engineering Corp, Pasadena	Cal
RFL Industries Inc, Communications Div, Boonton	N J
R H G Electronics Lab Inc, Farmingdale	N Y
Rouge Electronics Co, Oklahoma City	Okla
Sangamo Electric Co, Springfield	Ill
Saturn Electronics Corp, Garland	Tex
Schjeldahl Co, G T, Northfield	Minn
Schlumberger, 92-Montrouge 32	France
Scientific Data Systems Inc, El Segundo	Cal
Scope Inc, Reston	Va
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Siemens America Inc, New York	N Y
Sierra Research Corp, Buffalo	N Y
Solid State Electronics Corp, Sepulveda	Cal
Sonex Inc, Philadelphia	Pa
Space Craft Inc, Huntsville	Ala
Squires-Sanders Inc, Liberty Corner	N J
Standard Telephones & Cables Ltd London WC 2	England
Stellarmetrics Inc, Santa Barbara	Cal
Stoelting Co, C H, Chicago	Ill
Surface Conduction Inc, New York	N Y
Sylvania Electronic Systems, Waltham	Mass
Symetrics Engineering Corp, Satellite Beach	Fla
Systems Engineering Ltd, Grouse Creek	Utah
Technical Materiel Corp, Mamaroneck	N Y
Telectro Systems Corp, Corona	N Y
Teledata Inc, Queens Village	N Y
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Teledyne Telemetry Co, Los Angeles	Cal
Telemet Co, Video Prods & Airborne Telemetry Amityville	N Y
Tele-Signal Corp, Woodbury	N Y
Topping Electronics Ltd, Toronto 17	Ont
Towson Labs Inc, Baltimore	Md
Trepac Corp of America, Englewood	N J
TRF Inc, Springfield	Va
TRG Div Control Data Corp, East Boston	Mass
TRW Systems Group, Redondo Beach	Cal
Utility Communication Systems Inc, Essington	Pa
Vega Electronics Corp, Santa Clara	Cal
Vega Precision Labs, Vienna	Va
Vidar Corp, Mountain View	Cal
Video Research Corp, Rockville	Md
Westinghouse Brake & Signal Co Ltd Automation Div Chippenham	England
Westinghouse Electric Corp, Aerospace Div Baltimore	Md
Winston Research Corp, Los Angeles	Cal

COMMUNICATION SYSTEMS--TELEPRINTER

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TELE-SIGNAL CORP, WOODBURY	**N Y**
TOWSON LABS INC, BALTIMORE	**MD**
Advanced Space Age Products Inc, Alexandria	Va
Anderson-Jacobson Inc, Mountain View	Cal
Anritsu Electric Co Ltd, Tokyo	Japan
Astrodata Inc, Anaheim	Cal
Automatic Electric Co, Northlake	Ill
Bendix Corp, Communications Div, Towson	Md
CAE Industries Ltd, Montreal 3	Que
Century Electronics & Instruments Inc, Tulsa	Okla
Codamite Div Pacific Ordnance & Elctns Co Anaheim	Cal
Compudyne Corp, Hatboro	Pa
Connecticut Technical Corp, Hartford	Conn
Dasa Corp, Andover	Mass
Data Trends Inc, Parsippany	N J
Diamond Repeater Co, Madison	N J
Digitech Inc, Ridgefield	Conn
Frederick Electronics Corp, Frederick	Md
General Electric Co, Printer-Reader Bus Sec Philadelphia	Pa
Goodyear Aerospace Corp, Akron	Ohio
Invac Corp, Waltham	Mass
Kleinschmidt, Div SCM Corp, Deerfield	Ill
Kokusai Electric Co Ltd, Tokyo	Japan
Lenkurt Electric Co Inc, San Carlos	Cal
Litton Datalog Div, Litton Ind Inc, San Francisco	Cal
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Mite Corp, New Haven	Conn
Mohawk Data Sciences Corp, Boston	Mass
Motorola Communications & Electronics Div Chicago	Ill
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Omnitec Corp, Phoenix	Ariz
Philips Electronics Industries Ltd, Toronto 17	Ont
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Pulse Communications Inc, Falls Church	Va
Quindar Electronics Inc, Springfield	NJ
RCA, Defense Electronic Products, Moorestown	N J
Rouge Electronics Co, Oklahoma City	Okla
Scientific Data Systems Inc, El Segundo	Cal
Siemens America Inc, New York	N Y
Standard Telephones & Cables Ltd London WC 2	England
Stelma Inc, Stamford	Conn
Tally Corp, Seattle	Wash
Telautograph Corp, Los Angeles	Cal
Teledata Inc, Queens Village	N Y
Tele-Signal Corp, Woodbury	N Y
Teletype Corp, Skokie	Ill
Topping Electronics Ltd, Toronto 17	Ont
Towson Labs Inc, Baltimore	Md
Trepac Corp of America, Englewood	N J
Western Telematic Inc, Arcadia	Cal
Wilcox Electric Co Inc, Kansas City	Mo
Wiltek, Inc, Wilton	Conn

COMMUNICATION SYSTEMS--TONE TELEGRAPH

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TELE-SIGNAL CORP, WOODBURY	**N Y**
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Aeromarine Electronics, Inc, San Diego	Cal
Anritsu Electric Co Ltd, Tokyo	Japan
Autocon Industries, Inc, St Paul	Minn
Bayly Engineering Ltd, Ajax	Ontario
Bionic Instruments Inc, Bala Cynwyd	Pa
CAE Industries Ltd, Montreal 3	Que
Canadian Motorola Electronics Co, Agincourt	Ont
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Dasa Corp, Andover	Mass
Defense Electronics Inc, Rockville	Md
General Electric Co Communication Products Dept Lynchburg	Va
Hammarlund Mfg Co Data Communications Div Amityville	N Y
Hathaway Pacific Corp, Palo Alto	Cal
Kameco Ltd, Montreal	Que
Karkar Electronics Inc, San Francisco	Cal
Kokusai Electric Co Ltd, Tokyo	Japan
Lake Systems Corp, Newton	Mass
Lenkurt Electric Co Inc, San Carlos	Cal
Lynch Communication Systems, San Francisco	Cal
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
McElroy Electronics Corp, Shirley	Mass
National Radio Co Inc, Melrose	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Noller Control Systems Inc, Richmond	Cal
Northern Radio Co Inc, New York	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Omnitec Corp, Phoenix	Ariz
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Probescope Co Inc, Syosset	N Y
Quindar Electronics Inc, Springfield	NJ
RFL Industries Inc, Communications Div, Boonton	N J
Robertshaw Controls Co, Aero & Instrument Div Anaheim	Cal
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Siemens America Inc, New York	N Y
Stelma Inc, Stamford	Conn
Stromberg-Carlson Sub Gen Dynamics, Rochester	N Y
Teledata Inc, Queens Village	N Y
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Tele-Signal Corp, Woodbury	N Y
Trepac Corp of America, Englewood	N J
Utility Communication Systems Inc, Essington	Pa
Westinghouse Brake & Signal Co Ltd Automation Div Chippenham	England
Wilcox Electric Co Inc, Kansas City	Mo

COMMUNICATION SYSTEMS--TROPOSCATTER

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
Alto Scientific Co, Inc, Palo Alto	Cal
Ball Brothers Research Corp, Boulder	Colo
Bell Aerosystems Co, Buffalo	N Y
Bendix Corp, Communications Div, Towson	Md
Cober Electronics Inc, Stamford	Conn
Collins Radio Co, Dallas	Tex
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Energy Systems Inc, Palo Alto	Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
General Atronics Corp, Philadelphia	Pa
General Instrument Corp Radio Receptor Div Hicksville	N Y
ITT Defense Communications Div, Nutley	N J
Karkar Electronics Inc, San Francisco	Cal
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
National Radio Co Inc, Melrose	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Philco-Ford Corp, Washington	D C
Probescope Co Inc, Syosset	N Y
Radio Engineering Labs, Div DCA, Long Island City	N Y
Raytheon Co, Communications & Data Processing Oper Norwood	Mass
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Siemens America Inc, New York	N Y
Standard Telephones & Cables Ltd London WC 2	England
Sylvania Electronic Systems, Waltham	Mass
TRG Div Control Data Corp, East Boston	Mass
Wickes Industries Inc, Camden	N J

COMMUNICATION SYSTEMS--TWINPLEX

TELE-SIGNAL CORP, WOODBURY ... N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles ... France
Frederick Electronics Corp, Frederick ... Md
Kokusai Electric Co Ltd, Tokyo ... Japan
Northern Radio Co Inc, New York ... N Y
Philco-Ford Corp, Washington ... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Surface Conduction Inc, New York ... N Y
Tele-Signal Corp, Woodbury ... N Y
Westinghouse Brake & Signal Co Ltd Automation Div Chippenham ... England

COMMUNICATION SYSTEMS--UNDERWATER

VICTOR COMPTOMETER CORP, BUSINESS MACH GROUP CHICAGO ... ILL
Acoustronics Inc, Huntington ... N Y
Advanced Communications Inc Sub Conductron Corp Chatsworth ... Cal
Alcatel, Paris 8eme ... France
American Machine & Foundry Co Alexandria Div Alexandria ... Va
Audio Equipment Co Div Walter Kidde & Co Inc Port Washington ... NY
Aviation Electric Ltd, St Laurent, Montreal ... Que
Ball Brothers Research Corp, Boulder ... Colo
Bendix Corp, Communications Div, Towson ... Md
Bendix Corp Electrodynamics Div, North Hollywood ... Cal
Cardion Electronics Div Gen Signal Corp, Woodbury ... N Y
C B S Labs Div Columbia Bdcstg Sys Inc Stamford ... Conn
Dynamco Ltd, Chertsey Surrey ... Eng
Edo Corp, College Point ... NY
Edo Western Corp, Salt Lake City ... Utah
General Instrument Corp, Harris ASW Div Westwood ... Mass
Goodyear Aerospace Corp, Akron ... Ohio
Gulton Industries Inc, Metuchen ... N J
Hydro Products Div Dillingham Corp, San Diego ... Cal
Kollsman Instrument Corp, Syosset ... N Y
Listening Inc, Arlington ... Mass
Northrop Nortronics, Palos Verdes Peninsula ... Cal
RCA, Defense Electronic Products, Moorestown ... N J
Sparton Electronics, Jackson ... Mich
Sperry Gyroscope Div Sperry Rand Corp Great Neck ... N Y
Straza Industries Div Ametek Inc, El Cajon ... Cal
Superior Continental Corp, Hickory ... N C
Technical Materiel Corp, Mamaroneck ... N Y
Victor Comptometer Corp, Business Mach Group Chicago ... Ill
Vocaline Co of America Inc, Old Saybrook ... Conn

COMMUNICATION SYSTEMS--VLF

ANRITSU ELECTRIC CO LTD, TOKYO ... JAPAN
C M L INC, PLAINFIELD ... N J
TRACOR INC, AUSTIN ... TEX
Aerojet-General Corp Electronics Div, Azusa ... Cal
Aerospace Research, Inc, Boston ... Mass
Anritsu Electric Co Ltd, Tokyo ... Japan
Avion Electronics Inc, Unit Gen Signal Corp Paramus ... NJ
Cie De Signaux Et D'Entreprises Electriques Paris 17eme ... France
Clavier Corp, Richmond Hill ... NY
C M L Inc, Plainfield ... N J
Collins Radio Co, Dallas ... Tex
Communication Electronics Inc, Rockville ... Md
Continental Electronics Mfg Co Sub LTV Electrosystems Inc, Dallas ... Tex
Cosmos Industries Inc, Brooklyn ... N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles ... France
Decitron Electronics Corp, Brooklyn ... N Y
Dynamco Ltd, Chertsey Surrey ... Eng
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam ... N Y
F & M Systems Co, Div Fischbach & Moore, Inc Dallas ... Tex
Gates Radio Co, Quincy ... Ill
Geo Space Systems Inc, St Petersburg ... Fla
International Scanatron Systems Corp, Wyandanch ... N Y
Marconi Co Ltd, Chelmsford ... England
McElroy Electronics Corp, Shirley ... Mass
Micro State Electronics Oper Raytheon Co Murray Hill ... N J
National Radio Co Inc, Melrose ... Mass
Pearce-Simpson Inc, Miami ... Fla
Philco-Ford Corp, Washington ... D C
Philips Electronics Industries Ltd, Toronto 17 ... Ont
RCA, Defense Electronic Products, Moorestown ... N J
R F Communications Inc, Rochester ... N Y
Sanders Associates, Inc, Nashua ... N H
Squires-Sanders Inc, Liberty Corner ... N J
Standard Telephones & Cables Ltd London WC 2 ... England
Surface Conduction Inc, New York ... N Y
Technical Materiel Corp, Mamaroneck ... N Y
Thomson Electric Co, Sub Cie Fran Thomson Houston New York ... N Y
Tracor Inc, Austin ... Tex
TRW Systems Group, Redondo Beach ... Cal
Watkins-Johnson Co, Palo Alto ... Cal

COMMUNICATION TRANSMITTERS SEE TRANSMITTERS--RADIO COMMUNICATION

COMMUNITY TV ANTENNAS SEE ANTENNAS--TV

COMMUTATOR SLIP RINGS SEE SLIP RING ASSEMBLIES

COMMUTATORS

AIRFLYTE ELECTRONICS CO, BAYONNE, N J ... ADV PG 641
COMPUTER INSTRUMENTS CORP, HEMPSTEAD N Y ... ADV PGS 488-490
ELECTRO-TEC CORP, ORMOND BEACH ... FLA
NEY CO, J M, BLOOMFIELD, CONN ... ADV PG 197
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
SERVO CORP OF AMERICA, HICKSVILLE ... N Y
TRACOR INC, AUSTIN ... TEX
Acton Laboratories Inc, Acton ... Mass
Airflyte Electronics Co, Bayonne ... N J
American Astrionics Inc, Palo Alto ... Cal
Applied Electronics Corp of N J, Metuchen ... N J
Astrodata Inc, Anaheim ... Cal
Beckman Instruments Inc, Fullerton ... Cal
Beukers Labs Inc, John M, Medford ... NY
Brown Engineering-A Teledyne Co, Huntsville ... Ala
Cicoil Corp, Chatsworth ... Cal
Cie De Signaux Et D'Entreprises Electriques Paris 17eme ... France
Collectron Corp, New York ... N Y
Computer Instruments Corp, Hempstead ... N Y
Datametrics Inc, Waltham ... Mass
Daylen Co, South Gate ... Cal
Dorsett Electronics Inc, Tulsa ... Okla
Dynamic System Electronics Corp, Tempe ... Ariz
Electro Miniatures Corp, South Hackensack ... N J
Electro-Tec Corp, Ormond Beach ... Fla
Fabricast Inc, South El Monte ... Cal
Fifth Dimension Inc, Princeton ... N J
Fisher-Akin Co, Manhattan Beach ... Cal
General Devices Inc, Instrumentation Div Princeton ... N J
Gulton Industries Inc, Metuchen ... N J
Intellux Inc, Goleta ... Cal
International Data Systems Inc, Dallas ... Tex
James Electronics Inc, Chicago ... Ill
LEM Instrument Corp, Farmingdale ... N Y
Luminator Inc Display-Control Div, Plano ... Tex
Metal Ceram Inc, Mount Vernon ... N Y
Midwest Molding & Mfg Co, Gurnee ... Ill
Ney Co, J M, Bloomfield ... Conn
Nippert Electric Products Co, Delaware ... Ohio
Nippon Electric Co Ltd, Tokyo ... Japan
Northern Precision Labs Inc, Fairfield ... N J
Occo Mfg Corp, South Hackensack ... N J
Ottawa, Paris ... France
Paraplegics Mfg Co Inc, Bensenville ... Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Precision Mecanique Labinal, 93 Saint-Ouen ... France
Rett Electronics Inc, Warren ... Mich
Santa Rita Technology Inc, Menlo Park ... Cal
Saturn Electronics Corp, Garland ... Tex
Schurter AG, H, 6002 Lucerne ... Switzerland
Semi-Alloys Inc, Mt Vernon ... N Y
Servo Corp of America, Hicksville ... N Y
Sierra Research Corp, Buffalo ... N Y
Sonex Inc, Philadelphia ... Pa
Space Craft Inc, Huntsville ... Ala
Stellarmetrics Inc, Santa Barbara ... Cal
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia ... Pa
Teledyne Telemetry Co, Los Angeles ... Cal
Teradyne Inc, Boston ... Mass
Toledo Commutator Co, Owosso ... Mich
Tracor Inc, Austin ... Tex
Vitro Labs Div Vitro Corp of America, W Orange ... N J

COMMUTATORS, SWITCHING--ELECTRONIC

BLISS-GAMEWELL, DIV E W BLISS CO NEWTON UPPER FALLS ... MASS
COMPUTER INSTRUMENTS CORP, HEMPSTEAD ... N Y
COMPUTER PRODUCTS INC, FORT LAUDERDALE ... FLA
FERROTEC INC, NEWTON ... MASS
INTRONICS INC, NEWTON ... MASS
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
NON-LINEAR SYSTEMS INC, DEL MAR ... CAL
POLY SCIENTIFIC DIV LITTON INDUSTRIES, BLACKSBURG ... VA
SERVO CORP OF AMERICA, HICKSVILLE ... N Y
TOWSON LABS INC, BALTIMORE ... MD
TRACOR INC, AUSTIN ... TEX
Adage Inc, Boston ... Mass
Aeromarine Electronics, Inc, San Diego ... Cal
Applied Electronics Corp of N J, Metuchen ... N J
Astro Lab, Westminster ... Cal
Ball Brothers Research Corp, Boulder ... Colo
Beckman Instruments Inc, Fullerton ... Cal
Beukers Labs Inc, John M, Medford ... NY
Bliss-Gamewell, Div E W Bliss Co Newton Upper Falls ... Mass
Brown Engineering-A Teledyne Co, Huntsville ... Ala
Cie De Signaux Et D'Entreprises Electriques Paris 17eme ... France
Computer Instruments Corp, Hempstead ... N Y
Computer Products Inc, Fort Lauderdale ... Fla
Control Logic Inc, Natick ... Mass
Datametrics Inc, Waltham ... Mass
DatCon Electronics Corp, Bayside ... NY
Dorsett Electronics Inc, Tulsa ... Okla
Dynamic System Electronics Corp, Tempe ... Ariz
Dynatronics Oper Elctns Div Gen Dynamics Corp Orlando ... Fla
Electro Miniatures Corp, South Hackensack ... N J
Electronic Modules Corp, Timonium ... Md
EMR Div Weston Instruments Inc, Princeton ... N J
Eon Instrumentation Inc, Van Nuys ... Cal
Ferrotec Inc, Newton ... Mass
Fisher-Akin Co, Manhattan Beach ... Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas ... Tex
General Devices Inc, Instrumentation Div Princeton ... N J
Geo Space Systems Inc, St Petersburg ... Fla
Howell Instruments Co, Fort Worth ... Tex
Industrial Circuits Co, Fairfield ... N J
Information Control Corp, El Segundo ... Cal
Instrumentation Technology Corp, Northridge ... Cal
Intellux Inc, Goleta ... Cal
International Data Systems Inc, Dallas ... Tex
Intronics Inc, Newton ... Mass
Laben S p A, Milan ... Italy
Lear Siegler Inc, Santa Monica ... Cal
Lear Siegler Inc, Cimron Div, San Diego ... Cal
Logic Corp, Haddonfield ... N J
Luminator Inc Display-Control Div, Plano ... Tex
Molecular Research Inc, Palm Beach Gardens ... Fla
Newport Labs Inc, Newport Beach ... Cal
Nippon Electric Co Ltd, Tokyo ... Japan
Non-Linear Systems Inc, Del Mar ... Cal
Orega Electronique & Mecanique Vincennes, Seine ... France
Parko Electronics Co Inc, Santa Ana ... Cal
Poly Scientific Div Litton Industries, Blacksburg ... VA
Radix Electronics Corp, Anaheim ... Cal
Raytheon Computer, Santa Ana ... Cal
RC-95 Inc, New York ... N Y
Santa Rita Technology Inc, Menlo Park ... Cal
Saturn Electronics Corp, Garland ... Tex
Sensor Corp, Greenwich ... Conn
Servo Corp of America, Hicksville ... N Y
Sierra Research Corp, Buffalo ... N Y
Sonex Inc, Philadelphia ... Pa
Space Craft Inc, Huntsville ... Ala
Stellarmetrics Inc, Santa Barbara ... Cal
Tek-Sel Labs Inc, Saddle Brook ... N J
Teledyne Telemetry Co, Los Angeles ... Cal
Teradyne Inc, Boston ... Mass
Towson Labs Inc, Baltimore ... Md
Tracor Inc, Austin ... Tex
TRW Systems Group, Redondo Beach ... Cal
Vitro Labs Div Vitro Corp of America, W Orange ... N J

COMMUTATORS, SWITCHING--MERCURY JET

General Devices Inc, Instrumentation Div Princeton ... N J
Yaskawa Electric Mfg Co Ltd, Tokyo ... Japan

COMMUTATORS, SWITCHING--MOTOR DRIVEN CONTACT TYPE

AIRFLYTE ELECTRONICS CO, BAYONNE, N J ... ADV PG 641
ANSLEY MFG CO, ARTHUR, NEW HOPE ... PA
AUTOMATION DEVELOPMENT CO, CULVER CITY ... CAL
COMPUTER INSTRUMENTS CORP, HEMPSTEAD ... N Y
ELECTRO-TEC CORP, ORMOND BEACH ... FLA
GRAPHITE METALLIZING CORP, YONKERS ... N Y
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
POLY SCIENTIFIC DIV LITTON INDUSTRIES, BLACKSBURG ... VA
Airflyte Electronics Co, Bayonne ... N J
Ansley Mfg Co, Arthur, New Hope ... Pa
Assembly Engineers Div Rucker Co, Los Angeles ... Cal
Automation Development Co, Culver City ... Cal
Breeze Corps Inc, Union ... N J
Collectron Corp, New York ... N Y
Computer Instruments Corp, Hempstead ... N Y
Consolidated Controls Corp, Bethel ... Conn
Datametrics Inc, Waltham ... Mass
Electro Miniatures Corp, South Hackensack ... N J
Electro-Tec Corp, Ormond Beach ... Fla
Fifth Dimension Inc, Princeton ... N J
General Devices Inc, Instrumentation Div Princeton ... N J
Graphite Metallizing Corp, Yonkers ... N Y
Industrial Circuits Co, Fairfield ... N J
Instrument Development Labs Div Kollmorgen Corp Attleboro ... Mass
Kinetics A Teledyne Co, Solana Beach ... Cal
Lind Electro Development A Teledyne Co Mountain View ... Cal
Micro-Lectric Inc, Lindenhurst ... N Y
Nippon Electric Co Ltd, Tokyo ... Japan
Northern Precision Labs Inc, Fairfield ... N J
Poly Scientific Div Litton Industries, Blacksburg ... VA
Servonetics Inc, Los Angeles ... Cal
Tek-Sel Labs Inc, Saddle Brook ... N J
Toledo Commutator Co, Owosso ... Mich
Vactric Control Equipment Ltd, Morden ... England
Yaskawa Electric Mfg Co Ltd, Tokyo ... Japan

COMMUTATORS, SWITCHING--TELEMETERING

ACCURATE ELECTRONICS CORP, ELYRIA ... OHIO
AIRFLYTE ELECTRONICS CO, BAYONNE, N J ... ADV PG 641
ANSLEY MFG CO, ARTHUR, NEW HOPE ... PA
COMPUTER INSTRUMENTS CORP, HEMPSTEAD ... N Y
ELECTRO-TEC CORP, ORMOND BEACH ... FLA
INTRONICS INC, NEWTON ... MASS
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
POLY SCIENTIFIC DIV LITTON INDUSTRIES, BLACKSBURG ... VA
TELE-SIGNAL CORP, WOODBURY ... N Y
Accurate Electronics Corp, Elyria ... Ohio

Adcole Corp, Waltham	Mass
Aeromarine Electronics, Inc, San Diego	Cal
Airflyte Electronics Co, Bayonne	N J
American Astrionics Inc, Palo Alto	Cal
Ansley Mfg Co, Arthur, New Hope	Pa
Applied Electronics Corp of N J, Metuchen	N J
Arra, Inc, Bayshore	NY
Astrodata Inc, Anaheim	Cal
Ball Brothers Research Corp, Boulder	Colo
Beckman Instruments Inc, Fullerton,	Cal
Brown Engineering-A Teledyne Co, Huntsville	Ala
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Collectron Corp, New York	N.Y
Computer Instruments Corp, Hempstead	N Y
Conic Corp, San Diego	Cal
Consolidated Controls Corp, Bethel	Conn
Cunningham Son & Co Inc, James, Honeoye Falls	N Y
Datametrics Inc, Waltham	Mass
Dorsett Electronics Inc, Tulsa	Okla
Dynamic System Electronics Corp, Tempe	Ariz
Dynatronics Oper Elctns Div Gen Dynamics Corp Orlando	Fla
Electro Miniatures Corp, South Hackensack	N J
Electro-Tec Corp, Ormond Beach	Fla
EMR Div Weston Instruments Inc, Princeton	N J
Eon Instrumentation, Inc, Van Nuys	Cal
Fifth Dimension Inc, Princeton	N J
Fisher-Akin Co, Manhattan Beach	Cal
General Design Inc, Sun Valley	Cal
General Devices Inc, Instrumentation Div Princeton	N J
Giannini-Voltex, Whittier	Cal
Gulton Industries Inc, Metuchen	N J
Industrial Electronetics Corp, Satellite Beach	Fla
International Data Systems Inc, Dallas	Tex
Intronics Inc, Newton	Mass
Laben S p A, Milan	Italy
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Lind Electro Development A Teledyne Co Mountain View	Cal
Logic Corp, Haddonfield	N J
Markite Corp, New York	N Y
Molecular Research Inc, Palm Beach Gardens	Fla
Nippon Electric Co Ltd, Tokyo	Japan
Northern Precision Labs Inc, Fairfield	N J
Poly Scientific Div Litton Industries, Blacksburg	VA
Precision Mecanique Labinal, 93 Saint-Ouen	France
Radix Electronics Corp, Anaheim	Cal
RC-95 Inc, New York	N Y
Saturn Electronics Corp, Garland	Tex
Sierra Research Corp, Buffalo	N Y
Sonex Inc, Philadelphia	Pa
Space Craft Inc, Huntsville	Ala
Stellarmetrics Inc, Santa Barbara	Cal
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Teledyne Telemetry Co, Los Angeles	Cal
Tele-Signal Corp, Woodbury	N Y
Teradyne Inc, Boston	Mass
TRW Systems Group, Redondo Beach	Cal
Vactric Control Equipment Ltd, Morden	England

COMPARATORS--CIRCUIT TESTING,AUTOMATIC

ANALOG DEVICES INC, CAMBRIDGE	**MASS**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
HEWLETT-PACKARD, PALO ALTO	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
NON-LINEAR SYSTEMS INC, DEL MAR	**CAL**
Adar Associates Inc, Somerville	Mass
A D Data Systems Inc, Rochester	N Y
Advanced Space Age Products Inc, Alexandria	Va
Advanced Technology & Systems Corp Old Greenwich	Conn
Ad-Yu Electronics Inc, Passaic	N J
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
Analog Devices Inc, Cambridge	Mass
Astrodata Inc, Anaheim	Cal
Automation Dynamics Corp, Northvale	N J
Burr-Brown Research Corp, Tucson	Ariz
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Conductron Corp, Ann Arbor	Mich
Digitech Inc, Ridgefield	Conn
Fisher-Akin Co, Manhattan Beach	Cal
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Guide Industries Inc, Sun Valley	Cal
Hartman Systems Co Inc, Huntington Station	N Y
Hewlett-Packard, Palo Alto	Cal
Hycon, Monrovia	Cal
Jerrold Electronics Corp, Philadelphia	Pa
Julie Research Labs, Inc, New York	N Y
Logic Corp, Haddonfield	N J
Luft Instruments Inc, Lincoln	Mass
Mesur-Matic Electronic Corp, Warner	N H
3M Company, St Paul	Minn
3M Instrument Products, Camarillo	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Non-Linear Systems Inc, Del Mar	Cal
Optimized Devices, Inc, Pleasantville	N Y
Plessey Airborne Corp, Hillside	NJ
Precision Mecanique Labinal, 93 Saint-Ouen	France
RO Associates Inc, Menlo Park	Cal
Scans Associates Inc, Livonia	Mich
Slaughter Co, Ardmore	Okla
Space Craft Inc, Huntsville	Ala
Sperry Flight Systems Div Sperry Rand Corp Phoenix	Ariz
Tek-Sel Labs Inc, Saddle Brook	N J
Teradyne Inc, Boston	Mass
Texas Instruments Incorporated, Dallas	Tex
Tia Electric Co, Princeton	N J
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Vari Tech Co, Grand Rapids	Mich

COMPARATORS--COMPONENT TESTING

ANALOG DEVICES INC, CAMBRIDGE	**MASS**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON	**N Y**
MASTECH INC, SYRACUSE	**N Y**
NON-LINEAR SYSTEMS INC, DEL MAR	**CAL**
Adar Associates Inc, Somerville	Mass
A D Data Systems Inc, Rochester	N Y
Advanced Technology & Systems Corp Old Greenwich	Conn
Ad-Yu Electronics Inc, Passaic	N J
Analog Devices Inc, Cambridge	Mass
Angstrohm Precision, Inc, Van Nuys	Cal
Automation Development Co, Culver City	Cal
Avtron Mfg, Inc, Cleveland	Ohio
Burr-Brown Research Corp, Tucson	Ariz
Computer Instruments Corp, Hempstead	N Y
Control Data Corp, LaJolla Div, Minneapolis	Minn
Dranetz Engineering Labs Inc, Plainfield	N J
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electro Scientific Industries Inc, Portland	Ore
Finescale Co, Los Angeles	Cal
Fisher-Akin Co, Manhattan Beach	Cal
Freed Transformer Co Inc, Brooklyn	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
General Radio Co, West Concord	Mass
Hallmark Standards Inc, Mamaroneck	N Y
Hathaway Instruments Inc, Denver	Colo
Hewlett-Packard, Palo Alto	Cal
Hycon, Monrovia	Cal
Industrial Test Equipment Co, Port Washington	N Y
J-Omega Co, Mountain View	Cal
Julie Research Labs, Inc, New York	N Y
London Co, Westlake	Ohio
Luft Instruments Inc, Lincoln	Mass
Mastech Inc, Syracuse	N Y
Mesur-Matic Electronic Corp, Warner	N H
3M Company, St Paul	Minn
Non-Linear Systems Inc, Del Mar	Cal
Optimized Devices, Inc, Pleasantville	N Y
Optomechanisms Inc, Plainview	N Y
Plessey Airborne Corp, Hillside	NJ
Precision Standards Corp, San Marino	Cal
Radiometer A/S, Copenhagen NV	Denmark
RO Associates Inc, Menlo Park	Cal
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Scans Associates Inc, Livonia	Mich
Slaughter Co, Ardmore	Okla
Solidstate Controls Inc, Columbus	Ohio
Space Craft Inc, Huntsville	Ala
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Takeda Riken Industry Co Ltd, Tokyo	Japan
Teradyne Inc, Boston	Mass
Test Equipment Corp, Dallas	Tex
Texas Instruments Incorporated, Dallas	Tex
Tia Electric Co, Princeton	N J
Vari Tech Co, Grand Rapids	Mich
Wayne Kerr Corp, Montclair	NJ
Zeiss Inc, Carl, New York	N Y

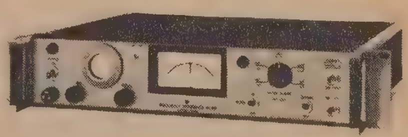
COMPARATORS--DIGITAL

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
NON-LINEAR SYSTEMS INC, DEL MAR	**CAL**
TECHMETRIC CO, REDWOOD CITY	**CAL**
TELE-SIGNAL CORP, WOODBURY	**N Y**
Adar Associates Inc, Somerville	Mass
A D Data Systems Inc, Rochester	N Y
American Astrionics Inc, Palo Alto	Cal
Analogic Corp, Waltham	Mass
Applied Electronics Corp of N J, Metuchen	N J
Astrodata Inc, Anaheim	Cal
Automation Development Co, Culver City	Cal
Avtron Mfg, Inc, Cleveland	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp, Communications Div, Towson	Md
B & W Electronic Research Labs, Dallas	Tex
CMC/Rutherford, San Fernando	Cal
Cohu Electronics Inc, San Diego	Cal
Conductron Corp, Ann Arbor	Mich
Control Equipment Corp, Needham Heights	Mass
Control Logic Inc, Natick	Mass
Datascan Inc, Clifton	N J
DatCon Electronics Corp, Bayside	NY
Di/An Controls Inc, Boston	Mass
Digitech Inc, Ridgefield	Conn
Dynamic System Electronics Corp, Tempe	Ariz
Electronic Modules Corp, Timonium	Md
Evans Associates, Berkeley	Cal
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Fisher-Akin Co, Manhattan Beach	Cal
General Precision Systems Inc, Kearfott Gp Little Falls	N J
General Radio Co, West Concord	Mass
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Honeywell Test Instruments Div, Denver	Colo
Information Control Corp, El Segundo	Cal
Information Instruments, Inc, Ann Arbor	Mich
Instrumentation Technology Corp, Northridge	Cal
Janus Control Div Tyco, Waltham	Mass
Keltec Industries, Alexandria Div, Alexandria	Va
Lear Siegler Inc, Cimron Div, San Diego	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Massey Dickinson Co Inc, Saxonville	Mass
Measurement Technology Corp, Canoga Park	Cal
Minnetech Labs Inc, Minneapolis	Minn
Molecular Research Inc, Palm Beach Gardens	Fla
Navigation Computer Corp, Norristown	Pa
Non-Linear Systems Inc, Del Mar	Cal
North Electric Co, Galion	Ohio
Optimized Devices, Inc, Pleasantville	N Y
Optomechanisms Inc, Plainview	N Y
Otis Elevator Co, Defense Oper, Stamford	Conn
Preston Scientific, Inc, Anaheim	Cal
RC-95 Inc, New York	N Y
Roback Corp, Huntingdon Valley	Pa
Rosemount Plug-In Inc, Nashville	Tenn
Scherr Tumico Inc, St James	Minn
Space Craft Inc, Huntsville	Ala
Takeda Riken Industry Co Ltd, Tokyo	Japan
Techmetric Co, Redwood City	Cal
Tele-Signal Corp, Woodbury	N Y
Theta Instrument Corp, Fairfield	N J
TRW Systems Group, Redondo Beach	Cal
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Vidar Corp, Mountain View	Cal
Vitro Labs Div Vitro Corp of America, Silver Spring	Md
Vitro Labs Div Vitro Corp of America, W Orange	N J
Wang Labs Inc, Tewksbury	Mass
Watesta Electronics Ltd, London-E 11	England
Zehntel Inc, Berkeley	Cal

COMPARATORS--FREQUENCY

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
ANAREN MICROWAVE INC, SYRACUSE	**N Y**
FLUKE MFG CO INC, JOHN, SEATTLE	**WASH**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
SPECIFIC PRODUCTS DIV DR H L RICHTER CORP MONROVIA	**CAL**
TRACOR INC, AUSTIN, TEX	**ADV PG 173**
American Astrionics Inc, Palo Alto	Cal
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
A & M Instruments Inc, Great Neck	N Y
Anaren Microwave Inc, Syracuse	N Y
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland

TRACOR
FREQUENCY-DIFFERENCE METERS



Model 527A measures frequency difference between two stable oscillators to 1 part in 10^{11}. Meter gives immediate readout. Observation of phase change on built-in oscilloscope over period of several minutes, permits 1 part in 10^{12}. Accepts intermixed input frequencies.

Model 527B is the less expensive version with no built-in 'scope. Permits measurements to 1 part in 10^{11} when used with a counter.

TRACOR

6500 TRACOR LANE/AUSTIN, TEXAS 78721
512-926-2800/TWX 512-926-0441

Bendix Corp, Communications Div, Towson	Md
Conductron Corp, Ann Arbor	Mich
Data Device Corp, Hicksville	N Y
Digitech Inc, Ridgefield	Conn
Dynamic Precision Controls Corp, Hagerstown	Ind
Electrac Inc, Anaheim	Cal
Electronic Service Co, Verona	N J
Fluke Mfg Co Inc, John, Seattle	Wash
General Microwave Corp, Farmingdale	N Y
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Hewlett-Packard, Palo Alto	Cal
Hybrid Systems Corp, Cambridge	Mass
Janus Control Div Tyco, Waltham	Mass
Jetronic Industries Inc, Philadelphia	Pa
Lavoie Labs Div Spedcor, Morganville	N J
Measurement Technology Corp, Canoga Park	Cal
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Radiation Systems Inc, McLean	Va
Singer Co, Metrics Div, Bridgeport	Conn
Solid State Electronics Corp, Sepulveda	Cal
Space Craft Inc, Huntsville	Ala
Specific Products Div Dr H L Richter Corp Monrovia	Cal
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Technical Materiel Corp, Mamaroneck	N Y
Tracor Inc, Austin	Tex
Varian, Palo Alto	Cal
Vectron Labs Inc, Stamford	Conn
Vidar Corp, Mountain View	Cal
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Watesta Electronics Ltd, London-E 11	England

COMPARATORS--IMPEDANCE

ANAREN MICROWAVE INC, SYRACUSE	**N Y**
DRANETZ ENGINEERING LABS INC, PLAINFIELD N J	**ADV PG 174**
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON	**N Y**
Ad-Yu Electronics Inc, Passaic	N J
Alford Mfg Co, Winchester	Mass
A & M Instruments Inc, Great Neck	N Y
Anaren Microwave Inc, Syracuse	N Y
Beckman Instruments Inc, Fullerton,	Cal
Conductron Corp, Ann Arbor	Mich
Conn Corp, Elkhart	Ind
Data Device Corp, Hicksville	N Y
Dranetz Engineering Labs Inc, Plainfield	N J
Dytronics Co Inc, Columbus	Ohio
Electrac Inc, Anaheim	Cal
Freed Transformer Co Inc, Brooklyn	N Y
General Radio Co, West Concord	Mass
Industrial Test Equipment Co, Port Washington	N Y
London Co, Westlake	Ohio
Measurement Technology Corp, Canoga Park	Cal
Mesur-Matic Electronic Corp, Warner	N H
Optimized Devices, Inc, Pleasantville	N Y
Princeton Applied Research Corp, Princeton	N J
Rantec Div Emerson Electric Co, Calabasas	Cal
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Slaughter Co, Ardmore	Okla
Space Craft Inc, Huntsville	Ala
Wayne Kerr Corp, Montclair	NJ
Wiltron Co, Palo Alto	Cal

SERIES 202 SAMPLING

IMPEDANCE METER

for direct reading
from 50 Hz to 300 kHz

☐ Measures Rand X, G and B, capacitance and loss or transfer function. ☐ Requires only 4 cycles of signals... sampling times as short as 500 microseconds. ☐ Up to 100 sets of measurements per second. ☐ Plug-ins for different ranges. ☐ Provides direct or comparative readings. ☐ Sample and hold outputs. ☐ Write Dept. DEB.

DRANETZ
ENGINEERING LABORATORIES, INC.
1233 North Ave., Plainfield, N.J. 07062
Telephone Area Code: (201) 755-7080

IMPEDANCE – ADMITTANCE METERS ■ PHASE METERS ■ TRANSFER FUNCTION COMPUTERS ■ INSTRUMENT TRANSFORMERS ■ OSCILLATORS ■ SAMPLING VOLTMETERS ■ PULSE INSTRUMENTATION ■ FROM SINGLE INSTRUMENTS TO COMPLETE SYSTEMS

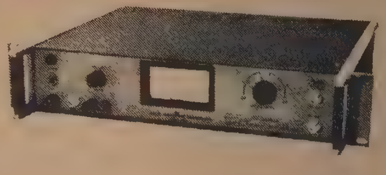
COMPARATORS--OPTICAL

HYDRA-ELECTRIC CO, BURBANK	**CAL**
Aeroflex Labs, Inc, Plainview	N Y
Applied Research Labs, Sunland	Cal
Bausch & Lomb, Inc, Rochester	N Y
Buhl Optical Co, Pittsburgh	Pa
DoAll Co, Des Plaines	Ill
Edmund Scientific Co, Barrington	N J
Ehrenreich Photo Optical Industries Inc, Garden City	NY
Ercona Corp, New York	N Y
Fairchild Space & Defense Sys Div Fairchild Cam Instr Corp, Syosset	NY
Finescale Co, Los Angeles	Cal
Gaertner Scientific Corp, Chicago	Ill
Gardner Lab Inc, Bethesda	Md
Goodyear Aerospace Corp, Akron	Ohio
Heli-Coil Products, Div Heli-Coil Corp, Danbury	Conn
Hill Inc E Vernon, San Francisco	Cal
Hydra-Electric Co, Burbank	Cal
Lektra Labs Inc Div Kriser Corp, College Point	N Y
Mann Co, Henry, Cornwell Heights	Pa
Micronics Corp of America, Providence	RI
Nikon Inc Instrument Div, Garden City	N Y
Nuclear Research Instruments, Berkeley	Cal
Optomechanisms Inc, Plainview	N Y
Opto-Metric Tools Inc, New York	N Y
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Precision International Corp, Bloomfield	Conn
Ragen Precision Industries Inc, North Arlington	N J
Scherr Tumico Inc, St James	Minn
Schoeffel Instrument Co, Westwood	NJ
Speedfam Corp, Des Plaines	Ill
Stocker & Yale Inc, Beverly	Mass
Techni-Tool Inc, Philadelphia	Pa
TRW Systems Group, Redondo Beach	Cal
Zeiss Inc, Carl, New York	N Y

COMPARATORS--PHASE

ANAREN MICROWAVE INC, SYRACUSE	**N Y**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL,	**PA**
DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON	**N Y**
INTRONICS INC, NEWTON	**MASS**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW	**N Y**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
SPECIFIC PRODUCTS DIV DR H L RICHTER CORP MONROVIA	**CAL**
TRACOR INC, AUSTIN, TEX	**ADV PG 174**
Ad-Yu Electronics Inc, Passaic	N J
Aerospace Research, Inc, Boston	Mass
Alford Mfg Co, Winchester	Mass
Anaren Microwave Inc, Syracuse	N Y
Beckman Instruments Inc, Fullerton,	Cal
Canoga Electronics Corp, Chatsworth	Cal
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
Conductron Corp, Ann Arbor	Mich
Control Electronics Co Inc, Farmingdale	N Y
Data Device Corp, Hicksville	N Y
Dranetz Engineering Labs Inc, Plainfield	N J
Dytronics Co Inc, Columbus	Ohio
Eastern Specialty Co, Philadelphia	Pa
Frequency Electronics Inc, New Hyde Park	N Y
Gopic Designs Co, San Diego	Cal
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Hewlett-Packard, Palo Alto	Cal
Industrial Test Equipment Co, Port Washington	N Y
Intronics Inc, Newton	Mass
Measurement Technology Corp, Canoga Park	Cal
Merrimac Research & Development Inc West Caldwell,	N J
Microwave Development Labs Inc Needham Heights	Mass
Natel Engineering Co Inc, Van Nuys	Cal
North Atlantic Industries Inc, Plainview	N Y
North Hills Electronics Inc, Glen Cove	N Y
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Princeton Applied Research Corp, Princeton	N J
Radiation Systems Inc, McLean	Va
Rantec Div Emerson Electric Co, Calabasas	Cal
Relcom, Mountain View	Cal
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Scientific-Atlanta Inc, Atlanta	Ga
Singer Co, Metrics Div, Bridgeport	Conn
Singer Co, Metrics Div, Gertsch Dept, Los Angeles	Cal
Solid State Electronics Corp, Sepulveda	Cal
Specific Products Div Dr H L Richter Corp Monrovia	Cal
Telemet Co, Video Prods & Airborne Telemetry Amityville	N Y
Theta Instrument Corp, Fairfield	N J
Tracor Inc, Austin	Tex
TRW Systems Group, Redondo Beach	Cal
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Varian, Palo Alto	Cal
Vectron Labs Inc, Stamford	Conn
Vibration Instruments Co, Anaheim	Cal
Video Research Corp, Rockville	Md
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Wiltron Co, Palo Alto	Cal

TRACOR
TIME-PHASE
METERS



Model 895A provides direct reading of relative phase or time difference between two electrical signals. Accepts intermixed frequencies and provides full scale readings of 1, 10 or 100 cycles of phase difference or 0.1, 1 and 10 microseconds full scale time difference.

TRACOR

6500 TRACOR LANE/AUSTIN, TEXAS 78721
512-926-2800/TWX 512-926-0441

COMPARATORS--Q

DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
HEWLETT-PACKARD, PALO ALTO	**CAL**
Beckman Instruments Inc, Fullerton,	Cal
Data Device Corp, Hicksville	N Y
Dranetz Engineering Labs Inc, Plainfield	N J
General Radio Co, West Concord	Mass
Hewlett-Packard, Palo Alto	Cal
J-Omega Co, Mountain View	Cal
Measurement Technology Corp, Canoga Park	Cal

COMPARATORS--VOLTAGE

ANALOG DEVICES INC, CAMBRIDGE	**MASS**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL,	**PA**
HEWLETT-PACKARD, PALO ALTO	**CAL**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH COVER**
NON-LINEAR SYSTEMS INC, DEL MAR	**CAL**
TEKTRONIX INC, BEAVERTON	**ORE**
TRANSMAGNETICS INC, FLUSHING	**N Y**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Adage Inc, Boston	Mass
Adar Associates Inc, Somerville	Mass
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
A & M Instruments Inc, Great Neck	N Y
Analog Devices Inc, Cambridge	Mass
Analogic Corp, Waltham	Mass
Applied Dynamics, Inc, Ann Arbor	Mich
Astrodata Inc, Anaheim	Cal
Automation Development Co, Culver City	Cal
Automation Dynamics Corp, Northvale	N J
Avtron Mfg, Inc, Cleveland	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp Navigation & Control Div, Teterboro,	N J
Boonton Electronics Corp, Parsippany	N J
Burr-Brown Research Corp, Tucson	Ariz
B & W Electronic Research Labs, Dallas	Tex
California Electronic Mfg Co Inc, Alamo	Cal
California Systems Components, Inc, Chatsworth	Cal
Canadian Research Institute, Don Mills	Ont

Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill	Pa
Cohu Electronics Inc, San Diego	Cal
Conductron Corp, Ann Arbor	Mich
Consolidated Airborne Systems, Carle Place	N Y
Control Data Corp, LaJolla Div, Minneapolis	Minn
Controlomag Labs, Roslyn	Pa
Controlotron Corp, Farmingdale	N Y
Crane Electronics Corp, Santa Barbara	Cal
Darcy Industries Inc, TSI Div, Santa Monica	Cal
Data Device Corp, Hicksville	N Y
DatCon Electronics Corp, Bayside	NY
Electro Scientific Industries Inc, Portland	Ore
Eppley Lab Inc, Newport	R I
Epsco Inc, Westwood	Mass
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Fisher-Akin Co, Manhattan Beach	Cal
General Magnetics Inc, Bloomfield	N J
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Giannini-Voltex, Whittier	Cal
Glentek Inc, Santa Monica	Cal
GPS Instrument Co Inc, Newton	Mass
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Guide Industries Inc, Sun Valley	Cal
Guildline Instruments Ltd, Smiths Falls	Ont
Hallmark Standards Inc, Mamaroneck	N Y
Hartman Systems Co Inc, Huntington Station	N Y
Hewlett-Packard, Palo Alto	Cal
Holt Instrument Labs, Oconto	Wis
Hybrid Systems Corp, Cambridge	Mass
Information Instruments, Inc, Ann Arbor	Mich
J-Omega Co, Mountain View	Cal
Julie Research Labs, Inc, New York	N Y
Kepco Inc, Flushing	N Y
Leeds & Northrup Co, Philadelphia	Pa
Luft Instruments Inc, Lincoln	Mass
Massey Dickinson Co Inc, Saxonville	Mass
McMahon Electronic Engineering Res & Dev Lab San Pedro	Cal
Mesur-Matic Electronic Corp, Warner	N H
3M Company, St Paul	Minn
Natel Engineering Co Inc, Van Nuys	Cal
Navigation Computer Corp, Norristown	Pa
Newport Labs Inc, Newport Beach	Cal
Non-Linear Systems Inc, Del Mar	Cal
Norbatrol Electronics Corp, Murrysville	Pa
Optimized Devices, Inc, Pleasantville	N Y
Otis Elevator Co, Defense Oper, Stamford	Conn
Plessey Airborne Corp, Hillside	NJ
Precision Mecanique Labinal, 93 Saint-Ouen	France
Princeton Applied Research Corp, Princeton	N J
RO Associates Inc, Menlo Park	Cal
Rosemount Plug-In Inc, Nashville	Tenn
Scientific Data Systems Inc, El Segundo	Cal
Singer Co, Metrics Div, Bridgeport	Conn
Singer Co, Metrics Div, Gertsch Dept, Los Angeles	Cal
Slaughter Co, Ardmore	Okla
Solid State Electronics Corp, Sepulveda	Cal
Space Craft Inc, Huntsville	Ala
Sprague Electric Co, North Adams	Mass
Takeda Riken Industry Co Ltd, Tokyo	Japan
Tektronix Inc, Beaverton	Ore
Tia Electric Co, Princeton	N J
Transmagnetics Inc, Flushing	N Y
Trio Laboratories Inc, Plainview	N Y
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Vari Tech Co, Grand Rapids	Mich
Voltron Products Inc, Pasadena	Cal
Weinschel Engineering Co Inc, Gaithersburg	Md
Weston Lexington Weston Instruments Div Lexington	Mass
Zeltex inc, Concord	Cal

COMPARATORS--COLOR SEE COLORIMETERS

COMPARATORS--DENSITY SEE DENSITOMETERS

COMPASSES--ASTRO

Industrial Control Co, Farmingdale	N Y
Kollsman Instrument Corp, Syosset	N Y
Kollsman Instrument Ltd, Southampton	England
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal

COMPASSES--GYRO

Advanced Energy Conversion, Menlo Park	Cal
Aircraft Components Inc, Benton Harbor	Mich
Applied Devices Corp, College Point	n y
Aviation Electric Ltd, St Laurent, Montreal	Que
Aviation Instrument Mfg Corp, Houston	Tex
Bendix Corp Navigation & Control Div, Teterboro,	N J
Conductron Corp, Ann Arbor	Mich
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Decca Radar, Inc, New York	N Y
General Design Inc, Sun Valley	Cal
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Nortronics Div, Northrop Corp, Prec Prods Dept Norwood	Mass
Reeves Instrument Div, DCA, Garden City	N Y
Smiths Industries North America Ltd, Jamaica	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Sperry Flight Systems Div Sperry Rand Corp Phoenix	Ariz
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Standard Precision Div Electronic Commun Inc Wichita	Kan
TRW Systems Group, Redondo Beach	Cal

COMPASSES--MAGNETIC

Aircraft Components Inc, Benton Harbor	Mich
Airguide Instrument Co, Chicago	Ill
Aviation Electric Ltd, St Laurent, Montreal	Que
Dinsmore Instrument Co, Flint	Mich
Fedtro Inc, Rockville Centre	N Y
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
Humphrey Inc, San Diego	Cal
Industrial Control Co, Farmingdale	N Y
Keuffel & Esser Co, Hoboken	N J
Larson Aero Development, Concord	Cal
Leupold & Stevens Instruments Inc, Portland	Ore
Smiths Industries North America Ltd, Jamaica	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Sperry Flight Systems Div Sperry Rand Corp Phoenix	Ariz
Taylor Instrument Cos, Rochester	N Y

COMPASSES--MARINE

Aeromarine Electronics, Inc, San Diego	Cal
Airguide Instrument Co, Chicago	Ill
Aviation Electric Ltd, St Laurent, Montreal	Que
Decca Radar, Inc, New York	N Y
Dinsmore Instrument Co, Flint	Mich
Dowa Trading Co Ltd, Kobe	Japan
Industrial Control Co, Farmingdale	N Y
Larson Aero Development, Concord	Cal
States Electronics Corp, Bludworth Marine Div Linden	N J
Taylor Instrument Cos, Rochester	N Y

COMPONENTS--PRINTED-CIRCUIT SEE LISTINGS FOR DESIRED COMPONENTS

COMPOUNDS--CLEANING SEE SOLVENTS

COMPOUNDS--ENCAPSULATING SEE RESINS--ENCAPSULATING

COMPOUNDS--POTTING SEE RESINS--ENCAPSULATING

COMPUTER ASSOCIATED EQUIPMENT SEE SPECIFIC LISTING; I E AMPLIFIERS--COMPUTER

CONVERTERS ANALOG; POLAR TO ANALOG RECTANGULAR; POLAR TO ANALOG; PUNCHED CARD TO TAPE; TAPE TO PUNCHED CARDS; TAPE TO TAPE

BOARDS--COMPUTER (PATCH; PLOTTING; PROBLEM)

CORDS--PATCH KEYSETS--COMPUTER PERFORATORS--

COMPUTER PRINTERS--COMPUTER READERS--COMPUTER

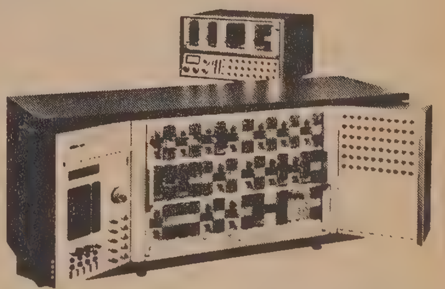
RECORDS--GRAPHIC SCANNERS--OPTICAL

SERVOS--ANALOG COMPUTER

COMPUTERS--ANALOG

BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT	**IOWA**
HEATH CO, BENTON HARBOR	**MICH**
INTRONICS INC, NEWTON	**MASS**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
SYSTRON DONNER CORP, CONCORD, CAL	**ADV PG 175**
TRANSMAGNETICS INC, FLUSHING	**N Y**
Alcatel, Paris 8eme	France
American Hydromath Co, New Hyde Park	N Y
Applied Devices Corp, College Point	n y
Applied Dynamics, Inc, Ann Arbor	Mich
Argonaut Associates, Inc, Beaverton	Ore
Astrodata Inc, Anaheim	Cal
Astronautics Corp of America, Milwaukee	Wis
Automated Specialties A Teledyne Co Charlottesville	Va
Automation Management, Inc, Westboro	Mass
Bailey Meter Co, Wickliffe	Ohio
Beckman Instruments Inc, Fullerton	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bendix Corp Navigation & Control Div, Teterboro,	N J
Bio-Physical Research Instruments Inc, Houston	Tex
Bristol Div, American Chain & Cable Co Waterbury	Conn
Burr-Brown Research Corp, Tucson	Ariz
Canadian Marconi Co, Montreal 16	Quebec
CEA Div Berkleonics Inc, Monrovia	Cal
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Cie Internationale Pour L'Informatique 78 Louveciennes	France
Computing Devices of Canada Ltd, Ottawa	Ont
Conductron Corp, Ann Arbor	Mich
Conrac Corp, New York	N Y
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Control Technology Co Inc, Long Island City	N Y
Cosmos Industries Inc, Brooklyn	N Y
Dalto Electronics Corp, Norwood	N J
Daniel Industries, Inc, Houston	Tex
Dewey Corp, G.C, New York	N Y
Disc Instruments Inc, Santa Ana	Cal
Dowa Trading Co Ltd, Kobe	Japan
Dranetz Engineering Labs Inc, Plainfield	N J
Dresser Systems, Inc, Houston	Tex
Dynamic System Electronics Corp, Tempe	Ariz
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Elastronics Labs, Tarzana	Cal
Electro-Kinetics Corp Div EPD Ind Inc, Long Beach	Cal
Electronic Associates Inc, West Long Branch	N J
Electro Scientific Industries Inc, Portland	Ore
Ensco Inc, Salt Lake City	Utah
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
Foxboro Co, Foxboro	Mass
Gap Instrument Corp, Westbury	N Y
Garrett Corp, Los Angeles	Cal
General Computers Inc, Los Angeles	Cal
General Magnetics Inc, Bloomfield	N J
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Geo Space Corp, Houston	Tex
Glentek Inc, Santa Monica	Cal
Goodyear Aerospace Corp, Akron	Ohio
GPS Instrument Co Inc, Newton	Mass
Hagan Computer Systems Div Westinghouse Pittsburgh	Pa
Hartman Systems Co Inc, Huntington Station	N Y
Hayakawa Electric Co Ltd, Osaka	Japan
Heath Co, Benton Harbor	Mich
Honeywell Industrial Div, Fort Washington	Pa
Hybrid Systems Corp, Cambridge	Mass
Ikor, Inc, Burlington	Mass
Instru-Lec Corp, Mt Vernon	N Y
Intronics Inc, Newton	Mass

Analog Computers



Systron-Donner's solid-state desk-top computers offer maximum problem-solving capacity at minimum cost. Sizes range from 10 to 120 amplifiers—plus multipliers, function generators, and digital control logic. Patchboards are coded with the same symbols used in problem-solving circuit diagrams.

Three basic computers are: Model 3300 Educational Computer (approx. $2,700), SD-10/20 with 22 amplifier capacity ($7,000 to $15,000), and S-D-80 with 120-amplifier capacity ($25,000 to $70,000). Comprehensive 150-page handbook includes instructions for simulating many physical systems without writing the descriptive differential equations. **Send for catalog**

SYSTRON DONNER

Electronic Instrument Division,
888 Galindo St., Concord, Calif. 94520.
Phone (415) 682-6161. TWX 415-687-3200.

Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Leeds & Northrup Co, Philadelphia	Pa
Link Group Gen Precision Sys Inc, Binghamton	N Y
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Loral Electronic Systems, Div Loral Corp, New York	NY
Measurement Systems Inc, Norwalk	Conn
Milgo Electronic Corp, Miami	Fla
Mitsubishi Electric Corp, Tokyo	Japan
Motorola Instrumentation & Control Inc, Phoenix	Ariz
M Ten Bosch, Inc, Pleasantville	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Otis Elevator Co, Defense Oper, Stamford	Conn
Pastoriza Electronics Inc, Newton Upper Falls	Mass
Reeves Instrument Div, DCA, Garden City	N Y
Reflex Controls Corp, Huntington Station	NY
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass
Research Inc, R-I Controls Div, Minneapolis	Minn
Scientific-Atlanta Inc, Atlanta	Ga
Sedco Systems Inc, Farmingdale	N Y
Signet Controls Inc, Tulsa	Okla
Sunbeam Electronics, Fort Lauderdale	Fla
Systron Donner Corp, Concord	Cal
Tasker Industries, Van Nuys	Cal
Taylor Instrument Cos, Rochester	N Y
Tracerlab, Div Lab for Electronics Inc, Waltham	Mass
Transmagnetics Inc, Flushing	N Y

COMPUTERS--DESK TOP SEE ALSO

CALCULATORS--ELECTRICAL & ELECTRONIC

HEWLETT-PACKARD, PALO ALTO	**CAL**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
Business Information Technology Inc, Natick	Mass
Clary Corp, San Gabriel	Cal
Decade Computer Corp, Huntington Beach	Cal
Digital Electronics Inc, Plainview	N Y
Digital Equipment Corp, Maynard	Mass
Gamco Industries Datamate Div, Big Spring	Texas
Hewlett-Packard, Palo Alto	Cal
Interdata, Oceanport	N J
Logic Corp, Haddonfield	N J
Mitsubishi Electric Corp, Tokyo	Japan
Pastoriza Electronics Inc, Newton Upper Falls	Mass
Scam Instrument Corp, Skokie	Ill

COMPUTERS--DIGITAL

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HEWLETT-PACKARD, PALO ALTO	**CAL**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Adage Inc, Boston	Mass
Alcatel, Paris 8eme	France
Allen/UTI, Kalamazoo	Mich
American Astrionics Inc, Palo Alto	Cal
Ann Arbor Computer Corp, Ann Arbor	Mich
Applied Research Labs, Sunland	Cal
Astrodata Inc, Anaheim	Cal
Astronautics Corp of America, Milwaukee	Wis
Automated Business Sys Div Litton Industries Carlstadt	N J
Automation Management, Inc, Westboro	Mass
Bailey Meter Co, Wickliffe	Ohio
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bendix Corp Navigation & Control Div, Teterboro,	N J
Bio-Physical Research Instruments Inc, Houston	Tex
Boston Digital Corp, Ashland	Mass
Bristol Div, American Chain & Cable Co Waterbury	Conn
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Burroughs Corp Component Sales Dept Los Angeles	Cal
Business Information Technology Inc, Natick	Mass
Cie Internationale Pour L'Informatique 78 Louveciennes	France
Clary Corp, San Gabriel	Cal
Collins Radio Co, Dallas	Tex
Computing Devices of Canada Ltd, Ottawa	Ont
Conductron Corp, Ann Arbor	Mich
Conrac Corp, New York	N Y
Control Data Corp, Minneapolis	Minn
Control Data Corp, LaJolla Div, Minneapolis	Minn
Control Logic Inc, Natick	Mass
Cosmos Industries Inc, Brooklyn	N Y
Dalto Electronics Corp, Norwood	N J
Daniel Industries, Inc, Houston	Tex
Datacraft Corp, Fort Lauderdale	Fla
Decade Computer Corp, Huntington Beach	Cal
Dewey Corp, G C, New York	N Y
Di/An Controls Inc, Boston	Mass
Digital Electronics Inc, Plainview	N Y
Digital Equipment Corp, Maynard	Mass
Dowa Trading Co Ltd, Kobe	Japan
Dresser Systems, Inc, Houston	Tex
Electro Circuits Inc, Lowell	Mass
Electronic Associates Inc, West Long Branch	N J
Electronic Communications Inc (ECI), St Petersburg	Fla
Electronic Modules Corp, Timonium	Md
EMR Computer, Minneapolis	Minn
EMR Div Weston Instruments Inc, Princeton	N J
Fabri-Tek Inc, Minneapolis	Minn
Ferranti Electric Inc, Plainview	N Y
Ferranti, Ltd, Lancashire	England
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
Friden Inc, San Leandro	Cal
Fujitsu Ltd, Tokyo	Japan
Gamco Industries Datamate Div, Big Spring	Texas
Garrett Corp, Los Angeles	Cal
General Electric Co, Aerospace Elctns Dept, Utica	N Y
General Electric Co, ECSO, Schenectady	N Y
General Electric Co Info Sys Equip Div, Phoenix	Ariz
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Goodyear Aerospace Corp, Akron	Ohio
Gulton Industries Inc, Metuchen	N J
Hartman Systems Co Inc, Huntington Station	N Y
Hayakawa Electric Co Ltd, Osaka	Japan
Hewlett-Packard, Palo Alto	Cal
Hickok Teaching Systems Inc, Cambridge	Mass
Honeywell-EDP Div, Wellesley Hills	Mass
Honeywell Inc, Computer Control Div Framingham	Mass
IBM Corp, Armonk	N Y
IBM Data Processing Div, White Plains	N Y
Ikor, Inc, Burlington	Mass
Information Instruments, Inc, Ann Arbor	Mich
Infotronics Corp, Houston	Texas
Interdata, Oceanport	N J
Kameco Ltd, Montreal	Que
Keuffel & Esser Co, Hoboken	N J
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Leeds & Northrup Co, Philadelphia	Pa
Link Group Gen Precision Sys Inc, Binghamton	N Y
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Lockheed Electronics Co, Avionics & Ind Prods Div Los Angeles	Cal
Logic Corp, Haddonfield	N J
Loral Electronic Systems, Div Loral Corp, New York	NY
Magnetic Systems Corp, Clearwater	Fla
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Mauchly Associates Inc, Montgomeryville	Pa
Melabs, Palo Alto	Cal
Metric Systems Corp, Fort Walton Beach	Fla
Mitsubishi Electric Corp, Tokyo	Japan
Molecular Research Inc, Palm Beach Gardens	Fla
Motorola Instrumentation & Control Inc, Phoenix	Ariz
NanoFast, Inc, Chicago	Ill
National Cash Register Co, Dayton	Ohio
Navigation Computer Corp, Norristown	Pa
Nihon Kohden Kogyo Co Ltd, Tokyo	Japan
Nippon Electric Co Ltd, Tokyo	Japan
Northridge Engineering Co Div Republic Corp Northridge	Cal
Northrop Nortronics, Palos Verdes Peninsula	Cal
Nuclear-Chicago Corp, Des Plaines	Ill
Nuclear Data Inc, Palatine	Ill
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Otis Elevator Co, Defense Oper, Stamford	Conn
Pacific Data Systems Inc, Santa Ana	Cal
Pennwood Numechron Co Tymeter Electronics Pittsburgh	Pa
Perkin-Elmer Corp, Norwalk	Conn
Philco-Ford Corp, Washington	D C
Potter Instrument Co, Inc, Plainview	N Y
Raytheon Co, Government Marketing, Lexington	Mass
Raytheon Computer, Santa Ana	Cal
Raytheon Learning Systems Co, Michigan City	Ind
RCA, Defense Electronic Products, Moorestown	N J
RCA Information Systems Div, Camden	NJ
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass
Scientific Control Corp, Dallas	Tex
Scientific Data Systems Inc, El Segundo	Cal
Sci-Tek Computer Center Inc, Wilmington	Del
Sedco Systems Inc, Farmingdale	N Y
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Siemens America Inc, New York	N Y
Space Craft Inc, Huntsville	Ala
Spear Inc, Waltham	Mass
Sylvania Electronic Systems, Waltham	Mass
Systems Engineering Labs Inc, Ft Lauderdale	Fla
Tasker Industries, Van Nuys	Cal
Technicon Corp, Ardsley	N Y
Texas Instruments Incorporated, Dallas	Tex
TRW Systems Group, Redondo Beach	Cal
U S Microwave, Delran	N J
Univac Div, Sperry Rand Corp, Philadelphia	Pa
Varian, Palo Alto	Cal
Varian Data Machines, Irvine	Cal
Wang Labs Inc, Tewksbury	Mass
Wyle Laboratories, El Segundo	Cal
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

COMPUTERS--HYBRID

INTRONICS INC, NEWTON	**MASS**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SYSTRON DONNER CORP, CONCORD	**CAL**
Adage Inc, Boston	Mass
Applied Dynamics, Inc, Ann Arbor	Mich
Astrodata Inc, Anaheim	Cal
Astronautics Corp of America, Milwaukee	Wis
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bendix Corp Navigation & Control Div, Teterboro,	N J
Bio-Physical Research Instruments Inc, Houston	Tex
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Canoga Electronics Corp, Chatsworth	Cal
Cie Internationale Pour L'Informatique 78 Louveciennes	France
Conductron Corp, Ann Arbor	Mich
Control Data Corp, Minneapolis	Minn
Control Data Corp, LaJolla Div, Minneapolis	Minn
Control Logic Inc, Natick	Mass
Electro Circuits Inc, Lowell	Mass
Electronic Associates Inc, West Long Branch	N J
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
Gap Instrument Corp, Westbury	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Geo Space Corp, Houston	Tex
Goodyear Aerospace Corp, Akron	Ohio
GPS Instrument Co Inc, Newton	Mass
Hybrid Systems Corp, Cambridge	Mass
Ikor, Inc, Burlington	Mass
Intronics Inc, Newton	Mass
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Link Group Gen Precision Sys Inc, Binghamton	N Y
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Litton Systems (Canada) Ltd, Rexdale	Ont
Micro Metrics Inc, Paterson	N J
Molecular Research Inc, Palm Beach Gardens	Fla
Motorola Instrumentation & Control Inc, Phoenix	Ariz
Nippon Electric Co Ltd, Tokyo	Japan
Northrop Nortronics, Palos Verdes Peninsula	Cal
Otis Elevator Co, Defense Oper, Stamford	Conn
RC-95 Inc, New York	N Y
Reeves Instrument Div, DCA, Garden City	N Y
Scientific Data Systems Inc, El Segundo	Cal
Spear Inc, Waltham	Mass
Systron Donner Corp, Concord	Cal
Tasker Industries, Van Nuys	Cal
TRW Systems Group, Redondo Beach	Cal
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Woodward Machine Inc, Elctns Div, Detroit	Mich
Wyle Laboratories, El Segundo	Cal

COMPUTERS, SPECIAL PURPOSE--FIRE CONTROL

MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
Alcatel, Paris 8eme	France
American Astrionics Inc, Palo Alto	Cal
American Hydromath Co, New Hyde Park	N Y
Applied Devices Corp, College Point	n y
Astronautics Corp of America, Milwaukee	Wis
Bell Aerosystems Co, Buffalo	N Y
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Control Data Corp, Minneapolis	Minn
Control Logic Inc, Natick	Mass
Cosmos Industries Inc, Brooklyn	N Y
Edo Corp, College Point	NY
Electronic Associates Inc, West Long Branch	N J
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Felsenthal Instruments Co, Chicago	Ill
Ferranti, Ltd, Lancashire	England
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
Gap Instrument Corp, Westbury	N Y
Garrett Corp, Los Angeles	Cal
General Electric Co Ordnance Dept, Pittsfield	Mass
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Goodyear Aerospace Corp, Akron	Ohio
Hartman Systems Co Inc, Huntington Station	N Y
Honeywell Inc, Computer Control Div Framingham	Mass
IBM Corp, Armonk	N Y
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Librascope Group Gen Precision Sys Inc, Glendale	Cal
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Litton Systems (Canada) Ltd, Rexdale	Ont
Loral Electronic Systems, Div Loral Corp, New York	NY
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Melabs, Palo Alto	Cal
Mitsubishi Electric Corp, Tokyo	Japan
M Ten Bosch, Inc, Pleasantville	N Y
NanoFast, Inc, Chicago	Ill
Northridge Engineering Co Div Republic Corp Northridge	Cal
Otis Elevator Co, Defense Oper, Stamford	Conn
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Reeves Instrument Div, DCA, Garden City	N Y
Reflex Controls Corp, Huntington Station	NY
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass
Rodale Electronics Inc, Garden City	NY
Sanders Associates, Inc, Nashua	N H
Sedco Systems Inc, Farmingdale	N Y
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
TRW Systems Group, Redondo Beach	Cal
Westinghouse Electric Corp, Aerospace Div Baltimore	Md
Weston-Transicoil, Weston Instruments Inc Worcester	Pa

COMPUTERS, SPECIAL PURPOSE--GUIDANCE

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
SYSTRON DONNER CORP, CONCORD	**CAL**
A C Electronics Div GM, Milwaukee	Wis
American Astrionics Inc, Palo Alto	Cal
Applied Devices Corp, College Point	n y
Astronautics Corp of America, Milwaukee	Wis
Automation Development Co, Culver City	Cal
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Computer Instruments Corp, Hempstead	N Y
Conductron Corp, Ann Arbor	Mich
Control Data Corp, Minneapolis	Minn
Control Logic Inc, Natick	Mass
Cosmos Industries Inc, Brooklyn	N Y
Electronic Associates Inc, West Long Branch	N J
Electronic Communications Inc (ECI), St Petersburg	Fla
Fairchild Space & Defense Sys Div Fairchild Cam Instr Corp, Syosset	NY
Ferranti, Ltd, Lancashire	England
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
General Electric Co, Aerospace Elctns Dept, Utica	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Goodyear Aerospace Corp, Akron	Ohio
Honeywell Inc, Computer Control Div Framingham	Mass
IBM Corp, Armonk	N Y
Kollsman Instrument Corp, Syosset	N Y
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Litton Systems (Canada) Ltd, Rexdale	Ont
Loral Electronic Systems, Div Loral Corp, New York	NY
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Melabs, Palo Alto	Cal
Milgo Electronic Corp, Miami	Fla
M Ten Bosch, Inc, Pleasantville	N Y
NanoFast, Inc, Chicago	Ill
Neotec Corp, Rockville	Md
Northridge Engineering Co Div Republic Corp Northridge	Cal
Northrop Nortronics, Palos Verdes Peninsula	Cal
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
RC-95 Inc, New York	N Y
Reeves Instrument Div, DCA, Garden City	N Y
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass
Sanders Associates, Inc, Nashua	N H
Sedco Systems Inc, Farmingdale	N Y
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Systron Donner Corp, Concord	Cal
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
TRW Systems Group, Redondo Beach	Cal
Univac Div, Sperry Rand Corp, Philadelphia	Pa
Westinghouse Electric Corp, Aerospace Div Baltimore	Md

COMPUTERS, SPECIAL PURPOSE--NAVIGATION, AIRCRAFT

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
TRACOR INC, AUSTIN	**TEX**
A C Electronics Div GM, Milwaukee	Wis
Aircraft Components Inc, Benton Harbor	Mich
Ann Arbor Computer Corp, Ann Arbor	Mich
Applied Devices Corp, College Point	n y
Astronautics Corp of America, Milwaukee	Wis
Automation Development Co, Culver City	Cal
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Bendix Corp Navigation & Control Div, Teterboro,	N J
Bowmar Instrument Corp, Fort Wayne	Ind
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Canadian Marconi Co, Montreal 16	Quebec
Collins Radio Co, Dallas	Tex
Computer Instruments Corp, Hempstead	N Y
Computing Devices of Canada Ltd, Ottawa	Ont
Conrac Corp, New York	N Y
Control Data Corp, Minneapolis	Minn
Control Logic Inc, Natick	Mass
Cosmos Industries Inc, Brooklyn	N Y
Edo Corp, College Point	NY
Electronic Associates Inc, West Long Branch	N J
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Space & Defense Sys Div Fairchild Cam Instr Corp, Syosset	NY
Felsenthal Instruments Co, Chicago	Ill
Ferranti, Ltd, Lancashire	England
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
Gap Instrument Corp, Westbury	N Y
Garrett Corp, Los Angeles	Cal
General Electric Co, Aerospace Elctns Dept, Utica	N Y
General Instrument Corp, Harris ASW Div Westwood	Mass
General Instrument Corp Radio Receptor Div Hicksville	N Y
Goodyear Aerospace Corp, Akron	Ohio
GPL Div Gen Precision Systems Inc, Pleasantville	N Y
Hartman Systems Co Inc, Huntington Station	N Y
Honeywell Inc, Computer Control Div Framingham	Mass
IBM Corp, Armonk	N Y
Instru-Lec Corp, Mt Vernon	N Y
Kollsman Instrument Corp, Syosset	N Y
Kollsman Instrument Ltd, Southampton	England
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
LFE Electronics Div, Lab for Electronics Inc Waltham	Mass
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Litton Systems (Canada) Ltd, Rexdale	Ont
Loral Electronic Systems, Div Loral Corp, New York	NY
Marconi Co Ltd, Chelmsford	England
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Melabs, Palo Alto	Cal
M Ten Bosch, Inc, Pleasantville	N Y
NanoFast, Inc, Chicago	Ill
Neotec Corp, Rockville	Md
Norden Div, United Aircraft Corp, Norwalk	Conn
Northrop Nortronics, Palos Verdes Peninsula	Cal
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
RC-95 Inc, New York	N Y
Sedco Systems Inc, Farmingdale	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Sperry Flight Systems Div Sperry Rand Corp Phoenix	Ariz
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Springer Aircraft-Radio Corp, Shelbyville	Ind
Sunbeam Electronics, Fort Lauderdale	Fla
Sylvania Electronic Systems, Waltham	Mass
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
Tracor Inc, Austin	Tex
TRW Systems Group, Redondo Beach	Cal
United Control Corp, Redmond	Wash
Univac Div, Sperry Rand Corp, Philadelphia	Pa
Weston-Transicoil, Weston Instruments Inc Worcester	Pa

COMPUTERS, SPECIAL PURPOSE--NAVIGATION, SHIP

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
TRACOR INC, AUSTIN	**TEX**
A C Electronics Div GM, Milwaukee	Wis
American Hydromath Co, New Hyde Park	N Y
Ann Arbor Computer Corp, Ann Arbor	Mich
Applied Devices Corp, College Point	n y
Astronautics Corp of America, Milwaukee	Wis
Automation Development Co, Culver City	Cal
Bendix Corp Navigation & Control Div, Teterboro,	N J
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Cie Internationale Pour L'Informatique 78 Louveciennes	France
Control Data Corp, Minneapolis	Minn
Control Logic Inc, Natick	Mass
Cosmos Industries Inc, Brooklyn	N Y
Edo Corp, College Point	NY
Electronic Associates Inc, West Long Branch	N J
Fairchild Space & Defense Sys Div Fairchild Cam Instr Corp, Syosset	NY
Felsenthal Instruments Co, Chicago	Ill
Ferranti, Ltd, Lancashire	England
Gap Instrument Corp, Westbury	N Y
Garrett Corp, Los Angeles	Cal
General Instrument Corp, Harris ASW Div Westwood	Mass
General Instrument Corp Radio Receptor Div Hicksville	N Y
Goodyear Aerospace Corp, Akron	Ohio
Hartman Systems Co Inc, Huntington Station	N Y
Honeywell Inc, Computer Control Div Framingham	Mass
IBM Corp, Armonk	N Y
Industrial Control Co, Farmingdale	N Y
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Loral Electronic Systems, Div Loral Corp, New York	NY
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
M Ten Bosch, Inc, Pleasantville	N Y
NanoFast, Inc, Chicago	Ill
Neotec Corp, Rockville	Md
Northrop Nortronics, Palos Verdes Peninsula	Cal
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Reeves Instrument Div, DCA, Garden City	N Y
Sedco Systems Inc, Farmingdale	N Y
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Straza Industries Div Ametek Inc, El Cajon	Cal
Sylvania Electronic Systems, Waltham	Mass
Tracor Inc, Austin	Tex
Weston-Transicoil, Weston Instruments Inc Worcester	Pa

COMPUTERS, SPECIAL PURPOSE--PROCESS CONTROL

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
COMPUTER PRODUCTS INC, FORT LAUDERDALE	**FLA**
DISCON CORP, FORT LAUDERDALE	**FLA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
Adage Inc, Boston	Mass
American Astrionics Inc, Palo Alto	Cal
Ann Arbor Computer Corp, Ann Arbor	Mich
Applied Control Co, Cedar Grove	NJ
Applied Dynamics, Inc, Ann Arbor	Mich
Astrodata Inc, Anaheim	Cal
Astronautics Corp of America, Milwaukee	Wis
Audn Corp, Hamburg	N Y
Automation Development Co, Culver City	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Bailey Meter Co, Wickliffe	Ohio
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bionic Instruments Inc, Bala Cynwyd	Pa
Boston Digital Corp, Ashland	Mass
Bristol Div, American Chain & Cable Co Waterbury	Conn
Burr-Brown Research Corp, Tucson	Ariz
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Business Information Technology Inc, Natick	Mass
California Computer Products Inc, Anaheim	Cal
Canberra Industries, Middletown	Conn
Canoga Electronics Corp, Chatsworth	Cal
Cie Internationale Pour L'Informatique 78 Louveciennes	France
Clavier Corp, Richmond Hill	NY
Compudyne Corp, Hatboro	Pa
Computer Dynamics Inc, Torrington	Conn
Computer Products Inc, Fort Lauderdale	Fla
Connecticut Technical Corp, Hartford	Conn
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Control Data Corp, Minneapolis	Minn
Control Data Corp, LaJolla Div, Minneapolis	Minn
Control Equipment Corp, Needham Heights	Mass
Control Logic Inc, Natick	Mass
Control Technology Co Inc, Long Island City	N Y
Cybetronics Inc, Waltham	Mass
Data Automation Inc, Elk Grove	Ill
Datacraft Corp, Fort Lauderdale	Fla
DatCon Electronics Corp, Bayside	NY
Davidson Electronic Development Co, Erie	Pa
Delco Radio Div General Motors Corp, Kokomo	Ind
Di/An Controls Inc, Boston	Mass
Digital Electronics Inc, Plainview	N Y
Digital Products, San Pedro	Cal
Dinion Coil Co Inc, Caledonia	N Y
Discon Corp, Fort Lauderdale	Fla
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee	Ill
E G & G Inc Custom Equip Div, Bedford	Mass
E-H Research Labs Inc, Oakland	Cal
Elastronics Labs, Tarzana	Cal
Electro Circuits Inc, Lowell	Mass
Electronic Associates Inc, West Long Branch	N J
Electronic Communications Inc (ECI), St Petersburg	Fla
Electronic Modules Corp, Timonium	Md
EMR Computer, Minneapolis	Minn
EMR-Hatboro Div Weston Insts Inc, Hatboro	Pa
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Ferranti Electric Inc, Plainview	N Y
Ferranti, Ltd, Lancashire	England
Fischer & Porter Co, Warminster	Pa
Foxboro Co, Foxboro	Mass
Fujitsu Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
Geo Space Corp, Houston	Tex
Glentek Inc, Santa Monica	Cal
Goodyear Aerospace Corp, Akron	Ohio
Gulton Industries Inc, Metuchen	N J
Halmar Electronics Inc, Columbus	Ohio
Heuer Electronics Corp, Norwalk	Conn
Honeywell Inc, Computer Control Div Framingham	Mass
Honeywell Industrial Div, Fort Washington	Pa
Hugle Industries, Sunnyvale	Cal
Humphrey Electronics Inc, Raleigh	N C
Hybrid Systems Corp, Cambridge	Mass
Hyde Park Electronics Inc, Dayton	Ohio
IBM Corp, Armonk	N Y
IBM Data Processing Div, White Plains	N Y
Ikor, Inc, Burlington	Mass
Industrial Control Co, Farmingdale	N Y
Industrial Electronetics Corp, Satellite Beach	Fla
Information Instruments, Inc, Ann Arbor	Mich
Infotronics Corp, Houston	Texas
Instrumentation Technology Corp, Northridge	Cal
Interdata, Oceanport	N J
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs	Colo
Leeds & Northrup Co, Philadelphia	Pa
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Lockheed Electronics Co, Avionics & Ind Prods Div Los Angeles	Cal
Logic Corp, Haddonfield	N J
Loral Electronic Systems, Div Loral Corp, New York	NY
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Luft Instruments Inc, Lincoln	Mass
Magnetic Systems Corp, Clearwater	Fla
Mauchly Associates Inc, Montgomeryville	Pa

Microdyne Inc, Rolling Meadows	Ill
Micro Metrics Inc, Paterson	N J
Milgo Electronic Corp, Miami	Fla
Milletron, Inc, Pittsburgh	Pa
Molecular Research Inc, Palm Beach Gardens	Fla
Moore Associates Div Rocker Co, San Carlos	Cal
Motorola Instrumentation & Control Inc, Phoenix	Ariz
M Ten Bosch, Inc, Pleasantville	N Y
NanoFast, Inc, Chicago	Ill
Nash & Harrison Ltd, Ottawa 3	Ont
Navigation Computer Corp, Norristown	Pa
Neotec Corp, Rockville	Md
Nippon Electric Co Ltd, Tokyo	Japan
Northridge Engineering Co Div Republic Corp Northridge	Cal
NUS Corp, Underwater Sys Div, Paramus	N J
Pastoriza Electronics Inc, Newton Upper Falls	Mass
RCA, Defense Electronic Products, Moorestown	N J
RC-95 Inc, New York	N Y
Reeves Instrument Div, DCA, Garden City	N Y
Reflex Controls Corp, Huntington Station	NY
Research Inc, R-I Controls Div, Minneapolis	Minn
Roback Corp, Huntingdon Valley	Pa
Rosemount Plug-In Inc, Nashville	Tenn
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Scientific Control Corp, Dallas	Tex
Scientific Data Systems Inc, El Segundo	Cal
Sedco Systems Inc, Farmingdale	N Y
Siemens America Inc, New York	N Y
Stern Co Inc M L, Charlotte	N C
Stone Laboratories Inc, Boston	Mass
Streeter-Amet, Grayslake	Ill
Sulzer Brothers Ltd, Industrial Elctns Div Winterthur	Switzerland
Sylvania Electronic Systems, Waltham	Mass
Systems Engineering Labs Inc, Ft Lauderdale	Fla
Taylor Instrument Cos, Rochester	N Y
Texas Instruments Inc Indl Prods Div, Houston	Tex
Theta Instrument Corp, Fairfield	N J
Tracerlab, Div Lab for Electronics Inc, Waltham	Mass
TRW Systems Group, Redondo Beach	Cal
U S Microwave, Delran	N J
Univac Div, Sperry Rand Corp, Philadelphia	Pa
Varian Data Machines, Irvine	Cal
Veeder-Root, Hartford	Conn
Wang Labs Inc, Tewksbury	Mass
Watesta Electronics Ltd, London-E 11	England
Wyle Laboratories, El Segundo	Cal
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan
Zeltex inc, Concord	Cal

COMPUTER SERVICES--DATA PROCESSING

HYDRA-ELECTRIC CO, BURBANK	**CAL**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Aerojet-General Corp Electronics Div, Azusa	Cal
Automated Business Sys Div Litton Industries Carlstadt	N J
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Celestron Associates Inc, Thornwood	N Y
Cie Internationale Pour L'Informatique 78 Louveciennes	France
C & N Electrical Ltd, Hants	England
Computing Devices of Canada Ltd, Ottawa	Ont
Control Data Corp, Minneapolis	Minn
Design Automation Inc, Lexington	Mass
Device Development Corp, Waltham	Mass
Electronic Associates Inc, West Long Branch	N J
Electron-Ohio Inc, Cleveland	Ohio
Fischer & Porter Co, Warminster	Pa
Frankel Engineering Labs Inc, Reading	Pa
Fujitsu Ltd, Tokyo	Japan
General Electric Co Info Sys Equip Div, Phoenix	Ariz
Gerber Scientific Instrument Co, Hartford	Conn
GPS Instrument Co Inc, Newton	Mass
Gulton Industries Inc, Metuchen	N J
Hayakawa Electric Co Ltd, Osaka	Japan
Honeywell Inc, Computer Control Div Framingham	Mass
Hydra-Electric Co, Burbank	Cal
IBM Corp, Armonk	N Y
IBM Service Bureau Corp, New York	N Y
Information International Inc, Cambridge	Mass
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs	Colo
Keltec Industries, Alexandria Div, Alexandria	Va
Laben S p A, Milan	Italy
Leeds & Northrup Co, Philadelphia	Pa
Logic Corp, Haddonfield	N J
Loral Electronic Systems, Div Loral Corp, New York	NY
Magnetic Systems Corp, Clearwater	Fla
Marconi Co Ltd, Chelmsford	England
Mauchly Associates Inc, Montgomeryville	Pa
Milgo Electronic Corp, Miami	Fla
National Cash Register Co, Dayton	Ohio
Nippon Electric Co Ltd, Tokyo	Japan
Nuclear Technology Corp, White Plains	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
RCA, Defense Electronic Products, Moorestown	N J
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass
Roback Corp, Huntingdon Valley	Pa
Rosemount Plug-In Inc, Nashville	Tenn
Sci-Tek Computer Center Inc, Wilmington	Del
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Standard Telephones & Cables Ltd London WC 2	England
Systems Research Labs Inc, Dayton	Ohio
Technology Inc, Dayton	Ohio
Technology/Versatronics Inc, Yellow Springs	Ohio
TRW Systems Group, Redondo Beach	Cal
U S Microwave, Delran	N J
Univac Div, Sperry Rand Corp, Philadelphia	Pa
Whittaker Corp Technical Products Div, Chatsworth	Cal
Wyle Laboratories, El Segundo	Cal

COMPUTER SERVICES--INSTALLATION

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Altron Electronics Co, Woodlyn	Pa
Applied Dynamics, Inc, Ann Arbor	Mich
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Control Data Corp, Minneapolis	Minn
Electronic Associates Inc, West Long Branch	N J
Electronic Design Labs Inc, Philadelphia	Pa
Fujitsu Ltd, Tokyo	Japan
General Electric Co Info Sys Equip Div, Phoenix	Ariz
Logic Corp, Haddonfield	N J
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Philco-Ford Corp, Washington	D C
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass
Sci-Tek Computer Center Inc, Wilmington	Del
Systems Research Labs Inc, Dayton	Ohio
Telecontrol Corp, Old Greenwich	Conn
U S Microwave, Delran	N J
Univac Div, Sperry Rand Corp, Philadelphia	Pa

COMPUTER SERVICES--MACHINE TIME RENTAL

HYDRA-ELECTRIC CO, BURBANK	**CAL**
Aerojet-General Corp Electronics Div, Azusa	Cal
Brown Engineering-A Teledyne Co, Huntsville	Ala
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Computing Devices of Canada Ltd, Ottawa	Ont
Control Data Corp, Minneapolis	Minn
E G & G Inc Custom Equip Div, Bedford	Mass
Electronic Associates Inc, West Long Branch	N J
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Faul Assoc Inc, Thomas L, Skaneateles	N Y
Frankel Engineering Labs Inc, Reading	Pa
Fujitsu Ltd, Tokyo	Japan
Gerber Scientific Instrument Co, Hartford	Conn
GPS Instrument Co Inc, Newton	Mass
Hydra-Electric Co, Burbank	Cal
IBM Corp, Armonk	N Y
IBM Data Processing Div, White Plains	N Y
IBM Service Bureau Corp, New York	N Y
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs	Colo
Keltec Industries, Alexandria Div, Alexandria	Va
Mauchly Associates Inc, Montgomeryville	Pa
Philco-Ford Corp, Washington	D C
Reeves Instrument Div, DCA, Garden City	N Y
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass
Sci-Tek Computer Center Inc, Wilmington	Del
Stainless Inc, North Wales	Pa
Technology Inc, Dayton	Ohio
TRW Systems Group, Redondo Beach	Cal
Tuck Electronics, New Cumberland	Pa
U S Microwave, Delran	N J
Univac Div, Sperry Rand Corp, Philadelphia	Pa
Wyle Laboratories, El Segundo	Cal

COMPUTER SERVICES--OPERATION

Applied Dynamics, Inc, Ann Arbor	Mich
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Control Data Corp, Minneapolis	Minn
Electronic Associates Inc, West Long Branch	N J
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Frankel Engineering Labs Inc, Reading	Pa
General Electric Co Info Sys Equip Div, Phoenix	Ariz
GPS Instrument Co Inc, Newton	Mass
IBM Corp, Armonk	N Y
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs	Colo
Logic Corp, Haddonfield	N J
Loral Electronic Systems, Div Loral Corp, New York	NY
Mauchly Associates Inc, Montgomeryville	Pa
National Cash Register Co, Dayton	Ohio
Nuclear Technology Corp, White Plains	N Y
Reeves Instrument Div, DCA, Garden City	N Y
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass
Sci-Tek Computer Center Inc, Wilmington	Del
Stainless Inc, North Wales	Pa
Systems Research Labs Inc, Dayton	Ohio
U S Microwave, Delran	N J
Univac Div, Sperry Rand Corp, Philadelphia	Pa

COMPUTER SERVICES--PROGRAMMING

HYDRA-ELECTRIC CO, BURBANK	**CAL**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Aerojet-General Corp Electronics Div, Azusa	Cal
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Ann Arbor Computer Corp, Ann Arbor	Mich
Applied Dynamics, Inc, Ann Arbor	Mich
Bissett-Berman Corp, Santa Monica	Cal
Bolt Beranek & Newman, Data Equip Div Santa Ana	Cal
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Celestron Associates Inc, Thornwood	N Y
Cie Internationale Pour L'Informatique 78 Louveciennes	France
Computing Devices of Canada Ltd, Ottawa	Ont
Control Data Corp, Minneapolis	Minn
Data Trends Inc, Parsippany	N J
Design Automation Inc, Lexington	Mass
Device Development Corp, Waltham	Mass
Electronic Design Labs Inc, Philadelphia	Pa
Elpac Inc Systems Div Data, Irvine	Cal
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Farrand Controls Inc, Valhalla	N Y
Frankel Engineering Labs Inc, Reading	Pa
Fujitsu Ltd, Tokyo	Japan
General Electric Co Info Sys Equip Div, Phoenix	Ariz
General Instrument Corp, Harris ASW Div Westwood	Mass
Gerber Scientific Instrument Co, Hartford	Conn
GPS Instrument Co Inc, Newton	Mass
Gulton Industries Inc, Metuchen	N J
Hydra-Electric Co, Burbank	Cal
IBM Corp, Armonk	N Y
IBM Service Bureau Corp, New York	N Y
Information International Inc, Cambridge	Mass
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs	Colo
Link Group Gen Precision Sys Inc, Binghamton	N Y
Logic Corp, Haddonfield	N J
Mauchly Associates Inc, Montgomeryville	Pa
Microwave/Systems Inc, East Syracuse	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Nuclear Technology Corp, White Plains	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
Philco-Ford Corp, Washington	D C
RCA, Defense Electronic Products, Moorestown	N J
Reeves Instrument Div, DCA, Garden City	N Y
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass
Sci-Tek Computer Center Inc, Wilmington	Del
Stainless Inc, North Wales	Pa
Sylvania Electronic Systems, Waltham	Mass
Systems Research Labs Inc, Dayton	Ohio
Technology Inc, Dayton	Ohio
Technology/Versatronics Inc, Yellow Springs	Ohio
TRW Systems Group, Redondo Beach	Cal
U S Microwave, Delran	N J
Univac Div, Sperry Rand Corp, Philadelphia	Pa
Wyle Laboratories, El Segundo	Cal

COMPUTER SERVICES--REPAIR

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Altron Electronics Co, Woodlyn	Pa
Applied Dynamics, Inc, Ann Arbor	Mich
Astrodata Inc, Anaheim	Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Cybetronics Inc, Waltham	Mass
Electronic Associates Inc, West Long Branch	N J
Electronic Design Labs Inc, Philadelphia	Pa
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
Fujitsu Ltd, Tokyo	Japan
General Electric Co Info Sys Equip Div, Phoenix	Ariz
Hill Inc E Vernon, San Francisco	Cal
IBM Corp, Armonk	N Y
Logic Corp, Haddonfield	N J
Nippon Electric Co Ltd, Tokyo	Japan
Systems Research Labs Inc, Dayton	Ohio
U S Microwave, Delran	N J

CONELRAD RECEIVERS SEE RECEIVERS--RADIO COMMUNICATION

CONNECTORS--ANODE

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ALDEN PRODUCTS CO, INC, BROCKTON, MASS	**ADV PG 193**
AMPHENOL, BROADVIEW	**ILL**
AMP INCORPORATED, HARRISBURG	**PA**
AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
CINCH MFG CO, ELK GROVE VILLAGE, ILL	**ADV PGS 188,189**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
Accurate Electronics Corp, Elyria	Ohio
Aerolite Electronics Corp, Union City	N J
Alden Products Co, Inc, Brockton	Mass
Amphenol, Broadview	Ill
AMP Incorporated, Harrisburg	Pa
AMP Inc, Capitron Div, Elizabethtown	Pa
Aviation Electric Ltd, St Laurent, Montreal	Que
Azimuth Electronics, Denville	N J
Cinch Mfg Co, Elk Grove Village	Ill
Daburn Electronics & Cable Corp, Bronx	N Y

Dante Electric Mfg Co, Bantam .... Conn
Eimac Div, Varian Associates, San Carlos .... Cal
Industrial Electronic Hardware Corp, New York .... N Y
Jettron Products Inc, Hanover .... N J
Jones Inc, Norman, South Merrimack .... N H
Mandex Mfg Co Inc, Chicago Ill
Microdot, Inc, South Pasadena .... Cal
Millen Mfg Co Inc, James, Malden .... Mass
National Tel-Tronics Corp, Great Neck .... N Y
Oneida Electronic Mfg Co, Meadville .... Pa
Permonite Mfg Co, Chicago Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Philmore Mfg Co Inc, Richmond Hill .... N Y
Precision Research Inc, Stamford .... Conn
Premium Allied Tool Inc, Owensboro .... Ky
Sanyo Electric Co Ltd, Osaka .... Japan
Shigoto Industries Ltd, New York .... N Y
Showa Musen Kogyo Co Ltd, Tokyo .... Japan
Smith Inc, Herman H, Brooklyn .... N Y
Ucinite Co Div United-Carr, Newtonville .... Mass
United-Carr Inc, Boston .... Mass

CONNECTORS--A-F & MICROPHONE

ACCURATE ELECTRONICS CORP, ELYRIA .... OHIO
DABURN ELECTRONICS & CABLE CORP, BRONX .... N Y
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP
LOS ANGELES, CAL .... ADV PG 179
KEYSTONE ELECTRONICS CORP, NEW YORK .... N Y
MOSLEY ELECTRONICS INC, BRIDGETON .... MO
POMONA ELECTRONICS CO INC, POMONA .... CAL
Accurate Electronics Corp, Elyria .... Ohio
Aikow Shoji Kaisha Ltd, Osaka .... Japan
Associated Engineering Corp, Brookline .... Mass
Automatic Metal Products Corp, Brooklyn .... N Y
Ava Electronics & Machine Corp, Upper Darby .... Pa
Barker Products Co, Saugus .... Mass
Bayly Engineering Ltd, Ajax .... Ontario
Bell P/A Products Corp, Columbus .... Ohio
Co-Ax Inc, Roslyn .... N Y
Daburn Electronics & Cable Corp, Bronx .... N Y
Dowa Trading Co Ltd, Kobe .... Japan
Ercona Corp, New York .... N Y
Federal Screw Products Inc, Chicago Ill
G C Electronics Div, Hydrometals Inc, Rockford Ill
Gotham Audio Corp, New York .... N Y
Greenpar Engineering Ltd, Electronics Div
Essex .... England
Hirose Electric Co Ltd, Tokyo .... Japan
Itt Cannon Electric Div Intl Tel & Tel Corp
Los Angeles .... Cal
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Javex Electronics, Cherry Valley .... Cal
Keystone Electronics Corp, New York .... N Y
Loudin Electric Co, Stamford .... Conn
3M Company, St Paul .... Minn
Mosley Electronics Inc, Bridgeton .... Mo
Pomona Electronics Co Inc, Pomona .... Cal
Positive Connector Co, Derby .... Conn
Robins Industries Corp, Flushing .... N Y
Rye Industries, Inc, Mamaroneck .... N Y
Sanyo Electric Co Ltd, Osaka .... Japan
Shigoto Industries Ltd, New York .... N Y
Showa Musen Kogyo Co Ltd, Tokyo .... Japan
Shrader Sound Inc, Washington .... D C
Shure Brothers Inc, Evanston Ill
Smith Inc, Herman H, Brooklyn .... N Y
Switchcraft Inc, Chicago Ill
Taffet Electronics Inc, Woodside .... N Y
Trico Fuse Mfg Co, Milwaukee .... Wis
Trimm Inc, Libertyville Ill
Veritron West Inc, Chatsworth .... Cal

CONNECTORS--ANTENNA

ACCURATE ELECTRONICS CORP, ELYRIA .... OHIO
AMPHENOL, BROADVIEW ILL
BURNDY CORP, NORWALK .... CONN
CINCH MFG CO, ELK GROVE VILLAGE, ILL .... ADV PGS 188,189
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP
LOS ANGELES .... CAL
MOSLEY ELECTRONICS INC, BRIDGETON .... MO
NATIONAL TEL-TRONICS CORP, GREAT NECK .... N Y
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
Accurate Electronics Corp, Elyria .... Ohio
Aerolite Electronics Corp, Union City .... N J
Aikow Shoji Kaisha Ltd, Osaka .... Japan
Americon Corp, Waltham .... Mass
Amphenol, Broadview Ill
Andrew California Corp, Claremont .... Cal
Andrew Corp, Orland Park Ill
Automatic Metal Products Corp, Brooklyn .... N Y
Auto-Swage Products, Inc, Shelton .... Conn
Ava Electronics & Machine Corp, Upper Darby .... Pa
Budwig Mfg Co, Ramona .... Cal
Burndy Corp, Norwalk .... Conn
Cinch Mfg Co, Elk Grove Village Ill
Dage Electric Co Inc, Franklin .... Ind
Deutsch Co, Electronic Components Div, Banning .... Cal
Electric Terminal Corp, Warwick .... R I
Ercona Corp, New York .... N Y
Fastex Div Illinois Tool Works, Des Plaines Ill
Federal Screw Products Inc, Chicago Ill
G C Electronics Div, Hydrometals Inc, Rockford Ill
General RF Fittings Inc, Port Salerno .... Fla
Gremar Mfg Co Inc, Wakefield .... Mass
Hirose Electric Co Ltd, Tokyo .... Japan
Indit Corp, Albertson .... N Y
Industrial Electronic Hardware Corp, New York .... N Y
Itt Cannon Electric Div Intl Tel & Tel Corp
Los Angeles .... Cal
Javex Electronics, Cherry Valley .... Cal
Jones Inc, Norman, South Merrimack .... N H
Kings Electronics Co Inc, Tuckahoe .... N Y
Mandex Mfg Co Inc, Chicago Ill
Mosley Electronics Inc, Bridgeton .... Mo
National Tel-Tronics Corp, Great Neck .... N Y
Nippon Electric Co Ltd, Tokyo .... Japan
Oneida Electronic Mfg Co, Meadville .... Pa
Ottawa, Paris .... France
Permonite Mfg Co, Chicago Ill
Phelps Dodge Electronic Products Corp
North Haven .... Conn
Philmore Mfg Co Inc, Richmond Hill .... N Y
Preformed Line Products Co, Cleveland .... Ohio
Prodelin Inc, Hightstown .... N J
Rohde & Schwarz Sales Co USA Inc, Passaic .... N J
Rowe Industries Inc, Toledo .... Ohio
Rye Industries, Inc, Mamaroneck .... N Y
Sanyo Electric Co Ltd, Osaka .... Japan
Sealectro Corp, Mamaroneck .... N Y
Showa Musen Kogyo Co Ltd, Tokyo .... Japan
Sierra Electric Inc, Gardena .... Cal
Smith Inc, Herman H, Brooklyn .... N Y
Technical Materiel Corp, Mamaroneck .... N Y
Ted Mfg Corp, Shawnee Mission .... Kans
Teledata Inc, Queens Village .... N Y
Trico Fuse Mfg Co, Milwaukee .... Wis
Trim Line Connectors Ltd, Weston .... Ont
Trio Mfg Co, Griggsville Ill
Trompeter Electronics Inc, Chatsworth .... Cal
Tru-Connector Corp, Peabody .... Mass
UID Electronics Corp, Hollywood .... Fla
Veritron West Inc, Chatsworth .... Cal
Vikoa Inc, Hoboken .... N J
Waber Electronics Inc, Philadelphia .... Pa

CONNECTORS--ASSEMBLIES SEE CABLE ASSEMBLIES

CONNECTORS--COAXIAL CABLE

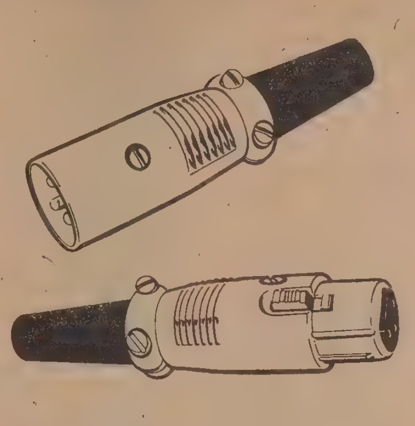
ACCURATE ELECTRONICS CORP, ELYRIA .... OHIO
AMPHENOL, DANBURY, CONN .... ADV PG 180
AMP INCORPORATED, HARRISBURG, PA .... ADV PG 180
BURNDY CORP, NORWALK .... CONN
CINCH MFG CO, ELK GROVE VILLAGE, ILL .... ADV PGS 188,189
DX ANTENNA CO LTD, HYOGO-KU, KOBE .... JAPAN
HUGHES CONNECTING DEVICES, NEWPORT BEACH .... CAL
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP
LOS ANGELES .... CAL
MOSLEY ELECTRONICS INC, BRIDGETON .... MO
NATIONAL TEL-TRONICS CORP, GREAT NECK .... N Y
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
POMONA ELECTRONICS CO INC, POMONA .... CAL
PYLE-NATIONAL CO, CHICAGO ILL
SPENCER-KENNEDY LABS INC, BOSTON .... MASS
TIMES WIRE & CABLE DIV, INT L SILVER CO, WALLINGFORD
CONN .... ADV PG 179
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG .... MD
Accratronics Seals Corp, Burbank .... Cal
Accurate Electronics Corp, Elyria .... Ohio
Aerolite Electronics Corp, Union City .... N J
Airmec Instruments Ltd, Buckinghamshire .... England
Ameco Inc, Phoenix .... Ariz
Americon Corp, Waltham .... Mass
Amphenol, Danbury .... Conn
AMP Incorporated, Harrisburg .... Pa
Ancrona Corp, New York .... N Y
Andrew California Corp, Claremont .... Cal
Andrew Corp, Orland Park Ill
Applied Engineering Prods Div Samarius Inc
Ansonia .... Conn
Arco Electronics, Inc, Great Neck .... N Y
Astrolab Inc, Linden .... N J
Automatic Metal Products Corp, Brooklyn .... N Y
Auto-Swage Products, Inc, Shelton .... Conn
Ava Electronics & Machine Corp, Upper Darby .... Pa
Aviation Electric Ltd, St Laurent, Montreal .... Que
Aviel Electronics, Inc, Van Nuys .... Cal
Avnet Electronics, Westbury .... N Y
Bayly Engineering Ltd, Ajax .... Ontario
Beckman Instruments Inc, Fullerton, ... Cal
Bendix Corp Electrical Components Div, Sidney .... N Y
Blonder-Tongue Labs Inc, Newark .... N J
Burndy Corp, Norwalk .... Conn
Caton Industries Inc, Roselle .... N J
Ceramaseal Inc, Sub Lapp Insulator Co Inc
New Lebanon Center .... N Y
Cinch Mfg Co, Elk Grove Village Ill
Cinch-Nuline Div United-Carr, Minneapolis .... Minn
Co-Ax Inc, Roslyn .... N Y
Communication Dynamics Corp, Yonkers .... N Y
Continental Connector Corp, Woodside .... N Y
Continental Sensing Inc, Melrose Park Ill
Cooke Engineering Co, Alexandria .... Va
Dage Electric Co Inc, Franklin .... Ind
D-Cemco Inc, Burbank .... Cal
Deutsch Co, Electronic Components Div, Banning .... Cal
DX Antenna Co Ltd, Hyogo-Ku, Kobe .... Japan
Ecco Electronic Components Corp, Mount Vernon .... N Y
Edison, Thomas A Industries, Instr Div
West Orange .... N J
Eimac Div, Varian Associates, San Carlos .... Cal
Electromagnetic Radiation Labs Inc, West Acton .... Mass
Emihus Microcomponents Ltd
Hounslow, Middx .... England
Entron Inc, Silver Spring .... Md
Ercona Corp, New York .... N Y
Fujitsu Ltd, Tokyo .... Japan
Garrett Corp, Los Angeles .... Cal
G C Electronics Div, Hydrometals Inc, Rockford Ill
General Radio Co, West Concord .... Mass
General RF Fittings Inc, Port Salerno .... Fla
Glasseal Products Co Inc, Linden .... N J
Greenpar Engineering Ltd, Electronics Div
Essex .... England
Gremar Mfg Co Inc, Wakefield .... Mass
Gulton Industries Inc, Metuchen .... N J
Gulton Industries Inc Controls & Instru Grp
Costa Mesa .... Cal
Hill Magnetics, Inc, Redwood City .... Cal
Hirose Electric Co Ltd, Tokyo .... Japan
Hughes Connecting Devices, Newport Beach .... Cal

AUDIO/VIDEO CONNECTORS

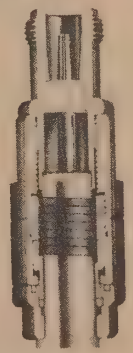
Designed for use in low level circuit applications where reliability, quiet operation and elimination of mechanical interference are necessary. ITT Cannon makes connectors for microphones, tape recorders, amplifiers, high-fidelity systems and all other low-level sound devices. A new plug is a state-of-the-art advance for color/monochrome T.V. cameras (LKTMA-LKTMB).

For further information on the broadest, oldest, most reliable line of electrical connectors made, contact your ITT Cannon distributor or see the Yellow Pages for your nearest ITT Cannon Sales office. ITT Cannon Electric, 3208 Humboldt Street, Los Angeles, California 90031. A division of International Telephone and Telegraph Corporation

CANNON ITT



New TIMATCH® connector with COILGRIP® CLAMP



- Ready for instant termination
- Re-usable
- Fits most metal tube sheathed coaxial cable
- Has the exclusive CoilGrip Cable Clamp

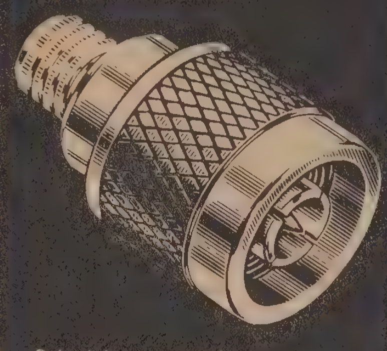
A major advance in the connector field that virtually makes all other connectors obsolete. Makes it a simple one-step operation to attach connector to semi-flex cable without any further connector assembly. Unpack the connector and it's ready for instant use.

WRITE OR PHONE FOR TECHNICAL DATA.

TIMES WIRE & CABLE

DIVISION OF THE INTERNATIONAL SILVER COMPANY
WALLINGFORD, CONNECTICUT

Specify Amphenol.
The leading name
in Coaxial Cable
Connectors.



Subminiature, standard
Quick-crimp, MIL-Crimp®
BN, BNC, C, HN, LC, LN,
LT, MB, MC, MHV, N,
Plug-in, Pulse, SM,
TNC, TRIAX, TWIN, UHF

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL

COAXIAL CABLE CONNECTORS

Multiple and single-in-line connectors for coaxial cable in a range of RG/U sizes from RG-196/U to RG-62/U. Solderless connections made with AMP's **one-stroke crimping technique** for terminating inner conductor, outer braid and cable support simultaneously. Low VSWR, AMP's standard gold over nickel plating, mechanical strength, and complete intermatability.

DISTRICT OFFICES

MID-ATLANTIC
Camden, N.J. 08102
(609) WOodlawn 4-5955

CENTRAL
Columbus, Ohio 43212
(614) 486-0276

EASTERN
Stratford, Conn. 06497
(203) DRexel 8-2691

MID-WESTERN
Chicago, Ill. 60630
(312) SPring 4-1800
TWX: 312-265-1195

SOUTHERN PACIFIC
Hawthorne,
Calif. 90250
(213) 675-1186 and
772-4261
TWX: 213-647-5125

SOUTHERN
Atlanta, Ga. 30054
(404) 261-4151
or 4152

NORTHERN PACIFIC
Palo Alto, Calif. 94303
(415) 321-6292
TWX: 415-492-9447

WORLD HEADQUARTERS
Harrisburg, Pa. 17105
(717) 564-0101
TWX: 717-564-4103

AMP
INCORPORATED
Harrisburg Pennsylvania

The thinking man's filter.

We make filter pin connectors in both rectangular and circular subminiatures. Nobody else does it our way. Nobody else guarantees a 100,000 to 1 reduction of RF energy. Think about that.

HUGHES
HUGHES AIRCRAFT COMPANY
CONNECTING DEVICES

Indit Corp, Albertson	N Y
Industrial Electronic Hardware Corp, New York	N Y
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
Kings Electronics Co Inc, Tuckahoe	N Y
Marconi Co Ltd, Chelmsford	England
Microdot, Inc, South Pasadena	Cal
Mi-Kro Connector Corp, Long Island City	N Y
Mosley Electronics Inc, Bridgeton	Mo
National Connector Corp, Minneapolis	Minn
National Tel-Tronics Corp, Great Neck	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Nutmeg Screw Machine Products Co, Waterbury	Conn
Omni Spectra Inc, Farmington	Mich
Oneida Electronic Mfg Co, Meadville	Pa
Ottawa, Paris	France
Painton & Co, Ltd, Northampton	England
Phelps Dodge Electronic Products Corp North Haven	Conn
Phelps Dodge Electronic Prods Corp, Commun Prods Div Marlboro	N J
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Physical Sciences Corp, Arcadia	Cal
Pomona Electronics Co Inc, Pomona	Cal
Positive Connector Co, Derby	Conn
Preformed Line Products Co, Cleveland	Ohio
Prodelin Inc, Hightstown	N J
Pyle-National Co, Chicago	Ill
Quantatron Div, Teledyne Inc, Santa Monica	Cal
Raychem Corp, Menlo Park	Cal
Reuter-Stokes Electronic Components Inc Cleveland	Ohio
Reynolds Industries Inc, Santa Monica	Cal
RLC Electronics Inc, Port Chester	N Y
Robinson-Nugent Inc, New Albany	Ind
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Rowe Industries Inc, Toledo	Ohio
Rye Industries, Inc, Mamaroneck	N Y
Saxton Products Inc, Congers	N Y
Sealectro Corp, Mamaroneck	N Y
Shrader Sound Inc, Washington	D C
Sierra Electric Inc, Gardena	Cal
Smith Inc, Herman H, Brooklyn	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Spencer-Kennedy Labs Inc, Boston	Mass
Star Tronics Inc, Georgetown	Mass
Superior Continental Corp, Hickory	N C
Technical Materiel Corp, Mamaroneck	N Y
Ted Mfg Corp, Shawnee Mission	Kans
Teledata Inc, Queens Village	N Y
Thomas & Betts Co Inc, Elizabeth	N J
Times Wire & Cable Div, Int L Silver Co Wallingford	Conn
Transitron Electronic Corp, Wakefield	Mass
Trim Line Connectors Ltd, Weston	Ont
Trimm Inc, Libertyville	Ill
Trompeter Electronics Inc, Chatsworth	Cal
Tru-Connector Corp, Peabody	Mass
Tynax Engineering Co, Monrovia	Cal
Univox Corp, New York	N Y
Veritron West Inc, Chatsworth	Cal
Vikoa Inc, Hoboken	N J
Weinschel Engineering Co Inc, Gaithersburg	Md
Winchester Electronic Div, Litton Industries Oakville	Conn

CONNECTORS-- HERMETICALLY SEALED & PRESSURIZED

AMPHENOL, CHICAGO, ILL	**ADV PG 181**
AMP INCORPORATED, HARRISBURG	**PA**
AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
CINCH MFG CO, ELK GROVE VILLAGE, ILL	**ADV PGS 188,189**
EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
ELECTRICAL INDUSTRIES, DIV PHILIPS ELCTNS & PHARM IND CORP, MURRAY HILL	**N J**
HYDRA-ELECTRIC CO, BURBANK	**CAL**
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PYLE-NATIONAL CO, CHICAGO	**ILL**
Accratronics Seals Corp, Burbank	Cal
ACI, Inc, Princeton	N J
Alloys Unlimited Inc, Melville	N Y
Americon Corp, Waltham	Mass
Amphenol, Chicago	Ill
AMP Incorporated, Harrisburg	Pa
AMP Inc, Capitron Div, Elizabethtown	Pa
Ancrona Corp, New York	N Y
Applied Engineering Prods Div Samarius Inc Ansonia	Conn
Arco Electronics, Inc, Great Neck	N Y
Astrolab Inc, Linden	N J
Astro Seal Inc, S El Monte	Cal
Auburn Spark Plug Co, Inc, Auburn	N Y
Automatic Metal Products Corp, Brooklyn	N Y
Ava Electronics & Machine Corp, Upper Darby	Pa
Aviation Electric Ltd, St Laurent, Montreal	Que
Avnet Electronics, Westbury	N Y
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Bendix Corp Electrical Components Div, Sidney	N Y
Cinch Mfg Co, Elk Grove Village	Ill
Cinch-Nuline Div United-Carr, Minneapolis	Minn
Co-Ax Inc, Roslyn	N Y
Communication Dynamics Corp, Yonkers	N Y
Continental Connector Corp, Woodside	N Y
Continental Sensing Inc, Melrose Park	Ill
Co-Operative Industries Inc, Chester	N J
Dage Electric Co Inc, Franklin	Ind
Detoronics Corp, S El Monte	Cal
Deutsch Co, Electronic Components Div, Banning	Cal
Device Seals Inc, Sun Valley	Cal
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Edison, Thomas A Industries, Instr Div West Orange	N J
Eimac Div, Varian Associates, San Carlos	Cal
Electrical Industries, Div Philips Elctns & Pharm Ind Corp Murray Hill	N J
Electronic Seals Co Inc, Van Nuys	Cal
Ercona Corp, New York	N Y
General Laboratory Assoc Inc, Norwich	N Y
General RF Fittings Inc, Port Salerno	Fla
Glasseal Products Co Inc, Linden	N J
Gray & Huleguard Inc, Santa Monica	Cal
Greenpar Engineering Ltd, Electronics Div Essex	England
Gremar Mfg Co Inc, Wakefield	Mass
Gulton Industries Inc, Metuchen	N J
Gulton Industries Inc Controls & Instru Grp Costa Mesa	Cal
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead	Cal
Hermetite Corp, Avon	Mass
Hirose Electric Co Ltd, Tokyo	Japan
Hydra-Electric Co, Burbank	Cal
Indit Corp, Albertson	N Y
Isotronics Inc, New Bedford	Mass
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
Kings Electronics Co Inc, Tuckahoe	N Y
Latronics Corp, Latrobe	Pa
Lieco Inc, West Babylon	N Y
Livingston Electronic Div Jettron Prods Inc Hanover	N J
Microdot, Inc, South Pasadena	Cal
Mi-Kro Connector Corp, Long Island City	N Y
Networks Electronic Corp, Chatsworth	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Omni Spectra Inc, Farmington	Mich
Ottawa, Paris	France
Phelps Dodge Electronic Products Corp North Haven	Conn
Positive Connector Co, Derby	Conn
Prodelin Inc, Hightstown	N J
Pyle-National Co, Chicago	Ill
Quantatron Div, Teledyne Inc, Santa Monica	Cal
Reynolds Industries Inc, Santa Monica	Cal
Rowe Industries Inc, Toledo	Ohio
Schjeldahl Co, G T, Northfield	Minn
Schjeldahl Co G T, Connector Dept, Osseo	Minn

Specify Amphenol.
The leading name
in Hermetic
Connectors.

Less than .01 micron leakage rate
Full performance in
extreme environments
Go/No Go reliability
Immediate delivery on standards
Specials made to order

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL

Seal-A-Metic, Inc, Haledon	N J
Sealectro Corp, Mamaroneck	N Y
Sealtron Corp, Cincinnati	Ohio
Souriau et Cie, 92-Boulogne-Billancourt	France
Standard Connector Corp, North Haven	Conn
Star Tronics Inc, Georgetown	Mass
Statham Instruments Inc, Los Angeles	Cal
Taffet Electronics Inc, Woodside	N Y
Technical Materiel Corp, Mamaroneck	N Y
T & E Industries, Inc, Hillside	N J
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Transitron Electronic Corp, Wakefield	Mass
Triangle Electronic Mfg Co Inc, Poughkeepsie	N Y
Tru-Connector Corp, Peabody	Mass
20th Century Electronics Ltd New Addington, Surrey	England
Uni-Seal Div G-V Controls, Dover	N J
United-Carr Inc, Boston	Mass
Vacuum Ceramics Div, Cary	Ill
Veritron West Inc, Chatsworth	Cal
Viking Industries Inc, Chatsworth	Cal
Wagner Industries, San Jose	Cal

CONNECTORS--HIGH VOLTAGE

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ALDEN PRODUCTS CO, INC, BROCKTON, MASS	**ADV PG 193**
AMPHENOL, CHICAGO	**ILL**
AMP INCORPORATED, HARRISBURG	**PA**
AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
BURNDY CORP, NORWALK	**CONN**
CINCH MFG CO, ELK GROVE VILLAGE, ILL	**ADV PGS 188,189**
DALE ELECTRONICS INC, COLUMBUS	**NEB**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
HUGHES CONNECTING DEVICES, NEWPORT BEACH	**CAL**
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES	**CAL**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
PYLE-NATIONAL CO, CHICAGO, ILL	**ADV PG 181**
Accurate Electronics Corp, Elyria	Ohio
Aikow Shoji Kaisha Ltd, Osaka	Japan
AirBorn Inc, Dallas	Tex
Alden Products Co, Inc, Brockton	Mass
Amphenol, Chicago	Ill
AMP Incorporated, Harrisburg	Pa
AMP Inc, Capitron Div, Elizabethtown	Pa
Armel Electronics, Inc, North Bergen	N J
Astrolab Inc, Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
Ava Electronics & Machine Corp, Upper Darby	Pa
Aviation Electric Ltd, St Laurent, Montreal	Que
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp Electrical Components Div, Sidney	N Y
Burndy Corp, Norwalk	Conn
Caton Industries Inc, Roselle	N J
Ceramaseal Inc, Sub Lapp Insulator Co Inc New Lebanon Center	N Y
Cinch Mfg Co, Elk Grove Village	Ill
Co-Ax Inc, Roslyn	N Y
Communication Dynamics Corp, Yonkers	N Y
Continental Connector Corp, Woodside	N Y
Continental Sensing Inc, Melrose Park	Ill
Dage Electric Co Inc, Franklin	Ind
Dale Electronics Inc, Columbus	Neb
Deutsch Co, Electronic Components Div, Banning	Cal
Eagle Electric Mfg Co Inc, Long Island City	N Y
Electronic Molding Corp, Pawtucket	R I
Ercona Corp, New York	N Y
Estes Engineering Co, Gardena	Cal
General Laboratory Assoc Inc, Norwich	N Y
General RF Fittings Inc, Port Salerno	Fla
Greenpar Engineering Ltd, Electronics Div Essex	England
Gremar Mfg Co Inc, Wakefield	Mass
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead	Cal
Hill Magnetics, Inc, Redwood City	Cal
Hirose Electric Co Ltd, Tokyo	Japan
Hobson Brothers Inc, Chicago	Ill
Hughes Connecting Devices, Newport Beach	Cal
Indit Corp, Albertson	N Y
Industrial Electronic Hardware Corp, New York	N Y
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
Jettron Products Inc, Hanover	N J
Johnson Co, E F, Waseca	Minn
Jones Inc, Norman, South Merrimack	N H
Kings Electronics Co Inc, Tuckahoe	N Y
Litton Industries, Electron Tube Div, San Carlos	Cal
Livingston Electronic Div Jettron Prods Inc Hanover	N J
Matrix Science Corp, Torrance	Cal
McGraw-Edison Power Systems Div, Milwaukee	Wis
Millen Mfg Co Inc, James, Malden	Mass
Molex Products Co, Downers Grove	Ill
Oneida Electronic Mfg Co, Meadville	Pa
Ottawa, Paris	France
Permonite Mfg Co, Chicago	Ill
Phelps Dodge Electronic Products Corp North Haven	Conn
Philmore Mfg Co Inc, Richmond Hill	N Y
Porter Co Inc, H K Electrical Div, Pittsburgh	Pa
Positive Connector Co, Derby	Conn
Precision Research Inc, Stamford	Conn
Pyle-National Co, Chicago	Ill
Reynolds Industries Inc, Santa Monica	Cal
Ross Engineering Corp, Saratoga	Cal
Rowe Industries Inc, Toledo	Ohio
Schjeldahl Co G T, Connector Dept, Osseo	Minn
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Smith Inc, Herman H, Brooklyn	N Y
Souriau et Cie, 92-Boulogne-Billancourt	France
Standard Connector Corp, North Haven	Conn
Star Tronics Inc, Georgetown	Mass
Technical Materiel Corp, Mamaroneck	N Y
Ted Mfg Corp, Shawnee Mission	Kans
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Transitron Electronic Corp, Wakefield	Mass
Tru-Connector Corp, Peabody	Mass
Veritron West Inc, Chatsworth	Cal
Viking Industries Inc, Chatsworth	Cal
Winchester Electronic Div, Litton Industries Oakville	Conn

CONNECTORS--INTERLOCK

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AMPHENOL, BROADVIEW	**ILL**
AMPHENOL, CHICAGO	**ILL**
AMP INCORPORATED, HARRISBURG	**PA**
AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
DALE ELECTRONICS INC, COLUMBUS	**NEB**
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES	**CAL**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
PYLE-NATIONAL CO, CHICAGO	**ILL**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Accurate Electronics Corp, Elyria	Ohio
Aerolite Electronics Corp, Union City	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
AirBorn Inc, Dallas	Tex
Amphenol, Broadview	Ill
Amphenol, Chicago	Ill
AMP Incorporated, Harrisburg	Pa
AMP Inc, Capitron Div, Elizabethtown	Pa
Ark-Les Switch Corp, Watertown	Mass
Armel Electronics, Inc, North Bergen	N J
Astrolab Inc, Linden	N J
Auto-Swage Products, Inc, Shelton	Conn
Ava Electronics & Machine Corp, Upper Darby	Pa
Aviation Electric Ltd, St Laurent, Montreal	Que
Bead Chain Mfg Co, Bridgeport	Conn
Bendix Corp Electrical Components Div, Sidney	N Y
Berg Electronics, Inc, New Cumberland	Pa
Carol Cable Co, Pawtucket	R I
Cole-Hersee Co, S Boston	Mass
Dage Electric Co Inc, Franklin	Ind
Dale Electronics Inc, Columbus	Neb
Deutsch Co, Electronic Components Div, Banning	Cal
Eagle Electric Mfg Co Inc, Long Island City	N Y
Elco Corp, Willow Grove	Pa
Ercona Corp, New York	N Y
Gray & Huleguard Inc, Santa Monica	Cal
Greenpar Engineering Ltd, Electronics Div Essex	England
Hirose Electric Co Ltd, Tokyo	Japan

Pyle Heavy-duty Connectors

for electric power and control

General duty connectors. Pyle-Star-Line **Neptune Series** connectors resist moisture, shock, vibration, chemicals, corrosion, pressure, temperature extremes. Rugged hard-coated aluminum shells. Insert configurations ranging from 3 to 143 contacts are available for any application with either captive solder contacts, or push-in crimp (or solder) removable contacts. The collet retained crimp contacts are designed for low insertion and high retention force, and may be easily removed from the rear of the insert with an expendable plastic tool, supplied with each connector.

Circuit breaking plugs and receptacles are UL listed. A wide choice of accessory hardware, including RFI shielding capability, is available for your requirements.

SHELL SIZES: 12, 16, 20, 24, 28
CONTACTS (AWG): 18 to 350 MCM
NO. OF INSERT CONFIGURATIONS: 150

Pyle-National

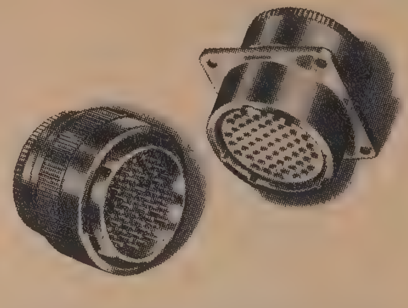
Connector Division The Pyle-National Company
Chicago, Illinois 60651 (A.C. 312) DI 2-6300

Indit Corp, Albertson	N Y
Industrial Electronic Hardware Corp, New York	N Y
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
Keystone Electronics Corp, New York	N Y
Leviton Mfg Co Inc, Brooklyn	N Y
Malco Mfg Co Inc, Chicago	Ill
Matrix Science Corp, Torrance	Cal
Microdot, Inc, South Pasadena	Cal
Molex Products Co, Downers Grove	Ill
National Tel-Tronics Corp, Great Neck	N Y
Oneida Electronic Mfg Co, Meadville	Pa
Pass & Seymour, Syracuse	N Y
Permonite Mfg Co, Chicago	Ill
Philmore Mfg Co Inc, Richmond Hill	N Y
Plessey Airborne Corp, Hillside	NJ
Positive Connector Co, Derby	Conn
Pyle-National Co, Chicago	Ill
Rye Industries, Inc, Mamaroneck	N Y
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Sierra Electric Inc, Gardena	Cal
Smith Inc, Herman H, Brooklyn	N Y
Souriau et Cie, 92-Boulogne-Billancourt	France
Switchcraft Inc, Chicago	Ill
Technical Materiel Corp, Mamaroneck	N Y
Tower Mfg Corp, Providence	R I
Transitron Electronic Corp, Wakefield	Mass
Waldom Electronics Inc, Chicago	Ill
Winchester Electronic Div, Litton Industries Oakville	Conn

CONNECTORS--MINIATURE

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ALDEN PRODUCTS CO, INC, BROCKTON, MASS	**ADV PG 193**
AMPHENOL, BROADVIEW	**ILL**
AMPHENOL, CHICAGO, ILL	**ADV PG 182**
AMP INCORPORATED, HARRISBURG, PA	**ADV PG 183**
AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
BARNES CORP, LANSDOWNE	**PA**
BURNDY CORP, NORWALK, CONN	**ADV PG 183**
CINCH MFG CO, ELK GROVE VILLAGE, ILL	**ADV PGS 188,189**
CONTROL KNOBS INC, JAMAICA	**N Y**
DALE ELECTRONICS INC, COLUMBUS	**NEB**
EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
HUGHES CONNECTING DEVICES, NEWPORT BEACH CAL	**ADV PG 183**
HYDRA-ELECTRIC CO, BURBANK	**CAL**
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES, CAL	**ADV PG 182**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
POMONA ELECTRONICS CO INC, POMONA	**CAL**
PYLE-NATIONAL CO, CHICAGO, ILL	**ADV PG 182**
UNIFORM TUBES INC, COLLEGEVILLE	**PA**

MINIATURE CIRCULAR CONNECTORS (MIL-C-26482-NAVY)



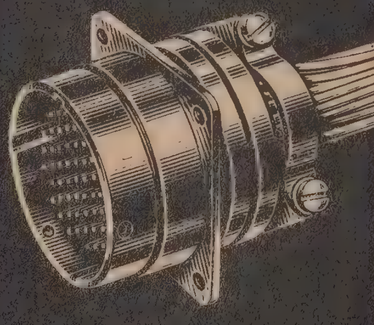
These bayonet coupling connectors fulfill requirements ranging from general purpose to space environmental and are available with solder or crimp contacts. In addition to the basic series, connectors for special applications are also available. They include corrosion-resistant versions using cupronickel hardware; RFI filtering versions with low pass, integral filter pin contacts; and non-outgassing, radiation-resistant hard insulator versions.

For further information contact your ITT Cannon distributor or see the Yellow Pages for your nearest ITT Cannon Sales office. ITT Cannon Electric, 3208 Humboldt Street, Los Angeles, California 90031. A division of International Telephone and Telegraph Corporation.

CANNON ITT

Accurate Electronics Corp, Elyria	Ohio
AirBorn Inc, Dallas	Tex
Alden Products Co, Inc, Brockton	Mass
Allmetal Screw Products Co Inc, Garden City	N Y
Alloys Unlimited Inc, Melville	N Y
Americon Corp, Waltham	Mass
Amphenol, Broadview	Ill
Amphenol, Chicago	Ill
AMP Incorporated, Harrisburg	Pa
AMP Inc, Capitron Div, Elizabethtown	Pa
Applied Engineering Prods Div Samarius Inc Ansonia	Conn
Arco Electronics, Inc, Great Neck	N Y
Ark-Les Switch Corp, Watertown	Mass
Armel Electronics, Inc, North Bergen	N J
Astro Seal Inc, S El Monte	Cal
Atlantic Instruments & Electronics, Inc Watertown	Mass
Automatic Metal Products Corp, Brooklyn	N Y
Auto-Swage Products, Inc, Shelton	Conn
Ava Electronics & Machine Corp, Upper Darby	Pa
Aviation Electric Ltd, St Laurent, Montreal	Que
Aviel Electronics, Inc, Van Nuys	Cal
Avionics, Inc, South Bend	Ind
Avnet Electronics, Westbury	N Y
Azimuth Electronics, Denville	N J
Barnes Corp, Lansdowne	Pa
Bead Chain Mfg Co, Bridgeport	Conn
Bendix Corp Electrical Components Div, Sidney	N Y
Berg Electronics, Inc, New Cumberland	Pa
Burndy Corp, Norwalk	Conn
Cambridge Thermionic Corp, Cambridge	Mass
Carol Cable Co, Pawtucket	R I
Cinch Mfg Co, Elk Grove Village	Ill
Cinch-Nuline Div United-Carr, Minneapolis	Minn
Coastal Dynamics Corp, Venice	Cal
Co-Ax Inc, Roslyn	N Y
Communication Dynamics Corp, Yonkers	N Y
Concoa Corp, Baldwin Park	Cal
Continental Connector Corp, Woodside	N Y
Continental Sensing Inc, Melrose Park	Ill
Control Knobs Inc, Jamaica	N Y
Dage Electric Co Inc, Franklin	Ind
Dale Electronics Inc, Columbus	Neb
Dan-L Inc, E Northport	N Y
Dante Electric Mfg Co, Bantam	Conn
Detoronics Corp, S El Monte	Cal
Deutsch Co, Electronic Components Div, Banning	Cal
Dialight Corp, Brooklyn	N Y
Diebel Mfg Co, Morton Grove	Ill
Douglas Div Kingston Products Corp, Bronson	Mich
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Elco Corp, Willow Grove	Pa
Electrix Corp, Esmond	R I
Electronic Molding Corp, Pawtucket	R I
Electronic Seals Co Inc, Van Nuys	Cal
Elgiloy Co, Elgin	Ill
Emihus Microcomponents Ltd Hounslow, Middx	England

Specify Amphenol.
The leading name
in Miniature
Connectors.



MIL-C-26500, MIL-C-38300
Poke-Home® contacts
Go/No Go reliability
Light weight and high contact density
Altitude/moisture resistant

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL™

Pyle-Star-Line® Connectors

Pyle miniature connectors
for electronic power and control

Miniature connectors exceeding MIL-C-26500B specifications. Pyle-Star-Line **Mercury Series** connectors are available in stainless steel and aluminum hardware. Stainless steel inhibits corrosion possibilities, extends wear-life, needs no conductive finishes for grounding. Insulator components resist most corrosive fluids and oils, offer complete sealing against moisture, and operate in temperatures up to 392° F.

Available with bayonet or threaded coupling in four shell styles: flange mounted receptacles; D-hole mounted receptacles; straight plug, and hermetic solder-mount receptacles. Stainless steel accessories offered for RFI and radiation resistance.

	Stainlss Steel	Aluminum
SHELL SIZES:	**14, 16, 18, 22**	**10, 12, 14, 16, 18, 22**
CONTACTS (AWG):	**20, 16, 12**	**20, 16, 12**
NO. OF INSERT CONFIGURATIONS:	**14**	**14**

Pyle-National

Connector Division The Pyle-National Company
Chicago, Illinois 60651 (A.C. 312) DI 2-6300

Emtec Inc, Empire Spring Div, Elyria	Ohio
Ercona Corp, New York	N Y
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General RF Fittings Inc, Port Salerno	Fla
Gray & Huleguard Inc, Santa Monica	Cal
Greenpar Engineering Ltd, Electronics Div Essex	England
Gremar Mfg Co Inc, Wakefield	Mass
Gulton Industries Inc, Metuchen	N J
Gulton Industries Inc Controls & Instru Grp Costa Mesa	Cal
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead	Cal
Hirose Electric Co Ltd, Tokyo	Japan
Hughes Connecting Devices, Newport Beach	Cal
Hydra-Electric Co, Burbank	Cal
Hydro Molding Co Inc, Plattsburgh	N Y
Indit Corp, Albertson	N Y
Industrial Circuits Co, Fairfield	N J
Industrial Electronic Hardware Corp, New York	N Y
Isotronics Inc, New Bedford	Mass
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
Javex Electronics, Cherry Valley	Cal
Jones Electronics, Hiram, Burbank	Cal
Jones Inc, Norman, South Merrimack	N H
KDI Precision Prods Div KDI Corp, Cincinnati	Ohio
Keymox Inc, Whittier	Cal
Keystone Electronics Corp, New York	N Y
Kings Electronics Co Inc, Tuckahoe	N Y
Leviton Mfg Co Inc, Brooklyn	N Y
Livingston Electronic Div Jettron Prods Inc Hanover	N J
Loudin Electric Co, Stamford	Conn
Malco Mfg Co Inc, Chicago	Ill
Mark Eyelet & Stamping Inc, Wolcott	Conn
Marlin Mfg Corp, Cleveland	Ohio
Matrix Science Corp, Torrance	Cal
Methode Electronics Inc, Chicago	Ill
Metox, Paris 20	France
Microdot, Inc, South Pasadena	Cal
Microwave Associates Inc, Burlington	Mass
Mi-Kro Connector Corp, Long Island City	N Y
Millen Mfg Co Inc, James, Malden	Mass
3M Company, St Paul	Minn
Molex Products Co, Downers Grove	Ill
Narda Microwave Corp, Plainview	N Y
National Connector Corp, Minneapolis	Minn
National Tel-Tronics Corp, Great Neck	N Y
Networks Electronic Corp, Chatsworth	Cal
North Electric Co, Galion	Ohio
Omega Engineering Inc, Stamford	Conn
Omni Spectra Inc, Farmington	Mich
Ottawa, Paris	France
Penn-Union Electric A Teledyne Co, Edinboro	Pa
Permonite Mfg Co, Chicago	Ill
Phelps Dodge Electronic Products Corp North Haven	Conn
Physical Sciences Corp, Arcadia	Cal
Plessey Airborne Corp, Hillside	NJ
Plessey Inc, Farmingdale	N Y
Pomona Electronics Co Inc, Pomona	Cal
Positive Connector Co, Derby	Conn
Precision Research Inc, Stamford	Conn
Premium Allied Tool Inc, Owensboro	Ky
Pyle-National Co, Chicago	Ill
Pylon Co, Inc, Attleboro	Mass
Reynolds Industries Inc, Santa Monica	Cal
Robinson-Nugent Inc, New Albany	Ind
Rye Industries, Inc, Mamaroneck	N Y
SAE Advanced Packaging Inc, Santa Ana	Cal
Schjeldahl Co, G T, Northfield	Minn
Schjeldahl Co G T, Connector Dept, Osseo	Minn
Seal-A-Metic, Inc, Haledon	N J
Sealectro Corp, Mamaroneck	N Y
Sealtron Corp, Cincinnati	Ohio
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Sierra Electric Inc, Gardena	Cal
Smith Inc, Herman H, Brooklyn	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Souriau et Cie, 92-Boulogne-Billancourt	France
Staffall, Inc, Providence	R I
Standard Connector Corp, North Haven	Conn
Star Tronics Inc, Georgetown	Mass
Statham Instruments Inc, Los Angeles	Cal
Switchcraft Inc, Chicago	Ill
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Technical Materiel Corp, Mamaroneck	N Y
Techni-Tool Inc, Philadelphia	Pa
Ted Mfg Corp, Shawnee Mission	Kans
Teledata Inc, Queens Village	N Y
Texas Instruments Incorporated, Dallas	Tex
Tower Mfg Corp, Providence	R I
Transitron Electronic Corp, Wakefield	Mass
Triangle Electronic Mfg Co Inc, Poughkeepsie	N Y
Trim Line Connectors Ltd, Weston	Ont
Tru-Connector Corp, Peabody	Mass
Tynax Engineering Co, Monrovia	Cal
Uniform Tubes Inc, Collegeville	Pa
Vector Electronic Co Inc, Los Angeles	Cal
Veritron West Inc, Chatsworth	Cal
Viking Industries Inc, Chatsworth	Cal
Wiggins Inc, E B, Los Angeles	Cal
Winchester Electronic Div, Litton Industries Oakville	Conn

SUBMINIATURE CONNECTORS

High contact density and servicing ease in the CH-AMP★ Circular connector provide design flexibility in aircraft, military and associated applications. Positive retention system secures contacts without clips. Full environmental protection and highest electrical and mechanical performance. Automatic tooling.

DISTRICT OFFICES

MID-ATLANTIC
Camden, N.J. 08102
(609) WOodlawn 4-5955

EASTERN
Stratford, Conn. 06497
(203) DRexel 8-2691

SOUTHERN PACIFIC
Hawthorne,
Calif. 90250
(213) 675-1186 and
772-4261
TWX: 213-647-5125

NORTHERN PACIFIC
Palo Alto, Calif. 94303
(415) 321-6292
TWX: 415-492-9447

CENTRAL
Columbus, Ohio 43212
(614) 486-0276

MID-WESTERN
Chicago, Ill. 60630
(312) SPring 4-1800
TWX: 312-265-1195

SOUTHERN
Atlanta, Ga. 30054
(404) 261-4151
or 4152

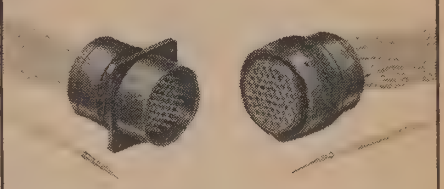
WORLD HEADQUARTERS
Harrisburg, Pa. 17105
(717) 564-0101
TWX: 717-564-4103

★Trademark of AMP INCORPORATED

AMP
INCORPORATED
Harrisburg, Pennsylvania

BANTAM™ Miniature Round Connectors

For Your Specific Needs



Available in either solder or smooth (crimp) types, meeting MIL-C-26482. Inserts can be ordered polarized in accordance with applicable military standards. BANTAM connectors are vibration resistant and moisture proof, within the required range of —67° to +257°F. Catalog BSB (solder) and SCB (smooth) on request.

BURNDY

Richards Avenue
Norwalk, Connecticut 06852

We're getting to be known as rounders.

We invented the BULLS-EYE Connector and created a reputation as circular subminiature specialists. Goes to show you what a little concentration can do. (Like 102 contacts in a #18 shell.)

HUGHES
HUGHES AIRCRAFT COMPANY
CONNECTING DEVICES

CONNECTORS--PHONO

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ALDEN PRODUCTS CO, INC, BROCKTON, MASS	**ADV PG 193**
AMPHENOL, BROADVIEW	**ILL**
AMP INCORPORATED, HARRISBURG	**PA**
BIRNBACH CO INC, FREEPORT	**N Y**
CINCH MFG CO, ELK GROVE VILLAGE, ILL	**(ADV PGS 188,189)**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES	**CAL**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Accurate Electronics Corp, Elyria	Ohio
Aikow Shoji Kaisha Ltd, Osaka	Japan
Alden Products Co, Inc, Brockton	Mass
Amphenol, Broadview	Ill
AMP Incorporated, Harrisburg	Pa
Armel Electronics, Inc, North Bergen	N J
Auto-Swage Products, Inc, Shelton	Conn
Barker Products Co, Saugus	Mass
Bead Chain Mfg Co, Bridgeport	Conn
Birnbach Co Inc, Freeport	N Y
Carter Precision Electric Co, Skokie	Ill
Cinch Mfg Co, Elk Grove Village	Ill
Daburn Electronics & Cable Corp, Bronx	N Y
Dialight Corp, Brooklyn	N Y
Ercona Corp, New York	N Y
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Hirose Electric Co Ltd, Tokyo	Japan
Hosiden Electronics Co Ltd, Osaka	Japan
Industrial Electronic Hardware Corp, New York	N Y
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
Javex Electronics, Cherry Valley	Cal
Keystone Electronics Corp, New York	N Y
Leslie Mfg Corp, San Marcos	Cal
Mandex Mfg Co Inc, Chicago	Ill
Midland International Corp, North Kansas City	Mo
Morse Co, Frank W, Boston	Mass
National Tel-Tronics Corp, Great Neck	N Y
Nutmeg Screw Machine Products Co, Waterbury	Conn
Oneida Electronic Mfg Co, Meadville	Pa
Permonite Mfg Co, Chicago	Ill
Philmore Mfg Co Inc, Richmond Hill	N Y
Positive Connector Co, Derby	Conn
Robins Industries Corp, Flushing	N Y
Rye Industries, Inc, Mamaroneck	N Y
Sanyo Electric Co Ltd, Osaka	Japan
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Shrader Sound Inc, Washington	D C
Smith Inc, Herman H, Brooklyn	N Y
Switchcraft Inc, Chicago	Ill
Transitron Electronic Corp, Wakefield	Mass
Trico Fuse Mfg Co, Milwaukee	Wis
Waldom Electronics Inc, Chicago	Ill

SUPERCON®

Electrical Connectors

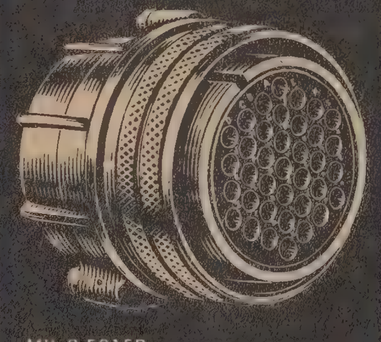
Gold-plated brass current-carrying parts; nylon plastic parts in black, blue, red, white, yellow or green. Plugs take either soldered or solderless wiring connections. Plug cable-fastening screws permit use of wide range of cable sizes. Plug grips are of a simple, two-piece threaded construction for quick assembly. All receptacle plastic parts are of the same color for more rapid and accurate circuit identification front and back of panel. Available in 25, 50, 100 and 250 amp. types; all except 250 amp. are listed by Underwriters' Laboratories, Inc.

Write for Bulletin C262-1

THE
SUPERIOR ELECTRIC
COMPANY

1200 Middle Street
Bristol, Connecticut 06010

Specify Amphenol.
The leading name
in Standard
Connectors.



MIL-C-5015D
Poke-Home® contacts MIL-C-39029
Damage-proof contact retention clips
Front servicing design
Interchangeable with
all MIL-C-5015 connectors

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL™

CONNECTORS--POWER

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ALDEN PRODUCTS CO, INC, BROCKTON, MASS	**ADV PG 193**
AMPHENOL, CHICAGO, ILL	**ADV PG 184**
AMP INCORPORATED, HARRISBURG	**PA**
BURNDY CORP, NORWALK	**CONN**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DALE ELECTRONICS INC, COLUMBUS	**NEB**
HUGHES CONNECTING DEVICES, NEWPORT BEACH	**CAL**
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES	**CAL**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
PYLE-NATIONAL CO, CHICAGO	**ILL**
SUPERIOR ELECTRIC CO THE, BRISTOL, CONN	**ADV PG 184**
Accurate Electronics Corp, Elyria	Ohio
Alden Products Co, Inc, Brockton	Mass
Amphenol, Chicago	Ill
AMP Incorporated, Harrisburg	Pa
Anderson Power Products Inc, Boston	Mass
APM-Hexseal Corp, Englewood	N J
Arco Electronics, Inc, Great Neck	N Y
Armel Electronics, Inc, North Bergen	N J
Astrolab Inc, Linden	N J
Atlantic Instruments & Electronics, Inc Watertown	Mass
Auburn Spark Plug Co, Inc, Auburn	N Y
Automatic Metal Products Corp, Brooklyn	N Y
Ava Electronics & Machine Corp, Upper Darby	Pa
Aviation Electric Ltd, St Laurent, Montreal	Que
Avionics, Inc, South Bend	Ind
Avnet Electronics, Westbury	N Y
Beauchaine & Sons Inc, Laconia	NH
Bendix Corp Electrical Components Div, Sidney	N Y
Burndy Corp, Norwalk	Conn
Carol Cable Co, Pawtucket	R I
Ceramaseal Inc, Sub Lapp Insulator Co Inc New Lebanon Center	N Y
Coastal Dynamics Corp, Venice	Cal
Concoa Corp, Baldwin Park	Cal
Continental Connector Corp, Woodside	N Y
Crouse-Hinds Co, Syracuse	N Y
Daburn Electronics & Cable Corp, Bronx	N Y
Dale Electronics Inc, Columbus	Neb
Dante Electric Mfg Co, Bantam	Conn
Deutsch Co, Electronic Components Div, Banning	Cal
Eagle Electric Mfg Co Inc, Long Island City	N Y
Elco Corp, Willow Grove	Pa
Hughes Connecting Devices, Newport Beach	Cal
Indit Corp, Albertson	N Y
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
Javex Electronics, Cherry Valley	Cal
Kent Corp, Mundelein	Ill
Leviton Mfg Co Inc, Brooklyn	N Y
Loudin Electric Co, Stamford	Conn
Matrix Science Corp, Torrance	Cal
McGraw-Edison Power Systems Div, Milwaukee	Wis
Microdot, Inc, South Pasadena	Cal
Mohawk Electronics Corp, Frederica	Del
Molex Products Co, Downers Grove	Ill
Ottawa, Paris	France
Pacific Electricord Co, Gardena	Cal
Pass & Seymour, Syracuse	N Y
Penn-Union Electric A Teledyne Co, Edinboro	Pa
Physical Sciences Corp, Arcadia	Cal
Porter Co Inc, H K Electrical Div, Pittsburgh	Pa
Positive Connector Co, Derby	Conn
Precision Mecanique Labinal, 93 Saint-Ouen	France
Pyle-National Co, Chicago	Ill
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Rowe Industries Inc, Toledo	Ohio
Rye Industries, Inc, Mamaroneck	N Y
Sanyo Electric Co Ltd, Osaka	Japan
Schjeldahl Co G T, Connector Dept, Osseo	Minn
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Smith Inc, Herman H, Brooklyn	N Y
Souriau et Cie, 92-Boulogne-Billancourt	France
Standard Connector Corp, North Haven	Conn
Superior Electric Co The, Bristol	Conn
Taffet Electronics Inc, Woodside	N Y
Technical Materiel Corp, Mamaroneck	N Y
Transitron Electronic Corp, Wakefield	Mass
Triangle Electronic Mfg Co Inc, Poughkeepsie	N Y
Trico Fuse Mfg Co, Milwaukee	Wis
Tru-Connector Corp, Peabody	Mass
Veritron West Inc, Chatsworth	Cal
Viking Industries Inc, Chatsworth	Cal
Waber Electronics Inc, Philadelphia	Pa
Washington Electrical Products Co, Washington	Mo

EBG — one stop
shopping center.

Find a product listing
and advertiser's message
together.

CONNECTORS--PRINTED CIRCUIT

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ALDEN PRODUCTS CO, INC, BROCKTON, MASS	**ADV PG 193**
AMPHENOL, BROADVIEW, ILL	**ADV PGS 184,186**
AMPHENOL, CHICAGO, ILL	**ADV PG 184**
AMP INCORPORATED, HARRISBURG, PA	**ADV PG 185**
BIRNBACH CO INC, FREEPORT	**N Y**
BUCKBEE MEARS CO, ST PAUL	**MINN**
BURNDY CORP, NORWALK, CONN	**ADV PG 186**
CINCH MFG CO, ELK GROVE VILLAGE, ILL	**ADV PGS 188,189**
CIRCON COMPONENT CORP, GOLETA	**CAL**
DALE ELECTRONICS INC, COLUMBUS	**NEB**
ELDRE COMPONENTS INC, ROCHESTER, N Y	**ADV PG 185**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
HUGHES CONNECTING DEVICES, NEWPORT BEACH CAL	**ADV PG 185**
IBM, INDUSTRIAL PRODUCTS MARKETING, NEW YORK	**NY**
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES	**CAL**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
LEL DIV VARIAN ASSOCIATES, COPIAGUE	**N Y**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
VERO ELECTRONICS, INC, FARMINGDALE	**N Y**
Accurate Electronics Corp, Elyria	Ohio
ACI, Inc, Princeton	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
AirBorn Inc, Dallas	Tex
Alden Products Co, Inc, Brockton	Mass
Americon Corp, Waltham	Mass
Amphenol, Broadview	Ill
Amphenol, Chicago	Ill
AMP Incorporated, Harrisburg	Pa
Applied Engineering Prods Div Samarius Inc Ansonia	Conn
Ark-Les Switch Corp, Watertown	Mass
Armel Electronics, Inc, North Bergen	N J
Astrolab Inc, Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
Auto-Swage Products, Inc, Shelton	Conn
Aviation Electric Ltd, St Laurent, Montreal	Que
Avnet Electronics, Westbury	N Y
Bead Chain Mfg Co, Bridgeport	Conn
Bendix Corp Electrical Components Div, Sidney	N Y
Berg Electronics, Inc, New Cumberland	Pa
Birnbach Co Inc, Freeport	N Y
Brown Engineering-A Teledyne Co, Huntsville	Ala
Buckbee Mears Co, St Paul	Minn
Burndy Corp, Norwalk	Conn
California Systems Components, Inc, Chatsworth	Cal
Cambridge Thermionic Corp, Cambridge	Mass
Chemical & Aerospace Products Inc, Wilmington	Cal
Cinch-Graphik Div United-Carr Inc, City of Industry	Cal
Cinch Mfg Co, Elk Grove Village	Ill

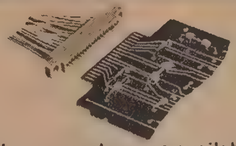
Specify Amphenol.
The leading name
in PC Connectors.

Complete line of
receptacles, plugs
and adapters
Gold-plated contacts
Precious Metal Tip
connectors
Micro miniature
connectors
Standards and specials

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL™

Circon Component Corp, Goleta	Cal
Coastal Dynamics Corp, Venice	Cal
Co-Ax Inc, Roslyn	N Y
Components Corp, Denville	NJ
Continental Connector Corp, Woodside	N Y
Dale Electronics Inc, Columbus	Neb
Dan-L Inc, E Northport	N Y
D-Cemco Inc, Burbank	Cal
Deutsch Co, Electronic Components Div, Banning	Cal
Eby Co Hugh H, Philadelphia	Pa
Elco Corp, Willow Grove	Pa
Eldre Components Inc, Rochester	N Y
Electronic Molding Corp, Pawtucket	R I
Emihus Microcomponents Ltd Hounslow, Middx	England
Emtec Inc, Empire Spring Div, Elyria	Ohio
Ercona Corp, New York	N Y
Ferranti, Ltd, Lancashire	England
Fischer & Porter Co, Warminster	Pa
Flexible Products Inc, North St Paul	Minn
Force Electronics, Los Angeles	Cal
Fujitsu Ltd, Tokyo	Japan
General RF Fittings Inc, Port Salerno	Fla
Greenpar Engineering Ltd, Electronics Div Essex	England
Hirose Electric Co Ltd, Tokyo	Japan
Hughes Connecting Devices, Newport Beach	Cal
Hydro Molding Co Inc, Plattsburgh	N Y
IBM, Industrial Products Marketing, New York	NY
Indit Corp, Albertson	N Y
Industrial Circuits Co, Fairfield	N J
Industrial Electronic Hardware Corp, New York	N Y
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
Johnson Co, E F, Waseca	Minn
Jones Electronics, Hiram, Burbank	Cal
KDI Precision Prods Div KDI Corp, Cincinnati	Ohio
Kent Corp, Mundelein	Ill
Keymox Inc, Whittier	Cal
Keystone Electronics Corp, New York	N Y
Lel Div Varian Associates, Copiague	N Y
Loudin Electric Co, Stamford	Conn
Malco Mfg Co Inc, Chicago	Ill
Mark Eyelet & Stamping Inc, Wolcott	Conn
Masterite Industries Corp, Inglewood	Cal
Meca Electronics, Inc, Denville	N J
Methode Electronics Inc, Chicago	Ill
Metox, Paris 20	France
Microdot, Inc, South Pasadena	Cal
3M Company, St Paul	Minn
Molex Products Co, Downers Grove	Ill
National Connector Corp, Minneapolis	Minn
National Tel-Tronics Corp, Great Neck	N Y
Nippon Electric Co Ltd, Tokyo	Japan
North Electric Co, Galion	Ohio
Ottawa, Paris	France



PRINTED CIRCUIT CONNECTORS

Board edge connectors are available in one and two-piece types in a wide variety of sizes and configurations. Contact densities down to .050″ are available; special design provides dielectric barrier between contacts; housings of diallyl phthalate or phenolic material. All printed circuit connectors feature wiring methods ranging from manual to completely programmed termination.

DISTRICT OFFICES

MID-ATLANTIC
Camden, N.J. 08102
(609) WOodlawn 4-5955

EASTERN
Stratford, Conn. 06497
(203) DRexel 8-2691

SOUTHERN PACIFIC
Hawthorne,
Calif. 90250
(213) 675-1186 and
772-4261
TWX: 213-647-5125

NORTHERN PACIFIC
Palo Alto, Calif. 94303
(415) 321-6292
TWX: 415-492-9447

CENTRAL
Columbus, Ohio 43212
(614) 486-0276

MID-WESTERN
Chicago, Ill. 60630
(312) SPring 4-1800
TWX: 312-265-1195

SOUTHERN
Atlanta, Ga. 30054
(404) 261-4151
or 4152

WORLD HEADQUARTERS
Harrisburg, Pa. 17105
(717) 564-0101
TWX: 717-564-4103

AMP
INCORPORATED
Harrisburg, Pennsylvania

We've got your number.

Show us a spec, and we'll show you miniature and subminiature printed circuit connectors in 10 sizes with 10 to 96 contacts. We're good at the numbers game.

HUGHES
HUGHES AIRCRAFT COMPANY
CONNECTING DEVICES

Pain Killer.

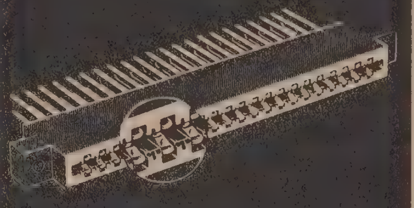
If vendors have you in a pinch and another source of supply will help, turn to the Electronics Buyers' Guide. You'll find all the information you need on over 1,363 sources of power supplies, listed under 11 headings from *AC Regulated Power Supplies to Laser Power Supplies.*

Electronics Buyers' Guide

bus bars
for NOISE CONTROL

ELDRE
COMPONENTS, INC.
1239 University Ave. / Rochester, N. Y. 14607

Specify Amphenol.
The leading name
in Precious Metal
Tip Connectors.



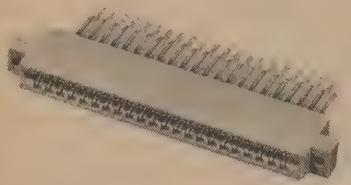
PMT features:
- Wrought gold dot welded to pc connector contacts
- Pre-tensioned contacts won't damage pc boards
- High density
- 22 different configurations
- Off-the-shelf delivery

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL

PRINTED CIRCUIT CONNECTORS

For Your Specific Needs



Increased miniaturization in the electronic and missile field has resulted in a wide use of printed circuit boards. The use of two connecting techniques: pin to board (pin type) and contact spring to printed contact (edge type) have been designed and are supplied by Burndy for Rack and Panel, Plug-in card receptacle, and terminal strip applications.

Printed Circuit Catalog—PC-1

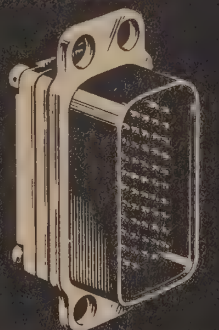
BURNDY
Richards Avenue
Norwalk, Connecticut 06852

Painton & Co, Ltd, Northampton	England
Positive Connector Co, Derby	Conn
Pylon Co, Inc, Attleboro	Mass
Robinson-Nugent Inc, New Albany	Ind
Ross Co, Milton, Southampton	Pa
Rye Industries, Inc, Mamaroneck	N Y
SAE Advanced Packaging Inc, Santa Ana	Cal
Sanyo Electric Co Ltd, Osaka	Japan
Schjeldahl Co, G T, Northfield	Minn
Schjeldahl Co G T, Connector Dept, Osseo	Minn
Schurter AG, H, 6002 Lucerne	Switzerland
Sealectro Corp, Mamaroneck	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Souriau et Cie, 92-Boulogne-Billancourt	France
Space Products Inc, Long Beach	Cal
Staffall, Inc, Providence	R I
Star Tronics Inc, Georgetown	Mass
Technical Materiel Corp, Mamaroneck	N Y
Texas Instruments Incorporated, Dallas	Tex
Transitron Electronic Corp, Wakefield	Mass
Trim Line Connectors Ltd, Weston	Ont
Tru-Connector Corp, Peabody	Mass
Ucinite Co Div United-Carr, Newtonville	Mass
Vector Electronic Co Inc, Los Angeles	Cal
Vero Electronics, Inc, Farmingdale	N Y
Vero Electronics Ltd, Southampton	England
Viking Industries Inc, Chatsworth	Cal
Winchester Electronic Div, Litton Industries Oakville	Conn

CONNECTORS--RACK & PANEL

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AMPHENOL, BROADVIEW, ILL	**ADV PGS 186·187**
AMPHENOL, CHICAGO, ILL	**ADV PG 186**
AMP INCORPORATED, HARRISBURG, PA	**ADV PG 186**
BIRNBACH CO INC, FREEPORT	**N Y**
BURNDY CORP, NORWALK, CONN	**ADV PG 186**
CINCH MFG CO, ELK GROVE VILLAGE, ILL	**ADV PGS 000, 000**
DALE ELECTRONICS INC, COLUMBUS	**NEB**
EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
HUGHES CONNECTING DEVICES, NEWPORT BEACH	**CAL**
IBM, INDUSTRIAL PRODUCTS MARKETING, NEW YORK	**NY**
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES, CAL	**ADV PG 186**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
SUPERIOR ELECTRIC CO THE, BRISTOL	**CONN**
VERO ELECTRONICS, INC, FARMINGDALE	**N Y**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Abacus Electronics Corp, Dobbs Ferry	N Y
Accurate Electronics Corp, Elyria	Ohio

Specify Amphenol.
The leading name
in R & P
Connectors.

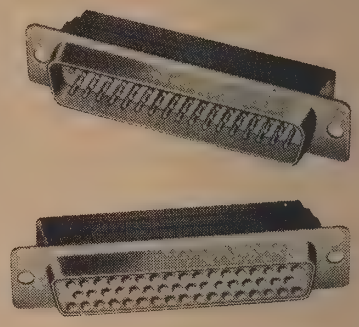


- Complete environmental sealing
- Go/No Go reliability
- Light weight and high contact density
- Poke-Home® contacts
- Two different versions available with a variety of configurations

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL

D SUBMINIATURE
RETANGULAR
CONNECTORS



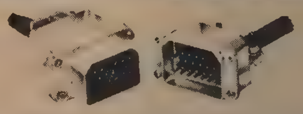
These connectors accommodate a great number of circuits in relation to their size and weight. A wide range of solder or crimp type contact arrangements is available, accommodating up to 100 contacts. Combination arrangements are also available, with provision for coaxial, power and/or high voltage contacts. These connectors incorporate highly reliable CENTI-PIN® contacts which assure positive contact alignment and reduce contact bending, as well as providing a low noise level and electrical continuity even under severe vibration and shock.

For further information contact your ITT Cannon distributor or see the Yellow Pages for your nearest ITT Cannon Sales office. ITT Cannon Electric, 3208 Humboldt Street, Los Angeles, California 90031. A division of International Telephone and Telegraph Corporation.

CANNON ITT

TWISTED PIN CONTACTS ARE MANUFACTURED UNDER LICENSE FROM THE NEW TWIST CONNECTOR CORPORATION

RACK AND PANEL CONNECTORS



Full range of connectors using crimped, snap-in contacts. Available in all standard sizes and combinations (including pin and socket coaxial mix), and subminiature connectors. Meet requirements of military and commercial applications. Complete line of hardware, contact sizes, contact positions and materials; rack and panel, bulkhead, or free hanging versions.

DISTRICT OFFICES

MID-ATLANTIC
Camden, N.J. 08102
(609) WOodlawn 4-5955

CENTRAL
Columbus, Ohio 43212
(614) 486-0276

EASTERN
Stratford, Conn. 06497
(203) DRexel 8-2691

MID-WESTERN
Chicago, Ill. 60630
(312) SPring 4-1800
TWX: 312-265-1195

SOUTHERN PACIFIC
Hawthorne,
Calif. 90250
(213) 675-1186 and
772-4261
TWX: 213-647-5125

SOUTHERN
Atlanta, Ga. 30054
(404) 261-4151
or 4152

NORTHERN PACIFIC
Palo Alto, Calif. 94303
(415) 321-6292
TWX: 415-492-9447

WORLD HEADQUARTERS
Harrisburg, Pa. 17105
(717) 564-0101
TWX: 717-564-4103

AMP
INCORPORATED
Harrisburg, Pennsylvania

ACI, Inc, Princeton	N J
AirBorn Inc, Dallas	Tex
Alloys Unlimited Inc, Melville	N Y
Amphenol, Broadview	Ill
Amphenol, Chicago	Ill
AMP Incorporated, Harrisburg	Pa
Arco Electronics, Inc, Great Neck	N Y
Armel Electronics, Inc, North Bergen	N J
Associated Engineering & Mfg Corp, Glen Ridge	N J
Astrolab Inc, Linden	N J
Astro Seal Inc, S El Monte	Cal
Automatic Metal Products Corp, Brooklyn	N Y
Auto-Swage Products, Inc, Shelton	Conn
Ava Electronics & Machine Corp, Upper Darby	Pa
Aviation Electric Ltd, St Laurent, Montreal	Que
Avnet Electronics, Westbury	N Y
Bayly Engineering Ltd, Ajax	Ontario
Beauchaine & Sons Inc, Laconia	NH
Bendix Corp Electrical Components Div, Sidney	N Y
Berg Electronics, Inc, New Cumberland	Pa
Bimbach Co Inc, Freeport	N Y
Bud Radio Inc, Willoughby	Ohio
Burndy Corp, Norwalk	Conn
Cinch Mfg Co, Elk Grove Village	Ill
Concoa Corp, Baldwin Park	Cal
Continental Connector Corp, Woodside	N Y
Dale Electronics Inc, Columbus	Neb
Dan-L Inc, E Northport	N Y
Deutsch Co, Electronic Components Div, Banning	Cal
Device Seals Inc, Sun Valley	Cal
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Eby Co Hugh H, Philadelphia	Pa
Elco Corp, Willow Grove	Pa
Electronic Molding Corp, Pawtucket	R I
Electro Scientific Industries Inc, Portland	Ore
Emihus Microcomponents Ltd Hounslow, Middx	England
Ericsson Centrum Inc, New York	N Y
Ferranti, Ltd, Lancashire	England
Force Electronics, Los Angeles	Cal
Glasseal Products Co Inc, Linden	N J
Greenpar Engineering Ltd, Electronics Div Essex	England
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead	Cal
Hirose Electric Co Ltd, Tokyo	Japan
Hughes Connecting Devices, Newport Beach	Cal
IBM, Industrial Products Marketing, New York	NY
Industrial Electronic Hardware Corp, New York	N Y
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
Matrix Science Corp, Torrance	Cal
Methode Electronics Inc, Chicago	Ill
Metox, Paris 20	France
Microdot, Inc, South Pasadena	Cal
Molex Products Co, Downers Grove	Ill
National Connector Corp, Minneapolis	Minn
North Electric Co, Galion	Ohio
Ottawa, Paris	France
Positive Connector Co, Derby	Conn
Robins Industries Corp, Flushing	N Y
Ross Co, Milton, Southampton	Pa
Rowe Industries Inc, Toledo	Ohio
Schjeldahl Co, G T, Northfield	Minn
Schjeldahl Co G T, Connector Dept, Osseo	Minn
Schurter AG, H, 6002 Lucerne	Switzerland
Sealectro Corp, Mamaroneck	N Y
Sealtron Corp, Cincinnati	Ohio
Siltronics Inc, Oakmont	Pa
Souriau et Cie, 92-Boulogne-Billancourt	France
Staffall, Inc, Providence	R I
Standard Connector Corp, North Haven	Conn
Standard Telephones & Cables Ltd London WC 2	England
Superior Electric Co The, Bristol	Conn
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Technical Materiel Corp, Mamaroneck	N Y
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Transitron Electronic Corp, Wakefield	Mass
Triangle Electronic Mfg Co Inc, Poughkeepsie	N Y
Uni-Seal Div G-V Controls, Dover	N J
U S Dielectric Inc, Worcester	Mass
Veritron West Inc, Chatsworth	Cal
Vero Electronics, Inc, Farmingdale	N Y
Viking Industries Inc, Chatsworth	Cal
Virginia Electronics Co Inc, Falls Church	Va
Weinschel Engineering Co Inc, Gaithersburg	Md
Winchester Electronic Div, Litton Industries Oakville	Conn

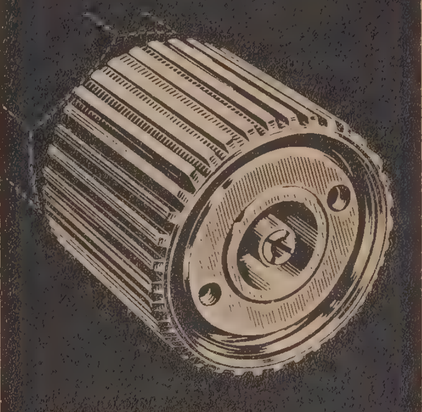
CONNECTORS--R-F

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AMPHENOL, DANBURY, CONN	**ADV PG 187**
AMP INCORPORATED, HARRISBURG	**PA**
BIRD ELECTRONIC CORP, CLEVELAND (SOLON)	**OHIO**
BURNDY CORP, NORWALK	**CONN**
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES	**CAL**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
POMONA ELECTRONICS CO INC, POMONA	**CAL**
PYLE-NATIONAL CO, CHICAGO	**ILL**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
TIMES WIRE & CABLE DIV, INT L SILVER CO WALLINGFORD	**CONN**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG MD	**ADV PG 187**
Accratronics Seals Corp, Burbank	Cal
Accurate Electronics Corp, Elyria	Ohio
Admiral Controls Inc, Los Angeles	Cal
Ameco Inc, Phoenix	Ariz

RACK and PANEL CONNECTORS
For Your Specific Needs

HYFEN® multi-disconnect rack and panel connectors allow for contact installation at any point in the assembly procedure providing a compact, versatile circuit terminating method. Available in a wide range of block sizes and contact densities. Write for Catalog RP-1.

BURNDY
Richards Avenue
Norwalk, Connecticut 06852

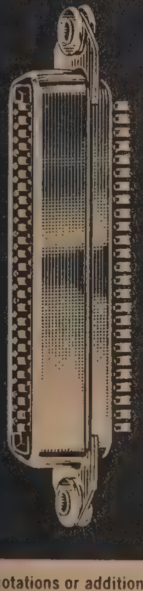


Specify Amphenol. The leading name in RF Connectors.

UG coaxial connectors
Crimp-type coaxial connectors
Subminiature coaxial connectors
Precision connectors
Special design coaxial connectors

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL



Specify Amphenol. The leading name in Ribbon Connectors.

Exclusive Blue-Ribbon® and Micro-Ribbon® designs
40 times the life,
Easier mating,
Lower cost than pin & socket connectors
51 configurations

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL

DC-18 GHz
TYPE N
PRECISION
Coaxial Connectors

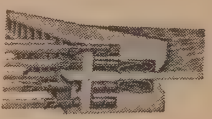
connectors provide superior performance and maximum life with minimum wear. Models include both those for flexible cable and for rigid air dielectric. Flanges are available on all models, some removable. also offers a complete cable assembly available in various lengths.

Designers and Manufacturers of Precision Microwave Equipment
WEINSCHEL ENGINEERING
Gaithersburg, Md. 20760
Tel: (301) 948-3434
TWX: 710-828-9705

Let Cinch solve your interconnection problems

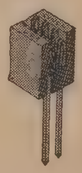
PC BOARD CONNECTORS

"Twin-Con"*



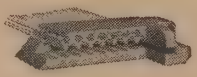
High reliability connectors. Meet MIL-C-21097 and combine the reliability of permanently assembled bifurcated contacts with the convenience and versatility of snap-in, crimp-on connectors. 8, 15, 22 and 43 position units available. Largest overall length ranges from approximately 2.1 to 7.6 inches. **Patent pending*. CATALOG CM-24

.025 & .045 "Square Tail"



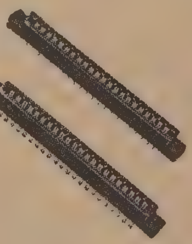
P.C. Edge Connectors with wire wrap terminations available with selective gold plating on contact areas to substantially reduce cost. Contacts combine thin resilient flexing member with straight, rigid square tail. .025″ on .125 centers and .045″ on standard .156″ centers. Both types can be developed for insulator bodies with 12-28 contact positions. **Patent Pending*. CATALOGS PBM-92 & PBM-96.

Hermaphroditic Types*



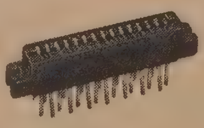
A broad line of .045″ square tail, standard wire wrap, crimp-on, snap-in, taper pin and solder termination devices (interchangeable with ELCO's products sold under ELCO's trademark "VARICON"). 17 to 41 contacts with largest overall length from approximately 2½ to 5½ inches. **Manufactured under license agreement with Elco Corporation*. CATALOGS PBM-3, PBM-22 & PBM-47

Bifurcated Types*



These printed circuit board connectors are designed especially for severe environmental conditions. Bifurcation provides two wiping contact surfaces, assuring positive contact even when board irregularities exist. Meet applicable requirements of MIL-C-21097A. 6-25 double contact positions on .156″ centers. Largest overall dimension ranges from approximately 2 to 5 inches. Standard contact versions also available. **Patent pending*. CATALOG CM-24

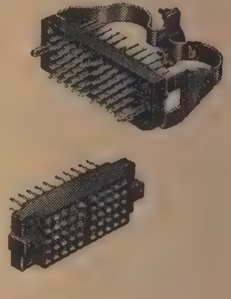
Low Cost Cantilever Type



Unique pre-loaded cantilever contact construction combines minimum insertion force with maximum contact pressure. Simple mechanical design, plus adaptability to selective gold plating and high volume assembly techniques provide high quality connector at low cost. Currently available in 15 position size. Other sizes on .156″ centers under development. CATALOG PBM-93.

RACK AND PANEL CONNECTORS

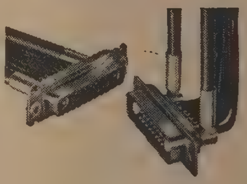
"Gold Button"*



A gold button is welded in place, covering only the actual contact area of the female receptacle. Provides high dependability where frequent insertion and withdrawal are involved at no increase in cost over standard connectors. Available in 50 and 72 contact sizes for cable-to-chassis and cable-to-cable applications. Largest overall length for 72 contact size is approximately 3.70 inches. CATALOG PBM-73.

**Manufactured under license agreement with Western Electric Co.*

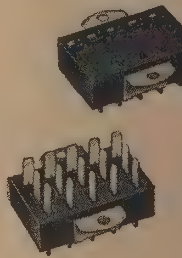
"D-Subminiature"*



High contact density, high reliability units. Probe-proof, closed-entry socket contacts on certain models. Available in 9, 15, 25, 37 and 50 contact sizes, with solder pot or crimp-type snap-on contacts. Largest overall length ranges from 1.213 to 2.635 inches. Coaxial and/or high voltage contact combinations available. Generally meet requirements of MIL-C-8384B. CATALOG CM-46

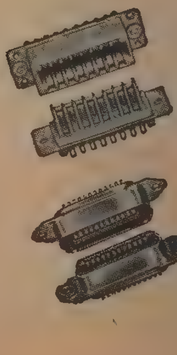
**Manufactured under license agreement with ITT Cannon Electric Company.*

"Jones" Type



The most complete line of industry standard multi-contact units. Seven series covering 7.5, 10, 15 and 25 amps. 800-3000 V RMS, with 2 to 12 contacts. 7.5 amp. 1500 V series available to 33 contacts. Wide range of cap and cover variations. CATALOG CC-1

BLUE *Ribbon** AND *Micro*RIBBON*



Industry standard types available in 8, 16, 24 and 32 contact sizes in the larger units (largest overall length of approximately 4 inches for 32 contacts). Micro Ribbon type available with 14, 24, 36 and 50 contacts (largest overall length approximately 2.7 inches for 36 contacts). Micro Ribbon also available with clamps and cable caps for cable-to-chassis and cable-to-cable applications. CATALOG CM-36

**Registered trademarks of Amphenol Corporation.*

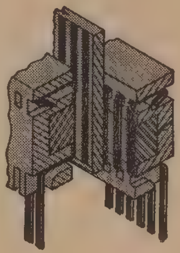
Cinch helps you...

with a wide line of interconnection devices . . . with extensive experience in special tooling for volume production . . . with large production facilities that ensure the availability of the product you need at competitive prices.

You can get information on these products from your local United-Carr sales office or write for more information to Cinch Manufacturing Company at 1501 Morse Avenue, Elk Grove Village, Illinois 60007

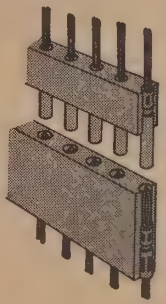
ULTRAMINIATURE CONNECTORS

*Preskam System**



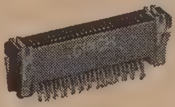
Uses an externally-actuated insulating member to provide board contact by external clamping. There are no insertion or withdrawal forces involved. The contact pressures are applied after the board has been inserted in the PRESKAM. PRESKAM provides many advantages: higher board densities, higher contact densities (currently up to 2,500 contacts per square inch), higher reliability, and greatly increased resistance to shock and vibration. **Patent pending*. CATALOG PBM-71

"Bow-Pin"



For use with connectors having .075" and .100" centers, it utilizes a unique "Bowed Spring" principle. Two slightly bowed hemispherical spring wires are positioned with the flat portions of the cross section facing each other and fastened to the contact base. Front ends of the bowed wires are not attached, permitting flexing action. The wires straighten against each other when inserted into a tube having an ID smaller than the widest dimension of the bow. For strip, circular or rack and panel connectors. The 60 or 80-contact strips are approximately 6" long, only .1 inch thick and can be cut to length. CATALOG PBM-60

"Tykon"



For double-sided .062" printed circuit boards. Ribbon type, flexing action contacts, spaced on .050" centers assure maximum contact. Ideal for memory planes and plug-in modules. 6 to 25 double-contact positions. Largest overall length ranges from .85 to 1.8 inches. **Patent pending*. CATALOG CM-24

CYLINDRICAL CONNECTORS

*MIL-C-81511—Astro/348**

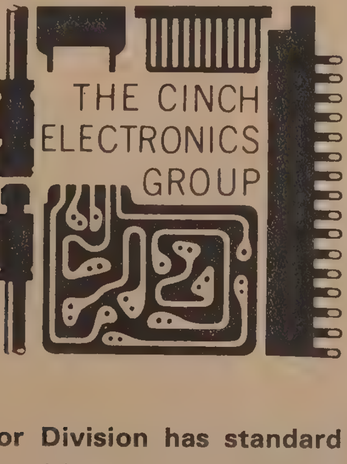
These subminiature connectors have .085" contact centers with dielectric separation of .021". A one-piece retention system eliminates metal construction. Features include scoop-proof mating, grounding prior to electrical contact, removable crimp contacts and exceptional environmental stability. Five shell sizes; 8, 10, 14, 16 and 18 for 4, 12, 37, 55, and 85 contacts respectively are available in five receptacle styles with standardized accessories. CINCH-NULINE CATALOG CN-5

*MIL-C-26500 and MIL-C-38300—Omega**

A complete line of miniature connectors for any required shell style, contact size and insert configuration, including G-Type conductive shells of chrome plated aluminum. They operate continuously at 200°C and take short exposures to 800°C and are extremely resistant to shock, vibration, corrosion and small particles. The Omega series are generally available on short delivery cycles in large quantities. Small quantities can be obtained from authorized Cinch-NuLine distributors. CINCH-NULINE CATALOG CN-3A

*Manufactured under license agreement with Amphenol Corporation.

C-6822



The Cinch Electronics Group makes precision electronic components essential to every electronic product. Rely on Cinch quality, advanced engineering and superior manufacturing facilities. One telephone call to the United-Carr sales office gives you quick service on this variety of products:

CINCH MFG. COMPANY	connectors, contacts, sockets, terminal strips
CINCH-GRAPHIK	multi-layer and printed circuit boards, thin film resistors
CINCH-MONADNOCK	heat sinks, stud bases, other electronic hardware
CINCH-NULINE	coaxial connectors and cable harnesses
PLAXIAL CABLE DEPT.	miniature low loss coaxial cable
UCINITE (ELECTRONICS)	switches, lamp sockets, plugs and jacks

Cinch-Jones Distributor Division has standard connectors, sockets and hardware available for immediate delivery from distributors.

CINCH

DIVISION OF UNITED-CARR

That's right. It's a commercial connector. Our Molex Standard. Millions are finding their way into some of the most exciting circuitry man can imagine. For that's our business: creating connectors that simplify wiring. Speed production. Assembly. Installation. Servicing. For the men who are looking for new ideas and ways to cut costs.

In the area of one circuit to sixty connections or more, Molex has the product. And the design and engineering capabilities to solve the most complex wiring and production problems . . . fast! We'd like to talk to you about it. If you would like a free sample of our Molex connector, please write or phone (312) 969-4550. You can make connections at . . . molex

MOLEX PRODUCTS COMPANY
Downers Grove, Ill. 60615

Americon Corp, Waltham	Mass
Amphenol, Danbury	Conn
AMP Incorporated, Harrisburg	Pa
Andrew Corp, Orland Park	Ill
Applied Engineering Prods Div Samarius Inc Ansonia	Conn
Associated Engineering & Mfg Corp, Glen Ridge	N J
Astrolab Inc, Linden	N J
Atlantic Instruments & Electronics, Inc Watertown	Mass
Automatic Metal Products Corp, Brooklyn	N Y
Ava Electronics & Machine Corp, Upper Darby	Pa
Aviation Electric Ltd, St Laurent, Montreal	Que
Aviel Electronics, Inc, Van Nuys	Cal
Avnet Electronics, Westbury	N Y
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp, Microwave Devices Div, Franklin	Ind
Bird Electronic Corp, Cleveland (Solon)	Ohio
Blonder-Tongue Labs Inc, Newark	N J
Budwig Mfg Co, Ramona	Cal
Burndy Corp, Norwalk	Conn
Cerameseal Inc, Sub Lapp Insulator Co Inc New Lebanon Center	N Y
Co-Ax Inc, Roslyn	N Y
Communication Dynamics Corp, Yonkers	N Y
Cooke Engineering Co, Alexandria	Va
Dage Electric Co Inc, Franklin	Ind
D-Cemco Inc, Burbank	Cal
Deutsch Co, Electronic Components Div, Banning	Cal
Ecco Electronic Components Corp, Mount Vernon	N Y
Electromagnetic Radiation Labs Inc, West Acton	Mass
Emihus Microcomponents Ltd Hounslow, Middx	England
Entron Inc, Silver Spring	Md
Ercona Corp, New York	N Y
General Radio Co, West Concord	Mass
General RF Fittings Inc, Port Salerno	Fla
Gray & Huleguard Inc, Santa Monica	Cal
Greenpar Engineering Ltd, Electronics Div Essex	England
Gremar Mfg Co Inc, Wakefield	Mass
Gulton Industries Inc, Metuchen	N J
Hirose Electric Co Ltd, Tokyo	Japan
Indit Corp, Albertson	N Y
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
Javex Electronics, Cherry Valley	Cal
Johnson Co, E F, Waseca	Minn
Kings Electronics Co Inc, Tuckahoe	N Y
Loudin Electric Co, Stamford	Conn
Marconi Co Ltd, Chelmsford	England
Maury Microwave Corp, Montclair	Cal
Meca Electronics, Inc, Denville	N J
Microdot, Inc, South Pasadena	Cal
Microwave Associates Inc, Burlington	Mass
Microwave Development Labs Inc Needham Heights	Mass
Mi-Kro Connector Corp, Long Island City	N Y
Molex Products Co, Downers Grove	Ill
Nutmeg Screw Machine Products Co, Waterbury	Conn
Ottawa, Paris	France
Phelps Dodge Electronic Products Corp North Haven	Conn
Phelps Dodge Electronic Prods Corp, Commun Prods Div Marlboro	N J
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pomona Electronics Co Inc, Pomona	Cal
Positive Connector Co, Derby	Conn
Prodelin Inc, Hightstown	N J
Pyle-National Co, Chicago	Ill
Rantec Div Emerson Electric Co, Calabasas	Cal
RLC Electronics Inc, Port Chester	N Y
Robinson-Nugent Inc, New Albany	Ind
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Rowe Industries Inc, Toledo	Ohio
Samarius, Inc, Derby	Conn
Schjeldahl Co, G T, Northfield	Minn
Sealectro Corp, Mamaroneck	N Y
Smith Inc, Herman H, Brooklyn	N Y
Souriau et Cie, 92-Boulogne-Billancourt	France
Spencer-Kennedy Labs Inc, Boston	Mass
Star Tronics Inc, Georgetown	Mass
Superior Continental Corp, Hickory	N C
Switchcraft Inc, Chicago	Ill
Technical Materiel Corp, Mamaroneck	N Y
Ted Mfg Corp, Shawnee Mission	Kans
Teledata Inc, Queens Village	N Y
Times Wire & Cable Div, Int L Silver Co Wallingford	Conn
Transitron Electronic Corp, Wakefield	Mass
Trim Line Connectors Ltd, Weston	Ont
Trompeter Electronics Inc, Chatsworth	Cal
Tru-Connector Corp, Peabody	Mass
Veritron West Inc, Chatsworth	Cal
Vikoa Inc, Hoboken	N J
Weinschel Engineering Co Inc, Gaithersburg	Md
Winchester Electronic Div, Litton Industries Oakville	Conn

EBG — the industry's store.

Your marketplace for products

CONNECTORS--SOLDERLESS

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ALDEN PRODUCTS CO, INC, BROCKTON, MASS	**ADV PG 193**
AMPHENOL, BROADVIEW	**ILL**
AMPHENOL, CHICAGO	**ILL**
AMP INCORPORATED, HARRISBURG, PA	**ADV PG 192**
AUGAT, INC, ATTLEBORO	**MASS**
BARNES CORP, LANSDOWNE	**PA**
BIRNBACH CO INC, FREEPORT	**N Y**
BURNDY CORP, NORWALK	**CONN**
CINCH MFG CO, ELK GROVE VILLAGE, ILL	**ADV PGS 188,18**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
HUGHES CONNECTING DEVICES, NEWPORT BEACH	**CAL**
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES, CAL	**ADV PGS 191,192**
MOLEX PRODUCTS CO, DOWNERS GROVE, ILL	**ADV PG 190**
MOSLEY ELECTRONICS INC, BRIDGETON	**MO**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
POMONA ELECTRONICS CO INC, POMONA	**CAL**
PYLE-NATIONAL CO, CHICAGO	**ILL**
WALDOM ELECTRONICS INC, CHICAGO, ILL	**ADV PG 191**
Accurate Electronics Corp, Elyria	Ohio
ACI, Inc, Princeton	N J
AirBorn Inc, Dallas	Tex
Alden Products Co, Inc, Brockton	Mass
Allmetal Screw Products Co Inc, Garden City	N Y
Alloys Unlimited Inc, Melville	N Y
Amphenol, Broadview	Ill
Amphenol, Chicago	Ill
AMP Incorporated, Harrisburg	Pa
Anderson Power Products Inc, Boston	Mass
Arco Electronics, Inc, Great Neck	N Y
Ark-Les Switch Corp, Watertown	Mass
Armel Electronics, Inc, North Bergen	N J
Augat, Inc, Attleboro	Mass
Auto-Swage Products, Inc, Shelton	Conn
Aviation Electric Ltd, St Laurent, Montreal	Que
Avnet Electronics, Westbury	N Y
Barnes Corp, Lansdowne	Pa
BEC Inc, Brooklyn	NY
Bendix Corp Electrical Components Div, Sidney	N Y
Berg Electronics, Inc, New Cumberland	Pa
Birnbach Co Inc, Freeport	N Y
Blonder-Tongue Labs Inc, Newark	N J
Burndy Corp, Norwalk	Conn
California Systems Components, Inc, Chatsworth	Cal
Cambridge Thermionic Corp, Cambridge	Mass
Channel Master Corp, Ellenville	N Y
Cinch Mfg Co, Elk Grove Village	Ill
Cleverly Electrical Works Inc, Philadelphia	Pa
Coastal Dynamics Corp, Venice	Cal
Concoa Corp, Baldwin Park	Cal
Continental Connector Corp, Woodside	N Y
Daburn Electronics & Cable Corp, Bronx	N Y
Dage Electric Co Inc, Franklin	Ind
Dan-L Inc, E Northport	N Y
Dante Electric Mfg Co, Bantam	Conn

MINIATURE
CIRCULAR
CONNECTORS
(NAS1599)

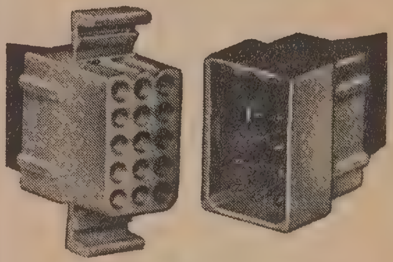
The KV/PV series is designed to NAS1599 for critical environmental applications. Available in threaded or bayonet coupling, it allows intermating with MIL-C-26500 and MIL-C-26482 type connectors offering improved design, reliability and performance characteristics while combining into one industry specification the best features of two existing military specifications.

For further information contact your ITT Cannon distributor or see the Yellow Pages for your nearest ITT Cannon Sales office. ITT Cannon Electric, 3208 Humboldt Street, Los Angeles, California 90031. A division of International Telephone and Telegraph Corporation.

CANNON ITT

see your waldom distributor for...

molex connectors



Molex connectors combine the reliability, versatility, and economy needed for industries' many multi-circuit applications. Faster, neater and more reliable, these nylon miniature connectors are available in from 1 to 36 circuits, (male and female) and standard types from 1 to 15 circuits. Many types feature molded mounting ears for panel mounting. Production and prototype crimping tools also available for fast installation, extraction, and replacement of both male and female pin terminals.

Molex connectors are now being used in countless applications in the business machine, appliance, home entertainment, communications, instrument and automotive industries.

For complete details, see your Waldom distributor or write . . .

waldom
4627 West 53rd Street
Chicago, Illinois 60632
312 – 585-1212

SOLDERLESS CONNECTORS

Economical assembly, easy maintenance and crimped, snap-in contacts. For commercial applications: FASTIN-FASTON★, AMPEEZ★, AMP-LOK★, MATE-N-LOK★, AMP-UNYT★, and TERMI-BLOK★ connectors. Contacts available in strip form for application with a wide range of A-MP★ Automachine tooling. Minimum insertion and withdrawal forces, maximum amperage ratings, strong resistance to vibration, corrosion and environmental contamination.

DISTRICT OFFICES

MID-ATLANTIC
Camden, N.J. 08102
(609) WOodlawn 4-5955

CENTRAL
Columbus, Ohio 43212
(614) 486-0276

EASTERN
Stratford, Conn. 06497
(203) DRexel 8-2691

MID-WESTERN
Chicago, Ill. 60630
(312) SPring 4-1800
TWX: 312-265-1195

SOUTHERN PACIFIC
Hawthorne,
Calif. 90250
(213) 675-1186 and
772-4261
TWX: 213-647-5125

SOUTHERN
Atlanta, Ga. 30054
(404) 261-4151
or 4152

NORTHERN PACIFIC
Palo Alto, Calif. 94303
(415) 321-6292
TWX: 415-492-9447

WORLD HEADQUARTERS
Harrisburg, Pa. 17105
(717) 564-0101
TWX: 717-564-4103

★Trademark of AMP INCORPORATED

AMP
INCORPORATED
Harrisburg, Pennsylvania

THIN MINIATURE CIRCULAR CONNECTORS

New, low profile, lightweight connectors: the ITT Cannon KJ connectors. Size and weight are cut by 50% or more. Meet MIL-C-38999 (connector) and MIL-C-39029 (contacts). 8 shell sizes, 10 thru 24. Variety of shell styles. 33 layouts, and up to 128 contacts. Contact sizes: 16, 20, 22, 22M. Wire sizes: 16-28. LITTLE CAESAR® rear release contact-retention system. Bayonet coupling. Five-Key polarization with alternate positions. Temperature range from −65°F to +392°F. Better peripheral, interfacial and grommet seals.

For our KJ-1 catalog write ITT Cannon Electric, 3208 Humboldt Street, Los Angeles, California 90031. A Division of International Telephone and Telegraph Corporation.

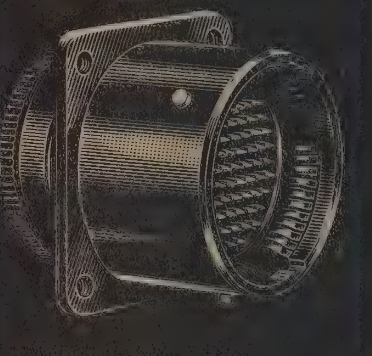
CANNON ITT

Deutsch Co, Electronic Components Div, Banning	Cal
Dialight Corp, Brooklyn	N Y
Diebel Mfg Co, Morton Grove	Ill
Eagle Electric Mfg Co Inc, Long Island City	N Y
Eastern Specialty Co, Philadelphia	Pa
Elco Corp, Willow Grove	Pa
Electric Terminal Corp, Warwick	R I
Electrix Corp, Esmond	R I
Electronic Training Aids Co, Cambridge	Mass
Emihus Microcomponents Ltd Hounslow, Middx	England
Emporium Specialties Co Inc, Cleveland	Ohio
Emtec Inc, Empire Spring Div, Elyria	Ohio
Entron Inc, Silver Spring	Md
Ercona Corp, New York	N Y
ETC Inc, Cleveland	Ohio
Fastex Div Illinois Tool Works, Des Plaines	Ill
Ferranti, Ltd, Lancashire	England
Fischer & Porter Co, Warminster	Pa
Force Electronics, Los Angeles	Cal
Garrett Corp, Los Angeles	Cal
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Staple Co, New York	N Y
Giannini-Voltex, Whittier	Cal
Gray & Huleguard Inc, Santa Monica	Cal
Greenpar Engineering Ltd, Electronics Div Essex	England
Hollingsworth Solderless Terminal Co, Phoenixville	Pa
Hughes Connecting Devices, Newport Beach	Cal
Ideal Industries Inc, Sycamore	Ill
Indit Corp, Albertson	N Y
Industrial Electronic Hardware Corp, New York	N Y
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
Javex Electronics, Cherry Valley	Cal
Kent Corp, Mundelein	Ill
Keymox Inc, Whittier	Cal
Kings Electronics Co Inc, Tuckahoe	N Y
Kolton Electric Mfg Co, Newark	N J
Malco Mfg Co Inc, Chicago	Ill
Matrix Science Corp, Torrance	Cal
McGraw-Edison Power Systems Div, Milwaukee	Wis
Methode Electronics Inc, Chicago	Ill
Microdot, Inc, South Pasadena	Cal
3M Company, St Paul	Minn
Molex Products Co, Downers Grove	Ill
Mosley Electronics Inc, Bridgeton	Mo
National Connector Corp, Minneapolis	Minn
National Tel-Tronics Corp, Great Neck	N Y
Ostby & Barton Co, Providence	R I
Ottawa, Paris	France
Patton-MacGuyer Co, Providence	R I
Penn-Union Electric A Teledyne Co, Edinboro	Pa
Permonite Mfg Co, Chicago	Ill
Phelps Dodge Electronic Products Corp North Haven	Conn
Pomona Electronics Co Inc, Pomona	Cal
Porcelain Products Co Div Clarken Co, Carey	Ohio
Positive Connector Co, Derby	Conn
Prodelin Inc, Hightstown	N J
Pyle-National Co, Chicago	Ill
Reliable Electric Co, Franklin Park	Ill
Robinson-Nugent Inc, New Albany	Ind
SAE Advanced Packaging Inc, Santa Ana	Cal
Schjeldahl Co, G T, Northfield	Minn
Schjeldahl Co G T, Connector Dept, Osseo	Minn
Seal-A-Metic, Inc, Haledon	N J
Smith Inc, Herman H, Brooklyn	N Y
Souriau et Cie, 92-Boulogne-Billancourt	France
Space Products Inc, Long Beach	Cal
Staffall, Inc, Providence	R I
Standard Connector Corp, North Haven	Conn
Star-A Electric Mfg Co Inc, Brooklyn	N Y
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Technical Materiel Corp, Mamaroneck	N Y
Ted Mfg Corp, Shawnee Mission	Kans
Thomas & Betts Co Inc, Elizabeth	N J
Transitron Electronic Corp, Wakefield	Mass
Trico Fuse Mfg Co, Milwaukee	Wis
Triple A Specialty Co, Chicago	Ill
Twin Lock Inc, Los Angeles	Cal
Tyton Corp of America, Metuchen	N J
Vaco Products Co, Chicago	Ill
Vector Electronic Co Inc, Los Angeles	Cal
Viking Industries Inc, Chatsworth	Cal
Vikoa Inc, Hoboken	N J
Waldom Electronics Inc, Chicago	Ill
Washington Electrical Products Co, Washington	Mo
Wiggins Inc, E B, Los Angeles	Cal
Winchester Electronic Div, Litton Industries Oakville	Conn
Workman Electronic Products Inc, Sarasota	Fla
Zierick Mfg Corp, Mount Kisco	N Y

CONNECTORS--SUBMINIATURE

ACCURATE ELECTRONICS CORP, ELYRIA	OHIO
AMPHENOL, BROADVIEW	ILL
AMPHENOL, CHICAGO	ILL
AMP INCORPORATED, HARRISBURG	PA
BARNES CORP, LANSDOWNE	PA
BURNDY CORP, NORWALK,	CONN
CINCH MFG CO, ELK GROVE VILLAGE, ILL	ADV PGS 188,189
CIRCON COMPONENT CORP, GOLETA	CAL
DABURN ELECTRONICS & CABLE CORP, BRONX	N Y
DALE ELECTRONICS INC, COLUMBUS	NEB
ELECTRONIC MOLDING CORP, PAWTUCKET	R I
HUGHES CONNECTING DEVICES, NEWPORT BEACH CAL	ADV PG 192
HYDRA-ELECTRIC CO, BURBANK	CAL
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES	CAL
KEYSTONE ELECTRONICS CORP, NEW YORK	N Y
MOLEX PRODUCTS CO, DOWNERS GROVE	ILL

Specify Amphenol. The leading name in Subminiature Connectors.



MIL-C-81511 Astro/348®
.085" high-density contact spacing
Locked in removable contacts
Anti-scoop recessed pin contacts
6 shell styles

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL™

Will save your space.

The way we make subminiatures, they're more subminiature. More fully packed. Same contact size and spacing, only we get 110 contacts to the inch.
Socket to 'em!

HUGHES
HUGHES AIRCRAFT COMPANY
CONNECTING DEVICES

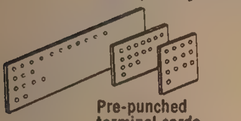
ALDEN BUILDING BLOCKS for ELECTRONICS

ALDEN plug-in components for electronic systems

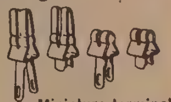
All the convenience and ease of modular packaging . . . plus built-in maintainability and reliability

From layout to finished equipment in just 3 steps!

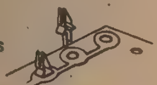
1 Unitize circuitry in compact, vertical planes with unique Alden Terminal Card Mounting System. Your circuitry is assembled in complete units, ready for housing.



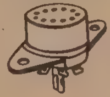
Pre-punched terminal cards



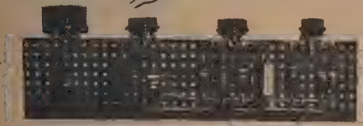
Miniature terminals



Jumper strip (eliminates wiring)

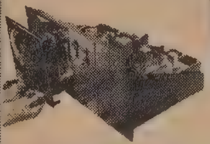


Card mounting sockets

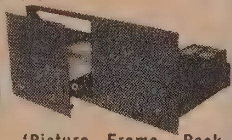


Complete circuits ready for plug-in package or chassis

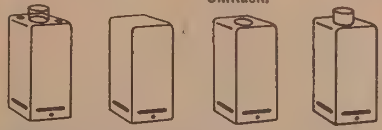
2 Mount cards in Alden Basic Chassis for tremendous flexibility and quick servicing. With spares, units are replaceable in 30 seconds!



Alden Basic Chassis



'Picture Frame Rack Adaptor — for mounting Alden Basic Chassis in any combination. Mounts in standard rack or Alden UniRack.



Alden plug-in packages: 4 sizes — 7, 9, 11, and 20 pin

3 Alden Uni-Racks for housing subassemblies give you a more compact, serviceable unit. Available in 2 basic heights — mobile or stationary. Easily accessible, front or rear.

ALDEN testing and sensing elements to spot trouble instantly

THE ALDEN PAN-i-LITE

Easy snap-in mounting. 1 piece bulb-lens installed / replaced from front of panel. 180° visibility. Non-refracting. Variety of colors & voltages: 6V, 12V, 28V incandescent; 110-220V neon.

THE ALDEN PAN-i-LITE SWITCH

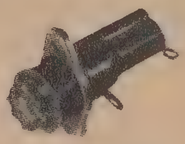
Tiny push-button, snap-in indicator gives positive indication — 180° visibilty. Use as press-to-test indicator or remote control switch. In 6, 12, 28V incandescent blue, red, green, white, yellow.

ALDEN STACKING AND PATCH CORDS

Miniature stack and patch cords for positive inter-connections. Reliable integrally molded units take any standard. 080" test prod. Resilient contact. Lead length to your specs.

ALDEN STAK-IN TEST JACKS

Exclusive molded-in eyelet permits fast, low-cost machine assembly, No nuts, washers, sleeves. Won't vibrate loose, turn, or fall out. Rugged Nylon insulation. Reliable 360° Beryllium contact.



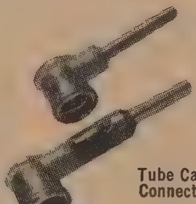
ALDEN FUSE-LITES

A compact, panel-mounting, indicating fuseholder. Light glows when fuse blows. Uses standard 1/4" x 1 1/4" fuse. For 6, 12, 28, 110, and 220 volts, 15 amps to 110 volts, 7.5 amps at 220 volts.

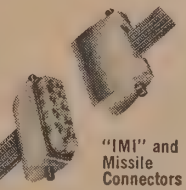
ALDEN plugs and connectors

Save time, weight, space in volume production. Leads tailored to your specs, ready for quick assembly

Non Interchangeable Connectors — 2–11 contacts

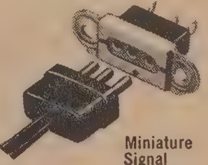


Tube Cap Connectors



"IMI" and Missile Connectors

High Voltage Connectors



Miniature Signal Connectors

ALDEN electrical components

For volume production: combine quick, easy assembly with absolute minimum size and weight

Mini SpACe Convenience Outlets — smallest, most rugged UL-approved convenience outlets available

Mini SpACe Grounding Outlets

440 FH Series Safety Fuse-holders

Miniature Indicator Fuseholders

Detachable Line Cord

ALDEN PRODUCTS COMPANY
117 N. Main St., Brockton, Mass.

Write today for new Alden Booklet and updated Quick-Order Guide.

For addresses, phones & sales offices see green pages

NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
POMONA ELECTRONICS CO INC, POMONA	**CAL**
UNIFORM TUBES INC, COLLEGEVILLE	**PA**
Accurate Electronics Corp, Elyria	Ohio
AirBorn Inc, Dallas	Tex
Alloys Unlimited Inc, Melville	N Y
Americon Corp, Waltham	Mass
Amphenol, Broadview	Ill
Amphenol, Chicago	Ill
AMP Incorporated, Harrisburg	Pa
Applied Engineering Prods Div Samarius Inc Ansonia	Conn
Arco Electronics, Inc, Great Neck	N Y
Armel Electronics, Inc, North Bergen	N J
Associated Engineering & Mfg Corp, Glen Ridge	N J
Astrolab Inc, Linden	N J
Atlantic Instruments & Electronics, Inc Watertown	Mass
Automatic Metal Products Corp, Brooklyn	N Y
Auto-Swage Products, Inc, Shelton	Conn
Ava Electronics & Machine Corp, Upper Darby	Pa
Aviation Electric Ltd, St Laurent, Montreal	Que
Aviel Electronics, Inc, Van Nuys	Cal
Avnet Electronics, Westbury	N Y
Barnes Corp, Lansdowne	Pa
Bead Chain Mfg Co, Bridgeport	Conn
Bendix Corp Electrical Components Div, Sidney	N Y
Burndy Corp, Norwalk	Conn
Cambridge Thermionic Corp, Cambridge	Mass
Cinch Mfg Co, Elk Grove Village	Ill
Circon Component Corp, Goleta	Cal
Coastal Dynamics Corp, Venice	Cal
Co-Ax Inc, Roslyn	N Y
Communication Dynamics Corp, Yonkers	N Y
Continental Connector Corp, Woodside	N Y
Continental Sensing Inc, Melrose Park	Ill
Daburn Electronics & Cable Corp, Bronx	N Y
Dage Electric Co Inc, Franklin	Ind
Dale Electronics Inc, Columbus	Neb
Dan-L Inc, E Northport	N Y
D-Cemco Inc, Burbank	Cal
Deans Co, W S, Downey	Cal
Detoronics Corp, S El Monte	Cal
Deutsch Co, Electronic Components Div, Banning	Cal
Device Seals Inc, Sun Valley	Cal
Dialight Corp, Brooklyn	N Y
Diebel Mfg Co, Morton Grove	Ill
Elco Corp, Willow Grove	Pa
Electronic Molding Corp, Pawtucket	R I
Emihus Microcomponents Ltd Hounslow, Middx	England
Emporium Specialties Co Inc, Cleveland	Ohio
Emtec Inc, Empire Spring Div, Elyria	Ohio
Ercona Corp, New York	N Y
Ferranti, Ltd, Lancashire	England
General RF Fittings Inc, Port Salerno	Fla
Greenpar Engineering Ltd, Electronics Div Essex	England
Gremar Mfg Co Inc, Wakefield	Mass
Gulton Industries Inc, Metuchen	N J
Gulton Industries Inc Controls & Instru Grp Costa Mesa	Cal
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead	Cal
Hirose Electric Co Ltd, Tokyo	Japan
Hughes Connecting Devices, Newport Beach	Cal
Hydra-Electric Co, Burbank	Cal
Hydro Molding Co Inc, Plattsburgh	N Y
Indit Corp, Albertson	N Y
Industrial Electronic Hardware Corp, New York	N Y
Isotronics Inc, New Bedford	Mass
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
Jones Electronics, Hiram, Burbank	Cal
KDI Precision Prods Div KDI Corp, Cincinnati	Ohio
Keymox Inc, Whittier	Cal
Keystone Electronics Corp, New York	N Y
Kings Electronics Co Inc, Tuckahoe	N Y
Livingston Electronic Div Jettron Prods Inc Hanover	N J
Malco Mfg Co Inc, Chicago	Ill
Mark Eyelet & Stamping Inc, Wolcott	Conn
Matrix Science Corp, Torrance	Cal
Methode Electronics Inc, Chicago	Ill
Microdot, Inc, South Pasadena	Cal
Microwave Associates Inc, Burlington	Mass
Mi-Kro Connector Corp, Long Island City	N Y
Molex Products Co, Downers Grove	Ill
National Connector Corp, Minneapolis	Minn
National Tel-Tronics Corp, Great Neck	N Y
Omega Engineering Inc, Stamford	Conn
Omni Spectra Inc, Farmington	Mich
Ottawa, Paris	France
Phelps Dodge Electronic Products Corp North Haven	Conn
Philmore Mfg Co Inc, Richmond Hill	N Y
Plessey Inc, Farmingdale	N Y
Pomona Electronics Co Inc, Pomona	Cal
Positive Connector Co, Derby	Conn
Positronic Industries Inc, Springfield	Mo
Premium Allied Tool Inc, Owensboro	Ky
Pylon Co, Inc, Attleboro	Mass
Reynolds Industries Inc, Santa Monica	Cal
Robinson-Nugent Inc, New Albany	Ind
Ross Co, Milton, Southampton	Pa
Rye Industries, Inc, Mamaroneck	N Y
SAE Advanced Packaging Inc, Santa Ana	Cal
Schjeldahl Co, G T, Northfield	Minn
Schjeldahl Co G T, Connector Dept, Osseo	Minn
Seal-A-Metic, Inc, Haledon	N J
Sealectro Corp, Mamaroneck	N Y
Shigoto Industries Ltd, New York	N Y
Smith Inc, Herman H, Brooklyn	N Y
Souriau et Cie, 92-Boulogne-Billancourt	France
Staffall, Inc, Providence	R I
Standard Connector Corp, North Haven	Conn
Star Tronics Inc, Georgetown	Mass
Statham Instruments Inc, Los Angeles	Cal
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Technical Materiel Corp, Mamaroneck	N Y
Ted Mfg Corp, Shawnee Mission	Kans
Teledata Inc, Queens Village	N Y
Transitron Electronic Corp, Wakefield	Mass
Trim Line Connectors Ltd, Weston	Ont
Tru-Connector Corp, Peabody	Mass
Uniform Tubes Inc, Collegeville	Pa
Uni-Seal Div G-V Controls, Dover	N J
Veritron West Inc, Chatsworth	Cal
Viking Industries Inc, Chatsworth	Cal
Wavelabs Co Div Systron-Donner Corp, San Diego	Cal
Winchester Electronic Div, Litton Industries Oakville	Conn

Check the top of
the pages for
alphabetical listing
of product categories

CONNECTORS--TOOLS

BURNDY CORP, NORWALK, CONN	**ADV PG 194**
HUGHES CONNECTING DEVICES, NEWPORT BEACH CAL	**ADV PG 194**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Burndy Corp, Norwalk	Conn
Hughes Connecting Devices, Newport Beach	Cal
Waldom Electronics Inc, Chicago	Ill

INSTALLATION TOOLING
For Your Specific Needs

HYTOOL® M10S

A manual tool with removable die sets. Conforms to MIL-T-22520. Die sets can include insulation grip feature. Ratchet operation insures complete crimp. Lightweight and easy to operate. Averages 750 crimps per hour.

HYFEMATIC™

Automatically installs strip-fed HYFEN® contacts of various types. The HYFEMATIC can produce up to 3000 crimps per hour. Contacts for Burndy .100″ spacing HYFEN printed circuit connector and HYTIP contacts for the .156″ HYFEN printed circuit connector and MINILOK® terminal block are typical uses of this machine.

BURNDY
Richards Avenue
Norwalk, Connecticut 06852

The do-it-yourself connector kit.

With our Universal Connectors, you decide what goes where. The crimp removable contacts are interchangeable in either body. The big difference at Hughes is the positive way they get together. The PolarHex way.

HUGHES
HUGHES AIRCRAFT COMPANY
CONNECTING DEVICES

CONNECTORS--TEMPERATURE CALIBRATED, THERMOCOUPLE

ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES	**CAL**
PYLE-NATIONAL CO, CHICAGO	**ILL**
ACI, Inc, Princeton	N J
AirBorn Inc, Dallas	Tex
Aviation Electric Ltd, St Laurent, Montreal	Que
Avnet Electronics, Westbury	N Y
Bendix Corp Electrical Components Div, Sidney	N Y
Ceramaseal Inc, Sub Lapp Insulator Co Inc New Lebanon Center	N Y
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Conax Corp, Buffalo	N Y
Consolidated Controls Corp, Bethel	Conn
Continental Sensing Inc, Melrose Park	Ill
Control Panel Corp, Chicago	Ill
Deutsch Co, Electronic Components Div, Banning	Cal
Edison, Thomas A Industries, Instr Div West Orange	N J
Fabricast Inc, South El Monte	Cal
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead	Cal
Hirose Electric Co Ltd, Tokyo	Japan
Honeywell Industrial Div, Fort Washington	Pa
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
Leeds & Northrup Co, Philadelphia	Pa
Lewis Engineering Co, Naugatuck	Conn
Marlin Mfg Corp, Cleveland	Ohio
Nanmac Corp, Framingham Centre	Mass
Omega Engineering Inc, Stamford	Conn
Pall Trinity Micro Corp, Cortland	N Y
Physical Sciences Corp, Arcadia	Cal
Pyle-National Co, Chicago	Ill
Pyrometer Co of America Inc, Penndel	Pa
Souriau et Cie, 92-Boulogne-Billancourt	France
Thermo Electric Co Inc, Saddle Brook	N J
Vacuum Ceramics Div, Cary	Ill
Veritron West Inc, Chatsworth	Cal
Viking Industries Inc, Chatsworth	Cal
West Instrument Corp, Schiller Park	Ill

CONNECTORS--VACUUM LINE

AMP INCORPORATED, HARRISBURG	**PA**
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES	**CAL**
Accratronics Seals Corp, Burbank	Cal
Airco Temescal, Berkeley	Cal
Alcatel, Paris 8eme	France
AMP Incorporated, Harrisburg	Pa
Aviation Electric Ltd, St Laurent, Montreal	Que
Ceramaseal Inc, Sub Lapp Insulator Co Inc New Lebanon Center	N Y
CHA Industries, Div Carl Herrmann Assoc Menlo Park	Cal
Cryolab Div, Statics-Dynamics Inc, Los Osos	Cal
CVI Corp, Columbus	Ohio
Dage Electric Co Inc, Franklin	Ind
Denton Vacuum Inc, Cherry Hill	N J
Deutsch Co, Electronic Components Div, Banning	Cal
Edwards High Vacuum Inc, Grand Island	N Y
Energy Beams Inc, Haskell	N J
Ferranti, Ltd, Lancashire	England
Heraeus-Engelhard Vacuum Inc, Monroeville	Pa
High Voltage Engineering Corp, Burlington	Mass
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
Kinney Vacuum Div New York Air Brake Co Boston	Mass
Micro Parts Inc, Los Angeles	Cal
Precision Scientific Co Sub GCA Corp, Chicago	Ill
Premium Allied Tool Inc, Owensboro	Ky
Seal-A-Metic, Inc, Haledon	N J
Souriau et Cie, 92-Boulogne-Billancourt	France
Sunbeam Vacuum Furnace Corp, North Billerica	Mass
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Tru-Connector Corp, Peabody	Mass
Ultek Div Perkin-Elmer, Palo Alto	Cal
Vactronic Lab Equipment Inc, East Northport	N Y
Vacuum Accessories Corp of America Huntington Station	N Y
Vacuum Industries Inc Sub GCA Corp, Somerville	Mass
Veritron West Inc, Chatsworth	Cal
Wiggins Inc, E B, Los Angeles	Cal

CONNECTORS--WATERPROOF

AMPHENOL, CHICAGO, ILL.	**ADV PG 195**
AMP INCORPORATED, HARRISBURG	**PA**
BURNDY CORP, NORWALK,	**CONN**
HUGHES CONNECTING DEVICES, NEWPORT BEACH	**CAL**
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES	**CAL**
PYLE-NATIONAL CO, CHICAGO	**ILL**
Accratronics Seals Corp, Burbank	Cal
Ameco Inc, Phoenix	Ariz
Amphenol, Chicago	Ill
AMP Incorporated, Harrisburg	Pa
Anderson Power Products Inc, Boston	Mass
Applied Engineering Prods Div Samarius Inc Ansonia	Conn
Arco Electronics, Inc, Great Neck	N Y
Associated Engineering & Mfg Corp, Glen Ridge	N J
Astro Seal Inc, S El Monte	Cal
Automatic Metal Products Corp, Brooklyn	N Y
Ava Electronics & Machine Corp, Upper Darby	Pa
Aviation Electric Ltd, St Laurent, Montreal	Que
Avionics, Inc, South Bend	Ind
Avnet Electronics, Westbury	N Y
Azimuth Electronics, Denville	N J
Bendix Corp Electrical Components Div, Sidney	N Y
Burndy Corp, Norwalk	Conn
Ceramaseal Inc, Sub Lapp Insulator Co Inc New Lebanon Center	N Y
Cinch-Nuline Div United-Carr, Minneapolis	Minn
Co-Ax Inc, Roslyn	N Y
Communication Dynamics Corp, Yonkers	N Y
Deutsch Co, Electronic Components Div, Banning	Cal
Douglas Div Kingston Products Corp, Bronson	Mich
Elco Corp, Willow Grove	Pa
Electronic Seals Co Inc, Van Nuys	Cal
Electro-Oceanics, Santa Monica	Cal
Ercona Corp, New York	N Y
Florida General Electronics Inc, Daytona Beach	Fla
General Products Corp, Union Springs	N Y
Gray & Huleguard Inc, Santa Monica	Cal
Greenpar Engineering Ltd, Electronics Div Essex	England
Gremar Mfg Co Inc, Wakefield	Mass
Hirose Electric Co Ltd, Tokyo	Japan
Hughes Connecting Devices, Newport Beach	Cal
Hydro Molding Co Inc, Plattsburgh	N Y
Hydro Products Div Dillingham Corp, San Diego	Cal
Indit Corp, Albertson	N Y
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
KDI Precision Prods Div KDI Corp, Cincinnati	Ohio
Kings Electronics Co Inc, Tuckahoe	N Y
Loudin Electric Co, Stamford	Conn
Matrix Science Corp, Torrance	Cal
Methode Electronics Inc, Chicago	Ill
Microdot, Inc, South Pasadena	Cal
Mi-Kro Connector Corp, Long Island City	N Y
Mohawk Electronics Corp, Frederica	Del
O'Brien Inc, D G, Framingham	Mass
Ottawa, Paris	France
Phelps Dodge Electronic Products Corp North Haven	Conn
Physical Sciences Corp, Arcadia	Cal
Positive Connector Co, Derby	Conn
Pyle-National Co, Chicago	Ill
Revere Corp of America, Wallingford	Conn
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Rowe Industries Inc, Toledo	Ohio
Seal-A-Metic, Inc, Haledon	N J
Souriau et Cie, 92-Boulogne-Billancourt	France
Standard Connector Corp, North Haven	Conn
Taffet Electronics Inc, Woodside	N Y
Technical Materiel Corp, Mamaroneck	N Y
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Transitron Electronic Corp, Wakefield	Mass
Triangle Electronic Mfg Co Inc, Poughkeepsie	N Y
Trim Line Connectors Ltd, Weston	Ont
Tru-Connector Corp, Peabody	Mass
Veritron West Inc, Chatsworth	Cal
Viking Industries Inc, Chatsworth	Cal
Washington Electrical Products Co, Washington	Mo
Wiggins Inc, E B, Los Angeles	Cal
Winchester Electronic Div, Litton Industries Oakville	Conn
Winsco Instruments & Controls Co Inc Santa Monica	Cal

Your best connection for CONNECTORS

PROGRESS Electronics

The House of Connectors for Over a Decade

AMPHENOL
WINCHESTER Electronics
CANNON PLUGS
DAGE
GREMAR
KINGS

A Leading Distributor of Quality Brands

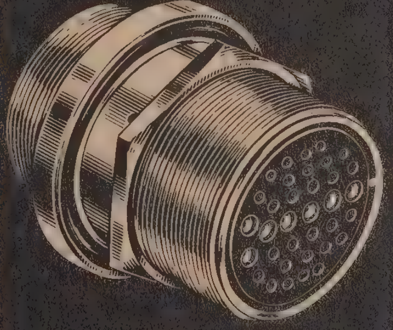
Stocked in breadth and depth for urgent delivery

Call (516) GE 3-1700 or TWX No. 510-221-1896

Enterprise numbers in leading industrial areas

PROGRESS Electronics CO., INC.
ENGINEERS HILL / PLAINVIEW, L. I., N. Y.

Specify Amphenol. The leading name in Hermetic Connectors.



Less than .01 micron leakage rate
Full performance in extreme environments
Go/No Go reliability
Immediate delivery on standards
Specials made to order

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL

ACCUVOLT

BESPONDER

CINDERELLA

If you're confused over product trade names, locate the source easily in EBG's Trade Name Listing in the back of the green section.

CONSOLES (COMPLETELY WIRED)--A-F CONTROL

C M L INC, PLAINFIELD	**N J**
TELE-SIGNAL CORP, WOODBURY	**N Y**
Action Systems Co Div Conn Consolidated Inds Inc Meriden	Conn
Allied Research Associates, Inc, Concord	Mass
Alma Engineering Inc, San Diego	Cal
Anchor Specialty Mfg Co Inc, Teterboro	N J
A V Electronics, Inc, Fresno	Cal
Bogen Communications Div Lear Siegler Inc Paramus	N J
Chrysler Corp, Space Div, Huntsville Oper Huntsville	Ala
C M L Inc, Plainfield	N J
Comrex Corp, W Concord	Mass
Control Panel Corp, Chicago	Ill
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Gotham Audio Corp, New York	N Y
Graphics, Inc, Poteau	Okla
Industrial Circuits Co, Fairfield	N J
Infrared Industries Inc, Santa Barbara	Cal
Intelect Inc, Honolulu	Hawaii
Lane Industries,Electronics Div, North Hollywood	Cal
Magnasync/Moviola Corp, North Hollywood	Cal
Marquardt Industrial Products Co, Chicago	Ill
Mid-West Metal Products Inc, Kansas City	Kans
Nelson-Hershfield Electronics Co, Phoenix	Ariz
Oki Electric Industry Co Ltd, Tokyo	Japan
Philips Electronics Industries Ltd, Toronto 17	Ont
Private Tele Communications Inc, Chicago	Ill
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Raecord Inc, Paterson	N J
Randam Electronics Inc, Cincinnati	Ohio
Rauland-Borg Corp, Chicago	Ill
Saturn Electronics Corp, Garland	Tex
Sealectro Corp, Mamaroneck	N Y
Show Sound, Inc, New York	N Y
Shrader Sound Inc, Washington	D C
Space Craft Inc, Huntsville	Ala
Sparta Electronic Corp, Sacramento	Cal
Stelma Inc, Stamford	Conn
Stephens Electronics, Burbank	Cal
Swiss Industries, Costa Mesa	Cal
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Tele-Signal Corp, Woodbury	N Y
Teletronics Labs Inc, El Segundo	Cal
Virginia Electronics Co Inc, Falls Church	Va
Visual Electronics Labs Audio Div, Pasadena	Cal
Wickes Industries Inc, Camden	N J
Wilcox Electric Co Inc, Kansas City	Mo

CONSOLES (COMPLETELY WIRED)--COMPUTER CONTROL

Anchor Specialty Mfg Co Inc, Teterboro	N J
Astrodata Inc, Anaheim	Cal
Automation Services Inc, Endicott	N Y
Beckman Instruments Inc, Fullerton,	Cal
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Brown Engineering-A Teledyne Co, Huntsville	Ala
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Chrysler Corp, Space Div, Huntsville Oper Huntsville	Ala
Control Logic Inc, Natick	Mass
Dalto Electronics Corp, Norwood	N J
Data Trends Inc, Parsippany	N J
Fisher-Akin Co, Manhattan Beach	Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Foxboro Co, Foxboro	Mass
General Electric Co Info Sys Equip Div, Phoenix	Ariz
Honeywell-EDP Div, Wellesley Hills	Mass
Honeywell Industrial Div, Fort Washington	Pa
IBM Corp, Armonk	N Y
Industrial Circuits Co, Fairfield	N J
Information Control Corp, El Segundo	Cal
Information Displays Inc, Mt Kisco	NY
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Kameco Ltd, Montreal	Que
Lane Industries,Electronics Div, North Hollywood	Cal
Logic Corp, Haddonfield	N J
Marconi Co Ltd, Chelmsford	England
Mid-West Metal Products Inc, Kansas City	Kans
Oki Electric Industry Co Ltd, Tokyo	Japan
Randam Electronics Inc, Cincinnati	Ohio
Reflex Controls Corp, Huntington Station	NY
Rodale Electronics Inc, Garden City	NY
Saturn Electronics Corp, Garland	Tex
Scientific Data Systems Inc, El Segundo	Cal
Signet Controls Inc, Tulsa	Okla
Space Craft Inc, Huntsville	Ala
Swiss Industries, Costa Mesa	Cal
Systems Research Labs Inc, Dayton	Ohio
Tasker Industries, Van Nuys	Cal
Teletronics Labs Inc, El Segundo	Cal
Trott Electronics Inc, Rochester	N Y

CONSOLES (COMPLETELY WIRED)--VIDEO

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Alma Engineering Inc, San Diego	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
A V Electronics, Inc, Fresno	Cal
Brown Engineering-A Teledyne Co, Huntsville	Ala
Chrysler Corp, Space Div, Huntsville Oper Huntsville	Ala
Cohu Electronics Inc, San Diego	Cal
Components Corp, Denville	NJ
Dalto Electronics Corp, Norwood	N J
Fisher-Akin Co, Manhattan Beach	Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
Intelect Inc, Honolulu	Hawaii
ITT Industrial Labs Div, Fort Wayne	Ind
Kameco Ltd, Montreal	Que
Lake Systems Corp, Newton	Mass
Lear Siegler Inc, Santa Monica	Cal
Mid-West Metal Products Inc, Kansas City	Kans
Nelson-Hershfield Electronics Co, Phoenix	Ariz
Nippon Electric Co Ltd, Tokyo	Japan
Pierpont Television Co, Birmingham	Ala
Randam Electronics Inc, Cincinnati	Ohio
Riker Video Div, Hauppauge	N Y
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Shrader Sound Inc, Washington	D C
Swiss Industries, Costa Mesa	Cal
Systems Research Labs Inc, Dayton	Ohio
Teletronics Labs Inc, El Segundo	Cal

CONSTANT CURRENT POWER SUPPLIES SEE POWER SUPPLIES

CONTACTS--ELECTRICAL

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AIRFLYTE ELECTRONICS CO, BAYONNE	**N J**
AMERICAN ZETTLER, INC, COSTA MESA	**CAL**
AMP INCORPORATED, HARRISBURG	**PA**
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT	**IOWA**
ELECTRO-TEC CORP, ORMOND BEACH	**FLA**
GRAPHITE METALLIZING CORP, YONKERS	**N Y**
HUGHES CONNECTING DEVICES, NEWPORT BEACH	**CAL**
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES	**CAL**
MICRO CONTACTS, INC, HICKSVILLE	**N Y** **ADV PG 196**
NEY CO, J M, BLOOMFIELD, CONN	**ADV PG 197**
PYLE-NATIONAL CO, CHICAGO	**ILL**
STACKPOLE CARBON CO, ST MARYS	**PA**
Abbott Products, Inc, College Point	N Y
Accurate Electronics Corp, Elyria	Ohio
Admiral Controls Inc, Los Angeles	Cal
AirBorn Inc, Dallas	Tex
Airflyte Electronics Co, Bayonne	N J
Alloys Unlimited Inc, Melville	N Y
All Star Products Inc, Defiance	Ohio
Alpine Electronic Components Inc, Wolcott	Conn
American Silver Co Div, Flushing	N Y
American Zettler, Inc, Costa Mesa	Cal
AMP Incorporated, Harrisburg	Pa
Armel Electronics, Inc, North Bergen	N J
Automatic Metal Products Corp, Brooklyn	N Y
Auto-Swage Products, Inc, Shelton	Conn
Aviation Electric Ltd, St Laurent, Montreal	Que
Bead Chain Mfg Co, Bridgeport	Conn
Bemol Co, Newton	Mass
Bendix Corp Electrical Components Div, Sidney	N Y
Berg Electronics, Inc, New Cumberland	Pa
Bigelow Components Co, Newark	N J
Brainin Corp, C S, Mt Vernon	N Y
Carbone Corp, Boonton	N J
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Consolidated Electric Corp, Seattle	Wash
D-Cemco Inc, Burbank	Cal
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Deringer Metallurgical Corp, Mundelein	Ill
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Elco Corp, Willow Grove	Pa
Electrix Corp, Esmond	R I
Electro Miniatures Corp, South Hackensack	N J
Electro-Tec Corp, Ormond Beach	Fla
Emporium Specialties Co Inc, Cleveland	Ohio
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Essex Wire Corp Terminal Sales, Chicago	Ill
Fansteel Metallurgical Corp, North Chicago	Ill
Fuji Electric Co Ltd, Tokyo	Japan
General Findings Co Industrial Div, Attleboro	Mass
Gibson Electric Co, Div Talon Inc, Delmont	Pa
Graphite Metallizing Corp, Yonkers	N Y
Hughes Connecting Devices, Newport Beach	Cal
Improved Seamless Wire Co, Providence	R I
Indit Corp, Albertson	N Y
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
Johnson Matthey & Mallory Ltd, Toronto 15	Ont
Kent Corp, Mundelein	Ill
Lind Electro Development A Teledyne Co Mountain View	Cal
Masterite Industries Corp, Inglewood	Cal
Metal Ceram Inc, Mount Vernon	N Y
Micro Contacts, Inc, Hicksville	N Y
National Connector Corp, Minneapolis	Minn
Ney Co, J M, Bloomfield	Conn
Ohio Carbon Co, Cleveland	Ohio
Ostby & Barton Co, Providence	R I
Permonite Mfg Co, Chicago	Ill
Positive Connector Co, Derby	Conn
Positronic Industries Inc, Springfield	Mo
Pyle-National Co, Chicago	Ill
Robinson-Nugent Inc, New Albany	Ind
SAE Advanced Packaging Inc, Santa Ana	Cal
St Marys Carbon Co, St Marys	Pa
Schjeldahl Co G T, Connector Dept, Osseo	Minn
Semi-Alloys Inc, Mt Vernon	N Y
Sierra Electric Inc, Gardena	Cal
Stackpole Carbon Co, St Marys	Pa
Staffall, Inc, Providence	R I
Superior Carbon Products Inc, Cleveland	Ohio
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Technical Wire Products Inc, Cranford	N J
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Texas Instruments Incorporated, Dallas	Tex
Townsend Co, TRS Div, Braintree	Mass
USECO Div, Litton Industries, Van Nuys	Cal
Victor R F & Microwave Co, Wakefield	Mass
Wells Co Inc, Gary, Yonkers	N Y
Wilkinson Co, Westlake Village	Cal
Winchester Electronic Div, Litton Industries Oakville	Conn
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

MICRO CONTACTS INC

Precision Stampings & Wire Forms in both precious and base metals. Precious metals include all alloys of platinum, palladium, gold, and silver. Base metals include beryllium, copper, stainless steel, brass, bronze, nickel, cupro-nickel, nickel silver, kovar, monel, and aluminum. Thin gauge to .001''. Tolerances to ±.0005''.

Send quotation requests to:

MICRO CONTACTS INC.
63 Alpha Plaza
Hicksville, L. I., N. Y. 11801
Telephone 516-433-4830

CONTACTS--SPRING

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AIRFLYTE ELECTRONICS CO, BAYONNE	**N J**
AMP INCORPORATED, HARRISBURG	**PA**
BARNES CORP, LANSDOWNE	**PA**
CHICAGO SWITCH F & F, CHICAGO	**ILL**
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT	**IOWA**
ELECTRO-TEC CORP, ORMOND BEACH	**FLA**
MICRO CONTACTS, INC, HICKSVILLE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Accurate Electronics Corp, Elyria	Ohio
Acme Model Engineering Co, Ridgefield	N J
Acme Tool & Specialties Co, Des Plaines	Ill
Airflyte Electronics Co, Bayonne	N J
Alloys Unlimited Inc, Melville	N Y
All Star Products Inc, Defiance	Ohio
American Silver Co Div, Flushing	N Y
AMP Incorporated, Harrisburg	Pa
Auto-Swage Products, Inc, Shelton	Conn
Avionics, Inc, South Bend	Ind
Barnes Corp, Lansdowne	Pa
Bemol Co, Newton	Mass
Brainin Corp, C S, Mt Vernon	N Y
Braun Tool & Instrument Co Inc, H, Hawthorne	N J
Chemical & Aerospace Products Inc, Wilmington	Cal
Chicago Switch F & F, Chicago	Ill
Connor Spring Mfg Co Div Sloss & Britain San Francisco	Cal
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Eimac Div, Varian Associates, San Carlos	Cal
Electro-Tec Corp, Ormond Beach	Fla
Elgiloy Co, Elgin	Ill

NEW from NEY

STANDARD OFF-THE-SHELF ROTARY SWITCH ASSEMBLIES

The two rotary switch assemblies shown above are standard off-the-shelf items. The larger (#1510), a 36-position, 2-pole switch, is capable of 10 million revolutions with a noise level of only 1 millivolt. Rotating at 300 rpm, this assembly is capable of switching 0.5 amperes at 30 volts DC, non-inductive.

The smaller switch (#1508) is a 12-position, single-pole switch and is designed for the low-price commercial application. The performance of a #1510 switch can be obtained with the #1508 with some modification and at extra cost. Modifications can be made in either switch to suit particular requirements; or each, with slight changes, modified into slip ring assemblies.

Both of these switch assemblies offer the long proven, ideal combination of Neyoro® G Neyetch commutator rings (solid precious metal alloy bonded to a rigid insulator) and Paliney® 7 brushes. The Neyoro G Neyetch commutator means added product reliability and greatly reduces costly maintenance. It also eliminates such common plating defects as porosity, flaking, peeling, pits and inclusions. If your requirements include low level switches, standard or special, large or small, Ney's capabilities can help you. Detailed information available on request.

TEL. HARTFORD 242-2281 (area 203)

48-PAGE ELECTRICAL CONTACT CATALOG ON REQUEST

THE J.M. NEY COMPANY
Maplewood Ave., Bloomfield, Conn.

Emtec Inc, Empire Spring Div, Elyria	Ohio
General Findings Co Industrial Div, Attleboro	Mass
Gibson Electric Co, Div Talon Inc, Delmont	Pa
Masterite Industries Corp, Inglewood	Cal
Metal Ceram Inc, Mount Vernon	N Y
Micro Contacts, Inc, Hicksville	N Y
Micro Science Assoc, Mountain View	Cal
National Connector Corp, Minneapolis	Minn
Nippon Electric Co Ltd, Tokyo	Japan
Ostby & Barton Co; Providence	R I
Parechoc S A, Ch 1347 Le Sentier	Switzerland
Permonite Mfg Co, Chicago	Ill
Positive Connector Co, Derby	Conn
Premium Allied Tool Inc, Owensboro	Ky
Pylon Co, Inc, Attleboro	Mass
Robinson-Nugent Inc, New Albany	Ind
Seastrom Mfg Co Inc, Glendale	Cal
Semi-Alloys Inc, Mt Vernon	N Y
Servometer Corp, Clifton	N J
S K G Associates Inc, Boston	Mass
Staffall, Inc, Providence	R I
Superior Carbon Products Inc, Cleveland	Ohio
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Technical Wire Products Inc, Cranford	N J
USECO Div, Litton Industries, Van Nuys	Cal
Wells Co Inc, Gary, Yonkers	N Y
Winchester Electronic Div, Litton Industries Oakville	Conn

CONTAINERS SEE BOXES; CABINETS; CANS; CASES;ENCLOSURES; HOUSINGS; PACKAGING MATERIALS;TANKS--POLYETHELYNE

CONTINUITY TESTERS SEE TESTERS--CIRCUIT

CONTOURING CONTROLS SEE CONTROLS--MACHINE TOOL

CONTROL CONSOLES SEE CONSOLES(COMPLETELY WIRED)

CONTROL DIODES SEE DIODES

CONTROLLED ATMOSPHERE SYSTEMS SEE CHAMBERS--ENVIRONMENTAL TEST

CONTROLLERS SEE CONTROLS

CONTROLS--ALARM SYSTEM SEE DETECTORS

CONTROLS--AUDIO FREQUENCY

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
J-B-T INSTRUMENTS INC, NEW HAVEN	**CONN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TELE-SIGNAL CORP, WOODBURY	**N Y**
Agac-Derritron Inc, Alexandria	Va
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Anritsu Electric Co Ltd, Tokyo	Japan
Applied Control Co, Cedar Grove	NJ
Audn Corp, Hamburg	N Y
Babcock Electronic Corp, Costa Mesa	Cal
Bayly Engineering Ltd, Ajax	Ontario
Bramco Controls Div Ledex Inc, Piqua	Ohio
Canoga Electronics Corp, Chatsworth	Cal
C B S Labs Div Columbia Bdcstg Sys Inc Stamford	Conn
Darcy Industries Inc, TSI Div, Santa Monica	Cal
Fisher-Akin Co, Manhattan Beach	Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
H B Engineering Corp, Silver Spring	Md
Impectron Inc, New York	N Y
JB Electronic Transformers Inc, Chicago	Ill
J-B-T Instruments Inc, New Haven	Conn
Jensen Mfg Div, The Muter Co, Chicago	Ill
Lundy Electronics & Systems Inc, Glen Head	N Y
Marquardt Industrial Products Co, Chicago	Ill
Neptune Electronics Co, New York	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Perfectone Sound Labs, Allendale	NJ
Private Tele Communications Inc, Chicago	Ill
Quindar Electronics Inc, Springfield	NJ
Raytheon Learning Systems Co, Michigan City	Ind
Saturn Electronics Corp, Garland	Tex
Solid State Electronics Corp, Sepulveda	Cal
Sparta Electronic Corp, Sacramento	Cal
Spectral Dynamics Corp of San Diego, San Diego	Cal
Stephens Electronics, Burbank	Cal
Tele-Signal Corp, Woodbury	N Y
Trans-Tek Mfg Co Inc, Garwood	N J
Trepac Corp of America, Englewood	N J
Utility Communication Systems Inc, Essington	Pa
Visual Electronics Labs Audio Div, Pasadena	Cal
VP Co, Pasadena	Cal
Westrex Div Litton Industries, Inc, Hollywood	Cal

CONTROLS--AUTOMATIC POSITIONING SEE CONTROLS--POSITIONING

CONTROLS--AUTOMATIC TUNING

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
Anritsu Electric Co Ltd, Tokyo	Japan
Applied Devices Corp, College Point	n y
Automation Development Co, Culver City	Cal
Cedar Engineering Div, Control Data Corp Minneapolis	Minn
Control Technology Co Inc, Long Island City	N Y
Essex Engineering Co Inc, Essex	Conn
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Impectron Inc, New York	N Y
Instru-Lec Corp, Mt Vernon	N Y
Leeds & Northrup Co, Philadelphia	Pa
Loral Electronic Systems, Div Loral Corp, New York	NY
Melabs, Palo Alto	Cal
Moog Inc, Industrial Div, East Aurora	N Y
Motorola Semiconductor Products Inc, Phoenix	Ariz
Plessey Airborne Corp, Hillside	NJ
Rundel Electric Co, Millbrae	Cal
Squires-Sanders Inc, Liberty Corner	N J
Varo Inc, Garland	Tex

CONTROLS--AUTOMATIC VOLTAGE-REGULATING SEE REGULATORS--VOLTAGE

CONTROLS--CHEMICAL PROCESS SEE CONTROLS PROVIDING REQUIRED FUNCTION

CONTROLS--COLOR SEE CONTROLS--PHOTOELECTRIC,COLOR; SPECTROPHOTOMETERS

CONTROLS--COMBUSTION

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
Anritsu Electric Co Ltd, Tokyo	Japan
Automatic Switch Co, Florham Park	N J
Bailey Meter Co, Wickliffe	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Cambridge Systems Inc, Newton	Mass
De Tec-Tronic Corp, Chicago	Ill
Devco Engineering Inc, Fairfield (Caldwell)	N J
Edison, Thomas A Industries, Instr Div West Orange	N J
Elastronics Labs, Tarzana	Cal
Electronic Applications Co, Pine Brook	N J
Electronic Control Corp, Detroit	Mich
Ellison Instrument Div Dieterich Std Corp New Buffalo	Mich
Fischer & Porter Co, Warminster	Pa
Foxboro Co, Foxboro	Mass
Fox Valve Development Co Inc, Hanover	N J
Fuji Electric Co Ltd, Tokyo	Japan
Gas Analysis Systems Inc, Basking Ridge	NJ
General Electric Co, ECSO, Schenectady	N Y
General Precision Systems Inc, Indl Controls Div Morton Grove	Ill
Hagan Computer Systems Div Westinghouse Pittsburgh	Pa
Hays Corp, Michigan City	Ind
Honeywell Industrial Div, Fort Washington	Pa
Industrial Electronetics Corp, Satellite Beach	Fla
In-Val-Co, Tulsa	Okla
Leeds & Northrup Co, Philadelphia	Pa
Malaker Corp, High Bridge	N J
Photomation Inc, Mountain View	Cal
Plessey Airborne Corp, Hillside	NJ
Pyrotector Inc, Hingham	Mass
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
RIL Electronics Inc, Southampton	Pa
Rundel Electric Co, Millbrae	Cal
Selas Corp of America, Dresher	Pa
Sulzer Brothers Ltd, Industrial Elctns Div Winterthur	Switzerland
West Instrument Corp, Schiller Park	Ill
Worner Electronic Devices, Rankin	Ill

CONTROLS--CONTOURING SEE CONTROLS--MACHINE TOOL

CONTROLS--COUNTING & SORTING

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
DATA TECHNOLOGY, INC, WATERTOWN	**MASS**
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT	**IOWA**
FORK STANDARDS INC, WEST CHICAGO	**ILL**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
MICRO SWITCH DIV, HONEYWELL, FREEPORT	**ILL**
Abrams Instrument Corp, Lansing	Mich
Accutronics, Inc, Geneva	Ill
Acromag Inc, Wixom	Mich
Airmec Instruments Ltd, Buckinghamshire	England
American Astrionics Inc, Palo Alto	Cal
American Hydromath Co, New Hyde Park	N Y
Anadex Instruments, Inc, Van Nuys	Cal
Applied Control Co, Cedar Grove	NJ
Audn Corp, Hamburg	N Y
Automation Development Co, Culver City	Cal
Automation Products Mfg Inc, Boca Raton	Fla
Autotron, Inc, Danville	Ill
Avionics, Inc, South Bend	Ind
Beckman Instruments Inc, Fullerton,	Cal
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Bionic Instruments Inc, Bala Cynwyd	Pa
Canadian Research Institute, Don Mills	Ont
Charter Labs Inc, East Northport	NY
Chrono-Log Corp, Broomall	Pa
CMC/Rutherford, San Fernando	Cal
Coltron Industries, Inc, Charlotte	N C
Control Equipment Corp, Needham Heights	Mass
Control Logic Inc, Natick	Mass
Corning Glass Works, Corning	N Y
Crest Mfg Co, East Berlin	Conn
Data Automation Inc, Elk Grove	Ill
Data Device Corp, Hicksville	N Y
Data Sensors Inc, Addison	Ill
Data Technology, Inc, Watertown	Mass
Delco Radio Div General Motors Corp, Kokomo	Ind
Design Products Corp, Troy	Mich
De-Tec-Tronic Corp, Chicago	Ill
Di/An Controls Inc, Boston	Mass
Digital Products, San Pedro	Cal
Digitrol Systems Inc, Amenia	N Y
Dolan Jenner Industries Inc, Melrose	Mass
Durant Mfg Co, Milwaukee	Wis
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee	Ill
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Electric Tachometer Corp, Philadelphia	Pa
Electronic Control Corp, Detroit	Mich
Electronic Counters Inc, Englewood	N J
Electro-Sonic-Control, Manteca	Cal
Elesta Ltd Electronics, Bad Ragaz	Switzerland
Elmek Div Electro Mechanics Inc, New Britain	Conn
Emerson Electric Co, Indl Controls & Elctns Div St Louis	Mo
EMI Electronics Ltd, Hayes, Middlesex	England
Engler Instrument Co, Jersey City	N J
Fork Standards Inc, West Chicago	Ill
Frost Electronics Corp, Rockaway	N J
General Atronics Corp, Philadelphia	Pa
General Electric Co, ECSO, Schenectady	N Y
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Haydon Products, Ind Controls Div Gen Time Corp, Torrington	Conn
Haydon Switch & Instrument Inc, Waterbury	Conn
Hyde Park Electronics Inc, Dayton	Ohio
IKL Inc, Newport Beach	Cal
Industrial Components Inc, Beaverton	Ore
Industrial Electronetics Corp, Satellite Beach	Fla
Instrumentation & Control Systems Inc, Addison	Ill
Instrumentation Technology Corp, Northridge	Cal
International Electro-Magnetics Inc, Palatine	Ill
J A C Electronics Ltd, Camberley	England
Janus Control Div Tyco, Waltham	Mass
Kameco Ltd, Montreal	Que
La Telemecanique Electrique, 92 Rueil	France
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Luft Instruments Inc, Lincoln	Mass
Lundy Electronics & Systems Inc, Glen Head	N Y
Machinery Electrification Inc, Northboro	Mass
Mechanical Technology Inc, Latham	N Y
Micro Switch Div, Honeywell, Freeport	Ill
MKC Electronics Corp, Kansas City	Kans
North Electric Co, Galion	Ohio
Numex Corp, Waltham	Mass
Photobell Co Inc, New York	N Y
Photomation Inc, Mountain View	Cal
Plessey Airborne Corp, Hillside	NJ
Potter Instrument Co, Inc, Plainview	N Y
Precision Systems Corp, Columbus	Ohio
Ramic Corp, Medford	Ore
Regent Controls Inc, Stamford	Conn
Rosemount Plug-In Inc, Nashville	Tenn
Rundel Electric Co, Millbrae	Cal
Saturn Electronics Corp, Garland	Tex
Sensor Corp, Greenwich	Conn
Servo Development Corp, Hicksville	N Y
Sigma Instruments Inc, Braintree	Mass
Singer Co, Diehl Div, Somerville	N J
Slocum Industries, Inc, Reseda	Cal
Space & Systems Div General Time Corp Stamford	Conn
Square D Co, Park Ridge	Ill
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Stevenson Engineering & Mfg Co, Portland	Ore
Strandberg Engineering Labs Inc, Greensboro	N C
Syracuse Electronics Corp, Syracuse	N Y
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Tek-Sel Labs Inc, Saddle Brook	N J
Transistor Automation A Teledyne Co, Woburn	Mass
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Veeder-Root, Hartford	Conn
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Warner Electric Brake & Clutch Co, Beloit	Wisc
Wintriss Controls Div Industronics Controls Inc New York	N Y
Worner Electronic Devices, Rankin	Ill
Zehntel Inc, Berkeley	Cal

CONTROLS, DENSITY--INFRARED

Audn Corp, Hamburg	N Y
Automation Products, Inc, Houston	Tex
Bionic Instruments Inc, Bala Cynwyd	Pa
De-Tec-Tronic Corp, Chicago	Ill
Gardner Lab Inc, Bethesda	Md
Infrared Industries Inc, Santa Barbara	Cal
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Photobell Co Inc, New York	N Y
Precision Thermometer & Instrument Co Southampton	Pa
Pyrotel Corp c/o Milletron Inc, Pittsburgh	Pa
Ramic Corp, Medford	Ore
Sensor Corp, Greenwich	Conn
Systems Matrix Inc, Trenton	N J
Tek-Sel Labs Inc, Saddle Brook	N J
Varo Inc, Garland	Tex
Worner Electronic Devices, Rankin	Ill

CONTROLS, DENSITY--NUCLEAR-ABSORPTION TYPE

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
Automation Products, Inc, Houston	Tex
Conrac Corp, New York	N Y
Elastronics Labs, Tarzana	Cal
General Electric Co, ECSO, Schenectady	N Y
Isotopes A Teledyne Co, Westwood	N J
Landis & Gyr AG, Zug	Switzerland
Milletron, Inc, Pittsburgh	Pa
Nuclear-Chicago Corp, Des Plaines	Ill
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Ohmart Corp, Cincinnati	Ohio
RIL Electronics Inc, Southampton	Pa
Robertshaw Controls Co, Aero & Instrument Div Anaheim	Cal
Troxler Electronic Labs Inc, Raleigh	N C

CONTROLS, DENSITY--PHOTOELECTRIC

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH	**VA**
Audn Corp, Hamburg	N Y
Automation Products, Inc, Houston	Tex
Autotron, Inc, Danville	Ill
Design Products Corp, Troy	Mich
De-Tec-Tronic Corp, Chicago	Ill
Dolan Jenner Industries Inc, Melrose	Mass
Elastronics Labs, Tarzana	Cal
Electronic Control Corp, Detroit	Mich
Electronics Corp of America, Cambridge	Mass
Electron-Radar Products, Chicago	Ill
Elesta Ltd Electronics, Bad Ragaz	Switzerland
Elmek Div Electro Mechanics Inc, New Britain	Conn
Flexi Optics Labs Inc, Somerville	Mass
Frost Electronics Corp, Rockaway	N J
Gardner Lab Inc, Bethesda	Md
General Electric Co, ECSO, Schenectady	N Y
Grace Electronics Inc, Cleveland	Ohio
Hycon, Monrovia	Cal
Instrumentation & Control Systems Inc, Addison	Ill
Kameco Ltd, Montreal	Que
Lektra Labs Inc Div Kriser Corp, College Point	N Y
LEM Instrument Corp, Farmingdale	N Y
Melpar Inc, Special Prods Dept, Falls Church	Va
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Phoenix Precision Instrument Co, Inc, Philadelphia	Pa
Photobell Co Inc, New York	N Y
Photo Research Corp, Burbank	Cal
Pyrotel Corp c/o Milletron Inc, Pittsburgh	Pa
Razdow Labs Inc, Newark	N J
Rundel Electric Co, Millbrae	Cal
Schoeffel Instrument Co, Westwood	NJ
Sel-Rex International S A, Geneve	Switzerland
Sensor Corp, Greenwich	Conn
Slocum Industries, Inc, Reseda	Cal
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Strandberg Engineering Labs Inc, Greensboro	N C
Syracuse Electronics Corp, Syracuse	N Y
Systems Matrix Inc, Trenton	N J
Taylpr Instrument Cos, Rochester	N Y
Thorn Automation Ltd, Rugeley, Staffs	England
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Worner Electronic Devices, Rankin	Ill

CONTROLS, DENSITY--ULTRASONIC

Acoustica Associates Inc, Los Angeles	Cal
Audn Corp, Hamburg	N Y
Automation Products, Inc, Houston	Tex
Conrac Corp, New York	N Y
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Sensor Corp, Greenwich	Conn

CONTROLS--DIMENSION

AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE	**N Y**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
DATA TECHNOLOGY, INC, WATERTOWN	**MASS**
Amperex Electronic Corp, Component Div Hauppauge	N Y
Automation Development Co, Culver City	Cal
Data Technology, Inc, Watertown	Mass
Daytronic Corp, Dayton	Ohio
De-Tec-Tronic Corp, Chicago	Ill
Digitrol Systems Inc, Amenia	N Y
Dimensions Inc, Hempstead	N Y
Electron Machine Co, Umatilla	Fla
Electro-Sonic-Control, Manteca	Cal
Euclid Electric & Mfg Div Harvey Hubbell Inc, Madison	Ohio
General Precision Systems Inc, Indl Controls Div Morton Grove	Ill
Gilardoni S p A, Mandello Lario Como	Italy
IKL, Inc, Newport Beach	Cal
Industrial Winding Machinery Corp, River Edge	N J
Instrumentation & Control Systems Inc, Addison	Ill
International Electro-Magnetics Inc, Palatine	Ill
Link Group Gen Precision Sys Inc, Binghamton	N Y
Luft Instruments Inc, Lincoln	Mass
Measuring Instrument Controls Inc Berkeley Heights	N J
Microwave Instruments Co, Corona del Mar	Cal
Minnetech Labs Inc, Minneapolis	Minn
Moore Products Co, Spring House	Pa
Muirhead Instruments Inc, Mountainside	N J
Nuclear Materials & Equipment Corp, Apollo	Pa
Optomechanisms Inc, Plainview	N Y
Photobell Co Inc, New York	N Y
Precision Systems Corp, Columbus	Ohio
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Tek-Sel Labs Inc, Saddle Brook	N J
Theta Instrument Corp, Fairfield	N J
Veeder-Root, Hartford	Conn
Worner Electronic Devices, Rankin	Ill
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

CONTROLS, DOOR (INCL GARAGE DOORS)--ELECTRONIC

AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE	**N Y**
HEATH CO, BENTON HARBOR	**MICH**
TECHMETRIC CO, REDWOOD CITY	**CAL**
Advance Industries Inc, Appleton	Wis
Alliance Mfg Co Inc, Alliance	Ohio
American Systems, Inc, Van Nuys	Cal
Amperex Electronic Corp, Component Div Hauppauge	N Y
A R F Products, Inc, Raton	N M
Automation Products Mfg Inc, Boca Raton	Fla
Avionics, Inc, South Bend	Ind
B & B Motor & Control Corp, New York	N Y
Continental Instruments Corp, Lynbrook	NY
Crest Mfg Co, East Berlin	Conn
Cutler-Hammer Inc, Milwaukee	Wisc
Dolan Jenner Industries Inc, Melrose	Mass
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Control Corp, Detroit	Mich
Electronic Homes Co, New York	N Y
Elesta Ltd Electronics, Bad Ragaz	Switzerland
Frost Electronics Corp, Rockaway	N J
Heath Co, Benton Harbor	Mich
Lek-Trol, Inc, Grapevine	Tex
Multi-Elmac Co, Oak Park	Mich
Perma-Power Co, Chicago	Ill
Photobell Co Inc, New York	N Y
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Pulse Communications Inc, Falls Church	Va
Robot Industries Inc, Dearborn	Mich
Sigma Instruments Inc, Braintree	Mass
Tapeswitch Corp of America, Farmingdale	N Y
Techmetric Co, Redwood City	Cal
Telectron Co, Fort Lauderdale	Fla
Trans-Tek Mfg Co Inc, Garwood	N J
Veeder-Root, Hartford	Conn
Welex Electronics, Div Halliburton Co Silver Spring	Md
Worner Electronic Devices, Rankin	Ill

CONTROLS--FLUID-FLOW

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HYDRA-ELECTRIC CO, BURBANK	**CAL**
Acoustica Associates Inc, Los Angeles	Cal
Aladdin Controls Div Aladdin Electronics Nashville	Tenn
American-Standard Controls Div, Detroit	Mich
Amlab Inc, Rahway	NJ
Anadex Instruments, Inc, Van Nuys	Cal
Andonian Associates, Inc, Waltham	Mass
Audn Corp, Hamburg	N Y
Automatic Switch Co, Florham Park	N J
Automation Development Co, Culver City	Cal
Avien, Inc, Woodside	N Y
Bailey Meter Co, Wickliffe	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp Electrodynamics Div, North Hollywood	Cal
B I F Unit General Signal Corp, Providence	R I
Bionic Instruments Inc, Bala Cynwyd	Pa
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham	Mass
Bristol Div, American Chain & Cable Co Waterbury	Conn
Brooks Instrument Div, Hatfield	Pa
B/W Controller Corp, Birmingham	Mich
Cambridge Scientific Industries Inc, Cambridge	Md
Canadian Motorola Electronics Co, Agincourt	Ont
Compudyne Corp, Hatboro	Pa
Computer Instruments Corp, Hempstead	N Y
Consolidated Controls Corp, Bethel	Conn
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Controlotron Corp, Farmingdale	N Y
Corning Glass Works, Corning	N Y
Custom Control Mfg Inc, Merriam	Kan
Decker Corp, Bala Cynwyd	Pa
De Vilbiss Co, Toledo	Ohio
Dietz Co Inc, Henry G, Long Island City	N Y
Digital Blending Systems Inc, Providence	R I
Divac Electronics, Hawthorne	Cal
Durant Mfg Co, Milwaukee	Wis
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee	Ill
Elastronics Labs, Tarzana	Cal
Electron Machine Co, Umatilla	Fla
ElectroSyn Technology Labs, Inc, Canton	Mass
Ellison Instrument Div Dieterich Std Corp New Buffalo	Mich
Emerson Electric Co, Indl Controls & Elctns Div St Louis	Mo
Exactel Instrument Co Div Statham Instrs Inc Mountain View	Cal
Fischer & Porter Co, Warminster	Pa
Flowcon Co, Anaheim	Cal
Fluid Power Accessories Inc, Wheeling	Ill
Foxboro Co, Foxboro	Mass
Foxboro Co Valenica Plant, Valencia	Cal
Fox Valve Development Co Inc, Hanover	N J
Fuji Electric Co Ltd, Tokyo	Japan
Gems Co Inc, Farmington	Conn
General Atronics Corp, Philadelphia	Pa
General Electric Co, ECSO, Schenectady	N Y
General Precision Systems Inc, Indl Controls Div Morton Grove	Ill
Hagan Computer Systems Div Westinghouse Pittsburgh	Pa
Hays Corp, Michigan City	Ind
Honeywell Industrial Div, Fort Washington	Pa
Hugle Industries, Sunnyvale	Cal
Hydra-Electric Co, Burbank	Cal
Ikor, Inc, Burlington	Mass
Industrial Electronetics Corp, Satellite Beach	Fla
Industrial Instrument Corp, Austin	Tex
International Controls Corp, Fairfield,	N J
In-Val-Co, Tulsa	Okla
ITT Barton Controls & Instr Div, Monterey Park	Calif
Kahn & Co Inc, Wethersfield	Conn
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Romec Div, Elyria	Ohio
Leeds & Northrup Co, Philadelphia	Pa
Link Group Gen Precision Sys Inc, Binghamton	N Y
Liquid Level Lectronics Inc, Richardson	Tex
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Lunkenheimer Co Sub Condec Corp, Cincinnati	Ohio
Magnetrol Inc, Downers Grove	Ill
Martron Inc, Newport Beach	Cal
Milton Roy Co, St Petersburg	Fla
Moog Inc, Industrial Div, East Aurora	N Y
Motorola Instrumentation & Control Inc, Phoenix	Ariz
Palisades Engineering Co Inc, Pacific Palisades	Cal
Penberthy Div Houdaille Ind Inc, Prophettstown	Ill
Photobell Co Inc, New York	N Y
Plessey Airborne Corp, Hillside	NJ
Precision Mecanique Labinal, 93 Saint-Ouen	France
Ramyr Mfg Co, Buena Park	Cal
Revere Corp of America, Wallingford	Conn
RIL Electronics Inc, Southampton	Pa
Robertshaw Controls Co, Aero & Instrument Div Anaheim	Cal
Robintech Inc, Burbank	Cal
Rockwell Mfg Co, Msmt & Control Div, Pittsburgh	Pa
Rovalco Controls, Torrance	Cal
Rundel Electric Co, Millbrae	Cal
Sanders Associates, Inc, Nashua	N H
Sensor Corp, Greenwich	Conn
Servo Labs Inc, Van Nuys	Cal
SieBelAir Co, Los Angeles	Cal
Sigma Instruments Inc, Braintree	Mass
Signet Controls Inc, Tulsa	Okla
Singer Co, Diehl Div, Somerville	N J
Skinner Electric Valve Div, New Britain	Conn
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Syracuse Electronics Corp, Syracuse	N Y
Taylor Instrument Cos, Rochester	N Y
TRW Systems Group, Redondo Beach	Cal
United Aircraft Products Inc, Dayton	Ohio
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
UOP Instruments Div, Greenwich	Conn
Veeder-Root, Hartford	Conn
West Coast Research Corp, Los Angeles	Cal
Weston Hydraulics, Van Nuys	Cal
Whittaker Corp Technical Products Div, Chatsworth	Cal
Worner Electronic Devices, Rankin	Ill
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

CONTROLS--FOOD-PROCESSING SEE CONTROLS PROVIDING REQUIRED FUNCTION

CONTROL--SHAFT SEALS SEE SEALS--MECHANICAL

CONTROLS--HEAT-TREATING SEE CONTROLS--TEMPERATURE

CONTROLS--HUMIDITY

BLUE M ENGINEERING CO, BLUE ISLAND	**ILL**
Abrax Instrument Corp, Jamaica	N Y
American Instrument Co, Inc, Silver Spring	Md
Amlab Inc, Rahway	NJ
Bacharach Instrument Co, Pittsburgh	Pa
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bionic Instruments Inc, Bala Cynwyd	Pa
Blue M Engineering Co, Blue Island	Ill
Bristol Div, American Chain & Cable Co Waterbury	Conn
Cambridge Systems Inc, Newton	Mass
Compudyne Corp, Hatboro	Pa
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Custom Control Mfg Inc, Merriam	Kan
Dryomatic Div Logetronics Inc, Springfield	Va
Dynatronic Instruments Corp Div Lab-Line Inst Inc Melrose Park	Ill
Electronic Control Corp, Euless	Tex
Electron-Radar Products, Chicago	Ill
El-Tronics Inc Warren Components Div, Warren	Pa
Fischer & Porter Co, Warminster	Pa
Foxboro Co, Foxboro	Mass
Foxboro Co Valenica Plant, Valencia	Cal
Fuji Electric Co Ltd, Tokyo	Japan
Harrel Inc, East Norwalk	Conn
Honeywell Industrial Div, Fort Washington	Pa
Hygrodynamics Inc, Silver Spring	Md
Jersey Technical Consultants, Morristown	NJ
Kahn & Co Inc, Wethersfield	Conn
Landis & Gyr AG, Zug	Switzerland
Lear Siegler Inc, Santa Monica	Cal
Leeds & Northrup Co, Philadelphia	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Phys-Chemical Research Corp, New York	N Y
Plessey Airborne Corp, Hillside	NJ
PMF Electronics Inc, Dayton	Ohio
RIL Electronics Inc, Southampton	Pa
Rundel Electric Co, Millbrae	Cal
Sigma Instruments Canada Ltd, Toronto 18 Ont	Canada
Slocum Industries, Inc, Reseda	Cal
Strandberg Engineering Labs Inc, Greensboro	N C
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taylor Instrument Cos, Rochester	N Y
Technology/Versatronics Inc, Yellow Springs	Ohio
United Aircraft Products Inc, Dayton	Ohio
Vapor Corp, Chicago	Ill
Waynco Inc, Winona	Minn
Wells Industries Corp, North Hollywood	Cal
Worner Electronic Devices, Rankin	Ill

CONTROLS--ILLUMINATION SEE CONTROLS--PHOTOELECTRIC

CONTROLS--INSPECTION SEE CONTROLS PROVIDING REQUIRED FUNCTION

CONTROLS, LEVEL--DRY MATERIALS

AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE	**N Y**
GAGNE ASSOCIATES INC, BINGHAMTON	**N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
Acoustica Associates Inc, Los Angeles	Cal
Airmec Instruments Ltd, Buckinghamshire	England
Aladdin Controls Div Aladdin Electronics Nashville	Tenn
Amiproducts Corp, New York	N Y
Amperex Electronic Corp, Component Div Hauppauge	N Y
Audn Corp, Hamburg	N Y
Automation Products, Inc, Houston	Tex
Avionics, Inc, South Bend	Ind
Bin Dicator Co, Detroit	Mich
Bionic Instruments Inc, Bala Cynwyd	Pa
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham	Mass
Compudyne Corp, Hatboro	Pa
Controlotron Corp, Farmingdale	N Y
Custom Control Mfg Inc, Merriam	Kan
Decker Corp, Bala Cynwyd	Pa
Delavan Mfg Co, West Des Moines	Iowa
Dietz Co Inc, Henry G, Long Island City	N Y
Digitrol Systems Inc, Amenia	N Y
Drexelbrook Engineering Co, Glenside	Pa
Emerson Electric Co, Indl Controls & Elctns Div St Louis	Mo
Euclid Electric & Mfg Div Harvey Hubbell Inc, Madison	Ohio
Foxboro Co Valenica Plant, Valencia	Cal
Frost Electronics Corp, Rockaway	N J
Fuji Electric Co Ltd, Tokyo	Japan
Gagne Associates Inc, Binghamton	N Y
General Electric Co, ECSO, Schenectady	N Y
General Electric Co X-Ray Dept, Milwaukee	Wis
Industrial Electronetics Corp, Satellite Beach	Fla
In-Val-Co, Tulsa	Okla
Landis & Gyr AG, Zug	Switzerland
Leeds & Northrup Co, Philadelphia	Pa
Machinery Electrification Inc, Northboro	Mass
Metritape Controls Inc, West Concord	Mass
National Sonics Corp, Farmingdale	N Y
Norbatrol Electronics Corp, Murrysville	Pa
Nuclear-Chicago Corp, Des Plaines	Ill
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Ohmart Corp, Cincinnati	Ohio
Philmore Mfg Co Inc, Richmond Hill	N Y
Photobell Co Inc, New York	N Y
Photomation Inc, Mountain View	Cal
Plessey Airborne Corp, Hillside	NJ
Presin Co Inc, Shelton	Conn
Regent Controls Inc, Stamford	Conn
Revere Corp of America, Wallingford	Conn
RIL Electronics Inc, Southampton	Pa
Robertshaw Controls Co, Aero & Instrument Div Anaheim	Cal
Slocum Industries, Inc, Reseda	Cal
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Stevenson Engineering & Mfg Co, Portland	Ore
Streeter-Amet, Grayslake	Ill
Syntron Div FMC Corp, Homer City	Pa
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Taylor Instrument Cos, Rochester	N Y
Thorn Automation Ltd, Rugeley, Staffs	England
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Utility Communication Systems Inc, Essington	Pa
Wintriss Controls Div Industronics Controls Inc New York	N Y
Worner Electronic Devices, Rankin	Ill

CONTROLS, LEVEL--LIQUIDS

BLUE M ENGINEERING CO, BLUE ISLAND	**ILL**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
GAGNE ASSOCIATES INC, BINGHAMTON	**N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HYDRA-ELECTRIC CO, BURBANK	**CAL**
MICRO SWITCH DIV, HONEYWELL, FREEPORT	**ILL**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
Acoustica Associates Inc, Los Angeles	Cal
Airmec Instruments Ltd, Buckinghamshire	England
Aladdin Controls Div Aladdin Electronics Nashville	Tenn
All-O-Matic Mfg Corp, New Hyde Park	N Y
American Electronic Controls Inc, Philadelphia	Pa
American-Standard Controls Div, Detroit	Mich
Amiproducts Corp, New York	N Y
Amlab Inc, Rahway	NJ
Anadex Instruments, Inc, Van Nuys	Cal
Andonian Associates, Inc, Waltham	Mass
Audn Corp, Hamburg	N Y
Autocon Industries, Inc, St Paul	Minn
Automation Products, Inc, Houston	Tex
Autotron, Inc, Danville	Ill
Bailey Meter Co, Wickliffe	Ohio
B I F Unit General Signal Corp, Providence	R I
Bin Dicator Co, Detroit	Mich
Bionic Instruments Inc, Bala Cynwyd	Pa
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham	Mass
Blue M Engineering Co, Blue Island	Ill
Bristol Div, American Chain & Cable Co Waterbury	Conn
Brooks Instrument Div, Hatfield	Pa
B/W Controller Corp, Birmingham	Mich
Cambridge Scientific Industries Inc, Cambridge	Md
Canadian Motorola Electronics Co, Agincourt	Ont
C-E Electronics Inc, Glenside	Pa
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Compudyne Corp, Hatboro	Pa
Computer Instruments Corp, Hempstead	N Y
Conductron Corp, Ann Arbor	Mich
Conrac Corp, New York	N Y
Consolidated Airborne Systems, Carle Place	N Y
Consolidated Controls Corp, Bethel	Conn
Consolidated Vacuum Corp, Rochester	N Y
Controlomag Labs, Roslyn	Pa
Controlotron Corp, Farmingdale	N Y
Controls Co of America, Schiller Park	Ill
Cooke Vacuum Products Inc, South Norwalk	Conn
Cordex, Inc, Mount Eaton	Ohio
Cryogenic Engineering Co, Denver	Colo
Cryogenic Research Co Inc, Boulder	Colo
Curtis Development & Mfg Co, Milwaukee	Wis
Cutler-Hammer Inc, Milwaukee	Wisc
CVI Corp, Columbus	Ohio
Decker Corp, Bala Cynwyd	Pa
Delavan Mfg Co, West Des Moines	Iowa
De-Tec-Tronic Corp, Chicago	Ill
Device Seals Inc, Sun Valley	Cal
Dietz Co Inc, Henry G, Long Island City	N Y
Digitrol Systems Inc, Amenia	N Y
Divac Electronics, Hawthorne	Cal
Drexelbrook Engineering Co, Glenside	Pa
Ebert Electronics Corp, Floral Park	N Y
Edison, Thomas A Industries, Instr Div West Orange	N J
Electric Machinery Mfg Co, Minneapolis	Minn
Electro Miniatures Corp, South Hackensack	N J
Electronic Control Corp, Detroit	Mich
Electronic Control Systems Inc, Fairmont	W Va
Electro-Sonic-Control, Manteca	Cal
ElectroSyn Technology Labs, Inc, Canton	Mass
Elesta Ltd Electronics, Bad Ragaz	Switzerland
Ellison Instrument Div Dieterich Std Corp New Buffalo	Mich
Emerson Electric Co, Indl Controls & Elctns Div St Louis	Mo
Euclid Electric & Mfg Div Harvey Hubbell Inc, Madison	Ohio
Exactel Instrument Co Div Statham Instrs Inc Mountain View	Cal
Fairchild Controls, Hicksville	N Y
Fischer & Porter Co, Warminster	Pa
Foxboro Co, Foxboro	Mass
Foxboro Co Valenica Plant, Valencia	Cal
Frost Electronics Corp, Rockaway	N J
Fuji Electric Co Ltd, Tokyo	Japan
Fulton Sylphon Div Robertshaw Controls Co Knoxville	Tenn
Gagne Associates Inc, Binghamton	N Y
Gems Co Inc, Farmington	Conn
General Electric Co, ECSO, Schenectady	N Y
General Electric Co X-Ray Dept, Milwaukee	Wis
Hagan Computer Systems Div Westinghouse Pittsburgh	Pa
Hays Corp, Michigan City	Ind
High Vacuum Equipment Corp, Hingham	Mass
Honeywell Industrial Div, Fort Washington	Pa
Hydra-Electric Co, Burbank	Cal
Ikor, Inc, Burlington	Mass
Industrial Electronetics Corp, Satellite Beach	Fla
Industrial Instrument Corp, Austin	Tex
Instrumentation & Control Systems Inc, Addison	Ill
International Controls Corp Cryogenics Div Fairfield	N J
Intertechnique, Plaisir, 78	France
In-Val-Co, Tulsa	Okla
ITT Barton Controls & Instr Div, Monterey Park	Calif
Johns Technology Inc, Livermore	Cal
Landis & Gyr, Inc, New York	N Y
Landis & Gyr AG, Zug	Switzerland
Leeds & Northrup Co, Philadelphia	Pa
Leupold & Stevens Instruments Inc, Portland	Ore
Liquid Level Lectronics Inc, Richardson	Tex
Lunkenheimer Co Sub Condec Corp, Cincinnati	Ohio
Machinery Electrification Inc, Northboro	Mass
Magnetrol Inc, Downers Grove	Ill
Malaker Corp, High Bridge	N J
Martron Inc, Newport Beach	Cal
Metritape Controls Inc, West Concord	Mass
Micro Switch Div, Honeywell, Freeport	Ill
Motorola Instrumentation & Control Inc, Phoenix	Ariz
Nuclear-Chicago Corp, Des Plaines	Ill
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Photobell Co Inc, New York	N Y
Photomation Inc, Mountain View	Cal
Plessey Airborne Corp, Hillside	NJ
PMF Electronics Inc, Dayton	Ohio
Precision Mecanique Labinal, 93 Saint-Ouen	France
Pyxis, Inc, Berkeley	Cal
Ramyr Mfg Co, Buena Park	Cal
Reach Electronics Inc, Lexington	Neb
Regent Controls Inc, Stamford	Conn
Revere Corp of America, Wallingford	Conn
RIL Electronics Inc, Southampton	Pa
Robertshaw Controls Co, Aero & Instrument Div Anaheim	Cal
Rockwell Mfg Co, Msmt & Control Div, Pittsburgh	Pa
Scientific Engineering Mfg Co Inc North Hollywood	Cal
Sigma Instruments Inc, Braintree	Mass
Skan-A-Matic Corp, Skaneateles	N Y
Slocum Industries, Inc, Reseda	Cal
Sonic Engineering, Norwalk	Conn
Space Craft Inc, Huntsville	Ala
Square D Co, Park Ridge	Ill
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Streeter-Amet, Grayslake	Ill
Syracuse Electronics Corp, Syracuse	N Y
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Taylor Instrument Cos, Rochester	N Y
Techrand Corp of America, Muskegon	Mich
Texas Instruments Incorporated, Dallas	Tex
Theta Instrument Corp, Fairfield	N J
Thorn Automation Ltd, Rugeley, Staffs	England
Tipptronic Inc, Chagrin Falls	Ohio
Tokyo Electric Co Ltd, Tokyo	Japan
Trans-Sonics Inc, Lexington	Mass
TRW Systems Group, Redondo Beach	Cal
United Control Corp, Redmond	Wash
United Electric Controls Co, Watertown	Mass
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
UOP Instruments Div, Greenwich	Conn
Utility Communication Systems Inc, Essington	Pa
Warner Electric Brake & Clutch Co, Beloit	Wisc
Waynco Inc, Winona	Minn
Wells Industries Corp, North Hollywood	Cal
Worner Electronic Devices, Rankin	Ill
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

CONTROLS--LOOP-REGULATING SEE CONTROLS--PHOTOELECTRIC

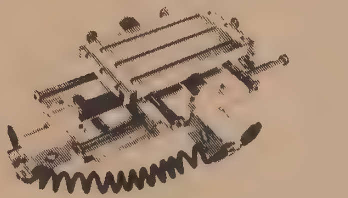
CONTROLS--MACHINE SAFETY SEE CONTROLS--PHOTOELECTRIC

CONTROLS, MACHINE-TOOL--NUMERICAL

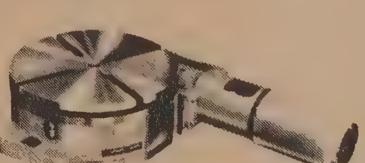
AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE	**N Y**
BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
DATA TECHNOLOGY, INC, WATERTOWN	**MASS**
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT	**IOWA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
ICON CORP, CAMBRIDGE	**MASS**
MICRO SWITCH DIV, HONEYWELL, FREEPORT	**ILL**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW	**N Y**
SUPERIOR ELECTRIC CO THE, BRISTOL, CONN	**ADV PG 201**
TECHMETRIC CO, REDWOOD CITY	**CAL**
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Airmec-AEI Ltd, Buckinghamshire	England
Alcatel, Paris 8eme	France
Allen-Bradley Co, Milwaukee	Wis
All Star Products Inc, Defiance	Ohio
Amperex Electronic Corp, Component Div Hauppauge	N Y
Anadex Instruments, Inc, Van Nuys	Cal
Applied Control Co, Cedar Grove	NJ
Audn Corp, Hamburg	N Y
Automatic Switch Co, Florham Park	N J
Automation Products Mfg Inc, Boca Raton	Fla
Baldwin Electronics Inc, Little Rock	Ark
Baldwin Kongsberg Co, Cincinnati	Ohio
Boston Digital Corp, Ashland	Mass
Bowmar Instrument Corp, Fort Wayne	Ind
Cie Internationale Pour L'Informatique 78 Louveciennes	France
Coleman Engineering Co Inc, Santa Ana	Cal
Compudyne Corp, Hatboro	Pa
Concord Control Inc, Boston	Mass
Conrac Corp, New York	N Y
Control Logic Inc, Natick	Mass
Corning Glass Works, Corning	N Y
Crest Mfg Co, East Berlin	Conn
Curry Engineering Co, N Hollywood	Cal
Cutler-Hammer Inc, Milwaukee	Wisc
Data Automation Inc, Elk Grove	Ill
Data Technology, Inc, Watertown	Mass
Delco Radio Div General Motors Corp, Kokomo	Ind
Del Electronics Corp, Mt Vernon	N Y
Design Products Corp, Troy	Mich
Digital Products, San Pedro	Cal
Digital Systems Inc, Covina	Cal
Digit Co Inc, Marblehead	Mass
Durant Mfg Co, Milwaukee	Wis
Dynamic Precision Controls Corp, Hagerstown	Ind
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee	Ill
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Electrical Design & Mfg Co, Warrington	Pa
Emerson Electric Co, Indl Controls & Elctns Div St Louis	Mo
EMI Electronics Ltd, Hayes, Middlesex	England
Engler Instrument Co, Jersey City	N J
Excellon Industries Inc, Torrance	Cal
Fairchild Controls, Hicksville	N Y
Farrand Controls Inc, Valhalla	N Y
Ferranti Electric Inc, Plainview	N Y
Ferranti, Ltd, Lancashire	England
Franklin Fibre-Lamitex Corp, Wilmington	Del
Friden Inc, San Leandro	Cal
Fujitsu Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
Glentek Inc, Santa Monica	Cal
Heidenhain Corp, Miles	Ill
Honeywell Inc, Computer Control Div Framingham	Mass
Hopt KG, R E, Rottweil a Neckar	Germany
Humphrey Electronics Inc, Raleigh	N C
Icon Corp, Cambridge	Mass
IKL Inc, Newport Beach	Cal
Ikor, Inc, Burlington	Mass
Industrial Components Inc, Beaverton	Ore
Information Instruments, Inc, Ann Arbor	Mich
International Electro-Magnetics Inc, Palatine	Ill
Janus Control Div Tyco, Waltham	Mass
Lake Erie Electric Mfg, Inc, Erie	Pa
La Telemecanique Electrique, 92 Rueil	France
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Mackworth Rees Div, Madison Heights	Mich
Mechanical Technology Inc, Latham	N Y
Mesur-Matic Electronic Corp, Warner	N H
Micro Switch Div, Honeywell, Freeport	Ill
Minnetech Labs Inc, Minneapolis	Minn
Moog Inc, Industrial Div, East Aurora	N Y
North Atlantic Industries Inc, Plainview	N Y
North Electric Co, Galion	Ohio
Numex Corp, Waltham	Mass
Optomechanisms Inc, Plainview	N Y
Pegasus Labs Inc, Berkley	Mich
Plessey Airborne Corp, Hillside	NJ
Precision Systems Corp, Columbus	Ohio
Regent Controls Inc, Stamford	Conn
Remex Electronics, Hawthorne	Cal
Ren Electronics Corp, South Hadley Falls	Mass
Rundel Electric Co, Millbrae	Cal
Scully International Inc, Downers Grove	Ill
Seneca Falls Machine Co, Seneca Falls	N Y
Singer Co, Diehl Div, Somerville	N J
Square D Co, Park Ridge	Ill
Superior Electric Co The, Bristol	Conn
Techmetric Co, Redwood City	Cal
Telstar Electronics Corp, Southold	N Y
Theta Instrument Corp, Fairfield	N J
Transducer Controls Corp, Covina	Cal
Transistor Automation A Teledyne Co, Woburn	Mass
Trans-Tek Mfg Co Inc, Garwood	N J
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Varo Inc, Garland	Tex
Veeder-Root, Hartford	Conn
Vega Servo-Control Inc, Troy	Mich
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Watesta Electronics Ltd, London-E 11	England
Western Reserve Electronics, Inc, Cleveland	Ohio
Westinghouse Electric Corp, Standard Control Div Beaver	Pa
Weston Hydraulics, Van Nuys	Cal
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

SLO-SYN®
Numerical Control Equipment

NUMERICAL TAPE CONTROLS — Low-cost two-axis or time shared three-axis point-to-point numerical controls. Consist of control console, one drive motor for each axis and all necessary wiring cables ready to install on new or existing apparatus and machine tools. Power spindle feeds offered complete with cables and control box for tape operated spindle control.



NUMERICAL POSITIONING TABLES — Complete two-axis positioning systems using 10" x 12" or 10" x 20" tables with ball-nut lead screws. Supplied with drive motors and with SLO-SYN Numerical Tape Controls or semiautomatic controls having manual inputs. Can be permanently installed or moved from machine to machine. Ideal for automated assembly or inspection.



ROTARY TABLES — 12" rotary table with SLO-SYN motor controlled by SLO-SYN Numerical Tape Controls or SLO-SYN Preset Indexers. Can be mounted horizontally or vertically. Also available as third axis on a three-axis numerical tape control.

Write for Catalog NTC167

THE SUPERIOR ELECTRIC COMPANY

1200 MIDDLE STREET,
BRISTOL, CONNECTICUT 06010

CONTROLS, MOTOR-SPEED--ELECTRIC

AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE	**N Y**
API INSTRUMENTS CO, CHESTERLAND	**OHIO**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
BODINE ELECTRIC CO, CHICAGO	**ILL**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GRIGSBY BARTON INC, ARLINGTON HEIGHTS	**ILL**
HEATH CO, BENTON HARBOR	**MICH**
PYLE-NATIONAL CO, CHICAGO	**ILL**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
SUPERIOR ELECTRIC CO THE, BRISTOL	**CONN**
TECHMETRIC CO, REDWOOD CITY	**CAL**
TORWICO ELECTRONICS, INC, LAKEWOOD	**N J**
Allen-Bradley Co, Milwaukee	Wis
Allen/UTI, Kalamazoo	Mich
Allis-Chalmers Mfg Co, Milwaukee	Wis
American Rectifier Corp, College Point	N Y
American Solenoid Co, Inc, Rahway	N J
Amperex Electronic Corp, Component Div Hauppauge	N Y
API Instruments Co, Chesterland	Ohio
Arnold Magnetics Corp, Los Angeles	Cal
Audn Corp, Hamburg	N Y
Autocon Industries, Inc, St Paul	Minn
Baldwin Electronics Inc, Little Rock	Ark
Barber-Colman Co, EMP Div, Rockford	Ill
Basler Electric Co, Highland	Ill
B & B Motor & Control Corp, New York	N Y
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Bergen Lab, Inc, Paterson	N J
Bodine Electric Co, Chicago	Ill
Butler Electronics Co, Escondido	Cal
Canadian Research Institute, Don Mills	Ont
Carson Mfg Co Inc, Indianapolis	Ind
CBC Industries Inc, Philadelphia	Pa
Clark Control Div, A O Smith Corp, Cleveland	Ohio
Coilcraft Inc, Cary	Ill
Coltron Industries, Inc, Charlotte	N C
Computer Instruments Corp, Hempstead	N Y
Consolidated Electric Corp, Seattle	Wash
Control Technology Co Inc, Long Island City	N Y
Crest Mfg Co, East Berlin	Conn
Curry Engineering Co, N Hollywood	Cal
Cutler-Hammer Inc, Milwaukee	Wisc
DeSoto Electrical Products, DeSoto	Mo
DoAll Co, Des Plaines	Ill
Dynamic Controls Corp, South Windsor	Conn
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee	Ill
Ebert Electronics Corp, Floral Park	N Y
Edison, Thomas A Industries, Instr Div West Orange	N J
Electrical Design & Mfg Co, Warrington	Pa
Electric Machinery Mfg Co, Minneapolis	Minn
Electric Tachometer Corp, Philadelphia	Pa
Electro-Devices Inc Servospeed Div, Paterson	N J
Electronic Control Corp, Euless	Tex
Electronic Research Associates Inc, Cedar Grove	N J
Electron Machine Co, Umatilla	Fla
Elmek Div Electro Mechanics Inc, New Britain	Conn
El-Tech Mfg Co Inc, Norristown	Pa
Essex Engineering Co Inc, Essex	Conn
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Euclid Electric & Mfg Div Harvey Hubbell Inc, Madison	Ohio
Fairchild Controls, Hicksville	N Y
Fincor Inc, York	Pa
Foxboro Co Valenica Plant, Valencia	Cal
Fuji Electric Co Ltd, Tokyo	Japan
Furnas Electric Co, Batavia	Ill
Gaylord Rives Co, Pasadena	Cal
General Electric Co, ECSO, Schenectady	N Y
General Equipment & Mfg Co, Louisville	Ky
Glentek Inc, Santa Monica	Cal
Green Rectifier Corp, Fair Lawn	N J
Grigsby Barton Inc, Arlington Heights	Ill
Halmar Electronics Inc, Columbus	Ohio
Hartman Electrical Mfg Co, Mansfield	Ohio
Haydon Co The, A W, Waterbury	Conn
Heath Co, Benton Harbor	Mich
Heller Corp, G K, Las Vegas	Nev
Hoagland Instrument Co, Red Bank	N J
Hurletron Inc, Danville	Ill
Ideal Electric & Mfg Co, Mansfield	Ohio
Ikor, Inc, Burlington	Mass
Industrial Components Inc, Beaverton	Ore
Industrial Electronetics Corp, Satellite Beach	Fla
Inet Power A Teledyne Co, Gardena	Cal
Integrated Motorcontrol Inc, Palo Alto	Cal
International Instruments Div Sigma Instr Inc, Orange	Conn
International Rectifier Semiconductor Div El Segundo	Cal
I-T-E Circuit Breaker Co, Philadelphia	Pa
J A C Electronics Ltd, Camberley	England
Jordan Controls Inc, Milwaukee	Wis
La Telemecanique Electrique, 92 Rueil	France
Leland Airborne Products Div AMF, Vandalia	Ohio

Leviton Mfg Co Inc, Brooklyn .... N Y
Linear Alpha, Inc, Evanston Ill
Louis Allis Co Div Litton Industries, Milwaukee .... Wisc
Mackworth Rees Div, Madison Heights .... Mich
Magnetic Technology Inc, Canoga Park .... Cal
Measurement Systems Inc, Norwalk .... Conn
Microdyne Inc, Rolling Meadows Ill
Minarik Electric Co, Los Angeles .... Cal
Motor Control Corp Sub Zenrad Computer Corp, Huntington .... NY
Ohmite Mfg Co, Skokie Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Photobell Co Inc, New York .... N Y
PMF Electronics Inc, Dayton .... Ohio
Power Control Corp, Pittsburgh .... Pa
Powertec Div, Airtronics Corp, Chatsworth .... Cal
Precision Transformers Inc, Anaheim .... Cal
Pyle-National Co, Chicago Ill
Quartz Radiation Corp, Fairfield .... N J
Radio Engineering Labs, Div DCA, Long Island City .... N Y
Reliance Electric Co, Cleveland .... Ohio
Robicon Corp, Pittsburgh .... Pa
Rotamec Inc, Los Angeles .... Cal
Rowan Controller Co, Oceanport .... N J
Rundel Electric Co, Millbrae .... Cal
Sciaky Bros Inc, Chicago Ill
Scientific-Atlanta Inc, Atlanta .... Ga
Sequential Electronic Systems Inc, Elmsford .... N Y
Servo-Tek Products Co, Hawthorne .... N J
Singer Co, Diehl Div, Somerville .... N J
Slocum Industries, Inc, Reseda .... Cal
Square D Co, Park Ridge Ill
Sterling Electric Motors Inc, Los Angeles .... Cal
Stevenson Engineering & Mfg Co, Portland .... Ore
Superior Electric Co The, Bristol .... Conn
Task Corp, Anaheim .... Cal
Tateisi Electronics Co, Ukyo-ku, Kyoto .... Japan
Techmetric Co, Redwood City .... Cal
Tensitron Inc, Harvard .... Mass
Texas Instruments Incorporated, Dallas .... Tex
Thermo Products Co Div Web Press Eng Cedarburg .... Wisc
Theta Instrument Corp, Fairfield .... N J
Thiem-Transrex Inc, El Segundo .... Cal
Torq Engineered Products Inc, Bedford .... Ohio
Torwico Electronics, Inc, Lakewood .... N J
Trans-Tek Mfg Co Inc, Garwood .... N J
Trott Electronics Inc, Rochester .... N Y
Ultra Electronics Ltd, London, W 3 .... England
U S Electrical Motors, Div Emerson Elec & Mfg Co Los Angeles .... Cal
Varo Inc, Garland .... Tex
Vega Servo-Control Inc, Troy .... Mich
Vestal Modern Design Corp, Vestal .... N Y
Waber Electronics Inc, Philadelphia .... Pa
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio
Wadsworth Electric Mfg Co Inc, Covington .... Ky
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh .... Pa
Westinghouse Electric Corp, Standard Control Div Beaver .... Pa
Yaskawa Electric Mfg Co Ltd, Tokyo .... Japan
Zero-Max Co, Minneapolis .... Minn

CONTROLS, MOTOR-SPEED-ELECTRONIC, A-C MOTOR

ACCURATE ELECTRONICS CORP, ELYRIA .... OHIO
BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS WOODSIDE .... NY
C M L INC, PLAINFIELD .... N J
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
GRIGSBY BARTON INC, ARLINGTON HEIGHTS ILL
IMC MAGNETICS CORP EASTERN DIV, WESTBURY .... N Y
MAGNETICS INC, BUTLER .... PA
OVEN INDUSTRIES, MECHANICSBURG .... PA
SCIENTIFIC-ATLANTA INC, ATLANTA .... GA
Accurate Electronics Corp, Elyria .... Ohio
Advanced Energy Conversion, Menlo Park .... Cal
Aerolite Electronics Corp, Union City .... N J
A L Controls Co, New Haven .... Conn
Allen-Bradley Co, Milwaukee .... Wis
Allen/UTI, Kalamazoo .... Mich
Allis-Chalmers Mfg Co, Milwaukee .... Wis
American Machine & Foundry Co Alexandria Div Alexandria .... Va
American Solenoid Co, Inc, Rahway .... N J
Antlab, Inc, Worthington .... Ohio
Applied Control Co, Cedar Grove .... NJ
Applied Electronics Corp of N J, Metuchen .... N J
Arnold Magnetics Corp, Los Angeles .... Cal
Astro Lab, Westminster .... Cal
Barber-Colman Co, EMP Div, Rockford Ill
Basler Electric Co, Highland Ill
B & B Motor & Control Corp, New York .... N Y
Bergen Lab, Inc, Paterson .... N J
Bogue Electric Mfg Co, Paterson .... N J
Borg-Warner Controls Div Borg-Warner Corp Santa Ana .... Cal
Bulova Watch Co Inc Elctns Div Servo Products Woodside .... NY
Butler Electronics Co, Escondido .... Cal
Canadian Research Institute, Don Mills .... Ont
Canberra Industries, Middletown .... Conn
Carter Co, J C, Electronics Div, Costa Mesa .... Cal
Clare-Electroseal Corp, Des Plaines Ill
C M L Inc, Plainfield .... N J

Coltron Industries, Inc, Charlotte .... N C
Control Engineering Div J B Webb Co, Detroit .... Mich
Control Technology Co Inc, Long Island City .... N Y
Crest Mfg Co, East Berlin .... Conn
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles .... France
Curry Engineering Co, N Hollywood .... Cal
Cutler-Hammer Inc, Milwaukee .... Wisc
Datametrics Inc, Waltham .... Mass
Daytron Inc, Mountain View .... Cal
DeSoto Electrical Products, DeSoto .... Mo
Dynamic Controls Corp, South Windsor .... Conn
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee Ill
Edison, Thomas A Industries, Instr Div West Orange .... N J
Electric Machinery Mfg Co, Minneapolis .... Minn
Electronic Control Corp, Euless .... Tex
Electronic Control Systems Inc, Fairmont .... W Va
Electronic Research Associates Inc, Cedar Grove .... N J
Electron Machine Co, Umatilla .... Fla
Emerson Electric Co, Indl Controls & Elctns Div St Louis .... Mo
Esterline Angus Div Esterline Corp, Indianapolis .... Ind
Fairchild Controls, Hicksville .... N Y
Fincor Inc, York .... Pa
Fuji Electric Co Ltd, Tokyo .... Japan
Furnas Electric Co, Batavia Ill
Gaylord Rives Co, Pasadena .... Cal
General Electric Co, ECSO, Schenectady .... N Y
Glentek Inc, Santa Monica .... Cal
Green Rectifier Corp, Fair Lawn .... N J
Grigsby Barton Inc, Arlington Heights Ill
Heller Corp, G K, Las Vegas .... Nev
Hunt Electronics Co, Dallas .... Tex
Ideal Electric & Mfg Co, Mansfield .... Ohio
Ikor, Inc, Burlington .... Mass
IMC Magnetics Corp Eastern Div, Westbury .... N Y
Industrial Control Co, Farmingdale .... N Y
Inertia Switch Inc, New York .... N Y
Inet Power A Teledyne Co, Gardena .... Cal
Integrated Motorcontrol Inc, Palo Alto .... Cal
J A C Electronics Ltd, Camberley .... England
Jordan Controls Inc, Milwaukee .... Wis
La Telemecanique Electrique, 92 Rueil .... France
Lear Siegler Inc, Santa Monica .... Cal
Leeds & Northrup Co, Philadelphia .... Pa
Leviton Mfg Co Inc, Brooklyn .... N Y
Linear Alpha, Inc, Evanston Ill
Louis Allis Co Div Litton Industries, Milwaukee .... Wisc
Loyola Industries Inc, El Segundo .... Cal
Lutron Electronics Co Inc, Emmaus .... Pa
Macarr Inc, Bronx .... N Y
Magnetics Inc, Butler .... Pa
Magnetic Technology Inc, Canoga Park .... Cal
Measurement Systems Inc, Norwalk .... Conn
Measurement Technology Corp, Canoga Park .... Cal
Microdyne Inc, Rolling Meadows Ill
Motor Control Corp Sub Zenrad Computer Corp, Huntington .... NY
Motorola Semiconductor Products Inc, Phoenix .... Ariz
Norbatrol Electronics Corp, Murrysville .... Pa
Ohmite Mfg Co, Skokie Ill
Oven Industries, Mechanicsburg .... Pa
Payne Engineering Co, South Charleston .... W Va
Photobell Co Inc, New York .... N Y
PMF Electronics Inc, Dayton .... Ohio
Power Control Corp, Pittsburgh .... Pa
Powertec Div, Airtronics Corp, Chatsworth .... Cal
Precision Transformers Inc, Anaheim .... Cal
Radio Engineering Labs, Div DCA, Long Island City .... N Y
Ramsey Controls Inc, Mahwah .... N J
Raytheon Co, Components Div, Ind Compnts Oper Quincy .... Mass
Reflex Controls Corp, Huntington Station .... NY
Reliance Electric Co, Cleveland .... Ohio
Research Inc, R-I Controls Div, Minneapolis .... Minn
RMS Motor Corp, Binghamton .... N Y
Robicon Corp, Pittsburgh .... Pa
Rowan Controller Co, Oceanport .... N J
Rundel Electric Co, Millbrae .... Cal
Scientific-Atlanta Inc, Atlanta .... Ga
Sensor Corp, Greenwich .... Conn
Sequential Electronic Systems Inc, Elmsford .... N Y
Siemon Mfg Co, Wayne Ill
Silver Glo Picture Tubes Ltd, Edmonton .... Alb
Singer Co, Diehl Div, Somerville .... N J
Slocum Industries, Inc, Reseda .... Cal
Sprague Electric Co, North Adams .... Mass
Square D Co, Park Ridge Ill
Standard Precision Div Electronic Commun Inc Wichita .... Kan
Sterling Electric Motors Inc, Los Angeles .... Cal
Sulzer Brothers Ltd, Industrial Elctns Div Winterthur .... Switzerland
Syracuse Electronics Corp, Syracuse .... N Y
Systems Electronics Inc, Cleveland .... Ohio
Task Corp, Anaheim .... Cal
Tek-Sel Labs Inc, Saddle Brook .... N J
Tensitron Inc, Harvard .... Mass
Texas Instruments Incorporated, Dallas .... Tex
Theta Instrument Corp, Fairfield .... N J
Torotron Co Div Struthers Electronics Corp, Mamaroneck .... N Y
Torque Tronics, San Gabriel .... Cal
Trans-Tek Mfg Co Inc, Garwood .... N J
Trott Electronics Inc, Rochester .... N Y
U S Electrical Motors, Div Emerson Elec & Mfg Co Los Angeles .... Cal
Varo Inc, Garland .... Tex
Waber Electronics Inc, Philadelphia .... Pa
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio
Weltronic Co, Southfield .... Mich
Wer Industrial Corp, Buffalo .... N Y
Westamp Inc, Santa Monica .... Cal
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh .... Pa
X Cel Controls Inc, South Bend .... Ind
Yaskawa Electric Mfg Co Ltd, Tokyo .... Japan

CONTROLS, MOTOR-SPEED--ELECTRONIC, D-C MOTOR

ACCURATE ELECTRONICS CORP, ELYRIA .... OHIO
AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE .... N Y
ANALOG DEVICES INC, CAMBRIDGE .... MASS
BODINE ELECTRIC CO, CHICAGO ILL
BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS WOODSIDE .... NY
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL .... PA
COMPUTER INSTRUMENTS CORP, HEMPSTEAD .... N Y
ELECTRO-CRAFT CORP, HOPKINS .... MINN
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
ICON CORP, CAMBRIDGE .... MASS
MAGNETICS INC, BUTLER .... PA
OVEN INDUSTRIES, MECHANICSBURG .... PA
SCIENTIFIC-ATLANTA INC, ATLANTA .... GA
SUPERIOR ELECTRIC CO THE, BRISTOL .... CONN
Accurate Electronics Corp, Elyria .... Ohio
Advanced Energy Conversion, Menlo Park .... Cal
Aeroflex Labs, Inc, Plainview .... N Y
Airpax Electronics Inc Seminole Div Fort Lauderdale .... Fla
Allen-Bradley Co, Milwaukee .... Wis
Allis-Chalmers Mfg Co, Milwaukee .... Wis
American Machine & Foundry Co Alexandria Div Alexandria .... Va
American Solenoid Co, Inc, Rahway .... N J
American Time Products, Elctns Div Bulova Watch Co Inc Woodside .... N Y
Analog Devices Inc, Cambridge .... Mass
Antlab, Inc, Worthington .... Ohio
Applied Control Co, Cedar Grove .... NJ
Applied Electronics Corp of N J, Metuchen .... N J
Arnold Magnetics Corp, Los Angeles .... Cal
Audn Corp, Hamburg .... N Y
Barber-Colman Co, EMP Div, Rockford Ill
Basler Electric Co, Highland Ill
B & B Motor & Control Corp, New York .... N Y
Beebe Electronics Co, White Plains .... N Y
Bergen Lab, Inc, Paterson .... N J
Bodine Electric Co, Chicago Ill
Bogue Electric Mfg Co, Paterson .... N J
Bulova Watch Co Inc Elctns Div Servo Products Woodside .... NY
Butler Electronics Co, Escondido .... Cal
Canadian Research Institute, Don Mills .... Ont
Carter Co, J C, Electronics Div, Costa Mesa .... Cal
Carter Motor Co, Chicago Ill
Clare-Electroseal Corp, Des Plaines Ill
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill .... Pa
Coilcraft Inc, Cary Ill
Coltron Industries, Inc, Charlotte .... N C
Computer Instruments Corp, Hempstead .... N Y
Consolidated Controls Corp, El Segundo .... Cal
Control Engineering Div J B Webb Co, Detroit .... Mich
Control Technology Co Inc, Long Island City .... N Y
Crest Mfg Co, East Berlin .... Conn
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles .... France
Curry Engineering Co, N Hollywood .... Cal
Custom Control Mfg Inc, Merriam .... Kan
Cutler-Hammer Inc, Milwaukee .... Wisc
Datametrics Inc, Waltham .... Mass
DeSoto Electrical Products, DeSoto .... Mo
Dynamic Controls Corp, South Windsor .... Conn
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee Ill
Electro-Craft Corp, Hopkins .... Minn
Electro-Devices Inc Servospeed Div, Paterson .... N J
Electro-Mechanics Co, Austin .... Tex
Electronic Control Systems Inc, Fairmont .... W Va
Electronic Research Associates Inc, Cedar Grove .... N J
Electron Machine Co, Umatilla .... Fla
Elmek Div Electro Mechanics Inc, New Britain .... Conn
El-Tech Mfg Co Inc, Norristown .... Pa
Emerson Electric Co, Indl Controls & Elctns Div St Louis .... Mo
Essex Engineering Co Inc, Essex .... Conn
Esterline Angus Div Esterline Corp, Indianapolis .... Ind
Euro Cedag, Milan .... Italy
Fairchild Controls, Hicksville .... N Y
Fidelity Amplifier Co, Chicago Ill
Fincor Inc, York .... Pa
Fuji Electric Co Ltd, Tokyo .... Japan
Gaylord Rives Co, Pasadena .... Cal
General Electric Co, ECSO, Schenectady .... N Y
General Radio Co, West Concord .... Mass
Glentek Inc, Santa Monica .... Cal
Green Rectifier Corp, Fair Lawn .... N J
Halmar Electronics Inc, Columbus .... Ohio
Haydon Co The, A W, Waterbury .... Conn
Heller Corp, G K, Las Vegas .... Nev
Hunt Electronics Co, Dallas .... Tex
Hurletron Inc, Danville Ill
Icon Corp, Cambridge .... Mass
Industrial Control Co, Farmingdale .... N Y
Inertia Switch Inc, New York .... N Y
Inet Power A Teledyne Co, Gardena .... Cal
Instrumentation & Control Systems Inc, Addison Ill
Integrated Motorcontrol Inc, Palo Alto .... Cal
International Rectifier Semiconductor Div El Segundo .... Cal
J A C Electronics Ltd, Camberley .... England
Jordan Controls Inc, Milwaukee .... Wis
Kinetics A Teledyne Co, Solana Beach .... Cal
La Telemecanique Electrique, 92 Rueil .... France
Lear Siegler Inc, Santa Monica .... Cal
Leviton Mfg Co Inc, Brooklyn .... N Y
Linear Alpha, Inc, Evanston Ill
Louis Allis Co Div Litton Industries, Milwaukee .... Wisc
Loyola Industries Inc, El Segundo .... Cal
Lundy Electronics & Systems Inc, Glen Head .... N Y

Lutron Electronics Co Inc, Emmaus	Pa
Macarr Inc, Bronx	N Y
Magnetic Engineering Corp, Danbury	Conn
Magnetics Inc, Butler	Pa
Magnetic Technology Inc, Canoga Park	Cal
Measurement Systems Inc, Norwalk	Conn
Measurement Technology Corp, Canoga Park	Cal
Microdyne Inc, Rolling Meadows	Ill
Minarik Electric Co, Los Angeles	Cal
Minnetech Labs Inc, Minneapolis	Minn
Motor Control Corp Sub Zenrad Computer Corp, Huntington	NY
Motorola Semiconductor Products Inc, Phoenix	Ariz
Norbatrol Electronics Corp, Murrysville	Pa
Nucleonic Industries, Tucson	Ariz
Ohmite Mfg Co, Skokie	Ill
Oven Industries, Mechanicsburg	Pa
Payne Engineering Co, South Charleston	W Va
Photobell Co Inc, New York	N Y
PMF Electronics Inc, Dayton	Ohio
Power Control Corp, Pittsburgh	Pa
Powertec Div, Airtronics Corp, Chatsworth	Cal
Precision Transformers Inc, Anaheim	Cal
Radio Engineering Labs, Div DCA, Long Island City	N Y
Ramsey Controls Inc, Mahwah	N J
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Reflex Controls Corp, Huntington Station	NY
Reliance Electric Co, Cleveland	Ohio
Research Inc, R-I Controls Div, Minneapolis	Minn
Robicon Corp, Pittsburgh	Pa
Rotamec Inc, Los Angeles	Cal
Rowan Controller Co, Oceanport	N J
Rundel Electric Co, Millbrae	Cal
Scientific-Atlanta Inc, Atlanta	Ga
Seco Electronics Corp, Hopkins	Minn
Seneca Falls Machine Co, Seneca Falls	N Y
Sensor Corp, Greenwich	Conn
Sequential Electronic Systems Inc, Elmsford	N Y
Servomex Controls Ltd, Sussex	England
Servo-Tek Products Co, Hawthorne	N J
Siemon Mfg Co, Wayne	Ill
Sigma Instruments Inc, Braintree	Mass
Silver Glo Picture Tubes Ltd, Edmonton	Alb
Singer Co, Diehl Div, Somerville	N J
Slocum Industries, Inc, Reseda	Cal
Square D Co, Park Ridge	Ill
Standard Precision Div Electronic Commun Inc Wichita	Kan
Sterling Electric Motors Inc, Los Angeles	Cal
Strandberg Engineering Labs Inc, Greensboro	N C
Superior Electric Co The, Bristol	Conn
Syracuse Electronics Corp, Syracuse	N Y
Task Corp, Anaheim	Cal
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Tek-Sel Labs Inc, Saddle Brook	N J
Telstar Electronics Corp, Southold	N Y
Tensitron Inc, Harvard	Mass
Texas Instruments Incorporated, Dallas	Tex
Thermo Products Co Div Web Press Eng Cedarburg	Wisc
Theta Instrument Corp, Fairfield	N J
Thiem-Transrex Inc, El Segundo	Cal
Thorn Automation Ltd, Rugeley, Staffs	England
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
Transistor Automation A Teledyne Co, Woburn	Mass
Trans-Tek Mfg Co Inc, Garwood	N J
Trott Electronics Inc, Rochester	N Y
United Shoe Machinery Corp, Harmonic Drive Div Beverly	Mass
U S Electrical Motors, Div Emerson Elec & Mfg Co Los Angeles	Cal
Varo Inc, Garland	Tex
Voltex Co Inc, Farmingdale	N Y
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Weltronic Co, Southfield	Mich
Wer Industrial Corp, Buffalo	N Y
Westamp Inc, Santa Monica	Cal
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh	Pa
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

CONTROLS--NOISE-ACTUATED SEE CONTROLS—SOUND-ACTUATED

CONTROLS--PACKAGE-WRAPPING SEE CONTROLS--PHOTOELECTRIC

CONTROLS--pH

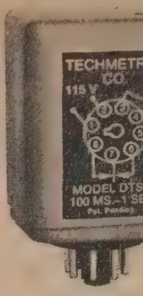
HEATH CO, BENTON HARBOR	**MICH**
Analytical Measurements, Inc, Chatham	NJ
Automation Products, Inc, Houston	Tex
Bailey Meter Co, Wickliffe	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bio-Rad Laboratories, Richmond	Cal
Bristol Div, American Chain & Cable Co Waterbury	Conn
Canadian Research Institute, Don Mills	Ont
Corning Glass Works, Corning	N Y
Fischer & Porter Co, Warminster	Pa
Foxboro Co, Foxboro	Mass
Foxboro Co Valenica Plant, Valencia	Cal
Fuji Electric Co Ltd, Tokyo	Japan
Heath Co, Benton Harbor	Mich
Honeywell Industrial Div, Fort Washington	Pa
Horiba Instruments Inc, Kyoto	Japan
Instrumentation Lab Inc, Watertown	Mass
Leeds & Northrup Co, Philadelphia	Pa
London Co, Westlake	Ohio
Luft Instruments Inc, Lincoln	Mass
Micro Metrics Inc, Paterson	N J
Milton Roy Co, St Petersburg	Fla
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Ramyr Mfg Co, Buena Park	Cal
Taylor Instrument Cos, Rochester	N Y
Utility Communication Systems Inc, Essington	Pa

CONTROLS, PHOTOELECTRIC--COLOR

MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH	**VA**
Audn Corp, Hamburg	N Y
Beckman Instruments Inc, Fullerton,	Cal
Bionic Instruments Inc, Bala Cynwyd	Pa
Canadian Research Institute, Don Mills	Ont
De-Tec-Tronic Corp, Chicago	Ill
Dolan Jenner Industries Inc, Melrose	Mass
Ebert Electronics Corp, Floral Park	N Y
Farmer Electric Products Co Inc, Natick	Mass
Flexi Optics Labs Inc, Somerville	Mass
Gardner Lab Inc, Bethesda	Md
General Atronics Corp, Philadelphia	Pa
General Precision Systems Inc, Indl Controls Div Morton Grove	Ill
Grace Electronics Inc, Cleveland	Ohio
Hird-Brown Ltd, Bolton, Lancs	England
Instrumentation & Control Systems Inc, Addison	Ill
Instrument Development Labs Div Kollmorgen Corp Attleboro	Mass
Lektra Labs Inc Div Kriser Corp, College Point	N Y
Mackworth Rees Div, Madison Heights	Mich
Melpar Inc, Special Prods Dept, Falls Church	Va
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Phoenix Precision Instrument Co, Inc, Philadelphia	Pa
Photobell Co Inc, New York	N Y
Photomation Inc, Mountain View	Cal
Photo Research Corp, Burbank	Cal
Process & Instruments Corp, Brooklyn	N Y
Pyrotel Corp c/o Milletron Inc, Pittsburgh	Pa
Ramic Corp, Medford	Ore
Schoeffel Instrument Co, Westwood	NJ
Sigma Instruments Inc, Braintree	Mass
Syracuse Electronics Corp, Syracuse	N Y
Thorn Automation Ltd, Rugeley, Staffs	England
Warner Electric Brake & Clutch Co, Beloit	Wisc

CONTROLS, PHOTOELECTRIC--COUNTING

AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE	**N Y**
DISCON CORP, FORT LAUDERDALE	**FLA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH	**VA**
TECHMETRIC CO, REDWOOD CITY, CAL	**ADV PG 203**
Affiliated Manufacturers Inc, Whitehouse	N J
Airmec Instruments Ltd, Buckinghamshire	England
Amperex Electronic Corp, Component Div Hauppauge	N Y
Audn Corp, Hamburg	N Y
Automation Products Mfg Inc, Boca Raton	Fla
Autotron, Inc, Danville	Ill
Bionic Instruments Inc, Bala Cynwyd	Pa
Canadian Research Institute, Don Mills	Ont
Coltron Industries, Inc, Charlotte	N C
Control Logic Inc, Natick	Mass
Crest Mfg Co, East Berlin	Conn
Decca Radar, Inc, New York	N Y
Delonics Corp, New York	N Y
Design Products Corp, Troy	Mich
De-Tec-Tronic Corp, Chicago	Ill
Digital Products, San Pedro	Cal
Digit Co Inc, Marblehead	Mass
Digitrol Systems Inc, Amenia	N Y
Discon Corp, Fort Lauderdale	Fla
Dolan Jenner Industries Inc, Melrose	Mass
Durant Mfg Co, Milwaukee	Wis
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee	Ill
Ebert Electronics Corp, Floral Park	N Y
Electronic Control Corp, Detroit	Mich
Electronic Counters Inc, Englewood	N J
Electronics Corp of America, Cambridge	Mass
Electron Machine Co, Umatilla	Fla
Electro-Sonic-Control, Manteca	Cal
Elesta Ltd Electronics, Bad Ragaz	Switzerland
Emerson Electric Co, Indl Controls & Elctns Div St Louis	Mo
Fairchild Controls, Hicksville	N Y
Farmer Electric Products Co Inc, Natick	Mass
Frost Electronics Corp, Rockaway	N J
Gardner Lab Inc, Bethesda	Md
General Atronics Corp, Philadelphia	Pa
General Electric Co, ECSO, Schenectady	N Y
Hird-Brown Ltd, Bolton, Lancs	England
IKL Inc, Newport Beach	Cal
Infrared Industries Inc, Santa Barbara	Cal
Instrumentation & Control Systems Inc, Addison	Ill
Instrumentation Technology Corp, Northridge	Cal
J A C Electronics Ltd, Camberley	England
Lek-Trol, Inc, Grapevine	Tex
Link Group Gen Precision Sys Inc, Binghamton	N Y
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Machinery Electrification Inc, Northboro	Mass
Mackworth Rees Div, Madison Heights	Mich
Mechanical Technology Inc, Latham	N Y
Melpar Inc, Special Prods Dept, Falls Church	Va
3M Company, St Paul	Minn
Nash & Harrison Ltd, Ottawa 3	Ont
Optomechanisms Inc, Plainview	N Y
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Peco Corp, Mountain View	Cal
Photobell Co Inc, New York	N Y
Photomation Inc, Mountain View	Cal
Power Instruments Inc, Skokie	Ill
Ramic Corp, Medford	Ore
Razdow Labs Inc, Newark	N J
Regdon Corp, Brookfield	Ill
Regent Controls Inc, Stamford	Conn
Remex Electronics, Hawthorne	Cal
Rosemount Plug-In Inc, Nashville	Tenn
Royco Instruments Inc, Menlo Park	Cal
Selco Electronics Inc, Palisades Park	N J
Sensor Corp, Greenwich	Conn
Sigma Instruments Inc, Braintree	Mass
Skan-A-Matic Corp, Skaneateles	N Y
Slocum Industries, Inc, Reseda	Cal
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Strandberg Engineering Labs Inc, Greensboro	N C
Syracuse Electronics Corp, Syracuse	N Y
Systems Matrix Inc, Trenton	N J
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Techmetric Co, Redwood City	Cal
Thorn Automation Ltd, Rugeley, Staffs	England
Veeder-Root, Hartford	Conn
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Warner Electric Brake & Clutch Co, Beloit	Wisc
Watesta Electronics Ltd, London-E 11	England
Wells Industries Corp, North Hollywood	Cal
Wintriss Controls Div Industronics Controls Inc New York	N Y
Worner Electronic Devices, Rankin	Ill



SOLID STATE AC AND DC TIME DELAY RELAY

NOW, Time delays with greater than 10 - 1 resolution. Repeatability better than ±1% of set point. Temperature range (0°–55°C) and a change in voltage ±3%. Standard timing ranges .1–1, 1–10 and 10–100 sec. Reset time 20 M/S. Contact rating 5 or 10 Amps. Transient protected. Different operating voltages and mountings available.

For further information on other Techmetric products *Please Write:*

TECHMETRIC
Electronic Control
and Measurements
2449 Harding, Redwood City, Ca. 94062
(415) 365-2545

CONTROLS, PHOTOELECTRIC--GENERAL PURPOSE

DISCON CORP, FORT LAUDERDALE	**FLA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH VA	**ADV PG 204**
TECHMETRIC CO, REDWOOD CITY	**CAL**
Acme Products Co, Kensington	Conn
Aerolite Electronics Corp, Union City	N J
Airmec Instruments Ltd, Buckinghamshire	England
Audn Corp, Hamburg	N Y
Automation Devices, Inc, Fairview	Pa
Automation Products Mfg Inc, Boca Raton	Fla
Autotron, Inc, Danville	Ill
Bionic Instruments Inc, Bala Cynwyd	Pa
Canadian Research Institute, Don Mills	Ont
Coltron Industries, Inc, Charlotte	N C
Crest Mfg Co, East Berlin	Conn

MELPAR

Miniature
PHOTOELECTRIC READER

No Alignment Necessary
FEATURES:
- Exceptionally small (0.6 cubic inch)
- Insensitive to ambient light
- Rugged
- Easily Mounted
- Low Cost
- Single package
- Applications: Count
  Cue
  Sort
  Inspect
  Control

Distributor quantities available from
Newark Electronics Corp.,
500 N. Pulaski Road,
Chicago, Illinois 60624

PRODUCT MARKETING DEPARTMENT

MELPAR, INC.
7785 Arlington Blvd.
Fall Church, Va. 22046
AC 703-534-6000

Curtis Development & Mfg Co, Milwaukee	Wis
Custom Control Mfg Inc, Merriam	Kan
Cutler-Hammer Inc, Milwaukee	Wisc
Data Sensors Inc, Addison	Ill
Delonics Corp, New York	N Y
Design Products Corp, Troy	Mich
De-Tec-Tronic Corp, Chicago	Ill
Digit Co Inc, Marblehead	Mass
Digitrol Systems Inc, Amenia	N Y
Discon Corp, Fort Lauderdale	Fla
Dolan Jenner Industries Inc, Melrose	Mass
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee	Ill
Ebauches SA Dept Oscilloquartz 2001 Neuchatel	Switz
Ebert Electronics Corp, Floral Park	N Y
Electronic Control Corp, Detroit	Mich
Electronic Counters Inc, Englewood	N J
Electronics Corp of America, Cambridge	Mass
Electron Machine Co, Umatilla	Fla
Electron-Radar Products, Chicago	Ill
Electro-Sonic-Control, Manteca	Cal
Elesta Ltd Electronics, Bad Ragaz	Switzerland
Elmek Div Electro Mechanics Inc, New Britain	Conn
Emerson Electric Co, Indl Controls & Elctns Div St Louis	Mo
Fairchild Controls, Hicksville	N Y
Farmer Electric Products Co Inc, Natick	Mass
Flexi Optics Labs Inc, Somerville	Mass
Frost Electronics Corp, Rockaway	N J
General Atronics Corp, Philadelphia	Pa
General Electric Co, ECSO, Schenectady	N Y
Grace Electronics Inc, Cleveland	Ohio
Heidenhain Corp, Miles	Ill
Hird-Brown Ltd, Bolton, Lancs	England
Honeywell Inc, Computer Control Div Framingham	Mass
Hughey & Phillips Inc, Burbank	Cal
Infrared Industries Inc, Santa Barbara	Cal
Instrumentation & Control Systems Inc, Addison	Ill
Lek-Trol, Inc, Grapevine	Tex
Link Group Gen Precision Sys Inc, Binghamton	N Y
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Lundy Electronics & Systems Inc, Glen Head	N Y
Machinery Electrification Inc, Northboro	Mass
MacKay Research Labs, Wickenburg	Ariz
Mackworth Rees Div, Madison Heights	Mich
Mechanical Technology Inc, Latham	N Y
Melpar Inc, Special Prods Dept, Falls Church	Va
Modelectric Products Corp, Asbury Park	N J
Optronics Inc, Newburyport	Mass
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Phoenix Precision Instrument Co, Inc, Philadelphia	Pa
Photobell Co Inc, New York	N Y
Photomation Inc, Mountain View	Cal
Photo Research Corp, Burbank	Cal
Pioneer Electric & Research Corp, Forest Park	Ill
PMF Electronics Inc, Dayton	Ohio
Power Instruments Inc, Skokie	Ill
Ramic Corp, Medford	Ore
Razdow Labs Inc, Newark	N J
Regdon Corp, Brookfield	Ill
Regent Controls Inc, Stamford	Conn
Remex Electronics, Hawthorne	Cal
Schoeffel Instrument Co, Westwood	NJ
Selco Electronics Inc, Palisades Park	N J
Sensor Corp, Greenwich	Conn
Show Sound, Inc, New York	N Y
Sigma Instruments Inc, Braintree	Mass
Skan-A-Matic Corp, Skaneateles	N Y
Slocum Industries, Inc, Reseda	Cal
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Strandberg Engineering Labs Inc, Greensboro	N C
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Syracuse Electronics Corp, Syracuse	N Y
Systems Matrix Inc, Trenton	N J
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Techmetric Co, Redwood City	Cal
Thorn Automation Ltd, Rugeley, Staffs	England
Timeco Inc, Huntington	W Va
Veeder-Root, Hartford	Conn
Warner Electric Brake & Clutch Co, Beloit	Wisc
Wells Industries Corp, North Hollywood	Cal
Wer Industrial Corp, Buffalo	N Y
Wintriss Controls Div Industronics Controls Inc New York	N Y
Worner Electronic Devices, Rankin	Ill

CONTROLS, PHOTOELECTRIC--ILLUMINATION

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
TECHMETRIC CO, REDWOOD CITY	**CAL**
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK	**N J**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
Acme Products Co, Kensington	Conn
ACR Electronics Corp, New York	N Y
Aerospace Controls Corp, Los Angeles	Cal
Automatic Switch Co, Florham Park	N J
Autotron, Inc, Danville	Ill
Canadian Research Institute, Don Mills	Ont
Compagnie Generale de Metrologie Haute Savoie	France
Crest Mfg Co, East Berlin	Conn
Data Sensors Inc, Addison	Ill
Delonics Corp, New York	N Y
De-Tec-Tronic Corp, Chicago	Ill
Ebert Electronics Corp, Floral Park	N Y
Electronic Control Corp, Euless	Tex
Electron-Radar Products, Chicago	Ill
Elesta Ltd Electronics, Bad Ragaz	Switzerland
Gardner Lab Inc, Bethesda	Md
General Electric Co, ECSO, Schenectady	N Y
Hird-Brown Ltd, Bolton, Lancs	England
Hughey & Phillips Inc, Burbank	Cal
Hunt Electronics Co, Dallas	Tex
LEM Instrument Corp, Farmingdale	N Y
LGM Electronics Inc, Houston	Tex
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Photobell Co Inc, New York	N Y
Photomation Inc, Mountain View	Cal
Photo Research Corp, Burbank	Cal
PMF Electronics Inc, Dayton	Ohio
Ramic Corp, Medford	Ore
Schoeffel Instrument Co, Westwood	NJ
Selco Electronics Inc, Palisades Park	N J
Sigma Instruments Inc, Braintree	Mass
Slocum Industries, Inc, Reseda	Cal
Sylvania Elec Prods Inc Lighting Equip Div Danvers	Mass
Syracuse Electronics Corp, Syracuse	N Y
Techmetric Co, Redwood City	Cal
Thorn Automation Ltd, Rugeley, Staffs	England
Tung-Sol Div Wagner Electric Corp, Newark	N J
Warner Electric Brake & Clutch Co, Beloit	Wisc
Weston Instruments Div Weston Instr Inc, Newark	N J
Worner Electronic Devices, Rankin	Ill

CONTROLS, PHOTOELECTRIC--LOOP REGULATING

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
Airmec Instruments Ltd, Buckinghamshire	England
Applied Control Co, Cedar Grove	NJ
Autotron, Inc, Danville	Ill
Coltron Industries, Inc, Charlotte	N C
De-Tec-Tronic Corp, Chicago	Ill
Digit Co Inc, Marblehead	Mass
Dolan Jenner Industries Inc, Melrose	Mass
Electronics Corp of America, Cambridge	Mass
Farmer Electric Products Co Inc, Natick	Mass
Frost Electronics Corp, Rockaway	N J
General Electric Co, ECSO, Schenectady	N Y
General Precision Systems Inc, Indl Controls Div Morton Grove	Ill
International Light Inc, Newburyport	Mass
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Photobell Co Inc, New York	N Y
Photomation Inc, Mountain View	Cal
PMF Electronics Inc, Dayton	Ohio
Ramic Corp, Medford	Ore
Sigma Instruments Inc, Braintree	Mass
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Strandberg Engineering Labs Inc, Greensboro	N C
Thorn Automation Ltd, Rugeley, Staffs	England
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Voltex Co Inc, Farmingdale	N Y
Warner Electric Brake & Clutch Co, Beloit	Wisc
Wer Industrial Corp, Buffalo	N Y
Wintriss Controls Div Industronics Controls Inc New York	N Y
Worner Electronic Devices, Rankin	Ill

CONTROLS, PHOTOELECTRIC--PHOTOGRAPHIC EXPOSURE

INDUSTRIAL TIMER CORP, PARSIPPANY	**N J**
TECHMETRIC CO, REDWOOD CITY	**CAL**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
Custom Control Mfg Inc, Merriam	Kan
E G & G Inc, Electronic Prods Div, Boston	Mass
Giannini Scientific Corp, Flight Rsch Div, Richmond	Va
Hycon, Monrovia	Cal
Industrial Timer Corp, Parsippany	N J
International Light Inc, Newburyport	Mass
Lektra Labs Inc Div Kriser Corp, College Point	N Y
LEM Instrument Corp, Farmingdale	N Y
Photobell Co Inc, New York	N Y
Photo Electronics Corp, Los Angeles	Cal
Photo Research Corp, Burbank	Cal
Ramic Corp, Medford	Ore
Self-Organizing Systems Inc, Dallas	Tex
Techmetric Co, Redwood City	Cal
Trott Electronics Inc, Rochester	N Y
Weston Instruments Div Weston Instr Inc, Newark	N J
Worner Electronic Devices, Rankin	Ill
Zeiss Inc, Carl, New York	N Y

CONTROLS, PHOTOELECTRIC--REGISTER, PRINTING CUTOFF OR PERFORATING

DISCON CORP, FORT LAUDERDALE	**FLA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
TECHMETRIC CO, REDWOOD CITY	**CAL**
Autotron, Inc, Danville	Ill
Coltron Industries, Inc, Charlotte	N C
De-Tec-Tronic Corp, Chicago	Ill
Digitrol Systems Inc, Amenia	N Y
Discon Corp, Fort Lauderdale	Fla
Dolan Jenner Industries Inc, Melrose	Mass
Electronic Machine Parts Inc, College Point	N Y
Electronics Corp of America, Cambridge	Mass
Emerson Electric Co, Indl Controls & Elctns Div St Louis	Mo
Farmer Electric Products Co Inc, Natick	Mass
Flexi Optics Labs Inc, Somerville	Mass
Frost Electronics Corp, Rockaway	N J
General Electric Co, ECSO, Schenectady	N Y
General Precision Systems Inc, Indl Controls Div Morton Grove	Ill
Hird-Brown Ltd, Bolton, Lancs	England
Hurletron Inc, Danville	Ill
Instrumentation & Control Systems Inc, Addison	Ill
Mechanical Technology Inc, Latham	N Y
Nash & Harrison Ltd, Ottawa 3	Ont
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Photobell Co Inc, New York	N Y
Photomation Inc, Mountain View	Cal
Power Instruments Inc, Skokie	Ill
Pulse Communications Inc, Falls Church	Va
Regent Controls Inc, Stamford	Conn
Sensor Corp, Greenwich	Conn
Sigma Instruments Inc, Braintree	Mass
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Techmetric Co, Redwood City	Cal
Thorn Automation Ltd, Rugeley, Staffs	England
Trott Electronics Inc, Rochester	N Y
Vari Tech Co, Grand Rapids	Mich
Veeder-Root, Hartford	Conn
Warner Electric Brake & Clutch Co, Beloit	Wisc
Wer Industrial Corp, Buffalo	N Y
Worner Electronic Devices, Rankin	Ill

CONTROLS, PHOTOELECTRIC--SKEW

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
TECHMETRIC CO, REDWOOD CITY	**CAL**
Acme Products Co, Kensington	Conn
Autotron, Inc, Danville	Ill
Coltron Industries, Inc, Charlotte	N C
Dolan Jenner Industries Inc, Melrose	Mass
Electron Machine Co, Umatilla	Fla
Farmer Electric Products Co Inc, Natick	Mass
General Electric Co, ECSO, Schenectady	N Y
General Precision Systems Inc, Indl Controls Div Morton Grove	Ill
Hurletron Inc, Danville	Ill
Instrumentation & Control Systems Inc, Addison	Ill
Link Group Gen Precision Sys Inc, Binghamton	N Y
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Photobell Co Inc, New York	N Y
Skan-A-Matic Corp, Skaneateles	N Y
Techmetric Co, Redwood City	Cal
Thorn Automation Ltd, Rugeley, Staffs	England
Worner Electronic Devices, Rankin	Ill

CONTROLS, PHOTOELECTRIC--SMOKE & COMBUSTION

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH	**VA**
Autotron, Inc, Danville	Ill
Bailey Meter Co, Wickliffe	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Bionic Instruments Inc, Bala Cynwyd	Pa
De-Tec-Tronic Corp, Chicago	Ill
Ebert Electronics Corp, Floral Park	N Y
Edison, Thomas A Industries, Instr Div West Orange	N J
Electronic Control Corp, Detroit	Mich
Electronics Corp of America, Cambridge	Mass
Electron Machine Co, Umatilla	Fla
Gardner Lab Inc, Bethesda	Md
General Electric Co, ECSO, Schenectady	N Y
Hird-Brown Ltd, Bolton, Lancs	England
Instrumentation & Control Systems Inc, Addison	Ill
Leeds & Northrup Co, Philadelphia	Pa
Melpar Inc, Special Prods Dept, Falls Church	Va
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Phoenix Precision Instrument Co, Inc, Philadelphia	Pa
Photobell Co Inc, New York	N Y
Photomation Inc, Mountain View	Cal
Royco Instruments Inc, Menlo Park	Cal
Sigma Instruments Inc, Braintree	Mass
Slocum Industries, Inc, Reseda	Cal
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Thorn Automation Ltd, Rugeley, Staffs	England
Worner Electronic Devices, Rankin	Ill

CONTROLS, PHOTOELECTRIC--SORTING

AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE	**N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH	**VA**
TECHMETRIC CO, REDWOOD CITY	**CAL**
Acme Products Co, Kensington	Conn
Affiliated Manufacturers Inc, Whitehouse	N J
Amperex Electronic Corp, Component Div Hauppauge	N Y
Applied Control Co, Cedar Grove	NJ
Audn Corp, Hamburg	N Y
Autotron, Inc, Danville	Ill
Bionic Instruments Inc, Bala Cynwyd	Pa
Canadian Research Institute, Don Mills	Ont
Control Engineering Div J B Webb Co, Detroit	Mich
Controlomag Labs, Roslyn	Pa
Crest Mfg Co, East Berlin	Conn
Custom Control Mfg Inc, Merriam	Kan
De-Tec-Tronic Corp, Chicago	Ill
Dolan Jenner Industries Inc, Melrose	Mass
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee	Ill
Electronic Control Corp, Detroit	Mich
Electronic Counters Inc, Englewood	N J
Electronics Corp of America, Cambridge	Mass
Electron Machine Co, Umatilla	Fla
Electro-Sonic-Control, Manteca	Cal
Elesta Ltd Electronics, Bad Ragaz	Switzerland
Elmek Div Electro Mechanics Inc, New Britain	Conn
Fairchild Controls, Hicksville	N Y
Farmer Electric Products Co Inc, Natick	Mass
Frost Electronics Corp, Rockaway	N J
Gardner Lab Inc, Bethesda	Md
General Atronics Corp, Philadelphia	Pa
General Electric Co, ECSO, Schenectady	N Y
Grace Electronics Inc, Cleveland	Ohio
Hird-Brown Ltd, Bolton, Lancs	England
Infrared Industries Inc, Santa Barbara	Cal
Instrumentation & Control Systems Inc, Addison	Ill
Instrument Development Labs Div Kollmorgen Corp Attleboro	Mass
Link Group Gen Precision Sys Inc, Binghamton	N Y
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Lundy Electronics & Systems Inc, Glen Head	N Y
Machinery Electrification Inc, Northboro	Mass
Mechanical Technology Inc, Latham	N Y
Melpar Inc, Special Prods Dept, Falls Church	Va
3M Company, St Paul	Minn
Nash & Harrison Ltd, Ottawa 3	Ont
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Photobell Co Inc, New York	N Y
Photomation Inc, Mountain View	Cal
Ramic Corp, Medford	Ore
Regdon Corp, Brookfield	Ill
Regent Controls Inc, Stamford	Conn
Sensor Corp, Greenwich	Conn
Sigma Instruments Inc, Braintree	Mass
Skan-A-Matic Corp, Skaneateles	N Y
Slocum Industries, Inc, Reseda	Cal
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Strandberg Engineering Labs Inc, Greensboro	N C
Techmetric Co, Redwood City	Cal
Thorn Automation Ltd, Rugeley, Staffs	England
Warner Electric Brake & Clutch Co, Beloit	Wisc
Wer Industrial Corp, Buffalo	N Y
Wintriss Controls Div Industronics Controls Inc New York	N Y
Worner Electronic Devices, Rankin	Ill

CONTROLS, PHOTOELECTRIC--TURBIDITY

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
Bailey Meter Co, Wickliffe	Ohio
Bionic Instruments Inc, Bala Cynwyd	Pa
Canadian Research Institute, Don Mills	Ont
De-Tec-Tronic Corp, Chicago	Ill
Electron Machine Co, Umatilla	Fla
Farmer Electric Products Co Inc, Natick	Mass
Foxboro Co, Foxboro	Mass
Frost Electronics Corp, Rockaway	N J
Gam Rad Inc, Detroit	Mich
Gardner Lab Inc, Bethesda	Md
General Electric Co, ECSO, Schenectady	N Y
Grace Electronics Inc, Cleveland	Ohio
Hird-Brown Ltd, Bolton, Lancs	England
International Light Inc, Newburyport	Mass
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Phoenix Precision Instrument Co, Inc, Philadelphia	Pa
Photobell Co Inc, New York	N Y
Photomation Inc, Mountain View	Cal
Pyrotector Inc, Hingham	Mass
Ramic Corp, Medford	Ore
Schoeffel Instrument Co, Westwood	NJ
Worner Electronic Devices, Rankin	Ill

CONTROLS--POSITIONING

AMMON INSTRUMENTS INC, MANCHESTER	**N H**
AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE	**N Y**
ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
DATA TECHNOLOGY, INC, WATERTOWN	**MASS**
DISCON CORP, FORT LAUDERDALE	**FLA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
LINAIR DESIGN CORP, LINDEN	**N J**
MAGNETICS INC, BUTLER	**PA**
MICRO SWITCH DIV, HONEYWELL, FREEPORT	**ILL**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
SUPERIOR ELECTRIC CO THE, BRISTOL, CONN	**ADV PG 206**
TECHMETRIC CO, REDWOOD CITY	**CAL**
TELE-SIGNAL CORP, WOODBURY	**N Y**
Adams Rite Mfg Co, Glendale	Cal
Aeroflex Labs, Inc, Plainview	N Y
Affiliated Manufacturers Inc, Whitehouse	N J
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Airmec Instruments Ltd, Buckinghamshire	England
Allen-Bradley Co, Milwaukee	Wis
American Electronic Controls Inc, Philadelphia	Pa
Ammon Instruments Inc, Manchester	N H
Amperex Electronic Corp, Component Div Hauppauge	N Y
Anritsu Electric Co Ltd, Tokyo	Japan
Antlab, Inc, Worthington	Ohio
Applied Control Co, Cedar Grove	NJ
Audn Corp, Hamburg	N Y
Automatic Switch Co, Florham Park	N J
Avionics, Inc, South Bend	Ind
Bailey Co, Washington	D C
Bailey Meter Co, Wickliffe	Ohio
Baldwin Electronics Inc, Little Rock	Ark
Barber-Colman Co, EMP Div, Rockford	Ill
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Bionic Instruments Inc, Bala Cynwyd	Pa
Boston Digital Corp, Ashland	Mass
Bristol Div, American Chain & Cable Co Waterbury	Conn
B & W Electronic Research Labs, Dallas	Tex
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Coast Electronics Inc, Manhattan Beach	Cal
Coleman Engineering Co Inc, Santa Ana	Cal
Compudyne Corp, Hatboro	Pa
Computer Instruments Corp, Hempstead	N Y
Conductron Corp, Ann Arbor	Mich
Control Engineering Div J B Webb Co, Detroit	Mich
Control Logic Inc, Natick	Mass
Controlotron Corp, Farmingdale	N Y
Control Technology Co Inc, Long Island City	N Y
Corning Glass Works, Corning	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Cutler-Hammer Inc, Milwaukee	Wisc
Data Device Corp, Hicksville	N Y
Data Technology, Inc, Watertown	Mass
Daytronic Corp, Dayton	Ohio
Decca Radar, Inc, New York	N Y
Decker Corp, Bala Cynwyd	Pa
Del Electronics Corp, Mt Vernon	N Y
De-Tec-Tronic Corp, Chicago	Ill
Discon Corp, Fort Lauderdale	Fla
Dolan Jenner Industries Inc, Melrose	Mass
Dynamic Precision Controls Corp, Hagerstown	Ind
Electronic Modules Corp, Timonium	Md
Electro-Pacific Inc, Goleta	Cal
Electro Products Labs Inc Transducer Div, Chicago	Ill
Electro-Sonic-Control, Manteca	Cal
Emerson Electric Co, Indl Controls & Elctns Div St Louis	Mo
EMI Electronics Ltd, Hayes, Middlesex	England
EMR-Hatboro Div Weston Insts Inc, Hatboro	Pa
Energy Beams Inc, Haskell	N J
Essex Engineering Co Inc, Essex	Conn
Fairchild Controls, Hicksville	N Y
Farrand Controls Inc, Valhalla	N Y
Ferranti Electric Inc, Plainview	N Y
Flexi Optics Labs Inc, Somerville	Mass
Foxboro Co, Foxboro	Mass

EBG

What's

in it

for you?

1. Listing of more than 4,000 products.

2. 6,500 manufacturers with local outlets, addresses and phone numbers.

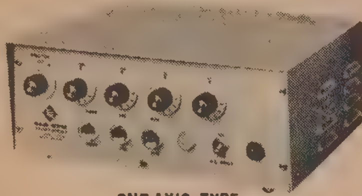
3. Complete and up-to-date Trade Name Directory

4. The most complete industry source of supply and product specs.

Electronics Buyers' Guide

SLO-SYN®

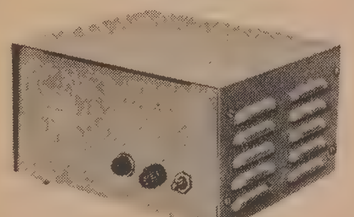
Preset Indexers



ONE-AXIS TYPE

Provide precise control of digital indexing in applications using SLO-SYN motors for positioning. Desired indexing movement up to 99,999 steps of 1.8° each can be preset on the control panel. Speed adjustable from 4 steps/second to maximum possible with motor used. Either manual or automatic recycling possible. Single- or two-axis types offered. Two-axis types are also available with backlash take-up circuit.

Translators, Adjustable Speed Drives & Translator Modules



TRANSLATOR

Pulse-to-step converters for use with bifilar SLO-SYN motors connected for incremental stepping. Used in programmed positioning, indexing and indicating operations. Translators use an external signal source; Adjustable Speed Drives have oscillator to provide signals; Translator Modules are plug-in printed circuit boards with logic capabilities for stepping SLO-SYN motors.

Write for Catalog SS1265

THE SUPERIOR ELECTRIC COMPANY
1200 Middle Street
Bristol, Connecticut 06010

Frost Electronics Corp, Rockaway	N J
Fuji Electric Co Ltd, Tokyo	Japan
Fujitsu Ltd, Tokyo	Japan
Gap Instrument Corp, Westbury	N Y
Garrett Corp, Los Angeles	Cal
General Electric Co, ECSO, Schenectady	N Y
General Precision Systems Inc, Indl Controls Div Morton Grove	Ill
Giannini-Voltex, Whittier	Cal
Gilmore Industries Inc, Cleveland	Ohio
Glentek Inc, Santa Monica	Cal
Hartman Systems Co Inc, Huntington Station	N Y
Hi-Altitude Instrument Co, Inc., Denver	Colo
Honeywell Inc, Computer Control Div Framingham	Mass
Humphrey Electronics Inc, Raleigh	N C
Icon Corp, Cambridge	Mass
IKL Inc, Newport Beach	Cal
Industrial Components Inc, Beaverton	Ore
Industrial Control Co, Farmingdale	N Y
Industrial Electronetics Corp, Satellite Beach	Fla
Inland Controls Inc Sub Kollmorgen Corp Brighton	Mass
Instru-Lec Corp, Mt Vernon	N Y
Instrumentation & Control Systems Inc, Addison	Ill
International Electro-Magnetics Inc, Palatine	Ill
Jordan Controls Inc, Milwaukee	Wis
Kahn & Co Inc, Wethersfield	Conn
Larson Instrument Co, Orangeburg	N Y
La Telemecanique Electrique, 92 Rueil	France
Ledex Div Ledex Inc, Dayton	Ohio
Leeds & Northrup Co, Philadelphia	Pa
Linair Design Corp, Linden	N J
Link Group Gen Precision Sys Inc, Binghamton	N Y
Luft Instruments Inc, Lincoln	Mass
Mackworth Rees Div, Madison Heights	Mich
Magnetics Inc, Butler	Pa
Martin-Decker Corp, Santa Ana	Cal
Maytronics Inc, Colorado Springs	Colo
McMaster Products Corp, Chicago	Ill
Measurement Systems Inc, Norwalk	Conn
Mechanical Technology Inc, Latham	N Y
Micro Metrics Inc, Paterson	N J
Micro Switch Div, Honeywell, Freeport	Ill
Moog Inc, Industrial Div, East Aurora	N Y
M Ten Bosch, Inc, Pleasantville	N Y
Nash Controls Inc, Caldwell	N J
Natel Engineering Co Inc, Van Nuys	Cal
Neill Engineering Co, East Hartland	Conn
Norbatrol Electronics Corp, Murrysville	Pa
Ohmite Mfg Co, Skokie	Ill
Omega Industries Inc, Newport Beach	Cal
Omega-t Systems Inc, Richardson	Tex
Optomechanisms Inc, Plainview	N Y
Pacific Data & Controls, Redwood City	Cal
Payne Engineering Co, South Charleston	W Va
Pegasus Labs Inc, Berkley	Mich
Photobell Co Inc, New York	N Y
Photomation Inc, Mountain View	Cal
PMF Electronics Inc, Dayton	Ohio
Precision Mecanique Labinal, 93 Saint-Ouen	France
Precision Mechanisms Corp, Westbury	N Y
Precision Systems Corp, Columbus	Ohio
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Razdow Labs Inc, Newark	N J
Reflex Controls Corp, Huntington Station	NY
Reliance Electric Co, Cleveland	Ohio
Remex Electronics, Hawthorne	Cal
Robicon Corp, Pittsburgh	Pa
Rundel Electric Co, Millbrae	Cal
Sanders Associates, Inc, Nashua	N H
Schoeffel Instrument Co, Westwood	NJ
Sciaky Bros Inc, Chicago	Ill
Scientific-Atlanta Inc, Atlanta	Ga
Seneca Falls Machine Co, Seneca Falls	N Y
Sensor Corp, Greenwich	Conn
Sequential Electronic Systems Inc, Elmsford	N Y
Servo Development Corp, Hicksville	N Y
Servo Labs Inc, Van Nuys	Cal
Singer Co, Diehl Div, Somerville	N J
Solar Electronics Co, Hollywood	Cal
Sparton Southwest Inc, Albuquerque	NM
Square D Co, Park Ridge	Ill
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Struthers-Dunn Inc, Pitman	N J
Sulzer Brothers Ltd, Industrial Elctns Div Winterthur	Switzerland
Superior Electric Co The, Bristol	Conn
Swanson Engineering & Mfg Co, Inglewood	Cal
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Taylor Instrument Cos, Rochester	N Y
Techmetric Co, Redwood City	Cal
Technology Instrument Corp Sub Bowmar Instr Corp Newbury Park	Cal
Tele-Signal Corp, Woodbury	N Y
Telstar Electronics Corp, Southold	N Y
Tenor Co Inc, New Berlin	Wis
Theta Instrument Corp, Fairfield	N J
Thorn Automation Ltd, Rugeley, Staffs	England
Transducer Controls Corp, Covina	Cal
Trans-Tek Mfg Co Inc, Garwood	N J
TRW Systems Group, Redondo Beach	Cal
United Control Corp, Redmond	Wash
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Veeder-Root, Hartford	Conn
Vega Servo-Control Inc, Troy	Mich
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Warner Electric Brake & Clutch Co, Beloit	Wisc
Watesta Electronics Ltd, London-E 11	England
West Instrument Corp, Schiller Park	Ill
Weston Hydraulics, Van Nuys	Cal
Weston-Transicoil, Weston Instruments Inc Worcester	Pa
Wintriss Controls Div Industronics Controls Inc New York	N Y
Worner Electronic Devices, Rankin	Ill
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

CONTROLS--POWER LEVEL SEE RESISTORS--VARIABLE;SWITCHES--MULTI-CONTACT

CONTROLS--PRESSURE

COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
GAGNE ASSOCIATES INC, BINGHAMTON	**N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
HYDRA-ELECTRIC CO, BURBANK	**CAL**
TELE-SIGNAL CORP, WOODBURY	**N Y**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
Adel Div De Laval Turbine Calif Inc, Burbank	Cal
Aerodyne Controls Corp, Farmingdale	N Y
Allen-Bradley Co, Milwaukee	Wis
Applied Control Co, Cedar Grove	NJ
Audn Corp, Hamburg	N Y
Bailey Meter Co, Wickliffe	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp, Vacuum Div, Rochester	N Y
B I F Unit General Signal Corp, Providence	R I
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham	Mass
Bristol Div, American Chain & Cable Co Waterbury	Conn
Canadian Motorola Electronics Co, Agincourt	Ont
Carleton Controls Corp, East Aurora	N Y
C-E Electronics Inc, Glenside	Pa
Columbus Electric Mfg Co, Columbus	Ohio
Compudyne Corp, Hatboro	Pa
Computer Instruments Corp, Hempstead	N Y
Conrac Corp, New York	N Y
Consolidated Controls Corp, El Segundo	Cal
Consolidated Controls Corp, Bethel	Conn
Controlotron Corp, Farmingdale	N Y
Controls Co of America, Schiller Park	Ill
Cutler-Hammer Inc, Milwaukee	Wisc
Decker Corp, Bala Cynwyd	Pa
De Vilbiss Co, Toledo	Ohio
Dietz Co Inc, Henry G, Long Island City	N Y
Divac Electronics, Hawthorne	Cal
Edison, Thomas A Industries, Instr Div West Orange	N J
Elastronics Labs, Tarzana	Cal
Electronic Control Systems Inc, Fairmont	W Va
Electro-Sonic-Control, Manteca	Cal
ElectroSyn Technology Labs, Inc, Canton	Mass
Ellison Instrument Div Dieterich Std Corp New Buffalo	Mich
Exactel Instrument Co Div Statham Instrs Inc Mountain View	Cal
Fairchild Controls, Hicksville	N Y
Fischer & Porter Co, Warminster	Pa
Foxboro Co, Foxboro	Mass
Fox Valve Development Co Inc, Hanover	N J
Fuji Electric Co Ltd, Tokyo	Japan
Fulton Sylphon Div Robertshaw Controls Co Knoxville	Tenn
Futurecraft Corp, City of Industry	Cal
Gagne Associates Inc, Binghamton	N Y
Garrett Corp, Los Angeles	Cal
General Electric Co, ECSO, Schenectady	N Y
General Precision Systems Inc, Indl Controls Div Morton Grove	Ill
Gilmont Instruments Inc Roger, Great Neck	N Y
Gulton Industries Inc, Metuchen	N J
Hartman Systems Co Inc, Huntington Station	N Y
Hastings-Raydist A Teledyne Co, Hampton	Va
Haydon Switch & Instrument Inc, Waterbury	Conn
Hektor Scientific Co Inc, Foxboro	Mass
Honeywell Industrial Div, Fort Washington	Pa
Hyde Park Electronics Inc, Dayton	Ohio
Hydra-Electric Co, Burbank	Cal
Industrial Electronetics Corp, Satellite Beach	Fla
Industrial Instrument Corp, Austin	Tex
Instrumentation & Control Systems Inc, Addison	Ill
International Controls Corp, Fairfield,	N J
In-Val-Co, Tulsa	Okla
ITT Barton Controls & Instr Div, Monterey Park	Calif
Kahn & Co Inc, Wethersfield	Conn
Kollsman Instrument Ltd, Southampton	England
Leeds & Northrup Co, Philadelphia	Pa
Link Group Gen Precision Sys Inc, Binghamton	N Y
Lion Research Corp, Newton	Mass
Martin-Decker Corp, Santa Ana	Cal
MKS Instruments Inc, Burlington	Mass
Moog Inc, Industrial Div, East Aurora	N Y
Motorola Instrumentation & Control Inc, Phoenix	Ariz
Palisades Engineering Co Inc, Pacific Palisades	Cal
PMF Electronics Inc, Dayton	Ohio
Precision Mecanique Labinal, 93 Saint-Ouen	France
Robertshaw Controls Co, Aero & Instrument Div Anaheim	Cal
Rockwell Mfg Co, Msmt & Control Div, Pittsburgh	Pa
Rosemount Engineering Co, Minneapolis	Minn
Rosemount Plug-In Inc, Nashville	Tenn
Rovalco Controls, Torrance	Cal
Sanders Associates, Inc, Nashua	N H
Seely Instrument Co Inc, Niagara Falls	N Y
Sensor Corp, Greenwich	Conn
Servotronics Inc, Buffalo	N Y
SieBelAir Co, Los Angeles	Cal
Sigma Instruments Canada Ltd, Toronto 18 Ont	Canada
Sigma Instruments Inc, Braintree	Mass
Skinner Electric Valve Div, New Britain	Conn
Slocum Industries, Inc, Reseda	Cal
Sparton Southwest Inc, Albuquerque	NM
Square D Co, Park Ridge	Ill
Taylor Instrument Cos, Rochester	N Y
Tek-Sel Labs Inc, Saddle Brook	N J
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
Tele-Signal Corp, Woodbury	N Y
Texas Instruments Incorporated, Dallas	Tex
Texas Instruments Inc Indl Prods Div, Houston	Tex

Transducer Controls Corp, Covina	Cal
United Electric Controls Co, Watertown	Mass
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
UOP Instruments Div, Greenwich	Conn
Volumetrics, Inglewood	Cal
West Instrument Corp, Schiller Park	Ill
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

CONTROLS--PROPORTIONING

API INSTRUMENTS CO, CHESTERLAND	**OHIO**
BLUE M ENGINEERING CO, BLUE ISLAND	**ILL**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
DATA TECHNOLOGY, INC, WATERTOWN	**MASS**
GRIGSBY BARTON INC, ARLINGTON HEIGHTS	**ILL**
INDUSTRIAL TIMER CORP, PARSIPPANY	**N J**
MAGNETICS INC, BUTLER	**PA**
OVEN INDUSTRIES, MECHANICSBURG	**PA**
SUPERIOR ELECTRIC CO THE, BRISTOL	**CONN**
TELE-SIGNAL CORP, WOODBURY	**N Y**
Acoustica Associates Inc, Los Angeles	Cal
Advanced Dynamics Inc Div Alco Std Corp Cleveland	Ohio
Aladdin Controls Div Aladdin Electronics Nashville	Tenn
American Electronic Controls Inc, Philadelphia	Pa
A & M Instruments Inc, Great Neck	N Y
API Instruments Co, Chesterland	Ohio
Applied Control Co, Cedar Grove	NJ
Automation Products, Inc, Houston	Tex
Bailey Meter Co, Wickliffe	Ohio
Barber-Colman Co, EMP Div, Rockford	Ill
Beckman Instruments Inc, Fullerton,	Cal
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham	Mass
Blue M Engineering Co, Blue Island	Ill
Bristol Div, American Chain & Cable Co Waterbury	Conn
Coast Electronics Inc, Manhattan Beach	Cal
Coltron Industries, Inc, Charlotte	N C
Computer Instruments Corp, Hempstead	N Y
Controlotron Corp, Farmingdale	N Y
Control Technology Co Inc, Long Island City	N Y
Data Technology, Inc, Watertown	Mass
Decker Corp, Bala Cynwyd	Pa
Delta Design Inc, La Mesa	Cal
Digital Blending Systems Inc, Providence	R I
Digitrol Systems Inc, Amenia	N Y
Durant Mfg Co, Milwaukee	Wis
Dynatronic Instruments Corp Div Lab-Line Inst Inc Melrose Park	Ill
Electronic Control Systems Inc, Fairmont	W Va
Electronic Modules Corp, Timonium	Md
Electron Machine Co, Umatilla	Fla
Electro-Sonic-Control, Manteca	Cal
Elmek Div Electro Mechanics Inc, New Britain	Conn
EMI Electronics Ltd, Hayes, Middlesex	England
EMR-Hatboro Div Weston Insts Inc, Hatboro	Pa
Fischer & Porter Co, Warminster	Pa
Foxboro Co, Foxboro	Mass
Foxboro Co Valenica Plant, Valencia	Cal
Fox Valve Development Co Inc, Hanover	N J
Fuji Electric Co Ltd, Tokyo	Japan
Furnas Electric Co, Batavia	Ill
General Precision Systems Inc, Indl Controls Div Morton Grove	Ill
Grigsby Barton Inc, Arlington Heights	Ill
Helm Instrument Co Inc, Toledo	Ohio
Honeywell Industrial Div, Fort Washington	Pa
Hugle Industries, Sunnyvale	Cal
Hyde Park Electronics Inc, Dayton	Ohio
IKL Inc, Newport Beach	Cal
Industrial Components Inc, Beaverton	Ore
Industrial Control Co, Farmingdale	N Y
Industrial Electronetics Corp, Satellite Beach	Fla
Industrial Timer Corp, Parsippany	N J
Instrulab Inc, Dayton	Ohio
Jersey Technical Consultants, Morristown	NJ
Leeds & Northrup Co, Philadelphia	Pa
Link Group Gen Precision Sys Inc, Binghamton	N Y
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Loyola Industries Inc, El Segundo	Cal
Luft Instruments Inc, Lincoln	Mass
Lundy Electronics & Systems Inc, Glen Head	N Y
Lutron Electronics Co Inc, Emmaus	Pa
Magnetics Inc, Butler	Pa
Malaker Corp, High Bridge	N J
Martin-Decker Corp, Santa Ana	Cal
Matheson Gas Products, East Rutherford	N J
Milton Roy Co, St Petersburg	Fla
Moog Inc, Industrial Div, East Aurora	N Y
M Ten Bosch, Inc, Pleasantville	N Y
Nash Controls Inc, Caldwell	N J
Norbatrol Electronics Corp, Murrysville	Pa
Orbitran Co, Inc, Lakeside	Cal
Oven Industries, Mechanicsburg	Pa
Payne Engineering Co, South Charleston	W Va
Pegasus Labs Inc, Berkley	Mich
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plessey Airborne Corp, Hillside	NJ
PMF Electronics Inc, Dayton	Ohio
Power Control Corp, Pittsburgh	Pa
Pyrotel Corp c/o Milletron Inc, Pittsburgh	Pa
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Research Inc, R-I Controls Div, Minneapolis	Minn
Revere Corp of America, Wallingford	Conn
RO Associates Inc, Menlo Park	Cal
Robicon Corp, Pittsburgh	Pa
Rosemount Plug-In Inc, Nashville	Tenn
Rundel Electric Co, Millbrae	Cal
Servotronics Inc, Buffalo	N Y
Sigma Instruments Inc, Braintree	Mass
Signet Scientific Co, Burbank	Cal
Sola-Basic Industries, Milwaukee	Wis
Superior Electric Co The, Bristol	Conn
Taylor Instrument Cos, Rochester	N Y
Technology Instrument Corp Sub Bowmar Instr Corp Newbury Park	Cal
Tele-Signal Corp, Woodbury	N Y
Tenor Co Inc, New Berlin	Wis
Texas Instruments Incorporated, Dallas	Tex
Theta Instrument Corp, Fairfield	N J
Tia Electric Co, Princeton	N J
United Electric Controls Co, Watertown	Mass
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Varo Inc, Garland	Tex
Veeder-Root, Hartford	Conn
Waynco Inc, Winona	Minn
West Instrument Corp, Schiller Park	Ill

CONTROLS--PROXIMITY

AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE	**N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MICRO SWITCH DIV, HONEYWELL, FREEPORT	**ILL**
ROBERTSHAW CONTROLS CO, ACRO DIV, COLUMBUS	**OHIO**
Acme Products Co, Kensington	Conn
Airmec Instruments Ltd, Buckinghamshire	England
Allen-Bradley Co, Milwaukee	Wis
Amark Corp, Plainview	N Y
Amperex Electronic Corp, Component Div Hauppauge	N Y
Audn Corp, Hamburg	N Y
Automation Devices, Inc, Fairview	Pa
Automation Products Mfg Inc, Boca Raton	Fla
Cardinal Control Co Inc, Kensington	Conn
Coltron Industries, Inc, Charlotte	N C
Controlotron Corp, Farmingdale	N Y
Decker Corp, Bala Cynwyd	Pa
De-Tec-Tronic Corp, Chicago	Ill
Digit Co Inc, Marblehead	Mass
Dolan Jenner Industries Inc, Melrose	Mass
Drexelbrook Engineering Co, Glenside	Pa
Durant Mfg Co, Milwaukee	Wis
Ebert Electronics Corp, Floral Park	N Y
Electronics Corp of America, Cambridge	Mass
Electro Products Labs Inc Transducer Div, Chicago	Ill
Electro-Sonic-Control, Manteca	Cal
Euclid Electric & Mfg Div Harvey Hubbell Inc, Madison	Ohio
Farmer Electric Products Co Inc, Natick	Mass
General Electric Co, ECSO, Schenectady	N Y
General Precision Systems Inc, Indl Controls Div Morton Grove	Ill
Helm Instrument Co Inc, Toledo	Ohio
Hyde Park Electronics Inc, Dayton	Ohio
Industrial Electronetics Corp, Satellite Beach	Fla
La Telemecanique Electrique, 92 Rueil	France
Luminator Inc Display-Control Div, Plano	Tex
Mackworth Rees Div, Madison Heights	Mich
Martin-Decker Corp, Santa Ana	Cal
Mechanical Technology Inc, Latham	N Y
Micro Metrics Inc, Paterson	N J
Micro Switch Div, Honeywell, Freeport	Ill
Park Products Engineering Co Inc, Tinley Park	Ill
Peco Corp, Mountain View	Cal
Photobell Co Inc, New York	N Y
PMF Electronics Inc, Dayton	Ohio
Precision Systems Corp, Columbus	Ohio
Regdon Corp, Brookfield	Ill
Research Associates Inc, Linden	N J
Robertshaw Controls Co, Acro Div, Columbus	Ohio
Rundel Electric Co, Millbrae	Cal
Sensi-Tronics Inc, Williamsville	N Y
Sensor Corp, Greenwich	Conn
Slocum Industries, Inc, Reseda	Cal
Square D Co, Park Ridge	Ill
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Techrand Corp of America, Muskegon	Mich
Thorn Automation Ltd, Rugeley, Staffs	England
Utility Communication Systems Inc, Essington	Pa
Warner Electric Brake & Clutch Co, Beloit	Wisc
Wayne Kerr Corp, Montclair	NJ
Wer Industrial Corp, Buffalo	N Y
Westinghouse Brake & Signal Co Ltd Automation Div Chippenham	England

CONTROLS—REGISTER SEE CONTROLS—PHOTOELECTRIC

CONTROLS, REMOTE--RADIO

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
HEATH CO, BENTON HARBOR	**MICH**
MESON ELECTRONICS CO, INC, ROCHESTER	**N Y**
TELE-SIGNAL CORP, WOODBURY	**N Y**
Advance Industries Inc, Appleton	Wis
Anritsu Electric Co Ltd, Tokyo	Japan
Aquadyne Inc, East Falmouth	Mass
A R F Products, Inc, Raton	N M
Aristo-Craft Distinctive Miniatures, New York	N Y
Babcock Electronic Corp, Costa Mesa	Cal
Barrett Electronics Corp, Northbrook	Ill
Bauer Broadcast Div Granger Assoc, Palo Alto	Cal
Bayly Engineering Ltd, Ajax	Ontario
Bionic Instruments Inc, Bala Cynwyd	Pa
Bramco Controls Div Ledex Inc, Piqua	Ohio
Canadian Motorola Electronics Co, Agincourt	Ont
Cubex Co, Altadena	Cal
Data-Control Systems Inc, Danbury	Conn
Dresser Controls, Houston	Texas
Electronic Homes Co, New York	N Y
Fisher-Akin Co, Manhattan Beach	Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
GDO Co Inc, Palisades Park	N J
Gulton Industries Inc, Metuchen	N J
Hammarlund Mfg Co Data Communications Div Amityville	N Y
Hathaway Pacific Corp, Palo Alto	Cal
Heath Co, Benton Harbor	Mich
Instru-Lec Corp, Mt Vernon	N Y
Kobe Industries Corp, Kobe	Japan
Marquardt Industrial Products Co, Chicago	Ill
Meson Electronics Co, Inc, Rochester	N Y
Meteorology Research Inc, Altadena	Cal
Micro Communications Co, Denver	Colo
Midland International Corp, North Kansas City	Mo
Moore Associates Div Rocker Co, San Carlos	Cal
Moseley Associates Inc, Goleta	Cal
Motorola Communications & Electronics Div Chicago	Ill
Multiper N V, Den Haag	Netherlands
National Radio Co Inc, Melrose	Mass
Oki Electric Industry Co Ltd, Tokyo	Japan
Perma-Power Co, Chicago	Ill
Philmore Mfg Co Inc, Richmond Hill	N Y
Precision Mecanique Labinal, 93 Saint-Ouen	France
Private Tele Communications Inc, Chicago	Ill
Pulse Communications Inc, Falls Church	Va
Quindar Electronics Inc, Springfield	NJ
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Reach Electronics Inc, Lexington	Neb
Sanyo Electric Co Ltd, Osaka	Japan
Show Sound, Inc, New York	N Y
Signal & Communications Div Westinghouse Air Brake Co Pittsburgh	Pa
Southern Avionics Co, Beaumont	Tex
Standard Telephones & Cables Ltd London WC 2	England
Storno, Copenhagen S	Den
Symetrics Engineering Corp, Satellite Beach	Fla
Tele-Signal Corp, Woodbury	N Y
Topping Electronics Ltd, Toronto 17	Ont
Utility Communication Systems Inc, Essington	Pa
Vega Electronics Corp, Santa Clara	Cal
Ventron Electronics Corp, Bradford	Pa
VP Co, Pasadena	Cal
Westinghouse Brake & Signal Co Ltd Automation Div Chippenham	England
Wilcox Electric Co Inc, Kansas City	Mo

CONTROLS, REMOTE--TV

Applied Electro Mechanics Inc, Alexandria	Va
Bionic Instruments Inc, Bala Cynwyd	Pa
Brown Engineering-A Teledyne Co, Huntsville	Ala
Canoga Electronics Corp, Chatsworth	Cal
CBC Industries Inc, Philadelphia	Pa
Central Dynamics Ltd, Pte Claire	Que
Cohu Electronics Inc, San Diego	Cal
Cubex Co, Altadena	Cal
Dalto Electronics Corp, Norwood	N J
Fedtro Inc, Rockville Centre	N Y
Hammarlund Mfg Co Data Communications Div Amityville	N Y
Hayakawa Electric Co Ltd, Osaka	Japan
Inelco S p A, Tavernerio	Italy
Kameco Ltd, Montreal	Que
Kobe Industries Corp, Kobe	Japan
Lake Systems Corp, Newton	Mass
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Moore Associates Div Rocker Co, San Carlos	Cal
Moseley Associates Inc, Goleta	Cal
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Panther Electronics Inc, Burbank	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Quindar Electronics Inc, Springfield	NJ
Raytheon Learning Systems Co, Michigan City	Ind
Sanyo Electric Co Ltd, Osaka	Japan

CONTROLS, REMOTE--WIRELINE

MESON ELECTRONICS CO, INC, ROCHESTER	**N Y**
TELE-SIGNAL CORP, WOODBURY	**N Y**
Amtron Inc, Midlothian	Ill
Antlab, Inc, Worthington	Ohio
Autocon Industries, Inc, St Paul	Minn
Automatic Switch Co, Florham Park	N J
A V Electronics, Inc, Fresno	Cal
Babcock Electronic Corp, Costa Mesa	Cal
Bayly Engineering Ltd, Ajax	Ontario
Bionic Instruments Inc, Bala Cynwyd	Pa
Bramco Controls Div Ledex Inc, Piqua	Ohio
Bristol Div, American Chain & Cable Co Waterbury	Conn
B/W Controller Corp, Birmingham	Mich
Canadian Motorola Electronics Co, Agincourt	Ont
Cohu Electronics Inc, San Diego	Cal
Coltron Industries, Inc, Charlotte	N C
Condor Industrial Corp, West Chicago	Ill
Control Engineering Div J B Webb Co, Detroit	Mich
Data Automation Inc, Elk Grove	Ill
Dresser Controls, Houston	Texas
Edison, Thomas A Industries, Instr Div West Orange	N J
Electronic Modules Corp, Timonium	Md

Electronics Communications Div Atlantic Research Corp Alexandria	Va
Essex Engineering Co Inc, Essex	Conn
Foxboro Co, Foxboro	Mass
General Railway Signal Co, Rochester	N Y
Gulton Industries Inc, Metuchen	N J
Hammarlund Mfg Co Data Communications Div Amityville	N Y
Hathaway Pacific Corp, Palo Alto	Cal
H B Engineering Corp, Silver Spring	Md
Hersey-Sparling Meter Co, El Monte	Cal
Industrial Components Inc, Beaverton	Ore
ITT Barton Controls & Instr Div, Monterey Park	Calif
Kaar Electronics Corp, Linden	N J
Landis & Gyr AG, Zug	Switzerland
Lane Industries,Electronics Div, North Hollywood	Cal
Ledex Div Ledex Inc, Dayton	Ohio
Lutron Electronics Co Inc, Emmaus	Pa
Marquardt Industrial Products Co, Chicago	Ill
Martron Inc, Newport Beach	Cal
Measuring Instrument Controls Inc Berkeley Heights	N J
Meson Electronics Co, Inc, Rochester	N Y
Meteorology Research Inc, Altadena	Cal
Micro Communications Co, Denver	Colo
Moore Associates Div Rocker Co, San Carlos	Cal
Moseley Associates Inc, Goleta	Cal
Motorola Instrumentation & Control Inc, Phoenix	Ariz
Nichols Co Ltd, R H, Downsview	Ont
Northern Engineering Co, Baraboo	Wis
Pierpont Television Co, Birmingham	Ala
Plessey Airborne Corp, Hillside	NJ
Pulse Communications Inc, Falls Church	Va
Quindar Electronics Inc, Springfield	NJ
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Reach Electronics Inc, Lexington	Neb
Rundel Electric Co, Millbrae	Cal
Sangamo Electric Co, Springfield	Ill
Saturn Electronics Corp, Garland	Tex
Show Sound, Inc, New York	N Y
Sierra Electric Inc, Gardena	Cal
Simplex Time Recorder Co, Gardner	Mass
Southwest Products Co, Monrovia	Cal
Standard Telephones & Cables Ltd London WC 2	England
Stevenson Engineering & Mfg Co, Portland	Ore
Swanson Engineering & Mfg Co, Inglewood	Cal
Tele-Signal Corp, Woodbury	N Y
Theta Instrument Corp, Fairfield	N J
Touch-Plate Mfg Corp, Paramount	Cal
Trepac Corp of America, Englewood	N J
Utility Communication Systems Inc, Essington	Pa
Vega Electronics Corp, Santa Clara	Cal
Westinghouse Brake & Signal Co Ltd Automation Div Chippenham	England
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh	Pa

CONTROLS--SERVO SEE ALSO

SERVOSYSTEMS

ANALOG DEVICES INC, CAMBRIDGE	**MASS**
ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
BECKMAN INSTRUMENTS INC, HELIPOT DIV, FULLERTON CAL	**ADV PG 208**
BODINE ELECTRIC CO, CHICAGO	**ILL**
BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS WOODSIDE	**NY**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
DATA TECHNOLOGY, INC, WATERTOWN	**MASS**
DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
ELECTRO-CRAFT CORP, HOPKINS	**MINN**
IMC MAGNETICS CORP WESTERN DIV, MAYWOOD	**CAL**
LINAIR DESIGN CORP, LINDEN	**N J**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
SUPERIOR ELECTRIC CO THE, BRISTOL	**CONN**
ADC Electronics, Inc, Harbor City	Cal
Adel Div De Laval Turbine Calif Inc, Burbank	Cal
Advance Instrument Corp, Belmar	N J
Aeroflex Labs, Inc, Plainview	N Y
Analog Devices Inc, Cambridge	Mass
Analog General Corp, East Rockaway	N Y
Anritsu Electric Co Ltd, Tokyo	Japan
Antlab, Inc, Worthington	Ohio
Applied Devices Corp, College Point	n y
Audn Corp, Hamburg	N Y
Barber-Colman Co, EMP Div, Rockford	Ill
B & B Motor & Control Corp, New York	N Y
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Bendix Corp, Flight & Engine Instr Div South Montrose	Pa
Bendix Corp, Vacuum Div, Rochester	N Y
Bodine Electric Co, Chicago	Ill
Bowmar Instrument Corp, Fort Wayne	Ind
Bulova Watch Co Inc Elctns Div Servo Products Woodside	NY
Burr-Brown Research Corp, Tucson	Ariz
Butler Electronics Co, Escondido	Cal
Carbonara Instrument Engrg Labs, Victor E, Port Washington	N Y
Cedar Engineering Div Control Data Corp Minneapolis	Minn
C-E Electronics Inc, Glenside	Pa
Coast Electronics Inc, Manhattan Beach	Cal
Coltron Industries, Inc, Charlotte	N C
Compudyne Corp, Hatboro	Pa
Computer Instruments Corp, Hempstead	N Y
Conductron Corp, Ann Arbor	Mich
Conrac Corp, New York	N Y
Consolidated Airborne Systems, Carle Place	N Y
Consolidated Controls Corp, El Segundo	Cal
Consolidated Controls Corp, Bethel	Conn
Control Engineering Div J B Webb Co, Detroit	Mich
Controlotron Corp, Farmingdale	N Y
Control Technology Co Inc, Long Island City	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Data Technology, Inc, Watertown	Mass
Decker Corp, Bala Cynwyd	Pa
Dranetz Engineering Labs Inc, Plainfield	N J
Dynamic Precision Controls Corp, Hagerstown	Ind
Electro-Craft Corp, Hopkins	Minn
Electronic Communications Inc (ECI), St Petersburg	Fla
ElectroSyn Technology Labs, Inc, Canton	Mass
EMI Electronics Ltd, Hayes, Middlesex	England
EMR-Hatboro Div Weston Insts Inc, Hatboro	Pa
Exactel Instrument Co Div Statham Instrs Inc Mountain View	Cal
Fairchild Controls, Hicksville	N Y
Farrand Controls Inc, Valhalla	N Y
Fujitsu Ltd, Tokyo	Japan
Gap Instrument Corp, Westbury	N Y
General Electric Co Ordnance Dept, Pittsfield	Mass
General Precision Systems Inc, Indl Controls Div Morton Grove	Ill
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Geo Space Systems Inc, St Petersburg	Fla
Gilmore Industries Inc, Cleveland	Ohio
Glentek Inc, Santa Monica	Cal
Goodyear Aerospace Corp, Akron	Ohio
Hartman Systems Co Inc, Huntington Station	N Y
Henschel Corp, Amesbury	Mass
Hi-Altitude Instrument Co, Inc., Denver	Colo
Honeywell Industrial Div, Fort Washington	Pa
Icon Corp, Cambridge	Mass
IMC Magnetics Corp Western Div, Maywood	Cal
Industrial Control Co, Farmingdale	N Y
Industrial Electronetics Corp, Satellite Beach	Fla
Inland Controls Inc Sub Kollmorgen Corp Brighton	Mass
Jordan Controls Inc, Milwaukee	Wis
Jungner Instrument AB, S-10440 Stockholm 14	Sweden
Kinetic Instrument Co Div Nortek Inc, Brooklyn	N Y
Kollsman Motor Corp, Dublin	Pa
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
Ledex Div Ledex Inc, Dayton	Ohio
Lak-Trol, Inc, Grapevine	Tex
Linair Design Corp, Linden	N J
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Luft Instruments Inc, Lincoln	Mass
Lundy Electronics & Systems Inc, Glen Head	N Y
Magnetic Technology Inc, Canoga Park	Cal
McFadden Electronics Co, South Gate	Cal
McKiernan-Terry Marine Div Litton Industries Paramus	N J
McMaster Products Corp, Chicago	Ill
Measurement Systems Inc, Norwalk	Conn
Micro Metrics Inc, Paterson	N J
Minnetech Labs Inc, Minneapolis	Minn
Moog Inc, Industrial Div, East Aurora	N Y
M Ten Bosch, Inc, Pleasantville	N Y
Muirhead Instruments Inc, Mountainside	N J
Nash Controls Inc, Caldwell	N J
Natel Engineering Co Inc, Van Nuys	Cal
Norbatrol Electronics Corp, Murrysville	Pa
Omega Industries Inc, Newport Beach	Cal
Omega-t Systems Inc, Richardson	Tex
Orbit Instrument Corp, Syosset	N Y
Palisades Engineering Co Inc, Pacific Palisades	Cal
Pegasus Labs Inc, Berkley	Mich
Photocircuits Corp, Glen Cove	N Y
Precision Mechanisms Corp, Westbury	N Y
Reeves Instrument Div, DCA, Garden City	N Y
Reflex Controls Corp, Huntington Station	NY
Robicon Corp, Pittsburgh	Pa
Rosemount Plug-In Inc, Nashville	Tenn
Rundel Electric Co, Millbrae	Cal
Sanders Associates, Inc, Nashua	N H
Saturn Electronics Corp, Garland	Tex
Scientific-Atlanta Inc, Atlanta	Ga
Sedco Systems Inc, Farmingdale	N Y
Seneca Falls Machine Co, Seneca Falls	N Y
Servo Development Corp, Hicksville	N Y
Servo Labs Inc, Van Nuys	Cal
Servomex Controls Ltd, Sussex	England
Servonetics Inc, Los Angeles	Cal
Servo-Tek Products Co, Hawthorne	N J
Servotronics Inc, Buffalo	N Y
Singer Co, Diehl Div, Somerville	N J
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Solar Electronics Co, Hollywood	Cal
Sperry Flight Systems Div Sperry Rand Corp Phoenix	Ariz
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Strandberg Engineering Labs Inc, Greensboro	N C
Stratocon Corp, Newark	N J
Streeter-Amet, Grayslake	Ill
Struthers-Dunn Inc, Pitman	N J
Sulzer Brothers Ltd, Industrial Elctns Div Winterthur	Switzerland
Sunbeam Electronics, Fort Lauderdale	Fla
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Superior Electric Co The, Bristol	Conn
Symetrics Engineering Corp, Satellite Beach	Fla
Technology Instrument Corp Sub Bowmar Instr Corp Newbury Park	Cal
Tek-Sel Labs Inc, Saddle Brook	N J
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
Theta Instrument Corp, Fairfield	N J
Thorn Automation Ltd, Rugeley, Staffs	England
United Control Corp, Redmond	Wash
Vactric Control Equipment Ltd, Morden	England
Vega Servo-Control Inc, Troy	Mich
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Wer Industrial Corp, Buffalo	N Y
Westamp Inc, Santa Monica	Cal
Weston Hydraulics, Van Nuys	Cal
Weston-Transicoil, Weston Instruments Inc Worcester	Pa
Woodward Machine Inc, Elctns Div, Detroit	Mich
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

LOOKING FOR PRECISION POTENTIOMETERS?

Helipot has the industry's widest selection of multiturn and single-turn precision potentiometers and is the *only* single source for units with wirewound, cermet and conductive plastic resistance elements. For complete information contact the Helipot representative nearest you. He's listed in EBG's Manufacturers' Index.

Beckman
INSTRUMENTS, INC.

HELIPOT DIVISION
FULLERTON, CALIFORNIA • 92634

CONTROLS--SORTING (NOT PHOTOELECTRIC) SEE ALSO CONTROLS--PHOTOELECTRIC

AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE	**N Y**
TECHMETRIC CO, REDWOOD CITY	**CAL**
Advanced Technology & Systems Corp Old Greenwich	Conn
Affiliated Manufacturers Inc, Whitehouse	N J
Amperex Electronic Corp, Component Div Hauppauge	N Y
Audn Corp, Hamburg	N Y
Avionics, Inc, South Bend	Ind
Bionic Instruments Inc, Bala Cynwyd	Pa
Control Engineering Div J B Webb Co, Detroit	Mich
Custom Control Mfg Inc, Merriam	Kan
Cutler-Hammer Inc, Milwaukee	Wisc
Data Device Corp, Hicksville	N Y
Decca Radar, Inc, New York	N Y
Digitrol Systems Inc, Amenia	N Y
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee	Ill
Electronic Ideas Inc, Wyncote	Pa
Electro-Sonic-Control, Manteca	Cal
EMI Electronics Ltd, Hayes, Middlesex	England
Fairchild Controls, Hicksville	N Y
General Atronics Corp, Philadelphia	Pa
Industrial Components Inc, Beaverton	Ore
Industrial Electronetics Corp, Satellite Beach	Fla
International Electro-Magnetics Inc, Palatine	Ill
Kameco Ltd, Montreal	Que
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Luft Instruments Inc, Lincoln	Mass
MKC Electronics Corp, Kansas City	Kans
Nash & Harrison Ltd, Ottawa 3	Ont
Nuclear Materials & Equipment Corp, Apollo	Pa
Plessey Airborne Corp, Hillside	NJ
Presin Co Inc, Shelton	Conn

Radio Corp of America, Comml Elctn Prods Div Camden	N J
Rundel Electric Co, Millbrae	Cal
Schoeffel Instrument Co, Westwood	NJ
Sensor Corp, Greenwich	Conn
Square D Co, Park Ridge	Ill
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Stevenson Engineering & Mfg Co, Portland	Ore
Techmetric Co, Redwood City	Cal
Theta Instrument Corp, Fairfield	N J
Warner Electric Brake & Clutch Co, Beloit	Wisc
Wayne Kerr Corp, Montclair	NJ
Wer Industrial Corp, Buffalo	N Y

CONTROLS--SOUND ACTUATED

Abtronics, Inc, Livermore	Cal
Advanced Electronics, Inc, Rocky Hill	Conn
Applied Control Co, Cedar Grove	NJ
Audn Corp, Hamburg	N Y
A V Electronics, Inc, Fresno	Cal
Bayside Timers, Inc, Flushing	N Y
Photobell Co Inc, New York	N Y
Randam Electronics Inc, Cincinnati	Ohio
Sensor Corp, Greenwich	Conn
Straza Industries Div Ametek Inc, El Cajon	Cal
Trans-Tek Mfg Co Inc, Garwood	N J
Trepac Corp of America, Englewood	N J

CONTROLS--SPECIFIC GRAVITY,LIQUIDS

Acoustica Associates Inc, Los Angeles	Cal
Adel Div De Laval Turbine Calif Inc, Burbank	Cal
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Automation Products, Inc, Houston	Tex
Bionic Instruments Inc, Bala Cynwyd	Pa
Bristol Div, American Chain & Cable Co Waterbury	Conn
Cambridge Scientific Industries Inc, Cambridge	Md
Curtis Development & Mfg Co, Milwaukee	Wis
Elastronics Labs, Tarzana	Cal
Exactel Instrument Co Div Statham Instrs Inc Mountain View	Cal
Fischer & Porter Co, Warminster	Pa
Foxboro Co, Foxboro	Mass
Fuji Electric Co Ltd, Tokyo	Japan
Gardner Lab Inc, Bethesda	Md
Honeywell Industrial Div, Fort Washington	Pa
ITT Barton Controls & Instr Div, Monterey Park	Calif
Liquid Level Lectronics Inc, Richardson	Tex
Nuclear-Chicago Corp, Des Plaines	Ill
Ohmart Corp, Cincinnati	Ohio
Poole Instruments Inc, Dallas	Tex
RIL Electronics Inc, Southampton	Pa
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Taylor Instrument Cos, Rochester	N Y
Utility Communication Systems Inc, Essington	Pa

CONTROLS--TEMPERATURE

API INSTRUMENTS CO, CHESTERLAND	**OHIO**
BLUE M ENGINEERING CO, BLUE ISLAND	**ILL**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE	**N Y**
BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS WOODSIDE, NY	**ADV PG 209**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
ELECTRONIC RESEARCH CO, A TEXTRON CO, OVERLAND PARK KAN	**ADV PG 209**
ELMWOOD SENSORS INC, CRANSTON	**R I**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HYDRA-ELECTRIC CO, BURBANK	**CAL**
MAGNETICS INC, BUTLER	**PA**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
MISSIMERS INC, GLENDALE	**CAL**
OVEN INDUSTRIES, MECHANICSBURG	**PA**
SUPERIOR ELECTRIC CO THE, BRISTOL	**CONN**
VICTORY ENGINEERING CORP, SPRINGFIELD N J	**ADV PGS FACING PG 1**
Acromag Inc, Wixom	Mich
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
A D Data Systems Inc, Rochester	N Y
Advanced Dynamics Inc Div Alco Std Corp Cleveland	Ohio
Advanced Products Co, North Haven	Conn
Advanced Purification System Co Inc, Great Neck	N Y
Aeromarine Electronics, Inc, San Diego	Cal
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Airmec Instruments Ltd, Buckinghamshire	England
Aladdin Controls Div Aladdin Electronics Nashville	Tenn
All American Eng Co, Coml Prods Div, Wilmington	Del
Allen-Bradley Co, Milwaukee	Wis
Allied Research Associates, Inc, Concord	Mass
Alpha Scientific Labs Inc, Oakland	Cal
American Instrument Co, Inc, Silver Spring	Md
American Solenoid Co, Inc, Rahway	N J
American-Standard Controls Div, Detroit	Mich
A & M Instruments Inc, Great Neck	N Y
Amlab Inc, Rahway	NJ
Andonian Associates, Inc, Waltham	Mass
API Instruments Co, Chesterland	Ohio
Asarco Intermetallics Corp, New York	N Y
Athena Controls Inc, Conshohocken	Pa
Atkins Technical, Inc, Gainesville	Fla
Audn Corp, Hamburg	N Y
Bacharach Instrument Co, Pittsburgh	Pa
Bailey Meter Co, Wickliffe	Ohio
Barber-Colman Co, EMP Div, Rockford	Ill
Barnes Engineering Co Def & Space Div Stamford	Conn
Bayley Instrument Co, Danville	Cal
Beckman Instruments Inc, Fullerton,	Cal
Beede Electrical Instrument Co, Inc, Penacook	N H
Blue M Engineering Co, Blue Island	Ill
Borg-Warner, Thermoelectric Div, Des Plaines	Ill
Bristol Div, American Chain & Cable Co Waterbury	Conn
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Bulova Watch Co Inc Elctns Div Servo Products Woodside	NY
Burling Instrument Co, Chatham	N J
Cambridge Thermionic Corp, Cambridge	Mass
Canadian Motorola Electronics Co, Agincourt	Ont
Chatham Controls Corp, Chatham	N J
Cleveland Process Corp, Cleveland	Ohio
Coltron Industries, Inc, Charlotte	N C
Columbus Electric Mfg Co, Columbus	Ohio
Compudyne Corp, Hatboro	Pa
Computer Instruments Corp, Hempstead	N Y
Computer Logic Corp, Santa Monica	Cal
Consolidated Airborne Systems, Carle Place	N Y
Consolidated Controls Corp, El Segundo	Cal
Consolidated Controls Corp, Bethel	Conn
Consolidated Ohmic Devices Jnc, Carle Place	N Y
Continental Testing Labs, Fern Park	Fla
Control Data Corp, LaJolla Div, Minneapolis	Minn
Controlomag Labs, Roslyn	Pa
Controlotron Corp, Farmingdale	N Y
Control Products Inc, East Hanover	N J
Control Technology Co Inc, Long Island City	N Y
Creative Electric Inc, Auburn	N Y
Cryogenic Engineering Co, Denver	Colo
Cryogenic Research Co Inc, Boulder	Colo
Curtis Development & Mfg Co, Milwaukee	Wis
Dales Co, Franklin, Akron	Ohio
Data Device Corp, Hicksville	N Y
Delta Design Inc, La Mesa	Cal
Devco Engineering Inc, Fairfield (Caldwell)	N J
Dohrmann Instruments Co, Mountain View	Cal
Dynamic Controls Corp, South Windsor	Conn
Dynamic Precision Controls Corp, Hagerstown	Ind
Dynatronic Instruments Corp Div Lab-Line Inst Inc Melrose Park	Ill
Edison, Thomas A Industries, Instr Div West Orange	N J
E G & G Inc, Electronic Prods Div, Boston	Mass
Electro-Flex Heat Inc, Bloomfield	Conn

Temperature Controls?

Try Bulova First!

CALL:

Ariz	Tech-Ser Inc, 1805 E Indian School Rd Phoenix	602-265-3629
Cal	El Com Sales Co, 3600 Motor Ave Los Angeles	213-870-4707
Fla	Perrott Assoc, 1607 Forsyth Rd, Orlando	305-275-1132
Fla	Perrott Assoc, Box 4532, Clearwater	813-531-5513
Fla	Perrott Assoc, Box 6277 West Palm Beach	305-967-1770
Ill	Communications Eng, 7100 N Western Ave Chicago	312-R01-0548
Md	Callas Electronics Inc, 6409 Frederick Ave Baltimore	301-744-7711
Mich	Sheridan Assoc., 25625 Southfield Rd., Southfield	313-358-3333
Mass	Aborn Labs Inc, 223 Crescent St Waltham	891-4850
Minn	Wenco Sales Inc, 7728 Morgan Ave S Minneapolis	612-866-3639
Mo	J C Mankus & Assoc, 400 Brooks La Hazelwood	314-PE1-4334
NY	L-Tron Corp, 2-4 Fennell St, Skaneateles	315-685-6172
NY	Comtronic Assoc, 1551 Franklin Ave Mineola	516-P11-8966
Ohio	Sheridan Assoc., 10 Knollcrest Dr., Reading	513-761-5432
Pa	Garrettson Co Inc, 92-14 Masland St Philadelphia	H04-2275
Tex	Tech-Ser Inc, 10210 Monroe Dr Dallas	214-358-2504
Can	Canadian Micro Elctns, 1390 Raven Ave Ottawa, Ont	725-2332

BULOVA WATCH CO INC
SERVO PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

erc

TEMPERATURE CONTROLLER

New Model ERO 9100

NEW ERC Temperature Controller with all solid state circuitry incorporating the latest electronic components, provides high reliability. Heat or CO_2 value is switched on and off by means of solid state Triacs. Zero cross-over switching of load eliminates any R.F.I. Meter indicates deviation from set point. On—off of heat or CO_2 is indicated by two neon lamps. Five standard ranges are available from −250°F to +600°F.

TEMPERATURE ANALYZER

Model ERO 900

ERC Temperature Analyzer is a precision adjustable oven which provides a controlled temperature environment for a variety of oven sizes. Crystals, integrated circuits and semi-conductors can easily be tested. Also available are special ovens for complete P.C. board and module testing. Control temperature range +25°C to +105°C. Operates on 115 volts, 60 cycle, with accuracy of 0.25°C. This unit is especially designed for use in quality control and engineering design departments.

Write for complete literature

erc frequency control products
A TEXTRON COMPANY
electronic research co.
913—ME. 1-6700
10,000 W. 75 • Overland Park, Kans. 66204

Electro Miniatures Corp, South Hackensack	N J
Electronic Applications Co, Pine Brook	N J
Electronic Control Corp, Detroit	Mich
Electronic Control Corp, Euless	Tex
Electronic Control Systems Inc, Fairmont	W Va
Electronic Modules Corp, Timonium	Md
Electronic Research co, A Textron Co Overland Park	Kan
Elesta Ltd Electronics, Bad Ragaz	Switzerland
Elmwood Sensors Inc, Cranston	R I
En-Cer Inc, South Holland	Ill
Energy Conversion Devices Inc, Troy	Mich
Epic Inc, New York	N Y
Essex Wire Corp Stemco Controls, Mansfield	Ohio
Euro Cedag, Milan	Italy
Fenwal Inc, Ashland	Mass
Fischer & Porter Co, Warminster	Pa
Fostoria-Fannon Inc, Fostoria	Ohio
Foxboro Co, Foxboro	Mass
Foxboro Co Valenica Plant, Valencia	Cal
Fuji Electric Co Ltd, Tokyo	Japan
Fulton Sylphon Div Robertshaw Controls Co Knoxville	Tenn
Furnas Electric Co, Batavia	Ill
Garrett Corp, Los Angeles	Cal
General Electric Co, ECSO, Schenectady	N Y
General Radio Co, West Concord	Mass
Genisco Technology Corp, Compton	Cal
Giannini-Voltex, Whittier	Cal
Glentek Inc, Santa Monica	Cal
Gruenberg Electric Co Inc, Garden City	N Y
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Gulton Industries Inc, Metuchen	N J
G-V Controls Inc, Livingston	N J
Hafstrom Technical Products Inc, San Diego	Cal
Hallikainen Instruments, Richmond	Cal
Harrel Inc, East Norwalk	Conn
Hektor Scientific Co Inc, Foxboro	Mass
Helm Instrument Co Inc, Toledo	Ohio
Hexacon Electric Co, Roselle Park	N J
Hi Shear Corp, Torrance	Cal
Honeywell Industrial Div, Fort Washington	Pa
Hydra-Electric Co, Burbank	Cal
Industrial Electronetics Corp, Satellite Beach	Fla
Infrared Industries Inc, Santa Barbara	Cal
Infra-Red Systems Inc, Riverdale	N J
Instrulab Inc, Dayton	Ohio
Instrumentation & Control Systems Inc, Addison	Ill
Instrument Development Labs Div Kollmorgen Corp Attleboro	Mass
International Controls Corp Cryogenics Div Fairfield	N J
International Energy Conversion Inc, Garland	Tex
International Instruments Div Sigma Instr Inc, Orange	Conn
International Rectifier Semiconductor Div El Segundo	Cal
Intertechnique, Plaisir, 78	France
Ircon Inc, Niles	Ill
ITT Barton Controls & Instr Div, Monterey Park	Calif
Jelrus Instrument Corp, New Hyde Park	N Y
Jersey Technical Consultants, Morristown	NJ
Kahl Scientific Instrument Corp, El Cajon	Cal
Kahn & Co Inc, Wethersfield	Conn
Kidde & Co Inc, Walter, Belleville	N J
Kokusai Electric Co Ltd, Tokyo	Japan
Landis & Gyr AG, Zug	Switzerland
Larson Instrument Co, Orangeburg	N Y
La Telemecanique Electrique, 92 Rueil	France
Leeds & Northrup Co, Philadelphia	Pa
Lek-Trol, Inc, Grapevine	Tex
Link Group Gen Precision Sys Inc, Binghamton	N Y
Loyola Industries Inc, El Segundo	Cal
Luft Instruments Inc, Lincoln	Mass
Lutron Electronics Co Inc, Emmaus	Pa
Magnetics Inc, Butler	Pa
Marin Controls Co, Belmont	Cal
Marlin Mfg Corp, Cleveland	Ohio
Martron Inc, Newport Beach	Cal
Melabs, Palo Alto	Cal
Microwave/Systems Inc, East Syracuse	N Y
Milletron, Inc, Pittsburgh	Pa
3M Instrument Products, Camarillo	Cal
Missimers Inc, Glendale	Cal
Motorola Instrumentation & Control Inc, Phoenix	Ariz
Muirhead Instruments Inc, Mountainside	N J
Nanmac Corp, Framingham Centre	Mass
Nash Controls Inc, Caldwell	N J
Norbatrol Electronics Corp, Murrysville	Pa
Nucleonic Industries, Tucson	Ariz
Oven Industries, Mechanicsburg	Pa
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Payne Engineering Co, South Charleston	W Va
Pennsylvania Electronics Technology, Inc, Pittsburgh	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Phoenix Materials Corp, Monroeville	Pa
Plessey Airborne Corp, Hillside	NJ
PMF Electronics Inc, Dayton	Ohio
Power Control Corp, Pittsburgh	Pa
Precision Mecanique Labinal, 93 Saint-Ouen	France
Precision Systems Corp, Columbus	Ohio
Precision Thermometer & Instrument Co Southampton	Pa
Precision Transformers Inc, Anaheim	Cal
Princeton Applied Research Corp, Princeton	N J
Procedyne Corp, New Brunswick	N J
Protective Controls Inc, Chartley	Mass
Pyrometer Instrument Co Inc, Northvale	N J
Pyro-Serv Instruments, Inc, North Arlington	N J
Pyrotel Corp c/o Milletron Inc, Pittsburgh	Pa
Radix Electronics Corp, Anaheim	Cal
Ramyr Mfg Co, Buena Park	Cal
Regent Controls Inc, Stamford	Conn
Relco Products Inc, Denver	Colo
Research Inc, R-I Controls Div, Minneapolis	Minn
RFL Industries Inc, Thermocontrol Div, Boonton	N J
RIL Electronics Inc, Southampton	Pa
RO Associates Inc, Menlo Park	Cal
Robertshaw Controls Co, Aero & Instrument Div Anaheim	Cal
Robicon Corp, Pittsburgh	Pa
Rosemount Engineering Co, Minneapolis	Minn
Rosemount Plug-In Inc, Nashville	Tenn
Rundel Electric Co, Millbrae	Cal
Sage Instruments Inc, White Plains	N Y
Scaico Div, Wavetronics Industries Inc West Pittston	Pa
Scientific Engineering Mfg Co Inc North Hollywood	Cal
Seely Instrument Co Inc, Niagara Falls	N Y
Servomex Controls Ltd, Sussex	England
Sigma Instruments Canada Ltd, Toronto 18 Ont	Canada
Sigma Instruments Inc, Braintree	Mass
Signet Controls Inc, Tulsa	Okla
Signet Scientific Co, Burbank	Cal
Slocum Industries, Inc, Reseda	Cal
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Sprague Electric Co, North Adams	Mass
Square D Co, Park Ridge	Ill
Stephen & Co Ltd, R A, Mitcham	England
Strandberg Engineering Labs Inc, Greensboro	N C
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Superior Electric Co The, Bristol	Conn
Syracuse Electronics Corp, Syracuse	N Y
Systems Matrix Inc, Trenton	N J
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Taylor Instrument Cos, Rochester	N Y
Technology/Versatronics Inc, Yellow Springs	Ohio
Tek-Sel Labs Inc, Saddle Brook	N J
Tempil Corp, New York	N Y
Temtech, Santa Ana	Cal
Texas Instruments Incorporated, Dallas	Tex
Thermal Engineering & Design Co, Akron	Ohio
Thermal Systems Inc, Los Angeles	Cal
Therm-O-Disc Inc, Mansfield	Ohio
Thermo Electric Co Inc, Saddle Brook	N J
Thermolyne Corp, Dubuque	Iowa
Thermo Products Co Div Web Press Eng Cedarburg	Wisc
Thorn Automation Ltd, Rugeley, Staffs	England
Tia Electric Co, Princeton	N J
Tipptronic Inc, Chagrin Falls	Ohio
Trans-Sonics Inc, Lexington	Mass
Tylan Corp, Torrance	Cal
Ulanet Co, George, Newark	N J
United Aircraft Products Inc, Dayton	Ohio
United Control Corp, Redmond	Wash
United Electric Controls Co, Watertown	Mass
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Vapor Corp, Chicago	Ill
Vestal Modern Design Corp, Vestal	N Y
Victory Engineering Corp, Springfield	N J
Vulcan Electric ITT, Danvers	Mass
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Wavetronics Industries Inc, West Pittston	Pa
Waynco Inc, Winona	Minn
Westcott Electronics, Clifton	NJ
Westinghouse Electric Corp, Aerospace Electrical Div Lima	Ohio
West Instrument Corp, Schiller Park	Ill
Wiegand Co, Edwin L, Pittsburgh	Pa
Winsco Instruments & Controls Co Inc Santa Monica	Cal
Yellow Springs Instrument Co Inc, Yellow Springs	Ohio

CONTROLS--TENSION

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
Audn Corp, Hamburg	N Y
Coltron Industries, Inc, Charlotte	N C
Consolidated Electric Corp, Seattle	Wash
Dial Products Co, Bayonne	N J
Electro-Devices Inc Servospeed Div, Paterson	N J
Foxboro Co, Foxboro	Mass
General Electric Co, ECSO, Schenectady	N Y
Hurletron Inc, Danville	Ill
Industrial Electronetics Corp, Satellite Beach	Fla
Industrial Winding Machinery Corp, River Edge	N J
Inland Controls Inc Sub Kollmorgen Corp Brighton	Mass
LEM Instrument Corp, Farmingdale	N Y
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Magnetic Technology Inc, Canoga Park	Cal
Martin-Decker Corp, Santa Ana	Cal
Norbatrol Electronics Corp, Murrysville	Pa
Orbitran Co, Inc, Lakeside	Cal
Photobell Co Inc, New York	N Y
Plessey Airborne Corp, Hillside	NJ
Robicon Corp, Pittsburgh	Pa
Sensor Corp, Greenwich	Conn
Singer Co, Diehl Div, Somerville	N J
Tensitron Inc, Harvard	Mass
Transducer Controls Corp, Covina	Cal
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

CONTROLS--TENTERING SEE CONTROLS--PHOTOELECTRIC

CONTROLS, THICKNESS--ELECTROMAGNETIC

COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
Advanced Technology & Systems Corp Old Greenwich	Conn
American Electronic Controls Inc, Philadelphia	Pa
Bionic Instruments Inc, Bala Cynwyd	Pa
C-E Electronics Inc, Glenside	Pa
Computer Instruments Corp, Hempstead	N Y
De-Tec-Tronic Corp, Chicago	Ill
Electro-Sonic-Control, Manteca	Cal
Gardner Lab Inc, Bethesda	Md
Hurletron Inc, Danville	Ill
Hyde Park Electronics Inc, Dayton	Ohio
Industrial Control Co, Farmingdale	N Y
Industrial Electronetics Corp, Satellite Beach	Fla
Industrial Gauging & Control Inc, Norwalk	Conn
Link Group Gen Precision Sys Inc, Binghamton	N Y
Lion Research Corp, Newton	Mass
Mackworth Rees Div, Madison Heights	Mich
Measuring Instrument Controls Inc Berkeley Heights	N J
Mechanical Technology Inc, Latham	N Y
Microwave Instruments Co, Corona del Mar	Cal
Muirhead Instruments Inc, Mountainside	N J
Optics Technology Inc, Palo Alto	Cal
Precision Systems Corp, Columbus	Ohio
RIL Electronics Inc, Southampton	Pa
Stevenson Engineering & Mfg Co, Portland	Ore
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Unit Process Assemblies Inc, Woodside	N Y
Wayne Kerr Corp, Montclair	NJ

CONTROLS, THICKNESS-RADIATION

GENERAL ELECTRIC CO, ECSO, SCHENECTADY	**N Y**
Affiliated Manufacturers Inc, Whitehouse	N J
American Atomics Corp, Tucson	Ariz
Audn Corp, Hamburg	N Y
Conrac Corp, New York	N Y
Decker Corp, Bala Cynwyd	Pa
Fuji Electric Co Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
Industrial Gauging & Control Inc, Norwalk	Conn
In-Val-Co, Tulsa	Okla
Kobe Industries Corp, Kobe	Japan
Landis & Gyr, Inc, New York	N Y
Landis & Gyr AG, Zug	Switzerland
Microwave Instruments Co, Corona del Mar	Cal
Milletron, Inc, Pittsburgh	Pa
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Nuclear Technology Corp, White Plains	N Y
Ohmart Corp, Cincinnati	Ohio
Ovitron Corp Industrial Syst Div, Cheshire	Conn
RIL Electronics Inc, Southampton	Pa
Robertshaw Controls Co, Aero & Instrument Div Anaheim	Cal
Sel-Rex International S A, Geneve	Switzerland
Tracerlab, Div Lab for Electronics Inc, Waltham	Mass
Unit Process Assemblies Inc, Woodside	N Y

CONTROLS, THICKNESS-ULTRASONIC

Alcatel, Paris 8eme	France
Audn Corp, Hamburg	N Y
Automation Products, Inc, Houston	Tex
Coltron Industries, Inc, Charlotte	N C
Gilardoni S p A, Mandello Lario Como	Italy
Haydu Products Inc, Opa Locka	Fla
Nuclear Enterprises Ltd, Edinburgh 11	Scotland

CONTROLS, THICKNESS--X-RAY

AMERICANA X-RAY CO, ENGLEWOOD	**N J**
Americana X-Ray Co, Englewood	N J
Bicron Electronics Co, Canaan	Conn
Electron Machine Co, Umatilla	Fla
General Electric Co X-Ray Dept, Milwaukee	Wis
Gilardoni S p A, Mandello Lario Como	Italy
Industrial Gauging & Control Inc, Norwalk	Conn
Keleket Div Laboratory For Electronics Inc Waltham	Mass
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nuclear Technology Corp, White Plains	N Y
Philips Electronic Instruments, Anal Inst, Mount Vernon	N Y
Picker Nuclear, White Plains	N Y
Standard X-Ray Co, Chicago	Ill

CONTROLS--TIMING SEE TIMERS

CONTROLS--TORQUE, ELECTRONIC

BODINE ELECTRIC CO, CHICAGO	**ILL**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
ELECTRO-CRAFT CORP, HOPKINS	**MINN**
B & B Motor & Control Corp, New York	N Y
Bergen Lab, Inc, Paterson	N J
Bodine Electric Co, Chicago	Ill
C-E Electronics Inc, Glenside	Pa
Coltron Industries, Inc, Charlotte	N C
Compudyne Corp, Hatboro	Pa
Computer Instruments Corp, Hempstead	N Y
Conductron Corp, Ann Arbor	Mich
Controlotron Corp, Farmingdale	N Y

Daytronic Corp, Dayton	Ohio
Decker Corp, Bala Cynwyd	Pa
Dynamic Controls Corp, South Windsor	Conn
Dynamic Precision Controls Corp, Hagerstown	Ind
Electro-Craft Corp, Hopkins	Minn
Electro-Devices Inc Servospeed Div, Paterson	N J
Electroid Corp, Union	N J
Electronic Control Corp, Detroit	Mich
Electronic Control Corp, Euless	Tex
Elmek Div Electro Mechanics Inc, New Britain	Conn
Emerson Electric Co, Indl Controls & Elctns Div St Louis	Mo
Fuji Electric Co Ltd, Tokyo	Japan
Garrett Corp, Los Angeles	Cal
General Thermodynamics Corp, North Wilmington	Mass
General Time, Industrial Controls Div, Torrington	Conn
Glentek Inc, Santa Monica	Cal
Industrial Electronetics Corp, Satellite Beach	Fla
Inland Controls Inc Sub Kollmorgen Corp Brighton	Mass
Integrated Motorcontrol Inc, Palo Alto	Cal
Kahn & Co Inc, Wethersfield	Conn
Lear Siegler Inc, Santa Monica	Cal
Ledex Div Ledex Inc, Dayton	Ohio
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Lundy Electronics & Systems Inc, Glen Head	N Y
Lutron Electronics Co Inc, Emmaus	Pa
Magnetic Technology Inc, Canoga Park	Cal
Martin-Decker Corp, Santa Ana	Cal
McNab Inc, New York	N Y
Measurement Systems Inc, Norwalk	Conn
Norbatrol Electronics Corp, Murrysville	Pa
O'Brien Inc, D G, Framingham	Mass
Pegasus Labs Inc, Berkley	Mich
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Power Control Corp, Pittsburgh	Pa
Reliance Electric Co, Cleveland	Ohio
Rundel Electric Co, Millbrae	Cal
Schaevitz Engineering, Pennsauken	N J
Seneca Falls Machine Co, Seneca Falls	N Y
Singer Co, Diehl Div, Somerville	N J
Taylor Instrument Cos, Rochester	N Y
Tek-Sel Labs Inc, Saddle Brook	N J
Telstar Electronics Corp, Southold	N Y
Thorn Automation Ltd, Rugeley, Staffs	England
Tipptronic Inc, Chagrin Falls	Ohio
Transducer Controls Corp, Covina	Cal
Vari Tech Co, Grand Rapids	Mich
Varo Inc, Garland	Tex
Warner Electric Brake & Clutch Co, Beloit	Wisc
Wer Industrial Corp, Buffalo	N Y
West Coast Research Corp, Los Angeles	Cal
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

CONTROLS, TRAFFIC--COMPUTER

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT	**IOWA**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Automatic Signal Div Lab for Electronics, Inc Norwalk	Conn
Automation Development Co, Culver City	Cal
Control Data Corp, Minneapolis	Minn
Control Logic Inc, Natick	Mass
Digital Products, San Pedro	Cal
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Ferranti, Ltd, Lancashire	England
Fischer & Porter Co, Warminster	Pa
Gammatronix Inc, Dublin	Ohio
General Railway Signal Co, Rochester	N Y
Honeywell Inc, Computer Control Div Framingham	Mass
IBM Corp, Armonk	N Y
IBM Data Processing Div, White Plains	N Y
Inelco S p A, Tavernerio	Italy
Kameco Ltd, Montreal	Que
Link Group Gen Precision Sys Inc, Binghamton	N Y
Micro-Magnetic Industries Inc, Palo Alto	Cal
Moore Associates Div Rocker Co, San Carlos	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Philco-Ford Corp, Washington	D C
Quindar Electronics Inc, Springfield	NJ
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Siemens America Inc, New York	N Y
Streeter-Amet, Grayslake	Ill
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Trepac Corp of America, Englewood	N J
Westinghouse Brake & Signal Co Ltd Automation Div Chippenham	England

CONTROLS, TRAFFIC--RADAR

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Automatic Signal Div Lab for Electronics, Inc Norwalk	Conn
Bell Aerosystems Co, Buffalo	N Y
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Conductron Corp, Ann Arbor	Mich
Cooke Engineering Co, Alexandria	Va
Cosmos Industries Inc, Brooklyn	N Y
Decatur Electronics Inc, Decatur	Ill
Laboratory for Electronics Inc Elctns Div, Boston	Mass
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Muni Quip Corp Sub Duncan Parking Meter Corp Elk Grove Village	Ill
Nippon Electric Co Ltd, Tokyo	Japan
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Sierra Research Corp, Buffalo	N Y
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Whittaker Corp Technical Products Div, Chatsworth	Cal

CONTROLS, TRAFFIC--RADIO

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
American Systems, Inc, Van Nuys	Cal
Automatic Signal Div Lab for Electronics, Inc Norwalk	Conn
Canadian Motorola Electronics Co, Agincourt	Ont
Fisher-Akin Co, Manhattan Beach	Cal
Fujitsu Ltd, Tokyo	Japan
Lane Industries, Electronics Div, North Hollywood	Cal
Moore Associates Div Rocker Co, San Carlos	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Radio Corp of America, Comml Elctn Prods Div Camden	N J
RCA, Defense Electronic Products, Moorestown	N J

CONTROLS--TURBIDITY SEE CONTROLS--PHOTOELECTRIC

CONTROLS--ULTRASONIC SEE ULTRASONIC EQUIPMENT

CONTROLS--VACUUM

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
GAGNE ASSOCIATES INC, BINGHAMTON	**N Y**
HYDRA-ELECTRIC CO, BURBANK	**CAL**
Alcatel, Paris 8eme	France
American Electronic Controls Inc, Philadelphia	Pa
Amlab Inc, Rahway	NJ
Andonian Associates, Inc, Waltham	Mass
Automatic Switch Co, Florham Park	N J
Automation Development Co, Culver City	Cal
Bacharach Instrument Co, Pittsburgh	Pa
Beach-Russ Co, New York	N Y
Beckman Instruments Inc, Fullerton,	Cal
Bendix Vacuum Div, Rochester	N Y
Bendix Corp, Vacuum Div, Rochester	N Y
Bristol Div, American Chain & Cable Co Waterbury	Conn
Cathey Enterprises, Mountain View	Cal
Central Scientific Co, Chicago	Ill
CHA Industries, Div Carl Herrmann Assoc Menlo Park	Cal
Compudyne Corp, Hatboro	Pa
Computer Instruments Corp, Hempstead	N Y
Consolidated Controls Corp, Bethel	Conn
Consolidated Vacuum Corp, Rochester	N Y
Cooke Vacuum Products Inc, South Norwalk	Conn
Cryolab Div, Statics-Dynamics Inc, Los Osos	Cal
Cutler-Hammer Inc, Milwaukee	Wisc
Decker Corp, Bala Cynwyd	Pa
Dietz Co Inc, Henry G, Long Island City	N Y
Dynamic Precision Controls Corp, Hagerstown	Ind
Edwards High Vacuum Inc, Grand Island	N Y
Edwards High Vacuum 9Canada0 Ltd, Oakville	Ont
Electro-Sonic-Control, Manteca	Cal
ElectroSyn Technology Labs, Inc, Canton	Mass
Ellison Instrument Div Dieterich Std Corp New Buffalo	Mich
Energy Beams Inc, Haskell	N J
Fairchild Controls, Hicksville	N Y
Fischer & Porter Co, Warminster	Pa
Foxboro Co, Foxboro	Mass
Fredericks Co, Huntingdon Valley	Pa
Fuji Electric Co Ltd, Tokyo	Japan
Fulton Sylphon Div Robertshaw Controls Co Knoxville	Tenn
Gagne Associates Inc, Binghamton	N Y
Garrett Corp, Los Angeles	Cal
General Electric Co Vacuum Prods Business Section Schenectady	N Y
Gilmont Instruments Inc Roger, Great Neck	N Y
Granville-Philips Co, Boulder	Colo
Hastings-Raydist A Teledyne Co, Hampton	Va
High Vacuum Equipment Corp, Hingham	Mass
Honeywell Industrial Div, Fort Washington	Pa
Hughes Aircraft Co Vacuum Tube Prods Div Vacuum Devices Dept, Oceanside	Cal
Hydra-Electric Co, Burbank	Cal
Japan Vacuum Engineering Co Ltd, Tokyo	Japan
Kinney Vacuum Div New York Air Brake Co Boston	Mass
Lion Research Corp, Newton	Mass
Luft Instruments Inc, Lincoln	Mass
Malaker Corp, High Bridge	N J
Matheson Gas Products, East Rutherford	N J
Mini-Flex Corp, Van Nuys	Cal
MKS Instruments Inc, Burlington	Mass
Norton Co Vacuum Equip Div, Newton	Mass
Nuclear Corp of America, Nuclear Div, Denville	N J
Nuclide Corp, AGV Div, Acton	Mass
Precision Scientific Co Sub GCA Corp, Chicago	Ill
Research Industrolectronics, Roslyn	Pa
RIL Electronics Inc, Southampton	Pa
Sigma Instruments Inc, Braintree	Mass
Silver Glo Picture Tubes Ltd, Edmonton	Alb
Skinner Electric Valve Div, New Britain	Conn
Sloan Instruments Corp, Santa Barbara	Cal
Sunbeam Vacuum Furnace Corp, North Billerica	Mass
Taylor Instrument Cos, Rochester	N Y
Ultek Div Perkin-Elmer, Palo Alto	Cal
United Electric Controls Co, Watertown	Mass
Vactronic Lab Equipment Inc, East Northport	N Y
Vacuum Accessories Corp of America Huntington Station	N Y
Vacuum Industries Inc Sub GCA Corp, Somerville	Mass
Varian, Palo Alto	Cal
Veeco Instruments Inc, Plainview	N Y
Volumetrics, Inglewood	Cal
Welch Scientific Co, Skokie	Ill

CONTROLS--VISCOSITY

Audn Corp, Hamburg	N Y
Automation Products, Inc, Houston	Tex
Bionic Instruments Inc, Bala Cynwyd	Pa
Bristol Div, American Chain & Cable Co Waterbury	Conn
Brookfield Engineering Labs Inc, Stoughton	Mass
Decker Corp, Bala Cynwyd	Pa
Digit Co Inc, Marblehead	Mass
Electron Machine Co, Umatilla	Fla
Ferranti, Ltd, Lancashire	England
Fischer & Porter Co, Warminster	Pa
Fish-Schurman Corp, New Rochelle	N Y
Foxboro Co, Foxboro	Mass
Gardner Lab Inc, Bethesda	Md
Hallikainen Instruments, Richmond	Cal
Photobell Co Inc, New York	N Y
RIL Electronics Inc, Southampton	Pa
Schaffner, Hans - Elektronische Bauteile Luterbach Sq	Switz
Taylor Instrument Cos, Rochester	N Y
Tipptronic Inc, Chagrin Falls	Ohio

CONTROLS--VOLUME & TONE

CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE	**WIS**
JAPAN RESISTOR MFG CO LTD, TOKYO	**JAPAN**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
STACKPOLE CARBON CO, ST MARYS	**PA**
Allen-Bradley Co, Milwaukee	Wis
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Clarostat Mfg Co Inc, Dover	N H
Components Specialties Inc, Freeport	N Y
Decker Corp, Bala Cynwyd	Pa
Impectron Inc, New York	N Y
Japan Resistor Mfg Co Ltd, Tokyo	Japan
Lundy Electronics & Systems Inc, Glen Head	N Y
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Controls Co, Frankfort	Ind
Philmore Mfg Co Inc, Richmond Hill	N Y
Randam Electronics Inc, Cincinnati	Ohio
Shrader Sound Inc, Washington	D C
Stackpole Carbon Co, St Marys	Pa
Telefunken Sales Corp, Garden City	N Y
Trans-Tek Mfg Co Inc, Garwood	N J

CONTROLS--WELDING

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
EWALD INSTRUMENTS CORP, KENT	**CONN**
FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
ICON CORP, CAMBRIDGE	**MASS**
SORENSEN OPERATION, RAYTHEON CO., NORWALK	**CONN**
Amtron Inc, Midlothian	Ill
Automatic Switch Co, Florham Park	N J
Automation Development Co, Culver City	Cal
Clark Control Div, A O Smith Corp, Cleveland	Ohio
Eisler Engineering Co, Newark	N J
Electrical Design & Mfg Co, Warrington	Pa
Electron-Ohio Inc, Cleveland	Ohio
Energy Beams Inc, Haskell	N J
Euro Cedag, Milan	Italy
Ewald Instruments Corp, Kent	Conn
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Flexi Optics Labs Inc, Somerville	Mass
Furnas Electric Co, Batavia	Ill
General Electric Co, ECSO, Schenectady	N Y
General Precision Systems Inc, Indl Controls Div Morton Grove	Ill
Hughes Aircraft Co Welder Dept, Oceanside	Cal
Icon Corp, Cambridge	Mass
KSM Div Omark Industries Inc, Moorestown	N J
Miller Electric Mfg Co, Appleton	Wis
Nuclide Corp, AGV Div, Acton	Mass
Plessey Airborne Corp, Hillside	NJ
Precision Arc Co, Stratford	Conn
Pyrotel Corp c/o Milletron Inc, Pittsburgh	Pa
Robotron Corp, Detroit	Mich
Sciaky Bros Inc, Chicago	Ill
Silver & Assoc Inc G H, Newtonville	Mass
Sippican Corp, Ind Prods Div, Mattapoisett	Mass
Sorensen Operation, Raytheon Co., Norwalk	Conn
Square D Co, Park Ridge	Ill
Syracuse Electronics Corp, Syracuse	N Y
Taylor-Winfield Corp, Warren	Ohio
Thorn Automation Ltd, Rugeley, Staffs	England
Trueline Instruments Inc, Englewood	Colo
Weldmatic Div Unitek Corp, Monrovia	Cal
Wells Electronics Inc Equipment Div, South Bend	Ind
Weltronic Co, Southfield	Mich
Western Arctronic, Monrovia	Cal
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

CONVERTERS, A-C OUTPUT-- A-C TOA-C, ROTARY

GEORATOR CORP, MANASSAS	**VA**
Allis-Chalmers Mfg Co, Milwaukee	Wis
American Electronics, Inc, Fullerton	Cal
Bendix Corp Electric Power Div, Eatontown	NJ
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Carter Motor Co, Chicago	Ill
Consolidated Electric Corp, Seattle	Wash
Electric Indicator Co Inc, Wilton	Conn
Electric Machinery Mfg Co, Minneapolis	Minn
Electric Products Co, Cleveland	Ohio
Electronic Specialty Co, Los Angeles	Cal
Electro-Pacific Inc, Goleta	Cal
ElectroSyn Technology Labs, Inc, Canton	Mass
Fuji Electric Co Ltd, Tokyo	Japan
Gaylord Rives Co, Pasadena	Cal
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Georator Corp, Manassas	Va
Holtzer-Cabot Corp, Boston	Mass
Horlick Co Inc, William I, Boston	Mass
Ideal Electric & Mfg Co, Mansfield	Ohio
Inet Power A Teledyne Co, Gardena	Cal
Kato Engineering Co, Mankato	Minn
Kurz & Root Co, Appleton	Wis
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
Leland Airborne Products Div AMF, Vandalia	Ohio
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Madigan Electronic Corp, Washington	D C
McMaster Products Corp, Chicago	Ill
Payne Engineering Co, South Charleston	W Va
Safety Electrical Equipment Corp, New Haven	Conn
Singer Co, Diehl Div, Somerville	N J
Sunbeam Electronics, Fort Lauderdale	Fla
Task Corp, Anaheim	Cal
Thorn Automation Ltd, Rugeley, Staffs	England
T M C Systems & Power Corp, Springfield	Va
Varo Inc, Garland	Tex

CONVERTERS, A-C OUTPUT-- A-C TO A-C, TRANSISTOR

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
AMP INCORPORATED, HARRISBURG	**PA**
BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS WOODSIDE	**NY**
C M L INC, PLAINFIELD	**N J**
FORK STANDARDS INC, WEST CHICAGO	**ILL**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON	**N Y**
INTERELECTRONICS CORP, CONGERS	**N Y**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH COVER**
NJE CORP, KENILWORTH	**N J**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
TOROTEL, INC, GRANDVIEW	**MO**
TRANSMAGNETICS INC, FLUSHING	**N Y**
WAGNER ELECTRIC CORP, TUNG-SOL DIV, LIVINGSTON	**N J**
Abbott Transistor Labs, Inc, Los Angeles	Cal
Acme Products Co, Kensington	Conn
ADC Electronics, Inc, Harbor City	Cal
Advanced Development Corp, Gardena	Cal
Aerospace Research, Inc, Boston	Mass
Air Technology Corp, Waltham	Mass
Allis-Chalmers Mfg Co, Milwaukee	Wis
American Systems, Inc, Van Nuys	Cal
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
AMP Incorporated, Harrisburg	Pa
Applied Electronics Corp of N J, Metuchen	N J
Arnold Magnetics Corp, Los Angeles	Cal
Astro Lab, Westminster	Cal
Astro-Metrix Corp, Burbank	Cal
Ates Componenti Elettronici SpA, Milano	Italy
Atlas Controls Div Atlas Engrg Co Inc, Dorchester	Mass
ATR Electronics, Inc, St Paul	Minn
Ault, Inc, Minneapolis	Minn
Austron, Inc, Austin	Tex
Automation Services Inc, Endicott	N Y
Autronics Corp, Pasadena	Cal
Avtel Corp, Covina	Cal
Ballastran Corp, Fort Wayne	Ind
Barden Co, Hermosa Beach	Cal
Basler Electric Co, Highland	Ill
Bendix Corp Electric Power Div, Eatontown	NJ
Bergen Lab, Inc, Paterson	N J
Borg-Warner Controls Div Borg-Warner Corp Santa Ana	Cal
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Bulova Watch Co Inc Elctns Div Servo Products Woodside	NY
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
California Instruments Corp, San Diego	Cal
Canadian Research Institute, Don Mills	Ont
Cardinal Control Co Inc, Kensington	Conn
Carter Co, J C, Electronics Div, Costa Mesa	Cal
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
C M L Inc, Plainfield	N J
Coil Co of America Inc, Northvale	N J
Condor Industrial Corp, West Chicago	Ill
Control Circuits Inc, Middletown	Conn
Crane Electronics Corp, Santa Barbara	Cal
Daytron Inc, Mountain View	Cal
Del Electronics Corp, Mt Vernon	N Y
Dewey Corp, G C, New York	N Y
Dynalectron Corp Aerospace Prods Div San Leandro	Cal
Eastern Dynamics, Inc, Bloomfield	Conn
Electro Development Corp, Lynnwood	Wash
Electronic Applications Co, Pine Brook	N J
Electronic Research Associates Inc, Cedar Grove	N J
Electronic Specialty Co, Los Angeles	Cal
Elgin Electronics Inc, Erie	Pa
EMD Components Inc, Wickliffe	Ohio
Fairlane Electronics, Inc, Long Valley	N J
Fansteel Metallurgical Corp, North Chicago	Ill
Field Electronics Inc, Chatham	N J
Fork Standards Inc, West Chicago	Ill
Freed Transformer Co Inc, Brooklyn	N Y
General Electric Co, ECSO, Schenectady	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Geo Space Corp, Houston	Tex
Grafix Inc, Albuquerque	N Mex
Grand Transformers Inc, Grand Haven	Mich
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Guide Industries Inc, Sun Valley	Cal
Hamilton Electronics Corp, Chicago	Ill
Hewlett-Packard, Palo Alto	Cal
Inductor Engineering Inc, Lewes	Del
Industrial Test Equipment Co, Port Washington	N Y
Inet Power A Teledyne Co, Gardena	Cal
Interelectronics Corp, Congers	N Y
Kepco Inc, Flushing	N Y
Kobe Industries Corp, Kobe	Japan
Landis & Gyr AG, Zug	Switzerland
Larago Electronics Mfgrs Inc, Melbourne	Fla
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
Loral Electronic Systems, Div Loral Corp, New York	NY
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Macarr Inc, Bronx	N Y
Madigan Electronic Corp, Washington	D C
Magnetic Engineering Corp, Danbury	Conn
Magnetico Inc, East Northport	N Y
Metric Engineering Div Greenray Indus Inc Mechanicsburg	Pa
Microdot Magnetics Inc, Los Angeles	Cal
Mid-Eastern Industries Inc, Springfield	N J
NH Research Inc, Santa Ana	Cal
NJE Corp, Kenilworth	N J
Northeastern Engineering Inc, Manchester	NH
North Electric Co, Galion	Ohio
North Hills Electronics Inc, Glen Cove	N Y
Novatronics Inc, Pompano Beach	Fla
Nuclear Corp of America, Nuclear Div, Denville	N J
Optimation, Inc, Sun Valley	Cal
Pacific Electro Dynamics Inc, Seattle	Wash
Pioneer Magnetics Inc, Santa Monica	Cal
Polyphase Instrument Co, Bridgeport	Pa
Power Control Corp, Pittsburgh	Pa
Power Sources Div, Technical Operations Inc Burlington	Mass
Power Systems Inc, Venice	Cal
Powertec Div, Airtronics Corp, Chatsworth	Cal
Preferred Electronics Inc, Westfield	Mass
Qutronic Transformer Corp, Oneonta	N Y
Ramsey Controls Inc, Mahwah	N J
Rho Engineering Co, Los Angeles	Cal
Roband Electronics Ltd, Surrey	England
Sanken Electric Co, Ltd, Toshima-ku, Tokyo	Japan
SBD Systems Inc, Farmingdale	N Y
Scott Inc, H H, Maynard	Mass
S K G Associates Inc, Boston	Mass
Sodilec SA Salies-S A, 91 Palaiseau	France
Sola-Basic Industries, Milwaukee	Wis
Solidstate Controls Inc, Columbus	Ohio
Space Craft Inc, Huntsville	Ala
Spar Aerospace Products Ltd, Toronto	Ont
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn'	N Y
Thorn Automation Ltd, Rugeley, Staffs	England
T M C Systems & Power Corp, Springfield	Va
Topaz Inc, San Diego	Cal
Topping Electronics Ltd, Toronto 17	Ont
Torotel, Inc, Grandview	Mo
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
Transistor Devices Inc, Mt Tabor	N J
Transmagnetics Inc, Flushing	N Y
Triad Transformer Corp, Venice	Cal
Trio Laboratories Inc, Plainview	N Y
Unitron Div Electric Machy Mfg Co, Garland	Tex
Universal Precision, Inc, Endicott	N Y
Universal Transistor Products Div Link, Copiague	N Y
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Vector Engineering Inc, Springfield	N J
Venus Scientific Inc, Hicksville	N Y
Voltron Products Inc, Pasadena	Cal
Wagner Electric Corp, Tung-Sol Div, Livingston	N J
Ward Leonard Electric Co, Mount Vernon	N Y
Westinghouse Electric Corp, Aerospace Electrical Div Lima	Ohio
Wilmore Electronics Co Inc, Durham	NC
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

CONVERTERS, A-C OUTPUT-- A-C TO A-C, TUBE

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
C M L INC, PLAINFIELD	**N J**
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON	**N Y**
INTERELECTRONICS CORP, CONGERS	**N Y**
Ad-Yu Electronics Inc, Passaic	N J
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Basler Electric Co, Highland	Ill
California Instruments Corp, San Diego	Cal
C M L Inc, Plainfield	N J
Field Electronics Inc, Chatham	N J
Guide Industries Inc, Sun Valley	Cal
Hamilton Electronics Corp, Chicago	Ill
Industrial Test Equipment Co, Port Washington	N Y
Interelectronics Corp, Congers	N Y
Lear Siegler Inc, Santa Monica	Cal
Northeastern Engineering Inc, Manchester	NH
Optimation, Inc, Sun Valley	Cal
Riverbank Labs, Dept of Engrg, Geneva	Ill
Scott Inc, H H, Maynard	Mass
Sodilec SA Salies-S A, 91 Palaiseau	France
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Tel-Instrument Electronics Corp, Carlstadt	N J
Thorn Automation Ltd, Rugeley, Staffs	England
Transistor Devices Inc, Mt Tabor	N J
Valradio Ltd, Feltham, Mdsx	Eng
Varo Inc, Garland	Tex
Ward Leonard Electric Co, Mount Vernon	N Y
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh	Pa

CONVERTERS, A-C OUTPUT-- A-C TO A-C, VIBRATOR

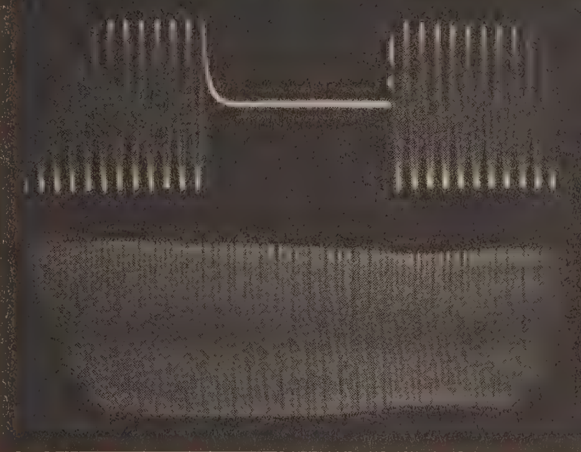
AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
ATR Electronics, Inc, St Paul	Minn
Basler Electric Co, Highland	Ill
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Control Circuits Inc, Middletown	Conn
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Field Electronics Inc, Chatham	N J
Horlick Co Inc, William I, Boston	Mass
Lear Siegler Inc, Santa Monica	Cal
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
T M C Systems & Power Corp, Springfield	Va
Triad Transformer Corp, Venice	Cal
Varo Inc, Garland	Tex
Vector Engineering Inc, Springfield	N J

CONVERTERS--A-C TO D-C

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
AMP INCORPORATED, HARRISBURG	**PA**
AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
C M L INC, PLAINFIELD	**N J**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GEORATOR CORP, MANASSAS, VA	**ADV PG 213**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
INTERELECTRONICS CORP, CONGERS	**N Y**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH COVER**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
NJE CORP, KENILWORTH	**N J**
NON-LINEAR SYSTEMS INC, DEL MAR	**CAL**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW	**N Y**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
OPAD ELECTRIC CO, INC, NEW YORK	**N Y**
TECHNIPOWER INC, SUB BENRUS WATCH CO INC RIDGEFIELD	**CONN**
TRANSMAGNETICS INC, FLUSHING	**N Y**
WAGNER ELECTRIC CORP, TUNG-SOL DIV, LIVINGSTON	**N J**
WANLASS ELECTRIC CO, SANTA ANA	**CAL**
Abbott Transistor Labs, Inc, Los Angeles	Cal
Acme Electric Corp, Cuba	N Y
Acme Products Co, Kensington	Conn
Acromag Inc, Wixom	Mich
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Advanced Development Corp, Gardena	Cal
Aerospace Avionics Inc, Bohemia	NY
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
Air Technology Corp, Waltham	Mass
Alcatel, Paris 8eme	France
Allis-Chalmers Mfg Co, Milwaukee	Wis
American Machine & Foundry Co Alexandria Div Alexandria	Va
American Rectifier Corp, College Point	N Y
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Amglo Corp, Chicago	Ill
AMP Incorporated, Harrisburg	Pa
AMP Inc, Capitron Div, Elizabethtown	Pa
Applied Devices Corp, College Point	n y
Applied Electronics Corp of N J, Metuchen	N J
Argonaut Associates, Inc, Beaverton	Ore
Arnold Magnetics Corp, Los Angeles	Cal
Astro-Metrix Corp, Burbank	Cal
Atlas Controls Div Atlas Engrg Co Inc, Dorchester	Mass
ATR Electronics, Inc, St Paul	Minn
Ault, Inc, Minneapolis	Minn
Automation Services Inc, Endicott	N Y
Autronics Corp, Pasadena	Cal
Avtel Corp, Covina	Cal
Ballantine Laboratories, Inc, Boonton	N J
Ballastran Corp, Fort Wayne	Ind
Barden Co, Hermosa Beach	Cal
Basler Electric Co, Highland	Ill
B & B Motor & Control Corp, New York	N Y
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp, Communications Div, Towson	Md

Bendix Corp Electric Power Div, Eatontown	NJ
Best Electric Div Harry Levinson Co, Seattle	Wash
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Bullock Magnetics Corp, Pomona	Cal
Burr-Brown Research Corp, Tucson	Ariz
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Cal-Power Corp, El Segundo	Cal
Cambridge Scientific Industries Inc, Cambridge	Md
Canadian Motorola Electronics Co, Agincourt	Ont
Cardinal Control Co Inc, Kensington	Conn
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Carter Co, J C, Electronics Div, Costa Mesa	Cal
Cavitron Electronics, Inc, Costa Mesa	Cal
Christie Electric Corp, Los Angeles	Cal
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
C I T E, Santa Margherita Ligure	Italy
Clare-Electroseal Corp, Des Plaines	Ill
C M L Inc, Plainfield	N J
Cohu Electronics Inc, San Diego	Cal
Coil Co of America Inc, Northvale	N J
Components Specialties Inc, Freeport	N Y
Component Technology Corp, Sunnyvale	Cal
Condor Industrial Corp, West Chicago	Ill
Conductron Corp, Ann Arbor	Mich
Control Circuits Inc, Middletown	Conn
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Daytron Inc, Mountain View	Cal
Del Electronics Corp, Mt Vernon	N Y
Dowa Trading Co Ltd, Kobe	Japan
Dressen-Barnes Electronics Corp, Pasadena	Cal
Dresser Electric Co, Detroit	Mich
Dynalectron Corp Aerospace Prods Div San Leandro	Cal
Dynamco Ltd, Chertsey Surrey	Eng
Dynamic Instrument Corp, Plainview	N Y
Eastern Delta Corp, Fair Lawn	N J
Eastern Dynamics, Inc, Bloomfield	Conn
EICO Electronic Instrument Co Inc, Brooklyn	NY
Elasco Inc, Boston	Mass
Elcor, Div Halliburton Co, Silver Spring	Md
Electric Indicator Co Inc, Wilton	Conn
Electric Products Co, Cleveland	Ohio
Electro Development Corp, Lynnwood	Wash
Electroid Corp, Union	N J
Electronic Components Corp, Addison	Ill
Electronic Design Labs Inc, Philadelphia	Pa
Electronic Research Associates Inc, Cedar Grove	N J
Electronic Specialty Co, Los Angeles	Cal
Electro-Pacific Inc, Goleta	Cal
Electro Products Labs Inc Power Supply Div Chicago	Ill
Electro-Standards Labs Inc, Miami	Fla
ElectroSyn Technology Labs, Inc, Canton	Mass
Electro Windings & Components Inc, Kenilworth	N J
Elgin Electronics Inc, Erie	Pa
EMP Electronics Inc, Tempe	Ariz
Fairlane Electronics, Inc, Long Valley	N J
Fansteel Metallurgical Corp, North Chicago	Ill
Field Electronics Inc, Chatham	N J
Forney Industries Inc, Fort Collins	Colo
Freed Transformer Co Inc, Brooklyn	N Y
Fuji Electric Co Ltd, Tokyo	Japan
Fujitsu Ltd, Tokyo	Japan
Furnas Electric Co, Batavia	Ill
General Electric Co, ECSO, Schenectady	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Genisco Technology Corp, Compton	Cal
Georator Corp, Manassas	Va
Geo Space Corp, Houston	Tex
Grafix Inc, Albuquerque	N Mex
Grand Transformers Inc, Grand Haven	Mich
Green Electric Corp, Fairlawn	NJ
Green Rectifier Corp, Fair Lawn	N J
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Guide Industries Inc, Sun Valley	Cal
Gulton Industries Inc, Metuchen	N J
Hallmark Standards Inc, Mamaroneck	N Y
Hamilton Electronics Corp, Chicago	Ill
Hartman Systems Co Inc, Huntington Station	N Y
Hewlett-Packard, Palo Alto	Cal
Holtzer-Cabot Corp, Boston	Mass
Honeywell Test Instruments Div, Denver	Colo
Horlick Co Inc, William I, Boston	Mass
Inductor Engineering Inc, Lewes	Del
Inet Power A Teledyne Co, Gardena	Cal
Information Control Corp, El Segundo	Cal
Instrulab Inc, Dayton	Ohio
Interelectronics Corp, Congers	N Y
International Instruments Div Sigma Instr Inc, Orange	Conn
Jefferson Electric Co, Bellwood	Ill
Kato Engineering Co, Mankato	Minn
Kepco Inc, Flushing	N Y
Kurz & Root Co, Appleton	Wis
Larago Electronics Mfgrs Inc, Melbourne	Fla
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Cimron Div, San Diego	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Loral Electronic Systems, Div Loral Corp, New York	NY
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Macarr Inc, Bronx	N Y
Madigan Electronic Corp, Washington	D C
Magnetic Engineering Corp, Danbury	Conn
Magnetico Inc, East Northport	N Y
Microdot Magnetics Inc, Los Angeles	Cal
Mid-Eastern Industries Inc, Springfield	N J
Midland International Corp, North Kansas City	Mo
Mil Associates Inc, Hudson	NH
3M Company, St Paul	Minn
Motor Generator Div Hobart Bros Co, Troy	Ohio
Motorola Semiconductor Products Inc, Phoenix	Ariz
Natel Engineering Co Inc, Van Nuys	Cal
NH Research Inc, Santa Ana	Cal
Nippon Electric Co Ltd, Tokyo	Japan

isolated power for computers and numerical controls



Upper trace—Input voltage 60 Hz. Lower trace—Output voltage 180 Hz. Note that with complete power failure for several cycles, energy is still being delivered to the load. Naturally, high frequency Noise or Transients or Voltage Changes are similarly filtered.

NOBRUSH® PERMANENT MAGNET GENERATORS

An exclusive design utilizing Permanent Magnet excitation gives NOBRUSH® Motor Generators their outstanding performance. Absolute electrical isolation between input and output circuits is assured. Motors will accept long-term voltage transients of ±10% with less than 1% change in output and short-term transients of ±30% with less than 1% output variation.

In addition to superior line isolation, NOBRUSH® units offer many design, performance and economic advantages over other methods of power generation and frequency conversion.

High Frequency Output—typically 400 cycle, 3 phase but can be 180 Hz to 840 Hz.

Power Range—150 VA to 25 KVA

Multiple Outputs—eliminates the need for transformers

Very Low Audible Noise and almost Vibration Free Performance

High Overload Capacity — Extremely Low RFI and EMI

Short Circuit Proof — Cool Operation

High Ripple Frequency—makes filter components substantially smaller in size and cost

Small Size—unit may be easily mounted in cabinet as an integral part of entire system

Simplicity of Design (one rotating part) and Rugged Construction assure Highest Reliability and Minimum Maintenance

Units Custom Fabricated to your exact specifications

For complete information on using NOBRUSH® Motor Generators in your application, contact:

GEORATOR CORPORATION

315 TUDOR LANE, MANASSAS, VIRGINIA 22110
(703) 368-2101

NJE Corp, Kenilworth	N J
Non-Linear Systems Inc, Del Mar	Cal
Norbatrol Electronics Corp, Murrysville	Pa
North Atlantic Industries Inc, Plainview	N Y
North Electric Co, Galion	Ohio
North Hills Electronics Inc, Glen Cove	N Y
Novatronics Inc, Pompano Beach	Fla
Nuclear Corp of America, Nuclear Div, Denville	N J
Nytron, Palo Alto	Cal
Opad Electric Co, Inc, New York	N Y
Optical Electronics Inc, Tuscon	Ariz
Pacific Instrument Co, Oakland	cal
Pacific Measurements Inc, Palo Alto	Cal
Payne Engineering Co, South Charleston	W Va
Peco Corp, Mountain View	Cal
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pioneer Magnetics Inc, Santa Monica	Cal
Power Control Corp, Pittsburgh	Pa
Power Sources Div, Technical Operations Inc Burlington	Mass
Power Systems Inc, Venice	Cal
Powertec Div, Airtronics Corp, Chatsworth	Cal
Precision Transformers Inc, Anaheim	Cal
Preferred Electronics Inc, Westfield	Mass
Qutronic Transformer Corp, Oneonta	N Y
Ramapo Instrument Co Inc, Bloomingdale	NJ
Ramsey Controls Inc, Mahwah	N J
Ratelco Inc, Seattle	Wash
Rectifier Engineering & Supply Co Inc, St Louis	Mo
Reliance Electric Co, Cleveland	Ohio
Resdel Engineering Corp, Pasadena	Cal
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass
Rho Engineering Co, Los Angeles	Cal
RO Associates Inc, Menlo Park	Cal
Roband Electronics Ltd, Surrey	England
Rosemount Plug-In Inc, Nashville	Tenn
Safety Electrical Equipment Corp, New Haven	Conn
SBD Systems Inc, Farmingdale	N Y
Schauer Mfg Corp, Cincinnati	Ohio
Scientific Instruments Co, Chatsworth	Cal
Scott Electronics Corp, Orlando	Fla
Seco Electronics Corp, Hopkins	Minn
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Servo-Tek Products Co, Marine Div, Hawthorne	N J
Servo-Tek Products Co, Hawthorne	N J
Singer Co, Metrics Div, Gertsch Dept, Los Angeles	Cal
S K G Associates Inc, Boston	Mass
Sodilec SA Salies-S A, 91 Palaiseau	France
Sola-Basic Industries, Milwaukee	Wis
Sola Electric Div Sola Basic Industries Elk Grove Village	Ill
Solidstate Controls Inc, Columbus	Ohio
Solid State Electronics Corp, Sepulveda	Cal
Space Craft Inc, Huntsville	Ala
Spar Electronics Inc, San Diego	Cal
Standard Telephones & Cables Ltd London WC 2	England
Systems Electronics Inc, Cleveland	Ohio
Takeda Riken Industry Co Ltd, Tokyo	Japan
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Technical Products Co of L A, Los Angeles	Cal
Technipower Inc, Sub Benrus Watch Co Inc Ridgefield	Conn
Terado Corp, St Paul	Minn
Thiem-Transrex Inc, El Segundo	Cal
Thorn Automation Ltd, Rugeley, Staffs	England
Tilton Electronics Corp, Winnisquam	N H
T M C Systems & Power Corp, Springfield	Va
Topping Electronics Ltd, Toronto 17	Ont
Touch-Plate Mfg Corp, Paramount	Cal
Transistor Devices Inc, Mt Tabor	N J
Transmagnetics Inc, Flushing	N Y
Transval Electronics Div Jetronic Indus Inc Gardena	Cal
Trepac Corp of America, Englewood	N J
Triad Transformer Corp, Venice	Cal
Trio Laboratories Inc, Plainview	N Y
Trott Electronics Inc, Rochester	N Y
Unholtz-Dickie Corp, Hamden	Conn
United Systems Corp, Dayton	Ohio
Unitron Div Electric Machy Mfg Co, Garland	Tex
Universal Precision, Inc, Endicott	N Y
Universal Transistor Products Div Link, Copiague	N Y
Valor Electronics Inc, Gardena	Cal
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Vega Precision Labs, Vienna	Va
Venus Scientific Inc, Hicksville	N Y
Vinco Industries, Orange	Cal
Virginia Electronics Co Inc, Falls Church	Va
Voltron Products Inc, Pasadena	Cal
Wagner Electric Corp, Tung-Sol Div, Livingston	N J
Wanlass Electric Co, Santa Ana	Cal
Ward Leonard Electric Co, Mount Vernon	N Y
Warren Mfg Co Div Dielectric Prods Eng Co Inc Littleton	Mass
Weltronic Co, Southfield	Mich
Westinghouse Electric Corp, Aerospace Electrical Div Lima	Ohio
Weston Lexington Weston Instruments Div Lexington	Mass
Workman Electronic Products Inc, Sarasota	Fla
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

EBG — the industry's store.

Your marketplace for products

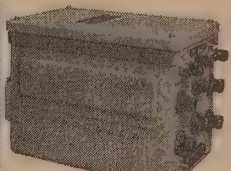
CONVERTERS--ANALOG TO DIGITAL

AIRFLYTE ELECTRONICS CO, BAYONNE, N J	**ADV PG 641**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL	**PA**
COMPUTER LABS, GREENSBORO, N C	**ADV PG 215**
COMPUTER PRODUCTS INC, FORT LAUDERDALE	**FLA**
DATA TECHNOLOGY, INC, WATERTOWN	**MASS**
DIGITRAN CO, PASADENA	**CAL**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
INTRONICS INC, NEWTON	**MASS**
KINELOGIC CORP, PASADENA	**CAL**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
NON-LINEAR SYSTEMS INC, DEL MAR	**CAL**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW	**N Y**
SYSTRON DONNER CORP, CONCORD	**CAL**
TECHMETRIC CO, REDWOOD CITY	**CAL**
TELE-SIGNAL CORP, WOODBURY	**N Y**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
TOWSON LABS INC, BALTIMORE, MD	**ADV PG 214**
TRANSMAGNETICS INC, FLUSHING	**N Y**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
Adage Inc, Boston	Mass
A D Data Systems Inc, Rochester	N Y
Aerojet-General Corp Electronics Div, Azusa	Cal
AIC Instruments Div AIC Corp, Houston	Texas
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Airflyte Electronics Co, Bayonne	N J
American Astrionics Inc, Palo Alto	Cal
Amtron Inc, Midlothian	Ill
Anadex Instruments, Inc, Van Nuys	Cal
Analogic Corp, Waltham	Mass
Analog Technology Corp, Pasadena	Cal
Ann Arbor Computer Corp, Ann Arbor	Mich
Applied Devices Corp, College Point	n y
Applied Dynamics, Inc, Ann Arbor	Mich
Applied Electronics Corp of N J, Metuchen	N J
Astrodata Inc, Anaheim	Cal
Astrosystems Inc, New Hyde Park	N Y
Audn Corp, Hamburg	N Y
Automation Development Co, Culver City	Cal
Autronics Corp, Pasadena	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Baldwin Electronics Inc, Little Rock	Ark

SYNCHRO/RESOLVER
SHAFT ANGLE ENCODERS
A/D CONVERTERS

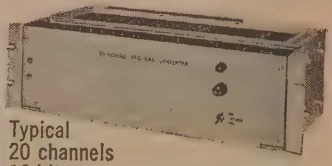
Modular equipment series providing a wide range of solid-state multi-channel synchro-to-digital converters with binary output code directly representing shaft angle.

Airborne Series SD1000



Typical
6 channels
13 bits
6" x 5.2" x 7.75"
7.5 lbs.
28v DC

Ground Series SD 2000



Typical
20 channels
13 bits
5¼" x 19" x 14"

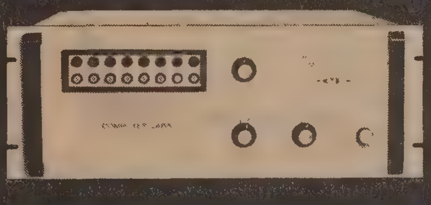
TOWSON LABORATORIES, INC.
3500 PARKDALE AVE. • BALTIMORE, MD. 21211
AREA CODE 301 367-4001

Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bendix Corp, Communications Div, Towson	Md
Bendix Corp Navigation & Control Div, Teterboro,	N J
Bio-Physical Research Instruments Inc, Houston	Tex
Bolt Beranek & Newman, Data Equip Div Santa Ana	Cal
Bowmar Instrument Corp, Fort Wayne	Ind
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Burr-Brown Research Corp, Tucson	Ariz
CAE Industries Ltd, Montreal 3	Que
California Instruments Corp, San Diego	Cal
California Systems Components, Inc, Chatsworth	Cal
Calma Co, Santa Clara	Cal
Cambridge Thermionic Corp, Cambridge	Mass
Canadian Motorola Electronics Co, Agincourt	Ont
Canadian Research Institute, Don Mills	Ont
Canberra Industries, Middletown	Conn
Canoga Electronics Corp, Chatsworth	Cal
C B S Labs Div Columbia Bdcstg Sys Inc Stamford	Conn
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
C & N Electrical Ltd, Hants	England
Cohu Electronics Inc, San Diego	Cal
Coleman Engineering Co Inc, Santa Ana	Cal
Collectron Corp, New York	N Y
Compudyne Corp, Hatboro	Pa
Computer Labs, Greensboro	N C
Computer Products Inc, Fort Lauderdale	Fla
Conrac Corp, New York	N Y
Control Data Corp, Minneapolis	Minn
Control Data Corp, LaJolla Div, Minneapolis	Minn
Control Equipment Corp, Needham Heights	Mass
Control Logic Inc, Natick	Mass
Crane Electronics Corp, Santa Barbara	Cal
Darcy Industries Inc, Behlman Div, Santa Monica	Cal
Data Device Corp, Hicksville	N Y
Datametrics Corp, Van Nuys	Cal
Datascan Inc, Clifton	N J
Data Technology Corp, Mountain View	Cal
Data Technology, Inc, Watertown	Mass
Datatron Inc, Santa Ana	Cal
Datum Inc, Anaheim	Cal
Daytron Inc, Mountain View	Cal
Del Electronics Corp, Mt Vernon	N Y
Digital Electronics Inc, Plainview	N Y
Digital Equipment Corp, Maynard	Mass
Digital Products Div Canoga Elctns Corp Chatsworth	Cal
Digitran Co, Pasadena	Cal
Disc Instruments Inc, Santa Ana	Cal
Doric Scientific Corp, San Diego	Calif
Dynamco Ltd, Chertsey Surrey	Eng
Dynamics Instrumentation Co, Monterey Park	Cal
Dynamic System Electronics Corp, Tempe	Ariz
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee	Ill
Dynatronics Oper Elctns Div Gen Dynamics Corp Orlando	Fla
Dytro Corp, Hicksville	NY
E G & G Inc Custom Equip Div, Bedford	Mass
E G & G Int'l Inc Geodyne Div, Waltham	Mass
Electro Circuits Inc, Lowell	Mass
Electronic Associates Inc, West Long Branch	N J
Electronic Design Labs Inc, Philadelphia	Pa
Electronic Development Corp, Boston	Mass
Electronic Engineering Co of Cal, Santa Ana	Cal
Electronic Specialty Co, Los Angeles	Cal
Electro-Technical Labs Div Mandrel Indus Inc Houston	Tex
EMI Electronics Ltd, Hayes, Middlesex	England
EMR Computer, Minneapolis	Minn
EMR Div Weston Instruments Inc, Princeton	N J
E N M Co, Chicago	Ill
Epsco Inc, Westwood	Mass
Evans Associates, Berkeley	Cal
Fairchild Controls, Hicksville	N Y
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Space & Defense Sys Div Fairchild Cam Instr Corp, Syosset	NY
Fansteel Metallurgical Corp, North Chicago	Ill
Fenlow Electronics Ltd, Weybridge	England
Ferranti, Ltd, Lancashire	England
Fifth Dimension Inc, Princeton	N J
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
Foxboro Co, Foxboro	Mass
Frequency Engineering Labs, Farmingdale	N J
Fujitsu Ltd, Tokyo	Japan
Gap Instrument Corp, Westbury	N Y
Garrett Corp, Los Angeles	Cal
General Devices Inc, Instrumentation Div Princeton	N J
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Genisco Technology Corp, Compton	Cal
Geodyne Div EG&G Int'l, Waltham	Mass
Geo Space Corp, Houston	Tex
Geo Space Systems Inc, St Petersburg	Fla
Giannini Scientific Corp, Flight Rsch Div, Richmond	Va
Giannini-Voltex, Whittier	Cal
GPL Div Gen Precision Systems Inc, Pleasantville	N Y
Gulton Industries Inc, Metuchen	N J
Hartman Systems Co Inc, Huntington Station	N Y
Hewlett-Packard, Palo Alto	Cal
Honeywell Inc, Computer Control Div Framingham	Mass
Honeywell Test Instruments Div, Denver	Colo

Howell Instruments Co, Fort Worth	Tex
Humphrey Electronics Inc, Raleigh	N C
Hybrid Systems Corp, Cambridge	Mass
IBM Corp, Armonk	N Y
Industrial Control Co, Farmingdale	N Y
Information Control Corp, El Segundo	Cal
Information Instruments, Inc, Ann Arbor	Mich
Infotronics Corp, Houston	Texas
Intellux Inc, Goleta	Cal
International Data Systems Inc, Dallas	Tex
Intertechnique, Plaisir, 78	France
Intronics Inc, Newton	Mass
Itek Corp, Lexington	Mass
ITT Federal Labs, Fort Wayne	Ind
Janus Control Div Tyco, Waltham	Mass
Kelk Ltd, George, Don Mills	Ont
Keltec Industries, Alexandria Div, Alexandria	Va
Kinelogic Corp, Pasadena	Cal
Kollsman Instrument Corp, Syosset	N Y
Laben S p A, Milan	Italy
La Telemecanique Electrique, 92 Rueil	France
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Cimron Div, San Diego	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
LeCroy Research Systems Corp, West Nyack	N Y
Leeds & Northrup Co, Philadelphia	Pa
LEM Instrument Corp, Farmingdale	N Y
LFE Electronics Div, Lab for Electronics Inc Waltham	Mass
Logic Corp, Haddonfield	N J
Loral Electronic Systems, Div Loral Corp, New York	NY
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Mandrel Industries Inc, Houston	Tex
Marstan Electronics Div Balco Elctns Inc, Orange	N J
Massey Dickinson Co Inc, Saxonville	Mass
Matrix Corp, Beech Grove	Ind
McMaster Products Corp, Chicago	Ill
Measurement Technology Corp, Canoga Park	Cal
Micro Instrument Co, Hawthorne	Cal
Milgo Electronic Corp, Miami	Fla
Milletron, Inc, Pittsburgh	Pa
3M Company, St Paul	Minn
3M Instrument Products, Camarillo	Cal
Missouri Research Labs Inc, St Louis	Mo
Molecular Research Inc, Palm Beach Gardens	Fla
Monitor Systems Inc, Fort Washington	Pa
Moore Products Co, Spring House	Pa
NanoFast, Inc, Chicago	Ill
Navigation Computer Corp, Norristown	Pa
Nippon Electric Co Ltd, Tokyo	Japan
Non-Linear Systems Inc, Del Mar	Cal
Norden Div, United Aircraft Corp, Norwalk	Conn
North Atlantic Industries Inc, Plainview	N Y
North Electric Co, Galion	Ohio
Northern Precision Labs Inc, Fairfield	N J
Northern Scientific Inc, Middleton	Wis
Northridge Engineering Co Div Republic Corp Northridge	Cal
Nuclear-Chicago Corp, Des Plaines	Ill
Nuclear Data Inc, Palatine	Ill
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nytronics Inc, Precision Resistor Div, Kutztown	Pa
Oki Electric Industry Co Ltd, Tokyo	Japan
Pacific Data & Controls, Redwood City	Cal
Pastoriza Electronics Inc, Newton Upper Falls	Mass
Perkin-Elmer Corp, Norwalk	Conn
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Powertec Div, Airtronics Corp, Chatsworth	Cal
Precision Research Inc, Stamford	Conn
Preston Scientific, Inc, Anaheim	Cal
Raytheon Computer, Santa Ana	Cal
RC-95 Inc, New York	N Y
Redcor Corp, Canoga Park	Cal
Reeves Instrument Div, DCA, Garden City	N Y
Reflex Controls Corp, Huntington Station	NY
Remex Electronics, Hawthorne	Cal
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass
Roback Corp, Huntingdon Valley	Pa
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Rosemount Plug-In Inc, Nashville	Tenn
Royson Engineering Co, Hatboro	Pa
Saturn Electronics Corp, Garland	Tex
Schlumberger, 92-Montrouge 32	France
Schneider Radio-Television Div, Ivry	France
Scientific Data Systems Inc, El Segundo	Cal
Sedco Systems Inc, Farmingdale	N Y
Sequential Electronic Systems Inc, Elmsford	N Y
Siemens America Inc, New York	N Y
Sierra Research Corp, Buffalo	N Y
Signal Analysis Industries Corp, Copiague	N Y
Signet Controls Inc, Tulsa	Okla
Siltronics Inc, Oakmont	Pa
Simpson Electric Co, Chicago	Ill
Singer Co, Metrics Div, Gertsch Dept, Los Angeles	Cal
Solid State Electronics Corp, Sepulveda	Cal
Space Craft Inc, Huntsville	Ala
Space & Systems Div General Time Corp Stamford	Conn
Sprague Electric Co, North Adams	Mass
Stellarmetrics Inc, Santa Barbara	Cal
Stelma Inc, Stamford	Conn
Straza Industries Div Ametek Inc, El Cajon	Cal
Streeter-Amet, Grayslake	Ill
Systems Engineering Labs Inc, Ft Lauderdale	Fla
Systron Donner Corp, Concord	Cal
Takeda Riken Industry Co Ltd, Tokyo	Japan
Techmetric Co, Redwood City	Cal
Technical Materiel Corp, Mamaroneck	N Y
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
Teledyne Telemetry Co, Los Angeles	Cal
Tele-Signal Corp, Woodbury	N Y
Texas Instruments Incorporated, Dallas	Tex
Texas Instruments Inc Indl Prods Div, Houston	Tex
Theta Instrument Corp, Fairfield	N J
Thorn Automation Ltd, Rugeley, Staffs	England
Towson Labs Inc, Baltimore	Md
Transmagnetics Inc, Flushing	N Y
TRW Systems Group, Redondo Beach	Cal
United Systems Corp, Dayton	Ohio
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Universal Electronics Co, Santa Monica	Cal
Varo Inc, Garland	Tex
Veeder-Root, Hartford	Conn
Vega Precision Labs, Vienna	Va
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Victoreen Instrument Div, Cleveland	Ohio
Vidar Corp, Mountain View	Cal
Vitro Labs Div Vitro Corp of America, Silver Spring	Md
Vitro Labs Div Vitro Corp of America, W Orange	N J
Wang Labs Inc, Tewksbury	Mass
Watesta Electronics Ltd, London-E 11	England
Wayne-George Co Div Itek Corp, Newton	Mass
Weston Instruments Div Weston Instr Inc, Newark	N J
Weston-Transicoil, Weston Instruments Inc Worcester	Pa
Woodward Machine Inc, Elctns Div, Detroit	Mich
Wyle Laboratories, El Segundo	Cal
Zeltex inc, Concord	Cal

We can SHRINK Time.

Not really. It just **seems** that way because our A/D Converters are so fast. They have aperture time as small as 0.2 nanosecond! And they convert at word rates from 1 MHz to 25 MHz. Word lengths vary from 4 bits to 9 bits. Sample-and-hold, test circuits, and power supplies are all built in; and all of this costs only $4,200 to $9,660, depending on which of 13 models you choose.



COMPUTER LABS
for tomorrow's technology today

(919) 292-6427 • 1109 VALLEY PARK DRIVE
GREENSBORO, N. C. 27403

CONVERTERS--CARD TO PRINTER

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
A D Data Systems Inc, Rochester	N Y
Ann Arbor Computer Corp, Ann Arbor	Mich
Business Information Technology Inc, Natick	Mass
Conductron Corp, Ann Arbor	Mich
Connecticut Technical Corp, Hartford	Conn
Control Data Corp, Minneapolis	Minn
Control Logic Inc, Natick	Mass
Data Products Corp, Culver City	Cal
Dynamic System Electronics Corp, Tempe	Ariz
Electro Circuits Inc, Lowell	Mass
Fisher-Akin Co, Manhattan Beach	Cal
General Electric Co Info Sys Equip Div, Phoenix	Ariz
IBM Corp, Armonk	N Y
IBM Data Processing Div, White Plains	N Y
Information Control Corp, El Segundo	Cal
Instrumentation Technology Corp, Northridge	Cal
Kameco Ltd, Montreal	Que
Keltec Industries, Alexandria Div, Alexandria	Va
Laben S p A, Milan	Italy
Logic Corp, Haddonfield	N J
Loral Electronic Systems, Div Loral Corp, New York	NY
Measurement Technology Corp, Canoga Park	Cal
Motorola Instrumentation & Control Inc, Phoenix	Ariz
Navigation Computer Corp, Norristown	Pa
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass
Roback Corp, Huntingdon Valley	Pa
Sierra Research Corp, Buffalo	N Y
Space Craft Inc, Huntsville	Ala
Systems Engineering Labs Inc, Ft Lauderdale	Fla
Thorn Automation Ltd, Rugeley, Staffs	England

CONVERTERS--D-C TO A-C SEE INVERTERS

CONVERTERS--D-C TO D-C

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
AMP INCORPORATED, HARRISBURG	**PA**
AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
C M L INC, PLAINFIELD	**N J**
CONTEMPORARY ELECTRONICS INC, MINNEAPOLIS	**MINN**
DALE ELECTRONICS INC. SIOUX DIV, YANKTON	**S DAK**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HEATH CO, BENTON HARBOR	**MICH**
HISONIC INC, OLATHE	**KAN**
INTERELECTRONICS CORP, CONGERS	**N Y**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH COVER**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM	**CAL**
SPELLMAN HIGH VOLTAGE ELECTRONICS CORP, BRONX	**N Y**
TECHNIPOWER INC, SUB BENRUS WATCH CO INC RIDGEFIELD	**CONN**
TOROTEL, INC, GRANDVIEW	**MO**
TRANSFORMER ELECTRONICS CO, BOULDER COLO	**ADV PGS 2ND COVER & FACING PG**
WAGNER ELECTRIC CORP, TUNG-SOL DIV, LIVINGSTON	**N J**
Abbott Transistor Labs, Inc, Los Angeles	Cal
Acme Products Co, Kensington	Conn
ACR Electronics Corp, New York	N Y
Acromag Inc, Wixom	Mich
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn

Advanced Development Corp, Gardena	Cal
Aerospace Avionics Inc, Bohemia	NY
Air Technology Corp, Waltham	Mass
Allis-Chalmers Mfg Co, Milwaukee	Wis
Alto Scientific Co, Inc, Palo Alto	Cal
American Rectifier Corp, College Point	N Y
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
AMP Incorporated, Harrisburg	Pa
AMP Inc, Capitron Div, Elizabethtown	Pa
Analog Technology Corp, Pasadena	Cal
Applied Electronics Corp of N J, Metuchen	N J
Arnold Magnetics Corp, Los Angeles	Cal
Astro-Metrix Corp, Burbank	Cal
Atlas Controls Div Atlas Engrg Co Inc, Dorchester	Mass
ATR Electronics, Inc, St Paul	Minn
Automation Services Inc, Endicott	N Y
Autronics Corp, Pasadena	Cal
Ballastran Corp, Fort Wayne	Ind
Ball Brothers Research Corp, Boulder	Colo
Barden Co, Hermosa Beach	Cal
Basler Electric Co, Highland	Ill
Bayly Engineering Ltd, Ajax	Ontario
Bendix Corp Electric Power Div, Eatontown	NJ
Bergen Lab, Inc, Paterson	N J
B F Electronics, Solana Beach	Cal
Borg-Warner Controls Div Borg-Warner Corp Santa Ana	Cal
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bruno-New York Industries Corp, New York	N Y
Burr-Brown Research Corp, Tucson	Ariz
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Caledonia Electronics & Transformer Div Caledonia	N Y
Cal-Power Corp, El Segundo	Cal
Cambridge Scientific Industries Inc, Cambridge	Md
Cardinal Control Co Inc, Kensington	Conn
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Carter Co, J C, Electronics Div, Costa Mesa	Cal
CEA Div Berkleonics Inc, Monrovia	Cal
Chrysler Corp, Space Div, Huntsville Oper Huntsville	Ala
Clare-Electroseal Corp, Des Plaines	Ill
C M L Inc, Plainfield	N J
Coil Co of America Inc, Northvale	N J
Coilcraft Inc, Cary	Ill
Components Corp, Denville	NJ
Component Technology Corp, Sunnyvale	Cal
Condenser Products Corp, Brooksville	Fla
Condor Industrial Corp, West Chicago	Ill
Conductron Corp, Ann Arbor	Mich
Conic Corp, San Diego	Cal
Consolidated Electric Corp, Seattle	Wash
Contemporary Electronics Inc, Minneapolis	Minn
Control Circuits Inc, Middletown	Conn
Controlotron Corp, Farmingdale	N Y
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
CP Electronics Inc, Columbus	Ind
Crane Electronics Corp, Santa Barbara	Cal
Crestronics, Crestline	Cal
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Data Science Corp, San Diego	Cal
Del Electronics Corp, Mt Vernon	N Y
Digitech Inc, Ridgefield	Conn
Dorsett Electronics Inc, Tulsa	Okla
Dynalectron Corp Aerospace Prods Div San Leandro	Cal
Dynamic System Electronics Corp, Tempe	Ariz
Dyna Technology, Inc, Sioux City	Iowa
Eastern Dynamics, Inc, Bloomfield	Conn
E G & G Inc Custom Equip Div, Bedford	Mass
Elasco Inc, Boston	Mass
Electric Indicator Co Inc, Wilton	Conn
Electro Circuits Inc, Lowell	Mass
Electro Development Corp, Lynnwood	Wash
Electro Networks Inc, Caledonia	N Y
Electronic Research Associates Inc, Cedar Grove	N J
Electronic Specialty Co, Los Angeles	Cal
Electro-Optical Systems Inc, Pasadena	Cal
Electro Technic Products, Chicago	Ill
Electro Windings & Components Inc, Kenilworth	N J
Elgin Electronics Inc, Erie	Pa
EMP Electronics Inc, Tempe	Ariz
Eon Instrumentation Inc, Van Nuys	Cal
Fairchild Controls, Hicksville	N Y
Fansteel Metallurgical Corp, North Chicago	Ill
Farinon Electric, San Carlos	Cal
Field Electronics Inc, Chatham	N J
Fisher-Akin Co, Manhattan Beach	Cal
Forbes & Wagner Inc, Silver Creek	N Y
Freed Transformer Co Inc, Brooklyn	N Y
Fujitsu Ltd, Tokyo	Japan
Galaxy Electronics Inc, Council Bluffs	Iowa
Gaylord Rives Co, Pasadena	Cal
General Electric Co, ECSO, Schenectady	N Y
Geo Space Corp, Houston	Tex
Giannini-Voltex, Whittier	Cal

Glentek Inc, Santa Monica	Cal
Glentronics Inc, Glendora	Cal
Grafix Inc, Albuquerque	N Mex
Grand Transformers Inc, Grand Haven	Mich
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Guide Industries Inc, Sun Valley	Cal
Gulton Industries Inc, Metuchen	N J
Gulton Industries Inc Engineered Magnetics Div Hawthorne	Cal
Hamilton Electronics Corp, Chicago	Ill
Heath Co, Benton Harbor	Mich
Hill Magnetics, Inc, Redwood City	Cal
Hisonic Inc, Olathe	Kan
Horlick Co Inc, William I, Boston	Mass
Inductor Engineering Inc, Lewes	Del
Inet Power A Teledyne Co, Gardena	Cal
Instrulab Inc, Dayton	Ohio
Interelectronics Corp, Congers	N Y
ITT Federal Labs, Fort Wayne	Ind

Jefferson Electric Co, Bellwood	Ill
Kato Engineering Co, Mankato	Minn
Kepco Inc, Flushing	N Y
Kokuyo Electric Co Ltd, Tokyo	Japan
Kurz & Root Co, Appleton	Wis
Larago Electronics Mfgrs Inc, Melbourne	Fla
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Linear Systems Inc, Watsonville	Cal
Litton Industries, Electron Tube Div, San Carlos	Cal
Loral Electronic Systems, Div Loral Corp, New York	NY
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Lucci & Co, Sarasota	Fla
Macarr Inc, Bronx	N Y
Magnetic Engineering Corp, Danbury	Conn
Magnetico Inc, East Northport	N Y
Microdot, Inc, South Pasadena	Cal
Microdot Magnetics Inc, Los Angeles	Cal
Micromagnetics Div Gulton Ind, Visalia	Cal
Microtran Co Inc, Valley Stream	N Y
Mid-Eastern Industries Inc, Springfield	N J
Mil Associates Inc, Hudson	NH
Motorola Semiconductor Products Inc, Phoenix	Ariz
Mutron Corp, Brockton	Mass
Natel Engineering Co Inc, Van Nuys	Cal
North Electric Co, Galion	Ohio
North Hills Electronics Inc, Glen Cove	N Y
Novatronics Inc, Pompano Beach	Fla
Nuclear Corp of America, Nuclear Div, Denville	N J
Nytron, Palo Alto	Cal
Origin Electric Co Ltd, Tokyo	Japan
Pacific Instrument Co, Oakland	cal
Payne Engineering Co, South Charleston	W Va
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pioneer Magnetics Inc, Santa Monica	Cal
Polyphase Instrument Co, Bridgeport	Pa
Power Control Corp, Pittsburgh	Pa
Power Sources Div, Technical Operations Inc Burlington	Mass
Power Systems Inc, Venice	Cal
Powertec Div, Airtronics Corp, Chatsworth	Cal
Precision Transformers Inc, Anaheim	Cal
Pulse Communications Inc, Falls Church	Va
Qutronic Transformer Corp, Oneonta	N Y
Radix Electronics Corp, Anaheim	Cal
Ramsey Controls Inc, Mahwah	N J
Ratelco Inc, Seattle	Wash
Raven Electronics Inc, Burbank	Cal
Reaction Research Labs of America, Groton	Conn
Resdel Engineering Corp, Pasadena	Cal
Rho Engineering Co, Los Angeles	Cal
RO Associates Inc, Menlo Park	Cal
Roband Electronics Ltd, Surrey	England
Safety Electrical Equipment Corp, New Haven	Conn
Sanken Electric Co, Ltd, Toshima-ku, Tokyo	Japan
Saturn Electronics Corp, Garland	Tex
SBD Systems Inc, Farmingdale	N Y
Schott Co Inc, Oscar A, Minneapolis	Minn
Scientific Instruments Co, Chatsworth	Cal
Scott Electronics Corp, Orlando	Fla
S K G Associates Inc, Boston	Mass
Skyway Magnetics, Inglewood	Cal
Sola-Basic Industries, Milwaukee	Wis
Solidstate Controls Inc, Columbus	Ohio
Sonex Inc, Philadelphia	Pa
Space Craft Inc, Huntsville	Ala
Spar Electronics Inc, San Diego	Cal
Sparton Electronics, Jackson	Mich
Spellman High Voltage Electronics Corp, Bronx	N Y
Standard Telephones & Cables Ltd London WC 2	England
Stelma Inc, Stamford	Conn
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Technipower Inc, Sub Benrus Watch Co Inc Ridgefield	Conn
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Tenco Electronics Inc, Boston	Mass
Terra Corp, Albuquerque	N M
Thorn Automation Ltd, Rugeley, Staffs	England
Topaz Inc, San Diego	Cal
Topping Electronics Ltd, Toronto 17	Ont
Toroid-Trans Electronics Co Inc, Danbury	Conn
Torotel, Inc, Grandview	Mo
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
Torque Tronics, San Gabriel	Cal
Transformer Electronics Co, Boulder	Colo
Transformer Technicians Inc, Chicago	Ill
Transistor Devices Inc, Mt Tabor	N J
Trelcom Engineering Co Inc, Baltimore	Md
Trepac Corp of America, Englewood	N J
Triad Transformer Corp, Venice	Cal
Trio Laboratories Inc, Plainview	N Y
Unitron Div Electric Machy Mfg Co, Garland	Tex
Universal Precision, Inc, Endicott	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Universal Transistor Products Div Link, Copiague	N Y

Utrad Corp, Huntington	Ind
Valradio Ltd, Feltham, Mdsx	Eng
Vapor Corp, Chicago	Ill
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Vega Precision Labs, Vienna	Va
Velonex Div Pulse Engineering Inc, Santa Clara	Cal
Venus Scientific Inc, Hicksville	N Y
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Voltron Products Inc, Pasadena	Cal
Wagner Electric Corp, Tung-Sol Div, Livingston	N J
Ward Leonard Electric Co, Mount Vernon	N Y
Warren Mfg Co Div Dielectric Prods Eng Co Inc Littleton	Mass
Wilmore Electronics Co Inc, Durham	NC
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

CONVERTERS--DIGITAL TO ANALOG

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BECKMAN INSTRUMENTS INC, HELIPOT DIV, FULLERTON CAL	**ADV PG 217**
BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL	**PA**
COMPUTER LABS, GREENSBORO, N C	**ADV PG 217**
COMPUTER PRODUCTS INC, FORT LAUDERDALE	**FLA**
DATA TECHNOLOGY, INC, WATERTOWN	**MASS**
DISCON CORP, FORT LAUDERDALE	**FLA**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
ICON CORP, CAMBRIDGE	**MASS**
INTRONICS INC, NEWTON	**MASS**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW	**N Y**
SUPERIOR ELECTRIC CO THE, BRISTOL	**CONN**
TELE-SIGNAL CORP, WOODBURY	**N Y**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
TOWSON LABS INC, BALTIMORE	**MD**
TRANSMAGNETICS INC, FLUSHING	**N Y**
Adage Inc, Boston	Mass
A D Data Systems Inc, Rochester	N Y
Aerojet-General Corp Electronics Div, Azusa	Cal
AIC Instruments Div AIC Corp, Houston	Texas
Amark Corp, Plainview	N Y
American Astrionics Inc, Palo Alto	Cal
Amtron Inc, Midlothian	Ill
Analogic Corp, Waltham	Mass
Analog Technology Corp, Pasadena	Cal
Ann Arbor Computer Corp, Ann Arbor	Mich
Applied Dynamics, Inc, Ann Arbor	Mich
Applied Electronics Corp of N J, Metuchen	N J
Astrodata Inc, Anaheim	Cal
Astrosystems Inc, New Hyde Park	N Y
Audn Corp, Hamburg	N Y
Automation Development Co, Culver City	Cal
Automation Management, Inc, Westboro	Mass
Avco Corp Electronics Div, Cincinnati	Ohio
Ball Brothers Research Corp, Boulder	Colo
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Bendix Corp, Communications Div, Towson	Md
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Bowmar Instrument Corp, Fort Wayne	Ind
Burr-Brown Research Corp, Tucson	Ariz
B & W Electronic Research Labs, Dallas	Tex
California Systems Components, Inc, Chatsworth	Cal
Cambridge Thermionic Corp, Cambridge	Mass
Canadian Motorola Electronics Co, Agincourt	Ont
Canberra Industries, Middletown	Conn
Canoga Electronics Corp, Chatsworth	Cal
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
Coldspring Instrument Corp, Huntington	N Y
Compudyne Corp, Hatboro	Pa
Computer Labs, Greensboro	N C
Computer Logic Corp, Santa Monica	Cal
Computer Products Inc, Fort Lauderdale	Fla
Conductron Corp, Ann Arbor	Mich
Control Data Corp, LaJolla Div, Minneapolis	Minn
Control Equipment Corp, Needham Heights	Mass
Control Logic Inc, Natick	Mass
Control Technology Co Inc, Long Island City	N Y
Cosmos Industries Inc, Brooklyn	N Y
Data-Control Systems Inc, Danbury	Conn
Datametrics Corp, Van Nuys	Cal
Data Technology Corp, Mountain View	Cal
Data Technology, Inc, Watertown	Mass
Datatron Inc, Santa Ana	Cal
DatCon Electronics Corp, Bayside	NY
Datum Inc, Anaheim	Cal
Daytron Inc, Mountain View	Cal
Defense Electronics Inc, Rockville	Md
Digital Electronics Inc, Plainview	N Y
Digital Equipment Corp, Maynard	Mass
Digital Products Div Canoga Elctns Corp Chatsworth	Cal
Discon Corp, Fort Lauderdale	Fla
Dorsett Electronics Inc, Tulsa	Okla
Dynamics Instrumentation Co, Monterey Park	Cal
Dynamic System Electronics Corp, Tempe	Ariz
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee	Ill
Dynatronics Oper Elctns Div Gen Dynamics Corp Orlando	Fla
E G & G Inc Custom Equip Div, Bedford	Mass

E G & G Int'l Inc Geodyne Div, Waltham	Mass
E-H Research Labs Inc, Oakland	Cal
Electro Circuits Inc, Lowell	Mass
Electro-Mec Instrument Corp, Watertown	Conn
Electronic Associates Inc, West Long Branch	N J
Electronic Design Labs Inc, Philadelphia	Pa
Electronic Engineering Co of Cal, Santa Ana	Cal
Elpac Inc Systems Div Data, Irvine	Cal
EMI Electronics Ltd, Hayes, Middlesex	England
EMR Computer, Minneapolis	Minn
EMR Div Weston Instruments Inc, Princeton	N J
Epsco Inc, Westwood	Mass
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Space & Defense Sys Div Fairchild Cam Instr Corp, Syosset	NY

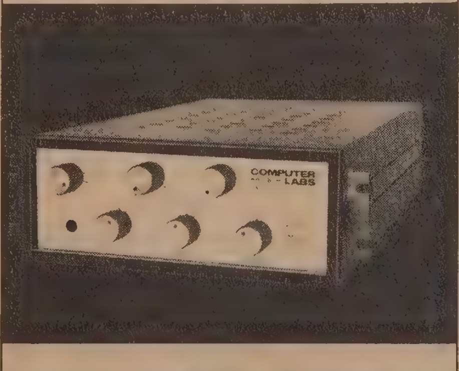
Ferranti, Ltd, Lancashire	England
Fifth Dimension Inc, Princeton	N J
Fisher-Akin Co, Manhattan Beach	Cal
Flow Technology Inc, Tempe	Ariz
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
Foxboro Co, Foxboro	Mass
Frequency Engineering Labs, Farmingdale	N J
Fujitsu Ltd, Tokyo	Japan
Gap Instrument Corp, Westbury	N Y
Garrett Corp, Los Angeles	Cal
General Devices Inc, Instrumentation Div Princeton	N J
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
General Radio Co, West Concord	Mass
General Resistance Inc, New York	NY
Genisco Technology Corp, Compton	Cal
Geodyne Div EG&G Int'l, Waltham	Mass
Geo Space Corp, Houston	Tex
Geo Space Systems Inc, St Petersburg	Fla
Gulton Industries Inc, Metuchen	N J
Hewlett-Packard, Palo Alto	Cal
Honeywell Inc, Computer Control Div Framingham	Mass
Honeywell Test Instruments Div, Denver	Colo
Hybrid Systems Corp, Cambridge	Mass
IBM Corp, Armonk	N Y
Icon Corp, Cambridge	Mass
Industrial Control Co, Farmingdale	N Y
Information Control Corp, El Segundo	Cal
Information Displays Inc, Mt Kisco	NY
Infotronics Corp, Houston	Texas
Instrumentation Technology Corp, Northridge	Cal
Intellux Inc, Goleta	Cal
International Data Systems Inc, Dallas	Tex
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Intronics Inc, Newton	Mass
ITT Federal Labs, Fort Wayne	Ind
Janus Control Div Tyco, Waltham	Mass
Julie Research Labs, Inc, New York	N Y
Kameco Ltd, Montreal	Que
Keltec Industries, Alexandria Div, Alexandria	Va
Laben S p Milan	Italy
La Telemecanique Electrique, 92 Rueil	France
LCC-CICE, 93 Montreuil-sous-Bois	France
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
LFE Electronics Div, Lab for Electronics Inc Waltham	Mass
Librascope Group Gen Precision Sys Inc, Glendale	Cal
Logic Corp, Haddonfield	N J
Marstan Electronics Div Balco Elctns Inc, Orange	N J
Massey Dickinson Co Inc, Saxonville	Mass
McMaster Products Corp, Chicago	Ill
Measurement Technology Corp, Canoga Park	Cal
Mepco Inc, Morristown	N J
Metric Systems Corp, Fort Walton Beach	Fla
Micro Metrics Inc, Paterson	N J
Milgo Electronic Corp, Miami	Fla
Missouri Research Labs Inc, St Louis	Mo
Molecular Research Inc, Palm Beach Gardens	Fla
Monitor Systems Inc, Fort Washington	Pa
Moore Products Co, Spring House	Pa
NanoFast, Inc, Chicago	Ill
Navigation Computer Corp, Norristown	Pa
Neotec Corp, Rockville	Md
Nippon Electric Co Ltd, Tokyo	Japan
Norden Div, United Aircraft Corp, Norwalk	Conn
North Atlantic Industries Inc, Plainview	N Y
Northridge Engineering Co Div Republic Corp Northridge	Cal
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nytronics Inc, Precision Resistor Div, Kutztown	Pa
Oki Electric Industry Co Ltd, Tokyo	Japan
Otis Elevator Co, Defense Oper, Stamford	Conn
Pacific Data & Controls, Redwood City	Cal
Pacific Electro Dynamics Inc, Seattle	Wash
Pastoriza Electronics Inc, Newton Upper Falls	Mass
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Powertec Div, Airtronics Corp, Chatsworth	Cal
Precision Mecanique Labinal, 93 Saint-Ouen	France
Precision Research Inc, Stamford	Conn
Preston Scientific, Inc, Anaheim	Cal
Radix Electronics Corp, Anaheim	Cal
Raytheon Computer, Santa Ana	Cal
RC-95 Inc, New York	N Y
Redcor Corp, Canoga Park	Cal
Reeves Instrument Div, DCA, Garden City	N Y
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass
Roback Corp, Huntingdon Valley	Pa
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Rosemount Plug-In Inc, Nashville	Tenn
Saturn Electronics Corp, Garland	Tex
Schlumberger, 92-Montrouge 32	France
Schneider Radio-Television Div, Ivry	France
Science Accessories Corp, Southport	Conn
Scientific Data Systems Inc, El Segundo	Cal
Sedco Systems Inc, Farmingdale	N Y
Sensor Corp, Greenwich	Conn
Sequential Electronic Systems Inc, Elmsford	N Y
Servonetics Inc, Los Angeles	Cal
Sierra Research Corp, Buffalo	N Y
Sigma Instruments Inc, Braintree	Mass
Signal Analysis Industries Corp, Copiague	N Y
Signet Controls Inc, Tulsa	Okla
Siltronics Inc, Oakmont	Pa
Simpson Electric Co, Chicago	Ill
Singer Co, Metrics Div, Gertsch Dept, Los Angeles	Cal
Solid State Radiations Inc, Los Angeles	Cal
Space Craft Inc, Huntsville	Ala
Space & Systems Div General Time Corp Stamford	Conn
Sprague Electric Co, North Adams	Mass
Stellarmetrics Inc, Santa Barbara	Cal
Stelma Inc, Stamford	Conn
Straza Industries Div Ametek Inc, El Cajon	Cal
Streeter-Amet, Grayslake	Ill
Superior Electric Co The, Bristol	Conn
Superior Mfg & Instrument Co, Long Island City	N Y
Systems Engineering Labs Inc, Ft Lauderdale	Fla
Takeda Riken Industry Co Ltd, Tokyo	Japan
Technical Materiel Corp, Mamaroneck	N Y
Teledata Inc, Queens Village	N Y
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
Teledyne Telemetry Co, Los Angeles	Cal
Tele-Signal Corp, Woodbury	N Y
Texas Instruments Incorporated, Dallas	Tex
Texas Instruments Inc Indl Prods Div, Houston	Tex
Thorn Automation Ltd, Rugeley, Staffs	England
Towson Labs Inc, Baltimore	Md
Transmagnetics Inc, Flushing	N Y
TRW Systems Group, Redondo Beach	Cal
U S Microwave, Delran	N J
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Varo Inc, Garland	Tex
Veeder-Root, Hartford	Conn
Vega Precision Labs, Vienna	Va
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Vitro Labs Div Vitro Corp of America, Silver Spring	Md
Vitro Labs Div Vitro Corp of America, W Orange	N J
Watesta Electronics Ltd, London-E 11	England
Weston-Transicoil, Weston Instruments Inc Worcester	Pa
Wyle Laboratories, El Segundo	Cal
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan
Zeltex inc, Concord	Cal

We argued about where this ad should be.

People couldn't agree where this ad should go. Some said it HAD to be in the D/A Converter section, because it's an ad for the HS-2000 Series D/A line. Others said it should go in the function generator section, or the modulator section, or the programmable attenuator section. And so it went.

Why all the discussion? Because our HS-2000 Series D/A Converters can convert from 4 bits at 25 HMz to 9 bits at 10 MHz and be 0.1% accurate in less than 90 nanoseconds. But they can also accommodate external bias and reference signals from dc to 25 MHz, making them useful for a lot of other things. Prices range from $1480 to $1760, for any of six models. With all that, people couldn't agree where the ad should be.

If you don't like where it is, tell the boss. He made the final decision.



COMPUTER LABS

for tomorrow's technology today

(919) 292-6427 • 1109 VALLEY PARK DRIVE
GREENSBORO, N. C. 27403

LOOKING FOR D TO A CONVERTER COMPONENTS?

Helipot miniature hybrid cermet thick film ladder networks and switches are the answer to building your own D to A system.
The 4-bit ladder switch features:

- Unipolar or direct bipolar operation
- 350 nanosecond rise and fall time
- 0 to 2 millivolt switch offsets (at 25°C)
- 0 to 5 milliamps output current
- Small (1" x 1" x 0.170" high)

The ladder network features:

- Up to ½-bit accuracy in 12 bits
- −55° to +125°C operation
- 50 nanosecond settling time
- 1 ppm/°C tracking (typical)
- Small size (1" x 1" x 0.1" high)
- Low cost — available from stock

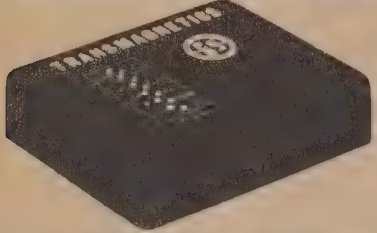
For complete information contact the Helipot representative nearest you. He's listed in EBG's Manufacturers' Index.

Beckman
INSTRUMENTS, INC.
HELIPOT DIVISION
FULLERTON, CALIFORNIA • 92634

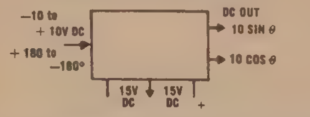
Check the top of the pages for alphabetical listing of product categories

Digital-to-Synchro Converter Modules

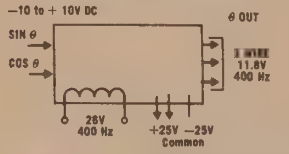
Solid State, Fast Delivery



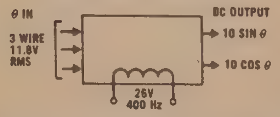
R670 ANGLE IN — SIN AND COS OUT
Accuracy 15 Minutes



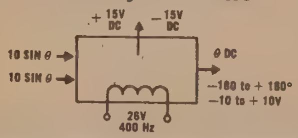
650-23 SIN-COS IN
— TO 3 WIRE SYNCHRO OUT
Accuracy 10 Minutes



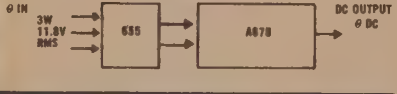
655 3 WIRE SYNCHRO IN
— DC SIN-COS OUT
Accuracy 6 Minutes



A678 DC SIN-COS IN — DC ANGLE OUT
Accuracy 15 Minutes



678 3 WIRE SYNCHRO IN
— DC ANGLE OUT



TRANSMAGNETICS, INC,

134-25 Northern Boulevard
Flushing, New York 11354
(212) 539-2750 TWX: 710-582-2472

Synchro-to-Digital Converters

- *20,000°/second tracking*
- *to .001° BCD*
- *to 17 bits binary*

Digital-to-Synchro Converters

- *11 to 16 bits*
- *accuracy to 30 arc seconds*
- *short-circuit proof*

Your North Atlantic representative has complete data.

See listing in the Green Pages.

NORTH ATLANTIC
industries, inc.
PLAINVIEW, NEW YORK 11803 516—681-8600

CONVERTERS--DIGITAL TO SYNCHRO & SYNCHRO TO DIGITAL

NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW N Y .... **ADV PG 218**
TOWSON LABS INC, BALTIMORE .... **MD**
TRANSMAGNETICS INC, FLUSHING, N Y .... **ADV PG 218**
North Atlantic Industries Inc, Plainview .... N Y
Towson Labs Inc, Baltimore .... Md
Transmagnetics Inc, Flushing .... N Y

CONVERTERS--FREQUENCY SHIFT SEE ALSO KEYERS--FREQUENCY SHIFT

C M L INC, PLAINFIELD, N J. .... **ADV PGS 496,497**
Alltronics-Howard Co, Boston .... Mass
C M L Inc, Plainfield .... N J
Northern Radio Co Inc, New York .... N Y

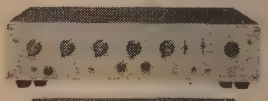
CONVERTERS--FREQUENCY TO D-C

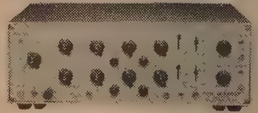
AMP INCORPORATED, HARRISBURG .... **PA**
ANRITSU ELECTRIC CO LTD, TOKYO, JAPAN .... **ADV PG 218**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... **ADV PGS 7**
HEWLETT-PACKARD, PALO ALTO .... **CAL**
HOUSTON INSTRUMENT DIV BAUSCH & LOMB BELLAIRE .... **TEX**
INTERELECTRONICS CORP, CONGERS .... **N Y**
NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
NORTH HILLS ELECTRONICS INC, GLEN COVE .... **N Y**
TRANSMAGNETICS INC, FLUSHING .... **N Y**
WAGNER ELECTRIC CORP, TUNG-SOL DIV, LIVINGSTON .... **N J**
AB Atomenergi, 10072 Stockholm 43 .... Sweden
Abbott Transistor Labs, Inc, Los Angeles .... Cal
Acromag Inc, Wixom .... Mich
ADC Products, Minneapolis .... Minn
Aerojet-General Corp Electronics Div, Azusa .... Cal
Aerometrics Div Aerojet-General Corp, San Ramon .... Cal
Airpax Electronics Inc, Cambridge Div, Cambridge .... Md
Airpax Electronics Inc Seminole Div Fort Lauderdale .... Fla
Ajax Magnethermic Corp, Warren .... Ohio
Allis-Chalmers Mfg Co, Milwaukee .... Wis
American Astrionics Inc, Palo Alto .... Cal
American Machine & Foundry Co Alexandria Div Alexandria .... Va
A & M Instruments Inc, Great Neck .... N Y
AMP Incorporated, Harrisburg .... Pa
Anadex Instruments, Inc, Van Nuys .... Cal
Anritsu Electric Co Ltd, Tokyo .... Japan
Anzac Electronics, Waltham .... Mass
Applied Electronics Corp of N J, Metuchen .... N J
Argonaut Associates, Inc, Beaverton .... Ore
Astro-Metrix Corp, Burbank .... Cal

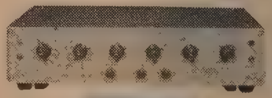
Audn Corp, Hamburg .... N Y
Automation Services Inc, Endicott .... N Y
Autronics Corp, Pasadena .... Cal
Avtel Corp, Covina .... Cal
Avtron Mfg, Inc, Cleveland .... Ohio
Barden Co, Hermosa Beach .... Cal
Basler Electric Co, Highland Ill
B & B Motor & Control Corp, New York .... N Y
Beckman Instruments Inc, Fullerton, ... Cal
Bronson Corp, Sub Kurz & Root Co, Appleton .... Wisc
Bush Transformer Div, Gladding-Keystone Corp Oneonta .... NY
B & W Electronic Research Labs, Dallas .... Tex
Cal-Power Corp, El Segundo .... Cal
Cambridge Scientific Industries Inc, Cambridge .... Md
Canadian Motorola Electronics Co, Agincourt .... Ont
Carol Electronics Div Weeco Inc, Martinsburg .... W Va
Coil Co of America Inc, Northvale .... N J
Components Corp, Denville .... NJ
Consolidated Controls Corp, Bethel .... Conn
Consolidated Electric Corp, Seattle .... Wash
Control Circuits Inc, Middletown .... Conn
Cox Instruments Div Lynch Corp, Detroit .... Mich
Crane Electronics Corp, Santa Barbara .... Cal
Crestronics, Crestline .... Cal
Daytron Inc, Mountain View .... Cal
Diamond Repeater Co, Madison .... N J
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee Ill
Eastern Dynamics, Inc, Bloomfield .... Conn
E I L Instrument Div Unitec Industries, Timonium .... Md
Elastronics Labs, Tarzana .... Cal
Electric Indicator Co Inc, Wilton .... Conn
Electric Products Co, Cleveland .... Ohio
Electro Development Corp, Lynnwood .... Wash
Electronic Design Labs Inc, Philadelphia .... Pa
Electronic Research Associates Inc, Cedar Grove .... N J
Electronic Specialty Co, Los Angeles .... Cal
Fairlane Electronics, Inc, Long Valley .... N J
Fansteel Metallurgical Corp, North Chicago Ill
Field Electronics Inc, Chatham .... N J
Fisher-Akin Co, Manhattan Beach .... Cal
Flowcon Co, Anaheim .... Cal
Flow Technology Inc, Tempe .... Ariz
Foxboro Co, Foxboro .... Mass
Foxboro Co Valenica Plant, Valencia .... Cal
Garrett Corp, Los Angeles .... Cal
General Electric Co, ECSO, Schenectady .... N Y

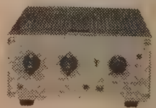
New General-Purpose Pulse Generator Family

Extensive Range of Applications Creates New Markets


MG411A


MG412A


MG511A


MG413A

MG410A	MG411A& MG412A (2 channel)	MG413A	MG511A
DC-50 MHz	DC-10 MHz Double pulse-20 MHz	DC-10 MHz	DC-100 MHz
<3 ns	10 ns-5 ms	<5 ns	<1 ns, 2-500 ms
±30mV-±10V	0-±10V	0-±5V	±50 mV-±5V
10 ns-10 ms	30 ns-10 ms	30 ns-10ms	5 ns-0 1 ms
$ 1200	$ 815 $ 1335	$ 715	$ 2335

Anritsu Electric Co., Ltd.

12-20, Minamiazabu 4-chome, Minato-ku, Tokyo, Japan
Phone Tokyo 442-8171/ Telex: 0242-2353
Cable: ANRITDENKI TOKYO

General Precision Systems Inc, Kearfott Gp Little Falls	N J
Giannini-Voltex, Whittier	Cal
Hartman Systems Co Inc, Huntington Station	N Y
Helix Research Assoc Inc, La Mesa	Cal
Hewlett-Packard, Palo Alto	Cal
Holtzer-Cabot Corp, Boston	Mass
Horlick Co Inc, William I, Boston	Mass
Houston Instrument Div Bausch & Lomb, Bellaire	Tex
Howell Instruments Co, Fort Worth	Tex
Inductor Engineering Inc, Lewes	Del
Industrial Electronetics Corp, Satellite Beach	Fla
Inet Power A Teledyne Co, Gardena	Cal
Information Instruments, Inc, Ann Arbor	Mich
Interelectronics Corp, Congers	N Y
International Data Systems Inc, Dallas	Tex
Janus Control Div Tyco, Waltham	Mass
Kato Engineering Co, Mankato	Minn
Kurz & Root Co, Appleton	Wis
Lear Siegler Inc, Santa Monica	Cal
Leeds & Northrup Co, Philadelphia	Pa
Loral Electronic Systems, Div Loral Corp, New York	NY
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Lundy Electronics & Systems Inc, Glen Head	N Y
Madigan Electronic Corp, Washington	D C
Matrix Corp, Beech Grove	Ind
Measurement Technology Corp, Canoga Park	Cal
Microdot Magnetics Inc, Los Angeles	Cal
Microtran Co Inc, Valley Stream	N Y
Motor Generator Div Hobart Bros Co, Troy	Ohio
NanoFast, Inc, Chicago	Ill
Natel Engineering Co Inc, Van Nuys	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Northeastern Engineering Inc, Manchester	NH
Northern Radio Co Inc, New York	N Y
North-Hills Electronics Inc, Glen Cove	N Y
Novatronics Inc, Pompano Beach	Fla
Nuclear Corp of America, Nuclear Div, Denville	N J
Optical Electronics Inc, Tuscon	Ariz
Pioneer Magnetics Inc, Santa Monica	Cal
Powertec Div, Airtronics Corp, Chatsworth	Cal
Precision Transformers Inc, Anaheim	Cal
Radix Electronics Corp, Anaheim	Cal
Ramsey Controls Inc, Mahwah	N J
Raven Electronics Inc, Burbank	Cal
Rho Engineering Co, Los Angeles	Cal
Roband Electronics Ltd, Surrey	England
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Rosemount Plug-In Inc, Nashville	Tenn
Saturn Electronics Corp, Garland	Tex
SBD Systems Inc, Farmingdale	N Y
Schlumberger, 92-Montrouge 32	France
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Sensor Corp, Greenwich	Conn
Siemens America Inc, New York	N Y
Simpson Electric Co, Chicago	Ill
Solidstate Controls Inc, Columbus	Ohio
Solid State Electronics Corp, Sepulveda	Cal
Space Craft Inc, Huntsville	Ala
Spar Aerospace Products Ltd, Toronto	Ont
Spectral Dynamics Corp of San Diego, San Diego	Cal
Takeda Riken Industry Co Ltd, Tokyo	Japan
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Technical Materiel Corp, Mamaroneck	N Y
Technical Products Co of L A, Los Angeles	Cal
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Telstar Electronics Corp, Southold	N Y
Thorn Automation Ltd, Rugeley, Staffs	England
Transistor Devices Inc, Mt Tabor	N J
Transmagnetics Inc, Flushing	N Y
Unholtz-Dickie Corp, Hamden	Conn
Unitron Div Electric Machy Mfg Co, Garland	Tex
Universal Precision, Inc, Endicott	N Y
Universal Transistor Products Div Link, Copiague	N Y
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Venus Scientific Inc, Hicksville	N Y
Vidar Corp, Mountain View	Cal
Vinco Industries, Orange	Cal
Voltron Products Inc, Pasadena	Cal
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Wagner Electric Corp, Tung-Sol Div, Livingston	N J
Ward Leonard Electric Co, Mount Vernon	N Y
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J

CONVERTERS--KEYING

TELE-SIGNAL CORP, WOODBURY	**N Y**
Advanced Technology Corp, Chambersburg	Pa
American Astrionics Inc, Palo Alto	Cal
Digitech Inc, Ridgefield	Conn
Hathaway Pacific Corp, Palo Alto	Cal
Loral Electronic Systems, Div Loral Corp, New York	NY
Northern Radio Co Inc, New York	N Y
Pulse Communications Inc, Falls Church	Va
Robertshaw Controls Co, Aero & Instrument Div Anaheim	Cal
Stelma Inc, Stamford	Conn
Technical Materiel Corp, Mamaroneck	N Y
Teledata Inc, Queens Village	N Y
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Teledyne Telemetry Co, Los Angeles	Cal
Tele-Signal Corp, Woodbury	N Y

CONVERTERS--POLAR TO RECTANGULAR COORDINATE

DISCON CORP, FORT LAUDERDALE	**FLA**
INTRONICS INC, NEWTON	**MASS**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW	**N Y**
TRANSMAGNETICS INC, FLUSHING	**N Y**
Discon Corp, Fort Lauderdale	Fla
Fisher-Akin Co, Manhattan Beach	Cal
General Electrodynamics Corp, Garland	Tex
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Hartman Systems Co Inc, Huntington Station	N Y
Intronics Inc, Newton	Mass
Measurement Technology Corp, Canoga Park	Cal
Metric Systems Corp, Fort Walton Beach	Fla
Micro Metrics Inc, Paterson	N J
Milgo Electronic Corp, Miami	Fla
North Atlantic Industries Inc, Plainview	N Y
Northridge Engineering Co Div Republic Corp Northridge	Cal
Otis Elevator Co, Defense Oper, Stamford	Conn
Reeves Instrument Div, DCA, Garden City	N Y
Reflex Controls Corp, Huntington Station	NY
Servonetics Inc, Los Angeles	Cal
Singer Co, Metrics Div, Gertsch Dept, Los Angeles	Cal
Superior Mfg & Instrument Co, Long Island City	N Y
Transmagnetics Inc, Flushing	N Y
Vitro Labs Div Vitro Corp of America, W Orange	N J

CONVERTERS--PUNCHED CARD TO TAPE

MILGO ELECTRONIC CORP, MIAMI	**FLA**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
A D Data Systems Inc, Rochester	N Y
Ann Arbor Computer Corp, Ann Arbor	Mich
Burroughs Corp Component Sales Dept Los Angeles	Cal
CAE Industries Ltd, Montreal 3	Que
Conductron Corp, Ann Arbor	Mich
Connecticut Technical Corp, Hartford	Conn
Control Data Corp, Minneapolis	Minn
Control Logic Inc, Natick	Mass
Datatron Inc, Santa Ana	Cal
Digi-Data Corp, Bladensburg	Md
Electro Circuits Inc, Lowell	Mass
Electronic Engineering Co of Cal, Santa Ana	Cal
Fisher-Akin Co, Manhattan Beach	Cal
Friden Inc, San Leandro	Cal
Fujitsu Ltd, Tokyo	Japan
General Electric Co Info Sys Equip Div, Phoenix	Ariz
Honeywell-EDP Div, Wellesley Hills	Mass
IBM Corp, Armonk	N Y
Information Control Corp, El Segundo	Cal
Instrumentation Technology Corp, Northridge	Cal
Keltec Industries, Alexandria Div, Alexandria	Va
Logic Corp, Haddonfield	N J
Measurement Technology Corp, Canoga Park	Cal
Milgo Electronic Corp, Miami	Fla
Missouri Research Labs Inc, St Louis	Mo
Molecular Research Inc, Palm Beach Gardens	Fla
Motorola Instrumentation & Control Inc, Phoenix	Ariz
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass
Roback Corp, Huntingdon Valley	Pa
Systematics & Magne-Head Divs Gen Instrument Corp Hawthorne	Cal
Tally Corp, Seattle	Wash
Tally Corp, Business Systems, Seattle	Wash
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y

CONVERTERS, SIGNAL--A-M TO SINGLE SIDEBAND

ANAREN MICROWAVE INC, SYRACUSE	**N Y**
LEL DIV VARIAN ASSOCIATES, COPIAGUE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Advanced Technology Corp, Chambersburg	Pa
Anaren Microwave Inc, Syracuse	N Y
Avco Corp Electronics Div, Cincinnati	Ohio
Comdel Inc, Beverly	Mass
Cosmos Industries Inc, Brooklyn	N Y
Gopic Designs Co, San Diego	Cal
Hammarlund Mfg Co, Mars Hill	N C
Kahn Research Labs Inc, Freeport	N Y
Lel Div Varian Associates, Copiague	N Y
Microwave Products Group Div C A S Inc Carle Place	N Y
Nippon Electric Co Ltd, Tokyo	Japan
R F Communications Inc, Rochester	N Y
Siemens America Inc, New York	N Y
Signal Analysis Industries Corp, Copiague	N Y
Squires-Sanders Inc, Liberty Corner	N J

Technical Materiel Corp, Mamaroneck	N Y
Telstar Electronics Corp, Southold	N Y
Wilcox Electric Co Inc, Kansas City	Mo

CONVERTERS, SIGNAL--MORSE TO TELETYPEWRITER

Advanced Space Age Products Inc, Alexandria	Va
C & K Components Inc, Watertown	Mass
Codamite Div Pacific Ordnance & Elctns Co Anaheim	Cal
Ecco Electronic Components Corp, Mount Vernon	N Y
Fisher-Akin Co, Manhattan Beach	Cal
Frederick Electronics Corp, Frederick	Md
Oki Electric Industry Co Ltd, Tokyo	Japan
Stelma Inc, Stamford	Conn
Vitro Labs Div Vitro Corp of America, W Orange	N J
Wiltek, Inc, Wilton	Conn

CONVERTERS, SIGNAL--SHORTWAVE TO BROADCAST BAND

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PETERSEN RADIO CO INC, COUNCIL BLUFFS	**IOWA**
Automatic Radio Sales Inc, Melrose	Mass
Comdel Inc, Beverly	Mass
Electronic Applications Co, Pine Brook	N J
Emcee Electronics Inc, New Castle	Del
Microwave Products Group Div C A S Inc Carle Place	N Y
Mobil Electronics Inc, Anderson	Ind
Nippon Electric Co Ltd, Tokyo	Japan
Petersen Radio Co Inc, Council Bluffs	Iowa
Salch & Co Herbert Mkt Div Tompkins Radio Prods Woodsboro	Tex
Squires-Sanders Inc, Liberty Corner	N J

CONVERTERS, SIGNAL--SHORTWAVE TO SHORTWAVE

HEATH CO, BENTON HARBOR	**MICH**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Aerospace Research, Inc, Boston	Mass
Comdel Inc, Beverly	Mass
Electronic Applications Co, Pine Brook	N J
Heath Co, Benton Harbor	Mich
Melabs, Palo Alto	Cal
Microwave Products Group Div C A S Inc Carle Place	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Spacekom Inc, Goleta	Cal
Squires-Sanders Inc, Liberty Corner	N J
Symetrics Engineering Corp, Satellite Beach	Fla

CONVERTERS, SIGNAL--SINGLE TO DOUBLE SIDEBAND

ANAREN MICROWAVE INC, SYRACUSE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TRANSMAGNETICS INC, FLUSHING	**N Y**
Advanced Technology Corp, Chambersburg	Pa
Aerospace Research, Inc, Boston	Mass
Anaren Microwave Inc, Syracuse	N Y
Avco Corp Electronics Div, Cincinnati	Ohio
Comdel Inc, Beverly	Mass
Cosmos Industries Inc, Brooklyn	N Y
Gopic Designs Co, San Diego	Cal
Kahn Research Labs Inc, Freeport	N Y
Microwave Products Group Div C A S Inc Carle Place	N Y
Nippon Electric Co Ltd, Tokyo	Japan
R F Communications Inc, Rochester	N Y
Siemens America Inc, New York	N Y
Signal Analysis Industries Corp, Copiague	N Y
Squires-Sanders Inc, Liberty Corner	N J
Telstar Electronics Corp, Southold	N Y
Transmagnetics Inc, Flushing	N Y
VP Co, Pasadena	Cal

CONVERTERS, SIGNAL--TELEMETERING, DATA INSERTION

BOWMAR INSTRUMENT CORP, FORT WAYNE .... **IND**
LEL DIV VARIAN ASSOCIATES, COPIAGUE .... **N Y**
TELE-SIGNAL CORP, WOODBURY, N Y .... **ADV PG 220**
TOWSON LABS INC, BALTIMORE .... **MD**
Aeromarine Electronics, Inc, San Diego .... Cal
Amtron Inc, Midlothian Ill
Applied Electronics Corp of N J, Metuchen .... N J
Applied Research, Inc, Port Washington .... N Y
Astrodata Inc, Anaheim .... Cal
Avantek Inc, Santa Clara .... Cal
Bell Aerosystems Co, Buffalo .... N Y
Bowmar Instrument Corp, Fort Wayne .... Ind
CAE Industries Ltd, Montreal 3 .... Que
C & K Components Inc, Watertown .... Mass
Communication Electronics Inc, Rockville .... Md
Conic Corp, San Diego .... Cal
Dorsett Electronics Inc, Tulsa .... Okla
Dynatronics Oper Elctns Div Gen Dynamics Corp Orlando .... Fla
E I L Instrument Div Unitec Industries, Timonium .... Md
Electronic Development Corp, Boston .... Mass
ElectroSyn Technology Labs, Inc, Canton .... Mass
EMR Div Weston Instruments Inc, Princeton .... N J
Fifth Dimension Inc, Princeton .... N J
General Devices Inc, Instrumentation Div Princeton .... N J
Giannini-Voltex, Whittier .... Cal
Gulton Industries Inc, Metuchen .... N J
Hathaway Pacific Corp, Palo Alto .... Cal
Industrial Electronetics Corp, Satellite Beach .... Fla
International Data Systems Inc, Dallas .... Tex
Intertechnique, Plaisir, 78 .... France
Laben S p A, Milan .... Italy
Landis & Gyr AG, Zug .... Switzerland
Lear Siegler Inc, Electronic Instrumentation Div Anaheim .... Cal
Lel Div Varian Associates, Copiague .... N Y
Mayberry Electronics Co, Inglewood .... Cal
Microwave Associates Inc, Burlington .... Mass
Microwave Products Group Div C A S Inc Carle Place .... N Y
Monitor Systems Inc, Fort Washington .... Pa
Novatronics Inc, Pompano Beach .... Fla
Oki Electric Industry Co Ltd, Tokyo .... Japan
Philco-Ford Corp, Washington .... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
RC-95 Inc, New York .... N Y
Rixon Electronics Inc, Silver Spring .... Md
Rochester Instrument Systems Inc, Rochester .... N Y
Siemens America Inc, New York .... N Y
Solid State Electronics Corp, Sepulveda .... Cal
Sonex Inc, Philadelphia .... Pa
Space Craft Inc, Huntsville .... Ala
Stelma Inc, Stamford .... Conn
Symetrics Engineering Corp, Satellite Beach .... Fla
Systems Engineering Labs Inc, Ft Lauderdale .... Fla
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia .... Pa
Teledyne Telemetry Co, Los Angeles .... Cal
Tele-Signal Corp, Woodbury .... N Y
Topping Electronics Ltd, Toronto 17 .... Ont
Towson Labs Inc, Baltimore .... Md
Utility Communication Systems Inc, Essington .... Pa
Vidar Corp, Mountain View .... Cal
Westinghouse Brake & Signal Co Ltd Automation Div Chippenham .... England
Yaskawa Electric Mfg Co Ltd, Tokyo .... Japan

FS TONE CONVERTER

The newest design in VFTG and data tone converters employing IC's and silicon transistors. Model 52A reflects latest state of the art and meets CCITT and USASI recommendations. Frequency determining elements and output circuitry plug into etched foil self supporting card. Lowest distortion—high speed capability.

TELE-SIGNAL CORPORATION
A Subsidiary of The Singer Company
250 Crossways Park Drive
Woodbury, L. I., New York 11797

CONVERTERS, SIGNAL--TELEMETERING MODULATION

ANAREN MICROWAVE INC, SYRACUSE .... **N Y**
BELL, INC F W, COLUMBUS .... **OHIO**
INTRONICS INC, NEWTON .... **MASS**
LEL DIV VARIAN ASSOCIATES, COPIAGUE .... **N Y**
NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
R H G ELECTRONICS LAB INC, FARMINGDALE .... **N Y**
SUPERIOR ELECTRIC CO THE, BRISTOL .... **CONN**
TELE-SIGNAL CORP, WOODBURY .... **N Y**
Advanced Measurement Instruments, Inc Somerville .... Mass
Aeromarine Electronics, Inc, San Diego .... Cal
Aertech, Sunnyvale .... Cal
Airpax Electronics Inc, Cambridge Div, Cambridge .... Md
Airpax Electronics Inc Seminole Div Fort Lauderdale .... Fla
Anaren Microwave Inc, Syracuse .... N Y
Anzac Electronics, Waltham .... Mass
Applied Electronics Corp of N J, Metuchen .... N J
Applied Research, Inc, Port Washington .... N Y
Avantek Inc, Santa Clara .... Cal
Bell, Inc F W, Columbus .... Ohio
Bendix Corp Electrodynamics Div, North Hollywood .... Cal
Cie De Signaux Et D'Entreprises Electriques Paris 17eme .... France
Communication Electronics Inc, Rockville .... Md
Conic Corp, San Diego .... Cal
Data-Control Systems Inc, Danbury .... Conn
Defense Electronics Inc, Rockville .... Md
Diamond Repeater Co, Madison .... N J
Dorsett Electronics Inc, Tulsa .... Okla
Dynatronics Oper Elctns Div Gen Dynamics Corp Orlando .... Fla
Electrac Inc, Anaheim .... Cal
EMR Div Weston Instruments Inc, Princeton .... N J
Fifth Dimension Inc, Princeton .... N J
General Devices Inc, Instrumentation Div Princeton .... N J
Genisco Technology Corp, Compton .... Cal
Giannini-Voltex, Whittier .... Cal
Gulton Industries Inc, Metuchen .... N J
Hathaway Pacific Corp, Palo Alto .... Cal
Industrial Electronetics Corp, Satellite Beach .... Fla
International Data Systems Inc, Dallas .... Tex
International Microwave Corp, Cos Cob .... Conn
Intertechnique, Plaisir, 78 .... France
Intronics Inc, Newton .... Mass
Kobe Industries Corp, Kobe .... Japan
Laben S p A, Milan .... Italy
Landis & Gyr AG, Zug .... Switzerland
Lear Siegler Inc, Santa Monica .... Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim .... Cal
Lel Div Varian Associates, Copiague .... N Y
Microwave Associates Inc, Burlington .... Mass
Microwave Products Group Div C A S Inc Carle Place .... N Y
Monitor Systems Inc, Fort Washington .... Pa
Nippon Electric Co Ltd, Tokyo .... Japan
Novatronics Inc, Pompano Beach .... Fla
Philco-Ford Corp, Washington .... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Portchester Instrument Corp, Port Chester .... N Y
Reach Electronics Inc, Lexington .... Neb
R H G Electronics Lab Inc, Farmingdale .... N Y
Rixon Electronics Inc, Silver Spring .... Md
Siemens America Inc, New York .... N Y
Sierra Research Corp, Buffalo .... N Y
Solid State Electronics Corp; Sepulveda .... Cal
Sonex Inc, Philadelphia .... Pa
Space Craft Inc, Huntsville .... Ala
Superior Electric Co The, Bristol .... Conn
Symetrics Engineering Corp, Satellite Beach .... Fla
Systems Engineering Labs Inc, Ft Lauderdale .... Fla
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia .... Pa
Teledyne Systems Control Sys A Teledyne Co El Segundo .... Cal
Teledyne Telemetry Co, Los Angeles .... Cal
Tele-Signal Corp, Woodbury .... N Y
Utility Communication Systems Inc, Essington .... Pa
Vidar Corp, Mountain View .... Cal
Video Research Corp, Rockville .... Md
White Electromagnetics Inc, Rockville .... Md
Yaskawa Electric Mfg Co Ltd, Tokyo .... Japan

CONVERTERS, SIGNAL--UHF TO VHF TV

ANAREN MICROWAVE INC, SYRACUSE .... **N Y**
DX ANTENNA CO LTD, HYOGO-KU, KOBE .... **JAPAN**
LEL DIV VARIAN ASSOCIATES, COPIAGUE .... **N Y**
NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
Advance Ross Electronics Corp, Chicago Ill
Anaren Microwave Inc, Syracuse .... N Y
Beama Engineering Ltd, Toronto 15 .... Ont
Benco Television Assoc Div Redifon Can Ltd Rexdale .... Ont
Blonder-Tongue Labs Inc, Newark .... N J
Channel Master Corp, Ellenville .... N Y
Communication Electronics Inc, Rockville .... Md
Dalto Electronics Corp, Norwood .... N J
DX Antenna Co Ltd, Hyogo-Ku, Kobe .... Japan
Entron Inc, Silver Spring .... Md
Finney Co, Bedford .... Ohio
Gavin Instruments Inc, Somerville .... N J
General Instrument Corp F W Sickles Div Chicopee .... Mass
Hayakawa Electric Co Ltd, Osaka .... Japan
Hopt KG, R E, Rottweil a Neckar .... Germany
Lel Div Varian Associates, Copiague .... N Y
Melabs, Palo Alto .... Cal
Micro State Electronics Oper Raytheon Co Murray Hill .... N J
Microwave Associates Inc, Burlington .... Mass
Microwave Products Group Div C A S Inc Carle Place .... N Y
Nippon Electric Co Ltd, Tokyo .... Japan
Precision Mecanique Labinal, 93 Saint-Ouen .... France
Radio Corp of America, Comml Elctn Prods Div Camden .... N J
RMS Electronics Inc, Bronx .... N Y
Rohde & Schwarz Sales Co USA Inc, Passaic .... N J
S & A Electronics Inc, Toledo .... Ohio
Selenia - Industrie Elettroniche Assoc, Rome .... Italy
Shrader Sound Inc, Washington .... D C
Squires-Sanders Inc, Liberty Corner .... N J
Symetrics Engineering Corp, Satellite Beach .... Fla
Winegard Co, Burlington .... Iowa

CONVERTERS--TAPE TO MICROFILM

Information Control Corp, El Segundo .... Cal
Straza Industries Div Ametek Inc, El Cajon .... Cal

CONVERTERS--TAPE TO PRINTER

MILGO ELECTRONIC CORP, MIAMI .... **FLA**
NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
A D Data Systems Inc, Rochester .... N Y
Burroughs Corp Component Sales Dept Los Angeles .... Cal
Business Information Technology Inc, Natick .... Mass
Conductron Corp, Ann Arbor .... Mich
Connecticut Technical Corp, Hartford .... Conn
Control Data Corp, Minneapolis .... Minn
Control Logic Inc, Natick .... Mass
Data Products Corp, Culver City .... Cal
Datatron Inc, Santa Ana .... Cal
Di/An Controls Inc, Boston .... Mass
Digital Products, San Pedro .... Cal
Fisher-Akin Co, Manhattan Beach .... Cal
General Electric Co Info Sys Equip Div, Phoenix .... Ariz
IBM Corp, Armonk .... N Y
IBM Data Processing Div, White Plains .... N Y
Information Control Corp, El Segundo .... Cal
Instrumentation Technology Corp, Northridge .... Cal
Invac Corp, Waltham .... Mass
Kameco Ltd, Montreal .... Que
Keltec Industries, Alexandria Div, Alexandria .... Va
Laben S p A, Milan .... Italy
Measurement Technology Corp, Canoga Park .... Cal
Micro Metrics Inc, Paterson .... N J
Mid-West Metal Products Inc, Kansas City .... Kans
Milgo Electronic Corp, Miami .... Fla
Missouri Research Labs Inc, St Louis .... Mo
Molecular Research Inc, Palm Beach Gardens .... Fla
Nippon Electric Co Ltd, Tokyo .... Japan
Oki Electric Industry Co Ltd, Tokyo .... Japan
Oki Electronics of America, Inc, Fort Lauderdale .... Fla
Potter Instrument Co, Inc, Plainview .... N Y
Pulse Communications Inc, Falls Church .... Va
Research Calculations Div ADP of Mass Inc Chestnut Hill .... Mass
Siemens America Inc, New York .... N Y
Space Craft Inc, Huntsville .... Ala
Teletype Corp, Skokie Ill
Thermionic Products Electronics Ltd Southampton .... England
Wiltek, Inc, Wilton .... Conn

CONVERTERS--TAPE TO PUNCHED CARD

MILGO ELECTRONIC CORP, MIAMI .... **FLA**
NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
A D Data Systems Inc, Rochester .... N Y
Burroughs Corp Component Sales Dept Los Angeles .... Cal
CAE Industries Ltd, Montreal 3 .... Que
Conductron Corp, Ann Arbor .... Mich
Connecticut Technical Corp, Hartford .... Conn
Control Data Corp, Minneapolis .... Minn
Control Logic Inc, Natick .... Mass
Datatron Inc, Santa Ana .... Cal
Electro Circuits Inc, Lowell .... Mass
Electronic Engineering Co of Cal, Santa Ana .... Cal
Fischer & Porter Co, Warminster .... Pa

Fisher-Akin Co, Manhattan Beach	Cal
Friden Inc, San Leandro	Cal
Fujitsu Ltd, Tokyo	Japan
General Electric Co Info Sys Equip Div, Phoenix	Ariz
Hayakawa Electric Co Ltd, Osaka	Japan
IBM Corp, Armonk	N Y
IBM Data Processing Div, White Plains	N Y
Information Control Corp, El Segundo	Cal
Instrumentation Technology Corp, Northridge	Cal
Kameco Ltd, Montreal	Que
Keltec Industries, Alexandria Div, Alexandria	Va
Laben S p A, Milan	Italy
Logic Corp, Haddonfield	N J
Measurement Technology Corp, Canoga Park	Cal
Metric Systems Corp, Fort Walton Beach	Fla
Milgo Electronic Corp, Miami	Fla
Missouri Research Labs Inc, St Louis	Mo
Molecular Research Inc, Palm Beach Gardens	Fla
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Potter Instrument Co, Inc, Plainview	N Y
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass
Roback Corp, Huntingdon Valley	Pa
Siemens America Inc, New York	N Y
Space Craft Inc, Huntsville	Ala
Systematics & Magne-Head Divs Gen Instrument Corp Hawthorne	Cal
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Wiltek, Inc, Wilton	Conn

CONVERTERS--TAPE TO TAPE,CODE CHANGING

MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
A D Data Systems Inc, Rochester	N Y
Advanced Space Age Products Inc, Alexandria	Va
Ann Arbor Computer Corp, Ann Arbor	Mich
Bendix Corp, Communications Div, Towson	Md
Business Information Technology Inc, Natick	Mass
CAE Industries Ltd, Montreal 3	Que
C & K Components Inc, Watertown	Mass
Codamite Div Pacific Ordnance & Elctns Co Anaheim	Cal
Communitype Corp, New York	N Y
Conductron Corp, Ann Arbor	Mich
Connecticut Technical Corp, Hartford	Conn
Control Data Corp, Minneapolis	Minn
Control Logic Inc, Natick	Mass
Datatron Inc, Santa Ana	Cal
Digi-Data Corp, Bladensburg	Md
Digital Products, San Pedro	Cal
Digitronics Corp, Albertson	N Y
Dynatronics Oper Elctns Div Gen Dynamics Corp Orlando	Fla
E D P Corp, Orlando	Fla
E G & G Int'l Inc Geodyne Div, Waltham	Mass
Electro Circuits Inc, Lowell	Mass
Fisher-Akin Co, Manhattan Beach	Cal
Friden Inc, San Leandro	Cal
Fujitsu Ltd, Tokyo	Japan
General Electric Co Info Sys Equip Div, Phoenix	Ariz
General Electric Co, Printer-Reader Bus Sec Philadelphia	Pa
Geodyne Div EG&G Int'l, Waltham	Mass
Information Control Corp, El Segundo	Cal
Instrumentation Technology Corp, Northridge	Cal
Invac Corp, Waltham	Mass
Kameco Ltd, Montreal	Que
Keltec Industries, Alexandria Div, Alexandria	Va
Kennedy Co, Altadena	Cal
Laben S p A, Milan	Italy
Logic Corp, Haddonfield	N J
Measurement Technology Corp, Canoga Park	Cal
Metric Systems Corp, Fort Walton Beach	Fla
Microwave/Systems Inc, East Syracuse	N Y
Mid-West Metal Products Inc, Kansas City	Kans
Milgo Electronic Corp, Miami	Fla
Missouri Research Labs Inc, St Louis	Mo
Molecular Research Inc, Palm Beach Gardens	Fla
Navigation Computer Corp, Norristown	Pa
Oki Electric Industry Co Ltd, Tokyo	Japan
Potter Instrument Co, Inc, Plainview	N Y
Pulse Communications Inc, Falls-Church	Va
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass
Roback Corp, Huntingdon Valley	Pa
Space Craft Inc, Huntsville	Ala
Systematics & Magne-Head Divs Gen Instrument Corp Hawthorne	Cal
Tally Corp, Seattle	Wash
Teletype Corp, Skokie	Ill
United Telecontrol Electronics Inc, Asbury Park	N J
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Wiltek, Inc, Wilton	Conn

CONVERTERS--TAPE TO X-Y PLOT

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
DATA TECHNOLOGY, INC, WATERTOWN	**MASS**
DISCON CORP, FORT LAUDERDALE	**FLA**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
SUPERIOR ELECTRIC CO THE, BRISTOL	**CONN**
AIC Instruments Div AIC Corp, Houston	Texas
Ann Arbor Computer Corp, Ann Arbor	Mich
Automation Development Co, Culver City	Cal
Boston Digital Corp, Ashland	Mass
Business Information Technology Inc, Natick	Mass
Coldspring Instrument Corp, Huntington	N Y
Concord Control Inc, Boston	Mass
Control Data Corp, Minneapolis	Minn
Control Logic Inc, Natick	Mass
Cosmos Industries Inc, Brooklyn	N Y
Data Technology, Inc, Watertown	Mass
Digital Systems Inc, Covina	Cal
Discon Corp, Fort Lauderdale	Fla
Electro Circuits Inc, Lowell	Mass
Faul Assoc Inc, Thomas L, Skaneateles	N Y
Fisher-Akin Co, Manhattan Beach	Cal
Gerber Scientific Instrument Co, Hartford	Conn
IBM Data Processing Div, White Plains	N Y
Information Control Corp, El Segundo	Cal
Instrumentation Technology Corp, Northridge	Cal
Keltec Industries, Alexandria Div, Alexandria	Va
Measurement Technology Corp, Canoga Park	Cal
Milgo Electronic Corp, Miami	Fla
Molecular Research Inc, Palm Beach Gardens	Fla
Oki Electric Industry Co Ltd, Tokyo	Japan
Precision Mecanique Labinal, 93 Saint-Ouen	France
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass
Space Craft Inc, Huntsville	Ala
Straza Industries Div Ametek Inc, El Cajon	Cal
Superior Electric Co The, Bristol	Conn
Taylor-Winfield Corp, Warren	Ohio
Thermionic Products Electronics Ltd Southampton	England
Unimetrics Corp, Houston	Tex
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y

CONVERTERS--THERMIONIC

Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Consolidated Controls Corp, El Segundo	Cal
Consolidated Controls Corp, Bethel	Conn
Philips Metalonics, Mount Vernon	N Y
Radio Corp of America, Electronic Components, Harrison	N J
RCA, Defense Electronic Products, Moorestown	N J
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Thermo Electron Engineering Corp, Waltham	Mass

CONVERTERS--VOLTAGE TO FREQUENCY

C M L INC, PLAINFIELD, N J	**ADV PGS 496,497**
HEWLETT-PACKARD, PALO ALTO	**CAL**
NON-LINEAR SYSTEMS INC, DEL MAR	**CAL**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
SYSTRON DONNER CORP, CONCORD	**CAL**
TECHMETRIC CO, REDWOOD CITY	**CAL**
AB Atomenergi, 10072 Stockholm 43	Sweden
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
A & M Instruments Inc, Great Neck	N Y
Amtron Inc, Midlothian	Ill
Anadex Instruments, Inc, Van Nuys	Cal
Analogic Corp, Waltham	Mass
Applied Electronics Corp of N J, Metuchen	N J
Astro-Metrix Corp, Burbank	Cal
Automation Services Inc, Endicott	N Y
Autronics Corp, Pasadena	Cal
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
California Systems Components, Inc, Chatsworth	Cal
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
C M L Inc, Plainfield	N J
Coldspring Instrument Corp, Huntington	N Y
Connor-Winfield Corp, Winfield	Ill
Control Circuits Inc, Middletown	Conn
Cosmos Industries Inc, Brooklyn	N Y
Datascan Inc, Clifton	N J
Data Technology Corp, Mountain View	Cal
Doric Scientific Corp, San Diego	Calif
Eastern Dynamics, Inc, Bloomfield	Conn
Electronic Design Labs Inc, Philadelphia	Pa
Electronic Modules Corp, Timonium	Md
Electronic Research Associates Inc, Cedar Grove	N J
EMR Div Weston Instruments Inc, Princeton	N J
Fairlane Electronics, Inc, Long Valley	N J
Field Electronics Inc, Chatham	N J
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Giannini-Voltex, Whittier	Cal
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Hartman Systems Co Inc, Huntington Station	N Y
Hathaway Pacific Corp, Palo Alto	Cal
Helix Research Assoc Inc, La Mesa	Cal
Hewlett-Packard, Palo Alto	Cal
Horlick Co Inc, William I, Boston	Mass
Hybrid Systems Corp, Cambridge	Mass
Industrial Electronetics Corp, Satellite Beach	Fla
Janus Control Div Tyco, Waltham	Mass
Kato Engineering Co, Mankato	Minn
Laben S p A, Milan	Italy
Lear Siegler Inc, Santa Monica	Cal
Lee Co, Richard, New Providence	N J
Lundy Electronics & Systems Inc, Glen Head	N Y
Measurement Technology Corp, Canoga Park	Cal
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Products Group Div C A S Inc Carle Place	N Y
NanoFast, Inc, Chicago	Ill
Non-Linear Systems Inc, Del Mar	Cal
North Hills Electronics Inc, Glen Cove	N Y
Novatronics Inc, Pompano Beach	Fla
NUS Corp, Underwater Sys Div, Paramus	N J
Optical Electronics Inc, Tuscon	Ariz
Perfectone Sound Labs, Allendale	NJ
Pioneer Magnetics Inc, Santa Monica	Cal
Raven Electronics Inc, Burbank	Cal
Rho Engineering Co, Los Angeles	Cal
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Royson Engineering Co, Hatboro	Pa
Schlumberger, 92-Montrouge 32	France
Siemens America Inc, New York	N Y
Sodilec SA Salies-S A, 91 Palaiseau	France
Solid State Electronics Corp, Sepulveda	Cal
Space Craft Inc, Huntsville	Ala
Spectral Dynamics Corp of San Diego, San Diego	Cal
Straza Industries Div Ametek Inc, El Cajon	Cal
Systron Donner Corp, Concord	Cal
Takeda Riken Industry Co Ltd, Tokyo	Japan
Techmetric Co, Redwood City	Cal
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Teledyne Telemetry Co, Los Angeles	Cal
Thorn Automation Ltd, Rugeley, Staffs	England
Transistor Devices Inc, Mt Tabor	N J
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Vector Engineering Inc, Springfield	N J
Vidar Corp, Mountain View	Cal
Voltron Products Inc, Pasadena	Cal

COOLANTS--DIELECTRIC LIQUID

BARNSTEAD CO DIV RITTER PFAUDLER CORP BOSTON	**MASS**
Air Products & Chemicals, Inc, Allentown	Pa
Barnstead Co Div Ritter Pfaudler Corp, Boston	Mass
Bel-Ray Co, Inc, Farmingdale	N J
Chevron Chemical Co Oronite Additives Div San Francisco	Cal
CRC Chemicals, Dresher	Pa
Dow Corning Corp, Midland	Mich
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Electro Impulse Lab Inc, Red Bank	N J
General Electric Co Silicone Prods Dept, Waterford	N Y
Humble Oil & Refining Co, Houston	Tex
3M Company, St Paul	Minn
Monsanto Co, St Louis	Mo
Red Point Corp, Burbank	Cal
Stauffer Chemical Co Silicone Div, New York	N Y

COOLING UNITS CIRCULATING LIQUID

BARNSTEAD CO DIV RITTER PFAUDLER CORP BOSTON	**MASS**
BLUE M ENGINEERING CO, BLUE ISLAND	**ILL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MISSIMERS INC, GLENDALE	**CAL**
Airflow Co, Gaithersburg	Md
Air Products & Chemicals, Inc, Allentown	Pa
American Instrument Co, Inc, Silver Spring	Md
American-Standard Controls Div, Detroit	Mich
Avco Aerostructures Div, Nashville	Tenn
Barnstead Co Div Ritter Pfaudler Corp, Boston	Mass
Benson Mfg Div E C I Inc, Kansas City	Mo
Bethlehem Corp, Bethlehem	Pa
Blue M Engineering Co, Blue Island	Ill
Brooks & Perkins Inc, Detroit	Mich
Cincinnati Sub-Zero Products Inc, Cincinnati	Ohio
Conductron Corp, Ann Arbor	Mich
CVI Corp, Columbus	Ohio
Eastern Industries Div Lab for Electronics Inc Hamden	Conn
Eimac Div, Varian Associates, San Carlos	Cal
Electro Impulse Lab Inc, Red Bank	N J
Forma Scientific Inc, Marietta	Ohio
Gardner Lab Inc, Bethesda	Md
Garrett Corp, Los Angeles	Cal
Harris Mfg Co Inc, Cambridge	Mass
Hektor Scientific Co Inc, Foxboro	Mass
Industrial Refrigeration Co Inc, Los Angeles	Cal
International Electronic Research Corp, Burbank	Cal
Janitrol Aero Div Midland-Ross Corp, Columbus	Ohio
Jersey Technical Consultants, Morristown	NJ
Kahn & Co Inc, Wethersfield	Conn
Lear Siegler Inc, Romec Div, Elyria	Ohio
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
Lockhart Industries Inc, Paramount	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McLean Engineering Labs, Princeton Junction	N J
Missimers Inc, Glendale	Cal
North American Philips Co Inc Cryogenic Div Ashton	R I
Pall Corp, Environmental Control Systems Div Long Island City	NY
Porter Co Inc, H K Electrical Div, Pittsburgh	Pa
Ramyr Mfg Co, Buena Park	Cal
Red Point Corp, Burbank	Cal
Reeve Electronics Inc, Chicago	Ill
Tafa Div Humphreys Corp, Concord	N H
United Aircraft Products Inc, Dayton	Ohio
Zero Mfg Co, Burbank	Cal

COOLING UNITS--EVAPORATIVE

Air Products & Chemicals, Inc, Allentown	Pa
American-Standard Controls Div, Detroit	Mich
Benson Mfg Div E C I Inc, Kansas City	Mo
Bethlehem Corp, Bethlehem	Pa
Cincinnati Sub-Zero Products Inc, Cincinnati	Ohio
Conductron Corp, Ann Arbor	Mich
CRC Chemicals, Dresher	Pa
Eastern Industries Div Lab for Electronics Inc Hamden	Conn
Eimac Div, Varian Associates, San Carlos	Cal
Electro Impulse Lab Inc, Red Bank	N J
Electrolube Ltd, Slough	England
Garrett Corp, Los Angeles	Cal
Hafstrom Technical Products Inc, San Diego	Cal
International Electronic Research Corp, Burbank	Cal
Janitrol Aero Div Midland-Ross Corp, Columbus	Ohio
Lear Siegler Inc, Santa Monica	Cal
North American Philips Co Inc Cryogenic Div Ashton	R I
Pall Corp, Environmental Control Systems Div Long Island City	NY
Porter Co Inc, H K Electrical Div, Pittsburgh	Pa
United Aircraft Products Inc, Dayton	Ohio

COOLING UNITS--FIN TYPE

ASTRODYNE INC, BURLINGTON	**MASS**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
American-Standard Controls Div, Detroit	Mich
Ancrona Corp, New York	N Y
Astrodyne Inc, Burlington	Mass
Avco Aerostructures Div, Nashville	Tenn
Benson Mfg Div E C I Inc, Kansas City	Mo
Bethlehem Corp, Bethlehem	Pa
Birtcher Corp, Industrial Div, Monterey Park	Cal
Brooks & Perkins Inc, Detroit	Mich
Conductron Corp, Ann Arbor	Mich
Eastern Industries Div Lab for Electronics Inc Hamden	Conn
Electro Impulse Lab Inc, Red Bank	N J
Garrett Corp, Los Angeles	Cal
International Electronic Research Corp, Burbank	Cal
Janitrol Aero Div Midland-Ross Corp, Columbus	Ohio
Lear Siegler Inc, Santa Monica	Cal
Lockhart Industries Inc, Paramount	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Mullard Ltd, London, WC 1	Eng
Pall Corp, Environmental Control Systems Div Long Island City	NY
Porter Co Inc, H K Electrical Div, Pittsburgh	Pa
United Aircraft Products Inc, Dayton	Ohio
Van Products Co, Erie	Pa
Vemaline Products Co, Inc, Wycoff	N J
Wakefield Engineering Inc, Wakefield	Mass

COOLING UNITS--REFRIGERATOR TYPE

BLUE M ENGINEERING CO, BLUE ISLAND	**ILL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MISSIMERS INC, GLENDALE	**CAL**
Airflow Co, Gaithersburg	Md
Air Products & Chemicals, Inc, Allentown	Pa
American Instrument Co, Inc, Silver Spring	Md
American-Standard Controls Div, Detroit	Mich
Benson Mfg Div E C I Inc, Kansas City	Mo
Bethlehem Corp, Bethlehem	Pa
Blue M Engineering Co, Blue Island	Ill
Cambridge Systems Inc, Newton	Mass
Cincinnati Sub-Zero Products Inc, Cincinnati	Ohio
Conductron Corp, Ann Arbor	Mich
Cosmodyne Corp, Torrance	Cal
CVI Corp, Columbus	Ohio
Eastern Industries Div Lab for Electronics Inc Hamden	Conn
Electro Impulse Lab Inc, Red Bank	N J
500 Inc Sub Arthur D Little Inc, Cambridge	Mass
Gardner Lab Inc, Bethesda	Md
Garrett Corp, Los Angeles	Cal
Hafstrom Technical Products Inc, San Diego	Cal
Harris Mfg Co Inc, Cambridge	Mass
Industrial Refrigeration Co Inc, Los Angeles	Cal
Jersey Technical Consultants, Morristown	NJ
Kooltronic Fan Co, Princeton	N J
Lear Siegler Inc, Santa Monica	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McLean Engineering Labs, Princeton Junction	N J
Missimers Inc, Glendale	Cal
North American Philips Co Inc Cryogenic Div Ashton	R I
Pall Corp, Environmental Control Systems Div Long Island City	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Porter Co Inc, H K Electrical Div, Pittsburgh	Pa
Red Point Corp, Burbank	Cal
Reeve Electronics Inc, Chicago	Ill
Roberts & Associates Inc, E V, Culver City	Cal
Servo-Tek Products Co, Marine Div, Hawthorne	N J
Servo-Tek Products Co, Hawthorne	N J
Task Corp, Anaheim	Cal
Tenney Engineering Inc, Union	N J
United Aircraft Products Inc, Dayton	Ohio
Vacuum/Atmospheres Corp, N Hollywood	Cal
Zero Mfg Co, Burbank	Cal

COOLING UNITS--THERMOELECTRIC

Alcatel, Paris 8eme	France
American Instrument Co, Inc, Silver Spring	Md
Asarco Intermetallics Corp, New York	N Y
Bailey Co, Washington	D C
Borg-Warner, Thermoelectric Div, Des Plaines	Ill
Cambridge Thermionic Corp, Cambridge	Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dynatech Products Co Div Dynatech Corp Burlington	Mass
Eastern Industries Div Lab for Electronics Inc Hamden	Conn
E G & G Inc, Electronic Prods Div, Boston	Mass
General Instrument Corp Thermoelectric Div Newark	N J
International Energy Conversion Inc, Garland	Tex
Lek-Trol, Inc, Grapevine	Tex
London Co, Westlake	Ohio
Materials Electronic Products Corp, Trenton	N J
Ohio Semitronics Inc, Columbus	Ohio
Pall Corp, Environmental Control Systems Div Long Island City	NY
Products for Research, Inc, Danvers	Mass
RCA, Defense Electronic Products, Moorestown	N J
Schoeffel Instrument Co, Westwood	NJ
Task Corp, Anaheim	Cal
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Tia Electric Co, Princeton	N J

COOLING UNITS--TUBE(INCL HEAT RADIATING SHIELDS)

Avco Aerostructures Div, Nashville	Tenn
Birtcher Corp, Industrial Div, Monterey Park	Cal
Bud Radio Inc, Willoughby	Ohio
Eimac Div, Varian Associates, San Carlos	Cal
Garrett Corp, Los Angeles	Cal
International Electronic Research Corp, Burbank	Cal
Kobe Industries Corp, Kobe	Japan
Lear Siegler Inc, Romec Div, Elyria	Ohio
Lockhart Industries Inc, Paramount	Cal
Pall Corp, Environmental Control Systems Div Long Island City	NY
Risk Industries Inc, George, Columbus	Neb
United Aircraft Products Inc, Dayton	Ohio
Vemaline Products Co, Inc, Wycoff	N J
Waterbury Pressed Metal Co, Waterbury	Conn

COPPER

CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER	**N Y**
PFIZER MINERALS, PIGMENTS & METALS DIV NEW YORK	**NY**
UNIFORM TUBES INC, COLLEGEVILLE	**PA**
Alloys Unlimited Inc, Melville	N Y
Alpha Metals Inc, Jersey City	NJ
American Metal Climax Inc, New York	N Y
American Silver Co Div, Flushing	N Y
American Smelting & Refining Co, New York	N Y
Anaconda American Brass Co, Waterbury	Conn
Anadite, Inc, South Gate	Cal
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerac Inc, Butler	Wis
Cerro Corp, New York	NY
Cerro Sales Corp, New York	NY
Chase Brass & Copper Co, Cleveland	Ohio
Chase Metals Service Div Chase Brass & Copper Co Cleveland	Ohio
Chester Cable Co Div Tennessee Corp, Chester	N Y
Cominco American Inc Electronic Matls Div, Spokane	Wash
Eastern Rolling Mills Inc, New York	N Y
Electronic Space Products Inc, Los Angeles	Cal
General Findings Co Industrial Div, Attleboro	Mass
Hamilton Precision Metals Div Hamilton Watch Co Lancaster	Pa
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia	Pa
Koch Light Labs Ltd, Colnbrook, Bucks	England
Leach & Garner Co, Industrial Div, Attleboro	Mass
Mackay Inc, A D, New York	N Y
Materials Research Corp, Orangeburg	N Y
MDC Industries, Philadelphia	Pa
Metal Ceram Inc, Mount Vernon	N Y
Montgomery Co, Windsor Locks	Conn
M & T Chemicals Inc Sub American Can Co Rahway	N J
Nippert Electric Products Co, Delaware	Ohio
Pfizer Minerals, Pigments & Metals Div, New York	NY
Phelps Dodge Copper Products Corp, New York	N Y
Revere Copper & Brass, Inc, New York	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
Somers Thin Strip Inc Sub Olin, Waterbury	Conn
Special Metals Corp, New Hartford	NY
Steel Heddle Mfg Co, Philadelphia	Pa
Uniform Tubes Inc, Collegeville	Pa
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Electronics Corp, Bradford	Pa
Wilkinson Co, Westlake Village	Cal

COPPER--BERYLLIUM SEE BERYLLIUM COPPER

COPPER-OXIDE RECTIFIERS SEE RECTIFIERS

COPPER-SULFIDE RECTIFIERS SEE RECTIFIERS

COPYING MACHINES SEE MACHINES--COPYING

CORDIERITE SEE CERAMICS

CORDS--DIAL

BIRNBACH CO INC, FREEPORT	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
GUDEBROD BROS SILK CO INC ELECTRONICS DIV PHILADELPHIA	**PA**
HACKENSACK CABLE CORP, HACKENSACK, N J	**ADV PG 222**
Birnbach Co Inc, Freeport	N Y
Daburn Electronics & Cable Corp, Bronx	N Y
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Gladding Corp, South Otselic	N Y
Gudebrod Bros Silk Co Inc Electronics Div Philadelphia	Pa
Hackensack Cable Corp, Hackensack	N J
Jackson Brothers (London) Ltd, New York	N Y
Morey Corp, Downers Grove	Ill
Philmore Mfg Co Inc, Richmond Hill	N Y
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Ross Matthews Corp, Fall River	Mass
Stromberg-Carlson Sub Gen Dynamics, Rochester	N Y
Victor Electric Wire & Cable Corp, West Warwick	R I

HACKENSACK
CABLES and
WIRE ROPES

CALL ON US FOR . . .
Aircraft Control Cables
Extra-Flexible Small Diameter Cables
Antenna Cables • Dial Cables
Guy Cables
MADE OF
STAINLESS STEEL
standard, non-magnetic
and special heat and
corrosion-resistant types
GALVANIZED AND TINNED
CARBON STEEL CABLES
PHOSPHOR, SILICON, CADMIUM
AND ALUMINUM BRONZE ALLOYS
MONEL AND OTHER
NICKEL ALLOYS
NYLON AND VINYL COATINGS

See Our Catalog In Sweet's
Product Design File Or
Send for your own copy

MANUFACTURERS OF WIRE ROPE
HACKENSACK Cable CORPORATION
110 Orchard Street
Telephone
Hackensack, N. J.
201 HUbbard 7-1100

CORD SETS

ALDEN PRODUCTS CO, INC, BROCKTON, MASS	**ADV PG 193**
BIRNBACH CO INC, FREEPORT	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
POMONA ELECTRONICS CO INC, POMONA	**CAL**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Alden Products Co, Inc, Brockton	Mass
Apex Wire & Cable Corp, Hauppauge	N Y
Automation Services Inc, Endicott	N Y
Barker Products Co, Saugus	Mass
Birnbach Co Inc, Freeport	N Y

Cable Electric Products Inc, Providence	R I
Carol Cable Co, Pawtucket	R I
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Columbia Wire Products Co, Chicago	Ill
Condor Industrial Corp, West Chicago	Ill
Cordex, Inc, Mount Eaton	Ohio
Daburn Electronics & Cable Corp, Bronx	N Y
Dearborn Wire & Cable Co, Chicago	Ill
Eagle Electric Mfg Co Inc, Long Island City	N Y
Electri-Cord Mfg Co Inc, Westfield	Pa
Empire Electronics Co Inc, Paterson	N J
Florida General Electronics Inc, Daytona Beach	Fla
General Cable Corp, New York	N Y
Gladding Corp, South Otselic	N Y
Ideas Inc, Laramie	Wyo
ITT Wire & Cable Div, Pawtucket	R I
Leviton Mfg Co Inc, Brooklyn	N Y
Miller Electric Co, Woonsocket	R I
M & M Electronics Corp, Amityville,	N Y
Mohawk Electronics Corp, Frederica	Del
Morey Corp, Downers Grove	Ill
M-T Electronics Co, San Leandro	Cal
Pacific Electricord Co, Gardena	Cal
Paraplegics Mfg Co Inc, Bensenville	Ill
Permoflux Corp, Glendale	Cal
Phalo Corp, Shrewsbury	Mass
Plastic Wire & Cable Corp, Jewett City	Conn
Pomona Electronics Co Inc, Pomona	Cal
Positive Connector Co, Derby	Conn
Smith Inc, Herman H, Brooklyn	N Y
Star-A Electric Mfg Co Inc, Brooklyn	N Y
Superior Insulated Wire Corp, Stony Point	N Y
Switchcraft Inc, Chicago	Ill
Teletronics Labs Inc, El Segundo	Cal
Tevco Insulated Wire, Glendale	Cal
United Mineral & Chemical Corp, New York	N Y
Victor Electric Wire & Cable Corp, West Warwick	R I
Viking Instruments Inc, East Haddam	Conn
Waber Electronics Inc, Philadelphia	Pa
Waldom Electronics Inc, Chicago	Ill
Western Insulated Wire Co, Los Angeles	Cal
Whitney Blake Co, New Haven	Conn

CORDS--LACING (INCL RIBBON&TAPE)

BIRNBACH CO INC, FREEPORT	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
GUDEBROD BROS SILK CO INC ELECTRONICS DIV PHILADELPHIA, PA	**ADV PG 223**
Actioncraft Products, Port Washington	N Y
Alpha Wire, Elizabeth	N J
American Cable Electronic Supply Inc, Sacramento	Cal
Arlin Mfg Co Inc, Lowell	Mass
Bentley-Harris Mfg Co, Conshohocken	Pa
Birnbach Co Inc, Freeport	N Y
Chemplast Inc, Wayne	N J
Daburn Electronics & Cable Corp, Bronx	N Y
Dilectrix Corp, Farmingdale	N Y
Dodge Industries, Hoosick Falls	N Y
Flexible Circuits Inc, Warrington	Pa
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
Gladding Corp, South Otselic	N Y
Gudebrod Bros Silk Co Inc Electronics Div Philadelphia	Pa
Heminway & Bartlett Mfg Co, New York	N Y
Icore Electro-Plastics, Sunnyvale	Cal
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Linen Thread Co, Div Indian Head Mills Inc Blue Mountain	Ala
Morey Corp, Downers Grove	Ill
Panduit Corp, Tinley Park	Ill
Port Plastics Inc, Montebello	Cal
Ross Matthews Corp, Fall River	Mass
Smith Inc, Herman H, Brooklyn	N Y
Suflex Corp, Woodside	N Y
Thomas & Betts Co Inc, Elizabeth	N J
Trimtex Inc, Williamsport	Pa
Tyton Corp of America, Metuchen	N J
Varflex Corp, Rome	N Y
Wyomissing Corp Textile Div, Reading	Pa

CORDS--LINE SEE WIRE--LINE CORD

CORDS--PATCH

ALDEN PRODUCTS CO, INC, BROCKTON, MASS	**ADV PG 193**
AMP INCORPORATED, HARRISBURG	**PA**
BIRNBACH CO INC, FREEPORT	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
POMONA ELECTRONICS CO INC, POMONA, CAL	**ADV PG 223**
Action Systems Co Div Conn Consolidated Inds Inc Meriden	Conn
ADC Products, Minneapolis	Minn
Aerolite Electronics Corp, Union City	N J
Alden Products Co, Inc, Brockton	Mass
Allied Systems Corp, Greensboro	N C
Amatom Electronic Hardware, New Rochelle	N Y
AMP Incorporated, Harrisburg	Pa
Applied Dynamics, Inc, Ann Arbor	Mich
Associated Engineering Corp, Brookline	Mass
Audio Accessories, Inc, Gilsum	N H
Automatic Metal Products Corp, Brooklyn	N Y
Auto-Swage Products, Inc, Shelton	Conn
Barker Products Co, Saugus	Mass
Birnbach Co Inc, Freeport	N Y
Cambridge Thermionic Corp, Cambridge	Mass
Circuit Structures Lab, Burbank	Cal
Columbia Wire Products Co, Chicago	Ill
Condor Industrial Corp, West Chicago	Ill
Cooke Engineering Co, Alexandria	Va
Co-Ord Div LVC Industries Inc, Corona	NY
Daburn Electronics & Cable Corp, Bronx	N Y
D-Cemco Inc, Burbank	Cal
DeSoto Electrical Products, DeSoto	Mo
Electrospace Corp, Glen Cove	N Y
Empire Electronics Co Inc, Paterson	N J
Ericsson Centrum Inc, New York	N Y
Fairhill Products Corp, Philadelphia	Pa
Florida General Electronics Inc, Daytona Beach	Fla
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Radio Co, West Concord	Mass
Gladding Corp, South Otselic	N Y
Holland Electronics, Brooklyn	N Y
Langevin Div, Scientific Ind, Inc, Santa Ana	Cal
Mac Panel Co Div Adams-Millis Corp, High Point	N C
Malco Mfg Co Inc, Chicago	Ill
Massey Dickinson Co Inc, Saxonville	Mass
Methode Electronics Inc, Chicago	Ill
M & M Electronics Corp, Amityville,	N Y
Morey Corp, Downers Grove	Ill
M-T Electronics Co, San Leandro	Cal
Oneida Electronic Mfg Co, Meadville	Pa
Paraplegics Mfg Co Inc, Bensenville	Ill
Philmore Mfg Co Inc, Richmond Hill	N Y
Plastic Wire & Cable Corp, Jewett City	Conn
Plastoid Corp, Long Island City	N Y
Pomona Electronics Co Inc, Pomona	Cal
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Robins Industries Corp, Flushing	N Y
Rowe Industries Inc, Toledo	Ohio
Runzel Cord & Wire Co, Chicago	Ill
Rye Industries, Inc, Mamaroneck	N Y
SAE Advanced Packaging Inc, Santa Ana	Cal
Seven Associates Inc, Sunnyvale	Cal
Smith Inc, Herman H, Brooklyn	N Y
Standard Wire & Cable Co, Los Angeles	Cal
Stromberg-Carlson Sub Gen Dynamics, Rochester	N Y
Swiss Industries, Costa Mesa	Cal
Switchcraft Inc, Chicago	Ill
Teletronics Labs Inc, El Segundo	Cal
Tevco Insulated Wire, Glendale	Cal
Trimm Inc, Libertyville	Ill
Trompeter Electronics Inc, Chatsworth	Cal
Tru-Connector Corp, Peabody	Mass
Ucinite Co Div United-Carr, Newtonville	Mass
United-Carr Inc, Boston	Mass
Vector Electronic Co Inc, Los Angeles	Cal
Victor Electric Wire & Cable Corp, West Warwick	R I
Virginia Panel Corp, Waynesboro	Va
Whistler Electronics Inc, Northridge	Cal

CORDS--RETRACTILE

BIRNBACH CO INC, FREEPORT	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
POMONA ELECTRONICS CO INC, POMONA	**CAL**
Action Systems Co Div Conn Consolidated Inds Inc Meriden	Conn
Alpha Wire, Elizabeth	N J
Barker Products Co, Saugus	Mass
Birnbach Co Inc, Freeport	N Y
Cerro Corp, New York	NY
Columbia Wire Products Co, Chicago	Ill
Daburn Electronics & Cable Corp, Bronx	N Y
Dearborn Wire & Cable Co, Chicago	Ill
Electrospace Corp, Glen Cove	N Y
Flexible Circuits Inc, Warrington	Pa
General Cable Corp, New York	N Y
ITT Wire & Cable Div, Pawtucket	R I
Koiled Kords Inc, New Haven	Conn
Methode Electronics Inc, Chicago	Ill
Morey Corp, Downers Grove	Ill
Phalo Corp, Shrewsbury	Mass
Philmore Mfg Co Inc, Richmond Hill	N Y
Plastic Wire & Cable Corp, Jewett City	Conn
Pomona Electronics Co Inc, Pomona	Cal
Smith Inc, Herman H, Brooklyn	N Y
Standard Wire & Cable Co, Los Angeles	Cal
Switchcraft Inc, Chicago	Ill
Teletronics Labs Inc, El Segundo	Cal
Victor Electric Wire & Cable Corp, West Warwick	R I

CORES--DELAY--LINE (INCL METALIZED)

MAGNETICS INC, BUTLER, PA	**ADV PGS 000,000**
Arnold Engineering Co, Marengo	Ill
Culbertson Products Inc, Bernardsville	N J
Ferricore Div Natl Moldite Co Inc, Newark	N J
Magnetics Inc, Butler	Pa
Metalized Ceramics Corp, Providence	R I
National Moldite Co Inc, Newark	N J
Pyroferric-New York, Inc, New York	N Y
Resdel Corp, Rio Grande	N J
Steward Mfg Co, D M, Chattanooga	Tenn

CORES, LAMINATED--C TYPE

Arnold Engineering Co, Marengo	Ill
Arnold Engineering Co Pacific Div, Fullerton	Cal
Barker Sales Co, Ridgefield	NJ
Carstedt Research Inc, Long Beach	Cal
G-L Industries Inc, G-L Electronics Div, Westville	N J
Inter-Technical Group Inc, Irvington-on-Hudson	N Y
ITT Europe Inc Components Gp, Brussels 1	Belgium

INFORMATION ON LACING TAPES?

ASK GUDEBROD!

Your one best source for guidance on electronic wire harnessing is Gudebrod. We've been handling the electronics industry's every special requirement, as well as a good portion of the routine needs, since the very beginning. So, whether you are producing electronic equipment for military use, or for commercial and industrial applications you can get from Gudebrod the latest, most complete data on tape, on tying, to meet the most exacting specifications. Using the right tape is important where there are high temperatures, in cryogenic uses, in vacuums, in humid conditions, in outer space. Correct widths and tensile strengths are important, too. At Gudebrod, we are prepared to give you full, considered answers to your cable lacing questions.

GUDEBROD BROS.
FOUNDED 1870
SILK CO., INC.
Electronics Division

12 South 12th Street, Philadelphia, Pa. 19107
Telephone: (215) WA 2-1122

PATCH CORDS
BANANA & .080

Featured in our 1968 general catalog. Listing a complete line of ¾" and ½" banana plugs and accessories • adapters • test probes • jumpers • patch cords • shielded component-mounting "Black Boxes" • cable assemblies • miscellaneous test accessories. Write for your free copy.

POMONA
ELECTRONICS CO., INC.
1500 E. Ninth Street, Pomona, Calif. 91766

Magnetic Metals Co, Camden	N J
Michigan Magnetics, Vermontville	Mich
Moloney Electric Co, St Louis	Mo
Northern Engineering Co, Baraboo	Wis
Thomas & Skinner Inc, Indianapolis	Ind
Westinghouse Electric Corp, Spec Transf Div Greenville	Pa

CORES, LAMINATED--E TYPE

Arnold Engineering Co, Marengo	Ill
Barker Sales Co, Ridgefield	NJ
Carstedt Research Inc, Long Beach	Cal
G-L Industries Inc, G-L Electronics Div, Westville	N J
Inter-Technical Group Inc, Irvington-on-Hudson	N Y
ITT Europe Inc Components Gp, Brussels 1	Belgium
Jefferson Electric Co, Bellwood	Ill
Magnetic Metals Co, Camden	N J
Michigan Magnetics, Vermontville	Mich
Moloney Electric Co, St Louis	Mo
Thomas & Skinner Inc, Indianapolis	Ind
Westinghouse Electric Corp, Spec Transf Div Greenville	Pa

CORES, LAMINATED--FOIL WOUND

MAGNETICS INC, BUTLER, PA	ADV PGS 226,227
Cortran Mfg Co, Washington	Mo
G-L Industries Inc, G-L Electronics Div, Westville	N J
Infinetics Inc, Electromagnetic Div, Wilmington	Del
Magnetic Metals Co, Camden	N J
Magnetics Inc, Butler	Pa
Michigan Magnetics, Vermontville	Mich
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Westinghouse Electric Corp, Spec Transf Div Greenville	Pa

CORES, LAMINATED--HIGH PERMEABILITY

MAGNETICS INC, BUTLER, PA	ADV PGS 226,227
TOHOKU METAL INDUSTRIES, LTD, TOKYO	**JAPAN**
Arnold Engineering Co, Marengo	Ill
Barker Sales Co, Ridgefield	NJ
Carstedt Research Inc, Long Beach	Cal
Cortran Mfg Co, Washington	Mo
G-L Industries Inc, G-L Electronics Div, Westville	N J
Infinetics Inc, Electromagnetic Div, Wilmington	Del
Inter-Technical Group Inc, Irvington-on-Hudson	N Y
ITT Europe Inc Components Gp, Brussels 1	Belgium
Magnetic Metals Co, Camden	N J
Magnetics Inc, Butler	Pa
Michigan Magnetics, Vermontville	Mich
Micro Science Assoc, Mountain View	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Standard Telephones & Cables Ltd London WC 2	England
Thomas & Skinner Inc, Indianapolis	Ind
Tohoku Metal Industries, Ltd, Tokyo	Japan
Westinghouse Electric Corp, Spec Transf Div Greenville	Pa

CORES, LAMINATED--SOLENOID & RELAY

Magnetic Metals Co, Camden	N J
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Thomas & Skinner Inc, Indianapolis	Ind

CORES, LAMINATED--TAPE WOUND

MAGNETICS INC, BUTLER, PA	ADV PGS 226,227
TOHOKU METAL INDUSTRIES, LTD, TOKYO	**JAPAN**
Barker Sales Co, Ridgefield	NJ
Cortran Mfg Co, Washington	Mo
G-L Industries Inc, G-L Electronics Div, Westville	N J
Infinetics Inc, Electromagnetic Div, Wilmington	Del
Inter-Technical Group Inc, Irvington-on-Hudson	N Y
ITT Europe Inc Components Gp, Brussels 1	Belgium
Magnetic Metals Co, Camden	N J
Magnetics Inc, Butler	Pa
Moloney Electric Co, St Louis	Mo
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Thomas & Skinner Inc, Indianapolis	Ind
Tohoku Metal Industries, Ltd, Tokyo	Japan
Westinghouse Electric Corp, Spec Transf Div Greenville	Pa

CORES, LAMINATED--TOROIDAL

MAGNETICS INC, BUTLER, PA	ADV PGS 226,227
TOHOKU METAL INDUSTRIES, LTD, TOKYO	**JAPAN**
Arnold Engineering Co, Marengo	Ill
Barker Sales Co, Ridgefield	NJ
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Carstedt Research Inc, Long Beach	Cal
Cortran Mfg Co, Washington	Mo
Ferroxcube Corp, Saugerties	N Y
G-L Industries Inc, G-L Electronics Div, Westville	N J
Infinetics Inc, Electromagnetic Div, Wilmington	Del
Inter-Technical Group Inc, Irvington-on-Hudson	N Y
ITT Europe Inc Components Gp, Brussels 1	Belgium
Magnetic Metals Co, Camden	N J
Magnetics Inc, Butler	Pa
Michigan Magnetics, Vermontville	Mich
Moloney Electric Co, St Louis	Mo
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Thomas & Skinner Inc, Indianapolis	Ind
Tohoku Metal Industries, Ltd, Tokyo	Japan
Westinghouse Electric Corp, Spec Transf Div Greenville	Pa

CORES, MOLDED MAGNETIC--CERAMIC

INDIANA GENERAL CORP ELECTRONICS DIV/FERRITES, KEASBEY	**N J**
PERMAG CORP, JAMAICA	**N Y**
STACKPOLE CARBON CO, ST MARYS	**PA**
Arnold Engineering Co, Marengo	Ill
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Ceramic Magnetics Inc, Fairfield	N J
Core-Tronics, Inc, Orange	N J
Electronic Memories Inc, Hawthorne	Cal
Fair-Rite Products Corp, Wallkill	N Y
Ferricore Div Natl Moldite Co Inc, Newark	N J
Ferroxcube Corp, Saugerties	N Y
Indiana General Corp Electronics Div/Ferrites, Keasbey	N J
Lake Engineering Co Ltd, Scarborough	Ont
LCC-CICE, 93 Montreuil-sous-Bois	France
Metal Ceram Inc, Mount Vernon	N Y
Mullard Ltd, London, WC 1	Eng
National Moldite Co Inc, Newark	N J
Nippon Ferrite Industrial Co Ltd, Tokyo	Japan
Norton Co, Worcester	Mass
Permag Corp, Jamaica	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Semi-Alloys Inc, Mt Vernon	N Y
Stackpole Carbon Co, St Marys	Pa
Steward Mfg Co, D M, Chattanooga	Tenn
TDK Electronics Co Ltd, Chiyoda-ku, Tokyo	Japan
United Mineral & Chemical Corp, New York	N Y

CORES, MOLDED MAGNETIC--CUP

INDIANA GENERAL CORP ELECTRONICS DIV/FERRITES, KEASBEY	**N J**
MAGNETICS INC, BUTLER, PA	ADV PGS 226,227
PERMACOR DIV, RADIO CORES INC, OAK LAWN	**ILL**
PERMAG CORP, JAMAICA	**N Y**
STACKPOLE CARBON CO, ST MARYS	**PA**
TOHOKU METAL INDUSTRIES, LTD, TOKYO	**JAPAN**
Allen-Bradley Co, Milwaukee	Wis
Arnold Engineering Co, Marengo	Ill
Cambridge Thermionic Corp, Cambridge	Mass
Core-Tronics, Inc, Orange	N J
Fair-Rite Products Corp, Wallkill	N Y
Ferricore Div Natl Moldite Co Inc, Newark	N J
Ferroxcube Corp, Saugerties	N Y
General Instrument Corp Automatic Mfg Div Newark	N J
Indiana General Corp Electronics Div/Ferrites, Keasbey	N J
Lake Engineering Co Ltd, Scarborough	Ont
LCC-CICE, 93 Montreuil-sous-Bois	France
Magnetic Core Corp, Newburgh	N Y
Magnetics Inc, Butler	Pa
Metal Ceram Inc, Mount Vernon	N Y
Mullard Ltd, London, WC 1	Eng
National Moldite Co Inc, Newark	N J
Nippon Ferrite Industrial Co Ltd, Tokyo	Japan
Permacor Div, Radio Cores Inc, Oak Lawn	Ill
Permag Corp, Jamaica	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Quality Components Inc, St Marys	Pa
Siemens America Inc, New York	N Y
Stackpole Carbon Co, St Marys	Pa
Taiyo Yuden Co Ltd, Chiyoda-ku, Tokyo	Japan
TDK Electronics Co Ltd, Chiyoda-ku, Tokyo	Japan
Tohoku Metal Industries, Ltd, Tokyo	Japan

CORES, MOLDED MAGNETIC--FERRITE FOR COILS

INDIANA GENERAL CORP ELECTRONICS DIV/FERRITES, KEASBEY	**N J**
MAGNETICS INC, BUTLER, PA	ADV PGS 226,227
PERMAG CORP, JAMAICA	**N Y**
STACKPOLE CARBON CO, ST MARYS, PA	ADV PG 224
TOHOKU METAL INDUSTRIES, LTD, TOKYO	**JAPAN**
Allen-Bradley Co, Milwaukee	Wis
Arnold Engineering Co, Marengo	Ill
Cambridge Thermionic Corp, Cambridge	Mass
Connolly & Co Inc, Mountain View	Cal
Custom Components Inc, Caldwell	N J
Fair-Rite Products Corp, Wallkill	N Y
Ferricore Div Natl Moldite Co Inc, Newark	N J
Ferroxcube Corp, Saugerties	N Y
Fuji Electrochemical Co Ltd, Tokyo	Japan
General Instrument Corp Automatic Mfg Div Newark	N J
Impectron Inc, New York	N Y
Indiana General Corp Electronics Div/Ferrites, Keasbey	N J
ITT Europe Inc Components Gp, Brussels 1	Belgium
Lake Engineering Co Ltd, Scarborough	Ont
LCC-CICE, 93 Montreuil-sous-Bois	France
Lignes Telegraphiques et Telephoniques Paris 16	France
Magnetics Inc, Butler	Pa
Metal Ceram Inc, Mount Vernon	N Y
Mullard Ltd, London, WC 1	Eng
National Moldite Co Inc, Newark	N J
Nippon Ferrite Industrial Co Ltd, Tokyo	Japan
Oneida Electronic Mfg Co, Meadville	Pa
Permag Corp, Jamaica	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Sanyo Electric Co Ltd, Osaka	Japan
Seacor Inc, Norwood	NJ
Siemens America Inc, New York	N Y
Stackpole Carbon Co, St Marys	Pa
Standard Telephones & Cables Ltd London WC 2	England
Steward Mfg Co, D M, Chattanooga	Tenn
Taiyo Yuden Co Ltd, Chiyoda-ku, Tokyo	Japan
TDK Electronics Co Ltd, Chiyoda-ku, Tokyo	Japan
Tohoku Metal Industries, Ltd, Tokyo	Japan
Xtalonix Products Div Harshaw Chemical Co Columbus	Ohio

CERAMAG® FERRITE MATERIALS CONSISTENT IN PERFORMANCE, QUALITY

- Select from over 30 grades.
- Available in toroids; cup, insert and thread cores; bobbins; sleeves; transformer cores; deflection yokes; and rectangular solids.
- A wide range of sizes held to exact tolerances.
- Maximum permeability and high Q.
- Tooling available for hundreds of parts.
- Offers the advantage of complete moldability.
- Write for bulletin.

STACKPOLE®
CARBON COMPANY
Electronic Components Division
St. Marys, Pa. 15857

CORES, MOLDED MAGNETIC--FERRITE FOR DEFLECTION YOKES

INDIANA GENERAL CORP ELECTRONICS DIV/FERRITES, KEASBEY	**N J**
PERMAG CORP, JAMAICA	**N Y**
STACKPOLE CARBON CO, ST MARYS	**PA**
TOHOKU METAL INDUSTRIES, LTD, TOKYO	**JAPAN**
Advance Ross Electronics Corp, Chicago	Ill
Allen-Bradley Co, Milwaukee	Wis
Custom Components Inc, Caldwell	N J
Ferroxcube Corp, Saugerties	N Y
Fuji Electrochemical Co Ltd, Tokyo	Japan
General Instrument Corp Automatic Mfg Div Newark	N J
Impectron Inc, New York	N Y
Indiana General Corp Electronics Div/Ferrites, Keasbey	N J
Lake Engineering Co Ltd, Scarborough	Ont
LCC-CICE, 93 Montreuil-sous-Bois	France
Mullard Ltd, London, WC 1	Eng
Nippon Ferrite Industrial Co Ltd, Tokyo	Japan
Permag Corp, Jamaica	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland

Sanyo Electric Co Ltd, Osaka .... Japan
Siemens America Inc, New York .... N Y
Stackpole Carbon Co, St Marys .... Pa
Steward Mfg Co, D M, Chattanooga .... Tenn
TDK Electronics Co Ltd, Chiyoda-ku, Tokyo .... Japan
Tohoku Metal Industries, Ltd, Tokyo .... Japan

CORES, MOLDED MAGNETIC--FERRITE FOR MEMORIES

BURROUGHS CORP ELECTRONIC COMPONENTS DIV PLAINFIELD .... N J
INDIANA GENERAL CORP ELECTRONICS DIV/FERRITES, KEASBEY .... N J
PERMAG CORP, JAMAICA .... N Y
TOHOKU METAL INDUSTRIES, LTD, TOKYO JAPAN .... ADV PG 225
Ampex Corp, Redwood City .... Cal
Applied Magnetics Corp, Ferrite Head Div Santa Barbara .... Cal
Burroughs Corp Electronic Components Div Plainfield .... N J
Electronic Memories Inc, Hawthorne .... Cal
Fabri-Tek Inc, Minneapolis .... Minn
Ferricore Div Natl Moldite Co Inc, Newark .... N J
Ferroxcube Corp, Saugerties .... N Y
Fuji Electrochemical Co Ltd, Tokyo .... Japan
Hitachi Ltd, Chiyoda-Ku, Tokyo .... Japan
Indiana General Corp Electronics Div/Ferrites, Keasbey .... N J
Keymox Inc, Whittier .... Cal
LCC-CICE, 93 Montreuil-sous-Bois .... France
Lignes Telegraphiques et Telephoniques Paris 16 .... France
Lockheed Electronics Co, Plainfield .... N J
Lockheed Electronics Co, Avionics & Ind Prods Div Los Angeles .... Cal
Mullard Ltd, London, WC 1 .... Eng
Permag Corp, Jamaica .... N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Radio Corp of America, Electronic Components, Harrison .... N J
Raytheon Computer, Santa Ana .... Cal
Sampson Electronic Products Div, Chicago Ill
Siemens America Inc, New York .... N Y
TDK Electronics Co Ltd, Chiyoda-ku, Tokyo .... Japan
Tohoku Metal Industries, Ltd, Tokyo .... Japan

CORES, MOLDED MAGNETIC--POWDERED IRON

PERMACOR DIV, RADIO CORES INC, OAK LAWN ILL .... ADV PG 225
PERMAG CORP, JAMAICA .... N Y
TOHOKU METAL INDUSTRIES, LTD, TOKYO .... JAPAN
Arnold Engineering Co, Marengo Ill
Burroughs Corp, Defense, Space & Spec Sys Group Paoli .... Pa
Cambridge Thermionic Corp, Cambridge .... Mass
Coax Devices, Chelsea .... Mass
Core-Tronics, Inc, Orange .... N J
Custom Components Inc, Caldwell .... N J
Ferricore Div Natl Moldite Co Inc, Newark .... N J
General Instrument Corp Automatic Mfg Div Newark .... N J
Impectron Inc, New York .... N Y
ITT Europe Inc Components Gp, Brussels 1 ...... Belgium
Lake Engineering Co Ltd, Scarborough .... Ont
LCC-CICE, 93 Montreuil-sous-Bois .... France
Magnetic Core Corp, Newburgh .... N Y
Magnetic Metals Co, Camden .... N J
Metal Ceram Inc, Mount Vernon .... N Y
Micrometals Inc, Sierra Madre .... Cal
National Moldite Co Inc, Newark .... N J
Oneida Electronic Mfg Co, Meadville .... Pa
Orega Electronique & Mecanique Vincennes, Seine .... France
Permacor Div, Radio Cores Inc, Oak Lawn Ill
Permag Corp, Jamaica .... N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Polymer Corp, Reading .... Pa
Pyroferric-New York, Inc, New York .... N Y
Quality Components Inc, St Marys .... Pa
Sanyo Electric Co Ltd, Osaka .... Japan
Seacor Inc, Norwood .... NJ
Tohoku Metal Industries, Ltd, Tokyo .... Japan
United Products Co, Orange .... N J

CORES, MOLDED MAGNETIC--SLUG TUNING UNITS

INDIANA GENERAL CORP ELECTRONICS DIV/FERRITES, KEASBEY .... N J
PERMACOR DIV, RADIO CORES INC, OAK LAWN ILL
STACKPOLE CARBON CO, ST MARYS .... PA
TOHOKU METAL INDUSTRIES, LTD, TOKYO .... JAPAN
Cambridge Thermionic Corp, Cambridge .... Mass
Coax Devices, Chelsea .... Mass
Core-Tronics, Inc, Orange .... N J
Custom Components Inc, Caldwell .... N J
Fair-Rite Products Corp, Wallkill .... N Y
Ferricore Div Natl Moldite Co Inc, Newark .... N J
Ferroxcube Corp, Saugerties .... N Y
General Instrument Corp Automatic Mfg Div Newark .... N J
Impectron Inc, New York .... N Y
Indiana General Corp Electronics Div/Ferrites, Keasbey .... N J
ITT Europe Inc Components Gp, Brussels 1 ...... Belgium
Magnetic Core Corp, Newburgh .... N Y
National Moldite Co Inc, Newark .... N J
Orega Electronique & Mecanique Vincennes, Seine .... France
Permacor Div, Radio Cores Inc, Oak Lawn Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Polymer Corp, Reading .... Pa
Pyroferric-New York, Inc, New York .... N Y
Quality Components Inc, St Marys .... Pa
Sanyo Electric Co Ltd, Osaka .... Japan
Seacor Inc, Norwood .... NJ
Stackpole Carbon Co, St Marys .... Pa
Tohoku Metal Industries, Ltd, Tokyo .... Japan
United Products Co, Orange .... N J

CORES, MOLDED MAGNETIC--TOROIDAL

INDIANA GENERAL CORP ELECTRONICS DIV/FERRITES, KEASBEY .... N J
MAGNETICS INC, BUTLER, PA .... ADV PGS 226,227
PERMACOR DIV, RADIO CORES INC, OAK LAWN ILL
PERMAG CORP, JAMAICA .... N Y
STACKPOLE CARBON CO, ST MARYS .... PA
TOHOKU METAL INDUSTRIES, LTD, TOKYO .... JAPAN
Advance Ross Electronics Corp, Chicago Ill
Allen-Bradley Co, Milwaukee .... Wis
Arnold Engineering Co, Marengo Ill
Burroughs Corp, Defense, Space & Spec Sys Group Paoli .... Pa
Cambridge Thermionic Corp, Cambridge .... Mass
Ceramic Magnetics Inc, Fairfield .... N J
Connolly & Co Inc, Mountain View .... Cal
Core-Tronics, Inc, Orange .... N J
Custom Components Inc, Caldwell .... N J
Electronic Memories Inc, Hawthorne .... Cal
Electronic Transformer Corp, Paterson .... N J
Ferricore Div Natl Moldite Co Inc, Newark .... N J
Ferroxcube Corp, Saugerties .... N Y
General Instrument Corp Automatic Mfg Div Newark .... N J
Impectron Inc, New York .... N Y
Indiana General Corp Electronics Div/Ferrites, Keasbey .... N J
ITT Europe Inc Components Gp, Brussels 1 ...... Belgium
Magnetic Core Corp, Newburgh .... N Y
Magnetic Metals Co, Camden .... N J
Magnetico Inc, East Northport .... N Y
Magnetics Inc, Butler .... Pa
Micrometals Inc, Sierra Madre .... Cal
Mullard Ltd, London, WC 1 .... Eng

We are able to manufacture more ferromagnetic pot cores than anybody else . . .

because . . .
1. No one can match the variety of materials at our disposal—many unique because we developed them ourselves. (Our F series 2001~4 demonstrate drastically improved temperature coefficient for this reason.)
2. We use the most modern technology in the world, both domestic and imported.
3. Our factories are second to none in scale and up-to-dateness.
4. Our 3,000 highly skilled employees, advanced research laboratory, and 30 years' experience back up every product.

If your telecommunications equipment calls for high-performance pot cores of guaranteed uniformity, send us your specs. We'll do the rest. Also, we'll be happy to send you detailed technical literature on request.

Tokin
Tohoku Metal Industries, Ltd.
4, 7-chome, Ginza-Higashi, Chuo-ku, Tokyo, Japan Telephone: Tokyo 542-6171 Cable Address: TOHOKUMETAL TOKYO

Main Products: Ferrite Cores, Memory Cores, Memory Matrices, Ferrite Magnetostrictive Vibrators, Pulse Transformers, Permanent Magnets (Cast, Ferrite), Tape Wound Cores, Bobbin Cores, Magnetic Laminations, Fe-Co Alloys, Sendust Cores

STOP
Iron Core Problems
Call
PERMACOR®
Iron Core Engineers

Whatever your iron core problems may be . . . space limitations, tolerances, delivery, or cost . . . PERMACOR can solve them quickly and efficiently.

Over the years, PERMACOR research, engineering, and production has solved countless military, commercial, miniature, and specialized applications. It can do the same for you.

Send us your problems today. Let us show you how PERMACOR "Engineered Economy" has made us the world's largest iron core producer. There's no obligation, of course!

PERMACOR®
A Division of Radio Cores, Inc.
9540 Tulley Ave., Oak Lawn, Ill.
Phone: 312/GA 2-3353

Magnetics Inc. time-tested

TAPE WOUND CORES

Tape Wound Cores made from high permeability nickel-iron alloys, grain oriented silicon-iron alloy and 50% cobalt iron alloy are available in all AIEE Standard Sizes plus special shapes. Orthonol®, Alloy 48, Square and Round Permalloy 80, Supermalloy, Magnesil® and Supermendur, meet the most critical applications for magnetic amplifiers, inverters, converters, reactors, regulators and other static magnetic devices.

For wide frequency applications, materials are produced in thicknesses from ½ mil through 14 mils. All core sizes are available boxed in phenolic or plastic, aluminum, or GVB coated aluminum boxes. Magnesil®, less sensitive to external stresses, is also available unboxed or epoxy encapsulated. AIEE Standards and other common sizes are stocked for immediate shipment. **For more information, write Dept. EBG.**

BOBBIN CORES

Bobbin Cores manufactured from ultra-thin (.000125″ to .001″ thicknesses) Permalloy 80 and Orthonol® are available in widths from .023″ to .250″ (wider on request). Wound on non-magnetic stainless steel bobbins, these cores meet requirements for military and commercial computers, high frequency counters, timers, oscillators, inverters and magnetic amplifiers.

Core diameters range down to less than .050″ with flux capacities down to several maxwells. Special, highly sensitive pulse test equipment is used to reproduce almost any test program, and to accurately measure flux values ("ones" and "zeros") down to the millivolt—microsecond regions. **For more information, write Dept. EBG.**

MOLY-PERMALLOY POWDER CORES

Moly-Permalloy toroidal cores with permeabilities of 60, 125, 160, 200, the new 300, and 550 all have guaranteed inductance limits of ±8%. Furnished to guaranteed loss and temperature/inductance characteristics, most are stocked for immediate shipment. Cores are finished with a high dielectric strength epoxy not affected by normal potting compounds and waxes used in the production of chokes and filters. A complete range of 16 standard sizes is available with ID's from 1.40″ down to miniatures small as .110″ (OD's from 2.25″ down to .250″).

All sizes are available with stabilized induction characteristics from −65°C to +125°C. This extends the availability of stabilized cores down to the sub-miniature sizes. These cores meet the requirements of today's miniaturized high Q—low loss filter and inductor circuits where extreme frequency stabilization is required over wide temperature ranges. **For more information, write Dept. EBG.**

FERRITES

High purity Manganese Zinc Ferrite Pot Cores are made with permeabilities of 750, 1400 and 2000 to cover frequencies up to two megacycles. A 100 permeability nickel-zinc core is available for use up to 20 mc. Fourteen sizes, including the international sizes, ranging from 36 x 22 mm down to 7 x 4 mm, are available for use in filters and inductors for high frequency carrier and other telecommunication circuit design.

These pot cores exhibit extremely good loss characteristics, linear temperature co-efficients (matching those of polystyrene capacitors) guaranteed over a temperature range of −30°C to +70°C, and exceptionally low disaccommodation factors.

Cores are available ungapped with a guaranteed inductance factor of ±25% for transformer applications and gapped to standard A_L factors to tolerances of ±3%, for use in high quality filter applications.

The line features unique one-piece spring steel mounting hardware for firm mounting on chassis or printed circuit boards, plus complete selection of tuning assemblies. Various shapes such as Toroid, E, I and U type cores also available. **For more information, write Dept. EBG.**

MAGNETIC LAMINATIONS

Hydrogen annealed Laminations are available in Permalloy 80, Alloy 48 and Orthonol®, in thickness of .004″, .006″, and .014″. Thirty-eight standard shapes in sizes ranging from DU-87 and EI-12 down to EI-093, EE-30-31, DU-63 and F-094, are manufactured for both stock and special orders.

Used in quality transformers, chokes, reactors, and especially for solid state transistor circuits, these laminations are manufactured to guaranteed minimum permeability limits. Special shapes can be made to fit specific needs including rotor-stator and recording head laminations. Small intricate shapes can be produced by the photo-etching process. **For more information, write Dept. EBG.**

high permeability products

PHOTOFAB® PARTS

Precision flat components produced by Magnetics Inc. from almost any magnetic or specialty alloy used in the electronics industry, can save both cost and time. Small shapes can be chemically milled in prototype quantities at much lower costs and tooled for punching during production.

The process is especially effective when intricate configurations are needed in thicknesses less than .001″. Material thicknesses ranging from .020″ to .000125″ can be processed. Tolerances on dimensions can be held from .005″ to .0005″, depending on thickness of the part being produced and type of material.

Rotors and stators, head laminations and flat packs for integrated circuits are only a few of the parts which can be made. Any part that can be drawn can be produced as a Photofab® part. **For more information, write Dept. EBG.**

SPECIALTY ALLOYS

Specialty metals and alloys for use in the electronic industry are produced by the Metals Division. Rod, Wire and thin gage Strip products are manufactured from powder metallurgy ingots. This process is extremely effective where close (plus or minus 0.01%) chemistry control is required. In addition, homogeneity, low impurities (less than 0.005%) and uniform physical properties are the result of the process.

A wide range of standard compositions including Ni, Ni-Fe, Ni-Fe-Mo, Ni-Co-Fe, Ni-Cr, Ni-Cr-Fe, etc., as well as custom blended alloys are available.

Areas of application include glass sealing, vapor deposition and specialty plating anodes, etc.

Conventionally melted alloys are available by conversion reroll to thin gage strip (0.0005″-0.005″). **For more information, write Dept. EBG.**

SPECIAL COMPONENTS

In addition to the standard high quality component lines, Magnetics Inc. designs and manufactures specialized components—fabricated from any magnetic alloy—in any size or shape.

Expertly staffed and equipped laboratories, pilot plant facilities, and production equipment are available for the processing of components in powdered, sintered, strip, wire, rod and forms.

Since Magnetics Inc. makes its own magnetic alloys, complete control is guaranteed, from basic materials to finished product. This assures optimum characteristics in every component, from a single manufacturing source.

Unusual configurations requiring tape as thin as ⅛ mil, flat pieces produced as Photofab® parts or punched from most magnetic and specialty alloys used in the electronics industry. **For more information, write Dept. EBG.**

Magnetics Inc., Butler, Pa. 16001

MAGNETICS inc.®

These Magnetics Inc. Representatives Are At Your Service:

Ala., Va., Fla., Ga., Ky., Miss., N.C., S.C., Tenn.
Roy Ostrander
Magnetics Inc.
2313 Killarny Dr.
Greensboro, N.C., 27406
(919) 292-2066

Calif., Ore., Wash.
Robert P. Kuechler
Magnetics Inc.
1061 Blaney Ave.
San Jose, Calif. 95129
(408) 253-0591

Export Office
B. Freudenberg, Inc.
50 Rockefeller Plaza
New York, N.Y. 10020
(212) 757-9130

N.Y., Pa.
Fowler-Beach Corp.
3700 East Ave. Rm. 3
Rochester, N.Y. 14618
(716) 586-0468

Calif., Ariz.
Magnetics Inc.
3841 E. Colorado Blvd.
Pasadena, Calif. 91107
(213) 681-7487
TWX: 910-588-3256

Minn., N.D., S.D., Wisc.
Fred Peterson Co.
P.O. Box 8409
Minneapolis, Minn. 55426
(612) 927-4453

ILL., Wisc., Ind., Iowa
H. G. Pretat, Inc.
7716 North Ave.
Elmwood Park, ILL. 60635
(312) 453-3380

H. G. Pretat, Inc.
3001 S. Fairfield Ave.
Ft. Wayne, Ind. 46806
(219) 745-1251

Kan., Mo., Neb., Colo., Wyo., Utah, Iowa, ILL.
Inland Associates
6047 Howe Dr.
Mission, Kan. 66205
(913) 432-8053

Inland Associates
2991 Peak Ave.
Boulder, Colo. 80302
(303) 443-8213

Inland Associates
453 N. Lindbergh
Creve Coeur, Mo. 63141
(314) 993-0301

Tex., Okla., La., N.M.
Lawrence Sales Co.
P.O. Box 1038
921 Bowser
Richardson, Tex. 75080
(214) 235-5504
TWX: 910-867-4715

N.J., N.Y. City, Conn.
William S. Spring
Magnetics Inc.
75 Elm Place
New Canaan, Conn. 06840
(203) 966-1583

Mass., N.H., R.I., Vt., Me.
James E. Frauenheim
P.O. Box 23
Watertown, Mass. 02172
(617) 923-0726

Pa., N.J., Del., Md., D.C., Va.
Richard M. Pisarcik
Magnetics Inc.
206 Garth Rd.
Oreland, Pa. 19075
(215) 884-8239

R. G. Sidnell & Co., Inc.
1007 Wood St.
Pittsburgh, Pa. 15221
(412) 242-1476

General Offices
Magnetics Inc.
Butler, Pa. 16001
(412) 285-4711
TWX: 710-373-3821

Canada
Bayly Engineering, Ltd.
Hunt St.
Ajax, Ontario
(416) 942-1020

Ohio
R. G. Sidnell & Co., Inc.
14701 Detroit Ave.
Cleveland, Ohio 44107
(216) 221-1313

R. G. Sidnell & Co., Inc.
3400 S. Dixie Dr.
Dayton, Ohio 45439
(513) 293-1194

National Moldite Co Inc, Newark	N J
Permacor Div, Radio Cores Inc, Oak Lawn	Ill
Permag Corp, Jamaica	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polymer Corp, Reading	Pa
Pyroferric-New York, Inc, New York	N Y
Quality Components Inc, St Marys	Pa
Seacor Inc, Norwood	NJ
Siemens America Inc, New York	N Y
Stackpole Carbon Co, St Marys	Pa
Standard Telephones & Cables Ltd London WC 2	England
TDK Electronics Co Ltd, Chiyoda-ku, Tokyo	Japan
Tohoku Metal Industries, Ltd, Tokyo	Japan

CORROSION INHIBITORS SEE PACKAGING MATERIALS

COUNTERMEASURE RECEIVERS SEE RECEIVERS--PANORAMIC

COUNTERMEASURE EQUIPMENT--ELECTRONIC

ANAREN MICROWAVE INC, SYRACUSE	**N Y**
LEACH CORP, SOUTH PASADENA	**CAL**
LEL DIV VARIAN ASSOCIATES, COPIAGUE, N Y	**ADV PG 228**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
TRACOR INC, AUSTIN	**TEX**
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Amecom Div Litton Industries, Silver Spring	Md
American Astrionics Inc, Palo Alto	Cal
American Electronic Labs Inc, Lansdale	Pa
American Systems, Inc, Van Nuys	Cal
Anaren Microwave Inc, Syracuse	N Y
A R F Products, Inc, Raton	N M
Avco Corp Electronics Div, Cincinnati	Ohio
Baird-Atomic, Inc, Cambridge	Mass
Bell Aerosystems Co, Buffalo	N Y
Borders Electronics Co Inc, Pennsauken	N J
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Communication Dynamics Corp, Yonkers	N Y
Communication Electronics Inc, Rockville	Md
Conductron Corp, Ann Arbor	Mich
Cosmos Industries Inc, Brooklyn	N Y
Dalmo Victor, A Textron Div, Belmont	Cal
Dayton Electronics Products Co, Dayton	Ohio
Dewey Corp, G C, New York	N Y
Edo Corp, College Point	NY
Electro-Data Inc, Garland	Tex
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam	N Y
EMI Cossor Electronics Ltd, Dartmouth, N S	Can
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus	N J
Frequency Engineering Labs, Farmingdale	N J
General Atronics Corp, Philadelphia	Pa
General Electric Co, Aerospace Elctns Dept, Utica	N Y
General Instrument Corp Radio Receptor Div Hicksville	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Goodyear Aerospace Corp, Akron	Ohio
Honig Laboratories Inc, Westbury	N Y
ITT Gilfillan Inc, Van Nuys	Cal
Jetronic Industries Inc, Philadelphia	Pa
Leach Corp, South Pasadena	Cal
Lel Div Varian Associates, Copiague	N Y
Lundy Electronics & Systems Inc, Glen Head	N Y
Malaker Corp, High Bridge	N J
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Melabs, Palo Alto	Cal
Micro-Radionics Inc, Van Nuys	Cal
Microwave/Systems Inc, East Syracuse	N Y
M Tech Corp, Pomona	Cal
Philco-Ford Corp, Washington	D C
Philips Electronics Industries Ltd, Toronto 17	Ont
Polarad Electronic Instruments Div Long Island City	N Y
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Rodale Electronics Inc, Garden City	NY
Sanders Associates, Inc, Nashua	N H
Scope Inc, Reston	Va
Sedco Systems Inc, Farmingdale	N Y
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Sierra Research Corp, Buffalo	N Y
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Squires-Sanders Inc, Liberty Corner	N J
Sylvania Electronic Systems, Waltham	Mass
Systems Research Labs Inc, Dayton	Ohio
Telephonics Div, Instrument Systems Corp Huntington	NY
Texas Instruments Incorporated, Dallas	Tex
Tracor Inc, Austin	Tex
TRW Systems Group, Redondo Beach	Cal
Vitro Labs Div Vitro Corp of America, W Orange	N J
Watkins-Johnson Co, Palo Alto	Cal
Wilcox Electric Co Inc, Kansas City	Mo
Wiltek, Inc, Wilton	Conn

ECM Receiver Equipment

for top broadband performance and rugged reliability.

- **Mixer-preamplifiers,** series BMP operating over the 2-10 GHz range.
- **Log amplifiers,** model ITL-6 with with 1dB matching referred to input.
- **RF octave** amplifiers series OTX covering 10-2000 MHz. Miniature lightweight units.

For systems, subsystems or components.

If You're Talking ECM . . . TALK TO LEL.

LEL DIVISION
VARIAN associates
AKRON ST., COPIAGUE, L. I., NEW YORK 11726
For prompt information
CALL 516 AM 4-2517

COUNTERMEASURE TRANSMITTERS SEE TRANSMITTERS--JAMMING & COUNTERMEASURE

COUNTERS, ELECTROMAGNETIC--DIRECT READING

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
CHICAGO SWITCH F & F, CHICAGO	**ILL**
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT	**IOWA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
Abrams Instrument Corp, Lansing	Mich
Audichron Co, Atlanta	Ga
Automation Development Co, Culver City	Cal
Bowmar Instrument Corp, Fort Wayne	Ind
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
California Electro-Scientific Corp, Santa Ana	Cal
Canadian Research Institute, Don Mills	Ont
Chicago Switch F & F, Chicago	Ill
Chrono-Log Corp, Broomall	Pa
Coltron Industries, Inc, Charlotte	N C
Communication Electronics Inc, Rockville	Md
Conrac Corp, New York	N Y
Counting Instruments Ltd, Hertfordshire	England
Cramer Div Conrac Corp, Old Saybrook	Conn
Durant Mfg Co, Milwaukee	Wis
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Electric Tachometer Corp, Philadelphia	Pa
Electronics Corp of America, Cambridge	Mass
Electron-Ohio Inc, Cleveland	Ohio
E N M Co, Chicago	Ill
General Electric Co, ECSO, Schenectady	N Y
General Equipment & Mfg Co, Louisville	Ky
Haydon Co The, A W, Waterbury	Conn
Haydon Products, Ind-Controls Div Gen Time Corp, Torrington	Conn
Haydon Switch & Instrument Inc, Waterbury	Conn
Hecon Corp, New Shrewsbury	N J
Heli-Coil Products, Div Heli-Coil Corp, Danbury	Conn
Hird-Brown Ltd, Bolton, Lancs	England
Hirst Electric Industries Ltd, Crawley, Sussex	England
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kahl Scientific Instrument Corp, El Cajon	Cal
Kessler-Ellis Products Co, Atlantic Highlands	N J
Landis & Gyr, Inc, New York	N Y
Larson Aero Development, Concord	Cal
MacDonald & Co, Glendale	Cal
Machinery Electrification Inc, Northboro	Mass
McGraw-Edison Power Systems Div, Milwaukee	Wis
Numex Corp, Waltham	Mass
Oki Electric Industry Co Ltd, Tokyo	Japan
Peco Corp, Mountain View	Cal
Pioneer Electric & Research Corp, Forest Park	Ill
Precision Mecanique Labinal, 93 Saint-Ouen	France
Redington Counters Inc, Windsor	Conn
Robertson Instrument Co, Azusa	Cal
Rowan Controller Co, Oceanport	N J
Siemens America Inc, New York	N Y
Solari & C/Udine, Udine	Italy
Space & Systems Div General Time Corp Stamford	Conn
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Streeter-Amet, Grayslake	Ill
Tamura Electric Works Ltd, Tokyo	Japan
Tokyo Electric Co Ltd, Tokyo	Japan
Veeder-Root, Hartford	Conn

COUNTERS, ELECTROMAGNETIC--PRINT OUT

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
California Electro-Scientific Corp, Santa Ana	Cal
Canadian Research Institute, Don Mills	Ont
Chrono-Log Corp, Broomall	Pa
Coltron Industries, Inc, Charlotte	N C
Datatotal Inc, Arlington	Tex
Di/An Controls Inc, Boston	Mass
Durant Mfg Co, Milwaukee	Wis
E N M Co, Chicago	Ill
General Electric Co, ECSO, Schenectady	N Y
Grason Stadler Co Inc, West Concord	Mass
Hecon Corp, New Shrewsbury	N J
Heuer Electronics Corp, Norwalk	Conn
Hird-Brown Ltd, Bolton, Lancs	England
Kahl Scientific Instrument Corp, El Cajon	Cal
Kessler-Ellis Products Co, Atlantic Highlands	N J
Landis & Gyr, Inc, New York	N Y
Machinery Electrification Inc, Northboro	Mass
Massey Dickinson Co Inc, Saxonville	Mass
Oki Electric Industry Co Ltd, Tokyo	Japan
Peco Corp, Mountain View	Cal
Presin Co Inc, Shelton	Conn
Robertson Instrument Co, Azusa	Cal
Rockwell Mfg Co, Msmt & Control Div, Pittsburgh	Pa
Royson Engineering Co, Hatboro	Pa
Simplex Time Recorder Co, Gardner	Mass
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Streeter-Amet, Grayslake	Ill
Tech Serv Inc, Beltsville	Md
Telecontrol Corp, Old Greenwich	Conn
Veeder-Root, Hartford	Conn
Watesta Electronics Ltd, London-E 11	England

COUNTERS, ELECTRONIC--BATTERY OPERATED

DATA TECHNOLOGY, INC, WATERTOWN	**MASS**
FORK STANDARDS INC, WEST CHICAGO	**ILL**
TECHMETRIC CO, REDWOOD CITY	**CAL**
Aerojet-General Corp Electronics Div, Azusa	Cal
Amark Corp, Plainview	N Y
Beckman Instruments Inc, Fullerton,	Cal
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Components Corp, Denville	NJ
Condor Industrial Corp, West Chicago	Ill
Conductron Corp, Ann Arbor	Mich
Control Logic Inc, Natick	Mass
Co-Ord Div LVC Industries Inc, Corona	NY
Data Technology, Inc, Watertown	Mass
Digital Products, San Pedro	Cal
Dyna Metric Inc, Pasadena	Cal
Dynamic Precision Controls Corp, Hagerstown	Ind
Electronic Counters Inc, Englewood	N J
Electro-Sonic-Control, Manteca	Cal
Fork Standards Inc, West Chicago	Ill
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland	Ohio
Heuer Electronics Corp, Norwalk	Conn
Hirst Electric Industries Ltd, Crawley, Sussex	England
Intercontinental Electronics Corp, Fairport	N Y
Janus Control Div Tyco, Waltham	Mass
Kahl Scientific Instrument Corp, El Cajon	Cal
Kessler-Ellis Products Co, Atlantic Highlands	N J
Logitek Inc, Farmingdale	N Y
McGraw-Edison Power Systems Div, Milwaukee	Wis
NanoFast, Inc, Chicago	Ill
Nuclear-Chicago Corp, Des Plaines	Ill
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Quantum Electronics Corp, San Ramon	Cal
RIL Electronics Inc, Southampton	Pa
Robertson Instrument Co, Azusa	Cal
Schlumberger, 92-Montrouge 32	France
Space & Systems Div General Time Corp Stamford	Conn
Streeter-Amet, Grayslake	Ill
Takeda Riken Industry Co Ltd, Tokyo	Japan
Techmetric Co, Redwood City	Cal
Troxler Electronic Labs Inc, Raleigh	N C
Veeder-Root, Hartford	Conn
Venner Electronics Ltd, New Malden, Surrey	Eng
Watesta Electronics Ltd, London-E 11	England

COUNTERS, ELECTRONIC--BINARY

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE .... **NY**
BOWMAR INSTRUMENT CORP, FORT WAYNE .... **IND**
DATA TECHNOLOGY, INC, WATERTOWN .... **MASS**
FORK STANDARDS INC, WEST CHICAGO .... **ILL**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... **ADV PGS 7**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND .... **OHIO**
ICON CORP, CAMBRIDGE .... **MASS**
MILGO ELECTRONIC CORP, MIAMI .... **FLA**
TECHMETRIC CO, REDWOOD CITY .... **CAL**
TOKYO ELECTRIC CO LTD, TOKYO .... **JAPAN**
Amelco Semiconductor, A Teledyne Co Mountain View .... Cal
American Astrionics Inc, Palo Alto .... Cal
Amperex Electronic Corp, Professional Tube Div, Hicksville .... NY
Amtron Inc, Midlothian Ill
Applied Dynamics, Inc, Ann Arbor .... Mich
Ball Brothers Research Corp, Boulder .... Colo
Bay Engineering Co, San Francisco .... Cal
Beckman Instruments Inc, Fullerton, ... Cal
Beckman Instruments Intl SA, 1207 Geneva .... Switzerland
Bendix Corp, Communications Div, Towson .... Md
Binary Electronics of Cal Div Avionic Structures Inc Anaheim .... Cal
Bowmar Instrument Corp, Fort Wayne .... Ind
Burroughs Corp, Defense, Space & Spec Sys Group Paoli .... Pa
California Systems Components, Inc, Chatsworth .... Cal
Chrono-Log Corp, Broomall .... Pa
Clare & Co, C P, Chicago Ill
Collins & Assoc Don L, Glendale .... Cal
Components Corp, Denville .... NJ
Computer Logic Corp, Santa Monica .... Cal
Condor Industrial Corp, West Chicago Ill
Conductron Corp, Ann Arbor .... Mich
Control Equipment Corp, Needham Heights .... Mass
Control Logic Inc, Natick .... Mass
Co-Ord Div LVC Industries Inc, Corona .... NY
Datascan Inc, Clifton .... N J
Data Technology, Inc, Watertown .... Mass
DatCon Electronics Corp, Bayside .... NY
Datum Inc, Anaheim .... Cal
Design Products Corp, Troy .... Mich
Di/An Controls Inc, Boston .... Mass
Digital Equipment Corp, Maynard .... Mass
Digital Products, San Pedro .... Cal
Dynamic Precision Controls Corp, Hagerstown .... Ind
Dynamic System Electronics Corp, Tempe .... Ariz
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee Ill
E D P Corp, Orlando .... Fla
Eldorado Electronics, Concord .... Cal
Electro Circuits Inc, Lowell .... Mass
Electronic Counters Inc, Englewood .... N J
Electronic Modules Corp, Timonium .... Md
EON Corp, Brooklyn .... N Y
Fairchild Instrumentation, Sunnyvale .... Cal
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View .... Cal
Fork Standards Inc, West Chicago Ill
General Electric Co, ECSO, Schenectady .... N Y
Geo Space Systems Inc, St Petersburg .... Fla
Hecon Corp, New Shrewsbury .... N J
Hickok Electrical Instrument Co, Cleveland .... Ohio
Hugle Industries, Sunnyvale .... Cal
Icon Corp, Cambridge .... Mass
IKL Inc, Newport Beach .... Cal
Information Control Corp, El Segundo .... Cal
Information Instruments, Inc, Ann Arbor .... Mich
Intellux Inc, Goleta .... Cal
Intercontinental Electronics Corp, Fairport .... N Y
Itek Corp, Lexington .... Mass
J A C Electronics Ltd, Camberley .... England
Janus Control Div Tyco, Waltham .... Mass
Laben S p A, Milan .... Italy
La Telemecanique Electrique, 92 Rueil .... France
LeCroy Research Systems Corp, West Nyack .... N Y
Logitek Inc, Farmingdale .... N Y
Louis Allis Co Div Litton Industries, Milwaukee .... Wisc
Mesa Co, Bristol .... Pa
Metric Systems Corp, Fort Walton Beach .... Fla
Milgo Electronic Corp, Miami .... Fla
Molecular Research Inc, Palm Beach Gardens .... Fla
Monitor Systems Inc, Fort Washington .... Pa
Nanosecond Systems Inc, Fairfield .... Conn

Navigation Computer Corp, Norristown .... Pa
Northeastern Engineering Inc, Manchester .... NH
Northridge Engineering Co Div Republic Corp Northridge .... Cal
Nuclear Enterprises Ltd, Edinburgh 11 .... Scotland
Numex Corp, Waltham .... Mass
Parabam Inc, Hawthorne .... Cal
Philco-Ford Corp, Washington .... D C
Pinlites, Inc, Fairfield .... N J
Plessey Airborne Corp, Hillside .... NJ
Pulse Communications Inc, Falls Church .... Va
Quantum Electronics Corp, San Ramon .... Cal
Radix Electronics Corp, Anaheim .... Cal
Raytheon Co, Components Div, Semiconductor Oper Mountain View .... Cal
RC-95 Inc, New York .... N Y
RIL Electronics Inc, Southampton .... Pa
Rosemount Plug-In Inc, Nashville .... Tenn
Rotax Ltd, London NW 10 .... Eng
Science Accessories Corp, Southport .... Conn
Space Craft Inc, Huntsville .... Ala
Sprague Electric Co, North Adams .... Mass
Takeda Riken Industry Co Ltd, Tokyo .... Japan
Techmetric Co, Redwood City .... Cal
Tokyo Electric Co Ltd, Tokyo .... Japan
U S Microwave, Delran .... N J
Universal Comptronics Div Microwave Corp of Amer Thornwood .... N Y
Veeder-Root, Hartford .... Conn
Venner Electronics Ltd, New Malden, Surrey .... Eng
Vernitron Corp Precision Comp Group, Farmingdale .... N Y
Vitro Labs Div Vitro Corp of America, Silver Spring .... Md
Vitro Labs Div Vitro Corp of America, W Orange .... N J
Walkirt Co, Los Angeles .... Cal
Watesta Electronics Ltd, London-E 11 .... England
Wayne-George Co Div Itek Corp, Newton .... Mass
Weltronic Co, Southfield .... Mich
Zehntel Inc, Berkeley .... Cal

COUNTERS, ELECTRONIC--DECADE

AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE .... **N Y**
AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE .... **NY**
BOWMAR INSTRUMENT CORP, FORT WAYNE .... **IND**
BURROUGHS CORP ELECTRONIC COMPONENTS DIV PLAINFIELD .... **N J**
COMPUTER PRODUCTS INC, FORT LAUDERDALE .... **FLA**
DATA TECHNOLOGY, INC, WATERTOWN .... **MASS**
DISCON CORP, FORT LAUDERDALE .... **FLA**
FORK STANDARDS INC, WEST CHICAGO .... **ILL**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... **ADV PGS 7**
HEWLETT-PACKARD, PALO ALTO .... **CAL**
ICON CORP, CAMBRIDGE .... **MASS**
INTEGRATED CIRCUIT ELECTRONICS INC, WALTHAM .... **MASS ADV PG 229**

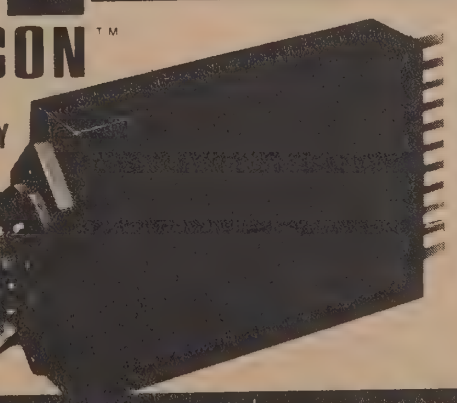
LAPOINTE INDUSTRIES, INC, ROCKVILLE .... **CONN**
SYSTRON DONNER CORP, CONCORD .... **CAL**
TECHMETRIC CO, REDWOOD CITY .... **CAL**
Acoustronics Inc, Huntington .... N Y
Affiliated Manufacturers Inc, Whitehouse .... N J
Agastat Div, Elastic Stop Nut Corp, Elizabeth .... N J
Airmec Instruments Ltd, Buckinghamshire .... England
Amelco Semiconductor, A Teledyne Co Mountain View .... Cal
American Astrionics Inc, Palo Alto .... Cal
Amperex Electronic Corp, Component Div Hauppauge .... N Y
Amperex Electronic Corp, Professional Tube Div, Hicksville .... NY
Amtron Inc, Midlothian Ill
Anadex Instruments, Inc, Van Nuys .... Cal
Applied Dynamics, Inc, Ann Arbor .... Mich
Avtron Mfg, Inc, Cleveland .... Ohio
Baird-Atomic, Inc, Cambridge .... Mass
Bay Engineering Co, San Francisco .... Cal
Bayside Timers, Inc, Flushing .... N Y
Beckman Instruments Inc, Fullerton, ... Cal
Beckman Instruments Intl SA, 1207 Geneva .... Switzerland
Binary Electronics of Cal Div Avionic Structures Inc Anaheim .... Cal
Bowmar Instrument Corp, Fort Wayne .... Ind
Burroughs Corp, Defense, Space & Spec Sys Group Paoli .... Pa
Burroughs Corp Electronic Components Div Plainfield .... N J
California Systems Components, Inc, Chatsworth .... Cal
Canberra Industries, Middletown .... Conn
Chadwick Helmuth Co Inc, Monrovia .... Cal
Chronetics Inc, Mount Vernon .... N Y
Chrono-Log Corp, Broomall .... Pa
Clare & Co, C P, Chicago Ill
CMC/Rutherford, San Fernando .... Cal
Coldspring Instrument Corp, Huntington .... N Y
Collins & Assoc Don L, Glendale .... Cal
Compagnie Generale de Metrologie Haute Savoie .... France
Components Corp, Denville .... NJ
Computer Logic Corp, Santa Monica .... Cal
Computer Products Inc, Fort Lauderdale .... Fla
Condor Industrial Corp, West Chicago Ill
Control Equipment Corp, Needham Heights .... Mass
Control Logic Inc, Natick .... Mass
Co-Ord Div LVC Industries Inc, Corona .... NY
Creative Electric Inc, Auburn .... N Y
Darcy Industries Inc, TSI Div, Santa Monica .... Cal
Datascan Inc, Clifton .... N J
Data Technology, Inc, Watertown .... Mass
DatCon Electronics Corp, Bayside .... NY
Datum Inc, Anaheim .... Cal
Decca Radar, Inc, New York .... N Y
Digital Products, San Pedro .... Cal
Discon Corp, Fort Lauderdale .... Fla
Dyna Metric Inc, Pasadena .... Cal
Dynamic System Electronics Corp, Tempe .... Ariz
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee Ill
Ebauches SA Dept Oscilloquartz 2001 Neuchatel .... Switz
E D P Corp, Orlando .... Fla
Eldorado Electronics, Concord .... Cal
Electro Circuits Inc, Lowell .... Mass
Electronic Counters Inc, Englewood .... N J
Electronic Modules Corp, Timonium .... Md
Electronics Corp of America, Cambridge .... Mass
Electro-Sonic-Control, Manteca .... Cal
Elesta Ltd Electronics, Bad Ragaz .... Switzerland
Emerson Electric Co, Indl Controls & Elctns Div St Louis .... Mo
EMI Electronics Ltd, Hayes, Middlesex .... England
E N M Co, Chicago Ill
EON Corp, Brooklyn .... N Y
Fairchild Instrumentation, Sunnyvale .... Cal

COUNT DOWN TO ECONOMY

9.
8.
7.
6.
5.
4.
3.
2.
1.

Unidirectional counting to 15 MC
Monolithic Integrated Circuitry used throughout
A full 16 ma of BCD output drive available in 4 line 8421 BCD Code.
Reset and Carry functions
Encapsulated package protects circuitry and enhances appearance
Complete interchangeability with competitive models
Price includes cold cathode neon tube
$55.00 with end-view tube (1-24 units)
$40.50 with side-view tube (1-24 units)

DATECON™
C-100
COUNT/DISPLAY MODULE



COMPLETE INTERCHANGEABILITY AT AN INCOMPARABLE PRICE

INTEGRATED CIRCUIT ELECTRONICS, INC.
P.O. Box 647 Waltham, Mass. 02154
Tel: (617) 899-2700 TWX: 710-324-0543

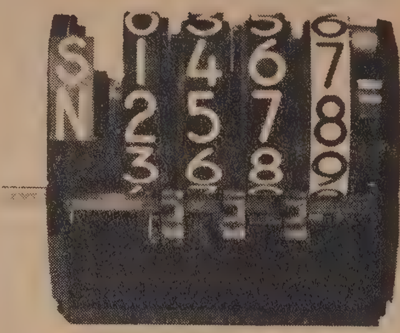
Fairchild Semiconductor Div Fairchild Cam & Inst Corp
  Mountain View .... Cal
Fisher-Akin Co, Manhattan Beach .... Cal
Fork Standards Inc, West Chicago Ill
Foster & Allen Inc, Chatham .... N J
General Electric Co, ECSO, Schenectady .... N Y
General Equipment & Mfg Co, Louisville .... Ky
General Radio Co, West Concord .... Mass
Guardian Electric Mfg Co of Cal Inc, Culver City .... Cal
Hamner Electronics Co Inc, Cleveland .... Ohio
Harshaw Chemical Co, Div Kewanee Oil Co
  Cleveland .... Ohio
Hecon Corp, New Shrewsbury .... N J
Hewlett-Packard, Palo Alto .... Cal
Hird-Brown Ltd, Bolton, Lancs .... England
Honeywell Inc, Computer Control Div
  Framingham .... Mass
Humphrey Electronics Inc, Raleigh .... N C
Icon Corp, Cambridge .... Mass
IKL Inc, Newport Beach .... Cal
Information Control Corp, El Segundo .... Cal
Information Instruments, Inc, Ann Arbor .... Mich
Integrated Circuit Electronics Inc, Waltham .... Mass
Intellux Inc, Goleta .... Cal
Intercontinental Electronics Corp, Fairport .... N Y
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Iwatsu Electric Co Ltd, Tokyo .... Japan
J A C Electronics Ltd, Camberley .... England
Janus Control Div Tyco, Waltham .... Mass
Kessler-Ellis Products Co, Atlantic Highlands .... N J
Laben S p A, Milan .... Italy
Landis & Gyr AG, Zug .... Switzerland
LaPointe Industries, Inc, Rockville .... Conn
La Telemecanique Electrique, 92 Rueil .... France
LeCroy Research Systems Corp, West Nyack .... N Y
Logitek Inc, Farmingdale .... N Y
Louis Allis Co Div Litton Industries, Milwaukee .... Wisc
Ludlum Measurements Inc, Sweetwater .... Tex
Machinery Electrification Inc, Northboro .... Mass
McGraw-Edison Power Systems Div, Milwaukee .... Wis
Mesa Co, Bristol .... Pa
Metox, Paris 20 .... France
Micro Instrument Co, Hawthorne .... Cal
Milletron, Inc, Pittsburgh .... Pa
Molecular Research Inc, Palm Beach Gardens .... Fla
Monitor Systems Inc, Fort Washington .... Pa
Monsanto Elec Tech Center, West Caldwell .... N J
Nanosecond Systems Inc, Fairfield .... Conn
Navigation Computer Corp, Norristown .... Pa
Northeastern Engineering Inc, Manchester .... NH
Nuclear-Chicago Corp, Des Plaines Ill
Nuclear Enterprises Ltd, Edinburgh 11 .... Scotland
Nuclear Equipment Chemical Corp, Farmingdale .... N Y
Nuclear Supplies, Encino .... Cal
Numex Corp, Waltham .... Mass
NUS Corp, Underwater Sys Div, Paramus .... N J
Parabam Inc, Hawthorne .... Cal
Park Lane Research Labs, New Milford .... Conn
Peco Corp, Mountain View .... Cal
Performance Measurements Co, Detroit .... Mich
Philco-Ford Corp, Washington .... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Pinlites, Inc, Fairfield .... N J
Plessey Airborne Corp, Hillside .... NJ
Presin Co Inc, Shelton .... Conn
Quantum Electronics Corp, San Ramon .... Cal
Radix Electronics Corp, Anaheim .... Cal
RC-95 Inc, New York .... N Y
RIL Electronics Inc, Southampton .... Pa
Rosemount Plug-In Inc, Nashville .... Tenn
Rotax Ltd, London NW 10 .... Eng
Rowan Controller Co, Oceanport .... N J
Schlumberger, 92-Montrouge 32 .... France
Schneider Radio-Television Div, Ivry .... France
Sensor Corp, Greenwich .... Conn
Space Craft Inc, Huntsville .... Ala
Space & Systems Div General Time Corp
  Stamford .... Conn
Standard Instrument Corp Div Automatic Timing & Controls
  Inc, King of Prussia .... Pa
Stern Co Inc M L, Charlotte .... N C
Stevens Mfg Co Inc, Geo, Chicago Ill
Strandberg Engineering Labs Inc, Greensboro .... N C
Systron Donner Corp, Concord .... Cal
Takeda Riken Industry Co Ltd, Tokyo .... Japan
Tateisi Electronics Co, Ukyo-ku, Kyoto .... Japan
Techmetric Co, Redwood City .... Cal
The Nucleus, Oak Ridge .... Tenn
Thorn Automation Ltd, Rugeley, Staffs .... England
Troxler Electronic Labs Inc, Raleigh .... N C
U S Microwave, Delran .... N J
Universal Comptronics Div Microwave Corp of Amer
  Thornwood .... N Y
Universal Mfg Co Inc, Irvington .... N J
Veeder-Root, Hartford .... Conn
Venner Electronics Ltd, New Malden, Surrey .... Eng
Vitro Labs Div Vitro Corp of America, Silver Spring .... Md
Vitro Labs Div Vitro Corp of America, W Orange .... N J
Walkirt Co, Los Angeles .... Cal
Watesta Electronics Ltd, London-E 11 .... England
Wer Industrial Corp, Buffalo .... N Y
Zehntel Inc, Berkeley .... Cal

COUNTERS, ELECTRONIC--EVENT

ANRITSU ELECTRIC CO LTD, TOKYO .... JAPAN
BOWMAR INSTRUMENT CORP, FORT WAYNE
  IND .... ADV PG 230
DATA TECHNOLOGY, INC, WATERTOWN .... MASS
FORK STANDARDS INC, WEST CHICAGO ILL
HEWLETT-PACKARD, PALO ALTO .... CAL
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND .... OHIO
LAPOINTE INDUSTRIES, INC, ROCKVILLE .... CONN
SYSTRON DONNER CORP, CONCORD .... CAL
TECHMETRIC CO, REDWOOD CITY .... CAL
American Astrionics Inc, Palo Alto .... Cal
Anadex Instruments, Inc, Van Nuys .... Cal
Anritsu Electric Co Ltd, Tokyo .... Japan
Avtron Mfg, Inc, Cleveland .... Ohio
Baird-Atomic, Inc, Cambridge .... Mass
Bay Engineering Co, San Francisco .... Cal
Beckman Instruments Inc, Fullerton, ... Cal
Beckman Instruments Intl SA,
  1207 Geneva .... Switzerland
Bendix Corp, Communications Div, Towson .... Md
Bissett-Berman Corp, Santa Monica .... Cal
Bowmar Instrument Corp, Fort Wayne .... Ind
Canberra Industries, Middletown .... Conn
Chronetics Inc, Mount Vernon .... N Y
Chrono-Log Corp, Broomall .... Pa
Clare & Co, C P, Chicago Ill
Coldspring Instrument Corp, Huntington .... N Y
Compagnie Generale de Metrologie
  Haute Savoie .... France
Computer Logic Corp, Santa Monica .... Cal
Condor Industrial Corp, West Chicago Ill
Conductron Corp, Ann Arbor .... Mich
Control Equipment Corp, Needham Heights .... Mass
Control Logic Inc, Natick .... Mass
Cooke Engineering Co, Alexandria .... Va
Co-Ord Div LVC Industries Inc, Corona .... NY
Cox Instruments Div Lynch Corp, Detroit .... Mich
Creative Electric Inc, Auburn .... N Y
Daniel Industries, Inc, Houston .... Tex
Datascan Inc, Clifton .... N J
Data Technology, Inc, Watertown .... Mass
Datum Inc, Anaheim .... Cal
Di/An Controls Inc, Boston .... Mass
Digital Products, San Pedro .... Cal
Dyna Metric Inc, Pasadena .... Cal
Dynapar Digital Center, Louis Allis Co Div Litton Ind
  Gurnee Ill
E D P Corp, Orlando .... Fla
Eldorado Electronics, Concord .... Cal
Electro Circuits Inc, Lowell .... Mass
Electronic Counters Inc, Englewood .... N J
Electronics Corp of America, Cambridge .... Mass
Elesta Ltd Electronics, Bad Ragaz .... Switzerland
Emerson Electric Co, Indl Controls & Elctns Div
  St Louis .... Mo
EON Corp, Brooklyn .... N Y
Fairchild Instrumentation, Sunnyvale .... Cal
Fork Standards Inc, West Chicago Ill
Grason Stadler Co Inc, West Concord .... Mass
Guardian Electric Mfg Co of Cal Inc, Culver City .... Cal
Hamner Electronics Co Inc, Cleveland .... Ohio
Harshaw Chemical Co, Div Kewanee Oil Co
  Cleveland .... Ohio
Harvard Apparatus Co Inc, Millis .... Mass
Hathaway Pacific Corp, Palo Alto .... Cal
Haydon Products, Ind Controls Div Gen Time Corp,
  Torrington .... Conn
Hecon Corp, New Shrewsbury .... N J
Heli-Coil Products, Div Heli-Coil Corp, Danbury .... Conn
Heuer Electronics Corp, Norwalk .... Conn
Hewlett-Packard, Palo Alto .... Cal
Hickok Electrical Instrument Co, Cleveland .... Ohio
Hickok Teaching Systems Inc, Cambridge .... Mass
Hird-Brown Ltd, Bolton, Lancs .... England
Honeywell Industrial Div, Fort Washington .... Pa
Honig Laboratories Inc, Westbury .... N Y
Humphrey Electronics Inc, Raleigh .... N C
IKL Inc, Newport Beach .... Cal
Instrumentation & Control Systems Inc, Addison Ill
Intellux Inc, Goleta .... Cal
Intercontinental Electronics Corp, Fairport .... N Y
Iwatsu Electric Co Ltd, Tokyo .... Japan
J A C Electronics Ltd, Camberley .... England
Janus Control Div Tyco, Waltham .... Mass
Kahl Scientific Instrument Corp, El Cajon .... Cal
Kameco Ltd, Montreal .... Que
Kessler-Ellis Products Co, Atlantic Highlands .... N J
Laben S p A, Milan .... Italy
LaPointe Industries, Inc, Rockville .... Conn
Larson Aero Development, Concord .... Cal
Logitek Inc, Farmingdale .... N Y
Louis Allis Co Div Litton Industries, Milwaukee .... Wisc
Ludlum Measurements Inc, Sweetwater .... Tex
Mesa Co, Bristol .... Pa
Milletron, Inc, Pittsburgh .... Pa
Molecular Research Inc, Palm Beach Gardens .... Fla
Monsanto Elec Tech Center, West Caldwell .... N J
NanoFast, Inc, Chicago Ill
Nanosecond Systems Inc, Fairfield .... Conn
Navigation Computer Corp, Norristown .... Pa
Northeastern Engineering Inc, Manchester .... NH
Nuclear Enterprises Ltd, Edinburgh 11 .... Scotland
Nuclear Equipment Chemical Corp, Farmingdale .... N Y
Numex Corp, Waltham .... Mass
Parabam Inc, Hawthorne .... Cal
Park Lane Research Labs, New Milford .... Conn
Plessey Airborne Corp, Hillside .... NJ
Preston Scientific, Inc, Anaheim .... Cal
Rawco Instruments Inc, Fort Worth .... Tex
Rosemount Plug-In Inc, Nashville .... Tenn
Rotax Ltd, London NW 10 .... Eng
Schlumberger, 92-Montrouge 32 .... France
Signet Controls Inc, Tulsa .... Okla
Space & Systems Div General Time Corp
  Stamford .... Conn
Standard Instrument Corp Div Automatic Timing & Controls
  Inc, King of Prussia .... Pa

Stark Electronic Instruments Ltd, Ajax .... Ont
Stern Co Inc M L, Charlotte .... N C
Strandberg Engineering Labs Inc, Greensboro .... N C
Streeter-Amet, Grayslake Ill
Systron Donner Corp, Concord .... Cal
Takeda Riken Industry Co Ltd, Tokyo .... Japan
Techmetric Co, Redwood City .... Cal
Telecontrol Corp, Old Greenwich .... Conn
Time Systems Corp, Mountain View .... Cal
Troxler Electronic Labs Inc, Raleigh .... N C
U S Microwave, Delran .... N J
Universal Comptronics Div Microwave Corp of Amer
  Thornwood .... N Y
Universal Mfg Co Inc, Irvington .... N J

BOWMAR Precision COUNTERS



BOWMAR REVERSING
NAVIGATIONAL COUNTER

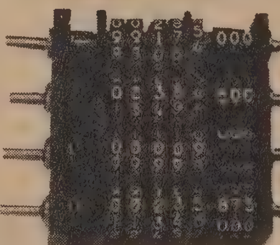
The Ultimate In:

HIGH-SPEED
LOW-TORQUE
LIGHT-WEIGHT
MINIATURIZED RELIABILITY

Single-Bank display of latitude or longitude, and other navigational or decimal information is provided in Bowmar reversing counters; which reverse automatically with same direction of shaft rotation at zero or high points. Two to six drums.

Bowmar has unsurpassed capabilities in the design, manufacturing, and testing of:

REVERSING COUNTERS
ELAPSED TIME INDICATORS
EXTERNAL PINION COUNTERS
INTERNAL PINION COUNTERS
VARIATION COUNTERS
IMPULSE COUNTERS



Bowmar offers counters which satisfy every type equipment and application conceivable in electro-mechanical counting instrumentation. Bowmar's position of excellence has been earned through proven engineering competence, highly refined manufacturing and quality assurance programs. We also have the techniques and physical facilities to respond to critical needs, environmental testing and delivery requirements.

Additional Data Available From

BOWMAR
INSTRUMENT CORPORATION
8000 Bluffton Road
Fort Wayne, Indiana 46809

Veeder-Root, Hartford	Conn
Venner Electronics Ltd, New Malden, Surrey	Eng
Vitro Labs Div Vitro Corp of America, Silver Spring	Md
Vitro Labs Div Vitro Corp of America, W Orange	N J
Watesta Electronics Ltd, London-E 11	England
Zehntel Inc, Berkeley	Cal

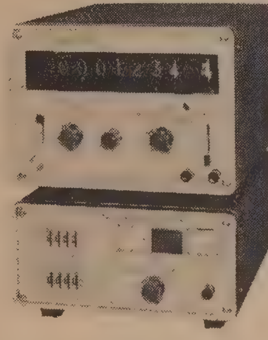
EBG — the industry's store.

Your marketplace for products

COUNTERS, ELECTRONIC--FREQUENCY

ANRITSU ELECTRIC CO LTD, TOKYO, JAPAN	**ADV PG 231**
DATA TECHNOLOGY, INC, WATERTOWN	**MASS**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HEWLETT-PACKARD, PALO ALTO, CAL	**ADV PG 232**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND OHIO	**ADV PG 231**
LAPOINTE INDUSTRIES, INC, ROCKVILLE	**CONN**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
SYSTRON DONNER CORP, CONCORD, CAL	**ADV PG 231**
TECHMETRIC CO, REDWOOD CITY	**CAL**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
Ad-Yu Electronics Inc, Passaic	N J
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Agastat Div, Elastic Stop Nut Corp, Elizabeth	N J
Airmec Instruments Ltd, Buckinghamshire	England
Amark Corp, Plainview	N Y
American Astrionics Inc, Palo Alto	Cal
American Electronic Controls Inc, Philadelphia	Pa
Anadex Instruments, Inc, Van Nuys	Cal
Ando Electric Co Ltd, Ohta-ku, Tokyo	Japan
Anritsu Electric Co Ltd, Tokyo	Japan
Automation Management, Inc, Westboro	Mass
Avtron Mfg, Inc, Cleveland	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Canberra Industries, Middletown	Conn
CMC/Rutherford, San Fernando	Cal
Coldspring Instrument Corp, Huntington	N Y
Communication Electronics Inc, Rockville	Md
Components Corp, Denville	NJ
Computer Logic Corp, Santa Monica	Cal
Condor Industrial Corp, West Chicago	Ill
Control Logic Inc, Natick	Mass
Cox Instruments Div Lynch Corp, Detroit	Mich
Creative Electric Inc, Auburn	N Y
Darcy Industries Inc, TSI Div, Santa Monica	Cal
Datascan Inc, Clifton	N J
Data Technology, Inc, Watertown	Mass
Datum Inc, Anaheim	Cal
Dawe Instruments Ltd, London W3	England
Digital Products, San Pedro	Cal
Dynamic Precision Controls Corp, Hagerstown	Ind
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee	Ill
Eldorado Electronics, Concord	Cal
Electro Circuits Inc, Lowell	Mass
Electronic Counters Inc, Englewood	N J
Emerson Electric Co, Indl Controls & Elctns Div St Louis	Mo
EON Corp, Brooklyn	N Y
Fairchild Instrumentation, Sunnyvale	Cal
General Electric Co, ECSO, Schenectady	N Y
General Radio Co, West Concord	Mass
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Information Instruments, Inc, Ann Arbor	Mich
Intercontinental Electronics Corp, Fairport	N Y
Iwatsu Electric Co Ltd, Tokyo	Japan
J A C Electronics Ltd, Camberley	England
Janus Control Div Tyco, Waltham	Mass
Kay Electric Co, Pine Brook	N J
Kinsekisha Lab Ltd, Tokyo	Japan
Laben S p A, Milan	Italy
LaPointe Industries, Inc, Rockville	Conn
Logitek Inc, Farmingdale	N Y
Loral Electronic Systems, Div Loral Corp, New York	NY
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Mesa Co, Bristol	Pa
Metric Systems Corp, Fort Walton Beach	Fla
Milletron, Inc, Pittsburgh	Pa
Monsanto Elec Tech Center, West Caldwell	N J
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
NanoFast, Inc, Chicago	Ill
Nanosecond Systems Inc, Fairfield	Conn
Northeastern Engineering Inc, Manchester	NH
Nuclear-Chicago Corp, Des Plaines	Ill
NUS Corp, Underwater Sys Div, Paramus	N J
Oki Electric Industry Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Preston Scientific, Inc, Anaheim	Cal
Rosemount Plug-In Inc, Nashville	Tenn
Schlumberger, 92-Montrouge 32	France
Schneider Radio-Television Div, Ivry	France
Space Craft Inc, Huntsville	Ala
Space & Systems Div General Time Corp Stamford	Conn
Spedcor Electronics Inc, Glendale	N Y
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa

10MHz, 40MHz, 100MHz, IC universal counters family



MF47A	MF48A/B/C	MF51A/B/C
30mV ~ 300V		10mV ~ 300V
1 x 10^{-6}/day	A; 5 x 10^{-8}/day, B; 5 x 10^{-9}/day, C; 2 x 10^{-9}/day	
0.1Hz ~ 10MHz	0.1Hz ~ 40MHz	10Hz ~ 100MHz
0.067μs ~ 0.1s	0.067μs ~ 10s	0.067μs ~ 0.1s
0.1Hz ~ 10MHz/ 1kHz ~ 1MHz	0.1Hz ~ 40MHz/ 1kHz ~ 1MHz	10Hz ~ 100MHz/ 1kHz ~ 1MHz

Applications; 1000MHz frequency converter, MH62C; 500MHz frequency divider, MH57A; Time interval unit, MH31B; Digital difference calculator, MH35A; etc.

Anritsu Electric Co., Ltd

12-20, Minamiazabu 4-chome, Minato-ku, Tokyo, Japan
Phone: Tokyo 442-8171/ Telex: 0242-2353
Cable: ANRITDENKI TOKYO

Electronic counters

Systron-Donner offers a comprehensive line of electronic counters, ranging from simple 12.4 MHz frequency meters (at $395) to fully-automatic microwave counters with range to 40 GHz and time base stability as high as 5 parts in 10^{10} per 24 hours. Many counters possess unique measuring capabilities, not available elsewhere in standard off-the-shelf hardware. All recent designs use modern integrated circuits to enhance reliability and reduce cost.

Send for catalog

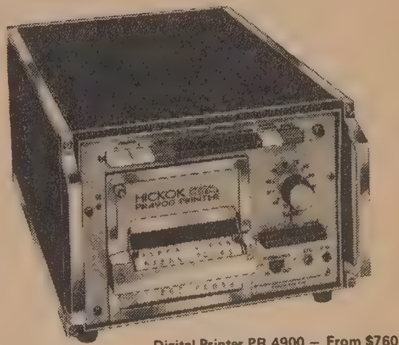
SYSTRON DONNER

Electronic Instrument Division,
888 Galindo St., Concord, Calif. 94520.
Phone (415) 682-6161. TWX 415-687-3200.

HICKOK

DMS-3200

Digital Measuring System
(Fully solid state with IC's)



Digital Printer PR 4900 – From $760

Main Frame DMS 3200A – $375
(or DMS 3200P Main Frame with printer output – $450)
Shown with DC Voltmeter Plug-in

DC Voltmeter
Plug-in DP 100
$175

Event Counter
Plug-in DP 140
$90

1 MHz Counter
Plug-in DP 150A
$230

Ohmmeter
Plug-in DP 170
$275

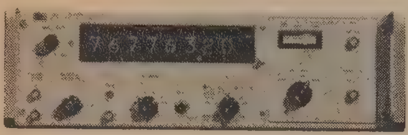
Capacity Meter
Plug-in DP 200
$275

The HICKOK DMS 3200 Digital Measuring System is a precision electronic measuring device which displays readings in digital form instead of the relatively inaccurate and difficult-to-read moving-pointer meter display. A companion PR 4900 Digital Printer allows the displayed readings of the DMS 3200 System to be printed in permanent form for storage and future reference.

Because the DMS 3200 System consists of a main frame which will accept a number of "plug-in" units, it can be used to measure a variety of electrical parameters. The main frame provides display of the reading; the plug-in determines the application.

THE HICKOK ELECTRICAL INSTRUMENT COMPANY
10514 Dupont Avenue • Cleveland, Ohio 44108

ELECTRONIC
COUNTERS



A wide selection from low cost ($350!) integrated circuit 10 MHz models to extremely versatile models accepting plug-in accessories for counting to 18 GHz and performing other tasks.

- Preset Counters
- Reversible Counters
- Time Interval Counters
- Microwave Counting Accessories

HEWLETT hp PACKARD

Stark Electronic Instruments Ltd, Ajax	Ont
Stern Co Inc M L, Charlotte	N C
Strandberg Engineering Labs Inc, Greensboro	N C
Systems Electronics Inc, Cleveland	Ohio
Systron Donner Corp, Concord	Cal
Takeda Riken Industry Co Ltd, Tokyo	Japan
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Techmetric Co, Redwood City	Cal
Technology/Versatronics Inc, Yellow Springs	Ohio
Time Systems Corp, Mountain View	Cal
Tokyo Electric Co Ltd, Tokyo	Japan
U S Microwave, Delran	N J
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Venner Electronics Ltd, New Malden, Surrey	Eng
Vidar Corp, Mountain View	Cal
Vitro Labs Div Vitro Corp of America, Silver Spring	Md
Vogue Instrument Corp, Plainview	NY
Wang Labs Inc, Tewksbury	Mass
Watesta Electronics Ltd, London-E 11	England
Wer Industrial Corp, Buffalo	N Y
Weston Lexington Weston Instruments Div Lexington	Mass
Winslow Tele-Tronics Inc, Asbury Park	NJ
Zehntel Inc, Berkeley	Cal

COUNTERS, ELECTRONIC--PULSE

BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT	**IOWA**
FORK STANDARDS INC, WEST CHICAGO	**ILL**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
ICON CORP, CAMBRIDGE	**MASS**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
TECHMETRIC CO, REDWOOD CITY	**CAL**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
Advanced Technology Corp, Chambersburg	Pa
Agastat Div, Elastic Stop Nut Corp, Elizabeth	N J
Airmec Instruments Ltd, Buckinghamshire	England
Amark Corp, Plainview	N Y
American Astrionics Inc, Palo Alto	Cal
Amtron Inc, Midlothian	Ill
Anadex Instruments, Inc, Van Nuys	Cal
Ando Electric Co Ltd, Ohta-ku, Tokyo	Japan
Avtron Mfg, Inc, Cleveland	Ohio
Baird-Atomic, Inc, Cambridge	Mass
Bay Engineering Co, San Francisco	Cal
Bayside Timers, Inc, Flushing	N Y
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Bowmar Instrument Corp, Fort Wayne	Ind
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Canberra Industries, Middletown	Conn
Charter Labs Inc, East Northport	NY
Chronetics Inc, Mount Vernon	N Y
Chrono-Log Corp, Broomall	Pa
CMC/Rutherford, San Fernando	Cal
Coldspring Instrument Corp, Huntington	N Y
Collins & Assoc Don L, Glendale	Cal
Components Corp, Denville	NJ
Computer Logic Corp, Santa Monica	Cal
Condor Industrial Corp, West Chicago	Ill
Control Logic Inc, Natick	Mass
Co-Ord Div LVC Industries Inc, Corona	NY
Cox Instruments Div Lynch Corp, Detroit	Mich
Daniel Industries, Inc, Houston	Tex
Datascan Inc, Clifton	N J
Datum Inc, Anaheim	Cal
Decca Radar, Inc, New York	N Y
De-Tec-Tronic Corp, Chicago	Ill
Di/An Controls Inc, Boston	Mass
Digital Products, San Pedro	Cal
Digit Co Inc, Marblehead	Mass
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee	Ill
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Ebauches SA Dept Oscilloquartz 2001 Neuchatel	Switz
E D P Corp, Orlando	Fla
E G & G Inc Laboratory Prods Div, Goleta	Cal
Eldorado Electronics, Concord	Cal
Electro Circuits Inc, Lowell	Mass
Electronic Counters Inc, Englewood	N J
Electro-Sonic-Control, Manteca	Cal
Elesta Ltd Electronics, Bad Ragaz	Switzerland
Emerson Electric Co, Indl Controls & Elctns Div St Louis	Mo
EMI Electronics Ltd, Hayes, Middlesex	England
E N M Co, Chicago	Ill
EON Corp, Brooklyn	N Y
Fairchild Instrumentation, Sunnyvale	Cal
Fisher-Akin Co, Manhattan Beach	Cal
Flow Technology Inc, Tempe	Ariz
Fork Standards Inc, West Chicago	Ill
General Equipment & Mfg Co, Louisville	Ky
Giannini-Voltex, Whittier	Cal
Grason Stadler Co Inc, West Concord	Mass
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Hamner Electronics Co Inc, Cleveland	Ohio
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland	Ohio
Haydon Products, Ind Controls Div Gen Time Corp, Torrington	Conn
Hecon Corp, New Shrewsbury	N J
Heidenhain Corp, Miles	Ill
Heli-Coil Products, Div Heli-Coil Corp, Danbury	Conn
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Hird-Brown Ltd, Bolton, Lancs	England
Honeywell Industrial Div, Fort Washington	Pa
Humphrey Electronics Inc, Raleigh	N C
Icon Corp, Cambridge	Mass
IKL Inc, Newport Beach	Cal
Information Instruments, Inc, Ann Arbor	Mich
Iwatsu Electric Co Ltd, Tokyo	Japan
J A C Electronics Ltd, Camberley	England
Janus Control Div Tyco, Waltham	Mass
Kessler-Ellis Products Co, Atlantic Highlands	N J
Kobe Industries Corp, Kobe	Japan
Laben S p A, Milan	Italy
Landis & Gyr AG, Zug	Switzerland
LeCroy Research Systems Corp, West Nyack	N Y
Logitek Inc, Farmingdale	N Y
Loral Electronic Systems, Div Loral Corp, New York	NY
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Ludlum Measurements Inc, Sweetwater	Tex
McKee-Pedersen Instruments, Danville	Cal
Mesa Co, Bristol	Pa
Metrological Data Corp, Garfield	N J
Milgo Electronic Corp, Miami	Fla
Milletron, Inc, Pittsburgh	Pa
Molecular Research Inc, Palm Beach Gardens	Fla
Monsanto Elec Tech Center, West Caldwell	N J
NanoFast, Inc, Chicago	Ill
Nanosecond Systems Inc, Fairfield	Conn
Navigation Computer Corp, Norristown	Pa
Northeast Electronics Corp, Concord	N H
Nuclear-Chicago Corp, Des Plaines	Ill
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Nuclear Supplies, Encino	Cal
Numex Corp, Waltham	Mass
Parabam Inc, Hawthorne	Cal
Pennwood Numechron Co Tymeter Electronics Pittsburgh	Pa
Plessey Airborne Corp, Hillside	NJ
Presin Co Inc, Shelton	Conn
Pulse Communications Inc, Falls Church	Va
Regent Controls Inc, Stamford	Conn
RIL Electronics Inc, Southampton	Pa
Robertson Instrument Co, Azusa	Cal
Rockwell Mfg Co, Msmt & Control Div, Pittsburgh	Pa
Rosemount Plug-In Inc, Nashville	Tenn
Schlumberger, 92-Montrouge 32	France
Science Accessories Corp, Southport	Conn
Sensor Corp, Greenwich	Conn
Servo Development Corp, Hicksville	N Y
Space Craft Inc, Huntsville	Ala
Space & Systems Div General Time Corp Stamford	Conn
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Stark Electronic Instruments Ltd, Ajax	Ont
Stern Co Inc M L, Charlotte	N C
Strandberg Engineering Labs Inc, Greensboro	N C
Streeter-Amet, Grayslake	Ill
Takeda Riken Industry Co Ltd, Tokyo	Japan
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Techmetric Co, Redwood City	Cal
Techrand Corp of America, Muskegon	Mich
The Nucleus, Oak Ridge	Tenn
Tokyo Electric Co Ltd, Tokyo	Japan
Troxler Electronic Labs Inc, Raleigh	N C
U S Microwave, Delran	N J
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Universal Mfg Co Inc, Irvington	N J
Veeder-Root, Hartford	Conn
Venner Electronics Ltd, New Malden, Surrey	Eng
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Victoreen Instrument Div, Cleveland	Ohio
Vitro Labs Div Vitro Corp of America, Silver Spring	Md
Wang Labs Inc, Tewksbury	Mass
Watesta Electronics Ltd, London-E 11	England
Wer Industrial Corp, Buffalo	N Y
Wintriss Controls Div Industronics Controls Inc New York	N Y
Zehntel Inc, Berkeley	Cal

COUNTERS--GEIGER SEE COUNTERS--NUCLEAR PARTICLE

COUNTERS--MECHANICAL

BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
CHICAGO DYNAMIC INDUSTRIES INC, PRECISION PRODS DIV CHICAGO	**ILL**
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT	**IOWA**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
Affiliated Manufacturers Inc, Whitehouse	N J
Amerac, Inc, Beverly	Mass
Beckman Instruments Inc, Fullerton,	Cal
Bowmar Instrument Corp, Fort Wayne	Ind
Canberra Industries, Middletown	Conn
Chicago Dynamic Industries Inc, Precision Prods Div Chicago	Ill
Clare & Co, C P, Chicago	Ill
Counting Instruments Ltd, Hertfordshire	England
Durant Mfg Co, Milwaukee	Wis
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Electric Tachometer Corp, Philadelphia	Pa
Engler Instrument Co, Jersey City	N J
E N M Co, Chicago	Ill
Ericsson Centrum Inc, New York	N Y
General Equipment & Mfg Co, Louisville	Ky
Haydon Co The, A W, Waterbury	Conn
Haydon Switch & Instrument Inc, Waterbury	Conn
Hecon Corp, New Shrewsbury	N J
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kessler-Ellis Products Co, Atlantic Highlands	N J
Landis & Gyr, Inc, New York	N Y
Mast Development Co, Davenport	Iowa
McGraw-Edison Power Systems Div, Milwaukee	Wis
Olympic Instruments Inc, Vashon	Wash
Orbit Instrument Corp, Syosset	N Y
Parabam Inc, Hawthorne	Cal
Pennsalt Chemicals Corp Equipment Div Philadelphia	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Planet Instrument Inc, Ft Wayne	Ind
Presin Co Inc, Shelton	Conn
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Redington Counters Inc, Windsor	Conn
Robertson Instrument Co, Azusa	Cal
Rockwell Mfg Co, Msmt & Control Div, Pittsburgh	Pa
Servo Development Corp, Hicksville	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Solari & C/Udine, Udine	Italy
Space & Systems Div General Time Corp Stamford	Conn
Sterling Instrument Div, Designatronics Inc Mineola	N Y
Stevens Mfg Co Inc, Geo, Chicago	Ill
Sticht Co Inc, Herman H, New York	N Y
Tamura Electric Works Ltd, Tokyo	Japan
Tokyo Electric Co Ltd, Tokyo	Japan
Veeder-Root, Hartford	Conn
Zero-Max Co, Minneapolis	Minn

COUNTERS--NUCLEAR PARTICLE SEE ALSO CHAMBERS--IONIZATION

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE	**NY**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HEWLETT-PACKARD, PALO ALTO	**CAL**
TECHMETRIC CO, REDWOOD CITY	**CAL**
AB Atomenergi, 10072 Stockholm 43	Sweden
Ambco Electronics, Los Angeles	Cal
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Anadex Instruments, Inc, Van Nuys	Cal
Analog Technology Corp, Pasadena	Cal
Bailey Co, Washington	D C
Baird-Atomic, Inc, Cambridge	Mass
Beckman Instruments Inc, Fullerton,	Cal
Canadian Research Institute, Don Mills	Ont
Canberra Industries, Middletown	Conn
Chronetics Inc, Mount Vernon	N Y
Collins & Assoc Don L, Glendale	Cal
Darcy Industries Inc, TSI Div, Santa Monica	Cal
Eberline Instrument Corp, Santa Fe	N M
E G & G Inc Laboratory Prods Div, Goleta	Cal
Electro-Neutronics Inc, Oakland	Cal
Electronic Specialty Co, Los Angeles	Cal

Electrospace Corp, Glen Cove	N Y
EMI Electronics Ltd, Hayes, Middlesex	England
EON Corp, Brooklyn	N Y
General Electric Co, ECSO, Schenectady	N Y
Hamner Electronics Co Inc, Cleveland	Ohio
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland	Ohio
Hewlett-Packard, Palo Alto	Cal
Hill Inc E Vernon, San Francisco	Cal
Humphrey Electronics Inc, Raleigh	N C
Industrial Electronic Hardware Corp, New York	N Y
Intertechnique, Plaisir, 78	France
Isomet Corp, Palisades Park	N J
Isotopes A Teledyne Co, Westwood	N J
Janus Control Div Tyco, Waltham	Mass
Johnston Labs, Inc, Baltimore	Md
Kahl Scientific Instrument Corp, El Cajon	Cal
Kobe Industries Corp, Kobe	Japan
Laben S p A, Milan	Italy
Landis & Gyr, Inc, New York	N Y
Landsverk Electrometer Co, Glendale	Cal
LeCroy Research Systems Corp, West Nyack	N Y
Lockheed Georgia Nuclear Lab, Marietta	Ga
Ludlum Measurements Inc, Sweetwater	Tex
Milletron, Inc, Pittsburgh	Pa
Nanosecond Systems Inc, Fairfield	Conn
Nuclear-Chicago Corp, Des Plaines	Ill
Nuclear Corp of America, Nuclear Div, Denville	N J
Nuclear Development Lab, Inc, Kansas City	Mo
Nuclear Diodes, Inc, Prairie View	Ill
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Nuclear Measurements Corp, Indianapolis	Ind
Nuclear Supplies, Encino	Cal
Packard Instrument Co, Inc, Downers Grove	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Picker Nuclear, White Plains	N Y
Quantum Electronics Corp, San Ramon	Cal
Randam Electronics Inc, Cincinnati	Ohio
Reuter-Stokes Electronic Components Inc Cleveland	Ohio
RIL Electronics Inc, Southampton	Pa
Solid State Radiations Inc, Los Angeles	Cal
Stark Electronic Instruments Ltd, Ajax	Ont
Techmetric Co, Redwood City	Cal
The Nucleus, Oak Ridge	Tenn
Tracerlab, Div Lab for Electronics Inc, Waltham	Mass
Troxler Electronic Labs Inc, Raleigh	N C
20th Century Electronics Ltd New Addington, Surrey	England
Universal Transistor Products Div Link, Copiague	N Y
Victoreen Instrument Div, Cleveland	Ohio
Westinghouse Electric Corp, Tube Div, Elmira	NY
Wood Counter Laboratory Inc, N, Chicago	Ill

COUNTERS--PHOTOELECTRIC

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH	**VA**
TECHMETRIC CO, REDWOOD CITY	**CAL**
Affiliated Manufacturers Inc, Whitehouse	N J
Airmec Instruments Ltd, Buckinghamshire	England
Amtron Inc, Midlothian	Ill
Anadex Instruments, Inc, Van Nuys	Cal
Baldwin Electronics Inc, Little Rock	Ark
Darcy Industries Inc, TSI Div, Santa Monica	Cal
Data Sensors Inc, Addison	Ill
Decca Radar, Inc, New York	N Y
De-Tec-Tronic Corp, Chicago	Ill
Digit Co Inc, Marblehead	Mass
Dolan Jenner Industries Inc, Melrose	Mass
Durant Mfg Co, Milwaukee	Wis
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee	Ill
Electronic Control Corp, Detroit	Mich
Electronics Corp of America, Cambridge	Mass
Electron Machine Co, Umatilla	Fla
Elesta Ltd Electronics, Bad Ragaz	Switzerland
E N M Co, Chicago	Ill
Frost Electronics Corp, Rockaway	N J
General Electric Co, ECSO, Schenectady	N Y
Heuer Electronics Corp, Norwalk	Conn
Hird-Brown Ltd, Bolton, Lancs	England
Infrared Industries Inc, Santa Barbara	Cal
Instrumentation & Control Systems Inc, Addison	Ill
J A C Electronics Ltd, Camberley	England
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Machinery Electrification Inc, Northboro	Mass
Mandrel Industries Inc, Houston	Tex
Mechanical Technology Inc, Latham	N Y
Melpar Inc, Special Prods Dept, Falls Church	Va
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Park Lane Research Labs, New Milford	Conn
Photobell Co Inc, New York	N Y
Remex Electronics, Hawthorne	Cal
RIL Electronics Inc, Southampton	Pa
Robertson Instrument Co, Azusa	Cal
Royco Instruments Inc, Menlo Park	Cal
Science Accessories Corp, Southport	Conn
Sensor Corp, Greenwich	Conn
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Strandberg Engineering Labs Inc, Greensboro	N C
Techmetric Co, Redwood City	Cal
Thorn Automation Ltd, Rugeley, Staffs	England
Universal Mfg Co Inc, Irvington	N J
Veeder-Root, Hartford	Conn
Watesta Electronics Ltd, London-E 11	England
Wer Industrial Corp, Buffalo	N Y
Wintriss Controls Div Industronics Controls Inc New York	N Y

COUNTERS--PHOTON

Analog Technology Corp, Pasadena	Cal
Baird-Atomic, Inc, Cambridge	Mass
E N M Co, Chicago	Ill
EON Corp, Brooklyn	N Y
GCA Technology Div GCA Corp, Bedford	Mass
Hamner Electronics Co Inc, Cleveland	Ohio
International Light Inc, Newburyport	Mass
ITT Industrial Labs Div, Fort Wayne	Ind
Kahl Scientific Instrument Corp, El Cajon	Cal
Nuclear-Chicago Corp, Des Plaines	Ill
Nuclear Diodes, Inc, Prairie View	Ill
Nuclear-Enterprises Ltd, Edinburgh 11	Scotland
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Packard Instrument Co, Inc, Downers Grove	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Reuter-Stokes Electronic Components Inc Cleveland	Ohio
RIL Electronics Inc, Southampton	Pa
Science Accessories Corp, Southport	Conn
Solid State Radiations Inc, Los Angeles	Cal

COUNTER TUBES SEE TUBES--COUNTER

COUNTING-RATE METERS SEE METERS--COUNTING-RATE

COUPLERS--DIRECTIONAL

ALUMINUM DESIGN CORP, BROOKFIELD	**ILL**
ANAREN MICROWAVE INC, SYRACUSE	**N Y**
BIRD ELECTRONIC CORP, CLEVELAND (SOLON)	**OHIO**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	**ADV PGS 58,59**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
LEL DIV VARIAN ASSOCIATES, COPIAGUE, N Y	**ADV PG 233**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
RADAR DESIGN CORP, SYRACUSE, N Y	**ADV PG 233**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
TRANSCO PRODUCTS INC, VENICE	**CAL**
Aerospace Research, Inc, Boston	Mass
Aircom Inc, Union	N H
Airtec Inc, Roselle	N J
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alpha Industries Inc, Newton Upper Falls	Mass
Altronic Research Corp, Cleveland	Ohio
Aluminum Design Corp, Brookfield	Ill
Ameco Inc, Phoenix	Ariz
Anaren Microwave Inc, Syracuse	N Y

Directional Couplers

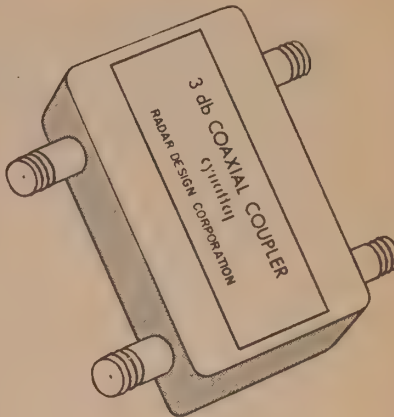
- VSWR 1.35:1 (typ.), 1.5:1 (max.)
- Directivity 20 dB (typ.), 15 dB (min.)

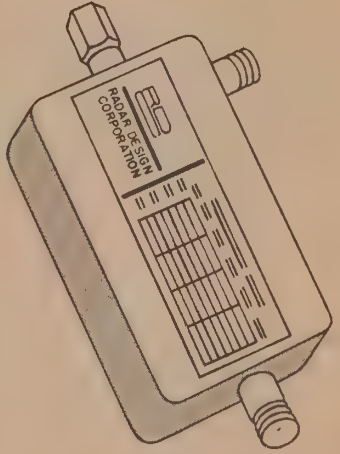
standard models

Freq. Range GHz	Coupling dB	Model No.
0.5 - 5.0	3.0	BBC-300-550
0.5 - 5.0	8.34	BBC-834-550
0.5 - 5.0	10.0	BBC-100-550
0.5 - 5.0	20.0	BBC-200-550
1.0 - 11.0	3.0	BBC-330-111
1.0 - 11.0	8.34	BBC-834-111
1.0 - 11.0	10.0	BBC-100-111
1.0 - 11.0	20.0	BBC-200-111
0.25 - 1.0	10	CSD-10-2510
0.75 - 3.0	10	CSD-10-7530
1.0 - 4.0	10	CSD-10-1040
1.5 - 6.0	10	CSD-10-1560
0.25 - 1.0	20	CSD-20-2510
0.75 - 3.0	20	CSD-20-7530
1.0 - 4.0	20	CSD-20-1040
1.5 - 6.0	20	CSD-20-1560
7.0 - 12.0	10	CSD-10-7012

LEL DIVISION
VARIAN associates
AKRON ST., COPIAGUE, L. I., NEW YORK 11726
For prompt information
CALL 516 AM 4-2517

STRIPLINE





DIRECTIONAL COUPLERS

RDC provides the latest stripline designs in a directional coupler line that covers the 1 to 12.4 GHz band. Couplings available in the single octave band are 3, 10, 20, and 30 db.

Directional couplers with a bandwidth greater than one octave are available on special order basis.

Send for complete information . . .

RADAR DESIGN CORPORATION
510 PICKARD DR ■ SYRACUSE, N Y 13211
PHONE 315-454-4418

Antenna Products Co Div All Products Co Mineral Wells ... Tex
Anzac Electronics, Waltham ... Mass
Applied Microwave Lab, Inc, Andover ... Mass
Arra, Inc, Bayshore ... NY
Astrolab Inc, Linden ... N J
Automatic Metal Products Corp, Brooklyn ... N Y
Ava Electronics & Machine Corp, Upper Darby ... Pa
Aviel Electronics, Inc, Van Nuys ... Cal
Avion Electronics Inc, Unit Gen Signal Corp Paramus ... NJ
Barth Electronics, Inc, Cleveland ... Ohio
Bayly Engineering Ltd, Ajax ... Ontario
Beckman Instruments Inc, Fullerton, ... Cal
Bendix Corp, Microwave Devices Div, Franklin ... Ind
Bird Electronic Corp, Cleveland (Solon) ... Ohio
Blonder-Tongue Labs Inc, Newark ... N J
Borders Electronics Co Inc, Pennsauken ... N J
Cardwell Condenser Corp, Lindenhurst ... N Y
Coax Devices, Chelsea ... Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles ... France
Delta Electronics Inc, Alexandria ... Va
DeMornay-Bonardi Div Datapulse Inc, Pasadena ... Cal
Diamond Antenna & Microwave Corp, Winchester ... Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck ... N Y
Eastern Microwave Corp, Winchester ... Mass
Electromagnetic Radiation Labs Inc, West Acton ... Mass
Electromagnetic Technology Corp, Mountain View ... Cal
Electronic Specialty Co, Los Angeles ... Cal
Electronic Standards Corp, Plainfield ... N J
Elpac Inc Systems Div RF, Irvine ... Cal
E & M Labs, North Hollywood ... Cal
Farinon Electric, San Carlos ... Cal
General Microwave Corp, Farmingdale ... N Y
Gombos Microwave Inc, Clifton ... N J
Guide Industries Inc, Sun Valley ... Cal
Herley Industries, Inc, Westbury ... N Y
Hewlett-Packard, Palo Alto ... Cal
Hyletronics Corp, Wilmington ... Mass
Johnson Co, E F, Waseca ... Minn
Kruse-Storke Electronics, Mountain View ... Cal
Kyoritsu Electric Works Ltd, Tokyo ... Japan
Lel Div Varian Associates, Copiague ... N Y
Lieco Inc, West Babylon ... N Y
Lorch Electronics Corp, Englewood ... N J
Maury Microwave Corp, Montclair ... Cal
MCS Corp, Monrovia ... Cal
Meca Electronics, Inc, Denville ... N J
Meridian Metalcraft Inc, Whittier ... Cal
Merrimac Research & Development Inc West Caldwell, ... N J
Microlab/F X R, Livingston ... N J
Microphase Corp, Greenwich ... Conn
Microwave Associates Inc, Burlington ... Mass
Microwave Cavity Labs Inc, La Grange ... Ill
Microwave Development Labs Inc Needham Heights ... Mass
Microwave Filter Co Inc, East Syracuse ... NY
Microwave Labs of America, Brooklyn ... N Y
Microwave Products Inc, Chatsworth ... Cal
Multronics Inc, Rockville ... Md
Narda Microwave Corp, Plainview ... N Y
Neico Microwave Co, Waltham ... Mass
Oki Electric Industry Co Ltd, Tokyo ... Japan
Oki Electronics of America, Inc, Fort Lauderdale ... Fla
Omega Laboratories Inc, Rowley ... Mass
Omni Spectra Inc, Farmington ... Mich
Ottawa, Paris ... France
Pabst Engineering Equipment Co Inc, Elizabeth ... NJ
Philco-Ford Corp, Washington ... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Portchester Instrument Corp, Port Chester ... N Y
PRD Electronics Inc, Sub H-I Corp, Westbury ... N Y
Premier Microwave Corp, Port Chester ... N Y
Radar Design Corp, Syracuse ... N Y
Radiation Systems Inc, McLean ... Va
Rantec Div Emerson Electric Co, Calabasas ... Cal
Relcom, Mountain View ... Cal
R F Systems Inc, Cohasset ... Mass
RLC Electronics Inc, Port Chester ... N Y
Rohde & Schwarz Sales Co USA Inc, Passaic ... N J
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst ... NY
Sedco Systems Inc, Farmingdale ... N Y
Shrader Sound Inc, Washington ... D C
Space Craft Inc, Huntsville ... Ala
Spencer-Kennedy Labs Inc, Boston ... Mass
Ted Mfg Corp, Shawnee Mission ... Kans
Thomson Electric Co, Sub Cie Fran Thomson Houston New York ... N Y
Transco Products Inc, Venice ... Cal
Varian, Palo Alto ... Cal
Vega Precision Labs, Vienna ... Va
Victor R F & Microwave Co, Wakefield ... Mass
Waveline Inc, West Caldwell ... N J

COUPLERS--MICROWAVE

SEE ALSO HYBRID JUNCTIONS—MICROWAVE

ALUMINUM DESIGN CORP, BROOKFIELD ... ILL
AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE ... NY
AMPHENOL, DANBURY ... CONN
ANAREN MICROWAVE INC, SYRACUSE, N Y ... ADV PG 234
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y ... ADV PGS 58,59
GENERAL MICROWAVE CORP, FARMINGDALE ... N Y
HEWLETT-PACKARD, PALO ALTO ... CAL
MICROWAVE CAVITY LABS INC, LA GRANGE ... ILL
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
PREMIER MICROWAVE CORP, PORT CHESTER ... N Y
RADAR DESIGN CORP, SYRACUSE ... N Y
TRANSCO PRODUCTS INC, VENICE ... CAL
Aircom Inc, Union ... N H
Airtec Inc, Roselle ... N J
Airtron, Div of Litton Industries, Inc, Morris Plains ... N J
Alpha Industries Inc, Newton Upper Falls ... Mass
Aluminum Design Corp, Brookfield ... Ill
Amperex Electronic Corp, Professional Tube Div, Hicksville ... NY
Amphenol, Danbury ... Conn
Anaren Microwave Inc, Syracuse ... N Y
Anzac Electronics, Waltham ... Mass
Applied Microwave Lab, Inc, Andover ... Mass
Applied Research, Inc, Port Washington ... N Y
A R F Products, Inc, Raton ... N M
Arra, Inc, Bayshore ... NY
Astrolab Inc, Linden ... N J
Automatic Metal Products Corp, Brooklyn ... N Y
Ava Electronics & Machine Corp, Upper Darby ... Pa
Aviel Electronics, Inc, Van Nuys ... Cal
Avion Electronics Inc, Unit Gen Signal Corp Paramus ... NJ
Barth Electronics, Inc, Cleveland ... Ohio
Bayly Engineering Ltd, Ajax ... Ontario
Beckman Instruments Inc, Fullerton, ... Cal
Bendix Corp, Microwave Devices Div, Franklin ... Ind
Borders Electronics Co Inc, Pennsauken ... N J
Cardwell Condenser Corp, Lindenhurst ... N Y
Coax Devices, Chelsea ... Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles ... France
DeMornay-Bonardi Div Datapulse Inc, Pasadena ... Cal
Diamond Antenna & Microwave Corp, Winchester ... Mass
Douglas Microwave Co Div Struthers Electronics Corp, Mamaroneck ... N Y
Eastern Microwave Corp, Winchester ... Mass
Electromagnetic Radiation Labs Inc, West Acton ... Mass
Electromagnetic Technology Corp, Mountain View ... Cal
Electronic Specialty Co, Los Angeles ... Cal
Electronic Standards Corp, Plainfield ... N J
Elpac Inc Systems Div RF, Irvine ... Cal
E & M Labs, North Hollywood ... Cal
General Microwave Corp, Farmingdale ... N Y
Gombos Microwave Inc, Clifton ... N J
Guide Industries Inc, Sun Valley ... Cal
Herley Industries, Inc, Westbury ... N Y
Hewlett-Packard; Palo Alto ... Cal
Hyletronics Corp, Wilmington ... Mass
Kruse-Storke Electronics, Mountain View ... Cal
Lieco Inc, West Babylon ... N Y
Maury Microwave Corp, Montclair ... Cal
MCS Corp, Monrovia ... Cal
Meca Electronics, Inc, Denville ... N J
Melabs, Palo Alto ... Cal
Meridian Metalcraft Inc, Whittier ... Cal
Merrimac Research & Development Inc West Caldwell, ... N J
Microlab/F X R, Livingston ... N J
Microphase Corp, Greenwich ... Conn
Microwave Associates Inc, Burlington ... Mass
Microwave Cavity Labs Inc, La Grange ... Ill
Microwave Development Labs Inc Needham Heights ... Mass
Microwave Filter Co Inc, East Syracuse ... NY
Microwave Labs of America, Brooklyn ... N Y
Microwave Products Inc, Chatsworth ... Cal
Narda Microwave Corp, Plainview ... N Y
Neico Microwave Co, Waltham ... Mass
Nippon Electric Co Ltd, Tokyo ... Japan
Oki Electronics of America, Inc, Fort Lauderdale ... Fla
Omega Laboratories Inc, Rowley ... Mass
Omni Spectra Inc, Farmington ... Mich
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Portchester Instrument Corp, Port Chester ... N Y
PRD Electronics Inc, Sub H-I Corp, Westbury ... N Y
Premier Microwave Corp, Port Chester ... N Y
Radar Design Corp, Syracuse ... N Y
Radiation Systems Inc, McLean ... Va
Radio Corp of America, Comml Elctn Prods Div Camden ... N J
Ramcor Inc, Huntington ... NY
Rantec Div Emerson Electric Co, Calabasas ... Cal
Raytheon Co, Microwave & Power Tube Div Waltham ... Mass
R F Systems Inc, Cohasset ... Mass
RLC Electronics Inc, Port Chester ... N Y
Sanders Associates, Inc, Nashua ... N H
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst ... NY
Sedco Systems Inc, Farmingdale ... N Y
Space Craft Inc, Huntsville ... Ala
Specialty Waveguide Corp, Burlington ... Mass
Sylvania Electronic Systems, Waltham ... Mass
Transco Products Inc, Venice ... Cal
Varian, Palo Alto ... Cal
Vector Industries A Teledyne Co, Palo Alto ... Cal
Vega Precision Labs, Vienna ... Va
Victor R F & Microwave Co, Wakefield ... Mass
Waveline Inc, West Caldwell ... N J

ANAREN*
PLASTIC ENCASED
3db 90°
COAXIAL HYBRID
Designed with solder tabs
for stripline applications.
• Low cost • Compact
• Rugged • Highly reliable
• Octave bandwidths
• Also available metal
cased with standard 3mm
coax connectors.
Look to ANAREN*
for dependability
and quick
delivery of:
Amplifiers
Mixers
Power Combiners/Dividers
Correlators
Discriminators
Antenna Feeds
Stripline Components
SSB Modulators
ANAREN
MICROWAVE, INC.
478 EAST BRIGHTON AVE., SYRACUSE, N Y 13210
Phone. 315-475-1621 TWX 710 541 1507
*TM ANAREN MICROWAVE INC

COUPLERS, RECEIVING--ANTENNA(TWO ANTENNAS TO ONE SET)

DX ANTENNA CO LTD, HYOGO-KU, KOBE ... JAPAN
GENERAL MICROWAVE CORP, FARMINGDALE ... N Y
MOSLEY ELECTRONICS INC, BRIDGETON ... MO
PREMIER MICROWAVE CORP, PORT CHESTER ... N Y
R H G ELECTRONICS LAB INC, FARMINGDALE ... N Y
SPENCER-KENNEDY LABS INC, BOSTON ... MASS
Aerolite Electronics Corp, Union City ... N J
Aerospace Research, Inc, Boston ... Mass
Anzac Electronics, Waltham ... Mass
Applied Research, Inc, Port Washington ... N Y
Astrolab Inc, Linden ... N J
Automatic Metal Products Corp, Brooklyn ... N Y
Ava Electronics & Machine Corp, Upper Darby ... Pa
Avco Corp Electronics Div, Cincinnati ... Ohio
Benco Television Assoc Div Redifon Can Ltd Rexdale ... Ont
Blonder-Tongue Labs Inc, Newark ... N J
Borders Electronics Co Inc, Pennsauken ... N J
CBC Industries Inc, Philadelphia ... Pa
Channel Master Corp, Ellenville ... N Y
Clavier Corp, Richmond Hill ... NY
Clear Beam Antenna, Sylmar ... Cal
Collins Radio Co, Dallas ... Tex
Daico Industries Inc, Gardena ... Cal
Decitron Electronics Corp, Brooklyn ... N Y
Denki Kogyo Co Ltd, Tokyo ... Japan
DX Antenna Co Ltd, Hyogo-Ku, Kobe ... Japan
E D P Corp, Orlando ... Fla
Elpac Inc Systems Div RF, Irvine ... Cal
Fedtro Inc, Rockville Centre ... N Y
Finney Co, Bedford ... Ohio
Gavin Instruments Inc, Somerville ... N J
G C Electronics Div, Hydrometals Inc, Rockford ... Ill
General Coil Products Corp, Brooklyn ... N Y
General Microwave Corp, Farmingdale ... N Y
General Precision Systems Inc, Kearfott Gp Little Falls ... N J
Herley Industries, Inc, Westbury ... N Y
Hi-Lo Mfg Corp, Chicago ... Ill
Hyletronics Corp, Wilmington ... Mass
Javex Electronics, Cherry Valley ... Cal
Jerrold Electronics Corp, Philadelphia ... Pa
Lance Antenna Corp, Sylmar ... Cal
Lorch Electronics Corp, Englewood ... N J
MCS Corp, Monrovia ... Cal
Meridian Metalcraft Inc, Whittier ... Cal
Microphase Corp, Greenwich ... Conn
Micro-Radionics Inc, Van Nuys ... Cal
Microwave Associates Inc, Burlington ... Mass
Mosley Electronics Inc, Bridgeton ... Mo
Neico Microwave Co, Waltham ... Mass
Omega-t Systems Inc, Richardson ... Tex
Oneida Electronic Mfg Co, Meadville ... Pa
Parker Metal Goods Co, Worcester ... Mass
Premier Microwave Corp, Port Chester ... N Y
Radiation Systems Inc, McLean ... Va
Ramcor Inc, Huntington ... NY
Rantec Div Emerson Electric Co, Calabasas ... Cal
Raven Electronics Inc, Burbank ... Cal
R F Communications Inc, Rochester ... N Y
R H G Electronics Lab Inc, Farmingdale ... N Y
Sedco Systems Inc, Farmingdale ... N Y
Space Craft Inc, Huntsville ... Ala
Spencer-Kennedy Labs Inc, Boston ... Mass
Squires-Sanders Inc, Liberty Corner ... N J
SunAir Electronics Inc, Ft Lauderdale ... Fla
Symetrics Engineering Corp, Satellite Beach ... Fla
Technical Materiel Corp, Mamaroneck ... N Y
Tricraft Products Corp, Chicago ... Ill
Vikoa Inc, Hoboken ... N J
Virginia Electronics Co Inc, Falls Church ... Va

Waber Electronics Inc, Philadelphia	Pa
Wald Sound, Sun Valley	Cal
Wiltek, Inc, Wilton	Conn

COUPLERS, RECEIVING--RECEIVER (TWO OR MORE SETS TO ONE ANTENNA)

DX ANTENNA CO LTD, HYOGO-KU, KOBE	**JAPAN**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
MOSLEY ELECTRONICS INC, BRIDGETON	**MO**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
TRACOR INC, AUSTIN	**TEX**
TRANSCO PRODUCTS INC, VENICE	**CAL**
Aerolite Electronics Corp, Union City	N J
Aerospace Research, Inc, Boston	Mass
Aircom Inc, Union	N H
Antennacraft Co Inc, Burlington	Iowa
Antronic Corp, Chicago	III
Anzac Electronics, Waltham	Mass
Applied Research, Inc, Port Washington	N Y
A R F Products, Inc, Raton	N M
Astrolab Inc, Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
Ava Electronics & Machine Corp, Upper Darby	Pa
Avco Corp Electronics Div, Cincinnati	Ohio
Benco Television Assoc Div Redifon Can Ltd Rexdale	Ont
Blonder-Tongue Labs Inc, Newark	N J
Borders Electronics Co Inc, Pennsauken	N J
Channel Master Corp, Ellenville	N Y
Clavier Corp, Richmond Hill	NY
Clear Beam Antenna, Sylmar	Cal
Collins Radio Co, Dallas	Tex
Communication Electronics Inc, Rockville	Md
Daico Industries Inc, Gardena	Cal
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Decibel Products Inc, Dallas	Tex
Decitron Electronics Corp, Brooklyn	N Y
Defense Electronics Inc, Rockville	Md
Delta Electronics Inc, Alexandria	Va
Denki Kogyo Co Ltd, Tokyo	Japan
Dewey Corp, G C, New York	N Y
DX Antenna Co Ltd, Hyogo-Ku, Kobe	Japan
E D P Corp, Orlando	Fla
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electronic Communications Inc (ECI), St Petersburg	Fla
Electronics of Clearfield Inc, Clearfield	Pa
Farinon Electric, San Carlos	Cal
Finney Co, Bedford	Ohio
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Gavin Instruments Inc, Somerville	N J
General Coil Products Corp, Brooklyn	N Y
General Microwave Corp, Farmingdale	N Y
Granger Associates, Palo Alto	Cal
Hi-Lo Mfg Corp, Chicago	III
Hyletronics Corp, Wilmington	Mass
Javex Electronics, Cherry Valley	Cal
Joslyn Electronic Systems Div, Goleta	Cal
Lafayette Radio Electronics, Syosset	NY
Lance Antenna Corp, Sylmar	Cal
Lorch Electronics Corp, Englewood	N J
Melabs, Palo Alto	Cal
Meridian Metalcraft Inc, Whittier	Cal
Microphase Corp, Greenwich	Conn
Micro-Radionics Inc, Van Nuys	Cal
Microwave Associates Inc, Burlington	Mass
Microwave Control Co, Red Bank	N J
Microwave Filter Co Inc, East Syracuse	NY
Midland International Corp, North Kansas City	Mo
Mosley Electronics Inc, Bridgeton	Mo
Neico Microwave Co, Waltham	Mass
Omega-t Systems Inc, Richardson	Tex
Oneida Electronic Mfg Co, Meadville	Pa
Parker Metal Goods Co, Worcester	Mass
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Philmore Mfg Co Inc, Richmond Hill	N Y
Plectron Corp, Overton	Nebr
Premier Microwave Corp, Port Chester	N Y
Racal Communications Inc, Silver Spring	Md
Radiation Systems Inc, McLean	Va
Ramcor Inc, Huntington	NY
Rantec Div Emerson Electric Co, Calabasas	Cal
Raven Electronics Inc, Burbank	Cal
R F Communications Inc, Rochester	N Y
R H G Electronics Lab Inc, Farmingdale	N Y
Rohdé & Schwarz Sales Co USA Inc, Passaic	N J
Sedco Systems Inc, Farmingdale	N Y
Sierra Electric Inc, Gardena	Cal
Sinclair Radio Labs Inc, Tonawanda	N Y
Space Craft Inc, Huntsville	Ala
Spencer-Kennedy Labs Inc, Boston	Mass
Squires-Sanders Inc, Liberty Corner	N J
SunAir Electronics Inc, Ft Lauderdale	Fla
Technical Materiel Corp, Mamaroneck	N Y
Ted Mfg Corp, Shawnee Mission	Kans
Tracor Inc, Austin	Tex
Transco Products Inc, Venice	Cal
Tricraft Products Corp, Chicago	III
Vikoa Inc, Hoboken	N J
Virginia Electronics Co Inc, Falls Church	Va
Waber Electronics Inc, Philadelphia	Pa
Wald Sound, Sun Valley	Cal
Wiltek, Inc, Wilton	Conn

COUPLERS--TRANSMITTING ANTENNA,WITH PHASING UNITS

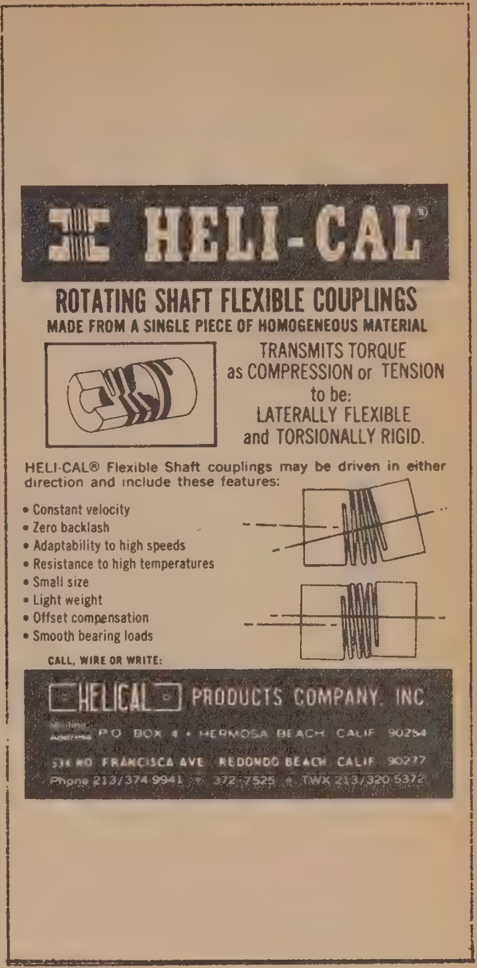
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
TRANSCO PRODUCTS INC, VENICE	**CAL**
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Advanced Technology Corp, Chambersburg	Pa
Aerospace Research, Inc, Boston	Mass
Andrew California Corp, Claremont	Cal
Anzac Electronics, Waltham	Mass
Astrolab Inc, Linden	N J
Brelonix Inc, Seattle	Wash
Cardwell Condenser Corp, Lindenhurst	N Y
C C A Electronics Corp, Gloucester	NJ
Clear Beam Antenna, Sylmar	Cal
Collins Radio Co, Dallas	Tex
Continental Electronics Mfg Co Sub LTV Electrosystems Inc, Dallas	Tex
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Denki Kogyo Co Ltd, Tokyo	Japan
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electronic Communications Inc (ECI), St Petersburg	Fla
Electronics of Clearfield Inc, Clearfield	Pa
General Microwave Corp, Farmingdale	N Y
Gombos Microwave Inc, Clifton	N J
Granger Associates, Palo Alto	Cal
I T I Electronics Inc, Clifton	N J
Kobe Industries Corp, Kobe	Japan
Meridian Metalcraft Inc, Whittier	Cal
Microphase Corp, Greenwich	Conn
Micro-Radionics Inc, Van Nuys	Cal
Microwave Associates Inc, Burlington	Mass
Multronics Inc, Rockville	Md
Nippon Electric Co Ltd, Tokyo	Japan
Omega-t Systems Inc, Richardson	Tex
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Phelps Dodge Electronic Products Corp North Haven	Conn
Philips Electronics Industries Ltd, Toronto 17	Ont
Premier Microwave Corp, Port Chester	N Y
Radiation Systems Inc, McLean	Va
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Ramcor Inc, Huntington	NY
Rantec Div Emerson Electric Co, Calabasas	Cal
Raven Electronics Inc, Burbank	Cal
R F Communications Inc, Rochester	N Y
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst	NY
Scientific-Atlanta Inc, Atlanta	Ga
Sedco Systems Inc, Farmingdale	N Y
Sinclair Radio Labs Inc, Tonawanda	N Y
Space Craft Inc, Huntsville	Ala
Squires-Sanders Inc, Liberty Corner	N J
SunAir Electronics Inc, Ft Lauderdale	Fla
Symetrics Engineering Corp, Satellite Beach	Fla
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Technical Materiel Corp, Mamaroneck	N Y
Ted Mfg Corp, Shawnee Mission	Kans
Thomson Electric Co, Sub Cie Fran Thomson Houston New York	N Y
Transco Products Inc, Venice	Cal
TRW Electronic Components Div TRW Inc, Camden	N J
Virginia Electronics Co Inc, Falls Church	Va

COUPLINGS--QUICK DISCONNECT (FLUID & GAS)

AMP INCORPORATED, HARRISBURG	**PA**
AMP Incorporated, Harrisburg	Pa
Consolidated Controls Corp, El Segundo	Cal
Consolidated Controls Corp, Bethel	Conn
Control Engineering Div J B Webb Co, Detroit	Mich
De Vilbiss Co, Toledo	Ohio
Dial Products Co, Bayonne	N J
Futurecraft Corp, City of Industry	Cal
International Controls Corp Cryogenics Div Fairfield	N J
Intertechnique, Plaisir, 78	France
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Romec Div, Elyria	Ohio
Marman Div Aeroquip Corp, Los Angeles	Cal
Micro Parts Inc, Los Angeles	Cal
Murphy Industries G W Cleco Pneumatic Div Houston	Tex
Precision Scientific Co Sub GCA Corp, Chicago	III
SieBelAir Co, Los Angeles	Cal
Vacuum Accessories Corp of America Huntington Station	N Y
Veeco Instruments Inc, Plainview	N Y
Wiggins Inc, E B, Los Angeles	Cal

COUPLINGS, SHAFT--FLEXIBLE

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
HELICAL PRODUCTS CO INC, HERMOSA BEACH CAL	**ADV PG 235**
SECS, INC, LONG ISLAND CITY	**N Y**
Accurate Electronics Corp, Elyria	Ohio
Acushnet Process Co, New Bedford	Mass
Amatom Electronic Hardware, New Rochelle	N Y
Avionics, Inc, South Bend	Ind
Belfab A Unit of Bailey Meter Co, Daytona Beach	Fla
Bendix Corp Fluid Power Div, Utica	N Y
Bud Radio Inc, Willoughby	Ohio
Cardwell Condenser Corp, Lindenhurst	N Y
Daburn Electronics & Cable Corp, Bronx	N Y
Dial Products Co, Bayonne	N J
Euclid Electric & Mfg Div Harvey Hubbell Inc, Madison	Ohio
Fae Instrument Corp, Huntington Station	N Y
Falcon Machine & Tool Co Inc, North Wilmington	Mass
Helical Products Co Inc, Hermosa Beach	Cal
Jan Hardware Mfg Co Inc, Long Island City	N Y
Johnson Co, E F, Waseca	Minn
Koppers Co Inc, Pittsburgh	Pa
Lear Siegler Inc, Santa Monica	Cal
Lord Mfg Co, Div Lord Corp, Erie	Pa
Lovejoy Inc, Chicago	III
Metal Bellows Corp, Sharon	Mass
Micro Parts Inc, Los Angeles	Cal
Millen Mfg Co Inc, James, Malden	Mass
Mini-Flex Corp, Van Nuys	Cal
Naugler Engineering Inc, Beverly	Mass
Nilsen Mfg Co, Haines City	Fla
Oneida Electronic Mfg Co, Meadville	Pa
PIC Design Corp, East Rockaway	N Y
Power Instruments Inc, Skokie	III
Renbrandt Inc, Boston	Mass
Rex Chainbelt Inc, Milwaukee	Wis
Schurter AG, H, 6002 Lucerne	Switzerland
Sealol Inc, Providence	R I
Secs, Inc, Long Island City	N Y
Servometer Corp, Clifton	N J
Smith Inc, Herman H, Brooklyn	N Y
Sterling Instrument Div, Designatronics Inc Mineola	N Y
Stow Mfg Co, Binghamton	N Y
Theta Instrument Corp, Fairfield	N J
Vernaline Products Co, Inc, Wycoff	N J
Zero-Max Co, Minneapolis	Minn


HELI-CAL®
ROTATING SHAFT FLEXIBLE COUPLINGS
MADE FROM A SINGLE PIECE OF HOMOGENEOUS MATERIAL
TRANSMITS TORQUE as COMPRESSION or TENSION to be: LATERALLY FLEXIBLE and TORSIONALLY RIGID.
HELI-CAL® Flexible Shaft couplings may be driven in either direction and include these features:
- Constant velocity
- Zero backlash
- Adaptability to high speeds
- Resistance to high temperatures
- Small size
- Light weight
- Offset compensation
- Smooth bearing loads

CALL, WIRE OR WRITE:
HELICAL PRODUCTS COMPANY, INC
Address P.O. BOX 4 • HERMOSA BEACH CALIF 90254
534 NO FRANCISCA AVE REDONDO BEACH CALIF 90277
Phone 213/374-9941 • 372-7525 • TWX 213/320-5372

COUPLINGS, SHAFT--RIGID

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
HELICAL PRODUCTS CO INC, HERMOSA BEACH	**CAL**
NORTHFIELD PRECISION INSTRUMENT CORP ISLAND PARK	**N Y**
SECS, INC, LONG ISLAND CITY	**N Y**
Accurate Electronics Corp, Elyria	Ohio
Advance Gear & Machine corp, Los Angeles	Cal
Amatom Electronic Hardware, New Rochelle	N Y
Bendix Corp Fluid Power Div, Utica	N Y
Cardwell Condenser Corp, Lindenhurst	N Y
Daburn Electronics & Cable Corp, Bronx	N Y
Fae Instrument Corp, Huntington Station	N Y

Federal Screw Products Inc, Chicago	Ill
Helical Products Co Inc, Hermosa Beach	Cal
Instru-Lec Corp, Mt Vernon	N Y
Jan Hardware Mfg Co Inc, Long Island City	N Y
Koppers Co Inc, Pittsburgh	Pa
Lovejoy Inc, Chicago	Ill
Micro Parts Inc, Los Angeles	Cal
Microwave Associates Inc, Burlington	Mass
Millen Mfg Co Inc, James, Malden	Mass
National Radio Co Inc, Melrose	Mass
Northfield Precision Instrument Corp, Island Park	N Y
Oneida Electronic Mfg Co, Meadville	Pa
PIC Design Corp, East Rockaway	N Y
Samarius, Inc, Derby	Conn
Secs, Inc, Long Island City	N Y
Smith Inc, Herman H, Brooklyn	N Y
Sterling Instrument Div, Designatronics Inc Mineola	N Y
United Shoe Machinery Corp, Harmonic Drive Div Beverly	Mass
Vemaline Products Co, Inc, Wycoff	N J

COUPLINGS, SHAFT--UNIVERSAL JOINT

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
HELICAL PRODUCTS CO INC, HERMOSA BEACH	**CAL**
SECS, INC, LONG ISLAND CITY	**N Y**
Accurate Electronics Corp, Elyria	Ohio
Bendix Corp Fluid Power Div, Utica	N Y
Cardwell Condenser Corp, Lindenhurst	N Y
Curtis Universal Joint Co, Springfield	Mass
Falcon Machine & Tool Co Inc, North Wilmington	Mass
Helical Products Co Inc, Hermosa Beach	Cal
Jackson Brothers (London) Ltd, New York	N Y
Jan Hardware Mfg Co Inc, Long Island City	N Y
Lovejoy Inc, Chicago	Ill
Micro Parts Inc, Los Angeles	Cal
Millen Mfg Co Inc, James, Malden	Mass
Naugler Engineering Inc, Beverly	Mass
Oneida Electronic Mfg Co, Meadville	Pa
PIC Design Corp, East Rockaway	N Y
Rex Chainbelt Inc, Milwaukee	Wis
Secs, Inc, Long Island City	N Y
Smith Inc, Herman H, Brooklyn	N Y
Sterling Instrument Div, Designatronics Inc Mineola	N Y
Vemaline Products Co, Inc, Wycoff	N J

CRAYONS--TEMPERATURE INDICATING

Hardman Inc, Belleville	N J
Hill Inc E Vernon, San Francisco	Cal
Mann Co, Henry, Cornwell Heights	Pa
Markal Co, Chicago	Ill

CROSSOVER NETWORKS SEE NETWORKS

CRUCIBLES--SEMICONDUCTOR SEE BOATS

CRYOGENIC EQUIPMENT

HYDRA-ELECTRIC CO, BURBANK	**CAL**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
Acoustica Associates Inc, Los Angeles	Cal
Advanced Kinetics, Inc, Costa Mesa	Cal
Aerojet-General Corp Electronics Div, Azusa	Cal
Aireco, Inc, North Miami Beach	Fla
Air Products & Chemicals, Inc, Allentown	Pa
Alcatel, Paris 8eme	France
Almac Cryogenics Inc, Oakland	Cal
Andonian Associates, Inc, Waltham	Mass
Andrew Corp, Orland Park	Ill
Associated Testing Labs, Inc, Wayne	N J
Automatic Switch Co, Florham Park	N J
Bailey Co, Washington	D C
Bethlehem Corp, Bethlehem	Pa
Canberra Industries, Middletown	Conn
Cincinnati Sub-Zero Products Inc, Cincinnati	Ohio
Consolidated Controls Corp, Bethel	Conn
Cooke Vacuum Products Inc, South Norwalk	Conn
Cosmodyne Corp; Torrance	Cal
Cryogenic Engineering Co, Denver	Colo
Cryogenic Research Co Inc, Boulder	Colo
Cryolab Div, Statics-Dynamics Inc, Los Osos	Cal
CVI Corp, Columbus	Ohio
Delavan Mfg Co, West Des Moines	Iowa
Develco, Inc, Norwalk	Conn
Dynatronic Instruments Corp Div Lab-Line Inst Inc Melrose Park	Ill
Electrolube Ltd, Slough	England
Electronics & Alloys Inc, Englewood	N J
Electro Optics Assoc, Palo Alto	Cal
Energy Beams Inc, Haskell	N J
Firewel Co Inc, Buffalo	N Y
500 Inc Sub Arthur D Little Inc, Cambridge	Mass
Foxboro Co, Foxboro	Mass
Futurecraft Corp, City of Industry	Cal
Gardner Cryogenics Corp, Bethlehem	Pa
Gelman Instrument Co, Ann Arbor	Mich
Goddard Valve Corp, Worcester	Mass
Goodyear Aerospace Corp, Akron	Ohio
Gruenberg Electric Co Inc, Garden City	N Y
Harris Mfg Co Inc, Cambridge	Mass
High Vacuum Equipment Corp, Hingham	Mass
Honeywell Industrial Div, Fort Washington	Pa
Hydra-Electric Co, Burbank	Cal
Ikor, Inc, Burlington	Mass
International Controls Corp Cryogenics Div Fairfield	N J
International Equipment Co, Needham Heights	Mass
Janitrol Aero Div Midland-Ross Corp, Columbus	Ohio
Johns Technology Inc, Livermore	Cal
Leeds & Northrup Co, Philadelphia	Pa
Liquid Carbonic Div, Gen Dynamics Corp, Chicago	Ill
Luft Instruments Inc, Lincoln	Mass
Malaker Corp, High Bridge	N J
Maury Microwave Corp, Montclair	Cal
Mt Vernon Research Co, Alexandria	Va
North American Philips Co Inc Cryogenic Div Ashton	R I
Norton Co Vacuum Equip Div, Newton	Mass
Nuclear Diodes, Inc, Prairie View	Ill
Pall Corp, Environmental Control Systems Div Long Island City	NY
Pennsalt Chemicals Corp Equipment Div Philadelphia	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Precision Systems Corp, Columbus	Ohio
Rawson-Lush Instrument Co Inc, Acton	Mass
Relco Products Inc, Denver	Colo
Seed Electronics Corp, Lexington	Mass
Straza Industries Div Ametek Inc, El Cajon	Cal
Sulzer Brothers Ltd, Industrial Elctns Div Winterthur	Switzerland
Texas Instruments Inc Indl Prods Div, Houston	Tex
TRW Systems Group, Redondo Beach	Cal
Vacuum Barrier Corp, Woburn	Mass
Varian, Palo Alto	Cal
Ventron Instruments Corp Magnion Div, Burlington	Mass
Waynco Inc, Winona	Minn
Welch Scientific Co, Skokie	Ill
Western Gear Corp Electro Products Div, Pasadena	Cal
Westinghouse Electric Corp, Cryogenic Systems Pittsburgh	Pa
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh	Pa

CRYSTAL ANALYSIS EQUIPMENT

ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK	**KAN**
HOFFMAN CO PR DIV AIKEN INDUSTRIES, CARLISLE	**PA**
Electronic Research co, A Textron Co Overland Park	Kan
Electronic Service Co, Verona	N J
Hoffman Co PR Div Aiken Industries, Carlisle	Pa
Kokusai Electric Co Ltd, Tokyo	Japan
Little Inc, Arthur D, Cambridge	Mass
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
RFL Industries Inc, Instrumentation Div, Boonton	N J
Savoy Electronics Inc, Fort Lauderdale	Fla
Semi-Elements Inc, Saxonburg	Pa
Siemens America Inc, New York	N Y
Veeco Instruments Inc, Plainview	N Y

CRYSTAL BLANKS, UNMOUNTED(FOR TRANSDUCERS, FREQUENCY CONTROL & FILTERS)

BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE, N Y	**ADV PG 236**
ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK	**KAN**
HOFFMAN CO PR DIV AIKEN INDUSTRIES, CARLISLE PA	**ADV PG 236**
REEVES-HOFFMAN DIV, CARLISLE	**PA**
SHEROLD CRYSTALS INC, KANSAS CITY	**MO**
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Anderson Electronics Inc, Hollidaysburg	Pa
Asarco Intermetallics Corp, New York	N Y
Betron-IRE-SpA, Livorno	Italy
Breon Laboratories, Williamsport	Pa
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Cathodeon Crystals Ltd, Cambridge	Eng
Ceramic Magnetics Inc, Fairfield	N J
Channel Industries Inc, Santa Barbara	Cal
Clark Crystal Corp, Marlboro	Mass
Commander Labs Inc, Escondido	Cal
Croven Ltd, Whitby	Ont
Crystalab Products Corp, Rochelle Park	N J
Edo Corp, College Point	NY
Edo Western Corp, Salt Lake City	Utah
Electra/Midland Corp, Kansas City	Kan
Electra Scientific Div Gulton Indus Inc, Fullerton	Cal
Electronic Research co, A Textron Co Overland Park	Kan
Filtaire Inc Div Walter Kidde Co, Charlottesville	Va
Haydu Products Inc, Opa Locka	Fla
Hoffman Co PR Div Aiken Industries, Carlisle	Pa
Kinsekisha Lab Ltd, Tokyo	Japan
Koch Light Labs Ltd, Colnbrook, Bucks	England
Laser Optics Inc, Danbury	Conn
Linden Labs Inc, State College	Pa
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs	Pa

Pain

Killer.

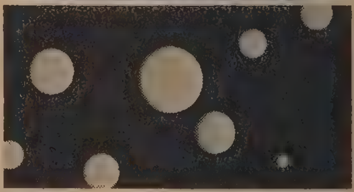
If vendors have you in a pinch and another source of supply will help, turn to the Electronics Buyers' Guide. You'll find all the information you need on over 1,363 sources of power supplies, listed under 11 headings from *AC Regulated Power Supplies to Laser Power Supplies.*

Electronics Buyers' Guide

THE WORLD'S LARGEST
PRODUCER OF
SEMI-FINISHED QUARTZ

CRYSTAL BLANKS
IS

P. R. HOFFMAN CO.



- Made from both natural quartz and P. R. Hoffman's own high quality synthetic quartz.
- X-ray inspected and electronically tested after every operation.
- Available semi-finished from stock or lapped to your specific frequency, size and tolerance.
- The World's Largest Crystal Blank inventory containing one half million blanks is located at our plant to insure prompt shipment of your order.

Send for complete detailed literature on P. R. Hoffman's superb quality line of Crystal Blanks.

P. R. HOFFMAN CO.
321 Cherry St.
Carlisle, Pa. (717) 243-2011
Div. of Howard Aiken Industries Inc.

Miller Co Inc, J K, Pittsburgh	Pa
Nebel Lab, R E, Garden City	N Y
Pan American Trade Development Corp, New York	N Y
Penn Engineering & Mfg Corp, Doylestown	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Piezo Crystal Co, Carlisle	Pa
Reeves-Hoffman Div, Carlisle	Pa
Regency Electronics Inc, Indianapolis	Ind
Savoy Electronics Inc, Fort Lauderdale	Fla
Sawyer Research Products Inc, Eastlake	Ohio
Semiconductor Specialties Corp, Fair Lawn	NJ
Semi-Elements Inc, Saxonburg	Pa
Sherold Crystals Inc, Kansas City	Mo
Solar Mfg Corp, Los Angeles	Cal
Thermal American Fused Quartz Co, Montville	N J
Valpey-Fisher Corp, Holliston	Mass
Var-Lac-Oid Chemical Co, Elizabeth	N J

CRYSTAL-CUTTING MACHINES SEE MACHINES--CRYSTAL-CUTTING

CRYSTAL DIODES SEE DIODES--CRYSTAL

CRYSTAL-DIODE TESTERS SEE TESTERS--CRYSTAL-DIODE

CRYSTAL FILTERS SEE FILTERS

CRYSTAL-GROWING MACHINES SEE MACHINES--CRYSTAL-GROWING

CRYSTAL HOLDERS (INCL DIODE) SEE HOLDERS

CRYSTAL-MANUFACTURING MACHINES SEE MACHINES

CRYSTAL MIXERS SEE DIODES--CRYSTAL

CRYSTAL OSCILLATORS SEE OSCILLATORS--R-F

CRYSTAL OVENS SEE OVENS--CRYSTAL

CRYSTAL SOCKETS SEE SOCKETS

CRYSTALS--GARNET, YTTRIUM-IRON

Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Aremco Products Inc, Briarcliff Manor	N Y
Broomer Research Corp, Plainview	N Y
Ceramic Magnetics Inc, Fairfield	N J
Electronic Space Products Inc, Los Angeles	Cal
Honig Laboratories Inc, Westbury	N Y
Isomet Corp, Palisades Park	N J
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Marconi Co Ltd, Chelmsford	England
Microwave Associates Inc, Burlington	Mass
Microwave Chemicals Lab Inc, New York	N Y
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Semi-Elements Inc, Saxonburg	Pa
Spectrum Systems, Inc, Waltham	Mass
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Xtalonix Products Div Harshaw Chemical Co Columbus	Ohio

CRYSTALS--OPTICAL

Aremco Products Inc, Briarcliff Manor	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Bausch & Lomb, Inc, Rochester	N Y
Beckman Instruments Inc, Fullerton,	Cal
Broomer Research Corp, Plainview	N Y
Chrysler Corp, Missile Div, Detroit	Mich
Crystalab Products Corp, Rochelle Park	N J
Edo Western Corp, Salt Lake City	Utah
Electronic Space Products Inc, Los Angeles	Cal
General Diode Corp, Framingham	Mass
Geoscience Instruments Corp, Mt Vernon	N Y
Gulton Industries Inc, Metuchen	N J
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland	Ohio
Henley & Co Inc, New York	N Y
Horiba Instruments Inc, Kyoto	Japan
Industrial Optics Corp, Newark	N J
Isomet Corp, Palisades Park	N J
Isotopes A Teledyne Co, Westwood	N J
ITT Europe Inc Components Gp, Brussels 1	Belgium
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Meller Co, Adolf, Providence	R I
Pan American Trade Development Corp, New York	N Y
Perkin-Elmer Corp, Norwalk	Conn
Quartz & Silice, Paris 8 eme	France
Semi-Elements Inc, Saxonburg	Pa
Spectrum Systems, Inc, Waltham	Mass
Thermal American Fused Quartz Co, Montville	N J
Wilks Scientific Corp, South Norwalk	Conn
Xtalonix Products Div Harshaw Chemical Co Columbus	Ohio

CRYSTALS--PIEZOELECTRIC, RAW

CLEVITE CORP PIEZOELECTRIC DIV, BEDFORD	**OHIO**
HILL ELECTRONICS INC, MECHANICSBURG	**PA**
HOFFMAN CO PR DIV AIKEN INDUSTRIES, CARLISLE	**PA**
MICROSONICS INC, WEYMOUTH	**MASS**
SHEROLD CRYSTALS INC, KANSAS CITY	**MO**
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Betron-IRE-SpA, Livorno	Italy
Breon Laboratories, Williamsport	Pa
Cambridge Thermionic Corp, Cambridge	Mass
Channel Industries Inc, Santa Barbara	Cal
Clevite Corp Piezoelectric Div, Bedford	Ohio
Columbia Research Labs Inc, Woodlyn	Pa
Commander Labs Inc, Escondido	Cal
Crystalab Products Corp, Rochelle Park	N J
Crystal Research Inc, Cambridge	Mass
Edo Corp, College Point	NY
Edo Western Corp, Salt Lake City	Utah
Electra/Midland Corp, Kansas City	Kan
Electra Scientific Div Gulton Indus Inc, Fullerton	Cal
Electronic Space Products Inc, Los Angeles	Cal
Filtaire Inc Div Walter Kidde Co, Charlottesville	Va
Geoscience Instruments Corp, Mt Vernon	N Y
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland	Ohio
Hill Electronics Inc, Mechanicsburg	Pa
Hoffman Co PR Div Aiken Industries, Carlisle	Pa
Isomet Corp, Palisades Park	N J
Linden Labs Inc, State College	Pa
Mackay Inc, A D, New York	N Y
Microsonics Inc, Weymouth	Mass
Pan American Trade Development Corp, New York	N Y
Penn Engineering & Mfg Corp, Doylestown	Pa
Quartz & Silice, Paris 8 eme	France
Regency Electronics Inc, Indianapolis	Ind
Semi-Elements Inc, Saxonburg	Pa
Sherold Crystals Inc, Kansas City	Mo
Solar Mfg Corp, Los Angeles	Cal
Texas Crystal Div Whitehall Electronics, Ft Myers	Fla
Thermal American Fused Quartz Co, Montville	N J
TRW Electronic Components Div TRW Inc, Camden	N J
Universal Shellac & Supply Co Inc, Brooklyn	N Y

CRYSTALS--SAPPHIRE SEE SAPPHIRE

CRYSTALS--SCINTILLATION SEE ALSO SCINTILLATORS

Collins & Assoc Don L, Glendale	Cal
Crystalab Products Corp, Rochelle Park	N J
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland	Ohio
Henley & Co Inc, New York	N Y
Horiba Instruments Inc, Kyoto	Japan
Isomet Corp, Palisades Park	N J
Isotopes A Teledyne Co, Westwood	N J
Kobe Industries Corp, Kobe	Japan
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Nuclear Diodes, Inc, Prairie View	Ill
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Nuclear Supplies, Encino	Cal
Packard Instrument Co, Inc, Downers Grove	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pilot Chemicals Inc, Watertown	Mass
Polysciences Inc, Warrington	Pa
Quartz & Silice, Paris 8 eme	France
Semi-Elements Inc, Saxonburg	Pa
Tracerlab, Div Lab for Electronics Inc, Waltham	Mass
Var-Lac-Oid Chemical Co, Elizabeth	N J

CRYSTALS, SEMICONDUCTOR,GROWN, UNCUT--GERMANIUM

EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Active Alloys Inc, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Electronic Space Products Inc, Los Angeles	Cal
General Diode Corp, Framingham	Mass
Geoscience Instruments Corp, Mt Vernon	N Y
Hughes Aircraft Co, Newport Beach	Cal
Kobe Industries Corp, Kobe	Japan
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Pan American Trade Development Corp, New York	N Y
Recticon Corp, Conshohocken	Pa
Sanyo Electric Co Ltd, Osaka	Japan
Semiconductor Specialties Corp, Fair Lawn	NJ
Semi-Elements Inc, Saxonburg	Pa
Semimetals Inc, Westbury	N Y
Sylvania Elec Prods Inc, Chem & Met Div, Towanda	Pa
Texas Instruments Incorporated, Dallas	Tex
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Electronics Corp, Bradford	Pa
Wacker Chemical Corp, New York	N Y

CRYSTALS, SEMICONDUCTOR,GROWN, UNCUT--INTERMETALLIC

EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
Asarco Intermetallics Corp, New York	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cominco American Inc Electronic Matls Div, Spokane	Wash
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Electronic Space Products Inc, Los Angeles	Cal
General Diode Corp, Framingham	Mass
Geoscience Instruments Corp, Mt Vernon	N Y
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland	Ohio
Interman Industrial Products Ltd, Garden City	NY
Koch Light Labs Ltd, Colnbrook, Bucks	England
Materials Research Corp, Orangeburg	N Y
Monsanto Co, St Peters	Mo
Ohio Semitronics Inc, Columbus	Ohio
Sanyo Electric Co Ltd, Osaka	Japan
Semi-Elements Inc, Saxonburg	Pa
Texas Instruments Incorporated, Dallas	Tex
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Electronics Corp, Bradford	Pa
Wacker Chemical Corp, New York	N Y

CRYSTALS, SEMICONDUCTOR,GROWN, UNCUT--SILICON

Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Dow Corning Corp, Midland	Mich
Electronic Space Products Inc, Los Angeles	Cal
Elmat Div Semimetals Inc, Mountain View	Cal
General Diode Corp, Framingham	Mass
Geoscience Instruments Corp, Mt Vernon	N Y
Hughes Aircraft Co, Newport Beach	Cal
Interman Industrial Products Ltd, Garden City	NY
Koch Light Labs Ltd, Colnbrook, Bucks	England
Kokusai Electric Co Ltd, Tokyo	Japan
Kollstan Semiconductor Elements, Westbury	NY
Mackay Inc, A D, New York	N Y
Mallinckrodt Chemical Works, St Louis	Mo
Monsanto Co, St Peters	Mo
Recticon Corp, Conshohocken	Pa
Sanyo Electric Co Ltd, Osaka	Japan
Semiconductor Specialties Corp, Fair Lawn	NJ
Semi-Elements Inc, Saxonburg	Pa
Semimetals Inc, Westbury	N Y
Texas Instruments Incorporated, Dallas	Tex
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Electronics Corp, Bradford	Pa
Wacker Chemical Corp, New York	N Y

CRYSTALS, SEMICONDUCTOR,GROWN, UNCUT SILICON CARBIDE

Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Electronic Space Products Inc, Los Angeles	Cal
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Norton Co, Worcester	Mass
Semi-Elements Inc, Saxonburg	Pa
Texas Instruments Incorporated, Dallas	Tex
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Electronics Corp, Bradford	Pa
Wacker Chemical Corp, New York	N Y

Quartz Filters?

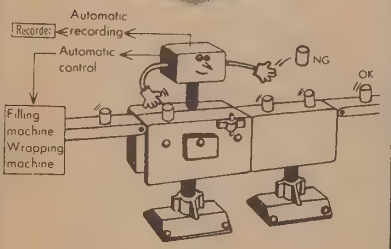
Try Bulova First!

CALL:

Ariz	Tech-Ser Inc, 1805 E Indian School Rd Phoenix	602-265-3629
Cal	Straube Assoc, 483 Willow Rd Menlo Pk	213-323-2476
Cal	W J Carnes & Co, 420 S D St Tustin	213-838-0575
Conn	Samuel C Hooker Inc, Box 369 W Hartford	203-233-8000
Fla	Perrott Assoc, 1607 Forsyth Rd, Orlando	305-275-1132
Fla	Perrott Assoc, Box 6277 West Palm Beach	305-967-1770
Fla	Perrott Assoc, Box 4532, Clearwater	813-531-5513
Ill	J R Sales Engineering 7132 N Harlem Ave, Chicago	312-774-8550
Iowa	J R Sales Engrg, 3350 Cottage Grove Ave SE, Cedar Rapids	319-365-5259
Md	Callas Electronics, 6409 Frederick Ave Baltimore	301-744-7711
Mass	Samuel Hooker, Inc, Box 352 Winchester	617-729-5482
Minn	Wenco Sales Inc, 7728 Morgan Ave S Minneapolis	612-866-3639
Mo	J C Mankus & Assoc, 400 Brooks La Hazelwood	314-PE1-4334
NY	Kahgan Sales Corp, 1261 Broadway New York	212-MU4-7772
NY	H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester	716-232-2688
NY	Comtronic Assoc, 1551 Franklin Ave Mineola	516-PI1-8966
NY	H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady	518-374-5901
NY	H C Johnson Agencies Inc, Box 215 Fayetteville	315-637-9383
NY	H C Johnson Agencies Inc, 8 Los Robles St Williamsville	716-632-7880
Ohio	Augey Natalino Assoc, 209 Harmony Hills Akron	216-666-1447
Pa	C H Newson & Assoc Inc, 627 Bethlehem Pike, Philadelphia	215-248-3377
Tex	Blackburn Assoc., Inc., 137 Walnut Hill Village, Box 20073, Dallas	214-351-9991
Wash	Jas J Backer Co, 221 W Galer St Seattle	206-AT3-6470
Can	Canadian Micro Electronics, Box 6157 Sta J, Ottawa	725-2332

BULOVA WATCH CO INC
FREQUENCY CONTROL PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

CHECK-WEIGHER,



- **K-501C**

150 pcs/min. 50~1200g, ±0.5g

- **K-502A**

60 pcs/min, 0.5~100g,±0.05g

- **K-504A**

60 pcs/min, 2 ~ 200g, ±0.2g

Anritsu Electric Co., Ltd.
12-20, Minamiazabu 4-chome, Minato-ku, Tokyo, Japan
Phone: Tokyo 442-8171/ Telex: 0242-2353
Cable: ANRITDENKI TOKYO

TOROTEL INC.

PRECISION
QUARTZ
CRYSTALS

for both

Active and Passive Applications

NEWEST AND MOST MODERN FACILITIES IN THE CRYSTAL INDUSTRY.

A WIDE VARIETY OF MILITARY AND COMMERCIAL TYPES AVAILABLE.

CALL OR WRITE FOR INFORMATION REGARDING YOUR PARTICULAR APPLICATION OR SEND FOR FREE BROCHURE AND SPECIFICATION DATA FORM.

TOROTEL, Inc.
13402 SOUTH 71 HIGHWAY
GRANDVIEW, MO. 64030
PHONE 816 SO 1-6314 TWX 910-7777037

CRYSTAL UNITS, QUARTZ--FILTER

ANRITSU ELECTRIC CO LTD, TOKYO, JAPAN	**ADV PG 238**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE, N Y	**ADV PG 238**
CTS CORP, ELKHART	**IND**
CTS KNIGHTS INC, SANDWICH, ILL	**ADV PG 239**
ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK	**KAN**
HILL ELECTRONICS INC, MECHANICSBURG, PA	**ADV PG 238**
INTERNATIONAL CRYSTAL MFG CO INC OKLAHOMA CITY	**OKLA**
MICROSONICS INC, WEYMOUTH	**MASS**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
NORTHERN ENGINEERING LABS INC, BURLINGTON WIS	**ADV PG 242**
REEVES-HOFFMAN DIV, CARLISLE	**PA**
SHEROLD CRYSTALS INC, KANSAS CITY, MO	**ADV PG 240**
TOROTEL, INC, GRANDVIEW, MO	**ADV PG 238**
Accutronics, Inc, Geneva	Ill
Anderson Electronics Inc, Hollidaysburg	Pa
Anritsu Electric Co Ltd, Tokyo	Japan
Austron, Inc, Austin	Tex
Betron-IRE-SpA, Livorno	Italy
Bliley Electric Co, Erie	Pa
Breon Laboratories, Williamsport	Pa
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Cathodeon Crystals Ltd, Cambridge	Eng
Clark Crystal Corp, Marlboro	Mass
Croven Ltd, Whitby	Ont
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
CTS Corp, Elkhart	Ind
CTS Electronics Inc, South Pasadena	Cal
CTS Knights Inc, Sandwich	Ill
Damon Engineering Inc, Needham Heights	Mass
Dorsett Electronics Inc, Tulsa	Okla
Dowa Trading Co Ltd, Kobe	Japan
Ebauches SA Dept Oscilloquartz 2001 Neuchatel	Switz
Electra/Midland Corp, Kansas City	Kan
Electronic Research co, A Textron Co Overland Park	Kan
Filtaire Inc Div Walter Kidde Co, Charlottesville	Va
Filtech Corp, Franklin Park	Ill
Fivre Dept Fabbrica Ital Mag Marelli, I - 27100 - Pavia	Italy
Frequency Electronics Inc, New Hyde Park	N Y
Fujitsu Ltd, Tokyo	Japan
Hill Electronics Inc, Mechanicsburg	Pa
Hughes Aircraft Co, Newport Beach	Cal
Industrial Optics Corp, Newark	N J
International Crystal Mfg Co Inc, Oklahoma City	Okla

HILL ELECTRONICS INC.

QUARTZ CRYSTALS—All cuts from 800 CPS up, including reverse JT and SL, low and high frequency for oscillator and filter use.

OSCILLATORS—Sources; Temperature Controlled Crystal Oscillators, Integrated Circuit Miniature Oscillator.

FILTERS—Band Pass, Notch, Comb Crystal Filters.

Custom designed units of all types for Aerospace, Defense and Communication requirements.

HILL ELECTRONICS, INC.
315 Cheryl Avenue
Mechanicsburg, Pennsylvania 17055
717/766-0291
TWX 717-230-0506

JK PRODUCTS ®

FREQUENCY MANAGEMENT SPECIALISTS

CTS Knights, Inc., Sandwich, Illinois
Subsidiary of CTS Corporation, Elkhart, Indiana

CTS ®

the most complete line of crystals, crystal filters, packaged transistor crystal oscillators, crystal and component ovens, and crystal-oven combinations.

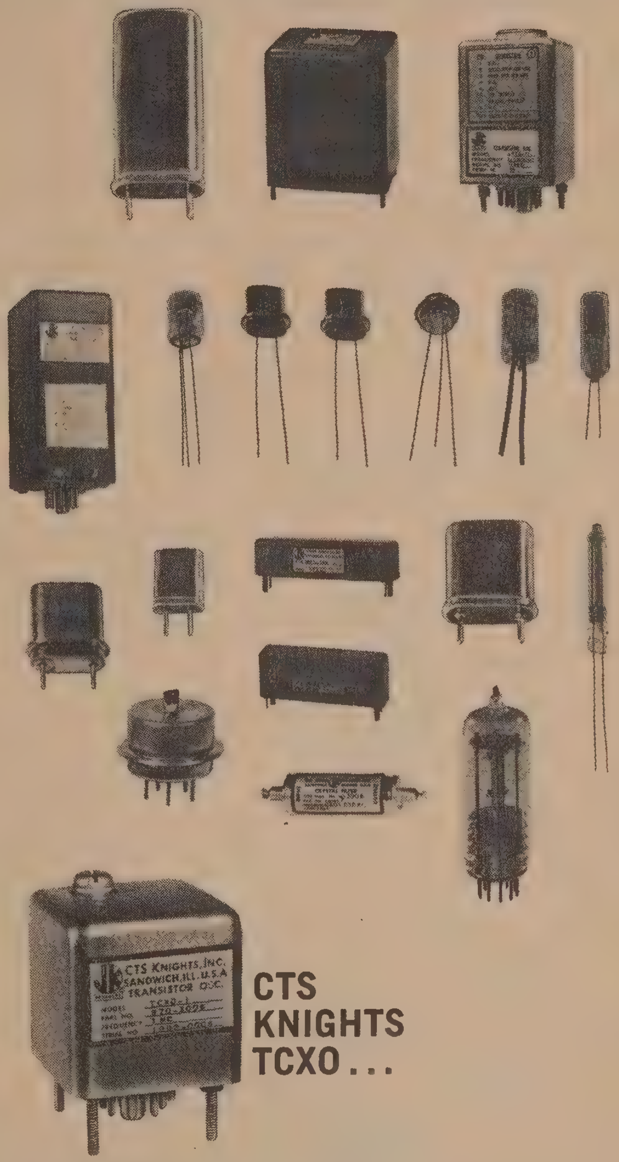
JK offers a complete line of crystals with frequencies ranging from 1000 cycles to 200 MC. Precision crystals, providing changes as little as 1×10^{-10}, are regularly manufactured for use in frequency standards and similar ultra-stable devices. Low frequency crystals are available in evacuated glass envelopes, conventional metal holders and the new KOLDWELD metal enclosures. High frequency crystals, in both metal and glass holders, are manufactured at high volume rates for Government and commercial users. Military standard crystals offer the assurance of maximum quality by adherence to MIL SPECS and close supervision by a resident Government Inspector.

JK crystal filters are compact, rugged, hermetically sealed and stable. Frequency ranges from 1 kc to 40 MC are available to 150 MC.

Packaged transistor oscillators are offered in a wide line of precision, plug-in, crystal controlled signal sources from 10 cps to 75 MC. These oscillators are available with sine or square wave outputs. Stabilities range from 1×10^{-6} to 1×10^{-9} and better per day. Designs can be made to specifications for laboratory, vehicular and full military environmental performance. Each oscillator is aged in and its performance certified before being shipped.

Crystal and component ovens are compact, high temperature stability types carefully made to accommodate crystals and other precision devices. Single crystal, dual crystal and multiple crystal types are available. Many sizes and types are available including snap-action thermostats and proportionately controlled ovens giving the ultimate in quiet, precise operation with stabilities to ±.0025°C.

JK crystal-oven combinations, "THERMYSTALS," cover a wide range of packages for use where close temperature control of crystals is required. Frequency ranges for these crystal-oven combinations are 1 kc to 200 MC. Proportional control and snap-action thermostat control ovens are available in combination with precision, glass-enclosed, and metal-cased crystals with frequency stabilities from .0001% to .0000001%.



CTS KNIGHTS TCXO . . .

Always on frequency regardless of environment

from —40°C to +70°C in outer space or down on earth CTS Knights **Temperature Compensated Crystal Oscillators** are right on frequency with excellent stability (0.5ppm) over wide temperature ranges. With no warmup delay and minimal power requirements (50 Milliwatts) in a compact design CTS Knights TCXO's supply the stable signal source to fit your design requirements.

SHEROLD
CRYSTALS

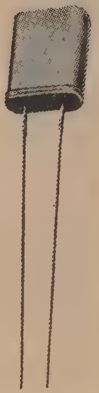
CRYSTALS

PRECISION EXCEEDING MIL SPECIFICATIONS

Advanced design crystals in all frequencies, for military and commercial users. Sherold's complete research, design and production facilities enable us to produce to the most exacting specifications in small quantities or high volume. Questions about selection, design, or special application are always welcome.

SC-100

FREQ. RANGE: 300-1000 KC
4-125 MC



Subminiature hermetically-sealed plated unit. Smallest space requirements of any hermetic crystal available. Weight approximately 1/25 ounce. Shown actual size.

SC-106

Identical to SC-100 except designed for plug-in application with .040 diameter pin.

SC-6

FREQ. RANGE: 190 KC-125 MC

Metal plated and hermetically sealed in military type HC-6/U holder. Very low resistance, low drift, rugged construction. Available in 25 military types. Shown here actual size. For temperature control use Sherold TC-68 or TC-268 oven.

SC-8

Identical to SC-6 except for 2-inch tinned wire leads for soldered-in applications.

SC-9

FREQ. RANGE: 15 KC-300 KC

Low-frequency plated crystal hermetically sealed in military type HC-13/U holder. Meets or exceeds MIL specifications. Rugged construction. Shown here actual size. For temperature control use Sherold TC-98 or TC298 oven.

Sherold Produces these
MILITARY TYPES

Type	MIL Holder	Frequency Tolerance	Frequency Range
MIL-D-3098C			
CR15B/U	HC-21/U	±.01%	80-200 KC
CR16B/U	HC-21/U	±.01%	80-200 KC
CR18A/U	HC-6/U	±.005%	.8-20 MC
CR19A/U	HC-6/U	±.005%	.8-20 MC
CR24/U	HC-10/U	±.005%	15-50 MC
CR25A/U	HC-6/U	±.01%	200-500 KC
CR26A/U	HC-6/U	±.002%	200-500 KC
CR27A/U	HC-6/U	±.002%	.8-20 MC
CR28A/U	HC-6/U	±.002%	.8-20 MC
CR29A/U	HC-21/U	±.002%	80-200 KC
CR30A/U	HC-21/U	±.002%	80-200 KC
CR32A/U	HC-6/U	±.002%	10-75 MC
CR33A/U	HC-6/U	±.005%	10-25 MC
CR35A/U	HC-6/U	±.002%	.8-20 MC
CR36A/U	HC-6/U	±.002%	.8-20 MC
CR37A/U	HC-13/U	±.02%	90-250 KC
CR38A/U	HC-13/U	±.012%	16-100 KC
CR39/U	HC-15/U	±.003%	160-330 KC
CR40/U	HC-15/U	±.003%	160-330 KC
CR42A/U	HC-13/U	±.003%	90-250 KC
CR43/U	HC-16/U	±.01%	80.860 KC
CR45/U	HC-6/U	±.02%	455 KC
CR46A/U	HC-6/U	±.01%	200-500 KC
CR47A/U	HC-6/U	±.002%	200-500 KC
CR50A/U	HC-13/U	±.012%	16-100 KC
CR51A/U	HC-6/U	±.005%	10-61 MC
CR52A/U	HC-6/U	±.005%	10-61 MC
CR53A/U	HC-6/U	±.005%	50-80 MC
CR54A/U	HC-6/U	±.005%	50-125 MC
MIL-D-3098C Continued			
CR55/U	HC-18/U	±.005%	17-61 MC
CR56A/U	HC-18/U	±.005%	50-125 MC
CR57/U	HC-6/U	±.001%	500 KC
CR58A/U	HC-17/U	±.005%	.8-20 MC
CR59A/U	HC-18/U	±.002%	50-125 MC
CR60A/U	HC-18/U	±.005%	5-20 MC
CR61/U	HC-18/U	±.002%	17-61 MC
CR62/U	HC-6/U	±.001%	.8-20 MC
CR63A/U	HC-6/U	±.01%	200-500 KC
CR64/U	HC-18/U	±.005%	4-20 MC
CR65/U	HC-6/U	±.001%	10-61 MC
CR66/U	HC-6/U	±.002%	3-20 MC
CR67/U	HC-18/U	±.0025%	17-61 MC
CR68/U	HC-6/U	±.002%	3-20 MC
CR69/U	HC-18/U	±.002%	8-17 MC
CR70/U	HC-13/U	±.01%	.004 MC
CR71/U	T-5½	±.0001%	4.5-5.5 MC
CR72/U	①HC-25/U	±.005%	17-61 MC
CR75/U	HC-6/U	±.001%	50-125 MC
CR76/U	HC-18/U	±.0025%	17-61 MC
CR77/U	HC-25/U	±.002%	17-62 MC
CR78/U	HC-25/U	±.005%	3-20 MC
CR79/U	HC-25/U	±.005%	5-20 MC
CR80/U	HC-18/U	±.002%	50-125 MC
CR81/U	HC-25/U	±.005%	17-61 MC
CR82/U	HC-25/U	±.005%	50-125 MC
CR83/U	HC-25/U	±.002%	50-125 MC
CR84/U	HC-25/U	±.002%	17-61 MC
CR85/U	HC-6/U	±.0025%	.8-20 MC

NOTES: ①indicates HC18/U with pins.

SPECIFY SHEROLD FOR HIGH QUALITY . . . PROMPT DELIVERY

SHEROLD CRYSTALS, INC. 1510 McGee, Kansas City, Missouri • Area Code 816, Victor 2-9792 TWX 816-556-0384
SUBSIDIARY OF TYCO LABORATORIES, INC.

ITT Europe Inc Components Gp, Brussels 1 ...... Belgium
Kidde & Co Inc, Walter, Belleville ...... N J
Kinsekisha Lab Ltd, Tokyo ...... Japan
Marconi Co Ltd, Chelmsford ...... England
Marconi Div, English Electric Corp, New York ...... N Y
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs ...... Pa
Microsonics Inc, Weymouth ...... Mass
Monitor Products Co Inc, South Pasadena ...... Cal
Nippon Electric Co Ltd, Tokyo ...... Japan
Northern Engineering Labs Inc, Burlington ...... Wis
Pan American Trade Development Corp, New York ...... N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven ...... Holland
Piezo Crystal Co, Carlisle ...... Pa
Piezo Technology Inc, Orlando ...... Fla
Precision Devices Inc, Lawrence ...... Kans
Reeves-Hoffman Div, Carlisle ...... Pa
Savoy Electronics Inc, Fort Lauderdale ...... Fla
Semi-Elements Inc, Saxonburg ...... Pa
Sherold Crystals Inc, Kansas City ...... Mo
Standard Crystal Co, Alhambra ...... Cal
Technical Materiel Corp, Mamaroneck ...... N Y
Tedford Crystal Labs, Inc, Cincinnati ...... Ohio
Thermal American Fused Quartz Co, Montville ...... N J
T M C Systems (Ariz) Inc, Tempe ...... Ariz
Torotel, Inc, Grandview ...... Mo
Valpey-Fisher Corp, Holliston ...... Mass
X-Tron Electronics, Hayward ...... Cal

CRYSTAL UNITS, QUARTZ--FREQUENCY CONTROL

BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE, N Y ...... ADV PG 241
CTS CORP, ELKHART ...... IND
CTS KNIGHTS INC, SANDWICH, ILL ...... ADV PG 239
ELECTRONIC CRYSTALS CORP, KANSAS CITY MO ...... ADV PG 241
ELECTRONIC RESEARCH CO, A TEXTRON CO, OVERLAND PARK KAN ...... ADV PG 241
GREENRAY INDUSTRIES INC, MECHANICSBURG ...... PA
HILL ELECTRONICS INC, MECHANICSBURG ...... PA
INTERNATIONAL CRYSTAL MFG CO INC OKLAHOMA CITY ...... OKLA
MICROSONICS INC, WEYMOUTH ...... MASS
NORTHERN ENGINEERING LABS INC, BURLINGTON WIS ...... ADV PG 242
PETERSEN RADIO CO INC, COUNCIL BLUFFS ...... IOWA ADV PG 451
REEVES-HOFFMAN DIV, CARLISLE, PA ...... ADV PG 241
SHEROLD CRYSTALS INC, KANSAS CITY, MO ...... ADV PG 240
TOROTEL, INC, GRANDVIEW ...... MO
Accutronics, Inc, Geneva Ill
Anderson Electronics Inc, Hollidaysburg ...... Pa
Austron, Inc, Austin ...... Tex
Bendix Corp, Vacuum Div, Rochester ...... N Y

Quartz Freq. Cont. Crystals?
Try Bulova First!
CALL:

Ariz Tech-Ser Inc, 1805 E Indian School Rd Phoenix 602-265-3629
Cal Straube Assoc, 483 Willow Rd Menlo Pk 213-323-2476
Cal W J Carnes & Co, 420 S D St Tustin 213-838-0575
Conn Samuel C Hooker Inc, Box 369 W Hartford 203-233-8000
Fla Perrott Assoc, 1607 Forsyth Rd, Orlando 305-275-1132
Fla Perrott Assoc, Box 6277 West Palm Beach 305-967-1770
Fla Perrott Assoc, Box 4532, Clearwater 813-531-5513
Ill J R Sales Engineering 7132 N Harlem Ave, Chicago 312-774-8550
Iowa J R Sales Engrg, 3350 Cottage Grove Ave SE, Cedar Rapids 319-365-5259
Md Callas Electronics, 6409 Frederick Ave Baltimore 301-744-7711
Mass Samuel Hooker, Inc, Box 352 Winchester 617-729-5482
Minn Wenco Sales Inc, 7728 Morgan Ave S Minneapolis 612-866-3639
Mo J C Mankus & Assoc, 400 Brooks La Hazelwood 314-PE1-4334
NY Kahgan Sales Corp, 1261 Broadway New York 212-MU4-7772
NY H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester 716-232-2688
NY Comtronic Assoc, 1551 Franklin Ave Mineola 516-PI1-8966
NY H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady 518-374-5901
NY H C Johnson Agencies Inc, Box 215 Fayetteville 315-637-9383
NY H C Johnson Agencies Inc, 8 Los Robles St Williamsville 716-632-7880
Ohio Augey Natalino Assoc, 209 Harmony Hills Akron 216-666-1447
Pa C H Newson & Assoc Inc, 627 Bethlehem Pike, Philadelphia 215-248-3377
Tex Blackburn Assoc., Inc., 137 Walnut Hill Village, Box 20073, Dallas 214-351-9991
Wash Jas J Backer Co, 221 W Galer St Seattle 206-AT3-6470
Can Canadian Micro Electronics, Box 6157 Sta J, Ottawa 725-2332

BULOVA WATCH CO INC
FREQUENCY CONTROL PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

erc

CRYSTALS

COMPLETE
FREQUENCY
RANGE
2 kHz to 180 mHz

Q P L approved
in all
frequency ranges

PRECISION CRYSTALS
Glass and Koldweld

erc frequency control products
A TEXTRON COMPANY
electronic research co.
913—ME. 1-6700
10,000 W. 75 · Overland Park, Kans. 66204

EC Offers
Highest Quality
Quartz Crystals

for Military, Commercial, Citizenband, Aircraft, Mobile, Marine, Walkie Talkie, and Special Designs made to Military or your specifications.

Our Engineering Department is at your service to assist you with any type design or application of Quartz Crystals, Crystal Ovens and Associated Products.

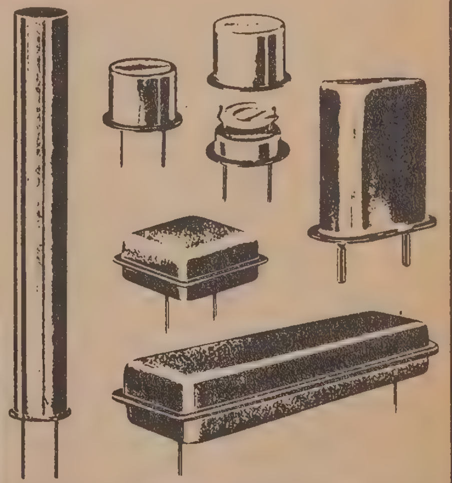
ELECTRONIC CRYSTALS CORP.
2035 Washington, Kansas City, Mo. 64108
Area Code 816-421-1270
TWX 816-556-3245

R/H DCA
REEVES-HOFFMAN
DIVISION, DYNAMICS CORPORATION OF AMERICA
400 WEST NORTH ST., CARLISLE, PENNSYLVANIA 17013 • 717/243-5929

GOVERNMENT TESTS SHOW COLDWELD AGING RATE NEARLY ½ THAT OF GLASS

For your copy, at no charge, of 1968 Government report on aging of general-purpose and precision crystals, write Reeves-Hoffman, Dept. 2946.

★ quartz crystals
★ crystal filters
★ oscillators
★ discriminators
★ standards
★ ovens



COLDWELD UNITS
Coldwelding eliminates solder, attendant flux and heat, removes undesirable damping and corrosion, solves problems of thermal isolation. Substantial increases in reliability, stability and further opportunity for miniaturization are obtainable.

REEVES-HOFFMAN

DIRECTORY OF FREQUENCY CONTROL DEVICES

HERMETICALLY SEALED IN METAL

NE-6 Equivalent to Mil HC-6/U holder. Frequency range 185 Khz to 55 Mhz. Available with wire leads or large pins.

NE-12 Designed to fill size gap between HC-6/U and HC-18/U. Popular with filter manufacturers. Frequency range 3 Mhz to 55 Mhz.

NE-13 Equivalent to Mil HC-13/U holder. Frequency range 3.5 Khz to 250 Khz. Can be extended down to 2.0 Khz with taller versions. Available with wire leads.

NE-18 Equivalent to Mil HC-18/U holder. Available in frequency range 10 Mhz to 55 Mhz.

NE-25 Equivalent to Mil HC-25/U holder. Available in frequency range 10 Mhz to 55 Mhz.

VACUUM SEALED IN GLASS

T-3 Under .400" in diameter. Available in frequency range of 10 Khz to 200 Khz.

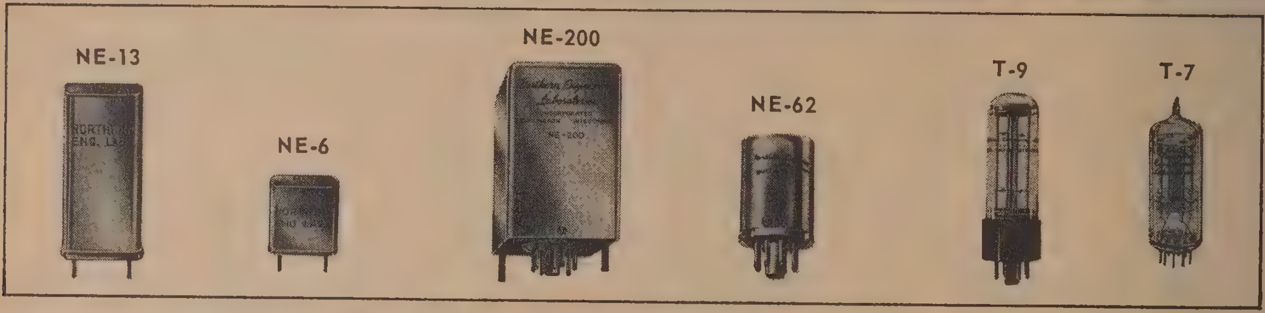
T-6 Equivalent to 6AU6 tube in size. Available in frequency range of 6 Khz to 400 Khz.

T-7 Equivalent to 12BH7 tube in size. Frequency range 2 Khz to 400 Khz. Especially popular at 100 KC for precision time base for frequency counters.

T-9 Equivalent in size to 6SN7 tube. Frequency range 800 hz to 200 Khz.

T-12 Equivalent to 6146 tube in size. Frequency range 75 Khz to 120 Khz, & 550 Khz to 1600 Khz.

Metal QUARTZ CRYSTALS Glass



Crystal OVENS Component Card OSCILLATORS Package

NE-62 Capable of holding two HC-6/U crystals, or other components of equivalent size. Popular for voltage reference diodes.

NE-71 For enclosing one T-7 crystal.

NE-132 Capable of holding two HC-13/U crystals, or other components of equivalent size. Popular for voltage reference diodes.

NE-200 With cavity size 2.75" high, 1.75" wide, by 1.375" deep, this oven is very popular for components. Can be adapted to accept plug in cards.

NE-461 Designed to hold one HC-6/U crystal where exceptional stability is required, without high cost of proportional control.

Many other types available as standard production models, or contact us with your special requirements.

NE-100TO A stable unit capable of handling a wide variety of applications. Popular at 100 Khz, high or low impedance, sign wave output. Available with A.F.C. terminal. With or without temperature control.

NE-200TO A versatile package for one or two oscillators, or one oscillator and another board for other functions. With or without temperature control.

Hermetically sealed oscillator packages for severe environments. Can be provided with terminal for remote frequency trim. Card oscillators for either plug in or bolt - down mounting. Available with amplifiers and wave shaping circuits. Temperature compensated oscillators for improved performance without the power required for temperature control.

Request Detailed 20 Page Catalog 367

SEE OUR SPECIFICATIONS IN VSMF MICROFILM CATALOG FILE

Northern Engineering Laboratories Incorporated

357 Beloit Street. Burlington, Wisconsin 53105 Phone: Area Code 414 763-3591

Betron-IRE-SpA, Livorno	Italy
Bliley Electric Co, Erie	Pa
Breon Laboratories, Williamsport	Pa
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Cathodeon Crystals Ltd, Cambridge	Eng
Clark Crystal Corp, Marlboro	Mass
Connolly & Co Inc, Mountain View	Cal
Croven Ltd, Whitby	Ont
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
CTS Corp, Elkhart	Ind
CTS Electronics Inc, South Pasadena	Cal
CTS Knights Inc, Sandwich	Ill
Dorsett Electronics Inc, Tulsa	Okla
Dowa Trading Co Ltd, Kobe	Japan
Drake Co, R L, Miamisburg	Ohio
Ebauches SA Dept Oscilloquartz 2001 Neuchatel	Switz
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electra/Midland Corp, Kansas City	Kan
Electronic Crystals Corp, Kansas City	Mo
Electronic Research co, A Textron Co Overland Park	Kan
Filtech Corp, Franklin Park	Ill
Frequency Electronics Inc, New Hyde Park	N Y
Greenray Industries Inc, Mechanicsburg	Pa
Heraeus-Engelhard Vacuum Inc, Monroeville	Pa
Hill Electronics Inc, Mechanicsburg	Pa
Hughes Aircraft Co, Newport Beach	Cal
International Crystal Mfg Co Inc, Oklahoma City	Okla
ITT Europe Inc Components Gp, Brussels 1	Belgium
J A C Electronics Ltd, Camberley	England
Kinsekisha Lab Ltd, Tokyo	Japan
Koch Light Labs Ltd, Colnbrook, Bucks	England
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs	Pa
Microsonics Inc, Weymouth	Mass
Microwave Development Labs Inc Needham Heights	Mass
Monitor Products Co Inc, South Pasadena	Cal
Nebel Lab, R E, Garden City	N Y
Northern Engineering Labs Inc, Burlington	Wis
Pan American Trade Development Corp, New York	N Y
Petersen Radio Co Inc, Council Bluffs	Iowa
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Piezo Crystal Co, Carlisle	Pa
Piezo Technology Inc, Orlando	Fla
Precision Crystal Lab, Los Angeles	Cal
Precision Devices Inc, Lawrence	Kans
Quaker Electronics, Hunlock Creek	Pa
Reeves-Hoffman Div, Carlisle	Pa
Savoy Electronics Inc, Fort Lauderdale	Fla
Semi-Elements Inc, Saxonburg	Pa
Servo-Tek Products Co, Marine Div, Hawthorne	N J
Servo-Tek Products Co, Hawthorne	N J
Sherold Crystals Inc, Kansas City	Mo
Simpson Electronics, Inc, Miami	Fla
Standard Crystal Co, Alhambra	Cal
Technical Materiel Corp, Mamaroneck	N Y
Tedford Crystal Labs, Inc, Cincinnati	Ohio
Telefunken Sales Corp, Garden City	N Y
Texas Crystal Div Whitehall Electronics, Ft Myers	Fla
Thermal American Fused Quartz Co, Montville	N J
T M C Systems (Ariz) Inc, Tempe	Ariz
Torotel, Inc, Grandview	Mo
TRW Crystal Plant, Loveland	Colo
Valpey-Fisher Corp, Holliston	Mass
X-Tron Electronics, Hayward	Cal

CRYSTAL UNITS, TOURMALINE--FREQUENCY CONTROL

Crystal Research Inc, Cambridge	Mass
Frequency Electronics Inc, New Hyde Park	N Y
Semi-Elements Inc, Saxonburg	Pa

CURRENT-LIMITING TRANSFORMERS SEE TRANSFORMERS--POWER

CURRENT REGULATORS SEE REGULATORS--CURRENT

CUTTERS SEE MACHINES; TOOLS;ULTRASONIC EQUIPMENT

DASHPOTS

Agastat Div, Elastic Stop Nut Corp, Elizabeth	N J
Barry Controls Div Barry Wright Corp, Watertown	Mass
Indicator Industries Inc, New York	N Y
Micro Parts Inc, Los Angeles	Cal
Mindrum Precision Products, Cucamonga	Cal

Our little black book has over 100,000 phone numbers.

You never had a black book like it. Over 1,500 pages. And those phone numbers! More than 100,000 telling you who to call/where to go, for the over 4,000 different product categories listed and advertised in the yellow pages of the Electronics Buyers' Guide. It's the industry's one-stop shopping center that lets you find the products and services you need quickly. You can depend on EBG.

Electronics Buyers' Guide

Data Acquisition Systems

0 0 2 9 9 9
2 6 8
S-1 Portable
Data Acquisition
Measuring & Recording
System
NLS

S-I DATA ACQUISITION SYSTEMS—A modular building-block concept for data logging. The basic system handles 200, three wire inputs; measures DC from 1 μV to 750 VDC, AC from 10 μV to 500 V, Resistance from 0.1 milliohms to 120 Megohms, and Ratio. Inputs are switched by a fully-programmable crossbar scanner to a five digit DVM with sixth digit 20% over-range.

Output options include magnetic tape, punched paper tape, Flexowriter, punched cards, printer and teletypewriter. Other options include a digital clock, function programmer, reed relay input switches, digital comparator, and expansion up to 1000 three wire input channels.

S-2 PORTABLE DATA ACQUISITION SYSTEMS—The S-2 System offers a computer compatible incremental magnetic tape output and 25 input channels, all in a 10½″ high package. The modular design consists of a 25-channel programmable scanner, a four digit integrating DVM with a fifth digit 20% over-range, a parallel-to-serial converter, and an incremental magnetic tape recorder.

The system is completely programmable to accept a mixture of DC voltage, AC voltage and Resistance. A skipping of unused channels feature is standard in the S-2 System.

NLS maintains a staff of expert design and application engineers to assist you with special requirements.

SCANNER
2 4
DIGITAL VOLTMETER
1 2 3 2 1
SERIALIZER
RECORDER
NLS

Call COLLECT (714) 755-1134 to request detailed brochures and/or applications engineering assistance.

Originator of the Digital Voltmeter
NON-LINEAR SYSTEMS, INC.
DEL MAR, CALIFORNIA 92014

DATA ACQUISITION SYSTEMS & SUB-ASSEMBLIES

HEWLETT-PACKARD, PALO ALTO	**CAL**
NON-LINEAR SYSTEMS INC, DEL MAR, CAL	**ADV PG 244**
SYSTRON DONNER CORP, CONCORD	**CAL**
TEKTRONIX INC, BEAVERTON	**ORE**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
Brown Engineering-A Teledyne Co, Huntsville	Ala
Datatron Inc, Santa Ana	Cal
Hewlett-Packard, Palo Alto	Cal
Lear Siegler Inc, Cimron Div, San Diego	Cal
Measurement Technology Corp, Canoga Park	Cal
Non-Linear Systems Inc, Del Mar	Cal
Systron Donner Corp, Concord	Cal
Takeda Riken Industry Co Ltd, Tokyo	Japan
Tally Corp, Seattle	Wash
Tektronix Inc, Beaverton	Ore
Texas Instruments Inc Indl Prods Div, Houston	Tex
Vidar Corp, Mountain View	Cal

DATA PROCESSING EQUIPMENT SEE SPECIFIC LISTINGS AND SUMMARY UNDER COMPUTER ASSOCIATED EQUIPMENT

DATA PROCESSING SERVICES SEE COMPUTING SERVICES

DATA-RECORDING CAMERAS SEE CAMERAS

DATA-RECORDING EQUIPMENT SEE RECORDERS(VARIOUS TYPES)

DATA REPEATERS SEE REPEATERS--DATA

DATA-STORAGE TUBES SEE TUBES--CATHODE-RAY

DATA-TRANSMISSION SYSTEMS SEE COMMUNICATION SYSTEMS

DB METERS SEE METERS--DB

D-C AMPLIFIERS SEE AMPLIFIERS--D-C

D-C GENERATORS SEE GENERATORS--POWER

D-C POWER SUPPLIES SEE POWER SUPPLIES--D-C

D-C TO A-C CONVERTERS SEE CHOPPERS;INVERTERS; MODULATORS

D-C TO D-C CONVERTERS SEE POWER SUPPLIES D-C

DECADE AMPLIFIERS SEE AMPLIFIERS--INSTRUMENTATION

DECADE BOXES SEE BOXES--DECADE

DECADE SCALERS SEE COUNTERS--ELECTRONIC

DECALCOMANIAS

Brady Co, W H, Milwaukee	Wis
Burtek Inc, Tulsa	Okla
Canrad Precision Industries Inc, New York	N Y
General Research Inc, Sparta	Mich
GM Nameplate, Seattle	Wash
Graphtex Inc, Lodi	N J
Kimball Systems Div Litton Industries, Belleville	N J
Markon Mfg Inc, Englewood	Colo
Miller Dial & Name Plate Co, El Monte	Cal
3M Company, St Paul	Minn
Seton Name Plate Corp, New Haven	Conn
Smith Inc, Herman H, Brooklyn	N Y
Stafford Mfg Co Inc, Brooklyn	N Y
Stanpat Products Inc, Port Washington	N Y
Tadco Mfg Inc, Gloucester	Mass
Topflight Corp, York	Pa
Vitta Corp, Wilton	Conn
Westline Products, Los Angeles	Cal

DECIBEL METERS SEE METERS--DB

DECODERS--BINARY TO DECIMAL

BURROUGHS CORP ELECTRONIC COMPONENTS DIV PLAINFIELD	**N J**
CGS UNITS INC, ROCHESTER, N Y	**ADV PG 245**
DATA TECHNOLOGY, INC, WATERTOWN	**MASS**
DISCON CORP, FORT LAUDERDALE	**FLA**
INTRONICS INC, NEWTON	**MASS**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH COVER**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
NON-LINEAR SYSTEMS INC, DEL MAR	**CAL**
TECHMETRIC CO, REDWOOD CITY	**CAL**
A D Data Systems Inc, Rochester	N Y
Admiral Corp, Gov Electronics Div, Chicago	Ill
Aerojet-General Corp Electronics Div, Azusa	Cal
Aeroscience Electronics Inc, Atlanta	Ga
American Astrionics Inc, Palo Alto	Cal
Analogic Corp, Waltham	Mass
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp, Communications Div, Towson	Md
Bendix Corp Environmental Science Div, Baltimore	Md
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Burroughs Corp Electronic Components Div Plainfield	N J
California Systems Components, Inc, Chatsworth	Cal
Cambridge Thermionic Corp, Cambridge	Mass
Canadian Motorola Electronics Co, Agincourt	Ont
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
CGS Units Inc, Rochester	N Y
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
C & K Components Inc, Watertown	Mass
Computer Logic Corp, Santa Monica	Cal
Connecticut Technical Corp, Hartford	Conn
Control Equipment Corp, Needham Heights	Mass
Control Logic Inc, Natick	Mass
Control Science Corp, Alexandria	Va
Cosmos Industries Inc, Brooklyn	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Datametrics Corp, Van Nuys	Cal
Datascan Inc, Clifton	N J
Data Technology, Inc, Watertown	Mass
Design Products Corp, Troy	Mich
Digital Products, San Pedro	Cal
Discon Corp, Fort Lauderdale	Fla
Dynamic System Electronics Corp, Tempe	Ariz
E D P Corp, Orlando	Fla
Electro Circuits Inc, Lowell	Mass
Electronic Modules Corp, Timonium	Md
Elpac Inc Systems Div Data, Irvine	Cal
Epsco Inc, Westwood	Mass
Fairchild Space & Defense Sys Div Fairchild Cam Instr Corp, Syosset	NY
Ferwalt Inc W H, Lapwai	Idaho
Fisher-Akin Co, Manhattan Beach	Cal
Gap Instrument Corp, Westbury	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Geo Space Systems Inc, St Petersburg	Fla
Hartman Systems Co Inc, Huntington Station	N Y
Hathaway Pacific Corp, Palo Alto	Cal
Humphrey Electronics Inc, Raleigh	N C
Industrial Electronic Engineers Inc, Van Nuys	Cal
Information Control Corp, El Segundo	Cal
Information Instruments, Inc, Ann Arbor	Mich
Instrumentation Technology Corp, Northridge	Cal
Intellux Inc, Goleta	Cal
Inter-Market Inc, Glenview	Ill
Intronics Inc, Newton	Mass
Janus Control Div Tyco, Waltham	Mass
Kepco Inc, Flushing	N Y
Laben S p A, Milan	Italy
La Telemecanique Electrique, 92 Rueil	France
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
LeCroy Research Systems Corp, West Nyack	N Y
Logitek Inc, Farmingdale	N Y
Loral Electronic Systems, Div Loral Corp, New York	NY
Magnetic Systems Corp, Clearwater	Fla
Massey Dickinson Co Inc, Saxonville	Mass
Measurement Technology Corp, Canoga Park	Cal
Mesa Co, Bristol	Pa
Micro Metrics Inc, Paterson	N J
Microwave/Systems Inc, East Syracuse	N Y
Milgo Electronic Corp, Miami	Fla
Missouri Research Labs Inc, St Louis	Mo
Molecular Research Inc, Palm Beach Gardens	Fla
Monitor Systems Inc, Fort Washington	Pa
Navigation Computer Corp, Norristown	Pa
Nippon Electric Co Ltd, Tokyo	Japan
Non-Linear Systems Inc, Del Mar	Cal
Northridge Engineering Co Div Republic Corp Northridge	Cal
Novatronics Inc, Pompano Beach	Fla
Parabam Inc, Hawthorne	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pinlites, Inc, Fairfield	N J
Pulse Communications Inc, Falls Church	Va
Radix Electronics Corp, Anaheim	Cal
RC-95 Inc, New York	N Y
Roback Corp, Huntingdon Valley	Pa
Science Accessories Corp, Southport	Conn
Shelly Associates, Inc, El Segundo	Cal
Signet Controls Inc, Tulsa	Okla
Space Craft Inc, Huntsville	Ala
Straza Industries Div Ametek Inc, El Cajon	Cal
Takeda Riken Industry Co Ltd, Tokyo	Japan
Techmetric Co, Redwood City	Cal
Theta Instrument Corp, Fairfield	N J
Transistor Electronics Corp, Minneapolis	Minn
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y

new
versatile

Model BD 20

HIGH-SPEED
CODE CONVERTER

- Binary and gray code conversion to 1-2-4-8 BCD Code.
- Serial or parallel inputs.
- Up to 20 bit binary or gray code inputs.
- Up to 19 bit (plus 1 bit for sign) in "1"s or "2"s complement code inputs.
- Conversion rate 1 microsecond per bit plus 2μ seconds.
- Operation modes: external, internal and manual conversion.
- Advanced integrated circuit logic.
- Up to 6 BCD decades. Basic unit 3 decades.
- Binary 1: +2.5 to 5 volts.
  Binary 0: 0 to +0.4 volts.
- Above features can be altered to suit particular applications.

OTHER PRODUCTS

- Other Code Converters
- Power Source for environmental testing (See other ad in Buyer's Guide)
- Electromechanical component and circuit test probe stations
- Power supplies and modules
- High purity silicon monoxide

CGS UNITS, INC.

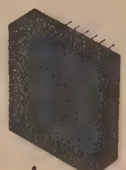
73 SAGINAW DRIVE
ROCHESTER, N. Y. 14623
Phone: 716-244-2080

DIGICATOR®

DECODER/DRIVERS

DUAL IN-LINE PACKAGE

Chassis Mounted PC Card & Solder Pads



Plug-in with Solder Pins

	Limits				
	Min.	Typ	Max.	Units	
Supply Voltage	4.5	5.0	5.5	V	
Logic Power Consumption		200	250	mW	
Logic Inputs:					
Logic "1" High Level	2.0		6.0	V	
Logic "0" Low Level	0.0		0.8	V	
*Lamp Driver Outputs:					
Collector Current			80	mA	
Collector Voltage			15	V	unregulated
Lamp Test On	0.0		0.8	VDC	
Lamp Test Off			6.0	VDC	
Temperature Range	0°		75°	C	
With Memory					
Supply Voltage	4.75	5.0	5.25	VDC	
Power Consumption		360	450	MW	Vcc = 5.0 V
Gate Input High	2.0		5.5	VDC	
Gate Input Low	0.0		0.8	VDC	
Data Input High	2.0		5.5	VDC	
Data Input Low	0.0		0.8	VDC	
Max. Sampling Rate			1.0	MHz	
Gate Width of Sampling Rate	150			10⁹ Sec.	
*Lamp Driver Current			80	ma	
*Lamp Driver Voltage			15	VDC	Unregulated
Lamp Test ON	0.0	0.4	0.8	VDC	
Lamp Test OFF	2.5	4.0	5.5	VDC	
Temperature Range	0°		75°	C	

* Lamp supply circuit is separate from logic supply circuit, thus enabling module to be used with readouts of various voltage and current ratings.

DISCON CORPORATION

P.O. BOX 9355 * FORT LAUDERDALE, FLORIDA 33309

PHONE: (AREA CODE 305) 565-5511

Veeder-Root, Hartford	Conn
Vega Precision Labs, Vienna	Va
Vitro Labs Div Vitro Corp of America, Silver Spring	Md
Vitro Labs Div Vitro Corp of America, W Orange	N J
Watesta Electronics Ltd, London-E 11	England
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J

DECODERS--DIGITAL TO ANALOG

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL	**PA**
COMPUTER LABS, GREENSBORO	**N C**
DATA TECHNOLOGY, INC, WATERTOWN	**MASS**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INTRONICS INC, NEWTON	**MASS**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH COVER**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
NON-LINEAR SYSTEMS INC, DEL MAR	**CAL**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW	**N Y**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
SUPERIOR ELECTRIC CO THE, BRISTOL	**CONN**
TOWSON LABS INC, BALTIMORE	**MD**
A D Data Systems Inc, Rochester	N Y
American Astrionics Inc, Palo Alto	Cal
Analogic Corp, Waltham	Mass
Automation Development Co, Culver City	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp, Communications Div, Towson	Md
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Bendix Corp Environmental Science Div, Baltimore	Md
California Systems Components, Inc, Chatsworth	Cal
Canadian Motorola Electronics Co, Agincourt	Ont
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
Computer Labs, Greensboro	N C
Computer Logic Corp, Santa Monica	Cal
Control Data Corp, LaJolla Div, Minneapolis	Minn
Control Equipment Corp, Needham Heights	Mass
Control Logic Inc, Natick	Mass
Cosmos Industries Inc, Brooklyn	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Data-Control Systems Inc, Danbury	Conn
Datametrics Corp, Van Nuys	Cal
Data Technology, Inc, Watertown	Mass
DatCon Electronics Corp, Bayside	NY
Digital Products, San Pedro	Cal
Digital Products Div Canoga Elctns Corp Chatsworth	Cal
Dynamic System Electronics Corp, Tempe	Ariz
Dynatronics Oper Elctns Div Gen Dynamics Corp Orlando	Fla
Dytro Corp, Hicksville	NY
E D P Corp, Orlando	Fla
E G & G Inc Custom Equip Div, Bedford	Mass
Electro Circuits Inc, Lowell	Mass
Electronic Design Labs Inc, Philadelphia	Pa
Epsco Inc, Westwood	Mass
Fairchild Space & Defense Sys Div Fairchild Cam Instr Corp, Syosset	NY
Ferranti, Ltd, Lancashire	England
Fisher-Akin Co, Manhattan Beach	Cal
Gap Instrument Corp, Westbury	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Geo Space Systems Inc, St Petersburg	Fla
Hartman Systems Co Inc, Huntington Station	N Y
Hathaway Pacific Corp, Palo Alto	Cal
Hewlett-Packard, Palo Alto	Cal
Hybrid Systems Corp, Cambridge	Mass
Information Control Corp, El Segundo	Cal
Information Displays Inc, Mt Kisco	NY
Intellux Inc, Goleta	Cal
Intronics Inc, Newton	Mass
Janus Control Div Tyco, Waltham	Mass
Keltec Industries, Alexandria Div, Alexandria	Va
Kepco Inc, Flushing	N Y
Laben S p A, Milan	Italy
La Telemecanique Electrique, 92 Rueil	France
LCC-CICE, 93 Montreuil-sous-Bois	France
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Logitek Inc, Farmingdale	N Y
Loral Electronic Systems, Div Loral Corp, New York	NY
Magnetic Systems Corp, Clearwater	Fla
Measurement Technology Corp, Canoga Park	Cal
Micro Metrics Inc, Paterson	N J
Milgo Electronic Corp, Miami	Fla
Monitor Systems Inc, Fort Washington	Pa
NanoFast, Inc, Chicago	Ill
Navigation Computer Corp, Norristown	Pa
Nippon Electric Co Ltd, Tokyo	Japan
Non-Linear Systems Inc, Del Mar	Cal
North Atlantic Industries Inc, Plainview	N Y
Northridge Engineering Co Div Republic Corp Northridge	Cal
Novatronics Inc, Pompano Beach	Fla
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Pastoriza Electronics Inc, Newton Upper Falls	Mass
Radix Electronics Corp, Anaheim	Cal
RC-95 Inc, New York	N Y
Roback Corp, Huntingdon Valley	Pa
Saturn Electronics Corp, Garland	Tex
Science Accessories Corp, Southport	Conn
Servo Corp of America, Hicksville	N Y
Signet Controls Inc, Tulsa	Okla
Space Craft Inc, Huntsville	Ala
Sprague Electric Co, North Adams	Mass
Straza Industries Div Ametek Inc, El Cajon	Cal
Superior Electric Co The, Bristol	Conn
Takeda Riken Industry Co Ltd, Tokyo	Japan
Teledyne Telemetry Co, Los Angeles	Cal
Texas Instruments Incorporated, Dallas	Tex
Theta Instrument Corp, Fairfield	N J
Towson Labs Inc, Baltimore	Md
TRW Systems Group, Redondo Beach	Cal
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Veeder-Root, Hartford	Conn
Vega Precision Labs, Vienna	Va
Vitro Labs Div Vitro Corp of America, Silver Spring	Md
Vitro Labs Div Vitro Corp of America, W Orange	N J
Watesta Electronics Ltd, London-E 11	England
Whittaker Corp Technical Products Div, Chatsworth	Cal

DECODERS--DRIVER, ALPHANUMERIC

BURROUGHS CORP ELECTRONIC COMPONENTS DIV PLAINFIELD	**N J**
DISCON CORP, FORT LAUDERDALE, FLA	**ADV PG 246**
TECHMETRIC CO, REDWOOD CITY	**CAL**
American Astrionics Inc, Palo Alto	Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Burroughs Corp Electronic Components Div Plainfield	N J
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Discon Corp, Fort Lauderdale	Fla
Humphrey Electronics Inc, Raleigh	N C
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Saturn Electronics Corp, Garland	Tex
Shelly Associates, Inc, El Segundo	Cal
Techmetric Co, Redwood City	Cal
Transistor Electronics Corp, Minneapolis	Minn

DECODERS--TONE

MESON ELECTRONICS CO, INC, ROCHESTER	**N Y**
TELE-SIGNAL CORP, WOODBURY	**N Y**
Avco Corp Electronics Div, Cincinnati	Ohio
Babcock Electronic Corp, Costa Mesa	Cal
Bayly Engineering Ltd, Ajax	Ontario
Canadian Motorola Electronics Co, Agincourt	Ont
Control Science Corp, Alexandria	Va
General Instrument Corp Radio Receptor Div Hicksville	N Y
H B Engineering Corp, Silver Spring	Md
Kokusai Electric Co Ltd, Tokyo	Japan
Meson Electronics Co, Inc, Rochester	N Y
Reach Electronics Inc, Lexington	Neb
Sigma Instruments Inc, Braintree	Mass
Stelma Inc, Stamford	Conn
Tele-Signal Corp, Woodbury	N Y
Utility Communication Systems Inc, Essington	Pa
Vega Electronics Corp, Santa Clara	Cal
Vinco Industries, Orange	Cal

DECOMMUTATORS--TELEMETERING

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
Accurate Electronics Corp, Elyria	Ohio
American Astrionics Inc, Palo Alto	Cal
Astrodata Inc, Anaheim	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp, Communications Div, Towson	Md
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Computing Devices of Canada Ltd, Ottawa	Ont
Control Data Corp, LaJolla Div, Minneapolis	Minn
Control Logic Inc, Natick	Mass
Data-Control Systems Inc, Danbury	Conn
Defense Electronics Inc, Rockville	Md
Dynamic System Electronics Corp, Tempe	Ariz
Dynatronics Oper Elctns Div Gen Dynamics Corp Orlando	Fla
Electronic Modules Corp, Timonium	Md
Elpac Inc Systems Div Data, Irvine	Cal
EMR Div Weston Instruments Inc, Princeton	N J
Epsco Inc, Westwood	Mass
Industrial Electronetics Corp, Satellite Beach	Fla
Intertechnique, Plaisir, 78	France
Laben S p A, Milan	Italy
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Logic Corp, Haddonfield	N J

Monitor Systems Inc, Fort Washington	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radiation Inc Systems Div, Melbourne	Fla
RC-95 Inc, New York	N Y
Saturn Electronics Corp, Garland	Tex
Sierra Research Corp, Buffalo	N Y
Stellarmetrics Inc, Santa Barbara	Cal
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
TRW Systems Group, Redondo Beach	Cal
Utility Communication Systems Inc, Essington	Pa

DEFLECTION YOKES SEE YOKES--DEFLECTION

DEGREASING CHEMICALS SEE SOLVENTS

DEHUMIDIFIERS SEE ALSO DESICCANTS

Abrax Instrument Corp, Jamaica	N Y
Airflow Co, Gaithersburg	Md
Andrew Corp, Orland Park	Ill
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Barium and Chemicals, Inc, Steubenville	Ohio
Bio-Rad Laboratories, Richmond	Cal
Cargocaire Engineering Corp, Amesbury	Mass
Daco Instrument Co Inc, Trumbull	Conn
Dryomatic Div Logetronics Inc, Springfield	Va
Gabriel Electronics Div Maremont Corp, Saco	Maine
Guide Industries Inc, Sun Valley	Cal
Heather Filters Ltd, London W 1	England
Kahn & Co Inc, Wethersfield	Conn
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Romec Div, Elyria	Ohio
Lectrodryer Div, McGraw-Edison Co, Pittsburgh	Pa
Multiform Desiccant Products Inc, Buffalo	N Y
Pall Corp, Environmental Control Systems Div Long Island City	NY
Pall Trinity Micro Corp, Cortland	N Y
Perfectaire Equipment Co Inc, Cambridge	Mass
Phelps Dodge Electronic Products Corp North Haven	Conn

Works in Seconds.

The '69 Electronics Buyers' Guide lets you find people, places, and things in seconds. In the Directory of Manufacturers and Sales Offices, for example, more than 6,000 manufacturers are listed, including addresses, telephone numbers, sales offices, the people to call for information, the total number of engineers and employees and sales volumes. So use your EBG. It works in seconds.

Electronics Buyers' Guide

Porter Co Inc, H K Electrical Div, Pittsburgh	Pa
Superior Continental Corp, Hickory	N C
United States Dynamics, Needham Heights	Mass
Vacuum/Atmospheres Corp, N Hollywood	Cal
Van Products Co, Erie	Pa
Wells Industries Corp, North Hollywood	Cal

DEHYDRATORS SEE OVENS; DEHUMIDIFIERS

DELAY-LINE CORES SEE CORES DELAY-LINE

DELAY LINES--COLOR TV

ALLEN AVIONICS INC,DIV A K ALLEN CO INC, MINEOLA N Y	**ADV PGS 250,251**
AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE	**N Y**
ANDERSEN LABORATORIES, INC, BLOOMFIELD CONN	**ADV PG 253**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
KAPPA NETWORKS INC, CARTERET, N J	**ADV PG 252**
MICROSONICS INC, WEYMOUTH	**MASS**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Ad-Yu Electronics Inc, Passaic	N J
Allen Avionics Inc,Div A K Allen Co Inc, Mineola	N Y
Amperex Electronic Corp, Component Div Hauppauge	N Y
Andersen Laboratories, Inc, Bloomfield	Conn
Computer Devices Corp, Commack	N Y
Computer Instruments Corp, Hempstead	N Y
Control Electronics Co Inc, Farmingdale	N Y
Corning Glass Works, Corning	N Y
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Data Delay Devices, Clifton	N J
Digital Devices Inc, Syosset	N Y
Electrosil Ltd, Sunderland, Durham	England
General Instrument Corp F W Sickles Div Chicopee	Mass
General Instrument Europe SPA, Milano	Italy
Gudeman Div Gulton Industries, Inc, Chicago	Ill
Kappa Networks Inc, Carteret	N J
LCC-CICE, 93 Montreuil-sous-Bois	France
Microsonics Inc, Weymouth	Mass
Mitsumi Electric Co Ltd, Tokyo	Japan
Nippon Electric Co Ltd, Tokyo	Japan
PCA Electronics Inc, Sepulveda	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Siemens America Inc, New York	N Y
Sovcor Electronique, Le Vesinet 78	France

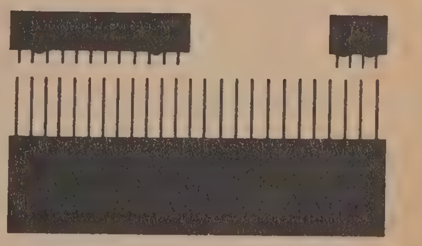
DELAY LINES--CRYOGENIC

ANDERSEN LABORATORIES, INC, BLOOMFIELD CONN	**ADV PG 253**
TIMES WIRE & CABLE DIV, INT L SILVER CO WALLINGFORD	**CONN**
Andersen Laboratories, Inc, Bloomfield	Conn
Control Electronics Co Inc, Farmingdale	N Y
Cosmodyne Corp, Torrance	Cal
Times Wire & Cable Div, Int L Silver Co Wallingford	Conn

DELAY LINES--DISTRIBUTED CONSTANT, FIXED

ANDERSEN LABORATORIES, INC, BLOOMFIELD CONN	**ADV PG 253**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER N H	**ADV PG 247**
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN	**N Y**
KAPPA NETWORKS INC, CARTERET, N J	**ADV PG 242**
MICROSONICS INC, WEYMOUTH	**MASS**
R C L ELECTRONICS INC, IRVINGTON	**N J**
TECHNITROL INC, PHILADELPHIA	**PA**
TIMES WIRE & CABLE DIV, INT L SILVER CO WALLINGFORD	**CONN**
Ad-Yu Electronics Inc, Passaic	N J
Aladdin Electronics Div Aladdin Industries, Inc Nashville	Tenn
Andersen Laboratories, Inc, Bloomfield	Conn
Artronic Instrument Co, Silver Spring	Md
Atlas Coil Corp, Ansonia	Conn
Automatic Coil Co Div Designatronics, Inc Mineola	N Y
Clavier Corp, Richmond Hill	NY
Computer Devices Corp, Commack	N Y
Computer Instruments Corp, Hempstead	N Y
Control Electronics Co Inc, Farmingdale	N Y
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Corning Glass Works, Corning	N Y
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Data Delay Devices, Clifton	N J
Daven Div McGraw-Edison Co, Manchester	N H
Daytron Inc, Mountain View	Cal
Delta Coils, Philadelphia	Pa
Dietz Design Inc, Belton	Mo
El-Rad Mfg Co, Chicago	Ill
ESC Electronics Corp Sub Simmonds Precision Palisades Park	N J
Ferritronics Ltd, Richmond Hill	Ont
Forbes & Wagner Inc, Silver Creek	N Y
General Instrument Corp F W Sickles Div Chicopee	Mass
Gralex Industries Inc, Copiague	N Y
Gudeman Div Gulton Industries, Inc, Chicago	Ill
Gulton Industries Inc, Metuchen	N J
Herley Industries, Inc, Westbury	N Y
JFD Electronics Co, Components Div, Brooklyn	N Y
Kappa Networks Inc, Carteret	N J
LCC-CICE, 93 Montreuil-sous-Bois	France
Lignes Telegraphiques et Telephoniques Paris 16	France
Marconi Div, English Electric Corp, New York	N Y
Micromagnetics Div Gulton Ind, Visalia	Cal
Microsonics Inc, Weymouth	Mass
Microwave Associates Inc, Burlington	Mass
Millen Mfg Co Inc, James, Malden	Mass
MVR Corp, Palo Alto	Cal
Nanosecond Systems Inc, Fairfield	Conn
Nytronics Inc, Berkeley Heights	N J
PCA Electronics Inc, Sepulveda	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
R C L Electronics Inc, Irvington	N J
Redman Electronics Corp, Thompsonville	Conn
Sealectro Corp, Mamaroneck	N Y
Technitrol Inc, Philadelphia	Pa
Times Wire & Cable Div, Int L Silver Co Wallingford	Conn
Vanguard Electronics Co, Inglewood	Cal
Vidcor Co Inc, Gardena	Cal

delay lines



Various package configurations with delay times from 1 to 100 nanoseconds. Rise times less than 1 nanosecond. Frequency response better than 1,000 mc. Impedances from 50 to 2,000 Ohms. Bulletin No. DL-95.

DAVEN McGRAW EDISON

DIVISION OF THOMAS A. EDISON INDUSTRIES
GRENIER FIELD, MANCHESTER, N.H. 03103
(603) 669-0940 • TWX 603-623-4938

Delay Lines

MAGNETOSTRICTIVE
DELAY LINES

SOLID
DELAY LINES
(Glass or Quartz)

LC and DC
DELAY LINES

DISPERSIVE
DELAY LINES

DIGITAL
DELAY LINES

for proven reliability in Delay Lines and Serial Memory Systems for military and commercial applications, it's . . .

MICROSONICS, INC.
60 Winter Street
Weymouth, Mass. 02188
Tel: 617 337-4200
A subsidiary of the Sangamo Electric Company

DELAY LINES--DISTRIBUTED CONSTANT, VARIABLE

ANDERSEN LABORATORIES, INC, BLOOMFIELD CONN .... ADV PG 253
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON .... CAL
COMPUTER INSTRUMENTS CORP, HEMPSTEAD .... N Y
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER .... N H
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN .... N Y
KAPPA NETWORKS INC, CARTERET, N J .... ADV PG 252
MICROSONICS INC, WEYMOUTH, MASS .... ADV PG 248
TIMES WIRE & CABLE DIV, INT L SILVER CO WALLINGFORD .... CONN
Ad-Yu Electronics Inc, Passaic .... N J
Alford Mfg Co, Winchester .... Mass
Andersen Laboratories, Inc, Bloomfield .... Conn
Artronic Instrument Co, Silver Spring .... Md
Atlas Coil Corp, Ansonia .... Conn
Automatic Coil Co Div Designatronics, Inc Mineola .... N Y
Beckman Instruments Inc, Helipot Div, Fullerton .... Cal
Bishop Instrument, Portland .... Maine
Computer Devices Corp, Commack .... N Y
Computer Instruments Corp, Hempstead .... N Y
Control Electronics Co Inc, Farmingdale .... N Y
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark .... N J
Data Delay Devices, Clifton .... N J
Daven Div McGraw-Edison Co, Manchester .... N H
Dietz Design Inc, Belton .... Mo
ESC Electronics Corp Sub Simmonds Precision Palisades Park .... N J
General Radio Co, West Concord .... Mass
Gralex Industries Inc, Copiague .... N Y
Gulton Industries Inc, Metuchen .... N J
JFD Electronics Co, Components Div, Brooklyn .... N Y
Kappa Networks Inc, Carteret .... N J
LCC-CICE, 93 Montreuil-sous-Bois .... France
Marconi Div, English Electric Corp, New York .... N Y
Microsonics Inc, Weymouth .... Mass
Microwave Associates Inc, Burlington .... Mass
MVR Corp, Palo Alto .... Cal
Nanosecond Systems Inc, Fairfield .... Conn
Nytronics of Canada Ltd, Trenton .... Ont
PCA Electronics Inc, Sepulveda .... Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Sealectro Corp, Mamaroneck .... N Y
Times Wire & Cable Div, Int L Silver Co Wallingford .... Conn

DELAY LINES--LUMPED CONSTANT,FIXED

ALLEN AVIONICS INC,DIV A K ALLEN CO INC, MINEOLA N Y .... ADV PGS 250,251
ANDERSEN LABORATORIES, INC, BLOOMFIELD CONN .... ADV PG 253
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE, N Y .... ADV PG 248
COMPUTER INSTRUMENTS CORP, HEMPSTEAD .... N Y
DALE ELECTRONICS INC, SIOUX DIV, YANKTON .... S DAK
HISONIC INC, OLATHE, KAN .... ADV PG 248
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN .... N Y
KAPPA NETWORKS INC, CARTERET, N J .... ADV PG 252
MICROSONICS INC, WEYMOUTH .... MASS
R C L ELECTRONICS INC, IRVINGTON .... N J
TECHNITROL INC, PHILADELPHIA, PA .... ADV PG 249
TOROTEL, INC, GRANDVIEW .... MO
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK .... N Y
Admiral Corp, Gov Electronics Div, Chicago Ill
Ad-Yu Electronics Inc, Passaic .... N J
Aladdin Electronics Div Aladdin Industries, Inc Nashville .... Tenn
Allen Avionics Inc,Div A K Allen Co Inc, Mineola .... N Y
Andersen Laboratories, Inc, Bloomfield .... Conn
A P Circuit Corp, New York .... N Y
Applied Electro Mechanics Inc, Alexandria .... Va
Artronic Instrument Co, Silver Spring .... Md
Atlas Coil Corp, Ansonia .... Conn
Automatic Coil Co Div Designatronics, Inc Mineola .... N Y
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside .... N Y
Clavier Corp, Richmond Hill .... NY
Coilcraft Inc, Cary Ill
Computer Devices Corp, Commack .... N Y
Computer Instruments Corp, Hempstead .... N Y
Control Electronics Co Inc, Farmingdale .... N Y
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark .... N J
Dale Electronics Inc, Sioux Div, Yankton .... S Dak
Daltronics Inc, Providence .... R I
Data Delay Devices, Clifton .... N J
Daytron Inc, Mountain View .... Cal
Dietz Design Inc, Belton .... Mo
E G & G Inc Custom Equip Div, Bedford .... Mass
El-Rad Mfg Co, Chicago Ill
EMR Div Weston Instruments Inc, Princeton .... N J
ESC Electronics Corp Sub Simmonds Precision Palisades Park .... N J
Ferranti, Ltd, Lancashire .... England
Ferritronics Ltd, Richmond Hill .... Ont
Forbes & Wagner Inc, Silver Creek .... N Y
Fullmer Electronics Inc, Northridge .... Cal

Delay Lines?
Try Bulova First!
CALL:

Ariz	Tech-Ser Inc, 1805 E Indian School Rd Phoenix	602-265-3629
Cal	Straube Assoc, 483 Willow Rd Menlo Pk	213-323-2476
Cal	W J Carnes & Co, 420 S D St Tustin	213-838-0575
Conn	Samuel C Hooker Inc, Box 369 W Hartford	203-233-8000
Fla	Perrott Assoc, 1607 Forsyth Rd, Orlando	305-275-1132
Fla	Perrott Assoc, Box 6277 West Palm Beach	305-967-1770
Fla	Perrott Assoc, Box 4532, Clearwater	813-531-5513
Ill	J R Sales Engineering 7132 N Harlem Ave, Chicago	312-774-8550
Iowa	J R Sales Engrg, 3350 Cottage Grove Ave SE, Cedar Rapids	319-365-5259
Md	Callas Electronics, 6409 Frederick Ave Baltimore	301-744-7711
Mass	Samuel Hooker, Inc, Box 352 Winchester	617-729-5482
Minn	Wenco Sales Inc, 7728 Morgan Ave S Minneapolis	612-866-3639
Mo	J C Mankus & Assoc, 400 Brooks La Hazelwood	314-PE1-4334
NY	Kahgan Sales Corp, 1261 Broadway New York	212-MU4-7772
NY	H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester	716-232-2688
NY	Comtronic Assoc, 1551 Franklin Ave Mineola	516-PI1-8966
NY	H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady	518-374-5901
NY	H C Johnson Agencies Inc, Box 215 Fayetteville	315-637-9383
NY	H C Johnson Agencies Inc, 8 Los Robles St Williamsville	716-632-7880
Ohio	Augey Natalino Assoc, 209 Harmony Hills Akron	216-666-1447
Pa	C H Newson & Assoc Inc, 627 Bethlehem Pike, Philadelphia	215-248-3377
Tex	Blackburn Assoc., Inc., 137 Walnut Hill Village, Box 20073, Dallas	214-351-9991
Wash	Jas J Backer Co, 221 W Galer St Seattle	206-AT3-6470
Can	Canadian Micro Electronics, Box 6157 Sta J, Ottawa	725-2332

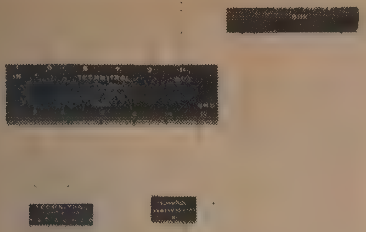
BULOVA WATCH CO INC
FREQUENCY CONTROL PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

DELAY LINES

Fixed, lumped constant with single or multiple tap in the outputs. Precision delay times in the micro-second and milli-second region. Delay/rise time ratios to 100/1. Designed and manufactured to your specified performance requirements employing latest techniques with stick wound or toroidal inductors, plastic or metallic cases as indicated by appropriate balance of performance/size/cost factors. Write, phone or wire:

hisonic inc.

249 N. Troost, Olathe, Kansas 66061
Phone 913-782-0012



DELAY LINES
Lumped constant types
Tapped, programmable
Small size

Technitrol
1952 E. Allegheny Ave. Phila., Pa. 19134
(215) 426-9105

General Instrument Corp F W Sickles Div Chicopee	Mass
Gudeman Div Gulton Industries, Inc, Chicago	Ill
Gulton Industries Inc, Metuchen	N J
Helix Research Assoc Inc, La Mesa	Cal
Herley Industries, Inc, Westbury	N Y
Hisonic Inc, Olathe	Kan
JFD Electronics Co, Components Div, Brooklyn	N Y
Kappa Networks Inc, Carteret	N J
Kenyon Electronics Inc, Jersey City	N J
Lake Engineering Co Ltd, Scarborough	Ont
LCC-CICE, 93 Montreuil-sous-Bois	France
Lignes Telegraphiques et Telephoniques Paris 16	France
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Micromagnetics Div Gulton Ind, Visalia	Cal
Microsonics Inc, Weymouth	Mass
Microwave Associates Inc, Burlington	Mass
Millen Mfg Co Inc, James, Malden	Mass
Nanosecond Systems Inc, Fairfield	Conn
Nytronics Inc, Berkeley Heights	N J
Nytronics of Canada Ltd, Trenton	Ont
PCA Electronics Inc, Sepulveda	Cal
R C L Electronics Inc, Irvington	N J
Redman Electronics Corp, Thompsonville	Conn
Science Accessories Corp, Southport	Conn
Scott Electronics Corp, Orlando	Fla
Sealectro Corp, Mamaroneck	N Y
Siemens America Inc, New York	N Y
Sprague Electric Co, North Adams	Mass
Technitrol Inc, Philadelphia	Pa
Torotel, Inc, Grandview	Mo
United Transformer Co Div TRW Inc, New York	N Y
Valor Electronics Inc, Gardena	Cal
Vanguard Electronics Co, Inglewood	Cal
Vidcor Co Inc, Gardena	Cal

DELAY LINES--LUMPED CONSTANT,VARIABLE

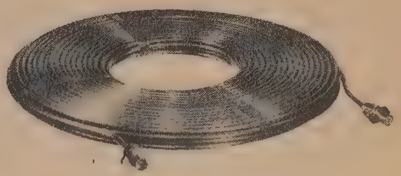
ALLEN AVIONICS INC,DIV A K ALLEN CO INC, MINEOLA N Y	**ADV PGS 250,251**
ANDERSEN LABORATORIES, INC, BLOOMFIELD CONN	**ADV PG 253**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN	**N Y**
KAPPA NETWORKS INC, CARTERET, N J	**ADV PG 252**
MICROSONICS INC, WEYMOUTH	**MASS**
Ad-Yu Electronics Inc, Passaic	N J
Allen Avionics Inc,Div A K Allen Co Inc, Mineola	N Y
Andersen Laboratories, Inc, Bloomfield	Conn
Artronic Instrument Co, Silver Spring	Md
Atlas Coil Corp, Ansonia	Conn
Automatic Coil Co Div Designatronics, Inc Mineola	N Y
Chronetics Inc, Mount Vernon	N Y
Computer Devices Corp, Commack	N Y
Computer Instruments Corp, Hempstead	N Y
Control Electronics Co Inc, Farmingdale	N Y
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Data Delay Devices, Clifton	N J
El-Rad Mfg Co, Chicago	Ill
EMR Div Weston Instruments Inc, Princeton	N J
ESC Electronics Corp Sub Simmonds Precision Palisades Park	N J
Ferranti, Ltd, Lancashire	England
Fullmer Electronics Inc, Northridge	Cal
Gulton Industries Inc, Metuchen	N J
JFD Electronics Co, Components Div, Brooklyn	N Y
Kappa Networks Inc, Carteret	N J
Kenyon Electronics Inc, Jersey City	N J
Micromagnetics Div Gulton Ind, Visalia	Cal
Microsonics Inc, Weymouth	Mass
Microwave Associates Inc, Burlington	Mass
Nanosecond Systems Inc, Fairfield	Conn
PCA Electronics Inc, Sepulveda	Cal
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Science Accessories Corp, Southport	Conn
Sealectro Corp, Mamaroneck	N Y
Siemens America Inc, New York	N Y
Vanguard Electronics Co, Inglewood	Cal

DELAY LINES--MAGNETOSTRICTIVE

ANDERSEN LABORATORIES, INC, BLOOMFIELD CONN	**ADV PG 253**
MICROSONICS INC, WEYMOUTH	**MASS**
Andersen Laboratories, Inc, Bloomfield	Conn
Computer Devices Corp, Commack	N Y
Control Electronics Co Inc, Farmingdale	N Y
Delay Devices Corp, Watertown	Mass
Deltime Inc, Mamaroneck	N Y
Digital Devices Inc, Syosset	N Y
Laboratory for Electronics Inc Elctns Div, Boston	Mass
Magne-Head Div, Gen Instrument Corp, Hawthorne	Cal
Microsonics Inc, Weymouth	Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Science Accessories Corp, Southport	Conn
Sealectro Corp, Mamaroneck	N Y
Systematics & Magne-Head Divs Gen Instrument Corp Hawthorne	Cal

DELAY LINES--TRANSMISSION LINE,COILED OR SPIRALED

ANDERSEN LABORATORIES, INC, BLOOMFIELD CONN	**ADV PG 253**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
KAPPA NETWORKS INC, CARTERET, N J	**ADV PG 252**
PRECISION TUBE CO INC, NORTH WALES	**PA**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
TECHNITROL INC, PHILADELPHIA	**PA**
TIMES WIRE & CABLE DIV, INT L SILVER CO, WALLINGFORD CONN	**ADV PG 249**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
UNIFORM TUBES INC, COLLEGEVILLE	**PA**
Ad-Yu Electronics Inc, Passaic	N J
Aircom Inc, Union	N H
Americon Corp, Waltham	Mass
Andersen Laboratories, Inc, Bloomfield	Conn
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Aviation Electric Ltd, St Laurent, Montreal	Que
Coaxco Inc, Portland	Ore
Communication Dynamics Corp, Yonkers	N Y
Computer Devices Corp, Commack	N Y
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Data Delay Devices, Clifton	N J
Daytron Inc, Mountain View	Cal
Dinion Coil Co Inc, Caledonia	N Y
E G & G Inc Custom Equip Div, Bedford	Mass
Fullmer Electronics Inc, Northridge	Cal
Herley Industries, Inc, Westbury	N Y
Kappa Networks Inc, Carteret	N J
Meridian Metalcraft Inc, Whittier	Cal
Microwave Associates Inc, Burlington	Mass
Millen Mfg Co Inc, James, Malden	Mass
Nanosecond Systems Inc, Fairfield	Conn
Nytronics of Canada Ltd, Trenton	Ont
Phelps Dodge Electronic Products Corp North Haven	Conn
Precision Tube Co Inc, North Wales	Pa
Premier Microwave Corp, Port Chester	N Y
Seven Associates Inc, Sunnyvale	Cal
Specialty Waveguide Corp, Burlington	Mass
Technitrol Inc, Philadelphia	Pa
Times Wire & Cable Div, Int L Silver Co Wallingford	Conn
TRG Div Control Data Corp, East Boston	Mass
Uniform Tubes Inc, Collegeville	Pa



Coaxial delay lines

Usually the most critical cable components of an interconnection system. Though VSWR, attenuation, or pulse distortion are important, the electrical length or time delay is the most significant factor. Times gives the most serious consideration to the error tolerances assigned to the delay lines, as tight tolerances can significantly affect costs. We are in an excellent position to guarantee precision quality because we use coaxial cable and connectors that we ourselves manufacture in the construction of these delay lines.

WRITE OR PHONE FOR TECHNICAL DATA.

TIMES WIRE & CABLE
DIVISION OF THE INTERNATIONAL SILVER COMPANY
WALLINGFORD, CONNECTICUT

DELAY LINES--ULTRASONIC, FIXED

ANDERSEN LABORATORIES, INC, BLOOMFIELD CONN	**ADV PG 253**
MICROSONICS INC, WEYMOUTH	**MASS**
R C L ELECTRONICS INC, IRVINGTON	**N J**
Andersen Laboratories, Inc, Bloomfield	Conn
Bliley Electric Co, Erie	Pa
Control Electronics Co Inc, Farmingdale	N Y
Corning Glass Works, Corning	N Y
Creative Electric Inc, Auburn	N Y
Delay Devices Corp, Watertown	Mass
Deltime Inc, Mamaroneck	N Y
Digital Devices Inc, Syosset	N Y
Electrosil Ltd, Sunderland, Durham	England
Fullmer Electronics Inc, Northridge	Cal
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Microsonics Inc, Weymouth	Mass
Microwave Electronics A Teledyne Co, Palo Alto	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Quartz & Silice, Paris 8 eme	France
R C L Electronics Inc, Irvington	N J
Straza Industries Div Ametek Inc, El Cajon	Cal

DELAY LINES--ULTRASONIC,VARIABLE

ANDERSEN LABORATORIES, INC, BLOOMFIELD CONN	**ADV PG 253**
MICROSONICS INC, WEYMOUTH	**MASS**
Andersen Laboratories, Inc, Bloomfield	Conn
Control Electronics Co Inc, Farmingdale	N Y
Corning Glass Works, Corning	N Y
Creative Electric Inc, Auburn	N Y
Delavan Mfg Co, West Des Moines	Iowa
Deltime Inc, Mamaroneck	N Y
Digital Devices Inc, Syosset	N Y
Fullmer Electronics Inc, Northridge	Cal
Microsonics Inc, Weymouth	Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland

ALLEN AVIONICS, INC.

255 EAST SECOND STREET • MINEOLA, NEW YORK 11501 • 516-747-5450

SEE OUR OTHER AD IN THE
FILTERS SECTION

LUMPED CONSTANT DELAY LINES

CUSTOM-BUILT

Allen Avionics, Inc. manufactures a wide variety of delay lines to customers' specifications. The following specifications encompass areas in which we normally work. If, however, your requirements fall outside of the following parameters, we would still be interested in hearing from you.

RANGE — Delay times from 3 nanoseconds through audio ranges are available.

TIME DELAY/RISE TIME RATIO — Time delay to rise time ratio to 300/1.

CONSTRUCTION — Units are hermetically sealed in metal cans with glass to metal terminals. Epoxy encapsulated units are also available.

SIZE — Sizes are available from ⅝ x ⅝ x .450 inches.

TOLERANCE — Normal tolerance on time delay is 5%. In most cases tolerances of 1% can be held.

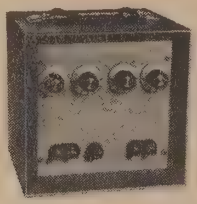
TEMPERATURE — Most of our lines are manufactured to 50 parts/million/degree C from minus 55 degree C to 105 degree C.

DELIVERY — Prototypes of special lines can often be delivered in a week or two.

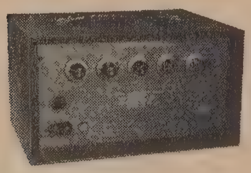
Our engineering staff is always available to help with any delay line and application problems.

LUMPED CONSTANT DECADE DELAY LINES TYPE "D"

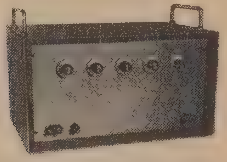
Type "D" Variable Decade Delay Units are engineered to provide variable time delays with absolute stability for accurate triggering and excellent reproduction of the input pulse. These lumped constant delay lines are completely passive. All models have a minimum of 1000 to 1 resolution and consist of three or more decade switches. Any delay output of Type "D" decade delay unit is the summation of individual lines. It is not the result of a tapped line. This feature is an important factor in eliminating undesirable reflections in the output pulse. Accuracy at any delay exceeding 1% of the unit's total delay is within 3%. These units have a characteristic impedance of 500 ohms in and out. While the units listed are standard, other delays and impedances can be manufactured to specifications.



Cabinet Size: 8″ wide x 8″ high x 7″ deep



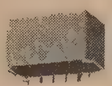
Cabinet Size: 14″ wide x 8″ high x 10″ deep



Cabinet Size: 17″ wide x 9½″ high x 11½″ deep

Part No.	Maximum Time Delay In Microseconds	Resolution In Micro-seconds	Rise Time @ Max. Delay In Microseconds	Attenuation in db
D11	11.1	.01	.45	3
D21	21.1	.01	.85	5
D41	41.1	.01	1.65	5
DD41	41.1	.01	.83	5
D61	61.1	.01	2.45	6
DD61	61.1	.01	1.23	6
D1C	111.1	.01	4.45	3
DD1C	111.1	.01	2.23	8
D2C	211.1	.01	8.45	3
DD2C	211.1	.01	4.23	3
D4C	411.1	.01	16.45	3
DD4C	411.1	.01	8.23	6
D6C	611.1	.01	24.45	3
DD6C	611.1	.01	12.23	6
D1K	1111.1	.01	40.45	3
DD1K	1111.1	.01	20.23	8
D2K	2111	.1	84.5	5
D4K	4111	.1	164.5	6
D6K	6111	.1	244.5	8
D11K	11,111	.1	244.5	11
D21K	21,111	1	844.5	11
DD2K	2111	.1	42.25	5
DD4K	4111	.1	82.25	6
DD6K	6111	.1	122.25	8
DD11K	11,111	.1	222.25	11
DD21K	21,111	1	422.25	11
DD41K	41,111	1	822.25	12
DD61K	61,111	1	1222.25	12

STOCKED DELAY LINES FROM 20 NANOSECONDS TO 1000 MICROSECONDS



TYPE "NV"

TYPE "L"

TYPE "B"

TYPES "C" & "P"

TYPES "N" & "A"

TYPE "Q"

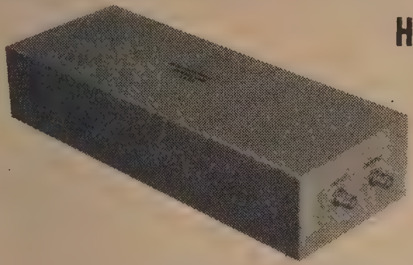
TYPE	TIME DELAY	IMPED-ANCE	TIME DELAY TO RISE TIME RATIO	SIZE
N	20, 30, 40, 50, 60, 70, 80, 90, 100 ns.	100 Ω	3.5 to 1	⅝″ x ⅝″ x .450″
A	0.1, 0.2, 0.3, 0.4, 0.5 μs.	500 Ω	3.5 to 1	⅝″ x ⅝″ x .450″
	0.5, 0.6, 0.7, 0.8, 0.9, 1.0 μs.	1000 Ω		
C	.4, .5, .6, .7, .8, .9, 1.0, 1.1, 1.2 μs.	1000 Ω	5 to 1	6/10″ x ½″ x 2″
P	.2, .3, .4, .5, .6, .8, 1.0, 1.2, 1.6, 2.0 μs.	500 Ω	5 to 1	6/10″ x ½″ x 2″
Q*	.2, .3, .4, .5, .6, .8 μs.	100 Ω	5 to 1	1 5/16″ x 4.9″ x .550″
	.1, .2, .3, .4, .5, .6, .8, 1.2 μs.	500 Ω		
	.2, .3, .4, .5, .6, .8, 1 μs.	1000 Ω		
NV	10 to 100 ns. in 10 ns. steps	100 Ω	5 to 1	.675″ x 1.30″ x .735″
B	5, 10, 15 μs.	1000 Ω	5 to 1	½″ x 1⅜″ x 3⅛″
L	25, 75, 200, 250 μs.	250 Ω	5 to 1	2½″ x 4½″ x .8″
	50, 150, 400, 500 μs.	500 Ω		
	100, 300, 800, 1000 μs.	1000 Ω		

* Since the Quick Line is a tapped module consisting of 10 sections, the tap increment of any module can be determined by dividing the module time delay by 10. Modules of the same impedance can be put together in groups of 1, 2, 3 and 4 to achieve different time delay and rise time combinations.

ALLEN AVIONICS, INC.

255 EAST SECOND STREET • MINEOLA, NEW YORK 11501 • 516-747-5450

LUMPED CONSTANT DELAY LINES



HIGHEST $\frac{\text{TIME DELAY}}{\text{RISE TIME}}$ RATIO EVER BUILT!

These Delay Lines have the highest ratio of time delay to rise time that has ever been built in a Lumped Constant Line. Unlike other types of high ratio lines, the Lumped Constant Delay Line has a passband from D.C. to its cutoff frequency and maintains a constant delay over these frequencies. These lines are also unique in that they offer relatively low insertion loss.

This group of lines is characterized by tight time delay tolerances, low pulse distortion, excellent phase linearity and good temperature stability.

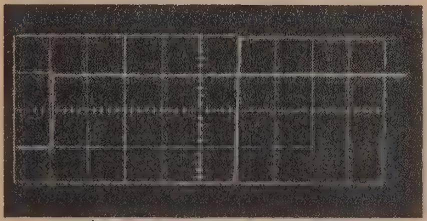
For laboratory use, any time delays from 10 microseconds to 100 microseconds can be built into variable decade instruments with ratios of over 100/1. These units could have a resolution of up to 1/5000 of the total delay.

Series "HF" HIGH FREQUENCY

The HF Series in most cases will serve as more than adequate electrical replacement for coaxial cable. The inconvenience of handling and storing cable will thus be eliminated. Standard impedances of 50 and 75 ohms are available. Units are normally supplied with BNC connectors. Tapped lines and time delays other than those shown below can be supplied.

50/1 RATIO ATTENUATION 9 db MAXIMUM SIZE: 2½" x 4½" x 12"		
Time Delay Microseconds	**Rise Time Microseconds Maximum**	**Bandwidth (3 db) Megacycles**
.5	.010	36.0
.6	.012	30.0
.7	.014	25.7
.8	.016	22.5
.9	.018	20.0
1.0	.020	18.0
1.25	.025	14.4
1.5	.030	12.0
1.75	.035	10.3
2.0	.040	9.0
2.5	.050	7.2
3.0	.060	6
3.5	.070	5.15
4.0	.080	4.5
4.5	.090	4.0
4.75	.095	3.8
75/1 RATIO ATTENUATION 12 db MAXIMUM SIZE: 3½" x 4½" x 12"		
1.5	.020	18
1.75	.023	15.4
2.0	.027	13.5
2.25	.030	12.0
2.50	.033	10.8
2.75	.037	9.8
3.0	.040	9.0
3.25	.043	8.3
3.50	.047	7.7
3.75	.050	7.2
4.0	.053	6.75
4.25	.057	6.35
4.50	.060	6.0
4.75	.063	5.7
100/1 RATIO ATTENUATION 15 db MAXIMUM SIZE: 3½" x 6½" x 16"		
2.0	.020	18
2.25	.023	16
2.5	.025	14.4
2.75	.028	13
3.0	.030	12
3.25	.033	11.1
3.5	.035	10.3
3.75	.038	9.6
4.0	.040	9
4.25	.043	8.48
4.5	.045	8
4.75	.048	7.58

Series "HR"



1 MICROSECOND PER DIVISION
(5 Microseconds Delay — .05 Microsecond Rise Time)

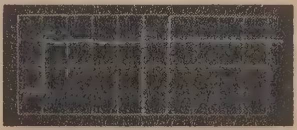
100/1 RATIO ATTENUATION 8 db MAXIMUM SIZE: 2½" x 4½" x 12"			
Time Delay Micro-seconds	**Rise Time Micro-seconds**	**Bandwidth (3 db) Megacycles**	**Imped-ance Ohms**
5	.05	7.2	50-100
6	.06	6.0	50-100
7	.07	5.15	50-100
8	.08	4.5	50-100
9	.09	4	50-100
10	.1	3.6	50-100
15	.15	2.4	50
20	.20	1.8	50
25	.25	1.44	50
30	.3	1.2	50
35	.35	1.03	50
40	.40	.9	50
45	.45	.8	50
50	.50	.72	50
130/1 RATIO ATTENUATION 9 db MAXIMUM SIZE: 3½" x 4½" x 12"			
5	.039	9.36	50
10	.077	4.68	50-100
15	.116	3.11	50-100
20	.154	2.34	50
25	.193	1.86	50
30	.232	1.55	50
35	.271	1.33	50
40	.308	1.17	50
45	.348	1.035	50
50	.387	.930	50
60	.462	.780	50
75	.580	.620	50
90	.693	.520	250
100	.770	.468	250

Series "VHR"

The "VHR" Series have a characteristic impedance of 50 ohms. While the units listed are standards, we can manufacture the "VHR" Lines to your exact delay specifications.

These units are hermetically sealed in a metal can 3½ x 6½ x 16 inches, with four ¼ x 20 studs on the 6½ x 16 inch surface.

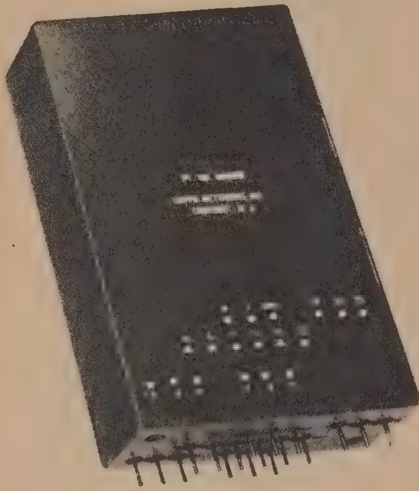
Two BNC connectors are located on the 3½ x 6½ inch surface for input and output connections. Variable Decade Delay Units can be manufactured for laboratory use from the "VHR" Lines.



5 MICROSECONDS PER DIVISION
(25 Microseconds Delay—.1 Microsecond Rise Time)

150/1 RATIO ATTENUATION 16 db MAXIMUM SIZE: 3½" x 6½" x 16"	
Time Delay Microseconds	**Rise Time Microseconds**
10	.067
15	.100
20	.133
25	.167
30	.200
35	.233
40	.267
45	.300
50	.333
55	.367
60	.400
63	.420
65	.433
70	.467
200/1 RATIO ATTENUATION 18 db MAXIMUM	
10	.050
15	.075
20	.100
25	.125
30	.150
35	.175
40	.200
45	.225
50	.250
55	.275
60	.300
63	.315
65	.325
70	.350
75	.375
250/1 RATIO ATTENUATION 20 db MAXIMUM	
20	.080
25	.100
30	.120
35	.140
40	.160
45	.180
50	.200
60	.240
63	.252
65	.260
70	.280
80	.320
90	.360
100	.400

When you want high efficiency delay lines specify Kappa Super-η*



*SUPER-η LINES embody a new design principle providing the highest efficiency yet obtainable in lumped constant delay lines. Use of network synthesis techniques rather than conventional m-derived methods results in sharply improved delay line efficiency. Compared to ordinary lines of any given delay, KAPPA SUPER-η lines provide linear performance over a much greater band width. In addition these newly developed lines offer such outstanding advantages as: greater inherent reliability, smaller package size, and appreciable cost reduction.

SUPER-η LINES FOR VIDEO SYSTEMS

Impedance:	75 ohms (unless otherwise specified)
Amplitude Response:	better than 0.1 db. flatness to 10 MHZ or higher
Ripple:	within ± .05 db to 10 MHZ or higher
Group Delay:	linear within ± 1% or ± 1 nsec, whichever is greater.
Group Delay Ripple:	within ± 2½% to 14 MHZ
K factor:	better than .25% for T or 2T $\sin^2$ pulse for both American and European systems
Cross talk:	less than 46 db.

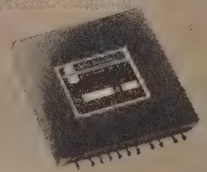
UPDATE YOUR VIDEO BROADCAST EQUIPMENT WITH KAPPA SUPER-η DELAY LINES!

Specify KAPPA for the most complete line of electro-magnetic delay lines . . .

STANDARD LUMPED CONSTANT DELAY LINES SERIES LC

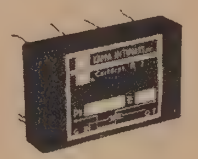
Delay: 50 Nanoseconds to 1 second
Bandwidth: DC to 250 MHZ
Rise Time: As low as 2 Nanoseconds
Impedance: 25 ohms to 50 K-ohms

TRANSPONDER LINES SERIES C



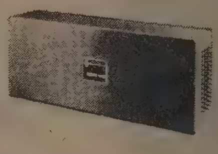
Tap Spacing: 1.45 μsec, or as required
Tap Tolerance: ± .05, or as required
Delay-to-Rise-Time Ratio: 100 max.
Temperature Stability: 50 ppm °C or less

LOW DISTORTION LINES SERIES D



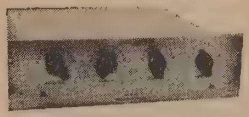
Distortion at Output: 2% max.
Distortion at Taps: Less than 5% at any tap
Distortion Limit: As low as 0.1% if required
Delay Range: up to 100 usec.

PRECISION AUDIO DELAY LINES SERIES A



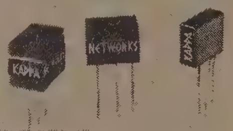
Delay Range: from 500 μsec to 1 sec.
Bandwidth: 70 KHZ (max.)
Delay Linearity: nominally within ± 0.25%; available to within ± 0.05%

PRECISION DECADE DELAY UNITS SERIES DK



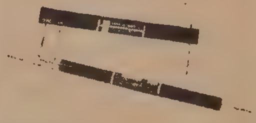
Variable delays available between input and output terminals in decade steps. Each decade has eleven (11) switch contacts and ten (10) delay increments so that the dial values overlap.

ULTRA MINIATURE DELAY LINES SERIES T



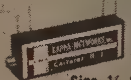
Delay Range: to 200 nsec.
Delay/Rise Time: 10 max.
Attenuation: .2 db max.
Fully encapsulated

STANDARD DISTRIBUTED CONSTANT DELAY LINES SERIES DC



Delay Range: to 3 μsec.
Standard Tolerance: ± 5% on Delay
Delay-to-Rise-Time Ratio: 11 max.
Distortion: ± 5% (typical), ± 10% max.

DELAY TRIMMERS: TINY TRIM® SERIES



Size: ¼ Cubic Inch

PART NUMBER	Ø SHIFT RANGE @ 3.58 MHZ DEG.	DELAY (Nano-sec.)	RISE TIME (Nano-sec.)	IMPEDANCE (ohms)
TT20D	25	20	5	500
TT30C	38	30	7.5	390
TT40D	50	40	10	500
TT50C	64	50	12.5	390
TT60C	75	60	15	330

Contact us for the name of your nearest representative or consult listing in this directory. Complete new catalog available.

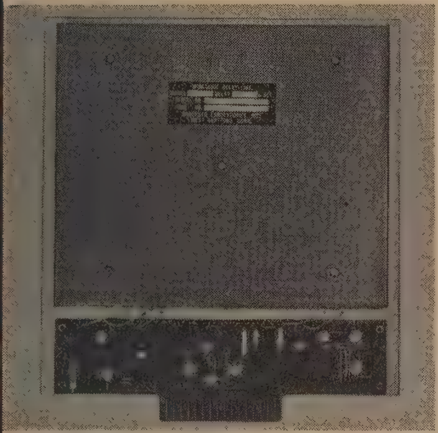
KAPPA NETWORKS, INC.

Delay Line Specialists • Electric Wave Filters
Manufacturing Engineers
165 ROOSEVELT AVENUE • CARTERET, NEW JERSEY 07008 • TEL. (201) 541-4226

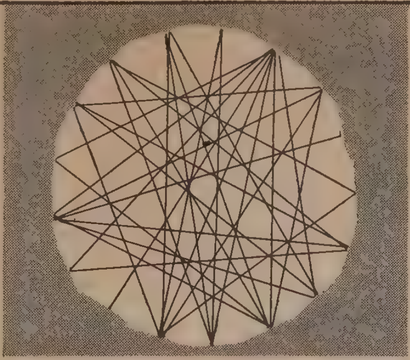
See Our Filter Ad on Page 302

DELAY LINES

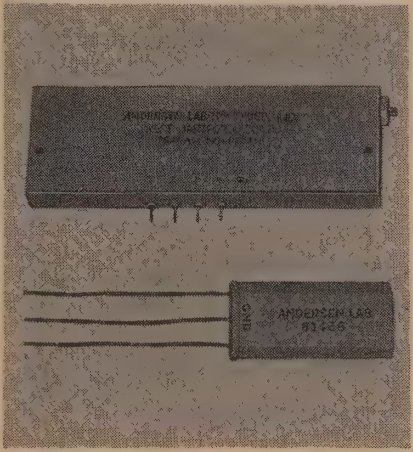
Here is a single in-depth source for delay lines designed for the storage or processing of electrical signals. Innovators in delay line technology since 1949, Andersen Labs offers a wide selection of operating characteristics and capabilities in wiresonic, solid ultrasonic, electromagnetic, dispersive metallic and quartz lines, all designed to-specification.



WIRESONIC DELAY LINES are suggested for use with binary signals and operate at data rates between 0.5 and 2.0 megabits per second, providing dynamic serial storage of as many as 20,000 bits. Utilizing magnetostrictive and ceramic transducers, wiresonic delay lines feature low cost per bit of storage, low power dissipation, high reliability, stability over wide temperature range, low volume and weight.



SOLID ULTRASONIC DELAY LINES most often find application in delay of analog signals in the 10 to 100 Mc frequency range for periods up to 5,000 microseconds. Utilizing quartz or glass as the delay medium, electronic signals are stored with a minimum of loss and distortion. Overall size of the quartz element plus number and type of surface angles determine the amount of delay which can be precisely controlled to meet required parameters.



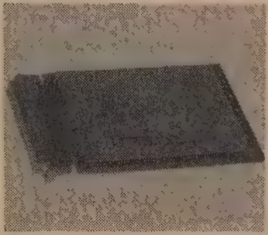
ELECTROMAGNETIC DELAY LINES utilizing lumped constant-inductance and capacitance are employed for the delay of audio and video signals for periods up to 20 milliseconds for a delay-to-rise time ratio up to 140 to 1 and bandwidths up to 10 Mc. Component density is up to 70 delay sections per cubic inch, delay density to 500 μ sec per cubic inch. Impedance can range from 10 to 10,000 ohms and low attenuation is assured. Electromagnetic delay lines withstand ambient temperatures to 220°, with thermal stability as low as 10 ppm/°C.

METALLIC STRIP DISPERSIVE DELAY LINES provide a linear function of delay versus frequency. Aluminum or steel is the delay medium to capitalize on the existence of a dispersive mode of vibration of elastic waves in a narrow metallic strip.

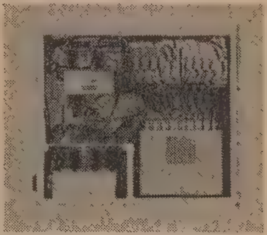
SIGNAL PROCESSING EQUIPMENT

Andersen Labs subsystem and system capability has been extended into the design and manufacture of extensive varieties of electronic devices and electromechanical devices for application in the areas of radar, sonar, telemetry, simulation, navigation and analysis. Recent accomplishments include advanced Deltics pulse compression systems and coherent integrators.

Revolutionary Delecon Pulse Compressor is used in conjunction with long range radar systems to measurably increase potential detection of very small objects at great distances.



High Data Rate Serial Memory. Series 5000 represents a new concept in this highly sophisticated type of device. Maximum bit rate is 10 Mc/s RZ or NRZ with total capacity up to 20,000 bits.



Target Range Simulator allows simulation of the motion of targets at speeds to 5000 mph at ranges to 80 nautical miles. Both conventional and pulsed Doppler radar techniques can be used.

Interested? Ask Andersen Labs. In-depth technical literature available covering full product and capability lines.

ANDERSEN LABORATORIES, INC.

1280 BLUE HILLS AVENUE • BLOOMFIELD, CONN. 06002
(203) 242-0761 TWX 710-425-2390

DELAYS--A-F, VARIABLE

ALLEN AVIONICS INC, DIV A K ALLEN CO INC, MINEOLA N Y	**ADV PGS 250,251**
ANDERSEN LABORATORIES, INC, BLOOMFIELD CONN	**ADV PG 253**
KAPPA NETWORKS INC, CARTERET, N J	**ADV PG 252**
MICROSONICS INC, WEYMOUTH	**MASS**
Ad-Yu Electronics Inc, Passaic	N J
Allen Avionics Inc, Div A K Allen Co Inc, Mineola	N Y
Andersen Laboratories, Inc, Bloomfield	Conn
Audio Instrument Co Inc, Union City	N J
Berkeley Nucleonics Corp, Berkeley	Cal
Chronetics Inc, Mount Vernon	N Y
Computer Devices Corp, Commack	N Y
Control Electronics Co Inc, Farmingdale	N Y
Delay Devices Corp, Watertown	Mass
Gotham Audio Corp, New York	N Y
Kappa Networks Inc, Carteret	N J
MCG Electronics, Deer Park	N Y
Microsonics Inc, Weymouth	Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Stelma Inc, Stamford	Conn
Teledata Inc, Queens Village	N Y
Universal Audio, North Hollywood	Cal
Visual Electronics Labs Audio Div, Pasadena	Cal

DELAYS--MULTIVIBRATOR,SINGLE SHOT

Abtronics, Inc, Livermore	Cal
Autronics Corp, Pasadena	Cal
Berkeley Nucleonics Corp, Berkeley	Cal
Chronetics Inc, Mount Vernon	N Y
Control Logic Inc, Natick	Mass
Crane Electronics Corp, Santa Barbara	Cal
DatCon Electronics Corp, Bayside	NY
Digital Equipment Corp, Maynard	Mass
Fidelity Amplifier Co, Chicago	Ill
Fisher-Akin Co, Manhattan Beach	Cal
Frost Electronics Corp, Rockaway	N J
Janus Control Div Tyco, Waltham	Mass
Massey Dickinson Co Inc, Saxonville	Mass
Molecular Research Inc, Palm Beach Gardens	Fla
Monitor Systems Inc, Fort Washington	Pa
Navigation Computer Corp, Norristown	Pa
Solid State Electronics Corp, Sepulveda	Cal
Vidcor Co Inc, Gardena	Cal

DELAYS--TAPE TYPE

KINELOGIC CORP, PASADENA	**CAL**
Applied Magnetics Corp, Goleta	Cal
Audio Instrument Co Inc, Union City	N J
Broadcast Electronics Inc, Silver Spring	Md
Data Science Corp, San Diego	Cal
Electron-Ohio Inc, Cleveland	Ohio
Genisco Technology Corp, Compton	Cal
Kinelogic Corp, Pasadena	Cal
Precision Instrument Co, Palo Alto	Cal
Sparta Electronic Corp, Sacramento	Cal
Thermionic Products Electronics Ltd Southampton	England
Video Research Corp, Rockville	Md
Visual Electronics Labs Audio Div, Pasadena	Cal

DELAYS--TRANSPORT TYPE

KINELOGIC CORP, PASADENA	**CAL**
Applied Magnetics Corp, Goleta	Cal
Audio Instrument Co Inc, Union City	N J
Digital Devices Inc, Syosset	N Y
Kinelogic Corp, Pasadena	Cal
Video Research Corp, Rockville	Md

DEMAGNETIZERS

BELL, INC F W, COLUMBUS	**OHIO**
INDIANA GENERAL CORP MAGNET DIV, VALPARAISO	**IND**
PERMAG CORP, JAMAICA	**N Y**
Amplifier Corp of America, Westbury	N Y
Bell, Inc F W, Columbus	Ohio
Bulova Watch Co Inc, Watchmaster Products Div Jackson Heights	N Y
Canadian Research Institute, Don Mills	Ont
Crucible Steel Co, Pittsburgh	Pa
Crucible Steel Co Magnet Div, Elizabethtown	Ky
Electronic Brazing Co, Montclair	N J
Fisher Engineering Inc, Huntington	Ind
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Green Electric Corp, Fairlawn	NJ
Green Rectifier Corp, Fair Lawn	N J
Ideal Industries Inc, Sycamore	Ill
Indiana General Corp Magnet Div, Valparaiso	Ind
Irwin Labs Inc, Los Angeles	Cal
L & R Mfg Co, Kearny	N J
Luma Electric Equipment Co, Toledo	Ohio
Magnaflux Corp, Chicago	Ill
Mann Co, Henry, Cornwell Heights	Pa
Martindale Electric Co, Cleveland	Ohio
Microtran Co Inc, Valley Stream	N Y
Permag Corp, Jamaica	N Y
Permanent Magnet Co Inc, Indianapolis	Ind
Philmore Mfg Co Inc, Richmond Hill	N Y
Recoton Corp, Long Island City	N Y
RFL Industries Inc, Instrumentation Div, Boonton	N J
Robins Industries Corp, Flushing	N Y
Shester Engineering Co Inc, Culver City	Cal
Shrader Sound Inc, Washington	D C
Sunbeam Equipment Corp, Meadville	Pa
Thomas & Skinner Inc, Indianapolis	Ind

DEMINERALIZING EQUIPMENT

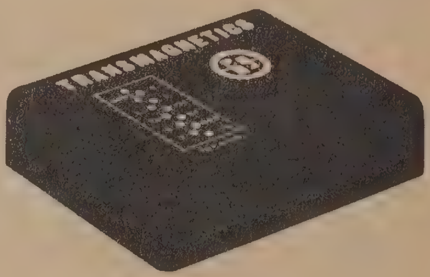
BARNSTEAD CO DIV RITTER PFAUDLER CORP BOSTON	**MASS**
CULLIGAN INC, NORTHBROOK, ILL	**ADV PG 255**
Advanced Purification System Co Inc, Great Neck	N Y
Amsco Industrial Co Div Amer Sterilizer Co, Erie	Pa
Barnstead Co Div Ritter Pfaudler Corp, Boston	Mass
Corning Glass Works, Corning	N Y
Culligan Inc, Northbrook	Ill
Gardner Lab Inc, Bethesda	Md
Hungerford & Terry Inc, Clayton	N J
Interlab Inc, Pleasantville	N Y
Ionics Inc, Electronics Div, Watertown	Mass
Pall Corp, Environmental Control Systems Div Long Island City	NY
Pall Trinity Micro Corp, Cortland	N Y
Penfield Mfg Co Inc, Meriden	Conn
Permutit Co, Paramus	N J
Precision Scientific Co Sub GCA Corp, Chicago	Ill
Ramyr Mfg Co, Buena Park	Cal

DEMODULATORS, SYNCHRONOUS--ELECTRONIC

INTERNATIONAL COMMUNICATIONS CORP, MIAMI	**FLA**
INTRONICS INC, NEWTON	**MASS**
ITHACO INC, ITHACA	**N Y**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TRANSMAGNETICS INC, FLUSHING, N Y	**ADV PG 254**
VARI-L CO INC, STAMFORD	**CONN**
Acco Gyro Div, Amer Chain & Cable Co Inc Waterbury	Conn
Acme Products Co, Kensington	Conn
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
Anzac Electronics, Waltham	Mass
Astrodata Inc, Anaheim	Cal
Brower Labs Inc, Westboro	Mass
Cardinal Control Co Inc, Kensington	Conn
C-E Electronics Inc, Glenside	Pa
Control Technology Co Inc, Long Island City	N Y
Crescent Technology Corp, Newport Beach	Cal
Datametrics Inc, Waltham	Mass
Dynalectron Corp Aerospace Prods Div San Leandro	Cal
Electrac Inc, Anaheim	Cal
Fairchild Controls, Hicksville	N Y
General Instrument Corp Radio Receptor Div Hicksville	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
General Resistance Inc, New York	NY
Geo Space Corp, Houston	Tex
Glentek Inc, Santa Monica	Cal
Gopic Designs Co, San Diego	Cal
Industrial Control Co, Farmingdale	N Y
Industrial Electronetics Corp, Satellite Beach	Fla
International Communications Corp, Miami	Fla
Intronics Inc, Newton	Mass
Ithaco Inc, Ithaca	N Y
Kobe Industries Corp, Kobe	Japan
Loral Electronic Systems, Div Loral Corp, New York	NY
Mayberry Electronics Co, Inglewood	Cal
Mennen-Greatbatch Electronics Inc, Clarence	N Y
Milgo Electronic Corp, Miami	Fla
Mini-Circuits Lab, New York	N Y
Natel Engineering Co Inc, Van Nuys	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Novatronics Inc, Pompano Beach	Fla
Philco-Ford Corp, Washington	D C
Princeton Applied Research Corp, Princeton	N J
Relcom, Mountain View	Cal
Rixon Electronics Inc, Silver Spring	Md
RO Associates Inc, Menlo Park	Cal
Saturn Electronics Corp, Garland	Tex
Solid State Electronics Corp, Sepulveda	Cal
Stelma Inc, Stamford	Conn
Theta Instrument Corp, Fairfield	N J
Transmagnetics Inc, Flushing	N Y
Trio Laboratories Inc, Plainview	N Y
TRW Systems Group, Redondo Beach	Cal
Vari-L Co Inc, Stamford	Conn

Modulators & Demodulators

−55°C to + 85°C



	152 MOD	191 MOD	840 DEMOD	854 DEMOD
LINEARITY	0.1%	0.2%	0.1%	0.1%
NULL	3 MV	5 MV	0.5 MV	1 MV
TEMP GAIN-STABILITY	3%	8%	1%	1%
INPUT	±7VDC	±5VDC	0-5VRMS	0-20VRMS
OUTPUT	0-1VRMS 400Hz	0-5VRMS 400Hz	0±4.3 VDC	0±10 VDC

TRANSMAGNETICS, INC,

134-25 Northern Boulevard
Flushing, New York 11354
(212) 539-2750 TWX: 710-582-2472

DEMODULATORS, SYNCHRONOUS--CHOPPER TYPE

HEWLETT-PACKARD, PALO ALTO	**CAL**
ITHACO INC, ITHACA	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
Astrodata Inc, Anaheim	Cal
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Control Technology Co Inc, Long Island City	N Y
Electrac Inc, Anaheim	Cal
General Magnetics Inc, Bloomfield	N J
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Glentek Inc, Santa Monica	Cal
Hewlett-Packard, Palo Alto	Cal
Industrial Control Co, Farmingdale	N Y
International Data Systems Inc, Dallas	Tex
Ithaco Inc, Ithaca	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Novatronics Inc, Pompano Beach	Fla
Reflex Controls Corp, Huntington Station	NY
Rixon Electronics Inc, Silver Spring	Md
RO Associates Inc, Menlo Park	Cal
Signet Controls Inc, Tulsa	Okla
Solid State Electronics Corp, Sepulveda	Cal
Varo Inc, Garland	Tex

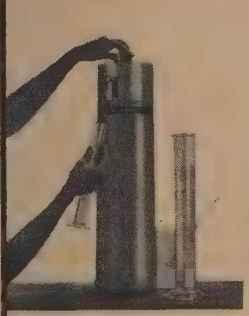
DEMONSTRATORS, ELECTRONIC CIRCUIT--MAGNETIC AMPLIFIER CIRCUITS

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Burtek Inc, Tulsa	Okla
Dinion Coil Co Inc, Caledonia	N Y
Dresser Systems, Inc, Houston	Tex
Electro Circuits Inc, Lowell	Mass
Loral Electronic Systems, Div Loral Corp, New York	NY
Nippon Electric Co Ltd, Tokyo	Japan
RIL Electronics Inc, Southampton	Pa
Stark Electronic Instruments Ltd, Ajax	Ont
Stone Laboratories Inc, Boston	Mass
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Varo Inc, Garland	Tex

Culligan
Culligan
AUTOMATIC DEIONIZER

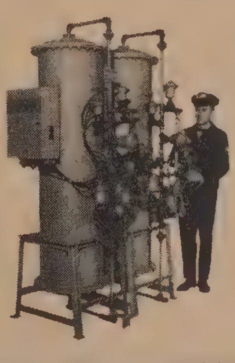
Culligan® DA automatic deionizer costs 26% less than any other deionizer of its size and type!

The innovations of Culligan engineering and the economies of volume production are combined in our DA models to provide substantially better performance at substantially lower cost. Exclusive control automatically programs the complete regeneration cycle at the simple push of a button. Visible or audible quality control indicator, which can be preset to desired water quality for specific applications, is optionally available. Rugged Tripl-Hull construction with sweat-free exterior, in sizes up to 720 gph. Exchange capacities to 120,000 grains in duplex models. And behind it all is the security of prompt, reliable service by your local Culligan Man. Call him today and ask him about that 26%.



CONVENIENT D-25 DEIONIZER

Low-cost unit provides virtually chemically pure water, within limited space, at 48 gph.



PACKAGED DEIONIZERS

Factory assembled for easy installation. Corrosion resistant piping, heavy-duty tanks. Up to 5000 gph.

EXCHANGE SERVICE SYSTEM

Your Culligan man owns the equipment and he takes care of it. Flexible, economical, guaranteed performance.

Culligan Inc. and franchised dealers in the U. S. and 64 countries throughout the world. International Headquarters, Northbrook, Ill. Franchises available.

HEY
CULLIGAN
(our trademark)
MAN!
Culligan

DEMONSTRATORS, ELECTRONIC CIRCUIT--TRANSISTOR CIRCUITS

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Applied Control Co, Cedar Grove	NJ
Automation Development Co, Culver City	Cal
Burtek Inc, Tulsa	Okla
Computer Logic Corp, Santa Monica	Cal
Data Technology Corp, Mountain View	Cal
Design Products Corp, Troy	Mich
Digital Electronics Inc, Plainview	N Y
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Training Aids Co, Cambridge	Mass
General Electronic Labs Inc, Boston	Mass
Kobe Industries Corp, Kobe	Japan
Logic Corp, Haddonfield	N J
Navigation Computer Corp, Norristown	Pa
Nippon Electric Co Ltd, Tokyo	Japan
Pastoriza Electronics Inc, Newton Upper Falls	Mass
Radio Corp of America, Electronic Components, Harrison	N J
RIL Electronics Inc, Southampton	Pa
Stark Electronic Instruments Ltd, Ajax	Ont
Stone Laboratories Inc, Boston	Mass
Takeda Riken Industry Co Ltd, Tokyo	Japan
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Vitro Labs Div Vitro Corp of America, W Orange	N J

DEMONSTRATORS, ELECTRONIC CIRCUIT--TUBE CIRCUITS

KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH COVER**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Burtek Inc, Tulsa	Okla
Dinion Coil Co Inc, Caledonia	N Y
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Training Aids Co, Cambridge	Mass
General Electronic Labs Inc, Boston	Mass
Kepco Inc, Flushing	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Radio Corp of America, Electronic Components, Harrison	N J
Reflex Controls Corp, Huntington Station	NY
RIL Electronics Inc, Southampton	Pa
Stark Electronic Instruments Ltd, Ajax	Ont
Stone Laboratories Inc, Boston	Mass
Vector Electronic Co Inc, Los Angeles	Cal

DENSITOMETERS--ELECTRONIC

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Applied Research Labs, Sunland	Cal
Automation Products, Inc, Houston	Tex
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Canadian Research Institute, Don Mills	Ont
E G & G Inc Custom Equip Div, Bedford	Mass
Elastronics Labs, Tarzana	Cal
Electron Machine Co, Umatilla	Fla
Electro Optics Assoc, Palo Alto	Cal
Gamma Scientific Inc, San Diego	Cal
Gardner Lab Inc, Bethesda	Md
Grace Electronics Inc, Cleveland	Ohio
H H Controls Co Inc, Arlington	Mass
Hycon, Monrovia	Cal
Ikor, Inc, Burlington	Mass
Jarrell-Ash Co, Waltham	Mass
Lektra Labs Inc Div Kriser Corp, College Point	N Y
Nichols Co Ltd, R H, Downsview	Ont
Nippon Electric Co Ltd, Tokyo	Japan
Nuclear Research Instruments, Berkeley	Cal
Optomechanisms Inc, Plainview	N Y
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Poole Instruments Inc, Dallas	Tex
Princeton Applied Research Corp, Princeton	N J
Royco Instruments Inc, Menlo Park	Cal
Schoeffel Instrument Co, Westwood	NJ
States Electronics Corp, Bludworth Marine Div Linden	N J
Technical Operations Inc, Burlington	Mass
Telautograph Corp, Los Angeles	Cal
Thorn Automation Ltd, Rugeley, Staffs	England
Troxler Electronic Labs Inc, Raleigh	N C
Welch Scientific Co, Skokie	Ill
Westrex Div Litton Industries, Inc, Hollywood	Cal

DENSITY CONTROLS SEE CONTROLS--DENSITY

DENSITY INDICATORS SEE DENSITOMETERS

DEPTH RECORDERS SEE DEPTH SOUNDERS

DEPTH SOUNDERS

HEATH CO, BENTON HARBOR	**MICH**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Acoustica Associates Inc, Los Angeles	Cal
Alden Electronic & Impulse Recording Equip Co Inc Westboro	Mass
Alpine Geophysical Assoc Inc, Norwood	N J
CEC-Benmar, Santa Ana	Cal
Edo Corp, College Point	NY
E G & G Inc Custom Equip Div, Bedford	Mass
Ercona Corp, New York	N Y
General Coil Products Corp, Brooklyn	N Y
General Instrument Corp, Harris ASW Div Westwood	Mass
Gulton Industries Inc, Metuchen	N J
Hayakawa Electric Co Ltd, Osaka	Japan
Heath Co, Benton Harbor	Mich
Jetronic Industries Inc, Philadelphia	Pa
Kidde & Co Inc, Walter, Belleville	N J
Konigsberg Electronics Inc, So San Francisco	Cal
Linden Labs Inc, State College	Pa
Lowrance Electronic Mfg Corp, Tulsa	Okla
McKiernan-Terry Marine Div Litton Industries Paramus	N J
Nippon Electric Co Ltd, Tokyo	Japan
Ocean Sonics Inc, El Segundo	Cal
Oki Electric Industry Co Ltd, Tokyo	Japan
Pearce-Simpson Inc, Miami	Fla
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Ramsay Engineering Co, Anaheim	Cal
Raytheon Co, Marine Products Operation S San Francisco	Cal
Republic Electronic Industries Corp, Huntington	N Y
Research Mfg Corp, San Diego	Cal
Rich Electronics Inc, Miami	Fla
Ross Laboratories Inc, Seattle	Wash
Space & Systems Div General Time Corp Stamford	Conn
States Electronics Corp, Bludworth Marine Div Linden	N J
Straza Industries Div Ametek Inc, El Cajon	Cal

DESICCANTS

CULLIGAN INC, NORTHBROOK	**ILL**
STAR PORCELAIN CO, TRENTON	**N J**
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Baker Chemical Co, J T, Phillipsburg	N J
Barium and Chemicals, Inc, Steubenville	Ohio
Bio-Rad Laboratories, Richmond	Cal
Cargocaire Engineering Corp, Amesbury	Mass
Culligan Inc, Northbrook	Ill
Dow Chemical Co, Midland	Mich
Kahn & Co Inc, Wethersfield	Conn
Koch Light Labs Ltd, Colnbrook, Bucks	England
LaPine Scientific Co, Chicago	Ill
Multiform Desiccant Products Inc, Buffalo	N Y
Pall Trinity Micro Corp, Cortland	N Y
Perfectaire Equipment Co Inc, Cambridge	Mass
Star Porcelain Co, Trenton	N J
Superior Continental Corp, Hickory	N C
United Mineral & Chemical Corp, New York	N Y
Van Products Co, Erie	Pa
Ventron Corp Metal Hydrides Div, Beverly	Mass
Wells Industries Corp, North Hollywood	Cal

DETECTORS--FIRE, ELECTRONIC

SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
Aerolite Electronics Corp, Union City	N J
Barnes Engineering Co Def & Space Div Stamford	Conn
Components Specialties Inc, Freeport	N Y
Don Bosco Electronics Inc, Hanover	N J
Edison, Thomas A Industries, Instr Div West Orange	N J
Electron-Radar Products, Chicago	Ill
Faraday Div The Gray Mfg Co, Tecumseh	Mich
Fenwal Inc, Ashland	Mass
Giannini-Voltex, Whittier	Cal
Instrumentation & Control Systems Inc, Addison	Ill
Kidde & Co Inc, Walter, Belleville	N J
Loral Electronic Systems, Div Loral Corp, New York	NY
Motorola Communications & Electronics Div Chicago	Ill
Notifier Co Sub Emhart Corp, Lincoln	Neb
Oki Electric Industry Co Ltd, Tokyo	Japan
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Pennsylvania Electronics Technology, Inc, Pittsburgh	Pa
Plessey Airborne Corp, Hillside	NJ
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Pyrotector Inc, Hingham	Mass
Scientific Engineering Mfg Co Inc North Hollywood	Cal
Servo Corp of America, Hicksville	N Y
Signet Controls Inc, Tulsa	Okla
Simplex Time Recorder Co, Gardner	Mass
United Electric Controls Co, Watertown	Mass

DETECTORS--FLAW & DEFECT,ELECTRONIC

BELL, INC F W, COLUMBUS	**OHIO**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
Aerospace Research, Inc, Boston	Mass
Alden Electronic & Impulse Recording Equip Co Inc Westboro	Mass
Amstro Corp, Fairfield	N J
Applachian Electronic Instruments Inc Ronceverte	W Va
Automation Industries Inc, Nondestructive Testing Div, Danbury	Conn
Barnes Engineering Co Def & Space Div Stamford	Conn
Bell, Inc F W, Columbus	Ohio
Black Light Products, Chicago	Ill
Canadian Marconi Co, Montreal 16	Quebec
Dawe Instruments Ltd, London W3	England
Decker Corp, Bala Cynwyd	Pa
Dice Co, J W, Englewood	N J
Dolan Jenner Industries Inc, Melrose	Mass
Electron Machine Co, Umatilla	Fla
Electro-Sonic-Control, Manteca	Cal
Frost Electronics Corp, Rockaway	N J
Gardner Lab Inc, Bethesda	Md
General Electric Co, ECSO, Schenectady	N Y
General Precision Systems Inc, Indl Controls Div Morton Grove	Ill
Gilardoni S p A, Mandello Lario Como	Italy
Goodyear Aerospace Corp, Akron	Ohio
Hyde Park Electronics Inc, Dayton	Ohio
Industrial Control Co, Farmingdale	N Y
Industrial Electronetics Corp, Satellite Beach	Fla
Infrared Industries Inc, Santa Barbara	Cal
ITT Industrial Labs Div, Fort Wayne	Ind
Krautkramer Ultrasonics Inc, Stratford	Conn
Linden Labs Inc, State College	Pa
Link Group Gen Precision Sys Inc, Binghamton	N Y
Magnaflux Corp, Chicago	Ill
MCG Electronics, Deer Park	N Y
Microwave Instruments Co, Corona del Mar	Cal
Miniature Electronic Components Corp, Holbrook	Mass
Mitsubishi Electric Corp, Tokyo	Japan
Muirhead Instruments Inc, Mountainside	N J
Nash & Harrison Ltd, Ottawa 3	Ont
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Photobell Co Inc, New York	N Y
Pipetron Co Div Western Tech Prods North Hollywood	Cal
Plessey Airborne Corp, Hillside	NJ
Pyrotel Corp c/o Milletron Inc, Pittsburgh	Pa
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Regdon Corp, Brookfield	Ill
Servo Corp of America, Hicksville	N Y
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls	N Y
Syracuse Electronics Corp, Syracuse	N Y
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Thorn Automation Ltd, Rugeley, Staffs	England
Viking Instruments Inc, East Haddam	Conn

DETECTORS, GAS--EXPLOSIVE

HEATH CO, BENTON HARBOR	**MICH**
Aero Vac Corp, Troy	N Y
Automation Products, Inc, Houston	Tex
Bacharach Instrument Co, Pittsburgh	Pa
Beckman Instruments Inc, Fullerton,	Cal
Decker Corp, Bala Cynwyd	Pa
Devco Engineering Inc, Fairfield (Caldwell)	N J
Edison, Thomas A Industries, Instr Div West Orange	N J
Electron-Radar Products, Chicago	Ill
Erdco Engineering Corp, Addison	Ill
Farrand Optical Co Inc, Bronx	N Y
Gardner Lab Inc, Bethesda	Md
Gas Analysis Systems Inc, Basking Ridge	NJ
General Coil Products Corp, Brooklyn	N Y
Heath Co, Benton Harbor	Mich
Houston Atlas Inc, Houston	Tex
Kidde & Co Inc, Walter, Belleville	N J
Lucci & Co, Sarasota	Fla
Matheson Gas Products, East Rutherford	N J
Mine Safety Appliances Co, Pittsburgh	Pa
Model Rectifier Corp, Brooklyn	N Y
Pearce-Simpson Inc, Miami	Fla
Raytheon Co, Marine Products Operation S San Francisco	Cal
Techni-Tool Inc, Philadelphia	Pa
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
Varian Aerograph, Walnut Creek	Cal

DETECTORS, GAS--NONEXPLOSIVE

SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Aero Vac Corp, Troy	N Y
Automation Products, Inc, Houston	Tex
Bacharach Instrument Co, Pittsburgh	Pa
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bendix Corp Environmental Science Div, Baltimore	Md

Cambridge Systems Inc, Newton ... Mass
Dalmo Victor, A Textron Div, Belmont ... Cal

Decker Corp, Bala Cynwyd ... Pa
Devco Engineering Inc, Fairfield (Caldwell) ... N J
Don Bosco Electronics Inc, Hanover ... N J
Electron-Radar Products, Chicago ... Ill
Erdco Engineering Corp, Addison ... Ill
Euphonics Corp, Guaynabo ... P R
Farrand Optical Co Inc, Bronx ... N Y
Fischer & Porter Co, Warminster ... Pa
Gardner Lab Inc, Bethesda ... Md
Gas Analysis Systems Inc, Basking Ridge ... NJ
Gelman Instrument Co, Ann Arbor ... Mich
General Electric Co Ordnance Dept, Pittsfield ... Mass
Gow-Mac Instrument Co, Madison ... N J
Hill Inc E Vernon, San Francisco ... Cal
Houston Atlas Inc, Houston ... Tex
Kahn & Co Inc, Wethersfield ... Conn
Lion Research Corp, Newton ... Mass
Mast Development Co, Davenport ... Iowa
Matheson Gas Products, East Rutherford ... N J
Mine Safety Appliances Co, Pittsburgh ... Pa
RCA, Defense Electronic Products, Moorestown ... N J
Servo Corp of America, Hicksville ... N Y
Sunshine Scientific Instruments Inc, Philadelphia ... Pa
Te Company, Santa Barbara ... Cal
Varian Aerograph, Walnut Creek ... Cal
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh ... Pa

DETECTORS--INFRARED SEE INFRARED EQUIPMENT

DETECTORS, LEAK--DYE PENETRANT

Automation Industries Inc, Nondestructive Testing Div, Danbury ... Conn
Black Light Corp of America, San Gabriel ... Cal
Black Light Products, Chicago ... Ill
Clarkson Labs Inc, Camden ... NJ
Decker Corp, Bala Cynwyd ... Pa
Gilardoni S p A, Mandello Lario Como ... Italy
Hill Inc E Vernon, San Francisco ... Cal
Magnaflux Corp, Chicago ... Ill
Shannon Luminous Materials Co, Hollywood ... Cal
Sherwin Inc, Los Angeles ... Cal
Ultra-Violet Products Inc, San Gabriel ... Cal

DETECTORS, LEAK--RADIOACTIVE TRACER TYPE

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
Ardel Corp, Glendale ... Cal
Don Bosco Electronics Inc, Hanover ... N J
EON Corp, Brooklyn ... N Y
General Electric Co, ECSO, Schenectady ... N Y
Hill Inc E Vernon, San Francisco ... Cal
Intertechnique, Plaisir, 78 ... France
Nuclear Enterprises Ltd, Edinburgh 11 ... Scotland
Nuclear Equipment Chemical Corp, Farmingdale ... N Y
Nuclear Supplies, Encino ... Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Raytheon Co, Government Marketing, Lexington ... Mass
Troxler Electronic Labs Inc, Raleigh ... N C
TRW Systems Group, Redondo Beach ... Cal
Victoreen Instrument Div, Cleveland ... Ohio

DETECTORS, LEAK--VACUUM SYSTEM

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
HEWLETT-PACKARD, PALO ALTO ... CAL
Alcatel, Paris 8eme ... France
Andar/ITI Inc, Palo Alto ... Cal
Consolidated Controls Corp, Bethel ... Conn
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena ... Cal
Datametrics Inc, Waltham ... Mass
Dawe Instruments Ltd, London W3 ... England
Decker Corp, Bala Cynwyd ... Pa
Devco Engineering Inc, Fairfield (Caldwell) ... N J
Edwards High Vacuum Inc, Grand Island ... N Y
Edwards High Vacuum 9Canada0 Ltd, Oakville ... Ont
Gas Analysis Systems Inc, Basking Ridge ... NJ
General Electric Co, ECSO, Schenectady ... N Y
General Electric Co Vacuum Prods Business Section Schenectady ... N Y
Heraeus-Engelhard Vacuum Inc, Monroeville ... Pa
Hewlett-Packard, Palo Alto ... Cal
Hughes Aircraft Co Vacuum Tube Prods Div Vacuum Devices Dept, Oceanside ... Cal
Japan Vacuum Engineering Co Ltd, Tokyo ... Japan
MKS Instruments Inc, Burlington ... Mass
Mullard Ltd, London, WC 1 ... Eng
Norton Co Vacuum Equip Div, Newton ... Mass
Nuclide Corp, AGV Div, Acton ... Mass
Pennsalt Chemicals Corp Equipment Div Philadelphia ... Pa
Poole Instruments Inc, Dallas ... Tex
Scans Associates Inc, Livonia ... Mich
Sloan Instruments Corp, Santa Barbara ... Cal
Techni-Tool Inc, Philadelphia ... Pa
Techsonics, Taos ... N M
Texwipe Co, Hillsdale ... N J
20th Century Electronics Ltd New Addington, Surrey ... England
Ultek Div Perkin-Elmer, Palo Alto ... Cal
Vacuum Instrument Corp, Huntington Station ... N Y
Varian, Palo Alto ... Cal
Varian Assoc, Portland Plant, Portland ... Ore
Veeco Instruments Inc, Plainview ... N Y

DETECTORS, LEAK--WATER

Ardel Corp, Glendale ... Cal
Black Light Corp of America, San Gabriel ... Cal
Black Light Products, Chicago ... Ill
Cambridge Systems Inc, Newton ... Mass
Chemalloy Electronics Corp, Santee ... Cal
Decker Corp, Bala Cynwyd ... Pa
Devco Engineering Inc, Fairfield (Caldwell) ... N J
Don Bosco Electronics Inc, Hanover ... N J
FRL Inc Fisher Research Lab, Palo Alto ... Cal
Gates & Co, George W, Franklin Square ... N Y
Hygrodynamics Inc, Silver Spring ... Md
Lucci & Co, Sarasota ... Fla
Metrotech, Inc, Mountain View ... Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Scans Associates Inc, Livonia ... Mich
Techsonics, Taos ... N M
Ultra-Violet Products Inc, San Gabriel ... Cal
Vapor Corp, Chicago ... Ill
Versatron Inc, Monterey ... Cal

DETECTORS, METAL, ELECTRONIC--INDUSTRIAL

BELL, INC F W, COLUMBUS ... OHIO
MICRO SWITCH DIV, HONEYWELL, FREEPORT ... ILL
Advance Industries Inc, Appleton ... Wis
Avionics, Inc, South Bend ... Ind
Bell, Inc F W, Columbus ... Ohio
Brilmayer Labs Inc, E W, Pelham ... N Y
Canadian Research Institute, Don Mills ... Ont
Controlomag Labs, Roslyn ... Pa
Controlotron Corp, Farmingdale ... N Y
Decca Radar, Inc, New York ... N Y
Decker Corp, Bala Cynwyd ... Pa
De-Tec-Tronic Corp, Chicago ... Ill
Dynamic Precision Controls Corp, Hagerstown ... Ind
Electro-Mechanics Co, Austin ... Tex
Electronic Control Corp, Detroit ... Mich
Electro-Sonic-Control, Manteca ... Cal
Forway Industries Inc, Woodbury ... N J
FRL Inc Fisher Research Lab, Palo Alto ... Cal
Gilardoni S p A, Mandello Lario Como ... Italy
Harworth Mfg Co, Redwood City ... Cal
Helm Instrument Co Inc, Toledo ... Ohio
Hyde Park Electronics Inc, Dayton ... Ohio
Industrial Electronetics Corp, Satellite Beach ... Fla
Instrument Corp of America, Timonium ... Md
Instrument Labs Corp, Chicago ... Ill
La Telemecanique Electrique, 92 Rueil ... France
Micro Switch Div, Honeywell, Freeport ... Ill
Peco Corp, Mountain View ... Cal
Radio Corp of America, Comml Elctn Prods Div Camden ... N J
Research Associates Inc, Linden ... N J
Research Industrolectronics, Roslyn ... Pa
Robot Industries Inc, Dearborn ... Mich
Sensor Corp, Greenwich ... Conn
Skan-A-Matic Corp, Skaneateles ... N Y
Solid State Research Corp, Albuquerque ... N M
Streeter-Amet, Grayslake ... Ill
Systems Matrix Inc, Trenton ... N J
Techrand Corp of America, Muskegon ... Mich
Wayne Kerr Corp, Montclair ... NJ

DETECTORS, METAL ELECTRONIC--MAGNETIC

BELL, INC F W, COLUMBUS ... OHIO
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT ... IOWA
INDIANA GENERAL CORP MAGNET DIV, VALPARAISO ... IND
MICRO SWITCH DIV, HONEYWELL, FREEPORT ... ILL
Amecom Div Litton Industries, Silver Spring ... Md
Automatic Equipment Corp, Cincinnati ... Ohio
Automation Products Mfg Inc, Boca Raton ... Fla
Bell, Inc F W, Columbus ... Ohio
Controlomag Labs, Roslyn ... Pa
Control Science Corp, Alexandria ... Va
Decker Corp, Bala Cynwyd ... Pa
De-Tec-Tronic Corp, Chicago ... Ill
Eagle Signal Div E W Bliss Co, Davenport ... Iowa
EDI, Sarasota ... Fla
Electro-Mechanics Co, Austin ... Tex
Electronic Control Corp, Detroit ... Mich
Electron Machine Co, Umatilla ... Fla
Electro-Sonic-Control, Manteca ... Cal
Euclid Electric & Mfg Div Harvey Hubbell Inc, Madison ... Ohio
Gammatronix Inc, Dublin ... Ohio
Gardiner Electronics, Phoenix ... Ariz
Gilardoni S p A, Mandello Lario Como ... Italy
Hyde Park Electronics Inc, Dayton ... Ohio
Ikor, Inc, Burlington ... Mass
Indiana General Corp Magnet Div, Valparaiso ... Ind
Industrial Control Co, Farmingdale ... N Y
International Electro-Magnetics Inc, Palatine ... Ill
La Telemecanique Electrique, 92 Rueil ... France
Luminator Inc Display-Control Div, Plano ... Tex
Micro Switch Div, Honeywell, Freeport ... Ill
Peco Corp, Mountain View ... Cal
Photobell Co Inc, New York ... N Y
Rawson-Lush Instrument Co Inc, Acton ... Mass
Research Associates Inc, Linden ... N J
Research Industrolectronics, Roslyn ... Pa
Robot Industries Inc, Dearborn ... Mich
States Electronics Corp, Bludworth Marine Div Linden ... N J
Streeter-Amet, Grayslake ... Ill
Technical Development Co, Glenolden ... Pa

DETECTORS, METAL, ELECTRONIC--MEDICAL

American Instrument Co, Inc, Silver Spring ... Md
Bionic Instruments Inc, Bala Cynwyd ... Pa
Decker Corp, Bala Cynwyd ... Pa
EDI, Sarasota ... Fla
Gardner Lab Inc, Bethesda ... Md
Gilardoni S p A, Mandello Lario Como ... Italy
Harworth Mfg Co, Redwood City ... Cal
Wayne Kerr Corp, Montclair ... NJ

DETECTORS, METAL, ELECTRONIC--UNDERWATER

Chemalloy Electronics Corp, Santee ... Cal
Decker Corp, Bala Cynwyd ... Pa
EDI, Sarasota ... Fla
Edo Corp, College Point ... NY
Electro-Mechanics Co, Austin ... Tex
Gardiner Electronics, Phoenix ... Ariz
Goodyear Aerospace Corp, Akron ... Ohio
Linden Labs Inc, State College ... Pa
Space & Systems Div General Time Corp Stamford ... Conn
States Electronics Corp, Bludworth Marine Div Linden ... N J
Straza Industries Div Ametek Inc, El Cajon ... Cal

DETECTORS, MICROWAVE, COMPLETE ASSEMBLIES--FIXED TUNED

ALUMINUM DESIGN CORP, BROOKFIELD ... ILL
AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE ... NY
AMPHENOL, DANBURY ... CONN
ANAREN MICROWAVE INC, SYRACUSE ... N Y
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK ... N Y
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
GENERAL MICROWAVE CORP, FARMINGDALE ... N Y
HEWLETT-PACKARD, PALO ALTO ... CAL
MICROWAVE CAVITY LABS INC, LA GRANGE ... ILL
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
PREMIER MICROWAVE CORP, PORT CHESTER ... N Y
RADAR DESIGN CORP, SYRACUSE ... N Y
TRG DIV CONTROL DATA CORP, EAST BOSTON MASS ... ADV PG 418
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG ... MD
Aertech, Sunnyvale ... Cal
Aircom Inc, Union ... N H
Airtec Inc, Roselle ... N J
Airtron, Div of Litton Industries, Inc, Morris Plains ... N J
Alfred Electronics, Palo Alto ... Cal
Alpha Industries Inc, Newton Upper Falls ... Mass
Aluminum Design Corp, Brookfield ... Ill
Amperex Electronic Corp, Professional Tube Div, Hicksville ... NY
Amphenol, Danbury ... Conn
Anaren Microwave Inc, Syracuse ... N Y
Antlab, Inc, Worthington ... Ohio
Astrolab Inc, Linden ... N J
Automatic Metal Products Corp, Brooklyn ... N Y
Avion Electronics Inc, Unit Gen Signal Corp Paramus ... NJ
Beckman Instruments Inc, Fullerton, ... Cal
Bendix Corp, Microwave Devices Div, Franklin ... Ind
Cardwell Condenser Corp, Lindenhurst ... N Y
Coax Devices, Chelsea ... Mass
DeMornay-Bonardi Div Datapulse Inc, Pasadena ... Cal
Diamond Antenna & Microwave Corp, Winchester ... Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck ... N Y
Electro-Data Inc, Garland ... Tex
Electromagnetic Technology Corp, Mountain View ... Cal
Ewen-Knight Corp, East Natick ... Mass
Filmohm Corp, Long Island City ... N Y
General Electric Co, ECSO, Schenectady ... N Y
General Microwave Corp, Farmingdale ... N Y
Guide Industries Inc, Sun Valley ... Cal
Herley Industries, Inc, Westbury ... N Y
Hewlett-Packard, Palo Alto ... Cal
Hyletronics Corp, Wilmington ... Mass
Industrial Components Inc, Beaverton ... Ore
Jerrold Electronics Corp, Philadelphia ... Pa
Maury Microwave Corp, Montclair ... Cal
MCS Corp, Monrovia ... Cal
Meridian Metalcraft Inc, Whittier ... Cal
Microlab/F X R; Livingston ... N J
Micronetics Div Teledyne Systems Co, San Diego ... Cal
Microphase Corp, Greenwich ... Conn
Micro-Radionics Inc, Van Nuys ... Cal

Micro State Electronics Oper Raytheon Co Murray Hill .... N J
Microwave Associates Inc, Burlington .... Mass
Microwave Cavity Labs Inc, La Grange Ill
Microwave Development Labs Inc Needham Heights .... Mass
Microwave Labs of America, Brooklyn .... N Y
Microwave Products Group Div C A S Inc Carle Place .... N Y
Microwave Products Inc, Chatsworth .... Cal
M-O Valve Co Ltd, Hammersmith, London W6 .... Eng
Narda Microwave Corp, Plainview .... N Y
Neico Microwave Co, Waltham .... Mass
Nippon Electric Co Ltd, Tokyo .... Japan
Omega Laboratories Inc, Rowley .... Mass
Omni Spectra Inc, Farmington .... Mich
Philmore Mfg Co Inc, Richmond Hill .... N Y
Polarad Electronic Instruments Div Long Island City .... N Y
PRD Electronics Inc, Sub H-I Corp, Westbury .... N Y
Premier Microwave Corp, Port Chester .... N Y
Radar Design Corp, Syracuse .... N Y
Radiation Systems Inc, McLean .... Va
Raven Electronics Inc, Burbank .... Cal
RLC Electronics Inc, Port Chester .... N Y
Sanders Associates, Inc, Nashua .... N H
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst .... NY
Sedco Systems Inc, Farmingdale .... N Y
Solid State Research Corp, Albuquerque .... N M
Somerset Radiation Lab Inc, Arlington .... Va
Telonic Instruments Div Telonic Indus Inc Beech Grove .... Ind
TRG Div Control Data Corp, East Boston .... Mass
Vector Industries A Teledyne Co, Palo Alto .... Cal
Victor R F & Microwave Co, Wakefield .... Mass
Waveline Inc, West Caldwell .... N J
Weinschel Engineering Co Inc, Gaithersburg .... Md
Wiltron Co, Palo Alto .... Cal

DETECTORS, MICROWAVE, COMPLETE ASSEMBLIES--TUNABLE

ALUMINUM DESIGN CORP, BROOKFIELD ILL
AMPHENOL, DANBURY .... CONN
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK .... N Y
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
GENERAL MICROWAVE CORP, FARMINGDALE .... N Y
HEWLETT-PACKARD, PALO ALTO .... CAL
MICROWAVE CAVITY LABS INC, LA GRANGE ILL
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
PREMIER MICROWAVE CORP, PORT CHESTER .... N Y
RADAR DESIGN CORP, SYRACUSE .... N Y
TRG DIV CONTROL DATA CORP, EAST BOSTON MASS .... ADV PG 418
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG .... MD
Aertech, Sunnyvale .... Cal
Aircom Inc, Union .... N H
Airtec Inc, Roselle .... N J
Airtron, Div of Litton Industries, Inc, Morris Plains .... N J
Aluminum Design Corp, Brookfield Ill
American Electronic Labs Inc, Lansdale .... Pa
Amphenol, Danbury .... Conn
Astrolab Inc, Linden .... N J
Automatic Metal Products Corp, Brooklyn .... N Y
Avion Electronics Inc, Unit Gen Signal Corp Paramus .... NJ
Beckman Instruments Inc, Fullerton .... Cal
Bendix Corp, Microwave Devices Div, Franklin .... Ind
Cardwell Condenser Corp, Lindenhurst .... N Y
Coax Devices, Chelsea .... Mass
DeMornay-Bonardi Div Datapulse Inc, Pasadena .... Cal
Diamond Antenna & Microwave Corp, Winchester .... Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck .... N Y
Electro-Data Inc, Garland .... Tex
Ewen-Knight Corp, East Natick .... Mass
Filmohm Corp, Long Island City .... N Y
General Electric Co, ECSO, Schenectady .... N Y
General Microwave Corp, Farmingdale .... N Y
General Radio Co, West Concord .... Mass
Guide Industries Inc, Sun Valley .... Cal
Herley Industries, Inc, Westbury .... N Y
Hewlett-Packard, Palo Alto .... Cal
Hyletronics Corp, Wilmington .... Mass
Maury Microwave Corp, Montclair .... Cal
MCS Corp, Monrovia .... Cal
Meridian Metalcraft Inc, Whittier .... Cal
Microlab/F X R, Livingston .... N J
Micronetics Div Teledyne Systems Co, San Diego .... Cal
Microwave Associates Inc, Burlington .... Mass
Microwave Cavity Labs Inc, La Grange Ill
Microwave Development Labs Inc Needham Heights .... Mass
Microwave Labs of America, Brooklyn .... N Y
Narda Microwave Corp, Plainview .... N Y
Neico Microwave Co, Waltham .... Mass
Nippon Electric Co Ltd, Tokyo .... Japan
Oki Electronics o America, Inc, Fort Lauderdale .... Fla
Omega Laboratories Inc, Rowley .... Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Polarad Electronic Instruments Div Long Island City .... N Y
PRD Electronics Inc, Sub H-I Corp, Westbury .... N Y
Premier Microwave Corp, Port Chester .... N Y
Radar Design Corp, Syracuse .... N Y
Radatron Inc, North Tonawanda .... N Y
Radiation Systems Inc, McLean .... Va
RLC Electronics Inc, Port Chester .... N Y
Sanders Associates, Inc, Nashua .... N H
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst .... NY
Somerset Radiation Lab Inc, Arlington .... Va
TRG Div Control Data Corp, East Boston .... Mass
Victor R F & Microwave Co, Wakefield .... Mass
Waveline Inc, West Caldwell .... N J
Weinschel Engineering Co Inc, Gaithersburg .... Md
Wiltron Co, Palo Alto .... Cal

DETECTORS--NULL SEE INDICATORS--NULL

DETECTORS--POWER FAILURE

OPAD ELECTRIC CO, INC, NEW YORK .... N Y
Acme Products Co, Kensington .... Conn
American Aerospace Controls Inc, Farmingdale .... N Y
Automatic Switch Co, Florham Park .... N J
Bendix Corp, Microwave Devices Div, Franklin .... Ind
Bendix Corp Navigation & Control Div, Teterboro .... N J
Cardinal Control Co Inc, Kensington .... Conn
C & N Electrical Ltd, Hants .... England
Controlotron Corp, Farmingdale .... N Y
Data Device Corp, Hicksville .... N Y
Dynamic Controls Corp, South Windsor .... Conn
Edison, Thomas A Industries, Instr Div West Orange .... N J
Giannini-Voltex, Whittier .... Cal
Halmar Electronics Inc, Columbus .... Ohio
Hartman Electrical Mfg Co, Mansfield .... Ohio
Haydon Co The, A W, Waterbury .... Conn
Hill Research Co, Oakland .... Cal
Lark Electronics Inc, New York .... N Y
MCG Electronics, Deer Park .... N Y
Micro Ohm Corp, El Monte .... Cal
Miniature Electronic Components Corp, Holbrook .... Mass
Opad Electric Co, Inc, New York .... N Y
Plessey Airborne Corp, Hillside .... NJ
Rochester Instrument Systems Inc, Rochester .... N Y
Rohde & Schwarz Sales Co USA Inc, Passaic .... N J
Tateisi Electronics Co, Ukyo-ku, Kyoto .... Japan
Thorn Automation Ltd, Rugeley, Staffs .... England
Vapor Corp, Chicago Ill

DETECTORS--RADIATION SEE COUNTERS--NUCLEAR PARTICLE

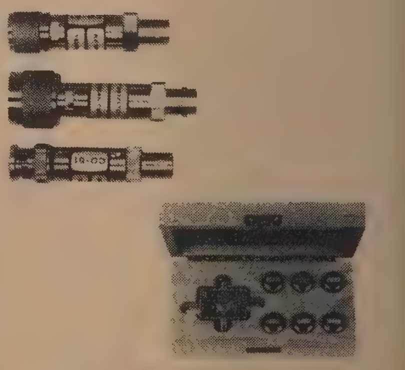
DETECTORS, STANDING WAVE--MICROWAVE

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE .... NY
GENERAL MICROWAVE CORP, FARMINGDALE .... N Y
HEWLETT-PACKARD, PALO ALTO .... CAL
MICROWAVE CAVITY LABS INC, LA GRANGE ILL
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
PREMIER MICROWAVE CORP, PORT CHESTER .... N Y
TEXSCAN CORP, INDIANAPOLIS .... IND
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG .... MD
Aertech, Sunnyvale .... Cal
Aircom Inc, Union .... N H
Alford Mfg Co, Winchester .... Mass
Alfred Electronics, Palo Alto .... Cal
Amperex Electronic Corp, Professional Tube Div, Hicksville .... NY
Anzac Electronics, Waltham .... Mass
Bendix Corp, Microwave Devices Div, Franklin .... Ind
Coax Devices, Chelsea .... Mass
DeMornay-Bonardi Div Datapulse Inc, Pasadena .... Cal
Diamond Antenna & Microwave Corp, Winchester .... Mass
Electronic Specialty Co, Los Angeles .... Cal
General Microwave Corp, Farmingdale .... N Y
General Radio Co, West Concord .... Mass
Guide Industries Inc, Sun Valley .... Cal
Herley Industries, Inc, Westbury .... N Y
Hewlett-Packard, Palo Alto .... Cal
MCS Corp, Monrovia .... Cal
Microlab/F X R, Livingston .... N J
Micronetics Div Teledyne Systems Co, San Diego .... Cal
Microwave Cavity Labs Inc, La Grange Ill
Microwave Development Labs Inc Needham Heights .... Mass
Narda Microwave Corp, Plainview .... N Y
Nichols Products Co, Inc, Moorestown .... N J
Nippon Electric Co Ltd, Tokyo .... Japan
Oki Electronics of America, Inc, Fort Lauderdale .... Fla
Omega Laboratories Inc, Rowley .... Mass
Philco-Ford Corp, Washington .... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Polarad Electronic Instruments Div Long Island City .... N Y
PRD Electronics Inc, Sub H-I Corp, Westbury .... N Y
Premier Microwave Corp, Port Chester .... N Y
RLC Electronics Inc, Port Chester .... N Y
Rohde & Schwarz Sales Co USA Inc, Passaic .... N J
Somerset Radiation Lab Inc, Arlington .... Va
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach .... Cal
Texscan Corp, Indianapolis .... Ind
Victor R F & Microwave Co, Wakefield .... Mass
Weinschel Engineering Co Inc, Gaithersburg .... Md
Wiltron Co, Palo Alto .... Cal

DETECTORS, STANDING WAVE--R-F

BIRD ELECTRONIC CORP, CLEVELAND (SOLON) .... OHIO
GENERAL MICROWAVE CORP, FARMINGDALE .... N Y
HEATH CO, BENTON HARBOR .... MICH
HEWLETT-PACKARD, PALO ALTO .... CAL
MICROWAVE CAVITY LABS INC, LA GRANGE ILL
PREMIER MICROWAVE CORP, PORT CHESTER .... N Y
SPENCER-KENNEDY LABS INC, BOSTON .... MASS
TEXSCAN CORP INDIANAPOLIS IND .... ADV PG 258
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG .... MD
Alford Mfg Co, Winchester .... Mass
Alfred Electronics, Palo Alto .... Cal
Anzac Electronics, Waltham .... Mass
Bendix Corp, Microwave Devices Div, Franklin .... Ind
Bird Electronic Corp, Cleveland (Solon) .... Ohio
Blonder-Tongue Labs Inc, Newark .... N J
Compagnie Generale de Metrologie Haute Savoie .... France
DeMornay-Bonardi Div Datapulse Inc, Pasadena .... Cal
Finney Co, Bedford .... Ohio
General Microwave Corp, Farmingdale .... N Y
General Radio Co, West Concord .... Mass
Guide Industries Inc, Sun Valley .... Cal
Heath Co, Benton Harbor .... Mich
Herley Industries, Inc, Westbury .... N Y
Hewlett-Packard, Palo Alto .... Cal
Microwave Cavity Labs Inc, La Grange Ill
Microwave Development Labs Inc Needham Heights .... Mass
Millen Mfg Co Inc, James, Malden .... Mass
Narda Microwave Corp, Plainview .... N Y
Nichols Products Co, Inc, Moorestown .... N J
Philco-Ford Corp, Washington .... D C
PRD Electronics Inc, Sub H-I Corp, Westbury .... N Y
Premier Microwave Corp, Port Chester .... N Y
Raven Electronics Inc, Burbank .... Cal
R F Communications Inc, Rochester .... N Y
RLC Electronics Inc, Port Chester .... N Y
Rohde & Schwarz Sales Co USA Inc, Passaic .... N J
Seco Electronics Corp, Hopkins .... Minn
Spencer-Kennedy Labs Inc, Boston .... Mass
Technical Materiel Corp, Mamaroneck .... N Y
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach .... Cal
Victor R F & Microwave Co, Wakefield .... Mass
Weinschel Engineering Co Inc, Gaithersburg .... Md
Wiltron Co, Palo Alto .... Cal

RF Detectors
Reflection Coefficient Bridges



Texscan
CORPORATION

2446 North Shadeland Avenue
Indianapolis, Indiana 46219
Phone (317) 357-8781
TWX: 810-341-3184

DETECTORS--VEHICLE TRAFFIC

BELL, INC F W, COLUMBUS	**OHIO**
Automatic Signal Div Lab for Electronics, Inc Norwalk	Conn
Bames Engineering Co Def & Space Div Stamford	Conn
Bell, Inc F W, Columbus	Ohio
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Control Science Corp, Alexandria	Va
Fischer & Porter Co, Warminster	Pa
General Railway Signal Co, Rochester	N Y
Link Group Gen Precision Sys Inc, Binghamton	N Y
Muni Quip Corp Sub Duncan Parking Meter Corp Elk Grove Village	Ill
Nichols Co Ltd, R H, Downsview	Ont
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Raytheon Co, Govemment Marketing, Lexington	Mass
Research Associates Inc, Linden	N J
Robot Industries Inc, Dearbom	Mich
Sprengnether Instrument Co Inc, W F, St Louis	Mo
Streeter-Amet, Grayslake	Ill
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Westinghouse Brake & Signal Co Ltd Automation Div Chippenham	England

DETECTORS--VIBRATION SEE TRANSDUCERS--VIBRATION

DETECTORS--VIDEO SEE AMPLIFIERS--R-F

DIAGNOSTIC EQUIPMENT--MEDICAL SEE DESIREDINSTRUMENT

DIAL CORDS SEE CORDS--DIAL

DIAL DRIVE BELTS SEE BELTS

DIAL ENGRAVING SEE ENGRAVING & PROFILING SERVICES

DIAL LAMPS SEE LAMPS

DIAL LOCKS SEE LOCKS--DIAL

DIAL POINTERS SEE POINTERS--DIAL

DIALS--INSTRUMENT

AMPHENOL, JANESVILLE	**WISC**
BECKMAN INSTRUMENTS INC, HELIPOT DIV, FULLERTON CAL	**ADV PG 259**
CONTROL KNOBS INC, JAMAICA	**N Y**
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT	**IOWA**
KILO ENGINEERING CO, LA VERNE	**CAL**
ROGAN BROTHERS INC, SKOKIE	**ILL**
SECS, INC, LONG ISLAND CITY	**N Y**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Ackerman Engravers, Inc, Long Island City	N Y
Acromark Co, Elizabeth	N J
Allen/UTI, Kalamazoo	Mich
A & M Instruments Inc, Great Neck	N Y
Amphenol, Janesville	Wisc
Anchor Plastics Co Inc, Long Island City	N Y
Anodyne, Inc, N Miami Beach	Fla
Antlab, Inc, Worthington	Ohio
Apahouser Corp of N E, Boston	Mass
Atmar Engraving Co Inc, Richmond Hill	N Y
Avionics Ltd, Niagara-on-the-Lake	Ont
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bodnar Products Corp, New Rochelle	N Y
Canadian Research Institute, Don Mills	Ont
Canrad Precision Industries Inc, New York	N Y
Chicago Etching Corp, Chicago	Ill
Coastal Dynamics Corp, Venice	Cal
Control Knobs Inc, Jamaica	N Y
Davies Molding Co, Harry, Chicago	Ill
Devco Engineering Inc, Fairfield (Caldwell)	N J
Dietz Co Inc, Henry G, Long Island City	N Y
Dowa Trading Co Ltd, Kobe	Japan
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Electric Tachometer Corp, Philadelphia	Pa
Electro-Chemical Engraving Co Inc, Bronx	N Y
Eljay Corp, Baltimore	Md
Emerson Plastics Corp, Bronx	New York
Eugene Engineering Co Inc, Rockland	Mass
Feay Co, Neal, Goleta	Cal
Felsenthal Instruments Co, Chicago	Ill
Franklin Fibre-Lamitex Corp, Wilmington	Del
Gentape Corp, Bloomfield	N J
GM Nameplate, Seattle	Wash
Graphtex Inc, Lodi	N J
Griffith Plastic Products Co, Burlingame	Cal
Henschel Corp, Amesbury	Mass
Hermes Plastics Inc, New York	N Y
Hydro Molding Co Inc, Plattsburgh	N Y
Industrial Engravers Inc, Jamaica	N Y
Insulating Shapes Inc, Bronx	N Y
Jackson Brothers (London) Ltd, New York	N Y
Jan Hardware Mfg Co Inc, Long Island City	N Y
Kerrco Inc, Lincoln	Nebr
Kilo Engineering Co, La Verne	Cal
Leeds & Northrup Co, Philadelphia	Pa
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
Markon Mfg Inc, Englewood	Colo
Martin-Decker Corp, Santa Ana	Cal
Master Engraving, Rochelle Park	N J
Meriam Instrument Co, Cleveland	Ohio
Metalphoto Corp, Cleveland	Ohio
Metermaster, Inc, Los Angeles	Cal
Millen Mfg Co Inc, James, Malden	Mass
Miller Dial & Name Plate Co, El Monte	Cal
Muirhead Instruments Inc, Mountainside	N J
National Radio Co Inc, Melrose	Mass
Nelson Electronic Labs Inc, Plano	Tex
Norrich Plastics Corp, Roosevelt	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
Panelgraphic Corp, Caldwell	N J
Photo Chemical Products Inc, Santa Monica	Cal
Precision Crafts, La Cresenta	Cal
Printloid Inc, Long Island City	N Y
Rogan Brothers Inc, Skokie	Ill
Secs, Inc, Long Island City	N Y
Seton Name Plate Corp, New Haven	Conn
Sierra Electric Inc, Gardena	Cal
Simpson Electric Co, Chicago	Ill
Smith Inc, Herman H, Brooklyn	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Stafford Mfg Co Inc, Brooklyn	N Y
Sterling Instrument Div, Designatronics Inc Mineola	N Y
Stockli, 93, Montreuil	France
Strandberg Engineering Labs Inc, Greensboro	N C
Streeter-Amet, Grayslake	Ill
Sun Dial & Panel Corp, Caldwell	N J
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taylor Instrument Cos, Rochester	N Y
Theta Instrument Corp, Fairfield	N J
Triangle Instrument Co Inc, Syosset	N Y
U S Precision Lens & Plastics Inc, Cincinnati	Ohio
United States Radium Corp, Morristown	N J
Vemaline Products Co, Inc, Wycoff	N J
Waldom Electronics Inc, Chicago	Ill
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J
Westmoreland Plastics Co, Latrobe	Pa
Zero Mfg Co, Burbank	Cal

LOOKING FOR TURNS-COUNTING DIALS?

Helipot turns-counting dials enhance instrument panel appearance yet provide extreme accuracy and dependability. Duodial® turns-counting dials are available in 10, 15, 25 and 40 turn models and from ⅞" to 4¾" in diameter. Digidial® digital turns-counting dials provide a direct 3 digit readout. For complete information contact the Helipot representative nearest you. He's listed in EBG's Manufacturers' Index.

Beckman

INSTRUMENTS, INC.

HELIPOT DIVISION

FULLERTON, CALIFORNIA • 92634

DIALS--PRECISION

AMPHENOL, JANESVILLE	**WISC**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
BUCKBEE MEARS CO, ST PAUL	**MINN**
CONTROL KNOBS INC, JAMAICA	**N Y**
KILO ENGINEERING CO, LA VERNE	**CAL**
SECS, INC, LONG ISLAND CITY	**N Y**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Ackerman Engravers, Inc, Long Island City	N Y
Acme Tool & Specialties Co, Des Plaines	Ill
Amphenol, Janesville	Wisc
Antlab, Inc, Worthington	Ohio
Apahouser Corp of N E, Boston	Mass
Atmar Engraving Co Inc, Richmond Hill	N Y
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bodnar Products Corp, New Rochelle	N Y
Buckbee Mears Co, St Paul	Minn
Canrad Precision Industries Inc, New York	N Y
Carbonara Instrument Engrg Labs, Victor E, Port Washington	N Y
Cardwell Condenser Corp, Lindenhurst	N Y
Chicago Etching Corp, Chicago	Ill
Control Knobs Inc, Jamaica	N Y
Devco Engineering Inc, Fairfield (Caldwell)	N J
Eljay Corp, Baltimore	Md
Feay Co, Neal, Goleta	Cal
Felsenthal Instruments Co, Chicago	Ill
Fisher & Crome, Inc, Philadelphia	Pa
General Radio Co, West Concord	Mass
Gentape Corp, Bloomfield	N J
GM Nameplate, Seattle	Wash
Industrial Engravers Inc, Jamaica	N Y
Insulating Shapes Inc, Bronx	N Y
IRC Div TRW Inc, Philadelphia	Pa
Jackson Brothers (London) Ltd, New York	N Y
Jan Hardware Mfg Co Inc, Long Island City	N Y
Kilo Engineering Co, La Verne	Cal
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
Markon Mfg Inc, Englewood	Colo
Martin-Decker Corp, Santa Ana	Cal
Master Engraving, Rochelle Park	N J
Meriam Instrument Co, Cleveland	Ohio
Metalphoto Corp, Cleveland	Ohio
Metrological Data Corp, Garfield	N J
Millen Mfg Co Inc, James, Malden	Mass
Miller Dial & Name Plate Co, El Monte	Cal
Muirhead Instruments Inc, Mountainside	N J
National Radio Co Inc, Melrose	Mass
Norrich Plastics Corp, Roosevelt	N Y
Panelgraphic Corp, Caldwell	N J
Photo Chemical Products Inc, Santa Monica	Cal
PIC Design Corp, East Rockaway	N Y
Printloid Inc, Long Island City	N Y
Qualitron Corp, Danbury	Conn
Secs, Inc, Long Island City	N Y
Seton Name Plate Corp, New Haven	Conn
Stafford Mfg Co Inc, Brooklyn	N Y
Sterling Instrument Div, Designatronics Inc Mineola	N Y
Stockli, 93, Montreuil	France
Sun Dial & Panel Corp, Caldwell	N J
Taylor Instrument Cos, Rochester	N Y
Theta Instrument Corp, Fairfield	N J
Triangle Instrument Co Inc, Syosset	N Y
U S Precision Lens & Plastics Inc, Cincinnati	Ohio
United States Radium Corp, Morristown	N J
Vemaline Products Co, Inc, Wycoff	N J
Waldom Electronics Inc, Chicago	Ill

Electronics Buyers' Guide

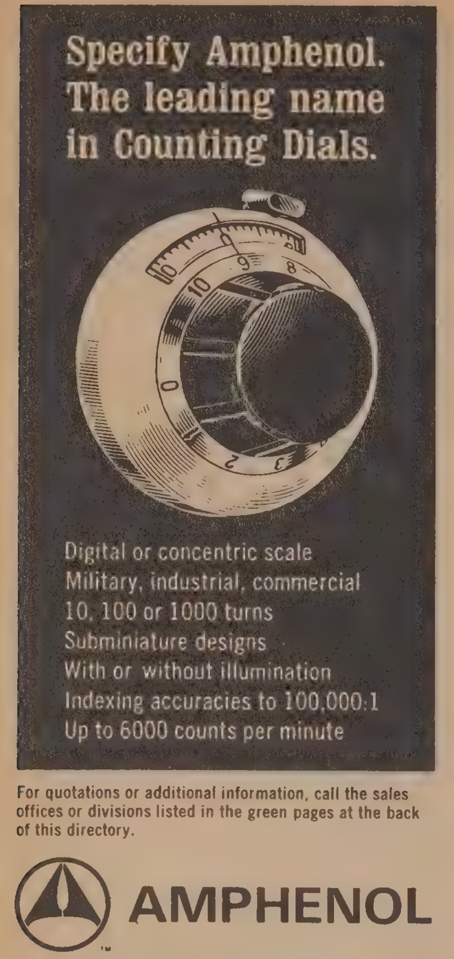
Your black book of

6500 manufacturers

addresses and phone

numbers.

Check the green section



Specify Amphenol.
The leading name
in Counting Dials.

Digital or concentric scale
Military, industrial, commercial
10, 100 or 1000 turns
Subminiature designs
With or without illumination
Indexing accuracies to 100,000:1
Up to 6000 counts per minute

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL

THIS ISN'T JUST A
TURNS-COUNTING DIAL
IT'S A
RELIABLE
kilo dial

Full machining
of aluminum and
stainless steel gives
the finest performance
and appearance.

For more information contact:
KILO ENGINEERING
Kilo International
Tel: (714) LY 3-4626, LY 3-4828
TWX: 910-581-3801
2118 D Street
La Verne, California 91750

LOOKING FOR
TURNS-COUNTING
DIALS?

Helipot turns-counting dials enhance instrument panel appearance yet provide extreme accuracy and dependability. Duodial® turns-counting dials are available in 10, 15, 25 and 40 turn models and from ⅞″ to 4¾″ in diameter. Digidial® digital turns-counting dials provide a direct 3 digit readout. For complete information contact the Helipot representative nearest you. He's listed in EBG's Manufacturers' Index.

Beckman
INSTRUMENTS, INC.

HELIPOT DIVISION
FULLERTON, CALIFORNIA • 92634

DIALS--TURNS, COUNTING

AMPHENOL, JANESVILLE, WISC.	**ADV PG 260**
BECKMAN INSTRUMENTS INC, HELIPOT DIV, FULLERTON CAL.	**ADV PG 260**
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT	**IOWA**
KILO ENGINEERING CO, LA VERNE, CAL	**ADV PG 260**
SPECTROL ELECTRONICS CORP, CITY OF INDUSTRY	**CAL**
Amerac, Inc, Beverly	Mass
Amphenol, Janesville	Wisc
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Beckman Instruments Intl SA,. 1207 Geneva	Switzerland
Bodnar Products Corp, New Rochelle	N Y
Bourns Inc Trimpot Div, Riverside	Cal
Canrad Precision Industries Inc, New York	N Y
Clarostat Mfg Co Inc, Dover	N H
Counting Instruments Ltd, Hertfordshire	England
Duncan Electronics Inc, Costa Mesa	Cal
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Eljay Corp, Baltimore	Md
Fairchild Controls, Hicksville	N Y
Gentape Corp, Bloomfield	N J
Harrel Inc, East Norwalk	Conn
Hydro Molding Co Inc, Plattsburgh	N Y
IRC Div TRW Inc, Philadelphia	Pa
Jackson Brothers (London) Ltd, New York	N Y
Johnson Co, E F, Waseca	Minn
Kilo Engineering Co, La Verne	Cal
Landis & Gyr, Inc, New York	N Y
Master Engraving, Rochelle Park	N J
Millen Mfg Co Inc, James, Malden	Mass
Sakae Tsushin Kogyo Co Ltd, Tokyo	Japan
Servo Development Corp, Hicksville	N Y
Spectrol Electronics Corp, City of Industry	Cal
United States Radium Corp, Morristown	N J
Veeder-Root, Hartford	Conn
Vemaline Products Co, Inc, Wycoff	N J
Waters Mfg Inc, Wayland	Mass

DIAMOND ABRASIVES SEE ABRASIVES

DIAMOND SAWS SEE WHEELS--DIAMOND

DIAMOND STYLI SEE NEEDLES

DIELECTRIC HEATERS SEE HEATERS--ELECTRONIC

DIELECTRICS--LIQUID SEE ALSO

COOLANTS--DIELECTRIC LIQUID

Anadite, Inc, South Gate	Cal
Baker Castor Oil Co, Bayonne	N J
Bel-Ray Co, Inc, Farmingdale	N J
Castall Research Lab Inc, Brockton	Mass
Chevron Chemical Co Oronite Additives Div San Francisco	Cal
CRC Chemicals, Dresher	Pa
Dow Corning Corp, Midland	Mich
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Emerson & Cuming Inc, Canton	Mass
General Electric Co Silicone Prods Dept, Waterford	N Y
Humble Oil & Refining Co, Houston	Tex
Monsanto Co, St Louis	Mo
Roberts & Associates Inc, E V, Culver City	Cal
Space Rays Inc, Burlington	Mass
Sperex Corp, Los Angeles	Cal
Stauffer Chemical Co Silicone Div, New York	N Y
United Mineral & Chemical Corp, New York	N Y
Wornow Process Paint Co, Los Angeles	Cal

DIELECTRICS--SOLID SEE CERAMICS; FILMS;GLASS; MICA; PAPER; PLASTICS; TITANATES

DIES

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
Accurate Electronics Corp, Elyria	Ohio
Acme Model Engineering Co, Ridgefield	N J
Acromark Co, Elizabeth	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
Amatom Electronic Hardware, New Rochelle	N Y
A V Electronics, Inc, Fresno	Cal
Colbert Die Cast Co Inc, South Gate	Cal
DCMT Machinery Div Avnet Inc, Plainview	N Y
Dranetz Engineering Labs Inc, Plainfield	N J
Dry Screen Process Inc, Pittsburgh	Pa
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Eugene Engineering Co Inc, Rockland	Mass
Eyelet Tool Co, Cambridge	Mass
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Forway Industries Inc, Woodbury	N J
Haddon Tool & Mfg Co, Merchantville	N J
Jan Hardware Mfg Co Inc, Long Island City	N Y
Kidde & Co Inc, Walter, Belleville	N J
Magnetic Metals Co, Camden	N J
Markon Mfg Inc, Englewood	Colo
Metal Ceram Inc, Mount Vernon	N Y
O'Hara Metal Products Co, San Francisco	Cal
Pico Crimping Tools Co, Santa Fe Springs	Cal
Poco Graphite, Inc, Garland	Tex
Research Instrument Co Inc, Westbury	N Y
Seastrom Mfg Co Inc, Glendale	Cal
Semi-Alloys Inc, Mt Vernon	N Y
Siltronics Inc, Oakmont	Pa
S K G Associates Inc, Boston	Mass
Slocum Industries, Inc, Reseda	Cal
Stafford Mfg Co Inc, Brooklyn	N Y
Unipunch Products Inc, Buffalo	N Y

DIFFERENTIAL AMPLIFIERS SEE AMPLIFIERS--INSTRUMENTATION

DIFFERENTIAL TRANSFORMERS SEE TRANSFORMERS SPECIAL

DIFFERENTIATING AMPLIFIERS SEE AMPLIFIERS--COMPUTER

DIGITAL ANALYZERS SEE ANALYZERS--DIFFERENTIAL

DIGITAL COMPARATORS SEE COMPARATORS

DIGITAL COMPUTERS SEE COMPUTERS

DIGITAL DISPLAYS SEE INDICATORS--DIGITAL

DIGITAL ENCODERS SEE ENCODERS

DIGITAL OHMMETERS SEE OHMMETERS

DIGITAL PLOTTERS SEE PLOTTERS

DIGITAL PRINTERS SEE PRINTERS

DIGITAL READOUTS SEE INDICATORS--DIGITAL

DIGITAL RECORDERS SEE PRINTERS; RECORDERS--MAGNETIC TAPE

DIGITAL-TO-ANALOG DECODER SEE DECODERS

DIGITAL TOTALIZERS SEE PRINTERS--DIGITAL

DIGITAL VOLTMETERS SEE VOLTMETERS

DIMENSION CONTROLS SEE CONTROLS--DIMENSION

DIMENSION GAGES SEE GAGES--DIMENSION

DIODE BASES SEE BASES--DIODE & TRANSISTOR

DIODE HOLDERS SEE HOLDERS

DIODE-MANUFACTURING MACHINES SEE MACHINES--DIODE & TRANSISTOR MANUFACTURING

DIODES--AVALANCHE

EDAL INDUSTRIES INC, EAST HAVEN	**CONN**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK	**N J**
UNITRODE CORP, WATERTOWN, MASS	**ADV PG 263**
Alpha Components Corp, Venice	Cal
American Semiconductor Corp, Arlington Heights	Ill
Atlantic Semiconductor Inc, Asbury Park	N J
Bomac Div Varian Associates, Beverly	Mass
Centralab Semiconductor Prods, Elctn Div, Globe-Union Inc, El Monte	Cal
Continental Device Corp, Hawthorne	Cal
Delta Semiconductors Div Natl Instr Corp Costa Mesa	Cal
Diodes Inc, Chatsworth	Cal
Edal Industries Inc, East Haven	Conn
Electronic Devices Inc (Incl Trans Sil Div), Yonkers	N Y
Emihus Microcomponents Ltd Hounslow, Middx	England
Energy Conversion Devices Inc, Troy	Mich
Erie Technological Products Inc, Erie	Pa
Ferranti, Ltd, Lancashire	England
General Electric Co, ECSO, Schenectady	N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
General Instrument Europe SPA, Milano	Italy
General Semiconductor Div, Tempe	Ariz
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
Holmes Co, Carl E, Los Angeles	Cal
Hunt Electronics Co, Dallas	Tex
International Rectifier Semiconductor Div El Segundo	Cal
IRC Div TRW Inc, Philadelphia	Pa
ITT Europe Inc Components Gp, Brussels 1	Belgium
Microsemiconductor Corp, Culver City	Cal
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Mullard Ltd, London, WC 1	Eng
Nippon Electric Co Ltd, Tokyo	Japan
Parametric Industries Inc, Winchester	Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Power Components Inc, Scottdale	Pa
Rectifier Engineering & Supply Co Inc, St Louis	Mo
Sarkes Tarzian Inc, Semiconductor Div Bloomington	Ind
Semiconductor Specialists Inc, Chicago	Ill
Semicon Inc, Bedford	Mass
Semi-Elements Inc, Saxonburg	Pa
Semikron International Inc, Scarsdale	N Y
SILEC, Paris	France
Solitron Devices Inc, Tappan	NY
Sylvania Electric Products Inc, Semiconductor Div Woburn	Mass
Syntron Div FMC Corp, Homer City	Pa
Texas Instruments France, Villeneuve-Loubet	France
Texas Instruments Incorporated, Dallas	Tex
Transitron Electronic Corp, Wakefield	Mass
TRW Semiconductors Inc, Los Angeles	Cal
Tung-Sol Div Wagner Electric Corp, Newark	N J
Unitrode Corp, Watertown	Mass
Varo Inc, Garland	Tex

The No. 1 book in industrial electronics

FREE

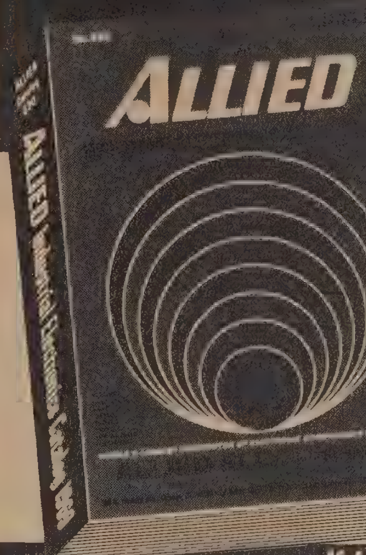
NEW 1969 ALLIED INDUSTRIAL ELECTRONICS CATALOG

MAIL COUPON NOW FOR FREE COPY!

- World's largest selection!
- All merchandise stocked in depth!
- Factory OEM prices!
- Same-day shipment!
- 600 value-packed pages!

ALLIED Electronics, Dept. 350
100 N. Western Ave., Chicago, Ill. 60680

Name__________
Company__________
Address__________
City__________
State__________ Zip__________



DIODES--BACKWARD

GENERAL ELECTRIC CO, ECSO, SCHENECTADY	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
VICTORY ENGINEERING CORP, SPRINGFIELD N J	**ADV PGS FACING PG 1**
Centralab Semiconductor Prods, Elctn Div, Globe-Union Inc, El Monte	Cal
Delta Semiconductors Div Natl Instr Corp Costa Mesa	Cal
General Electric Co, ECSO, Schenectady	N Y
Hunt Electronics Co, Dallas	Tex
IRC Div TRW Inc, Philadelphia	Pa
Kemtron Electron Products Inc, Newburyport	Mass
KMC Semiconductor Corp, Long Valley	N J
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Parametric Industries Inc, Winchester	Mass
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Semiconductor Specialists Inc, Chicago	Ill
Semi-Elements Inc, Saxonburg	Pa
Siemens America Inc, New York	N Y
Transitron Electronic Corp, Wakefield	Mass
Trans-Tek Mfg Co Inc, Garwood	N J
Varo Inc, Garland	Tex
Victory Engineering Corp, Springfield	N J

DIODES--FOUR-LAYER

UNITRODE CORP, WATERTOWN, MASS	ADV PG 263
Delta Semiconductors Div Natl Instr Corp Costa Mesa	Cal
Ferranti, Ltd, Lancashire	England
ITT Europe Inc Components Gp, Brussels 1	Belgium
Motorola Semiconductor Products Inc, Phoenix	Ariz
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Power Components Inc, Scottdale	Pa
Sarkes Tarzian Inc, Semiconductor Div Bloomington	Ind
Semiconductor Specialists Inc, Chicago	Ill
Texas Instruments Incorporated, Dallas	Tex
Transitron Electronic Corp, Wakefield	Mass
Unitrode Corp, Watertown	Mass
Walkirt Co, Los Angeles	Cal
Western Semiconductors Inc, Santa Ana	Cal

DIODES--ELECTROLUMINESCENT

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HEWLETT-PACKARD, PALO ALTO	**CAL**
American Electronic Labs Inc, Lansdale	Pa
Delta Semiconductors Div Natl Instr Corp Costa Mesa	Cal
Electro-Nuclear Lab Inc, Menlo Park	Cal
Ferranti, Ltd, Lancashire	England
General Electric Co, ECSO, Schenectady	N Y
Hewlett-Packard, Palo Alto	Cal
Monsanto Co, St Louis	Mo
Philco-Ford Corp, Washington	D C
Semi-Elements Inc, Saxonburg	Pa

DIODES--GERMANIUM

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE, R I	ADV PGS 748,749
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
AMC Semiconductor Corp, New York	N Y
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville	R I
Ates Componenti Elettronici SpA, Milano	Italy
Delta Semiconductors Div Natl Instr Corp Costa Mesa	Cal
Emihus Microcomponents Ltd Hounslow, Middx	England
Erie Technological Products Inc, Erie	Pa
Fuji Electric Co Ltd, Tokyo	Japan
Fujitsu Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
General Instrument Europe SPA, Milano	Italy
Geoscience Instruments Corp, Mt Vernon	N Y
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
Hughes Aircraft Co, Newport Beach	Cal
International Diode Corp, Jersey City	N J
International Electronics Corp, Melville	NY
Isotopes A Teledyne Co, Westwood	N J
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Semiconductors, West Palm Beach	Fla
Kemtron Electron Products Inc, Newburyport	Mass
KMC Semiconductor Corp, Long Valley	N J

Kobe Industries Corp, Kobe	Japan
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Mitsubishi Electric Corp, Tokyo	Japan
Motorola Semiconductor Products Inc, Phoenix	Ariz
Mullard Ltd, London, WC 1	Eng
Nippon Electric Co Ltd, Tokyo	Japan
Ohmite Mfg Co, Skokie	Ill
Oki Electric Industry Co Ltd, Tokyo	Japan
Oneida Electronic Mfg Co, Meadville	Pa
Parametric Industries Inc, Winchester	Mass
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Electronic Components, Harrison	N J
Sampson Electronic Products Div, Chicago	Ill
Sanyo Electric Co Ltd, Osaka	Japan
Schauer Mfg Corp, Cincinnati	Ohio
Semiconductor Devices Inc, Santa Ana	Cal
Semiconductor Products Inc, Lawrence	Mass
Semiconductor Specialists Inc, Chicago	Ill
Semi-Elements Inc, Saxonburg	Pa
SESCO, Paris XIII	France
Siemens America Inc, New York	N Y
Solitron Devices Inc, Tappan	NY
Standard Telephones & Cables Ltd London WC 2	England
Sylvania Electric Products Inc, Semiconductor Div Woburn	Mass
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Telefunken Sales Corp, Garden City	N Y
Transitron Electronic Corp, Wakefield	Mass
Trans-Tek Mfg Co Inc, Garwood	N J
Varo Inc, Garland	Tex
Walkirt Co, Los Angeles	Cal

DIODES--HOT CARRIER

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
HEWLETT-PACKARD, PALO ALTO	**CAL**
Alpha Industries Inc, Newton Upper Falls	Mass
Delta Semiconductors Div Natl Instr Corp Costa Mesa	Cal
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
General Electric Co, ECSO, Schenectady	N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
General Instrument Europe SPA, Milano	Italy
Hewlett-Packard, Palo Alto	Cal
Hughes Aircraft Co, Newport Beach	Cal
International Diode Corp, Jersey City	N J
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Parametric Industries Inc, Winchester	Mass
Sampson Electronic Products Div, Chicago	Ill
Solitron Devices Inc, Tappan	NY
Sylvania Electric Products Inc, Semiconductor Div Woburn	Mass
Trans-Tek Mfg Co Inc, Garwood	N J

DIODES--MIXER & DETECTOR,MICROWAVE

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
HEWLETT-PACKARD, PALO ALTO	**CAL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO, JAPAN	ADV PGS 752,753
Alpha Industries Inc, Newton Upper Falls	Mass
AMC Semiconductor Corp, New York	N Y
American Electronic Labs Inc, Lansdale	Pa
Continental Device Corp, Hawthorne	Cal
Delta Semiconductors Div Natl Instr Corp Costa Mesa	Cal
Erie Technological Products Inc, Erie	Pa
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
General Electric Co, ECSO, Schenectady	N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
General Instrument Europe SPA, Milano	Italy
General Radio Co, West Concord	Mass
Hewlett-Packard, Palo Alto	Cal
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
Hughes Aircraft Co, Newport Beach	Cal
International Diode Corp, Jersey City	N J
International Electronics Corp, Melville	NY
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kemtron Electron Products Inc, Newburyport	Mass
KMC Semiconductor Corp, Long Valley	N J
Matsushita Electric Industrial Co Ltd, Osaka	Japan
MCS Corp, Monrovia	Cal
Microsemiconductor Corp, Culver City	Cal
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Microwave Development Labs Inc Needham Heights	Mass
Motorola Semiconductor Products Inc, Phoenix	Ariz
Mullard Ltd, London, WC 1	Eng
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Parametric Industries Inc, Winchester	Mass
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Electronic Components, Harrison	N J
Sampson Electronic Products Div, Chicago	Ill
Sarkes Tarzian Inc, Semiconductor Div Bloomington	Ind
Semiconductor Specialists Inc, Chicago	Ill
Semi-Elements Inc, Saxonburg	Pa
Solitron Devices Inc, Tappan	NY
Standard Telephones & Cables Ltd London WC 2	England
Sylvania Electric Products Inc, Semiconductor Div Woburn	Mass
Texas Instruments France, Villeneuve-Loubet	France
Transitron Electronic Corp, Wakefield	Mass
United Detector Technology Inc, Santa Monica	Cal
Varian, Palo Alto	Cal
Victor R F & Microwave Co, Wakefield	Mass

DIODES-- PHOTOCONDUCTIVE, GERMANIUM

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE, R I	ADV PGS 748,749
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville	R I
Delta Semiconductors Div Natl Instr Corp Costa Mesa	Cal
Electro-Nuclear Lab Inc, Menlo Park	Cal
Fujitsu Ltd, Tokyo	Japan
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
Geoscience Instruments Corp, Mt Vernon	N Y
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kobe Industries Corp, Kobe	Japan
MacKay Research Labs, Wickenburg	Ariz
Mullard Ltd, London, WC 1	Eng
Nippon Electric Co Ltd, Tokyo	Japan
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Sanyo Electric Co Ltd, Osaka	Japan
Semi-Elements Inc, Saxonburg	Pa
Siemens America Inc, New York	N Y
Trans-Tek Mfg Co Inc, Garwood	N J

DIODES--PHOTOCONDUCTIVE,SILICON

HEWLETT-PACKARD, PALO ALTO	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Alpha Industries Inc, Newton Upper Falls	Mass
Dahlberg Electronics Inc, Minneapolis	Minn
Delta Semiconductors Div Natl Instr Corp Costa Mesa	Cal
E G & G Inc, Systems Devel Div, Bedford	Mass
Electro-Nuclear Lab Inc, Menlo Park	Cal
Electro-Optical Systems Inc, Pasadena	Cal
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Fujitsu Ltd, Tokyo	Japan
General Sensors Inc, Athens	Tex
Geoscience Instruments Corp, Mt Vernon	N Y
Hewlett-Packard, Palo Alto	Cal
Ion Physics Corp, Burlington	Mass
Isofilm International, Chatsworth	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
Nippon Electric Co Ltd, Tokyo	Japan
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Semi-Elements Inc, Saxonburg	Pa
Texas Instruments France, Villeneuve-Loubet	France
Trans-Tek Mfg Co Inc, Garwood	N J
United Detector Technology Inc, Santa Monica	Cal

DIODES--PIN

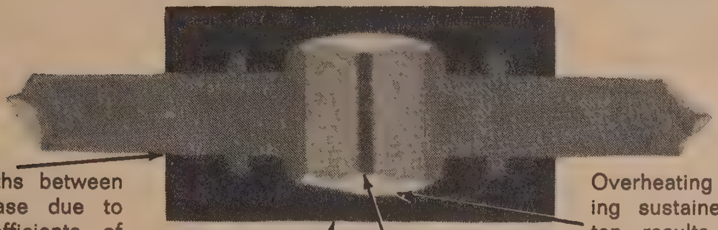
HEWLETT-PACKARD, PALO ALTO	**CAL**
UNITRODE CORP, WATERTOWN, MASS	**ADV PG 000**
Alpha Industries Inc, Newton Upper Falls	Mass
American Electronic Labs Inc, Lansdale	Pa
Bomac Div Varian Associates, Beverly	Mass
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
E G & G Inc, Systems Devel Div, Bedford	Mass
Ferranti, Ltd, Lancashire	England
General Instrument Europe SPA, Milano	Italy
Hewlett-Packard, Palo Alto	Cal
Hughes Aircraft Co, Newport Beach	Cal
Microsemiconductor Corp, Culver City	Cal
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Moody Machine Products Co Inc, Providence	R I
Motorola Semiconductor Products Inc, Phoenix	Ariz
Parametric Industries Inc, Winchester	Mass
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Semi-Elements Inc, Saxonburg	Pa
United Detector Technology Inc, Santa Monica	Cal
Unitrode Corp, Watertown	Mass
Western Semiconductors Inc, Santa Ana	Cal

DIODES--RECTIFIER

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE, R I	ADV PGS 748,749
EDAL INDUSTRIES INC, EAST HAVEN	**CONN**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO, JAPAN	ADV PGS 752,753
SEMTECH CORP, NEWBURY PARK	**CAL**
UNITRODE CORP, WATERTOWN, MASS	ADV PG 263
Alco Electronic Products, Inc, Lawrence	Mass
AMC Semiconductor Corp, New York	N Y
American Semiconductor Corp, Arlington Heights	Ill
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville	R I
Atlantic Semiconductor Inc, Asbury Park	N J
Avnet Electronics, Westbury	N Y
B & B Motor & Control Corp, New York	N Y
Bendix Corp Semiconductor Div, Holmdel	N J
Bradley Semiconductor Corp, New Haven	Conn
Centralab Semiconductor Prods, Elctn Div, Globe-Union Inc, El Monte	Cal
Cetron Electronic Corp, Geneva	Ill
C G E, 91 Marcoussis	France
Computer Diode Corp, Fairlawn	NJ
Continental Device Corp, Hawthorne	Cal
Delco Radio Div General Motors Corp, Kokomo	Ind
Delta Semiconductors Div Natl Instr Corp Costa Mesa	Cal
Dickson Electronics Corp, Scottsdale	Ariz
Diodes Inc, Chatsworth	Cal
Eastern Delta Corp, Fair Lawn	N J
Edal Industries Inc, East Haven	Conn
Eimac Div, Varian Associates, San Carlos	Cal
Electronic Devices Inc (Incl Trans Sil Div), Yonkers	N Y
Electronic Transistors Corp, Flushing	N Y
Emihus Microcomponents Ltd Hounslow, Middx	England
Erie Technological Products Inc, Erie	Pa
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Ferranti, Ltd, Lancashire	England
Fuji Electric Co Ltd, Tokyo	Japan
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
General Instrument Europe SPA, Milano	Italy
General Semiconductor Div, Tempe	Ariz
Green Rectifier Corp, Fair Lawn	N J
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
Holmes Co, Carl E, Los Angeles	Cal
Hughes Aircraft Co, Newport Beach	Cal
International Diode Corp, Jersey City	N J
International Electronics Corp, Melville	NY
International Rectifier Semiconductor Div El Segundo	Cal
IRC Div TRW Inc, Philadelphia	Pa
Isofilm International, Chatsworth	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Semiconductors, West Palm Beach	Fla
Kobe Industries Corp, Kobe	Japan
Lake Engineering Co Ltd, Scarborough	Ont
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Microsemiconductor Corp, Culver City	Cal
Motorola Semiconductor Products Inc, Phoenix	Ariz
Mullard Ltd, London, WC 1	Eng
Nippon Electric Co Ltd, Tokyo	Japan
Oneida Electronic Mfg Co, Meadville	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Power Components Inc, Scottdale	Pa
Radio Corp of America, Electronic Components, Harrison	N J
Recticon Corp, Conshohocken	Pa
Rectifier Engineering & Supply Co Inc, St Louis	Mo
Sampson Electronic Products Div, Chicago	Ill
Sanken Electric Co, Ltd, Toshima-ku, Tokyo	Japan
Sanyo Electric Co Ltd, Osaka	Japan
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Sarkes Tarzian Inc, Semiconductor Div Bloomington	Ind
Schauer Mfg Corp, Cincinnati	Ohio
Semiconductor Devices Inc, Santa Ana	Cal
Semiconductor Products Inc, Lawrence	Mass
Semiconductor Specialists Inc, Chicago	Ill
Semicon Inc, Bedford	Mass
Semi-Elements Inc, Saxonburg	Pa
Semikron International Inc, Scarsdale	N Y
Semtech Corp, Newbury Park	Cal
Siemens America Inc, New York	N Y
SILEC, Paris	France
Slater Electric Inc, Glen Cove	N Y
Solitron Devices Inc, Tappan	NY
Sylvania Electric Products Inc, Semiconductor Div Woburn	Mass
Syntron Div FMC Corp, Homer City	Pa
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Telefunken Sales Corp, Garden City	N Y
Transitron Electronic Corp, Wakefield	Mass
TRW Semiconductors Inc, Los Angeles	Cal
United Mineral & Chemical Corp, New York	N Y
Unitrode Corp, Watertown	Mass
Varo Inc, Garland	Tex
VP Co, Pasadena	Cal
Walkirt Co, Los Angeles	Cal

27 seconds from now you'll know whose rectifiers or zeners you want to use . . . and why

This is an actual section of a conventional plastic diode



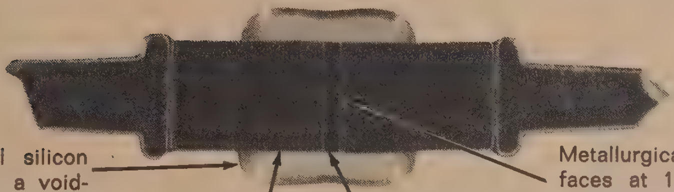
Possible moisture paths between leads and plastic case due to unequal thermal coefficients of expansion and shrinkage of plastic from leads during cure.

Overheating of silicone rubber during sustained power overload often results in long-term leakage degradation.

Relative porosity of plastic allows penetration of moisture over extended period, creating possible electrical degradation.

Usually not controlled avalanche. Conventional passivation by oxides, varnish, or silicone rubber (as shown) allows possibility of surface leakage degradation.

This is an actual section of a Unitrode glass diode



Hard glass fused to all silicon and pin surfaces creates a voidless monolithic structure. Perfect seal against all moisture and contaminants.

Metallurgical bond of pins to die-faces at 1000°C allows extremely high surge capability, low thermal resistance. Virtually indestructible construction.

Temperature coefficient of glass and pins is matched to silicon. No degradation under severe thermal stress of high transients or repeated temperature shock — even from −195°C to +300°C.

Controlled avalanche and permanently stable surface leakage characteristics. Hyperclean silicon surface fused only in hard glass. No oxides, silicones, or varnish are used.

And by the way . . .

Glass doesn't always cost more than plastic. Not when you get the economies of making 250 thousand at a time. So don't be shocked at how low our prices are. And . . . you can buy a 100 thousand right off the shelf.

RECTIFIERS

PIVS	to 1000V.
RATINGS	to 12A.
SURGES	to 150A.

ZENERS

VOLTAGES	to 400V.
RATINGS	to 10W.
SURGES	to 350W.

Our catalog is loaded with charts, graphs, and all kinds of detailed specs you'll want to have, so drop us a line right now.

580 Pleasant St., Watertown, Mass. 02172, (617) 926-0404

UNITRODE®

Western Semiconductors Inc, Santa Ana ..... Cal
Westinghouse Electric Corp, Semiconductor Div Youngwood ..... Pa
Workman Electronic Products Inc, Sarasota ..... Fla

DIODES--REFERENCE

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE, R I ADV PGS 748,749
GENERAL INSTRUMENT CORP, SEMICUNDUCTOR PRODS GRP, HICKSVILLE, N Y ..... ADV PGS 3RD COVER INLEAF
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ..... JAPAN
SEMTECH CORP, NEWBURY PARK ..... CAL
American Semiconductor Corp, Arlington Heights Ill
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville ..... R I
Atlantic Semiconductor Inc, Asbury Park ..... N J
Avnet Electronics, Westbury ..... N Y
Centralab Semiconductor Prods, Elctn Div, Globe-Union Inc, El Monte ..... Cal
Components Inc Semcor Div, Phoenix ..... Ariz
Computer Diode Corp, Fairlawn ..... NJ
Continental Device Corp, Hawthorne ..... Cal
Delta Semiconductors Div Natl Instr Corp Costa Mesa ..... Cal
Eastron Corp, Haverhill ..... Mass
Emihus Microcomponents Ltd Hounslow, Middx ..... England
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View ..... Cal
Ferranti, Ltd, Lancashire ..... England
General Instrument Corp, Semiconductor Prods Grp, Hicksville ..... N Y
General Instrument Europe SPA, Milano ..... Italy
General Semiconductor Div, Tempe ..... Ariz
Hitachi Ltd, Chiyoda-Ku, Tokyo ..... Japan
International Diode Corp, Jersey City ..... N J
International Rectifier Semiconductor Div El Segundo ..... Cal
IRC Div TRW Inc, Philadelphia ..... Pa
ITT Europe Inc Components Gp, Brussels 1 ..... Belgium
ITT Semiconductors, West Palm Beach ..... Fla
Matsushita Electric Industrial Co Ltd, Osaka ..... Japan
Microsemiconductor Corp, Culver City ..... Cal
Motorola Semiconductor Products Inc, Phoenix ..... Ariz
Mullard Ltd, London, WC 1 ..... Eng
Philips' Gloeilampenfabrieken, N V, Eindhoven ..... Holland
Power Components Inc, Scottdale ..... Pa
Radio Corp of America, Electronic Components, Harrison ..... N J
Sarkes Tarzian Inc, Semiconductor Div Bloomington ..... Ind
Semiconductor Devices Inc, Santa Ana ..... Cal
Semiconductor Products Inc, Lawrence ..... Mass
Semiconductor Specialists Inc, Chicago Ill
Semicon Inc, Bedford ..... Mass
Semi-Elements Inc, Saxonburg ..... Pa
Semtech Corp, Newbury Park ..... Cal
Siemens America Inc, New York ..... N Y
SILEC, Paris ..... France
Solitron Devices Inc, Tappan ..... NY
Standard Telephones & Cables Ltd London WC 2 ..... England
Telefunken Sales Corp, Garden City ..... N Y
Transitron Electronic Corp, Wakefield ..... Mass
TRW Semiconductors Inc, Los Angeles ..... Cal
United Mineral & Chemical Corp, New York ..... N Y
Victoreen Instrument Div, Cleveland ..... Ohio
Walkirt Co, Los Angeles ..... Cal
Western Semiconductors Inc, Santa Ana ..... Cal

DIODES--SELENIUM

EDAL INDUSTRIES INC, EAST HAVEN ..... CONN
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ..... ADV PGS 7
NIPPON ELECTRIC CO LTD, TOKYO ..... JAPAN
Alpha Components Corp, Venice ..... Cal
B & B Motor & Control Corp, New York ..... N Y
Eastern Delta Corp, Fair Lawn ..... N J
Edal Industries Inc, East Haven ..... Conn
General Electric Co, ECSO, Schenectady ..... N Y
Green Rectifier Corp, Fair Lawn ..... N J
Interman Industrial Products Ltd, Garden City ..... NY
International Rectifier Semiconductor Div El Segundo ..... Cal
IRC Div TRW Inc, Philadelphia ..... Pa
ITT Europe Inc Components Gp, Brussels 1 ..... Belgium
ITT Semiconductors, West Palm Beach ..... Fla
Nippon Electric Co Ltd, Tokyo ..... Japan
Recticon Corp, Conshohocken ..... Pa
Rectifier Engineering & Supply Co Inc, St Louis ..... Mo
Sampson Electronic Products Div, Chicago Ill
Semiconductor Specialists Inc, Chicago Ill
Semi-Elements Inc, Saxonburg ..... Pa
Semikron International Inc, Scarsdale ..... N Y
Siemens America Inc, New York ..... N Y
United Mineral & Chemical Corp, New York ..... N Y
Walkirt Co, Los Angeles ..... Cal

DIODES--SILICON

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE, R I ADV PGS 748,749
EDAL INDUSTRIES INC, EAST HAVEN ..... CONN
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ..... ADV PGS 7
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y ..... ADV PGS 3RD COVER INLEAF
HEWLETT-PACKARD, PALO ALTO ..... CAL
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ..... JAPAN
MITSUBISHI ELECTRIC CORP, TOKYO ..... JAPAN
NIPPON ELECTRIC CO LTD, TOKYO, JAPAN
SEMTECH CORP, NEWBURY PARK ..... CAL
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK ..... N J
UNITRODE CORP, WATERTOWN, MASS ..... ADV PG 263
Alpha Components Corp, Venice ..... Cal
Alpha Industries Inc, Newton Upper Falls ..... Mass
AMC Semiconductor Corp, New York ..... N Y
American Electronic Labs Inc, Lansdale ..... Pa
American Semiconductor Corp, Arlington Heights Ill
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville ..... R I
Atlantic Semiconductor Inc, Asbury Park ..... N J
B & B Motor & Control Corp, New York ..... N Y
Bendix Corp Semiconductor Div, Holmdel ..... N J
Bomac Div Varian Associates, Beverly ..... Mass
Bradley Semiconductor Corp, New Haven ..... Conn
Centralab Semiconductor Prods, Elctn Div, Globe-Union Inc, El Monte ..... Cal
Components Inc Semcor Div, Phoenix ..... Ariz
Computer Diode Corp, Fairlawn ..... NJ
Continental Device Corp, Hawthorne ..... Cal
Delco Radio Div General Motors Corp, Kokomo ..... Ind
Delta Semiconductors Div Natl Instr Corp Costa Mesa ..... Cal
Dickson Electronics Corp, Scottsdale ..... Ariz
Diodes Inc, Chatsworth ..... Cal
Eastron Corp, Haverhill ..... Mass
Edal Industries Inc, East Haven ..... Conn
Electronic Components Div United Aircraft Corp Trevose ..... Pa
Electronic Devices Inc (Incl Trans Sil Div), Yonkers ..... N Y
Electronic Transistors Corp, Flushing ..... N Y
Emihus Microcomponents Ltd Hounslow, Middx ..... England
Erie Technological Products Inc, Erie ..... Pa
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View ..... Cal
Ferranti Electric Inc, Plainview ..... N Y
Ferranti, Ltd, Lancashire ..... England
Fuji Electric Co Ltd, Tokyo ..... Japan
Fujitsu Ltd, Tokyo ..... Japan
General Electric Co, ECSO, Schenectady ..... N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville ..... N Y
General Instrument Europe SPA, Milano ..... Italy
General Semiconductor Div, Tempe ..... Ariz
Geoscience Instruments Corp, Mt Vernon ..... N Y
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland ..... Ohio
Hayakawa Electric Co Ltd, Osaka ..... Japan
Hewlett-Packard, Palo Alto ..... Cal
Hitachi Ltd, Chiyoda-Ku, Tokyo ..... Japan
Holmes Co, Carl E, Los Angeles ..... Cal
Hughes Aircraft Co, Newport Beach ..... Cal
International Diode Corp, Jersey City ..... N J
International Electronics Corp, Melville ..... NY
International Rectifier Semiconductor Div El Segundo ..... Cal
IRC Div TRW Inc, Philadelphia ..... Pa
Isofilm International, Chatsworth ..... Cal
ITT Europe Inc Components Gp, Brussels 1 ..... Belgium
ITT Semiconductors, West Palm Beach ..... Fla
Kemtron Electron Products Inc, Newburyport ..... Mass
Lignes Telegraphiques et Telephoniques Paris 16 ..... France
Marconi Co Ltd, Chelmsford ..... England
Matsushita Electric Industrial Co Ltd, Osaka ..... Japan
Microsemiconductor Corp, Culver City ..... Cal
Micro State Electronics Oper Raytheon Co Murray Hill ..... N J
Microwave Associates Inc, Burlington ..... Mass
Mitsubishi Electric Corp, Tokyo ..... Japan
Motorola Semiconductor Products Inc, Phoenix ..... Ariz
Mullard Ltd, London, WC 1 ..... Eng
Nippon Electric Co Ltd, Tokyo ..... Japan
Ohmite Mfg Co, Skokie Ill
Oki Electric Industry Co Ltd, Tokyo ..... Japan
Oneida Electronic Mfg Co, Meadville ..... Pa
Parametric Industries Inc, Winchester ..... Mass
Philco-Ford Corp, Washington ..... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven ..... Holland
Power Components Inc, Scottdale ..... Pa
Precision Systems Corp, Columbus ..... Ohio
Radio Corp of America, Electronic Components, Harrison ..... N J
Raytheon Co, Components Div, Semiconductor Oper Mountain View ..... Cal
Recticon Corp, Conshohocken ..... Pa
Rectifier Engineering & Supply Co Inc, St Louis ..... Mo
Sampson Electronic Products Div, Chicago Ill
Sanyo Electric Co Ltd, Osaka ..... Japan
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington ..... Ind
Sarkes Tarzian Inc, Semiconductor Div Bloomington ..... Ind
Schauer Mfg Corp, Cincinnati ..... Ohio
Semiconductor Devices Inc, Santa Ana ..... Cal
Semiconductor Products Inc, Lawrence ..... Mass
Semiconductor Specialists Inc, Chicago Ill
Semicon Inc, Bedford ..... Mass
Semi-Elements Inc, Saxonburg ..... Pa
Semikron International Inc, Scarsdale ..... N Y
Semtech Corp, Newbury Park ..... Cal
SESCO, Paris XIII ..... France
Siemens America Inc, New York ..... N Y
SILEC, Paris ..... France
Solar Systems Div Tyco, Skokie Ill
Solitron Devices Inc, Tappan ..... NY
Standard Telephones & Cables Ltd London WC 2 ..... England
Sylvania Electric Products Inc, Semiconductor Div Woburn ..... Mass
Syntron Div FMC Corp, Homer City ..... Pa
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn ..... N Y
Telefunken Sales Corp, Garden City ..... N Y
Texas Instruments France, Villeneuve-Loubet ..... France
Texas Instruments Incorporated, Dallas ..... Tex
Transitron Electronic Corp, Wakefield ..... Mass
Trans-Tek Mfg Co Inc, Garwood ..... N J
TRW Semiconductors Inc, Los Angeles ..... Cal
Tung-Sol Div Wagner Electric Corp, Newark ..... N J
United Aircraft Corp Electronic Components Div Trevose ..... PA
United Mineral & Chemical Corp, New York ..... N Y
Unitrode Corp, Watertown ..... Mass
Varian, Palo Alto ..... Cal
Varo Inc, Garland ..... Tex
Walkirt Co, Los Angeles ..... Cal
Western Semiconductors Inc, Santa Ana ..... Cal
Westinghouse Electric Corp, Semiconductor Div Youngwood ..... Pa
Workman Electronic Products Inc, Sarasota ..... Fla

DIODES--SNAP-OFF (CHARGE STORAGE)

HEWLETT-PACKARD, PALO ALTO ..... CAL
Alpha Industries Inc, Newton Upper Falls ..... Mass
Avnet Electronics, Westbury ..... N Y
Delta Semiconductors Div Natl Instr Corp Costa Mesa ..... Cal
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View ..... Cal
Hewlett-Packard, Palo Alto ..... Cal
Microsemiconductor Corp, Culver City ..... Cal
Micro State Electronics Oper Raytheon Co Murray Hill ..... N J
Microwave Associates Inc, Burlington ..... Mass
Motorola Semiconductor Products Inc, Phoenix ..... Ariz
Parametric Industries Inc, Winchester ..... Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven ..... Holland
Siemens America Inc, New York ..... N Y
Somerset Radiation Lab Inc, Arlington ..... Va

DIODES--SWITCHING

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE, R I ADV PGS 748,749
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ..... ADV PGS 7
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y ..... ADV PGS 3RD COVER INLEAF
HEWLETT-PACKARD, PALO ALTO ..... CAL
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ..... JAPAN
NIPPON ELECTRIC CO LTD, TOKYO ..... JAPAN
SEMTECH CORP, NEWBURY PARK ..... CAL
UNITRODE CORP, WATERTOWN, MASS ..... ADV PG 263
Alpha Industries Inc, Newton Upper Falls ..... Mass
AMC Semiconductor Corp, New York ..... N Y
American Electronic Labs Inc, Lansdale ..... Pa
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville ..... R I
Atlantic Semiconductor Inc, Asbury Park ..... N J
Avnet Electronics, Westbury ..... N Y
Bomac Div Varian Associates, Beverly ..... Mass
Centralab Semiconductor Prods, Elctn Div, Globe-Union Inc, El Monte ..... Cal
Computer Diode Corp, Fairlawn ..... NJ
Continental Device Corp, Hawthorne ..... Cal
Delco Radio Div General Motors Corp, Kokomo ..... Ind
Delta Semiconductors Div Natl Instr Corp Costa Mesa ..... Cal
Electronic Components Div United Aircraft Corp Trevose ..... Pa
Electronic Control Corp, Euless ..... Tex
Electronic Transistors Corp, Flushing ..... N Y
Emihus Microcomponents Ltd Hounslow, Middx ..... England
Erie Technological Products Inc, Erie ..... Pa
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View ..... Cal
Ferranti, Ltd, Lancashire ..... England
Fujitsu Ltd, Tokyo ..... Japan
General Electric Co, ECSO, Schenectady ..... N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville ..... N Y
General Instrument Europe SPA, Milano ..... Italy
Hewlett-Packard, Palo Alto ..... Cal
Hitachi Ltd, Chiyoda-Ku, Tokyo ..... Japan
Hughes Aircraft Co, Newport Beach ..... Cal
Hunt Electronics Co, Dallas ..... Tex
International Diode Corp, Jersey City ..... N J
International Electronics Corp, Melville ..... NY
Isofilm International, Chatsworth ..... Cal
ITT Europe Inc Components Gp, Brussels 1 ..... Belgium
ITT Semiconductors, West Palm Beach ..... Fla
Kobe Industries Corp, Kobe ..... Japan
Lignes Telegraphiques et Telephoniques Paris 16 ..... France
Marconi Co Ltd, Chelmsford ..... England
Matsushita Electric Industrial Co Ltd, Osaka ..... Japan
Microsemiconductor Corp, Culver City ..... Cal
Micro State Electronics Oper Raytheon Co Murray Hill ..... N J
Microwave Associates Inc, Burlington ..... Mass
Motorola Semiconductor Products Inc, Phoenix ..... Ariz
Mullard Ltd, London, WC 1 ..... Eng
Nippon Electric Co Ltd, Tokyo ..... Japan

Oki Electric Industry Co Ltd, Tokyo	Japan
Parametric Industries Inc, Winchester	Mass
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Raytheon Co, Components Div, Semiconductor Oper Mountain View	Cal
Sampson Electronic Products Div, Chicago	Ill
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Sarkes Tarzian Inc, Semiconductor Div Bloomington	Ind
Semiconductor Devices Inc, Santa Ana	Cal
Semiconductor Products Inc, Lawrence	Mass
Semiconductor Specialists Inc, Chicago	Ill
Semi-Elements Inc, Saxonburg	Pa
Semtech Corp, Newbury Park	Cal
Siemens America Inc, New York	N Y
SILEC, Paris	France
Solitron Devices Inc, Tappan	NY
Somerset Radiation Lab Inc, Arlington	Va
Standard Telephones & Cables Ltd London WC 2	England
Sylvania Electric Products Inc, Semiconductor Div Woburn	Mass
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Texas Instruments France, Villeneuve-Loubet	France
Texas Instruments Incorporated, Dallas	Tex
Transitron Electronic Corp, Wakefield	Mass
TRW Semiconductors Inc, Los Angeles	Cal
Unitrode Corp, Watertown	Mass
Varian, Palo Alto	Cal
Western Semiconductors Inc, Santa Ana	Cal

DIODES--TEMPERATURE LIMITED

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
AMC Semiconductor Corp, New York	N Y
American Semiconductor Corp, Arlington Heights	Ill
Continental Device Corp, Hawthorne	Cal
Delta Semiconductors Div Natl Instr Corp Costa Mesa	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Microsemiconductor Corp, Culver City	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Power Components Inc, Scottdale	Pa
Semiconductor Specialists Inc, Chicago	Ill
Semi-Elements Inc, Saxonburg	Pa
Transitron Electronic Corp, Wakefield	Mass
TRW Semiconductors Inc, Los Angeles	Cal
Walkirt Co, Los Angeles	Cal
Western Semiconductors Inc, Santa Ana	Cal

DIODES--TUNNEL

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
Aertech, Sunnyvale	Cal
Alpha Industries Inc, Newton Upper Falls	Mass
Avnet Electronics, Westbury	N Y
Dickson Electronics Corp, Scottsdale	Ariz
Fujitsu Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
International Electronics Corp, Melville	NY
ITT Europe Inc Components Gp, Brussels 1	Belgium
KMC Semiconductor Corp, Long Valley	N J
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Oki Electric Industry Co Ltd, Tokyo	Japan
Parametric Industries Inc, Winchester	Mass
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Electronic Components, Harrison	N J
Schurter AG, H, 6002 Lucerne	Switzerland
Semiconductor Specialists Inc, Chicago	Ill
Semi-Elements Inc, Saxonburg	Pa
Siemens America Inc, New York	N Y
Standard Telephones & Cables Ltd London WC 2	England
Sylvania Electric Products Inc, Semiconductor Div Woburn	Mass
Texas Instruments France, Villeneuve-Loubet	France
Varian, Palo Alto	Cal

DIODES--VARACTOR

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE, R I	ADV PGS 748,749
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Alpha Industries Inc, Newton Upper Falls	Mass
American Electronic Labs Inc, Lansdale	Pa
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville	R I
Bomac Div Varian Associates, Beverly	Mass
Computer Diode Corp, Fairlawn	NJ
Crystalonics A Teledyne Co, Cambridge	Mass
Delta Semiconductors Div Natl Instr Corp Costa Mesa	Cal
Eastron Corp, Haverhill	Mass
Emihus Microcomponents Ltd Hounslow, Middx	England
Erie Technological Products Inc, Erie	Pa
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Ferranti Electric Inc, Plainview	N Y
Ferranti, Ltd, Lancashire	England
Fujitsu Ltd, Tokyo	Japan
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
Hughes Aircraft Co, Newport Beach	Cal
International Electronics Corp, Melville	NY
Isofilm International, Chatsworth	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
Marconi Co Ltd, Chelmsford	England
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Mitsubishi Electric Corp, Tokyo	Japan
Motorola Semiconductor Products Inc, Phoenix	Ariz
MSI Electronics Inc, Woodside	N Y
Mullard Ltd, London, WC 1	Eng
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Parametric Industries Inc, Winchester	Mass
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Power Components Inc, Scottdale	Pa
Sampson Electronic Products Div, Chicago	Ill
Sanken Electric Co, Ltd, Toshima-ku, Tokyo	Japan
Semiconductor Devices Inc, Santa Ana	Cal
Semiconductor Specialists Inc, Chicago	Ill
Siemens America Inc, New York	N Y
Solitron Devices Inc, Tappan	NY
Sylvania Electric Products Inc, Semiconductor Div Woburn	Mass
Telefunken Sales Corp, Garden City	N Y
Texas Instruments France, Villeneuve-Loubet	France
Texas Instruments Incorporated, Dallas	Tex
TRW Semiconductors Inc, Los Angeles	Cal
United Mineral & Chemical Corp, New York	N Y
Varian, Palo Alto	Cal

DIODES--ZENER REFERENCE

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE, R I	ADV PGS 748,749
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO, JAPAN	
SEMTECH CORP, NEWBURY PARK	**CAL**
UNITRODE CORP, WATERTOWN, MASS	ADV PG 263
Alpha Components Corp, Venice	Cal
AMC Semiconductor Corp, New York	N Y
American Semiconductor Corp, Arlington Heights	Ill
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville	R I
Atlantic Semiconductor Inc, Asbury Park	N J
Avnet Electronics, Westbury	N Y
Burns & Towne, Inc, Malden	Mass
Centralab Semiconductor Prods, Elctn Div, Globe-Union Inc, El Monte	Cal
Components Inc Semcor Div, Phoenix	Ariz
Computer Diode Corp, Fairlawn	NJ
Continental Device Corp, Hawthorne	Cal
Delco Radio Div General Motors Corp, Kokomo	Ind
Delta Semiconductors Div Natl Instr Corp Costa Mesa	Cal
Dickson Electronics Corp, Scottsdale	Ariz
Diodes Inc, Chatsworth	Cal
Electronic Components Div United Aircraft Corp Trevose	Pa
Electronic Transistors Corp, Flushing	N Y
Emihus Microcomponents Ltd Hounslow, Middx	England
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Ferranti, Ltd, Lancashire	England
Fujitsu Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
General Instrument Europe SPA, Milano	Italy
General Semiconductor Div, Tempe	Ariz
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
Hughes Aircraft Co, Newport Beach	Cal
Instrulab Inc, Dayton	Ohio
International Diode Corp, Jersey City	N J
International Electronics Corp, Melville	NY
International Rectifier Semiconductor Div El Segundo	Cal
IRC Div TRW Inc, Philadelphia	Pa
ITT Europe Inc Components Gp, Brussels 1	Belgium
Lignes Telegraphiques et Telephoniques Paris 16	France
Microsemiconductor Corp, Culver City	Cal
Mitsubishi Electric Corp, Tokyo	Japan
Motorola Semiconductor Products Inc, Phoenix	Ariz
Mullard Ltd, London, WC 1	Eng
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Power Components Inc, Scottdale	Pa
Quantum Devices, Bergenfield	NJ
Raytheon Co, Components Div, Semiconductor Oper Mountain View	Cal
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Sarkes Tarzian Inc, Semiconductor Div Bloomington	Ind
Schauer Mfg Corp, Cincinnati	Ohio
Semiconductor Devices Inc, Santa Ana	Cal
Semiconductor Products Inc, Lawrence	Mass
Semiconductor Specialists Inc, Chicago	Ill
Semicon Inc, Bedford	Mass
Semi-Elements Inc, Saxonburg	Pa
Semtech Corp, Newbury Park	Cal
SESCO, Paris XIII	France
Siemens America Inc, New York	N Y
SILEC, Paris	France
Solitron Devices Inc, Tappan	NY
Standard Telephones & Cables Ltd London WC 2	England
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Telefunken Sales Corp, Garden City	N Y
Texas Instruments France, Villeneuve-Loubet	France
Texas Instruments Incorporated, Dallas	Tex
Transitron Electronic Corp, Wakefield	Mass
Trans-Tek Mfg Co Inc, Garwood	N J
Trio Laboratories Inc, Plainview	N Y
TRW Semiconductors Inc, Los Angeles	Cal
Unitrode Corp, Watertown	Mass
Western Semiconductors Inc, Santa Ana	Cal

DIODE TESTERS SEE TESTERS—DIODE

MILGRAY
STOCKS
DIODES

Every kind you can imagine. (And some you can't.) From stockpiles strategically located for overnight or faster delivery to anywhere in the world. We stock more so you can worry less. A call to your local Milgray man will start the motion.

MILGRAY

Milgray/New York 212-YU 9-1600
Milgray/Delaware Valley 215-BA 8-2000
Milgray/Washington 301-864-1111
Milgray/Cleveland 216-881-8800
Milgray/International 212-YU 9-1600
Milgray/New England, Inc. 617-272-6800

DIPLEXERS

ANAREN MICROWAVE INC, SYRACUSE	**N Y**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
RADAR DESIGN CORP, SYRACUSE	**N Y**
TELE-SIGNAL CORP, WOODBURY	**N Y**
TRANSCO PRODUCTS INC, VENICE	**CAL**
TRG DIV CONTROL DATA CORP, EAST BOSTON MASS	**ADV PG 418**
Aerolite Electronics Corp, Union City	N J
Aerospace Research, Inc, Boston	Mass
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Aircom Inc, Union	N H
Airtec Inc, Roselle	N J
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alford Mfg Co, Winchester	Mass
Allen-Bradley Co, Milwaukee	Wis
American Electronic Labs Inc, Lansdale	Pa
Anaren Microwave Inc, Syracuse	N Y
Anzac Electronics, Waltham	Mass
Applied Research, Inc, Port Washington	N Y
A R F Products, Inc, Raton	N M
Astrolab Inc. Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Ball Brothers Research Corp, Boulder	Colo
Bendix Corp, Microwave Devices Div, Franklin	Ind
Blass Antenna Electronics Corp, Leonia	N J
Blonder-Tongue Labs Inc, Newark	N J
Daico Industries Inc, Gardena	Cal
Decibel Products Inc, Dallas	Tex
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Denki Kogyo Co Ltd, Tokyo	Japan
Diamond Antenna & Microwave Corp, Winchester	Mass
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electromagnetic Technology Corp, Mountain View	Cal
Electronic Specialty Co, Los Angeles	Cal
Electronic Standards Corp, Plainfield	N J
Elpac Inc Systems Div RF, Irvine	Cal
E & M Labs, North Hollywood	Cal
Farinon Electric, San Carlos	Cal
Ferritronics Ltd, Richmond Hill	Ont
Frequency Engineering Labs, Farmingdale	N J
General Microwave Corp, Farmingdale	N Y
Gombos Microwave Inc, Clifton	N J
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N. Y
Hyletronics Corp, Wilmington	Mass
Kobe Industries Corp, Kobe	Japan
Maury Microwave Corp, Montclair	Cal
MCS Corp, Monrovia	Cal
Melabs, Palo Alto	Cal
Merrimac Research & Development Inc West Caldwell,	N J
Micro Communications Co, Denver	Colo
Microphase Corp, Greenwich	Conn
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Development Labs Inc Needham Heights	Mass
Microwave Filter Co Inc, East Syracuse	NY
Multronics Inc, Rockville	Md
Neico Microwave Co, Waltham	Mass
N-H Microwave Inc, Red Bank	N J
Nippon Electric Co Ltd, Tokyo	Japan
Peninsula Microwave Labs, Mountain View	Cal
Phelps Dodge Electronic Products Corp North Haven	Conn
Philco-Ford Corp, Washington	D C
Portchester Instrument Corp, Port Chester	N Y
Premier Microwave Corp, Port Chester	N Y
Radar Design Corp, Syracuse	N Y
Radiation Systems Inc, McLean	Va
Ramcor Inc, Huntington	NY
Rantec Div Emerson Electric Co, Calabasas	Cal
R F Systems Inc, Cohasset	Mass
RLC Electronics Inc, Port Chester	N Y
Sedco Systems Inc, Farmingdale	N Y
Space Craft Inc, Huntsville	Ala
States Electronics Corp, Bludworth Marine Div Linden	N J
Tele-Signal Corp, Woodbury	N Y
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach	Cal
Thomson Electric Co, Sub Cie Fran Thomson Houston New York	N Y
Transco Products Inc, Venice	Cal
TRF Inc, Springfield	Va
TRG Div Control Data Corp, East Boston	Mass
TRW Electronic Components Div TRW Inc, Camden	N J
TRW Systems Group, Redondo Beach	Cal
Vector Industries A Teledyne Co, Palo Alto	Cal
Western Microwave Labs Inc, Santa Clara	Cal

DIP-SOLDERING MACHINES SEE MACHINES—DIP-SOLDERING

DIRECTIONAL COUPLERS SEE COUPLERS—DIRECTIONAL

DIRECTIONAL GYROS SEE GYROS

EBG — one stop
shopping center.

DIRECTIONAL MAGNETIC COUPLERS SEE COUPLERS—TRANSMITTING ANTENNA

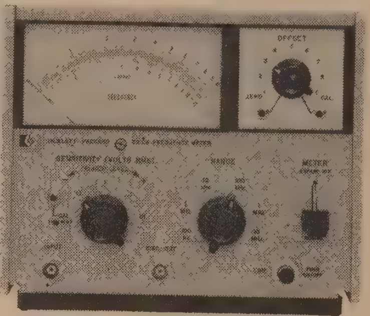
DIRECTIONAL-FINDER RECEIVERS SEE RECEIVERS—RADIO NAVIGATION

DIRECT WRITING OSCILLOGRAPHS SEE OSCILLOGRAPHS

DISCRIMINATORS--F-M

HEWLETT-PACKARD, PALO ALTO, CAL	**ADV PG 266**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
Aerojet-General Corp Electronics Div, Azusa	Cal
Astrodata Inc, Anaheim	Cal
Components Specialties Inc, Freeport	N Y
Damon Engineering Inc, Needham Heights	Mass
Data-Control Systems Inc, Danbury	Conn
EMR Div Weston Instruments Inc, Princeton	N J
Frequency Electronics Inc, New Hyde Park	N Y
General Radio Co, West Concord	Mass
Hewlett-Packard, Palo Alto	Cal
IRC Div TRW Inc, Philadelphia	Pa
Lear Siegler Inc, Santa Monica	Cal
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Precision Coil Mfg Co, Santa Monica	Cal
R H G Electronics Lab Inc, Farmingdale	N Y
Solid State Electronics Corp, Sepulveda	Cal
Sonex Inc, Philadelphia	Pa
Sprague Electric Co, North Adams	Mass
Vidar Corp, Mountain View	Cal

WIDE-BAND
HIGHLY LINEAR
FM DISCRIMINATOR



3 Hz to 10 MHz input range, 1 MHz output bandwidth, 0.025% to 0.1% linearity. Also useful as a frequency meter for accurate analog display and recording of frequencies from 3 Hz to 10 MHz. Model 5210A $575. Calibrated offset and plug-in output filters optional. Request Application Note 87 (free of charge) to learn of many uses.

HEWLETT hp PACKARD

DISCRIMINATORS—R-F

LEL DIV VARIAN ASSOCIATES COPIAGUE N Y	**ADV PG 266**

Discriminators
And AFC Units

for FM, pulse or phase systems

Model No.	CF MHz	BW (p-p) MHz	Sens. V/MHz	Description
pulse discriminators				
ITF-1-30-10-50	30	10	1	solid state with built-in limiter
ITF-1-60-10-50	60	10	1	
ITF-1-60-20-50	60	20	1	
ITF-1-70-10-50	70	10	1	
ITF-1-160-10-50	160	10	1	
IF-32-30-08-50	30	8	3	FM & pulse
IF-32-60-08-50	60	8	3	
IF-42-30-07-50	30	7	40	phantastron circuit
IF-42-60-07-50	60	7	40	
CW discriminators				
IMF-2-60-06-50	60	6	–	
AFC units — solid state				
ITF-2-30-10-50	30	10	300	search-lock Hybrid
ITF-2-60-10-50	60	10	300	
ITF-2-70-10-50	70	10	300	

Inputs: 50 ohms for all models. **Outputs:** Video (ITF-1, IMF-1, IF-32), DC (ITF-2, IF-42, IF-32).

LEL DIVISION
VARIAN associates
AKRON ST., COPIAGUE, L. I., NEW YORK 11726
For prompt information
CALL 516 AM 4-2517

DISCRIMINATORS—TELEMETERING SEE CONVERTERS—SIGNAL, TELEMETERING

DISKS--BLANK RECORDING

Audio Devices Inc Sub Capitol Indus, New York	N Y
Data Disc Inc Disc Div, Palo Alto	Cal
Data Disc Inc, Display Div, Palo Alto	Cal
Duotone Co Inc, Miami	Fla

DISKS—MEMORY SEE MEMORIES—COMPUTER

DISPENSERS-- ENCAPSULATING &POTTING COMPOUNDS

Allaco Products, Braintree	Mass
Castall Research Lab Inc, Brockton	Mass
Delsen Corp, Glendale	Cal
Furane Plastics Inc, Los Angeles	Cal
Glenmarc Mfg Co, Northbrook	Ill
Hardman Inc, Belleville	N J
Hull Corp, Hatboro	Pa
Kenics Corp, Danvers	Mass
Mann Co, Henry, Cornwell Heights	Pa
Mateer Co, G Diehl, Wayne	Pa
3M Company, St Paul	Minn
Roosevelt Metal Co Inc, Brooklyn	N Y
Solarex Mfg Co Inc, Deer Park	N Y
Sta-Warm Electric Co Inc, Ravenna	Ohio
Tra-Con, Inc, Medford	Mass
Universal Shellac & Supply Co Inc, Brooklyn	N Y

DISPLAY DRIVERS—TUBE

BURROUGHS CORP ELECTRONIC COMPONENTS DIV PLAINFIELD	**N J**
DISCON CORP, FORT LAUDERDALE	**FLA**
INTEGRATED CIRCUIT ELECTRONICS INC, WALTHAM MASS	ADV PG 267
TECHMETRIC CO, REDWOOD CITY	**CAL**
Baird-Atomic, Inc, Cambridge	Mass
Burroughs Corp Electronic Components Div Plainfield	N J
Computer Logic Corp, Santa Monica	Cal
Discon Corp, Fort Lauderdale	Fla
Information Displays Inc, Mt Kisco	NY
Integrated Circuit Electronics Inc, Waltham	Mass
ITT Industrial Labs Div, Fort Wayne	Ind
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Techmetric Co, Redwood City	Cal
Transistor Electronics Corp, Minneapolis	Minn

DATECON D-100 FITS...in price and interchangeability

D-100 DECODE/DISPLAY MODULE

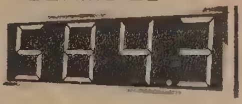
- $34.50 end-view tube (1-99 units)
- $27.50 side-view tube (1-99 units)
- includes cold cathode neon tube
- no expensive extra code converter to buy
- accepts either 4-line or 8-line BCD Code
- monolithic integrated circuitry throughout
- completely interchangeable with competitive models

Specify DATECON D-100 . . . complete interchangeability at an incomparable price.

INTEGRATED CIRCUIT ELECTRONICS, INC.
P. O. Box 647 Waltham, Mass. 02154
Tel: (617) 899-2700 TWX 710-324-0543

DISPLAYS--ALPHANUMERIC

BOWMAR INSTRUMENT CORP, FORT WAYNE IND	ADV PG 268
BURROUGHS CORP ELECTRONIC COMPONENTS DIV, PLAINFIELD N J	ADV PG 268
DISCON CORP, FORT LAUDERDALE, FLA	ADV PG 267
INTEGRATED CIRCUIT ELECTRONICS INC, WALTHAM	**MASS**
MICRO SWITCH DIV, HONEYWELL, FREEPORT	**ILL**
NATIONAL ELECTRONICS INC VARIAN SUB, GENEVA ILL	ADV PG 267
TECHMETRIC CO, REDWOOD CITY	**CAL**
Adage Inc, Boston	Mass
Adtrol Electronics Inc, Philadelphia	Pa
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Allard Instrument Corp, Westbury	N Y
American Astrionics Inc, Palo Alto	Cal
Astronautics Corp of America, Milwaukee	Wis
Atlantic Technology Corp, Somers Point	N J
Avco Corp Electronics Div, Cincinnati	Ohio
Beckman Instruments Inc, Fullerton	Cal
Bendix Corp Electro Optics Div, Ann Arbor	Mich
Beta Instrument Corp, Newton Upper Falls	Mass
Bloomingdale Instruments Inc Div Metatronics Mfg Corp Hicksville	N Y



DISCON

SERIES 20

Height	1 inch
Width	0.560 inch
Segment Width	0.075 inch
Lamp Voltage	4.5 VDC
Lamp Current	57 MA
Brightness, Ft. Lamberts	400
Lamp Life	120,000 Hrs.
Temperature	0° to 120° F.

SERIES 10

Over-All Size, WxHxD, in.	.281x.725x.75
Numeral Size, WxH, in.	5/32x5/16
Lamp Voltage	2.75
Current/Lamp ma	28
Lamp Life, hr.	20,000
Brightness, ft. — Lamberts	150
Readability Distance, ft.	15
Temperature Range, °C	-65 to +55

SERIES 13

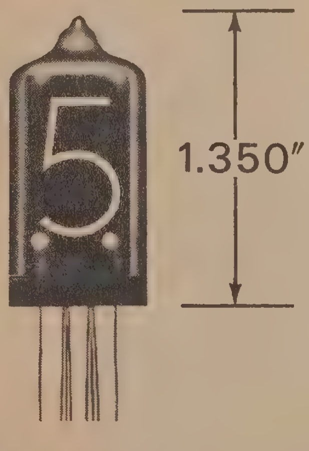
Over-All Size, WxHxD, in.	.75x1.00x.905
Numeral Size, WxH, in.	15/32x3/4
Lamp Voltage	4.5
Current/Lamp ma	60
Lamp Life, hr.	40,000
Brightness, ft. — Lamberts	100
Readability Distance, ft.	35
Temperature Range, °C	-65 to +55

SERIES 16*

Over-All Size, WxHxD, in.	.50x1.25x.62
Numeral Size, WxH, in.	5/16x17/32
Lamp Voltage	4.5
Current/Lamp ma	57
Lamp Life, hr.	400,000
Brightness, ft. — Lamberts	100
Readability Distance, ft.	25
Temperature Range, °C	-65 to +55

* Available in Mil-Spec configurations

DISCON CORPORATION



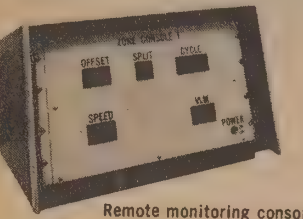
NEW
NL-950

NATIONAL® shortened the NL-5750 to save space

- maximum overall height 1.350″
- made in Geneva, Illinois U.S.A.
- $3.95 in 1000 quantity

NATIONAL
ELECTRONICS, INC.
a varian subsidiary
PHONE: (312) 232-4300 • GENEVA, ILLINOIS 60134

BURROUGHS
INFORMATION
DISPLAY SYSTEMS

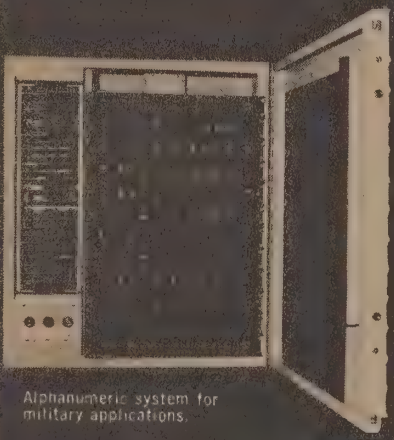


Remote monitoring console.

Real-time alphanumeric display system from typewriter input.

FEATURES

- NIXIE® Tube Readout
- High Reliability
- Building Block Construction
- Optimum Aspect Ratio
- Standard Modules
- Low Cost Per Digit
- Best Readability
- Front Access



Alphanumeric system for military applications.

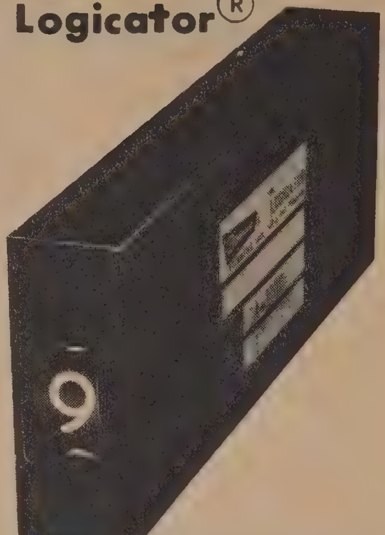
TYPICAL APPLICATIONS

These systems are adaptable to many kinds of electronic information display requirements such as

- Computer Readouts
- Schedule Boards
- Real Time Displays
- Traffic Display Panels
- Stock Quotation Systems
- News and Information Displays

Burroughs Corporation
ELECTRONIC COMPONENTS DIVISION
PLAINFIELD, NEW JERSEY

BOWMAR
Logicator®



Displays

For Direct Readout of

Digital Computer Signals

IDEAL FOR AIRBORNE
INSTRUMENTATION DISPLAY

"BACK-LIGHTED" for both bright daylight and dark night readability

LOW POWER consumption, (1 Watt)
INHERENT MAGNETIC MEMORY

BCD, 5 or 6 wire input standards.

RELIABLE self-contained
ELECTRO-MAGNETIC drive

MINIATURE size, lightweight, high stability

BOWMAR'S LOGICATOR® provides direct readout of digital computer signals with back-lighting for optimum day and night readability. Units may be adapted to special applications such as use of any computer code, message displays, and custom assemblies. Designed for reliability and stability under conditions of high vibration, shock and extreme temperature variations; the BOWMAR LOGICATOR® is built in accordance with Aircraft Equipment Specification Mil-E-5400.

Single-digit unit: 1.25" x .45" x 2.5" (slightly larger in some applications depending upon mounting and input code required); ¼" numerals; continuous duty.

Additional Data Available From

BOWMAR
INSTRUMENT CORPORATION

8000 BLUFFTON ROAD • FORT WAYNE, INDIANA

Bowmar Instrument Corp, Fort Wayne	Ind
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Burroughs Corp Component Sales Dept Los Angeles	Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Burroughs Corp Electronic Components Div Plainfield	N J
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Century Electronics & Instruments Inc, Tulsa	Okla
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Conductron Corp, Ann Arbor	Mich
Conrac Corp, New York	N Y
Control Data Corp, Minneapolis	Minn
Control Science Corp, Alexandria	Va
Co-Ord Div LVC Industries Inc, Corona	NY
Dalto Electronics Corp, Norwood	N J
Data Disc Inc, Display Div, Palo Alto	Cal
Data Trends Inc, Parsippany	N J
Data-Vox Corp, Sarasota	Fla
Dialight Corp, Brooklyn	N Y
Discon Corp, Fort Lauderdale	Fla
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electro Circuits Inc, Lowell	Mass
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Ferranti, Ltd, Lancashire	England
Ferwalt Inc W H, Lapwai	Idaho
Fisher-Akin Co, Manhattan Beach	Cal
General Electric Co Info Sys Equip Div, Phoenix	Ariz
General Electric Co Miniature Lamp Dept Cleveland	Ohio
General Electric Co, Printer-Reader Bus Sec Philadelphia	Pa
General Indicator Corp, Pardeeville	Wis
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Geo Space Systems Inc, St Petersburg	Fla
Goodyear Aerospace Corp, Akron	Ohio
GPL Div Gen Precision Systems Inc, Pleasantville	N Y
Hartman Systems Co Inc, Huntington Station	N Y
Heuer Electronics Corp, Norwalk	Conn
Honeywell-EDP Div, Wellesley Hills	Mass
Hughes Aircraft Co Vac Tube Prods Div Storage Tubes & Comml Display Sys, Oceanside	Cal
Humphrey Electronics Inc, Raleigh	N C
Industrial Electronic Engineers Inc, Van Nuys	Cal
Information Control Corp, El Segundo	Cal
Information Displays Inc, Mt Kisco	NY
Integrated Circuit Electronics Inc, Waltham	Mass
Inter-Market Inc, Glenview	Ill
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
ITT Federal Labs, Fort Wayne	Ind
Janus Control Div Tyco, Waltham	Mass
Kaiser-Aerospace & Electronics Corp, Palo Alto	Cal
Laboratory for Electronics Inc Elctns Div, Boston	Mass
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Litton Systems (Canada) Ltd, Rexdale	Ont
Logic Corp, Haddonfield	N J
Loral Electronic Systems, Div Loral Corp, New York	NY
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Marconi Co Ltd, Chelmsford	England
Mesa Co, Bristol	Pa
Micro Switch Div, Honeywell, Freeport	Ill
Monitor Systems Inc, Fort Washington	Pa
National Electronics Inc Varian Sub, Geneva	Ill
National Radio Co Inc, Melrose	Mass
Northrop Nortronics, Palos Verdes Peninsula	Cal
Oppenheimer, Inc, Willow Grove	Pa
Patwin Electronics Div Patwin Inc, Waterbury	Conn
Philco-Ford Corp, Washington	D C
Pinlites, Inc, Fairfield	N J
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
R F Communications Inc, Rochester	N Y
Sanders Associates, Inc, Nashua	N H
Saturn Electronics Corp, Garland	Tex
Scientific Data Systems Inc, El Segundo	Cal
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Sharp Electronics Corp, Carlstadt	N J
Shelly Associates, Inc, El Segundo	Cal
Signal & Communications Div Westinghouse Air Brake Co Pittsburgh	Pa
Solari & C/Udine, Udine	Italy
Sperry Flight Systems Div Sperry Rand Corp Phoenix	Ariz
Straza Industries Div Ametek Inc, El Cajon	Cal
Sylvania Electronic Systems, Waltham	Mass
Systems Engineering Labs Inc, Ft Lauderdale	Fla
Tasker Industries, Van Nuys	Cal
Techmetric Co, Redwood City	Cal
Texas Instruments Incorporated, Dallas	Tex
Transistor Electronics Corp, Minneapolis	Minn
U S Microwave, Delran	N J
U S Scientific Instruments Inc, Watertown	Mass
Visiontron Corp, New York	N Y
Vitro Labs Div Vitro Corp of America, W Orange	N J
Vogue Instrument Corp, Plainview	NY
Wyle Laboratories, El Segundo	Cal

DISPLAYS—CATHODE-RAY SEE TUBES—CATHODE-RAY, SHAPED-BEAM & DATA-STORAGE

DISPLAYS—DIGITAL SEE INDICATORS—DIGITAL

DISPLAYS—ELECTROLUMINESCENT SEE ELECTROLUMINESCENT DEVICES

DISPLAYS--MAP

Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park .... N Y
Astronautics Corp of America, Milwaukee .... Wis
Avion Electronics Inc, Unit Gen Signal Corp Paramus .... NJ
Bausch & Lomb, Inc, Rochester .... N Y
Bendix Corp Navigation & Control Div, Teterboro .... N J
Best Mfg Co, Kansas City .... Mo
Bunker-Ramo Corp Defense Systems Div Canoga Park .... Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli .... Pa
Burtek Inc, Tulsa .... Okla
Canadian Marconi Co, Montreal 16 .... Quebec
Canoga Electronics Corp, Chatsworth .... Cal
Computing Devices of Canada Ltd, Ottawa .... Ont
Control Science Corp, Alexandria .... Va
Data Disc Inc, Display Div, Palo Alto .... Cal
Edo Corp, College Point .... NY
Ferranti Electric Inc, Plainview .... N Y

Ferranti, Ltd, Lancashire .... England
F & M Systems Co, Div Fischbach & Moore, Inc Dallas .... Tex
General Precision Systems Inc, Kearfott Gp Little Falls .... N J
Goodyear Aerospace Corp, Akron .... Ohio
Hartman Systems Co Inc, Huntington Station .... N Y
ITT Federal Labs, Fort Wayne .... Ind
ITT Gilfillan Inc, Van Nuys .... Cal
Laboratory for Electronics Inc Elctns Div, Boston .... Mass
Lear Siegler Inc, Instrument Div, Grand Rapids .... Mich
LFE Electronics Div, Lab for Electronics Inc Waltham .... Mass
Loral Electronic Systems, Div Loral Corp, New York .... NY
LTV Electrosystems Inc, Garland Div, Dallas .... Tex
Marconi Div, English Electric Corp, New York .... N Y
Northrop Nortronics, Palos Verdes Peninsula .... Cal
Philco-Ford Corp, Washington .... D C
Sanders Associates, Inc, Nashua .... N H
Stelma Inc, Stamford .... Conn
Sun Dial & Panel Corp, Caldwell .... N J
Systems Engineering Labs Inc, Ft Lauderdale .... Fla

DISPLAYS--PROJECTION

Aerospace Controls Corp, Los Angeles .... Cal
Amphicon Systems Inc, Moonachie .... N J
Applied Devices Corp, College Point .... n y
Astronautics Corp of America, Milwaukee .... Wis
Avion Electronics Inc, Unit Gen Signal Corp Paramus .... NJ
Bausch & Lomb, Inc, Rochester .... N Y
Bendix Corp Electro Optics Div, Ann Arbor .... Mich
Bendix Corp Environmental Science Div, Baltimore .... Md
Bunker-Ramo Corp Defense Systems Div Canoga Park .... Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli .... Pa
Canoga Electronics Corp, Chatsworth .... Cal
Computing Devices of Canada Ltd, Ottawa .... Ont
Counting Instruments Ltd, Hertfordshire .... England
Dalto Electronics Corp, Norwood .... N J
Edo Corp, College Point .... NY
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus .... N J
Ferranti, Ltd, Lancashire .... England
F & M Systems Co, Div Fischbach & Moore, Inc Dallas .... Tex
Hartman Systems Co Inc, Huntington Station .... N Y
Hughes Aircraft Co Vac Tube Prods Div Storage Tubes & Comml Display Sys, Oceanside .... Cal
Hughes Electronics Co, Los Angeles .... Cal
Hycon, Monrovia .... Cal
Industrial Electronic Engineers Inc, Van Nuys .... Cal
Information International Inc, Cambridge .... Mass
Itek Corp, Lexington .... Mass
ITT Federal Labs, Fort Wayne .... Ind
ITT Industrial Labs Div, Fort Wayne .... Ind
Kaiser-Aerospace & Electronics Corp, Palo Alto .... Cal
Kalart Co Inc, Plainville .... Conn
Kollsman Instrument Corp, Syosset .... N Y
LFE Electronics Div, Lab for Electronics Inc Waltham .... Mass
Librascope Group Gen Precision Sys Inc, Glendale .... Cal
Loral Electronic Systems, Div Loral Corp, New York .... NY
LTV Electrosystems Inc, Garland Div, Dallas .... Tex
Marconi Co Ltd, Chelmsford .... England
Marconi Div, English Electric Corp, New York .... N Y
Mast Development Co, Davenport .... Iowa
Northrop Nortronics, Palos Verdes Peninsula .... Cal
Nuclear Research Instruments, Berkeley .... Cal
Numex Corp, Waltham .... Mass
Optomechanisms Inc, Plainview .... N Y
Perkin-Elmer Corp, Optical Group, Norwalk .... Conn
Philco-Ford Corp, Washington .... D C
Photo Electronics Corp, Los Angeles .... Cal
RCA, Defense Electronic Products, Moorestown .... N J
Rundel Electric Co, Millbrae .... Cal
Sanders Associates, Inc, Nashua .... N H
Shelly Associates, Inc, El Segundo .... Cal
Spitz Labs Inc, Yorklyn .... Del
Systems Engineering Labs Inc, Ft Lauderdale .... Fla
Systems Research Labs Inc, Dayton .... Ohio
Te Company, Santa Barbara .... Cal
Texas Instruments Incorporated, Dallas .... Tex
Transistor Electronics Corp, Minneapolis .... Minn

DISPLAYS--RADAR

Admiral Corp, Gov Electronics Div, Chicago Ill
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park .... N Y
Air Technology Corp, Waltham .... Mass
Allied Research Associates, Inc, Concord .... Mass
Atlantic Technology Corp, Somers Point .... N J
Bell Aerosystems Co, Buffalo .... N Y
Beta Instrument Corp, Newton Upper Falls .... Mass
Burroughs Corp, Defense, Space & Spec Sys Group Paoli .... Pa
Canoga Electronics Corp, Chatsworth .... Cal
Cardion Electronics Div Gen Signal Corp, Woodbury .... N Y
Conductron Corp, Ann Arbor .... Mich
Decca Radar, Inc, New York .... N Y
Dimensions Inc, Hempstead .... N Y
Electronic Instrument Div Gen Atronics Corp Philadelphia .... Pa
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus .... N J
Ferranti, Ltd, Lancashire .... England
F & M Systems Co, Div Fischbach & Moore, Inc Dallas .... Tex
General Electrodynamics Corp, Garland .... Tex
General Instrument Corp Radio Receptor Div Hicksville .... N Y
Goodyear Aerospace Corp, Akron .... Ohio

Hartman Systems Co Inc, Huntington Station .... N Y
Herley Industries, Inc, Westbury .... N Y
ITT Gilfillan Inc, Van Nuys .... Cal
ITT Industrial Labs Div, Fort Wayne .... Ind
Kaiser-Aerospace & Electronics Corp, Palo Alto .... Cal
Kobe Industries Corp, Kobe .... Japan
LFE Electronics Div, Lab for Electronics Inc Waltham .... Mass
Litton Systems (Canada) Ltd, Rexdale .... Ont
Loral Electronic Systems, Div Loral Corp, New York .... NY
Marconi Co Ltd, Chelmsford .... England
Marconi Div, English Electric Corp, New York .... N Y
Norden Div, United Aircraft Corp, Norwalk .... Conn
Optical Electronics Inc, Tuscon .... Ariz
Philco-Ford Corp, Washington .... D C
Raytheon Co, Government Marketing, Lexington .... Mass
RCA, Defense Electronic Products, Moorestown .... N J
Sanders Associates, Inc, Nashua .... N H
Selenia - Industrie Elettroniche Assoc, Rome .... Italy
Space & Systems Div General Time Corp Stamford .... Conn
Sperry Gyroscope Div Sperry Rand Corp Great Neck .... N Y
Sylvania Electronic Systems, Waltham .... Mass
Tasker Industries, Van Nuys .... Cal
Zenith Radio Co Govt & Special Prod Div, Chicago Ill

DISPLAYS--TV

HEWLETT-PACKARD, PALO ALTO .... **CAL**
Admiral Corp, Gov Electronics Div, Chicago Ill
Amphicon Systems Inc, Moonachie .... N J
Atlantic Technology Corp, Somers Point .... N J
Avion Electronics Inc, Unit Gen Signal Corp Paramus .... NJ
Beta Instrument Corp, Newton Upper Falls .... Mass
Brown Engineering-A Teledyne Co, Huntsville .... Ala
Burroughs Corp, Defense, Space & Spec Sys Group Paoli .... Pa
Canoga Electronics Corp, Chatsworth .... Cal
Cardion Electronics Div Gen Signal Corp, Woodbury .... N Y
Cohu Electronics Inc, San Diego .... Cal
Colorado Video Inc, Boulder .... Colo
Conrac Corp, New York .... N Y
Dalto Electronics Corp, Norwood .... N J
Data Disc Inc, Display Div, Palo Alto .... Cal
Data-Vox Corp, Sarasota .... Fla
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus .... N J
F & M Systems Co, Div Fischbach & Moore, Inc Dallas .... Tex
Goodyear Aerospace Corp, Akron .... Ohio
GPL Div Gen Precision Systems Inc, Pleasantville .... N Y
Hewlett-Packard, Palo Alto .... Cal
ITT Industrial Labs Div, Fort Wayne .... Ind
Kaiser-Aerospace & Electronics Corp, Palo Alto .... Cal
Kalart Co Inc, Plainville .... Conn
Lear Siegler Inc, Electronic Instrumentation Div Anaheim .... Cal
Loral Electronic Systems, Div Loral Corp, New York .... NY
Marconi Co Ltd, Chelmsford .... England
Marconi Div, English Electric Corp, New York .... N Y
Maryland Telecommunications Inc, Cockeysville .... Md
Monitor Systems Inc, Fort Washington .... Pa
Motorola Communications & Electronics Div Chicago Ill
Optical Electronics Inc, Tuscon .... Ariz
Perkin-Elmer Corp, Optical Group, Norwalk .... Conn
Philco-Ford Corp, Washington .... D C
Pierpont Television Co, Birmingham .... Ala
RCA, Defense Electronic Products, Moorestown .... N J
Riker Video Div, Hauppauge .... N Y
Scope Inc, Reston .... Va
Systems Research Labs Inc, Dayton .... Ohio
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh .... Pa
Zenith Radio Co Govt & Special Prod Div, Chicago Ill

DISTORTION ANALYZERS & METERS SEE ANALYZERS--DISTORTION

DISTRIBUTION AMPLIFIERS SEE AMPLIFIERS--TV

DIVIDERS--ANALOG

TRANSMAGNETICS INC, FLUSHING .... **N Y**
Transmagnetics Inc, Flushing .... N Y

DIVIDERS--FREQUENCY

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE .... **N Y**
C M L INC, PLAINFIELD .... **N J**
FORK STANDARDS INC, WEST CHICAGO, ILL .... ADV PG 269
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... **ADV PGS 7**
HEATH CO, BENTON HARBOR .... **MICH**
HEWLETT-PACKARD, PALO ALTO .... **CAL**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH .... **VA**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE .... **N Y**
NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
PETERSEN RADIO CO INC, COUNCIL BLUFFS IOWA . ADV PG 451
PREMIER MICROWAVE CORP, PORT CHESTER .... **N Y**
SYSTRON DONNER CORP, CONCORD .... **CAL**
TECHMETRIC CO, REDWOOD CITY .... **CAL**
Advanced Energy Conversion, Menlo Park .... Cal
Aerospace Research, Inc, Boston .... Mass

Amark Corp, Plainview .... N Y
American Time Products, Elctns Div Bulova Watch Co Inc Woodside .... N Y
Austron, Inc, Austin .... Tex
Autronics Corp, Pasadena .... Cal
Bayly Engineering Ltd, Ajax .... Ontario
Beckman Instruments Inc, Fullerton .... Cal
Beckman Instruments Intl SA, 1207 Geneva .... Switzerland
Bendix Corp, Communications Div, Towson .... Md
Beukers Labs Inc, John M, Medford .... NY
Binary Electronics of Cal Div Avionic Structures Inc Anaheim .... Cal
Bramco Controls Div Ledex Inc, Piqua .... Ohio
C & K Components Inc, Watertown .... Mass
C M L Inc, Plainfield .... N J
Computer Logic Corp, Santa Monica .... Cal
Condor Industrial Corp, West Chicago Ill
Connor-Winfield Corp, Winfield Ill
Crane Electronics Corp, Santa Barbara .... Cal
Cushman Electronics Inc, Sunnyvale .... Cal
DeMornay-Bonardi Div Datapulse Inc, Pasadena .... Cal
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee Ill
Ebauches SA Dept Oscilloquartz 2001 Neuchatel .... Switz
Electro Circuits Inc, Lowell .... Mass
Fork Standards Inc, West Chicago Ill
Frequency Electronics Inc, New Hyde Park .... N Y
Fujitsu Ltd, Tokyo .... Japan
General Electric Co, ECSO, Schenectady .... N Y
General Radio Co, West Concord .... Mass
Gibbs Mfg & Research Corp, Janesville .... Wis
Guardian Electric Mfg Co of Cal Inc, Culver City .... Cal
Guide Industries Inc, Sun Valley .... Cal
Heath Co, Benton Harbor .... Mich
Hewlett-Packard, Palo Alto .... Cal
Information Control Corp, El Segundo .... Cal

FREQUENCY DIVIDERS?

Yes . . .

Select your modular

FREQUENCY DIVIDER

from Fork Standards' comprehensive product display.

See page 457

FORK STANDARDS, INC.

251 Main St., West Chicago Ill. 60185
Telephone Area Code 312—231-3511

FORK
STANDARDS, INC
WEST CHICAGO, ILLINOIS

IRC Div TRW Inc, Philadelphia	Pa
J A C Electronics Ltd, Camberley	England
Janus Control Div Tyco, Waltham	Mass
Jensen Mfg Div, The Muter Co, Chicago	Ill
Logitek Inc, Farmingdale	N Y
Measurement Technology Corp, Canoga Park	Cal
Melpar Inc, Special Prods Dept, Falls Church	Va
Microlab/F X R, Livingston	N J
Microwave Associates Inc, Burlington	Mass
Microwave/Systems Inc, East Syracuse	N Y
Muirhead Instruments Inc, Mountainside	N J
Nippon Electric Co Ltd, Tokyo	Japan
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Petersen Radio Co Inc, Council Bluffs	Iowa
Philamon Laboratories Inc, Westbury	N Y
Premier Microwave Corp, Port Chester	N Y
Radiation Systems Inc, McLean	Va
RMS Engineering Inc, Atlanta	Ga
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Solid State Electronics Corp, Sepulveda	Cal
Somerset Radiation Lab Inc, Arlington	Va
Space & Systems Div General Time Corp Stamford	Conn
Sprague Electric Co, North Adams	Mass
Squires-Sanders Inc, Liberty Corner	N J
Systron Donner Corp, Concord	Cal
Techmetric Co, Redwood City	Cal
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Topping Electronics Ltd, Toronto 17	Ont
Trio Laboratories Inc, Plainview	N Y
TRW Systems Group, Redondo Beach	Cal
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Varo Inc Time & Frequency Products Santa Barbara	Cal
Vectron Labs Inc, Stamford	Conn
Venner Electronics Ltd, New Malden, Surrey	Eng
Vitro Labs Div Vitro Corp of America, W Orange	N J
Zehntel Inc, Berkeley	Cal

DIVIDERS--POWER

ANAREN MICROWAVE INC, SYRACUSE	**N Y**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK	**N Y**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH COVER**
LEL DIV VARIAN ASSOCIATES, COPIAGUE, N Y	**ADV PG 270**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
RADAR DESIGN CORP, SYRACUSE	**N Y**
TRANSCO PRODUCTS INC, VENICE	**CAL**
VARI-L CO INC, STAMFORD	**CONN**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Advanced Microwave Labs, Sunnyvale	Cal
Ad-Yu Electronics Inc, Passaic	N J
Aertech, Sunnyvale	Cal
Aircom Inc, Union	N H
Airtec Inc, Roselle	N J
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alford Mfg Co, Winchester	Mass
Anaren Microwave Inc, Syracuse	N Y
Anzac Electronics, Waltham	Mass
Applied Microwave Lab, Inc, Andover	Mass
Applied Research, Inc, Port Washington	N Y
Arra, Inc, Bayshore	NY
Astrolab Inc, Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
Aviel Electronics, Inc, Van Nuys	Cal
Bishop Instrument, Portland	Maine
Blass Antenna Electronics Corp, Leonia	N J
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Diamond Antenna & Microwave Corp, Winchester	Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Dynalectron Corp Aerospace Prods Div San Leandro	Cal
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electronic Specialty Co, Los Angeles	Cal
Electronic Standards Corp, Plainfield	N J
Elpac Inc Systems Div RF, Irvine	Cal
Fujitsu Ltd, Tokyo	Japan
General Microwave Corp, Farmingdale	N Y
Giannini-Voltex, Whittier	Cal
Gombos Microwave Inc, Clifton	N J
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hyletronics Corp, Wilmington	Mass
IRC Div TRW Inc, Philadelphia	Pa
Kepco Inc, Flushing	N Y
Lel Div Varian Associates, Copiague	N Y
Lieco Inc, West Babylon	N Y
Lorch Electronics Corp, Englewood	N J
Maury Microwave Corp, Montclair	Cal
MCS Corp, Monrovia	Cal
Meca Electronics, Inc, Denville	N J
Meridian Metalcraft Inc, Whittier	Cal
Merrimac Research & Development Inc West Caldwell,	N J
Microlab/F X R, Livingston	N J
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Development Labs Inc Needham Heights	Mass
Microwave Filter Co Inc, East Syracuse	NY
Multronics Inc, Rockville	Md
Narda Microwave Corp, Plainview	N Y
North Hills Electronics Inc, Glen Cove	N Y
Nytronics Inc, Precision Resistor Div, Kutztown	Pa
Omega Laboratories Inc, Rowley	Mass
Omni Spectra Inc, Farmington	Mich
Ottawa, Paris	France
Portchester Instrument Corp, Port Chester	N Y
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Premier Microwave Corp, Port Chester	N Y
Radar Design Corp, Syracuse	N Y
Radiation Systems Inc, McLean	Va
Ramcor Inc, Huntington	NY
Rantec Div Emerson Electric Co, Calabasas	Cal
Sanders Associates, Inc, Nashua	N H
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach	Cal
Transco Products Inc, Venice	Cal
TRW Systems Group, Redondo Beach	Cal
Varian, Palo Alto	Cal
Vari-L Co Inc, Stamford	Conn
Weinschel Engineering Co Inc, Gaithersburg	Md

Power Dividers

for dependable, low loss operation

standard models

Freq. Range GHz	Outputs	Insertion* Loss (max) dB	Model No.
high isolation dividers/combiners			
0.2 - 0.4	2	3.6	CSI-1-0202
0.3 - 0.6	2	3.6	CSI-1-0302
0.6 - 1.2	2	3.6	CSI-1-0602
1.0 - 2.0	2	3.6	CSI-1-1002
2.0 - 3.8	2	3.6	CSI-1-2002
3.2 - 5.8	2	3.6	CSI-1-3002
0.2 - 0.4	4	7.0	CSI-1-0204
0.3 - 0.6	4	7.0	CSI-1-0304
0.6 - 1.2	4	7.0	CSI-1-0604
1.0 - 2.0	4	7.0	CSI-1-1004
2.0 - 3.8	4	7.0	CSI-1-2004
3.2 - 5.8	4	7.0	CSI-1-3004
binary power dividers			
0.5 - 4.0	2	3.6	DSB-1-5402
0.5 - 4.0	4	7.0	DSB-1-5404
3.0 - 6.0	2	3.6	DSB-1-3402
3.0 - 6.0	4	7.0	DSB-1-3404

*Including split loss

LEL DIVISION
VARIAN associates
AKRON ST., COPIAGUE, L. I., NEW YORK 11726
For prompt information
CALL 516 AM 4-2517

DIVIDERS--VOLTAGE

BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
FLUKE MFG CO INC, JOHN, SEATTLE	**WASH** **ADV PG 270**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH COVER**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW	**N Y**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
TECH LABORATORIES INC, PALISADES PARK	**N J**
TRANSMAGNETICS INC, FLUSHING	**N Y**
Beckman Instruments Inc, Fullerton,	Cal
Burr-Brown Research Corp, Tucson	Ariz
Canadian Research Institute, Don Mills	Ont
Clavier Corp, Richmond Hill	NY
Collins Corp, G L, Long Beach	Cal
Computer Instruments Corp, Hempstead	N Y
Dynamco Ltd, Chertsey Surrey	Eng
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Electro Scientific Industries Inc, Portland	Ore
Fairchild Controls, Hicksville	N Y
Fluke Mfg Co Inc, John, Seattle	Wash
Fuji Electric Co Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
General Radio Co, West Concord	Mass
General Resistance Inc, New York	NY
GPS Instrument Co Inc, Newton	Mass
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Guildline Instruments Ltd, Smiths Falls	Ont
Hallmark Standards Inc, Mamaroneck	N Y
Hewlett-Packard, Palo Alto	Cal
Honeywell Test Instruments Div, Denver	Colo
Idalee Electronics Corp, Valley Stream	NY
IRC Div TRW Inc, Philadelphia	Pa
Iwatsu Electric Co Ltd, Tokyo	Japan
Julie Research Labs, Inc, New York	N Y
Keithley Instruments Inc, Cleveland	Ohio
Kepco Inc, Flushing	N Y
Leeds & Northrup Co, Philadelphia	Pa
Marstan Electronics Div Balco Elctns Inc, Orange	N J
Mepco Inc, Morristown	N J
Microtran Co Inc, Valley Stream	N Y
Muirhead Instruments Inc, Mountainside	N J
North Atlantic Industries Inc, Plainview	N Y
North Hills Electronics Inc, Glen Cove	N Y
Nytronics Inc, Precision Resistor Div, Kutztown	Pa
Ohmite Mfg Co, Skokie	Ill
Optical Electronics Inc, Tuscon	Ariz
Pearson Electronics Inc, Palo Alto	Cal
Resistance Products Co, Harrisburg	Pa
RFL Industries Inc, Instrumentation Div, Boonton	N J
Rho Engineering Co, Los Angeles	Cal
Riedon Avionics, Inc, Van Nuys	Cal
Ross Engineering Corp, Saratoga	Cal
Sage Electronics Corp, Rochester	NY
Singer Co, Metrics Div, Bridgeport	Conn
Tech Laboratories Inc, Palisades Park	N J
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Tel-Com Instruments Inc, Hanover	N J
Transmagnetics Inc, Flushing	N Y
TRW Systems Group, Redondo Beach	Cal
Vishay Resistor Prods Div Vishay Intertechnology Inc, Malvern	Pa
Wandel & Goltermann/Tel-Com, Hanover	N J
Weston Lexington Weston Instruments Div Lexington	Mass
Westronics Inc, Fort Worth	Tex
Winslow Tele-Tronics Inc, Asbury Park	NJ

Dividers Voltage

Fluke offers three different dividers. Model 720A Decade Voltage Divider is a primary ratio standard for the standards laboratory. Absolute linearity is ±0.1 ppm. TC is ±0.1 ppm/°C. Input resistance is 100 K ohms ±0.005% at 1.0 input and 1.1 input. Resolution is 0.1 ppm. Max input is 1100 volts and 11 watts. Price is $1195.

Model 725A Kelvin Varley Voltage Divider is a precision resistive device designed for use in calibration systems and test consoles where the higher accuracy of the Model 720A is not justified. The Model 725A offers 1 ppm resolution, 5 ppm linearity. Stability is 2 ppm/year and 1 ppm/°C TC. Price is $390.

Model 750A Reference Voltage Divider is an extremely accurate and stable reference voltage divider for calibration of DC voltmeters, volt boxes, DC calibrators and other precision devices. Ratio accuracy is ±(0.001% of output +0.5 μv) for one year. Switched input taps range from 1100 volts to 1.1 volts and switched output taps from 1100 volts to 0.1 volts. Price is $995.

For complete information, write Fluke, P.O. Box 7428, Seattle, Wash. 98133.

FLUKE

DOLLIES-- LABORATORY& OSCILLOSCOPE

GAGNE ASSOCIATES INC, BINGHAMTON	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
TEKTRONIX INC, BEAVERTON	**ORE**
Barnes Engineering Co, Santa Ana	Cal
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Electronic Instrument Div Gen Atronics Corp Philadelphia	Pa

Enclosure Corp, Pennsauken	N J
Erie Artisan Corp, Cleveland	Ohio
Eugene Engineering Co Inc, Rockland	Mass
Falstrom Co, Passaic	N J
Flotron Industries Inc, El Segundo	Cal
Gagne Associates Inc, Binghamton	N Y
Hammond Mfg Co Ltd, Guelph, Ont	Can
Hewlett-Packard, Palo Alto	Cal
Metal Dynamics Corp, Philadelphia	Pa
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Singer Co, Metrics Div, Bridgeport	Conn
System Enclosures Inc, Div Anetsberger Bros Inc Northbrook	Ill
Systems Matrix Inc, Trenton	N J
Technibilt Corp, Glendale	Cal
Technical Service Corp, Louisville	Ky
Tektronix Inc, Beaverton	Ore
Weber Electronics Inc, Philadelphia	Pa

DOOR OPENERS SEE CONTROLS--DOOR

DOPES--SEMICONDUCTOR SEE ALLOYS--SEMICONDUCTOR

DOPPLER RADAR SEE RADAR

DOSIMETER CHARGERS SEE CHARGERS--DOSIMETER

DOSIMETERS

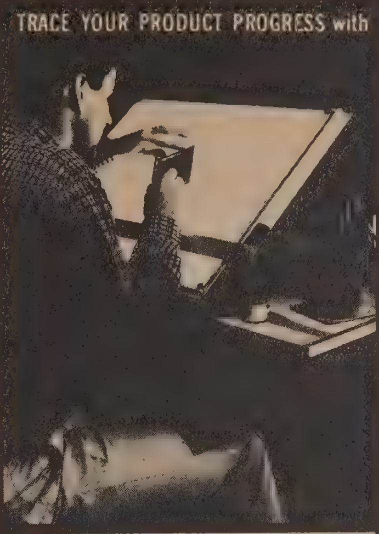
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
Analog Technology Corp, Pasadena	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Baird-Atomic, Inc, Cambridge	Mass
Collins & Assoc Don L, Glendale	Cal
E G & G Inc Laboratory Prods Div, Goleta	Cal
Electro-Neutronics Inc, Oakland	Cal
Electrospace Corp, Glen Cove	N Y
EON Corp, Brooklyn	N Y
General Microwave Corp, Farmingdale	N Y
Gilardoni S p A, Mandello Lario Como	Italy
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland	Ohio
International Light Inc, Newburyport	Mass
Kahl Scientific Instrument Corp, El Cajon	Cal
Kobe Industries Corp, Kobe	Japan
Kokuyo Electric Co Ltd, Tokyo	Japan
Landis & Gyr, Inc, New York	N Y
Landis & Gyr AG, Zug	Switzerland
Landsverk Electrometer Co, Glendale	Cal
Lockheed Georgia Nuclear Lab, Marietta	Ga
Madison Research Inc, Middleton	Wisc
Monroe Electronics Inc, Middleport	N Y
Nuclear-Chicago Corp, Des Plaines	Ill
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Nuclear Supplies, Encino	Cal
Precision Mecanique Labinal, 93 Saint-Ouen	France
Precision Systems Corp, Columbus	Ohio
RIL Electronics Inc, Southampton	Pa
St John X-Ray Laboratory, Califon	N J
Solid State Radiations Inc, Los Angeles	Cal
Spedcor Electronics Inc, Glendale	N Y
Stark Electronic Instruments Ltd, Ajax	Ont
Stephen & Co Ltd, R A, Mitcham	England
Telefunken Sales Corp, Garden City	N Y
Thermo Electron Engineering Corp, Waltham	Mass
Tracerlab, Div Lab for Electronics Inc, Waltham	Mass
U S Nuclear Corp, Burbank	Cal
Victoreen Instrument Div, Cleveland	Ohio

Who Do You Call?

Find his name and telephone number in EBG's Manufacturer's index (green pages).

DRAFTING SUPPLIES--ELECTRONIC PREPRINTED TITLE BLOCKS& SYMBOLS

Bishop Industries Corp, North Hollywood	Cal
Brady Co, W H, Milwaukee	Wis
Chartpak Rotex Div Avery Prods Corp, Leeds	Mass
Elliott Co, B K, Pittsburgh	Pa
Etchomatic Inc, Waltham	Mass
Graphic Controls Corp, Buffalo	NY
Keuffel & Esser Co, Hoboken	N J
Stafford Mfg Co Inc, Brooklyn	N Y
Stanpat Products Inc, Port Washington	N Y



TRACE YOUR PRODUCT PROGRESS with

PORTA-TRACE
PORTABLE LIGHT BOX
TRACING ANALYSIS DESIGN DISPLAY

New Concept In A Lighted Tracing System

LOW COST, PORTABLE, LIGHTWEIGHT, THIN (1 7/16") Diffused, cool fluorescent lighting; stainless steel frame; rubber feet. **FOR DRAFTING:** Can be slipped under a string-type parallel rule; facilitates tracing of sketches and faint blueprints; detects inking defects.

FOR PRINTED CIRCUITS & OTHER PHOTOGRAPHIC WORK: Opaquing, retouching, stripping-in, inspecting, viewing.

FOR REPRODUCTION WORK: Speeds preparation of bristol board and paper originals; mimeo stencils; Multilith and Ditto; visual aid transparencies; patent drawings; color separations.

PORTA-TRACE is available in 5 sizes from 11" × 18" to 36" × 48".

PRICED FROM $32.50, F.O.B. Binghamton, N.Y., 13901.

NEW PORTABLE TABLE

The **PORTA-TABLE** is designed to accommodate most PORTA-TRACE models. Folds to 3" thick. 24" × 36" working space. 30" high. Available with adjustable steel legs to 36" high. Flexible, plastisol-covered tilt bars permit flat, 20° and 40° tilt angles for PORTA-TRACE use. Tilt bars are removable for separate use of table. Solid wood top and reinforced steel ends. Weight: 22 lbs. **PRICE** of standard unit: **$27.50.** Unit with adjustable legs: **$30.50.** F.O.B. Binghamton, N.Y. 13901

For full details, specifications and prices, write or phone:

PORTA-TRACE DIVISION
GAGNE ASSOCIATES, INC. 50 Wall St.
Binghamton, N.Y. 13901 PHONE 607-723-9556

DRAFTING SUPPLIES--PAPER,CLOTH & FILM

By-Buk Co, Los Angeles	Cal
Chartpak Rotex Div Avery Prods Corp, Leeds	Mass
Dietzgen Co, Eugene, Chicago	Ill
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Elliott Co, B K, Pittsburgh	Pa
Graphic Controls Corp, Buffalo	NY
Kepro Circuit Systems Inc, St Louis	Mo
Keuffel & Esser Co, Hoboken	N J
Ulano Products Co Inc, New York	N Y

DRAFTING SUPPLIES--SYMBOL STAMPS, INK

Dietzgen Co, Eugene, Chicago	Ill
Elliott Co, B K, Pittsburgh	Pa
Stafford Mfg Co Inc, Brooklyn	N Y
Stanpat Products Inc, Port Washington	N Y
Tad Products Corp, Cambridge	Mass

DRAFTING SUPPLIES--TEMPLATES,ELECTRONIC SYMBOLS

Bishop Industries Corp, North Hollywood	Cal
Chartpak Rotex Div Avery Prods Corp, Leeds	Mass
Dietzgen Co, Eugene, Chicago	Ill
Elliott Co, B K, Pittsburgh	Pa
Felsenthal Instruments Co, Chicago	Ill
Fisher & Crome, Inc, Philadelphia	Pa
Keuffel & Esser Co, Hoboken	N J
Lambert Co, Inc, Boston	Mass
Rapidesign Inc, Burbank	Cal
Stanpat Products Inc, Port Washington	N Y
Tad Products Corp, Cambridge	Mass

DRAFTING SUPPLIES--TOOLS &EQUIPMENT

FORMICA METAL PRODUCTS CO INC, MEDFORD	**MASS**
GAGNE ASSOCIATES INC, BINGHAMTON	**N Y**
PORTA-TRACE DIV, GAGNE ASSOCIATES INC, BINGHAMTON N Y	**ADV PG 271**
Bishop Industries Corp, North Hollywood	Cal
Blu-Ray, Inc, Essex	Conn
Brady Co, W H, Milwaukee	Wis
Colbert Die Cast Co Inc, South Gate	Cal
Cramer Industries Inc, Kansas City	Kansas
Dietzgen Co, Eugene, Chicago	Ill
Elliott Co, B K, Pittsburgh	Pa
Etchomatic Inc, Waltham	Mass
Flexo International Corp, Chicago	Ill
Formica Metal Products Co Inc, Medford	Mass
Gagne Associates Inc, Binghamton	N Y
General Hardware Mfg Co Inc, New York	N Y
Hamilton Mfg Co, Two Rivers	Wis
Keuffel & Esser Co, Hoboken	N J
Kuhlmann-Impex, Inc, Houston	Tex
Lambert Co, Inc, Boston	Mass
Luxo Lamp Corp, Port Chester	N Y
Mann Co, Henry, Cornwell Heights	Pa
Porta-Trace Div, Gagne Associates Inc Binghamton	N Y
Rotolite Sales Corp, Stirling	N J
Stanpat Products Inc, Port Washington	N Y
Techni-Tool Inc, Philadelphia	Pa
Uber Grafic Instruments, Palo Alto	Cal
Universal Drafting Machine Corp, Bedford Heights	Ohio
Visual Inspection Products, Lynn	Mass

DRAWN METAL PARTS SEE METAL PARTS--DEEP-DRAWN

DRILLS--ULTRASONIC SEE ULTRASONIC EQUIPMENT

DRIVE BELTS SEE BELTS

DRIVES--VARIABLE SPEED,MECHANICAL SEE ALSO

CONTROLS--MOTOR SPEED

AUTOMATION DEVELOPMENT CO, CULVER CITY .... CAL
BOWMAR INSTRUMENT CORP, FORT WAYNE .... IND
COMPUTER INSTRUMENTS CORP, HEMPSTEAD .... N Y
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
ICON CORP, CAMBRIDGE .... MASS
WALDOM ELECTRONICS INC, CHICAGO ILL
Acton Laboratories Inc, Acton .... Mass
Advance Gear & Machine corp, Los Angeles .... Cal

Allen-Bradley Co, Milwaukee .... Wis
Analog General Corp, East Rockaway .... N Y
Automation Development Co, Culver City .... Cal
B & B Motor & Control Corp, New York .... N Y
Bowmar Instrument Corp, Fort Wayne .... Ind
Bronson Corp, Sub Kurz & Root Co, Appleton .... Wisc
Computer Instruments Corp, Hempstead .... N Y
Consolidated Controls Corp, El Segundo .... Cal
Consolidated Electric Corp, Seattle .... Wash
DoAll Co, Des Plaines Ill
Essex Engineering Co Inc, Essex .... Conn
Fae Instrument Corp, Huntington Station .... N Y
Fuji Electric Co Ltd, Tokyo .... Japan
G C Electronics Div, Hydrometals Inc, Rockford Ill
Geartronics Corp, N Billerica .... Mass
General Electric Co, ECSO, Schenectady .... N Y
Genisco Technology Corp, Compton .... Cal
Haydon Products, Ind Controls Div Gen Time Corp, Torrington .... Conn
Heller Corp, G K, Las Vegas .... Nev
Hobbs Mfg Co, Worcester .... Mass
Icon Corp, Cambridge .... Mass
Inland Controls Inc Sub Kollmorgen Corp Brighton .... Mass
Insco Corp, Groton .... Mass
Instru-Lec Corp, Mt Vernon .... N Y
Jackson Brothers (London) Ltd, New York .... N Y
Jan Hardware Mfg Co Inc, Long Island City .... N Y
Kendick Mfg Co Inc, Fort Wayne .... Ind
Kinetic Instrument Co Div Nortek Inc, Brooklyn .... N Y
Lear Siegler Inc, Santa Monica .... Cal
LEM Instrument Corp, Farmingdale .... N Y
Levin & Son Inc, Louis, Culver City .... Cal
Link Group Gen Precision Sys Inc, Binghamton .... N Y
Louis Allis Co Div Litton Industries, Milwaukee .... Wisc
Magnetic Technology Inc, Canoga Park .... Cal
McMaster Products Corp, Chicago Ill
Metron Instruments, Inc, Denver .... Colo
Pegasus Labs Inc, Berkley .... Mich
Penberthy Div Houdaille Ind Inc, Prophettstown Ill
Planet Instrument Inc, Ft Wayne .... Ind
Precision Mecanique Labinal, 93 Saint-Ouen .... France
Reliance Electric Co, Cleveland .... Ohio
Rundel Electric Co, Millbrae .... Cal
Servo Development Corp, Hicksville .... N Y
Servo-Tek Products Co, Hawthorne .... N J
Standard Precision Div Electronic Commun Inc Wichita .... Kan
Sterling Electric Motors Inc, Los Angeles .... Cal
U S Electrical Motors, Div Emerson Elec & Mfg Co Los Angeles .... Cal
Vega Servo-Control Inc, Troy .... Mich
Vemaline Products Co, Inc, Wycoff .... N J
Waldom Electronics Inc, Chicago Ill
Yaskawa Electric Mfg Co Ltd, Tokyo .... Japan
Zero-Max Co, Minneapolis .... Minn

DROP TESTERS SEE MACHINES--DROP TEST

DRUMS--MEMORY SEE MEMORIES--COMPUTER

DRY BATTERIES SEE BATTERIES

DRY BOXES

Advanced Purification System Co Inc, Great Neck .... N Y
Air Control Inc, Norristown .... Pa
Amsco Industrial Co Div Amer Sterilizer Co, Erie .... Pa
Baker Co, Inc, Biddeford .... Me
Clean Room Products Inc, Farmingdale .... N Y
Edcraft Industries Inc, Linden .... N J
GTI Corp, Dix Engineering Div, Costa Mesa .... Cal
Hamilton Mfg Co, Two Rivers .... Wis
Kewaunee Scientific Equipment, Adrian .... Mich
Kirk & Blum Mfg Co, Cincinnati .... Ohio
Kulicke & Soffa Industries Inc, Fort Washington .... Pa
Lindberg Hevi-Duty Div Sola Basic Industries Chicago Ill
Norton Co Vacuum Equip Div, Newton .... Mass
Nuclear Equipment Chemical Corp, Farmingdale .... N Y
Pure Aire Corp of America, Van Nuys .... Cal
Ramney Industries Corp, Farmingdale .... N J
Ray Products Inc, Alhambra .... Cal
Techni-Tool Inc, Philadelphia .... Pa
Temperature Engineering Corp, Riverton .... N J
Vacuum/Atmospheres Corp, N Hollywood .... Cal
Wells Industries Corp, North Hollywood .... Cal

DRYERS SEE DENUMIDIFIERS;OVENS

DUCTS, VENTILATION--FIXED

Benson Mfg Div E C I Inc, Kansas City .... Mo
Electroforms Inc, Gardena .... Cal
Eugene Engineering Co Inc, Rockland .... Mass
Flexaust Co, Div Callahan Mining Corp, New York .... NY
Harvel Plastics Inc, Easton .... Pa
Henry Engineering Co, Burbank .... Cal
Kirk & Blum Mfg Co, Cincinnati .... Ohio
Lectro Magnetics Inc, Los Angeles .... Cal
Pabst Engineering Equipment Co Inc, Elizabeth .... NJ
Riester & Thesmacher Co, Cleveland .... Ohio
Shielding Corp, Moorestown .... N J

DUCTS, VENTILATION--FLEXIBLE

Ace-Sycamore Inc, Sycamore Ill
Advanced Purification System Co Inc, Great Neck .... N Y
Benson Mfg Div E C I Inc, Kansas City .... Mo
Daniels Inc, C R, Daniels .... Md
Eugene Engineering Co Inc, Rockland .... Mass
Flexaust Co, Div Callahan Mining Corp, New York .... NY
Sherwood Industries Flexco Div, Bell Gardens .... Cal
Wiremold Co, Hartford .... Conn

DUCTS--WIRING

Danex Corp, Edison .... N J
Hammond Mfg Co Ltd, Guelph, Ont .... Can
Hoffman Engineering Co, Div Fed Cartridge Corp Anoka .... Minn
Ideal-Hellerman Canada Ltd, Ajax .... Ontario
Ideas Inc, Laramie .... Wyo
Jody Mfg Co, Detroit .... Mich
Keystone Mfg Co Div Avis Industrial Corp Warren .... Mich
Lectro Magnetics Inc, Los Angeles .... Cal
Panduit Corp, Tinley Park Ill
Porter Co (Can) Ltd, H K, Guelph .... Ont
Porter Co Inc, H K Electrical Div, Pittsburgh .... Pa
Square D Co, Park Ridge Ill
Taylor Electric Inc, Howell .... Mich
Tyton Corp of America, Metuchen .... N J
Waber Electronics Inc, Philadelphia .... Pa
Wadsworth Electric Mfg Co Inc, Covington .... Ky
Wiremold Co, Hartford .... Conn

DUMMY LOADS SEE TERMINATIONS

DUPLEXERS--MICROWAVE

ALUMINUM DESIGN CORP, BROOKFIELD ILL
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK .... N Y
FERROTEC INC, NEWTON .... MASS
GENERAL MICROWAVE CORP, FARMINGDALE .... N Y
MICROWAVE CAVITY LABS INC, LA GRANGE ILL
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
PREMIER MICROWAVE CORP, PORT CHESTER .... N Y
RADAR DESIGN CORP, SYRACUSE .... N Y
Advanced Microwave Labs, Sunnyvale .... Cal
Aertech, Sunnyvale .... Cal
Airtec Inc, Roselle .... N J
Airtron, Div of Litton Industries, Inc, Morris Plains .... N J
Alpha Industries Inc, Newton Upper Falls .... Mass
Aluminum Design Corp, Brookfield Ill
Anzac Electronics, Waltham .... Mass
Automatic Metal Products Corp, Brooklyn .... N Y
Avion Electronics Inc, Unit Gen Signal Corp Paramus .... NJ
Bomac Div Varian Associates, Beverly .... Mass
Cardion Communications, Woodbury .... N Y
Diamond Antenna & Microwave Corp, Winchester .... Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck .... N Y
Electromagnetic Technology Corp, Mountain View .... Cal
Electronic Specialty Co, Los Angeles .... Cal
E & M Labs, North Hollywood .... Cal
Ferranti, Ltd, Lancashire .... England
Ferrotec Inc, Newton .... Mass
General Microwave Corp, Farmingdale .... N Y
Guide Industries Inc, Sun Valley .... Cal
Herley Industries, Inc, Westbury .... N Y
Hyletronics Corp, Wilmington .... Mass
Lignes Telegraphiques et Telephoniques Paris 16 .... France
Maury Microwave Corp, Montclair .... Cal
MCS Corp, Monrovia .... Cal
Meca Electronics, Inc, Denville .... N J
Melabs, Palo Alto .... Cal
Meridian Metalcraft Inc, Whittier .... Cal
Metcom Inc, Salem .... Mass
Microlab/F X R, Livingston .... N J
Microphase Corp, Greenwich .... Conn
Micro State Electronics Oper Raytheon Co Murray Hill .... N J
Microwave Associates Inc, Burlington .... Mass
Microwave Cavity Labs Inc, La Grange Ill
Microwave Development Labs Inc Needham Heights .... Mass
Microwave Labs of America, Brooklyn .... N Y
Microwave Products Inc, Chatsworth .... Cal
N-H Microwave Inc, Red Bank .... N J
Nippon Electric Co Ltd, Tokyo .... Japan
Philco-Ford Corp, Washington .... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Premier Microwave Corp, Port Chester .... N Y
Radar Design Corp, Syracuse .... N Y
Radio Engineering Labs, Div DCA, Long Island City .... N Y
Rantec Div Emerson Electric Co, Calabasas .... Cal
R F Systems Inc, Cohasset .... Mass
RLC Electronics Inc, Port Chester .... N Y
Sedco Systems Inc, Farmingdale .... N Y
Selenia - Industrie Elettroniche Assoc, Rome .... Italy
Sperry Microwave Electronics Div, Clearwater .... Fla
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach .... Cal
TRW Electronic Components Div TRW Inc, Camden .... N J
Varian, Palo Alto .... Cal
Vector Industries A Teledyne Co, Palo Alto .... Cal
Victor R F & Microwave Co, Wakefield .... Mass
Western Microwave Labs Inc, Santa Clara .... Cal

DUPLEXERS--MOBILE COMMUNICATION

Sinclair Radio Labs Inc, Tonawanda .... N Y

DYNAMOMETERS

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
C-E Electronics Inc, Glenside .... Pa
Chatillon & Sons, John, Kew Gardens .... N Y
Denki Kogyo Co Ltd, Tokyo .... Japan
Dillon & Co Inc, W C, Van Nuys .... Cal
Esterline Angus Div Esterline Corp, Indianapolis .... Ind
Fuji Electric Co Ltd, Tokyo .... Japan
General Electric Co, ECSO, Schenectady .... N Y
General Thermodynamics Corp, North Wilmington .... Mass
Hale Instrument Inc, Houston .... Tex
Himmelstein & Co, S, Elk Grove Village Ill
Jonard Industries Corp, Bronx .... N Y
Kahn & Co Inc, Wethersfield .... Conn
Lear Siegler Inc, Santa Monica .... Cal
Lebow Associates Inc, Oak Park .... Mich
Leeds & Northrup Co, Philadelphia .... Pa
Magtrol Inc, Buffalo .... N Y
Martin-Decker Corp, Santa Ana .... Cal
McFadden Electronics Co, South Gate .... Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Reliance Electric Co, Cleveland .... Ohio
Rotax Ltd, London NW 10 .... Eng
Scans Associates Inc, Livonia .... Mich
Scherr Tumico Inc, St James .... Minn
Simpson Electric Co, Chicago Ill
Skurka Engineering Co, Los Angeles .... Cal
Stark Electronic Instruments Ltd, Ajax .... Ont
Sweeney Mfg Co, B K, Denver .... Colo
Task Corp, Anaheim .... Cal
Thwing-Albert Instrument Co, Philadelphia .... Pa
West Coast Research Corp, Los Angeles .... Cal
Winslow Tele-Tronics Inc, Asbury Park .... NJ

DYNAMOTORS

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
Carter Motor Co, Chicago Ill
Dyna Technology, Inc, Sioux City .... Iowa
General Electric Co, ECSO, Schenectady .... N Y
Siemon Mfg Co, Wayne Ill

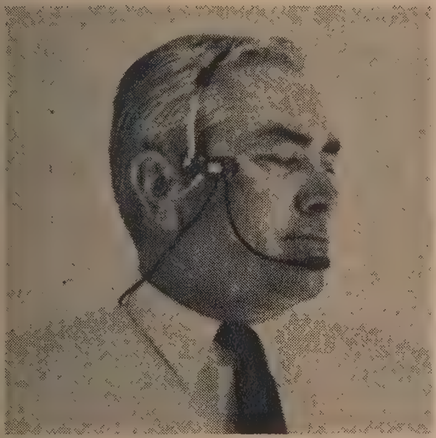
EARPHONES--HEADPHONES

CLEVITE CORP PIEZOELECTRIC DIV, BEDFORD .... OHIO
KNOWLES ELECTRONICS INC, FRANKLIN PARK ILL
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA .... JAPAN
PACIFIC PLANTRONICS INC, SANTA CRUZ, CAL .... ADV PG 273
Action Systems Co Div Conn Consolidated Inds Inc Meriden .... Conn
ADEC Inc, Newark .... N J
Aikow Shoji Kaisha Ltd, Osaka .... Japan
Aircraft Components Inc, Benton Harbor .... Mich
AKG North American Philips Co Inc, New York .... N Y
American Geloso Electronics Inc, New York .... N Y
Ampex Corp, Redwood City .... Cal
Astatic Corp, Conneaut .... Ohio
Audiosears Corp, Stamford .... N Y
Audiotronics Corp, North Hollywood .... Cal
A V Electronics, Inc, Fresno .... Cal
Burnett Electronics Lab Inc, San Diego .... Cal
Cannon Co, C F, Springwater .... N Y
C B S Labs Div Columbia Bdcstg Sys Inc Stamford .... Conn
Clavier Corp, Richmond Hill .... NY
Clevite Corp Piezoelectric Div, Bedford .... Ohio
Components Specialties Inc, Freeport .... N Y
Continental Electronics Corp, Brooklyn .... N Y
Dowa Trading Co Ltd, Kobe .... Japan
DuKane Corp, St Charles Ill
Electronic Futures Inc Div KMS Indus Inc North Haven .... Conn
Electronic Homes Co, New York .... N Y
Electronics Communications Div Atlantic Research Corp Alexandria .... Va
Electrospace Corp, Glen Cove .... N Y
El-Rad Mfg Co, Chicago Ill
Ercona Corp, New York .... N Y
Fedtro Inc, Rockville Centre .... N Y
Fen-Tone Corp, New York .... N Y
Foster Electric Co Ltd, Tokyo .... Japan
G C Electronics Div, Hydrometals Inc, Rockford Ill
Gotham Audio Corp, New York .... N Y
Hamilton Electronics Corp, Chicago Ill
Hayakawa Electric Co Ltd, Osaka .... Japan
Hosiden Electronics Co Ltd, Osaka .... Japan
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Jensen Mfg Div, The Muter Co, Chicago Ill
K L A Labs Inc, Detroit .... Mich
Knowles Electronics Inc, Franklin Park Ill
Koss Electronics Inc, Milwaukee .... Wis
Lafayette Radio Electronics, Syosset .... NY
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Merchant Co, Robert C, Carmel Valley .... Cal
Murdock Corp, Chelsea .... Mass
Pacific Plantronics Inc, Santa Cruz .... Cal
Permoflux Corp, Glendale .... Cal

The Lightweight Headset... For Modern Communications

Now Preferred For:

- * Office Use
- * Space Communications
- * Telephone Switchboards
- * Aviation and Mobile Communications



When designing equipment that calls for headsets, specify PPI—and you'll be getting the finest headset on the market today. Each unit combines light weight (2 oz.), space-age design, comfort and reliability — and comes with a patented acoustic transfer tube which delivers distortion-free voice transmission year after year.

For high-noise-level operations, PPI provides, at a few dollars extra, a background noise-suppressor which effectively eliminates background sounds. The suppressor easily slips on and off PPI's standard acoustic tube.

Standard models for most applications are in stock and available. We also design units to mate with custom OEM equipment. (Motorola uses the PPI headset as a standard accessory item, and NASA turns to PPI for the bulk of its headset needs.)

Although you design the finest communications equipment — remember, its output can be no better than its input. Go with the input leader — PPI.

Write us for more information:

PACIFIC PLANTRONICS, INC.
111 JOSEPHINE ST., SANTA CRUZ, CALIFORNIA 95060

For the engineer who refuses to stagnate

HALF THE WORLD is half asleep! Men who could be making twice their present salaries are coasting along, hoping for promotions but doing nothing to bring themselves forcefully to the attention of management.

They're wasting the most fruitful years of their business lives...throwing away thousands of dollars they may never be able to make up. And, oddly enough, they don't realize—even remotely—the tragic consequences of their failure to forge ahead while time is still on their side.

Engineers, and other technically-trained men, are particularly prone to "drift with the tide" because their starting salaries are reasonably high, and promotions come at regular intervals early in their careers. It isn't until later—too much later in many cases—that they discover there are definite ceilings on their incomes.

Send for your free copy of "Forging Ahead in Business"

If you want to discover how to succeed while you are still young—if you want to avoid the heartbreak of failure in later years—send today for *"Forging Ahead in Business"*...one of the most practical and realistic booklets ever written on the problems of personal advancement.

"Forging Ahead in Business" was written for ambitious men who seriously want to get to bedrock in their thinking about their business future. If you feel it is meant for you, simply fill in and return this coupon. Your complimentary copy will be mailed to you promptly.

ALEXANDER HAMILTON INSTITUTE
235 E. 42nd Street, New York, N. Y. 10017

ALEXANDER HAMILTON INSTITUTE
Dept. A-916, 235 E. 42nd St., N. Y., N. Y. 10017

Please mail me, without cost, a copy of *"Forging Ahead in Business."*

Name ____________________

Firm Name ____________________

Business Address ____________________

City ____________ State ____________ Zip Code ____________

Position ____________________

Home Address ____________________

City ____________ State ____________ Zip Code ____________

Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Philmore Mfg Co Inc, Richmond Hill ... N Y
Plessey Co Ltd, Telecommunications Group, Liverpool 7 ... England
P M & E Electronics Inc, East Providence ... R I
Roanwell Corp, New York ... N Y

Round Hill Associates, Inc, New York ... N Y
Rye Industries, Inc, Mamaroneck ... N Y
Sampson Electronic Products Div, Chicago ... Ill
Sanyo Electric Co Ltd, Osaka ... Japan
Sennheiser Electronic Corp (NY), New York ... N Y
Sharpe Instruments Div Scintrex Inc, Buffalo ... NY
Shigoto Industries Ltd, New York ... N Y
Shrader Sound Inc, Washington ... D C
Sierra Engineering Co, Sierra Madre ... Cal
Smith Inc, Herman H, Brooklyn ... N Y
Stanford International, San Carlos ... Cal
Superex Electronics Corp, Yonkers ... N Y
Superscope Inc, Sun Valley ... Cal
Telephone Components Inc, Brooklyn ... N Y
Telephonics Div, Instrument Systems Corp Huntington ... NY
Telex Communications Div, Minneapolis ... Minn
Trimm Inc, Libertyville ... Ill
Vactric Control Equipment Ltd, Morden ... England
V-M Corp, Benton Harbor ... Mich
Wells Co Inc, Gary, Yonkers ... N Y
Winslow Tele-Tronics Inc, Asbury Park ... NJ

ECHO BOXES--MICROWAVE

DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK ... N Y
GENERAL MICROWAVE CORP, FARMINGDALE ... N Y
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
Airtron, Div of Litton Industries, Inc, Morris Plains ... N J
Amerac, Inc, Beverly ... Mass
Clavier Corp, Richmond Hill ... NY
Decitron Electronics Corp, Brooklyn ... N Y
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck ... N Y
Engineering Associates, Dayton ... Ohio
Epsco Inc, Westwood ... Mass
General Microwave Corp, Farmingdale ... N Y
Herley Industries, Inc, Westbury ... N Y
Kobe Industries Corp, Kobe ... Japan
MCS Corp, Monrovia ... Cal
Narda Microwave Corp, Plainview ... N Y
Neico Microwave Co, Waltham ... Mass
Nippon Electric Co Ltd, Tokyo ... Japan
PRD Electronics Inc, Sub H-I Corp, Westbury ... N Y
RLC Electronics Inc, Port Chester ... N Y
Selenia - Industrie Elettroniche Assoc, Rome ... Italy
Tel-Com Instruments Inc, Hanover ... N J

EDUCATIONAL TV SEE TV SYSTEMS--CC

EDUCATION--CORRESPONDENCE COURSES

ALEXANDER HAMILTON INSTITUTE, NEW YORK N Y ... ADV PG 273
Alexander Hamilton Institute, New York ... N Y
Lear Siegler Inc, Santa Monica ... Cal

ELAPSED-TIME METERS SEE TIMERS--MOTOR OPERATED

ELBOWS--MICROWAVE SEE WAVEGUIDE FITTINGS

ELECTRETS

Infra-Red Systems Inc, Riverdale ... N J
Reaction Research Labs of America, Groton ... Conn
Sanyo Electric Co Ltd, Osaka ... Japan
Thermo Electron Engineering Corp, Waltham ... Mass

ELECTRIC FURNACES SEE FURNACES--ELECTRIC

ELECTRIC MOTOR CONTROL SEE CONTROLS--MOTOR SPEED

ELECTRIC MOTORS SEE MOTORS

ELECTRIC OVENS SEE OVENS; DEHUMIDIFIERS

ELECTROCARDIOGRAPHS SEE CARDIAC EQUIPMENT

ELECTROENCEPHALOGRAPHS

HEWLETT-PACKARD, PALO ALTO ... CAL
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO ... ADV PGS 8
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
Beckman Instruments Inc, Fullerton, ... Cal
Beckman Instruments Intl SA, 1207 Geneva ... Switzerland
Biocom, Inc, Culver City ... Cal
Bionic Instruments Inc, Bala Cynwyd ... Pa
Clavier Corp, Richmond Hill ... NY
Coldspring Instrument Corp, Huntington ... N Y

Ensco Inc, Salt Lake City ... Utah
Epsco Inc, Westwood ... Mass
Garrett Corp, Los Angeles ... Cal
Hewlett-Packard, Palo Alto ... Cal
Honeywell Test Instruments Div, Denver ... Colo
International Rectifier Semiconductor Div El Segundo ... Cal
Lehigh Valley Electronics Engrg & Mfg Co, Inc Fogelsville ... Pa
Mennen-Greatbatch Electronics Inc, Clarence ... N Y
Newport Labs Inc, Newport Beach ... Cal
Nihon Kohden Kogyo Co Ltd, Tokyo ... Japan
Nippon Electric Co Ltd, Tokyo ... Japan
Schwarzer Corp, Framingham ... Mass

ELECTROFORMING SERVICES

BUCKBEE MEARS CO, ST PAUL ... MINN
Allied Research & Engineering Co, Los Angeles ... Cal
Allied Research Products Inc Sub Richardson Co Baltimore ... Md
American Circuit-Tronics Corp, Royal Oak ... Mich
Buckbee Mears Co, St Paul ... Minn
Chemical Micro Milling Co, Pennsauken ... N J
Clavier Corp, Richmond Hill ... NY
Cohan-Epner Co Inc, New York ... N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles ... France
Dynatex Corp, Redwood City ... Cal
Electroforms Inc, Gardena ... Cal
Heli-Coil Products, Div Heli-Coil Corp, Danbury ... Conn
Komak Inc, Philadelphia ... Pa
Metaplast Electrochemicals Corp, Bronx ... N Y
Philway Products Inc, Ashland ... Ohio
Servometer Corp, Clifton ... N J
Sifco Metachemical Div Steel Improvement & Forge Co Cleveland ... Ohio
Spectrolab Div, Textron Electronics Inc, Sylmar ... Cal
Tech-Etch, Inc, Hingham ... Mass
Towne Labs Inc, Somerville ... N J

ELECTROLESS PLATING CHEMICALS SEE CHEMICALS--PLATING

ELECTROLUMIESCENT DEVICES--ILLUMINATING

Ackerman Engravers, Inc, Long Island City ... N Y
ACR Electronics Corp, New York ... N Y
Aerolux Light Co Inc, New York ... N Y
American Electronic Labs Inc, Lansdale ... Pa
Amglo Corp, Chicago ... Ill
Atkins & Merrill Inc Reinforced Plastic Div Marlboro ... Mass
Atmar Engraving Co Inc, Richmond Hill ... N Y
Canrad Precision Industries Inc, New York ... N Y
Coastal Dynamics Corp, Venice ... Cal
Felsenthal Instruments Co, Chicago ... Ill
Ferranti, Ltd, Lancashire ... England
Grimes Mfg Co, Urbana ... Ohio
Hartman Systems Co Inc, Huntington Station ... N Y
ITT Federal Labs, Fort Wayne ... Ind
Lear Siegler Inc, Santa Monica ... Cal
Lear Siegler Inc, Instrument Div, Grand Rapids ... Mich
Madigan Electronic Corp, Washington ... D C
Monsanto Co, St Louis ... Mo
Opcalite Inc, Santa Ana ... Cal
Oppenheimer, Inc, Willow Grove ... Pa
Radar Relay Div, Teledyne Inc, Santa Monica ... Cal
Rovalco Controls, Torrance ... Cal
Sanyo Electric Co Ltd, Osaka ... Japan
Semi-Elements Inc, Saxonburg ... Pa
Sierra Electric Inc, Gardena ... Cal
Simco Co Inc, Lansdale ... Pa
Sperry Flight Systems Div Sperry Rand Corp Phoenix ... Ariz
Sylvania Elec Prods Inc Special Prod Div Danvers ... Mass
Vemaline Products Co, Inc, Wycoff ... N J
Visual Inspection Products, Lynn ... Mass

ELECTROLUMINESCENT DEVICES--LOGIC, MEMORY

Avco Corp Electronics Div, Cincinnati ... Ohio
Devco Engineering Inc, Fairfield (Caldwell) ... N J
Electro-Nuclear Lab Inc, Menlo Park ... Cal
Hartman Systems Co Inc, Huntington Station ... N Y
Hi-Tek Corp, Santa Ana ... Cal
ITT Federal Labs, Fort Wayne ... Ind
Lear Siegler Inc, Instrument Div, Grand Rapids ... Mich
LFE Electronics Div, Lab for Electronics Inc Waltham ... Mass
Massey Dickinson Co Inc, Saxonville ... Mass
Semi-Elements Inc, Saxonburg ... Pa
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls ... N Y
Transistor Electronics Corp, Minneapolis ... Minn

ELECTROLUMINESCENT DEVICES--READOUT & DISPLAY

TECHMETRIC CO, REDWOOD CITY ... CAL
A & M Instruments Inc, Great Neck ... N Y

Atkins & Merrill Inc Reinforced Plastic Div Marlboro ... Mass
Atmar Engraving Co Inc, Richmond Hill ... N Y
Avco Corp Electronics Div, Cincinnati ... Ohio
Burtek Inc, Tulsa ... Okla
Canrad Precision Industries Inc, New York ... N Y
Cardion Electronics Div Gen Signal Corp, Woodbury ... N Y
Cie De Signaux Et D'Entreprises Electriques Paris 17eme ... France
Conductron Corp, Ann Arbor ... Mich
Devco Engineering Inc, Fairfield (Caldwell) ... N J
Energy Conversion Devices Inc, Troy ... Mich
Felsenthal Instruments Co, Chicago ... Ill
Ferranti, Ltd, Lancashire ... England
General Precision Systems Inc, Kearfott Gp Little Falls ... N J
Grimes Mfg Co, Urbana ... Ohio
Hartman Systems Co Inc, Huntington Station ... N Y
ITT Federal Labs, Fort Wayne ... Ind
Janus Control Div Tyco, Waltham ... Mass
Kameco Ltd, Montreal ... Que
Lear Siegler Inc, Santa Monica ... Cal
Lear Siegler Inc, Instrument Div, Grand Rapids ... Mich
LFE Electronics Div, Lab for Electronics Inc Waltham ... Mass
Link Group Gen Precision Sys Inc, Binghamton ... N Y
Massey Dickinson Co Inc, Saxonville ... Mass
Monsanto Co, St Louis ... Mo
Opcalite Inc, Santa Ana ... Cal
Oppenheimer, Inc, Willow Grove ... Pa
Radar Relay Div, Teledyne Inc, Santa Monica ... Cal
Rovalco Controls, Torrance ... Cal
Sanyo Electric Co Ltd, Osaka ... Japan
Semi-Elements Inc, Saxonburg ... Pa
Simplex Time Recorder Co, Gardner ... Mass
Sperry Flight Systems Div Sperry Rand Corp Phoenix ... Ariz
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls ... N Y
Sylvania Electronic Systems, Waltham ... Mass
Techmetric Co, Redwood City ... Cal
Transistor Electronics Corp, Minneapolis ... Minn
Vemaline Products Co, Inc, Wycoff ... N J
Westinghouse Electric Corp, Tube Div, Elmira ... NY

ELECTROMAGNETIC COUNTERS SEE COUNTERS--ELECTROMAGNETIC

ELECTROMAGNETS SEE SOLENOIDS; MAGNETS--ELECTRO

ELECTROMETERS

HEATH CO, BENTON HARBOR ... MICH
TRACOR INC, AUSTIN ... TEX
Adcole Corp, Waltham ... Mass
Air Technology Corp, Waltham ... Mass
A & M Instruments Inc, Great Neck ... N Y
Analog Technology Corp, Pasadena ... Cal
Argonaut Associates, Inc, Beaverton ... Ore
Beckman Instruments Inc, Fullerton, ... Cal
Bioelectric Instruments Inc, Hastings-on-Hudson ... N Y
Cary Instruments a Varian Sub, Monrovia ... Cal
Collins & Assoc Don L, Glendale ... Cal
Control Science Corp, Alexandria ... Va
E G & G Inc Laboratory Prods Div, Goleta ... Cal
Elastronics Labs, Tarzana ... Cal
General Radio Co, West Concord ... Mass
Grace Electronics Inc, Cleveland ... Ohio
Heath Co, Benton Harbor ... Mich
Instrumentation Lab Inc, Watertown ... Mass
Keithley Instruments Inc, Cleveland ... Ohio
Landsverk Electrometer Co, Glendale ... Cal
McKee-Pedersen Instruments, Danville ... Cal
Medistor Instrument Co, Seattle ... Wash
Monroe Electronics Inc, Middleport ... N Y
Newport Labs Inc, Newport Beach ... Cal
Nuclide Corp, AGV Div, Acton ... Mass
Optical Electronics Inc, Tuscon ... Ariz
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Rawson-Lush Instrument Co Inc, Acton ... Mass
RIL Electronics Inc, Southampton ... Pa
Sticht Co Inc, Herman H, New York ... N Y
Takeda Riken Industry Co Ltd, Tokyo ... Japan
Tracor Inc, Austin ... Tex
Varian, Palo Alto ... Cal
Veeco Instruments Inc, Plainview ... N Y
Victoreen Instrument Div, Cleveland ... Ohio

ELECTROMETER TUBES SEE TUBES--ELECTROMETER

ELECTROMYOGRAPHS

HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
Beckman Instruments Inc, Fullerton,	Cal
Biocom, Inc, Culver City	Cal
Bionic Instruments Inc, Bala Cynwyd	Pa
Clavier Corp, Richmond Hill	NY
Coldspring Instrument Corp, Huntington	N Y
Disa Elektronik A/S, Herlev	Denmark
Hewlett-Packard, Palo Alto	Cal
Honeywell Test Instruments Div, Denver	Colo
London Co, Westlake	Ohio
Newport Labs Inc, Newport Beach	Cal
Nihon Kohden Kogyo Co Ltd, Tokyo	Japan
Teca Corp, White Plains	N Y

ELECTRON BEAM WELDERS SEE WELDERS

ELECTRON DIFFRACTION EQUIPMENT

Decker Corp, Bala Cynwyd	Pa
Edwards High Vacuum Inc, Grand Island	N Y
Fieldstone Corp Hardco Scientific Div, Cincinnati	Ohio
Japan Vacuum Engineering Co Ltd, Tokyo	Japan
Materials Research Corp, Orangeburg	N Y
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Process & Instruments Corp, Brooklyn	N Y
Ultek Div Perkin-Elmer, Palo Alto	Cal
Varian, Palo Alto	Cal
Veeco Instruments Inc, Plainview	N Y

ELECTRON GUNS-- SEE TUBE PARTS

ELECTRON MICROSCOPES SEE MICROSCOPES--ELECTRON

ELECTRON TUBE MANUFACTURING MACHINES SEE MACHINES--TUBE (ELECTRON)

ELECTRONIC CHEMICALS SEE CHEMICALS--ELECTRONIC

ELECTRONIC CIRCUIT DEMONSTRATORS SEE DEMONSTRATORS

ELECTRONIC HEATERS SEE HEATERS--ELECTRONIC

ELECTRONIC HEATING OVENS SEE OVENS;DEHUMIDIFIERS

ELECTRONIC MOTOR CONTROLS SEE CONTROLS--MOTOR SPEED

ELECTRONIC VOLTMETERS SEE VOLTMETERS

ELECTROPLATING ANODES SEE ANODES

ELECTROPLATING CHEMICALS SEE CHEMICALS--PLATING

ELECTROPLATING MACHINES SEE MACHINES--PLATING

ELECTROPLATING SERVICES SEE PLATING SERVICES

ELECTROSTATIC CLEANERS SEE CLEANERS--AIR

ELECTROSTATIC GENERATORS SEE GENERATORS--ELECTROSTATIC

ELECTROSTATIC SHIELDING SEE SHIELDING

ELECTROSTATIC SPRAY SYSTEMS

Columbia Research Corp, Gaithersburg	Md
Conforming Matrix Corp, Toledo	Ohio
Decker Corp, Bala Cynwyd	Pa
De Vilbiss Co, Toledo	Ohio
Fischer & Co, H G, Franklin Park	Ill
Ionic Electrostatic Corp, Garfield	N J

ELECTROSTATIC VOLTMETERS SEE VOLTMETERS

ELECTROSURGICAL APPARATUS

Atlantic Ultraviolet Corp, Long Island City	N Y
Birtcher Corp Medical Div, Los Angeles	Cal
Clavier Corp, Richmond Hill	NY
Ensco Inc, Salt Lake City	Utah
Flexi Optics Labs Inc, Somerville	Mass
Godfrey Mfg Co, Chicago	Ill
International Rectifier Semiconductor Div El Segundo	Cal
Medtronic Inc, Minneapolis	Minn
Optics Technology Inc, Palo Alto	Cal
Theta Instrument Corp, Fairfield	N J

ELEMENTS SEE HEATING ELEMENTS

ELIMINATORS--BATTERY SEE POWER SUPPLIES--D-C

EMBOSSED CIRCUITS SEE CIRCUITS--PRINTED WIRING

EMERGENCY COMMUNICATION SYSTEMS SEE COMMUNICATION SYSTEMS--LAND MOBILE

ENAMELED WIRE SEE WIRE MAGNET

ENAMELS SEE ALSO PAINTS & PRIMERS

KRESSILK PRODUCTS INC, ELMSFORD	**N Y**
Allaco Products, Braintree	Mass
Anadite, Inc, South Gate	Cal
Atomite Electronics Corp, Roosevelt	N Y
Baker Castor Oil Co, Bayonne	N J
Barrett Varnish Co, Cicero	Ill
Dolph Co, John C, Monmouth Junction	N J
Dow Corning Corp, Midland	Mich
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Emerson & Cuming Inc, Canton	Mass
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Isochem Resins Co, Lincoln	RI
Koppers Co Inc, Pittsburgh	Pa
Kressilk Products Inc, Elmsford	N Y
Miller-Stephenson Chemical Co Inc, Danbury	Conn
3M Company, St Paul	Minn
Photo Chemical Products Inc, Santa Monica	Cal
PPG Industries, Pittsburgh	Pa
Preco Chemical Corp, Plainview	N Y
Product Techniques, Inc, Downey	Cal
Schenectady Chemicals Inc, Schenectady	N Y
Vacuum Metallizing, Van Nuys	Cal
Vitta Corp, Wilton	Conn
Westinghouse Electric Corp Insulating Materials Div Trafford	Pa
Wornow Process Paint Co, Los Angeles	Cal

ENCAPSULATED ASSEMBLIES SEE MODULES--ACTIVE; MODULES--PASSIVE

ENCAPSULATED RESISTORS SEE RESISTORS

ENCAPSULATING COMPOUND DISPENSERS SEE DISPENSERS

ENCAPSULATING COMPOUNDS SEE RESINS--ENCAPSULATING

ENCAPSULATING FORMS SEE FORMS--EPOXY; SHELLS

ENCAPSULATING RESINS SEE RESINS--ENCAPSULATING

ENCAPSULATION MACHINES SEE MACHINES--ENCAPSULATING

ENCAPSULATION SERVICES

AIRFLYTE ELECTRONICS CO, BAYONNE	**N J**
ANSLEY MFG CO, ARTHUR, NEW HOPE	**PA**
CERRO COPPER & BRASS CO DIV CERRO CORP ALLOYS DEPT SPRINGDALE	**CONN**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
Acme Chemicals & Insulation, New Haven	Conn
Advanced Electronics, Inc, Rocky Hill	Conn
Aerolite Electronics Corp, Union City	N J
Aero/Space Devices, Inc, Miami	Fla
Airflyte Electronics Co, Bayonne	N J
Allen-Jones Electronics Corp, Gardena	Cal
Ansley Mfg Co, Arthur, New Hope	Pa
Atlantic Instruments & Electronics, Inc Watertown	Mass
Atomite Electronics Corp, Roosevelt	N Y
Avionics, Inc, South Bend	Ind
Avionics Ltd, Niagara-on-the-Lake	Ont
Bacon Industries, Inc, Watertown	Mass
Ballastran Corp, Fort Wayne	Ind
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Boonton Molding Co Inc, Boonton	N J
Brown Engineering-A Teledyne Co, Huntsville	Ala
Castall Research Lab Inc, Brockton	Mass
Cerro Copper & Brass Co Div Cerro Corp Alloys Dept Springdale	Conn
Cerro Corp, New York	NY
Cico Corp, Sun Valley	Cal
Cicoil Corp, Chatsworth	Cal
Clavier Corp, Richmond Hill	NY
Computer Components Inc, Jamaica	N Y
Conap Inc, Allegany	N Y
Condor Industrial Corp, West Chicago	Ill
Corning Glass Works, Corning	N Y
Daylen Co, South Gate	Cal
Dinion Coil Co Inc, Caledonia	N Y
Dolph Co, John C, Monmouth Junction	N J
Dynaloy, Inc, Hanover	N J
Eastern Delta Corp, Fair Lawn	N J
Electronic Modules Corp, Timonium	Md
Electronic Molding Corp, Pawtucket	R I
Electrospace Corp, Glen Cove	N Y
Eljay Corp, Baltimore	Md
El-Tech Mfg Co Inc, Norristown	Pa
El-Tronics Inc Warren Components Div, Warren	Pa
Emerson & Cuming Inc, Canton	Mass
EMI Cossor Electronics Ltd, Dartmouth, N S	Can
Endicott Coil Co Inc, Binghamton	N Y
EPD Industries Inc, Long Beach	Cal
Epoxtronics Corp, Lowell	Mass
Epoxy Products Co Div Allied Prod Inc New Haven	Conn
Estes Engineering Co, Gardena	Cal
First Electronics Corp, Boston	Mass
Flexible Products Inc, North St Paul	Minn
Flow Electronic Cable Corp, Cambridge	Mass
Franklin Fibre-Lamitex Corp, Wilmington	Del
Fugle-Miller Labs Inc, Kenilworth	N J
Godfrey Mfg Co, Chicago	Ill
Henry Engineering Co, Burbank	Cal
Hightemp Resins Inc, Stamford	Conn
Hydro Molding Co Inc, Plattsburgh	N Y
Inductor Engineering Inc, Lewes	Del
Industrial Circuits Co, Fairfield	N J
Isochem Resins Co, Lincoln	RI
Isolation Products, Mountain View	Cal
Jones Inc, Norman, South Merrimack	N H
Keleket Div Laboratory For Electronics Inc Waltham	Mass
Lockheed Georgia Nuclear Lab, Marietta	Ga
Magnetic Engineering Corp, Danbury	Conn
Manger Electric Co Inc, Stamford	Conn
Marstan Electronics Div Balco Elctns Inc, Orange	N J
Mereco Prods Inc, Div Metachem Resins Corp Cranston	RI
M-T Electronics Co, San Leandro	Cal
Mutron Corp, Brockton	Mass
Nopco Chemical Div Diamond Shamrock Chem Co Newark	N J
Norrich Plastics Corp, Roosevelt	N Y
Norton Co, Worcester	Mass
Pacific Magnetic Corp, Romoland	Cal
Paraplegics Mfg Co Inc, Bensenville	Ill
Pennsylvania Fluorocarbon Co Inc, Clifton Heights	Pa
Polymer Corp, Reading	Pa
Q V S Inc, East Orange	N J
Radix Electronics Corp, Anaheim	Cal
Rector Engineering & Plastics Co, Washington	D C
Renco Electronics Inc, Hicksville	N Y
Resdel Corp, Rio Grande	N J
Rodon Electronics Corp, Gardena	Cal
Sippican Corp, Ind Prods Div, Mattapoisett	Mass
S K G Associates Inc, Boston	Mass
Solarex Mfg Co Inc, Deer Park	N Y
Space Craft Inc, Huntsville	Ala
Sparton Southwest Inc, Albuquerque	NM
Stanwyck Winding Co, Newburgh	N Y
Swiss Industries, Costa Mesa	Cal
Telectro Systems Corp, Corona	N Y
Teletronics Labs Inc, El Segundo	Cal
Topper Mfg Co Inc, Great Neck	N Y
U S Dielectric Inc, Worcester	Mass
U S Electronics Corp, Lyndhurst	N J
Washington Electrical Products Co, Washington	Mo

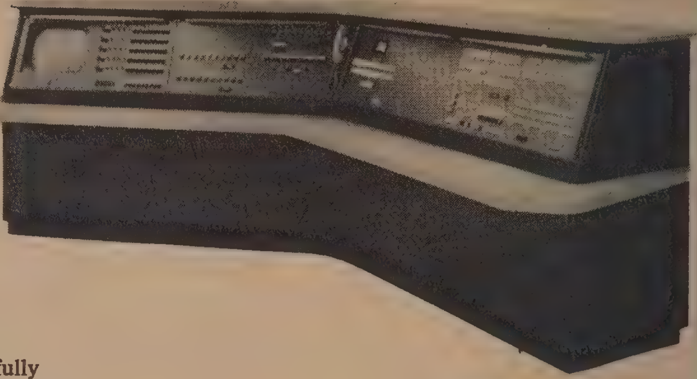
Amco has a complete line of standard or styled enclosure systems...

Standard Amco Enclosure Lines . . .

fast delivery!

styling!

Custom enclosures have non-structural exteriors that permit units up to five frames wide to have a one-piece, single unit appearance.



strength!

Semi-Custom enclosures are fully gusseted for superior strength and conformance to Mil-E-5772C shock and vibration requirements.

versatility!

FJ enclosures offer economy, versatility and off-the-shelf delivery for a wide variety of applications. These units are ideally suited for back-up equipment where conformance to rigid environmental specifications is not required.

E. M. I.!

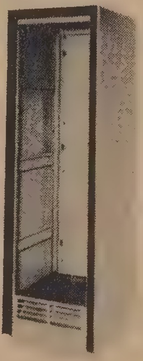
E.M.I. enclosures provide complete radiation protection in excess of E.M.I. MIL-STD 285. Amco pioneered modular E.M.I. enclosures and offer the most complete line.

economy!

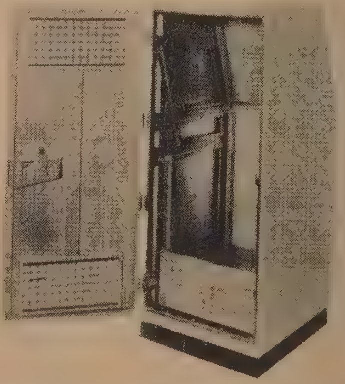
Heavy-duty aluminum enclosure system that you can assemble from a wide variety of corner castings, extruded square tubing and panels. Special locking clips eliminate the need for assembly tools. Continuous sections from 6 in. to 20 ft. with angles or slopes to 90° are possible.

Styled Aluminum Enclosure

Styled FJ Enclosure



Styled E.M.I. Enclosure



Before and after styling. Just an example of Amco's design approach for unique identification. Both the enclosures and styling are modular which permits a complete range of design possibilities to meet the most stringent structural needs or the most unique styling moods.

Amco Engineering Co.

7333 W. Ainslie St. • Chicago, Ill. 60656
Phone: (312) UN 7-8500 • TWX: 910-221-5192

ENCLOSURES--CONTROLLED ATMOSPHERE

AMCO ENGINEERING CO, CHICAGO, ILL	**ADV PG 276**
BLUE M ENGINEERING CO, BLUE ISLAND	**ILL**
Amco Engineering Co, Chicago	Ill
American Instrument Co, Inc, Silver Spring	Md
Associated Testing Labs, Inc, Wayne	N J
Bethlehem Corp, Bethlehem	Pa
Blue M Engineering Co, Blue Island	Ill
Brown Engineering-A Teledyne Co, Huntsville	Ala
Cryogenic Engineering Co, Denver	Colo
De Vilbiss Co, Toledo	Ohio
Donnelly Mfg Co, Waltham	Mass
Dynatronic Instruments Corp Div Lab-Line Inst Inc Melrose Park	Ill
Eugene Engineering Co Inc, Rockland	Mass
General Acoustics Corp, Los Angeles	Cal
GTI Corp, Dix Engineering Div, Costa Mesa	Cal
Hamilton Mfg Co, Two Rivers	Wis
Hoffman Engineering Co, Div Fed Cartridge Corp Anoka	Minn
Hotpack Corp, Philadelphia	Pa
Kewaunee Scientific Equipment, Adrian	Mich
Koppers Co Inc, Pittsburgh	Pa
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Lindsay Structures Div, Intl Steel Co, Evansville	Ind
Metal Fab Div, Artisan Industries Inc, Waltham	Mass
Parabam Inc, Hawthorne	Cal
Precision Scientific Co Sub GCA Corp, Chicago	Ill
Pure Aire Corp of America, Van Nuys	Cal
Spring City Electrical Mfg Co, Spring City	Pa
System Enclosures Inc, Div Anetsberger Bros Inc Northbrook	Ill
Temperature Engineering Corp, Riverton	N J
Vacuum/Atmospheres Corp, N Hollywood	Cal
Zero Mfg Co, Burbank	Cal

ENCLOSURES--LOUDSPEAKER

AMCO ENGINEERING CO, CHICAGO	**ILL**
Amco Engineering Co, Chicago	Ill
Argos Products Co, Inc, Genoa	Ill
Atlas Sound Div Amer Trading & Prod Corp Parsippany	N J
Automatic Clerical Systems Inc, Pasadena	Cal
Baltic Metal Products Co, Brooklyn	N Y
Beama Engineering Ltd, Toronto 15	Ont
Bud Radio Inc, Willoughby	Ohio
Components Specialties Inc, Freeport	N Y
Donnelly Mfg Co, Waltham	Mass
Electro-Voice Inc Sub Gulton Industries Buchanan	Mich
Eugene Engineering Co Inc, Rockland	Mass
Fourjay Industries, Dayton	Ohio
Hamilton Electronics Corp, Chicago	Ill
Hammond Mfg Co Ltd, Guelph, Ont	Can
Hartley Products Corp, Ho-Ho-Kus	NJ
Henry Engineering Co, Burbank	Cal
Jensen Mfg Div, The Muter Co, Chicago	Ill
Karlson Research & Mfg Div KRC Corp, Hempstead	NY
K L A Labs Inc, Detroit	Mich
Lansing Sound Inc, James B, Los Angeles	Cal
Lowell Mfg Co, St Louis	Mo
Metal Works Inc, Hermann	Mo
Mobil Electronics Inc, Anderson	Ind
Nelson-Hershfield Electronics Co, Phoenix	Ariz
Neptune Electronics Co, New York	N Y
New-Berg Leather Products Co, Brooklyn	N Y
Oaktron Industries Inc, Monroe	Wis
Permoflux Corp, Glendale	Cal
Philmore Mfg Co Inc, Richmond Hill	N Y
Pioneer Electronic Corp, Ohta-ku, Tokyo	Japan
Radio Corp of America, Comml Elctn Prods Div Camden	N J
RMS Electronics Inc, Bronx	N Y
Sanyo Electric Co Ltd, Osaka	Japan
Soundolier Inc, St Louis	Mo
Spring City Electrical Mfg Co, Spring City	Pa
Tonegen Electric Co Ltd, Joto-ku, Osaka	Japan
University Sound Div Ltv Ling Altec Inc Oklahoma City	Okla
Utah Electronics Div, Utah-American Corp Huntington	Ind
Wald Sound, Sun Valley	Cal
Wilder Engineering Products, Chicago	Ill

ENCLOSURES--R-F SHIELDED

AMCO ENGINEERING CO, CHICAGO, ILL	**ADV PG 276**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
MM ELECTRONIC ENCLOSURES INC, HICKSVILLE N Y	**ADV PG 122**
POMONA ELECTRONICS CO INC, POMONA, CAL	**ADV PG 277**
Ace Engineering & Machine Co, Inc Huntingdon Valley	Pa
Amco Engineering Co, Chicago	Ill
Ark Electronics, Inc, Willow Grove	Pa
Bishop Instrument, Portland	Maine
Boston Precision Parts Co Inc, Hyde Park	Mass
Braun Tool & Instrument Co Inc, H, Hawthorne	N J
Bud Radio Inc, Willoughby	Ohio
Calcor Space Facility Inc, Whittier	Cal
Churchill Corp, Melrose	Mass
Crouse-Hinds Co, Syracuse	N Y
Danex Corp, Edison	N J
Dietz Design Inc, Belton	Mo
Donnelly Mfg Co, Waltham	Mass
Electronic Enclosures, El Segundo	Cal
Electro Rack Products Co, Anaheim	Cal
Elpac Inc, Components Div, Irvine	Cal
Enclosure Corp, Pennsauken	N J
Estes Engineering Co, Gardena	Cal
Eugene Engineering Co Inc, Rockland	Mass
Filtron Co Inc Sub Liquidonics Ind Inc, Flushing	N Y
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Golding Mfg Co, North Arlington	N J
Goldsman Inc, Philadelphia	Pa
Graphics, Inc, Poteau	Okla
Hoffman Engineering Co, Div Fed Cartridge Corp Anoka	Minn
Holbrook Merrill Co, Sunnyvale	Cal
Keystone Electronics Corp, New York	N Y
Lindgren & Associates Inc, Erik A, Chicago	Ill
Lindsay Structures Div, Intl Steel Co, Evansville	Ind
MM Electronic Enclosures Inc, Hicksville	N Y
Pneumafil Corp, Charlotte	N C
Pomona Electronics Co Inc, Pomona	Cal
Ray Proof Corp, Norwalk	Conn
Scanbe Mfg Corp, Monterey Park	Cal
Shielding Corp, Moorestown	N J
Sprague Electric Co, North Adams	Mass
Stark Electronic Instruments Ltd, Ajax	Ont
System Enclosures Inc, Div Anetsberger Bros Inc Northbrook	Ill
Technical Wire Products Inc, Cranford	N J
Topatron Inc, Costa Mesa	Cal
Watson Mfg Co Inc, Jamestown	N Y
Zero Mfg Co, Burbank	Cal

ENCLOSURES
RF SHIELDED

Featured in our 1968 general catalog. Listing a complete line of ¾" and ½" banana plugs and accessories • adapters • test probes • jumpers • patch cords • shielded component-mounting "Black Boxes" • cable assemblies • miscellaneous test accessories. Write for your free copy.

POMONA
ELECTRONICS CO., INC.
1500 E. Ninth Street, Pomona, Calif. 91766

ENCODERS--DIGITAL

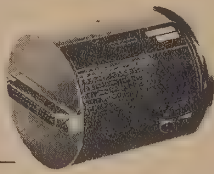
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BURROUGHS CORP ELECTRONIC COMPONENTS DIV PLAINFIELD	**N J**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL	**PA**
COMPUTER LABS, GREENSBORO	**N C**
DATA TECHNOLOGY, INC, WATERTOWN	**MASS**
DISCON CORP, FORT LAUDERDALE	**FLA**
TOWSON LABS INC, BALTIMORE	**MD**
Admiral Corp, Gov Electronics Div, Chicago	Ill
American Astrionics Inc, Palo Alto	Cal
Amtron Inc, Midlothian	Ill
Analogic Corp, Waltham	Mass
Applied Electronics Corp of N J, Metuchen	N J
Astrodata Inc, Anaheim	Cal
Automation Development Co, Culver City	Cal
Auto-Trol Corp, Arvada	Colo
Avco Corp Electronics Div, Cincinnati	Ohio
Babcock Electronic Corp, Costa Mesa	Cal
Baldwin Electronics Inc, Little Rock	Ark
Beckman Instruments Inc, Fullerton,	Cal
Bell Aerosystems Co, Buffalo	N Y
Bendix Corp, Communications Div, Towson	Md
Burroughs Corp Electronic Components Div Plainfield	N J
Canadian Motorola Electronics Co, Agincourt	Ont
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
Collectron Corp, New York	N Y
Computer Labs, Greensboro	N C
Connecticut Technical Corp, Hartford	Conn
Conrac Corp, New York	N Y
Control Data Corp, Minneapolis	Minn
Control Science Corp, Alexandria	Va
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Curry Engineering Co, N Hollywood	Cal
Data Technology, Inc, Watertown	Mass
Del Electronics Corp, Mt Vernon	N Y
Disc Instruments Inc, Santa Ana	Cal
Discon Corp, Fort Lauderdale	Fla
Dynamics Research Corp, Stoneham	Mass
Dynamic System Electronics Corp, Tempe	Ariz
Dynatronics Oper Elctns Div Gen Dynamics Corp Orlando	Fla
E D P Corp, Orlando	Fla
E G & G Inc Custom Equip Div, Bedford	Mass
Electro Circuits Inc, Lowell	Mass
Electro-Mec Instrument Corp, Watertown	Conn
EMR Div Weston Instruments Inc, Princeton	N J
E N M Co, Chicago	Ill
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Space & Defense Sys Div Fairchild Cam Instr Corp, Syosset	NY
Faul Assoc Inc, Thomas L, Skaneateles	N Y
Ferranti, Ltd, Lancashire	England
Gap Instrument Corp, Westbury	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Giannini Scientific Corp, Flight Rsch Div, Richmond	Va
Gulton Industries Inc, Metuchen	N J
Hathaway Pacific Corp, Palo Alto	Cal
Heidenhain Corp, Miles	Ill
Hugle Industries, Sunnyvale	Cal
Itek Corp, Lexington	Mass
Landis & Gyr, Inc, New York	N Y
Landis & Gyr AG, Zug	Switzerland
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
LEM Instrument Corp, Farmingdale	N Y
Librascope Group Gen Precision Sys Inc, Glendale	Cal
Litton Industries Encoder Division, Chatsworth	Cal
Logitek Inc, Farmingdale	N Y
Loral Electronic Systems, Div Loral Corp, New York	NY
Massey Dickinson Co Inc, Saxonville	Mass
Metrological Data Corp, Garfield	N J
Moore Associates Div Rocker Co, San Carlos	Cal
Navigation Computer Corp, Norristown	Pa
Oki Electric Industry Co Ltd, Tokyo	Japan
Perkin-Elmer Corp, Norwalk	Conn
Philco-Ford Corp, Washington	D C
Pinlites, Inc, Fairfield	N J
Pulse Communications Inc, Falls Church	Va
Radix Electronics Corp, Anaheim	Cal
RC-95 Inc, New York	N Y
Remex Electronics, Hawthorne	Cal
Robins Data Devices Inc, Flushing	N Y
Rosemount Plug-In Inc, Nashville	Tenn
Sequential Electronic Systems Inc, Elmsford	N Y
Sigma Instruments Inc, Braintree	Mass
Stelma Inc, Stamford	Conn
Teledyne Telemetry Co, Los Angeles	Cal
Theta Instrument Corp, Fairfield	N J
Towson Labs Inc, Baltimore	Md
Trump Ross Industrial Controls Inc North Billerica	Mass
TRW Systems Group, Redondo Beach	Cal
Utility Communication Systems Inc, Essington	Pa
Vactric Control Equipment Ltd, Morden	England
Vega Precision Labs, Vienna	Va
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Vitro Labs Div Vitro Corp of America, W Orange	N J
Vogue Instrument Corp, Plainview	NY
Wang Labs Inc, Tewksbury	Mass
Wayne-George Co Div Itek Corp, Newton	Mass

When you find it in EBG,
Tell our advertisers —
They appreciate it.
So do we.

**INTEGRATED
SYSTEM
COMPONENTS**

WIDEST LINE OF ENCODERS

OPTICAL



OPTECON has been value engineered to provide the highest performance per dollar ratio. It makes use of a single long-life lamp which operates from a single power supply, in conjunction with precision mask, optical disc, and push-pull photo transistors to digitize rotary motion into high level quadrature square waves, convertible by means of pulse-level logic (optionally available within the package) into pulses 1, 2, or 4 times the number of cycles per turn. Reference pulse output may be provided as well. Size 25 units are available as stock items in resolutions of 250, 360, 500, 512, and 635 cycles per turn, or, on special order, any number up to 2540.

FEATURES
\$195 Base Price Only One Power Level Needed (+ or -) Fully Integral Circuitry (Square Wave, Pulse, Zero) Only One Long-life Lamp Used Rugged, All Metal Construction Highest Pulse Rate (to 1 MC) Low Impedance Signal Source

PHOTOSYN is a high precision optical encoder available with incremental (PI) or absolute (PA) readout, with increment or electronic sampling at rates up to 1 mc/second.
Designed for the measurement of rotary (or linear) motion, the encoder is available in various standard coded formats—BCD, Binary, Gray, Trigonometric, as well as special codes as required. PHOTOSYN offers high reliability and long life in a sturdy, servo-type package and may be fully militarized. DC lamp life should exceed 200,000 hours. Outputs are in parallel (absolute) or serial pulse trains (incremental).

MODEL PA—Absolute PI—Incremental	SIZE (Inches)	RANGE OF RESOLUTIONS		DECIMAL	
		Binary	Degrees	(counts/turn)	Sine/Cos
25	2.480	2^{15}	.005	80,000	$\pm 2^{11}$
35	3.500	2^{16}	.0025	100,000	$\pm 2^{12}$
45	4.483	2^{16}	.0025	100,000	$\pm 2^{13}$

MAGNETIC

VERNISYN is a high precision, magnetic, non-contact shaft encoder. Full-scale vernier and complete-perimeter pickoff averaging provide an extremely high resoultion and accuracy-to-size ratio. Available in various absolute (or incremental) models, the VERNISYN technique offers high reliability and long life in a sturdy, compact servo-type package. Basic transducer output is in serial sample form, but readout, which may track continuously, may be in parallel binary or BCD format, or as required.

Model	Case Dia. (Inches)	RANGE OF RESOLUTION		
		Binary	Seconds	Degrees
VC 15	1.50	2^{17}	20	.01
VC 25	2.50	2^{19}	5	.002
VC 35	3.50	2^{19}	1.25	.0005
VC 50	5.00	2^{21}	1.0	.00025

INCRESYN magnetic incremental shaft encoders, especially designed for digital control and readout. Their wide range of resolution allows direct conversion of shaft position to final readout format. The high-signal, magnetic pickoff technique and integral silicon circuits used in the INCRESYN guarantee low noise susceptibility, high reliability, long life and low power, while eliminating such typical encoder problems as brush wear, lamp burnout and instability.

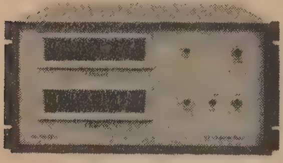
Model	Case Dia. (inches)	RANGE OF RESOLUTIONS FOR RESOLUTIONS DIVISIBLE BY				MID-RANGE PRICE INCLUDING BIDIRECTIONAL ELECTRONICS
		8	4	2	1	
IC 15	1.5	2048	1024	512	256	\$795
IC 25	2.5	4096	2048	1024	512	\$595
IC 45	4.5	8192	4096	2048	1024	\$795

ROTOSYN, a compact, absolute magnetic non-contact shaft position encoder, provides a serial pulse train output wherein the total count of pulses in each burst directly corresponds to the shaft position. Thus each pulse represents 1/nth of a circle. The serial pulse output lends itself to direct digital recording or transmission, and the sampled answer may be indicated in a simple gated counter. A dual shaft version will provide velocity and absolute direction information as applied, for example, to wind and water digitizing. The ROTOSYN features high reliability, long life, low noise susceptibility, and low power requirements.

Model	Case Dia. (inches)	RANGE OF RESOLUTICN	
		Binary	Degrees
S 15	1.5	2^{9}	1
S 25	2.5	2^{10}	1/3
S 35	3.5	2^{10}	0.25
S 50	5.0	2^{11}	0.2

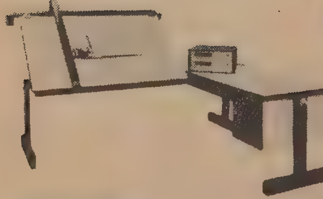
ROTOTRAN is a rotatable inductive coupling device (a rotary transformer) used to transfer electrical signals or power from the rotating to the stationary member of an assembly without sliding contact as necessary for slip-rings. As a result ROTOTRAN offers important advantages where long life, high reliability, high speed adverse environment, low torque, noise or crosstalk are primary considerations.

TYPICAL MODELS	SIZE	FREQUENCY RANGE	MAX. SIGNAL VOLTAGE
RS 8-107/1 5MC	Size 8	5MC-10MC ±3 db	100V @ 500KC
RS 15-105/1 100KC	Size 15	2KC-200KC ±3 db	5V @ 2KC
RP 35-100/1 400 cps	Size 35	350-450 cp,s	110V @ 400 cps



MODULAR BI-DIRECTIONAL COUNTER: Uses all-silicon or IC plug-in circuit cards. Originally developed as an expandable INCRESYN readout, combines optimum flexibility, readability and performance. The basic 50-KHz counter which provides in-line numerical display, zero reset, and 12V supply, is adequate for most readout needs. Options include 500-KHz and 5-MHz count rate, preset reset, preset output gates, BCD or 10-line output per decade, time base, and many others. Basic counters are available in 3- to 7-decade single and multi-axis models, in self-contained cabinet or rack mounting configurations.

NEW!! 5-MHz IC BI-DIRECTIONAL COUNTER: Single and multi-axis, ± and 4 to 6 decades with nixie display and BCD output. Compatible with OPTECON as well as most other reversible incremental inputs. Features all T^2L integrated circuitry. Accepts all input signal types: quadrature square wave (x1, x2, x4), pulse (up/down), or pulse/level. Available in self-contained rack-mountable cabinet (½-rack wide per axis). Base price \$895 for standard 4-decade unit plus \$100 per additional decade and ±. Detailed specifications on request.



COORDINATE DIGITIZING/PLOTTING/TAPE PREPARATION SYSTEMS

Photogrammetrics (bubble chamber projections, reconnaisance photographs, land survey) Graphical Digitizing (drawings and charts, boards, microcircuits, models and prototypes) Layouts (templates, inspection, tape preparation).

The Systems are economical, easy to maintain and allow the inclusion of a wide variety of options to suit a multiplicity of applications. Features include: non-contact encoding, plug-in T^2L IC logic cards for readout and internal equipment interface, and high precision, rapid arm traverse. Use of optical encoding coupled with precision rack and pinion provide a system of 0.001″ and 0.0005″ resolution, ±0.002″ accuracy and numerical display to 99.999 (±optional). Slewing rate is in excess of 50″ per second. Several sizes available in solid top or light table configurations.

TYPICAL SUPERFEATURES

• Interface with punch, printer, computer, teletype, etc. • Transient-free high speed transfer • Automatic optical readout trigger • Vernier positioner.

NEW!! CDP.1 COMPUTERIZED X-Y DIGITIZER-PROGRAMMER
Flexible format allows direct verifiable keyboard tape preparation readily adaptable to any N/C machine format; also continuous path programming option.

DATA TECHNOLOGY, INC.
65 GROVE ST., WATERTOWN, MASSACHUSETTS 02172 / 617 • 924-1773 TWX: 710 • 329-0607

ENCODERS--SHAFT POSITION

AIRFLYTE ELECTRONICS CO, BAYONNE, N J	**ADV PG 641**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
DATA TECHNOLOGY, INC, WATERTOWN, MASS	**ADV PG 278**
ELECTRO-TEC CORP, ORMOND BEACH	**FLA**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
TOWSON LABS INC, BALTIMORE	**MD**
Airflyte Electronics Co, Bayonne	N J
Amtron Inc, Midlothian	Ill
Automation Development Co, Culver City	Cal
Baldwin Electronics Inc, Little Rock	Ark
Bendix Corp Navigation & Control Div, Teterboro,	N J
Coleman Engineering Co Inc, Santa Ana	Cal
Collectron Corp, New York	N Y
Conrac Corp, New York	N Y
Consolidated Controls Corp, Bethel	Conn
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Data Technology, Inc, Watertown	Mass
Del Electronics Corp, Mt Vernon	N Y
Disc Instruments Inc, Santa Ana	Cal
Dynamics Research Corp, Stoneham	Mass
Electro-Mec Instrument Corp, Watertown	Conn
Electro-Tec Corp, Ormond Beach	Fla
EMR Div Weston Instruments Inc, Princeton	N J
Farrand Controls Inc, Valhalla	N Y
Ferranti Electric Inc, Plainview	N Y
Ferranti, Ltd, Lancashire	England
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Giannini Scientific Corp, Flight Rsch Div, Richmond	Va
Heidenhain Corp, Miles	Ill
H H Controls Co Inc, Arlington	Mass
Honeywell Test Instruments Div, Denver	Colo
Itek Corp, Lexington	Mass
Kelk Ltd, George, Don Mills	Ont
LEM Instrument Corp, Farmingdale	N Y
Librascope Group Gen Precision Sys Inc, Glendale	Cal
Litton Industries Encoder Division, Chatsworth	Cal
Markon Mfg Inc, Englewood	Colo
Metrological Data Corp, Garfield	N J
Norden Div, United Aircraft Corp, Norwalk	Conn
Northern Precision Labs Inc, Fairfield	N J
Perkin-Elmer Corp, Norwalk	Conn
Precision Mecanique Labinal, 93 Saint-Ouen	France
Remex Electronics, Hawthorne	Cal
Rotax Ltd, London NW 10	Eng
Sequential Electronic Systems Inc, Elmsford	N Y
Straza Industries Div Ametek Inc, El Cajon	Cal
Taylor Instrument Cos, Rochester	N Y
Theta Instrument Corp, Fairfield	N J
Towson Labs Inc, Baltimore	Md
Trump Ross Industrial Controls Inc North Billerica	Mass
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Vactric Control Equipment Ltd, Morden	England
Wang Labs Inc, Tewksbury	Mass
Wayne-George Co Div Itek Corp, Newton	Mass

ENGRAVING & PROFILING SERVICES

BUCKBEE MEARS CO, ST PAUL	**MINN**
CONTROL KNOBS INC, JAMAICA	**N Y**
Ackerman Engravers, Inc, Long Island City	N Y
Acromark Co, Elizabeth	N J
Apahouser Corp of N E, Boston	Mass
Best Mfg Co, Kansas City	Mo
Buckbee Mears Co, St Paul	Minn
Canadian Research Institute, Don Mills	Ont
Canrad Precision Industries Inc, New York	N Y
Cleveland Metal Specialties Co, Cleveland	Ohio
Control Knobs Inc, Jamaica	N Y
Cooke Engineering Co, Alexandria	Va
Doran Mfg Co, Cincinnati	Ohio
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park	N J
Dura Plastics of N Y Inc, New York	NY
Electro-Stylus Mfg Co, Colorado Springs	Colo
Eljay Corp, Baltimore	Md
Emerson Plastics Corp, Bronx	New York
Eugene Engineering Co Inc, Rockland	Mass
Feay Co, Neal, Goleta	Cal
Felsenthal Instruments Co, Chicago	Ill
Fisher & Crome, Inc, Philadelphia	Pa
Golden Technology Inc, Santa Rosa	Cal
Gorton Machine Corp, Racine	Wis
Graphics, Inc, Poteau	Okla
Harva Co Inc, Schoharie	N Y
Hermes Plastics Inc, New York	N Y
Industrial Engravers Inc, Jamaica	N Y
Insulating Fabricators Inc, East Rutherford	N J
Insulating Fabricators of N E Inc, Watertown	Mass
Insulating Shapes Inc, Bronx	N Y
Jan Hardware Mfg Co Inc, Long Island City	N Y
Jetron Mfg Co, Chicago	Ill
Lake Erie Electric Mfg, Inc, Erie	Pa
Laminated Sheet Products Corp, Norwood	Mass
Leed Insulator Corp, Los Angeles	Cal
Markon Mfg Inc, Englewood	Colo
Master Engraving, Rochelle Park	N J
Micro Parts Inc, Los Angeles	Cal
New Hermes Engraving Machine Corp, New York	N Y
parker-hartford corp, windsor	conn
Photo Chemical Products Inc, Santa Monica	Cal
Precision Crafts, La Cresenta	Cal
Printloid Inc, Long Island City	N Y
Seton Name Plate Corp, New Haven	Conn
Sossner Steel Stamps Inc, Long Island City	N Y
Stafford Mfg Co Inc, Brooklyn	N Y
Western Coil & Electrical Co, Racine	Wisc
Wilkens Inc, Alwin Fr, Pawling	N Y

ENVIRONMENTAL CHAMBERS & TEST EQUIPMENT

SEE CHAMBERS; MACHINES; VIBRATION

ANALYSIS EQUIPMENT; VIBRATORS

ENVIRONMENTAL TEST LABORATORIES SEE LABORATORIES

EPOXY LAMINATES SEE LAMINATES--COPPER-CLAD

EPOXY RESINS SEE PLASTICS

EPOXY RESIN SOLVENTS SEE SOLVENTS

EQUALIZERS--A-F SEE FILTERS--EQUALIZER

ERASERS--BULK MAGNETIC TAPE

HEWLETT-PACKARD, PALO ALTO	**CAL**
Aerovox Corp Distr Sales, New Bedford	Mass
Ampex Corp, Redwood City	Cal
Amplifier Corp of America, Westbury	N Y
Broadcast Electronics Inc, Silver Spring	Md
Coil Co of America Inc, Northvale	N J
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Dowa Trading Co Ltd, Kobe	Japan
Fen-Tone Corp, New York	N Y
Ferranti Electric Inc, Plainview	N Y
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Kinetics Inc, Reston	Va
Hammond Mfg Co Ltd, Guelph, Ont	Can
Hewlett-Packard, Palo Alto	Cal
K L A Labs Inc, Detroit	Mich
Lafayette Radio Electronics, Syosset	NY
Magnasync/Moviola Corp, North Hollywood	Cal
Microtran Co Inc, Valley Stream	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Robins Data Devices Inc, Flushing	N Y
Robins Industries Corp, Flushing	N Y
Sparta Electronic Corp, Sacramento	Cal
Stancil-Hoffman Corp, Hollywood	Cal
Thermionic Products Electronics Ltd Southampton	England
Westel Co, Redwood City	Cal

ESCUTCHEONS

CONTROL KNOBS INC, JAMAICA	**N Y**
Acme Tool & Specialties Co, Des Plaines	Ill
Aikow Shoji Kaisha Ltd, Osaka	Japan
Best Mfg Co, Kansas City	Mo
Chicago Etching Corp, Chicago	Ill
Control Knobs Inc, Jamaica	N Y
Devco Engineering Inc, Fairfield (Caldwell)	N J
Electro-Chemical Engraving Co Inc; Bronx	N Y
Eljay Corp, Baltimore	Md
Felsenthal Instruments Co, Chicago	Ill
Impectron Inc, New York	N Y
Jan Hardware Mfg Co Inc, Long Island City	N Y
Mid-West Metal Products Inc, Kansas City	Kans
Photo Chemical Products Inc, Santa Monica	Cal
Printloid Inc, Long Island City	N Y
Seastrom Mfg Co Inc, Glendale	Cal
Seton Name Plate Corp, New Haven	Conn
Stafford Mfg Co Inc, Brooklyn	N Y
Sun Dial & Panel Corp, Caldwell	N J
Technical Wire Products Inc, Cranford	N J
United States Radium Corp, Morristown	N J

ETCHED CIRCUIT BOARDS SEE LAMINATES

ETCHED CIRCUITS SEE CIRCUITS--PRINTED WIRING

ETCHING ACIDS SEE CHEMICALS--PRINTED-CIRCUIT

ETCHING EQUIPMENT SEE MACHINES--PRINTED-CIRCUIT PRODUCTION

EBG

What's

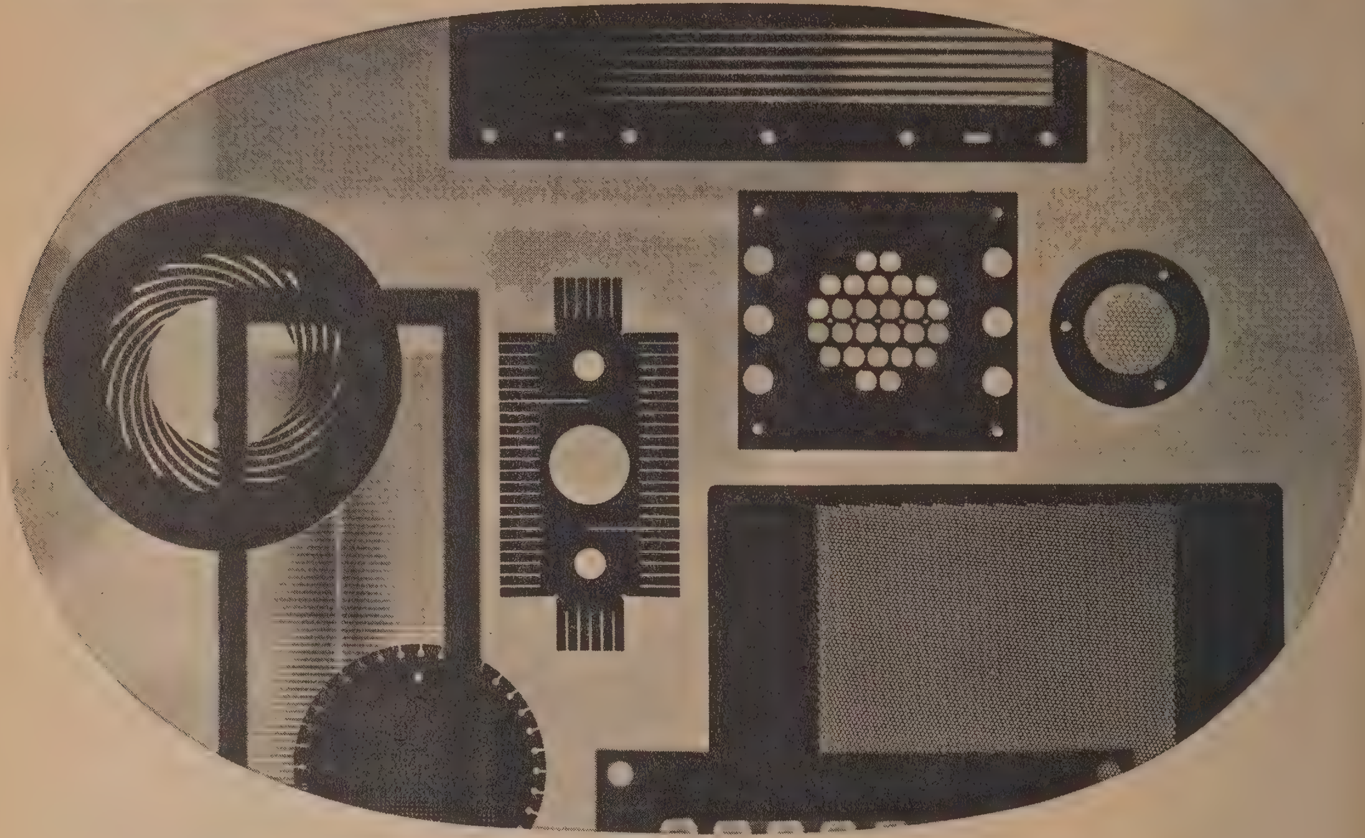
in it

for you?

1. Listing of more than 4,000 products.
2. 6,500 manufacturers with local outlets, addresses and phone numbers.
3. Complete and up-to-date Trade Name Directory
4. The most complete industry source of supply and product specs.

Electronics Buyers' Guide

Need etched parts?



Photomechanical reproduction of precision parts is our business. We invented it!

Precision etching of metal parts on a quantity basis was developed by Buckbee-Mears during World War II. Today we're the world's largest producer of photo etched metal, glass and electroformed parts. Our new computer-directed automatic plotter is accurate to .0005" or better, and it can draw in an hour what would take a draftsman days to do. It's economical, too, because there are no costly dies to make. For precision accuracy in photo etching at computer speeds, talk to number one: Buckbee-Mears.

METAL ETCHING

Round, square, oval or straight, holes or lines etched to tolerances of ± 2 microns. Currently we are producing shaver grills, hemispheric domes, springs, micro component parts and curved surfaces too complicated for die stamping. We etch mesh, precision circuitry, core loading mats and print out rollers. More than 70 materials have been etched in our plant.

Whatever your problem or special need, Buckbee-Mears has the metal etching skill and equipment to serve you.

ELECTROFORMING

Our mesh screens go down to four million holes per square inch with accuracy. Line width tolerances of ±.0001 are common. Typical production ranges from five to 2,000 lines per linear inch. We electroform copper, nickel, silver and gold. A few standard products include evaporation masks, pin hole apertures, micro-mesh sieves, electron microscope grids, optical wedges, zone plates and a variety of microminiature parts.

What do you need? We'll solve your problem with our electroforming technology.

GLASS ETCHING

We use the same photomechanical techniques in glass etching to provide calibrations and other configurations to tolerances of ± .0001. Straight and cross line rulings, calibrated dials, concave and convex reticles, scales, prisms and encoder discs are some of the items we produce in volume.

BUCKBEE-MEARS CO.

245 E. 6th St., St. Paul, Minnesota 55101 / (612) 227-6371

The world leader in precision photomechanical reproduction

ETCHING SERVICES

BUCKBEE MEARS CO, ST PAUL, MINN	**ADV PG 280**
Abacus Electronics Corp, Dobbs Ferry	N Y
Alloys Unlimited Inc, Melville	N Y
American Circuit-Tronics Corp, Royal Oak	Mich
A V Electronics, Inc, Fresno	Cal
Avionics Ltd, Niagara-on-the-Lake	Ont
Braun Tool & Instrument Co Inc, H, Hawthorne	N J
Brooks & Perkins Inc, Detroit	Mich
Buckbee Mears Co, St Paul	Minn
Chemical & Aerospace Products Inc, Wilmington	Cal
Chemical Micro Milling Co, Pennsauken	N J
Chicago Etching Corp, Chicago	Ill
Conductorlab Inc, Groton	Mass
Dearborn Wire & Cable Co, Chicago	Ill
Dutchess Design & Develop Inc, Poughkeepsie	N Y
Eastern Reproduction Corp, Waltham	Mass
Electro-Chemical Engraving Co Inc, Bronx	N Y
Electronics Inc of Pa, Willow Grove	Pa
Electronic Standards Corp, Plainfield	N J
El-Tech Mfg Co Inc, Norristown	Pa
Flexible Circuits Inc, Warrington	Pa
Flexible Products Inc, North St Paul	Minn
Golden Technology Inc, Santa Rosa	Cal
Hartzell Electronics Inc, Minneapolis	Minn
Hyletronics Corp, Wilmington	Mass
Industrial Circuits Co, Fairfield	N J
Keil Engineering Products Inc, St Louis	Mo
Komak Inc, Philadelphia	Pa
Manger Electric Co Inc, Stamford	Conn
Markon Mfg Inc, Englewood	Colo
Materials Research Corp, Orangeburg	N Y
Micronetics Div Teledyne Systems Co, San Diego	Cal
Micro Science Assoc, Mountain View	Cal
Mid-West Metal Products Inc, Kansas City	Kans
Omega Laboratories Inc, Rowley	Mass
Pennsylvania Fluorocarbon Co Inc, Clifton Heights	Pa
Philway Products Inc, Ashland	Ohio
Platronics Inc, Linden	N J
Precision Crafts, La Cresenta	Cal
Ransom Labs, John H, Los Angeles	Cal
Scherr Tumico Inc, St James	Minn
Semiconductor Specialties Corp, Fair Lawn	NJ
Seton Name Plate Corp, New Haven	Conn
Shamban & Co, W S, Los Angeles	Cal
Stafford Mfg Co Inc, Brooklyn	N Y
Tech-Etch, Inc, Hingham	Mass
Techniques, Inc, Englewood	N J
Towne Labs Inc, Somerville	N J
Trueline Instruments Inc, Englewood	Colo
Universal Circuits Inc, Minneapolis	Minn
Vinco Industries, Orange	Cal
Xtalonix Products Div Harshaw Chemical Co Columbus	Ohio

EXCITERS--TRANSMITTER

HEATH CO, BENTON HARBOR	**MICH**
INTERNATIONAL CRYSTAL MFG CO INC OKLAHOMA CITY	**OKLA**
American Electronic Labs Inc, Lansdale	Pa
Automatic Metal Products Corp, Brooklyn	N Y
C C A Electronics Corp, Gloucester	NJ
Conic Corp, San Diego	Cal
Farinon Electric, San Carlos	Cal
Heath Co, Benton Harbor	Mich
International Crystal Mfg Co Inc, Oklahoma City	Okla
Kahn Research Labs Inc, Freeport	N Y
Kobe Industries Corp, Kobe	Japan
Kokusai Electric Co Ltd, Tokyo	Japan
Marconi Div, English Electric Corp, New York	N Y
Metric Engineering Div Greenray Indus Inc Mechanicsburg	Pa
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Philco-Ford Corp, Washington	D C
Racal Communications Inc, Silver Spring	Md
Radio Engineering Labs, Div DCA, Long Island City	N Y
Resdel Engineering Corp, Pasadena	Cal
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Round Hill Associates, Inc, New York	N Y
Rowe Industries Inc, Toledo	Ohio
Squires-Sanders Inc, Liberty Corner	N J
Technical Materiel Corp, Mamaroneck	N Y
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Topping Electronics Ltd, Toronto 17	Ont
Wilcox Electric Co Inc, Kansas City	Mo

EXCITERS--VIBRATION

TRACOR INC, AUSTIN	**TEX**
Ad-Yu Electronics Inc, Passaic	N J
Agac-Derritron Inc, Alexandria	Va
EMR-Hatboro Div Weston Insts Inc, Hatboro	Pa
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
L A B Corp, Skaneateles	N Y
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
MB Electronics A Textron Co, New Haven	Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Tracor Inc, Austin	Tex
Unholtz-Dickie Corp, Hamden	Conn
Vibrasonics Inc, Needham	Mass
Wyle Laboratories, El Segundo	Cal

EXPOSURE METERS SEE METERS--LIGHT

EXTRUDED PLASTIC PARTS SEE PLASTICS--FINISHED PARTS

EYELETS--GENERAL PURPOSE(MECHANICAL ASSEMBLY)

ART WIRE & STAMPING CO, NEWARK	**N J**
CIRCON COMPONENT CORP, GOLETA, CAL	**ADV PG 332**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
STIMPSON CO INC, EDWIN B, BROOKLYN	**N Y**
Acme Model Engineering Co, Ridgefield	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
Allmetal Screw Products Co Inc, Garden City	N Y
Alloys Unlimited Inc, Melville	N Y
Amatom Electronic Hardware, New Rochelle	N Y
Anaconda American Brass Co, Waterbury	Conn
Art Wire & Stamping Co, Newark	N J
Auto-Swage Products, Inc, Shelton	Conn
Bead Chain Mfg Co, Bridgeport	Conn
Circon Component Corp, Goleta	Cal
Cly-Del Mfg Co, Waterbury	Conn
Eyelematic Mfg Co Inc, Oakville	Conn
Eyelet Tool Co, Cambridge	Mass
Federal Screw Products Inc, Chicago	Ill
Fischer Special Mfg Co, Cincinnati	Ohio
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Kepro Circuit Systems Inc, St Louis	Mo
Keystone Electronics Corp, New York	N Y
Lear Siegler Inc, Santa Monica	Cal
Mark Eyelet & Stamping Inc, Wolcott	Conn
Metal Ceram Inc, Mount Vernon	N Y
Midwest Cortland, Schiller Park	Ill
Nutmeg Screw Machine Products Co, Waterbury	Conn
Premium Allied Tool Inc, Owensboro	Ky
Ramco Mfg Co Inc, Roselle Park	N J
Republic Industrial Corp, Lathrup Village	Mich
Revere Copper & Brass, Inc, New York	N Y
Richards Metal Products Inc, Wolcott	Conn
Segal Inc, Edward, New York	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Stimpson Co Inc, Edwin B, Brooklyn	N Y
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Texas Instruments Incorporated, Dallas	Tex
United Shoe Machinery Corp, Boston	Mass
USM Fastener Co Div United Shoe Machy Corp Shelton	Conn
Volkert Stampings Inc Sub Stanley Works Queens Village	N Y
Waterbury Pressed Metal Co, Waterbury	Conn

EYELETS--PRINTED CIRCUIT &TERMINAL BOARD

ALDEN PRODUCTS CO, INC, BROCKTON	**MASS**
AMP INCORPORATED, HARRISBURG	**PA**
ART WIRE & STAMPING CO, NEWARK	**N J**
BARNES CORP, LANSDOWNE	**PA**
CIRCON COMPONENT CORP, GOLETA, CAL	**ADV PG 332**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
PRECISION METAL PRODUCTS CO OF MALDEN INC STONEHAM	**MASS**
STIMPSON CO INC, EDWIN B, BROOKLYN	**N Y**
Abbott Products, Inc, College Point	N Y
Acme Model Engineering Co, Ridgefield	N J
Admiral Controls Inc, Los Angeles	Cal
Alden Products Co, Inc, Brockton	Mass
Alloys Unlimited Inc, Melville	N Y
Amatom Electronic Hardware, New Rochelle	N Y
AMP Incorporated, Harrisburg	Pa
Art Wire & Stamping Co, Newark	N J
Auto-Swage Products, Inc, Shelton	Conn
Barnes Corp, Lansdowne	Pa
Bead Chain Mfg Co, Bridgeport	Conn
Cambridge Thermionic Corp, Cambridge	Mass
Circon Component Corp, Goleta	Cal
Cly-Del Mfg Co, Waterbury	Conn
Dry Screen Process Inc, Pittsburgh	Pa
Eyelematic Mfg Co Inc, Oakville	Conn
Federal Screw Products Inc, Chicago	Ill
Fischer Special Mfg Co, Cincinnati	Ohio
Franklin Fibre-Lamitex Corp, Wilmington	Del
Kepro Circuit Systems Inc, St Louis	Mo
Keystone Electronics Corp, New York	N Y
Lake Engineering Co Ltd, Scarborough	Ont
Metal Ceram Inc, Mount Vernon	N Y
Nutmeg Screw Machine Products Co, Waterbury	Conn
Precision Metal Products Co of Malden Inc Stoneham	Mass
Ramco Mfg Co Inc, Roselle Park	N J
Revere Copper & Brass, Inc, New York	N Y
Richards Metal Products Inc, Wolcott	Conn
Sanyo Electric Co Ltd, Osaka	Japan
Sealectro Corp, Mamaroneck	N Y
Segal Inc, Edward, New York	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Stimpson Co Inc, Edwin B, Brooklyn	N Y
Texas Instruments Incorporated, Dallas	Tex
United Shoe Machinery Corp, Boston	Mass
USECO Div, Litton Industries, Van Nuys	Cal
USM Fastener Co Div United Shoe Machy Corp Shelton	Conn
Vector Electronic Co Inc, Los Angeles	Cal

FABRIC PARTS

WIRE CLOTH ENTERPRISES INC, PITTSBURGH	**PA**
Auburn Mfg Co, Middletown	Conn
Daniels Inc, C R, Daniels	Md
Dodge Industries, Hoosick Falls	N Y
Fel Pro Inc Div Felt Products Mfg Co, Skokie	Ill
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Findings Co Industrial Div, Attleboro	Mass
Goodyear Aerospace Corp, Akron	Ohio
Kendall Co Fiber Prods Div, Walpole	Mass
Micro Parts Inc, Los Angeles	Cal
Natvar Corp, Woodbridge	N J
Norrich Plastics Corp, Roosevelt	N Y
Pellon Corp, Ind Div, Lowell	Mass
Pres-On Products Co, Addison	Ill
Shamban & Co, W S, Los Angeles	Cal
Sherwood Industries Flexco Div, Bell Gardens	Cal
Staff Gasket Mfg Corp, New York	N Y
Suflex Corp, Woodside	N Y
Wire Cloth Enterprises Inc, Pittsburgh	Pa
Wire Cloth Manufacturers Inc, Parsippany	N J

FABRICS

KRESSILK PRODUCTS INC, ELMSFORD	**N Y**
WIRE CLOTH ENTERPRISES INC, PITTSBURGH PA	**ADV PG 281**
Acoustone Corp, Brooklyn	N Y
Bemis Co, Inc, Minneapolis	Minn
Cambridge Wire Cloth Co, Cambridge	Md
Core-Tronics, Inc, Orange	N J
Daniels Inc, C R, Daniels	Md
Dodge Industries, Hoosick Falls	N Y
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Kendall Co Fiber Prods Div, Walpole	Mass
Kressilk Products Inc, Elmsford	N Y
MB Bedding Co, Wilkes-Barre	Pa
Natvar Corp, Woodbridge	N J
Newark Wire Cloth Co, Newark	N J
Pellon Corp, Ind Div, Lowell	Mass
Shamban & Co, W S, Los Angeles	Cal
Texwipe Co, Hillsdale	N J
Tyler Co, W S, Mentor	Ohio
Wire Cloth Enterprises Inc, Pittsburgh	Pa
Wire Cloth Manufacturers Inc, Parsippany	N J

QUALITY
MATERIALS
FOR
PRINTED CIRCUIT
PRODUCTION

Synthetic Monofilament
Fabrics—All Types
For Screen Printing
•
STAINLESS STEEL
WIRE CLOTH
All meshes—All metals
•
National Sales Distributor for
SCREEN STAR
PHOTO EMULSIONS

IMMEDIATE SHIPMENT
PHONE (412) 781-1390

WIRE CLOTH ENTERPRISES, INC.
131 Gamma Dr, R.I.D.C. Industrial Park, Pittsburgh, Pa 15238

FACSIMILE EQUIPMENT--AMPLIFIERS

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Alden Electronic & Impulse Recording Equip Co Inc Westboro	Mass
Alpine Geophysical Assoc Inc, Norwood	N J
Beckman Instruments Inc, Fullerton,	Cal
International Scanatron Systems Corp, Wyandanch	N Y
Metox, Paris 20	France
Muirhead Instruments Inc, Mountainside	N J
Nippon Electric Co Ltd, Tokyo	Japan
Omega-t Systems Inc, Richardson	Tex
Perfectone Sound Labs, Allendale	NJ
Telautograph Corp, Los Angeles	Cal
Telectro Systems Corp, Corona	N Y

FACSIMILE EQUIPMENT--CONVERTERS

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Advanced Technology Corp, Chambersburg	Pa
Alden Electronic & Impulse Recording Equip Co Inc Westboro	Mass
Alpine Geophysical Assoc Inc, Norwood	N J
E G & G Inc, Systems Devel Div, Bedford	Mass
International Scanatron Systems Corp, Wyandanch	N Y
Metox, Paris 20	France
Muirhead Instruments Inc, Mountainside	N J
Nippon Electric Co Ltd, Tokyo	Japan
Northern Radio Co Inc, New York	N Y
Omega-t Systems Inc, Richardson	Tex
Rixon Electronics Inc, Silver Spring	Md
Technical Materiel Corp, Mamaroneck	N Y
Telautograph Corp, Los Angeles	Cal

FACSIMILE EQUIPMENT--RECORDERS

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Advanced Technology Corp, Chambersburg	Pa
Alden Electronic & Impulse Recording Equip Co Inc Westboro	Mass
Alden Systems, Inc, Brockton	Mass
Alpine Geophysical Assoc Inc, Norwood	N J
Anritsu Electric Co Ltd, Tokyo	Japan
Beckman Instruments Inc, Fullerton,	Cal
Century Electronics & Instruments Inc, Tulsa	Okla
Concord Electronics Corp, Los Angeles	Cal
E G & G Inc, Systems Devel Div, Bedford	Mass
Information International Inc, Cambridge	Mass
International Scanatron Systems Corp, Wyandanch	N Y
Metox, Paris 20	France
Muirhead Instruments Inc, Mountainside	N J
Nippon Electric Co Ltd, Tokyo	Japan
Ocean Sonics Inc, El Segundo	Cal
Omega-t Systems Inc, Richardson	Tex
Telautograph Corp, Los Angeles	Cal
Thermionic Products Electronics Ltd Southampton	England

FACSIMILE EQUIPMENT--RECEIVERS

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Advanced Technology Corp, Chambersburg	Pa
Alden Electronic & Impulse Recording Equip Co Inc Westboro	Mass
Alden Systems, Inc, Brockton	Mass
Anritsu Electric Co Ltd, Tokyo	Japan
Concord Electronics Corp, Los Angeles	Cal
International Scanatron Systems Corp, Wyandanch	N Y
Metox, Paris 20	France
Microwave Associates Inc, Burlington	Mass
Muirhead Instruments Inc, Mountainside	N J
Nippon Electric Co Ltd, Tokyo	Japan
Omega-t Systems Inc, Richardson	Tex
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Siemens America Inc, New York	N Y
Squires-Sanders Inc, Liberty Corner	N J
Technical Materiel Corp, Mamaroneck	N Y
Telautograph Corp, Los Angeles	Cal
Topping Electronics Ltd, Toronto 17	Ont

FACSIMILE EQUIPMENT--RECORDING PAPER

LUDLOW CHARTS DIV, LUDLOW CORP, WARE	**MASS**
Alden Electronic & Impulse Recording Equip Co Inc Westboro	Mass
Alden Systems, Inc, Brockton	Mass
Alfax Paper & Engineering Co, Westboro	Mass
Alpine Geophysical Assoc Inc, Norwood	N J
Beckman Instruments Inc, Fullerton,	Cal
Concord Electronics Corp, Los Angeles	Cal
Fitchburg Coated Products Inc, Scranton	Pa
International Scanatron Systems Corp, Wyandanch	N Y
Ludlow Charts Div, Ludlow Corp, Ware	Mass
3M Company, St Paul	Minn
Muirhead Instruments Inc, Mountainside	N J
Omega-t Systems Inc, Richardson	Tex
States Electronics Corp, Bludworth Marine Div Linden	N J
Telautograph Corp, Los Angeles	Cal

FACSIMILE EQUIPMENT--SCANNERS

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Alden Electronic & Impulse Recording Equip Co Inc Westboro	Mass
Alden Systems, Inc, Brockton	Mass
Alpine Geophysical Assoc Inc, Norwood	N J
American Astrionics Inc, Palo Alto	Cal
E G & G Inc, Systems Devel Div, Bedford	Mass
Information International Inc, Cambridge	Mass
International Scanatron Systems Corp, Wyandanch	N Y
Metox, Paris 20	France
Muirhead Instruments Inc, Mountainside	N J
Nippon Electric Co Ltd, Tokyo	Japan
Ocean Sonics Inc, El Segundo	Cal
Omega-t Systems Inc, Richardson	Tex
Philco-Ford Corp, Washington	D C
Telautograph Corp, Los Angeles	Cal

FACSIMILE EQUIPMENT--TRANSMITTERS

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
VICTOR COMPTOMETER CORP, BUSINESS MACH GROUP CHICAGO	**ILL**
Advanced Technology Corp, Chambersburg	Pa
Alden Electronic & Impulse Recording Equip Co Inc Westboro	Mass
Alden Systems, Inc, Brockton	Mass
C C A Electronics Corp, Gloucester	NJ
Concord Electronics Corp, Los Angeles	Cal
E G & G Inc, Systems Devel Div, Bedford	Mass
International Scanatron Systems Corp, Wyandanch	N Y
Microwave Associates Inc, Burlington	Mass
Muirhead Instruments Inc, Mountainside	N J
Nippon Electric Co Ltd, Tokyo	Japan
Ocean Sonics Inc, El Segundo	Cal
Omega-t Systems Inc, Richardson	Tex
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Siemens America Inc, New York	N Y
Squires-Sanders Inc, Liberty Corner	N J
Technical Materiel Corp, Mamaroneck	N Y
Telautograph Corp, Los Angeles	Cal
Victor Comptometer Corp, Business Mach Group Chicago	Ill

FACSIMILE EQUIPMENT--SYSTEMS SEE COMMUNICATION SYSTEMS

FANS SEE BLOWERS

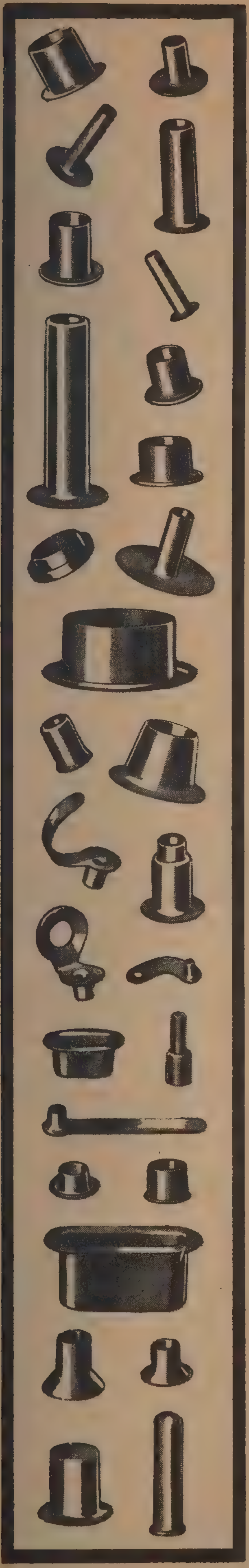
FASTENERS & FASTENING DEVICES

AMP INCORPORATED, HARRISBURG	**PA**
ART WIRE & STAMPING CO, NEWARK	**N J**
CARR FASTENER CO DIV UNITED-CARR INC, CAMBRIDGE MASS	**ADV PGS 284,285**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DIMCO-GRAY CO, DAYTON, OHIO	**ADV PG 282**
KINETRON CORP, ASBURY PARK	**N J**
NATIONAL LEAD CO, NEW YORK	**N Y**
PRECISION METAL PRODUCTS CO OF MALDEN INC STONEHAM	**MASS**
STAR STAINLESS SCREW CO, PATERSON, N J	**ADV PG 286**
STIMPSON CO INC, EDWIN B, BROOKLYN, N Y	**ADV PG 283**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Abacus Electronics Corp, Dobbs Ferry	N Y
Abbott Products, Inc, College Point	N Y
Abscoa Industries, Inglewood	Cal
Adams Rite Mfg Co, Glendale	Cal
Adjustable Bushing Corp, North Hollywood	Cal
Aikow Shoji Kaisha Ltd, Osaka	Japan
Allen Mfg Co, Hartford	Conn
Allmetal Screw Products Co Inc, Garden City	N Y
Aluminum Co of America, Pittsburgh	Pa
Amatom Electronic Hardware, New Rochelle	N Y
AMP Incorporated, Harrisburg	Pa
Anchor Metal Co, Inc Div, Brooklyn	N Y
Art Wire & Stamping Co, Newark	N J
Atomite Electronics Corp, Roosevelt	N Y
Auto-Swage Products, Inc, Shelton	Conn
Bigelow Components Co, Newark	N J
Blinn Co Inc, Delbert, Pomona	Cal
Boots Aircraft Nut Div Townsend Co, Norwalk	Conn
Bostitch Div Textron Inc, East Greenwich	R I
Burklyn Co, Los Angeles	Cal
Camcar Screw & Mfg, A Textron Div, Rockford	Ill
Camloc Div Rex Chainbelt Inc, Paramus	N J
Carr Fastener Co Div United-Carr Inc, Cambridge	Mass
C E M Co, Inc, Danielson	Conn
Central Screw Co, Broadview	Ill
Chase Metals Service Div Chase Brass & Copper Co Cleveland	Ohio
Cinch-Monadnock, City of Industry	Cal
Connor Spring Mfg Co Div Sloss & Britain San Francisco	Cal

this
DIMCO
snapslide
fastener...
holds assemblies
securely...
instantly
engages/releases...
write for
new
handbook

Dimco-Gray Snapslide Fasteners hold assemblies firmly despite shock or vibration . . . never need adjustment, even with repeated use. Instant snap action engages or releases fastener . . . no tools required. Approved under Military Standards. Handbook illustrates typical applications, stimulates design ideas, describes attachment methods. Write for free copy today.

DIMCO-GRAY CO., 204 E. SIXTH ST., DAYTON, OHIO 45402



BEAT THE PROFIT SQUEEZE WITH A STIMPSON STANDARD FASTENER

A standard fastener may differ from a special by only a few thousandths of an inch, but serves the same purpose more economically.

Standard means, the dies are already made—no need to make new ones—hence substantial savings.

Our modern, high speed production equipment drives costs down—more savings. The result—lower than ordinary cost.

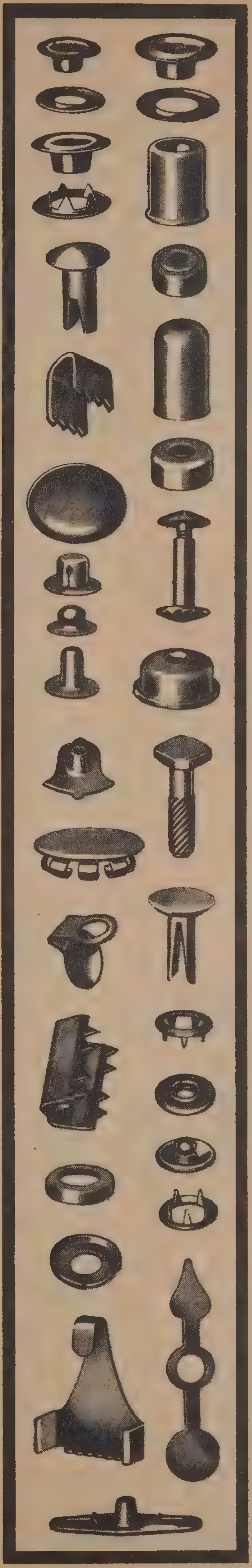
Choose a standard fastener from our tremendous variety (the largest variety in the world) of Eyelets, Rivets, Grommets, Washers, Ferrules, Hole Plugs, Terminals, Snap Fasteners, Stampings, etc., and machines for attaching.

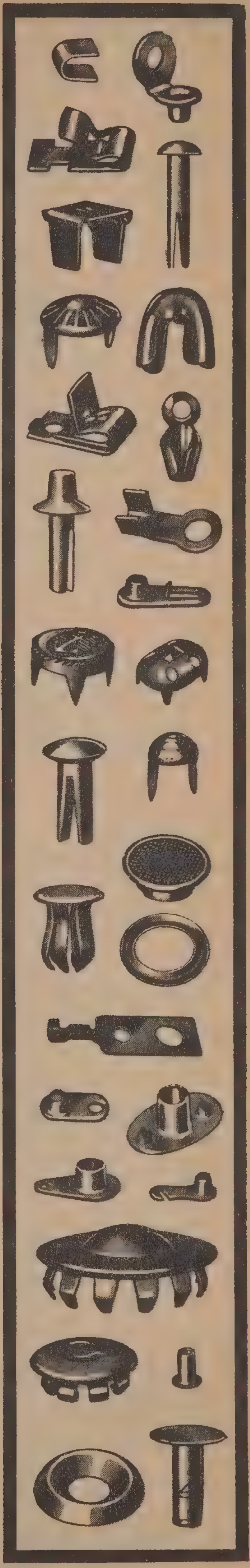
Of course, all our standards were once specials and we can make any part to your specifications.

Send today for our General Catalog, which illustrates over 1,000 standard parts.

Stimpson

70 FRANKLIN AVENUE,
BROOKLYN, NEW YORK 11205
ULster 5-3131



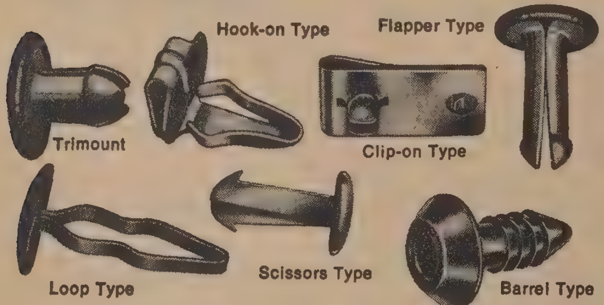


MASS
SAVINGS
ASSEMBLY

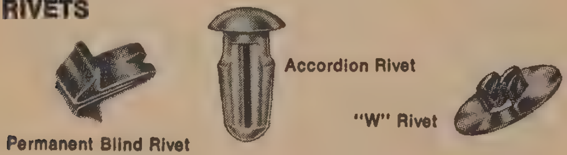
Put more profit in mass assembly with... Carr Fasteners

PANEL FASTENERS

Designed to hold two or more thicknesses of material firmly together. Simple, snap-in insertion assures vibration-free attachment.

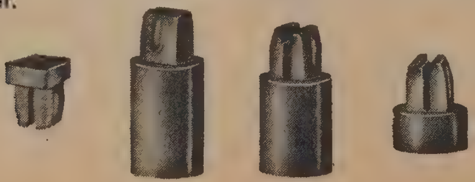

Hook-on Type
Flapper Type
Trimount
Clip-on Type
Loop Type
Scissors Type
Barrel Type

RIVETS


Accordion Rivet
"W" Rivet
Permanent Blind Rivet

NYLON PUSH-IN NUTS

Used wherever it is necessary to apply a threaded fastener in sheet metal or plastic. Straight legs will not distort thin material or chip painted surfaces. Available with foam vinyl plastisol sealer.



BROAD FLANGE CLIPS

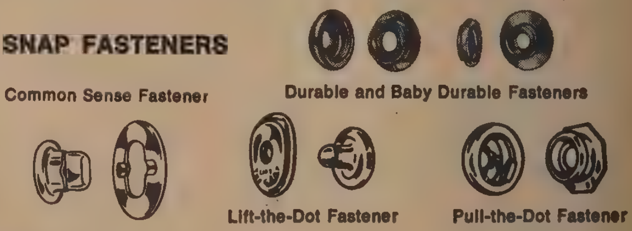
Positive holding power for attaching non-rigid material panels. Take-up is built into both the flange and stud, makes them ideal for compressible materials such as insulation.

Hood Insulation Clip
Door Pan Fastener

QUARTER-TURN PANEL FASTENERS

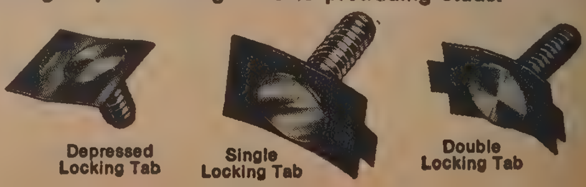
Securely holds two metal panels together and provides quick removal with a ¼-turn of the latch.

SNAP FASTENERS


Common Sense Fastener
Durable and Baby Durable Fasteners
Lift-the-Dot Fastener
Pull-the-Dot Fastener

QUICKEY BOLTS

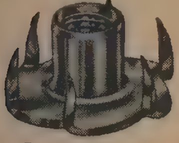
These rugged, economical substitutes for welded studs won't rattle or shake loose. Snapped in during final assembly. Quickey Bolts permit nesting, storage, and transportation of sheet metal assemblies or subassemblies without danger of scratching or paint damage due to protruding studs.

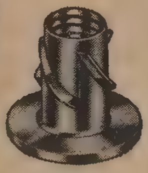

Depressed Locking Tab
Single Locking Tab
Double Locking Tab

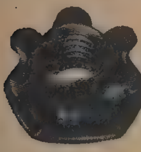
TEENUT® FASTENERS

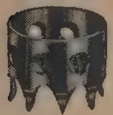
Threaded bushings for wood, metal, and similar materials. By combining the functions of a nut and a washer, TEENUT fasteners eliminate counter-sinking, save labor, and add strength to construction, and provide a steel thread without costly tapping.

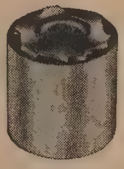
For Wood:

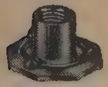

Pronged Teenut


Propeller Nut

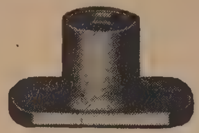

Petal Nut

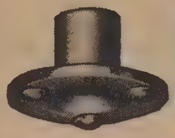


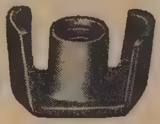

Dowel Nut

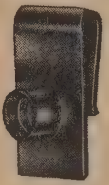

Octopus Fastener

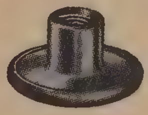
For Metal:


Spot Weld Type


Projection Weld Type

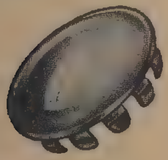

Tubing Type

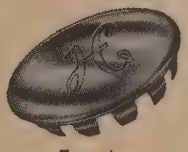

J-Nut

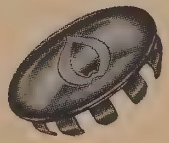

Capped, plain

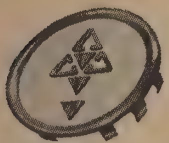
PLUG BUTTONS

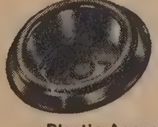
Simple, decorative, and functional snap-in covers for holes that are drilled, punched, or molded in plastics, metals, or fiber board. Produced in a variety of metals and molded plastics. They may be styled in many decorative effects — painted, embossed, paint and wipe, applique, plated or anodized.

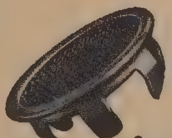

Standard Basic Plug Button

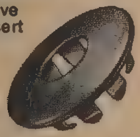

Faucet Identification

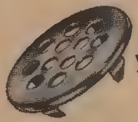

Indicator Light Lens


Decorative Color Insert


Plastic Access Hole Closure

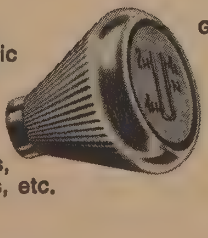

Screen Type

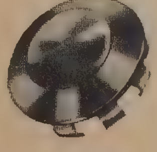

Maintenance Access Hole Type


Ventilator Type

CARR KASE®

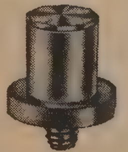
Custom metal plated plastic parts. Decorative, durable functional, and economical. Ideal for knobs, handles, bezels, escutcheons, nameplates for appliances, radio-TV, plumbing fixtures, etc.


Gear Shift Knob



CARR-FLEX® FASTENERS

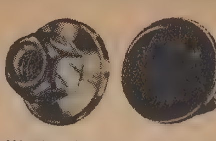
Specially formulated rubber bushings, integrally molded onto engineered screw, absorb vibration, provide electrical isolation of parts. Unique design cannot be over-torqued.



DOT, LIFT-THE-DOT, PULL-THE-DOT, TEENUT, and CARR-KASE are reg. trademarks of United-Carr Incorporated.

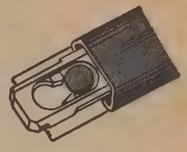
HEX WASHER NUTS

For firm, rattle-free, watertight and leakproof assemblies. Greater tensile loading ability than sheet metal nuts. Available with or without sealer.


Hex Washer Nuts

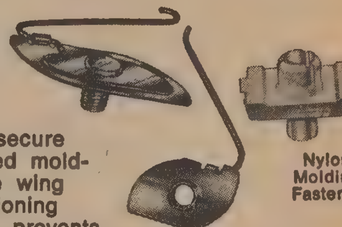
NO-HOLE FASTENING CONCEPT

New concept for attaching fasteners eliminates holes, leakage, and corrosion. Precision-headed, speed-welded studs take a variety of standard (or custom-designed) Dot fasteners for molding, trim, other parts.


No-Hole Fastener

MOLDING FASTENERS

For speedy attachment and secure fastening of plain or tapered moldings. Spring finger or side wing types provide accurate positioning and constant tension which prevents displacement of bolt during attachment.

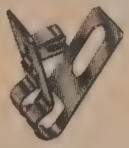

Side-wing Molding Fastener

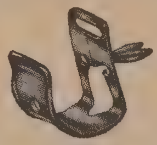
Nylon Molding Fastener

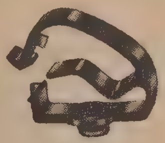
Teenut Molding Fastener

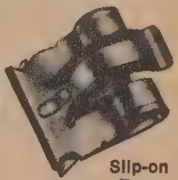
TUBING AND WIRING FASTENERS

For all industrial applications. Produced in metal, plastic, and combinations of metal and plastic.


Expansible "W" Rivet Type

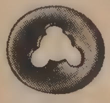

Scissors Type

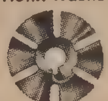

Twist-in Type

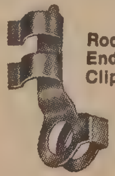

Slip-on Type

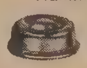
ROD FASTENERS

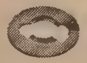
Decorative and functional, these fasteners eliminate the need for threads on rods and attachments, replace nuts and the drilling of rods for cotter pins.


Plain, Uncapped Ratchet Plate


Helix Washer

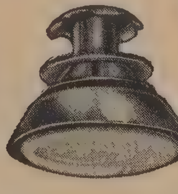

Rod End Clip

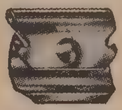

Hammerhead Design Ratchet Plate

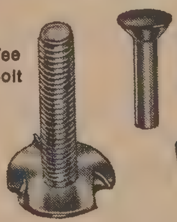

Reusable Type Ratchet Plate

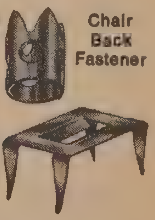
SPECIAL PRODUCTS FOR THE FURNITURE INDUSTRY

Fasteners and self-fastening devices for wood and tubular metal furniture produced in volume in all standard finishes. Designed to reduce assembly costs and improve performance.


Glide


Upholstery Clip


Tee Bolt


Chair Back Fastener

Whatever your fastening requirements for mass assembly production of furniture, appliances, or electronic equipment, you can count on Carr. Because Carr is your best, single source for volume quantities of standard fastening devices of all types and materials. Or, if you're faced with an unusual fastening problem, Carr Fastener Specialists can custom-design fasteners to meet your styling and production needs.

Carr Fastener Company, Division of United Carr Incorporated,
Department E, Cambridge, Massachusetts 02142.

CARR FASTENER®
DIVISION OF UNITED-CARR

catalog '68
STAR
STAINLESS STEEL FASTENINGS
CORROSION RESISTANT

NEW!

GET YOUR REVISED CATALOG now!

Write for your new STAR catalog and price sheet TODAY.

Stainless Stan Says, "Star's screws have clean, bright-and-shiny heads"

Lists over 15,000 items for immediate delivery RIGHT OFF THE SHELF®!

• Bolts • Nuts • Cap Screws • Socket Head, Cap • Cotter Pins • Dowel Pins • Hinges • Machine Screws • Socket Set, Sheet Metal Screws • Stud Bolt • Taper Pins • AN-MS Washers • Wood Screws • Shaft Collars

STAR STAINLESS SCREW CO.
663 Union Blvd., Paterson 2, N. J.
Phone: (201) CLifford 6-2300 • Telex: 133-472
Direct New York Telephone: (212) WIsconsin 7-6310
Direct Philadelphia Telephone: (215) WAlnut 5-2247

Continental Screw Co, New Bedford	Mass
Daburn Electronics & Cable Corp, Bronx	N Y
Dimco-Gray Co, Dayton	Ohio
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Eaton Yale & Towne Inc Reliance Div, Massillon	Ohio
Eddy Mfg Co, Burbank	Cal
Elastic Stop Nut Corp of America, Union	N J
Elco Tool & Screw Corp, Rockford	Ill
Electrovert Inc, Mt Vernon	N Y
Eyelet Tool Co, Cambridge	Mass
Fastex Div Illinois Tool Works, Des Plaines	Ill
Federal Screw Products Inc, Chicago	Ill
Fischer Special Mfg Co, Cincinnati	Ohio
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Staple Co, New York	N Y
Gillen Co, John, Cicero	Ill
Gillette Electronic Products Co, Beverly	N J
Gries Reproducer Co Div Coats & Clark Inc New Rochelle	N Y
Groov-Pin Corp, Ridgefield	N J
Hanscom & Co Inc, H F, Providence	R I
Harper Co, H M, Morton Grove	Ill
Hartwell Corp, Los Angeles	Cal
Harvey Hubbell Inc, Bridgeport	Conn
Hassall Inc, John, Westbury	N Y
Heli-Coil Products, Div Heli-Coil Corp, Danbury	Conn
Hi-Shear Corp, Torrance	Cal
Holub Industries Inc, Sycamore	Ill
Hydro Molding Co Inc, Plattsburgh	N Y
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Kaynar Mfg Co Inc, Fullerton	Cal
Kelox Industries, East Boston	Mass
Kinetron Corp, Asbury Park	N J
KSM Div Omark Industries Inc, Moorestown	N J
Long-Lok Corp Sub Whittaker Corp, Los Angeles	Cal
MacLean-Fogg Lock Nut Co, Mundelein	Ill
Mark Eyelet & Stamping Inc, Wolcott	Conn
Mercury Div Whittaker Corp, Culver City	Cal
Micro Parts Inc, Los Angeles	Cal
Molly Co Div USM Corp, Temple	Pa
Morris Co, J I, Southbridge	Mass
Murphy Industries G W Cleco Pneumatic Div Houston	Tex
National Lead Co, New York	N Y
National Radio Co Inc, Melrose	Mass
Nielsen Hardware Corp, Hartford	Conn
Norrich Plastics Corp, Roosevelt	N Y
Nylogrip Products, Waltham	Mass
O'Hara Metal Products Co, San Francisco	Cal
Omark Industries Inc, Portland	Ore
Panduit Corp, Tinley Park	Ill
Parker-Kalon Corp, United Shoe Machy Corp Clifton	N J
Parker Metal Goods Co, Worcester	Mass
Penn Engineering & Mfg Corp, Doylestown	Pa
Penn Fibre & Specialty Co, Philadelphia	Pa
Phelps Mfg Div, Heli-Coil Corp, Danbury	Conn
PIC Design Corp, East Rockaway	N Y
Plastiglide Mfg Corp, Santa Monica	Cal
Porcelain Products Co Div Clarken Co, Carey	Ohio
Positive Connector Co, Derby	Conn
Precision Metal Products Co of Malden Inc Stoneham	Mass
Pres-On Products Co, Addison	Ill
Product Components Corp, Hastings-on-Hudson	N Y
Pylon Co, Inc, Attleboro	Mass
Ramsey Corp Sub TRW, St Louis	Mo
Republic Industrial Corp, Lathrup Village	Mich
Republic Steel Corp, Cleveland	Ohio
Richards Metal Products Inc, Wolcott	Conn
Richco Plastic Co, Chicago	Ill
Robinson-Nugent Inc, New Albany	Ind
Roosevelt Metal Co Inc, Brooklyn	N Y
Rosan Inc, Newport Beach	Cal
Russell, Burdsall & Ward, Bolt & Nut Co Port Chester	N Y
Scanbe Mfg Corp, Monterey Park	Cal
Seastrom Mfg Co Inc, Glendale	Cal
Sessions & Son, J H, Bristol	Conn
Shakeproof Div, Illinois Tool Works Inc, Elgin	Ill
Shur-Lok Corp, Santa Ana	Cal
Simmons Fastener Corp, Albany	N Y
Smith Inc, Herman H, Brooklyn	N Y
Southco Inc, Lester	Pa
Stake Fastener Co, S El Monte	Cal
Standard Insert Co Inc, Pacoima	Cal
Standard Polymer Inc, Van Nuys	Cal
Star Stainless Screw Co, Paterson	N J
Stimpson Co Inc, Edwin B, Brooklyn	N Y
Teale Machine Co Inc, Rochester	N Y
Tekna Products Co, Rochester	N Y
Thomas & Betts Co Inc, Elizabeth	N J
Timber-Top Inc, Freeport	N Y
Tinnerman Products Inc, Cleveland	Ohio
Townsend Co, TRS Div, Braintree	Mass
Tridair Industries Fastener Div, Torrance	Cal
Tyton Corp of America, Metuchen	N J
United American Metals Div, Brooklyn	N Y
United-Carr Inc, Boston	Mass
Upson Tools Inc, Rochester	N Y
USECO Div, Litton Industries, Van Nuys	Cal
USM Fastener Co Div United Shoe Machy Corp Shelton	Conn
Waldes Kohinoor Inc, Long Island City	N Y
Waldom Electronics Inc, Chicago	Ill
Waterbury Pressed Metal Co, Waterbury	Conn
Weckesser Co Inc, Chicago	Ill
Wenco Mfg Co (Simplex), Chicago	Ill
Western Sky Industries, Hayward	Cal
Winslow Tele-Tronics Inc, Asbury Park	NJ
Zierick Mfg Corp, Mount Kisco	N Y

FATHOMETERS SEE DEPTH SOUNDERS

FAULT LOCATORS SEE LOCATORS--CABLE & LINE FAULT

FEEDS--MICROWAVE SEE ANTENNAS--FEED SYSTEMS

FEED-THROUGH CAPACITORS SEE CAPACITORS--FIXED

FERRITE APERTURE PLATES SEE MEMORIES--COMPUTER

FERRITE CORE PLANES SEE MEMORIES--COMPUTER

FERRITE CORES SEE CORES--MOLDED MAGNETIC

FERRITE ISOLATORS SEE ISOLATORS

FERRITE MAGNETS SEE MAGNETS--PERMANENT

FERRITE MODULATORS SEE MODULATORS

FERRITE-ROD ANTENNAS SEE ANTENNAS--RADIO RECEIVING

FERRITES--RAW MATERIAL

SEE ALSO GARNET

INDIANA GENERAL CORP ELECTRONICS DIV/FERRITES. KEASBEY N J	**ADV PG 388**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PFIZER MINERALS, PIGMENTS & METALS DIV NEW YORK	**NY**
Aerospace Controls Corp, Los Angeles	Cal
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Applied Magnetics Corp, Ferrite Head Div Santa Barbara	Cal
Baker Chemical Co, J T, Phillipsburg	N J
Ceramic Magnetics Inc, Fairfield	N J
Conductron Corp, Ann Arbor	Mich
Countis Industries, San Luis Obispo	Cal
Custom Components Inc, Caldwell	N J
DoAll Co, Des Plaines	Ill
Electro-Mechanics Co, Austin	Tex
Emerson & Cuming Inc, Canton	Mass
Ferranti, Ltd, Lancashire	England
Ferricore Div Natl Moldite Co Inc, Newark	N J
Fuji Electrochemical Co Ltd, Tokyo	Japan
Indiana General Corp Electronics Div/Ferrites, Keasbey	N J
Michigan Magnetics, Vermontville	Mich
Microwave Chemicals Lab Inc, New York	N Y
Mitsubishi Electric Corp, Tokyo	Japan
M-O Valve Co Ltd, Hammersmith, London W6	Eng
National Moldite Co Inc, Newark	N J
Nippon Electric Co Ltd, Tokyo	Japan
Nippon Ferrite Industrial Co Ltd, Tokyo	Japan
Orbit Industries, Div Countis Industries San Luis Obispo	Cal
Pfizer Minerals, Pigments & Metals Div, New York	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Quartzite Processing, Inc, Malden	Mass
Siemens America Inc, New York	N Y
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Xtalonix Products Div Harshaw Chemical Co Columbus	Ohio

FIBER OPTICS EQUIPMENT & COMPONENTS

AMP INCORPORATED, HARRISBURG	**PA**
AMP Incorporated, Harrisburg	Pa
Astro Lab, Westminster	Cal
Bausch & Lomb, Inc, Rochester	N Y
Bendix Corp, Mosaic Fabrications Div, Sturbridge	Mass
Corning Glass Works, Corning	N Y
Dolan Jenner Industries Inc, Melrose	Mass
Ferranti, Ltd, Lancashire	England
Fish-Schurman Corp, New Rochelle	N Y
Flexi Optics Labs Inc, Somerville	Mass
Goodyear Aerospace Corp, Akron	Ohio
Jones Inc, Norman, South Merrimack	N H
Kollsman Instrument Corp, Syosset	N Y
Lenox Instrument Co, Philadelphia	Pa
Mechanical Technology Inc, Latham	N Y
Motorola Communications & Electronics Div Chicago	Ill
Olympus Corp of America, Rochester	N Y
Optics Technology Inc, Palo Alto	Cal
Optomechanisms Inc, Plainview	N Y
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Poly-Optics, Inc, Santa Ana	Cal
Schoeffel Instrument Co, Westwood	NJ
Sensor Corp, Greenwich	Conn
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Techni-Tool Inc, Philadelphia	Pa

FIBERS--OPTICAL

BUCKBEE MEARS CO, ST PAUL	**MINN**
Bausch & Lomb, Inc, Rochester	N Y
Bendix Corp, Mosaic Fabrications Div, Sturbridge	Mass
Buckbee Mears Co, St Paul	Minn
Corning Glass Works, Corning	N Y
Dolan Jenner Industries Inc, Melrose	Mass
Ealing Corp, Cambridge	Mass
Flexi Optics Labs Inc, Somerville	Mass
Lake Engineering Co Ltd, Scarborough	Ont
Mechanical Technology Inc, Latham	N Y
Olympus Corp of America, Rochester	N Y
Optics Technology Inc, Palo Alto	Cal
Optomechanisms Inc, Plainview	N Y
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N.Y
Syncor Products Co, Inc, Malden	Mass
Thermal American Fused Quartz Co, Montville	N J

FIBERS--RAW MATERIAL

ELECTRICAL INSULATION CO INC, COPIAGUE	**N Y**
Babcock & Wilcox Co Refractories Div, Augusta	Ga
Corning Glass Works, Corning	N Y
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Electrical Insulation Co Inc, Copiague	N Y
Friedrich & Dimmock, Inc, Mays Landing	N J
PPG Industries, Pittsburgh	Pa
Syncor Products Co, Inc, Malden	Mass
Union Carbide Corp, Carbon Products Div New York	N Y

FIELD-STRENGTH METERS SEE METERS--FIELD-STRENGTH

FILM CAPACITORS SEE CAPACITORS--FIXED

FILM RECORDERS SEE RECORDERS--FILM

FILMS--PHOTOGRAPHIC RECORDING

Audio Devices Inc Sub Capitol Indus, New York	N Y
Baird-Atomic, Inc, Cambridge	Mass
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Eastman Kodak Co, Rochester	N Y
Elliott Co, B K, Pittsburgh	Pa
GAF Corp, New York	NY
IBM Corp, Armonk	N Y
3M Company, St Paul	Minn
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polaroid Corp, Cambridge	Mass
Standard X-Ray Co, Chicago	Ill

FILMS--PLASTIC SEE PLASTICS--FILM

FILM-THICKNESS CONTROLS SEE CONTROLS--THICKNESS

FILM-THICKNESS INDICATORS SEE INDICATORS--THICKNESS

FILM-TYPE RESISTORS SEE RESISTORS

FILTER CHOKES & REACTORS SEE COILS: CHOKES

FILTERS--ANTENNA

ANAREN MICROWAVE INC, SYRACUSE	**N Y**
BIRD ELECTRONIC CORP, CLEVELAND (SOLON)	**OHIO**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
HOPKINS ENGINEERING CO, SAN FERNANDO	**CAL**
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN	**N Y**
KAPPA NETWORKS INC, CARTERET, N J	**ADV PG 302**
R F INTERONICS INC, BAY SHORE	**N Y**
SEG ELECTRONICS DIV, E J HOWLES INC, BROOKLYN	**NY**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
TOROTEL, INC, GRANDVIEW	**MO**
TRANSCO PRODUCTS INC, VENICE	**CAL**
Aerovox Corp New Bedford Div, New Bedford	Mass
American Trans-Coil Corp, Richmond Hill	NY
Anaren Microwave Inc, Syracuse	N Y
Andrew California Corp, Claremont	Cal
Ark Electronics, Inc, Willow Grove	Pa
Astrolab Inc, Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
Bayly Engineering Ltd, Ajax	Ontario
Beama Engineering Ltd, Toronto 15	Ont
Bird Electronic Corp, Cleveland (Solon)	Ohio
Bundy Electronics Corp, Springfield	N J
Canadian Marconi Co, Montreal 16	Quebec
Centroid Inc, Garden City Park	N Y
Clavier Corp, Richmond Hill	NY
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Daico Industries Inc, Gardena	Cal
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Delta Electronics Inc, Alexandria	Va
Denki Kogyo Co Ltd, Tokyo	Japan
Dietz Design Inc, Belton	Mo
Electronic Applications Co, Pine Brook	N J
Electronic Specialty Co, Los Angeles	Cal
Farinon Electric, San Carlos	Cal
Filtech Corp, Franklin Park	Ill
Finney Co, Bedford	Ohio
Fujitsu Ltd, Tokyo	Japan
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Coil Products Corp, Brooklyn	N Y
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Hi-Lo Mfg Corp, Chicago	Ill
Honeywell Test Instruments Div, Denver	Colo
Hopkins Engineering Co, San Fernando	Cal
JFD Electronics Co, Components Div, Brooklyn	N Y
Kappa Networks Inc, Carteret	N J
Lieco Inc, West Babylon	N Y
Lindsay Specialty Products Ltd, Lindsay	Ontario
Loral Electronic Systems, Div Loral Corp, New York	NY
Marconi Div, English Electric Corp, New York	N Y
MCS Corp, Monrovia	Cal
Merit Coil & Transformer Corp, Hollywood	Fla
Micro Communications Co, Denver	Colo
Micronetics Div Teledyne Systems Co, San Diego	Cal
Microphase Corp, Greenwich	Conn
Microwave Associates Inc, Burlington	Mass
Montedoro Corp, San Luis Obispo	Cal
Multronics Inc, Rockville	Md
Nytronics Inc, Berkeley Heights	N J
Peninsula Microwave Labs, Mountain View	Cal
Portchester Instrument Corp, Port Chester	N Y
Rantec Div Emerson Electric Co, Calabasas	Cal
Renco Electronics Inc, Hicksville	N Y
R F Interonics Inc, Bay Shore	N Y
R F Systems Inc, Cohasset	Mass
RLC Electronics Inc, Port Chester	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Seg Electronics Div, E J Howles Inc, Brooklyn	NY
Shrader Sound Inc, Washington	D C
Sinclair Radio Labs Inc, Tonawanda	N Y
Space Craft Inc, Huntsville	Ala
Spencer-Kennedy Labs Inc, Boston	Mass
Squires-Sanders Inc, Liberty Corner	N J
Storno, Copenhagen S	Den
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Technical Materiel Corp, Mamaroneck	N Y
Telemet Co, Video Prods & Airborne Telemetry Amityville	N Y
Torotel, Inc, Grandview	Mo
Transco Products Inc, Venice	Cal
TRF Inc, Springfield	Va
Tricraft Products Corp, Chicago	Ill
TT Electronics Inc, Culver City	Cal
Victor R F & Microwave Co, Wakefield	Mass
Vikoa Inc, Hoboken	N J
Waller Corp, Crystal Lake	Ill
Welex Electronics, Div Halliburton Co Silver Spring	Md

FILTERS--AUDIO

ALLEN AVIONICS INC, DIV A K ALLEN CO INC, MINEOLA	**N Y**
AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
ANALOG DEVICES INC, CAMBRIDGE	**MASS**
ANDERSEN LABORATORIES, INC, BLOOMFIELD	**CONN**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE, N Y	ADV PG 287
BURR-BROWN RESEARCH CORP, TUCSON, ARIZ	ADV PG 288
CAPTOR CORP, TIPP CITY	**OHIO**
C M L INC, PLAINFIELD	**N J**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
CTS KNIGHTS INC, SANDWICH	**ILL**
DALE ELECTRONICS INC, COLUMBUS	**NEB**
DECOURSEY ENGINEERING LAB, CULVER CITY	**CAL**
HISONIC INC, OLATHE, KAN	ADV PG 292
HOPKINS ENGINEERING CO, SAN FERNANDO	**CAL**
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN	**N Y**
KAPPA NETWORKS INC, CARTERET, N J	ADV PG 302
LINEAR NETWORKS CO, BOZEMAN, MONT	ADV PG 288
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM, CAL	ADV PG 288
R F INTERONICS INC, BAY SHORE	**N Y**
SEG ELECTRONICS DIV, E J HOWLES INC, BROOKLYN	**NY**
TELE-SIGNAL CORP, WOODBURY	**N Y**
TOROTEL, INC, GRANDVIEW	**MO**
TRACOR INC, AUSTIN	**TEX**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y** ADV PG 289
WHITE INSTRUMENTS, INC, AUSTIN, TEX	ADV PG 287 290
ACDC Electronics, Inc, Burbank	Cal
Acme Products Co, Kensington	Conn
ADC Products, Minneapolis	Minn
Ad-Yu Electronics Inc, Passaic	N J
Aerojet-General Corp Electronics Div, Azusa	Cal
Aerovox Corp Distr Sales, New Bedford	Mass
Aerovox Corp New Bedford Div, New Bedford	Mass
AIM Electronics Ltd, Cambridge	U K
Alcor Aviation, Inc, San Antonio	Texas

Fast acting.

The Electronics Buyers' Guide can get you on the right frequency in a hurry. For example, there are 14 different kinds of oscillators listed. Everything from AF oscillators to voltage controlled crystal oscillators. There are three sections in your EBG, devoted to products, manufacturers and trade names. So see your fast-acting EBG.

Electronics Buyers' Guide

ULTRA - LOW - FREQUENCY ACTIVE FILTERS

μ β

Transistor: Integral amplifier-network units for single-tuned band pass responses from 1 cycle to 1 kc with Q's to 40. Will cascade for higher order responses.

Tube: Plug-in feedback amplifier-network combinations for single-tuned or higher order band pass responses, center frequencies 0.005 to 500 cps. High, low pass and narrow notch.

PASSIVE FILTERS

LC Filters: Stable toroidal LC's—low, high, band pass and reject over wide impedance and frequency ranges.

RC Twin-T Networks: Null frequencies 0.005 cycle to 50 kc in wide range of impedance levels.

White
INSTRUMENTS INCORPORATED

PHONE AREA 512 - 892-0752
P.O. BOX 698 AUSTIN, TEXAS 78767

Look to
BURR-BROWN
for
Active
Filters

LOW PASS
- BB Butterworth
- BB Tchebyscheff
- BB Bessel
- BB other special responses

BAND PASS
AND
BAND REJECT
- BB standard one-pole-pair units
- BB other special responses

HIGH PASS
- BB Butterworth

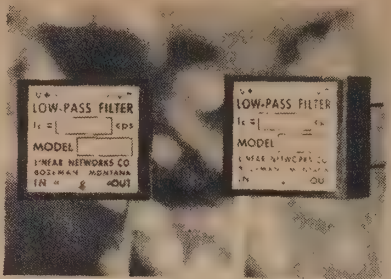
OVER 30 CATALOG MODELS AVAILABLE. CUSTOM UNITS DESIGNED TO YOUR REQUIREMENTS.

For up-to-the-minute product and application information, phone your nearest Burr-Brown Engineering Representative.

ENGINEERING REPRESENTATIVES: ALABAMA, HUNTSVILLE (205) 534-1648 / **ARIZONA,** PHOENIX (602) 254-6085 / **CALIF.,** LOS ANGELES (213) 665-5181, SAN DIEGO (714) 232-2017, SAN FRANCISCO (408) 244-1505 / **COLO.,** DENVER (303) 399-4391 / **CONN.,** EAST HARTFORD (203) 874-9222 / **D.C.,** WASHINGTON (SEE MARYLAND) / **FLORIDA,** ORLANDO (305) 425-2764 / **ILLINOIS,** CHICAGO (312) 286-6824 / **LA.,** NEW ORLEANS (504) 888-2266 / **MD.,** SILVER SPRINGS (301) 588-8134 / **MASS.,** BOSTON (617) 245-4870 / **MICH.,** DETROIT (313) 358-3333 / **MINN.,** MINNEAPOLIS (612) 781-1611 / **MO.,** ST. LOUIS (314) 524-4800 / **N.C.** GREENSBORO (919) 273-1918 / **N.J.,** CAMDEN (215) 925-8711 / **N.M.,** ALBUQUERQUE (505) 255-1638 / **N.Y.,** ALBANY (518) 489-4777, BINGHAMTON (607) 723-9661, MT. VERNON (914) 968-2200, NEWBURGH (914) 562-6604, NEW HARTFORD (315) 732-3775, ROCHESTER (716) 473-2115 / **OHIO,** CINCINNATI (513) 761-5432, CLEVELAND (216) 237-9145, DAYTON (513) 277-8911 / **PENN.,** PHILADELPHIA (SEE CAMDEN, N.J.), PILLSBURGH (412) 243-6655 / **TEXAS,** DALLAS (214) 357-6451, HOUSTON (713) 774-2568 / **UTAH,** SALT LAKE CITY (801) 466-8709 / **VIRGINIA,** (SEE MARYLAND) / **WASH.,** SEATTLE (206) 767-4260 / **CANADA,** DOWNSVIEW, ONT. (416) 636-4910, MONTREAL, QUE. (514) 739-6776, OTTAWA, ONT. (613) 725-1288, VANCOUVER, B.C. (604) 291-7161

BB

BURR-BROWN
RESEARCH CORPORATION
International Airport Industrial Park
Tucson, Arizona 85706
TELEPHONE: 602-294-1431
TWX: 910-952-1111 • CABLE: BBRCORP



ACTIVE FILTER NETWORKS

1-1000 cps standard cutoff frequencies. −40°C. to +71°C. operating temperature range.

LPB4 low-pass series
4-pole Butterworth (maximally-flat) gain and phase characteristic. 3 ± 0.5 db attenuation at cutoff frequency. 24 db/octave attenuation rolloff.

LBL4 low-pass series
4-pole Bessel (linear-phase) transfer function characteristic.

HPB4 high-pass series
4-pole Butterworth characteristic. 3 ± 0.5 db at cutoff frequency. 24 ± 1 db at half cutoff frequency.

Economy or low-drift high-performance configurations available.

Special Characteristics
Submit your special filter requirements for a prompt quotation.

LINEAR NETWORKS COMPANY
Post Office Box 1103
Bozeman, Montana 59715
(406) 587-8531

DIRECTORY OF

Allen Avionics Inc, Div A K Allen Co Inc, Mineola	N Y
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
American Trans-Coil Corp, Richmond Hill	NY
Amk Electronics Co Inc, Edison	N J
Analog Devices Inc, Cambridge	Mass
Andersen Laboratories, Inc, Bloomfield	Conn
A P Circuit Corp, New York	N Y
A R F Products, Inc, Raton	N M
Armec Corp, Huntington Station	N Y
Astrodata Inc, Anaheim	Cal
Astrolab Inc, Linden	N J
Atlas Coil Corp, Ansonia	Conn
Automatic Clerical Systems Inc, Pasadena	Cal
Ballastran Corp, Fort Wayne	Ind
Barden Co, Hermosa Beach	Cal
Barwood Electronics, Inc, Glendale	Cal
Bayly Engineering Ltd, Ajax	Ontario
Beukers Labs Inc, John M, Medford	NY
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio
Bramco Controls Div Ledex Inc, Piqua	Ohio
Bullock Magnetics Corp, Pomona	Cal
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Bundy Electronics Corp, Springfield	N J
Burr-Brown Research Corp, Tucson	Ariz
Caledonia Electronics & Transformer Div Caledonia	N Y
Canadian Marconi Co, Montreal 16	Quebec
Captor Corp, Tipp City	Ohio
Cardinal Control Co Inc, Kensington	Conn
Centroid Inc, Garden City Park	N Y
Clavier Corp, Richmond Hill	NY
C M L Inc, Plainfield	N J
Coast Coil Co Atlantic Research Corp, Los Angeles	Cal
Computer Instruments Corp, Hempstead	N Y
Condensateurs F A C O N, Paris 12e	France
Continental Device Corp, Hawthorne	Cal
Control Electronics Co Inc, Farmingdale	N Y
Control Science Corp, Alexandria	Va
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
CTS Knights Inc, Sandwich	Ill
Dale Electronics Inc, Columbus	Neb
Daltronics Inc, Providence	R I
Data Delay Devices, Clifton	N J
Daytron Inc, Mountain View	Cal
DeCoursey Engineering Lab, Culver City	Cal
Delta Coils, Philadelphia	Pa
Dietz Design Inc, Belton	Mo
Dinion Coil Co Inc, Caledonia	N Y
Dresser Systems, Inc, Houston	Tex
Dytronics Co Inc, Columbus	Ohio
E G & G Inc, Systems Devel Div, Bedford	Mass
Electrical Windings Inc, Chicago	Ill
Electro Cube Inc, San Gabriel	Cal
Electronic Transformer Corp, Paterson	N J

PEERLESS ELECTRICAL PRODUCTS

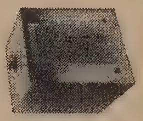
AUDIO FREQUENCY ELECTRIC WAVE FILTERS

Designed to Your Requirements

Peerless meets any requirement for specialized Audio Frequency Electric Wave Filters through complete engineering and manufacturing capabilities. Typical examples of Peerless solutions to communications filter problems:

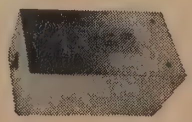
Example 111
- 600 ohm line
- 370 Hz to 3040 Hz
- −60 dB minimum attenuation from 6290 Hz to 20 kHz

Size: 3½″ x 3″ x 2¾″ approx.



Example 112
- 600 ohm line
- 300 Hz to 3040 Hz
- 0.4 dB maximum ripple in pass band
- 450 microseconds maximum delay distortion
- Harmonic distortion 70 dB below output level
- −55 dB minimum attenuation from 3350 Hz to 20 kHz

Size: 5½″ x 3″ x 2¾″ approx.



Example 113 (Not illustrated)
- 600 ohm line
- 3300 Hz to 5870 Hz
- 0.4 dB maximum ripple in pass band
- 450 microseconds maximum delay distortion
- Harmonic distortion 70 dB below output level
- −55 dB minimum attenuation from 6350 Hz to 20 kHz and from 2950 Hz to 25 Hz

Size: 9″ x 3″ x 2¾″

FOR COMPLETE INFORMATION, PLEASE WRITE:
PEERLESS
ELECTRICAL PRODUCTS
A Division of LTV Ling Altec, Inc.
1515 SOUTH MANCHESTER AVENUE, ANAHEIM, CALIF. 92803

Electro-Pacific Inc, Goleta	Cal
Elpac Inc, Components Div, Irvine	Cal
EMR Div Weston Instruments Inc, Princeton	N J
ESC Electronics Corp Sub Simmonds Precision Palisades Park	N J
Ferritronics Ltd, Richmond Hill	Ont
Filtech Corp, Franklin Park	Ill
Filtron Co Inc Sub Liquidonics Ind Inc, Flushing	N Y
Fisher Engineering Inc, Huntington	Ind
Freed Transformer Co Inc, Brooklyn	N Y
Fujitsu Ltd, Tokyo	Japan
General Instrument Corp F W Sickles Div Chicopee	Mass
General Scientific Corp, San Fernando	Cal
Genisco Technology Corp, Compton	Cal
Geo Space Corp, Houston	Tex
Gladding Corp, South Otselic	N.Y
Gotham Audio Corp, New York	N Y
Gray Research & Development Co Div East Hartford	Conn
Harder Co, Inc, Donald C, San Diego	Cal
H B Engineering Corp, Silver Spring	Md
Helix Research Assoc Inc, La Mesa	Cal
Hertz Filter Corp, Garden City Park	N Y
Hisonic Inc, Olathe	Kan
Hopkins Engineering Co, San Fernando	Cal
Impectron Inc, New York	N Y
Inductor Engineering Inc, Lewes	Del
Instruments Inc, San Diego	Cal
JFD Electronics Co, Components Div, Brooklyn	N Y
Kapitol Magnetic Corp, Chicago	Ill
Kappa Networks Inc, Carteret	N J
Karkar Electronics Inc, San Francisco	Cal
Kenyon Electronics Inc, Jersey City	N J
Krohn-Hite Corp, Cambridge	Mass
Lab Electro-Acoustique, 92 Rueil-Malmaison	France
Lake Engineering Co Ltd, Scarborough	Ont
Langevin Div, Scientific Ind, Inc, Santa Ana	Cal
Laselco Pacific, Palo Alto	Cal
Linear Networks Co, Bozeman	Mont
Loral Electronic Systems, Div Loral Corp, New York	NY
Magnasync/Moviola Corp, North Hollywood	Cal
Magnetic Circuit Elements Inc, Montrose	Cal
Magnetic Devices Inc, Lemon Grove	Cal
Magnetic Engineering Corp, Danbury	Conn
Merit Coil & Transformer Corp, Hollywood	Fla
Metrix Instrument Co, Houston	Tex
Micromagnetics Div Gulton Ind, Visalia	Cal
Microtran Co Inc, Valley Stream	N Y
Monroe Electronics Inc, Middleport	N Y
Moog Co, R A, Trumansburg	N Y
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
National Coil Co Inc, Sheridan	Wyo
Neff Instrument Corp, Duarte	Cal
Neotec Corp, Rockville	Md
Nippon Electric Co Ltd, Tokyo	Japan
Nytronics Inc, Berkeley Heights	N J
Osborne Electric Co, Ltd, Toronto 18	Ont
Pacific Magnetic Corp, Romoland	Cal
PCA Electronics Inc, Sepulveda	Cal
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Philips Electronics Industries Ltd, Toronto 17	Ont
Princeton Applied Research Corp, Princeton	N J
Pulse Techniques Inc, West Englewood	N J
Quindar Electronics Inc, Springfield	NJ
Qutronic Transformer Corp, Oneonta	N Y
Rayco Electronic Mfg Inc, Los Angeles	Cal
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Reach Electronics Inc, Lexington	Neb
Resistance Products Co, Harrisburg	Pa
R F Interonics Inc, Bay Shore	N Y
Riedon Avionics, Inc, Van Nuys	Cal
Riverbank Labs, Dept of Engrg, Geneva	Ill
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Roveti Instruments, Annapolis	Md
Rytron Co, Inc, North Hollywood	Cal
San Fernando Electric Mfg Co, San Fernando	Cal
Santa Rita Technology Inc, Menlo Park	Cal
Scott Electronics Corp, Orlando	Fla
Scott Inc, H H, Maynard	Mass
Seg Electronics Div, E J Howles Inc, Brooklyn	NY
Shrader Sound Inc, Washington	D C
S K G Associates Inc, Boston	Mass
Spatron Inc, Alhambra	Cal
Spectral Dynamics Corp of San Diego, San Diego	Cal
Spectrum Instruments Inc, Tuckahoe	N Y
Sprague Electric Co, North Adams	Mass
Staff Gasket Mfg Corp, New York	N Y
Stelma Inc, Stamford	Conn
Stephens Electronics, Burbank	Cal
Sterling Transformer Corp, Brooklyn	N Y
Technical Materiel Corp, Mamaroneck	N Y
Tel-Com Instruments Inc, Hanover	N J
Teledata Inc, Queens Village	N Y
Tele-Signal Corp, Woodbury	N Y
Tenco Electronics Inc, Boston	Mass
T M C Systems (Ariz) Inc, Tempe	Ariz
Torotel, Inc, Grandview	Mo
Tracor Inc, Austin	Tex
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Trepac Corp of America, Englewood	N J
Triad Distributor Div Litton Industries, Huntington	Ind
Triad Transformer Corp, Venice	Cal
TT Electronics Inc, Culver City	Cal
United Transformer Co Div TRW Inc, New York	N Y
Universal Audio, North Hollywood	Cal
Versatek Industries Inc, Indianapolis	Ind
Vinco Industries, Orange	Cal
Visual Electronics Labs Audio Div, Pasadena	Cal
Waber Electronics Inc, Philadelphia	Pa
Westrex Div Litton Industries, Inc, Hollywood	Cal
White Instruments, Inc, Austin	Tex
Whitewater Electronics Inc, Whitewater	Wis
Y T & T Corp, Roslyn Heights	NY
Zaring Industries Inc, Carmel	Ind

UTC
PIONEERS IN MINIATURIZATION

ELECTRIC WAVE FILTERS

BAND PASS
HIGH PASS
LOW PASS
AIRCRAFT
DISCRIMINATORS
INTERSTAGE
LINEAR PHASE
TELEGRAPH
TELEMETERING

- MIL-F-18327B & industrial
- Immediate delivery from stock
- Specials made to specs.
- DC to 30 MHz

Over 1300 top quality ironcore inductance devices available from stock.

UNITED TRANSFORMER COMPANY
DIVISION OF TRW INC.
150 Varick Street, New York, N. Y. 10013
TWX: 710-581-2722 / (212) AL 5-3500
For nearest Rep see UTC ad, page 727

FILTERS--BAND ELIMINATION, R-F

ALLEN AVIONICS INC,DIV A K ALLEN CO INC, MINEOLA	**N Y**
ANAREN MICROWAVE INC, SYRACUSE	**N Y**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE, N Y	**ADV PG 289**
CAPTOR CORP, TIPP CITY	**OHIO**
COMPONENT RESEARCH CO INC, SANTA MONICA	**CAL**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
CTS KNIGHTS INC, SANDWICH	**ILL**
DECOURSEY ENGINEERING LAB, CULVER CITY	**CAL**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HISONIC INC, OLATHE, KAN	**ADV PG 292**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
HOPKINS ENGINEERING CO, SAN FERNANDO	**CAL**
INDIANA GENERAL CORP ELECTRONICS DIV/FERRITES, KEASBEY	**N J**
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN	**N Y**
KAPPA NETWORKS INC, CARTERET, N J	**ADV PG 302**
MICROSONICS INC, WEYMOUTH	**MASS**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
RADAR DESIGN CORP, SYRACUSE	**N Y**
R F INTERONICS INC, BAY SHORE	**N Y**
SEG ELECTRONICS DIV, E J HOWLES INC, BROOKLYN NY	**ADV PG 290**
SHEROLD FILTERS INC, HILLSIDE	**ILL**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
TOROTEL, INC, GRANDVIEW	**MO**
TRANSCO PRODUCTS INC, VENICE	**CAL**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
AAI Corp, Cockeysville	Md
ADC Products, Minneapolis	Minn
Aerovox Corp Distr Sales, New Bedford	Mass
Aerovox Corp New Bedford Div, New Bedford	Mass
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Aladdin Electronics Div Aladdin Industries, Inc Nashville	Tenn
ALA Industries Inc, Harrison	NY
Allen Avionics Inc,Div A K Allen Co Inc, Mineola	N Y
Allen-Bradley Co, Milwaukee	Wis
Ameco Inc, Phoenix	Ariz
American Trans-Coil Corp, Richmond Hill	NY
Amk Electronics Co Inc, Edison	N J
Anaren Microwave Inc, Syracuse	N Y
Andrew California Corp, Claremont	Cal
A P Circuit Corp, New York	N Y
Applied Microwave Lab, Inc, Andover	Mass
Applied Research, Inc, Port Washington	N Y
A R F Products, Inc, Raton	N M
Ark Electronics, Inc, Willow Grove	Pa
Astrolab Inc, Linden	N J
Atlas Coil Corp, Ansonia	Conn
Automatic Metal Products Corp, Brooklyn	N Y
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Ballastran Corp, Fort Wayne	Ind
Bayly Engineering Ltd, Ajax	Ontario
Bendix Corp, Microwave Devices Div, Franklin	Ind
Blonder-Tongue Labs Inc, Newark	N J
Borders Electronics Co Inc, Pennsauken	N J
Bramco Controls Div Ledex Inc, Piqua	Ohio
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Bundy Electronics Corp, Springfield	N J
Caledonia Electronics & Transformer Div Caledonia	N Y
Cambridge Thermionic Corp, Cambridge	Mass
Canadian Marconi Co, Montreal 16	Quebec
Captor Corp, Tipp City	Ohio
Centroid Inc, Garden City Park	N Y
Clare-Electroseal Corp, Des Plaines	Ill
Clavier Corp, Richmond Hill	NY
Collins Radio Co, Electronic Components Newport Beach	Cal
Component Research Co Inc, Santa Monica	Cal
Computer Instruments Corp, Hempstead	N Y
Condensateurs F A C O N, Paris 12e	France
Continental Device Corp, Hawthorne	Cal
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
CTS Knights Inc, Sandwich	Ill
Daltronics Inc, Providence	R I
Data Delay Devices, Clifton	N J
Daytron Inc, Mountain View	Cal
Decibel Products Inc, Dallas	Tex
DeCoursey Engineering Lab, Culver City	Cal
Delevan Electronics Div Amer Prec Indus Inc East Aurora	N Y
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Denki Kogyo Co Ltd, Tokyo	Japan
Dietz Design Inc, Belton	Mo
Dresser Systems, Inc, Houston	Tex
Dytronics Co Inc, Columbus	Ohio
Electro-Data Inc, Garland	Tex
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electromagnetic Technology Corp, Mountain View	Cal
Electro-Mechanics Co, Austin	Tex
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam	N Y
Electro Networks Inc, Caledonia	N Y
Electronic Applications Co, Pine Brook	N J
Electronic Transformer Corp, Paterson	N J
Elite Electronic Engineering Co, Chicago	Ill
Elpac Inc, Components Div, Irvine	Cal
Erie Technological Products Inc, Erie	Pa
Ferritronics Ltd, Richmond Hill	Ont
Filtaire Inc Div Walter Kidde Co, Charlottesville	Va
Filtech Corp, Franklin Park	Ill

RF Elim. Filters?
Try Bulova First!
CALL:

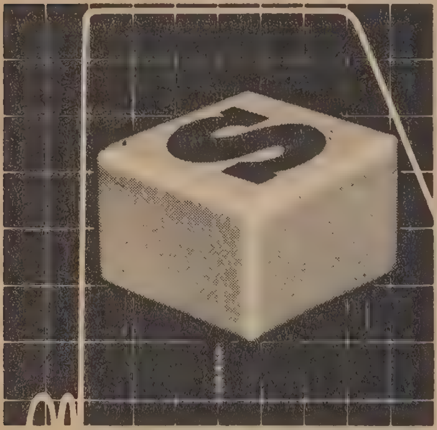
Ariz Tech-Ser Inc, 1805 E Indian School Rd Phoenix 602-265-3629
Cal Straube Assoc, 483 Willow Rd Menlo Pk 213-323-2476
Cal W J Carnes & Co, 420 S D St Tustin 213-838-0575
Conn Samuel C Hooker Inc, Box 369 W Hartford 203-233-8000
Fla Perrott Assoc, 1607 Forsyth Rd, Orlando 305-275-1132
Fla Perrott Assoc, Box 6277 West Palm Beach 305-967-1770
Fla Perrott Assoc, Box 4532, Clearwater 813-531-5513
Ill J R Sales Engineering 7132 N Harlem Ave, Chicago 312-774-8550
Iowa J R Sales Engrg, 3350 Cottage Grove Ave SE, Cedar Rapids 319-365-5259
Md Callas Electronics, 6409 Frederick Ave Baltimore 301-744-7711
Mass Samuel Hooker, Inc, Box 352 Winchester 617-729-5482
Minn Wenco Sales Inc, 7728 Morgan Ave S Minneapolis 612-866-3639
Mo J C Mankus & Assoc, 400 Brooks La Hazelwood 314-PE1-4334
NY Kahgan Sales Corp, 1261 Broadway New York 212-MU4-7772
NY H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester 716-232-2688
NY Comtronic Assoc, 1551 Franklin Ave Mineola 516-PI1-8966
NY H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady 518-374-5901
NY H C Johnson Agencies Inc, Box 215 Fayetteville 315-637-9383
NY H C Johnson Agencies Inc, 8 Los Robles St Williamsville 716-632-7880
Ohio Augey Natalino Assoc, 209 Harmony Hills Akron 216-666-1447
Pa C H Newson & Assoc Inc, 627 Bethlehem Pike, Philadelphia 215-248-3377
Tex Blackburn Assoc., Inc., 137 Walnut Hill Village, Box 20073, Dallas 214-351-9991
Wash Jas J Backer Co, 221 W Galer St Seattle 206-AT3-6470
Can Canadian Micro Electronics, Box 6157 Sta J, Ottawa 725-2332

BULOVA WATCH CO INC
FREQUENCY CONTROL PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

SEG
FILTERS

Featuring
CUSTOM DESIGNS
AT STOCK PRICES

LOW PASS • BAND PASS • HIGH PASS • BAND REJECT • DELAY CORRECTED
FREQUENCY 0-500 Mc.



OUR COMPETENT ENGINEERING DEPT. WELCOMES A DISCUSSION OF YOUR FILTER PROBLEMS

LINE EQUALIZERS
(AMPLITUDE & DELAY)

SEG attenuation and delay correction techniques are the most advanced in the network field. Send your requirements today.

LINE SIMULATORS
(AMPLITUDE & DELAY)

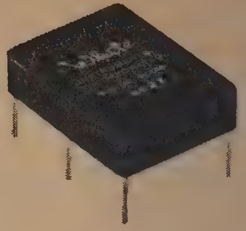
SEG stocks a broad variety of designs for such characteristics as:

- Schedule 4, 4A, 4B, 4C
- Telephoto 1 and 2
- Typical line plus carrier
- FIA weighting
- C message weighting
- Special characteristic

WRITE FOR DATA

SEG
ELECTRONICS
A DIVISION OF E. J. HOWLES, INC.
2591 PITKIN AVE., BROOKLYN, N. Y. 11208
PHONE: 212 277-3770

Finney Co, Bedford	Ohio
Fisher Engineering Inc, Huntington	Ind
Fish-Schurman Corp, New Rochelle	N Y
Forbes & Wagner Inc, Silver Creek	N Y
Frequency Engineering Labs, Farmingdale	N J
Fullmer Electronics Inc, Northridge	Cal
General Coil Products Corp, Brooklyn	N Y
General Microwave Corp, Farmingdale	N Y
General Scientific Corp, San Fernando	Cal
Genisco Technology Corp, Compton	Cal
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Geo Space Corp, Houston	Tex
Gombos Microwave Inc, Clifton	N J
Gremar Mfg Co Inc, Wakefield	Mass
Guide Industries Inc, Sun Valley	Cal
Gulton Industries Inc, Metuchen	N J
Helix Research Assoc Inc, La Mesa	Cal
Hisonic Inc, Olathe	Kan
Honeywell Test Instruments Div, Denver	Colo
Honig Laboratories Inc, Westbury	N Y
Hopkins Engineering Co, San Fernando	Cal
Hughes Aircraft Co, Newport Beach	Cal
Hyletronics Corp, Wilmington	Mass
Indiana General Corp Electronics Div/Ferrites, Keasbey	N J
Inductor Engineering Inc, Lewes	Del
ITT Europe Inc Components Gp, Brussels 1	Belgium
JFD Electronics Co, Components Div, Brooklyn	N Y
Kappa Networks Inc, Carteret	N J
Karkar Electronics Inc, San Francisco	Cal
Kenyon Electronics Inc, Jersey City	N J
Krohn-Hite Corp, Cambridge	Mass
Laselco Pacific, Palo Alto	Cal
Lundy Electronics & Systems Inc, Glen Head	N Y
Lynch Communication Systems, San Francisco	Cal
Magnetic Circuit Elements Inc, Montrose	Cal
Maury Microwave Corp, Montclair	Cal
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs	Pa
MCS Corp, Monrovia	Cal
Melabs, Palo Alto	Cal
Micro Communications Co, Denver	Colo
Micronetics Div Teledyne Systems Co, San Diego	Cal
Microphase Corp, Greenwich	Conn
Microsonics Inc, Weymouth	Mass
Microwave Associates Inc, Burlington	Mass
Microwave Control Co, Red Bank	N J
Microwave Development Labs Inc Needham Heights	Mass
Microwave Labs of America, Brooklyn	N Y
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Multronics Inc, Rockville	Md
National Coil Co Inc, Sheridan	Wyo
North Hills Electronics Inc, Glen Cove	N Y
Nytronics Inc, Berkeley Heights	N J
Oki Electric Industry Co Ltd, Tokyo	Japan
Osborne Electric Co, Ltd, Toronto 18	Ont
PCA Electronics Inc, Sepulveda	Cal
Peninsula Microwave Labs, Mountain View	Cal
Physical Electronics Labs, Menlo Park	Cal
Piezo Crystal Co, Carlisle	Pa
Polyphase Instrument Co, Bridgeport	Pa
Portchester Instrument Corp, Port Chester	N Y
Premier Microwave Corp, Port Chester	N Y
Radar Design Corp, Syracuse	N Y
Radio Engineering Labs, Div DCA, Long Island City	N Y
Rantec Div Emerson Electric Co, Calabasas	Cal
Renco Electronics Inc, Hicksville	N Y
R F Interonics Inc, Bay Shore	N Y
R F Systems Inc, Cohasset	Mass
Riedon Avionics, Inc, Van Nuys	Cal
RLC Electronics Inc, Port Chester	N Y
Rytron Co, Inc, North Hollywood	Cal
San Fernando Electric Mfg Co, San Fernando	Cal
Sartron Inc, Newberg	Ore
Schaffner, Hans - Elektronische Bauteile Luterbach Sq	Switz
Scott Electronics Corp, Orlando	Fla
Seg Electronics Div, E J Howles Inc, Brooklyn	NY
Sherold Filters Inc, Hillside	Ill
Shielding Corp, Moorestown	N J
Shrader Sound Inc, Washington	D C
Siemens America Inc, New York	N Y
Sinclair Radio Labs Inc, Tonawanda	N Y
Southern Electronics Corp, Burbank	Cal
Space Craft Inc, Huntsville	Ala
Spencer-Kennedy Labs Inc, Boston	Mass
Sprague Electric Co, North Adams	Mass
Squires-Sanders Inc, Liberty Corner	N J
Standard Telephones & Cables Ltd London WC 2	England
Storno, Copenhagen S	Den
Systems Research Labs Inc, Dayton	Ohio
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Technical Materiel Corp, Mamaroneck	N Y
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach	Cal
T M C Systems (Ariz) Inc, Tempe	Ariz
Torotel, Inc, Grandview	Mo
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
Transco Products Inc, Venice	Cal
Transformer Design Inc of Milwaukee, Milwaukee	Wis
TRF Inc, Springfield	Va
TT Electronics Inc, Culver City	Cal
United Transformer Co Div TRW Inc, New York	N Y
Vanguard Electronics Co, Inglewood	Cal
Varian, Palo Alto	Cal
Vikoa Inc, Hoboken	N J
Watkins-Johnson Co, Palo Alto	Cal
Welex Electronics, Div Halliburton Co Silver Spring	Md
Whitewater Electronics Inc, Whitewater	Wis
Y T & T Corp, Roslyn Heights	NY
Zaring Industries Inc, Carmel	Ind



ACTIVE FILTERS PACKAGED FOR PC BOARD MOUNTING

Integral transistorized amplifier-network packages — Low, high, band pass and reject responses at audio and sub-audio frequencies for use over a wide range of source and load impedances and power supply voltages.

Ask for literature.

Write for quotations on individual problems.

Moderate prices, early deliveries.

White
instruments, incorporated
PHONE AREA 512 / 892-0752
P. O. BOX 698 AUSTIN, TEXAS 78767

Pain Killer.

If vendors have you in a pinch and another source of supply will help, turn to the Electronics Buyers' Guide. You'll find all the information you need on over 1,363 sources of power supplies, listed under 11 headings from *AC Regulated Power Supplies to Laser Power Supplies.*

Electronics Buyers' Guide

FILTERS--BANDPASS, R-F

ALLEN AVIONICS INC,DIV A K ALLEN CO INC, MINEOLA N Y	**ADV PG 291**
ANAREN MICROWAVE INC, SYRACUSE	**N Y**
BIRD ELECTRONIC CORP, CLEVELAND (SOLON)	**OHIO**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE, N Y	**ADV PG 291**
CAPTOR CORP, TIPP CITY	**OHIO**
CLEVITE CORP PIEZOELECTRIC DIV, BEDFORD	**OHIO**
COMPONENT RESEARCH CO INC, SANTA MONICA	**CAL**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
CTS KNIGHTS INC, SANDWICH	**ILL**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
DECOURSEY ENGINEERING LAB, CULVER CITY CAL	**ADV PG 293**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HILL ELECTRONICS INC, MECHANICSBURG	**PA**
HISONIC INC, OLATHE, KAN	**ADV PG 292**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
HOPKINS ENGINEERING CO, SAN FERNANDO	**CAL**
INDIANA GENERAL CORP ELECTRONICS DIV/FERRITES, KEASBEY	**N J**
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN	**N Y**
KAPPA NETWORKS INC, CARTERET, N J	**ADV PG 302**
LEL DIV VARIAN ASSOCIATES, COPIAGUE	**N Y**
MICROSONICS INC, WEYMOUTH	**MASS**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
RADAR DESIGN CORP, SYRACUSE	**N Y**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
SEG ELECTRONICS DIV, E J HOWLES INC, BROOKLYN	**NY**
SHEROLD FILTERS INC, HILLSIDE	**ILL**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
TEXSCAN CORP, INDIANAPOLIS	**IND** **ADV PG 293**
TOROTEL, INC, GRANDVIEW	**MO**
TRANSCO PRODUCTS INC, VENICE	**CAL**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
AAI Corp, Cockeysville	Md
ADC Products, Minneapolis	Minn
Ad-Yu Electronics Inc, Passaic	N J
Aerocom, Miami	Fla
Aerojet-General Corp Electronics Div, Azusa	Cal
Aerovox Corp Distr Sales, New Bedford	Mass
Aerovox Corp New Bedford Div, New Bedford	Mass
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Aladdin Electronics Div Aladdin Industries, Inc Nashville	Tenn
ALA Industries Inc, Harrison	NY
Alcor Aviation, Inc, San Antonio	Texas
Allen Avionics Inc,Div A K Allen Co Inc, Mineola	N Y
Allen-Bradley Co, Milwaukee	Wis
Ameco Inc, Phoenix	Ariz
American Electronic Labs Inc, Lansdale	Pa
American Trans-Coil Corp, Richmond Hill	NY
Amk Electronics Co Inc, Edison	N J
Anaren Microwave Inc, Syracuse	N Y
Ando Electric Co Ltd, Ohta-ku, Tokyo	Japan
Andrew California Corp, Claremont	Cal
A P Circuit Corp, New York	N Y
Applied Microwave Lab, Inc, Andover	Mass
Applied Research, Inc, Port Washington	N Y
A R F Products, Inc, Raton	N M
Ark Electronics, Inc, Willow Grove	Pa
Astrolab Inc, Linden	N J
Atlas Coil Corp, Ansonia	Conn
Automatic Metal Products Corp, Brooklyn	N Y
Aviation Electric Ltd, St Laurent, Montreal	Que
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Ballastran Corp, Fort Wayne	Ind
Bayly Engineering Ltd, Ajax	Ontario
Benco Television Assoc Div Redifon Can Ltd Rexdale	Ont
Bendix Corp, Microwave Devices Div, Franklin	Ind
Betron-IRE-SpA, Livorno	Italy
Beukers Labs Inc, John M, Medford	NY
Biddle Co, James G, Plymouth Meeting	Pa
Bird Electronic Corp, Cleveland (Solon)	Ohio
Blonder-Tongue Labs Inc, Newark	N J
Borders Electronics Co Inc, Pennsauken	N J
Bramco Controls Div Ledex Inc, Piqua	Ohio
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Caledonia Electronics & Transformer Div Caledonia	N Y
California Microwave, Sunnyvale	Cal
Cambridge Thermionic Corp, Cambridge	Mass
Canadian Marconi Co, Montreal 16	Quebec
Captor Corp, Tipp City	Ohio
Cathodeon Crystals Ltd, Cambridge	Eng
Central Coil Co Inc, Martinsville	Ind
Centroid Inc, Garden City Park	N Y
Clavier Corp, Richmond Hill	NY
Clevite Corp Piezoelectric Div, Bedford	Ohio
Collins Radio Co, Electronic Components Newport Beach	Cal
Component Research Co Inc, Santa Monica	Cal
Computer Instruments Corp, Hempstead	N Y
Condensateurs F A C O N, Paris 12e	France
Control Science Corp, Alexandria	Va
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
CTS Knights Inc, Sandwich	Ill
Daico Industries Inc, Gardena	Cal
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Data Delay Devices, Clifton	N J
Daytron Inc, Mountain View	Cal
Decibel Products Inc, Dallas	Tex
DeCoursey Engineering Lab, Culver City	Cal

RF Band-Pass Filters?

Try Bulova First!

CALL:

Ariz	Tech-Ser Inc, 1805 E Indian School Rd Phoenix	602-265-3629
Cal	Straube Assoc, 483 Willow Rd Menlo Pk	213-323-2476
Cal	W J Carnes & Co, 420 S D St Tustin	213-838-0575
Conn	Samuel C Hooker Inc, Box 369 W Hartford	203-233-8000
Fla	Perrott Assoc, 1607 Forsyth Rd, Orlando	305-275-1132
Fla	Perrott Assoc, Box 6277 West Palm Beach	305-967-1770
Fla	Perrott Assoc, Box 4532, Clearwater	813-531-5513
Ill	J R Sales Engineering 7132 N Harlem Ave, Chicago	312-774-8550
Iowa	J R Sales Engrg, 3350 Cottage Grove Ave SE, Cedar Rapids	319-365-5259
Md	Callas Electronics, 6409 Frederick Ave Baltimore	301-744-7711
Mass	Samuel Hooker, Inc, Box 352 Winchester	617-729-5482
Minn	Wenco Sales Inc, 7728 Morgan Ave S Minneapolis	612-866-3639
Mo	J C Mankus & Assoc, 400 Brooks La Hazelwood	314-PE1-4334
NY	Kahgan Sales Corp, 1261 Broadway New York	212-MU4-7772
NY	H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester	716-232-2688
NY	Comtronic Assoc, 1551 Franklin Ave Mineola	516-PI1-8966
NY	H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady	518-374-5901
NY	H C Johnson Agencies Inc, Box 215 Fayetteville	315-637-9383
NY	H C Johnson Agencies Inc, 8 Los Robles St Williamsville	716-632-7880
Ohio	Augey Natalino Assoc, 209 Harmony Hills Akron	216-666-1447
Pa	C H Newson & Assoc Inc, 627 Bethlehem Pike, Philadelphia	215-248-3377
Tex	Blackburn Assoc., Inc., 137 Walnut Hill Village, Box 20073, Dallas	214-351-9991
Wash	Jas J Backer Co, 221 W Galer St Seattle	206-AT3-6470
Can	Canadian Micro Electronics, Box 6157 Sta J, Ottawa	725-2332

BULOVA WATCH CO INC
FREQUENCY CONTROL PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

Delevan Electronics Div Amer Prec Indus Inc East Aurora	N Y
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Denki Kogyo Co Ltd, Tokyo	Japan
Diamond Antenna & Microwave Corp, Winchester	Mass
Dietz Design Inc, Belton	Mo
Dresser Systems, Inc, Houston	Tex
Dytronics Co Inc, Columbus	Ohio
Electra/Midland Corp, Kansas City	Kan
Electro Assemblies Inc, Chicago	Ill
Electro Cube Inc, San Gabriel	Cal
Electro-Data Inc, Garland	Tex
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electromagnetic Technology Corp, Mountain View	Cal
Electro-Mechanics Co, Austin	Tex
Electro Networks Inc, Caledonia	N Y
Electronic Applications Co, Pine Brook	N J
Electronic Specialty Co, Los Angeles	Cal
Elite Electronic Engineering Co, Chicago	Ill
Elpac Inc, Components Div, Irvine	Cal
Erie Technological Products Inc, Erie	Pa
ESC Electronics Corp Sub Simmonds Precision Palisades Park	N J
Ferranti, Ltd, Lancashire	England
Ferritronics Ltd, Richmond Hill	Ont
Filtaire Inc Div Walter Kidde Co, Charlottesville	Va
Filtech Corp, Franklin Park	Ill
Finney Co, Bedford	Ohio
Fisher Engineering Inc, Huntington	Ind
Fish-Schurman Corp, New Rochelle	N Y
Forbes & Wagner Inc, Silver Creek	N Y
Frequency Engineering Labs, Farmingdale	N J
Fugle-Miller Labs Inc, Kenilworth	N J
Fujitsu Ltd, Tokyo	Japan
Fullmer Electronics Inc, Northridge	Cal
General Coil Products Corp, Brooklyn	N Y
General Instrument Corp F W Sickles Div Chicopee	Mass
General Microwave Corp, Farmingdale	N Y
General Scientific Corp, San Fernando	Cal
Genisco Technology Corp, Compton	Cal
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Geo Space Corp, Houston	Tex
Gombos Microwave Inc, Clifton	N J
Gremar Mfg Co Inc, Wakefield	Mass
Guide Industries Inc, Sun Valley	Cal
Gulton Industries Inc, Metuchen	N J
Helix Research Assoc Inc, La Mesa	Cal
Hertz Filter Corp, Garden City Park	N Y
Hewlett-Packard, Palo Alto	Cal
Hill Electronics Inc, Mechanicsburg	Pa
Hisonic Inc, Olathe	Kan
Honeywell Test Instruments Div, Denver	Colo
Honig Laboratories Inc, Westbury	N Y
Hopkins Engineering Co, San Fernando	Cal
Hughes Aircraft Co, Newport Beach	Cal
Hyletronics Corp, Wilmington	Mass

ALLEN AVIONICS, INC.

FAST PROTOTYPES
CUSTOM-BUILT
L-C FILTERS
200 CYCLES TO 50 MC

TYPES:
Low Pass, High Pass, Band Pass, Band Stop.
FREQUENCY RANGE:
200 cycles to 50 megacycles.

IMPEDANCE RANGE:
50 ohms to 100,000 ohms.
CONSTRUCTION:
Epoxy encapsulated or hermetically sealed in steel cans.
SIZE:
From .625 x .625 x .450 depending on electrical specifications.
DELIVERY:
Prototypes can be delivered in one week.

TYPICAL FILTERS

LOW PASS

Cut Off Frequency (3 db max.)	Attenuation (Minimum)	Maximum Passband Ripple	Z Ohms
375 kc	30 db @ 510 kc 50 db @ 645 kc	.5 db	600
3.3 mc	40 db @ 5.2 mc 50 db @ 5.95 mc	.25 db	100
16.5 mc	40 db @ 26 mc	.25 db	100
27.5 mc	20 db @ 39.5 mc 30 db @ 46.5 mc	1 db	75

HIGH PASS

Cut Off Frequency (3 db max.)	Attenuation (Minimum)	Maximum Passband Ripple	Z Ohms
350 kc	30 db @ 285 kc 50 db @ 245 kc	1 db	500
3.5 mc	20 db @ 2.65 mc 40 db @ 2.05 mc	.25 db	400
10.5 mc	20 db @ 8.05 mc 40 db @ 6.25 mc	.25 db	100
17.5 mc	20 db @ 11.6 mc 40 db @ 7.75 mc	.25 db	75

BAND PASS

Center Freq.	Bandwidth (3 db max.)	Attenuation (Minimum)	Maximum Passband Ripple	Z Ohms
80 kc	20 kc	20 db below 66 kc above 97 kc	1 db	500
1.2 mc	300 kc	30 db below 985 kc above 1.46 mc	3 db	500
4.5 mc	1 mc	20 db below 3.8 mc above 5.4 mc	1 db	75
8 mc	1.6 mc	20 db below 6.8 mc above 9.4 mc	1 db	100

BAND STOP

Notch Freq.	Bandwidth (3 db max.)	Attenuation (Minimum)	Maximum Passband Ripple	Z Ohms
680 kc	150 kc	35 db from 665 kc to 695 kc	.5 db	500
3.6 mc	800 kc	20 db from 3.45 mc to 3.75 mc	.25 db	75
10.7 mc	2.5 mc	20 db from 10.3 mc to 11.1 mc	.25 db	150

SEE OUR OTHER AD IN THE
DELAY LINE SECTION

ALLEN AVIONICS, INC.
DIVISION OF A.K. ALLEN CO., INC.
255 E. 2nd St., Mineola, N.Y. 11501
Phone: 516 747 5450

hisonic inc.

249 N. Troost, Olathe, Kansas 66061
Telephone: 913-782-0012 Telex: 4-2562

STANDARD FILTERS

For Highest Selectivity

Standard filters are designed by modern network methods for minimum stop to pass band ratios. Applications are those requiring optimum utilization of frequency spectrum.

A PARTIAL LIST OF HISONIC FILTERS BY PART NUMBER

BAND PASS FILTERS

PART NUMBER	FREQ.	INS. LOSS	SOURCE/ LOAD	PASS BAND	STOP BAND	SIZE
20-0184-10	100 c/s	5 db	600/600	3 db @ ± 20 c/s	60 db @ ± 50 c/s 54 db @ 250	3x3½x6
20-0199-10	210 c/s	2 db	600/4.6M	3 db @ ± 4 c/s	60 db @ 170 c/s	3x3½x4½
20-0038-11	800 c/s	9 ± 1 db	15K/15K	3 db @ ± 160 c/s	35 db from 1600 to 1 Mc/S	1 3/16x1 11/16x2¼
20-0205-10	1150 c/s	2.8 db	600/10K	3 db @ ± 10 c/s	30 db.@ ± 300 c/s	2 Sq. x 3½
20-0206-10	1600 c/s	.2 db	600/10K	3 db @ ± 50 c/s	50 db @ ± 350 c/s	2 Sq. x 3½
20-0018-10	1940 c/s	6 db	1K/1K	3 db @ ± 500 c/s	40 db @ ± 1 Kc/S	1⅝x1¾x2¼
20-0027-10	3.35 K/S	6 db	1K/1.6K	3 db @ ± 180 c/s	30 db @ ± 1200 c/s	2½ Sq. x 1¼
20-0029-10	4 Kc/S	3 ± ½ db	1K/1.6K	3 db @ ± 175 c/s	30 db @ ± 1000 c/s	1¾ Sq.x 2¼
20-0030-10	8 Kc/S	6 db	1K/100K	3 db @ ± 225 c/s	40 db @ 11.5 Kc/S	1 13/32 Sq. 2 5/16
20-0080-10	12 Kc/S	11 db	33K/33K	3 db @ ± 200 c/s	60 db @ ± 6000 c/s	2x3x2¼
20-0020-11	18 Kc/S	8 db	47K/500	3 db @ ± 250 c/s	30 db @ ± 2 Kc/S	2x3x1½
20-0091-11	26 Kc/S	6 ± ½ db	10K/30K	3 db @ ± 1500 c/s	40 db @ ±12.5 Kc/S	2x2¼x3 1/16
20-0100-10	48 Kc/S	4 db	15K/5M	± 1 db @ ± 50 c/s	60 db @ ± 4 Kc/S	1 1/32x1 29/32x3 25/32
20-0093-10	64.75 Kc/S	5 db	600/20K	3 db @ ± 2200 c/s	60 db @ ± 6250 c/s	2⅝x4⅛x3 7/16
20-0104-10	88 Kc/S	6 db	600/600	.5 db @ ± .1 Kc/S	20 db @ ± 4 Kc/S	2 1/32x2 17/32x1 1/64
20-0177-11	142.5 Kc/S	20 db	5K/5K	3 db @ ± 1.75 Kc/S	70 db @ ± 9 Kc/S	1¾x2x⅞
20-0168-11	156 Kc/S	6 db	300/1K	.5 db @ ± 10 Kc/S	60 db @ ± 39 Kc/S	¾x1¾x3
20-0105-10	216 Kc/S	6 db	600/600	.5 db @ ± .1 Kc/S	20 db @ ± 4 Kc/S	2 1/32x2 17/32x1 1/64
20-0103-10	216 Kc/S	1.5 db	600/600	.25 db @ ± 52 Kc/S	55 db @ 304 Kc/S	2 9/16x1 5/16x2 5/32
20-0157-10	336 Kc/S	2.5 db	600/600	2 db @ 312 to 360 Kc/S	70 db @ 250&450 Kc/S	1 1/32x2 19/32x2 5/32
20-0098-10	338 Kc/S	3 db	600/600	within .5 db @ 310 to 367 Kc/S	70 db @ 479 Kc/S	2 13/16x3x1 1/64
20-0097-10	384 Kc/S	3 db	600/600	within .5 db @ 360 to 408 Kc/S	70 db @ 528 Kc/S	2 13/16x3x1 1/64
20-0101-10	384 Kc/S	2.5 db	600/600	within 2 db @ 360 to 408 KC/S	70 db @ + 112 — 88 Kc/S	2 9/16x1 5/16x2 5/32
20-0095-10	424 Kc/S	2.5 db	124/124	within 1 db @ ± 424 c/s	50 db @ 848 Kc/S	1x1½x1
20-0096-10	435 Kc/S	2.5 db	600/600	3 db @ ± 29 Kc/S	55 db @ 516 Kc/S	2 13/16x3x1 1/64
20-0169-10	781 Kc/S	3 db	1K/1K	±.5 db @ ± 10 Kc/S	40 db @ ± 39 Kc/S	¾x1¾x2
20-0185-10	2.172 Mc/S	5 db	135/135	.5 db @ ± 120 Kc/S	50 db @ + 436 — 376 Kc/S	2¾x7x1 1/64
20-0014-10	3 Mc/S	1 ± ½ db	300/300	3 db @ ± .55 Mc/S	40 db @ ± .8 Mc/S	2¼x2½x4
20-0179-10	14 Mc/S	15 db	500/500	3 db.@ ± .15.Mc/S	65 db @ ± 1 Mc/S	1⅝x2x1⅛
20-0234-10	21.5 Kc/S	6 db	600/2500	3 db 21.5 to 24.3 Kc/S	25 db @ 21.06 Kc/S 40 db @ 20.46 & 35 Kc/S	1 11/16x2 5/32x1
20-0215-10	31.8 Kc/S	7 db	3K/1.5K	3 db 31.8 to 34.5 Kc/S	25 db @ 31.29 Kc/S 40 db @ 30.69 & 45 Kc/S	1 11/16x2 1/64x1

LOW PASS FILTERS

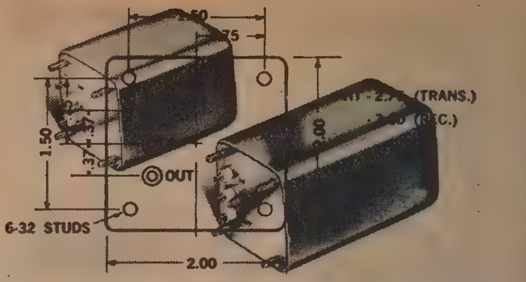
PART NUMBER	SOURCE/ LOAD	PASS BAND	STOP BAND	SIZE
20-0153-10	10/5M	2 ± 1 db @ 15 to 37 c/s	40 db @ 400 c/s	1¼ Sq. x 1½
20-0127-10	1K/10K	3 db @ 40 c/s	40 db @ 75 c/s	1½ Sq. x 2
20-0212-10	1K/1K	3 db @ 185 c/s	60 db @ 430 c/s	⅞x1⅝x1½
20-0213-10	1K/1K	3 db @ 300 c/s	24 db @ 1200 c/s	⅞x1⅝x1½
20-0221-10	15K/47K	.5 db @ 430 c/s	25 db @ 800 c/s	¾x1¾x3
20-0145-11	600/600	3 db @ 2350 c/s	40 db @ 2575 c/s	3½x3x6
20-0268-10	1K/1K	± .5 db .3 to 3 Kc/S	50 db above 4 Kc/S	1¼x3 3/16x2 1/32
20-0223-10	600/600	± 5 db .25 to 3 Kc/S	35 db 3.4 to 4.5 Kc/S	1½x4x1 1/16
20-0117-10	600/600	± .5 db .25 to 3.4 Kc/S	35 db 3.8 to 5.0 Kc/S	1½x4x1 1/16
20-0072-10	10K/10K	within 1db 300 c/s to 30 Kc/S	40 db @ 44 Kc/S	1½ Sq. x 2
20-0102-10	600/600	within .25 db 36 to 140 Kc/S	35 db @ 164 Kc/S	2 7/16x2 13/16x1 1/64
20-0198-10	75/75	± .1 — .5 db @ 2.05 Mc/S	40 db @ 2.5 Mc/S	2 9/16 Sq. x 1¼

HIGH PASS FILTERS

20-0001-10	2K/2K	3 db @ 300 c/s	50 db @ 120 c/s	1¼ Cube
20-0214-10	2K/2K	3 db @ 350 c/s	40 db @ 175 c/s	⅞x1⅝x1½
20-0145-12	600/600	3 db @ 2575 c/s	40 db @ 1000 c/s	3½x3x6
20-0002-11	100/150	3 db @ 5 Kc/s	50 db @ 4 Kc/s	1¾x4x2⅜x4¼

CUSTOM FILTERS. Low, band or high pass and band stop filters with optimum characteristics can be supplied to your special requirements and MIL-F-18327. Construction utilizes toroidal inductors and high quality capacitors of special films or silvered mica, according to frequency and space requirements. Operating frequencies range to 10 mc/s. Temperature stabilization for both amplitude and frequency can be effected. Mechanical styles may be epoxy encapsulated or hermetically sealed steel in sizes from 0.2 to 200 cu. in.

OTHER PRODUCTS: Precision Inductors • Transformers & Reactors • Tuned Circuits • Amp./Phase Equalizers • Lumped Constant Delay Lines.



SERIES 03 TELEGRAPH TONE CHANNEL BAND PASS

(170 cycle spacing)

SPECIFICATIONS:

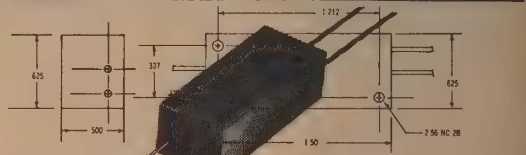
Relative Attenuation
(Receive Filters)
3 db max at ± 42.5 cps
20 db min at ± 85 cps
40 db min at ± 128 cps
(Transmit Filters)
3 db max at ± 42.5 cps
15 db min at ± 85 cps
30 db min at ± 128 cps

Insertion Loss—10 db max

Terminations
Input: 600 ohms
(inputs all channels may be operated in parallel)
Output: Receive 50K ohms
Transmit 600 ohms

Freq.	Receiver No.	Trans. No.
425	03-01	03-21
595	03-02	03-22
765	03-03	03-23
935	03-04	03-24
1105	03-05	03-25
1275	03-06	03-26
1445	03-07	03-27
1615	03-08	03-28
1785	03-09	03-29
1955	03-10	03-30
2125	03-11	03-31
2295	03-12	03-32
2465	03-13	03-33
2635	03-14	03-34
2805	03-15	03-35
2975	03-16	03-36
3145	03-17	03-37
3315	03-18	03-38

In addition to series listed, other tone channel series with spacings from 85 to 500 c/s are available.



SERIES 272 VCO TELEMETRY FILTERS

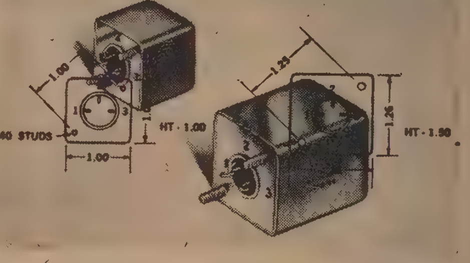
Available in IRIG Standard Channels 1 thru 18 and A thru E

SPECIFICATIONS:

Input Signal
Square pulse: 47.5 to 52.5% duty cycle
Level: 0 to 15V p-p (open circuit source)
Impedance: 10 to 20K ohms

Output Signal
Sine wave: flat within 1db over pass band
Distortion: 0.9% total Harmonic
Level: 0 to 3V rms into 41K ohms

Other: dc path at input and output: isolation between input and output 30 pf output impedance: 14K± 20%



SERIES 68 MINIATURE LOW PASS

SPECIFICATIONS:

Relative Attenuation
3 db ± .5 @ f_c
20 db min @ 1.3 f_c
40 db min @ 1.5 f_c

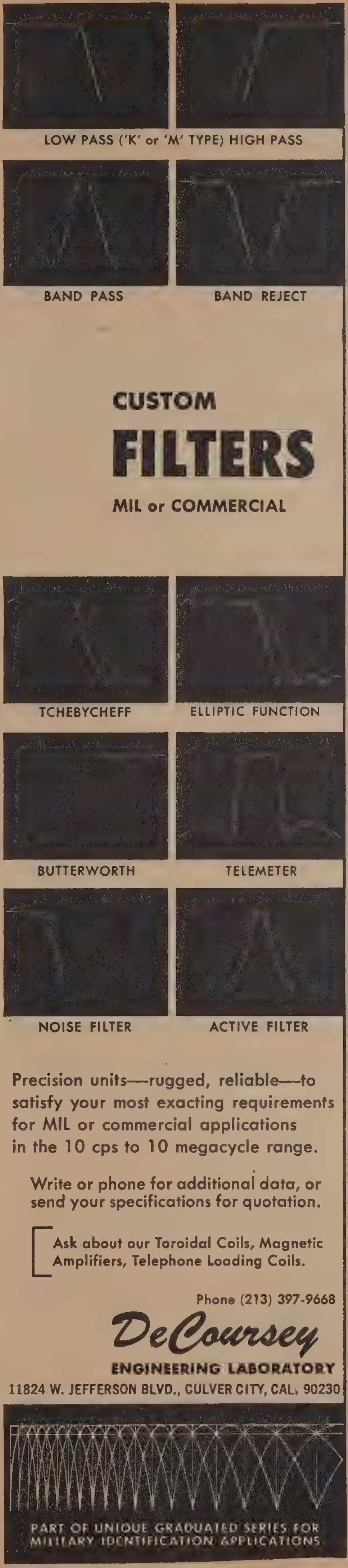
Insertion loss—1 db max

Terminations
Input—10K ohms
Output—10K ohms

Physical Specifications
Case Hermetically Sealed Steel
Size (330 to 900 cps)
1.26"x1.26"x1.5" High
Mounting: two 6-32 studs spaced 1.25"
Size (1050 to 13000 cps)
1"x1"x1" High
Mounting: two 4-40 studs spaced 1"
Terminals—3 solder type

f_c cps	Part No.
330	68-01
450	68-02
600	68-03
660	68-04
790	68-05
900	68-06
1050	68-07
1200	68-08
1600	68-09
2100	68-10
3000	68-11
3300	68-12
4000	68-13
4500	68-14
5250	68-15
6000	68-16
8000	68-17
10500	68-18
11500	68-19
13000	68-20

Impectron Inc, New York	N Y
Indiana General Corp Electronics Div/Ferrites, Keasbey	N J
Inductor Engineering Inc, Lewes	Del
Itek Corp, Lexington	Mass
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Telecommunications, New York	N Y
JFD Electronics Co, Components Div, Brooklyn	N Y
Kappa Networks Inc, Carteret	N J
Karkar Electronics Inc, San Francisco	Cal
Kenyon Electronics Inc, Jersey City	N J
Krohn-Hite Corp, Cambridge	Mass
Kyoritsu Electric Works Ltd, Tokyo	Japan
Laselco Pacific, Palo Alto	Cal
Lel Div Varian Associates, Copiague	N Y
Lindsay Specialty Products Ltd, Lindsay	Ontario
Lorch Electronics Corp, Englewood	N J
Lynch Communication Systems, San Francisco	Cal
Magnetic Circuit Elements Inc, Montrose	Cal
Maury Microwave Corp, Montclair	Cal
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs	Pa
MCS Corp, Monrovia	Cal
Melabs, Palo Alto	Cal
Meridian Metalcraft Inc, Whittier	Cal
Merrimac Research & Development Inc West Caldwell,	N J
Micro Communications Co, Denver	Colo
Micronetics Div Teledyne Systems Co, San Diego	Cal
Microphase Corp, Greenwich	Conn
Microsonics Inc, Weymouth	Mass
Microtran Co Inc, Valley Stream	N Y
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Control Co, Red Bank	N J
Microwave Development Labs Inc Needham Heights	Mass
Microwave Labs of America, Brooklyn	N Y
MKC Electronics Corp, Kansas City	Kans
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Multronics Inc, Rockville	Md
National Coil Co Inc, Sheridan	Wyo
Neotec Corp, Rockville	Md
N-H Microwave Inc, Red Bank	N J
Nippon Electric Co Ltd, Tokyo	Japan
North Hills Electronics Inc, Glen Cove	N Y
Nytronics Inc, Berkeley Heights	N J
Oki Electric Industry Co Ltd, Tokyo	Japan
Osborne Electric Co, Ltd, Toronto 18	Ont
PCA Electronics Inc, Sepulveda	Cal
Peninsula Microwave Labs, Mountain View	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Physical Electronics Labs, Menlo Park	Cal
Piezo Crystal Co, Carlisle	Pa
Piezo Technology Inc, Orlando	Fla
Polyphase Instrument Co, Bridgeport	Pa
Portchester Instrument Corp, Port Chester	N Y
Premier Microwave Corp, Port Chester	N Y
Quindar Electronics Inc, Springfield	NJ
Radar Design Corp, Syracuse	N Y
Radio Engineering Labs, Div DCA, Long Island City	N Y
Rantec Div Emerson Electric Co, Calabasas	Cal
Raven Electronics Inc, Burbank	Cal
Renco Electronics Inc, Hicksville	N Y
Resdel Engineering Corp, Pasadena	Cal
Resistance Products Co, Harrisburg	Pa
R F Systems Inc, Cohasset	Mass
R H G Electronics Lab Inc, Farmingdale	N Y
Riedon Avionics, Inc, Van Nuys	Cal
RLC Electronics Inc, Port Chester	N Y
Rytron Co, Inc, North Hollywood	Cal
San Fernando Electric Mfg Co, San Fernando	Cal
Sartron Inc, Newberg	Ore
Scott Electronics Corp, Orlando	Fla
Seg Electronics Div, E J Howles Inc, Brooklyn	NY
Sherold Filters Inc, Hillside	Ill
Shielding Corp, Moorestown	N J
Siemens America Inc, New York	N Y
Sinclair Radio Labs Inc, Tonawanda	N Y
Smallwood Ltd, S G, Kitchener	Ont
Smyth Research Associates, San Diego	Cal
Sonus Corp, Natick	Mass
Space Craft Inc, Huntsville	Ala
Spencer-Kennedy Labs Inc, Boston	Mass
Sprague Electric Co, North Adams	Mass
Squires-Sanders Inc, Liberty Corner	N J
Standard Telephones & Cables Ltd London WC 2	England
Storno, Copenhagen S	Den
Systems Research Labs Inc, Dayton	Ohio
Technical Materiel Corp, Mamaroneck	N Y
Technology/Versatronics Inc, Yellow Springs	Ohio
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach	Cal
Texscan Corp, Indianapolis	Ind
T M C Systems (Ariz) Inc, Tempe	Ariz
Topping Electronics Ltd, Toronto 17	Ont
Torotel, Inc, Grandview	Mo
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
Trak Microwave Corp, Tampa	Fla
Transco Products Inc, Venice	Cal
Transformer Design Inc of Milwaukee, Milwaukee	Wis
TRF Inc, Springfield	Va
Triad Distributor Div Litton Industries, Huntington	Ind
TRW Electronic Components Div TRW Inc, Camden	N J
TT Electronics Inc, Culver City	Cal
U S Capacitor Corp, Burbank	Cal
United Transformer Co Div TRW Inc, New York	N Y
Vanguard Electronics Co, Inglewood	Cal
Varian, Palo Alto	Cal
Vikoa Inc, Hoboken	N J
Watkins-Johnson Co, Palo Alto	Cal
Welex Electronics, Div Halliburton Co Silver Spring	Md
Wells Electronics Inc, Components Div, South Bend	Ind
Whitewater Electronics Inc, Whitewater	Wis
Wiltek, Inc, Wilton	Conn
Zaring Industries Inc, Carmel	Ind


LOW PASS ('K' or 'M' TYPE) HIGH PASS
BAND PASS
BAND REJECT
TCHEBYCHEFF
ELLIPTIC FUNCTION
BUTTERWORTH
TELEMETER
NOISE FILTER
ACTIVE FILTER
PART OF UNIQUE GRADUATED SERIES FOR MILITARY IDENTIFICATION APPLICATIONS

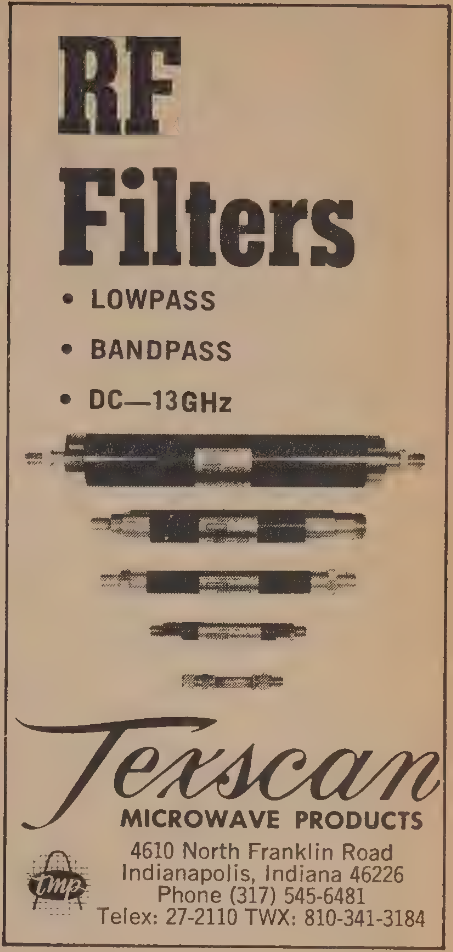
CUSTOM
FILTERS
MIL or COMMERCIAL

Precision units—rugged, reliable—to satisfy your most exacting requirements for MIL or commercial applications in the 10 cps to 10 megacycle range.

Write or phone for additional data, or send your specifications for quotation.

Ask about our Toroidal Coils, Magnetic Amplifiers, Telephone Loading Coils.

Phone (213) 397-9668
DeCoursey
ENGINEERING LABORATORY
11824 W. JEFFERSON BLVD., CULVER CITY, CAL. 90230


RF Filters
- LOWPASS
- BANDPASS
- DC—13GHz

Texscan
MICROWAVE PRODUCTS
4610 North Franklin Road
Indianapolis, Indiana 46226
Phone (317) 545-6481
Telex: 27-2110 TWX: 810-341-3184

EBG — one stop shopping center.

Find a product listing and advertiser's message together.

FILTERS--CERAMIC

CAPTOR CORP, TIPP CITY	**OHIO**
CLEVITE CORP PIEZOELECTRIC DIV, BEDFORD OHIO	**ADV PG 294**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA JAPAN	**ADV PG 295**
MURATA MFG CO, LTD, KYOTO,	**JAPAN**
Aerovox Corp Distr Sales, New Bedford	Mass
Allen-Bradley Co, Milwaukee	Wis
Captor Corp, Tipp City	Ohio
Clevite Corp Piezoelectric Div, Bedford	Ohio
Coors Porcelain Co, Golden	Colo
Corning Glass Works, Corning	N Y
Denes Co Inc, Burbank	Cal
Erie Technological Products Inc, Erie	Pa
ITT Europe Inc Components Gp, Brussels 1	Belgium
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Murata Mfg Co, Ltd, Kyoto	Japan
Sampson Electronic Products Div, Chicago	Ill
Semiconductor Specialists Inc, Chicago	Ill
Sonus Corp, Natick	Mass
Southern Electronics Corp, Burbank	Cal
Sumitomo Special Metals Co Ltd, Osaka	Japan
U S Capacitor Corp, Burbank	Cal

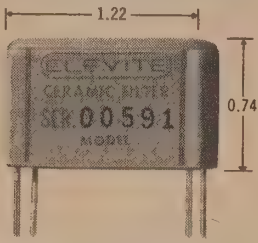
Clevite Ceramic Filters

Small, lightweight and rugged. Steep-sided selectivity. Large range of bandwidths. Non-microphonic. Permanently-tuned. Immune to magnetic fields. High stop band rejection and clean response. Highly stable with both temperature and time.

TCF Hybrid Ceramic Filter

High efficiency design combines the input advantages of a tuned transformer with the stability and high performance of Clevite ceramic filters. This design offers manufacturers of quality AM receiving equipment greater selectivity at a lower cost. Made specifically for CB, mobile, aircraft and marine radios . . . in a package less than 0.6 cu. in.

(A selection of other bandwidths and characteristics to cover a range of applications from FM to CW is available on request.)



Model Number: TCF-4-8D20A

Center Frequency: 455±1 kHz

Stability: within 0.2% for 5 years within 0.15% from —20°C to +65°C.

Bandwidth:
6 db— 8 kHz (min.)
60 db—20 kHz (max.)

Insertion Loss: 6 db max.

Dimensions: 1.22″ x 0.74″ x 0.64″

Impedance:
Input—40,000 ohms
Output—1500 ohms

Write for Bulletin 94026

Compact 9-disc Ceramic Ladder Filter

New 9 disc ceramic i-f filters are designed for communications circuit applications where the precise center frequency tolerance and high stop band rejection of the widely-used 17 disc Clevite ladder filter are not required.

0.93
0.31
CLEVITE
CER. FILTER

Model* Number	min. at 6db	max. at 60db	Insertion Loss	
			27°C	—40 to + 85°C
TL10D9-20(A) (C)	10kHz	20kHz	4db	7db
TL16D9-32(A) (C)	16kHz	32kHz	5db	8db
TL20D9-38(A) (C)	20kHz	38kHz	5db	8db
TL30D9-57(A) (C)	30kHz	57kHz	5db	8db
TL40D9-72(A) (C)	40kHz	72kHz	4db	7db

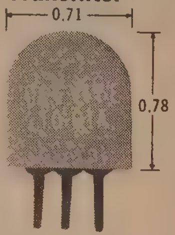
***Center Frequency:** (A) 455kHz and (C) 500kHz
Tolerance: ±3kHz
Stability: within + 0.2% for 5 years
within 0.2% from —40°C to +85°C

Impedance (in and out):
10kHz B/W —2000 ohms
16kHz B/W and above —1000 ohms

Write for Bulletin 94021

Fixed-Tuned Ceramic Transfilter®

The Transfilter replaces transformer, inductive and capacitance elements used in frequency selective circuits such as i-f stages of radio receivers, discriminators, etc. It improves selectivity and long range reliability, and simplifies circuit alignment procedure. The Transfilter is easily attached to other circuit components and can be mounted by automatic assembly techniques.



Standard Models	Resonant Frequency	Capacitance	
		Input	Output
TO -01A	455 kHz	300 pf	1500 pf
TO -02A	455 kHz	460 pf	2650 pf

above models also available @ 465, 470, and 500 kHz.

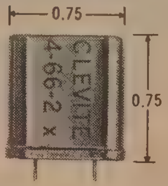
Specifications	TO -01A	TO -02A
Resonant Frequency Tolerance	± 2 kHz	± 2 kHz
Bandwidth	4 to 7% @ 6 db	1 to 4% @ 6 db
Capacitance Tolerance	input ± 15% output ± 10%	input ± 20% output ± 20%
Impedance	input: 1200 ohms nom. output: 270 ohms nom.	input: 3.9 K ohms min. 15 K ohms max. output: 680 ohms min. 3 K ohms max.
Power Insertion Loss	2 db. max.	3 db max.

Frequency Stability
with time — within plus 0.2% for 5 years
with temperature — total variation less than 0.2% from —20°C to + 60°C

Write for Bulletin 94019 (TO-01A) and 94020 (TO-02A)

Split Ring Low Frequency Filter

These miniature, fixed-tuned filters combine very narrow band widths and high performance with small size and weight. Optimum applications include low frequency communications receivers, selective calling systems and control circuits.



Model No.	Center Frequency	Insertion Loss (Max.)	Impedance
TSR-9B	9	4db	56k
TSR-12B	12	4db	56k
TSR-15B	15	4db	56k
TSR-18B	18	4db	47k
(Note: These Filters are available at all center frequencies from 9kHz to 50kHz.)			
TSR-21B	21	4db	47k
TSR-24B	24	4db	47k
TSR-27B	27	4db	33k
TSR-30B	30	4db	33k

Bandwidth (%fo):
@ 3db— 1%
@ 20db— 13%

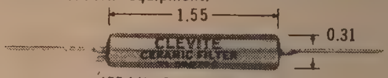
Stability:
within 0.2% for 5 years
within 0.2% from —40°C to +85°C

Dimensions: HC-6/U case 0.75″ x 0.75″ x 0.34″ (hermetically sealed)

Shock: 20g any axis 20-2000 cps per mil. std. 202B. **Write for Bulletin 94023**

Standard 17-disc Ceramic Ladder Filter

Clevite 17-disc ceramic ladder filters are designed for i-f stages of high quality superheterodyne radio receivers used in airborne or ground AM and FM communications equipment.



455 kHz Center Frequency

Model Number	min. at 6db	max. at 60db	Shape factor	Insertion Loss	
				27°C	—40 to + 85°C
TL-2D5A	2kHz	5kHz	2.5:1	10db	13db
TL-4D8A	4kHz	8kHz	2:1	7db	10db
TL-6D11A	6kHz	11kHz	1.9:1	6db	9db
TL-8D14A	8kHz	14kHz	1.8:1	5db	8db
TL-10D16A	10kHz	16kHz	1.6:1	4db	7db
TL-16D25A	16kHz	25kHz	1.6:1	5db	8db
TL-20D32A	20kHz	32kHz	1.6:1	5db	8db
TL-30D45A	30kHz	45kHz	1.5:1	5db	8db
TL-40D55A	40kHz	55kHz	1.4:1	4db	7db
TL-45D65A	45kHz	65kHz	1.4:1	4db	7db

500 kHz Center Frequency

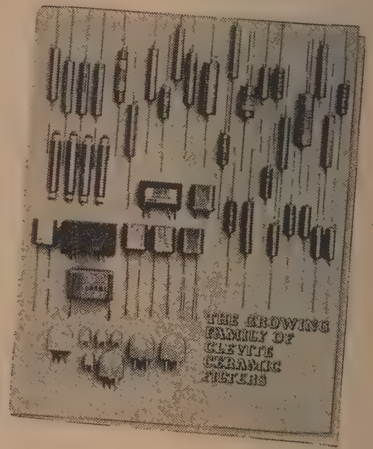
TL-32E48C	32kHz	48kHz*	1.5:1*	5db	8db
TL-50D75C	50kHz	75kHz	1.5:1	3db	5db

*80db B/W + Shape Factor

Center Frequency:
Tolerance: ± 1kHz (20kHz B/W and below)
± 2kHz (30kHz B/W and above)
Stability: within +0.2% for 5 years
within 0.2% from —40°C to +85°C

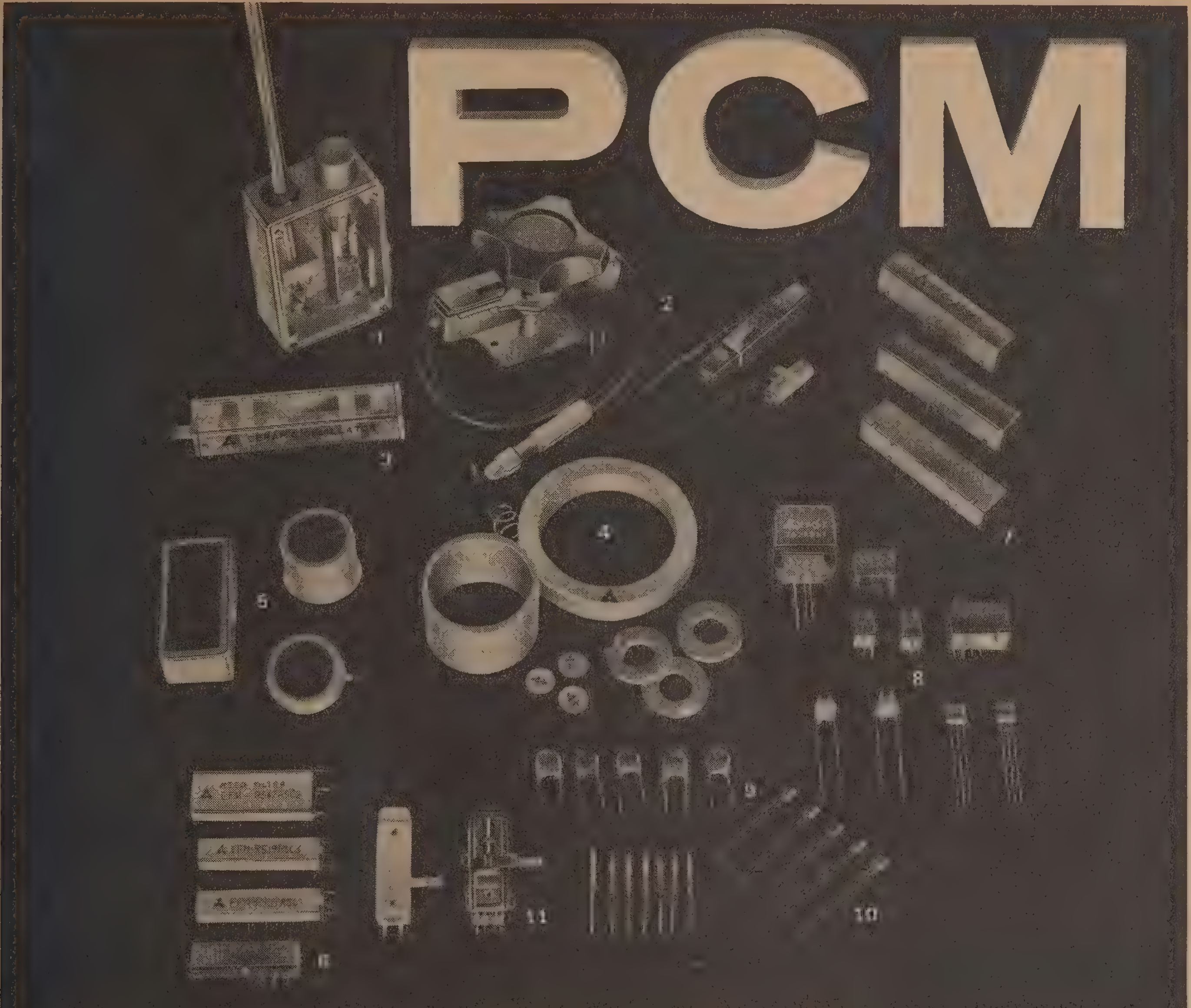
Impedance: (in and out)
10kHz B/W and below—2500 ohms
16 and 20kHz B/W—1500 ohms
30kHz B/W and above—1200 ohms

Write for Bulletin 94017



This bulletin describes the growing family of Clevite Ceramic Filters. For your copy, send letterhead request to: Clevite Corporation, Piezoelectric Division, 232 Forbes Road, Bedford, Ohio 44146

CLEVITE



PCM Ceramics provide you with the most in dielectric constant (from 300 to 5,300), the most in electro-mechanical coupling coefficient (more than 40%), the most in mechanical quality factor Qm (over 1,000), and the most in uniformity over a wide temperature range.

Matsushita makes a variety of PCM Ceramics to suit your particular needs. We have PCM with the mechanical strength and hardness to generate high voltage under sudden stress, and others with delicate acoustic sensitivity for use in microphones and cartridges.

1. Remote Controller—Utilizes noise wave from the sparking of the piezoelectric element to activate a receiver.

2. Piezo Arc®—Gas igniter—Ignition device for gas appliances and cigarette lighters. Generates up to 15KV, and features supreme reliability and durability.

3. Ceramic Oscillator—Compact transistor oscillator with divided electrode piezoelectric resonator. Useful as standard signal generator. 30-100kHz available.

4. Transducer—Various sizes and shapes are available for a multitude of different functions including detonators, etc.

5. Ultrasonic Ceramic Microphone—Can transmit as well as receive. Useful in ultrasonic controller devices, alarm systems, etc.

6. Reed Filter—Frequency Resonant Filter—Contains tuning fork and two piezoelectric transducers. Applicable as sharp selectivity audio-frequency filter or as audio tone generator replacing conventional LC filter. High Q, high selectivity, compact.

7. FM Multiplex Ceramic Filter—Stable, compact, preset—no tuning required. Eliminates need for conventional L-C parts and allows simpler circuit design.

8. Ceramic Filter—For IF stage of AM/FM radios. Hybrid type (a combination of filter and coil) and composite disc type available. 262.5kHz, 455kHz, 10.7MHz.

9. Ceramic Trap "CERAP®"—Preset, low loss. Sound frequency rejection element in TV video amplifier circuit. 4.5MHz, 5.5MHz, 6.5MHz and others available.

10. FM Discriminating Element "CERAMINATOR®"—Stable, preset, small. FM demodulation element for TV/radio receivers. 4.5MHz, 5.5MHz, 6.5MHz, 10.7MHz and others available.

11. Ceramic Cartridge—High electrostatic capacitance and fidelity characteristics.

PANASONIC® in the U.S.A. and Canada

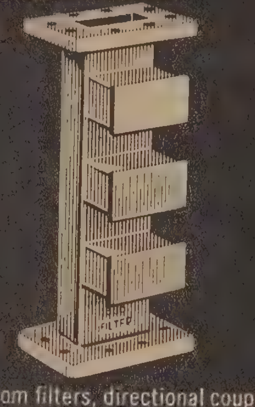
NATIONAL in other countries

MATSUSHITA ELECTRIC

For complete information and catalogs, write to: (Please mention EBG '69 ed.)
Electronic Components Division, Matsushita Electric, Kadoma, Osaka, Japan. Tel. 991-1101
Matsushita Electric Corp. of America, Pan-Am Building, 200 Park Ave., New York/P.O. Box 3980 Grand Central. Tel. 212 973-5700
Matsushita Electric (Hamburg) G.m.b.H., 2 Hamburg 36, Jungfernstieg 40, F.R. Germany. Tel. 34 47 43

FILTERS--COAXIAL & WAVEGUIDE

ALUMINUM DESIGN CORP, BROOKFIELD	**ILL**
AMPHENOL, DANBURY, CONN	**ADV PG 296**
ANAREN MICROWAVE INC, SYRACUSE	**N Y**
BIRD ELECTRONIC CORP, CLEVELAND (SOLON)	**OHIO**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
RADAR DESIGN CORP, SYRACUSE	**N Y**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
TEXSCAN CORP, INDIANAPOLIS	**IND**
TRANSCO PRODUCTS INC, VENICE, CAL	**ADV PG 296**
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Aircom Inc, Union	N H
Airtec Inc, Roselle	N J
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Aluminum Design Corp, Brookfield	Ill
Amphenol, Danbury	Conn
Anaren Microwave Inc, Syracuse	N Y
Andrew California Corp, Claremont	Cal
Applied Engineering Prods Div Samarius Inc Ansonia	Conn
Applied Microwave Lab, Inc, Andover	Mass
Applied Research, Inc, Port Washington	N Y
A R F Products, Inc, Raton	N M
Astrolab Inc, Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
Ava Electronics & Machine Corp, Upper Darby	Pa
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Bendix Corp, Microwave Devices Div, Franklin	Ind
Bird Electronic Corp, Cleveland (Solon)	Ohio
Brown Engineering-A Teledyne Co, Huntsville	Ala
California Microwave, Sunnyvale	Cal
Centroid Inc, Garden City Park	N Y
Clavier Corp, Richmond Hill	NY
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Daico Industries Inc, Gardena	Cal
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Denki Kogyo Co Ltd, Tokyo	Japan
Diamond Antenna & Microwave Corp, Winchester	Mass
Eastern Microwave Corp, Winchester	Mass
Electro-Data Inc, Garland	Tex
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electromagnetic Technology Corp, Mountain View	Cal
Electro-Mechanics Co, Austin	Tex
Electronics of Clearfield Inc, Clearfield	Pa
Electronic Specialty Co, Los Angeles	Cal
Elite Electronic Engineering Co, Chicago	Ill
E & M Labs, North Hollywood	Cal
Erie Technological Products Inc, Erie	Pa
Farinon Electric, San Carlos	Cal
Ferranti, Ltd, Lancashire	England
Finney Co, Bedford	Ohio
Frequency Engineering Labs, Farmingdale	N J
Fujitsu Ltd, Tokyo	Japan
General Microwave Corp, Farmingdale	N Y
General Radio Co, West Concord	Mass
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Gombos Microwave Inc, Clifton	N J
Gremar Mfg Co Inc, Wakefield	Mass
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hewlett-Packard, Palo Alto	Cal
Honig Laboratories Inc, Westbury	N Y
Jampro Antenna Co, Sacramento	Cal
Lundy Electronics & Systems Inc, Glen Head	N Y
Marconi Co Ltd, Chelmsford	England
Maury Microwave Corp, Montclair	Cal
MCS Corp, Monrovia	Cal
Melabs, Palo Alto	Cal
Meridian Metalcraft Inc, Whittier	Cal
Merrimac Research & Development Inc West Caldwell,	N J
Microlab/F X R, Livingston	N J
Micromega Div Amphenol Corp, Venice	Cal
Microphase Corp, Greenwich	Conn
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Control Co, Red Bank	N J
Microwave Development Labs Inc Needham Heights	Mass
Microwave Filter Co Inc, East Syracuse	NY
Microwave Labs of America, Brooklyn	N Y
Microwave Products Inc, Chatsworth	Cal
Narda Microwave Corp, Plainview	N Y
Neico Microwave Co, Waltham	Mass
N-H Microwave Inc, Red Bank	N J
Nippon Electric Co Ltd, Tokyo	Japan
O'Dell Brothers, Mountain View	Cal
Omega Laboratories Inc, Rowley	Mass
Pabst Engineering Equipment Co Inc, Elizabeth	NJ
Peninsula Microwave Labs, Mountain View	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polarad Electronic Instruments Div Long Island City	N Y
Portchester Instrument Corp, Port Chester	N Y
Premier Microwave Corp, Port Chester	N Y
Radar Design Corp, Syracuse	N Y
Radio Engineering Labs, Div DCA, Long Island City	N Y
Rantec Div Emerson Electric Co, Calabasas	Cal
Raven Electronics Inc, Burbank	Cal
R F Systems Inc, Cohasset	Mass
RLC Electronics Inc, Port Chester	N Y
Ryka Scientific Inc, Mountain View	Cal
Scope Inc, Reston	Va
Shrader Sound Inc, Washington	D C
Spencer-Kennedy Labs Inc, Boston	Mass
Standard Telephones & Cables Ltd London WC 2	England
Stark Electronic Instruments Ltd, Ajax	Ont
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach	Cal
Texscan Corp, Indianapolis	Ind
Transco Products Inc, Venice	Cal
TRF Inc, Springfield	Va
Varian, Palo Alto	Cal
Vector Industries A Teledyne Co, Palo Alto	Cal
Victor R F & Microwave Co, Wakefield	Mass
Watkins-Johnson Co, Palo Alto	Cal
Welex Electronics, Div Halliburton Co Silver Spring	Md

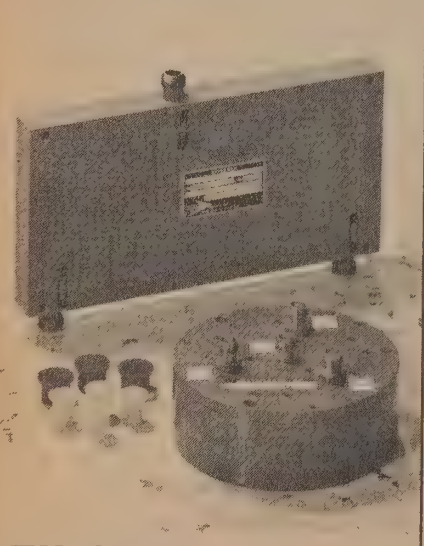


Specify Amphenol.
The leading name
in Waveguide
Components.

Custom filters, directional couplers, detectors, hybrid junctions, waveguide to coax transitions, loads, mixers, modulators, attenuators, antenna components

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL™



FILTERS, MICROWAVE

...diplex, triplex • bandpass, low/high pass • interdigital, comb line.

TRANSCO PRODUCTS, INC.
TRANSCO®
4241 Glencoe Ave.
Venice, Calif. 90291
213/391-7291•TWX 910-343-6469

FILTERS--COMB

ANAREN MICROWAVE INC, SYRACUSE	**N Y**
ANDERSEN LABORATORIES, INC, BLOOMFIELD	**CONN**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE, N Y	**ADV PG 296**
CAPTOR CORP, TIPP CITY	**OHIO**
CLEVITE CORP PIEZOELECTRIC DIV, BEDFORD	**OHIO**
CTS KNIGHTS INC, SANDWICH	**ILL**
ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK	**KAN**
HILL ELECTRONICS INC, MECHANICSBURG	**PA**
HISONIC INC, OLATHE, KAN	**ADV PG 292**
MICROSONICS INC, WEYMOUTH	**MASS**
SEG ELECTRONICS DIV, E J HOWLES INC, BROOKLYN	**NY**
SHEROLD FILTERS INC, HILLSIDE	**ILL**
TOROTEL, INC, GRANDVIEW	**MO**
TRANSCO PRODUCTS INC, VENICE	**CAL**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
WHITE INSTRUMENTS, INC, AUSTIN	**TEX**
ACDC Electronics, Inc, Burbank	Cal
ADC Products, Minneapolis	Minn
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alcor Aviation, Inc, San Antonio	Texas
Anaren Microwave Inc, Syracuse	N Y
Andersen Laboratories, Inc, Bloomfield	Conn
A P Circuit Corp, New York	N Y
Applied Research, Inc, Port Washington	N Y
A R F Products, Inc, Raton	N M
Astrolab Inc, Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
Betron-IRE-SpA, Livorno	Italy
Blackhawk Networks Corp, Janesville	Wisc
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Bundy Electronics Corp, Springfield	N J
Caledonia Electronics & Transformer Div Caledonia	N Y

Comb Filters?
Try Bulova First!
CALL:

Ariz	Tech-Ser Inc, 1805 E Indian School Rd Phoenix	602-265-3629
Cal	Straube Assoc, 483 Willow Rd Menlo Pk	213-323-2476
Cal	W J Carnes & Co, 420 S D St Tustin	213-838-0575
Conn	Samuel C Hooker Inc, Box 369 W Hartford	203-233-8000
Fla	Perrott Assoc, 1607 Forsyth Rd, Orlando	305-275-1132
Fla	Perrott Assoc, Box 6277 West Palm Beach	305-967-1770
Fla	Perrott Assoc, Box 4532, Clearwater	813-531-5513
Ill	J R Sales Engineering 7132 N Harlem Ave, Chicago	312-774-8550
Iowa	J R Sales Engrg, 3350 Cottage Grove Ave SE, Cedar Rapids	319-365-5259
Md	Callas Electronics, 6409 Frederick Ave Baltimore	301-744-7711
Mass	Samuel Hooker, Inc, Box 352 Winchester	617-729-5482
Minn	Wenco Sales Inc, 7728 Morgan Ave S Minneapolis	612-866-3639
Mo	J C Mankus & Assoc, 400 Brooks La Hazelwood	314-PE1-4334
NY	Kahgan Sales Corp, 1261 Broadway New York	212-MU4-7772
NY	H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester	716-232-2688
NY	Comtronic Assoc, 1551 Franklin Ave Mineola	516-PI1-8966
NY	H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady	518-374-5901
NY	H C Johnson Agencies Inc, Box 215 Fayetteville	315-637-9383
NY	H C Johnson Agencies Inc, 8 Los Robles St Williamsville	716-632-7880
Ohio	Augey Natalino Assoc, 209 Harmony Hills Akron	216-666-1447
Pa	C H Newson & Assoc Inc, 627 Bethlehem Pike, Philadelphia	215-248-3377
Tex	Blackburn Assoc., Inc., 137 Walnut Hill Village, Box 20073, Dallas	214-351-9991
Wash	Jas J Backer Co, 221 W Galer St Seattle	206-AT3-6470
Can	Canadian Micro Electronics, Box 6157 Sta J, Ottawa	725-2332

BULOVA WATCH CO INC
FREQUENCY CONTROL PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

Captor Corp, Tipp City .... Ohio
Clavier Corp, Richmond Hill .... NY
Clevite Corp Piezoelectric Div, Bedford .... Ohio
Collins Radio Co, Electronic Components
  Newport Beach .... Cal
Control Science Corp, Alexandria .... Va
CTS Knights Inc, Sandwich Ill
Dietz Design Inc, Belton .... Mo
Dytronics Co Inc, Columbus .... Ohio
E G & G Inc, Systems Devel Div, Bedford .... Mass
Electrac Inc, Anaheim .... Cal
Electra/Midland Corp, Kansas City .... Kan
Electromagnetic Technology Corp, Mountain View .... Cal
Electro Networks Inc, Caledonia .... N Y
Electronic Research co, A Textron Co
  Overland Park .... Kan
EMR Div Weston Instruments Inc, Princeton .... N J
ESC Electronics Corp Sub Simmonds Precision
  Palisades Park .... N J
Ferritronics Ltd, Richmond Hill .... Ont
Filtaire Inc Div Walter Kidde Co, Charlottesville .... Va
Filtech Corp, Franklin Park Ill
Forbes & Wagner Inc, Silver Creek .... N Y
Fullmer Electronics Inc, Northridge .... Cal
Gombos Microwave Inc, Clifton .... N J
Hill Electronics Inc, Mechanicsburg .... Pa
Hisonic Inc, Olathe .... Kan
Hughes Aircraft Co, Newport Beach .... Cal
Hyletronics Corp, Wilmington .... Mass
Karkar Electronics Inc, San Francisco .... Cal
McCoy Electronics Co, Sub Oak Electro/Netics corp
  Mount Holly Springs .... Pa
Melabs, Palo Alto .... Cal
Micromega Div Amphenol Corp, Venice .... Cal
Microphase Corp, Greenwich .... Conn
Microsonics Inc, Weymouth .... Mass
Microwave Labs of America, Brooklyn .... N Y
Neotec Corp, Rockville .... Md
Novatronics Inc, Pompano Beach .... Fla
PCA Electronics Inc, Sepulveda .... Cal
Peninsula Microwave Labs, Mountain View .... Cal
Philamon Laboratories Inc, Westbury .... N Y
Piezo Crystal Co, Carlisle .... Pa
Rantec Div Emerson Electric Co, Calabasas .... Cal
RLC Electronics Inc, Port Chester .... N Y
Seg Electronics Div, E J Howles Inc, Brooklyn .... NY
Sherold Filters Inc, Hillside Ill
Signal Analysis Industries Corp, Copiague .... N Y

Space Craft Inc, Huntsville .... Ala
Technical Materiel Corp, Mamaroneck .... N Y
T M C Systems (Ariz) Inc, Tempe .... Ariz
Torotel, Inc, Grandview .... Mo
Trak Microwave Corp, Tampa .... Fla
Transco Products Inc, Venice .... Cal
TT Electronics Inc, Culver City .... Cal
United Transformer Co Div TRW Inc, New York .... N Y
Varian, Palo Alto .... Cal
Vector Industries A Teledyne Co, Palo Alto .... Cal
Versatek Industries Inc, Indianapolis .... Ind
Vibration Instruments Co, Anaheim .... Cal
Watkins-Johnson Co, Palo Alto .... Cal
White Instruments, Inc, Austin .... Tex

FILTERS--CONTINUOUSLY VARIABLE

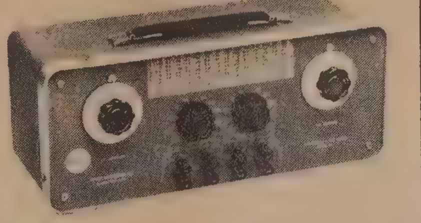
ALLEN AVIONICS INC,DIV A K ALLEN CO INC, MINEOLA .... N Y
ANAREN MICROWAVE INC, SYRACUSE .... N Y
BURR-BROWN RESEARCH CORP, TUCSON .... ARIZ
GENERAL MICROWAVE CORP, FARMINGDALE .... N Y
HEWLETT-PACKARD, PALO ALTO .... CAL
KAPPA NETWORKS INC, CARTERET, N J .... ADV PG 302
PREMIER MICROWAVE CORP,, PORT CHESTER .... N Y
RADAR DESIGN CORP, SYRACUSE .... N Y
R H G ELECTRONICS LAB INC, FARMINGDALE .... N Y
SPENCER-KENNEDY LABS INC, BOSTON .... MASS
TEXSCAN CORP, INDIANAPOLIS .... IND
ADV PG 297
TRACOR INC, AUSTIN, TEX .... ADV PG 297
Ad-Yu Electronics Inc, Passaic .... N J
AIM Electronics Ltd, Cambridge .... U K
Airborne Instruments Lab, Div Cutler-Hammer Inc
  Deer Park .... N Y
Allen Avionics Inc,Div A K Allen Co Inc, Mineola .... N Y
Anaren Microwave Inc, Syracuse .... N Y
Anzac Electronics, Waltham .... Mass
A P Circuit Corp, New York .... N Y
A R F Products, Inc, Raton .... N M
Astrolab Inc, Linden .... N J
Burr-Brown Research Corp, Tucson .... Ariz
Clavier Corp, Richmond Hill .... NY
Data Delay Devices, Clifton .... N J
Dynamics Instrumentation Co, Monterey Park .... Cal
Dytronics Co Inc, Columbus .... Ohio
Electrac Inc, Anaheim .... Cal
Electra/Midland Corp, Kansas City .... Kan
Electro-Data Inc, Garland .... Tex
Electro-Mechanics Co, Austin .... Tex
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp
  Amsterdam .... N Y
Electronic Transformer Corp, Paterson .... N J
Fish-Schurman Corp, New Rochelle .... N Y
Frequency Engineering Labs, Farmingdale .... N J
General Microwave Corp, Farmingdale .... N Y
Gombos Microwave Inc, Clifton .... N J
Hewlett-Packard, Palo Alto .... Cal
Honig Laboratories Inc, Westbury .... N Y
Kappa Networks Inc, Carteret .... N J
Kokuyo Electric Co Ltd, Tokyo .... Japan
Krohn-Hite Corp, Cambridge .... Mass
MCS Corp, Monrovia .... Cal
Merit Coil & Transformer Corp, Hollywood .... Fla
Microlab/F X R, Livingston .... N J
Microwave Associates Inc, Burlington .... Mass
Microwave Control Co, Red Bank .... N J
Microwave Filter Co Inc, East Syracuse .... NY
Microwave Labs of America, Brooklyn .... N Y
Moog Co, R A, Trumansburg .... N Y
Optical Coating Lab Inc, Santa Rosa .... Cal
Premier Microwave Corp, Port Chester .... N Y
Princeton Applied Research Corp, Princeton .... N J
Radar Design Corp, Syracuse .... N Y
Radio Engineering Labs, Div DCA,
  Long Island City .... N Y
R H G Electronics Lab Inc, Farmingdale .... N Y
RLC Electronics Inc, Port Chester .... N Y
Ryka Scientific Inc, Mountain View .... Cal
Shrader Sound Inc, Washington .... D C
Signal Analysis Industries Corp, Copiague .... N Y
Sinclair Radio Labs Inc, Tonawanda .... N Y
Space Craft Inc, Huntsville .... Ala
Spectral Dynamics Corp of San Diego, San Diego .... Cal
Spectrum Instruments Inc, Tuckahoe .... N Y
Spectrum Systems, Inc, Waltham .... Mass
Spencer-Kennedy Labs Inc, Boston .... Mass
Squires-Sanders Inc, Liberty Corner .... N J
Systems Research Labs Inc, Dayton .... Ohio
Telonic Engineering Co Div, Telonic Industries Inc
  Laguna Beach .... Cal
Texscan Corp, Indianapolis .... Ind
Tracor Inc, Austin .... Tex
TRF Inc, Springfield .... Va
Vibration Instruments Co, Anaheim .... Cal
Watkins-Johnson Co, Palo Alto .... Cal

FILTERS--CRYSTAL

ANRITSU ELECTRIC CO LTD, TOKYO, JAPAN .... ADV PG 298
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL
PRODS, WOODSIDE, N Y .... ADV PG 297
CLEVITE CORP PIEZOELECTRIC DIV, BEDFORD .... OHIO
CTS CORP, ELKHART .... IND
CTS KNIGHTS INC, SANDWICH, ILL .... ADV PG 239
ELECTRONIC RESEARCH CO, A TEXTRON CO, OVERLAND PARK
KAN .... ADV PG 298
HILL ELECTRONICS INC, MECHANICSBURG .... PA
MICROSONICS INC, WEYMOUTH, MASS .... ADV PG 298
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS
CHICAGO ILL
REEVES-HOFFMAN DIV, CARLISLE .... PA
SEG ELECTRONICS DIV, E J HOWLES INC, BROOKLYN .... NY
SHEROLD CRYSTALS INC, KANSAS CITY .... MO
SHEROLD FILTERS INC, HILLSIDE, ILL .... ADV PG 299
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK .... N Y

Anderson Electronics Inc, Hollidaysburg .... Pa
Anritsu Electric Co Ltd, Tokyo .... Japan
Betron-IRE-SpA, Livorno .... Italy
Blackhawk Networks Corp, Janesville .... Wisc
Bliley Electric Co, Erie .... Pa
Bulova Watch Co Inc Elctns Div Frequency Control Prods
  Woodside .... N Y
Canadian Motorola Electronics Co, Agincourt .... Ont
Cathodeon Crystals Ltd, Cambridge .... Eng

ALLISON PASSIVE CONTINUOUSLY-VARIABLE FILTERS



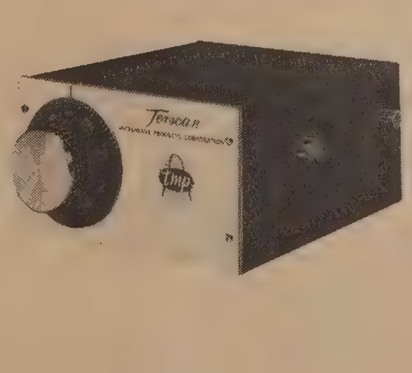
Allison continuously variable passive network filters in 5 models covering the range from 1 Hz to 670 kHz. Passive network advantages of no power supply, negligible ringing, extremely low noise, coupled with smooth passbands and steep continuous attenuation. Each unit consists of separate low pass and high pass filters which may be coupled for band pass operation. Tunable bandwidths from 1/3 octave to 10 octaves. Passive band-elimination filters, 35 Hz to 20kHz

TRACOR

6500 TRACOR LANE/AUSTIN, TEXAS 78721
512-926-2800/TWX 512-926-0441

Filters

- TUNABLE BANDPASS
- 50 MHz—4000 MHz



Texscan
Microwave Products
4610 North Franklin Road
Indianapolis, Indiana 46226
Phone (317) 545-6481
Telex: 27-2110 TWX: 810-341-3184

Crystal Filters?

Try Bulova First!

CALL:

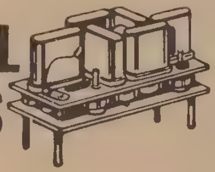
Ariz Tech-Ser Inc, 1805 E Indian School Rd
  Phoenix 602-265-3629
Cal Straube Assoc, 483 Willow Rd
  Menlo Pk 213-323-2476
Cal W J Carnes & Co, 420 S D St
  Tustin 213-838-0575
Conn Samuel C Hooker Inc, Box 369
  W Hartford 203-233-8000
Fla Perrott Assoc, 1607 Forsyth Rd,
  Orlando 305-275-1132
Fla Perrott Assoc, Box 6277
  West Palm Beach 305-967-1770
Fla Perrott Assoc, Box 4532, Clearwater 813-531-5513
Ill J R Sales Engineering
  7132 N Harlem Ave, Chicago 312-774-8550
Iowa J R Sales Engrg, 3350 Cottage Grove Ave SE,
  Cedar Rapids 319-365-5259
Md Callas Electronics, 6409 Frederick Ave
  Baltimore 301-744-7711
Mass Samuel Hooker, Inc, Box 352
  Winchester 617-729-5482
Minn Wenco Sales Inc, 7728 Morgan Ave S
  Minneapolis 612-866-3639
Mo J C Mankus & Assoc, 400 Brooks La
  Hazelwood 314-PF1-4334
NY Kahgan Sales Corp, 1261 Broadway
  New York 212-MJ4-7772
NY H C Johnson Agencies Inc, 111 Mt Hope Ave
  Rochester 716-232-2688
NY Comtronic Assoc, 1551 Franklin Ave
  Mineola 516-PI1-8966
NY H C Johnson Agencies Inc, Box 86
  Brandywine Sta, Schenectady 518-374-5901
NY H C Johnson Agencies Inc, Box 215
  Fayetteville 315-637-9383
NY H C Johnson Agencies Inc, 8 Los Robles St
  Williamsville 716-632-7880
Ohio Augey Natalino Assoc, 209 Harmony Hills
  Akron 216-666-1447
Pa C H Newson & Assoc Inc, 627 Bethlehem
  Pike, Philadelphia 215-248-3377
Tex Blackburn Assoc., Inc., 137 Walnut Hill Village,
  Box 20073, Dallas 214-351-9991
Wash Jas J Backer Co, 221 W Galer St
  Seattle 206-AT3-6470
Can Canadian Micro Electronics, Box 6157
  Sta J, Ottawa 725-2332

BULOVA WATCH CO INC
FREQUENCY CONTROL PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

erc

FILTERS

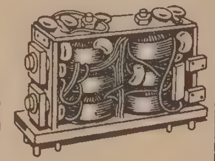
CRYSTAL
FILTERS



- Bandpass
- Combbank
- Single Sideband
- Band Elimination

Cover Frequency Spectrum
2.5 kHz to 100 mHz

LC
FILTERS



- Bandpass
- Highpass
- Low pass
- Notch
- Telemetry Bank

Cover Frequency Spectrum
DC to 100 mHz

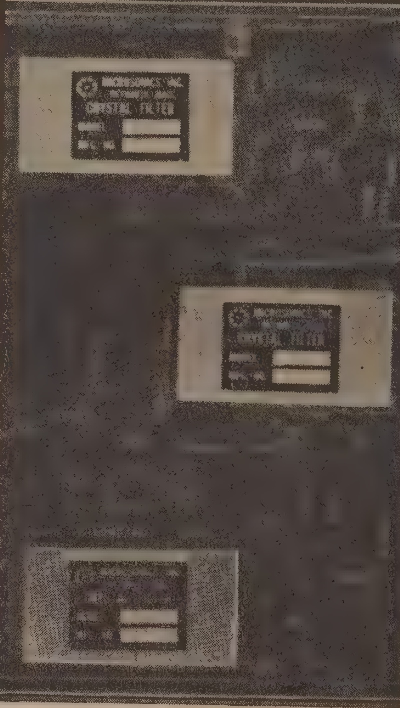
CUSTOM AND
STANDARD DESIGNS

We offer design engineering for a complete filter design capability covering all possible applications.

Write for complete literature

erc frequency control products
A TEXTRON COMPANY
electronic
research co.
913—ME. 1-6700
10,000 W. 75, Overland Park, Kans 66204

CRYSTAL
FILTERS



Microsonics, Inc. has designed and developed phase tracking crystal filters, in which the phase between filters will track within close tolerances, over wide temperature ranges, without temperature control. Any one of the standard multi-pole filters such as Butterworth, Tchebycheff, Bessel, etc. may be obtained with phase tracking requirements. In the event of tight tracking requirements, the filters are produced in matched sets according to the customer's requirements.

The set of 3 filters shown above have been produced in production quantities and the specifications are shown below.

SPECIFICATIONS

Center frequencies: ......5MC ±150 cps
Bandwidth 3db: ....1KC ±100 cps
Shape-factor 60/3db: 5:1
Ultimate rejection: ....70db min.
Initial phase off-set: ....1°
Phase tracking across the 3db bandwidth: ....5° max.
Operating temperature: −35°C to +75°C

Send for Microsonics' Brochure No. 4350

MICROSONICS, INC.
60 Winter Street
Weymouth, Mass. 02188
Tel. 617 337-4200
A subsidiary of the Sangamo Electric Company

Works
in
Seconds.

The '69 Electronics Buyers' Guide lets you find people, places, and things in seconds. In the Directory of Manufacturers and Sales Offices, for example, more than 6,000 manufacturers are listed, including addresses, telephone numbers, sales offices, the people to call for information, the total number of engineers and employees and sales volumes. So use your EBG. It works in seconds.

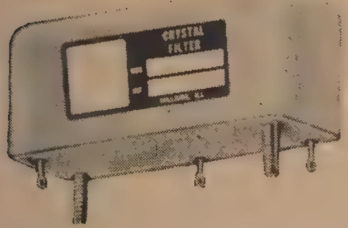
Electronics Buyers' Guide

C-F Networks Inc, Phoenix	Ariz
Clavier Corp, Richmond Hill	NY
Clevite Corp Piezoelectric Div, Bedford	Ohio
Collins Radio Co, Electronic Components Newport Beach	Cal
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
CTS Corp, Elkhart	Ind
CTS Electronics Inc, South Pasadena	Cal
CTS Knights Inc, Sandwich	Ill
Damon Engineering Inc, Needham Heights	Mass
Dietz Design Inc, Belton	Mo
Ebauches SA Dept Oscilloquartz 2001 Neuchatel	Switz
Electra/Midland Corp, Kansas City	Kan
Electronic Research co, A Textron Co Overland Park	Kan
Filtaire Inc Div Walter Kidde Co, Charlottesville	Va
Filtech Corp, Franklin Park	Ill
Fivre Dept Fabbrica Ital Mag Marelli, I - 27100 Pavia	Italy
Frequency Electronics Inc, New Hyde Park	N Y
Fujitsu Ltd, Tokyo	Japan
Helix Research Assoc Inc, La Mesa	Cal
Hill Electronics Inc, Mechanicsburg	Pa
Hughes Aircraft Co, Newport Beach	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
Karkar Electronics Inc, San Francisco	Cal
Kidde & Co Inc, Walter, Belleville	N J
Kinsekisha Lab Ltd, Tokyo	Japan
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs	Pa
Micronetics Div Teledyne Systems Co, San Diego	Cal
Microsonics Inc, Weymouth	Mass
Monitor Products Co Inc, South Pasadena	Cal
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Nytronics Inc, Berkeley Heights	N J
Palmer Ltd, G A Stanley, W Molesey, Surrey	England
Pan American Trade Development Corp, New York	N Y
Piezo Crystal Co, Carlisle	Pa
Piezo Technology Inc, Orlando	Fla
Portchester Instrument Corp, Port Chester	N Y
Reeves-Hoffman Div, Carlisle	Pa
Rytron Co, Inc, North Hollywood	Cal
Scott Electronics Corp, Orlando	Fla
Seg Electronics Div, E J Howles Inc, Brooklyn	NY
Sherold Crystals Inc, Kansas City	Mo
Sherold Filters Inc, Hillside	Ill
Space Craft Inc, Huntsville	Ala
Standard Crystal Co, Alhambra	Cal
Standard Telephones & Cables Ltd London WC 2	England
Technical Materiel Corp, Mamaroneck	N Y
Tedford Crystal Labs, Inc, Cincinnati	Ohio
T M C Systems (Ariz) Inc, Tempe	Ariz
United Transformer Co Div TRW Inc, New York	N Y
Xtalonix Products Div Harshaw Chemical Co Columbus	Ohio

SHEROLD
FILTERS

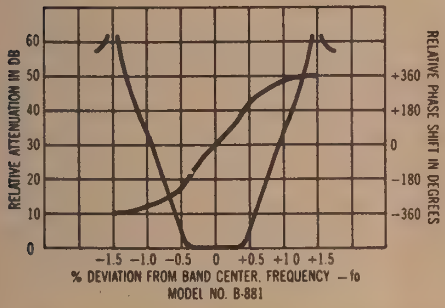
CRYSTAL FILTERS

Miniaturized crystal filters designed for use where extreme selectivity and stability must be combined with minimum volume. Under one roof are facilities for designing and producing crystal filters as well as filter crystals. This assures fabrication of highly reliable crystal filters and discriminators. (For frequency ranges which are presently practical for crystals, bandpass, bandstop, bandpass-linearphase, and single sideband filters as well as crystal discriminators are manufactured at this facility.)



A TYPICAL BANDPASS CRYSTAL FILTER

MODEL NO.	CENTER FREQUENCY	6 db BANDWIDTH (MINIMUM)	MAXIMUM BANDWIDTH AT 60 db	MAXIMUM PASSBAND RIPPLE	MAXIMUM INSERTION LOSS	NOMINAL IMPEDANCE (OHMS)	CASE SIZE L"xW"xH"
F-100-20m	10mc	20kc	40kc	2db	6db	5k	2 3/16 x 1 x ¾
F-100-35m	10mc	35kc	100kc	±.5db	3db	2k	2 3/16 x 1 x ¾
F-102-35m	10.2mc	35kc	100kc	±.5db	3db	2k	2 3/16 x 1 x ¾
*F-104-88m	10.4mc	88kc	250kc	.1db	5db	7.5k	2 x 1¼ x 1
F-104-100m	10.4mc	100kc	500kc	1db	10db	470	2 x 1¼ x 1
F-107-220m	10.7mc	220kc	1000kc	.75db	10db	2k	1 19/32 x 1 x ¾
F-115-36m	11.5mc	36kc	90kc	.5db	3db	50	2 3/16 x 1 x ¾
F-160-09m	16mc	9kc	35kc	±.5db	6db	50	2 3/16 x 1 x ¾
F-186-44m	18.6mc	44kc	110kc	±.5db	3db	2k	2 3/16 x 1 x ¾
F-440-40m	44.0mc	40kc	120kc	1.5db	10db	50	1 5/16 x 2⅛ x 4⅛



MODEL NO. B-881

*SPECIAL PHASE CHARACTERISTICS

Phase shift:

1% deviation from linearity over 6db bandwidth.
.4% deviation from linearity over 80% of the 6db bandwidth.
.15% deviation from linearity over 60% of the 6db bandwidth.

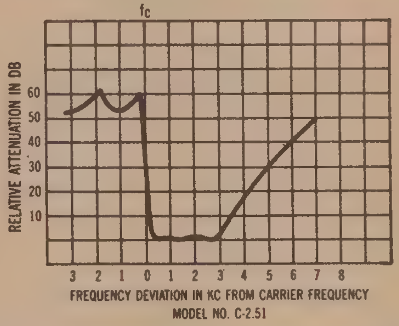
ORDERING NON-STANDARD CRYSTAL FILTERS

When specifying non-standard bandpass crystal filters for quotation requests, in addition to describing the application and any unusual environmental specifications please include the following information: Type of filter, minimum 3 db- or 6 db-bandwidth, maximum 40 db- or 60 db-bandwidth, maximum passband ripple, maximum midband insertion loss, input and output impedance, maximum case dimensions and operating temperature range.

If there is no specific requirement in a particular case, it is preferable to so state, since over-specifying filter characteristics may increase cost or complexity unnecessarily.

SINGLE SIDEBAND FILTERS

MODEL NO.	CARRIER FREQUENCY (fc)	3db BANDWIDTH (MINIMUM)	SIDEBAND REJECTION MINIMUM	MAXIMUM PASSBAND RIPPLE	MAXIMUM PASSBAND INSERTION LOSS	NOMINAL IMPEDANCE (OHMS)	CASE SIZE L"xW"xH"
FU-1650k-50	1,650kc	fc +500cps to fc +3000cps	50db	1.5db	2db	10k	2 3/16 x 1 3/16 x 1 13/64
FL-1650k-50	1,650kc	fc —500cps to fc —3000cps	50db	1.5db	2db	10k	2 3/16 x 1 3/16 x 1 13/64
FU-1750k-55	1,750kc	fc +300cps to fc +3000cps	55db	2db	6db	10k	4 x 2 x 2
FU-7.5m-45	7.5mc	fc +500cps to fc +3000cps	45db	2db	3db	390	2 3/16 x 1 3/16 x 1 13/64
FU-9m-45	9mc	fc +500cps to fc +3500cps	45db	2db	3db	330	1¾ x 1¼ x 1¼
FL-64-70 FU-104-70	64kc to 104kc	fc +300cps fc +3500cps	70db	1.0db	8db	600	4½ x 3 x 1¼



MODEL NO. C-2.51

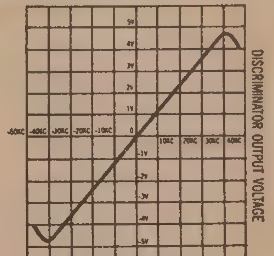
CRYSTAL DISCRIMINATORS

A TYPICAL CRYSTAL DISCRIMINATOR

Center frequency range: 50 kc to 60 mc. Deviation from linearity: Less than 10% over a minimum of 75% of the peak-to-peak bandwidth and better than 1% near the band-center frequency. Wide impedance range. Output voltage: ± 5 volts (nominal).

MODEL NO.	CENTER FREQUENCY	PEAK-TO-PEAK BANDWIDTH	MAXIMUM * HARMONIC DISTORTION	NOMINAL IMPEDANCE (OHMS)	CASE SIZE L"xW"xH"
*D-115m-40k	11.5mc	—40kc to +40kc	2%	100k	1¾ x 1¼ x ½
D.3m-20k	3.0mc	—20kc to +20kc	3%	100k	1 x 2 x ⅝

*2% for a 12kc deviation and a 1000cps modulating frequency



FREQUENCY DEVIATION IN KC
from 11.5 MC
MODEL No. D-115M-40K*

Have a need for UNUSUAL LC FILTERS? . . . Contact us for UNUSUAL DESIGNS

SHEROLD FILTERS, INC.

4302 Warren Avenue, Hillside, Illinois 60162 • CHICAGO PHONE: 921-7080 TWX 312-547-7009

SUBSIDIARY OF TYCO LABORATORIES, INC.

AF Equalizer Filters?

Try Bulova First!

CALL:

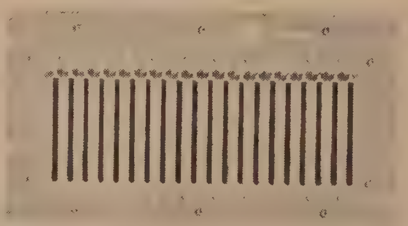
Ariz	Tech-Ser Inc, 1805 E Indian School Rd Phoenix	602-265-3629
Cal	Straube Assoc, 483 Willow Rd Menlo Pk	213-323-2476
Cal	W J Carnes & Co, 420 S D St Tustin	213-838-0575
Conn	Samuel C Hooker Inc, Box 369 W Hartford	203-233-8000
Fla	Perrott Assoc, 1607 Forsyth Rd, Orlando	305-275-1132
Fla	Perrott Assoc, Box 6277 West Palm Beach	305-967-1770
Fla	Perrott Assoc, Box 4532, Clearwater	813-531-5513
Ill	J R Sales Engineering 7132 N Harlem Ave, Chicago	312-774-8550
Iowa	J R Sales Engrg, 3350 Cottage Grove Ave SE, Cedar Rapids	319-365-5259
Md	Callas Electronics, 6409 Frederick Ave Baltimore	301-744-7711
Mass	Samuel Hooker, Inc, Box 352 Winchester	617-729-5482
Minn	Wenco Sales Inc, 7728 Morgan Ave S Minneapolis	612-866-3639
Mo	J C Mankus & Assoc, 400 Brooks La Hazelwood	314-PE1-4334
NY	Kahgan Sales Corp, 1261 Broadway New York	212-MU4-7772
NY	H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester	716-232-2688
NY	Comtronic Assoc, 1551 Franklin Ave Mineola	516-PI1-8966
NY	H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady	518-374-5901
NY	H C Johnson Agencies Inc, Box 215 Fayetteville	315-637-9383
NY	H C Johnson Agencies Inc, 8 Los Robles St Williamsville	716-632-7880
Ohio	Augey Natalino Assoc, 209 Harmony Hills Akron	216-666-1447
Pa	C H Newson & Assoc Inc, 627 Bethlehem Pike, Philadelphia	215-248-3377
Tex	Blackburn Assoc., Inc., 137 Walnut Hill Village, Box 20073, Dallas	214-351-9991
Wash	Jas J Backer Co, 221 W Galer St Seattle	206-AT3-6470
Can	Canadian Micro Electronics, Box 6157 Sta J, Ottawa	725-2332

BULOVA WATCH CO INC
FREQUENCY CONTROL PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

FILTERS--EQUALIZER, A-F

ALLEN AVIONICS INC, DIV A K ALLEN CO INC, MINEOLA	**N Y**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE, N Y	**ADV PG 300**
CAPTOR CORP, TIPP CITY	**OHIO**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
DECOURSEY ENGINEERING LAB, CULVER CITY	**CAL**
HISONIC INC, OLATHE, KAN	**ADV PG 292**
KAPPA NETWORKS INC, CARTERET, N J	**ADV PG 302**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
SEG ELECTRONICS DIV, E J HOWLES INC, BROOKLYN	**NY**
TELE-SIGNAL CORP, WOODBURY	**N Y**
TOROTEL, INC, GRANDVIEW	**MO**
TRACOR INC, AUSTIN,	**ADV PG 300**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
WHITE INSTRUMENTS, INC, AUSTIN	**TEX**
ADC Products, Minneapolis	Minn
Aerovox Corp New Bedford Div, New Bedford	Mass
Alcor Aviation, Inc, San Antonio	Texas
Allen Avionics Inc, Div A K Allen Co Inc, Mineola	N Y
Amk Electronics Co Inc, Edison	N J
Applied Microwave Lab, Inc, Andover	Mass
A R F Products, Inc, Raton	N M
Astrolab Inc, Linden	N J
Atlas Coil Corp, Ansonia	Conn
Bayly Engineering Ltd, Ajax	Ontario
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Bundy Electronics Corp, Springfield	N J
Caledonia Electronics & Transformer Div Caledonia	N Y
Canadian Marconi Co, Montreal 16	Quebec
Captor Corp, Tipp City	Ohio
Clavier Corp, Richmond Hill	NY
Computer Instruments Corp, Hempstead	N Y
Control Science Corp, Alexandria	Va
DeCoursey Engineering Lab, Culver City	Cal
Dietz Design Inc, Belton	Mo
Dresser Systems, Inc, Houston	Tex
Electro Networks Inc, Caledonia	N Y
Electronic Transformer Corp, Paterson	N J
El-Rad Mfg Co, Chicago	Ill
EMR Div Weston Instruments Inc, Princeton	N J
Filtech Corp, Franklin Park	Ill
Fisher Engineering Inc, Huntington	Ind
Freed Transformer Co Inc, Brooklyn	N Y
Fujitsu Ltd, Tokyo	Japan
Fullmer Electronics Inc, Northridge	Cal
Geo Space Corp, Houston	Tex
Gladding Corp, South Otselic	N Y
Gotham Audio Corp, New York	N Y
Gray Research & Development Co Div East Hartford	Conn
H B Engineering Corp, Silver Spring	Md
Helix Research Assoc Inc, La Mesa	Cal
Hisonic Inc, Olathe	Kan
Kapitol Magnetic Corp, Chicago	Ill
Kappa Networks Inc, Carteret	N J
Karkar Electronics Inc, San Francisco	Cal
Kenyon Electronics Inc, Jersey City	N J
Langevin Div, Scientific Ind, Inc, Santa Ana	Cal
Laselco Pacific, Palo Alto	Cal
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
Magnetic Engineering Corp, Danbury	Conn
Microtran Co Inc, Valley Stream	N Y
Milgo Electronic Corp, Miami	Fla
Neshaminy Electronic Corp, Furlong	Pa
Nippon Electric Co Ltd, Tokyo	Japan
North Hills Electronics Inc, Glen Cove	N Y
Pacific Magnetic Corp, Romoland	Cal
PCA Electronics Inc, Sepulveda	Cal
Polyphase Instrument Co, Bridgeport	Pa
Pulse Techniques Inc, West Englewood	N J
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Rixon Electronics Inc, Silver Spring	Md
Rytron Co, Inc, North Hollywood	Cal
Scott Electronics Corp, Orlando	Fla
Seg Electronics Div, E J Howles Inc, Brooklyn	NY
Shrader Sound Inc, Washington	D C
Shure Brothers Inc, Evanston	Ill
Standard Telephones & Cables Ltd London WC 2	England
Stelma Inc, Stamford	Conn
Stephens Electronics, Burbank	Cal
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Tel-Com Instruments Inc, Hanover	N J
Teledata Inc, Queens Village	N Y
Tele-Signal Corp, Woodbury	N Y
T M C Systems (Ariz) Inc, Tempe	Ariz
Torotel, Inc, Grandview	Mo
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
Tracor Inc, Austin	Tex
TT Electronics Inc, Culver City	Cal
Unholtz-Dickie Corp, Hamden	Conn
United Transformer Co Div TRW Inc, New York	N Y
Universal Audio, North Hollywood	Cal
Visual Electronics Labs Audio Div, Pasadena	Cal
Westrex Div Litton Industries, Inc, Hollywood	Cal
White Instruments, Inc, Austin	Tex
Y T & T Corp, Roslyn Heights	NY

TRACOR
SPECTRUM
GENERATORS



Complete spectrum generators with constant-percentage band-width filters from 1 octave to 1/9 octave. Individual slide attenuators for each channel continuously variable from 0 to 60 db. Internal random noise generators and choice of input and output spectrums and levels. Frequency ranges: 2.5 Hz to 200 kHz center frequencies. Allison Random Noise Generators provide white or pink noise in the spectrum 5 Hz to 50kHz. Available rack mounted or portable, battery or AC powered.

TRACOR

6500 TRACOR LANE/AUSTIN, TEXAS 78721
512-926-2800/TWX 512-926-0441

FILTERS--FLUID-AIR CLEANING

BUCKBEE MEARS CO, ST PAUL	**MINN**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Acoustica Associates Inc, Los Angeles	Cal
Air-Maze Div, North American Rockwell Corp Cleveland	Ohio
Brinkmann Instruments Inc, Westbury	N Y
Buckbee Mears Co, St Paul	Minn
Cambridge Filter Corp, Syracuse	N Y
Chemplast Inc, Wayne	N J
Clean Room Products Inc, Farmingdale	N Y
De Vilbiss Co, Toledo	Ohio
Dinsmore Instrument Co, Flint	Mich
Edcraft Industries Inc, Linden	N J
Friedrich & Dimmock, Inc, Mays Landing	N J
General Electric Co, ECSO, Schenectady	N Y
Heather Filters Ltd, London W 1	England
Hoke Incorporated, Cresskill	N J
Kahn & Co Inc, Wethersfield	Conn
Koppers Co Inc, Pittsburgh	Pa
Lectrodryer Div, McGraw-Edison Co, Pittsburgh	Pa
Livingston Electronic Div Jettron Prods Inc Hanover	N J
Millipore Corp, Bedford	Mass
Mine Safety Appliances Co, Pittsburgh	Pa
Newark Wire Cloth Co, Newark	N J
Nippon Electric Co Ltd, Tokyo	Japan
Pall Trinity Micro Corp, Cortland	N Y
Pellon Corp, Ind Div, Lowell	Mass
Penfield Mfg Co Inc, Meriden	Conn
Perfectaire Equipment Co Inc, Cambridge	Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Research Products Corp, Madison	Wis
St Marys Carbon Co, St Marys	Pa
Serfilco Div Service Filtration Corp, Chicago	Ill
Sintered Specialties Div, Janesville	Wis
Technical Wire Products Inc, Cranford	N J
Trion Inc, McKees Rocks	Pa
Vacco Electronics Div, Vacco Industries South El Monte	Cal
Wells Industries Corp, North Hollywood	Cal

FILTERS--FLUID-LIQUID

BARNSTEAD CO DIV RITTER PFAUDLER CORP BOSTON	**MASS**
BUCKBEE MEARS CO, ST PAUL	**MINN**
CULLIGAN INC, NORTHBROOK	**ILL**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
WIRE CLOTH ENTERPRISES INC, PITTSBURGH	**PA**
Acoustica Associates Inc, Los Angeles	Cal
Air-Maze Div, North American Rockwell Corp Cleveland	Ohio
Aqualite Corp, North Hollywood	Cal
Barnstead Co Div Ritter Pfaudler Corp, Boston	Mass
Barrett Co, Leon J, Worcester	Mass
Brinkmann Instruments Inc, Westbury	N Y
Buckbee Mears Co, St Paul	Minn
Chemplast Inc, Wayne	N J
Clean Room Products Inc, Farmingdale	N Y
Culligan Inc, Northbrook	Ill
Daniels Inc, C R, Daniels	Md
De Vilbiss Co, Toledo	Ohio
Fluid Power Accessories Inc, Wheeling	Ill
Friedrich & Dimmock, Inc, Mays Landing	N J
Gelman Instrument Co, Ann Arbor	Mich
General Electric Co, ECSO, Schenectady	N Y
Hektor Scientific Co Inc, Foxboro	Mass
Kahn & Co Inc, Wethersfield	Conn
Lunkenheimer Co Sub Condec Corp, Cincinnati	Ohio
Microporous Filter Div, Anaheim	Cal
Millipore Corp, Bedford	Mass
Newark Wire Cloth Co, Newark	N J
Pall Trinity Micro Corp, Cortland	N Y
Pellon Corp, Ind Div, Lowell	Mass
Penfield Mfg Co Inc, Meriden	Conn
Permutit Co, Paramus	N J
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Ramyr Mfg Co, Buena Park	Cal
St Marys Carbon Co, St Marys	Pa
Selas Corp of America, Dresher	Pa
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Serfilco Div Service Filtration Corp, Chicago	Ill
Sintered Specialties Div, Janesville	Wis
Technical Development Co, Glenolden	Pa
Technical Wire Products Inc, Cranford	N J
Ultrasonic Devices Inc, Deer Park	NY
Unique Wire Weaving Co Inc, Hillside	N J
Vacco Electronics Div, Vacco Industries South El Monte	Cal
Vanton Pump & Equipment Corp, Hillside	N J
Wells Industries Corp, North Hollywood	Cal
Wire Cloth Enterprises Inc, Pittsburgh	Pa
Wire Cloth Manufacturers Inc, Parsippany	N J

FILTERS--HIGHPASS, R-F

ALLEN AVIONICS INC, DIV A K ALLEN CO INC, MINEOLA	**N Y**
ANAREN MICROWAVE INC, SYRACUSE	**N Y**
AXEL ELECTRONICS, INC, JAMAICA	**N Y**
BIRD ELECTRONIC CORP, CLEVELAND (SOLON)	**OHIO**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE	**ADV PG 301**
CADDELL BURNS MFG CO INC, MINEOLA	**N Y**
CAPTOR CORP, TIPP CITY	**OHIO**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
CTS KNIGHTS INC, SANDWICH	**ILL**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK	**KAN**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**

HISONIC INC, OLATHE, KAN	ADV PG 292
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	ADV PGS 8
HOPKINS ENGINEERING CO, SAN FERNANDO	**CAL**
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN	**N Y**
KAPPA NETWORKS INC, CARTERET, N J	ADV PG 302
MICROSONICS INC, WEYMOUTH	**MASS**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
RADAR DESIGN CORP, SYRACUSE	**N Y**
R F INTERONICS INC, BAY SHORE	**N Y**
SEG ELECTRONICS DIV, E J HOWLES INC, BROOKLYN	**NY**
SPENCER-KENNEDY LABS INC, BOSTON, MASS	ADV PG 303
TEXSCAN CORP, INDIANAPOLIS	**IND**
TOROTEL, INC, GRANDVIEW	**MO**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y** ADV PG 301

High Pass Filters?

Try Bulova First!

CALL:

Ariz	Tech-Ser Inc, 1805 E Indian School Rd Phoenix	602-265-3629
Cal	Straube Assoc, 483 Willow Rd Menlo Pk	213-323-2476
Cal	W J Carnes & Co, 420 S D St Tustin	213-838-0575
Conn	Samuel C Hooker Inc, Box 369 W Hartford	203-233-8000
Fla	Perrott Assoc, 1607 Forsyth Rd, Orlando	305-275-1132
Fla	Perrott Assoc, Box 6277 West Palm Beach	305-967-1770
Fla	Perrott Assoc, Box 4532, Clearwater	813-531-5513
Ill	J R Sales Engineering 7132 N Harlem Ave, Chicago	312-774-8550
Iowa	J R Sales Engrg, 3350 Cottage Grove Ave SE, Cedar Rapids	319-365-5259
Md	Callas Electronics, 6409 Frederick Ave Baltimore	301-744-7711
Mass	Samuel Hooker, Inc, Box 352 Winchester	617-729-5482
Minn	Wenco Sales Inc, 7728 Morgan Ave S Minneapolis	612-866-3639
Mo	J C Mankus & Assoc, 400 Brooks La Hazelwood	314-PE1-4334
NY	Kahgan Sales Corp, 1261 Broadway New York	212-MU4-7772
NY	H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester	716-232-2688
NY	Comtronic Assoc, 1551 Franklin Ave Mineola	516-PI1-8966
NY	H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady	518-374-5901
NY	H C Johnson Agencies Inc, Box 215 Fayetteville	315-637-9383
NY	H C Johnson Agencies Inc, 8 Los Robles St Williamsville	716-632-7880
Ohio	Augey Natalino Assoc, 209 Harmony Hills Akron	216-666-1447
Pa	C H Newson & Assoc Inc, 627 Bethlehem Pike, Philadelphia	215-248-3377
Tex	Blackburn Assoc., Inc., 137 Walnut Hill Village, Box 20073, Dallas	214-351-9991
Wash	Jas J Backer Co, 221 W Galer St Seattle	206-AT3-6470
Can	Canadian Micro Electronics, Box 6157 Sta J, Ottawa	725-2332

BULOVA WATCH CO INC
FREQUENCY CONTROL PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

ADC Products, Minneapolis	Minn
Aerojet-General Corp Electronics Div, Azusa	Cal
Aerovox Corp Distr Sales, New Bedford	Mass
Aerovox Corp New Bedford Div, New Bedford	Mass
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Aladdin Electronics Div Aladdin Industries, Inc Nashville	Tenn
ALA Industries Inc, Harrison	NY
Allen Avionics Inc,Div A K Allen Co Inc, Mineola	N Y
Allen-Bradley Co, Milwaukee	Wis
Ameco Inc, Phoenix	Ariz
American Electronic Labs Inc, Lansdale	Pa
American Trans-Coil Corp, Richmond Hill	NY
Amk Electronics Co Inc, Edison	N J
Anaren Microwave Inc, Syracuse	N Y
Ando Electric Co Ltd, Ohta-ku, Tokyo	Japan
Andrew California Corp, Claremont	Cal
A P Circuit Corp, New York	N Y
Applied Microwave Lab, Inc, Andover	Mass
Applied Research, Inc, Port Washington	N Y
A R F Products, Inc, Raton	N M
Ark Electronics, Inc, Willow Grove	Pa
Astrolab Inc, Linden	N J
Atlas Coil Corp, Ansonia	Conn
Automatic Coil Co Div Designatronics, Inc Mineola	N Y
Automatic Metal Products Corp, Brooklyn	N Y
Aviation Electric Ltd, St Laurent, Montreal	Que
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Axel Electronics, Inc, Jamaica	N Y
Ballastran Corp, Fort Wayne	Ind
Bayly Engineering Ltd, Ajax	Ontario
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp, Microwave Devices Div, Franklin	Ind
Beukers Labs Inc, John M, Medford	NY
Bird Electronic Corp, Cleveland (Solon)	Ohio
Blass Antenna Electronics Corp, Leonia	N J
Blonder-Tongue Labs Inc, Newark	N J
Borders Electronics Co Inc, Pennsauken	N J
Bramco Controls Div Ledex Inc, Piqua	Ohio
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Bundy Electronics Corp, Springfield	N J
Caddell Burns Mfg Co Inc, Mineola	N Y
Caledonia Electronics & Transformer Div Caledonia	N Y
Cambridge Thermionic Corp, Cambridge	Mass
Canadian Marconi Co, Montreal 16	Quebec
Captor Corp, Tipp City	Ohio
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Centroid Inc, Garden City Park	N Y
Clavier Corp, Richmond Hill	NY
Collins Radio Co, Electronic Components Newport Beach	Cal
Communication Electronics Inc, Rockville	Md
Computer Instruments Corp, Hempstead	N Y
Control Science Corp, Alexandria	Va
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
CTS Knights Inc, Sandwich	Ill
Daico Industries Inc, Gardena	Cal
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Daltronics Inc, Providence	R I
Daytron Inc, Mountain View	Cal
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Denki Kogyo Co Ltd, Tokyo	Japan
Dietz Design Inc, Belton	Mo
Drake Co, R L, Miamisburg	Ohio
Dresser Systems, Inc, Houston	Tex
Dynamics Instrumentation Co, Monterey Park	Cal
Dytronics Co Inc, Columbus	Ohio
Electra/Midland Corp, Kansas City	Kan
Electro Assemblies Inc, Chicago	Ill
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electromagnetic Technology Corp, Mountain View	Cal
Electro Materials Corp, San Diego	Cal
Electro Networks Inc, Caledonia	N Y
Electronic Applications Co, Pine Brook	N J
Electronic Research co, A Textron Co Overland Park	Kan
Electro Windings & Components Inc, Kenilworth	N J
El-Rad Mfg Co, Chicago	Ill
ESC Electronics Corp Sub Simmonds Precision Palisades Park	N J
Ferritronics Ltd, Richmond Hill	Ont
Filtaire Inc Div Walter Kidde Co, Charlottesville	Va
Finney Co, Bedford	Ohio
Fisher Engineering Inc, Huntington	Ind
Forbes & Wagner Inc, Silver Creek	N Y
Fugle-Miller Labs Inc, Kenilworth	N J
Fujitsu Ltd, Tokyo	Japan
Fullmer Electronics Inc, Northridge	Cal
General Coil Products Corp, Brooklyn	N Y
General Instrument Corp F W Sickles Div Chicopee	Mass

PIONEERS IN MINIATURIZATION

ELECTRIC WAVE FILTERS

BAND PASS
HIGH PASS
LOW PASS
AIRCRAFT
DISCRIMINATORS
INTERSTAGE
LINEAR PHASE
TELEGRAPH
TELEMETERING

- MIL-F-18327B & industrial
- Immediate delivery from stock
- Specials made to specs.
- DC to 30 MHz

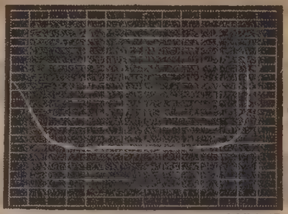
Over 1300 top quality ironcore inductance devices available from stock.

UNITED TRANSFORMER COMPANY
DIVISION OF **TRW** *INC.*
150 Varick Street, New York, N. Y. 10013
TWX: 710-581-2722 / (212) AL 5-3500
For nearest Rep see UTC ad, page 727

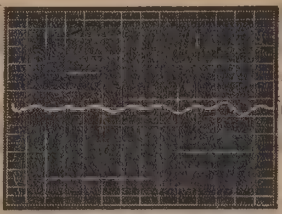
General Microwave Corp, Farmingdale	N Y
General Scientific Corp, San Fernando	Cal
Genisco Technology Corp, Compton	Cal
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Geo Space Corp, Houston	Tex
Gombos Microwave Inc, Clifton	N J
Gremar Mfg Co Inc, Wakefield	Mass
Guide Industries Inc, Sun Valley	Cal
Helix Research Assoc Inc, La Mesa	Cal
Hertz Filter Corp, Garden City Park	N Y
Hi-Lo Mfg Corp, Chicago	Ill
Hisonic Inc, Olathe	Kan
Honeywell Test Instruments Div, Denver	Colo
Honig Laboratories Inc, Westbury	N Y
Hopkins Engineering Co, San Fernando	Cal
Hughes Aircraft Co, Newport Beach	Cal
Hyletronics Corp, Wilmington	Mass
Inductor Engineering Inc, Lewes	Del
Industrial Condenser Corp, Chicago	Ill
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Telecommunications, New York	N Y
JFD Electronics Co, Components Div, Brooklyn	N Y
Kappa Networks Inc, Carteret	N J
Kenyon Electronics Inc, Jersey City	N J
Krohn-Hite Corp, Cambridge	Mass
Kyoritsu Electric Works Ltd, Tokyo	Japan
Laselco Pacific, Palo Alto	Cal
Lynch Communication Systems, San Francisco	Cal
Magnetic Circuit Elements Inc, Montrose	Cal
Maury Microwave Corp, Montclair	Cal
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs	Pa
MCS Corp, Monrovia	Cal
Melabs, Palo Alto	Cal
Meridian Metalcraft Inc, Whittier	Cal
Merrimac Research & Development Inc West Caldwell,	N J
Microlab/F X R, Livingston	N J
Microphase Corp, Greenwich	Conn
Microsonics Inc, Weymouth	Mass
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Control Co, Red Bank	N J
Microwave Development Labs Inc Needham Heights	Mass
Microwave Filter Co Inc, East Syracuse	NY
MKC Electronics Corp, Kansas City	Kans
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Multronics Inc, Rockville	Md
National Coil Co Inc, Sheridan	Wyo
Neshaminy Electronic Corp, Furlong	Pa
Nippon Electric Co Ltd, Tokyo	Japan
North Hills Electronics Inc, Glen Cove	N Y
Nytronics Inc, Berkeley Heights	N J
Oki Electric Industry Co Ltd, Tokyo	Japan
Pacific Magnetic Corp, Romoland	Cal
Palmer Ltd, G A Stanley, W Molesey, Surrey	England
PCA Electronics Inc, Sepulveda	Cal
Peninsula Microwave Labs, Mountain View	Cal
Physical Electronics Labs, Menlo Park	Cal
Polyphase Instrument Co, Bridgeport	Pa
Portchester Instrument Corp, Port Chester	N Y
Premier Microwave Corp, Port Chester	N Y
Quindar Electronics Inc, Springfield	NJ
Radar Design Corp, Syracuse	N Y
Radio Engineering Labs, Div DCA, Long Island City	N Y
Rantec Div Emerson Electric Co, Calabasas	Cal
Renco Electronics Inc, Hicksville	N Y
Resistance Products Co, Harrisburg	Pa
R F Interonics Inc, Bay Shore	N Y
Riedon Avionics, Inc, Van Nuys	Cal
RLC Electronics Inc, Port Chester	N Y
Rytron Co, Inc, North Hollywood	Cal
Sartron Inc, Newberg	Ore
Scott Electronics Corp, Orlando	Fla
Seg Electronics Div, E J Howles Inc, Brooklyn	NY
Siemens America Inc, New York	N Y
Sinclair Radio Labs Inc, Tonawanda	N Y
Southern Electronics Corp, Burbank	Cal
Space Craft Inc, Huntsville	Ala
Spencer-Kennedy Labs Inc, Boston	Mass
Sprague Electric Co, North Adams	Mass
Squires-Sanders Inc, Liberty Corner	N J
Standard Telephones & Cables Ltd London WC 2	England
Storno, Copenhagen S	Den
Systems Research Labs Inc, Dayton	Ohio
Technical Materiel Corp, Mamaroneck	N Y
Telemet Co, Video Prods & Airborne Telemetry Amityville	N Y
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach	Cal
Texscan Corp, Indianapolis	Ind
T M C Systems (Ariz) Inc, Tempe	Ariz
Torotel, Inc, Grandview	Mo
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
Transformer Design Inc of Milwaukee, Milwaukee	Wis
TRF Inc, Springfield	Va
Triad Transformer Corp, Venice	Cal
Tricraft Products Corp, Chicago	Ill
TT Electronics Inc, Culver City	Cal
U S Capacitor Corp, Burbank	Cal
United Transformer Co Div TRW Inc, New York	N Y
Vanguard Electronics Co, Inglewood	Cal
Varian, Palo Alto	Cal
Vector Industries A Teledyne Co, Palo Alto	Cal
Waber Electronics Inc, Philadelphia	Pa
Welex Electronics, Div Halliburton Co Silver Spring	Md
Wells Electronics Inc, Components Div, South Bend	Ind
Whitewater Electronics Inc, Whitewater	Wis
Winegard Co, Burlington	Iowa

FILTERS--INFRARED SEE INFRARED EQUIPMENT

HOW KAPPA GETS CONSTANT DELAY IN *STEEP RESPONSE* FILTERS!



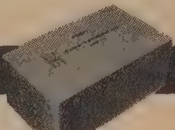
AMPLITUDE RESPONSE IN PASSBAND



PASSBAND GROUP DELAY DISTORTION

Difficult? . . . of course! . . . but
WE PROGRAMMED A GENERAL SOLUTION
in double precision **FOR** a high-speed digital computer,
to enable us to meet the demands of systems
requiring delay distortionless transmission.
ANY PREDETERMINED ENVELOPE DELAY
can now be attained
BY ITERATION OF THE POLES AND ZEROES
of a complete system with up to 50 equalizer sections.
By **ACHIEVING EQUAL RIPPLE RESPONSE** this
method outperforms any other equalization technique in minimizing
delay distortion. KAPPA design engineers
can assist you in attaining **ECONOMICALLY** an improved accuracy of
time correlation between signals in data transmission systems.

KAPPA 2211 SERIES FILTERS



(TYPE: BAND PASS)

PASS BAND RESPONSE:	
Frequency Range:	3300-6000 Hz (1 db points)
Amplitude ripple:	± 0.25 db.
Group Delay Distortion:	Less than ± 100 usec.
Insertion Loss at 4500 Hz:	Less than 2.5 db
STOP BAND RESPONSE:	Min 50 db at 3000 Hz and lower Min 50 db at 6420 Hz and higher
Impedance Range:	500-6000 ohms
Pass Band Harmonic Distortion:	Less than −65 db
Intermodulation Distortion between equal simultaneous level tones:	55 db below −10 dbm
Environmental:	MIL F-18237 B

For prompt engineering assistance call us collect at (201) 541-4226

Contact us for the name of your nearest representative or consult listing in this directory. Complete new catalog available.

KAPPA NETWORKS, INC.
Delay Line Specialists • Electric Wave Filters
Manufacturing Engineers
165 ROOSEVELT AVENUE • CARTERET, NEW JERSEY 07008 • TEL. (201) 541-4226

KAPPA FILTERS

Excellence in Design

Uniformity in Production

Timely Delivery

Low Pass
High Pass
Band Pass
Band Stop
RFI
Delay Correcting Networks
DC to 100 MHZ

SPECIFY:
Type:
Frequencies:
Cutoff:
Max. Attenuation:
Impedance:

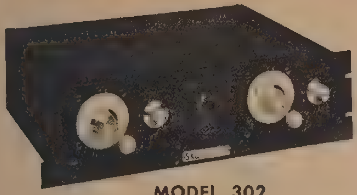
We will computer-design your special Filter requirements for production reality.

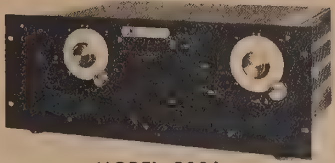
Feel free to consult our well-staffed Filter Department for any help, anytime.

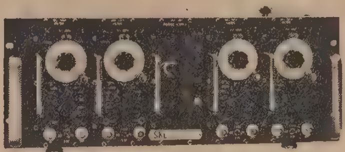
KAPPA NETWORKS, INC
Delay Line Specialists
Electric Wave Filters
Manufacturing Engineers
165 ROOSEVELT AVENUE CARTERET, NEW JERSEY 07008
TEL (201) 541-4226
World's largest manufacturer of broadcast quality delay lines.

SEE OUR DELAY LINE AD ON PAGE 252

VARIABLE ELECTRONIC FILTERS


MODEL 302


MODEL 308A


SOLID STATE MODEL 364
Above: Four 364 Filter Sections, with 381 Power Supply and 391 Filter Frame

CONDENSED SPECIFICATIONS

	MODEL 302	MODEL 308A	MODEL 364
FUNCTIONS	High, Low, Band-Pass or Band Reject	High, Low, Band-Pass or Band Reject	High, Low, Band-Pass or Band Reject
CUTOFF FREQUENCY RANGE	20 Hz to 200 kHz	0.2 Hz to 20 kHz	20 Hz to 2 MHz
PASS BAND LIMITS	Low pass: 2 Hz lower half power point. High pass: 4 MHz upper half power point.	DC to 1 MHz	DC to 15 MHz (3 dB point)
MAXIMUM ATTENUATION	Greater than 90 dB	Greater than 80 dB	80 dB below 200 kHz 60 dB 200 kHz-2 MHz 50 dB above 2 MHz
ATTENUATION SLOPE	18 dB per octave	24 dB per octave	24 dB/octave
INSERTION LOSS	0 ± 1 dB 20 Hz to 20 kHz 0 ± 2 dB 20-200 kHz	4.5 dB ± 1.0 dB	GAIN: 12 dB, open circuit; 6 dB, 75-ohm load
HUM & NOISE	80 dB below 1 volt (100 μv)	80 μv or less	100 μV 0.2-2 MHz high-pass < 50 μV all other ranges
PRICE	$980.00	$1,475.00	364 Filter $950.00 ea. section 381 Power Supply $550.00 with 391 Frame

WIDE-BAND VHF (40-220 MHz) AMPLIFIER

MODEL 222B

Distributed amplifier covering complete VHF TV and FM bands. Low cross-modulation permits simultaneous amplification of 12 or more TV channels. Choice of two slopes or flat response: Bandwidth, 40-216 MHz; Frequency Response, 3.5 or 6.5 dB, sloped; flat with SKL 200-22 Equalizer; Voltage Gain, 25 dB minimum at 216 MHz; Impedance, 75 ohms, input and output; Return Loss, 20 dB minimum, input and output; Noise Figure, 13 dB maximum, at 216 MHz.

Price $275.00

MODEL 503A

Ideal for testing the transient response of wide-band systems in radar, communications and nuclear research. Rise Time, 0.5 nsec; Pulse Width, 0.6-100 nsec. int., unrestricted with ext. network; PRR, 50-120 pps; Impedance, 50 ohms; Trigger Input, 10V p-p; Pulse Amplitude, 0-150 int.; 1000V with ext. supply.

PRICE $495.00

FAST RISE PULSE GENERATOR

RISE TIME 0.5 NANOSEC. PULSE AMPLITUDE TO 1000V.

SKL also manufactures a complete line of transistorized RF cable television equipment, including wide and low band amplifiers plus reflectometers and wide band detectors for cable testing. For complete specifications, write:

SKL
SPENCER-KENNEDY LABORATORIES, INC.
1320 SOLDIERS FIELD ROAD • BOSTON, MASS. 02135 • TEL. 617-254-5400

FILTERS--LOW-PASS, R-F

ALLEN AVIONICS INC, DIV A K ALLEN CO INC, MINEOLA	**N Y**
ALL-TRONICS, INC, WESTBURY	**N Y**
ANALOG DEVICES INC, CAMBRIDGE	**MASS**
ANAREN MICROWAVE INC, SYRACUSE	**N Y**
AXEL ELECTRONICS, INC, JAMAICA	**N Y**
BIRD ELECTRONIC CORP, CLEVELAND (SOLON)	**OHIO**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE, N Y	**ADV PG 304**
CADDELL BURNS MFG CO INC, MINEOLA	**N Y**
CAPTOR CORP, TIPP CITY	**OHIO**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
CTS KNIGHTS INC, SANDWICH	**ILL**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HISONIC INC, OLATHE, KAN	**ADV PG 292**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
HOPKINS ENGINEERING CO, SAN FERNANDO	**CAL**
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN	**N Y**
KAPPA NETWORKS INC, CARTERET, N J	**ADV PG 302**
MICROSONICS INC, WEYMOUTH	**MASS**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
RADAR DESIGN CORP, SYRACUSE	**N Y**
R F INTERONICS INC, BAY SHORE	**N Y**
SEG ELECTRONICS DIV, E J HOWLES INC, BROOKLYN	**NY**
SPENCER-KENNEDY LABS INC, BOSTON, MASS	**ADV PG 303**
TEXSCAN CORP, INDIANAPOLIS	**IND**
TOROTEL, INC, GRANDVIEW	**MO**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
ADC Products, Minneapolis	Minn
Aerovox Corp Distr Sales, New Bedford	Mass
Aerovox Corp New Bedford Div, New Bedford	Mass
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Aladdin Electronics Div Aladdin Industries, Inc Nashville	Tenn
ALA Industries Inc, Harrison	NY
Alcor Aviation, Inc, San Antonio	Texas
Alford Mfg Co, Winchester	Mass
Allen Avionics Inc, Div A K Allen Co Inc, Mineola	N Y
Allen-Bradley Co, Milwaukee	Wis
All-Tronics, Inc, Westbury	N Y
Ameco Inc, Phoenix	Ariz
American Electronic Labs Inc, Lansdale	Pa
American Trans-Coil Corp, Richmond Hill	NY
Americon Corp, Waltham	Mass

Low Pass Filters?

Try Bulova First!

CALL:

Ariz	Tech-Ser Inc, 1805 E Indian School Rd Phoenix	602-265-3629
Cal	Straube Assoc, 483 Willow Rd Menlo Pk	213-323-2476
Cal	W J Carnes & Co, 420 S D St Tustin	213-838-0575
Conn	Samuel C Hooker Inc, Box 369 W Hartford	203-233-8000
Fla	Perrott Assoc, 1607 Forsyth Rd, Orlando	305-275-1132
Fla	Perrott Assoc, Box 6277 West Palm Beach	305-967-1770
Fla	Perrott Assoc, Box 4532, Clearwater	813-531-5513
Ill	J R Sales Engineering 7132 N Harlem Ave, Chicago	312-774-8550
Iowa	J R Sales Engrg, 3350 Cottage Grove Ave SE, Cedar Rapids	319-365-5259
Md	Callas Electronics, 6409 Frederick Ave Baltimore	301-744-7711
Mass	Samuel Hooker, Inc, Box 352 Winchester	617-729-5482
Minn	Wenco Sales Inc, 7728 Morgan Ave S Minneapolis	612-866-3639
Mo	J C Mankus & Assoc, 400 Brooks La Hazelwood	314-PE1-4334
NY	Kahgan Sales Corp, 1261 Broadway New York	212-MU4-7772
NY	H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester	716-232-2688
NY	Comtronic Assoc, 1551 Franklin Ave Mineola	516-P11-8966
NY	H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady	518-374-5901
NY	H C Johnson Agencies Inc, Box 215 Fayetteville	315-637-9383
NY	H C Johnson Agencies Inc, 8 Los Robles St Williamsville	716-632-7880
Ohio	Augey Natalino Assoc, 209 Harmony Hills Akron	216-666-1447
Pa	C H Newson & Assoc Inc, 627 Bethlehem Pike, Philadelphia	215-248-3377
Tex	Blackburn Assoc., Inc., 137 Walnut Hill Village, Box 20073, Dallas	214-351-9991
Wash	Jas J Backer Co, 221 W Galer St Seattle	206-AT3-6470
Can	Canadian Micro Electronics, Box 6157 Sta J, Ottawa	725-2332

BULOVA WATCH CO INC
FREQUENCY CONTROL PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

Amk Electronics Co Inc, Edison	N J
Analog Devices Inc, Cambridge	Mass
Anaren Microwave Inc, Syracuse	N Y
Ando Electric Co Ltd, Ohta-ku, Tokyo	Japan
Andrew California Corp, Claremont	Cal
A P Circuit Corp, New York	N Y
Applied Microwave Lab, Inc, Andover	Mass
Applied Research, Inc, Port Washington	N Y
A R F Products, Inc, Raton	N M
Ark Electronics, Inc, Willow Grove	Pa
Artronic Instrument Co, Silver Spring	Md
Astrolab Inc, Linden	N J
Atlas Coil Corp, Ansonia	Conn
Automatic Coil Co Div Designatronics, Inc Mineola	N Y
Automatic Metal Products Corp, Brooklyn	N Y
Aviation Electric Ltd, St Laurent, Montreal	Que
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Axel Electronics, Inc, Jamaica	N Y
Ballastran Corp, Fort Wayne	Ind
Bayly Engineering Ltd, Ajax	Ontario
Bendix Corp, Microwave Devices Div, Franklin	Ind
Beukers Labs Inc, John M, Medford	NY
Bird Electronic Corp, Cleveland (Solon)	Ohio
Blass Antenna Electronics Corp, Leonia	N J
Blonder-Tongue Labs Inc, Newark	N J
Borders Electronics Co Inc, Pennsauken	N J
Bramco Controls Div Ledex Inc, Piqua	Ohio
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Bundy Electronics Corp, Springfield	N J
Caddell Burns Mfg Co Inc, Mineola	N Y
Caledonia Electronics & Transformer Div Caledonia	N Y
Cambridge Thermionic Corp, Cambridge	Mass
Canadian Marconi Co, Montreal 16	Quebec
Captor Corp, Tipp City	Ohio
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Centroid Inc, Garden City Park	N Y
Clavier Corp, Richmond Hill	NY
Collins Radio Co, Electronic Components Newport Beach	Cal
Communication Electronics Inc, Rockville	Md
Computer Instruments Corp, Hempstead	N Y
Condensateurs F A C O N, Paris 12e	France
Control Science Corp, Alexandria	Va
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
CTS Knights Inc, Sandwich	Ill
Daico Industries Inc, Gardena	Cal
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Daltronics Inc, Providence	R I
Data Delay Devices, Clifton	N J
Daytron Inc, Mountain View	Cal
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Denes Co Inc, Burbank	Cal
Denki Kogyo Co Ltd, Tokyo	Japan
Dietz Design Inc, Belton	Mo
Dorsett Electronics Inc, Tulsa	Okla
Drake Co, R L, Miamisburg	Ohio
Dresser Systems, Inc, Houston	Tex
Dynamics Instrumentation Co, Monterey Park	Cal
Dynamic System Electronics Corp, Tempe	Ariz
Dytronics Co Inc, Columbus	Ohio
E-H Research Labs Inc, Oakland	Cal
Electra/Midland Corp, Kansas City	Kan
Electro Cube Inc, San Gabriel	Cal
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electromagnetic Technology Corp, Mountain View	Cal
Electro Networks Inc, Caledonia	N Y
Electronic Applications Co, Pine Brook	N J
Electro Winders Co Inc, Covina	Cal
Electro Windings & Components Inc, Kenilworth	N J
Elite Electronic Engineering Co, Chicago	Ill
Elmag Corp, Newark	N J
Elpac Inc, Components Div, Irvine	Cal
El-Rad Mfg Co, Chicago	Ill
Erie Technological Products Inc, Erie	Pa
ESC Electronics Corp Sub Simmonds Precision Palisades Park	N J
Ferritronics Ltd, Richmond Hill	Ont
Filtaire Inc Div Walter Kidde Co, Charlottesville	Va
Filtron Co Inc Sub Liquidonics Ind Inc, Flushing	N Y
Fisher Engineering Inc, Huntington	Ind
Forbes & Wagner Inc, Silver Creek	N Y
Frequency Engineering Labs, Farmingdale	N J
Fugle-Miller Labs Inc, Kenilworth	N J
Fujitsu Ltd, Tokyo	Japan
Fullmer Electronics Inc, Northridge	Cal
General Coil Products Corp, Brooklyn	N Y
General Instrument Corp F W Sickles Div Chicopee	Mass
General Microwave Corp, Farmingdale	N Y
General Radio Co, West Concord	Mass
General Scientific Corp, San Fernando	Cal
Genisco Technology Corp, Compton	Cal
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Geo Space Corp, Houston	Tex
Gombos Microwave Inc, Clifton	N J
Gremar Mfg Co Inc, Wakefield	Mass
Gudeman Div Gulton Industries, Inc, Chicago	Ill
Guide Industries Inc, Sun Valley	Cal
Gulton Industries Inc, Metuchen	N J
Helix Research Assoc Inc, La Mesa	Cal
Hertz Filter Corp, Garden City Park	N Y
Hewlett-Packard, Palo Alto	Cal
Hisonic Inc, Olathe	Kan
Honeywell Test Instruments Div, Denver	Colo
Hopkins Engineering Co, San Fernando	Cal
Hughes Aircraft Co, Newport Beach	Cal
Hyletronics Corp, Wilmington	Mass
Ikor, Inc, Burlington	Mass
Inductor Engineering Inc, Lewes	Del
Industrial Condenser Corp, Chicago	Ill
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Telecommunications, New York	N Y
Jampro Antenna Co, Sacramento	Cal
JFD Electronics Co, Components Div, Brooklyn	N Y
Johnson Co, E F, Waseca	Minn
Kappa Networks Inc, Carteret	N J
Kenyon Electronics Inc, Jersey City	N J
Krohn-Hite Corp, Cambridge	Mass
Kyoritsu Electric Works Ltd, Tokyo	Japan
Lafayette Radio Electronics, Syosset	NY
Laselco Pacific, Palo Alto	Cal
Lundy Electronics & Systems Inc, Glen Head	N Y
Lynch Communication Systems, San Francisco	Cal
Magnetic Circuit Elements Inc, Montrose	Cal
Magnetic Systems Corp, Clearwater	Fla
Maury Microwave Corp, Montclair	Cal
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs	Pa
MCS Corp, Monrovia	Cal
Meridian Metalcraft Inc, Whittier	Cal
Merrimac Research & Development Inc West Caldwell,	N J
Microlab/F X R, Livingston	N J
Micromagnetics Div Gulton Ind, Visalia	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Microphase Corp, Greenwich	Conn
Microsonics Inc, Weymouth	Mass
Microtran Co Inc, Valley Stream	N Y
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Control Co, Red Bank	N J
Microwave Development Labs Inc Needham Heights	Mass
Microwave Filter Co Inc, East Syracuse	NY
Microwave Labs of America, Brooklyn	N Y
MKC Electronics Corp, Kansas City	Kans
Monroe Electronics Inc, Middleport	N Y
Montedoro Corp, San Luis Obispo	Cal
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Multronics Inc, Rockville	Md
Narda Microwave Corp, Plainview	N Y
National Coil Co Inc, Sheridan	Wyo
Neshaminy Electronic Corp, Furlong	Pa
Nippon Electric Co Ltd, Tokyo	Japan
North Hills Electronics Inc, Glen Cove	N Y
Nytronics Inc, Berkeley Heights	N J
Oki Electric Industry Co Ltd, Tokyo	Japan
Pacific Magnetic Corp, Romoland	Cal
Palmer Ltd, G A Stanley, W Molesey, Surrey	England
PCA Electronics Inc, Sepulveda	Cal
Peninsula Microwave Labs, Mountain View	Cal
Philamon Laboratories Inc, Westbury	N Y
Philco-Ford Corp, Washington	D C
Physical Electronics Labs, Menlo Park	Cal
Polyphase Instrument Co, Bridgeport	Pa
Portchester Instrument Corp, Port Chester	N Y
Premier Microwave Corp, Port Chester	N Y
Quindar Electronics Inc, Springfield	NJ
Radar Design Corp, Syracuse	N Y
Radio Engineering Labs, Div DCA, Long Island City	N Y
Rantec Div Emerson Electric Co, Calabasas	Cal
Raven Electronics Inc, Burbank	Cal
Ray Proof Corp, Norwalk	Conn
Renco Electronics Inc, Hicksville	N Y
Resistance Products Co, Harrisburg	Pa
R F Interonics Inc, Bay Shore	N Y
Riedon Avionics, Inc, Van Nuys	Cal
RLC Electronics Inc, Port Chester	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Rowe Industries Inc, Toledo	Ohio
Rytron Co, Inc, North Hollywood	Cal
Sartron Inc, Newberg	Ore
Scott Electronics Corp, Orlando	Fla
Seg Electronics Div, E J Howles Inc, Brooklyn	NY
Shrader Sound Inc, Washington	D C
Siemens America Inc, New York	N Y
Sinclair Radio Labs Inc, Tonawanda	N Y
Southern Electronics Corp, Burbank	Cal
Space Craft Inc, Huntsville	Ala
Spencer-Kennedy Labs Inc, Boston	Mass
Sprague Electric Co, North Adams	Mass
Squires-Sanders Inc, Liberty Corner	N J
Standard Telephones & Cables Ltd London WC 2	England
Storno, Copenhagen S	Den
Systems Research Labs Inc, Dayton	Ohio
Technical Materiel Corp, Mamaroneck	N Y
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach	Cal
Texscan Corp, Indianapolis	Ind
T M C Systems (Ariz) Inc, Tempe	Ariz
Torotel, Inc, Grandview	Mo
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
Transformer Design Inc of Milwaukee, Milwaukee	Wis
TRF Inc, Springfield	Va
Triad Transformer Corp, Venice	Cal
TRW Electronic Components Div TRW Inc, Camden	N J
TT Electronics Inc, Culver City	Cal
U S Capacitor Corp, Burbank	Cal
United Transformer Co Div TRW Inc, New York	N Y
Vanguard Electronics Co, Inglewood	Cal
Varian, Palo Alto	Cal
Vector Industries A Teledyne Co, Palo Alto	Cal
Versatek Industries Inc, Indianapolis	Ind
Waber Electronics Inc, Philadelphia	Pa
Welex Electronics, Div Halliburton Co Silver Spring	Md
Wells Electronics Inc, Components Div, South Bend	Ind
Whitewater Electronics Inc, Whitewater	Wis

FILTERS--MAGNETOSTRICTIVE

Acton Laboratories Inc, Acton	Mass
Condensateurs F A C O N, Paris 12e	France
Kenyon Electronics Inc, Jersey City	N J
Oki Electric Industry Co Ltd, Tokyo	Japan
Palmer Ltd, G A Stanley, W Molesey, Surrey	England

FILTERS--MECHANICAL

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
TOHOKU METAL INDUSTRIES, LTD, TOKYO	**JAPAN**
Acoustica Associates Inc, Los Angeles	Cal
Air-Maze Div, North American Rockwell Corp Cleveland	Ohio
Alcatel, Paris 8eme	France
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Automatic Metal Products Corp, Brooklyn	N Y
Barden Co, Hermosa Beach	Cal
Collins Radio Co, Electronic Components Newport Beach	Cal
Dinsmore Instrument Co, Flint	Mich
Fujitsu Ltd, Tokyo	Japan
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Hallett, Inglewood	Cal
H B Engineering Corp, Silver Spring	Md
Kokusai Electric Co Ltd, Tokyo	Japan
Koppers Co Inc, Pittsburgh	Pa
Pall Trinity Micro Corp, Cortland	N Y
Palmer Ltd, G A Stanley, W Molesey, Surrey	England
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Research Products Corp, Madison	Wis
Riverbank Labs, Dept of Engrg, Geneva	Ill
Sintered Specialties Div, Janesville	Wis
Telefunken Sales Corp, Garden City	N Y
Tohoku Metal Industries, Ltd, Tokyo	Japan
Torit Mfg Co, St Paul	Minn
TRW Electronic Components Div TRW Inc, Camden	N J
Unique Wire Weaving Co Inc, Hillside	N J
Varo Inc, Garland	Tex
Wells Industries Corp, North Hollywood	Cal
Whitewater Electronics Inc, Whitewater	Wis

FILTERS--NOISE

AXEL ELECTRONICS, INC, JAMAICA, N Y	**ADV PG 305**
CAPTOR CORP, TIPP CITY	**OHIO**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
DECOURSEY ENGINEERING LAB, CULVER CITY	**CAL**
HOPKINS ENGINEERING CO, SAN FERNANDO	**CAL**
KAPPA NETWORKS INC, CARTERET, N J	**ADV PG 302**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
R F INTERONICS INC, BAY SHORE	**N Y**
SEG ELECTRONICS DIV, E J HOWLES INC, BROOKLYN	**NY**
STANDARD CONDENSER CORP, CHICAGO	**ILL**
TOROTEL, INC, GRANDVIEW	**MO**
TRACOR INC, AUSTIN	**TEX**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
WANLASS ELECTRIC CO, SANTA ANA	**CAL**
ADC Products, Minneapolis	Minn
Aerovox Corp Distr Sales, New Bedford	Mass
Aerovox Corp New Bedford Div, New Bedford	Mass
AIM Electronics Ltd, Cambridge	U K
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Allen-Bradley Co, Milwaukee	Wis
Allied Witan Co, Inc, Cleveland	Ohio
A P Circuit Corp, New York	N Y
A R F Products, Inc, Raton	N M
Ark Electronics, Inc, Willow Grove	Pa
Axel Electronics, Inc, Jamaica	N Y
Bayly Engineering Ltd, Ajax	Ontario
Bramco Controls Div Ledex Inc, Piqua	Ohio
Canadian Marconi Co, Montreal 16	Quebec
Capcon Inc, New York	N Y
Captor Corp, Tipp City	Ohio
Clavier Corp, Richmond Hill	NY
Computer Instruments Corp, Hempstead	N Y
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Dawe Instruments Ltd, London W3	England
Daytron Inc, Mountain View	Cal
DeCoursey Engineering Lab, Culver City	Cal
Dietz Design Inc, Belton	Mo
Dresser Systems, Inc, Houston	Tex
Electro Cube Inc, San Gabriel	Cal
Electro Marine Corp, Falmouth	Mass
Electronic Applications Co, Pine Brook	N J
Elmag Corp, Newark	N J
Elpac Inc, Components Div, Irvine	Cal
Erie Technological Products Inc, Erie	Pa
Estes Engineering Co, Gardena	Cal
Fedtro Inc, Rockville Centre	N Y
Filtron Co Inc Sub Liquidonics Ind Inc, Flushing	N Y
Fisher Engineering Inc, Huntington	Ind
Freed Transformer Co Inc, Brooklyn	N Y
Fugle-Miller Labs Inc, Kenilworth	N J
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Scientific Corp, San Fernando	Cal
Genisco Technology Corp, Compton	Cal
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Hallett, Inglewood	Cal
Hopkins Engineering Co, San Fernando	Cal
Industrial Condenser Corp, Chicago	Ill
Kapitol Magnetic Corp, Chicago	Ill
Kappa Networks Inc, Carteret	N J
Kenyon Electronics Inc, Jersey City	N J
Koppers Co Inc, Pittsburgh	Pa
Lab Electro-Acoustique, 92 Rueil-Malmaison	France
Lundy Electronics & Systems Inc, Glen Head	N Y
Magnetic Circuit Elements Inc, Montrose	Cal
Magnetic Systems Corp, Clearwater	Fla
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs	Pa
Micromagnetics Div Gulton Ind, Visalia	Cal
Neff Instrument Corp, Duarte	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Philmore Mfg Co Inc, Richmond Hill	N Y
Potter Co, Northfield	Ill
Princeton Applied Research Corp, Princeton	N J
Renco Electronics Inc, Hicksville	N Y
R F Interonics Inc, Bay Shore	N Y
Roveti Instruments, Annapolis	Md
San Fernando Electric Mfg Co, San Fernando	Cal
Scott Inc, H H, Maynard	Mass
Seg Electronics Div, E J Howles Inc, Brooklyn	NY
Southern Electronics Corp, Burbank	Cal
Space Craft Inc, Huntsville	Ala
Spectrum Instruments Inc, Tuckahoe	N Y
Sprague Electric Co, North Adams	Mass
Squires-Sanders Inc, Liberty Corner	N J
Standard Condenser Corp, Chicago	Ill
Taiyo Denki Co Ltd, Sakai-C., Osaka	Japan
TDK Electronics Co Ltd, Chiyoda-ku, Tokyo	Japan
Technical Materiel Corp, Mamaroneck	N Y
Torotel, Inc, Grandview	Mo
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
Tracor Inc, Austin	Tex
TT Electronics Inc, Culver City	Cal
United Transformer Co Div TRW Inc, New York	N Y
Varian, Palo Alto	Cal
Versatek Industries Inc, Indianapolis	Ind
Wandel & Goltermann/Tel-Com, Hanover	N J
Wanlass Electric Co, Santa Ana	Cal
Welex Electronics, Div Halliburton Co Silver Spring	Md
Zaring Industries Inc, Carmel	Ind

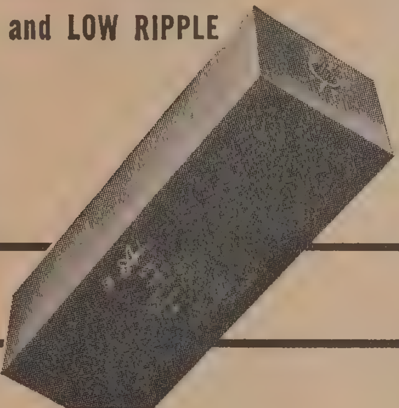
FILTERS--NOTCH, R-F

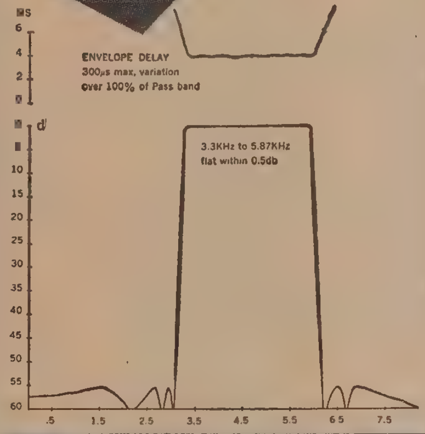
ALLEN AVIONICS INC, DIV A K ALLEN CO INC, MINEOLA	**N Y**
AXEL ELECTRONICS, INC, JAMAICA	**N Y**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE, N Y	**ADV PG 305**
CAPTOR CORP, TIPP CITY	**OHIO**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE	**WIS**
COMPONENT RESEARCH CO INC, SANTA MONICA	**CAL**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**

NEW

HIGHLY SELECTIVE CONSTANT DELAY FILTERS

CONSTANT DELAY OVER 100% of PASS BAND COUPLED with HIGH SELECTIVITY and LOW RIPPLE





Check These Specifications

- 300 μsec max. delay distortion from 3300Hz to 5920Hz
- ±0.25db max. amplitude variation from 3300Hz to 5870Hz
- 55db or greater below 3070Hz and above 6160Hz
- Size: 3x9x2¾ high
- Manufactured to meet Govt. Specifications: MIL-F-18327C

Axel

AXEL ELECTRONICS, INC.
A UNIT OF GENERAL SIGNAL CORPORATION
134-20 Jamaica Avenue
Jamaica, N.Y. 11418

Manufacturers of:
Capacitors • Precision Wave Filters • R.F.I. Filters • Pulse Networks • Pulse Transformers • Pulse Modulators

RF Notch Filters?

Try Bulova First!

CALL:

Ariz	Tech-Ser Inc, 1805 E Indian School Rd Phoenix	602-265-3629
Cal	Straube Assoc, 483 Willow Rd Menlo Pk	213-323-2476
Cal	W J Carnes & Co, 420 S D St Tustin	213-838-0575
Conn	Samuel C Hooker Inc, Box 369 W Hartford	203-233-8000
Fla	Perrott Assoc, 1607 Forsyth Rd, Orlando	305-275-1132
Fla	Perrott Assoc, Box 6277 West Palm Beach	305-967-1770
Fla	Perrott Assoc, Box 4532, Clearwater	813-531-5513
Ill	J R Sales Engineering 7132 N Harlem Ave, Chicago	312-774-8550
Iowa	J R Sales Engrg, 3350 Cottage Grove Ave SE, Cedar Rapids	319-365-5259
Md	Callas Electronics, 6409 Frederick Ave Baltimore	301-744-7711
Mass	Samuel Hooker, Inc, Box 352 Winchester	617-729-5482
Minn	Wenco Sales Inc, 7728 Morgan Ave S Minneapolis	612-866-3639
Mo	J C Mankus & Assoc, 400 Brooks La Hazelwood	314-PE1-4334
NY	Kahgan Sales Corp, 1261 Broadway New York	212-MU4-7772
NY	H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester	716-232-2688
NY	Comtronic Assoc, 1551 Franklin Ave Mineola	516-PI1-8966
NY	H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady	518-374-5901
NY	H C Johnson Agencies Inc, Box 215 Fayetteville	315-637-9383
NY	H C Johnson Agencies Inc, 8 Los Robles St Williamsville	716-632-7880
Ohio	Augey Natalino Assoc, 209 Harmony Hills Akron	216-666-1447
Pa	C H Newson & Assoc Inc, 627 Bethlehem Pike, Philadelphia	215-248-3377
Tex	Blackburn Assoc., Inc., 137 Walnut Hill Village, Box 20073, Dallas	214-351-9991
Wash	Jas J Backer Co, 221 W Galer St Seattle	206-AT3-6470
Can	Canadian Micro Electronics, Box 6157 Sta J, Ottawa	725-2332

BULOVA WATCH CO INC
FREQUENCY CONTROL PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

CTS KNIGHTS INC, SANDWICH	**ILL**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK	**KAN**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HILL ELECTRONICS INC, MECHANICSBURG	**PA**
HISONIC INC, OLATHE, KAN	**ADV PG 000**
HOPKINS ENGINEERING CO, SAN FERNANDO	**CAL**
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN	**N Y**
KAPPA NETWORKS INC, CARTERET, N J	**ADV PG 302**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
SEG ELECTRONICS DIV, E J HOWLES INC, BROOKLYN	**NY**
SHEROLD FILTERS INC, HILLSIDE	**ILL**
TOROTEL, INC, GRANDVIEW	**MO**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
ADC Products, Minneapolis	Minn
Aerovox Corp New Bedford Div, New Bedford	Mass
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Allen Avionics Inc,Div A K Allen Co Inc, Mineola	N Y
A P Circuit Corp, New York	N Y
Applied Research, Inc, Port Washington	N Y
A R F Products, Inc, Raton	N M
Ark Electronics, Inc, Willow Grove	Pa
Automatic Metal Products Corp, Brooklyn	N Y
Axel Electronics, Inc, Jamaica	N Y
Bayly Engineering Ltd, Ajax	Ontario
Bendix Corp, Microwave Devices Div, Franklin	Ind
Betron-IRE-SpA, Livorno	Italy
Blonder-Tongue Labs Inc, Newark	N J
Bramco Controls Div Ledex Inc, Piqua	Ohio
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Bundy Electronics Corp, Springfield	N J
Caledonia Electronics & Transformer Div Caledonia	N Y
Capcon Inc, New York	N Y
Captor Corp, Tipp City	Ohio
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Centroid Inc, Garden City Park	N Y
Clavier Corp, Richmond Hill	NY
Collins Radio Co, Electronic Components Newport Beach	Cal
Component Research Co Inc, Santa Monica	Cal
Computer Instruments Corp, Hempstead	N Y
Control Science Corp, Alexandria	Va
CTS Knights Inc, Sandwich	Ill
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Daytron Inc, Mountain View	Cal
Delta Electronics Inc, Alexandria	Va
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Dietz Design Inc, Belton	Mo
Dresser Systems, Inc, Houston	Tex
Dytronics Co Inc, Columbus	Ohio
Electra/Midland Corp, Kansas City	Kan
Electro Assemblies Inc, Chicago	Ill
Electro Cube Inc, San Gabriel	Cal
Electro-Data Inc, Garland	Tex
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electromagnetic Technology Corp, Mountain View	Cal
Electro-Mechanics Co, Austin	Tex
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam	N Y
Electronic Research co, A Textron Co Overland Park	Kan
Electro Winders Co Inc, Covina	Cal
Entron Inc, Silver Spring	Md
Ferritronics Ltd, Richmond Hill	Ont
Filtaire Inc Div Walter Kidde Co, Charlottesville	Va
Finney Co, Bedford	Ohio
Fisher Engineering Inc, Huntington	Ind
Forbes & Wagner Inc, Silver Creek	N Y
Fullmer Electronics Inc, Northridge	Cal
General Microwave Corp, Farmingdale	N Y
General Scientific Corp, San Fernando	Cal
Genisco Technology Corp, Compton	Cal
Geo Space Corp, Houston	Tex
Gombos Microwave Inc, Clifton	N J
Gremar Mfg Co Inc, Wakefield	Mass
Guide Industries Inc, Sun Valley	Cal
Helix Research Assoc Inc, La Mesa	Cal
Hertz Filter Corp, Garden City Park	N Y
Hewlett-Packard, Palo Alto	Cal
Hill Electronics Inc, Mechanicsburg	Pa
Hisonic Inc, Olathe	Kan
Hopkins Engineering Co, San Fernando	Cal
Hughes Aircraft Co, Newport Beach	Cal
JFD Electronics Co, Components Div, Brooklyn	N Y
Kappa Networks Inc, Carteret	N J
Kenyon Electronics Inc, Jersey City	N J
Krohn-Hite Corp, Cambridge	Mass
Magnetic Circuit Elements Inc, Montrose	Cal
Maury Microwave Corp, Montclair	Cal
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs	Pa
MCS Corp, Monrovia	Cal
Melabs, Palo Alto	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Microphase Corp, Greenwich	Conn
Montedoro Corp, San Luis Obispo	Cal
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Neotec Corp, Rockville	Md
North Hills Electronics Inc, Glen Cove	N Y
Nytronics Inc, Berkeley Heights	N J
PCA Electronics Inc, Sepulveda	Cal
Peninsula Microwave Labs, Mountain View	Cal
Physical Electronics Labs, Menlo Park	Cal
Piezo Crystal Co, Carlisle	Pa
Piezo Technology Inc, Orlando	Fla
Polyphase Instrument Co, Bridgeport	Pa
Rantec Div Emerson Electric Co, Calabasas	Cal
RLC Electronics Inc, Port Chester	N Y
San Fernando Electric Mfg Co, San Fernando	Cal
Scott Electronics Corp, Orlando	Fla
Seg Electronics Div, E J Howles Inc, Brooklyn	NY
Sherold Filters Inc, Hillside	Ill
Siemens America Inc, New York	N Y
Signal Analysis Industries Corp, Copiague	N Y
Sinclair Radio Labs Inc, Tonawanda	N Y
Space Craft Inc, Huntsville	Ala
Sprague Electric Co, North Adams	Mass
Squires-Sanders Inc, Liberty Corner	N J
Technical Materiel Corp, Mamaroneck	N Y
Tel-Com Instruments Inc, Hanover	N J
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach	Cal
T M C Systems (Ariz) Inc, Tempe	Ariz
Torotel, Inc, Grandview	Mo
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
TRF Inc, Springfield	Va
TT Electronics Inc, Culver City	Cal
United Transformer Co Div TRW Inc, New York	N Y
Vector Industries A Teledyne Co, Palo Alto	Cal
Watkins-Johnson Co, Palo Alto	Cal
Welex Electronics, Div Halliburton Co Silver Spring	Md
Whitewater Electronics Inc, Whitewater	Wis

FILTERS--OPTICAL

COSMICAR OPTICAL CO LTD, TOKYO	**JAPAN**
Aerospace Controls Corp, Los Angeles	Cal
American Instrument Co, Inc, Silver Spring	Md
Baird-Atomic, Inc, Cambridge	Mass
Bausch & Lomb, Inc, Rochester	N Y
Black Light Eastern Div Spectronics Corp Westbury	N Y
Broomer Research Corp, Plainview	N Y
Buhl Optical Co, Pittsburgh	Pa
Coherent Radiation Labs, Palo Alto	Cal
Conductron Corp, Ann Arbor	Mich
Cosmicar Optical Co Ltd, Tokyo	Japan
Denton Vacuum Inc, Cherry Hill	N J
Ealing Corp, Cambridge	Mass
Edmund Scientific Co, Barrington	N J
Ednalite Corp, Peekskill	N Y
Electrochrome Corp, Plainview	N Y
Electro-Nuclear Lab Inc, Menlo Park	Cal
Electro Optics Assoc, Palo Alto	Cal
Eppley Lab Inc, Newport	R I
Fairchild Space & Defense Sys Div Fairchild Cam & Inst Corp, El Segundo	Cal
Farrand Optical Co Inc, Bronx	N Y
Fish-Schurman Corp, New Rochelle	N Y
Gaertner Scientific Corp, Chicago	Ill
GCA Technology Div GCA Corp, Bedford	Mass
Gordon Enterprises, North Hollywood	Cal
Grace Electronics Inc, Cleveland	Ohio
Industrial Optics Corp, Newark	N J
Infrared Industries Inc, Santa Barbara	Cal
Instrument Development Labs Div Kollmorgen Corp Attleboro	Mass
Isomet Corp, Palisades Park	N J
Itek Corp, Lexington	Mass
ITT Europe Inc Components Gp, Brussels 1	Belgium
Jones Optical Works Inc A D, Burlington	Mass
Kaiser-Aerospace & Electronics Corp, Palo Alto	Cal
Laser Optics Inc, Danbury	Conn
Leitz Canada Ltd, Ernst, Midland	Ont
Lektra Labs Inc, Div Kriser Corp, College Point	N Y
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
Olympus Corp of America, Rochester	N Y
Optical Coating Lab Inc, Santa Rosa	Cal
Optics Electronics Corp, Dallas	Tex
Optics Technology Inc, Palo Alto	Cal
Oriel-Optics Corp, Stamford	Conn
O & S Research Inc, Riverton	N J
Perkin-Elmer Corp Laser Dept, Wilton	Conn
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Phoenix Precision Instrument Co, Inc, Philadelphia	Pa
Polaroid Corp, Cambridge	Mass
Precision Optics Div Penna Optical Co, Reading	Pa
Ransom Labs, John H, Los Angeles	Cal
Razdow Labs Inc, Newark	N J
Republic Lens Co Inc, Bronx	N Y
Schoeffel Instrument Co, Westwood	NJ
Spectrolab Div, Textron Electronics Inc, Sylmar	Cal
Spectrum Systems, Inc, Waltham	Mass
Varo Inc, Garland	Tex
Y T & T Corp, Roslyn Heights	NY
Zeiss Inc, Carl, New York	N Y

ACCUVOLT

BESPONDER

CINDERELLA

If you're confused over product trade names, locate the source easily in EBG's Trade Name Listing in the back of the green section.

FILTERS--RADIO INTERFERENCE

ALL-TRONICS, INC, WESTBURY, N Y	**ADV PG 307**
AXEL ELECTRONICS, INC, JAMAICA	**N Y**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE	**N Y**
CAPTOR CORP, TIPP CITY, OHIO	**ADV PG 306**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
CTS KNIGHTS INC, SANDWICH	**ILL**
DECOURSEY ENGINEERING LAB, CULVER CITY	**CAL**
ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK	**KAN**
HISONIC INC, OLATHE, KAN	**ADV PG 000**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
HOPKINS ENGINEERING CO, SAN FERNANDO CAL	**ADV PG 306**
KAPPA NETWORKS INC, CARTERET, N J	**ADV PG 302**
R F INTERONICS INC, BAY SHORE, N Y	**ADV PG 305B**
SEG ELECTRONICS DIV, E J HOWLES INC, BROOKLYN	**NY**
STANDARD CONDENSER CORP, CHICAGO	**ILL**
TOBE DEUTSCHMANN LABS INC, CANTON	**MASS**
TOROTEL, INC, GRANDVIEW	**MO**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
AAI Corp, Cockeysville	Md
Ace Engineering & Machine Co, Inc Huntingdon Valley	Pa
ADC Products, Minneapolis	Minn
Aerovox Corp Distr Sales, New Bedford	Mass
Aerovox Corp New Bedford Div, New Bedford	Mass
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Aladdin Electronics Div Aladdin Industries, Inc Nashville	Tenn
ALA Industries Inc, Harrison	NY
Allen-Bradley Co, Milwaukee	Wis
All-Tronics, Inc, Westbury	N Y
American Trans-Coil Corp, Richmond Hill	NY
Americon Corp, Waltham	Mass
A P Circuit Corp, New York	N Y
A R F Products, Inc, Raton	N M
Ark Electronics, Inc, Willow Grove	Pa
Atlas Coil Corp, Ansonia	Conn
Automatic Coil Co Div Designatronics, Inc Mineola	N Y
Axel Electronics, Inc, Jamaica	N Y
Beama Engineering Ltd, Toronto 15	Ont
Bendix Corp Fluid Power Div, Utica	N Y
Blonder-Tongue Labs Inc, Newark	N J
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Canadian Marconi Co, Montreal 16	Quebec
Capcon Inc, New York	N Y
Captor Corp, Tipp City	Ohio
Clavier Corp, Richmond Hill	NY
Computer Instruments Corp, Hempstead	N Y
Condensateurs F A C O N, Paris 12e	France
Control Science Corp, Alexandria	Va
Core-Tronics, Inc, Orange	N J
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
CTS Knights Inc, Sandwich	Ill
Daytron Inc, Mountain View	Cal
DeCoursey Engineering Lab, Culver City	Cal
Denes Co Inc, Burbank	Cal
Dietz Design Inc, Belton	Mo
Elcor, Div Halliburton Co, Silver Spring	Md
Electra/Midland Corp, Kansas City	Kan
Electro Cube Inc, San Gabriel	Cal
Electro-Mechanics Co, Austin	Tex
Electronic Applications Co, Pine Brook	N J
Electronic Research co, A Textron Co Overland Park	Kan
Electronic Specialty Co, Los Angeles	Cal
Elite Electronic Engineering Co, Chicago	Ill
Elmag Corp, Newark	N J
Elpac Inc, Components Div, Irvine	Cal
Erie Technological Products Inc, Erie	Pa
Estes Engineering Co, Gardena	Cal
Filtron Co Inc Sub Liquidonics Ind Inc, Flushing	N Y
Finney Co, Bedford	Ohio
Fisher Engineering Inc, Huntington	Ind
Freed Transformer Co Inc, Brooklyn	N Y
Fullmer Electronics Inc, Northridge	Cal
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Laboratory Assoc Inc, Norwich	N Y
General Scientific Corp, San Fernando	Cal
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Gudeman Div Gulton Industries, Inc, Chicago	Ill
Guide Industries Inc, Sun Valley	Cal
Gulton Industries Inc, Metuchen	N J

If RFI is your problem, RFI is your answer. RFI? RF Interonics, Inc., leading producer of RFI/EMC filters and capacitors.

RF Interonics, Inc., with its proven record of unsurpassed technical competence, is prepared to solve your most complex RFI/EMC filter problems.

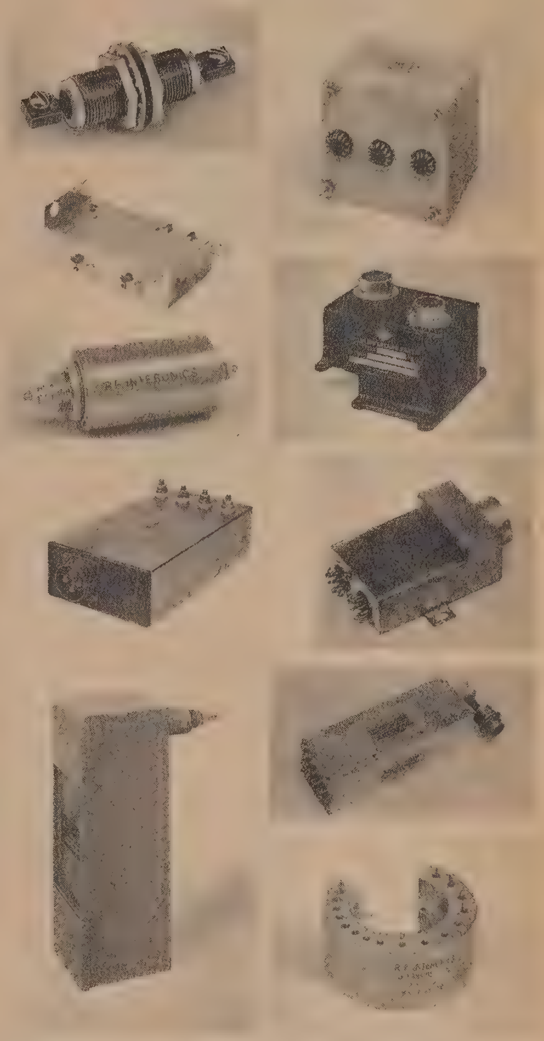
The RF Interonics facility is the most modern of its type in the country, and is industrially engineered for the efficient manufacture of high reliability radio frequency filters and capacitors. The plant is fully air conditioned and humidity controlled. Clean rooms are maintained for capacitor winding and the assembly of NASA quality filters. A complete in-house capability includes sheet metal fabrication, inductor winding, vacuum impregnation and all necessary processing and test equipment to assure adequate control and quick-reaction time.

More than 5,000 filter designs are available as standard or custom-engineered assemblies. Filters are produced with current ratings ranging from 1 milliampere to 1,500 amperes, and voltages from 0.1 volt to 20,000 volts.

All filters conform to the requirements of MIL-F-15733E. Where required, parts are produced in conformance with NASA specifications NPC 200-3 and NPC 200-4.

UNITED STATES
USA

Filters designed and built by RF Interonics are aboard Saturn V as part of the LEM Rendezvous and Landing Radar; the LEM Descent Engine; the Instrument Unit; and the S-II Second Stage. (Photo courtesy North American Rockwell)



CYLINDRICAL FILTERS. Covering a broad range of current and voltage ratings, providing high attenuation over the complete RF interference spectrum.

MULTI-CIRCUIT FILTER PACKAGES. Many circuits in one compact filter assembly. Incorporating the input connector eliminates need for a separately-shielded RF compartment.

SINGLE-CIRCUIT FILTERS. Chassis-mounted (utilizing mounting brackets), or bulkhead-mounted (through a panel that isolates filter input from output).

SHIELDED ROOM FILTERS. Easily bulkhead-mounted directly to shielded enclosures or equipment panels. Removable access covers on shielded side (often an RF leakage source) have been eliminated.

FEED-THROUGH CAPACITORS. Designed and built to exceed MIL-C-11693. Available in a wide range of current and voltage ratings, with attenuation over a broad frequency range.

RFI

RF INTERONICS, INC.

100B Pine Aire Drive
Bay Shore, Long Island, N.Y. 11706
Phone (516) 231-6400

Fast action on **custom-design EMC Filters from Captor!**

If your EMC problem is unique, Captor is the supplier with the fastest action on custom-design EMC filters and filter assemblies. Our application engineers will go to work immediately to evolve a prototype that fulfills your mechanical and electrical requirements and conforms to applicable MIL specifications. Captor has the manufacturing capability to produce in volume economically — cylindrical or rectangular electromagnetic interference filters for all commercial or military compliances. Also Captor offers many cataloged EMC filters ready for immediate delivery. Contact Captor today on your EMC problem!

Captor Corporation manufactures miniature filters . . . communications and security filters . . . custom-design filters, and other electronic components.

CAPTOR CORPORATION
APPLICATION ENGINEERING DEPT.
5040 Dixie Highway, Tipp City, Ohio 45371

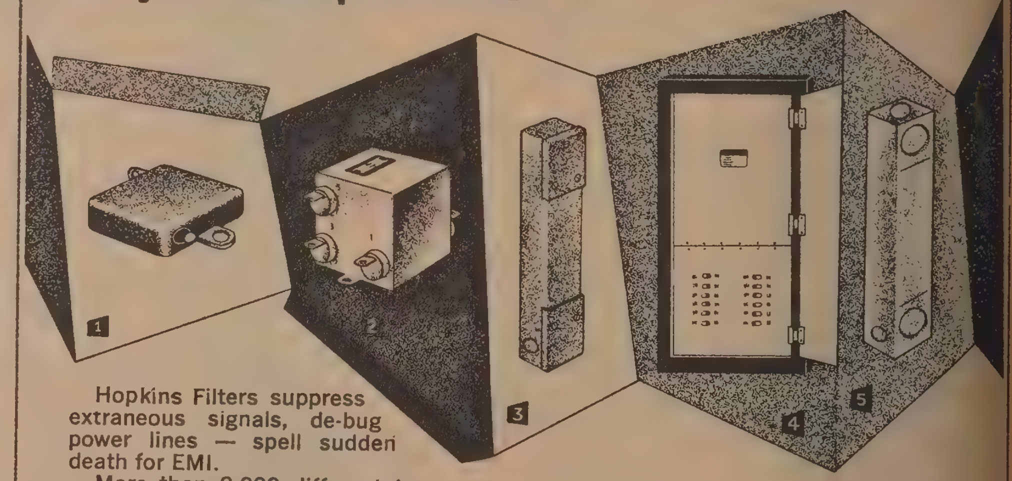
Hallett, Inglewood	Cal
Helix Research Assoc Inc, La Mesa	Cal
Hisonic Inc, Olathe	Kan
Honeywell Test Instruments Div, Denver	Colo
Hopkins Engineering Co, San Fernando	Cal
Industrial Condenser Corp, Chicago	Ill
Interference Measurement Lab Inc, Brooklyn	N Y
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kapitol Magnetic Corp, Chicago	Ill
Kappa Networks Inc, Carteret	N J
Loral Electronic Systems, Div Loral Corp, New York	NY
Lundy Electronics & Systems Inc, Glen Head	N Y
Magnetic Circuit Elements Inc, Montrose	Cal
Magnetic Devices Inc, Lemon Grove	Cal
Magnetic Systems Corp, Clearwater	Fla
Maury Microwave Corp, Montclair	Cal
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs	Pa
Merit Coil & Transformer Corp, Hollywood	Fla
Micromagnetics Div Gulton Ind, Visalia	Cal
Miles Industries Inc, Garnerville	N Y
National Coil Co Inc, Sheridan	Wyo
New York Testing Labs Inc, Westbury	N Y
Philmore Mfg Co Inc, Richmond Hill	N Y
Potter Co, Northfield	Ill
Qutronic Transformer Corp, Oneonta	N Y
Ray Proof Corp, Norwalk	Conn
Renco Electronics Inc, Hicksville	N Y
R F Interonics Inc, Bay Shore	N Y
San Fernando Electric Mfg Co, San Fernande	Cal
Seg Electronics Div, E J Howles Inc, Brooklyn	NY
Shielding Corp, Moorestown	N J
Solar Electronics Co, Hollywood	Cal
Southern Electronics Corp, Burbank	Cal
Sprague Electric Co, North Adams	Mass
Squires-Sanders Inc, Liberty Corner	N J
Standard Condenser Corp, Chicago	Ill
Standard Electronics Div Gulton Indus, Chicago	Ill
Stark Electronic Instruments Ltd, Ajax	Ont
Taffet Electronics Inc, Woodside	N Y
Technical Materiel Corp, Mamaroneck	N Y
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach	Cal
Tilton Electronics Corp, Winnisquam	N H
Tobe Deutschmann Labs Inc, Canton	Mass
Torotel, Inc, Grandview	Mo
TRF Inc, Springfield	Va
TT Electronics Inc, Culver City	Cal
U S Capacitor Corp, Burbank	Cal
United Transformer Co Div TRW Inc, New York	N Y
Versitron Inc, Washington	D C
Welex Electronics, Div Halliburton Co Silver Spring	Md
Wilco Corp, Indianapolis	Ind

Pain Killer.

If vendors have you in a pinch and another source of supply will help, turn to the Electronics Buyers' Guide. You'll find all the information you need on over 1,363 sources of power supplies, listed under 11 headings from *AC Regulated Power Supplies to Laser Power Supplies.*

Electronics Buyers' Guide

Hopkins Engineering has a lot more FILTERS than you have problems!



Hopkins Filters suppress extraneous signals, de-bug power lines — spell sudden death for EMI.

More than 2,000 different types — on-the-shelf and custom-engineered — are available for any circuit, in any size, current, voltage, case style or attenuation.

If you have a filter problem—don't live with it! Send for our latest catalog today, or telephone us—now.

HOPKINS
Engineering Company
12900 Foothill Blvd., San Fernando, Calif. 91341
Telephone: (213) 361-8691 TWX: 213-764-5998 Cable: HOP
A Subsidiary of Maxson Electronics Corporation

1 RFI/EMI Filters
2 Special Purpose Filters High Pass, Low Pass, Band Pass
3 Communication Filters
4 RF Filtered & Shielded Circuit Breaker Panel Boards
5 Power Filters

RADIO INTERFERENCE
FILTERS
CATALOG 114
RADIO INTERFERENCE FILTERS

Standardized radio frequency interference filters are ready to solve your power line filter problems. A complete range of units available for quick delivery for 0.4 to 1000 amperes at usual power line voltages. Use these filters on your interference producing equipment to meet MIL spec or FCC requirements. They can also prevent your sensitive circuits from being affected by outside electromagnetic interference. Call on us for custom units or for critical applications. Our engineering department will be pleased to offer solutions for your RFI-EMI problems.

Write for our latest catalog.

RECTANGULAR FILTERS
EFFECTIVE TO 400 MHz
TUBULAR FILTERS
EFFECTIVE TO 10,000 MHz

45 BOND ST., WESTBURY, L. I., N. Y. 11590
516-333-3090 TWX 510-222-3655

EBG

the industry's

only computer

compiled directory.

This makes information in the Electronics Buyers' Guide the latest and most accurate anywhere.

Electronics Buyers' Guide

FILTERS--TELEMETERING

ANAREN MICROWAVE INC, SYRACUSE	N Y
AXEL ELECTRONICS, INC, JAMAICA	N Y
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE, N Y	
CAPTOR CORP, TIPP CITY	OHIO
CLEVITE CORP PIEZOELECTRIC DIV, BEDFORD	OHIO
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	N Y
DECOURSEY ENGINEERING LAB, CULVER CITY	CAL
ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK	KAN
HISONIC INC, OLATHE, KAN	ADV PG 292
HOPKINS ENGINEERING CO, SAN FERNANDO	CAL
KAPPA NETWORKS INC, CARTERET, N J	ADV PG 302
NIPPON ELECTRIC CO LTD, TOKYO	JAPAN
R F INTERONICS INC, BAY SHORE	N Y
SEG ELECTRONICS DIV, E J HOWLES INC, BROOKLYN	NY
TEXSCAN CORP, INDIANAPOLIS	IND
TOROTEL, INC, GRANDVIEW	MO
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	N Y ADV PG 307

ACDC Electronics, Inc, Burbank	Cal
ADC Products, Minneapolis	Minn
Aerovox Corp New Bedford Div, New Bedford	Mass
Aertech, Sunnyvale	Cal
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
Aladdin Electronics Div Aladdin Industries, Inc Nashville	Tenn
Alcor Aviation, Inc, San Antonio	Texas
Allen-Bradley Co, Milwaukee	Wis
Anaren Microwave Inc, Syracuse	N Y
A P Circuit Corp, New York	N Y
A R F Products, Inc, Raton	N M
Ark Electronics, Inc, Willow Grove	Pa
Astrodata Inc, Anaheim	Cal
Axel Electronics, Inc, Jamaica	N Y
Bayly Engineering Ltd, Ajax	Ontario
Beukers Labs Inc, John M, Medford	NY
Bramco Controls Div Ledex Inc, Piqua	Ohio
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Caledonia Electronics & Transformer Div Caledonia	N Y
Captor Corp, Tipp City	Ohio
Centroid Inc, Garden City Park	N Y
Clavier Corp, Richmond Hill	NY
Clevite Corp Piezoelectric Div, Bedford	Ohio
Collins Radio Co, Electronic Components Newport Beach	Cal
Computer Instruments Corp, Hempstead	N Y
Control Science Corp, Alexandria	Va
Daltronics Inc, Providence	R I
Data-Control Systems Inc, Danbury	Conn
Daytron Inc, Mountain View	Cal
DeCoursey Engineering Lab, Culver City	Cal
Dietz Design Inc, Belton	Mo
Dorsett Electronics Inc, Tulsa	Okla
Dytronics Co Inc, Columbus	Ohio
Electra/Midland Corp, Kansas City	Kan
Electro Networks Inc, Caledonia	N Y
Electronic Research co, A Textron Co Overland Park	Kan
Electronic Specialty Co, Los Angeles	Cal
Electro Winders Co Inc, Covina	Cal
Electro Windings & Components Inc, Kenilworth	N J
EMR Div Weston Instruments Inc, Princeton	N J
ESC Electronics Corp Sub Simmonds Precision Palisades Park	N J
Ferritronics Ltd, Richmond Hill	Ont
Filtech Corp, Franklin Park	Ill
Forbes & Wagner Inc, Silver Creek	N Y
Freed Transformer Co Inc, Brooklyn	N Y
Fujitsu Ltd, Tokyo	Japan
Fullmer Electronics Inc, Northridge	Cal
Gulton Industries Inc, Metuchen	N J
H B Engineering Corp, Silver Spring	Md
Helix Research Assoc Inc, La Mesa	Cal
Hertz Filter Corp, Garden City Park	N Y
Hisonic Inc, Olathe	Kan
Hopkins Engineering Co, San Fernando	Cal
Inductor Engineering Inc, Lewes	Del
Industrial Electronetics Corp, Satellite Beach	Fla
Kapitol Magnetic Corp, Chicago	Ill
Kappa Networks Inc, Carteret	N J
Kenyon Electronics Inc, Jersey City	N J
Kokusai Electric Co Ltd, Tokyo	Japan
Laben S p A, Milan	Italy
Landis & Gyr AG, Zug	Switzerland
Laselco Pacific, Palo Alto	Cal
Lynch Communication Systems, San Francisco	Cal
Magnetic Devices Inc, Lemon Grove	Cal
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs	Pa
MCS Corp, Monrovia	Cal
Microphase Corp, Greenwich	Conn
Microtran Co Inc, Valley Stream	N Y
Microwave Associates Inc, Burlington	Mass
MKC Electronics Corp, Kansas City	Kans
Nippon Electric Co Ltd, Tokyo	Japan
Nytronics Inc, Berkeley Heights	N J
PCA Electronics Inc, Sepulveda	Cal
Peninsula Microwave Labs, Mountain View	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polyphase Instrument Co, Bridgeport	Pa
Potter Co, Northfield	Ill
Quindar Electronics Inc, Springfield	NJ

PIONEERS IN MINIATURIZATION

ELECTRIC WAVE FILTERS

BAND PASS
HIGH PASS
LOW PASS
AIRCRAFT
DISCRIMINATORS
INTERSTAGE
LINEAR PHASE
TELEGRAPH
TELEMETERING

- MIL-F-18327B & industrial
- Immediate delivery from stock
- Specials made to specs.
- DC to 30 MHz

Over 1300 top quality ironcore inductance devices available from stock.

UNITED TRANSFORMER COMPANY
DIVISION OF TRW INC.
150 Varick Street, New York, N. Y. 10013
TWX: 710-581-2722 / (212) AL 5-3500
For nearest Rep see UTC ad, page 727

EBG

What's

in it

for you?

1. Listing of more than 4,000 products.

2. 6,500 manufacturers with local outlets, addresses and phone numbers.

3. Complete and up-to-date Trade Name Directory

4. The most complete industry source of supply and product specs.

Electronics Buyers' Guide

Qutronic Transformer Corp, Oneonta	N Y
Ransom Labs, John H, Los Angeles	Cal
Rantec Div Emerson Electric Co, Calabasas	Cal
Reach Electronics Inc, Lexington	Neb
R F Interonics Inc, Bay Shore	N Y
RFL Industries Inc, Communications Div, Boonton	N J
Riedon Avionics, Inc, Van Nuys	Cal
Rytron Co, Inc, North Hollywood	Cal
San Fernando Electric Mfg Co, San Fernando	Cal
Scott Electronics Corp, Orlando	Fla
Seg Electronics Div, E J Howles Inc, Brooklyn	NY
Sonex Inc, Philadelphia	Pa
Space Craft Inc, Huntsville	Ala
Teledata Inc, Queens Village	N Y
Telemet Co, Video Prods & Airborne Telemetry Amityville	N Y
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach	Cal
Texscan Corp, Indianapolis	Ind
T M C Systems (Ariz) Inc, Tempe	Ariz
Torotel, Inc, Grandview	Mo
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
Trepac Corp of America, Englewood	N J
TRF Inc, Springfield	Va
Triad Distributor Div Litton Industries, Huntington	Ind
Triad Transformer Corp, Venice	Cal
TT Electronics Inc, Culver City	Cal
United Transformer Co Div TRW Inc, New York	N Y
Vanguard Electronics Co, Inglewood	Cal
Vector Industries A Teledyne Co, Palo Alto	Cal

FILTERS--TOWER LIGHTING

SEG ELECTRONICS DIV, E J HOWLES INC, BROOKLYN	**NY**
Aerovox Corp New Bedford Div, New Bedford	Mass
Jampro Antenna Co, Sacramento	Cal
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Seg Electronics Div, E J Howles Inc, Brooklyn	NY

FILTERS--TV ANTENNA CIRCUIT

CAPTOR CORP, TIPP CITY	**OHIO**
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
R F INTERONICS INC, BAY SHORE	**N Y**
SEG ELECTRONICS DIV, E J HOWLES INC, BROOKLYN	**NY**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
Beama Engineering Ltd, Toronto 15	Ont
Benco Television Assoc Div Redifon Can Ltd Rexdale	Ont
Blonder-Tongue Labs Inc, Newark	N J
Captor Corp, Tipp City	Ohio
Channel Master Corp, Ellenville	N Y
Clavier Corp, Richmond Hill	NY
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Denki Kogyo Co Ltd, Tokyo	Japan
Entron Inc, Silver Spring	Md
Finney Co, Bedford	Ohio
JFD Electronics Co, Components Div, Brooklyn	N Y
Kobe Industries Corp, Kobe	Japan
Marconi Div, English Electric Corp, New York	N Y
Montedoro Corp, San Luis Obispo	Cal
Nippon Electric Co Ltd, Tokyo	Japan
R F Interonics Inc, Bay Shore	N Y
Seg Electronics Div, E J Howles Inc, Brooklyn	NY
Shrader Sound Inc, Washington	D C
Spencer-Kennedy Labs Inc, Boston	Mass
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Vikoa Inc, Hoboken	N J

FINISHES SEE COATINGS; ENAMELS; LACQUERS;PAINTS; VARNISHES

FINISHES--LUMINOUS SEE PAINTS--LUMINOUS

FIRE-CONTROL COMPUTERS SEE COMPUTERS--SPECIAL

FIRE-CONTROL SYSTEMS SEE RADAR

FIRE DETECTORS SEE DETECTORS--FIRE

FIXTURES, HOLDING--CHASSIS

Abalon Precision Mfg Corp, Bronx	N Y
Acme Model Engineering Co, Ridgefield	N J
Anchor Specialty Mfg Co Inc, Teterboro	N J
Astro-Space Labs Inc, Huntsville	Ala
Churchill Corp, Melrose	Mass
Colbert Die Cast Co Inc, South Gate	Cal
Flotron Industries Inc, El Segundo	Cal
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Hardware Mfg Co Inc, New York	N Y
Mann Co, Henry, Cornwell Heights	Pa
Matrix Engineering Corp, Gardena	Cal
Metal Fab Div, Artisan Industries Inc, Waltham	Mass
Micronics Corp of America, Providence	RI
Panel Controls Corp, Detroit	Mich
Sandefur Engineering Co, Inc, Lawndale	Cal
Skyline Products Inc, Deer Park	N Y
Technical Devices Co, Culver City	Cal
Techni-Tool Inc, Philadelphia	Pa
Universal Mfg Co Inc, Irvington	N J
Wharton Unitools, Moosup	Conn

FIXTURES, HOLDING--COMPONENTS

BARNES CORP, LANSDOWNE	**PA**
PRECISION METAL PRODUCTS CO OF MALDEN INC STONEHAM	**MASS**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Acme Model Engineering Co, Ridgefield	N J
Alch Instrument Co, Inc, Westbury	N Y
Anchor Specialty Mfg Co Inc, Teterboro	N J
Astro-Space Labs Inc, Huntsville	Ala
Barnes Corp, Lansdowne	Pa
Birtcher Corp, Industrial Div, Monterey Park	Cal
Cambridge Thermionic Corp, Cambridge	Mass
Churchill Corp, Melrose	Mass
Colbert Die Cast Co Inc, South Gate	Cal
Daymarc Corp, Waltham	Mass
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park	N J
Flotron Industries Inc, El Segundo	Cal
Hunter Industries, Santa Fe Springs	Cal
Jettron Products Inc, Hanover	N J
Kawecki Chemical Co, New York	N Y
Mann Co, Henry, Cornwell Heights	Pa
Maryland Lava Co Inc, Bel Air	Md
Matrix Engineering Corp, Gardena	Cal
Metal Ceram Inc, Mount Vernon	N Y
Micro Parts Inc, Los Angeles	Cal
O'Hara Metal Products Co, San Francisco	Cal
Panel Controls Corp, Detroit	Mich
Poco Graphite, Inc, Garland	Tex
Precision Metal Products Co of Malden Inc Stoneham	Mass
Premium Allied Tool Inc, Owensboro	Ky
Production Associates Inc, Madison	Wis
Pure Carbon Co Inc, St Marys	Pa
Sandefur Engineering Co, Inc, Lawndale	Cal
Semi-Alloys Inc, Mt Vernon	N Y
Techni-Tool Inc, Philadelphia	Pa
Tyton Corp of America, Metuchen	N J
Universal Mfg Co Inc, Irvington	N J
Waldom Electronics Inc, Chicago	Ill
Wharton Unitools, Moosup	Conn

FIXTURES, HOLDING--CONNECTORS

Anchor Specialty Mfg Co Inc, Teterboro	N J
Astro-Space Labs Inc, Huntsville	Ala
Colbert Die Cast Co Inc, South Gate	Cal
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park	N J
Elco Corp, Willow Grove	Pa
Flotron Industries Inc, El Segundo	Cal
Hunter Industries, Santa Fe Springs	Cal
Jettron Products Inc, Hanover	N J
MacDonald & Co, Glendale	Cal
Mann Co, Henry, Cornwell Heights	Pa
Matrix Engineering Corp, Gardena	Cal
Metal Ceram Inc, Mount Vernon	N Y
O'Hara Metal Products Co, San Francisco	Cal
Panel Controls Corp, Detroit	Mich
Poco Graphite, Inc, Garland	Tex
Sandefur Engineering Co, Inc, Lawndale	Cal
Semi-Alloys Inc, Mt Vernon	N Y
Staffall, Inc, Providence	R I
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Transitron Electronic Corp, Wakefield	Mass
Universal Mfg Co Inc, Irvington	N J

FIXTURES, HOLDING--PRINTED WIRING BOARDS

IBM, INDUSTRIAL PRODUCTS MARKETING, NEW YORK	**NY**
VERO ELECTRONICS, INC, FARMINGDALE	**N Y**
Anchor Specialty Mfg Co Inc, Teterboro	N J
Astro-Space Labs Inc, Huntsville	Ala
Birtcher Corp, Industrial Div, Monterey Park	Cal
Colbert Die Cast Co Inc, South Gate	Cal
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park	N J
Elco Corp, Willow Grove	Pa
Flotron Industries Inc, El Segundo	Cal
Hunter Industries, Santa Fe Springs	Cal
IBM, Industrial Products Marketing, New York	NY
MacDonald & Co, Glendale	Cal
Mann Co, Henry, Cornwell Heights	Pa
Matrix Engineering Corp, Gardena	Cal
Micro Metrics Inc, Paterson	N J
Micronics Corp of America, Providence	RI
Panel Controls Corp, Detroit	Mich
Premier Metal Products Co Inc, New York	N Y
Production Associates Inc, Madison	Wis
Sandefur Engineering Co, Inc, Lawndale	Cal

Staffall, Inc, Providence .... R I
Technical Devices Co, Culver City .... Cal
Techni-Tool Inc, Philadelphia .... Pa
Universal Mfg Co Inc, Irvington .... N J
Vero Electronics, Inc, Farmingdale .... N Y
Vero Electronics Ltd, Southampton .... England

FLANGES--WAVEGUIDE SEE WAVEGUIDE FLANGES

FLASHERS

EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT .... IOWA
ACR Electronics Corp, New York .... N Y
Aerolite Electronics Corp, Union City .... N J
Aircraft Instruments Co, Montgomeryville .... Pa
Amglo Corp, Chicago Ill
Autronics Corp, Pasadena .... Cal
Bayside Timers, Inc, Flushing .... N Y
Bergen Lab, Inc, Paterson .... N J
Cole-Hersee Co, S Boston .... Mass
Condor Industrial Corp, West Chicago Ill
Controlotron Corp, Farmingdale .... N Y
Digitrol Systems Inc, Amenia .... N Y
Dynamic Controls Corp, South Windsor .... Conn
Eagle Electric Mfg Co Inc, Long Island City .... N Y
Eagle Signal Div E W Bliss Co, Davenport .... Iowa
Elco Corp, Willow Grove .... Pa
Electronic Modules Corp, Timonium .... Md
Electronic Specialties Co Div Fidelitone, Batavia Ill
Electronic Specialty Co, Los Angeles .... Cal
Ercona Corp, New York .... N Y
Giannini-Voltex, Whittier .... Cal
Grimes Mfg Co, Urbana .... Ohio
Guardian Electric Mfg Co of Cal Inc, Culver City .... Cal
G-V Controls Inc, Livingston .... N J
Haydon Co The, A W, Waterbury .... Conn
Hi-Tek Corp, Santa Ana .... Cal
Hughey & Phillips Inc, Burbank .... Cal
Ikor, Inc, Burlington .... Mass
KSC Semiconductor Corp, Chelmsford .... Mass
Logitek Inc, Farmingdale .... N Y
Metric Systems Corp, Fort Walton Beach .... Fla
Miles Industries Inc, Garnerville .... N Y
Parko Electronics Co Inc, Santa Ana .... Cal
Pollak Corp, Joseph, Boston .... Mass
Servo Development Corp, Hicksville .... N Y
Sylvania Elec Prods Inc Special Prod Div Danvers .... Mass
Time-O-Matic Inc, Danville Ill
United Control Corp, Redmond .... Wash
U S Scientific Instruments Inc, Watertown .... Mass
Utility Communication Systems Inc, Essington .... Pa
Wallace & Tiernan Inc, Belleville .... N J

FLEXIBLE SHAFTS SEE SHAFTS--FLEXIBLE

FLIGHT SIMULATORS SEE SIMULATORS

FLOWMETERS **SEE ALSO INDICATORS--FLUID FLOW**

COMPUTER INSTRUMENTS CORP, HEMPSTEAD .... N Y
Acoustica Associates Inc, Los Angeles .... Cal
Aircraft Components Inc, Benton Harbor .... Mich
Bailey Meter Co, Wickliffe .... Ohio
Beckman Instruments Inc, Fullerton, ... Cal
Beckman Instruments Intl SA, 1207 Geneva .... Switzerland
Bissett-Berman Corp, Santa Monica .... Cal
Bristol Div, American Chain & Cable Co Waterbury .... Conn
Computer Instruments Corp, Hempstead .... N Y
Cox Instruments Div Lynch Corp, Detroit .... Mich
Decker Corp, Bala Cynwyd .... Pa
Dietz Co Inc, Henry G, Long Island City .... N Y
Digital Blending Systems Inc, Providence .... R I
Dynamic Precision Controls Corp, Hagerstown .... Ind
Electro-Med Instruments Inc, Houston .... Tex
Ellison Instrument Div Dieterich Std Corp New Buffalo .... Mich
Ensco Inc, Salt Lake City .... Utah
Erdco Engineering Corp, Addison Ill
Fischer & Porter Co, Warminster .... Pa
Flowcon Co, Anaheim .... Cal
Flow Corp, Watertown .... Mass
Flow Technology Inc, Tempe .... Ariz
Foxboro Co, Foxboro .... Mass
Fuji Electric Co Ltd, Tokyo .... Japan
Gelman Instrument Co, Ann Arbor .... Mich
Gilmont Instruments Inc Roger, Great Neck .... N Y
Gow-Mac Instrument Co, Madison .... N J
Hersey-Sparling Meter Co, El Monte .... Cal
Howell Instruments Co, Fort Worth .... Tex
Hydro Products Div Dillingham Corp, San Diego .... Cal
Inca Engineering Corp, San Gabriel .... Cal
Industrial Instrument Corp, Austin .... Tex
Intertechnique, Plaisir, 78 .... France
In-Val-Co, Tulsa .... Okla
ITT Barton Controls & Instr Div, Monterey Park .... Calif
Kingmann-White Inc, Placentia .... Cal
Kontes Glass Co, Vineland .... N J
Leeds & Northrup Co, Philadelphia .... Pa
Librascope Group Gen Precision Sys Inc, Glendale .... Cal
Lion Research Corp, Newton .... Mass
Moore Products Co, Spring House .... Pa
National Instrument Labs Inc, Rockville .... Md
Precision Mecanique Labinal, 93 Saint-Ouen .... France
Ramapo Instrument Co Inc, Bloomingdale .... NJ
Schlumberger, 92-Montrouge 32 .... France
Signet Controls Inc, Tulsa .... Okla
Smiths Industries Ltd, Aviation Div Wembley, Mdsx .... England
Taylor Instrument Cos, Rochester .... N Y
Technical Development Co, Glenolden .... Pa
Technology/Versatronics Inc, Yellow Springs .... Ohio
Thermo-Systems Inc, St Paul .... Minn
Tylan Corp, Torrance .... Cal
Wallace & Tiernan Inc, Belleville .... N J
Westinghouse Electric Corp, Relay & Instr Dept Newark .... N J

FLUORESCENT COMPOUNDS--PHOSPHORS

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA .... JAPAN
Associated Engineering & Mfg Corp, Glen Ridge .... N J
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place .... N Y
Black Light Corp of America, San Gabriel .... Cal
Black Light Products, Chicago Ill
Canrad Precision Industries Inc, New York .... N Y
Eastman Kodak Co, Rochester .... N Y
General Electric Co Lamp Metals & Components Dept Cleveland .... Ohio
Griffiths Electronics Inc, Linden .... N J
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland .... Ohio
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Nuclear Enterprises Ltd, Edinburgh 11 .... Scotland
Packard Instrument Co, Inc, Downers Grove Ill
Pilot Chemicals Inc, Watertown .... Mass
Polysciences Inc, Warrington .... Pa
Product Techniques, Inc, Downey .... Cal
Radio Corp of America, Electronic Components, Harrison .... N J
Stroblite Co Inc, New York .... N Y
Sylvania Elec Prods Inc, Chem & Met Div, Towanda .... Pa
Ultra-Violet Products Inc, San Gabriel .... Cal
United Mineral & Chemical Corp, New York .... N Y
United States Radium Corp, Morristown .... N J
Var-Lac-Oid Chemical Co, Elizabeth .... N J
Westinghouse Electric Corp, Lamp Div, Bloomfield .... N J

FLUOROCARBONS SEE PLASTICS

FLUTTER ANALYZERS SEE ANALYZERS--FLUTTER

FLUXES

NATIONAL LEAD CO, NEW YORK, N Y .... ADV PG 647
All-State Welding Alloys Co, Inc, White Plains .... N Y
Alpha Metals Inc, Jersey City .... NJ
Aluminum Co of America, Pittsburgh .... Pa
American Brazing Alloys Corp, Pelham .... N Y
American Circuit-Tronics Corp, Royal Oak .... Mich
American Silver Co Div, Flushing .... N Y
American Solder & Flux Co, Philadelphia .... Pa
Anchor Alloys Inc, Brooklyn .... N Y
Anchor Metal Co, Inc Div, Brooklyn .... N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights .... NY
Bow Solder Products Co Inc, Newark .... N J
Burnley Battery & Mfg Co, North East .... Pa
Chase Metals Service Div Chase Brass & Copper Co Cleveland .... Ohio
Cramco Solder Alloys, Scarborough .... Ont
Division Lead Co, Summit Ill
Dunton Co, M W, Providence .... R I
Du Pont De Nemours & Co Inc E I, Wilmington .... Del
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark .... N J
Fairmount Chemical Co Inc, Newark .... N J
Farrelloy Co, Philadelphia .... Pa
Gardiner Solder Co, Chicago Ill
Handy & Harman, New York .... N Y
Hi-Grade Alloy Corp, East Hazelcrest Ill
Indium Corp of America, Utica .... N Y
Johnson Mfg Co Inc, Princeton .... Iowa
Kester Solder Co, Chicago Ill
Lake Chemical Co, Chicago Ill
Liquid Carbonic Div, Gen Dynamics Corp, Chicago Ill
London Chemical Co Inc, Melrose Park Ill
Mann Co, Henry, Cornwell Heights .... Pa
Metal Ceram Inc, Mount Vernon .... N Y
Micro Co, Easton .... Pa
National Lead Co, New York .... N Y
Roosevelt Metal Co Inc, Brooklyn .... N Y
Superior Flux & Mfg Co, Cleveland .... Ohio
Transene Co Inc, Rowley .... Mass
United American Metals Div, Brooklyn .... N Y

FLUXES--BRAZING

NATIONAL LEAD CO, NEW YORK, N Y .... ADV PG 647
All-State Welding Alloys Co, Inc, White Plains .... N Y
Aluminum Co of America, Pittsburgh .... Pa
American Brazing Alloys Corp, Pelham .... N Y
American Silver Co Div, Flushing .... N Y
American Solder & Flux Co, Philadelphia .... Pa
Anchor Alloys Inc, Brooklyn .... N Y
Anchor Metal Co, Inc Div, Brooklyn .... N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights .... NY
Cramco Solder Alloys, Scarborough .... Ont
Dunton Co, M W, Providence .... R I
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark .... N J
Farrelloy Co, Philadelphia .... Pa
Handy & Harman, New York .... N Y
Hi-Grade Alloy Corp, East Hazelcrest Ill
Johnson Mfg Co Inc, Princeton .... Iowa
Johnson Matthey & Mallory Ltd, Toronto 15 .... Ont
Kester Solder Co, Chicago Ill
Lake Chemical Co, Chicago Ill
London Chemical Co Inc, Melrose Park Ill
Metal Ceram Inc, Mount Vernon .... N Y
National Lead Co, New York .... N Y
Pyromet Industries, San Carlos .... Cal
Roosevelt Metal Co Inc, Brooklyn .... N Y
Semi-Alloys Inc, Mt Vernon .... N Y
Special Chemicals Corp, Ossining .... N Y
Superior Flux & Mfg Co, Cleveland .... Ohio
United American Metals Div, Brooklyn .... N Y
United Wire & Supply Corp, Providence .... R I

FLUXES--SOLDERING, LEAD-TIN, ACID

CAIG LABS INC, WESTBURY .... N Y
NATIONAL LEAD CO, NEW YORK, N Y .... ADV PG 647
All-State Welding Alloys Co, Inc, White Plains .... N Y
Alpha Metals Inc, Jersey City .... NJ
American Brazing Alloys Corp, Pelham .... N Y
American Silver Co Div, Flushing .... N Y
American Solder & Flux Co, Philadelphia .... Pa
Anchor Alloys Inc, Brooklyn .... N Y
Anchor Metal Co, Inc Div, Brooklyn .... N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights .... NY
Bow Solder Products Co Inc, Newark .... N J
Caig Labs Inc, Westbury .... N Y
Cramco Solder Alloys, Scarborough .... Ont
Division Lead Co, Summit Ill
Dunton Co, M W, Providence .... R I
Farrelloy Co, Philadelphia .... Pa
Gardiner Solder Co, Chicago Ill
Hi-Grade Alloy Corp, East Hazelcrest Ill
Indium Corp of America, Utica .... N Y
Johnson Mfg Co Inc, Princeton .... Iowa
Kester Solder Co, Chicago Ill
London Chemical Co Inc, Melrose Park Ill
Metal Ceram Inc, Mount Vernon .... N Y
National Lead Co, New York .... N Y
Roosevelt Metal Co Inc, Brooklyn .... N Y
Semi-Alloys Inc, Mt Vernon .... N Y
Special Chemicals Corp, Ossining .... N Y
Superior Flux & Mfg Co, Cleveland .... Ohio
Transene Co Inc, Rowley .... Mass
United American Metals Div, Brooklyn .... N Y

FLUXES--SOLDERING, LEAD-TIN, NONCORROSIVE

CAIG LABS INC, WESTBURY .... N Y
NATIONAL LEAD CO, NEW YORK, N Y .... ADV PG 647
All-State Welding Alloys Co, Inc, White Plains .... N Y
Alpha Metals Inc, Jersey City .... NJ
American Brazing Alloys Corp, Pelham .... N Y
American Circuit-Tronics Corp, Royal Oak .... Mich
American Solder & Flux Co, Philadelphia .... Pa
Anchor Alloys Inc, Brooklyn .... N Y
Anchor Metal Co, Inc Div, Brooklyn .... N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights .... NY
Bow Solder Products Co Inc, Newark .... N J
Burnley Battery & Mfg Co, North East .... Pa
Caig Labs Inc, Westbury .... N Y
Chase Metals Service Div Chase Brass & Copper Co Cleveland .... Ohio
Cramco Solder Alloys, Scarborough .... Ont
Division Lead Co, Summit Ill
Dunton Co, M W, Providence .... R I
Eagle Electric Mfg Co Inc, Long Island City .... N Y
Fairmount Chemical Co Inc, Newark .... N J
Farrelloy Co, Philadelphia .... Pa
Gardiner Solder Co, Chicago Ill
Hi-Grade Alloy Corp, East Hazelcrest Ill
Indium Corp of America, Utica .... N Y
Johnson Mfg Co Inc, Princeton .... Iowa
Kester Solder Co, Chicago Ill
Lake Chemical Co, Chicago Ill
London Chemical Co Inc, Melrose Park Ill
Mann Co, Henry, Cornwell Heights .... Pa
Metal Ceram Inc, Mount Vernon .... N Y
Mico Instrument Co, Cambridge .... Mass
National Lead Co, New York .... N Y
Oneida Electronic Mfg Co, Meadville .... Pa
Roosevelt Metal Co Inc, Brooklyn .... N Y
Semi-Alloys Inc, Mt Vernon .... N Y
Special Chemicals Corp, Ossining .... N Y
Superior Flux & Mfg Co, Cleveland .... Ohio
Transene Co Inc, Rowley .... Mass
United American Metals Div, Brooklyn .... N Y
Zeva Electric Corp, New York .... N Y

FLUXES--SOLDERING, SILVER

CAIG LABS INC, WESTBURY .... N Y
NATIONAL LEAD CO, NEW YORK, N Y .... ADV PG 647
All-State Welding Alloys Co, Inc, White Plains .... N Y
American Brazing Alloys Corp, Pelham .... N Y
American Silver Co Div, Flushing .... N Y
American Solder & Flux Co, Philadelphia .... Pa

Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Caig Labs Inc, Westbury	N Y
Cramco Solder Alloys, Scarborough	Ont
Division Lead Co, Summit	Ill
Dunton Co, M W, Providence	R I
Fairmount Chemical Co Inc, Newark	N J
Farrelloy Co, Philadelphia	Pa
Gardiner Solder Co, Chicago	Ill
Handy & Harman, New York	N Y
Hi-Grade Alloy Corp, East Hazelcrest	Ill
Indium Corp of America, Utica	N Y
Johnson Mfg Co Inc, Princeton	Iowa
Johnson Matthey & Mallory Ltd, Toronto 15	Ont
Kester Solder Co, Chicago	Ill
Kestler Electronics, Rosemead	Cal
Lake Chemical Co, Chicago	Ill
Leach & Garner Co, Industrial Div, Attleboro	Mass
Metal Ceram Inc, Mount Vernon	N Y
Metz Refining Co, South Plainfield	N J
National Lead Co, New York	N Y
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Special Chemicals Corp, Ossining	N Y
Superior Flux & Mfg Co, Cleveland	Ohio
United American Metals Div, Brooklyn	N Y
United Wire & Supply Corp, Providence	R I

FLUXMETERS

BELL, INC F W, COLUMBUS	**OHIO**
HEWLETT-PACKARD, PALO ALTO	**CAL**
Alpha Scientific Labs Inc, Oakland	Cal
A & M Instruments Inc, Great Neck	N Y
Bell, Inc F W, Columbus	Ohio
Epic Inc, New York	N Y
Fontaine, P, 91 Chilly-Mazarin	France
Hallmark Standards Inc, Mamaroneck	N Y
Hewlett-Packard, Palo Alto	Cal
High Voltage Engineering Corp, Burlington	Mass
Industrial Control Co, Farmingdale	N Y
Irwin Labs Inc, Los Angeles	Cal
Magnetics Div Instrument Systems Corp Huntington	NY
Permanent Magnet Co Inc, Indianapolis	Ind
Rawson-Lush Instrument Co Inc, Acton	Mass
Singer Co, Metrics Div, Bridgeport	Conn
Thomas & Skinner Inc, Indianapolis	Ind
Varian, Palo Alto	Cal
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan
Yokogawa Electric Works Inc, Larchmont	N Y

FLYBACK TRANSFORMERS SEE TRANSFORMERS SPECIAL

F-M AMPLIFIERS SEE AMPLIFIERS--R-F PREAMPLIFIERS

F-M ANTENNAS SEE ANTENNAS

F-M DEVIATION METERS SEE METERS--F-M DEVIATION

F-M RECEIVERS SEE RECEIVERS--RADIOCOMMUNICATION;RECEIVERS--RADIO

F-M SIGNAL GENERATORS SEE GENERATORS--SIGNAL

F-M TRANSMITTERS SEE TRANSMITTERS--BROADCAST

F-M TUNERS SEE TUNERS--RADIO

FOAM RUBBER SEE RUBBER

FOIL--MAGNETIC

MAGNETIC SHIELD DIV, PERFECTION MICA CO, CHICAGO	**ILL**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Alloys Unlimited Inc, Melville	N Y
American Metal Climax Inc, New York	N Y
American Silver Co Div, Flushing	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Emerson & Cuming Inc, Canton	Mass
Flexible Metal Hose Mfg Co, CostaMesa	Cal
G-L Industries Inc, G-L Electronics Div, Westville	N J
Hamilton Precision Metals Div Hamilton Watch Co Lancaster	Pa
Inter-Technical Group Inc, Irvington-on-Hudson	N Y
Jan Hardware Mfg Co Inc, Long Island City	N Y
Kawecki Chemical Co, New York	N Y
Lash Labs, Inc, San Diego	Cal
Mackay Inc, A D, New York	N Y
Magnetic Metals Co, Camden	N J
Magnetic Shield Div, Perfection Mica Co, Chicago	Ill
Metal Ceram Inc, Mount Vernon	N Y
Millen Mfg Co Inc, James, Malden	Mass
Permaluster Inc, Burbank	Cal
Primec Corp, Los Angeles	Cal
Revere Copper & Brass, Inc, New York	N Y
Ring, Inc, Bernard, New York	N Y
Rodney Metals A Teledyne Co, New Bedford	Mass
Semi-Alloys Inc, Mt Vernon	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Waldom Electronics Inc, Chicago	Ill
Wellington Electronics Inc, Engelwood	N J
Westinghouse Electric Corp, Materials Mfg Div Blairsville	Pa
Zippertubing Co, Los Angeles	Cal

FOILS SEE ALUMINUM, COPPER, LEAD,TIN & TANTALUM

FOIL-WOUND COILS SEE COILS

FOIL-WOUND CORES SEE CORES--LAMINATED SPECIAL

FOIL-WOUND TRANSFORMERS SEE TRANSFORMERS--SPECIAL

FORKS--TUNING

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE, N Y	**ADV PG 310**
FORK STANDARDS INC, WEST CHICAGO, ILL.	**ADV PG 310**
GREENRAY INDUSTRIES INC, MECHANICSBURG	**PA**

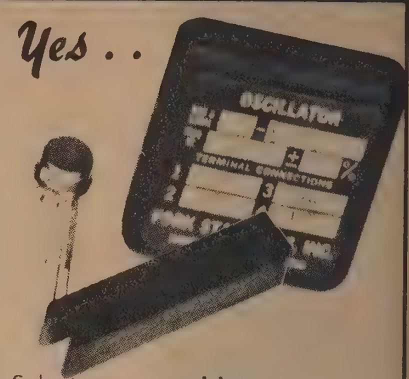
Tuning Forks?

Try Bulova First!

CALL:

Ariz	Tech-Ser Inc, 1805 E Indian School Rd Phoenix	602-265-3629
Cal	Straube Assoc., Inc., 483 Willow Rd., Menlo Pk	213-323-2476
Cal	Cardinal Assoc, 16024 Ventura Blvd Encino	213-788-4540
Conn	Samuel C Hooker Inc, Box 369 West Hartford	203-233-8000
Fla	Perrott Assoc, 1607 Forsyth Rd, Orlando	305-275-1132
Fla	Perrott Assoc, Box 4532, Clearwater	813-531-5513
Fla	Perrott Assoc, Box 6277 West Palm Beach	305-967-1770
Ga	Emmett Rushin Co, Box 486 Roswell	404-993-6498
Ill	Communications Eng, 7100 N Western Ave Chicago	312-R01-0548
Md	Daniel & Co, Box 124, Lutherville	301-825-8330
Mass	Samuel Hooker, Inc, Box 352 Winchester	617-729-5482
Minn	Wenco Sales Inc, 7728 Morgan Ave S Minneapolis	612-866-3639
Mo	J C Mankus & Assoc, 400 Brooks La Hazelwood	314-PE1-4334
NY	H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester	716-232-2688
NY	Cane Technical Sales, 555 E Boston Post Rd Mamaroneck	914-698-4411
NY	H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady	518-882-9303
NY	H C Johnson Agencies Inc, Box 215 Fayetteville	315-637-9595
NY	H C Johnson Agencies Inc, 8 Los Robles St Williamsville	716-632-7880
Pa	Daniel & Co, Box 3, Glenside	215-TU7-0550
Tex	Applied Eng Sales, 1st Bank & Trust, Richardson	214-AD1-1322
Wash	Jas J Backer Co, 221 W Galer St Seattle	206-AT3-6470

AMERICAN TIME PRODUCTS
BULOVA WATCH CO INC
61-20 WOODSIDE AVE
WOODSIDE, NY 11377



TUNING FORKS?

Yes . .

Select your precision

TUNING FORK

from Fork Standards' comprehensive product display.
See page 457

FORK STANDARDS, INC.

251 Main St.. West Chicago Ill. 60185
Telephone Area Code 312—231-3511

MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH VA	**ADV PG 310**
MESON ELECTRONICS CO, INC, ROCHESTER	**N Y**
MICRO CONTACTS, INC, HICKSVILLE	**N Y**
MURATA MFG CO, LTD, KYOTO JAPAN	**ADV PG 311**
Accutronics, Inc, Geneva	Ill
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Armec Corp, Huntington Station	N Y
Austron, Inc, Austin	Tex
Barden Co, Hermosa Beach	Cal
Fork Standards Inc, West Chicago	Ill
Frequency Electronics Inc, New Hyde Park	N Y
Greenray Industries Inc, Mechanicsburg	Pa
H B Engineering Corp, Silver Spring	Md
Melpar Inc, Special Prods Dept, Falls Church	Va
Meson Electronics Co, Inc, Rochester	N Y
Micro Contacts, Inc, Hicksville	N Y
Muirhead Instruments Inc, Mountainside	N J
Murata Mfg Co, Ltd, Kyoto	Japan
Philamon Laboratories Inc, Westbury	N Y
Riverbank Labs, Dept of Engrg, Geneva	Ill
Varo Inc, Garland	Tex
Varo Inc Time & Frequency Products Santa Barbara	Cal

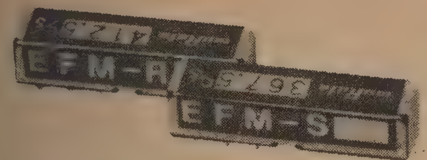
TUNING FORKS
Frequency Range: 240 to 25,000 HZ

Series	Accuracy	Size	Terminals
22	±0.05% (−55°C to 125°C) ±0.02% (15°C to 35°C)	1¹⁄₃₂" x ¾" x 1¹⁷⁄₃₂"	Wire Leads
23	±0.02% (−55°C to 125°C) ±0.01% (−55°C to 85°C) ±0.005% (20°C to 30°C)	1⁵⁄₁₆" x 1⁵⁄₁₆" x ⅜"	Solder Pin
24	±0.05% (−55°C to 125°C) ±0.03% (−55°C to 85°C) ±0.01% (0 to 65°C)	1½" x 1½" x ⅜"	Solder Pin

These Tuning Forks are stable resonators with a high Q.
Features: Small Reliable Rugged Precise

PRODUCT MARKETING DEPARTMENT
MELPAR, INC. 7785 ARLINGTON BLVD., FALLS CHURCH, VA. 22046
AREA CODE 703 534-6000

Low frequency filter?



Specify
Murata microfork, a unique piezoelectric tuning fork.

Murata pasted a tiny piezo ceramic on the fork to drive it piezoelectrically. As a result the Microfork provides stability in the face of bumps, jars, and changes of temperature and humidity.

Microfork Model EFM is highly accurate, compact and durable in such applications as selective calling apparatus, precise control instruments and audio frequency standards.

Nickel plated brass case is mounted on a plastic base designed for printed circuitry.

Frequency range: 360 to 2900Hz
Accuracy: ±0.3Hz (360~999Hz)
±0.7Hz (1000~2900Hz)
Temperature range: −20°C to 60°C.

For specifications on Murata's complete line of piezoelectric tuning forks request new catalog 864-E.

muRata

MURATA MANUFACTURING CO.

Nagaokacho, Kyoto, Japan
Cable: MURATA KYOTO
TELEX 5422-317-KYO

MURATA CORP. OF AMERICA

160 Broadway, New York, N.Y. 10038
Phone: (Area 212) 686-2510

FORMS--COIL & RESISTOR SEE

ALSO BOBBINS

AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
CADDELL BURNS MFG CO INC, MINEOLA N Y	**ADV PGS 162,163**
GRAYHILL INC, LA GRANGE	**ILL**
PERMACOR DIV, RADIO CORES INC, OAK LAWN	**ILL**
SUPERIOR STEATITE & CERAMIC CORP, ENGLEWOOD	**N J**
Airco Speer Electronic Components, Dubois	Pa
Alloys Unlimited Inc, Melville	N Y
American Lava Corp, Chattanooga	Tenn
Anchor Plastics Co Inc, Long Island City	N Y
Asheville-Schoonmaker Mica Co, Newport News	Va
Atomite Electronics Corp, Roosevelt	N Y
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Buckeye Bobbin & Mfg Div Prec Paper Tube Co Westlake	Ohio
Caddell Burns Mfg Co Inc, Mineola	N Y
Cambridge Thermionic Corp, Cambridge	Mass
Carborundum Co Electrical & Elctns Br, Niagara Falls	NY
Cerro Corp, New York	NY
Chemplast Inc, Wayne	N J
Cincinnati Development & Mfg Co, Cincinnati	Ohio
Cleveland Container Corp, New York	N Y
Coilcraft Inc, Cary	Ill
Cosmo Plastics Co, Cleveland	Ohio
Delta Coils, Philadelphia	Pa
Dorco Electronics Inc, Compton	Cal
Electrical Plastics Corp, Lyndhurst	N J
Electrical Refractories Co, East Palestine	Ohio
Electro Assemblies Inc, Chicago	Ill
EpoxyCast Electronic Case Co, Yonkers	N Y
Fastex Div Illinois Tool Works, Des Plaines	Ill
Ferricore Div Natl Moldite Co Inc, Newark	N J
Grayhill Inc, La Grange	Ill
Gries Reproducer Co Div Coats & Clark Inc New Rochelle	N Y
Hydro Molding Co Inc, Plattsburgh	N Y
Impectron Inc, New York	N Y
Isolantite Mfg Corp, Stirling	N J
Maryland Lava Co Inc, Bel Air	Md
Micrometals Inc, Sierra Madre	Cal
Millen Mfg Co Inc, James, Malden	Mass
Miller Co, J W, Los Angeles	Cal
Mindrum Precision Products, Cucamonga	Cal
National Moldite Co Inc, Newark	N J
Niemand Bros Inc, Elmhurst	N Y
Norrich Plastics Corp, Roosevelt	N Y
Ny-Glass, Inc, Paramount	Cal
Permacor Div, Radio Cores Inc, Oak Lawn	Ill
Precision Paper Tube Co, Wheeling	Ill
Product Components Corp, Hastings-on-Hudson	N Y
Quality Components Inc, St Marys	Pa
Resdel Corp, Rio Grande	N J
Rostone Corp, Lafayette	Ind
Saxonburg Ceramics Inc, Pittsburgh	Pa
Severna Div Amphenol Corp, East Orange	N J
Sierra Electric Inc, Gardena	Cal
Slocum Industries, Inc, Reseda	Cal
Spaulding Fibre Co Inc, Tonawanda	N Y
Staffall, Inc, Providence	R I
Stettner-Trush Inc, Cazenovia	N Y
Stevens Products Inc, East Orange	N J
Stone Paper Tube Co Div Stone Ind Corp Washington	D C
Superior Steatite & Ceramic Corp, Englewood	N J
Synthane Corp, Oaks	Pa
Thermotech Industries Inc, Hopkins	Minn
Union Carbide Corp, Carbon Products Div New York	N Y
United Products Co, Orange	N J
Washington Electrical Products Co, Washington	Mo
Wilmad Glass Co Inc, Buena	N J

FORMS--EPOXY, ENCAPSULATING

SUPERIOR STEATITE & CERAMIC CORP, ENGLEWOOD	**N J**
Acme Chemicals & Insulation, New Haven	Conn
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Approved Plastics Co, Port Orange	Fla
Atomite Electronics Corp, Roosevelt	N Y
Castall Research Lab Inc, Brockton	Mass
Cerro Corp, New York	NY
Cycle Products Co Inc, Newark	N J
Dorco Electronics Inc, Compton	Cal
Electrical Plastics Corp, Lyndhurst	N J
Epoxtronics Corp, Lowell	Mass
EpoxyCast Electronic Case Co, Yonkers	N Y
Epoxy Products Co Div Allied Prod Inc New Haven	Conn
Franklin Fibre-Lamitex Corp, Wilmington	Del
Gibson-Egan CO, Arcadia	Cal
G-L Industries Inc, G-L Electronics Div, Westville	N J
Janel Inc, Stirling	N J
Jones Inc, Norman, South Merrimack	N H
Leed Insulator Corp, Los Angeles	Cal
Maryland Lava Co Inc, Bel Air	Md
Mitchell Rand Mfg Corp, Hillborn	N Y
Norrich Plastics Corp, Roosevelt	N Y
Ny-Glass, Inc, Paramount	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Precision Paper Tube Co, Wheeling	Ill
Quality Components Inc, St Marys	Pa
Resdel Corp, Rio Grande	N J
Robison Electronics Inc, Hawthorne	Cal
Roosevelt Metal Co Inc, Brooklyn	N Y
Rostone Corp, Lafayette	Ind
Stevens Tubing Corp, East Orange	N J
Superior Steatite & Ceramic Corp, Englewood	N J
Topper Mfg Co Inc, Great Neck	N Y
United American Metals Div, Brooklyn	N Y
U S Dielectric Inc, Worcester	Mass
Wells Electronics Inc, Plastics Div, South Bend	Ind
Zippertubing Co, Los Angeles	Cal

FORSTERITE SEE CERAMICS

FRACTIONAL-HP MOTORS SEE MOTORS

FRAMES, MOUNTING--MEMORY CORE (WITHOUT CORES)

AMCO ENGINEERING CO, CHICAGO	**ILL**
Amco Engineering Co, Chicago	Ill
Benson Mfg Div E C I Inc, Kansas City	Mo
Chemical Micro Milling Co, Pennsauken	N J
Donnelly Mfg Co, Waltham	Mass
Eugene Engineering Co Inc, Rockland	Mass
Ferroxcube Corp, Saugerties	N Y
Industrial Circuits Co, Fairfield	N J
Lockhart Industries Inc, Paramount	Cal
Lockheed Electronics Co, Avionics & Ind Prods Div Los Angeles	Cal
Metal Fab Div, Artisan Industries Inc, Waltham	Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Sealectro Corp, Mamaroneck	N Y
Sylvania Electric Prods Inc, Parts Div, Warren	Pa

FRAMES, MOUNTING--PLUG-IN UNITS

VERO ELECTRONICS, INC, FARMINGDALE	**N Y**
Abtronics, Inc, Livermore	Cal
Birtcher Corp, Industrial Div, Monterey Park	Cal
Buckeye Stamping Co, Columbus	Ohio
California Systems Components, Inc, Chatsworth	Cal
Cambridge Thermionic Corp, Cambridge	Mass
Churchill Corp, Melrose	Mass
Circuit Structures Lab, Burbank	Cal
Data Instrument Div, Pennsauken	N J
Donnelly Mfg Co, Waltham	Mass
EICO Electronic Instrument Co Inc, Brooklyn	NY
Eugene Engineering Co Inc, Rockland	Mass
Magnetic Systems Corp, Clearwater	Fla
Mid-West Metal Products Inc, Kansas City	Kans
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Rosselli Del Turco Rossello, Rome	Italy
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Vector Electronic Co Inc, Los Angeles	Cal
Vero Electronics, Inc, Farmingdale	N Y
Vero Electronics Ltd, Southampton	England

EBG

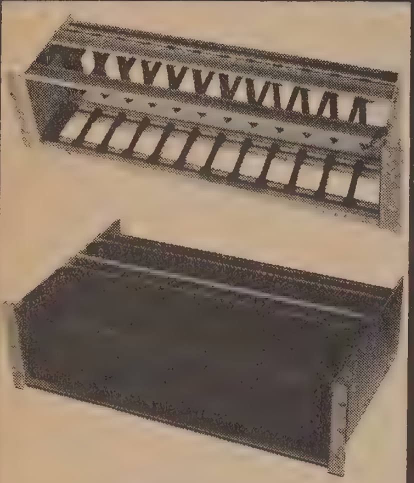
the industry's

only computer

compiled directory.

This makes information in the Electronics Buyers' Guide the latest and most accurate anywhere.

vero
Presents the
ULTIMATE
PC CARD FRAME
VERORACK
SYSTEM 3



*MAKES THE
USUAL BUCKET, BASKET
CAGE OBSOLETE!*

The System 3 is shown in two of many versions. One with individual variable space polycarbonate guides available in a variety of lengths. The other with 4″ blocks of guides on .5 spacings for fastest possible assembly.

All guides slide into precision aluminum extrusions which provide the greatest strength available. beauty of design, built in card identification and unique connector mounting.

Slotted end plate versions for prototypes available off the shelf. Card lengths from 3″ short to 15″ long and beyond are easily fitted. The low cost of the first product engineered card frame will surprise you. Verorack System 3 can improve your product and save you money.

WRITE FOR DETAILED
INFORMATION

VERO ELECTRONICS INC.
176 Central Ave., Farmingdale, N. Y. 11735
Tel. 516 MY 4-6550 • TWX 510-224-6429

FRAMES, MOUNTING--PRINTED CIRCUIT BOARD

IBM, INDUSTRIAL PRODUCTS MARKETING, NEW YORK	**NY**
VERO ELECTRONICS, INC, FARMINGDALE, N Y	**ADV PG 312**
Astro-Space Labs Inc, Huntsville	Ala
Birtcher Corp, Industrial Div, Monterey Park	Cal
Buckeye Stamping Co, Columbus	Ohio
Bud Radio Inc, Willoughby	Ohio
California Systems Components, Inc, Chatsworth	Cal
Churchill Corp, Melrose	Mass
Circuit Structures Lab, Burbank	Cal
Data Instrument Div, Pennsauken	N J
D-Cemco Inc, Burbank	Cal
Design Products Corp, Troy	Mich
Donnelly Mfg Co, Waltham	Mass
Douglas Electronics Inc, San Leandro	Cal
Elco Corp, Willow Grove	Pa
Eugene Engineering Co Inc, Rockland	Mass
Gibson-Egan CO, Arcadia	Cal
IBM, Industrial Products Marketing, New York	NY
Ikor, Inc, Burlington	Mass
Lake Engineering Co Ltd, Scarborough	Ont
Lockheed Electronics Co, Avionics & Ind Prods Div Los Angeles	Cal
Metal Fab Div, Artisan Industries Inc, Waltham	Mass
Metal Works Inc, Hermann	Mo
Methode Electronics Inc, Chicago	Ill
Mid-West Metal Products Inc, Kansas City	Kans
Molecular Research Inc, Palm Beach Gardens	Fla
Monitor Systems Inc, Fort Washington	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Rosselli Del Turco Rossello, Rome	Italy
Scanbe Mfg Corp, Monterey Park	Cal
Seelye Plastic Fab Inc, Minneapolis	Minn
Space Products Inc, Long Beach	Cal
Staffall, Inc, Providence	R I
Techmar Corp, Los Angeles	Cal
Techni-Tool Inc, Philadelphia	Pa
Titchener & Co, E H, Binghamton	N Y
Vector Electronic Co Inc, Los Angeles	Cal
Vero Electronics, Inc, Farmingdale	N Y
Vero Electronics Ltd, Southampton	England
Zero Mfg Co, Burbank	Cal

FREQUENCY ANALYZERS SEE ANALYZERS

FREQUENCY CALIBRATION SERVICES SEE CALIBRATION SERVICES

FREQUENCY CALIBRATORS SEE CALIBRATORS--FREQUENCY

FREQUENCY CONTROLS SEE REGULATORS--FREQUENCY

FREQUENCY COUNTERS SEE COUNTERS--ELECTRONIC

FREQUENCY TO D-C CONVERTERS SEE CONVERTERS--FREQUENCY TO D-C

FREQUENCY DIVIDERS SEE DIVIDERS--FREQUENCY

FREQUENCY INDICATORS SEE METERS--FREQUENCY

FREQUENCY MARKERS--MICROWAVE SEE GENERATORS-SIGNAL

FREQUENCY METERS SEE METERS--FREQUENCY

FREQUENCY REGULATORS SEE REGULATORS--FREQUENCY

FREQUENCY-SHIFT KEYERS SEE KEYERS

FREQUENCY-SHIFT SYSTEMS SEE COMMUNICATION SYSTEMS

FREQUENCY STANDARDS SEE STANDARDS

FUEL CELLS

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Allis-Chalmers Mfg Co, Milwaukee	Wis
Benson Mfg Div E C I Inc, Kansas City	Mo
Chemalloy Electronics Corp, Santee	Cal
Electrochimica Corp, Menlo Park	Cal
Electro-Optical Systems Inc, Pasadena	Cal
Ionics Inc, Electronics Div, Watertown	Mass
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Texas Instruments Incorporated, Dallas	Tex
TRW Systems Group, Redondo Beach	Cal

FUNCTION GENERATOR--COMPUTER SEE GENERATORS--FUNCTION

FUNGICIDAL COATINGS SEE COATINGS

FUNGIPROOFING SERVICES

NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
Amatom Electronic Hardware, New Rochelle	N Y
Hi-Lo Mfg Corp, Chicago	Ill
National Tel-Tronics Corp, Great Neck	N Y
Tricraft Products Corp, Chicago	Ill

FURNACES--CONTROLLED ATMOSPHERE

BLUE M ENGINEERING CO, BLUE ISLAND	**ILL**
Abar Corp, Feasterville	Pa
Alcatel, Paris 8eme	France
American Gas Furnace Co, Elizabeth	N J
Aremco Products Inc, Briarcliff Manor	N Y
Astro Industries, Inc, Santa Barbara	Cal
Atlas Engineering Corp, West Hartford	Conn
Blue M Engineering Co, Blue Island	Ill
Brew & Co Inc, Richard D, Concord	N H
BTU Engineering Corp, Waltham	Mass
C M Mfg Co, Bloomfield	N J
Consolidated Controls Corp, El Segundo	Cal
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Electro Applications, Inc, Canonsburg	Pa
Grieve Corp, Chicago	Ill
Harper Electric Furnace Corp, Lancaster	N Y
Hayes Inc, C I, Cranston	R I
Huppert Co, K H, South Holland	Ill
Industrial Winding Machinery Corp, River Edge	N J
Ipsen Industries Div Alco Standard Corp, Rockford	Ill
Japan Vacuum Engineering Co Ltd, Tokyo	Japan
Kahle Engineering Co, Union City	N J
Keith Co Inc, W P, Pico Rivera	Cal
Kokusai Electric Co Ltd, Tokyo	Japan
Leeds & Northrup Co, Philadelphia	Pa
Lindberg Hevi-Duty Div Sola Basic Industries Chicago	Ill
Little Inc, Arthur D, Cambridge	Mass
Litton Engineering Labs, Grass Valley	Cal
L & L Mfg Co, Twin Oaks	Pa
Norton Co Vacuum Equip Div, Newton	Mass
Norton Vacuum Equipment Div, Columbus Plant Columbus	Ohio
Nuclide Corp, AGV Div, Acton	Mass
Philips Metalonics, Mount Vernon	N Y
Pyromet Industries, San Carlos	Cal
Pyxis, Inc, Berkeley	Cal
RCK, Inc, Sunnyvale	Cal
Research Inc, R-I Controls Div, Minneapolis	Minn
Selas Corp of America, Dresher	Pa
Sentry Co, Foxboro	Mass
Sola-Basic Industries, Milwaukee	Wis
Spectra-Mat Inc, Watsonville	Cal
Sunbeam Equipment Corp, Meadville	Pa
Systems Research Labs Inc, Dayton	Ohio
Thermo Electron Engineering Corp, Waltham	Mass
Trent Inc, Philadelphia	Pa
Vacuum/Atmospheres Corp, N Hollywood	Cal
Wagner Industries, San Jose	Cal
Watkins-Johnson Co, Palo Alto	Cal

FURNACES--DIFFUSION

Astro Industries, Inc, Santa Barbara	Cal
BTU Engineering Corp, Waltham	Mass
Despatch Oven Co, Minneapolis	Minn
Electro Applications, Inc, Canonsburg	Pa
Electroglas Inc, Menlo Park	Cal
Hayes Inc, C I, Cranston	R I
Kahle Engineering Co, Union City	N J
Kanthal Corp, Bethel	Conn
Keith Co Inc, W P, Pico Rivera	Cal
Kokusai Electric Co Ltd, Tokyo	Japan
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Lindberg Hevi-Duty Div Sola Basic Industries Chicago	Ill
L & L Mfg Co, Twin Oaks	Pa
Norton Co Vacuum Equip Div, Newton	Mass
Norton Vacuum Equipment Div, Columbus Plant Columbus	Ohio
Pyromet Industries, San Carlos	Cal
RCK, Inc, Sunnyvale	Cal
Sola-Basic Industries, Milwaukee	Wis
Syncor Products Co, Inc, Malden	Mass

FURNACES--ELECTRIC (FOR COMPONENT PRODUCTION)

BLUE M ENGINEERING CO, BLUE ISLAND	**ILL**
OAL ASSOCIATES INC, WESTBURY	**N Y**
Abar Corp, Feasterville	Pa
Aremco Products Inc, Briarcliff Manor	N Y
Astro Industries, Inc, Santa Barbara	Cal
Barkling Industrial Furnace Corp, South Holland	Ill
Bethlehem Corp, Bethlehem	Pa
Blue M Engineering Co, Blue Island	Ill
Brew & Co Inc, Richard D, Concord	N H
BTU Engineering Corp, Waltham	Mass
C M Mfg Co, Bloomfield	N J
Despatch Oven Co, Minneapolis	Minn
Electra Products Inc, Montgomeryville	Pa
Electro Applications, Inc, Canonsburg	Pa
Electroglas Inc, Menlo Park	Cal
Elmat Div Semimetals Inc, Mountain View	Cal

Feco Div Bangor Punta Operations Inc, Cleveland	Ohio
Futurecraft Corp, City of Industry	Cal
Gardner Lab Inc, Bethesda	Md
Grieve Corp, Chicago	Ill
Gruenberg Electric Co Inc, Garden City	N Y
Harper Electric Furnace Corp, Lancaster	N Y
Hayes Inc, C I, Cranston	R I
Hotpack Corp, Philadelphia	Pa
Huppert Co, K H, South Holland	Ill
Industrial Winding Machinery Corp, River Edge	N J
Infra-Red Systems Inc, Riverdale	N J
Ipsen Industries Div Alco Standard Corp, Rockford	Ill
Jelrus Instrument Corp, New Hyde Park	N Y
Kahle Engineering Co, Union City	N J
Kanthal Corp, Bethel	Conn
Keith Co Inc, W P, Pico Rivera	Cal
Kokusai Electric Co Ltd, Tokyo	Japan
Lindberg Hevi-Duty Div Sola Basic Industries Chicago	Ill
L & L Mfg Co, Twin Oaks	Pa
Norton Co Vacuum Equip Div, Newton	Mass
Norton Vacuum Equipment Div, Columbus Plant Columbus	Ohio
OAL Associates Inc, Westbury	N Y
Philips Metalonics, Mount Vernon	N Y
Phoenix Materials Corp, Monroeville	Pa
Pyromet Industries, San Carlos	Cal
Research Inc, R-I Controls Div, Minneapolis	Minn
Research Instrument Co Inc, Westbury	N Y
Sentry Co, Foxboro	Mass
Sola-Basic Industries, Milwaukee	Wis
Steiner-Ives Co, Riverton	NJ
Sunbeam Equipment Corp, Meadville	Pa
Taylor-Winfield Corp, Warren	Ohio
Thermolyne Corp, Dubuque	Iowa
Trent Inc, Philadelphia	Pa

FURNACES--GAS FIRED (FOR COMPONENT PRODUCTION)

OAL ASSOCIATES INC, WESTBURY	**N Y**
American Gas Furnace Co, Elizabeth	N J
Barkling Industrial Furnace Corp, South Holland	Ill
BTU Engineering Corp, Waltham	Mass
Conductron Corp, Ann Arbor	Mich
Despatch Oven Co, Minneapolis	Minn
Electro Applications, Inc, Canonsburg	Pa
Feco Div Bangor Punta Operations Inc, Cleveland	Ohio
Grieve Corp, Chicago	Ill
Gruenberg Electric Co Inc, Garden City	N Y
Harper Electric Furnace Corp, Lancaster	N Y
Industrial Winding Machinery Corp, River Edge	N J
Ipsen Industries Div Alco Standard Corp, Rockford	Ill
Kahle Engineering Co, Union City	N J
Keith Co Inc, W P, Pico Rivera	Cal
Lindberg Hevi-Duty Div Sola Basic Industries Chicago	Ill
Nuclide Corp, AGV Div, Acton	Mass
OAL Associates Inc, Westbury	N Y
Pyromet Industries, San Carlos	Cal
Selas Corp of America, Dresher	Pa
Sola-Basic Industries, Milwaukee	Wis
Steiner-Ives Co, Riverton	NJ
Sunbeam Equipment Corp, Meadville	Pa
Trent Inc, Philadelphia	Pa

FURNACES--HIGH FREQUENCY

Ajax Magnethermic Corp, Warren	Ohio
Alcatel, Paris 8eme	France
Denki Kogyo Co Ltd, Tokyo	Japan
Denton Vacuum Inc, Cherry Hill	N J
Eisler Engineering Co, Newark	N J
Heraeus-Engelhard Vacuum Inc, Monroeville	Pa
Industrial Winding Machinery Corp, River Edge	N J
Industron Corp, Needham Heights	Mass
Kokusai Electric Co Ltd, Tokyo	Japan
Laboratory Equipment Corp, St Joseph	Mich
Larose & Assoc Inc, W T, Cohoes	NY
Lepel High Frequency Labs, Inc, Maspeth	N Y
Lindberg Hevi-Duty Div Sola Basic Industries Chicago	Ill
Norton Co Vacuum Equip Div, Newton	Mass
Pyromet Industries, San Carlos	Cal
Reaction Research Labs of America, Groton	Conn
Reeve Electronics Inc, Chicago	Ill
Sola-Basic Industries, Milwaukee	Wis
Sunbeam Equipment Corp, Meadville	Pa
Tafa Div Humphreys Corp, Concord	N H
Tocco Div Ohio Crankshaft Co, Cleveland	Ohio

FURNACES--VACUUM

MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
Abar Corp, Feasterville	Pa
Airco Temescal, Berkeley	Cal
Ajax Magnethermic Corp, Warren	Ohio
Alcatel, Paris 8eme	France
Astro Industries, Inc, Santa Barbara	Cal
Bendix Vacuum Div, Rochester	N Y
Bendix Corp, Vacuum Div, Rochester	N Y
Bethlehem Corp, Bethlehem	Pa
Brew & Co Inc, Richard D, Concord	N H
BTU Engineering Corp, Waltham	Mass
Cathey Enterprises, Mountain View	Cal
Consolidated Vacuum Corp, Rochester	N Y
Denton Vacuum Inc, Cherry Hill	N J
Edwards High Vacuum Inc, Grand Island	N Y
Edwards High Vacuum 9Canada0 Ltd, Oakville	Ont
Energy Beams Inc, Haskell	N J
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Gardner Lab Inc, Bethesda	Md
General Electric Co Vacuum Prods Business Section Schenectady	N Y
Hayes Inc, C I, Cranston	R I
Heraeus-Engelhard Vacuum Inc, Monroeville	Pa
High Vacuum Equipment Corp, Hingham	Mass
Hull Corp, Hatboro	Pa
Huppert Co, K H, South Holland	Ill
Industrial Winding Machinery Corp, River Edge	N J
Ipsen Industries Div Alco Standard Corp, Rockford	Ill
Japan Vacuum Engineering Co Ltd, Tokyo	Japan
Kahle Engineering Co, Union City	N J
Keith Co Inc, W P, Pico Rivera	Cal
Kewaunee Scientific Equipment, Adrian	Mich
Kokusai Electric Co Ltd, Tokyo	Japan
Lindberg Hevi-Duty Div Sola Basic Industries Chicago	Ill
Materials Research Corp, Orangeburg	N Y
Mitsumi Electric Co Ltd, Tokyo	Japan
Norton Co Vacuum Equip Div, Newton	Mass
Norton Vacuum Equipment Div, Columbus Plant Columbus	Ohio
Nuclide Corp, AGV Div, Acton	Mass
Pennsalt Chemicals Corp Equipment Div Philadelphia	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philips Metalonics, Mount Vernon	N Y
Pyromet Industries, San Carlos	Cal
Pyxis, Inc, Berkeley	Cal
Research Instrument Co Inc, Westbury	N Y
Sola-Basic Industries, Milwaukee	Wis
Steiner-Ives Co, Riverton	NJ
Sunbeam Vacuum Furnace Corp, North Billerica	Mass
Systems Research Labs Inc, Dayton	Ohio
Tenvac, Inc, Pembroke	Mass
T-M Vacuum Products, Riverton	N J
Ultek Div Perkin-Elmer, Palo Alto	Cal
Vacuum/Atmospheres Corp, N Hollywood	Cal
Vacuum Industries Inc Sub GCA Corp, Somerville	Mass
Varian, Palo Alto	Cal
Wagner Industries, San Jose	Cal
Watkins-Johnson Co, Palo Alto	Cal

FUSES--CURRENT LIMITING

BECKMAN INSTRUMENTS INC, HELIPOT DIV, FULLERTON CAL	**ADV PG 313**
BURNDY CORP, NORWALK	**CONN**
BUSSMANN MFG DIV MCGRAW-EDISON CO, ST LOUIS MO	**ADV PGS 314,315**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
Appareillage Electrique Cehess, Paris	France
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Bellaire Electronics, Inc, Red Bank	N J
Burndy Corp, Norwalk	Conn
Bussmann Mfg Div McGraw-Edison Co, St Louis	Mo
Carbone Corp, Boonton	N J
Electronic Ideas Inc, Wyncote	Pa
En-Cer Inc, South Holland	Ill
Fuji Electric Co Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
I-T-E Circuit Breaker Co, Philadelphia	Pa
ITT Wire & Cable Div, Pawtucket	R I
Littelfuse Inc, Des Plaines	Ill
McGraw-Edison Power Systems Div, Milwaukee	Wis
Metal Ceram Inc, Mount Vernon	N Y
Oneida Electronic Mfg Co, Meadville	Pa
Qualtronics Corp, Fullerton	Cal
Schurter AG, H, 6002 Lucerne	Switzerland
Semi-Alloys Inc, Mt Vernon	N Y
Standard Telephones & Cables Ltd London WC 2	England
Workman Electronic Products Inc, Sarasota	Fla

LOOKING FOR OVERVOLTAGE PROTECTION?

Helipot overvoltage crowbars are miniature cermet thick film devices that feature:

- Adjustable trip voltages from 5 to 40 volts
- Adjustable response time
- Low standby current
- −55° to +125°C operation
- Small size (1" x 0.5" x 0.170" high)
- Low cost and local stock availability

ULTRA HIGH SPEED FUSE AVAILABLE TOO!

- Less than 500 μsec response
- Available from 1 to 3 amps
- −55° to +125°C operation
- TO-46 (0.230" dia.) packaging
- Low-cost and local stock availability

For complete information contact the Helipot representative nearest you. He's listed in EBG's Manufacturers' Index.

Beckman®

INSTRUMENTS, INC.

HELIPOT DIVISION

FULLERTON, CALIFORNIA • 92634

FUSE BLOCKS SEE HOLDERS--FUSE

FUSE HOLDERS SEE HOLDERS

FUSES--STANDARD

BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
BUSSMANN MFG DIV MCGRAW-EDISON CO, ST LOUIS MO	**ADV PGS 314,315**
Appareillage Electrique Cehess, Paris	France
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Bussmann Mfg Div McGraw-Edison Co, St Louis	Mo
Cable Electric Products Inc, Providence	R I
Carbone Corp, Boonton	N J
Eagle Electric Mfg Co Inc, Long Island City	N Y
En-Cer Inc, South Holland	Ill
Ercona Corp, New York	N Y
Intelect Inc, Honolulu	Hawaii
I-T-E Circuit Breaker Co, Philadelphia	Pa
ITT Wire & Cable Div, Pawtucket	R I
Littelfuse Inc, Des Plaines	Ill
McGraw-Edison Power Systems Div, Milwaukee	Wis
Schurter AG, H, 6002 Lucerne	Switzerland
Shigoto Industries Ltd, New York	N Y
Standard Telephones & Cables Ltd London WC 2	England
Star-A Electric Mfg Co Inc, Brooklyn	N Y
Thermal Controls Inc, Belleville	N J
Trico Fuse Mfg Co, Milwaukee	Wis
Zell Electric Mfg Co, Inc, New York	N Y

FUSES--THIN FILM

BUSSMANN MFG DIV MCGRAW-EDISON CO, ST LOUIS MO	**ADV PGS 314,315**
Bussmann Mfg Div McGraw-Edison Co, St Louis	Mo
En-Cer Inc, South Holland	Ill
Littelfuse Inc, Des Plaines	Ill
Varo Inc, Garland	Tex

FUSES--TIME DELAY

BUSSMANN MFG DIV MCGRAW-EDISON CO, ST LOUIS MO	**ADV PGS 314,315**
INTERELECTRONICS CORP, CONGERS	**N Y**
Appareillage Electrique Cehess, Paris	France
Autronics Corp, Pasadena	Cal
Bussmann Mfg Div McGraw-Edison Co, St Louis	Mo
Carbone Corp, Boonton	N J
Condor Industrial Corp, West Chicago	Ill
Eagle Electric Mfg Co Inc, Long Island City	N Y
En-Cer Inc, South Holland	Ill
Fairchild Space & Defense Sys Div Fairchild Cam Instr Corp, Syosset	NY
Impectron Inc, New York	N Y
Interelectronics Corp, Congers	N Y
I-T-E Circuit Breaker Co, Philadelphia	Pa
ITT Wire & Cable Div, Pawtucket	R I
Littelfuse Inc, Des Plaines	Ill
Northrop Nortronics, Palos Verdes Peninsula	Cal
Schurter AG, H, 6002 Lucerne	Switzerland
Standard Telephones & Cables Ltd London WC 2	England

FUSES--WIRE

BUSSMANN MFG DIV MCGRAW-EDISON CO, ST LOUIS MO	**ADV PGS 314,315**
Bussmann Mfg Div McGraw-Edison Co, St Louis	Mo
Carbone Corp, Boonton	N J
Cohn Corp, Sigmund, Mt Vernon	N Y
Impectron Inc, New York	N Y
Littelfuse Inc, Des Plaines	Ill
McGraw-Edison Power Systems Div, Milwaukee	Wis
Metal Ceram Inc, Mount Vernon	N Y
Northrop Nortronics, Palos Verdes Peninsula	Cal
Semi-Alloys Inc, Mt Vernon	N Y
United Mineral & Chemical Corp, New York	N Y

BUSS AGX FAST ACTING FUSES
¼ x 1 inch, glass tube, "quick-acting" type, 1/500 to 2 amp.

BUSS AGC AND MTH GLASS TUBE FUSES
¼ x 1¼ inch. AGC: 2½, 3 amps. MTH: 4, 5 or 6 amp.

BUSS AGC GLASS TUBE FUSES
¼ x 1¼ inch. 4 to 30 amp.

BUSS INDICATING FUSES
¼ x 1¼ inch, ¾ to 30 amp., and 1 13/32 x 1½ inch, 1/10 to 30 amp. Silverplated pin pops out when fuse is blown and provides quick, positive identification of faulted circuit . . . by visual signal, by activating an alarm, or both.

FUSETRON MDL DUAL-ELEMENT FUSES
¼ x 1¼ inch, glass tube "slow-blowing" 1/100 to 30 amp.

BUSS ABC CERAMIC TUBE FUSES
¼ x 1¼ inch, ¼ to 30 amp. For circuits having fault current capacity up to 25,000 amp. at 125 volts or 10,000 amps. at 250 volts

BUSS GJV PIGTAIL FUSES
¼ x 1½ inch, glass tube, with 1¼ inch leads of No. 20 tinned wire. 1/16 to 6 amp.

BUSS SFE STANDARD FUSES
⅝ to 1 7/16 inches in length, glass tube, 4 to 30 amp. Fuses of different amperages are of different lengths—to make it impossible to insert too large a size.

FUSETRON FNM FIBRE TUBE FUSES
1 13/32 x 1½ inch, dual-element "slow-blowing" 1/10 to 30 amp.

FUSETRON FNA SIGNAL OR VISUAL INDICATING FUSES
1/10 to 10 amp. Silver-plated pin pops out when fuse is blown and provides quick, positive identification of faulted circuit . . . by visual signal, by activating an alarm, or both.

BUSS SUB-MINIATURE GMW FUSE AND HWA FUSEHOLDER
Fuse size only .270 x .250 inches. Fuse has window for visual inspection of element. Fuse may be used with or without holder. 1/200 to 5 amps. Fuses and holders available to meet military specifications.

GFA TRON SUB-MINIATURE PIGTAIL FUSES
Body size only .145 x .300 inches. Glass tube construction permits visual inspection of element. Hermetically sealed. Twenty-three ampere sizes from 1/100 thru 15 amps.

BUSS GMT FUSES—HLT FUSEHOLDERS
Signal Indicating, Alarm Activating. For multiple circuit apparatus where space is at a premium. Holders take panel mounting space of only ¼ inch horizontal by 1 15/32 inches vertical. 18/100 to 10 amp.

BUSS HIGH VOLTAGE FUSES
For protection of circuits up to 20 KW on d.c. and 30KVA on a.c. 1/16 to 2 amp.

BUSS QUALITY
SMALL DIMENSION
FUSES and FUSEHOLDERS

FOR THE PROTECTION OF ALL TYPES OF ELECTRONIC & ELECTRICAL CIRCUITS & DEVICES

The complete BUSS line of fuses includes dual-element "slow-blowing," single-element "quick-acting" and signal or visual indicating types . . . in sizes from 1/500 amp. up—plus a companion line of fuse clips, blocks and holders.

Only a representative listing is shown here of the thousands of different types and sizes of fuses and holders available from BUSS.

All standard items are easily obtained through your BUSS distributor—but if you don't find what you want, get in touch with us.

When special fuses, fuse clips, fuse blocks or fuseholders are required, our staff of fuse engineers is at your service to help in selecting or designing the fuse or fuse mounting best suited to your requirements.

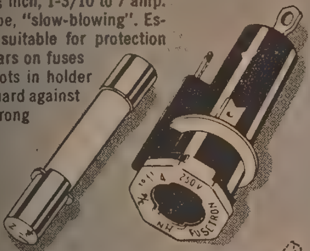
For detailed information on the complete BUSS line write for BUSS bulletin SFB.

BUSSMANN MFG. DIVISION, *McGraw-Edison Co.,* **St. Louis, Mo. 63107**

For fuses and fuseholders of unquestioned high quality . .

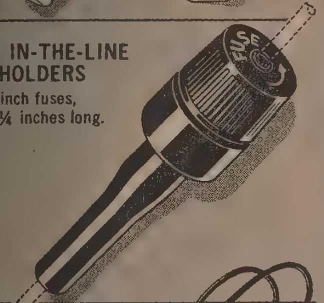
FUSETRON TYPE N FUSES AND FUSEHOLDERS

¼ x 1¼ inch, 0 to 1¼ amps. and ¼ x $1\frac{7}{16}$ inch, 1-3/10 to 7 amp. Glass tube, "slow-blowing". Especially suitable for protection of TV. Ears on fuses match slots in holder to safeguard against use of wrong size and type of fuse.



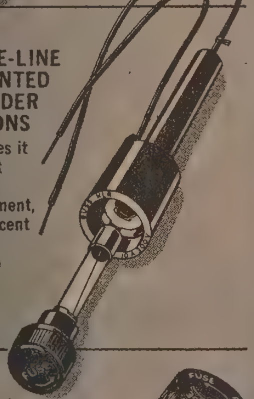
BUSS IN-THE-LINE FUSEHOLDERS

For ¼ inch fuses, ⅝ to 1¼ inches long.



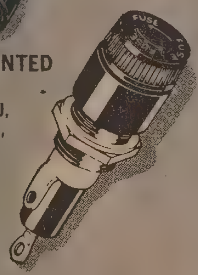
BUSS IN-THE-LINE PANEL MOUNTED FUSE & HOLDER COMBINATIONS

HLR holder makes it simple to protect wide variety of devices or equipment, including fluorescent fixtures. Should fuse open, entire fuse-knob assembly is replaced.



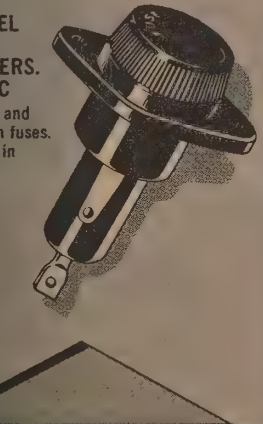
BUSS PANEL MOUNTED FUSEHOLDERS

Non-Indicating Series HJ, HK and HCM. For ¼ x 1, ¼ x 1¼ and $\frac{9}{32}$ x 1¼ inch fuses.



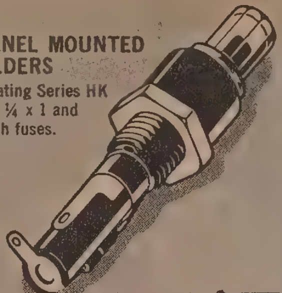
BUSS PANEL MOUNTED FUSEHOLDERS. SERIES HPC

For $\frac{13}{32}$ x 1⅜ and $\frac{13}{32}$ x 1½ inch fuses. Also available in military type.



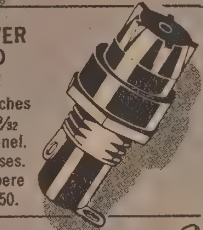
BUSS PANEL MOUNTED FUSEHOLDERS

Lamp Indicating Series HK and HJ. For ¼ x 1 and ¼ x 1¼ inch fuses.



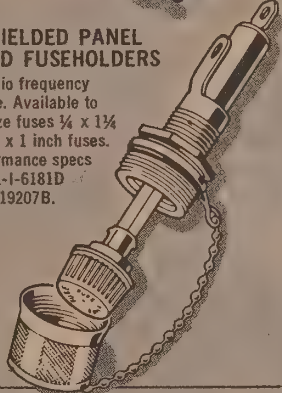
BUSS SPACE SAVER PANEL MOUNTED FUSEHOLDERS

Fuseholder only 1⅝ inches long . . . extends just $\frac{29}{32}$ inch behind front of panel. Takes ¼ x 1¼ inch fuses. Holder rated at 15 ampere for any voltage up to 250.



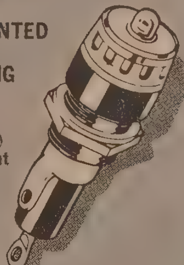
BUSS SHIELDED PANEL MOUNTED FUSEHOLDERS

Prevent radio frequency interference. Available to take two size fuses ¼ x 1¼ inch and ¼ x 1 inch fuses. Meet performance specs of both MIL-I-6181D and MIL-F-19207B.



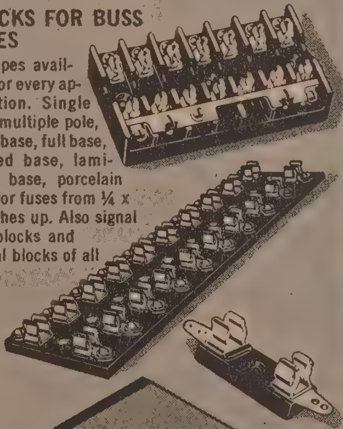
BUSS PANEL MOUNTED FUSEHOLDERS. VISUAL INDICATING SERIES HLD.

For ¼ x 1¼ inch BUSS GBA fuses (or GLD fuses) ¾ to 5 amps. Transparent knob permits visual indicating pin on open fuse to be seen.



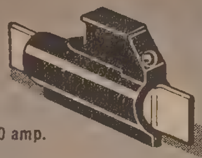
BLOCKS FOR BUSS FUSES

All types available for every application. Single pole, multiple pole, small base, full base, molded base, laminated base, porcelain base for fuses from ¼ x ⅝ inches up. Also signal fuse blocks and special blocks of all types.



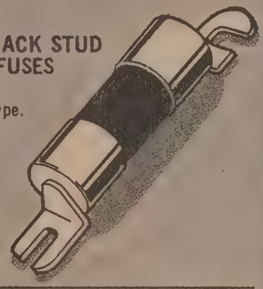
BUSS AIRCRAFT FUSES

Mechanical Indicating —Limiter type. Meet rigorous requirement of high speed, high performance aircraft. 1 to 60 amp.



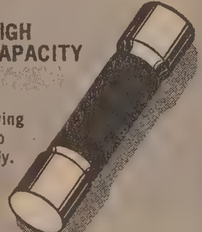
FUSETRON ACK STUD MOUNTED FUSES

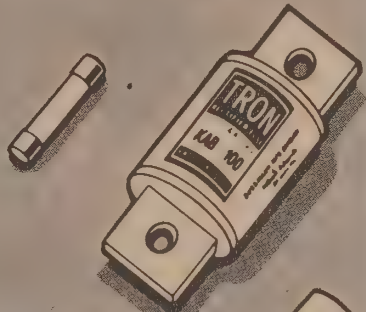
1 to 300 amp., dual-element type.



LIMITRON KTK HIGH INTERRUPTING CAPACITY FUSES

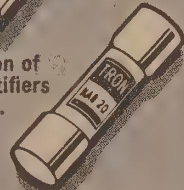
$1\frac{13}{32}$ x 1½ inch, 1/10 to 30 amp. For circuits having fault current capacity up to 100,000 amps. AC only.

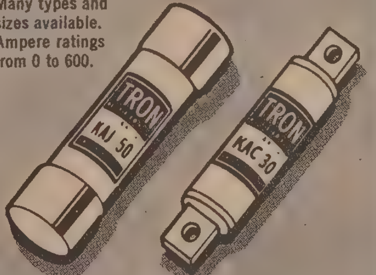




TRON RETCIFIER FUSES. For protection of Semi-Conductor Rectifiers and like applications.

Provide extremely fast opening on overload and fault currents, with a high degree of restriction of let-thru current. Many types and sizes available. Ampere ratings from 0 to 600.





SUPPLIED THE ECONOMICAL WAY
. . . THRU DISTRIBUTORS

r every protection need, insist on **BUSS QUALITY**

FUZES, ELECTRONIC--PROXIMITY

INTERELECTRONICS CORP, CONGERS	**N Y**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Aerodyne Controls Corp, Farmingdale	N Y
Amecom Div Litton Industries, Silver Spring	Md
Baldwin Electronics Inc, Little Rock	Ark
Bendix Corp, Communications Div, Towson	Md
Fairchild Space & Defense Sys Div Fairchild Cam Instr Corp, Syosset	NY
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
Interelectronics Corp, Congers	N Y
ITT Federal Labs, Fort Wayne	Ind
Kollsman Instrument Corp, Syosset	N Y
Linden Labs Inc, State College	Pa
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Motor Control Corp Sub Zenrad Computer Corp, Huntington	NY
Philco-Ford Corp, Washington	D C
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Reeves Instrument Div, DCA, Garden City	N Y
Space & Systems Div General Time Corp Stamford	Conn
Sylvania Electronic Systems, Waltham	Mass
Texas Instruments Incorporated, Dallas	Tex
U S Time Corp, Waterbury	Conn
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

FUZES, ELECTRONIC--TIME

DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
INTERELECTRONICS CORP, CONGERS	**N Y**
Aerodyne Controls Corp, Farmingdale	N Y
Autronics Corp, Pasadena	Cal
Baldwin Electronics Inc, Little Rock	Ark
Bissett-Berman Corp, Santa Monica	Cal
Carbone Corp, Boonton	N J
Condor Industrial Corp, West Chicago	Ill
Dale Electronics Inc, Sioux Div, Yankton	S Dak
En-Cer Inc, South Holland	Ill
Fairchild Space & Defense Sys Div Fairchild Cam Instr Corp, Syosset	NY
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
Giannini-Voltex, Whittier	Cal
Interelectronics Corp, Congers	N Y
ITT Federal Labs, Fort Wayne	Ind
Kollsman Instrument Corp, Syosset	N Y
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Pioneer Electronic Corp, Ohta-ku, Tokyo	Japan
Qualtronics Corp, Fullerton	Cal
RCA, Defense Electronic Products, Moorestown	N J
Reeves Instrument Div, DCA, Garden City	N Y
Space & Systems Div General Time Corp Stamford	Conn
Texas Instruments Incorporated, Dallas	Tex
U S Time Corp, Waterbury	Conn
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

GAGES--BETA

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
Accurate Electronics Corp, Elyria	Ohio
EON Corp, Brooklyn	N Y
Isotopes A Teledyne Co, Westwood	N J
Landis & Gyr, Inc, New York	N Y
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Nuclear Supplies, Encino	Cal
Ohmart Corp, Cincinnati	Ohio
RIL Electronics Inc, Southampton	Pa
Robertshaw Controls Co, Aero & Instrument Div Anaheim	Cal
Tracerlab, Div Lab for Electronics Inc, Waltham	Mass
Unit Process Assemblies Inc, Woodside	N Y

GAGES--BOURDON

TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
American Instrument Co, Inc, Silver Spring	Md
American-Standard Controls Div, Detroit	Mich
American-Standard, Monrovia Instrument Dept Monrovia	Cal
Bailey Meter Co, Wickliffe	Ohio
Edwards High Vacuum Inc, Grand Island	N Y
Foxboro Co, Foxboro	Mass
Futurecraft Corp, City of Industry	Cal
Glassco Instrument Co, Pasadena	Cal
Martin-Decker Corp, Santa Ana	Cal
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Taylor Instrument Cos, Rochester	N Y
Texas Instruments Incorporated, Dallas	Tex
Texas Instruments Inc Indl Prods Div, Houston	Tex
Volumetrics, Inglewood	Cal

GAGES--COATING THICKNESS

American Electronic Controls Inc, Philadelphia	Pa
American Instrument Co, Inc, Silver Spring	Md
Automation Products, Inc, Houston	Tex
Bausch & Lomb, Inc, Rochester	N Y
Bendix Corp, Vacuum Div, Rochester	N Y
Bicron Electronics Co, Canaan	Conn
Biddle Co, James G, Plymouth Meeting	Pa
Conrac Corp, New York	N Y
Controlomag Labs, Roslyn	Pa
Decker Corp, Bala Cynwyd	Pa
Electronic Control Corp, Detroit	Mich
Electron Machine Co, Umatilla	Fla
Empire Scientific Corp, Garden City	N Y
Gardner Lab Inc, Bethesda	Md
Industrial Control Co, Farmingdale	N Y
Industrial Electronetics Corp, Satellite Beach	Fla
Industrial Winding Machinery Corp, River Edge	N J
Janel Inc, Stirling	N J
Jonard Industries Corp, Bronx	N Y
Larson Aero Development, Concord	Cal
Lion Research Corp, Newton	Mass
Magnaflux Corp, Chicago	Ill
Measuring Instrument Controls Inc Berkeley Heights	N J
Microwave Instruments Co, Corona del Mar	Cal
Minnetech Labs Inc, Minneapolis	Minn
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Ohmart Corp, Cincinnati	Ohio
Optics Technology Inc, Palo Alto	Cal
Philips Electronic Instruments, Anal Inst, Mount Vernon	N Y
Precision Systems Corp, Columbus	Ohio
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Research Industrolectronics, Roslyn	Pa
RIL Electronics Inc, Southampton	Pa
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Tracerlab, Div Lab for Electronics Inc, Waltham	Mass
Twin City Testing Corp, North Tonawanda	N Y
Ultek Div Perkin-Elmer, Palo Alto	Cal
Unit Process Assemblies Inc, Woodside	N Y
Wayne Kerr Corp, Montclair	NJ
Zeiss Inc, Carl, New York	N Y

GAGES, DIMENSION--COMPARATOR TYPE

WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
AA Gage Div U S Industries, Detroit	Mich
Acme Tool & Specialties Co, Des Plaines	Ill
Bausch & Lomb, Inc, Rochester	N Y
Bendix Corp Industrial Metrology Div, Ann Arbor	Mich
Bicron Electronics Co, Canaan	Conn
Chicago Dial Indicator Co, Des Plaines	Ill
Daytronic Corp, Dayton	Ohio
Decker Corp, Bala Cynwyd	Pa
Digitrol Systems Inc, Amenia	N Y
DoAll Co, Des Plaines	Ill
Empire Scientific Corp, Garden City	N Y
Ercona Corp, New York	N Y
General Precision Systems Inc, Indl Controls Div Morton Grove	Ill
Industrial Electronetics Corp, Satellite Beach	Fla
Industrial Tectonics Inc Ball Div, Ann Arbor	Mich
Magnaflux Corp, Chicago	Ill
Measuring Instrument Controls Inc Berkeley Heights	N J
Minnetech Labs Inc, Minneapolis	Minn
Moore Products Co, Spring House	Pa
Nuclear Research Instruments, Berkeley	Cal
Optical Gaging Products Inc, Rochester	N Y
Optomechanisms Inc, Plainview	N Y
Pi Tape, Lemon Grove	Cal
Poole Instruments Inc, Dallas	Tex
Pratt & Whitney Machine Tool Div, West Hartford	Conn
Precision Systems Corp, Columbus	Ohio
Premium Allied Tool Inc, Owensboro	Ky
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Rustrak Instrument Div Gulton Ind Inc, Manchester	NH
Scherr Tumico Inc, St James	Minn
Simpson Electric Co, Chicago	Ill
Starrett Co, L S, Athol	Mass
Taft-Peirce Mfg Co, Woonsocket	R I
Techni-Tool Inc, Philadelphia	Pa
Visual Inspection Products, Lynn	Mass
Weinschel Engineering Co Inc, Gaithersburg	Md
Wharton Unitools, Moosup	Conn
Zeiss Inc, Carl, New York	N Y

GAGES, DIMENSION--DISPLACEMENT MEASURING

AA Gage Div U S Industries, Detroit	Mich
Affiliated Manufacturers Inc, Whitehouse	N J
Allied Research Associates, Inc, Concord	Mass
Alpine Geophysical Assoc Inc, Norwood	N J
Avionics, Inc, South Bend	Ind
Bendix Corp Industrial Metrology Div, Ann Arbor	Mich
Bently Nevada Corp, Minden	Nev
Biocom, Inc, Culver City	Cal
C-E Electronics Inc, Glenside	Pa
Clinton Instrument Co, Clinton	Conn
Daytronic Corp, Dayton	Ohio
Decker Corp, Bala Cynwyd	Pa
Dimensions Inc, Hempstead	N Y
DoAll Co, Des Plaines	Ill
Electro Products Labs Inc Transducer Div, Chicago	Ill
General Precision Systems Inc, Indl Controls Div Morton Grove	Ill
Hyde Park Electronics Inc, Dayton	Ohio
Indicating Caliper Co, Oak Park	Ill
Industrial Electronetics Corp, Satellite Beach	Fla
Industrial Tectonics Inc Ball Div, Ann Arbor	Mich
Industrial Winding Machinery Corp, River Edge	N J
Link Group Gen Precision Sys Inc, Binghamton	N Y
Lion Research Corp, Newton	Mass
Measuring Instrument Controls Inc Berkeley Heights	N J
Mechanical Technology Inc, Latham	N Y
Microwave Instruments Co, Corona del Mar	Cal
Muirhead Instruments Inc, Mountainside	N J
Optomechanisms Inc, Plainview	N Y
Perkin-Elmer Corp Laser Dept, Wilton	Conn
Pi Tape, Lemon Grove	Cal
Precision Systems Corp, Columbus	Ohio
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Rustrak Instrument Div Gulton Ind Inc, Manchester	NH
Scherr Tumico Inc, St James	Minn
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Starrett Co, L S, Athol	Mass
Streeter-Amet, Grayslake	Ill
Taft-Peirce Mfg Co, Woonsocket	R I
Techni-Tool Inc, Philadelphia	Pa
Wayne Kerr Corp, Montclair	NJ
West Coast Research Corp, Los Angeles	Cal
Wharton Unitools, Moosup	Conn
Zeiss Inc, Carl, New York	N Y

GAGES, DIMENSION--PHOTOELECTRIC

Adcole Corp, Waltham	Mass
Clinton Instrument Co, Clinton	Conn
Dolan Jenner Industries Inc, Melrose	Mass
Electronic Control Corp, Detroit	Mich
Electron Machine Co, Umatilla	Fla
Frost Electronics Corp, Rockaway	N J
Mechanical Technology Inc, Latham	N Y
Optron Corp, New Haven	Conn
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Photobell Co Inc, New York	N Y
Razdow Labs Inc, Newark	N J

GAGES--FUEL, ELECTRONIC

Acoustica Associates Inc, Los Angeles	Cal
Aircraft Components Inc, Benton Harbor	Mich
Amiproducts Corp, New York	N Y
Automation Products, Inc, Houston	Tex
Central Scientific Co, Chicago	Ill
Controlotron Corp, Farmingdale	N Y
Decker Corp, Bala Cynwyd	Pa
Drexelbrook Engineering Co, Glenside	Pa
Edison, Thomas A Industries, Instr Div West Orange	N J
Edwards High Vacuum Inc, Grand Island	N Y
Griffiths Electronics Inc, Linden	N J
Kollsman Instrument Ltd, Southampton	England
Liquid Level Lectronics Inc, Richardson	Tex
Mura Corp, Great Neck	N Y
Radatron Inc, North Tonawanda	N Y
Smiths Industries North America Ltd, Jamaica	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Standard Precision Div Electronic Commun Inc Wichita	Kan
Trans-Sonics Inc, Lexington	Mass

GAGES--ION SEE GAGES--VACUUM

GAGES--IONIZATION SEE CHAMBERS--IONIZATION

GAGES--LIQUID & MATERIAL LEVEL SEE INDICATORS--LEVEL

GAGES--OPTICAL SEE COMPARATORS--OPTICAL

GAGES--PIRANI SEE GAGES--VACUUM

GAGES--PRESSURE SEE INDICATORS--PRESSURE;TRANSDUCERS--PRESSURE

GAGES--STRAIN SEE ALSO INDICATORS--STRAIN

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
Accurate Electronics Corp, Elyria	Ohio
American Instrument Co, Inc, Silver Spring	Md
Bausch & Lomb, Inc, Rochester	N Y
Biocom, Inc, Culver City	Cal

BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham ... Mass
C-E Electronics Inc, Glenside ... Pa
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena ... Cal
Daytronic Corp, Dayton ... Ohio
Decker Corp, Bala Cynwyd ... Pa
Dentronics, Inc, Hackensack ... N J
Endevco Corp, Pasadena ... Cal
Ferranti, Ltd, Lancashire ... England
Good Electronic Corp, Bedford ... Mass
Gulton Industries Inc, Metuchen ... N J
Hickok Electrical Instrument Co, Cleveland ... Ohio
Hunter Spring Div Ametek Inc, Hatfield ... Pa
mpectron Inc, New York ... N Y
watsu Electric Co Ltd, Tokyo ... Japan
Janel Inc, Stirling ... N J
Kelk Ltd, George, Don Mills ... Ont
Korfund Dynamics Corp, Westbury ... N Y
Lion Research Corp, Newton ... Mass
Lockheed Electronics Co, Plainfield ... N J
Mann Co, Henry, Cornwell Heights ... Pa
Martin-Decker Corp, Santa Ana ... Cal
Microdot, Inc, South Pasadena ... Cal
Micro Measurements Inc, Romulus ... Mich
Oki Electric Industry Co Ltd, Tokyo ... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Schlumberger, 92-Montrouge 32 ... France
Semiconductor Specialties Corp, Fair Lawn ... NJ
Sigma Systems Corp, Sub Applied Science Inc Dallas ... Tex
Streeter-Amet, Grayslake ... Ill
Thwing-Albert Instrument Co, Philadelphia ... Pa
West Coast Research Corp, Los Angeles ... Cal
Whittaker Corp Instrument Sys Div North Hollywood ... Cal

GAGES--THICKNESS SEE INDICATORS--THICKNESS

GAGES--VACUUM (GAGES ONLY, INCL PIRANI)

SEE ALSO INDICATORS--VACUUM

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
MACHLETT LABS INC, THE, STAMFORD ... CONN
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON ... TEX
Abrax Instrument Corp, Jamaica ... N Y
Aero Vac Corp, Troy ... N Y
Airco Temescal, Berkeley ... Cal
Alcatel, Paris 8eme ... France
Amlab Inc, Rahway ... NJ
Andar/ITI Inc, Palo Alto ... Cal
Andonian Associates, Inc, Waltham ... Mass
Aremco Products Inc, Briarcliff Manor ... N Y
Bacharach Instrument Co, Pittsburgh ... Pa
Beach-Russ Co, New York ... N Y
Bendix Vacuum Div, Rochester ... N Y
Bendix Corp, Vacuum Div, Rochester ... N Y
Bristol Div, American Chain & Cable Co Waterbury ... Conn
Cathey Enterprises, Mountain View ... Cal
CHA Industries, Div Carl Herrmann Assoc Menlo Park ... Cal
Consolidated Vacuum Corp, Rochester ... N Y
Cooke Vacuum Products Inc, South Norwalk ... Conn
Cosmodyne Corp, Torrance ... Cal
Cryolab Div, Statics-Dynamics Inc, Los Osos ... Cal
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles ... France
Datametrics Inc, Waltham ... Mass
Decker Corp, Bala Cynwyd ... Pa
Denton Vacuum Inc, Cherry Hill ... N J
Edwards High Vacuum Inc, Grand Island ... N Y
Edwards High Vacuum 9Canada0 Ltd, Oakville ... Ont
Electron Technology Inc, Kearny ... N J
Ellison Instrument Div Dieterich Std Corp New Buffalo ... Mich
Energy Beams Inc, Haskell ... N J
Fischer & Porter Co, Warminster ... Pa
Fredericks Co, Huntingdon Valley ... Pa
GCA Technology Div GCA Corp, Bedford ... Mass
General Electric Co, ECSO, Schenectady ... N Y
General Electric Co Vacuum Prods Business Section Schenectady ... N Y
Gilmont Instruments Inc Roger, Great Neck ... N Y
Granville-Philips Co, Boulder ... Colo
Hastings-Raydist A Teledyne Co, Hampton ... Va
Heraeus-Engelhard Vacuum Inc, Monroeville ... Pa
High Vacuum Equipment Corp, Hingham ... Mass
High Voltage Engineering Corp, Burlington ... Mass
Hill Inc E Vernon, San Francisco ... Cal
Honeywell Industrial Div, Fort Washington ... Pa
Hughes Aircraft Co Vacuum Tube Prods Div Vacuum Devices Dept, Oceanside ... Cal
Ilikon Corp, Natick ... Mass
Japan Vacuum Engineering Co Ltd, Tokyo ... Japan
Kinney Vacuum Div New York Air Brake Co Boston ... Mass
Kontes Glass Co, Vineland ... N J
Machlett Labs Inc, The, Stamford ... Conn
Martin-Decker Corp, Santa Ana ... Cal
MKS Instruments Inc, Burlington ... Mass
Mullard Ltd, London, WC 1 ... Eng
Nelson Vacuum Pump Co, Berkeley ... Cal
Norton Co Vacuum Equip Div, Newton ... Mass
Nuclide Corp, AGV Div, Acton ... Mass
Pennsalt Chemicals Corp Equipment Div Philadelphia ... Pa
Radatron Inc, North Tonawanda ... N Y
RIL Electronics Inc, Southampton ... Pa
Smiths Industries Ltd, Aviation Div Wembley, Mdsx ... England
Standard Precision Div Electronic Commun Inc Wichita ... Kan
Sunbeam Vacuum Furnace Corp, North Billerica ... Mass
Taylor Instrument Cos, Rochester ... N Y
Texas Instruments Incorporated, Dallas ... Tex
Texas Instruments Inc Indl Prods Div, Houston ... Tex
Ultek Div Perkin-Elmer, Palo Alto ... Cal
Vactronic Lab Equipment Inc, East Northport ... N Y
Vacuum Industries Inc Sub GCA Corp, Somerville ... Mass
Vacuum Instrument Corp, Huntington Station ... N Y
Varian, Palo Alto ... Cal
Varian Assoc, Portland Plant, Portland ... Ore
Veeco Instruments Inc, Plainview ... N Y
Volumetrics, Inglewood ... Cal
Wallace & Tiernan Inc, Belleville ... N J
Welch Scientific Co, Skokie ... Ill
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh ... Pa
Westinghouse Electric Corp, Tube Div, Elmira ... NY

GAGES, MICROWAVE--DIELECTROMETER

Measurement Technology Corp, Canoga Park ... Cal
Microwave Instruments Co, Corona del Mar ... Cal

GAGES, MICROWAVE--MOISTURE

Barth Electronics, Inc, Cleveland ... Ohio
Electron Machine Co, Umatilla ... Fla
Microwave Instruments Co, Corona del Mar ... Cal

GAGES, MICROWAVE--NONDESTRUCTIVE TESTING

Barth Electronics, Inc, Cleveland ... Ohio
Electron Machine Co, Umatilla ... Fla
Magnaflux Corp, Chicago ... Ill
Microwave Instruments Co, Corona del Mar ... Cal

GAGES, MICROWAVE--THICKNESS

Electron Machine Co, Umatilla ... Fla
Measurement Technology Corp, Canoga Park ... Cal
Microwave Instruments Co, Corona del Mar ... Cal
Varian, Palo Alto ... Cal

GAGES--TAPE REEL, FLANGE

KENTON ENGINEERING CORP, SKOKIE ... ILL
Kenton Engineering Corp, Skokie ... Ill

GAIN CONTROLS SEE ATTENUATORS; POTENTIOMETERS

GALLIUM--ARSENIDE

EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN ... MO
Aceto Chemical Co, Inc, Flushing ... NY
Aluminum Co of America, Pittsburgh ... Pa
Alusuisse Metals Inc, Fort Lee ... N J
Anchor Metal Co, Inc Div, Brooklyn ... N Y
Asarco Intermetallics Corp, New York ... N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place ... N Y
Bram Metallurgical Chemical Co, Philadelphia ... Pa
Cerac Inc, Butler ... Wis
Corco Chemical Corp, Fairless Hills ... Pa
Eagle-Picher Industries Inc, Electronics Div, Joplin ... Mo
Electronic Space Products Inc, Los Angeles ... Cal
Ferranti, Ltd, Lancashire ... England
Geoscience Instruments Corp, Mt Vernon ... N Y
Industrial Optics Corp, Newark ... N J
Infrared Industries Inc, Santa Barbara ... Cal
Jones Optical Works Inc A D, Burlington ... Mass
Kawecki Chemical Co, New York ... N Y
Koch Light Labs Ltd, Colnbrook, Bucks ... England
Mackay Inc, A D, New York ... N Y
Micro State Electronics Oper Raytheon Co Murray Hill ... N J
Monsanto Co, St Peters ... Mo
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Precision Systems Corp, Columbus ... Ohio
Roosevelt Metal Co Inc, Brooklyn ... N Y
Seed Electronics Corp, Lexington ... Mass
Semi-Elements Inc, Saxonburg ... Pa
Sharp Electronics Corp, Carlstadt ... N J
Texas Instruments Incorporated, Dallas ... Tex
United American Metals Div, Brooklyn ... N Y
United Mineral & Chemical Corp, New York ... N Y
Var-Lac-Oid Chemical Co, Elizabeth ... N J
Ventron Electronics Corp, Bradford ... Pa
Wacker Chemical Corp, New York ... N Y

GALLIUM--PHOSPHIDE

EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN ... MO
Aceto Chemical Co, Inc, Flushing ... NY
Aluminum Co of America, Pittsburgh ... Pa
Alusuisse Metals Inc, Fort Lee ... N J
Anchor Alloys Inc, Brooklyn ... N Y
Anchor Metal Co, Inc Div, Brooklyn ... N Y
Asarco Intermetallics Corp, New York ... N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place ... N Y
Bram Metallurgical Chemical Co, Philadelphia ... Pa
Cerac Inc, Butler ... Wis
Eagle-Picher Industries Inc, Electronics Div, Joplin ... Mo
Electronic Space Products Inc, Los Angeles ... Cal
Infrared Industries Inc, Santa Barbara ... Cal
Kawecki Chemical Co, New York ... N Y
Koch Light Labs Ltd, Colnbrook, Bucks ... England
Mackay Inc, A D, New York ... N Y
Monsanto Co, St Peters ... Mo
Polysciences Inc, Warrington ... Pa
Rocky Mountain Research Inc, Denver ... Colo
Roosevelt Metal Co Inc, Brooklyn ... N Y
Semi-Elements Inc, Saxonburg ... Pa
United American Metals Div, Brooklyn ... N Y
United Mineral & Chemical Corp, New York ... N Y
Var-Lac-Oid Chemical Co, Elizabeth ... N J
Wacker Chemical Corp, New York ... N Y

GALVANOMETERS

FLUKE MFG CO INC, JOHN, SEATTLE WASH ... ADV PG 317
GEOTECH A TELEDYNE CO, GARLAND ... TEX
HEWLETT-PACKARD, PALO ALTO ... CAL
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO ... ADV PGS 8
MIDWESTERN INSTRUMENTS INC, DIV TELEX CORP TULSA ... OKLA
PARKER INSTRUMENT CORP, STAMFORD ... CONN
Aceto Chemical Co, Inc, Flushing ... NY
Airmec Instruments Ltd, Buckinghamshire ... England
Amark Corp, Plainview ... N Y
A & M Instruments Inc, Great Neck ... N Y
Amprobe Instrument Div Soss Mfg Co, Lynbrook ... N Y
Beckman Instruments Inc, Fullerton, ... Cal
Biddle Co, James G, Plymouth Meeting ... Pa
Canadian Research Institute, Don Mills ... Ont
Central Scientific Co, Chicago ... Ill
Century Electronics & Instruments Inc, Tulsa ... Okla
Cohu Electronics Inc, San Diego ... Cal
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena ... Cal
Dixson Inc Meter Div, Grand Junction ... Colo
Ealing Corp, Cambridge ... Mass

Electronic Galvanometers

Fluke solid-state electronic galvanometers include Model 841 A & B, and Models 845 AB & AR. Design features include fast response, immunity to overload damage, battery and/or AC operation, operation in any position, and solid mechanical design that will stand MIL-Spec shock and vibration.

Model 841A offers a current sensitivity of 2 × 10^{-9} ampere per scale division and power sensitivity of better than 8 × 10^{-16} watt per division. Input resistance is 180 ohms on three current ranges of ± 30 nanoamperes, and ± 3 microamperes full scale.

Model 841B differs in the following respects:

1) 5 × 10^{-9} amp/scale division sensitivity
2) 4.5 × 10^{-16} watt/scale division power sensitivity
3) Input resistance 18 ohms
4) ± 100 nanoamperes, ± 1 microamperes, and ± 10 microamperes current ranges

Price of the Model 841 A and B is $245 less power pack.

Models 845 AB & 845 AR null detector microvoltmeters are designed for extremely high input resistance, sensitivity and isolation. Price is $435 for the Model 845 AB or AR with rechargeable batteries.

For full information, write Fluke, P.O. Box 7428, Seattle, Wash. 98133.

Electro Scientific Industries Inc, Portland	Ore
Epic Inc, New York	N Y
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Fluke Mfg Co Inc, John, Seattle	Wash
Geo Space Corp, Houston	Tex
Geotech A Teledyne Co, Garland	Tex
Guildline Instruments Ltd, Smiths Falls	Ont
Hallmark Standards Inc, Mamaroneck	N Y
Hathaway Instruments Inc, Denver	Colo
Hewlett-Packard, Palo Alto	Cal
Honeywell Industrial Div, Fort Washington	Pa
Honeywell Test Instruments Div, Denver	Colo
Howell Instruments Co, Fort Worth	Tex
Leeds & Northrup Co, Philadelphia	Pa
London Co, Westlake	Ohio
Magnetics Div Instrument Systems Corp Huntington	NY
Mechanics for Electronics Inc, Cambridge	Mass
Midwestern Instruments Inc, Div Telex Corp Tulsa	Okla
Muirhead Instruments Inc, Mountainside	N J
Nichols Co Ltd, R H, Downsview	Ont
Parker Instrument Corp, Stamford	Conn
Photron Instrument Co, Cleveland	Ohio
Radiometer A/S, Copenhagen NV	Denmark
RFL Industries Inc, Instrumentation Div, Boonton	N J
Shallcross Mfg Co Sub Cutler-Hammer, Selma	N C
Stark Electronic Instruments Ltd, Ajax	Ont
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Techni-Rite Electronics Inc, Warwick	R I
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Welch Scientific Co, Skokie	Ill
Weston Lexington Weston Instruments Div Lexington	Mass
Winslow Tele-Tronics Inc, Asbury Park	NJ
Yokogawa Electric Works Inc, Larchmont	N Y

GARNET CRYSTALS SEE CRYSTALS—GARNET

GAS ANALYZERS SEE ANALYZERS—GAS

GAS DETECTORS SEE DETECTORS—GAS

GASES

BLACKBURN INC, P W, DOBBS FERRY, N Y	**ADV PG 318**
Air Products & Chemicals, Inc, Allentown	Pa
Baker Chemical Co, J T, Phillipsburg	N J
Blackburn Inc, P W, Dobbs Ferry	N Y
Gardner Cryogenics Corp, Bethlehem	Pa
Humble Oil & Refining Co, Houston	Tex
Liquid Carbonic Div, Gen Dynamics Corp, Chicago	Ill
Matheson Gas Products, East Rutherford	N J
Phoenix Materials Corp, Monroeville	Pa

RARE GASES
XENON – KRYPTON
NEON MIXTURES

DIAMOND DIES
FINE WIRE SIZES

FUSED QUARTZ
FABRICATED PARTS – DISCS

P. W. BLACKBURN, INC.
68 Main Street
Dobbs Ferry, N. Y. 10522
Tel. 914-693-2620

BELL
HALL EFFECT
GAUSSMETERS

MODEL 620 Medium-priced, precision instrument designed to take full advantage of recently developed high-linearity Hall elements and solid-state circuitry. Precalibrated, interchangeable probes. 1.0% accuracy to 30 kG. Direct ac and dc field readout. 0.5% accuracy to 10 kG. One volt FS calibrated output. 0.3% built-in calibration accuracy. Temperature compensated probes. 150 kG probe capability.

MODEL 640 Top-precision incremental gaussmeter featuring all the capabilities of Model 620, plus—1000X scale expansion with automatic and true zero center meter readout. Permits direct measurement of small incremental variations in both a positive and negative direction. Incremental operation up to 30 kG. Two parts in 10^5 resolution. Five volt dc auxiliary output.

"Bell Products for Planned Progress"

Write for detail specifications

FW BELL INC.

1356 Norton Avenue • Columbus, Ohio 43212
Ph. (614) 294-4906 • TWX 810-482-1716

GASKETS

Abesto Corp, Bloomfield	N J
Abscoa Industries, Inglewood	Cal
Advanced Products Co, North Haven	Conn
Allied Engineering & Production Corp, Alameda	Cal
Alloys Unlimited Inc, Melville	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Armstrong Cork Co, Lancaster	Pa
Auburn Mfg Co, Middletown	Conn
Bacon Industries, Inc, Watertown	Mass
Beemer Engineering Co, Fort Washington	Pa
Bendix Corp Rubber Prods Plant, Toledo	Ohio
Bentley-Harris Mfg Co, Conshohocken	Pa
Chemical Products Corp, E Providence	R I
Chemplast Inc, Wayne	N J
Connecticut Hard Rubber Co, New Haven	Conn
Connor Spring Mfg Co Div Sloss & Britain San Francisco	Cal
Da/Pro Rubber Inc, Van Nuys	Cal
Dilectrix Corp, Farmingdale	N Y
Division Lead Co, Summit	Ill
Dixon Corp, Bristol	R I
Emerson & Cuming Inc, Canton	Mass
Emerson Plastics Corp, Bronx	New York
Energy Beams Inc, Haskell	N J
Ethylene Corp, Murray Hill	N J
Fel Pro Inc Div Felt Products Mfg Co, Skokie	Ill
Fluoro-Plastics Inc, Philadelphia	Pa
Forest City Foam Products, Wellington	Ohio
Franklin Fibre-Lamitex Corp, Wilmington	Del
Gasket Mfg Co Inc, Los Angeles	Cal
General Gaskets Inc, Middletown	Conn
Goodrich Industrial Prods Co, B F, Akron	Ohio
GTI Corp, Clover Industries Div, Tonawanda	N Y
Industrial Electronic Rubber Co, Twinsburg	Ohio
Insulating Fabricators of N E Inc, Watertown	Mass
Insulating Shapes Inc, Bronx	N Y
Leed Insulator Corp, Los Angeles	Cal
Livingston Electronic Div Jettron Prods Inc Hanover	N J
Mechanical Rubber Products Co, Inc, Warwick	NY
Metal Ceram Inc, Mount Vernon	N Y
Metex Corp, Edison	N J
Microwave Development Labs Inc Needham Heights	Mass
Midwest Cortland, Schiller Park	Ill
Minnesota Rubber Co, Minneapolis	Minn
Minor Rubber Co Inc, Bloomfield	N J
Parker Seal Co, Culver City	Cal
Pelmor Labs Inc, Newtown	Pa
Penn Fibre & Specialty Co, Philadelphia	Pa
Pres-On Products Co, Addison	Ill
Primec Corp, Los Angeles	Cal
Raybestos-Manhattan Inc, Passaic	N J
Republic Industrial Corp, Lathrup Village	Mich
Roosevelt Metal Co Inc, Brooklyn	N Y
Seastrom Mfg Co Inc, Glendale	Cal
Semi-Alloys Inc, Mt Vernon	N Y
Sherwood Industries Flexco Div, Bell Gardens	Cal
Spaulding Fibre Co Inc, Tonawanda	N Y
Staff Gasket Mfg Corp, New York	N Y
Stafford Mfg Co Inc, Brooklyn	N Y
Standard Polymer Inc, Van Nuys	Cal
Technical Wire Products Inc, Cranford	N J
Tec Seal Corp, Wilmington	Cal
Trueline Instruments Inc, Englewood	Colo
United Aircraft Products Inc, Dayton	Ohio
United American Metals Div, Brooklyn	N Y
Vellumoid Div Federal-Mogul Corp, Worcester	Mass
Wilmington Fibre Specialty Co, New Castle	Del

GAUSSMETERS

BELL, INC F W, COLUMBUS, OHIO	**ADV PG 318**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HEWLETT-PACKARD, PALO ALTO	**CAL**
Alpha Scientific Labs Inc, Oakland	Cal
Andonian Associates, Inc, Waltham	Mass
Bell, Inc F W, Columbus	Ohio
Ealing Corp, Cambridge	Mass
Empire Scientific Corp, Garden City	N Y
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
General Electric Co, ECSO, Schenectady	N Y
Hallmark Standards Inc, Mamaroneck	N Y
Hewlett-Packard, Palo Alto	Cal
Hirst Electric Industries Ltd, Crawley, Sussex	England
Irwin Labs Inc, Los Angeles	Cal
Magnetics Div Instrument Systems Corp Huntington	NY
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Quantum Electronics Corp, San Ramon	Cal
Rawson-Lush Instrument Co Inc, Acton	Mass
RFL Industries Inc, Instrumentation Div, Boonton	N J
Stark Electronic Instruments Ltd, Ajax	Ont
Ventron Instruments Corp Magnion Div, Burlington	Mass
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh	Pa
Yokogawa Electric Works Inc, Larchmont	N Y

GEARS & GEAR TRAINS--PRECISION

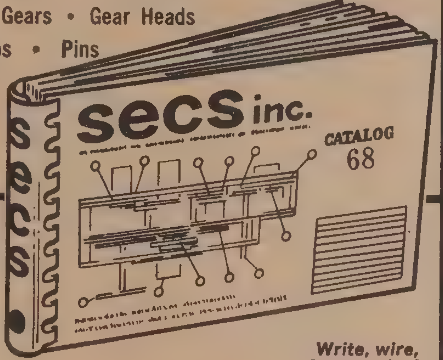
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
DATA TECHNOLOGY, INC, WATERTOWN	**MASS**
IMC MAGNETICS CORP EASTERN DIV, WESTBURY	**N Y**
SECS, INC, LONG ISLAND CITY, N Y	**ADV PG 319**
Advance Gear & Machine corp, Los Angeles	Cal
Advance Instrument Corp, Belmar	N J
Analog General Corp, East Rockaway	N Y
Applied Devices Corp, College Point	n y
Automation Development Co, Culver City	Cal
Beaver Gear Works Inc, Rockford	Ill
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Bemol Co, Newton	Mass
Bowmar Instrument Corp, Fort Wayne	Ind
Carbonara Instrument Engrg Labs, Victor E, Port Washington	N Y
Computer Instruments Corp, Hempstead	N Y
Conrac Corp, New York	N Y
Curry Engineering Co, N Hollywood	Cal
Data Technology, Inc, Watertown	Mass
Dynamic Gear Co Inc, Amityville	N Y
Electric Tachometer Corp, Philadelphia	Pa
Fae Instrument Corp, Huntington Station	N Y
Fairchild Controls, Hicksville	N Y
Fastex Div Illinois Tool Works, Des Plaines	Ill
Forway Industries Inc, Woodbury	N J
Foster & Allen Inc, Chatham	N J
Franke Gear Works Inc, Chicago	Ill
GAF Corp, New York	NY
Gap Instrument Corp, Westbury	N Y
Gaylord Rives Co, Pasadena	Cal
Gear Specialties Inc, Chicago	Ill
Geartronics Corp, N Billerica	Mass
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Globe Industries Div TRW Inc, Dayton	Ohio
Grant Gear Works Inc, South Boston	Mass
Gries Reproducer Co Div Coats & Clark Inc New Rochelle	N Y
Hale Instrument Inc, Houston	Tex
Harowe Servo Controls Inc, West Chester	Pa
Henschel Corp, Amesbury	Mass
Howard Industries MSL Indus Inc, Motor Grp Racine	Wis
IMC Magnetics Corp Eastern Div, Westbury	N Y
Industrial Control Co, Farmingdale	N Y
Insco Corp, Groton	Mass
Instru-Lec Corp, Mt Vernon	N Y
Jan Hardware Mfg Co Inc, Long Island City	N Y
Juall Gear Co Inc, Hawthorne	N J
Kinetic Instrument Co Div Nortek Inc, Brooklyn	N Y
Kollsman Motor Corp, Dublin	Pa
Lavezzi Machine Works Inc, Chicago	Ill
LEM Instrument Corp, Farmingdale	N Y
Link Group Gen Precision Sys Inc, Binghamton	N Y
McMaster Products Corp, Chicago	Ill

Superior Electromechanical Component Service inc
PIN-TYPE MITER & BEVEL GEARS
PITCH 64
P.A. 20°

great book for designers engineers

Complete Design & Ordering Data for 25,000 Electro-Mechanical Components

Bearings • Brakes • Breadboard • Components • Bushings • Cams • Chassis Fasteners • Clamps • Clutches • Collars • Couplings • Cranks • Dials • Differentials • Ferrules • Gears • Gear Heads • Handles • Hubs • Knobs • Limit Stops • Pins • Posts • Ratio Drives • Retaining Rings • Screws • Shaft • Shafting • Spacers • Speed Reducers • Stand-Offs and Spacers • Washers



382 PAGES of drawings & specs.
Special 24-page SERVO DESIGN SECTION

secs inc.
19-68 38th St., Long Island City 5, N.Y.
(212) 932-4545
a subsidiary of Superior Manufacturing & Instrument Corp.

Write, wire, phone today!

Meltronics Inc, Massapequa	NY
Micro Metrics Inc, Paterson	N J
Micron Gear Co Inc, Plainview	N Y
Millitest Co, Hempstead	N Y
Orbit Instrument Corp, Syosset	N Y
Peerless Instrument Co Inc, Elmhurst	NY
Perkins Machine & Gear Co, West Springfield	Mass
PIC Design Corp, East Rockaway	N Y
Planet Instrument Inc, Ft Wayne	Ind
Precision Mechanisms Corp, Westbury	N Y
Quaker City Gear Works Inc, Bethayres	Pa
Rae Motor Corp, McHenry	Ill
Rotamec Inc, Los Angeles	Cal
Rotating Components Div Instrument Sys Corp Bay Shore	N Y
Secs, Inc, Long Island City	N Y
Servo Development Corp, Hicksville	N Y
Space & Systems Div General Time Corp Stamford	Conn
Sterling Instrument Div, Designatronics Inc Mineola	N Y
Superior Mfg & Instrument Co, Long Island City	N Y
Superite Gear & Instrument Corp, Syosset	N Y
Telephonics Div, Instrument Systems Corp Huntington	NY
Triangle Instrument Co Inc, Syosset	N Y
Vactric Control Equipment Ltd, Morden	England
Vogue Instrument Corp, Plainview	NY
Washington Scientific Industries Inc, Minnetonka	Minn
Western Gear Corp Electro Products Div, Pasadena	Cal
Weston-Transicoil, Weston Instruments Inc Worcester	Pa
Zero Mfg Co, Burbank	Cal

GEARS--NONCIRCULAR

Cunningham Industries Inc, Stamford	Conn
Geartronics Corp, N Billerica	Mass

GEIGER COUNTERS SEE COUNTERS--NUCLEAR PARTICLE

GEIGER-MULLER TUBES SEE TUBES--COUNTER, RADIATION

GENERATORS--CHARACTER

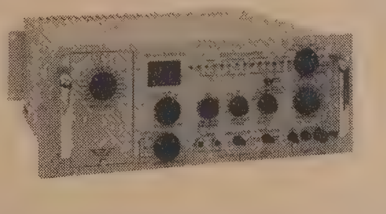
DATAPULSE INC SUB SYSTRON-DONNER CORP CULVER CITY	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
TELE-SIGNAL CORP, WOODBURY, N Y	**ADV PG 319**
Adar Associates Inc, Somerville	Mass
Bendix Corp, Communications Div, Towson	Md
Bogue Electric Mfg Co, Paterson	N J
Century Electronics & Instruments Inc, Tulsa	Okla
Coldspring Instrument Corp, Huntington	N Y
Cybetronics Inc, Waltham	Mass
Data Disc Inc, Display Div, Palo Alto	Cal
Datapulse Inc Sub Systron-Donner Corp Culver City	Cal
Digitech Inc, Ridgefield	Conn
Fisher-Akin Co, Manhattan Beach	Cal
Geo Space Systems Inc, St Petersburg	Fla
Honeywell Test Instruments Div, Denver	Colo
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Marconi Co Ltd, Chelmsford	England
Memory Technology Inc, Waltham	Mass
Mid-West Metal Products Inc, Kansas City	Kans
Monitor Systems Inc, Fort Washington	Pa
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Space Craft Inc, Huntsville	Ala
SRC Div Moxon Electronics Corp, Los Angeles	Cal
Stelma Inc, Stamford	Conn
Straza Industries Div Ametek Inc, El Cajon	Cal
Tasker Industries, Van Nuys	Cal
Tele-Signal Corp, Woodbury	N Y
Topping Electronics Ltd, Toronto 17	Ont
Transistor Electronics Corp, Minneapolis	Minn
Vitro Labs Div Vitro Corp of America, W Orange	N J
Welex Electronics, Div Halliburton Co Silver Spring	Md

GENERATORS--ELECTROSTATIC

Canadian Research Institute, Don Mills	Ont
Clare-Electroseal Corp, Des Plaines	Ill
Decker Corp, Bala Cynwyd	Pa
Dynasciences Corp, Blue Bell	Pa
Giannini-Voltex, Whittier	Cal
High Voltage Engineering Corp, Burlington	Mass
Ion Physics Corp, Burlington	Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Reaction Research Labs of America, Groton	Conn
Simco Co Inc, Lansdale	Pa
Stark Electronic Instruments Ltd, Ajax	Ont

GENERATORS--FUNCTION

BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4THOCOVER**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
SYSTRON DONNER CORP, CONCORD	**CAL**
TELE-SIGNAL CORP, WOODBURY	**N Y**
Adage Inc, Boston	Mass
Advanced Automation Corp, Hawthorne	Cal
Aerospace Avionics Inc, Bohemia	NY
Aetna Electronics Corp, North Branch	N J
AIM Electronics Ltd, Cambridge	U K
Alfred Electronics, Palo Alto	Cal
Amark Corp, Plainview	N Y
American Electronics, Inc, Fullerton	Cal
Amtron Inc, Midlothian	Ill
Applied Dynamics, Inc, Ann Arbor	Mich
Argonaut Associates, Inc, Beaverton	Ore
Autronics Corp, Pasadena	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Berkeley Nucleonics Corp, Berkeley	Cal
Boston Digital Corp, Ashland	Mass
Burr-Brown Research Corp, Tucson	Ariz
Canoga Electronics Corp, Chatsworth	Cal
Chronetics Inc, Mount Vernon	N Y
C & K Components Inc, Watertown	Mass
Compudyne Corp, Hatboro	Pa
Condor Industrial Corp, West Chicago	Ill
Cunningham Industries Inc, Stamford	Conn
Cybetronics Inc, Waltham	Mass
Darcy Industries Inc, TSI Div, Santa Monica	Cal
Data Device Corp, Hicksville	N Y
Data Royal Corp, San Diego	Cal
Decker Corp, Bala Cynwyd	Pa
Don Bosco Electronics Inc, Hanover	N J
Electric Tachometer Corp, Philadelphia	Pa
Exact Electronics Inc, Hillsboro	Ore
General Computers Inc, Los Angeles	Cal
General Radio Co, West Concord	Mass
GPS Instrument Co Inc, Newton	Mass
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Honeywell Inc, Computer Control Div Framingham	Mass
Industrial Control Co, Farmingdale	N Y
Kepco Inc, Flushing	N Y
Krohn-Hite Corp, Cambridge	Mass
Loral Electronic Systems, Div Loral Corp, New York	NY
Measurement Technology Corp, Canoga Park	Cal
Moog Co, R A, Trumansburg	N Y
Nanosecond Systems Inc, Fairfield	Conn
Nilsen Mfg Co, Haines City	Fla
Palisades Engineering Co Inc, Pacific Palisades	Cal
Perkin-Elmer Corp, Norwalk	Conn
Perkin-Elmer, Electronic Prods Div, Wilton	Conn
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Preston Scientific, Inc, Anaheim	Cal
Research Inc, R-I Controls Div, Minneapolis	Minn
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Servo Corp of America, Hicksville	N Y
Servomex Controls Ltd, Sussex	England
Sodilec SA Salies-S A, 91 Palaiseau	France
Spectral Dynamics Corp of San Diego, San Diego	Cal



PATTERN GENERATOR

The Model 819D pattern generator is a fully solid state precision instrument for testing and evaluating communications systems at speeds up to 10,000 baud. It generates a single repetitive test signal, a switch selected character of 3 to 14 information bits in any combination of MARK and SPACE (sync or Start/Stop), and an 80-character, 5-level (Baudot) code message programmed for the standard "FOX" message. A second message of up to 128 characters at 8 levels can also be provided. An external timing input enables character-by-character transmission of the selected format as well as bit synchronization. Individual character transmission can be controlled manually.

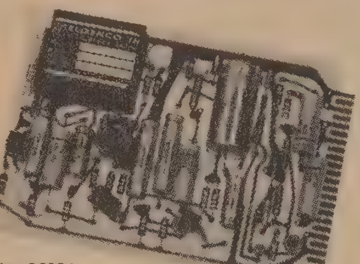
TELE-SIGNAL CORPORATION
A Subsidiary of The Singer Company
250 Crossways Park Drive
Woodbury, L. I., New York 11797

ELGENCO
Noise
Generators

Model 610A

SOLID STATE NOISE GENERATORS

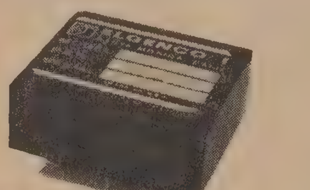
Model 602A 5 Hz to 5 mHz, 3 Ranges **$ 360**
Model 603A 5 Hz to 5 mHz, 3 Ranges **$ 545**
Model 610A 5 Hz to 5 mHz, 8 Ranges **$1,275**
Model 632A Two outputs DC to 400 Hz and 10 Hz to 35 kHz...... **$2,595**
Series 624 (Fixed frequency) 5 Hz to 500 kHz **$270 to $600.** Write for details on frequency ranges and spectral flatness.



Series 3600A

NOISE GENERATOR CARDS

Series 3600 .... **$144 to $409**
Various frequency ranges and output flatness available. Write for details.



Series 1600

ENCAPSULATED NOISE SOURCE MODULES

Series 1600 .... **$95 to $350**
Various frequency ranges and output flatness available. Write for details.

VACUUM TUBE NOISE GENERATORS

Model 301A DC to 40 Hz **$2,195**
Model 311A Two outputs DC to 40 Hz and 10 Hz to 20 kHz....... **$2,595**
Model 312A Two outputs DC to 120 Hz and 10 Hz to 20 kHz...... **$2,695**
Model 321A DC to 120 Hz **$2,295**
Model 331A 10 Hz to 20 kHz **$1,395**

For a more complete listing of Elgenco noise generators, write for short form catalog.

ELGENCO INCORPORATED
1550 Euclid Street
Santa Monica, California
Phone: (213) 451-1635
TWX: (213) 879-0091
Cable: Elgenco

DEMONSTRATOR MODELS AVAILABLE
See EEM or Write for Name of Nearest Rep.

Systems Engineering Labs Inc, Ft Lauderdale	Fla
Systron Donner Corp, Concord	Cal
Taylor Instrument Cos, Rochester	N Y
Tele-Signal Corp, Woodbury	N Y
Telstar Electronics Corp, Southold	N Y
Vega Precision Labs, Vienna	Va
Wavetek, San Diego	Cal
Western Microwave Labs Inc, Santa Clara	Cal
Weston-Transicoil, Weston Instruments Inc Worcester	Pa
Zeltex inc, Concord	Cal

GENERATORS--IMPULSE SEE GENERATORS--SIGNAL PULSE

GENERATORS, NOISE--ACOUSTIC

ELGENCO INC, SANTA MONICA, CAL	**ADV PGS 320,321**
TRACOR INC, AUSTIN	**TEX**
Alpine Geophysical Assoc Inc, Norwood	N J
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio
Don Bosco Electronics Inc, Hanover	N J
Edwin Industries Corp, Silver Spring	Md
E G & G Int'l Inc Geodyne Div, Waltham	Mass
Elgenco Inc, Santa Monica	Cal
General Radio Co, West Concord	Mass
Hartman Systems Co Inc, Huntington Station	N Y
Macrosonics Corp, Rahway	NJ
Moog Co, R A, Trumansburg	N Y
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Scott Inc, H H, Maynard	Mass
Standard Telephones & Cables Ltd London WC 2	England
Straza Industries Div Ametek Inc, El Cajon	Cal
Tel-Com Instruments Inc, Hanover	N J
Tracor Inc, Austin	Tex
Wyle Laboratories, El Segundo	Cal

GENERATORS, NOISE--MICROWAVE

GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
SIGNALITE INC, NEPTUNE,	**N J.**
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Electro-Data Inc, Garland	Tex
Electronic Specialty Co, Los Angeles	Cal
Engineering Associates, Dayton	Ohio
General Microwave Corp, Farmingdale	N Y
GPS Instrument Co Inc, Newton	Mass
Hewlett-Packard, Palo Alto	Cal
International Microwave Corp, Cos Cob	Conn
Kay Electric Co, Pine Brook	N J
Kobe Industries Corp, Kobe	Japan
Litton Industries, Electron Tube Div, San Carlos	Cal
Maury Microwave Corp, Montclair	Cal
MCS Corp, Monrovia	Cal
Microwave Associates Inc, Burlington	Mass
Microwave Development Labs Inc Needham Heights	Mass
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polarad Electronic Instruments Div Long Island City	N Y
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
S-F-D Labs Inc, Union	N J
Signalite Inc, Neptune	N J
Standard Telephones & Cables Ltd London WC 2	England
Waveline Inc, West Caldwell	N J

GENERATORS, NOISE--R-F

ELGENCO INC, SANTA MONICA, CAL	**ADV PGS 320,321**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
SIGNALITE INC, NEPTUNE,	**N J.**
Aerospace Research, Inc, Boston	Mass
American Systems, Inc, Van Nuys	Cal
Cosmos Industries Inc, Brooklyn	N Y
Elgenco Inc, Santa Monica	Cal
General Microwave Corp, Farmingdale	N Y
General Radio Co, West Concord	Mass
Genisco Technology Corp Components, Genistron Divs Compton	Cal
GPS Instrument Co Inc, Newton	Mass
Hewlett-Packard, Palo Alto	Cal
Kay Electric Co, Pine Brook	N J
Maury Microwave Corp, Montclair	Cal
Microwave Associates Inc, Burlington	Mass
Philco-Ford Corp, Washington	D C
Polarad Electronic Instruments Div Long Island City	N Y
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
S-F-D Labs Inc, Union	N J
Signalite Inc, Neptune	N J
Standard Telephones & Cables Ltd London WC 2	England
Taffet Electronics Inc, Woodside	N Y
Tel-Com Instruments Inc, Hanover	N J
Teltronics Inc, Nashua	N H
Winslow Tele-Tronics Inc, Asbury Park	NJ

GENERATORS, NOISE--WHITE

BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
ELGENCO INC, SANTA MONICA	**CA** **ADV PGS 320 · 321**
GENERAL MICROWAVE CORP, FARMINGDALE	**N**
HEWLETT-PACKARD, PALO ALTO	**CA**
TRACOR INC, AUSTIN	**TE**
Aerospace Research, Inc, Boston	Mass
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Burr-Brown Research Corp, Tucson	Ariz
Dawe Instruments Ltd, London W3	England
Elgenco Inc, Santa Monica	Cal
General Microwave Corp, Farmingdale	N Y
General Radio Co, West Concord	Mass
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Grason Stadler Co Inc, West Concord	Mass
Hewlett-Packard, Palo Alto	Cal
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Kay Electric Co, Pine Brook	N J
Lehigh Valley Electronics Engrg & Mfg Co, Inc Fogelsville	Pa
Marconi Instruments Div, English Electric Corp Englewood	N J
Polarad Electronic Instruments Div Long Island City	N Y
Quan-Tech Labs Inc, Whippany	N J
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Scott Inc, H H, Maynard	Mass
S-F-D Labs Inc, Union	N J
Siemens America Inc, New York	N Y
Solitron Devices Inc, Tappan	NY
Standard Telephones & Cables Ltd London WC 2	England
Tel-Com Instruments Inc, Hanover	N J
Teltronics Inc, Nashua	N H
Tracor Inc, Austin	Tex
Wandel & Goltermann/Tel-Com, Hanover	N J

GENERATORS, POWER--ELECTRONIC, MULTIPHASE

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
C M L INC, PLAINFIELD	**N J**
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON	**N Y**
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Avtron Mfg, Inc, Cleveland	Ohio
Bergen Lab, Inc, Paterson	N J
Bogue Electric Mfg Co, Paterson	N J
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
California Instruments Corp, San Diego	Cal
C M L Inc, Plainfield	N J
Denki Kogyo Co Ltd, Tokyo	Japan
Electric Motors & Specialties Inc, Garrett	Ind
Electronic Specialty Co, Los Angeles	Cal
Electro-Pacific Inc, Goleta	Cal
General Radio Co, West Concord	Mass
Industrial Test Equipment Co, Port Washington	N Y
Industron Corp, Needham Heights	Mass
Inet Power A Teledyne Co, Gardena	Cal
Krohn-Hite Corp, Cambridge	Mass
Magnetic Engineering Corp, Danbury	Conn
Optimation, Inc, Sun Valley	Cal
Parametrics, Costa Mesa	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Power Control Corp, Pittsburgh	Pa
Powertec Div, Airtronics Corp, Chatsworth	Cal
Reliance Electric Co, Cleveland	Ohio
Short Wave Plastic Forming Co, Costa Mesa	Cal
Tel-Instrument Electronics Corp, Carlstadt	N J
Varo Inc, Garland	Tex
Westinghouse Electric Corp Indus Equip Div Baltimore	Md
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

GENERATORS, POWER--ELECTRONIC, SINGLE PHASE

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
C M L INC, PLAINFIELD	**N J**
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON	**N Y**
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Argonaut Associates, Inc, Beaverton	Ore
Armec Corp, Huntington Station	N Y
Beckwith Electric Co Inc, Mt Prospect	Ill
Bergen Lab, Inc, Paterson	N J
Bogue Electric Mfg Co, Paterson	N J
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
California Instruments Corp, San Diego	Cal
Clare-Electroseal Corp, Des Plaines	Ill
C M L Inc, Plainfield	N J
Condor Industrial Corp, West Chicago	Ill
Denki Kogyo Co Ltd, Tokyo	Japan
Electric Motors & Specialties Inc, Garrett	Ind
Electronic Specialty Co, Los Angeles	Cal
Electro-Pacific Inc, Goleta	Cal
Feco Div Bangor Punta Operations Inc, Cleveland	Ohio
General Radio Co, West Concord	Mass
Industrial Test Equipment Co, Port Washington	N Y
Industron Corp, Needham Heights	Mass
Inet Power A Teledyne Co, Gardena	Cal

Krohn-Hite Corp, Cambridge .... Mass
Landis & Gyr AG, Zug .... Switzerland
Leland Airborne Products Div AMF, Vandalia .... Ohio
Magnetic Engineering Corp, Danbury .... Conn
Merit Short Wave Diathermy Co, Los Angeles .... Cal

Optimation, Inc, Sun Valley .... Cal
Parametrics, Costa Mesa .... Cal
Peeco Corp, Los Angeles .... Cal
Philco-Ford Corp, Washington .... D C
Power Control Corp, Pittsburgh .... Pa
Reliance Electric Co, Cleveland .... Ohio
Short Wave Plastic Forming Co, Costa Mesa .... Cal
Signet Controls Inc, Tulsa .... Okla
Systems Electronics Inc, Cleveland .... Ohio
Taylor-Winfield Corp, Warren .... Ohio
Tel-Instrument Electronics Corp, Carlstadt .... N J
Varo Inc, Garland .... Tex
Yaskawa Electric Mfg Co Ltd, Tokyo .... Japan

GENERATORS, POWER--VARIABLE FREQUENCY

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE .... N Y
C M L INC, PLAINFIELD .... N J
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
GEORATOR CORP, MANASSAS .... VA
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON .... N Y
American Electronics, Inc, Fullerton .... Cal
American Time Products, Elctns Div Bulova Watch Co Inc Woodside .... N Y
Applied Microwave Lab, Inc, Andover .... Mass
Argonaut Associates, Inc, Beaverton .... Ore
Aviation Electric Ltd, St Laurent, Montreal .... Que
Avtron Mfg, Inc, Cleveland .... Ohio
Beckwith Electric Co Inc, Mt Prospect Ill
Bendix Corp Electric Power Div, Eatontown .... NJ
Bogue Electric Mfg Co, Paterson .... N J
Bronson Corp, Sub Kurz & Root Co, Appleton .... Wisc
California Instruments Corp, San Diego .... Cal
Century Electric Co, St Louis .... Mo
C M L Inc, Plainfield .... N J
Condor Industrial Corp, West Chicago Ill
Consolidated Electric Corp, Seattle .... Wash
Cosmos Industries Inc, Brooklyn .... N Y

Denki Kogyo Co Ltd, Tokyo .... Japan
Electric Machinery Mfg Co, Minneapolis .... Minn
Electro-Pacific Inc, Goleta .... Cal
Garrett Corp, Los Angeles .... Cal
General Electric Co, ECSO, Schenectady .... N Y
General Radio Co, West Concord .... Mass
Georator Corp, Manassas .... Va
Horlick Co Inc, William I, Boston .... Mass
Ideal Electric & Mfg Co, Mansfield .... Ohio
Industrial Test Equipment Co, Port Washington .... N Y
Inet Power A Teledyne Co, Gardena .... Cal
Kato Engineering Co, Mankato .... Minn
Krohn-Hite Corp, Cambridge .... Mass
Lear Siegler Inc, Power Equipment Div, Cleveland .... Ohio
Magnetic Engineering Corp, Danbury .... Conn
Optimation, Inc, Sun Valley .... Cal
Philco-Ford Corp, Washington .... D C
Power Control Corp, Pittsburgh .... Pa
Reliance Electric Co, Cleveland .... Ohio
Sterling Electric Motors Inc, Los Angeles .... Cal
Technical Materiel Corp, Mamaroneck .... N Y
Tel-Instrument Electronics Corp, Carlstadt .... N J
Telonic Instruments Div Telonic Indus Inc Beech Grove .... Ind
Thermo Electron Engineering Corp, Waltham .... Mass
Varo Inc, Garland .... Tex

GENERATORS--RATE SEE TACHOMETERS

GENERATORS, ROTARY--A-C POWER

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
GEORATOR CORP, MANASSAS .... VA
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK .... N J
Allis-Chalmers Mfg Co, Milwaukee .... Wis
American Electronics, Inc, Fullerton .... Cal
Antenna Specialists Co, Cleveland .... Ohio
Aviation Electric Ltd, St Laurent, Montreal .... Que
Bendix Corp Electric Power Div, Eatontown .... NJ
Bogue Electric Mfg Co, Paterson .... N J
Bronson Corp, Sub Kurz & Root Co, Appleton .... Wisc
Carter Motor Co, Chicago Ill
Century Electric Co, St Louis .... Mo
Columbia Electric Mfg Co, Cleveland .... Ohio
Consolidated Electric Corp, Seattle .... Wash
Denki Kogyo Co Ltd, Tokyo .... Japan
Dyna Technology, Inc, Sioux City .... Iowa
Electra Tronics Inc, Cocoa .... Fla
Electric Indicator Co Inc, Wilton .... Conn
Electric Machinery Mfg Co, Minneapolis .... Minn
Electric Motors & Specialties Inc, Garrett .... Ind
Electric Products Co, Cleveland .... Ohio
Electronic Specialty Co, Los Angeles .... Cal
Electro-Pacific Inc, Goleta .... Cal
Forney Industries Inc, Fort Collins .... Colo
Fuji Electric Co Ltd, Tokyo .... Japan
Gaylord Rives Co, Pasadena .... Cal
General Electric Co, ECSO, Schenectady .... N Y
General Laboratory Assoc Inc, Norwich .... N Y
General Precision Systems Inc, Kearfott Gp Little Falls .... N J
Georator Corp, Manassas .... Va
Globe Industries Div TRW Inc, Dayton .... Ohio
Horlick Co Inc, William I, Boston .... Mass
Ideal Electric & Mfg Co, Mansfield .... Ohio
Ideas Inc, Laramie .... Wyo
Inet Power A Teledyne Co, Gardena .... Cal
Kato Engineering Co, Mankato .... Minn
Kurz & Root Co, Appleton .... Wis
Lear Siegler Inc, Santa Monica .... Cal
Lear Siegler Inc, Power Equipment Div, Cleveland .... Ohio
Leland Airborne Products Div AMF, Vandalia .... Ohio
Louis Allis Co Div Litton Industries, Milwaukee .... Wisc
Motoresearch Mfg Co Inc, Racine .... Wis
Motor Generator Div Hobart Bros Co, Troy .... Ohio
Rett Electronics Inc, Warren .... Mich
Rotax Ltd, London NW 10 .... Eng
Safety Electrical Equipment Corp, New Haven .... Conn
Siemon Mfg Co, Wayne Ill
T M C Systems & Power Corp, Springfield .... Va
Uriel Corp, Ronkonkoma .... NY
Varo Inc, Garland .... Tex
Vernitron Corp Precision Comp Group, Farmingdale .... N Y
Westinghouse Electric Corp, Aerospace Electrical Div Lima .... Ohio
Weston Instruments Div Weston Instr Inc, Newark .... N J
Yaskawa Electric Mfg Co Ltd, Tokyo .... Japan

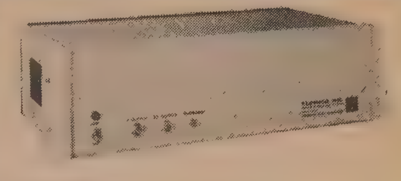
Check the top of the pages for alphabetical listing of product categories

GENERATORS, ROTARY--D-C POWER

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
GEORATOR CORP, MANASSAS .... VA
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK .... N J
Allis-Chalmers Mfg Co, Milwaukee .... Wis
American Electronics, Inc, Fullerton .... Cal
Aviation Electric Ltd, St Laurent, Montreal .... Que
Bendix Corp Electric Power Div, Eatontown .... NJ
Bogue Electric Mfg Co, Paterson .... N J
Bronson Corp, Sub Kurz & Root Co, Appleton .... Wisc
Carter Motor Co, Chicago Ill
Century Electric Co, St Louis .... Mo
Columbia Electric Mfg Co, Cleveland .... Ohio
Consolidated Electric Corp, Seattle .... Wash
Denki Kogyo Co Ltd, Tokyo .... Japan
Dyna Technology, Inc, Sioux City .... Iowa
Electric Indicator Co Inc, Wilton .... Conn

Electric Products Co, Cleveland .... Ohio
Electronic Specialty Co, Los Angeles .... Cal
Electro-Pacific Inc, Goleta .... Cal
Fuji Electric Co Ltd, Tokyo .... Japan
General Electric Co, ECSO, Schenectady .... N Y
General Precision Systems Inc, Kearfott Gp Little Falls .... N J
Georator Corp, Manassas .... Va
Globe Industries Div TRW Inc, Dayton .... Ohio
Horlick Co Inc, William I, Boston .... Mass
Kato Engineering Co, Mankato .... Minn
Kurz & Root Co, Appleton .... Wis
Lear Siegler Inc, Santa Monica .... Cal
Lear Siegler Inc, Power Equipment Div, Cleveland .... Ohio
Leece-Neville Co, Cleveland .... Ohio
Leland Airborne Products Div AMF, Vandalia .... Ohio
Louis Allis Co Div Litton Industries, Milwaukee .... Wisc
Magnetic Technology Inc, Canoga Park .... Cal
Motor Generator Div Hobart Bros Co, Troy .... Ohio
Onan Div, Studebaker Corp, Minneapolis .... Minn
Reaction Research Labs of America, Groton .... Conn
Reliance Electric Co, Cleveland .... Ohio
Rett Electronics Inc, Warren .... Mich
Rotax Ltd, London NW 10 .... Eng
Safety Electrical Equipment Corp, New Haven .... Conn
Siemon Mfg Co, Wayne Ill
States Electronics Corp, Bludworth Marine Div Linden .... N J
Tensonics, Taos .... N M
T M C Systems & Power Corp, Springfield .... Va
Uriel Corp, Ronkonkoma .... NY
Varo Inc, Garland .... Tex
Westinghouse Electric Corp, Aerospace Electrical Div Lima .... Ohio
Weston Instruments Div Weston Instr Inc, Newark .... N J
Yaskawa Electric Mfg Co Ltd, Tokyo .... Japan

ELGENCO
Noise Generators



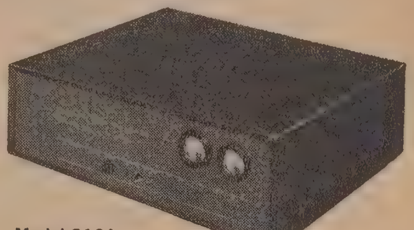
Model 632A

SOLID STATE NOISE GENERATORS
Model 602A 5 Hz to 5 mHz, 3 Ranges $ 360
Model 603A 5 Hz to 5 mHz, 3 Ranges $ 545
Model 610A 5 Hz to 5 mHz, 8 Ranges $1,275
Model 632A Two outputs DC to 400 Hz and 10 Hz to 35 kHz...... $2,595

Series 624 (Fixed frequency) 5 Hz to 500 kHz $270 to $600. Write for details on frequency ranges and spectral flatness.

Series 3600A

NOISE GENERATOR CARDS
Series 3600 .... $144 to $409
Various frequency ranges and output flatness available. Write for details.



Model 312A

VACUUM TUBE NOISE GENERATORS
Model 301A DC to 40 Hz $2,195
Model 311A Two outputs DC to 40 Hz and 10 Hz to 20 kHz...... $2,595
Model 312A Two outputs DC to 120 Hz and 10 Hz to 20 kHz...... $2,695
Model 321A DC to 120 Hz $2,295
Model 331A 10 Hz to 20 kHz $1,395

ENCAPSULATED NOISE SOURCE MODULES
Series 1600 .... $95 to $350
Various frequency ranges and output flatness available. Write for details.

For a more complete listing of Elgenco noise generators, write for short form catalog.

ELGENCO INCORPORATED
1550 Euclid Street
Santa Monica, California
Phone: (213) 451-1635
TWX: (213) 879-0091
Cable Elgenco

DEMONSTRATOR MODELS AVAILABLE
See EEM or Write for Name of Nearest Rep.

GENERATORS, SIGNAL--A-F

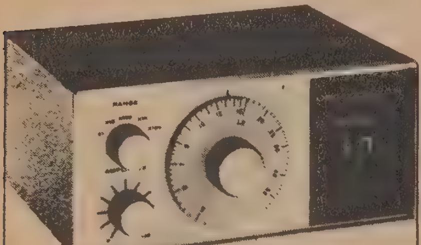
AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
C M L INC, PLAINFIELD	**N J**
DRANETZ ENGINEERING LABS INC, PLAINFIELD N J	**ADV PG 322**
HEATH CO, BENTON HARBOR	**MICH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH	**VA**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TELE-SIGNAL CORP, WOODBURY	**N Y**
TEXSCAN CORP, INDIANAPOLIS	**IND**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
AIM Electronics Ltd, Cambridge	U K
Airmec Instruments Ltd, Buckinghamshire	England
Amark Corp, Plainview	N Y
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Armec Corp, Huntington Station	N Y
Astrodata Inc, Anaheim	Cal
Ballantine Laboratories, Inc, Boonton	N J
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio
California Instruments Corp, San Diego	Cal
Canoga Electronics Corp, Chatsworth	Cal
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Clough-Brengle Co, Chicago	Ill
C M L Inc, Plainfield	N J
Compagnie Generale de Metrologie Haute Savoie	France
Cushman Electronics Inc, Sunnyvale	Cal
Data Royal Corp, San Diego	Cal
Don Bosco Electronics Inc, Hanover	N J
Dowa Trading Co Ltd, Kobe	Japan
Dranetz Engineering Labs Inc, Plainfield	N J
Dynamic Precision Controls Corp, Hagerstown	Ind
E F Assoc Inc, Scotch Plains	N J
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Measurements Corp, New York	N Y
Electronics of Clearfield Inc, Clearfield	Pa
Gai-Tronics Corp, Reading	Pa
General Radio Co, West Concord	Mass
Gotham Audio Corp, New York	N Y
Hathaway Instruments Inc, Denver	Colo
H B Engineering Corp, Silver Spring	Md
Heath Co, Benton Harbor	Mich
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Hickok Teaching Systems Inc, Cambridge	Mass
Holt Instrument Labs, Oconto	Wis
Instrument Labs Corp, Chicago	Ill
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Kay Electric Co, Pine Brook	N J
Krohn-Hite Corp, Cambridge	Mass
Lab Electro-Acoustique, 92 Rueil-Malmaison	France
Lafayette Radio Electronics, Syosset	NY
Lee Co, Richard, New Providence	N J
London Co, Westlake	Ohio
Marconi Instruments Div, English Electric Corp Englewood	N J
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McKee-Pedersen Instruments, Danville	Cal
Measurement Control Devices Inc, Philadelphia	Pa
Measurements A McGraw-Edison Div, Boonton	N J
Meguro Denpa Sokki K K, Meguro-ku, Tokyo	Japan
Melpar Inc, Special Prods Dept, Falls Church	Va
Metric Engineering Div Greenray Indus Inc Mechanicsburg	Pa
NH Research Inc, Santa Ana	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Northeast Electronics Corp, Concord	N H
Oki Electric Industry Co Ltd, Tokyo	Japan
Optimation, Inc, Sun Valley	Cal
Philamon Laboratories Inc, Westbury	N Y
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polarad Electronic Instruments Div Long Island City	N Y
Princeton Applied Research Corp, Princeton	N J
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Radio Corp of America, Electronic Components, Harrison	N J
Radiometer A/S, Copenhagen NV	Denmark
Riverbank Labs, Dept of Engrg, Geneva	Ill
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Siemens America Inc, New York	N Y
Simplex Time Recorder Co, Gardner	Mass
Sodilec SA Salies-S A, 91 Palaiseau	France
Spectral Dynamics Corp of San Diego, San Diego	Cal
Standard Telephones & Cables Ltd London WC 2	England
Stark Electronic Instruments Ltd, Ajax	Ont
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taffet Electronics Inc, Woodside	N Y
Tecnica Elettronica Systems S a s, Milan	Italy
Tel-Com Instruments Inc, Hanover	N J
Tele-Signal Corp, Woodbury	N Y
Telonic Instruments Div Telonic Indus Inc Beech Grove	Ind
Telstar Electronics Corp, Southold	N Y
Texscan Corp, Indianapolis	Ind
Venner Electronics Ltd, New Malden, Surrey	Eng
Wandel & Goltermann/Tel-Com, Hanover	N J
Wavetek, San Diego	Cal
Weinschel Engineering Co Inc, Gaithersburg	Md
Western Reserve Electronics, Inc, Cleveland	Ohio

GENERATORS, SIGNAL--A-M, F-M

HEATH CO, BENTON HARBOR, MICH	**ADV PG 322**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TEXSCAN CORP, INDIANAPOLIS	**IND**
Advanced Measurement Instruments, Inc Somerville	Mass
Airmec Instruments Ltd, Buckinghamshire	England
Astrodata Inc, Anaheim	Cal
Bendix Corp, Communications Div, Towson	Md
Canoga Electronics Corp, Chatsworth	Cal
Compagnie Generale de Metrologie Haute Savoie	France
Cushman Electronics Inc, Sunnyvale	Cal
Dowa Trading Co Ltd, Kobe	Japan
EICO Electronic Instrument Co Inc, Brooklyn	NY
General Radio Co, West Concord	Mass
Heath Co, Benton Harbor	Mich
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Hickok Teaching Systems Inc, Cambridge	Mass
London Co, Westlake	Ohio
Marconi Instruments Div, English Electric Corp Englewood	N J
Matsushita Electric Industrjal Co Ltd, Osaka	Japan
Meguro Denpa Sokki K K, Meguro-ku, Tokyo	Japan
New London Instr Co Div Crescent Comm Corp Newton	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polarad Electronic Instruments Div Long Island City	N Y
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Radiometer A/S, Copenhagen NV	Denmark
Radio Research Co, Rockaway	NJ
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Stark Electronic Instruments Ltd, Ajax	Ont
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Tecnica Elettronica Systems S a s, Milan	Italy
Tel-Com Instruments Inc, Hanover	N J
Tel-Instrument Electronics Corp, Carlstadt	N J
Telonic Instruments Div Telonic Indus Inc Beech Grove	Ind
Texscan Corp, Indianapolis	Ind
Wandel & Goltermann/Tel-Com, Hanover	N J
Wiltron Co, Palo Alto	Cal

GENERATORS, SIGNAL--COLOR TV, BAR

AMPHENOL, BROADVIEW	**ILL**
HEATH CO, BENTON HARBOR	**MICH**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Amphenol, Broadview	Ill
B & K Mfg Co Div Dynascan Corp, Chicago	Ill



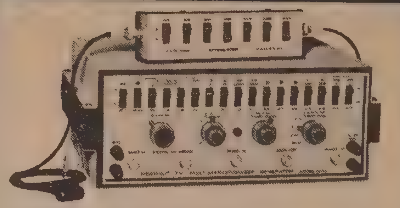
COMPLETELY TRANSISTORIZED
OSCILLATOR
. . . AS LOW AS $160.00

☐ Available for OEM use with or without Power supply and housing. ☐ Range from 5 Hz to 500 kHz in 5 bands. ☐ Infinite frequency resolution. ☐ Ideal for Laboratory use. ☐ Write Dept. DEB for details on Series 380.

DRANETZ
ENGINEERING LABORATORIES, INC.
1233 North Ave., Plainfield, N.J 07062
Telephone Area Code (201) 755 7080

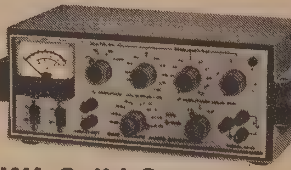
IMPEDANCE – ADMITTANCE METERS ■ PHASE METERS ■ TRANSFER FUNCTION COMPUTERS ■ INSTRUMENT TRANSFORMERS ■ OSCILLATORS ■ SAMPLING VOLTMETERS ■ PULSE INSTRUMENTATION ■ FROM SINGLE INSTRUMENTS TO COMPLETE SYSTEMS

HEATHKIT®
"Performance-Plus"
Generators



NEW! Solid-State
Marker/Sweep Generator

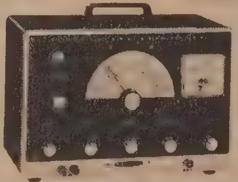
This new generator plus a scope is all you need for fast, efficient color and B&W TV & FM alignment — no external sweep generator required. 15 crystal-controlled markers, 3 stable sweep oscillators cover 5 most-used frequency ranges; unique trace reverse function; up to 70 dB attenuation in 7 steps. Displays up to six markers at once. The industry's best buy.
Kit IG-57 . . . . $135.00
Assembled IGW-57 . . . . $199.00



NEW! Solid-State
Sine-Square Wave Generator

All solid-state circuitry for rugged reliability & trouble-free performance. Generates sine or square waves from 1 - 100 kHz. Switch-selected frequencies are accurate to ±5%. Sine wave distortion less than 0.1%, 20-20 kHz. Square wave rise time 50 Nanoseconds. Metered output for sine wave. Wiring options permit either 120 V. or 240 V. 50/60 Hz operation.
Kit IG-18 . . . . $67.50
Assembled IGW-18 . . . . $99.50

Lab RF Generator Precision Control For Design Or Trouble-Shooting



Adjustable to ±3% frequency calibration accuracy from 100 kHz to 30 MHz. RF output voltage adjustable from 100,000 uV in attenuator steps of 1, 10, 100, 1000 & 10,000 and variable attenuation of 10:1 max. with overall accuracy of ±20%. RF output can be internally modulated at 400 Hz from 0-50%; external modulation from 60 to 10 kHz.
Kit IG-42 . . . . $59.00

Low Distortion Audio Generator

A near-perfect output signal waveform — less than 0.1% distortion thru entire audible range. Better than ±5% accuracy of metered output level and switch-selected frequencies from 10 Hz to 100 kHz. Output meter scales in both volts and dB. An ideal instrument for production QC work or R&D applications.
Kit IG-72 . . . . $44.50
Assembled IGW-72 . . . . $64.95

For your FREE copy of the 1969 Heath Scientific Instrument Catalog, write us on your school or company letterhead. HEATH CO., Dept. 520-32, Benton Harbor, Michigan, 49022

Cohu Electronics Inc, San Diego .... Cal
Dalto Electronics Corp, Norwood .... N J
Dowa Trading Co Ltd, Kobe .... Japan
EICO Electronic Instrument Co Inc, Brooklyn .... NY
Heath Co, Benton Harbor .... Mich
Hickok Electrical Instrument Co, Cleveland .... Ohio
Lectrotech Inc, Chicago Ill
Marconi Co Ltd, Chelmsford .... England
Marconi Div, English Electric Corp, New York .... N Y
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Nippon Electric Co Ltd, Tokyo .... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Radio Corp of America, Comml Elctn Prods Div Camden .... N J
Radio Corp of America, Electronic Components, Harrison .... N J
Riker Video Div, Hauppauge .... N Y
RIL Electronics Inc, Southampton .... Pa
Robertson Instrument Co, Azusa .... Cal

Sencore Inc, Addison Ill
Shiba Electric Co Ltd, Woodside .... N Y
Stark Electronic Instruments Ltd, Ajax .... Ont
Sunshine Scientific Instruments Inc, Philadelphia ..... Pa
Tecnica Elettronica Systems S a s, Milan .... Italy
Tele Measurements Inc, Clifton .... N J
Telemet Co, Video Prods & Airborne Telemetry Amityville .... N Y
Tel-Instrument Electronics Corp, Carlstadt .... N J

GENERATORS, SIGNAL--COLOR TV, DOT

AMPHENOL, BROADVIEW ILL
HEATH CO, BENTON HARBOR .... MICH
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND .... OHIO
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
American Electronic Controls Inc, Philadelphia .... Pa
Amphenol, Broadview Ill
B & K Mfg Co Div Dynascan Corp, Chicago Ill
Canoga Electronics Corp, Chatsworth .... Cal
Cohu Electronics Inc, San Diego .... Cal
Compagnie Generale de Metrologie Haute Savoie .... France
Dalto Electronics Corp, Norwood .... N J
Dowa Trading Co Ltd, Kobe .... Japan
EICO Electronic Instrument Co Inc, Brooklyn .... NY
Heath Co, Benton Harbor .... Mich
Hickok Electrical Instrument Co, Cleveland .... Ohio
Inelco S p A, Tavernerio .... Italy
Lectrotech Inc, Chicago Ill
Marconi Co Ltd, Chelmsford .... England
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Nippon Electric Co Ltd, Tokyo .... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Radio Corp of America, Comml Elctn Prods Div Camden .... N J
Radio Corp of America, Electronic Components, Harrison .... N J
Research Industrolectronics, Roslyn .... Pa
Riker Video Div, Hauppauge .... N Y
RIL Electronics Inc, Southampton .... Pa
Robertson Instrument Co, Azusa .... Cal
Sencore Inc, Addison Ill
Shiba Electric Co Ltd, Woodside .... N Y
Stark Electronic Instruments Ltd, Ajax .... Ont
Sunshine Scientific Instruments Inc, Philadelphia ..... Pa
Tecnica Elettronica Systems S a s, Milan .... Italy
Tele Measurements Inc, Clifton .... N J
Telemet Co, Video Prods & Airborne Telemetry Amityville .... N Y
Tel-Instrument Electronics Corp, Carlstadt .... N J

GENERATORS, SIGNAL--F-M

GENERAL MICROWAVE CORP, FARMINGDALE .... N Y
HEATH CO, BENTON HARBOR .... MICH
HEWLETT-PACKARD, PALO ALTO .... CAL
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND .... OHIO
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO, ILL .... ADV PG 465
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
TEXSCAN CORP, INDIANAPOLIS .... IND
Advanced Measurement Instruments, Inc Somerville .... Mass
Airmec Instruments Ltd, Buckinghamshire .... England
Ando Electric Co Ltd, Ohta-ku, Tokyo .... Japan
Astro Communication Lab Div Aiken Industries Gaithersburg .... Md
Babcock Electronic Corp, Costa Mesa .... Cal
Bendix Corp, Communications Div, Towson .... Md
Calbest Electronics, Los Angeles .... Cal
Canadian Motorola Electronics Co, Agincourt .... Ont
Compagnie Generale de Metrologie Haute Savoie .... France
Cushman Electronics Inc, Sunnyvale .... Cal
Data Royal Corp, San Diego .... Cal
Decitron Electronics Corp, Brooklyn .... N Y
Dowa Trading Co Ltd, Kobe .... Japan
EICO Electronic Instrument Co Inc, Brooklyn .... NY
Exact Electronics Inc, Hillsboro .... Ore
General Microwave Corp, Farmingdale .... N Y
Heath Co, Benton Harbor .... Mich
Hewlett-Packard, Palo Alto .... Cal
Hickok Electrical Instrument Co, Cleveland .... Ohio
Intercontinental Electronics Corp, Fairport .... N Y
Karg Labs Inc, South Norwalk .... Conn
Kay Electric Co, Pine Brook .... N J
London Co, Westlake .... Ohio
Marconi Instruments Div, English Electric Corp Englewood .... N J
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Measurements A McGraw-Edison Div, Boonton .... N J
Meguro Denpa Sokki K K, Meguro-ku, Tokyo .... Japan
Microdot, Inc, South Pasadena .... Cal
Motorola Commun & Elctns Inc Prec Instr Prods Chicago Ill
New London Instr Co Div Crescent Comm Corp Newton .... Mass
Nippon Electric Co Ltd, Tokyo .... Japan
Oki Electric Industry Co Ltd, Tokyo .... Japan
Parzen Research Inc Sub Ovitron Corp, Westbury ..... N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Piezo Technology Inc, Orlando .... Fla
Polarad Electronic Instruments Div Long Island City .... N Y
Radio Corp of America, Comml Elctn Prods Div Camden .... N J
Radio Corp of America, Electronic Components, Harrison .... N J
Radiometer A/S, Copenhagen NV .... Denmark
Radio Research Co, Rockaway .... NJ
Rohde & Schwarz Sales Co USA Inc, Passaic .... N J

Scott Inc, H H, Maynard .... Mass
Singer Co, Metrics Div, Gertsch Dept, Los Angeles .... Cal
Stark Electronic Instruments Ltd, Ajax .... Ont
Sunshine Scientific Instruments Inc, Philadelphia ..... Pa
Sweep Systems Inc, Indianapolis .... Ind
Tecnica Elettronica Systems S a s, Milan .... Italy
Tel-Com Instruments Inc, Hanover .... N J
Tel-Instrument Electronics Corp, Carlstadt .... N J
Telonic Instruments Div Telonic Indus Inc Beech Grove .... Ind
Texscan Corp, Indianapolis .... Ind
Trak Microwave Corp, Tampa .... Fla
Wavetek, San Diego .... Cal

GENERATORS, SIGNAL--MARKER

FORK STANDARDS INC, WEST CHICAGO ILL
HEATH CO, BENTON HARBOR .... MICH
HEWLETT-PACKARD, PALO ALTO .... CAL
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND .... OHIO
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
MICROWAVE/SYSTEMS INC, EAST SYRACUSE .... N Y
TEKTRONIX INC, BEAVERTON .... ORE
Accutronics, Inc, Geneva Ill
Autronics Corp, Pasadena .... Cal
Blonder-Tongue Labs Inc, Newark .... N J
Carol Electronics Div Weeco Inc, Martinsburg ...... W Va
Compagnie Generale de Metrologie Haute Savoie .... France
Decitron Electronics Corp, Brooklyn .... N Y
Don Bosco Electronics Inc, Hanover .... N J
Dowa Trading Co Ltd, Kobe .... Japan
E-H Research Labs Inc, Oakland .... Cal
Fork Standards Inc, West Chicago Ill
General Radio Co, West Concord .... Mass
Heath Co, Benton Harbor .... Mich
Hewlett-Packard, Palo Alto .... Cal
Hickok Electrical Instrument Co, Cleveland .... Ohio
Kay Electric Co, Pine Brook .... N J
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Micronetics Div Teledyne Systems Co, San Diego ..... Cal
Microwave Control Co, Red Bank .... N J
Microwave/Systems Inc, East Syracuse .... N Y
Missouri Research Labs Inc, St Louis .... Mo
Orbitran Co, Inc, Lakeside .... Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Radio Corp of America, Electronic Components, Harrison .... N J
Shiba Electric Co Ltd, Woodside .... N Y
Squires-Sanders Inc, Liberty Corner .... N J
Standard Telephones & Cables Ltd London WC 2 .... England
Stark Electronic Instruments Ltd, Ajax .... Ont
Sunshine Scientific Instruments Inc, Philadelphia ..... Pa
Sweep Systems Inc, Indianapolis .... Ind
Taffet Electronics Inc, Woodside .... N Y
Tecnica Elettronica Systems S a s, Milan .... Italy
Tektronix Inc, Beaverton .... Ore
Tel-Instrument Electronics Corp, Carlstadt .... N J
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach .... Cal
Telonic Instruments Div Telonic Indus Inc Beech Grove .... Ind

GENERATORS, SIGNAL--MICROWAVE

ANAREN MICROWAVE INC, SYRACUSE .... N Y
ANRITSU ELECTRIC CO LTD, TOKYO .... JAPAN
GENERAL MICROWAVE CORP, FARMINGDALE .... N Y
HEWLETT-PACKARD, PALO ALTO .... CAL
MICRO-NOW INSTRUMENT CO INC, CHICAGO ILL
MICROWAVE CAVITY LABS INC, LA GRANGE ILL
MICROWAVE/SYSTEMS INC, EAST SYRACUSE .... N Y
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
SERVO CORP OF AMERICA, HICKSVILLE .... N Y
TEXSCAN CORP, INDIANAPOLIS .... IND
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG .... MD
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park .... N Y
Alfred Electronics, Palo Alto .... Cal
Anaren Microwave Inc, Syracuse .... N Y
Anritsu Electric Co Ltd, Tokyo .... Japan
Applied Microwave Lab, Inc, Andover .... Mass
Applied Research, Inc, Port Washington .... N Y
Beckman Instruments Inc, Fullerton, ... Cal
Bomac Div Varian Associates, Beverly .... Mass
Canoga Electronics Corp, Chatsworth .... Cal
Carol Electronics Div Weeco Inc, Martinsburg ...... W Va
Cober Electronics Inc, Stamford .... Conn
Cosmos Industries Inc, Brooklyn .... N Y
Decitron Electronics Corp, Brooklyn .... N Y
Dowa Trading Co Ltd, Kobe .... Japan
Edwin Industries Corp, Silver Spring .... Md
Engineering Associates, Dayton .... Ohio
Epsco Inc, Westwood .... Mass
Frequency Engineering Labs, Farmingdale .... N J
General Microwave Corp, Farmingdale .... N Y
General Radio Co, West Concord .... Mass
Hewlett-Packard, Palo Alto .... Cal
Hickok Teaching Systems Inc, Cambridge .... Mass
Kay Electric Co, Pine Brook .... N J
Kruse-Storke Electronics, Mountain View .... Cal
MCS Corp, Monrovia .... Cal
Microdot, Inc, South Pasadena .... Cal
Micronetics Div Teledyne Systems Co, San Diego ..... Cal
Micro-Now Instrument Co Inc, Chicago Ill
Micro Power Inc, Long Island City .... N Y
Micro-Radionics Inc, Van Nuys .... Cal
Microwave Cavity Labs Inc, La Grange Ill
Microwave Control Co, Red Bank .... N J
Microwave Development Labs Inc Needham Heights .... Mass

Microwave/Systems Inc, East Syracuse .... N Y
Narda Microwave Corp, Plainview .... N Y
New London Instr Co Div Crescent Comm Corp Newton .... Mass
Nippon Electric Co Ltd, Tokyo .... Japan
Oki Electric Industry Co Ltd, Tokyo .... Japan
Philco-Ford Corp, Washington .... D C
Polarad Electronic Instruments Div Long Island City .... N Y
PRD Electronics Inc, Sub H-I Corp, Westbury .... N Y
Resdel Engineering Corp, Pasadena .... Cal
Rohde & Schwarz Sales Co USA Inc, Passaic .... N J
Servo Corp of America, Hicksville .... N Y
Singer Co, Metrics Div, Bridgeport .... Conn
Smyth Research Associates, San Diego .... Cal
Somerset Radiation Lab Inc, Arlington .... Va
Standard Telephones & Cables Ltd London WC 2 .... England
Telonic Instruments Div Telonic Indus Inc Beech Grove .... Ind
Texscan Corp, Indianapolis .... Ind
Trak Microwave Corp, Tampa .... Fla
Ventron Instruments Corp Magnion Div, Burlington .... Mass
Vitro Labs Div Vitro Corp of America, W Orange ..... N J
Weinschel Engineering Co Inc, Gaithersburg .... Md

GENERATORS, SIGNAL--MICROWAVE, SWEEP

ANRITSU ELECTRIC CO LTD, TOKYO .... JAPAN
HEWLETT-PACKARD, PALO ALTO .... CAL
MICROWAVE/SYSTEMS INC, EAST SYRACUSE .... N Y
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
SERVO CORP OF AMERICA, HICKSVILLE, N Y ..... ADV PG 323
TEXSCAN CORP, INDIANAPOLIS .... IND
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG .... MD

Model 404
Multi-Band Microwave Swept Signal Generator
Fast, automatic sweep coverage from 1.0 to 12.4 GHz.
Versatile band selection.
Solid state circuit design.
Self-contained, no plug-ins required.
Compact package, only 10½" high.
servo
servo corporation of america
servodynamics division
hicksville, n.y. 11802
516-938-9700

Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Alfred Electronics, Palo Alto	Cal
Anritsu Electric Co Ltd, Tokyo	Japan
Anzac Electronics, Waltham	Mass
Decitron Electronics Corp, Brooklyn	N Y
Dowa Trading Co Ltd, Kobe	Japan
E F Assoc Inc, Scotch Plains	N J
E-H Research Labs Inc, Oakland	Cal
Electro-Data Inc, Garland	Tex
Engineering Associates, Dayton	Ohio
Epsco Inc, Westwood	Mass
General Radio Co, West Concord	Mass
Hewlett-Packard, Palo Alto	Cal
Jerrold Electronics Corp, Philadelphia	Pa
Kay Electric Co, Pine Brook	N J
Kruse-Storke Electronics, Mountain View	Cal
Microlab/F X R, Livingston	N J
Micronetics Div Teledyne Systems Co, San Diego	Cal
Micro Power Inc, Long Island City	N Y
Microwave/Systems Inc, East Syracuse	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Philco-Ford Corp, Washington	D C
Polarad Electronic Instruments Div Long Island City	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Servo Corp of America, Hicksville	N Y
Sweep Systems Inc, Indianapolis	Ind
Telonic Instruments Div Telonic Indus Inc Beech Grove	Ind
Texscan Corp, Indianapolis	Ind
Weinschel Engineering Co Inc, Gaithersburg	Md
Wiltron Co, Palo Alto	Cal

GENERATORS, SIGNAL-- PULSE (IMPULSE)

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	N Y
AUTOMATION DEVELOPMENT CO, CULVER CITY	CAL
DATAPULSE INC SUB SYSTRON-DONNER CORP, CULVER CITY CAL	ADV PG 324
DRANETZ ENGINEERING LABS INC, PLAINFIELD	N J
FORK STANDARDS INC, WEST CHICAGO	ILL
HEWLETT-PACKARD, PALO ALTO	CAL
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	ADV PGS 8
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	ILL
NIPPON ELECTRIC CO LTD, TOKYO	JAPAN
SERVO CORP OF AMERICA, HICKSVILLE	N Y
SPENCER-KENNEDY LABS INC, BOSTON, MASS	ADV PG 301
TECHMETRIC CO, REDWOOD CITY	CAL
TEKTRONIX INC, BEAVERTON	ORE
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON TEX	ADV PG 324
TOBE DEUTSCHMANN LABS INC, CANTON	MASS
Abtronics, Inc, Livermore	Cal
Adar Associates Inc, Somerville	Mass

WE GENERATE PULSES

. . . fully controllable FAST pulses, economical general-purpose pulses, coded digital pulses powerful pulses, fully programmable pulses . . . pulses with the exact characteristics your application requires.

Model 101 Pulse Generator / $395.00

30 Pulse Instruments

. . . pulse generators, data generators, word generators, trigger program generators, character generators, PCM simulators, data simulation systems.

Write for Datapulse Catalog

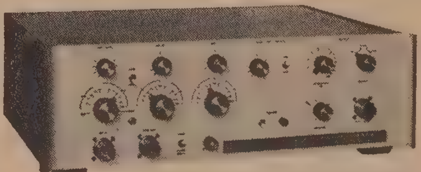
. . . or contact your nearest Datapulse representative for fast, personalized field assistance and service. Inquiries for special pulse and digital instrumentation systems are invited.

DATAPULSE

DATAPULSE INC A Subsidiary of Systron Donner Corporation
10150 W. Jefferson Blvd Room G Culver City, California 90230
213 836 6100, TWX 910 340 6706

Let TI Supply Your Pulse Generator Requirements

High Frequency—for design and testing of high-speed digital circuits, component evaluation, switching time and TDR studies. Model 6901 has rep rate to 100 MHz, positive or negative output to 5v. Variable delay and width to 100 microseconds. Baseline offset ±2v. Rise time less than 1.3 nanoseconds. Countdown synchronization.

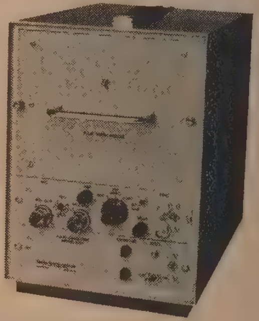


MODEL 6901-$1950

Modular — for selecting (from 11 modules) a combination to fit your requirements. For example, Model 6307 (containing 4 modules) will supply a programmable 10 bit NRZ output of 5v with 6 nanoseconds rise and fall and a programmable 10 bit RZ output of ±10v, with adjustable rise and fall times from 10 nanoseconds.

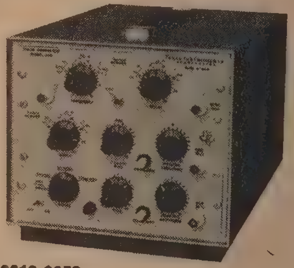
MODEL 6307-$2530

High Voltage — for evaluation of core and thin magnetic film memory arrays. Model 6701 has rep rate to 1 MHz, positive or negative 50v output, with rise time less than 1 nanosecond and fall time less than 1.5 nanoseconds. Width to 100 nanoseconds, fixed by plug-in delay line module.



MODEL 6701-$1700

General Purpose—for testing integrated circuits, digital circuit design, diodes and transistors. Model 6613 has rep rate to 15 MHz, output to 10v. Width and delay variable to 30 milliseconds.



MODEL 6613-$850

Double pulse output. Positive and negative outputs.

Get Texas Instruments complete pulse generator data file by writing to the Industrial Products Division, P. O. Box 66027, Houston, Texas 77006 (713-349-2171).

TEXAS INSTRUMENTS
INCORPORATED

Advanced Automation Corp, Hawthorne	Cal
Advanced Technology Corp, Chambersburg	Pa
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
AIM Electronics Ltd, Cambridge	U K
Amerac, Inc, Beverly	Mass
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Ando Electric Co Ltd, Ohta-ku, Tokyo	Japan
Applied Microwave Lab, Inc, Andover	Mass
Argonaut Associates, Inc, Beaverton	Ore
Automation Development Co, Culver City	Cal
Autronics Corp, Pasadena	Cal
Beckman Instruments Inc, Fullerton,	Cal
Berkeley Nucleonics Corp, Berkeley	Cal
Bicron Electronics Co, Canaan	Conn
Bioelectric Instruments Inc, Hastings-on-Hudson	N Y
Canberra Industries, Middletown	Conn
Canoga Electronics Corp, Chatsworth	Cal
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Catalyst Research Corp, Baltimore	Md
Central Dynamics Ltd, Pte Claire	Que
Chronetics Inc, Mount Vernon	N Y
CMC/Rutherford, San Fernando	Cal
Coast Electronics Inc, Manhattan Beach	Cal
Cober Electronics Inc, Stamford	Conn
Collins & Assoc Don L, Glendale	Cal
Computer Test Corp, Cherry Hill	N J
Cosmos Industries Inc, Brooklyn	N Y
Crystalab Products Corp, Rochelle Park	N J
Cybetronics Inc, Waltham	Mass
Datapulse Inc Sub Systron-Donner Corp Culver City	Cal
Decitron Electronics Corp, Brooklyn	N Y
Digital Electronics Inc, Plainview	N Y
Digitech Inc, Ridgefield	Conn
Don Bosco Electronics Inc, Hanover	N J
Dowa Trading Co Ltd, Kobe	Japan
Dranetz Engineering Labs Inc, Plainfield	N J
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee	Ill
E-H Research Labs Inc, Oakland	Cal
Eldorado Electronics, Concord	Cal
Energy Systems Inc, Palo Alto	Cal
Engineering Associates, Dayton	Ohio
Epsco Inc, Westwood	Mass
Ferranti, Ltd, Lancashire	England
Fisher-Akin Co, Manhattan Beach	Cal
Fork Standards Inc, West Chicago	Ill
Foster & Allen Inc, Chatham	N J
General Radio Co, West Concord	Mass
Genisco Technology Corp, Compton	Cal
Giannini-Voltex, Whittier	Cal
Gralex Industries Inc, Copiague	N Y
G-V Controls Inc, Livingston	N J
Hamner Electronics Co Inc, Cleveland	Ohio
Harvard Apparatus Co Inc, Millis	Mass
Hewlett-Packard, Palo Alto	Cal
Honeywell Inc, Computer Control Div Framingham	Mass
Honeywell Test Instruments Div, Denver	Colo
Horex Electronics Inc, Santa Monica	Cal
Inelco S p A, Tavernerio	Italy
Instrument Research Co, Lincoln	Mass
Iwatsu Electric Co Ltd, Tokyo	Japan
Kay Electric Co, Pine Brook	N J
Laben S p A, Milan	Italy
Litton Industries, Electron Tube Div, San Carlos	Cal
Logitek Inc, Farmingdale	N Y
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Measurement Control Devices Inc, Philadelphia	Pa
Memory Technology Inc, Waltham	Mass
Metrological Data Corp, Garfield	N J
Micronetics Div Teledyne Systems Co, San Diego	Cal
Miles Industries Inc, Garnerville	N Y
Monsanto Elec Tech Center, West Caldwell	N J
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
NanoFast, Inc, Chicago	Ill
Nanosecond Systems Inc, Fairfield	Conn
Nippon Electric Co Ltd, Tokyo	Japan
Nuclear-Chicago Corp, Des Plaines	Ill
Oki Electric Industry Co Ltd, Tokyo	Japan
Orbitran Co, Inc, Lakeside	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polarad Electronic Instruments Div Long Island City	N Y
Power Instruments Inc, Skokie	Ill
Preston Scientific, Inc, Anaheim	Cal
Red Lake Labs Inc, Santa Clara	Cal
R F S Engineering Co, Philadelphia	Pa
Riker Video Div, Hauppauge	N Y
Seed Electronics Corp, Lexington	Mass
Servo Corp of America, Hicksville	N Y
Siemens America Inc, New York	N Y
Sodilec SA Salies-S A, 91 Palaiseau	France
Solar Electronics Co, Hollywood	Cal
Solid State Electronics Corp, Sepulveda	Cal
Spencer-Kennedy Labs Inc, Boston	Mass
Squires-Sanders Inc, Liberty Corner	N J
Stoddart Electro Systems, Gardena	Cal
Straza Industries Div Ametek Inc, El Cajon	Cal
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taffet Electronics Inc, Woodside	N Y
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Techmetric Co, Redwood City	Cal
Tektronix Inc, Beaverton	Ore
Texas Instruments Incorporated, Dallas	Tex
Texas Instruments Inc Indl Prods Div, Houston	Tex
Tobe Deutschmann Labs Inc, Canton	Mass
Trott Electronics Inc, Rochester	N Y
Velonex Div Pulse Engineering Inc, Santa Clara	Cal
Venner Electronics Ltd, New Malden, Surrey	Eng
Vitro Labs Div Vitro Corp of America, Silver Spring	Md
Walkirt Co, Los Angeles	Cal
White Electromagnetics Inc, Rockville	Md

GENERATORS, SIGNAL--R-F

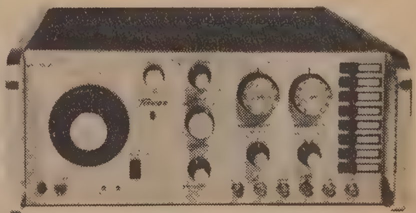
ANAREN MICROWAVE INC, SYRACUSE	**N Y**
ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
FLUKE MFG CO INC, JOHN, SEATTLE	**WASH**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEATH CO, BENTON HARBOR	**MICH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
TEKTRONIX INC, BEAVERTON	**ORE**
TEXSCAN CORP, INDIANAPOLIS	**IND**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Advanced Measurement Instruments, Inc Somerville	Mass
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Airmec Instruments Ltd, Buckinghamshire	England
Alfred Electronics, Palo Alto	Cal
Anaren Microwave Inc, Syracuse	N Y
Ando Electric Co Ltd, Ohta-ku, Tokyo	Japan
Anritsu Electric Co Ltd, Tokyo	Japan
Applied Microwave Lab, Inc, Andover	Mass
Applied Research, Inc, Port Washington	N Y
Babcock Electronic Corp, Costa Mesa	Cal
Bendix Corp, Communications Div, Towson	Md
Canoga Electronics Corp, Chatsworth	Cal
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Clemens Mfg Co, St Louis	Mo
Clough-Brengle Co, Chicago	Ill
Compagnie Generale de Metrologie Haute Savoie	France
Cosmos Industries Inc, Brooklyn	N Y
Cushman Electronics Inc, Sunnyvale	Cal
Data Royal Corp, San Diego	Cal
Decitron Electronics Corp, Brooklyn	N Y
Delta Electronics Inc, Alexandria	Va
Dowa Trading Co Ltd, Kobe	Japan
E F Assoc Inc, Scotch Plains	N J
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Measurements Corp, New York	N Y
Electronics Communications Div Atlantic Research Corp Alexandria	Va
Engineering Associates, Dayton	Ohio
Fluke Mfg Co Inc, John, Seattle	Wash
Frequency Engineering Labs, Farmingdale	N J
General Microwave Corp, Farmingdale	N Y
General Radio Co, West Concord	Mass
Genisco Technology Corp, Compton	Cal
Guide Industries Inc, Sun Valley	Cal
Heath Co, Benton Harbor	Mich
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Honeywell Test Instruments Div, Denver	Colo
Intercontinental Electronics Corp, Fairport	N Y
ITT Federal Labs, Fort Wayne	Ind
J A C Electronics Ltd, Camberley	England
Karg Labs Inc, South Norwalk	Conn
Kay Electric Co, Pine Brook	N J
Krohn-Hite Corp, Cambridge	Mass
Kruse-Storke Electronics, Mountain View	Cal
Kyoritsu Electrical Instruments Works Ltd, Tokyo	Japan
Kyoritsu Electric Works Ltd, Tokyo	Japan
Lafayette Radio Electronics, Syosset	NY
Litton Industries, Electron Tube Div, San Carlos	Cal
London Co, Westlake	Ohio
Marconi Instruments Div, English Electric Corp Englewood	N J
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Measurements A McGraw-Edison Div, Boonton	N J
Meguro Denpa Sokki K K, Meguro-ku, Tokyo	Japan
Metric Engineering Div Greenray Indus Inc Mechanicsburg	Pa
Microdot, Inc, South Pasadena	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Micro Power Inc, Long Island City	N Y
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
New London Instr Co Div Crescent Comm Corp Newton	Mass
Oki Electric Industry Co Ltd, Tokyo	Japan
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polarad Electronic Instruments Div Long Island City	N Y
Radio Corp of America, Electronic Components, Harrison	N J
Radiometer A/S, Copenhagen NV	Denmark
Radio Research Co, Rockaway	NJ
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Servo Corp of America, Hicksville	N Y
Singer Co, Metrics Div, Bridgeport	Conn
Singer Co, Metrics Div, Gertsch Dept, Los Angeles	Cal
Smyth Research Associates, San Diego	Cal
Solid State Electronics Corp, Sepulveda	Cal
Squires-Sanders Inc, Liberty Corner	N J
Standard Telephones & Cables Ltd London WC 2	England
Stark Electronic Instruments Ltd, Ajax	Ont
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Sweep Systems Inc, Indianapolis	Ind
Taffet Electronics Inc, Woodside	N Y
Tecnica Elettronica Systems S a s, Milan	Italy
Tektronix Inc, Beaverton	Ore
Tel-Com Instruments Inc, Hanover	N J
Tel-Instrument Electronics Corp, Carlstadt	N J
Telonic Instruments Div Telonic Indus Inc Beech Grove	Ind
Texscan Corp, Indianapolis	Ind
Trak Microwave Corp, Tampa	Fla
Triplett Electrical Instrument Co, Bluffton	Ohio
Vector Engineering Inc, Springfield	N J
Wandel & Goltermann/Tel-Com, Hanover	N J
Weinschel Engineering Co Inc, Gaithersburg	Md
Winslow Tele-Tronics Inc, Asbury Park	NJ

GENERATORS, SIGNAL--R-F, SWEEP

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEATH CO, BENTON HARBOR	**MICH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
TEXSCAN CORP, INDIANAPOLIS	**IND** ADV PG 325
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Advanced Measurement Instruments, Inc Somerville	Mass
Alfred Electronics, Palo Alto	Cal
Anritsu Electric Co Ltd, Tokyo	Japan
Anzac Electronics, Waltham	Mass
Blonder-Tongue Labs Inc, Newark	N J
Canoga Electronics Corp, Chatsworth	Cal
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Clough-Brengle Co, Chicago	Ill
Compagnie Generale de Metrologie Haute Savoie	France
Data Royal Corp, San Diego	Cal
Decitron Electronics Corp, Brooklyn	N Y
Dowa Trading Co Ltd, Kobe	Japan
E F Assoc Inc, Scotch Plains	N J
EICO Electronic Instrument Co Inc, Brooklyn	NY
Engineering Associates, Dayton	Ohio
General Microwave Corp, Farmingdale	N Y
General Radio Co, West Concord	Mass
Genisco Technology Corp, Compton	Cal
Heath Co, Benton Harbor	Mich
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Jerrold Electronics Corp, Philadelphia	Pa
Kay Electric Co, Pine Brook	N J
Kruse-Storke Electronics, Mountain View	Cal
Marconi Instruments Div, English Electric Corp Englewood	N J
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Meguro Denpa Sokki K K, Meguro-ku, Tokyo	Japan
Micronetics Div Teledyne Systems Co, San Diego	Cal
Micro Power Inc, Long Island City	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
Probescope Co Inc, Syosset	N Y
Radio Corp of America, Electronic Components, Harrison	N J
Radio Research Co, Rockaway	NJ
Rohde & Schwarz Sales Co USA Inc, Passaic	N J

Sweep/signal Generators

500 Hz-2.4 GHz



Texscan
CORPORATION

2446 North Shadeland Avenue
Indianapolis, Indiana 46219
Phone (317) 357-8781
TWX: 810-341-3184

Servo Corp of America, Hicksville	N Y
Sodilec SA Salies-S A, 91 Palaiseau	France
Squires-Sanders Inc, Liberty Corner	N J
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Sweep Systems Inc, Indianapolis	Ind
Taffet Electronics Inc, Woodside	N Y
Tecnica Elettronica Systems S a s, Milan	Italy
Tel-Com Instruments Inc, Hanover	N J
Tel-Instrument Electronics Corp, Carlstadt	N J
Telonic Instruments Div Telonic Indus Inc Beech Grove	Ind
Texscan Corp, Indianapolis	Ind
Wandel & Goltermann/Tel-Com, Hanover	N J
Weinschel Engineering Co Inc, Gaithersburg	Md
Wiltron Co, Palo Alto	Cal

GENERATORS, SIGNAL--SINGLE SIDEBAND

ANAREN MICROWAVE INC, SYRACUSE	**N Y**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Anaren Microwave Inc, Syracuse	N Y
Cosmos Industries Inc, Brooklyn	N Y
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Dowa Trading Co Ltd, Kobe	Japan
E F Assoc Inc, Scotch Plains	N J
General Microwave Corp, Farmingdale	N Y
Marconi Div, English Electric Corp, New York	N Y
Micro-Radionics Inc, Van Nuys	Cal
Microwave Associates Inc, Burlington	Mass
Microwave Development Labs Inc Needham Heights	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Polarad Electronic Instruments Div Long Island City	N Y
Probescope Co Inc, Syosset	N Y
R F Communications Inc, Rochester	N Y
Shiba Electric Co Ltd, Woodside	N Y
Squires-Sanders Inc, Liberty Corner	N J
Technical Materiel Corp, Mamaroneck	N Y
VP Co, Pasadena	Cal
Wiltron Co, Palo Alto	Cal

GENERATORS, SIGNAL--SQUARE WAVE

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
C M L INC, PLAINFIELD	**N J**
FORK STANDARDS INC, WEST CHICAGO	**ILL**
HEATH CO, BENTON HARBOR	**MICH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH	**VA**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TEKTRONIX INC, BEAVERTON	**ORE**
Advanced Measurement Instruments, Inc Somerville	Mass
AIM Electronics Ltd, Cambridge	U K
Airmec Instruments Ltd, Buckinghamshire	England
Amark Corp, Plainview	N Y
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Applied Microwave Lab, Inc, Andover	Mass
Automation Development Co, Culver City	Cal
Autronics Corp, Pasadena	Cal
Berkeley Nucleonics Corp, Berkeley	Cal
Bicron Electronics Co, Canaan	Conn
Bioelectric Instruments Inc, Hastings-on-Hudson	N Y
California Instruments Corp, San Diego	Cal
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Chronetics Inc, Mount Vernon	N Y
C M L Inc, Plainfield	N J
Compagnie Generale de Metrologie Haute Savoie	France
Data Royal Corp, San Diego	Cal
Digital Electronics Inc, Plainview	N Y
Dowa Trading Co Ltd, Kobe	Japan
E-H Research Labs Inc, Oakland	Cal
Exact Electronics Inc, Hillsboro	Ore
Fisher-Akin Co, Manhattan Beach	Cal
Fork Standards Inc, West Chicago	Ill
General Radio Co, West Concord	Mass
Harvard Apparatus Co Inc, Millis	Mass
Heath Co, Benton Harbor	Mich
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Hickok Teaching Systems Inc, Cambridge	Mass
Horex Electronics Inc, Santa Monica	Cal
Industrial Components Inc, Beaverton	Ore
Krohn-Hite Corp, Cambridge	Mass
Lafayette Radio Electronics, Syosset	NY
Lee Co, Richard, New Providence	N J
Logitek Inc, Farmingdale	N Y
Measurement Control Devices Inc, Philadelphia	Pa
Measurements A McGraw-Edison Div, Boonton	N J
Melpar Inc, Special Prods Dept, Falls Church	Va
NH Research Inc, Santa Ana	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Optimation, Inc, Sun Valley	Cal
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radiometer A/S, Copenhagen NV	Denmark
Servomex Controls Ltd, Sussex	England
Seven Associates Inc, Sunnyvale	Cal
Shiba Electric Co Ltd, Woodside	N Y
Solid State Electronics Corp, Sepulveda	Cal
Spectral Dynamics Corp of San Diego, San Diego	Cal
Squires-Sanders Inc, Liberty Corner	N J
Stark Electronic Instruments Ltd, Ajax	Ont
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Tecnica Elettronica Systems S a s, Milan	Italy
Tektronix Inc, Beaverton	Ore
Telemet Co, Video Prods & Airborne Telemetry Amityville	N Y
Telstar Electronics Corp, Southold	N Y
Venner Electronics Ltd, New Malden, Surrey	Eng
Wavetek, San Diego	Cal

GENERATORS, SIGNAL--SWEEP CALIBRATOR

Airmec Instruments Ltd, Buckinghamshire	England
CELCO, Mahwah	N J
Data Royal Corp, San Diego	Cal
Don Bosco Electronics Inc, Hanover	N J
Dowa Trading Co Ltd, Kobe	Japan
Exact Electronics Inc, Hillsboro	Ore
General Radio Co, West Concord	Mass
Kay Electric Co, Pine Brook	N J
Logitek Inc, Farmingdale	N Y
Manufacturers Eng & Equip Corp, Warrington	Pa
Measurement Control Devices Inc, Philadelphia	Pa
Northeast Electronics Corp, Concord	N H
Radio Corp of America, Electronic Components, Harrison	N J
Shiba Electric Co Ltd, Woodside	N Y
Spectral Dynamics Corp of San Diego, San Diego	Cal
Squires-Sanders Inc, Liberty Corner	N J
Stark Electronic Instruments Ltd, Ajax	Ont
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taffet Electronics Inc, Woodside	N Y

GENERATORS, SIGNAL--TV, SYNCHRONIZING

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Ball Brothers Research Corp, Boulder	Colo
Blonder-Tongue Labs Inc, Newark	N J
Central Dynamics Ltd, Pte Claire	Que
Cohu Electronics Inc, San Diego	Cal
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dalto Electronics Corp, Norwood	N J
Dowa Trading Co Ltd, Kobe	Japan
Dynair Electronics Inc, San Diego	Cal
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus	N J
GPL Div Gen Precision Systems Inc, Pleasantville	N Y
Inelco S p A, Tavernerio	Italy
Litton Industries, Electron Tube Div, San Carlos	Cal
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Riker Video Div, Hauppauge	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Shiba Electric Co Ltd, Woodside	N Y
Sylvania Electric Prods Inc, Coml Elctns Div Bedford	Mass
Tele Measurements Inc, Clifton	N J
Telemet Co, Video Prods & Airborne Telemetry Amityville	N Y
Tel-Instrument Electronics Corp, Carlstadt	N J
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh	Pa

GENERATORS, SIGNAL--TV, VERTICAL INTERVAL TEST

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dalto Electronics Corp, Norwood	N J
Dowa Trading Co Ltd, Kobe	Japan
Marconi Co Ltd, Chelmsford	England
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Riker Video Div, Hauppauge	N Y
Tecnica Elettronica Systems S a s, Milan	Italy
Telemet Co, Video Prods & Airborne Telemetry Amityville	N Y

GENERATORS, SIGNAL--UHF, GLIDE SCOPE

HEWLETT-PACKARD, PALO ALTO	**CAL**
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Dowa Trading Co Ltd, Kobe	Japan
Hewlett-Packard, Palo Alto	Cal
Standard Telephones & Cables Ltd London WC 2	England
Telectro Systems Corp, Corona	N Y
Tel-Instrument Electronics Corp, Carlstadt	N J
Wayne Kerr Corp, Montclair	NJ
Winslow Tele-Tronics Inc, Asbury Park	NJ

GENERATORS, SIGNAL--VHF LOCALIZER

HEWLETT-PACKARD, PALO ALTO	**CAL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Dowa Trading Co Ltd, Kobe	Japan
Hewlett-Packard, Palo Alto	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Standard Telephones & Cables Ltd London WC 2	England
Tel-Instrument Electronics Corp, Carlstadt	N.J
Wayne Kerr Corp, Montclair	NJ
Winslow Tele-Tronics Inc, Asbury Park	NJ

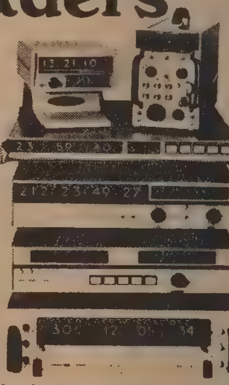
GENERATORS, SIGNAL--VHF OMNI-RANGE

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Anritsu Electric Co Ltd, Tokyo	Japan
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Dowa Trading Co Ltd, Kobe	Japan
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Piezo Technology Inc, Orlando	Fla
Standard Telephones & Cables Ltd London WC 2	England
Tel-Instrument Electronics Corp, Carlstadt	N J
Wayne Kerr Corp, Montclair	NJ
Winslow Tele-Tronics Inc, Asbury Park	NJ

GENERATORS--TIME CODE

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
SYSTRON DONNER CORP, CONCORD, CAL	**ADV PG 326**
Aerospace Research, Inc, Boston	Mass
American Astrionics Inc, Palo Alto	Cal
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Anritsu Electric Co Ltd, Tokyo	Japan
Astrodata Inc, Anaheim	Cal
Autronics Corp, Pasadena	Cal
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp, Communications Div, Towson	Md
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Bio-Physical Research Instruments Inc, Houston	Tex

Time code generator/readers,



Full line includes compact generator/readers priced at $1495, a digital clock for $675, portable battery-powered generators for field use, and high-precision generator/readers with automatic tape search equipment. Time can be located to the millisecond. Any serial time code can be supplied. All equipment is built with modern integrated circuits for maximum reliability at minimum cost.

Send for catalog

SYSTRON DONNER

Electronic Instrument Division,
888 Galindo St., Concord, Calif. 94520.
Phone (415) 682-6161. TWX 415-687-3200.

Bristol Motors-Timer Div Vocaline Corp of Amer Inc Old Saybrook	Conn
Chrono-Log Corp, Broomall	Pa
Coldspring Instrument Corp, Huntington	N Y
Control Logic Inc, Natick	Mass
Datatron Inc, Santa Ana	Cal
Delay Devices Corp, Watertown	Mass
Digitech Inc, Ridgefield	Conn
Dynalectron Corp Aerospace Prods Div San Leandro	Cal
E D P Corp, Orlando	Fla
Electro Circuits Inc, Lowell	Mass
Electronic Engineering Co of Cal, Santa Ana	Cal
Flow Corp, Watertown	Mass
Geo Space Systems Inc, St Petersburg	Fla
Haydon Co The, A W, Waterbury	Conn
Information Control Corp, El Segundo	Cal
J A C Electronics Ltd, Camberley	England
Logitek Inc, Farmingdale	N Y
Massey Dickinson Co Inc, Saxonville	Mass
NUS Corp, Underwater Sys Div, Paramus	N J
Parabam Inc, Hawthorne	Cal
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Space & Systems Div General Time Corp Stamford	Conn
Systems Research Labs Inc, Dayton	Ohio
Systron Donner Corp, Concord	Cal
Texas Instruments Incorporated, Dallas	Tex
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Vitro Labs Div Vitro Corp of America, W Orange	N J
Vocaline Co of America Inc, Old Saybrook	Conn

GENERATORS—ULTRASONIC SEE ULTRASONIC EQUIPMENT

GEOPHYSICAL APPARATUS

ASSOCIATED RESEARCH, INC, CHICAGO	**ILL**
GEOTECH A TELEDYNE CO, GARLAND	**TEX**
ITHACO INC, ITHACA	**N Y**
LEACH CORP, SOUTH PASADENA	**CAL**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
AB Atomenergi, 10072 Stockholm 43	Sweden
Aerospace Research, Inc, Boston	Mass
AIC Instruments Div AIC Corp, Houston	Texas
Alpine Geophysical Assoc Inc, Norwood	N J
Applied Magnetics Corp, Goleta	Cal
Associated Research, Inc, Chicago	Ill
Audio Instrument Co Inc, Union City	N J
A V Electronics, Inc, Fresno	Cal
Barringer Research Ltd, Rexdale	Ontario
Bissett-Berman Corp, Santa Monica	Cal
Canadian Research Institute, Don Mills	Ont
Chemalloy Electronics Corp, Santee	Cal
Chesapeake Instrument Corp, Shadyside	Md
Cryogenic Research Co Inc, Boulder	Colo
Decca Radar, Inc, New York	N Y
Dresser Systems, Inc, Houston	Tex
Dyna Metric Inc, Pasadena	Cal
E G & G Int'l Inc Geodyne Div, Waltham	Mass
Electro-Mechanics Co, Austin	Tex
Electronics Communications Div Atlantic Research Corp Alexandria	Va
Electro-Technical Labs Div Mandrel Indus Inc Houston	Tex
Eppley Lab Inc, Newport	R I
GCA Technology Div GCA Corp, Bedford	Mass
Geodyne Div EG&G Int'l, Waltham	Mass
Geophysical Instrument Co Div Georator Corp Manassas	Va
Geotech A Teledyne Co, Garland	Tex
Hastings-Raydist A Teledyne Co, Hampton	Va
Ikor, Inc, Burlington	Mass
Ithaco Inc, Ithaca	N Y
Kahl Scientific Instrument Corp, El Cajon	Cal
Leach Corp, South Pasadena	Cal
Mandrel Industries Inc, Houston	Tex
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nuclide Corp, AGV Div, Acton	Mass
Sharpe Instruments Div Scintrex Inc, Buffalo	NY
Spectrum Instruments Inc, Tuckahoe	N Y
Sprengnether Instrument Co Inc, W F, St Louis	Mo
Tensitron Inc, Harvard	Mass
Texas Instruments Incorporated, Dallas	Tex
Texas Instruments Inc Indl Prods Div, Houston	Tex
Thermionic Products Electronics Ltd Southampton	England
Varian, Palo Alto	Cal

GERMANIUM

EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
Aceto Chemical Co, Inc, Flushing	NY
Active Alloys Inc, Brooklyn	N Y
Alloys Unlimited Inc, Melville	N Y
Alpha Metals Inc, Jersey City	NJ
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerac Inc, Butler	Wis
Corco Chemical Corp, Fairless Hills	Pa
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Geoscience Instruments Corp, Mt Vernon	N Y
Hughes Aircraft Co, Newport Beach	Cal
Industrial Optics Corp, Newark	N J
Jones Optical Works Inc A D, Burlington	Mass
Kawecki Chemical Co, New York	N Y
Kester Solder Co, Chicago	Ill
Koch Light Labs Ltd, Colnbrook, Bucks	England
Laser Optics Inc, Danbury	Conn
Mackay Inc, A D, New York	N Y
Metal Ceram Inc, Mount Vernon	N Y
Polysciences Inc, Warrington	Pa
Recticon Corp, Conshohocken	Pa
Roosevelt Metal Co Inc, Brooklyn	N Y
Sanyo Electric Co Ltd, Osaka	Japan
Semi-Alloys Inc, Mt Vernon	N Y
Semiconductor Specialties Corp, Fair Lawn	NJ
Semi-Elements Inc, Saxonburg	Pa
Semimetals Inc, Westbury	N Y
Sylvania Elec Prods Inc, Chem & Met Div, Towanda	Pa
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Electronics Corp, Bradford	Pa
Wacker Chemical Corp, New York	N Y

GERMANIUM CRYSTALS SEE CRYSTALS—SEMICONDUCTOR

GERMANIUM DIODES SEE DIODES

GERMANIUM RECTIFIERS SEE RECTIFIERS

GERMANIUM TRANSISTORS SEE TRANSISTORS

GETTERS

Bram Metallurgical Chemical Co, Philadelphia	Pa
Cryogenic Engineering Co, Denver	Colo
Griffiths Electronics Inc, Linden	N J
King Laboratories Inc, Syracuse	N Y
Metal Ceram Inc, Mount Vernon	N Y
Ronson Metals Corp, Newark	N J
Semi-Alloys Inc, Mt Vernon	N Y
Ventron Corp Metal Hydrides Div, Beverly	Mass

GLASS & GLASS PARTS

FUSITE CORP, CINCINNATI, OHIO	**ADV PG 327**
Alloys Unlimited Inc, Melville	N Y
Anglo American Vulcanized Fibre Co Ltd London EC 1	England
Aremco Products Inc, Briarcliff Manor	N Y
Atlantic Optical Moulding Co, Dudley	Mass
Bausch & Lomb, Inc, Rochester	N Y
Bentley-Harris Mfg Co, Conshohocken	Pa
Broomer Research Corp, Plainview	N Y
Carler Products Corp, E Syracuse	N Y
Corning Glass Works, Corning	N Y
Diotran Pacific, Mountain View	Cal
Eastman Kodak Co, Rochester	N Y
Fischer & Porter Co, Warminster	Pa
Fish-Schurman Corp, New Rochelle	N Y
Friedrich & Dimmock, Inc, Mays Landing	N J
Fusite Corp, Cincinnati	Ohio
Gaertner Scientific Corp, Chicago	Ill
Gardner Lab Inc, Bethesda	Md
Garner Glass Co, Claremont	Cal
Griffiths Electronics Inc, Linden	N J
Grimes Mfg Co, Urbana	Ohio
Hanibal Glass, Inc, Santa Ana	Cal
Haydu Products Inc, Opa Locka	Fla
Industrial Optics Corp, Newark	N J
Interman Industrial Products Ltd, Garden City	NY
Jersey Technical Consultants, Morristown	NJ
Kahl Scientific Instrument Corp, El Cajon	Cal
Kontes Glass Co, Vineland	N J
Lancaster Glass Corp, Lancaster	Ohio
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
Livingston Electronic Div Jettron Prods Inc Hanbver	N J
Metal Ceram Inc, Mount Vernon	N Y
Metaplast Electrochemicals Corp, Bronx	N Y
Mindrum Precision Products, Cucamonga	Cal
O & S Research Inc, Riverton	N J
Owens-Illinois Consumer & Tech Products Div Toledo	Ohio
Pacific Universal Products Corp, Pasadena	Cal
PPG Industries, Pittsburgh	Pa
Razdow Labs Inc, Newark	N J
Semi-Alloys Inc, Mt Vernon	N Y
Semiconductor Specialties Corp, Fair Lawn	NJ
Sovcor Electronique, Le Vesinet 78	France
Space Rays Inc, Burlington	Mass
Syncor Products Co, Inc, Malden	Mass
Systems Research Labs Inc, Dayton	Ohio
Taylor Corp, Valley Forge	Pa
Technical Wire Products Inc, Cranford	N J
Topper Plastics Inc, Covina	Cal
20th Century Electronics Ltd New Addington, Surrey	England
Vacuum Ceramics Div, Cary	Ill
Veritron West Inc, Chatsworth	Cal
Vitta Corp, Wilton	Conn
Wilmad Glass Co Inc, Buena	N J
Zenith Optical Laboratory, Dobbs Ferry	N Y

GLASS ANNEALERS SEE OVENS

GLASS-BONDED MICA SEE MICA

FUSITE
CUSTOM
GLASS...

fast, economical
solution to your
sealing problems

Save problem-solving and materials costs with Fusite one-source capability in custom glasses, glass preforms and glass-ceramics for technical sealing applications. Fusite, the pioneer and world-leader in glass-to-metal technology, is the only sealer with formulating, smelting, and preforming experience. This means you get production-proven materials and the flexibility needed to meet almost any specification, quantity, or delivery schedule—at a competitive price. *Call Fusite first . . . at (513) 731-2020.*

FUSITE

GLASS-TO-METAL HERMETIC TERMINALS
GLASS / GLASS-CERAMIC PREFORMS & SUBSTRATES

6000 Fernview Ave., Cincinnati, Ohio 45212

Fusite N.V., Konigweg 16, Almelo, Holland; Fusite-Japan, Gotemga, Japan; Terminal Products, Hormigueros, Puerto Rico; or, Fusite GmbH, Dieselstrasse 5, Karlsruhe, West Germany.

GLASS-INSULATED WIRE SEE WIRE--HIGH-TEMPERATURE

GLASS-METAL SEALS SEE SEALS--METAL-TO-GLASS

GLASS REINFORCED LAMINATES SEE LAMINATES--COPPER-CLAD

GLASS-WORKING MACHINES SEE MACHINES--GLASS-WORKING

GLOVE BOXES

Advanced Purification System Co Inc, Great Neck	N Y
Agnew-Higgins Inc, Garden Grove	Cal
Air Control Inc, Norristown	Pa
Allied Engineering & Production Corp, Alameda	Cal
Baker Co, Inc, Biddeford	Me
Clean Room Products Inc, Farmingdale	N Y
Edcraft Industries Inc, Linden	N J
Fibre Products Div Ikelheimer-Ernst Inc, New York	N Y
Forma Scientific Inc, Marietta	Ohio
Hamilton Mfg Co, Two Rivers	Wis
Kahl Scientific Instrument Corp, El Cajon	Cal
Kewaunee Scientific Equipment, Adrian	Mich
Kirk & Blum Mfg Co, Cincinnati	Ohio
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Matthews Research Inc, Alexandria	Va
Metalab Equipment Co, Hicksville	N Y
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Pure Aire Corp of America, Van Nuys	Cal
Ramney Industries Corp, Farmingdale	N J
Ray Products Inc, Alhambra	Cal
Techni-Tool Inc, Philadelphia	Pa
Temperature Engineering Corp, Riverton	N J
T-M Vacuum Products, Riverton	N J
Vacuum/Atmospheres Corp, N Hollywood	Cal
Vacuum Industries Inc Sub GCA Corp, Somerville	Mass

GLOVES--DRY BOX

Abesto Corp, Bloomfield	N J
Advanced Purification System Co Inc, Great Neck	N Y
Air Control Inc, Norristown	Pa
Clean Room Products Inc, Farmingdale	N Y
Edcraft Industries Inc, Linden	N J
Edmont-Wilson, Coshocton	Ohio
Forma Scientific Inc, Marietta	Ohio
Gardner Lab Inc, Bethesda	Md
Goodrich Industrial Prods Co, B F, Akron	Ohio
Kewaunee Scientific Equipment, Adrian	Mich
Mann Co, Henry, Cornwell Heights	Pa
Matthews Research Inc, Alexandria	Va
Micronics Corp of America, Providence	RI
Minor Rubber Co Inc, Bloomfield	N J
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Ramney Industries Corp, Farmingdale	N J
Standard Glove Co of N J Inc, Newark	N J
Techni-Tool Inc, Philadelphia	Pa
Temperature Engineering Corp, Riverton	N J
Tenvac, Inc, Pembroke	Mass
Vacuum/Atmospheres Corp, N Hollywood	Cal
Vacuum Industries Inc Sub GCA Corp, Somerville	Mass

GOLD & GOLD ALLOYS--SHEETS, BARS & RODS

CONSOLIDATED REACTIVE METALS INC, MAMARONECK	**N Y**
NATIONAL LEAD CO, NEW YORK	**N Y**
NEY CO, J M, BLOOMFIELD	**CONN**
TECHNIC INC, CRANSTON	**RI**
WILLIAMS GOLD REFINING CO INC PRECIOUS METALS DIV BUFFALO	**N Y**
Alloys Unlimited Inc, Melville	N Y
Alpha Metals Inc, Jersey City	NJ
American Metal Climax Inc, New York	N Y
American Silver Co Div, Flushing	N Y
Anadite, Inc, South Gate	Cal
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Attleboro Refining Co, Inc, Attleboro	Mass
Bemol Co, Newton	Mass
Brainin Corp, C S, Mt Vernon	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cambridge Plating Co Inc, Belmont	Mass
Cerro Corp, New York	NY
Cohn Corp, Sigmund, Mt Vernon	N Y
Cominco American Inc Electronic Matls Div, Spokane	Wash
Consolidated Reactive Metals Inc, Mamaroneck	N Y
Dearborn Wire & Cable Co, Chicago	Ill
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Eastern Smelting & Refining Corp, Lynn	Mass
Electronic Space Products Inc, Los Angeles	Cal
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Handy & Harman, New York	N Y
Improved Seamless Wire Co, Providence	R I
Johnson Matthey & Mallory Ltd, Toronto 15	Ont
Koch Light Labs Ltd, Colnbrook, Bucks	England
Leach & Garner Co, Industrial Div, Attleboro	Mass
Lea-Ronal Inc, Freeport	N Y
Mackay Inc, A D, New York	N Y
Materials Research Corp, Orangeburg	N Y
Metal Ceram Inc, Mount Vernon	N Y
Metz Refining Co, South Plainfield	N J
National Lead Co, New York	N Y
Ney Co, J M, Bloomfield	Conn
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
Simmons Refining Corp, Chicago	Ill
Standard Metals Div Edw N Cook Plate Co, Inc North Attleboro	Mass
Summit Finishing Div Beryllium Corp, Thomaston	Conn
Technic Inc, Cranston	RI
Techni-Tool Inc, Philadelphia	Pa
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
United Refining & Smelting Co, Franklin Park	Ill
Var-Lac-Oid Chemical Co, Elizabeth	N J
Vitta Corp, Wilton	Conn
Western Gold & Platinum Co, Belmont	Cal
Wilkinson Co, Westlake Village	Cal
Williams Gold Refining Co Inc Precious Metals Div Buffalo	N Y

GOLD-PLATING SEE PLATING SERVICES

GOLD PREFORMS SEE PREFORMS

GOLD TUBING SEE TUBING--METALLIC

GOLD WIRE SEE WIRE--BARE

GONIOMETERS

Andonian Associates, Inc, Waltham	Mass
Baldwin Electronics Inc, Little Rock	Ark
Cedar Engineering Div Control Data Corp Minneapolis	Minn
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Electro-Mec Instrument Corp, Watertown	Conn
Electronics & Alloys Inc, Englewood	N J
Gaertner Scientific Corp, Chicago	Ill
LaPine Scientific Co, Chicago	Ill
Metox, Paris 20	France
Nilsen Mfg Co, Haines City	Fla
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Philips Electronic Instruments, Anal Inst, Mount Vernon	N Y
Picker Nuclear, White Plains	N Y
Scherr Tumico Inc, St James	Minn
Singer Co, Diehl Div, Somerville	N J
States Electronics Corp, Bludworth Marine Div Linden	N J
Stocker & Yale Inc, Beverly	Mass
Sunbeam Electronics, Fort Lauderdale	Fla
Theta Instrument Corp, Fairfield	N J
Wilcox Electric Co Inc, Kansas City	Mo
Zeiss Inc, Carl, New York	N Y

GOVERNORS--MOTOR SEE CONTROLS--MOTOR SPEED

GRAPHIC RECORDERS SEE RECORDERS--GRAPHIC

GRAPHITE

PFIZER MINERALS, PIGMENTS & METALS DIV NEW YORK	**NY**
STACKPOLE CARBON CO, ST MARYS	**PA**
Acheson Colloids Co, Port Huron	Mich
Alloys Unlimited Inc, Melville	N Y
Aremco Products Inc, Briarcliff Manor	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Bel-Ray Co, Inc, Farmingdale	N J
Bemol Co, Newton	Mass
Carbone Corp, Boonton	N J
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park	N J
Electrofilm, Inc, North Hollywood	Cal
Grafo Colloids Corp, Sharon	Pa
Kawecki Chemical Co, New York	N Y
Mackay Inc, A D, New York	N Y
Metal Ceram Inc, Mount Vernon	N Y
Met-Bay Inc, Bay City	Mich
3M Company, St Paul	Minn
Ohio Carbon Co, Cleveland	Ohio
Pfizer Minerals, Pigments & Metals Div, New York	NY
Poco Graphite, Inc, Garland	Tex
Semi-Alloys Inc, Mt Vernon	N Y
Stackpole Carbon Co, St Marys	Pa
Ultra Carbon Corp, Bay City	Mich
Union Carbide Corp, Carbon Products Div New York	N Y

GREASES--LUBRICATING SEE LUBRICANTS: SILICONES

GRID-DIP METERS SEE METERS--FREQUENCY

GROMMETS

STIMPSON CO INC, EDWIN B, BROOKLYN	**N Y**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Abbott Products, Inc, College Point	N Y
Abesto Corp, Bloomfield	N J
Abscoa Industries, Inglewood	Cal
Allmetal Screw Products Co Inc, Garden City	N Y
Amatom Electronic Hardware, New Rochelle	N Y
Anaconda American Brass Co, Waterbury	Conn
Baer Co, N S, Hillside	N J
Barry Controls Div Barry Wright Corp, Watertown	Mass
Bendix Corp Rubber Prods Plant, Toledo	Ohio
Budwig Mfg Co, Ramona	Cal
Channel Master Corp, Ellenville	N Y
Chase Metals Service Div Chase Brass & Copper Co Cleveland	Ohio
Chemelec Products, Inc, Cherry Hill	N J
Chomerics, Inc, Arlington	Mass
Cinch-Monadnock, City of Industry	Cal
Crane Packing Co, Morton Grove	Ill
Eagle Electric Mfg Co Inc, Long Island City	N Y
Electrovert Inc, Mt Vernon	N Y
Eljay Corp, Baltimore	Md
Ethylene Corp, Murray Hill	N J
Fastex Div Illinois Tool Works, Des Plaines	Ill
Federal Screw Products Inc, Chicago	Ill
Fel Pro Inc Div Felt Products Mfg Co, Skokie	Ill
Fischer Special Mfg Co, Cincinnati	Ohio
Franklin Fibre-Lamitex Corp, Wilmington	Del
G C Electronics Div, Hydrometals Inc, Rockford	Ill
GTI Corp, Clover Industries Div, Tonawanda	N Y
Heyman Mfg Co, Kenilworth	N J
Icore Electro-Plastics, Sunnyvale	Cal
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Insulating Shapes Inc, Bronx	N Y
Lord Mfg Co, Div Lord Corp, Erie	Pa
Mechanical Rubber Products Co, Inc, Warwick	NY
Minor Rubber Co Inc, Bloomfield	N J
Moxness Products Inc, Racine	Wis
Norrich Plastics Corp, Roosevelt	N Y
Parker Metal Goods Co, Worcester	Mass
Penn Fibre & Specialty Co, Philadelphia	Pa
Plastiglide Mfg Corp, Santa Monica	Cal
Product Components Corp, Hastings-on-Hudson	N Y
Pylon Co, Inc, Attleboro	Mass
Richards Metal Products Inc, Wolcott	Conn
Sanyo Electric Co Ltd, Osaka	Japan
Sealectro Corp, Mamaroneck	N Y
Segal Inc, Edward, New York	N Y
Severna Div Amphenol Corp, East Orange	N J
Shamban & Co, W S, Los Angeles	Cal
Smith Inc, Herman H, Brooklyn	N Y
Spaulding Fibre Co Inc, Tonawanda	N Y
Standard Polymer Inc, Van Nuys	Cal
Stimpson Co Inc, Edwin B, Brooklyn	N Y
USECO Div, Litton Industries, Van Nuys	Cal
USM Fastener Co Div United Shoe Machy Corp Shelton	Conn
Waldom Electronics Inc, Chicago	Ill
Waterbury Pressed Metal Co, Waterbury	Conn
Weckesser Co Inc, Chicago	Ill
Western Sky Industries, Hayward	Cal
Wilmington Fibre Specialty Co, New Castle	Del

GROUND-PLANE ANTENNAS SEE ANTENNAS--COMMUNICATION

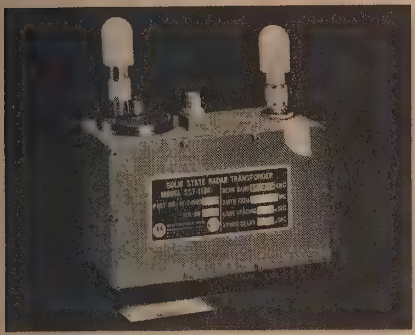
GROUND RODS SEE RODS--GROUND

GUIDANCE SYSTEMS--ASTRO

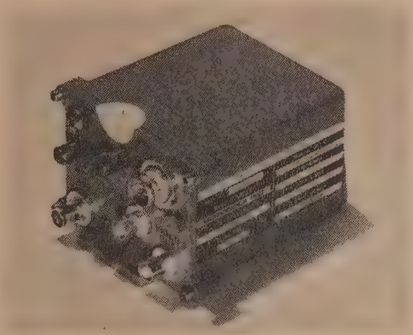
MOTOROLA, GOVT ELECTRONICS DIV, SCOTTSDALE ARIZ	**ADV PG 329**
Acco Gyro Div, Amer Chain & Cable Co Inc Waterbury	Conn
Astro-Space Labs Inc, Huntsville	Ala
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Bausch & Lomb, Inc, Rochester	N Y
Bendix Corp Navigation & Control Div, Teterboro,	N J
Brown Engineering-A Teledyne Co, Huntsville	Ala
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Conductron Corp, Ann Arbor	Mich
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Farrand Optical Co Inc, Bronx	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Goodyear Aerospace Corp, Akron	Ohio
GPL Div Gen Precision Systems Inc, Pleasantville	N Y
Hi-Altitude Instrument Co, Inc., Denver	Colo
Honeywell Inc, Computer Control Div Framingham	Mass
Hycon, Monrovia	Cal
Industrial Control Co, Farmingdale	N Y
Kollsman Instrument Corp, Syosset	N Y
Kollsman Instrument Ltd, Southampton	England
Kollsman Motor Corp, Dublin	Pa
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Motorola, Govt Electronics Div, Scottsdale	Ariz
Northrop Nortronics, Palos Verdes Peninsula	Cal
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
TRW Systems Group, Redondo Beach	Cal
Westinghouse Electric Corp, Aerospace Div Baltimore	Md

The World's Finest Tracking Transponders

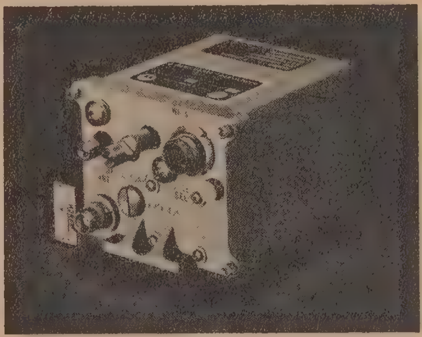
Our transponders are used world-wide from the poles to the equator in a wide variety of missile, airborne, and marine applications. In addition to *immediate—off the shelf—delivery* on all standard items, we specialize in quick reaction design variations for specific requirements.



CRYSTAL VIDEO TRANSPONDERS • S-C-X-Ku-Ka bands and any cross-band combinations.



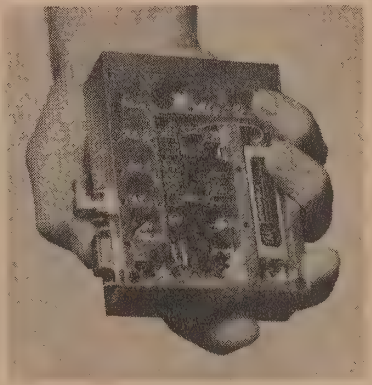
X-BAND RECEIVERS • adapt to existing radars to provide a beacon mode at a fraction of the cost of redesigning and reworking the radar.



SUPERHETERODYNE TRANSPONDERS • S-C-X-Ku-Ka bands and any crossband combinations.

Target/Drone Command Systems Delivery in 8½ Months A.R.O.

MINTACTS (Mobile Integrated Telemetry and Command Tracking System) is a completely integrated and balanced state-of-the-art target/drone command system. It effectively combines the telemetry, command and tracking functions in both the airborne and ground units, and can greatly expand the overall mission capability of both present and future vehicles.



The MINTACTS up-link-receiver (C-band) shows rugged state-of-the-art construction. A decade of drone/target control experience has gone into the development of this versatile, new system.

For more information about these items write: Motorola, Instrumentation Products Office, 8201 E. McDowell Road, Scottsdale, Arizona 85252 ☐ For immediate action call collect. Instrumentation Products Office (602) 947-8181

MOTOROLA

Government Electronics Division / Instrumentation Products Office

GUIDANCE SYSTEMS--INERTIAL

MOTOROLA, GOVT ELECTRONICS DIV, SCOTTSDALE ARIZ	**ADV PG 329**
SYSTRON DONNER CORP, CONCORD	**CAL**
Acco Gyro Div, Amer Chain & Cable Co Inc Waterbury	Conn
A C Electronics Div GM, Milwaukee	Wis
Alcatel, Paris Berne	France
Astro-Space Labs Inc, Huntsville	Ala
Bausch & Lomb, Inc, Rochester	N Y
Bell Aerosystems Co, Buffalo	N Y
Bendix Corp Navigation & Control Div, Teterboro,	N J
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Conductron Corp, Ann Arbor	Mich
Cosmos Industries Inc, Brooklyn	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Ferranti Electric Inc, Plainview	N Y
Ferranti, Ltd, Lancashire	England
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
General Electric Co Ordnance Dept, Pittsfield	Mass
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Goodyear Aerospace Corp, Akron	Ohio
GPL Div Gen Precision Systems Inc, Pleasantville	N Y
Hartman Systems Co Inc, Huntington Station	N Y
Humphrey Inc, San Diego	Cal
Kollsman Motor Corp, Dublin	Pa
Larson Aero Development, Concord	Cal
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Litton Systems (Canada) Ltd, Rexdale	Ont
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Motorola, Govt Electronics Div, Scottsdale	Ariz
Northrop Nortronics, Palos Verdes Peninsula	Cal
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Reeves Instrument Div, DCA, Garden City	N Y
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
States Electronics Corp, Bludworth Marine Div Linden	N J
Systron Donner Corp, Concord	Cal
Texas Instruments Incorporated, Dallas	Tex
TRW Systems Group, Redondo Beach	Cal
Westinghouse Electric Corp, Aerospace Div Baltimore	Md

GUIDANCE SYSTEMS—INFRARED SEE INFRARED EQUIPMENT

GUIDANCE SYSTEMS--RADAR

MOTOROLA, GOVT ELECTRONICS DIV, SCOTTSDALE ARIZ	**ADV PG 329**
Bell Aerosystems Co, Buffalo	N Y
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Brown Engineering-A Teledyne Co, Huntsville	Ala
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Cosmos Industries Inc, Brooklyn	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Energy Systems Inc, Palo Alto	Cal
Ferranti, Ltd, Lancashire	England
General Electric Co, Aerospace Elctns Dept, Utica	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Goodyear Aerospace Corp, Akron	Ohio
GPL Div Gen Precision Systems Inc, Pleasantville	N Y
ITT Gilfillan Inc, Van Nuys	Cal
Kobe Industries Corp, Kobe	Japan
Kollsman Motor Corp, Dublin	Pa
Marconi Div, English Electric Corp, New York	N Y
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Micronetics Div Teledyne Systems Co, San Diego	Cal
Moran Instrument Corp, Pasadena	Cal
Motorola, Govt Electronics Div, Scottsdale	Ariz
M Tech Corp, Pomona	Cal
NanoFast, Inc, Chicago	Ill
Northrop Nortronics, Palos Verdes Peninsula	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Reeves Instrument Div, DCA, Garden City	N Y
Sanders Associates, Inc, Nashua	N H
Sedco Systems Inc, Farmingdale	N Y
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Sierra Research Corp, Buffalo	N Y
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Tasker Industries, Van Nuys	Cal
Texas Instruments Incorporated, Dallas	Tex
TRW Systems Group, Redondo Beach	Cal
Vega Precision Labs, Vienna	Va
Westinghouse Electric Corp, Aerospace Div Baltimore	Md

GUIDANCE SYSTEMS--RADIO

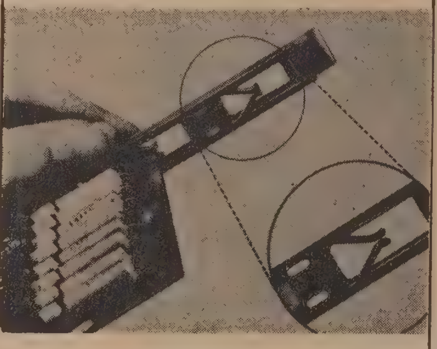
MOTOROLA, GOVT ELECTRONICS DIV, SCOTTSDALE ARIZ	**ADV PG 329**
Babcock Electronic Corp, Costa Mesa	Cal
Barrett Electronics Corp, Northbrook	Ill
Bell Aerosystems Co, Buffalo	N Y
Beukers Labs Inc, John M, Medford	NY
Conductron Corp, Ann Arbor	Mich
Cosmos Industries Inc, Brooklyn	N Y
Goodyear Aerospace Corp, Akron	Ohio
Hastings-Raydist A Teledyne Co, Hampton	Va
Kobe Industries Corp, Kobe	Japan
Lear Siegler Inc, Santa Monica	Cal
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Marconi Div, English Electric Corp, New York	N Y
Motorola, Govt Electronics Div, Scottsdale	Ariz
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Precision Mecanique Labinal, 93 Saint-Ouen	France
RCA, Defense Electronic Products, Moorestown	N J
Sierra Research Corp, Buffalo	N Y
Sperry Flight Systems Div Sperry Rand Corp Phoenix	Ariz
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
TRW Systems Group, Redondo Beach	Cal
Wilcox Electric Co Inc, Kansas City	Mo

GUIDES--PRINTED CIRCUIT BOARD

CALABRO PLASTICS INC, UPPER DARBY, PA	**ADV PG 330**
IBM, INDUSTRIAL PRODUCTS MARKETING, NEW YORK	**NY**
Atlee Corp, Winchester	Mass
Auto-Swage Products, Inc, Shelton	Conn
Birtcher Corp, Industrial Div, Monterey Park	Cal
Buckeye Stamping Co, Columbus	Ohio
Calabro Plastics Inc, Upper Darby	Pa
Canoga Electronics Corp, Chatsworth	Cal
Circuit Structures Lab, Burbank	Cal
Douglas Electronics Inc, San Leandro	Cal
Elco Corp, Willow Grove	Pa
Ferranti, Ltd, Lancashire	England
IBM, Industrial Products Marketing, New York	NY
International Electronic Research Corp, Burbank	Cal
Lake Engineering Co Ltd, Scarborough	Ont
Metox, Paris 20	France
Rosselli Del Turco Rossello, Rome	Italy
Scanbe Mfg Corp, Monterey Park	Cal
Taurus Corp, Lambertville	N J
Vector Electronic Co Inc, Los Angeles	Cal
Vero Electronics Ltd, Southampton	England
Zero Mfg Co, Burbank	Cal

UNITRACK®

CIRCUIT CARD GUIDES



U.S. Pat. #3231785 Canadian & For. Pat. Pending

Advantages

- Snap into position without fasteners or tools.
- Stay in place under stress to 150 G's.
- Fail-safe gripping of cards .050" to .100" thick.
- Efficient cooling—75% open in track area.
- Dampen severe vibrations to 2000 cps.
- One piece molded polycarbonate strong, dimensionally stable, excellent dielectrics and service temperature (250°F).

UNITRACK Card Guides are available in six sizes from stock in standard black, or, on special order in other colors and sizes. Send for Free Catalog.

CALABRO UNITRACK, Dept. E

8738 WEST CHESTER PIKE
UPPER DARBY, PA. 19082
Phone: (215) 789-3820

GUNS--SOLDERING SEE TOOLS--SOLDERING

GUY CABLE SEE WIRE--GUY

GYRATORS--MICROWAVE

Airtron, Div of Litton Industries, Inc, Morris Plains	N J
E & M Labs, North Hollywood	Cal
Fujitsu Ltd, Tokyo	Japan
Guide Industries Inc, Sun Valley	Cal
Melabs, Palo Alto	Cal
Rantec Div Emerson Electric Co, Calabasas	Cal
Sedco Systems Inc, Farmingdale	N Y

GYRO COMPASSES SEE COMPASSES--GYRO

GYROS--DIRECTIONAL

Acco Gyro Div, Amer Chain & Cable Co Inc Waterbury	Conn
Aircraft Components Inc, Benton Harbor	Mich
Aircraft Radio Corp, Boonton	N J
Allen Business Machines Inc R C Instr Div Grand Rapids	Mich
Applied Devices Corp, College Point	n y
Assembly Engineers Div Rucker Co, Los Angeles	Cal
Aviation Instrument Mfg Corp, Houston	Tex
Bendix Corp Navigation & Control Div, Teterboro,	N J
Chrysler Corp, Missile Div, Detroit	Mich
Clary Corp, San Gabriel	Cal
Conductron Corp, Ann Arbor	Mich
Conrac Corp, New York	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Decca Radar, Inc, New York	N Y
Electronic Specialty Co, Los Angeles	Cal
Ferranti Electric Inc, Plainview	N Y
Ferranti, Ltd, Lancashire	England
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
General Design Inc, Sun Valley	Cal
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Gyrotron Corp, Waterbury	Conn
Humphrey Inc, San Diego	Cal
Industrial Control Co, Farmingdale	N Y
Larson Aero Development, Concord	Cal
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Memcor Div LTV Electrosystems Inc, Huntington	Ind
National Water Lift Co, Instr & Control Oper Grand Rapids	Mich
Northrop Nortronics, Palos Verdes Peninsula	Cal
Precision Mecanique Labinal, 93 Saint-Ouen	France
Smiths Industries North America Ltd, Jamaica	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Sperry Flight Systems Div Sperry Rand Corp Phoenix	Ariz
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Standard Precision Div Electronic Commun Inc Wichita	Kan
U S Time Corp, Waterbury	Conn
Whittaker Corp Technical Products Div, Chatsworth	Cal

GYROS--DISPLACEMENT

SYSTRON DONNER CORP, CONCORD	**CAL**
Acco Gyro Div, Amer Chain & Cable Co Inc Waterbury	Conn
Aeroflex Labs, Inc, Plainview	N Y
Aircraft Components Inc, Benton Harbor	Mich
Allen Business Machines Inc R C Instr Div Grand Rapids	Mich
Applied Devices Corp, College Point	n y
Assembly Engineers Div Rucker Co, Los Angeles	Cal
Aviation Instrument Mfg Corp, Houston	Tex
Bell Aerosystems Co, Buffalo	N Y
Bendix Corp Navigation & Control Div, Teterboro,	N J
Chrysler Corp, Missile Div, Detroit	Mich
Clary Corp, San Gabriel	Cal
Conductron Corp, Ann Arbor	Mich
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Electronic Specialty Co, Los Angeles	Cal
Ferranti Electric Inc, Plainview	N Y
Ferranti, Ltd, Lancashire	England
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
General Design Inc, Sun Valley	Cal
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Gyrotron Corp, Waterbury	Conn
Humphrey Inc, San Diego	Cal
Larson Aero Development, Concord	Cal
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Memcor Div LTV Electrosystems Inc, Huntington	Ind
National Water Lift Co, Instr & Control Oper Grand Rapids	Mich
Smiths Industries North America Ltd, Jamaica	N Y

Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Sperry Flight Systems Div Sperry Rand Corp Phoenix	Ariz
Standard Precision Div Electronic Commun Inc Wichita	Kan
Systron Donner Corp, Concord	Cal
U S Time Corp, Waterbury	Conn
Whittaker Corp Technical Products Div, Chatsworth	Cal

GYROS--INTEGRATING

SYSTRON DONNER CORP, CONCORD	**CAL**
Acco Gyro Div, Amer Chain & Cable Co Inc Waterbury	Conn
A C Electronics Div GM, Milwaukee	Wis
Applied Devices Corp, College Point	n y
Bell Aerosystems Co, Buffalo	N Y
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Conductron Corp, Ann Arbor	Mich
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Ferranti, Ltd, Lancashire	England
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Gyrotron Corp, Waterbury	Conn
Humphrey Inc, San Diego	Cal
Larson Aero Development, Concord	Cal
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Memcor Div LTV Electrosystems Inc, Huntington	Ind
Northrop Nortronics, Palos Verdes Peninsula	Cal
Nortronics Div, Northrop Corp, Prec Prods Dept Norwood	Mass
Reeves Instrument Div, DCA, Garden City	N Y
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Standard Precision Div Electronic Commun Inc Wichita	Kan
Systron Donner Corp, Concord	Cal
TRW Systems Group, Redondo Beach	Cal
U S Time Corp, Waterbury	Conn

GYROS--RATE

SYSTRON DONNER CORP, CONCORD	**CAL**
Acco Gyro Div, Amer Chain & Cable Co Inc Waterbury	Conn
Aircraft Radio Corp, Boonton	N J
Allen Business Machines Inc R C Instr Div Grand Rapids	Mich
Applied Devices Corp, College Point	n y
Assembly Engineers Div Rucker Co, Los Angeles	Cal
Bendix Corp Navigation & Control Div, Teterboro,	N J
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Chrysler Corp, Missile Div, Detroit	Mich
Conductron Corp, Ann Arbor	Mich
Conrac Corp, New York	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Fairchild Controls, Hicksville	N Y
Ferranti Electric Inc, Plainview	N Y
Ferranti, Ltd, Lancashire	England
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
General Design Inc, Sun Valley	Cal
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Gyrotron Corp, Waterbury	Conn
Humphrey Inc, San Diego	Cal
Larson Aero Development, Concord	Cal
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Memcor Div LTV Electrosystems Inc, Huntington	Ind
National Water Lift Co, Instr & Control Oper Grand Rapids	Mich
Northrop Nortronics, Palos Verdes Peninsula	Cal
Nortronics Div, Northrop Corp, Prec Prods Dept Norwood	Mass
Raytheon Co, Government Marketing, Lexington	Mass
Reeves Instrument Div, DCA, Garden City	N Y
Sanders Associates, Inc, Nashua	N H
Smiths Industries North America Ltd, Jamaica	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Special Devices Labs Inc, South Orange	N J
Sperry Flight Systems Div Sperry Rand Corp Phoenix	Ariz
Standard Precision Div Electronic Commun Inc Wichita	Kan
Systron Donner Corp, Concord	Cal
TRW Systems Group, Redondo Beach	Cal
U S Time Corp, Waterbury	Conn
Whittaker Corp Technical Products Div, Chatsworth	Cal

EBG — the industry's store.

Your marketplace for products

GYROS--SUSPENSION, AIR

Acco Gyro Div, Amer Chain & Cable Co Inc Waterbury	Conn
Alcatel, Paris 8eme	France
Applied Devices Corp, College Point	n y
Assembly Engineers Div Rucker Co, Los Angeles	Cal
Bendix Corp Navigation & Control Div, Teterboro,	N J
Chrysler Corp, Missile Div, Detroit	Mich
Conductron Corp, Ann Arbor	Mich
Conrac Corp, New York	N Y
Ferranti, Ltd, Lancashire	England
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Northrop Nortronics, Palos Verdes Peninsula	Cal
Nortronics Div, Northrop Corp, Prec Prods Dept Norwood	Mass
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y

GYROS--SUSPENSION, GAS

Acco Gyro Div, Amer Chain & Cable Co Inc Waterbury	Conn
Alcatel, Paris 8eme	France
Applied Devices Corp, College Point	n y
Assembly Engineers Div Rucker Co, Los Angeles	Cal
Chrysler Corp, Missile Div, Detroit	Mich
Conductron Corp, Ann Arbor	Mich
Conrac Corp, New York	N Y
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Litton Systems (Canada) Ltd, Rexdale	Ont
Northrop Nortronics, Palos Verdes Peninsula	Cal
Nortronics Div, Northrop Corp, Prec Prods Dept Norwood	Mass
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y

GYRO TESTERS SEE TESTERS--GYRO

HALL EFFECT DEVICES--GENERATORS

BELL, INC F W, COLUMBUS	**OHIO**
American Aerospace Controls Inc, Farmingdale	N Y
A & M Instruments Inc, Great Neck	N Y
Bell, Inc F W, Columbus	Ohio
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Halmar Electronics Inc, Columbus	Ohio
LaPine Scientific Co, Chicago	Ill
Magnetics Div Instrument Systems Corp Huntington	NY
Nuclide Corp, AGV Div, Acton	Mass
Ohio Semitronics Inc, Columbus	Ohio
Origin Electric Co Ltd, Tokyo	Japan
Scientific Columbus Inc, Columbus	Ohio
Siemens America Inc, New York	N Y
Smiths Industries North America Ltd, Jamaica	N Y
Takeda Riken Industry Co Ltd, Tokyo	Japan

HALL EFFECT DEVICES--MAGNETORESISTORS

American Aerospace Controls Inc, Farmingdale	N Y
Atomic Labs, Div Cenco Instr Corp, Chicago	Ill
Magnetics Div Instrument Systems Corp Huntington	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Siemens America Inc, New York	N Y

HALL EFFECT DEVICES--MULTIPLIERS

BELL, INC F W, COLUMBUS	**OHIO**
American Aerospace Controls Inc, Farmingdale	N Y
Bell, Inc F W, Columbus	Ohio
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Halmar Electronics Inc, Columbus	Ohio
Magnetics Div Instrument Systems Corp Huntington	NY
Ohio Semitronics Inc, Columbus	Ohio
Scientific Columbus Inc, Columbus	Ohio
Siemens America Inc, New York	N Y
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J

EBG — one stop shopping center.

Find a product listing and advertiser's message together.

HALL EFFECT DEVICES--PROBES

BELL, INC F W, COLUMBUS	**OHIO**
TEKTRONIX INC, BEAVERTON	**ORE**
Alpha Scientific Labs Inc, Oakland	Cal
American Aerospace Controls Inc, Farmingdale	N Y
Atomic Labs, Div Cenco Instr Corp, Chicago	Ill
Bell, Inc F W, Columbus	Ohio
Central Scientific Co, Chicago	Ill
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Electro Impulse Lab Inc, Red Bank	N J
Electron-Ohio Inc, Cleveland	Ohio
Empire Scientific Corp, Garden City	N Y
Magnetics Div Instrument Systems Corp Huntington	NY
Ohio Semitronics Inc, Columbus	Ohio
Quantum Electronics Corp, San Ramon	Cal
RFL Industries Inc, Instrumentation Div, Boonton	N J
Scientific Columbus Inc, Columbus	Ohio
Siemens America Inc, New York	N Y
Tektronix Inc, Beaverton	Ore
Wac Line Div Simmonds Precision Prods, Dayton	Ohio

HANDLES

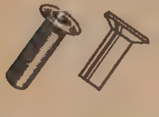
CARR FASTENER CO DIV UNITED-CARR INC, CAMBRIDGE MASS	**ADV PGS 284,285**
CHASSIS-TRAK INC, INDIANAPOLIS	**IND**
CONTROL KNOBS INC, JAMAICA	**N Y**
DIMCO-GRAY CO, DAYTON	**OHIO**
PRECISION METAL PRODUCTS CO OF MALDEN INC STONEHAM	**MASS**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
SECS, INC, LONG ISLAND CITY	**N Y**
Abacus Electronics Corp, Dobbs Ferry	N Y
Allmetal Screw Products Co Inc, Garden City	N Y
Amatom Electronic Hardware, New Rochelle	N Y
Atomite Electronics Corp, Roosevelt	N Y
Barnes Engineering Co, Santa Ana	Cal
Bendix Corp Environmental Science Div, Baltimore	Md
Blinn Co Inc, Delbert, Pomona	Cal
Bud Radio Inc, Willoughby	Ohio
Cambridge Thermionic Corp, Cambridge	Mass
Camloc Div Rex Chainbelt Inc, Paramus	N J
Carr Fastener Co Div United-Carr Inc, Cambridge	Mass
Chassis-Trak Inc, Indianapolis	Ind
Churchill Corp, Melrose	Mass
Concord Electronics Corp, New York	N Y
Control Knobs Inc, Jamaica	N Y
Davies Molding Co, Harry, Chicago	Ill
D-Cemco Inc, Burbank	Cal
Dimco-Gray Co, Dayton	Ohio
Eddy Mfg Co, Burbank	Cal
Electro Rack Products Co, Anaheim	Cal
Eljay Corp, Baltimore	Md
Forney Industries Inc, Fort Collins	Colo
Franklin Fibre-Lamitex Corp, Wilmington	Del
Goe Engineering Co, City-of-Industry	Cal
Hartwell Corp, Los Angeles	Cal
Hunter Industries, Santa Fe Springs	Cal
Jan Hardware Mfg Co Inc, Long Island City	N Y
Lake Engineering Co Ltd, Scarborough	Ont
Micro Parts Inc, Los Angeles	Cal
Nielsen Hardware Corp, Hartford	Conn
Norrich Plastics Corp, Roosevelt	N Y
O'Hara Metal Products Co, San Francisco	Cal
Olympic Plastics Co, Los Angeles	Cal
Paul & Stein Bros Inc, F H, New York	N Y
Philadelphia Handle Co Inc, Camden	N J
Precision Metal Products Co of Malden Inc Stoneham	Mass
Premier Metal Products Co Inc, New York	N Y
Product Components Corp, Hastings-on-Hudson	N Y
Scientific-Atlanta Inc, Atlanta	Ga
Secs, Inc, Long Island City	N Y
Sessions & Son, J H, Bristol	Conn
Sierra Electric Inc, Gardena	Cal
S K G Associates Inc, Boston	Mass
Smith Inc, Herman H, Brooklyn	N Y
Southco Inc, Lester	Pa
Stafford Mfg Co Inc, Brooklyn	N Y
Tekna Products Co, Rochester	N Y
Upson Tools Inc, Rochester	N Y
USECO Div, Litton Industries, Van Nuys	Cal
Vemaline Products Co, Inc, Wycoff	N J
V M P Inc, Sun Valley	Cal
Winslow Tele-Tronics Inc, Asbury Park	NJ
Wyco Metal Products, North Hollywood	Cal
Zero Mfg Co, Burbank	Cal

CIRCON Miniature & Sub-Miniature CIRCON

HARDWARE • INDICATOR LAMPS • COMPONENTS

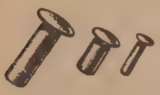
Premium Quality Electronic and Instrument Miniature Precision Hardware

EYELETS — Rolled Instrument & Funnel Flange Gold Plated and Shot Burnished



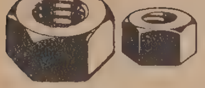
Every eyelet a precision product with absolute uniformity from part to part.
Lengths from 1/16″ to 7/16″ in 1/32″ increments.
New MICROLETS now available in lengths from 1/64″ to 3/16″ in 1/32″ increments.

RIVETS & TERMINAL LUGS



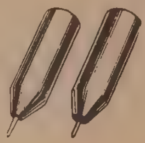
For instrument, electronic, and printed circuit applications involving space requirements smaller than normal subminiature hardware permits. Sizes from 1/16″ x 1/32″ and up in 1/32″ increments. Shot burnished and 24 carat gold plated.

NUTS



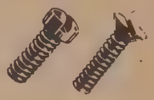
Instrument nuts in sizes from #000 to #4. Precision manufactured of controlled formula nonmagnetic brass cadmium plated.

EYELET SETTING TOOLS



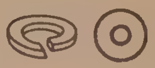
Superior quality tools designed to provide flexible inexpensive tooling for precision setting of Circon eyelets in laboratory, model shop, instrument room and limited production applications. May be used in drill press, arbor press, kick press, punch press, air press, or they may be used as simple hand or vise-held tools.

SCREWS



Precision Instrument Screws of cadmium plated brass or stainless steel. Instrument head (oval modified fillister) or flat head. (82°). Size from #000 to #4 — Lengths from 1/8″ and up in 1/16″ increments. Taps available for all screw sizes.

WASHERS

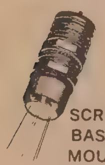


Split Lock and Flat instrument washers in sizes #000 to #4. Precision manufactured to be smooth, clean and free from burrs. Insulating washers formed of an improved grade of XXXP modified phenolic laminate. Suitable for use in vigorous environment, at all frequencies. Sizes from #00 to #4.

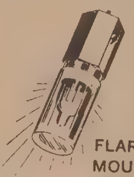
MINIATURE & SUB-MINIATURE INDICATOR LAMPS

For Printed Circuit and Regular Applications

POLA LENS
VARIABLE INTENSITY INDICATORS
Used with Circon sub-miniature lampholders, the POLA-LENS makes it possible to vary the incident light from full brightness to near extinction to meet ambient requirements. Gradual change in lighting control is accomplished by simple hand rotation of the lens.



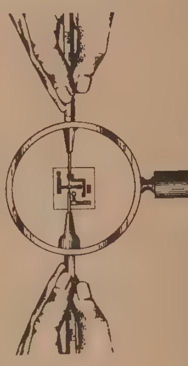
SCREW BASE MOUNTING



FLARE-MOUNT

- **SMALLER SIZE** — Only 3/8″ diameter. Minimum projection from front and rear of panel.
- **WIRELESS INSTALLATION** in printed circuit design and simplified wiring in conventional installations.
- **WIDE RANGE OF LIGHT INTENSITIES** for both low-level and high-level applications.
- **STANDARD COLORS** — Lenses available from stock include red, green, yellow, blue, white, translucent and clear.
- **ALL VOLTAGES AVAILABLE** — 1.3, 2.7, 6, 14, 28 volts and neon. Single or double-contact models.
- **MESSAGE INDICATIONS** — including numerals, warnings, letters and labels.
- **REPLACEABLE LAMPS** of standard construction having long life and proven performance.

SUPPLIED WITH EITHER INCANDESCENT OR NEON BULBS

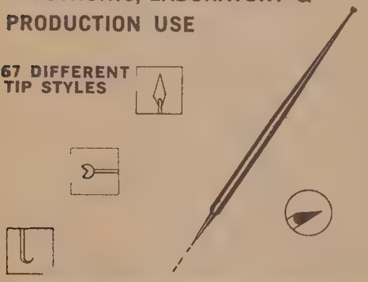


microProbe for ELECTRICAL TESTING

A hand probe designed for testing contacts in small and inaccessible areas. Ideal for microscopic electrical testing. Supplied with a phone tip to fit your favorite meter or instrument and a banana plug adapter. 20 different tip configurations include a .005″ diameter micropoint for fine work, sharp points, forks, loops and hooks, each in either straight shank, 45° or 90° bend.

microTools FOR INSTRUMENT, ELECTRONIC, LABORATORY & PRODUCTION USE

67 DIFFERENT TIP STYLES



CUSTOM TIP — Selection from 67 different styles. Each tip designed and engineered to do a specific microelectronic or instrument job in the best way.
FINEST MATERIALS — Selected tool steels. Permanent metal handles. Entire tip area behind working element is 24 carat gold plated and shot-burnished to insure corrosion resistance and a contaminant free tool.
PRECISION MANUFACTURE — Cutting edges, points and working surfaces precision forged, machined, ground or honed to microscopic perfection.
SMALL SIZE — Active working elements from 0.001 to 0.1 in size. Hinged lid boxes and individual tip protection provides visual selection with easy use and storage.
Interchangeable tips include: Needle Point, Knife, Spade, Chisel, Graver, 45°, 90° corner and bifurcated Manipulators, Hooks, Loop, Burnisher, Scale, Brush, Spatula, Probe and Taps.

GOLDEN SOLDER BALLS

Precise Spheres of Eutectic Solder for Specialized Soldering Needs

Designed to be used in the Pulse-Dot System, the correct amount of solder can be chosen from twelve graded sizes of balls from .005″ to .060″ in diam. 24K gold plated. Gold color disappears when melting temperature is reached. Balls contain no fluxing agent permitting user to choose most suitable flux. Many other uses in the engineering and instrument field.

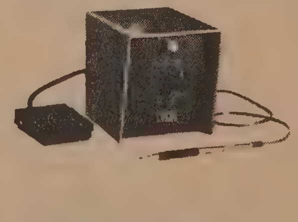
Precision Quality Products for Industry

FACTORY DIRECT SERVICE BY AIR

CIRCON COMPONENT CORPORATION

SANTA BARBARA AIRPORT • GOLETA, CALIFORNIA
AREA CODE: 805 967-1113

STOCKING DISTRIBUTORS
IN PRINCIPAL CITIES



SPECIFICATIONS FOR PULSE • DOT CONTROLLER

Anodic Finish — Black & Gray

Size	6″ x 6″ x 5″
Weight	6 Pounds
Input	120 VAC
Output	0 - 6.0 VAC
Power	0 - 18 Watts Max.

PULSE • DOT SYSTEM

A new way to microsolder with the smallest tool on the market

The Pulse Controller regulates temperature from 200 to 1800°F by setting the dial. The Solder Loop is a microminiature heating element which does not require tinning or dressing. Pencil size handle balanced for delicate manipulation under the microscope. Available in three sizes: One watt for thin film microcircuits, Two watt for micro diodes and Three watt for small transistor leads.

SPECIFICATIONS FOR PULSE • DOT LOOP

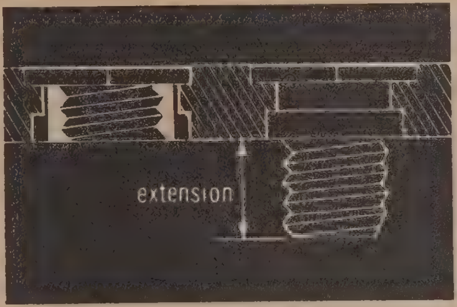
Size	Loop Radius	Working Wattage
Micro Solder Loop	.025 in.	1
Micro-Min Solder Loop	.040 in.	2
Miniature Solder Loop	.050 in.	3

HARDWARE--ELECTRONIC SEE ALSO SPECIFIC ITEM DESIRED

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
BIRNBACH CO INC, FREEPORT, N Y	**ADV PG 333**
CIRCON COMPONENT CORP, GOLETA, CAL	**ADV PG 332**
CONTROL KNOBS INC, JAMAICA	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
GRAYHILL INC, LA GRANGE	**ILL**
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES	**CAL**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
KINETRON CORP, ASBURY PARK	**N J**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
POMONA ELECTRONICS CO INC, POMONA	**CAL**
PRECISION METAL PRODUCTS CO OF MALDEN INC, STONEHAM MASS	**ADV PG 333**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Abacus Electronics Corp, Dobbs Ferry	N Y
Abtronics, Inc, Livermore	Cal
Accurate Electronics Corp, Elyria	Ohio
Acoustica Associates Inc, Los Angeles	Cal
Admiral Controls Inc, Los Angeles	Cal
Aerovox Corp Distr Sales, New Bedford	Mass
Aikow Shoji Kaisha Ltd, Osaka	Japan
Allmetal Screw Products Co Inc, Garden City	N Y
Alloys Unlimited Inc, Melville	N Y
All Star Products Inc, Defiance	Ohio
Amatom Electronic Hardware, New Rochelle	N Y
Apahouser Corp of N E, Boston	Mass
Atomite Electronics Corp, Roosevelt	N Y
Auto-Swage Products, Inc, Shelton	Conn
Barnes Engineering Co, Santa Ana	Cal
Barry Controls Div Barry Wright Corp, Watertown	Mass
Birnbach Co Inc, Freeport	N Y
Birtcher Corp, Industrial Div, Monterey Park	Cal
Blinn Co Inc, Delbert, Pomona	Cal
Braun Tool & Instrument Co Inc, H, Hawthorne	N J
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Bruce Industries Inc, Gardena	Cal
Buckeye Stamping Co, Columbus	Ohio
Bud Radio Inc, Willoughby	Ohio
Burklyn Co, Los Angeles	Cal
Cambridge Thermionic Corp, Cambridge	Mass
Camloc Div Rex Chainbelt Inc, Paramus	N J
Canoga Electronics Corp, Chatsworth	Cal
Channel Master Corp, Ellenville	N Y
Churchill Corp, Melrose	Mass
Circon Component Corp, Goleta	Cal
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
C & N Electrical Ltd, Hants	England
Colbert Die Cast Co Inc, South Gate	Cal
Concord Electronics Corp, New York	N Y
Control Knobs Inc, Jamaica	N Y
Daburn Electronics & Cable Corp, Bronx	N Y
D-Cemco Inc, Burbank	Cal
Decca Radar, Inc, New York	N Y
Dialight Corp, Brooklyn	N Y
Electronic Applications Co, Pine Brook	N J
Electronic Molding Corp, Pawtucket	R I
Electronics Communications Div Atlantic Research Corp Alexandria	Va
Emporium Specialties Co Inc, Cleveland	Ohio
Extrudonics Inc, New Brunswick	N J
Fansteel Metallurgical Corp, North Chicago	Ill
Feay Co, Neal, Goleta	Cal
Federal Screw Products Inc, Chicago	Ill
Ferranti, Ltd, Lancashire	England
GCA Technology Div GCA Corp, Bedford	Mass
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Gemp Terminals Inc, Yonkers	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Goe Engineering Co, City-of-Industry	Cal
Grayhill Inc, La Grange	Ill
Great Eastern Metal Products Co, Yonkers	N Y
Gries Reproducer Co Div Coats & Clark Inc New Rochelle	N Y
Hartwell Corp, Los Angeles	Cal
Heli-Coil Products, Div Heli-Coil Corp, Danbury	Conn
Hi-Lo Mfg Corp, Chicago	Ill
Icore Electro-Plastics, Sunnyvale	Cal
Ikor, Inc, Burlington	Mass
International Electronic Research Corp, Burbank	Cal
International Rectifier Semiconductor Div El Segundo	Cal
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
Janel Inc, Stirling	N J
Jan Hardware Mfg Co Inc, Long Island City	N Y
Jettron Products Inc, Hanover	N J
Jonathan Mfg Co, Fullerton	Cal
Jones Electronics, Hiram, Burbank	Cal
Kelox Industries, East Boston	Mass
Keystone Electronics Corp, New York	N Y
Kinetron Corp, Asbury Park	N J
Korry Mfg Co, Seattle	Wash
Lake Engineering Co Ltd, Scarborough	Ont
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Leecraft Mfg Co Inc, Long Island City	N Y
Mandex Mfg Co Inc, Chicago	Ill
Methode Electronics Inc, Chicago	Ill
Mohawk Electronics Corp, Frederica	Del
Morris Co, J I, Southbridge	Mass
Multi - Flex Seals Inc, Bronx	N Y
National Radio Co Inc, Melrose	Mass
National Tel-Tronics Corp, Great Neck	N Y
Norrich Plastics Corp, Roosevelt	N Y
Northrop Nortronics, Palos Verdes Peninsula	Cal
O'Hara Metal Products Co, San Francisco	Cal
Olympic Plastics Co, Los Angeles	Cal
Panduit Corp, Tinley Park	Ill
Parker Metal Goods Co, Worcester	Mass

CUT PRODUCTION TIME AND COSTS WITH PRESSERT

PERMANENT CAPTIVE HARDWARE



No welding or soldering is needed to provide permanent, wear-resistant, stainless steel captive hardware for thin metal panels, parts or chassis. Presserts are simply pressed into pre-drilled holes. Cold flow of metal locks them in so they don't pull, push or torque out. Available in stud, flush, extension, self-locking and floating nut form.

DRILL
PRESS
THAT'S IT!

SEND FOR NEW FREE CATALOG AND SAMPLES

PMP
PRECISION METAL
STAINLESS STEEL
CAPTIVE
HARDWARE

PMP
PRECISION METAL PRODUCTS

PRECISION METAL PRODUCTS CO.
41 ELM ST. STONEHAM, MASS. 02180
Telephone: (Area Code 617) 438-3650

BIRNBACH HARDWARE

A Complete Line of Quality Hardware
ANY QUANTITY
IMMEDIATE DELIVERY

JACKS • PLUGS • BINDING POSTS
CLIPS • SOCKETS • CONNECTORS
TERMINALS • FASTENERS • INSULATORS
TRANSISTOR HEAT SINKS & RETAINERS
SPACERS • SWITCHES

From your local authorized distributor, or contact:

BIRNBACH

177 HANSE AVE., FREEPORT, L. I., N. Y. 11520
(516) 223-8400
427 S. HINDRY STREET, INGLEWOOD, CALIF. 90301
(213) 673-2900

MILGRAY STOCKS HARDWARE

Every kind you can imagine. (And some you can't.) From stockpiles strategically located for overnight or faster delivery to anywhere in the world. We stock more so you can worry less. A call to your local Milgray man will start the motion.

MILGRAY

Milgray/New York 212-YU 9-1600
Milgray/Delaware Valley 215-BA 8-2000
Milgray/Washington 301-864-1111
Milgray/Cleveland 216-881-8800
Milgray/International 212-YU 9-1600
Milgray/New England, Inc. 617-272-6800

Penn Engineering & Mfg Corp, Doylestown	Pa
Phelps Mfg Div, Heli-Coil Corp, Danbury	Conn
Philadelphia Handle Co Inc, Camden	N J
Philmore Mfg Co Inc, Richmond Hill	N Y
Pomona Electronics Co Inc, Pomona	Cal
Positive Connector Co, Derby	Conn
Precision Metal Products Co of Malden Inc Stoneham	Mass
Premier Metal Products Co Inc, New York	N Y
Product Components Corp, Hastings-on-Hudson	N Y
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Raytheon Co, Government Marketing, Lexington	Mass
Razdow Labs Inc, Newark	N J
Robison Electronics Inc, Hawthorne	Cal
Robot Industries Inc, Dearborn	Mich
S & A Electronics Inc, Toledo	Ohio
Sanyo Electric Co Ltd, Osaka	Japan
Scanbe Mfg Corp, Monterey Park	Cal
Seastrom Mfg Co Inc, Glendale	Cal
Shigoto Industries Ltd, New York	N Y
Shur-Lok Corp, Santa Ana	Cal
Sierra Electric Inc, Gardena	Cal
Sierra Research Corp, Buffalo	N Y
S K G Associates Inc, Boston	Mass
Smith Inc, Herman H, Brooklyn	N Y
Southco Inc, Lester	Pa
Sphere Co Inc, Little Falls	N J
Staffall, Inc, Providence	R I
Stafford Mfg Co Inc, Brooklyn	N Y
Standard Precision Inc Accuride Div, Santa Fe Springs	Cal
Stanley Industrial Hardware Div Stanley Works New Britain	Conn
Thermalloy Co, Dallas	Tex
Tricraft Products Corp, Chicago	Ill
Trott Electronics Inc, Rochester	N Y
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
USECO Div, Litton Industries, Van Nuys	Cal
Vector Electronic Co Inc, Los Angeles	Cal
Vernaline Products Co, Inc, Wycoff	N J
V M P Inc, Sun Valley	Cal
Waldom Electronics Inc, Chicago	Ill
Western Coil & Electrical Co, Racine	Wisc
Wyco Metal Products, North Hollywood	Cal
Youngwood Electronic Metals Inc, Youngwood	Pa
Zero Mfg Co, Burbank	Cal
Zierick Mfg Corp, Mount Kisco	N Y

HARMONIC ANALYZERS SEE ANALYZERS—HARMONIC

HARMONIC SIGNAL GENERATORS SEE GENERATORS—SIGNAL

HARNESSES--WIRE SEE ALSO CABLE ASSEMBLIES

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AMPHENOL, CHICAGO, ILL	**ADV PG 334**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT	**IOWA**
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES	**CAL**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL**
MESON ELECTRONICS CO, INC, ROCHESTER	**N Y**
Abbott & Co, Prospect	Ohio
Abilities Inc, Albertson	N Y
Accurate Electronics Corp, Elyria	Ohio
AC Electronics Co, Los Angeles	Cal
Acme Products Co, Kensington	Conn
Action Systems Co Div Conn Consolidated Inds Inc Meriden	Conn
Advanced Electronics, Inc, Rocky Hill	Conn
Advance Instrument Corp, Belmar	N J
Advance Ross Electronics Corp, Chicago	Ill
Aero/Space Devices, Inc, Miami	Fla
Aerospace Systems A Teledyne Co, Fairmont	Minn
Aetna Electronics Corp, North Branch	N J
Aircraft & Electronic Specialties, Inc, Plainfield	Ind
Allegri-Tech Inc, Nutley	N J
Almor Development Co Inc, Long Beach	Cal
American Cable Electronic Supply Inc, Sacramento	Cal
American Circuit-Tronics Corp, Royal Oak	Mich
American Electric Cable Co, Holyoke	Mass
American Systems, Inc, Van Nuys	Cal
Amphenol, Endicott	NY
Amphenol, Chicago	Ill
Amtron Inc, Midlothian	Ill
Anchor Specialty Mfg Co Inc, Teterboro	N J
Astro-Space Labs Inc, Huntsville	Ala
Atomite Electronics Corp, Roosevelt	N Y
Ault, Inc, Minneapolis	Minn
Aviation Electric Ltd, St Laurent, Montreal	Que
Avionics Ltd, Niagara-on-the-Lake	Ont
B & B Electronics Corp, Gardena	Cal
BEC Inc, Brooklyn	NY
BeMan Mfg, Inc, New Cumberland	Pa
Bendix Corp Electrical Components Div, Sidney	N Y
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bruno-New York Industries Corp, New York	N Y
Burtek Inc, Tulsa	Okla
Cable Electric Products Inc, Providence	R I
Caltron Industries, Berkeley	Cal
Cardinal Control Co Inc, Kensington	Conn
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Castall Research Lab Inc, Brockton	Mass
Clare-Electroseal Corp, Des Plaines	Ill
Cole-Hersee Co, S Boston	Mass
Columbia Wire Products Co, Chicago	Ill
Computing Devices of Canada Ltd, Ottawa	Ont
Condor Industrial Corp, West Chicago	Ill
Consolidated Controls Corp, El Segundo	Cal
Co-Operative Industries Inc, Chester	N J
Cordex, Inc, Mount Eaton	Ohio
Crest Mfg Co, East Berlin	Conn
Daburn Electronics & Cable Corp, Bronx	N Y
Dalto Electronics Corp, Norwood	N J
D-Cemco Inc, Burbank	Cal
Dearborn Wire & Cable Co, Chicago	Ill
DeSoto Electrical Products, DeSoto	Mo
Dietz Design Inc, Belton	Mo
Digital Sensors Inc, Los Angeles	Cal
Dill Products Inc, Norristown	Pa
DuCom Inc, Salem	Mass
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Eastern Specialty Co, Philadelphia	Pa
Elasco Inc, Boston	Mass
Electro Connective Systems Inc, Brockton	Mass
Electronics Inc of Pa, Willow Grove	Pa
Electronized Chemicals Corp, Burlington	Mass
Electro-Oceanics, Santa Monica	Cal
Electrospace Corp, Glen Cove	N Y
Electro-Standards Labs Inc, Miami	Fla
Electrovert Inc, Mt Vernon	N Y
Elgin Electronics Inc, Erie	Pa
Empire Electronics Co Inc, Paterson	N J
Estes Engineering Co, Gardena	Cal
Fairchild Cable Div Fairchild Camera & Inst, Joplin	Mo
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairhill Products Corp, Philadelphia	Pa
Fidelity Amplifier Co, Chicago	Ill
First Electronics Corp, Boston	Mass
Flexible Circuits Inc, Warrington	Pa
Flexible Products Inc, North St Paul	Minn
Florida General Electronics Inc, Daytona Beach	Fla
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Flow Electronic Cable Corp, Cambridge	Mass
Frost Engineering Development Corp, Englewood	Colo
Gavitt Wire & Cable Co Div Amerace Corp Brookfield	Mass
General Coil Products Corp, Brooklyn	N Y
General Laboratory Assoc Inc, Norwich	N Y
Gladding Corp, South Otselic	N Y
Godfrey Mfg Co, Chicago	Ill
Golden Technology Inc, Santa Rosa	Cal
Gunnar Labs Inc, Bradenton	Fla
Hallett, Inglewood	Cal
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Holyoke Wire & Cable Corp, Holyoke	Mass
Honeywell Inc Electropac Operation, Peterborough	N H
Icore Electro-Plastics, Sunnyvale	Cal

Specify Amphenol.
The leading name
in Cable
Assemblies.
High reliability through
know-how and experience.
The utmost in laboratory facilities to
simulate all environmental conditions.
Let the Amphenol team help you
get the special you need.

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL™

Ikor, Inc, Burlington	Mass
Inso Electronic Products Inc, Nutley	N J
International Energy Conversion Inc, Garland	Tex
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
Jan Hardware Mfg Co Inc, Long Island City	N Y
Jettron Products Inc, Hanover	N J
JPM Co, Lewisburg	Pa
Judd Wire Div Electronized Chem Corp Turners Falls	Mass
Jutco Inc, Gardena	Cal
Keiser's Industries Inc, Mt Holly Springs	Pa
Keltec Industries, Alexandria Div, Alexandria	Va
Lane Industries,Electronics Div, North Hollywood	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Leecraft Mfg Co Inc, Long Island City	N Y
Link Group Gen Precision Sys Inc, Binghamton	N Y
Manger Electric Co Inc, Stamford	Conn
Marlin Mfg Corp, Cleveland	Ohio
McCullough Aero Corp, Hawthorne	Cal
Mercury Electronics Corp, York	Pa
Meson Electronics Co, Inc, Rochester	N Y
Methode Electronics Inc, Chicago	Ill
Microdot, Inc, South Pasadena	Cal
Micro-Magna Electronics Corp, Cleveland	Ohio
Micro Metrics Inc, Paterson	N J
Miles Industries Inc, Garnerville	N Y
3M Company, St Paul	Minn
M & M Electronics Corp, Amityville,	N Y
Mohawk Electronics Corp, Frederica	Del
Molecular Research Inc, Palm Beach Gardens	Fla
Morey Corp, Downers Grove	Ill
M-T Electronics Co, San Leandro	Cal
Mutron Corp, Brockton	Mass
National Wire & Cable Corp, Los Angeles	Cal
Nelson Electronic Labs Inc, Plano	Tex
Newman Corp, M M, Marblehead	Mass
Nichols Co Ltd, R H, Downsview	Ont
Omega Industries Inc, Newport Beach	Cal
Omega Laboratories Inc, Rowley	Mass
Omega Leads Inc, Culver City	Cal
Pacific Automation Products Inc, Glendale	Cal
Pacific Electricord Co, Gardena	Cal
Paraplegics Mfg Co Inc, Bensenville	Ill
Pentronics Corp, Dorchester	Mass
Permonite Mfg Co, Chicago	Ill
Philips Electronics Industries Ltd, Toronto 17	Ont
Philway Products Inc, Ashland	Ohio
Physical Sciences Corp, Arcadia	Cal
Positive Connector Co, Derby	Conn
Private Tele Communications Inc, Chicago	Ill
Pyrometer Co of America Inc, Penndel	Pa
Randam Electronics Inc, Cincinnati	Ohio
Raven Industries Inc, Sioux Falls	SD
Raychem Corp, Menlo Park	Cal
Rectico Inc, Cedar Grove	N J
Rem-Tronics Inc, Silver Creek	N Y
Renco Electronics Inc, Hicksville	N Y
Ren Electronics Corp, South Hadley Falls	Mass
Republic Industrial Corp, Lathrup Village	Mich
Revere Corp of America, Wallingford	Conn
Ross Co, Milton, Southampton	Pa
Ross Matthews Corp, Fall River	Mass
Rowe Industries Inc, Toledo	Ohio
Runzel Cord & Wire Co, Chicago	Ill
Sag Harbor Industries,Inc, Sag Harbor	N Y
Saturn Electronics Corp, Garland	Tex
Saxton Products Inc, Congers	N Y
Schjeldahl Co, G T, Northfield	Minn
Servotronics Inc, Buffalo	N Y
Seven Associates Inc, Sunnyvale	Cal
Sheltered Workshops Inc, Santa Monica	Cal
Shigoto Industries Ltd, New York	N Y
Sierra Electric Inc, Gardena	Cal
Siltronics Inc, Oakmont	Pa
Sittler Corp, Chicago	Ill
Smith Inc, Herman H, Brooklyn	N Y
Space Craft Inc, Huntsville	Ala
Spectra-Strip Corp, Garden Grove	Cal
Spedcor Electronics Inc, Glendale	N Y
Strandberg Engineering Labs Inc, Greensboro	N C
Stratocon Corp, Newark	N J
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Swiss Industries, Costa Mesa	Cal
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Taffet Electronics Inc, Woodside	N Y
Technical Components Co Inc, Chicago Ridge	Ill
Teletronics Labs Inc, El Segundo	Cal
Thermal Wire & Electronics Corp, South Hero	Vt
Tilton Electronics Corp, Winnisquam	N H
T M C Systems & Power Corp, Springfield	Va
Topping Electronics Ltd, Toronto 17	Ont
Triangle Electronic Mfg Co Inc, Poughkeepsie	N Y
Tri-Dex Co, Visalia	Cal
Trott Electronics Inc, Rochester	N Y
Ucinite Co Div United-Carr, Newtonville	Mass
United-Carr Inc, Plaxial Cable Dept Newton Highlands	Mass
Univox Corp, New York	N Y
Utility Communication Systems Inc, Essington	Pa
Vacco Electronics Div, Vacco Industries South El Monte	Cal
Viking Instruments Inc, East Haddam	Conn
Waber Electronics Inc, Philadelphia	Pa
Wavetronics Industries Inc, West Pittston	Pa
Welco Electric Corp, South Bend	Ind
Westmoreland Plastics Co, Latrobe	Pa
Workman Electronic Products Inc, Sarasota	Fla
Zippertubing Co, Los Angeles	Cal

HARNESS LACING SEE CORDS—LACING

HEADERS--HERMETICALLY SEALED (RELAY & TRANSFORMER)

AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
ELECTRICAL INDUSTRIES, DIV PHILIPS ELCTNS & PHARM IND CORP, MURRAY HILL	**N J**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
FUSITE CORP, CINCINNATI	**OHIO**
TORWICO ELECTRONICS, INC, LAKEWOOD	**N J**
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
Alberox Corp, New Bedford	Mass
Alloys Unlimited Inc, Melville	N Y
American Lava Corp, Chattanooga	Tenn
Astro Seal Inc, S El Monte	Cal
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Castall Research Lab Inc, Brockton	Mass
Ceramaseal Inc, Sub Lapp Insulator Co Inc New Lebanon Center	N Y
Ceramics International Corp, Mahwah	NJ
Chemical & Aerospace Products Inc, Wilmington	Cal
Crystal Components Plant, GTI Corp, Warren	Pa
Detoronics Corp, S El Monte	Cal
Device Seals Inc, Sun Valley	Cal
Eimac Div, Varian Associates, San Carlos	Cal
Electrical Industries, Div Philips Elctns & Pharm Ind Corp Murray Hill	N J
Electrical Plastics Corp, Lyndhurst	N J
Electronic Molding Corp, Pawtucket	R I
Electronic Seals Co Inc, Van Nuys	Cal
El-Tronics Inc Warren Components Div, Warren	Pa
Fusite Corp, Cincinnati	Ohio
Gemp Terminals Inc, Yonkers	N Y
Glasseal Products Co Inc, Linden	N J
Great Eastern Metal Products Co, Yonkers	N Y
Greenfield Components Corp, Greenfield	Mass
Hermaseal Co Inc, Elkhart	Ind
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead	Cal
Hermetite Corp, Avon	Mass
Impectron Inc, New York	N Y
Isotronics Inc, New Bedford	Mass
Lake Engineering Co Ltd, Scarborough	Ont
Latronics Corp, Latrobe	Pa
LCC-CICE, 93 Montreuil-sous-Bois	France
Livingston Electronic Div Jettron Prods Inc Hanover	N J
Metalized Ceramics Corp, Providence	R I
Micro Tech Mfg Inc, Worcester	Mass
Mitronics Inc, Murray Hill	N J
Networks Electronic Corp, Chatsworth	Cal
Physical Sciences Corp, Arcadia	Cal
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Royal Worcester Industrial Ceramics Inc, New York	NY
Schjeldahl Co, G T, Northfield	Minn
Schrack Electrical Sales Corp, New York	N Y
Seal-A-Metic, Inc, Haledon	N J
Sealtron Corp, Cincinnati	Ohio
Silicone Seals Inc, Chicago	Ill
Sphere Co Inc, Little Falls	N J
Staffall, Inc, Providence	R I
Statham Instruments Inc, Los Angeles	Cal
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Texas Instruments Incorporated, Dallas	Tex
Thermal Controls Inc, Belleville	N J
Torwico Electronics, Inc, Lakewood	N J
Uni-Seal Div G-V Controls, Dover	N J
United-Carr Inc, Boston	Mass
U S Stoneware Inc, Orville Plant, Orrville	Ohio
Vacuum Ceramics Div, Cary	Ill
Veritron West Inc, Chatsworth	Cal
Wagner Industries, San Jose	Cal

HEADERS--TRANSISTOR, DIODE & INTEGRATED CIRCUITS

BARNES CORP, LANSDOWNE	**PA**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
FUSITE CORP, CINCINNATI	**OHIO**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
NGK SPARK PLUG CO LTD, MIZUHO-KU NAGOYA	**JAPAN**
PRIMO CO LTD, TOKYO	**JAPAN**
Acme Chemicals & Insulation, New Haven	Conn
Alloys Unlimited Inc, Melville	N Y
Barnes Corp, Lansdowne	Pa
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Castall Research Lab Inc, Brockton	Mass
Ceramaseal Inc, Sub Lapp Insulator Co Inc New Lebanon Center	N Y
Ceramics International Corp, Mahwah	NJ
Chemical & Aerospace Products Inc, Wilmington	Cal
Consolidated Ceramics & Metalizing Corp Flemington	N J
Corning Glass Works, Corning	N Y
Crystal Components Plant, GTI Corp, Warren	Pa
Do-Rite Mfg Co, East Paterson	N J
Eimac Div, Varian Associates, San Carlos	Cal
Electrical Plastics Corp, Lyndhurst	N J
Electronic Molding Corp, Pawtucket	R I
El-Tronics Inc Warren Components Div, Warren	Pa
EPD Industries Inc, Long Beach	Cal
Frenchtown/CFI Inc, Frenchtown	N J
Fusite Corp, Cincinnati	Ohio
General Electric Co, ECSO, Schenectady	N Y
Glasseal Products Co Inc, Linden	N J
Greenfield Components Corp, Greenfield	Mass
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead	Cal
Hermetite Corp, Avon	Mass
Impectron Inc, New York	N Y
Isotronics Inc, New Bedford	Mass
Latronics Corp, Latrobe	Pa
LCC-CICE, 93 Montreuil-sous-Bois	France
Metalized Ceramics Corp, Providence	R I
Micro Science Assoc, Mountain View	Cal
Micro Tech Mfg Inc, Worcester	Mass
NGK Spark Plug Co Ltd, Mizuho-ku Nagoya	Japan
Primo Co Ltd, Tokyo	Japan
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Robinson-Nugent Inc, New Albany	Ind
Ross Co, Milton, Southampton	Pa
Royal Worcester Industrial Ceramics Inc, New York	NY
Seal-A-Metic, Inc, Haledon	N J
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Texas Instruments Incorporated, Dallas	Tex
Uni-Seal Div G-V Controls, Dover	N J
United-Carr Inc, Boston	Mass
U S Dielectric Inc, Worcester	Mass
USECO Div, Litton Industries, Van Nuys	Cal
Vacuum Ceramics Div, Cary	Ill
Veritron West Inc, Chatsworth	Cal

HEADS--INDEXING, ROTARY

SUPERIOR ELECTRIC CO THE, BRISTOL	**CONN**
Custom Scientific Instruments Inc, Whippany	N J
Falcon Machine & Tool Co Inc, North Wilmington	Mass
Kahle Engineering Co, Union City	N J
Magnetic Heads, Inc, Minneapolis	Minn
Millitest Co, Hempstead	N Y
Opto-Metric Tools Inc, New York	N Y
Scherr Tumico Inc, St James	Minn
Superior Electric Co The, Bristol	Conn
Theta Instrument Corp, Fairfield	N J

HEADS--RECORDING, MAGNETIC

CLEVITE CORP, BRUSH INSTRUMENTS DIV, CLEVELAND OHIO	**ADV PG 336**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS [illegible]**
INDIANA GENERAL CORP ELECTRONICS DIV/FERRITES, KEASBEY	**N J**
INTERNATIONAL DATA PRODUCTS INC, LUQUILLO PUERTO RICO	**ADV PG 335**
MIDWESTERN INSTRUMENTS INC, DIV TELEX CORP TULSA	**OKLA**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
NORTON ASSOCIATES INC, COPIAGUE, N Y	**ADV PGS 337-339**
NORTRONICS CO INC, MINNEAPOLIS, MINN	**ADV PG 340**
SAKI MAGNETICS INC AN MCA INC CO, SANTA MONICA CAL	**ADV PG 335**

HEADS

DIGITAL | ANALOG
AUDIO | VIDEO
TAPE | DISC
DRUM | FILM

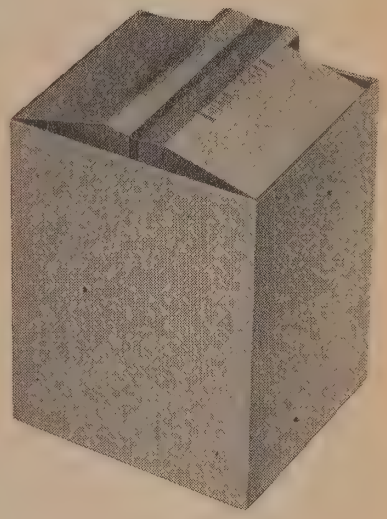
Manufactured in our Clean Room
to your exact specifications
by meticulous craftsmen
under the personal direction of
Eugene Sakasegawa, President.

SAKI

SAKI MAGNETICS, INC.
an MCA Inc. Co.

1649 12th Street, Santa Monica, Cal. 90404
Tel: (213) 393-9861 Cable: SAKI

MAGNETIC
READ/WRITE
HEADS



- Compatible with all formats
- Standard and special models
- Single-gap, interlaced, dual-gap
- Single track to 56 tracks
- 7- and 9-channel compatibility
- 21-channel TIAC compatibility

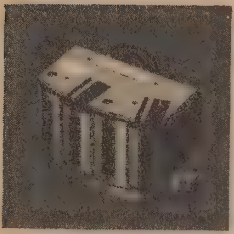
For further information, write:

INTERNATIONAL DATA PRODUCTS, INC.
Attention: General Sales Manager
151 SUNNYSIDE BLVD.
PLAINVIEW, N.Y. 11803
PHONE: 516-681-3200

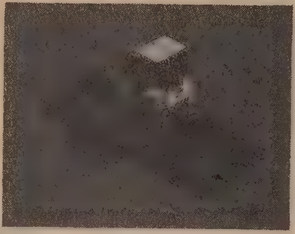
From the people
who pioneered
magnetic recording

Brush magnetic heads

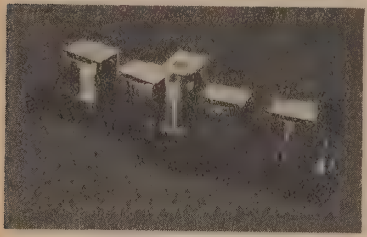
designed and fabricated to your specifications



Wideband
instrumentation

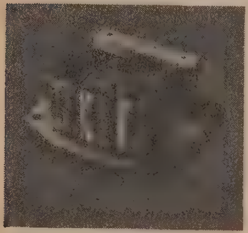


Digital
read-after-write



Intermediate band
IRIG instrumentation

Document
Reporting



Tape
certification

Special audio
applications

Brush designs and fabricates magnetic heads to *your* particular requirements . . . from low cost single-track audio models to highly sophisticated multi-track heads and multiple-head assemblies.

- Digital heads in IBM compatible formats, or format of your choice—with packing densities to 6000 fci.
- Wideband instrumentation heads—from IRIG formats to 42 tracks/inch—out to 2MHz.

Full range of electrical characteristics—to your specifications.

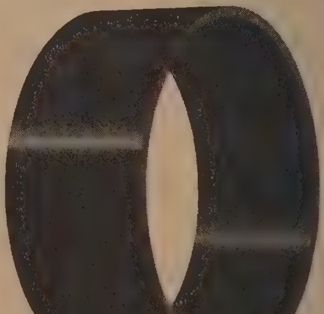
A quarter-century of experience (Brush developed the first successful magnetic recorder back in 1942) has produced proprietary core and structural designs with pronounced advantages in higher efficiency, reduced crosstalk and crossfeed, extended life, higher resolution.

Whatever your problem involving heads or media, give us your specifications.

East Coast, call Bob Cook at (617) 272-0750;
Midwest, call Dave Dolan at (216) 361-3315;
West Coast, call Bernie Chatigny at (213) 879-1300.
Or write: Clevite Corporation, Brush Instruments Division,
37th & Perkins, Cleveland, Ohio 44114.

CLEVITE BRUSH

Non-wearing Medium for Drum Recording BRUSH Magnetic Rubber

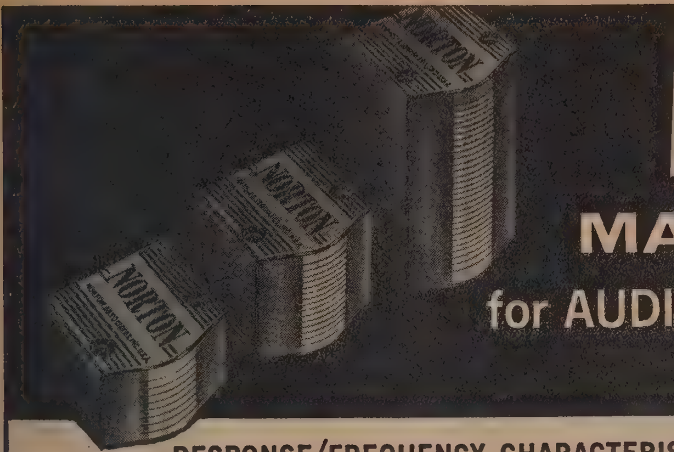


Molded bands of tough, highly stable rubber . . . densely impregnated with magnetic oxide . . . smooth-surfaced for minimum head wear . . . an ideal memory system for machine or process-control sequences, data processing, fault recording, repetitive message reporting (over 3,000,000 repeats without failure).

Recorded data is virtually permanent until erased . . . normal operating life well above 10,000 hours at 30 ips.

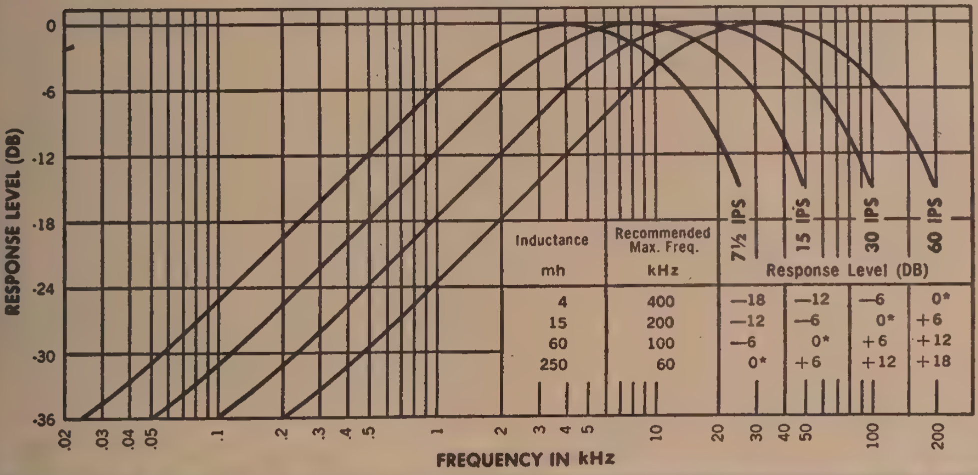
- Prolonged life
- Minimum Head Wear
- High Signal/noise ratio
- High Fidelity
- High Reliability
- Low Operating Cost

In either Hypalon® or extra-tough Adiprene®. . .. bands ½" to 6" width, 2" to 18" diameters.



MAGNETIC HEADS
for AUDIO and INSTRUMENTATION

RESPONSE/FREQUENCY CHARACTERISTIC, FREQUENCY RANGE & LEVEL DATA
Unequalized playback, constant current recording vs tape speed and impedance.

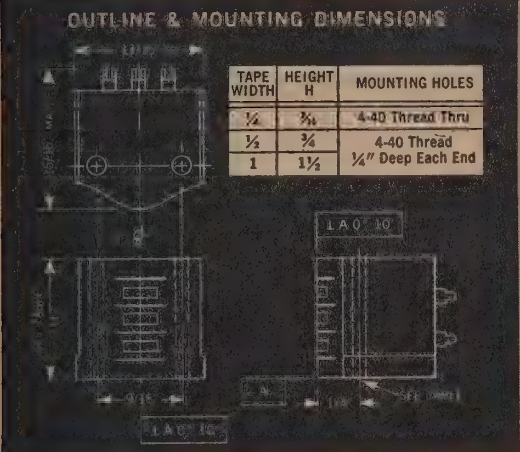


Inductance mh	Recommended Max. Freq. kHz	7½ IPS	15 IPS	30 IPS	60 IPS
		Response Level (DB)			
4	400	—18	—12	—6	0*
15	200	—12	—6	0*	+6
60	100	—6	0*	+6	+12
250	60	0*	+6	+12	+18

*shown on chart

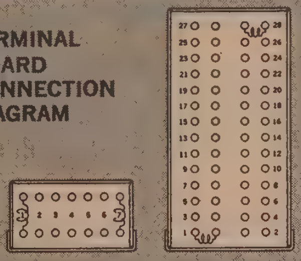
The Response / Frequency Characteristic shown, together with the record and play data specified for each head Series illustrates the exceptional performance capabilities of these miniature high performance magnetic heads. High output at short wave lengths together with a maximum contour effect deviation of ±2 DB from the 6 DB/octave slope at long wave lengths provides a useful bandwidth of over 6 octaves at any tape speed.

OUTLINE & MOUNTING DIMENSIONS



TAPE WIDTH	HEIGHT H	MOUNTING HOLES
¼	5/16	4-40 Thread Thru
½	¾	4-40 Thread ¼" Deep Each End
1	1½	

TERMINAL BOARD CONNECTION DIAGRAM



2 TO 7 TRACKS 8 TO 28 TRACKS

TERMINATION: Silver plated solder lugs on a high temperature glass-epoxy terminal board are standard on all series. Tracks are numbered from 1 through 28 (bottom to top). Start and finish terminal pairs of each track are correspondingly numbered and located as illustrated.

STANDARD FEATURES include extremely low crosstalk ratings and +75°C temperature operation without derating, plus a mechanical accuracy permitting hard mount or adjustable mount installation. Rugged solid metal construction, shock and vibration resistant, provides a hard, stable, low friction, long wear surface for the tape. The cores, shields and all metallic members are mechanically and electrically bonded together for effective electrostatic shielding and grounding of static charges. Precision finishing of the recording face to micro-inch tolerance insures intimate contact of the tape with every channel for uniformly excellent response independent of track location.

ORDERING INFORMATION: To specify the complete catalog number for ordering purposes designate the Series number of the head you require, the inductance in mh and the function ie. Record (AR) only, Record/Play (ARP), or Play (AP) only for audio and analog applications: or Record (DR) only, Record/Play (DRP), or Play (DP) only for digital applications, as in the following example: Catalog #4507—15 DP which is the Series 4500, 7 tracks, 15mh Digital Play Head for ½" tape.

NORTON
SERIES SELECTOR

NUMBER OF TRACKS	TAPE WIDTH ¼ INCH	½ INCH	1 INCH
2	2000		
3	3500		
4	4500 5000	2000	
5	5500	3500	
6	6500		
7	7500	4500	
8		5000	2000
9		5200	
10		5500	3500
12		6500	
14		7500	4500
16			5000
18			5200
20			5500
24			6500
28			7500

PLEASE REFER TO FOLLOWING PAGES FOR SPECIFIC SERIES DATA...

NORTON **ASSOCIATES, INC.**

10 Di Tomas Court, Copiague, New York 11726 • (516) 598-1600

SERIES 2000

CROSSTALK — 60 DB

TRACK WIDTH — 2002 — .080
2004, 2008 — .070

TRACK SPACING — 2002 — .160 ctoc
2004, 2008 — .130 ctoc

INDUCTANCE mh	MAXIMUM RATING AT 75°C ma rms	TYPICAL OPERATION				
		RECORD WITH BIAS			RECORD W/O BIAS	
		BIAS ma rms	RECORD ma rms	PLAYBACK 0 DB mv rms	RECORD ma pk to pk	PLAYBACK 0 DB mv pk to pk
4	40	6.0	.8	1.5	15.0	8.0 ∿ 16.0 ⎍
15	20	3.0	.4		8.0	
60	10	1.5	.2		3.0	
250	5	.7	.1		1.5	

NUMBER OF TRACKS	TAPE WIDTH	CATALOG NUMBER			
		SERIES	INDUCTANCE	ANALOG OR DIGITAL	FUNCTION
2	¼"	2002	4, 15, 60 or 250	A or D	R, R/P or P
4	½"	2004			
8	1"	2008			

2008—1"
2004—½"
2002—¼"
NORTON

SERIES 3500

CROSSTALK — 60 DB

TRACK WIDTH — .040 TRACK SPACING — .100 ctoc

INDUCTANCE mh	MAXIMUM RATING AT 75°C ma rms	TYPICAL OPERATION				
		RECORD WITH BIAS			RECORD W/O BIAS	
		BIAS ma rms	RECORD ma rms	PLAYBACK 0 DB mv rms	RECORD ma pk to pk	PLAYBACK 0 DB mv pk to pk
4	20	3.5	.45	0.9	9.0	4.5 ∿ 9.0 ⎍
15	10	1.7	.22		4.5	
60	5	.9	.11		2.3	
250	2.5	.45	.06		1.2	

NUMBER OF TRACKS	TAPE WIDTH	CATALOG NUMBER			
		SERIES	INDUCTANCE	ANALOG OR DIGITAL	FUNCTION
3	¼"	3503	4, 15, 60 or 250	A or D	R, R/P or P
5	½"	3505			
10	1"	3510			

3510—1"
3505—½"
3503—¼"
NORTON

NORTON MAGNETIC TAPE HEADS FOR AUDIO

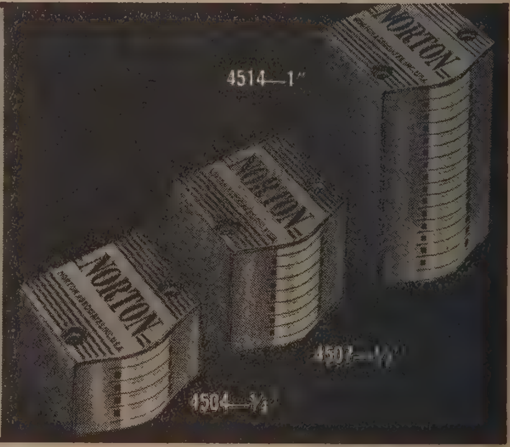
SERIES 4500

CROSSTALK — 50 DB

TRACK WIDTH — .032 TRACK SPACING — .070 ctoc

INDUCTANCE mh	MAXIMUM RATING AT 75°C ma rms	TYPICAL OPERATION				
		RECORD WITH BIAS			RECORD W/O BIAS	
		BIAS ma rms	RECORD ma rms	PLAYBACK 0 DB mv rms	RECORD ma pk to pk	PLAYBACK 0 DB mv pk to pk
4	16	3.0	.4	0.8	8.0	4.0 ∿ 8.0 ⎍
15	8	1.5	.2		4.0	
60	4	.8	.1		2.0	
250	2	.4	.05		1.0	

NUMBER OF TRACKS	TAPE WIDTH	CATALOG NUMBER			
		SERIES	INDUCTANCE	ANALOG OR DIGITAL	FUNCTION
4	¼"	4504	4, 15, 60 or 250	A or D	R, R/P or P
7	½"	4507			
14	1"	4514			



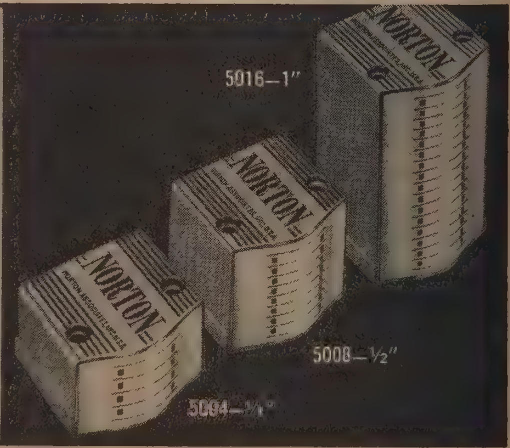
SERIES 5000

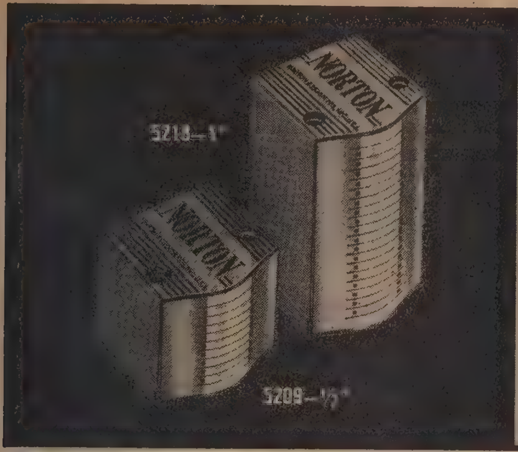
CROSSTALK—50 DB

TRACK WIDTH — .024 TRACK SPACING — 5004 — .0635 ctoc
5008, 5016 — .064 ctoc

INDUCTANCE mh	MAXIMUM RATING AT 75°C ma rms	TYPICAL OPERATION				
		RECORD WITH BIAS			RECORD W/O BIAS	
		BIAS ma rms	RECORD ma rms	PLAYBACK 0 DB mv rms	RECORD ma pk to pk	PLAYBACK 0 DB mv pk to pk
4	14	2.8	.35	0.7	7.0	3.5 ∿ 7.0 ⎍
15	7	1.4	.18		3.5	
60	3.5	.7	.09		1.8	
250	2	.35	.045		.9	

NUMBER OF TRACKS	TAPE WIDTH	CATALOG NUMBER			
		SERIES	INDUCTANCE	ANALOG OR DIGITAL	FUNCTION
4	¼"	5004	4, 15, 60 or 250	A or D	R, R/P or P
8	½"	5008			
16	1"	5016			





SERIES 5200

CROSSTALK—40 DB

TRACK WIDTH—.024 TRACK SPACING—.055 cotc

INDUCTANCE mh	MAXIMUM RATING AT 75°C ma rms	TYPICAL OPERATION				
		RECORD WITH BIAS			RECORD W/O BIAS	
		BIAS ma rms	RECORD ma rms	PLAYBACK 0 DB mv rms	RECORD ma pk to pk	PLAYBACK 0 DB mv pk to pk
4	14	2.8	.35	0.7	7.0	3.5 ∿ 7.0 ⎍
15	7	1.4	.18		3.5	
60	3.5	.7	.09		1.8	
250	2	.35	.045		.9	

NUMBER OF TRACKS	TAPE WIDTH	CATALOG NUMBER			
		SERIES	INDUCTANCE	ANALOG OR DIGITAL	FUNCTION
9	½"	5209	4, 15, 60 or 250	A or D	R, R/P or P
18	1"	5218			

5520—1"
5510—½"
5505—¼"
NORTON

SERIES 5500

CROSSTALK—40 DB

TRACK WIDTH—.024 TRACK SPACING—.050 ctoc

INDUCTANCE mh	MAXIMUM RATING AT 75°C ma rms	TYPICAL OPERATION				
		RECORD WITH BIAS			RECORD W/O BIAS	
		BIAS ma rms	RECORD ma rms	PLAYBACK 0 DB mv rms	RECORD ma pk to pk	PLAYBACK 0 DB mv pk to pk
4	14	2.8	.35	0.7	7.0	3.5 ∿ 7.0 ⎍
15	7	1.4	.18		3.5	
60	3.5	.7	.09		1.8	
250	2	.35	.045		.9	

NUMBER OF TRACKS	TAPE WIDTH	CATALOG NUMBER			
		SERIES	INDUCTANCE	ANALOG OR DIGITAL	FUNCTION
5	¼"	5505	4, 15, 60 or 250	A or D	R, R/P or P
10	½"	5510			
20	1"	5520			

& INSTRUMENTATION

Write today for complete literature.

NORTON ASSOCIATES, INC.

10 Di Tomas Court, Copiague, New York 11726 • (516) 598-1600

6524—1"
6512—½"
6506—¼"
NORTON

SERIES 6500

CROSSTALK—40 DB

TRACK WIDTH—.018 TRACK SPACING—6506—.045 ctoc
6512, 6524—.042 ctoc

INDUCTANCE mh	MAXIMUM RATING AT 75°C ma rms	TYPICAL OPERATION				
		RECORD WITH BIAS			RECORD W/O BIAS	
		BIAS ma rms	RECORD ma rms	PLAYBACK 0 DB mv rms	RECORD ma pk to pk	PLAYBACK 0 DB mv pk to pk
4	12	2.5	.30	0.6	6.0	3.0 ∿ 6.0 ⎍
15	6	1.2	.15		3.0	
60	3	.6	.08		1.5	
250	2	.3	.04		.8	

NUMBER OF TRACKS	TAPE WIDTH	CATALOG NUMBER			
		SERIES	INDUCTANCE	ANALOG OR DIGITAL	FUNCTION
6	¼"	6506	4, 15, 60 or 250	A or D	R, R/P or P
12	½"	6512			
24	1"	6524			

7528—1"
7514—½"
7507—¼"
NORTON

SERIES 7500

CROSSTALK—40 DB

TRACK WIDTH—.012 TRACK SPACING—7507 —.038 ctoc
7514, 7528 —.036 ctoc

INDUCTANCE mh	MAXIMUM RATING AT 75°C ma rms	TYPICAL OPERATION				
		RECORD WITH BIAS			RECORD W/O BIAS	
		BIAS ma rms	RECORD ma rms	PLAYBACK 0 DB mv rms	RECORD ma pk to pk	PLAYBACK 0 DB mv pk to pk
4	10	2.0	.25	0.5	5.0	2.5 ∿ 5.0 ⎍
15	5	1.0	.12		2.5	
60	2.5	.5	.06		1.2	
250	1.5	.25	.03		.6	

NUMBER OF TRACKS	TAPE WIDTH	CATALOG NUMBER			
		SERIES	INDUCTANCE	ANALOG OR DIGITAL	FUNCTION
7	¼"	7507	4, 15, 60 or 250	A or D	R, R/P or P
14	½"	7514			
28	1"	7528			

Nortronics®

THE WORLD'S LARGEST MANUFACTURER OF MAGNETIC TAPE HEADS

- Deposited quartz gaps
- All metal hyperbolic face
- Low loss laminated cores
- Standardized case sizes, mounts & terminations

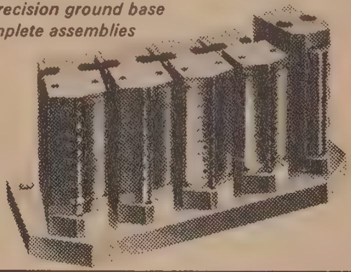
- Innovative Leadership since 1957
- Complete range of mechanical configurations and electrical specifications
- Unequalled Research and Manufacturing Facilities
- Heads for Every Audio and Instrumentation Application

Heads are shown with various mounting hardware to indicate the variety of mountings available, but all Nortronics heads are available in your choice of standard mounts: base, side, rear or no mount.

INSTRUMENTATION HEADS

- Custom built to your specifications
- IRIG track configurations
- Read, write, and erase heads
- Available with

adjustable mount
fixed precision ground base
complete assemblies



NEW FROM NORTRONICS

PROFESSIONAL SERIES

for ¼ inch tape
PR-B2H
(No Mount)

STUDIO SERIES

for ½ inch and 1 inch tape
8-Channel
R/P
STR-8B

CASSETTE SERIES

Z-W4J
4-Channel R/P

NO CARTRIDGE
FLIP-OVER REQUIRED!

MANY OTHER CONFIGURATIONS IN ALL THREE SERIES

ACCESSORIES

Bias Oscillators transformers suitable for transistor or vacuum tube circuitry. Connector plugs, plug and cable assemblies, cartridge mounting brackets, single head nest, contractor head tape guide post, and universal mounting brackets.

- T 70 Series for use with Printed Circuit Boards
- T 60 Series for chassis mounting

NORTRONICS COMPANY, INC.
8101 Tenth Avenue North
Minneapolis, Minnesota 55427
PHONE (612) 545-0401

SPECIFICATIONS

RECORD AND PLAYBACK HEADS

NORTRONICS offers its full line of single-channel and multi-channel record/playback and record-only heads in wide range of stock impedances for most circuit requirements. Premium and Standard Models are available as record/playback heads with 0.1-mil gap and following inductance and electrical code: 20 MH (8K, 100 MH (4K), 200 MH (6K), 400 MH (7K), 800 MH 2K). Premium Record-Only heads with 0.5 mil gaps: 2 MH (14R), 10 MHY (8R, 50 MH (4R).

ERASE HEADS

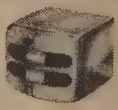
NORTRONICS erase heads are of efficient double-gap metal-face construction and are offered in mono or stereo, 2-track or 4-track, in three basic case sizes to fit most mounting requirements. Stock impedances operate in range from 3 volts to 180 volts rms, at oscillator frequencies 50 KHz and 100 KHz. At 60 KHz typical operating rms voltages for specific impedance #'s are: 6V. (#2), 40 V. (#4), and 120 V. (#1)

MORE DETAILED SPECIFICATIONS ARE AVAILABLE UPON REQUEST.

8-TRACK AND 4-TRACK HEADS

NEW!
8-Tr. Stereo
Z-Combo
ZJ2L
(No Mount)

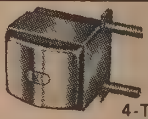
8-Tr. Stereo
B2L-N
(No Mount)



4-Tr. Stereo
WP-B2Q
(No Mount)

4-Tr. Stereo Combo
A2Q-BL
(Base Mount)

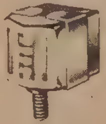
4-Tr. Stereo
B2Q-N
(No Mount)



4-Tr. Mono
B1QC-S
(Side Mount)

3 AND 4 CHANNEL IN-LINE HEADS

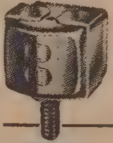
3-TRACK
3-CHANNEL
P-B3Q-R
(Rear Mount)



4-TRACK
4-CHANNEL
BQQ-B
(Base Mount)

8-TRACK
4-CHANNEL
P-BQL-N
(No Mount)

2-TRACK AND FULL TRACK HEADS

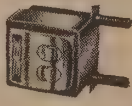


2-Tr. Stereo
B2H-B
(Base Mount)

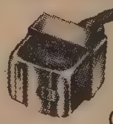
2-Tr. Mono
B1HY-N
(No Mount)

2-Tr. Mono
G1H-R
(Rear Mount)

2-Tr. Mono
G1HY-B3
(Base Mount)

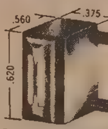


2-Tr.
Stereo Combo
A2H-SL
(Side Mount)



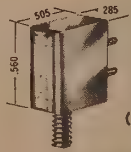
2-Tr.
Mono Combo
A1HC-R
(Rear Mount)

ERASE HEADS



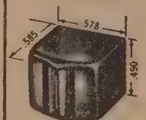
L Size
BEQ
(Side Mount—S23)

L Size
MEF
(No Mount—N)



S Size
SEH
(Base Mount—B3)

S Size
MEH
(Rear Mount—R-12S)



B Style
BIEF
(No Mount—N)

AIC Instruments Div AIC Corp, Houston	Texas
Ampex Corp, Redwood City	Cal
Applied Magnetics Corp, Goleta	Cal
Applied Magnetics Corp, Ferrite Head Div Santa Barbara	Cal
Clevite Corp, Brush Instruments Div, Cleveland	Ohio
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Cybetronics Inc, Waltham	Mass
Data Disc Inc Disc Div, Palo Alto	Cal
Data Disc Inc, Display Div, Palo Alto	Cal
Dresser Systems, Inc, Houston	Tex
Ercona Corp, New York	N Y
Ferroxcube Corp, Saugerties	N Y
General Electric Co Info Sys Equip Div, Phoenix	Ariz
General Kinetics Inc, Reston	Va
Geo Space Corp, Houston	Tex
Gregory Magnetic Industries Inc, Pompano Beach	Fla
Honeywell Test Instruments Div, Denver	Colo
Honig Laboratories Inc, Westbury	N Y
Indiana General Corp Electronics Div/Ferrites, Keasbey	N J
International Data Products Inc, Luquillo	Puerto Rico
International Electro-Magnetics Inc, Palatine	Ill
ITT Europe Inc Components Gp, Brussels 1	Belgium
Lipps Inc, Santa Monica	Cal
Magnasync/Moviola Corp, North Hollywood	Cal
Magne-Head Div, Gen Instrument Corp, Hawthorne	Cal
Magnetic Heads, Inc, Minneapolis	Minn
Magnusonics Industries Inc, Farmingdale	N Y
Michigan Magnetics, Vermontville	Mich
Midwestern Instruments Inc, Div Telex Corp Tulsa	Okla
Mitsumi Electric Co Ltd, Tokyo	Japan
Norton Associates Inc, Copiague	N Y
Nortronics Co Inc, Minneapolis	Minn
Oki Electric Industry Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Potter Instrument Co, Inc, Plainview	N Y
Radio Corp of America, Comml Elctn Prods Div Camden	N J
RCA, Defense Electronic Products, Moorestown	N J
Robins Industries Corp, Flushing	N Y
Saki Magnetics Inc An MCA Inc Co, Santa Monica	Cal
Sanyo Electric Co Ltd, Osaka	Japan
Siemens America Inc, New York	N Y
Systematics & Magne-Head Divs Gen Instrument Corp Hawthorne	Cal
Telectro Systems Corp, Corona	N Y
Thermionic Products Electronics Ltd Southampton	England
Video Research Corp, Rockville	Md
Western Magnetics Div Magnetic Heads Inc Glendale	Cal
Westrex Div Litton Industries, Inc, Hollywood	Cal
Winston Research Corp, Los Angeles	Cal
World Magnetics Inc Sub Fairchild Cam & Inst Corp Charlotte	Mich

HEARING AIDS

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Audio Equipment Co Div Walter Kidde & Co Inc Port Washington	NY
Beltone Electronics Corp, Chicago	Ill
Dahlberg Electronics Inc, Minneapolis	Minn
Eckstein Bros, Hawthorne	Cal
Electronic Futures Inc Div KMS Indus Inc North Haven	Conn
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Nippon Electric Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radioear Corp, Canonsburg	Pa
Sonotone Corp, Electronic Applications Div Elmsford	N Y
Telex Communications Div, Minneapolis	Minn
Unex Labs Div Nichols & Clark Inc, Hathorne	Mass
Vicon Instrument Co, Colorado Springs	Colo

HEARING-AID TUBES SEE TUBES--HEARING-AID

HEAT CONTROLS SEE CONTROLS--TEMPERATURE

HEATERS, ELECTRONIC--DIELECTRIC

Allied Research Associates, Inc, Concord	Mass
Barth Electronics, Inc, Cleveland	Ohio
Cavitron Electronics, Inc, Costa Mesa	Cal
Cober Electronics Inc, Stamford	Conn
Comtek Microwave Dept Allied Rsch Assoc Inc Woburn	Mass
Cycle-Dyne, Inc, Jamaica	N Y
Dynamic Air Engineering Inc, Santa Ana	Cal
Feco Div Bangor Punta Operations Inc, Cleveland	Ohio
Industron Corp, Needham Heights	Mass
Larose & Assoc Inc, W T, Cohoes	NY
Mann-Russell Electronics Inc, Tacoma	Wash
Nichols Co Ltd, R H, Downsview	Ont
Peeco Corp, Los Angeles	Cal
Raybond Electronics Inc Div Willcox & Gibbs Inc Norwood	Mass
Reaction Research Labs of America, Groton	Conn
Reeve Electronics Inc, Chicago	Ill
Scientific Electric Inc, Garfield	N J
Taylor-Winfield Corp, Warren	Ohio
Thermatron Div Wilcox & Gibbs Inc, New York	N Y
Votator Div Chemetron Corp, Louisville	Ky

HEATERS, ELECTRONIC--INDUCTION

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
Ajax Magnethermic Corp, Warren	Ohio
Alcatel, Paris 8eme	France
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Controlomag Labs, Roslyn	Pa
Cycle-Dyne, Inc, Jamaica	N Y
Denki Kogyo Co Ltd, Tokyo	Japan
Dynatronic Instruments Corp Div Lab-Line Inst Inc Melrose Park	Ill
Feco Div Bangor Punta Operations Inc, Cleveland	Ohio
General Electric Co, ECSO, Schenectady	N Y
Industron Corp, Needham Heights	Mass
Instruments Inc, San Diego	Cal
Lepel High Frequency Labs, Inc, Maspeth	N Y
McDowell Electronics Inc, Metuchen	N J
Raybond Electronics Inc Div Willcox & Gibbs Inc Norwood	Mass
Reaction Research Labs of America, Groton	Conn
Reeve Electronics Inc, Chicago	Ill
Research Industrolectronics, Roslyn	Pa
Robotron Corp, Detroit	Mich
Scientific Electric Inc, Garfield	N J
Seven Associates Inc, Sunnyvale	Cal
Spectra-Mat Inc, Watsonville	Cal
Tafa Div Humphreys Corp, Concord	N H
Taylor-Winfield Corp, Warren	Ohio
Thermatron Div Wilcox & Gibbs Inc, New York	N Y
Tocco Div Ohio Crankshaft Co, Cleveland	Ohio
Westinghouse Electric Corp Indus Equip Div Baltimore	Md
Wickes Industries Inc, Camden	N J
Zephyr Mfg Co Inc, Inglewood	Cal

HEATERS, ELECTRONIC--FIXTURES & OTHER ASSOCIATED EQUIPMENT

Aero/Space Devices, Inc, Miami	Fla
Coltron Industries, Inc, Charlotte	N C
Cycle-Dyne, Inc, Jamaica	N Y
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park	N J
Hayakawa Electric Co Ltd, Osaka	Japan
Industron Corp, Needham Heights	Mass
Larose & Assoc Inc, W T, Cohoes	NY
Logan Electronics Corp, Revere	Mass
Loyola Industries Inc, El Segundo	Cal
Lytron Inc, Woburn	Mass
Mann-Russell Electronics Inc, Tacoma	Wash
Miller Co, L C, Monterey Park	Cal
Raybond Electronics Inc Div Willcox & Gibbs Inc Norwood	Mass
Reaction Research Labs of America, Groton	Conn
Reeve Electronics Inc, Chicago	Ill
Robotron Corp, Detroit	Mich
Scientific Electric Inc, Garfield	N J
Short Wave Plastic Forming Co, Costa Mesa	Cal
Signet Scientific Co, Burbank	Cal
Taylor-Winfield Corp, Warren	Ohio
Thermal Circuits Inc, Salem	Mass
Thermal Systems Inc, Los Angeles	Cal
Thermatron Div Wilcox & Gibbs Inc, New York	N Y
Thermo-Physics Corp, Cambridge	Mass
Tocco Div Ohio Crankshaft Co, Cleveland	Ohio
Westinghouse Electric Corp Indus Equip Div Baltimore	Md
Wickes Industries Inc, Camden	N J

HEATERS--INFRARED

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
OAL ASSOCIATES INC, WESTBURY	**N Y**
Cleveland Process Corp, Cleveland	Ohio
Corning Glass Works, Corning	N Y
Despatch Oven Co, Minneapolis	Minn
De Vilbiss Co, Toledo	Ohio
Engelhard Hanovia Inc, Newark	N J
Etchomatic Inc, Waltham	Mass
Fostoria-Fannon Inc, Fostoria	Ohio
General Electric Co, ECSO, Schenectady	N Y
Hayakawa Electric Co Ltd, Osaka	Japan
Hi-Shear Corp, Torrance	Cal
Ilg Industries Inc, Chicago	Ill
Infra-Red Systems Inc, Riverdale	N J
Lear Siegler Inc, Santa Monica	Cal
Merco Products Inc, Eugene	Ore
Miskella Infra-Red Co, Cleveland	Ohio
OAL Associates Inc, Westbury	N Y
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Precision Scientific Co Sub GCA Corp, Chicago	Ill
Pyrotel Corp c/o Milletron Inc, Pittsburgh	Pa
Quartz Radiation Corp, Fairfield	N J
Quartz & Silice, Paris 8 eme	France
Research Inc, R-I Controls Div, Minneapolis	Minn
Trent Inc, Philadelphia	Pa
Vulcan Electric ITT, Danvers	Mass
Wiegand Co, Edwin L, Pittsburgh	Pa

HEAT EXCHANGERS

Accel Electronic Products Co, S San Gabriel	Cal
Air Products & Chemicals, Inc, Allentown	Pa
Alpha Components Corp, Venice	Cal
Andonian Associates, Inc, Waltham	Mass
Avco Aerostructures Div, Nashville	Tenn
Benson Mfg Div E C I Inc, Kansas City	Mo
Bethlehem Corp, Bethlehem	Pa
Borg-Warner, Thermoelectric Div, Des Plaines	Ill
Carbone Corp, Boonton	N J
Cargocaire Engineering Corp, Amesbury	Mass
Corning Glass Works, Corning	N Y
Cryogenic Engineering Co, Denver	Colo
CVI Corp, Columbus	Ohio
Daedalus Sales Co, Los Angeles	Cal
Despatch Oven Co, Minneapolis	Minn
Eastern Industries Div Lab for Electronics Inc Hamden	Conn
Electro Impulse Lab Inc, Red Bank	N J
Fansteel Metallurgical Corp, North Chicago	Ill
Fulton Sylphon Div Robertshaw Controls Co Knoxville	Tenn
Garrett Corp, Los Angeles	Cal
Gasket Mfg Co Inc, Los Angeles	Cal
Heatron Co, York	Pa
Hirst Electric Industries Ltd, Crawley, Sussex	England
Interlab Inc, Pleasantville	N Y
International Electronic Research Corp, Burbank	Cal
International Rectifier Semiconductor Div El Segundo	Cal
Janitrol Aero Div Midland-Ross Corp, Columbus	Ohio
Lear Siegler Inc, Santa Monica	Cal
Lockhart Industries Inc, Paramount	Cal
Lytron Inc, Woburn	Mass
Meridian Metalcraft Inc, Whittier	Cal
Pall Corp, Environmental Control Systems Div Long Island City	NY
Pennsylvania Fluorocarbon Co Inc, Clifton Heights	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polymica & Insulation Co Inc, Hartford	Conn
Pyromet Industries, San Carlos	Cal
Ramyr Mfg Co, Buena Park	Cal
Reeve Electronics Inc, Chicago	Ill
Research Inc, R-I Controls Div, Minneapolis	Minn
Roberts & Associates Inc, E V, Culver City	Cal
Texas Instruments Incorporated, Dallas	Tex
Thermo Electron Engineering Corp, Waltham	Mass
Union Carbide Corp, Materials Systems Div Kokomo	Ind
United Aircraft Products Inc, Dayton	Ohio
Vapor Corp, Chicago	Ill
Wells Industries Corp, North Hollywood	Cal

HEATING ELEMENTS

BLUE M ENGINEERING CO, BLUE ISLAND	**ILL**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
OAL ASSOCIATES INC, WESTBURY	**N Y**
Abar Corp, Feasterville	Pa
Acra Electric Corp, Schiller Park	Ill
Blue M Engineering Co, Blue Island	Ill
Brew & Co Inc, Richard D, Concord	N H
Clayborn Labs Inc, Santa Ana	Cal
Cleveland Process Corp, Cleveland	Ohio
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Coltron Industries, Inc, Charlotte	N C
Continental Sensing Inc, Melrose Park	Ill
Despatch Oven Co, Minneapolis	Minn
Electro Applications, Inc, Canonsburg	Pa
Electrofilm, Inc, North Hollywood	Cal
Electro-Flex Heat Inc, Bloomfield	Conn
Engelhard Hanovia Inc, Newark	N J
Everlube Corp of America, North Hollywood	Cal
General Electric Co, ECSO, Schenectady	N Y
Gruenberg Electric Co Inc, Garden City	N Y
Harrel Inc, East Norwalk	Conn
Hayes Inc, C I, Cranston	R I
Hotfoil Electric Co, Wood Dale	Ill
Hotpack Corp, Philadelphia	Pa
Hotwatt Inc, Danvers	Mass
Huppert Co, K H, South Holland	Ill
Keith Co Inc, W P, Pico Rivera	Cal
Lake Engineering Co Ltd, Scarborough	Ont
Lindberg Hevi-Duty Div Sola Basic Industries Chicago	Ill
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Met-Bay Inc, Bay City	Mich
Minco Products Inc, Minneapolis	Minn
Miskella Infra-Red Co, Cleveland	Ohio
Norton Co, Worcester	Mass
OAL Associates Inc, Westbury	N Y
Ohmweve Co Inc, West Hartford	Conn
Peeco Corp, Los Angeles	Cal
Precision Inc, Minneapolis	Minn
Safeway Heat Elements Inc, Middletown	Conn
Sola-Basic Industries, Milwaukee	Wis
Sunbeam Equipment Corp, Meadville	Pa
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Technical Wire Products Inc, Cranford	N J
Thermal Circuits Inc, Salem	Mass
Thermal Engineering & Design Co, Akron	Ohio
Thermal Systems Inc, Los Angeles	Cal
Thermo Electron Engineering Corp, Waltham	Mass
Thermolyne Corp, Dubuque	Iowa
Trent Inc, Philadelphia	Pa
Ultra Carbon Corp, Bay City	Mich
Union Carbide Corp, Carbon Products Div New York	N Y
Vulcan Electric ITT, Danvers	Mass
Waage Electric Inc, Kenilworth	N J
Watlow Electric Mfg Co, St Louis	Mo

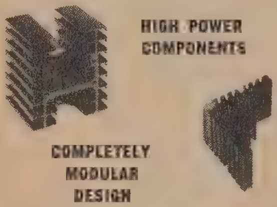
HEAT TRANSFER AND DISSIPATION DEVICES

FORCED CONVECTION

Modular design to permit custom assembly. Compact packages containing from 4 to 40 individual heat sinks—serviced by a single, standard blower.

NATURAL CONVECTION

Up to 20% more cooling area per inch of length provided by patented T-fin construction. Seven standard or customer-specified hole patterns plus variety of finishes available.

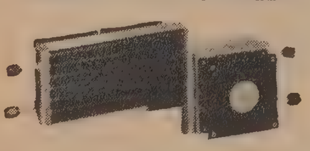


Model 2520 units permit custom packaging and building around chassis for natural or forced cooling.

A COMPLETE LINE OF LOW-POWER TRANSISTOR HEAT SINKS

NEW Exclusively From ASTRODYNE

COMPACT HEAT EXCHANGERS



with space-saving INNER-FIN® construction plus Liquid-to-Liquid and Gas Heaters.

COMPLETE CATALOG INFORMATION ON REQUEST

astrodyne, inc.
SUBSIDIARY OF ROANWELL CORP.
207 CAMBRIDGE ST., BURLINGTON, MASS. (617) 272-3850

- Transistor Mounting Pads-Clips?
- Heat Sinks?
- Heat Sink Adapters?

GUDEBROD is your new, reliable source for this important circuit hardware.

Precision made with traditional English craftsmanship—by JERMYN Industries.

Stocked and sold exclusively in U.S.A. by GUDEBROD

Ask for catalog GJ110

GUDEBROD BROS.
FOUNDED 1870
SILK CO., INC.
Electronics Division
12 South 12th Street, Philadelphia, Pa. 19107
Telephone: (215) WA 2-1122

HEATING ELEMENTS--ELECTRIC

BLUE M ENGINEERING CO, BLUE ISLAND	**ILL**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
OAL ASSOCIATES INC, WESTBURY	**N Y**
Ackerman Gould Co, Inc, Oceanside	N Y
Acra Electric Corp, Schiller Park	Ill
Aero Research Instrument Dept American Standard Franklin Park	Ill
Blue M Engineering Co, Blue Island	Ill
Brew & Co Inc, Richard D, Concord	N H
Carborundum Co Electrical & Elctns Br, Niagara Falls	NY
Clayborn Labs Inc, Santa Ana	Cal
Cleveland Process Corp, Cleveland	Ohio
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Coltron Industries, Inc, Charlotte	N C
Consolidated Controls Corp, El Segundo	Cal
Continental Sensing Inc, Melrose Park	Ill
Despatch Oven Co, Minneapolis	Minn
Electro Applications, Inc, Canonsburg	Pa
Electrofilm, Inc, North Hollywood	Cal
Electro-Flex Heat Inc, Bloomfield	Conn
Electroglas Inc, Menlo Park	Cal
General Electric Co, ECSO, Schenectady	N Y
Gruenberg Electric Co Inc, Garden City	N Y
Harrel Inc, East Norwalk	Conn
Hi-Shear Corp, Torrance	Cal
Hotfoil Electric Co, Wood Dale	Ill
Hotwatt Inc, Danvers	Mass
Huppert Co, K H, South Holland	Ill
Infra-Red Systems Inc, Riverdale	N J
Kanthal Corp, Bethel	Conn
Keith Co Inc, W P, Pico Rivera	Cal
Lake Engineering Co Ltd, Scarborough	Ont
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Minco Products Inc, Minneapolis	Minn
Miskella Infra-Red Co, Cleveland	Ohio
Multi - Flex Seals Inc, Bronx	N Y
Norton Co, Worcester	Mass
Norton Co Metals Div, Newton	Mass
OAL Associates Inc, Westbury	N Y
Ohmweve Co Inc, West Hartford	Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Ramyr Mfg Co, Buena Park	Cal
Rogers Corp, Rogers	Conn
Safeway Heat Elements Inc, Middletown	Conn
Sola-Basic Industries, Milwaukee	Wis
Spectra-Mat Inc, Watsonville	Cal
Sunbeam Equipment Corp, Meadville	Pa
Technical Wire Products Inc, Cranford	N J
Thermal Circuits Inc, Salem	Mass
Thermal Engineering & Design Co, Akron	Ohio
Thermal Systems Inc, Los Angeles	Ca
Thermo Electron Engineering Corp, Waltham	Mass
Topper Mfg Co Inc, Great Neck	N Y
Trent Inc, Philadelphia	Pa
Ulanet Co, George, Newark	N J
Vulcan Electric ITT, Danvers	Mass
Waage Electric Inc, Kenilworth	N J
Wall Manufacturing Co, Kinston	N C
Watlow Electric Mfg Co, St Louis	Mo
Wiegand Co, Edwin L, Pittsburgh	Pa
Zeva Electric Corp, New York	N Y

HEAT SINKS

ALUMINUM DESIGN CORP, BROOKFIELD	**ILL**
AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
ASTRODYNE INC, BURLINGTON, MASS	**ADV PG 34**
AUGAT, INC, ATTLEBORO	**MASS**
BIRNBACH CO INC, FREEPORT	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
GUDEBROD BROS SILK CO INC ELECTRONICS DIV PHILADELPHIA, PA	**ADV PG 34**
Aavid Engineering Inc, Laconia	N H
Accel Electronic Products Co, S San Gabriel	Cal
Advanced Development Corp, Gardena	Cal
Alloys Unlimited Inc, Melville	N Y
Alpha Components Corp, Venice	Cal
Aluminum Design Corp, Brookfield	Ill
Amatom Electronic Hardware, New Rochelle	N Y
American Lava Corp, Chattanooga	Tenn
Arwood Corp, Rockleigh	NJ
Asheville-Schoonmaker Mica Co, Newport News	Va
Astrodyne Inc, Burlington	Mass
Atomite Electronics Corp, Roosevelt	N Y
Augat, Inc, Attleboro	Mass
Avtron Mfg, Inc, Cleveland	Ohio
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Birnbach Co Inc, Freeport	N Y
Birtcher Corp, Industrial Div, Monterey Park	Cal
Bivar Co Inc, Palo Alto	Cal
Blinn Co Inc, Delbert, Pomona	Cal
Brush Beryllium Co, Cleveland	Ohio
Cambridge Thermionic Corp, Cambridge	Mass
Channellock Inc, Meadville	Pa
Chomerics, Inc, Arlington	Mass
Cinch-Monadnock, City of Industry	Cal
Clauss Cutlery Co Div Alco Standard Corp Fremont	Ohio
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Daburn Electronics & Cable Corp, Bronx	N Y
Daedalus Sales Co, Los Angeles	Cal
Daylen Co, South Gate	Cal
Delco Radio Div General Motors Corp, Kokomo	Ind
Engineering & Electronic Devices Inc, Los Angeles	Cal
Extrudonics Inc, New Brunswick	N J
Fansteel Metallurgical Corp, North Chicago	Ill
Fischer Special Mfg Co, Cincinnati	Ohio
Frenchtown/CFI Inc, Frenchtown	N J
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Systems Inc, Erie	Pa
Gibson Electric Co, Div Talon Inc, Delmont	Pa
Glentronics Inc, Glendora	Cal
Golding Mfg Co, North Arlington	N J
Gudebrod Bros Silk Co Inc Electronics Div Philadelphia	Pa
Horex Electronics Inc, Santa Monica	Cal
Hunter Industries, Santa Fe Springs	Cal
Hydro Molding Co Inc, Plattsburgh	N Y
Industrial Heat Sink Co, S San Gabriel	Cal
International Electronic Research Corp, Burbank	Cal
International Rectifier Semiconductor Div El Segundo	Cal
Isotronics Inc, New Bedford	Mass
ITT Europe Inc Components Gp, Brussels 1	Belgium
Jan Hardware Mfg Co Inc, Long Island City	N Y
Janitrol Aero Div Midland-Ross Corp, Columbus	Ohio
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia	Pa
Keith Co Inc, W P, Pico Rivera	Cal
Lake Engineering Co Ltd, Scarborough	Ont
Lockhart Industries Inc, Paramount	Cal
Lytron Inc, Woburn	Mass
MacDonald & Co, Glendale	Cal
Mann Co, Henry, Cornwell Heights	Pa
Methode Electronics Inc, Chicago	Ill
Micronics Corp of America, Providence	RI
Micro Parts Inc, Los Angeles	Cal
Norrich Plastics Corp, Roosevelt	N Y
Pall Corp, Environmental Control Systems Div Long Island City	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Risk Industries Inc, George, Columbus	Neb
Saxonburg Ceramics Inc, Pittsburgh	Pa
Schaffner, Hans - Elektronische Bauteile Luterbach Sq	Switz
Seastrom Mfg Co Inc, Glendale	Cal
Solitron Devices Inc, Tappan	NY
Staver Co Inc, Bay Shore	N Y
Techni-Tool Inc, Philadelphia	Pa
Thermal Engineering & Design Co, Akron	Ohio
Thermalloy Co, Dallas	Tex
Tor Inc, Irwindale	Cal
Trought Associates Inc, Belleville	N J
Union Carbide Corp, Carbon Products Div New York	N Y
U S Heat Sink, Inglewood	Cal
Vernaline Products Co, Inc, Wycoff	N J
Wakefield Engineering Inc, Wakefield	Mass
Waterbury Pressed Metal Co, Waterbury	Conn

HEAT-TREATING FURNACES SEE FURNACES

HEAT-TREATING SERVICES

American Gas Furnace Co, Elizabeth	N J
Amuneal Mfg Corp, Philadelphia	Pa
A V Electronics, Inc, Fresno	Cal
Brew & Co Inc, Richard D, Concord	N H
C M Mfg Co, Bloomfield	N J
Device Seals Inc, Sun Valley	Cal
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Hamilton Precision Metals Div Hamilton Watch Co Lancaster	Pa
Hayes Inc, C I, Cranston	R I
Infinetics Inc, Electromagnetic Div, Wilmington	Del
Magnetic Metals Co, Camden	N J
Nuclear Materials & Equipment Corp, Apollo	Pa
Pyromet Industries, San Carlos	Cal
Spectra-Mat Inc, Watsonville	Cal

HERMETIC SEALS SEE SEALING SERVICES;SEALS--HERMETIC

HIGH-PERMEABILITY CORES SEE CORES--LAMINATED

HOLDERS--BATTERY

AUGAT, INC, ATTLEBORO	**MASS**
NUMAR CORP, NEW YORK, N Y	**ADV PG 343**
Acme Model Engineering Co, Ridgefield	N J
Augat, Inc, Attleboro	Mass
Numar Corp, New York	N Y

HOLDERS--BRUSH

AIRFLYTE ELECTRONICS CO, BAYONNE	**N J**
ELECTRO-TEC CORP, ORMOND BEACH	**FLA**
GRAPHITE METALLIZING CORP, YONKERS, N Y	**ADV PG 76**
NUMAR CORP, NEW YORK	**N Y**
Airflyte Electronics Co, Bayonne	N J
Arwood Corp, Rockleigh	NJ
Consolidated Electric Corp, Seattle	Wash
Electro-Tec Corp, Ormond Beach	Fla
Graphite Metallizing Corp, Yonkers	N Y
Hit Products Corp, South Norwalk	Conn
Lind Electro Development A Teledyne Co Mountain View	Cal
Numar Corp, New York	N Y
Occo Mfg Corp, South Hackensack	N J
Ostby & Barton Co, Providence	R I
Rostone Corp, Lafayette	Ind
Superior Carbon Products Inc, Cleveland	Ohio
Sylvania Electric Prods Inc, Parts Div, Warren	Pa

HOLDERS--CRYSTAL DIODE

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK	**N Y**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
NUMAR CORP, NEW YORK	**N Y**
Accurate Electronics Corp, Elyria	Ohio
Alloys Unlimited Inc, Melville	N Y
Alpha Industries Inc, Newton Upper Falls	Mass
Automatic Metal Products Corp, Brooklyn	N Y
Bendix Corp, Microwave Devices Div, Franklin	Ind
Birtcher Corp, Industrial Div, Monterey Park	Cal
Cambridge Thermionic Corp, Cambridge	Mass
Connor Spring Mfg Co Div Sloss & Britain San Francisco	Cal
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Electronic Molding Corp, Pawtucket	R I
General Microwave Corp, Farmingdale	N Y
Hermetite Corp, Avon	Mass
Houston Electronics Corp, Kane	Pa
Isotronics Inc, New Bedford	Mass
Masterite Industries Corp, Inglewood	Cal
Maury Microwave Corp, Montclair	Cal
MCS Corp, Monrovia	Cal
Meca Electronics, Inc, Denville	N J
Metox, Paris 20	France
Microwave Associates Inc, Burlington	Mass
Microwave Development Labs Inc Needham Heights	Mass
Microwave Filter Co Inc, East Syracuse	NY
M-O Valve Co Ltd, Hammersmith, London W6	Eng
National Tel-Tronics Corp, Great Neck	N Y
Numar Corp, New York	N Y
Portchester Instrument Corp, Port Chester	N Y
RLC Electronics Inc, Port Chester	N Y
Robinson-Nugent Inc, New Albany	Ind
Sanyo Electric Co Ltd, Osaka	Japan
Seal-A-Metic, Inc, Haledon	N J
Sealectro Corp, Mamaroneck	N Y
Seastrom Mfg Co Inc, Glendale	Cal
Uni-Seal Div G-V Controls, Dover	N J
Veritron West Inc, Chatsworth	Cal
Victor R F & Microwave Co, Wakefield	Mass

BATTERY HOLDERS for
miniature electronic equipment . . .

- Panel Mounted
- Easily Rechargeable
- Adaptable

MINI-ONICS DIV.

NUMAR CORPORATION

242 West 30th St.
New York, N.Y. 10001
(212) LA 4-4411

HOLDERS--FUSE

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ALDEN PRODUCTS CO, INC, BROCKTON, MASS	**ADV PG 193**
BUSSMANN MFG DIV MCGRAW-EDISON CO, ST LOUIS MO	**ADV PGS 314,315**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
Accurate Electronics Corp, Elyria	Ohio
Alden Products Co, Inc, Brockton	Mass
Appareillage Electrique Cehess, Paris	France
Atlee Corp, Winchester	Mass
Braun Tool & Instrument Co Inc, H, Hawthorne	N J
Bussmann Mfg Div McGraw-Edison Co, St Louis	Mo
Connor Spring Mfg Co Div Sloss & Britain San Francisco	Cal
Dante Electric Mfg Co, Bantam	Conn
Ercona Corp, New York	N Y
ETC Inc, Cleveland	Ohio
Federal Screw Products Inc, Chicago	Ill
Fuse Indicator Corp, Rockville	Md
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Hosiden Electronics Co Ltd, Osaka	Japan
Intelect Inc, Honolulu	Hawaii
Kolton Electric Mfg Co, Newark	N J
Matsushita Electric Industrial Co Ltd, Osaka	Japan
National Tel-Tronics Corp, Great Neck	N Y
Oneida Electronic Mfg Co, Meadville	Pa
Permonite Mfg Co, Chicago	Ill
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Robinson-Nugent Inc, New Albany	Ind
Sanyo Electric Co Ltd, Osaka	Japan
Schurter AG, H, 6002 Lucerne	Switzerland
Seastrom Mfg Co Inc, Glendale	Cal
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Staffall, Inc, Providence	R I
Sylvania Electric Prods Inc, Parts Div, Warren	Pa

HOLDERS--THERMISTOR

GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
Alloys Unlimited Inc, Melville	N Y
Atlee Corp, Winchester	Mass
Conax Corp, Buffalo	N Y
Connor Spring Mfg Co Div Sloss & Britain San Francisco	Cal
General Microwave Corp, Farmingdale	N Y
Isotronics Inc, New Bedford	Mass
MCS Corp, Monrovia	Cal
Pennsylvania Electronics Technology, Inc, Pittsburgh	Pa
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Robinson-Nugent Inc, New Albany	Ind
Seastrom Mfg Co Inc, Glendale	Cal
Veritron West Inc, Chatsworth	Cal
Yellow Springs Instrument Co Inc, Yellow Springs	Ohio

HOLDING FIXTURES SEE FIXTURES--HOLDING

HOLE PLUGS SEE PLUGS

HOLOGRAPHIC EQUIPMENT

Broomer Research Corp, Plainview	N Y
Conductron Corp, Ann Arbor	Mich
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Optics Technology Inc, Palo Alto	Cal
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Spectra-Physics, Mountain View	Cal
TRW Instruments, El Segundo	Cal

HONEYCOMB STRUCTURES

ALBANO HONEYCOMB DIV, AEROSPACE TECHNOLOGY CORP NEW YORK, N Y	**ADV PG 343**
AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
Albano Honeycomb Div, Aerospace Technology Corp New York	N Y
American Lava Corp, Chattanooga	Tenn
Avco Aerostructures Div, Nashville	Tenn
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Electronic Space Structures Corp, West Concord	Mass
EMI Electronics Ltd, Hayes, Middlesex	England
Goodyear Aerospace Corp, Akron	Ohio
Hexcel, Dublin	Cal
3M Company, St Paul	Minn
Parabam Inc, Hawthorne	Cal
Shielding Corp, Moorestown	N J
Technical Wire Products Inc, Cranford	N J
Wickes Industries Inc, Camden	N J
Zero Mfg Co, Burbank	Cal

New engineering manual available on request.

BONDED HONEYCOMB STRUCTURES

Typical Applications: Instrument Panels • Bulkheading and Flooring • Console Cabinets • Parabolic Reflectors • Access Doors • Test Benches • Mobile Shelters • Housings for Airborne Instruments • Packaging

Engineering Properties: Weight-to-Strength Ratio • Dielectric Barriers • R-F Shielding Properties • Corrosion and Fungus Proof • Low Moisture Absorption • Wide Temperature Range • Sound Deadening • Resistance to Sonic Vibration • Low Thermal Conductivity • High-heat Resistance

AEROSPACE TECHNOLOGY CORPORATION
555 West 54th Street, New York, N. Y.
212-PL 7-5887

SALES REPRESENTATIVES:
WIBCO CO.
4344 West Artesia Blvd.
Fullerton, California
714-523-1663
RAILWAY & POWER ENGR., LTD.
3745 St. James St. West
Montreal, Canada

HOODS--ASSEMBLY

BARNSTEAD CO DIV RITTER PFAUDLER CORP BOSTON	**MASS**
Advanced Purification System Co Inc, Great Neck	N Y
Agnew-Higgins Inc, Garden Grove	Cal
Baker Co, Inc, Biddeford	Me
Barnstead Co Div Ritter Pfaudler Corp, Boston	Mass
Clean Room Products Inc, Farmingdale	N Y
Edcraft Industries Inc, Linden	N J
Evans Equipment Co, Brookfield	Conn
Janel Inc, Stirling	N J
Kewaunee Scientific Equipment, Adrian	Mich
Kirk & Blum Mfg Co, Cincinnati	Ohio
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Matthews Research Inc, Alexandria	Va
Metalab Equipment Co, Hicksville	N Y
Ramney Industries Corp, Farmingdale	N J

HOODS--DISPLAY

Bennett Mfg Co, Inc, Alden	N Y
Edcraft Industries Inc, Linden	N J

HOOKUP WIRE SEE WIRE--HOOKUP

HORIZONTAL DEFLECTION TRANSFORMERS SEE

TRANSFORMERS SPECIAL

HORNS--WAVEGUIDE

ALUMINUM DESIGN CORP, BROOKFIELD	**ILL**
AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE	**NY**
AMPHENOL, DANBURY	**CONN**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
TRANSCO PRODUCTS INC, VENICE	**CAL**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
Ainslie Corp, Braintree	Mass
Aircom Inc, Union	N H
Airtec Inc, Roselle	N J
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alpha Industries Inc, Newton Upper Falls	Mass
Aluminum Design Corp, Brookfield	Ill
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Amphenol, Danbury	Conn
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Arra, Inc, Bayshore	NY
Arwood Corp, Rockleigh	NJ
Bart Microwave Div Bart Mfg Corp, Newark	N J
Bean & Co, Morris, Yellow Springs	Ohio
Cardwell Condenser Corp, Lindenhurst	N Y
Chu Associates Inc, Littleton	Mass
Communication Structures Inc, West Concord	Mass
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Diamond Antenna & Microwave Corp, Winchester	Mass
Eastern Microwave Corp, Winchester	Mass
Electroforms Inc, Gardena	Cal
Electronic Specialty Co, Los Angeles	Cal
E & M Labs, North Hollywood	Cal
Gabriel Electronics Div Maremont Corp, Saco	Maine
Guide Industries Inc, Sun Valley	Cal
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia	Pa
Kling Metal Spinning & Stpg Corp, New York	N Y
Maury Microwave Corp, Montclair	Cal
MCS Corp, Monrovia	Cal
Meridian Metalcraft Inc, Whittier	Cal
Microlab/F X R, Livingston	N J
Micro-Radionics Inc, Van Nuys	Cal
Microwave Development Labs Inc Needham Heights	Mass
Microwave Filter Co Inc, East Syracuse	NY
Microwave Labs of America, Brooklyn	N Y
Microwave Products Inc, Chatsworth	Cal
Narda Microwave Corp, Plainview	N Y
Neico Microwave Co, Waltham	Mass
O'Dell Brothers, Mountain View	Cal
Omega Laboratories Inc, Rowley	Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Portchester Instrument Corp, Port Chester	N Y
Premier Microwave Corp, Port Chester	N Y
Radiation Systems Inc, McLean	Va
Rantec Div Emerson Electric Co, Calabasas	Cal
R F Systems Inc, Cohasset	Mass
Scientific-Atlanta Inc, Atlanta	Ga
Sedco Systems Inc, Farmingdale	N Y
Specialty Waveguide Corp, Burlington	Mass
Transco Products Inc, Venice	Cal
TRG Div Control Data Corp, East Boston	Mass
Victor R F & Microwave Co, Wakefield	Mass
Waveline Inc, West Caldwell	N J

HOUSINGS SEE ENCLOSURES; CABINETS; CASES

HOUSINGS--ANTENNA SEE ALSO RADOMES

Abalon Precision Mfg Corp, Bronx	N Y
Air Inflatable Products Co, East Haven	Conn
Birdair Structures Inc, Buffalo	N Y
Chu Associates Inc, Littleton	Mass
Corning Glass Works, Corning	N Y
C/P Corp, Columbia	S C
Decatur Electronics Inc, Decatur	Ill
Electronic Space Structures Corp, West Concord	Mass
Elzee Metal Products Co Inc, Brooklyn	N Y
Emerson Plastics Corp, Bronx	New York
Francis Industries, Pataskala	Ohio
Goldsman Inc, Philadelphia	Pa
Goodyear Aerospace Corp, Akron	Ohio
Insulating Shapes Inc, Bronx	N Y
Kidde & Co Inc, Walter, Belleville	N J
Kling Metal Spinning & Stpg Corp, New York	N Y
Koppers Co Inc, Pittsburgh	Pa
McMillan Radiation Labs Inc, Ipswich	Mass
Metal Fab Div, Artisan Industries Inc, Waltham	Mass
Norrich Plastics Corp, Roosevelt	N Y
Parabam Inc, Hawthorne	Cal
Radiation Systems Inc, McLean	Va
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Spring City Electrical Mfg Co, Spring City	Pa
Stafford Mfg Co Inc, Brooklyn	N Y
Wickes Industries Inc, Camden	N J

HOUSINGS--METAL, SMALL SEE CANS

HUMIDITY CHAMBERS SEE CHAMBERS

HUMIDITY CONTROLS SEE CONTROLS--HUMIDITY

HUMIDITY INDICATORS SEE INDICATORS--HUMIDITY

HUMIDITY RECORDERS SEE RECORDERS--HUMIDITY

HYBRID JUNCTIONS--MICROWAVE See Also COUPLERS--MICROWAVE

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE	**NY**
ANAREN MICROWAVE INC, SYRACUSE	**N Y**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
LEL DIV VARIAN ASSOCIATES, COPIAGUE	**N Y**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
TRANSCO PRODUCTS INC, VENICE	**CAL**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
VARI-L CO INC, STAMFORD	**CONN**
Aircom Inc, Union	N H
Airtec Inc, Roselle	N J
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alford Mfg Co, Winchester	Mass
Allied Research & Engineering Co, Los Angeles	Cal
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Anaren Microwave Inc, Syracuse	N Y
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Anzac Electronics, Waltham	Mass
Applied Microwave Lab, Inc, Andover	Mass
Applied Research, Inc, Port Washington	N Y
Arra, Inc, Bayshore	NY
Arwood Corp, Rockleigh	NJ
Astrolab Inc, Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Ball Brothers Research Corp, Boulder	Colo
Beckman Instruments Inc, Fullerton,	Cal
Cardwell Condenser Corp, Lindenhurst	N Y
Communication Dynamics Corp, Yonkers	N Y
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Diamond Antenna & Microwave Corp, Winchester	Mass
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electronic Specialty Co, Los Angeles	Cal
Electronic Standards Corp, Plainfield	N J
Elpac Inc Systems Div RF, Irvine	Cal
General Microwave Corp, Farmingdale	N Y
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hyletronics Corp, Wilmington	Mass
Lel Div Varian Associates, Copiague	N Y
Lieco Inc, West Babylon	N Y
Lorch Electronics Corp, Englewood	N J
Maury Microwave Corp, Montclair	Cal
MCS Corp, Monrovia	Cal
Melabs, Palo Alto	Cal
Meridian Metalcraft Inc, Whittier	Cal
Merrimac Research & Development Inc West Caldwell,	N J
Microlab/F X R, Livingston	N J
Microphase Corp, Greenwich	Conn
Micro-Radionics Inc, Van Nuys	Cal
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Development Labs Inc Needham Heights	Mass
Microwave Labs of America, Brooklyn	N Y
Narda Microwave Corp, Plainview	N Y
Neico Microwave Co, Waltham	Mass
Nippon Electric Co Ltd, Tokyo	Japan
O'Dell Brothers, Mountain View	Cal
Omega Laboratories Inc, Rowley	Mass
Omni Spectra Inc, Farmington	Mich
Phelps Dodge Electronic Products Corp North Haven	Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Portchester Instrument Corp, Port Chester	N Y
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Premier Microwave Corp, Port Chester	N Y
Radiation Systems Inc, McLean	Va
Rantec Div Emerson Electric Co, Calabasas	Cal
R F Systems Inc, Cohasset	Mass
RLC Electronics Inc, Port Chester	N Y
Sanders Associates, Inc, Nashua	N H
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst	NY
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Transco Products Inc, Venice	Cal
TRG Div Control Data Corp, East Boston	Mass
Vari-L Co Inc, Stamford	Conn
Vector Industries A Teledyne Co, Palo Alto	Cal
Victor R F & Microwave Co, Wakefield	Mass
Waveline Inc, West Caldwell	N J

HYDROFORM FABRICATION

MAGNETIC SHIELD DIV, PERFECTION MICA CO, CHICAGO ILL	**ADV PG 345**
Bossert Mfg Co, Utica	NY
Magnetic Shield Div, Perfection Mica Co, Chicago	Ill

HYDROPHONES

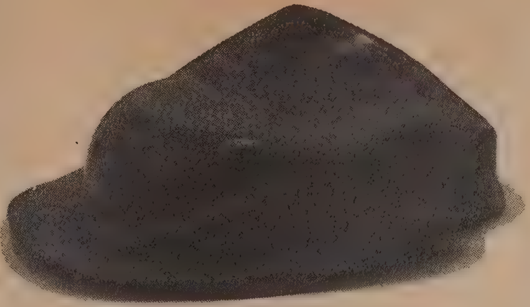
ITHACO INC, ITHACA	**N Y**
Acoustica Associates Inc, Los Angeles	Cal
Alcatel, Paris 8eme	France
Alpine Geophysical Assoc Inc, Norwood	N J
Aquadyne Inc, East Falmouth	Mass
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Burnett Electronics Lab Inc, San Diego	Cal
C B S Labs Div Columbia Bdcstg Sys Inc Stamford	Conn
Channel Industries Inc, Santa Barbara	Cal
Columbia Research Labs Inc, Woodlyn	Pa
Edo Corp, College Point	NY
Edo Western Corp, Salt Lake City	Utah
E G & G Inc Custom Equip Div, Bedford	Mass
E G & G Int'l Inc Geodyne Div, Waltham	Mass
Electronics Communications Div Atlantic Research Corp Alexandria	Va
Geodyne Div EG&G Int'l, Waltham	Mass
Gulton Industries Inc, Metuchen	N J
Hydro Products Div Dillingham Corp, San Diego	Cal
International Transducer Corp, Goleta	Cal
Ithaco Inc, Ithaca	N Y
Kistler Instrument Corp, Clarence	N Y
Linden Labs Inc, State College	Pa
Massa Div Dynamics Corp of America, Hingham	Mass
NUS Corp, Underwater Sys Div, Paramus	N J
Oki Electric Industry Co Ltd, Tokyo	Japan
Research Mfg Corp, San Diego	Cal
Sparton Corp, Jackson	Mich
Sparton Electronics, Jackson	Mich
Straza Industries Div Ametek Inc, El Cajon	Cal
Wilcoxon Research, Bethesda	Md

I-F AMPLIFIERS SEE AMPLIFIERS--I-F

IGNITION SYSTEMS--ELECTRONIC

SYSTRON DONNER CORP, CONCORD	**CAL**
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK	**N J**
WAGNER ELECTRIC CORP, TUNG-SOL DIV, LIVINGSTON	**N J**
American Cable Electronic Supply Inc, Sacramento	Cal
Applied Electronics Corp of N J, Metuchen	N J
Automatic Radio Sales Inc, Melrose	Mass
Aviation Electric Ltd, St Laurent, Montreal	Que
Bendix Corp Electrical Components Div, Sidney	N Y
Canadian Research Institute, Don Mills	Ont
Co-Operative Industries Inc, Chester	N J
Delta Products Inc, Grand Junction	Colo
Dowa Trading Co Ltd, Kobe	Japan
Electronic Homes Co, New York	N Y
Estes Engineering Co, Gardena	Cal
General Laboratory Assoc Inc, Norwich	N Y
Good Electronic Corp, Bedford	Mass
Modelectric Products Corp, Asbury Park	N J
Phelon Co Inc, R E, East Longmeadow	Mass
Renco Electronics Inc, Hicksville	N Y
Rocket Research Corp, Redmond	Wash
Rotax Ltd, London NW 10	Eng
Systron Donner Corp, Concord	Cal
Triple A Specialty Co, Chicago	Ill
TRW Systems Group, Redondo Beach	Cal
Tung-Sol Div Wagner Electric Corp, Newark	N J
Ultra Electronics Ltd, London, W 3	England
Wagner Electric Corp, Tung-Sol Div, Livingston	N J
Workman Electronic Products Inc, Sarasota	Fla

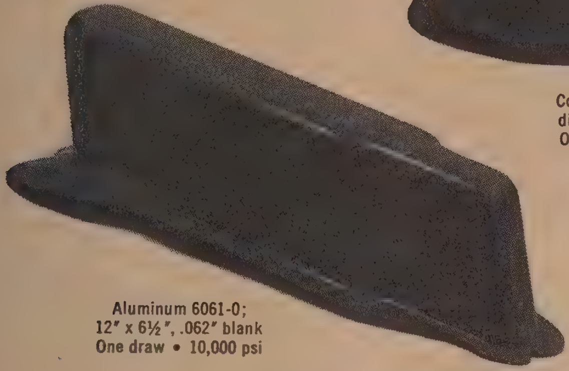
Brass 70-30; 12″
diameter, .35″ blank
One draw • 12,000 psi



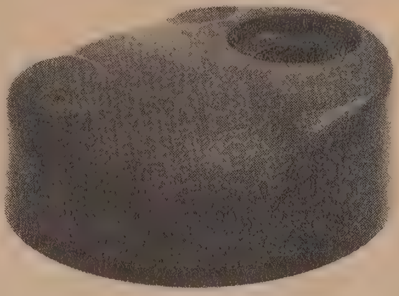
Aluminum 5257-0;
12″ diameter, .035″ blank
One draw • 5,000 psi

Stainless Steel 304;
12″ diameter, .030″ blank
Two draws • 14,000 psi

Cold Rolled Steel; 22″
diameter, .024″ blank
One draw • 7,000 psi



Aluminum 6061-0;
12″ x 6½″, .062″ blank
One draw • 10,000 psi

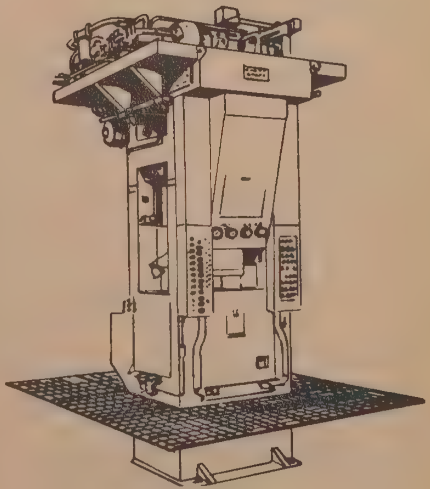


Stainless Steel 302;
7″ diameter, .020″ blank
One draw • 10,000 psi

PROFIT MINDED?

Perfection Mica's Hydroforming Service will economically and accurately form your metal parts to any size or shape . . . with minimum scrap and low tooling and finishing costs. Even difficult shapes of metal are formed easily. (A few typical examples are illustrated above). Equally efficient for high or low volume production runs . . . plus the quick changeover and low set-up charges traditional with hydroforming. Centrally located in the midwest for rapid delivery and low shipping costs.

If hydroforming fits your needs, send us your drawing and we'll fabricate to your requirements.



PERFECTION MICA COMPANY

1322 N. Elston Avenue, Chicago, Illinois 60622
Phone 312, EV 4-2122. TWX 910 221-0105.

IMAGE SCANNERS SEE SCANNERS—IMAGE

IMPACT SWITCHES SEE SWITCHES—AUTOMATICALLYOPERATED, INERTIA

IMPEDANCE BRIDGES SEE BRIDGES

IMPEDANCE COMPARATOR BRIDGES SEE COMPARATORS

IMPEDANCE PLOTTERS SEE RECORDERS—GRAPHIC

IMPREGNATING MACHINES SEE MACHINES—IMPREGNATING

IMPULSE COUNTERS SEE COUNTERS—ELECTRONIC

IMPULSE GENERATORS SEE GENERATORS—SIGNAL, PULSE

IMPULSE TIMERS SEE TIMERS—ELECTRONIC

INCANDESCENT LAMPS SEE LAMPS

INDICATORS—AIRCRAFT FLIGHT PANEL SEE AVIONIC EQUIPMENT

INDICATORS--ALPHANUMERIC

BOWMAR INSTRUMENT CORP, FORT WAYNE .... **IND**
BURROUGHS CORP ELECTRONIC COMPONENTS DIV PLAINFIELD .... **N J**
COMPUTER PRODUCTS INC, FORT LAUDERDALE .... **FLA**
DISCON CORP, FORT LAUDERDALE .... **FLA**
MICRO SWITCH DIV, HONEYWELL, FREEPORT .... **ILL**
NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
NON-LINEAR SYSTEMS INC, DEL MAR .... **CAL**
TECHMETRIC CO, REDWOOD CITY .... **CAL**
Alco Electronic Products, Inc, Lawrence .... Mass
Allard Instrument Corp, Westbury .... N Y
Atlantic Technology Corp, Somers Point .... N J
Bendix Corp Navigation & Control Div, Teterboro, ... N J
Bloomingdale Instruments Inc Div Metatronics Mfg Corp Hicksville .... N Y
Bowmar Instrument Corp, Fort Wayne .... Ind
Burroughs Corp Electronic Components Div Plainfield .... N J
C B S Labs Div Columbia Bdcstg Sys Inc Stamford .... Conn
Computer Products Inc, Fort Lauderdale .... Fla
Conrac Corp, New York .... N Y
Control Data Corp, Minneapolis .... Minn
Co-Ord Div LVC Industries Inc, Corona .... NY
Dialight Corp, Brooklyn .... N Y
Digitrol Systems Inc, Amenia .... N Y
Discon Corp, Fort Lauderdale .... Fla
EICO Electronic Instrument Co Inc, Brooklyn .... NY
General Indicator Corp, Pardeeville .... Wis
General Precision Systems Inc, Kearfott Gp Little Falls .... N J
Geo Space Systems Inc, St Petersburg .... Fla
Grimes Mfg Co, Urbana .... Ohio
Hartman Systems Co Inc, Huntington Station .... N Y
Industrial Electronic Engineers Inc, Van Nuys .... Cal
Information Displays Inc, Mt Kisco .... NY
Inter-Market Inc, Glenview Ill
International Tel & Tel Corp Industrial Prods Div San Fernando .... Cal
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
ITT Federal Labs, Fort Wayne .... Ind
Janus Control Div Tyco, Waltham .... Mass
Lear Siegler Inc, Instrument Div, Grand Rapids .... Mich
Loral Electronic Systems, Div Loral Corp, New York .... NY
Mesa Co, Bristol .... Pa
Micro Switch Div, Honeywell, Freeport Ill
Monsanto Co, St Louis .... Mo
Nippon Electric Co Ltd, Tokyo .... Japan
Non-Linear Systems Inc, Del Mar .... Cal
Pinlites, Inc, Fairfield .... N J
Presin Co Inc, Shelton .... Conn
Raytheon Co, Components Div, Ind Compnts Oper Quincy .... Mass
Selenia - Industrie Elettroniche Assoc, Rome .... Italy
Shelly Associates, Inc, El Segundo .... Cal
Signal & Communications Div Westinghouse Air Brake Co Pittsburgh .... Pa
Solari & C/Udine, Udine .... Italy
Sperry Flight Systems Div Sperry Rand Corp Phoenix .... Ariz
S R Engineering Inc, Gardena .... Cal
Tasker Industries, Van Nuys .... Cal
Techmetric Co, Redwood City .... Cal
Time-O-Matic Inc, Danville Ill
Transistor Electronics Corp, Minneapolis .... Minn
Visiontron Corp, New York .... N Y
Westinghouse Brake & Signal Co Ltd Automation Div Chippenham .... England

INDICATORS--ANTENNA-POSITION

AUTOMATION DEVELOPMENT CO, CULVER CITY .... **CAL**
DORNE & MARGOLIN INC, BOHEMIA .... **N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... **ADV PGS 7**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW .... **N Y**
SCIENTIFIC-ATLANTA INC, ATLANTA .... **GA**
TECHMETRIC CO, REDWOOD CITY .... **CAL**
Aircraft Instruments Co, Montgomeryville .... Pa
Antlab, Inc, Worthington .... Ohio
Automation Development Co, Culver City .... Cal
Bendix Corp Navigation & Control Div, Teterboro, ... N J
Chrysler Corp, Missile Div, Detroit .... Mich
Control Equipment Corp, Needham Heights .... Mass
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark .... N J
Dorne & Margolin Inc, Bohemia .... N Y
Electric Tachometer Corp, Philadelphia .... Pa
Gap Instrument Corp, Westbury .... N Y
General Electric Co, ECSO, Schenectady .... N Y
General Precision Systems Inc, Kearfott Gp Little Falls .... N J
Geo Space Systems Inc, St Petersburg .... Fla
Hartman Systems Co Inc, Huntington Station .... N Y
Hy-Gain Electronic Corp, Lincoln .... Neb
Kollsman Motor Corp, Dublin .... Pa
McMaster Products Corp, Chicago Ill
Measurement Technology Corp, Canoga Park .... Cal
Micro Metrics Inc, Paterson .... N J
National Water Lift Co, Instr & Control Oper Grand Rapids .... Mich
North Atlantic Industries Inc, Plainview .... N Y
Northridge Engineering Co Div Republic Corp Northridge .... Cal
Orbit Instrument Corp, Syosset .... N Y
Scientific-Atlanta Inc, Atlanta .... Ga
Selenia - Industrie Elettroniche Assoc, Rome .... Italy
Servo Development Corp, Hicksville .... N Y
Smiths Industries North America Ltd, Jamaica .... N Y
Sterling Mfg Co, Cleveland .... Ohio
Superior Mfg & Instrument Co, Long Island City .... N Y
Tasker Industries, Van Nuys .... Cal
Techmetric Co, Redwood City .... Cal
Theta Instrument Corp, Fairfield .... N J
Trylon Inc, Elverson .... Pa
Veeder-Root, Hartford .... Conn
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio
West Coast Research Corp, Los Angeles .... Cal
Weston-Transicoil, Weston Instruments Inc Worcester .... Pa

INDICATORS--ARC BACK

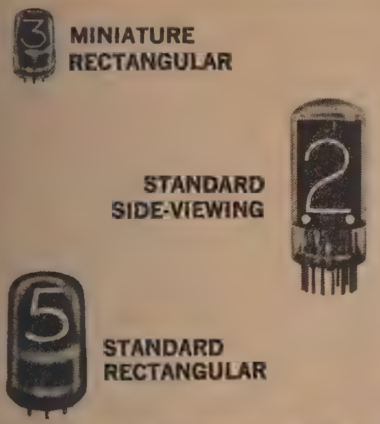
Energy Systems Inc, Palo Alto .... Cal

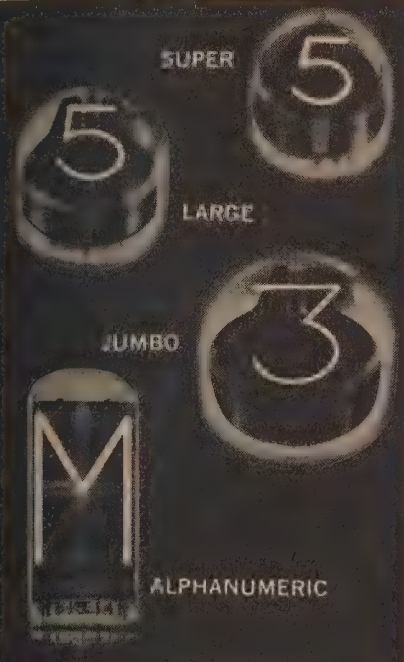
INDICATORS, DIGITAL--LAMP TYPE

BOWMAR INSTRUMENT CORP, FORT WAYNE .... **IND**
CIRCON COMPONENT CORP, GOLETA .... **CAL**
DISCON CORP, FORT LAUDERDALE .... **FLA**
MILGO ELECTRONIC CORP, MIAMI .... **FLA**
NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
NON-LINEAR SYSTEMS INC, DEL MAR .... **CAL**
TECHMETRIC CO, REDWOOD CITY .... **CAL**
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK .... **N J**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK .... **N J**
Alco Electronic Products, Inc, Lawrence .... Mass
Bloomingdale Instruments Inc Div Metatronics Mfg Corp Hicksville .... N Y
Bowmar Instrument Corp, Fort Wayne .... Ind
Burroughs Corp, Defense, Space & Spec Sys Group Paoli .... Pa
California Instruments Corp, San Diego .... Cal
Canadian Research Institute, Don Mills .... Ont
Circon Component Corp, Goleta .... Cal
Clare-Pendar Co, Post Falls .... Idaho
Control Logic Inc, Natick .... Mass
Co-Ord Div LVC Industries Inc, Corona .... NY
Counting Instruments Ltd, Hertfordshire .... England
Dialight Corp, Brooklyn .... N Y
Digitrol Systems Inc, Amenia .... N Y
Discon Corp, Fort Lauderdale .... Fla
Display Devices Inc, Santa Monica .... Cal
Drake Mfg Co, Harwood Heights Ill
E D P Corp, Orlando .... Fla
E G & G Int'l Inc Geodyne Div, Waltham .... Mass
EICO Electronic Instrument Co Inc, Brooklyn .... NY
Electronic Engineering Co of Cal, Santa Ana .... Cal
Ferranti, Ltd, Lancashire .... England
Ferwalt Inc W H, Lapwai .... Idaho
Fujitsu Ltd, Tokyo .... Japan
General Indicator Corp, Pardeeville .... Wis
Geodyne Div EG&G Int'l, Waltham .... Mass
Honeywell Industrial Div, Fort Washington .... Pa
Howell Instruments Co, Fort Worth .... Tex
Industrial Electronic Engineers Inc, Van Nuys .... Cal
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Lake Engineering Co Ltd, Scarborough .... Ont
LeCroy Research Systems Corp, West Nyack .... N Y
Leecraft Mfg Co Inc, Long Island City .... N Y
Loral Electronic Systems, Div Loral Corp, New York .... NY
Luminator Inc Display-Control Div, Plano .... Tex
Mesa Co, Bristol .... Pa
Milgo Electronic Corp, Miami .... Fla
Nippon Electric Co Ltd, Tokyo .... Japan
Non-Linear Systems Inc, Del Mar .... Cal
Numex Corp, Waltham .... Mass
Okaya Electric Industries Co Ltd, Tokyo .... Japan
Oki Electric Industry Co Ltd, Tokyo .... Japan
Oki Electronics of America, Inc, Fort Lauderdale .... Fla
Opcalite Inc, Santa Ana .... Cal
Oppenheimer, Inc, Willow Grove .... Pa
Optomechanisms Inc, Plainview .... N Y
Penn Keystone Corp, Ansonia .... Conn
Pennwood Numechron Co Tymeter Electronics Pittsburgh .... Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Pinlites, Inc, Fairfield .... N J
RC-95 Inc, New York .... N Y
Rosemount Plug-In Inc, Nashville .... Tenn
Schurter AG, H, 6002 Lucerne .... Switzerland
Science Accessories Corp, Southport .... Conn
Scientific Data Systems Inc, El Segundo .... Cal
Shelly Associates, Inc, El Segundo .... Cal
Sigma Instruments Inc, Braintree .... Mass
Simpson Electric Co, Chicago Ill
Sloan Co, Sun Valley .... Cal
Sperry Flight Systems Div Sperry Rand Corp Phoenix .... Ariz
Sunbeam Electronics, Fort Lauderdale .... Fla
Sunshine Scientific Instruments Inc, Philadelphia .... Pa
Techmetric Co, Redwood City .... Cal
Time-O-Matic Inc, Danville Ill
Transistor Electronics Corp, Minneapolis .... Minn
Transitron Electronic Corp, Wakefield .... Mass
Tung-Sol Div Wagner Electric Corp, Newark .... N J
Vernaline Products Co, Inc, Wycoff .... N J
Westinghouse Brake & Signal Co Ltd Automation Div Chippenham .... England
Weston Instruments Div Weston Instr Inc, Newark .... N J

INDICATORS, DIGITAL--MOVING SCALE OR DIAL

CONTROL KNOBS INC, JAMAICA .... **N Y**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND .... **OHIO**
IMC MAGNETICS CORP WESTERN DIV, MAYWOOD .... **CAL**
LINAIR DESIGN CORP, LINDEN .... **N J**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK .... **N J**
Admiral Corp, Gov Electronics Div, Chicago Ill
Allen/UTI, Kalamazoo .... Mich
American Hydromath Co, New Hyde Park .... N Y
Antlab, Inc, Worthington .... Ohio
Astronautics Corp of America, Milwaukee .... Wis
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham .... Mass
Canadian Research Institute, Don Mills .... Ont
C B S Labs Div Columbia Bdcstg Sys Inc Stamford .... Conn
Components Corp, Denville .... NJ
Consolidated Airborne Systems, Carle Place .... N Y
Control Knobs Inc, Jamaica .... N Y
Cox Instruments Div Lynch Corp, Detroit .... Mich
Daytronic Corp, Dayton .... Ohio
EICO Electronic Instrument Co Inc, Brooklyn .... NY
Fairbanks Morse Weighing Sys, Div Colt Indus Fair Lawn .... NJ
Ferranti, Ltd, Lancashire .... England
Gap Instrument Corp, Westbury .... N Y
Hartman Systems Co Inc, Huntington Station .... N Y
Haydon Co The, A W, Waterbury .... Conn
Hickok Electrical Instrument Co, Cleveland .... Ohio
Honeywell Industrial Div, Fort Washington .... Pa
IMC Magnetics Corp Western Div, Maywood .... Cal
Kinetic Instrument Co Div Nortek Inc, Brooklyn .... N Y
Kollsman Instrument Ltd, Southampton .... England
Kollsman Motor Corp, Dublin .... Pa
Lear Siegler Inc, Santa Monica .... Cal
Lewis Engineering Co, Naugatuck .... Conn
Linair Design Corp, Linden .... N J
Loral Electronic Systems, Div Loral Corp, New York .... NY
Martin-Decker Corp, Santa Ana .... Cal
Micro Metrics Inc, Paterson .... N J
Motorola Instrumentation & Control Inc, Phoenix .... Ariz
Norden Div, United Aircraft Corp, Norwalk .... Conn
Occo Mfg Corp, South Hackensack .... N J
Oppenheimer, Inc, Willow Grove .... Pa
Optomechanisms Inc, Plainview .... N Y
Patwin Electronics Div Patwin Inc, Waterbury .... Conn
Pennwood Numechron Co Tymeter Electronics Pittsburgh .... Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Precision Scientific Co Sub GCA Corp, Chicago Ill
Robertson Instrument Co, Azusa .... Cal
Scherr Tumico Inc, St James .... Minn
Servo Development Corp, Hicksville .... N Y
Signal & Communications Div Westinghouse Air Brake Co Pittsburgh .... Pa
Smiths Industries Ltd, Aviation Div Wembley, Mdsx .... England
Sperry Flight Systems Div Sperry Rand Corp Phoenix .... Ariz
Streeter-Amet, Grayslake Ill
Sunbeam Electronics, Fort Lauderdale .... Fla
Sunshine Scientific Instruments Inc, Philadelphia .... Pa
Taylor Instrument Cos, Rochester .... N Y
Thwing-Albert Instrument Co, Philadelphia .... Pa
Time-O-Matic Inc, Danville Ill
Transducers, Inc, Santa Fe Springs .... Cal
United Systems Corp, Dayton .... Ohio
Universal Comptronics Div Microwave Corp of Amer Thornwood .... N Y
Veeder-Root, Hartford .... Conn
Visiontron Corp, New York .... N Y
Weston Instruments Div Weston Instr Inc, Newark .... N J
Westronics Inc, Fort Worth .... Tex





BURROUGHS NIXIE® TUBES FOR EVERY APPLICATION

MINIATURE RECTANGULAR

STANDARD SIDE-VIEWING

STANDARD RECTANGULAR

SUPER

LARGE

JUMBO

ALPHANUMERIC

MINIATURE RECTANGULAR
Character Size 0.3"
Viewing Distance 14'

STANDARD SIDE-VIEWING
Character Size 0.6"
Viewing Distance 30'

STANDARD RECTANGULAR
Character Size 0.6"
Viewing Distance 30'

SUPER
Character Size 0.8"
Viewing Distance 38'

LARGE
Character Size 1.4"
Viewing Distance 65'

JUMBO
Character Size 2.0"
Viewing Distance 100'

ALPHANUMERIC
Character Sizes up to 2.5"
Viewing Distances up to 100'

Driver modules, decoders, counters, and complete assemblies are available.

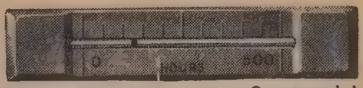
Burroughs Corporation
ELECTRONIC COMPONENTS DIVISION
PLAINFIELD, NEW JERSEY

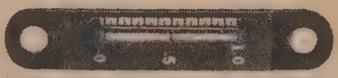
INDICATORS, DIGITAL--TUBE TYPE

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE	**NY**
BURROUGHS CORP ELECTRONIC COMPONENTS DIV, PLAINFIELD N J	**ADV PG 347**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
INTEGRATED CIRCUIT ELECTRONICS INC, WALTHAM	**MASS**
NATIONAL ELECTRONICS INC VARIAN SUB, GENEVA	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO JAPAN	**ADV PGS 752,753**
TECHMETRIC CO, REDWOOD CITY	**CAL**
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK	**N J**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
Allen/UTI, Kalamazoo	Mich
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Analogic Corp, Waltham	Mass
Applied Control Co, Cedar Grove	NJ
Baird-Atomic, Inc, Cambridge	Mass
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham	Mass
Burroughs Corp Electronic Components Div Plainfield	N J
Control Logic Inc, Natick	Mass
Digital Electronics Inc, Plainview	N Y
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee	Ill
EICO Electronic Instrument Co Inc, Brooklyn	NY
Emerson Electric Co, Indl Controls & Elctns Div St Louis	Mo
Haydon Co The, A W, Waterbury	Conn
Hickok Electrical Instrument Co, Cleveland	Ohio
Integrated Circuit Electronics Inc, Waltham	Mass
Inter-Market Inc, Glenview	Ill
ITT Europe Inc Components Gp, Brussels 1	Belgium
Janus Control Div Tyco, Waltham	Mass
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Martin-Decker Corp, Santa Ana	Cal
Milletron, Inc, Pittsburgh	Pa
National Electronics Inc Varian Sub, Geneva	Ill
Nippon Electric Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pinlites, Inc, Fairfield	N J
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Reliance Electric Co, Cleveland	Ohio
Sperry Flight Systems Div Sperry Rand Corp Phoenix	Ariz
Takeda Riken Industry Co Ltd, Tokyo	Japan
Techmetric Co, Redwood City	Cal
Technology/Versatronics Inc, Yellow Springs	Ohio
Transistor Electronics Corp, Minneapolis	Minn
Transitron Electronic Corp, Wakefield	Mass
Tung-Sol Div Wagner Electric Corp, Newark	N J
Varian, Palo Alto	Cal
Veeder-Root, Hartford	Conn
Wer Industrial Corp, Buffalo	N Y
Weston Instruments Div Weston Instr Inc, Newark	N J

INDICATORS--ELAPSED TIME

BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
CURTIS INSTRUMENTS INC, MT KISCO, N Y	**ADV PG 347**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
TECHMETRIC CO, REDWOOD CITY	**CAL**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
Aerospace Research, Inc, Boston	Mass
Airmec Instruments Ltd, Buckinghamshire	England
A L Controls Co, New Haven	Conn
A & M Instruments Inc, Great Neck	N Y
Amstro Corp, Fairfield	N J
Astrodata Inc, Anaheim	Cal
Beckman Instruments Inc, Fullerton,	Cal
Bergen Lab, Inc, Paterson	N J
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Bissett-Berman Corp, Santa Monica	Cal
Bitronics Inc, Bethlehem	Pa
Bloomingdale Instruments Inc Div Metatronics Mfg Corp Hicksville	N Y
Bowmar Instrument Corp, Fort Wayne	Ind
Bristol Motors-Timer Div Vocaline Corp of Amer Inc Old Saybrook	Conn
Canadian Marconi Co, Montreal 16	Quebec
Computer Logic Corp, Santa Monica	Cal
Condor Industrial Corp, West Chicago	Ill
Control Logic Inc, Natick	Mass
Co-Ord Div LVC Industries Inc, Corona	NY
Cramer Div Conrac Corp, Old Saybrook	Conn
Curtis Instruments Inc, Mt Kisco	N Y
Daco Instrument Co Inc, Trumbull	Conn
E D P Corp, Orlando	Fla
Electro-Med Instruments Inc, Houston	Tex
E N M Co, Chicago	Ill
Flow Corp, Watertown	Mass
General Electric Co, ECSO, Schenectady	N Y
Giannini-Voltex, Whittier	Cal
Haydon Co The, A W, Waterbury	Conn
Haydon Products, Ind Controls Div Gen Time Corp, Torrington	Conn
Haydon Switch & Instrument Inc, Waterbury	Conn
Heli-Coil Products, Div Heli-Coil Corp, Danbury	Conn
Heuer Electronics Corp, Norwalk	Conn
McElroy Electronics Corp, Shirley	Mass
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Pennwood Numechron Co Tymeter Electronics Pittsburgh	Pa





SIZE

full size Commercial

WEIGHT

full size MIL-I-81219(WP)

POWER

full size Commercial

COST

full size LEM Apollo

Four Good Reasons to consider Curtis Elapsed Time Meters

Curtis Instruments, Inc.
200 Kisco Avenue
Mount Kisco, N. Y. 10549
(914) 666-2971

Precision Scientific Co Sub GCA Corp, Chicago Ill
Rawco Instruments Inc, Fort Worth .... Tex
Robertson Instrument Co, Azusa .... Cal
Sela Electronics Co, New York .... N Y
Simpson Electric Co, Chicago Ill
Smiths Industries Ltd, Aviation Div Wembley, Mdsx .... England
Space & Systems Div General Time Corp Stamford .... Conn
Sticht Co Inc, Herman H, New York .... N Y
Streeter-Amet, Grayslake Ill

Sunshine Scientific Instruments Inc, Philadelphia ..... Pa
Techmetric Co, Redwood City .... Cal
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn .... N Y
Telecontrol Corp, Old Greenwich .... Conn
Veeder-Root, Hartford .... Conn
Vocaline Co of America Inc, Old Saybrook .... Conn
Watesta Electronics Ltd, London-E 11 .... England
Westinghouse Electric Corp, Relay & Instr Dept Newark .... N J
Weston Instruments Div Weston Instr Inc, Newark ... N J

INDICATORS--FAULT INDICATION SEE DETECTORS--FLAW & DEFECT, ELECTRONIC

INDICATORS--FLUID FLOW

COMPUTER INSTRUMENTS CORP, HEMPSTEAD .... N Y
Acoustica Associates Inc, Los Angeles .... Cal
Amlab Inc, Rahway .... NJ
Anadex Instruments, Inc, Van Nuys .... Cal
Andonian Associates, Inc, Waltham .... Mass
Audn Corp, Hamburg .... N Y
Aviation Electric Ltd, St Laurent, Montreal .... Que
Bailey Meter Co, Wickliffe .... Ohio
Bendix Corp, Flight & Engine Instr Div South Montrose .... Pa
B I F Unit General Signal Corp, Providence .... R I
Bissett-Berman Corp, Santa Monica .... Cal
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham .... Mass
Bristol Div, American Chain & Cable Co Waterbury .... Conn
Brooks Instrument Div, Hatfield .... Pa
B/W Controller Corp, Birmingham .... Mich
Computer Instruments Corp, Hempstead .... N Y
Computer Logic Corp, Santa Monica .... Cal
Consolidated Airborne Systems, Carle Place .... N Y
Consolidated Controls Corp, Bethel .... Conn
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena .... Cal
Controlotron Corp, Farmingdale .... N Y
Cox Instruments Div Lynch Corp, Detroit .... Mich
Decker Corp, Bala Cynwyd .... Pa
Dietz Co Inc, Henry G, Long Island City .... N Y
Digital Blending Systems Inc, Providence .... R I
Disa Elektronik A/S, Herlev .... Denmark
Doric Scientific Corp, San Diego .... Calif
Edison, Thomas A Industries, Instr Div West Orange .... N J
Elastronics Labs, Tarzana .... Cal
ElectroSyn Technology Labs, Inc, Canton .... Mass
Ellison Instrument Div Dieterich Std Corp New Buffalo .... Mich
E N M Co, Chicago Ill
Erdco Engineering Corp, Addison Ill
Fischer & Porter Co, Warminster .... Pa
Flowcon Co, Anaheim .... Cal
Flow Corp, Watertown .... Mass
Flow Technology Inc, Tempe .... Ariz
Foxboro Co, Foxboro .... Mass
Foxboro Co Valenica Plant, Valencia .... Cal
Fuji Electric Co Ltd, Tokyo .... Japan
Gems Co Inc, Farmington .... Conn
Gilmont Instruments Inc Roger, Great Neck .... N Y
Gilmore Industries Inc, Cleveland .... Ohio
Hartman Systems Co Inc, Huntington Station .... N Y
Harwil Co, Santa Monica .... Cal
Hersey-Sparling Meter Co, El Monte .... Cal
Honeywell Industrial Div, Fort Washington .... Pa
Industrial Instrument Corp, Austin .... Tex
Industrial Measurements Corp, Pomona .... Cal
Intertechnique, Plaisir, 78 .... France
ITT Barton Controls & Instr Div, Monterey Park ...... Calif
Kingmann-White Inc, Placentia .... Cal
Leupold & Stevens Instruments Inc, Portland .... Ore
Liquid Level Lectronics Inc, Richardson .... Tex
Matheson Gas Products, East Rutherford .... N J
McDonnell & Miller Inc, Chicago Ill
Memcor Div LTV Electrosystems Inc, Huntington ...... Ind
National Instrument Labs Inc, Rockville .... Md
Performance Measurements Co, Detroit .... Mich
Precision Mecanique Labinal, 93 Saint-Ouen ...... France
Ramapo Instrument Co Inc, Bloomingdale .... NJ
Revere Corp of America, Wallingford .... Conn
Robertshaw Controls Co, Aero & Instrument Div Anaheim .... Cal
Sigma Instruments Inc, Braintree .... Mass
Signet Controls Inc, Tulsa .... Okla
Smiths Industries Ltd, Aviation Div Wembley, Mdsx .... England
Sunbeam Electronics, Fort Lauderdale .... Fla
Taylor Instrument Cos, Rochester .... N Y
Technical Development Co, Glenolden .... Pa
Technology/Versatronics Inc, Yellow Springs .... Ohio
Thermo-Systems Inc, St Paul .... Minn
Tylan Corp, Torrance .... Cal
Veeder-Root, Hartford .... Conn
Wallace & Tieman Inc, Belleville .... N J
West Coast Research Corp, Los Angeles .... Cal
Westinghouse Electric Corp, Relay & Instr Dept Newark .... N J

Westronics Inc, Fort Worth .... Tex
Whittaker Corp Instrument Sys Div North Hollywood .... Cal

INDICATORS--HUMIDITY, ELECTRONIC

COMPUTER INSTRUMENTS CORP, HEMPSTEAD .... N Y
Abrax Instrument Corp, Jamaica .... N Y
Advance Instrument Corp, Belmar .... N I
American Instrument Co, Inc, Silver Spring .... Md
Amlab Inc, Rahway .... NJ
Amstro Corp, Fairfield .... N J
Atkins Technical, Inc, Gainesville .... Fla
Bacharach Instrument Co, Pittsburgh .... Pa
Beckman Instruments Inc, Fullerton, ... Cal
Bendix Corp Environmental Science Div, Baltimore .... Md
Cambridge Systems Inc, Newton .... Mass
Computer Instruments Corp, Hempstead .... N Y
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena .... Cal
Decca Radar, Inc, New York .... N Y
Doric Scientific Corp, San Diego .... Calif
Electron-Radar Products, Chicago Ill
El-Tronics Inc Warren Components Div, Warren .... Pa
Foxboro Co, Foxboro .... Mass
Foxboro Co Valenica Plant, Valencia .... Cal
Fuji Electric Co Ltd, Tokyo .... Japan
Gardner Lab Inc, Bethesda .... Md
Hill Inc E Vernon, San Francisco .... Cal
Honeywell Industrial Div, Fort Washington .... Pa
Hygrodynamics Inc, Silver Spring .... Md
Laucks Labs Inc, Redmond .... Wash
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Plessey Airborne Corp, Hillside .... NJ
Sigma Instruments Inc, Braintree .... Mass
Strandberg Engineering Labs Inc, Greensboro .... N C
Sunshine Scientific Instruments Inc, Philadelphia ..... Pa
Taylor Instrument Cos, Rochester .... N Y
Technology/Versatronics Inc, Yellow Springs .... Ohio
Thorn Automation Ltd, Rugeley, Staffs .... England
Wells Industries Corp, North Hollywood .... Cal
West Coast Research Corp, Los Angeles .... Cal
Westronics Inc, Fort Worth .... Tex

INDICATORS--ILLUMINATED

BOWMAR INSTRUMENT CORP, FORT WAYNE .... IND
BURROUGHS CORP ELECTRONIC COMPONENTS DIV PLAINFIELD .... N J
CIRCON COMPONENT CORP, GOLETA, CAL .... ADV PG 332
DISCON CORP, FORT LAUDERDALE .... FLA
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
MICRO SWITCH DIV, HONEYWELL, FREEPORT ILL
MOLEX PRODUCTS CO, DOWNERS GROVE ILL
PARKER INSTRUMENT CORP, STAMFORD .... CONN
TECHMETRIC CO, REDWOOD CITY .... CAL
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK .... N J
Aerolite Electronics Corp, Union City .... N J
Aircraft Instruments Co, Montgomeryville .... Pa
Alco Electronic Products, Inc, Lawrence .... Mass
American Machine & Foundry Co Alexandria Div Alexandria .... Va
A & M Instruments Inc, Great Neck .... N Y
Applied Control Co, Cedar Grove .... NJ
Astronautics Corp of America, Milwaukee .... Wis
Audn Corp, Hamburg .... N Y
Autocon Industries, Inc, St Paul .... Minn
Avnet Electronics, Westbury .... N Y
Bailey Meter Co, Wickliffe .... Ohio
Bloomingdale Instruments Inc Div Metatronics Mfg Corp Hicksville .... N Y
Bowmar Instrument Corp, Fort Wayne .... Ind
Burroughs Corp Electronic Components Div Plainfield .... N J
Burtek Inc, Tulsa .... Okla
Canrad Precision Industries Inc, New York .... N Y
Carling Electric Inc, West Hartford .... Conn
Circon Component Corp, Goleta .... Cal
Clare-Pendar Co, Post Falls .... Idaho
Control Switch Div Controls Co of America, Folcroft ... Pa
Co-Ord Div LVC Industries Inc, Corona .... NY
Decca Radar, Inc, New York .... N Y
Dialight Corp, Brooklyn .... N Y
Discon Corp, Fort Lauderdale .... Fla
Dixson Inc Meter Div, Grand Junction .... Colo
Drake Mfg Co, Harwood Heights Ill
Edison, Thomas A Industries, Instr Div West Orange .... N J
Eldema Div Genisco Technology Corp, Compton ...... Cal
Electronic Engineering Co of Cal, Santa Ana .... Cal
Federal Screw Products Inc, Chicago Ill
Furnas Electric Co, Batavia Ill
General Electric Co, ECSO, Schenectady .... N Y
General Precision Systems Inc, Kearfott Gp Little Falls .... N J
Grimes Mfg Co, Urbana .... Ohio
Hartman Systems Co Inc, Huntington Station .... N Y
Impectron Inc, New York .... N Y
Industrial Electronic Engineers Inc, Van Nuys .... Cal
Inter-Market Inc, Glenview Ill
ITT Europe Inc Components Gp, Brussels 1 ...... Belgium
Jay-El Products Inc, Gardena .... Cal
Kollsman Motor Corp, Dublin .... Pa
Korry Mfg Co, Seattle .... Wash
Lear Siegler Inc, Santa Monica .... Cal
Lear Siegler Inc, Instrument Div, Grand Rapids ..... Mich
Loral Electronic Systems, Div Loral Corp, New York ... NY
Luminator Inc Display-Control Div, Plano .... Tex
Marco-Oak Industries, Anaheim .... Cal

Master Specialties Co, Costa Mesa C
Micro Switch Div, Honeywell, Freeport ....
Molex Products Co, Downers Grove I
Mura Corp, Great Neck .... N
Numex Corp, Waltham .... Mas
Oppenheimer, Inc, Willow Grove .... P
Parker Instrument Corp, Stamford .... Con
Partrick & Wilkins Co, Philadelphia .... P
Penn Keystone Corp, Ansonia .... Con
Pennwood Numechron Co Tymeter Electronics Pittsburgh .... P
Radar Relay Div, Teledyne Inc, Santa Monica .... Ca
Rovalco Controls, Torrance .... Ca
Schurter AG, H, 6002 Lucerne .... Switzerlan
Shelly Associates, Inc, El Segundo .... Ca
Sierra Electric Inc, Gardena .... Ca
Sloan Co, Sun Valley .... Ca

Smiths Industries Ltd, Aviation Div Wembley, Mdsx .... Englan
Sorenson Lighted Controls Inc, West Hartford .... Con
Staco Inc, Standard Elec Prods Co, Costa Mesa ...... Ca
Sunbeam Electronics, Fort Lauderdale .... Fl
Sunshine Scientific Instruments Inc, Philadelphia ..... P
Superior Mfg & Instrument Co, Long Island City ..... N
Sylvania Electric Prods Inc Lamp Div, Danvers ..... Mas
Techmetric Co, Redwood City .... Ca
Transistor Electronics Corp, Minneapolis .... Min
Ucinite Co Div United-Carr, Newtonville .... Mas
United-Carr Inc, Boston .... Mas
Utility Communication Systems Inc, Essington .... P
Waber Electronics Inc, Philadelphia .... P
Wac Line Div Simmonds Precision Prods, Dayton .... Ohi
Western Indicator Co Inc, South El Monte .... Cal
Westinghouse Brake & Signal Co Ltd Automation Div Chippenham .... England
Westmoreland Plastics Co, Latrobe .... Pa
Weston Instruments Div Weston Instr Inc, Newark ... N J

INDICATORS, LEVEL--DRY MATERIALS

Acoustica Associates Inc, Los Angeles .... Cal
Aladdin Controls Div Aladdin Electronics Nashville .... Tenn
American Electronic Controls Inc, Philadelphia .... Pa
Amiproducts Corp, New York .... N Y
Automation Products, Inc, Houston .... Tex
Aviation Electric Ltd, St Laurent, Montreal .... Que
Bin Dicator Co, Detroit .... Mich
Controlotron Corp, Farmingdale .... N Y
Decker Corp, Bala Cynwyd .... Pa
Delavan Mfg Co, West Des Moines .... Iowa
Dietz Co Inc, Henry G, Long Island City .... N Y
Digitrol Systems Inc, Amenia .... N Y
Drexelbrook Engineering Co, Glenside .... Pa
Fuji Electric Co Ltd, Tokyo .... Japan
General Electric Co X-Ray Dept, Milwaukee .... Wis
Hird-Brown Ltd, Bolton, Lancs .... England
In-Val-Co, Tulsa .... Okla
Martin-Decker Corp, Santa Ana .... Cal
Metritape Controls Inc, West Concord .... Mass
M Ten Bosch, Inc, Pleasantville .... N Y
National Sonics Corp, Farmingdale .... N Y
Ohmart Corp, Cincinnati .... Ohio
Photobell Co Inc, New York .... N Y
Revere Corp of America, Wallingford .... Conn
Robertshaw Controls Co, Aero & Instrument Div Anaheim .... Cal
Statham Instruments Inc, Los Angeles .... Cal
Streeter-Amet, Grayslake Ill
Tateisi Electronics Co, Ukyo-ku, Kyoto .... Japan
Taylor Instrument Cos, Rochester .... N Y
Thorn Automation Ltd, Rugeley, Staffs .... England
Utility Communication Systems Inc, Essington .... Pa

INDICATORS, LEVEL--LIQUIDS

COMPUTER INSTRUMENTS CORP, HEMPSTEAD .... N Y
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
Acoustica Associates Inc, Los Angeles .... Cal
Aerometrics Div Aerojet-General Corp, San Ramon .... Cal
Aladdin Controls Div Aladdin Electronics Nashville .... Tenn
All-O-Matic Mfg Corp, New Hyde Park .... N Y
American Electronic Controls Inc, Philadelphia .... Pa
American-Standard Controls Div, Detroit .... Mich
Amiproducts Corp, New York .... N Y
Amlab Inc, Rahway .... NJ
Andonian Associates, Inc, Waltham .... Mass
Audn Corp, Hamburg .... N Y
Autocon Industries, Inc, St Paul .... Minn
Automation Products, Inc, Houston .... Tex
Aviation Electric Ltd, St Laurent, Montreal .... Que
Bailey Meter Co, Wickliffe .... Ohio
Beckman Instruments Inc, Fullerton, ... Cal
Bendix Corp Environmental Science Div, Baltimore .... Md
Bendix Corp, Flight & Engine Instr Div South Montrose .... Pa
B I F Unit General Signal Corp, Providence .... R I
Bin Dicator Co, Detroit .... Mich
Bristol Div, American Chain & Cable Co Waterbury .... Conn
Brooks Instrument Div, Hatfield .... Pa
B/W Controller Corp, Birmingham .... Mich
C-E Electronics Inc, Glenside .... Pa
Cie De Signaux Et D'Entreprises Electriques Paris 17eme .... France
Computer Instruments Corp, Hempstead .... N Y
Conrac Corp, New York .... N Y
Consolidated Airborne Systems, Carle Place .... N Y
Consolidated Controls Corp, Bethel .... Conn

Consolidated Ohmic Devices Inc, Carle Place .... N Y
Controlotron Corp, Farmingdale .... N Y
Cooke Vacuum Products Inc, South Norwalk .... Conn
Cryogenic Engineering Co, Denver .... Colo
Cryogenic Research Co Inc, Boulder .... Colo
CVI Corp, Columbus .... Ohio
Daniel Industries, Inc, Houston .... Tex
Decker Corp, Bala Cynwyd .... Pa
Delavan Mfg Co, West Des Moines .... Iowa
Device Seals Inc, Sun Valley .... Cal
Dietz Co Inc, Henry G, Long Island City .... N Y
Digitrol Systems Inc, Amenia .... N Y
Drexelbrook Engineering Co, Glenside .... Pa
Edison, Thomas A Industries, Instr Div West Orange .... N J
EICO Electronic Instrument Co Inc, Brooklyn .... NY
ElectroSyn Technology Labs, Inc, Canton .... Mass
Ellison Instrument Div Dieterich Std Corp New Buffalo .... Mich
Fairchild Controls, Hicksville .... N Y

Fastex Div Illinois Tool Works, Des Plaines Ill
Fischer & Porter Co, Warminster .... Pa
Foxboro Co, Foxboro .... Mass
Foxboro Co Valenica Plant, Valencia .... Cal
FRL Inc Fisher Research Lab, Palo Alto .... Cal
Fuji Electric Co Ltd, Tokyo .... Japan
Fulton Sylphon Div Robertshaw Controls Co Knoxville .... Tenn
Gems Co Inc, Farmington .... Conn
General Electric Co, ECSO, Schenectady .... N Y
General Electric Co X-Ray Dept, Milwaukee .... Wis
General Hardware Mfg Co Inc, New York .... N Y
Hersey-Sparling Meter Co, El Monte .... Cal
Hird-Brown Ltd, Bolton, Lancs .... England
Honeywell Industrial Div, Fort Washington .... Pa
Industrial Instrument Corp, Austin .... Tex
International Controls Corp Cryogenics Div Fairfield .... N J
In-Val-Co, Tulsa .... Okla
ITT Barton Controls & Instr Div, Monterey Park .... Calif
Jungner Instrument AB, S-10440 Stockholm 14 .... Sweden
Kingmann-White Inc, Placentia .... Cal
Leupold & Stevens Instruments Inc, Portland .... Ore
Liquid Level Lectronics Inc, Richardson .... Tex
Lockheed Georgia Nuclear Lab, Marietta .... Ga
Lucci & Co, Sarasota .... Fla
Lunkenheimer Co Sub Condec Corp, Cincinnati .... Ohio
Magnetrol Inc, Downers Grove Ill
Memcor Div LTV Electrosystems Ino, Huntington .... Ind
Metritape Controls Inc, West Concord .... Mass
M Ten Bosch, Inc, Pleasantville .... N Y
National Sonics Corp, Farmingdale .... N Y
Neill Engineering Co, East Hartland .... Conn
Ohmart Corp, Cincinnati .... Ohio
Photobell Co Inc, New York .... N Y
Precision Mecanique Labinal, 93 Saint-Ouen .... France
Revere Corp of America, Wallingford .... Conn
Robertshaw Controls Co, Aero & Instrument Div Anaheim .... Cal
Smiths Industries Ltd, Aviation Div Wembley, Mdsx .... England
Statham Instruments Inc, Los Angeles .... Cal
Streeter-Amet, Grayslake Ill
Sunshine Scientific Instruments Inc, Philadelphia .... Pa
Tateisi Electronics Co, Ukyo-ku, Kyoto .... Japan
Taylor Instrument Cos, Rochester .... N Y
Technical Development Co, Glenolden .... Pa
Thorn Automation Ltd, Rugeley, Staffs .... England
Trans-Sonics Inc, Lexington .... Mass
Universal Comptronics Div Microwave Corp of Amer Thornwood .... N Y
Utility Communication Systems Inc, Essington .... Pa
Westronics Inc, Fort Worth .... Tex
Win-Elco, Gold Hill .... Ore

INDICATORS--NULL

AMMON INSTRUMENTS INC, MANCHESTER .... N H
API INSTRUMENTS CO, CHESTERLAND .... OHIO
ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK .... KAN
FLUKE MFG CO INC, JOHN, SEATTLE .... WASH
HEWLETT-PACKARD, PALO ALTO .... CAL
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO .... ADV PGS 8
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON .... N Y
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW .... N Y
NORTH HILLS ELECTRONICS INC, GLEN COVE .... N Y
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG .... MD
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK .... N J
Adage Inc, Boston .... Mass
Ad-Yu Electronics Inc, Passaic .... N J
A & M Instruments Inc, Great Neck .... N Y
Ammon Instruments Inc, Manchester .... N H
Amprobe Instrument Div Soss Mfg Co, Lynbrook .... N Y
Antlab, Inc, Worthington .... Ohio
Anzac Electronics, Waltham .... Mass
API Instruments Co, Chesterland .... Ohio
Audn Corp, Hamburg .... N Y
Ballantine Laboratories, Inc, Boonton .... N J
B & F Instruments, Inc, Cornwells Heights .... Pa
Bitronics Inc, Bethlehem .... Pa
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham .... Mass
Bristol Div, American Chain & Cable Co Waterbury .... Conn
Canadian Research Institute, Don Mills .... Ont
Clinton Instrument Co, Clinton .... Conn
Decker Corp, Bala Cynwyd .... Pa
Dixson Inc Meter Div, Grand Junction .... Colo
Dytronics Co Inc, Columbus .... Ohio
Electronic Research co, A Textron Co Overland Park .... Kan
Electro Scientific Industries Inc, Portland .... Ore
Epic Inc, New York .... N Y
Fairbanks Morse Weighing Sys, Div Colt Indus Fair Lawn .... NJ
Fluke Mfg Co Inc, John, Seattle .... Wash
Freed Transformer Co Inc, Brooklyn .... N Y
Fuji Electric Co Ltd, Tokyo .... Japan
Guildline Instruments Ltd, Smiths Falls .... Ont
Hallmark Standards Inc, Mamaroneck .... N Y
Hewlett-Packard, Palo Alto .... Cal
Honeywell Test Instruments Div, Denver .... Colo
Howell Instruments Co, Fort Worth .... Tex
Impectron Inc, New York .... N Y
Industrial Control Co, Farmingdale .... N Y
Industrial Test Equipment Co, Port Washington .... N Y
International Instruments Div Sigma Instr Inc, Orange .... Conn
Keithley Instruments Inc, Cleveland .... Ohio
Kollsman Motor Corp, Dublin .... Pa
Landis & Gyr, Inc, New York .... N Y
Leeds & Northrup Co, Philadelphia .... Pa
Luft Instruments Inc, Lincoln .... Mass
Malaker Corp, High Bridge .... N J
Mastercraft Instrument Co, Dubuque .... Iowa
McKee-Pedersen Instruments, Danville .... Cal
Metermaster, Inc, Los Angeles .... Cal
Micro Metrics Inc, Paterson .... N J
Millivac Instruments Inc, Schenectady .... N Y
Monroe Electronics Inc, Middleport .... N Y
Muirhead Instruments Inc, Mountainside .... N J
Mura Corp, Great Neck .... N Y
Natel Engineering Co Inc, Van Nuys .... Cal
Neill Engineering Co, East Hartland .... Conn
North Atlantic Industries Inc, Plainview .... N Y
North Hills Electronics Inc, Glen Cove .... N Y
Phaostron Instrument & Electronic Co South Pasadena .... Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Plessey Airborne Corp, Hillside .... NJ
Princeton Applied Research Corp, Princeton .... N J
Q V S Inc, East Orange .... N J
Razdow Labs Inc, Newark .... N J
RFL Industries Inc, Instrumentation Div, Boonton .... N J
Rohde & Schwarz Sales Co USA Inc, Passaic .... N J
Sterling Mfg Co, Cleveland .... Ohio
Sunshine Scientific Instruments Inc, Philadelphia .... Pa
Superior Mfg & Instrument Co, Long Island City .... N Y
Taffet Electronics Inc, Woodside .... N Y
Taylor Instrument Cos, Rochester .... N Y
Thermal Systems Inc, Los Angeles .... Cal
Theta Instrument Corp, Fairfield .... N J
Transducers, Inc, Santa Fe Springs .... Cal
Trio Laboratories Inc, Plainview .... N Y
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio
Weinschel Engineering Co Inc, Gaithersburg .... Md
Westinghouse Electric Corp, Relay & Instr Dept Newark .... N J
Weston Instruments Div Weston Instr Inc, Newark .... N J
Westronics Inc, Fort Worth .... Tex
Winslow Tele-Tronics Inc, Asbury Park .... NJ

INDICATORS, NULL--POTENTIOMETER TYPE

AMPHENOL, JANESVILLE .... WISC
COMPUTER INSTRUMENTS CORP, HEMPSTEAD .... N Y
ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK .... KAN
FLUKE MFG CO INC, JOHN, SEATTLE .... WASH
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON .... TEX
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG .... MD
A & M Instruments Inc, Great Neck .... N Y
Amphenol, Janesville .... Wisc
Bendix Corp, Flight & Engine Instr Div South Montrose .... Pa
Binary Electronics of Cal Div Avionic Structures Inc Anaheim .... Cal
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham .... Mass
Bourns Inc Trimpot Div, Riverside .... Cal
Bristol Div, American Chain & Cable Co Waterbury .... Conn
Cambridge Systems Inc, Newton .... Mass
Carbonara Instrument Engrg Labs, Victor E, Port Washington .... N Y
Coltron Industries, Inc, Charlotte .... N C
Computer Instruments Corp, Hempstead .... N Y
Control Technology Co Inc, Long Island City .... N Y
Decker Corp, Bala Cynwyd .... Pa
Design Products Corp, Troy .... Mich
Doric Scientific Corp, San Diego .... Calif
Electronic Research co, A Textron Co Overland Park .... Kan
Electro Scientific Industries Inc, Portland .... Ore
Fairbanks Morse Weighing Sys, Div Colt Indus Fair Lawn .... NJ
Fisher-Akin Co, Manhattan Beach .... Cal
Fluke Mfg Co Inc, John, Seattle .... Wash
Fuji Electric Co Ltd, Tokyo .... Japan
Gap Instrument Corp, Westbury .... N Y
Gilmore Industries Inc, Cleveland .... Ohio
Guildline Instruments Ltd, Smiths Falls .... Ont
Hallmark Standards Inc, Mamaroneck .... N Y
Helm Instrument Co Inc, Toledo .... Ohio
Honeywell Industrial Div, Fort Washington .... Pa
Howell Instruments Co, Fort Worth .... Tex
Industrial Control Co, Farmingdale .... N Y
Keithley Instruments Inc, Cleveland .... Ohio
Kollsman Motor Corp, Dublin .... Pa
Leeds & Northrup Co, Philadelphia .... Pa
Lewis Engineering Co, Naugatuck .... Conn
Markite Corp, New York .... N Y
McKee-Pedersen Instruments, Danville .... Cal
Micro Metrics Inc, Paterson .... N J
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Plessey Airborne Corp, Hillside .... NJ
Princeton Applied Research Corp, Princeton .... N J
Pyro-Serv Instruments, Inc, North Arlington .... N J
Servo Development Corp, Hicksville .... N Y
Streeter-Amet, Grayslake Ill
Superior Mfg & Instrument Co, Long Island City .... N Y
Taylor Instrument Cos, Rochester .... N Y
Texas Instruments Inc Indl Prods Div, Houston .... Tex
Thermo Electric Co Inc, Saddle Brook .... N J
Thwing-Albert Instrument Co, Philadelphia .... Pa
Transducer Controls Corp, Covina .... Cal
Transducers, Inc, Santa Fe Springs .... Cal
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio
Weinschel Engineering Co Inc, Gaithersburg .... Md
Weston-Transicoil, Weston Instruments Inc Worcester .... Pa
Westronics Inc, Fort Worth .... Tex
Winslow Tele-Tronics Inc, Asbury Park .... NJ
Yokogawa Electric Works Inc, Larchmont .... N Y

INDICATORS—NUMERICAL DISPLAY SEE INDICATORS—DIGITAL

INDICATORS--pH

Amstro Corp, Fairfield .... N J
Analytical Measurements, Inc, Chatham .... NJ
Bailey Meter Co, Wickliffe .... Ohio
Beckman Instruments Inc, Fullerton, ... Cal
Bristol Div, American Chain & Cable Co Waterbury .... Conn
Canadian Research Institute, Don Mills .... Ont
Central Scientific Co, Chicago Ill
Chemalloy Electronics Corp, Santee .... Cal
Corning Glass Works, Corning .... N Y
Fischer & Porter Co, Warminster .... Pa
Foxboro Co, Foxboro .... Mass
Fuji Electric Co Ltd, Tokyo .... Japan
Instrumentation Lab Inc, Watertown .... Mass
Jungner Instrument AB, S-10440 Stockholm 14 .... Sweden
Keithley Instruments Inc, Cleveland .... Ohio
LaPine Scientific Co, Chicago Ill
Leeds & Northrup Co, Philadelphia .... Pa
London Co, Westlake .... Ohio
McKee-Pedersen Instruments, Danville .... Cal
Micro Metrics Inc, Paterson .... N J
Montedoro Corp, San Luis Obispo .... Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Radiometer A/S, Copenhagen NV .... Denmark
Ramyr Mfg Co, Buena Park .... Cal
Robertshaw Controls Co, Aero & Instrument Div Anaheim .... Cal
Sel-Rex Corp & Sub The Meaker Co, Nutley .... N J
Taylor Instrument Cos, Rochester .... N Y
Thorn Automation Ltd, Rugeley, Staffs .... England
Utility Communication Systems Inc, Essington .... Pa
Westronics Inc, Fort Worth .... Tex

INDICATORS--PHASE--SEQUENCE

ASSOCIATED RESEARCH, INC, CHICAGO ILL
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
NORTH HILLS ELECTRONICS INC, GLEN COVE .... N Y
OPAD ELECTRIC CO. INC, NEW YORK .... N Y
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG .... MD
ADC Electronics, Inc, Harbor City .... Cal
Advanced Energy Conversion, Menlo Park .... Cal
Ad-Yu Electronics Inc, Passaic .... N J
Aerometrics Div Aerojet-General Corp, San Ramon .... Cal
A & M Instruments Inc, Great Neck .... N Y
Amprobe Instrument Div Soss Mfg Co, Lynbrook .... N Y
Associated Research, Inc, Chicago Ill
Avtron Mfg, Inc, Cleveland .... Ohio
Brunswick Instruments, New Brunswick .... N J
Canadian Research Institute, Don Mills .... Ont
Computer Logic Corp, Santa Monica .... Cal
Dytronics Co Inc, Columbus .... Ohio
Eastern Specialty Co, Philadelphia .... Pa
Fuji Electric Co Ltd, Tokyo .... Japan
General Electric Co, ECSO, Schenectady .... N Y
Giannini-Voltex, Whittier .... Cal
Knopp Inc, Oakland .... Cal
Korfund Dynamics Corp, Westbury .... N Y
Lark Electronics Inc, New York .... N Y
Martindale Electric Co, Cleveland .... Ohio
Meteorology Research Inc, Altadena .... Cal
North Hills Electronics Inc, Glen Cove .... N Y
Opad Electric Co, Inc, New York .... N Y
Rantec Div Emerson Electric Co, Calabasas .... Cal
Singer Co, Metrics Div, Bridgeport .... Conn
Sticht Co Inc, Herman H, New York .... N Y
Sunshine Scientific Instruments Inc, Philadelphia .... Pa
Theta Instrument Corp, Fairfield .... N J
United Mfg Div, UMC Electronics Co North Haven .... Conn
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio
Weinschel Engineering Co Inc, Gaithersburg .... Md
Wiltron Co, Palo Alto .... Cal
Yokogawa Electric Works Inc, Larchmont .... N Y

INDICATORS--POSITIONING

SEE ALSO SYNCHROS

AUTOMATION DEVELOPMENT CO, CULVER CITY .... CAL
BOWMAR INSTRUMENT CORP, FORT WAYNE .... IND
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL .... PA
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
KAVLICO ELECTRONICS INC, CHATSWORTH .... CAL
LINAIR DESIGN CORP. LINDEN .... N J

MICRO SWITCH DIV, HONEYWELL, FREEPORT ... **ILL**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW ... **N Y**
SCIENTIFIC-ATLANTA INC, ATLANTA ... **GA**
TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA ... **N Y**
TECHMETRIC CO, REDWOOD CITY ... **CAL**
Aeroflex Labs, Inc, Plainview ... N Y
Aircraft Instruments Co, Montgomeryville ... Pa
Astronautics Corp of America, Milwaukee ... Wis
Audn Corp, Hamburg ... N Y
Automation Development Co, Culver City ... Cal
Baldwin Electronics Inc, Little Rock ... Ark
Bendix Corp Environmental Science Div, Baltimore ... Md
Bendix Corp, Flight & Engine Instr Div South Montrose ... Pa
Bowmar Instrument Corp, Fort Wayne ... Ind
Carbonara Instrument Engrg Labs, Victor E, Port Washington ... N Y
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill ... Pa
C & N Electrical Ltd, Hants ... England
Collins Corp, G L, Long Beach ... Cal

Consolidated Airborne Systems, Carle Place ... N Y
Controlotron Corp, Farmingdale ... N Y
Control Technology Co Inc, Long Island City ... N Y
Co-Ord Div LVC Industries Inc, Corona ... NY
Decker Corp, Bala Cynwyd ... Pa
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee ... Ill
Electric Tachometer Corp, Philadelphia ... Pa
Elesta Ltd Electronics, Bad Ragaz ... Switzerland
Fairchild Controls, Hicksville ... N Y
Ferranti, Ltd, Lancashire ... England
Foxboro Co, Foxboro ... Mass
Fuji Electric Co Ltd, Tokyo ... Japan
Gap Instrument Corp, Westbury ... N Y
Gems Co Inc, Farmington ... Conn
General Electric Co, ECSO, Schenectady ... N Y
General Precision Systems Inc, Kearfott Gp Little Falls ... N J
Geo Space Systems Inc, St Petersburg ... Fla
Gilmore Industries Inc, Cleveland ... Ohio
Hartman Systems Co Inc, Huntington Station ... N Y
Henschel Corp, Amesbury ... Mass
Humphrey Inc, San Diego ... Cal
IKL Inc, Newport Beach ... Cal
Industrial Control Co, Farmingdale ... N Y
Jordan Controls Inc, Milwaukee ... Wis
Kavlico Electronics Inc, Chatsworth ... Cal
Kollsman Instrument Ltd, Southampton ... England
Kollsman Motor Corp, Dublin ... Pa
Ledex Div Ledex Inc, Dayton ... Ohio
Leupold & Stevens Instruments Inc, Portland ... Ore
Linair Design Corp, Linden ... N J
Loral Electronic Systems, Div Loral Corp, New York ... NY
Louis Allis Co Div Litton Industries, Milwaukee ... Wisc
Martin-Decker Corp, Santa Ana ... Cal
Memcor Div LTV Electrosystems Inc, Huntington ... Ind
Micro Metrics Inc, Paterson ... N J
Micro Switch Div, Honeywell, Freeport ... Ill
Monroe Electronics Inc, Middleport ... N Y
Muirhead Instruments Inc, Mountainside ... N J
North Atlantic Industries Inc, Plainview ... N Y
Northern Precision Labs Inc, Fairfield ... N J
Northridge Engineering Co Div Republic Corp Northridge ... Cal
Optomechanisms Inc, Plainview ... N Y
Orbit Instrument Corp, Syosset ... N Y
Penn Keystone Corp, Ansonia ... Conn
Photobell Co Inc, New York ... N Y
Precision Systems Corp, Columbus ... Ohio
Reeves Instrument Div, DCA, Garden City ... N Y
Reflex Controls Corp, Huntington Station ... NY
Remex Electronics, Hawthorne ... Cal
Robertson Instrument Co, Azusa ... Cal
Scientific-Atlanta Inc, Atlanta ... Ga
Servo Development Corp, Hicksville ... N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx ... England
Standard Precision Div Electronic Commun Inc Wichita ... Kan
States Electronics Corp, Bludworth Marine Div Linden ... N J
Sunbeam Electronics, Fort Lauderdale ... Fla
Superior Mfg & Instrument Co, Long Island City ... N Y
Taber Instruments A Teledyne Co North Tonawanda ... N Y
Taylor Instrument Cos, Rochester ... N Y
Techmetric Co, Redwood City ... Cal
Theta Instrument Corp, Fairfield ... N J
Thorn Automation Ltd, Rugeley, Staffs ... England
Transducer Controls Corp, Covina ... Cal
United Control Corp, Redmond ... Wash
Veeder-Root, Hartford ... Conn
Wang Labs Inc, Tewksbury ... Mass
Wayne Kerr Corp, Montclair ... NJ
West Coast Research Corp, Los Angeles ... Cal
Westinghouse Electric Corp, Relay & Instr Dept Newark ... N J
Weston-Transicoil, Weston Instruments Inc Worcester ... Pa

INDICATORS--PRESSURE (COMPLETE INSTRUMENTS)

COMPUTER INSTRUMENTS CORP, HEMPSTEAD ... **N Y**
TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA ... **N Y**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON ... **TEX**
Aero Mechanism, Inc, Van Nuys ... Cal
Aerometrics Div Aerojet-General Corp, San Ramon ... Cal
Aircraft Components Inc, Benton Harbor ... Mich
American Instrument Co, Inc, Silver Spring ... Md
American-Standard Controls Div, Detroit ... Mich
American-Standard, Monrovia Instrument Dept Monrovia ... Cal
Andonian Associates, Inc, Waltham ... Mass
Audn Corp, Hamburg ... N Y
Aviation Electric Ltd, St Laurent, Montreal ... Que
Bailey Meter Co, Wickliffe ... Ohio
Beckman Instruments Inc, Fullerton, ... Cal
Bendix Corp Environmental Science Div, Baltimore ... Md
Bendix Corp, Flight & Engine Instr Div South Montrose ... Pa
B I F Unit General Signal Corp, Providence ... R I
Bissett-Berman Corp, Santa Monica ... Cal
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham ... Mass
Bristol Div, American Chain & Cable Co Waterbury ... Conn
Bytrex Inc, Waltham ... Mass
Canadian Motorola Electronics Co, Agincourt ... Ont
C-E Electronics Inc, Glenside ... Pa
Computer Instruments Corp, Hempstead ... N Y
Conrac Corp, New York ... N Y
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena ... Cal
Cox Instruments Div Lynch Corp, Detroit ... Mich
Datametrics Inc, Waltham ... Mass
Decker Corp, Bala Cynwyd ... Pa

Disa Elektronik A/S, Herlev ... Denmark
Doric Scientific Corp, San Diego ... Calif
Dynisco Div Microdot Inc, Westwood ... Mass
Edison, Thomas A Industries, Instr Div West Orange ... N J
Elastronics Labs, Tarzana ... Cal
ElectroSyn Technology Labs, Inc, Canton ... Mass
Ellison Instrument Div Dieterich Std Corp New Buffalo ... Mich
Fischer & Porter Co, Warminster ... Pa
Foxboro Co, Foxboro ... Mass
Foxboro Co Valenica Plant, Valencia ... Cal
Fuji Electric Co Ltd, Tokyo ... Japan
Gems Co Inc, Farmington ... Conn
General Precision Systems Inc, Kearfott Gp Little Falls ... N J
General Thermodynamics Corp, North Wilmington ... Mass
General Transducer Co, Santa Clara ... Cal
Gilmore Industries Inc, Cleveland ... Ohio
Glassco Instrument Co, Pasadena ... Cal
Granville-Philips Co, Boulder ... Colo
Gulton Industries Inc, Metuchen ... N J
Hagan Computer Systems Div Westinghouse Pittsburgh ... Pa
Hastings-Raydist A Teledyne Co, Hampton ... Va
Hersey-Sparling Meter Co, El Monte ... Cal
Hill Inc E Vernon, San Francisco ... Cal
Honeywell Industrial Div, Fort Washington ... Pa
Howell Instruments Co, Fort Worth ... Tex
Industrial Instrument Corp, Austin ... Tex
In-Val-Co, Tulsa ... Okla
Kistler Instrument Corp, Clarence ... N Y
Kollsman Instrument Corp, Syosset ... N Y
Kollsman Instrument Ltd, Southampton ... England
Kollsman Motor Corp, Dublin ... Pa
Lear Siegler Inc, Santa Monica ... Cal
Lewis Engineering Co, Naugatuck ... Conn
Lion Research Corp, Newton ... Mass
Martin-Decker Corp, Santa Ana ... Cal
Matheson Gas Products, East Rutherford ... N J
Memcor Div LTV Electrosystems Inc, Huntington ... Ind
3M Instrument Products, Camarillo ... Cal
MKS Instruments Inc, Burlington ... Mass
Montedoro Corp, San Luis Obispo ... Cal
Orbitran Co, Inc, Lakeside ... Cal
Pall Trinity Micro Corp, Cortland ... N Y
Ramsay Engineering Co, Anaheim ... Cal
Revere Corp of America, Wallingford ... Conn
Robertshaw Controls Co, Aero & Instrument Div Anaheim ... Cal
Robertson Instrument Co, Azusa ... Cal
Rosemount Engineering Co, Minneapolis ... Minn
Scherr Tumico Inc, St James ... Minn
Sigma Instruments Canada Ltd, Toronto 18 Ont ... Canada
Sigma Systems Corp, Sub Applied Science Inc Dallas ... Tex
Smiths Industries North America Ltd, Jamaica ... N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx ... England
Standard Precision Div Electronic Commun Inc Wichita ... Kan
Statham Instruments Inc, Los Angeles ... Cal
Sunshine Scientific Instruments Inc, Philadelphia ... Pa
Superior Mfg & Instrument Co, Long Island City ... N Y
Taber Instruments A Teledyne Co North Tonawanda ... N Y
Taylor Instrument Cos, Rochester ... N Y
Tek-Sel Labs Inc, Saddle Brook ... N J
Texas Instruments Inc Indl Prods Div, Houston ... Tex
Thorn Automation Ltd, Rugeley, Staffs ... England
Transducer Controls Corp, Covina ... Cal
Veeco Instruments Inc, Plainview ... N Y
Volumetrics, Inglewood ... Cal
Wallace & Tiernan Inc, Belleville ... N J
West Coast Research Corp, Los Angeles ... Cal
West Instrument Corp, Schiller Park ... Ill
Westronics Inc, Fort Worth ... Tex
Whittaker Corp Instrument Sys Div North Hollywood ... Cal

INDICATORS--RPM SEE TACHOMETERS

INDICATORS--STRAIN

ACCURATE ELECTRONICS CORP, ELYRIA ... **OHIO**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND ... **OHIO**
ITHACO INC, ITHACA ... **N Y**
TEKTRONIX INC, BEAVERTON ... **ORE**
Accurate Electronics Corp, Elyria ... Ohio
Anadex Instruments, Inc, Van Nuys ... Cal
Audn Corp, Hamburg ... N Y
Binary Electronics of Cal Div Avionic Structures Inc / Anaheim ... Cal
B & K Instruments Inc of Bruel & Kjaer Cleveland ... Ohio
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham ... Mass
Consolidated Airborne Systems, Carle Place ... N Y
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena ... Cal
Cox Instruments Div Lynch Corp, Detroit ... Mich
Decker Corp, Bala Cynwyd ... Pa
Doric Scientific Corp, San Diego ... Calif
Dynisco Div Microdot Inc, Westwood ... Mass
Dytro Corp, Hicksville ... NY
Foxboro Co, Foxboro ... Mass
Good Electronic Corp, Bedford ... Mass
Helm Instrument Co Inc, Toledo ... Ohio
Hickok Electrical Instrument Co, Cleveland ... Ohio
Industrial Electronetics Corp, Satellite Beach ... Fla
Ithaco Inc, Ithaca ... N Y
Korfund Dynamics Corp, Westbury ... N Y
Lion Research Corp, Newton ... Mass
Magnaflux Corp, Chicago ... Ill
Martin-Decker Corp, Santa Ana ... Cal
Optron Corp, New Haven ... Conn
Pacific Transducer Corp, Los Angeles ... Cal
Performance Measurements Co, Detroit ... Mich
Plessey Airborne Corp, Hillside ... NJ
Rustrak Instrument Div Gulton Ind Inc, Manchester ... NH
Sigma Systems Corp, Sub Applied Science Inc Dallas ... Tex
Sprengnether Instrument Co Inc, W F, St Louis ... Mo
Strainsert Co, Bryn Mawr ... Pa
Streeter-Amet, Grayslake ... Ill
Tek-Sel Labs Inc, Saddle Brook ... N J
Tektronix Inc, Beaverton ... Ore
Thorn Automation Ltd, Rugeley, Staffs ... England
Thwing-Albert Instrument Co, Philadelphia ... Pa
Transducer Controls Corp, Covina ... Cal
Westronics Inc, Fort Worth ... Tex

INDICATORS--SYNCHRO REMOTE SEE SYNCHROS

INDICATORS--TEMPERATURE

API INSTRUMENTS CO, CHESTERLAND ... **OHIO**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD ... **N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... **ADV PGS 7**
HEWLETT-PACKARD, PALO ALTO ... **CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND ... **OHIO**
J-B-T INSTRUMENTS INC, NEW HAVEN ... **CONN**
TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA ... **N Y**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON ... **TEX**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK ... **N J**
Advanced Dynamics Inc Div Alco Std Corp Cleveland ... Ohio
Advanced Products Co, North Haven ... Conn
Advance Instrument Corp, Belmar ... N J
Aeromarine Electronics, Inc, San Diego ... Cal
Aircraft Components Inc, Benton Harbor ... Mich
Air Products & Chemicals, Inc, Allentown ... Pa
Aladdin Controls Div Aladdin Electronics Nashville ... Tenn
Amark Corp, Plainview ... N Y
American-Standard Controls Div, Detroit ... Mich
A & M Instruments Inc, Great Neck ... N Y
Amlab Inc, Rahway ... NJ
Amprobe Instrument Div Soss Mfg Co, Lynbrook ... N Y
Amstro Corp, Fairfield ... N J
Andonian Associates, Inc, Waltham ... Mass
API Instruments Co, Chesterland ... Ohio
Atkins Technical, Inc, Gainesville ... Fla
Audn Corp, Hamburg ... N Y
Bacharach Instrument Co, Pittsburgh ... Pa
Bailey Meter Co, Wickliffe ... Ohio
Beckman Instruments Inc, Fullerton, ... Cal
Bendix Corp Environmental Science Div, Baltimore ... Md
Bendix Corp, Flight & Engine Instr Div South Montrose ... Pa
Bissett-Berman Corp, Santa Monica ... Cal
Bitronics Inc, Bethlehem ... Pa
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham ... Mass
Brady Co, W H, Milwaukee ... Wis
Bristol Div, American Chain & Cable Co Waterbury ... Conn
Burling Instrument Co, Chatham ... N J
California Instruments Corp, San Diego ... Cal
Cambridge Systems Inc, Newton ... Mass
Camwil Inc, Honolulu ... Hawaii
Canadian Motorola Electronics Co, Agincourt ... Ont
Canadian Research Institute, Don Mills ... Ont
Cie De Signaux Et D'Entreprises Electriques Paris 17eme ... France
Cleveland Process Corp, Cleveland ... Ohio
Computer Instruments Corp, Hempstead ... N Y
Computer Logic Corp, Santa Monica ... Cal
Consolidated Airborne Systems, Carle Place ... N Y
Consolidated Controls Corp, El Segundo ... Cal
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena ... Cal
Controlotron Corp, Farmingdale ... N Y
Cox Instruments Div Lynch Corp, Detroit ... Mich
Cryogenic Engineering Co, Denver ... Colo
Decca Radar, Inc, New York ... N Y
Decker Corp, Bala Cynwyd ... Pa
Dohrmann Instruments Co, Mountain View ... Cal
Doric Scientific Corp, San Diego ... Calif
Dynisco Div Microdot Inc, Westwood ... Mass
Dytro Corp, Hicksville ... NY

Edison, Thomas A Industries, Instr Div West Orange	N J
Electronic Modules Corp, Timonium	Md
Electro-Standards Labs Inc, Miami	Fla
ElectroSyn Technology Labs, Inc, Canton	Mass
En-Car Inc, South Holland	Ill
Fenwal Inc, Ashland	Mass
Fischer & Porter Co, Warminster	Pa
Foxboro Co, Foxboro	Mass
Foxboro Co Valenica Plant, Valencia	Cal
Fuji Electric Co Ltd, Tokyo	Japan
Fulton Sylphon Div Robertshaw Controls Co Knoxville	Tenn
Gardner Lab Inc, Bethesda	Md
General Electric Co, ECSO, Schenectady	N Y
General Transducer Co, Santa Clara	Cal
Giannini-Voltex, Whittier	Cal.
Gilmore Industries Inc, Cleveland	Ohio
Gruenberg Electric Co Inc, Garden City	N Y
Gulton Industries Inc, Metuchen	N J
Hafstrom Technical Products Inc, San Diego	Cal
Hallmark Standards Inc, Mamaroneck	N Y
Hardman Inc, Belleville	N J
Harrel Inc, East Norwalk	Conn
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Hill Inc E Vernon, San Francisco	Cal
Himmelstein & Co, S, Elk Grove Village	Ill
Honeywell Industrial Div, Fort Washington	Pa
Howell Instruments Co, Fort Worth	Tex
Industrial Electronetics Corp, Satellite Beach	Fla
International Controls Corp Cryogenics Div Fairfield	N J
Ircon Inc, Niles	Ill
JB Electronic Transformers Inc, Chicago	Ill
J-B-T Instruments Inc, New Haven	Conn
Jelrus Instrument Corp, New Hyde Park	N Y
Kahl Scientific Instrument Corp, El Cajon	Cal
Kollsman Instrument Corp, Syosset	N Y
Kollsman Instrument Ltd, Southampton	England
Kollsman Motor Corp, Dublin	Pa
Leeds & Northrup Co, Philadelphia	Pa
Lewis Engineering Co, Naugatuck	Conn
Lucci & Co, Sarasota	Fla
Malaker Corp, High Bridge	N J
Mann Co, Henry, Cornwell Heights	Pa
Markal Co, Chicago	Ill
Mastercraft Instrument Co, Dubuque	Iowa
Measuring Instrument Controls Inc Berkeley Heights	N J
Meteorology Research Inc, Altadena	Cal
Milletron, Inc, Pittsburgh	Pa
Millivac Instruments Inc, Schenectady	N Y
Minco Products Inc, Minneapolis	Minn
3M Instrument Products, Camarillo	Cal
Montedoro Corp, San Luis Obispo	Cal
Moore Products Co, Spring House	Pa
Muirhead Instruments Inc, Mountainside	N J
Neill Engineering Co, East Hartland	Conn
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Pacific Transducer Corp, Los Angeles	Cal
Performance Measurements Co, Detroit	Mich
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plessey Airborne Corp, Hillside	NJ
Precision Systems Corp, Columbus	Ohio
Precision Thermometer & Instrument Co Southampton	Pa
Princeton Applied Research Corp, Princeton	N J
Pyrometer Instrument Co Inc, Northvale	N J
Pyro-Serv Instruments, Inc, North Arlington	N J
Pyrotel Corp c/o Milletron Inc, Pittsburgh	Pa
Ramsay Engineering Co, Anaheim	Cal
Rawco Instruments Inc, Fort Worth	Tex
RdF Corp, Hudson	N H
Relco Products Inc, Denver	Colo
RFL Industries Inc, Thermocontrol Div, Boonton	N J
RIL Electronics Inc, Southampton	Pa
Riverbank Labs, Dept of Engrg, Geneva	Ill
Robertshaw Controls Co, Aero & Instrument Div Anaheim	Cal
Robertson Instrument Co, Azusa	Cal
Rosemount Engineering Co, Minneapolis	Minn
Rustrak Instrument Div Gulton Ind Inc, Manchester	NH
Sigma Instruments Canada Ltd, Toronto 18 Ont	Canada
Sigma Instruments Inc, Braintree	Mass
Signet Controls Inc, Tulsa	Okla
Simpson Electric Co, Chicago	Ill
Smiths Industries North America Ltd, Jamaica	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Superior Mfg & Instrument Co, Long Island City	N Y
Taber Instruments A Teledyne Co North Tonawanda	N Y
Taylor Instrument Cos, Rochester	N Y
Techni-Tool Inc, Philadelphia	Pa
Tek-Sel Labs Inc, Saddle Brook	N J
Tempil Corp, New York	N Y
Temtech, Santa Ana	Cal
Texas Instruments Inc Indl Prods Div, Houston	Tex
Thermal Systems Inc, Los Angeles	Cal
Thermo Electric Co Inc, Saddle Brook	N J
Thermo Products Co Div Web Press Eng Cedarburg	Wisc
Thermo-Systems Inc, St Paul	Minn
Thorn Automation Ltd, Rugeley, Staffs	England
Time-O-Matic Inc, Danville	Ill
Trans-Sonics Inc, Lexington	Mass
Tylan Corp, Torrance	Cal
United Electric Controls Co, Watertown	Mass
United Systems Corp, Dayton	Ohio
Voltron Products Inc, Pasadena	Cal
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Wahl Corp, William, Santa Monica	Cal
West Coast Research Corp, Los Angeles	Cal
Westinghouse Electric Corp Insulating Materials Div Trafford	Pa
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J
West Instrument Corp, Schiller Park	Ill
Weston Instruments Div Weston Instr Inc, Newark	N J
Westronics Inc, Fort Worth	Tex
Winsco Instruments & Controls Co Inc Santa Monica	Cal
Yellow Springs Instrument Co Inc, Yellow Springs	Ohio
Yokogawa Electric Works Inc, Larchmont	N Y

INDICATORS--THICKNESS

SEE ALSO GAGES--BETA; ULTRASONIC EQUIPMENT

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
Alcatel, Paris 8eme	France
American Electronic Controls Inc, Philadelphia	Pa
Amstro Corp, Fairfield	N J
Audn Corp, Hamburg	N Y
Automation Industries Inc, Nondestructive Testing Div, Danbury	Conn
Automation Products, Inc, Houston	Tex
Bendix Corp Industrial Metrology Div, Ann Arbor	Mich
Clinton Instrument Co, Clinton	Conn
Conrac Corp, New York	N Y
Custom Scientific Instruments Inc, Whippany	N J
Daytronic Corp, Dayton	Ohio
Decker Corp, Bala Cynwyd	Pa
Dice Co, J W, Englewood	N J
Edwards High Vacuum Inc, Grand Island	N Y
Electron Machine Co, Umatilla	Fla
Gardner Lab Inc, Bethesda	Md
General Electric Co, ECSO, Schenectady	N Y
General Electric Co X-Ray Dept, Milwaukee	Wis
General Hardware Mfg Co Inc, New York	N Y
Gilardoni S p A, Mandello Lario Como	Italy
Hill Inc E Vernon, San Francisco	Cal
Industrial Control Co, Farmingdale	N Y
Industrial Electronetics Corp, Satellite Beach	Fla
Kobe Industries Corp, Kobe	Japan
Krautkramer Ultrasonics Inc, Stratford	Conn
Lion Research Corp, Newton	Mass
Magnaflux Corp, Chicago	Ill
Mann Co, Henry, Cornwell Heights	Pa
Microwave Instruments Co, Corona del Mar	Cal
Monroe Electronics Inc, Middleport	N Y
Muirhead Instruments Inc, Mountainside	N J
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Ohmart Corp, Cincinnati	Ohio
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Precision Systems Corp, Columbus	Ohio
Ramyr Mfg Co, Buena Park	Cal
RIL Electronics Inc, Southampton	Pa
Robertshaw Controls Co, Aero & Instrument Div Anaheim	Cal
Robertson Instrument Co, Azusa	Cal
Scherr Tumico Inc, St James	Minn
Starrett Co, L S, Athol	Mass
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Techni-Tool Inc, Philadelphia	Pa
Thorn Automation Ltd, Rugeley, Staffs	England
Ultek Div Perkin-Elmer, Palo Alto	Cal
Unit Process Assemblies Inc, Woodside	N Y
Wayne Kerr Corp, Montclair	NJ
Wharton Unitools, Moosup	Conn
Zeiss Inc, Carl, New York	N Y

INDICATORS--TORQUE

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
KAVLICO ELECTRONICS INC, CHATSWORTH	**CAL**
Accurate Electronics Corp, Elyria	Ohio
Anadex Instruments, Inc, Van Nuys	Cal
Astronautics Corp of America, Milwaukee	Wis
Autotronics Inc, Joplin	Mo
Bendix Corp Environmental Science Div, Baltimore	Md
Bendix Corp, Flight & Engine Instr Div South Montrose	Pa
Bergen Lab, Inc, Paterson	N J
B & F Instruments, Inc, Cornwells Heights	Pa
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham	Mass
Bytrex Inc, Waltham	Mass
C-E Electronics Inc, Glenside	Pa
Chatillon & Sons, John, Kew Gardens	N Y
Consolidated Airborne Systems, Carle Place	N Y
Crescent Technology Corp, Newport Beach	Cal
Dawe Instruments Ltd, London W3	England
Daytronic Corp, Dayton	Ohio
Decca Radar, Inc, New York	N Y
Decker Corp, Bala Cynwyd	Pa
Dillon & Co Inc, W C, Van Nuys	Cal
Doric Scientific Corp, San Diego	Calif
Edison, Thomas A Industries, Instr Div West Orange	N J
Foxboro Co Valenica Plant, Valencia	Cal
Himmelstein & Co, S, Elk Grove Village	Ill
Industrial Electronetics Corp, Satellite Beach	Fla
Jo-Line Tools Inc, South Gate	Cal
Kavlico Electronics Inc, Chatsworth	Cal
Kollsman Motor Corp, Dublin	Pa
Korfund Dynamics Corp, Westbury	N Y
Lebow Associates Inc, Oak Park	Mich
Martin-Decker Corp, Santa Ana	Cal
McNab Inc, New York	N Y
Performance Measurements Co, Detroit	Mich
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Revere Corp of America, Wallingford	Conn
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Superior Mfg & Instrument Co, Long Island City	N Y
Taylor Instrument Cos, Rochester	N Y
Techni-Tool Inc, Philadelphia	Pa
Tek-Sel Labs Inc, Saddle Brook	N J
Thorn Automation Ltd, Rugeley, Staffs	England
Transducer Controls Corp, Covina	Cal
Waters Mfg Inc, Wayland	Mass
West Coast Research Corp, Los Angeles	Cal
Westronics Inc, Fort Worth	Tex

INDIUM

Aceto Chemical Co, Inc, Flushing	NY
Active Alloys Inc, Brooklyn	N Y
Alloys Unlimited Inc, Melville	N Y
Alpha Metals Inc, Jersey City	NJ
American Silver Co Div, Flushing	N Y
American Smelting & Refining Co, New York	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerac Inc, Butler	Wis
Cerro Copper & Brass Co, Stamford Wks Stamford,	Conn
Cerro Corp, New York	NY
Cominco American Inc Electronic Matls Div, Spokane	Wash
Corco Chemical Corp, Fairless Hills	Pa
Cramco Solder Alloys, Scarborough	Ont
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Division Lead Co, Summit	Ill
Gardiner Solder Co, Chicago	Ill
Henley & Co Inc, New York	N Y
Indium Corp of America, Utica	N Y
Kawecki Chemical Co, New York	N Y
Kester Solder Co, Chicago	Ill
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Materials Research Corp, Orangeburg	N Y
Metal Ceram Inc, Mount Vernon	N Y
Monsanto Co, St Peters	Mo
Ohio Semitronics Inc, Columbus	Ohio
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
United Refining & Smelting Co, Franklin Park	Ill
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Electronics Corp, Bradford	Pa
Western Gold & Platinum Co, Belmont	Cal

INDUCTANCES--FIXED

ALLEN ELECTRONICS DIV ALLEN ORGAN CO, MACUNGIE	**PA**
CADDELL BURNS MFG CO INC, MINEOLA N Y	ADV PGS 162,163
CAPTOR CORP, TIPP CITY	**OHIO**
CONTEMPORARY ELECTRONICS INC, MINNEAPOLIS	**MINN**
DALE ELECTRONICS INC, COLUMBUS	**NEB**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON S DAK	ADV PG 160
HISONIC INC, OLATHE	**KAN**
INDIANA GENERAL CORP ELECTRONICS DIV/FERRITES, KEASBEY	**N J**
KAPPA NETWORKS INC, CARTERET	**N J**
K G S ELECTRONICS INC, PASADENA	**CAL**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
NOTHELFER WINDING LABS INC, TRENTON	**N J**
PICO PRODUCTS INC, RONKONKOMA	**NY**
SANGAMO ELECTRIC CO, CAPACITOR DIV, PICKENS	**S C**
TOROTEL, INC, GRANDVIEW	**MO**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
Ace Coil & Electronics Co, Metuchen	N J
Aetna Electronics Corp, North Branch	N J
Aladdin Electronics Div Aladdin Industries, Inc Nashville	Tenn
ALA Industries Inc, Harrison	NY
Allen Electronics Div Allen Organ Co, Macungie	Pa
Amk Electronics Co Inc, Edison	N J
Artted Co, Inc, Springfield	Mass
Bel-Tronics Corp, Addison	Ill
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bullock Magnetics Corp, Pomona	Cal
Caddell Burns Mfg Co Inc, Mineola	N Y
Cambridge Thermionic Corp, Cambridge	Mass
Captor Corp, Tipp City	Ohio
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Central Transformer Co, Chicago	Ill
Clippard Instrument Inc, Cincinnati	Ohio
Coast Coil Co Atlantic Research Corp, Los Angeles	Cal
Coilcraft Inc, Cary	Ill
Contemporary Electronics Inc, Minneapolis	Minn
Dale Electronics Inc, Columbus	Neb
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Data Delay Devices, Clifton	N J
Delevan Electronics Div Amer Prec Indus Inc East Aurora	N Y
Delta Coils, Philadelphia	Pa
Dietz Design Inc, Belton	Mo
Elasco Inc, Boston	Mass
Electran Mfg Co, Chicago	Ill
El-Rad Mfg Co, Chicago	Ill
EMP Electronics Inc, Tempe	Ariz
Ferritronics Ltd, Richmond Hill	Ont
Filtron Co Inc Sub Liquidonics Ind Inc, Flushing	N Y
Fugle-Miller Labs Inc, Kenilworth	N J
General Coil Products Corp, Brooklyn	N Y
General Instrument Corp F W Sickles Div Chicopee	Mass

General Radio Co, West Concord .... Mass
Geo Space Corp, Houston .... Tex
Hadley Co Inc, Robert M, Los Angeles .... Cal
Harder Co, Inc, Donald C, San Diego .... Cal
Hisonic Inc, Olathe .... Kan
Indiana General Corp Electronics Div/Ferrites,
  Keasbey .... N J
Inductor Engineering Inc, Lewes .... Del
Johnson Co, E F, Waseca .... Minn
Johnson Electric Coil Co, Elmhurst Ill
Kappa Networks Inc, Carteret .... N J
Karkar Electronics Inc, San Francisco .... Cal
K G S Electronics Inc, Pasadena .... Cal
Lake Engineering Co Ltd, Scarborough .... Ont
Leeds & Northrup Co, Philadelphia .... Pa
Lenox-Fugle Electronics Inc, South Plainfield .... N J
LRC Electronics Inc, Horseheads .... N Y
LTV-Electrosystems Inc Memcor Div, Huntington .... Ind
Magnetic Devices Inc, Lemon Grove .... Cal
Magnetic Engineering Corp, Danbury .... Conn
Magnetico Inc, East Northport .... N Y
Magnetic Specialties Inc, Trenton .... N J
Micromagnetics Div Gulton Ind, Visalia .... Cal
Microtran Co Inc, Valley Stream .... N Y
Millen Mfg Co Inc, James, Malden .... Mass
Miller Co, J W, Los Angeles .... Cal
Mitsumi Electric Co Ltd, Tokyo .... Japan
Montedoro Corp, San Luis Obispo .... Cal
National Coil Co Inc, Sheridan .... Wyo
Nippon Ferrite Industrial Co Ltd, Tokyo .... Japan
North Hills Electronics Inc, Glen Cove .... N Y
Nothelfer Winding Labs Inc, Trenton .... N J
Nytronics of Canada Ltd, Trenton .... Ont
Otis Radio & Electric Corp, Hawarden .... Iowa
Pacific Magnetic Corp, Romoland .... Cal
PCA Electronics Inc, Sepulveda .... Cal
Pico Products Inc, Ronkonkoma .... NY
Precision Coil Mfg Co, Santa Monica .... Cal
Precision Inc, Minneapolis .... Minn

Preferred Electronics Inc, Westfield .... Mass
Redman Electronics Corp, Thompsonville .... Conn
Renco Electronics Inc, Hicksville .... N Y
R F L Industries Inc Components Div, Brandon .... Vt
Sangamo Electric Co, Capacitor Div, Pickens .... S C
Sanyo Electric Co Ltd, Osaka .... Japan
S K G Associates Inc, Boston .... Mass
Smallwood Ltd, S G, Kitchener .... Ont
Solid State Electronics Corp, Sepulveda .... Cal
Sprague Electric Co, North Adams .... Mass
Standard Industries, Buena Park .... Cal
Stanwyck Winding Co, Newburgh .... N Y
Sterling Transformer Corp, Brooklyn .... N Y
Superex Electronics Corp, Yonkers .... N Y
Thiem-Transrex Inc, El Segundo .... Cal
Torelco Inc, Irvington .... N J
Toroidal Components Co, Pasadena .... Cal
Torotel, Inc, Grandview .... Mo
Tranex Inc, Mountain View .... Cal
Tresco Inc, Philadelphia .... Pa
Triad Transformer Corp, Venice .... Cal
United Transformer Co Div TRW Inc, New York .... N Y
Universal Toroid Coil Winding Inc, Irvington .... NJ
Wells Electronics Inc, Components Div, South Bend .... Ind
Whitewater Electronics Inc, Whitewater .... Wis
Xenon Corp, Watertown .... Mass

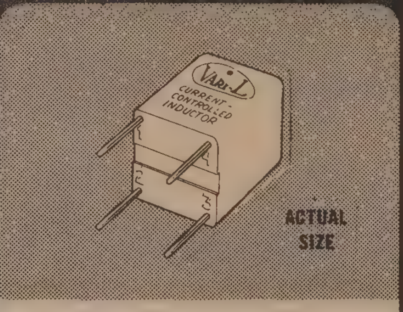
INDUCTANCES--VARIABLE

SEE ALSO COILS

CADDELL BURNS MFG CO INC, MINEOLA
  N Y .... **ADV PGS 162,163**
CONTEMPORARY ELECTRONICS INC, MINNEAPOLIS .... **MINN**
DALE ELECTRONICS INC, COLUMBUS .... **NEB**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON
  S DAK .... **ADV PG 160**
INDIANA GENERAL CORP ELECTRONICS DIV/FERRITES,
  KEASBEY .... **N J**
KAPPA NETWORKS INC, CARTERET .... **N J**
MITSUMI ELECTRIC CO LTD, TOKYO .... **JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
NORTH HILLS ELECTRONICS INC, GLEN COVE .... **N Y**
NOTHELFER WINDING LABS INC, TRENTON .... **N J**
PICO PRODUCTS INC, RONKONKOMA .... **NY**
SANGAMO ELECTRIC CO, CAPACITOR DIV, PICKENS .... **S C**
TRACOR INC, AUSTIN .... **TEX**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK .... **N Y**
VARI-L CO INC, STAMFORD, CONN .... **ADV PG 352**
Ace Coil & Electronics Co, Metuchen .... N J
Aetna Electronics Corp, North Branch .... N J
Aladdin Electronics Div Aladdin Industries, Inc
  Nashville .... Tenn
ALA Industries Inc, Harrison .... NY
Amk Electronics Co Inc, Edison .... N J
Artted Co, Inc, Springfield .... Mass
Bel-Tronics Corp, Addison Ill
Beukers Labs Inc, John M, Medford .... NY
Caddell Burns Mfg Co Inc, Mineola .... N Y
Cambridge Thermionic Corp, Cambridge .... Mass
Carol Electronics Div Weeco Inc, Martinsburg .... W Va
CEA Div Berkleonics Inc, Monrovia .... Cal
Clippard Instrument Inc, Cincinnati .... Ohio
Coilcraft Inc, Cary Ill
Contemporary Electronics Inc, Minneapolis .... Minn
Dale Electronics Inc, Columbus .... Neb
Dale Electronics Inc, Sioux Div, Yankton .... S Dak
Data Delay Devices, Clifton .... N J
Delevan Electronics Div Amer Prec Indus Inc
  East Aurora .... N Y
Delta Coils, Philadelphia .... Pa
Delta Electronics Inc, Alexandria .... Va
El-Rad Mfg Co, Chicago Ill
Ferritronics Ltd, Richmond Hill .... Ont
Fugle-Miller Labs Inc, Kenilworth .... N J
General Coil Products Corp, Brooklyn .... N Y
General Instrument Corp Automatic Mfg Div
  Newark .... N J
General Instrument Corp F W Sickles Div
  Chicopee .... Mass
General Radio Co, West Concord .... Mass
Indiana General Corp Electronics Div/Ferrites,
  Keasbey .... N J
Johnson Co, E F, Waseca .... Minn
Kappa Networks Inc, Carteret .... N J
Lake Engineering Co Ltd, Scarborough .... Ont
Leeds & Northrup Co, Philadelphia .... Pa
Lenox-Fugle Electronics Inc, South Plainfield .... N J
LRC Electronics Inc, Horseheads .... N Y
LTV-Electrosystems Inc Memcor Div, Huntington .... Ind
Magnetic Devices Inc, Lemon Grove .... Cal
Magnetic Specialties Inc, Trenton .... N J
Mercury Electronics Corp, York .... Pa
Microtran Co Inc, Valley Stream .... N Y
Miller Co, J W, Los Angeles .... Cal
Mitsumi Electric Co Ltd, Tokyo .... Japan
Montedoro Corp, San Luis Obispo .... Cal
National Coil Co Inc, Sheridan .... Wyo
Nippon Electric Co Ltd, Tokyo .... Japan
North Hills Electronics Inc, Glen Cove .... N Y
Nothelfer Winding Labs Inc, Trenton .... N J
Nytronics of Canada Ltd, Trenton .... Ont
Otis Radio & Electric Corp, Hawarden .... Iowa
PCA Electronics Inc, Sepulveda .... Cal
Piconics Inc, North Billerica .... Mass
Pico Products Inc, Ronkonkoma .... NY
Precision Coil Mfg Co, Santa Monica .... Cal
Preferred Electronics Inc, Westfield .... Mass
Redman Electronics Corp, Thompsonville .... Conn
Renco Electronics Inc, Hicksville .... N Y
Sangamo Electric Co, Capacitor Div, Pickens .... S C
Sanyo Electric Co Ltd, Osaka .... Japan
Smallwood Ltd, S G, Kitchener .... Ont
Standard Industries, Buena Park .... Cal
Stanwyck Winding Co, Newburgh .... N Y
Sterling Transformer Corp, Brooklyn .... N Y
Superex Electronics Corp, Yonkers .... N Y
Tracor Inc, Austin .... Tex
Tresco Inc, Philadelphia .... Pa

United Transformer Co Div TRW Inc, New York .... N Y
Vari-L Co Inc, Stamford .... Conn
Voltronics, Inc, Chicago Ill
Wells Electronics Inc, Components Div, South Bend .... Ind
Whitewater Electronics Inc, Whitewater .... Wis

VARI-L®
ELECTRICALLY VARIABLE INDUCTORS



The time-proven component for wide-range, solid-state frequency control

USED SINCE 1953 FOR:
- SWEEP CIRCUITS
- TELEMETERING
- PHASE LOCKING
- FREQUENCY MODULATION
- SPEECH SYNTHESIS
- VARIABLE DELAY LINES
- TRACKING FILTERS
- REMOTELY TUNED RECEIVERS
- SPECTRUM ANALYZERS

And many other applications.

Models for frequencies from 30 Hz to 200 MHz.

VARI-L COMPANY, INC.
STAMFORD, CONN. 06904
203-323-2176 TWX: 710-474-3369

INDUCTORS

BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL
  PRODS, WOODSIDE, N Y .... **ADV PG 352**
CADDELL BURNS MFG CO INC, MINEOLA
  N Y .... **ADV PGS 162,163**
DALE ELECTRONICS INC, COLUMBUS .... **NE**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON
  S DAK .... **ADV PG 16**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY
  N Y .... **ADV PGS 7**
HISONIC INC, OLATHE, KAN .... **ADV PG 248**
INDIANA GENERAL CORP ELECTRONICS DIV/FERRITES,
  KEASBEY .... **N J**
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN .... **N Y**
KAPPA NETWORKS INC, CARTERET .... **N J**
NORTH HILLS ELECTRONICS INC, GLEN COVE .... **N Y**
NOTHELFER WINDING LABS INC, TRENTON .... **N J**
SANGAMO ELECTRIC CO, CAPACITOR DIV, PICKENS .... **S C**
TOROTEL, INC, GRANDVIEW, MO .... **ADV PG 353**
TORWICO ELECTRONICS, INC, LAKEWOOD .... **N J**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK .... **N Y**
VARI-L CO INC, STAMFORD .... **CONN**
ADC Products, Minneapolis .... Minn
Aetna Electronics Corp, North Branch .... N J
Airco Speer Electronic Components, Dubois .... Pa
Arnold Magnetics Corp, Los Angeles .... Cal
Artted Co, Inc, Springfield .... Mass
Avco Corp Electronics Div, Cincinnati .... Ohio
Avtron Mfg, Inc, Cleveland .... Ohio
Beukers Labs Inc, John M, Medford .... NY
Bulova Watch Co Inc Elctns Div Frequency Control Prods
  Woodside .... N Y
Caddell Burns Mfg Co Inc, Mineola .... N Y
Carol Electronics Div Weeco Inc, Martinsburg .... W Va
Centroid Inc, Garden City Park .... N Y
Dale Electronics Inc, Columbus .... Neb
Dale Electronics Inc, Sioux Div, Yankton .... S Dak
Data Delay Devices, Clifton .... N J
Delevan Electronics Div Amer Prec Indus Inc
  East Aurora .... N Y
Dietz Design Inc, Belton .... Mo
Electronic Transformer Corp, Paterson .... N J
Electro Winders Co Inc, Covina .... Cal
El-Rad Mfg Co, Chicago Ill
Ferritronics Ltd, Richmond Hill .... Ont
Fullmer Electronics Inc, Northridge .... Cal
General Electric Co, ECSO, Schenectady .... N Y
General Radio Co, West Concord .... Mass
Genisco Technology Corp, Compton .... Cal
Geo Space Corp, Houston .... Tex
Gulton Industries Inc, Metuchen .... N J
Hadley Co Inc, Robert M, Los Angeles .... Cal
Hallmark Standards Inc, Mamaroneck .... N Y
Hisonic Inc, Olathe .... Kan
Indiana General Corp Electronics Div/Ferrites,
  Keasbey .... N J

Inductors?
Try Bulova First!
CALL:

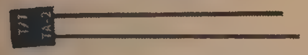
Ariz Tech-Ser Inc, 1805 E Indian School Rd
  Phoenix 602-265-3629
Cal Straube Assoc, 483 Willow Rd
  Menlo Pk 213-323-2476
Cal W J Carnes & Co, 420 S D St
  Tustin 213-838-0575
Conn Samuel C Hooker Inc, Box 369
  W Hartford 203-233-8000
Fla Perrott Assoc, 1607 Forsyth Rd,
  Orlando 305-275-1132
Fla Perrott Assoc, Box 6277
  West Palm Beach 305-967-1770
Fla Perrott Assoc, Box 4532, Clearwater. 813-531-5513
Ill J R Sales Engineering
  7132 N Harlem Ave, Chicago.... 312-774-8550
Iowa J R Sales Engrg, 3350 Cottage Grove Ave SE,
  Cedar Rapids 319-365-5259
Md Callas Electronics, 6409 Frederick Ave
  Baltimore 301-744-7711
Mass Samuel Hooker, Inc, Box 352
  Winchester 617-729-5482
Minn Wenco Sales Inc, 7728 Morgan Ave S
  Minneapolis 612-866-3639
Mo J C Mankus & Assoc, 400 Brooks La
  Hazelwood 314-PE1-4334
NY Kahgan Sales Corp, 1261 Broadway
  New York 212-MU4-7772
NY H C Johnson Agencies Inc, 111 Mt Hope Ave
  Rochester 716-232-2688
NY Comtronic Assoc, 1551 Franklin Ave
  Mineola 516-PI1-8966
NY H C Johnson Agencies Inc, Box 86
  Brandywine Sta, Schenectady 518-374-5901
NY H C Johnson Agencies Inc, Box 215
  Fayetteville 315-637-9383
NY H C Johnson Agencies Inc, 8 Los Robles St
  Williamsville 716-632-7880
Ohio Augey Natalino Assoc, 209 Harmony Hills
  Akron 216-666-1447
Pa C H Newson & Assoc Inc, 627 Bethlehem
  Pike, Philadelphia 215-248-3377
Tex Blackburn Assoc., Inc., 137 Walnut Hill Village,
  Box 20073, Dallas. 214-351-9991
Wash Jas J Backer Co, 221 W Galer St
  Seattle 206-AT3-6470
Can Canadian Micro Electronics, Box 6157
  Sta J, Ottawa 725-2332

BULOVA WATCH CO INC
FREQUENCY CONTROL PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

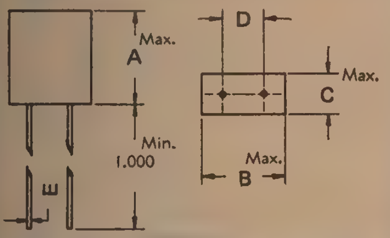
TOROTEL INC.

SUBMINIATURE INDUCTORS

MINI-L SERIES



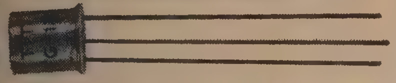
- DESIGNED TO MEET THE REQUIREMENTS OF MIL-C-15305 C, GRADE 1, CLASS B (−55°C to +125°C)
- INDUCTANCE VALUES: From 0.01 uh to 10,000 uh.
- FREQUENCY RANGE: 50 KHz to 300 MHz.
- DIELECTRIC WITHSTANDING VOLTAGE: 700 volts rms.
- RATED TEMPERATURE RISE: 35°C at an ambient temperature of 90°C.
- LEADS: Tinned Copper. Weldable leads available by special order.



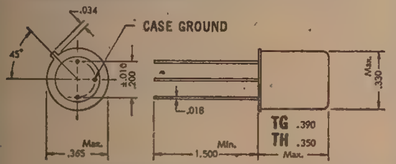
DIMENSIONS

Series	A	B	C	D	E	Max. Power
TA	.225	.210	.110	.100	.020	0.2 Watt
TB	.300	.280	.160	.200	.025	0.33 Watt
TD	.390	.390	.197	.200	.025	0.5 Watt
TF	.225	.210	.110	.100	.020	0.2 Watt

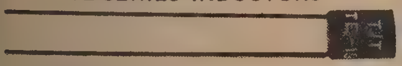
TG & TH SERIES INDUCTORS



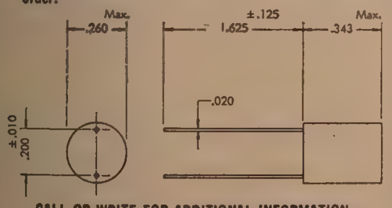
- HERMETICALLY SEALED INDUCTORS IN A STANDARD TO-5 TRANSISTOR CONFIGURATION.
- LOW EXTERNAL MAGNETIC & ELECTROSTATIC FIELD.
- TG SERIES DESIGNED TO MEET MIL-T-27B, GRADE 4, CLASS R.
- TH SERIES DESIGNED TO MEET MIL-C-15305 C, GRADE 1, CLASS 0.
- INDUCTANCE VALUES: TH Series, 10.0 uh to 1000 uh. TG Series, 1.0 mh to 500 mh.
- FREQUENCY RANGE: 10 KHz to 10 MHz, depending upon series and inductance value.
- DIELECTRIC WITHSTANDING VOLTAGE: 100 volts rms.
- AMBIENT TEMPERATURE RANGE: −55°C to +85°C.



TE-SERIES INDUCTORS



- DESIGNED TO MEET MIL-C-15305 C, GRADE 1, CLASS B (−55°C to +125°C)
- INDUCTANCE VALUES: 0.10 mh to 220.0 mh.
- FREQUENCY RANGE: 25 KHz to 2.5 MHz.
- DIELECTRIC WITHSTANDING VOLTAGE: 500 volts rms.
- RATED TEMPERATURE RISE: 35°C at an ambient temperature of 90°C.
- LEADS: Tinned Copper. Weldable leads available by special order.



CALL OR WRITE FOR ADDITIONAL INFORMATION

TOROTEL, Inc.

13402 SOUTH 71 HIGHWAY GRANDVIEW, MO. 64030
PHONE 816 SO 1-6314 TWX 910-7777037

Inductor Engineering Inc, Lewes .... Del
Industrial Transformer Corp, Gouldsboro .... Pa
JB Electronic Transformers Inc, Chicago Ill
JFD Electronics Co, Components Div, Brooklyn .... N Y
Johnson Co, E F, Waseca .... Minn
Johnson Electric Coil Co, Elmhurst Ill
Kappa Networks Inc, Carteret .... N J
Lake Engineering Co Ltd, Scarborough .... Ont
Lenox-Fugle Electronics Inc, South Plainfield .... N J
Magnetic Circuit Elements Inc, Montrose .... Cal
Magnetic Devices Inc, Lemon Grove .... Cal
Magnetic Engineering Corp, Danbury .... Conn
Magnetico Inc, East Northport .... N Y
Merit Coil & Transformer Corp, Hollywood .... Fla
Microtran Co Inc, Valley Stream .... N Y
Millen Mfg Co Inc, James, Malden .... Mass
Miller Co, J W, Los Angeles .... Cal
Multronics Inc, Rockville .... Md
North Hills Electronics Inc, Glen Cove .... N Y
Nothelfer Winding Labs Inc, Trenton .... N J
Nytronics Inc, Berkeley Heights .... N J
Pacific Magnetic Corp, Romoland .... Cal
PCA Electronics Inc, Sepulveda .... Cal
Polyphase Instrument Co, Bridgeport .... Pa
Precision Coil Mfg Co, Santa Monica .... Cal
Precision Inc, Minneapolis .... Minn
Precision Transformers Inc, Anaheim .... Cal
Preferred Electronics Inc, Westfield .... Mass
Renco Electronics Inc, Hicksville .... N Y
San Fernando Electric Mfg Co, San Fernando .... Cal
Sangamo Electric Co, Capacitor Div, Pickens .... S C
Solid State Electronics Corp, Sepulveda .... Cal
Sterling Transformer Corp, Brooklyn .... N Y
Superex Electronics Corp, Yonkers .... N Y
Torelco Inc, Irvington .... N J
Torotel, Inc, Grandview .... Mo
Torwico Electronics, Inc, Lakewood .... N J
Triad Distributor Div Litton Industries, Huntington .... Ind
Tri-Dex Co, Visalia .... Cal
Trueline Instruments Inc, Englewood .... Colo
United Transformer Co Div TRW Inc, New York .... N Y
Universal Toroid Coil Winding Inc, Irvington .... NJ
Valor Electronics Inc, Gardena .... Cal
Vari-L Co Inc, Stamford .... Conn
Virginia Electronics Co Inc, Falls Church .... Va

INERTIA SWITCHES SEE SWITCHES

INFRARED EQUIPMENT--BOLOMETERS

GENERAL MICROWAVE CORP, FARMINGDALE .... N Y
SERVO CORP OF AMERICA, HICKSVILLE .... N Y
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON .... TEX
VICTORY ENGINEERING CORP, SPRINGFIELD N J .... ADV PG FACING PG 1
Aerolux Light Co Inc, New York .... N Y
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park .... N Y
Baird-Atomic, Inc, Cambridge .... Mass
Barnes Engineering Co Def & Space Div Stamford .... Conn
Elastronics Labs, Tarzana .... Cal
General Microwave Corp, Farmingdale .... N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Precision Research Inc, Stamford .... Conn
Raytek Inc, Mountain View .... Cal
Servo Corp of America, Hicksville .... N Y
Texas Instruments Incorporated, Dallas .... Tex
Texas Instruments Inc Indl Prods Div, Houston .... Tex
Victory Engineering Corp, Springfield .... N J

INFRARED EQUIPMENT--CAMERAS

HAMAMATSU TV CO LTD, SHIZUOKA .... PRE JAPAN
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
SERVO CORP OF AMERICA, HICKSVILLE .... N Y
AGA Corp, Secaucus .... NJ
Baird-Atomic, Inc, Cambridge .... Mass
Barnes Engineering Co Def & Space Div Stamford .... Conn
Canoga Electronics Corp, Chatsworth .... Cal
General Electrodynamics Corp, Garland .... Tex
Giannini Scientific Corp, Flight Rsch Div, Richmond .... Va
Hamamatsu TV Co Ltd, Shizuoka .... Pre Japan
Hycon, Monrovia .... Cal
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa .... Japan
Infrared Industries Inc, Santa Barbara .... Cal
Nippon Electric Co Ltd, Tokyo .... Japan
Optomechanisms Inc, Plainview .... N Y
Perkin-Elmer Corp, Optical Group, Norwalk .... Conn
RCA, Defense Electronic Products, Moorestown .... N J
Servo Corp of America, Hicksville .... N Y
Te Company, Santa Barbara .... Cal

INFRARED EQUIPMENT--DETECTOR COOLING UNITS

Aerojet-General Corp Electronics Div, Azusa .... Cal
Andonian Associates, Inc, Waltham .... Mass
Asarco Intermetallics Corp, New York .... N Y
Barnes Engineering Co Def & Space Div Stamford .... Conn
Borg-Warner, Thermoelectric Div, Des Plaines Ill
Dynatech Products Co Div Dynatech Corp Burlington .... Mass
E G & G Inc, Electronic Prods Div, Boston .... Mass
Electron Machine Co, Umatilla .... Fla
Firewel Co Inc, Buffalo .... N Y
500 Inc Sub Arthur D Little Inc, Cambridge .... Mass
Infrared Industries Inc, Santa Barbara .... Cal
International Energy Conversion Inc, Garland .... Tex
North American Philips Co Inc Cryogenic Div Ashton .... R I
Ohio Semitronics Inc, Columbus .... Ohio
Pall Corp, Environmental Control Systems Div Long Island City .... NY
Philco-Ford Corp, Washington .... D C
Pyrotel Corp c/o Milletron Inc, Pittsburgh .... Pa
Raytheon Co, Microwave & Power Tube Div Waltham .... Mass
RCA, Defense Electronic Products, Moorestown .... N J
Reuter-Stokes Electronic Components Inc Cleveland .... Ohio
Semi-Elements Inc, Saxonburg .... Pa
Vacuum Barrier Corp, Woburn .... Mass

INFRARED EQUIPMENT--DETECTORS

API INSTRUMENTS CO, CHESTERLAND .... OHIO
GENERAL MICROWAVE CORP, FARMINGDALE .... N Y
HAMAMATSU TV CO LTD, SHIZUOKA .... PRE JAPAN
HEWLETT-PACKARD, PALO ALTO .... CAL
ITHACO INC, ITHACA .... N Y
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
PRIMO CO LTD, TOKYO .... JAPAN
SERVO CORP OF AMERICA, HICKSVILLE .... N Y
Abtronics, Inc, Livermore .... Cal
ACR Electronics Corp, New York .... N Y
Advanced Kinetics, Inc, Costa Mesa .... Cal
Aerojet-General Corp Electronics Div, Azusa .... Cal
Airmec Instruments Ltd, Buckinghamshire .... England
American Electronic Labs Inc, Lansdale .... Pa
API Instruments Co, Chesterland .... Ohio
Avco Corp Electronics Div, Cincinnati .... Ohio
Barnes Engineering Co Def & Space Div Stamford .... Conn
Bausch & Lomb, Inc, Rochester .... N Y
Beckman Instruments Inc, Fullerton, ... Cal
Block Engineering Inc, Cambridge .... Mass
Borg-Warner, Thermoelectric Div, Des Plaines Ill
Cetron Electronic Corp, Geneva Ill
Control Science Corp, Alexandria .... Va
Crystalab Products Corp, Rochelle Park .... N J

Decca Radar, Inc, New York .... N Y
De-Tec-Tronic Corp, Chicago Ill
Eastman Kodak Co, Rochester .... N Y
E G & G Inc, Electronic Prods Div, Boston .... Mass
Elastronics Labs, Tarzana .... Cal
Electron Machine Co, Umatilla .... Fla
Electro-Nuclear Lab Inc, Menlo Park .... Cal
Electro-Optical Systems Inc, Pasadena .... Cal
Eppley Lab Inc, Newport .... R I
Euclid Electric & Mfg Div Harvey Hubbell Inc, Madison .... Ohio
Farrand Optical Co Inc, Bronx .... N Y
Ferranti, Ltd, Lancashire .... England
General Electric Co Ordnance Dept, Pittsfield .... Mass
General Electric Co X-Ray Dept, Milwaukee .... Wis
General Electrodynamics Corp, Garland .... Tex
General Microwave Corp, Farmingdale .... N Y
Grace Electronics Inc, Cleveland .... Ohio
Hamamatsu TV Co Ltd, Shizuoka .... Pre Japan
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland .... Ohio
Hewlett-Packard, Palo Alto .... Cal
Horiba Instruments Inc, Kyoto .... Japan
Hycon, Monrovia .... Cal
Industrial Gauging & Control Inc, Norwalk .... Conn
Infrared Industries Inc, Santa Barbara .... Cal
Ion Physics Corp, Burlington .... Mass
Ithaco Inc, Ithaca .... N Y
Kobe Industries Corp, Kobe .... Japan
Kollsman Instrument Corp, Syosset .... N Y
Networks Electronic Corp, Chatsworth .... Cal
Nippon Electric Co Ltd, Tokyo .... Japan
Ovitron Corp Industrial Syst Div, Cheshire .... Conn
Performance Measurements Co, Detroit .... Mich
Perkin-Elmer Corp, Norwalk .... Conn
Philco-Ford Corp, Washington .... D C
Photobell Co Inc, New York .... N Y
Precision Research Inc, Stamford .... Conn
Primo Co Ltd, Tokyo .... Japan
Pyrotector Inc, Hingham .... Mass
Pyrotel Corp c/o Milletron Inc, Pittsburgh .... Pa
Quantic Industries Inc, San Carlos .... Cal
Ransom Labs, John H, Los Angeles .... Cal
Raytheon Co, Microwave & Power Tube Div Waltham .... Mass
Seed Electronics Corp, Lexington .... Mass
Semi-Elements Inc, Saxonburg .... Pa
Sensor Corp, Greenwich .... Conn
Servo Corp of America, Hicksville .... N Y
Solid State Radiations Inc, Los Angeles .... Cal
Sperry Gyroscope Div Sperry Rand Corp Great Neck .... N Y
Texas Instruments France, Villeneuve-Loubet .... France
Texas Instruments Incorporated, Dallas .... Tex
TRW Systems Group, Redondo Beach .... Cal
Varo Inc, Garland .... Tex
Versitherm, Inc, Farmingdale .... N Y
Wahl Corp, William, Santa Monica .... Cal

INFRARED EQUIPMENT--FILTERS

Asarco Intermetallics Corp, New York .... N Y
Baird-Atomic, Inc, Cambridge .... Mass

Barnes Engineering Co Def & Space Div Stamford	Conn
Bausch & Lomb, Inc, Rochester	N Y
Broomer Research Corp, Plainview	N Y
Coherent Radiation Labs, Palo Alto	Cal
Control Science Corp, Alexandria	Va
Corning Glass Works, Corning	N Y
Crystalab Products Corp, Rochelle Park	N J
Denton Vacuum Inc, Cherry Hill	N J
Eastman Kodak Co, Rochester	N Y
Fish-Schurman Corp, New Rochelle	N Y
Hamilton Industries, Winter Haven	Fla
Horiba Instruments Inc, Kyoto	Japan
Infrared Industries Inc, Santa Barbara	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
Jones Optical Works Inc A D, Burlington	Mass
Laser Optics Inc, Danbury	Conn
Leitz Canada Ltd, Ernst, Midland	Ont
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
Metavac Inc, Flushing	N Y
Optical Coating Lab Inc, Santa Rosa	Cal
Optics Technology Inc, Palo Alto	Cal
Oriel-Optics Corp, Stamford	Conn
Owens-Illinois Consumer & Tech Products Div Toledo	Ohio
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Precision Optics Div Penna Optical Co, Reading	Pa
Precision Research Inc, Stamford	Conn
Princeton Applied Research Corp, Princeton	N J
Ransom Labs, John H, Los Angeles	Cal
Spectrolab Div, Textron Electronics Inc, Sylmar	Cal
Spectrum Systems, Inc, Waltham	Mass
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Varo Inc, Garland	Tex

INFRARED EQUIPMENT--IMAGE CONVERTER TUBES

HAMAMATSU TV CO LTD, SHIZUOKA	**PRE JAPAN**
Abtronics, Inc, Livermore	Cal
Bendix Corp Electro Optics Div, Ann Arbor	Mich
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
EMI Electronics Ltd, Hayes, Middlesex	England
Hamamatsu TV Co Ltd, Shizuoka	Pre Japan
ITT Industrial Labs Div, Fort Wayne	Ind
Kobe Industries Corp, Kobe	Japan
Mullard Ltd, London, WC 1	Eng
Optics Technology Inc, Palo Alto	Cal
Rauland Corp, Melrose Park	Ill
Seed Electronics Corp, Lexington	Mass
TRW Instruments, El Segundo	Cal
TRW Systems Group, Redondo Beach	Cal
20th Century Electronics Ltd New Addington, Surrey	England
Varo Inc, Garland	Tex
Westinghouse Electric Corp, Tube Div, Elmira	NY
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

INFRARED EQUIPMENT--LAMPS

Aerolux Light Co Inc, New York	N Y
Air Technology Corp, Waltham	Mass
Amglo Corp, Chicago	Ill
Barnes Engineering Co Def & Space Div Stamford	Conn
Chicago Miniature Lamp Works, Chicago	Ill
Christie Electric Corp, Los Angeles	Cal
Cleveland Process Corp, Cleveland	Ohio
Corning Glass Works, Corning	N Y
Ednalite Corp, Peekskill	N Y
Electro Powerpacs Corp, Cambridge	Mass
Engelhard Hanovia Inc, Newark	N J
Fostoria-Fannon Inc, Fostoria	Ohio
Giannini-Voltex, Whittier	Cal
Gilardoni S p A, Mandello Lario Como	Italy
Hamilton Industries, Winter Haven	Fla
Hi-Shear Corp, Torrance	Cal
Merco Products Inc, Eugene	Ore
3M Company, St Paul	Minn
Monsanto Co, St Louis	Mo
Oriel-Optics Corp, Stamford	Conn
Pek, Inc, Sunnyvale	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Quartz Radiation Corp, Fairfield	N J
Schoeffel Instrument Co, Westwood	NJ
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Strong Electric Corp, Toledo	Ohio
Sylvania Electric Prods Inc Lamp Div, Danvers	Mass
Syncor Products Co, Inc, Malden	Mass
Varo Inc, Garland	Tex
Western Coil & Electrical Co, Racine	Wisc
Westinghouse Electric Corp, Lamp Div, Bloomfield	N J

INFRARED EQUIPMENT--LENSES

SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
Barnes Engineering Co Def & Space Div Stamford	Conn
Bausch & Lomb, Inc, Rochester	N Y
Bendix Corp Electro Optics Div, Ann Arbor	Mich
Broomer Research Corp, Plainview	N Y
Coherent Radiation Labs, Palo Alto	Cal
Corning Glass Works, Corning	N Y
Crystalab Products Corp, Rochelle Park	N J
Davidson Optronics Inc, West Covina	Cal
Eastman Kodak Co, Rochester	N Y
Electro-Optical Systems Inc, Pasadena	Cal
Fairchild Space & Defense Sys Div Fairchild Cam & Inst Corp, El Segundo	Cal
Fish-Schurman Corp, New Rochelle	N Y
General Electrodynamics Corp, Garland	Tex
Grimes Mfg Co, Urbana	Ohio
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland	Ohio
Horiba Instruments Inc, Kyoto	Japan
Industrial Optics Corp, Newark	N J
Insaco Inc, Quakertown	Pa
Isomet Corp, Palisades Park	N J
Itek Corp, Lexington	Mass
Jones Optical Works Inc A D, Burlington	Mass
Laser Optics Inc, Danbury	Conn
Leitz Canada Ltd, Ernst, Midland	Ont
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
Mati Elgeet Div, Rochester	NY
Meller Co, Adolf, Providence	R I
Metavac Inc, Flushing	N Y
Optical Products A Teledyne Co, Monrovia	Cal
Optics Electronics Corp, Dallas	Tex
Oriel-Optics Corp, Stamford	Conn
Perkin-Elmer Corp, Norwalk	Conn
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Precision Optics Div Penna Optical Co, Reading	Pa
Ransom Labs, John H, Los Angeles	Cal
Razdow Labs Inc, Newark	N J
Semi-Elements Inc, Saxonburg	Pa
Servo Corp of America, Hicksville	N Y
Spectrolab Div, Textron Electronics Inc, Sylmar	Cal
Spectrum Systems, Inc, Waltham	Mass
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Syncor Products Co, Inc, Malden	Mass
Te Company, Santa Barbara	Cal
Texas Instruments Incorporated, Dallas	Tex
Thermal American Fused Quartz Co, Montville	N J
Tropel Inc, Fairport	N Y
Varo Inc, Garland	Tex

INFRARED EQUIPMENT--MODULATORS

Barnes Engineering Co Def & Space Div Stamford	Conn
Crystalab Products Corp, Rochelle Park	N J
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland	Ohio
Infrared Industries Inc, Santa Barbara	Cal
Isomet Corp, Palisades Park	N J
Norbatrol Electronics Corp, Murrysville	Pa
Precision Research Inc, Stamford	Conn
Radio Corp of America, Electronic Components, Harrison	N J
Seed Electronics Corp, Lexington	Mass
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Sylvania Electronic Systems, Waltham	Mass
Varo Inc, Garland	Tex

INFRARED EQUIPMENT--RETICLES

Barnes Engineering Co Def & Space Div Stamford	Conn
Bausch & Lomb, Inc, Rochester	N Y
Broomer Research Corp, Plainview	N Y
General Electrodynamics Corp, Garland	Tex
Henley & Co Inc, New York	N Y
Infrared Industries Inc, Santa Barbara	Cal
Jones Optical Works Inc A D, Burlington	Mass
Leitz Canada Ltd, Ernst, Midland	Ont
Metavac Inc, Flushing	N Y
Optical Coating Lab Inc, Santa Rosa	Cal
Optical Products A Teledyne Co, Monrovia	Cal
Ransom Labs, John H, Los Angeles	Cal
Razdow Labs Inc, Newark	N J
Semi-Elements Inc, Saxonburg	Pa
Spectrolab Div, Textron Electronics Inc, Sylmar	Cal
Spectrum Systems, Inc, Waltham	Mass
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Trueline Instruments Inc, Englewood	Colo
Varo Inc, Garland	Tex

INFRARED EQUIPMENT--SOURCES (INCL BLACK BODIES)

HEWLETT-PACKARD, PALO ALTO	**CAL**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
ACR Electronics Corp, New York	N Y
AGA Corp, Secaucus	NJ
Air Technology Corp, Waltham	Mass
American Atomics Corp, Tucson	Ariz
Assembly Engineers Div Rucker Co, Los Angeles	Cal
Aul Instruments Inc, Long Island City	NY
Barnes Engineering Co Def & Space Div Stamford	Conn
Carborundum Co Electrical & Elctns Br, Niagara Falls	NY
Christie Electric Corp, Los Angeles	Cal
Coherent Radiation Labs, Palo Alto	Cal
Elastronics Labs, Tarzana	Cal
Electro-Nuclear Lab Inc, Menlo Park	Cal
Electro-Optical Systems Inc, Pasadena	Cal
Electro Optics Assoc, Palo Alto	Cal
English Electric Valve Co, Ltd Chelmsford, Essex	England
Eppley Lab Inc, Newport	R I
Fostoria-Fannon Inc, Fostoria	Ohio
Giannini-Voltex, Whittier	Cal
Hewlett-Packard, Palo Alto	Cal
Infrared Industries Inc, Santa Barbara	Cal
Infra-Red Systems Inc, Riverdale	N J
International Energy Conversion Inc, Garland	Tex
Ionics Inc, Electronics Div, Watertown	Mass
Minco Products Inc, Minneapolis	Minn
Pyrotel Corp c/o Milletron Inc, Pittsburgh	Pa
Sensor Corp, Greenwich	Conn
Servo Corp of America, Hicksville	N Y
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Strong Electric Corp, Toledo	Ohio
TRW Instruments, El Segundo	Cal
Varo Inc, Garland	Tex
Warner & Swasey Co Control Instr Div, Flushing	N Y

INFRARED EQUIPMENT--SYSTEMS, INDUSTRIAL & COMMERCIAL (EXCEPT OVENS)

FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
VICTORY ENGINEERING CORP, SPRINGFIELD N J	**ADV PG FACING PG 1**
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
AGA Corp, Secaucus	NJ
AIM Electronics Ltd, Cambridge	U K
Air Technology Corp, Waltham	Mass
Audn Corp, Hamburg	N Y
Aul Instruments Inc, Long Island City	NY
Barnes Engineering Co Def & Space Div Stamford	Conn
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bendix Corp Electro Optics Div, Ann Arbor	Mich
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Coherent Radiation Labs, Palo Alto	Cal
Computing Devices of Canada Ltd, Ottawa	Ont
Corning Glass Works, Corning	N Y
Electron Machine Co, Umatilla	Fla
Electro Optics Assoc, Palo Alto	Cal
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Fostoria-Fannon Inc, Fostoria	Ohio
Gardner Lab Inc, Bethesda	Md
General Electric Co X-Ray Dept, Milwaukee	Wis
Hi-Shear Corp, Torrance	Cal
Horiba Instruments Inc, Kyoto	Japan
Infrared Industries Inc, Santa Barbara	Cal
Ircon Inc, Niles	Ill
Kokusai Electric Co Ltd, Tokyo	Japan
Leeds & Northrup Co, Philadelphia	Pa
Measurement Systems Inc, Norwalk	Conn
Milletron, Inc, Pittsburgh	Pa
Molecular Research Inc, Palm Beach Gardens	Fla
Norbatrol Electronics Corp, Murrysville	Pa
Optomechanisms Inc, Plainview	N Y
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Perry Amplifier, Brookline	Mass
Pyrotel Corp c/o Milletron Inc, Pittsburgh	Pa
Ransom Labs, John H, Los Angeles	Cal
Raytek Inc, Mountain View	Cal
Raytheon Co, Government Marketing, Lexington	Mass
Rowe Industries Inc, Toledo	Ohio
Seed Electronics Corp, Lexington	Mass
Sensor Corp, Greenwich	Conn
Servo Corp of America, Hicksville	N Y
Solid State Radiations Inc, Los Angeles	Cal
Sparton Electronics, Jackson	Mich
Systems Matrix Inc, Trenton	N J
Te Company, Santa Barbara	Cal
Tek-Sel Labs Inc, Saddle Brook	N J
Thorn Automation Ltd, Rugeley, Staffs	England
Varo Inc, Garland	Tex
Victory Engineering Corp, Springfield	N J
Williamson Development Co Inc, West Concord	Mass

INFRARED EQUIPMENT--SYSTEMS, MILITARY (INCL COMMUNICATION, GUIDANCE & NAVIGATION)

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
VICTORY ENGINEERING CORP, SPRINGFIELD N J	**ADV PGS FACING PG 1**
Aerojet-General Corp Electronics Div, Azusa	Cal
Aerospace Controls Corp, Los Angeles	Cal
AGA Corp, Secaucus	NJ
AIM Electronics Ltd, Cambridge	U K

Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Air Technology Corp, Waltham	Mass
American Optical Co Space Defense Div Southbridge	Mass
Avco Corp Electronics Div, Cincinnati	Ohio
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Barnes Engineering Co Def & Space Div Stamford	Conn
Bausch & Lomb, Inc, Rochester	N Y
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp Electro Optics Div, Ann Arbor	Mich
Block Engineering Inc, Cambridge	Mass
Canoga Electronics Corp, Chatsworth	Cal
Chicago Aerial Industries Inc, Barrington	Ill
Coherent Radiation Labs, Palo Alto	Cal
Crystalab Products Corp, Rochelle Park	N J
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dalmo Victor, A Textron Div, Belmont	Cal
Eastman Kodak Co, Rochester	N Y
Electro-Optical Systems Inc, Pasadena	Cal
Geo Space Systems Inc, St Petersburg	Fla
Giannini-Voltex, Whittier	Cal
Goodyear Aerospace Corp, Akron	Ohio
Infrared Industries Inc, Santa Barbara	Cal
Ircon Inc, Niles	Ill
ITT Industrial Labs Div, Fort Wayne	Ind
Kobe Industries Corp, Kobe	Japan
Kollsman Instrument Corp, Syosset	N Y
Lear Siegler Inc, Santa Monica	Cal
Librascope Group Gen Precision Sys Inc, Glendale	Cal
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Loral Electronic Systems, Div Loral Corp, New York	NY
MPB Corp, Keene	N H
Nippon Electric Co Ltd, Tokyo	Japan
Optomechanisms Inc, Plainview	N Y
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Perry Amplifier, Brookline	Mass
Philco-Ford Corp, Washington	D C
Philips Electronics Industries Ltd, Toronto 17	Ont
Quantic Industries Inc, San Carlos	Cal
Ransom Labs, John H, Los Angeles	Cal
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Rowe Industries Inc, Toledo	Ohio
Seed Electronics Corp, Lexington	Mass
Servo Corp of America, Hicksville	N Y
Sierra Research Corp, Buffalo	N Y
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Sylvania Electronic Systems, Waltham	Mass
Te Company, Santa Barbara	Cal
Texas Instruments Incorporated, Dallas	Tex
TRW Systems Group, Redondo Beach	Cal
Varo Inc, Garland	Tex
Victory Engineering Corp, Springfield	N J
Westinghouse Electric Corp, Aerospace Div Baltimore	Md

INFRARED EQUIPMENT--SYSTEMS, SCIENTIFIC

SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
Aerojet-General Corp Electronics Div, Azusa	Cal
AGA Corp, Secaucus	NJ
AIM Electronics Ltd, Cambridge	U K
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Air Technology Corp, Waltham	Mass
Avco Corp Electronics Div, Cincinnati	Ohio
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Barnes Engineering Co Def & Space Div Stamford	Conn
Bausch & Lomb, Inc, Rochester	N Y
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Block Engineering Inc, Cambridge	Mass
Coherent Radiation Labs, Palo Alto	Cal
Crystalab Products Corp, Rochelle Park	N J
Edwin Industries Corp, Silver Spring	Md
Electro-Optical Systems Inc, Pasadena	Cal
Electro Optics Assoc, Palo Alto	Cal
Electro Powerpacs Corp, Cambridge	Mass
Eppley Lab Inc, Newport	R I
Farrand Optical Co Inc, Bronx	N Y
Geo Space Systems Inc, St Petersburg	Fla
Giannini-Voltex, Whittier	Cal
Goodyear Aerospace Corp, Akron	Ohio
Hycon, Monrovia	Cal
Infrared Industries Inc, Santa Barbara	Cal
Ircon Inc, Niles	Ill
ITT Industrial Labs Div, Fort Wayne	Ind
Librascope Group Gen Precision Sys Inc, Glendale	Cal
Measurement Systems Inc, Norwalk	Conn
Optomechanisms Inc, Plainview	N Y
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Perkin-Elmer Corp, Norwalk	Conn
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Philco-Ford Corp, Washington	D C
Ransom Labs, John H, Los Angeles	Cal
Raytek Inc, Mountain View	Cal
Razdow Labs Inc, Newark	N J
Research Inc, R-I Controls Div, Minneapolis	Minn
Rowe Industries Inc, Toledo	Ohio
Schoeffel Instrument Co, Westwood	NJ
Servo Corp of America, Hicksville	N Y
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Te Company, Santa Barbara	Cal
Texas Instruments Incorporated, Dallas	Tex
Varo Inc, Garland	Tex
Wilks Scientific Corp, South Norwalk	Conn
Williamson Development Co Inc, West Concord	Mass

INFRARED EQUIPMENT--WINDOWS

SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
American Optical Co Space Defense Div Southbridge	Mass
Barnes Engineering Co Def & Space Div Stamford	Conn
Bausch & Lomb, Inc, Rochester	N Y
Broomer Research Corp, Plainview	N Y
Ceramaseal Inc, Sub Lapp Insulator Co Inc New Lebanon Center	N Y
Coherent Radiation Labs, Palo Alto	Cal
Cominco American Inc Electronic Matls Div, Spokane	Wash
Corning Glass Works, Corning	N Y
Crystalab Products Corp, Rochelle Park	N J
Eastman Kodak Co, Rochester	N Y
Eimac Div, Varian Associates, San Carlos	Cal
General Electrodynamics Corp, Garland	Tex
Geoscience Instruments Corp, Mt Vernon	N Y
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland	Ohio
Henley & Co Inc, New York	N Y
Horiba Instruments Inc, Kyoto	Japan
Infrared Industries Inc, Santa Barbara	Cal
Infra-Red Systems Inc, Riverdale	N J
Insaco Inc, Quakertown	Pa
Isomet Corp, Palisades Park	N J
Jones Optical Works Inc A D, Burlington	Mass
Kobe Industries Corp, Kobe	Japan
Laser Optics Inc, Danbury	Conn
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
Meller Co, Adolf, Providence	R I
Metavac Inc, Flushing	N Y
Moser Jewel Co, Perth Amboy	N J
Ohio Semitronics Inc, Columbus	Ohio
Optical Coating Lab Inc, Santa Rosa	Cal
Optical Products A Teledyne Co, Monrovia	Cal
Optics Electronics Corp, Dallas	Tex
Oriel-Optics Corp, Stamford	Conn
O & S Research Inc, Riverton	N J
Perkin-Elmer Corp, Norwalk	Conn
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Precision Optics Div Penna Optical Co, Reading	Pa
Quartz & Silice, Paris 8 eme	France
Ransom Labs, John H, Los Angeles	Cal
Semiconductor Specialties Corp, Fair Lawn	NJ
Semi-Elements Inc, Saxonburg	Pa
Servo Corp of America, Hicksville	N Y
Spectrolab Div, Textron Electronics Inc, Sylmar	Cal
Spectrum Systems, Inc, Waltham	Mass
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Sylvania Elec Prods Inc, Chem & Met Div, Towanda	Pa
Syncor Products Co, Inc, Malden	Mass
Texas Instruments Incorporated, Dallas	Tex
Thermal American Fused Quartz Co, Montville	N J
Varo Inc, Garland	Tex
Velotron Inc, Brooklyn	N Y
Westinghouse Electric Corp, Tube Div, Elmira	NY
Wilks Scientific Corp, South Norwalk	Conn

INFRARED FILMS– SEE FILMS–INFRARED

INFRARED HEATERS SEE HEATERS--INFRARED

INFRARED OVENS SEE OVENS; DEHUMIDIFIERS

INKS

CLEVITE CORP, BRUSH INSTRUMENTS DIV, CLEVELAND	**OHIO**
HEWLETT-PACKARD, PALO ALTO	**CAL**
MARKWIK CORP, SYOSSET	**N Y**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH VA	**ADV PG 355**
Acromark Co, Elizabeth	N J
Allaco Products, Braintree	Mass
Alloys Unlimited Inc, Melville	N Y
Apex Machine Co, Fort Lauderdale	Fla
Beckman Instruments Inc, Fullerton,	Cal
Bell-Mark Corp, Bloomfield	N J
Bemis Co, Inc, Minneapolis	Minn
Black Light Corp of America, San Gabriel	Cal
Black Light Products, Chicago	Ill
Borden Chemical Co, New York	N Y
Clevite Corp, Brush Instruments Div, Cleveland	Ohio
Colonial Printing Ink Co, East Rutherford	NJ
Dietzgen Co, Eugene, Chicago	Ill
Dynaloy, Inc, Hanover	N J
Eastern Marking Machine Corp, Island Park	N Y
Electro Materials Corp of America, Mamaroneck	N Y
Electro Science Labs Inc, Philadelphia	Pa
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Etchomatic Inc, Waltham	Mass
Fansteel Metallurgical Corp, North Chicago	Ill
Formulabs Industrial Inks Inc, Escondido	Cal
Foxboro Co, Foxboro	Mass
Hewlett-Packard, Palo Alto	Cal
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Kingmann-White Inc, Placentia	Cal
Leeds & Northrup Co, Philadelphia	Pa
London Chemical Co Inc, Melrose Park	Ill
Markal Co, Chicago	Ill
Markem Machine Co, Keene	NH
Markwik Corp, Syosset	N Y
Matthews & Co Jas H, Pittsburgh	Pa
Melpar Inc, Special Prods Dept, Falls Church	Va
Mereco Prods Inc, Div Metachem Resins Corp Cranston	RI
Micro-Circuits Co, New Buffalo	Mich
M & T Chemicals Inc Sub American Can Co Rahway	N J
Naz-Dar Co, Chicago	Ill
Organic Products Co, Irving	Texas
Phillips Process Co Inc, Rochester	N Y
Photo Chemical Products Inc, Santa Monica	Cal
Podgor Co Inc, Joseph E, Philadelphia	Pa
Polysciences Inc, Warrington	Pa
Popper & Sons Inc, New York	N Y
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Scherr Tumico Inc, St James	Minn
Shannon Luminous Materials Co, Hollywood	Cal
Stafford Mfg Co Inc, Brooklyn	N Y
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Taylor Instrument Cos, Rochester	N Y
Techform Labs Inc, Venice	Cal
Tempil Corp, New York	N Y
Thermal American Fused Quartz Co, Montville	N J
Ultra-Violet Products Inc, San Gabriel	Cal
United States Machinery, Sub Geartronics Corp North Billerica	Mass
Wornow Process Paint Co, Los Angeles	Cal

MELPAR
PERMANENT
MARKING
MATERIALS

WHEN YOU HAVE A MARKING PROBLEM, SPECIFY MEL-INK®

M-100A
- Non-conducting
- Heat Resistant
- Solvent Resistant
- Spraying Application (on metals, plastic, glass, wood, etc.)
- Multi colors
- Mil Specifications

M-300
- Non-conducting
- Solvent Resistant
- Salt Spray Resistant
- Machine Stamp
- Hand Stamp
- Silk Screen
- Mil Specifications

Distributor quantities available from Newark Electronics Corp., 500 N. Pulaski Road, Chicago, Ill. 60624

PRODUCT MARKETING DEPARTMENT
MELPAR, INC.
7785 Arlington Blvd.
Falls Church, Va. 22046
AC 703 534-6000

INSPECTION EQUIPMENT SEE SPECIFIC HEADINGS

INSTRUMENTATION RECORDING AMPLIFIERS SEE AMPLIFIERS--INSTRUMENTATION

INSTRUMENT CALIBRATION SERVICES SEE CALIBRATION SERVICES

INSTRUMENT CASES SEE CASES--PORTABLE

INSTRUMENT CONVERTERS--A-C TO D-C SEE CONVERTERS--A-C TO D-C

INSTRUMENT DIALS SEE DIALS

INSTRUMENT DOLLIES SEE DOLLIES

DEPENDABLE ... STANDARDIZED ... INSULATORS, SUPPORTS, COOLING EQUIPMENT AND CONDENSERS FROM LAPP

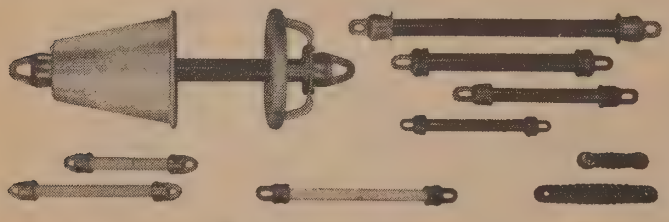
LAPP ENTRANCE INSULATORS—in a wide range of sizes

Lapp pioneered in manufacturing heavy duty entrance insulators, and these years of experience assure you maximum dependability and efficiency. These proven insulators are available in porcelain and steatite and a great variety of types for almost every electrical and mechanical requirement.

LAPP STAND-OFF INSULATORS

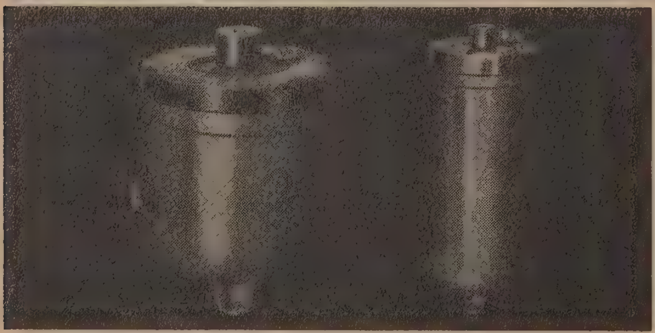
Lapp offers stand-offs in a tremendous selection of standard insulators. Specials? We've designed and produced literally hundreds for the radio, television and electronics industries. The ceramic used in these insulators is the same porcelain or steatite used in large radio and transmission insulators.

LAPP ANTENNA STRAIN INSULATORS



Lapp offers a complete, standard series of insulators for most electrical and mechanical applications, up to 12,000 lbs. strength. Other small units, in porcelain or steatite, are also available as strains and spreaders. Special large strain insulators have been made by Lapp up to 12,000 lbs. strength and 750 kv wet flashover.

LAPP GAS-FILLED CONDENSERS—for duty at high voltages & high currents

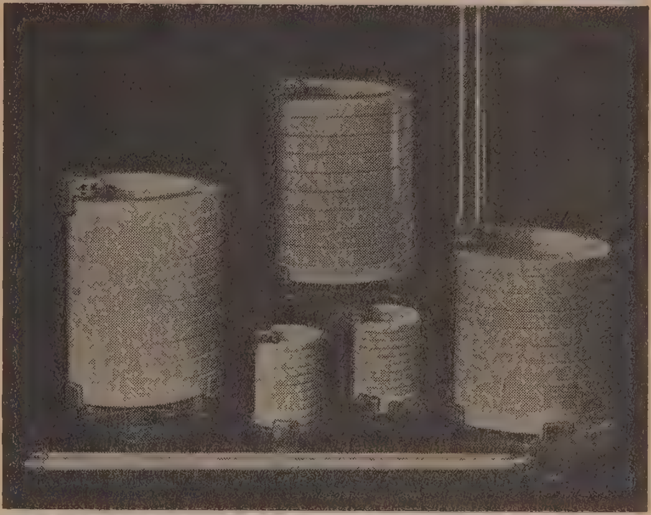


Have low loss, high safety factor in a compact, high efficiency condenser that is unaffected by temperature, moisture or dust conditions. They are available in four tank diameters (7″ to 18″) both fixed and variable. They can be supplied in current and voltage ratings that cover all requirements in the induction heating and radio transmitter fields, up to 85 kv peak safety gap settings and 500 amp current. Tuning on variable models is at ground potential. Write for Bulletin 302.

INSULATION FOR WATER-COOLED SYSTEMS

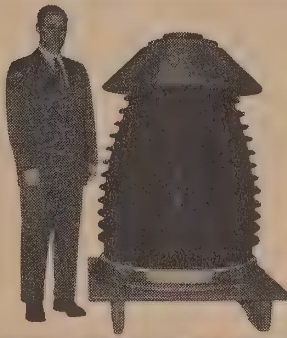
Porcelain Water Coils—for water-cooled power tubes. Lapp porcelain water coils are ideal where cooling water must undergo a change in potential. They provide superior insulation, and eliminate troubles caused by water contamination, conductivity and sludging associated with various types of tubing. Available in a number of standard sizes, assuring optimum water flow and long tube life. They are a permanent investment in a completely trouble-free cooling system.

Lapp Porcelain Pipe—for cooling systems where coils cannot be accommodated. This pipe can be installed on wall, overhead, or under floor of the cubicle. Excellent where water flow rate must be exceptionally high. Available in a range of standard sizes, allowing maximum design freedom.



SPECIALS...BY LAPP

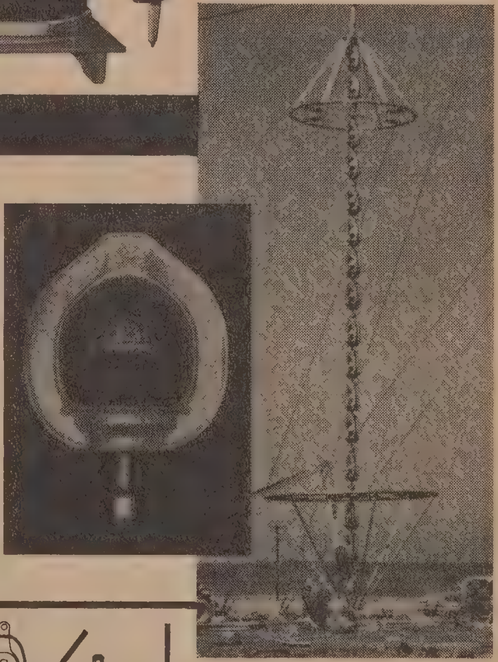
Our basic business is electrical porcelain. Lapp has been designing and manufacturing it for over 45 years. We've solved many tough problems with engineering ingenuity and production ability. Shown here are some of the thousands of special pieces developed. Your requirements become our specifications. Lapp makes special assemblies with economy, to perform with efficiency. Send us your insulator requirements.



LAPP ANTENNA TOWER INSULATORS

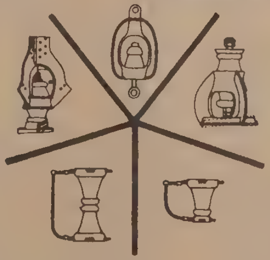
Shown here are giant antenna insulators designed and manufactured for U.S. Navy radio transmitter installation in Northern Maine. Lapp made use of known components to make the design meet electrical requirements. There are 16 insulator units in each string, weighing almost 7½ tons per string! Strings are suspended almost 1000 feet in the air and subjected to all kinds of atmospheric and weather conditions. Development of these highly specialized insulators took considerable time . . . testing alone lasted over a year! This highly unusual project is indicative of the capabilities of Lapp Insulator Company.

Lapp insulators support most of the world's large radio towers, both self-supporting towers and guyed masts. Our tower base insulators have been design-tested up to 9,000,000 lbs.!



Triple insulator tower base assembly—ultimate strength 9,000,000 lbs.

Typical base insulator for guyed mast. Ultimate strength up to 3,000,000 lbs.



Sketches of some of the standard design tower, mast base and guy insulators available.

For further information,
write Lapp Insulator Co.,
Inc., 350 Sumner Street,
LeRoy, N.Y. 14482

Lapp

INSTRUMENT PANELS SEE PANELS

INSTRUMENTS SEE SPECIFIC HEADINGS

INSTRUMENTS—GRAPHIC RECORDING SEE RECORDERS

INSTRUMENTS—PANEL SEE SPECIFIC HEADINGS

INSULATED WIRE SEE WIRE—LISTINGS

INSULATING BEADS SEE BEADS

INSULATING CEMENTS SEE CEMENTS

INSULATING COMPOUND DISPENSER SEE DISPENSERS—ENCAPSULATING & POTTING COMPOUNDS

INSULATING VARNISHES SEE VARNISHES

INSULATING WASHERS SEE GROMMETS; WASHERS

INSULATION SEE INDIVIDUAL PRODUCTS I E

ASBESTOS; BEADS; CERAMICS; COATINGS;

PLASTICS; RUBBER; VARNISHES; ETC.

INSULATION TESTERS SEE TESTERS—INSULATION

INSULATORS--ANTENNA

AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
BIRNBACH CO INC, FREEPORT	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
KYOTO CERAMIC CO LTD, NAKAGYO-KU, KYOTO	**JAPAN**
LAPP INSULATOR CO, INC, LE ROY N Y	**ADV PGS 356,357**
STAR PORCELAIN CO, TRENTON	**N J**
Abacus Electronics Corp, Dobbs Ferry	N Y
Alberox Corp, New Bedford	Mass
American Lava Corp, Chattanooga	Tenn
Antenna Products Co Div All Products Co Mineral Wells	Tex
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Birnbach Co Inc, Freeport	N Y
Canadian Porcelain Co Ltd, Hamilton	Ont
Carborundum Co Electrical & Elctns Br, Niagara Falls	NY
Ceramaseal Inc, Sub Lapp Insulator Co Inc New Lebanon Center	N Y
Clear Beam Antenna, Sylmar	Cal
C/P Corp, Columbia	S C
Daburn Electronics & Cable Corp, Bronx	N Y
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Denki Kogyo Co Ltd, Tokyo	Japan
Dixon Corp, Bristol	R I
Dowa Trading Co Ltd, Kobe	Japan
Du-Co Ceramics Co, Saxonburg	Pa
Emerson & Cuming Inc, Canton	Mass
Emerson Plastics Corp, Bronx	New York
Fastex Div Illinois Tool Works, Des Plaines	Ill
Insulating Shapes Inc, Bronx	N Y
Isolantite Mfg Corp, Stirling	N J
Johnson Co, E F, Waseca	Minn
Kyoto Ceramic Co Ltd, Nakagyo-ku, Kyoto	Japan
Lance Antenna Corp, Sylmar	Cal
Lapp Insulator Co, Inc, Le Roy	N Y
Latronics Corp, Latrobe	Pa
Marconi Co Ltd, Chelmsford	England
Maryland Lava Co Inc, Bel Air	Md
Metal Ceram Inc, Mount Vernon	N Y
Millen Mfg Co Inc, James, Malden	Mass
Mykroy Inc, Wheeling	Ill
National Beryllia Corp, Haskell	N J
Norrich Plastics Corp, Roosevelt	N Y
Penn Fibre & Specialty Co, Philadelphia	Pa
Porcelain Products Co Div Clarken Co, Carey	Ohio
Premax Products Div, Chisholm-Ryder Co Inc Niagara Falls	N Y
Quartzite Processing, Inc, Malden	Mass
Royal Worcester Industrial Ceramics Inc, New York	NY
S & A Electronics Inc, Toledo	Ohio
Saxonburg Ceramics Inc, Pittsburgh	Pa
Seastrom Mfg Co Inc, Glendale	Cal
Semi-Alloys Inc, Mt Vernon	N Y
Severna Div Amphenol Corp, East Orange	N J
Star Porcelain Co, Trenton	N J
Trylon Inc, Elverson	Pa
United Mineral & Chemical Corp, New York	N Y
U S Stoneware Inc, Orville Plant, Orrville	Ohio
Victor-Bernard Industries Inc, Philadelphia	Pa
Victor R F & Microwave Co, Wakefield	Mass
Washington Electrical Products Co, Washington	Mo

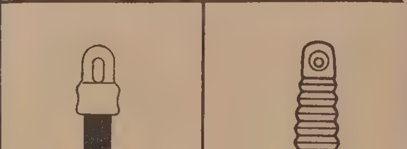
INSULATORS—CERAMIC SEE CERAMICS

INSULATORS--FEED-THROUGH

AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
BIRNBACH CO INC, FREEPORT	**N Y**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE	**WIS**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
ELECTRONIC CLOSURES, SPRINGFIELD	**NJ**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
FUSITE CORP, CINCINNATI	**OHIO**
KYOTO CERAMIC CO LTD, NAKAGYO-KU, KYOTO	**JAPAN**
LAPP INSULATOR CO, INC, LE ROY N Y	**ADV PGS 356,357,358**
MOSLEY ELECTRONICS INC, BRIDGETON	**MO**
PRECISION METAL PRODUCTS CO OF MALDEN INC STONEHAM	**MASS**
STAR PORCELAIN CO, TRENTON	**N J**
Abacus Electronics Corp, Dobbs Ferry	N Y
Alberox Corp, New Bedford	Mass
Alloys Unlimited Inc, Melville	N Y
Amatom Electronic Hardware, New Rochelle	N Y
American Lava Corp, Chattanooga	Tenn
Aremco Products Inc, Briarcliff Manor	N Y
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Beckman Instruments Inc, Fullerton,	Cal
Birnbach Co Inc, Freeport	N Y
Cambridge Thermionic Corp, Cambridge	Mass
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Ceramaseal Inc, Sub Lapp Insulator Co Inc New Lebanon Center	N Y
Ceramics International Corp, Mahwah	NJ
Chemelec Products, Inc, Cherry Hill	N J
Concord Electronics Corp, New York	N Y
Consolidated Ceramics & Metalizing Corp Flemington	N J
Coors Porcelain Co, Golden	Colo
Crystal Components Plant, GTI Corp, Warren	Pa
Daburn Electronics & Cable Corp, Bronx	N Y
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
D-Cemco Inc, Burbank	Cal
Denki Kogyo Co Ltd, Tokyo	Japan
Device Seals Inc, Sun Valley	Cal
Dixon Corp, Bristol	R I
Dowa Trading Co Ltd, Kobe	Japan
Electronic Closures, Springfield	NJ
Electronic Molding Corp, Pawtucket	R I
Emerson Plastics Corp, Bronx	New York
Energy Beams Inc, Haskell	N J
Fastex Div Illinois Tool Works, Des Plaines	Ill
Ferranti, Ltd, Lancashire	England
Franklin Fibre-Lamitex Corp, Wilmington	Del
Fusite Corp, Cincinnati	Ohio
Garner Glass Co, Claremont	Cal
Greenfield Components Corp, Greenfield	Mass
Hermetite Corp, Avon	Mass
Hill Magnetics, Inc, Redwood City	Cal
Impectron Inc, New York	N Y
Insulating Shapes Inc, Bronx	N Y
Isolantite Mfg Corp, Stirling	N J
Isotronics Inc, New Bedford	Mass
Johnson Co, E F, Waseca	Minn
Jones Electronics, Hiram, Burbank	Cal
Jones Inc, Norman, South Merrimack	N H
Kyoto Ceramic Co Ltd, Nakagyo-ku, Kyoto	Japan
Lapp Insulator Co, Inc, Le Roy	N Y
Latronics Corp, Latrobe	Pa
Lundey Associates Inc, Waltham	Mass
Maryland Lava Co Inc, Bel Air	Md
Millen Mfg Co Inc, James, Malden	Mass
Mosley Electronics Inc, Bridgeton	Mo
National Beryllia Corp, Haskell	N J
Norrich Plastics Corp, Roosevelt	N Y
Owens-Illinois Consumer & Tech Products Div Toledo	Ohio
Penn Fibre & Specialty Co, Philadelphia	Pa
Permali Inc, Mt Pleasant	Pa
Polymer Corp, Reading	Pa
Porcelain Products Co Div Clarken Co, Carey	Ohio
Precision Metal Products Co of Malden Inc Stoneham	Mass
Product Components Corp, Hastings-on-Hudson	N Y
Quartzite Processing, Inc, Malden	Mass
Rowe Industries Inc, Toledo	Ohio
Royal Worcester Industrial Ceramics Inc, New York	NY
Saxonburg Ceramics Inc, Pittsburgh	Pa
Seastrom Mfg Co Inc, Glendale	Cal
Semi-Alloys Inc, Mt Vernon	N Y
Severna Div Amphenol Corp, East Orange	N J
Shamban & Co, W S, Los Angeles	Cal
Sparta Mfg Co, Dover	Ohio
Sphere Co Inc, Little Falls	N J
Staffall, Inc, Providence	R I
Staff Gasket Mfg Corp, New York	N Y
Star Porcelain Co, Trenton	N J
Statham Instruments Inc, Los Angeles	Cal
Taurus Corp, Lambertville	N J
Tekna Products Co, Rochester	N Y
Thermal American Fused Quartz Co, Montville	N J
Union Carbide Corp, Carbon Products Div New York	N Y
United Mineral & Chemical Corp, New York	N Y
USECO Div, Litton Industries, Van Nuys	Cal
Veritron West Inc, Chatsworth	Cal
Victor-Bernard Industries Inc, Philadelphia	Pa
Washington Electrical Products Co, Washington	Mo
Western Coil & Electrical Co, Racine	Wisc

LAPP
ANTENNA
INSULATORS

Strain and Spreader



LAPP INSULATOR CO., INC.

Lapp

LeRoy, N. Y.
14482

INSULATORS—FUSED QUARTZ SEE QUARTZ—FUSED

INSULATORS—PLASTIC SEE PLASTICS

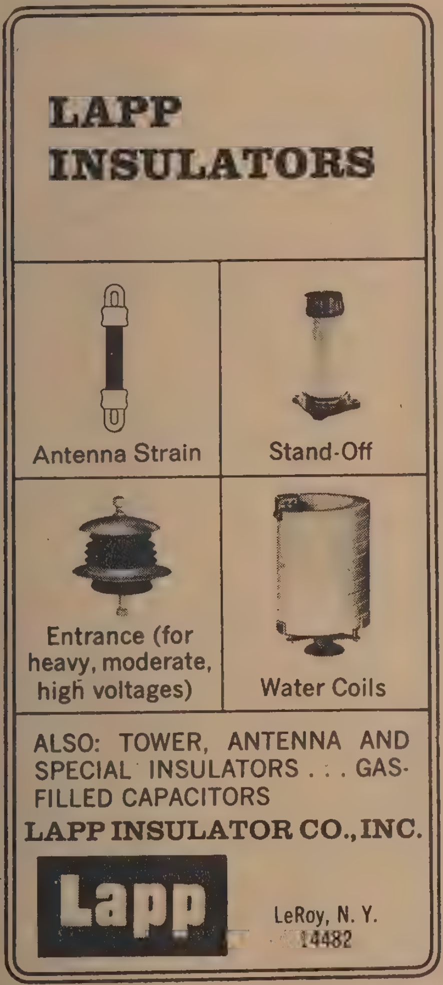
INSULATORS--STANDOFF

DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
EDAL INDUSTRIES INC, EAST HAVEN	**CONN**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
GRAYHILL INC, LA GRANGE	**ILL**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
LAPP INSULATOR CO, INC, LE ROY, N Y	**ADV PGS 356,357**
STAR PORCELAIN CO, TRENTON	**N J**
Abacus Electronics Corp, Dobbs Ferry	N Y
Alberox Corp, New Bedford	Mass
Allmetal Screw Products Co Inc, Garden City	N Y
Alloys Unlimited Inc, Melville	N Y
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Bivar Co Inc, Palo Alto	Cal
Canadian Porcelain Co Ltd, Hamilton	Ont
Ceramaseal Inc, Sub Lapp Insulator Co Inc New Lebanon Center	N Y
Chemelec Products, Inc, Cherry Hill	N J
Cinch-Monadnock, City of Industry	Cal
Coors Porcelain Co, Golden	Colo
Corning Glass Works, Corning	N Y
Daburn Electronics & Cable Corp, Bronx	N Y
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
D-Cemco Inc, Burbank	Cal
Dowa Trading Co Ltd, Kobe	Japan
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park	N J
Edal Industries Inc, East Haven	Conn
Electronic Molding Corp, Pawtucket	R I
Emerson Plastics Corp, Bronx	New York
Federal Screw Products Inc, Chicago	Ill
Franklin Fibre-Lamitex Corp, Wilmington	Del
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Grayhill Inc, La Grange	Ill
Hermetite Corp, Avon	Mass
Hill Magnetics, Inc, Redwood City	Cal
Impectron Inc, New York	N Y
Insulating Shapes Inc, Bronx	N Y
Isolantite Mfg Corp, Stirling	N J
Jan Hardware Mfg Co Inc, Long Island City	N Y
J-B Electronics, Inc, City of Commerce	Cal
Jones Electronics, Hiram, Burbank	Cal
Jones Inc, Norman, South Merrimack	N H

Keystone Electronics Corp, New York	N Y
Lapp Insulator Co, Inc, Le Roy	N Y
Latronics Corp, Latrobe	Pa
Leed Insulator Corp, Los Angeles	Cal
Maryland Lava Co Inc, Bel Air	Md
Metalized Ceramics Corp, Providence	R I
Norrich Plastics Corp, Roosevelt	N Y
Nylomatic Corp, Morrisville	Pa
Parker Metal Goods Co, Worcester	Mass
Porcelain Products Co Div Clarken Co, Carey	Ohio
Porter Co Inc, H K Electrical Div, Pittsburgh	Pa
Product Components Corp, Hastings-on-Hudson	N Y
Ross Co, Milton, Southampton	Pa
Rostone Corp, Lafayette	Ind.
Royal Worcester Industrial Ceramics Inc, New York	NY
Semi-Alloys Inc, Mt Vernon	N Y
Severna Div Amphenol Corp, East Orange	N J
Shamban & Co, W S, Los Angeles	Cal
Silicone Seals Inc, Chicago	Ill
Staffall, Inc, Providence	R I
Star Porcelain Co, Trenton	N J
Synthane Corp, Oaks	Pa
Taurus Corp, Lambertville	N J
Tekna Products Co, Rochester	N Y
United Mineral & Chemical Corp, New York	N Y
Victor-Bernard Industries Inc, Philadelphia	Pa
Washington Electrical Products Co, Washington	Mo

INSULATORS—WATER TUBE

LAPP INSULATOR CO INC
LE ROY N Y ...... **ADV PGS 356,357,359**


LAPP INSULATORS
Antenna Strain
Stand-Off
Entrance (for heavy, moderate, high voltages)
Water Coils
ALSO: TOWER, ANTENNA AND SPECIAL INSULATORS . . . GAS-FILLED CAPACITORS
LAPP INSULATOR CO., INC.
Lapp
LeRoy, N. Y. 14482

INTEGRATED CIRCUITS SEE CIRCUITS--INTEGRATED MICROELECTRONIC CIRCUITS

INTEGRATING AMPLIFIERS SEE AMPLIFIERS--COMPUTER

INTERCOMMUNICATION SYSTEMS-- WIRED, ELECTRONIC

HEATH CO, BENTON HARBOR	**MICH**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Action Systems Co Div Conn Consolidated Inds Inc Meriden	Conn
ADEC Inc, Newark	N J
Advanced Technology Corp, Chambersburg	Pa
Altec Lansing Div LTV Ling Altec Inc, Anaheim	Cal
Amtron Inc, Midlothian	Ill
Assembly Engineers Div Rucker Co, Los Angeles	Cal
Astrodata Inc, Anaheim	Cal
Atlas Sound Div Amer Trading & Prod Corp Parsippany	N J
Audio Equipment Co Div Walter Kidde & Co Inc Port Washington	NY
Audio Vox Intercom Inc, Montreal 12	Que
Auth Electric Co, Inc, Long Island City	N Y
Automatic Clerical Systems Inc, Pasadena	Cal
Automatic Electric Co, Northlake	Ill
Avco Corp Electronics Div, Cincinnati	Ohio
A V Electronics, Inc, Fresno	Cal
Bayly Engineering Ltd, Ajax	Ontario
Beama Engineering Ltd, Toronto 15	Ont
Bennett Laboratories, Inc, Emeryville	Cal
Bogen Communications Div Lear Siegler Inc Paramus	N J
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bruno-New York Industries Corp, New York	N Y
Calbest Electronics, Los Angeles	Cal
Canadian Motorola Electronics Co, Agincourt	Ont
Canoga Electronics Corp, Chatsworth	Cal
C B S Labs Div Columbia Bdcstg Sys Inc Stamford	Conn
Channel Master Corp, Ellenville	N Y
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Components Specialties Inc, Freeport	N Y
Daltronics Inc, Providence	R I
Data Trends Inc, Parsippany	N J
Dowa Trading Co Ltd, Kobe	Japan
DuKane Corp, St Charles	Ill
Ebauches SA Dept Oscilloquartz 2001 Neuchatel	Switz
Edwards Co Inc, Unit of General Signal Corp Norwalk	Conn
Electronic Homes Co, New York	N Y
Electrospace Corp, Glen Cove	N Y
EMI Cossor Electronics Ltd, Dartmouth, N S.	Can
Ericsson Centrum Inc, New York	N Y
Executone Inc, Long Island City	N Y
Fabrication Labs Inc, Camino	Cal
Fanon Electronic Industries Div Courier Commun Inc Newark	N J
Fedtro Inc, Rockville Centre	N Y
Fisher Berkeley Corp, Emeryville	Cal
Flush Wall Radio Co, Clearwater	Fla
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Fujitsu Ltd, Tokyo	Japan
Gai-Tronics Corp, Reading	Pa
Godfrey Mfg Co, Chicago	Ill
Hamilton Electronics Corp, Chicago	Ill
Heath Co, Benton Harbor	Mich
ITT Terryphone Corp, Harrisburg	Pa
Jensen Mfg Div, The Muter Co, Chicago	Ill
Kameco Ltd, Montreal	Que
K L A Labs Inc, Detroit	Mich
Lafayette Radio Electronics, Syosset	NY
Lake Mfg Co, Oakland	Cal
Lake Systems Corp, Newton	Mass
Lane Industries,Electronics Div, North Hollywood	Cal
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Loge Electronics, Los Angeles	Cal
Marquardt Industrial Products Co, Chicago	Ill
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Midland International Corp, North Kansas City	Mo
Multiper N V, Den Haag	Netherlands
Nelson-Hershfield Electronics Co, Phoenix	Ariz
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Paraplegics Mfg Co Inc, Bensenville	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Private Tele Communications Inc, Chicago	Ill
Ratelco Inc, Seattle	Wash
Rauland-Borg Corp, Chicago	Ill
RCA, Defense Electronic Products, Moorestown	N J
Remler Co, San Francisco	Cal
Sanyo Electric Co Ltd, Osaka	Japan
Shrader Sound Inc, Washington	D C
Siemens America Inc, New York	N Y
Spivey Inc, James S, Washington	D C
Standard Telephones & Cables Ltd London WC 2	England
Stelma Inc, Stamford	Conn
Stromberg-Carlson Sub Gen Dynamics, Rochester	N Y
Stuart, Matthew & Co Inc, Bronx	NY
Talk-A Phone Co, Chicago	Ill
Telautograph Corp, Los Angeles	Cal
Telectro Systems Corp, Corona	N Y
Telephonics Div, Instrument Systems Corp Huntington	NY
Touchmaster Labs, Los Angeles	Cal
Virginia Electronics Co Inc, Falls Church	Va
VP Co, Pasadena	Cal
Webster Electric Co, Racine	Wisc

INTERCOMMUNICATION SYSTEMS-- WIRED, SOUND-POWERED

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Action Systems Co Div Conn Consolidated Inds Inc Meriden	Conn
Atlas Sound Div Amer Trading & Prod Corp Parsippany	N J
Bennett Laboratories, Inc, Emeryville	Cal
C B S Labs Div Columbia Bdcstg Sys Inc Stamford	Conn
Clavier Corp, Richmond Hill	NY
Daltronics Inc, Providence	R I
Dowa Trading Co Ltd, Kobe	Japan
DuKane Corp, St Charles	Ill
Edwards Co Inc, Unit of General Signal Corp Norwalk	Conn
EMI Cossor Electronics Ltd, Dartmouth, N S.	Can
Fanon Electronic Industries Div Courier Commun Inc Newark	N J
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Fujitsu Ltd, Tokyo	Japan
Hayakawa Electric Co Ltd, Osaka	Japan
Henschel Corp, Amesbury	Mass
Jensen Mfg Div, The Muter Co, Chicago	Ill
K L A Labs Inc, Detroit	Mich
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Panther Electronics Inc, Burbank	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Rauland-Borg Corp, Chicago	Ill
RCA, Defense Electronic Products, Moorestown	N J
Shrader Sound Inc, Washington	D C
Stromberg-Carlson Sub Gen Dynamics, Rochester	N Y
Stuart, Matthew & Co Inc, Bronx	NY
Telecontrol Corp, Old Greenwich	Conn
Telephonics Div, Instrument Systems Corp Huntington	NY
Touchmaster Labs, Los Angeles	Cal
University Sound Div Ltv Ling Altec Inc Oklahoma City	Okla
Worner Electronic Devices, Rankin	Ill

INTERCOMMUNICATION SYSTEMS-- WIRELESS

HEATH CO, BENTON HARBOR	**MICH**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
ACR Electronics Corp, New York	N Y
American Systems, Inc, Van Nuys	Cal
Automatic Clerical Systems Inc, Pasadena	Cal
Bendix Corp, Communications Div, Towson	Md
Bennett Laboratories, Inc, Emeryville	Cal
Canadian Motorola Electronics Co, Agincourt	Ont
C B S Labs Div Columbia Bdcstg Sys Inc Stamford	Conn
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Clavier Corp, Richmond Hill	NY
Components Specialties Inc, Freeport	N Y
Concord Electronics Corp, Los Angeles	Cal
Dowa Trading Co Ltd, Kobe	Japan
DuKane Corp, St Charles	Ill
Electronic Homes Co, New York	N Y
Fanon Electronic Industries Div Courier Commun Inc Newark	N J
Fedtro Inc, Rockville Centre	N Y
Fisher Berkeley Corp, Emeryville	Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Fujitsu Ltd, Tokyo	Japan
General Instrument Corp Radio Receptor Div Hicksville	N Y
Heath Co, Benton Harbor	Mich
Johnson Co, E F, Waseca	Minn
K L A Labs Inc, Detroit	Mich
Lafayette Radio Electronics, Syosset	NY
Lake Systems Corp, Newton	Mass
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Miles Reproducer Co Inc, New York	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
RCA, Defense Electronic Products, Moorestown	N J
Shrader Sound Inc, Washington	D C
Siemens America Inc, New York	N Y
Squires-Sanders Inc, Liberty Corner	N J
Standard Telephones & Cables Ltd London WC 2	England
Talk-A Phone Co, Chicago	Ill

INTERFERENCE FILTERS SEE FILTERS

INTERFEROMETERS--MICROWAVE

GENERAL MICROWAVE CORP, FARMINGDALE ..... N Y
NIPPON ELECTRIC CO LTD, TOKYO ..... JAPAN
TRG DIV CONTROL DATA CORP, EAST BOSTON ..... MASS
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG ..... MD
Canoga Electronics Corp, Chatsworth ..... Cal
Chu Associates Inc, Littleton ..... Mass
DeMornay-Bonardi Div Datapulse Inc, Pasadena ..... Cal
Emerson & Cuming Inc, Canton ..... Mass
General Microwave Corp, Farmingdale ..... N Y
MCS Corp, Monrovia ..... Cal
Measurement Technology Corp, Canoga Park ..... Cal
Microwave Instruments Co, Corona del Mar ..... Cal
Nippon Electric Co Ltd, Tokyo ..... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven ..... Holland
Princeton Applied Research Corp, Princeton ..... N J
TRG Div Control Data Corp, East Boston ..... Mass
Weinschel Engineering Co Inc, Gaithersburg ..... Md

INTERFEROMETERS--OPTICAL

American Optical Co Space Defense Div Southbridge ..... Mass
Atomic Labs, Div Cenco Instr Corp, Chicago Ill
Barringer Research Ltd, Rexdale ..... Ontario
Bausch & Lomb, Inc, Rochester ..... N Y
Beckman Instruments Inc, Fullerton, ... Cal
Beckman Instruments Intl SA, 1207 Geneva ..... Switzerland
Block Engineering Inc, Cambridge ..... Mass
Central Scientific Co, Chicago Ill
Davidson Optronics Inc, West Covina ..... Cal
Digital Development Corp, San Diego ..... Cal
DoAll Co, Des Plaines Ill
Ealing Corp, Cambridge ..... Mass
Electroglas Inc, Menlo Park ..... Cal
Electro Optics Assoc, Palo Alto ..... Cal
Ercona Corp, New York ..... N Y
Gaertner Scientific Corp, Chicago Ill
Gulton Industries Inc, Metuchen ..... N J
Infrared Industries Inc, Santa Barbara ..... Cal
Jungner Instrument AB, S-10440 Stockholm 14 ..... Sweden
Keuffel & Esser Co, Hoboken ..... N J
Laser Optics Inc, Danbury ..... Conn
Link Group Gen Precision Sys Inc, Binghamton ..... N Y
Nuclear Research Instruments, Berkeley ..... Cal
Olympus Corp of America, Rochester ..... N Y
Optics Technology Inc, Palo Alto ..... Cal
Optomechanisms Inc, Plainview ..... N Y
Opto-Metric Tools Inc, New York ..... N Y
Perkin-Elmer Corp, Norwalk ..... Conn
Perkin-Elmer Corp Laser Dept, Wilton ..... Conn
Perkin-Elmer Corp, Optical Group, Norwalk ..... Conn
Sloan Instruments Corp, Santa Barbara ..... Cal
Spectra-Physics, Mountain View ..... Cal
Stark Electronic Instruments Ltd, Ajax ..... Ont
Tropel Inc, Fairport ..... N Y
Varian, Palo Alto ..... Cal
Zeiss Inc, Carl, New York ..... N Y

INTERMETALLIC CRYSTALS SEE CRYSTALS--SEMICONDUCTOR

INTERMETALLICS--SEMICONDUCTOR-- RAW MATERIAL ONLY

Alloys Unlimited Inc, Melville ..... N Y
Asarco Intermetallics Corp, New York ..... N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place ..... N Y
Bram Metallurgical Chemical Co, Philadelphia ..... Pa
Cerac Inc, Butler ..... Wis
Cominco American Inc Electronic Matls Div, Spokane ..... Wash
Electronic Metals & Alloys Inc, North Attleboro ..... Mass
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland ..... Ohio
Henley & Co Inc, New York ..... N Y
Koch Light Labs Ltd, Colnbrook, Bucks ..... England
Mackay Inc, A D, New York ..... N Y
Materials Research Corp, Orangeburg ..... N Y
Monsanto Co, St Peters ..... Mo
Ohio Semitronics Inc, Columbus ..... Ohio
Rocky Mountain Research Inc, Denver ..... Colo
Roosevelt Metal Co Inc, Brooklyn ..... N Y
Semi-Alloys Inc, Mt Vernon ..... N Y
Semiconductor Specialties Corp, Fair Lawn ..... NJ
Semi-Elements Inc, Saxonburg ..... Pa
United Mineral & Chemical Corp, New York ..... N Y
Var-Lac-Oid Chemical Co, Elizabeth ..... N J
Ventron Electronics Corp, Bradford ..... Pa

INTERMODULATION ANALYZERS, METERS & TESTERS SEE

ANALYZERS--INTERMODULATION

INTERVALOMETERS SEE TIMERS

INVERTERS, D-C TO A-C--CHOPPER

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE ..... N Y
BELL, INC F W, COLUMBUS ..... OHIO
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL, ... PA
FORK STANDARDS INC, WEST CHICAGO ILL
HEWLETT-PACKARD, PALO ALTO ..... CAL
INTERELECTRONICS CORP, CONGERS ..... N Y
NIPPON ELECTRIC CO LTD, TOKYO ..... JAPAN
American Time Products, Elctns Div Bulova Watch Co Inc Woodside ..... N Y
Atlas Coil Corp, Ansonia ..... Conn
ATR Electronics, Inc, St Paul ..... Minn
Ault, Inc, Minneapolis ..... Minn
Autronics Corp, Pasadena ..... Cal
Barden Co, Hermosa Beach ..... Cal
Bell, Inc F W, Columbus ..... Ohio
Bristol Div, American Chain & Cable Co Waterbury ..... Conn
Bronson Corp, Sub Kurz & Root Co, Appleton ..... Wisc
Bush Transformer Div, Gladding-Keystone Corp Oneonta ..... NY
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill, ... Pa
Control Circuits Inc, Middletown ..... Conn
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark ..... N J
Dowa Trading Co Ltd, Kobe ..... Japan
Field Electronics Inc, Chatham ..... N J
Fork Standards Inc, West Chicago Ill
General Laboratory Assoc Inc, Norwich ..... N Y
General Precision Systems Inc, Kearfott Gp Little Falls ..... N J
Glentek Inc, Santa Monica ..... Cal
Hewlett-Packard, Palo Alto ..... Cal
Honeywell Industrial Div, Fort Washington ..... Pa
Inet Power A Teledyne Co, Gardena ..... Cal
Interelectronics Corp, Congers ..... N Y
Kapitol Magnetic Corp, Chicago Ill
Lear Siegler Inc, Santa Monica ..... Cal
Lear Siegler Inc, Power Equipment Div, Cleveland ..... Ohio
Madigan Electronic Corp, Washington ..... D C
Magnetic Systems Corp, Clearwater ..... Fla
Microtran Co Inc, Valley Stream ..... N Y
Nippon Electric Co Ltd, Tokyo ..... Japan
Nuclear Corp of America, Nuclear Div, Denville ..... N J
Nuclear Enterprises Ltd, Edinburgh 11 ..... Scotland
Pacific Electro Dynamics Inc, Seattle ..... Wash
Power Control Corp, Pittsburgh ..... Pa
Princeton Applied Research Corp, Princeton ..... N J
Raven Electronics Inc, Burbank ..... Cal
Reflex Controls Corp, Huntington Station ..... NY
RO Associates Inc, Menlo Park ..... Cal
Roband Electronics Ltd, Surrey ..... England
SBD Systems Inc, Farmingdale ..... N Y
Scott Electronics Corp, Orlando ..... Fla
Signet Controls Inc, Tulsa ..... Okla
Slocum Industries, Inc, Reseda ..... Cal
Solidstate Controls Inc, Columbus ..... Ohio
Solid State Electronics Corp, Sepulveda ..... Cal
Space Craft Inc, Huntsville ..... Ala
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn ..... N Y
T M C Systems & Power Corp, Springfield ..... Va
Transistor Devices Inc, Mt Tabor ..... N J
Triad Transformer Corp, Venice ..... Cal
Universal Precision, Inc, Endicott ..... N Y
Valradio Ltd, Feltham, Mdsx ..... Eng
Varo Inc, Garland ..... Tex
Varo Inc, Static Power Div, Plano ..... Tex
Vector Engineering Inc, Springfield ..... N J

INVERTERS, D-C TO A-C--ROTARY

INDIANA GENERAL CORP ELECTRO-MECHANICAL DIV OGLESBY ILL
NIPPON ELECTRIC CO LTD, TOKYO ..... JAPAN
American Electronics, Inc, Fullerton ..... Cal
Aviation Electric Ltd, St Laurent, Montreal ..... Que
Bendix Corp Electric Power Div, Eatontown ..... NJ
Bronson Corp, Sub Kurz & Root Co, Appleton ..... Wisc
Carter Motor Co, Chicago Ill
Cavitron Electronics, Inc, Costa Mesa ..... Cal
Consolidated Electric Corp, Seattle ..... Wash
Denki Kogyo Co Ltd, Tokyo ..... Japan
Dowa Trading Co Ltd, Kobe ..... Japan
Dyna Technology, Inc, Sioux City ..... Iowa
Electric Indicator Co Inc, Wilton ..... Conn
Electric Products Co, Cleveland ..... Ohio
Electro-Pacific Inc, Goleta ..... Cal
General Precision Systems Inc, Kearfott Gp Little Falls ..... N J
Horlick Co Inc, William I, Boston ..... Mass
Indiana General Corp Electro-Mechanical Div Oglesby Ill
Inet Power A Teledyne Co, Gardena ..... Cal
Lear Siegler Inc, Santa Monica ..... Cal
Lear Siegler Inc, Power Equipment Div, Cleveland ..... Ohio
Leland Airborne Products Div AMF, Vandalia ..... Ohio
Magnetic Systems Corp, Clearwater ..... Fla
Nippon Electric Co Ltd, Tokyo ..... Japan
Rotax Ltd, London NW 10 ..... Eng
Safety Electrical Equipment Corp, New Haven ..... Conn
Sunbeam Electronics, Fort Lauderdale ..... Fla
Task Corp, Anaheim ..... Cal
Thorn Automation Ltd, Rugeley, Staffs ..... England
T M C Systems & Power Corp, Springfield ..... Va
Varo Inc, Garland ..... Tex

INVERTERS, D-C TO A-C--SOLID STATE

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE, N Y ..... ADV PG 361
AMP INCORPORATED, HARRISBURG ..... PA
BELL, INC F W, COLUMBUS ..... OHIO
BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS WOODSIDE ..... NY
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL, ... PA
C M L INC, PLAINFIELD, N J ..... ADV PGS 496,497
FORK STANDARDS INC, WEST CHICAGO, ILL ..... ADV PG 361
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ..... ADV PGS 7
HEATH CO, BENTON HARBOR ..... MICH
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON ..... N Y
INTERELECTRONICS CORP, CONGERS ..... N Y
K G S ELECTRONICS INC, PASADENA ..... CAL
KINELOGIC CORP, PASADENA ..... CAL
MAGNETICS INC, BUTLER ..... PA
MELCOR ELECTRONICS CORP, FARMINGDALE ..... N Y
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH ..... VA
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO ILL
NIPPON ELECTRIC CO LTD, TOKYO ..... JAPAN
NJE CORP, KENILWORTH ..... N J
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM ..... CAL
TECHNIPOWER INC, SUB BENRUS WATCH CO INC RIDGEFIELD ..... CONN
TOROTEL, INC, GRANDVIEW ..... MO
TRANSFORMER ELECTRONICS CO, BOULDER COLO ..... ADV PGS 2ND COVER & FACING PG
TRANSMAGNETICS INC, FLUSHING ..... N Y
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK ..... N J
WAGNER ELECTRIC CORP, TUNG-SOL DIV, LIVINGSTON ..... N J
WANLASS ELECTRIC CO, SANTA ANA ..... CAL

Abbott Transistor Labs, Inc, Los Angeles ..... Cal
Acco Gyro Div, Amer Chain & Cable Co Inc Waterbury ..... Conn
Acme Products Co, Kensington ..... Conn
ACR Electronics Corp, New York ..... N Y
ADC Electronics, Inc, Harbor City ..... Cal
Advanced Development Corp, Gardena ..... Cal
Advanced Energy Conversion, Menlo Park ..... Cal
Aerospace Avionics Inc, Bohemia ..... NY
Air Technology Corp, Waltham ..... Mass
American Geloso Electronics Inc, New York ..... N Y
American Rectifier Corp, College Point ..... N Y
American Time Products, Elctns Div Bulova Watch Co Inc Woodside ..... N Y
AMP Incorporated, Harrisburg ..... Pa
Applied Electronics Corp of N J, Metuchen ..... N J
Armec Corp, Huntington Station ..... N Y
Arnold Magnetics Corp, Los Angeles ..... Cal
Assembly Engineers Div Rucker Co, Los Angeles ..... Cal
Astro Lab, Westminster ..... Cal
Astro-Metrix Corp, Burbank ..... Cal
ATR Electronics, Inc, St Paul ..... Minn
Audichron Co, Atlanta ..... Ga
Ault, Inc, Minneapolis ..... Minn
Austron, Inc, Austin ..... Tex
Automation Services Inc, Endicott ..... N Y
Autronics Corp, Pasadena ..... Cal
Aviation Electric Ltd, St Laurent, Montreal ..... Que
Aviation Instrument Mfg Corp, Houston ..... Tex
Avtel Corp, Covina ..... Cal
Barden Co, Hermosa Beach ..... Cal
Basler Electric Co, Highland Ill
Bell, Inc F W, Columbus ..... Ohio
Bendix Corp Electric Power Div, Eatontown ..... NJ
Bergen Lab, Inc, Paterson ..... N J
B F Electronics, Solana Beach ..... Cal
Borg-Warner Controls Div Borg-Warner Corp Santa Ana ..... Cal
Bronson Corp, Sub Kurz & Root Co, Appleton ..... Wisc
Brown Engineering-A Teledyne Co, Huntsville ..... Ala
Brys Instrument Corp, Brooklyn ..... N Y
Bullock Magnetics Corp, Pomona ..... Cal
Bulova Watch Co Inc Elctns Div Servo Products Woodside ..... NY
Bush Transformer Div, Gladding-Keystone Corp Oneonta ..... NY
Cal-Power Corp, El Segundo ..... Cal
Cambridge Scientific Industries Inc, Cambridge ..... Md
Cardinal Control Co Inc, Kensington ..... Conn
Carol Electronics Div Weeco Inc, Martinsburg ..... W Va
Carter Co, J C, Electronics Div, Costa Mesa ..... Cal
Cavitron Electronics, Inc, Costa Mesa ..... Cal
CEA Div Berkleonics Inc, Monrovia ..... Cal
Cie De Signaux Et D'Entreprises Electriques Paris 17eme ..... France
C I T E, Santa Margherita Ligure ..... Italy
Clare-Electroseal Corp, Des Plaines Ill
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill, ... Pa
C M L Inc, Plainfield ..... N J
Coilcraft Inc, Cary Ill
Components Corp, Denville ..... NJ
Component Technology Corp, Sunnyvale ..... Cal
Condor Industrial Corp, West Chicago Ill
Control Circuits Inc, Middletown ..... Conn
Crane Electronics Corp, Santa Barbara ..... Cal
Curry Engineering Co, N Hollywood ..... Cal
Darcy Industries Inc, Behlman Div, Santa Monica ..... Cal
Data Royal Corp, San Diego ..... Cal
Del Electronics Corp, Mt Vernon ..... N Y
Dinsmore Instrument Co, Flint ..... Mich
Dowa Trading Co Ltd, Kobe ..... Japan
Dynamic Instrument Corp, Plainview ..... N Y
Elasco Inc, Boston ..... Mass
Electro Development Corp, Lynnwood ..... Wash
Electro-Kinetics Corp Div EPD Ind Inc, Long Beach ..... Cal
Electro Marine Corp, Falmouth ..... Mass
Electronic Applications Co, Pine Brook ..... N J
Electronic Engineering Co of Cal, Santa Ana ..... Cal

Electronic Research Associates Inc, Cedar Grove	N J
Electronic Specialty Co, Los Angeles	Cal
Electro Products Labs Inc Power Supply Div Chicago	Ill
Elgin Electronics Inc, Erie	Pa
EMP Electronics Inc, Tempe	Ariz
Euro Cedag, Milan	Italy
Fairchild Controls, Hicksville	N Y
Fansteel Metallurgical Corp, North Chicago	Ill
Field Electronics Inc, Chatham	N J
Fork Standards Inc, West Chicago	Ill
Freed Transformer Co Inc, Brooklyn	N Y
Fuji Electric Co Ltd, Tokyo	Japan
Gaylord Rives Co, Pasadena	Cal
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Electric Co, ECSO, Schenectady	N Y
General Laboratory Assoc Inc, Norwich	N Y
General Magnetics Inc, Bloomfield	N J
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Geo Space Corp, Houston	Tex
Gibbs Mfg & Research Corp, Janesville	Wis
Glentek Inc, Santa Monica	Cal
Gould Marathon Battery Co Div Gould-Natl Batteries Inc St Paul	Minn
Grafix Inc, Albuquerque	N Mex
Grand Transformers Inc, Grand Haven	Mich
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Gulton Industries Inc, Metuchen	N J
Gulton Industries Inc Engineered Magnetics Div Hawthorne	Cal
Hamilton Electronics Corp, Chicago	Ill
Harrel Inc, East Norwalk	Conn
Heath Co, Benton Harbor	Mich
Hydro Products Div Dillingham Corp, San Diego	Cal
Inductor Engineering Inc, Lewes	Del
Industrial Test Equipment Co, Port Washington	N Y
Inet Power A Teledyne Co, Gardena	Cal
Information Control Corp, El Segundo	Cal
Instrulab Inc, Dayton	Ohio
Instruments Inc, San Diego	Cal
Interelectronics Corp, Congers	N Y
Intertechnique, Plaisir, 78	France
Jefferson Electric Co, Bellwood	Ill
Kapitol Magnetic Corp, Chicago	Ill
K G S Electronics Inc, Pasadena	Cal
Kinelogic Corp, Pasadena	Cal
Larago Electronics Mfgrs Inc, Melbourne	Fla
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
Leland Airborne Products Div AMF, Vandalia	Ohio
Linear Systems Inc, Watsonville	Cal
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Macarr Inc, Bronx	N Y
Madigan Electronic Corp, Washington	D C
Magnetic Engineering Corp, Danbury	Conn
Magnetico Inc, East Northport	N Y
Magnetics Inc, Butler	Pa
Magnetic Systems Corp, Clearwater	Fla
Marche Mfg Co, Des Plaines	Ill
Melcor Electronics Corp, Farmingdale	N Y
Melpar Inc, Special Prods Dept, Falls Church	Va
Microdot, Inc, South Pasadena	Cal
Microdot Magnetics Inc, Los Angeles	Cal
Microtran Co Inc, Valley Stream	N Y
Mid-Eastern Industries Inc, Springfield	N J
Mil Associates Inc, Hudson	NH
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Motorola Semiconductor Products Inc, Phoenix	Ariz
Nash Controls Inc, Caldwell	N J
Natel Engineering Co Inc, Van Nuys	Cal
Nippon Electric Co Ltd, Tokyo	Japan
NJE Corp, Kenilworth	N J
North Electric Co, Galion	Ohio
Novatronics Inc, Pompano Beach	Fla
Nuclear Corp of America, Nuclear Div, Denville	N J
Onan Div, Studebaker Corp, Minneapolis	Minn
Pacific Instrument Co, Oakland	cal
Parametrics, Costa Mesa	Cal
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Pioneer Magnetics Inc, Santa Monica	Cal
Polyphase Instrument Co, Bridgeport	Pa
Polytronics Communications, Baltimore Div Baltimore	Md
Power Control Corp, Pittsburgh	Pa
Power Sources Div, Technical Operations Inc Burlington	Mass
Power Systems Inc, Venice	Cal
Powertec Div, Airtronics Corp, Chatsworth	Cal
Precision Transformers Inc, Anaheim	Cal
Preferred Electronics Inc, Westfield	Mass
Radix Electronics Corp, Anaheim	Cal
Ramsey Controls Inc, Mahwah	N J
Ratelco Inc, Seattle	Wash
Reliance Electric Co, Cleveland	Ohio
Resdel Engineering Corp, Pasadena	Cal
Rho Engineering Co, Los Angeles	Cal
Riverbank Labs, Dept of Engrg, Geneva	Ill
RO Associates Inc, Menlo Park	Cal
Roband Electronics Ltd, Surrey	England
Rotax Ltd, London NW 10	Eng
Sanken Electric Co, Ltd, Toshima-ku, Tokyo	Japan
SBD Systems Inc, Farmingdale	N Y
Scott Electronics Corp, Orlando	Fla
Servonetics Inc, Los Angeles	Cal
S K G Associates Inc, Boston	Mass
Slocum Industries, Inc, Reseda	Cal
Sola-Basic Industries, Milwaukee	Wis
Sola Electric Div Sola Basic Industries Elk Grove Village	Ill
Solidstate Controls Inc, Columbus	Ohio
Solid State Electronics Corp, Sepulveda	Cal
Space Craft Inc, Huntsville	Ala
Space & Systems Div General Time Corp Stamford	Conn
Spar Aerospace Products Ltd, Toronto	Ont
Spar Electronics Inc, San Diego	Cal
Sperry Flight Systems Div Sperry Rand Corp Phoenix	Ariz
SunAir Electronics Inc, Ft Lauderdale	Fla
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Systems Electronics Inc, Cleveland	Ohio
Task Corp, Anaheim	Cal
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Technipower Inc, Sub Benrus Watch Co Inc Ridgefield	Conn
Tenco Electronics Inc, Boston	Mass
Terado Corp, St Paul	Minn
Ther Electric & Machine Works Inc, Chicago	Ill
Thorn Automation Ltd, Rugeley, Staffs	England
T M C Systems & Power Corp, Springfield	Va
Topaz Inc, San Diego	Cal
Topping Electronics Ltd, Toronto 17	Ont
Torelco Inc, Irvington	N J
Toroid-Trans Electronics Co Inc, Danbury	Conn
Torotel, Inc, Grandview	Mo
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
Torque Tronics, San Gabriel	Cal
Transformer Electronics Co, Boulder	Colo
Transistor Devices Inc, Mt Tabor	N J
Transmagnetics Inc, Flushing	N Y
Transval Electronics Div Jetronic Indus Inc Gardena	Cal
Trepac Corp of America, Englewood	N J
Triad Transformer Corp, Venice	Cal
Trio Laboratories Inc, Plainview	N Y
Tung-Sol Div Wagner Electric Corp, Newark	N J
Unitron Div Electric Machy Mfg Co, Garland	Tex
Universal Precision, Inc, Endicott	N Y
Universal Transistor Products Div Link, Copiague	N Y
Valradio Ltd, Feltham, Mdsx	Eng
Vapor Corp, Chicago	Ill
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Varo Inc Time & Frequency Products Santa Barbara	Cal
Vega Precision Labs, Vienna	Va
Venus Scientific Inc, Hicksville	N Y
Vinco Industries, Orange	Cal
Wagner Electric Corp, Tung-Sol Div, Livingston	N J
Wanlass Electric Co, Santa Ana	Cal
Ward Leonard Electric Co, Mount Vernon	N Y
Warren Mfg Co Div Dielectric Prods Eng Co Inc Littleton	Mass
Westinghouse Electric Corp, Aerospace Electrical Div Lima	Ohio
Westinghouse Electric Corp, Gen Control Div Pittsburgh	Pa
Wilmore Electronics Co Inc, Durham	NC
Woodward-Schumacher Electric Corp, Chicago	Ill
Workman Electronic Products Inc, Sarasota	Fla
Zaring Industries Inc, Carmel	Ind

Solid State Inverters?

Try Bulova First!

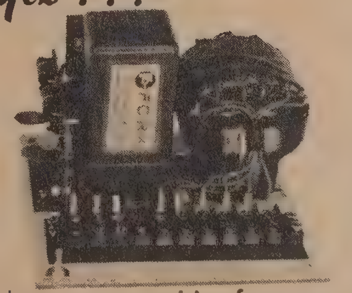
CALL:

Ariz. Tech-Ser Inc, 1805 E Indian School Rd Phoenix 602-265-3629
Cal Straube Assoc., Inc., 483 Willow Rd., Menlo Pk 213-323-2476
Cal Cardinal Assoc, 16024 Ventura Blvd Encino 213-788-4540
Conn Samuel C Hooker Inc, Box 369 West Hartford 203-233-8000
Fla Perrott Assoc, 1607 Forsyth Rd, Orlando 305-275-1132
Fla Perrott Assoc, Box 4532, Clearwater. 813-531-5513
Fla Perrott Assoc, Box 6277 West Palm Beach 305-967-1770
Ga Emmett Rushin Co, Box 486 Roswell 404-993-6498
Ill Communications Eng, 7100 N Western Ave Chicago 312-R01-0548
Md Daniel & Co, Box 124, Lutherville. .301-825-8330
Mass Samuel Hooker, Inc, Box 352 Winchester 617-729-5482
Minn Wenco Sales Inc, 7728 Morgan Ave S Minneapolis 612-866-3639
Mo J C Mankus & Assoc, 400 Brooks La Hazelwood 314-PE1-4334
NY H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester 716-232-2688
NY Cane Technical Sales, 555 E Boston Post Rd Mamaroneck 914-698-4411
NY H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady 518-882-9303
NY H C Johnson Agencies Inc, Box 215 Fayetteville 315-637-9595
NY H C Johnson Agencies Inc, 8 Los Robles St Williamsville 716-632-7880
Pa Daniel & Co, Box 3, Glenside 215-TU7-0550
Tex Applied Eng Sales, 1st Bank & Trust, Richardson 214-AD1-1322
Wash Jas J Backer Co, 221 W Galer St Seattle 206-AT3-6470

AMERICAN TIME PRODUCTS
BULOVA WATCH CO INC
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

POWER INVERTERS?

Yes . . .



Select your precision-frequency

POWER INVERTER

from Fork Standards comprehensive product display.

See page 457

FORK STANDARDS, INC.

251 Main St., West Chicago Ill. 60185
Telephone Area Code 312—231-3511

INVERTERS, D-C TO A-C--VIBRATOR TYPE

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
ATR Electronics, Inc, St Paul	Minn
Aviation Electric Ltd, St Laurent, Montreal	Que
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Cavitron Electronics, Inc, Costa Mesa	Cal
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Dowa Trading Co Ltd, Kobe	Japan
General Laboratory Assoc Inc, Norwich	N Y
Impectron Inc, New York	N Y
Madigan Electronic Corp, Washington	D C
Microtran Co Inc, Valley Stream	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Solid State Electronics Corp, Sepulveda	Cal
Terado Corp, St Paul	Minn
Triad Transformer Corp, Venice	Cal
Varo Inc, Garland	Tex
Vector Engineering Inc, Springfield	N J

IONIZATION CHAMBERS & GAGES SEE CHAMBERS—IONIZATION

IONOSPHERIC SOUNDING EQUIPMENT SEE RADIOSONDES

ION TRAPS SEE MAGNETS—PERMANENT

IRON OXIDE, POWDERED--MAGNETIC

PFIZER MINERALS, PIGMENTS & METALS DIV NEW YORK	**NY**
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Cerac Inc, Butler	Wis
Columbian Carbon Co, New York	N Y
Core-Tronics, Inc, Orange	N J
Electronic Space Products Inc, Los Angeles	Cal
Foote Mineral Co, Exton	Pa
Glidden Metals, SCM Corp, Cleveland	Ohio

Lavino Div Intl Min & Chem Corp, Philadelphia	Pa
Mackay Inc, A D, New York	N Y
Magnaflux Corp, Chicago	Ill
Pfizer Minerals, Pigments & Metals Div, New York	NY
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Elements Inc, Saxonburg	Pa
Shannon Luminous Materials Co, Hollywood	Cal
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
Universal Shellac & Supply Co Inc, Brooklyn	N Y
Vitro Labs Div Vitro Corp of America, W Orange	N J
White Cross Labs, New York	NY
Xtalonix Products Div Harshaw Chemical Co Columbus	Ohio

IRON OXIDE, POWDERED--NONMAGNETIC

PFIZER MINERALS, PIGMENTS & METALS DIV NEW YORK	**NY**
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Columbian Carbon Co, New York	N Y
Electronic Space Products Inc, Los Angeles	Cal
Glidden Metals, SCM Corp, Cleveland	Ohio
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Pfizer Minerals, Pigments & Metals Div, New York	NY
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Elements Inc, Saxonburg	Pa
United Mineral & Chemical Corp, New York	N Y
Xtalonix Products Div Harshaw Chemical Co Columbus	Ohio

IRON POWDER--MAGNETIC

American Metal Climax Inc, New York	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Cambridge Thermionic Corp, Cambridge	Mass
Cerac Inc, Butler	Wis
Electronic Space Products Inc, Los Angeles	Cal
Glidden Metals, SCM Corp, Cleveland	Ohio
Mackay Inc, A D, New York	N Y
National Moldite Co Inc, Newark	N J
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Elements Inc, Saxonburg	Pa
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
Vitro Labs Div Vitro Corp of America, W Orange	N J

IRONS—SOLDERING SEE TOOLS—SOLDERING

ISOLATORS--MICROWAVE

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE	**NY**
FERROTEC INC, NEWTON	**MASS**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
Addington Labs Inc, Sunnyvale	Cal
Advanced Microwave Labs, Sunnyvale	Cal
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alpha Industries Inc, Newton Upper Falls	Mass
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Astrolab Inc, Linden	N J
Aviation Electric Ltd, St Laurent, Montreal	Que
Bendix Corp, Microwave Devices Div, Franklin	Ind
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
E & M Labs, North Hollywood	Cal
Ferranti Electric Inc, Plainview	N Y
Ferranti, Ltd, Lancashire	England
Ferrotec Inc, Newton	Mass
Herley Industries, Inc, Westbury	N Y
Honig Laboratories Inc, Westbury	N Y
Hyletronics Corp, Wilmington	Mass
LCC-CICE, 93 Montreuil-sous-Bois	France
Lignes Telegraphiques et Telephoniques Paris 16	France
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
MCS Corp, Monrovia	Cal
Meca Electronics, Inc, Denville	N J
Melabs, Palo Alto	Cal
Meridian Metalcraft Inc, Whittier	Cal
Metcom Inc, Salem	Mass
Micromega Div Amphenol Corp, Venice	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Micro-Radionics Inc, Van Nuys	Cal
Microwave Associates Inc, Burlington	Mass
Microwave Development Labs Inc Needham Heights	Mass
Microwave Products Inc, Chatsworth	Cal
M-O Valve Co Ltd, Hammersmith, London W6	Eng
Narda Microwave Corp, Plainview	N Y
N-H Microwave Inc, Red Bank	N J
Nippon Ferrite Industrial Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Portchester Instrument Corp, Port Chester	N Y
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Premier Microwave Corp, Port Chester	N Y
Rantec Div Emerson Electric Co, Calabasas	Cal

NYLON TIP JACKS

JACKS: Nylon (7 colors), bakelite, and metal. Highest quality construction: nickel or silver plated, phosphor bronze, clean threads. Metal shell, nylon head, and all nylon.
NYLON TIP JACKS: Wrap around, spade, and feed through terminals. All types available. Meet Mil Specs.

NATIONAL TEL-TRONICS OFFERS COMPLETE AND EXTENSIVE LINES OF:

Binding Post Boards, Binding Posts, Grip Type Terminals, Contact Strips, Contact Connectors, Terminal Strips, Interlocks, Fuse Mounting Bases, Anode Conectors, Turret Terminals, Solder and Solderless Lugs, Tip Jacks, Alligator Clips, Test Prods, Phone Plugs and Jacks, Phono Plugs and Jacks and Terminal Blocks.

COMPLETE CATALOG UPON REQUEST

ntt
National Tel-Tronics Corp
55 NORTHERN BOULEVARD, GREAT NECK
LONG ISLAND, N. Y. 11021, TEL: (516) 466-5100

Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Scientific-Atlanta Inc, Atlanta	Ga
Sedco Systems Inc, Farmingdale	N Y
Sperry Microwave Electronics Div, Clearwater	Fla
TDK Electronics Co Ltd, Chiyoda-ku, Tokyo	Japan
Victor R F & Microwave Co, Wakefield	Mass
Western Microwave Labs Inc, Santa Clara	Cal
Xtalonix Products Div Harshaw Chemical Co Columbus	Ohio

ISOTOPES--RADIOACTIVE SEE SOURCES--RADIOACTIVE

JACK PANEL ASSEMBLIES

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
BARNES CORP, LANSDOWNE	**PA**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
TELE-SIGNAL CORP, WOODBURY	**N Y**
Accurate Electronics Corp, Elyria	Ohio
Action Systems Co Div Conn Consolidated Inds Inc Meriden	Conn
ADC Products, Minneapolis	Minn
Aerolite Electronics Corp, Union City	N J
Aetna Electronics Corp, North Branch	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
Allied Systems Corp, Greensboro	N C
American Cable Electronic Supply Inc, Sacramento	Cal
Andrew California Corp, Claremont	Cal
Anritsu Electric Co Ltd, Tokyo	Japan
Artisan Electronics Corp, Parsippany	N J
Audio Accessories, Inc, Gilsum	N H
Automatic Metal Products Corp, Brooklyn	N Y
Barker Products Co, Saugus	Mass
Barnes Corp, Lansdowne	Pa
Bayly Engineering Ltd, Ajax	Ontario
Cambridge Thermionic Corp, Cambridge	Mass
Carter Precision Electric Co, Skokie	Ill
CBC Industries Inc, Philadelphia	Pa
Central Dynamics Ltd, Pte Claire	Que
Condor Industrial Corp, West Chicago	Ill
Continental Electronics Corp, Brooklyn	N Y
Control Panel Corp, Chicago	Ill
Cooke Engineering Co, Alexandria	Va
Co-Ord Div LVC Industries Inc, Corona	NY
Electronic Molding Corp, Pawtucket	R I
Electrospace Corp, Glen Cove	N Y
Gates Radio Co, Quincy	Ill
Harvey Hubbell Inc, Bridgeport	Conn
Honeywell Industrial Div, Fort Washington	Pa
Hosiden Electronics Co Ltd, Osaka	Japan
Jensen Mfg Div, The Muter Co, Chicago	Ill
Kameco Ltd, Montreal	Que
Keystone Electronics Corp, New York	N Y
Lane Industries,Electronics Div, North Hollywood	Cal
Marlin Mfg Corp, Cleveland	Ohio
Marquardt Industrial Products Co, Chicago	Ill
Methode Electronics Inc, Chicago	Ill
Mid-West Metal Products Inc, Kansas City	Kans
M & M Electronics Corp, Amityville	N Y
Molex Products Co, Downers Grove	Ill
Morey Corp, Downers Grove	Ill
M-T Electronics Co, San Leandro	Cal
National Radio Co Inc, Melrose	Mass
Ottawa, Paris	France
Paraplegics Mfg Co Inc, Bensenville	Ill
Phelps Dodge Electronic Products Corp North Haven	Conn
Philips Electronics Industries Ltd, Toronto 17	Ont
Philmore Mfg Co Inc, Richmond Hill	N Y
Pyrometer Co of America Inc, Penndel	Pa
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Rundel Electric Co, Millbrae	Cal
Rye Industries, Inc, Mamaroneck	N Y
Siltronics Inc, Oakmont	Pa
Smith Inc, Herman H, Brooklyn	N Y
Standard Electric Time Co, Springfield	Mass
Stephens Electronics, Burbank	Cal
Switchcraft Inc, Chicago	Ill
Tele-Signal Corp, Woodbury	N Y
Teletronics Labs Inc, El Segundo	Cal
T M C Systems & Power Corp, Springfield	Va
Trimm Inc, Libertyville	Ill
Trompeter Electronics Inc, Chatsworth	Cal
Trott Electronics Inc, Rochester	N Y
Vector Electronic Co Inc, Los Angeles	Cal
Virginia Electronics Co Inc, Falls Church	Va
VP Co, Pasadena	Cal

JACKS **SEE ALSO CONNECTORS**

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ALDEN PRODUCTS CO, INC, BROCKTON, MASS	**ADV PG 193**
AMPHENOL, BROADVIEW	**ILL**
AMP INCORPORATED, HARRISBURG	**PA**
AUGAT, INC, ATTLEBORO	**MASS**
BARNES CORP, LANSDOWNE	**PA**
BIRNBACH CO INC, FREEPORT	**N Y**
CONTROL KNOBS INC, JAMAICA	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I** **ADV PG 695**
GRAYHILL INC, LA GRANGE	**ILL**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NATIONAL TEL-TRONICS CORP, GREAT NECK N Y	**ADV PG 362**
POMONA ELECTRONICS CO INC, POMONA	**CAL**
SUPERIOR ELECTRIC CO THE, BRISTOL	**CONN**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Accurate Electronics Corp, Elyria	Ohio
ADC Products, Minneapolis	Minn
Aerolite Electronics Corp, Union City	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
Alden Products Co, Inc, Brockton	Mass
Allmetal Screw Products Co Inc, Garden City	N Y
Amatom Electronic Hardware, New Rochelle	N Y
Amphenol, Broadview	Ill
AMP Incorporated, Harrisburg	Pa
Astrolab Inc, Linden	N J
Audio Accessories, Inc, Gilsum	N H
Augat, Inc, Attleboro	Mass
Automatic Metal Products Corp, Brooklyn	N Y
Auto-Swage Products, Inc, Shelton	Conn
Barker Products Co, Saugus	Mass
Barnes Corp, Lansdowne	Pa
Bayly Engineering Ltd, Ajax	Ontario
Bead Chain Mfg Co, Bridgeport	Conn
Birnbach Co Inc, Freeport	N Y
Cambridge Thermionic Corp, Cambridge	Mass
Carter Precision Electric Co, Skokie	Ill
Cinch-Nuline Div United-Carr, Minneapolis	Minn
Components Specialties Inc, Freeport	N Y
Control Knobs Inc, Jamaica	N Y
Cooke Engineering Co, Alexandria	Va
Daburn Electronics & Cable Corp, Bronx	N Y
D-Cemco Inc, Burbank	Cal
Dowa Trading Co Ltd, Kobe	Japan
Eby Co Hugh H, Philadelphia	Pa
Electronic Molding Corp, Pawtucket	R I
Federal Screw Products Inc, Chicago	Ill
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Radio Co, West Concord	Mass
Grayhill Inc, La Grange	Ill
Greenpar Engineering Ltd, Electronics Div Essex	England
Harvey Hubbell Inc, Bridgeport	Conn
Honeywell Industrial Div, Fort Washington	Pa
Impectron Inc, New York	N Y
ITT Europe Inc Components Gp, Brussels 1	Belgium
Javex Electronics, Cherry Valley	Cal
Johnson Co, E F, Waseca	Minn
Jones Electronics, Hiram, Burbank	Cal
Kameco Ltd, Montreal	Que
Keystone Electronics Corp, New York	N Y
Kings Electronics Co Inc, Tuckahoe	N Y
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Controls Co, Frankfort	Ind
Marlin Mfg Corp, Cleveland	Ohio
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Methode Electronics Inc, Chicago	Ill
Microdot, Inc, South Pasadena	Cal
Midland International Corp, North Kansas City	Mo
National Radio Co Inc, Melrose	Mass

National Tel-Tronics Corp, Great Neck ... N Y
Ottawa, Paris ... France
Philmore Mfg Co Inc, Richmond Hill ... N Y
Plessey Co Ltd, Telecommunications Group, Liverpool 7 ... England
Pomona Electronics Co Inc, Pomona ... Cal
Positive Connector Co, Derby ... Conn
Raytheon Co, Components Div, Ind Compnts Oper Quincy ... Mass
Robins Industries Corp, Flushing ... N Y
Robinson-Nugent Inc, New Albany ... Ind
Ross Co, Milton, Southampton ... Pa
Rye Industries, Inc, Mamaroneck ... N Y
SAE Advanced Packaging Inc, Santa Ana ... Cal
Sanyo Electric Co Ltd, Osaka ... Japan
Shigoto Industries Ltd, New York ... N Y
Showa Musen Kogyo Co Ltd, Tokyo ... Japan
Smith Inc, Herman H, Brooklyn ... N Y
Standard Electric Time Co, Springfield ... Mass
Standard Telephones & Cables Ltd London WC 2 ... England
Star Tronics Inc, Georgetown ... Mass
Stromberg-Carlson Sub Gen Dynamics, Rochester ... N Y
Superior Electric Co The, Bristol ... Conn
Switchcraft Inc, Chicago ... Ill
Trimm Inc, Libertyville ... Ill
Trompeter Electronics Inc, Chatsworth ... Cal
Tru-Connector Corp, Peabody ... Mass
Ucinite Co Div United-Carr, Newtonville ... Mass
United-Carr Inc, Boston ... Mass
U S Dielectric Inc, Worcester ... Mass
USECO Div, Litton Industries, Van Nuys ... Cal
Vikoa Inc, Hoboken ... N J
Waldom Electronics Inc, Chicago ... Ill
Weinschel Engineering Co Inc, Gaithersburg ... Md
Whitso Inc, Schiller Park ... Ill

JEWELS--DIAMOND

KELLER INC, HUGO P, NEW YORK ... N Y
Bruce Diamond Corp, Attleboro ... Mass
Keller Inc, Hugo P, New York ... N Y
Miller Mfg Co, M A, Libertyville ... Ill
Moser Jewel Co, Perth Amboy ... N J

JEWELS--GLASS

KELLER INC, HUGO P, NEW YORK ... N Y
Atlantic Optical Moulding Co, Dudley ... Mass
Bird Co Inc, Richard H, Waltham ... Mass
Dialight Corp, Brooklyn ... N Y
Drake Mfg Co, Harwood Heights ... Ill
Keller Inc, Hugo P, New York ... N Y
Miller Mfg Co, M A, Libertyville ... Ill
Moser Jewel Co, Perth Amboy ... N J
Sierra Electric Inc, Gardena ... Cal
Sunshine Scientific Instruments Inc, Philadelphia ... Pa

JEWELS--RUBY

KELLER INC, HUGO P, NEW YORK ... N Y
Amiproducts Corp, New York ... N Y
Avionics Ltd, Niagara-on-the-Lake ... Ont
Bird Co Inc, Richard H, Waltham ... Mass
Ceramic Magnetics Inc, Fairfield ... N J
Jadow & Sons Inc, B, New York ... N Y
Keller Inc, Hugo P, New York ... N Y
Meller Co, Adolf, Providence ... R I
Miller Mfg Co, M A, Libertyville ... Ill
Moser Jewel Co, Perth Amboy ... N J
Parechoc S A, Ch 1347 Le Sentier ... Switzerland
Swiss Jewel Co, Philadelphia ... Pa

JEWELS--SAPPHIRE

KELLER INC, HUGO P, NEW YORK ... N Y
Amiproducts Corp, New York ... N Y
Avionics Ltd, Niagara-on-the-Lake ... Ont
Bird Co Inc, Richard H, Waltham ... Mass
Ceramic Magnetics Inc, Fairfield ... N J
Duotone Co Inc, Miami ... Fla
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park ... N J
Eastern Specialty Co, Philadelphia ... Pa
Jadow & Sons Inc, B, New York ... N Y
Keller Inc, Hugo P, New York ... N Y
Meller Co, Adolf, Providence ... R I
Miller Mfg Co, M A, Libertyville ... Ill
Moser Jewel Co, Perth Amboy ... N J
Parechoc S A, Ch 1347 Le Sentier ... Switzerland
Sunshine Scientific Instruments Inc, Philadelphia ... Pa
Swiss Jewel Co, Philadelphia ... Pa

JOINTS, ROTARY--COAXIAL

DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y ... ADV PGS 58,59
ELECTRO-TEC CORP, ORMOND BEACH ... FLA
GENERAL MICROWAVE CORP, FARMINGDALE ... N Y
SCIENTIFIC-ATLANTA INC, ATLANTA ... GA
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park ... N Y
Airtec Inc, Roselle ... N J
Alpha Industries Inc, Newton Upper Falls ... Mass
Antenna Products Co Div All Products Co Mineral Wells ... Tex
Anzac Electronics, Waltham ... Mass
Astrolab Inc, Linden ... N J
Automatic Metal Products Corp, Brooklyn ... N Y
Canoga Electronics Corp, Chatsworth ... Cal
Coax Devices, Chelsea ... Mass
Diamond Antenna & Microwave Corp, Winchester ... Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck ... N Y
Eastern Microwave Corp, Winchester ... Mass
Electro-Tec Corp, Ormond Beach ... Fla
Gabriel Electronics Div Maremont Corp, Saco ... Maine
General Microwave Corp, Farmingdale ... N Y
General Radio Co, West Concord ... Mass
Genisco Technology Corp, Compton ... Cal
Gremar Mfg Co Inc, Wakefield ... Mass
Herley Industries, Inc, Westbury ... N Y
Hy-Gain Electronic Corp, Lincoln ... Neb
Instrument Development Labs Div Kollmorgen Corp Attleboro ... Mass
MCS Corp, Monrovia ... Cal
Microlab/F X R, Livingston ... N J
Microwave Associates Inc, Burlington ... Mass
Neico Microwave Co, Waltham ... Mass
Ramcor Inc, Huntington ... NY
Rohde & Schwarz Sales Co USA Inc, Passaic ... N J
Scientific-Atlanta Inc, Atlanta ... Ga
Symetrics Engineering Corp, Satellite Beach ... Fla

JOINTS, ROTARY, WAVEGUIDE-- MULTIPLE CHANNEL

DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK ... N Y
GENERAL MICROWAVE CORP, FARMINGDALE ... N Y
PREMIER MICROWAVE CORP, PORT CHESTER N Y ... ADV PG 363
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park ... N Y
Airtec Inc, Roselle ... N J
Airtron, Div of Litton Industries, Inc, Morris Plains ... N J
Alpha Industries Inc, Newton Upper Falls ... Mass
Astrolab Inc, Linden ... N J
Canoga Electronics Corp, Chatsworth ... Cal
Coax Devices, Chelsea ... Mass
Diamond Antenna & Microwave Corp, Winchester ... Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck ... N Y
Eastern Microwave Corp, Winchester ... Mass
Gabriel Electronics Div Maremont Corp, Saco ... Maine
General Microwave Corp, Farmingdale ... N Y
Herley Industries, Inc, Westbury ... N Y
Lieco Inc, West Babylon ... N Y
MCS Corp, Monrovia ... Cal
Microlab/F X R, Livingston ... N J
Microwave Associates Inc, Burlington ... Mass
Microwave Development Labs Inc Needham Heights ... Mass
Neico Microwave Co, Waltham ... Mass
Premier Microwave Corp, Port Chester ... N Y
Ramcor Inc, Huntington ... NY
R F Systems Inc, Cohasset ... Mass

PREMIER for PROFICIENCY in MICROWAVE

ROTARY JOINTS

If your microwave system plans call for rotary joints—either co-ax or waveguide types — specify the best available — PREMIER MICROWAVE. Over 25 years of design and production experience coupled with engineering ability and modern facilities assure you of the finest, most reliable microwave components.

PREMIER has designed and manufactured hundreds of rotary joints in frequencies from 1 through 30 GHz, Broad Band, minimum VSWR, wow of .01 to .02, power handling capacity to 3 megawatts.

PMC

For complete information on these and other PREMIER MICROWAVE products write to:

Premier Microwave Corp.
35 New Broad St., Port Chester, N. Y. 10573

JOINTS, ROTARY, WAVEGUIDE-- SINGLE CHANNEL

ALUMINUM DESIGN CORP, BROOKFIELD ... ILL
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK ... N Y
GENERAL MICROWAVE CORP, FARMINGDALE ... N Y
GRAPHITE METALLIZING CORP, YONKERS ... N Y
PREMIER MICROWAVE CORP, PORT CHESTER ... N Y
TRG DIV CONTROL DATA CORP, EAST BOSTON ... MASS
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park ... N Y
Airtec Inc, Roselle ... N J
Airtron, Div of Litton Industries, Inc, Morris Plains ... N J
Alpha Industries Inc, Newton Upper Falls ... Mass
Aluminum Design Corp, Brookfield ... Ill
Astrolab Inc, Linden ... N J
Canoga Electronics Corp, Chatsworth ... Cal
Coax Devices, Chelsea ... Mass
DeMornay-Bonardi Div Datapulse Inc, Pasadena ... Cal
Diamond Antenna & Microwave Corp, Winchester ... Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck ... N Y
Eastern Microwave Corp, Winchester ... Mass
Electronic Specialty Co, Los Angeles ... Cal
Gabriel Electronics Div Maremont Corp, Saco ... Maine
General Microwave Corp, Farmingdale ... N Y
Graphite Metallizing Corp, Yonkers ... N Y
Herley Industries, Inc, Westbury ... N Y
Lieco Inc, West Babylon ... N Y
MCS Corp, Monrovia ... Cal
Microlab/F X R, Livingston ... N J
Microwave Associates Inc, Burlington ... Mass
Microwave Development Labs Inc Needham Heights ... Mass
Microwave Products Inc, Chatsworth ... Cal
Neico Microwave Co, Waltham ... Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Premier Microwave Corp, Port Chester ... N Y
Ramcor Inc, Huntington ... NY
R F Systems Inc, Cohasset ... Mass
Symetrics Engineering Corp, Satellite Beach ... Fla
TRG Div Control Data Corp, East Boston ... Mass
Victor R F & Microwave Co, Wakefield ... Mass

JOINTS--TUBE

AMP INCORPORATED, HARRISBURG ... PA
AMP Incorporated, Harrisburg ... Pa
Kontes Glass Co, Vineland ... N J
Norrich Plastics Corp, Roosevelt ... N Y
Product Components Corp, Hastings-on-Hudson ... N Y

JUMPERS--BONDING

DABURN ELECTRONICS & CABLE CORP, BRONX ... N Y
Aerolite Electronics Corp, Union City ... N J
Allmetal Screw Products Co Inc, Garden City ... N Y
Chomerics, Inc, Arlington ... Mass
Daburn Electronics & Cable Corp, Bronx ... N Y
Estes Engineering Co, Gardena ... Cal
Janco Corp, Burbank ... Cal
Mohawk Electronics Corp, Frederica ... Del
Sittler Corp, Chicago ... Ill
Spring City Electrical Mfg Co, Spring City ... Pa

KERR CELLS

ANDERSEN LABORATORIES, INC, BLOOMFIELD ... CONN
Andersen Laboratories, Inc, Bloomfield ... Conn
Bailey Co, Washington ... D C
Crystalab Products Corp, Rochelle Park ... N J
Electrochrome Corp, Plainview ... N Y
Kahl Scientific Instrument Corp, El Cajon ... Cal
Kappa Scientific Corp, Goleta ... Cal
Semi-Elements Inc, Saxonburg ... Pa
20th Century Electronics Ltd New Addington, Surrey ... England

KEYERS, AUTOMATIC-- ELECTRONIC

HEATH CO, BENTON HARBOR ... MICH
TELE-SIGNAL CORP, WOODBURY ... N Y
Aircraft Instruments Co, Montgomeryville ... Pa
Condor Industrial Corp, West Chicago ... Ill
Grimes Mfg Co, Urbana ... Ohio
Heath Co, Benton Harbor ... Mich
Jay-El Products Inc, Gardena ... Cal
Northeast Electronics Corp, Concord ... N H

Philips Electronics Industries Ltd, Toronto 17 .... Ont
Rixon Electronics Inc, Silver Spring .... Md
Siemens America Inc, New York .... N Y
Southern Avionics Co, Beaumont .... Tex
Stelma Inc, Stamford .... Conn
Tele-Signal Corp, Woodbury .... N Y
Topping Electronics Ltd, Toronto 17 .... Ont
Waters Mfg Inc, Wayland .... Mass

KEYERS, AUTOMATIC--FREQUENCY SHIFT

TELE-SIGNAL CORP, WOODBURY .... N Y
Advanced Technology Corp, Chambersburg .... Pa
Aerocom, Miami .... Fla
Cosmos Industries Inc, Brooklyn .... N Y
C S F-Cie Gen de Telegraphie Sans Fil
  78 Versailles .... France
Decitron Electronics Corp, Brooklyn .... N Y
Giannini-Voltex, Whittier .... Cal
Hathaway Pacific Corp, Palo Alto .... Cal
Marconi Div, English Electric Corp, New York .... N Y
Northern Radio Co Inc, New York .... N Y
Novatronics Inc, Pompano Beach .... Fla
Philips Electronics Industries Ltd, Toronto 17 .... Ont
Quindar Electronics Inc, Springfield .... NJ
Rixon Electronics Inc, Silver Spring .... Md
Robertshaw Controls Co, Aero & Instrument Div
  Anaheim .... Cal
Solid State Electronics Corp, Sepulveda .... Cal
Stelma Inc, Stamford .... Conn
Teledata Inc, Queens Village .... N Y
Tele-Dynamics Div, American Bosch Arma Corp
  Philadelphia .... Pa
Tele-Signal Corp, Woodbury .... N Y
Topping Electronics Ltd, Toronto 17 .... Ont
Utility Communication Systems Inc, Essington .... Pa

KEYERS, AUTOMATIC--TONE, A-M

TELE-SIGNAL CORP, WOODBURY, N Y .... ADV PG 364
C S F-Cie Gen de Telegraphie Sans Fil
  78 Versailles .... France
Frederick Electronics Corp, Frederick .... Md
Hathaway Pacific Corp, Palo Alto .... Cal
Northern Radio Co Inc, New York .... N Y
Philips Electronics Industries Ltd, Toronto 17 .... Ont
Quindar Electronics Inc, Springfield .... NJ

FS TONE KEYER

The newest design in VFTG and data tone keyers employing IC's and silicon transistors. Model 51A crystal controlled digital keyer reflects latest state of the art and meets CCITT and USASI recommendations. Frequency determining elements plug into etched foil self-supporting card. Lowest distortion—high speed capability.

TELE-SIGNAL CORPORATION
A Subsidiary of The Singer Company
250 Crossways Park Drive
Woodbury, L. I., New York 11797

Rixon Electronics Inc, Silver Spring .... Md
Solid State Electronics Corp, Sepulveda .... Cal
Stelma Inc, Stamford .... Conn
Teledata Inc, Queens Village .... N Y
Tele-Dynamics Div, American Bosch Arma Corp
  Philadelphia .... Pa
Tele-Signal Corp, Woodbury .... N Y
Utility Communication Systems Inc, Essington .... Pa
Wilcox Electric Co Inc, Kansas City .... Mo

KEYSETS--COMPUTER

Digitronics Corp, Albertson .... N Y
Loral Electronic Systems, Div Loral Corp, New York .... NY
Nutronics, Keycode Div, Paramus .... N J
Wyle Laboratories, El Segundo .... Cal

KILOVOLTMETERS SEE VOLTMETERS

KITS--AMATEUR RADIO EQUIPMENT

ALLIED ELECTRONICS CORP, CHICAGO ILL
HEATH CO, BENTON HARBOR .... MICH
Allied Electronics Corp, Chicago Ill
B F Electronics, Solana Beach .... Cal
Brelonix Inc, Seattle .... Wash
EICO Electronic Instrument Co Inc, Brooklyn .... NY
Estes Engineering Co, Gardena .... Cal
Heath Co, Benton Harbor .... Mich
Johnson Co, E F, Waseca .... Minn
Trans-Tek Mfg Co Inc, Garwood .... N J

KITS--BREADBOARD

ALDEN PRODUCTS CO, INC, BROCKTON, MASS .... ADV PG 193
BARNES CORP, LANSDOWNE .... PA
KEYSTONE ELECTRONICS CORP, NEW YORK .... N Y
PRECISION METAL PRODUCTS CO OF MALDEN INC
  STONEHAM .... MASS
SECS, INC, LONG ISLAND CITY .... N Y
VARI-L CO INC, STAMFORD .... CONN
VERO ELECTRONICS, INC, FARMINGDALE .... N Y
WALDOM ELECTRONICS INC, CHICAGO ILL
Aetna Electronics Corp, North Branch .... N J
Alden Products Co, Inc, Brockton .... Mass
Barnes Corp, Lansdowne .... Pa
Buckeye Stamping Co, Columbus .... Ohio
California Systems Components, Inc, Chatsworth .... Cal
Cambridge Thermionic Corp, Cambridge .... Mass
Circuit Structures Lab, Burbank .... Cal
Control Logic Inc, Natick .... Mass
Corning Glass Works, Corning .... N Y
Ealing Corp, Cambridge .... Mass
Electronic Training Aids Co, Cambridge .... Mass
Flexi Optics Labs Inc, Somerville .... Mass
General Electronic Labs Inc, Boston .... Mass
Gridcraft Inc, Fort Wayne .... Ind
Kepro Circuit Systems Inc, St Louis .... Mo
Keystone Electronics Corp, New York .... N Y
Micro-Circuits Co, New Buffalo .... Mich
Philmore Mfg Co Inc, Richmond Hill .... N Y
PIC Design Corp, East Rockaway .... N Y
Precision Mechanisms Corp, Westbury .... N Y
Precision Metal Products Co of Malden Inc
  Stoneham .... Mass
Roback Corp, Huntingdon Valley .... Pa
Scanbe Mfg Corp, Monterey Park .... Cal
Schjeldahl Co, G T, Northfield .... Minn
Secs, Inc, Long Island City .... N Y
Seezak Products Inc, Los Angeles .... Cal
Smith Inc, Herman H, Brooklyn .... N Y
Stark Electronic Instruments Ltd, Ajax .... Ont
Sterling Instrument Div, Designatronics Inc
  Mineola .... N Y
Superex Electronics Corp, Yonkers .... N Y
Techniques, Inc, Englewood .... N J
Vactric Control Equipment Ltd, Morden .... England
Vari-L Co Inc, Stamford .... Conn
Vector Electronic Co Inc, Los Angeles .... Cal
Vero Electronics, Inc, Farmingdale .... N Y
Vero Electronics Ltd, Southampton .... England
Waber Electronics Inc, Philadelphia .... Pa
Waldom Electronics Inc, Chicago Ill

KITS--COMPUTER

HEATH CO, BENTON HARBOR .... MICH
Computer Logic Corp, Santa Monica .... Cal
Data Technology Corp, Mountain View .... Cal
Digital Equipment Corp, Maynard .... Mass
Heath Co, Benton Harbor .... Mich
Loral Electronic Systems, Div Loral Corp, New York .... NY
Pastoriza Electronics Inc, Newton Upper Falls .... Mass
Stark Electronic Instruments Ltd, Ajax .... Ont
Superex Electronics Corp, Yonkers .... N Y

KITS--HOME ENTERTAINMENT

ALLIED ELECTRONICS CORP, CHICAGO ILL
HEATH CO, BENTON HARBOR .... MICH
Aikow Shoji Kaisha Ltd, Osaka .... Japan
Allied Electronics Corp, Chicago Ill
Antronic Corp, Chicago Ill
Boji Electronics Inc, McGregor .... Iowa
Dynaco Inc, Philadelphia .... Pa
EDI, Sarasota .... Fla
EICO Electronic Instrument Co Inc, Brooklyn .... NY
Electronic Homes Co, New York .... N Y
Gray Research & Development Co Div
  East Hartford .... Conn
Heath Co, Benton Harbor .... Mich
Jensen Mfg Div, The Muter Co, Chicago Ill
Karg Labs Inc, South Norwalk .... Conn
Karlson Research & Mfg Div KRC Corp, Hempstead .... NY
Lafayette Radio Electronics, Syosset .... NY
Oneida Electronic Mfg Co, Meadville .... Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Philmore Mfg Co Inc, Richmond Hill .... N Y
Schober Organ Corp, New York .... N Y
Scott Inc, H H, Maynard .... Mass
Smith Inc, Herman H, Brooklyn .... N Y
Trans-Tek Mfg Co Inc, Garwood .... N J
University Sound Div Ltv Ling Altec Inc
  Oklahoma City .... Okla
Waber Electronics Inc, Philadelphia .... Pa

KITS--INSTRUMENT

ALLIED ELECTRONICS CORP, CHICAGO ILL
HEATH CO, BENTON HARBOR .... MICH
Allied Electronics Corp, Chicago Ill
Bacharach Instrument Co, Pittsburgh .... Pa
Compudyne Corp, Hatboro .... Pa
Dowa Trading Co Ltd, Kobe .... Japan
EICO Electronic Instrument Co Inc, Brooklyn .... NY
Flexi Optics Labs Inc, Somerville .... Mass
Goldsman Inc, Philadelphia .... Pa
Heath Co, Benton Harbor .... Mich
Janus Control Div Tyco, Waltham .... Mass
Loral Electronic Systems, Div Loral Corp, New York .... NY
Mastercraft Instrument Co, Dubuque .... Iowa
Radio Corp of America, Electronic Components,
  Harrison .... N J
Schober Organ Corp, New York .... N Y
Stark Electronic Instruments Ltd, Ajax .... Ont
Sterling Instrument Div, Designatronics Inc
  Mineola .... N Y
Trans-Tek Mfg Co Inc, Garwood .... N J
Waber Electronics Inc, Philadelphia .... Pa

KITS--TEST EQUIPMENT

ALLIED ELECTRONICS CORP, CHICAGO ILL
GENERAL MICROWAVE CORP, FARMINGDALE .... N Y
HEATH CO, BENTON HARBOR .... MICH
Allied Electronics Corp, Chicago Ill
American Cable Electronic Supply Inc, Sacramento .... Cal
Black Light Corp of America, San Gabriel .... Cal
Delta Products Inc, Grand Junction .... Colo
Dowa Trading Co Ltd, Kobe .... Japan
EICO Electronic Instrument Co Inc, Brooklyn .... NY
Electronic Measurements Corp, New York .... N Y
General Microwave Corp, Farmingdale .... N Y
Harvey Hubbell Inc, Bridgeport .... Conn
Heath Co, Benton Harbor .... Mich
Kollsman Instrument Ltd, Southampton .... England
Loral Electronic Systems, Div Loral Corp, New York .... NY
Magnaflux Corp, Chicago Ill
Narda Microwave Corp, Plainview .... N Y
Nortronics Div, Northrop Corp, Prec Prods Dept
  Norwood .... Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Radio Corp of America, Electronic Components,
  Harrison .... N J
Schober Organ Corp, New York .... N Y
Stark Electronic Instruments Ltd, Ajax .... Ont
Sunshine Scientific Instruments Inc, Philadelphia .... Pa
Ultra-Violet Products Inc, San Gabriel .... Cal
Vector Electronic Co Inc, Los Angeles .... Cal
Waber Electronics Inc, Philadelphia .... Pa

KLYSTRON OSCILLATORS SEE OSCILLATORS--MICROWAVE

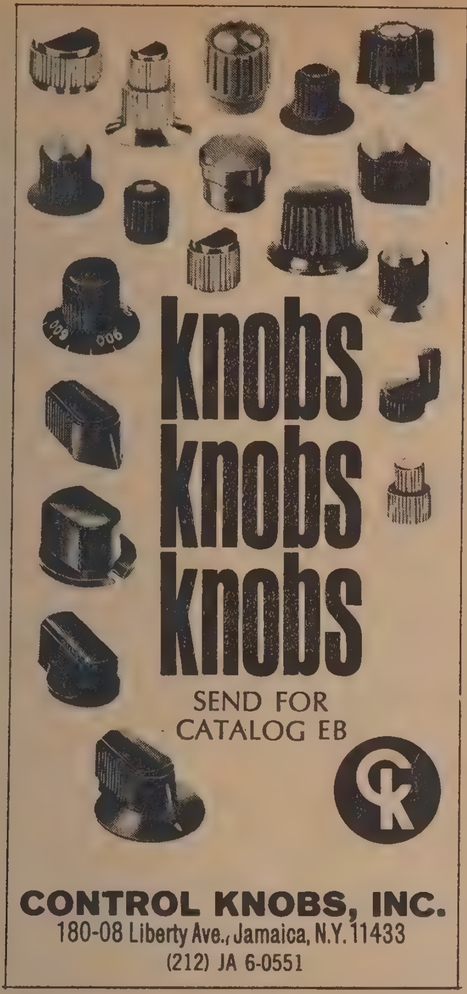
KLYSTRON POWER SUPPLIES SEE POWER SUPPLIES--D-C

KLYSTRONS SEE TUBES--MICROWAVE

KLYSTRON TESTERS SEE TESTERS--TUBE

KNOBS

CARR FASTENER CO DIV UNITED-CARR INC, CAMBRIDGE
  MASS .... ADV PGS 284.285
CONTROL KNOBS INC, JAMAICA, N Y .... ADV PG 365
DIMCO-GRAY CO, DAYTON .... OHIO
KILO ENGINEERING CO, LA VERNE .... CAL
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW .... N Y
ROGAN BROTHERS INC, SKOKIE, ILL .... ADV PG 365
SECS, INC, LONG ISLAND CITY .... N Y
WALDOM ELECTRONICS INC, CHICAGO ILL
Abacus Electronics Corp, Dobbs Ferry .... N Y
Aerospace Knob Co, South El Monte .... Cal
Aikow Shoji Kaisha Ltd, Osaka .... Japan
Alco Electronic Products, Inc, Lawrence .... Mass


knobs
knobs
knobs

SEND FOR
CATALOG EB

CONTROL KNOBS, INC.
180-08 Liberty Ave., Jamaica, N.Y. 11433
(212) JA 6-0551

Amatom Electronic Hardware, New Rochelle	N Y
Atomite Electronics Corp, Roosevelt	N Y
Automatic Locking Devices, Bridgeport	Conn
Bodnar Products Corp, New Rochelle	N Y
Boonton Molding Co Inc, Boonton	N J
Buckeye Stamping Co, Columbus	Ohio
Cambridge Thermionic Corp, Cambridge	Mass
Carr Fastener Co Div United-Carr Inc, Cambridge	Mass
Chicago Molded Products Corp, Chicago	Ill
Cleverly Electrical Works Inc, Philadelphia	Pa
Coastal Dynamics Corp, Venice	Cal
Cole-Hersee Co, S Boston	Mass
Control Knobs Inc, Jamaica	N Y
Davies Molding Co, Harry, Chicago	Ill
Dimco-Gray Co, Dayton	Ohio
Dowa Trading Co Ltd, Kobe	Japan
Eljay Corp, Baltimore	Md
Eugene Engineering Co Inc, Rockland	Mass
Federal Screw Products Inc, Chicago	Ill
Felsenthal Instruments Co, Chicago	Ill
Franklin Fibre-Lamitex Corp, Wilmington	Del
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Radio Co, West Concord	Mass
Griffith Plastic Products Co, Burlingame	Cal
Hydro Molding Co Inc, Plattsburgh	N Y
Impectron Inc, New York	N Y
Industrial Devices Inc, Edgewater	N J
Insulating Shapes Inc, Bronx	N Y
ITT Europe Inc Components Gp, Brussels 1	Belgium
Jan Hardware Mfg Co Inc, Long Island City	N Y
J-B Electronics, Inc, City of Commerce	Cal
Kerrco Inc, Lincoln	Nebr
Kilo Engineering Co, La Verne	Cal
Lake Engineering Co Ltd, Scarborough	Ont
Leeds & Northrup Co, Philadelphia	Pa
Microdot, Inc, South Pasadena	Cal
Micro Parts Inc, Los Angeles	Cal
Millen Mfg Co Inc, James, Malden	Mass
National Radio Co Inc, Melrose	Mass
Norrich Plastics Corp, Roosevelt	N Y
North Atlantic Industries Inc, Plainview	N Y
Olympic Plastics Co, Los Angeles	Cal
Oneida Electronic Mfg Co, Meadville	Pa
Pacific Transducer Corp, Los Angeles	Cal
Painton & Co, Ltd, Northampton	England
Paul & Stein Bros Inc, F H, New York	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
PIC Design Corp, East Rockaway	N Y
Product Components Corp, Hastings-on-Hudson	N Y
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Rogan Brothers Inc, Skokie	Ill
Rohden Mfg Co TRW Inc, Chicago	Ill
Ross Co, Milton, Southampton	Pa
Sanyo Electric Co Ltd, Osaka	Japan
Seacor Inc, Norwood	NJ

Let's throw a little Light
on the question
of quality
versus
price

In buying control knobs

Let's face it! There's only one way to deliver quality and price—it comes with experience. Experience in what is our only business—the design and manufacture of control knobs. Experience means a lot of things—with Rogan, it starts with skilled design and top quality materials. It means custom-engineered equipment for precise production, and it means a rigid inspection system to eliminate costly rejects. It is this combination that makes the Rogan Knob the top quality control knob at a price compatible with your production budget. You can get quality and price—if you get a Rogan knob. Write today for our new catalog or see us in Sweets or Thomas Micro-Catalog.

Rogan
BROTHERS, INC.
8031 N. Monticello Ave. • Skokie, Illinois 60076

Specializing in Stock Molded Knobs Since 1939

Secs, Inc, Long Island City .... N Y
Sierra Electric Inc, Gardena .... Cal
Smith Inc, Herman H, Brooklyn .... N Y
Stafford Mfg Co Inc, Brooklyn .... N Y
Sterling Instrument Div, Designatronics Inc
  Mineola .... N Y
Stockli, 93, Montreuil .... France
Stratocon Corp, Newark .... N J
Sylvania Electric Prods Inc, Parts Div, Warren .... Pa
Tekna Products Co, Rochester .... N Y
United Shoe Machinery Corp, Harmonic Drive Div
  Beverly .... Mass
United States Radium Corp, Morristown .... N J
USECO Div, Litton Industries, Van Nuys .... Cal
Vemaline Products Co, Inc, Wycoff .... N J
Waldom Electronics Inc, Chicago Ill
Waters Mfg Inc, Wayland .... Mass
Westmoreland Plastics Co, Latrobe .... Pa

LABELS, PRESSURE SENSITIVE-- CHASSIS MARKING

MARKWIK CORP, SYOSSET .... N Y
Acme Model Engineering Co, Ridgefield .... N J
Anodyne, Inc, N Miami Beach .... Fla
Bishop Industries Corp, North Hollywood .... Cal
Brady Co, W H, Milwaukee .... Wis
Dennison Mfg Co, Framingham .... Mass
Dietz Co Inc, Henry G, Long Island City .... N Y
Dymo Products Co, Berkeley .... Cal
Electro-Chemical Engraving Co Inc, Bronx .... N Y
Ever Ready Label Corp, Belleville .... N J
Feay Co, Neal, Goleta .... Cal
Fox Co, C J, Providence .... R I
General Compounds Co, Div Kai R Kuhl Co
  Los Angeles .... Cal
General Research Inc, Sparta .... Mich
GM Nameplate, Seattle .... Wash
Graphtex Inc, Lodi .... N J
Harva Co Inc, Schoharie .... N Y
Industrial Engravers Inc, Jamaica .... N Y
Kimball Systems Div Litton Industries, Belleville .... N J
Labelon Corp, Canadaigua .... N Y
Markon Mfg Inc, Englewood .... Colo
Markwik Corp, Syosset .... N Y
Master Tape Printers Inc, Chicago Ill
Metalphoto Corp, Cleveland .... Ohio
3M Company, St Paul .... Minn
New Jersey Machine Corp, Hoboken .... N J
Photo Chemical Products Inc, Santa Monica .... Cal
Precision Crafts, La Cresenta .... Cal
Rye Industries, Inc, Mamaroneck .... N Y
Seton Name Plate Corp, New Haven .... Conn
Stafford Mfg Co Inc, Brooklyn .... N Y
Stanpat Products Inc, Port Washington .... N Y
Stranco Products Inc, Chicago Ill
Tadco Mfg Inc, Gloucester .... Mass
Teletronics Labs Inc, El Segundo .... Cal
Thomas & Betts Co Inc, Elizabeth .... N J
Topflight Corp, York .... Pa
Uniroyal Chemical Div Uniroyal Inc, Naugatuck .... Conn
Westline Products, Los Angeles .... Cal

LABELS, PRESSURE SENSITIVE-- TERMINAL IDENTIFYING

MARKWIK CORP, SYOSSET .... N Y
Anodyne, Inc, N Miami Beach .... Fla
Bishop Industries Corp, North Hollywood .... Cal
Brady Co, W H, Milwaukee .... Wis
Dennison Mfg Co, Framingham .... Mass
Dymo Products Co, Berkeley .... Cal
Fox Co, C J, Providence .... R I
General Compounds Co, Div Kai R Kuhl Co
  Los Angeles .... Cal
General Research Inc, Sparta .... Mich
GM Nameplate, Seattle .... Wash
Graphtex Inc, Lodi .... N J
Industrial Engravers Inc, Jamaica .... N Y
Kimball Systems Div Litton Industries, Belleville .... N J
Labelon Corp, Canadaigua .... N Y
Markwik Corp, Syosset .... N Y
Master Tape Printers Inc, Chicago Ill
Metalphoto Corp, Cleveland .... Ohio
3M Company, St Paul .... Minn
National Band & Tag Co, Newport .... Ky
Precision Crafts, La Cresenta .... Cal
Seton Name Plate Corp, New Haven .... Conn
Stafford Mfg Co Inc, Brooklyn .... N Y
Stranco Products Inc, Chicago Ill
Tadco Mfg Inc, Gloucester .... Mass
Teletronics Labs Inc, El Segundo .... Cal
Thomas & Betts Co Inc, Elizabeth .... N J
Topflight Corp, York .... Pa
Westline Products, Los Angeles .... Cal

LABELS, PRESSURE SENSITIVE-- WIRE MARKING

MARKWIK CORP, SYOSSET .... N Y
Ackerman Gould Co, Inc, Oceanside .... N Y
Actioncraft Products, Port Washington .... N Y
Bishop Industries Corp, North Hollywood .... Cal

RADIO INTERFERENCE
TEST
LABORATORY

Our shielded laboratory for frequency interference testing is available to you. We can perform electromagnetic interference or electromagnetic compatibility testing of your equipment. This field of testing has been our specialty for fifteen years.

Let us quote on preparation of test plans and performance of testing to all military and commercial RFI, EMI, EMC, specifications such as Mil-STD-826 Mil-I-6181, Mil-I-16910 and Mil-E-55301.

For information on specific requirements contact us by mail or phone 516 333-3090.

We also make a line of custom and standardized radio frequency interference filters. Write for a catalog!

COMPLETE LINE OF
RADIO INTERFERENCE
FILTERS

All-tronics inc.

45 BOND ST. WESTBURY, L. I., N. Y. 11590
516-333-3090 TWX 510-222-3655

Brady Co, W H, Milwaukee .... Wis
Dennison Mfg Co, Framingham .... Mass
Dymo Products Co, Berkeley .... Cal
Fox Co, C J, Providence .... R I
G C Electronics Div, Hydrometals Inc, Rockford Ill
General Compounds Co, Div Kai R Kuhl Co
  Los Angeles .... Cal
General Research Inc, Sparta .... Mich
GM Nameplate, Seattle .... Wash
Graphtex Inc, Lodi .... N J
Industrial Engravers Inc, Jamaica .... N Y
Kimball Systems Div Litton Industries, Belleville .... N J
Kingsley Machine Co, Hollywood .... Cal
Labelon Corp, Canadaigua .... N Y
Manger Electric Co Inc, Stamford .... Conn
Markwik Corp, Syosset .... N Y
Master Tape Printers Inc, Chicago Ill
Metalphoto Corp, Cleveland .... Ohio
3M Company, St Paul .... Minn
Precision Crafts, La Cresenta .... Cal
Seton Name Plate Corp, New Haven .... Conn
Stafford Mfg Co Inc, Brooklyn .... N Y
Stranco Products Inc, Chicago Ill
Teletronics Labs Inc, El Segundo .... Cal
Thomas & Betts Co Inc, Elizabeth .... N J
Topflight Corp, York .... Pa
Westline Products, Los Angeles .... Cal

LABORATORIES--TESTING, ELECTRONIC

ALL-TRONICS, INC, WESTBURY, N Y .... ADV PG 366
All-Tronics, Inc, Westbury .... N Y
Associated Testing Labs, Inc, Wayne .... N J
Associated Testing Labs Inc, New England Div
  Burlington .... Mass
Continental Testing Labs, Fern Park .... Fla
Electrical Testing Labs Inc, New York .... N Y
Elite Electronic Engineering Co, Chicago Ill
U S Testing Co Inc, Hoboken .... N J
Wheeler Laboratories Inc, Great Neck .... N Y

LABORATORIES--TESTING, ENVIRONMENTAL

Associated Testing Labs, Inc, Wayne .... N J
Associated Testing Labs Inc, New England Div
  Burlington .... Mass
Continental Testing Labs, Fern Park .... Fla
Electrical Testing Labs Inc, New York .... N Y
Elite Electronic Engineering Co, Chicago Ill
Mid-Continent Lab Inc, Lincoln .... Neb
New York Testing Labs Inc, Westbury .... N Y
U S Testing Co Inc, Hoboken .... N J
York Research Corp, Stamford .... Conn

LACING MATERIALS SEE CORDS—LACING

LACQUERS

Anadite, Inc, South Gate .... Cal
Barrett Varnish Co, Cicero Ill
Chemical Products Corp, E Providence .... R I
Dolph Co, John C, Monmouth Junction .... N J
Du Pont De Nemours & Co Inc E I, Wilmington .... Del
Dynaloy, Inc, Hanover .... N J
Emerson & Cuming Inc, Canton .... Mass
Illinois Bronze Powder & Paint Co, Lake Zurich Ill
Isochem Resins Co, Lincoln .... RI
Lake Chemical Co, Chicago Ill
Micro-Circuits Co, New Buffalo .... Mich

M & T Chemicals Inc Sub American Can Co
  Rahway .... N J
Photo Chemical Products Inc, Santa Monica .... Cal
Pierce & Stevens Chemical Corp, Buffalo .... N Y
PPG Industries, Pittsburgh .... Pa
Q-Max Corp, Marlboro .... NJ
Westinghouse Electric Corp Insulating Materials Div
  Trafford .... Pa
Wornow Process Paint Co, Los Angeles .... Cal

LAMINATED PLASTICS SEE PLASTICS--SHEET & LAMINATE

LAMINATES, PRINTED CIRCUIT-- COPPER CLAD

BUCKBEE MEARS CO, ST PAUL .... MINN
NATIONAL TEL-TRONICS CORP, GREAT NECK .... N Y
PRECISION METAL PRODUCTS CO OF MALDEN INC
  STONEHAM .... MASS
VERO ELECTRONICS, INC, FARMINGDALE .... N Y
Auacus Electronics Corp, Dobbs Ferry .... N Y
Aeromarine Electronics, Inc, San Diego .... Cal
Aikow Shoji Kaisha Ltd, Osaka .... Japan
Alpha Metals Inc, Jersey City .... NJ
American Cable Electronic Supply Inc, Sacramento .... Cal
American Cyanamid Co, Wayne .... N J
Anglo American Vulcanized Fibre Co Ltd
  London EC 1 .... England

Atlantic Laminates Inc, Franklin	N H
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Buckbee Mears Co, St Paul	Minn
Budd Co Polychem Div, Newark	Del
Cadillac Plastic & Chemical Co, Detroit	Mich
Cincinnati Milling Machine Co Cimastra Div Cincinnati	Ohio
Custom Coating & Laminating Corp, Worcester	Mass
Custom Materials Inc, Chelmsford	Mass
Dodge Industries, Hoosick Falls	N Y
Electro-Mechanisms, Inc, Nashua	N H
Electronized Chemicals Corp, Burlington	Mass
Eljay Corp, Baltimore	Md
Elna-Fox Electronics Co Ltd, Tokyo	Japan
Etchomatic Inc, Waltham	Mass
Flexible Circuits Inc, Warrington	Pa
Flexible Products Inc, North St Paul	Minn
Formica Corp, Cincinnati	Ohio
Fortin Laminating Corp, North Hollywood	Cal
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Components, Inc, St Petersburg	Fla
General Electric Co Laminated Products Dept Coshocton	Ohio
General Plastics Corp, Bloomfield	N J
Insulating Fabricators of N E Inc, Watertown	Mass
Insulating Shapes Inc, Bronx	N Y
Kenmore Industries, Inc, Lowell	Mass
Kepro Circuit Systems Inc, St Louis	Mo
Lake Engineering Co Ltd, Scarborough	Ont
Laminated Fabricators, San Bruno	Cal
Lash Labs, Inc, San Diego	Cal
Leed Insulator Corp, Los Angeles	Cal
Long Inc, Thomas J, Carle Place	N Y
Metal Ceram Inc, Mount Vernon	N Y
Mica Corp, Culver City	Cal
3M Company, St Paul	Minn
National Tel-Tronics Corp, Great Neck	N Y
Nelco Products Inc, Anaheim	Cal
New England Laminates Co Inc, Stamford	Conn
NVF Co, Wilmington	Del
Penn Fibre & Specialty Co, Philadelphia	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Port Plastics Inc, Montebello	Cal
Precision Metal Products Co of Malden Inc Stoneham	Mass
Richardson Company, Melrose Park	Ill
Robintech Inc, Burbank	Cal
Rogers Corp, Rogers	Conn
Sampson Electronic Products Div, Chicago	Ill
Sanyo Electric Co Ltd, Osaka	Japan
Schjeldahl Co, G T, Northfield	Minn
Synthane Corp, Oaks	Pa
Taylor Corp, Valley Forge	Pa
Techniques, Inc, Englewood	N J
Texas Instruments Incorporated, Dallas	Tex
Thiokol Chemical Corp, Panelyte Ind Div, Trenton	N J
Tokyo Print Industrial Co Ltd, Tokyo	Japan
UOP Norplex Div, LaCrosse	Wis
Vector Electronic Co Inc, Los Angeles	Cal
Vero Electronics, Inc, Farmingdale	N Y
Westinghouse Electric Corp, Industrial Micarta Div Hampton	S C
Westinghouse Electric Corp Insulating Materials Div Trafford	Pa

LAMINATES, PRINTED CIRCUIT-- EPOXY, GLASS REINFORCED

BUCKBEE MEARS CO, ST PAUL	**MINN**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
PRECISION METAL PRODUCTS CO OF MALDEN INC STONEHAM	**MASS**
VERO ELECTRONICS, INC, FARMINGDALE	**N Y**
Abacus Electronics Corp, Dobbs Ferry	N Y
Aeromarine Electronics, Inc, San Diego	Cal
Aikow Shoji Kaisha Ltd, Osaka	Japan
American Cable Electronic Supply Inc, Sacramento	Cal
American Cyanamid Co, Wayne	N J
Anglo American Vulcanized Fibre Co Ltd London EC 1	England
Asheville-Schoonmaker Mica Co, Newport News	Va
Atlantic Laminates Inc, Franklin	N H
Buckbee Mears Co, St Paul	Minn
Budd Co Polychem Div, Newark	Del
Cadillac Plastic & Chemical Co, Detroit	Mich
Custom Materials Inc, Chelmsford	Mass
Electro-Mechanisms, Inc, Nashua	N H
Eljay Corp, Baltimore	Md
Elna-Fox Electronics Co Ltd, Tokyo	Japan
Ferranti, Ltd, Lancashire	England
Flexible Products Inc, North St Paul	Minn
Formica Corp, Cincinnati	Ohio
Fortin Laminating Corp, North Hollywood	Cal
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Components, Inc, St Petersburg	Fla
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
General Electric Co Laminated Products Dept Coshocton	Ohio
Insulating Fabricators of N E Inc, Watertown	Mass
Insulating Shapes Inc, Bronx	N Y
Kenmore Industries, Inc, Lowell	Mass
Kepro Circuit Systems Inc, St Louis	Mo
Lake Engineering Co Ltd, Scarborough	Ont
Laminated Fabricators, San Bruno	Cal
Leed Insulator Corp, Los Angeles	Cal
Long Inc, Thomas J, Carle Place	N Y
Mica Corp, Culver City	Cal
National Tel-Tronics Corp, Great Neck	N Y
Nelco Products Inc, Anaheim	Cal
New England Laminates Co Inc, Stamford	Conn
Norrich Plastics Corp, Roosevelt	N Y
NVF Co, Wilmington	Del
Penn Fibre & Specialty Co, Philadelphia	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Port Plastics Inc, Montebello	Cal
Precision Metal Products Co of Malden Inc Stoneham	Mass
Richardson Company, Melrose Park	Ill
Robintech Inc, Burbank	Cal
Rogers Corp, Rogers	Conn
Schjeldahl Co, G T, Northfield	Minn
Spaulding Fibre Co Inc, Tonawanda	N Y
Synthane Corp, Oaks	Pa
Taylor Corp, Valley Forge	Pa
Thiokol Chemical Corp, Panelyte Ind Div, Trenton	N J
UOP Norplex Div, LaCrosse	Wis
Vector Electronic Co Inc, Los Angeles	Cal
Vero Electronics, Inc, Farmingdale	N Y
Westinghouse Electric Corp, Industrial Micarta Div Hampton	S C
Westinghouse Electric Corp Insulating Materials Div Trafford	Pa

LAMINATES, PRINTED CIRCUIT EPOXY, KOVAR CLAD

BUCKBEE MEARS CO, ST PAUL	**MINN**
American Cyanamid Co, Wayne	N J
Atlantic Laminates Inc, Franklin	N H
Buckbee Mears Co, St Paul	Minn
Budd Co Polychem Div, Newark	Del
Elna-Fox Electronics Co Ltd, Tokyo	Japan
Formica Corp, Cincinnati	Ohio
Fortin Laminating Corp, North Hollywood	Cal
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Components, Inc, St Petersburg	Fla
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
Kenmore Industries, Inc, Lowell	Mass
Long Inc, Thomas J, Carle Place	N Y
Metal Ceram Inc, Mount Vernon	N Y
Mica Corp, Culver City	Cal
Nelco Products Inc, Anaheim	Cal
New England Laminates Co Inc, Stamford	Conn
Schjeldahl Co, G T, Northfield	Minn
Synthane Corp, Oaks	Pa
Thiokol Chemical Corp, Panelyte Ind Div, Trenton	N J

LAMINATES, PRINTED CIRCUIT-- EPOXY, PAPER REINFORCED

BUCKBEE MEARS CO, ST PAUL	**MINN**
IBM, INDUSTRIAL PRODUCTS MARKETING, NEW YORK	**NY**
PRECISION METAL PRODUCTS CO OF MALDEN INC STONEHAM	**MASS**
VERO ELECTRONICS, INC, FARMINGDALE	**N Y**
Abacus Electronics Corp, Dobbs Ferry	N Y
American Cyanamid Co, Wayne	N J
Anglo American Vulcanized Fibre Co Ltd London EC 1	England
Asheville-Schoonmaker Mica Co, Newport News	Va
Buckbee Mears Co, St Paul	Minn
Budd Co Polychem Div, Newark	Del
Cadillac Plastic & Chemical Co, Detroit	Mich
Eljay Corp, Baltimore	Md
Elna-Fox Electronics Co Ltd, Tokyo	Japan
Flexible Products Inc, North St Paul	Minn
Formica Corp, Cincinnati	Ohio
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Components, Inc, St Petersburg	Fla
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
General Electric Co Laminated Products Dept Coshocton	Ohio
Harva Co Inc, Schoharie	N Y
IBM, Industrial Products Marketing, New York	NY
Insulating Fabricators of N E Inc, Watertown	Mass
Insulating Shapes Inc, Bronx	N Y
Kenmore Industries, Inc, Lowell	Mass
Kepro Circuit Systems Inc, St Louis	Mo
Lake Engineering Co Ltd, Scarborough	Ont
Laminated Fabricators, San Bruno	Cal
Leed Insulator Corp, Los Angeles	Cal
Long Inc, Thomas J, Carle Place	N Y
NVF Co, Wilmington	Del
Penn Fibre & Specialty Co, Philadelphia	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Port Plastics Inc, Montebello	Cal
Precision Metal Products Co of Malden Inc Stoneham	Mass
Richardson Company, Melrose Park	Ill
Robintech Inc, Burbank	Cal
Spaulding Fibre Co Inc, Tonawanda	N Y
Synthane Corp, Oaks	Pa
UOP Norplex Div, LaCrosse	Wis
Vector Electronic Co Inc, Los Angeles	Cal
Vero Electronics, Inc, Farmingdale	N Y
Westinghouse Electric Corp, Industrial Micarta Div Hampton	S C

LAMINATES, PRINTED CIRCUIT-- FLAME RETARDANT

NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
PRECISION METAL PRODUCTS CO OF MALDEN INC STONEHAM	**MASS**
VERO ELECTRONICS, INC, FARMINGDALE	**N Y**
Abacus Electronics Corp, Dobbs Ferry	N Y
American Cable Electronic Supply Inc, Sacramento	Cal
American Cyanamid Co, Wayne	N J
Anglo American Vulcanized Fibre Co Ltd London EC 1	England
Atlantic Laminates Inc, Franklin	N H
Budd Co Polychem Div, Newark	Del
Cadillac Plastic & Chemical Co, Detroit	Mich
Cincinnati Milling Machine Co Cimastra Div Cincinnati	Ohio
Dodge Industries, Hoosick Falls	N Y
Eljay Corp, Baltimore	Md
Flexible Circuits Inc, Warrington	Pa
Flexible Products Inc, North St Paul	Minn
Formica Corp, Cincinnati	Ohio
Fortin Laminating Corp, North Hollywood	Cal
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Components, Inc, St Petersburg	Fla
General Electric Co Laminated Products Dept Coshocton	Ohio
Harva Co Inc, Schoharie	N Y
Insulating Fabricators of N E Inc, Watertown	Mass
Insulating Shapes Inc, Bronx	N Y
Kenmore Industries, Inc, Lowell	Mass
Kepro Circuit Systems Inc, St Louis	Mo
Lake Engineering Co Ltd, Scarborough	Ont
Laminated Fabricators, San Bruno	Cal
Lash Labs, Inc, San Diego	Cal
Leed Insulator Corp, Los Angeles	Cal
Long Inc, Thomas J, Carle Place	N Y
Mica Corp, Culver City	Cal
3M Company, St Paul	Minn
National Tel-Tronics Corp, Great Neck	N Y
Nelco Products Inc, Anaheim	Cal
NVF Co, Wilmington	Del
Port Plastics Inc, Montebello	Cal
Precision Metal Products Co of Malden Inc Stoneham	Mass
Richardson Company, Melrose Park	Ill
Schjeldahl Co, G T, Northfield	Minn
Spaulding Fibre Co Inc, Tonawanda	N Y
Synthane Corp, Oaks	Pa
Taylor Corp, Valley Forge	Pa
Thiokol Chemical Corp, Panelyte Ind Div, Trenton	N J
UOP Norplex Div, LaCrosse	Wis
Vero Electronics, Inc, Farmingdale	N Y
Westinghouse Electric Corp, Industrial Micarta Div Hampton	S C
Westinghouse Electric Corp Insulating Materials Div Trafford	Pa

LAMINATES, PRINTED CIRCUIT-- MELAMINE

NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
PRECISION METAL PRODUCTS CO OF MALDEN INC STONEHAM	**MASS**
Atlantic Laminates Inc, Franklin	N H
Auburn Mfg Co, Middletown	Conn
Cadillac Plastic & Chemical Co, Detroit	Mich
Eljay Corp, Baltimore	Md
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
General Electric Co Laminated Products Dept Coshocton	Ohio
Harva Co Inc, Schoharie	N Y
Insulating Fabricators of N E Inc, Watertown	Mass
Insulating Shapes Inc, Bronx	N Y
Kenmore Industries, Inc, Lowell	Mass
Long Inc, Thomas J, Carle Place	N Y
National Tel-Tronics Corp, Great Neck	N Y
Penn Fibre & Specialty Co, Philadelphia	Pa
Precision Metal Products Co of Malden Inc Stoneham	Mass
Richardson Company, Melrose Park	Ill
Synthane Corp, Oaks	Pa
UOP Norplex Div, LaCrosse	Wis
Westinghouse Electric Corp, Industrial Micarta Div Hampton	S C

LAMINATES, PRINTED CIRCUIT-- NICKEL CLAD

BUCKBEE MEARS CO, ST PAUL	**MINN**
Alpha Metals Inc, Jersey City	NJ
Atlantic Laminates Inc, Franklin	N H
Buckbee Mears Co, St Paul	Minn
Budd Co Polychem Div, Newark	Del
Custom Coating & Laminating Corp, Worcester	Mass
Formica Corp, Cincinnati	Ohio
Fortin Laminating Corp, North Hollywood	Cal
General Components, Inc, St Petersburg	Fla
Kenmore Industries, Inc, Lowell	Mass
Lash Labs, Inc, San Diego	Cal
Metal Ceram Inc, Mount Vernon	N Y
Mica Corp, Culver City	Cal
Nelco Products Inc, Anaheim	Cal
New England Laminates Co Inc, Stamford	Conn
Schjeldahl Co, G T, Northfield	Minn
Synthane Corp, Oaks	Pa
Thiokol Chemical Corp, Panelyte Ind Div, Trenton	N J
UOP Norplex Div, LaCrosse	Wis

LAMINATES, PRINTED CIRCUIT-- PHENOLIC

NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
PRECISION METAL PRODUCTS CO OF MALDEN INC STONEHAM	**MASS**
VERO ELECTRONICS, INC, FARMINGDALE	**N Y**
Abacus Electronics Corp, Dobbs Ferry	N Y

Aikow Shoji Kaisha Ltd, Osaka	Japan
American Cable Electronic Supply Inc, Sacramento	Cal
American Cyanamid Co, Wayne	N J
Anglo American Vulcanized Fibre Co Ltd London EC 1	England
Auburn Mfg Co, Middletown	Conn
Budd Co Polychem Div, Newark	Del
Cadillac Plastic & Chemical Co, Detroit	Mich
Eljay Corp, Baltimore	Md
Elna-Fox Electronics Co Ltd, Tokyo	Japan
Formica Corp, Cincinnati	Ohio
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Components, Inc, St Petersburg	Fla
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
General Electric Co Laminated Products Dept Coshocton	Ohio
Harva Co Inc, Schoharie	N Y
Insulating Fabricators of N E Inc, Watertown	Mass
Insulating Shapes Inc, Bronx	N Y
Kenmore Industries, Inc, Lowell	Mass
Kepro Circuit Systems Inc, St Louis	Mo
Lake Engineering Co Ltd, Scarborough	Ont
Laminated Fabricators, San Bruno	Cal
Long Inc, Thomas J, Carle Place	N Y
National Tel-Tronics Corp, Great Neck	N Y
NVF Co, Wilmington	Del
Penn Fibre & Specialty Co, Philadelphia	Pa
Port Plastics Inc, Montebello	Cal
Precision Metal Products Co of Malden Inc Stoneham	Mass
Richardson Company, Melrose Park	Ill
Synthane Corp, Oaks	Pa
Thiokol Chemical Corp, Panelyte Ind Div, Trenton	N J
UOP Norplex Div, LaCrosse	Wis
Vector Electronic Co Inc, Los Angeles	Cal
Vero Electronics, Inc, Farmingdale	N Y
Westinghouse Electric Corp, Industrial Micarta Div Hampton	S C

LAMINATES, PRINTED CIRCUIT-- SILICONE

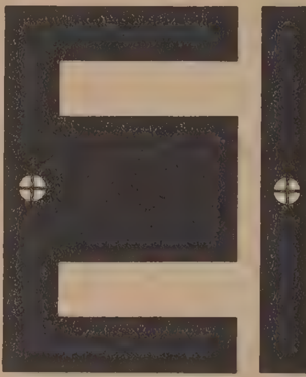
PRECISION METAL PRODUCTS CO OF MALDEN INC STONEHAM	**MASS**
Asheville-Schoonmaker Mica Co, Newport News	Va
Auburn Mfg Co, Middletown	Conn
Cadillac Plastic & Chemical Co, Detroit	Mich
Custom Materials Inc, Chelmsford	Mass
Eljay Corp, Baltimore	Md
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
General Electric Co Laminated Products Dept Coshocton	Ohio
General Electric Co Silicone Prods Dept, Waterford	N Y
Kenmore Industries, Inc, Lowell	Mass
Long Inc, Thomas J, Carle Place	N Y
Precision Metal Products Co of Malden Inc Stoneham	Mass
Vector Electronic Co Inc, Los Angeles	Cal

LAMINATES, PRINTED CIRCUIT-- TEFLON

PRECISION METAL PRODUCTS CO OF MALDEN INC STONEHAM	**MASS**
American Cable Electronic Supply Inc, Sacramento	Cal
Anglo American Vulcanized Fibre Co Ltd London EC 1	England
Atlantic Laminates Inc, Franklin	N H
Auburn Mfg Co, Middletown	Conn
Budd Co Polychem Div, Newark	Del
Cadillac Plastic & Chemical Co, Detroit	Mich
Custom Materials Inc, Chelmsford	Mass
Dilectrix Corp, Farmingdale	N Y
Dixon Corp, Bristol	R I
Dodge Industries, Hoosick Falls	N Y
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Electro-Mechanisms, Inc, Nashua	N H
Eljay Corp, Baltimore	Md
Elna-Fox Electronics Co Ltd, Tokyo	Japan
Flexible Circuits Inc, Warrington	Pa
Flexible Products Inc, North St Paul	Minn
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Components, Inc, St Petersburg	Fla
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
General Plastics Corp, Bloomfield	N J
Insulating Fabricators of N E Inc, Watertown	Mass
Insulating Shapes Inc, Bronx	N Y
Kenmore Industries, Inc, Lowell	Mass
Lake Engineering Co Ltd, Scarborough	Ont
Port Plastics Inc, Montebello	Cal
Precision Metal Products Co of Malden Inc Stoneham	Mass
Rogers Corp, Rogers	Conn
Smith Inc, Herman H, Brooklyn	N Y

LAMINATIONS--MAGNETIC

ELECTRO NETIC STEEL INC, DES PLAINES, ILL	**ADV PG 368**
MAGNETICS INC, BUTLER, PA	**ADV PGS 226,227**
Allegheny Ludlum Steel Corp, Pittsburgh	Pa
Alloys Unlimited Inc, Melville	N Y
American Silver Co Div, Flushing	N Y
Arnold Engineering Co, Marengo	Ill
Arnold Engineering Co Pacific Div, Fullerton	Cal
Chemical & Aerospace Products Inc, Wilmington	Cal
Chemical Micro Milling Co, Pennsauken	N J
Electro Netic Steel Inc, Des Plaines	Ill
G-L Industries Inc, G-L Electronics Div, Westville	N J
Haddon Tool & Mfg Co, Merchantville	N J
Inter-Technical Group Inc, Irvington-on-Hudson	N Y
ITT Europe Inc Components Gp, Brussels 1	Belgium
Laminated Shim Co Inc, Glenbrook	Conn
Magnetic Metals Co, Camden	N J
Magnetics Inc, Butler	Pa
Markon Mfg Inc, Englewood	Colo
Mega Electronics Corp, Gardena	Cal
Michigan Magnetics, Vermontville	Mich
Micro Science Assoc, Mountain View	Cal
MSL Steel Co, MSL Industries Inc, Chicago	Ill
Tech-Etch, Inc, Hingham	Mass
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Tempel Steel Co, Chicago	Ill
Thomas & Skinner Inc, Indianapolis	Ind



Wide variety of transformer laminations available from stock.

For your lamination requirement contact our lamination specialists.

Write

Electro-Netic Steel, Inc.

555 Santa Rosa Drive

Des Plaines, Illinois 60018

or Call

(312) 763-7000

LAMINATIONS--MOTOR

BUCKBEE MEARS CO, ST PAUL	**MINN**
Allegheny Ludlum Steel Corp, Pittsburgh	Pa
Alloys Unlimited Inc, Melville	N Y
Arnold Engineering Co, Marengo	Ill
Arnold Engineering Co Pacific Div, Fullerton	Cal
Asheville-Schoonmaker Mica Co, Newport News	Va
Buckbee Mears Co, St Paul	Minn
Chemical & Aerospace Products Inc, Wilmington	Cal
Chemical Micro Milling Co, Pennsauken	N J
Gasket Mfg Co Inc, Los Angeles	Cal
Haddon Tool & Mfg Co, Merchantville	N J
Insulating Fabricators Inc, East Rutherford	N J
Laminated Shim Co Inc, Glenbrook	Conn
Magnetic Metals Co, Camden	N J
Mega Electronics Corp, Gardena	Cal
Micro Science Assoc, Mountain View	Cal
Midwest Cortland, Schiller Park	Ill
MSL Steel Co, MSL Industries Inc, Chicago	Ill
Penn Fibre & Specialty Co, Philadelphia	Pa
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Tempel Steel Co, Chicago	Ill

LAMINATIONS-- TRANSFORMER

MAGNETICS INC, BUTLER	**PA**
Allegheny Ludlum Steel Corp, Pittsburgh	Pa
Alloys Unlimited Inc, Melville	N Y
Arnold Engineering Co, Marengo	Ill
Arnold Engineering Co Pacific Div, Fullerton	Cal
Asheville-Schoonmaker Mica Co, Newport News	Va
Chemical & Aerospace Products Inc, Wilmington	Cal
Chemical Micro Milling Co, Pennsauken	N J
Gasket Mfg Co Inc, Los Angeles	Cal
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
G-L Industries Inc, G-L Electronics Div, Westville	N J
Haddon Tool & Mfg Co, Merchantville	N J
Insulating Fabricators Inc, East Rutherford	N J
Inter-Technical Group Inc, Irvington-on-Hudson	N Y
ITT Europe Inc Components Gp, Brussels 1	Belgium
Laminated Shim Co Inc, Glenbrook	Conn
Magnetic Metals Co, Camden	N J
Magnetics Inc, Butler	Pa
Midwest Cortland, Schiller Park	Ill
MSL Steel Co, MSL Industries Inc, Chicago	Ill
Penn Fibre & Specialty Co, Philadelphia	Pa
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Tempel Steel Co, Chicago	Ill
Thomas & Skinner Inc, Indianapolis	Ind

LAMP ASSEMBLIES

ALDEN PRODUCTS CO, INC, BROCKTON, MASS	**ADV PG 193**
CHICAGO SWITCH F & F, CHICAGO	**ILL**
MICRO SWITCH DIV, HONEYWELL, FREEPORT	**ILL**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK	**N J**
Ackerman Engravers, Inc, Long Island City	N Y
ADC Products, Minneapolis	Minn
Adronics Inc, Elrob Mfg Corp, Verona	N J
Aerolite Electronics Corp, Union City	N J
Aeronautical Electric Co, Chicago	Ill
Aerospace Controls Corp, Los Angeles	Cal
Alco Electronic Products, Inc, Lawrence	Mass
Alden Products Co, Inc, Brockton	Mass
Aristo Grid Lamp Products Inc, Port Washington	N Y
Chicago Miniature Lamp Works, Chicago	Ill
Chicago Switch F & F, Chicago	Ill
Christie Electric Corp, Los Angeles	Cal
Cole-Hersee Co, S Boston	Mass
Display Devices Inc, Santa Monica	Cal
Douglas Div Kingston Products Corp, Bronson	Mich
Dowa Trading Co Ltd, Kobe	Japan
Drake Mfg Co, Harwood Heights	Ill
Eimac Div, Varian Associates, San Carlos	Cal
Eldema Div Genisco Technology Corp, Compton	Cal
Electronic Engineering Co of Cal, Santa Ana	Cal
Engelhard Hanovia Inc, Newark	N J
Ferwalt Inc W H, Lapwai	Idaho
Frost Electronics Corp, Rockaway	N J
Grimes Mfg Co, Urbana	Ohio
Hydro Products Div Dillingham Corp, San Diego	Cal
Illumination Industries Inc, Sunnyvale	Cal
Industrial Devices Inc, Edgewater	N J
ITT Electron Tube Div, Easton	Pa
Kirkland Co, H R, Morristown	N J
Lake Engineering Co Ltd, Scarborough	Ont
Leecraft Mfg Co Inc, Long Island City	N Y
Luxo Lamp Corp, Port Chester	N Y
Master Dynamics, Sunnyvale	Cal
Micro Switch Div, Honeywell, Freeport	Ill
Midland International Corp, North Kansas City	Mo
Molex Products Co, Downers Grove	Ill
Mura Corp, Great Neck	N Y
Neptune Electronics Co, New York	N Y
Palomar Instrument Co, Escondido	Cal
Pek, Inc, Sunnyvale	Cal
Penn Keystone Corp, Ansonia	Conn
Permonite Mfg Co, Chicago	Ill
Pinlites, Inc, Fairfield	N J
Precision Lamp Engineers, San Francisco	Cal
Red Lake Labs Inc, Santa Clara	Cal
Republic Industrial Corp, Lathrup Village	Mich
Roxter Corp, Long Island City	N Y
Schoeffel Instrument Co, Westwood	NJ
Schurter AG, H, 6002 Lucerne	Switzerland
Shelly Associates, Inc, El Segundo	Cal
Shigoto Industries Ltd, New York	N Y
Sittler Corp, Chicago	Ill
Skan-A-Matic Corp, Skaneateles	N Y
Sloan Co, Sun Valley	Cal
Smith Inc, Herman H, Brooklyn	N Y
Soderberg Mfg Co Inc, Alhambra	Cal
Strong Electric Corp, Toledo	Ohio
Swingolite Inc, Hackensack	N J
Sylvania Electric Prods Inc, Coml Elctns Div Bedford	Mass
Tokyo Electric Co Ltd, Tokyo	Japan
Transistor Electronics Corp, Minneapolis	Minn
Tung-Sol Div Wagner Electric Corp, Newark	N J
Ucinite Co Div United-Carr, Newtonville	Mass
Vemaline Products Co, Inc, Wycoff	N J
Vokar Products Inc, Ann Arbor	Mich
Waber Electronics Inc, Philadelphia	Pa

LAMPS--GLOW

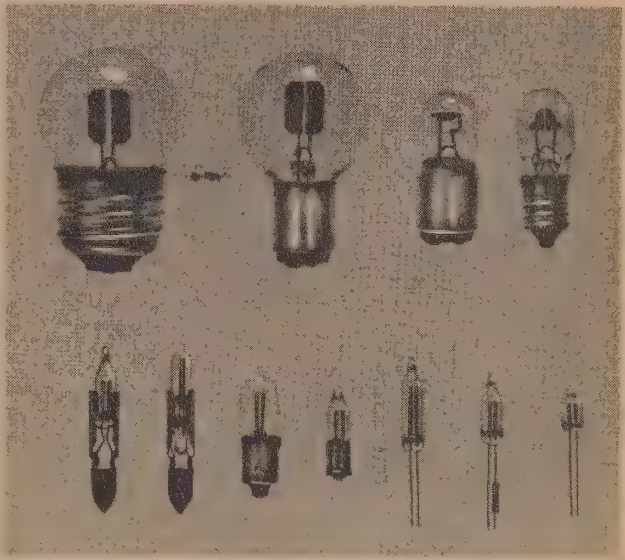
CIRCON COMPONENT CORP, GOLETA, CAL	**ADV PG 332**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
SIGNALITE INC, NEPTUNE, N J	**ADV PG 369**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
TOYO MUSEN CO LTD, TOKYO . . JAPAN	**ADV PG 370**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Aerolite Electronics Corp, Union City	N J
Aerolux Light Co Inc, New York	N Y

Signalite

...Your Single Source for Gas Discharge Tubes and Glow Lamps

MINIATURE GLOW LAMPS

Whether you use Glow Lamps as Indicators or as Electronic Circuit Components . . . the combination of features, offered by Signalite Glow Lamps make them suitable for a wide variety of applications. Signalite Glow Lamps have solved problems in these areas: voltage regulation and references, photocell drivers, SCR triggering, timing, photo choppers, oscillators, counters, regulated power supplied, digital voltmeters, timing circuits, suppressed 0 voltmeters, frequency and voltage dividers, indicating voltmeters, gating, transient and overvoltage protection, flip-flops, etc. Signalite's extensive line can provide you the design flexibility needed to achieve circuit reliability at low cost. For a creative approach to your design problem . . . contact Signalite's Application Engineering Department.



If there is a Gas Discharge Device or Glow Lamp to meet your needs, We'll have it. If there isn't, We'll Design it!

SIGNALITE APPLICATION NEWS

is used to communicate new and proven techniques and applications of Signalite's neon lamps and gas discharge tubes. Signalite Application News provides a forum for an exchange of ideas to keep the design engineer aware of the versatility of neon lamps and their many applications. Copies are available from your Signalite representative or by contacting Signalite.

Signalite INCORPORATED

A GENERAL INSTRUMENT COMPANY

1933 HECK AVENUE, NEPTUNE
NEW JERSEY 07753 • (201) 775-2490

Alco Electronic Products, Inc, Lawrence ... Mass
American Cable Electronic Supply Inc, Sacramento ... Cal
Amglo Corp, Chicago ... Ill
Aristo-Craft Distinctive Miniatures, New York ... N Y
Black Light Corp of America, San Gabriel ... Cal
Chicago Miniature Lamp Works, Chicago ... Ill
Circon Component Corp, Goleta ... Cal
Dialight Corp, Brooklyn ... N Y
Dowa Trading Co Ltd, Kobe ... Japan
Drake Mfg Co, Harwood Heights ... Ill
Eldema Div Genisco Technology Corp, Compton ... Cal
Elesta Ltd Electronics, Bad Ragaz ... Switzerland
Engelhard Hanovia Inc, Newark ... N J
Ferranti Electric Inc, Plainview ... N Y
General Electric Co Miniature Lamp Dept
  Cleveland ... Ohio
Hudson Lamp Co, Kearny ... N J
Illumination Industries Inc, Sunnyvale ... Cal
Impectron Inc, New York ... N Y
Industrial Devices Inc, Edgewater ... N J
Ionics Inc, Electronics Div, Watertown ... Mass
ITT Lamp Div, Lynn ... Mass
Lake Engineering Co Ltd, Scarborough ... Ont
Leecraft Mfg Co Inc, Long Island City ... N Y
Mackay Inc, A D, New York ... N Y
Matsushita Electric Industrial Co Ltd, Osaka ... Japan
3M Company, St Paul ... Minn
Mura Corp, Great Neck ... N Y
Okaya Electric Industries Co Ltd, Tokyo ... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Pinlites, Inc, Fairfield ... N J
Precision Lamp Engineers, San Francisco ... Cal

Shelly Associates, Inc, El Segundo ... Cal
Signalite Inc, Neptune ... N J
Sloan Co, Sun Valley ... Cal
Sylvania Electric Prods Inc, Electronic Tube Div
  Seneca Falls ... N Y
Sylvania Elec Prods Inc Special Prod Div
  Danvers ... Mass
Tokyo Electric Co Ltd, Tokyo ... Japan
Toyo Musen Co Ltd, Tokyo ... Japan
Ultra-Violet Products Inc, San Gabriel ... Cal
Waldom Electronics Inc, Chicago ... Ill
Western Indicator Co Inc, South El Monte ... Cal
Westinghouse Electric Corp, Lamp Div, Bloomfield ... N J

LAMPS--INFRARED SEE INFRARED EQUIPMENT

LAMPS--PANEL, PILOT & DIAL, INCANDESCENT

ALDEN PRODUCTS CO, INC, BROCKTON ... MASS
AMP INCORPORATED, HARRISBURG ... PA
CHICAGO SWITCH F & F, CHICAGO ... ILL
CIRCON COMPONENT CORP, GOLETA, CAL ... ADV PG 332
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
MOLEX PRODUCTS CO, DOWNERS GROVE ... ILL
TOKYO ELECTRIC CO LTD, TOKYO ... JAPAN
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK ... N J
ADC Products, Minneapolis ... Minn
Aerolite Electronics Corp, Union City ... N J
Aeronautical Electric Co, Chicago ... Ill
Alco Electronic Products, Inc, Lawrence ... Mass
Alden Products Co, Inc, Brockton ... Mass
AMP Incorporated, Harrisburg ... Pa
Aristo-Craft Distinctive Miniatures, New York ... N Y
Bodnar Products Corp, New Rochelle ... N Y
Carling Electric Inc, West Hartford ... Conn
Chicago Miniature Lamp Works, Chicago ... Ill
Chicago Switch F & F, Chicago ... Ill
Circon Component Corp, Goleta ... Cal
Cole-Hersee Co, S Boston ... Mass
Control Switch Div Controls Co of America, Folcroft ... Pa
Co-Ord Div LVC Industries Inc, Corona ... NY
Dialight Corp, Brooklyn ... N Y
Display Devices Inc, Santa Monica ... Cal
Dowa Trading Co Ltd, Kobe ... Japan
Drake Mfg Co, Harwood Heights ... Ill
Eldema Div Genisco Technology Corp, Compton ... Cal
Federal Screw Products Inc, Chicago ... Ill
Fidelity Amplifier Co, Chicago ... Ill
Furnas Electric Co, Batavia ... Ill
General Electric Co Miniature Lamp Dept
  Cleveland ... Ohio
Genisco Technology Corp, Compton ... Cal
Grimes Mfg Co, Urbana ... Ohio
Hayakawa Electric Co Ltd, Osaka ... Japan
Hudson Lamp Co, Kearny ... N J
Impectron Inc, New York ... N Y
Industrial Devices Inc, Edgewater ... N J
Industrial Electronic Engineers Inc, Van Nuys ... Cal
Industrial Electronic Hardware Corp, New York ... N Y
ITT Lamp Div, Lynn ... Mass
Kahl Scientific Instrument Corp, El Cajon ... Cal
Kameco Ltd, Montreal ... Que
Kirkland Co, H R, Morristown ... N J
Lake Engineering Co Ltd, Scarborough ... Ont
Leecraft Mfg Co Inc, Long Island City ... N Y
Master Dynamics, Sunnyvale ... Cal
Matsushita Electric Industrial Co Ltd, Osaka ... Japan
Midland International Corp, North Kansas City ... Mo
Molex Products Co, Downers Grove ... Ill
Mura Corp, Great Neck ... N Y
Okaya Electric Industries Co Ltd, Tokyo ... Japan
Oxford Electric Corp, Chicago ... Ill
Penn Keystone Corp, Ansonia ... Conn
Permonite Mfg Co, Chicago ... Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Philmore Mfg Co Inc, Richmond Hill ... N Y
Pinlites, Inc, Fairfield ... N J
Precision Lamp Engineers, San Francisco ... Cal
Rundel Electric Co, Millbrae ... Cal

Sampson Electronic Products Div, Chicago ... Ill
Schurter AG, H, 6002 Lucerne ... Switzerland
Shelly Associates, Inc, El Segundo ... Cal
Shigoto Industries Ltd, New York ... N Y
Sierra Electric Inc, Gardena ... Cal
Sloan Co, Sun Valley ... Cal
Soderberg Mfg Co Inc, Alhambra ... Cal
Sorenson Lighted Controls Inc, West Hartford ... Conn
Standard Telephones & Cables Ltd
  London WC 2 ... England
Swingolite Inc, Hackensack ... N J
Sylvania Electric Prods Inc Lamp Div, Danvers ... Mass
Sylvania Elec Prods Inc Special Prod Div
  Danvers ... Mass
Tokyo Electric Co Ltd, Tokyo ... Japan
Tung-Sol Div Wagner Electric Corp, Newark ... N J
Vemaline Products Co, Inc, Wycoff ... N J
Western Indicator Co Inc, South El Monte ... Cal
Westinghouse Electric Corp, Lamp Div, Bloomfield ... N J

LAMPS--PRINTED CIRCUIT, FLARE MOUNT

CIRCON COMPONENT CORP, GOLETA, CAL ... ADV PG 332
Aerolite Electronics Corp, Union City ... N J
Alco Electronic Products, Inc, Lawrence ... Mass
Aristo Grid Lamp Products Inc, Port Washington ... N Y
Circon Component Corp, Goleta ... Cal
Display Devices Inc, Santa Monica ... Cal
Drake Mfg Co, Harwood Heights ... Ill
General Electric Co Miniature Lamp Dept
  Cleveland ... Ohio
Grimes Mfg Co, Urbana ... Ohio
Industrial Electronic Engineers Inc, Van Nuys ... Cal
Lake Engineering Co Ltd, Scarborough ... Ont
Leecraft Mfg Co Inc, Long Island City ... N Y
Penn Keystone Corp, Ansonia ... Conn
Pinlites, Inc, Fairfield ... N J
Precision Lamp Engineers, San Francisco ... Cal
Schurter AG, H, 6002 Lucerne ... Switzerland
Shelly Associates, Inc, El Segundo ... Cal
Sloan Co, Sun Valley ... Cal
Soderberg Mfg Co Inc, Alhambra ... Cal
Westinghouse Electric Corp, Lamp Div, Bloomfield ... N J

LAMPS--STROBOSCOPIC SOURCE

C M L INC, PLAINFIELD ... N J
Abtronics, Inc, Livermore ... Cal
Aerolux Light Co Inc, New York ... N Y
Amglo Corp, Chicago ... Ill
Berkey Technical Div Berkey Photo Inc, Woodside ... N Y
Central Scientific Co, Chicago ... Ill
C M L Inc, Plainfield ... N J
E G & G Inc Custom Equip Div, Bedford ... Mass
E G & G Inc, Electronic Prods Div, Boston ... Mass
Electronic Brazing Co, Montclair ... N J
Electro Powerpacs Corp, Cambridge ... Mass
Ferranti, Ltd, Lancashire ... England
General Radio Co, West Concord ... Mass
Hydro Products Div Dillingham Corp, San Diego ... Cal
Illumination Industries Inc, Sunnyvale ... Cal

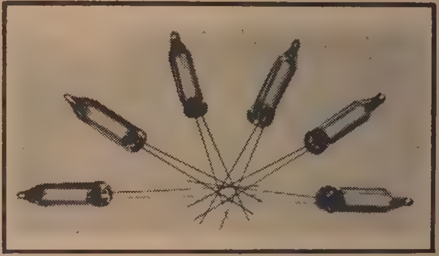
LAMPS--SUBMINIATURE

CIRCON COMPONENT CORP, GOLETA, CAL ... ADV PG 332
ELECTRONIC MOLDING CORP, PAWTUCKET ... R I
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK
  N J ... ADV PG 371
Aerolite Electronics Corp, Union City ... N J
Alco Electronic Products, Inc, Lawrence ... Mass
Aristo-Craft Distinctive Miniatures, New York ... N Y
Chicago Miniature Lamp Works, Chicago ... Ill
Circon Component Corp, Goleta ... Cal
Control Switch Div Controls Co of America, Folcroft ... Pa
Dialight Corp, Brooklyn ... N Y
Drake Mfg Co, Harwood Heights ... Ill
Eldema Div Genisco Technology Corp, Compton ... Cal
Electronic Molding Corp, Pawtucket ... R I
Elesta Ltd Electronics, Bad Ragaz ... Switzerland
Ferranti, Ltd, Lancashire ... England
General Electric Co Miniature Lamp Dept
  Cleveland ... Ohio
General Instrument Europe SPA, Milano ... Italy
Genisco Technology Corp, Compton ... Cal
Grimes Mfg Co, Urbana ... Ohio
Hudson Lamp Co, Kearny ... N J
Impectron Inc, New York ... N Y
Industrial Devices Inc, Edgewater ... N J
Industrial Electronic Engineers Inc, Van Nuys ... Cal
Kahl Scientific Instrument Corp, El Cajon ... Cal
Kameco Ltd, Montreal ... Que
Lake Engineering Co Ltd, Scarborough ... Ont
Leecraft Mfg Co Inc, Long Island City ... N Y
Mura Corp, Great Neck ... N Y
Oxford Electric Corp, Chicago ... Ill
Pek, Inc, Sunnyvale ... Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Pinlites, Inc, Fairfield ... N J
Precision Lamp Engineers, San Francisco ... Cal
Roxter Corp, Long Island City ... N Y
Sampson Electronic Products Div, Chicago ... Ill
Shelly Associates, Inc, El Segundo ... Cal
Shigoto Industries Ltd, New York ... N Y
Sloan Co, Sun Valley ... Cal
Swingolite Inc, Hackensack ... N J
Sylvania Electric Prods Inc Lamp Div, Danvers ... Mass
Sylvania Elec Prods Inc Special Prod Div
  Danvers ... Mass
Tung-Sol Div Wagner Electric Corp, Newark ... N J
United Mineral & Chemical Corp, New York ... N Y
Vemaline Products Co, Inc, Wycoff ... N J
Western Indicator Co Inc, South El Monte ... Cal
Westinghouse Electric Corp, Lamp Div, Bloomfield ... N J

TOYO GEMLIGHT

—New Color Illumination

Indicator Lamps for Electrical Equipment and Components!



Based on principles completely different from those of the filament type lamp or of the glow discharge tube, this newly developed cold cathode fluorescent glow discharge lamp gives you unprecedented features such as:

- Instantaneous illumination (quicker than fluorescent lamps)
- Minimal voltage requirement—App. 80V AC
- A variety of colors available through combinations of gases and fluorescent compounds, standard colors being green, yellow and reddish orange
- Extra small power consumption of 0.9mA App., ranging from 1/10 to 1/150 of equivalent filament lamps'
- Excellently stable operation even under fluctuating voltage
- Radiates little heat, of which temperature variation remains within 3°C
- Excellent vibration resistance
- Over 10,000 hours life under proper conditions

Other Products:
Indicating Meter
Indicating Tube (Magic Eye)
Push Button Switch

TOYO

TOYO MUSEN CO., LTD.

Head Office: 1-8-10, Wakabayashi, Setagaya-ku, Tokyo, Japan Telex: Tokyo 242-2572

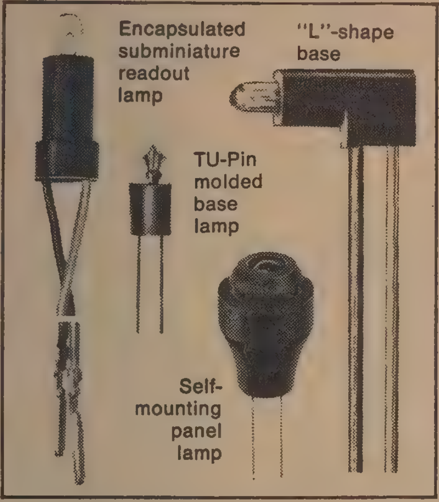
US Branch Office:
Mr. Isao Hironaka
c/o Marubeni-Iida (America), Inc.
Chicago Office,
938 Merchandise Mart, Chicago, Illinois 60654
Phone: 527-3800 Area Code: 312

TUNG-SOL® CENTER LINE QUALITY®

SUBMINIATURE LAMPS

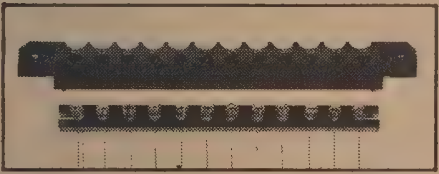
Molded Base Lamps

Special bases can be molded to any configuration with harnessing to specifications. No separate mounting socket is needed, resulting in production economies. Describe your application for free suggestions about the advantages of using Tung-Sol molded base lamps.



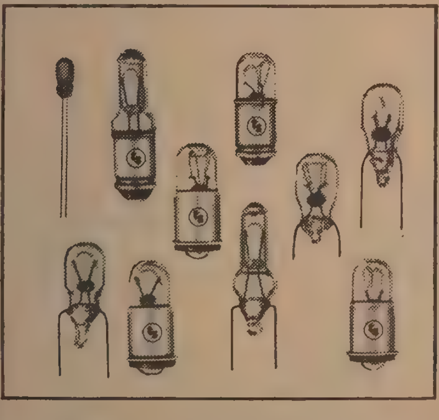
Strip Mounted Indicator Lamps

Computer condition indicator employs 20 mil lamps mounted on a circuit board.



Wire Lead and Metal Base Lamps

Available types include T-3/4, 20 mil, digital lamps, T-1 3/4 lamps in six standard configurations, wedge lamps and lens-end styles.



TUNG-SOL DIVISION
Wagner Electric Corporation
One Summer Avenue, Newark, N.J. 07104

® Reg. T.M. Wagner Electric Corporation

LAMPS--ULTRAVIOLET

KRESSILK PRODUCTS INC, ELMSFORD	**N Y**
Advanced Purification System Co Inc, Great Neck	N Y
Aerolux Light Co Inc, New York	N Y
Aerospace Controls Corp, Los Angeles	Cal
American Instrument Co, Inc, Silver Spring	Md
Amglo Corp, Chicago	Ill
Aristo Grid Lamp Products Inc, Port Washington	N Y
Atlantic Ultraviolet Corp, Long Island City	N Y
Black Light Corp of America, San Gabriel	Cal
Black Light Eastern Div Spectronics Corp Westbury	N Y
Black Light Products, Chicago	Ill
Christie Electric Corp, Los Angeles	Cal
Clean Room Products Inc, Farmingdale	N Y
Ednalite Corp, Peekskill	N Y
Eimac Div, Varian Associates, San Carlos	Cal
Electro Powerpacs Corp, Cambridge	Mass
Electro Technic Products, Chicago	Ill
EMR Div Weston Instruments Inc, Princeton	N J
Engelhard Hanovia Inc, Newark	N J
Flexo International Corp, Chicago	Ill
Gaertner Scientific Corp, Chicago	Ill
Gardner Lab Inc, Bethesda	Md
Gates & Co, George W, Franklin Square	N Y
GCA Technology Div GCA Corp, Bedford	Mass
Gilardoni S p A, Mandello Lario Como	Italy
Ikor, Inc, Burlington	Mass
Illumination Industries Inc, Sunnyvale	Cal
Ionics Inc, Electronics Div, Watertown	Mass
Jarrell-Ash Co, Waltham	Mass
Kemlite Labs Inc, Chicago	Ill
Kressilk Products Inc, Elmsford	N Y
Lake Engineering Co Ltd, Scarborough	Ont
Magnaflux Corp, Chicago	Ill
McPherson Instrument Corp Sub GCA Corp, Acton	Mass
Mico Instrument Co, Cambridge	Mass
New York Testing Labs Inc, Westbury	N Y
Oriel-Optics Corp, Stamford	Conn
Pek, Inc, Sunnyvale	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Quartz Radiation Corp, Fairfield	N J
Schoeffel Instrument Co, Westwood	NJ
Scientific Cell Co Inc, Forest Hills	N Y
Shannon Luminous Materials Co, Hollywood	Cal
Space Rays Inc, Burlington	Mass
Stroblite Co Inc, New York	N Y
Strong Electric Corp, Toledo	Ohio
Sylvania Electric Prods Inc Lamp Div, Danvers	Mass
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Syncor Products Co, Inc, Malden	Mass
Thermal American Fused Quartz Co, Montville	N J
Ultra-Violet Products Inc, San Gabriel	Cal
Vitro Labs Div Vitro Corp of America, Silver Spring	Md
Vitro Labs Div Vitro Corp of America, W Orange	N J
Westinghouse Electric Corp, Lamp Div, Bloomfield	N J

LAMPS--XENON FLASH

KINELOGIC CORP, PASADENA	**CAL**
Aerolux Light Co Inc, New York	N Y
Aerospace Controls Corp, Los Angeles	Cal
American Instrument Co, Inc, Silver Spring	Md
Amglo Corp, Chicago	Ill
Aquadyne Inc, East Falmouth	Mass
Berkey Technical Div Berkey Photo Inc, Woodside	N Y
Delta Products Inc, Grand Junction	Colo
E G & G Inc Custom Equip Div, Bedford	Mass
E G & G Inc, Electronic Prods Div, Boston	Mass
E G & G Int'l Inc Geodyne Div, Waltham	Mass
Eimac Div, Varian Associates, San Carlos	Cal
Electro Powerpacs Corp, Cambridge	Mass
English Electric Valve Co, Ltd Chelmsford, Essex	England
Ferranti, Ltd, Lancashire	England
Geodyne Div EG&G Int'l, Waltham	Mass
Giannini-Voltex, Whittier	Cal
Ikor, Inc, Burlington	Mass
Illumination Industries Inc, Sunnyvale	Cal
Ionics Inc, Electronics Div, Watertown	Mass
ITT Electron Tube Div, Easton	Pa
Kahl Scientific Instrument Corp, El Cajon	Cal
Kemlite Labs Inc, Chicago	Ill
Kinelogic Corp, Pasadena	Cal
Mura Corp, Great Neck	N Y
Pek, Inc, Sunnyvale	Cal
Quartz Radiation Corp, Fairfield	N J
Schoeffel Instrument Co, Westwood	NJ
Soderberg Mfg Co Inc, Alhambra	Cal
Strong Electric Corp, Toledo	Ohio
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Sylvania Photolamp Div, Danvers	Mass
Thermal American Fused Quartz Co, Montville	N J
TRW Systems Group, Redondo Beach	Cal
U S Scientific Instruments Inc, Watertown	Mass
Vapor Corp, Chicago	Ill
Varo Inc, Garland	Tex
Westinghouse Electric Corp, Lamp Div, Bloomfield	N J
Xenon Corp, Watertown	Mass

LAPPING & HONING SERVICES-- INFRARED PARTS

Acroscope Engineering Inc, Los Angeles	Cal
Barnes Engineering Co Def & Space Div Stamford	Conn
Bausch & Lomb, Inc, Rochester	N Y
Geoscience Instruments Corp, Mt Vernon	N Y
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland	Ohio
Jones Optical Works Inc A D, Burlington	Mass
Meller Co, Adolf, Providence	R I
Ransom Labs, John H, Los Angeles	Cal
Semiconductor Specialties Corp, Fair Lawn	NJ
Spectrum Systems, Inc, Waltham	Mass
Speedfam Corp, Des Plaines	Ill
Syncor Products Co, Inc, Malden	Mass

LAPPING & HONING SERVICES-- MECHANICAL PARTS

Acroscope Engineering Inc, Los Angeles	Cal
Astro-Space Labs Inc, Huntsville	Ala
Beutronics Labs Inc, Kenilworth	N J
Ceramic Magnetics Inc, Fairfield	N J
Geoscience Instruments Corp, Mt Vernon	N Y
Goerz Optical Co Inc, Inwood	N Y
Jones Optical Works Inc A D, Burlington	Mass
Lipps Inc, Santa Monica	Cal
Micro Parts Inc, Los Angeles	Cal
M S & R Inc, Irwin	Pa
Semiconductor Specialties Corp, Fair Lawn	NJ
Speedfam Corp, Des Plaines	Ill
Taft-Peirce Mfg Co, Woonsocket	R I
Universal Mfg Co Inc, Irvington	N J
Youngwood Electronic Metals Inc, Youngwood	Pa

LAPPING & HONING SERVICES-- OPTICAL PARTS

Acroscope Engineering Inc, Los Angeles	Cal
Barnes Engineering Co Def & Space Div Stamford	Conn
Bausch & Lomb, Inc, Rochester	N Y
Borders Electronics Co Inc, Pennsauken	N J
Crystalab Products Corp, Rochelle Park	N J
Fish-Schurman Corp, New Rochelle	N Y
Flexi Optics Labs Inc, Somerville	Mass
Geoscience Instruments Corp, Mt Vernon	N Y
Goerz Optical Co Inc, Inwood	N Y
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland	Ohio
Meller Co, Adolf, Providence	R I
Optical Products A Teledyne Co, Monrovia	Cal
Oriel-Optics Corp, Stamford	Conn
Precision Optics Div Penna Optical Co, Reading	Pa
Ransom Labs, John H, Los Angeles	Cal
Semiconductor Specialties Corp, Fair Lawn	NJ
Spectrum Systems, Inc, Waltham	Mass
Speedfam Corp, Des Plaines	Ill
Syncor Products Co, Inc, Malden	Mass
Xtalonix Products Div Harshaw Chemical Co Columbus	Ohio

LARGE SCALE INTEGRATION SEE MICROELECTRONIC CIRCUITS--LARGE SCALE

LASERS--CRYSTALS

Airtron, Div of Litton Industries, Inc, Morris Plains	N J
American Optical Co Space Defense Div Southbridge	Mass
Borders Electronics Co Inc, Pennsauken	N J
Electronic Space Products Inc, Los Angeles	Cal
Hughes Aircraft Co, Electron Dynamics Div Torrance	Cal
Industrial Optics Corp, Newark	N J
Isomet Corp, Palisades Park	N J
Korad Dept Elctns Div Union Carbide Corp Santa Monica	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Meller Co, Adolf, Providence	R I
Perkin-Elmer Corp, Norwalk	Conn
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Resalab Inc, Menlo Park	Cal
Semi-Elements Inc, Saxonburg	Pa
Siemens America Inc, New York	N Y
Spectrum Systems, Inc, Waltham	Mass
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Wacker Chemical Corp, New York	N Y
Xtalonix Products Div Harshaw Chemical Co Columbus	Ohio

LASERS--GASEOUS

Atomic Labs, Div Cenco Instr Corp, Chicago	Ill
Avco-Everett Resch Lab Div Avco Corp, Everett	Mass
Bausch & Lomb, Inc, Rochester	N Y
Broomer Research Corp, Plainview	N Y
Coherent Radiation Labs, Palo Alto	Cal
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Eimac Div, Varian Associates, San Carlos	Cal
Electro-Nuclear Lab Inc, Menlo Park	Cal
Electro-Optical Systems Inc, Pasadena	Cal

Electro Optics Assoc, Palo Alto ... Cal
Electro Powerpacs Corp, Cambridge ... Mass
English Electric Valve Co, Ltd
 Chelmsford, Essex ... England
Ferranti Electric Inc, Plainview ... N Y
Ferranti, Ltd, Lancashire ... England
Hughes Aircraft Co, Electron Dynamics Div
 Torrance ... Cal
Korad Dept Elctns Div Union Carbide Corp
 Santa Monica ... Cal
Optics Technology Inc, Palo Alto ... Cal
Pek, Inc, Sunnyvale ... Cal
Perkin-Elmer Corp, Norwalk ... Conn
Perkin-Elmer Corp Laser Dept, Wilton ... Conn
Perkin-Elmer Corp, Optical Group, Norwalk ... Conn
Philco-Ford Corp, Washington ... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Precision Research Inc, Stamford ... Conn
Raytheon Co, Microwave & Power Tube Div
 Waltham ... Mass
Resalab Inc, Menlo Park ... Cal
Seed Electronics Corp, Lexington ... Mass
Semi-Elements Inc, Saxonburg ... Pa
Siemens America Inc, New York ... N Y
Space Rays Inc, Burlington ... Mass
Spectra-Physics, Mountain View ... Cal
Sperry Gyroscope Div Sperry Rand Corp
 Great Neck ... N Y
Sylvania Electronic Systems, Waltham ... Mass
Thermal American Fused Quartz Co, Montville ... N J
TRW Instruments, El Segundo ... Cal
TRW Systems Group, Redondo Beach ... Cal
University Labs Inc, Berkeley ... Cal
Vari Tech Co, Grand Rapids ... Mich
Westinghouse Electric Corp, Scien & Electro Optical Equip
 Dept, Pittsburgh ... Pa

LASERS--INJECTION DIODES

MITSUBISHI ELECTRIC CORP, TOKYO ... JAPAN
Infrared Industries Inc, Santa Barbara ... Cal
Mitsubishi Electric Corp, Tokyo ... Japan
Monsanto Co, St Louis ... Mo
Philco-Ford Corp, Washington ... D C
Seed Electronics Corp, Lexington ... Mass
Semi-Elements Inc, Saxonburg ... Pa
Siemens America Inc, New York ... N Y
Space & Systems Div General Time Corp
 Stamford ... Conn

LASERS--OPTICAL COMPONENTS

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE ... N Y
Aerospace Controls Corp, Los Angeles ... Cal
American Optical Co Space Defense Div
 Southbridge ... Mass
American Time Products, Elctns Div Bulova Watch Co Inc
 Woodside ... N Y
Austron, Inc, Austin ... Tex
Avco-Everett Resch Lab Div Avco Corp, Everett ... Mass
Baird-Atomic, Inc, Cambridge ... Mass
Bausch & Lomb, Inc, Rochester ... N Y
Borders Electronics Co Inc, Pennsauken ... N J
Broomer Research Corp, Plainview ... N Y
Coherent Radiation Labs, Palo Alto ... Cal
Crystalab Products Corp, Rochelle Park ... N J
Davidson Optronics Inc, West Covina ... Cal
Dynasciences Corp, Blue Bell ... Pa
Eastman Kodak Co, Rochester ... N Y
E G & G Inc Custom Equip Div, Bedford ... Mass
E G & G Inc, Electronic Prods Div, Boston ... Mass
Eimac Div, Varian Associates, San Carlos ... Cal
Electro Optics Assoc, Palo Alto ... Cal
Electro Powerpacs Corp, Cambridge ... Mass
Fish-Schurman Corp, New Rochelle ... N Y
Flexi Optics Labs Inc, Somerville ... Mass
General Electric Co, Lamp Glass Dept
 Willoughby ... Ohio
GPL Div Gen Precision Systems Inc, Pleasantville ... N Y
Harshaw Chemical Co, Div Kewanee Oil Co
 Cleveland ... Ohio
Hughes Aircraft Co, Electron Dynamics Div
 Torrance ... Cal
Industrial Optics Corp, Newark ... N J
Infrared Industries Inc, Santa Barbara ... Cal
Isomet Corp, Palisades Park ... N J
Jones Optical Works Inc A D, Burlington ... Mass
Jungner Instrument AB, S-
 10440 Stockholm 14 ... Sweden
Kappa Scientific Corp, Goleta ... Cal
Korad Dept Elctns Div Union Carbide Corp
 Santa Monica ... Cal
Laser Optics Inc, Danbury ... Conn
Lear Siegler Inc, Santa Monica ... Cal
Leitz Canada Ltd, Ernst, Midland ... Ont
Liberty Mirror Div Libbey-Owens Ford Glass Co
 Brackenridge ... Pa
Litton Industries, Guidance & Controls Sys Div
 Woodland Hills ... Cal
Meller Co, Adolf, Providence ... R I
Optical Coating Lab Inc, Santa Rosa ... Cal
Optical Products A Teledyne Co, Monrovia ... Cal
Optics Technology Inc, Palo Alto ... Cal
Oriel-Optics Corp, Stamford ... Conn
Perkin-Elmer Corp, Norwalk ... Conn
Perkin-Elmer Corp Laser Dept, Wilton ... Conn
Perkin-Elmer Corp, Optical Group, Norwalk ... Conn
Precision Research Inc, Stamford ... Conn
Raytheon Co, Microwave & Power Tube Div
 Waltham ... Mass
Razdow Labs Inc, Newark ... N J
Resalab Inc, Menlo Park ... Cal
Semi-Elements Inc, Saxonburg ... Pa
Siemens America Inc, New York ... N Y
Space Rays Inc, Burlington ... Mass
Spectra-Physics, Mountain View ... Cal
Spectrum Systems, Inc, Waltham ... Mass
Sperry Gyroscope Div Sperry Rand Corp
 Great Neck ... N Y
Sylvania Electronic Systems, Waltham ... Mass
Syncor Products Co, Inc, Malden ... Mass
Te Company, Santa Barbara ... Cal
Thermal American Fused Quartz Co, Montville ... N J
Tropel Inc, Fairport ... N Y
University Labs Inc, Berkeley ... Cal
Varo Inc, Garland ... Tex
Westinghouse Electric Corp, Scien & Electro Optical Equip
 Dept, Pittsburgh ... Pa
Xenon Corp, Watertown ... Mass

LASERS--POWER SUPPLIES SEE POWER SUPPLIES--LASER

LASERS--RUBY

MITSUBISHI ELECTRIC CORP, TOKYO ... JAPAN
Airtron, Div of Litton Industries, Inc, Morris Plains ... N J
American Optical Co Space Defense Div
 Southbridge ... Mass
Control Data Corp, Minneapolis ... Minn
Crystalab Products Corp, Rochelle Park ... N J
C S F-Cie Gen de Telegraphie Sans Fil
 78 Versailles ... France
Electronic Space Products Inc, Los Angeles ... Cal
Electro-Optical Systems Inc, Pasadena ... Cal
Electro Powerpacs Corp, Cambridge ... Mass
Hughes Aircraft Co, Electron Dynamics Div
 Torrance ... Cal
Kollsman Instrument Corp, Syosset ... N Y
Kollsman Instrument Ltd, Southampton ... England
Korad Dept Elctns Div Union Carbide Corp
 Santa Monica ... Cal
Lear Siegler Inc, Santa Monica ... Cal
Liberty Mirror Div Libbey-Owens Ford Glass Co
 Brackenridge ... Pa
Litton Industries, Guidance & Controls Sys Div
 Woodland Hills ... Cal
Meller Co, Adolf, Providence ... R I
Mitsubishi Electric Corp, Tokyo ... Japan
Optics Technology Inc, Palo Alto ... Cal
Raytheon Co, Microwave & Power Tube Div
 Waltham ... Mass
Razdow Labs Inc, Newark ... N J
Resalab Inc, Menlo Park ... Cal
Siemens America Inc, New York ... N Y
Space Rays Inc, Burlington ... Mass
Thermal American Fused Quartz Co, Montville ... N J
TRW Instruments, El Segundo ... Cal
Westinghouse Electric Corp, Scien & Electro Optical Equip
 Dept, Pittsburgh ... Pa

LAVA SEE CERAMICS

LEAD

NATIONAL LEAD CO, NEW YORK ... N Y
Alloys Unlimited Inc, Melville ... N Y
Alpha Metals Inc, Jersey City ... NJ
American Smelting & Refining Co, New York ... N Y
Anchor Alloys Inc, Brooklyn ... N Y
Anchor Metal Co, Inc Div, Brooklyn ... N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr
 Roslyn Heights ... NY
Bow Solder Products Co Inc, Newark ... N J
Bram Metallurgical Chemical Co, Philadelphia ... Pa
Cerro Corp, New York ... NY
Cominco American Inc Electronic Matls Div,
 Spokane ... Wash
Cramco Solder Alloys, Scarborough ... Ont
Division Lead Co, Summit ... Ill
Gardiner Solder Co, Chicago ... Ill
Hi-Grade Alloy Corp, East Hazelcrest ... Ill
Kester Solder Co, Chicago ... Ill
Koch Light Labs Ltd, Colnbrook, Bucks ... England
Mackay Inc, A D, New York ... N Y
Materials Research Corp, Orangeburg ... N Y
Metal Ceram Inc, Mount Vernon ... N Y
National Lead Co, New York ... N Y
Nuclear Equipment Chemical Corp, Farmingdale ... N Y
Roosevelt Metal Co Inc, Brooklyn ... N Y
Semi-Alloys Inc, Mt Vernon ... N Y
United American Metals Div, Brooklyn ... N Y
United Mineral & Chemical Corp, New York ... N Y
Var-Lac-Oid Chemical Co, Elizabeth ... N J

LEADS--HIGH VOLTAGE

AMP INC, CAPITRON DIV, ELIZABETHTOWN, PA ... ADV PG 372
AMP Inc, Capitron Div, Elizabethtown ... Pa

Never use less than the safest High-Voltage leads

For example: a quick connect/disconnect 20 KVDC connector feeding two CRT tubes from a single terminal 20 feet away. It's a compact lead assembly with glass and epoxy receptacles and silicone insulated leads that can be mated safely by hand, yet it's rated 25 KVDC at 70,000 feet!

- Lightweight, flexible assembly
- Meets applicable MIL specifications
- RFI shielding available
- Rated at 10 amps
- No exposed high-voltage
- Corona and radiation resistant
- Foolproof assembly

Let us design an assembly that meets or exceeds your requirements. We're the leading maker of high-voltage, high-altitude custom lead assemblies. Whatever your connection problem, write or call today.

AMP
INCORPORATED

CAPITRON DIVISION
155 Park Street • Elizabethtown, Pa.
717-367-1105 • TWX: 510-675-4561

LEADS--TEST

BARNES CORP, LANSDOWNE	**PA**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
E-Z-HOOK TEST PRODUCTS, COVINGTON	**KY**
HEWLETT-PACKARD, PALO ALTO	**CAL**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
POMONA ELECTRONICS CO INC, POMONA	**CAL**
Aerolite Electronics Corp, Union City	N J
Aeroscience Electronics Inc, Atlanta	Ga
Amatom Electronic Hardware, New Rochelle	N Y
Auto-Swage Products, Inc, Shelton	Conn
Barnes Corp, Lansdowne	Pa
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
BeMan Mfg, Inc, New Cumberland	Pa
Bruno-New York Industries Corp, New York	N Y
Components Specialties Inc, Freeport	N Y
Condor Industrial Corp, West Chicago	Ill
Daburn Electronics & Cable Corp, Bronx	N Y
Dearborn Wire & Cable Co, Chicago	Ill
DeSoto Electrical Products, DeSoto	Mo
Dowa Trading Co Ltd, Kobe	Japan
Eastern Specialty Co, Philadelphia	Pa
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Molding Corp, Pawtucket	R I
Electronic Training Aids Co, Cambridge	Mass
Electro Scientific Industries Inc, Portland	Ore
Empire Electronics Co Inc, Paterson	N J
Estes Engineering Co, Gardena	Cal
E-Z-Hook Test Products, Covington	KY
Fairhill Products Corp, Philadelphia	Pa
Ferranti, Ltd, Lancashire	England
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Hallmark Standards Inc, Mamaroneck	N Y
Hewlett-Packard, Palo Alto	Cal
Honeywell Inc Electropac Operation, Peterborough	N H
Industrial Devices Inc, Edgewater	N J
Keithley Instruments Inc, Cleveland	Ohio
Keystone Electronics Corp, New York	N Y
Metermaster, Inc, Los Angeles	Cal
Midland International Corp, North Kansas City	Mo
M & M Electronics Corp, Amityville,	N Y
Morey Corp, Downers Grove	Ill
M-T Electronics Co, San Leandro	Cal
Mutron Corp, Brockton	Mass
National Tel-Tronics Corp, Great Neck	N Y
Paraplegics Mfg Co Inc, Bensenville	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Pomona Electronics Co Inc, Pomona	Cal
Premium Allied Tool Inc, Owensboro	Ky
Rowe Industries Inc, Toledo	Ohio
Seven Associates Inc, Sunnyvale	Cal
Simpson Electric Co, Chicago	Ill
Sittler Corp, Chicago	Ill
Slaughter Co, Ardmore	Okla
Smith Inc, Herman H, Brooklyn	N Y
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taffet Electronics Inc, Woodside	N Y

LEAK DETECTORS SEE DETECTORS—LEAK

LENSES—INFRARED SEE INFRARED EQUIPMENT

LIGHT CONTROLS SEE CONTROLS—PHOTOELECTRIC

LIGHTHOUSE TUBES SEE TUBES—PLANAR

LIGHT METERS SEE METERS—LIGHT

LIGHTNING ARRESTERS--ANTENNA & TRANSMISSION LINE

DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
DX ANTENNA CO LTD, HYOGO-KU, KOBE	**JAPAN**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
SIGNALITE INC, NEPTUNE	**N J**
Bellaire Electronics, Inc, Red Bank	N J
Channel Master Corp, Ellenville	N Y

EBG — the industry's store.

Your marketplace for products

LENSES--MICROWAVE

TRANSCO PRODUCTS INC, VENICE	**CAL**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
Custom Materials Inc, Chelmsford	Mass
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Emerson & Cuming Inc, Canton	Mass
Industrial Optics Corp, Newark	N J
Keltec Industries, Alexandria Div, Alexandria	Va
MCS Corp, Monrovia	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
3M Company, St Paul	Minn
Nikon Inc Instrument Div, Garden City	N Y
Optical Products A Teledyne Co, Monrovia	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Razdow Labs Inc, Newark	N J
Sedco Systems Inc, Farmingdale	N Y
Transco Products Inc, Venice	Cal
TRG Div Control Data Corp, East Boston	Mass

LENSES, OPTICAL--GENERAL PURPOSE

COSMICAR OPTICAL CO LTD, TOKYO, JAPAN	**ADV PG 374**
HYDRA-ELECTRIC CO, BURBANK	**CAL**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
Aerospace Controls Corp, Los Angeles	Cal
American Optical Co Space Defense Div Southbridge	Mass
Bausch & Lomb, Inc, Rochester	N Y
Bendix Corp Electro Optics Div, Ann Arbor	Mich
Borders Electronics Co Inc, Pennsauken	N J
Broomer Research Corp, Plainview	N Y
Buhl Optical Co, Pittsburgh	Pa
Burke & James Inc, Chicago	Ill
Conductron Corp, Ann Arbor	Mich
Corning Glass Works, Corning	N Y
Cosmicar Optical Co Ltd, Tokyo	Japan
Crystalab Products Corp, Rochelle Park	N J
Davidson Optronics Inc, West Covina	Cal
Drake Mfg Co, Harwood Heights	Ill
Ealing Corp, Cambridge	Mass
Eastman Kodak Co, Rochester	N Y
Ednalite Corp, Peekskill	N Y
Electro-Optical Systems Inc, Pasadena	Cal
Elesta Ltd Electronics, Bad Ragaz	Switzerland
Ercona Corp, New York	N Y
Fairchild Space & Defense Sys Div Fairchild Cam & Inst Corp, El Segundo	Cal
Farrand Optical Co Inc, Bronx	N Y
Fish-Schurman Corp, New Rochelle	N Y
Flexi Optics Labs Inc, Somerville	Mass
Gaertner Scientific Corp, Chicago	Ill
General Electric Co, Lamp Glass Dept Willoughby	Ohio
General Electrodynamics Corp, Garland	Tex
General Hardware Mfg Co Inc, New York	N Y
Glidelite Industries Inc, Hackensack	N J
Goerz Optical Co Inc, Inwood	N Y
Gordon Enterprises, North Hollywood	Cal
Grimes Mfg Co, Urbana	Ohio
Hydra-Electric Co, Burbank	Cal
Industrial Optics Corp, Newark	N J
Infrared Industries Inc, Santa Barbara	Cal
Itek Corp, Lexington	Mass
Jarrell-Ash Co, Waltham	Mass
Jones Optical Works Inc A D, Burlington	Mass
Keuffel & Esser Co, Hoboken	N J
Kollsman Instrument Corp, Syosset	N Y
Laser Optics Inc, Danbury	Conn
Leitz Canada Ltd, Ernst, Midland	Ont
Lenox Instrument Co, Philadelphia	Pa
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
Librascope Group Gen Precision Sys Inc, Glendale	Cal
Mati Elgeet Div, Rochester	NY
McLeod Optical Co Inc, Providence	R I
Meller Co, Adolf, Providence	R I
Midwest Molding & Mfg Co, Gurnee	Ill
3M Company, St Paul	Minn
Mitsumi Electric Co Ltd, Tokyo	Japan
National Cine Equipment Inc, New York	N Y
Optical Coating Lab Inc, Santa Rosa	Cal
Optical Products A Teledyne Co, Monrovia	Cal
Optics Electronics Corp, Dallas	Tex
Oriel-Optics Corp, Stamford	Conn
Pacific Optical Div Chicago Aerial Ind Los Angeles	Cal
Perkin-Elmer Corp, Norwalk	Conn
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Photo-Sonics Inc, Burbank	Cal
Precision Optics Div Penna Optical Co, Reading	Pa
Ransom Labs, John H, Los Angeles	Cal
Razdow Labs Inc, Newark	N J
Red Lake Labs Inc, Santa Clara	Cal
Republic Lens Co Inc, Bronx	N Y
Schoeffel Instrument Co, Westwood	NJ
Semi-Elements Inc, Saxonburg	Pa
Servo Corp of America, Hicksville	N Y
Show Sound, Inc, New York	N Y
Space Rays Inc, Burlington	Mass
Spectrolab Div, Textron Electronics Inc, Sylmar	Cal
Spectrum Systems, Inc, Waltham	Mass
Swingolite Inc, Hackensack	N J
Syncor Products Co, Inc, Malden	Mass
Te Company, Santa Barbara	Cal
Temperature Engineering Corp, Riverton	N J
Texas Instruments Incorporated, Dallas	Tex
Thermal American Fused Quartz Co, Montville	N J
Tropel Inc, Fairport	N Y
Varo Inc, Garland	Tex
Y T & T Corp, Roslyn Heights	NY
Zeiss Inc, Carl, New York	N Y
Zenith Optical Laboratory, Dobbs Ferry	N Y

LENSES, OPTICAL--TV CAMERA

COSMICAR OPTICAL CO LTD, TOKYO, JAPAN	**ADV PG 374**
Bausch & Lomb, Inc, Rochester	N Y
Bendix Corp Electro Optics Div, Ann Arbor	Mich
Broomer Research Corp, Plainview	N Y
Buhl Optical Co, Pittsburgh	Pa
Burke & James Inc, Chicago	Ill
Canoga Electronics Corp, Chatsworth	Cal
Cohu Electronics Inc, San Diego	Cal
Concord Electronics Corp, Los Angeles	Cal
Cosmicar Optical Co Ltd, Tokyo	Japan
Dbm Research Corp, Cocoa Beach	Fla
Dynasciences Corp, Blue Bell	Pa
Dynasil Corp of America, Berlin	N J
Eastman Kodak Co, Rochester	N Y
Ercona Corp, New York	N Y
Fairchild Space & Defense Sys Div Fairchild Cam & Inst Corp, El Segundo	Cal
Farrand Optical Co Inc, Bronx	N Y
Gordon Enterprises, North Hollywood	Cal
Hydro Products Div Dillingham Corp, San Diego	Cal
Industrial Optics Corp, Newark	N J
K L A Labs Inc, Detroit	Mich
Laser Optics Inc, Danbury	Conn
Leitz Canada Ltd, Ernst, Midland	Ont
Lenox Instrument Co, Philadelphia	Pa
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
Maryland Telecommunications Inc, Cockeysville	Md
Mati Elgeet Div, Rochester	NY
3M Company, St Paul	Minn
National Cine Equipment Inc, New York	N Y
Optical Products A Teledyne Co, Monrovia	Cal
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pierpont Television Co, Birmingham	Ala
Precision Optics Div Penna Optical Co, Reading	Pa
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Ransom Labs, John H, Los Angeles	Cal
Shrader Sound Inc, Washington	D C
Spectrum Systems, Inc, Waltham	Mass
Sylvania Electric Prods Inc, Coml Elctns Div Bedford	Mass
Te Company, Santa Barbara	Cal
Tele Measurements Inc, Clifton	N J
Tropel Inc, Fairport	N Y
U S Precision Lens & Plastics Inc, Cincinnati	Ohio
Varo Inc, Garland	Tex
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh	Pa

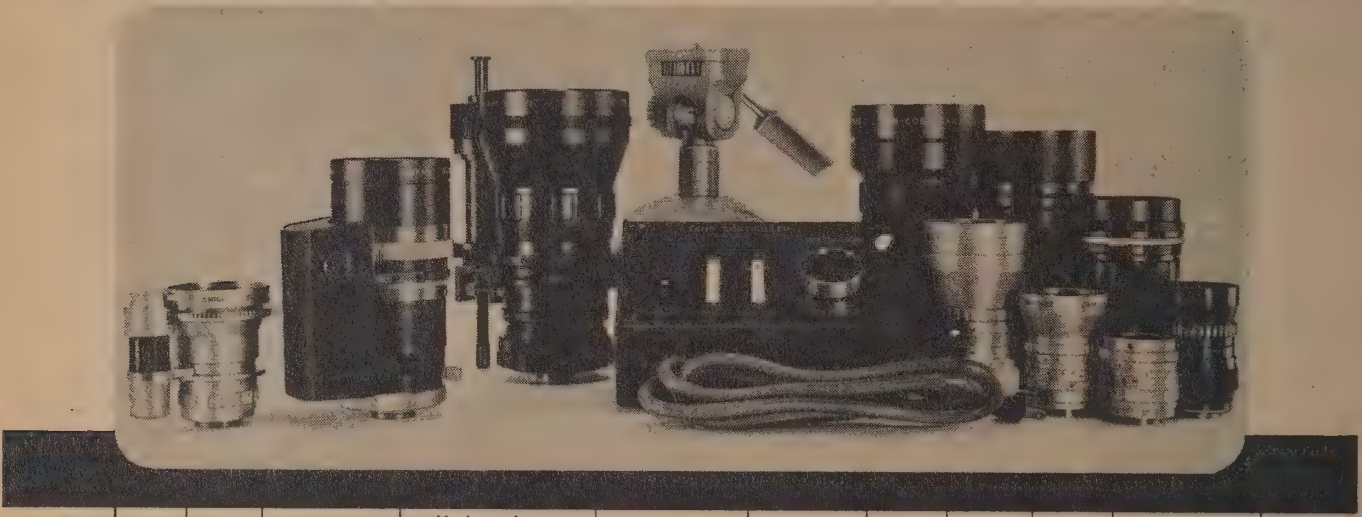
LENSES, OPTICAL--TV PROJECTION RECEIVER

Bausch & Lomb, Inc, Rochester	N Y
Bendix Corp Electro Optics Div, Ann Arbor	Mich
Broomer Research Corp, Plainview	N Y
Buhl Optical Co, Pittsburgh	Pa
Burke & James Inc, Chicago	Ill
Dalto Electronics Corp, Norwood	N J
Dynasil Corp of America, Berlin	N J
Eastman Kodak Co, Rochester	N Y
Fairchild Space & Defense Sys Div Fairchild Cam & Inst Corp, El Segundo	Cal
Farrand Optical Co Inc, Bronx	N Y
Industrial Optics Corp, Newark	N J
Infrared Industries Inc, Santa Barbara	Cal
Laser Optics Inc, Danbury	Conn
Leitz Canada Ltd, Ernst, Midland	Ont
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
3M Company, St Paul	Minn
Optical Products A Teledyne Co, Monrovia	Cal
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Precision Optics Div Penna Optical Co, Reading	Pa
Ransom Labs, John H, Los Angeles	Cal
Spectrum Systems, Inc, Waltham	Mass
Te Company, Santa Barbara	Cal
Tropel Inc, Fairport	N Y
Varo Inc, Garland	Tex

LENSES--PLASTIC

Bausch & Lomb, Inc, Rochester	N Y
Bendix Corp Electro Optics Div, Ann Arbor	Mich
Cadillac Plastic & Chemical Co, Detroit	Mich
Drake Mfg Co, Harwood Heights	Ill
Emerson Plastics Corp, Bronx	New York
Fairchild Space & Defense Sys Div Fairchild Cam & Inst Corp, El Segundo	Cal
Felsenthal Instruments Co, Chicago	Ill
Flexi Optics Labs Inc, Somerville	Mass
Franklin Fibre-Lamitex Corp, Wilmington	Del
Grimes Mfg Co, Urbana	Ohio
Industrial Devices Inc, Edgewater	N J
Insulating Shapes Inc, Bronx	N Y
Leed Insulator Corp, Los Angeles	Cal
McLeod Optical Co Inc, Providence	R I
Ny-Glass, Inc, Paramount	Cal
Pacific Optical Div Chicago Aerial Ind Los Angeles	Cal
Plastiglide Mfg Corp, Santa Monica	Cal
Standard Polymer Inc, Van Nuys	Cal

SPECIAL COSMICAR® LENSES FOR YOUR SPECIAL CCTV CAMERAS



Article Number	Lens description	Focal length	Number of lens element	Maximum image format covered			f-stop aperture engraved	Focusing range	Maximum outside diameter	Overall length*	Mounting type of the lens	Filter size	Net weight
				Total (diagonal) angular coverage	Horizontal	Vertical							
# 503	12.5mm 1 : 1.4	12.5mm	8, hard-coated	64°50′	53°52′	41°43′	1.4~22 with click-stop settings (evenly spaced)	10 inches or 0.3 meters to infinity	48.0mm	64.0mm	C-mount	Filter of 46.0mm dia., P=0.75mm	210 grams
# 2514	25mm 1 : 1.4	25mm	6, hard-coated	35°14′	28°30′	21°34′	1.4~22 with click-stop settings (evenly spaced)	2 feet or 0.6 meters to infinity	42.0mm	42.5mm	C-mount	Filter of 35.5mm dia., P=0.5mm	105 grams
# 218	50mm 1 : 1.4	50mm	6, hard-coated	18° 2′	14°29′	10°53′	1.4~22 with click-stop settings (evenly spaced)	3.5 feet or 1 meter to infinity	45.8mm	65.0mm	C-mount	Filter of 40.5mm dia., P=0.5mm	260 grams
# 504	75mm 1 : 1.4	75mm	5, hard-coated	12° 5′	9°41′	7°16′	1.4~22 with click-stop settings (evenly spaced)	4 feet or 1.2 meters to infinity	60.0mm	100.5mm	C-mount	Filter of 58mm dia., P=0.75mm	525 grams
# 1219	12.5mm 1 : 1.9	12.5mm	8, hard-coated	64°50′	53°52′	41°43′	1.9~22 with click-stop settings (evenly spaced)	10 inches or 0.3 meters to infinity	45.0mm	64.0mm	C-mount	Filter of 43.0mm dia., P=0.75mm	200 grams
# 2519	25mm 1 : 1.9	25mm	4, hard-coated	35°14′	28°30′	21°34′	1.9~22 with click-stop settings (evenly spaced)	2 feet or 0.6 meters to infinity	42.0mm	47.0mm	C-mount	Filter of 40.5mm dia., P=0.5mm	100 grams
# 5019	50mm 1 : 1.9	50mm	6, hard-coated	18° 2′	14°29′	10°53′	1.9~22 with click-stop settings (evenly spaced)	3.5 feet or 1 meter to infinity	42.0mm	68.0mm	C-mount	Filter of 40.5mm dia., P=0.5mm	200 grams
# 214 Popular type	75mm 1 : 1.9	75mm	4, hard-coated	12° 5′	9°41′	7°16′	1.9~22 with click-stop settings (evenly spaced)	4 feet or 1.2 meters to infinity	46.5mm	106.0mm	C-mount	Filter of 43.0mm dia., P=0.75mm	280 grams
# 7519 High quality	75mm 1 : 1.9	75mm	5, hard-coated	12° 5′	9°41′	7°16′	1.9~22 with click-stop settings (evenly spaced)	4 feet or 1.2 meters to infinity	50.3mm	73.5mm	C-mount	Filter of 46.0mm dia., P=0.75mm	270 grams
# 1358 COSMICAR	135mm 1 : 2.8	135mm	5, hard-coated	6°44′	5°23′	4° 3′	2.8~16	6 feet or 2 meters to infinity	62.0mm	114.0mm	C-mount	Filter of 55.0mm dia., P=0.75mm	500 grams
# Z-2055 IZUKAR ® ZOOM	20~55mm 1 : 2.8	20~55mm	9, hard-coated	46°46′ ≀ 16°36′	36°25′ ≀ 13°15′	27°33′ ≀ 9°56′	2.8~16 (evenly spaced)	10 feet or 3 meters to infinity	65.0mm	133.0mm	C-mount	Filter of 62mm dia., P=0.75mm	580 grams
# Z-6618 COSMICAR ZOOM	22~66mm 1 : 1.8	22~66mm	11, hard-coated	39°41′ ≀ 13°43′	32°12′ ≀ 11° 0′	24°26′ ≀ 8°15′	1.8~16	5 feet or 1.5 meters to infinity	77.0mm	146.0mm	C-mount	Filter of 72.0mm dia., P=0.75mm	1,100 grams
# Z-9015 SUN-COSMICAR ZOOM	22.5~90mm 1 : 1.5	22.5~90mm	15, hard-coated	38°18′ ≀ 10° 2′	31°12′ ≀ 8° 2′	23°19′ ≀ 6° 0′	1.5~22 with click-stop settings	5 feet or 1.5 meters to infinity	85.0mm	170.0mm	C-mount	Filter of 82.0mm dia., P=0.75mm	1,280 grams

*Maximum projection of the lens from lens seating face

- Mounting type of the lenses: C-mount.........
  Flange focal distance = 17.526mm (0.690″)
  Mounting thread = Diameter 25.4mm, 32-thread/inch.
- f-stops of each lens (except #Z-2055): Equidistant click stops.
- Each COSMICAR lens is equipped with ORIENTING MOUNT, which permits positioning of the focus index by simple operation of the lens ring.

OTHER LENSES & ACCESSORIES

EX-1835:180mm 1:3.5 Element, 5pcs. Coverage angle, 5°11′. Weight, 600g.
EX-2035:200mm 1:3.5 Element, 5pcs. Coverage angle, 4°33′. Weight, 700g.
EX-3056:300mm 1:5.6 Element, 5pcs. Coverage angle, 3°02′. Weight, 1100g.
EX-4056:400mm 1:5.6 Element, 5pcs. Coverage angle, 2°12′. Weight, 2100g.
Filters: UV and infrared types for all COSMICAR lenses
Stand for the vidicon camera: Manually operated and installable on the wall.
Dust caps and flange mounts

COSMICAR OPTICAL CO., LTD.

(Former name: ICHIZUKA OPTICAL CO., LTD.)

568, Shimoochiai, 2-chome, Shinjuku-ku, Tokyo Cable Address: "MOVIEKINO TOKYO"

Chomerics, Inc. Arlington ... Mass
Cush Craft, Manchester ... N H
Dale Electronics Inc, Sioux Div, Yankton ... S Dak
Dayton Aircraft Products Inc, Fort Lauderdale ... Fla
DX Antenna Co Ltd, Hyogo-Ku, Kobe ... Japan
E G & G Inc Custom Equip Div, Bedford ... Mass
Electronic Applications Co, Pine Brook ... N J
Finney Co, Bedford ... Ohio
Fuji Electric Co Ltd, Tokyo ... Japan
G C Electronics Div, Hydrometals Inc, Rockford ... Ill
General Electric Co, ECSO, Schenectady ... N Y
Hi-Lo Mfg Corp, Chicago ... Ill
Hy-Gain Electronic Corp, Lincoln ... Neb
Joslyn Electronic Systems Div, Goleta ... Cal
Parker Metal Goods Co, Worcester ... Mass
Philmore Mfg Co Inc, Richmond Hill ... N Y
Raytheon Co, Components Div, Ind Compnts Oper Quincy ... Mass
Reliable Electric Co, Franklin Park ... Ill
Siemens America Inc, New York ... N Y
Signalite Inc, Neptune ... N J
Staffall, Inc, Providence ... R I
Tricraft Products Corp, Chicago ... Ill
Vikoa Inc, Hoboken ... N J

LIGHTS--INDICATOR

AMP INCORPORATED, HARRISBURG ... PA
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
TECHMETRIC CO, REDWOOD CITY ... CAL
Aerolite Electronics Corp, Union City ... N J
AMP Incorporated, Harrisburg ... Pa
Aristo-Craft Distinctive Miniatures, New York ... N Y
Aviation Electric Ltd, St Laurent, Montreal ... Que
Clare-Pendar Co, Post Falls ... Idaho
Cole-Hersee Co, S Boston ... Mass
Co-Ord Div LVC Industries Inc, Corona ... NY
Dialight Corp, Brooklyn ... N Y
Dolan Jenner Industries Inc, Melrose ... Mass
Dowa Trading Co Ltd, Kobe ... Japan
Drake Mfg Co, Harwood Heights ... Ill
ECP Corp, Cleveland ... Ohio
Elco Corp, Willow Grove ... Pa
Eldema Div Genisco Technology Corp, Compton ... Cal
Ferwalt Inc W H, Lapwai ... Idaho
Furnas Electric Co, Batavia ... Ill
General Electric Co, ECSO, Schenectady ... N Y
General Electric Co Miniature Lamp Dept Cleveland ... Ohio
Grimes Mfg Co, Urbana ... Ohio
Henry Engineering Co, Burbank ... Cal
Impectron Inc, New York ... N Y
Industrial Devices Inc, Edgewater ... N J
Industrial Electronic Engineers Inc, Van Nuys ... Cal
ITT Europe Inc Components Gp, Brussels 1 ... Belgium
Justus & Justus Corp, Hayward ... Cal
Korry Mfg Co, Seattle ... Wash
Lake Engineering Co Ltd, Scarborough ... Ont
Metox, Paris 20 ... France
Monsanto Co, St Louis ... Mo
Oppenheimer, Inc, Willow Grove ... Pa
Pass & Seymour, Syracuse ... N Y
Penn Keystone Corp, Ansonia ... Conn
Pinlites, Inc, Fairfield ... N J
Plastiglide Mfg Corp, Santa Monica ... Cal
Shelly Associates, Inc, El Segundo ... Cal
Sloan Co, Sun Valley ... Cal
Smith Inc, Herman H, Brooklyn ... N Y
Sorenson Lighted Controls Inc, West Hartford ... Conn
Sylvania Electric Prods Inc Lamp Div, Danvers ... Mass
Techmetric Co, Redwood City ... Cal
Transistor Electronics Corp, Minneapolis ... Minn
Western Indicator Co Inc, South El Monte ... Cal

LIGHTS SEE LAMPS

LIMITS STOPS

NORTHFIELD PRECISION INSTRUMENT CORP ISLAND PARK ... N Y
SECS, INC, LONG ISLAND CITY ... N Y
American Machine & Foundry Co Alexandria Div Alexandria ... Va
Dynamic Gear Co Inc, Amityville ... N Y
Fae Instrument Corp, Huntington Station ... N Y
Jan Hardware Mfg Co Inc, Long Island City ... N Y
Kollsman Motor Corp, Dublin ... Pa
Northfield Precision Instrument Corp, Island Park ... N Y
PIC Design Corp, East Rockaway ... N Y
Precision Mechanisms Corp, Westbury ... N Y
Rex Chainbelt Inc, Milwaukee ... Wis
Secs, Inc, Long Island City ... N Y
Sensor Corp, Greenwich ... Conn
Sterling Instrument Div, Designatronics Inc Mineola ... N Y
Telstar Electronics Corp, Southold ... N Y

LINEAR AMPLIFIERS SEE AMPLIFIERS

LINE PRINTERS SEE PRINTERS—LINE

LINES—DELAY SEE DELAY LINES

LINES--SLOTTED SEE DETECTORS--STANDING-WAVE

LINES--TRANSMISSION SEE CABLES--UNSHIELDED

LIQUID DIELECTRICS SEE DIELECTRICS--LIQUID

LITHIUM COMPOUNDS (FOR CATHODE-RAY SCREENS)

Aceto Chemical Co, Inc, Flushing ... NY
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place ... N Y
Barium and Chemicals, Inc, Steubenville ... Ohio
Bram Metallurgical Chemical Co, Philadelphia ... Pa
Electronic Space Products Inc, Los Angeles ... Cal
Foote Mineral Co, Exton ... Pa
Kawecki Chemical Co, New York ... N Y
King Laboratories Inc, Syracuse ... N Y
Koch Light Labs Ltd, Colnbrook, Bucks ... England
Mackay Inc, A D, New York ... N Y
Mallinckrodt Chemical Works, St Louis ... Mo
Metal Ceram Inc, Mount Vernon ... N Y
Semi-Alloys Inc, Mt Vernon ... N Y
United Mineral & Chemical Corp, New York ... N Y
Var-Lac-Oid Chemical Co, Elizabeth ... N J

LITZ WIRE SEE WIRE—LITZ

LOAD CELLS SEE STANDARDS

LOADS--DUMMY SEE TERMINATIONS--LOAD

LOCATORS--CABLE FAULT & LINE FAULT

ASSOCIATED RESEARCH, INC, CHICAGO ... ILL
HEWLETT-PACKARD, PALO ALTO ... CAL
Aerospace Research, Inc, Boston ... Mass
Associated Research, Inc, Chicago ... Ill
Beckman Instruments Inc, Fullerton, ... Cal
Biddle Co, James G, Plymouth Meeting ... Pa
Canadian Research Institute, Don Mills ... Ont
Clinton Instrument Co, Clinton ... Conn
Electrospace Corp, Glen Cove ... N Y
Entron Inc, Silver Spring ... Md
Excel Electric Service Co Inc, Chicago ... Ill
Ferranti, Ltd, Lancashire ... England
FRL Inc Fisher Research Lab, Palo Alto ... Cal
Hewlett-Packard, Palo Alto ... Cal
Instrument Labs Corp, Chicago ... Ill
Lear Siegler Inc, Santa Monica ... Cal
Leeds & Northrup Co, Philadelphia ... Pa
McGraw-Edison Power Systems Div, Milwaukee ... Wis
Metrotech, Inc, Mountain View ... Cal
Muirhead Instruments Inc, Mountainside ... N J
Northeast Electronics Corp, Concord ... N H
Philco-Ford Corp, Washington ... D C
Rohde & Schwarz Sales Co USA Inc, Passaic ... N J
Sentron Inc, Danbury ... Conn
Slaughter Co, Ardmore ... Okla
Whitney Blake Co, New Haven ... Conn
Winslow Tele-Tronics Inc, Asbury Park ... NJ

LOCK NUTS SEE NUTS

LOCKS--DIAL

CONTROL KNOBS INC, JAMAICA ... N Y
DABURN ELECTRONICS & CABLE CORP, BRONX ... N Y
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT ... IOWA
Amatom Electronic Hardware, New Rochelle ... N Y
Bead Chain Mfg Co, Bridgeport ... Conn
Bud Radio Inc, Willoughby ... Ohio
Cambridge Thermionic Corp, Cambridge ... Mass
Control Knobs Inc, Jamaica ... N Y
Daburn Electronics & Cable Corp, Bronx ... N Y
Eagle Signal Div E W Bliss Co, Davenport ... Iowa
Federal Screw Products Inc, Chicago ... Ill
Jan Hardware Mfg Co Inc, Long Island City ... N Y
Millen Mfg Co Inc, James, Malden ... Mass
PIC Design Corp, East Rockaway ... N Y
Smith Inc, Herman H, Brooklyn ... N Y
Sterling Instrument Div, Designatronics Inc Mineola ... N Y
USECO Div, Litton Industries, Van Nuys ... Cal
Vemaline Products Co, Inc, Wycoff ... N J

LOCKWASHERS SEE WASHERS

LOGIC MODULES SEE MODULES--ACTIVE

LORAN RECEIVERS SEE RECEIVERS--RADIO NAVIGATION

LOUDSPEAKERS SEE SPEAKERS

LOUVERS--CHASSIS-VENTILATING

Boston Precision Parts Co Inc, Hyde Park ... Mass
Bud Radio Inc, Willoughby ... Ohio
California Chassis Co, Lynwood ... Cal
Churchill Corp, Melrose ... Mass
Cutler Metal Products Co, Camden ... N J
Donnelly Mfg Co, Waltham ... Mass
Falstrom Co, Passaic ... N J
Hammond Mfg Co Ltd, Guelph, Ont ... Can
Hoffman Engineering Co, Div Fed Cartridge Corp Anoka ... Minn
Kirk & Blum Mfg Co, Cincinnati ... Ohio
Midget Louver Co, Norwalk ... Conn
S K G Associates Inc, Boston ... Mass
Smith Inc, Herman H, Brooklyn ... N Y
Stafford Mfg Co Inc, Brooklyn ... N Y
Strandberg Engineering Labs Inc, Greensboro ... N C
Taffet Electronics Inc, Woodside ... N Y
Technical Wire Products Inc, Cranford ... N J
Zero Mfg Co, Burbank ... Cal

LUBRICANTS SEE ALSO SILICONES

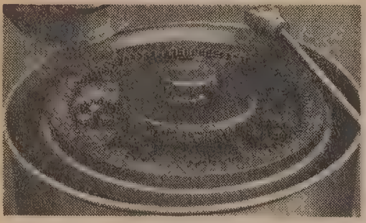
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON ... CAL
CAIG LABS INC, WESTBURY ... N Y
GRAPHITE METALLIZING CORP, YONKERS ... N Y
SPRAYON PRODUCTS INC, BEDFORD HEIGHTS ... OHIO
Acheson Colloids Co, Port Huron ... Mich
Allaco Products, Braintree ... Mass
Armite Laboratories, Los Angeles ... Cal
Ball Brothers Research Corp, Boulder ... Colo
Beckman Instruments Inc, Helipot Div, Fullerton ... Cal
Bel-Ray Co, Inc, Farmingdale ... N J
Bemol Co, Newton ... Mass
Bendix Vacuum Div, Rochester ... N Y
Borden Chemical Co, New York ... N Y
Caig Labs Inc, Westbury ... N Y
Camie Co Inc, St Louis ... Mo
Cerac Inc, Butler ... Wis
Chemplast Inc, Wayne ... N J
Cico Corp, Sun Valley ... Cal
Connecticut Hard Rubber Co, New Haven ... Conn
Consolidated Vacuum Corp, Rochester ... N Y
CRC Chemicals, Dresher ... Pa
Devcon Corp, Danvers ... Mass
Dixon Corp, Bristol ... R I
Dow Chemical Co, Midland ... Mich
Dow Corning Corp, Midland ... Mich
Electrofilm, Inc, North Hollywood ... Cal
Electrolube Ltd, Slough ... England
Electronic Chemical Corp, Jersey City ... N J
Emerson & Cuming Inc, Canton ... Mass
Everlube Corp of America, North Hollywood ... Cal
Fae Instrument Corp, Huntington Station ... N Y
G C Electronics Div, Hydrometals Inc, Rockford ... Ill
General Compounds Co, Div Kai R Kuhl Co Los Angeles ... Cal
General Electric Co Silicone Prods Dept, Waterford ... N Y
Grafo Colloids Corp, Sharon ... Pa
Graphite Metallizing Corp, Yonkers ... N Y
Heraeus-Engelhard Vacuum Inc, Monroeville ... Pa
Humble Oil & Refining Co, Houston ... Tex
Huron Industries, Port Huron ... Mich
Ideal-Hellerman Canada Ltd, Ajax ... Ontario
Kano Labs, Inc, Nashville ... Tenn
Miller-Stephenson Chemical Co Inc, Danbury ... Conn
3M Company, St Paul ... Minn
MPB Corp, Keene ... N H
Nye, Inc, William F, New Bedford ... Mass
Poxylube Inc, Indianapolis ... Ind
Pro-Chem Inc, Cleveland ... Ohio
Product Techniques, Inc, Downey ... Cal
Quietrole Co, Spartanburg ... S C
Sealectro Corp, Mamaroneck ... N Y
Sherwin Inc, Los Angeles ... Cal
Sprayon Products Inc, Bedford Heights ... Ohio
Stauffer Chemical Co Silicone Div, New York ... N Y

LUGS SEE TERMINALS

LUMINESCENT CHEMICALS SEE CHEMICALS--LUMINESCENT

LUMINOUS FINISHES SEE PAINTS--LUMINOUS

LUMINOUS MARKERS SEE MARKERS--LUMINOUS



THE WORLD'S MOST
WIDELY USED PLANETARY
LAPPING MACHINES
ARE BUILT BY
P. R. HOFFMAN CO.

- Made in a wide variety of models and capacities to meet your requirements for two-sided precision lapping.
- Precision flatness and parallelism.
- Permit one side lapping only if desired.
- Lap extremely hard, as well as soft and medium, materials regardless of irregularity of shape.

Send for complete detailed literature on the quality line of P. R. Hoffman machines and accessories.

P R HOFFMAN CO
321 Cherry St.
Carlisle, Pa. (717) 243-2011
Div of Howard Aiken Industries Inc

MACHINES--ABRADING & POLISHING (CRYSTAL & FERRITE)

HOFFMAN CO PR DIV AIKEN INDUSTRIES, CARLISLE PA	**ADV PG 376**
TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA	**N Y**
Custom Scientific Instruments Inc, Whippany	N J
Geoscience Instruments Corp, Mt Vernon	N Y
Hoffman Co PR Div Aiken Industries, Carlisle	Pa
Jarrell-Ash Co, Waltham	Mass
Kokusai Electric Co Ltd, Tokyo	Japan
L & R Mfg Co, Kearny	N J
Murray Way Corp, Birmingham	Mich
Norton Co, Worcester	Mass
Phoenix Materials Corp, Monroeville	Pa
Ransom Labs, John H, Los Angeles	Cal
Speedfam Corp, Des Plaines	Ill
Taber Instruments A Teledyne Co North Tonawanda	N Y
Universal Shellac & Supply Co Inc, Brooklyn	N Y
Vibraslide Inc, Binghamton	N Y

MACHINES--AUTOMATIC ASSEMBLY

FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
GAGNE ASSOCIATES INC, BINGHAMTON	**N Y**
Affiliated Manufacturers Inc, Whitehouse	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
Alch Instrument Co, Inc, Westbury	N Y
Alessi Industries, El Segundo	Cal
Allied Engineering & Production Corp, Alameda	Cal
Applied Electro Mechanics Inc, Alexandria	Va
Associated Engineering & Mfg Corp, Glen Ridge	N J
Axion Corp, Danbury	Conn
Beckman Instruments Inc, Fullerton,	Cal
Berg Electronics, Inc, New Cumberland	Pa
Black & Webster Inc, Waltham	Mass
Bruno-New York Industries Corp, New York	N Y
Burklyn Co, Los Angeles	Cal
C E M Co, Inc, Danielson	Conn
Conrac Corp, New York	N Y
Digital Systems Inc, Covina	Cal
Energy Beams Inc, Haskell	N J
Evans Equipment Co, Brookfield	Conn
Eyelet Tool Co, Cambridge	Mass
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Gagne Associates Inc, Binghamton	N Y
General Staple Co, New York	N Y
Halm Instrument Co Inc, Glen Head	N Y
Heller Industries Inc, E Orange	NJ
Hugle Industries, Sunnyvale	Cal
Kahle Engineering Co, Union City	N J
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Micro Metrics Inc, Paterson	N J
Murphy Industries G W Cleco Pneumatic Div Houston	Tex
New Jersey Machine Corp, Hoboken	N J
Numerical Control Corp, San Diego	Cal
Precision Welder & Flexopress Corp, Cincinnati	Ohio
Product Improvement Corp, Santa Ana	Cal
Ragen Precision Industries Inc, North Arlington	N J
Research Instrument Co Inc, Westbury	N Y
Segal Inc, Edward, New York	N Y
Sensor Corp, Greenwich	Conn
Standard Tool & Mfg Co, Lyndhurst	N J
Syntron Div FMC Corp, Homer City	Pa
Taylor-Winfield Corp, Warren	Ohio
Townsend Co, TRS Div, Braintree	Mass
Trought Associates Inc, Belleville	N J
Universal Instruments Corp, Binghamton	N Y
Vestal Modern Design Corp, Vestal	N Y
Wells Electronics Inc Equipment Div, South Bend	Ind

MACHINES--AUTOMATIC FEED, SMALL PARTS

FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE, N J	**ADV PG 376**
GAGNE ASSOCIATES INC, BINGHAMTON	**N Y**
Affiliated Manufacturers Inc, Whitehouse	N J
Air-Vac Engineering Co, Milford	Conn
Alch Instrument Co, Inc, Westbury	N Y
Associated Engineering & Mfg Corp, Glen Ridge	N J
Automation Devices, Inc, Fairview	Pa
Berg Electronics, Inc, New Cumberland	Pa
Black & Webster Inc, Waltham	Mass
Burgess & Associates Inc, Cleveland	Ohio
Burklyn Co, Los Angeles	Cal
Cambridge Thermionic Corp, Cambridge	Mass
Evans Equipment Co, Brookfield	Conn
Eyelet Tool Co, Cambridge	Mass
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Gagne Associates Inc, Binghamton	N Y
Halm Instrument Co Inc, Glen Head	N Y
Kahle Engineering Co, Union City	N J
New Jersey Machine Corp, Hoboken	N J
Numerical Control Corp, San Diego	Cal
Precision Welder & Flexopress Corp, Cincinnati	Ohio
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Ragen Precision Industries Inc, North Arlington	N J
Segal Inc, Edward, New York	N Y
Seneca Falls Machine Co, Seneca Falls	N Y
Sensor Corp, Greenwich	Conn
Sossner Steel Stamps Inc, Long Island City	N Y
Syntron Div FMC Corp, Homer City	Pa
Transistor Automation A Teledyne Co, Woburn	Mass
Trought Associates Inc, Belleville	N J
Vestal Modern Design Corp, Vestal	N Y

AUTOMATION
of small parts production...
AT ½ USUAL COST!

Whatever your small parts production entails—feeding of raw stock, cutting, forming, stamping, crimping, bending, twisting, insertion motions, soldering, welding or you name it — you can perform these operations automatically by simply positioning the appropriate "tool module" at the working stations of a Federal Universal Power Table.

HIGH SPEED: 5,000 or more completed assemblies per hour.

FLEXIBILITY: "Tool Modules" completely interchangeable in a few minutes, to accommodate changing requirements, from new designs to completely new products.

LOW COST: Standardized units, no exhorbitant custom engineering costs. Illustrated 16-page brochure on request.

FEDERAL TOOL ENGINEERING CO.
1384 Pompton Ave., Cedar Grove, N. J. 07009

MACHINES--BALANCING, DYNAMIC

International Research & Development Corp Worthington	Ohio
M Ten Bosch, Inc, Pleasantville	N Y
Schenck Trebel Corp Micro Balancing Div Farmingdale	N Y
Tinius Olsen Testing Machine Co, Willow Grove	Pa
Wharton Unitools, Moosup	Conn

MACHINES--BENDING

Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Aikow Shoji Kaisha Ltd, Osaka	Japan
Conrac Corp, New York	N Y
Di-Acro Div, Houdaille Industries Inc, Lake City	Minn
Feco Div Bangor Punta Operations Inc, Cleveland	Ohio
Heller Industries Inc, E Orange	NJ
Kahle Engineering Co, Union City	N J
Niagara Machine & Tool Works, Buffalo	N Y
Peck Stow & Wilcox Co, Southington	Conn
Pico Crimping Tools Co, Santa Fe Springs	Cal
Ryerson & Son Inc, J T, Chicago	Ill
Stueck Inc, W Whitney, Old Saybrook	Conn
Taylor-Winfield Corp, Warren	Ohio

MACHINES--BLUEPRINT SEE MACHINES--COPYING

MACHINES, CAPACITOR MANUFACTURING--ASSEMBLY

FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
Affiliated Manufacturers Inc, Whitehouse	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
Alch Instrument Co, Inc, Westbury	N Y
Beckman Instruments Inc, Fullerton,	Cal
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Halm Instrument Co Inc, Glen Head	N Y
Kahle Engineering Co, Union City	N J
Precision Welder & Flexopress Corp, Cincinnati	Ohio
Research Instrument Co Inc, Westbury	N Y
Universal Instruments Corp, Binghamton	N Y
Wells Electronics Inc Equipment Div, South Bend	Ind

MACHINES, CAPACITOR MANUFACTURING--SORTING

Advanced Technology & Systems Corp Old Greenwich	Conn
Affiliated Manufacturers Inc, Whitehouse	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
Alch Instrument Co, Inc, Westbury	N Y
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Davidson Electronic Development Co, Erie	Pa
Daymarc Corp, Waltham	Mass
Evans Equipment Co, Brookfield	Conn
Heller Industries Inc, E Orange	NJ
Industrial Control Co, Farmingdale	N Y
Micro Instrument Co, Hawthorne	Cal
Numerical Control Corp, San Diego	Cal
Transistor Automation A Teledyne Co, Woburn	Mass
Universal Instruments Corp, Binghamton	N Y

MACHINES, CAPACITOR MANUFACTURING--WINDING

Advanced Technology & Systems Corp Old Greenwich	Conn
Aikow Shoji Kaisha Ltd, Osaka	Japan
Alch Instrument Co, Inc, Westbury	N Y
Hilton Inc, H H, Glens Falls	N Y
Micro Instrument Co, Hawthorne	Cal
Stevens Mfg Co Inc, Geo, Chicago	Ill

look first to LEESONA® *for your coil winding and wave soldering requirements*

PAPER INTERLEAF COIL WINDERS

MODEL 107

Fully automatic . . . engineered to produce better and compact uniform paper coils . . . speeds up to 2500 rpm. Automatic paper feed, up to 15 inserts per minute.

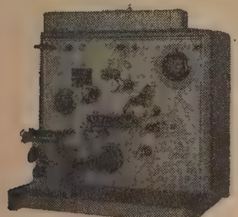
MODEL 108

Speeds production of a wide variety of paper insulated coils with extreme accuracy. Easy to operate . . . just 4 finger-tip controls govern gearing for wire size, winding length, turns per layer, without removing cams or gears.

TOROIDAL WINDERS

MODEL TO-125C

The ultimate in toroidal winders for high speed production plus uniformity of product. Permits fast and flexible changes in set up and produces wide range of coils from .028" I.D. to 5" O.D. . . . fully automatic.



MODEL TO-133

Designed for great economy, versatility and reliability. Versatility of this toroidal coil winder is illustrated by the wide variety of finished coils ranging from .055" I.D. to 2½" O.D.

MODEL 127 TAPER

A sturdy coil tape winder, capable of applying most varieties of non-adhesive tapes such as paper. Accommodates tapes ranging in width from ⅛" to 1" and wrap cores from ⅜" I.D. to 6" O.D. at a high production rate.

HIGH SPEED BACHI BOBBIN WINDERS

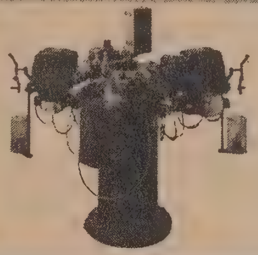
MODEL 115
BACHI SINGLE HEAD

Spool-winds coils up to 3" diameter x 2⅜" long for small devices such as electric shavers and field coils in small motors . . . fast, accurate and reduces handling time. Completely automatic . . . winds 400 to 1000 coils per hour.

MODEL 116
BACHI AUTOMATIC

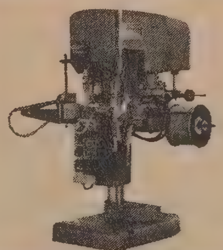
Multi-head machine . . . automatic . . . Extremely versatile . . . winds 400 to 1000 coils per hour . . . wire sizes A.W.G. 16 to 50 and finer . . . runs smoothly . . . speeds up to 15,000 rpm can be achieved when coil construction and wire size permit.

KINOMAT WINDERS



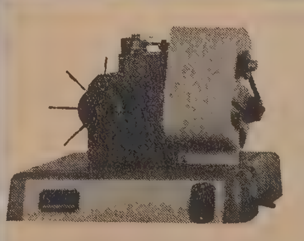
MODEL BGO-2

This versatile winder loads, winds, taps, cuts leads, tins leads, waxes, tapes and unloads coils automatically. The 12 position turret, which rotates in either direction, handles practically any coil on any form configuration. Wire size .0008" to 18 AWG.



MODEL BV4-G

A carousel-type, special purpose winder designed to operate without coil forms. Coils produced may be close wound, ranging out to open helix configurations at production rates up to 1920 per hour. This unit features automatic trimming of lead ends.



MODEL BGV-2

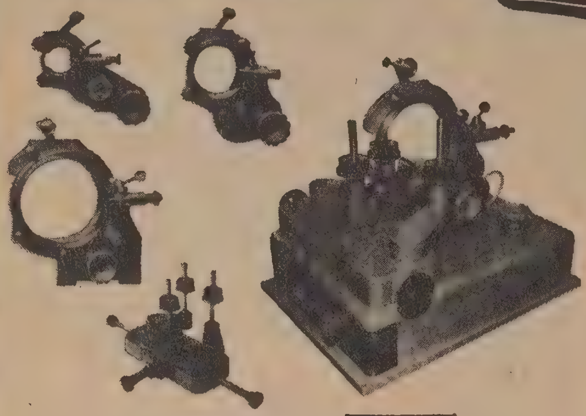
A single purpose unit designed for a specific job. Winds uniform coils in single or multiple layers. Coils can be close wound or with adjacent turns spaced out accurately. Handles forms with or without leads. Production rates up to 900 coils per hour.

LEESONA CORPORATION

Coil Winding Machinery Division

131-G West Street, Danbury, Connecticut 06810

NEW
FROM COWECO



MODEL RS
TOROID WINDER

- 6 interchangeable heads for all core sizes
- shuttles available for extremely small cores
- provision for segment or continuous winding

COWECO COIL WINDING EQUIPMENT CO.
OYSTER BAY, N.Y. 11771—(516) WA 2-5660
COWECO OYSTERBAYNEWYORK

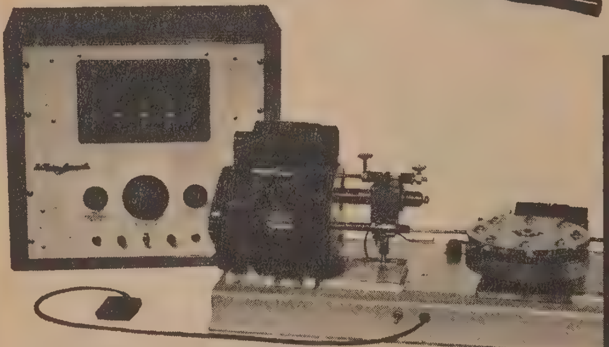
NEW
FROM COWECO

MODEL PTS
POTENTIOMETER WINDER

- core is wound and formed continuously
- extremely accurate wire placement
- easy change-over; high production
- windings may be treated in machine or separately

COWECO COIL WINDING EQUIPMENT CO.
OYSTER BAY, N.Y. 11771—(516) WA 2-5660
COWECO OYSTERBAYNEWYORK

NEW
FROM COWECO

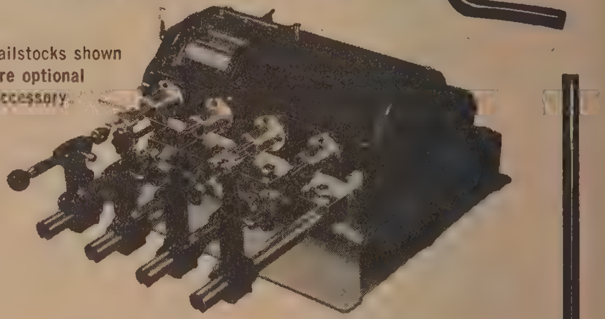


MODEL KLK *TURRET*
TRANSFER TYPE WINDER

- camless, gearless convenience
- high production at low cost
- precise electronic count control
- single or multiple layers at will

COWECO COIL WINDING EQUIPMENT CO.
OYSTER BAY, N.Y. 11771—(516) WA 2-5660
COWECO OYSTERBAYNEWYORK

NEW
FROM COWECO



Tailstocks shown are optional accessory.

MODEL KL-4
FOUR SPINDLE HIGH SPEED BOBBIN WINDER

- 4 times the production; minimum investment
- compact, self contained; one operator may supervise several units
- camless, gearless; easy to set up
- spindle speeds to 10,000 RPM; high torque slower speed version available

COWECO COIL WINDING EQUIPMENT CO.
OYSTER BAY, N.Y. 11771—(516) WA 2-5660
COWECO OYSTERBAYNEWYORK

MACHINES--CLEANING

SEE ALSO ULTRASONIC EQUIPMENT

KRESSILK PRODUCTS INC, ELMSFORD	**N Y**
Acoustica Associates Inc, Los Angeles	Cal
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Alcatel, Paris 8eme	France
Barrett Co, Leon J, Worcester	Mass
Bearing Inspection, Inc, Santa Fe Springs	Cal
Branson Equipment Div, Clark	N J
Clean Room Products Inc, Farmingdale	N Y
Cobehn Inc, Fairfield	N J
Conrac Corp, New York	N Y
Cybetronics Inc, Waltham	Mass
Despatch Oven Co, Minneapolis	Minn
De Vilbiss Co, Toledo	Ohio
Electrovert Inc, Mt Vernon	N Y
Envirco Div Becton, Dickinson & Co, Albuquerque	N M
Etchomatic Inc, Waltham	Mass
Evans Equipment Co, Brookfield	Conn
General Kinetics Inc, Reston	Va
General Research Inc, Sparta	Mich
Geoscience Instruments Corp, Mt Vernon	N Y
Hektor Scientific Co Inc, Foxboro	Mass
Interlab Inc, Pleasantville	N Y
Kressilk Products Inc, Elmsford	N Y
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Lewis Corp, Woodbury	Conn
L & R Mfg Co, Kearny	N J
Multisonic Cleaning Systems, Cleveland	Ohio
Oakite Products Inc, Berkeley Heights	N J
Pangborn Corp, Hagerstown	Md
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Phoenix Materials Corp, Monroeville	Pa
Product Improvement Corp, Santa Ana	Cal
Ramyr Mfg Co, Buena Park	Cal
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Simco Co Inc, Lansdale	Pa
Solutec Corp, St Petersburg	Fla
Techni-Tool Inc, Philadelphia	Pa
Tronic Corp, Belmont	Cal
Vapor Blast Mfg Co, Milwaukee	Wis
Vibraslide Inc, Binghamton	N Y
Westinghouse Electric Corp Indus Equip Div Baltimore	Md
Wheelabrator Corp Wheelabrator Div, Mishawaka	Ind

MACHINES, COIL WINDING--LATHE TYPE

COIL WINDING EQUIPMENT CO, OYSTER BAY N Y	**ADV PG 378**
LEESONA CORP, COIL WINDING MACHINE DIV, DANBURY CONN	**ADV PG 377**
Aikow Shoji Kaisha Ltd, Osaka	Japan
Alch Instrument Co, Inc, Westbury	N Y
Associated American (Amacoil) Winding Machinery Inc New Rochelle	N Y
C M Mfg Co, Bloomfield	N J
Coil Winding Equipment Co, Oyster Bay	N Y
Eubanks Engineering Co, Monrovia	Cal
Excelsior Electronics, Canoga Park	Cal
Gorman Machine Corp, Randolph	Mass
Halm Instrument Co Inc, Glen Head	N Y
Industrial Winding Machinery Corp, River Edge	N J
Innes Instruments, Pasadena	Cal
Kahle Engineering Co, Union City	N J
La Cesa Engineering Corp, Chicago	Ill
Leesona Corp, Coil Winding Machine Div Danbury	Conn
Mann Co, Henry, Cornwell Heights	Pa
Micafil Ltd c/o Universal, Irvington	N J
M S & R Inc, Irwin	Pa
Nichols Co Ltd, R H, Downsview	Ont
Rea Magnet Wire Co Inc, Fort Wayne	Ind
Slocum Industries, Inc, Reseda	Cal
Stevens Mfg Co Inc, Geo, Chicago	Ill
Washington Electrical Prpducts Co, Washington	Mo

MACHINES, COIL WINDING--TOROID TYPE

COIL WINDING EQUIPMENT CO, OYSTER BAY N Y	**ADV PG 378**
LEESONA CORP, COIL WINDING MACHINE DIV, DANBURY CONN	**ADV PG 377**
Aikow Shoji Kaisha Ltd, Osaka	Japan
Arnold Magnetics Corp, Los Angeles	Cal
Coil Winding Equipment Co, Oyster Bay	N Y
Dinion Coil Co Inc, Caledonia	N Y
Eubanks Engineering Co, Monrovia	Cal
Gorman Machine Corp, Randolph	Mass
Harder Co, Inc, Donald C, San Diego	Cal
Industrial Winding Machinery Corp, River Edge	N J
Leesona Corp, Coil Winding Machine Div Danbury	Conn
Martindale Electric Co, Cleveland	Ohio
Park Lane Research Labs, New Milford	Conn
Universal Mfg Co Inc, Irvington	N J

MACHINES, COIL WINDING--WOUND FOIL

Alch Instrument Co, Inc, Westbury	N Y
Driver-Harris Co, Harrison	N J
Hilton Inc, H H, Glens Falls	N Y
La Cesa Engineering Corp, Chicago	Ill
Micafil Ltd c/o Universal, Irvington	N J
Universal Mfg Co Inc, Irvington	N J
Washington Electrical Products Co, Washington	Mo

MACHINES--COMPONENT PACKAGING

Affiliated Manufacturers Inc, Whitehouse	N J
Anchor Specialty Mfg Co Inc, Teterboro	N J
Bruno-New York Industries Corp, New York	N Y
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Micro Tech Mfg Inc, Worcester	Mass
New Jersey Machine Corp, Hoboken	N J
Numerical Control Corp, San Diego	Cal
Possis Machine Corp, Minneapolis	Minn
Ragen Precision Industries Inc, North Arlington	N J
Research Instrument Co Inc, Westbury	N Y
Solid State Equipment Corp, Philadelphia	Pa
Universal Instruments Corp, Binghamton	N Y

MACHINES--COPYING

American Photocopy Equipment Co, Evanston	Ill
Andrew Engineering Co, Minneapolis	Minn
Cosa Corp, New York	N Y
Dennison Mfg Co, Framingham	Mass
Itek Corp, Lexington	Mass
3M Company, St Paul	Minn
Pacific Copy Corp, El Segundo	Cal
Rotolite Sales Corp, Stirling	N J
Sossner Steel Stamps Inc, Long Island City	N Y
Xerox Corp, Rochester	N Y

MACHINES--CRYSTAL-CUTTING

Bronwill Scientific, Rochester	N Y
Evans Equipment Co, Brookfield	Conn
Fitchburg Engineering Corp, Fitchburg	Mass
General Diode Corp, Framingham	Mass
Geoscience Instruments Corp, Mt Vernon	N Y
Henley & Co Inc, New York	N Y
Jarrell-Ash Co, Waltham	Mass
Materials Research Corp, Orangeburg	N Y
Micromech Mfg Corp, Union	N J
Norton Co, Worcester	Mass
Ransom Labs, John H, Los Angeles	Cal
REM Sales Inc, West Hartford	Conn
Universal Shellac & Supply Co Inc, Brooklyn	N Y

MACHINES--CRYSTAL-FINISHING

HOFFMAN CO PR DIV AIKEN INDUSTRIES, CARLISLE	**PA**
General Diode Corp, Framingham	Mass
Geoscience Instruments Corp, Mt Vernon	N Y
Hoffman Co PR Div Aiken Industries, Carlisle	Pa
L & R Mfg Co, Kearny	N J
Norton Co, Worcester	Mass
Norton Co Vacuum Equip Div, Newton	Mass
Ransom Labs, John H, Los Angeles	Cal
Speedfam Corp, Des Plaines	Ill
Universal Shellac & Supply Co Inc, Brooklyn	N Y

MACHINES, CRYSTAL GROWING-- ELECTRON BEAM

Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Energy Beams Inc, Haskell	N J
Hamilton Standard Div UAC Industrial Prods Dept Windsor Locks	Conn
Japan Vacuum Engineering Co Ltd, Tokyo	Japan
Kokusai Electric Co Ltd, Tokyo	Japan
Materials Research Corp, Orangeburg	N Y
Nuclide Corp, AGV Div, Acton	Mass
Thermatron Div Wilcox & Gibbs Inc, New York	N Y

MACHINES, CRYSTAL GROWING-- HORIZONTAL

Aremco Products Inc, Briarcliff Manor	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
General Diode Corp, Framingham	Mass
Hugle Industries, Sunnyvale	Cal
Japan Vacuum Engineering Co Ltd, Tokyo	Japan
Kahle Engineering Co, Union City	N J
Kokusai Electric Co Ltd, Tokyo	Japan
Lepel High Frequency Labs, Inc, Maspeth	N Y
Little Inc, Arthur D, Cambridge	Mass
Materials Research Corp, Orangeburg	N Y
McDowell Electronics Inc, Metuchen	N J
Research Instrument Co Inc, Westbury	N Y
Thermatron Div Wilcox & Gibbs Inc, New York	N Y

MACHINES, CRYSTAL GROWING-- VERTICAL

Aremco Products Inc, Briarcliff Manor	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
C M Mfg Co, Bloomfield	N J
Elmat Div Semimetals Inc, Mountain View	Cal
Evans Equipment Co, Brookfield	Conn
Futurecraft Corp, City of Industry	Cal
General Diode Corp, Framingham	Mass
Hugle Industries, Sunnyvale	Cal
Japan Vacuum Engineering Co Ltd, Tokyo	Japan
Kahle Engineering Co, Union City	N J
Kokusai Electric Co Ltd, Tokyo	Japan
Lepel High Frequency Labs, Inc, Maspeth	N Y
Little Inc, Arthur D, Cambridge	Mass
Materials Research Corp, Orangeburg	N Y
McDowell Electronics Inc, Metuchen	N J
Research Instrument Co Inc, Westbury	N Y
Semi-Elements Inc, Saxonburg	Pa
Taylor-Winfield Corp, Warren	Ohio
Thermatron Div Wilcox & Gibbs Inc, New York	N Y

MACHINES--CRYSTAL SORTING & SIZING

Affiliated Manufacturers Inc, Whitehouse	N J
Evans Equipment Co, Brookfield	Conn
Kokusai Electric Co Ltd, Tokyo	Japan
Numerical Control Corp, San Diego	Cal
Precision Systems Corp, Columbus	Ohio
Speedfam Corp, Des Plaines	Ill

MACHINES--DEGREASING VAPOR

KRESSILK PRODUCTS INC, ELMSFORD	**N Y**
Acoustica Associates Inc, Los Angeles	Cal
Acra Electric Corp, Schiller Park	Ill
Branson Equipment Div, Clark	N J
Clean Room Products Inc, Farmingdale	N Y
Conrac Corp, New York	N Y
Crest Ultrasonics Corp, Trenton	N J
Cyclo-Tronics, Inc, Chicago	Ill
Etchomatic Inc, Waltham	Mass
General Research Inc, Sparta	Mich
Geoscience Instruments Corp, Mt Vernon	N Y
Headway Research Inc, Garland	Tex
Interlab Inc, Pleasantville	N Y
Kressilk Products Inc, Elmsford	N Y
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Lewis Corp, Woodbury	Conn
Multisonic Cleaning Systems, Cleveland	Ohio
Phillips Mfg Co, Chicago	Ill
Pyromet Industries, San Carlos	Cal
Ramyr Mfg Co, Buena Park	Cal
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Tronic Corp, Belmont	Cal
Ultrasonic Devices Inc, Deer Park	NY
Waber Electronics Inc, Philadelphia	Pa

MACHINES--DICTATING

American Geloso Electronics Inc, New York	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland

MACHINES--DIODE & TRANSISTOR MANUFACTURING

FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
Affiliated Manufacturers Inc, Whitehouse	N J
Alessi Industries, El Segundo	Cal
Associated Engineering & Mfg Corp, Glen Ridge	N J
Axion Corp, Danbury	Conn
C M Mfg Co, Bloomfield	N J
Consolidated Vacuum Corp, Rochester	N Y
Electroglas Inc, Menlo Park	Cal
Evans Equipment Co, Brookfield	Conn
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Geoscience Instruments Corp, Mt Vernon	N Y
Kahle Engineering Co, Union City	N J
Kobe Industries Corp, Kobe	Japan
Kokusai Electric Co Ltd, Tokyo	Japan
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Lindberg Hevi-Duty Div Sola Basic Industries Chicago	Ill
Micro Tech Mfg Inc, Worcester	Mass
National Electric Welding Machines Co, Bay City	Mich
Numerical Control Corp, San Diego	Cal
Precision Welder & Flexopress Corp, Cincinnati	Ohio
Reeve Electronics Inc, Chicago	Ill
Research Instrument Co Inc, Westbury	N Y
Siliconix Inc, Sunnyvale	Cal
Speedfam Corp, Des Plaines	Ill
Taft-Peirce Mfg Co, Woonsocket	R I
Transistor Automation A Teledyne Co, Woburn	Mass
Universal Instruments Corp, Binghamton	N Y
Universal Shellac & Supply Co Inc, Brooklyn	N Y

MACHINES--DIP SOLDERING

FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
KRESSILK PRODUCTS INC, ELMSFORD	**N Y**
Barrett Co, Leon J, Worcester	Mass
Electrovert Inc, Mt Vernon	N Y
Etchomatic Inc, Waltham	Mass
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
GHV Electronics, River Edge	N J
Kahle Engineering Co, Union City	N J
Kressilk Products Inc, Elmsford	N Y
Mann Co, Henry, Cornwell Heights	Pa
Ohmweve Co Inc, West Hartford	Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Product Improvement Corp, Santa Ana	Cal
Ramyr Mfg Co, Buena Park	Cal
Wenesco Inc, Chicago	Ill
Zeva Electric Corp, New York	N Y

MACHINES--DRILLING, ULTRASONIC SEE ULTRASONIC EQUIPMENT

MACHINES--DRILL PRESSES PRECISION

Aetna Mfg Co, Bensenville	Ill
Alden Systems, Inc, Brockton	Mass
Anadite, Inc, South Gate	Cal
Beutronics Labs Inc, Kenilworth	N J
Cimron Div LSI, San Diego	Cal
Cosa Corp, New York	N Y
Etchomatic Inc, Waltham	Mass
Excellon Industries Inc, Torrance	Cal
Extrudonics Inc, New Brunswick	N J
Fineisen Co A R, Westwood	NJ
Kestler Electronics, Rosemead	Cal
Levin & Son Inc, Louis, Culver City	Cal
Mann Co, Henry, Cornwell Heights	Pa
Mico Instrument Co, Cambridge	Mass
Optomechanisms Inc, Plainview	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Ramyr Mfg Co, Buena Park	Cal
Rocket Research Corp, Redmond	Wash
Ryerson & Son Inc, J T, Chicago	Ill
Standard Tool & Mfg Co, Lyndhurst	N J
Telstar Electronics Corp, Southold	N Y

MACHINES--DROP TEST

Barry Controls Div Barry Wright Corp, Watertown	Mass
Custom Scientific Instruments Inc, Whippany	N J
Jan Hardware Mfg Co Inc, Long Island City	N Y
L A B Corp, Skaneateles	N Y
Tinius Olsen Testing Machine Co, Willow Grove	Pa

MACHINES--ENCAPSULATING

FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
Conforming Matrix Corp, Toledo	Ohio
Cryplex Industries Inc, Flushing	N Y
Ewing Products Inc, Burbank	Cal
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Furane Plastics Inc, Los Angeles	Cal
Gruenberg Electric Co Inc, Garden City	N Y
GTI Corp, Dix Engineering Div, Costa Mesa	Cal
Hull Corp, Hatboro	Pa
Kahle Engineering Co, Union City	N J
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Mateer Co, G Diehl, Wayne	Pa
Pasadena Hydraulics Inc, So El Monte	Cal
Pennsalt Chemicals Corp Equipment Div Philadelphia	Pa
Possis Machine Corp, Minneapolis	Minn
RCK, Inc, Sunnyvale	Cal
Red Point Corp, Burbank	Cal
Research Instrument Co Inc, Westbury	N Y
Solarex Mfg Co Inc, Deer Park	N Y
Solid State Equipment Corp, Philadelphia	Pa
Taylor-Winfield Corp, Warren	Ohio
Zicon Corp, Mt Vernon	N Y

MACHINES--ENGRAVING & PROFILING

Andrew Engineering Co, Minneapolis	Minn
Cosa Corp, New York	N Y
Electro-Stylus Mfg Co, Colorado Springs	Colo
Gorton Machine Corp, Racine	Wis
Green Instrument Co Inc, Cambridge	Mass
Hermes Plastics Inc, New York	N Y
Johnson & Bassett Inc, Worcester	Mass
Kuhlmann-Impex, Inc, Houston	Tex
Luma Electric Equipment Co, Toledo	Ohio
Mico Instrument Co, Cambridge	Mass
New Hermes Engraving Machine Corp, New York	N Y
Precision International Corp, Bloomfield	Conn
Preis Engraving Machine Co, H P, Hillside	N J
Scripta Machine Tool Corp, Linden	N J
Sossner Steel Stamps Inc, Long Island City	N Y
Wharton Unitools, Moosup	Conn
Wilkens Inc, Alwin Fr, Pawling	N Y

MACHINES--EYELET INSTALLING

STIMPSON CO INC, EDWIN B, BROOKLYN	**N Y**
Cimron Div LSI, San Diego	Cal
Etchomatic Inc, Waltham	Mass
Eyelet Tool Co, Cambridge	Mass
Federal Screw Products Inc, Chicago	Ill
Kepro Circuit Systems Inc, St Louis	Mo
Segal Inc, Edward, New York	N Y
Stamptronics Inc, Azusa	Cal
Stimpson Co Inc, Edwin B, Brooklyn	N Y
Townsend Co, TRS Div, Braintree	Mass
United Shoe Machinery Corp, Boston	Mass
USM Fastener Co Div United Shoe Machy Corp Shelton	Conn

MACHINES--FORMING

Alch Instrument Co, Inc, Westbury	N Y
Associated Engineering & Mfg Corp, Glen Ridge	N J
Bell-Mark Corp, Bloomfield	N J
By-Buk Co, Los Angeles	Cal
Conrac Corp, New York	N Y
Cosa Corp, New York	N Y
Di-Acro Div, Houdaille Industries Inc, Lake City	Minn
Eisler Engineering Co, Newark	N J
Feco Div Bangor Punta Operations Inc, Cleveland	Ohio
General Staple Co, New York	N Y
Heller Industries Inc, E Orange	NJ
Industrial Winding Machinery Corp, River Edge	N J
Kahle Engineering Co, Union City	N J
Niagara Machine & Tool Works, Buffalo	N Y
Peck Stow & Wilcox Co, Southington	Conn
Pico Crimping Tools Co, Santa Fe Springs	Cal
Precision Welder & Flexopress Corp, Cincinnati	Ohio
Ryerson & Son Inc, J T, Chicago	Ill
Stueck Inc, W Whitney, Old Saybrook	Conn
Taylor-Winfield Corp, Warren	Ohio

MACHINES--GLASS-WORKING

FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
Associated Engineering & Mfg Corp, Glen Ridge	N J
Bausch & Lomb, Inc, Rochester	N Y
Eisler Engineering Co, Newark	N J
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Geoscience Instruments Corp, Mt Vernon	N Y
Haydu Products Inc, Opa Locka	Fla
Henes Mfg Co, Phoenix	Ariz
Kahle Engineering Co, Union City	N J
Litton Engineering Labs, Grass Valley	Cal
Ransom Labs, John H, Los Angeles	Cal
Speedfam Corp, Des Plaines	Ill
Standard Tool & Mfg Co, Lyndhurst	N J
Trought Associates Inc, Belleville	N J
Universal Shellac & Supply Co Inc, Brooklyn	N Y

MACHINES--GRID WINDING

Kahle Engineering Co, Union City	N J

MACHINES--HERMETIC-SEALING

KYOTO CERAMIC CO LTD, NAKAGYO-KU, KYOTO	**JAPAN**
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Cryplex Industries Inc, Flushing	N Y
Eisler Engineering Co, Newark	N J
Evans Equipment Co, Brookfield	Conn
GTI Corp, Dix Engineering Div, Costa Mesa	Cal
Kahle Engineering Co, Union City	N J
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Kyoto Ceramic Co Ltd, Nakagyo-ku, Kyoto	Japan
Precision Arc Co, Stratford	Conn
Precision Welder & Flexopress Corp, Cincinnati	Ohio
RCK, Inc, Sunnyvale	Cal
Research Instrument Co Inc, Westbury	N Y
Scientific Electric Inc, Garfield	N J
Sippican Corp, Ind Prods Div, Mattapoisett	Mass
Solid State Equipment Corp, Philadelphia	Pa
Sphere Co Inc, Little Falls	N J
Zicon Corp, Mt Vernon	N Y

MACHINES--HOT STAMPING

MARKWIK CORP, SYOSSET	**N Y**
Ackerman Gould Co, Inc, Oceanside	N Y
Acromark Co, Elizabeth	N J
Apex Machine Co, Fort Lauderdale	Fla
Kingsley Machine Co, Hollywood	Cal
Manger Electric Co Inc, Stamford	Conn
Markem Machine Co, Keene	NH
Markwik Corp, Syosset	N Y
Matthews & Co Jas H, Pittsburgh	Pa
Noble & Westbrook Div, Bristol Brass Corp East Hartford	Conn
Sossner Steel Stamps Inc, Long Island City	N Y
Trought Associates Inc, Belleville	N J

MACHINES--IMPREGNATING

Associated American (Amacoil) Winding Machinery Inc New Rochelle	N Y
Barrett Co, Leon J, Worcester	Mass
Cooke Vacuum Products Inc, South Norwalk	Conn
High Vacuum Equipment Corp, Hingham	Mass
Hull Corp, Hatboro	Pa
Industrial Refrigeration Co Inc, Los Angeles	Cal
Japan Vacuum Engineering Co Ltd, Tokyo	Japan
Micafil Ltd c/o Universal, Irvington	N J
Pennsalt Chemicals Corp Equipment Div Philadelphia	Pa
Possis Machine Corp, Minneapolis	Minn
Red Point Corp, Burbank	Cal
Solarex Mfg Co Inc, Deer Park	N Y
Tenvac, Inc, Pembroke	Mass
Universal Mfg Co Inc, Irvington	N J
Vactronic Lab Equipment Inc, East Northport	N Y

MACHINES--LEAD-CUTTING & FORMING

FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
Alch Instrument Co, Inc, Westbury	N Y
By-Buk Co, Los Angeles	Cal
D-Vel Research Labs Inc, Bedford Hills	N Y
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Harwil Co, Santa Monica	Cal
Heller Industries Inc, E Orange	NJ
Manger Electric Co Inc, Stamford	Conn
Mann Co, Henry, Cornwell Heights	Pa
Monarch Industries Inc, El Segundo	Cal
Pico Crimping Tools Co, Santa Fe Springs	Cal
Product Improvement Corp, Santa Ana	Cal
REM Sales Inc, West Hartford	Conn
Technical Devices Co, Culver City	Cal
Wilkinson Co, Westlake Village	Cal
Wybar Electronics Inc, Syracuse	N Y

MACHINES--MARKING & NUMBERING

MARKWIK CORP, SYOSSET	**N Y**
Ackerman Gould Co, Inc, Oceanside	N Y
Acromark Co, Elizabeth	N J
Apex Machine Co, Fort Lauderdale	Fla
Bell-Mark Corp, Bloomfield	N J
Black & Webster Inc, Waltham	Mass
Brady Co, W H, Milwaukee	Wis
C & N Electrical Ltd, Hants	England
Eastern Marking Machine Corp, Island Park	N Y
Electro-Stylus Mfg Co, Colorado Springs	Colo
Evans Equipment Co, Brookfield	Conn
Formulabs Industrial Inks Inc, Escondido	Cal
Gillies Co Inc, Duncan M, West Boylston	Mass
Gorton Machine Corp, Racine	Wis
Halm Instrument Co Inc, Glen Head	N Y
Kimball Systems Div Litton Industries, Belleville	N J
Kingsley Machine Co, Hollywood	Cal
Kuhlmann-Impex, Inc, Houston	Tex
Manger Electric Co Inc, Stamford	Conn
Markem Machine Co, Keene	NH
Markwik Corp, Syosset	N Y
Matthews & Co Jas H, Pittsburgh	Pa
Metalphoto Corp, Cleveland	Ohio
New Hermes Engraving Machine Corp, New York	N Y
New Jersey Machine Corp, Hoboken	N J
Noble & Westbrook Div, Bristol Brass Corp East Hartford	Conn
Numberall Stamp & Tool Co, Staten Island	N Y
Popper & Sons Inc, New York	N Y
Preis Engraving Machine Co, H P, Hillside	N J
Scripta Machine Tool Corp, Linden	N J
Simplex Time Recorder Co, Gardner	Mass
Unipunch Products Inc, Buffalo	N Y
United States Machinery, Sub Geartronics Corp North Billerica	Mass

MACHINES--MEMORY-CORE HANDLING

Affiliated Manufacturers Inc, Whitehouse	N J
Allied Engineering & Production Corp, Alameda	Cal
Computer Test Corp, Cherry Hill	N J
Horex Electronics Inc, Santa Monica	Cal
Orbit Industries, Div Countis Industries San Luis Obispo	Cal

MACHINES--METALFORMING PRESSES

TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA	**N Y**
Di-Acro Div, Houdaille Industries Inc, Lake City	Minn
Fineisen Co A R, Westwood	NJ
Helm Instrument Co Inc, Toledo	Ohio
Niagara Machine & Tool Works, Buffalo	N Y
Pennsalt Chemicals Corp Equipment Div Philadelphia	Pa
Precision Welder & Flexopress Corp, Cincinnati	Ohio
REM Sales Inc, West Hartford	Conn
Ryerson & Son Inc, J T, Chicago	Ill
Stueck Inc, W Whitney, Old Saybrook	Conn
Taber Instruments A Teledyne Co North Tonawanda	N Y
Taylor-Winfield Corp, Warren	Ohio

MACHINES--METALIZING

Affiliated Manufacturers Inc, Whitehouse	N J
Airco Temescal, Berkeley	Cal
Alcatel, Paris 8eme	France
Aremco Products Inc, Briarcliff Manor	N Y
Avco Bay State Abrasives Div Indus Prods Sub Div Westboro	Mass
Bendix Vacuum Div, Rochester	N Y
Bendix Corp, Vacuum Div, Rochester	N Y
Ceramics International Corp, Mahwah	NJ
CHA Industries, Div Carl Herrmann Assoc Menlo Park	Cal
Consolidated Vacuum Corp, Rochester	N Y
Cooke Vacuum Products Inc, South Norwalk	Conn
Creare Inc, Hanover	N H
Denton Vacuum Inc, Cherry Hill	N J
Electron Beam Corp, Lynn	Mass
Energy Beams Inc, Haskell	N J
Gurnard Mfg Co Inc, Beverly	Mass
Heraeus-Engelhard Vacuum Inc, Monroeville	Pa
High Vacuum Equipment Corp, Hingham	Mass
Hugle Industries, Sunnyvale	Cal
Japan Vacuum Engineering Co Ltd, Tokyo	Japan
Kahle Engineering Co, Union City	N J
Materials Research Corp, Orangeburg	N Y
Norton Co Vacuum Equip Div, Newton	Mass
Pennsalt Chemicals Corp Equipment Div Philadelphia	Pa
Tenvac, Inc, Pembroke	Mass
T-M Vacuum Products, Riverton	N J
Vactronic Lab Equipment Inc, East Northport	N Y
Vitta Corp, Wilton	Conn

MACHINES--METAL PUNCH PRESSES

TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA	**N Y**
Di-Acro Div, Houdaille Industries Inc, Lake City	Minn
Kestler Electronics, Rosemead	Cal
Modern Mfg Co Inc, Willow Grove	Pa
M S & R Inc, Irwin	Pa
Niagara Machine & Tool Works, Buffalo	N Y
Pennsalt Chemicals Corp Equipment Div Philadelphia	Pa
Precision Welder & Flexopress Corp, Cincinnati	Ohio
Ryerson & Son Inc, J T, Chicago	Ill
Simonds Machine Co Inc, Southbridge	Mass
Strippit Div Houdaille Industries Inc, Akron	N Y
Taber Instruments A Teledyne Co North Tonawanda	N Y
Unipunch Products Inc, Buffalo	N Y

MACHINES--MICROELECTRONIC MANUFACTURING

CGS UNITS INC, ROCHESTER	**N Y**
EWALD INSTRUMENTS CORP, KENT	**CONN**
FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
FILM MICROELECTRONICS, INC, BURLINGTON	**MASS**
Affiliated Manufacturers Inc, Whitehouse	N J
Alcatel, Paris 8eme	France
Alch Instrument Co, Inc, Westbury	N Y
Alessi Industries, El Segundo	Cal
Axion Corp, Danbury	Conn
Bailey Co, Washington	D C
Bendix Corp, Vacuum Div, Rochester	N Y
Beutronics Labs Inc, Kenilworth	N J
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Burklyn Co, Los Angeles	Cal
CGS Units Inc, Rochester	N Y
Consolidated Vacuum Corp, Rochester	N Y
Electroglas Inc, Menlo Park	Cal
Elmat Div Semimetals Inc, Mountain View	Cal
Energy Beams Inc, Haskell	N J
Envirco Div Becton, Dickinson & Co, Albuquerque	N M
Evans Equipment Co, Brookfield	Conn
Ewald Instruments Corp, Kent	Conn
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Film Microelectronics, Inc, Burlington	Mass
Fineisen Co A R, Westwood	NJ
GHV Electronics, River Edge	N J
Hamilton Standard Div UAC Industrial Prods Dept Windsor Locks	Conn
Headway Research Inc, Garland	Tex
Heraeus-Engelhard Vacuum Inc, Monroeville	Pa
Hugle Industries, Sunnyvale	Cal
Infra-Red Systems Inc, Riverdale	N J
Kahle Engineering Co, Union City	N J
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Micro Tech Mfg Inc, Worcester	Mass
Norton Co Vacuum Equip Div, Newton	Mass
Nuclear Research Instruments, Berkeley	Cal
Numerical Control Corp, San Diego	Cal
Optomechanisms Inc, Plainview	N Y
Phoenix Materials Corp, Monroeville	Pa
Podgor Co Inc, Joseph E, Philadelphia	Pa
Product Improvement Corp, Santa Ana	Cal
Research Instrument Co Inc, Westbury	N Y
Siliconix Inc, Sunnyvale	Cal
Sippican Corp, Ind Prods Div, Mattapoisett	Mass
Sola-Basic Industries, Milwaukee	Wis
Solid State Equipment Corp, Philadelphia	Pa
Speedfam Corp, Des Plaines	Ill
Sunbeam Vacuum Furnace Corp, North Billerica	Mass
Texas Instruments Incorporated, Dallas	Tex
Transistor Automation A Teledyne Co, Woburn	Mass
Veeco Instruments Inc, Plainview	N Y
Visual Inspection Products, Lynn	Mass
Vitta Corp, Wilton	Conn
Weldmatic Div Unitek Corp, Monrovia	Cal
Wells Electronics Inc Equipment Div, South Bend	Ind
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh	Pa
Zicon Corp, Mt Vernon	N Y

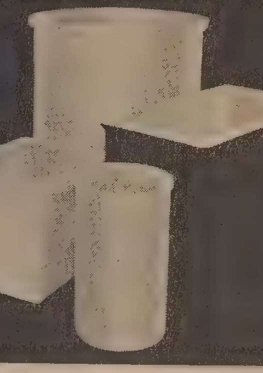
MACHINES--PACKAGING

TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA	**N Y**
Bemis Co, Inc, Minneapolis	Minn
Cryplex Industries Inc, Flushing	N Y
General Staple Co, New York	N Y
GTI Corp, Dix Engineering Div, Costa Mesa	Cal
Gurnard Mfg Co Inc, Beverly	Mass
Harwil Co, Santa Monica	Cal
Hugle Industries, Sunnyvale	Cal
Kimball Systems Div Litton Industries, Belleville	N J
Kokusai Electric Co Ltd, Tokyo	Japan
Koppers Co Inc, Pittsburgh	Pa
Kulicke & Soffa Industries Inc, Fort Washington	Pa
New Jersey Machine Corp, Hoboken	N J
Pennsalt Chemicals Corp Equipment Div Philadelphia	Pa
Schjeldahl Co, G T, Northfield	Minn
Solid State Equipment Corp, Philadelphia	Pa
Taber Instruments A Teledyne Co North Tonawanda	N Y
Trought Associates Inc, Belleville	N J

MACHINES--PLASTICS MOLDING

Aikow Shoji Kaisha Ltd, Osaka	Japan
Alden Systems, Inc, Brockton	Mass
Allied Engineering & Production Corp, Alameda	Cal
Ball Brothers Research Corp, Boulder	Colo
Cryplex Industries Inc, Flushing	N Y
DCMT Machinery Div Avnet Inc, Plainview	N Y
Essex Wire Corp Terminal Sales, Chicago	Ill
Helm Instrument Co Inc, Toledo	Ohio
Hull Corp, Hatboro	Pa
Isocyanate Products Inc, New Castle	Del
Merit Short Wave Diathermy Co, Los Angeles	Cal
Morris Enterprises Inc, Sepulveda	Cal
Moslo Machinery Co, Cleveland	Ohio
Pasadena Hydraulics Inc, So El Monte	Cal
Peeco Corp, Los Angeles	Cal
Pennsalt Chemicals Corp Equipment Div Philadelphia	Pa
Raybond Electronics Inc Div Willcox & Gibbs Inc Norwood	Mass
Sierra Electric Inc, Gardena	Cal
Slocum Industries, Inc, Reseda	Cal
Taylor-Winfield Corp, Warren	Ohio
Wabash Metal Products Co Inc, Wabash	Ind

AGILE
MOLDED POLYETHYLENE
TANKS
FOR PROCESSING PRINTED CIRCUITS



- Chemically inert—even to HF
- Rugged and leak-proof
- Easy to clean and handle
- Immediate delivery—over 120 sizes, rectangular and cylindrical, 5 to 1000 gal.
- Economical custom molding
- Write for our 16-page catalog for complete details and prices.

AGILE
NALGE COMPANY
a division of Ritter Pfaudler Corporation
83 Panorama Creek Dr., Rochester, N.Y. 14602
(716) 586-8800

MACHINES--PLATING

AGILE DIV, NALGE CO, ROCHESTER	**N Y**
OPAD ELECTRIC CO, INC, NEW YORK	**N Y**
Agile Div, Nalge Co, Rochester	N Y
Aikow Shoji Kaisha Ltd, Osaka	Japan
Allied Research Products Inc Sub Richardson Co Baltimore	Md
Darrah Electric Co Inc, Cleveland	Ohio
Enthone Inc, New Haven	Conn
EPEC Industries Inc, New Bedford	Mass
Lea-Ronal Inc, Freeport	N Y
Marlane Development Co Inc, New York	N Y
Metaplast Electrochemicals Corp, Bronx	N Y
3M Company, St Paul	Minn
M & T Chemicals Inc Sub American Can Co Rahway	N J
Opad Electric Co, Inc, New York	N Y
Pennsalt Chemicals Corp Equipment Div Philadelphia	Pa
Ramm Rectifier Co, Inc, Bronx	N Y
Ramyr Mfg Co, Buena Park	Cal
Selectrons Ltd, New York	N Y
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Sel-Rex International S A, Geneve	Switzerland
Unit Process Assemblies Inc, Woodside	N Y

EBG — one stop shopping center.

Find a product listing and advertiser's message together.

To turn off rejects of 3rd generation circuits:

Turn on Barnstead's New Micro-Cleaner

There's no better way to make micro-circuits come clean!

Barnstead's new microelectronic cleaning station provides an ultra-pure final rinse — in a totally clean environment — at minimum cost.

Write for Bulletin 211, describing this 3rd generation cleaning station.

Barnstead
Subsidiary of Ritter Pfaudler Corp.
516 Rivermoor Street
Boston, Mass. 02312

Positive-pressure hood keeps work area free of airborne contaminants, with absolute air filter; quiet, spark-free blower. Meets or exceeds applicable MIL SPECS.

Five hot, cascading pure water rinses in tinlined monel tanks do a thorough cleaning job. Final rinse, measuring 18 megohms/cm @ 25°C and free of organics, gases, biologicals — is much purer than demineralized water.

Purity meter checks quality of rinse water, both "upstream" and "downstream" from final rinse.

To make a few gallons do the work of thousands, water is continuously recirculated, repurified. System includes . . .

Demineralizer. Automatic still. Organic removal bed. 0.1 micron particle filter. Sump, protected by ultraviolet unit, Ventgard® air filter. Regenerative heat exchanger. Cuts electrical load by more than 50%

MACHINES, PRINTED CIRCUIT PRODUCTION--CLEANING EQUIPMENT

BARNSTEAD CO DIV RITTER PFAUDLER CORP, BOSTON MASS	**ADV PG 382**
KRESSILK PRODUCTS INC, ELMSFORD, N Y	**ADV PG 383**
Acoustica Associates Inc, Los Angeles	Cal
Acra Electric Corp, Schiller Park	Ill
Alcatel, Paris 8eme	France
Barnstead Co Div Ritter Pfaudler Corp, Boston	Mass
Branson Equipment Div, Clark	N J
Cobehn Inc, Fairfield	N J
Conrac Corp, New York	N Y
Dee Electric Co, Chicago	Ill
Electrovert Inc, Mt Vernon	N Y
Etchomatic Inc, Waltham	Mass
Flexible Products Inc, North St Paul	Minn
Hollis Engineering Inc, Nashua	N H
Interlab Inc, Pleasantville	N Y
Kepro Circuit Systems Inc, St Louis	Mo
Kressilk Products Inc, Elmsford	N Y
Lear Siegler Inc, Santa Monica	Cal
Lewis Corp, Woodbury	Conn
Millipore Corp, Bedford	Mass
Multisonic Cleaning Systems, Cleveland	Ohio
Oakite Products Inc, Berkeley Heights	N J
Product Improvement Corp, Santa Ana	Cal
Ramyr Mfg Co, Buena Park	Cal
Scripta Machine Tool Corp, Linden	N J
Simco Co Inc, Lansdale	Pa
Solutec Corp, St Petersburg	Fla
Techni-Tool Inc, Philadelphia	Pa
Tronic Corp, Belmont	Cal
Vapor Blast Mfg Co, Milwaukee	Wis

MACHINES, PRINTED CIRCUIT PRODUCTION--COMPONENT INSERTING EQUIPMENT

Aikow Shoji Kaisha Ltd, Osaka	Japan
Aich Instrument Co, Inc, Westbury	N Y
Barth Corp, Cleveland	Ohio
Burklyn Co, Los Angeles	Cal
Eyelet Tool Co, Cambridge	Mass
General Staple Co, New York	N Y
Mann Co, Henry, Cornwell Heights	Pa
Product Improvement Corp, Santa Ana	Cal
Ragen Precision Industries Inc, North Arlington	N J
Sandefur Engineering Co, Inc, Lawndale	Cal
Sola-Basic Industries, Milwaukee	Wis
United Shoe Machinery Corp, Boston	Mass
Universal Instruments Corp, Binghamton	N Y
Wybar Electronics Inc, Syracuse	N Y

Pain

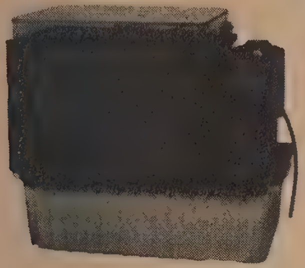
Killer.

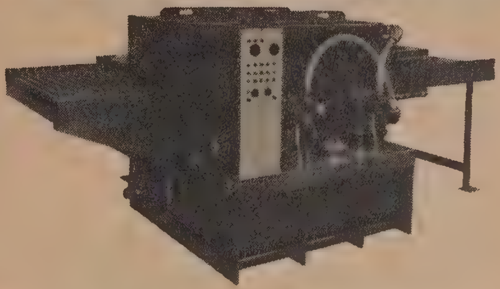
If vendors have you in a pinch and another source of supply will help, turn to the Electronics Buyers' Guide. You'll find all the information you need on over 1,363 sources of power supplies, listed under 11 headings from *AC Regulated Power Supplies to Laser Power Supplies.*

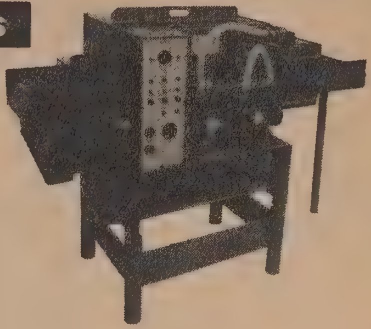
Electronics Buyers' Guide

THE QUALITY LINE OF PRINTED CIRCUIT MANUFACTURING EQUIPMENT

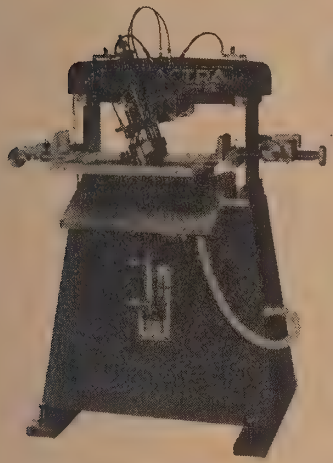
DEA "JET-SPRAY" ETCHERS

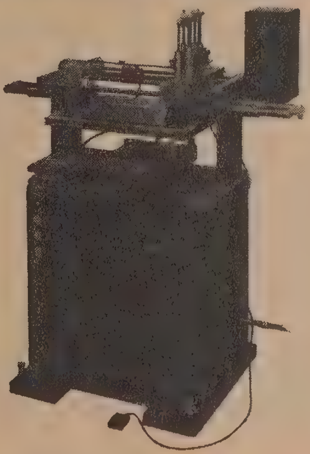




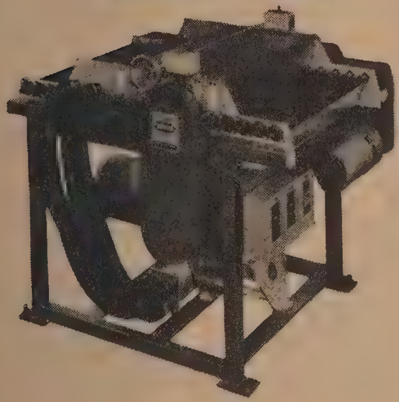


KP SCREEN PRINTERS





SOMACA



A COMPLETE LINE OF AUXILIARY EQUIPMENT AND SUPPLIES

ROLTINNER

KRESSILK is the top name for circuit board manufacturing and chemical milling equipment. Light printers, screen printers. Etchers, cleaning machines, dryers, soldering equipment, films, resists . . . all of the very highest quality manufacture and performance, backed by the KRESSILK warranty.

Write for technical bulletins and specifications

KRESSILK PRODUCTS, INC.

420 Saw Mill River Road,
Elmsford N. Y. 10523

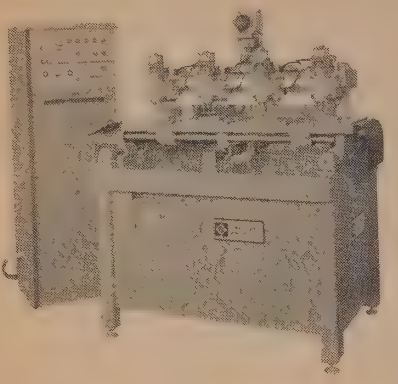
2434 Dempster St., Des Plaines, Ill.

Xylem Company
322 So. Fourth St.
Minneapolis, Minn.

Leonard W. Smith
P.O. Box 267
434 Pond Street
Westwood, Mass.

AT ALL EASTMAN KODAK STORES, INC.

SLO-SYN™
N/C
Drilling Machine



Four Precise drilling heads operate simultaneously from same n/c tape. Spindle speeds adjustable to 45,000 rpm, drilling rate to 80 cycles/min. Table driven by pre-loaded ball-nut lead screws at 100 inches/min. Solid-state n/c control has jog and manual data input for positioning without tape. Resolution .001", accuracy ±.001", repeatability within .0005". Bulletin SPS668.

THE
SUPERIOR ELECTRIC
COMPANY
1200 Middle Street
Bristol, Connecticut 06010

MACHINES, PRINTED CIRCUIT PRODUCTION--DRILLING EQUIPMENT

KRESSILK PRODUCTS INC, ELMSFORD, N Y	**ADV PG 383**
SUPERIOR ELECTRIC CO THE, BRISTOL, CONN	**ADV PG 384**
Digital Systems Inc, Covina	Cal
Diventco Inc, New Milford	Conn
Elpac Inc Controls Div, Irvine	Cal
Etchomatic Inc, Waltham	Mass
Excellon Industries Inc, Torrance	Cal
Extrudonics Inc, New Brunswick	N J
Gardner-Denver Co, Quincy	Ill
Gorton Machine Corp, Racine	Wis
Green Instrument Co Inc, Cambridge	Mass
Hydro Molding Co Inc, Plattsburgh	N Y
Kressilk Products Inc, Elmsford	N Y
Kuhlmann-Impex, Inc, Houston	Tex
Lear Siegler Inc, Santa Monica	Cal
Metal Removal Co, Chicago	Ill
New Hermes Engraving Machine Corp, New York	N Y
Optomechanisms Inc, Plainview	N Y
Preis Engraving Machine Co, H P, Hillside	N J
Ramyr Mfg Co, Buena Park	Cal
Scripta Machine Tool Corp, Linden	N J
Stocker & Yale Inc, Beverly	Mass
Superior Electric Co The, Bristol	Conn
Wilkens Inc, Alwin Fr, Pawling	N Y
Zagar Inc, Cleveland	Ohio

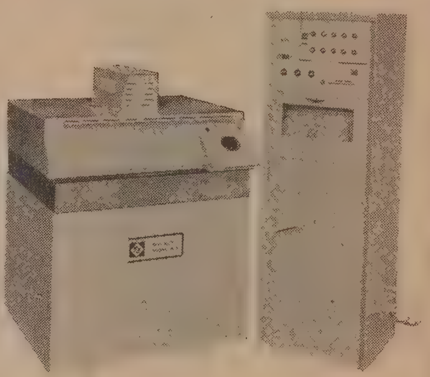
MACHINES, PRINTED CIRCUIT PRODUCTION--ETCHING EQUIPMENT

KRESSILK PRODUCTS INC, ELMSFORD, N Y	**ADV PG 383**
Acoustica Associates Inc, Los Angeles	Cal
Aikow Shoji Kaisha Ltd, Osaka	Japan
Chemcut Corp, State College	Pa
Cyclo-Tronics, Inc, Chicago	Ill
EPEC Industries Inc, New Bedford	Mass
Etchomatic Inc, Waltham	Mass
Extrudonics Inc, New Brunswick	N J
Graphic Electronics Inc, La Salle	Ill
Kepro Circuit Systems Inc, St Louis	Mo
Kressilk Products Inc, Elmsford	N Y
Materials Research Corp, Orangeburg	N Y
Ramyr Mfg Co, Buena Park	Cal
Schjeldahl Co, G T, Northfield	Minn
Seelye Plastic Fab Inc, Minneapolis	Minn
Western Technology Inc, Santa Ana	Cal

MACHINES, PRINTED CIRCUIT PRODUCTION--PRINTERS, PHOTOGRAPHIC

FILM MICROELECTRONICS, INC, BURLINGTON	**MASS**
KRESSILK PRODUCTS INC, ELMSFORD, N Y	**ADV PG 383**
SUPERIOR ELECTRIC CO THE, BRISTOL, CONN	**ADV PG 384**
Chemcut Corp, State College	Pa
Colight Inc, Minneapolis	Minn
Eastern Marking Machine Corp, Island Park	N Y
Elliott Co, B K, Pittsburgh	Pa
EPEC Industries Inc, New Bedford	Mass
Etchomatic Inc, Waltham	Mass
Film Microelectronics, Inc, Burlington	Mass
Infra-Red Systems Inc, Riverdale	N J
Kressilk Products Inc, Elmsford	N Y
Optomechanisms Inc, Plainview	N Y
Podgor Co Inc, Joseph E, Philadelphia	Pa
Ramyr Mfg Co, Buena Park	Cal
Royal Zenith Corp, New Hyde Park	N Y
Strong Electric Corp, Toledo	Ohio
Superior Electric Co The, Bristol	Conn
Visual Inspection Products, Lynn	Mass

SLO-SYN™
N/C Photo-Optical
Positioning System



Complete n/c pattern generator prepares circuit board masters or other graphic requirements from rough, grid-paper sketches. Eliminates manual artwork preparation, photo reduction and costly camera equipment. Produces finished positive or negative copies on film up to 12" x 18" from simple taped program. Use also for schematics, integrated circuit and inspection shadowgraph masters. Bulletin SPS668.

THE
SUPERIOR ELECTRIC
COMPANY
1200 Middle Street
Bristol, Connecticut 06010

MACHINES, PRINTED CIRCUIT PRODUCTION--PRINTERS, SILK SCREEN

KRESSILK PRODUCTS INC, ELMSFORD, N Y	**ADV PG 383**
Ackerman Gould Co, Inc, Oceanside	N Y
Affiliated Manufacturers Inc, Whitehouse	N J
Aremco Products Inc, Briarcliff Manor	N Y
Colonial Printing Ink Co, East Rutherford	NJ
Dry Screen Process Inc, Pittsburgh	Pa
Eastern Marking Machine Corp, Island Park	N Y
Etchomatic Inc, Waltham	Mass
General Research Inc, Sparta	Mich
Infra-Red Systems Inc, Riverdale	N J
Kepro Circuit Systems Inc, St Louis	Mo
Kressilk Products Inc, Elmsford	N Y
Lambert Co, Inc, Boston	Mass
Naz-Dar Co, Chicago	Ill
Podgor Co Inc, Joseph E, Philadelphia	Pa
Precision Systems Co, Inc, Somerville	NJ
Tekni-Labels Co, Van Nuys	Cal
Wyrco Projects Inc, Owego	N Y

MACHINES, PRINTED CIRCUIT PRODUCTION--PUNCHING EQUIPMENT

Di-Acro Div, Houdaille Industries Inc, Lake City	Minn
Extrudonics Inc, New Brunswick	N J
Strippit Div Houdaille Industries Inc, Akron	N Y
Unipunch Products Inc, Buffalo	N Y

MACHINES, RESISTOR MANUFACTURING--ASSEMBLY

FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
Affiliated Manufacturers Inc, Whitehouse	N J
Alessi Industries, El Segundo	Cal
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Halm Instrument Co Inc, Glen Head	N Y
Kahle Engineering Co, Union City	N J
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Precision Welder & Flexopress Corp, Cincinnati	Ohio
Research Instrument Co Inc, Westbury	N Y
Sierra Electric Inc, Gardena	Cal
Universal Instruments Corp, Binghamton	N Y

MACHINES, RESISTOR MANUFACTURING--SORTING

Advanced Technology & Systems Corp Old Greenwich	Conn
Affiliated Manufacturers Inc, Whitehouse	N J
Alessi Industries, El Segundo	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Davidson Electronic Development Co, Erie	Pa
Daymarc Corp, Waltham	Mass
Evans Equipment Co, Brookfield	Conn
GHV Electronics, River Edge	N J
Heller Industries Inc, E Orange	NJ
Numerical Control Corp, San Diego	Cal
Universal Instruments Corp, Binghamton	N Y

MACHINES, RESISTOR MANUFACTURING--WINDING

COIL WINDING EQUIPMENT CO, OYSTER BAY	**N Y**
Coil Winding Equipment Co, Oyster Bay	N Y
Industrial Winding Machinery Corp, River Edge	N J
Micafil Ltd c/o Universal, Irvington	N J
Micro Ohm Corp, El Monte	Cal
Stevens Mfg Co Inc, Geo, Chicago	Ill

MACHINES--SEMICONDUCTOR CRYSTAL PRODUCTION

Allen-Jones Electronics Corp, Gardena	Cal
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Elmat Div Semimetals Inc, Mountain View	Cal
Evans Equipment Co, Brookfield	Conn
Futurecraft Corp, City of Industry	Cal
Geoscience Instruments Corp, Mt Vernon	N Y
Hugle Industries, Sunnyvale	Cal
Kahle Engineering Co, Union City	N J
Kokusai Electric Co Ltd, Tokyo	Japan
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Phoenix Materials Corp, Monroeville	Pa
Research Instrument Co Inc, Westbury	N Y
Speedfam Corp, Des Plaines	Ill
Universal Shellac & Supply Co Inc, Brooklyn	N Y

MACHINES--SEMICONDUCTOR DIE & WIRE BONDING

EWALD INSTRUMENTS CORP, KENT	**CONN**
FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
Axion Corp, Danbury	Conn
Evans Equipment Co, Brookfield	Conn
Ewald Instruments Corp, Kent	Conn
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Hughes Aircraft Co, Newport Beach	Cal

Hugle Industries, Sunnyvale	Cal
Hydro Molding Co Inc, Plattsburgh	N Y
Kokusai Electric Co Ltd, Tokyo	Japan
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Micro Tech Mfg Inc, Worcester	Mass
Siliconix Inc, Sunnyvale	Cal
Sola-Basic Industries, Milwaukee	Wis
Weldmatic Div Unitek Corp, Monrovia	Cal
Wells Electronics Inc Equipment Div, South Bend	Ind

MACHINES--SHOCK-TESTING

BLUE M ENGINEERING CO, BLUE ISLAND	**ILL**
Alch Instrument Co, Inc, Westbury	N Y
Barry Controls Div Barry Wright Corp, Watertown	Mass
Blue M Engineering Co, Blue Island	Ill
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
EMR-Hatboro Div Weston Insts Inc, Hatboro	Pa
Endevco Corp, Pasadena	Cal
Evans Equipment Co, Brookfield	Conn
Jan Hardware Mfg Co Inc, Long Island City	N Y
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs	Colo
L A B Corp, Skaneateles	N Y
Ling Electronics Div LTV Altec Inc, Anaheim	Cal

MACHINES--SOLDERING (EXCEPT DIP-SOLDERING)

CIRCON COMPONENT CORP, GOLETA, CAL	**ADV PG 332**
FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE, N J	**ADV PG 385**
KRESSILK PRODUCTS INC, ELMSFORD	**N Y**
LEESONA CORP, COIL WINDING MACHINE DIV DANBURY	**CONN**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
Aviation Electric Ltd, St Laurent, Montreal	Que
Cimron Div LSI, San Diego	Cal
Circon Component Corp, Goleta	Cal
Crown Engineering & Sales Co, Harrison	N J
Dee Electric Co, Chicago	Ill
Development Associates Controls, Santa Barbara	Cal
Electrovert Inc, Mt Vernon	N Y
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Forney Industries Inc, Fort Collins	Colo
Henes Mfg Co, Phoenix	Ariz
Hollis Engineering Inc, Nashua	N H
Hughes Aircraft Co Welder Dept, Oceanside	Cal
Kahle Engineering Co, Union City	N J
Kressilk Products Inc, Elmsford	N Y
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Leesona Corp, Coil Winding Machine Div Danbury	Conn
MacDonald & Co, Glendale	Cal
Mann Co, Henry, Cornwell Heights	Pa
Mechanical Technology Inc, Latham	N Y
Patton-MacGuyer Co, Providence	R I
Pentronics Corp, Dorchester	Mass
Raychem Corp, Menlo Park	Cal
Scientific Electric Inc, Garfield	N J
Seven Associates Inc, Sunnyvale	Cal
Sippican Corp, Ind Prods Div, Mattapoisett	Mass
Taylor-Winfield Corp, Warren	Ohio
Texas Instruments Incorporated, Dallas	Tex
Texas Instruments Inc Indl Prods Div, Houston	Tex
Varo Inc, Garland	Tex
Virginia Electronics Co Inc, Falls Church	Va
Weldmatic Div Unitek Corp, Monrovia	Cal
Wells Electronics Inc Equipment Div, South Bend	Ind
Wenesco Inc, Chicago	Ill

MACHINES--SORTING (EXCEPT CRYSTAL CAPACITOR & RESISTOR)

BARNES CORP, LANSDOWNE	**PA**
Affiliated Manufacturers Inc, Whitehouse	N J
Barnes Corp, Lansdowne	Pa
Beckman Instruments Inc, Fullerton	Cal
B & T Systems Div, Haverhill	Mass
Daymarc Corp, Waltham	Mass
Evans Equipment Co, Brookfield	Conn
Kokusai Electric Co Ltd, Tokyo	Japan
Mandrel Industries Inc, Houston	Tex
Numerical Control Corp, San Diego	Cal
Ramic Corp, Medford	Ore
Self-Organizing Systems Inc, Dallas	Tex
Transistor Automation A Teledyne Co, Woburn	Mass
Trought Associates Inc, Belleville	N J
Tyler Co, W S, Mentor	Ohio

MACHINES--TERMINAL-INSTALLING

AMP INCORPORATED, HARRISBURG, PA	**ADV PG 385**
BURNDY CORP, NORWALK	**CONN**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
AMP Incorporated, Harrisburg	Pa
Ark-Les Switch Corp, Watertown	Mass
Artos Engineering Co, New Berlin	Wis
Black & Webster Inc, Waltham	Mass
Burklyn Co, Los Angeles	Cal
Burndy Corp, Norwalk	Conn
Cambridge Thermionic Corp, Cambridge	Mass
D-Cemco Inc, Burbank	Cal
Douglas Div Kingston Products Corp, Bronson	Mich
Electric Terminal Corp, Warwick	R I
Essex Wire Corp Terminal Sales, Chicago	Ill
ETC Inc, Cleveland	Ohio
Ewing Products Inc, Burbank	Cal
Eyelet Tool Co, Cambridge	Mass
General Staple Co, New York	N Y
Kent Corp, Mundelein	Ill
Molex Products Co, Downers Grove	Ill
Panther Electronics Inc, Burbank	Cal
Patton-MacGuyer Co, Providence	R I
Product Improvement Corp, Santa Ana	Cal
Segal Inc, Edward, New York	N Y
Sphere Co Inc, Little Falls	N J
Thomas & Betts Co Inc, Elizabeth	N J
Townsend Co, TRS Div, Braintree	Mass
Transitron Electronic Corp, Wakefield	Mass
Universal Instruments Corp, Binghamton	N Y
Vector Electronic Co Inc, Los Angeles	Cal
Waldom Electronics Inc, Chicago	Ill

MACHINES—TOROID-WINDING SEE MACHINES—COIL-WINDING

MACHINES--TUBE (ELECTRON) MANUFACTURING

FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
Associated Engineering & Mfg Corp, Glen Ridge	N J
Bendix Corp, Vacuum Div, Rochester	N Y
Eisler Engineering Co, Newark	N J
Energy Beams Inc, Haskell	N J
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Hamilton Standard Div UAC Industrial Prods Dept Windsor Locks	Conn
Kahle Engineering Co, Union City	N J
Kobe Industries Corp, Kobe	Japan
Pioneer Machine Works Inc, West New York	N J
Scientific Electric Inc, Garfield	N J

MACHINES--VIBRATION TESTING

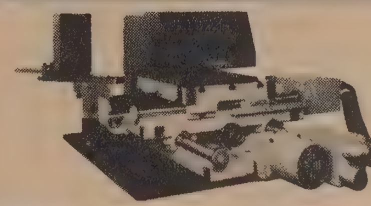
Agac-Derritron Inc, Alexandria	Va
Alch Instrument Co, Inc, Westbury	N Y
All American Tool & Mfg Co Inc, Skokie	Ill
Carco Electronics, Menlo Park	Cal
Dytronics Co Inc, Columbus	Ohio
EMR-Hatboro Div Weston Insts Inc, Hatboro	Pa
Geoscience Instruments Corp, Mt Vernon	N Y
Kokusai Electric Co Ltd, Tokyo	Japan
L A B Corp, Skaneateles	N Y
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
MB Electronics A Textron Co, New Haven	Conn
Ormond, Inc, Santa Fe Springs	Cal
Precision Systems Corp, Columbus	Ohio
Unholtz-Dickie Corp, Hamden	Conn
Vari Tech Co, Grand Rapids	Mich
Wyle Laboratories, El Segundo	Cal

MACHINES--WELDING COMPONENT CASE & CAN

FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
SORENSEN OPERATION, RAYTHEON CO., NORWALK	**CONN**
Ace-Sycamore Inc, Sycamore	Ill
Energy Beams Inc, Haskell	N J
Evans Equipment Co, Brookfield	Conn
Falstrom Co, Passaic	N J
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Forney Industries Inc, Fort Collins	Colo
Hamilton Standard Div UAC Industrial Prods Dept Windsor Locks	Conn
Hughes Aircraft Co Welder Dept, Oceanside	Cal
Kahle Engineering Co, Union City	N J
Kulicke & Soffa Industries Inc, Fort Washington	Pa
National Electric Welding Machines Co, Bay City	Mich
Numerical Control Corp, San Diego	Cal
Precision Arc Co, Stratford	Conn
Precision Welder & Flexopress Corp, Cincinnati	Ohio
Scully International Inc, Downers Grove	Ill
Silver & Assoc Inc G H, Newtonville	Mass
Sippican Corp, Ind Prods Div, Mattapoisett	Mass
Solid State Equipment Corp, Philadelphia	Pa
Sorensen Operation, Raytheon Co., Norwalk	Conn
Taylor-Winfield Corp, Warren	Ohio
Thomson Electric Welder Co Inc, Lynn	Mass
Weldmatic Div Unitek Corp, Monrovia	Cal

INFRARED
FLAT PACK REFLOW SOLDERING MACHINES

. . . the fastest, most reliable method for soldering miniature and microminiature flat packs to printed circuit boards.



Available with varying degrees of mechanization — from fully automatic tape controlled to manually operated — all models attach packs one at a time by reflowing solder on the leads and the mating board. All leads soldered simultaneously, on packs up to 1/2" square, in three seconds or less.

Five models to choose from to accommodate every production requirement and every budget.

Write for illustrated technical brochure.

FEDERAL TOOL ENGINEERING CO.
1384 Pompton Ave., Cedar Grove, N. J. 07009

AUTOMATIC CRIMPING MACHINES

A precision-crimping tool is the only assurance of uniform, high-quality circuit connections time after time. AMP's concept of matching tool and terminal has resulted in a precision crimp with maximum tensile strength and electrical conductivity. From hand tools for small quantity production to high-speed automatic crimping machines capable of making 11,400 terminations per hour, AMP's crimping method is precise and dependable.

DISTRICT OFFICES

MID-ATLANTIC
Camden, N.J. 08102
(609) WOodlawn 4-5955

EASTERN
Stratford, Conn. 06497
(203) DRexel 8-2691

SOUTHERN PACIFIC
Hawthorne,
Calif. 90250
(213) 675-1186 and
772-4261
TWX: 213-647-5125

NORTHERN PACIFIC
Palo Alto, Calif. 94303
(415) 321-6292
TWX: 415-492-9447

CENTRAL
Columbus, Ohio 43212
(614) 486-0276

MID-WESTERN
Chicago, Ill. 60630
(312) SPring 4-1800
TWX: 312-265-1195

SOUTHERN
Atlanta, Ga. 30054
(404) 261-4151
or 4152

WORLD HEADQUARTERS
Harrisburg, Pa. 17105
(717) 564-0101
TWX: 717-564-4103

AMP
INCORPORATED
Harrisburg Pennsylvania

MACHINES, WIRE PROCESSING-- CUTTING

Advanced Technology & Systems Corp Old Greenwich	Conn
Artos Engineering Co, New Berlin	Wis
Compton Industries, Inc, Vestal	N Y
Conrac Corp, New York	N Y
Eraser Co Inc, Syracuse	NY
Eubanks Engineering Co, Monrovia	Cal
Foster & Allen Inc, Chatham	N J
Heller Industries Inc, E Orange	NJ
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Ideal Industries Inc, Sycamore	Ill
Industrial Winding Machinery Corp, River Edge	N J
Kahle Engineering Co, Union City	N J
Kent Corp, Mundelein	Ill
Kingsley Machine Co, Hollywood	Cal
MacDonald & Co, Glendale	Cal
Manger Electric Co Inc, Stamford	Conn
Mann Co, Henry, Cornwell Heights	Pa
Measuring Instrument Controls Inc Berkeley Heights	N J
Monarch Industries Inc, El Segundo	Cal
Nelson Electronic Labs Inc, Plano	Tex
Precision Welder & Flexopress Corp, Cincinnati	Ohio
Product Improvement Corp, Santa Ana	Cal
REM Sales Inc, West Hartford	Conn
Sheltered Workshops Inc, Santa Monica	Cal
Technical Devices Co, Culver City	Cal
Western Electronic Products Co, San Clemente	Cal

MACHINES, WIRE PROCESSING-- MARKING

MARKWIK CORP, SYOSSET	**N Y**
Ackerman Gould Co, Inc, Oceanside	N Y
Acromark Co, Elizabeth	N J
Apex Machine Co, Fort Lauderdale	Fla
Artos Engineering Co, New Berlin	Wis
Brady Co, W H, Milwaukee	Wis
Conrac Corp, New York	N Y
Eubanks Engineering Co, Monrovia	Cal
Formulabs Industrial Inks Inc, Escondido	Cal
Gillies Co Inc, Duncan M, West Boylston	Mass
Kingsley Machine Co, Hollywood	Cal
Manger Electric Co Inc, Stamford	Conn
Markem Machine Co, Keene	NH
Markwik Corp, Syosset	N Y
Matthews & Co Jas H, Pittsburgh	Pa
Nelson Electronic Labs Inc, Plano	Tex
New Jersey Machine Corp, Hoboken	N J
Possis Machine Corp, Minneapolis	Minn
Sossner Steel Stamps Inc, Long Island City	N Y
United States Machinery, Sub Geartronics Corp North Billerica	Mass

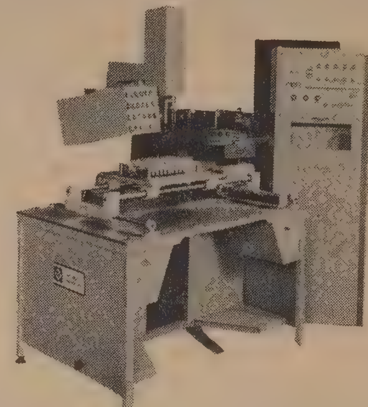
MACHINES, WIRE PROCESSING-- MEASURING

BIRNBACH CO INC, FREEPORT	**N Y**
Artos Engineering Co, New Berlin	Wis
Birnbach Co Inc, Freeport	N Y
Conrac Corp, New York	N Y
E N M Co, Chicago	Ill
Eubanks Engineering Co, Monrovia	Cal
Formulabs Industrial Inks Inc, Escondido	Cal
General Cable Corp, New York	N Y
Heller Industries Inc, E Orange	NJ
Hy-Kon Mfg Co, Alliance	Ohio
Industrial Winding Machinery Corp, River Edge	N J
Innes Instruments, Pasadena	Cal
Kent Corp, Mundelein	Ill
MacDonald & Co, Glendale	Cal
Manger Electric Co Inc, Stamford	Conn
Measuring Instrument Controls Inc Berkeley Heights	N J
Muirhead Instruments Inc, Mountainside	N J
Olympic Instruments Inc, Vashon	Wash
Ovitron Corp Industrial Syst Div, Cheshire	Conn
United States Machinery, Sub Geartronics Corp North Billerica	Mass
Western Electronic Products Co, San Clemente	Cal

MACHINES, WIRE PROCESSING--STRIPPING SEE STRIPPERS

MACHINES, WIRE PROCESSING--TIN REFLOWING, STRANDED WIRE

Eubanks Engineering Co, Monrovia	Cal
Measuring Instrument Controls Inc Berkeley Heights	N J
Product Improvement Corp, Santa Ana	Cal
Reeve Electronics Inc, Chicago	Ill
Taylor-Winfield Corp, Warren	Ohio



SLO-SYN™

N/C Wire Terminating Machine

Provides fast, accurate numerically controlled positioning of back plane connector assemblies for semi-automatic wire wrapping. Accommodates all standard wire-wrap guns plus AMP Termi-Point clip-on connections. Over 500 wire terminations per hour can be made. Storage for up to 30 wire choices with automatic selector lights. Table has 16" x 18" travel, 100 inches/min. speed. Bulletin SPS668.

THE SUPERIOR ELECTRIC COMPANY
1200 Middle Street
Bristol, Connecticut 06010

MACHINES--WRAPPING

SUPERIOR ELECTRIC CO THE, BRISTOL, CONN	**ADV PG 386**
Dodge Industries, Hoosick Falls	N Y
Gardner-Denver Co, Quincy	Ill
Hedquist Machine & Tool Co, Mountain View	Cal
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Industrial Winding Machinery Corp, River Edge	N J
Product Improvement Corp, Santa Ana	Cal
Superior Electric Co The, Bristol	Conn
United States Machinery, Sub Geartronics Corp North Billerica	Mass

MAGNESIUM

Anadite, Inc, South Gate	Cal
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Baker Chemical Co, J T, Phillipsburg	N J
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bram Metallurgical Chemical Co, Philadelphia	Pa
Brooks & Perkins Inc, Detroit	Mich
Cerac Inc, Butler	Wis
City Chemical Corp, New York	N Y
Dow Chemical Co, Midland	Mich
Electronic Space Products Inc, Los Angeles	Cal
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Metal Ceram Inc, Mount Vernon	N Y
Semi-Alloys Inc, Mt Vernon	N Y
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Electronics Corp, Bradford	Pa

MAGNESIUM OXIDE

AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
Aceto Chemical Co, Inc, Flushing	NY
Aluminum Co of America, Pittsburgh	Pa
American Lava Corp, Chattanooga	Tenn
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Baker Chemical Co, J T, Phillipsburg	N J
Carborundum Co Electrical & Elctns Br, Niagara Falls	NY
Cerac Inc, Butler	Wis
City Chemical Corp, New York	N Y
Dow Chemical Co, Midland	Mich
Electronic Space Products Inc, Los Angeles	Cal
Geoscience Instruments Corp, Mt Vernon	N Y
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Mallinckrodt Chemical Works, St Louis	Mo
Meller Co, Adolf, Providence	R I
Michigan Chemical Corp, Chicago	Ill
National Beryllia Corp, Haskell	N J
Norton Co, Worcester	Mass
Pyrometer Co of America Inc, Penndel	Pa
Saxonburg Ceramics Inc, Pittsburgh	Pa
Thermal American Fused Quartz Co, Montville	N J
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Vitro Labs Div Vitro Corp of America, W Orange	N J

MAGNET CHARGERS

BELL, INC F W, COLUMBUS	**OHIO**
INDIANA GENERAL CORP MAGNET DIV, VALPARAISO	**IND**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH COVER**
Automatic Equipment Corp, Cincinnati	Ohio
Bell, Inc F W, Columbus	Ohio
Coil Co of America Inc, Northvale	N J
Electronic Brazing Co, Montclair	N J
Hirst Electric Industries Ltd, Crawley, Sussex	England
Indiana General Corp Magnet Div, Valparaiso	Ind
JaMac Products Co, Portland	Ore
Kepco Inc, Flushing	N Y
Permanent Magnet Co Inc, Indianapolis	Ind
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
RFL Industries Inc, Instrumentation Div, Boonton	N J
Thomas & Skinner Inc, Indianapolis	Ind

MAGNETIC ALLOYS SEE ALLOYS; MAGNETS--PERMANENT

MAGNETIC AMPLIFIERS CIRCUIT DEMONSTRATORS SEE DEMONSTRATORS

MAGNETIC AMPLIFIERS SEE AMPLIFIERS--MAGNETIC

MAGNETIC ANALYSIS EQUIPMENT

BELL, INC F W, COLUMBUS	**OHIO**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INDIANA GENERAL CORP MAGNET DIV, VALPARAISO	**IND**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
Acoustronics Inc, Huntington	N Y
Alpha Scientific Labs Inc, Oakland	Cal
Bell, Inc F W, Columbus	Ohio
Borg-Warner Controls Div Borg-Warner Corp Santa Ana	Cal
C B S Labs Div Columbia Bdcstg Sys Inc Stamford	Conn
Computer Test Corp, Cherry Hill	N J
Don Bosco Electronics Inc, Hanover	N J
Electro-Mechanics Co, Austin	Tex
Empire Scientific Corp, Garden City	N Y
General Kinetics Inc, Reston	Va
Genisco Technology Corp, Compton	Cal
Hallmark Standards Inc, Mamaroneck	N Y
Hewlett-Packard, Palo Alto	Cal
Ikor, Inc, Burlington	Mass
Indiana General Corp Magnet Div, Valparaiso	Ind
Irwin Labs Inc, Los Angeles	Cal
Magnaflux Corp, Chicago	Ill
MVR Corp, Palo Alto	Cal
Ogallala Electronics Mfg Inc, Ogallala	Nebr
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Rawson-Lush Instrument Co Inc, Acton	Mass
RFL Industries Inc, Instrumentation Div, Boonton	N J
R F S Engineering Co, Philadelphia	Pa
Scientific-Atlanta Inc, Atlanta	Ga
Systems Research Labs Inc, Dayton	Ohio
Thomas & Skinner Inc, Indianapolis	Ind
Varian, Palo Alto	Cal

MAGNETIC BRAKES SEE BRAKES--MAGNETIC

MAGNETIC CLUTCHES SEE CLUTCHES--MAGNETIC

MAGNETIC CORES SEE CORES

MAGNETIC-DRUM RECORDERS SEE RECORDERS--DRUM, MAGNETIC

MAGNETIC DRUMS SEE MEMORIES--COMPUTER

MAGNETIC FILM SEE TAPES--MAGNETIC RECORDING

MAGNETIC FILM RECORDERS SEE RECORDERS--FILM

MAGNETIC FLUXMETERS SEE FLUXMETERS

MAGNETIC FOIL SEE FOIL--MAGNETIC

MAGNETIC TAPE SEE TAPES--MAGNETIC RECORDING

MAGNETIC TAPE CONTROLS--MACHINE TOOL SEE CONTROLS--MACHINE TOOL

MAGNETIC TAPE ERASERS--BULK SEE ERASERS

MAGNETIC TAPE MEMORIES SEE MEMORIES--COMPUTER

MAGNETIC TAPE PLAYERS SEE PLAYERS--MAGNETIC TAPE

MAGNETIC TAPE RECORDERS SEE RECORDERS--MAGNETIC TAPE

MAGNETIC TAPE REELS SEE REELS

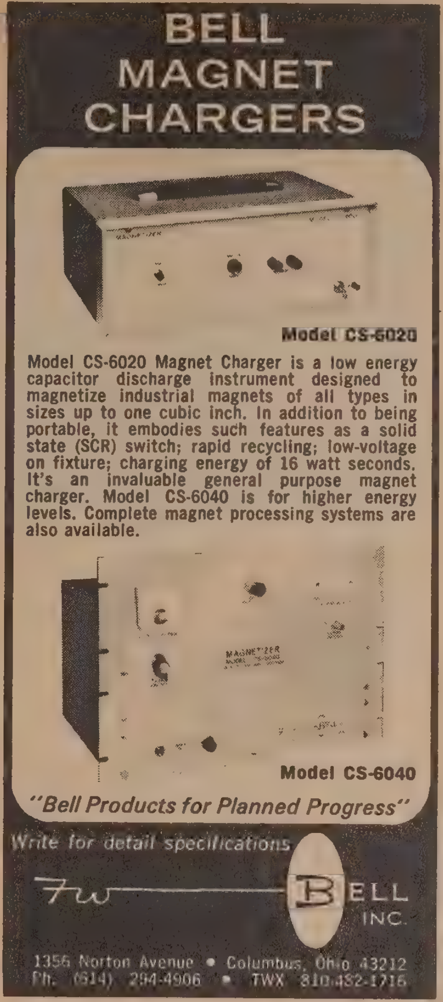
MAGNETIC TAPE SPLICERS SEE SPLICERS

MAGNETIZERS

BELL, INC F W, COLUMBUS, OHIO	**ADV PG 387**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
INDIANA GENERAL CORP MAGNET DIV, VALPARAISO	**IND**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH COVER**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PERMAG CORP, JAMAICA	**N Y**
Automatic Equipment Corp, Cincinnati	Ohio
Bell, Inc F W, Columbus	Ohio
Canadian Research Institute, Don Mills	Ont
Coil Co of America Inc, Northvale	N J
Crucible Steel Co, Pittsburgh	Pa
Crucible Steel Co Magnet Div, Elizabethtown	Ky
Dura Magnetics, Inc, Sylvania	Ohio
General Electric Co, ECSO, Schenectady	N Y
General Electric Co Magnetic Matls Bus Sect Edmore	Mich
Gilardoni S p A, Mandello Lario Como	Italy
Hirst Electric Industries Ltd, Crawley, Sussex	England
Indiana General Corp Magnet Div, Valparaiso	Ind
JaMac Products Co, Portland	Ore
Kepco Inc, Flushing	N Y
Magnaflux Corp, Chicago	Ill
Magnetic Technology Inc, Canoga Park	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Ogallala Electronics Mfg Inc, Ogallala	Nebr
Permag Corp, Jamaica	N Y
Permanent Magnet Co Inc, Indianapolis	Ind
Phelon Co Inc, R E, East Longmeadow	Mass
Photron Instrument Co, Cleveland	Ohio
Qutronic Transformer Corp, Oneonta	N Y
RFL Industries Inc, Instrumentation Div, Boonton	N J
Shester Engineering Co Inc, Culver City	Cal
Skyway Magnetics, Inglewood	Cal
Thomas & Skinner Inc, Indianapolis	Ind

MAGNETOMETERS

BELL, INC F W, COLUMBUS	**OHIO**
HEWLETT-PACKARD, PALO ALTO	**CAL**
American Astrionics Inc, Palo Alto	Cal
Barringer Research Ltd, Rexdale	Ontario
Bell, Inc F W, Columbus	Ohio
California Electronic Mfg Co Inc, Alamo	Cal
Central Scientific Co, Chicago	Ill
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dinsmore Instrument Co, Flint	Mich
Electro-Mechanics Co, Austin	Tex
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Gammatronix Inc, Dublin	Ohio
Hewlett-Packard, Palo Alto	Cal
Ikor, Inc, Burlington	Mass
Irwin Labs Inc, Los Angeles	Cal
Magnaflux Corp, Chicago	Ill
Ohio Semitronics Inc, Columbus	Ohio
Oki Electric Industry Co Ltd, Tokyo	Japan
Princeton Applied Research Corp, Princeton	N J
Rawson-Lush Instrument Co Inc, Acton	Mass
Research Associates Inc, Linden	N J
Schonstedt Instrument Co, Silver Spring	Md
Sharpe Instruments Div Scintrex Inc, Buffalo	NY
Sparton Electronics, Jackson	Mich
States Electronics Corp, Bludworth Marine Div Linden	N J
Texas Instruments Incorporated, Dallas	Tex
Varian, Palo Alto	Cal


BELL MAGNET CHARGERS

Model CS-6020

Model CS-6020 Magnet Charger is a low energy capacitor discharge instrument designed to magnetize industrial magnets of all types in sizes up to one cubic inch. In addition to being portable, it embodies such features as a solid state (SCR) switch; rapid recycling; low-voltage on fixture; charging energy of 16 watt seconds. It's an invaluable general purpose magnet charger. Model CS-6040 is for higher energy levels. Complete magnet processing systems are also available.

Model CS-6040

"Bell Products for Planned Progress"

Write for detail specifications

FW BELL INC.

1356 Norton Avenue • Columbus, Ohio 43212
Ph. (614) 294-4906 • TWX 810-482-1716

MAGNETOSTRICTIVE TRANSDUCERS SEE ULTRASONIC EQUIPMENT

MAGNETRONS SEE TUBES--MICROWAVE

MAGNETS--ELECTRO

INDIANA GENERAL CORP MAGNET DIV, VALPARAISO IND	**ADV PG 388**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
TOHOKU METAL INDUSTRIES, LTD, TOKYO	**JAPAN**
Ace Coil & Electronics Co, Metuchen	N J
Advanced Kinetics, Inc, Costa Mesa	Cal
Alpha Scientific Labs Inc, Oakland	Cal
Arnold Engineering Co, Marengo	Ill
Atomic Labs, Div Cenco Instr Corp, Chicago	Ill
Automatic Equipment Corp, Cincinnati	Ohio
Bruker Scientific Inc, Irvington-on-Hudson	N Y
Brys Instrument Corp, Brooklyn	N Y
Central Scientific Co, Chicago	Ill
Coil Co of America Inc, Northvale	N J
Component Specialties Corp, Temple City	Cal
Daylen Co, South Gate	Cal
DoAll Co, Des Plaines	Ill
Fleishman Electric Co, Clifton	N J
Gardner Cryogenics Corp, Bethlehem	Pa
High Voltage Engineering Corp, Burlington	Mass
Indiana General Corp Magnet Div, Valparaiso	Ind
Litton Industries, Electron Tube Div, San Carlos	Cal
North Hills Electronics Inc, Glen Cove	N Y
Nuclide Corp, AGV Div, Acton	Mass
Ogallala Electronics Mfg Inc, Ogallala	Nebr
Pacific Electric Motor Co, Oakland	Cal
Permanent Magnet Co Inc, Indianapolis	Ind
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Physicon Co, Boston	Mass
Quantum Electronics Corp, San Ramon	Cal
Renco Electronics Inc, Hicksville	N Y
Shester Engineering Co Inc, Culver City	Cal
S K G Associates Inc, Boston	Mass
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Tohoku Metal Industries, Ltd, Tokyo	Japan
Universal Precision, Inc, Endicott	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Varian, Palo Alto	Cal
Ventron Instruments Corp Magnion Div, Burlington	Mass
Westinghouse Electric Corp, Cryogenic Systems Pittsburgh	Pa
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh	Pa

MAGNETS, PERMANENT--ALNICO POWDER

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
INDIANA GENERAL CORP MAGNET DIV, VALPARAISO	**IND**
PERMAG CORP, JAMAICA	**N Y**
TOHOKU METAL INDUSTRIES, LTD, TOKYO	**JAPAN**
Arnold Engineering Co, Marengo	Ill
Automatic Equipment Corp, Cincinnati	Ohio
Bram Metallurgical Chemical Co, Philadelphia	Pa
Crucible Steel Co, Pittsburgh	Pa
Crucible Steel Co Magnet Div, Elizabethtown	Ky
Dura Magnetics, Inc, Sylvania	Ohio
General Electric Co, ECSO, Schenectady	N Y
Indiana General Corp Magnet Div, Valparaiso	Ind
Nuclide Corp, AGV Div, Acton	Mass
Permag Corp, Jamaica	N Y
Permanent Magnet Co Inc, Indianapolis	Ind
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Roxter Corp, Long Island City	N Y
Tohoku Metal Industries, Ltd, Tokyo	Japan

MAGNETS, PERMANENT--ALLOYS (EXCEPT ALNICO)

GENERAL ELECTRIC CO, ECSO, SCHENECTADY	**N Y**
INDIANA GENERAL CORP MAGNET DIV, VALPARAISO	**IND**
PERMAG CORP, JAMAICA	**N Y**
Aristo-Craft Distinctive Miniatures, New York	N Y
Arnold Engineering Co, Marengo	Ill
Automatic Equipment Corp, Cincinnati	Ohio
Barker Sales Co, Ridgefield	NJ
Bram Metallurgical Chemical Co, Philadelphia	Pa
Crucible Steel Co, Pittsburgh	Pa
Dura Magnetics, Inc, Sylvania	Ohio
Electronic Applications Co, Pine Brook	N J
Ferricore Div Natl Moldite Co Inc, Newark	N J
Ferroxcube Corp, Saugerties	N Y
General Electric Co, ECSO, Schenectady	N Y
General Electric Co Magnetic Matls Bus Sect Edmore	Mich
Hoskins Mfg Co, Detroit	Mich
Indiana General Corp Magnet Div, Valparaiso	Ind
Magno-Ceram Co, Plainfield	N J
Mullard Ltd, London, WC 1	Eng
National Moldite Co Inc, Newark	N J
Nuclide Corp, AGV Div, Acton	Mass
Permag Corp, Jamaica	N Y
Permanent Magnet Co Inc, Indianapolis	Ind
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Sumitomo Special Metals Co Ltd, Osaka	Japan
Thomas & Skinner Inc, Indianapolis	Ind

MAGNETS, PERMANENT--BARIUM FERRITE POWDER

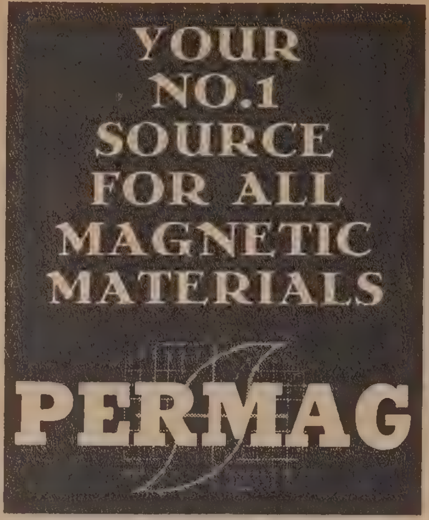
INDIANA GENERAL CORP MAGNET DIV, VALPARAISO	**IND**
PERMAG CORP, JAMAICA	**N Y**
STACKPOLE CARBON CO, ST MARYS	**PA**
TOHOKU METAL INDUSTRIES, LTD, TOKYO	**JAPAN**
Aristo-Craft Distinctive Miniatures, New York	N Y
Arnold Engineering Co, Marengo	Ill
Automatic Equipment Corp, Cincinnati	Ohio
Crucible Steel Co, Pittsburgh	Pa
Dura Magnetics, Inc, Sylvania	Ohio
Ferricore Div Natl Moldite Co Inc, Newark	N J
Ferroxcube Corp, Saugerties	N Y
General Magnetic Corp, Detroit	Mich
General Tire & Rubber Co, Akron	Ohio
Indiana General Corp Magnet Div, Valparaiso	Ind
Magno-Ceram Co, Plainfield	N J
3 M Co DM&S Div, Cincinnati	Ohio
Mullard Ltd, London, WC 1	Eng
National Moldite Co Inc, Newark	N J
Nippon Ferrite Industrial Co Ltd, Tokyo	Japan
Permag Corp, Jamaica	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Stackpole Carbon Co, St Marys	Pa
Sumitomo Special Metals Co Ltd, Osaka	Japan
Taiyo Yuden Co Ltd, Chiyoda-ku, Tokyo	Japan
Tohoku Metal Industries, Ltd, Tokyo	Japan

MAGNETS, PERMANENT--CERAMIC (FERRITE)

INDIANA GENERAL CORP MAGNET DIV, VALPARAISO	**IND** **ADV PG 388**
PERMAG CORP, JAMAICA	**N Y**
STACKPOLE CARBON CO, ST MARYS	**PA**
TOHOKU METAL INDUSTRIES, LTD, TOKYO	**JAPAN**
Allen-Bradley Co, Milwaukee	Wis
Arnold Engineering Co, Marengo	Ill
Automatic Equipment Corp, Cincinnati	Ohio
Ceramic Magnetics Inc, Fairfield	N J
Commander Labs Inc, Escondido	Cal
Crucible Steel Co, Pittsburgh	Pa
Crucible Steel Co Magnet Div, Elizabethtown	Ky
Custom Components Inc, Caldwell	N J
Dura Magnetics, Inc, Sylvania	Ohio
Ferricore Div Natl Moldite Co Inc, Newark	N J
Ferroxcube Corp, Saugerties	N Y
General Magnetic Corp, Detroit	Mich
Indiana General Corp Magnet Div, Valparaiso	Ind
Lake Engineering Co Ltd, Scarborough	Ont
Magno-Ceram Co, Plainfield	N J
Mullard Ltd, London, WC 1	Eng
National Moldite Co Inc, Newark	N J
Nippon Ferrite Industrial Co Ltd, Tokyo	Japan
Permag Corp, Jamaica	N Y
Permanent Magnet Co Inc, Indianapolis	Ind
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Quartzite Processing, Inc, Malden	Mass
Stackpole Carbon Co, St Marys	Pa
Steward Mfg Co, D M, Chattanooga	Tenn
Sumitomo Special Metals Co Ltd, Osaka	Japan
Thomas & Skinner Inc, Indianapolis	Ind
Tohoku Metal Industries, Ltd, Tokyo	Japan
Westinghouse Electric Corp, Materials Mfg Div Blairsville	Pa

MAGNETS, PERMANENT--FINISHED ALNICO (INCL FOCUS, ION TRAP, MAGNETRON METER & SPEAKER FIELD)

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
INDIANA GENERAL CORP MAGNET DIV, VALPARAISO	**IND** **ADV PG 388**
PERMAG CORP, JAMAICA, N Y	
TOHOKU METAL INDUSTRIES, LTD, TOKYO	**JAPAN**
Arnold Engineering Co, Marengo	Ill
Automatic Equipment Corp, Cincinnati	Ohio
Barker Sales Co, Ridgefield	NJ
Crucible Steel Co, Pittsburgh	Pa
Crucible Steel Co Magnet Div, Elizabethtown	Ky
Dura Magnetics, Inc, Sylvania	Ohio
Ferroxcube Corp, Saugerties	N Y
General Electric Co, ECSO, Schenectady	N Y
General Electric Co Magnetic Matls Bus Sect Edmore	Mich
Indiana General Corp Magnet Div, Valparaiso	Ind
Mullard Ltd, London, WC 1	Eng
Permag Corp, Jamaica	N Y
Permanent Magnet Co Inc, Indianapolis	Ind
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Schwalm Electronics Inc, Highland Park	Ill
Sumitomo Special Metals Co Ltd, Osaka	Japan
TDK Electronics Co Ltd, Chiyoda-ku, Tokyo	Japan
Thomas & Skinner Inc, Indianapolis	Ind
Tohoku Metal Industries, Ltd, Tokyo	Japan


YOUR NO.1 SOURCE FOR ALL MAGNETIC MATERIALS
PERMAG

Complete magnetic material inventory . . . permanent magnets, high permeability, shielding and core materials and ferrites. Full fabrication facilities. Skilled engineering staff. 24-hour delivery.

PERMAG PACIFIC CORP.
5441 WEST 104th ST., LOS ANGELES, CALIFORNIA 90045
Telephone Area Code (213) 776-5656 TWX |910| 328-6547

PERMAG CENTRAL CORP.
5301-D OTTO AVE., ROSEMONT, ILL. 60018
Telephone Area Code (312) 678-1120

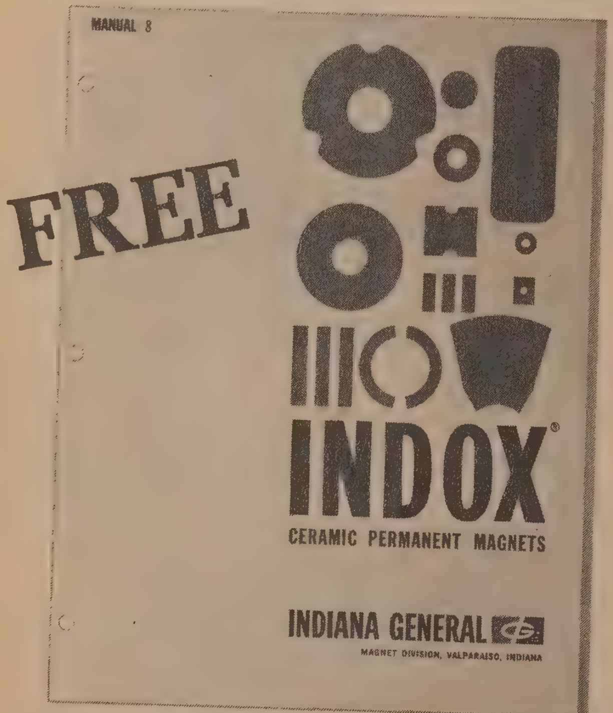
PERMAG MAGNETICS CORP.
formerly EMPIRE MAGNETICS
3130 SOUTH AVENUE, TOLEDO, OHIO 43609
Telephone Area Code (419) 385-4621

PERMAG NORTHEAST CORP.
50 THAYER ROAD, WALTHAM, MASSACHUSETTS.02154
Telephone Area Code (617) 484-0550

PERMAG CORP.
88-06 VAN WYCK EXPRESSWAY, JAMAICA, N.Y. 11418
Telephone Area Code (212) 657-1818 TWX |710| 582-2952

MAGNETS, PERMANENT--FINISHED MAGNETS, OTHER ALLOYS

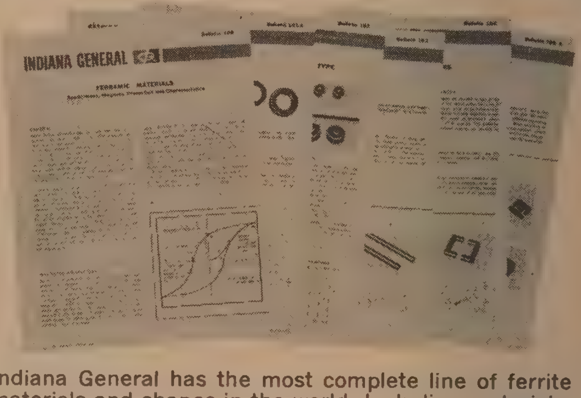
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
INDIANA GENERAL CORP MAGNET DIV, VALPARAISO	**IND**
PERMAG CORP, JAMAICA	**N Y**
TOHOKU METAL INDUSTRIES, LTD, TOKYO	**JAPAN**
Alpha Scientific Labs Inc, Oakland	Cal
Arnold Engineering Co, Marengo	Ill
Automatic Equipment Corp, Cincinnati	Ohio
Barker Sales Co, Ridgefield	NJ
Crucible Steel Co, Pittsburgh	Pa
Dura Magnetics, Inc, Sylvania	Ohio
Electronic Applications Co, Pine Brook	N J
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Ferricore Div Natl Moldite Co Inc, Newark	N J
Ferroxcube Corp, Saugerties	N Y
General Electric Co, ECSO, Schenectady	N Y
General Electric Co Magnetic Matls Bus Sect Edmore	Mich
General Hardware Mfg Co Inc, New York	N Y
Hamilton Precision Metals Div Hamilton Watch Co Lancaster	Pa
Hoskins Mfg Co, Detroit	Mich
Indiana General Corp Magnet Div, Valparaiso	Ind
Inelco S p A, Tavernerio	Italy
Magno-Ceram Co, Plainfield	N J
3 M Co DM&S Div, Cincinnati	Ohio
Mullard Ltd, London, WC 1	Eng
National Moldite Co Inc, Newark	N J
Nuclide Corp, AGV Div, Acton	Mass


MANUAL 8
FREE
INDOX
CERAMIC PERMANENT MAGNETS
INDIANA GENERAL
MAGNET DIVISION, VALPARAISO, INDIANA

Write for bulletins detailing shapes, sizes, characteristics, and demagnetization and energy product curves for Indox 1, 2, 3, 4, 5 and 7. From IGC, world's largest producer of Indox ceramic permanent magnets. Indiana General Corporation, Magnet Division, Valparaiso, Indiana.

INDIANA GENERAL

FREE BULLETINS OFFER YOU A CHOICE OF 315 OFF-THE-SHELF FERRITES.



Indiana General has the most complete line of ferrite materials and shapes in the world. Including materials, core sizes, and shapes not available as standard from any other manufacturer.

In all, we list 15 ferrite materials in 315 standard shapes and sizes including: cup cores; toroids; transformer C cores; rods and strips; E, I, U, and C cores; the international series of cup cores, and cross cores.

Chances are, any size, shape, or ferrite material you need is already listed in our Ferramic® Materials Bulletins. For your copy, write Mr. K. S. Talbot, Manager of Sales, Indiana General Corporation, Electronics Division/Ferrites, Keasbey, New Jersey.

INDIANA GENERAL

Permag Corp, Jamaica	N Y
Permanent Magnet Co Inc, Indianapolis	Ind
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Sumitomo Special Metals Co Ltd, Osaka	Japan
Thomas & Skinner Inc, Indianapolis	Ind
Tohoku Metal Industries, Ltd, Tokyo	Japan
Westinghouse Electric Corp, Materials Mfg Div Blairsville	Pa

MAGNIFIERS--ILLUMINATED

Abrax Instrument Corp, Jamaica	N Y
Bausch & Lomb, Inc, Rochester	N Y
Buhl Optical Co, Pittsburgh	Pa
Dazor Mfg Corp, St Louis	Mo
DoAll Co, Des Plaines	Ill
Edmund Scientific Co, Barrington	N J
Ednalite Corp, Peekskill	N Y
Edroy Products Co, Magni Focuser Div, New York	N Y
Ehrenreich Photo Optical Industries Inc, Garden City	NY
Flexo International Corp, Chicago	Ill
General Hardware Mfg Co Inc, New York	N Y
Glidelite Industries Inc, Hackensack	N J
Hammel, Riglander & Co Inc, New York	N Y
Janel Inc, Stirling	N J
Luxo Lamp Corp, Port Chester	N Y
Mann Co, Henry, Cornwell Heights	Pa
McLeod Optical Co Inc, Providence	R I
Nikon Inc Instrument Div, Garden City	N Y
Pike & Co Inc, E W, Elizabeth	N J
Roxter Corp, Long Island City	N Y
Sandefur Engineering Co, Inc, Lawndale	Cal
Scherr Tumico Inc, St James	Minn
Stocker & Yale Inc, Beverly	Mass
Strat-O-Seal Mfg Co, Chicago	Ill
White Co, O C, Worcester	Mass
Zeiss Inc, Carl, New York	N Y

MANGANESE

American Potash & Chemical Corp, Los Angeles	Cal
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Baker Chemical Co, J T, Phillipsburg	N J
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerac Inc, Butler	Wis
City Chemical Corp, New York	N Y
Electronic Space Products Inc, Los Angeles	Cal
Foote Mineral Co, Exton	Pa
Glidden Metals, SCM Corp, Cleveland	Ohio
Koch Light Labs Ltd, Colnbrook, Bucks	England
Lavino Div Intl Min & Chem Corp, Philadelphia	Pa
Mackay Inc, A D, New York	N Y
Mallinckrodt Chemical Works, St Louis	Mo
Metal Ceram Inc, Mount Vernon	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
Shieldalloy Corp, Newfield	N J
Union Carbide Corp, Mining & Metals Div New York	N Y
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J

MARINE ANTENNAS SEE ANTENNAS--MARINE

MARINE RADIOTELEPHONE SYSTEMS SEE COMMUNICATION SYSTEMS

MARINE RECEIVERS SEE RECEIVERS--RADIO COMMUNICATION

MARINE TRANSMITTERS SEE TRANSMITTERS--RADIO COMMUNICATION

MARKERS--FREQUENCY SEE GENERATORS--SIGNAL

MARKER SIGNAL GENERATORS SEE GENERATORS--SIGNAL

MARKERS--LUMINOUS

Bell-Mark Corp, Bloomfield	N J
Black Light Corp of America, San Gabriel	Cal
Brady Co, W H, Milwaukee	Wis
Canrad Precision Industries Inc, New York	N Y
Elco Corp, Willow Grove	Pa
Electro-Stylus Mfg Co, Colorado Springs	Colo
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
Markal Co, Chicago	Ill
3M Company, St Paul	Minn
Seton Name Plate Corp, New Haven	Conn
Shannon Luminous Materials Co, Hollywood	Cal
Stafford Mfg Co Inc, Brooklyn	N Y
Ultra-Violet Products Inc, San Gabriel	Cal
United States Radium Corp, Morristown	N J
Westline Products, Los Angeles	Cal

MARKING INKS SEE INKS

MARKING MACHINES SEE MACHINES--MARKING

MARKING STAMPS SEE STAMPS--MARKING

MASERS-- SEE AMPLIFIERS--MICROWAVE

MASS SPECTROMETERS SEE SPECTROMETERS

MASTS--ANTENNA

DALE ELECTRONICS INC, COLUMBUS	**NEB**
Andrew Corp, Orland Park	Ill
Antenna Products Co Div All Products Co Mineral Wells	Tex
Antlab, Inc, Worthington	Ohio
Birdair Structures Inc, Buffalo	N Y
Borders Electronics Co Inc, Pennsauken	N J
Brooks & Perkins Inc, Detroit	Mich
Craig Systems Corp, Lawrence	Mass
Dale Electronics Inc, Columbus	Neb
Electro-Mechanics Co, Austin	Tex
Electronics Communications Div Atlantic Research Corp Alexandria	Va
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Gladding Corp, South Otselic	N Y
Goodyear Aerospace Corp, Akron	Ohio
Kenwood Mfg Co, Inc, Linden	N J
Kidde & Co Inc, Walter, Belleville	N J
Parker Metal Goods Co, Worcester	Mass
Pfaff & Kendall, Newark	N J
R F Systems Inc, Cohasset	Mass
RMS Electronics Inc, Bronx	N Y
Rohn Mfg Co, Peoria	Ill
Rowe Industries Inc, Toledo	Ohio
Sanders Associates, Inc, Nashua	N H
Shielding Corp, Moorestown	N J
Simpson Electronics, Inc, Miami	Fla

MASTS SEE TOWERS

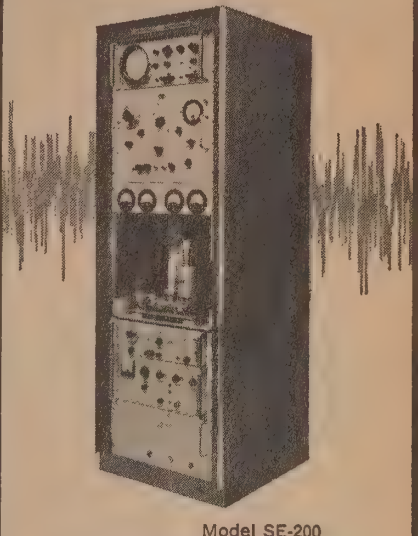
MATCHING NETWORKS SEE NETWORKS

MATERIALS--PERFORATED

Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Chase Metals Service Div Chase Brass & Copper Co Cleveland	Ohio
Ferguson Perforating & Wire Co, Providence	R I
Impectron Inc, New York	N Y
Kepro Circuit Systems Inc, St Louis	Mo
Metal Ceram Inc, Mount Vernon	N Y
Mundt & Sons, Charles, Jersey City	N J
Roosevelt Metal Co Inc, Brooklyn	N Y
Ryerson & Son Inc, J T, Chicago	Ill
Semi-Alloys Inc, Mt Vernon	N Y
Shamban & Co, W S, Los Angeles	Cal
United American Metals Div, Brooklyn	N Y
Vector Electronic Co Inc, Los Angeles	Cal

MEASURING INSTRUMENTS--MICROWAVE, NOISE

HEWLETT-PACKARD, PALO ALTO	**CAL**
SPECTRA-ELECTRONICS INC, LOS ALTOS, CAL	ADV PG 389
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam	N Y
Ferranti, Ltd, Lancashire	England
Hewlett-Packard, Palo Alto	Cal
International Microwave Corp, Cos Cob	Conn
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Kay Electric Co, Pine Brook	N J
Kyoritsu Electric Works Ltd, Tokyo	Japan
Micro-Radionics Inc, Van Nuys	Cal
Milletron, Inc, Pittsburgh	Pa
Narda Microwave Corp, Plainview	N Y
Northeast Electronics Corp, Concord	N H
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Sierra Research Corp, Buffalo	N Y
Spacekom Inc, Goleta	Cal
Spectra-Electronics Inc, Los Altos	Cal
Teltronics Inc, Nashua	N H
Weinschel Engineering Co Inc, Gaithersburg	Md



LOW MICROWAVE NOISE?

Model SE-200

WHY NOT *PROVE* IT?

SPECTRA Microwave Noise Measuring Instruments are the only equipments yet devised that can give you the FM and AM noise content of conventional and solid state microwave sources — to accuracies as high as ±1 DB. Proof? Maybe not, but close to it.

SPECTRA-EXCLUSIVES:

☐ **RF Frequency Ranges: 1.0 Gc/s to 32 Gc/s**

☐ **Self-Calibrating for both AM & FM noise measurements**

☐ **Broad Video Frequency Coverage: 1 Kc/s to 150 Kc/s**

☐ **Residual FM Monitor: 10 cps to 1 Kc/s**

☐ **Dual Bandwidth Spectrum Analyzer: 100 cps and 1 Kc/s**

☐ **High Sensitivity: AM 135 DB below carrier level; FM .0032 cps rms deviation**

☐ **Minimum RF Input Power: 1.5 milliwatts**

☐ **Self-Contained Microwave Spectrum Analyzer**

☐ **Phase-Locked Local Oscillator**

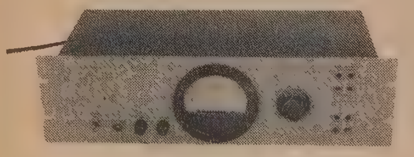
NEW MEASUREMENT SERVICE

A custom Noise Measurement Service is now operated by Spectra to provide accurate noise measurements of X-band sources in the frequency range from 8.5 Gc/s to 10.5 Gc/s. Readout: X-Y recordings of FM or AM noise vs. video frequency. Write today for technical data and complete details.

SPECTRA ELECTRONICS

P.O. Box 85
Los Altos, Calif. 94023 • (415) 948-4998

lab equipment



Transistorized interphone Amplifiers; Volume level Indicators; AF, AVF, and RF Attenuation Networks; Noise and Transmission Measuring Sets; Output Power Meters. Bulletin No. LE-34.

DAVEN
McGRAW EDISON

DIVISION OF THOMAS A. EDISON INDUSTRIES
GRENIER FIELD, MANCHESTER, N.H. 03103
(603) 669-0940 • TWX 603-623-4938

MEASURING SETS--TRANSMISSION

DAVEN DIV MCGRAW-EDISON CO, MANCHESTER N H .... ADV PG 390
HEWLETT-PACKARD, PALO ALTO .... **CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND .... **OHIO**
Alcatel, Paris 8eme .... France
Alford Mfg Co, Winchester .... Mass
Conductron Corp, Ann Arbor .... Mich
Daven Div McGraw-Edison Co, Manchester .... N H
General Thermodynamics Corp, North Wilmington .... Mass
Hewlett-Packard, Palo Alto .... Cal
Hickok Electrical Instrument Co, Cleveland .... Ohio
International Tel & Tel Corp Industrial Prods Div San Fernando .... Cal
Lab Electro-Acoustique, 92 Rueil-Malmaison .... France
Lear Siegler Inc, Santa Monica .... Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim .... Cal
Measurement Technology Corp, Canoga Park .... Cal
Montedoro Corp, San Luis Obispo .... Cal
Northeast Electronics Corp, Concord .... N H
Oki Electric Industry Co Ltd, Tokyo .... Japan
Phelps Dodge Electronic Products Corp North Haven .... Conn
Philco-Ford Corp, Washington .... D C
Rantec Div Emerson Electric Co, Calabasas .... Cal
Rohde & Schwarz Sales Co USA Inc, Passaic .... N J
Siemens America Inc, New York .... N Y
Vitro Labs Div Vitro Corp of America, W Orange .... N J

Wandel & Goltermann/Tel-Com, Hanover .... N J

MECHANICAL COUNTERS SEE COUNTERS--MECHANICAL

MECHANICAL FILTERS SEE FILTERS

MECHANICAL RECORDERS SEE RECORDERS--MECHANICAL

MEDICAL TV SEE TV SYSTEMS--CC

MEGOHMMETERS SEE OHMMETERS

MELAMINE FORMALDEHYDE SEE PLASTICS

MELAMINE LAMINATES SEE LAMINATES--COPPER-CLAD

MEMORIES, COMPUTER--DELAY LINE

ANDERSEN LABORATORIES, INC, BLOOMFIELD .... **CONN**
KAPPA NETWORKS INC, CARTERET .... **N J**
MICROSONICS INC, WEYMOUTH .... **MASS**
NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
Ad-Yu Electronics Inc, Passaic .... N J
American Astrionics Inc, Palo Alto .... Cal
American Micro-Systems, Inc, Santa Clara .... Cal
Andersen Laboratories, Inc, Bloomfield .... Conn
Bendix Corp, Communications Div, Towson .... Md
Bliley Electric Co, Erie .... Pa
Computer Devices Corp, Commack .... N Y
Control Electronics Co Inc, Farmingdale .... N Y
Corning Glass Works, Corning .... N Y
Delay Devices Corp, Watertown .... Mass
Digital Devices Inc, Syosset .... N Y
Ferroxcube Corp, Saugerties .... N Y
General Instrument Corp Radio Receptor Div Hicksville .... N Y
General Instrument Europe SPA, Milano .... Italy
Kappa Networks Inc, Carteret .... N J
Laboratory for Electronics Inc Elctns Div, Boston .... Mass
Logic Corp, Haddonfield .... N J
Magne-Head Div, Gen Instrument Corp, Hawthorne .... Cal
Microsonics Inc, Weymouth .... Mass
Nippon Electric Co Ltd, Tokyo .... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Profile Electronics Inc, Concord .... N H
Straza Industries Div Ametek Inc, El Cajon .... Cal
Swiss Industries, Costa Mesa .... Cal
Systems Engineering Labs Inc, Ft Lauderdale .... Fla
TRW Systems Group, Redondo Beach .... Cal

MEMORIES, COMPUTER--DIODE REGISTER

NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
Burroughs Corp, Defense, Space & Spec Sys Group Paoli .... Pa
C & K Components Inc, Watertown .... Mass
Di/An Controls Inc, Boston .... Mass
Electro Circuits Inc, Lowell .... Mass
Gyrotronics Inc, Asbury Park .... N J
Nippon Electric Co Ltd, Tokyo .... Japan
Swiss Industries, Costa Mesa .... Cal

MEMORIES, COMPUTER--DISK

IBM, INDUSTRIAL PRODUCTS MARKETING, NEW YORK .... **NY**
NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
Acroscope Engineering Inc, Los Angeles .... Cal
Applied Magnetics Corp, Computer Memories Div Goleta .... Cal
Bendix Corp Navigation & Control Div, Teterboro, ... N J
Bryant Computer Products, Walled Lake .... Mich
Burroughs Corp Component Sales Dept Los Angeles .... Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli .... Pa
Caelus Memories Inc, San Jose .... Cal
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena .... Cal
Control Data Corp, Minneapolis .... Minn
Data Disc Inc Disc Div, Palo Alto .... Cal
Data Disc Inc, Display Div, Palo Alto .... Cal
Datametrics Corp, Van Nuys .... Cal
Data Products Corp, Culver City .... Cal
Digital Development Corp, San Diego .... Cal
Electron-Ohio Inc, Cleveland .... Ohio
Friden Inc, San Leandro .... Cal
General Electric Co Info Sys Equip Div, Phoenix .... Ariz
Honeywell-EDP Div, Wellesley Hills .... Mass
IBM, Industrial Products Marketing, New York .... NY
IBM Data Processing Div, White Plains .... N Y
Librascope Group Gen Precision Sys Inc, Glendale .... Cal
Magne-Head Div, Gen Instrument Corp, Hawthorne .... Cal
Memorex Corp, Santa Clara .... Cal
MVR Corp, Palo Alto .... Cal
Nippon Electric Co Ltd, Tokyo .... Japan
Optimized Devices, Inc, Pleasantville .... N Y
Scientific Data Systems Inc, El Segundo .... Cal
Swiss Industries, Costa Mesa .... Cal
Systematics & Magne-Head Divs Gen Instrument Corp Hawthorne .... Cal
U S Magnetic Tape Co, Huntley Ill

MEMORIES, COMPUTER--FERRITE, CORE PLANES

BURROUGHS CORP ELECTRONIC COMPONENTS DIV, PLAINFIELD N J .... ADV PG 391
INDIANA GENERAL CORP ELECTRONICS DIV/FERRITES, KEASBEY .... **N J**
NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
TOHOKU METAL INDUSTRIES, LTD, TOKYO .... **JAPAN**
Ampex Corp, Redwood City .... Cal
Amtron Inc, Midlothian Ill
Borders Electronics Co Inc, Pennsauken .... N J
Burroughs Corp Component Sales Dept Los Angeles .... Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli .... Pa
Burroughs Corp Electronic Components Div Plainfield .... N J
Control Data Corp, Minneapolis .... Minn
Cybetronics Inc, Waltham .... Mass
Datacraft Corp, Fort Lauderdale .... Fla
Data Products Corp, Culver City .... Cal
Data-Ram Corp, Princeton .... N J
Di/An Controls Inc, Boston .... Mass
Digital Equipment Corp, Maynard .... Mass
Electro Circuits Inc, Lowell .... Mass
Electronic Engineering Co of Cal, Santa Ana .... Cal
Electronic Memories Inc, Hawthorne .... Cal
Fabri-Tek Inc, Minneapolis .... Minn
Ferranti, Ltd, Lancashire .... England
Ferroxcube Corp, Saugerties .... N Y
Fuji Electrochemical Co Ltd, Tokyo .... Japan
Goodyear Aerospace Corp, Akron .... Ohio
Honeywell Inc, Computer Control Div Framingham .... Mass
IBM Data Processing Div, White Plains .... N Y
Indiana General Corp Electronics Div/Ferrites, Keasbey .... N J
Information Control Corp, El Segundo .... Cal
Keymox Inc, Whittier .... Cal
LCC-CICE, 93 Montreuil-sous-Bois .... France
Litton Industries, Guidance & Controls Sys Div Woodland Hills .... Cal
Lockheed Electronics Co, Plainfield .... N J
Lockheed Electronics Co, Avionics & Ind Prods Div Los Angeles .... Cal
Mullard Ltd, London, WC 1 .... Eng
Nippon Electric Co Ltd, Tokyo .... Japan
Oki Electric Industry Co Ltd, Tokyo .... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Quartzite Processing, Inc, Malden .... Mass
Radio Corp of America, Electronic Components, Harrison .... N J
Raytheon Computer, Santa Ana .... Cal
RCA, Defense Electronic Products, Moorestown .... N J
Sampson Electronic Products Div, Chicago Ill
Siemens America Inc, New York .... N Y
Systems Engineering Labs Inc, Ft Lauderdale .... Fla
TDK Electronics Co Ltd, Chiyoda-ku, Tokyo .... Japan
Tohoku Metal Industries, Ltd, Tokyo .... Japan
United Telecontrol Electronics Inc, Asbury Park .... N J
Varian Data Machines, Irvine .... Cal

MEMORIES, COMPUTER--FERRITE, MULTI-APERTURE

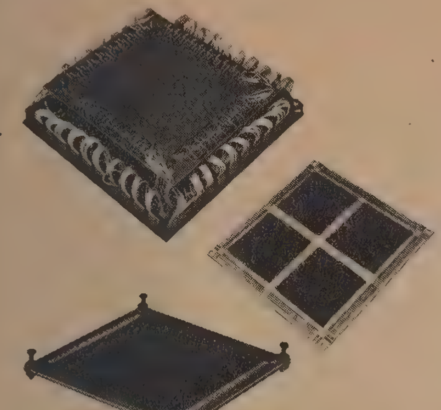
INDIANA GENERAL CORP ELECTRONICS DIV/FERRITES, KEASBEY .... **N J**
NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
Borders Electronics Co Inc, Pennsauken .... N J
Burroughs Corp, Defense, Space & Spec Sys Group Paoli .... Pa
Control Data Corp, Minneapolis .... Minn
Di/An Controls Inc, Boston .... Mass
Electronic Memories Inc, Hawthorne .... Cal
Fabri-Tek Inc, Minneapolis .... Minn
Ferroxcube Corp, Saugerties .... N Y
Goodyear Aerospace Corp, Akron .... Ohio
Indiana General Corp Electronics Div/Ferrites, Keasbey .... N J
Intertechnique, Plaisir, 78 .... France
LCC-CICE, 93 Montreuil-sous-Bois .... France
Litton Industries, Guidance & Controls Sys Div Woodland Hills .... Cal
Lockheed Electronics Co, Plainfield .... N J
Lockheed Electronics Co, Avionics & Ind Prods Div Los Angeles .... Cal
Memory Technology Inc, Waltham .... Mass
Nippon Electric Co Ltd, Tokyo .... Japan
Quartzite Processing, Inc, Malden .... Mass
Radio Corp of America, Electronic Components, Harrison .... N J
Raytheon Computer, Santa Ana .... Cal
RCA, Defense Electronic Products, Moorestown .... N J
Siemens America Inc, New York .... N Y
Swiss Industries, Costa Mesa .... Cal

MEMORIES, COMPUTER--MAGNETIC DRUM

KENTON ENGINEERING CORP, SKOKIE .... **ILL**

NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
Applied Magnetics Corp, Computer Memories Div Goleta .... Cal
Bryant Computer Products, Walled Lake .... Mich
Cognitronics Corp, Mount Kisco .... NY
Control Data Corp, Minneapolis .... Minn
Digital Development Corp, San Diego .... Cal

FERRITE MEMORY COMPONENTS AND SYSTEMS



Burroughs complete line of ferrite cores, stacks and high speed systems are manufactured and tested to meet stringent military, industrial and commercial requirements. The salient characteristics are listed below:

Cores—20, 30 and 50 mil sizes —wide temperature and standard types

Stacks—2½ D and 3D coincident current wiring organizations

Systems—0.5 to 1.0 μsec. full cycle times

Core Memory System

Burroughs gives you a choice of 0.5 μsec. to 1.0 μsec. full cycle times with 4096 or 8192 words by 20 bit modules featuring:

- 2½ D organization
- Pluggable core stacks
- Low cost per bit
- Building block construction
- Module size: 26¾" high x 20½" deep, 4¼" wide
- Temperature range of +15°C to +40°C
- Access time—Less than half the cycle time
- Separate control module containing the timing circuits, address register and decode logic

Burroughs Corporation

ELECTRONIC COMPONENTS DIVISION

PLAINFIELD, NEW JERSEY

Digital Equipment Corp, Maynard	Mass
Electron-Ohio Inc, Cleveland	Ohio
Fairchild Industries, Jerry, Pasadena	Cal
Fujitsu Ltd, Tokyo	Japan
General Instrument Europe SPA, Milano	Italy
Honeywell-EDP Div, Wellesley Hills	Mass
IBM Data Processing Div, White Plains	N Y
Kenton Engineering Corp, Skokie	Ill
Kobe Industries Corp, Kobe	Japan
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Magne-Head Div, Gen Instrument Corp, Hawthorne	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
RCA, Defense Electronic Products, Moorestown	N J
Scientific Data Systems Inc, El Segundo	Cal
Swiss Industries, Costa Mesa	Cal
Systematics & Magne-Head Divs Gen Instrument Corp Hawthorne	Cal

MEMORIES, COMPUTER--MAGNETIC TAPE

HEWLETT-PACKARD, PALO ALTO	**CAL**
KINELOGIC CORP, PASADENA	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Ampex Corp, Redwood City	Cal
Burroughs Corp Component Sales Dept Los Angeles	Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Computing Devices of Canada Ltd, Ottawa	Ont
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Control Data Corp, Minneapolis	Minn
Data Products Corp, Culver City	Cal
Digital Equipment Corp, Maynard	Mass
Electron-Ohio Inc, Cleveland	Ohio
Fujitsu Ltd, Tokyo	Japan
General Electric Co Info Sys Equip Div, Phoenix	Ariz
Hewlett-Packard, Palo Alto	Cal
Himmelstein & Co, S, Elk Grove Village	Ill
Honeywell-EDP Div, Wellesley Hills	Mass
IBM Corp, Armonk	N Y
IBM Data Processing Div, White Plains	N Y
Kennedy Co, Altadena	Cal
Kinelogic Corp, Pasadena	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Potter Instrument Co, Inc, Plainview	N Y
RCA, Defense Electronic Products, Moorestown	N J
Scientific Data Systems Inc, El Segundo	Cal
Sylvania Electronic Systems, Waltham	Mass
Telectro Systems Corp, Corona	N Y
Thermionic Products Electronics Ltd Southampton	England
U S Magnetic Tape Co, Huntley	Ill
Wabash Magnetics Inc, Wabash	Ind
Wiltek, Inc, Wilton	Conn

MEMORIES, COMPUTER--PUNCHED PAPER TAPE

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Burroughs Corp Component Sales Dept Los Angeles	Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Connecticut Technical Corp, Hartford	Conn
Control Data Corp, Minneapolis	Minn
Data Products Corp, Culver City	Cal
General Electric Co Info Sys Equip Div, Phoenix	Ariz
General Electric Co, Printer-Reader Bus Sec Philadelphia	Pa
Honeywell-EDP Div, Wellesley Hills	Mass
Micro Metrics Inc, Paterson	N J
Nippon Electric Co Ltd, Tokyo	Japan
Ohr-Tronics Inc, Montvale	N J
Oki Electric Industry Co Ltd, Tokyo	Japan
Remex Electronics, Hawthorne	Cal
Scientific Data Systems Inc, El Segundo	Cal

MEMORIES, COMPUTER--THIN FILM

BURROUGHS CORP ELECTRONIC COMPONENTS DIV PLAINFIELD	**N J**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TOHOKU METAL INDUSTRIES, LTD, TOKYO	**JAPAN**
Acroscope Engineering Inc, Los Angeles	Cal
American Astrionics Inc, Palo Alto	Cal
Burroughs Corp Component Sales Dept Los Angeles	Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Burroughs Corp Electronic Components Div Plainfield	N J
Control Data Corp, Minneapolis	Minn
Fabri-Tek Inc, Minneapolis	Minn
Goodyear Aerospace Corp, Akron	Ohio
Intellux Inc, Goleta	Cal
Kokusai Electric Co Ltd, Tokyo	Japan
Laboratory for Electronics Inc Elctns Div, Boston	Mass
LFE Electronics Div, Lab for Electronics Inc Waltham	Mass
Librascope Group Gen Precision Sys Inc, Glendale	Cal
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Swiss Industries, Costa Mesa	Cal
Texas Instruments Incorporated, Dallas	Tex
Tohoku Metal Industries, Ltd, Tokyo	Japan

MEMORIES, COMPUTER--TWISTOR

TOHOKU METAL INDUSTRIES, LTD, TOKYO	**JAPAN**
Swiss Industries, Costa Mesa	Cal
Tohoku Metal Industries, Ltd, Tokyo	Japan

MEMORY CORE FRAMES SEE FRAMES

MEMORY CORES SEE CORES—MOLDED MAGNETIC

MERCURY

WILLIAMS GOLD REFINING CO INC PRECIOUS METALS DIV BUFFALO	**N Y**
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Baker Chemical Co, J T, Phillipsburg	N J
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bram Metallurgical Chemical Co, Philadelphia	Pa
City Chemical Corp, New York	N Y
Eastern Smelting & Refining Corp, Lynn	Mass
Electronic Space Products Inc, Los Angeles	Cal
Eppley Lab Inc, Newport	R I
General Electric Co Lamp Metals & Components Dept Cleveland	Ohio
Johnson Matthey & Mallory Ltd, Toronto 15	Ont
Kahl Scientific Instrument Corp, El Cajon	Cal
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Mallinckrodt Chemical Works, St Louis	Mo
Metal Ceram Inc, Mount Vernon	N Y
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
Simmons Refining Corp, Chicago	Ill
Taylor Instrument Cos, Rochester	N Y
United Mineral & Chemical Corp, New York	N Y
United Refining & Smelting Co, Franklin Park	Ill
Williams Gold Refining Co Inc Precious Metals Div Buffalo	N Y

MERCURY BATTERIES SEE BATTERIES

METALIZED CERAMICS SEE CERAMICS

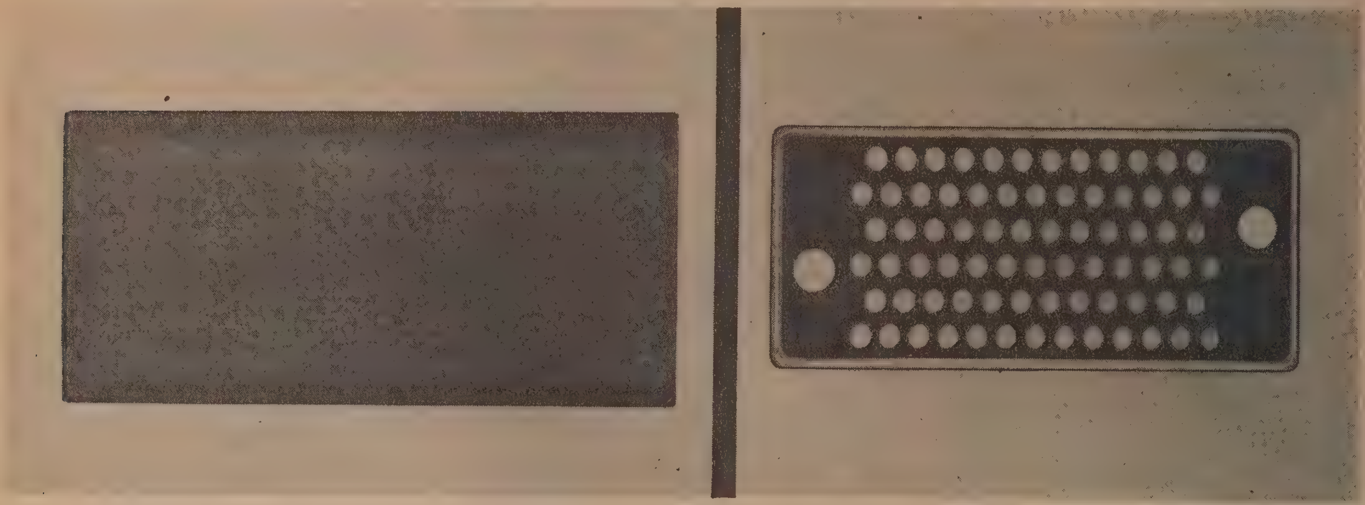
METALIZED PLASTIC SEE PLASTICS--FINISHED PARTS; PLATING

METALIZED TUBING SEE TUBING—METALLIC

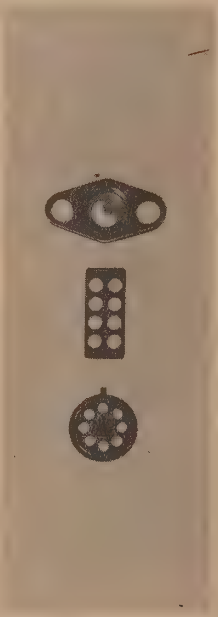
METALIZING SERVICE

Airco Temescal, Berkeley	Cal
Alberox Corp, New Bedford	Mass
Allied Engineering & Production Corp, Alameda	Cal
Alloys Unlimited Inc, Melville	N Y
Anadite, Inc, South Gate	Cal
Avco Bay State Abrasives Div Indus Prods Sub Div Westboro	Mass
Avionics Ltd, Niagara-on-the-Lake	Ont
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Beryllium Corp, Reading	Pa
Broomer Research Corp, Plainview	N Y
Cambridge Plating Co Inc, Belmont	Mass
Ceramaseal Inc, Sub Lapp Insulator Co Inc New Lebanon Center	N Y
Ceramics International Corp, Mahwah	NJ
C M Mfg Co, Bloomfield	N J
Cohan-Epner Co Inc, New York	N Y
Consolidated Ceramics & Metalizing Corp Flemington	N J
Denton Vacuum Inc, Cherry Hill	N J
Device Seals Inc, Sun Valley	Cal
Dynatex Corp, Redwood City	Cal
Eimac Div, Varian Associates, San Carlos	Cal
Electro Science Labs Inc, Philadelphia	Pa
Falstrom Co, Passaic	N J
Frankel J M, Nanterre	France
Glass Beads Co, Latrobe	Pa
Gremar Mfg Co Inc, Wakefield	Mass
Hi-G Inc, Windsor Locks	Conn
Hopwood Retinning Corp, Malden	Mass
Kinney Vacuum Div New York Air Brake Co Boston	Mass
Latronics Corp, Latrobe	Pa
Lek-Trol, Inc, Grapevine	Tex
Litton Industries, Electron Tube Div, San Carlos	Cal

IN .9 OF A SECOND, RICHFIELD CAN TRANSFORM A SOLID METAL MASS INTO A PRECISION PART



How coining can upgrade your product and lower your costs



The process of coining — the forming of metal by impact and cold displacement — is not a new development in industry. **But** the application of coining to mass production of **close tolerance** components **is radically new** — and Richfield research is responsible.

Today, Richfield's capability in coining offers unlimited design opportunities to engineers and manufacturers of coined bodies and transistor bases for compression hermetic seals and other applications in the electronics field.

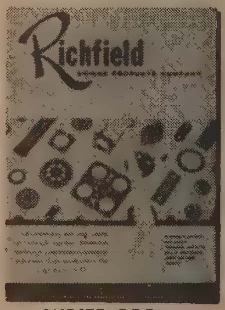
Three of the thousands of parts that Richfield has custom designed and produced are illustrated in the center panel. (1. Copper Heat Sink. 2. Micro-miniature .100 grid relay base. 3. 8-hole TO-5 matched or compression seal.) They are coined from cold metal in fractions of a second, yet they offer advantages that are clearly visible: Complex, intricate designs; absolute conformity to close tolerances; extremely flat and parallel body surfaces with shaved holes — prime requisites for superior glass to metal hermetic seals. Only slow and painstaking machining could duplicate these parts — and only at prohibitive cost.

When you need a new component, rely on Richfield to produce it — with greater precision, at lower cost.

Richfield

COINED PRODUCTS COMPANY

720 BROAD ST. CLIFTON, N. J. Area Code 201-473-4381



WRITE FOR ILLUSTRATED CATALOG

Materials Research Corp, Orangeburg	N Y
Merit Plating Co Inc, Bronx	N Y
Metal Ceram Inc, Mount Vernon	N Y
Metalized Ceramics Corp, Providence	R I
Mitronics Inc, Murray Hill	N J
National Beryllia Corp, Haskell	N J
Nuclear Materials & Equipment Corp, Apollo	Pa
Pacific Universal Products Corp, Pasadena	Cal
Pyromet Industries, San Carlos	Cal
Reon Resistor Corp, Yonkers	N Y
Spectra-Mat Inc, Watsonville	Cal
Spruce Pine Mica Co Inc, Spruce Pine	N C
Syncor Products Co, Inc, Malden	Mass
Towne Labs Inc, Somerville	N J
Transene Co Inc, Rowley	Mass
United Products Co, Orange	N J
U S Stoneware Inc, Orville Plant, Orrville	Ohio
Varian, Palo Alto	Cal
Vitta Corp, Wilton	Conn
Voltronics Corp, Hanover	N J
Zenith Optical Laboratory, Dobbs Ferry	N Y

METAL PARTS--COINED

MICRO CONTACTS, INC, HICKSVILLE	**N Y**
RICHFIELD COINED PRODUCTS CO, CLIFTON N J	**ADV PG 392**
Acme Model Engineering Co, Ridgefield	N J
Alloys Unlimited Inc, Melville	N Y
Alpha Metals Inc, Jersey City	NJ
American Silver Co Div, Flushing	N Y
Associated Engineering & Mfg Corp, Glen Ridge	N J
Atomite Electronics Corp, Roosevelt	N Y
Auto-Swage Products, Inc, Shelton	Conn
Bemol Co, Newton	Mass
Bennett Mfg Co, Inc, Alden	N Y
Bigelow Components Co, Newark	N J
Brainin Corp, C S, Mt Vernon	N Y
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Connor Spring Mfg Co Div Sloss & Britain San Francisco	Cal
Device Seals Inc, Sun Valley	Cal
Division Lead Co, Summit	Ill
Doran Mfg Co, Cincinnati	Ohio
Do-Rite Mfg Co, East Paterson	N J
Eastern Tool & Mfg Co, Belleville	N J
Electronic Metals & Alloys Inc, North Attleboro	Mass
Emporium Specialties Co Inc, Cleveland	Ohio
Emtec Inc, Empire Spring Div, Elyria	Ohio
Eugene Engineering Co Inc, Rockland	Mass
Eyelematic Mfg Co Inc, Oakville	Conn
Falstrom Co, Passaic	N J
Fansteel Metallurgical Corp, North Chicago	Ill
Fastex Div Illinois Tool Works, Des Plaines	Ill
Gasket Mfg Co Inc, Los Angeles	Cal
General Findings Co Industrial Div, Attleboro	Mass
Gibson Electric Co, Div Talon Inc, Delmont	Pa
Haydu Products Inc, Opa Locka	Fla
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia	Pa
Metal Ceram Inc, Mount Vernon	N Y
Micro Contacts, Inc, Hicksville	N Y
Nippert Electric Products Co, Delaware	Ohio
Pix Mfg Co, Newark	N J
Premium Allied Tool Inc, Owensboro	Ky
Revere Copper & Brass, Inc, New York	N Y
Richards Metal Products Inc, Wolcott	Conn
Richfield Coined Products Co, Clifton	N J
Romac Electronics Inc, Long Island City	N Y
Seastrom Mfg Co Inc, Glendale	Cal
Semi-Alloys Inc, Mt Vernon	N Y
Staver Co Inc, Bay Shore	N Y
Steel Industries Inc, Crawfordsville	Ind
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Taffet Electronics Inc, Woodside	N Y
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Victor Metal Products Corp, Harrisonburg	Va
Volkert Stampings Inc Sub Stanley Works Queens Village	N Y
Waterbury Pressed Metal Co, Waterbury	Conn
Youngwood Electronic Metals Inc, Youngwood	Pa
Zierick Mfg Corp, Mount Kisco	N Y
Zims Mfg Co, Irvington	N J

METAL PARTS--COLD HEADED

ART WIRE & STAMPING CO, NEWARK	**N J**
KENTUCKY ELECTRONICS INC, OWENSBORO	**KY**
STAR STAINLESS SCREW CO, PATERSON	**N J**
Abscoa Industries, Inglewood	Cal
Aikow Shoji Kaisha Ltd, Osaka	Japan
Allmetal Screw Products Co Inc, Garden City	N Y
Alloys Unlimited Inc, Melville	N Y
Aluminum Co of America, Pittsburgh	Pa
Anti-Corrosive Metal Products Co, Inc, Albany	N Y
Art Wire & Stamping Co, Newark	N J
Atomite Electronics Corp, Roosevelt	N Y
Auto-Swage Products, Inc, Shelton	Conn
Bead Chain Mfg Co, Bridgeport	Conn
Bigelow Components Co, Newark	N J
Brainin Corp, C S, Mt Vernon	N Y
Cerro Corp, New York	NY
Deringer Metallurgical Corp, Mundelein	Ill
Division Lead Co, Summit	Ill
Do-Rite Mfg Co, East Paterson	N J
Eaton Yale & Towne Inc Reliance Div, Massillon	Ohio
Elco Tool & Screw Corp, Rockford	Ill
Electronic Metals & Alloys Inc, North Attleboro	Mass
Emporium Specialties Co Inc, Cleveland	Ohio
Eugene Engineering Co Inc, Rockland	Mass
Fansteel Metallurgical Corp, North Chicago	Ill
Federal Screw Products Inc, Chicago	Ill
General Findings Co Industrial Div, Attleboro	Mass
Gibson Electric Co, Div Talon Inc, Delmont	Pa
Harper Co, H M, Morton Grove	Ill
Haydu Products Inc, Opa Locka	Fla
Henes Mfg Co, Phoenix	Ariz
Kentucky Electronics Inc, Owensboro	Ky
Kling Metal Spinning & Stpg Corp, New York	N Y
Mercury Div Whittaker Corp, Culver City	Cal
Metal Ceram Inc, Mount Vernon	N Y
Nippert Electric Products Co, Delaware	Ohio
Premium Allied Tool Inc, Owensboro	Ky
Republic Industrial Corp, Lathrup Village	Mich
Republic Steel Corp, Cleveland	Ohio
Revere Copper & Brass, Inc, New York	N Y
Richards Metal Products Inc, Wolcott	Conn
Romac Electronics Inc, Long Island City	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Stanley Industrial Hardware Div Stanley Works New Britain	Conn
Star Stainless Screw Co, Paterson	N J
Steel Industries Inc, Crawfordsville	Ind
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Waterbury Pressed Metal Co, Waterbury	Conn
Zims Mfg Co, Irvington	N J

METAL PARTS--DEEP DRAWN

KENTUCKY ELECTRONICS INC, OWENSBORO, KY	**ADV PG 767**
MICRO CONTACTS, INC, HICKSVILLE	**N Y**
STAR STAINLESS SCREW CO, PATERSON	**N J**
Abesto Corp, Bloomfield	N J
Acme Model Engineering Co, Ridgefield	N J
Advance Stamping Co, Detroit	Mich
Alloys Unlimited Inc, Melville	N Y
Alpha Metals Inc, Jersey City	NJ
Aluminum Co of America, Pittsburgh	Pa
Anaconda American Brass Co, Waterbury	Conn
Associated Engineering & Mfg Corp, Glen Ridge	N J
Auto-Swage Products, Inc, Shelton	Conn
Avco Aerostructures Div, Nashville	Tenn
Bennett Mfg Co, Inc, Alden	N Y
Benson Mfg Div E C I Inc, Kansas City	Mo
Betts & Betts Corp, Woodbury	Conn
Brooks & Perkins Inc, Detroit	Mich
Buckeye Stamping Co, Columbus	Ohio
Cinch-Monadnock, City of Industry	Cal
Clover Co Inc F G, Rockaway	N J
Cly-Del Mfg Co, Waterbury	Conn
Connor Spring Mfg Co Div Sloss & Britain San Francisco	Cal
Cutler Metal Products Co, Camden	N J
Device Seals Inc, Sun Valley	Cal
Do-Rite Mfg Co, East Paterson	N J
Eastern Tool & Mfg Co, Belleville	N J
Eimac Div, Varian Associates, San Carlos	Cal
Electronic Metals & Alloys Inc, North Attleboro	Mass
Eugene Engineering Co Inc, Rockland	Mass
Eyelematic Mfg Co Inc, Oakville	Conn
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Fansteel Metallurgical Corp, North Chicago	Ill
Fastex Div Illinois Tool Works, Des Plaines	Ill
General Findings Co Industrial Div, Attleboro	Mass
Halliburton Enterprises Inc, Mfg Div, Los Angeles	Cal
Haydu Products Inc, Opa Locka	Fla
Hit Products Corp, South Norwalk	Conn
Jan Hardware Mfg Co Inc, Long Island City	N Y
Johnson & Hoffman Mfg Corp, Carle Place	N Y
Kentucky Electronics Inc, Owensboro	Ky
Kidde & Co Inc, Walter, Belleville	N J
King Laboratories Inc, Syracuse	N Y
Kling Metal Spinning & Stpg Corp, New York	N Y
Laka Tool & Stamping Co, Inc, Westbury	N Y
Magnetic Metals Co, Camden	N J
Mason Mfg Co Div Fram Corp, East Providence	R I
Metal Ceram Inc, Mount Vernon	N Y
Micro Contacts, Inc, Hicksville	N Y
Monarch Industries Inc, El Segundo	Cal
Nutmeg Screw Machine Products Co, Waterbury	Conn
O'Hara Metal Products Co, San Francisco	Cal
Olympic Prods Co Div J B Schaefer Indus, Alpha	N J
Plastiglide Mfg Corp, Santa Monica	Cal
Premium Allied Tool Inc, Owensboro	Ky
Radio Corp of America, Electronic Components, Harrison	N J
Republic Industrial Corp, Lathrup Village	Mich
Republic Steel Corp, Cleveland	Ohio
Revere Copper & Brass, Inc, New York	N Y
Richards Metal Products Inc, Wolcott	Conn
Romac Electronics Inc, Long Island City	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Sexton Can Co Inc, Everett	Mass
Slocum Industries, Inc, Reseda	Cal
Stanley Industrial Hardware Div Stanley Works New Britain	Conn
Star Stainless Screw Co, Paterson	N J
Staver Co Inc, Bay Shore	N Y
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Taffet Electronics Inc, Woodside	N Y
Teiner Co Inc, Roland, Everett	Mass
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Varian, Palo Alto	Cal
Victor Metal Products Corp, Harrisonburg	Va
Volkert Stampings Inc Sub Stanley Works Queens Village	N Y
Waterbury Pressed Metal Co, Waterbury	Conn
Zero Mfg Co, Burbank	Cal

METAL PARTS--ELECTRO-FORMED **SEE ALSO ELECTRO-FORMING SERVICES**

BUCKBEE MEARS CO, ST PAUL	**MINN**
Aikow Shoji Kaisha Ltd, Osaka	Japan
Allied Research & Engineering Co, Los Angeles	Cal
Bart Microwave Div Bart Mfg Corp, Newark	N J
Boston Precision Parts Co Inc, Hyde Park	Mass
Buckbee Mears Co, St Paul	Minn
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Electroforms Inc, Gardena	Cal
Eugene Engineering Co Inc, Rockland	Mass
Kling Metal Spinning & Stpg Corp, New York	N Y
Metal Ceram Inc, Mount Vernon	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Tech-Etch, Inc, Hingham	Mass
Towne Labs Inc, Somerville	N J

METAL PARTS--FLATPACK

MICRO CONTACTS, INC, HICKSVILLE, N Y.	**ADV PG 393**

Lead frames *for* integrated circuits

Our unique tooling concept affords:

- Unusual design change flexibility
- Variable number of units per strip
- Lower die cost
- Burr free flat parts
- High volume output

Send quotation requests to:

MICRO CONTACTS INC

62 Alpha Plaza, Hicksville, L. I., N. Y. 11801
Telephone: 516 433-4830

METAL PARTS--FORMED WIRE; SEE WIRE PARTS

METAL PARTS--LAMINATED

MICRO CONTACTS, INC, HICKSVILLE	**N Y**
WILLIAMS GOLD REFINING CO INC PRECIOUS METALS DIV BUFFALO, N Y	**ADV PG 394**
Aikow Shoji Kaisha Ltd, Osaka	Japan
Alloys Unlimited Inc, Melville	N Y
Alpha Metals Inc, Jersey City	NJ
American Silver Co Div, Flushing	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Bennett Mfg Co, Inc, Alden	N Y
Boston Precision Parts Co Inc, Hyde Park	Mass
Brainin Corp, C S, Mt Vernon	N Y
Cominco American Inc Electronic Matls Div, Spokane	Wash
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Dentronics, Inc, Hackensack	N J
Do-Rite Mfg Co, East Paterson	N J
Duplicon Co Inc, Westboro	Mass
Electronic Metals & Alloys Inc, North Attleboro	Mass

IC SEALING PROBLEMS SOLVED

WITH WILLIAMS' IMPROVED ALLOYS FOR MICROELECTRONIC DESIGN.

★ *80% GOLD— 20% TIN EUTECTIC*
MELTING POINT 280° C

★ *88% GOLD— 12% GERMANIUM EUTECTIC*
MELTING POINT 356° C

★ *SOLDER PREFORMS FOR SEALING INTEGRATED CIRCUIT PACKAGES*

★ *TOOLING AVAILABLE ON MOST STANDARD SIZES*
4 to 6 Weeks Delivery on New Tooling

PARTIAL LIST OF AVAILABLE ALLOYS & SOLDER PREFORMS

88% Gold 12% Germanium (Eutectic Alloy)
Strip and solder preforms in all sizes

80% Gold 20% Tin (Eutectic Alloy)
Strip, wire and solder preforms in all sizes

Gold with .1 to 1.2% Antimony
Wire, strip and solder preforms all sizes

Gold—.05% Min. Phosphorous
Wire, strip and solder preforms all sizes

95% Gold 5% Nickel
Wire, strip and solder preforms all sizes

Gold and up to .5% Arsenic
Strip and solder preforms all sizes

Silver with .1 to 1.2% Antimony
Wire, strip and solder preforms all sizes

Silver—.1% Min. Phosphorous
Wire, strip and solder preforms all sizes

95% Silver 5% Nickel
Wire, strip and solder preforms all sizes

Silver and up to .5% Arsenic
Strip and solder preforms all sizes

Special alloys produced on request at minimum charge.

Precious Metals in 99.9% Pure, 99.99% Pure, and 99.999% Pure.

Modern, up-to-date refining of precious metals and complete spectrographic facilities available.

HIGH PURITY METALS USED ON ALL ALLOYS
WRITE FOR COMPLETE PRECIOUS METALS CATALOG AND SPECIFICATION SHEETS. PHONE 716-834-7204

OVER 50 YEARS OF PRECIOUS METALS EXPERIENCE

WILLIAMS PRECIOUS METALS

2978 MAIN ST. BUFFALO, NEW YORK 14214
Division of Williams Gold Refining Co., Inc.

Eljay Corp, Baltimore	Md
Emporium Specialties Co Inc, Cleveland	Ohio
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Eugene Engineering Co Inc, Rockland	Mass
Flexible Products Inc, North St Paul	Minn
General Findings Co Industrial Div, Attleboro	Mass
Goodyear Aerospace Corp, Akron	Ohio
Haddon Tool & Mfg Co, Merchantville	N J
Haydu Products Inc, Opa Locka	Fla
Improved Seamless Wire Co, Providence	R I
Laminated Shim Co Inc, Glenbrook	Conn
Magnetic Metals Co, Camden	N J
Mega Electronics Corp, Gardena	Cal
Metal Ceram Inc, Mount Vernon	N Y
Micro Contacts, Inc, Hicksville	N Y
Mid-West Metal Products Inc, Kansas City	Kans
Norrich Plastics Corp, Roosevelt	N Y
Nuclear Materials & Equipment Corp, Apollo	Pa
O'Hara Metal Products Co, San Francisco	Cal
Pyromet Industries, San Carlos	Cal
Roosevelt Metal Co Inc, Brooklyn	N Y
Seastrom Mfg Co Inc, Glendale	Cal
Semi-Alloys Inc, Mt Vernon	N Y
S K G Associates Inc, Boston	Mass
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
United American Metals Div, Brooklyn	N Y
Universal Instruments Corp, Binghamton	N Y
Williams Gold Refining Co Inc Precious Metals Div Buffalo	N Y

METAL PARTS--SMALL METAL STAMPINGS

ACCURATE ELECTRONICS CORP, ELYRIA OHIO	**ADV PG 394**
ART WIRE & STAMPING CO, NEWARK, N J	**ADV PG 814**
CARR FASTENER CO DIV UNITED-CARR INC, CAMBRIDGE MASS	**ADV PGS 284,285**
EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
ELECTRONIC CLOSURES, SPRINGFIELD	**NJ**
FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
KENTUCKY ELECTRONICS INC, OWENSBORO, KY	**ADV PG 767**
KINETRON CORP, ASBURY PARK	**N J**
MICRO CONTACTS, INC, HICKSVILLE, N Y	**ADV PG 394**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
NATIONAL LEAD CO, NEW YORK	**N Y**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
STAR STAINLESS SCREW CO, PATERSON	**N J**
STIMPSON CO INC, EDWIN B, BROOKLYN	**N Y**
WILLIAMS GOLD REFINING CO INC PRECIOUS METALS DIV BUFFALO, N Y	**ADV PG 394**
Abalon Precision Mfg Corp, Bronx	N Y
Abesto Corp, Bloomfield	N J
Accurate Electronics Corp, Elyria	Ohio
Accurate Spring Mfg Co Div United Greenfield Corp River Grove	Ill
Acme Model Engineering Co, Ridgefield	N J
Advance Stamping Co, Detroit	Mich
Aetna Electronics Corp, North Branch	N J
Allmetal Screw Products Co Inc, Garden City	N Y
Alloys Unlimited Inc, Melville	N Y
Alpha Metals Inc, Jersey City	NJ
Amatom Electronic Hardware, New Rochelle	N Y
American Mica Insulation Co, Manasquan	N J
American Silver Co Div, Flushing	N Y
Anaconda American Brass Co, Waterbury	Conn
Anti-Corrosive Metal Products Co, Inc, Albany	N Y
Apahouser Corp of N E, Boston	Mass
Art Wire & Stamping Co, Newark	N J
Associated Engineering & Mfg Corp, Glen Ridge	N J
Atlee Corp, Winchester	Mass
Atomite Electronics Corp, Roosevelt	N Y
Auburn Mfg Co, Middletown	Conn
Auto-Swage Products, Inc, Shelton	Conn
A V Electronics, Inc, Fresno	Cal
Baltic Metal Products Co, Brooklyn	N Y
Barnes Engineering Co, Santa Ana	Cal
Bead Chain Mfg Co, Bridgeport	Conn
Beama Engineering Ltd, Toronto 15	Ont
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bennett Mfg Co, Inc, Alden	N Y
Betts & Betts Corp, Woodbury	Conn
Bigelow Components Co, Newark	N J
Birtcher Corp, Industrial Div, Monterey Park	Cal
Blinn Co Inc, Delbert, Pomona	Cal
Boji Electronics Inc, McGregor	Iowa
Boston Precision Parts Co Inc, Hyde Park	Mass
Braun Tool & Instrument Co Inc, H, Hawthorne	N J
Brooks & Perkins Inc, Detroit	Mich
Buckeye Stamping Co, Columbus	Ohio
Bud Radio Inc, Willoughby	Ohio
Calcor Space Facility Inc, Whittier	Cal
California Chassis Co, Lynwood	Cal
Cambridge Thermionic Corp, Cambridge	Mass
Carr Fastener Co Div United-Carr Inc, Cambridge	Mass
Chemical & Aerospace Products Inc, Wilmington	Cal
Cinch-Monadnock, City of Industry	Cal
Clear Beam Antenna, Sylmar	Cal
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Clover Co Inc F G, Rockaway	N J
Cly-Del Mfg Co, Waterbury	Conn
Cominco American Inc Electronic Matls Div, Spokane	Wash
Connor Spring Mfg Co Div Sloss & Britain San Francisco	Cal
Cox Mfg Co, San Antonio	Tex
Cramco Solder Alloys, Scarborough	Ont
Cutler Metal Products Co, Camden	N J
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Dentronics, Inc, Hackensack	N J
Device Seals Inc, Sun Valley	Cal
Diebel Mfg Co, Morton Grove	Ill
Division Lead Co, Summit	Ill
Do-Rite Mfg Co, East Paterson	N J
Douglas Div Kingston Products Corp, Bronson	Mich
Dudek & Bock Spring Mfg Co, Chicago	Ill
Duplicon Co Inc, Westboro	Mass
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Eastern Specialty Co, Philadelphia	Pa
Eastern Tool & Mfg Co, Belleville	N J
Electrix Corp, Esmond	R I
Electro-Chemical Engraving Co Inc, Bronx	N Y
Electronic Closures, Springfield	NJ
Electronic Metals & Alloys Inc, North Attleboro	Mass
Electronic Parts Mfg Co Inc, Union City	N J
Eljay Corp, Baltimore	Md
Emporium Specialties Co Inc, Cleveland	Ohio
Emtec Inc, Empire Spring Div, Elyria	Ohio
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Erie Technological Products Inc, Erie	Pa
Estes Engineering Co, Gardena	Cal
Eugene Engineering Co Inc, Rockland	Mass
Eyelematic Mfg Co Inc, Oakville	Conn
Falstrom Co, Passaic	N J
Fansteel Metallurgical Corp, North Chicago	Ill
Fastex Div Illinois Tool Works, Des Plaines	Ill
Feay Co, Neal, Goleta	Cal
Federal Screw Products Inc, Chicago	Ill
Federal Stampings, Div Doric Corp, Minneapolis	Minn
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Fel Pro Inc Div Felt Products Mfg Co, Skokie	Ill
Ford Radio & Mica Corp, Brooklyn	N Y
Forway Industries Inc, Woodbury	N J
GAF Corp, New York	NY
Gasket Mfg Co Inc, Los Angeles	Cal
Gemp Terminals Inc, Yonkers	N Y
General Findings Co Industrial Div, Attleboro	Mass
Gibson Electric Co, Div Talon Inc, Delmont	Pa
GM Nameplate, Seattle	Wash
Golden Corp, I, Brooklyn	N Y
Great Eastern Metal Products Co, Yonkers	N Y
Green Rectifier Corp, Fair Lawn	N J
GTI Corp, Clover Industries Div, Tonawanda	N Y
Gyrotronics Inc, Asbury Park	N J
Haddon Tool & Mfg Co, Merchantville	N J
Halliburton Enterprises Inc, Mfg Div, Los Angeles	Cal
Haydu Products Inc, Opa Locka	Fla
Henes Mfg Co, Phoenix	Ariz
Hi-Lo Mfg Corp, Chicago	Ill
Hit Products Corp, South Norwalk	Conn
Hobson Brothers Inc, Chicago	Ill
Holbrook Merrill Co, Sunnyvale	Cal
Hunter Spring Div Ametek Inc, Hatfield	Pa
Industrial Electronic Hardware Corp, New York	N Y
Jakel Motors Inc, Highland	Ill
Jan Hardware Mfg Co Inc, Long Island City	N Y
Johnson & Hoffman Mfg Corp, Carle Place	N Y

MICRO CONTACTS INC

Miniature precious metal contacts and contact assemblies in all alloys of gold, silver, platinum, and palladium. Micro brushes, springs, blades, rivets and rings. Precision stampings of thin gauge base metals including beryllium copper, stainless steel, nickel, brass bronze, and many others.

Send quotation requests to:

MICRO CONTACTS INC.
63 Alpha Plaza
Hicksville, L. I., N. Y. 11801
Telephone 516-433-4830

Kentucky Electronics Inc, Owensboro	Ky
Kestler Electronics, Rosemead	Cal
Kinetron Corp, Asbury Park	N J
King Laboratories Inc, Syracuse	N Y
Kling Metal Spinning & Stpg Corp, New York	N Y
Laka Tool & Stamping Co, Inc, Westbury	N Y
Lake Engineering Co Ltd, Scarborough	Ont
Laminated Shim Co Inc, Glenbrook	Conn
Lear Siegler Inc, Santa Monica	Cal
Lee Spring Co, Brooklyn	N Y
Linden & Co Inc, Providence	R I
Lowell Mfg Co, St Louis	Mo
Magnetic Metals Co, Camden	N J
Mandex Mfg Co Inc, Chicago	Ill
Mark Eyelet & Stamping Inc, Wolcott	Conn
Mason Mfg Co Div Fram Corp, East Providence	R I
Metal Ceram Inc, Mount Vernon	N Y
Metal Works Inc, Hermann	Mo
Micro Contacts, Inc, Hicksville	N Y
Micro Parts Inc, Los Angeles	Cal
Mid-West Metal Products Inc, Kansas City	Kans
Minitec Corp, Morristown	N J
Mobil Electronics Inc, Anderson	Ind
Molex Products Co, Downers Grove	Ill
Monarch Industries Inc, El Segundo	Cal
Morris Co, J I, Southbridge	Mass
M-T Electronics Co, San Leandro	Cal
Nassau Precision Metal Products, Port Washington	N Y
National Lead Co, New York	N Y
National Tel-Tronics Corp, Great Neck	N Y
Network Industries Inc, Bayonne	N J
Nutmeg Screw Machine Products Co, Waterbury	Conn
O'Hara Metal Products Co, San Francisco	Cal
Olympic Prods Co Div J B Schaefer Indus, Alpha	N J
Oneida Electronic Mfg Co, Meadville	Pa
Pabst Engineering Equipment Co Inc, Elizabeth	NJ
Parker Metal Goods Co, Worcester	Mass
Patton-MacGuyer Co, Providence	R I
Penn Fibre & Specialty Co, Philadelphia	Pa
Permonite Mfg Co, Chicago	Ill
Philway Products Inc, Ashland	Ohio
Pix Mfg Co, Newark	N J
Plastiglide Mfg Corp, Santa Monica	Cal
Premax Products Div, Chisholm-Ryder Co Inc Niagara Falls	N Y
Premium Allied Tool Inc, Owensboro	Ky
Pyromet Industries, San Carlos	Cal
Radio Corp of America, Electronic Components, Harrison	N J
Republic Industrial Corp, Lathrup Village	Mich
Revere Copper & Brass, Inc, New York	N Y
Richards Metal Products Inc, Wolcott	Conn
Romac Electronics Inc, Long Island City	N Y
Roman Industries, Harbor City	Cal
Rosselli Del Turco Rossello, Rome	Italy
Roxter Corp, Long Island City	N Y
Seastrom Mfg Co Inc, Glendale	Cal
Semi-Alloys Inc, Mt Vernon	N Y
Sessions & Son, J H, Bristol	Conn
Sierra Electric Inc, Gardena	Cal
Siltronics Inc, Oakmont	Pa
Sippican Corp, Ind Prods Div, Mattapoisett	Mass
S K G Associates Inc, Boston	Mass
Slocum Industries, Inc, Reseda	Cal
Staffall, Inc, Providence	R I
Stamptronics Inc, Azusa	Cal
Stanley Industrial Hardware Div Stanley Works New Britain	Conn
Star Stainless Screw Co, Paterson	N J
Staver Co Inc, Bay Shore	N Y
Steel Industries Inc, Crawfordsville	Ind
Stimpson Co Inc, Edwin B, Brooklyn	N Y
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Taffet Electronics Inc, Woodside	N Y
Tech-Etch, Inc, Hingham	Mass
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Texas Instruments Incorporated, Dallas	Tex
Thermalloy Co, Dallas	Tex
Trelcom Engineering Co Inc, Baltimore	Md
Tricraft Products Corp, Chicago	Ill
UID Electronics Corp, Hollywood	Fla
United Products Co, Orange	N J
Universal Instruments Corp, Binghamton	N Y
Volkert Stampings Inc Sub Stanley Works Queens Village	N Y
Wabash Metal Products Co Inc, Wabash	Ind
Waber Electronics Inc, Philadelphia	Pa
Waterbury Pressed Metal Co, Waterbury	Conn
Westinghouse Electric Corp, Lamp Div, Bloomfield	N J
Wilkinson Co, Westlake Village	Cal
Williams Gold Refining Co Inc Precious Metals Div Buffalo	N Y
Worcester Pressed Steel Co, Worcester	Mass
Wrought Washer Mfg Co, Milwaukee	Wis
York Metal Products Inc, Long Island City	N Y
Youngwood Electronic Metals Inc, Youngwood	Pa
Zero Mfg Co, Burbank	Cal
Zierick Mfg Corp, Mount Kisco	N Y

METAL PARTS--SPINNINGS

Ainslie Corp, Braintree	Mass
Amatom Electronic Hardware, New Rochelle	N Y
Associated Engineering & Mfg Corp, Glen Ridge	N J
Beama Engineering Ltd, Toronto 15	Ont
Brooks & Perkins Inc, Detroit	Mich
Calcor Space Facility Inc, Whittier	Cal
C M Mfg Co, Bloomfield	N J
Division Lead Co, Summit	Ill
Eugene Engineering Co Inc, Rockland	Mass
Fansteel Metallurgical Corp, North Chicago	Ill
Gasket Mfg Co Inc, Los Angeles	Cal
Haydu Products Inc, Opa Locka	Fla
Kling Metal Spinning & Stpg Corp, New York	N Y
Lowell Mfg Co, St Louis	Mo
Metal Ceram Inc, Mount Vernon	N Y
Micro Parts Inc, Los Angeles	Cal
Revere Copper & Brass, Inc, New York	N Y
Rotary Co, Inc, Buffalo	N Y
Seastrom Mfg Co Inc, Glendale	Cal
Semi-Alloys Inc, Mt Vernon	N Y
Teiner Co Inc, Roland, Everett	Mass

METAL PARTS--THREADED RODS

EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
STAR STAINLESS SCREW CO, PATERSON	**N J**
Abacus Electronics Corp, Dobbs Ferry	N Y
Abbott Products, Inc, College Point	N Y
Acme Model Engineering Co, Ridgefield	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
Allmetal Screw Products Co Inc, Garden City	N Y
Amatom Electronic Hardware, New Rochelle	N Y
Anti-Corrosive Metal Products Co, Inc, Albany	N Y
Atomite Electronics Corp, Roosevelt	N Y
Cerro Corp, New York	NY
Connor Spring Mfg Co Div Sloss & Britain San Francisco	Cal
Costelow Co Inc, Topeka	Kans
Cox Mfg Co, San Antonio	Tex
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Electronic Metals & Alloys Inc, North Attleboro	Mass
Electronic Parts Mfg Co Inc, Union City	N J
Eljay Corp, Baltimore	Md
Eugene Engineering Co Inc, Rockland	Mass
Fansteel Metallurgical Corp, North Chicago	Ill
Federal Screw Products Inc, Chicago	Ill
General Findings Co Industrial Div, Attleboro	Mass
Harper Co, H M, Morton Grove	Ill
Haydu Products Inc, Opa Locka	Fla
Lear Siegler Inc, Santa Monica	Cal
Metal Ceram Inc, Mount Vernon	N Y
Micro Parts Inc, Los Angeles	Cal
Morris Co, J I, Southbridge	Mass
Norrich Plastics Corp, Roosevelt	N Y
Parker Metal Goods Co, Worcester	Mass
Raway Bearing Co Inc, New York	N Y
Red Devil Mfg Co, Chicago	Ill
Republic Industrial Corp, Lathrup Village	Mich
Republic Steel Corp, Cleveland	Ohio
Robinson-Nugent Inc, New Albany	Ind
Smith Inc, Herman H, Brooklyn	N Y
Star Stainless Screw Co, Paterson	N J
Sterling Instrument Div, Designatronics Inc Mineola	N Y
Sylvania Elec Prods Inc, Chem & Met Div, Towanda	Pa
Triangle Instrument Co Inc, Syosset	N Y
Union Carbide Corp, Materials Systems Div Kokomo	Ind

METAL PARTS--TRIMMINGS

Aikow Shoji Kaisha Ltd, Osaka	Japan
Bennett Mfg Co, Inc, Alden	N Y
Connor Spring Mfg Co Div Sloss & Britain San Francisco	Cal
Eugene Engineering Co Inc, Rockland	Mass
Metal Ceram Inc, Mount Vernon	N Y
Red Devil Mfg Co, Chicago	Ill
Scientific Data Systems Inc, El Segundo	Cal
Seastrom Mfg Co Inc, Glendale	Cal
Staver Co Inc, Bay Shore	N Y
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal

METAL PARTS--TUBULAR

PRECISION TUBE CO INC, NORTH WALES	**PA**
SUPERIOR TUBE CO, NORRISTOWN	**PA**
UNIFORM TUBES INC, COLLEGEVILLE, PA	**ADV PG 395**
Abacus Electronics Corp, Dobbs Ferry	N Y
Acme Model Engineering Co, Ridgefield	N J
Ainslie Corp, Braintree	Mass
Amatom Electronic Hardware, New Rochelle	N Y
Atomite Electronics Corp, Roosevelt	N Y
Auto-Swage Products, Inc, Shelton	Conn
Bead Chain Mfg Co, Bridgeport	Conn
Bennett Mfg Co, Inc, Alden	N Y
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Cerro Corp, New York	NY
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Cly-Del Mfg Co, Waterbury	Conn
Crucible Steel Co, Pittsburgh	Pa
Eugene Engineering Co Inc, Rockland	Mass
Extrudonics Inc, New Brunswick	N J
Eyelematic Mfg Co Inc, Oakville	Conn
Falstrom Co, Passaic	N J
Fastex Div Illinois Tool Works, Des Plaines	Ill
Feay Co, Neal, Goleta	Cal
Forway Industries Inc, Woodbury	N J
General Findings Co Industrial Div, Attleboro	Mass
Harvey Hubbell Inc, Bridgeport	Conn
Higbie Mfg Co, Rochester	Mich
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia	Pa
Kling Metal Spinning & Stpg Corp, New York	N Y
Mason Mfg Co Div Fram Corp, East Providence	R I
Metal Ceram Inc, Mount Vernon	N Y
Micro Parts Inc, Los Angeles	Cal
3M Company, St Paul	Minn
Norrich Plastics Corp, Roosevelt	N Y
Parker Metal Goods Co, Worcester	Mass
Precision Tube Co Inc, North Wales	Pa
Republic Industrial Corp, Lathrup Village	Mich
Richards Metal Products Inc, Wolcott	Conn
Semi-Alloys Inc, Mt Vernon	N Y
Staver Co Inc, Bay Shore	N Y
Superior Tube Co, Norristown	Pa
Uniform Tubes Inc, Collegeville	Pa
Upson Tools Inc, Rochester	N Y
Victor Metal Products Corp, Harrisonburg	Va

Need thin-wall tubing or tubular parts?

Then contact Uniform Tubes.

Here's why . . .

- More than 90 alloys from aluminum to zirconium.
- O.D.'s from 0.003″ to 0.625″ to specification.
- Wall thickness from 0.050″ to as thin as 0.0005″ in many O.D.'s.
- Tolerance on wall thicknesses is ±10%, and closer tolerances are held when required.
- ID surface finishes as smooth as 8 microinches in many alloys and sizes.
- Fabrication of many tubular parts at a fraction of their former cost. For example, ID-radiusing of ends can be provided at nominal cost.

Whether you need pen or pointer tubing, spring contacts, pin connectors or potentiometer shafts, tubular linkages, glass-to-metal seals or seamless metal shielding, you'll find Uniform Tubes a fast, reliable source for Quality in Quantity. Call today or send for our complete literature file. 807

UNIFORM TUBES, INC.

Collegeville, Pa. 19426 • TWX 510-660-6107
Phone: (215) 489-7293 • TELEX: 84-6428

METAL PLATING SERVICES SEE PLATING SERVICES

METALS SEE INDIVIDUAL LISTINGS & ALLOYS

METALS--CLAD

NATIONAL LEAD CO, NEW YORK	**N Y**
Alloys Unlimited Inc, Melville	N Y
Alpha Metals Inc, Jersey City	NJ
American Silver Co Div, Flushing	N Y
Anadite, Inc, South Gate	Cal
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Associated Engineering & Mfg Corp, Glen Ridge	N J
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Bennett Mfg Co, Inc, Alden	N Y
Brainin Corp, C S, Mt Vernon	N Y
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Electronic Metals & Alloys Inc, North Attleboro	Mass
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Fansteel Metallurgical Corp, North Chicago	Ill
Flexible Products Inc, North St Paul	Minn
General Electric Co Lamp Metals & Components Dept Cleveland	Ohio
Handy & Harman, New York	N Y
Improved Seamless Wire Co, Providence	R I
Johnson Matthey & Mallory Ltd, Toronto 15	Ont
Leach & Garner Co, Industrial Div, Attleboro	Mass
Materials Research Corp, Orangeburg	N Y
Matthey Bishop Inc, Malvern	Pa
Metal Ceram Inc, Mount Vernon	N Y
Metz Refining Co, South Plainfield	N J
National Lead Co, New York	N Y
Nuclear Materials & Equipment Corp, Apollo	Pa
Porter Co Inc H K, Fabricated Metals Div Pittsburgh	Pa
Republic Steel Corp, Cleveland	Ohio

GERMANIUM
GERMANIUM DIOXIDE
BORON
ZINC
Why spin your wheels?
CADMIUM
GALLIUM

Eagle-Picher guarantees dependable supply—ultra-high purity

You're *sure* with Eagle-Picher, unsurpassed source of all these products in ultra-high purity compound and metal form. Over 30 years ago, Eagle-Picher made Gallium metal recovery practical while separating Germanium from Zinc concentrates. And as a result of constant purification and upgrading since that time, Eagle-Picher today, for example, supplies Germanium and Gallium Oxides with *minimum* spectrographic purities of 99.9999% and Germanium and Gallium metals with spectrographic purities over 99.99999%! So Eagle-Picher compounds and metals continue to lead in quality and dependability for the rigid, precise demands of the semiconductor industry.

EAGLE-PICHER COMPOUNDS AND METALS

BORON: Ultra-high purity elemental Boron; Tribromide; Oxide. **CADMIUM:** Ultra-high purity Cadmium Metal; Sulfide, powder, crystal chips, melt and vapor phase crystals; Cadmium Selenide and Cadmium Telluride powder. **GALLIUM:** Metal; Sesquioxide, Trichloride. **GERMANIUM:** First Reduction Metal; Intrinsic Metal; Single Crystals; Dioxide; Tetrachloride; Tetrabromide; Tetraiodide; Monoxide; Diiodide; Sodium Metagermanate; Sodium Heptagermanate. **ZINC:** Metal; Sulfide, powder, crystal chips, melt and vapor phase crystals; Zinc Selenide and Zinc Telluride powders.

For complete information . . . clip and mail today!

Eagle-Picher Industries, Inc. • Electronics Division •
Dept. EBG-69 • Miami, Oklahoma 74354

Gentlemen: Yes, I would like to have more information on Eagle-Picher Compounds and Metals.

Name____________________ Title__________

Firm________________________________

Address_____________________________

EAGLE
EP
PICHER

Since 1843
EAGLE-PICHER
INDUSTRIES, INC.
General Office
Cincinnati, Ohio 45202

Revere Copper & Brass, Inc, New York	N Y
Reynolds Metals Co, Richmond	Va
Roosevelt Metal Co Inc, Brooklyn	N Y
Sel-Rex International S A, Geneve	Switzerland
Semi-Alloys Inc, Mt Vernon	N Y
Standard Metals Div Edw N Cook Plate Co, Inc North Attleboro	Mass
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Texas Instruments Incorporated, Dallas	Tex
Union Carbide Corp, Materials Systems Div Kokomo	Ind
United American Metals Div, Brooklyn	N Y

METALS, ULTRA PURE--CHEMICAL & SOLID STATE

CONSOLIDATED REACTIVE METALS INC, MAMARONECK	**N Y**
EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV, JOPLIN MO	**ADV PL 396**
PFIZER MINERALS, PIGMENTS & METALS DIV NEW YORK	**NY**
WILLIAMS GOLD REFINING CO INC PRECIOUS METALS DIV BUFFALO	**N Y**
Alloys Unlimited Inc, Melville	N Y
Alpha Metals Inc, Jersey City	NJ
Alusuisse Metals Inc, Fort Lee	N J
American Silver Co Div, Flushing	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerac Inc, Butler	Wis
City Chemical Corp, New York	N Y
Cohn Corp, Sigmund, Mt Vernon	N Y
Cominco American Inc Electronic Matls Div, Spokane	Wash
Consolidated Reactive Metals Inc, Mamaroneck	N Y
Cramco Solder Alloys, Scarborough	Ont
Crucible Steel Co, Pittsburgh	Pa
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Handy & Harman, New York	N Y
Henley & Co Inc, New York	N Y
Johnson Matthey & Mallory Ltd, Toronto 15	Ont
Kawecki Chemical Co, New York	N Y
Koch Light Labs Ltd, Colnbrook, Bucks	England
Materials Research Corp, Orangeburg	N Y
Metal Ceram Inc, Mount Vernon	N Y
Pfizer Minerals, Pigments & Metals Div, New York	NY
Polysciences Inc, Warrington	Pa
Ring, Inc, Bernard, New York	N Y
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Semi-Alloys Inc, Mt Vernon	N Y
Special Metals Corp, New Hartford	NY
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Vitro Labs Div Vitro Corp of America, Silver Spring	Md
Williams Gold Refining Co Inc Precious Metals Div Buffalo	N Y

METALS--VACUUM DEPOSITED

FILM MICROELECTRONICS, INC, BURLINGTON	**MASS**
Airco Temescal, Berkeley	Cal
Allen-Jones Electronics Corp, Gardena	Cal
Anadite, Inc, South Gate	Cal
Ardel Corp, Glendale	Cal
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
Carpenter Steel Co, Reading	Pa
Cominco American Inc Electronic Matls Div, Spokane	Wash
Denton Vacuum Inc, Cherry Hill	N J
Eastern Delta Corp, Fair Lawn	N J
Electronic Space Products Inc, Los Angeles	Cal
Fansteel Metallurgical Corp, North Chicago	Ill
Film Components Div Reon Resister Corp, Yonkers	N Y
Film Microelectronics, Inc, Burlington	Mass
Green Rectifier Corp, Fair Lawn	N J
Isomet Corp, Palisades Park	N J
Kokusai Electric Co Ltd, Tokyo	Japan
Laser Optics Inc, Danbury	Conn
Lek-Trol, Inc, Grapevine	Tex
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
Mackay Inc, A D, New York	N Y
Materials Research Corp, Orangeburg	N Y
Metal Ceram Inc, Mount Vernon	N Y
Metavac Inc, Flushing	N Y
Nuclear Materials & Equipment Corp, Apollo	Pa
Optical Coating Lab Inc, Santa Rosa	Cal
Pacific Universal Products Corp, Pasadena	Cal
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Reon Resistor Corp, Yonkers	N Y
Republic Steel Corp, Cleveland	Ohio
Research Chemical Div, Nuclear Corp of America Phoenix	Ariz
Semicon Associates Inc, Lexington	Ky
Sierracin Corp, Sylmar	Cal
Silver Glo Picture Tubes Ltd, Edmonton	Alb
Spectrum Systems, Inc, Waltham	Mass
Sylvania Elec Prods Inc, Chem & Met Div, Towanda	Pa
Towne Labs Inc, Somerville	N J
Vacuum Metallizing, Van Nuys	Cal
Var-Lac-Oid Chemical Co, Elizabeth	N J

METAL TUBES & SLEEVES SEE TUBING--METALIC

METER CALIBRATORS SEE CALIBRATORS--METER

METER COIL FORMS

Allen/UTI, Kalamazoo	Mich
Gries Reproducer Co Div Coats & Clark Inc New Rochelle	N Y
Howie Corp, Norristown	Pa
Maryland Lava Co Inc, Bel Air	Md
Norrich Plastics Corp, Roosevelt	N Y
Precision Inc, Minneapolis	Minn
Precision Paper Tube Co, Wheeling	Ill
Product Components Corp, Hastings-on-Hudson	N Y
Sankyo Seiki Mfg Co, Ltd, Tokyo	Japan

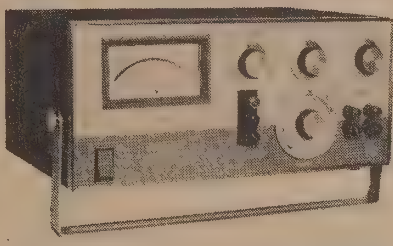
METERS SEE SPECIFIC HEADINGS

METERS--ATTENUATION

DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
HEWLETT-PACKARD, PALO ALTO	**CAL**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
A & M Instruments Inc, Great Neck	N Y
Dranetz Engineering Labs Inc, Plainfield	N J
General Radio Co, West Concord	Mass
Guide Industries Inc, Sun Valley	Cal
Hewlett-Packard, Palo Alto	Cal
International Electronics Corp, Melville	NY
Marconi Instruments Div, English Electric Corp Englewood	N J
Maury Microwave Corp, Montclair	Cal
Narda Microwave Corp, Plainview	N Y
Rantec Div Emerson Electric Co, Calabasas	Cal
Siemens America Inc, New York	N Y
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Wandel & Goltermann/Tel-Com, Hanover	N J
Weinschel Engineering Co Inc, Gaithersburg	Md

METERS--CAPACITANCE SEE ALSO BRIDGES

DRANETZ ENGINEERING LABS INC, PLAINFIELD N J	**ADV PG 397**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND OHIO	**ADV PG 397**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
TEKTRONIX INC, BEAVERTON	**ORE**
A & M Instruments Inc, Great Neck	N Y
Amstro Corp, Fairfield	N J
Ballantine Laboratories, Inc, Boonton	N J



MODEL 320 VECTOR

IMPEDANCE METER

for direct reading from
5 Hz to 500 kHz.

☐ Resistance or impedance range: 1 ohm to 10 megohms; Capacitance to 10,000 mfd; Inductance to 100,000 henries; ☐ Also measures transfer function; ☐ Reads phase and amplitude with 301 Phase Meter; ☐ All solid-state; ☐ DC outputs for recording; ☐ Sampling instruments also available; ☐ Write Dept. DEB. (See also: Comparators-Impedance)

DRANETZ

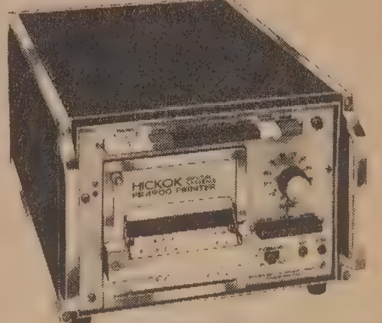
ENGINEERING LABORATORIES, INC.
1233 North Ave., Plainfield, N.J. 07062
Telephone Area Code. (201) 755 7080

IMPEDANCE – ADMITTANCE METERS ■ PHASE METERS ■ TRANSFER FUNCTION COMPUTERS ■ INSTRUMENT TRANSFORMERS ■ OSCILLATORS ■ SAMPLING VOLTMETERS ■ PULSE INSTRUMENTATION ■ FROM SINGLE INSTRUMENTS TO COMPLETE SYSTEMS

HICKOK

DMS-3200

Digital Measuring System
(Fully solid state with IC's)



Digital Printer PR 4900 – From $760

HICKOK DIGITAL SYSTEMS
MODEL DP 100

Main Frame DMS 3200A – $375
(or DMS 3200P Main Frame with printer output – $450)
Shown with DC Voltmeter Plug in

MODEL DP 100 DC PLUG-IN
MODEL DP 140 EVENT COUNTER
MODEL DP 150A
CAPACITOR

DC Voltmeter
Plug-in DP 100
$175

Event Counter
Plug-in DP 140
$90

1 MHz Counter
Plug-in DP 150A
[illegible]

Ohmmeter
Plug-in DP 170
$275

Capacity Meter
Plug-in DP 200
$275

The HICKOK DMS 3200 Digital Measuring System is a precision electronic measuring device which displays readings in digital form instead of the relatively inaccurate and difficult-to-read moving-pointer meter display A companion PR 4900 Digital Printer allows the displayed readings of the DMS 3200 System to be printed in permanent form for storage and future reference

Because the DMS 3200 System consists of a main frame which will accept a number of "plug-in" units, it can be used to measure a variety of electrical parameters. The main frame provides display of the reading; the plug-in determines the application

THE HICKOK ELECTRICAL INSTRUMENT COMPANY
10514 Dupont Avenue • Cleveland, Ohio 44108

Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Boonton Electronics Corp, Parsippany	N J
Canadian Research Institute, Don Mills	Ont
Components Specialties Inc, Freeport	N Y
Decker Corp, Bala Cynwyd	Pa
Dranetz Engineering Labs Inc, Plainfield	N J
EICO Electronic Instrument Co Inc, Brooklyn	NY
Epic Inc, New York	N Y
General Radio Co, West Concord	Mass
Hickok Electrical Instrument Co, Cleveland	Ohio
Honeywell Test Instruments Div, Denver	Colo
Ikor, Inc, Burlington	Mass
Kokuyo Electric Co Ltd, Tokyo	Japan
Laucks Labs Inc, Redmond	Wash
London Co, Westlake	Ohio
Marconi Instruments Div, English Electric Corp Englewood	N J
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Radiometer A/S, Copenhagen NV	Denmark
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Shigoto Industries Ltd, New York	N Y
Sprague Electric Co, North Adams	Mass
Tektronix Inc, Beaverton	Ore
Wayne Kerr Corp, Montclair	NJ

METERS--CONDUCTIVITY

DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
INTRONICS INC, NEWTON	**MASS**
A & M Instruments Inc, Great Neck	N Y
Amstro Corp, Fairfield	N J
Bailey Meter Co, Wickliffe	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Bissett-Berman Corp, Santa Monica	Cal
Dranetz Engineering Labs Inc, Plainfield	N J
Hallmark Standards Inc, Mamaroneck	N Y
Intronics Inc, Newton	Mass
Kahl Scientific Instrument Corp, El Cajon	Cal
London Co, Westlake	Ohio
Magnaflux Corp, Chicago	Ill
McNab Inc, New York	N Y
Montedoro Corp, San Luis Obispo	Cal
Pall Corp, Environmental Control Systems Div Long Island City	NY
Radiometer A/S, Copenhagen NV	Denmark
Teltronics Inc, Nashua	N H
Wayne Kerr Corp, Montclair	NJ
Yellow Springs Instrument Co Inc, Yellow Springs	Ohio

METERS--COUNTING-RATE

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
TECHMETRIC CO, REDWOOD CITY	**CAL**
Airmec Instruments Ltd, Buckinghamshire	England
A & M Instruments Inc, Great Neck	N Y
Baird-Atomic, Inc, Cambridge	Mass
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Canadian Research Institute, Don Mills	Ont
Canberra Industries, Middletown	Conn
Charter Labs Inc, East Northport	NY
CMC/Rutherford, San Fernando	Cal
Components Corp, Denville	NJ
Crane Electronics Corp, Santa Barbara	Cal
Darcy Industries Inc, TSI Div, Santa Monica	Cal
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electric Tachometer Corp, Philadelphia	Pa
Engler Instrument Co, Jersey City	N J
E N M Co, Chicago	Ill
EON Corp, Brooklyn	N Y
General Electric Co, ECSO, Schenectady	N Y
Hamner Electronics Co Inc, Cleveland	Ohio
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland	Ohio
Hickok Electrical Instrument Co, Cleveland	Ohio
Janus Control Div Tyco, Waltham	Mass
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Materials Research Corp, Orangeburg	N Y
Milletron, Inc, Pittsburgh	Pa
Nuclear-Chicago Corp, Des Plaines	Ill
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nuclear Measurements Corp, Indianapolis	Ind
Packard Instrument Co, Inc, Downers Grove	Ill
Pennwood Numechron Co Tymeter Electronics Pittsburgh	Pa
Picker Nuclear, White Plains	N Y
Power Instruments Inc, Skokie	Ill
Quantum Electronics Corp, San Ramon	Cal
Sensor Corp, Greenwich	Conn
Takeda Riken Industry Co Ltd, Tokyo	Japan
Techmetric Co, Redwood City	Cal
The Nucleus, Oak Ridge	Tenn
Troxler Electronic Labs Inc, Raleigh	N C
Victoreen Instrument Div, Cleveland	Ohio
Wer Industrial Corp, Buffalo	N Y
Zehntel Inc, Berkeley	Cal

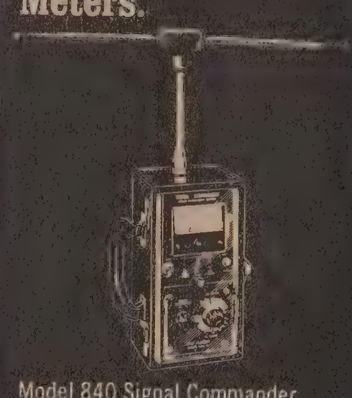
METERS--DB

ELECTRO-MECHANICAL INSTRUMENT CO, INC, PERKASIE	**PA**
HEATH CO, BENTON HARBOR	**MICH**
TELE-SIGNAL CORP, WOODBURY	**N Y**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
American Machine & Foundry Co Alexandria Div Alexandria	Va
A & M Instruments Inc, Great Neck	N Y
Amstro Corp, Fairfield	N J
Ballantine Laboratories, Inc, Boonton	N J
Bartlett-Emery Instrument Co, Fort Madison	Iowa
Beede Electrical Instrument Co, Inc, Penacook	N H
Bitronics Inc, Bethlehem	Pa
Canadian Research Institute, Don Mills	Ont
Clough-Brengle Co, Chicago	Ill
Dixson Inc Meter Div, Grand Junction	Colo
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electro-Mechanical Instrument Co, Inc, Perkasie	Pa
Engler Instrument Co, Jersey City	N J
General Radio Co, West Concord	Mass
Gotham Audio Corp, New York	N Y
Heath Co, Benton Harbor	Mich
Honeywell Precision Meter Div, Manchester	N H
Ideal Precision Meter Co Inc, Brooklyn	N Y
International Electronics Corp, Melville	NY
International Instruments Div Sigma Instr Inc, Orange	Conn
Korfund Dynamics Corp, Westbury	N Y
Lab Electro-Acoustique, 92 Rueil-Malmaison	France
Mastercraft Instrument Co, Dubuque	Iowa
Metermaster, Inc, Los Angeles	Cal
Mura Corp, Great Neck	N Y
Northeast Electronics Corp, Concord	N H
Pacific Measurements Inc, Palo Alto	Cal
Phaostron Instrument & Electronic Co South Pasadena	Cal
Q V S Inc, East Orange	N J
Scott Inc, H H, Maynard	Mass
Shigoto Industries Ltd, New York	N Y
Simpson Electric Co, Chicago	Ill
Singer Co, Metrics Div, Bridgeport	Conn
Sterling Mfg Co, Cleveland	Ohio
Sun Electric Corp, Chicago	Ill
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Tele-Signal Corp, Woodbury	N Y
Triplett Electrical Instrument Co, Bluffton	Ohio
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Wandel & Goltermann/Tel-Com, Hanover	N J
Western Reserve Electronics, Inc, Cleveland	Ohio
Weston Instruments Div Weston Instr Inc, Newark	N J

METERS--ELAPSED TIME SEE INDICATORS--ELAPSED TIME

METERS--FIELD STRENGTH

AMPHENOL, BROADVIEW, ILL	**ADV PG 398**
ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Aerospace Research, Inc, Boston	Mass
Airmec Instruments Ltd, Buckinghamshire	England
Alpha Scientific Labs Inc, Oakland	Cal
A & M Instruments Inc, Great Neck	N Y
Amphenol, Broadview	Ill
Anritsu Electric Co Ltd, Tokyo	Japan
Antlab, Inc, Worthington	Ohio
Benco Television Assoc Div Redifon Can Ltd Rexdale	Ont
Blonder-Tongue Labs Inc, Newark	N J
Compagnie Generale de Metrologie Haute Savoie	France
Components Specialties Inc, Freeport	N Y
Electro-Mechanics Co, Austin	Tex
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam	N Y
Electronics Communications Div Atlantic Research Corp Alexandria	Va
Engineering Associates, Dayton	Ohio
Hickok Electrical Instrument Co, Cleveland	Ohio
Impectron Inc, New York	N Y
Jerrold Electronics Corp, Philadelphia	Pa
Kahl Scientific Instrument Corp, El Cajon	Cal
Kyoritsu Electric Works Ltd, Tokyo	Japan
Lafayette Radio Electronics, Syosset	NY
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Midland International Corp, North Kansas City	Mo
Mobil Electronics Inc, Anderson	Ind
Narda Microwave Corp, Plainview	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
Philmore Mfg Co Inc, Richmond Hill	N Y
Polarad Electronic Instruments Div Long Island City	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Schneider Radio-Television Div, Ivry	France
Seco Electronics Corp, Hopkins	Minn
Sencore Inc, Addison	Ill
Shurite Meters, New Haven	Conn
Simpson Electric Co, Chicago	Ill
Singer Co, Metrics Div, Bridgeport	Conn
Solar Electronics Co, Hollywood	Cal
Sterling Mfg Co, Cleveland	Ohio
Stoddart Electro Systems, Gardena	Cal
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Systems Research Labs Inc, Dayton	Ohio
Tecnica Elettronica Systems S a s, Milan	Italy



Specify Amphenol. The leading name in Field Strength Meters.

Model 840 Signal Commander
Lab quality
Measures accurately rf signals
in AIR, TWIN LEAD, COAX CABLE
Matched balun
Converts 300 ohms to 75 ohms

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

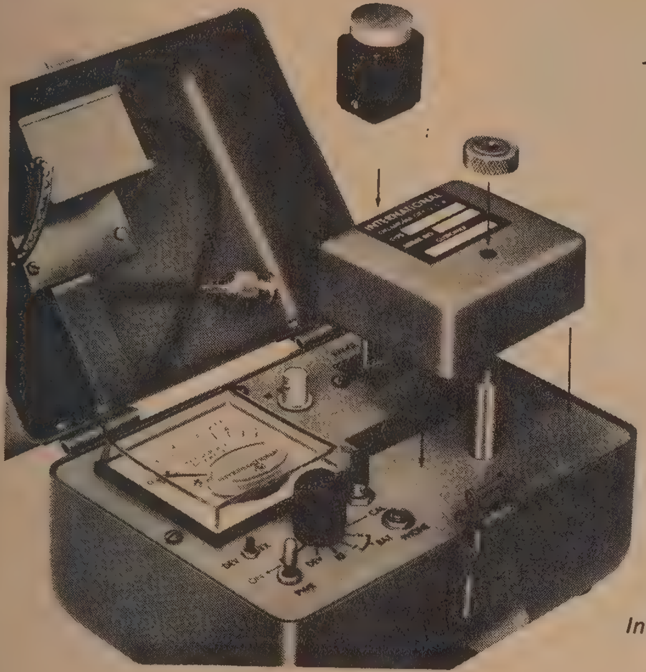
AMPHENOL ™

METERS--FLOW SEE INDICATORS--FLUID-FLOW

METERS, FREQUENCY--A-F

HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
PARKER INSTRUMENT CORP, STAMFORD	**CONN**
TECHMETRIC CO, REDWOOD CITY	**CAL**
Advanced Technology Corp, Chambersburg	Pa
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Airmec Instruments Ltd, Buckinghamshire	England
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
American Machine & Foundry Co Alexandria Div Alexandria	Va
A & M Instruments Inc, Great Neck	N Y
Anadex Instruments, Inc, Van Nuys	Cal
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bitronics Inc, Bethlehem	Pa
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Conn Corp, Elkhart	Ind
Cosmos Industries Inc, Brooklyn	N Y
Crane Electronics Corp, Santa Barbara	Cal
Cushman Electronics Inc, Sunnyvale	Cal
Dixson Inc Meter Div, Grand Junction	Colo
Engineering Associates, Dayton	Ohio
Fairchild Instrumentation, Sunnyvale	Cal
Ferranti, Ltd, Lancashire	England
General Radio Co, West Concord	Mass
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
International Rectifier Semiconductor Div El Segundo	Cal
J A C Electronics Ltd, Camberley	England
Janus Control Div Tyco, Waltham	Mass
Lavoie Labs Div Spedcor, Morganville	N J
Metermaster, Inc, Los Angeles	Cal
Natel Engineering Co Inc, Van Nuys	Cal
Parker Instrument Corp, Stamford	Conn
Phaostron Instrument & Electronic Co South Pasadena	Cal
Philco-Ford Corp, Washington	D C
PMF Electronics Inc, Dayton	Ohio
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Rotamec Inc, Los Angeles	Cal
Sell-Tronic Products Co Inc, Flushing	N Y
Semiconductor Circuits, Inc, Woburn	Mass
Shigoto Industries Ltd, New York	N Y
Simpson Electric Co, Chicago	Ill
Singer Co, Metrics Div, Bridgeport	Conn
Solid State Electronics Corp, Sepulveda	Cal
Standard Telephones & Cables Ltd London WC 2	England
Sun Electric Corp, Chicago	Ill
Taffet Electronics Inc, Woodside	N Y
Takeda Riken Industry Co Ltd, Tokyo	Japan
Techmetric Co, Redwood City	Cal
Telstar Electronics Corp, Southold	N Y
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Wavetek, San Diego	Cal
Westberg Mfg Co, Sonoma	Cal

WHERE ACCURACY COUNTS!
...INTERNATIONAL
ELECTRONIC PRODUCTS
FOR INDUSTRY AND AEROSPACE

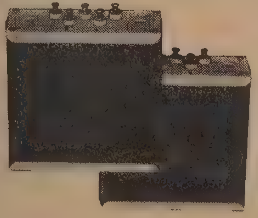


the model
6000 modular
frequency
meter ...

*write for
complete catalog of
International products.*

... will measure frequencies 10 KHz to 600 MHz with .000125% accuracy. Special plug-in modules allow the instrument to be used as a audio frequency meter from 500 Hz to 20 KHz full scale and in addition to be used as a DC voltmeter (10,000 ohms/volt). For field and laboratory use. Portable, battery operated with rechargeable batteries.

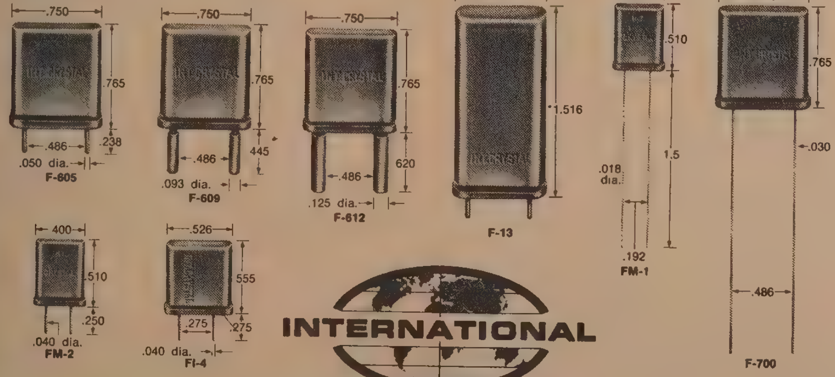
ICD series integrated circuit dividers



International ICD units are totally integrated circuit frequency dividers to replace multivibrators in old equipment. Use them for crystal controlled time bases, scope calibrators, and clock sources. Packaged in nine types providing divide ratios 2 thru 10. No tuning or adjustment required. Output pulse has the same stability as the driving pulse. Voltage required 3.6 vdc ±10%.

Precision radio crystals for frequency control 70 KHz to 160 MHz

COMMERCIAL HOLDER TYPES*



*Crystals for use in military equipment can be supplied to meet specifications of MIL-C-3098C.

INTERNATIONAL
CRYSTAL MFG. CO., INC.
10 NO. LEE • OKLA. CITY, OKLA. 73102

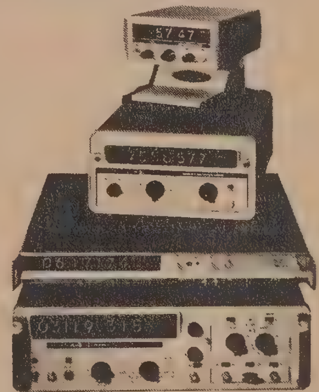
METERS, FREQUENCY--CRYSTAL CONTROL

HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
INTERNATIONAL CRYSTAL MFG CO INC, OKLAHOMA CITY OKLA	**ADV PG 399**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO, ILL	**ADV PG 465**
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Airmec Instruments Ltd, Buckinghamshire	England
Amark Corp, Plainview	N Y
A & M Instruments Inc, Great Neck	N Y
Anadex Instruments, Inc, Van Nuys	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Cushman Electronics Inc, Sunnyvale	Cal
Darcy Industries Inc, TSI Div, Santa Monica	Cal
E F Assoc Inc, Scotch Plains	N J
Fairchild Instrumentation, Sunnyvale	Cal
General Radio Co, West Concord	Mass
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
International Crystal Mfg Co Inc, Oklahoma City	Okla
International Electronics Corp, Melville	NY
J A C Electronics Ltd, Camberley	England
Janus Control Div Tyco, Waltham	Mass
Materials Research Corp, Orangeburg	N Y
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
PMF Electronics Inc, Dayton	Ohio
Standard Telephones & Cables Ltd London WC 2	England

METERS, FREQUENCY--R-F

HEATH CO, BENTON HARBOR, MICH	**ADV PG 400**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO, ILL	**ADV PG 465**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
SYSTRON DONNER CORP, CONCORD, CAL	**ADV PG 399**
TECHMETRIC CO, REDWOOD CITY	**CAL**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
Advanced Measurement Instruments, Inc Somerville	Mass
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Airmec Instruments Ltd, Buckinghamshire	England
Amerac, Inc, Beverly	Mass
A & M Instruments Inc, Great Neck	N Y
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Cushman Electronics Inc, Sunnyvale	Cal

Electronic counters



Systron-Donner offers a comprehensive line of electronic counters, ranging from simple 12.4 MHz frequency meters (at $395) to fully-automatic microwave counters with range to 40 GHz and time base stability as high as 5 parts in 10^{10} per 24 hours. Many counters possess unique measuring capabilities, not available elsewhere in standard off-the-shelf hardware. All recent designs use modern integrated circuits to enhance reliability and reduce cost.

Send for catalog

SYSTRON DONNER
Electronic Instrument Division,
888 Galindo St., Concord, Calif. 94520.
Phone (415) 682-6161. TWX 415-687-3200.

NEW HEATH SERIES "805"

DIGITAL INSTRUMENTS

The First Truly Universal Digital Instruments
Unmatched Versatility At An Unassuming Price

This high performance, completely assembled and tested instrument will perform virtually any measurement function you need. It has remarkable versatility and its unique modular design is fully compatible with the famous Heath Digital System. Here are some of the features that make the "805" the industry's best buy in a digital instrument:

• Frequency Meter, 12.5 MHz response • Integrating Digital Voltmeter accurate to 0.05% (EU-805A has all functions; DVM optional on EU-805D) • Versatile circuit cards can be used to make many different instruments • Six digit readout with floating decimal • TTL Integrated Circuitry • Automatic Mode Triggering • Rear panel Comparator output • Two channel input for Frequency, Period or A/B Ratio • ±1 Count Accuracy • Input Pulse Resolution better than 50 nanoseconds • 1 uS to 10 sec. counting gate time • 1, 10, 100, 1000 V. Ranges • 5 gigohms Input Impedance on separate 1 V. Range • Automatic Polarity Indication • High stability

Assembled EU-805A with DVM $1250
Assembled EU-805D less DVM (EU-805-12 may be easily added later for $340) $940

New Heath Scientific Instrument Catalog. For Your Free Copy Write Us On Your Company Or School Letterhead.

Heath Co., Dept. 580-06, Benton Harbor, Mich. 49022

DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Diamond Antenna & Microwave Corp, Winchester	Mass
E F Assoc Inc, Scotch Plains	N J
Eldorado Electronics, Concord	Cal
Engineering Associates, Dayton	Ohio
Fairchild Instrumentation, Sunnyvale	Cal
Frequency Engineering Labs, Farmingdale	N J
General Radio Co, West Concord	Mass
Gombos Microwave Inc, Clifton	N J
Guide Industries Inc, Sun Valley	Cal
Heath Co, Benton Harbor	Mich
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
J A C Electronics Ltd, Camberley	England
Jerrold Electronics Corp, Philadelphia	Pa
Kokuyo Electric Co Ltd, Tokyo	Japan
Kyoritsu Electric Works Ltd, Tokyo	Japan
Lampkin Laboratories, Inc, Bradenton	Fla
Lavoie Labs Div Spedcor, Morganville	N J
Measurements A McGraw-Edison Div, Boonton	N J
Metermaster, Inc, Los Angeles	Cal
Microwave Cavity Labs Inc, La Grange	Ill
Millen Mfg Co Inc, James, Malden	Mass
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Narda Microwave Corp, Plainview	N Y
National Radio Co Inc, Melrose	Mass
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Philco-Ford Corp, Washington	D C
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Premier Microwave Corp, Port Chester	N Y
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Simpson Electric Co, Chicago	Ill
Singer Co, Metrics Div, Bridgeport	Conn
Singer Co, Metrics Div, Gertsch Dept, Los Angeles	Cal
Standard Telephones & Cables Ltd London WC 2	England
Sterling Mfg Co, Cleveland	Ohio
Sun Electric Corp, Chicago	Ill
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Systron Donner Corp, Concord	Cal
Taffet Electronics Inc, Woodside	N Y
Techmetric Co, Redwood City	Cal
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Waveline Inc, West Caldwell	N J
Wavetek, San Diego	Cal
Weston Instruments Div Weston Instr Inc, Newark	N J

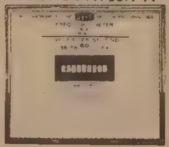
METERS, FREQUENCY--VIBRATING REED

J-B-T INSTRUMENTS INC, NEW HAVEN, CONN	**ADV PG 400**
A & M Instruments Inc, Great Neck	N Y
Biddle Co, James G, Plymouth Meeting	Pa
Bitronics Inc, Bethlehem	Pa
Canadian Research Institute, Don Mills	Ont
Cosmos Industries Inc, Brooklyn	N Y
E I L Instrument Div Unitec Industries, Timonium	Md
En-Cer Inc, South Holland	Ill
Fuji Electric Co Ltd, Tokyo	Japan
Hallmark Standards Inc, Mamaroneck	N Y
JB Electronic Transformers Inc, Chicago	Ill
J-B-T Instruments Inc, New Haven	Conn
Metermaster, Inc, Los Angeles	Cal
Microlab/F X R, Livingston	N J
Rotamec Inc, Los Angeles	Cal
Stark Electronic Instruments Ltd, Ajax	Ont
Sticht Co Inc, Herman H, New York	N Y
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Takeda Riken Industry Co Ltd, Tokyo	Japan
Winslow Tele-Tronics Inc, Asbury Park	NJ
Yokogawa Electric Works Inc, Larchmont	N Y

J-B-T VIBRATING REED FREQUENCY METERS

- 12 to 1000 cps (Hz) (and higher)
- Molded or Metal Cases
- Standard or Sealed
- 1½" to 6"
- 2 to 50 Reeds
- Panel Mounting or Portable

Model 34-FX-ser. A



Model 34-FG with clear plastic front

Same model with picture window frame.

Widely used where constant or known frequency is important to efficient operation of equipment.

Some J-B-T meters for electronic circuits are made with high Q characteristics for sharp response to narrow bands, and others with lower Q for wider band response. All are permanetly accurate within ±0.3% or better, and certain models can be had with ±0.1% accuracy at reference temp.

The J-B-T design is not ordinarily affected by poor wave form, external magnetic disturbances, or voltage fluctuations. Quality performance for military and commercial applications is assured by J-B-T's know-how with 27 years of continuous experience in the design and complete manufacturing of many thousands of these instruments. Current production is covered by recent J-B-T patents.

For details on hundreds of standard and custom models, please ask for Cat. 568.

J-B-T INSTRUMENTS, INC.
NEW HAVEN, CONNECTICUT 06508
(203) 772-2220 or 787-5824

METERS--GRID DIP

HEATH CO, BENTON HARBOR	**MICH**
A & M Instruments Inc, Great Neck	N Y
EICO Electronic Instrument Co Inc, Brooklyn	NY
Heath Co, Benton Harbor	Mich
Kyoritsu Electrical Instruments Works Ltd, Tokyo	Japan
Kyoritsu Electric Works Ltd, Tokyo	Japan
Lafayette Radio Electronics, Syosset	NY
Measurements A McGraw-Edison Div, Boonton	N J
Millen Mfg Co Inc, James, Malden	Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Taffet Electronics Inc, Woodside	N Y

METERS--LIGHT

HEATH CO, BENTON HARBOR	**MICH**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
Abtronics, Inc, Livermore	Cal
Associated American (Amacoil) Winding Machinery Inc New Rochelle	N Y
Berkey Technical Div Berkey Photo Inc, Woodside	N Y
Black Light Corp of America, San Gabriel	Cal
Canadian Research Institute, Don Mills	Ont
Coherent Radiation Labs, Palo Alto	Cal
Heath Co, Benton Harbor	Mich
Weston Instruments Div Weston Instr Inc, Newark	N J

METERS--NOISE FIGURE

GENERAL MICROWAVE CORP, FARMINGDALE N Y	**ADV PG 400**
HEWLETT-PACKARD, PALO ALTO	**CAL**
AIM Electronics Ltd, Cambridge	U K
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
American Machine & Foundry Co Alexandria Div Alexandria	Va
General Microwave Corp, Farmingdale	N Y
Hewlett-Packard, Palo Alto	Cal
Kay Electric Co, Pine Brook	N J

MICROWAVE

AUTOMATIC NOISE FIGURE METERS

Model 551A

RANDOM-NOISE GENERATORS

The industry's most complete line of automatic and manual noise figure measurement equipment for laboratory and systems applications. Model 551A Solid-State Automatic Noise Figure Meter is direct reading, with unequaled accuracy (±0.25dB). Unique modular design permits local or remote operation of noise generators. Coax and waveguide noise sources available from 1 MHz to 140 GHz.

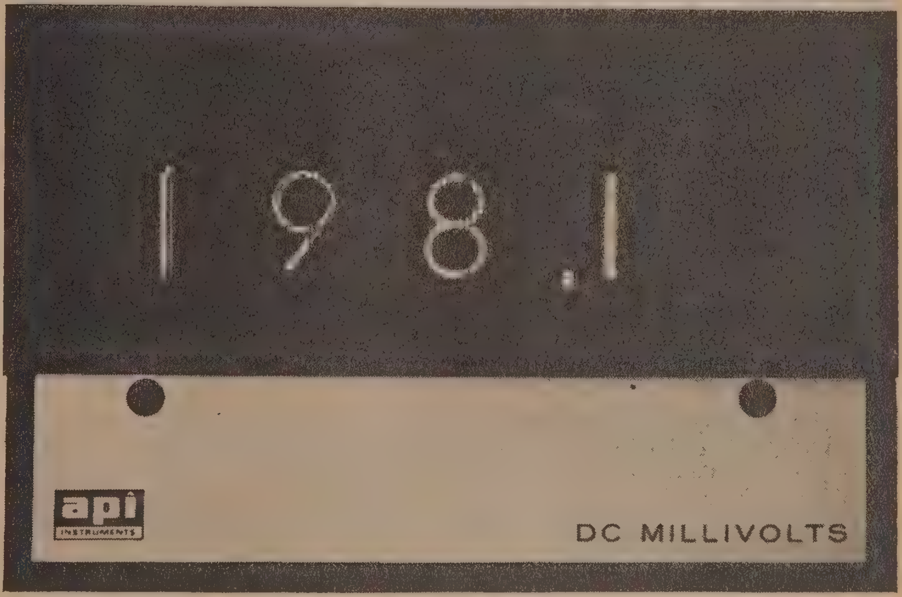
GENERAL MICROWAVE CORPORATION
155 Marine St., Farmingdale, N. Y. • 516 694-3600

METERS--MODULATION

AMPHENOL, BROADVIEW	**ILL**
ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
Advanced Measurement Instruments, Inc Somerville	Mass
Aerocom, Miami	Fla
Airmec Instruments Ltd, Buckinghamshire	England
A & M Instruments Inc, Great Neck	N Y
Amphenol, Broadview	Ill
Anritsu Electric Co Ltd, Tokyo	Japan
A R F Products, Inc, Raton	N M
Avtron Mfg, Inc, Cleveland	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Belar Electronics Lab Inc, Upper Darby	Pa
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Cosmos Industries Inc, Brooklyn	N Y
Cushman Electronics Inc, Sunnyvale	Cal
Dixson Inc Meter Div, Grand Junction	Colo
Kyoritsu Electrical Instruments Works Ltd, Tokyo	Japan
Lampkin Laboratories, Inc, Bradenton	Fla
London Co, Westlake	Ohio
Measurements A McGraw-Edison Div, Boonton	N J
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
New London Instr Co Div Crescent Comm Corp Newton	Mass
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y

METERS--PANEL

ALLIED ELECTRONICS CORP, CHICAGO	**ILL**
AMMON INSTRUMENTS INC, MANCHESTER N H.	**ADV PG 405**
API INSTRUMENTS CO, CHESTERLAND, OHIO	**ADV PG 401**
COMPUTER PRODUCTS INC, FORT LAUDERDALE	**FLA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y.	**ADV PGS 7**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO.	**ADV PGS 8,406**
MODUTEC INC, NORWALK, CONN	**ADV PGS 402,403**
PARKER INSTRUMENT CORP, STAMFORD, CONN.	**ADV PG 406**
WESTON INSTRUMENTS DIV WESTON INSTR INC, NEWARK N J.	**ADV PG 404**
WHITTAKER CORP GEN COM DIV, PLAINVIEW	**N Y**
Abbey Electronics Corp, Westbury	NY
Alco Electronic Products, Inc, Lawrence	Mass
Allied Electronics Corp, Chicago	Ill
A & M Instruments Inc, Great Neck	N Y
Ammon Instruments Inc, Manchester	N H
API Instruments Co, Chesterland	Ohio
Bailey Meter Co, Wickliffe	Ohio
Bartlett-Emery Instrument Co, Fort Madison	Iowa
Beckman Instruments Inc, Fullerton,	Cal
Beede Electrical Instrument Co, Inc, Penacook	N H
Bitronics Inc, Bethlehem	Pa
Canadian Research Institute, Don Mills	Ont
Compagnie Generale de Metrologie Haute Savoie	France
Components Specialties Inc, Freeport	N Y
Computer Products Inc, Fort Lauderdale	Fla
Dixson Inc Meter Div, Grand Junction	Colo
Dowa Trading Co Ltd, Kobe	Japan
E I L Instrument Div Unitec Industries, Timonium	Md
En-Cer Inc, South Holland	Ill
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Fairchild Instrumentation, Sunnyvale	Cal
Ferranti, Ltd, Lancashire	England
General Electric Co, ECSO, Schenectady	N Y
Gralex Industries Inc, Copiague	N Y
Hallmark Standards Inc, Mamaroneck	N Y
Haydon Co The, A W, Waterbury	Conn
Hickok Electrical Instrument Co, Cleveland	Ohio
Honeywell Precision Meter Div, Manchester	N H
Honeywell Test Instruments Div, Denver	Colo
Hoyt Electrical Instrument Works Inc Burton-Rogers Co Sls Div, Cambridge	Mass
Ideal Precision Meter Co Inc, Brooklyn	N Y
Impectron Inc, New York	N Y
International Electronics Corp, Melville	NY
International Instruments Div Sigma Instr Inc, Orange	Conn
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kay Electric Co, Pine Brook	N J
Kyoritsu Electrical Instruments Works Ltd, Tokyo	Japan
Lake Engineering Co Ltd, Scarborough	Ont
Mastercraft Instrument Co, Dubuque	Iowa
Metermaster, Inc, Los Angeles	Cal
Midland International Corp, North Kansas City	Mo
Millivac Instruments Inc, Schenectady	N Y
Modutec Inc, Norwalk	Conn
Mura Corp, Great Neck	N Y
Nelson Electronic Labs Inc, Plano	Tex
Newport Labs Inc, Newport Beach	Cal
Nichols Co Ltd, R H, Downsview	Ont
Parker Instrument Corp, Stamford	Conn
Phaostron Instrument & Electronic Co South Pasadena	Cal
PMF Electronics Inc, Dayton	Ohio
Q V S Inc, East Orange	N J
Ramapo Instrument Co Inc, Bloomingdale	NJ
Rawson-Lush Instrument Co Inc, Acton	Mass
Schneider Radio-Television Div, Ivry	France
Shigoto Industries Ltd, New York	N Y
Sigma Instruments Inc, Braintree	Mass
Simpson Electric Co, Chicago	Ill
Singer Co, Metrics Div, Bridgeport	Conn
Stark Electronic Instruments Ltd, Ajax	Ont
Sterling Mfg Co, Cleveland	Ohio
Sun Electric Corp, Chicago	Ill
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taylor Instrument Cos, Rochester	N Y
Trio Laboratories Inc, Plainview	N Y
Triplett Electrical Instrument Co, Bluffton	Ohio
United Systems Corp, Dayton	Ohio
Voltron Products Inc, Pasadena	Cal
Wac Line Div Simmonds Precision Prods, Dayton	Ohio



Read Current, Volts, °F, 1000ths-inch...
(set points optional)

actual size

API's new digital panel meter can also indicate PSI, roentgens/hour, or any other transducer output. Internal suppression is available so that, for example, 10 to 50 milliamperes can be displayed as 0 to 100 per cent.

Model 430 is notable for sensitivity (range of 0 to 20 millivolts available), small size, long-term accuracy, optional BCD output, and non-blinking signal display. Other options include read-hold and automatic polarity. Readout is almost instantaneous. Either panel or bench mounting.

Accuracy of DC voltage reading models is ±0.1% of reading, ±1 digit. Accuracy of DC current reading models is ±0.25% of full scale.

List price, standard ranges: $295, for digital thermometers, $495. (T/C) and $570 (RTD probe)

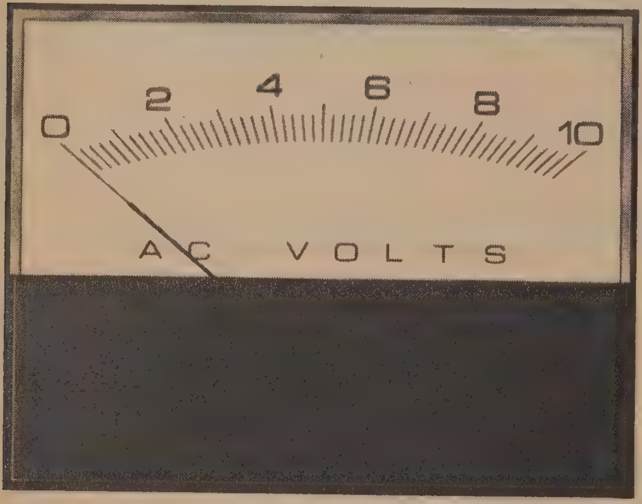
API also makes analog panel meters, meter-relays and self-contained controllers.

api
INSTRUMENTS CO.
CHESTERLAND, OHIO 44026 • (CLEVELAND-216) 729-1611 • TWX: 810-427-9230
In Canada: Oshawa, Ontario • (416) 576-1541

MODUTEC TAUT BAND PANEL METERS

The Modutec family of precision permanent-magnet/moving-coil panel meters combines advances in meter movement art with clean, functional styling. It anticipates the demands of designers for meters that will augment the appearance of equipment control panels without sacrificing accuracy or legibility.

Each of the three Modutec styles is available in a full range of five sizes — an important plus for the designer faced with the necessity for installing meters of various sizes on the same or adjacent panels.



S SERIES
SURFACE MOUNT – BLACK COVER

The handsome aspect ratio and clean cut detailing of these meters will add distinction to an instrument or control panel. Available in five sizes and a wide variety of ranges, this series provides new latitude for the equipment designer.

SPECIFICATIONS

Modutec meters meet or exceed the performance requirements of USA Standard C-39.1.

Accuracy: ±2% for DC meters;
±3% for AC meters (60 Hz sine wave).

Tracking: ±1.5% for DC meters;
±2% for AC meters;
(vertical mounting position).

Repeatability: ±0.5%.

Response time: 1.5 seconds max. for all ranges except 0-50 microammeters and below, where the response time is 3.0 seconds max.

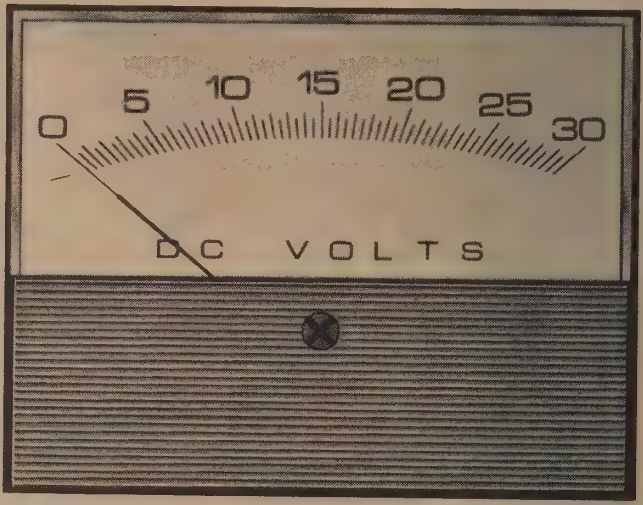
Resistance or Sensitivity: ±10%.

OPTIONS, MODIFICATIONS, SPECIALS

The catalog offers a number of "off-the-shelf" options (improved accuracy, mirror scale, sealed case, etc.) for quick delivery. Two factory-type modification centers enable us to give quick service on custom requirements. Modutec engineering assistance is available for special requirements.

DISCOUNT SCHEDULE

0-9 pcs NET; 10-24 pcs 7%; 25-49 pcs 13%; 50-99 pcs 20%, applicable to total number of meters ordered.

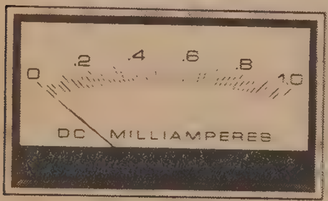


C SERIES
SURFACE MOUNT – CLEAR COVER

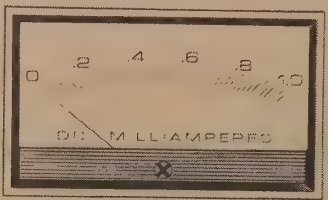
This series features a case front of clear acrylic, polished on the outside and finely ribbed on the inside surface. The visual effect of this is to greatly reduce contrast between the meter and the adjacent panel, resulting in a very pleasing overall appearance.

B SERIES
BEZEL MOUNT

A convenient means of ordering a meter assembly for behind-panel mounting, this is a complete package, comprising meter, bezel, hardware, template, and mounting instructions. Either "S" or "C" series meters may be selected. The cleanly designed bezel features minimum cross-section consistent with function, and is available as solid black or with brushed metal inline as shown below.



B1 Brushed metal inline bezel, black cover meter.



B2 Brushed metal inline bezel, clear cover meter.

0
.2
.4
.6
.8
1.0
DC MILLIAMPERES

B3 Solid black bezel, black cover meter.

0
.2
.4
.6
.8
1.0
DC MILLIAMPERES

B4 Solid black bezel, clear cover meter.

S SERIES TAUT BAND PANEL METERS MODELS & PRICES		1		2		3		4		5	
Range	Resistance · Loss	Catalog No.	Price	Catalog No.	Price	Catalog No.	Price	Catalog No.	Price	Catalog No.	Price
DC VOLTMETERS											
0-1	Resistance 1000Ω/V	1S-DVV-001	$9.65	2S-DVV-001	$9.20	3S-DVV-001	$9.65	4S-DVV-001	$10.30	5S-DVV-001	$12.45
0-1.5		1S-DVV-0015	9.65	2S-DVV-0015	9.20	3S-DVV-0015	9.65	4S-DVV-0015	10.30	5S-DVV-0015	12.45
0-2		1S-DVV-002	9.65	2S-DVV-002	9.20	3S-DVV-002	9.65	4S-DVV-002	10.30	5S-DVV-002	12.45
0-3		1S-DVV-003	9.65	2S-DVV-003	9.20	3S-DVV-003	9.65	4S-DVV-003	10.30	5S-DVV-003	12.45
0-5		1S-DVV-005	9.65	2S-DVV-005	9.20	3S-DVV-005	9.65	4S-DVV-005	10.30	5S-DVV-005	12.45
0-10		1S-DVV-010	9.65	2S-DVV-010	9.20	3S-DVV-010	9.65	4S-DVV-010	10.30	5S-DVV-010	12.45
0-15		1S-DVV-015	9.65	2S-DVV-015	9.20	3S-DVV-015	9.65	4S-DVV-015	10.30	5S-DVV-015	12.45
0-20		1S-DVV-020	9.65	2S-DVV-020	9.20	3S-DVV-020	9.65	4S-DVV-020	10.30	5S-DVV-020	12.45
0-25		1S-DVV-025	9.65	2S-DVV-025	9.20	3S-DVV-025	9.65	4S-DVV-025	10.30	5S-DVV-025	12.45
0-50		1S-DVV-050	9.65	2S-DVV-050	9.20	3S-DVV-050	9.65	4S-DVV-050	10.30	5S-DVV-050	12.45
0-100		1S-DVV-100	9.65	2S-DVV-100	9.20	3S-DVV-100	9.65	4S-DVV-100	10.30	5S-DVV-100	12.45
0-150		1S-DVV-150	9.65	2S-DVV-150	9.20	3S-DVV-150	9.65	4S-DVV-150	10.30	5S-DVV-150	12.45
0-200		1S-DVV-200	9.65	2S-DVV-200	9.20	3S-DVV-200	9.65	4S-DVV-200	10.30	5S-DVV-200	12.45
0-250		1S-DVV-250	9.65	2S-DVV-250	9.20	3S-DVV-250	9.65	4S-DVV-250	10.30	5S-DVV-250	12.45
0-300		1S-DVV-300	9.65	2S-DVV-300	9.20	3S-DVV-300	9.65	4S-DVV-300	10.30	5S-DVV-300	12.45
0-500		1S-DVV-500	10.20	2S-DVV-500	9.70	3S-DVV-500	10.20	4S-DVV-500	10.85	5S-DVV-500	13.10
0-750		1S-DVV-750	10.20	2S-DVV-750	9.70	3S-DVV-750	10.20	4S-DVV-750	10.85	5S-DVV-750	13.10
DC MILLIAMMETERS											
0-1	Loss 150mV max.	1S-DMA-001	9.10	2S-DMA-001	8.65	3S-DMA-001	9.10	4S-DMA-001	9.70	5S-DMA-001	11.70
0-3		1S-DMA-003	9.10	2S-DMA-003	8.65	3S-DMA-003	9.10	4S-DMA-003	9.70	5S-DMA-003	11.70
0-5		1S-DMA-005	9.10	2S-DMA-005	8.65	3S-DMA-005	9.10	4S-DMA-005	9.70	5S-DMA-005	11.70
0-10		1S-DMA-010	9.10	2S-DMA-010	8.65	3S-DMA-010	9.10	4S-DMA-010	9.70	5S-DMA-010	11.70
0-15		1S-DMA-015	10.10	2S-DMA-015	9.60	3S-DMA-015	10.10	4S-DMA-015	10.75	5S-DMA-015	12.95
0-20		1S-DMA-020	10.10	2S-DMA-020	9.60	3S-DMA-020	10.10	4S-DMA-020	10.75	5S-DMA-020	12.95
0-25		1S-DMA-025	10.10	2S-DMA-025	9.60	3S-DMA-025	10.10	4S-DMA-025	10.75	5S-DMA-025	12.95
0-30		1S-DMA-030	10.10	2S-DMA-030	9.60	3S-DMA-030	10.10	4S-DMA-030	10.75	5S-DMA-030	12.95
0-50		1S-DMA-050	10.10	2S-DMA-050	9.60	3S-DMA-050	10.10	4S-DMA-050	10.75	5S-DMA-050	12.95
0-100		1S-DMA-100	10.10	2S-DMA-100	9.60	3S-DMA-100	10.10	4S-DMA-100	10.75	5S-DMA-100	12.95
0-150		1S-DMA-150	10.10	2S-DMA-150	9.60	3S-DMA-150	10.10	4S-DMA-150	10.75	5S-DMA-150	12.95
0-200		1S-DMA-200	10.10	2S-DMA-200	9.60	3S-DMA-200	10.10	4S-DMA-200	10.75	5S-DMA-200	12.95
0-300		1S-DMA-300	10.10	2S-DMA-300	9.60	3S-DMA-300	10.10	4S-DMA-300	10.75	5S-DMA-300	12.95
0-500		1S-DMA-500	10.10	2S-DMA-500	9.60	3S-DMA-500	10.10	4S-DMA-500	10.75	5S-DMA-500	12.95
0-750		1S-DMA-750	10.10	2S-DMA-750	9.60	3S-DMA-750	10.10	4S-DMA-750	10.75	5S-DMA-750	12.95
DC MILLIVOLTMETERS											
0-50	Resistance 1000Ω/V	1S-DMV-050	9.65	2S-DMV-050	9.20	3S-DMV-050	9.65	4S-DMV-050	10.30	5S-DMV-050	12.45
0-100		1S-DMV-100	9.65	2S-DMV-100	9.20	3S-DMV-100	9.65	4S-DMV-100	10.30	5S-DMV-100	12.45
DC MICROAMMETERS											
0-20	Loss 300mV max.	1S-DUA-020	$14.95	2S-DUA-020	$14.30	3S-DUA-020	$14.95	4S-DUA-020	$16.00	5S-DUA-020	$19.40
0-50		1S-DUA-050	10.95	2S-DUA-050	10.45	3S-DUA-050	10.95	4S-DUA-050	11.70	5S-DUA-050	14.20
0-100		1S-DUA-100	10.40	2S-DUA-100	9.90	3S-DUA-100	10.40	4S-DUA-100	11.10	5S-DUA-100	13.40
0-200		1S-DUA-200	9.80	2S-DUA-200	9.35	3S-DUA-200	9.80	4S-DUA-200	10.45	5S-DUA-200	12.60
0-500		1S-DUA-500	9.30	2S-DUA-500	8.85	3S-DUA-500	9.30	4S-DUA-500	9.80	5S-DUA-500	11.95
25-0-25		1S-DUA-25U25	11.40	2S-DUA-25U25	10.85	3S-DUA-25U25	11.40	4S-DUA-25U25	12.15	5S-DUA-25U25	14.65
50-0-50		1S-DUA-50U50	10.85	2S-DUA-50U50	10.30	3S-DUA-50U50	10.85	4S-DUA-50U50	11.55	5S-DUA-50U50	13.90
100-0-100		1S-DUA-1H1	10.25	2S-DUA-1H1	9.75	3S-DUA-1H1	10.25	4S-DUA-1H1	10.90	5S-DUA-1H1	13.20
500-0-500		1S-DUA-5H5	9.40	2S-DUA-5H5	8.95	3S-DUA-5H5	9.40	4S-DUA-5H5	10.05	5S-DUA-5H5	12.10
DC AMMETERS											
0-1	Loss 50mV±10% (self contained shunt) 50mV±2% external shunt	1S-DAA-001	10.10	2S-DAA-001	9.60	3S-DAA-001	10.10	4S-DAA-001	10.75	5S-DAA-001	12.95
0-1.5		1S-DAA-0015	10.10	2S-DAA-0015	9.60	3S-DAA-0015	10.10	4S-DAA-0015	10.75	5S-DAA-0015	12.95
0-2		1S-DAA-002	10.10	2S-DAA-002	9.60	3S-DAA-002	10.10	4S-DAA-002	10.75	5S-DAA-002	12.95
0-3		1S-DAA-003	10.10	2S-DAA-003	9.60	3S-DAA-003	10.10	4S-DAA-003	10.75	5S-DAA-003	12.95
0-5		1S-DAA-005	10.10	2S-DAA-005	9.60	3S-DAA-005	10.10	4S-DAA-005	10.75	5S-DAA-005	12.95
0-10		1S-DAA-010	10.10	2S-DAA-010	9.60	3S-DAA-010	10.10	4S-DAA-010	10.75	5S-DAA-010	12.95
0-15		1S-DAA-015*	9.65	2S-DAA-015	9.60	3S-DAA-015	10.10	4S-DAA-015	10.75	5S-DAA-015	12.95
0-20		1S-DAA-020*	9.65	2S-DAA-020	9.60	3S-DAA-020	10.10	4S-DAA-020	10.75	5S-DAA-020	12.95
0-25		1S-DAA-025*	9.65	2S-DAA-025	9.60	3S-DAA-025	10.10	4S-DAA-025	10.75	5S-DAA-025	12.95
0-30		1S-DAA-030*	9.65	2S-DAA-030	9.95	3S-DAA-030	10.45	4S-DAA-030	11.15	5S-DAA-030	13.45
0-50		1S-DAA-050*	9.65	2S-DAA-050	9.95	3S-DAA-050	10.45	4S-DAA-050	11.15	5S-DAA-050	13.45
0-100		1S-DAA-100*	9.65	2S-DAA-100*	9.20	3S-DAA-100*	9.65	4S-DAA-100*	10.30	5S-DAA-100*	12.45
0-150		1S-DAA-150*	9.65	2S-DAA-150*	9.20	3S-DAA-150*	9.65	4S-DAA-150*	10.30	5S-DAA-150*	12.45
0-200		1S-DAA-200*	9.65	2S-DAA-200*	9.20	3S-DAA-200*	9.65	4S-DAA-200*	10.30	5S-DAA-200*	12.45
0-500		1S-DAA-500*	9.65	2S-DAA-500*	9.20	3S-DAA-500*	9.65	4S-DAA-500*	10.30	5S-DAA-500*	12.45
AC VOLTMETERS											
0-3	Resistance 900Ω/V	1S-AVV-003	12.70	2S-AVV-003	12.10	3S-AVV-003	12.70	4S-AVV-003	13.50	5S-AVV-003	16.40
0-5		1S-AVV-005	12.70	2S-AVV-005	12.10	3S-AVV-005	12.70	4S-AVV-005	13.50	5S-AVV-005	16.40
0-10		1S-AVV-010	12.70	2S-AVV-010	12.10	3S-AVV-010	12.70	4S-AVV-010	13.50	5S-AVV-010	16.40
0-15		1S-AVV-015	12.70	2S-AVV-015	12.10	3S-AVV-015	12.70	4S-AVV-015	13.50	5S-AVV-015	16.40
0-25		1S-AVV-025	12.70	2S-AVV-025	12.10	3S-AVV-025	12.70	4S-AVV-025	13.50	5S-AVV-025	16.40
0-50		1S-AVV-050	12.70	2S-AVV-050	12.10	3S-AVV-050	12.70	4S-AVV-050	13.50	5S-AVV-050	16.40
0-100		1S-AVV-100	12.70	2S-AVV-100	12.10	3S-AVV-100	12.70	4S-AVV-100	13.50	5S-AVV-100	16.40
0-150		1S-AVV-150	12.70	2S-AVV-150	12.10	3S-AVV-150	12.70	4S-AVV-150	13.50	5S-AVV-150	16.40
0-300		1S-AVV-300	12.70	2S-AVV-300	12.10	3S-AVV-300	12.70	4S-AVV-300	13.50	5S-AVV-300	16.40
0-500		1S-AVV-500	13.45	2S-AVV-500	12.60	3S-AVV-500	13.45	4S-AVV-500	14.20	5S-AVV-500	17.10

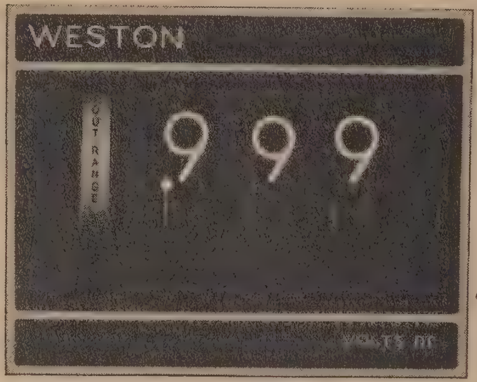
C SERIES TAUT BAND PANEL METERS Prices are the same as those of the S Series meters, above. When ordering, substitute "C" for "S" in the model designation.

B SERIES TAUT BAND METERS, BEZEL MOUNT When ordering, substitute "B" for the letter in the model designation. Specify meter series and type of bezel by adding "B1", "B2", "B3" or "B4" as a suffix (see at left). Obtain price by adding to the basic meter price as follows: 1½" - $1.75; 2½" - $1.80; 3½" - $1.85; 4½" - $1.90; 5½" - $1.95.

MODUTEC
18 Marshall Street, Norwalk, Conn. 06854
Tel.: 203-853-3636 TWX: 710-468-2039

You can look to Weston for tomorrow's instruments

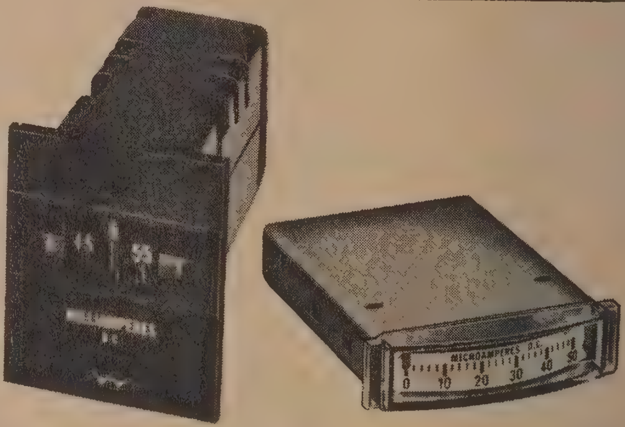
From the largest production capability, choose any size, function, accuracy, mounting and style.

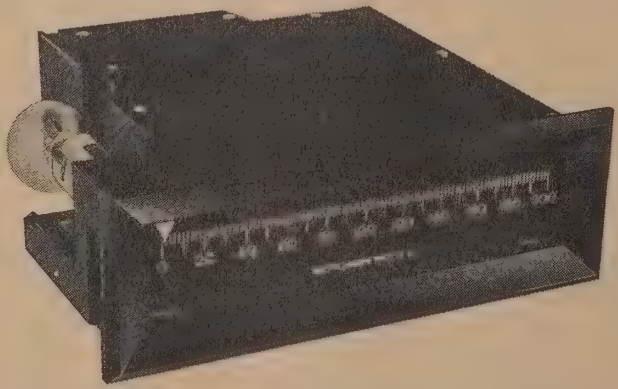


***New Weston Digital Panel Meter** is the first all-electronic panel instrument combining digital precision with solid-state reliability. Dual slope integration provides 0.1% accuracy and long-term 0.05% stability at a price competitive with bench units. User options include customized magnetic name plates, analog-to-digital readout, linearization and special OEM versions. Three-decade BCD display plus Out Range indicator. Standard ranges: 100 mv or 10 µa full scale and up. Front dimensions: 3⁵⁄₁₆" x 4⅛" x 1⅛".*

***New Weston 111 Thin-Line Meter** (right) takes less than 1" sq. panel space, uses shielded Cormag® mechanism, can be stacked vertically or horizontally without interaction. Ranges: 50 mv min., 300v max., self contained; 50 µa min., 2 amp max., self contained.*

***New Weston 1209 Projected Moving Scale** puts 8 inches of scale into 2½" panel space. Self-illuminated scale, no parallax, excellent readability with up to 150 scale divisions. 1% accuracy (½% optional). Cormag® mechanism. Ranges: 50 mv min., 500v max., self contained; 50 µa min., 50 ma max., self contained.*





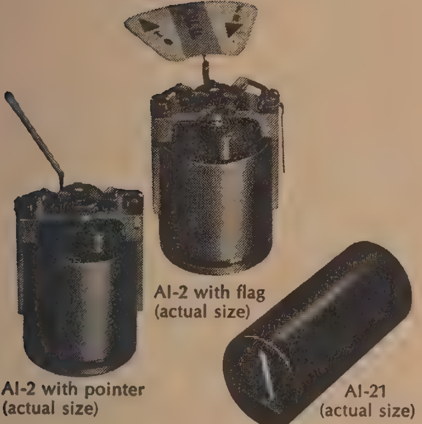
***New Weston 1201 Edgewise** uses beam of light for linear indication with no parallax. Features all-glass optical system, 1% accuracy and either horizontal or vertical mounting. Has thermal setting case, 10,000 hr. bulb life, meets ASA C39.1. Self-shielding Cormag® mechanism is unaffected by panel material, normal magnetic fields. Ranges: 50 µa—50 amps DC self contained; 50 mv—500v DC self contained; rectifier and thermo RF types available.*

Weston Instruments, Inc., Newark Division, Newark, N.J. 07114

WESTON® *prime source for precision...since 1888*

Neat...Compact...Accurate

PLUS a wide variety of styles


AI-2 with flag (actual size)

AI-2 with pointer (actual size)

AI-21 (actual size)

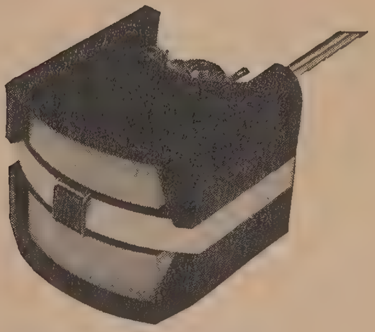
Ammon Series AI miniature, self-shielded mechanisms are designed to provide optimum performance in airborne indicating systems or wherever critical indicating and control functions are required. Self-shielding makes compass effect negligible. Units may be mounted side-by-side with no interaction. Panel material has no influence on calibration. Their compact size, coupled with the versatility of synchro-type and conventional type mounting methods, offers design engineers great freedom in adapting them to specific applications.

AI-2 mechanisms offer these advantages reduced size and weight, high torque-to-weight ratio, self-shielding, enclosed movement and negligible compass influence. Model AI-2 is 11/16" in diameter, 1" in length and weighs 3/4 of an ounce. Model AI-17 is 7/8" square and flange mounted, .832" in body diameter, 1-25/64" in length, weighs 1.6 ounces, constructed of brass, and hermetically sealed. Model AI-20 is 7/8" square and flange mounted, .832" in body diameter, 1-11/32" in length, weighs one ounce, constructed of hi-temp plastic, and sealed against dust and moisture. Model AI-21 is 7/16" in diameter, 31/32" in length and weighs 11.5 grams. Choice of pointer or flag is available on all models.

0
.2
.4
.6
.8
1.0
MILLIAMPERES
DIRECT CURRENT

1-1/2" AM-1 (actual size)

Ammon AM-1 self-shielded panel meters have smart, sophisticated styling . . . easy reading scale . . . a most complete selection of sizes ranging from sizes 1-1/2 to 4-1/2". Rugged high torque mechanisms offer 1% linearity, 2% accuracy and sensitivity to 20 ua. Completely shielded to eliminate error from magnetic panels. Mounts bezel-to-bezel on any material without interaction or effect on calibration. Choice of colors or finishes, custom dials — ASA/MIL 4-stud mounting in AM-1 and AM-4 models and ASA/MIL 3-stud mounting in AM-2 and AM-3 models.


APT-1; 1 cu. in., 3.15 oz. (actual size)

Ammon APT-1 moving coil mechanism is a highly stable, linear and accurate mechanism for indicating, control or recording systems. 18-0-18° linearity is 1%. Coil design with over 75% of winding "working" in high energy, uniform field air gap assures greater accuracy. Coil system weighs 0.85 gm, develops 26.4 mmg of torque; 31:1 T/W. Mechanism offers negligible vibration pivots and jewels — custom damping — wide range of sensitivities.

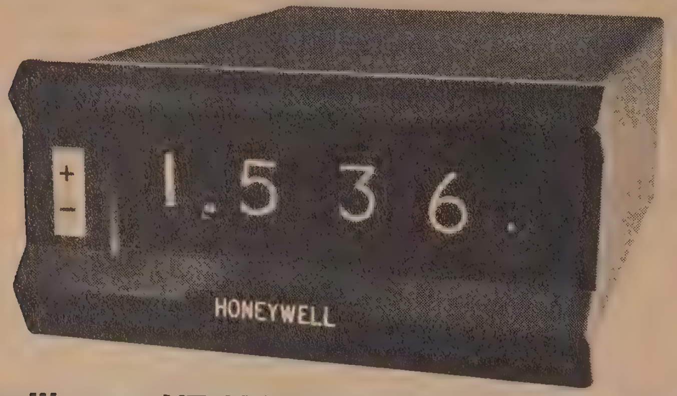
Consult the factory or your AMMON representative for complete details or for any assistance you require.

AMMON

AMMON INSTRUMENTS, INC., 345 Kelley St., Manchester, N. H. 03105 Tel. (603) 669-1531.

CALL AN AMMON REPRESENTATIVE TO FILL YOUR INSTRUMENT NEEDS: Arizona, Scottsdale, Fryco 602-945-3281 **California,** Inglewood, W. Bert Knight Co. 213-678-4711 Menlo Park, The McKnight Co. 415-326-3762 **Connecticut,** North Haven, Kitchen & Kutchin, Inc. 203-239-0212 **Florida,** Clearwater, H. R. Gross & Co. 813-446-6649 **Georgia,** Atlanta, Grady Duckett Sales Co. 404-451-3529 **Illinois,** Chicago, D.J.M. Elect. Sales, Inc. 312-774-1212 **Kansas,** Mission, MESA, Inc. 913-262-6565 **Maryland,** Towson, Ken Randall Co. 301-823-1267 **Massachusetts,** Lexington, Kitchen & Kutchin, Inc. 617-862-8230 **Michigan,** Detroit, Koechler Pasmore Co. 313-477-8790 **Minnesota,** Minneapolis, H.M.R., Inc. 612-335-7734 **New Jersey,** Collingswood, Ken Randall Co. 609-854-3323 **New York,** Buffalo, The Robert F. Lamb Co., Inc. 716-876-3757 Great Neck, Pacent Engineering Corp. 516-482-4678 Kingston, The Robert Lamb Co., Inc. 914-338-8833 Syracuse, The Robert Lamb Co., Inc. 315-454-2469 **North Carolina,** Greensboro, Grady Duckett Sales Co. 919-273-4617 **Ohio,** Cleveland, Robert Deunk & Assoc. 216-526-4317 **Pennsylvania,** (Philadelphia area) Collingswood, **New Jersey,** Ken Randall Co. 609-854-3323 **Texas,** Houston, Unidyne, Inc. 713-666-2401 **Washington,** Seattle, The Ron Merritt Co. 206-682-7337 **CANADA: Ontario,** Ottawa 3, Electrodesign Ltd. 613-233-8815 **Ontario,** Toronto, Electrodesign Ltd. 416-787-0991 **Quebec,** Montreal 11, Electrodesign Ltd. 514-389-5914

The Convertible...



Honeywell's new VT-100 Digital Panel Meter only $320

Now the options are yours. Quick and easy. The VT-100 converts to measure AC or DC voltage, AC or DC Current or Ohms **merely by changing one card.** With the VT-100 you only purchase one basic meter, then convert measuring functions as desired.

The VT-100 has a basic range of 1.0 volts DC, 100% overrange with a fourth overrange digit which reads to 1.999 volts. When input exceeds 1.999 volts, the polarity sign blinks and the VT-100 indicates all zeros.

No hard-to-get-at zero adjustment. The VT-100 automatically adjusts to zero, electronically.

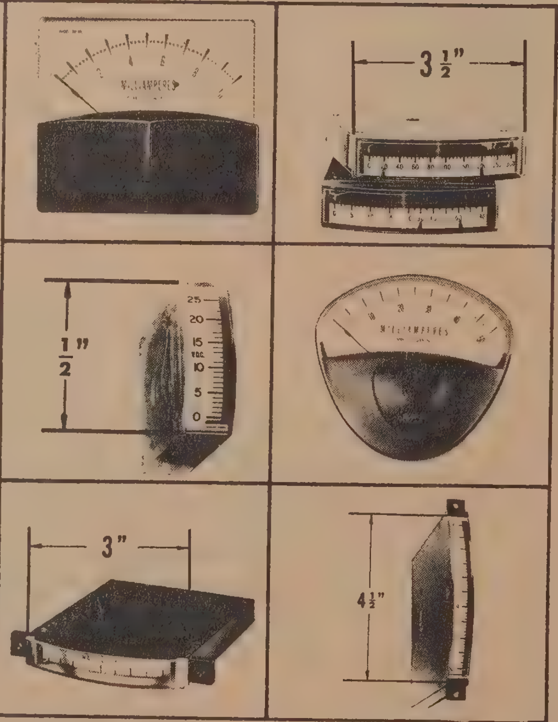
Specifications	
Accuracy:	.2% +1 digit
Input Impedance:	1000 megohms
Input:	floating
Polarity:	manual selection with front panel display
Measurement Rate:	1 per second
Protection:	to 100 volts
Overrange:	100% with digit
Size:	3″ x 5″ x 7″

Order your VT-100 today! Send your purchase order to: Mail Station 222, Honeywell, Test Instruments Division, P.O. Box 5227, Denver, Colorado 80217.

Honeywell

MEET
OUR
TOUGH
LINE
OF
REGULARS

- ULTRA-THIN
- SELF-SHIELDING
- SHOCK RESISTANT
- RUGGED
- SURFACE MOUNTING WITH TWO 3/8″ HOLES
- UP TO 10,000% OVERLOAD



SB-35
E-15
E-30

ER-35
S-35
E-45

PARKER INSTRUMENT CORPORATION
200 HARVARD AVE. / STAMFORD, CONN. 06904 / (203) 325-4361 / TWX 710-474-2277

Westinghouse Electric Corp, Relay & Instr Dept
Newark ... N J
Weston Instruments Div Weston Instr Inc, Newark ... N J
Whittaker Corp Gen Com Div, Plainview ... N Y
Yokogawa Electric Works Inc, Larchmont ... N Y

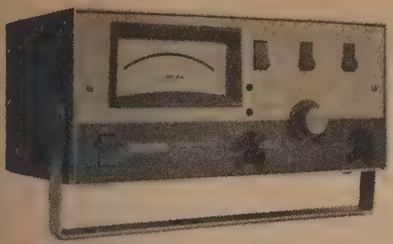
METERS--PHASE--ANGLE

DRANETZ ENGINEERING LABS INC, PLAINFIELD
N J ... ADV PG 407
GENERAL ELECTRIC CO, ECSO, SCHENECTADY
N Y ... ADV PGS 7
HEWLETT-PACKARD, PALO ALTO ... CAL
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND ... OHIO
HONEYWELL TEST INSTRUMENTS DIV, DENVER
COLO ... ADV PGS 8
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON
N Y ... ADV PG 495
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW
N Y ... ADV PG 407
NORTH HILLS ELECTRONICS INC, GLEN COVE ... N Y
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG ... MD
WESTON INSTRUMENTS DIV WESTON INSTR INC
NEWARK ... N J
Acton Laboratories Inc, Acton ... Mass
Ad-Yu Electronics Inc, Passaic ... N J
Aerometrics Div Aerojet-General Corp, San Ramon ... Cal
Airmec Instruments Ltd, Buckinghamshire ... England
A & M Instruments Inc, Great Neck ... N Y
Ando Electric Co Ltd, Ohta-ku, Tokyo ... Japan
Beckwith Electric Co Inc, Mt Prospect ... Ill
Canadian Research Institute, Don Mills ... Ont
Dranetz Engineering Labs Inc, Plainfield ... N J
Dytronics Co Inc, Columbus ... Ohio
Eastern Specialty Co, Philadelphia ... Pa
E I L Instrument Div Unitec Industries, Timonium ... Md
General Electric Co, ECSO, Schenectady ... N Y
Hewlett-Packard, Palo Alto ... Cal
Hickok Electrical Instrument Co, Cleveland ... Ohio
Honeywell Test Instruments Div, Denver ... Colo
Industrial Test Equipment Co, Port Washington ... N Y
Korfund Dynamics Corp, Westbury ... N Y
Larson Instrument Co, Orangeburg ... N Y
Measurement Technology Corp, Canoga Park ... Cal
Meguro Denpa Sokki K K, Meguro-ku, Tokyo ... Japan
Microlab/F X R, Livingston ... N J
Muirhead Instruments Inc, Mountainside ... N J
North Atlantic Industries Inc, Plainview ... N Y
North Hills Electronics Inc, Glen Cove ... N Y
Parzen Research Inc Sub Ovitron Corp, Westbury ... N Y
PMF Electronics Inc, Dayton ... Ohio
Procedyne Corp, New Brunswick ... N J
Rantec Div Emerson Electric Co, Calabasas ... Cal
Rohde & Schwarz Sales Co USA Inc, Passaic ... N J
Scientific Columbus Inc, Columbus ... Ohio
Servomex Controls Ltd, Sussex ... England
Simpson Electric Co, Chicago ... Ill
Singer Co, Metrics Div, Bridgeport ... Conn
Singer Co, Metrics Div, Gertsch Dept, Los Angeles ... Cal
Smiths Industries Ltd, Aviation Div
Wembley, Mdsx ... England
Solid State Electronics Corp, Sepulveda ... Cal
Systems Electronics Inc, Cleveland ... Ohio
Tel-Com Instruments Inc, Hanover ... N J
Theta Instrument Corp, Fairfield ... N J
Trio Laboratories Inc, Plainview ... N Y
Voltron Products Inc, Pasadena ... Cal
Wac Line Div Simmonds Precision Prods, Dayton ... Ohio
Wandel & Goltermann/Tel-Com, Hanover ... N J
Weinschel Engineering Co Inc, Gaithersburg ... Md
Westinghouse Electric Corp, Relay & Instr Dept
Newark ... N J
Weston Instruments Div Weston Instr Inc, Newark ... N J
Wiltron Co, Palo Alto ... Cal
Yokogawa Electric Works Inc, Larchmont ... N Y

METERS--POWER SEE WATTMETERS SEE BOLOMETERS; CALORIMETERS; AMMETERS; METERS--FIELD INTENSITY

METERS--POWER-FACTOR

DRANETZ ENGINEERING LABS INC, PLAINFIELD ... N J
GENERAL ELECTRIC CO, ECSO, SCHENECTADY
N Y ... ADV PGS 7
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND ... OHIO
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON ... N Y
INTRONICS INC, NEWTON ... MASS
NORTH HILLS ELECTRONICS INC, GLEN COVE ... N Y
WESTON INSTRUMENTS DIV WESTON INSTR INC
NEWARK ... N J
A & M Instruments Inc, Great Neck ... N Y
Beckwith Electric Co Inc, Mt Prospect ... Ill
Bitronics Inc, Bethlehem ... Pa
Canadian Research Institute, Don Mills ... Ont
Darcy Industries Inc, Behlman Div, Santa Monica ... Cal
Dranetz Engineering Labs Inc, Plainfield ... N J
E I L Instrument Div Unitec Industries, Timonium ... Md
Esterline Angus Div Esterline Corp, Indianapolis ... Ind
Ferranti Electric Inc, Plainview ... N Y
Ferranti, Ltd, Lancashire ... England
General Electric Co, ECSO, Schenectady ... N Y
Hallmark Standards Inc, Mamaroneck ... N Y
Hickok Electrical Instrument Co, Cleveland ... Ohio
Industrial Test Equipment Co, Port Washington ... N Y
International Electronics Corp, Melville ... NY
Intronics Inc, Newton ... Mass
Metermaster, Inc, Los Angeles ... Cal
North Hills Electronics Inc, Glen Cove ... N Y
PMF Electronics Inc, Dayton ... Ohio
Scientific Columbus Inc, Columbus ... Ohio
Singer Co, Metrics Div, Bridgeport ... Conn
Sunshine Scientific Instruments Inc, Philadelphia ... Pa
Voltron Products Inc, Pasadena ... Cal
Wac Line Div Simmonds Precision Prods, Dayton ... Ohio
Westinghouse Electric Corp, Relay & Instr Dept
Newark ... N J
Weston Instruments Div Weston Instr Inc, Newark ... N J
Yokogawa Electric Works Inc, Larchmont ... N Y



PHASE METERS

FEATURE

BROAD DYNAMIC RANGE WITHOUT INPUT LEVEL ADJUSTMENT

☐ High sensitivity – 1 MV
☐ Digital readouts available
☐ All solid-state ☐ DC output
☐ Frequency range of 5 H_2 to 500 kH_2 ☐ Accuracy to 0.1°
☐ Write or call today for free details – Dept. DEB.

DRANETZ
ENGINEERING LABORATORIES, INC.
1233 North Ave., Plainfield, N.J. 07062
Telephone Area Code: (201) 755 7080

IMPEDANCE – ADMITTANCE METERS ■ PHASE METERS ■ TRANSFER FUNCTION COMPUTERS ■ INSTRUMENT TRANSFORMERS ■ OSCILLATORS ■ SAMPLING VOLTMETERS ■ PULSE INSTRUMENTATION ■ FROM SINGLE INSTRUMENTS TO COMPLETE SYSTEMS

Phase Sensitive Instrumentation

PHASE ANGLE VOLTMETERS

- *direct reading phase angle, total, fundamental, in-phase and quadrature voltage components*
- *voltage ranges 300μv to 300V.*
- *frequencies 10Hz to 100KHz*
- *single, multi-frequency or broadband*

AC RATIO BOXES

- *manual, programmable and inverting models*
- *phase shift <1 min.*
- *accuracy to 1 ppm*
- *ratios to ±1.111110*

Your North Atlantic representative has complete data.
See listing in the Green Pages.

NORTH ATLANTIC
industries, inc.
PLAINVIEW, NEW YORK 11803 516–681 8600

METERS, POWER LEVEL--A-F

ANRITSU ELECTRIC CO LTD, TOKYO, JAPAN	**ADV PG 407**
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER	**N H**
DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
INTRONICS INC, NEWTON	**MASS**
TELE-SIGNAL CORP, WOODBURY	**N Y**
A & M Instruments Inc, Great Neck	N Y
Anritsu Electric Co Ltd, Tokyo	Japan
Antlab, Inc, Worthington	Ohio
Ballantine Laboratories, Inc, Boonton	N J
Bartlett-Emery Instrument Co, Fort Madison	Iowa
Bayly Engineering Ltd, Ajax	Ontario
Canadian Research Institute, Don Mills	Ont
Daven Div McGraw-Edison Co, Manchester	N H
Dranetz Engineering Labs Inc, Plainfield	N J
Hallmark Standards Inc, Mamaroneck	N Y
Hickok Electrical Instrument Co, Cleveland	Ohio
International Electronics Corp, Melville	NY
Intronics Inc, Newton	Mass
Kokuyo Electric Co Ltd, Tokyo	Japan
Meguro Denpa Sokki K K, Meguro-ku, Tokyo	Japan
Mura Corp, Great Neck	N Y
Northeast Electronics Corp, Concord	N H
Optics Technology Inc, Palo Alto	Cal
Philco-Ford Corp, Washington	D C
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Standard Telephones & Cables Ltd London WC 2	England
Stark Electronic Instruments Ltd, Ajax	Ont
Tele-Signal Corp, Woodbury	N Y
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Western Reserve Electronics, Inc, Cleveland	Ohio

ELECTRONIC MICROMETER

High-sensitivity measurement series

● Direct reading of 0 to 1mm without a block gage
● Precision 0.0001mm

Measuring range 0~1000μ
Indicating range
Dial: 0~1000μ
Meter: ±2.5μ, ±5μ, ±12.5μ
Minimum scale: 0.1μ, 0.2μ, 0.5μ

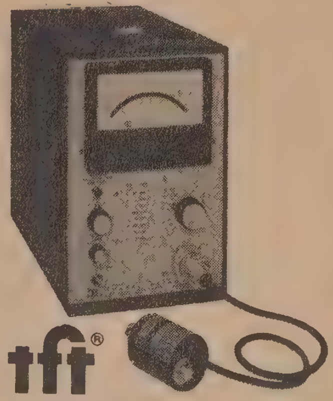
Anritsu Electric Co., Ltd.
12-20, Minamiazabu 4-chome, Minato-ku, Tokyo, Japan
Phone: Tokyo 442-8171/ Telex: 0242-2353
Cable: ANRITDENKI TOKYO

METERS, POWER LEVEL-MICROWAVE

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
GENERAL MICROWAVE CORP, FARMINGDALE N Y	**ADV PG 407**
HEWLETT-PACKARD, PALO ALTO	**CAL**
Altronic Research Corp, Cleveland	Ohio
A & M Instruments Inc, Great Neck	N Y
Anritsu Electric Co Ltd, Tokyo	Japan
Automatic Metal Products Corp, Brooklyn	N Y
Bendix Corp, Microwave Devices Div, Franklin	Ind
Electro Impulse Lab Inc, Red Bank	N J
General Microwave Corp, Farmingdale	N Y
Hewlett-Packard, Palo Alto	Cal
MSI Electronics Inc, Woodside	N Y
Narda Microwave Corp, Plainview	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Pacific Measurements Inc, Palo Alto	Cal
Philco-Ford Corp, Washington	D C
Polarad Electronic Instruments Div Long Island City	N Y

MICROWAVE

THERMOELECTRIC POWER METERS



tft®

POWER HEADS

The industry's most complete line of advanced-design, high performance microwave power measuring equipment ranging from 10 MHz to 40 GHz. Choose from laboratory models, rack-mounted units, miniaturized modules specially designed for commercial or military systems, and portable instruments. Special requirements? Custom-designed models are our specialty.

GENERAL MICROWAVE CORPORATION
155 Marine St., Farmingdale, N. Y. • 516-694-3600

PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Ramcor Inc, Huntington	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Standard Telephones & Cables Ltd London WC 2	England
Victor R F & Microwave Co, Wakefield	Mass
Wac Line Div Simmonds Precision Prods, Dayton	Ohio

METERS, POWER LEVEL--R-F

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
BIRD ELECTRONIC CORP, CLEVELAND (SOLON), OHIO	**ADV PGS 408,409**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INTRONICS INC, NEWTON	**MASS**
Aerospace Research, Inc, Boston	Mass
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Airmec Instruments Ltd, Buckinghamshire	England
Alfred Electronics, Palo Alto	Cal
Altronic Research Corp, Cleveland	Ohio
A & M Instruments Inc, Great Neck	N Y
Anritsu Electric Co Ltd, Tokyo	Japan
Automatic Metal Products Corp, Brooklyn	N Y
Bayly Engineering Ltd, Ajax	Ontario
Bendix Corp, Microwave Devices Div, Franklin	Ind
B F Electronics, Solana Beach	Cal
Bird Electronic Corp, Cleveland (Solon)	Ohio
Boonton Electronics Corp, Parsippany	N J
Comdel Inc, Beverly	Mass
Electro Impulse Lab Inc, Red Bank	N J
Farinon Electric, San Carlos	Cal
General Microwave Corp, Farmingdale	N Y
Hewlett-Packard, Palo Alto	Cal
International Electronics Corp, Melville	NY
Intronics Inc, Newton	Mass
Marconi Instruments Div, English Electric Corp Englewood	N J
Mobil Electronics Inc, Anderson	Ind
Mura Corp, Great Neck	N Y
Narda Microwave Corp, Plainview	N Y
Pacific Measurements Inc, Palo Alto	Cal
Philco-Ford Corp, Washington	D C
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Ramcor Inc, Huntington	NY
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Seco Electronics Corp, Hopkins	Minn
Singer Co, Metrics Div, Bridgeport	Conn
Standard Telephones & Cables Ltd London WC 2	England
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J
Wiltron Co, Palo Alto	Cal

BIRD RF POWER 50-OHM COAXIAL QUALITY INSTRUMENTS

TO MEASURE, TERMINATE, ATTENUATE & FILTER

WATTS
THRULINE
250 W
1000 W
400-1000 MC

43

THRULINE® **RF DIRECTIONAL WATTMETERS**

Insertion instruments for measuring and monitoring incident and reflected power in coaxial transmission lines with ± 5% of full scale accuracy. Insertion VSWR is less than 1.05. Net power under any load condition is the difference between incident and reflected power readings, which also yield load VSWR from a nomograph.

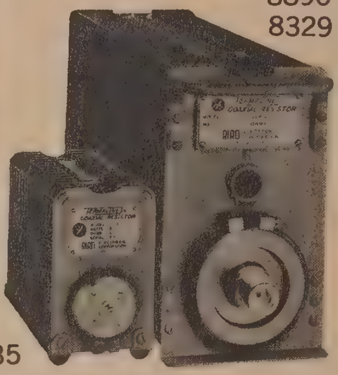
460

4311 THRULINE Peak **and** CW Wattmeter **also** measures power of **pulsed RF** systems such as air navigational aids, telemetry, radar, etc. from 0.4 microsecond pulse width (± 8% accuracy).

Models 4111-12-13 are new palm-sized CW Wattmeters with one forward and one reflected power scale for servicing transmitters in the 2-30 MHz or 25-175 MHz frequency range.

Line Sections with single or double element sockets for all THRULINE Wattmeters, as well as ⅞" diameter instruments available.

15kW to 50kW



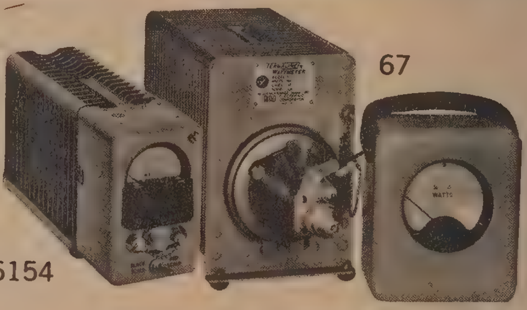
8890
8329
8135

TERMALINE®
RF COAXIAL LOAD RESISTORS

For accurate, non-radiating termination of 50-ohm RF coaxial transmission lines are designed for use in permanent installations, development testing and trouble shooting of transmitters, intermediate components, power tubes, and accessories.

TENULINE™ POWER ATTENUATORS

In addition to terminating a 50-ohm system, deliver an output signal 30 dB below the input, for RFI measurements, for extending the range of low-power wattmeters, for isolation of system components, etc.



67
6154

TERMALINE® **RF ABSORPTION WATTMETERS**

Are direct reading instruments for absorbing and measuring RF power in 50-ohm coaxial line systems through the frequencies of 2 to 1000 MHz. The load section of the TERMALINE Wattmeter serves as a dummy load. The indicating meter is calibrated to read RF power directly in watts with ±5% of full scale accuracy. TERMALINE Wattmeters are available from milliwatts to kilowatts.

COAXIAL RF FILTERS

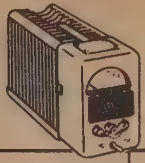
Custom engineered or field-proven designs. High rejection attenuation filters available with Low-pass cut-off from 16 to 2700 MHz (about fifty designs at 400 MHz), Hi-pass cut-off frequencies from 30 to 1000 MHz, Band-pass as narrow as 5% of center frequency. Sizes from ½ cubic inches, with subminiature connectors, to 3⅛" line.

BIRD ELECTRONIC CORPORATION

Inglewood, Cal.: 5005 W. Century Blvd. Ph: (213) 674-1446
Waltham, Mass.: 235 Bear Hill Road Ph: (617) 899-4162
Altamonte Springs, Fla.: 703 Beverly Ph: (305) 831-1530

30303 Aurora Road/Cleveland (Solon), Ohio 44139/Phone: 216-248-1200/TWX: 216-248-6458/Cable: BIRDELEC

TERMALINE® RF ABSORPTION WATTMETERS



Maximum Power	Calibrated Frequency Range	Power Scales Available	Connector	Model	U.S. Price
		AIR-COOLED			
2W	30-500MHz	25, 50, 100, 250, 500, 1000 milliwatts, 2 watts	BNC/F	6254	$115
60W	30-500MHz*	Dual range: 0-15/0-60W	N/F	611	175
80W	30-500MHz*	Dual range: 0-20/0-80W	N/F	612	175
80W	30-500MHz*	Choice of two compatible scales (eg.: 1-5W, 5-25W, 2-20W)	N/F	61	220
150W	25-1000MHz**	Four range: 0-5/0-15/0-50/0-150W	N/F	6154	265
500W	30-500MHz*	Triple range: 0-25/0-100/0-500W	QC(1)	67	350
1000W	2-30MHz	0-1000W	QC(1)	694	365
1200W	30-500MHz	Triple range: 0-120/0-600/0-1200W	QC(1)	6835	485
		WATER-COOLED			
2500W	30-500MHz*	Triple range: 0-100/0-500/0-2500W	QC(1)	67C	$390

*Special calibration 500-1000 MHz available at time of order.
**25-500 MHz ±5%, 500-1000 MHz ±10% Accuracy.

TERMALINE® RF COAXIAL LOAD RESISTORS

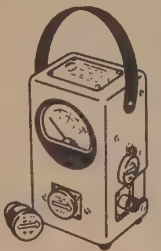
TENULINE® POWER ATTENUATORS

Max. Power	Freq. Range	Max. VSWR	Connector Input	Model	U.S. Price
			AIR-COOLED		
2W	0-4GHz	1.1	N/M or F	8011 or 10	$ 20
5W	0-4GHz	1.2	N/M or F	80	25
5W	0-4GHz	1.2	M or F: C, BNC, TNC	80	30
10W	0-4GHz	1.2	N/M or F	8053 or 52	30
20W	0-3.5GHz	1.3	N/F	80A	30
25W	0-3.5GHz	1.25	QC(3)	8080	40
50W	0-4GHz	1.2	QC(1)	8130	49
80W	0-4GHz	1.2	N/F	81B	65
NEW 100W	0-2.5GHz	1.2	QC(3)	8160	125
150W	0-4GHz	1.2	QC(1)	8135	75
NEW 225W	0-2.5GHz	1.2	QC(3)	8161	157
500W	0-2.5GHz	1.25	QC(1)	8201	165
600W	0-3GHz	1.25	QC(1)	8401	175
1000W	0-2GHz	1.25	QC(2)	8251	365
1000W	0-2.5GHz	1.25	QC(2)	8833**	365
2500W	0-2GHz	1.25	QC(2)	8890**	425
2500W	0-2GHz	1.25	3⅛″ EIA Flanged	8891**	450
2500W	0-2GHz	1.25	1⅝″ EIA Flanged	8892**	435
			WATER-COOLED		
1000W	0-3.5GHz	1.25	M or F: N,C	8710/11	$200
2500W	0-2.5GHz	1.25	QC(2)	8230	180
NEW 5kW	0-2GHz	1.2	1⅝″ EIA Flanged	8720	325
NEW 10kW	0-1.4GHz	1.15	3⅛″ & 1⅝″ EIA Fl.	8732/6	Inquire
15kW 25kW 50kW	0-500MHz 0-500MHz 0-500MHz	1.1	3⅛″ (Adapters to 1⅝″ and 6⅛″ available)	See note below	on request
Six models of 15, 25, and 50kW Load Resistors are available with 50-ohm EIA or 51.5-ohm Unflanged Input Connectors. Write for details.					
			30 dB ATTENUATORS (AIR COOLED)		
NEW 50W	0-500MHz	1.1	QC(1) in. (1) out	8321	$125
NEW 200W	0-500MHz	1.1	QC(1) in. (1) out	8322	225
500W	0-500MHz	1.1	QC(1) in. (1) out	8325	400
NEW 1000W	0-500MHz	1.1	QC(2) in. (1) out	8327**	475
2000W	0-500MHz	1.1	QC(2) in. (1) out	8329**	600

**Overtemperature Thermoswitch available.

THRULINE® RF DIRECTIONAL WATTMETERS

Order one or more Elements with your Thruline Wattmeter to suit your frequency and power ranges.

Thruline Model	Connectors	Plug-in Elements: Frequency (MHz)	Plug-in Elements: Power Ranges (watts)	U.S. Price
43	QC(1)			$95
		2-30	50, 100, 250, 500, 1000, 2500, 5000	$30 each
		25-60, 50-125 100-250, 200-500, 400-1000	5, 10, 25, 50,100, 250, 500, 1000	
		60-80, 80-95, 95-125 110-160, 150-250, 200-300, 275-450, 425-850, 800-950	1 watt	$50 each
		60-80, 80-95, 95-150, 150-250, 200-300, 250-450, 400-850, 800-950	2.5 watts	
		950-1260, 1100-1800, 1700-2200, 2200-2300	1, 2.5, 5, 10, 25	$75 each
4311	QC(1)	Description on opposite page.		$575
	For Peak and CW Power use Elements listed above, or select from Peak Power Elements below.			
		25-60, 50-125, 100-250, 200-500, 400-1000	2.5kW, 5kW, 10kW	$75 each
		950-1260	50, 100, 250, 500, 1000, 2.5kW, 5kW	

Cowhide Carrying Case Model CC-1 $17.50

Mini-Monitor Thruline Model	Connectors	Freq. Range	Power Scales	U.S. Price
NEW 4111	UHF, N, BNC	25-175MHz	150/15W	$93
NEW 4112	N, UHF, BNC	2-30MHz	200/20W	93
NEW 4113	N, UHF, BNC	2-30MHz	1000/100W	93

Carrying Case Model CC-2 $6.50

Thruline Model	Connectors	Plug-in Elements: Frequency (MHz)	Plug-in Elements: Power Ranges (kilowatts)	U.S. Price
4712	1⅝″ EIA Flanged			$206
		2-30	1, 2.5, 5, 10, 25	$ 50 each
		25-60, 50-125	.25, .50, 1, 2.5, 5, 10	
		.1-.25, .2-.5, .4-1 GHz	.25, .50, 1, 2.5, 5	
460	3⅛″ EIA Flanged			$235
		2-30	5, 10, 25, 50, 100	$ 50 each
		25-60, 50-125, 100-250, 200-500, 400-1000	1, 2.5, 5, 10, 25	
4902	6⅛″ EIA Flanged			$600
		2-30	25, 50, 100, 250	$ 50 each
		25-60, 50-125 100-250, 200-500, 400-1000	2.5, 5, 10, 25, 50	

QC-TYPE CONNECTORS *(Quick Change)*

Adaptable to particular TERMALINE, THRULINE, and TENULINE units, these connectors may be quickly changed in the field. Connector types available are: Female or male BNC, TNC, N, C, SC, HN, LC, UHF, LT, ⅞″ and 1⅝″ EIA Flanged.

Normally supplied: (1) Female N, (2) Female LC, (3) Male N

Prices in effect April 15, 1968 and are subject to change without notice. F.O.B. Cleveland, Ohio.

OTHER BIRD INSTRUMENTS

THRULINE® RF DIRECTIONAL POWER SENSORS
BIRD WATTCHER® RF POWER MONITOR/ALARM
TERMALINE® CALORIMETERS
SENTRILINE® FILTER-COUPLERS
COAXWITCH® COAXIAL SELECTOR SWITCHES

BIRD ELECTRONIC CORPORATION

Inglewood, Cal.: 5005 W. Century Blvd. Ph: (213) 674-1446
Waltham, Mass.: 235 Bear Hill Road Ph: (617) 899-4162
Altamonte Springs, Fla.: 703 Beverly Ph: (305) 831-1530

30303 Aurora Road/Cleveland (Solon), Ohio 44139/Phone: 216-248-1200/TWX: 216-248-6458/Cable: BIRDELEC

METERS--Q

DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
HEATH CO, BENTON HARBOR	**MICH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
A & M Instruments Inc, Great Neck	N Y
Dranetz Engineering Labs Inc, Plainfield	N J
Freed Transformer Co Inc, Brooklyn	N Y
Heath Co, Benton Harbor	Mich
Hewlett-Packard, Palo Alto	Cal
Kokuyo Electric Co Ltd, Tokyo	Japan
Marconi Instruments Div, English Electric Corp Englewood	N J
Mastercraft Instrument Co, Dubuque	Iowa
Measurement Technology Corp, Canoga Park	Cal
Meguro Denpa Sokki K K, Meguro-ku, Tokyo	Japan
Radiometer A/S, Copenhagen NV	Denmark
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Stark Electronic Instruments Ltd, Ajax	Ont
Taffet Electronics Inc, Woodside	N Y

METERS--Q DIGITAL

Darcy Industries Inc, DVM Div, Santa Monica	Cal
Engler Instrument Co, Jersey City	N J
J-Omega Co, Mountain View	Cal
Mastercraft Instrument Co, Dubuque	Iowa
Measurement Technology Corp, Canoga Park	Cal

METERS--RADIATION, NUCLEAR SEE COUNTERS--NUCLEAR; CHAMBERS--IONIZATION; DOSIMETERS

METERS--RUNNING TIME SEE TIMERS--MOTOR-OPERATED

METERS--SOUND LEVEL

DAVEN DIV MCGRAW-EDISON CO, MANCHESTER	**N H**
DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
TOYO MUSEN CO LTD, TOKYO	**JAPAN**
TRACOR INC, AUSTIN	**TEX**
A & M Instruments Inc, Great Neck	N Y
Amstro Corp, Fairfield	N J
Beede Electrical Instrument Co, Inc, Penacook	N H
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio
Compagnie Generale de Metrologie Haute Savoie	France
Conn Corp, Elkhart	Ind
Daven Div McGraw-Edison Co, Manchester	N H
Dawe Instruments Ltd, London W3	England
Dranetz Engineering Labs Inc, Plainfield	N J
ELIT-Elettronica Italiana S r l, 20151 Milan	Italy
En-Cer Inc, South Holland	Ill
General Radio Co, West Concord	Mass
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Honeywell Precision Meter Div, Manchester	N H
International Electronics Corp, Melville	NY
International Instruments Div Sigma Instr Inc, Orange	Conn
Korfund Dynamics Corp, Westbury	N Y
Lab Electro-Acoustique, 92 Rueil-Malmaison	France
Lafayette Radio Electronics, Syosset	NY
Mine Safety Appliances Co, Pittsburgh	Pa
Mura Corp, Great Neck	N Y
Northeast Electronics Corp, Concord	N H
Perfectone Sound Labs, Allendale	NJ
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Scott Inc, H H, Maynard	Mass
Simpson Electric Co, Chicago	Ill
Standard Telephones & Cables Ltd London WC 2	England
Sterling Mfg Co, Cleveland	Ohio
Sun Electric Corp, Chicago	Ill
Toyo Musen Co Ltd, Tokyo	Japan
Tracor Inc, Austin	Tex
Triplett Electrical Instrument Co, Bluffton	Ohio
Wac Line Div Simmonds Precision Prods, Dayton	Ohio

METERS--STANDING WAVE

GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEATH CO, BENTON HARBOR	**MICH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Alford Mfg Co, Winchester	Mass
Altronic Research Corp, Cleveland	Ohio
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
General Microwave Corp, Farmingdale	N Y
General Radio Co, West Concord	Mass
Heath Co, Benton Harbor	Mich
Hewlett-Packard, Palo Alto	Cal
Johnson Co, E F, Waseca	Minn
Kyoritsu Electrical Instruments Works Ltd, Tokyo	Japan
Microlab/F X R, Livingston	N J
Mura Corp, Great Neck	N Y
Narda Microwave Corp, Plainview	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Seco Electronics Corp, Hopkins	Minn
Singer Co, Metrics Div, Bridgeport	Conn
Technical Materiel Corp, Mamaroneck	N Y
Weinschel Engineering Co Inc, Gaithersburg	Md
Wiltron Co, Palo Alto	Cal

METERS--TENSION

COIL WINDING EQUIPMENT CO, OYSTER BAY	**N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
Coil Winding Equipment Co, Oyster Bay	N Y
Custom Scientific Instruments Inc, Whippany	N J
Doric Scientific Corp, San Diego	Calif
Electromatic Equipment Co, Cedarhurst	N Y
General Electric Co, ECSO, Schenectady	N Y
Hunter Spring Div Ametek Inc, Hatfield	Pa
Industrial Winding Machinery Corp, River Edge	N J
Martin-Decker Corp, Santa Ana	Cal
Master Tower Co, Sioux City	Iowa
Plessey Airborne Corp, Hillside	NJ
Sigma Systems Corp, Sub Applied Science Inc Dallas	Tex
Taylor Instrument Cos, Rochester	N Y
Tensitron Inc, Harvard	Mass
Transducers, Inc, Santa Fe Springs	Cal
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
West Coast Research Corp, Los Angeles	Cal

METERS--THERMOCOUPLE

API INSTRUMENTS CO, CHESTERLAND	**OHIO**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
Advanced Dynamics Inc Div Alco Std Corp Cleveland	Ohio
Aeromarine Electronics, Inc, San Diego	Cal
Aircraft Components Inc, Benton Harbor	Mich
A & M Instruments Inc, Great Neck	N Y
Amstro Corp, Fairfield	N J
API Instruments Co, Chesterland	Ohio
Bailey Meter Co, Wickliffe	Ohio
Bartlett-Emery Instrument Co, Fort Madison	Iowa
Beede Electrical Instrument Co, Inc, Penacook	N H
Bristol Div, American Chain & Cable Co Waterbury	Conn
Canadian Research Institute, Don Mills	Ont
Doric Scientific Corp, San Diego	Calif
Dytro Corp, Hicksville	NY
E I L Instrument Div Unitec Industries, Timonium	Md
Electronic Development Labs Inc, Plainview	N Y
En-Cer Inc, South Holland	Ill
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Ferranti, Ltd, Lancashire	England
Filmohm Corp, Long Island City	N Y
Fredericks Co, Huntingdon Valley	Pa
General Transducer Co, Santa Clara	Cal
Gruenberg Electric Co Inc, Garden City	N Y
Hallmark Standards Inc, Mamaroneck	N Y
Ideal Precision Meter Co Inc, Brooklyn	N Y
Instrulab Inc, Dayton	Ohio
International Instruments Div Sigma Instr Inc, Orange	Conn
Larson Instrument Co, Orangeburg	N Y
Lewis Engineering Co, Naugatuck	Conn
Marlin Mfg Corp, Cleveland	Ohio
Mastercraft Instrument Co, Dubuque	Iowa
Metermaster, Inc, Los Angeles	Cal
MSI Electronics Inc, Woodside	N Y
Nanmac Corp, Framingham Centre	Mass
Narda Microwave Corp, Plainview	N Y
Omega Engineering Inc, Stamford	Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plessey Airborne Corp, Hillside	NJ
PMF Electronics Inc, Dayton	Ohio
Pyrometer Co of America Inc, Penndel	Pa
Pyrometer Instrument Co Inc, Northvale	N J
Pyro-Serv Instruments, Inc, North Arlington	N J
Rawson-Lush Instrument Co Inc, Acton	Mass
Siemens America Inc, New York	N Y
Simpson Electric Co, Chicago	Ill
Singer Co, Metrics Div, Bridgeport	Conn
Stark Electronic Instruments Ltd, Ajax	Ont
Sun Electric Corp, Chicago	Ill
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taylor Instrument Cos, Rochester	N Y
Thermo Electric Co Inc, Saddle Brook	N J
Triplett Electrical Instrument Co, Bluffton	Ohio
United Systems Corp, Dayton	Ohio
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J
West Instrument Corp, Schiller Park	Ill
Weston Instruments Div Weston Instr Inc, Newark	N J
Yokogawa Electric Works Inc, Larchmont	N Y

METERS--VIBRATION

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
ITHACO INC, ITHACA	**N Y**
TOYO MUSEN CO LTD, TOKYO	**JAPAN**
TRACOR INC, AUSTIN	**TEX**
Agac-Derritron Inc, Alexandria	Va
Amstro Corp, Fairfield	N J
Bently Nevada Corp, Minden	Nev
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Dawe Instruments Ltd, London W3	England
Dytronics Co Inc, Columbus	Ohio
Endevco Corp, Pasadena	Cal
General Electric Co, ECSO, Schenectady	N Y
General Radio Co, West Concord	Mass
Helm Instrument Co Inc, Toledo	Ohio
Honeywell Test Instruments Div, Denver	Colo
International Research & Development Corp Worthington	Ohio
Ithaco Inc, Ithaca	N Y
Keinath Instrument Co, Columbus	Ohio
Mechanical Technology Inc, Latham	N Y
Metrix Instrument Co, Houston	Tex
Reliance Electric Co, Cleveland	Ohio
Robertshaw Controls Co, Aero & Instrument Div Anaheim	Cal
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Spectral Dynamics Corp of San Diego, San Diego	Cal
Toyo Musen Co Ltd, Tokyo	Japan
Tracor Inc, Austin	Tex
Unholtz-Dickie Corp, Hamden	Conn
Wavelabs Co Div Systron-Donner Corp, San Diego	Cal
Wayne Kerr Corp, Montclair	NJ
Westberg Mfg Co, Sonoma	Cal
Wharton Unitools, Moosup	Conn

METERS--VOLTAGE RATIO SEE VOLTMETERS

METERS--VOLT-OHM, ELECTRONIC SEE VOLTMETERS--VACUUM TUBE

METERS--VOLT-OHM-MILLIAMMETERS SEE VOLT-OHM-MILLIAMMETERS

METERS--VU SEE METERS--SOUND LEVEL

METERS--WATTMETERS SEE WATTMETERS

METERS--WAVE SEE WAVEMETERS

METHYL METHACRYLATE SEE PLASTICS

MICA--GLASS

MAGNETIC SHIELD DIV, PERFECTION MICA CO, CHICAGO	**ILL**
Asheville-Schoonmaker Mica Co, Newport News	Va
Blinn Co Inc, Delbert, Pomona	Cal
Budd Co Polychem Div, Newark	Del
Columbia Technical Corp, Woodside	N Y
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
Industrial Optics Corp, Newark	N J
Macallen Co Inc, Newmarket	N H
Magnetic Shield Div, Perfection Mica Co, Chicago	Ill
McMillan Radiation Labs Inc, Ipswich	Mass
3M Company, St Paul	Minn
Mykroy Inc, Wheeling	Ill
Polymica & Insulation Co Inc, Hartford	Conn
Polysciences Inc, Warrington	Pa
Spruce Pine Mica Co Inc, Spruce Pine	N C
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
United Mineral & Chemical Corp, New York	N Y

MICA--GLASS-BONDED

MAGNETIC SHIELD DIV, PERFECTION MICA CO, CHICAGO	**ILL**
American Mica Insulation Co, Manasquan	N J
Aremco Products Inc, Briarcliff Manor	N Y
Columbia Technical Corp, Woodside	N Y
Haveg Industries, Inc, Precision Molding Div Taunton	Mass
Insulating Fabricators Inc, East Rutherford	N J
Insulating Fabricators of N E Inc, Watertown	Mass
Insulating Shapes Inc, Bronx	N Y
Leed Insulator Corp, Los Angeles	Cal
Magnetic Shield Div, Perfection Mica Co, Chicago	Ill
3M Company, St Paul	Minn
Molecular Dielectrics Inc, Clifton	N J
Mycalex Corp of Amer Sub Spaulding Fibre Co Inc Clifton	N J
Mykroy Inc, Wheeling	Ill
Quartz & Silice, Paris 8 eme	France
Spaulding Fibre Co Inc, Tonawanda	N Y
Spruce Pine Mica Co Inc, Spruce Pine	N C
United Mineral & Chemical Corp, New York	N Y

MICA--SYNTHETIC

MAGNETIC SHIELD DIV, PERFECTION MICA CO, CHICAGO	**ILL**
American Mica Insulation Co, Manasquan	N J
Asheville-Schoonmaker Mica Co, Newport News	Va
Columbia Technical Corp, Woodside	N Y
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
Insulating Fabricators Inc, East Rutherford	N J
Magnetic Shield Div, Perfection Mica Co, Chicago	Ill
3M Company, St Paul	Minn
Molecular Dielectrics Inc, Clifton	N J
Mycalex Corp of Amer Sub Spaulding Fibre Co Inc Clifton	N J
Mykroy Inc, Wheeling	Ill
Polymica & Insulation Co Inc, Hartford	Conn
Spruce Pine Mica Co Inc, Spruce Pine	N C
Topper Mfg Co Inc, Great Neck	N Y

MICA TUBING SEE TUBING--NONMETALLIC

MICROAMMETERS SEE AMMETERS

AIM with Centralab for superior ceramics, components and microcircuits

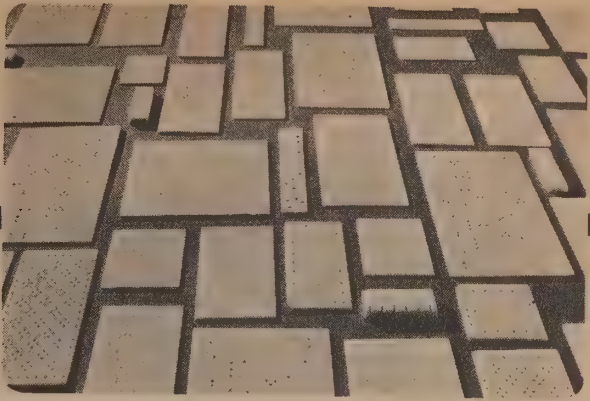
Centralab **A**ction **I**n **M**iniaturization covers the ground from design to technology to production; and from ceramics to components to microcircuits. You can **AIM** at any one or any combination and Centralab will zero-in for you. With outstanding capabilities in these three areas, your design and supply problems will be over . . . specify Centralab.

AIM with Centralab

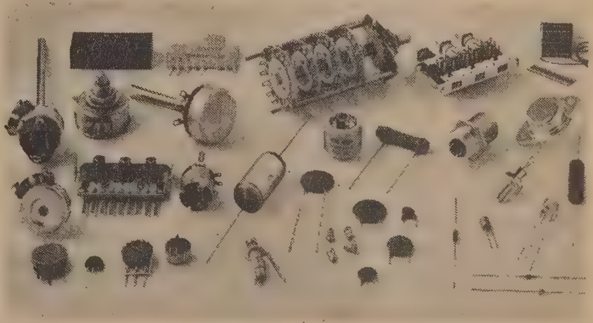
CENTRALAB PRODUCTS ARE MARKETED DIRECT TO MANUFACTURERS THROUGH CENTRALAB DISTRIBUTORS AND INTERNATIONALLY THROUGH GLOBE-UNION INC.–INTERNATIONAL DIVISION.

For detailed product information write to:

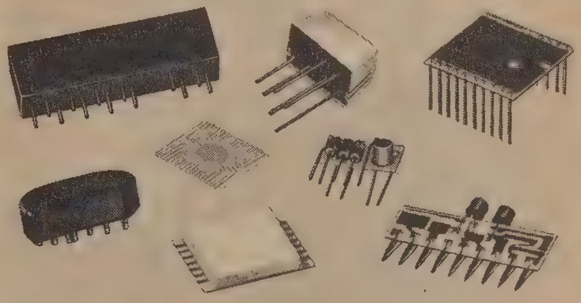
CENTRALAB
Electronics Division
GLOBE-UNION INC.
5757 NORTH GREEN BAY AVENUE
MILWAUKEE, WISCONSIN 53201



Thin, precision substrate materials produced by Centralab answer a growing need for technical ceramics utilized in a variety of electronic applications, including photo-cells, resistor and capacitor networks, transistor platforms and hybrid circuits.



Potentiometers. Resistors. Push button and rotary switches. Capacitors. Semiconductors. Solar cells. Optoelectronic devices. All manufactured to rigid standards and all suited to miniature military, industrial and entertainment applications.

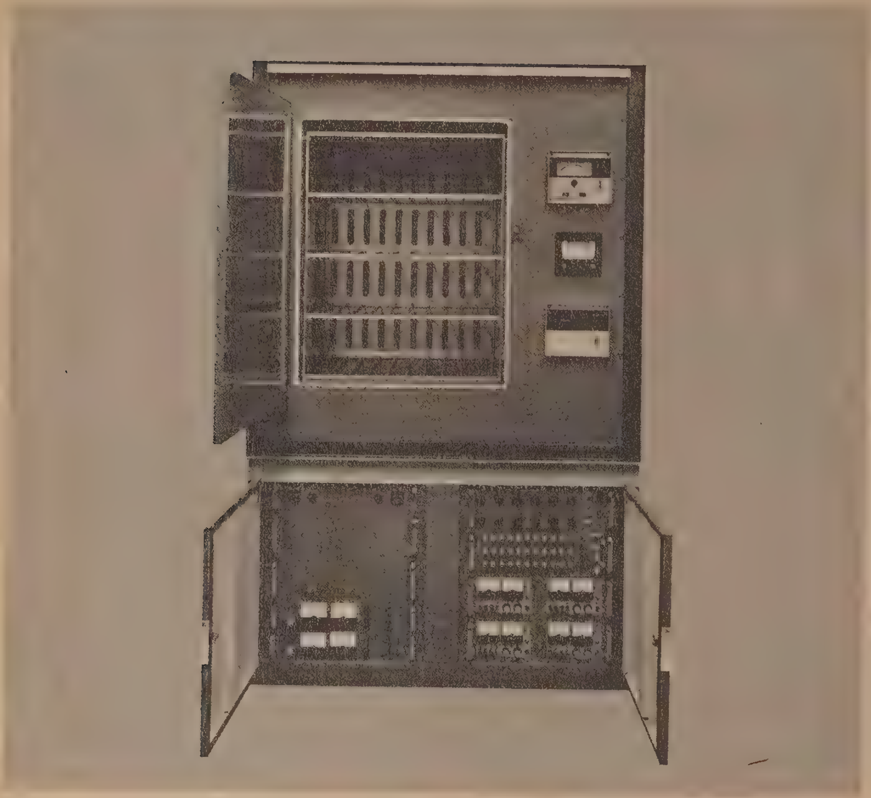


Centralab leads the industry in the production of microcircuits. More than 459,700,000 have been manufactured for testing and measurement devices, communications, airborne control equipment, stereos, television, radios and computers. Of these millions, there have been more than 5,000 different circuits for every conceivable application.

M-6827

LSI Testing and Aging Systems

LSI Testing Systems and Instruments
- **Complete LSI Array Testers**
- **Word Pattern Generators**
- **Multiphase Clock Systems**
- **Shift Register Testers**



NLS MODULAR AGING SYSTEMS
The NLS Modular Aging System meets MOS-LSI industry requirements for versatile and reliable environmental testing equipment. The system contains equipment to power and stimulate LSI while the devices are subjected to precise environmental stress. Worst-case conditions are fully programmable. Pin translation and device output load conditions are easily changed to meet any testing requirement.

AUTOMATIC LARGE-SCALE ARRAY TESTER
The Automatic Large-Scale Array Tester performs all functional tests on complex MOS devices at rates to 2 MHz, 40-bit word patterns to 1,000 words-per-test.
Gross leakage, voltage breakdown, and input protection tests available. The system tests wafers, ambient devices, or environmentally stressed units.

Call COLLECT (714) 755-1134 to request detailed brochures and/or applications engineering assistance.

Originator of the Digital Voltmeter
NON-LINEAR SYSTEMS, INC.
DEL MAR, CALIFORNIA 92014

MICROELECTRONIC CIRCUITS-- DIGITAL LOGIC

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE	**R I**
FILM MICROELECTRONICS, INC, BURLINGTON	**MASS**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
INTRONICS INC, NEWTON	**MASS**
LAPOINTE INDUSTRIES, INC, ROCKVILLE	**CONN**
MEGADYNE INDUSTRIES INC, ROCHESTER	**N Y**
Aerojet-General Corp Electronics Div, Azusa	Cal
Akers Electronics, Horten	Norway
Allen/UTI, Kalamazoo	Mich
Amelco Semiconductor, A Teledyne Co Mountain View	Cal
American Micro-Systems, Inc, Santa Clara	Cal
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville	R I
Analogic Corp, Waltham	Mass
Ates Componenti Elettronici SpA, Milano	Italy
Atlantic Instruments & Electronics, Inc Watertown	Mass
Bendix Corp, Communications Div, Towson	Md
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
California Systems Components, Inc, Chatsworth	Cal
Cambridge Thermionic Corp, Cambridge	Mass
Canoga Electronics Corp, Chatsworth	Cal
C B S Labs Div Columbia Bdcstg Sys Inc Stamford	Conn
Computer Logic Corp, Santa Monica	Cal
Conductron Corp, Ann Arbor	Mich
Continental Device Corp, Hawthorne	Cal
Control Logic Inc, Natick	Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
CTS Electronics Inc, South Pasadena	Cal
CTS Microelectronics Inc, Lafayette	Ind
Dahlberg Electronics Inc, Minneapolis	Minn
Dynatronics Oper Elctns Div Gen Dynamics Corp Orlando	Fla
Electro Circuits Inc, Lowell	Mass
Electronic Components Div United Aircraft Corp Trevose	Pa
Electronic Engineering Co of Cal, Santa Ana	Cal
Electrosil Ltd, Sunderland, Durham	England
Erie Technological Products Inc, Erie	Pa
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Ferranti, Ltd, Lancashire	England
Film Microelectronics, Inc, Burlington	Mass
General Electric Co, ECSO, Schenectady	N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Goodyear Aerospace Corp, Akron	Ohio
Halex Inc, Torrance	Cal
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
Honeywell Inc, Computer Control Div Framingham	Mass
Hughes Aircraft Co, Newport Beach	Cal
Hugle Industries, Sunnyvale	Cal
Integrated Circuit Engineering Corp, Phoenix	Ariz
Intellux Inc, Goleta	Cal
Intronics Inc, Newton	Mass
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Semiconductors, West Palm Beach	Fla
LaPointe Industries, Inc, Rockville	Conn
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Marconi Co Ltd, Chelmsford	England
Megadyne Industries Inc, Rochester	N Y
Mepco Inc, Morristown	N J
Monitor Systems Inc, Fort Washington	Pa
Motorola Semiconductor Products Inc, Phoenix	Ariz
Mullard Ltd, London, WC 1	Eng
National Semiconductor Corp, Santa Clara	Cal
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Quantum Devices, Bergenfield	NJ
Radio Corp of America, Electronic Components, Harrison	N J
Raytheon Co, Components Div, Semiconductor Oper Mountain View	Cal
Scientific Data Systems Inc, El Segundo	Cal
Semiconductor Specialists Inc, Chicago	Ill
Siemens America Inc, New York	N Y
Signetics Corp, Sunnyvale	Cal
Siliconix Inc, Sunnyvale	Cal
Solid State Electronics Corp, Sepulveda	Cal
Sovcor Electronique, Le Vesinet 78	France
Sprague Electric Co, North Adams	Mass
Stewart-Warner Microcircuits Inc, Sunnyvale	Cal
Sylvania Electric Products Inc, Semiconductor Div Woburn	Mass
Systems Engineering Labs Inc, Ft Lauderdale	Fla
Texas Instruments France, Villeneuve-Loubet	France
Texas Instruments Incorporated, Dallas	Tex
Toyo Electronics Industry Corp, Kyoto	Japan
Transitron Electronic Corp, Wakefield	Mass
TRW Systems Group, Redondo Beach	Cal
Union Carbide Electronics, Semiconductor Prods Mountain View	Cal
Vac-Ohm Electronics Co, Haddonfield	N J
Varo Inc, Garland	Tex
Vitro Labs Div Vitro Corp of America, Silver Spring	Md
Vitro Labs Div Vitro Corp of America, W Orange	N J
Welwyn Electric Ltd, Northumberland	England
Welwyn International Inc, Westlake	Ohio
Westinghouse Elec Corp, Molecular Electronics Div Elkridge	Md

MICROELECTRONIC CIRCUITS--LARGE SCALE

GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
LAPOINTE INDUSTRIES, INC, ROCKVILLE	**CONN**
NON-LINEAR SYSTEMS INC, DEL MAR, CAL	**ADV PG 412**
Aerojet-General Corp Electronics Div, Azusa	Cal
Alcatel, Paris 8eme	France
American Astrionics Inc, Palo Alto	Cal
American Micro-Systems, Inc, Santa Clara	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Dahlberg Electronics Inc, Minneapolis	Minn
Electro Circuits Inc, Lowell	Mass
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Ferranti, Ltd, Lancashire	England
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
Goodyear Aerospace Corp, Akron	Ohio
Integrated Circuit Engineering Corp, Phoenix	Ariz
ITT Europe Inc Components Gp, Brussels 1	Belgium
LaPointe Industries, Inc, Rockville	Conn
LTV Electrosystems Inc, Garland Div, Dallas	Tex
National Semiconductor Corp, Santa Clara	Cal
Non-Linear Systems Inc, Del Mar	Cal
Philco-Ford Corp, Washington	D C
Quantum Devices, Bergenfield	NJ
Semiconductor Specialists Inc, Chicago	Ill
Sprague Electric Co, North Adams	Mass
Texas Instruments Incorporated, Dallas	Tex

MICROELECTRONIC CIRCUITS-- LINEAR

BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE WIS	**ADV PG 411**
FILM MICROELECTRONICS, INC, BURLINGTON	**MASS**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
INTRONICS INC, NEWTON	**MASS**
LANSDALE TRANSISTOR & ELECTRONICS INC, LANSDALE	**PA**
LAPOINTE INDUSTRIES, INC, ROCKVILLE	**CONN**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
MEGADYNE INDUSTRIES INC, ROCHESTER	**N Y**
Aerojet-General Corp Electronics Div, Azusa	Cal
Akers Electronics, Horten	Norway
Amelco Semiconductor, A Teledyne Co Mountain View	Cal
American Micro-Systems, Inc, Santa Clara	Cal
Ates Componenti Elettronici SpA, Milano	Italy
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Burr-Brown Research Corp, Tucson	Ariz
California Systems Components, Inc, Chatsworth	Cal
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Continental Device Corp, Hawthorne	Cal
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
CTS Electronics Inc, South Pasadena	Cal
CTS Microelectronics Inc, Lafayette	Ind
Dahlberg Electronics Inc, Minneapolis	Minn
Dinion Coil Co Inc, Caledonia	N Y
Electronic Components Div United Aircraft Corp Trevose	Pa
Electrosil Ltd, Sunderland, Durham	England
Erie Technological Products Inc, Erie	Pa
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Fairlane Electronics, Inc, Long Valley	N J
Ferranti, Ltd, Lancashire	England
Film Microelectronics, Inc, Burlington	Mass
General Electric Co, ECSO, Schenectady	N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
General Instrument Europe SPA, Milano	Italy
Halex Inc, Torrance	Cal
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
Hughes Aircraft Co, Newport Beach	Cal
Hugle Industries, Sunnyvale	Cal
Integrated Circuit Engineering Corp, Phoenix	Ariz
Intellux Inc, Goleta	Cal
Intronics Inc, Newton	Mass
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Semiconductors, West Palm Beach	Fla
Lansdale Transistor & Electronics Inc, Lansdale	Pa
LaPointe Industries, Inc, Rockville	Conn
LCC-CICE, 93 Montreuil-sous-Bois	France
Lear Siegler Inc, Santa Monica	Cal
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Mallory & Co Inc, P R, Indianapolis	Ind
Marconi Co Ltd, Chelmsford	England
Megadyne Industries Inc, Rochester	N Y
Mepco Inc, Morristown	N J
Motorola Semiconductor Products Inc, Phoenix	Ariz
Mullard Ltd, London, WC 1	Eng
National Semiconductor Corp, Santa Clara	Cal
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Opamp Labs, Los Angeles	Cal
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Quantum Devices, Bergenfield	NJ
Radio Corp of America, Electronic Components, Harrison	N J
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Raytheon Co, Components Div, Semiconductor Oper Mountain View	Cal
Semiconductor Specialists Inc, Chicago	Ill
Siemens America Inc, New York	N Y
Signetics Corp, Sunnyvale	Cal
Siliconix Inc, Sunnyvale	Cal
Solid State Electronics Corp, Sepulveda	Cal
Sovcor Electronique, Le Vesinet 78	France
Sprague Electric Co, North Adams	Mass
Sylvania Electric Products Inc, Semiconductor Div Woburn	Mass
Texas Instruments France, Villeneuve-Loubet	France
Texas Instruments Incorporated, Dallas	Tex
Toyo Electronics Industry Corp, Kyoto	Japan
Transitron Electronic Corp, Wakefield	Mass
TRW Systems Group, Redondo Beach	Cal
Union Carbide Electronics, Semiconductor Prods Mountain View	Cal
United Aircraft Corp Electronic Components Div Trevose	PA
Vac-Ohm Electronics Co, Haddonfield	N J
Varo Inc, Garland	Tex
Varo Inc Microcircuit Products Div, Garland	Tex
Welwyn Electric Ltd, Northumberland	England
Welwyn International Inc, Westlake	Ohio
Westinghouse Elec Corp, Molecular Electronics Div Elkridge	Md
Zeltex inc, Concord	Cal

TAYLOR
STOCKS A COMPLETE
LINE OF
SEMICONDUCTOR
PRODUCTS
FROM SUCH COMPANIES
AS
FAIRCHILD
GENERAL
ITT
RAYTHEON
MICROWAVE
ASSOCIATES
AND
IERC
SEMICONDUCTOR
HEAT DISSAPATORS
FOR FAST DELIVERY
CALL 516 BA 3-8000
TAYLOR ELECTRONICS CORP.
2270 Grand Ave., Baldwin, New York

MICROELECTRONIC CIRCUITS-- MONOLITHIC

BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
LAPOINTE INDUSTRIES, INC, ROCKVILLE	**CONN**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
Amelco Semiconductor, A Teledyne Co Mountain View	Cal
American Electronic Labs Inc, Lansdale	Pa
American Micro-Systems, Inc, Santa Clara	Cal
Ates Componenti Elettronici SpA, Milano	Italy
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland

Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Burr-Brown Research Corp, Tucson	Ariz
California Systems Components, Inc, Chatsworth	Cal
Continental Device Corp, Hawthorne	Cal
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dahlberg Electronics Inc, Minneapolis	Minn
Electronic Components Div United Aircraft Corp Trevose	Pa
Electrosil Ltd, Sunderland, Durham	England
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Fairlane Electronics, Inc, Long Valley	N J
Ferranti Electric Inc, Plainview	N Y
Ferranti, Ltd, Lancashire	England
General Electric Co, ECSO, Schenectady	N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
General Instrument Europe SPA, Milano	Italy
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
Hughes Aircraft Co, Newport Beach	Cal
Hugle Industries, Sunnyvale	Cal
Integrated Circuit Engineering Corp, Phoenix	Ariz
Ion Physics Corp, Burlington	Mass
ITT Semiconductors, West Palm Beach	Fla
LaPointe Industries, Inc, Rockville	Conn
Mallory & Co Inc, P R, Indianapolis	Ind
Marconi Co Ltd, Chelmsford	England
Microwave Associates Inc, Burlington	Mass
Motorola Semiconductor Products Inc, Phoenix	Ariz
Mullard Ltd, London, WC 1	Eng
National Semiconductor Corp, Santa Clara	Cal
Oki Electric Industry Co Ltd, Tokyo	Japan
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plessey Inc, Farmingdale	N Y
Radio Corp of America, Electronic Components, Harrison	N J
Raytheon Co, Components Div, Semiconductor Oper Mountain View	Cal
Redcor Corp, Canoga Park	Cal
Semiconductor Specialists Inc, Chicago	Ill
Siemens America Inc, New York	N Y
Signetics Corp, Sunnyvale	Cal
Siliconix Inc, Sunnyvale	Cal
Sovcor Electronique, Le Vesinet 78	France
Sprague Electric Co, North Adams	Mass
Stewart-Warner Microcircuits Inc, Sunnyvale	Cal
Sylvania Electric Products Inc, Semiconductor Div Woburn	Mass
Texas Instruments France, Villeneuve-Loubet	France
Texas Instruments Incorporated, Dallas	Tex
Transitron Electronic Corp, Wakefield	Mass
TRW Systems Group, Redondo Beach	Cal
Union Carbide Electronics, Semiconductor Prods Mountain View	Cal
United Aircraft Corp Electronic Components Div Trevose	PA
Westinghouse Elec Corp, Molecular Electronics Div Elkridge	Md

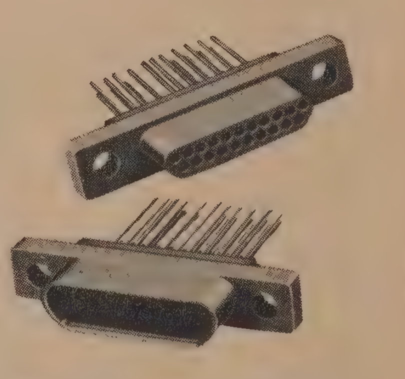
MICROELECTRONIC CIRCUITS-- MULTIPLE CHIP

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE	**R I**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
INTRONICS INC, NEWTON	**MASS**
LAPOINTE INDUSTRIES, INC, ROCKVILLE	**CONN**
Aerojet-General Corp Electronics Div, Azusa	Cal
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Akers Electronics, Horten	Norway
Amelco Semiconductor, A Teledyne Co Mountain View	Cal
American Electronic Labs Inc, Lansdale	Pa
American Micro-Systems, Inc, Santa Clara	Cal
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville	R I
Avco Corp Electronics Div, Cincinnati	Ohio
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
California Systems Components, Inc, Chatsworth	Cal
Canadian Marconi Co, Montreal 16	Quebec
Continental Device Corp, Hawthorne	Cal
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
CTS Electronics Inc, South Pasadena	Cal
CTS Microelectronics Inc, Lafayette	Ind
Dahlberg Electronics Inc, Minneapolis	Minn
Dickson Electronics Corp, Scottsdale	Ariz
Electronic Components Div United Aircraft Corp Trevose	Pa
Electrosil Ltd, Sunderland, Durham	England
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Ferranti, Ltd, Lancashire	England
General Electric Co, ECSO, Schenectady	N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
General Instrument Europe SPA, Milano	Italy
Hughes Aircraft Co, Newport Beach	Cal
Hugle Industries, Sunnyvale	Cal
Integrated Circuit Engineering Corp, Phoenix	Ariz
Intronics Inc, Newton	Mass
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Semiconductors, West Palm Beach	Fla
LaPointe Industries, Inc, Rockville	Conn
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Marconi Co Ltd, Chelmsford	England
Microsemiconductor Corp, Culver City	Cal
Motorola Semiconductor Products Inc, Phoenix	Ariz
Mullard Ltd, London, WC 1	Eng
National Semiconductor Corp, Santa Clara	Cal
Newmarket Transistors Ltd Newmarket, Suffolk	England
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Opamp Labs, Los Angeles	Cal
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Quantum Devices, Bergenfield	NJ
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Raytheon Co, Components Div, Semiconductor Oper Mountain View	Cal
Semiconductor Specialists Inc, Chicago	Ill
Siliconix Inc, Sunnyvale	Cal
Solid State Products Co, Salem	Mass
Sprague Electric Co, North Adams	Mass
Texas Instruments Incorporated, Dallas	Tex
Toyo Electronics Industry Corp, Kyoto	Japan
Transitron Electronic Corp, Wakefield	Mass
TRW Systems Group, Redondo Beach	Cal
Union Carbide Electronics, Semiconductor Prods Mountain View	Cal
United Aircraft Corp Electronic Components Div Trevose	PA
Vac-Ohm Electronics Co, Haddonfield	N J
Varo Inc, Garland	Tex
Welwyn Electric Ltd, Northumberland	England
Westinghouse Elec Corp, Molecular Electronics Div Elkridge	Md

MICROELECTRONIC CIRCUITS--PACKAGING SYSTEMS

AMP INCORPORATED, HARRISBURG	**PA**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
BURROUGHS CORP ELECTRONIC COMPONENTS DIV PLAINFIELD	**N J**
CINCH MFG CO, ELK GROVE VILLAGE, ILL	**ADV PGS 188,189**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES, CAL	**ADV PG 414**
LAPOINTE INDUSTRIES, INC, ROCKVILLE	**CONN**
NGK SPARK PLUG CO LTD, MIZUHO-KU NAGOYA	**JAPAN**
TECHNITROL INC, PHILADELPHIA	**PA**
Aerojet-General Corp Electronics Div, Azusa	Cal
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Amelco Semiconductor, A Teledyne Co Mountain View	Cal
American Components, Inc, Conshohocken	Pa
AMP Incorporated, Harrisburg	Pa
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Burns & Towne, Inc, Malden	Mass
Burroughs Corp Electronic Components Div Plainfield	N J
Canoga Electronics Corp, Chatsworth	Cal
Cinch Mfg Co, Elk Grove Village	Ill
CTS Microelectronics Inc, Lafayette	Ind
Dahlberg Electronics Inc, Minneapolis	Minn
Elco Corp, Willow Grove	Pa
General Electric Co, ECSO, Schenectady	N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
General Instrument Europe SPA, Milano	Italy
H J Electronic Seal Co, South Norwalk	Conn
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
LaPointe Industries, Inc, Rockville	Conn
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Metalized Ceramics Corp, Providence	R I
Mial S P A, I 20124 Milano	Italy
Micro Tech Mfg Inc, Worcester	Mass
Microwave Associates Inc, Burlington	Mass
NGK Spark Plug Co Ltd, Mizuho-ku Nagoya	Japan
Owens-Illinois Consumer & Tech Products Div Toledo	Ohio
Quantum Devices, Bergenfield	NJ
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Research Instrument Co Inc, Westbury	N Y
Scanbe Mfg Corp, Monterey Park	Cal
Technitrol Inc, Philadelphia	Pa
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Texas Instruments Incorporated, Dallas	Tex
Toyo Electronics Industry Corp, Kyoto	Japan
Unex Labs Div Nichols & Clark Inc, Hathorne	Mass
Warlock Systems Inc, Danbury	Conn
Weldmatic Div Unitek Corp, Monrovia	Cal
Welwyn Electric Ltd, Northumberland	England
Zeltex inc, Concord	Cal

MICROMINIATURE CONNECTORS



The MICROPIN® contact enables ITT Cannon to reduce the size and weight of connectors while maintaining strength and reliability. This flexible pin consists of seven spring members, insuring constant contact and very low noise level even under extreme vibration and shock. The micro line includes the CENTI-K™ (.100" centers) and the MICRO-K™ (.050" centers) 55-contact circular plugs. Also included are 50-MIL STRIP™ connectors (up to 120 contacts in a single row and up to 6" long) and MICRO-D™ rack and panel connectors in seven shell sizes to accommodate 9 to 51 contacts on .050" centers.

For further information contact your ITT Cannon distributor or see the Yellow Pages for your nearest ITT Cannon Sales office. ITT Cannon Electric, 3208 Humboldt Street, Los Angeles, California 90031. A division of International Telephone and Telegraph Corporation.

CANNON ITT

TWISTED PIN CONTACTS ARE MANUFACTURED UNDER LICENSE FROM THE NEW TWIST CONNECTOR CORPORATION

MICROELECTRONIC CIRCUITS--THICK FILM

ANDERSEN LABORATORIES, INC, BLOOMFIELD	**CONN**
BECKMAN INSTRUMENTS INC, HELIPOT DIV, FULLERTON CAL	**ADV PG 415**
BURROUGHS CORP ELECTRONIC COMPONENTS DIV PLAINFIELD	**N J**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
INTRONICS INC, NEWTON	**MASS**
JAPAN RESISTOR MFG CO LTD, TOKYO	**JAPAN**
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Amelco Semiconductor, A Teledyne Co Mountain View	Cal
American Electronic Labs Inc, Lansdale	Pa
Andersen Laboratories, Inc, Bloomfield	Conn
Automation Components, Inc, Peckville	Pa
Avco Corp Electronics Div, Cincinnati	Ohio
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bendix Corp Semiconductor Div, Holmdel	N J
Burroughs Corp Electronic Components Div Plainfield	N J
Dahlberg Electronics Inc, Minneapolis	Minn
Electronic Modules Corp, Timonium	Md
Frenchtown/CFI Inc, Frenchtown	N J
General Electric Co, ECSO, Schenectady	N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
Hughes Aircraft Co, Newport Beach	Cal
Integrated Circuit Engineering Corp, Phoenix	Ariz
Intronics Inc, Newton	Mass
Itek Corp, Lexington	Mass
ITT Europe Inc Components Gp, Brussels 1	Belgium
Japan Resistor Mfg Co Ltd, Tokyo	Japan
LCC-CICE, 93 Montreuil-sous-Bois	France
Lek-Trol, Inc, Grapevine	Tex
Lockheed Electronics Co, Plainfield	N J
LTV Electrosystems Inc, Garland Div, Dallas	Tex
MCI Electronics, Marina Del Rey	Cal
Microsemiconductor Corp, Culver City	Cal
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Mitronics Inc, Murray Hill	N J
Motorola Semiconductor Products Inc, Phoenix	Ariz
Newmarket Transistors Ltd Newmarket, Suffolk	England
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Philco-Ford Corp, Washington	D C
Quantum Devices, Bergenfield	NJ
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Reon Resistor Corp, Yonkers	N Y

LOOKING
FOR
MICROCIRCUITS?

Helipot has, in addition to an excellent custom capability, a wide selection of standard microcircuits available from "off-the-shelf."

- DC Voltage Regulators (see our ad under Regulators)
- Amplifiers to boost IC op amp power (see our ad under Amplifiers, Operational)
- Ladder Networks and Switches (see our ad under Converters, D to A)
- Circuit Protectors, i.e., Crowbars and Fuses (see our ad under Protection, Voltage and Current)

Custom Capability: When a standard circuit won't do the job, Helipot has the experience and capability to handle your custom circuit requirements. Our exclusive cermet thick film construction will save you time and money.

For complete information contact the Helipot representative nearest you. He's listed in EBG's Manufacturers' Index.

Beckman
INSTRUMENTS, INC.
HELIPOT DIVISION
FULLERTON, CALIFORNIA • 92634

Solid State Products Co, Salem	Mass
Sprague Electric Co, North Adams	Mass
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Texas Instruments Incorporated, Dallas	Tex
Warlock Systems Inc, Danbury	Conn
Welwyn Electric Ltd, Northumberland	England

MICROELECTRONIC CIRCUITS-- THIN FILM

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE	**R I**
ANDERSEN LABORATORIES, INC, BLOOMFIELD	**CONN**
FILM MICROELECTRONICS, INC, BURLINGTON MASS	**ADV PG 416**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INTRONICS INC, NEWTON	**MASS**
JAPAN RESISTOR MFG CO LTD, TOKYO	**JAPAN**
LAPOINTE INDUSTRIES, INC, ROCKVILLE	**CONN**
MEGADYNE INDUSTRIES INC, ROCHESTER, N Y	**ADV PG 416**
SUSUMU INDUSTRIAL CO LTD, KYOTO	**JAPAN**
Aerojet-General Corp Electronics Div, Azusa	Cal
Akers Electronics, Horten	Norway
Alcatel, Paris 8eme	France
Amelco Semiconductor, A Teledyne Co Mountain View	Cal
American Electronic Labs Inc, Lansdale	Pa
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville	R I
Andersen Laboratories, Inc, Bloomfield	Conn
Arra, Inc, Bayshore	NY
Bendix Corp, Communications Div, Towson	Md
Brinkmann Instruments Inc, Westbury	N Y
Broomer Research Corp, Plainview	N Y
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Canadian Marconi Co, Montreal 16	Quebec
Collins Radio Co, Electronic Components Newport Beach	Cal
Complex Instrument Co Inc, Burlington	Mass
Conductron Corp, Ann Arbor	Mich
Corning Glass Works, Corning	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France

MEGADYNE

THIN FILM HYBRIDS—

Custom made to your specs.
Fast delivery in any quantity.

LADDERS
RESISTOR NETWORKS
SWITCHING NETWORKS
SPECIAL PURPOSE OP AMPS
PREAMPLIFIERS
SERVO AMPLIFIERS
INTERFACE CIRCUITS
SPECIAL LOGIC NETWORKS
INTERCONNECTION PATTERNS
STRIP LINES
COATED SUBSTRATES
CHROME MASKS

Normal Delivery of Prototypes—4 to 8 weeks.

Large Production Quantities—90 to 120 days.

Furnish specifications or existing designs.

LET US QUOTE ON YOUR NEEDS

MEGADYNE INDUSTRIES, INC.
1665 Buffalo Road · Rochester, N.Y. 14624 · Tel. 716-328-4242

MILGRAY STOCKS

MICRO CIRCUITS

Every kind you can imagine. (And some you can't.) From stockpiles strategically located for overnight or faster delivery to anywhere in the world. We stock more so you can worry less. A call to your local Milgray man will start the motion.

MILGRAY

Milgray/New York 212-YU 9-1600
Milgray/Delaware Valley 215-BA 8-2000
Milgray/Washington 301-864-1111
Milgray/Cleveland 216-881-8800
Milgray/International 212-YU 9-1600
Milgray/New England, Inc. 617-272-6800

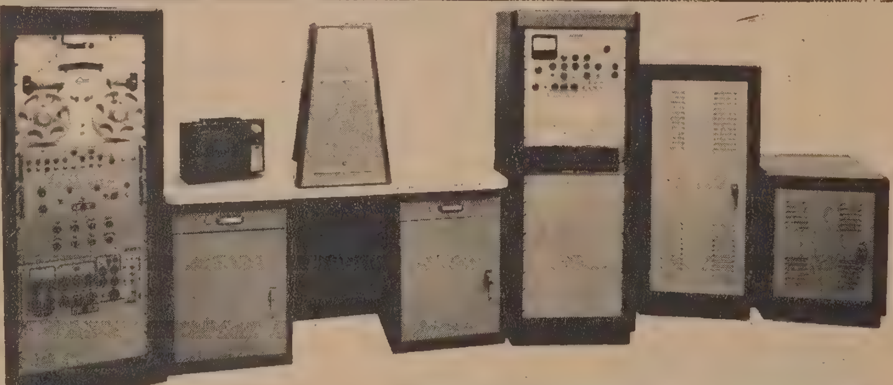
CTS Research Inc, West LaFayette	Ind
Electronic Components Div United Aircraft Corp Trevose	Pa
Electrosil Ltd, Sunderland, Durham	England
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Ferranti, Ltd, Lancashire	England
Film Components Div Reon Resister Corp, Yonkers	N Y
Film Microelectronics, Inc, Burlington	Mass
Filmohm Corp, Long Island City	N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
Geoscience Instruments Corp, Mt Vernon	N Y
Halex Inc, Torrance	Cal
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead	Cal
Hewlett-Packard, Palo Alto	Cal
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
Hughes Aircraft Co, Newport Beach	Cal
Hugle Industries, Sunnyvale	Cal
Integrated Circuit Engineering Corp, Phoenix	Ariz
Intellux Inc, Goleta	Cal
Intronics Inc, Newton	Mass
Ion Physics Corp, Burlington	Mass
ITT Europe Inc Components Gp, Brussels 1	Belgium
Japan Resistor Mfg Co Ltd, Tokyo	Japan
LaPointe Industries, Inc, Rockville	Conn
LCC-CICE, 93 Montreuil-sous-Bois	France
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Lek-Trol, Inc, Grapevine	Tex
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Lockheed Electronics Co, Plainfield	N J
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Marconi Co Ltd, Chelmsford	England
Megadyne Industries Inc, Rochester	N Y
Mepco Inc, Morristown	N J
Mial S P A, I 20124 Milano	Italy
Micro-Radionics Inc, Van Nuys	Cal
Microsemiconductor Corp, Culver City	Cal
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Mitronics Inc, Murray Hill	N J
Motorola Semiconductor Products Inc, Phoenix	Ariz
National Semiconductor Corp, Santa Clara	Cal
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plessey Inc, Farmingdale	N Y
Quantum Devices, Bergenfield	NJ
Radiation Systems Inc, McLean	Va
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Redcor Corp, Canoga Park	Cal
Reon Resistor Corp, Yonkers	N Y
Riedon Avionics, Inc, Van Nuys	Cal
Schjeldahl Co, G T, Northfield	Minn
Seacor Inc, Norwood	NJ
Sovcor Electronique, Le Vesinet 78	France
Sprague Electric Co, North Adams	Mass
Susumu Industrial Co Ltd, Kyoto	Japan
Texas Instruments Incorporated, Dallas	Tex
Toyo Electronics Industry Corp, Kyoto	Japan
TRW Systems Group, Redondo Beach	Cal
United Aircraft Corp Electronic Components Div Trevose	PA
Vacuum Metallizing, Van Nuys	Cal
Varo Inc, Garland	Tex
Varo Inc Microcircuit Products Div, Garland	Tex
Visual Inspection Products, Lynn	Mass
Vitro Labs Div Vitro Corp of America, Silver Spring	Md
Welwyn Electric Ltd, Northumberland	England
Welwyn International Inc, Westlake	Ohio

MICROELECTRONIC MODULES SEE MODULES–ACTIVE

MICROMETERS--ELECTRONIC SEE GAGES--DIMENSION

MICROPHONES

CLEVITE CORP PIEZOELECTRIC DIV, BEDFORD	**OHIO**
HEATH CO, BENTON HARBOR	**MICH**
KNOWLES ELECTRONICS INC, FRANKLIN PARK ILL	**ADV PG 417**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA JAPAN	**ADV PG 295**
PACIFIC PLANTRONICS INC, SANTA CRUZ	**CAL**
PRIMO CO LTD, TOKYO, JAPAN	**ADV PG 417**
TOA ELECTRIC CO LTD, KOBE	**JAPAN**
Action Systems Co Div Conn Consolidated Inds Inc Meriden	Conn
ADEC Inc, Newark	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
Aircraft Components Inc, Benton Harbor	Mich
AKG North American Philips Co Inc, New York	N Y
Altec Lansing Div LTV Ling Altec Inc, Anaheim	Cal
American Geloso Electronics Inc, New York	N Y
Ampex Corp, Redwood City	Cal
Astatic Corp, Conneaut	Ohio
Audiosears Corp, Stamford	N Y
Automatic Clerical Systems Inc, Pasadena	Cal
A V Electronics, Inc, Fresno	Cal
Bell P/A Products Corp, Columbus	Ohio
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio
Block Engineering Inc, Cambridge	Mass
Casco Music Systems Inc, Hyde Park	Mass
Chesapeake Instrument Corp, Shadyside	Md
Clevite Corp Piezoelectric Div, Bedford	Ohio
Columbia Research Labs Inc, Woodlyn	Pa
Components Specialties Inc, Freeport	N Y
Comrex Corp, W Concord	Mass
Conrac Corp, New York	N Y
Dowa Trading Co Ltd, Kobe	Japan
DuKane Corp, St Charles	Ill
Dynaco Inc, Philadelphia	Pa
Electronic Homes Co, New York	N Y
Electrospace Corp, Glen Cove	N Y
Electro-Voice Inc Sub Gulton Industries Buchanan	Mich
Elpa Mktg Industries Inc, New Hyde Park	N Y
Emcee Electronics Inc, New Castle	Del
Endevco Corp, Pasadena	Cal
Ercona Corp, New York	N Y
Euphonics Corp, Guaynabo	P R
Fen-Tone Corp, New York	N Y
Florida General Electronics Inc, Daytona Beach	Fla
Foster Electric Co Ltd, Tokyo	Japan
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Aviation Electronics Inc, Indianapolis	Ind
Gotham Audio Corp, New York	N Y
Gulton Industries Inc, Metuchen	N J
Gulton Industries Inc Controls & Instru Grp Costa Mesa	Cal
Hayakawa Electric Co Ltd, Osaka	Japan
Heath Co, Benton Harbor	Mich
Holmin Corp, Wm A, Rockford	Ill
Hosiden Electronics Co Ltd, Osaka	Japan
Instrumentation Div West Gulton Indus Inc Costa Mesa	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Terryphone Corp, Harrisburg	Pa
Karlson Research & Mfg Div KRC Corp, Hempstead	NY
K L A Labs Inc, Detroit	Mich
Knowles Electronics Inc, Franklin Park	Ill
Lafayette Radio Electronics, Syosset	NY
Linden Labs Inc, State College	Pa
Livingston Electronic Div Jettron Prods Inc Hanover	N J
Marconi Co Ltd, Chelmsford	England
Massa Div Dynamics Corp of America, Hingham	Mass
Matsushita Electric Industrial Co Ltd, Osaka	Japan
MDC Industries, Philadelphia	Pa
Merchant Co, Robert C, Carmel Valley	Cal
Midland International Corp, North Kansas City	Mo
Miles Reproducer Co Inc, New York	N Y
Muirhead Instruments Inc, Mountainside	N J
Mura Corp, Great Neck	N Y



The world's first automated laser resistance trimmer cuts costs in thin film hybrids at Film Microelectronics, Inc.

THIN FILM HYBRID THINKPOWER!

. . . Lowers cost of hybrid volume production!
. . . Speeds prototype creation!

- * *Fast turnaround prototype service*
- * *Fully automated volume production capability*
- * *Reliability in completed hybrid circuits and passive resistor networks*
- * *Thin film subtractive etching technique makes medium scale integration a reality*
- * *Chip resistors for fast prototyping and low cost, high accuracy resistor networks*
- * *Equipment and materials also available for do-it-yourself prototyping*

Investigate FMI's capabilities. Write for fact-filled booklet.

FILM MICROELECTRONICS, INC.
17 A Street, Burlington, Massachusetts 01803 (617) 272-5650
Leader in Thin Film Hybrid Circuitry

Knowles

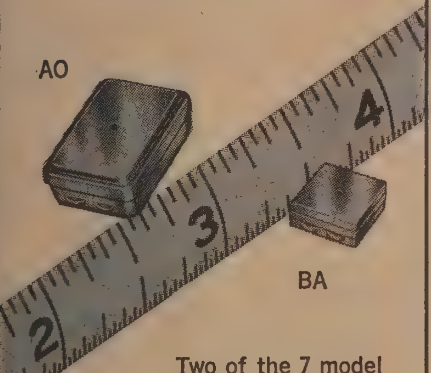
THE
WORLD LEADER
IN
MINIATURE
MICROPHONES

for hearing aids, telephone headsets, portable dictating machines, pocket pagers, small transceivers, or any other commercial or military application requiring critical performance related to size.

featuring high sensitivity, peak free response, magnetic shielding, and resistance to all but the most severe shocks. Manufactured to closer tolerances than a fine watch.

offered in a choice of 7 basic sizes and a variety of sound inlet arrangements. Companion earphone designs available for built-in applications.

used in equipment approved by both NASA and FAA. Incorporated in the headsets used in the Gemini capsules and ground control. Programmed for similar use in the Apollo program.



Two of the 7 model series available, shown actual size.

Sold to manufacturers only.

Knowles
ELECTRONICS, INC.

3102 North Mannheim Road
Franklin Park, Illinois 60131, U.S.A.
Telephones (312) 455-3600
Cable—Knolec Chicago • Telex 25-3387

Osaka Onkyo Co, Ltd, Asahi-Ku, Osaka	Japan
Pacific Plantronics Inc, Santa Cruz	Cal
Palomar Instrument Co, Escondido	Cal
Permoflux Corp, Glendale	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
P M & E Electronics Inc, East Providence	R I
Primo Co Ltd, Tokyo	Japan
Private Tele Communications Inc, Chicago	Ill
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Radio Corp of America, Electronic Components, Harrison	N J
Recoton Corp, Long Island City	N Y
Remler Co, San Francisco	Cal
Roanwell Corp, New York	N Y
Rowe Industries Inc, Toledo	Ohio
Rye Industries, Inc, Mamaroneck	N Y
Sanyo Electric Co Ltd, Osaka	Japan
Sennheiser Electronic Corp (NY), New York	N Y
Sharpe Instruments Div Scintrex Inc, Buffalo	NY
Shigoto Industries Ltd, New York	N Y
Shure Brothers Inc, Evanston	Ill
Sierra Engineering Co, Sierra Madre	Cal
Sonotone Corp, Electronic Applications Div Elmsford	N Y
Sony Corp, Tokyo	Japan
Standard Telephones & Cables Ltd London WC 2	England
Stanford International, San Carlos	Cal
Superex Electronics Corp, Yonkers	N Y
Superscope Inc, Sun Valley	Cal
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Telephonics Div, Instrument Systems Corp Huntington	NY
Telex Communications Div, Minneapolis	Minn
Thermo Electron Engineering Corp, Waltham	Mass
Tibbetts Industries Inc, Camden	Maine
Toa Electric Co Ltd, Kobe	Japan
Turner Co Sub Conrac Corp, Cedar Rapids	Iowa
Unex Labs Div Nichols & Clark Inc, Hathorne	Mass
University Sound Div Ltv Ling Altec Inc Oklahoma City	Okla
Vactric Control Equipment Ltd, Morden	England
Vega Electronics Corp, Santa Clara	Cal
V-M Corp, Benton Harbor	Mich
Whittaker Corp Instrument Sys Div North Hollywood	Cal

MICROSCOPES--COORDINATE MEASURING

Opto-Metric Tools Inc, New York	N Y

MICROSCOPES--ELECTRON

Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Electro Optics Inc, Medford	Mass
Fieldstone Corp Hardco Scientific Div, Cincinnati	Ohio
K Square Corp, Pittsburgh	Pa
Perkin-Elmer Corp, Norwalk	Conn
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Philips Electronic Instruments, Anal Inst, Mount Vernon	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Picker Nuclear, White Plains	N Y
Polysciences Inc, Warrington	Pa
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Scherr Tumico Inc, St James	Minn
Siemens America Inc, New York	N Y
Varian Assoc, Portland Plant, Portland	Ore
Zeiss Inc, Carl, New York	N Y

MICROSCOPES--STEREOSCOPIC

American Optical Co Instrument Div, Buffalo	N Y
Bausch & Lomb, Inc, Rochester	N Y
Clean Room Products Inc, Farmingdale	N Y
DoAll Co, Des Plaines	Ill
Ercona Corp, New York	N Y
Jungner Instrument AB, S-10440 Stockholm 14	Sweden
Nikon Inc Instrument Div, Garden City	N Y
Nuclear Research Instruments, Berkeley	Cal
Olympus Corp of America, Rochester	N Y
Opto-Metric Tools Inc, New York	N Y
Sandefur Engineering Co, Inc, Lawndale	Cal
Scherr Tumico Inc, St James	Minn
Vickers Instruments, Inc, Malden	Mass
Zeiss Inc, Carl, New York	N Y

MICROVOLTMETERS SEE VOLTMETERS

Primo
—A Leader in Microphone Field—

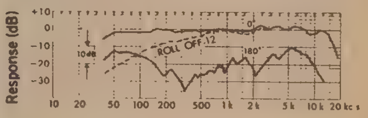
Super High Sensitivity
MICROPHONES

UNI-DIRECTIONAL
MICROPHONE
(with tone control)

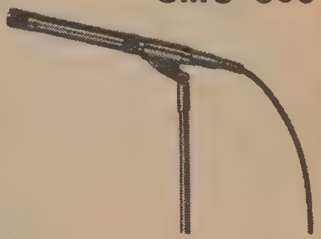
UD-900

SPECIFICATIONS

● Cartridge	DM-49
● Impedance	600 Ω
● Sensitivity	−73dB ± 2dB/μ bar
● Frequency Response	50 to 15000 Hz ± 5 dB
● Dimensions	50 mm dia, 250 Length.



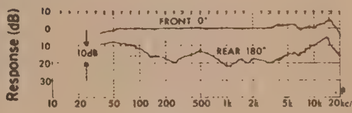
CONDENSER MICROPHONE
CMU-500



THE CMU-500 has excellent sound quality, sensitivity, durability, and performance.

SPECIFICATIONS:

● Frequency Response	30 to 15,000H/Z
● Impedance	600 Ω
● Sensitivity	−70 dB ± 3 dB
● Dimensions	25 ϕ × 295 mm

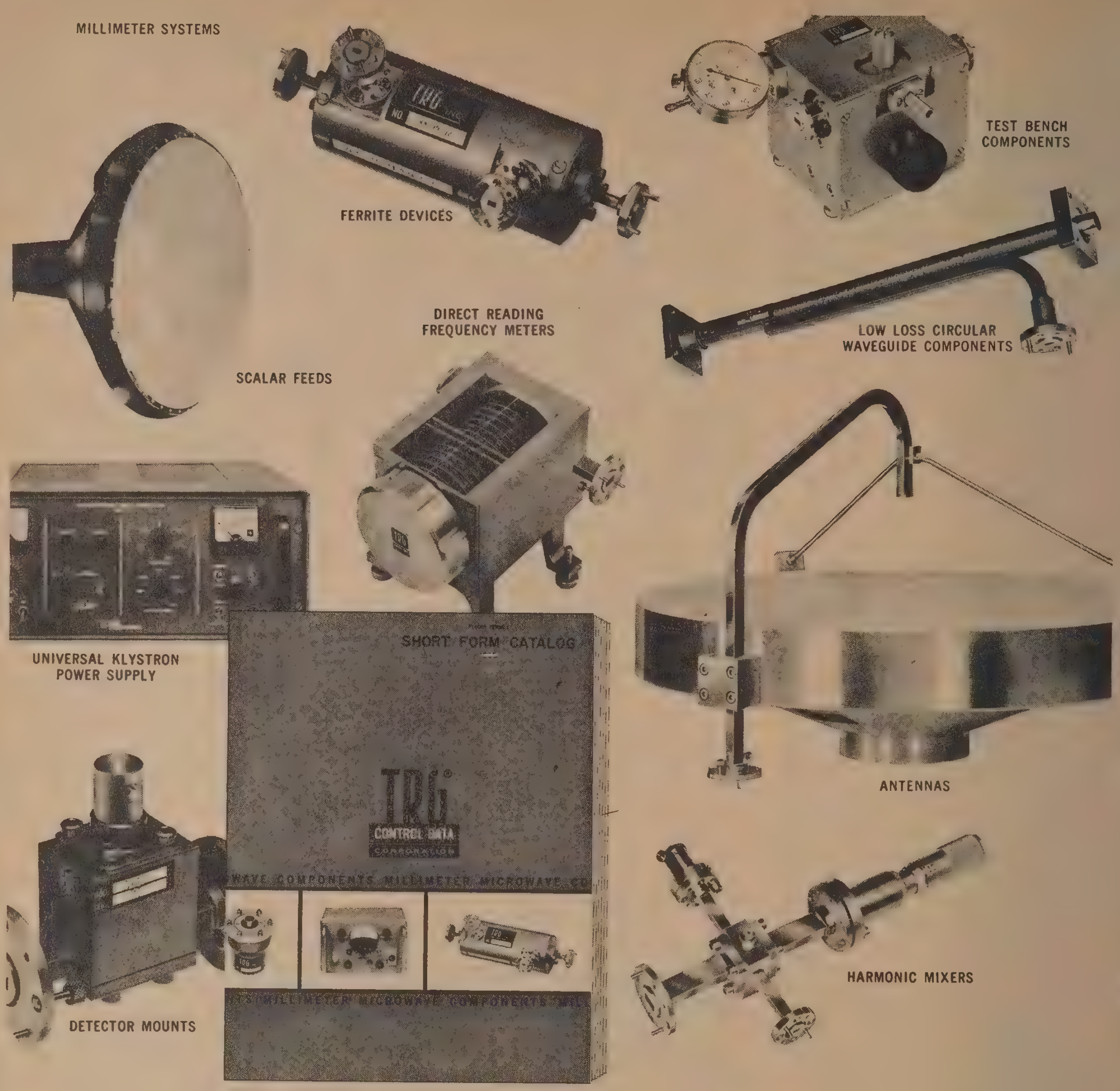


Besides the various types of microphone we are also manufacturing microphone, telephone cartridges, etc.

PRIMO COMPANY LTD.

Head Office: 25-1, 6-chome, Mure,
Mitakashi, Tokyo, Japan
Tel. 0422-43-3121～7
Cable: "Primo Musashino Mitaka"
Telex: 2822-326 PRIMO MUS

Chicago Illinois Office:
530 W. Surf. St., Chicago Illinois 60657, U.S.A.
Tel. 312-472-61421
Telex: 25-4225 PRIMO MUS CGOILLUSA


MILLIMETER SYSTEMS
FERRITE DEVICES
TEST BENCH COMPONENTS
SCALAR FEEDS
DIRECT READING FREQUENCY METERS
LOW LOSS CIRCULAR WAVEGUIDE COMPONENTS
UNIVERSAL KLYSTRON POWER SUPPLY
SHORT FORM CATALOG
TRG
CONTROL DATA
CORPORATION
WAVE COMPONENTS MILLIMETER MICROWAVE CO
MILLIMETER MICROWAVE COMPONENTS MIL
ANTENNAS
HARMONIC MIXERS
DETECTOR MOUNTS

TRG has the most comprehensive line of microwave components (now 12.4 to 220 GHz)...and all the facts are contained in our handy short form catalog.

Write for your copy today

This 20-page, short-form catalog contains all the important specifications on products available for Ku and K bands, as well as A, B, V, E, W, F, D, and G bands. To get your copy, contact your TRG representative or write TRG, 407 Border Street, East Boston, Massachusetts 02128. Tel. (617) 569-2110.

TRG
DIVISION
CONTROL DATA
CORPORATION
Space and Defense Systems Group

MICROWAVE COMMUNICATIONS SEE RELAY SYSTEMS

MICROWAVE COMPONENTS SEE SPECIFIC LISTINGS, I E ADAPTERS; CAVITIES; CIRCULATORS; DIODES; DUPLEXERS; ISOLATORS; JOINTS--FIXED & ROTARY; MODULATORS; SHIFTERS--PHASE; TRANSMISSION LINES; WAVEGUIDES

MILLIAMMETERS SEE AMMETERS

MILLIOHMMETERS SEE OHMMETERS

MILLIVOLTMETERS SEE VOLTMETERS

MINIATURE RECORDERS SEE RECORDERS--GRAPHIC;RECORDERS--MAGNETIC TAPE

MISSILE CHECKOUT SYSTEMS SEE TEST SYSTEMS

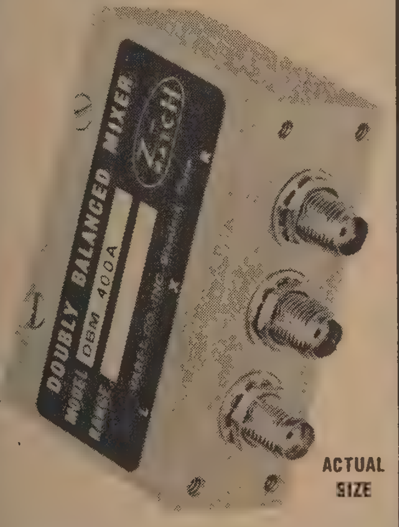
MISSILE GUIDANCE SYSTEMS SEE GUIDANCE SYSTEMS

MIXERS--MICROWAVE

ALUMINUM DESIGN CORP, BROOKFIELD	ILL
ANAREN MICROWAVE INC, SYRACUSE, N Y	ADV PG 419
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	ADV PGS 58,59
GENERAL MICROWAVE CORP, FARMINGDALE	N Y
HEWLETT-PACKARD, PALO ALTO	CAL
LEL DIV VARIAN ASSOCIATES, COPIAGUE, N Y	ADV PG 419
MICROWAVE CAVITY LABS INC, LA GRANGE	ILL
NIPPON ELECTRIC CO LTD, TOKYO	JAPAN
PREMIER MICROWAVE CORP, PORT CHESTER N Y	ADV PG 419
RADAR DESIGN CORP, SYRACUSE	N Y
SCIENTIFIC-ATLANTA INC, ATLANTA	GA
TRG DIV CONTROL DATA CORP, EAST BOSTON MASS	ADV PG 418
VARI-L CO INC, STAMFORD, CONN	ADV PG 419
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	MD
Aertech, Sunnyvale	Cal
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y

DOUBLY BALANCED MIXERS

A full line covering frequencies from 2000 Hz to 8.0 GHz. Coaxial types and pin types. Prices as low as $25. Available off the shelf. Get our bulletin 768.



ACTUAL SIZE

Model DBM 400A: R & L response: 10 MHz to 2.5 GHz; I.F.: DC to 1.0 GHz. $395.

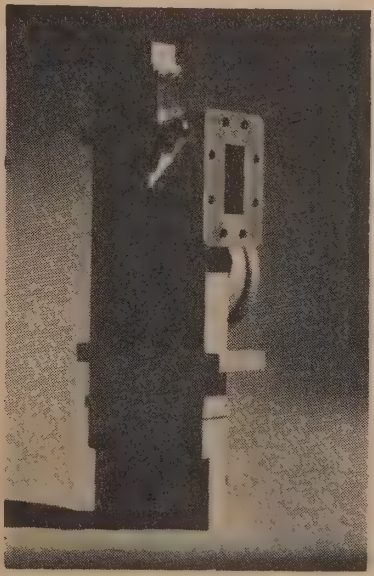
VARI-L COMPANY, INC.
STAMFORD, CONN. 06904
203-323-2176 TWX: 710-474-3369

PREMIER for PROFICIENCY in MICROWAVE MIXERS

Yours for the asking – the most complete line of Flatline® and waveguide mixers – from PREMIER, producer of the industry's finest microwave components.

FLATLINE CHARACTERISTICS
- Center Frequencies from 250 MHz to 8GHz
- Bandwidths from 1% to octave
- Noise figure – 8 db typical into a 1.5 db IF Strip
- L.O. Noise Suppression – 20 db

WAVEGUIDE CHARACTERISTICS
Frequency – 2 GHz to 35 GHz
Noise – 8 db into a 1.5 db N.F. IF Strip (Lower on special order)
Broad Band VSWR – 2.5:1 to 1.75:1 (lower VSWR available on narrow band equipment)
Broad Band Isolation – Hybrids to 20 db; Magic Tee to 30 db.



PMC For information on mixers to meet your specific requirements, write to:
Premier Microwave Corp.
35 New Broad St., Port Chester, N. Y. 10573

Microwave Mixers
standard models

Frequency Range GHZ	Model No.	Typ. NF with IF 1.2 dB dB	Typ. L.O. input Power mW	L.O./RF Min. isolation dB
balanced mixers — coax to coax				
0.1 - 0.3	VAK	7.5	2	20
0.2 - 1.0	UFK	7.5	2	15
0.9 - 1.8	LAK	7.5	2	15
1.05 - 1.3	MSB-1-1050	7.5	2-4	20
1.3 - 1.6	MSB-1-1300	7.5	2-4	20
1.65 - 2.05	MSB-1-1650	7.5	2-4	20
2.1 - 2.6	MSB-1-2100	7.5	2-4	20
2.65 - 3.3	MSB-1-2650	7.5	2-4	20
3.325 - 3.95	MSB-1-3325	7.5	2-4	20
3.95 - 4.8	MSB-1-3950	7.5	2-4	20
4.8 - 5.9	MSB-1-4800	7.5	2-4	20
image suppression 20 dB min.				
0.925 - 1.075	MSS-1-1000	9.5	2-4	20
1.11 - 1.29	MSS-1-1200	9.5	2-4	20
1.4 - 1.6	MSS-1-1500	9.5	2-4	20
1.85 - 2.15	MSS-1-2000	9.5	2-4	20
2.3 - 2.7	MSS-1-2500	9.5	2-4	20
2.775 - 3.225	MSS-1-3000	9.5	2-4	20
3.25 - 3.75	MSS-1-3500	9.5	2-4	20
3.7 - 4.3	MSS-1-4000	9.5	2-4	20
4.16 - 4.84	MSS-1-4500	9.5	2-4	20
4.62 - 5.38	MSS-1-5000	9.5	2-4	20
5.25 - 5.9	MSS-1-5650	9.5	2-4	20

LEL DIVISION
VARIAN associates
AKRON ST., COPIAGUE, L. I., NEW YORK 11726
For prompt information
CALL 516 AM 4-2517

BALANCED MIXERS BY ANAREN*

Excellent VSWR and isolation simultaneously
• 9db nominal noise figure
• Octave bandwidths 0.25-12.4 GHz
• Integrated or field replaceable hot carrier diodes.

Look to ANAREN* for dependability and quick delivery of:

Amplifiers
Couplers (Hybrids)
Power Combiners/Dividers
Correlators
Discriminators
Antenna Feeds
Stripline Components
SSB Modulators

ANAREN MICROWAVE, INC.
478 EAST BRIGHTON AVE., SYRACUSE, N Y 13210
Phone 315-475-1621 TWX 710-541-1507

*TM ANAREN MICROWAVE INC

Integrated Microwave Mixer-Preamplifiers

for high performance operation in radar, guidance, navigation, communications and similar applications.

Choose your required combination of mixer and preamplifier characteristics from the separate tables below. LEL delivers complete assemblies carefully mated both electrically and mechanically. All units operate into terminated 50, 75 or 93 ohm lines. Test measurement data for noise figure, power gain and bandwidth over the specified frequency range are supplied with each unit.

STANDARD MIXER CHARACTERISTICS

Frequency GHz	Model No.	*N.F. with 30 MHz IF of 1.2 dB	Typ. RF Input VSWR	Typ. L.O. Input Power mW	L.O./RF Min. Isolation dB
waveguide/waveguide hybrid					
3.95-4.5	CBH	6.5 to 7.0	1.3:1	1	13
4.5-5.15	CCH	6.5 to 7.0	1.5:1	1	13
5.15-5.85	CDH	6.5 to 7.0	1.2:1	1	13
7.3-8.5	XAH	6.5 to 7.0	1.2:1	1	13
8.5-9.6	XBH	6.5 to 7.0	1.2:1	1	13
9.4-10.3	XCH	6.5 to 7.0	1.2:1	1	13
10.3-12.0	XDH	8.5 to 9.5	1.2:1	1	13
12.4-14.5	KAH	8.5 to 9.0	1.2:1	1	13
14.5-17.0	KBH	8.5 to 9.0	1.2:1	1	13
23.0-25.0	KCH	9.0 to 9.7	1.3:1	1	13
34.0-36.0	KDH	9.0 to 10	1.2:1	1	13
waveguide/waveguide orthogonal and tee					
8.2-12.4	XDB	8.0 to 9.0	3.5:1	2	15
12.4-18.0	KAB	8.0 to 9.0	3.0:1	2	15
18.0-26.5	KFT	10.5 to 11.5	5.0:1	2	15
26.5-40.0	KGT	11.0 to 12.0*	5.0:1	2	15
*17 dB max. between 38 and 40 GHz					
coax to coax					
0.1-0.3	VAK	7.0 to 8.0	2:1	2	20
0.2-1.0	UFK	7.0 to 8.0	2:1	2	15
0.9-1.8	LAK	7.0 to 8.0	2:1	2	15
1.0-2.0	LAC	8.0 to 8.5	1.3:1	1	6
1.7-2.4	SAC	8.0 to 8.5	1.3:1	1	6
2.0-4.0	SBC	8.0 to 8:5	1.3:1	1	6
4.0-7.0	CAC	8.0 to 8.5	1.3:1	1	6
4.0-8.0	CJC	8.0 to 9.5	1.3:1	1	6
strip transmission line					
0.415-0.49	UDS	7.5 to 8.0	2:1	1	18
0.89-1.03	UES	7.5 to 8.0	2:1	1	18
1.2-1.45	LBS	7:5 to 8.0	2:1	1	18
2.1-2.4	SCS	7.5 to 8.0	2:1	1	18
2.6-3.0	SDS	7.5 to 8.0	2:1	1	18
3.8-4.4	CBS	7.5 to 8.0	2:1	1	18
5.4-5.9	CDS	7.5 to 8.0	2:1	1	18

STANDARD PREAMPLIFIER CHARACTERISTICS

Center Frequency MHz	Band-width MHz	†RF to IF Gain dB	*IF N.F. over 1.2 dB dB	Max. Mixer‡ Input Signal dBm
-2 miniature tube preamps				
30	8	24	0	−10
30	12	20	0	−7
60	8	24	0.4	−10
60	12	20	0.4	−7
70	8	23	0.7	−10
70	12	20	0.7	−7
-3 miniature tube preamps				
30	8	40	0	−33
30	12	32	0	−27
60	8	40	0.4	−33
60	12	32	0.4	−27
60	20	24	0.8	−20
70	8	38	0.7	−33
70	12	30	0.7	−27
70	20	24	1.1	−20
-7 solid state preamps				
30	12	24	1.0	−24
30	20	19	1.0	−24
60	12	24	1.0	−24
60	20	19	1.0	−24
70	12	24	1.0	−24
70	20	19	1.0	−24
238	45	20	1.0	−24
-9 solid state preamps				
160	50	24	3.0	−10
250	100	20	3.0	− 5

Noise figure of mixer-preamplifiers is obtained by adding range given for the mixer selected and the figure shown under "IF N.F. over 1.2 dB" for the required preamplifier. EXAMPLE: A CBH mixer mated with a -3 preamplifier having a 60 MHz center frequency and 8 MHz bandwidth has a noise figure range of 6.5 to 7.0 dB plus 0.4 dB; thus the noise figure range is 6.9 to 7.4 dB.

†RF to IF power gain: 6 dB (assumed mixer loss) has been deducted from preamplifier gain in determining stated values.

‡For linear operation, an input power increase of 3 dB over the stated "mixer input signal" level will result in less than 1 dB of output signal compression.

LEL DIVISION

varian / akron street / copiague / new york 11726

For prompt information
CALL 516 AM 4-2517

Aircom Inc, Union	N H
Airtec Inc, Roselle	N J
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alford Mfg Co, Winchester	Mass
Alpha Industries Inc, Newton Upper Falls	Mass
Aluminum Design Corp, Brookfield	Ill
Amerac, Inc, Beverly	Mass
Anaren Microwave Inc, Syracuse	N Y
Anzac Electronics, Waltham	Mass
Applied Microwave Lab, Inc, Andover	Mass
Applied Research, Inc, Port Washington	N Y
Arra, Inc, Bayshore	NY
Arwood Corp, Rockleigh	NJ
Astrolab Inc, Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Beckman Instruments Inc, Fullerton,	Cal
Bomac Div Varian Associates, Beverly	Mass
California Microwave, Sunnyvale	Cal
Canoga Electronics Corp, Chatsworth	Cal
Cardwell Condenser Corp, Lindenhurst	N Y
Coax Devices, Chelsea	Mass
Consolidated Airborne Systems, Carle Place	N Y
Delta Semiconductors Div Natl Instr Corp Costa Mesa	Cal
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Diamond Antenna & Microwave Corp, Winchester	Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Electromagnetic Technology Corp, Mountain View	Cal
Electronic Specialty Co, Los Angeles	Cal
Electronic Standards Corp, Plainfield	N J
Elpac Inc Systems Div RF, Irvine	Cal
Ewen-Knight Corp, East Natick	Mass
Filmohm Corp, Long Island City	N Y
Frequency Engineering Labs, Farmingdale	N J
General Microwave Corp, Farmingdale	N Y
General Radio Co, West Concord	Mass
Geoscience Instruments Corp, Mt Vernon	N Y
Gombos Microwave Inc, Clifton	N J
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hewlett-Packard, Palo Alto	Cal
Honig Laboratories Inc, Westbury	N Y
Hyletronics Corp, Wilmington	Mass
International Microwave Corp, Cos Cob	Conn
Lel Div Varian Associates, Copiague	N Y
Lorch Electronics Corp, Englewood	N J
MCS Corp, Monrovia	Cal
Meca Electronics, Inc, Denville	N J
Melabs, Palo Alto	Cal
Meridian Metalcraft Inc, Whittier	Cal
Merrimac Research & Development Inc West Caldwell,	N J
Microlab/F X R, Livingston	N J
Micronetics Div Teledyne Systems Co, San Diego	Cal
Microphase Corp, Greenwich	Conn
Micro-Radionics Inc, Van Nuys	Cal
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Development Labs Inc Needham Heights	Mass
Microwave Labs of America, Brooklyn	N Y
Microwave Products Group Div C A S Inc Carle Place	N Y
Microwave Products Inc, Chatsworth	Cal
Narda Microwave Corp, Plainview	N Y
Neico Microwave Co, Waltham	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Omega Laboratories Inc, Rowley	Mass
Omni Spectra Inc, Farmington	Mich
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polarad Electronic Instruments Div Long Island City	N Y
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Premier Microwave Corp, Port Chester	N Y
Radar Design Corp, Syracuse	N Y
Radiation Systems Inc, McLean	Va
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
RF Amplifier Co, Lake Grove	N Y
RLC Electronics Inc, Port Chester	N Y
Rowe Industries Inc, Toledo	Ohio
Sanders Associates, Inc, Nashua	N H
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst	NY
Scientific-Atlanta Inc, Atlanta	Ga
Singer Co, Metrics Div, Bridgeport	Conn
Spacekom Inc, Goleta	Cal
Sylvania Electric Products Inc, Semiconductor Div Woburn	Mass
TRG Div Control Data Corp, East Boston	Mass
Varian, Palo Alto	Cal
Vari-L Co Inc, Stamford	Conn
Vector Industries A Teledyne Co, Palo Alto	Cal
Victor R F & Microwave Co, Wakefield	Mass
Weinschel Engineering Co Inc, Gaithersburg	Md

MIXERS--PREAMPLIFIERS

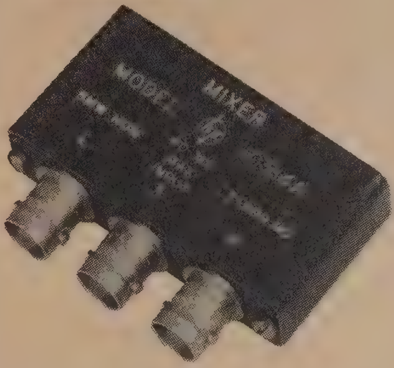
ANAREN MICROWAVE INC, SYRACUSE	**N Y**
LEL DIV VARIAN ASSOCIATES, COPIAGUE, N Y	**ADV PG 420**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
Aerojet-General Corp Electronics Div, Azusa	Cal
Aertech, Sunnyvale	Cal
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Altec Lansing Div LTV Ling Altec Inc, Anaheim	Cal
American Electronic Labs Inc, Lansdale	Pa
Ampex Corp, Redwood City	Cal

Anaren Microwave Inc, Syracuse	N Y
Applied Microwave Lab, Inc, Andover	Mass
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Beckman Instruments Inc, Fullerton,	Cal
Bogen Communications Div Lear Siegler Inc Paramus	N J
California Microwave, Sunnyvale	Cal
Canoga Electronics Corp, Chatsworth	Cal
DuKane Corp, St Charles	Ill
EMI Electronics Ltd, Hayes, Middlesex	England
Hamilton Electronics Corp, Chicago	Ill
Honig Laboratories Inc, Westbury	N Y
International Microwave Corp, Cos Cob	Conn
Lear Siegler Inc, Santa Monica	Cal
Lel Div Varian Associates, Copiague	N Y
Lorch Electronics Corp, Englewood	N J
Melabs, Palo Alto	Cal
Microphase Corp, Greenwich	Conn
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Microwave Products Group Div C A S Inc Carle Place	N Y
Microwave/Systems Inc, East Syracuse	N Y
Montedoro Corp, San Luis Obispo	Cal
Nelson-Hershfield Electronics Co, Phoenix	Ariz
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
NUS Corp, Underwater Sys Div, Paramus	N J
Omni Spectra Inc, Farmington	Mich
Philco-Ford Corp, Washington	D C
Private Tele Communications Inc, Chicago	Ill
Resdel Engineering Corp, Pasadena	Cal
RF Amplifier Co, Lake Grove	N Y
R H G Electronics Lab Inc, Farmingdale	N Y
Shrader Sound Inc, Washington	D C
Shure Brothers Inc, Evanston	Ill
Sonex Inc, Philadelphia	Pa
Spacekom Inc, Goleta	Cal
Sparta Electronic Corp, Sacramento	Cal
Symetrics Engineering Corp, Satellite Beach	Fla
Teledyne Telemetry Co, Los Angeles	Cal
Varian, Palo Alto	Cal
Vikoa Inc, Hoboken	N J
Visual Electronics Labs Audio Div, Pasadena	Cal
VP Co, Pasadena	Cal

MIXERS--R-F

ALUMINUM DESIGN CORP, BROOKFIELD	**ILL**
ANAREN MICROWAVE INC, SYRACUSE	**N Y**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	**ADV PGS 58,59**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO, CAL	**ADV PG 421**
LEL DIV VARIAN ASSOCIATES, COPIAGUE	**N Y**
MICRO-NOW INSTRUMENT CO INC, CHICAGO	**ILL**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
RADAR DESIGN CORP, SYRACUSE	**N Y**
VARI-L CO INC, STAMFORD	**CONN**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Aerojet-General Corp Electronics Div, Azusa	Cal
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Alford Mfg Co, Winchester	Mass
Alma Engineering Inc, San Diego	Cal
Aluminum Design Corp, Brookfield	Ill
American Electronic Labs Inc, Lansdale	Pa
Anaren Microwave Inc, Syracuse	N Y
Anidus Engineering, Arlington	Mass
Anzac Electronics, Waltham	Mass
Applied Microwave Lab, Inc, Andover	Mass
Applied Research, Inc, Port Washington	N Y
Arra, Inc, Bayshore	NY
Astrolab Inc, Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Beckman Instruments Inc, Fullerton,	Cal
Blonder-Tongue Labs Inc, Newark	N J
Canoga Electronics Corp, Chatsworth	Cal
Channel Master Corp, Ellenville	N Y
Conic Corp, San Diego	Cal
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Entron Inc, Silver Spring	Md
Ferritronics Ltd, Richmond Hill	Ont
Filmohm Corp, Long Island City	N Y
Frequency Engineering Labs, Farmingdale	N J
General Microwave Corp, Farmingdale	N Y
General Radio Co, West Concord	Mass
Gombos Microwave Inc, Clifton	N J
Gremar Mfg Co Inc, Wakefield	Mass
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hewlett-Packard, Palo Alto	Cal
Hyletronics Corp, Wilmington	Mass
Kobe Industries Corp, Kobe	Japan
Lear Siegler Inc, Santa Monica	Cal
Lel Div Varian Associates, Copiague	N Y
Loral Electronic Systems, Div Loral Corp, New York	NY
Lorch Electronics Corp, Englewood	N J
Melabs, Palo Alto	Cal
Meridian Metalcraft Inc, Whittier	Cal
Merrimac Research & Development Inc West Caldwell,	N J
Micronetics Div Teledyne Systems Co, San Diego	Cal
Micro-Now Instrument Co Inc, Chicago	Ill
Microphase Corp, Greenwich	Conn
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill

RF MIXERS



Low price, low noise, high performance mixers to 500 MHz. All are completely tested with parameters specified in detail. Performance is guaranteed over a wide environmental range.

Models for printed circuit board mounting are also available. Priced from $60 to $180.

HEWLETT hp PACKARD

Microwave Products Group Div C A S Inc Carle Place	N Y
Miles Industries Inc, Garnerville	N Y
Mini-Circuits Lab, New York	N Y
Montedoro Corp, San Luis Obispo	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Portchester Instrument Corp, Port Chester	N Y
Premier Microwave Corp, Port Chester	N Y
Radar Design Corp, Syracuse	N Y
Radiation Systems Inc, McLean	Va
Relcom, Mountain View	Cal
Resdel Engineering Corp, Pasadena	Cal
RF Amplifier Co, Lake Grove	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Rowe Industries Inc, Toledo	Ohio
Symetrics Engineering Corp, Satellite Beach	Fla
Varian, Palo Alto	Cal
Vari-L Co Inc, Stamford	Conn
Vega Precision Labs, Vienna	Va
Victor R F & Microwave Co, Wakefield	Mass
Vikoa Inc, Hoboken	N J
VP Co, Pasadena	Cal
Weinschel Engineering Co Inc, Gaithersburg	Md
Herley Industries, Inc, Westbury	N Y
Hyletronics Corp, Wilmington	Mass
ITT Federal Labs, Fort Wayne	Ind
Marconi Div, English Electric Corp, New York	N Y
MCS Corp, Monrovia	Cal
Melabs, Palo Alto	Cal
Meridian Metalcraft Inc, Whittier	Cal
Micromega Div Amphenol Corp, Venice	Cal
Micro-Radionics Inc, Van Nuys	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Portchester Instrument Corp, Port Chester	N Y
Premier Microwave Corp, Port Chester	N Y
Rantec Div Emerson Electric Co, Calabasas	Cal
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
TRG Div Control Data Corp, East Boston	Mass
Western Microwave Labs Inc, Santa Clara	Cal
Xtalonix Products Div Harshaw Chemical Co Columbus	Ohio

MOBILE COMMUNICATION SYSTEMS SEE COMMUNICATION SYSTEMS

MODULATION METERS SEE METERS--MODULATION

MODULATION TRANSFORMERS SEE TRANSFORMERS

MODULATORS--FERRITE

FERROTEC INC, NEWTON	**MASS**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
TRG DIV CONTROL DATA CORP, EAST BOSTON MASS	**ADV PG 418**
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alpha Industries Inc, Newton Upper Falls	Mass
American Aerospace Controls Inc, Farmingdale	N Y
Don Bosco Electronics Inc, Hanover	N J
E & M Labs, North Hollywood	Cal
Ferricore Div Natl Moldite Co Inc, Newark	N J
Ferrotec Inc, Newton	Mass
General Microwave Corp, Farmingdale	N Y

MODULATORS--MAGNETIC

AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
BELL, INC F W, COLUMBUS	**OHIO**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TRANSMAGNETICS INC, FLUSHING	**N Y**
American Aerospace Controls Inc, Farmingdale	N Y
AMP Inc, Capitron Div, Elizabethtown	Pa
Bell, Inc F W, Columbus	Ohio
Bullock Magnetics Corp, Pomona	Cal
Conductron Corp, Ann Arbor	Mich
Crescent Technology Corp, Newport Beach	Cal
Don Bosco Electronics Inc, Hanover	N J
General Magnetics Inc, Bloomfield	N J
Industrial Control Co, Farmingdale	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Qutronic Transformer Corp, Oneonta	N Y
Transmagnetics Inc, Flushing	N Y
Varo Inc, Garland	Tex

MODULATORS--PHASE

BULOVA WATCH CO INC ELCTRS DIV SERVO PRODUCTS WOODSIDE, NY	**ADV PG 421**
INTERNATIONAL COMMUNICATIONS CORP, MIAMI	**FLA**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Ad-Yu Electronics Inc, Passaic	N J
Brown Engineering-A Teledyne Co, Huntsville	Ala

Phase Modulators?

Try Bulova First!

CALL:

Ariz Tech-Ser Inc, 1805 E Indian School Rd Phoenix ... 602-265-3629
Cal El Com Sales Co, 3600 Motor Ave Los Angeles ... 213-870-4707
Fla Perrott Assoc, 1607 Forsyth Rd, Orlando ... 305-275-1132
Fla Perrott Assoc, Box 4532, Clearwater. 813-531-5513
Fla Perrott Assoc, Box 6277 West Palm Beach ... 305-967-1770

Ill Communications Eng, 7100 N Western Ave Chicago ... 312-R01-0548
Md Callas Electronics Inc, 6409 Frederick Ave Baltimore ... 301-744-7711
Mich Sheridan Assoc., 25625 Southfield Rd., Southfield ... 313-358-3333
Mass Aborn Labs Inc, 223 Crescent St Waltham ... 891-4850
Minn Wenco Sales Inc, 7728 Morgan Ave S Minneapolis ... 612-866-3639
Mo J C Mankus & Assoc, 400 Brooks La Hazelwood ... 314-PE1-4334
NY L-Tron Corp, 2-4 Fennell St, Skaneateles ... 315-685-6172
NY Comtronic Assoc, 1551 Franklin Ave Mineola ... 516-P11-8966
Ohio Sheridan Assoc., 10 Knollcrest Dr., Reading ... 513-761-5432
Pa Garrettson Co Inc, 92-14 Masland St Philadelphia ... H04-2275
Tex Tech-Ser Inc, 10210 Monroe Dr Dallas ... 214-358-2504
Can Canadian Micro Elctns, 1390 Raven Ave Ottawa, Ont ... 725-2332

BULOVA WATCH CO INC
SERVO PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

Bulova Watch Co Inc Elctns Div Servo Products Woodside	NY
Don Bosco Electronics Inc, Hanover	N J
Electrac Inc, Anaheim	Cal
General Instrument Corp Radio Receptor Div Hicksville	N Y
Gopic Designs Co, San Diego	Cal
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Hyletronics Corp, Wilmington	Mass
Industrial Components Inc, Beaverton	Ore
International Communications Corp, Miami	Fla
ITT Federal Labs, Fort Wayne	Ind
Lorch Electronics Corp, Englewood	N J
Melabs, Palo Alto	Cal
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Microwave Development Labs Inc Needham Heights	Mass
Milgo Electronic Corp, Miami	Fla
Mini-Circuits Lab, New York	N Y
Nippon Electric Co Ltd, Tokyo	Japan
North Hills Electronics Inc, Glen Cove	N Y
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Philco-Ford Corp, Washington	D C
Premier Microwave Corp, Port Chester	N Y
Radio Engineering Labs, Div DCA, Long Island City	N Y
Rantec Div Emerson Electric Co, Calabasas	Cal
Relcom, Mountain View	Cal
Rixon Electronics Inc, Silver Spring	Md
Space Craft Inc, Huntsville	Ala
Stelma Inc, Stamford	Conn
Theta Instrument Corp, Fairfield	N J
TRW Systems Group, Redondo Beach	Cal
Vibration Instruments Co, Anaheim	Cal
Weinschel Engineering Co Inc, Gaithersburg	Md
Wiltron Co, Palo Alto	Cal

MODULATORS--PULSE

AMP INCORPORATED, HARRISBURG	**PA**
AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
AXEL ELECTRONICS, INC, JAMAICA	**N Y**
C M L INC, PLAINFIELD	**N J**
HEWLETT-PACKARD, PALO ALTO	**CAL**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TOBE DEUTSCHMANN LABS INC, CANTON	**MASS**
VARI-L CO INC, STAMFORD	**CONN**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
ACR Electronics Corp, New York	N Y
AMP Incorporated, Harrisburg	Pa
AMP Inc, Capitron Div, Elizabethtown	Pa
Anidus Engineering, Arlington	Mass
Applied Microwave Lab, Inc, Andover	Mass
Arra, Inc, Bayshore	NY
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Axel Electronics, Inc, Jamaica	N Y
Bomac Div Varian Associates, Beverly	Mass
Brower Labs Inc, Westboro	Mass
Carco Electronics, Menlo Park	Cal
C M L Inc, Plainfield	N J
Cober Electronics Inc, Stamford	Conn
Cosmos Industries Inc, Brooklyn	N Y
Crescent Technology Corp, Newport Beach	Cal
Del Electronics Corp, Mt Vernon	N Y
Don Bosco Electronics Inc, Hanover	N J
Dorsett Electronics Inc, Tulsa	Okla
Energy Systems Inc, Palo Alto	Cal
General Instrument Corp Radio Receptor Div Hicksville	N Y
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Guide Industries Inc, Sun Valley	Cal
Hewlett-Packard, Palo Alto	Cal
Isomet Corp, Palisades Park	N J
Kilovolt Corp, Hackensack	N J
Kobe Industries Corp, Kobe	Japan
Lad Electronics Corp, Hicksville	N Y
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
Litton Industries, Electron Tube Div, San Carlos	Cal
L P Associates Inc, Los Angeles	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Cavity Labs Inc, La Grange	Ill
Narda Microwave Corp, Plainview	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Omni Spectra Inc, Farmington	Mich
Polarad Electronic Instruments Div Long Island City	N Y
Relcom, Mountain View	Cal
Seed Electronics Corp, Lexington	Mass
Servo Development Corp, Hicksville	N Y
Somerset Radiation Lab Inc, Arlington	Va
Stelma Inc, Stamford	Conn
Teledyne Telemetry Co, Los Angeles	Cal
Tobe Deutschmann Labs Inc, Canton	Mass
Trak Microwave Corp, Tampa	Fla
TRW Systems Group, Redondo Beach	Cal
Vari-L Co Inc, Stamford	Conn
Velonex Div Pulse Engineering Inc, Santa Clara	Cal
Venus Scientific Inc, Hicksville	N Y
Weinschel Engineering Co Inc, Gaithersburg	Md
Westinghouse Electric Corp, Tube Div, Elmira	NY

MODULES, ACTIVE--ASSEMBLED, CONVENTIONAL COMPONENTS

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE	**R I**
ANSLEY MFG CO, ARTHUR, NEW HOPE	**PA**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
BURROUGHS CORP ELECTRONIC COMPONENTS DIV PLAINFIELD	**N J**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE WIS	ADV PG 411
CTS CORP, ELKHART	**IND**
DALE ELECTRONICS INC, COLUMBUS	**NEB**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
DISCON CORP, FORT LAUDERDALE	**FLA**
EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
IBM, INDUSTRIAL PRODUCTS MARKETING, NEW YORK	**NY**
INTRONICS INC, NEWTON	**MASS**
LEL DIV VARIAN ASSOCIATES, COPIAGUE	**N Y**
MELCOR ELECTRONICS CORP, FARMINGDALE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TECHNITROL INC, PHILADELPHIA	**PA**
Abilities Inc, Albertson	N Y
Accurate Electronics Corp, Elyria	Ohio
Adage Inc, Boston	Mass
A D Data Systems Inc, Rochester	N Y
Advanced Electronics, Inc, Rocky Hill	Conn
AIM Electronics Ltd, Cambridge	U K
Allegri-Tech Inc, Nutley	N J
Allen-Jones Electronics Corp, Gardena	Cal
Allied Control Co Inc, New York	N Y
Amark Corp, Plainview	N Y
American Systems, Inc, Van Nuys	Cal
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville	R I
Amtron Inc, Midlothian	Ill
Ansley Mfg Co, Arthur, New Hope	Pa
Applied Control Co, Cedar Grove	NJ
Atlantic Instruments & Electronics, Inc Watertown	Mass
Audn Corp, Hamburg	N Y
Autronics Corp, Pasadena	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Bendix Corp, Communications Div, Towson	Md
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Bourns Inc Trimpot Div, Riverside	Cal
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Burns & Towne, Inc, Malden	Mass
Burr-Brown Research Corp, Tucson	Ariz
Burroughs Corp Electronic Components Div Plainfield	N J
California Systems Components, Inc, Chatsworth	Cal
Cambridge Thermionic Corp, Cambridge	Mass
Canoga Electronics Corp, Chatsworth	Cal
Carol Electronics Div Weeco Inc, Martinsburg	W Va
C-E Electronics Inc, Glenside	Pa
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Computer Logic Corp, Santa Monica	Cal
Computing Devices of Canada Ltd, Ottawa	Ont
Condor Industrial Corp, West Chicago	Ill
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Control Equipment Corp, Needham Heights	Mass
Control Logic Inc, Natick	Mass
Crane Electronics Corp, Santa Barbara	Cal
Crystalonics A Teledyne Co, Cambridge	Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
CTS Corp, Elkhart	Ind
CTS Microelectronics Inc, Lafayette	Ind
Dahlberg Electronics Inc, Minneapolis	Minn
Dale Electronics Inc, Columbus	Neb
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Daltronics Inc, Providence	R I
Data Device Corp, Hicksville	N Y
Data Technology Corp, Mountain View	Cal
Dayton Electronics Products Co, Dayton	Ohio
Delevan Electronics Div Amer Prec Indus Inc East Aurora	N Y
Di/An Controls Inc, Boston	Mass
Digital Equipment Corp, Maynard	Mass
Digital Products, San Pedro	Cal
Dinion Coil Co Inc, Caledonia	N Y
Discon Corp, Fort Lauderdale	Fla
Dry Screen Process Inc, Pittsburgh	Pa
Dynamic Instrument Corp, Plainview	N Y
Dynamics Research Corp, Stoneham	Mass
Dynatronics Oper Elctns Div Gen Dynamics Corp Orlando	Fla
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Ebauches SA Dept Oscilloquartz 2001 Neuchatel	Switz
Elasco Inc, Boston	Mass
Electro Circuits Inc, Lowell	Mass
Electronic Modules Corp, Timonium	Md
Elgin Electronics Inc, Erie	Pa
El-Tech Mfg Co Inc, Norristown	Pa
Empire Electronics Co Inc, Paterson	N J
Erie Technological Products Inc, Erie	Pa
Fairlane Electronics, Inc, Long Valley	N J
Ferranti, Ltd, Lancashire	England
General Instrument Europe SPA, Milano	Italy
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Golden Technology Inc, Santa Rosa	Cal
Gulton Industries Inc, Metuchen	N J
Hayakawa Electric Co Ltd, Osaka	Japan
Honeywell Inc, Computer Control Div Framingham	Mass
Honeywell Inc Electropac Operation, Peterborough	N H
Humphrey Electronics Inc, Raleigh	N C
Hybrid Systems Corp, Cambridge	Mass
IBM, Industrial Products Marketing, New York	NY
Incor Inc, Plainview	N Y
Information Control Corp, El Segundo	Cal
Intellux Inc, Goleta	Cal
Intronics Inc, Newton	Mass
ITT Europe Inc Components Gp, Brussels 1	Belgium
Janus Control Div Tyco, Waltham	Mass
Jordan Electric Co, Van Nuys	Cal
Kidde & Co Inc, Walter, Belleville	N J
KSC Semiconductor Corp, Chelmsford	Mass
Lane Industries, Electronics Div, North Hollywood	Cal
LCC-CICE, 93 Montreuil-sous-Bois	France
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Ledex Div Ledex Inc, Dayton	Ohio
Lel Div Varian Associates, Copiague	N Y
Logitek Inc, Farmingdale	N Y
Loral Electronic Systems, Div Loral Corp, New York	NY
Magnetic Systems Corp, Clearwater	Fla
Massey Dickinson Co Inc, Saxonville	Mass
Mayberry Electronics Co, Inglewood	Cal
Melcor Electronics Corp, Farmingdale	N Y
Mennen-Greatbatch Electronics Inc, Clarence	N Y
Mesur-Matic Electronic Corp, Warner	N H
Microdyne Inc, Rolling Meadows	Ill
Millen Mfg Co Inc, James, Malden	Mass
Milletron, Inc, Pittsburgh	Pa
Molecular Research Inc, Palm Beach Gardens	Fla
Monitor Systems Inc, Fort Washington	Pa
Motorola Semiconductor Products Inc, Phoenix	Ariz
Mutron Corp, Brockton	Mass
Nanodyne Corp, Sudbury	Mass
Nanosecond Systems Inc, Fairfield	Conn
National Coil Co Inc, Sheridan	Wyo
Navigation Computer Corp, Norristown	Pa
Nelson-Hershfield Electronics Co, Phoenix	Ariz
Neptune Electronics Co, New York	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Novatronics Inc, Pompano Beach	Fla
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Optical Electronics Inc, Tuscon	Ariz
Palmer Ltd, G A Stanley, W Molesey, Surrey	England
Paraplegics Mfg Co Inc, Bensenville	Ill
Parko Electronics Co Inc, Santa Ana	Cal
Pastoriza Electronics Inc, Newton Upper Falls	Mass
Peerless Instrument Co Inc, Elmhurst	NY
Pentronics Corp, Dorchester	Mass
Philco-Ford Corp, Washington	D C
P M C Electronics Corp, Philadelphia	Pa
Power Control Corp, Pittsburgh	Pa
Powertec Div, Airtronics Corp, Chatsworth	Cal
Precision Mecanique Labinal, 93 Saint-Ouen	France
Radix Electronics Corp, Anaheim	Cal
Randam Electronics Inc, Cincinnati	Ohio
Raven Industries Inc, Sioux Falls	SD
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Redcor Corp, Canoga Park	Cal
Reflex Controls Corp, Huntington Station	NY
R F S Engineering Co, Philadelphia	Pa
Riedon Avionics, Inc, Van Nuys	Cal
Roback Corp, Huntingdon Valley	Pa
Robinson Electronic Components, Temple City	Cal
Rosemount Plug-In Inc, Nashville	Tenn
Saxton Products Inc, Congers	N Y
Schneider Radio-Television Div, Ivry	France
Scientific Data Systems Inc, El Segundo	Cal
Scientific Instruments Co, Chatsworth	Cal
Scott Electronics Corp, Orlando	Fla
Semiconductor Circuits, Inc, Woburn	Mass
Servo Development Corp, Hicksville	N Y
Sippican Corp, Ind Prods Div, Mattapoisett	Mass
S K G Associates Inc, Boston	Mass
Slocum Industries, Inc, Reseda	Cal
Solid State Electronics Corp, Sepulveda	Cal
Space & Systems Div General Time Corp Stamford	Conn
Standard Precision Div Electronic Commun Inc Wichita	Kan
Stanwyck Winding Co, Newburgh	N Y
Stern Co Inc M L, Charlotte	N C
Struthers-Dunn Inc, Pitman	N J
Sulzer Brothers Ltd, Industrial Elctns Div Winterthur	Switzerland
Swiss Industries, Costa Mesa	Cal
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Sylvania Electronic Systems, Waltham	Mass
Systems Engineering Labs Inc, Ft Lauderdale	Fla
Technitrol Inc, Philadelphia	Pa
Teledyne Telemetry Co, Los Angeles	Cal
Thermo Products Co Div Web Press Eng Cedarburg	Wisc
Tri-Tronics Lab Inc, Euless	Tex
TRW Systems Group, Redondo Beach	Cal
Union Carbide Electronics, Semiconductor Prods Mountain View	Cal
Vac-Ohm Electronics Co, Haddonfield	N J
Varo Inc, Garland	Tex
Venner Electronics Ltd, New Malden, Surrey	Eng
Vitro Labs Div Vitro Corp of America, Silver Spring	Md
Vitro Labs Div Vitro Corp of America, W Orange	N J
Walkirt Co, Los Angeles	Cal
Welwyn Electric Ltd, Northumberland	England
Wyle Laboratories, El Segundo	Cal

EBG — one stop
shopping center.

MODULES, ACTIVE-- ASSEMBLED, MINIATURE & MICROMINIATURE

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE	**R I**
ANALOG DEVICES INC, CAMBRIDGE	**MASS**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
BURR-BROWN RESEARCH CORP, TUCSON, ARIZ	ADV PG 423
BURROUGHS CORP ELECTRONIC COMPONENTS DIV PLAINFIELD	**N J**
CTS CORP, ELKHART	**IND**
DALE ELECTRONICS INC, COLUMBUS	**NEB**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
DISCON CORP, FORT LAUDERDALE	**FLA**
FILM MICROELECTRONICS, INC, BURLINGTON	**MASS**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
INTRONICS INC, NEWTON	**MASS**
ITHACO INC, ITHACA	**N Y**
LEL DIV VARIAN ASSOCIATES, COPIAGUE	**N Y**
MELCOR ELECTRONICS CORP, FARMINGDALE	**N Y**
MICRO SWITCH DIV, HONEYWELL, FREEPORT	**ILL**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
TECHNITROL INC, PHILADELPHIA	**PA**
Abilities Inc, Albertson	N Y
Abtronics, Inc, Livermore	Cal
Accurate Electronics Corp, Elyria	Ohio
Advanced Electronics, Inc, Rocky Hill	Conn
Allegri-Tech Inc, Nutley	N J
Allen-Jones Electronics Corp, Gardena	Cal
Allied Control Co Inc, New York	N Y
American Systems, Inc, Van Nuys	Cal
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville	R I
Analog Devices Inc, Cambridge	Mass
Analog Technology Corp, Pasadena	Cal
Applied Control Co, Cedar Grove	NJ
Applied Microwave Lab, Inc, Andover	Mass
Astro-Space Labs Inc, Huntsville	Ala
Atlantic Instruments & Electronics, Inc Watertown	Mass
Autronics Corp, Pasadena	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Bendix Corp, Communications Div, Towson	Md
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Borders Electronics Co Inc, Pennsauken	N J
Bourns Inc Trimpot Div, Riverside	Cal
Brown Engineering-A Teledyne Co, Huntsville	Ala
Burns & Towne, Inc, Malden	Mass
Burr-Brown Research Corp, Tucson	Ariz
Burroughs Corp Electronic Components Div Plainfield	N J
Business Information Technology Inc, Natick	Mass
California Systems Components, Inc, Chatsworth	Cal
Cambridge Thermionic Corp, Cambridge	Mass
Chemical & Aerospace Products Inc, Wilmington	Cal
Computer Logic Corp, Santa Monica	Cal
Computing Devices of Canada Ltd, Ottawa	Ont
Condor Industrial Corp, West Chicago	Ill
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Control Logic Inc, Natick	Mass
Control Science Corp, Alexandria	Va
Crescent Technology Corp, Newport Beach	Cal
Crystalonics A Teledyne Co, Cambridge	Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
CTS Corp, Elkhart	Ind
CTS Electronics Inc, South Pasadena	Cal
CTS Microelectronics Inc, Lafayette	Ind
Dahlberg Electronics Inc, Minneapolis	Minn
Dale Electronics Inc, Columbus	Neb
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Data Device Corp, Hicksville	N Y
Data Science Corp, San Diego	Cal
Dayton Electronics Products Co, Dayton	Ohio
Delevan Electronics Div Amer Prec Indus Inc East Aurora	N Y
Di/An Controls Inc, Boston	Mass
Digital Products, San Pedro	Cal
Discon Corp, Fort Lauderdale	Fla
Dynatronics Oper Elctns Div Gen Dynamics Corp Orlando	Fla
E D P Corp, Orlando	Fla
Electro Circuits Inc, Lowell	Mass
Electronic Associates Inc, West Long Branch	N J
Electronic Modules Corp, Timonium	Md
Electronic Research Associates Inc, Cedar Grove	N J
Elgin Electronics Inc, Erie	Pa
El-Tech Mfg Co Inc, Norristown	Pa
Erie Technological Products Inc, Erie	Pa
Fairlane Electronics, Inc, Long Valley	N J
Ferranti, Ltd, Lancashire	England
Film Microelectronics, Inc, Burlington	Mass
General Electric Co, ECSO, Schenectady	N Y
General Instrument Europe SPA, Milano	Italy
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Goodyear Aerospace Corp, Akron	Ohio
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Gulton Industries Inc, Metuchen	N J
Halex Inc, Torrance	Cal
Honeywell Inc, Computer Control Div Framingham	Mass
Honeywell Inc Electropac Operation, Peterborough	N H
Hughes Aircraft Co, Newport Beach	Cal
Hybrid Systems Corp, Cambridge	Mass
Incor Inc, Plainview	N Y
Information Control Corp, El Segundo	Cal
Intellux Inc, Goleta	Cal
Intronics Inc, Newton	Mass
Ithaco Inc, Ithaca	N Y
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Federal Labs, Fort Wayne	Ind
ITT Semiconductors, West Palm Beach	Fla
Janus Control Div Tyco, Waltham	Mass
Jordan Electric Co, Van Nuys	Cal
Kidde & Co Inc, Walter, Belleville	N J
Kobe Industries Corp, Kobe	Japan
KSC Semiconductor Corp, Chelmsford	Mass
LCC-CICE, 93 Montreuil-sous-Bois	France
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Ledex Div Ledex Inc, Dayton	Ohio
Lel Div Varian Associates, Copiague	N Y
Logitek Inc, Farmingdale	N Y
Loral Electronic Systems, Div Loral Corp, New York	NY
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Magnetic Systems Corp, Clearwater	Fla
Mayberry Electronics Co, Inglewood	Cal
Melcor Electronics Corp, Farmingdale	N Y
Mesur-Matic Electronic Corp, Warner	N H
Methode Electronics Inc, Chicago	Ill
Microdyne Inc, Rolling Meadows	Ill
Micro Metrics Inc, Paterson	N J
Microsemiconductor Corp, Culver City	Cal
Micro Switch Div, Honeywell, Freeport	Ill
Microwave/Systems Inc, East Syracuse	N Y
Millen Mfg Co Inc, James, Malden	Mass
Monitor Systems Inc, Fort Washington	Pa
Motorola Semiconductor Products Inc, Phoenix	Ariz
Mutron Corp, Brockton	Mass
Nanosecond Systems Inc, Fairfield	Conn
Neptune Electronics Co, New York	N Y
Northridge Engineering Co Div Republic Corp Northridge	Cal
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Opamp Labs, Los Angeles	Cal
Optical Electronics Inc, Tuscon	Ariz
Palmer Ltd, G A Stanley, W Molesey, Surrey	England
Paraplegics Mfg Co Inc, Bensenville	Ill
Parko Electronics Co Inc, Santa Ana	Cal
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Pastoriza Electronics Inc, Newton Upper Falls	Mass
Pentronics Corp, Dorchester	Mass
Philco-Ford Corp, Washington	D C
P M C Electronics Corp, Philadelphia	Pa
Power Control Corp, Pittsburgh	Pa
Powertec Div, Airtronics Corp, Chatsworth	Cal
Precision Mecanique Labinal, 93 Saint-Ouen	France
Radix Electronics Corp, Anaheim	Cal
Raven Industries Inc, Sioux Falls	SD
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Redcor Corp, Canoga Park	Cal
Riedon Avionics, Inc, Van Nuys	Cal
Roback Corp, Huntingdon Valley	Pa
Robinson Electronic Components, Temple City	Cal
Rodale Electronics Inc, Garden City	NY
Scientific Data Systems Inc, El Segundo	Cal
Scott Electronics Corp, Orlando	Fla
Servo Development Corp, Hicksville	N Y
Shelly Associates, Inc, El Segundo	Cal
Signetics Corp, Sunnyvale	Cal
Sippican Corp, Ind Prods Div, Mattapoisett	Mass
S K G Associates Inc, Boston	Mass
Solid State Electronics Corp, Sepulveda	Cal
Space & Systems Div General Time Corp Stamford	Conn
Sprague Electric Co, North Adams	Mass
Standard Precision Div Electronic Commun Inc Wichita	Kan
Struthers-Dunn Inc, Pitman	N J
Sunbeam Electronics, Fort Lauderdale	Fla
Swiss Industries, Costa Mesa	Cal
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Systems Engineering Labs Inc, Ft Lauderdale	Fla
Technitrol Inc, Philadelphia	Pa
Teledyne Telemetry Co, Los Angeles	Cal
Transitron Electronic Corp, Wakefield	Mass
TRW Systems Group, Redondo Beach	Cal
Union Carbide Electronics, Semiconductor Prods Mountain View	Cal
Vac-Ohm Electronics Co, Haddonfield	N J
Varo Inc, Garland	Tex
Varo Inc Microcircuit Products Div, Garland	Tex
Venner Electronics Ltd, New Malden, Surrey	Eng
Vitro Labs Div Vitro Corp of America, Silver Spring	Md
Walkirt Co, Los Angeles	Cal
Warlock Systems Inc, Danbury	Conn
Welwyn Electric Ltd, Northumberland	England
Welwyn International Inc, Westlake	Ohio
Wyle Laboratories, El Segundo	Cal

Look to BURR-BROWN for Function Modules

BB MULTIPLIERS (QUARTER-SQUARE & TRIANGLE AVERAGING)
BB SQUARING MODULES
BB DIODE FUNCTION GENERATORS
BB SIN/COS FUNCTION GENERATORS
BB A/D & D/A CONVERTERS
BB SAMPLE/HOLD MODULES
BB COMPARATORS
BB LOGARITHMIC AMPLIFIERS
BB MULTIPLEXERS
BB NOISE GENERATORS
BB OSCILLATORS
and other
BB SPECIAL FUNCTION MODULES

For up-to-the-minute product and application information, phone your nearest Burr-Brown Engineering Representative.

ENGINEERING REPRESENTATIVES: ALABAMA, HUNTSVILLE (205) 534-1648 / **ARIZONA,** PHOENIX (602) 254-6085 / **CALIF.,** LOS ANGELES (213) 665-5181, SAN DIEGO (714) 232-2017, SAN FRANCISCO (408) 244-1505 / **COLO.,** DENVER (303) 399-4391 / **CONN.,** EAST HARTFORD (203) 874-9222 / **D.C.,** WASHINGTON (SEE MARYLAND) / **FLORIDA,** ORLANDO (305) 425-2764 / **ILLINOIS,** CHICAGO (312) 286-6824 / **LA.,** NEW ORLEANS (504) 888-2266 / **MD.,** SILVER SPRINGS (301) 588-8134 / **MASS.,** BOSTON (617) 245-4870 / **MICH.,** DETROIT (313) 358-3333 / **MINN.,** MINNEAPOLIS (612) 781-1611 / **MO.,** ST. LOUIS (314) 524-4800 / **N.C.** GREENSBORO (919) 273-1918 / **N.J.,** CAMDEN (215) 925-8711 / **N.M.,** ALBUQUERQUE (505) 255-1638 / **N.Y.,** ALBANY (518) 489-4777, BINGHAMTON (607) 723-9661, MT. VERNON (914) 968-2200, NEWBURGH (914) 562-6604, NEW HARTFORD (315) 732-3775, ROCHESTER (716) 473-2115 / **OHIO,** CINCINNATI (513) 761-5432, CLEVELAND (216) 237-9145, DAYTON (513) 277-8911 / **PENN.,** PHILADELPHIA (SEE CAMDEN, N.J.), PILLSBURGH (412) 243-6655 / **TEXAS,** DALLAS (214) 357-6451, HOUSTON (713) 774-2568 / **UTAH,** SALT LAKE CITY (801) 466-8709 / **VIRGINIA,** (SEE MARYLAND) / **WASH.,** SEATTLE (206) 767-4260 / **CANADA,** DOWNSVIEW, ONT. (416) 636-4910, MONTREAL, QUE. (514) 739-6776, OTTAWA, ONT. (613) 725-1288, VANCOUVER, B.C. (604) 291-7161

BB

BURR-BROWN
RESEARCH CORPORATION
International Airport Industrial Park
Tucson, Arizona 85706
TELEPHONE: 602-294-1431
TWX: 910-952-1111 • CABLE: BBRCORP

MODULES, ACTIVE-- COMPUTER & LOGIC

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE	**N Y**
AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE	**R I**
ANALOG DEVICES INC, CAMBRIDGE	**MASS**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
BURROUGHS CORP ELECTRONIC COMPONENTS DIV PLAINFIELD	**N J**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE WIS	ADV PG 411
COMPUTER PRODUCTS INC, FORT LAUDERDALE	**FLA**
CTS CORP, ELKHART	**IND**
FILM MICROELECTRONICS, INC, BURLINGTON	**MASS**
ICON CORP, CAMBRIDGE	**MASS**
INTRONICS INC, NEWTON	**MASS**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TRANSMAGNETICS INC, FLUSHING	**N Y**
Abilities Inc, Albertson	N Y

MODULES, ACTIVE

Accurate Electronics Corp, Elyria	Ohio
Adage Inc, Boston	Mass
A D Data Systems Inc, Rochester	N Y
Allegri-Tech Inc, Nutley	N J
Allen-Jones Electronics Corp, Gardena	Cal
Allied Control Co Inc, New York	N Y
Amark Corp, Plainview	N Y
Amperex Electronic Corp, Component Div Hauppauge	N Y
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville	R I
Analog Devices Inc, Cambridge	Mass
Analogic Corp, Waltham	Mass
Astrodata Inc, Anaheim	Cal
Atlantic Instruments & Electronics, Inc Watertown	Mass
Autronics Corp, Pasadena	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Bay Engineering Co, San Francisco	Cal
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Bendix Corp, Communications Div, Towson	Md
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Borders Electronics Co Inc, Pennsauken	N J
Bourns Inc Trimpot Div, Riverside	Cal
Brown Engineering-A Teledyne Co, Huntsville	Ala
Burns & Towne, Inc, Malden	Mass
Burr-Brown Research Corp, Tucson	Ariz
Burroughs Corp Electronic Components Div Plainfield	N J
Business Information Technology Inc, Natick	Mass
California Systems Components, Inc, Chatsworth	Cal
Cambridge Thermionic Corp, Cambridge	Mass
Canberra Industries, Middletown	Conn
Canoga Electronics Corp, Chatsworth	Cal
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Chemical & Aerospace Products Inc, Wilmington	Cal
Chronetics Inc, Mount Vernon	N Y
C & K Components Inc, Watertown	Mass
Computer Logic Corp, Santa Monica	Cal
Computer Products Inc, Fort Lauderdale	Fla
Condor Industrial Corp, West Chicago	Ill
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Control Equipment Corp, Needham Heights	Mass
Control Logic Inc, Natick	Mass
Corning Glass Works, Corning	N Y
Crystalonics A Teledyne Co, Cambridge	Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
CTS Corp, Elkhart	Ind
CTS Microelectronics Inc, Lafayette	Ind
Cutler-Hammer Inc, Milwaukee	Wisc
Dahlberg Electronics Inc, Minneapolis	Minn
Data Device Corp, Hicksville	N Y
Datametrics Corp, Van Nuys	Cal
Datascan Inc, Clifton	N J
Data Technology Corp, Mountain View	Cal
Dayton Electronics Products Co, Dayton	Ohio
Delco Radio Div General Motors Corp, Kokomo	Ind
Dialight Corp, Brooklyn	N Y
Di/An Controls Inc, Boston	Mass
Digital Equipment Corp, Maynard	Mass
Digital Products, San Pedro	Cal
Digital Products Div Canoga Elctns Corp Chatsworth	Cal
Digitronics Corp, Albertson	N Y
Dinion Coil Co Inc, Caledonia	N Y
Dynatronics Oper Elctns Div Gen Dynamics Corp Orlando	Fla
Dytro Corp, Hicksville	NY
E D P Corp, Orlando	Fla
E G & G Inc Custom Equip Div, Bedford	Mass
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electro Circuits Inc, Lowell	Mass
Electronic Associates Inc, West Long Branch	N J
Electronic Engineering Co of Cal, Santa Ana	Cal
Electronic Modules Corp, Timonium	Md
Elgin Electronics Inc, Erie	Pa
El-Tech Mfg Co Inc, Norristown	Pa
Erie Technological Products Inc, Erie	Pa
Fairlane Electronics, Inc, Long Valley	N J
Ferranti, Ltd, Lancashire	England
Film Microelectronics, Inc, Burlington	Mass
Gamco Industries Datamate Div, Big Spring	Texas
General Instrument Europe SPA, Milano	Italy
General Magnetics Inc, Bloomfield	N J
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Golden Technology Inc, Santa Rosa	Cal
Grason Stadler Co Inc, West Concord	Mass
Gulton Industries Inc, Metuchen	N J
Halex Inc, Torrance	Cal
Honeywell Inc, Computer Control Div Framingham	Mass
Honeywell Inc Electropac Operation, Peterborough	N H
Hughes Aircraft Co, Newport Beach	Cal
Humphrey Electronics Inc, Raleigh	N C
Icon Corp, Cambridge	Mass
Incor Inc, Plainview	N Y
Information Control Corp, El Segundo	Cal
Intellux Inc, Goleta	Cal
Intronics Inc, Newton	Mass
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Federal Labs, Fort Wayne	Ind
ITT Semiconductors, West Palm Beach	Fla
Kidde & Co Inc, Walter, Belleville	N J
KSC Semiconductor Corp, Chelmsford	Mass
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
LeCroy Research Systems Corp, West Nyack	N Y
Lehigh Valley Electronics Engrg & Mfg Co, Inc Fogelsville	Pa
Logic Corp, Haddonfield	N J
Logitek Inc, Farmingdale	N Y
Loral Electronic Systems, Div Loral Corp, New York	NY
Magnetic Systems Corp, Clearwater	Fla
Massey Dickinson Co Inc, Saxonville	Mass
MCG Electronics, Deer Park	N Y
Mesur-Matic Electronic Corp, Warner	N H
Microdyne Inc, Rolling Meadows	Ill
Micro Metrics Inc, Paterson	N J
Microsemiconductor Corp, Culver City	Cal
Microwave/Systems Inc, East Syracuse	N Y
Missouri Research Labs Inc, St Louis	Mo
Molecular Research Inc, Palm Beach Gardens	Fla
Monitor Systems Inc, Fort Washington	Pa
Motorola Semiconductor Products Inc, Phoenix	Ariz
Nanodyne Corp, Sudbury	Mass
Nanosecond Systems Inc, Fairfield	Conn
National Coil Co Inc, Sheridan	Wyo
Navigation Computer Corp, Norristown	Pa
Neptune Electronics Co, New York	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Northridge Engineering Co Div Republic Corp Northridge	Cal
Novatronics Inc, Pompano Beach	Fla
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Pastoriza Electronics Inc, Newton Upper Falls	Mass
Philco-Ford Corp, Washington	D C
P M C Electronics Corp, Philadelphia	Pa
Radix Electronics Corp, Anaheim	Cal
Randam Electronics Inc, Cincinnati	Ohio
Raven Industries Inc, Sioux Falls	SD
Raytheon Computer, Santa Ana	Cal
Redcor Corp, Canoga Park	Cal
R F S Engineering Co, Philadelphia	Pa
Roback Corp, Huntingdon Valley	Pa
Rodale Electronics Inc, Garden City	NY
Rosemount Plug-In Inc, Nashville	Tenn
Schneider Radio-Television Div, Ivry	France
Science Accessories Corp, Southport	Conn
Scientific Data Systems Inc, El Segundo	Cal
Servo Development Corp, Hicksville	N Y
Shelly Associates, Inc, El Segundo	Cal
Signetics Corp, Sunnyvale	Cal
Solid State Electronics Corp, Sepulveda	Cal
Space Craft Inc, Huntsville	Ala
Sprague Electric Co, North Adams	Mass
Stern Co Inc M L, Charlotte	N C
Struthers-Dunn Inc, Pitman	N J
Swiss Industries, Costa Mesa	Cal
Sylvania Electronic Systems, Waltham	Mass
Systems Engineering Labs Inc, Ft Lauderdale	Fla
Systems Research Labs Inc, Dayton	Ohio
Takeda Riken Industry Co Ltd, Tokyo	Japan
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Tech Serv Inc, Beltsville	Md
Transmagnetics Inc, Flushing	N Y
TRW Systems Group, Redondo Beach	Cal
U S Microwave, Delran	N J
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Vac-Ohm Electronics Co, Haddonfield	N J
Varian Data Machines, Irvine	Cal
Vari Tech Co, Grand Rapids	Mich
Varo Inc, Garland	Tex
Vitro Labs Div Vitro Corp of America, Silver Spring	Md
Vitro Labs Div Vitro Corp of America, W Orange	N J
Walkirt Co, Los Angeles	Cal
Warlock Systems Inc, Danbury	Conn
Welwyn Electric Ltd, Northumberland	England
Welwyn International Inc, Westlake	Ohio
Wyle Laboratories, El Segundo	Cal

MODULES, ACTIVE-- CONTROL & SWITCHING

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE	**R I**
ANALOG DEVICES INC, CAMBRIDGE	**MASS**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
CLAIREX ELECTRONICS INC, NEW YORK	**N Y**
CTS CORP, ELKHART	**IND**
FILM MICROELECTRONICS, INC, BURLINGTON	**MASS**
ICON CORP, CAMBRIDGE	**MASS**
INTRONICS INC, NEWTON	**MASS**
MICRO SWITCH DIV, HONEYWELL, FREEPORT	**ILL**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TECHNITROL INC, PHILADELPHIA	**PA**
Abilities Inc, Albertson	N Y
Accurate Electronics Corp, Elyria	Ohio
Adage Inc, Boston	Mass
A D Data Systems Inc, Rochester	N Y
Allegri-Tech Inc, Nutley	N J
Allen-Jones Electronics Corp, Gardena	Cal
Allied Control Co Inc, New York	N Y
Amark Corp, Plainview	N Y
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville	R I
Amtron Inc, Midlothian	Ill
Analog Devices Inc, Cambridge	Mass
Applied Microwave Lab, Inc, Andover	Mass
Astrodata Inc, Anaheim	Cal
Astro-Space Labs Inc, Huntsville	Ala
Atlantic Instruments & Electronics, Inc Watertown	Mass
Audn Corp, Hamburg	N Y
Autronics Corp, Pasadena	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Bay Engineering Co, San Francisco	Cal
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Bendix Corp, Communications Div, Towson	Md
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Borders Electronics Co Inc, Pennsauken	N J
Bourns Inc Trimpot Div, Riverside	Cal
Brower Labs Inc, Westboro	Mass
Brown Engineering-A Teledyne Co, Huntsville	Ala
Burns & Towne, Inc, Malden	Mass
Burr-Brown Research Corp, Tucson	Ariz
CAE Industries Ltd, Montreal 3	Que
California Systems Components, Inc, Chatsworth	Cal
Cambridge Thermionic Corp, Cambridge	Mass
Canberra Industries, Middletown	Conn
Chemical & Aerospace Products Inc, Wilmington	Cal
Chronetics Inc, Mount Vernon	N Y
Clairex Electronics Inc, New York	N Y
Cohu Electronics Inc, San Diego	Cal
Computer Logic Corp, Santa Monica	Cal
Condor Industrial Corp, West Chicago	Ill
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Control Equipment Corp, Needham Heights	Mass
Control Logic Inc, Natick	Mass
Corning Glass Works, Corning	N Y
Crane Electronics Corp, Santa Barbara	Cal
Crystalonics A Teledyne Co, Cambridge	Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
CTS Corp, Elkhart	Ind
Cutler-Hammer Inc, Milwaukee	Wisc
Dahlberg Electronics Inc, Minneapolis	Minn
Data Device Corp, Hicksville	N Y
Data Technology Corp, Mountain View	Cal
Dayton Electronics Products Co, Dayton	Ohio
Delco Radio Div General Motors Corp, Kokomo	Ind
Design Products Corp, Troy	Mich
De-Tec-Tronic Corp, Chicago	Ill
Dialight Corp, Brooklyn	N Y
Di/An Controls Inc, Boston	Mass
Digital Products, San Pedro	Cal
Dolan Jenner Industries Inc, Melrose	Mass
Dynamics Research Corp, Stoneham	Mass
Dynatronics Oper Elctns Div Gen Dynamics Corp Orlando	Fla
Dytro Corp, Hicksville	NY
Ebauches SA Dept Oscilloquartz 2001 Neuchatel	Switz
E D P Corp, Orlando	Fla
E G & G Inc Custom Equip Div, Bedford	Mass
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electro Circuits Inc, Lowell	Mass
Electronic Controls Inc, Wilton	Conn
Electronic Engineering Co of Cal, Santa Ana	Cal
Electronic Modules Corp, Timonium	Md
Electronic Research Associates Inc, Cedar Grove	N J
El-Tech Mfg Co Inc, Norristown	Pa
Erie Technological Products Inc, Erie	Pa
Fairlane Electronics, Inc, Long Valley	N J
Film Microelectronics, Inc, Burlington	Mass
Fisher-Akin Co, Manhattan Beach	Cal
Frost Electronics Corp, Rockaway	N J
Gems Co Inc, Farmington	Conn
Giannini-Voltex, Whittier	Cal
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Gulton Industries Inc, Metuchen	N J
Halex Inc, Torrance	Cal
Hartman Electrical Mfg Co, Mansfield	Ohio
Helm Instrument Co Inc, Toledo	Ohio
Henschel Corp, Amesbury	Mass
Honeywell Inc, Computer Control Div Framingham	Mass
Hughes Aircraft Co, Newport Beach	Cal
Humphrey Electronics Inc, Raleigh	N C
Hybrid Systems Corp, Cambridge	Mass
Icon Corp, Cambridge	Mass
Incor Inc, Plainview	N Y
Information Control Corp, El Segundo	Cal
Instrument Components Co, Maple Heights	Ohio
Intellux Inc, Goleta	Cal
Intronics Inc, Newton	Mass
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Federal Labs, Fort Wayne	Ind
ITT Semiconductors, West Palm Beach	Fla
Janus Control Div Tyco, Waltham	Mass
Kidde & Co Inc, Walter, Belleville	N J
KSC Semiconductor Corp, Chelmsford	Mass
Ledex Div Ledex Inc, Dayton	Ohio
Lehigh Valley Electronics Engrg & Mfg Co, Inc Fogelsville	Pa
Logitek Inc, Farmingdale	N Y
Loral Electronic Systems, Div Loral Corp, New York	NY
Luminator Inc Display-Control Div, Plano	Tex
Massey Dickinson Co Inc, Saxonville	Mass
Mayberry Electronics Co, Inglewood	Cal
MCG Electronics, Deer Park	N Y
Mesur-Matic Electronic Corp, Warner	N H
Microdyne Inc, Rolling Meadows	Ill
Microsemiconductor Corp, Culver City	Cal
Micro Switch Div, Honeywell, Freeport	Ill
Microwave/Systems Inc, East Syracuse	N Y
Milletron, Inc, Pittsburgh	Pa
Monitor Systems Inc, Fort Washington	Pa
Motorola Semiconductor Products Inc, Phoenix	Ariz
Nanodyne Corp, Sudbury	Mass
Nanosecond Systems Inc, Fairfield	Conn
National Coil Co Inc, Sheridan	Wyo
Neptune Electronics Co, New York	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Opamp Labs, Los Angeles	Cal
Parko Electronics Co Inc, Santa Ana	Cal
Pastoriza Electronics Inc, Newton Upper Falls	Mass
Philco-Ford Corp, Washington	D C
P M C Electronics Corp, Philadelphia	Pa
Power Control Corp, Pittsburgh	Pa
Radix Electronics Corp, Anaheim	Cal
Randam Electronics Inc, Cincinnati	Ohio
Raven Industries Inc, Sioux Falls	SD
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Raytheon Computer, Santa Ana	Cal
Redcor Corp, Canoga Park	Cal
RO Associates Inc, Menlo Park	Cal
Rodale Electronics Inc, Garden City	NY
Rosemount Plug-In Inc, Nashville	Tenn
Scott Electronics Corp, Orlando	Fla
Sensor Corp, Greenwich	Conn

Servo Development Corp, Hicksville ... N Y
Servonetics Inc, Los Angeles ... Cal
S K G Associates Inc, Boston ... Mass
Slocum Industries, Inc, Reseda ... Cal
Solid State Electronics Corp, Sepulveda ... Cal
Sprague Electric Co, North Adams ... Mass
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia ... Pa
Standard Precision Div Electronic Commun Inc Wichita ... Kan
Stephens Electronics, Burbank ... Cal
Stern Co Inc M L, Charlotte ... N C
Struthers-Dunn Inc, Pitman ... N J
Sulzer Brothers Ltd, Industrial Elctns Div Winterthur ... Switzerland
Sunbeam Electronics, Fort Lauderdale ... Fla
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo ... Japan
Technitrol Inc, Philadelphia ... Pa
Technology Instrument Corp Sub Bowmar Instr Corp Newbury Park ... Cal
Techrand Corp of America, Muskegon ... Mich
Telecontrol Corp, Old Greenwich ... Conn
TRW Systems Group, Redondo Beach ... Cal
Universal Comptronics Div Microwave Corp of Amer Thornwood ... N Y
Vac-Ohm Electronics Co, Haddonfield ... N J
Vari Tech Co, Grand Rapids ... Mich
Varo Inc, Garland ... Tex
Vitro Labs Div Vitro Corp of America, Silver Spring ... Md
Walkirt Co, Los Angeles ... Cal
Warlock Systems Inc, Danbury ... Conn
Welwyn Electric Ltd, Northumberland ... England
Welwyn International Inc, Westlake ... Ohio

MODULES, ACTIVE--RADIO, TV & GENERAL PURPOSE

ACCURATE ELECTRONICS CORP, ELYRIA ... OHIO
AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE ... R I
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE WIS ... ADV PG 411
CTS CORP, ELKHART ... IND
DALE ELECTRONICS INC, COLUMBUS ... NEB
INTRONICS INC, NEWTON ... MASS
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
SPENCER-KENNEDY LABS INC, BOSTON ... MASS
Abilities Inc, Albertson ... N Y
Accurate Electronics Corp, Elyria ... Ohio
Allegri-Tech Inc, Nutley ... N J
Allied Control Co Inc, New York ... N Y
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville ... R I
Bendix Corp, Communications Div, Towson ... Md
Bourns Inc Trimpot Div, Riverside ... Cal
Brown Engineering-A Teledyne Co, Huntsville ... Ala
Burns & Towne, Inc, Malden ... Mass
Centralab, Div Globe-Union Inc, Milwaukee ... Wis
Chemical & Aerospace Products Inc, Wilmington ... Cal
Cohu Electronics Inc, San Diego ... Cal
CTS Corp, Elkhart ... Ind
Dahlberg Electronics Inc, Minneapolis ... Minn
Dale Electronics Inc, Columbus ... Neb
Dayton Electronics Products Co, Dayton ... Ohio

Dinion Coil Co Inc, Caledonia ... N Y
El-Tech Mfg Co Inc, Norristown ... Pa
General Instrument Europe SPA, Milano ... Italy
Intronics Inc, Newton ... Mass
ITT Europe Inc Components Gp, Brussels 1 ... Belgium
ITT Semiconductors, West Palm Beach ... Fla
Karg Labs Inc, South Norwalk ... Conn
Kidde & Co Inc, Walter, Belleville ... N J
KSC Semiconductor Corp, Chelmsford ... Mass
Motorola Semiconductor Products Inc, Phoenix ... Ariz
Mullard Ltd, London, WC 1 ... Eng
Nanosecond Systems Inc, Fairfield ... Conn
National Coil Co Inc, Sheridan ... Wyo
Neptune Electronics Co, New York ... N Y
Nippon Electric Co Ltd, Tokyo ... Japan
Orega Electronique & Mecanique Vincennes, Seine ... France
Philco-Ford Corp, Washington ... D C
P M C Electronics Corp, Philadelphia ... Pa
Riker Video Div, Hauppauge ... N Y
Sampson Electronic Products Div, Chicago ... Ill
Saxton Products Inc, Congers ... N Y
Scott Electronics Corp, Orlando ... Fla
Solid State Electronics Corp, Sepulveda ... Cal
Spencer-Kennedy Labs Inc, Boston ... Mass
Stephens Electronics, Burbank ... Cal
Swiss Industries, Costa Mesa ... Cal
Varo Inc, Garland ... Tex
Vikoa Inc, Hoboken ... N J
Warlock Systems Inc, Danbury ... Conn
Welwyn Electric Ltd, Northumberland ... England
Welwyn International Inc, Westlake ... Ohio

MODULES, ACTIVE--SEALED & ENCAPSULATED

ACCURATE ELECTRONICS CORP, ELYRIA ... OHIO
AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE ... R I
ANALOG DEVICES INC, CAMBRIDGE ... MASS
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON ... CAL
BURR-BROWN RESEARCH CORP, TUCSON ... ARIZ
BURROUGHS CORP ELECTRONIC COMPONENTS DIV PLAINFIELD ... N J
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE WIS ... ADV PG 411
COMPUTER PRODUCTS INC, FORT LAUDERDALE ... FLA
CTS CORP, ELKHART ... IND
FILM MICROELECTRONICS, INC, BURLINGTON ... MASS
INTRONICS INC, NEWTON ... MASS
ITHACO INC, ITHACA ... N Y
MICRO SWITCH DIV, HONEYWELL, FREEPORT ... ILL
POLY SCIENTIFIC DIV LITTON INDUSTRIES, BLACKSBURG ... VA
TECHNITROL INC, PHILADELPHIA ... PA
TORWICO ELECTRONICS, INC, LAKEWOOD ... N J
Accurate Electronics Corp, Elyria ... Ohio
Advanced Electronics, Inc, Rocky Hill ... Conn
Allegri-Tech Inc, Nutley ... N J
Allen-Jones Electronics Corp, Gardena ... Cal
Allied Control Co Inc, New York ... N Y
Amark Corp, Plainview ... N Y
American Systems, Inc, Van Nuys ... Cal
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville ... R I
Analog Devices Inc, Cambridge ... Mass
Applied Microwave Lab, Inc, Andover ... Mass
Astro-Space Labs Inc, Huntsville ... Ala
Atlantic Instruments & Electronics, Inc Watertown ... Mass
Audn Corp, Hamburg ... N Y
Autronics Corp, Pasadena ... Cal
Avco Corp Electronics Div, Cincinnati ... Ohio
Beckman Instruments Inc, Helipot Div, Fullerton ... Cal
Bendix Corp, Communications Div, Towson ... Md
Bourns Inc Trimpot Div, Riverside ... Cal
Brown Engineering-A Teledyne Co, Huntsville ... Ala
Burns & Towne, Inc, Malden ... Mass
Burr-Brown Research Corp, Tucson ... Ariz
Burroughs Corp Electronic Components Div Plainfield ... N J
Cambridge Thermionic Corp, Cambridge ... Mass
Carol Electronics Div Weeco Inc, Martinsburg ... W Va
Castall Research Lab Inc, Brockton ... Mass
C-E Electronics Inc, Glenside ... Pa
Centralab, Div Globe-Union Inc, Milwaukee ... Wis
Chemical & Aerospace Products Inc, Wilmington ... Cal
C & K Components Inc, Watertown ... Mass
Computer Products Inc, Fort Lauderdale ... Fla
Condor Industrial Corp, West Chicago ... Ill
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena ... Cal
Control Logic Inc, Natick ... Mass
Control Science Corp, Alexandria ... Va
Crystalonics A Teledyne Co, Cambridge ... Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles ... France
CTS Corp, Elkhart ... Ind
CTS Electronics Inc, South Pasadena ... Cal
CTS Microelectronics Inc, Lafayette ... Ind
Dahlberg Electronics Inc, Minneapolis ... Minn
Daltronics Inc, Providence ... R I
Data Device Corp, Hicksville ... N Y
Datametrics Corp, Van Nuys ... Cal
Data Science Corp, San Diego ... Cal
Dayton Electronics Products Co, Dayton ... Ohio
Design Products Corp, Troy ... Mich
Di/An Controls Inc, Boston ... Mass
Dorsett Electronics Inc, Tulsa ... Okla
E G & G Inc Custom Equip Div, Bedford ... Mass
Electro Circuits Inc, Lowell ... Mass
Electronic Engineering Co of Cal, Santa Ana ... Cal
Electronic Modules Corp, Timonium ... Md
Electronic Research Associates Inc, Cedar Grove ... N J
Electrospace Corp, Glen Cove ... N Y
Elgin Electronics Inc, Erie ... Pa
El-Tech Mfg Co Inc, Norristown ... Pa
Erie Technological Products Inc, Erie ... Pa

Fairlane Electronics, Inc, Long Valley ... N J
Film Microelectronics, Inc, Burlington ... Mass
Ford Instrument Div, Sperry Rand Corp Long Island City ... N Y
Frankel J M, Nanterre ... France
Gamble Industries, Charles T, Riverside ... N J
General Instrument Europe SPA, Milano ... Italy
Halex Inc, Torrance ... Cal
Honeywell Inc, Computer Control Div Framingham ... Mass
Honeywell Inc Electropac Operation, Peterborough ... N H
Hughes Aircraft Co, Newport Beach ... Cal
Hybrid Systems Corp, Cambridge ... Mass
Industrial Electronetics Corp, Satellite Beach ... Fla
Instrulab Inc, Dayton ... Ohio
Intellux Inc, Goleta ... Cal
Intronics Inc, Newton ... Mass
Ithaco Inc, Ithaca ... N Y
ITT Europe Inc Components Gp, Brussels 1 ... Belgium
ITT Federal Labs, Fort Wayne ... Ind
ITT Semiconductors, West Palm Beach ... Fla
Jordan Electric Co, Van Nuys ... Cal
Kidde & Co Inc, Walter, Belleville ... N J
KSC Semiconductor Corp, Chelmsford ... Mass
LCC-CICE, 93 Montreuil-sous-Bois ... France
Lear Siegler Inc, Instrument Div, Grand Rapids ... Mich
Ledex Div Ledex Inc, Dayton ... Ohio
Logitek Inc, Farmingdale ... N Y
Loral Electronic Systems, Div Loral Corp, New York ... NY
LTV Electrosystems Inc, Garland Div, Dallas ... Tex
Magnetic Systems Corp, Clearwater ... Fla
Mayberry Electronics Co, Inglewood ... Cal
MCG Electronics, Deer Park ... N Y
Mennen-Greatbatch Electronics Inc, Clarence ... N Y
Microsemiconductor Corp, Culver City ... Cal
Micro Switch Div, Honeywell, Freeport ... Ill
Millen Mfg Co Inc, James, Malden ... Mass
Milletron, Inc, Pittsburgh ... Pa
Motorola Semiconductor Products Inc, Phoenix ... Ariz
Nanosecond Systems Inc, Fairfield ... Conn
National Coil Co Inc, Sheridan ... Wyo
Neptune Electronics Co, New York ... N Y
Novatronics Inc, Pompano Beach ... Fla
Nuclear Enterprises Ltd, Edinburgh 11 ... Scotland
Optical Electronics Inc, Tuscon ... Ariz
Palmer Ltd, G A Stanley, W Molesey, Surrey ... England
Parko Electronics Co Inc, Santa Ana ... Cal
Pastoriza Electronics Inc, Newton Upper Falls ... Mass
Peerless Instrument Co Inc, Elmhurst ... NY
Philco-Ford Corp, Washington ... D C
P M C Electronics Corp, Philadelphia ... Pa
Poly Scientific Div Litton Industries, Blacksburg ... VA
Power Control Corp, Pittsburgh ... Pa
Precision Mecanique Labinal, 93 Saint-Ouen ... France
Radix Electronics Corp, Anaheim ... Cal
Ramsay Engineering Co, Anaheim ... Cal
Randam Electronics Inc, Cincinnati ... Ohio
Raytheon Co, Components Div, Ind Compnts Oper Quincy ... Mass
Redcor Corp, Canoga Park ... Cal
RO Associates Inc, Menlo Park ... Cal
Roback Corp, Huntingdon Valley ... Pa
Robinson Electronic Components, Temple City ... Cal
Rodale Electronics Inc, Garden City ... NY
Rosemount Plug-In Inc, Nashville ... Tenn
Sampson Electronic Products Div, Chicago ... Ill
Saxton Products Inc, Congers ... N Y
Schneider Radio-Television Div, Ivry ... France
Scott Electronics Corp, Orlando ... Fla
Sensor Corp, Greenwich ... Conn
Servo Development Corp, Hicksville ... N Y
Signetics Corp, Sunnyvale ... Cal
Sippican Corp, Ind Prods Div, Mattapoisett ... Mass
S K G Associates Inc, Boston ... Mass
Solid State Electronics Corp, Sepulveda ... Cal
Solitron Devices Inc, Tappan ... NY
Space Craft Inc, Huntsville ... Ala
Sprague Electric Co, North Adams ... Mass
Standard Precision Div Electronic Commun Inc Wichita ... Kan
Stanwyck Winding Co, Newburgh ... N Y
Struthers-Dunn Inc, Pitman ... N J
Swiss Industries, Costa Mesa ... Cal
Sylvania Electronic Systems, Waltham ... Mass
Technitrol Inc, Philadelphia ... Pa
Torwico Electronics, Inc, Lakewood ... N J
Transitron Electronic Corp, Wakefield ... Mass
TRW Systems Group, Redondo Beach ... Cal
Universal Comptronics Div Microwave Corp of Amer Thornwood ... N Y
Vac-Ohm Electronics Co, Haddonfield ... N J
Varo Inc, Garland ... Tex
Vitta Corp, Wilton ... Conn
Wabash Magnetics Inc, Wabash ... Ind
Warlock Systems Inc, Danbury ... Conn
Welwyn Electric Ltd, Northumberland ... England
Welwyn International Inc, Westlake ... Ohio

MODULES, ACTIVE--SOLID STATE SEE ALSO MICROELECTRONIC CIRCUITS

ACCURATE ELECTRONICS CORP, ELYRIA ... OHIO
AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE ... R I
ANALOG DEVICES INC, CAMBRIDGE ... MASS
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON ... CAL
BURR-BROWN RESEARCH CORP, TUCSON ... ARIZ
BURROUGHS CORP ELECTRONIC COMPONENTS DIV PLAINFIELD ... N J
CTS CORP, ELKHART ... IND
FILM MICROELECTRONICS, INC, BURLINGTON ... MASS
INTRONICS INC, NEWTON ... MASS
ITHACO INC, ITHACA ... N Y
MEGADYNE INDUSTRIES INC, ROCHESTER ... N Y
MELCOR ELECTRONICS CORP, FARMINGDALE ... N Y
MICROWAVE/SYSTEMS INC, EAST SYRACUSE ... N Y
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN

TECHNITROL INC, PHILADELPHIA ... PA
Abilities Inc, Albertson ... N Y
Accurate Electronics Corp, Elyria ... Ohio
Adage Inc, Boston ... Mass
A D Data Systems Inc, Rochester ... N Y
Aerojet-General Corp Electronics Div, Azusa ... Cal
Aerometrics Div Aerojet-General Corp, San Ramon ... Cal
Aerospace Avionics Inc, Bohemia ... NY
AIM Electronics Ltd, Cambridge ... U K
Allegri-Tech Inc, Nutley ... N J
Allied Control Co Inc, New York ... N Y
American Systems, Inc, Van Nuys ... Cal
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville ... R I
Analog Devices Inc, Cambridge ... Mass
Arra, Inc, Bayshore ... NY
Atlantic Instruments & Electronics, Inc Watertown ... Mass
Audn Corp, Hamburg ... N Y
Autronics Corp, Pasadena ... Cal
Avco Corp Electronics Div, Cincinnati ... Ohio
Beckman Instruments Inc, Helipot Div, Fullerton ... Cal
Bendix Corp, Communications Div, Towson ... Md
Binary Electronics of Cal Div Avionic Structures Inc Anaheim ... Cal
Bourns Inc Trimpot Div, Riverside ... Cal
Brown Engineering-A Teledyne Co, Huntsville ... Ala
Bryant Computer Products, Walled Lake ... Mich
Burns & Towne, Inc, Malden ... Mass
Burr-Brown Research Corp, Tucson ... Ariz
Burroughs Corp Electronic Components Div Plainfield ... N J
CAE Industries Ltd, Montreal 3 ... Que
California Systems Components, Inc, Chatsworth ... Cal
Canoga Electronics Corp, Chatsworth ... Cal
Chemical & Aerospace Products Inc, Wilmington ... Cal
Computer Logic Corp, Santa Monica ... Cal
Condor Industrial Corp, West Chicago ... Ill
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena ... Cal
Control Logic Inc, Natick ... Mass
Crane Electronics Corp, Santa Barbara ... Cal
Crystalonics A Teledyne Co, Cambridge ... Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles ... France

CTS Corp, Elkhart	Ind
CTS Electronics Inc, South Pasadena	Cal
CTS Microelectronics Inc, Lafayette	Ind
Cutler-Hammer Inc, Milwaukee	Wisc
Dahlberg Electronics Inc, Minneapolis	Minn
Data Device Corp, Hicksville	N Y
Datascan Inc, Clifton	N J
Data Science Corp, San Diego	Cal
Data Technology Corp, Mountain View	Cal
Dayton Electronics Products Co, Dayton	Ohio
Delco Radio Div General Motors Corp, Kokomo	Ind
Design Products Corp, Troy	Mich
De-Tec-Tronic Corp, Chicago	Ill
Di/An Controls Inc, Boston	Mass
Digital Products, San Pedro	Cal
Dorsett Electronics Inc, Tulsa	Okla
E D P Corp, Orlando	Fla
E G & G Inc, Systems Devel Div, Bedford	Mass
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Engineering Co of Cal, Santa Ana	Cal
Electronic Modules Corp, Timonium	Md
Electronic Research Associates Inc, Cedar Grove	N J
El-Tech Mfg Co Inc, Norristown	Pa
Fairlane Electronics, Inc, Long Valley	N J
Ferranti, Ltd, Lancashire	England
Film Microelectronics, Inc, Burlington	Mass
Gems Co Inc, Farmington	Conn
General Instrument Europe SPA, Milano	Italy
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Goodyear Aerospace Corp, Akron	Ohio
Gulton Industries Inc, Metuchen	N J
Halex Inc, Torrance	Cal
Helm Instrument Co Inc, Toledo	Ohio
Honeywell Inc, Computer Control Div Framingham	Mass
Honeywell Inc Electropac Operation, Peterborough	N H
Hughes Aircraft Co, Newport Beach	Cal
Humphrey Electronics Inc, Raleigh	N C
Hybrid Systems Corp, Cambridge	Mass
Information Control Corp, El Segundo	Cal
Instrulab Inc, Dayton	Ohio
Intellux Inc, Goleta	Cal
Intronics Inc, Newton	Mass
Ithaco Inc, Ithaca	N Y
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Semiconductors, West Palm Beach	Fla
Janus Control Div Tyco, Waltham	Mass
Karg Labs Inc, South Norwalk	Conn
Kobe Industries Corp, Kobe	Japan
KSC Semiconductor Corp, Chelmsford	Mass
LCC-CICE, 93 Montreuil-sous-Bois	France
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Ledex Div Ledex Inc, Dayton	Ohio
Lehigh Valley Electronics Engrg & Mfg Co, Inc Fogelsville	Pa
Logic Corp, Haddonfield	N J
Logitek Inc, Farmingdale	N Y
Loral Electronic Systems, Div Loral Corp, New York	NY
Marconi Co Ltd, Chelmsford	England
Massey Dickinson Co Inc, Saxonville	Mass
Mayberry Electronics Co, Inglewood	Cal
Megadyne Industries Inc, Rochester	N Y
Melcor Electronics Corp, Farmingdale	N Y
Microdyne Inc, Rolling Meadows	Ill
Micromega Div Amphenol Corp, Venice	Cal
Micro Metrics Inc, Paterson	N J
Microsemiconductor Corp, Culver City	Cal
Microwave Development Labs Inc Needham Heights	Mass
Microwave/Systems Inc, East Syracuse	N Y
Monitor Systems Inc, Fort Washington	Pa
Motorola Semiconductor Products Inc, Phoenix	Ariz
Nanosecond Systems Inc, Fairfield	Conn
National Coil Co Inc, Sheridan	Wyo
Navigation Computer Corp, Norristown	Pa
Neptune Electronics Co, New York	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Northridge Engineering Co Div Republic Corp Northridge	Cal
Novatronics Inc, Pompano Beach	Fla
Opamp Labs, Los Angeles	Cal
Parko Electronics Co Inc, Santa Ana	Cal
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Pastoriza Electronics Inc, Newton Upper Falls	Mass
Philco-Ford Corp, Washington	D C
P M C Electronics Corp, Philadelphia	Pa
Power Control Corp, Pittsburgh	Pa
Radix Electronics Corp, Anaheim	Cal
Randam Electronics Inc, Cincinnati	Ohio
Raven Industries Inc, Sioux Falls	SD
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Raytheon Co, Components Div, Semiconductor Oper Mountain View	Cal
Redcor Corp, Canoga Park	Cal
RO Associates Inc, Menlo Park	Cal
Roback Corp, Huntingdon Valley	Pa
Rodale Electronics Inc, Garden City	NY
Rosemount Plug-In Inc, Nashville	Tenn
Science Accessories Corp, Southport	Conn
Scientific Data Systems Inc, El Segundo	Cal
Scott Electronics Corp, Orlando	Fla
Semiconductor Circuits, Inc, Woburn	Mass
Sensor Corp, Greenwich	Conn
Servo Development Corp, Hicksville	N Y
Signetics Corp, Sunnyvale	Cal
Sippican Corp, Ind Prods Div, Mattapoisett	Mass
S K G Associates Inc, Boston	Mass
Slocum Industries, Inc, Reseda	Cal
Solid State Electronics Corp, Sepulveda	Cal
Solitron Devices Inc, Tappan	NY
Space Craft Inc, Huntsville	Ala
Space & Systems Div General Time Corp Stamford	Conn
Sprague Electric Co, North Adams	Mass
Struthers-Dunn Inc, Pitman	N J
Swiss Industries, Costa Mesa	Cal
Sylvania Electronic Systems, Waltham	Mass
Systems Engineering Labs Inc, Ft Lauderdale	Fla
Technitrol Inc, Philadelphia	Pa
Teledyne Telemetry Co, Los Angeles	Cal
Transitron Electronic Corp, Wakefield	Mass
Tri-Tronics Lab Inc, Euless	Tex
TRW Systems Group, Redondo Beach	Cal
Union Carbide Electronics, Semiconductor Prods Mountain View	Cal
U S Microwave, Delran	N J
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Varo Inc, Garland	Tex
Vikoa Inc, Hoboken	N J
Vitro Labs Div Vitro Corp of America, Silver Spring	Md
Vitro Labs Div Vitro Corp of America, W Orange	N J
Walkirt Co, Los Angeles	Cal
Warlock Systems Inc, Danbury	Conn

MODULES, PASSIVE--ASSEMBLED

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE	**R I**
ANSLEY MFG CO, ARTHUR, NEW HOPE	**PA**
CTS CORP, ELKHART	**IND**
INTRONICS INC, NEWTON	**MASS**
MURATA MFG CO, LTD, KYOTO	**JAPAN**
R C L ELECTRONICS INC, IRVINGTON	**N J**
Accurate Electronics Corp, Elyria	Ohio
Allegri-Tech Inc, Nutley	N J
Allen-Jones Electronics Corp, Gardena	Cal
Allied Control Co Inc, New York	N Y
Alloys Unlimited Inc, Melville	N Y
American Components, Inc, Conshohocken	Pa
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville	R I
Angstrohm Precision, Inc, Van Nuys	Cal
Ansley Mfg Co, Arthur, New Hope	Pa
Audn Corp, Hamburg	N Y
Bendix Corp, Communications Div, Towson	Md
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bryant Computer Products, Walled Lake	Mich
Burns & Towne, Inc, Malden	Mass
Caddock Electronics Inc, Riverside	Cal
California Systems Components, Inc, Chatsworth	Cal
Caton Industries Inc, Roselle	N J
Chemical & Aerospace Products Inc, Wilmington	Cal
Computer Logic Corp, Santa Monica	Cal
Condor Industrial Corp, West Chicago	Ill
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Control Logic Inc, Natick	Mass
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Corning Glass Works, Corning	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
CTS Corp, Elkhart	Ind
CTS Microelectronics Inc, Lafayette	Ind
CTS Research Inc, West LaFayette	Ind
Dahlberg Electronics Inc, Minneapolis	Minn
Data Technology Corp, Mountain View	Cal
Dayton Electronics Products Co, Dayton	Ohio
De-Tec-Tronic Corp, Chicago	Ill
Di/An Controls Inc, Boston	Mass
Digital Equipment Corp, Maynard	Mass
Elasco Inc, Boston	Mass
Electro Cube Inc, San Gabriel	Cal
Electronic Modules Corp, Timonium	Md
Electronic Specialty Co, Los Angeles	Cal
Elgin Electronics Inc, Erie	Pa
El-Tech Mfg Co Inc, Norristown	Pa
Erie Technological Products Inc, Erie	Pa
Frenchtown/CFI Inc, Frenchtown	N J
General Instrument Europe SPA, Milano	Italy
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Honeywell Inc Electropac Operation, Peterborough	N H
Hughes Aircraft Co, Newport Beach	Cal
Inductor Engineering Inc, Lewes	Del
Intellux Inc, Goleta	Cal
Intronics Inc, Newton	Mass
IRC Div TRW Inc, Philadelphia	Pa
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Semiconductors, West Palm Beach	Fla
Jordan Electric Co, Van Nuys	Cal
Kidde & Co Inc, Walter, Belleville	N J
Kobe Industries Corp, Kobe	Japan
KSC Semiconductor Corp, Chelmsford	Mass
Logitek Inc, Farmingdale	N Y
Loral Electronic Systems, Div Loral Corp, New York	NY
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Methode Electronics Inc, Chicago	Ill
Mial S P A, I 20124 Milano	Italy
Milletron, Inc, Pittsburgh	Pa
Motorola Semiconductor Products Inc, Phoenix	Ariz
Murata Mfg Co, Ltd, Kyoto	Japan
Nanosecond Systems Inc, Fairfield	Conn
Navigation Computer Corp, Norristown	Pa
Neptune Electronics Co, New York	N Y
Nytronics Inc, Precision Resistor Div, Kutztown	Pa
Paraplegics Mfg Co Inc, Bensenville	Ill
Pastoriza Electronics Inc, Newton Upper Falls	Mass
Peerless Instrument Co Inc, Elmhurst	NY
Philco-Ford Corp, Washington	D C
P M C Electronics Corp, Philadelphia	Pa
Radix Electronics Corp, Anaheim	Cal
Randam Electronics Inc, Cincinnati	Ohio
Raven Industries Inc, Sioux Falls	SD
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
R C L Electronics Inc, Irvington	N J
Resistance Products Co, Harrisburg	Pa
Riedon Avionics, Inc, Van Nuys	Cal
Roback Corp, Huntingdon Valley	Pa
Scientific Data Systems Inc, El Segundo	Cal
Scott Electronics Corp, Orlando	Fla
Servo Development Corp, Hicksville	N Y
S K G Associates Inc, Boston	Mass
Solid State Electronics Corp, Sepulveda	Cal
Space & Systems Div General Time Corp Stamford	Conn
Sprague Electric Co, North Adams	Mass
Struthers-Dunn Inc, Pitman	N J
Sulzer Brothers Ltd, Industrial Elctns Div Winterthur	Switzerland
Sweep Systems Inc, Indianapolis	Ind
Sylvania Electronic Systems, Waltham	Mass
TRW Systems Group, Redondo Beach	Cal
Vac-Ohm Electronics Co, Haddonfield	N J
Varo Inc, Garland	Tex
Vector Electronic Co Inc, Los Angeles	Cal
Walkirt Co, Los Angeles	Cal
Warlock Systems Inc, Danbury	Conn
Welwyn Electric Ltd, Northumberland	England

MODULES, PASSIVE--PRINTED

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE	**R I**
CTS CORP, ELKHART	**IND**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
MURATA MFG CO, LTD, KYOTO	**JAPAN**
TECHNITROL INC, PHILADELPHIA	**PA**
Abilities Inc, Albertson	N Y
Accurate Electronics Corp, Elyria	Ohio
Allied Control Co Inc, New York	N Y
Alloys Unlimited Inc, Melville	N Y
American Systems, Inc, Van Nuys	Cal
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville	R I
Audn Corp, Hamburg	N Y
Bendix Corp, Communications Div, Towson	Md
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Brown Engineering-A Teledyne Co, Huntsville	Ala
Caddock Electronics Inc, Riverside	Cal
California Systems Components, Inc, Chatsworth	Cal
Chemical & Aerospace Products Inc, Wilmington	Cal
Condor Industrial Corp, West Chicago	Ill
Control Logic Inc, Natick	Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
CTS Corp, Elkhart	Ind
CTS Electronics Inc, South Pasadena	Cal
CTS Research Inc, West LaFayette	Ind
Dahlberg Electronics Inc, Minneapolis	Minn
Dayton Electronics Products Co, Dayton	Ohio
Di/An Controls Inc, Boston	Mass
Digital Equipment Corp, Maynard	Mass
Dorsett Electronics Inc, Tulsa	Okla
Electronic Modules Corp, Timonium	Md
El-Tech Mfg Co Inc, Norristown	Pa
Erie Technological Products Inc, Erie	Pa
General Instrument Europe SPA, Milano	Italy
Honeywell Inc Electropac Operation, Peterborough	N H
Intellux Inc, Goleta	Cal
LCC-CICE, 93 Montreuil-sous-Bois	France
Loral Electronic Systems, Div Loral Corp, New York	NY
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Mial S P A, I 20124 Milano	Italy
Microwave/Systems Inc, East Syracuse	N Y
Milletron, Inc, Pittsburgh	Pa
Motorola Semiconductor Products Inc, Phoenix	Ariz
Murata Mfg Co, Ltd, Kyoto	Japan
Nanosecond Systems Inc, Fairfield	Conn
Pastoriza Electronics Inc, Newton Upper Falls	Mass
Philco-Ford Corp, Washington	D C
Randam Electronics Inc, Cincinnati	Ohio
Roback Corp, Huntingdon Valley	Pa
Rosemount Plug-In Inc, Nashville	Tenn
Scott Electronics Corp, Orlando	Fla
Sylvania Electronic Systems, Waltham	Mass
Technitrol Inc, Philadelphia	Pa
TRW Systems Group, Redondo Beach	Cal
Vac-Ohm Electronics Co, Haddonfield	N J
Vector Electronic Co Inc, Los Angeles	Cal
Warlock Systems Inc, Danbury	Conn
Welwyn Electric Ltd, Northumberland	England

MODULES, PASSIVE--SEALED & ENCAPSULATED

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE	**R I**
CTS CORP, ELKHART	**IND**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INTRONICS INC, NEWTON	**MASS**
POLY SCIENTIFIC DIV LITTON INDUSTRIES, BLACKSBURG	**VA**
R C L ELECTRONICS INC, IRVINGTON	**N J**
TECHNITROL INC, PHILADELPHIA	**PA**
TORWICO ELECTRONICS, INC, LAKEWOOD	**N J**
Accurate Electronics Corp, Elyria	Ohio
Advanced Electronics, Inc, Rocky Hill	Conn
Aerospace Avionics Inc, Bohemia	NY
Allegri-Tech Inc, Nutley	N J
Allen-Jones Electronics Corp, Gardena	Cal
Allied Control Co Inc, New York	N Y
Alloys Unlimited Inc, Melville	N Y
American Components, Inc, Conshohocken	Pa
American Systems, Inc, Van Nuys	Cal
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville	R I

Angstrohm Precision, Inc, Van Nuys	Cal
Applied Microwave Lab, Inc, Andover	Mass
Artronic Instrument Co, Silver Spring	Md
Audn Corp, Hamburg	N Y
Avco Corp Electronics Div, Cincinnati	Ohio
Balco Capacitors, Orange	NJ
Bendix Corp, Communications Div, Towson	Md
Burns & Towne, Inc, Malden	Mass
Caddock Electronics Inc, Riverside	Cal
Castall Research Lab Inc, Brockton	Mass
Chemical & Aerospace Products Inc, Wilmington	Cal
Condor Industrial Corp, West Chicago	Ill
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Control Logic Inc, Natick	Mass
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
CTS Corp, Elkhart	Ind
CTS Electronics Inc, South Pasadena	Cal
CTS Microelectronics Inc, Lafayette	Ind
CTS Research Inc, West LaFayette	Ind
Dahlberg Electronics Inc, Minneapolis	Minn
Data Science Corp, San Diego	Cal
Dayton Electronics Products Co, Dayton	Ohio
Di/An Controls Inc, Boston	Mass
Digital Equipment Corp, Maynard	Mass
Electro Cube Inc, San Gabriel	Cal
Electronic Modules Corp, Timonium	Md
Electronic Specialty Co, Los Angeles	Cal
Electrospace Corp, Glen Cove	N Y
Elgin Electronics Inc, Erie	Pa
El-Tech Mfg Co Inc, Norristown	Pa
Erie Technological Products Inc, Erie	Pa
General Instrument Europe SPA, Milano	Italy
General Resistance Inc, New York	NY
Halex Inc, Torrance	Cal
Hewlett-Packard, Palo Alto	Cal
Honeywell Inc Electropac Operation, Peterborough	N H
Hughes Aircraft Co, Newport Beach	Cal
Inductor Engineering Inc, Lewes	Del
Industrial Electronetics Corp, Satellite Beach	Fla
Intellux Inc, Goleta	Cal
Intronics Inc, Newton	Mass
IRC Div TRW Inc, Philadelphia	Pa
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Federal Labs, Fort Wayne	Ind
ITT Semiconductors, West Palm Beach	Fla
Jordan Electric Co, Van Nuys	Cal
Kidde & Co Inc, Walter, Belleville	N J
KSC Semiconductor Corp, Chelmsford	Mass
LCC-CICE, 93 Montreuil-sous-Bois	France
Logitek Inc, Farmingdale	N Y
Loral Electronic Systems, Div Loral Corp, New York	NY
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Mial S P A, I 20124 Milano	Italy
Motorola Semiconductor Products Inc, Phoenix	Ariz
Neptune Electronics Co, New York	N Y
Pastoriza Electronics Inc, Newton Upper Falls	Mass
Peerless Instrument Co Inc, Elmhurst	NY
Philco-Ford Corp, Washington	D C
P M C Electronics Corp, Philadelphia	Pa
Poly Scientific Div Litton Industries, Blacksburg	VA
Radix Electronics Corp, Anaheim	Cal
Randam Electronics Inc, Cincinnati	Ohio
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
R C L Electronics Inc, Irvington	N J
Resistance Products Co, Harrisburg	Pa
Roback Corp, Huntingdon Valley	Pa
Rosemount Plug-In Inc, Nashville	Tenn
Scott Electronics Corp, Orlando	Fla
S K G Associates Inc, Boston	Mass
Solid State Electronics Corp, Sepulveda	Cal
Solitron Devices Inc, Tappan	NY
Sprague Electric Co, North Adams	Mass
Struthers-Dunn Inc, Pitman	N J
Swiss Industries, Costa Mesa	Cal
Sylvania Electronic Systems, Waltham	Mass
Technitrol Inc, Philadelphia	Pa
Torwico Electronics, Inc, Lakewood	N J
TRW Systems Group, Redondo Beach	Cal
Varo Inc, Garland	Tex
Warlock Systems Inc, Danbury	Conn
Welwyn Electric Ltd, Northumberland	England

MOISTURE REPELLANT SEE COATINGS—PROTECTIVE, PERMANENT & SEALING

MOLDED PLASTICS SEE PLASTICS

MOLDING MACHINES SEE MACHINES—PLASTICS-MOLDING

MOLYBDENUM

REMBAR CO INC, DOBBS FERRY, N Y	**ADV PG 427**
SUPERIOR TUBE CO, NORRISTOWN	**PA**
Active Alloys Inc, Brooklyn	N Y
Allen-Jones Electronics Corp, Gardena	Cal
Alloys Unlimited Inc, Melville	N Y
Alpha Metals Inc, Jersey City	NJ
American Metal Climax Inc, New York	N Y
Associated Engineering & Mfg Corp, Glen Ridge	N J
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bemol Co, Newton	Mass
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerac Inc, Butler	Wis
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
C M Mfg Co, Bloomfield	N J
Cross Co, H, Weehawken	N J
Fansteel Metallurgical Corp, North Chicago	Ill
General Electric Co Lamp Metals & Components Dept Cleveland	Ohio
Hamilton Precision Metals Div Hamilton Watch Co Lancaster	Pa
Koch Light Labs Ltd, Colnbrook, Bucks	England
Leach & Garner Co, Industrial Div, Attleboro	Mass
Mackay Inc, A D, New York	N Y
Materials Research Corp, Orangeburg	N Y
3M Company, St Paul	Minn
Molybdenum Corp of America, New York	N Y
Norton Co Metals Div, Newton	Mass
Philips Elmet Corp, Lewiston	Me
Rembar Co Inc, Dobbs Ferry	N Y
Ryerson & Son Inc, J T, Chicago	Ill
Semi-Alloys Inc, Mt Vernon	N Y
Semicon Associates Inc, Lexington	Ky
Semi-Elements Inc, Saxonburg	Pa
Shieldalloy Corp, Newfield	N J
Spectra-Mat Inc, Watsonville	Cal
Superior Tube Co, Norristown	Pa
Sylvania Elec Prods Inc, Chem & Met Div, Towanda	Pa
Union City Filament Corp, Union City	N J
United Mineral & Chemical Corp, New York	N Y
Universal-Cyclops Specialty Steel Div Cyclops Corp Pittsburgh	Pa
Var-Lac-Oid Chemical Co, Elizabeth	N J
Vitro Labs Div Vitro Corp of America, W Orange	N J
Wah Chang Corp, Glen Cove	N Y
Westinghouse Electric Corp, Lamp Div, Bloomfield	N J

REMEMBER
REMBAR

REFRACTORY METALS

MOLYBDENUM –

TUNGSTEN

TANTALUM

RHENIUM & ITS ALLOYS

FOIL – SHEET – PLATE
RIBBON – WIRE – ROD
PARTS

THE REMBAR CO. INC.
68 Main Street
Dobbs Ferry, N. Y. 10522
Tel. 914-693-2620

MONEL

PFIZER MINERALS, PIGMENTS & METALS DIV NEW YORK	**NY**
SUPERIOR TUBE CO, NORRISTOWN	**PA**
Active Alloys Inc, Brooklyn	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bram Metallurgical Chemical Co, Philadelphia	Pa
Driver-Harris Co, Harrison	N J
Hamilton Precision Metals Div Hamilton Watch Co Lancaster	Pa
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia	Pa
Leach & Garner Co, Industrial Div, Attleboro	Mass
Mackay Inc, A D, New York	N Y
Metal Ceram Inc, Mount Vernon	N Y
Pfizer Minerals, Pigments & Metals Div, New York	NY
Rodney Metals A Teledyne Co, New Bedford	Mass
Semi-Alloys Inc, Mt Vernon	N Y
Somers Thin Strip Inc Sub Olin, Waterbury	Conn
Sumitomo Special Metals Co Ltd, Osaka	Japan
Superior Tube Co, Norristown	Pa

MONEL WIRE SEE WIRE—BARE

MONITORS—AIR PARTICLE SEE MONITORS—RADIOACTIVITY

MONITORS--FREQUENCY

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TECHMETRIC CO, REDWOOD CITY	**CAL**
TRACOR INC, AUSTIN	**TEX**
Advanced Measurement Instruments, Inc Somerville	Mass
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Aerospace Research, Inc, Boston	Mass
Amark Corp, Plainview	N Y
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
A & M Instruments Inc, Great Neck	N Y
Anadex Instruments, Inc, Van Nuys	Cal
Automatic Metal Products Corp, Brooklyn	N Y
Automatic Switch Co, Florham Park	N J
Belar Electronics Lab Inc, Upper Darby	Pa
Biddle Co, James G, Plymouth Meeting	Pa
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Communication Electronics Inc, Rockville	Md
Computer Logic Corp, Santa Monica	Cal
Condor Industrial Corp, West Chicago	Ill
Cushman Electronics Inc, Sunnyvale	Cal
Dawe Instruments Ltd, London W3	England
Digitech Inc, Ridgefield	Conn
Don Bosco Electronics Inc, Hanover	N J
Dynamic Controls Corp, South Windsor	Conn
Eldorado Electronics, Concord	Cal
Frequency Engineering Labs, Farmingdale	N J
Gates Radio Co, Quincy	Ill
General Microwave Corp, Farmingdale	N Y
Hartman Electrical Mfg Co, Mansfield	Ohio
Helm Instrument Co Inc, Toledo	Ohio
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Honeywell Test Instruments Div, Denver	Colo
J A C Electronics Ltd, Camberley	England
Lampkin Laboratories, Inc, Bradenton	Fla
Leland Airborne Products Div AMF, Vandalia	Ohio
MCG Electronics, Deer Park	N Y
McMartin Industries Inc, Omaha	Neb
MCS Corp, Monrovia	Cal
Measurements A McGraw-Edison Div, Boonton	N J
Mennen-Greatbatch Electronics Inc, Clarence	N Y
Microwave Associates Inc, Burlington	Mass
Microwave/Systems Inc, East Syracuse	N Y
Narda Microwave Corp, Plainview	N Y
National Radio Co Inc, Melrose	Mass
New London Instr Co Div Crescent Comm Corp Newton	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Northern Radio Co Inc, New York	N Y
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Simplex Time Recorder Co, Gardner	Mass
Singer Co, Metrics Div, Bridgeport	Conn
Solid State Electronics Corp, Sepulveda	Cal
Somerset Radiation Lab Inc, Arlington	Va
Techmetric Co, Redwood City	Cal
Tracor Inc, Austin	Tex
TRW Systems Group, Redondo Beach	Cal
Venner Electronics Ltd, New Malden, Surrey	Eng
Voltron Products Inc, Pasadena	Cal
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Westronics Inc, Fort Worth	Tex
Winslow Tele-Tronics Inc, Asbury Park	NJ
Zehntel Inc, Berkeley	Cal

MONITORS, POWER--A-F

INTRONICS INC, NEWTON	**MASS**
TELE-SIGNAL CORP, WOODBURY	**N Y**
A & M Instruments Inc, Great Neck	N Y
Astrolab Inc, Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
Don Bosco Electronics Inc, Hanover	N J
Intronics Inc, Newton	Mass
Leland Airborne Products Div AMF, Vandalia	Ohio
Maytronics Inc, Colorado Springs	Colo
Montedoro Corp, San Luis Obispo	Cal
NH Research Inc, Santa Ana	Cal
Northeast Electronics Corp, Concord	N H
Ohio Semitronics Inc, Columbus	Ohio
Private Tele Communications Inc, Chicago	Ill
Shrader Sound Inc, Washington	D C
Singer Co, Metrics Div, Bridgeport	Conn
Tele-Signal Corp, Woodbury	N Y
United Systems Corp, Dayton	Ohio
Vapor Corp, Chicago	Ill
Voltron Products Inc, Pasadena	Cal

MONITORS, POWER--MICROWAVE

DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK .... **N Y**
GENERAL MICROWAVE CORP, FARMINGDALE .... **N Y**
HEWLETT-PACKARD, PALO ALTO .... **CAL**
MICROWAVE CAVITY LABS INC, LA GRANGE .... **ILL**
NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
PREMIER MICROWAVE CORP, PORT CHESTER .... **N Y**
RADAR DESIGN CORP, SYRACUSE .... **N Y**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG .... **MD**
Airtron, Div of Litton Industries, Inc, Morris Plains .... N J
Alpha Industries Inc, Newton Upper Falls .... Mass
Applied Microwave Lab, Inc, Andover .... Mass
Astrolab Inc, Linden .... N J
Bendix Corp, Microwave Devices Div, Franklin .... Ind
Coax Devices, Chelsea .... Mass
Don Bosco Electronics Inc, Hanover .... N J
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck .... N Y
Farinon Electric, San Carlos .... Cal
General Microwave Corp, Farmingdale .... N Y
Guide Industries Inc, Sun Valley .... Cal
Herley Industries, Inc, Westbury .... N Y
Hewlett-Packard, Palo Alto .... Cal
Maury Microwave Corp, Montclair .... Cal
Maytronics Inc, Colorado Springs .... Colo
MCS Corp, Monrovia .... Cal
Microwave Associates Inc, Burlington .... Mass
Microwave Cavity Labs Inc, La Grange Ill
Narda Microwave Corp, Plainview .... N Y
Nippon Electric Co Ltd, Tokyo .... Japan
Philco-Ford Corp, Washington .... D C
PRD Electronics Inc, Sub H-I Corp, Westbury .... N Y
Premier Microwave Corp, Port Chester .... N Y
Radar Design Corp, Syracuse .... N Y
Ramcor Inc, Huntington .... NY
RLC Electronics Inc, Port Chester .... N Y
Singer Co, Metrics Div, Bridgeport .... Conn
Weinschel Engineering Co Inc, Gaithersburg .... Md

MONITORS, POWER--R-F

BIRD ELECTRONIC CORP, CLEVELAND (SOLON) .... **OHIO**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK .... **N Y**
GENERAL MICROWAVE CORP, FARMINGDALE .... **N Y**
HEWLETT-PACKARD, PALO ALTO .... **CAL**
INTRONICS INC, NEWTON .... **MASS**
MICROWAVE CAVITY LABS INC, LA GRANGE .... **ILL**
SERVO CORP OF AMERICA, HICKSVILLE .... **N Y**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG .... **MD**
A & M Instruments Inc, Great Neck .... N Y
Applied Microwave Lab, Inc, Andover .... Mass
Astrolab Inc, Linden .... N J
Automatic Metal Products Corp, Brooklyn .... N Y
Bendix Corp, Microwave Devices Div, Franklin .... Ind
B F Electronics, Solana Beach .... Cal
Bird Electronic Corp, Cleveland (Solon) .... Ohio
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck .... N Y
Farinon Electric, San Carlos .... Cal
General Microwave Corp, Farmingdale .... N Y
Guide Industries Inc, Sun Valley .... Cal
Herley Industries, Inc, Westbury .... N Y
Hewlett-Packard, Palo Alto .... Cal
Intronics Inc, Newton .... Mass
Maytronics Inc, Colorado Springs .... Colo
Micro-Radionics Inc, Van Nuys .... Cal
Microwave Associates Inc, Burlington .... Mass
Microwave Cavity Labs Inc, La Grange Ill
Montedoro Corp, San Luis Obispo .... Cal
Northeast Electronics Corp, Concord .... N H
Philco-Ford Corp, Washington .... D C
RLC Electronics Inc, Port Chester .... N Y
Servo Corp of America, Hicksville .... N Y
Singer Co, Metrics Div, Bridgeport .... Conn
Southern Avionics Co, Beaumont .... Tex
Trepac Corp of America, Englewood .... N J
Video Color Corp, El Segundo .... Cal
Weinschel Engineering Co Inc, Gaithersburg .... Md
Wilcox Electric Co Inc, Kansas City .... Mo

MONITORS--RADIOACTIVITY

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... **ADV PGS 7**
AB Atomenergi, 10072 Stockholm 43 .... Sweden
Airmec Instruments Ltd, Buckinghamshire .... England
Analog Technology Corp, Pasadena .... Cal
Atomic Labs, Div Cenco Instr Corp, Chicago Ill
Beckman Instruments Inc, Fullerton, ... Cal
Canberra Industries, Middletown .... Conn
Cary Instruments a Varian Sub, Monrovia .... Cal
Eberline Instrument Corp, Santa Fe .... N M
E G & G Inc Laboratory Prods Div, Goleta .... Cal
Electro-Neutronics Inc, Oakland .... Cal
EMI Electronics Ltd, Hayes, Middlesex .... England
EON Corp, Brooklyn .... N Y
Gelman Instrument Co, Ann Arbor .... Mich
General Electric Co, ECSO, Schenectady .... N Y
Gilardoni S p A, Mandello Lario Como .... Italy
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland .... Ohio
Ikor, Inc, Burlington .... Mass
Johnston Labs, Inc, Baltimore .... Md
Kobe Industries Corp, Kobe .... Japan
Laben S p A, Milan .... Italy
Landis & Gyr AG, Zug .... Switzerland
Lockheed Georgia Nuclear Lab, Marietta .... Ga
Nuclear-Chicago Corp, Des Plaines Ill
Nuclear Corp of America, Nuclear Div, Denville .... N J
Nuclear Enterprises Ltd, Edinburgh 11 .... Scotland
Nuclear Equipment Chemical Corp, Farmingdale .... N Y
Nuclear Measurements Corp, Indianapolis .... Ind
Nuclear Supplies, Encino .... Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Picker Nuclear, White Plains .... N Y
St John X-Ray Laboratory, Califon .... N J
The Nucleus, Oak Ridge .... Tenn
Tracerlab, Div Lab for Electronics Inc, Waltham .... Mass
Troxler Electronic Labs Inc, Raleigh .... N C
Universal Transistor Products Div Link, Copiague .... N Y
Victoreen Instrument Div, Cleveland .... Ohio
Waber Electronics Inc, Philadelphia .... Pa

MONITORS--TEMPERATURE

HEWLETT-PACKARD, PALO ALTO .... **CAL**
Acromag Inc, Wixom .... Mich
Aladdin Controls Div Aladdin Electronics Nashville .... Tenn
Amark Corp, Plainview .... N Y
A & M Instruments Inc, Great Neck .... N Y
Applied Research Austin Inc, Austin .... Tex
Avien, Inc, Woodside .... N Y
Biocom, Inc, Culver City .... Cal
Cambridge Systems Inc, Newton .... Mass
Computer Logic Corp, Santa Monica .... Cal
Deltron, Inc, North Wales .... Pa
Edison, Thomas A Industries, Instr Div West Orange .... N J
Electronic Control Systems Inc, Fairmont .... W Va
Electronic Modules Corp, Timonium .... Md
En-Cer Inc, South Holland Ill
Giannini-Voltex, Whittier .... Cal
Hagan Computer Systems Div Westinghouse Pittsburgh .... Pa
Hallmark Standards Inc, Mamaroneck .... N Y
Helm Instrument Co Inc, Toledo .... Ohio
Hewlett-Packard, Palo Alto .... Cal
Himmelstein & Co, S, Elk Grove Village Ill
Industrial Electronetics Corp, Satellite Beach .... Fla
Infrared Industries Inc, Santa Barbara .... Cal
Instrumentation & Control Systems Inc, Addison Ill
Instrument Development Labs Div Kollmorgen Corp Attleboro .... Mass
Julie Research Labs, Inc, New York .... N Y
Leeds & Northrup Co, Philadelphia .... Pa
Lucci & Co, Sarasota .... Fla
Maytronics Inc, Colorado Springs .... Colo
Mennen-Greatbatch Electronics Inc, Clarence .... N Y
Minco Products Inc, Minneapolis .... Minn
Montedoro Corp, San Luis Obispo .... Cal
Ovitron Corp Industrial Syst Div, Cheshire .... Conn
Plessey Airborne Corp, Hillside .... NJ
Relco Products Inc, Denver .... Colo
Signet Controls Inc, Tulsa .... Okla
Sunshine Scientific Instruments Inc, Philadelphia .... Pa
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn .... N Y
Technology/Versatronics Inc, Yellow Springs .... Ohio
Techrand Corp of America, Muskegon .... Mich
Thermo Electric Co Inc, Saddle Brook .... N J
West Instrument Corp, Schiller Park Ill
Westronics Inc, Fort Worth .... Tex

MONITORS--TV

HEWLETT-PACKARD, PALO ALTO .... **CAL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA .... **JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
TEKTRONIX INC, BEAVERTON .... **ORE**
Ampex Corp, Redwood City .... Cal
Belar Electronics Lab Inc, Upper Darby .... Pa
Beta Instrument Corp, Newton Upper Falls .... Mass
Brown Engineering-A Teledyne Co, Huntsville .... Ala
California Instruments Corp, San Diego .... Cal
Canadian Motorola Electronics Co, Agincourt .... Ont
Canoga Electronics Corp, Chatsworth .... Cal
Cohu Electronics Inc, San Diego .... Cal
Concord Electronics Corp, Los Angeles .... Cal
Conrac Corp, New York .... N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles .... France
Dalmo Victor, A Textron Div, Belmont .... Cal
Dalto Electronics Corp, Norwood .... N J
Diamond Power Sub Babcock & Wilcox Lancaster .... Ohio
EMI Electronics Ltd, Hayes, Middlesex .... England
Gordon Enterprises, North Hollywood .... Cal
Hewlett-Packard, Palo Alto .... Cal
Hughes Aircraft Co Vac Tube Prods Div Storage Tubes & Comml Display Sys, Oceanside .... Cal
Hydro Products Div Dillingham Corp, San Diego .... Cal
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa .... Japan
Inelco S p A, Tavernerio .... Italy
International Tel & Tel Corp Industrial Prods Div San Fernando .... Cal
I T I Electronics Inc, Clifton .... N J
Kobe Industries Corp, Kobe .... Japan
Lear Siegler Inc, Santa Monica .... Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim .... Cal
Marconi Co Ltd, Chelmsford .... England
Maryland Telecommunications Inc, Cockeysville .... Md
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Monitor Systems Inc, Fort Washington .... Pa
Motorola Communications & Electronics Div Chicago Ill
Multi Media Engineering Inc, Rockville .... Md
Nippon Electric Co Ltd, Tokyo .... Japan
Ovitron Corp Industrial Syst Div, Cheshire .... Conn
Packard Bell Electronics, Closed Circuit TV Prods Newbury Park .... Cal
Panther Electronics Inc, Burbank .... Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Pierpont Television Co, Birmingham .... Ala
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington .... Ind
Schneider Radio-Television Div, Ivry .... France
Setchell Carlson, Inc, New Brightton .... Minn
Sharp Electronics Corp, Carlstadt .... N J
Shiba Electric Co Ltd, Woodside .... N Y
Shrader Sound Inc, Washington .... D C
Sony Corp, Tokyo .... Japan
Systems Research Labs Inc, Dayton .... Ohio
Tektronix Inc, Beaverton .... Ore
Tele Measurements Inc, Clifton .... N J
Telemet Co, Video Prods & Airborne Telemetry Amityville .... N Y
Thomson Electric Co, Sub Cie Fran Thomson Houston New York .... N Y
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh .... Pa

MONITORS--VIBRATION

ITHACO INC, ITHACA .... **N Y**
TRACOR INC, AUSTIN .... **TEX**
Aerodyne Controls Corp, Farmingdale .... N Y
Bently Nevada Corp, Minden .... Nev
Columbia Research Labs Inc, Woodlyn .... Pa
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena .... Cal
Endevco Corp, Pasadena .... Cal
Helm Instrument Co Inc, Toledo .... Ohio
Indikon Co Inc, Watertown .... Mass
Industrial Electronetics Corp, Satellite Beach .... Fla
Instrumentation & Control Systems Inc, Addison Ill
International Research & Development Corp Worthington .... Ohio
Ithaco Inc, Ithaca .... N Y
MCG Electronics, Deer Park .... N Y
Reliance Electric Co, Cleveland .... Ohio
Spectral Dynamics Corp of San Diego, San Diego .... Cal
Tracor Inc, Austin .... Tex
Unholtz-Dickie Corp, Hamden .... Conn
Wavelabs Co Div Systron-Donner Corp, San Diego .... Cal
Wayne Kerr Corp, Montclair .... NJ

MONOCHROMATORS

HEATH CO, BENTON HARBOR .... **MICH**
Air Technology Corp, Waltham .... Mass
Automation Dynamics Corp, Northvale .... N J
Bausch & Lomb, Inc, Rochester .... N Y
Beckman Instruments Inc, Fullerton, ... Cal
Cambridge Thermionic Corp, Cambridge .... Mass
Crystal Research Inc, Cambridge .... Mass
Durrum Instrument Corp, Palo Alto .... Cal
Electronics & Alloys Inc, Englewood .... N J
Ercona Corp, New York .... N Y
Farrand Optical Co Inc, Bronx .... N Y
Gaertner Scientific Corp, Chicago Ill
Heath Co, Benton Harbor .... Mich
Infrared Industries Inc, Santa Barbara .... Cal
Jarrell-Ash Co, Waltham .... Mass
McKee-Pedersen Instruments, Danville .... Cal
McPherson Instrument Corp Sub GCA Corp, Acton .... Mass
Measurement Systems Inc, Norwalk .... Conn
Phoenix Precision Instrument Co, Inc, Philadelphia .... Pa
Schoeffel Instrument Co, Westwood .... NJ
Zeiss Inc, Carl, New York .... N Y

MOTOR CONTROLS SEE CONTROLS

MOTOR GENERATOR SETS

BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON .... **CAL**
BOWMAR INSTRUMENT CORP, FORT WAYNE .... **IND**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL .... **PA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... **ADV PGS 7**
GEORATOR CORP, MANASSAS .... **VA**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK .... **N J**
A L Controls Co, New Haven .... Conn
Allis-Chalmers Mfg Co, Milwaukee .... Wis
American Electronics, Inc, Fullerton .... Cal
B & B Motor & Control Corp, New York .... N Y
Beckman Instruments Inc, Helipot Div, Fullerton .... Cal
Bendix Corp Electric Power Div, Eatontown .... NJ
Bogue Electric Mfg Co, Paterson .... N J
Bowmar Instrument Corp, Fort Wayne .... Ind
Cavitron Electronics, Inc, Costa Mesa .... Cal
Century Electric Co, St Louis .... Mo
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill .... Pa
Columbia Electric Mfg Co, Cleveland .... Ohio
Consolidated Electric Corp, Seattle .... Wash
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles .... France
Electric Indicator Co Inc, Wilton .... Conn
Electric Machinery Mfg Co, Minneapolis .... Minn
Electric Products Co, Cleveland .... Ohio
Electronic Specialty Co, Los Angeles .... Cal
Electronic Specialty Co, Conn Div, Thomaston .... Conn
Electro-Pacific Inc, Goleta .... Cal

Fuji Electric Co Ltd, Tokyo	Japan
Garrett Corp, Los Angeles	Cal
Gaylord Rives Co, Pasadena	Cal
General Electric Co, ECSO, Schenectady	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Gecrator Corp, Manassas	Va
Globe Industries Div TRW Inc, Dayton	Ohio
Holtzer-Cabot Corp, Boston	Mass
Horlick Co Inc, William I, Boston	Mass
Ideal Electric & Mfg Co, Mansfield	Ohio
Ideas Inc, Laramie	Wyo
Inet Power A Teledyne Co, Gardena	Cal
Inland Motor Corp, Radford	Va.
Kato Engineering Co, Mankato	Minn
Kollsman Instrument Corp, Syosset	N Y
Kurz & Root Co, Appleton	Wis
LCC-CICE, 93 Montreuil-sous-Bois	France
Lear Siegler Inc, Santa Monica	Cal
Leland Airborne Products Div AMF, Vandalia	Ohio
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Motoresearch Mfg Co Inc, Racine	Wis
Motor Generator Div Hobart Bros Co, Troy	Ohio
Phoenix Materials Corp, Monroeville	Pa
Porter Co Inc, H K Electrical Div, Pittsburgh	Pa
Rae Motor Corp, McHenry	Ill
Ramyr Mfg Co, Buena Park	Cal
Reliance Electric Co, Cleveland	Ohio
Rett Electronics Inc, Warren	Mich
Safety Electrical Equipment Corp, New Haven	Conn
Servo-Tek Products Co, Hawthorne	N J
Siemon Mfg Co, Wayne	Ill
Sigma Instruments Inc, Braintree	Mass
Signet Controls Inc, Tulsa	Okla
Simplex Time Recorder Co, Gardner	Mass
Singer Co, Diehl Div, Somerville	N J
Technical Materiel Corp, Mamaroneck	N Y
Thermo Electron Engineering Corp, Waltham	Mass
T M C Systems & Power Corp, Springfield	Va
Tocco Div Ohio Crankshaft Co, Cleveland	Ohio
Varo Inc, Garland	Tex
Western Gear Corp Electro Products Div, Pasadena	Cal
Westinghouse Electric Corp, Aerospace Electrical Div Lima	Ohio
Weston Instruments Div Weston Instr Inc, Newark	N J
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

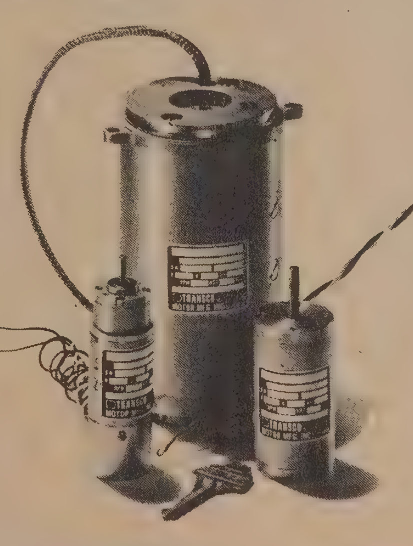
MOTORS--BRUSHLESS

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BODINE ELECTRIC CO, CHICAGO	**ILL**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
ICON CORP, CAMBRIDGE	**MASS**
IMC MAGNETICS CORP WESTERN DIV, MAYWOOD	**CAL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
SUPERIOR ELECTRIC CO THE, BRISTOL	**CONN**
Aeroflex Labs, Inc, Plainview	N Y
Alliance Mfg Co Inc, Alliance	Ohio
American Electronics, Inc, Fullerton	Cal
Ashland Electric Products, Inc, Long Island City	N Y
Automation Development Co, Culver City	Cal
Avionics, Inc, South Bend	Ind
Barber-Colman Co, EMP Div, Rockford	Ill
Bodine Electric Co, Chicago	Ill
Bogue Electric Mfg Co, Paterson	N J
Bristol Motors-Timer Div Vocaline Corp of Amer Inc Old Saybrook	Conn
Carter Motor Co, Chicago	Ill
Cavitron Electronics, Inc, Costa Mesa	Cal
Cramer Div Conrac Corp, Old Saybrook	Conn
Curry Engineering Co, N Hollywood	Cal
Electric Indicator Co Inc, Wilton	Conn
Electric Machinery Mfg Co, Minneapolis	Minn
Electric Products Co, Cleveland	Ohio
Electro-Kinetics Corp Div EPD Ind Inc, Long Beach	Cal
Electronic Specialty Co, Conn Div, Thomaston	Conn
EMD Components Inc, Wickliffe	Ohio
Energy Conversion Systems Corp, Grafton	Wis
Garrett Corp, Los Angeles	Cal
Gaylord Rives Co, Pasadena	Cal
General Electric Co, ECSO, Schenectady	N Y
General Industries Co, Elyria	Ohio
Globe Industries Div TRW Inc, Dayton	Ohio
Hale Instrument Inc, Houston	Tex
Harowe Servo Controls Inc, West Chester	Pa
Haydon Products, Ind Controls Div Gen Time Corp, Torrington	Conn
Haydon Switch & Instrument Inc, Waterbury	Conn
Hobbs Mfg Co, Worcester	Mass
Hydro-Aire Inc, Div Crane Co, Burbank	Cal
Icon Corp, Cambridge	Mass
Ideal Electric & Mfg Co, Mansfield	Ohio
IMC Magnetics Corp Western Div, Maywood	Cal
Inet Power A Teledyne Co, Gardena	Cal
Inland Motor Corp, Radford	Va
Kato Engineering Co, Mankato	Minn
Lamb Electric Div Ametek Inc, Kent	Ohio
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
Leland Airborne Products Div AMF, Vandalia	Ohio
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Magnetic Technology Inc, Canoga Park	Cal
Mathews Electronic Corp, Mobile	Ala
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Molon Motor & Coil Corp, Rolling Meadows	Ill
Motor Control Corp Sub Zenrad Computer Corp, Huntington	NY
Motoresearch Mfg Co Inc, Racine	Wis
Nash Controls Inc, Caldwell	N J

Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Reuland Electric Co, City of Industry	Cal
RMS Motor Corp, Binghamton	N Y
Robbins & Myers Inc, Springfield	Ohio
Rotating Components Div Instrument Sys Corp Bay Shore	N Y
Siemens America Inc, New York	N Y
Siemon Mfg Co, Wayne	Ill
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Sunbeam Electronics, Fort Lauderdale	Fla
Superior Electric Co The, Bristol	Conn
Torque Tronics, San Gabriel	Cal
Universal Electric Co, Owosso	Mich
Vactric Control Equipment Ltd, Morden	England
Varo Inc, Garland	Tex
Vocaline Co of America Inc, Old Saybrook	Conn
Western Gear Corp Electro Products Div, Pasadena	Cal
Westinghouse Electric Corp, Aerospace Electrical Div Lima	Ohio
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

MOTORS--FRACTIONAL HP

AMPHENOL, JANESVILLE	**WISC**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
BODINE ELECTRIC CO, CHICAGO, ILL	**ADV PG 430**
ELECTRO-CRAFT CORP, HOPKINS	**MINN**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7,431**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY CONN	**ADV PG 433**
HURST MFG CORP, PRINCETON	**IND**
IMC MAGNETICS CORP EASTERN DIV, WESTBURY	**N Y**
INDIANA GENERAL CORP ELECTRO-MECHANICAL DIV, OGLESBY ILL	**ADV PG 429**
KINELOGIC CORP, PASADENA, CAL	**ADV PG 432**
KINTRON DIV KINELOGIC CORP PASADENA CAL	ADV PG 432
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
PRINTED MOTORS INC, GLEN COVE	**N Y**
SUPERIOR ELECTRIC CO THE, BRISTOL	**CONN**
TRANSCO PRODUCTS INC, VENICE, CAL	**ADV PG 429**
A L Controls Co, New Haven	Conn
American Electronics, Inc, Fullerton	Cal
American Lincoln Corp, Elec Motor Div Watertown	New York
Amphenol, Janesville	Wisc
Aristo-Craft Distinctive Miniatures, New York	N Y
Ashland Electric Products, Inc, Long Island City	N Y
Automation Development Co, Culver City	Cal



MOTORS,
FRACTIONAL H.P.

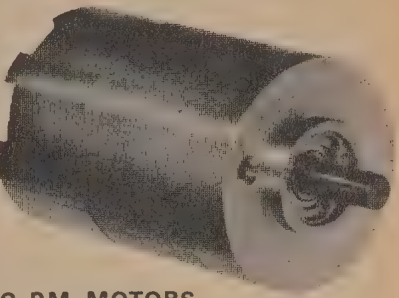
...all frame sizes and motor types AC & DC designed to meet specific requirements.

TRANSCO MOTOR

REQUEST A CATALOG.

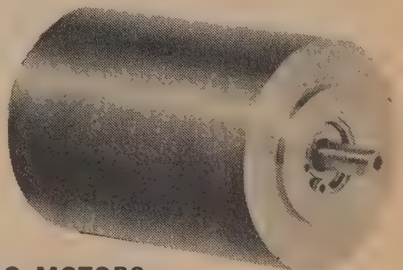
TRANSCO MOTOR MFG., INC.
5445 Peck Rd., Arcadia, Calif. 91006
213/442 - 5981 ● 213/686 - 1790

Nobody's equipped to save you money on precision motors like Indiana General



DC PM MOTORS
¾", ⅞", 1³⁄₁₆", 1¼", 1½", Dia.

TAPE DRIVE MOTORS
2¼", 3¼", 4", 4½", 5", Dia.



AC MOTORS
.937, 1.065, 1.250, 1.500, 1.670 Dia.

IGC has developed a standard parts concept of motor design to give over 1000 variations in each size. This "Family Plan" concept means customed-designed motors at off-the-shelf prices for:

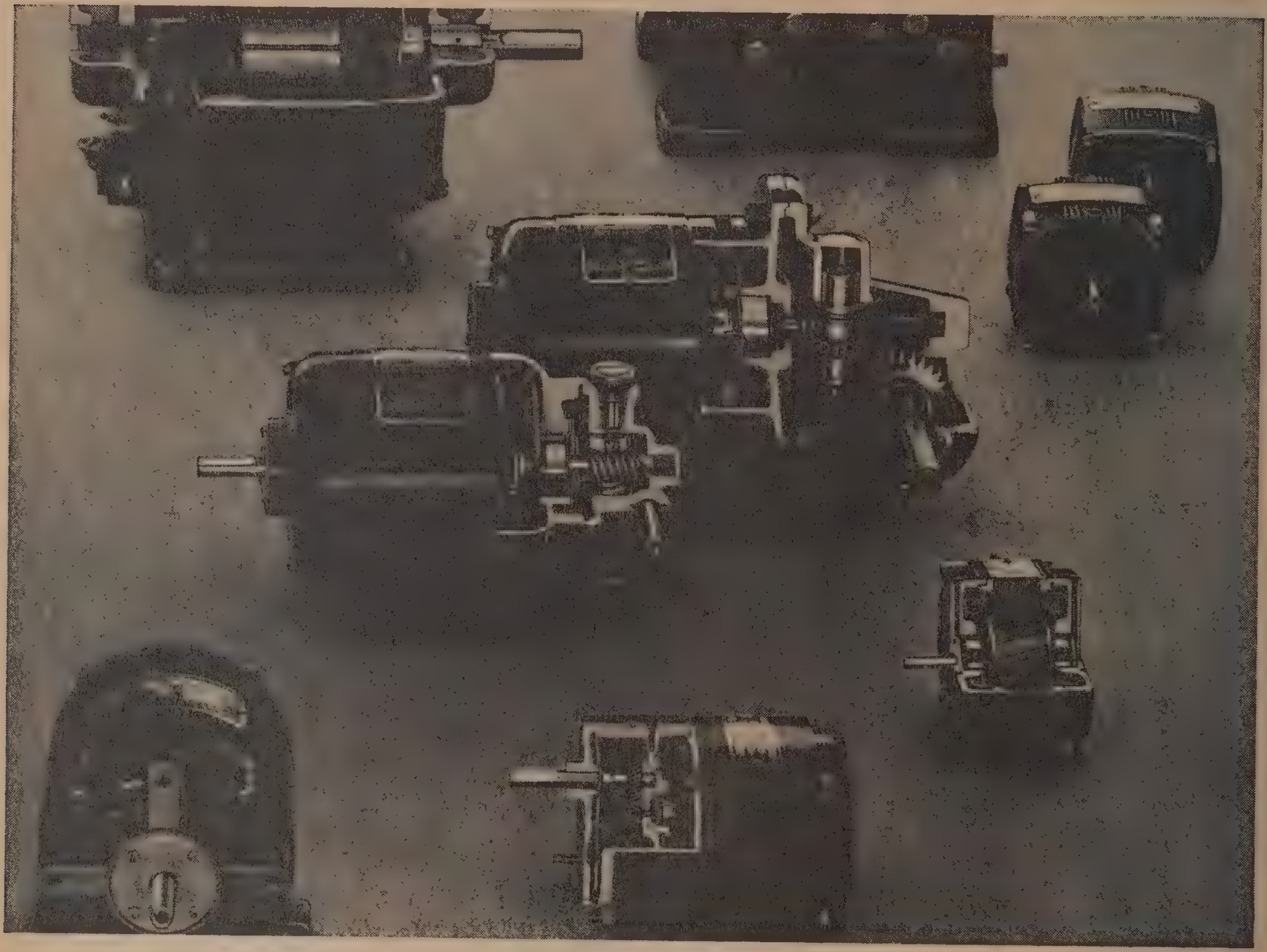
1. Aerospace—actuators, recorders, rotating beacons, landing lights.
2. Communications—frequency tuners, cooling equipment, antenna drives.
3. Computers–tape reel drives, capstan drive motors, tachometers.

For free technical data bulletins on complete line of IGC precision motors, gearheads and tachometers, write: Mr. R. D. Wright, Manager of Sales, Indiana General Corporation, Electro-Mechanical Division, Oglesby, Illinois.

INDIANA GENERAL

Bodine Motor After Delivery Economies (ADE)

help reduce your end-costs...improve your product



You design, you specify, you build...and continually ask, "What will it cost?" So, you're well aware that it's the final cost...not first cost...that's important when you buy fractional horsepower motors (or any other product for that matter).

So we won't belabor the point. But we should like to tell you why Bodine Fractional Horsepower Motors and ADE (After Delivery Economies) reduce your end-costs. Here's why:

1. You'll rarely experience a reject...in your receiving department, on your production line, or in final tests.
2. In the field, Bodine motors perform consistently according to rating. They'll support the integrity of your product.
3. Bodine Motors are reliable to a degree ordinary motors cannot match. This means few call-backs, low field service costs.
4. Bodine Motors help your product earn customer satisfaction and repeat sales.
5. "Three-piece" design of Bodine Motors means really easy servicing.

Bodine motors are used for electrical control devices, medical apparatus, communications equipment, data processing equipment, laboratory equipment, recording instruments...and many other applications.

Over 3,500 standard catalogued specifications, including over 275 *stock* types and sizes from 1/2000 to 1/6 hp. Write for Bulletin S. Bodine Electric Company, 2534 West Bradley Place, Chicago, Illinois 60618.

Bodine motors wear out—it just takes longer

BODINE
fractional/horsepower
MOTORS
BODINE
the power behind the leading products

SPECIALTY MOTORS

NEW! Cooling-fan Assemblies

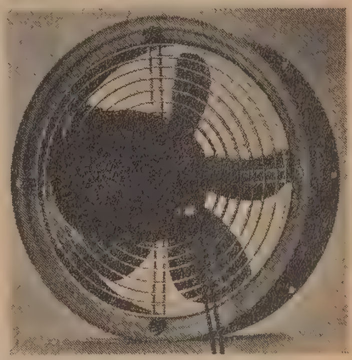
For Electronic-equipment Cabinets

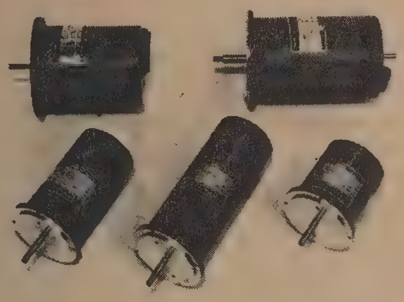
New 100 CFM fan assembly is powered by reliable GE shaded-pole motor and is equipped with a durable, five-blade molded fan and brackets. The two-pole Unitized® motor features a recirculating oil lubrication system for extra long bearing life. The assembly is only 2⅞ inches deep from mounting plate to end of motor, and measures slightly under 4¾ inches square with mounting holes 4⅛ inches between centers.

500 CFM fan assembly is powered by GE unit-bearing, four-pole, shaded-pole motor with recirculating oil lubrication system, and includes five-blade metal fan and grill. Measuring less than 6¼ inches deep from front to back, it has a ten-inch diameter fan venturi with eight holes around venturi flange for easy mounting. Also available with two-pole motors for even greater air-flow.

The units, which require only simple ON-OFF switches for operation, are designed for years of quiet, dependable, continuous-duty operation without maintenance. These blowers are available for 115- or 230-volt, 60-cycle duty, 50-cycle designs are available with somewhat lower output. For complete information, write for Bulletin GEA-8258.

100 CFM
fan assemblies


500 CFM
fan assemblies



NEW . . . ADVANCED

Hyper-Servo* MOTORS for electronic drives

For such demanding computer applications as single-capstan tape transports, disc packs, high-speed printers, card sorters and card readers, General Electric has created this new line of high performance d-c servo motors. The motors respond in less than one millisecond with acceleration rates faster than any motor previously offered by General Electric. Write for Bulletin GEA-8251. Characteristics: Torque-to-inertia ratio approaches one-half million rad/sec^2; pulse torque-to-inertia ratio exceeds one-half million rad/sec^2; inertial time constant is as low as one millisecond; diameter is 3.4 inches and larger; weight is as little as five pounds.

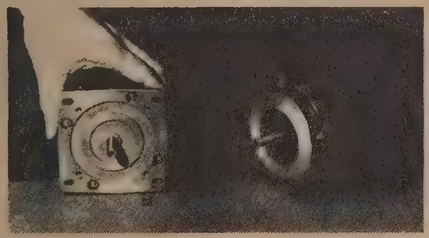
* Trade-mark of the General Electric Company.

Small, Compact, A-c Induction Motors

Provide High Power in a Lightweight Package

Small in size, but high in reiability, General Electric compact, powerful, a-c induction motors are available in four sizes from 15 mhp to ½ horsepower. These reversible motors provide consistent, quiet, long-life operation in any mounting position. Synchronous motors for constant-speed applications are available in 3-, 3.4-, and 3⅞-inch diameter models. Special designs can be provided for various torque motor applications such as tape reel drives. For dimensions, features, ratings, and application information, write for Bulletin GEA-8254.

Typical Electronic Applications: Computer memory drums, tape reels, capstans, disc filers, card stackers, card printers, card punchers, and data cells.



SYNCHRONOUS, REVERSIBLE

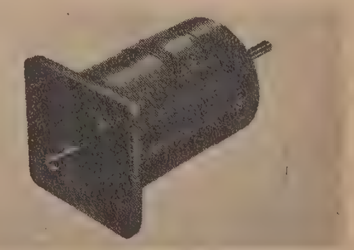
Low-speed Gearless Servo Motors

For servo, stepping, and other low-speed high-torque applications, General Electric provides a line of low-speed, synchronous inductor motors in 4⅛-inch diameter models. These motors provide a choice of 50, 75, 150, or 250 oz. in torque at exactly 75 rpm without the use of speed-reducing devices. The motors provide fast starting, stopping, and reversing for 50- or 60-cycle applications at either 120 or 240 volts. For complete information write for Bulletin GEC-1294.

Reel Drive Motors

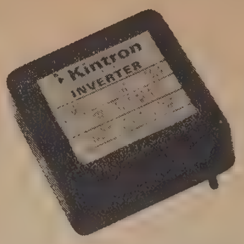
For Computer Tape Transports

GE's full line of fhp direct-current motors includes four frame sizes widely used for reel drives: 3$\frac{5}{16}$", 3$\frac{13}{16}$", 4⅝", and 6$\frac{5}{16}$" diameters. Special end mountings and shaft extensions meet exacting application requirements. Series, split-series, compound, shunt, and compensated-shunt winding designs offer a broad design choice. Stall torque ratings from 3 to 120 ounce-feet and higher span various application needs, and motor voltage requirements are normally matched to your system design. Write for Bulletin GEC-1795.



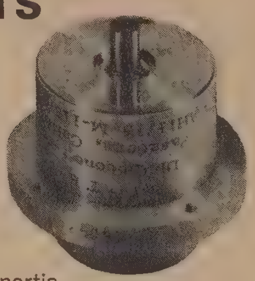
For complete information contact nearest GE Sales Office. See list on page 7,
or write to General Electric Co., Section 998-38 Schenectady, N. Y. 12305.

GENERAL ELECTRIC



MOTORS
INVERTERS

MATCHED SETS



Kintron motors feature dynamically balanced rotors, preloaded Class 7 bearings, zero end play, and < 0.1 mil T.I.R. shaft runout. Kintron manufactures a full line of motors which includes hysteresis synchronous, permanent magnet, and low inertia servo motors and torquers.

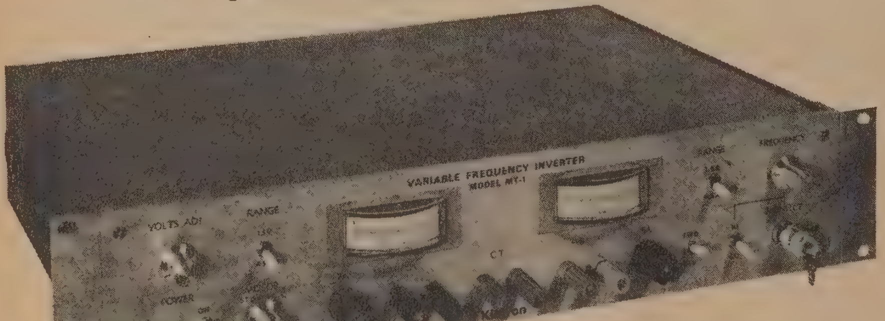
Kintron inverters are ultra-miniature power sources for hysteresis synchronous motors. Speed accuracy is maintained by a high frequency tuning fork, output current limiting products, both motor and inverter, and short circuit protection is provided.

Kintron manufactures both hysteresis synchronous motors and inverters; therefore, motors and inverters can be impedance matched at time of manufacture.

SEAMLESS DRIVE BELTS

Kintron Mylar*, Kapton (type H)*, and Polyurethane seamless belts afford the ultimate in smooth, low flutter precise power transmission. Available range: 1- to 100-inch circumference and 0.005- to 0.014-inch thick. Maximum width is 5% of length.

*DuPont registered trademark



MT-1 TEST INVERTER

The MT-1 Inverter is a test instrumentation type, variable frequency square wave, power source for operating and testing small instrumentation motors. This device is of prime value in quality assurance testing of hysteresis synchronous motors and engineering experimentation.

Kintron
29 S Pasadena Av / Pasadena, Cal. 91101 / (213) 449-3239 / TWX 910-588-3744
a Dictaphone Company

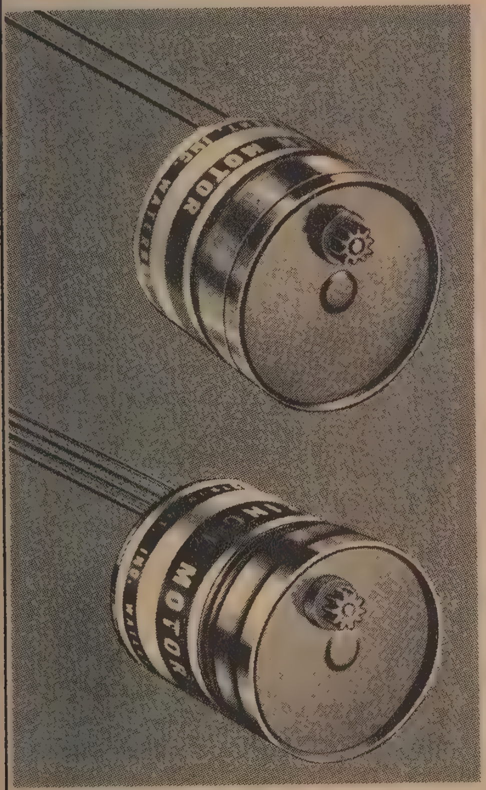
Baldor Electric Co, Fort Smith	Ark
Barber-Colman Co, EMP Div, Rockford	Ill
B & B Motor & Control Corp, New York	N Y
Beau Motor Div UMC Electronics Co North Haven	Conn
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Bergen Lab, Inc, Paterson	N J
Bodine Electric Co, Chicago	Ill
Carter Motor Co, Chicago	Ill
Century Electric Co, St Louis	Mo
Conrac Corp, New York	N Y
Consolidated Controls Corp, Bethel	Conn
Curry Engineering Co, N Hollywood	Cal
Daylen Co, South Gate	Cal
Dynamic Air Engineering Inc, Santa Ana	Cal
Eastern Air Devices Inc, Dover	N H
Electric Indicator Co Inc, Wilton	Conn
Electric Motors & Specialties Inc, Garrett	Ind
Electro-Craft Corp, Hopkins	Minn
Electro-Kinetics Corp Div EPD Ind Inc, Long Beach	Cal
Electronic Specialty Co, Los Angeles	Cal
Electronic Specialty Co, Conn Div, Thomaston	Conn
EMD Components Inc, Wickliffe	Ohio
Ferranti, Ltd, Lancashire	England
Franklin Electric Co Inc, Bluffton	Ind
Fuji Electric Co Ltd, Tokyo	Japan
Garrett Corp, Los Angeles	Cal
Gaylord Rives Co, Pasadena	Cal
General Design Inc, Sun Valley	Cal
General Electric Co, ECSO, Schenectady	N Y
General Industries Co, Elyria	Ohio
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Globe Industries Div TRW Inc, Dayton	Ohio
Grimes Mfg Co, Urbana	Ohio
Hale Instrument Inc, Houston	Tex
Haydon Switch & Instrument Inc, Waterbury	Conn
Heller Corp, G K, Las Vegas	Nev
Holtzer-Cabot Corp, Boston	Mass
Hoover Electric Co, Los Angeles	Cal
Hosiden Electronics Co Ltd, Osaka	Japan
Howard Industries MSL Indus Inc, Motor Grp Racine	Wis
Hurst Mfg Corp, Princeton	Ind
Hydro-Aire Inc, Div Crane Co, Burbank	Cal
IMC Magnetics Corp Eastern Div, Westbury	N Y
Indiana General Corp Electro-Mechanical Div Oglesby	Ill
Jakel Motors Inc, Highland	Ill
Kinelogic Corp, Pasadena	Cal
Lamb Electric Div Ametek Inc, Kent	Ohio
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
Lear Siegler Inc, Romec Div, Elyria	Ohio
Leece-Neville Co, Cleveland	Ohio
Lesa-Costruzioni Elettromeccaniche SPA, Milan	Italy
L & R Mfg Co, Kearny	N J
Mabuchi, New York	N Y
Magnetic Technology Inc, Canoga Park	Cal
Mathews Electronic Corp, Mobile	Ala
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McLean Engineering Labs, Princeton Junction	N J
Molon Motor & Coil Corp, Rolling Meadows	Ill
Motoresearch Mfg Co Inc, Racine	Wis
Muirhead Instruments Inc, Mountainside	N J
Nash Controls Inc, Caldwell	N J
Nichols Co Ltd, R H, Downsview	Ont
Pamotor Inc, San Francisco	Cal
Photocircuits Corp, Glen Cove	N Y
Porter Co Inc, H K Electrical Div, Pittsburgh	Pa
Printed Motors Inc, Glen Cove	N Y
Rae Motor Corp, McHenry	Ill
Reliance Electric Co, Cleveland	Ohio
Robbins & Myers Inc, Springfield	Ohio
Rotamec Inc, Los Angeles	Cal
Rotating Components Div Instrument Sys Corp Bay Shore	N Y
Seco Electronics Corp, Hopkins	Minn
Servo-Tek Products Co, Hawthorne	N J
Shigoto Industries Ltd, New York	N Y
Sigma Instruments Inc, Braintree	Mass
Singer Co, Diehl Div, Somerville	N J
Skurka Engineering Co, Los Angeles	Cal
Small Motors Inc Sub Sigma Instr Inc, Chicago	Ill
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Standard Precision Div Electronic Commun Inc Wichita	Kan
Superior Electric Co The, Bristol	Conn
Torque Tronics, San Gabriel	Cal
Transco Motor Mfg Inc, Arcadia	Cal
Transco Products Inc, Venice	Cal
U S Electrical Motors, Div Emerson Elec & Mfg Co Los Angeles	Cal
Universal Electric Co, Owosso	Mich
Uppco Inc, Chicago	Ill
Uriel Corp, Ronkonkoma	NY
Varo Inc, Garland	Tex
vB Actuators, Inc, Long Beach	Cal
Western Gear Corp Electro Products Div, Pasadena	Cal
Westinghouse Electric Corp, Aerospace Electrical Div Lima	Ohio
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

EBG — the industry's store.

Your marketplace for products

the revolutionary motor...
BIG INCH™

These small, unique motors are a genuine break-through in the State of the Art of timing motors. Only 1¹⁄₁₆" OD, they develop higher torque than many motors twice their size and always deliver instant, positive directional starting. They operate on 1 or 2 watt input. Mass production provides low unit cost.



Series 33000
Single Phase, Synchronous, Integrating. Fast Start-Stop. Rotor locks in on first line frequency cycle; stops instantly without coast. One watt input at rated voltage. Standard voltage ratings 20V and 115V, 60Hz. Cool operation. Unidirectional, shaded pole starting. No mechanical no-backs. Gears are heavy duty, permanently lubricated and sealed. Standard speeds 360, 300, 60 and 3.6 RPM. With split coils this motor becomes a stepper motor. Series 31000, below.

Series 33600
Bidirectional, 2-Phase Synchronous Integrating. Instantly reversible by switching capacitor from one coil to the other. Fast start-stop and reversing characteristics for precise positioning. Can "inch" in either direction in small increments. Two watt input. Other characteristics same as 33000 series. With split coils this motor becomes a step servo motor. Series 31600, below.

Series 31000 3-wire Stepper.
Unique principle drives rotor 360° for each pulse cycle. Other step angles available through gear reduction.

Series 31600 Reversible Step-Servo.
Bidirectional operation is obtained by energizing four coils in sequence or can be driven by simple logic circuitry up to 200 steps per second.

Series 32000 Brushless DC Timing Motor with Chronetic™ Governor.
Maintains speed constant within ± 0.1% over a voltage range of 20-30 v. DC. No commutator or contacts.

Send for catalog with complete details on features, applications and circuitry.

H·S·I ®
HAYDON SWITCH & INSTRUMENT, INC.
1500 Meriden Road, Waterbury, Conn. 06720 Area Code (203) 756-7441

Check the top of the pages for alphabetical listing of product categories

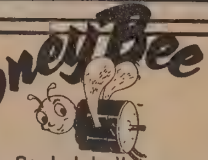
MOTORS--GEAR

AMPHENOL, JANESVILLE	**WISC**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
BODINE ELECTRIC CO, CHICAGO	**ILL**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL,	**PA**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
ELECTRO-CRAFT CORP, HOPKINS	**MINN**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HURST MFG CORP, PRINCETON	**IND**
IMC MAGNETICS CORP EASTERN DIV, WESTBURY	**N Y**
INDIANA GENERAL CORP ELECTRO-MECHANICAL DIV OGLESBY	**ILL**
SUPERIOR ELECTRIC CO THE, BRISTOL	**CONN**
Aikow Shoji Kaisha Ltd, Osaka	Japan
Alliance Mfg Co Inc, Alliance	Ohio
Amphenol, Janesville	Wisc
Automation Development Co, Culver City	Cal
B & B Motor & Control Corp, New York	N Y
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Bodine Electric Co, Chicago	Ill
Bristol Motors-Timer Div Vocaline Corp of Amer Inc Old Saybrook	Conn
Carter Motor Co, Chicago	Ill
Century Electric Co, St Louis	Mo
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
Computer Instruments Corp, Hempstead	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Electric Indicator Co Inc, Wilton	Conn
Electro-Craft Corp, Hopkins	Minn
Electro-Kinetics Corp Div EPD Ind Inc, Long Beach	Cal
Energy Conversion Systems Corp, Grafton	Wis
Essex Engineering Co Inc, Essex	Conn
Ferranti, Ltd, Lancashire	England
Franklin Electric Co Inc, Bluffton	Ind
Gaylord Rives Co, Pasadena	Cal
Geartronics Corp, N Billerica	Mass
General Electric Co, ECSO, Schenectady	N Y
General Industries Co, Elyria	Ohio
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Globe Industries Div TRW Inc, Dayton	Ohio
Hale Instrument Inc, Houston	Tex
Harowe Servo Controls Inc, West Chester	Pa
Haydon Co The, A W, Waterbury	Conn
Heller Corp, G K, Las Vegas	Nev
Holtzer-Cabot Corp, Boston	Mass
Hoover Electric Co, Los Angeles	Cal
Hurst Mfg Corp, Princeton	Ind
Hydro-Aire Inc, Div Crane Co, Burbank	Cal
IMC Magnetics Corp Eastern Div, Westbury	N Y
Indiana General Corp Electro-Mechanical Div Oglesby	Ill
Lamb Electric Div Ametek Inc, Kent	Ohio
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Mabuchi, New York	N Y
Molon Motor & Coil Corp, Rolling Meadows	Ill
Motoresearch Mfg Co Inc, Racine	Wis
Rae Motor Corp, McHenry	Ill
Reliance Electric Co, Cleveland	Ohio
Reuland Electric Co, City of Industry	Cal
RMS Motor Corp, Binghamton	N Y
Rotating Components Div Instrument Sys Corp Bay Shore	N Y
Sankyo Seiki Mfg Co, Ltd, Tokyo	Japan
Seco Electronics Corp, Hopkins	Minn
Singer Co, Diehl Div, Somerville	N J
Small Motors Inc Sub Sigma Instr Inc, Chicago	Ill
Sterling Electric Motors Inc, Los Angeles	Cal
Superior Electric Co The, Bristol	Conn
Tachtronic Instruments Inc, New Ulm	Minn
Torque Tronics, San Gabriel	Cal
United Shoe Machinery Corp, Harmonic Drive Div Beverly	Mass
U S Electrical Motors, Div Emerson Elec & Mfg Co Los Angeles	Cal
Uppco Inc, Chicago	Ill
Uriel Corp, Ronkonkoma	NY
Varo Inc, Garland	Tex
Vocaline Co of America Inc, Old Saybrook	Conn
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

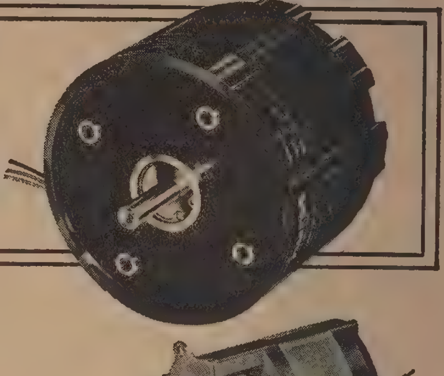
CALL ON hurst-POWER HEAVY DUTY HYSTERESIS SYNCHRONOUS MOTORS

HEAVY DUTY SYNCHRONOUS MOTORS

NEW! Honey Bee



Ideal for tape drive applications. Inverted rotor construction for reduced flutter. 1/50 HP, start torque 12 in. oz. at 1800 RPM; pull in torque 11 in. oz. 40°C heat rise, full load. Sealed ball bearings. Stainless steel shaft ⁵⁄₁₆" x 1". (Special shafts available.) Also available at 900 RPM.



MODEL HB

MODEL GA
600 IN. OZ. OF TORQUE
AT 1 RPM (Reversible)

For long life and higher torque applications. Offers instrument manufacturers high performance and economy. Wide range of speeds.

- HEAVY DUTY GEARING
- NO LUBRICATION REQUIRED
- CAPACITOR INCLUDED

MODEL GA

MODEL EA
150 IN. OZ. OF TORQUE
AT 1 RPM (Unidirectional)

Open frame, shaded pole, extremely cool running. Bronze bearings, brass gears, hardened steel pinions and wheel shafts, stainless steel output shaft. For dependable, low-cost timing applications. Wide range of speeds.

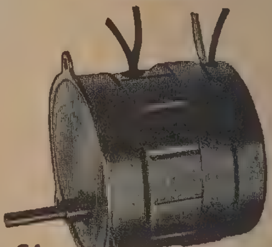
MODEL EA

MODEL DA
120 IN. OZ. OF TORQUE
AT 1 RPM (Reversible)

Timing accuracy both clockwise and counter-clockwise. SPDT switching. Case 2½" diam., 1¾" long. Will not overheat. Capacitor included. Wide range of speeds.

MODEL CA
100 IN. OZ. OF TORQUE
AT 1 RPM (Reversible)

Features 1200 rpm rotor speed for quiet performance. Extremely versatile (animated displays, program instruments, outdoor advertising, etc.). Wide range of output speeds. Will not overheat. Capacitor included.



MODEL CA

MODEL SM
RATED 40 IN. OZ.
OF TORQUE
AT 1 RPM (Unidirectional)

For tough jobs demanding accurate timing. Excellent shock and vibration resistance. Starts instantly at full torque. Will not overheat. Wide range of output speeds.

MODEL PC-SM / MODEL PC-DA
MODEL PC-SM
CLUTCH AND BRAKE MOTOR
40 IN. OZ. OF TORQUE
AT 1 RPM (Unidirectional)

MODEL PC-DA
CLUTCH AND BRAKE MOTOR
120 IN. OZ. OF TORQUE
AT 1 RPM (Reversible)

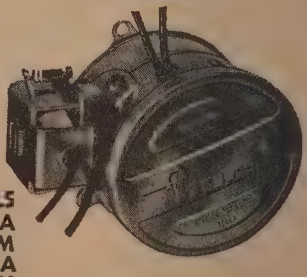
Both are positive clutch and instantaneous brake motors. For extremely fast starts and stops. Motor runs continuously with clutch and brake controlled by switching actuator only. Clutch starts output shaft within 20 milliseconds; brake stops output shaft within 1/5° at 1 rpm; within 12° at 60 rpm. Motor on AC voltage; actuator AC or DC. Either can be supplied in any voltage combination when motor is AC. Will not overheat. Wide range of speeds.

MODELS
DA
SM

MODEL AR-DA / MODEL AR-SM
MODEL AR-DA
100 IN. OZ. OF TORQUE
AT 1 RPM (Reversible)

MODEL AR-SM
40 IN. OZ. OF TORQUE
AT 1 RPM (Unidirectional)

Automatic reset. Planetary-type clutch operates directly upon output shaft. When de-energized, shaft is manual or automatic reset. Addition of external return spring to output shaft provides automatic reset on either model. Motor on AC voltage; actuator on AC or DC. Either can be supplied in any voltage combination when motor is AC. Will not overheat. Capacitor included. Wide range of speeds.



MODELS
PC-DA
PC-SM
AR-DA
AR-SM

AVAILABLE AT YOUR LOCAL HURST DISTRIBUTOR

hurst MFG. CORP. PRINCETON, INDIANA

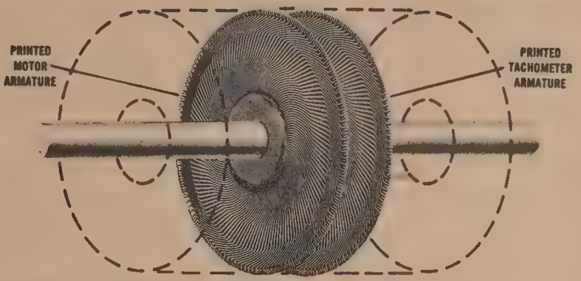
MOTORS--HYSTERESIS

AMPHENOL, JANESVILLE	**WISC**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
BODINE ELECTRIC CO, CHICAGO	**ILL**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL	**PA**
HANSEN MFG CO INC, PRINCETON	**IND**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
HURST MFG CORP, PRINCETON, IND	**ADV PG 434**
IMC MAGNETICS CORP EASTERN DIV, WESTBURY	**N Y**
INDIANA GENERAL CORP ELECTRO-MECHANICAL DIV OGLESBY	**ILL**
KINELOGIC CORP, PASADENA	**CAL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
American Electronics, Inc, Fullerton	Cal
Amphenol, Janesville	Wisc
Ashland Electric Products, Inc, Long Island City	N Y
B & B Motor & Control Corp, New York	N Y
Beau Motor Div UMC Electronics Co North Haven	Conn
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Bodine Electric Co, Chicago	Ill
Bogue Electric Mfg Co, Paterson	N J
Bristol Motors-Timer Div Vocaline Corp of Amer Inc Old Saybrook	Conn
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
Conrac Corp, New York	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Curry Engineering Co, N Hollywood	Cal
Eastern Air Devices Inc, Dover	N H
Electric Indicator Co Inc, Wilton	Conn
Electronic Specialty Co, Los Angeles	Cal
EMD Components Inc, Wickliffe	Ohio
Ferranti, Ltd, Lancashire	England
Garrett Corp, Los Angeles	Cal
Gaylord Rives Co, Pasadena	Cal
General Design Inc, Sun Valley	Cal
General Precision Systems Inc, Kearfott Gp Little Falls	N J
General Time, Industrial Controls Div, Torrington	Conn
Globe Industries Div TRW Inc, Dayton	Ohio
Hale Instrument Inc, Houston	Tex
Hansen Mfg Co Inc, Princeton	Ind
Haydon Co The, A W, Waterbury	Conn
Haydon Products, Ind Controls Div Gen Time Corp, Torrington	Conn
Haydon Switch & Instrument Inc, Waterbury	Conn
Holtzer-Cabot Corp, Boston	Mass
Howard Industries MSL Indus Inc, Motor Grp Racine	Wis
Hurst Mfg Corp, Princeton	Ind
Hydro-Aire Inc, Div Crane Co, Burbank	Cal
IMC Magnetics Corp Eastern Div, Westbury	N Y
Indiana General Corp Electro-Mechanical Div Oglesby	Ill
Kinelogic Corp, Pasadena	Cal
Kollsman Motor Corp, Dublin	Pa
LCC-CICE, 93 Montreuil-sous-Bois	France
Lear Siegler Inc, Santa Monica	Cal
Magnetic Technology Inc, Canoga Park	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McLean Engineering Labs, Princeton Junction	N J
Muirhead Instruments Inc, Mountainside	N J
Nortronics Div, Northrop Corp, Prec Prods Dept Norwood	Mass
Pamotor Inc, San Francisco	Cal
Pennwood Numechron Co Tymeter Electronics Pittsburgh	Pa
Rotating Components Div Instrument Sys Corp Bay Shore	N Y
Sankyo Seiki Mfg Co, Ltd, Tokyo	Japan
Siemon Mfg Co, Wayne	Ill
Singer Co, Diehl Div, Somerville	N J
Skurka Engineering Co, Los Angeles	Cal
Smiths Industries North America Ltd, Jamaica	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Solvere Inc, Santa Ana	Cal
Sunbeam Electronics, Fort Lauderdale	Fla
Torque Tronics, San Gabriel	Cal
Transco Motor Mfg Inc, Arcadia	Cal
Uriel Corp, Ronkonkoma	NY
Vactric Control Equipment Ltd, Morden	England
Varo Inc, Garland	Tex
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Vocaline Co of America Inc, Old Saybrook	Conn
Western Gear Corp Electro Products Div, Pasadena	Cal

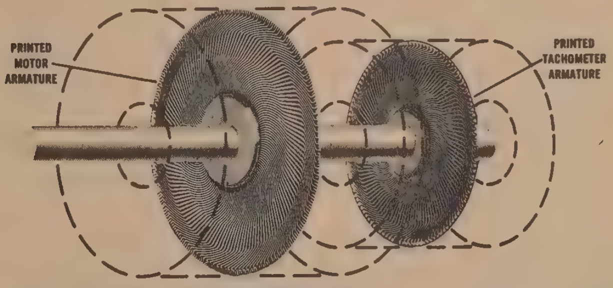
MOTORS--PRINTED CIRCUIT

HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
KINELOGIC CORP, PASADENA	**CAL**
PRINTED MOTORS INC, GLEN COVE, N Y	**ADV PG 435**
B & B Motor & Control Corp, New York	N Y
Flexible Products Inc, North St Paul	Minn
Haydon Switch & Instrument Inc, Waterbury	Conn
Heller Corp, G K, Las Vegas	Nev
Kinelogic Corp, Pasadena	Cal
Motor Control Corp Sub Zenrad Computer Corp, Huntington	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Photocircuits Corp, Glen Cove	N Y
Printed Motors Inc, Glen Cove	N Y
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

two new Tachometers



INTEGRAL TACHOMETER – Adds a superior tachometer to standard printed motors **with no increase in motor size.** Tach features include low ripple (5% peak-to-peak at 100 rpm; below 2% over 1000 rpm), excellent linearity and elimination of mechanical coupling and torsional resonance problems. The printed tachometer armature typically has the equivalent of over 100 commutator bars raising the frequency of output ripple far beyond that attainable with conventional tachometers. Ideal for wide speed range velocity servos.



LOW INERTIA TACHOMETER – Designed for high performance incrementing servos where low ripple, low inertia and minimum torsional resonance are necessary. Built as an integral part of the rear shaft extension of any standard PMI motor, this tachometer has a lower ripple output than any comparable tach available today . . . 1.5% peak-to-peak at 50 rpm. Inertia added by the tachometer is only .0006 oz.-in.-sec.^{2}. Couplings and mounting hardware are eliminated by this design and accidental damage to the tach is minimized by housing it in a rugged ¼" aluminum casting.

PMI

PRINTED MOTORS, INC.
33 Sea Cliff Avenue, Glen Cove, N. Y. 11542

Engineering, Manufacturing and Sales by: PHOTOCIRCUITS CORPORATION, GLEN COVE, NEW YORK

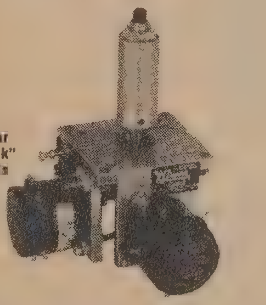
BOWMAR PRECISION ROTARY COMPONENTS

Offering maximum reliability for use in Guidance, Navigation, Communications, Systems.

Bowmar stocks "off the shelf" models and has complete design and manufacturing facilities for special applications in:

- **Servo Motors**
  - Sizes 8 – 10 – 11
- **Motor Tachometers**
  - Sizes 8 – 10 – 11
- **Stepper Motors**
  - Sizes 8 – 10
- **Synchros**
  - All sizes, 8 thru 31
- **Gearheads, Speed Reducers**
  - Sizes 8 – 10 – 11 – 15 – 18
- **Electro-Shift 2-Speed Gearchangers**
  - Sizes 10 – 11 – 15 – 18 – 20 – 23

All components are available matched, pre-assembled, and pre-checked combinations meeting all military, industrial, and commercial standards. Bowmar is also a prime producer of many special geared devices including speed reducers, multi-shaft units, offset shaft gearheads, square gearheads, tandem gearheads for very high ratios, and all types of shafts, pinions, lengths, and other features.



Bowmar "Joystick" Controls

Handgrip movement in any direction produces corresponding rotation of potentiometers or other control components in the X and Y coordinates depending on stick position. Optional Z coordinate control is provided by clockwise or counter-clockwise stick rotation. Self-centering stick and other features available. Thumb operated safety interlock switch provided.

For more information about complete capability in custom components, assemblies, packages, and actuators, call or write

BOWMAR
INSTRUMENT CORPORATION
8000 BLUFFTON ROAD • FORT WAYNE, INDIANA

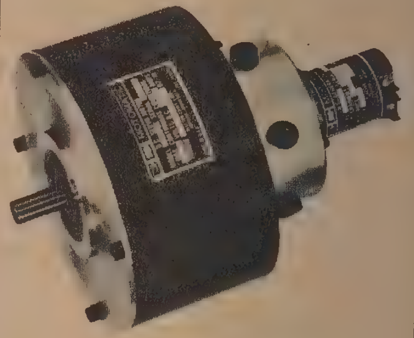
If it isn't in EBG's product directory, it probably hasn't been invented yet.

MOTORS--SERVO

AMPHENOL, JANESVILLE	**WISC**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
BODINE ELECTRIC CO, CHICAGO	**ILL**
BOWMAR INSTRUMENT CORP, FORT WAYNE IND.	**ADV PG 436**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL., PA	**ADV PG 437**
ELECTRO-CRAFT CORP, HOPKINS, MINN	**ADV PG 436**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
IMC MAGNETICS CORP EASTERN DIV, WESTBURY	**N Y**
INDIANA GENERAL CORP ELECTRO-MECHANICAL DIV OGLESBY	**ILL**
KINELOGIC CORP, PASADENA	**CAL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
PRINTED MOTORS INC, GLEN COVE	**N Y**
SUPERIOR ELECTRIC CO THE, BRISTOL	**CONN**
American Electronics, Inc, Fullerton	Cal
Amphenol, Janesville	Wisc
Antlab, Inc, Worthington	Ohio
Aristo-Craft Distinctive Miniatures, New York	N Y
Automation Development Co, Culver City	Cal
Aviation Electric Ltd, St Laurent, Montreal	Que
Avionics, Inc, South Bend	Ind
Barber-Colman Co, EMP Div, Rockford	Ill
B & B Motor & Control Corp, New York	N Y
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Bendix Corp, Flight & Engine Instr Div South Montrose	Pa
Bendix Corp Fluid Power Div, Utica	N Y
Bodine Electric Co, Chicago	Ill
Bowmar Instrument Corp, Fort Wayne	Ind
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
Control Technology Co Inc, Long Island City	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Curry Engineering Co, N Hollywood	Cal
Eastern Air Devices Inc, Dover	N H
Electric Indicator Co Inc, Wilton	Conn
Electro-Craft Corp, Hopkins	Minn
Electronic Specialty Co, Conn Div, Thomaston	Conn
Energy Conversion Systems Corp, Grafton	Wis
Garrett Corp, Los Angeles	Cal
Gaylord Rives Co, Pasadena	Cal
General Design Inc, Sun Valley	Cal
General Electric Co, ECSO, Schenectady	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Globe Industries Div TRW Inc, Dayton	Ohio

Check the top of the pages for alphabetical listing of product categories

High Performance D. C. Servo Motors



Moving Coil Motors

■ Electro-Craft offers a wide choice of MOTOMATIC® MCM low inertia, ultra high performance, dc servo motors and compatible driving amplifiers, available either as a complete package or as separate modules.

■ MOTOMATIC® MCM units are ideally suited for direct drive applications in computer printers, card readers, punch equipment, disc memory, magnetic and paper tape capstan drives, analog and digital positioning, recorders and XY plotters, machine tool positioning, film drives, incremental motion velocity and phase lock servos, and precision tensioning.

■ MOTOMATIC® MCM, moving coil motors feature; acceleration in excess of 10^5 rad/sec.^{2}, time constant of 2m-sec., high pulse torque, extremely low inductance, high efficiency, long-life and integral feedback tach-generator.

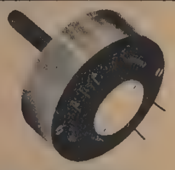
For the best in direct drive servo systems . . . write or call today.

ELECTRO-CRAFT CORPORATION
1600 Second Street South
Hopkins, Minn. 55343
Tel. (612) 935-8226

BUY CLIFTON QUALITY IN SERVO MOTORS

CLIFTON
DIVISION OF LITTON INDUSTRIES
General Sales Office: 5050 State Rd., Drexel Hill, Pa.
215 622-1000 TWX: 510 669-8217

SEE PAGE 631
FOR DESCRIPTION OF OUR WIDE LINE OF AMPLIFIERS, POWER SUPPLIES, ELECTROMECHANICAL PACKAGES.



TORQUERS

Clifton can custom design torque motors to your special need. Our deep experience in the flat, "hollow shaft" configuration qualifies us uniquely in this field. A Clifton torque motor actuates the fins on Redeye, the Army ground to air missile.

BLOWER MOTORS

This typical Clifton Blower conforms to MIL-B-23071. It exhibits remarkable reliability i.e. "life" in the order of 1000 hr. accelerated life with temperature variations. It is very low in self-generated vibration.

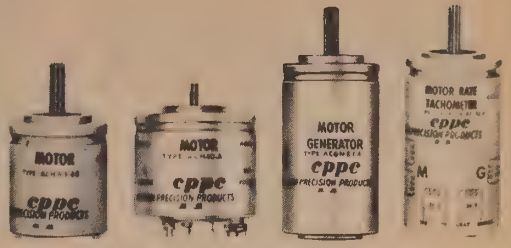
STEPPER MOTOR
cppc
MOTOR

STEPPER MOTORS

Clifton offers a wide variety of permanent magnet or variable reluctance type stepper motors in sizes 8 through 15.

We also design and manufacture the logic and pulse source modules which control our stepper motors.

Stepper motors are extremely useful where signals are presented as pulse trains rather than analog voltages.

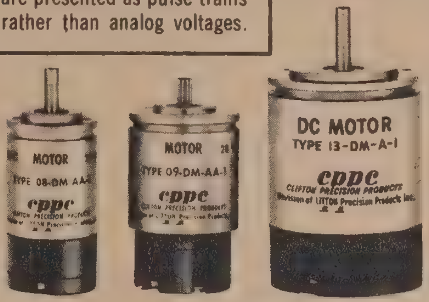


AC MOTORS, GENERATORS, AND TACHOMETERS

Clifton offers a wide variety of AC motors in sizes 8, 10, 11, 15. Our motors exhibit a very high degree of efficiency, also higher torque to inertia ratios and lower and more uniform starting voltages. All motors are high temperature resistant.

Because of higher torque/inertia ratios, our generators and tachs are smaller and lighter.

Clifton also offers temperature compensated integrating tachs and high signal to noise integrating type tachs. Gear heads available on motors and tachometers.



DC MOTORS

Clifton offers many different types including a new line of low cost sizes 8, 9, and 13.

Units are available which accept either 28, 20 or 14 volt inputs; also with governor which maintains constant speed within ±1%. Gearheads available for our DC motors. DC tachometers also available.

Pain Killer.

If vendors have you in a pinch and another source of supply will help, turn to the Electronics Buyers' Guide. You'll find all the information you need on over 1,363 sources of power supplies, listed under 11 headings from *AC Regulated Power Supplies to Laser Power Supplies.*

Electronics Buyers' Guide

Harowe Servo Controls Inc, West Chester	Pa
Holtzer-Cabot Corp, Boston	Mass
Honeywell Precision Meter Div, Manchester	N H
IMC Magnetics Corp Eastern Div, Westbury	N Y
Indiana General Corp Electro-Mechanical Div Oglesby	Ill
Inland Motor Corp, Radford	Va
Jordan Controls Inc, Milwaukee	Wis
Kinelogic Corp, Pasadena	Cal
Kollsman Instrument Corp, Syosset	N Y
Kollsman Motor Corp, Dublin	Pa
Lamb Electric Div Ametek Inc, Kent	Ohio
LCC-CICE, 93 Montreuil-sous-Bois	France
Lear Siegler Inc, Santa Monica	Cal
Mabuchi, New York	N Y
Magnasync/Moviola Corp, North Hollywood	Cal
Magnetic Technology Inc, Canoga Park	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McMaster Products Corp, Chicago	Ill
Mitsumi Electric Co Ltd, Tokyo	Japan
Moog Inc, Industrial Div, East Aurora	N Y
Muirhead Instruments Inc, Mountainside	N J
Nash Controls Inc, Caldwell	N J
Pegasus Labs Inc, Berkley	Mich
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Photocircuits Corp, Glen Cove	N Y
Porter Co Inc, H K Electrical Div, Pittsburgh	Pa
Precision Mecanique Labinal, 93 Saint-Ouen	France
Printed Motors Inc, Glen Cove	N Y
Quantic Industries Inc, San Carlos	Cal
Reliance Electric Co, Cleveland	Ohio
Rotating Components Div Instrument Sys Corp Bay Shore	N Y
Shigoto Industries Ltd, New York	N Y
Siemon Mfg Co, Wayne	Ill
Singer Co, Diehl Div, Somerville	N J
Skurka Engineering Co, Los Angeles	Cal
Smiths Industries North America Ltd, Jamaica	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Solvere Inc, Santa Ana	Cal
Sunbeam Electronics, Fort Lauderdale	Fla
Superior Electric Co The, Bristol	Conn
Superior Mfg & Instrument Co, Long Island City	N Y
Tachtronic Instruments Inc, New Ulm	Minn
Torque Tronics, San Gabriel	Cal
Transco Motor Mfg Inc, Arcadia	Cal
Vactric Control Equipment Ltd, Morden	England
Varo Inc, Garland	Tex
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Wer Industrial Corp, Buffalo	N Y
Weston-Transicoil, Weston Instruments Inc Worcester	Pa
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan
Yokogawa Electric Works Inc, Larchmont	N Y

Works in Seconds.

The '68 Electronics Buyers' Guide lets you find people, places, and things in seconds. In the Directory of Manufacturers and Sales Offices, for example, more than 6,000 manufacturers are listed, including addresses, telephone numbers, sales offices, the people to call for information, the total number of engineers and employees and sales volumes. So use your EBG. It works in seconds.

Electronics Buyers' Guide

EBG — one stop
shopping center.

Find a product listing
and advertiser's message
together.

MOTORS--PHONOGRAPH

AMPHENOL, JANESVILLE	**WISC**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
Aikow Shoji Kaisha Ltd, Osaka	Japan
Alliance Mfg Co Inc, Alliance	Ohio
Amphenol, Janesville	Wisc
Aristo-Craft Distinctive Miniatures, New York	N Y
Ashland Electric Products, Inc, Long Island City	N Y
Barber-Colman Co, EMP Div, Rockford	Ill
Beau Motor Div UMC Electronics Co North Haven	Conn
General Electric Co, ECSO, Schenectady	N Y
General Industries Co, Elyria	Ohio
Gleason-Avery Co, Auburn	N Y
Globe Industries Div TRW Inc, Dayton	Ohio
Haydon Co The, A W, Waterbury	Conn
Howard Industries MSL Indus Inc, Motor Grp Racine	Wis
Jakel Motors Inc, Highland	Ill
Lesa-Costruzioni Elettromeccaniche SPA, Milan	Italy
Mabuchi, New York	N Y
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Mitsumi Electric Co Ltd, Tokyo	Japan
Pamotor Inc, San Francisco	Cal
Sanyo Electric Co Ltd, Osaka	Japan
Shigoto Industries Ltd, New York	N Y
Torque Tronics, San Gabriel	Cal
Union Carbide Corp, Consumer Products Div New York	N Y
Uppco Inc, Chicago	Ill

MOTORS--REMOTE CONTROL

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BODINE ELECTRIC CO, CHICAGO	**ILL**
ELECTRO-CRAFT CORP, HOPKINS	**MINN**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
Aeroflex Labs, Inc, Plainview	N Y
Alliance Mfg Co Inc, Alliance	Ohio
Aristo-Craft Distinctive Miniatures, New York	N Y
Automation Development Co, Culver City	Cal
Barber-Colman Co, EMP Div, Rockford	Ill
B & B Motor & Control Corp, New York	N Y
Bodine Electric Co, Chicago	Ill
Bristol Motors-Timer Div Vocaline Corp of Amer Inc Old Saybrook	Conn
Carter Motor Co, Chicago	Ill
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Curry Engineering Co, N Hollywood	Cal
Dbm Research Corp, Cocoa Beach	Fla
Electro-Craft Corp, Hopkins	Minn
Electro-Kinetics Corp Div EPD Ind Inc, Long Beach	Cal
Energy Conversion Systems Corp, Grafton	Wis
General Electric Co, ECSO, Schenectady	N Y
General Industries Co, Elyria	Ohio
Globe Industries Div TRW Inc, Dayton	Ohio
Icon Corp, Cambridge	Mass
Jungner Instrument AB, S-10440 Stockholm 14	Sweden
Kollsman Motor Corp, Dublin	Pa
Lear Siegler Inc, Santa Monica	Cal
Mabuchi, New York	N Y
Magnetic Technology Inc, Canoga Park	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Mitsumi Electric Co Ltd, Tokyo	Japan
Molon Motor & Coil Corp, Rolling Meadows	Ill
Motor Control Corp Sub Zenrad Computer Corp, Huntington	NY
Muirhead Instruments Inc, Mountainside	N J
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Reliance Electric Co, Cleveland	Ohio
Seco Electronics Corp, Hopkins	Minn
Siemon Mfg Co, Wayne	Ill
Singer Co, Diehl Div, Somerville	N J
Torque Tronics, San Gabriel	Cal
Uriel Corp, Ronkonkoma	NY
Varo Inc, Garland	Tex
Vocaline Co of America Inc, Old Saybrook	Conn
Western Gear Corp Electro Products Div, Pasadena	Cal
Weston-Transicoil, Weston Instruments Inc Worcester	Pa

MOTORS--SPEED REGULATED

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BODINE ELECTRIC CO, CHICAGO	**ILL**
ELECTRO-CRAFT CORP, HOPKINS	**MINN**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
IMC MAGNETICS CORP EASTERN DIV, WESTBURY	**N Y**
INDIANA GENERAL CORP ELECTRO-MECHANICAL DIV OGLESBY	**ILL**
KINELOGIC CORP, PASADENA	**CAL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
PRINTED MOTORS INC, GLEN COVE	**N Y**
American Electronics, Inc, Fullerton	Cal
Amglo Corp, Chicago	Ill
Automation Development Co, Culver City	Cal
B & B Motor & Control Corp, New York	N Y
Bodine Electric Co, Chicago	Ill
Bogue Electric Mfg Co, Paterson	N J
Carter Motor Co, Chicago	Ill
Century Electric Co, St Louis	Mo
Consolidated Electric Corp, Seattle	Wash
Cramer Div Conrac Corp, Old Saybrook	Conn
Curry Engineering Co, N Hollywood	Cal
Don Bosco Electronics Inc, Hanover	N J
Electro-Craft Corp, Hopkins	Minn
Electronic Specialty Co, Conn Div, Thomaston	Conn
Emerson Electric Co, Indl Controls & Elctns Div St Louis	Mo
Energy Conversion Systems Corp, Grafton	Wis
Essex Engineering Co Inc, Essex	Conn
Fuji Electric Co Ltd, Tokyo	Japan
Gaylord Rives Co, Pasadena	Cal
Geartronics Corp, N Billerica	Mass
General Electric Co, ECSO, Schenectady	N Y
Globe Industries Div TRW Inc, Dayton	Ohio
Hayakawa Electric Co Ltd, Osaka	Japan
Haydon Co The, A W, Waterbury	Conn
Haydon Switch & Instrument Inc, Waterbury	Conn
Heller Corp, G K, Las Vegas	Nev
Hobbs Mfg Co, Worcester	Mass
Holtzer-Cabot Corp, Boston	Mass
Icon Corp, Cambridge	Mass
IMC Magnetics Corp Eastern Div, Westbury	N Y
Indiana General Corp Electro-Mechanical Div Oglesby	Ill
Inet Power A Teledyne Co, Gardena	Cal
Kato Engineering Co, Mankato	Minn
Kinelogic Corp, Pasadena	Cal
Kollsman Motor Corp, Dublin	Pa
Lamb Electric Div Ametek Inc, Kent	Ohio
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Magnetic Technology Inc, Canoga Park	Cal
Mathews Electronic Corp, Mobile	Ala
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Mitsumi Electric Co Ltd, Tokyo	Japan
Nash Controls Inc, Caldwell	N J
Photocircuits Corp, Glen Cove	N Y
Precision Mecanique Labinal, 93 Saint-Ouen	France
Printed Motors Inc, Glen Cove	N Y
Rae Motor Corp, McHenry	Ill
Reliance Electric Co, Cleveland	Ohio
RMS Motor Corp, Binghamton	N Y
Robbins & Myers Inc, Springfield	Ohio
Rotamec Inc, Los Angeles	Cal
Seco Electronics Corp, Hopkins	Minn
Servo-Tek Products Co, Hawthorne	N J
Slocum Industries, Inc, Reseda	Cal
Small Motors Inc Sub Sigma Instr Inc, Chicago	Ill
Standard Precision Div Electronic Commun Inc Wichita	Kan
Sterling Electric Motors Inc, Los Angeles	Cal
Torque Tronics, San Gabriel	Cal
Transco Motor Mfg Inc, Arcadia	Cal
Trans-Tek Mfg Co Inc, Garwood	N J
Union Carbide Corp, Consumer Products Div New York	N Y
Universal Electric Co, Owosso	Mich
Uriel Corp, Ronkonkoma	NY
Varo Inc, Garland	Tex
Weston-Transicoil, Weston Instruments Inc Worcester	Pa
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

Check the top of
the pages for
alphabetical listing
of product categories

MOTORS--STEPPING

AUTOMATION DEVELOPMENT CO, CULVER CITY CAL	**ADV PG 000**
BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL	**PA**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD N Y	ADV PGS 488-490
DATA TECHNOLOGY, INC, WATERTOWN	**MASS**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
HURST MFG CORP, PRINCETON	**IND**
IMC MAGNETICS CORP EASTERN DIV, WESTBURY N Y	**ADV PG 439**
IMC MAGNETICS CORP WESTERN DIV, MAYWOOD CAL	**ADV PG 439**
KINELOGIC CORP, PASADENA	**CAL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
SUPERIOR ELECTRIC CO THE, BRISTOL	**CONN**
Abrams Instrument Corp, Lansing	Mich
Aeroflex Labs, Inc, Plainview	N Y
American Electronics, Inc, Fullerton	Cal
Automation Development Co, Culver City	Cal
B & B Motor & Control Corp, New York	N Y
Bergen Lab, Inc, Paterson	N J
Bowmar Instrument Corp, Fort Wayne	Ind
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill	Pa
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Curry Engineering Co, N Hollywood	Cal
Data Technology, Inc, Watertown	Mass
Electric Tachometer Corp, Philadelphia	Pa
Energy Conversion Systems Corp, Grafton	Wis
Ferranti, Ltd, Lancashire	England
Gap Instrument Corp, Westbury	N Y
Gaylord Rives Co, Pasadena	Cal
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Harowe Servo Controls Inc, West Chester	Pa
Haydon Co The, A W, Waterbury	Conn
Haydon Switch & Instrument Inc, Waterbury	Conn
Heinemann Electric Co, Trenton	N J
Hurst Mfg Corp, Princeton	Ind
Icon Corp, Cambridge	Mass
IMC Magnetics Corp Eastern Div, Westbury	N Y
IMC Magnetics Corp Western Div, Maywood	Cal
Kinelogic Corp, Pasadena	Cal
Kollsman Motor Corp, Dublin	Pa
Lear Siegler Inc, Santa Monica	Cal
Ledex Div Ledex Inc, Dayton	Ohio
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McMaster Products Corp, Chicago	Ill
Mesur-Matic Electronic Corp, Warner	N H
Millitest Co, Hempstead	N Y

Pain
Killer.

If vendors have you in a pinch and another source of supply will help, turn to the Electronics Buyers' Guide. You'll find all the information you need on over 1,363 sources of power supplies, listed under 11 headings from *AC Regulated Power Supplies to Laser Power Supplies.*

Electronics Buyers' Guide

TORMAX

STEPPERS step
off the shelf into your system
26 factory-stocked models
Permanent Magnet and
Variable Reluctance types
in Sizes 5 to 35
Controllers & Pulses Sources
Send for free catalog

Western Division
IMC Magnetics Corp.
6058 Walker Ave.
Maywood, Calif. 90270
Tel (213) 583-4785
TWX 910-321-3089
imc

Motor Control Corp Sub Zenrad Computer Corp, Huntington	NY
Muirhead Instruments Inc, Mountainside	N J
Nash Controls Inc, Caldwell	N J
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Photocircuits Corp, Glen Cove	N Y
Servonetics Inc, Los Angeles	Cal
Sigma Instruments Inc, Braintree	Mass
Singer Co, Diehl Div, Somerville	N J
Small Motors Inc Sub Sigma Instr Inc, Chicago	Ill
Smiths Industries North America Ltd, Jamaica	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Sunbeam Electronics, Fort Lauderdale	Fla
Superior Electric Co The, Bristol	Conn
United Shoe Machinery Corp, Harmonic Drive Div Beverly	Mass
Uriel Corp, Ronkonkoma	NY
Vactric Control Equipment Ltd, Morden	England
Varo Inc, Garland	Tex
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Weston-Transicoil, Weston Instruments Inc Worcester	Pa
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

MOTORS--SUBFRACTIONAL HP

AMPHENOL, JANESVILLE	**WISC**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BODINE ELECTRIC CO, CHICAGO	**ILL**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL	**PA**
ELECTRO-CRAFT CORP, HOPKINS	**MINN**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HANSEN MFG CO INC, PRINCETON	**IND**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
IMC MAGNETICS CORP EASTERN DIV, WESTBURY	**N Y**
INDIANA GENERAL CORP ELECTRO-MECHANICAL DIV OGLESBY	**ILL**
KINELOGIC CORP, PASADENA	**CAL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
Alliance Mfg Co Inc, Alliance	Ohio
American Electronics, Inc, Fullerton	Cal
Amphenol, Janesville	Wisc
Aristo-Craft Distinctive Miniatures, New York	N Y
Ashland Electric Products, Inc, Long Island City	N Y
Automation Development Co, Culver City	Cal
Barber-Colman Co, EMP Div, Rockford	Ill
Barnes Engineering Co Def & Space Div Stamford	Conn
B & B Motor & Control Corp, New York	N Y
Bergen Lab, Inc, Paterson	N J
Bodine Electric Co, Chicago	Ill
Bristol Motors-Timer Div Vocaline Corp of Amer Inc Old Saybrook	Conn
Carter Motor Co, Chicago	Ill
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill	Pa
Conrac Corp, New York	N Y
Consolidated Controls Corp, Bethel	Conn
Controls Co of America, Schiller Park	Ill
Cramer Div Conrac Corp, Old Saybrook	Conn
Curry Engineering Co, N Hollywood	Cal
DeSoto Electrical Products, DeSoto	Mo
Dynamic Air Engineering Inc, Santa Ana	Cal
Eastern Air Devices Inc, Dover	N H
Electric Indicator Co Inc, Wilton	Conn
Electric Motors & Specialties Inc, Garrett	Ind
Electro-Craft Corp, Hopkins	Minn
Electronic Specialty Co, Los Angeles	Cal
EMD Components Inc, Wickliffe	Ohio
Energy Conversion Systems Corp, Grafton	Wis
Franklin Electric Co Inc, Bluffton	Ind
Fuji Electric Co Ltd, Tokyo	Japan
Gaylord Rives Co, Pasadena	Cal
General Design Inc, Sun Valley	Cal
General Electric Co, ECSO, Schenectady	N Y
General Industries Co, Elyria	Ohio
General Precision Systems Inc, Kearfott Gp Little Falls	N J
General Time, Industrial Controls Div, Torrington	Conn
Gleason-Avery Co, Auburn	N Y
Globe Industries Div TRW Inc, Dayton	Ohio
Hansen Mfg Co Inc, Princeton	Ind
Haydon Co The, A W, Waterbury	Conn
Haydon Switch & Instrument Inc, Waterbury	Conn
Holtzer-Cabot Corp, Boston	Mass
Howard Industries MSL Indus Inc, Motor Grp Racine	Wis
Hydro-Aire Inc, Div Crane Co, Burbank	Cal
IMC Magnetics Corp Eastern Div, Westbury	N Y
Indiana General Corp Electro-Mechanical Div Oglesby	Ill
ITT Europe Inc Components Gp, Brussels 1	Belgium
Jakel Motors Inc, Highland	Ill
Kinelogic Corp, Pasadena	Cal
Kinetics A Teledyne Co, Solana Beach	Cal
Kollsman Motor Corp, Dublin	Pa
LCC-CICE, 93 Montreuil-sous-Bois	France
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
Mabuchi, New York	N Y
Magnetic Technology Inc, Canoga Park	Cal
Mathews Electronic Corp, Mobile	Ala
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McMaster Products Corp, Chicago	Ill
Mitsumi Electric Co Ltd, Tokyo	Japan
Molon Motor & Coil Corp, Rolling Meadows	Ill
Motoresearch Mfg Co Inc, Racine	Wis
Muirhead Instruments Inc, Mountainside	N J
Nash Controls Inc, Caldwell	N J
Pamotor Inc, San Francisco	Cal
Rae Motor Corp, McHenry	Ill
RMS Motor Corp, Binghamton	N Y
Robbins & Myers Inc, Springfield	Ohio
Rotamec Inc, Los Angeles	Cal
Rotating Components Div Instrument Sys Corp Bay Shore	N Y
Servo-Tek Products Co, Hawthorne	N J
Shigoto Industries Ltd, New York	N Y
Siemon Mfg Co, Wayne	Ill
Singer Co, Diehl Div, Somerville	N J
Skurka Engineering Co, Los Angeles	Cal
Small Motors Inc Sub Sigma Instr Inc, Chicago	Ill
Smiths Industries North America Ltd, Jamaica	N Y
Standard Precision Div Electronic Commun Inc Wichita	Kan
Sunbeam Electronics, Fort Lauderdale	Fla
Torque Tronics, San Gabriel	Cal
Transco Motor Mfg Inc, Arcadia	Cal
Union Carbide Corp, Consumer Products Div New York	N Y
Universal Electric Co, Owosso	Mich
Uppco Inc, Chicago	Ill
Uriel Corp, Ronkonkoma	NY
Vactric Control Equipment Ltd, Morden	England
Varo Inc, Garland	Tex
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Vocaline Co of America Inc, Old Saybrook	Conn
Weston-Transicoil, Weston Instruments Inc Worcester	Pa
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

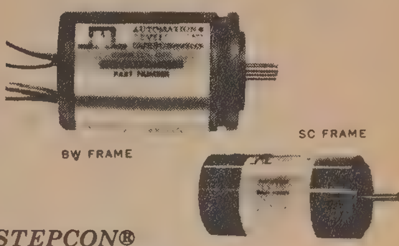
If it isn't in EBG's

product directory,

it probably hasn't

been invented yet.

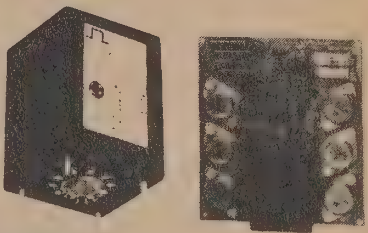
FACTORY STOCKED



STEPCON®
STEPPING MOTORS
Sizes 8, 11, 13, 15, 17, 23 and others

EXCLUSIVE!

STEPCON®
GEARMOTORS
Over 500
gear ratios and step angles in stock



STEPCON®
CONTROLLERS
Transistorized.
On PC boards and in hermetic cans

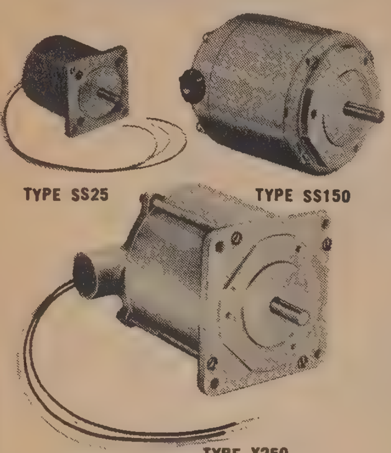
Complete line of digital components

Gear Heads
Digital Modules
Digital Counters
Pulse Generators
Valve Drives
X-Y Plotter Drives
Comparators
Step Detectors
D/A, A/D Converters
Power Supplies
Remote Positioners
Control Systems

AUTOMATION
DEVELOPMENT
COMPANY
A DIVISION OF
AMERICAN DIGITAL CORPORATION
9905 W. Jefferson Blvd.
Culver City, Calif. 90230 / 213 (838-7346)

SLO-SYN®

Synchronous/ Stepping Motors



Permanent magnet a-c motors with instant start, stop and reverse and basic shaft speed of 72 rpm at 60 cycles (200 rpm for types TS50 and TS52). Bidirectional; stop or reverse within less than 5° of shaft rotation or .025 sec. Can remain coupled to load and safely overdriven when used with auxiliary high speed motor. Can be completely stalled without overheating or risk of damage. Can also be used for phase-switched d-c stepping at either 100 or 200 steps/rev. (36 or 72 steps/rev. for types TS50 or TS52). Steps accurate within ±.09° noncumulative.

TYPE	MAXIMUM AMPERES	TORQUE (Oz-In)	MAXIMUM MOMENT OF INERTIA OF A RIGIDLY ATTACHED LOAD (Lb-In²)
120 Volts, 50/60 Cycles, 1 Phase, 200 RPM at 60 Cycles			
TS50	0.3	50	0.25
120 Volts, 50/60 Cycles, 1 Phase, 72 RPM at 60 Cycles			
SS25	0.1	25	0.25
SS50	0.3	50	0.5
SS50M†	0.3	50	0.5
SS150	0.4	150	1.5
SS150M†	0.4	150	1.5
SS250	0.6	250	3
SS250M†	0.6	250	3
X250‡	0.6	250	3
SS400	0.6	400	4.5
X1000‡	3.0	1000	9
SS1800	4.0	1800	16
240 Volts, 50/60 Cycles, 1 Phase, 200 RPM at 60 Cycles			
TS52	0.2	50	0.25
240 Volts, 50/60 Cycles, 1 Phase, 72 RPM at 60 Cycles			
SS52	0.2	50	0.5
SS152	0.2	150	1.5
SS252	0.3	250	3
X252‡	0.3	250	3
SS402	0.3	400	4.5
X1002‡	1.5	1000	9
SS1802	2.0	1800	16

†Militarized. ‡Explosion-proof.

OTHER TYPES: 24 rpm; precision stepping with speeds to 1000 steps/sec. or higher; bifilar; four-lead; high vacuum, high temperature and high radiation; planetary gear; double-end; high torque gearmotors.

Write for Catalog SS1265

THE SUPERIOR ELECTRIC COMPANY
1200 Middle Street
Bristol, Connecticut 06010

MOTORS--SYNCHRONOUS

AMPHENOL, JANESVILLE	**WISC**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
BODINE ELECTRIC CO, CHICAGO	**ILL**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL	**PA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PG 7**
HANSEN MFG CO INC, PRINCETON	**IND**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
HURST MFG CORP, PRINCETON	**IND**
ICON CORP, CAMBRIDGE	**MASS**
IMC MAGNETICS CORP EASTERN DIV, WESTBURY N Y	**ADV PG 440**
INDIANA GENERAL CORP ELECTRO-MECHANICAL DIV OGLESBY	**ILL**
KINELOGIC CORP, PASADENA	**CAL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
SUPERIOR ELECTRIC CO THE, BRISTOL, CONN	**ADV PG 440**
Alliance Mfg Co Inc, Alliance	Ohio
American Electronics, Inc, Fullerton	Cal
Amphenol, Janesville	Wisc
Ashland Electric Products, Inc, Long Island City	N Y
Aviation Electric Ltd, St Laurent, Montreal	Que
Barber-Colman Co, EMP Div, Rockford	Ill
B & B Motor & Control Corp, New York	N Y
Beau Motor Div UMC Electronics Co North Haven	Conn
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Bergen Lab, Inc, Paterson	N J
Bodine Electric Co, Chicago	Ill
Bogue Electric Mfg Co, Paterson	N J
Bristol Motors-Timer Div Vocaline Corp of Amer Inc Old Saybrook	Conn
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill	Pa
Columbia Electric Mfg Co, Cleveland	Ohio
Conrac Corp, New York	N Y
Consolidated Electric Corp, Seattle	Wash
Controls Co of America, Schiller Park	Ill
Cramer Div Conrac Corp, Old Saybrook	Conn
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Curry Engineering Co, N Hollywood	Cal
Eastern Air Devices Inc, Dover	N H
Electric Indicator Co Inc, Wilton	Conn
Electric Machinery Mfg Co, Minneapolis	Minn
Electric Products Co, Cleveland	Ohio
Electronic Specialty Co, Los Angeles	Cal
Electronic Specialty Co, Conn Div, Thomaston	Conn
EMD Components Inc, Wickliffe	Ohio
Ferranti, Ltd, Lancashire	England
Fuji Electric Co Ltd, Tokyo	Japan
Garrett Corp, Los Angeles	Cal
Gaylord Rives Co, Pasadena	Cal
General Design Inc, Sun Valley	Cal
General Electric Co, ECSO, Schenectady	N Y
General Electric Co, Housewares Div, Ashland	Mass
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Gleason-Avery Co, Auburn	N Y
Globe Industries Div TRW Inc, Dayton	Ohio
Hale Instrument Inc, Houston	Tex
Hansen Mfg Co Inc, Princeton	Ind
Harowe Servo Controls Inc, West Chester	Pa
Haydon Co The, A W, Waterbury	Conn
Haydon Products, Ind Controls Div Gen Time Corp, Torrington	Conn
Haydon Switch & Instrument Inc, Waterbury	Conn
Holtzer-Cabot Corp, Boston	Mass
Howard Industries MSL Indus Inc, Motor Grp Racine	Wis
Hurst Mfg Corp, Princeton	Ind
Hydro-Aire Inc, Div Crane Co, Burbank	Cal
Icon Corp, Cambridge	Mass
Ideal Electric & Mfg Co, Mansfield	Ohio
IMC Magnetics Corp Eastern Div, Westbury	N Y
Indiana General Corp Electro-Mechanical Div Oglesby	Ill
Inet Power A Teledyne Co, Gardena	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
Jungner Instrument AB, S-10440 Stockholm 14	Sweden
Kato Engineering Co, Mankato	Minn
Kinelogic Corp, Pasadena	Cal
Kollsman Instrument Corp, Syosset	N Y
Kollsman Motor Corp, Dublin	Pa
Lear Siegler Inc, Santa Monica	Cal
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Magnetic Technology Inc, Canoga Park	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McLean Engineering Labs, Princeton Junction	N J
McMaster Products Corp, Chicago	Ill
Mitsumi Electric Co Ltd, Tokyo	Japan
Molon Motor & Coil Corp, Rolling Meadows	Ill
Muirhead Instruments Inc, Mountainside	N J
Pamotor Inc, San Francisco	Cal
Pennwood Numechron Co Tymeter Electronics Pittsburgh	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Photocircuits Corp, Glen Cove	N Y
Reliance Electric Co, Cleveland	Ohio
Robbins & Myers Inc, Springfield	Ohio
Rotamec Inc, Los Angeles	Cal
Rotating Components Div Instrument Sys Corp Bay Shore	N Y
Sankyo Seiki Mfg Co, Ltd, Tokyo	Japan
Shigoto Industries Ltd, New York	N Y
Siemon Mfg Co, Wayne	Ill
Sigma Instruments Inc, Braintree	Mass
Singer Co, Diehl Div, Somerville	N J
Skurka Engineering Co, Los Angeles	Cal

MOTORS MOVE

at 375 to 28,800 rpm in Hysteresis-synchronous, Reluctance-synchronous, Induction and Torque types.

Working, from fleapower to 5 hp levels (0.75 to 5.375-inch OD).

Accepting inputs from 18 to 1000 Hertz, from 6 to 440 Volts.

44 pages of catalog list all parameters and options.

If you can't find it in our catalog, use our design capability which includes motors turning at 60,000 rpm on hydrostatic bearings, polarized synchronous motors, air bearings, capstan drives, disk and drum drives, low cost gearhead motors, nuclear control rod actuators, more than can be listed here.

SOLID STATE MOTOR CONTROLLERS, with the motor an integral part of the design, can make IMC motors fit even more precisely to your needs.

Eastern Division
IMC Magnetics Corp.
570 Main Street
Westbury, N. Y. 11591
Tel (516) 334-7070
TWX 510-222-4469

Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Solvere Inc, Santa Ana	Cal
Sunbeam Electronics, Fort Lauderdale	Fla
Superior Electric Co The, Bristol	Conn
Torque Tronics, San Gabriel	Cal
Transco Motor Mfg Inc, Arcadia	Cal
United Shoe Machinery Corp, Harmonic Drive Div Beverly	Mass
Universal Electric Co, Owosso	Mich
Uriel Corp, Ronkonkoma	NY
Vactric Control Equipment Ltd, Morden	England
Varo Inc, Garland	Tex
Vega Precision Labs, Vienna	Va.
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Vocaline Co of America Inc, Old Saybrook	Conn
Western Gear Corp Electro Products Div, Pasadena	Cal
Weston-Transicoil, Weston Instruments Inc Worcester	Pa
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan
Yokogawa Electric Works Inc, Larchmont	N Y

MOTORS--TIMER & CLOCK

HANSEN MFG CO INC, PRINCETON, IND	**ADV PG 441**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
HURST MFG CORP, PRINCETON	**IND**
KINELOGIC CORP, PASADENA	**CAL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
Aristo-Craft Distinctive Miniatures, New York	N Y
B & B Motor & Control Corp, New York	N Y
Bergen Lab, Inc, Paterson	N J
Bristol Motors-Timer Div Vocaline Corp of Amer Inc Old Saybrook	Conn
Conrac Corp, New York	N Y
Controls Co of America, Schiller Park	Ill
Cramer Div Conrac Corp, Old Saybrook	Conn
Fuji Electric Co Ltd, Tokyo	Japan
General Electric Co, Housewares Div, Ashland	Mass
General Time, Industrial Controls Div, Torrington	Conn
Gibbs Mfg & Research Corp, Janesville	Wis
Gleason-Avery Co, Auburn	N Y
Globe Industries Div TRW Inc, Dayton	Ohio
Hansen Mfg Co Inc, Princeton	Ind
Haydon Co The, A W, Waterbury	Conn
Haydon Products, Ind Controls Div Gen Time Corp, Torrington	Conn
Haydon Switch & Instrument Inc, Waterbury	Conn
Hurst Mfg Corp, Princeton	Ind
Kinelogic Corp, Pasadena	Cal
Mabuchi, New York	N Y
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Mitsumi Electric Co Ltd, Tokyo	Japan
Motor Control Corp Sub Zenrad Computer Corp, Huntington	NY
Pennwood Numechron Co Tymeter Electronics Pittsburgh	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Sankyo Seiki Mfg Co, Ltd, Tokyo	Japan
Siemon Mfg Co, Wayne	Ill
Simplex Time Recorder Co, Gardner	Mass
Torque Tronics, San Gabriel	Cal
Varo Inc, Garland	Tex
Vocaline Co of America Inc, Old Saybrook	Conn

MOUNTS, ANTENNA--TOWER

Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Antlab, Inc, Worthington	Ohio
Birdair Structures Inc, Buffalo	N Y
Canoga Electronics Corp, Chatsworth	Cal
Clear Beam Antenna, Sylmar	Cal
Costelow Co Inc, Topeka	Kans
Electronic Specialty Co, Los Angeles	Cal
E-Z Way Products Inc, Tampa	Fla
Gabriel Electronics Div Maremont Corp, Saco	Maine
Goodyear Aerospace Corp, Akron	Ohio
Hy-Gain Electronic Corp, Lincoln	Neb
Measurement Technology Corp, Canoga Park	Cal
Parker Metal Goods Co, Worcester	Mass
Radiation Systems Inc, McLean	Va
R F Systems Inc, Cohasset	Mass
Rohn Mfg Co, Peoria	Ill
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Trylon Inc, Elverson	Pa

MOUNTS, ANTENNA--TV MAST

Aviation Electric Ltd, St Laurent, Montreal	Que
Canoga Electronics Corp, Chatsworth	Cal
Channel Master Corp, Ellenville	N Y
Clear Beam Antenna, Sylmar	Cal
Fastex Div Illinois Tool Works, Des Plaines	Ill
Hi-Lo Mfg Corp, Chicago	Ill
Kenwood Mfg Co, Inc, Linden	N J
Parker Metal Goods Co, Worcester	Mass
Quick-Set, Inc, Skokie	Ill
RMS Electronics Inc, Bronx	N Y
Rohn Mfg Co, Peoria	Ill
S & A Electronics Inc, Toledo	Ohio
Tricraft Products Corp, Chicago	Ill
Webster Mfg, South San Francisco	Cal

HOW SYNCHRON® MOTORS
control this specialized
TIME-DELAY RELAY

In this special design timer a Hansen SYNCHRON Motor drives the cam-type sequence timer for an electronic time-delay relay. When power is applied, SYNCHRON runs through the first three sequences; starts the time-delay relay, then stops. Relay performs a panel-adjustable delay period of 180-240 seconds, then returns power to the motor to complete the sequence. Special applications are easy to design, using SYNCHRON Motors. How about yours? Call or write Hansen, or your SYNCHRON representative, for brochure and all the facts.

SYNCHRON timing and control motors; 168 different speeds. Right, left or reversible rotations. 8, 20 or 30 oz.-in. torques; 220, 110 or 24 volts; 60, 50 or 25 cycles.

HANSEN
Manufacturing Co., Inc., Princeton, Ind. 47570

HANSEN REPRESENTATIVES: CAREY & ASSOCIATES, Houston and Dallas, Texas; R. S. HOPKINS CO., Sherman Oaks, Calif.; MELCHIOR ASSOCIATES, INC., San Carlos, Calif.; THE FROMM CO., Elmwood Park, Ill.; JOHN ORR ASSOCIATES, Grand Rapids, Mich.; H. C. JOHNSON AGENCY, INC., Rochester, N.Y.; WINSLOW ELECTRIC CO., Essex, Conn., Narberth, Pa., and New York, N.Y.
EXPORT DEPARTMENT: 64-14 Woodside Ave., Woodside, N.Y.

MOUNTS--BOLOMETER

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	**ADV PGS 58,59**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
RADAR DESIGN CORP, SYRACUSE	**N Y**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Anritsu Electric Co Ltd, Tokyo	Japan
Astrolab Inc, Linden	N J
Coax Devices, Chelsea	Mass
Diamond Antenna & Microwave Corp, Winchester	Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
General Microwave Corp, Farmingdale	N Y
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hewlett-Packard, Palo Alto	Cal
Maury Microwave Corp, Montclair	Cal
MCS Corp, Monrovia	Cal
Microlab/F X R, Livingston	N J
MSI Electronics Inc, Woodside	N Y
Mutron Corp, Brockton	Mass
Narda Microwave Corp, Plainview	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Omega Laboratories Inc, Rowley	Mass
Omni Spectra Inc, Farmington	Mich
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Quick-Set, Inc, Skokie	Ill
Radar Design Corp, Syracuse	N Y
Victor R F & Microwave Co, Wakefield	Mass
Waveline Inc, West Caldwell	N J
Weinschel Engineering Co Inc, Gaithersburg	Md

MOUNTS--MICROWAVE DETECTOR

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK	**N Y**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
RADAR DESIGN CORP, SYRACUSE	**N Y**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alpha Industries Inc, Newton Upper Falls	Mass
American Electronic Labs Inc, Lansdale	Pa
Anritsu Electric Co Ltd, Tokyo	Japan
Astrolab Inc, Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Diamond Antenna & Microwave Corp, Winchester	Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
General Microwave Corp, Farmingdale	N Y
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hewlett-Packard, Palo Alto	Cal
Maury Microwave Corp, Montclair	Cal
MCS Corp, Monrovia	Cal
Meridian Metalcraft Inc, Whittier	Cal
Microlab/F X R, Livingston	N J
Microphase Corp, Greenwich	Conn
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Microwave Development Labs Inc Needham Heights	Mass
Microwave Filter Co Inc, East Syracuse	NY
Microwave Labs of America, Brooklyn	N Y
MSI Electronics Inc, Woodside	N Y
Narda Microwave Corp, Plainview	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Portchester Instrument Corp, Port Chester	N Y
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Quick-Set, Inc, Skokie	Ill
Radar Design Corp, Syracuse	N Y
Victor R F & Microwave Co, Wakefield	Mass
Waveline Inc, West Caldwell	N J
Weinschel Engineering Co Inc, Gaithersburg	Md

Check the top of
the pages for
alphabetical listing
of product categories

precision
broadband
temperature-stabilized
thermistor mounts

- LONG LIFE
- EXCELLENT STABILITY
- HIGH EFFICIENCY
- HIGH REPEATABILTY
- HIGH ACCURACY
- .01 to 12.4 GHz
- LOW VSWR

Designers and Manufacturers of Precision Microwave Equipment

WEINSCHEL ENGINEERING
Gaithersburg, Md. 20760
Tel: (301) 948-3434
TWX: 710-828-9705

MOUNTS--THERMISTOR

DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK	**N Y**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG MD	**ADV PG 442**
Alloys Unlimited Inc, Melville	N Y
Astrolab Inc, Linden	N J
Coax Devices, Chelsea	Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Filmohm Corp, Long Island City	N Y
General Microwave Corp, Farmingdale	N Y
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hewlett-Packard, Palo Alto	Cal
MCS Corp, Monrovia	Cal
Microlab/F X R, Livingston	N J
Microwave Labs of America, Brooklyn	N Y
MSI Electronics Inc, Woodside	N Y
Mutron Corp, Brockton	Mass
Narda Microwave Corp, Plainview	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Omega Laboratories Inc, Rowley	Mass
Omni Spectra Inc, Farmington	Mich
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Quick-Set, Inc, Skokie	Ill
Veritron West Inc, Chatsworth	Cal
Weinschel Engineering Co Inc, Gaithersburg	Md

MOUNTS--VIBRATION & SHOCK

CARR FASTENER CO DIV UNITED-CARR INC, CAMBRIDGE MASS	**ADV PGS 284,285**
Abbeville Corp, Chicago	Ill
Abesto Corp, Bloomfield	N J
Aeroflex Labs, Inc, Plainview	N Y
Aircraft Components Inc, Benton Harbor	Mich
Allied Research Associates, Inc, Concord	Mass
Barry Controls Div Barry Wright Corp, Watertown	Mass
Bendix Corp Rubber Prods Plant, Toledo	Ohio
Carr Fastener Co Div United-Carr Inc, Cambridge	Mass
Connor Spring Mfg Co Div Sloss & Britain San Francisco	Cal
Dyna Metric Inc, Pasadena	Cal
Falstrom Co, Passaic	N J
Felters Co, Millbury	Mass
General Tire & Rubber Co, Akron	Ohio
Goodrich Industrial Prods Co, B F, Akron	Ohio
Goodyear Aerospace Corp, Akron	Ohio
Grimes Mfg Co, Urbana	Ohio
Industrial Electronic Rubber Co, Twinsburg	Ohio
J-B Electronics, Inc, City of Commerce	Cal
Korfund Dynamics Corp, Westbury	N Y
Lord Mfg Co, Div Lord Corp, Erie	Pa
MB Electronics A Textron Co, New Haven	Conn
Minor Rubber Co Inc, Bloomfield	N J
Montgomery Co, Windsor Locks	Conn
Parechoc S A, Ch 1347 Le Sentier	Switzerland
Pres-On Products Co, Addison	Ill
Raybestos-Manhattan Inc, Passaic	N J
Robintech Inc, Burbank	Cal
Ross Co, Milton, Southampton	Pa
Ross Matthews Corp, Fall River	Mass
Shur-Lok Corp, Santa Ana	Cal
Siltronics Inc, Oakmont	Pa
Ucinite Co Div United-Carr, Newtonville	Mass
United-Carr Inc, Boston	Mass
Vibrachoc S A, Paris 8e	France
Wilcox Electric Co Inc, Kansas City	Mo
Zero Mfg Co, Burbank	Cal

MULTI-BAND ANTENNAS SEE ANTENNAS--COMMUNICATION

MULTI-CHANNEL RECORDERS SEE RECORDERS—GRAPHIC & TAPE

MULTICODERS

TOWSON LABS INC, BALTIMORE	**MD**
American Astrionics Inc, Palo Alto	Cal
Applied Electronics Corp of N J, Metuchen	N J
Control Logic Inc, Natick	Mass
Datametrics Inc, Waltham	Mass
Dynatronics Oper Elctns Div Gen Dynamics Corp Orlando	Fla
EMR Div Weston Instruments Inc, Princeton	N J
General Devices Inc, Instrumentation Div Princeton	N J
Information Instruments, Inc, Ann Arbor	Mich
Monitor Systems Inc, Fort Washington	Pa
Philco-Ford Corp, Washington	D C
Saturn Electronics Corp, Garland	Tex
Sonex Inc, Philadelphia	Pa
Towson Labs Inc, Baltimore	Md

MULTICOUPLERS

Sinclair Radio Labs Inc, Tonawanda	N Y

MULTIPLEXERS

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ANAREN MICROWAVE INC, SYRACUSE	**N Y**
ANDERSEN LABORATORIES, INC, BLOOMFIELD	**CONN**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
FERROTEC INC, NEWTON	**MASS**
INTERNATIONAL COMMUNICATIONS CORP, MIAMI	**FLA**
INTRONICS INC, NEWTON	**MASS**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
RADAR DESIGN CORP, SYRACUSE	**N Y**
TELE-SIGNAL CORP, WOODBURY	**N Y**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
TOWSON LABS INC, BALTIMORE	**MD**
TRANSCO PRODUCTS INC, VENICE	**CAL**
Accurate Electronics Corp, Elyria	Ohio
Adage Inc, Boston	Mass
A D Data Systems Inc, Rochester	N Y
Aerojet-General Corp Electronics Div, Azusa	Cal
Aertech, Sunnyvale	Cal
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alford Mfg Co, Winchester	Mass
Allen-Bradley Co, Milwaukee	Wis
Amelco Semiconductor, A Teledyne Co Mountain View	Cal
American Astrionics Inc, Palo Alto	Cal
American Electronic Labs Inc, Lansdale	Pa
American Micro-Systems, Inc, Santa Clara	Cal
Analogic Corp, Waltham	Mass
Anaren Microwave Inc, Syracuse	N Y
Andersen Laboratories, Inc, Bloomfield	Conn
Anidus Engineering, Arlington	Mass
Anzac Electronics, Waltham	Mass
Applied Electronics Corp of N J, Metuchen	N J
Applied Research, Inc, Port Washington	N Y
Astrodata Inc, Anaheim	Cal
Astro Lab, Westminster	Cal
Automatic Metal Products Corp, Brooklyn	N Y
Ball Brothers Research Corp, Boulder	Colo
Beckman Instruments Inc, Fullerton,	Cal
Belar Electronics Lab Inc, Upper Darby	Pa
Bendix Corp, Communications Div, Towson	Md
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Blonder-Tongue Labs Inc, Newark	N J
Brower Labs Inc, Westboro	Mass
Brown Engineering-A Teledyne Co, Huntsville	Ala
Burr-Brown Research Corp, Tucson	Ariz
California Microwave, Sunnyvale	Cal
Canadian Motorola Electronics Co, Agincourt	Ont
Canberra Industries, Middletown	Conn
Canoga Electronics Corp, Chatsworth	Cal
Chrysler Corp, Space Div, Huntsville Oper Huntsville	Ala
Colorado Instruments Inc, Broomfield	Colo
Conductron Corp, Ann Arbor	Mich
Continental Device Corp, Hawthorne	Cal
Control Data Corp, LaJolla Div, Minneapolis	Minn
Control Equipment Corp, Needham Heights	Mass
Control Logic Inc, Natick	Mass
Cunningham Son & Co Inc, James, Honeoye Falls	N Y
Daico Industries Inc, Gardena	Cal
Data-Control Systems Inc, Danbury	Conn
Datametrics Inc, Waltham	Mass
Data Trends Inc, Parsippany	N J
Datum Inc, Anaheim	Cal
Defense Electronics Inc, Rockville	Md
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Dorsett Electronics Inc, Tulsa	Okla
Dynamic System Electronics Corp, Tempe	Ariz
Dynatronics Oper Elctns Div Gen Dynamics Corp Orlando	Fla
Dytro Corp, Hicksville	NY
Electro Circuits Inc, Lowell	Mass
Electromagnetic Technology Corp, Mountain View	Cal
Electronic Engineering Co of Cal, Santa Ana	Cal
E & M Labs, North Hollywood	Cal
Epsco Inc, Westwood	Mass
Evans Associates, Berkelev	Cal
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Ferrotec Inc, Newton	Mass
Fifth Dimension Inc, Princeton	N J
Frequency Engineering Labs, Farmingdale	N J
Gates Radio Co, Quincy	Ill
General Devices Inc, Instrumentation Div Princeton	N J
General Instrument Europe SPA, Milano	Italy
Gombos Microwave Inc, Clifton	N J
Hathaway Pacific Corp, Palo Alto	Cal
Hyletronics Corp, Wilmington	Mass
Incor Inc, Plainview	N Y
Industrial Electronetics Corp, Satellite Beach	Fla
Information Control Corp, El Segundo	Cal
Information Instruments, Inc, Ann Arbor	Mich
International Communications Corp, Miami	Fla
International Data Systems Inc, Dallas	Tex
Intronics Inc, Newton	Mass
Keltec Industries, Alexandria Div, Alexandria	Va
Laben S p A, Milan	Italy
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Lenkurt Electric Co Inc, San Carlos	Cal
Loral Electronic Systems, Div Loral Corp, New York	NY
Matrix Corp, Beech Grove	Ind
Measurement Technology Corp, Canoga Park	Cal
Melabs, Palo Alto	Cal
Micro Metrics Inc, Paterson	N J
Microphase Corp, Greenwich	Conn
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Development Labs Inc Needham Heights	Mass
Milgo Electronic Corp, Miami	Fla
Monitor Systems Inc, Fort Washington	Pa
Moore Associates Div Rocker Co, San Carlos	Cal
Moseley Associates Inc, Goleta	Cal
Nippon Electric Co Ltd, Tokyo	Japan
North Electric Co, Galion	Ohio
Novatronics Inc, Pompano Beach	Fla
Pastoriza Electronics Inc, Newton Upper Falls	Mass
Peninsula Microwave Labs, Mountain View	Cal
Philco-Ford Corp, Washington	D C
Premier Microwave Corp, Port Chester	N Y
Preston Scientific, Inc, Anaheim	Cal
Quindar Electronics Inc, Springfield	NJ
Radar Design Corp, Syracuse	N Y
Radiation Systems Inc, McLean	Va
Radix Electronics Corp, Anaheim	Cal
Rantec Div Emerson Electric Co, Calabasas	Cal
Raytheon Computer, Santa Ana	Cal
RCA, Defense Electronic Products, Moorestown	N J
Redcor Corp, Canoga Park	Cal
RFL Industries Inc, Communications Div, Boonton	N J
Rixon Electronics Inc, Silver Spring	Md
RLC Electronics Inc, Port Chester	N Y
Roback Corp, Huntingdon Valley	Pa
Santa Rita Technology Inc, Menlo Park	Cal
Saturn Electronics Corp, Garland	Tex
Scientific Data Systems Inc, El Segundo	Cal
Siemens America Inc, New York	N Y
Sonex Inc, Philadelphia	Pa
Space Craft Inc, Huntsville	Ala
Stelma Inc, Stamford	Conn
Stromberg-Carlson Sub Gen Dynamics, Rochester	N Y
Symetrics Engineering Corp, Satellite Beach	Fla
Systems Engineering Labs Inc, Ft Lauderdale	Fla
Technical Materiel Corp, Mamaroneck	N Y
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Teledyne Telemetry Co, Los Angeles	Cal
Tele-Signal Corp, Woodbury	N Y
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach	Cal
Teradyne Inc, Boston	Mass
Texas Instruments Incorporated, Dallas	Tex
Texas Instruments Inc Indl Prods Div, Houston	Tex
Towson Labs Inc, Baltimore	Md
Trans-Aire Electronics Inc, New Hyde Park	N Y
Transco Products Inc, Venice	Cal
TRF Inc, Springfield	Va
TRW Systems Group, Redondo Beach	Cal
Ultronic Systems Sub Sylvania Elec Prods Inc Moorestown	N J
United Systems Corp, Dayton	Ohio
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y

Utility Communication Systems Inc, Essington	Pa
Vector Industries A Teledyne Co, Palo Alto	Cal
Video Research Corp, Rockville	Md
Vitro Labs Div Vitro Corp of America, W Orange	N J
Waller Corp, Crystal Lake	Ill
Wang Labs Inc, Tewksbury	Mass
Wilcox Electric Co Inc, Kansas City	Mo
Wiltek, Inc, Wilton	Conn

MULTIPLEX RADIO CARRIER SYSTEMS SEE COMMUNICATION SYSTEMS

MULTIPLEX RECEIVERS SEE RECEIVERS--RADIOCOMMUNICATION

MULTIPLEX SYSTEMS SEE COMMUNICATION SYSTEMS

MULTIPLEX TRANSMITTERS SEE TRANSMITTERS--RADIO COMMUNICATION

MULTIPLEX WIRELINE CARRIER SYSTEMS SEE COMMUNICATION SYSTEMS

MULTIPLIER PHOTOTUBES SEE TUBES--PHOTO

MULTIPLIERS--ANALOG

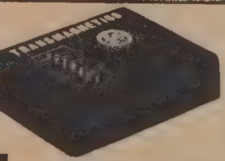
ANALOG DEVICES INC, CAMBRIDGE	**MASS**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON	**N Y**
INTRONICS INC, NEWTON	**MASS**
SYSTRON DONNER CORP, CONCORD	**CAL**
TRANSMAGNETICS INC, FLUSHING, N Y	**ADV PG 443**
AIM Electronics Ltd, Cambridge	U K
American Aerospace Controls Inc, Farmingdale	N Y
Analog Devices Inc, Cambridge	Mass
Analogic Corp, Waltham	Mass
Applied Dynamics, Inc, Ann Arbor	Mich
Applied Electronics Corp of N J, Metuchen	N J
Audn Corp, Hamburg	N Y
Burr-Brown Research Corp, Tucson	Ariz
Data Device Corp, Hicksville	N Y
Defense Electronics Inc, Rockville	Md
Dynamic System Electronics Corp, Tempe	Ariz
Fenlow Electronics Ltd, Weybridge	England
General Magnetics Inc, Bloomfield	N J
Geo Space Corp, Houston	Tex
GPS Instrument Co Inc, Newton	Mass
Hagan Computer Systems Div Westinghouse Pittsburgh	Pa
Halmar Electronics Inc, Columbus	Ohio
Hybrid Systems Corp, Cambridge	Mass
Industrial Electronetics Corp, Satellite Beach	Fla
Industrial Test Equipment Co, Port Washington	N Y
Intronics Inc, Newton	Mass
Keltec Industries, Alexandria Div, Alexandria	Va
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Matrix Corp, Beech Grove	Ind
Optical Electronics Inc, Tuscon	Ariz
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Systron Donner Corp, Concord	Cal
Transmagnetics Inc, Flushing	N Y
Zeltex inc, Concord	Cal

Check the top of the pages for alphabetical listing of product categories

MULTIPLIERS--FREQUENCY

ALUMINUM DESIGN CORP, BROOKFIELD	**ILL**
AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
BELL, INC F W, COLUMBUS, OHIO	**ADV PG 443**
C M L INC, PLAINFIELD	**N J**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	**ADV PGS 58,59**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INTRONICS INC, NEWTON	**MASS**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH	**VA**
MICRO-NOW INSTRUMENT CO INC, CHICAGO	**ILL**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
SYSTRON DONNER CORP, CONCORD	**CAL**
VARI-L CO INC, STAMFORD	**CONN**
Aerospace Avionics Inc, Bohemia	NY
Aircom Inc, Union	N H
Aluminum Design Corp, Brookfield	Ill
Amerac, Inc, Beverly	Mass
American Electronic Labs Inc, Lansdale	Pa
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Anidus Engineering, Arlington	Mass
Anzac Electronics, Waltham	Mass
Applied Research, Inc, Port Washington	N Y
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Beckman Instruments Inc, Fullerton,	Cal
Bell, Inc F W, Columbus	Ohio
Beukers Labs Inc, John M, Medford	NY
Bomac Div Varian Associates, Beverly	Mass
Bradley Ltd G & E, London NW 10	England
Bramco Controls Div Ledex Inc, Piqua	Ohio
California Microwave, Sunnyvale	Cal
C M L Inc, Plainfield	N J
Communication Electronics Inc, Rockville	Md
Computer Logic Corp, Santa Monica	Cal
Conic Corp, San Diego	Cal
Consolidated Airborne Systems, Carle Place	N Y
Decca Radar, Inc, New York	N Y
Defense Electronics Inc, Rockville	Md
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Dorsett Electronics Inc, Tulsa	Okla
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
E F Assoc Inc, Scotch Plains	N J
Elastronics Labs, Tarzana	Cal
Electrac Inc, Anaheim	Cal
Electromagnetic Technology Corp, Mountain View	Cal
Electronic Service Co, Verona	N J
Ferranti, Ltd, Lancashire	England
Frequency Electronics Inc, New Hyde Park	N Y
Frequency Engineering Labs, Farmingdale	N J

Analog Multipliers



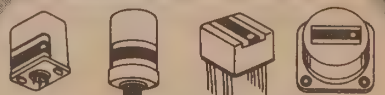
Solid State. Off-The-Shelf Delivery

Model No.	
350	DC to 100Hz — DC x DC, 0.5% linearity $V_o = \frac{XY}{10}$
365	DC x AC (200Hz-100KHz) — low cost, miniature 1%FS, Short Circuit Proof
9380	DC to 30Hz — ±10V out. quarter square, 0.5% linearity, $Z_o = 50\Omega$, $V_o = \frac{XY}{10}$
375	Full power — DC to 40KHz Small signal — DC to 400KHz — low cost, 0.5% linearity, (typ) ±10V out $V_o = \frac{XY}{10}$, small size, no ext pots.
384	DC to 4MHz $V_o = \frac{XY}{100}$ 1%FS (X input DC), ±10V in

TRANSMAGNETICS, INC.

134-25 Northern Boulevard • Flushing, N.Y. 11354
(212) 539-2750 TWX: 710-582-2472

HALL EFFECT "HALL-PAK"
Multipliers & Generators
from
F W BELL INC.



"HALL-PAK" MULTIPLIERS

Solid-state units consisting of a Hall element located in the gap of the magnetic core with two identical field coils. Designed to provide an output voltage which is instantaneously proportional to the product of two independent dc or ac input currents within 0.7% FS or better.

"HALL-PAK" GENERATORS

The complete line of "Hall-Pak" Generators from Bell represents a state-of-the-art breakthrough in Hall effect devices for measuring and controlling magnetic fields. Rugged, long-lasting, accurate.

"Bell Products for Planned Progress"

F W BELL INC.

1356 Norton Avenue • Columbus, Ohio 43212
Ph. (614) 294-4906 • TWX 810-482-1736

Gates Radio Co, Quincy	Ill
General Radio Co, West Concord	Mass
GPS Instrument Co Inc, Newton	Mass
Guide Industries Inc, Sun Valley	Cal
Hewlett-Packard, Palo Alto	Cal
Honig Laboratories Inc, Westbury	N Y
Hughes Aircraft Co, Electron Dynamics Div Torrance	Cal
Hyletronics Corp, Wilmington	Mass
Intronics Inc, Newton	Mass
Janus Control Div Tyco, Waltham	Mass
Lorch Electronics Corp, Englewood	N J
L P Associates Inc, Los Angeles	Cal
Magnetic Specialties Inc, Trenton	N J
Matrix Corp, Beech Grove	Ind
MCS Corp, Monrovia	Cal
Measurement Technology Corp, Canoga Park	Cal
Melabs, Palo Alto	Cal
Melpar Inc, Special Prods Dept, Falls Church	Va
Meridian Metalcraft Inc, Whittier	Cal
Microdot, Inc, South Pasadena	Cal
Micromega Div Amphenol Corp, Venice	Cal
Micro-Now Instrument Co Inc, Chicago	Ill
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Development Labs Inc Needham Heights	Mass
Microwave/Systems Inc, East Syracuse	N Y
Mini-Circuits Lab, New York	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Philamon Laboratories Inc, Westbury	N Y
Philco-Ford Corp, Washington	D C
Physical Electronics Labs, Menlo Park	Cal
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Premier Microwave Corp, Port Chester	N Y
Radiation Systems Inc, McLean	Va
Resdel Engineering Corp, Pasadena	Cal
Riverbank Labs, Dept of Engrg, Geneva	Ill
RMS Engineering Inc, Atlanta	Ga
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Rowe Industries Inc, Toledo	Ohio
Sanders Associates, Inc, Nashua	N H
Sequential Electronic Systems Inc, Elmsford	N Y
Simpson Electric Co, Chicago	Ill
Singer Co, Metrics Div, Bridgeport	Conn
Somerset Radiation Lab Inc, Arlington	Va
Space Craft Inc, Huntsville	Ala
Spacekom Inc, Goleta	Cal
Spectral Dynamics Corp of San Diego, San Diego	Cal
Squires-Sanders Inc, Liberty Corner	N J
Systron Donner Corp, Concord	Cal
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach	Cal
Topping Electronics Ltd, Toronto 17	Ont
Trak Microwave Corp, Tampa	Fla
TRW Systems Group, Redondo Beach	Cal
Varian, Palo Alto	Cal
Vari-L Co Inc, Stamford	Conn
Varo Inc, Garland	Tex
Vector Industries A Teledyne Co, Palo Alto	Cal
Western Microwave Labs Inc, Santa Clara	Cal
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh	Pa
Westinghouse Electric Corp, Tube Div, Elmira	NY

MULTIRANGE METERS SEE VOLT-OHM-MILLIAMMETERS

MULTITESTERS SEE VOLT-OHM-MILLIAMMETERS

MULTIVIBRATORS SEE MODULES--ACTIVE

NAMEPLATES

ELECTRICAL INSULATION CO INC, COPIAGUE	**N Y**
MARKWIK CORP, SYOSSET	**N Y**
UMEDA NAMEPLATE MFG CO LTD, TOKYO JAPAN	**ADV PG 444**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Acromark Co, Elizabeth	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
American Circuit-Tronics Corp, Royal Oak	Mich
Anodyne, Inc, N Miami Beach	Fla
Apahouser Corp of N E, Boston	Mass
Atmar Engraving Co Inc, Richmond Hill	N Y
Avionics Ltd, Niagara-on-the-Lake	Ont
Best Mfg Co, Kansas City	Mo
Brady Co, W H, Milwaukee	Wis
Canrad Precision Industries Inc, New York	N Y
Chicago Etching Corp, Chicago	Ill
Cleveland Metal Specialties Co, Cleveland	Ohio
Colbert Die Cast Co Inc, South Gate	Cal
Devco Engineering Inc, Fairfield (Caldwell)	N J
Dietz Co Inc, Henry G, Long Island City	N Y
Dura Plastics of N Y Inc, New York	NY
Dutchess Design & Develop Inc, Poughkeepsie	N Y
Electrical Insulation Co Inc, Copiague	N Y
Electro-Chemical Engraving Co Inc, Bronx	N Y
Eljay Corp, Baltimore	Md
Ever Ready Label Corp, Belleville	N J
Feay Co, Neal, Goleta	Cal
Fisher & Crome, Inc, Philadelphia	Pa
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
GM Nameplate, Seattle	Wash
Graphtex Inc, Lodi	N J
Hermes Plastics Inc, New York	N Y
Industrial Engravers Inc, Jamaica	N Y
Insulating Fabricators of N E Inc, Watertown	Mass
Keil Engineering Products Inc, St Louis	Mo
Kenmore Industries, Inc, Lowell	Mass
Lake Erie Electric Mfg, Inc, Erie	Pa
Laminated Fabricators, San Bruno	Cal
Lek-Trol, Inc, Grapevine	Tex
Mahler Research Inc, New York	N Y
Markon Mfg Inc, Englewood	Colo
Markwik Corp, Syosset	N Y
Master Engraving, Rochelle Park	N J
Master Tape Printers Inc, Chicago	Ill
Matthews & Co Jas H, Pittsburgh	Pa
McMahon Electronic Engineering Res & Dev Lab San Pedro	Cal
Metalphoto Corp, Cleveland	Ohio
Midwest Cortland, Schiller Park	Ill
Miller Dial & Name Plate Co, El Monte	Cal
M-T Electronics Co, San Leandro	Cal
Nameplate Inc, Gardena	Cal
Numberall Stamp & Tool Co, Staten Island	N Y
Panelgraphic Corp, Caldwell	N J
Photo Chemical Products Inc, Santa Monica	Cal
Pho-Tronics Inc, Butler	Wisc
Precision Crafts, La Cresenta	Cal
Printloid Inc, Long Island City	N Y
Qualitron Corp, Danbury	Conn
Rye Industries, Inc, Mamaroneck	N Y
Seton Name Plate Corp, New Haven	Conn
Stafford Mfg Co Inc, Brooklyn	N Y
Strandberg Engineering Labs Inc, Greensboro	N C
Tadco Mfg Inc, Gloucester	Mass
Taylor Instrument Cos, Rochester	N Y
Topflight Corp, York	Pa
Umeda Nameplate Mfg Co Ltd, Tokyo	Japan
United States Radium Corp, Morristown	N J
Vacuum Metallizing, Van Nuys	Cal
Victoria Co, West Chicago	Ill
Waldom Electronics Inc, Chicago	Ill
Wells Industries Corp, North Hollywood	Cal
Westline Products, Los Angeles	Cal
Wilkens Inc, Alwin Fr, Pawling	N Y
Zero Mfg Co, Burbank	Cal

UMENAME

...Manufacturers of various type and kind of NAMEPLATES & ALUMINUM EXTRUSIONS, beautiful and attractive WRIST WATCH DIALS, high quality PRINTED CIRCUIT BOARDS with precise through-hole platings, enormous quantity of CONNECTORS & CONTACT SPRINGS, well-finished PLASTIC BUTTON for typewriters, computers and communication equipments, etc.

UMENAME products can be found in every home and industry, domestic or abroad, intrinsic to articles of everyday use such as appliances, cameras, radios, televisions, hi-fi amplifiers/tuners, watches/clocks; electronic control panels, measuring instruments, communication receivers/transmitters, calculating machines, computers, transformers and motors, locomotives and other rolling stocks, vessels and other marine products, etc.

For more detailed informations, please write to

UMEDA NAMEPLATE SEISAKUSHO CO., LTD.
12, 4-chome, Momoi, Suginami-ku,
Tokyo, Japan
Phone: TOKYO (396) 2211
Cable Address: UMENAME TOKYO

NAMEPLATES--PRESSURE SENSITIVE

Acme Model Engineering Co, Ridgefield	N J
Acromark Co, Elizabeth	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
Anodyne, Inc, N Miami Beach	Fla
Best Mfg Co, Kansas City	Mo
Brady Co, W H, Milwaukee	Wis
Canrad Precision Industries Inc, New York	N Y
Chicago Etching Corp, Chicago	Ill
Dennison Mfg Co, Framingham	Mass
Dietz Co Inc, Henry G, Long Island City	N Y
Dura Plastics of N Y Inc, New York	NY
Dutchess Design & Develop Inc, Poughkeepsie	N Y
Electro-Chemical Engraving Co Inc, Bronx	N Y
Ever Ready Label Corp, Belleville	N J
Feay Co, Neal, Goleta	Cal
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
GM Nameplate, Seattle	Wash
Graphtex Inc, Lodi	N J
Hermes Plastics Inc, New York	N Y
Industrial Engravers Inc, Jamaica	N Y
Insulating Fabricators of N E Inc, Watertown	Mass
Keil Engineering Products Inc, St Louis	Mo
Kimball Systems Div Litton Industries, Belleville	N J
Mahler Research Inc, New York	N Y
Markon Mfg Inc, Englewood	Colo
Master Tape Printers Inc, Chicago	Ill
Metalphoto Corp, Cleveland	Ohio
Midwest Cortland, Schiller Park	Ill
Miller Dial & Name Plate Co, El Monte	Cal
3M Company, St Paul	Minn
Nameplate Inc, Gardena	Cal
Panelgraphic Corp, Caldwell	N J
Photo Chemical Products Inc, Santa Monica	Cal
Precision Crafts, La Cresenta	Cal
Printloid Inc, Long Island City	N Y
Rye Industries, Inc, Mamaroneck	N Y
Seton Name Plate Corp, New Haven	Conn
Stafford Mfg Co Inc, Brooklyn	N Y
Strandberg Engineering Labs Inc, Greensboro	N C
Swanson Engineering & Mfg Co, Inglewood	Cal
Tadco Mfg Inc, Gloucester	Mass
Teletronics Labs Inc, El Segundo	Cal
Topflight Corp, York	Pa
Vacuum Metallizing, Van Nuys	Cal
Westline Products, Los Angeles	Cal

NAVIGATION COMPUTERS SEE COMPUTERS--SPECIAL

NAVIGATION RECEIVERS SEE RECEIVERS--RADIO NAVIGATION

NAVIGATION SYSTEMS SEE GUIDANCE SYSTEMS;INFRARED; RADAR

NAVIGATION TRANSMITTERS SEE TRANSMITTERS--RADIO NAVIGATION

NEEDLES--CUTTING

Astatic Corp, Conneaut	Ohio
Duotone Co Inc, Miami	Fla
Miller Mfg Co, M A, Libertyville	Ill
Moser Jewel Co, Perth Amboy	N J
Recoton Corp, Long Island City	N Y

NEEDLES--PLAYBACK

Astatic Corp, Conneaut	Ohio
Audio Dynamics Corp, New Milford	Conn
Bruce Diamond Corp, Attleboro	Mass
Duotone Co Inc, Miami	Fla
Electro-Voice Inc Sub Gulton Industries Buchanan	Mich
Empire Scientific Corp, Garden City	N Y
Ercona Corp, New York	N Y
Fen-Tone Corp, New York	N Y
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Miller Mfg Co, M A, Libertyville	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pickering & Co Inc, Plainview	N Y
Recoton Corp, Long Island City	N Y
Shure Brothers Inc, Evanston	Ill
Walco Electronics Div Walco-Linck Corp, Clifton	N J

NETWORKS--CROSSOVER

CAPTOR CORP, TIPP CITY	**OHIO**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Aerolite Electronics Corp, Union City	N J
Captor Corp, Tipp City	Ohio
Dietz Design Inc, Belton	Mo
Dinion Coil Co Inc, Caledonia	N Y
Electro Cube Inc, San Gabriel	Cal
Electro-Voice Inc Sub Gulton Industries Buchanan	Mich
El-Rad Mfg Co, Chicago	Ill
El-Tech Mfg Co Inc, Norristown	Pa
Ercona Corp, New York	N Y
Ferritronics Ltd, Richmond Hill	Ont
Freed Transformer Co Inc, Brooklyn	N Y
Gladding Corp, South Otselic	N Y
Hartley Products Corp, Ho-Ho-Kus	NJ
Jensen Mfg Div, The Muter Co, Chicago	Ill
Lansing Sound Inc, James B, Los Angeles	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Philmore Mfg Co Inc, Richmond Hill	N Y

Shrader Sound Inc, Washington	D C
TT Electronics Inc, Culver City	Cal
University Sound Div Ltv Ling Altec Inc Oklahoma City	Okla
Utah Electronics Div, Utah-American Corp Huntington	Ind

NETWORKS--MATCHING

ALLEN AVIONICS INC, DIV A K ALLEN CO INC, MINEOLA	**N Y**
CAPTOR CORP, TIPP CITY	**OHIO**
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER	**N H**
HISONIC INC, OLATHE	**KAN**
KAPPA NETWORKS INC, CARTERET	**N J**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
R C L ELECTRONICS INC, IRVINGTON	**N J**
TECH LABORATORIES INC, PALISADES PARK	**N J**
Aerolite Electronics Corp, Union City	N J
Alford Mfg Co, Winchester	Mass
Allen Avionics Inc, Div A K Allen Co Inc, Mineola	N Y
American Components, Inc, Conshohocken	Pa
Angstrohm Precision, Inc, Van Nuys	Cal
Astrolab Inc, Linden	N J
Balco Capacitors, Orange	NJ
Captor Corp, Tipp City	Ohio
Daven Div McGraw-Edison Co, Manchester	N H
Dietz Design Inc, Belton	Mo
Dinion Coil Co Inc, Caledonia	N Y
Electro Cube Inc, San Gabriel	Cal
Electronics Communications Div Atlantic Research Corp Alexandria	Va
El-Tech Mfg Co Inc, Norristown	Pa
Freed Transformer Co Inc, Brooklyn	N Y
Gamble Industries, Charles T, Riverside	N J
General Instrument Corp F W Sickles Div Chicopee	Mass
General Resistance Inc, New York	NY
Gladding Corp, South Otselic	N Y
Hisonic Inc, Olathe	Kan
Hyletronics Corp, Wilmington	Mass
Jordan Electric Co, Van Nuys	Cal
Kappa Networks Inc, Carteret	N J
Kelvin, Van Nuys	Cal
Marstan Electronics Div Balco Elctns Inc, Orange	N J
Mepco Inc, Morristown	N J
Merrimac Research & Development Inc West Caldwell,	N J
Microwave Associates Inc, Burlington	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Nytronics Inc, Precision Resistor Div, Kutztown	Pa
Pyrofilm Resistor Co Inc, Cedar Knolls	N J
Rantec Div Emerson Electric Co, Calabasas	Cal
R C L Electronics Inc, Irvington	N J
Reon Resistor Corp, Yonkers	N Y
Resistance Products Co, Harrisburg	Pa
Rho Engineering Co, Los Angeles	Cal
Riedon Avionics, Inc, Van Nuys	Cal
Shrader Sound Inc, Washington	D C
Stoddart Electro Systems, Gardena	Cal
Tech Laboratories Inc, Palisades Park	N J
TT Electronics Inc, Culver City	Cal

NETWORKS--PHASING, DIRECTIONAL ANTENNA

Aerospace Research, Inc, Boston	Mass
American Electronic Labs Inc, Lansdale	Pa
Anzac Electronics, Waltham	Mass
Artronic Instrument Co, Silver Spring	Md
El-Tech Mfg Co Inc, Norristown	Pa
Freed Transformer Co Inc, Brooklyn	N Y
Hyletronics Corp, Wilmington	Mass
Meridian Metalcraft Inc, Whittier	Cal
Merrimac Research & Development Inc West Caldwell,	N J
Microwave Associates Inc, Burlington	Mass
Microwave Development Labs Inc Needham Heights	Mass
Neico Microwave Co, Waltham	Mass
Phelps Dodge Electronic Products Corp North Haven	Conn
Selenia - Industrie Elettroniche Assoc, Rome	Italy

NETWORKS--PULSE FORMING

ALLEN AVIONICS INC, DIV A K ALLEN CO INC, MINEOLA	**N Y**
AMP INCORPORATED, HARRISBURG	**PA**
AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
ANDERSEN LABORATORIES, INC, BLOOMFIELD	**CONN**
AXEL ELECTRONICS, INC, JAMAICA	**N Y**
KAPPA NETWORKS INC, CARTERET	**N J**
PLASTIC CAPACITORS INC, CHICAGO	**ILL**
TOBE DEUTSCHMANN LABS INC, CANTON MASS	**ADV PG 445**
Abtronics, Inc, Livermore	Cal
AIM Electronics Ltd, Cambridge	U K
Allen Avionics Inc, Div A K Allen Co Inc, Mineola	N Y
AMP Incorporated, Harrisburg	Pa
AMP Inc, Capitron Div, Elizabethtown	Pa
Andersen Laboratories, Inc, Bloomfield	Conn
Artronic Instrument Co, Silver Spring	Md
Axel Electronics, Inc, Jamaica	N Y
Condenser Products Corp, Brooksville	Fla
Condor Industrial Corp, West Chicago	Ill
Control Electronics Co Inc, Farmingdale	N Y
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Dietz Design Inc, Belton	Mo
Dinion Coil Co Inc, Caledonia	N Y
Electronic Corp of America, Los Angeles	Cal
El-Rad Mfg Co, Chicago	Ill
El-Tech Mfg Co Inc, Norristown	Pa
General Instrument Corp F W Sickles Div Chicopee	Mass
Giannini-Voltex, Whittier	Cal
Gladding Corp, South Otselic	N Y
Kappa Networks Inc, Carteret	N J
Kappa Scientific Corp, Goleta	Cal
LCC-CICE, 93 Montreuil-sous-Bois	France
Micromagnetics Div Gulton Ind, Visalia	Cal
Millen Mfg Co Inc, James, Malden	Mass
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
PCA Electronics Inc, Sepulveda	Cal
Plastic Capacitors Inc, Chicago	Ill
Polyphase Instrument Co, Bridgeport	Pa
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Space & Systems Div General Time Corp Stamford	Conn
Sprague Electric Co, North Adams	Mass
Tobe Deutschmann Labs Inc, Canton	Mass
Vanguard Electronics Co, Inglewood	Cal

NETWORKS--RESISTIVE

BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
DALE ELECTRONICS INC, COLUMBUS	**NEB**
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER	**N H**
R C L ELECTRONICS INC, IRVINGTON	**N J**
STANDARD CONDENSER CORP, CHICAGO	**ILL**
TECH LABORATORIES INC, PALISADES PARK	**N J**
American Components, Inc, Conshohocken	Pa
Angstrohm Precision, Inc, Van Nuys	Cal
Balco Capacitors, Orange	NJ
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
C-F Electronics Inc, Van Nuys	Cal
Corning Glass Works, Corning	N Y
Dahlberg Electronics Inc, Minneapolis	Minn
Dale Electronics Inc, Columbus	Neb
Daven Div McGraw-Edison Co, Manchester	N H
Delevan Electronics Div Amer Prec Indus Inc East Aurora	N Y
Dietz Design Inc, Belton	Mo
Digilog Electronics Corp, Seattle	Wash
Electra/Midland Corp, Kansas City	Kan
Electro Cube Inc, San Gabriel	Cal
Electro Scientific Industries Inc, Portland	Ore
General Resistance Inc, New York	NY
Halex Inc, Torrance	Cal
IRC Div TRW Inc, Philadelphia	Pa
Jordan Electric Co, Van Nuys	Cal
Julie Research Labs, Inc, New York	N Y
Kelvin, Van Nuys	Cal
Marstan Electronics Div Balco Elctns Inc, Orange	N J
MCI Electronics, Marina Del Rey	Cal
Mepco Inc, Morristown	N J
Nytronics Inc, Precision Resistor Div, Kutztown	Pa
Pacific Resistor Co, Los Angeles	Cal
R C L Electronics Inc, Irvington	N J
Reon Resistor Corp, Yonkers	N Y
Resistance Products Co, Harrisburg	Pa
Rho Engineering Co, Los Angeles	Cal
Riedon Avionics, Inc, Van Nuys	Cal
Standard Condenser Corp, Chicago	Ill
Tech Laboratories Inc, Palisades Park	N J
Tel-Labs Inc, Manchester	N H
Ultronix Inc, Grand Junction	Colo
Vishay Resistor Prods Div Vishay Intertechnology Inc, Malvern	Pa
Welwyn International Inc, Westlake	Ohio

NEUTRON COUNTERS SEE COUNTERS—NUCLEAR-PARTICLE

NICKEL & NICKEL ALLOYS

MAGNETICS INC, BUTLER	**PA**
PFIZER MINERALS, PIGMENTS & METALS DIV NEW YORK	**NY**
SUPERIOR TUBE CO, NORRISTOWN	**PA**
UNIFORM TUBES INC, COLLEGEVILLE	**PA**
Active Alloys Inc, Brooklyn	N Y
Alloys Unlimited Inc, Melville	N Y
Alpha Metals Inc, Jersey City	NJ
American Silver Co Div, Flushing	N Y
Anadite, Inc, South Gate	Cal
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Armco Steel Corp, Middletown	Ohio
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bemol Co, Newton	Mass
Beryllium Corp, Reading	Pa
Bram Metallurgical Chemical Co, Philadelphia	Pa
Bristol Brass Co, Bristol	Conn
Brookfield Wire Co Inc, Brookfield	Mass
Carpenter Steel Co, Reading	Pa
Cerac Inc, Butler	Wis
Chase Metals Service Div Chase Brass & Copper Co Cleveland	Ohio
Crucible Steel Co, Pittsburgh	Pa
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Driver-Harris Co, Harrison	N J
Glidden Metals, SCM Corp, Cleveland	Ohio
Hamilton Precision Metals Div Hamilton Watch Co Lancaster	Pa
Howmet Corp Austenal Microcast Div, Dover	N J

Pulse-
Forming
Networks

from the smallest
to the largest

PFN installed at Griffis AFB. Peak charge voltage: 252 Kv. Peak power: 180 megawatts. PRF: 180 pps. Ripple: less than 1%.

TOBE DEUTSCHMANN pulse-forming networks range from miniature units to high-power installations like the one shown above. This unit, designed and built to a rigid performance specification, is more than 8 feet high, 5 feet wide, and 22 feet long.

Whatever your requirements for PFN's, low-Z pulse lines, energy-storage capacitors, or discharge switches, we can design and build reliable units to satisfy your need.

TOBE
—DEUTSCHMANN—
LABORATORIES
CANTON, MASS. 02021: Tel. (617) 828-3366

Inter-Technical Group Inc, Irvington-on-Hudson	N Y
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia	Pa
Jelliff Corp, C O, Southport	Conn
Koch Light Labs Ltd, Colnbrook, Bucks	England
Leach & Garner Co, Industrial Div, Attleboro	Mass
Mackay Inc, A D, New York	N Y
Magnetic Metals Co, Camden	N J
Magnetics Inc, Butler	Pa
Materials Research Corp, Orangeburg	N Y
Metal Ceram Inc, Mount Vernon	N Y
Montgomery Co, Windsor Locks	Conn
M & T Chemicals Inc Sub American Can Co Rahway	N J
National Steel Service Center Inc, Evanston	Ill
Pfizer Minerals, Pigments & Metals Div, New York	NY
Rodney Metals A Teledyne Co, New Bedford	Mass
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
Shieldalloy Corp, Newfield	N J
Somers Thin Strip Inc Sub Olin, Waterbury	Conn
Special Metals Corp, New Hartford	NY
Steel Heddle Mfg Co, Philadelphia	Pa
Sumitomo Special Metals Co Ltd, Osaka	Japan
Superior Tube Co, Norristown	Pa
Uniform Tubes Inc, Collegeville	Pa
Union Carbide Corp, Materials Systems Div Kokomo	Ind
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
Universal-Cyclops Specialty Steel Div Cyclops Corp Pittsburgh	Pa
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Corp Metal Hydrides Div, Beverly	Mass
Vitro Labs Div Vitro Corp of America, W Orange	N J
Wallingford Steel Co, Wallingford	Conn
Westinghouse Electric Corp, Materials Mfg Div Blairsville	Pa
White Cross Labs, New York	NY
Wilkinson Co, Westlake Village	Cal

NICKEL-CADMIUM BATTERIES SEE BATTERIES

NIOBIUM

REMBAR CO INC, DOBBS FERRY	**N Y**
Aceto Chemical Co, Inc, Flushing	NY
Active Alloys Inc, Brooklyn	N Y
American Silver Co Div, Flushing	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Baldwin Kongsberg Co, Cincinnati	Ohio
Bemol Co, Newton	Mass
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerac Inc, Butler	Wis
City Chemical Corp, New York	N Y
Cross Co, H, Weehawken	N J
Electronic Space Products Inc, Los Angeles	Cal
Fansteel Metallurgical Corp, North Chicago	Ill
Hopt KG, R E, Rottweil a Neckar	Germany
Kawecki Chemical Co, New York	N Y
Kennametal Inc, Latrobe	Pa
Koch Light Labs Ltd, Colnbrook, Bucks	England
Materials Research Corp, Orangeburg	N Y
Metal Ceram Inc, Mount Vernon	N Y
Molybdenum Corp of America, New York	N Y
Nuclear Materials & Equipment Corp, Apollo	Pa
Polysciences Inc, Warrington	Pa
Rembar Co Inc, Dobbs Ferry	N Y
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
Shieldalloy Corp, Newfield	N J
Union Carbide Corp, Materials Systems Div Kokomo	Ind
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Corp Metal Hydrides Div, Beverly	Mass
Ventron Electronics Corp, Bradford	Pa
Wah Chang Corp, Glen Cove	N Y

NITROGEN SEE GASES

NOISE ANALYZERS SEE ANALYZERS—NOISE

NOISE GENERATORS SEE GENERATORS—NOISE

NOISE MEASURING INSTRUMENTS SEE MEASURING INSTRUMENTS—MICROWAVE, NOISE

NOTCH FILTERS— SEE FILTERS

NUCLEAR-PARTICLE COUNTERS SEE COUNTERS—NUCLEAR PARTICLE

NUCLEAR RADIATION SHIELDING SEE SHIELDING

NUCLEAR-REACTOR SIMULATORS SEE SIMULATORS

NUCLEAR SOURCES SEE SOURCES—RADIOACTIVE

NULL AMPLIFIERS SEE AMPLIFIERS—INSTRUMENTATION

NULL DETECTORS, METERS & INDICATORS SEE INDICATORS—NULL

NUMBERING MACHINES SEE MACHINES—MARKING &NUMBERING

NUMERICAL CONTROL--MACHINE TOOL SEE CONTROLS—MACHINE TOOL

NUTS

BIRNBACH CO INC, FREEPORT	**N Y**
CARR FASTENER CO DIV UNITED-CARR INC, CAMBRIDGE MASS	**ADV PGS 284,285**
CIRCON COMPONENT CORP, GOLETA, CAL	**ADV PG 332**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
STAR STAINLESS SCREW CO, PATERSON	**N J**
UNIVERSAL VOLTRONICS CORP, MOUNT KISCO	**N Y**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Abbott Products, Inc, College Point	N Y
Abscoa Industries, Inglewood	Cal
Aikow Shoji Kaisha Ltd, Osaka	Japan
Aircraft Components Inc, Benton Harbor	Mich
Allmetal Screw Products Co Inc, Garden City	N Y
Aluminum Co of America, Pittsburgh	Pa
Amatom Electronic Hardware, New Rochelle	N Y
Anti-Corrosive Metal Products Co, Inc, Albany	N Y
Atomite Electronics Corp, Roosevelt	N Y
Birnbach Co Inc, Freeport	N Y
Blinn Co Inc, Delbert, Pomona	Cal
Boots Aircraft Nut Div Townsend Co, Norwalk	Conn
Carr Fastener Co Div United-Carr Inc, Cambridge	Mass
C E M Co, Inc, Danielson	Conn
Central Screw Co, Broadview	Ill
Chase Metals Service Div Chase Brass & Copper Co Cleveland	Ohio
Circon Component Corp, Goleta	Cal
Continental Screw Co, New Bedford	Mass
Daburn Electronics & Cable Corp, Bronx	N Y
Eaton Yale & Towne Inc Reliance Div, Massillon	Ohio
Elastic Stop Nut Corp of America, Union	N J
Elco Tool & Screw Corp, Rockford	Ill
Fastex Div Illinois Tool Works, Des Plaines	Ill
Federal Screw Products Inc, Chicago	Ill
Fischer Special Mfg Co, Cincinnati	Ohio
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Gries Reproducer Co Div Coats & Clark Inc New Rochelle	N Y
Harper Co, H M, Morton Grove	Ill
Heli-Coil Products, Div Heli-Coil Corp, Danbury	Conn
Hi-Shear Corp, Torrance	Cal
Hydro Molding Co Inc, Plattsburgh	N Y
Kaynar Mfg Co Inc, Fullerton	Cal
Lehigh Metal Products Corp, Cambridge	Mass
MacLean-Fogg Lock Nut Co, Mundelein	Ill
Mercury Div Whittaker Corp, Culver City	Cal
Micro Parts Inc, Los Angeles	Cal
Midwest Sintered Products Corp, Riverdale	Ill
Morris Co, J I, Southbridge	Mass
Multi - Flex Seals Inc, Bronx	N Y
National Radio Co Inc, Melrose	Mass
Norrich Plastics Corp, Roosevelt	N Y
Nutmeg Screw Machine Products Co, Waterbury	Conn
Olympic Plastics Co, Los Angeles	Cal
Parker Metal Goods Co, Worcester	Mass
Penn Engineering & Mfg Corp, Doylestown	Pa
Pennwood Numechron Co Tymeter Electronics Pittsburgh	Pa
Phelps Mfg Div, Heli-Coil Corp, Danbury	Conn
PIC Design Corp, East Rockaway	N Y
Plastiglide Mfg Corp, Santa Monica	Cal
Polymer Corp, Reading	Pa
Product Components Corp, Hastings-on-Hudson	N Y
Republic Industrial Corp, Lathrup Village	Mich
Republic Steel Corp, Cleveland	Ohio
Russell, Burdsall & Ward, Bolt & Nut Co Port Chester	N Y
Shakeproof Div, Illinois Tool Works Inc, Elgin	Ill
Shigoto Industries Ltd, New York	N Y
Shur-Lok Corp, Santa Ana	Cal
Smith Inc, Herman H, Brooklyn	N Y
Standard Polymer Inc, Van Nuys	Cal
Star Stainless Screw Co, Paterson	N J
Tinnerman Products Inc, Cleveland	Ohio
Townsend Co, TRS Div, Braintree	Mass
Trans National Fabricators, Linden	N J
Tridair Industries Fastener Div, Torrance	Cal
United-Carr Inc, Boston	Mass
Universal Voltronics Corp, Mount Kisco	N Y
Vector Electronic Co Inc, Los Angeles	Cal
Waldom Electronics Inc, Chicago	Ill

NYLON SEE PLASTICS

OCEANOGRAPHIC EQUIPMENT SEE SPECIFIC LISTINGS, I E DEPTH SOUNDERS; MAGNETOMETERS; RECORDERS—TEMPERATURE

OHMMETERS

ASSOCIATED RESEARCH, INC, CHICAGO	**ILL**
C M L INC, PLAINFIELD	**N J**
DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
HEATH CO, BENTON HARBOR	**MICH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM	**MASS**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
WHITTAKER CORP GEN COM DIV, PLAINVIEW	**N Y**
Allen/UTI, Kalamazoo	Mich
A & M Instruments Inc, Great Neck	N Y
Amprobe Instrument Div Soss Mfg Co, Lynbrook	N Y
Amstro Corp, Fairfield	N J
Associated Research, Inc, Chicago	Ill
Aul Instruments Inc, Long Island City	NY
Ballantine Laboratories, Inc, Boonton	N J
Beckman Instruments Inc, Fullerton	Cal
Bergen Lab, Inc, Paterson	N J
Biddle Co, James G, Plymouth Meeting	Pa
Bitronics Inc, Bethlehem	Pa
B & K Mfg Co Div Dynascan Corp, Chicago	Ill
Bruno-New York Industries Corp, New York	N Y
California Instruments Corp, San Diego	Cal
Canadian Research Institute, Don Mills	Ont
Clinton Instrument Co, Clinton	Conn
C M L Inc, Plainfield	N J
Cohu Electronics Inc, San Diego	Cal
Compagnie Generale de Metrologie Haute Savoie	France
Components Specialties Inc, Freeport	N Y
Conant Labs, Lincoln	Neb
Condor Industrial Corp, West Chicago	Ill
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Data Technology Corp, Mountain View	Cal
Dice Co, J W, Englewood	N J
Dixson Inc Meter Div, Grand Junction	Colo
Dowa Trading Co Ltd, Kobe	Japan
Dranetz Engineering Labs Inc, Plainfield	N J
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
E G & G Inc Laboratory Prods Div, Goleta	Cal
EICO Electronic Instrument Co Inc, Brooklyn	NY
Fen-Tone Corp, New York	N Y
Freed Transformer Co Inc, Brooklyn	N Y
General Resistance Inc, New York	NY
Gotham Audio Corp, New York	N Y
Hathaway Instruments Inc, Denver	Colo
Heath Co, Benton Harbor	Mich
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Instrument Labs Corp, Chicago	Ill
J-Omega Co, Mountain View	Cal
Julie Research Labs, Inc, New York	N Y
Kahl Scientific Instrument Corp, El Cajon	Cal
Keithley Instruments Inc, Cleveland	Ohio
Lafayette Radio Electronics, Syosset	NY
Lear Siegler Inc, Cimron Div, San Diego	Cal
Leeds & Northrup Co, Philadelphia	Pa
Martindale Electric Co, Cleveland	Ohio
Mastercraft Instrument Co, Dubuque	Iowa
Measurements A McGraw-Edison Div, Boonton	N J
Medistor Instrument Co, Seattle	Wash
Metermaster, Inc, Los Angeles	Cal
Millivac Instruments Inc, Schenectady	N Y
Muirhead Instruments Inc, Mountainside	N J
Mura Corp, Great Neck	N Y
Nelson Electronic Labs Inc, Plano	Tex
Nichols Co Ltd, R H, Downsview	Ont
Phaostron Instrument & Electronic Co South Pasadena	Cal
Philbrick/Nexus Research A Teledyne Co Dedham	Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Q V S Inc, East Orange	N J
Radio Corp of America, Electronic Components, Harrison	N J
Radiometer A/S, Copenhagen NV	Denmark
Sanwa Electric Instrument Co, Ltd, Tokyo	Japan
Shallcross Mfg Co Sub Cutler-Hammer, Selma	N C
Shigoto Industries Ltd, New York	N Y
Simpson Electric Co, Chicago	Ill
Slaughter Co, Ardmore	Okla
Sperry Instruments Inc A W, New York	N Y
Stark Electronic Instruments Ltd, Ajax	Ont
Sterling Mfg Co, Cleveland	Ohio
Sticht Co Inc, Herman H, New York	N Y
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taffet Electronics Inc, Woodside	N Y
Triplett Electrical Instrument Co, Bluffton	Ohio
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Welch Scientific Co, Skokie	Ill
Western Reserve Electronics, Inc, Cleveland	Ohio
Weston Instruments Div Weston Instr Inc, Newark	N J
Whittaker Corp Gen Com Div, Plainview	N Y
Winslow Tele-Tronics Inc, Asbury Park	NJ
Yokogawa Electric Works Inc, Larchmont	N Y

OHMETERS--ANALOG

DATAPULSE INC SUB SYSTRON-DONNER CORP CULVER CITY	**CAL**
SYSTRON DONNER CORP, CONCORD	**CAL**
Datapulse Inc Sub Systron-Donner Corp Culver City	Cal
Duncan Electronics Inc, Costa Mesa	Cal
Systron Donner Corp, Concord	Cal

OHMMETERS--DIGITAL

ASSOCIATED RESEARCH, INC, CHICAGO	**ILL**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND OHIO	**ADV PG 447**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PG 8**
NON-LINEAR SYSTEMS INC, DEL MAR	**CAL**
A D Data Systems Inc, Rochester	N Y
Allen/UTI, Kalamazoo	Mich
Associated Research, Inc, Chicago	Ill
California Instruments Corp, San Diego	Cal
Cohu Electronics Inc, San Diego	Cal
Compagnie Generale de Metrologie Haute Savoie	France
Dana Laboratories Inc, Irvine	Cal
Data Technology Corp, Mountain View	Cal
Doric Scientific Corp, San Diego	Calif
Dytro Corp, Hicksville	NY
E G & G Inc Laboratory Prods Div, Goleta	Cal
Electronic Associates Inc, West Long Branch	N J
Electronic Design Labs Inc, Philadelphia	Pa
Epsco Inc, Westwood	Mass
Fairchild Instrumentation, Sunnyvale	Cal
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Honeywell Test Instruments Div, Denver	Colo
J-Omega Co, Mountain View	Cal
Julie Research Labs, Inc, New York	N Y
Lear Siegler Inc, Cimron Div, San Diego	Cal
3M Company, St Paul	Minn
3M Instrument Products, Camarillo	Cal
Newport Labs Inc, Newport Beach	Cal
Non-Linear Systems Inc, Del Mar	Cal
Roback Corp, Huntingdon Valley	Pa
Robertson Instrument Co, Azusa	Cal
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Schlumberger, 92-Montrouge 32	France
Schneider Radio-Television Div, Ivry	France
Simpson Electric Co, Chicago	Ill
Stark Electronic Instruments Ltd, Ajax	Ont
Takeda Riken Industry Co Ltd, Tokyo	Japan
Trio Laboratories Inc, Plainview	N Y
Vidar Corp, Mountain View	Cal

OILS--DIELECTRIC SEE DIELECTRICS--LIQUID

OILS--LUBRICATING SEE LUBRICANTS

OPTICAL CRYSTALS SEE CRYSTALS--OPTICAL

OPTICAL EQUIPMENT SEE SPECIFIC HEADINGS

OPTICAL FILTER SEE FILTERS--OPTICAL

OPTICAL LENSES SEE LENSES--OPTICAL

OPTICS--COATED

COSMICAR OPTICAL CO LTD, TOKYO	**JAPAN**
Avco Corp Electronics Div, Cincinnati	Ohio
Bausch & Lomb, Inc, Rochester	N Y
Bendix Corp Electro Optics Div, Ann Arbor	Mich
Broomer Research Corp, Plainview	N Y
Buhl Optical Co, Pittsburgh	Pa
Coherent Radiation Labs, Palo Alto	Cal
Conductron Corp, Ann Arbor	Mich
Cosmicar Optical Co Ltd, Tokyo	Japan
Crystalab Products Corp, Rochelle Park	N J
Davidson Optronics Inc, West Covina	Cal
Ercona Corp, New York	N Y
Fairchild Space & Defense Sys Div Fairchild Cam & Inst Corp, El Segundo	Cal
Farrand Optical Co Inc, Bronx	N Y
Fish-Schurman Corp, New Rochelle	N Y
Gaertner Scientific Corp, Chicago	Ill
General Electrodynamics Corp, Garland	Tex
Geoscience Instruments Corp, Mt Vernon	N Y
Goerz Optical Co Inc, Inwood	N Y
Industrial Optics Corp, Newark	N J
Isomet Corp, Palisades Park	N J
Jarrell-Ash Co, Waltham	Mass
Jones Optical Works Inc A D, Burlington	Mass
Jungner Instrument AB, S-10440 Stockholm 14	Sweden
Kollsman Instrument Corp, Syosset	N Y
Laser Optics Inc, Danbury	Conn
Leitz Canada Ltd, Ernst, Midland	Ont
Lek-Trol, Inc, Grapevine	Tex
Lenox Instrument Co, Philadelphia	Pa
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
Librascope Group Gen Precision Sys Inc, Glendale	Cal
Mati Elgeet Div, Rochester	NY
Meller Co, Adolf, Providence	R I
Metavac Inc, Flushing	N Y
3M Company, St Paul	Minn
Optical Coating Lab Inc, Santa Rosa	Cal
Optical Products A Teledyne Co, Monrovia	Cal
Optics Technology Inc, Palo Alto	Cal
Oriel-Optics Corp, Stamford	Conn
O & S Research Inc, Riverton	N J
Pacific Universal Products Corp, Pasadena	Cal
Perkin-Elmer Corp, Norwalk	Conn
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Precision Optics Div Penna Optical Co, Reading	Pa
Ransom Labs, John H, Los Angeles	Cal
Razdow Labs Inc, Newark	N J
Semi-Elements Inc, Saxonburg	Pa
Silver Glo Picture Tubes Ltd, Edmonton	Alb
Spectra-Physics, Mountain View	Cal
Spectrolab Div, Textron Electronics Inc, Sylmar	Cal
Spectrum Systems, Inc, Waltham	Mass
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Syncor Products Co, Inc, Malden	Mass
Te Company, Santa Barbara	Cal
Temperature Engineering Corp, Riverton	N J
Tropel Inc, Fairport	N Y
Varo Inc, Garland	Tex
Zenith Optical Laboratory, Dobbs Ferry	N Y

OPTICS--INFRARED SEE INFRARED EQUIPMENT

O RINGS

DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
Abesto Corp, Bloomfield	N J
Abscoa Industries, Inglewood	Cal
Amatom Electronic Hardware, New Rochelle	N Y
Auburn Mfg Co, Middletown	Conn
Bacon Industries, Inc, Watertown	Mass
Bendix Corp Rubber Prods Plant, Toledo	Ohio
Chomerics, Inc, Arlington	Mass
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Da/Pro Rubber Inc, Van Nuys	Cal
Emerson Plastics Corp, Bronx	New York
Ferranti, Ltd, Lancashire	England
Goodrich Industrial Prods Co, B F, Akron	Ohio
Livingston Electronic Div Jettron Prods Inc Hanover	N J
Mechanical Rubber Products Co, Inc, Warwick	NY
Microwave Development Labs Inc Needham Heights	Mass
Minnesota Rubber Co, Minneapolis	Minn
Minor Rubber Co Inc, Bloomfield	N J
Multi - Flex Seals Inc, Bronx	N Y
Parker Seal Co, Culver City	Cal
Republic Industrial Corp, Lathrup Village	Mich
Shamban & Co, W S, Los Angeles	Cal
Sparta Mfg Co, Dover	Ohio
Standard Polymer Inc, Van Nuys	Cal
Sunbeam Vacuum Furnace Corp, North Billerica	Mass
Trueline Instruments Inc, Englewood	Colo
United Aircraft Products Inc, Dayton	Ohio

Forget the manufacturer's

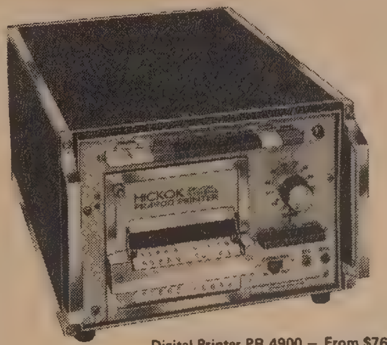
phone number?

Check the green pages.

HICKOK

DMS-3200

Digital Measuring System
(Fully solid state with IC's)



Digital Printer PR 4900 — From $760

Main Frame DMS 3200A — $375
(or DMS 3200P Main Frame with printer output — $450)
Shown with DC Voltmeter Plug-in

DC Voltmeter Plug-in DP 100 $175

Event Counter Plug-in DP 140 $90

1 MHz Counter Plug-in DP 150A $230

Ohmmeter Plug-in DP 170 $275

Capacity Meter Plug-in DP 200 $275

The HICKOK DMS 3200 Digital Measuring System is a precision electronic measuring device which displays readings in digital form instead of the relatively inaccurate and difficult-to-read moving-pointer meter display. A companion PR 4900 Digital Printer allows the displayed readings of the DMS 3200 System to be printed in permanent form for storage and future reference.

Because the DMS 3200 System consists of a main frame which will accept a number of "plug-in" units, it can be used to measure a variety of electrical parameters. The main frame provides display of the reading; the plug-in determines the application.

THE HICKOK ELECTRICAL INSTRUMENT COMPANY
10514 Dupont Avenue • Cleveland, Ohio 44108

OSCILLATORS, A-F

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE, N Y	**ADV PG 448**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE	**N Y**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
C M L INC, PLAINFIELD	**N J**
CTS CORP, ELKHART	**IND**
DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK	**KAN**
FORK STANDARDS INC, WEST CHICAGO	**ILL**
GREENRAY INDUSTRIES INC, MECHANICSBURG	**PA**
HEATH CO, BENTON HARBOR	**MICH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HILL ELECTRONICS INC, MECHANICSBURG	**PA**
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON	**N Y**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA JAPAN	**ADV PG 295**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH	**VA**
MICROSONICS INC, WEYMOUTH	**MASS**
Accutronics, Inc, Geneva	Ill
Agac-Derritron Inc, Alexandria	Va
Agastat Div, Elastic Stop Nut Corp, Elizabeth	N J
AIM Electronics Ltd, Cambridge	U K
Airmec Instruments Ltd, Buckinghamshire	England
Alcatel, Paris 8eme	France
Amark Corp, Plainview	N Y
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
American Trans-Coil Corp, Richmond Hill	NY
Ando Electric Co Ltd, Ohta-ku, Tokyo	Japan
Artted Co, Inc, Springfield	Mass
Austron, Inc, Austin	Tex
Barden Co, Hermosa Beach	Cal
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Burr-Brown Research Corp, Tucson	Ariz
California Instruments Corp, San Diego	Cal
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Clough-Brengle Co, Chicago	Ill
C M L Inc, Plainfield	N J
Computer Devices Corp, Commack	N Y
Condor Industrial Corp, West Chicago	Ill
Connor-Winfield Corp, Winfield	Ill
Control Science Corp, Alexandria	Va
CTS Corp, Elkhart	Ind
Data Royal Corp, San Diego	Cal
Don Bosco Electronics Inc, Hanover	N J
Dorsett Electronics Inc, Tulsa	Okla
Dranetz Engineering Labs Inc, Plainfield	N J
Dynamic Precision Controls Corp, Hagerstown	Ind
Electronic Research co, A Textron Co Overland Park	Kan
Electro Scientific Industries Inc, Portland	Ore
Exact Electronics Inc, Hillsboro	Ore
Ferritronics Ltd, Richmond Hill	Ont
Ferwalt Inc W H, Lapwai	Idaho
Fidelity Amplifier Co, Chicago	Ill
Fork Standards Inc, West Chicago	Ill
Gai-Tronics Corp, Reading	Pa
General Devices Inc, Instrumentation Div Princeton	N J
General Radio Co, West Concord	Mass
Gibbs Mfg & Research Corp, Janesville	Wis
Gotham Audio Corp, New York	N Y
Grafix Inc, Albuquerque	N Mex
Greenray Industries Inc, Mechanicsburg	Pa
Heath Co, Benton Harbor	Mich
Helix Research Assoc Inc, La Mesa	Cal
Hewlett-Packard, Palo Alto	Cal
Hill Electronics Inc, Mechanicsburg	Pa
Industrial Test Equipment Co, Port Washington	N Y
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Korfund Dynamics Corp, Westbury	N Y
Krohn-Hite Corp, Cambridge	Mass
Lab Electro-Acoustique, 92 Rueil-Malmaison	France
LCC-CICE, 93 Montreuil-sous-Bois	France
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
London Co, Westlake	Ohio
Marconi Instruments Div, English Electric Corp Englewood	N J
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McKee-Pedersen Instruments, Danville	Cal
Measurement Control Devices Inc, Philadelphia	Pa
Melpar Inc, Special Prods Dept, Falls Church	Va
Microsonics Inc, Weymouth	Mass
Muirhead Instruments Inc, Mountainside	N J
Natel Engineering Co Inc, Van Nuys	Cal
Neptune Electronics Co, New York	N Y
NH Research Inc, Santa Ana	Cal
Novatronics Inc, Pompano Beach	Fla
Optimation, Inc, Sun Valley	Cal
Ovenaire Inc, Charlottesville	Va
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Plectron Corp, Overton	Nebr
Polarad Electronic Instruments Div Long Island City	N Y
Radiometer A/S, Copenhagen NV	Denmark
Reach Electronics Inc, Lexington	Neb
Riverbank Labs, Dept of Engrg, Geneva	Ill
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Sensor Corp, Greenwich	Conn
Singer Co, Metrics Div, Bridgeport	Conn
Sodilec SA Salies-S A, 91 Palaiseau	France
Solid State Electronics Corp, Sepulveda	Cal
Sonex Inc, Philadelphia	Pa
Squires-Sanders Inc, Liberty Corner	N J
Standard Telephones & Cables Ltd London WC 2	England
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Systems Electronics Inc, Cleveland	Ohio
Taffet Electronics Inc, Woodside	N Y
Telonic Instruments Div Telonic Indus Inc Beech Grove	Ind
Telstar Electronics Corp, Southold	N Y
Topping Electronics Ltd, Toronto 17	Ont
Trepac Corp of America, Englewood	N J
Varo Inc Time & Frequency Products Santa Barbara	Cal
Venner Electronics Ltd, New Malden, Surrey	Eng
Ventron Electronics Corp, Bradford	Pa
Wavetek, San Diego	Cal
Wayne Kerr Corp, Montclair	NJ
Western Reserve Electronics, Inc, Cleveland	Ohio

AF Oscillators?

Try Bulova First!

CALL:

Ariz Tech-Ser Inc, 1805 E Indian School Rd Phoenix 602-265-3629
Cal Straube Assoc., Inc., 483 Willow Rd., Menlo Pk 213-323-2476
Cal Cardinal Assoc, 16024 Ventura Blvd Encino 213-788-4540
Conn Samuel C Hooker Inc, Box 369 West Hartford 203-233-8000
Fla Perrott Assoc, 1607 Forsyth Rd, Orlando 305-275-1132
Fla Perrott Assoc, Box 4532, Clearwater .813-531-5513
Fla Perrott Assoc, Box 6277 West Palm Beach 305-967-1770
Ga Emmett Rushin Co, Box 486 Roswell 404-993-6498
Ill Communications Eng, 7100 N Western Ave Chicago 312-R01-0548
Md Daniel & Co, Box 124, Lutherville. .301-825-8330
Mass Samuel Hooker, Inc, Box 352 Winchester 617-729-5482
Minn Wenco Sales Inc, 7728 Morgan Ave S Minneapolis 612-866-3639
Mo J C Mankus & Assoc, 400 Brooks La Hazelwood 314-PE1-4334
NY H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester 716-232-2688
NY Cane Technical Sales, 555 E Boston Post Rd Mamaroneck 914-698-4411
NY H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady 518-882-9303
NY H C Johnson Agencies Inc, Box 215 Fayetteville 315-637-9595
NY H C Johnson Agencies Inc, 8 Los Robles St Williamsville 716-632-7880
Pa Daniel & Co, Box 3, Glenside 215-TU7-0550
Tex Applied Eng Sales, 1st Bank & Trust, Richardson 214-AD1-1322
Wash Jas J Backer Co, 221 W Galer St Seattle 206-AT3-6470

AMERICAN TIME PRODUCTS
BULOVA WATCH CO INC
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

OSCILLATORS, A-F--FIXED FREQUENCY

ALLEN ELECTRONICS DIV ALLEN ORGAN CO, MACUNGIE PA	**ADV PG 716**
AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE	**N Y**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
C M L INC, PLAINFIELD	**N J**
CTS CORP, ELKHART	**IND**
CTS KNIGHTS INC, SANDWICH	**ILL**
ELECTRONIC RESEARCH CO, A TEXTRON CO, OVERLAND PARK KAN	**ADV PG 448**
FORK STANDARDS INC, WEST CHICAGO	**ILL**
GREENRAY INDUSTRIES INC, MECHANICSBURG	**PA**
HILL ELECTRONICS INC, MECHANICSBURG	**PA**
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON	**N Y**
KINELOGIC CORP, PASADENA	**CAL**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH	**VA**
MESON ELECTRONICS CO, INC, ROCHESTER	**N Y**
MICROSONICS INC, WEYMOUTH	**MASS**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
NORTHERN ENGINEERING LABS INC, BURLINGTON WIS	**ADV PG 242**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
SHEROLD CRYSTALS INC, KANSAS CITY	**MO**
Accutronics, Inc, Geneva	Ill
Agastat Div, Elastic Stop Nut Corp, Elizabeth	N J
Allen Electronics Div Allen Organ Co, Macungie	Pa
Allied Research Associates, Inc, Concord	Mass
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
American Trans-Coil Corp, Richmond Hill	NY
Ando Electric Co Ltd, Ohta-ku, Tokyo	Japan
Antlab, Inc, Worthington	Ohio
Armec Corp, Huntington Station	N Y
Austron, Inc, Austin	Tex
Autronics Corp, Pasadena	Cal
Babcock Electronic Corp, Costa Mesa	Cal

erc OSCILLATORS

FREQUENCY STANDARD
MODEL SERIES EROS-800
Typical Specifications:
Frequency: 1m Hz or 5m Hz
Stability: 1 x 10^{-8} (0 to 60° C.)
Aging: 1 x 10^{-9} / day
Crystal Type: High precision, glass enclosed
Output Level: 1 volt rms into 500 ohm
Input Level: 26 volt dc, 500 ma max.
Waveform: Square or Sine
External Trimming: Adjustment
Warm-up: 1 hour 1 x 10^{-8}
Oven: Proportional Control
Header: Octal
Size: 2.5 x 2.5 x 4.5

TCXO
MODEL SERIES EROS-600
Typical Specifications:
Frequency Range: 1 Hz to 100 mHz
Frequency Adjustment: Adequate for 5 years of aging (5 ppm)
Frequency Stability:
± 5 ppm (—55° C. to 125° C.)
± 0.5 ppm (—20° C. to 60° C.)
Short Term Stability:
5 x 10^{-10} / sec.
5 x 10^{-9} / day
Aging Rate: 1 ppm / year
Phase Jitter: 5 x 10^{-10} / sec.
Warm-up Time: Zero
Output: Zero dbm into 50 or 1000 ohm
Output Characteristics: Sine or Square wave
Rise Time: 20 nanosec. at 10 mHz or lower
Input Voltage: 10 to 28 vdc, prefer 18v
Input Current: 10 ma max.
Typical Sizes: 2 x 2 x 1 h, 2 x 2 x 2 h, 2 x 1 x 0.5 h

VCXO
MODEL SERIES EROS-400
Typical Specifications:
Frequency: 10 kHz to 100 mHz
Frequency Adjustment: Adequate for 5 years of aging (5 ppm)
Deviation: up to 0.25%
Input Impedance: 100 k ohms
Sensitivity: Up to 3 kHz / volt
Deviation Rate: dc to 100 kHz
Distortion: 1%
Stability:
0 to 65° C. (non-ovenized) ± 0.01%
0 to 65° C. (ovenized) ± 0.0005%
— 55° C. to 125° C. (non-ovenized) ± .05%
— 55° C. to 125° C. (ovenized) ± .001%
Output: Zero dbm into 50 or 1000 ohm
Spurious: 60 db non harmonic, 40 db harmonic
Input Voltage: 15 v to 30 vdc, prefer 18 vdc
Oscillator Power: 10 ma max.
Oven Type: Proportional Control
Oven Power: 10 watt max., 4 watt average
Typical Sizes: without oven 2 x 2 x 1 h
with oven 2 x 2 x 4 h

erc frequency control products
A TEXTRON COMPANY
electronic research co.
913—ME. 1-6700
10,000 W. 75 • Overland Park, Kans. 66204

Ballantine Laboratories, Inc, Boonton	N J
Barden Co, Hermosa Beach	Cal
Bayly Engineering Ltd, Ajax	Ontario
Bramco Controls Div Ledex Inc, Piqua	Ohio
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Burr-Brown Research Corp, Tucson	Ariz
California Instruments Corp, San Diego	Cal
California Systems Components, Inc, Chatsworth	Cal
C M L Inc, Plainfield	N J
Computer Devices Corp, Commack	N Y
Condor Industrial Corp, West Chicago	Ill
Connor-Winfield Corp, Winfield	Ill
CTS Corp, Elkhart	Ind
CTS Knights Inc, Sandwich	Ill
Dorsett Electronics Inc, Tulsa	Okla
Electronic Applications Co, Pine Brook	N J
Electronic Research co, A Textron Co Overland Park	Kan
Electro Scientific Industries Inc, Portland	Ore
Ferritronics Ltd, Richmond Hill	Ont
Ferwalt Inc W H, Lapwai	Idaho
Fidelity Amplifier Co, Chicago	Ill
Fork Standards Inc, West Chicago	Ill
Frequency Electronics Inc, New Hyde Park	N Y
General Devices Inc, Instrumentation Div Princeton	N J
General Radio Co, West Concord	Mass
Gibbs Mfg & Research Corp, Janesville	Wis
Grafix Inc, Albuquerque	N Mex
Greenray Industries Inc, Mechanicsburg	Pa
Helix Research Assoc Inc, La Mesa	Cal
Hill Electronics Inc, Mechanicsburg	Pa
Inductor Engineering Inc, Lewes	Del
Industrial Test Equipment Co, Port Washington	N Y
Instrument Labs Corp, Chicago	Ill
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Kinelogic Corp, Pasadena	Cal
Magnetic Engineering Corp, Danbury	Conn
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs	Pa
McKee-Pedersen Instruments, Danville	Cal
Melpar Inc, Special Prods Dept, Falls Church	Va
Meson Electronics Co, Inc, Rochester	N Y
Microsonics Inc, Weymouth	Mass
Microwave/Systems Inc, East Syracuse	N Y
Monitor Products Co Inc, South Pasadena	Cal
Natel Engineering Co Inc, Van Nuys	Cal
NH Research Inc, Santa Ana	Cal
Northeast Electronics Corp, Concord	N H
Northern Engineering Labs Inc, Burlington	Wis
North Hills Electronics Inc, Glen Cove	N Y
Optimation, Inc, Sun Valley	Cal
Ovenaire Inc, Charlottesville	Va
Philamon Laboratories Inc, Westbury	N Y
Plectron Corp, Overton	Nebr
Polarad Electronic Instruments Div Long Island City	N Y
Reach Electronics Inc, Lexington	Neb
Riverbank Labs, Dept of Engrg, Geneva	Ill
Robertson Instrument Co, Azusa	Cal
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Semiconductor Circuits, Inc, Woburn	Mass
Sherold Crystals Inc, Kansas City	Mo
Solid State Electronics Corp, Sepulveda	Cal
Space & Systems Div General Time Corp Stamford	Conn
Squires-Sanders Inc, Liberty Corner	N J
Stancil-Hoffman Corp, Hollywood	Cal
Standard Telephones & Cables Ltd London WC 2	England
Systems Electronics Inc, Cleveland	Ohio
Taffet Electronics Inc, Woodside	N Y
Telonic Instruments Div Telonic Indus Inc Beech Grove	Ind
Telstar Electronics Corp, Southold	N Y
T M C Systems (Ariz) Inc, Tempe	Ariz
Topping Electronics Ltd, Toronto 17	Ont
Trepac Corp of America, Englewood	N J
Valpey-Fisher Corp, Holliston	Mass
Varo Inc Time & Frequency Products Santa Barbara	Cal
Venner Electronics Ltd, New Malden, Surrey	Eng
Ventron Electronics Corp, Bradford	Pa
Vinco Industries, Orange	Cal
Western Reserve Electronics, Inc, Cleveland	Ohio
Wilcox Electric Co Inc, Kansas City	Mo

OSCILLATORS, A-F--TELEMETERING, AUDIO TONE

ALLEN ELECTRONICS DIV ALLEN ORGAN CO, MACUNGIE PA	**ADV PG 716**
AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE	**N Y**
CTS CORP, ELKHART	**IND**
ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK	**KAN**
FORK STANDARDS INC, WEST CHICAGO	**ILL**
GREENRAY INDUSTRIES INC, MECHANICSBURG	**PA**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INTERELECTRONICS CORP, CONGERS	**N Y**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH	**VA**
MESON ELECTRONICS CO, INC, ROCHESTER	**N Y**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO, ILL	**ADV PG 465**
TELE-SIGNAL CORP, WOODBURY	**N Y**
Accutronics, Inc, Geneva	Ill
Advanced Technology Corp, Chambersburg	Pa
Allen Electronics Div Allen Organ Co, Macungie	Pa
Alltronics-Howard Co, Boston	Mass
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
American Trans-Coil Corp, Richmond Hill	NY
Amtron Inc, Midlothian	Ill
Austron, Inc, Austin	Tex
Barden Co, Hermosa Beach	Cal
Bayly Engineering Ltd, Ajax	Ontario
Bramco Controls Div Ledex Inc, Piqua	Ohio
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Connor-Winfield Corp, Winfield	Ill
Control Science Corp, Alexandria	Va
CTS Corp, Elkhart	Ind
Data-Control Systems Inc, Danbury	Conn
Dynamic Precision Controls Corp, Hagerstown	Ind
Electronic Research co, A Textron Co Overland Park	Kan
EMR Div Weston Instruments Inc, Princeton	N J
Exact Electronics Inc, Hillsboro	Ore
Ferritronics Ltd, Richmond Hill	Ont
Ferwalt Inc W H, Lapwai	Idaho
Fork Standards Inc, West Chicago	Ill
Frequency Electronics Inc, New Hyde Park	N Y
General Devices Inc, Instrumentation Div Princeton	N J
Giannini-Voltex, Whittier	Cal
Greenray Industries Inc, Mechanicsburg	Pa
Hammarlund Mfg Co Data Communications Div Amityville	N Y
Helix Research Assoc Inc, La Mesa	Cal
Hewlett-Packard, Palo Alto	Cal
Inductor Engineering Inc, Lewes	Del
Industrial Electronetics Corp, Satellite Beach	Fla
Interelectronics Corp, Congers	N Y
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Landis & Gyr AG, Zug	Switzerland
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Melpar Inc, Special Prods Dept, Falls Church	Va
Meson Electronics Co, Inc, Rochester	N Y
Monitor Products Co Inc, South Pasadena	Cal
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Natel Engineering Co Inc, Van Nuys	Cal
Novatronics Inc, Pompano Beach	Fla
Optimation, Inc, Sun Valley	Cal
Ovenaire Inc, Charlottesville	Va
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polarad Electronic Instruments Div Long Island City	N Y
Probescope Co Inc, Syosset	N Y
Ramsay Engineering Co, Anaheim	Cal
Reach Electronics Inc, Lexington	Neb
Singer Co, Metrics Div, Bridgeport	Conn
Solid State Electronics Corp, Sepulveda	Cal
Sonex Inc, Philadelphia	Pa
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Tele-Signal Corp, Woodbury	N Y
Telonic Instruments Div Telonic Indus Inc Beech Grove	Ind
Telstar Electronics Corp, Southold	N Y
T M C Systems (Ariz) Inc, Tempe	Ariz
Topping Electronics Ltd, Toronto 17	Ont
Trepac Corp of America, Englewood	N J
Valpey-Fisher Corp, Holliston	Mass
Ventron Electronics Corp, Bradford	Pa
Video Research Corp, Rockville	Md
Wavetek, San Diego	Cal

OSCILLATORS, A-F--VARIABLE

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
BULOVA WATCH CB INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE	**N Y**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
C M L INC, PLAINFIELD	**N J**
ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK	**KAN**
GREENRAY INDUSTRIES INC, MECHANICSBURG	**PA**
HEATH CO, BENTON HARBOR	**MICH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON	**N Y**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MICROSONICS INC, WEYMOUTH	**MASS**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO, ILL	**ADV PG 465**
Accutronics, Inc, Geneva	Ill
Advanced Technology Corp, Chambersburg	Pa
Agastat Div, Elastic Stop Nut Corp, Elizabeth	N J
AIM Electronics Ltd, Cambridge	U K
Amark Corp, Plainview	N Y
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
American Trans-Coil Corp, Richmond Hill	NY
Ando Electric Co Ltd, Ohta-ku, Tokyo	Japan
Anritsu Electric Co Ltd, Tokyo	Japan
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Burr-Brown Research Corp, Tucson	Ariz
California Instruments Corp, San Diego	Cal
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Clough-Brengle Co, Chicago	Ill
C M L Inc, Plainfield	N J
Computer Devices Corp, Commack	N Y
Connor-Winfield Corp, Winfield	Ill
Data Royal Corp, San Diego	Cal
Dorsett Electronics Inc, Tulsa	Okla
DuKane Corp, St Charles	Ill
Dynamic Precision Controls Corp, Hagerstown	Ind
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Research co, A Textron Co Overland Park	Kan
Electro Scientific Industries Inc, Portland	Ore
Engineering Associates, Dayton	Ohio
Exact Electronics Inc, Hillsboro	Ore
Fidelity Amplifier Co, Chicago	Ill
Frequency Electronics Inc, New Hyde Park	N Y
General Devices Inc, Instrumentation Div Princeton	N J
General Radio Co, West Concord	Mass
Gotham Audio Corp, New York	N Y
Greenray Industries Inc, Mechanicsburg	Pa
Heath Co, Benton Harbor	Mich
Hewlett-Packard, Palo Alto	Cal
Holt Instrument Labs, Oconto	Wis
Icon Corp, Cambridge	Mass
Industrial Test Equipment Co, Port Washington	N Y
Instrument Labs Corp, Chicago	Ill
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Krohn-Hite Corp, Cambridge	Mass
Lab Electro-Acoustique, 92 Rueil-Malmaison	France
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
London Co, Westlake	Ohio
Magnetic Engineering Corp, Danbury	Conn
Marconi Instruments Div, English Electric Corp Englewood	N J
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs	Pa
Microsonics Inc, Weymouth	Mass
Monitor Products Co Inc, South Pasadena	Cal
Moog Co, R A, Trumansburg	N Y
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Muirhead Instruments Inc, Mountainside	N J
NH Research Inc, Santa Ana	Cal
Northeast Electronics Corp, Concord	N H
Novatronics Inc, Pompano Beach	Fla
Optimation, Inc, Sun Valley	Cal
Ovenaire Inc, Charlottesville	Va
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Plectron Corp, Overton	Nebr
Princeton Applied Research Corp, Princeton	N J
Radio Corp of America, Electronic Components, Harrison	N J
Radiometer A/S, Copenhagen NV	Denmark
Riverbank Labs, Dept of Engrg, Geneva	Ill
Rowe Industries Inc, Toledo	Ohio
Semiconductor Circuits, Inc, Woburn	Mass
Sensor Corp, Greenwich	Conn
Singer Co, Metrics Div, Bridgeport	Conn
Sodilec SA Salies-S A, 91 Palaiseau	France
Solid State Electronics Corp, Sepulveda	Cal
Spectral Dynamics Corp of San Diego, San Diego	Cal
Squires-Sanders Inc, Liberty Corner	N J
Taffet Electronics Inc, Woodside	N Y
Telonic Instruments Div Telonic Indus Inc Beech Grove	Ind
Telstar Electronics Corp, Southold	N Y
Topping Electronics Ltd, Toronto 17	Ont
Venner Electronics Ltd, New Malden, Surrey	Eng
Ventron Electronics Corp, Bradford	Pa
Wavetek, San Diego	Cal
Wayne Kerr Corp, Montclair	NJ
Western Reserve Electronics, Inc, Cleveland	Ohio
Weston Lexington Weston Instruments Div Lexington	Mass
Wiltek, Inc, Wilton	Conn

ACCUVOLT

BESPONDER

CINDERELLA

If you're confused over product trade names, locate the source easily in EBG's Trade Name Listing in the back of the green section.

OSCILLATORS and FREQUENCY STANDARDS

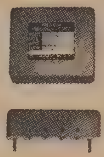
OVER 120 STANDARD MODELS IN OUR GIANT CATALOG

356100A

ULF Oscillators— Withstands extreme shock and vibration. Very flexible where a very low frequency is desired at a reasonable cost.

L-216

Audio and R.F. L-C Oscillators — shock proof, vibration proof and very stable.



L-217

L-C Oscillators for printed circuit board mounting. Ideal where an AUDIO TONE or an RF signal is required. Used widely in test equipment.

61000

Adjustable Frequency Oscillators — Slug-tuned over ±10% of specified center frequency.

313100A

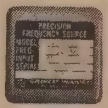
General Purpose Oscillator—Crystal controlled. For very low frequency, high stability requirements.

Y283-3

Crystal Oscillators— designed to direct-drive all popular types of micrologic. 25 nanosecond maximum rise and fall time.

28100 and Y-312

Crystal Oscillators for general application with excellent stability. 800 Hz to 600 MHz.

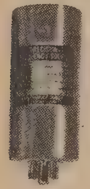


Y-367

Crystal Oscillators for printed circuit mounting—3 kHz to 150 MHz.

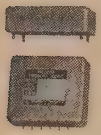
T-224

Temperature Compensated Crystal Oscillators—High stability over wide temperature range. No Oven used. Features instant warm-up.



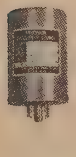
78000 and YH-277

Frequency Standard Medium stability — 3200 Hz to 100 MHz.



YH-320

Frequency Standard— Low noise, for printed circuit board mounting.



138000A

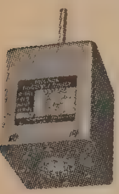
Frequency Standard— Very stable. Uses proportional type oven.

±1 part in 10^8

356000C

Frequency Standard— Ultra stable. Uses proportional type oven.

±1 part in 10^9



228200C

Multiple Channel Crystal Oscillator —Up to 20 output frequencies in the 5 MHz - 50 MHz Range (Rotary Switch Selection).

Model No.	Frequency (Fixed)	Accuracy over Temp. Range	Temperature Range	Minimum Output	Input	Size	Price 1-3 (each)
356100A R-C	.01 Hz to 400 Hz	±2%	−40°C to 70°C	Sine 1V RMS	28V D.C.	2" x 2" x 4" H	$94.50 to $190.00
L-216 L-C	100 Hz to 1 MHz	±.5%	−40°C to +70°C	Sine 1.5V RMS	28V D.C.	1½" D x $2\frac{9}{16}$" H	$87.50
L-217 L-C	100 Hz to 1 MHz	±.5%	−40°C to +70°C	Sine 1.5V RMS	28V D.C.	$2\frac{9}{16}$" x $2\frac{15}{16}$" x ⅞" (P-C Mount)	$89.50
61000 L-C	400 Hz to 10 MHz ± 10% Adj.	±.5%	−30°C to +60°C	Sine 2.5V RMS	28V D.C.	1½" D x $3\frac{11}{16}$" H	$114.50
313100A Crystal	1 Hz to 3000 Hz	±.015%	−40°C to +70°C	Square 6V P to P	28V D.C.	2" x 2" x 4" H	$290.00 & up
Y-283-3 Crystal	70 kHz to 9 MHz	±.005% or ±.025%	−55°C to +90°C	Square 0 to 6V P to drive micrologic	+3V D,C, to +6V D.C.	⅝" x 2¼" x ¾" H	$199.00 to $209.00
28100 & Y-312 Crystal	800 Hz to 600 MHz	±.012% or ±.005%	−40°C to +70°C	Sine 1V RMS or 1 milliwatt	28V D.C.	1¼" D x $2\frac{9}{16}$" or 1½" D x $3\frac{5}{16}$" H maximum	$119.00 to $169.00
Y-367 Crystal	3000 Hz to 150 MHz	±.015% or ±.005%	−40°C to +70°C	Sine 1V RMS or 1 milliwatt	28V D.C. or +12V D.C.	2" x 2" x ¾" H (P-C Mount)	$139.00 to $195.00
T-224 (TCXO) Crystal	3 MHz to 6 MHz	Up to ±.0001%	−40°C to +70°C or −32°C to +100°C	Distorted Sine 1V P to P	No Oven 17.5V D.C. 20Ma maximum	Approx. 1¼" x 3¾" x ¾" H.	$585.00 to $985.00
78000 & YH-277 Crystal	3200 Hz to 100 MHz	±.0002% to ±.00001%	0°C to +50°C	Sine 1V RMS	28V D.C. & 6V A.C. or 28V D.C.	1¾" D x 3⅝" H	$197.00 to $287.00
YH-320 Crystal	100 kHz to 90 MHz LOW NOISE	Up to ±.00005%	0°C to +50°C	Sine 1 Milliwatt	28V D.C. for oscillator and proportional oven	$2\frac{9}{16}$" x $2\frac{15}{16}$" x ⅞" H (P-C Mount)	$370.00 to $399.00
138000A Crystal	16 kHz to 70 MHz LOW NOISE	±.000001% or ±.00001%	0°C to +50°C	Sine 1V RMS	28V D.C. & 6.3V A.C. or 115V A.C. or 28V D.C.	2" D x 3½" H	$394.00
356000C Crystal	1 MHz to 10 MHz LOW NOISE	±1 x 10^{-9}	20°C to +55°C	Sine 1V RMS	28V D.C. for oscillator & proportional oven	2¾" x 2¾" x 4⅝" H	$770.00
228200C 1 to 20 Crystals	5 MHz to 50 MHz	±.0001%	0°C to +55°C	Sine 1V RMS	28V D.C. for oscillator & oven	$2\frac{9}{16}$" x $2\frac{15}{16}$" x $3\frac{1}{16}$" deep	$490.00 for 10 channels

Greenray GRI Industries, Inc.

840 West Church Road, Mechanicsburg, Pa.

Phone — (Area Code 717) 766-0223

OSCILLATORS--CRYSTAL CONTROLLED

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE, N Y	ADV PG 451
CTS KNIGHTS INC, SANDWICH, ILL	ADV PG 239
FORK STANDARDS INC, WEST CHICAGO, ILL	ADV PG 451
GREENRAY INDUSTRIES INC, MECHANICSBURG PA	ADV PG 450
HEWLETT-PACKARD, PALO ALTO	**CAL**
HILL ELECTRONICS INC, MECHANICSBURG	**PA**
INTERNATIONAL CRYSTAL MFG CO INC OKLAHOMA CITY	**OKLA**
KINELOGIC CORP, PASADENA	**CAL**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH	**VA**
MICROSONICS INC, WEYMOUTH, MASS	ADV PG 452
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
NORTHERN ENGINEERING LABS INC, BURLINGTON WIS	ADV PG 242
PETERSEN RADIO CO INC, COUNCIL BLUFFS IOWA	ADV PG 451
REEVES-HOFFMAN DIV, CARLISLE	**PA**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
TEXSCAN CORP, INDIANAPOLIS	**IND**
TRACOR INC, AUSTIN	**TEX**
Accutronics, Inc, Geneva	Ill
Advanced Energy Conversion, Menlo Park	Cal
Aertech, Sunnyvale	Cal
Airmec Instruments Ltd, Buckinghamshire	England
Amark Corp, Plainview	N Y
Anritsu Electric Co Ltd, Tokyo	Japan
Applied Research, Inc, Port Washington	N Y
A R F Products, Inc, Raton	N M
Arvin Frequency Devices, West Lafayette	Ind
Austron, Inc, Austin	Tex
Barden Co, Hermosa Beach	Cal
Betron-IRE-SpA, Livorno	Italy
Beukers Labs Inc, John M, Medford	NY
Bliley Electric Co, Erie	Pa
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
California Microwave, Sunnyvale	Cal
Conic Corp, San Diego	Cal
Control Logic Inc, Natick	Mass
CTS Knights Inc, Sandwich	Ill
Cushman Electronics Inc, Sunnyvale	Cal
Dayton Electronics Products Co, Dayton	Ohio
Dietz Design Inc, Belton	Mo
Ebauches SA Dept Oscilloquartz 2001 Neuchatel	Switz
Electra/Midland Corp, Kansas City	Kan
Electro Marine Corp, Falmouth	Mass
Fairchild Instrumentation, Sunnyvale	Cal

Crystal Oscillators?

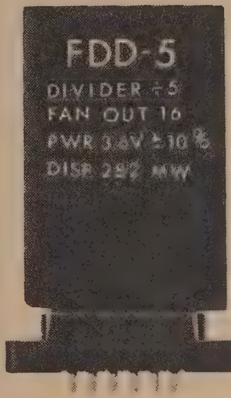
Try Bulova First!

CALL:

Ariz Tech-Ser Inc, 1805 E Indian School Rd Phoenix 602-265-3629
Cal Straube Assoc, 483 Willow Rd Menlo Pk 213-323-2476
Cal W J Carnes & Co, 420 S D St Tustin 213-838-0575
Conn Samuel C Hooker Inc, Box 369 W Hartford 203-233-8000
Fla Perrott Assoc, 1607 Forsyth Rd, Orlando 305-275-1132
Fla Perrott Assoc, Box 6277 West Palm Beach 305-967-1770
Fla Perrott Assoc, Box 4532, Clearwater. 813-531-5513
Ill J R Sales Engineering 7132 N Harlem Ave, Chicago.... 312-774-8550
Iowa J R Sales Engrg, 3350 Cottage Grove Ave SE, Cedar Rapids 319-365-5259
Md Callas Electronics, 6409 Frederick Ave Baltimore 301-744-7711
Mass Samuel Hooker, Inc, Box 352 Winchester 617-729-5482
Minn Wenco Sales Inc, 7728 Morgan Ave S Minneapolis 612-866-3639
Mo J C Mankus & Assoc, 400 Brooks La Hazelwood 314-PE1-4334
NY Kahgan Sales Corp, 1261 Broadway New York 212-MU4-7772
NY H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester 716-232-2688
NY Comtronic Assoc, 1551 Franklin Ave Mineola 516-PI1-8966
NY H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady 518-374-5901
NY H C Johnson Agencies Inc, Box 215 Fayetteville 315-637-9383
NY H C Johnson Agencies Inc, 8 Los Robles St Williamsville 716-632-7880
Ohio Augey Natalino Assoc, 209 Harmony Hills Akron 216-666-1447
Pa C H Newson & Assoc Inc, 627 Bethlehem Pike, Philadelphia 215-248-3377
Tex Blackburn Assoc., Inc., 137 Walnut Hill Village, Box 20073, Dallas........ 214-351-9991
Wash Jas J Backer Co, 221 W Galer St Seattle 206-AT3-6470
Can Canadian Micro Electronics, Box 6157 Sta J, Ottawa 725-2332

BULOVA WATCH CO INC
FREQUENCY CONTROL PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

Look to PETERSEN for the best in Electronics

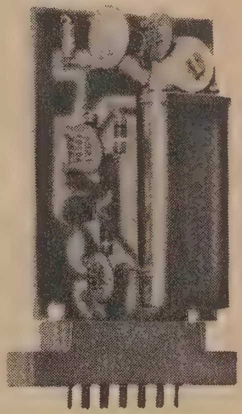


NEW Frequency Divider Plug-in Cards

For clocks, low frequency standards, time base, and audio standards. Many other applications.
Power supply voltage 3.6V ± 10%
OP Temp. + 15°C to + 55°C.
Size: 2⅝" x 1½" x ⅜" thick.
Supplied with socket. Square wave output 1.75V.
FDB - 1 buffer - non inverting; FDD Divider ÷ 2;
FDD 3 Divider ÷ 3; FDD 5 Divider ÷ 5
and FDD - 10 Divider ÷ 10.

PR 100A Transistorized Oscillator

With the PR 100A you can check harmonics at 100 Kc intervals through 54 Mc. A precision Oscillator, fully wired, complete with plug-in socket. Includes a Z-6A Crystal.
Power Requirements: 6V DC @ 5 Ma.
Oscillator output connects to receiver antenna high side. Size is 1½" x 2⅝". Negligible mounting space required. Weighs 1 ounce.



PETERSEN
RADIO COMPANY
PRO-26

PRO 26 Oven

Heating element anchored in epoxy. Teflon coated interior inhibits formation of moisture. Insures better contact. Internal cavity Temperature 65° C to 100° C.
Input voltage: 6.3 to 110V. AC or DC.

PETERSEN CRYSTALS

Amateur - aircraft - citizen band - industrial - radio control - diathermy -
Frequency Standard 100 Kc to 1500 Mc

Write for prices, additional specifications and information to:

PETERSEN RADIO CO. INC.
2800 West Broadway • Council Bluffs, Iowa 51501

Makers of fine Crystals since 1934.

Microsonics
State of the Art
Design in Filters
Oscillators
and
Delay Lines

Continuously Variable Delay Systems
Bulletins 4301 and 4302

Broad Bandwidth Highly Selective Crystal Filters
Bulletin 6350

Comb. Filter Sets
Bulletin 6350

Broad Bandwidth Delay Lines
Bulletin 4300

Highly Stable Oscillators — Bulletin 6350

Voltage Controlled Crystal Oscillators
Bulletin 6350

High Density Digital Storage Systems
Bulletin 5350

Send for literature.

MICROSONICS, INC.
60 Winter Street
Weymouth, Mass. 02188
Tel: 617 337-4200

A subsidiary of the Sangamo Electric Company

CRYSTAL OSCILLATORS?

Yes . . .

Select your precision
CRYSTAL OSCILLATOR
from Fork Standards' comprehensive product display.

See page 457

FORK STANDARDS, INC.

251 Main St., West Chicago Ill. 60185
Telephone Area Code 312—231-3511

Ferwalt Inc W H, Lapwai	Idaho
Fork Standards Inc, West Chicago	Ill
Frequency Electronics Inc, New Hyde Park	N Y
Frequency Sources Inc, N Chelmsford	Mass
General Devices Inc, Instrumentation Div Princeton	N J
Greenray Industries Inc, Mechanicsburg	Pa
Helix Research Assoc Inc, La Mesa	Cal
Hewlett-Packard, Palo Alto	Cal
Hill Electronics Inc, Mechanicsburg	Pa
Hughes Aircraft Co, Newport Beach	Cal
Information Control Corp, El Segundo	Cal
International Crystal Mfg Co Inc, Oklahoma City	Okla
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Itek Corp, Lexington	Mass
J A C Electronics Ltd, Camberley	England
Jerrold Electronics Corp, Philadelphia	Pa
Karg Labs Inc, South Norwalk	Conn
Kidde & Co Inc, Walter, Belleville	N J
Kinelogic Corp, Pasadena	Cal
Kinsekisha Lab Ltd, Tokyo	Japan
Lorch Electronics Corp, Englewood	N J
Marconi Co Ltd, Chelmsford	England
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs	Pa
Melpar Inc, Special Prods Dept, Falls Church	Va
Microsonics Inc, Weymouth	Mass
Microwave Associates Inc, Burlington	Mass
Microwave Products Group Div C A S Inc Carle Place	N Y
Microwave/Systems !nc, East Syracuse	N Y
Monitor Products Co Inc, South Pasadena	Cal
Monitor Systems Inc, Fort Washington	Pa
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
NH Research Inc, Santa Ana	Cal
Northern Engineering Labs Inc, Burlington	Wis
Omega Laboratories Inc, Rowley	Mass
Petersen Radio Co Inc, Council Bluffs	Iowa
Piezo Technology Inc, Orlando	Fla
Reeves-Hoffman Div, Carlisle	Pa
RO Associates Inc, Menlo Park	Cal
Rowe Industries Inc, Toledo	Ohio
Ryka Scientific Inc, Mountain View	Cal
Semiconductor Circuits, Inc, Woburn	Mass
Sensor Corp, Greenwich	Conn
Solid State Electronics Corp, Sepulveda	Cal
Sonex Inc, Philadelphia	Pa
Space & Systems Div General Time Corp Stamford	Conn
Spencer-Kennedy Labs Inc, Boston	Mass
Squires-Sanders Inc, Liberty Corner	N J
Standard Crystal Co, Alhambra	Cal
Sweep Systems Inc, Indianapolis	Ind
Systems Electronics Inc, Cleveland	Ohio
Technical Materiel Corp, Mamaroneck	N Y
Teledyne Telemetry Co, Los Angeles	Cal
Telstar Electronics Corp, Southold	N Y
Texscan Corp, Indianapolis	Ind
T M C Systems (Ariz) Inc, Tempe	Ariz
Topping Electronics Ltd, Toronto 17	Ont
Tracor Inc, Austin	Tex
Trak Microwave Corp, Tampa	Fla
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Varo Inc Time & Frequency Products Santa Barbara	Cal
Vectron Labs Inc, Stamford	Conn
Western Microwave Labs Inc, Santa Clara	Cal
Winslow Tele-Tronics Inc, Asbury Park	NJ

OSCILLATORS--MICROWAVE

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK	**N Y**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
MICRO-NOW INSTRUMENT CO INC, CHICAGO	**ILL**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
RFD INC, TAMPA	**FLA**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
SPECTRA-ELECTRONICS INC, LOS ALTOS, CAL	ADV PG 453
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Addington Labs Inc, Sunnyvale	Cal
Advanced Measurement Instruments, Inc Somerville	Mass
Aertech, Sunnyvale	Cal
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alfred Electronics, Palo Alto	Cal
Amerac, Inc, Beverly	Mass
Anritsu Electric Co Ltd, Tokyo	Japan
Applied Microwave Lab, Inc, Andover	Mass
Applied Research, Inc, Port Washington	N Y
Astrolab Inc, Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bomac Div Varian Associates, Beverly	Mass
Bradley Ltd G & E, London NW 10	England
California Microwave, Sunnyvale	Cal
Cavitron Electronics, Inc, Costa Mesa	Cal
Cober Electronics Inc, Stamford	Conn
Comtek Microwave Dept Allied Rsch Assoc Inc Woburn	Mass
Consolidated Airborne Systems, Carle Place	N Y
Cosmos Industries Inc, Brooklyn	N Y
Dewey Corp, G C, New York	N Y
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
E-H Research Labs Inc, Oakland	Cal
Electro-Data Inc, Garland	Tex
EMI Electronics Ltd, Hayes, Middlesex	England
Energy Systems Inc, Palo Alto	Cal
Engineering Associates, Dayton	Ohio
Fairchild Instrumentation, Sunnyvale	Cal
Ferranti, Ltd, Lancashire	England
Frequency Electronics Inc, New Hyde Park	N Y
Frequency Engineering Labs, Farmingdale	N J
Frequency Sources Inc, N Chelmsford	Mass
General Devices Inc, Instrumentation Div Princeton	N J
General Microwave Corp, Farmingdale	N Y
General Radio Co, West Concord	Mass
Giannini-Voltex, Whittier	Cal
Guide Industries Inc, Sun Valley	Cal
Hewlett-Packard, Palo Alto	Cal
Honig Laboratories Inc, Westbury	N Y
International Microwave Corp, Cos Cob	Conn
Itek Corp, Lexington	Mass
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kruse-Storke Electronics, Mountain View	Cal
Laboratory for Electronics Inc Elctns Div, Boston	Mass
Litton Industries, Electron Tube Div, San Carlos	Cal
L P Associates Inc, Los Angeles	Cal
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs	Pa
MCS Corp, Monrovia	Cal
Melabs, Palo Alto	Cal
Meridian Metalcraft Inc, Whittier	Cal
Metcom Inc, Salem	Mass
Microdot, Inc, South Pasadena	Cal
Microlab/F X R, Livingston	N J
Micromega Div Amphenol Corp, Venice	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Micro-Now Instrument Co Inc, Chicago	Ill
Micro Power Inc, Long Island City	N Y
Micro-Radionics Inc, Van Nuys	Cal
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Control Co, Red Bank	N J
Microwave Development Labs Inc Needham Heights	Mass
Microwave Products Group Div C A S Inc Carle Place	N Y
Microwave/Systems Inc, East Syracuse	N Y
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Neico Microwave Co, Waltham	Mass
Nippon Electric Co Ltd, Tokyo	Japan

Omega Laboratories Inc, Rowley	Mass
Omni Spectra Inc, Farmington	Mich
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plessey Inc, Farmingdale	N Y
Polarad Electronic Instruments Div Long Island City	N Y
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Radio Corp of America, Electronic Components, Harrison	N J
RFD Inc, Tampa	Fla
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Ryka Scientific Inc, Mountain View	Cal
Sanders Associates, Inc, Nashua	N H
Scientific-Atlanta Inc, Atlanta	Ga
Servo Corp of America, Hicksville	N Y
Singer Co, Metrics Div, Bridgeport	Conn
Solid State Electronics Corp, Sepulveda	Cal
Somerset Radiation Lab Inc, Arlington	Va
Spacekom Inc, Goleta	Cal
Spectra-Electronics Inc, Los Altos	Cal
Sperry Electronic Tube Div, Sperry Rand Corp Gainesville	Fla
Sperry Microwave Electronics Div, Clearwater	Fla
Standard Telephones & Cables Ltd London WC 2	England
Telonic Instruments Div Telonic Indus Inc Beech Grove	Ind
Terra Corp, Albuquerque	N M
Trak Microwave Corp, Tampa	Fla
Varian, Palo Alto	Cal
Vector Industries A Teledyne Co, Palo Alto	Cal
Victor R F & Microwave Co, Wakefield	Mass
Watkins-Johnson Co, Palo Alto	Cal
Weinschel Engineering Co Inc, Gaithersburg	Md
Western Microwave Labs Inc, Santa Clara	Cal
Wiltron Co, Palo Alto	Cal

Helix Research Assoc Inc, La Mesa	Cal
Hill Electronics Inc, Mechanicsburg	Pa
Hughes Aircraft Co, Newport Beach	Cal
Inductor Engineering Inc, Lewes	Del
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Itek Corp, Lexington	Mass
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kay Electric Co, Pine Brook	N J
Litton Industries, Electron Tube Div, San Carlos	Cal
Logitek Inc, Farmingdale	N Y
L P Associates Inc, Los Angeles	Cal
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs	Pa
Merit Coil & Transformer Corp, Hollywood	Fla
Micromega Div Amphenol Corp, Venice	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Microsonics Inc, Weymouth	Mass
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Microwave Control Co, Red Bank	N J
Microwave Development Labs Inc Needham Heights	Mass
Microwave Products Group Div C A S Inc Carle Place	N Y
Microwave/Systems Inc, East Syracuse	N Y
Monitor Products Co Inc, South Pasadena	Cal
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Neptune Electronics Co, New York	N Y
Northeastern Engineering Inc, Manchester	NH
Northern Engineering Labs Inc, Burlington	Wis
Northern Radio Co Inc, New York	N Y
Ovenaire Inc, Charlottesville	Va
Philco-Ford Corp, Washington	D C
Polarad Electronic Instruments Div Long Island City	N Y
Raybond Electronics Inc Div Willcox & Gibbs Inc Norwood	Mass
RFD Inc, Tampa	Fla
Schjeldahl Co, G T, Northfield	Minn
Servo Corp of America, Hicksville	N Y
Sherold Crystals Inc, Kansas City	Mo
Solid State Electronics Corp, Sepulveda	Cal
Space & Systems Div General Time Corp Stamford	Conn
Squires-Sanders Inc, Liberty Corner	N J
Symetrics Engineering Corp, Satellite Beach	Fla
Taffet Electronics Inc, Woodside	N Y
Tel-Instrument Electronics Corp, Carlstadt	N J
Telonic Instruments Div Telonic Indus Inc Beech Grove	Ind
Telstar Electronics Corp, Southold	N Y
Terra Corp, Albuquerque	N M
Texscan Corp, Indianapolis	Ind
T M C Systems (Ariz) Inc, Tempe	Ariz

OSCILLATORS, R-F--FIXED

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE, N Y	**ADV PG 453**
CTS CORP, ELKHART	**IND**
CTS KNIGHTS INC, SANDWICH	**ILL**
ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK	**KAN**
FORK STANDARDS INC, WEST CHICAGO	**ILL**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
GREENRAY INDUSTRIES INC, MECHANICSBURG	**PA**
HILL ELECTRONICS INC, MECHANICSBURG	**PA**
MICROSONICS INC, WEYMOUTH	**MASS**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
NORTHERN ENGINEERING LABS INC, BURLINGTON WIS	**ADV PG 242**
RFD INC, TAMPA, FLA	**ADV PG 454**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
SHEROLD CRYSTALS INC, KANSAS CITY	**MO**
TEXSCAN CORP, INDIANAPOLIS	**IND**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Accutronics, Inc, Geneva	Ill
Advanced Measurement Instruments, Inc Somerville	Mass
Aerolite Electronics Corp, Union City	N J
Aertech, Sunnyvale	Cal
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Alto Scientific Co, Inc, Palo Alto	Cal
Amark Corp, Plainview	N Y
Amerac, Inc, Beverly	Mass
American Systems, Inc, Van Nuys	Cal
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
American Trans-Coil Corp, Richmond Hill	NY
Applied Microwave Lab, Inc, Andover	Mass
Applied Research, Inc, Port Washington	N Y
A R F Products, Inc, Raton	N M
Artted Co, Inc, Springfield	Mass
Astrolab Inc, Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
California Microwave, Sunnyvale	Cal
California Systems Components, Inc, Chatsworth	Cal
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Cavitron Electronics, Inc, Costa Mesa	Cal
Central Coil Co Inc, Martinsville	Ind
CTS Corp, Elkhart	Ind
CTS Knights Inc, Sandwich	Ill
Cushman Electronics Inc, Sunnyvale	Cal
Defense Electronics Inc, Rockville	Md
Delta Coils, Philadelphia	Pa
Electronic Research co, A Textron Co Overland Park	Kan
Fairchild Instrumentation, Sunnyvale	Cal
Ferwalt Inc W H, Lapwai	Idaho
Fork Standards Inc, West Chicago	Ill
Frequency Electronics Inc, New Hyde Park	N Y
Frequency Sources Inc, N Chelmsford	Mass
General Devices Inc, Instrumentation Div Princeton	N J
General Instrument Corp Radio Receptor Div Hicksville	N Y
General Microwave Corp, Farmingdale	N Y
General Radio Co, West Concord	Mass
Gibbs Mfg & Research Corp, Janesville	Wis
Greenray Industries Inc, Mechanicsburg	Pa
Guide Industries Inc, Sun Valley	Cal

RF Oscillators?

Try Bulova First!

CALL:

Ariz	Tech-Ser Inc, 1805 E Indian School Rd Phoenix	602-265-3629
Cal	Straube Assoc, 483 Willow Rd Menlo Pk	213-323-2476
Cal	W J Carnes & Co, 420 S D St Tustin	213-838-0575
Conn	Samuel C Hooker Inc, Box 369 W Hartford	203-233-8000
Fla	Perrott Assoc, 1607 Forsyth Rd, Orlando	305-275-1132
Fla	Perrott Assoc, Box 6277 West Palm Beach	305-967-1770
Fla	Perrott Assoc, Box 4532, Clearwater	813-531-5513
Ill	J R Sales Engineering 7132 N Harlem Ave, Chicago	312-774-8550
Iowa	J R Sales Engrg, 3350 Cottage Grove Ave SE, Cedar Rapids	319-365-5259
Md	Callas Electronics, 6409 Frederick Ave Baltimore	301-744-7711
Mass	Samuel Hooker, Inc, Box 352 Winchester	617-729-5482
Minn.	Wenco Sales Inc, 7728 Morgan Ave S Minneapolis	612-866-3639
Mo	J C Mankus & Assoc, 400 Brooks La Hazelwood	314-PE1-4334
NY	Kahgan Sales Corp, 1261 Broadway New York	212-MU4-7772
NY	H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester	716-232-2688
NY	Comtronic Assoc, 1551 Franklin Ave Mineola	516-PI1-8966
NY	H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady	518-374-5901
NY	H C Johnson Agencies Inc, Box 215 Fayetteville	315-637-9383
NY	H C Johnson Agencies Inc, 8 Los Robles St Williamsville	716-632-7880
Ohio	Augey Natalino Assoc, 209 Harmony Hills Akron	216-666-1447
Pa	C H Newson & Assoc Inc, 627 Bethlehem Pike, Philadelphia	215-248-3377
Tex	Blackburn Assoc., Inc., 137 Walnut Hill Village, Box 20073, Dallas	214-351-9991
Wash	Jas J Backer Co, 221 W Galer St Seattle	206-AT3-6470
Can	Canadian Micro Electronics, Box 6157 Sta J, Ottawa	725-2332

BULOVA WATCH CO INC
FREQUENCY CONTROL PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

MICROWAVE
SHORT-TERM
FREQUENCY
STABILITY
INSTRUMENTATION

STANDARD EQUIPMENTS (SE 200 SERIES. SEE MEASURING INSTRUMENTS — MICROWAVE NOISE) AND SPECIAL EQUIPMENTS ARE AVAILABLE FOR THE MEASUREMENT OF THE FOLLOWING TYPES OF MICROWAVE SOURCES & SYSTEMS

CW & PULSED
Reflex Klystrons
Two Cavity Klystrons
BWO's
Klystron Amplifiers
TWT Amplifiers
Stabilized Klystrons
Solid State Sources
  Multipliers
    High Order
    Low Order
  Fundamental Oscillators
Phase-locked Sources
Frequency Locked Sources

VOLUME TESTING REQUIREMENTS CAN BE SATISFIED WITH AUTOMATIC OR SEMIAUTOMATIC DESIGN. (ANALOG OR DIGITAL OUTPUTS)

SEND YOUR TEST SPECIFICATIONS FOR OUR RECOMMENDATION

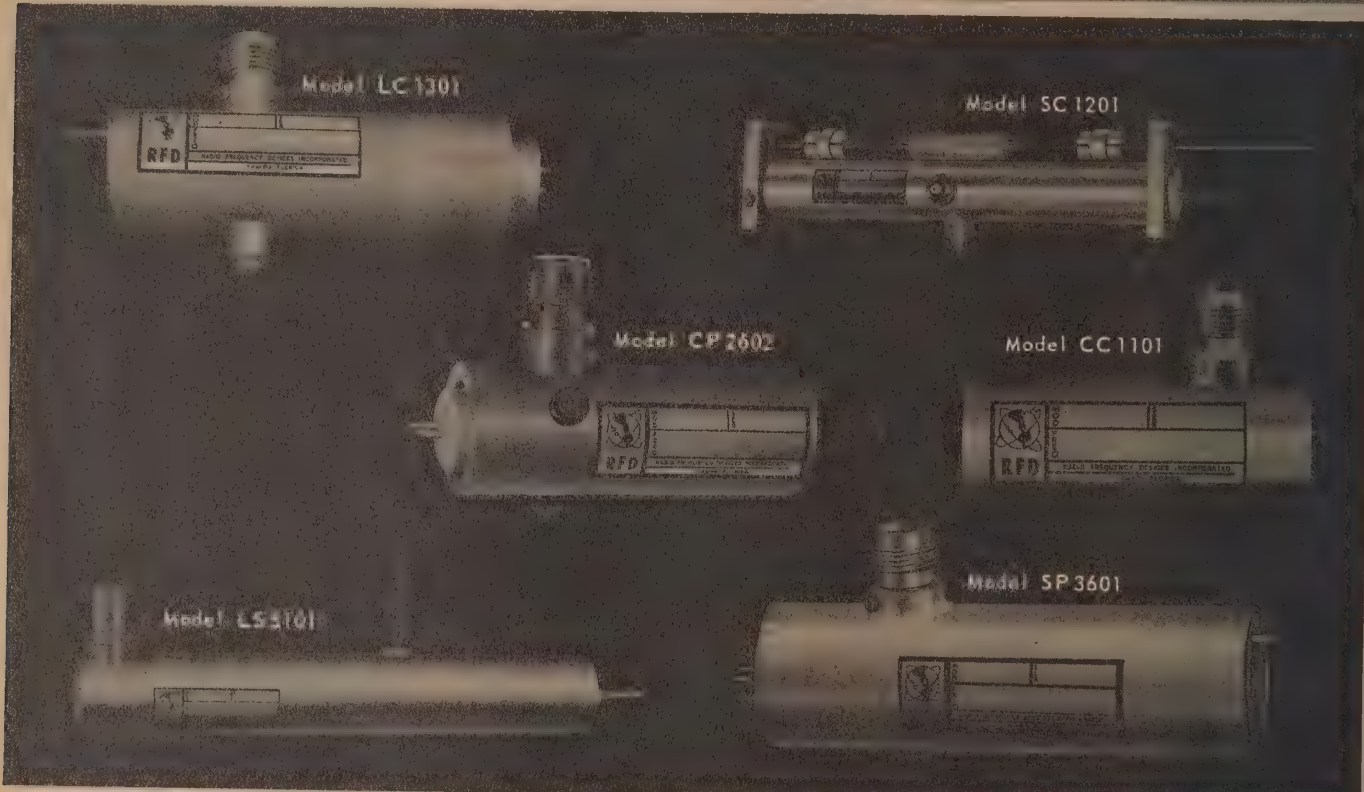
SPECTRA ELECTRONICS
P.O. Box 85
Los Altos, Calif. 94023 • (415) 948-4998

MICROWAVE ENERGY SOURCES

RFD, INC.

RADIO FREQUENCY DEVICES

1501 WEST CASS STREET, TAMPA, FLORIDA • PHONE 253-0637



CW OSCILLATORS

Freq. Range (GHz)	Power Output (min.)	Service	RFD Model No.
.8 —2.0	50 mw	CW	LS5102
1.0 —2.5	50 mw	CW	LS5101
1.0 —2.5	500 mw	CW	LS5104
1.0 —2.5	50 mw	CW (FM)	LS5105
1.06 —3.7	20 mw	CW	SC1220
1.5 —2.0	10 watts	CW	LC1402
1.5 —2.3	1.25 watts	CW	LC1403
1.707—1.755	1.6 watts	CW	LC1301
1.755—1.803	1.6 watts	CW	LC1302
1.803—1.855	1.6 watts	CW	LC1303
1.7 —4.2	50 mw	CW	SC1201
1.8 —2.3	100 mw	CW	SC1301
2.15 —2.5	25 mw	CW	SC1110
2.3 —2.7	50 mw	CW	SC2101
2.6 —3.2	50 mw	CW	SC1102
3.2 —4.0	25 mw	CW	SC1107
3.6 —4.6	10 mw	CW	CC2103
4.0 —5.0	10 mw	CW	CC2101
4.1 —4.5	10 mw	CW (FM)	CC2110
4.2 —5.2	10 mw	CW	CC2107
4.5 —5.2	10 mw	CW (FM)	CC2111
5.0 —6.0	10 mw	CW	CC1101
5.2 —6.0	10 mw	CW (FM)	CC1108
8.5 —9.6	3 mw	CW	XC1101

AVAILABLE MODIFICATIONS

- Precision tuning shaft
- Temperature compensation (bi-metal or TEMLOC®)
- Various output connectors
- Varactor frequency tuning
- Field tube replacement capabilities

WRITE OR PHONE

for RFD's new catalog of Microwave Energy Sources and name of your nearest RFD representative.

PULSE OSCILLATORS

Freq. Range (GHz)	Power Output (peak)	Pulsed At:	RFD Model No.
1.03 ± 5 mc	10 kw	Cathode	LK1701
1.05 ±10 mc	5 kw	Cathode	LK2603
1.068±20 mc	5 watts	Grid	LG5301
1.090±15 mc	1 kw	Grid	LG1101
1.12 — 1.6	250 mw	Grid	LG2101
1.15 — 1.45	2 kw	Cathode	LK2604
1.610± 5 mc	6 kw	Cathode	LK5601
1.74 ±20 mc	5 watts	Cathode	LK1402
1.775±20 mc	5 watts	Cathode	LK1401
2.15 — 2.5	500 mw	Grid	SG1101
2.2 — 2.7	500 mw	Grid	SG1301
2.5 — 2.9	10 watts	Grid	SG1404
2.6 — 3.2	15 watts	Grid	SG1701
2.6 — 3.3	2.5 kw	Plate	SP3601
2.7 — 3.0	125 watts	Plate	SP1502
2.7 — 3.2	20 w/50 w	Grid	SG1503
2.8 — 3.3	10 watts	Grid	SG1402
3.2 — 3.7	10 watts	Grid	SG1403
3.4 — 3.7	2 kw	Plate	SP5501
3.4 — 3.7	500 watts	Grid	SG5501
3.4 — 3.8	500 mw	Grid	SG1601
3.49 ±50 mc	500 watts	Grid	SG5502A
3.61 ±50 mc	500 watts	Grid	SG5502B
4.0 — 4.5	200 mw	Grid	CG2106
4.1 — 4.3	2.5 kw	Plate	CP2602
4.2 — 5.0	200 mw	Grid	CG2201
4.4 — 4.8	500 watts	Grid	CG1501
5.0 — 5.25	300 watts	Grid	CG1601
5.4 — 6.0	150 mw	Grid	CG1101
5.4 — 5.9	50 watts	Grid	CG5401
5.4 — 5.9	750 watts	Plate	CP1601

RFD, INC.

RADIO FREQUENCY DEVICES

1501 WEST CASS STREET, TAMPA, FLORIDA • PHONE 253-0637

Tocco Div Ohio Crankshaft Co, Cleveland ...... Ohio
Topping Electronics Ltd, Toronto 17 ...... Ont
Trak Microwave Corp, Tampa ...... Fla
Valpey-Fisher Corp, Holliston ...... Mass
Varian, Palo Alto ...... Cal
Vectron Labs Inc, Stamford ...... Conn
Weinschel Engineering Co Inc, Gaithersburg ...... Md
Western Microwave Labs Inc, Santa Clara ...... Cal
Wilcox Electric Co Inc, Kansas City ...... Mo

OSCILLATORS, R-F--PULSED

CTS CORP, ELKHART ...... IND
ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK ...... KAN
GENERAL MICROWAVE CORP, FARMINGDALE ...... N Y
GREENRAY INDUSTRIES INC, MECHANICSBURG ...... PA
HEWLETT-PACKARD, PALO ALTO ...... CAL
MICROWAVE CAVITY LABS INC, LA GRANGE ILL
MICROWAVE/SYSTEMS INC, EAST SYRACUSE ...... N Y
RFD INC, TAMPA, FLA ...... ,ADV PG 454
SERVO CORP OF AMERICA, HICKSVILLE ...... N Y
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park ...... N Y
Amerac, Inc, Beverly ...... Mass
American Systems, Inc, Van Nuys ...... Cal
American Trans-Coil Corp, Richmond Hill ...... NY
Applied Microwave Lab, Inc, Andover ...... Mass
Arenberg Ultrasonic Lab, Inc, Jamaica Plain ...... Mass
Astrolab Inc, Linden ...... N J
Automatic Metal Products Corp, Brooklyn ...... N Y
California Microwave, Sunnyvale ...... Cal
Carco Electronics, Menlo Park ...... Cal
Carol Electronics Div Weeco Inc, Martinsburg ...... W Va
Cober Electronics Inc, Stamford ...... Conn
Computer Devices Corp, Commack ...... N Y
CTS Corp, Elkhart ...... Ind
Damon Engineering Inc, Needham Heights ...... Mass
E G & G Inc Custom Equip Div, Bedford ...... Mass
Electronic Research co, A Textron Co Overland Park ...... Kan
Energy Systems Inc, Palo Alto ...... Cal
Ferwalt Inc W H, Lapwai ...... Idaho
Frequency Electronics Inc, New Hyde Park ...... N Y
Frequency Sources Inc, N Chelmsford ...... Mass
General Devices Inc, Instrumentation Div Princeton ...... N J
General Instrument Corp Radio Receptor Div Hicksville ...... N Y
General Microwave Corp, Farmingdale ...... N Y
General Radio Co, West Concord ...... Mass
Greenray Industries Inc, Mechanicsburg ...... Pa
Hewlett-Packard, Palo Alto ...... Cal
Hughes Aircraft Co, Newport Beach ...... Cal
ITT Europe Inc Components Gp, Brussels 1 ...... Belgium
Lad Electronics Corp, Hicksville ...... N Y
Litton Industries, Electron Tube Div, San Carlos ...... Cal
Logitek Inc, Farmingdale ...... N Y
L P Associates Inc, Los Angeles ...... Cal
Matec Inc, Warwick ...... R I
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs ...... Pa
Micronetics Div Teledyne Systems Co, San Diego ...... Cal
Micro State Electronics Oper Raytheon Co Murray Hill ...... N J
Microwave Associates Inc, Burlington ...... Mass
Microwave Cavity Labs Inc, La Grange Ill
Microwave Control Co, Red Bank ...... N J
Microwave Products Group Div C A S Inc Carle Place ...... N Y
Microwave/Systems Inc, East Syracuse ...... N Y
Narda Microwave Corp, Plainview ...... N Y
Neptune Electronics Co, New York ...... N Y
Omni Spectra Inc, Farmington ...... Mich
Ovenaire Inc, Charlottesville ...... Va
Raybond Electronics Inc Div Willcox & Gibbs Inc Norwood ...... Mass
RFD Inc, Tampa ...... Fla
Servo Corp of America, Hicksville ...... N Y
Solid State Electronics Corp, Sepulveda ...... Cal
Space & Systems Div General Time Corp Stamford ...... Conn
Squires-Sanders Inc, Liberty Corner ...... N J
Tel-Instrument Electronics Corp, Carlstadt ...... N J
Terra Corp, Albuquerque ...... N M
Trak Microwave Corp, Tampa ...... Fla
Varian, Palo Alto ...... Cal
Western Microwave Labs Inc, Santa Clara ...... Cal
Westinghouse Electric Corp, Tube Div, Elmira ...... NY

OSCILLATORS, R-F--STABLE LOCAL (STALO)

CTS KNIGHTS INC, SANDWICH ILL
ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK ...... KAN
GENERAL MICROWAVE CORP, FARMINGDALE ...... N Y
GREENRAY INDUSTRIES INC, MECHANICSBURG ...... PA
HILL ELECTRONICS INC, MECHANICSBURG ...... PA
MICROWAVE/SYSTEMS INC, EAST SYRACUSE ...... N Y
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO ILL
RFD INC, TAMPA, FLA ...... ADV PG 454
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG ...... MD
Accutronics, Inc, Geneva Ill
Acton Laboratories Inc, Acton ...... Mass
Advanced Measurement Instruments, Inc Somerville ...... Mass
Alto Scientific Co, Inc, Palo Alto ...... Cal
Amerac, Inc, Beverly ...... Mass
Applied Microwave Lab, Inc, Andover ...... Mass
Applied Research, Inc, Port Washington ...... N Y
Astrolab Inc, Linden ...... N J
Avco Corp Electronics Div, Cincinnati ...... Ohio
California Microwave, Sunnyvale ...... Cal
Carol Electronics Div Weeco Inc, Martinsburg ...... W Va
Central Coil Co Inc, Martinsville ...... Ind
Computer Devices Corp, Commack ...... N Y
CTS Knights Inc, Sandwich Ill
Dewey Corp, G C, New York ...... N Y
Electronic Research co, A Textron Co Overland Park ...... Kan
Fairchild Instrumentation, Sunnyvale ...... Cal
Ferwalt Inc W H, Lapwai ...... Idaho
Frequency Electronics Inc, New Hyde Park ...... N Y
Frequency Engineering Labs, Farmingdale ...... N J
Frequency Sources Inc, N Chelmsford ...... Mass
General Instrument Corp Radio Receptor Div Hicksville ...... N Y
General Microwave Corp, Farmingdale ...... N Y
Greenray Industries Inc, Mechanicsburg ...... Pa
Hill Electronics Inc, Mechanicsburg ...... Pa
Hughes Aircraft Co, Newport Beach ...... Cal
Itek Corp, Lexington ...... Mass
ITT Europe Inc Components Gp, Brussels 1 ...... Belgium
ITT Federal Labs, Fort Wayne ...... Ind
Janus Control Div Tyco, Waltham ...... Mass
Kruse-Storke Electronics, Mountain View ...... Cal
Litton Industries, Electron Tube Div, San Carlos ...... Cal
L P Associates Inc, Los Angeles ...... Cal
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs ...... Pa
Micromega Div Amphenol Corp, Venice ...... Cal
Micronetics Div Teledyne Systems Co, San Diego ...... Cal
Microwave Control Co, Red Bank ...... N J
Microwave Development Labs Inc Needham Heights ...... Mass
Microwave Products Group Div C A S Inc Carle Place ...... N Y
Microwave/Systems Inc, East Syracuse ...... N Y
Motorola Commun & Elctns Inc Prec Instr Prods Chicago Ill
Ovenaire Inc, Charlottesville ...... Va
Polarad Electronic Instruments Div Long Island City ...... N Y
Raybond Electronics Inc Div Willcox & Gibbs Inc Norwood ...... Mass
RFD Inc, Tampa ...... Fla
Solid State Electronics Corp, Sepulveda ...... Cal
Squires-Sanders Inc, Liberty Corner ...... N J
Symetrics Engineering Corp, Satellite Beach ...... Fla
Technical Materiel Corp, Mamaroneck ...... N Y
Terra Corp, Albuquerque ...... N M
T M C Systems (Ariz) Inc, Tempe ...... Ariz
Topping Electronics Ltd, Toronto 17 ...... Ont
Trak Microwave Corp, Tampa ...... Fla
TRW Electronic Components Div TRW Inc, Camden ...... N J
Valpey-Fisher Corp, Holliston ...... Mass
Varian, Palo Alto ...... Cal
Weinschel Engineering Co Inc, Gaithersburg ...... Md
Western Microwave Labs Inc, Santa Clara ...... Cal
Wiltron Co, Palo Alto ...... Cal

OSCILLATORS, R-F--SUBCARRIER (INCL TELEMETERING)

ACCURATE ELECTRONICS CORP, ELYRIA ...... OHIO
CTS CORP, ELKHART ...... IND
CTS KNIGHTS INC, SANDWICH ILL
FORK STANDARDS INC, WEST CHICAGO ILL
GENERAL MICROWAVE CORP, FARMINGDALE ...... N Y
GREENRAY INDUSTRIES INC, MECHANICSBURG ...... PA
INTERELECTRONICS CORP, CONGERS ...... N Y
KINELOGIC CORP, PASADENA ...... CAL
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO ILL
RFD INC, TAMPA, FLA ...... ADV PG 454
Accurate Electronics Corp, Elyria ...... Ohio
Accutronics, Inc, Geneva Ill
Advanced Technology Corp, Chambersburg ...... Pa
Airpax Electronics Inc, Cambridge Div, Cambridge ...... Md
Amark Corp, Plainview ...... N Y
Amerac, Inc, Beverly ...... Mass
American Systems, Inc, Van Nuys ...... Cal
Applied Electronics Corp of N J, Metuchen ...... N J
Astrolab Inc, Linden ...... N J
California Microwave, Sunnyvale ...... Cal
Central Coil Co Inc, Martinsville ...... Ind
Cie De Signaux Et D'Entreprises Electriques Paris 17eme ...... France
Conic Corp, San Diego ...... Cal
Control Science Corp, Alexandria ...... Va
Cosmos Industries Inc, Brooklyn ...... N Y
CTS Corp, Elkhart ...... Ind
CTS Knights Inc, Sandwich Ill
Data-Control Systems Inc, Danbury ...... Conn
Dewey Corp, G C, New York ...... N Y
Dorsett Electronics Inc, Tulsa ...... Okla
Dytronics Co Inc, Columbus ...... Ohio
EMR Div Weston Instruments Inc, Princeton ...... N J
Ferwalt Inc W H, Lapwai ...... Idaho
Fork Standards Inc, West Chicago Ill
Frequency Electronics Inc, New Hyde Park ...... N Y
Frequency Sources Inc, N Chelmsford ...... Mass
General Devices Inc, Instrumentation Div Princeton ...... N J
General Instrument Corp Radio Receptor Div Hicksville ...... N Y
General Microwave Corp, Farmingdale ...... N Y
Giannini-Voltex, Whittier ...... Cal
Greenray Industries Inc, Mechanicsburg ...... Pa
Helix Research Assoc Inc, La Mesa ...... Cal
Hughes Aircraft Co, Newport Beach ...... Cal
Inductor Engineering Inc, Lewes ...... Del
Industrial Electronetics Corp, Satellite Beach ...... Fla
Interelectronics Corp, Congers ...... N Y
International Tel & Tel Corp Industrial Prods Div San Fernando ...... Cal
ITT Europe Inc Components Gp, Brussels 1 ...... Belgium
Kinelogic Corp, Pasadena ...... Cal
Litton Industries, Electron Tube Div, San Carlos ...... Cal
Logitek Inc, Farmingdale ...... N Y
Micromega Div Amphenol Corp, Venice ...... Cal
Micro State Electronics Oper Raytheon Co Murray Hill ...... N J
Microwave Associates Inc, Burlington ...... Mass
Motorola Commun & Elctns Inc Prec Instr Prods Chicago Ill
Philco-Ford Corp, Washington ...... D C
Probescope Co Inc, Syosset ...... N Y
Raybond Electronics Inc Div Willcox & Gibbs Inc Norwood ...... Mass
RFD Inc, Tampa ...... Fla
Singer Co, Metrics Div, Bridgeport ...... Conn
Solid State Electronics Corp, Sepulveda ...... Cal
Sonex Inc, Philadelphia ...... Pa
Symetrics Engineering Corp, Satellite Beach ...... Fla
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia ...... Pa
Teledyne Telemetry Co, Los Angeles ...... Cal
T M C Systems (Ariz) Inc, Tempe ...... Ariz
Valpey-Fisher Corp, Holliston ...... Mass
Video Research Corp, Rockville ...... Md

OSCILLATORS, R-F--VARIABLE

ANRITSU ELECTRIC CO LTD, TOKYO ...... JAPAN
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE ...... N Y
ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK ...... KAN
GENERAL MICROWAVE CORP, FARMINGDALE ...... N Y
GREENRAY INDUSTRIES INC, MECHANICSBURG ...... PA
HEATH CO, BENTON HARBOR ...... MICH
HEWLETT-PACKARD, PALO ALTO ...... CAL
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ...... JAPAN
MICROSONICS INC, WEYMOUTH ...... MASS
MICROWAVE/SYSTEMS INC, EAST SYRACUSE ...... N Y
RFD INC, TAMPA, FLA ...... ADV PG 454
SCIENTIFIC-ATLANTA INC, ATLANTA ...... GA
SERVO CORP OF AMERICA, HICKSVILLE ...... N Y
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG ...... MD
Accutronics, Inc, Geneva Ill
Advanced Measurement Instruments, Inc Somerville ...... Mass
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park ...... N Y
Airmec Instruments Ltd, Buckinghamshire ...... England
Amerac, Inc, Beverly ...... Mass
American Systems, Inc, Van Nuys ...... Cal
American Trans-Coil Corp, Richmond Hill ...... NY
Ando Electric Co Ltd, Ohta-ku, Tokyo ...... Japan
Anritsu Electric Co Ltd, Tokyo ...... Japan
Applied Microwave Lab, Inc, Andover ...... Mass
Arenberg Ultrasonic Lab, Inc, Jamaica Plain ...... Mass
Artted Co, Inc, Springfield ...... Mass
Arvin Frequency Devices, West Lafayette ...... Ind
Astrolab Inc, Linden ...... N J
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside ...... N Y
California Microwave, Sunnyvale ...... Cal
California Systems Components, Inc, Chatsworth ...... Cal
Carol Electronics Div Weeco Inc, Martinsburg ...... W Va
Cavitron Electronics, Inc, Costa Mesa ...... Cal
Central Coil Co Inc, Martinsville ...... Ind
Clough-Brengle Co, Chicago Ill
Coilcraft Inc, Cary Ill
Crystalab Products Corp, Rochelle Park ...... N J
Damon Engineering Inc, Needham Heights ...... Mass
Data Royal Corp, San Diego ...... Cal
Delta Coils, Philadelphia ...... Pa
Dewey Corp, G C, New York ...... N Y
Electronic Research co, A Textron Co Overland Park ...... Kan
Engineering Associates, Dayton ...... Ohio
Fairchild Instrumentation, Sunnyvale ...... Cal
Frequency Electronics Inc, New Hyde Park ...... N Y
Frequency Sources Inc, N Chelmsford ...... Mass
General Devices Inc, Instrumentation Div Princeton ...... N J
General Instrument Corp Radio Receptor Div Hicksville ...... N Y
General Microwave Corp, Farmingdale ...... N Y
General Radio Co, West Concord ...... Mass
Greenray Industries Inc, Mechanicsburg ...... Pa
Heath Co, Benton Harbor ...... Mich
Hewlett-Packard, Palo Alto ...... Cal
Honig Laboratories Inc, Westbury ...... N Y
Hughes Aircraft Co, Newport Beach ...... Cal
Industrial Electronetics Corp, Satellite Beach ...... Fla
International Tel & Tel Corp Industrial Prods Div San Fernando ...... Cal
ITT Europe Inc Components Gp, Brussels 1 ...... Belgium
J A C Electronics Ltd, Camberley ...... England
Janus Control Div Tyco, Waltham ...... Mass
Krohn-Hite Corp, Cambridge ...... Mass
Kruse-Storke Electronics, Mountain View ...... Cal
Lear Siegler Inc, Santa Monica ...... Cal

Works in Seconds.

The '69 Electronics Buyers' Guide lets you find people, places, and things in seconds. In the Directory of Manufacturers and Sales Offices, for example, more than 6,000 manufacturers are listed, including addresses, telephone numbers, sales offices, the people to call for information, the total number of engineers and employees and sales volumes. So use your EBG. It works in seconds.

Electronics Buyers' Guide

Litton Industries, Electron Tube Div, San Carlos	Cal
London Co, Westlake	Ohio
Marconi Instruments Div, English Electric Corp Englewood	N J
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs	Pa
Measurements A McGraw-Edison Div, Boonton	N J
Merit Coil & Transformer Corp, Hollywood	Fla
Micromega Div Amphenol Corp, Venice	Cal
Micro Power Inc, Long Island City	N Y
Microsonics Inc, Weymouth	Mass
Microwave Associates Inc, Burlington	Mass
Microwave Control Co, Red Bank	N J
Microwave Products Group Div C A S Inc Carle Place	N Y
Microwave/Systems Inc, East Syracuse	N Y
Multronics Inc, Rockville	Md
Narda Microwave Corp, Plainview	N Y
Northern Radio Co Inc, New York	N Y
Omni Spectra Inc, Farmington	Mich
Ovenaire Inc, Charlottesville	Va
Philco-Ford Corp, Washington	D C
Physical Electronics Labs, Menlo Park	Cal
Polarad Electronic Instruments Div Long Island City	N Y
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Radio Corp of America, Electronic Components, Harrison	N J
Radiometer A/S, Copenhagen NV	Denmark
Raybond Electronics Inc Div Willcox & Gibbs Inc Norwood	Mass
RF Amplifier Co, Lake Grove	N Y
RFD Inc, Tampa	Fla
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Rowe Industries Inc, Toledo	Ohio
Scientific-Atlanta Inc, Atlanta	Ga
Servo Corp of America, Hicksville	N Y
Singer Co, Metrics Div, Bridgeport	Conn
Sodilec SA Salies-S A, 91 Palaiseau	France
Solid State Electronics Corp, Sepulveda	Cal
Squires-Sanders Inc, Liberty Corner	N J
Symetrics Engineering Corp, Satellite Beach	Fla
Taffet Electronics Inc, Woodside	N Y
Technical Materiel Corp, Mamaroneck	N Y
Tel-Instrument Electronics Corp, Carlstadt	N J
Telonic Instruments Div Telonic Indus Inc Beech Grove	Ind
Terra Corp, Albuquerque	N M
Tocco Div Ohio Crankshaft Co, Cleveland	Ohio
Topping Electronics Ltd, Toronto 17	Ont
Trak Microwave Corp, Tampa	Fla
TRW Electronic Components Div TRW Inc, Camden	N J
Valpey-Fisher Corp, Holliston	Mass
Watkins-Johnson Co, Palo Alto	Cal
Weinschel Engineering Co Inc, Gaithersburg	Md
Western Microwave Labs Inc, Santa Clara	Cal
Wiltek, Inc, Wilton	Conn
Winslow Tele-Tronics Inc, Asbury Park	NJ

OSCILLATORS—TEMPERATURE COMPENSATED, CRYSTAL

BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE, N Y	**ADV PG 456**
FORK STANDARDS INC, WEST CHICAGO	**ILL**
GREENRAY INDUSTRIES INC, MECHANICSBURG	**PA**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HILL ELECTRONICS INC, MECHANICSBURG	**PA**
INTERNATIONAL CRYSTAL MFG CO INC OKLAHOMA CITY	**OKLA**
REEVES-HOFFMAN DIV, CARLISLE	**PA**
TRACOR INC, AUSTIN	**TEX**
Arvin Frequency Devices, West Lafayette	Ind
Bendix Corp Environmental Science Div, Baltimore	Md
Bliley Electric Co, Erie	Pa
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
California Microwave, Sunnyvale	Cal
Collins Radio Co, Electronic Components Newport Beach	Cal
Fairchild Instrumentation, Sunnyvale	Cal
Ferwalt Inc W H, Lapwai	Idaho
Fork Standards Inc, West Chicago	Ill
Frequency Electronics Inc, New Hyde Park	N Y
Greenray Industries Inc, Mechanicsburg	Pa
Helix Research Assoc Inc, La Mesa	Cal
Hewlett-Packard, Palo Alto	Cal
Hill Electronics Inc, Mechanicsburg	Pa
International Crystal Mfg Co Inc, Oklahoma City	Okla
ITT Europe Inc Components Gp, Brussels 1	Belgium
Microwave Products Group Div C A S Inc Carle Place	N Y
Ovenaire Inc, Charlottesville	Va
Reeves-Hoffman Div, Carlisle	Pa
RO Associates Inc, Menlo Park	Cal
Sonex Inc, Philadelphia	Pa
Standard Crystal Co, Alhambra	Cal
Symetrics Engineering Corp, Satellite Beach	Fla
Technical Materiel Corp, Mamaroneck	N Y
T M C Systems (Ariz) Inc, Tempe	Ariz
Topping Electronics Ltd, Toronto 17	Ont
Tracor Inc, Austin	Tex
Varo Inc Time & Frequency Products Santa Barbara	Cal
Vectron Labs Inc, Stamford	Conn

TCXO's?

Try Bulova First!

CALL:

Ariz	Tech-Ser Inc, 1805 E Indian School Rd Phoenix	602-265-3629
Cal	Straube Assoc, 483 Willow Rd Menlo Pk	213-323-2476
Cal	W J Carnes & Co, 420 S D St Tustin	213-838-0575
Conn	Samuel C Hooker Inc, Box 369 W Hartford	203-233-8000
Fla	Perrott Assoc, 1607 Forsyth Rd, Orlando	305-275-1132
Fla	Perrott Assoc, Box 6277 West Palm Beach	305-967-1770
Fla	Perrott Assoc, Box 4532, Clearwater	813-531-5513
Ill	J R Sales Engineering 7132 N Harlem Ave, Chicago	312-774-8550
Iowa	J R Sales Engrg, 3350 Cottage Grove Ave SE, Cedar Rapids	319-365-5259
Md	Callas Electronics, 6409 Frederick Ave Baltimore	301-744-7711
Mass	Samuel Hooker, Inc, Box 352 Winchester	617-729-5482
Minn	Wenco Sales Inc, 7728 Morgan Ave S Minneapolis	612-866-3639
Mo	J C Mankus & Assoc, 400 Brooks La Hazelwood	314-PE1-4334
NY	Kahgan Sales Corp, 1261 Broadway New York	212-MU4-7772
NY	H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester	716-232-2688
NY	Comtronic Assoc, 1551 Franklin Ave Mineola	516-PI1-8966
NY	H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady	518-374-5901
NY	H C Johnson Agencies Inc, Box 215 Fayetteville	315-637-9383
NY	H C Johnson Agencies Inc, 8 Los Robles St Williamsville	716-632-7880
Ohio	Augey Natalino Assoc, 209 Harmony Hills Akron	216-666-1447
Pa	C H Newson & Assoc Inc, 627 Bethlehem Pike, Philadelphia	215-248-3377
Tex	Blackburn Assoc., Inc., 137 Walnut Hill Village, Box 20073, Dallas	214-351-9991
Wash	Jas J Backer Co, 221 W Galer St Seattle	206-AT3-6470
Can	Canadian Micro Electronics, Box 6157 Sta J, Ottawa	725-2332

BULOVA WATCH CO INC
FREQUENCY CONTROL PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

EBG

What's in it for you?

1. Listing of more than 4,000 products.
2. 6,500 manufacturers with local outlets, addresses and phone numbers.
3. Complete and up-to-date Trade Name Directory
4. The most complete industry source of supply and product specs.

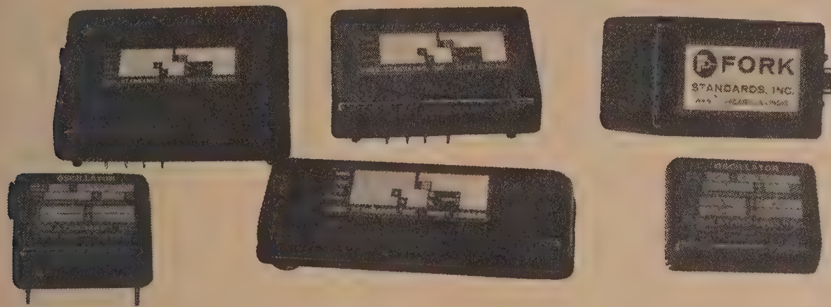
Electronics Buyers' Guide

TUNING FORKS? **CRYSTAL OSCILLATORS?** **FREQUENCY STANDARDS?**

Yes! SELECT YOUR PRECISION FREQUENCY PRODUCTS FROM *Fork Standards*

FREQUENCY DIVIDERS? **POWER INVERTERS?** **FREQUENCY CHANGERS?**

CRYSTAL AND TUNING FORK OSCILLATORS



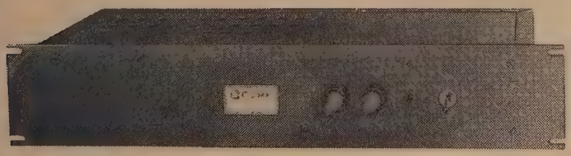
Representative specifications in tables at right. Standard supply voltages 3.5, 5, or 12 VDC. Tuning fork resonator only also available in Type F case as Model FR, 1000 Hz to 15 kHz.

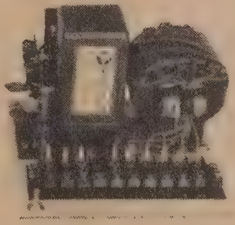
TUNING FORK OSCILLATORS

TEMP. RANGE VS. ACCURACY
15° to 35°C: .005%—Best: .05%—Standard
0° to 65°C: .010%—Best: .10%—Standard
—55° to 85°C: .050%—Best: .20%—Standard

MODEL	BASE SIZE	HEIGHT	FREQUENCY RANGE	OUTPUT	UNIT PRICE
G Gen. Use Octal Plug or Hooks	1½" Sq.	2½" 3½" 2½" 3½"	1 Hz to 15 kHz .012 Hz to 1 Hz 100 Hz to 15 kHz 20 Hz to 100 Hz	Square Square Sine Sine	$ 59 up 134 up 74 up 96 up
T Economy Octal Plug	1" Sq.	2¼"	400 to 1000 Hz (Standard Accuracy)	Square	$ 34 100 quan.
FO or U Card Mount	1½" Sq.	⅜" .6" .6"	1 kHz to 15 kHz .12 Hz to 1 kHz 1 kHz to 15 kHz	Square Square Sine	$ 65 up 80 up 80 up
J Economy Card Mt.	1½" x 2⅜"	⅞"	800 to 7000 Hz	Square	$ 34 up 100 quan.
P Card Mount	1½" x 3½"	17/32" 15/16" 15/16"	60 Hz to 15 kHz .1 Hz to 60 Hz 120 Hz to 15 kHz	Square Square Sine	$ 65 up 90 up 80 up
W Card Mt.	2 3/16" x 2½"	½" ¾"	60 Hz to 15 kHz 120 Hz to 15 kHz	Square Sine	$ 65 up 80 up
R Card Mt.	3 1/16" Sq.	½" ¾"	.25 Hz to 15 kHz 20 Hz to 15 kHz	Square Sine	$ 65 up 80 up

PRECISION FREQUENCY POWER INVERTERS AND FREQUENCY CHANGERS





Power: to 250 W (standard)
Frequency: 25 Hz to 1 kHz (standard)
Accuracy: Determined by oscillator (see tables)

CRYSTAL OSCILLATORS (non-oven)

TEMPERATURE RANGE VS. ACCURACY *
15° to 35°C: .001% or .0025%
0° to 50°C: .002% or .005%
—55° to 85°C: .005% or .015%

MODEL	BASE SIZE	HEIGHT	FREQUENCY RANGE	OUTPUT	UNIT PRICE
GQ Octal Plug or Hooks	1½" Sq.	2½" 3½"	.12 Hz to 10 MHz 20 Hz to 10 MHz	Square Sine	$ 59 up 74 up
UQ Card Mt.	1½" Sq.	½" .6"	50 Hz to 10 MHz 1000 Hz to 10 MHz	Square Sine	$ 59 up 74 up
PQ Card Mount	1½" x 3½"	½" to 15/16"	25 kHz to 10 MHz 32 Hz to 25 kHz 100 Hz to 10 MHz	Square Square Sine	$ 59 up 89 up 74 up
WQ Card Mt.	2 3/16" x 2½"	½" to ¾"	25 kHz to 10 MHz 32 kHz to 10 MHz	Square Sine	$ 59 up 74 up
RQ Card Mount	3 1/16" Sq.	½" to ¾"	200 Hz to 10 MHz .1 Hz to 200 Hz 200 Hz to 10 MHz	Square Square Sine	$ 59 up 148 up 156 up

* Ovens available to provide .001% from —55° to +85°C.

FREQUENCY DIVIDER MODULES

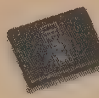
Divide by: 2, 3, 4, 5, 6, 8, 10, or 16. (Combination outputs available)
Size: 1½" Sq., 2½" H., octal plug

Call or write for a quotation on your specific requirements.

FORK STANDARDS, INC.
251 MAIN STREET / WEST CHICAGO, ILLINOIS 60185
Telephone: *AREA CODE 312—231-3511*

TO BE PRECISE

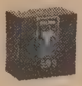
Specify Melpar Oscillators



TUNING FORK OSCILLATORS

Frequency Range: Less than 1 HZ to 25KHZ

Series	Accuracy	Input	Output	Size	Terminals
10	±.005% @ 25°C ±.02% (0 to 60°) ±0.1% to .05 (—55° to +125°C)	3 to 32VDC	Sine or Square Wave	1 29/32 x 1 15/32 x .4	Loop or Solder Pin
10H				1 29/32 x 1 15/32 x 15/16	
10HD				1 29/32 x 1 15/32 x 1 21/32	
15	±.1% to 0.005%	3 to 28VDC		1 5/16 x 1 5/16 x 3/8	Solder Pin
30	±0.1% (—55° to +125°C) ±.05% (—55° to 85°C) ±.02% (15° to 35°C)	12 to 32VDC		1 17/64 x 1 17/64 x 1 3/4	Solder Loop
31				1 5/8 x 1 3/4 x 7/8	Solder Pin
50	±0.1% (—55° to +125°C) ±.05% (—55° to +125°C) ±.01% (0 to 50°C) ±.005% @ 25°C	3.5 to 28VDC		1 1/2 x 1 1/2 x 3/8	Solder Pin
50H				1 1/2 x 1 1/2 x 1 1/2	Octal Plug
51 52				1 1/2 x 1 1/2 x 3/8	Solder Pin
80				2 x 2 x .4	Solder Pin



SOLID STATE OSCILLATORS

Frequency Range: .1HZ and Up.
Series 5

Accuracy	Input	Output	Size	Terminals
±0.05% (25° ±10°C) ±0.1% (—25° to +85°C) ±0.5% (—40° to +85°C)	6 to 28VDC	Square Wave	1 x 1 x 1 or 1.6 x 1.6 x 1.5	Solder Pin

CRYSTAL CONTROLLED OSCILLATORS

Frequency Range: 25KHZ to 50MHZ

Series	Accuracy	Input	Output	Size	Terminals
C80	±.005% (—55° to +85°C)	3 to 28VDC	Square Wave	2 x 2 x .4	Solder Pin
C90	±.001% (—40° to +85°C)			1.5 x 1.5 x .4	

Our units are ideally suited for use in ground, shipboard, airborne, and satellite equipment.

We have many models designed to meet your shock and vibration requirements of MIL-E-5400, MIL-E-5272, MIL-STD-67 and MIL-STD-202.

We also have a versatile line of:

TUNING FORKS
TIME BASE GENERATORS
FREQUENCY DIVIDERS
TIMERS

Our applications engineers would appreciate the opportunity of assisting you in selecting a model to meet your specific requirements.

PRODUCT MARKETING DEPARTMENT

MELPAR, INC.
7785 ARLINGTON BOULEVARD
FALLS CHURCH, VIRGINIA 22046
AREA CODE 703 534-6000

OSCILLATORS--TUNING FORK CONTROLLED

FORK STANDARDS INC, WEST CHICAGO, ILL ...... ADV PG 457
GREENRAY INDUSTRIES INC, MECHANICSBURG .... PA
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH VA .... ADV PG 458
MESON ELECTRONICS CO, INC, ROCHESTER .... N Y
Accutronics, Inc, Geneva Ill
Advanced Energy Conversion, Menlo Park .... Cal
Barden Co, Hermosa Beach .... Cal
Fork Standards Inc, West Chicago Ill
Greenray Industries Inc, Mechanicsburg .... Pa
Melpar Inc, Special Prods Dept, Falls Church .... Va
Meson Electronics Co, Inc, Rochester .... N Y
Philamon Laboratories Inc, Westbury .... N Y
Solid State Electronics Corp, Sepulveda .... Cal
Varo Inc Time & Frequency Products Santa Barbara .... Cal

OSCILLATORS--ULTRA LOW FREQUENCY

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE .... N Y
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE .... N Y
C M L INC, PLAINFIELD .... N J
CTS CORP, ELKHART .... IND
ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK .... KAN
FORK STANDARDS INC, WEST CHICAGO ILL
GENERAL MICROWAVE CORP, FARMINGDALE .... N Y
GREENRAY INDUSTRIES INC, MECHANICSBURG .... PA
HEWLETT-PACKARD, PALO ALTO .... CAL
HILL ELECTRONICS INC, MECHANICSBURG .... PA
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON .... N Y
INTERELECTRONICS CORP, CONGERS .... N Y
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH .... VA
MESON ELECTRONICS CO, INC, ROCHESTER .... N Y
Accutronics, Inc, Geneva Ill
Airmec Instruments Ltd, Buckinghamshire .... England
Alcatel, Paris 8eme .... France
American Time Products, Elctns Div Bulova Watch Co Inc Woodside .... N Y
Ando Electric Co Ltd, Ohta-ku, Tokyo .... Japan
Argonaut Associates, Inc, Beaverton .... Ore
Audn Corp, Hamburg .... N Y
Austron, Inc, Austin .... Tex
Autronics Corp, Pasadena .... Cal
Beckwith Electric Co Inc, Mt Prospect Ill
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside .... N Y
California Systems Components, Inc, Chatsworth .... Cal
C M L Inc, Plainfield .... N J
Computer Devices Corp, Commack .... N Y
Connor-Winfield Corp, Winfield Ill
Control Science Corp, Alexandria .... Va
CTS Corp, Elkhart .... Ind
Data Royal Corp, San Diego .... Cal
Dawe Instruments Ltd, London W3 .... England
Delta Coils, Philadelphia .... Pa
Di/An Controls Inc, Boston .... Mass
Electronic Research co, A Textron Co Overland Park .... Kan
EMR-Hatboro Div Weston Insts Inc, Hatboro .... Pa
Exact Electronics Inc, Hillsboro .... Ore
Ferwalt Inc W H, Lapwai .... Idaho
Fork Standards Inc, West Chicago Ill
Frequency Electronics Inc, New Hyde Park .... N Y
General Devices Inc, Instrumentation Div Princeton .... N J
General Microwave Corp, Farmingdale .... N Y
General Radio Co, West Concord .... Mass
Gibbs Mfg & Research Corp, Janesville .... Wis
Grafix Inc, Albuquerque .... N Mex
Greenray Industries Inc, Mechanicsburg .... Pa
Hewlett-Packard, Palo Alto .... Cal
Hill Electronics Inc, Mechanicsburg .... Pa
Inductor Engineering Inc, Lewes .... Del
Industrial Control Co, Farmingdale .... N Y
Industrial Test Equipment Co, Port Washington .... N Y
Interelectronics Corp, Congers .... N Y
Korfund Dynamics Corp, Westbury .... N Y
Krohn-Hite Corp, Cambridge .... Mass
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs .... Pa
Melpar Inc, Special Prods Dept, Falls Church .... Va
Meson Electronics Co, Inc, Rochester .... N Y
Monitor Products Co Inc, South Pasadena .... Cal
Moog Co, R A, Trumansburg .... N Y
Muirhead Instruments Inc, Mountainside .... N J
Optimation, Inc, Sun Valley .... Cal
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon .... NY
Riverbank Labs, Dept of Engrg, Geneva Ill
Robertson Instrument Co, Azusa .... Cal
Rohde & Schwarz Sales Co USA Inc, Passaic .... N J
Rowe Industries Inc, Toledo .... Ohio
Semiconductor Circuits, Inc, Woburn .... Mass
Singer Co, Metrics Div, Bridgeport .... Conn
Solid State Electronics Corp, Sepulveda .... Cal
Space & Systems Div General Time Corp Stamford .... Conn
Spectral Dynamics Corp of San Diego, San Diego .... Cal
Taffet Electronics Inc, Woodside .... N Y
Valpey-Fisher Corp, Holliston .... Mass
Varo Inc, Garland .... Tex
Varo Inc Time & Frequency Products Santa Barbara .... Cal
Wavetek, San Diego .... Cal
Western Instrument Corp, Burbank .... Cal

OSCILLATORS--ULTRASONIC SEE ULTRASONIC EQUIPMENT

Industrial Electronetics Corp, Satellite Beach	Fla
Kay Electric Co, Pine Brook	N J
Krohn-Hite Corp, Cambridge	Mass
Kruse-Storke Electronics, Mountain View	Cal
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Lee Co, Richard, New Providence	N J
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs	Pa
Micro Power Inc, Long Island City	N Y
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Microwave Products Group Div C A S Inc Carle Place	N Y
Monitor Products Co Inc, South Pasadena	Cal
Moog Co, R A, Trumansburg	N Y
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
NUS Corp, Underwater Sys Div, Paramus	N J
Oki Electric Industry Co Ltd, Tokyo	Japan
Omega Laboratories Inc, Rowley	Mass
Optical Electronics Inc, Tuscon	Ariz
Ovenaire Inc, Charlottesville	Va
Physical Electronics Labs, Menlo Park	Cal
Radix Electronics Corp, Anaheim	Cal
RF Amplifier Co, Lake Grove	N Y
Ryka Scientific Inc, Mountain View	Cal
Sensor Corp, Greenwich	Conn
Solid State Electronics Corp, Sepulveda	Cal
Sonex Inc, Philadelphia	Pa
Spectral Dynamics Corp of San Diego, San Diego	Cal
Squires-Sanders Inc, Liberty Corner	N J
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Teledyne Telemetry Co, Los Angeles	Cal
Terra Corp, Albuquerque	N M
T M C Systems (Ariz) Inc, Tempe	Ariz
Trak Microwave Corp, Tampa	Fla
Vectron Labs Inc, Stamford	Conn
Video Research Corp, Rockville	Md
Wavetek, San Diego	Cal
Western Microwave Labs Inc, Santa Clara	Cal
Wiltek, Inc, Wilton	Conn

Fast acting.

The Electronics Buyers' Guide can get you on the right frequency in a hurry. For example, there are 14 different kinds of oscillators listed. Everything from AF oscillators to voltage controlled crystal oscillators. There are three sections in your EBG, devoted to products, manufacturers and trade names. So see your fast-acting EBG.

Electronics Buyers' Guide

Pain Killer.

If vendors have you in a pinch and another source of supply will help, turn to the Electronics Buyers' Guide. You'll find all the information you need on over 1,363 sources of power supplies, listed under 11 headings from *AC Regulated Power Supplies to Laser Power Supplies.*

Electronics Buyers' Guide

VCXO's?
Try Bulova First!
CALL:

Ariz	Tech-Ser Inc, 1805 E Indian School Rd Phoenix	602-265-3629
Cal	Straube Assoc, 483 Willow Rd Menlo Pk	213-323-2476
Cal	W J Carnes & Co, 420 S D St Tustin	213-838-0575
Conn	Samuel C Hooker Inc, Box 369 W Hartford	203-233-8000
Fla	Perrott Assoc, 1607 Forsyth Rd, Orlando	305-275-1132
Fla	Perrott Assoc, Box 6277 West Palm Beach	305-967-1770
Fla	Perrott Assoc, Box 4532, Clearwater	813-531-5513
Ill	J R Sales Engineering 7132 N Harlem Ave, Chicago	312-774-8550
Iowa	J R Sales Engrg, 3350 Cottage Grove Ave SE, Cedar Rapids	319-365-5259
Md	Callas Electronics, 6409 Frederick Ave Baltimore	301-744-7711
Mass	Samuel Hooker, Inc, Box 352 Winchester	617-729-5482
Minn	Wenco Sales Inc, 7728 Morgan Ave S Minneapolis	612-866-3639
Mo	J C Mankus & Assoc, 400 Brooks La Hazelwood	314-PE1-4334
NY	Kahgan Sales Corp, 1261 Broadway New York	212-MU4-7772
NY	H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester	716-232-2688
NY	Comtronic Assoc, 1551 Franklin Ave Mineola	516-PI1-8966
NY	H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady	518-374-5901
NY	H C Johnson Agencies Inc, Box 215 Fayetteville	315-637-9383
NY	H C Johnson Agencies Inc, 8 Los Robles St Williamsville	716-632-7880
Ohio	Augey Natalino Assoc, 209 Harmony Hills Akron	216-666-1447
Pa	C H Newson & Assoc Inc, 627 Bethlehem Pike, Philadelphia	215-248-3377
Tex	Blackburn Assoc., Inc., 137 Walnut Hill Village, Box 20073, Dallas	214-351-9991
Wash	Jas J Backer Co, 221 W Galer St Seattle	206-AT3-6470
Can	Canadian Micro Electronics, Box 6157 Sta J, Ottawa	725-2332

BULOVA WATCH CO INC
FREQUENCY CONTROL PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

OSCILLATORS--VOLTAGE CONTROLLED

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE, N Y	**ADV PG 459**
ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK	**KAN**
FORK STANDARDS INC, WEST CHICAGO	**ILL**
GREENRAY INDUSTRIES INC, MECHANICSBURG PA	**ADV PG 460**
HEWLETT-PACKARD, PALO ALTO	**CAL**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
Accurate Electronics Corp, Elyria	Ohio
Accutronics, Inc, Geneva	Ill
AIM Electronics Ltd, Cambridge	U K
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Applied Electronics Corp of N J, Metuchen	N J
Applied Microwave Lab, Inc, Andover	Mass
Applied Research, Inc, Port Washington	N Y
Astrodata Inc, Anaheim	Cal
Austron, Inc, Austin	Tex
Autronics Corp, Pasadena	Cal
Belar Electronics Lab Inc, Upper Darby	Pa
Betron-IRE-SpA, Livorno	Italy
Bomac Div Varian Associates, Beverly	Mass
Borg-Warner Controls Div Borg-Warner Corp Santa Ana	Cal
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
California Microwave, Sunnyvale	Cal
Chronetics Inc, Mount Vernon	N Y
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Conic Corp, San Diego	Cal
Control Logic Inc, Natick	Mass
Data Royal Corp, San Diego	Cal
Edwin Industries Corp, Silver Spring	Md
Electronic Design Labs Inc, Philadelphia	Pa
Electronic Research co, A Textron Co Overland Park	Kan
EMR Div Weston Instruments Inc, Princeton	N J
Fairchild Instrumentation, Sunnyvale	Cal
Ferwalt Inc W H, Lapwai	Idaho
Fork Standards Inc, West Chicago	Ill
Frequency Electronics Inc, New Hyde Park	N Y
Frequency Sources Inc, N Chelmsford	Mass
General Devices Inc, Instrumentation Div Princeton	N J
Giannini-Voltex, Whittier	Cal
Greenray Industries Inc, Mechanicsburg	Pa
Helix Research Assoc Inc, La Mesa	Cal
Hewlett-Packard, Palo Alto	Cal
Honig Laboratories Inc, Westbury	N Y
Hughes Aircraft Co, Newport Beach	Cal

EBG

the industry's

only computer

compiled directory.

This makes information in the Electronics Buyers' Guide the latest and most accurate anywhere.

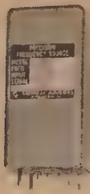
Electronics Buyers' Guide

VOLTAGE CONTROLLED OSCILLATORS

Through continuous research and specialization, Greenray Industries offers the most complete and advanced line of Frequency Standards and Oscillators in the industry.

Model No. and Type	Center Frequency Range	Maximum Range of Frequency Swing	Stability over Temp. Range (at a fixed frequency)	Temperature Range	Output Wave Form and Minimum Voltage	Input	Size	Unit Price 1-3 (each)
Q-200 R-C VCO	20 Hz to 100 kHz	±10% or ±30%	±2%	0 to 50°C	Pulse, Square or Sine	+28V D.C.	2″ x 2″ x 4″ high	$275.00 to $375.00
			±4%	−40°C to +60°C				
P-200 L-C VCO	1 kHz to 99.99 kHz	±1% or ±4%	±.5%	0 to 50°C	Sine 2V RMS	+28V D.C.	1¾″ dia. x 3⅝″ high	$489.00
			±1%	−40°C to +70°C				
P-201 L-C VCO	100 kHz to 19.99 MHz	±1%, ±5%, or ±10%	±.2%	0 to 50°C	Sine 2V RMS	+28V D.C.	1½″ dia. x 3^5^⁄16″ high	$389.00 to $485.00
			±.5%	−40°C to +70°C				
P-202 L-C VCO	20 MHz to 200 MHz	±10% or ±20%	±.2%	0 to 50°C	Sine 1 Milliwatt into 50 ohms	+28V D.C.	2″ x 2″ x 4″ high	$389.00
			±.5%	−40°C to +70°C				
PH-229 L-C VCO	100 kHz to 20 MHz	±10%	±.01%/hr. ±.02%/day	0°C to +50°C	Sine 1 mw into 50 ohms	+28V D.C. for oscillator and proportional oven	2″ x 2″ x 4″	$525.00
PH-230 L-C VCO	100 kHz to 20 MHz	±2%	±.001%/hr. ±.01%/day	0°C to +50°C	Sine 1 mw into 50 ohms	+28V D.C. for oscillator and proportional oven	2″ x 2″ x 4″	$795.00
N-200 VCXO	4 kHz to 999.9 kHz	±.01%, ±.05% or ±.1%	±.015%	−20°C to +60°C	Sine 1V RMS	+28V D.C.	2″ x 2″ x 4″ high	$525.00 to $675.00
N-201 VCXO	1 MHz to 60 MHz	±.01%, ±.05% ±.1%	±.005%	−20°C to +60°C	Sine 1V RMS	+28V D.C.	1½″ dia. x 3^5^⁄16″ high	$385.00 to $485.00
N-290 VCXO	50 kHz to 250 kHz	.05%	±.015%/day	−20°C to +60°C	Square 0 to +6 Volt Peak to drive micrologic	+3 to +6 V D.C.	2.56″ x 2.94″ x .6″ Thick	$425.00 to $475.00
N-291 VCXO	250.1 kHz to 5 MHz	±.1%	±.005%/day	−20°C to +60°C	Square 0 to +6 Volt Peak to drive micrologic	+3 to +6 V D.C.	2.56″ x 2.94″ x .6″ Thick	$399.00 to $519.00
N-292 VCXO	5.1 MHz to 25 MHz	±.1%	±.005%/day	−20°C to +60°C	Square 0 to +6 Volt Peak to drive micrologic	+3 to +6 V D.C.	1.63″ x 3.75″ x .6″ Thick	$385.00
NH-203A VCXO	1 MHz to 60 MHz LOW NOISE	±.01% or ±.05% or ±.1%	±.0001%	0 to 50°C	Sine 1 Milliwatt into 50 ohms	+28V D.C. for oscillator and proportional oven	2″ x 2″ x 4″ high	$565.00 to $645.00
NH-314 VCXO	60.1 MHz to 300 MHz LOW NOISE	±.05%	±.0005%/day	0°C to +50°C	Sine 1 mw into 50 ohms	+28V D.C. for oscillator and proportional oven	2¾″ x 2¾″ x 4⅝″	$748.00 to $975.00
SH-219 Wide Band VCXO	500 kHz to 60 MHz LOW NOISE	±.25% or ±.5% or ±1%	±.001% ±.005%	0 to 50°C	Sine 1 Milliwatt into 50 ohms	+28V D.C. for oscillator and proportional oven	2¾″ x 2¾″ x 4⅝″ high	$975.00 to $1450.00

Typical control voltage input: 2V RMS up to 15 kHz rate or ±3V D.C. for full modulation at 1000 ohm input impedance.—**Standard modifications available.**



Q-200

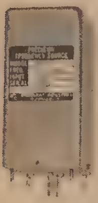
R-C Voltage Controlled Oscillator—Low frequency with ±20% frequency deviations. Less than 1 microsecond rise time.

P-200

L-C Voltage Controlled Oscillator—More stable than R-C types. Popular plug-in unit.

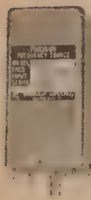
P-201

L-C Voltage Controlled Oscillator—Stabilities of ±.2%. Frequency deviations as great as ±10%.



P-202

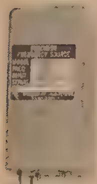
L-C Voltage Controlled Oscillator—High frequency oscillator with ±20% frequency deviation.



NEW

PH-229 & PH-230

L-C Voltage Controlled Oscillator—Proportional oven units offer stabilities of ±.001% and frequency deviations to ±10%.



N-200

Voltage Controlled Crystal Oscillator—Low frequency from 4 kHz to 999.9 kHz.

N-201

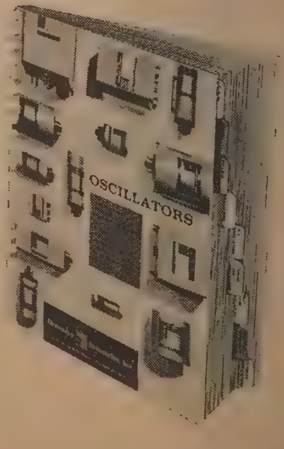
Voltage Controlled Crystal Oscillator—Nonoven unit available in flat pack or plug-in construction. Very popular.

NEW

N-290, N-291 & N-292

Voltage Controlled Crystal Oscillator—Designed to direct-drive all popular types of micrologic. 25 nanosecond maximum rise and fall time.

CALL OR WRITE FOR OUR COMPLETE CATALOG



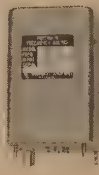
NH-203A

Voltage Controlled Crystal Oscillator—Proportional oven unit for FM and phase locked loop applications.

NEW

NH-314

Voltage Controlled Crystal Oscillator—High frequency 60 MHz to 300 MHz.



SH-219

**Wide Band Voltage Controlled Crystal Oscillator — **Uses special techniques for ±1% frequency deviation.

Greenray GRI **Industries, Inc.**

840 West Church Road, Mechanicsburg, Pa.

Phone — (Area Code 717) 766-0223

OSCILLATORS--VOLTAGE CONTROLLED, CRYSTAL

BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS WOODSIDE,	**N Y**
FORK STANDARDS INC, WEST CHICAGO	**ILL**
GREENRAY INDUSTRIES INC, MECHANICSBURG PA	**ADV PG 460**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INTERNATIONAL CRYSTAL MFG CO INC OKLAHOMA CITY	**OKLA**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
REEVES-HOFFMAN DIV, CARLISLE	**PA**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
Arvin Frequency Devices, West Lafayette	Ind
Bliley Electric Co, Erie	Pa
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
California Microwave, Sunnyvale	Cal
Ferwalt Inc W H, Lapwai	Idaho
Fork Standards Inc, West Chicago	Ill
Frequency Electronics Inc, New Hyde Park	N Y
Frequency Sources Inc, N Chelmsford	Mass
Giannini-Voltex, Whittier	Cal
Greenray Industries Inc, Mechanicsburg	Pa
Helix Research Assoc Inc, La Mesa	Cal
Hewlett-Packard, Palo Alto	Cal
Hughes Aircraft Co, Newport Beach	Cal
International Crystal Mfg Co Inc, Oklahoma City	Okla
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kay Electric Co, Pine Brook	N J
Microwave Associates Inc, Burlington	Mass
Microwave Products Group Div C A S Inc Carle Place	N Y
Microwave/Systems Inc, East Syracuse	N Y
NUS Corp, Underwater Sys Div, Paramus	N J
Ovenaire Inc, Charlottesville	Va
Reeves-Hoffman Div, Carlisle	Pa
R H G Electronics Lab Inc, Farmingdale	N Y
Signal Analysis Industries Corp, Copiague	N Y
Standard Crystal Co, Alhambra	Cal
T M C Systems (Ariz) Inc, Tempe	Ariz
Varo Inc Time & Frequency Products Santa Barbara	Cal
Vectron Labs Inc, Stamford	Conn

Fast

acting.

The Electronics Buyers' Guide can get you on the right frequency in a hurry. For example, there are 14 different kinds of oscillators listed. Everything from AF oscillators to voltage controlled crystal oscillators. There are three sections in your EBG, devoted to products, manufacturers and trade names. So see your fast-acting EBG.

Electronics Buyers' Guide

OSCILLOGRAPHS, RECORDING-- CATHODE RAY WITH CAMERA

Adtrol Electronics Inc, Philadelphia	Pa
Dynamco Ltd, Chertsey Surrey	Eng
E G & G Inc Custom Equip Div, Bedford	Mass
Electronic Instrument Div Gen Atronics Corp Philadelphia	Pa
Geo Space Corp, Houston	Tex
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Mandrel Industries Inc, Houston	Tex
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Systems Research Labs Inc, Dayton	Ohio

OSCILLOGRAPHS, RECORDING-- DIRECT WRITING

CLEVITE CORP, BRUSH INSTRUMENTS DIV, CLEVELAND OHIO	**ADV PGS 570,571**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
MIDWESTERN INSTRUMENTS INC, DIV TELEX CORP TULSA	**OKLA**
Adtrol Electronics Inc, Philadelphia	Pa
Advanced Technology & Systems Corp Old Greenwich	Conn
Allco S A, Gentilly	France
Alpine Geophysical Assoc Inc, Norwood	N J
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham	Mass
Century Electronics & Instruments Inc, Tulsa	Okla
Clevite Corp, Brush Instruments Div, Cleveland	Ohio
Computer Instruments Corp, Hempstead	N Y
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Dresser Systems, Inc, Houston	Tex
Epsco Inc, Westwood	Mass
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Geo Space Corp, Houston	Tex
Hayakawa Electric Co Ltd, Osaka	Japan
Hewlett-Packard, Palo Alto	Cal
Honeywell Test Instruments Div, Denver	Colo
Mandrel Industries Inc, Houston	Tex
Measurement Technology Corp, Canoga Park	Cal
Mechanics for Electronics Inc, Cambridge	Mass
Midwestern Instruments Inc, Div Telex Corp Tulsa	Okla
Nihon Kohden Kogyo Co Ltd, Tokyo	Japan
Photron Instrument Co, Cleveland	Ohio
San-Ei Instrument Co Ltd, Tokyo	Japan
Schwarzer Corp, Framingham	Mass
Siemens America Inc, New York	N Y
Techni-Rite Electronics Inc, Warwick	R I
Tensitron Inc, Harvard	Mass
Texas Instruments Incorporated, Dallas	Tex

OSCILLOGRAPHS, RECORDING-- LIGHT BEAM

CLEVITE CORP, BRUSH INSTRUMENTS DIV, CLEVELAND OHIO	**ADV PGS 570,571**
GEOTECH A TELEDYNE CO, GARLAND	**TEX**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
MIDWESTERN INSTRUMENTS INC, DIV TELEX CORP TULSA	**OKLA**
Adtrol Electronics Inc, Philadelphia	Pa
Allco S A, Gentilly	France
Century Electronics & Instruments Inc, Tulsa	Okla
Clevite Corp, Brush Instruments Div, Cleveland	Ohio
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Dowa Trading Co Ltd, Kobe	Japan
Dresser Systems, Inc, Houston	Tex
Geo Space Corp, Houston	Tex
Geotech A Teledyne Co, Garland	Tex
Hathaway Instruments Inc, Denver	Colo
Hewlett-Packard, Palo Alto	Cal
Honeywell Test Instruments Div, Denver	Colo
Midwestern Instruments Inc, Div Telex Corp Tulsa	Okla
San-Ei Instrument Co Ltd, Tokyo	Japan
Siemens America Inc, New York	N Y

OSCILLOSCOPE CAMERAS SEE CAMERAS

OSCILLOSCOPE DOLLIES SEE DOLLIES

EBG

What's

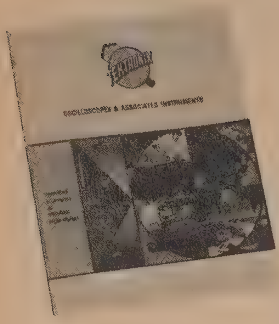
in it

for you?

1. Listing of more than 4,000 products.
2. 6,500 manufacturers with local outlets, addresses and phone numbers.
3. Complete and up-to-date Trade Name Directory
4. The most complete industry source of supply and product specs.

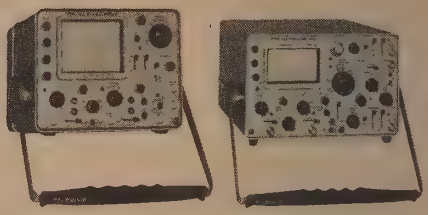
Electronics Buyers' Guide

TEKTRONIX® OSCILLOSCOPES



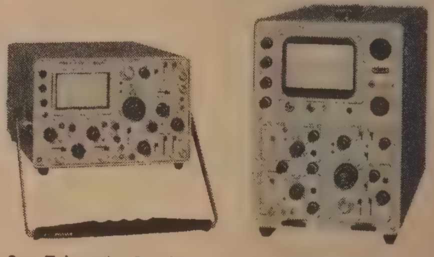
with page reference to Tektronix 1968 Catalog 27

The oscilloscopes and instruments shown on these pages are representative of each Tektronix product group. For complete information, characteristics and prices of all Tektronix products, refer to your 1968 Tektronix Catalog. If you have not received a catalog, please contact your nearby Tektronix Field Engineer.

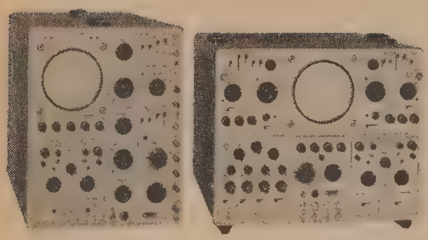


Portable oscilloscopes provide laboratory performance in compact easy-to-carry packages. Shown (left to right) are the DC-to-15 MHz Type 422, the DC-to-50 MHz Type 453 and the DC-to-150 MHz Type 454 (below), all dual-trace, ruggedized oscilloscopes. The plug-in oscilloscope is the Type 647A, which offers a DC-to-100 MHz dual-trace vertical, or DC-to-55 MHz differential comparator, choice of single or delaying sweep time base.

Type 422, $1425; Type 453, $1950
Type 454, $2600; Type 647A, $1550*



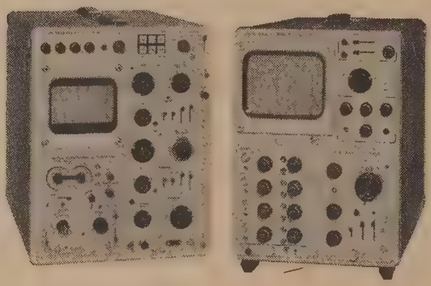
See Tektronix Catalog 27 Pages 34-47, 237.



530, 540, 550 and 580-series plug-in oscilloscopes include dual-beam, storage, sweep-switching and general-purpose instruments, with vertical plug-ins for multi-trace, differential, sampling, spectrum analysis and special-purpose applications. Illustrated are the Type 547 DC-to-50 MHz Sweep-Switching Oscilloscope (left) and the Type 556 DC-to-50 MHz Dual-Beam Oscilloscope.

Type 547, $1875*; Type 556, $3250*

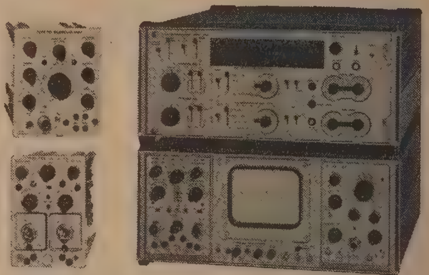
See Tektronix Catalog 27 Pages 80-150, 223-230.



Split-screen, bistable storage oscilloscopes permit simultaneous display of stored and non-stored waveforms. Either half or the whole screen may be used for storage applications or for conventional displays. Both the Type 549 (left) and the Type 564 are plug-in oscilloscopes and can be used for multi-trace, differential, sampling, spectrum analysis and special purpose applications.

Type 549, $2475*; Type 564, $925*

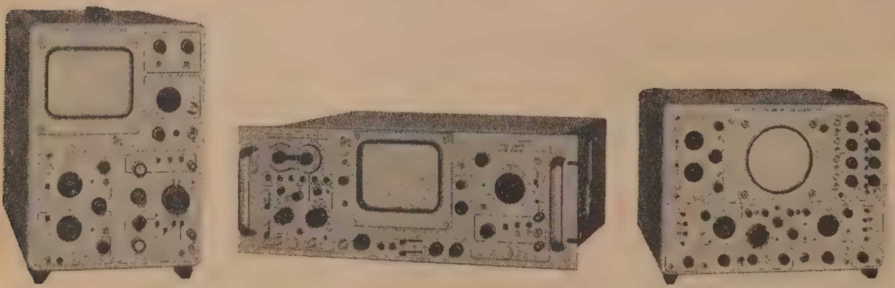
See Tektronix Catalog 27 Pages 108 and 155.



Sampling measurements can be made with plug-ins for both Type 530-540-550-580 Series Oscilloscopes and Type 560-Series Oscilloscopes. Plug-ins include the 350-ps risetime Type 1S1 Sampling Unit (above) for Type 530-540-550-580 Series Oscilloscopes, and the 50-ps risetime Type 3S2 with plug-in Sampling Heads (below) for Type 560-Series Oscilloscopes. The Type 568 Oscilloscope and Type 230 Digital Unit (right) permit simultaneous analog display and digital readout of amplitude, rise and falltime, pulse width, and time intervals.

Type 1S1, $1175; Type 230, $2965
Type 3S2 with heads, $1400; Type 568, $875*

See Tektronix Catalog 27 Pages 147, 188, 202-206.



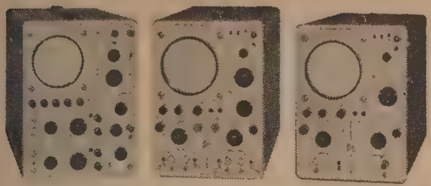
560-series plug-in oscilloscopes include general-purpose, split-screen storage and dual-beam instruments, with vertical and horizontal plug-ins for multi-trace, differential, sampling, spectrum analysis and special-purpose applications. Illustrated (left to right) are Type 561A General-Purpose Oscilloscope, Type RM564 Rack-Mount Storage Oscilloscope and Type 565 Dual-Beam Oscilloscope.

Type 561A, $530*; Type RM564, $1025*; Type 565, $1475*

See Tektronix Catalog 27 Pages 151-162.

*Prices do not include plug-ins

& ASSOCIATED INSTRUMENTS



Low Frequency oscilloscopes are easy-to-operate instruments which provide displays of low-frequency waveforms at low cost. Shown (left to right) are the Dual-Beam, 100 µV/cm, DC-to-100 kHz Type 502A, the DC-to-450 kHz X-Y Type 503, and the DC-to-450 kHz Type 504.

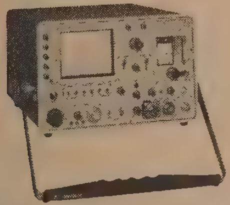
Type 502A, $1125; Type 503, $650; Type 504, $550

See Tektronix Catalog 27 Pages 52-58.

Transistor Curve Tracer, Type 575 (left) displays the dynamic characteristics of NPN and PNP transistors on a 5-inch cathode-ray tube. The Type 175 High Current Adapter (right) enables the Type 575 to plot and display characteristic curves of high-current semiconductors; and the Type 575 MOD 122C, similar to the Type 575, provides higher voltages for diode breakdown test and collector supply.

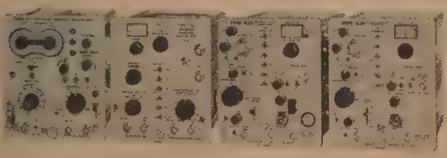
Type 575, $1100; Type 575 MOD 122C, $1365; Type 175, $1570

See Tektronix Catalog 27 Pages 217-222.



Spectrum Analyzers include the Type 491 10-MHz to 40-GHz self-contained spectrum analyzer and several plug-in units for Type 530-540-550-580 Series Oscilloscopes and for Type 560-Series Oscilloscopes. Plug-ins shown (left to right) are the 50 Hz-to-1 MHz Type 1L5, the 1 MHz-to-36 MHz Type 1L10, the 10 MHz-to-4.2 GHz Type 1L20 and the 925 MHz-to-10.5 GHz Type 1L30. Available for Type 560-Series Oscilloscopes are the Types 3L5 and 3L10, which are similar to the Types 1L5 and 1L10.

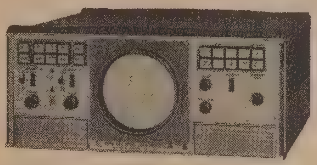
Type 491, $4400; Type 1L5, $1000; Type 1L10, $1150; Type 1L20, $1925; Type 1L30, $1925



See Tektronix Catalog 27 Pages 48, 141-146, 183-186.

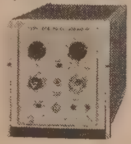
Special purpose oscilloscopes and display units are designed for particular applications. Illustrated are the Type 611 Storage Display Unit for displaying alphanumeric and graphic data from digital computers, the Type 410 Physiological Monitor for displaying patient signals, and the Type 520 Vectorscope for displaying color television signals.

Type 611, $2500; Type 410, $825; Type 520, $1850



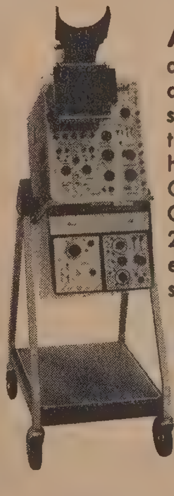
See Tektronix Catalog 27 Pages 234, 31, 67.

Pulse, Signal and Time-Mark generators in the Tektronix line include (left to right) the 10-ns risetime and falltime Type 114 Pulse Generator, the Type 184 Time-Mark Generator with 500-MHz sinewave output, the 350 kHz-to-100 MHz Type 191 Constant-Amplitude Signal Generator, and the Type 284 Pulse Generator (below) with 70-ps risetime pulse output.



Type 114, $310; Type 184, $700; Type 191, $425; Type 284, $525

See Tektronix Catalog 27 Pages 257, 274, 275, 277.



Accessory products such as trace-recording cameras and Scope-Mobile® carts are specifically designed for Tektronix oscilloscopes. Shown here (left to right) are a C-27 Camera on a Type 547 Oscilloscope with a Type 202-2 cart; and a C-30 Camera on a Type 453 Oscilloscope with a Type 200-1 cart.

C-27, $430; C-30, $420

202-2, $135; 200-1, $75

U.S. Sales Prices FOB
Beaverton, Oregon

See Tektronix Catalog 27 Pages 282-295.

for information on TEKTRONIX OSCILLOSCOPES Contact your nearest Field Office

ALABAMA
Huntsville
ARIZONA
Phoenix
CALIFORNIA
*San Diego
Los Angeles Area
Alhambra
*Orange
Santa Barbara
*Van Nuys
San Francisco Bay Area
Concord
*Palo Alto
San Jose
COLORADO
Denver
CONNECTICUT
*Hartford
Stamford
FLORIDA
*Orlando
GEORGIA
*Atlanta
ILLINOIS
Hinsdale
*Park Ridge
INDIANA
Indianapolis
KANSAS
Kansas City
MARYLAND
*Baltimore
*Rockville
MASSACHUSETTS
*Boston
MICHIGAN
*Detroit
Lansing
MINNESOTA
Minneapolis
St. Paul
MISSOURI
St. Louis
NEW JERSEY
Cherry Hill
*Springfield
NEW MEXICO
*Albuquerque
NEW YORK
Buffalo
*Endicott
*Poughkeepsie
*Syracuse
New York City Area
*Roslyn Heights, L. I.
*Springfield, N.J.
Stamford, Conn.
NORTH CAROLINA
*Greensboro
OHIO
Cleveland
Columbus
Dayton
OKLAHOMA
Oklahoma City
PENNSYLVANIA
*Philadelphia
Pittsburgh
TEXAS
*Dallas
Houston
San Antonio
UTAH
Salt Lake City
VIRGINIA
Alexandria
Hampton
WASHINGTON
Seattle
WISCONSIN
Milwaukee
*Also Service Centers

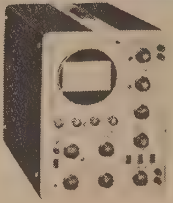
Field Engineering Offices in Australia, Canada, France, Japan, Switzerland and United Kingdom. Distributors in over 30 other countries.

Tektronix, Inc.

P. O. BOX 500 • BEAVERTON, OREGON 97005
Phone: (Area Code 503) 644-0161 • Telex: 036-691
TWX 503-291-6805 • Cable: TEKTRONIX

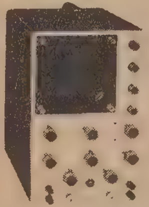
HEATHKIT®
"Performance-Plus" Oscilloscopes

Five Inch Triggered-Sweep Delay Line DC Scope



• DC response to 8 MHz • 40 Nanoseconds rise time • High linearity delay lines • Calibrated vertical attenuation and time base • Z axis modulation input • Input for direct access to vertical deflection plates • Circuit board construction • Wiring options for 115/230, 50-60 Hz operation

Kit IO-14	$259.00
Assembled IOW-14	$399.00



"Extra Duty" Wide Band 5" 'Scope

Here is a scope that has everything you need for all around work: 5 MHz bandwidth, a patented 10-500 kHz sweep circuit, two extra sweep positions which can be preset to often-used sweep positions, built-in peak-to-peak calibration reference, Z axis input, 2.5 mV sensitivity and more. Circuit board-wiring harness construction, a rugged power supply and wiring options that permit either 115 or 230 VAC, 50/60 Hz operation.

Kit IO-18	$84.95
Assembled IOW-18	$139.95

Mini-Size Maxi-Value 3" DC Scope

The IO-10 is found in thousands of biomedical, industrial & general service applications, and no wonder. Identical vertical & horizontal amplifiers, DC bandwidth to 200 kHz, less than 5° relative phase shift, 5-50 kHz, four range recurrent sweep, switch selection of AC or DC coupling, capability of extremely slow sweep rates with the external capacitor binding posts, minimum trace distortion, high stability and easy to carry compact size.

Kit IO-10	$99.95
Assembled IOW-10	$169.00

General Purpose 3" 'Scope

The value standard of the industry. 5 MHz bandwidth, 30 mV peak-to-peak sensitivity, recurrent sweep — 20 Hz to 200 kHz in four ranges, extra x50 frequency compensated vertical attenuator, front panel 1 V. reference voltage, horizontal sweep from internal, 60 Hz line or external source, automatic sync, shielded CRT, retrace blanking and new Heathkit styling. The solid-state power supply permits wiring for either 115 or 230 VAC, 50-60 Hz.

Kit IO-17	$79.95

For your FREE copy of the Heath 1969 Scientific Instrument catalog, write us on your school or company letterhead **HEATH CO., Dept. 520-32, Benton Harbor, Michigan 49022**

OSCILLOSCOPES--D-C TO 10 MC

ALLIED ELECTRONICS CORP, CHICAGO	**ILL**
HEATH CO, BENTON HARBOR, MICH	**ADV PG 464**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
TEKTRONIX INC, BEAVERTON, ORE	**ADV PGS 462,463**
Airmec Instruments Ltd, Buckinghamshire	England
Allco S A, Gentilly	France
Allied Electronics Corp, Chicago	Ill
Astrodata Inc, Anaheim	Cal
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Biocom, Inc, Culver City	Cal
Bradley Ltd G & E, London NW 10	England
California Instruments Corp, San Diego	Cal
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Compagnie Generale de Metrologie Haute Savoie	France
Data Instrument Div, Pennsauken	N J
Dayton Electronics Products Co, Dayton	Ohio
Dynamco Ltd, Chertsey Surrey	Eng
Edwin Industries Corp, Silver Spring	Md
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Instrument Div Gen Atronics Corp Philadelphia	Pa
Fairlane Electronics, Inc, Long Valley	N J
Heath Co, Benton Harbor	Mich
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Hickok Teaching Systems Inc, Cambridge	Mass
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Iwatsu Electric Co Ltd, Tokyo	Japan
Lectrotech Inc, Chicago	Ill
Marconi Instruments Div, English Electric Corp Englewood	N J
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Measurement Control Devices Inc, Philadelphia	Pa
Metermaster, Inc, Los Angeles	Cal
Millen Mfg Co Inc, James, Malden	Mass
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Optical Electronics Inc, Tuscon	Ariz
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Robertson Instrument Co, Azusa	Cal
Shiba Electric Co Ltd, Woodside	N Y
Simpson Electric Co, Chicago	Ill
Spedcor Electronics Inc, Glendale	N Y
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taffet Electronics Inc, Woodside	N Y
Tecnica Elettronica Systems S a s, Milan	Italy
Tektronix Inc, Beaverton	Ore
Waterman Instrument Corp, Hatboro	Pa

EBG — the industry's store.

Your marketplace for products

OSCILLOSCOPES--D-C TO OVER 10 MC

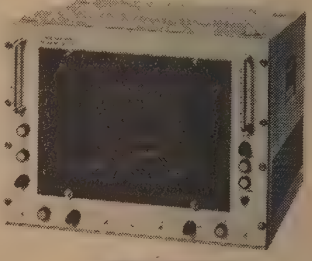
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
TEKTRONIX INC, BEAVERTON, ORE	**ADV PGS 462,463**
Alcatel, Paris 8eme	France
Astrodata Inc, Anaheim	Cal
Data Instrument Div, Pennsauken	N J
Dayton Electronics Products Co, Dayton	Ohio
Dynamco Ltd, Chertsey Surrey	Eng
Edwin Industries Corp, Silver Spring	Md
Electronic Instrument Div Gen Atronics Corp Philadelphia	Pa
Engineering Associates, Dayton	Ohio
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Iwatsu Electric Co Ltd, Tokyo	Japan
Marconi Instruments Div, English Electric Corp Englewood	N J
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Measurement Control Devices Inc, Philadelphia	Pa
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Roband Electronics Ltd, Surrey	England
Shiba Electric Co Ltd, Woodside	N Y
Simpson Electric Co, Chicago	Ill
Spedcor Electronics Inc, Glendale	N Y
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Tecnica Elettronica Systems S a s, Milan	Italy
Tektronix Inc, Beaverton	Ore
Waterman Instrument Corp, Hatboro	Pa

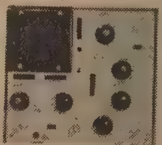
OSCILLOSCOPES--GENERAL PURPOSE

HEATH CO, BENTON HARBOR	**MICH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
TEKTRONIX INC, BEAVERTON, ORE	**ADV PGS 462,463**
TEXSCAN CORP, INDIANAPOLIS	**IND** **ADV PG 464**
Alcatel, Paris 8eme	France
Aul Instruments Inc, Long Island City	NY
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Bradley Ltd G & E, London NW 10	England
California Instruments Corp, San Diego	Cal
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Central Scientific Co, Chicago	Ill
Coldspring Instrument Corp, Huntington	N Y
Compagnie Generale de Metrologie Haute Savoie	France
Data Instrument Div, Pennsauken	N J
Dayton Electronics Products Co, Dayton	Ohio
Disa Elektronik A/S, Herlev	Denmark
Dynamco Ltd, Chertsey Surrey	Eng
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Instrument Div Gen Atronics Corp Philadelphia	Pa
Electronic Measurements Corp, New York	N Y
Engineering Associates, Dayton	Ohio
Fairlane Electronics, Inc, Long Valley	N J
Heath Co, Benton Harbor	Mich
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Hickok Teaching Systems Inc, Cambridge	Mass
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Iwatsu Electric Co Ltd, Tokyo	Japan
Lectrotech Inc, Chicago	Ill
Marconi Instruments Div, English Electric Corp Englewood	N J
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Measurement Control Devices Inc, Philadelphia	Pa
Millen Mfg Co Inc, James, Malden	Mass
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Nihon Kohden Kogyo Co Ltd, Tokyo	Japan
Nuclear Supplies, Encino	Cal
Optical Electronics Inc, Tuscon	Ariz
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Electronic Components, Harrison	N J
Roband Electronics Ltd, Surrey	England

Oscilloscopes

- MULTIPLE CHANNEL
- PORTABLE
- AC/DC BATTERY OPERATED
- LARGE SCREEN





Texscan

Technical Products Division

7707 Records Street
Indianapolis, Indiana 46226
Phone (317) 545-2101
Telex: 27-2110 TWX: 810-341-3184

New Test Equipment

Accurate, Easy to operate

MOTOROLA

PRECISION INSTRUMENT PRODUCTS

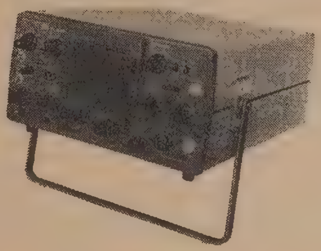
Motorola Communications & Electronics • A Subsidiary of Motorola Inc.
4501 Augusta Blvd., Chicago, Ill. 60651, Phone 312-772-6500

SOLID-STATE OSCILLOSCOPES

Model S1301A

This portable unit features line or battery operation and a bandwidth of 20 MHz (17 nsec rise time). Provides 18 ranges of calibrated sweep speeds with high performance triggering stability in excess of 30 MHz. Display area is 5 cm x 6 cm and sensitivity is 50 mv. An internal square-wave generator provides 8 calibrated outputs.

For full details, write for TIC-3316.



Model S1302A

A true dual-beam portable scope featuring line or battery operation and a choice of 2 plug-in Y amplifiers—either 15 MHz bandwidth (23 nsec rise time) or 30 MHz bandwidth (12 nsec rise time). Provides differential input, internal voltage calibrator and both signal and time delay. Display area is 6 cm x 10 cm.

For more data, write for TIC-3318.

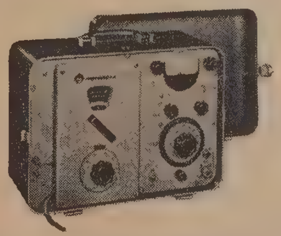
SOLID-STATE FREQUENCY METER

Meter with Deviation Monitor

This unique instrument gives direct digital readouts in 3 ranges—10 Hz to 100 MHz, 105 MHz to 175 MHz, and 405 MHz to 475 MHz. Wideband heterodyne unit eliminates tuning. Optional, plug-in deviation monitor/synthesizer provides signal output in 3 bands—25 MHz to 50 MHz, 136 MHz to 175 MHz and 406 MHz to 475 MHz. Displays deviation in three ranges—1.6 kHz, 8kHz, and 16 kHz.

For more details, ask for TIC-3104.

FM SIGNAL GENERATORS



Available in three models, each featuring accuracy of ±0.5%. Ideal for servicing FM 2-way radios and for manufacturing and research operations on FM multiplexing and telemetering equipment.

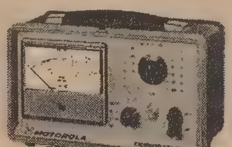
Model T1034C	Model T1035A	Model T1036A
25- 32 MHz	25- 32 MHz	25- 32 MHz
32- 41 MHz	32- 41 MHz	32- 41 MHz
41- 54 MHz	41- 54 MHz	41- 54 MHz
130-175 MHz	68- 88 MHz	68- 88 MHz
400-470 MHz	130-175 MHz	88-115 MHz
890-960 MHz*	400-470 MHz	130-175 MHz

*2nd harmonic of 445-480 MHz.

For complete details, request TIC-2032.

SOLID-STATE AUDIO OSCILLATOR AND VOLTMETERS

The following instruments feature solid-state design and offer the utmost in reliability. Both battery/line operation units and battery only models of each type are available. Each has a detachable cover. Taut band meters of both voltmeters provide unsurpassed accuracy and easy reading.



AC Voltmeter

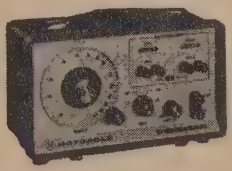
Highly sensitive with high input impedance. Provides laboratory performance with measurements from 100 microvolts to 300 volts on 12 scale ranges. Also provides DB measurements from —72 to +52 db. Features amplifier output on front panel rated at 1.4 volts peak to peak or 0.5 volt RMS into 600 ohms or higher loads. Frequency response flat from 20 Hz to 1 MHz, usable to 5 MHz.

For complete details, ask for TIC-1297.

DC/RF Multimeter

Has high input impedance (10 megohm) and full scale sensitivity of 100 millivolts. Provides DC voltage measurements from 2 millivolts up to 1000 volts and current measurements down to 0.02 microampere. Resistance readings from 0.2 ohm to 50 megohms. Measuring capabilities can be extended with accessory RF probe.

For full details, ask for TIC-3097.



Audio Oscillator

Offers laboratory stability. Provides frequency coverage from 20 Hz to 200 kHz in 4 overlapping ranges. Has low distortion of less than 1% and frequency response of ± 1 db. A unique built-in distortion analyzer filter tests audio power amplifier and audio output stages.

For more details, ask for TIC-3105.

Robertson Instrument Co, Azusa	Cal
Sencore Inc, Addison	Ill
Siemens America Inc, New York	N Y
Simpson Electric Co, Chicago	Ill
Singer Co, Metrics Div, Gertsch Dept, Los Angeles	Cal
Spedcor Electronics Inc, Glendale	N Y
Stark Electronic Instruments Ltd, Ajax	Ont
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Sweep Systems Inc, Indianapolis	Ind
Taffet Electronics Inc, Woodside	N Y
Tecnica Elettronica Systems S a s, Milan	Italy
Tektronix Inc, Beaverton	Ore
Texscan Corp, Indianapolis	Ind
Waterman Instrument Corp, Hatboro	Pa
Wharton Unitools, Moosup	Conn

OSCILLOSCOPES--MULTIPLE CHANNEL

HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
TEKTRONIX INC, BEAVERTON, ORE	**ADV PGS 462,463**
TEXSCAN CORP, INDIANAPOLIS	**IND**
Airmec Instruments Ltd, Buckinghamshire	England
Allco S A, Gentilly	France
Applied Magnetics Corp, Goleta	Cal
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
California Instruments Corp, San Diego	Cal
Compagnie Generale de Metrologie Haute Savoie	France
Data Instrument Div, Pennsauken	N J
Dayton Electronics Products Co, Dayton	Ohio
Dynamco Ltd, Chertsey Surrey	Eng
Electronic Instrument Div Gen Atronics Corp Philadelphia	Pa
Ensco Inc, Salt Lake City	Utah
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Hickok Teaching Systems Inc, Cambridge	Mass
Honeywell Test Instruments Div, Denver	Colo
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Iwatsu Electric Co Ltd, Tokyo	Japan
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Measurement Control Devices Inc, Philadelphia	Pa
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Nihon Kohden Kogyo Co Ltd, Tokyo	Japan
Nuclear Supplies, Encino	Cal
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Roband Electronics Ltd, Surrey	England
Schwarzer Corp, Framingham	Mass
Shiba Electric Co Ltd, Woodside	N Y
Spedcor Electronics Inc, Glendale	N Y
Systems Research Labs Inc, Dayton	Ohio
Tektronix Inc, Beaverton	Ore
Texscan Corp, Indianapolis	Ind
Waterman Instrument Corp, Hatboro	Pa

OSCILLOSCOPES--PORTABLE, DIRECT VIEWING

HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO, ILL	**ADV PG 465**
TEKTRONIX INC, BEAVERTON, ORE	**ADV PGS 462,463**
American Electronic Labs Inc, Lansdale	Pa
Aul Instruments Inc, Long Island City	NY
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Biocom, Inc, Culver City	Cal
Bradley Ltd G & E, London NW 10	England
Data Instrument Div, Pennsauken	N J
Dynamco Ltd, Chertsey Surrey	Eng
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Instrument Div Gen Atronics Corp Philadelphia	Pa
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
I T I Electronics Inc, Clifton	N J
Iwatsu Electric Co Ltd, Tokyo	Japan
Measurement Control Devices Inc, Philadelphia	Pa
Mennen-Greatbatch Electronics Inc, Clarence	N Y
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Nihon Kohden Kogyo Co Ltd, Tokyo	Japan
Nuclear Supplies, Encino	Cal
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Electronic Components, Harrison	N J
Robertson Instrument Co, Azusa	Cal
Sencore Inc, Addison	Ill
Spedcor Electronics Inc, Glendale	N Y
Stark Electronic Instruments Ltd, Ajax	Ont
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Tektronix Inc, Beaverton	Ore
Waterman Instrument Corp, Hatboro	Pa
Wharton Unitools, Moosup	Conn
Winslow Tele-Tronics Inc, Asbury Park	NJ

OSCILLOSCOPES--PROJECTION

Dalto Electronics Corp, Norwood	N J
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland

OSCILLOSCOPES--SAMPLING

HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
TEKTRONIX INC, BEAVERTON, ORE	**ADV PGS 462,463**
TEXSCAN CORP, INDIANAPOLIS	**IND**
AIM Electronics Ltd, Cambridge	U K
Allco S A, Gentilly	France
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Honeywell Test Instruments Div, Denver	Colo
Iwatsu Electric Co Ltd, Tokyo	Japan
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Precision Mecanique Labinal, 93 Saint-Ouen	France
Tektronix Inc, Beaverton	Ore
Texscan Corp, Indianapolis	Ind

OSCILLOSCOPES--SIGNAL GENERATOR BUILT-IN

HEATH CO, BENTON HARBOR	**MICH**
Dowa Trading Co Ltd, Kobe	Japan
Electronic Instrument Div Gen Atronics Corp Philadelphia	Pa
Heath Co, Benton Harbor	Mich
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Iwatsu Electric Co Ltd, Tokyo	Japan
Lectrotech Inc, Chicago	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Squires-Sanders Inc, Liberty Corner	N J

OSCILLOSCOPES--STORAGE TYPE

HEWLETT-PACKARD, PALO ALTO	**CAL**
TEKTRONIX INC, BEAVERTON, ORE	**ADV PGS 462,463**
Ando Electric Co Ltd, Ohta-ku, Tokyo	Japan
Applied Magnetics Corp, Goleta	Cal
Dynamco Ltd, Chertsey Surrey	Eng
Hewlett-Packard, Palo Alto	Cal
Iwatsu Electric Co Ltd, Tokyo	Japan
Korfund Dynamics Corp, Westbury	N Y
Measurement Control Devices Inc, Philadelphia	Pa
Northern Scientific Inc, Middleton	Wis
Roband Electronics Ltd, Surrey	England
Tektronix Inc, Beaverton	Ore
Wandel & Goltermann/Tel-Com, Hanover	N J

OSCILLOSCOPES--SWEEP GENERATOR

TEKTRONIX INC, BEAVERTON, ORE	**ADV PGS 462,463**
TEXSCAN CORP, INDIANAPOLIS	**IND**
Astrodata Inc, Anaheim	Cal
Compagnie Generale de Metrologie Haute Savoie	France
Dayton Electronics Products Co, Dayton	Ohio
Defense Electronics Inc, Rockville	Md
Dynamco Ltd, Chertsey Surrey	Eng
Electronic Instrument Div Gen Atronics Corp Philadelphia	Pa
Engineering Associates, Dayton	Ohio
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Iwatsu Electric Co Ltd, Tokyo	Japan
Meguro Denpa Sokki K K, Meguro-ku, Tokyo	Japan
Squires-Sanders Inc, Liberty Corner	N J
Sweep Systems Inc, Indianapolis	Ind
Taffet Electronics Inc, Woodside	N Y
Tektronix Inc, Beaverton	Ore
Texscan Corp, Indianapolis	Ind

OSCILLOSCOPES--SYNCHROSCOPES

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
TEKTRONIX INC, BEAVERTON	**ORE**
Ando Electric Co Ltd, Ohta-ku, Tokyo	Japan
Aul Instruments Inc, Long Island City	NY
Dayton Electronics Products Co, Dayton	Ohio
Iwatsu Electric Co Ltd, Tokyo	Japan
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Millen Mfg Co Inc, James, Malden	Mass
Nuclear Supplies, Encino	Cal
Shiba Electric Co Ltd, Woodside	N Y
Tektronix Inc, Beaverton	Ore

OSCILLOSCOPES--TRAVELING WAVE

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
E G & G Inc Custom Equip Div, Bedford	Mass
Nippon Electric Co Ltd, Tokyo	Japan

OUTPUT METERS SEE METERS—OUTPUT

OVENS--CRYSTAL

BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE, N Y	**ADV PG 466**
CTS CORP, ELKHART	**IND**
CTS KNIGHTS INC, SANDWICH, ILL	**ADV PG 239**
ELECTRONIC RESEARCH CO, A TEXTRON CO, OVERLAND PARK KAN	**ADV PG 468**
HILL ELECTRONICS INC, MECHANICSBURG	**PA**
INTERNATIONAL CRYSTAL MFG CO INC OKLAHOMA CITY	**OKLA**
NORTHERN ENGINEERING LABS INC, BURLINGTON WIS	**ADV PG 242**
OVEN INDUSTRIES, MECHANICSBURG, PA	**ADV PG 467**
PETERSEN RADIO CO INC, COUNCIL BLUFFS	**IOWA**
REEVES-HOFFMAN DIV, CARLISLE	**PA**
Accutronics, Inc, Geneva	Ill
Betron-IRE-SpA, Livorno	Italy
Bliley Electric Co, Erie	Pa
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Cathodeon Crystals Ltd, Cambridge	Eng
Clark Crystal Corp, Marlboro	Mass
CTS Corp, Elkhart	Ind
CTS Electronics Inc, South Pasadena	Cal
CTS Knights Inc, Sandwich	Ill
Defense Electronics Inc, Rockville	Md
Dietz Design Inc, Belton	Mo
Electro-Flex Heat Inc, Bloomfield	Conn
Electronic Research co, A Textron Co Overland Park	Kan
Frequency Electronics Inc, New Hyde Park	N Y
Glentronics Inc, Glendora	Cal
Harrel Inc, East Norwalk	Conn
High Vacuum Equipment Corp, Hingham	Mass
Hill Electronics Inc, Mechanicsburg	Pa
International Crystal Mfg Co Inc, Oklahoma City	Okla
Kahle Engineering Co, Union City	N J
Kidde & Co Inc, Walter, Belleville	N J
Kinsekisha Lab Ltd, Tokyo	Japan
Lindberg Hevi-Duty Div Sola Basic Industries Chicago	Ill

Crystal Ovens?

Try Bulova First!

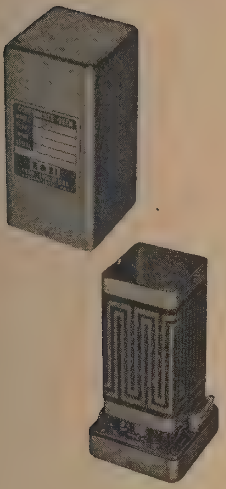
CALL:

Ariz	Tech-Ser Inc, 1805 E Indian School Rd Phoenix	602-265-3629
Cal	Straube Assoc, 483 Willow Rd Menlo Pk	213-323-2476
Cal	W J Carnes & Co, 420 S D St Tustin	213-838-0575
Conn	Samuel C Hooker Inc, Box 369 W Hartford	203-233-8000
Fla	Perrott Assoc, 1607 Forsyth Rd, Orlando	305-275-1132
Fla	Perrott Assoc, Box 6277 West Palm Beach	305-967-1770
Fla	Perrott Assoc, Box 4532, Clearwater	813-531-5513
Ill	J R Sales Engineering 7132 N Harlem Ave, Chicago	312-774-8550
Iowa	J R Sales Engrg, 3350 Cottage Grove Ave SE, Cedar Rapids	319-365-5259
Md	Callas Electronics, 6409 Frederick Ave Baltimore	301-744-7711
Mass	Samuel Hooker, Inc, Box 352 Winchester	617-729-5482
Minn	Wenco Sales Inc, 7728 Morgan Ave S Minneapolis	612-866-3639
Mo	J C Mankus & Assoc, 400 Brooks La Hazelwood	314-PE1-4334
NY	Kahgan Sales Corp, 1261 Broadway New York	212-MU4-7772
NY	H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester	716-232-2688
NY	Comtronic Assoc, 1551 Franklin Ave Mineola	516-PI1-8966
NY	H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady	518-374-5901
NY	H C Johnson Agencies Inc, Box 215 Fayetteville	315-637-9383
NY	H C Johnson Agencies Inc, 8 Los Robles St Williamsville	716-632-7880
Ohio	Augey Natalino Assoc, 209 Harmony Hills Akron	216-666-1447
Pa	C H Newson & Assoc Inc, 627 Bethlehem Pike, Philadelphia	215-248-3377
Tex	Blackburn Assoc., Inc., 137 Walnut Hill Village, Box 20073, Dallas	214-351-9991
Wash	Jas J Backer Co, 221 W Galer St Seattle	206-AT3-6470
Can	Canadian Micro Electronics, Box 6157 Sta J, Ottawa	725-2332

BULOVA WATCH CO INC
FREQUENCY CONTROL PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

OVENS

OUR NEW CATALOG NO. 668 SHOULD BE ON YOUR DESK. CALL OR WRITE FOR YOUR COPY TODAY.



SNAP ACTION CONTROL

Cavity Size (ID)	Case Size (OD)	Maximum Power	Average Warm-Up Time from — 40° C	Model	Price 1-10
.960" sq. x 1.187" deep	1.500" sq. x 2.500" tall	8 watts	8 min.	1250	$34.75 ea.
.960" sq. x 1.687" deep	1.500" sq. x 3.000" tall	10 watts	8 min.	1260	35.50 ea.
.960" sq. x 2.187" deep	1.500" sq. x 3.500" tall	12.5 watts	10 min.	1270	37.50 ea.
1.375" sq. x 1.875" deep	1.750" sq. x 3.000" tall	13 watts	12 min.	1023A	38.50 ea.
1.375" sq. x 2.375" deep	1.750" sq. x 3.500" tall	14 watts	12 min.	1024A	41.75 ea.
1.375" sq. x 2.875" deep	1.750" sq. x 4.000" tall	14 watts	14 min.	1025A	44.00 ea.
1.462" sq. x 1.875" deep	2.000" sq. x 3.000" tall	15 watts	18 min.	1893	45.00 ea.
1.462" sq. x 2.187" deep	2.000" sq. x 3.500" tall	15 watts	20 min.	1892	45.00 ea.
1.462" sq. x 2.875" deep	2.000" sq. x 4.000" tall	15 watts	20 min.	1891	45.00 ea.
1.950" sq. x 2.250" deep	2.750" sq. x 3.500" tall	25 watts	20 min.	1251	60.00 ea.
1.950" sq. x 2.625" deep	2.750" sq. x 4.000" tall	25 watts	30 min.	1252	60.00 ea.
1.950" sq. x 3.250" deep	2.750" sq. x 4.625" tall	25 watts	35 min.	1253	60.00 ea.
2.485" sq. x 2.875" deep	3.062" sq. x 4.000" tall	40 watts	30 min.	1565	75.00 ea.
2.485" sq. x 3.375" deep	3.062" sq. x 4.500" tall	40 watts	40 min.	1566	75.00 ea.
2.485" sq. x 3.875" deep	3.062" sq. x 5.000" tall	40 watts	45 min.	1567	75.00 ea.

SPECIFICATIONS

*Cavity temperature:
65°C ± 2°C setting tolerance.
Cavity temperature stability:
± 1°C from — 20°C to + 50°C.
± .1°C at any fixed ambient (± 5°C).
*Input voltage: 117 VAC/DC.
Cavity supplied with 7 pin socket and mating plug. Header: 8 pin octal, plug-in mounting models 1565 to 1567 also supplied with 4 studs. These units can be hermetically sealed.

**NO CHARGE FOR INPUT OR CAVITY TEMP. CHANGES - SPECIFY WHEN ORDERING.*

PROPORTIONAL CONTROL

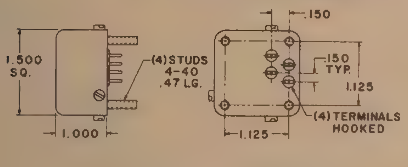
Cavity Size (ID)	Case Size (OD)	Maximum Power	AC Proportional Model	AC Proportional Price 1-3	DC Proportional Model	DC Proportional Price 1-3
.960" sq. x 1.187" deep	1.500" sq. x 2.500" tall	8 watts	2250	$ 75.00 ea.	3250	$ 80.00 ea.
.960" sq. x 1.687" deep	1.500" sq. x 3.000" tall	10 watts	2260	80.00 ea.	3260	85.00 ea.
1.462" sq. x 1.875" deep	2.000" sq. x 3.000" tall	15 watts	2893	99.50 ea.	3893	117.50 ea.
1.462' sq. x 2.187" deep	2.000" sq. x 3.500" tall	15 watts	2892	99.50 ea.	3892	117.50 ea.
1.462" sq. x 2.875" deep	2.000" sq. x 4.000" tall	15 watts	2891	99.50 ea.	3891	117.50 ea.
1.950" sq. x 2.250" deep	2.750" sq. x 3.500" tall	18 watts	2251	125.00 ea.	3251	135.25 ea.
1.950" sq. x 2.625" deep	2.750" sq. x 4.000" tall	20 watts	2252	125.00 ea.	3252	135.25 ea.
1.950" sq. x 3.250" deep	2.750" sq. x 4.625" tall	25 watts	2253	125.00 ea.	3253	135.25 ea.
2.485" sq. x 2.875" deep	3.062" sq. x 4.000" tall	40 watts	2565	160.00 ea.	3565	165.00 ea.
2.485" sq. x 3.375" deep	3.062" sq. x 4.500" tall	40 watts	2566	160.00 ea.	3566	165.00 ea.
2.485" sq. x 3.875" deep	3,062" sq. x 5.000" tall	45 watts	2567	165.00 ea.	3567	170.00 ea.

SPECIFICATIONS

Internal cavity temperature:
65°C ± 2°C setting tolerance.
Cavity temperature stability:
± .25°C over 0°C to + 50°C ambient range.
± .01°C at any fixed ambient (± 5°C).
Input voltage:
AC Proportional, 117 VAC 50 to 60 Hz.
DC Proportional, 28 VDC ± 5%.
Warm-up time: 15 minutes average from 0°C.
Header and mounting: 8 pin octal. Plug-in mounting.
Cavity supplied with 7 pin miniature socket and mating plug.

PROPORTIONAL CONTROLLERS

DC 50 WATT Model 3C2-50 Low Cost Controller



Input: 20 to 32 VDC. Will withstand overvoltage transient of 60 Volts peak for one second.

Output: 17 to 30 Volts pure DC into a 50 watt maximum resistive load.

Utilizes a thermistor sensor, which is supplied with the unit, that will control temperature to within ± .05°C.

Proportioning bandwidth: 3°C.

Set temperature (standard): Adjustable + 40°C to + 100°C with .5°C resolution.

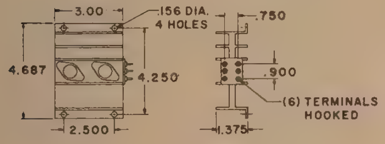
Long term stability: < 1°C/6 months operation.

Price: 1 to 10 units, $65.00 each.

(AVAILABLE IN MILITARY SPECS.)

WE WILL MODIFY ANY OVEN OR CONTROLLER SHOWN OR DESIGN A NEW ONE TO YOUR EXACT SPECIFICATIONS

AC 100 Watt Model 7C4-100



Input: 100 to 130 VRMS, 47 Hz to 440 Hz. Will withstand overvoltage transient of 300 Volts peak for two seconds.

Output: 98 to 128 Volts pulsating DC (120 Hz ripple content) into a 100 watt maximum resistive load.

Utilizes a thermistor sensor, which is supplied with the unit, that will control temperature to within ± .01°C.

Proportioning bandwidth 3°C.

Set temperature (nominal): Adjustable + 40°C to + 90°C with .2°C resolution.

Long term stability: < .1°C/6 months operation.

This unit is available with three phase input (208V).

Price: 1 to 10 units, $185.00 each.

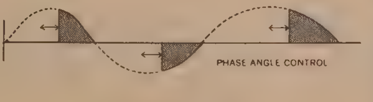
(AVAILABLE IN MILITARY SPECS.)

LITHIUM NIOBATE CRYSTAL OVENS FOR LASERS

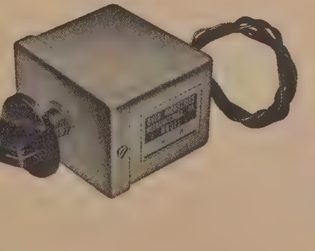
Internal cavity size: .550" x .550" x 1.734" long (ID)
Outside case size: 2.078" x 2.547" x 3.000" tall (OD)
Cavity temperature stability: ± 2.5 C at room ambient
This unit features an internal cavity temperature of 165°C ±15°C adjustable.
Input voltage: 117 VAC ±10%
Maximum power: 30 watts at 117 VAC
Warm-up time: 1 hour from +25°C
Header: 2 turret terminals for oven AC power
Mounting: four 4-40 studs
This unit is designed to house and temperature stabilize a LITHIUM NIOBATE CRYSTAL while permitting a light beam to pass completely through the unit.
Price: 1 to 3 units; $270.00 each

MOTOR SPEED CONTROLLERS

OVEN INDUSTRIES has developed a line of voltage controllers which are ideally suited for electric motors. These low-cost controllers are all solid-state and extremely reliable.



These controllers are recommended for use with the following types of electric motors: **Shaded Pole, Permanent Magnet, Split Capacitor, Universal.**
In addition, this series will also control the following: **Resistive Heaters, Infra Red Heaters, Incandescent Lamps, Soldering Pots & Irons, Transformers.**
Basic Specifications; all AC units:
Speed adjustment range: 0 to 95% or rated motor RPM
Phase angle control: 0 to 160 positive and negative
Ambient temperature limits: —40°C to +75°C.
Size: 1.5" x 2.0" x 1.75" long (less shaft)



OPERATING VOLTAGE	MAX LOAD CURRENT	MOTOR RATING (MAX)	MODEL NUMBER	PRICE 1-25 UNITS
117 VRMS 10% 60Hz, 1 PHASE	2.5A	⅓ hp	MS-2.5A	$ 24.00
117 VRMS 10% 60Hz, 1 PHASE	6 AMPS	¾ hp	MS-6A	$ 28.00
117 VRMS 10% 400Hz, 1 PHASE	6 AMPS	¾ hp	MS-6AR	$ 28.00
117 VRMS 10% 60Hz, 1 PHASE	15 AMPS	2 hp	MS-15A	$ 33.25
230 VRMS 10% 60Hz, 1 PHASE	6 AMPS	2 hp	MS-6A230	$ 29.75
230 VRMS 10% 60Hz, 1 PHASE	15 AMPS	4½ hp	MS-15A230	$ 44.15
208 VRMS 10% 60Hz, 3 PHASE	15 AMPS	10 hp	MS-15A2083	$135.00

A complete line of controllers for DC motors (P.M., Shunt, etc.) are also available. Oven Industries will also design a Motor Speed Controller to your exact specifications.

OVEN INDUSTRIES

A Division of Greenray Industries, Inc.

OII

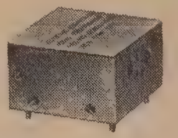
East Simpson Road, PO Box 229
Mechanicsburg, Pa. 17055
Phone (717) 766 0721

ero OVENS

COMPONENTS and CRYSTAL

- Proportional Controlled
- Snap Action • Mercury • S.C.R.

Model ERO 800-MA9, Component Application



Control: Solid State Proportional
Voltage: 28 Vdc
Power: 20 watts max.
Cavity Temp.: 75° C ± 2° C @ 25° C ambient
Cavity Temp Regulator: ± 1.5° C max. from − 55° C to +71° C
Warm-up: 5 min. from −55° C to within ± 1° of set point
Size: 2.0 x 1.88 x 1.12 ht.

Precision Oven ERO 160

Control: S.C.R. switch and snap action thermostat.
Voltage: 6 thru 120 volts AC.
Power: Two watts average at 25° C
Temperature setting: 60° C, 75° C, and 85° C are standard. Other temperatures available on special order.
Setting Tolerance: ± 2.5° C at 25° C ambient. ± 1° C available on special order.
Warm-up Time: Within 0.1° C in fifteen minutes at 25° C ambient. Maximum power required; 7.5 watts.
Cavity Stability:
Thermostatic Cycling Variation: .05° C maximum at a constant ambient.
Ambient Variation: .01° C for each degree of ambient temperature change.
Outside Dimensions: 1½ x 2¾ seated height.
Oven Header: Eight pin octal plug.
Custom Designs Available

Model ERO 800-133, Component

Control: Solid State Proportional
Voltage: 28 Vdc
Cavity Temp: 90° C ± 2° C
Cavity Regulation: ± 1° C stability over ambient (− 55° C to +85° C)
Warm-up: 20 min. from −55° C within ± 2° of set point
Size: 1.50 x 1.75 x 1.75 ht.
Custom designs available

Write for complete literature

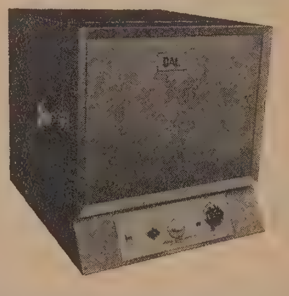
ero frequency control products
A TEXTRON COMPANY
electronic research co.
913 — ME. 1-6700
10,000 W. 75 • Overland Park, Kans. 66204

Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
McCoy Electronics Co, Sub Oak Electro/Netics corp Mount Holly Springs	Pa
Monitor Products Co Inc, South Pasadena	Cal
Northeastern Engineering Inc, Manchester	NH
Northern Engineering Labs Inc, Burlington	Wis
Oki Electric Industry Co Ltd, Tokyo	Japan
Ovenaire Inc, Charlottesville	Va
Oven Industries, Mechanicsburg	Pa
Petersen Radio Co Inc, Council Bluffs	Iowa
Piezo Crystal Co, Carlisle	Pa
Precision Mecanique Labinal, 93 Saint-Ouen	France
Reeves-Hoffman Div, Carlisle	Pa
Safeway Heat Elements Inc, Middletown	Conn
Signet Scientific Co, Burbank	Cal
Spedcor Electronics Inc, Glendale	N Y
Standard Crystal Co, Alhambra	Cal
Takeda Riken Industry Co Ltd, Tokyo	Japan
Technical Materiel Corp, Mamaroneck	N Y
Valpey-Fisher Corp, Holliston	Mass
Westcott Electronics, Clifton	NJ
Winslow Tele-Tronics Inc, Asbury Park	NJ

OVENS & DRYERS

BLUE M ENGINEERING CO, BLUE ISLAND	**ILL**
KRESSILK PRODUCTS INC, ELMSFORD	**N Y**
OAL ASSOCIATES INC, WESTBURY, N Y	**ADV PG 468**
OVEN INDUSTRIES, MECHANICSBURG, PA	**ADV PG 467**
STANDARD CABINET CO INC, TOTOWA	**N J**
Abar Corp, Feasterville	Pa
Advanced Technology Corp, Chambersburg	Pa
American Instrument Co, Inc, Silver Spring	Md
Associated Testing Labs, Inc, Wayne	N J
Atlas Engineering Corp, West Hartford	Conn
Auto-Control Labs Div Rucker Co, Los Angeles	Cal
Baker Co, Inc, Biddeford	Me
Bethlehem Corp, Bethlehem	Pa
Blue M Engineering Co, Blue Island	Ill
BTU Engineering Corp, Waltham	Mass
Cathey Enterprises, Mountain View	Cal
Central Scientific Co, Chicago	Ill
Clean Room Products Inc, Farmingdale	N Y
Cleveland Process Corp, Cleveland	Ohio
C M Mfg Co, Bloomfield	N J
Despatch Oven Co, Minneapolis	Minn
De Vilbiss Co, Toledo	Ohio
Dynatronic Instruments Corp Div Lab-Line Inst Inc Melrose Park	Ill
Electra Products Inc, Montgomeryville	Pa
Feco Div Bangor Punta Operations Inc, Cleveland	Ohio
Forma Scientific Inc, Marietta	Ohio
Fostoria-Fannon Inc, Fostoria	Ohio
Gardner Lab Inc, Bethesda	Md
Granville-Philips Co, Boulder	Colo
Grieve Corp, Chicago	Ill

INFRA-RED
PROCESS HEATING
LAB OVENS • MODULAR TUNNEL OVENS • RADIANT PANELS • BATCH OVENS



STANDARD/CUSTOM OVENS AND CONTROLS BUILT TO SPECIFICATIONS

Modular Panels & Tunnel oven sections for conveyor type applications. Special electric heater elements such as pure fused quartz & others with wide working temperature ranges and wave lengths.

Send details of your needs for prompt reply.

OAL ASSOCIATES, Inc.
155 SULLIVAN LANE
WESTBURY, N. Y. 11590
(516) 742-0278

Gruenberg Electric Co Inc, Garden City	N Y
Hafstrom Technical Products Inc, San Diego	Cal
Hayakawa Electric Co Ltd, Osaka	Japan
Hayes Inc, C I, Cranston	R I
Hirst Electric Industries Ltd, Crawley, Sussex	England
Hotpack Corp, Philadelphia	Pa
Hull Corp, Hatboro	Pa
Huppert Co, K H, South Holland	Ill
Industrial Refrigeration Co Inc, Los Angeles	Cal
Infra-Red Systems Inc, Riverdale	N J
Interlab Inc, Pleasantville	N Y
Jersey Technical Consultants, Morristown	NJ
Kahle Engineering Co, Union City	N J
Kahn & Co Inc, Wethersfield	Conn
Kepro Circuit Systems Inc, St Louis	Mo
Kewaunee Scientific Equipment, Adrian	Mich
Kirk & Blum Mfg Co, Cincinnati	Ohio
Kressilk Products Inc, Elmsford	N Y
Larose & Assoc Inc, W T, Cohoes	NY
Lectrodryer Div, McGraw-Edison Co, Pittsburgh	Pa
Lindberg Hevi-Duty Div Sola Basic Industries Chicago	Ill
Lindsay Structures Div, Intl Steel Co, Evansville	Ind
Litton Industries, Atherton Div, Minneapolis	Minn
Merco Products Inc, Eugene	Ore
Michigan Oven Co, Romulus	Mich
Norton Vacuum Equipment Div, Columbus Plant Columbus	Ohio
Nuclear Equipment Chemical Corp, Farmingdale	N Y
OAL Associates Inc, Westbury	N Y
Oven Industries, Mechanicsburg	Pa
Packard Instrument Co, Inc, Downers Grove	Ill
Pennsalt Chemicals Corp Equipment Div Philadelphia	Pa
Podgor Co Inc, Joseph E, Philadelphia	Pa
Precision Scientific Co Sub GCA Corp, Chicago	Ill
Precision Systems Co, Inc, Somerville	NJ
Ramyr Mfg Co, Buena Park	Cal
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Red Point Corp, Burbank	Cal
Reeve Electronics Inc, Chicago	Ill
Sanyo Electric Co Ltd, Osaka	Japan
Selas Corp of America, Dresher	Pa
Short Wave Plastic Forming Co, Costa Mesa	Cal
Sola-Basic Industries, Milwaukee	Wis
Standard Cabinet Co Inc, Totowa	N J
Steiner-Ives Co, Riverton	NJ
Sunbeam Vacuum Furnace Corp, North Billerica	Mass
Taylor-Winfield Corp, Warren	Ohio
Temperature Engineering Corp, Riverton	N J
Tenvac, Inc, Pembroke	Mass
T-M Vacuum Products, Riverton	N J
Trent Inc, Philadelphia	Pa
United States Dynamics, Needham Heights	Mass
Vacuum/Atmospheres Corp, N Hollywood	Cal
Wiegand Co, Edwin L, Pittsburgh	Pa

PACKAGED CIRCUITS SEE MODULES

PACKAGING MATERIALS

FLEX PRODUCTS CORP, CARLSTADT, N J	**ADV PG 469**
Advanced Purification System Co Inc, Great Neck	N Y
Akro-Mils, Inc, Akron	Ohio
Aluminum Co of America, Pittsburgh	Pa
American Latex Fibre Corp, Lawrence	Mass
American Urethane Div Stauffer Chem Co, Chicago	Ill
Anchor Plastics Co Inc, Long Island City	N Y
Avisun Corp, Philadelphia	Pa
Bemis Co, Inc, Minneapolis	Minn
Borden Chemical Co, New York	N Y
Bostitch Div Textron Inc, East Greenwich	R I
Bradley Industries Div Richardson-Merrell Inc Franklin Park	Ill
Celanese Plastics Co, Newark	NJ
Clean Room Products Inc, Farmingdale	N Y
Cleveland Container Corp, New York	N Y
Corning Glass Works, Corning	N Y
Corrugated Paper Products Inc, Roosevelt	N Y
Cryo-Therm Inc, Fogelsville	Pa
Cryplex Industries Inc, Flushing	N Y
Crystal-X Corp, Darby	Pa
Cycle Products Co Inc, Newark	N J
Daubert Chemical Co, Oak Brook	Ill
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Dow Chemical Co, Midland	Mich
Dow Corning Corp, Midland	Mich
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Extrudapak Div Valor Instruments Inc, Gardena	Cal
Federal Package Corp, Minneapolis	Minn
Flex Products Corp, Carlstadt	N J
Fox Co, C J, Providence	R I
Furane Plastics Inc, Los Angeles	Cal
General Binding Corp, Northbrook	Ill
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
General Electric Co Silicone Prods Dept, Waterford	N Y
Isochem Resins Co, Lincoln	RI
Koppers Co Inc, Pittsburgh	Pa
Mason Mfg Co Div Fram Corp, East Providence	R I
Master Tape Printers Inc, Chicago	Ill
MB Bedding Co, Wilkes-Barre	Pa
Minigrip, Inc, Orangeburg	N Y
3M Company, St Paul	Minn
Muckle Mfg Co, Owatonna	Minn
Mutron Corp, Brockton	Mass
Nopco Chemical Div Diamond Shamrock Chem Co Newark	N J
Olympic Plastics Co, Los Angeles	Cal
Owens-Illinois Consumer & Tech Products Div Toledo	Ohio
Panel Controls Corp, Detroit	Mich
Peter Partition Corp, Brooklyn	N Y

can
you ~~can't~~
have...
SPARKLING
CLEAR,
SHATTERPROOF
PLASTIC
CONTAINERS
CUSTOM
FITTED
TO YOUR
NEEDS
...and much more
FAST
FOR LESS
FROM Flex
Phone or write . . . we'll send a sample or a catalog today . . .
Patented "FLEX-LOCK" closure
Flex PRODUCTS CORPORATION
449 INDUSTRIAL ROAD
CARLSTADT, N. J. 07072
(201) 933-3030

Plastofilm Inc, Wheaton	Ill
Pres-On Products Co, Addison	Ill
Rectico Inc, Cedar Grove	N J
Republic Steel Corp, Cleveland	Ohio
Schjeldahl Co, G T, Northfield	Minn
Smith Inc, Herman H, Brooklyn	N Y
Topper Plastics Inc, Covina	Cal
Transene Co Inc, Rowley	Mass
UBS Chemical Co, Div A E Staley Mfg Co Cambridge	Mass
Union Carbide Corp Chemicals & Plastics New York	N Y
United Mineral & Chemical Corp, New York	N Y
Vector Electronic Co Inc, Los Angeles	Cal
Zero Mfg Co, Burbank	Cal

PACKAGING SERVICES

WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Akro-Mils, Inc, Akron	Ohio
Amatom Electronic Hardware, New Rochelle	N Y
American Cable Electronic Supply Inc, Sacramento	Cal
American Latex Fibre Corp, Lawrence	Mass
American Urethane Div Stauffer Chem Co, Chicago	Ill
Analog Technology Corp, Pasadena	Cal
Bal Corp, William, Elizabeth	N J
Bemis Co, Inc, Minneapolis	Minn
Bradley Industries Div Richardson-Merrell Inc Franklin Park	Ill
Brown Engineering-A Teledyne Co, Huntsville	Ala
Castall Research Lab Inc, Brockton	Mass
Corning Glass Works, Corning	N Y
Cryplex Industries Inc, Flushing	N Y
Crystal-X Corp, Darby	Pa
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Design Automation Inc, Lexington	Mass
Eugene Engineering Co Inc, Rockland	Mass
Hightemp Resins Inc, Stamford	Conn
Lance Antenna Corp, Sylmar	Cal
MB Bedding Co, Wilkes-Barre	Pa
Miller-Stephenson Chemical Co Inc, Danbury	Conn
Minigrip, Inc, Orangeburg	N Y
3M Company, St Paul	Minn
Mutron Corp, Brockton	Mass
Paraplegics Mfg Co Inc, Bensenville	Ill
Parker Metal Goods Co, Worcester	Mass
Peter Partition Corp, Brooklyn	N Y
Plastofilm Inc, Wheaton	Ill
Rectico Inc, Cedar Grove	N J
Roback Corp, Huntingdon Valley	Pa
Rosemount Plug-In Inc, Nashville	Tenn
Rye Industries, Inc, Mamaroneck	N Y
Sheltered Workshops Inc, Santa Monica	Cal
Topper Plastics Inc, Covina	Cal
Tra-Con, Inc, Medford	Mass
Waldom Electronics Inc, Chicago	Ill
Western Coil & Electrical Co, Racine	Wisc

PAGING SYSTEMS SEE SOUND SYSTEMS

PAINTS--LUMINOUS

Black Light Corp of America, San Gabriel	Cal
Canrad Precision Industries Inc, New York	N Y
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Illinois Bronze Powder & Paint Co, Lake Zurich	Ill
3M Company, St Paul	Minn
Product Techniques, Inc, Downey	Cal
Shannon Luminous Materials Co, Hollywood	Cal
Stroblite Co Inc, New York	N Y
Ultra-Violet Products Inc, San Gabriel	Cal

PAINTS & PRIMERS--METAL

SEE ALSO LACQUERS

Allaco Products, Braintree	Mass
Anadite, Inc, South Gate	Cal
Barrett Varnish Co, Cicero	Ill
Carboline Co, St Louis	Mo
Castall Research Lab Inc, Brockton	Mass
Chemical Products Corp, E Providence	R I
Conap Inc, Allegany	N Y
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Emerson & Cuming Inc, Canton	Mass
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Holbrook Merrill Co, Sunnyvale	Cal
Illinois Bronze Powder & Paint Co, Lake Zurich	Ill
Koppers Co Inc, Pittsburgh	Pa
Markal Co, Chicago	Ill
Mereco Prods Inc, Div Metachem Resins Corp Cranston	RI
Miller-Stephenson Chemical Co Inc, Danbury	Conn
3M Company, St Paul	Minn
M & T Chemicals Inc Sub American Can Co Rahway	N J
Photo Chemical Products Inc, Santa Monica	Cal
Podgor Co Inc, Joseph E, Philadelphia	Pa
Product Techniques, Inc, Downey	Cal
Schenectady Chemicals Inc, Schenectady	N Y
Sperex Corp, Los Angeles	Cal
Sterling Varnish Co, Sewickley	Pa
Vacuum Metallizing, Van Nuys	Cal
Westinghouse Electric Corp Insulating Materials Div Trafford	Pa
Wornow Process Paint Co, Los Angeles	Cal

PAINTS, PRINTED CIRCUIT--CONDUCTIVE

KRESSILK PRODUCTS INC, ELMSFORD	**N Y**
Acheson Colloids Co, Port Huron	Mich
Acme Chemicals & Insulation, New Haven	Conn
Alloys Unlimited Inc, Melville	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Chomerics, Inc, Arlington	Mass
Conap Inc, Allegany	N Y
Cramco Solder Alloys, Scarborough	Ont
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Dynaloy, Inc, Hanover	N J
Electro Science Labs Inc, Philadelphia	Pa
Emerson & Cuming Inc, Canton	Mass
Fansteel Metallurgical Corp, North Chicago	Ill
Huron Industries, Port Huron	Mich
Isochem Resins Co, Lincoln	RI
Kenmore Industries, Inc, Lowell	Mass
Kressilk Products Inc, Elmsford	N Y
Lambert Co, Inc, Boston	Mass
Mann Co, Henry, Cornwell Heights	Pa
Materials for Electronics, Inc, Jamaica	N Y
MCI Electronics, Marina Del Rey	Cal
Mereco Prods Inc, Div Metachem Resins Corp Cranston	RI
Metaplast Electrochemicals Corp, Bronx	N Y
Micro-Circuits Co, New Buffalo	Mich
Podgor Co Inc, Joseph E, Philadelphia	Pa
Product Techniques, Inc, Downey	Cal
Roosevelt Metal Co Inc, Brooklyn	N Y
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Techform Labs Inc, Venice	Cal
Technical Wire Products Inc, Cranford	N J
Techni-Tool Inc, Philadelphia	Pa
Tra-Con, Inc, Medford	Mass
Transene Co Inc, Rowley	Mass
United American Metals Div, Brooklyn	N Y
Wornow Process Paint Co, Los Angeles	Cal

PAINTS, PRINTED CIRCUIT--RESISTIVE

KRESSILK PRODUCTS INC, ELMSFORD	**N Y**
Acheson Colloids Co, Port Huron	Mich
Alloys Unlimited Inc, Melville	N Y
Castall Research Lab Inc, Brockton	Mass
Colonial Printing Ink Co, East Rutherford	NJ
Conap Inc, Allegany	N Y
Cramco Solder Alloys, Scarborough	Ont
CRC Chemicals, Dresher	Pa
Dynaloy, Inc, Hanover	N J
Electro Materials Corp of America, Mamaroneck	N Y
Electro Science Labs Inc, Philadelphia	Pa
Emerson & Cuming Inc, Canton	Mass
General Research Inc, Sparta	Mich
Huron Industries, Port Huron	Mich
Isochem Resins Co, Lincoln	RI
Kenmore Industries, Inc, Lowell	Mass
Kepro Circuit Systems Inc, St Louis	Mo
Kressilk Products Inc, Elmsford	N Y
Lambert Co, Inc, Boston	Mass
London Chemical Co Inc, Melrose Park	Ill
MCI Electronics, Marina Del Rey	Cal
Mereco Prods Inc, Div Metachem Resins Corp Cranston	RI
Micro-Circuits Co, New Buffalo	Mich
Miller-Stephenson Chemical Co Inc, Danbury	Conn
Naz-Dar Co, Chicago	Ill
Pennsylvania Industrial Chemical Corp, Clairton	Pa
Podgor Co Inc, Joseph E, Philadelphia	Pa
Preco Chemical Corp, Plainview	N Y
Product Techniques, Inc, Downey	Cal
Sperex Corp, Los Angeles	Cal
Techform Labs Inc, Venice	Cal
Topper Mfg Co Inc, Great Neck	N Y

PAINTS--TEMPERATURE INDICATING

Castall Research Lab Inc, Brockton	Mass
Hardman Inc, Belleville	N J
Hill Inc E Vernon, San Francisco	Cal
Mann Co, Henry, Cornwell Heights	Pa
Markal Co, Chicago	Ill
Tempil Corp, New York	N Y

PALLADIUM

TECHNIC INC, CRANSTON	**RI**
WILLIAMS GOLD REFINING CO INC PRECIOUS METALS DIV BUFFALO	**N Y**
Alloys Unlimited Inc, Melville	N Y
American Silver Co Div, Flushing	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Brainin Corp, C S, Mt Vernon	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
City Chemical Corp, New York	N Y
Cohn Corp, Sigmund, Mt Vernon	N Y
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger

Eastern Smelting & Refining Corp, Lynn .... Mass
Electronic Space Products Inc, Los Angeles .... Cal
Electro Science Labs Inc, Philadelphia .... Pa
Engelhard Minerals & Chemicals Corp, Engelhard Indus
  Div, Newark .... N J
Improved Seamless Wire Co, Providence .... R I
Johnson Matthey & Mallory Ltd, Toronto 15 .... Ont
Koch Light Labs Ltd, Colnbrook, Bucks .... England
Leach & Garner Co, Industrial Div, Attleboro .... Mass
Mackay Inc, A D, New York .... N Y
Materials Research Corp, Orangeburg .... N Y
Matsunaga Mfg Co Ltd, Tokyo .... Japan
Matthey Bishop Inc, Malvern .... Pa
Metal Ceram Inc, Mount Vernon .... N Y
Metz Refining Co, South Plainfield .... N J
Polysciences Inc, Warrington .... Pa
Roosevelt Metal Co Inc, Brooklyn .... N Y
Semi-Alloys Inc, Mt Vernon .... N Y
Semi-Elements Inc, Saxonburg .... Pa
Simmons Refining Corp, Chicago Ill
Technic Inc, Cranston .... RI
United American Metals Div, Brooklyn .... N Y
United Mineral & Chemical Corp, New York .... N Y
United Refining & Smelting Co, Franklin Park Ill
Var-Lac-Oid Chemical Co, Elizabeth .... N J
Western Gold & Platinum Co, Belmont .... Cal
Wilkinson Co, Westlake Village .... Cal
Williams Gold Refining Co Inc Precious Metals Div
  Buffalo .... N Y

PANEL LAMPS SEE LAMPS

PANEL METERS SEE METERS--PANEL

PANELS--INSTRUMENT

AMCO ENGINEERING CO, CHICAGO ILL
BORG-WARNER CORP, INGERSOLL PRODUCTS DIV
  CHICAGO ILL
GENERAL ELECTRIC CO, ECSO, SCHENECTADY .... N Y
KINETRON CORP, ASBURY PARK .... N J
NUMAR CORP, NEW YORK .... N Y
Abtronics, Inc, Livermore .... Cal
Acromark Co, Elizabeth .... N J
Aerolite Electronics Corp, Union City .... N J
Aerospace Systems A Teledyne Co, Fairmont .... Minn
Aetna Electronics Corp, North Branch .... N J
Amco Engineering Co, Chicago Ill
American Cable Electronic Supply Inc, Sacramento .... Cal
Anchor Specialty Mfg Co Inc, Teterboro .... N J
Anodyne, Inc, N Miami Beach .... Fla
Apahouser Corp of N E, Boston .... Mass
Atmar Engraving Co Inc, Richmond Hill .... N Y
Audn Corp, Hamburg .... N Y
Bailey Meter Co, Wickliffe .... Ohio
Baltic Metal Products Co, Brooklyn .... N Y
Barth Corp, Cleveland .... Ohio
Beama Engineering Ltd, Toronto 15 .... Ont
Beckman Instruments Inc, Fullerton, ... Cal
Best Mfg Co, Kansas City .... Mo
Binary Electronics of Cal Div Avionic Structures Inc
  Anaheim .... Cal
Bodnar Products Corp, New Rochelle .... N Y
Borg-Warner Corp, Ingersoll Products Div, Chicago Ill
Bud Radio Inc, Willoughby .... Ohio
Burtek Inc, Tulsa .... Okla
Calcor Space Facility Inc, Whittier .... Cal
California Chassis Co, Lynwood .... Cal
Canrad Precision Industries Inc, New York .... N Y
CBC Industries Inc, Philadelphia .... Pa
Chicago Etching Corp, Chicago Ill
Churchill Corp, Melrose .... Mass
Compudyne Corp, Hatboro .... Pa
Condor Industrial Corp, West Chicago Ill
Consolidated Electric Corp, Seattle .... Wash
Control Panel Corp, Chicago Ill
Corry Jamestown Corp, Corry .... Pa
Cosmos Industries Inc, Brooklyn .... N Y
Dahlstrom Mfg Corp, Jamestown .... N Y
Dalto Electronics Corp, Norwood .... N J
Devco Engineering Inc, Fairfield (Caldwell) .... N J
Dietz Co Inc, Henry G, Long Island City .... N Y
Dixson Inc Meter Div, Grand Junction .... Colo
Drake Mfg Co, Harwood Heights Ill
Dynalectron Corp Aerospace Prods Div
  San Leandro .... Cal
Edison, Thomas A Industries, Instr Div
  West Orange .... N J
Electrical Design & Mfg Co, Warrington .... Pa
Electro-Chemical Engraving Co Inc, Bronx .... N Y
Electro Rack Products Co, Anaheim .... Cal
Eljay Corp, Baltimore .... Md
Elzee Metal Products Co Inc, Brooklyn .... N Y
Equipto Enclosure Systems Div Equipto Elctns Corp
  Aurora Ill
Eugene Engineering Co Inc, Rockland .... Mass
Ever Ready Label Corp, Belleville .... N J
Falstrom Co, Passaic .... N J
Feay Co, Neal, Goleta .... Cal
Fisher & Crome, Inc, Philadelphia .... Pa
F & M Systems Co, Div Fischbach & Moore, Inc
  Dallas .... Tex
Fuji Electric Co Ltd, Tokyo .... Japan
General Electric Co, ECSO, Schenectady .... N Y
Gentape Corp, Bloomfield .... N J
GM Nameplate, Seattle .... Wash
Golden Corp, I, Brooklyn .... N Y
Golden Technology Inc, Santa Rosa .... Cal
Golding Mfg Co, North Arlington .... N J
Graphtex Inc, Lodi .... N J
Hersey-Sparling Meter Co, El Monte .... Cal
Hoffman Engineering Co, Div Fed Cartridge Corp
  Anoka .... Minn
Holbrook Merrill Co, Sunnyvale .... Cal
Honeywell Industrial Div, Fort Washington .... Pa
Horlick Co Inc, William I, Boston .... Mass
Industrial Engravers Inc, Jamaica .... N Y
Insulating Fabricators Inc, East Rutherford .... N J
Ionics Inc, Electronics Div, Watertown .... Mass
Jan Hardware Mfg Co Inc, Long Island City .... N Y
Kinetron Corp, Asbury Park .... N J
Kirk & Blum Mfg Co, Cincinnati .... Ohio
Lake Erie Electric Mfg, Inc, Erie .... Pa
Leed Insulator Corp, Los Angeles .... Cal
Lynch Mfg Co, R H, South San Gabriel .... Cal
Markon Mfg Inc, Englewood .... Colo
Marlin Mfg Corp, Cleveland .... Ohio
Martin-Decker Corp, Santa Ana .... Cal
Master Engraving, Rochelle Park .... N J
Metal Works Inc, Hermann .... Mo
Mid-West Metal Products Inc, Kansas City .... Kans
Miller Co, W A, Oquossoc .... Maine
Miller Dial & Name Plate Co, El Monte .... Cal
Mobil Electronics Inc, Anderson .... Ind
M-T Electronics Co, San Leandro .... Cal
Muckle Mfg Co, Owatonna .... Minn
Nelson Electronic Labs Inc, Plano .... Tex
Numar Corp, New York .... N Y
Pabst Engineering Equipment Co Inc, Elizabeth .... NJ
Panelgraphic Corp, Caldwell .... N J
Panob Corp, Port Chester .... N Y
Paraplegics Mfg Co Inc, Bensenville Ill
Photo Chemical Products Inc, Santa Monica .... Cal
Precision Crafts, La Cresenta .... Cal
Premier Metal Products Co Inc, New York .... N Y
Printloid Inc, Long Island City .... N Y
Riester & Thesmacher Co, Cleveland .... Ohio
Rosselli Del Turco Rossello, Rome .... Italy
Rundel Electric Co, Millbrae .... Cal
Scam Instrument Corp, Skokie Ill
Scans Associates Inc, Livonia .... Mich
Semiconductor Circuits, Inc, Woburn .... Mass
Siltronics Inc, Oakmont .... Pa
Singer Co, Metrics Div, Bridgeport .... Conn
Skyline Products Inc, Deer Park .... N Y
Stafford Mfg Co Inc, Brooklyn .... N Y
Sun Dial & Panel Corp, Caldwell .... N J
Sunshine Scientific Instruments Inc, Philadelphia .... Pa
Swanson Engineering & Mfg Co, Inglewood .... Cal
Taylor Instrument Cos, Rochester .... N Y
Trott Electronics Inc, Rochester .... N Y
United States Radium Corp, Morristown .... N J
Utility Communication Systems Inc, Essington .... Pa
Watson Mfg Co Inc, Jamestown .... N Y
Wells Industries Corp, North Hollywood .... Cal
Westinghouse Brake & Signal Co Ltd Automation Div
  Chippenham .... England
Westinghouse Electric Corp, Relay & Instr Dept
  Newark .... N J
Wilkens Inc, Alwin Fr, Pawling .... N Y
X Cel Controls Inc, South Bend .... Ind
Yokogawa Electric Works Inc, Larchmont .... N Y
Zero Mfg Co, Burbank .... Cal

PANELS--JACK

ACCURATE ELECTRONICS CORP, ELYRIA .... OHIO
ELECTRICAL INSULATION CO INC, COPIAGUE .... N Y
KINETRON CORP, ASBURY PARK .... N J
Accurate Electronics Corp, Elyria .... Ohio
Action Systems Co Div Conn Consolidated Inds Inc
  Meriden .... Conn
ADC Products, Minneapolis .... Minn
Aerolite Electronics Corp, Union City .... N J
Aetna Electronics Corp, North Branch .... N J
Allmetal Screw Products Co Inc, Garden City .... N Y
Apahouser Corp of N E, Boston .... Mass
Audio Accessories, Inc, Gilsum .... N H
Ava Electronics & Machine Corp, Upper Darby .... Pa
Best Mfg Co, Kansas City .... Mo
Bud Radio Inc, Willoughby .... Ohio
Cambridge Thermionic Corp, Cambridge .... Mass
CBC Industries Inc, Philadelphia .... Pa
Condor Industrial Corp, West Chicago Ill
Control Panel Corp, Chicago Ill
Cooke Engineering Co, Alexandria .... Va
Co-Ord Div LVC Industries Inc, Corona .... NY
Devco Engineering Inc, Fairfield (Caldwell) .... N J
Electrical Insulation Co Inc, Copiague .... N Y
Electrospace Corp, Glen Cove .... N Y
Eljay Corp, Baltimore .... Md
Eugene Engineering Co Inc, Rockland .... Mass
Fisher & Crome, Inc, Philadelphia .... Pa
Golden Corp, I, Brooklyn .... N Y
Impectron Inc, New York .... N Y
Industrial Engravers Inc, Jamaica .... N Y
Jensen Mfg Div, The Muter Co, Chicago Ill
Kinetron Corp, Asbury Park .... N J
Markon Mfg Inc, Englewood .... Colo
Marlin Mfg Corp, Cleveland .... Ohio
Methode Electronics Inc, Chicago Ill
Mid-West Metal Products Inc, Kansas City .... Kans
M & M Electronics Corp, Amityville, ... N Y
Mobil Electronics Inc, Anderson .... Ind
M-T Electronics Co, San Leandro .... Cal
Omega Engineering Inc, Stamford .... Conn
Ottawa, Paris .... France
Radio Corp of America, Comml Elctn Prods Div
  Camden .... N J
Rosselli Del Turco Rossello, Rome .... Italy
Rundel Electric Co, Millbrae .... Cal
Siltronics Inc, Oakmont .... Pa
Swanson Engineering & Mfg Co, Inglewood .... Cal
Switchcraft Inc, Chicago Ill
Technical Materiel Corp, Mamaroneck .... N Y
Transitron Electronic Corp, Wakefield .... Mass
Trompeter Electronics Inc, Chatsworth .... Cal
Tru-Connector Corp, Peabody .... Mass
United States Radium Corp, Morristown .... N J
Vector Electronic Co Inc, Los Angeles .... Cal
Virginia Panel Corp, Waynesboro .... Va
Whistler Electronics Inc, Northridge .... Cal

PANELS--PLASTIC, EDGE LIGHTED

Ackerman Engravers, Inc, Long Island City .... N Y
Acromark Co, Elizabeth .... N J
Atmar Engraving Co Inc, Richmond Hill .... N Y
Best Mfg Co, Kansas City .... Mo
Bodnar Products Corp, New Rochelle .... N Y
Canrad Precision Industries Inc, New York .... N Y
CBC Industries Inc, Philadelphia .... Pa
Coastal Dynamics Corp, Venice .... Cal
Devco Engineering Inc, Fairfield (Caldwell) .... N J
Dialight Corp, Brooklyn .... N Y
Eljay Corp, Baltimore .... Md
Felsenthal Instruments Co, Chicago Ill
Gentape Corp, Bloomfield .... N J
Grimes Mfg Co, Urbana .... Ohio
Industrial Engravers Inc, Jamaica .... N Y
Jan Hardware Mfg Co Inc, Long Island City .... N Y
Markon Mfg Inc, Englewood .... Colo
Master Engraving, Rochelle Park .... N J
McCullough Aero Corp, Hawthorne .... Cal
Miller Dial & Name Plate Co, El Monte .... Cal
Opcalite Inc, Santa Ana .... Cal
Oppenheimer, Inc, Willow Grove .... Pa
Panob Corp, Port Chester .... N Y
Photo Chemical Products Inc, Santa Monica .... Cal
Stafford Mfg Co Inc, Brooklyn .... N Y
Sun Dial & Panel Corp, Caldwell .... N J
United States Radium Corp, Morristown .... N J
Vibrachoc S A, Paris 8e .... France

PANELS--RELAY RACK

AMCO ENGINEERING CO, CHICAGO ILL
BORG-WARNER CORP, INGERSOLL PRODUCTS DIV
  CHICAGO ILL
IBM, INDUSTRIAL PRODUCTS MARKETING, NEW YORK .... NY
VENT-RAK INC, INDIANAPOLIS, IND .... ADV PG 79
Abtronics, Inc, Livermore .... Cal
ADC Products, Minneapolis .... Minn
Aerolite Electronics Corp, Union City .... N J
Aetna Electronics Corp, North Branch .... N J
Amco Engineering Co, Chicago Ill
Anchor Specialty Mfg Co Inc, Teterboro .... N J
Apahouser Corp of N E, Boston .... Mass
Baltic Metal Products Co, Brooklyn .... N Y
Barth Corp, Cleveland .... Ohio
Beama Engineering Ltd, Toronto 15 .... Ont
Best Mfg Co, Kansas City .... Mo
Binary Electronics of Cal Div Avionic Structures Inc
  Anaheim .... Cal
Bogen Communications Div Lear Siegler Inc
  Paramus .... N J
Borg-Warner Corp, Ingersoll Products Div, Chicago Ill
Cabtron Corp, Chicago Ill
Calcor Space Facility Inc, Whittier .... Cal
California Chassis Co, Lynwood .... Cal
CBC Industries Inc, Philadelphia .... Pa
Churchill Corp, Melrose .... Mass
Compudyne Corp, Hatboro .... Pa
Condor Industrial Corp, West Chicago Ill
Control Panel Corp, Chicago Ill
Dressen-Barnes Electronics Corp, Pasadena .... Cal
Electrical Design & Mfg Co, Warrington .... Pa
Electro Rack Products Co, Anaheim .... Cal
Eljay Corp, Baltimore .... Md
Elzee Metal Products Co Inc, Brooklyn .... N Y
Enclosure Corp, Pennsauken .... N J
Equipment & Service Co, Dallas .... Tex
Equipto Enclosure Systems Div Equipto Elctns Corp
  Aurora Ill
Eugene Engineering Co Inc, Rockland .... Mass
Feay Co, Neal, Goleta .... Cal
Friedel Electronics Panel Co, South Gate .... Cal
Golden Corp, I, Brooklyn .... N Y
Golding Mfg Co, North Arlington .... N J
Hartman Electrical Mfg Co, Mansfield .... Ohio
Holbrook Merrill Co, Sunnyvale .... Cal
Honeywell Industrial Div, Fort Washington .... Pa
IBM, Industrial Products Marketing, New York .... NY
Jan Hardware Mfg Co Inc, Long Island City .... N Y
Kirk & Blum Mfg Co, Cincinnati .... Ohio
Markon Mfg Inc, Englewood .... Colo
Metal Works Inc, Hermann .... Mo
Mid-West Metal Products Inc, Kansas City .... Kans
Miller Dial & Name Plate Co, El Monte .... Cal
Mobil Electronics Inc, Anderson .... Ind
M-T Electronics Co, San Leandro .... Cal

Panob Corp, Port Chester ... N Y
Par-Metal Products Div EON Corp Long Island City ... N Y
Premier Metal Products Co Inc, New York ... N Y
Private Tele Communications Inc, Chicago ... Ill
Radio Corp of America, Comml Elctn Prods Div Camden ... N J
Riester & Thesmacher Co, Cleveland ... Ohio
Rosselli Del Turco Rossello, Rome ... Italy
Rundel Electric Co, Millbrae ... Cal
Schrack Electrical Sales Corp, New York ... N Y
Seezak Products Inc, Los Angeles ... Cal
Siltronics Inc, Oakmont ... Pa
Swanson Engineering & Mfg Co, Inglewood ... Cal
Taylor Instrument Cos, Rochester ... N Y
Vent-Rak Inc, Indianapolis ... Ind
Westinghouse Electric Corp, Relay & Instr Dept Newark ... N J

PAPER--CAPACITOR

Jonesville Paper Tube Corp, Jonesville ... Mich
Natvar Corp, Woodbridge ... N J
Pellon Corp, Ind Div, Lowell ... Mass
Schweitzer, Peter J, Div, Kimberly-Clark Corp Lee ... Mass
Stevens Paper Mills Inc, Windsor ... Conn
United Mineral & Chemical Corp, New York ... N Y
Weyerhaeuser Co Paper Div, Fitchburg ... Mass

PAPER--FACSIMILE RECORDING SEE FACSIMILE EQUIPMENT

PAPER--FISH

ELECTRICAL INSULATION CO INC, COPIAGUE ... N Y
Asheville-Schoonmaker Mica Co, Newport News ... Va
Electrical Insulation Co Inc, Copiague ... N Y
Eljay Corp, Baltimore ... Md
Fitchburg Coated Products Inc, Scranton ... Pa
Franklin Fibre-Lamitex Corp, Wilmington ... Del
Gasket Mfg Co Inc, Los Angeles ... Cal
G C Electronics Div, Hydrometals Inc, Rockford ... Ill
Insulating Fabricators Inc, East Rutherford ... N J
Insulating Fabricators of N E Inc, Watertown ... Mass
Leed Insulator Corp, Los Angeles ... Cal
3M Company, St Paul ... Minn
NVF Co, Wilmington ... Del
Penn Fibre & Specialty Co, Philadelphia ... Pa
Spaulding Fibre Co Inc, Tonawanda ... N Y
Staff Gasket Mfg Corp, New York ... N Y

Works in Seconds.

The '69 Electronics Buyers' Guide lets you find people, places, and things in seconds. In the Directory of Manufacturers and Sales Offices, for example, more than 6,000 manufacturers are listed, including addresses, telephone numbers, sales offices, the people to call for information, the total number of engineers and employees and sales volumes. So use your EBG. It works in seconds.

PAPER, GRAPH--IMPEDANCE CHART

DRANETZ ENGINEERING LABS INC, PLAINFIELD ... N J
Alford Mfg Co, Winchester ... Mass
Dranetz Engineering Labs Inc, Plainfield ... N J
Graphic Controls Corp, Buffalo ... NY
Rantec Div Emerson Electric Co, Calabasas ... Cal
Techni-Rite Electronics Inc, Warwick ... R I

PAPER, GRAPH--LOGARITHMIC

HOUSTON INSTRUMENT DIV BAUSCH & LOMB BELLAIRE ... TEX
Antlab, Inc, Worthington ... Ohio
California Computer Products Inc, Anaheim ... Cal
Dietzgen Co, Eugene, Chicago ... Ill
Gamco Industries Datamate Div, Big Spring ... Texas
Graphic Controls Corp, Buffalo ... NY
Houston Instrument Div Bausch & Lomb, Bellaire ... Tex
Keuffel & Esser Co, Hoboken ... N J
Stark Electronic Instruments Ltd, Ajax ... Ont

PAPER, GRAPH--POLAR COORDINATE

DRANETZ ENGINEERING LABS INC, PLAINFIELD ... N J
Antlab, Inc, Worthington ... Ohio
California Computer Products Inc, Anaheim ... Cal
Dietzgen Co, Eugene, Chicago ... Ill
Dranetz Engineering Labs Inc, Plainfield ... N J
Gamco Industries Datamate Div, Big Spring ... Texas
Graphic Controls Corp, Buffalo ... NY
Keuffel & Esser Co, Hoboken ... N J
Rantec Div Emerson Electric Co, Calabasas ... Cal
Stark Electronic Instruments Ltd, Ajax ... Ont

PAPER, GRAPH--RECTANGULAR COORDINATE

DRANETZ ENGINEERING LABS INC, PLAINFIELD ... N J
HOUSTON INSTRUMENT DIV BAUSCH & LOMB BELLAIRE ... TEX
Antlab, Inc, Worthington ... Ohio
Beckman Instruments Inc, Fullerton, ... Cal
California Computer Products Inc, Anaheim ... Cal
Dietzgen Co, Eugene, Chicago ... Ill
Dranetz Engineering Labs Inc, Plainfield ... N J
Gamco Industries Datamate Div, Big Spring ... Texas
Graphic Controls Corp, Buffalo ... NY
Gubelman Chart Div Nashua Corp, Newark ... N J
Houston Instrument Div Bausch & Lomb, Bellaire ... Tex
Keuffel & Esser Co, Hoboken ... N J
Rantec Div Emerson Electric Co, Calabasas ... Cal
Stark Electronic Instruments Ltd, Ajax ... Ont

PAPER--INSULATING

ELECTRICAL INSULATION CO INC, COPIAGUE ... N Y
Acme Chemicals & Insulation, New Haven ... Conn
Asheville-Schoonmaker Mica Co, Newport News ... Va
Babcock & Wilcox Co Refractories Div, Augusta ... Ga
Brown-Bridge Mills Inc, Troy ... Ohio
Cleveland Container Corp, New York ... N Y
Cottrell Paper Co Inc, Fall River ... Mass
Dennison Mfg Co, Framingham ... Mass
Du Pont De Nemours & Co Inc E I, Wilmington ... Del
Electrical Insulation Co Inc, Copiague ... N Y
Franklin Fibre-Lamitex Corp, Wilmington ... Del
Insulating Fabricators Inc, East Rutherford ... N J
Insulating Fabricators of N E Inc, Watertown ... Mass
Midwest Cortland, Schiller Park ... Ill
3M Company, St Paul ... Minn
Mosinee Paper Mills Co, Mosinee ... Wis
Natvar Corp, Woodbridge ... N J
NVF Co, Wilmington ... Del
Pellon Corp, Ind Div, Lowell ... Mass
Penn Fibre & Specialty Co, Philadelphia ... Pa
Rogers Corp, Rogers ... Conn
Schweitzer, Peter J, Div, Kimberly-Clark Corp Lee ... Mass
Spaulding Fibre Co Inc, Tonawanda ... N Y
Staff Gasket Mfg Corp, New York ... N Y
Stevens Paper Mills Inc, Windsor ... Conn
Washington Electrical Products Co, Washington ... Mo
Weyerhaeuser Co Paper Div, Fitchburg ... Mass
Wilmington Fibre Specialty Co, New Castle ... Del

PAPER--MOLDED PARTS

Buckeye Bobbin & Mfg Div Prec Paper Tube Co Westlake ... Ohio
Franklin Fibre-Lamitex Corp, Wilmington ... Del
Precision Paper Tube Co, Wheeling ... Ill

PAPER--RECORDING, GENERAL PURPOSE

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
HEATH CO, BENTON HARBOR ... MICH
HEWLETT-PACKARD, PALO ALTO ... CAL
HOUSTON INSTRUMENT DIV BAUSCH & LOMB BELLAIRE ... TEX
LUDLOW CHARTS DIV, LUDLOW CORP, WARE MASS ... ADV PG 472
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON ... TEX
Alden Electronic & Impulse Recording Equip Co Inc Westboro ... Mass
Alfax Paper & Engineering Co, Westboro ... Mass
Beckman Instruments Inc, Fullerton, ... Cal
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham ... Mass
Bristol Div, American Chain & Cable Co Waterbury ... Conn
Century Electronics & Instruments Inc, Tulsa ... Okla
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena ... Cal
Du Pont De Nemours & Co Inc E I, Wilmington ... Del
Epsco Inc, Westwood ... Mass
Esterline Angus Div Esterline Corp, Indianapolis ... Ind
Fitchburg Coated Products Inc, Scranton ... Pa
GAF Corp, New York ... NY
General Electric Co, ECSO, Schenectady ... N Y
Graphic Controls Corp, Buffalo ... NY
Gubelman Chart Div Nashua Corp, Newark ... N J
Heath Co, Benton Harbor ... Mich
Hewlett-Packard, Palo Alto ... Cal
Houston Instrument Div Bausch & Lomb, Bellaire ... Tex
International Scanatron Systems Corp, Wyandanch ... N Y
Labelon Corp, Canadaigua ... N Y
Leeds & Northrup Co, Philadelphia ... Pa
Ludlow Charts Div, Ludlow Corp, Ware ... Mass
3M Company, St Paul ... Minn
Muirhead Instruments Inc, Mountainside ... N J
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia ... Pa
States Electronics Corp, Bludworth Marine Div Linden ... N J
Strandberg Engineering Labs Inc, Greensboro ... N C
Tally Corp, Seattle ... Wash
Techni-Rite Electronics Inc, Warwick ... R I
Texas Instruments Incorporated, Dallas ... Tex
Texas Instruments Inc Indl Prods Div, Houston ... Tex
Tracerlab, Div Lab for Electronics Inc, Waltham ... Mass
Varian, Palo Alto ... Cal

PAPER--STAMPINGS & PUNCHINGS

ELECTRICAL INSULATION CO INC, COPIAGUE ... N Y
Acme Model Engineering Co, Ridgefield ... N J
Auburn Mfg Co, Middletown ... Conn
Bishop Industries Corp, North Hollywood ... Cal
Buckeye Bobbin & Mfg Div Prec Paper Tube Co Westlake ... Ohio
Electrical Insulation Co Inc, Copiague ... N Y
Estes Engineering Co, Gardena ... Cal
Fel Pro Inc Div Felt Products Mfg Co, Skokie ... Ill
Gasket Mfg Co Inc, Los Angeles ... Cal
GM Nameplate, Seattle ... Wash
Insulating Fabricators of N E Inc, Watertown ... Mass
Insulating Shapes Inc, Bronx ... N Y
Metal Ceram Inc, Mount Vernon ... N Y
Midwest Cortland, Schiller Park ... Ill
Niemand Bros Inc, Elmhurst ... N Y
NVF Co, Wilmington ... Del
O'Hara Metal Products Co, San Francisco ... Cal
Penn Fibre & Specialty Co, Philadelphia ... Pa
Permonite Mfg Co, Chicago ... Ill
Precision Paper Tube Co, Wheeling ... Ill
Seastrom Mfg Co Inc, Glendale ... Cal
Semi-Alloys Inc, Mt Vernon ... N Y
Spaulding Fibre Co Inc, Tonawanda ... N Y
Staff Gasket Mfg Corp, New York ... N Y
Wilmington Fibre Specialty Co, New Castle ... Del

PARAMAGNETIC AMPLIFIERS SEE LASERS

PARAMETRIC AMPLIFIERS SEE AMPLIFIERS--R-F

PARTICLE ACCELERATORS SEE ACCELERATORS

PARTICLE ANALYZERS SEE ANALYZERS--PARTICLE

PARTICLE COUNTERS SEE COUNTERS--NUCLEAR PARTICLE

PATCH BOARDS SEE BOARDS--COMPUTER

PATCH CORDS SEE CORDS--PATCH

Ludlow's been making chart paper since way back when

Landing of British Army
Mortons Point
height 35 feet
Grenad.
L. Inf.
Falcon
BREED'S HILL
height 62 feet
Lively
CHARLESTOWN burned down

We know our way around—we've been developing papers for new applications, improving papers for old, for more than 20 years now. As a result we have a complete line of pressure, heat, ink and electrosensitive recording papers and a thorough understanding of the mechanics of instrument and computer read-out.

We also have complete printing facilities and can provide custom packaging when required.

It makes a difference when you need design assistance on regular or "special" papers.

For further details write or telephone Ludlow Charts, Ware, Mass. 01082. Telephone (413) 967-6204.

Ludlow

LUDLOW CORPORATION
Papers Division
Ware, Massachusetts 01082

PEAK-LIMITING AMPLIFIERS SEE AMPLIFIERS--A-F AMPLIFIERS--R-F

PERFORATED MATERIAL SEE MATERIALS--PERFORATED

PERFORATORS, COMPUTER--CARD

COMPUTER MECHANISMS CORPORATION SOUTH HACKENSACK	**N J**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Burroughs Corp Component Sales Dept Los Angeles	Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Coldspring Instrument Corp, Huntington	N Y
Computer Mechanisms Corporation South Hackensack	N J
Connecticut Technical Corp, Hartford	Conn
Control Data Corp, Minneapolis	Minn
Fujitsu Ltd, Tokyo	Japan
General Electric Co Info Sys Equip Div, Phoenix	Ariz
Honeywell-EDP Div, Wellesley Hills	Mass
IBM Corp, Armonk	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Packard Instrument Co, Inc, Downers Grove	Ill
Soroban Engineering, Inc, Melbourne	Fla
Torrington Co, Specialties Div, Torrington	Conn
Univac Div, Sperry Rand Corp, Philadelphia	Pa

PERFORATORS, COMPUTER--TAPE

COMPUTER MECHANISMS CORPORATION SOUTH HACKENSACK	**N J**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Automated Business Sys Div Litton Industries Carlstadt	N J
Bendix Corp, Communications Div, Towson	Md
Burroughs Corp Component Sales Dept Los Angeles	Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Coldspring Instrument Corp, Huntington	N Y
Colorado Instruments Inc, Broomfield	Colo
Computer Mechanisms Corporation South Hackensack	N J
Connecticut Technical Corp, Hartford	Conn
Control Data Corp, Minneapolis	Minn
Di/An Controls Inc, Boston	Mass
Digitronics Corp, Albertson	N Y
Friden Inc, San Leandro	Cal
Fujitsu Ltd, Tokyo	Japan
General Electric Co Info Sys Equip Div, Phoenix	Ariz
General Electric Co, Printer-Reader Bus Sec Philadelphia	Pa
Invac Corp, Waltham	Mass
Landis & Gyr AG, Zug	Switzerland
Mite Corp, New Haven	Conn
Navigation Computer Corp, Norristown	Pa
Nippon Electric Co Ltd, Tokyo	Japan
Ohr-Tronics Inc, Montvale	N J
Oki Electric Industry Co Ltd, Tokyo	Japan
Packard Instrument Co, Inc, Downers Grove	Ill
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass
Robins Data Devices Inc, Flushing	N Y
Schjeldahl Co, G T, Northfield	Minn
Siemens America Inc, New York	N Y
Soroban Engineering, Inc, Melbourne	Fla
Tally Corp, Seattle	Wash
Tech Serv Inc, Beltsville	Md
Teletype Corp, Skokie	Ill
Torrington Co, Specialties Div, Torrington	Conn
Transistor Automation A Teledyne Co, Woburn	Mass
United Systems Corp, Dayton	Ohio
Univac Div, Sperry Rand Corp, Philadelphia	Pa

PHASE-ANGLE METERS SEE METERS--PHASE-ANGLE

PHASE COMPARATORS SEE COMPARATORS

PHASE MODULATORS SEE MODULATORS

PHASE-SEQUENCE INDICATORS SEE INDICATORS--PHASE-SEQUENCE

PHASE SHIFTERS SEE SHIFTERS--PHASE

PHASING NETWORKS--DIRECTIONAL ANTENNA SEE NETWORKS

PH CONTROLS SEE CONTROLS--PH

PHENOLIC LAMINATES SEE LAMINATES--COPPER-CLAD

PHENOLICS SEE PLASTICS

PH INDICATORS SEE INDICATORS--PH

PHONOGRAPHS--CHANGERS

HEATH CO, BENTON HARBOR ... MICH
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
Dowa Trading Co Ltd, Kobe ... Japan
Elpa Mktg Industries Inc, New Hyde Park ... N Y
Garrard Div British Industries Corp, Westbury ... N Y
Heath Co, Benton Harbor ... Mich
K L A Labs Inc, Detroit ... Mich
Lesa-Costruzioni Elettromeccaniche SPA, Milan ... Italy
Matsushita Electric Industrial Co Ltd, Osaka ... Japan
Philco-Ford Corp, Washington ... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Sanyo Electric Co Ltd, Osaka ... Japan
Shigoto Industries Ltd, New York ... N Y
Shrader Sound Inc, Washington ... D C
Telefunken Sales Corp, Garden City ... N Y
V-M Corp, Benton Harbor ... Mich

PHONOGRAPHS--CHANGERS WITH AMPLIFIERS

HEATH CO, BENTON HARBOR ... MICH
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
Audiotronics Corp, North Hollywood ... Cal
Dowa Trading Co Ltd, Kobe ... Japan
Dynavox Electronics Corp, Long Island City ... N Y
Electron Enterprises Inc, Berwyn ... Ill
Electronic Creations Co Inc, Mount Vernon ... N Y
Electronic Homes Co, New York ... N Y
Hamilton Electronics Corp, Chicago ... Ill
Heath Co, Benton Harbor ... Mich
Karg Labs Inc, South Norwalk ... Conn
K L A Labs Inc, Detroit ... Mich
Lear Siegler Inc, Santa Monica ... Cal
Lesa-Costruzioni Elettromeccaniche SPA, Milan ... Italy
Major Electronics Corp, Brooklyn ... N Y
Matsushita Electric Industrial Co Ltd, Osaka ... Japan
Philco-Ford Corp, Washington ... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Shrader Sound Inc, Washington ... D C
Shure Brothers Inc, Evanston ... Ill
Telefunken Sales Corp, Garden City ... N Y
V-M Corp, Benton Harbor ... Mich

PHONOGRAPHS--STEREO

HEATH CO, BENTON HARBOR ... MICH
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
Audiotronics Corp, North Hollywood ... Cal
Bogen Communications Div Lear Siegler Inc Paramus ... N J
Dowa Trading Co Ltd, Kobe ... Japan
Dynavox Electronics Corp, Long Island City ... N Y
Electron Enterprises Inc, Berwyn ... Ill
Electronic Creations Co Inc, Mount Vernon ... N Y
Electronic Homes Co, New York ... N Y
Fuji Electric Co Ltd, Tokyo ... Japan
Hamilton Electronics Corp, Chicago ... Ill
Heath Co, Benton Harbor ... Mich
Karg Labs Inc, South Norwalk ... Conn
Lear Siegler Inc, Santa Monica ... Cal
Lesa-Costruzioni Elettromeccaniche SPA, Milan ... Italy
Major Electronics Corp, Brooklyn ... N Y
Marantz Co Inc, Sun Valley ... Cal
Matsushita Electric Industrial Co Ltd, Osaka ... Japan
MP Audio Corp, Fairfield ... Conn
Newcomb Audio Products Co, Sylmar ... Cal
Osaka Onkyo Co, Ltd, Asahi-Ku, Osaka ... Japan
Permoflux Corp, Glendale ... Cal
Philco-Ford Corp, Washington ... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Pioneer Electronic Corp, Ohta-ku, Tokyo ... Japan
Radio Corp of America, Comml Elctn Prods Div Camden ... N J
Rek-O-Kut Div, Koss Electronics, Milwaukee ... Wisc
Sanyo Electric Co Ltd, Osaka ... Japan
Scott Inc, H H, Maynard ... Mass
Setchell Carlson, Inc, New Brighton ... Minn
Shrader Sound Inc, Washington ... D C
Shure Brothers Inc, Evanston ... Ill
Sylvania Entertainment Prods, Batavia ... N Y
Telefunken Sales Corp, Garden City ... N Y
Television Manufacturers of America Co, Wheeling ... Ill
V-M Corp, Benton Harbor ... Mich

PHONOGRAPHS--TURNTABLE

HEATH CO, BENTON HARBOR ... MICH
KINELOGIC CORP, PASADENA ... CAL
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
Acoustic Research Inc, Cambridge ... Mass
Bell P/A Products Corp, Columbus ... Ohio
Bogen Communications Div Lear Siegler Inc Paramus ... N J
Dowa Trading Co Ltd, Kobe ... Japan
Elpa Mktg Industries Inc, New Hyde Park ... N Y
Empire Scientific Corp, Garden City ... N Y
Gray Research & Development Co Div East Hartford ... Conn
Hamilton Electronics Corp, Chicago ... Ill
Heath Co, Benton Harbor ... Mich
Kinelogic Corp, Pasadena ... Cal
Lear Siegler Inc, Santa Monica ... Cal
Lesa-Costruzioni Elettromeccaniche SPA, Milan ... Italy
Major Electronics Corp, Brooklyn ... N Y
Matsushita Electric Industrial Co Ltd, Osaka ... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Radio Corp of America, Comml Elctn Prods Div Camden ... N J
Rek-O-Kut Div, Koss Electronics, Milwaukee ... Wisc
Sanyo Electric Co Ltd, Osaka ... Japan
Shigoto Industries Ltd, New York ... N Y
Shrader Sound Inc, Washington ... D C
Sparta Electronic Corp, Sacramento ... Cal
V-M Corp, Benton Harbor ... Mich

PHOSPHIDES SEE INTERMETALLICS

PHOSPHOR BRONZE

MITSUBISHI ELECTRIC CORP, TOKYO ... JAPAN
Alloys Unlimited Inc, Melville ... N Y
American Silver Co Div, Flushing ... N Y
Anaconda American Brass Co, Waterbury ... Conn
Beemer Engineering Co, Fort Washington ... Pa
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights ... NY
Bram Metallurgical Chemical Co, Philadelphia ... Pa
Brush Beryllium Co, Cleveland ... Ohio
Chase Brass & Copper Co, Cleveland ... Ohio
Chase Metals Service Div Chase Brass & Copper Co Cleveland ... Ohio
General Findings Co Industrial Div, Attleboro ... Mass
Hamilton Precision Metals Div Hamilton Watch Co Lancaster ... Pa
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia ... Pa
Leach & Garner Co, Industrial Div, Attleboro ... Mass
Mackay Inc, A D, New York ... N Y
Metal Ceram Inc, Mount Vernon ... N Y
Mitsubishi Electric Corp, Tokyo ... Japan
Montgomery Co, Windsor Locks ... Conn
Porter Co Inc H K, Fabricated Metals Div Pittsburgh ... Pa
Revere Copper & Brass, Inc, New York ... N Y
Saxton Products Inc, Congers ... N Y
Semi-Alloys Inc, Mt Vernon ... N Y
Somers Thin Strip Inc Sub Olin, Waterbury ... Conn
Steel Heddle Mfg Co, Philadelphia ... Pa
Unibraze Corp, New Rochelle ... N Y

PHOSPHOROUS--HIGH PURITY

Anchor Alloys Inc, Brooklyn ... N Y
Anchor Metal Co, Inc Div, Brooklyn ... N Y
Asarco Intermetallics Corp, New York ... N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place ... N Y
City Chemical Corp, New York ... N Y
Electronic Space Products Inc, Los Angeles ... Cal
Griffiths Electronics Inc, Linden ... N J
Koch Light Labs Ltd, Colnbrook, Bucks ... England
Mackay Inc, A D, New York ... N Y
Mallinckrodt Chemical Works, St Louis ... Mo
Metal Ceram Inc, Mount Vernon ... N Y
Rocky Mountain Research Inc, Denver ... Colo
Roosevelt Metal Co Inc, Brooklyn ... N Y
Semi-Alloys Inc, Mt Vernon ... N Y
Semi-Elements Inc, Saxonburg ... Pa
Shannon Luminous Materials Co, Hollywood ... Cal
United American Metals Div, Brooklyn ... N Y
United Mineral & Chemical Corp, New York ... N Y
Var-Lac-Oid Chemical Co, Elizabeth ... N J
Ventron Electronics Corp, Bradford ... Pa

PHOSPHORS SEE FLUORESCENT COMPOUNDS

PHOTOCELLS SEE CELLS--PHOTOELECTRIC

PHOTOCONDUCTIVE CELLS SEE CELLS--PHOTOELECTRIC

PHOTOCOPY MACHINES SEE MACHINES--COPYING

PHOTODIODES SEE DIODES--CRYSTAL

PHOTOELECTRIC CELLS SEE CELLS--PHOTOELECTRIC

PHOTOELECTRIC CHOPPERS-- SEE CHOPPERS

PHOTOELECTRIC CONTROLS SEE CONTROLS--PHOTOELECTRIC

PHOTOELECTRIC COUNTERS SEE COUNTERS--PHOTOELECTRIC

PHOTOELECTRIC DENSITY CONTROLS SEE CONTROLS--DENSITY

PHOTOELECTRIC DIMENSION GAGES SEE GAGES--DIMENSION

PHOTOELECTRIC PUNCHED-TAPE READERS SEE READERS

PHOTOELECTRIC SOURCE LAMPS SEE LAMPS

PHOTO-ETCHED COMPONENTS SEE ETCHING SERVICES

PHOTOFLASH EQUIPMENT--ELECTRONIC

Abtronics, Inc, Livermore ... Cal
ACR Electronics Corp, New York ... N Y
Amglo Corp, Chicago ... Ill
A V Electronics, Inc, Fresno ... Cal
Berkey Technical Div Berkey Photo Inc, Woodside ... N Y
Burke & James Inc, Chicago ... Ill
Chadwick Helmuth Co Inc, Monrovia ... Cal
E G & G Inc Custom Equip Div, Bedford ... Mass
E G & G Inc, Electronic Prods Div, Boston ... Mass
E G & G Int'l Inc Geodyne Div, Waltham ... Mass
Electro Powerpacs Corp, Cambridge ... Mass
Giannini-Voltex, Whittier ... Cal
Hydro Products Div Dillingham Corp, San Diego ... Cal
International Light Inc, Newburyport ... Mass
Ionics Inc, Electronics Div, Watertown ... Mass
Kemlite Labs Inc, Chicago ... Ill
Optomechanisms Inc, Plainview ... N Y
Sage Instruments Inc, White Plains ... N Y
Xenon Corp, Watertown ... Mass

PHOTOFLASH TUBES SEE LAMPS

PHOTOGRAPHIC FILM RECORDERS SEE RECORDERS--FILM

PHOTOGRAPHIC FILMS SEE FILMS

PHOTOMETERS

Abtronics, Inc, Livermore ... Cal
American Astrionics Inc, Palo Alto ... Cal
American Instrument Co, Inc, Silver Spring ... Md
Barnes Engineering Co Def & Space Div Stamford ... Conn
Beckman Instruments Inc, Fullerton ... Cal
Bionic Instruments Inc, Bala Cynwyd ... Pa
Canadian Research Institute, Don Mills ... Ont
E G & G Inc, Electronic Prods Div, Boston ... Mass
Eldorado Electronics, Concord ... Cal
Eppley Lab Inc, Newport ... R I
Ercona Corp, New York ... N Y
Gamma Scientific Inc, San Diego ... Cal
Gardner Lab Inc, Bethesda ... Md
GCA Technology Div GCA Corp, Bedford ... Mass
Grace Electronics Inc, Cleveland ... Ohio
Hydro Products Div Dillingham Corp, San Diego ... Cal
Instrumentation Lab Inc, Watertown ... Mass
Instrument Development Labs Div Kollmorgen Corp Attleboro ... Mass
International Light Inc, Newburyport ... Mass
ITT Industrial Labs Div, Fort Wayne ... Ind
Kahl Scientific Instrument Corp, El Cajon ... Cal
Leeds & Northrup Co, Philadelphia ... Pa
Lektra Labs Inc Div Kriser Corp, College Point ... N Y
McKee-Pedersen Instruments, Danville ... Cal
Measurement Systems Inc, Norwalk ... Conn
Nichols Co Ltd, R H, Downsview ... Ont
Nuclear Enterprises Ltd, Edinburgh 11 ... Scotland
Optics Technology Inc, Palo Alto ... Cal
Ovitron Corp Industrial Syst Div, Cheshire ... Conn
Pacific Photometric Instruments, Berkeley ... Cal
Phoenix Precision Instrument Co, Inc, Philadelphia ... Pa
Photo Research Corp, Burbank ... Cal
Process & Instruments Corp, Brooklyn ... N Y
Royco Instruments Inc, Menlo Park ... Cal
Schoeffel Instrument Co, Westwood ... NJ
Technicon Corp, Ardsley ... N Y
Zeiss Inc, Carl, New York ... N Y

PHOTOMULTIPLIER TUBES SEE TUBES--PHOTO

PHOTON COUNTERS SEE COUNTERS--PHOTON

PHOTOTRANSISTORS SEE TRANSISTORS

PHOTOTUBES SEE TUBES--PHOTO

PHOTOVOLTAIC CELLS SEE CELLS--PHOTOELECTRIC

PH RECORDERS SEE RECORDERS--PH

PICKUPS--PHONOGRAPH

KINELOGIC CORP, PASADENA ... CAL
PRIMO CO LTD, TOKYO ... JAPAN
Astatic Corp, Conneaut ... Ohio
Audio Dynamics Corp, New Milford ... Conn
C B S Labs Div Columbia Bdcstg Sys Inc Stamford ... Conn
Components Specialties Inc, Freeport ... N Y
Dowa Trading Co Ltd, Kobe ... Japan
Duotone Co Inc, Miami ... Fla
Dynaco Inc, Philadelphia ... Pa
Electro-Voice Inc Sub Gulton Industries Buchanan ... Mich
Elpa Mktg Industries Inc, New Hyde Park ... N Y
Empire Scientific Corp, Garden City ... N Y
Euphonics Corp, Guaynabo ... P R
Fen-Tone Corp, New York ... N Y
Gulton Industries Inc, Metuchen ... N J
Iwatsu Electric Co Ltd, Tokyo ... Japan
Kinelogic Corp, Pasadena ... Cal
Linden Labs Inc, State College ... Pa
Midland International Corp, North Kansas City ... Mo
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Philmore Mfg Co Inc, Richmond Hill ... N Y
Pickering & Co Inc, Plainview ... N Y
Primo Co Ltd, Tokyo ... Japan
Radio Corp of America, Comml Elctn Prods Div Camden ... N J
Rowe Industries Inc, Toledo ... Ohio
Sanyo Electric Co Ltd, Osaka ... Japan
Shigoto Industries Ltd, New York ... N Y
Shrader Sound Inc, Washington ... D C
Shure Brothers Inc, Evanston ... Ill
Sonotone Corp, Electronic Applications Div Elmsford ... N Y

PIEZOELECTRIC CRYSTALS SEE CRYSTAL BLANKS;CRYSTALS--PIEZOELECTRIC, SAW

PILOT LAMP ASSEMBLIES SEE LAMP ASSEMBLIES

PILOT LAMPS SEE LAMPS

PINS--TUBE BASE SEE TUBE PARTS

PINS

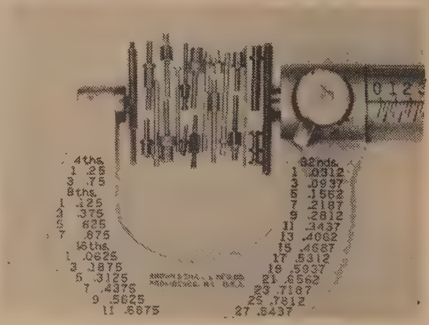
ART WIRE & STAMPING CO, NEWARK, N J ... ADV PG 814
PRECISION METAL PRODUCTS CO OF MALDEN INC, STONEHAM MASS ... ADV PG 474
STAR STAINLESS SCREW CO, PATERSON ... N J
Allmetal Screw Products Co Inc, Garden City ... N Y
Anaconda American Brass Co, Waterbury ... Conn
Art Wire & Stamping Co, Newark ... N J
Atomite Electronics Corp, Roosevelt ... N Y
Auto-Swage Products, Inc, Shelton ... Conn
Bead Chain Mfg Co, Bridgeport ... Conn
Berg Electronics, Inc, New Cumberland ... Pa
Cambridge Thermionic Corp, Cambridge ... Mass
C E M Co, Inc, Danielson ... Conn
Elastic Stop Nut Corp of America, Union ... N J
Eyelematic Mfg Co Inc, Oakville ... Conn
Gillen Co, John, Cicero ... Ill
Groov-Pin Corp, Ridgefield ... N J
Metal Ceram Inc, Mount Vernon ... N Y
Norrich Plastics Corp, Roosevelt ... N Y
Precision Metal Products Co of Malden Inc Stoneham ... Mass
Richards Metal Products Inc, Wolcott ... Conn
Semi-Alloys Inc, Mt Vernon ... N Y
Star Stainless Screw Co, Paterson ... N J
Sylvania Electric Prods Inc, Parts Div, Warren ... Pa

PIRANI GAGES SEE GAGES--VACUUM

PLANAR TUBES SEE TUBES--PLANAR

PLANES--MEMORY SEE MEMORIES--COMPUTER

PLASMA GENERATORS SEE MACHINES METALIZING, MOLTEN SPRAY



PRECISION METAL MINI-PINS FOR EVERY PURPOSE

Ultra-miniature precision pins for every purpose: connectors in micro-modules, headers, contacts, etc. Diameters from .005" to .093": lengths to 1". Made of free cutting brass (QQB-626, Comp. 22). Can be plated with virtually all metals. Send for Free samples and new catalog.

PMP
PRECISION METAL PRODUCTS

PRECISION METAL PRODUCTS CO.
41 ELM ST., STONEHAM, MASS. 02180
Telephone: (Area Code 617) 438-3650

PLASTIC BEADS SEE BEADS

PLASTIC BOBBINS SEE BOBBINS

PLASTIC BOXES SEE BOXES

PLASTIC CABINETS SEE CABINETS--PLASTIC

PLASTIC FABRIC PARTS SEE FABRIC PARTS

PLASTIC FABRICS SEE FABRICS

PLASTIC FIBERS SEE FIBERS

PLASTIC FORMS SEE FORMS--COIL & RESISTOR;FORMS--EPOXY, ENCAPSULATING

PLASTIC INSULATION PARTS SEE PLASTICS--FINISHED PARTS

PLASTIC MOLDING SERVICES

AIRFLYTE ELECTRONICS CO, BAYONNE ... N J
BARNES CORP, LANSDOWNE ... PA
CONTROL KNOBS INC, JAMAICA ... N Y
ELECTRONIC MOLDING CORP, PAWTUCKET ... R I
TECHNITROL INC, PHILADELPHIA ... PA
Acme Chemicals & Insulation, New Haven ... Conn
Adronics Inc, Elrob Mfg Corp, Verona ... N J
Aerospace Systems A Teledyne Co, Fairmont ... Minn
Aikow Shoji Kaisha Ltd, Osaka ... Japan
Airflyte Electronics Co, Bayonne ... N J
Allen-Jones Electronics Corp, Gardena ... Cal
Anchor Alloys Inc, Brooklyn ... N Y
Anchor Metal Co, Inc Div, Brooklyn ... N Y
Approved Plastics Co, Port Orange ... Fla
Auburn Plastics, Inc, Auburn ... N Y
Automation Services Inc, Endicott ... N Y
A V Electronics, Inc, Fresno ... Cal
Bacon Industries, Inc, Watertown ... Mass
Barnes Corp, Lansdowne ... Pa
BeMan Mfg, Inc, New Cumberland ... Pa
Blinn Co Inc, Delbert, Pomona ... Cal
Boonton Molding Co Inc, Boonton ... N J
Buckeye Bobbin & Mfg Div Prec Paper Tube Co Westlake ... Ohio
Castall Research Lab Inc, Brockton ... Mass
Celanese Plastics Co, Newark ... NJ
Chemelec Products, Inc, Cherry Hill ... N J
Chemplast Inc, Wayne ... N J
Collectron Corp, New York ... N Y
Conap Inc, Allegany ... N Y
Consolidated Molded Prods Div Republic Corp Scranton ... Pa
Control Knobs Inc, Jamaica ... N Y
Cryplex Industries Inc, Flushing ... N Y
Cycle Products Co Inc, Newark ... N J
Dbm Research Corp, Cocoa Beach ... Fla
D-Cemco Inc, Burbank ... Cal
Detoronics Corp, S El Monte ... Cal
Dixon Corp, Bristol ... R I
Electrical Plastics Corp, Lyndhurst ... N J
Electro Miniatures Corp, South Hackensack ... N J
Electronic Molding Corp, Pawtucket ... R I
Electronic Space Structures Corp, West Concord ... Mass
Eljay Corp, Baltimore ... Md
El-Tech Mfg Co Inc, Norristown ... Pa
El-Tronics Inc Warren Components Div, Warren ... Pa
Emeloid Co Inc, Hillside ... N J
Emerson Plastics Corp, Bronx ... New York
EPD Industries Inc, Long Beach ... Cal
Epoxtronics Corp, Lowell ... Mass
Epoxy Products Co Div Allied Prod Inc New Haven ... Conn
Essex Wire Corp Terminal Sales, Chicago ... Ill
Ethylene Corp, Murray Hill ... N J
Fastex Div Illinois Tool Works, Des Plaines ... Ill
Ferranti, Ltd, Lancashire ... England
First Electronics Corp, Boston ... Mass
Flexi Optics Labs Inc, Somerville ... Mass
Flow Electronic Cable Corp, Cambridge ... Mass
Franklin Fibre-Lamitex Corp, Wilmington ... Del
Gibson-Egan CO, Arcadia ... Cal
G-L Industries Inc, G-L Electronics Div, Westville ... N J
Grayhill Moldtronics Inc, Downers Grove ... Ill
Gries Reproducer Co Div Coats & Clark Inc New Rochelle ... N Y
GTI Corp, Clover Industries Div, Tonawanda ... N Y
Harvey Hubbell Inc, Bridgeport ... Conn
Hastings Plastics Inc, Santa Monica ... Cal
Haveg Industries, Inc, Precision Molding Div Taunton ... Mass
Haysite Reinforced Plastics Div Hays Mfg Co., Erie ... Pa
Henry Engineering Co, Burbank ... Cal
Hightemp Resins Inc, Stamford ... Conn
Idea Associates Inc, South Hackensack ... N J
Industrial Devices Inc, Edgewater ... N J
Industrial Electronic Rubber Co, Twinsburg ... Ohio
Insulating Shapes Inc, Bronx ... N Y
Isochem Resins Co, Lincoln ... RI
Isolation Products, Mountain View ... Cal
J-B Electronics, Inc, City of Commerce ... Cal
Joclin Mfg Co, Wallingford ... Conn
Jones Inc, Norman, South Merrimack ... N H
Keiser's Industries Inc, Mt Holly Springs ... Pa
Kerrco Inc, Lincoln ... Nebr
Manger Electric Co Inc, Stamford ... Conn
Maryland Lava Co Inc, Bel Air ... Md
Midwest Molding & Mfg Co, Gurnee ... Ill
Molding Engineers Inc, Addison ... Ill
Mutron Corp, Brockton ... Mass
Nopco Chemical Div Diamond Shamrock Chem Co Newark ... N J
Northwest Plastics Inc, St Paul ... Minn
Ny-Glass, Inc, Paramount ... Cal
Nylomatic Corp, Morrisville ... Pa
Occo Mfg Corp, South Hackensack ... N J
Olympic Plastics Co, Los Angeles ... Cal
Omega Laboratories Inc, Rowley ... Mass

Orega Electronique & Mecanique Vincennes, Seine ... France
Panel Controls Corp, Detroit ... Mich
Peco Inc, Portland ... Ore
Pelmor Labs Inc, Newtown ... Pa
Pemco Inc, Englewood ... Colo
Permali Inc, Mt Pleasant ... Pa
Plastiglide Mfg Corp, Santa Monica ... Cal
Precision Paper Tube Co, Wheeling ... Ill
Product Components Corp, Hastings-on-Hudson ... N Y
Profile Electronics Inc, Concord ... N H
Raytheon Co, Components Div, Ind Compnts Oper Quincy ... Mass
Remler Co, San Francisco ... Cal
Research Instrument Co Inc, Westbury ... N Y
Robinson-Nugent Inc, New Albany ... Ind
Roosevelt Metal Co Inc, Brooklyn ... N Y
Ross Co, Milton, Southampton ... Pa
Rostone Corp, Lafayette ... Ind
Rye Industries, Inc, Mamaroneck ... N Y
Shamban & Co, W S, Los Angeles ... Cal
Shaw Insulator Co, Berkeley Heights ... N J
Sierra Electric Inc, Gardena ... Cal
Slocum Industries, Inc, Reseda ... Cal
Smith Inc, Herman H, Brooklyn ... N Y
Sparta Mfg Co, Dover ... Ohio
Staffall, Inc, Providence ... R I
Standard Polymer Inc, Van Nuys ... Cal
Stanwyck Winding Co, Newburgh ... N Y
Swiss Industries, Costa Mesa ... Cal
Sylvania Electric Prods Inc, Parts Div, Warren ... Pa
Technitrol Inc, Philadelphia ... Pa
Textool Products Inc, Irving ... Tex
Thermotech Industries Inc, Hopkins ... Minn
Unex Labs Div Nichols & Clark Inc, Hathorne ... Mass
United American Metals Div, Brooklyn ... N Y
United-Carr Inc, Boston ... Mass

U S Dielectric Inc, Worcester	Mass
Universal Precision, Inc, Endicott	N Y
Upson Tools Inc, Rochester	N Y
USECO Div, Litton Industries, Van Nuys	Cal
Vicon Instrument Co, Colorado Springs	Colo
Victor Metal Products Corp, Harrisonburg	Va
Wakefield Engineering Inc, Wakefield	Mass
Weckesser Co Inc, Chicago	Ill
Welco Electric Corp, South Bend	Ind
Wells Electronics Inc, Plastics Div, South Bend	Ind
Western Coil & Electrical Co, Racine	Wisc
Westinghouse Electric Corp, Industrial Micarta Div Hampton	S C
Westmoreland Plastics Co, Latrobe	Pa
White Industrial, S S, New York	N Y
Wiggins Plastics, Inc, Clifton	N J
Winslow Tele-Tronics Inc, Asbury Park	NJ
Zero Mfg Co, Burbank	Cal

PLASTICS--ENCAPSULATING SEE RESINS--ENCAPSULATING & POTTING

PLASTICS, FILM--CAPACITOR

Avisun Corp, Philadelphia	Pa
Cadillac Plastic & Chemical Co, Detroit	Mich
Celanese Plastics Co, Newark	NJ
Dilectrix Corp, Farmingdale	N Y
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Emerson Plastics Corp, Bronx	New York
Frankel J M, Nanterre	France
Franklin Fibre-Lamitex Corp, Wilmington	Del
Gilbreth Co, Philadelphia	Pa
Insulating Shapes Inc, Bronx	N Y
LCC-CICE, 93 Montreuil-sous-Bois	France
3M Company, St Paul	Minn
Natvar Corp, Woodbridge	N J
Oki Electric Industry Co Ltd, Tokyo	Japan
Port Plastics Inc, Montebello	Cal
Saunders Corp, Los Angeles	Cal
Schweitzer, Peter J, Div, Kimberly-Clark Corp Lee	Mass

PLASTICS, FILM--INSULATING

Adam Spence Corp, Edison	NJ
American Lamotite Corp, Cleveland	Ohio
Arlin Mfg Co Inc, Lowell	Mass
Auburn Mfg Co, Middletown	Conn
Avisun Corp, Philadelphia	Pa
Cadillac Plastic & Chemical Co, Detroit	Mich
Celanese Plastics Co, Newark	NJ
Chase & Sons Inc, Randolph	Mass
Chemplast Inc, Wayne	N J
Crystal-X Corp, Darby	Pa
Dilectrix Corp, Farmingdale	N Y
Dixon Corp, Bristol	R I
Dodge Industries, Hoosick Falls	N Y
Emerson Plastics Corp, Bronx	New York
Fansteel Metallurgical Corp, North Chicago	Ill
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Electric Co Silicone Prods Dept, Waterford	N Y
Gilbreth Co, Philadelphia	Pa
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Insulating Fabricators Inc, East Rutherford	N J
Insulating Fabricators of N E Inc, Watertown	Mass
Insulating Shapes Inc, Bronx	N Y
Koppers Co Inc, Pittsburgh	Pa
Laminated Sheet Products Corp, Norwood	Mass
Leed Insulator Corp, Los Angeles	Cal
3M Company, St Paul	Minn
National Laminating Mfg Co, Beverly Hills	Cal
New England Laminates Co Inc, Stamford	Conn
Penn Fibre & Specialty Co, Philadelphia	Pa
Polymer Corp, Reading	Pa
Port Plastics Inc, Montebello	Cal
Saunders Corp, Los Angeles	Cal
Schjeldahl Co, G T, Northfield	Minn
Schweitzer, Peter J, Div, Kimberly-Clark Corp Lee	Mass
Shamban & Co, W S, Los Angeles	Cal
Sparta Mfg Co, Dover	Ohio
Staff Gasket Mfg Corp, New York	N Y
Standard Polymer Inc, Van Nuys	Cal
Union Carbide Corp Chemicals & Plastics New York	N Y
Zippertubing Co, Los Angeles	Cal

PLASTICS, FINISHED PARTS--CAST

WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Aerospace Systems A Teledyne Co, Fairmont	Minn
Bacon Industries, Inc, Watertown	Mass
Baker Castor Oil Co, Bayonne	N J
Cadillac Plastic & Chemical Co, Detroit	Mich
Castall Research Lab Inc, Brockton	Mass
Collectron Corp, New York	N Y
Conap Inc, Allegany	N Y
Crystal-X Corp, Darby	Pa
Dan-L Inc, E Northport	N Y
Electronic Space Structures Corp, West Concord	Mass
Eljay Corp, Baltimore	Md
Emerson & Cuming Inc, Canton	Mass
Epoxtronics Corp, Lowell	Mass
EpoxyCast Electronic Case Co, Yonkers	N Y
Franklin Fibre-Lamitex Corp, Wilmington	Del
Goodyear Aerospace Corp, Akron	Ohio
Gries Reproducer Co Div Coats & Clark Inc New Rochelle	N Y
Insulating Shapes Inc, Bronx	N Y
Isolation Products, Mountain View	Cal
Jan Hardware Mfg Co Inc, Long Island City	N Y
Jones Inc, Norman, South Merrimack	N H
Laminated Sheet Products Corp, Norwood	Mass
Leed Insulator Corp, Los Angeles	Cal
Long Inc, Thomas J, Carle Place	N Y
Marblette Co Div Allied Prods Corp Long Island City	N Y
Miller Industries Inc, R A, Grand Haven	Mich
Polymer Corp, Reading	Pa
Resdel Corp, Rio Grande	N J
Shamban & Co, W S, Los Angeles	Cal
Standard Polymer Inc, Van Nuys	Cal
Thermotech Industries Inc, Hopkins	Minn
United-Carr Inc, Boston	Mass
United Products Co, Orange	N J
U S Dielectric Inc, Worcester	Mass
Universal Precision, Inc, Endicott	N Y
Waldom Electronics Inc, Chicago	Ill

PLASTICS, FINISHED PARTS--EXTRUDED

Abesto Corp, Bloomfield	N J
Ace Plastic Co, Jamaica	N Y
Adam Spence Corp, Edison	NJ
Aikow Shoji Kaisha Ltd, Osaka	Japan
Allied Engineering & Production Corp, Alameda	Cal
Anchor Plastics Co Inc, Long Island City	N Y
Anglo American Vulcanized Fibre Co Ltd London EC 1	England
Auburn Plastics, Inc, Auburn	N Y
Blinn Co Inc, Delbert, Pomona	Cal
Cadillac Plastic & Chemical Co, Detroit	Mich
Calmont Wire & Cable Inc, Santa Ana	Cal
Chemplast Inc, Wayne	N J
Commercial Plastics Co, Mundelein	Ill
Crane Packing Co, Morton Grove	Ill
Crystal-X Corp, Darby	Pa
Dixon Corp, Bristol	R I
ECP Corp, Cleveland	Ohio
Eljay Corp, Baltimore	Md
Emerson & Cuming Inc, Canton	Mass
Engineered Plastics Inc, Gibsonville	N C
Ethylene Corp, Murray Hill	N J
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Tire & Rubber Co, Akron	Ohio
Goodrich Industrial Prods Co, B F, Akron	Ohio
Hydro Molding Co Inc, Plattsburgh	N Y
Icore Electro-Plastics, Sunnyvale	Cal
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Insulating Shapes Inc, Bronx	N Y
Jody Mfg Co, Detroit	Mich
Jones Inc, Norman, South Merrimack	N H
Laminated Sheet Products Corp, Norwood	Mass
Natvar Corp, Woodbridge	N J
Pennsylvania Fluorocarbon Co Inc, Clifton Heights	Pa
Plastiglide Mfg Corp, Santa Monica	Cal
Polymer Corp, Reading	Pa
Pyramid Plastics Inc, Palatine	Ill
Republic Industrial Corp, Lathrup Village	Mich
Revere Corp of America, Wallingford	Conn
Shamban & Co, W S, Los Angeles	Cal
Shigoto Industries Ltd, New York	N Y
Sierra Electric Inc, Gardena	Cal
Sparta Mfg Co, Dover	Ohio
Standard Polymer Inc, Van Nuys	Cal
Suflex Corp, Woodside	N Y
Taylor Electric Inc, Howell	Mich
Weckesser Co Inc, Chicago	Ill
Westlake Plastics Co, Lenni	Pa

PLASTICS, FINISHED PARTS--FABRICATED

ACCURATE ELECTRONICS CORP, ELYRIA OHIO	**ADV PG 394**
CONTROL KNOBS INC, JAMAICA	**N Y**
EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
ELECTRICAL INSULATION CO INC, COPIAGUE N Y	**ADV PG 475**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
MICRO CONTACTS, INC, HICKSVILLE	**N Y**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
PRECISION METAL PRODUCTS CO OF MALDEN INC STONEHAM. MASS	**ADV PG 475**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Abacus Electronics Corp, Dobbs Ferry	N Y
Abesto Corp, Bloomfield	N J
Accurate Electronics Corp, Elyria	Ohio
Ace Plastic Co, Jamaica	N Y
Acme Tool & Specialties Co, Des Plaines	Ill
Adam Spence Corp, Edison	NJ
Adronics Inc, Elrob Mfg Corp, Verona	N J
Advanced Development Corp, Gardena	Cal
Aerospace Systems A Teledyne Co, Fairmont	Minn
Allegri-Tech Inc, Nutley	N J
Allied Engineering & Production Corp, Alameda	Cal
Amatom Electronic Hardware, New Rochelle	N Y
Anchor Specialty Mfg Co Inc, Teterboro	N J
Anglo American Vulcanized Fibre Co Ltd London EC 1	England
Anti-Corrosive Metal Products Co, Inc, Albany	N Y
Apahouser Corp of N E, Boston	Mass
Arlin Mfg Co Inc, Lowell	Mass
Atkins & Merrill Inc Reinforced Plastic Div Marlboro	Mass

Fabricating Specialists in

LAMINATED PHENOLICS
ALL PLASTICS AND
GLASS POLYESTERS
MACHINING - PUNCHING
CUTTING - MILLING
DRILLING - ENGRAVING

Local Stock of . . .

- SHEETS
- RODS
- TUBES

ELECTRICAL INSULATION CO. INC.
1245 Marconi Blvd.
Copiague, L. I.
AM 4-6190

NEW PRECISION MICRO-PARTS

MICRO PARTS AT MICRO PRICES

New, advanced machine tools and methods make possible precision Micro-Parts at low costs and rapid deliveries. Typical parts include: snap ring pins, shoulder rivets, shafts, rollers, etc. Machined from any material; diameters from .005" to .125", lengths to 1". Send drawings for quotations or Write for Free samples and New literature.

PMP
PRECISION METAL PRODUCTS

PRECISION METAL PRODUCTS CO.
41 ELM ST. STONEHAM, MASS. 02180
Telephone (Area Code 617) 438-3650

Atmar Engraving Co Inc, Richmond Hill ..... N Y
Auburn Mfg Co, Middletown ..... Conn
Baer Co, N S, Hillside ..... N J
Best Mfg Co, Kansas City ..... Mo
Burtek Inc, Tulsa ..... Okla
Cadillac Plastic & Chemical Co, Detroit ..... Mich
Castall Research Lab Inc, Brockton ..... Mass
Chemelec Products, Inc, Cherry Hill ..... N J
Chemplast Inc, Wayne ..... N J
Chomerics, Inc, Arlington ..... Mass
Coastal Dynamics Corp, Venice ..... Cal
Coiltronics Inc, Buena Park ..... Cal
Collectron Corp, New York ..... N Y
Comco Plastics Inc, Richmond Hill ..... N Y
Conap Inc, Allegany ..... N Y
Consolidated Molded Prods Div Republic Corp
  Scranton ..... Pa
Control Knobs Inc, Jamaica ..... N Y
Crane Packing Co, Morton Grove Ill
Crystal-X Corp, Darby ..... Pa
Curry Arts Molding & Laminating Co, Scranton ..... Pa
Dan-L Inc, E Northport ..... N Y
Devco Engineering Inc, Fairfield (Caldwell) ..... N J
Dilectrix Corp, Farmingdale ..... N Y
Dixon Corp, Bristol ..... R I
Dorco Electronics Inc, Compton ..... Cal
Dura Plastics of N Y Inc, New York ..... NY
Eagle-Picher Industries Inc, Electronics Div, Joplin ..... Mo
Edcraft Industries Inc, Linden ..... N J
Electrical Insulation Co Inc, Copiague ..... N Y
Electro Miniatures Corp, South Hackensack ..... N J
Electronic Components Corp, Addison Ill
Eljay Corp, Baltimore ..... Md
El-Tech Mfg Co Inc, Norristown ..... Pa
Emeloid Co Inc, Hillside ..... N J
Emerson & Cuming Inc, Canton ..... Mass
Emerson Plastics Corp, Bronx ..... New York
Engineered Plastics Inc, Gibsonville ..... N C
EPD Industries Inc, Long Beach ..... Cal
EpoxyCast Electronic Case Co, Yonkers ..... N Y
Epoxy Products Co Div Allied Prod Inc
  New Haven ..... Conn
Ethylene Corp, Murray Hill ..... N J
Eugene Engineering Co Inc, Rockland ..... Mass
Fansteel Metallurgical Corp, North Chicago Ill
Fastex Div Illinois Tool Works, Des Plaines Ill
Felsenthal Instruments Co, Chicago Ill
Fisher & Crome, Inc, Philadelphia ..... Pa
Fluoro-Plastics Inc, Philadelphia ..... Pa
Form Fit Plastics Inc, Lowell ..... Mass
Forway Industries Inc, Woodbury ..... N J
Franklin Fibre-Lamitex Corp, Wilmington ..... Del
General Gaskets Inc, Middletown ..... Conn
General Tire & Rubber Co, Akron ..... Ohio
G-L Industries Inc, G-L Electronics Div, Westville ..... N J
Globe Electrical Mfg Co, Gardena ..... Cal
Globe Plastics Inc, Pomona ..... Cal
Goodyear Aerospace Corp, Akron ..... Ohio
Hampden Mfg Co Inc, Thompsonville ..... Conn
Harva Co Inc, Schoharie ..... N Y
Haveg Industries, Inc, Precision Molding Div
  Taunton ..... Mass
Henry Engineering Co, Burbank ..... Cal
H & H Screw Products Mfg Co, Ashton ..... R I
Industrial Circuits Co, Fairfield ..... N J
Industrial Electronic Hardware Corp, New York ..... N Y
Industrial Engravers Inc, Jamaica ..... N Y
Insulating Fabricators Inc, East Rutherford ..... N J
Insulating Fabricators of N E Inc, Watertown ..... Mass
Insulating Shapes Inc, Bronx ..... N Y
Isolation Products, Mountain View ..... Cal
Jan Hardware Mfg Co Inc, Long Island City ..... N Y
Jetron Mfg Co, Chicago Ill
Jones Electronics, Hiram, Burbank ..... Cal
Keil Engineering Products Inc, St Louis ..... Mo
Keystone Electronics Corp, New York ..... N Y
Koppers Co Inc, Pittsburgh ..... Pa
Laminair, Inc, Los Angeles ..... Cal
Laminated Fabricators, San Bruno ..... Cal
Laminated Sheet Products Corp, Norwood ..... Mass
Leed Insulator Corp, Los Angeles ..... Cal
Liberty Mirror Div Libbey-Owens Ford Glass Co
  Brackenridge ..... Pa
Long Inc, Thomas J, Carle Place ..... N Y
Maryland Lava Co Inc, Bel Air ..... Md

MB Bedding Co, Wilkes-Barre ..... Pa
McCullough Aero Corp, Hawthorne ..... Cal
McMillan Radiation Labs Inc, Ipswich ..... Mass
Meadows Terminal Boards, Cupertino ..... Cal
Micro Contacts, Inc, Hicksville ..... N Y
Midwest Cortland, Schiller Park Ill
Mid-West Metal Products Inc, Kansas City ..... Kans
Miller Dial & Name Plate Co, El Monte ..... Cal
Miller Industries Inc, R A, Grand Haven ..... Mich
National Tel-Tronics Corp, Great Neck ..... N Y
Nichols Products Co, Inc, Moorestown ..... N J
Niemand Bros Inc, Elmhurst ..... N Y
Norrich Plastics Corp, Roosevelt ..... N Y
NVF Co, Wilmington ..... Del
Ny-Glass, Inc, Paramount ..... Cal
Nylogrip Products, Waltham ..... Mass
Nylomatic Corp, Morrisville ..... Pa
Oppenheimer, Inc, Willow Grove ..... Pa
Panel Controls Corp, Detroit ..... Mich
Panelgraphic Corp, Caldwell ..... N J
Panob Corp, Port Chester ..... N Y
Penn Fibre & Specialty Co, Philadelphia ..... Pa
Pennsylvania Fluorocarbon Co Inc, Clifton Heights ..... Pa
Perfectaire Equipment Co Inc, Cambridge ..... Mass
Permali Inc, Mt Pleasant ..... Pa
Permonite Mfg Co, Chicago Ill
Polymex Corp, Reading ..... Pa
Precision Metal Products Co of Malden Inc
  Stoneham ..... Mass
Precision Paper Tube Co, Wheeling Ill
Printloid Inc, Long Island City ..... N Y
Product Components Corp, Hastings-on-Hudson ..... N Y
Ray Products Inc, Alhambra ..... Cal
Raytheon Co, Government Marketing, Lexington ..... Mass
Richardson Company, Melrose Park Ill
Robinson-Nugent Inc, New Albany ..... Ind
Robison Electronics Inc, Hawthorne ..... Cal
Ryerson & Son Inc, J T, Chicago Ill
Seastrom Mfg Co Inc, Glendale ..... Cal
Seelye Plastic Fab Inc, Minneapolis ..... Minn
Seton Name Plate Corp, New Haven ..... Conn
Severna Div Amphenol Corp, East Orange ..... N J
Shamban & Co, W S, Los Angeles ..... Cal
Sherwood Industries Flexco Div, Bell Gardens ..... Cal
Shielding Corp, Moorestown ..... N J
Sierra Electric Inc, Gardena ..... Cal
Slocum Industries, Inc, Reseda ..... Cal
Smith Inc, Herman H, Brooklyn ..... N Y
Sparta Mfg Co, Dover ..... Ohio
Spaulding Fibre Co Inc, Tonawanda ..... N Y
Spruce Pine Mica Co Inc, Spruce Pine ..... N C
Standard Polymer Inc, Van Nuys ..... Cal
Stevens Products Inc, East Orange ..... N J
Superior Plastics Inc, Paramount ..... Cal
Sylvania Electric Prods Inc, Parts Div, Warren ..... Pa
Synthane Corp, Oaks ..... Pa
Taffet Electronics Inc, Woodside ..... N Y
Taylor Corp, Valley Forge ..... Pa
Taylor Electric Inc, Howell ..... Mich
Textool Products Inc, Irving ..... Tex
Thermotech Industries Inc, Hopkins ..... Minn
Thiokol Chemical Corp, Panelyte Ind Div, Trenton ..... N J
Triangle Instrument Co Inc, Syosset ..... N Y
Tri-Dex Co, Visalia ..... Cal
Tri-Point Industries Inc, Commack ..... NY
Union Carbide Corp Chemicals & Plastics
  New York ..... N Y
United Products Co, Orange ..... N J
UOP Norplex Div, LaCrosse ..... Wis
USECO Div, Litton Industries, Van Nuys ..... Cal
Utility Communication Systems Inc, Essington ..... Pa
Vicon Instrument Co, Colorado Springs ..... Colo
Waldom Electronics Inc, Chicago Ill
Westmoreland Plastics Co, Latrobe ..... Pa
Wickes Industries Inc, Camden ..... N J
Wilmington Fibre Specialty Co, New Castle ..... Del
Zero Mfg Co, Burbank ..... Cal

PLASTICS, FINISHED PARTS--LAMINATED

ACCURATE ELECTRONICS CORP, ELYRIA ..... OHIO
ELECTRICAL INSULATION CO INC, COPIAGUE ..... N Y
NATIONAL TEL-TRONICS CORP, GREAT NECK ..... N Y
Abacus Electronics Corp, Dobbs Ferry ..... N Y
Abesto Corp, Bloomfield ..... N J
Accurate Electronics Corp, Elyria ..... Ohio
Allied Engineering & Production Corp, Alameda ..... Cal
American Lamotite Corp, Cleveland ..... Ohio
Anglo American Vulcanized Fibre Co Ltd
  London EC 1 ..... England
Arlin Mfg Co Inc, Lowell ..... Mass
Atkins & Merrill Inc Reinforced Plastic Div
  Marlboro ..... Mass
Auburn Mfg Co, Middletown ..... Conn
Best Mfg Co, Kansas City ..... Mo
Budd Co Polychem Div, Newark ..... Del
Cadillac Plastic & Chemical Co, Detroit ..... Mich
Castall Research Lab Inc, Brockton ..... Mass
Chemical & Aerospace Products Inc, Wilmington ..... Cal
Coastal Dynamics Corp, Venice ..... Cal
Crystal-X Corp, Darby ..... Pa
Curry Arts Molding & Laminating Co, Scranton ..... Pa
Devco Engineering Inc, Fairfield (Caldwell) ..... N J
Dilectrix Corp, Farmingdale ..... N Y
Electrical Insulation Co Inc, Copiague ..... N Y
Electronic Space Structures Corp, West Concord ..... Mass
Electronized Chemicals Corp, Burlington ..... Mass
Eljay Corp, Baltimore ..... Md
Emeloid Co Inc, Hillside ..... N J
Emerson & Cuming Inc, Canton ..... Mass
Emerson Plastics Corp, Bronx ..... New York
Engineered Plastics Inc, Gibsonville ..... N C
Fansteel Metallurgical Corp, North Chicago Ill
Feay Co, Neal, Goleta ..... Cal
Felsenthal Instruments Co, Chicago Ill
Flexible Circuits Inc, Warrington ..... Pa
Form Fit Plastics Inc, Lowell ..... Mass

Franklin Fibre-Lamitex Corp, Wilmington ..... Del
Globe Electrical Mfg Co, Gardena ..... Cal
Goodyear Aerospace Corp, Akron ..... Ohio
Harva Co Inc, Schoharie ..... N Y
Haysite Reinforced Plastics Div Hays Mfg Co., Erie ..... Pa
Henry Engineering Co, Burbank ..... Cal
Insulating Fabricators of N E Inc, Watertown ..... Mass
Insulating Shapes Inc, Bronx ..... N Y
Jetron Mfg Co, Chicago Ill
Kenmore Industries, Inc, Lowell ..... Mass
Koppers Co Inc, Pittsburgh ..... Pa
Laminair, Inc, Los Angeles ..... Cal
Laminated Sheet Products Corp, Norwood ..... Mass
Leed Insulator Corp, Los Angeles ..... Cal
Liberty Mirror Div Libbey-Owens Ford Glass Co
  Brackenridge ..... Pa
Long Inc, Thomas J, Carle Place ..... N Y
McCullough Aero Corp, Hawthorne ..... Cal
McMillan Radiation Labs Inc, Ipswich ..... Mass
Midwest Cortland, Schiller Park Ill
Miller Industries Inc, R A, Grand Haven ..... Mich
3M Company, St Paul ..... Minn
National Tel-Tronics Corp, Great Neck ..... N Y
Norrich Plastics Corp, Roosevelt ..... N Y
NVF Co, Wilmington ..... Del
Ny-Glass, Inc, Paramount ..... Cal
Parabam Inc, Hawthorne ..... Cal
Penn Fibre & Specialty Co, Philadelphia ..... Pa
Permonite Mfg Co, Chicago Ill
Printloid Inc, Long Island City ..... N Y
Raytheon Co, Government Marketing, Lexington ..... Mass
Richardson Company, Melrose Park Ill
Ryerson & Son Inc, J T, Chicago Ill
Schjeldahl Co, G T, Northfield ..... Minn
Seastrom Mfg Co Inc, Glendale ..... Cal
Seton Name Plate Corp, New Haven ..... Conn
Shamban & Co, W S, Los Angeles ..... Cal
Shielding Corp, Moorestown ..... N J
Sierracin Corp, Sylmar ..... Cal
Spaulding Fibre Co Inc, Tonawanda ..... N Y
Spruce Pine Mica Co Inc, Spruce Pine ..... N C
Stamptronics Inc, Azusa ..... Cal
Standard Polymer Inc, Van Nuys ..... Cal
Stevens Products Inc, East Orange ..... N J
Synthane Corp, Oaks ..... Pa
Taylor Corp, Valley Forge ..... Pa
Thiokol Chemical Corp, Panelyte Ind Div, Trenton ..... N J
U S Dielectric Inc, Worcester ..... Mass
Utility Communication Systems Inc, Essington ..... Pa
Westinghouse Electric Corp, Industrial Micarta Div
  Hampton ..... S C
Wickes Industries Inc, Camden ..... N J

PLASTICS, FINISHED PARTS--MACHINED

ACCURATE ELECTRONICS CORP, ELYRIA ..... OHIO
CONTROL KNOBS INC, JAMAICA ..... N Y
EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV
  JOPLIN ..... MO
ELECTRICAL INSULATION CO INC, COPIAGUE ..... N Y
KEYSTONE ELECTRONICS CORP, NEW YORK ..... N Y
NATIONAL TEL-TRONICS CORP, GREAT NECK ..... N Y
PRECISION METAL PRODUCTS CO OF MALDEN INC
  STONEHAM ..... MASS
Abacus Electronics Corp, Dobbs Ferry ..... N Y
Abesto Corp, Bloomfield ..... N J
Accurate Electronics Corp, Elyria ..... Ohio
Ace Plastic Co, Jamaica ..... N Y
Acme Tool & Specialties Co, Des Plaines Ill
Adam Spence Corp, Edison ..... NJ
Advanced Development Corp, Gardena ..... Cal
Alch Instrument Co, Inc, Westbury ..... N Y
Allegri-Tech Inc, Nutley ..... N J
Allied Engineering & Production Corp, Alameda ..... Cal
Amatom Electronic Hardware, New Rochelle ..... N Y
Anchor Specialty Mfg Co Inc, Teterboro ..... N J
Anglo American Vulcanized Fibre Co Ltd
  London EC 1 ..... England
Anti-Corrosive Metal Products Co, Inc, Albany ..... N Y
Atmar Engraving Co Inc, Richmond Hill ..... N Y
Atomite Electronics Corp, Roosevelt ..... N Y
Auburn Mfg Co, Middletown ..... Conn
Baer Co, N S, Hillside ..... N J
Beemer Engineering Co, Fort Washington ..... Pa
Best Mfg Co, Kansas City ..... Mo
Bodnar Products Corp, New Rochelle ..... N Y
Boonton Molding Co Inc, Boonton ..... N J
Budd Co Polychem Div, Newark ..... Del
Burtek Inc, Tulsa ..... Okla
Cadillac Plastic & Chemical Co, Detroit ..... Mich
Castall Research Lab Inc, Brockton ..... Mass
Chemical & Aerospace Products Inc, Wilmington ..... Cal
Chemplast Inc, Wayne ..... N J
Coastal Dynamics Corp, Venice ..... Cal
Comco Plastics Inc, Richmond Hill ..... N Y
Concord Electronics Corp, New York ..... N Y
Control Knobs Inc, Jamaica ..... N Y
Cox Mfg Co, San Antonio ..... Tex
Crane Packing Co, Morton Grove Ill
Crystal-X Corp, Darby ..... Pa
Curry Arts Molding & Laminating Co, Scranton ..... Pa
Devco Engineering Inc, Fairfield (Caldwell) ..... N J
Dixon Corp, Bristol ..... R I
Dorco Electronics Inc, Compton ..... Cal
Dura Plastics of N Y Inc, New York ..... NY
Eagle-Picher Industries Inc, Electronics Div, Joplin ..... Mo
Edcraft Industries Inc, Linden ..... N J
Electrical Insulation Co Inc, Copiague ..... N Y
Eljay Corp, Baltimore ..... Md
Emeloid Co Inc, Hillside ..... N J
Emerson & Cuming Inc, Canton ..... Mass
Emerson Plastics Corp, Bronx ..... New York
Engineered Plastics Inc, Gibsonville ..... N C
EpoxyCast Electronic Case Co, Yonkers ..... N Y
Ethylene Corp, Murray Hill ..... N J
Eugene Engineering Co Inc, Rockland ..... Mass
Federal Screw Products Inc, Chicago Ill

Felsenthal Instruments Co, Chicago Ill
Fisher & Crome, Inc, Philadelphia ..... Pa
Flexible Products Inc, North St Paul ..... Minn
Fluoro-Plastics Inc, Philadelphia ..... Pa
Forway Industries Inc, Woodbury ..... N J
Franklin Fibre-Lamitex Corp, Wilmington ..... Del
G-L Industries Inc, G-L Electronics Div, Westville ..... N J
Globe Electrical Mfg Co, Gardena ..... Cal
Globe Plastics Inc, Pomona ..... Cal
Hampden Mfg Co Inc, Thompsonville ..... Conn
Harva Co Inc, Schoharie ..... N Y
Haydu Products Inc, Opa Locka ..... Fla
H & H Screw Products Mfg Co, Ashton ..... R I
Industrial Engravers Inc, Jamaica ..... N Y
Insulating Fabricators Inc, East Rutherford ..... N J
Insulating Fabricators of N E Inc, Watertown ..... Mass
Insulating Shapes Inc, Bronx ..... N Y
Isolation Products, Mountain View ..... Cal
Jan Hardware Mfg Co Inc, Long Island City ..... N Y
Jetron Mfg Co, Chicago Ill
Jones Electronics, Hiram, Burbank ..... Cal
Jones Inc, Norman, South Merrimack ..... N H
Keystone Electronics Corp, New York ..... N Y
Koppers Co Inc, Pittsburgh ..... Pa
Laminair, Inc, Los Angeles ..... Cal
Laminated Fabricators, San Bruno ..... Cal
Laminated Sheet Products Corp, Norwood ..... Mass

Leed Insulator Corp, Los Angeles	Cal
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
Long Inc, Thomas J, Carle Place	N Y
Maryland Lava Co Inc, Bel Air	Md
McCullough Aero Corp, Hawthorne	Cal
Meadows Terminal Boards, Cupertino	Cal
Mid-West Metal Products Inc, Kansas City	Kans
Miller Industries Inc, R A, Grand Haven	Mich
Moody Machine Products Co Inc, Providence	R I
National Tel-Tronics Corp, Great Neck	N Y
Neotec Corp, Rockville	Md
Nichols Products Co, Inc, Moorestown	N J
Norrich Plastics Corp, Roosevelt	N Y
NVF Co, Wilmington	Del
Ny-Glass, Inc, Paramount	Cal
Nylogrip Products, Waltham	Mass
Nylomatic Corp, Morrisville	Pa
Omega Laboratories Inc, Rowley	Mass
Oppenheimer, Inc, Willow Grove	Pa
Panob Corp, Port Chester	N Y
Pelmor Labs Inc, Newtown	Pa
Pennsylvania Fluorocarbon Co Inc, Clifton Heights	Pa
Permonite Mfg Co, Chicago	Ill
Polymer Corp, Reading	Pa
Precision Metal Products Co of Malden Inc Stoneham	Mass
Printloid Inc, Long Island City	N Y
Product Components Corp, Hastings-on-Hudson	N Y
Ray Products Inc, Alhambra	Cal
Raytheon Co, Government Marketing, Lexington	Mass
Richardson Company, Melrose Park	Ill
Robinson-Nugent Inc, New Albany	Ind
Rostone Corp, Lafayette	Ind
Seastrom Mfg Co Inc, Glendale	Cal
Seelye Plastic Fab Inc, Minneapolis	Minn
Seton Name Plate Corp, New Haven	Conn
Severna Div Amphenol Corp, East Orange	N J
Shamban & Co, W S, Los Angeles	Cal
Smith Inc, Herman H, Brooklyn	N Y
Sparta Mfg Co, Dover	Ohio
Spaulding Fibre Co Inc, Tonawanda	N Y
Spruce Pine Mica Co Inc, Spruce Pine	N C
Stamptronics Inc, Azusa	Cal
Standard Polymer Inc, Van Nuys	Cal
Superior Plastics Inc, Paramount	Cal
Synthane Corp, Oaks	Pa
Taffet Electronics Inc, Woodside	N Y
Taylor Corp, Valley Forge	Pa
Tec Seal Corp, Wilmington	Cal
Textool Products Inc, Irving	Tex
Thermotech Industries Inc, Hopkins	Minn
Thiokol Chemical Corp, Panelyte Ind Div, Trenton	N J
Tri-Dex Co, Visalia	Cal
Tri-Point Industries Inc, Commack	NY
United Products Co, Orange	N J
UOP Norplex Div, LaCrosse	Wis
USECO Div, Litton Industries, Van Nuys	Cal
Wendon Co Inc, Stamford	Conn
Wilkens Inc, Alwin Fr, Pawling	N Y
Wilmington Fibre Specialty Co, New Castle	Del

PLASTICS, FINISHED PARTS--METALIZED

CARR FASTENER CO DIV UNITED-CARR INC, CAMBRIDGE MASS	**ADV PGS 284,285**
Allied Engineering & Production Corp, Alameda	Cal
Anglo American Vulcanized Fibre Co Ltd London EC 1	England
Boonton Molding Co Inc, Boonton	N J
Cadillac Plastic & Chemical Co, Detroit	Mich
Cambridge Plating Co Inc, Belmont	Mass
Carr Fastener Co Div United-Carr Inc, Cambridge	Mass
Chomerics, Inc, Arlington	Mass
Dilectrix Corp, Farmingdale	N Y
Electronic Space Structures Corp, West Concord	Mass
Emerson Plastics Corp, Bronx	New York
Film Components Div Reon Resister Corp, Yonkers	N Y
Frankel J M, Nanterre	France
Franklin Fibre-Lamitex Corp, Wilmington	Del
Insulating Shapes Inc, Bronx	N Y
Jetron Mfg Co, Chicago	Ill
Jones Inc, Norman, South Merrimack	N H
Laminair, Inc, Los Angeles	Cal
Lash Labs, Inc, San Diego	Cal
Leed Insulator Corp, Los Angeles	Cal
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
Metaplast Electrochemicals Corp, Bronx	N Y
Pacific Universal Products Corp, Pasadena	Cal
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Raytheon Co, Government Marketing, Lexington	Mass
Romar Plastics Inc, St Charles	Ill
Sealectro Corp, Mamaroneck	N Y
Sierracin Corp, Sylmar	Cal
Standard Polymer Inc, Van Nuys	Cal
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
United-Carr Inc, Boston	Mass
Vacuum Metallizing, Van Nuys	Cal

EBG — one stop
shopping center.

PLASTICS, FINISHED PARTS--MOLDED

AIRFLYTE ELECTRONICS CO, BAYONNE	**N J**
CARR FASTENER CO DIV UNITED-CARR INC, CAMBRIDGE MASS	**ADV PGS 284,285**
CONTROL KNOBS INC, JAMAICA	**N Y**
DIMCO-GRAY CO, DAYTON	**OHIO**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
ROGAN BROTHERS INC, SKOKIE	**ILL**
TECHNITROL INC, PHILADELPHIA	**PA**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Acme Chemicals & Insulation, New Haven	Conn
Adronics Inc, Elrob Mfg Corp, Verona	N J
Aerospace Systems A Teledyne Co, Fairmont	Minn
Airflyte Electronics Co, Bayonne	N J
Allied Engineering & Production Corp, Alameda	Cal
Anglo American Vulcanized Fibre Co Ltd London EC 1	England
Anti-Corrosive Metal Products Co, Inc, Albany	N Y
Approved Plastics Co, Port Orange	Fla
Ark-Les Switch Corp, Watertown	Mass
Auburn Plastics, Inc, Auburn	N Y
A V Electronics, Inc, Fresno	Cal
Bacon Industries, Inc, Watertown	Mass
Beemer Engineering Co, Fort Washington	Pa
Bivar Co Inc, Palo Alto	Cal
Blinn Co Inc, Delbert, Pomona	Cal
Boonton Molding Co Inc, Boonton	N J
Bradley Industries Div Richardson-Merrell Inc Franklin Park	Ill
Buckeye Bobbin & Mfg Div Prec Paper Tube Co Westlake	Ohio
Budd Co Polychem Div, Newark	Del
Carr Fastener Co Div United-Carr Inc, Cambridge	Mass
Castall Research Lab Inc, Brockton	Mass
Chemelec Products, Inc, Cherry Hill	N J
Chemplast Inc, Wayne	N J
Chicago Molded Products Corp, Chicago	Ill
Cincinnati Milling Machine Co Cimastra Div Cincinnati	Ohio
Coastal Dynamics Corp, Venice	Cal
Collectron Corp, New York	N Y
Commercial Plastics Co, Mundelein	Ill
Conap Inc, Allegany	N Y
Consolidated Molded Prods Div Republic Corp Scranton	Pa
Control Knobs Inc, Jamaica	N Y
Cosmo Plastics Co, Cleveland	Ohio
Counting Instruments Ltd, Hertfordshire	England
Crane Packing Co, Morton Grove	Ill
Cycle Products Co Inc, Newark	N J
Dan-L Inc, E Northport	N Y
D-Camco Inc, Burbank	Cal
Detoronics Corp, S El Monte	Cal
Dimco-Gray Co, Dayton	Ohio
Dixon Corp, Bristol	R I
Electrical Plastics Corp, Lyndhurst	N J
Electro Miniatures Corp, South Hackensack	N J
Electronic Components Corp, Addison	Ill
Electronic Molding Corp, Pawtucket	R I
Electronic Space Structures Corp, West Concord	Mass
Eljay Corp, Baltimore	Md
El-Tech Mfg Co Inc, Norristown	Pa
El-Tronics Inc Warren Components Div, Warren	Pa
Emeloid Co Inc, Hillside	N J
Emerson & Cuming Inc, Canton	Mass
Emerson Plastics Corp, Bronx	New York
EPD Industries Inc, Long Beach	Cal
Epoxtronics Corp, Lowell	Mass
Epoxy Products Co Div Allied Prod Inc New Haven	Conn
Ethylene Corp, Murray Hill	N J
Fansteel Metallurgical Corp, North Chicago	Ill
Fastex Div Illinois Tool Works, Des Plaines	Ill
Federal Stampings, Div Doric Corp, Minneapolis	Minn
Fluoro-Plastics Inc, Philadelphia	Pa
Forney Industries Inc, Fort Collins	Colo
Forway Industries Inc, Woodbury	N J
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Electric Co Lamp Metals & Components Dept Cleveland	Ohio
General Products Corp, Union Springs	N Y
General Tire & Rubber Co, Akron	Ohio
Gibson-Egan CO, Arcadia	Cal
G-L Industries Inc, G-L Electronics Div, Westville	N J
Globe Electrical Mfg Co, Gardena	Cal
Globe Plastics Inc, Pomona	Cal
Goodrich Industrial Prods Co, B F, Akron	Ohio
Goodyear Aerospace Corp, Akron	Ohio
Grayhill Moldtronics Inc, Downers Grove	Ill
Gries Reproducer Co Div Coats & Clark Inc New Rochelle	N Y
Griffith Plastic Products Co, Burlingame	Cal
Grimes Mfg Co, Urbana	Ohio
GTI Corp, Clover Industries Div, Tonawanda	N Y
Haveg Industries, Inc, Precision Molding Div Taunton	Mass
Haysite Reinforced Plastics Div Hays Mfg Co., Erie	Pa
Hydro Molding Co Inc, Plattsburgh	N Y
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Ilikon Corp, Natick	Mass
Industrial Devices Inc, Edgewater	N J
Industrial Electronic Rubber Co, Twinsburg	Ohio
Industrial Electronic Hardware Corp, New York	N Y
Insulating Shapes Inc, Bronx	N Y
Jan Hardware Mfg Co Inc, Long Island City	N Y
J-B Electronics, Inc, City of Commerce	Cal
Jones Inc, Norman, South Merrimack	N H
Kerrco Inc, Lincoln	Nebr
Koppers Co Inc, Pittsburgh	Pa
Leed Insulator Corp, Los Angeles	Cal
Leslie Mfg Corp, San Marcos	Cal
Maryland Lava Co Inc, Bel Air	Md
Master Dynamics, Sunnyvale	Cal
McMillan Radiation Labs Inc, Ipswich	Mass
Midwest Molding & Mfg Co, Gurnee	Ill
Millen Mfg Co Inc, James, Malden	Mass
Miller Industries Inc, R A, Grand Haven	Mich
Minnesota Rubber Co, Minneapolis	Minn
Molding Engineers Inc, Addison	Ill
Molex Products Co, Downers Grove	Ill
Morris Enterprises Inc, Sepulveda	Cal
Northwest Plastics Inc, St Paul	Minn
NVF Co, Wilmington	Del
Ny-Glass, Inc, Paramount	Cal
Nylomatic Corp, Morrisville	Pa
Olympic Plastics Co, Los Angeles	Cal
Omega Laboratories Inc, Rowley	Mass
Orega Electronique & Mecanique Vincennes, Seine	France
Pacific Electricord Co, Gardena	Cal
Panel Controls Corp, Detroit	Mich
Pearce-Simpson Inc, Miami	Fla
Peco Inc, Portland	Ore
Pelmor Labs Inc, Newtown	Pa
Permali Inc, Mt Pleasant	Pa
Plastiglide Mfg Corp, Santa Monica	Cal
Polymer Corp, Reading	Pa
Precision Paper Tube Co, Wheeling	Ill
Product Components Corp, Hastings-on-Hudson	N Y
Quality Components Inc, St Marys	Pa
Ratel Inc, Goleta	Cal
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Raytheon Co, Government Marketing, Lexington	Mass
Research Instrument Co Inc, Westbury	N Y
Revere Corp of America, Wallingford	Conn
Reynolds Industries Inc, Santa Monica	Cal
Richardson Company, Melrose Park	Ill
Robinson-Nugent Inc, New Albany	Ind
Robison Electronics Inc, Hawthorne	Cal
Rogan Brothers Inc, Skokie	Ill
Romar Plastics Inc, St Charles	Ill
Ross Co, Milton, Southampton	Pa
Rostone Corp, Lafayette	Ind
Shamban & Co, W S, Los Angeles	Cal
Shaw Insulator Co, Berkeley Heights	N J
Shigoto Industries Ltd, New York	N Y
Sierracin Corp, Sylmar	Cal
Sierra Electric Inc, Gardena	Cal
Skydyne Inc, Port Jervis	N Y
Slocum Industries, Inc, Reseda	Cal
Space Products Inc, Long Beach	Cal
Staffall, Inc, Providence	R I
Standard Plastics Co Inc, Attleboro	Mass
Standard Polymer Inc, Van Nuys	Cal
Stanwyck Winding Co, Newburgh	N Y
Sta-Tite Mfg Co, Lexington	Mo
Stevens Products Inc, East Orange	N J
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Synthane Corp, Oaks	Pa
Taylor Corp, Valley Forge	Pa
Technitrol Inc, Philadelphia	Pa
Tekna Products Co, Rochester	N Y
Textool Products Inc, Irving	Tex
Thermalloy Co, Dallas	Tex
Thermotech Industries Inc, Hopkins	Minn
Tinnerman Products Inc, Cleveland	Ohio
Transitron Electronic Corp, Wakefield	Mass
Tri-Point Industries Inc, Commack	NY
Unex Labs Div Nichols & Clark Inc, Hathorne	Mass
Union Carbide Corp Chemicals & Plastics New York	N Y
United Fabricators & Electronics Inc, Stillwater	Minn
U S Dielectric Inc, Worcester	Mass
U S Precision Lens & Plastics Inc, Cincinnati	Ohio
Universal Precision, Inc, Endicott	N Y
Upson Tools Inc, Rochester	N Y
USECO Div, Litton Industries, Van Nuys	Cal
Victor Metal Products Corp, Harrisonburg	Va
Vlchek Plastics Co, Middlefield	Ohio
Waldom Electronics Inc, Chicago	Ill
Weckesser Co Inc, Chicago	Ill
Wells Electronics Inc, Plastics Div, South Bend	Ind
Westinghouse Electric Corp, Industrial Micarta Div Hampton	S C
Westmoreland Plastics Co, Latrobe	Pa
Whitso Inc, Schiller Park	Ill
Wiggins Plastics, Inc, Clifton	N J
Winslow Tele-Tronics Inc, Asbury Park	NJ
Zero Mfg Co, Burbank	Cal

PLASTICS, FINISHED PARTS--STAMPINGS & PUNCHINGS

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ELECTRICAL INSULATION CO INC, COPIAGUE	**N Y**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
MICRO CONTACTS, INC, HICKSVILLE	**N Y**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
Abacus Electronics Corp, Dobbs Ferry	N Y
Abesto Corp, Bloomfield	N J
Accurate Electronics Corp, Elyria	Ohio
Acme Model Engineering Co, Ridgefield	N J
Acme Tool & Specialties Co, Des Plaines	Ill
Adam Spence Corp, Edison	NJ
Allegri-Tech Inc, Nutley	N J
Allied Engineering & Production Corp, Alameda	Cal
Amatom Electronic Hardware, New Rochelle	N Y
American Lamotite Corp, Cleveland	Ohio
Anglo American Vulcanized Fibre Co Ltd London EC 1	England
Anti-Corrosive Metal Products Co, Inc, Albany	N Y
Apahouser Corp of N E, Boston	Mass
Auburn Mfg Co, Middletown	Conn
Baer Co, N S, Hillside	N J
Bishop Industries Corp, North Hollywood	Cal
By-Buk Co, Los Angeles	Cal
Cadillac Plastic & Chemical Co, Detroit	Mich
Chemelec Products, Inc, Cherry Hill	N J

Chemical & Aerospace Products Inc, Wilmington	Cal
Chemplast Inc, Wayne	N J
Comco Plastics Inc, Richmond Hill	N Y
Cox Mfg Co, San Antonio	Tex
Crane Packing Co, Morton Grove	Ill
Curry Arts Molding & Laminating Co, Scranton	Pa
Dixon Corp, Bristol	R I
Dorco Electronics Inc, Compton	Cal
Duplicon Co Inc, Westboro	Mass
Electrical Insulation Co Inc, Copiague	N Y
Eljay Corp, Baltimore	Md
Emeloid Co Inc, Hillside	N J
Emerson & Cuming Inc, Canton	Mass
Emerson Plastics Corp, Bronx	New York
Engineered Plastics Inc, Gibsonville	N C
Ethylene Corp, Murray Hill	N J
Eugene Engineering Co Inc, Rockland	Mass
Feay Co, Neal, Goleta	Cal
Federal Stampings, Div Doric Corp, Minneapolis	Minn
Fisher & Crome, Inc, Philadelphia	Pa
Flexible Products Inc, North St Paul	Minn
Fluoro-Plastics Inc, Philadelphia	Pa
Form Fit Plastics Inc, Lowell	Mass
Forway Industries Inc, Woodbury	N J
Franklin Fibre-Lamitex Corp, Wilmington	Del
Gasket Mfg Co Inc, Los Angeles	Cal
General Gaskets Inc, Middletown	Conn
G-L Industries Inc, G-L Electronics Div, Westville	N J
Globe Electrical Mfg Co, Gardena	Cal
Hampden Mfg Co Inc, Thompsonville	Conn
Harva Co Inc, Schoharie	N Y
Henry Engineering Co, Burbank	Cal
Hit Products Corp, South Norwalk	Conn
Industrial Electronic Hardware Corp, New York	N Y
Insulating Fabricators Inc, East Rutherford	N J
Insulating Fabricators of N E Inc, Watertown	Mass
Insulating Shapes Inc, Bronx	N Y
Jan Hardware Mfg Co Inc, Long Island City	N Y
Jetron Mfg Co, Chicago	Ill
Keystone Electronics Corp, New York	N Y
Laminated Sheet Products Corp, Norwood	Mass
Leed Insulator Corp, Los Angeles	Cal
Long Inc, Thomas J, Carle Place	N Y
Mandex Mfg Co Inc, Chicago	Ill
Meadows Terminal Boards, Cupertino	Cal
Micro Contacts, Inc, Hicksville	N Y
Midwest Cortland, Schiller Park	Ill
Mid-West Metal Products Inc, Kansas City	Kans
National Tel-Tronics Corp, Great Neck	N Y
Niemand Bros Inc, Elmhurst	N Y
NVF Co, Wilmington	Del
Ny-Glass, Inc, Paramount	Cal
Nylogrip Products, Waltham	Mass
Nylomatic Corp, Morrisville	Pa
O'Hara Metal Products Co, San Francisco	Cal
Panel Controls Corp, Detroit	Mich
Penn Fibre & Specialty Co, Philadelphia	Pa
Pennsylvania Fluorocarbon Co Inc, Clifton Heights	Pa
Permonite Mfg Co, Chicago	Ill
Polymer Corp, Reading	Pa
Product Components Corp, Hastings-on-Hudson	N Y
Ray Products Inc, Alhambra	Cal
Raytheon Co, Government Marketing, Lexington	Mass
Richardson Company, Melrose Park	Ill
Robinson-Nugent Inc, New Albany	Ind
Romar Plastics Inc, St Charles	Ill
Seastrom Mfg Co Inc, Glendale	Cal
Shamban & Co, W S, Los Angeles	Cal
Sierra Electric Inc, Gardena	Cal
Slocum Industries, Inc, Reseda	Cal
Sparta Mfg Co, Dover	Ohio
Spaulding Fibre Co Inc, Tonawanda	N Y
Spruce Pine Mica Co Inc, Spruce Pine	N C
Staff Gasket Mfg Corp, New York	N Y
Stamptronics Inc, Azusa	Cal
Standard Polymer Inc, Van Nuys	Cal
Staver Co Inc, Bay Shore	N Y
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Synthane Corp, Oaks	Pa
Taffet Electronics Inc, Woodside	N Y
Taylor Corp, Valley Forge	Pa
Taylor Electric Inc, Howell	Mich
Thiokol Chemical Corp, Panelyte Ind Div, Trenton	N J
Tri-Point Industries Inc, Commack	NY
United Products Co, Orange	N J
UOP Norplex Div, LaCrosse	Wis
Vector Electronic Co Inc, Los Angeles	Cal
Wilmington Fibre Specialty Co, New Castle	Del
Youngwood Electronic Metals Inc, Youngwood	Pa

PLASTICS, FINISHED PARTS--VACUUM FORMED

MARKWIK CORP, SYOSSET	**N Y**
Abesto Corp, Bloomfield	N J
Allied Engineering & Production Corp, Alameda	Cal
Cadillac Plastic & Chemical Co, Detroit	Mich
Comco Plastics Inc, Richmond Hill	N Y
Crystal-X Corp, Darby	Pa
Curry Arts Molding & Laminating Co, Scranton	Pa
Duplicon Co Inc, Westboro	Mass
Dura Plastics of N Y Inc, New York	NY
Edcraft Industries Inc, Linden	N J
Eljay Corp, Baltimore	Md
Emeloid Co Inc, Hillside	N J
Emerson Plastics Corp, Bronx	New York
Engineered Plastics Inc, Gibsonville	N C
Ethylene Corp, Murray Hill	N J
Form Fit Plastics Inc, Lowell	Mass
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Tire & Rubber Co, Akron	Ohio
Goodyear Aerospace Corp, Akron	Ohio
Hampden Mfg Co Inc, Thompsonville	Conn
Harva Co Inc, Schoharie	N Y
Henry Engineering Co, Burbank	Cal
Insulating Fabricators of N E Inc, Watertown	Mass
Insulating Shapes Inc, Bronx	N Y
Laminair, Inc, Los Angeles	Cal
Laminated Sheet Products Corp, Norwood	Mass
Lansky Die Cutting Corp, Long Island City	N Y
Leed Insulator Corp, Los Angeles	Cal
Long Inc, Thomas J, Carle Place	N Y
Markwik Corp, Syosset	N Y
McMillan Radiation Labs Inc, Ipswich	Mass
NVF Co, Wilmington	Del
Panel Controls Corp, Detroit	Mich
Parabam Inc, Hawthorne	Cal
Plastofilm Inc, Wheaton	Ill
Ray Products Inc, Alhambra	Cal
Raytheon Co, Government Marketing, Lexington	Mass
Shamban & Co, W S, Los Angeles	Cal
Sierra Electric Inc, Gardena	Cal
Victor Metal Products Corp, Harrisonburg	Va
Vlchek Plastics Co, Middlefield	Ohio
Western Coil & Electrical Co, Racine	Wisc

PLASTICS--FOAM

American Latex Fibre Corp, Lawrence	Mass
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Auburn Mfg Co, Middletown	Conn
Bacon Industries, Inc, Watertown	Mass
Baker Castor Oil Co, Bayonne	N J
Castall Research Lab Inc, Brockton	Mass
Chemical Products Corp, E Providence	R I
Conap Inc, Allegany	N Y
Consolidated Molded Prods Div Republic Corp Scranton	Pa
Corning Glass Works, Corning	N Y
Dbm Research Corp, Cocoa Beach	Fla
Dow Chemical Co, Midland	Mich
Dow Corning Corp, Midland	Mich
Durez Div Hooker Chemical Corp North Tonawanda	N Y
Electronic Space Structures Corp, West Concord	Mass
Eljay Corp, Baltimore	Md
Emerson & Cuming Inc, Canton	Mass
Emerson Plastics Corp, Bronx	New York
Franklin Fibre-Lamitex Corp, Wilmington	Del
Furane Plastics Inc, Los Angeles	Cal
General Tire & Rubber Co, Akron	Ohio
Goodrich Industrial Prods Co, B F, Akron	Ohio
Haveg Industries, Inc, Precision Molding Div Taunton	Mass
Insulating Shapes Inc, Bronx	N Y
Isochem Resins Co, Lincoln	RI
Isocyanate Products Inc, New Castle	Del
Koppers Co Inc, Pittsburgh	Pa
Marblette Co Div Allied Prods Corp Long Island City	N Y
MB Bedding Co, Wilkes-Barre	Pa
Midwest Cortland, Schiller Park	Ill
3M Company, St Paul	Minn
Nopco Chemical Div Diamond Shamrock Chem Co Newark	N J
Norrich Plastics Corp, Roosevelt	N Y
Pemco Inc, Englewood	Colo
Pervel Industries, Inc, Plainfield	Conn
PPG Industries, Pittsburgh	Pa
Pres-On Products Co, Addison	Ill
Reichhold Chemicals Inc, White Plains	N Y
Roosevelt Metal Co Inc, Brooklyn	N Y
Tra-Con, Inc, Medford	Mass
Union Carbide Corp Chemicals & Plastics New York	N Y
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
Zero Mfg Co, Burbank	Cal

PLASTICS—MOLDING MACHINES SEE MACHINES--PLASTIC MOLDING

PLASTICS--RAW

Acme Resin Co Div Corn Products Co, Forest Park	Ill
Allaco Products, Braintree	Mass
Allied Chemical Corp Plastics Div, New York	N Y
American Cyanamid Co, Wayne	N J
Ampacet Corp, Mt Vernon	N Y
Anglo American Vulcanized Fibre Co Ltd London EC 1	England
Atomite Electronics Corp, Roosevelt	N Y
Bacon Industries, Inc, Watertown	Mass
Baker Castor Oil Co, Bayonne	N J
Castall Research Lab Inc, Brockton	Mass
Celanese Plastics Co, Newark	NJ
Chemical Products Corp, E Providence	R I
Ciba Products Co, Summit	N J
Conap Inc, Allegany	N Y
Dolph Co, John C, Monmouth Junction	N J
Dow Chemical Co, Midland	Mich
Dow Corning Corp, Midland	Mich
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Dura Plastics of N Y Inc, New York	NY
Durez Div Hooker Chemical Corp North Tonawanda	N Y
Dynaloy, Inc, Hanover	N J
Emerson & Cuming Inc, Canton	Mass
EPD Industries Inc, Long Beach	Cal
Essex Wire Corp Terminal Sales, Chicago	Ill
Ethylene Corp, Murray Hill	N J
Fiberfil Div Rexall Chemical Co, Evansville	Ind
Furane Plastics Inc, Los Angeles	Cal
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
General Tire & Rubber Co, Akron	Ohio
Harva Co Inc, Schoharie	N Y
Hightemp Resins Inc, Stamford	Conn
Isochem Resins Co, Lincoln	RI
Koppers Co Inc, Pittsburgh	Pa
Marblette Co Div Allied Prods Corp Long Island City	N Y
Mereco Prods Inc, Div Metachem Resins Corp Cranston	RI
3M Company, St Paul	Minn
Monsanto Co, St Louis	Mo
Morton Chemical Co Div Morton Intl Inc, Chicago	Ill
Norrich Plastics Corp, Roosevelt	N Y
Pacific Resins & Chemicals Inc, Plastics Div Milwaukee	Wis
Pennsalt Chemicals Corp, Philadelphia	Pa
Plastic Wire & Cable Corp, Jewett City	Conn
Polysciences Inc, Warrington	Pa
PPG Industries, Pittsburgh	Pa
Rector Engineering & Plastics Co, Washington	D C
Reichhold Chemicals Inc, White Plains	N Y
Roberts & Associates Inc, E V, Culver City	Cal
Rogers Corp, Rogers	Conn
Shell Chemical Co, New York	N Y
Standard Polymer Inc, Van Nuys	Cal
Tra-Con, Inc, Medford	Mass
Union Carbide Corp Chemicals & Plastics New York	N Y
Uniroyal Chemical Div Uniroyal Inc, Naugatuck	Conn
Welco Electric Corp, South Bend	Ind

PLASTICS--ROD & TUBING

ELECTRICAL INSULATION CO INC, COPIAGUE	**N Y**
FLEX PRODUCTS CORP, CARLSTADT	**N J**
Abacus Electronics Corp, Dobbs Ferry	N Y
Abesto Corp, Bloomfield	N J
Ace Plastic Co, Jamaica	N Y
Acme Model Engineering Co, Ridgefield	N J
Actioncraft Products, Port Washington	N Y
Adam Spence Corp, Edison	NJ
Allied Engineering & Production Corp, Alameda	Cal
Amatom Electronic Hardware, New Rochelle	N Y
American Cable Electronic Supply Inc, Sacramento	Cal
American Mica Insulation Co, Manasquan	N J
Anglo American Vulcanized Fibre Co Ltd London EC 1	England
Atomite Electronics Corp, Roosevelt	N Y
Auburn Plastics, Inc, Auburn	N Y
Baer Co, N S, Hillside	N J
B & C Insulation Products, Inc, Iselin	N J
Beemer Engineering Co, Fort Washington	Pa
Bentley-Harris Mfg Co, Conshohocken	Pa
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Buckeye Bobbin & Mfg Div Prec Paper Tube Co Westlake	Ohio
Budd Co Polychem Div, Newark	Del
Cadillac Plastic & Chemical Co, Detroit	Mich
Calmont Wire & Cable Inc, Santa Ana	Cal
Castall Research Lab Inc, Brockton	Mass
Chemplast Inc, Wayne	N J
Cimco Wire & Cable Co, Allendale	N J
Comco Plastics Inc, Richmond Hill	N Y
Commercial Plastics Co, Mundelein	Ill
Conap Inc, Allegany	N Y
Crane Packing Co, Morton Grove	Ill
Crystal-X Corp, Darby	Pa
Curry Arts Molding & Laminating Co, Scranton	Pa
Dixon Corp, Bristol	R I
Dorco Electronics Inc, Compton	Cal
Dow Corning Corp, Midland	Mich
Dura Plastics of N Y Inc, New York	NY
Electrical Insulation Co Inc, Copiague	N Y
Electronized Chemicals Corp, Burlington	Mass
Eljay Corp, Baltimore	Md
Emerson & Cuming Inc, Canton	Mass
Emerson Plastics Corp, Bronx	New York
Engineered Plastics Inc, Gibsonville	N C
Ethylene Corp, Murray Hill	N J
Flex Products Corp, Carlstadt	N J
Fluoro-Plastics Inc, Philadelphia	Pa
Form Fit Plastics Inc, Lowell	Mass
Formica Corp, Cincinnati	Ohio
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
General Electric Co Laminated Products Dept Coshocton	Ohio
G-L Industries Inc, G-L Electronics Div, Westville	N J
Goodrich Industrial Prods Co, B F, Akron	Ohio
Harva Co Inc, Schoharie	N Y
Harvel Plastics Inc, Easton	Pa
Hysol Div, The Dexter Corp, Olean	N Y
Icore Electro-Plastics, Sunnyvale	Cal
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Insulating Fabricators Inc, East Rutherford	N J
Insulating Fabricators of N E Inc, Watertown	Mass
Insulating Shapes Inc, Bronx	N Y
Kirkhill Rubber Co, Brea	Cal
Koppers Co Inc, Pittsburgh	Pa
Laminated Fabricators, San Bruno	Cal
Laminated Sheet Products Corp, Norwood	Mass
Leed Insulator Corp, Los Angeles	Cal
Long Inc, Thomas J, Carle Place	N Y
Marblette Co Div Allied Prods Corp Long Island City	N Y
Markel & Sons Inc L Frank, Norristown	Pa
Maryland Lava Co Inc, Bel Air	Md
3M Company, St Paul	Minn
Natvar Corp, Woodbridge	N J
Niemand Bros Inc, Elmhurst	N Y
Norrich Plastics Corp, Roosevelt	N Y
NVF Co, Wilmington	Del
Penn Fibre & Specialty Co, Philadelphia	Pa

Pennsylvania Fluorocarbon Co Inc, Clifton Heights	Pa
Penntube Plastics Co Div Penna Fluorocarbon Co Clifton Heights	Pa
Permali Inc, Mt Pleasant	Pa
Polymer Corp, Reading	Pa
Port Plastics Inc, Montebello	Cal
Precision Paper Tube Co, Wheeling	Ill
Pyramid Plastics Inc, Palatine	Ill
Resdel Corp, Rio Grande	N J
Richardson Company, Melrose Park	Ill
Ryerson & Son Inc, J T, Chicago	Ill
Saunders Corp, Los Angeles	Cal
Severna Div Amphenol Corp, East Orange	N J
Shamban & Co, W S, Los Angeles	Cal
Sparta Mfg Co, Dover	Ohio
Spaulding Fibre Co Inc, Tonawanda	N Y
Standard Polymer Inc, Van Nuys	Cal
Stevens Tubing Corp, East Orange	N J
Stone Paper Tube Co Div Stone Ind Corp Washington	D C
Suflex Corp, Woodside	N Y
Synthane Corp, Oaks	Pa
Taylor Corp, Valley Forge	Pa
Taylor Electric Inc, Howell	Mich
Thermal Wire & Electronics Corp, South Hero	Vt
Thiokol Chemical Corp, Panelyte Ind Div, Trenton	N J
Tri-Point Industries Inc, Commack	NY
Tyton Corp of America, Metuchen	N J
UOP Norplex Div, LaCrosse	Wis
Varflex Corp, Rome	N Y
Westinghouse Electric Corp, Industrial Micarta Div Hampton	S C
Westlake Plastics Co, Lenni	Pa

PLASTICS--SHEET & LAMINATE

SEE ALSO LAMINATES--PRINTED CIRCUIT

ELECTRICAL INSULATION CO INC, COPIAGUE	**N Y**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
PRECISION METAL PRODUCTS CO OF MALDEN INC STONEHAM	**MASS**
Abacus Electronics Corp, Dobbs Ferry	N Y
Actioncraft Products, Port Washington	N Y
Aeromarine Electronics, Inc, San Diego	Cal
Aircraft Components Inc, Benton Harbor	Mich
Allied Engineering & Production Corp, Alameda	Cal
American Cable Electronic Supply Inc, Sacramento	Cal
American Cyanamid Co, Wayne	N J
American Lamotite Corp, Cleveland	Ohio
American Mica Insulation Co, Manasquan	N J
Anglo American Vulcanized Fibre Co Ltd London EC 1	England
Arlin Mfg Co Inc, Lowell	Mass
Atomite Electronics Corp, Roosevelt	N Y
Auburn Mfg Co, Middletown	Conn
Baer Co, N S, Hillside	N J
Best Mfg Co, Kansas City	Mo
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Budd Co Polychem Div, Newark	Del
Cadillac Plastic & Chemical Co, Detroit	Mich
Celanese Plastics Co, Newark	NJ
Chase & Sons Inc, Randolph	Mass
Chemplast Inc, Wayne	N J
Cincinnati Development & Mfg Co, Cincinnati	Ohio
Cincinnati Milling Machine Co Cimastra Div Cincinnati	Ohio
Comco Plastics Inc, Richmond Hill	N Y
Crane Packing Co, Morton Grove	Ill
Crystal-X Corp, Darby	Pa
Curry Arts Molding & Laminating Co, Scranton	Pa
Dilectrix Corp, Farmingdale	N Y
Dixon Corp, Bristol	R I
Dodge Industries, Hoosick Falls	N Y
Dorco Electronics Inc, Compton	Cal
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Dura Plastics of N Y Inc, New York	NY
Edcraft Industries Inc, Linden	N J
Electrical Insulation Co Inc, Copiague	N Y
Electronic Space Structures Corp, West Concord	Mass
Electronized Chemicals Corp, Burlington	Mass
Eljay Corp, Baltimore	Md
Emeloid Co Inc, Hillside	N J
Emerson & Cuming Inc, Canton	Mass
Emerson Plastics Corp, Bronx	New York
Engineered Plastics Inc, Gibsonville	N C
Ethylene Corp, Murray Hill	N J
Fansteel Metallurgical Corp, North Chicago	Ill
Flexible Circuits Inc, Warrington	Pa
Flexible Products Inc, North St Paul	Minn
Formica Corp, Cincinnati	Ohio
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Binding Corp, Northbrook	Ill
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
General Electric Co Laminated Products Dept Coshocton	Ohio
Goodyear Aerospace Corp, Akron	Ohio
Harva Co Inc, Schoharie	N Y
Haveg Industries, Inc, Precision Molding Div Taunton	Mass
Haysite Reinforced Plastics Div Hays Mfg Co., Erie	Pa
Hermes Plastics Inc, New York	N Y
Hysol Div, The Dexter Corp, Olean	N Y
Icore Electro-Plastics, Sunnyvale	Cal
Insulating Fabricators Inc, East Rutherford	N J
Insulating Fabricators of N E Inc, Watertown	Mass
Insulating Shapes Inc, Bronx	N Y
Kenmore Industries, Inc, Lowell	Mass
Koppers Co Inc, Pittsburgh	Pa
Laminated Fabricators, San Bruno	Cal
Laminated Sheet Products Corp, Norwood	Mass
Leed Insulator Corp, Los Angeles	Cal
Long Inc, Thomas J, Carle Place	N Y
Marblette Co Div Allied Prods Corp Long Island City	N Y
Mica Corp, Culver City	Cal
Midwest Cortland, Schiller Park	Ill
3M Company, St Paul	Minn
National Tel-Tronics Corp, Great Neck	N Y
Nelco Products Inc, Anaheim	Cal
New England Laminates Co Inc, Stamford	Conn
Norrich Plastics Corp, Roosevelt	N Y
NVF Co, Wilmington	Del
Panel Controls Corp, Detroit	Mich
Penn Fibre & Specialty Co, Philadelphia	Pa
Permali Inc, Mt Pleasant	Pa
Polymer Corp, Reading	Pa
Port Plastics Inc, Montebello	Cal
Precision Metal Products Co of Malden Inc Stoneham	Mass
Printloid Inc, Long Island City	N Y
Richardson Company, Melrose Park	Ill
Rogers Corp, Rogers	Conn
Rosemount Plug-In Inc, Nashville	Tenn
Ryerson & Son Inc, J T, Chicago	Ill
Schjeldahl Co, G T, Northfield	Minn
Sierracin Corp, Sylmar	Cal
Spaulding Fibre Co Inc, Tonawanda	N Y
Stamptronics Inc, Azusa	Cal
Standard Polymer Inc, Van Nuys	Cal
Synthane Corp, Oaks	Pa
Taylor Corp, Valley Forge	Pa
Taylor Electric Inc, Howell	Mich
Thiokol Chemical Corp, Panelyte Ind Div, Trenton	N J
UOP Norplex Div, LaCrosse	Wis
Westinghouse Electric Corp, Industrial Micarta Div Hampton	S C
Westinghouse Electric Corp Insulating Materials Div Trafford	Pa
Wickes Industries Inc, Camden	N J
Zippertubing Co, Los Angeles	Cal

PLATES--TRANSLUCENT PLASTIC, FOR LAMPS SEE PANELS

PLATING CHEMICALS SEE CHEMICALS--PLATING

PLATING MACHINES SEE MACHINES--PLATING

PLATING SERVICES

SEE ALSO METALLIZING

BUCKBEE MEARS CO, ST PAUL	**MINN**
ELECTRO-TEC CORP, ORMOND BEACH	**FLA**
TECHNIC INC, CRANSTON, RI	**ADV PG 479**
Allied Research & Engineering Co, Los Angeles	Cal
Allied Research Products Inc Sub Richardson Co Baltimore	Md
Alloys Unlimited Inc, Melville	N Y
Amatom Electronic Hardware, New Rochelle	N Y
American Circuit-Tronics Corp, Royal Oak	Mich
American Electronic Labs Inc, Lansdale	Pa
Anadite, Inc, South Gate	Cal
Avionics Ltd, Niagara-on-the-Lake	Ont
Beryllium Corp, Reading	Pa
Brooks & Perkins Inc, Detroit	Mich
Brown Engineering-A Teledyne Co, Huntsville	Ala
Buckbee Mears Co, St Paul	Minn
Burton Silverplating Co, Los Angeles	Cal
Cambridge Plating Co Inc, Belmont	Mass
Ceramics International Corp, Mahwah	NJ
Chemical Plating, Stratford	Conn
Cohan-Epner Co Inc, New York	N Y
Consolidated Ceramics & Metalizing Corp Flemington	N J
Darrah Electric Co Inc, Cleveland	Ohio
Denton Vacuum Inc, Cherry Hill	N J
Device Seals Inc, Sun Valley	Cal
Dry Screen Process Inc, Pittsburgh	Pa
Dynatex Corp, Redwood City	Cal
Electro-Sonics, Inc, Spofford	N H
Electro-Tec Corp, Ormond Beach	Fla
El-Tech Mfg Co Inc, Norristown	Pa
Flexible Products Inc, North St Paul	Minn
GAF Corp, New York	NY
General RF Fittings Inc, Port Salerno	Fla
Gibson Electric Co, Div Talon Inc, Delmont	Pa
Harper-Leader Inc, Waterbury	Conn
Hi-G Inc, Windsor Locks	Conn
Hopwood Retinning Corp, Malden	Mass
Lake Engineering Co Ltd, Scarborough	Ont
Lash Labs, Inc, San Diego	Cal
Lea-Ronal Inc, Freeport	N Y
Lek-Trol, Inc, Grapevine	Tex
Link Group Gen Precision Sys Inc, Binghamton	N Y
Marlane Development Co Inc, New York	N Y
Merit Plating Co Inc, Bronx	N Y
Metal Ceram Inc, Mount Vernon	N Y
Metaplast Electrochemicals Corp, Bronx	N Y
M-W Labs Inc, Chicago	Ill
Parker Metal Goods Co, Worcester	Mass
Philway Products Inc, Ashland	Ohio
Platronics Inc, Linden	N J
P M C Electronics Corp, Philadelphia	Pa
Precision Plating Co Div, Robert Zacharias Co Chicago	Ill
Robinson-Nugent Inc, New Albany	Ind
Scherr Tumico Inc, St James	Minn
Selectrons Ltd, New York	N Y
Sel-Rex International S A, Geneve	Switzerland
Semi-Alloys Inc, Mt Vernon	N Y
Servometer Corp, Clifton	N J

Stabilize/cut GOLD plating costs.

With the price of gold higher and fluctuating, now is the time to ask Technic for gold plating cost-cutting and stabilizing products and methods.

The proper gold can save you money. (It's usually a Technic gold.)

Technic "Gold Futures" can stabilize your price of gold salts and solutions for up to two years.

Technic Gold Recovery Units can recover gold from rinse waters that are now lost down the drain.

Technic Gold Strip can recover gold from defective parts, jigs and wires — and, since it doesn't attack base metals you can salvage the part also.

Technic Customized gold plating equipment can cut operating costs.

Technic gold plating consulting and spectrographic analytical service can reduce your gold costs and **keep** them down.

Write / Phone / Wire

Technic Inc.

P.O. Box 965, Providence, R.I. 02901 (401) 781-6100
7001 N. Clark St., Chicago, Ill. 60626 (312) 262-2662

CALIFORNIA: M&T Chemicals,
7343 Paramount Blvd., Pico Rivera
CANADA: Technic Precious Metals Ltd.,
P.O. Box 816, Terminal "A", Toronto
EUROPE: Silvercrown Ltd.,
660 Ajax Ave., Slough, Bucks., U.K.

Sifco Metachemical Div Steel Improvement & Forge Co Cleveland ... Ohio
Steel Heddle Mfg Co, Philadelphia ... Pa
Summit Finishing Div Beryllium Corp, Thomaston ... Conn
Technic Inc, Cranston ... RI
Tri-Tronics Lab Inc, Euless ... Tex
Union Carbide Corp, Materials Systems Div Kokomo ... Ind
Universal Circuits Inc, Minneapolis ... Minn
Veritron West Inc, Chatsworth ... Cal

Vitta Corp, Wilton ... Conn
Wright Metalcoaters Inc, South Hackensack ... N J
Youngwood Electronic Metals Inc, Youngwood ... Pa

PLATING--TANKLESS BRUSH

TECHNIC INC, CRANSTON ... RI
Cambridge Plating Co Inc, Belmont ... Mass
Marlane Development Co Inc, New York ... N Y
Selectrons Ltd, New York ... N Y
Sifco Metachemical Div Steel Improvement & Forge Co Cleveland ... Ohio
Technic Inc, Cranston ... RI

PLATINUM

CONSOLIDATED REACTIVE METALS INC, MAMARONECK ... N Y
TECHNIC INC, CRANSTON ... RI
UNIFORM TUBES INC, COLLEGEVILLE ... PA
WILLIAMS GOLD REFINING CO INC PRECIOUS METALS DIV BUFFALO ... N Y
Aceto Chemical Co, Inc, Flushing ... NY
Alloys Unlimited Inc, Melville ... N Y
American Metal Climax Inc, New York ... N Y
American Silver Co Div, Flushing ... N Y
Anadite, Inc, South Gate ... Cal
Anchor Alloys Inc, Brooklyn ... N Y
Anchor Metal Co, Inc Div, Brooklyn ... N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place ... N Y
Brainin Corp, C S, Mt Vernon ... N Y
Bram Metallurgical Chemical Co, Philadelphia ... Pa
Cohn Corp, Sigmund, Mt Vernon ... N Y
Consolidated Reactive Metals Inc, Mamaroneck ... N Y
Degussa Zweigniederlassung Hanau, D-6450 Hanau ... Fed Rep Ger
Eastern Smelting & Refining Corp, Lynn ... Mass
Electric Thermometers, Inc, Norwalk ... Conn
Electronic Space Products Inc, Los Angeles ... Cal
Electro Science Labs Inc, Philadelphia ... Pa
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark ... N J
General Findings Co Industrial Div, Attleboro ... Mass
Hamilton Precision Metals Div Hamilton Watch Co Lancaster ... Pa
Handy & Harman, New York ... N Y
Improved Seamless Wire Co, Providence ... R I
Johnson Matthey & Mallory Ltd, Toronto 15 ... Ont
Koch Light Labs Ltd, Colnbrook, Bucks ... England
Leach & Garner Co, Industrial Div, Attleboro ... Mass
Mackay Inc, A D, New York ... N Y
Materials Research Corp, Orangeburg ... N Y
Matthey Bishop Inc, Malvern ... Pa
Metal Ceram Inc, Mount Vernon ... N Y
Metz Refining Co, South Plainfield ... N J
Polysciences Inc, Warrington ... Pa
Pyrometer Co of America Inc, Penndel ... Pa
Roosevelt Metal Co Inc, Brooklyn ... N Y
Semi-Alloys Inc, Mt Vernon ... N Y
Semi-Elements Inc, Saxonburg ... Pa
Simmons Refining Corp, Chicago ... Ill
Technic Inc, Cranston ... RI
Uniform Tubes Inc, Collegeville ... Pa
United American Metals Div, Brooklyn ... N Y
United Mineral & Chemical Corp, New York ... N Y
United Refining & Smelting Co, Franklin Park ... Ill
Var-Lac-Oid Chemical Co, Elizabeth ... N J
Western Gold & Platinum Co, Belmont ... Cal
Wilkinson Co, Westlake Village ... Cal
Williams Gold Refining Co Inc Precious Metals Div Buffalo ... N Y

PLOTTERS--DIGITAL SEE ALSO RECORDERS

AUTOMATION DEVELOPMENT CO, CULVER CITY ... CAL
DATA TECHNOLOGY, INC, WATERTOWN ... MASS
DISCON CORP, FORT LAUDERDALE ... FLA
HEWLETT-PACKARD, PALO ALTO ... CAL
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO ... ADV PGS 8
HOUSTON INSTRUMENT DIV BAUSCH & LOMB BELLAIRE ... TEX
MILGO ELECTRONIC CORP, MIAMI ... FLA
Aero Service Corp, Philadelphia ... Pa
Applied Devices Corp, College Point ... n y
Astrodata Inc, Anaheim ... Cal
Automation Development Co, Culver City ... Cal
Auto-Trol Corp, Arvada ... Colo
Beckman Instruments Inc, Fullerton, ... Cal
Berkeley/Dynamics, Hillsboro ... Cal
Boston Digital Corp, Ashland ... Mass
California Computer Products Inc, Anaheim ... Cal
Concord Control Inc, Boston ... Mass
Data Technology, Inc, Watertown ... Mass
Dimensions Inc, Hempstead ... N Y
Discon Corp, Fort Lauderdale ... Fla
Dresser Systems, Inc, Houston ... Tex
Electronic Associates Inc, West Long Branch ... N J
Faul Assoc Inc, Thomas L, Skaneateles ... N Y
Geo Space Corp, Houston ... Tex
Gerber Scientific Instrument Co, Hartford ... Conn
Hewlett-Packard, Palo Alto ... Cal
Honeywell Test Instruments Div, Denver ... Colo
Houston Instrument Div Bausch & Lomb, Bellaire ... Tex
IBM Data Processing Div, White Plains ... N Y
Intertechnique, Plaisir, 78 ... France
McKiernan-Terry Marine Div Litton Industries Paramus ... N J
Measurement Technology Corp, Canoga Park ... Cal
Milgo Electronic Corp, Miami ... Fla
Nuclear Research Instruments, Berkeley ... Cal

Philco-Ford Corp, Washington ... D C
Precision Mecanique Labinal, 93 Saint-Ouen ... France
Radiation Inc Systems Div, Melbourne ... Fla
Research Calculations Div ADP of Mass Inc Chestnut Hill ... Mass
Scientific Data Systems Inc, El Segundo ... Cal
Texas Instruments Incorporated, Dallas ... Tex
Universal Drafting Machine Corp, Bedford Heights ... Ohio
Visual Inspection Products, Lynn ... Mass

PLOTTERS—IMPEDANCE SEE RECORDERS—GRAPHIC

PLOTTERS—X-Y SEE RECORDERS—GRAPHIC

PLOTTING BOARDS SEE BOARDS—COMPUTER

PLUGS--ADAPTER

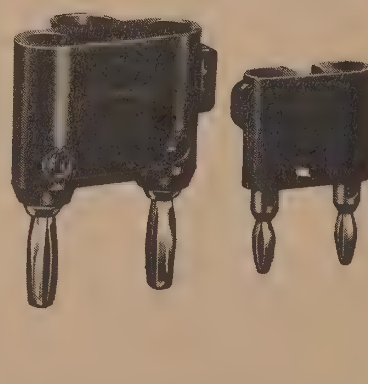
ACCURATE ELECTRONICS CORP, ELYRIA ... OHIO
AMPHENOL, BROADVIEW ... ILL
AUGAT, INC, ATTLEBORO ... MASS
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES ... CAL
MOSLEY ELECTRONICS INC, BRIDGETON ... MO
NATIONAL TEL-TRONICS CORP, GREAT NECK ... N Y
POMONA ELECTRONICS CO INC, POMONA, CAL ... ADV PG 480
SUPERIOR ELECTRIC CO THE, BRISTOL ... CONN
Accurate Electronics Corp, Elyria ... Ohio
Aikow Shoji Kaisha Ltd, Osaka ... Japan
Allen/UTI, Kalamazoo ... Mich
American Cable Electronic Supply Inc, Sacramento ... Cal
Amphenol, Broadview ... Ill
Augat, Inc, Attleboro ... Mass
Automatic Metal Products Corp, Brooklyn ... N Y
Auto-Swage Products, Inc, Shelton ... Conn
Ava Electronics & Machine Corp, Upper Darby ... Pa
Barker Products Co, Saugus ... Mass
Cable Electric Products Inc, Providence ... R I
Cambridge Thermionic Corp, Cambridge ... Mass
Carol Cable Co, Pawtucket ... R I
Cole-Hersee Co, S Boston ... Mass
Communication Dynamics Corp, Yonkers ... N Y
Components Specialties Inc, Freeport ... N Y
Cordex, Inc, Mount Eaton ... Ohio
Dowa Trading Co Ltd, Kobe ... Japan
Eagle Electric Mfg Co Inc, Long Island City ... N Y
Florida General Electronics Inc, Daytona Beach ... Fla
Greenpar Engineering Ltd, Electronics Div Essex ... England
Gremar Mfg Co Inc, Wakefield ... Mass
Harvey Hubbell Inc, Bridgeport ... Conn
Hosiden Electronics Co Ltd, Osaka ... Japan
Indit Corp, Albertson ... N Y
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles ... Cal
ITT Europe Inc Components Gp, Brussels 1 ... Belgium
ITT Wire & Cable Div, Pawtucket ... R I
Kings Electronics Co Inc, Tuckahoe ... N Y
Leviton Mfg Co Inc, Brooklyn ... N Y
Lunkenheimer Co Sub Condec Corp, Cincinnati ... Ohio
Methode Electronics Inc, Chicago ... Ill
Midland International Corp, North Kansas City ... Mo
Miller Electric Co, Woonsocket ... R I
3M Company, St Paul ... Minn
Mohawk Electronics Corp, Frederica ... Del
Mosley Electronics Inc, Bridgeton ... Mo
National Tel-Tronics Corp, Great Neck ... N Y
Ottawa, Paris ... France
Pacific Electricord Co, Gardena ... Cal
Pass & Seymour, Syracuse ... N Y
Phelps Dodge Electronic Products Corp North Haven ... Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Philmore Mfg Co Inc, Richmond Hill ... N Y
Pomona Electronics Co Inc, Pomona ... Cal
Reynolds Industries Inc, Santa Monica ... Cal
Robins Industries Corp, Flushing ... N Y
Rowe Industries Inc, Toledo ... Ohio
Rye Industries, Inc, Mamaroneck ... N Y
Sealectro Corp, Mamaroneck ... N Y
Shigoto Industries Ltd, New York ... N Y
Shrader Sound Inc, Washington ... D C
Smith Inc, Herman H, Brooklyn ... N Y
Star-A Electric Mfg Co Inc, Brooklyn ... N Y
Sta-Tite Mfg Co, Lexington ... Mo
Superior Electric Co The, Bristol ... Conn
Switchcraft Inc, Chicago ... Ill
Teledata Inc, Queens Village ... N Y
Tru-Connector Corp, Peabody ... Mass
United-Carr Inc, Boston ... Mass
Vector Electronic Co Inc, Los Angeles ... Cal
Workman Electronic Products Inc, Sarasota ... Fla

PLUGS--COAXIAL

ACCURATE ELECTRONICS CORP, ELYRIA ... OHIO
AMPHENOL, DANBURY ... CONN
AMP INCORPORATED, HARRISBURG ... PA
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES ... CAL
POMONA ELECTRONICS CO INC, POMONA ... CAL
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG ... MD
Accurate Electronics Corp, Elyria ... Ohio
ADC Products, Minneapolis ... Minn
Aikow Shoji Kaisha Ltd, Osaka ... Japan
American Cable Electronic Supply Inc, Sacramento ... Cal
Amphenol, Danbury ... Conn
AMP Incorporated, Harrisburg ... Pa
Applied Engineering Prods Div Samarius Inc Ansonia ... Conn

Astrolab Inc, Linden ... N J
Atlantic Instruments & Electronics, Inc Watertown ... Mass
Automatic Metal Products Corp, Brooklyn ... N Y
Ava Electronics & Machine Corp, Upper Darby ... Pa
Aviation Electric Ltd, St Laurent, Montreal ... Que
Bayly Engineering Ltd, Ajax ... Ontario
Blonder-Tongue Labs Inc, Newark ... N J
Carter Precision Electric Co, Skokie ... Ill
Communication Dynamics Corp, Yonkers ... N Y
Components Specialties Inc, Freeport ... N Y
Cooke Engineering Co, Alexandria ... Va
Co-Ord Div LVC Industries Inc, Corona ... NY
D-Cemco Inc, Burbank ... Cal
Entron Inc, Silver Spring ... Md
Ercona Corp, New York ... N Y
General Radio Co, West Concord ... Mass
General RF Fittings Inc, Port Salerno ... Fla
Greenpar Engineering Ltd, Electronics Div Essex ... England
Gremar Mfg Co Inc, Wakefield ... Mass
Indit Corp, Albertson ... N Y
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles ... Cal
Javex Electronics, Cherry Valley ... Cal
Kings Electronics Co Inc, Tuckahoe ... N Y
Nutmeg Screw Machine Products Co, Waterbury ... Conn
Ottawa, Paris ... France
Painton & Co, Ltd, Northampton ... England
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Pomona Electronics Co Inc, Pomona ... Cal
Radio Corp of America, Comml Elctn Prods Div Camden ... N J
Reynolds Industries Inc, Santa Monica ... Cal
Robinson-Nugent Inc, New Albany ... Ind
Rowe Industries Inc, Toledo ... Ohio
Rye Industries, Inc, Mamaroneck ... N Y
Sealectro Corp, Mamaroneck ... N Y
Shigoto Industries Ltd, New York ... N Y
Shrader Sound Inc, Washington ... D C
Smith Inc, Herman H, Brooklyn ... N Y

PLUGS
STANDARD & MINIATURE



Featured in our 1968 general catalog. Listing a complete line of ¾" and ½" banana plugs and accessories • adapters • test probes • jumpers • patch cords • shielded component-mounting "Black Boxes" • cable assemblies • miscellaneous test accessories. Write for your free copy.

POMONA
ELECTRONICS CO., INC.
1500 E. Ninth Street, Pomona, Calif. 91766

Standard Telephones & Cables Ltd London WC 2	England
Star Tronics Inc, Georgetown	Mass
Teledata Inc, Queens Village	N Y
Transitron Electronic Corp, Wakefield	Mass
Trimm Inc, Libertyville	Ill
Trompeter Electronics Inc, Chatsworth	Cal
Tru-Connector Corp, Peabody	Mass
Ucinite Co Div United-Carr, Newtonville	Mass
Veritron West Inc, Chatsworth	Cal
Virginia Panel Corp, Waynesboro	Va
Weinschel Engineering Co Inc, Gaithersburg	Md
Whistler Electronics Inc, Northridge	Cal

PLUGS--HOLE

STIMPSON CO INC, EDWIN B, BROOKLYN	**N Y**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
ADC Products, Minneapolis	Minn
Auto-Swage Products, Inc, Shelton	Conn
Bivar Co Inc, Palo Alto	Cal
Fastex Div Illinois Tool Works, Des Plaines	Ill
Federal Screw Products Inc, Chicago	Ill
G C Electronics Div, Hydrometals Inc, Rockford	Ill
GTI Corp, Clover Industries Div, Tonawanda	N Y
Kelox Industries, East Boston	Mass
Plastiglide Mfg Corp, Santa Monica	Cal
Smith Inc, Herman H, Brooklyn	N Y
Stimpson Co Inc, Edwin B, Brooklyn	N Y
Switchcraft Inc, Chicago	Ill
Waldom Electronics Inc, Chicago	Ill

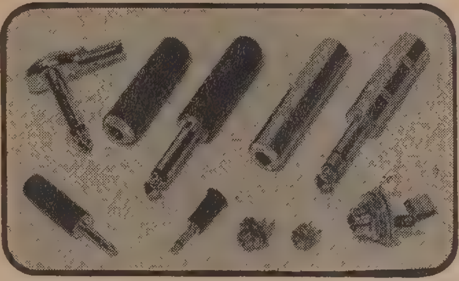
PLUGS--LINE CORD

DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
SUPERIOR ELECTRIC CO THE, BRISTOL	**CONN**
Aikow Shoji Kaisha Ltd, Osaka	Japan
Amatom Electronic Hardware, New Rochelle	N Y
Auto-Swage Products, Inc, Shelton	Conn
Barker Products Co, Saugus	Mass
Cable Electric Products Inc, Providence	R I
Cole-Hersee Co, S Boston	Mass
Daburn Electronics & Cable Corp, Bronx	N Y
Eagle Electric Mfg Co Inc, Long Island City	N Y
Eby Co Hugh H, Philadelphia	Pa
Harvey Hubbell Inc, Bridgeport	Conn
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Wire & Cable Div, Pawtucket	R I
Javex Electronics, Cherry Valley	Cal
Leviton Mfg Co Inc, Brooklyn	N Y
Miller Electric Co, Woonsocket	R I
3M Company, St Paul	Minn
Pacific Electricord Co, Gardena	Cal
Pass & Seymour, Syracuse	N Y
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Robins Industries Corp, Flushing	N Y
Shigoto Industries Ltd, New York	N Y
Sierra Electric Inc, Gardena	Cal
Smith Inc, Herman H, Brooklyn	N Y
Standard Telephones & Cables Ltd London WC 2	England
Star-A Electric Mfg Co Inc, Brooklyn	N Y
Superior Electric Co The, Bristol	Conn
Switchcraft Inc, Chicago	Ill
Telephone Components Inc, Brooklyn	N Y
Tower Mfg Corp, Providence	R I

PLUGS--PHONE

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AMPHENOL, BROADVIEW	**ILL**
BIRNBACH CO INC, FREEPORT	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES	**CAL**
NATIONAL TEL-TRONICS CORP, GREAT NECK N Y	**ADV PG 481**
NITSUKO LTD, KANAGAWA-PREF	**JAPAN**
Accurate Electronics Corp, Elyria	Ohio
ADC Products, Minneapolis	Minn
Alloys Unlimited Inc, Melville	N Y
Amphenol, Broadview	Ill
Audio Accessories, Inc, Gilsum	N H
Auto-Swage Products, Inc, Shelton	Conn
Barker Products Co, Saugus	Mass
Bead Chain Mfg Co, Bridgeport	Conn
Birnbach Co Inc, Freeport	N Y
Daburn Electronics & Cable Corp, Bronx	N Y
Eby Co Hugh H, Philadelphia	Pa
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Hosiden Electronics Co Ltd, Osaka	Japan
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
Kings Electronics Co Inc, Tuckahoe	N Y
Methode Electronics Inc, Chicago	Ill
National Tel-Tronics Corp, Great Neck	N Y
Nitsuko Ltd, Kanagawa-Pref	Japan
Nutmeg Screw Machine Products Co, Waterbury	Conn
Oki Electric Industry Co Ltd, Tokyo	Japan
Pacific Electricord Co, Gardena	Cal
Philmore Mfg Co Inc, Richmond Hill	N Y
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Private Tele Communications Inc, Chicago	Ill
Robins Industries Corp, Flushing	N Y
Rye Industries, Inc, Mamaroneck	N Y
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Shrader Sound Inc, Washington	D C
Smith Inc, Herman H, Brooklyn	N Y
Standard Telephones & Cables Ltd London WC 2	England
Star Tronics Inc, Georgetown	Mass
Switchcraft Inc, Chicago	Ill
Trimm Inc, Libertyville	Ill
Ucinite Co Div United-Carr, Newtonville	Mass
United-Carr Inc, Boston	Mass

PHONE PLUGS AND JACKS



PLUGS: Standard, Miniature, and Subminiature. Metal and/or black and red plastic handles. 2 and 3 conector types. Solder and screw types.

JACKS: Standard, Miniature, and Subminiature. Telephone type. 2 and 3 connector. Open and closed circuit.

All types available. Meet Mil. Specs.

NATIONAL TEL-TRONICS OFFERS COMPLETE AND EXTENSIVE LINES OF:

Binding Post Boards, Binding Posts, Grip Type Terminals, Contact Strips, Contact Connectors, Terminal Strips, Interlocks, Fuse Mounting Bases, Anode Conectors, Turret Terminals, Solder and Solderless Lugs, Tip Jacks, Alligator Clips, Test Prods, Phone Plugs and Jacks, Phono Plugs and Jacks and Terminal Blocks.

COMPLETE CATALOG UPON REQUEST

ntt

National Tel-Tronics Corp

55 NORTHERN BOULEVARD, GREAT NECK
LONG ISLAND, N. Y. 11021, TEL: (516) 466-5100

PLUGS--PHONO

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AMPHENOL, BROADVIEW	**ILL**
AMP INCORPORATED, HARRISBURG	**PA**
CINCH MFG CO, ELK GROVE VILLAGE, ILL	**ADV PGS 188,189**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Accurate Electronics Corp, Elyria	Ohio
ADC Products, Minneapolis	Minn
Aerolite Electronics Corp, Union City	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
Amphenol, Broadview	Ill
AMP Incorporated, Harrisburg	Pa
Auto-Swage Products, Inc, Shelton	Conn
Barker Products Co, Saugus	Mass
Bead Chain Mfg Co, Bridgeport	Conn
Cinch Mfg Co, Elk Grove Village	Ill
Components Specialties Inc, Freeport	N Y
Daburn Electronics & Cable Corp, Bronx	N Y
Eby Co Hugh H, Philadelphia	Pa
Ercona Corp, New York	N Y
Federal Screw Products Inc, Chicago	Ill
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Hosiden Electronics Co Ltd, Osaka	Japan
Javex Electronics, Cherry Valley	Cal
Keystone Electronics Corp, New York	N Y
Methode Electronics Inc, Chicago	Ill
Midland International Corp, North Kansas City	Mo
3M Company, St Paul	Minn
National Tel-Tronics Corp, Great Neck	N Y
Nutmeg Screw Machine Products Co, Waterbury	Conn
Permonite Mfg Co, Chicago	Ill
Robins Industries Corp, Flushing	N Y
Rye Industries, Inc, Mamaroneck	N Y
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Shrader Sound Inc, Washington	D C
Smith Inc, Herman H, Brooklyn	N Y
Switchcraft Inc, Chicago	Ill
Waldom Electronics Inc, Chicago	Ill

PLUGS--TEST LEAD TERMINAL

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
POMONA ELECTRONICS CO INC, POMONA	**CAL**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Accurate Electronics Corp, Elyria	Ohio
ADC Products, Minneapolis	Minn
Aerolite Electronics Corp, Union City	N J
Amatom Electronic Hardware, New Rochelle	N Y
American Cable Electronic Supply Inc, Sacramento	Cal
Auto-Swage Products, Inc, Shelton	Conn
Cambridge Thermionic Corp, Cambridge	Mass
Components Specialties Inc, Freeport	N Y
Daburn Electronics & Cable Corp, Bronx	N Y
D-Cemco Inc, Burbank	Cal
Electronic Molding Corp, Pawtucket	R I
Jones Electronics, Hiram, Burbank	Cal
Keystone Electronics Corp, New York	N Y
National Tel-Tronics Corp, Great Neck	N Y
Nutmeg Screw Machine Products Co, Waterbury	Conn
Pomona Electronics Co Inc, Pomona	Cal
Rye Industries, Inc, Mamaroneck	N Y
Sealectro Corp, Mamaroneck	N Y
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Smith Inc, Herman H, Brooklyn	N Y
Transitron Electronic Corp, Wakefield	Mass
Ucinite Co Div United-Carr, Newtonville	Mass
USECO Div, Litton Industries, Van Nuys	Cal
Vector Electronic Co Inc, Los Angeles	Cal
Virginia Panel Corp, Waynesboro	Va
Waldom Electronics Inc, Chicago	Ill

PLUGS--TWIN LINE

AMPHENOL, BROADVIEW	**ILL**
DX ANTENNA CO LTD, HYOGO-KU, KOBE	**JAPAN**
MOSLEY ELECTRONICS INC, BRIDGETON	**MO**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
POMONA ELECTRONICS CO INC, POMONA	**CAL**
ADC Products, Minneapolis	Minn
Amphenol, Broadview	Ill
Automatic Metal Products Corp, Brooklyn	N Y
DX Antenna Co Ltd, Hyogo-Ku, Kobe	Japan
G C Electronics Div, Hydrometals Inc, Rockford	Ill
ITT Europe Inc Components Gp, Brussels 1	Belgium
Javex Electronics, Cherry Valley	Cal
Mosley Electronics Inc, Bridgeton	Mo
National Tel-Tronics Corp, Great Neck	N Y
Pacific Electricord Co, Gardena	Cal
Pomona Electronics Co Inc, Pomona	Cal
Shigoto Industries Ltd, New York	N Y
Smith Inc, Herman H, Brooklyn	N Y
Trompeter Electronics Inc, Chatsworth	Cal
Whistler Electronics Inc, Northridge	Cal

POINTERS--DIAL

CONTROL KNOBS INC, JAMAICA	**N Y**
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT	**IOWA**
UNIFORM TUBES INC, COLLEGEVILLE	**PA**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
A & M Instruments Inc, Great Neck	N Y
Atmar Engraving Co Inc, Richmond Hill	N Y
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham	Mass
Bodnar Products Corp, New Rochelle	N Y
Canrad Precision Industries Inc, New York	N Y
Control Knobs Inc, Jamaica	N Y
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Eljay Corp, Baltimore	Md
Gentape Corp, Bloomfield	N J
Jan Hardware Mfg Co Inc, Long Island City	N Y
Linden & Co Inc, Providence	R I
Martin-Decker Corp, Santa Ana	Cal
Midland International Corp, North Kansas City	Mo
Printloid Inc, Long Island City	N Y
Smith Inc, Herman H, Brooklyn	N Y
Stafford Mfg Co Inc, Brooklyn	N Y
Taylor Instrument Cos, Rochester	N Y
Trueline Instruments Inc, Englewood	Colo
Uniform Tubes Inc, Collegeville	Pa
United States Radium Corp, Morristown	N J
Waldom Electronics Inc, Chicago	Ill
Westmoreland Plastics Co, Latrobe	Pa
Zierick Mfg Corp, Mount Kisco	N Y

POLAR-TO-RECTANGULAR CONVERTERS SEE CONVERTERS--COMPUTER

POLICE RADIO SEE COMMUNICATION SYSTEMS--LAND MOBILE

PORCELAIN SEE CERAMICS

PORTABLE CASES SEE CASES--PORTABLE

PORTABLE TRANSMITTERS SEE TRANSMITTERS--RADIOCOMMUNICATION

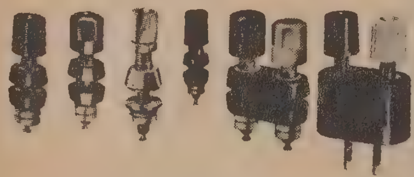
POSITIONERS--REMOTE SEE ACTUATORS--SERVO; CONTROLS--REMOTE; CONTROLS--SERVO; INDICATORS--POSITIONING

POSITIONING CONTROLS SEE CONTROLS--POSITIONING

POSITIONING INDICATORS SEE INDICATORS--POSITIONING

POSTS--BINDING

ACCURATE ELECTRONICS CORP, ELYRIA .... **OHIO**
BIRNBACH CO INC, FREEPORT .... **N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX .... **N Y**
ELECTRONIC MOLDING CORP, PAWTUCKET .... **R I** **ADV PG 695**
GRAPHITE METALLIZING CORP, YONKERS, N Y .... **ADV PG 76**
GRAYHILL INC, LA GRANGE .... **ILL**
NATIONAL TEL-TRONICS CORP, GREAT NECK N Y .... **ADV PG 482**
POMONA ELECTRONICS CO INC, POMONA .... **CAL**
SECS, INC, LONG ISLAND CITY .... **N Y**
SUPERIOR ELECTRIC CO THE, BRISTOL, CONN ..... **ADV PG 482**
Abacus Electronics Corp, Dobbs Ferry .... N Y
Accurate Electronics Corp, Elyria .... Ohio
Admiral Controls Inc, Los Angeles .... Cal
Aerolite Electronics Corp, Union City .... N J
Amatom Electronic Hardware, New Rochelle .... N Y
Auto-Swage Products, Inc, Shelton .... Conn
Bimbach Co Inc, Freeport .... N Y
Cambridge Thermionic Corp, Cambridge .... Mass
Daburn Electronics & Cable Corp, Bronx .... N Y
D-Cemco Inc, Burbank .... Cal
Eby Co Hugh H, Philadelphia .... Pa
Elco Corp, Willow Grove .... Pa
Electronic Molding Corp, Pawtucket .... R I
Electrospace Corp, Glen Cove .... N Y
Ercona Corp, New York .... N Y
Federal Screw Products Inc, Chicago Ill



5-WAY®
Binding Posts

Gold-plated brass current-carrying parts. Hex, fluted and miniature types available with red, white, blue, black, yellow or green plastic parts.

FLUTED NUT—Have Lexan polycarbonate plastic parts. Rated 30 amp., 1000 v. working.

HEX NUT—Rated 30 amp., 1000 v. working. Nylon parts meet MIL-P-20693A, Type IV.

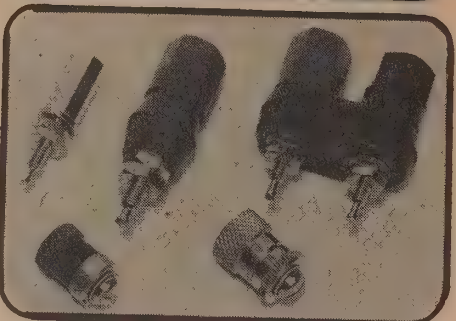
GROUNDING—Nickel-plated brass. Panel grounding collar frozen to shaft.

MINIATURE—Have fluted nuts. Nylon parts meet MIL-P-20693A, Type IV. Rated 15 amp., 1000 v. working.

DOUBLE ASSEMBLY—Binding posts mounted on ¾″ centers. Rated 30 amp., 1000 v. working.

DUAL ADAPTER—Have integral parallel-blade plug; posts mounted on ¾″ centers. Rated 15 amp., 125 v.

THE
SUPERIOR ELECTRIC
COMPANY
1200 MIDDLE STREET,
BRISTOL, CONNECTICUT 06010



BINDING POSTS

Metal. Black and red plastic. Single and double units. 5 way binding posts, standard, wrap around, grounding, fully insulated and stake-in types. Combination binding posts and banana plugs. Also screw type binding posts and binding post terminal boards, molded terminal blocks, plugs and jacks. All types available. Meet Mil Specs.

NATIONAL TEL-TRONICS OFFERS COMPLETE AND EXTENSIVE LINES OF:

Binding Post Boards, Binding Posts, Grip Type Terminals, Contact Strips, Contact Connectors, Terminal Strips, Interlocks, Fuse Mounting Bases, Anode Conectors, Turret Terminals, Solder and Solderless Lugs, Tip Jacks, Alligator Clips, Test Prods, Phone Plugs and Jacks, Phono Plugs and Jacks and Terminal Blocks.

COMPLETE CATALOG UPON REQUEST

ntt
National Tel-Tronics Corp.
55 NORTHERN BOULEVARD, GREAT NECK
LONG ISLAND, N. Y. 11021, TEL: (516) 466-5100

G C Electronics Div, Hydrometals Inc, Rockford Ill
General Radio Co, West Concord .... Mass
Graphite Metallizing Corp, Yonkers .... N Y
Grayhill Inc, La Grange Ill
Griffith Plastic Products Co, Burlingame .... Cal
Hallmark Standards Inc, Mamaroneck .... N Y
Industrial Electronic Hardware Corp, New York .... N Y
Jan Hardware Mfg Co Inc, Long Island City .... N Y
Johnson Co, E F, Waseca .... Minn
Kerrco Inc, Lincoln .... Nebr
Kings Electronics Co Inc, Tuckahoe .... N Y
Leeds & Northrup Co, Philadelphia .... Pa
Mandex Mfg Co Inc, Chicago Ill
Midland International Corp, North Kansas City .... Mo
Millen Mfg Co Inc, James, Malden .... Mass
National Radio Co Inc, Melrose .... Mass
National Tel-Tronics Corp, Great Neck .... N Y
Nutmeg Screw Machine Products Co, Waterbury .... Conn
Philmore Mfg Co Inc, Richmond Hill .... N Y
Pomona Electronics Co Inc, Pomona .... Cal
Product Components Corp, Hastings-on-Hudson .... N Y
Raytheon Co, Components Div, Ind Compnts Oper Quincy .... Mass
Secs, Inc, Long Island City .... N Y
Smith Inc, Herman H, Brooklyn .... N Y
Stockli, 93, Montreuil .... France
Superior Electric Co The, Bristol .... Conn
Taffet Electronics Inc, Woodside .... N Y
USECO Div, Litton Industries, Van Nuys .... Cal

POTENTIOMETERS--COMPOSITION (FILM)

AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE .... **N Y**
BECKMAN INSTRUMENTS INC, HELIPOT DIV, FULLERTON CAL .... **ADV PG 482**
BLISS-GAMEWELL, DIV E W BLISS CO, NEWTON UPPER FALLS MASS .... **ADV PG 488**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE WIS .... **ADV PG 411**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD N Y .... **ADV PGS 488-490**
CTS CORP, ELKHART .... **IND**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... **JAPAN**
STACKPOLE CARBON CO, ST MARYS .... **PA**
Amperex Electronic Corp, Component Div Hauppauge .... N Y
Beckman Instruments Inc, Helipot Div, Fullerton .... Cal
Beckman Instruments Intl SA, 1207 Geneva .... Switzerland
Bliss-Gamewell, Div E W Bliss Co Newton Upper Falls .... Mass
Bourns Inc Trimpot Div, Riverside .... Cal
Centralab, Div Globe-Union Inc, Milwaukee .... Wis
Clarostat Mfg Co Inc, Dover .... N H
Computer Instruments Corp, Hempstead .... N Y
CTS Corp, Elkhart .... Ind
CTS Electronics Inc, South Pasadena .... Cal
Duncan Electronics Inc Midgi-Trim Div San Bernardino .... Cal
Ionetics Corp, Avenel .... N J
IRC Div TRW Inc, Philadelphia .... Pa
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Litton Industries, Potentiometer Div, Mt Vernon .... N Y
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Model Rectifier Corp, Brooklyn .... N Y
Morganite Resistors Ltd, Jarrow .... England
Priester Corp, H E, Scarsdale .... N Y
Sanyo Electric Co Ltd, Osaka .... Japan
Stackpole Carbon Co, St Marys .... Pa
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City .... Japan
Victoreen Instrument Div, Cleveland .... Ohio
Welwyn Electric Ltd, Northumberland .... England

LOOKING FOR PRECISION POTENTIOMETERS?

Helipot has the industry's widest selection of multiturn and single-turn precision potentiometers and is the *only* single source for units with wirewound, cermet and conductive plastic resistance elements. For complete information contact the Helipot representative nearest you. He's listed in EBG's Manufacturers' Index.

Beckman
INSTRUMENTS, INC.
HELIPOT DIVISION
FULLERTON, CALIFORNIA • 92634

POTENTIOMETERS--CONDUCTIVE PLASTIC (FILM)

BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON .... **CAL**
BLISS-GAMEWELL, DIV E W BLISS CO, NEWTON UPPER FALLS MASS .... **ADV PG 488**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD N Y .... **ADV PGS 488-490**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... **JAPAN**
Ace Electronics Associates, Inc, Somerville .... Mass
Beckman Instruments Inc, Helipot Div, Fullerton .... Cal
Beckman Instruments Intl SA, 1207 Geneva .... Switzerland
Bliss-Gamewell, Div E W Bliss Co Newton Upper Falls .... Mass
Bourns Inc Instrument Div, Riverside .... Cal
Bourns Inc Trimpot Div, Riverside .... Cal
Brys Instrument Corp, Brooklyn .... N Y
Carter Mfg Corp, Hudson .... Mass
Computer Instruments Corp, Hempstead .... N Y
Duncan Electronics Inc, Costa Mesa .... Cal
Electro-Mec Instrument Corp, Watertown .... Conn
Fairchild Controls, Hicksville .... N Y
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Litton Industries, Potentiometer Div, Mt Vernon .... N Y
Logan Electronics Corp, Revere .... Mass
Markite Corp, New York .... N Y
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
New England Instrument Co, Natick .... Mass
Perkin-Elmer, Electronic Prods Div, Wilton .... Conn
Perkin-Elmer Corp, Optical Group, Norwalk .... Conn
Reon Resistor Corp, Yonkers .... N Y
Samarius, Inc, Derby .... Conn
Technology Instrument Corp Sub Bowmar Instr Corp Newbury Park .... Cal

Vari-Ohm Electronics Inc, E Northport .... N Y
Waters Mfg Inc, Wayland .... Mass

POTENTIOMETERS--INDUCTION SEE SYNCHROS

POTENTIOMETERS--DEPOSITED CARBON (FILM)

AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE .... **N Y**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD N Y .... **ADV PGS 488-490**
CTS CORP, ELKHART .... **IND**
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER .... **N H**
MALLORY & CO INC, P R, INDIANAPOLIS .... **IND**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... **JAPAN**
WESTON COMPONENTS DIV, ARCHBALD PA .... **ADV PGS 492,493**
Amperex Electronic Corp, Component Div Hauppauge .... N Y
Bourns Inc Trimpot Div, Riverside .... Cal
Computer Instruments Corp, Hempstead .... N Y
CTS Corp, Elkhart .... Ind
Daven Div McGraw-Edison Co, Manchester .... N H
Duncan Electronics Inc Midgi-Trim Div San Bernardino .... Cal
Gotham Audio Corp, New York .... N Y
Impectron Inc, New York .... N Y
ITT Europe Inc Components Gp, Brussels 1 ...... Belgium
Lesa-Costruzioni Elettromeccaniche SPA, Milan ...... Italy
Litton Industries, Potentiometer Div, Mt Vernon ...... N Y
Mallory & Co Inc, P R, Indianapolis .... Ind
Mallory Controls Co, Frankfort .... Ind
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Model Rectifier Corp, Brooklyn .... N Y
Morganite Resistors Ltd, Jarrow .... England
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Sanyo Electric Co Ltd, Osaka .... Japan
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City ..... Japan
Telefunken Sales Corp, Garden City .... N Y
Victoreen Instrument Div, Cleveland .... Ohio
Weston Components Div, Archbald .... Pa

Fast acting.

The Electronics Buyers' Guide can get you on the right frequency in a hurry. For example, there are 14 different kinds of oscillators listed. Everything from AF oscillators to voltage controlled crystal oscillators. There are three sections in your EBG, devoted to products, manufacturers and trade names. So see your fast-acting EBG.

Electronics Buyers' Guide

POTENTIOMETERS--METAL FILM

AMPHENOL, JANESVILLE, WISC .... **ADV PG 483**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON .... **CAL**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD N Y .... **ADV PGS 488-490**
CTS CORP, ELKHART .... **IND**
DALE ELECTRONICS INC, COLUMBUS, NEB ... **ADV PGS 486,487**
WESTON COMPONENTS DIV, ARCHBALD PA .... **ADV PGS 492,493**
Amphenol, Janesville .... Wisc
Beckman Instruments Inc, Helipot Div, Fullerton ...... Cal
Bourns Inc Trimpot Div, Riverside .... Cal
Computer Instruments Corp, Hempstead .... N Y
CTS Corp, Elkhart .... Ind
CTS Electronics Inc, South Pasadena .... Cal
CTS Microelectronics Inc, Lafayette .... Ind
Dale Electronics Inc, Columbus .... Neb
Digilog Electronics Corp, Seattle .... Wash
Duncan Electronics Inc Midgi-Trim Div San Bernardino .... Cal
Fairchild Controls, Hicksville .... N Y
ITT Europe Inc Components Gp, Brussels 1 ...... Belgium
Mepco Inc, Morristown .... N J
Miniature Electronic Components Corp, Holbrook .... Mass
Newport Instrument Corp, Newport Beach .... Cal
Precision Electronic Components Ltd, Toronto 15 ...... Ont
Sakae Tsushin Kogyo Co Ltd, Tokyo .... Japan
SP Elettronica SpA, Pero, Milan .... Italy
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City ..... Japan
Vari-Ohm Electronics Inc, E Northport .... N Y
Weston Components Div, Archbald .... Pa

Specify Amphenol.
The leading name
in Metal Film
Trimmers.
Metal-film
Military, industrial
Square or rectangular
Humidity-proof
Essentially infinite resolution

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL ™

POTENTIOMETERS--MOLDED CARBON

CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE WIS .... **ADV PG 411**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD N Y .... **ADV PGS 488-490**
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER .... **N H**
WESTON COMPONENTS DIV, ARCHBALD PA .... **ADV PGS 492,493**
Allen-Bradley Co, Milwaukee .... Wis
Bourns Inc Trimpot Div, Riverside .... Cal
British Radio Electronics (BREL), Washington .... D C
Brys Instrument Corp, Brooklyn .... N Y
Centralab, Div Globe-Union Inc, Milwaukee .... Wis
Clarostat Mfg Co Inc, Dover .... N H
Computer Instruments Corp, Hempstead .... N Y
Daven Div McGraw-Edison Co, Manchester .... N H
Impectron Inc, New York .... N Y

MILGRAY STOCKS POTENTIOMETERS

Every kind you can imagine. (And some you can't.) From stockpiles strategically located for overnight or faster delivery to anywhere in the world. We stock more so you can worry less. A call to your local Milgray man will start the motion.

MILGRAY
Milgray/New York 212-YU 9-1600
Milgray/Delaware Valley 215-BA 8-2000
Milgray/Washington 301-864-1111
Milgray/Cleveland 216-881-8800
Milgray/International 212-YU 9-1600
Milgray/New England, Inc. 617-272-6800

Litton Industries, Potentiometer Div, Mt Vernon ...... N Y
Ohmite Mfg Co, Skokie Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Precision Electronic Components Ltd, Toronto 15 ...... Ont
Priester Corp, H E, Scarsdale .... N Y
Reon Resistor Corp, Yonkers .... N Y
Sanyo Electric Co Ltd, Osaka .... Japan
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City ..... Japan
Weston Components Div, Archbald .... Pa

POTENTIOMETERS--TRIMMERS

AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE .... **N Y**
AMPHENOL, JANESVILLE, WISC .... **ADV PG 484**
BECKMAN INSTRUMENTS INC, HELIPOT DIV, FULLERTON CAL .... **ADV PG 484**
BLISS-GAMEWELL, DIV E W BLISS CO, NEWTON UPPER FALLS MASS .... **ADV PG 488**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE WIS .... **ADV PG 411**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD N Y .... **ADV PGS 488-490**
CTS CORP, ELKHART .... **IND**
DALE ELECTRONICS INC, COLUMBUS, NEB ... **ADV PGS 486,487**
JAPAN RESISTOR MFG CO LTD, TOKYO .... **JAPAN**
MALLORY & CO INC, P R, INDIANAPOLIS .... **IND**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... **JAPAN**
MITSUMI ELECTRIC CO LTD, TOKYO .... **JAPAN**
SPECTROL ELECTRONICS CORP, CITY OF INDUSTRY CAL .... **ADV PG 484**
STACKPOLE CARBON CO, ST MARYS .... **PA**
WESTON COMPONENTS DIV, ARCHBALD PA .... **ADV PGS 492,493**
Ace Electronics Associates, Inc, Somerville .... Mass
Aero Electronics Corp, Gardena .... Cal
Allen-Bradley Co, Milwaukee .... Wis
American Components, Inc, Conshohocken .... Pa
Amperex Electronic Corp, Component Div Hauppauge .... N Y
Amphenol, Janesville .... Wisc
Atohm Electronics Military & Commercial Prods Div Burbank .... Cal
Beckman Instruments Inc, Helipot Div, Fullerton ...... Cal
Beckman Instruments Intl SA, 1207 Geneva .... Switzerland
Bliss-Gamewell, Div E W Bliss Co Newton Upper Falls .... Mass
Bourns Inc Trimpot Div, Riverside .... Cal
Brys Instrument Corp, Brooklyn .... N Y
Carter Mfg Corp, Hudson .... Mass
Carter Precision Electric Co, Skokie Ill
Centralab, Div Globe-Union Inc, Milwaukee .... Wis
Clarostat Mfg Co Inc, Dover .... N H
Computer Instruments Corp, Hempstead .... N Y
Contelec S A, 2500 Biel-Bienne .... Switz

Specify Amphenol.
The leading name in Cermet Trimmers.
Cermet element
Military, industrial, commercial
Square or rectangular
Humidity proof and humidity steady state
Essentially infinite resolution

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL™

LOOKING FOR TRIMMING POTENTIOMETERS?

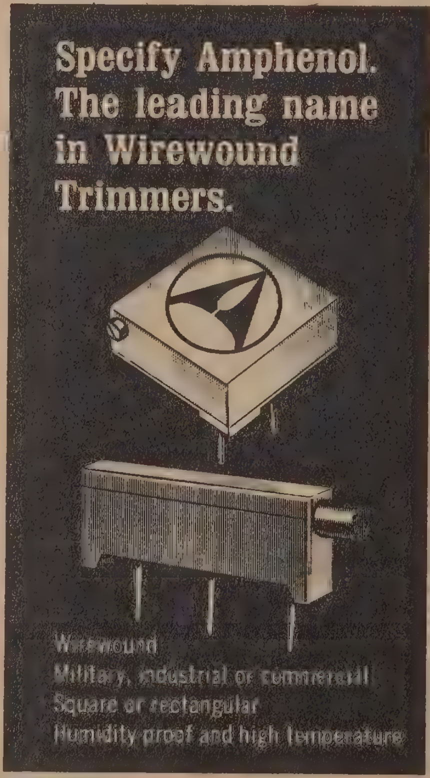
Helitrim® trimming potentiometers, with Helipot's exclusive cermet resistance elements, are available from local stock with:

- *essentially infinite resolution*
- *voltage setting ability within ±0.01%*
- *resistance values from 10Ω to 2 megΩ*
- *operation to +200°C*
- *Mil Spec RJ11 and RJ12*
- *small size—¼" diameter*
- *low cost*
- *high reliability*

For complete information contact the Helipot representative nearest you. He's listed in EBG's Manufacturers' Index.

Beckman
INSTRUMENTS, INC.
HELIPOT DIVISION
FULLERTON, CALIFORNIA • 92634

CTS Corp, Elkhart	Ind
CTS Electronics Inc, South Pasadena	Cal
CTS Microelectronics Inc, Lafayette	Ind
Dale Electronics Inc, Columbus	Neb
Digilog Electronics Corp, Seattle	Wash
Diplohmatic Div Harry Levinson Co, Seattle	Wash
Dowa Trading Co Ltd, Kobe	Japan
Duncan Electronics Inc Midgi-Trim Div San Bernardino	Cal
Electra/Midland Corp, Kansas City	Kan
Electro Materials Corp of America, Mamaroneck	N Y
Fairchild Controls, Hicksville	N Y
General Scientific Corp, San Fernando	Cal
Impectron Inc, New York	N Y
IRC Div TRW Inc, Philadelphia	Pa
ITT Europe Inc Components Gp, Brussels 1	Belgium
Japan Resistor Mfg Co Ltd, Tokyo	Japan
Lake Engineering Co Ltd, Scarborough	Ont
Lesa-Costruzioni Elettromeccaniche SPA, Milan	Italy
Logan Electronics Corp, Revere	Mass
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Controls Co, Frankfort	Ind
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Maurey Instrument Corp, Chicago	Ill
Mel-Rain Corp, Indianapolis	Ind
Mepco Inc, Morristown	N J
Miniature Electronic Components Corp, Holbrook	Mass
Miniature Electronic Components Ltd, Surrey	England
Mitsumi Electric Co Ltd, Tokyo	Japan
Model Rectifier Corp, Brooklyn	N Y
Morganite Resistors Ltd, Jarrow	England
Newport Instrument Corp, Newport Beach	Cal
Nutron, Mountain View	Cal
Nytronics Inc, Berkeley Heights	N J
Ohmite Mfg Co, Skokie	Ill
Painton & Co, Ltd, Northampton	England
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Precision Electronic Components Ltd, Toronto 15	Ont
Priester Corp, H E, Scarsdale	N Y
Sakae Tsushin Kogyo Co Ltd, Tokyo	Japan
Sanyo Electric Co Ltd, Osaka	Japan
Space & Systems Div General Time Corp Stamford	Conn
Spectrol Electronics Corp, City of Industry	Cal
SP Elettronica SpA, Pero, Milan	Italy
Stackpole Carbon Co, St Marys	Pa
Taylor Instrument Cos, Rochester	N Y
Techno-Components Corp, Van Nuys	Cal
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
Telefunken Sales Corp, Garden City	N Y
Tokyo Cosmos Electric Co Ltd, Tokyo	Japan
Vari-Ohm Electronics Inc, E Northport	N Y
Waters Mfg Inc, Wayland	Mass
Welwyn Electric Ltd, Northumberland	England
Weston Components Div, Archbald	Pa


Specify Amphenol.
The leading name in Wirewound Trimmers.
Wirewound
Military, industrial or commercial
Square or rectangular
Humidity proof and high temperature

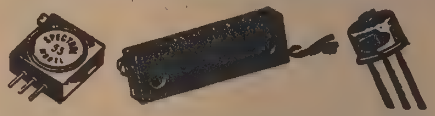
For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL™

PRECISION POTENTIOMETERS

Spectrol manufactures a broad line of precision wirewound potentiometers . . . single and multi-turn . . . linear and non-linear ...diameters from ½" to 3".

TRIMMING POTENTIOMETERS



Spectrol wirewound and non-wirewound trimmers give you a wide range of precision performance . . . resistance ranges to 1 megohm . . . single, 15, 25, and 42-turn models . . . square, round, rectangular and TO-9 transistor type cases.

TURNS-COUNTING DIALS

Easy-to-read Spectrol Multidials® are available with digital and concentric readout . . . easy to mount . . . easy to set . . . easy to lock.

Spectrol

SPECTROL ELECTRONICS CORPORATION
E. Gale Ave. nr. Azusa Ave., City of Industry, Calif. 91745
Phone: (213) 964-6565 • TWX: (910) 584-1314

POTENTIOMETERS--WIREWOUND LINEAR PRECISION

AMPHENOL, JANESVILLE	**WISC**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
BLISS-GAMEWELL, DIV E W BLISS CO, NEWTON UPPER FALLS MASS	**ADV PG 491**
DALE ELECTRONICS INC, COLUMBUS, NEB	**ADV PGS 486,487**
FLUKE MFG CO INC, JOHN, SEATTLE	**WASH**
JAPAN RESISTOR MFG CO LTD, TOKYO	**JAPAN**
SPECTROL ELECTRONICS CORP, CITY OF INDUSTRY	**CAL**
WESTON COMPONENTS DIV, ARCHBALD PA	**ADV PGS 492,493**
Ace Electronics Associates, Inc, Somerville	Mass
Amphenol, Janesville	Wisc
Astro Electronics, Inc, Fullerton	Cal
Atlantic Instruments & Electronics, Inc Watertown	Mass
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bliss-Gamewell, Div E W Bliss Co Newton Upper Falls	Mass
Bourns Inc Trimpot Div, Riverside	Cal
British Radio Electronics (BREL), Washington	D C
Brys Instrument Corp, Brooklyn	N Y
Carter Mfg Corp, Hudson	Mass
Carter Precision Electric Co, Skokie	Ill
Clarostat Mfg Co Inc, Dover	N H
Continental-Wirt Electronics Corp, Philadelphia	Pa
Dale Electronics Inc, Columbus	Neb
Digilog Electronics Corp, Seattle	Wash
Duncan Electronics Inc, Costa Mesa	Cal
Electro-Mec Instrument Corp, Watertown	Conn
Electro Scientific Industries Inc, Portland	Ore
Fairchild Controls, Hicksville	N Y
Ferranti, Ltd, Lancashire	England
Fluke Mfg Co Inc, John, Seattle	Wash
General Radio Co, West Concord	Mass
General Scientific Corp, San Fernando	Cal
Genisco Technology Corp, Compton	Cal
Gulton Industries Inc Controls & Instru Grp Costa Mesa	Cal
Humphrey Inc, San Diego	Cal
Impectron Inc, New York	N Y
IRC Div TRW Inc, Philadelphia	Pa
ITT Europe Inc Components Gp, Brussels 1	Belgium
Japan Resistor Mfg Co Ltd, Tokyo	Japan
Kendick Mfg Co Inc, Fort Wayne	Ind
Kinetics A Teledyne Co, Solana Beach	Cal
Litton Industries, Potentiometer Div, Mt Vernon	N Y
Logan Electronics Corp, Revere	Mass
Maurey Instrument Corp, Chicago	Ill
Mektron Div, Calif Gen Corp Inc, Chula Vista	Cal

Methode Electronics Inc, Chicago ... Ill
Micro-Lectric Inc, Lindenhurst ... N Y
Model Rectifier Corp, Brooklyn ... N Y
New England Instrument Co, Natick ... Mass
Nutron, Mountain View ... Cal
Nytronics Inc, Berkeley Heights ... N J
Peerless Instrument Co Inc, Elmhurst ... NY
Perkin-Elmer Corp, Norwalk ... Conn
Perkin-Elmer Corp, Optical Group, Norwalk ... Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Philmore Mfg Co Inc, Richmond Hill ... N Y
RFL Industries Inc, Instrumentation Div, Boonton ... N J
Sakae Tsushin Kogyo Co Ltd, Tokyo ... Japan
Samarius, Inc, Derby ... Conn
Sparton Southwest Inc, Albuquerque ... NM
Spectrol Electronics Corp, City of Industry ... Cal
SP Elettronica SpA, Pero, Milan ... Italy
Taylor Instrument Cos, Rochester ... N Y
Technology Instrument Corp Sub Bowmar Instr Corp
  Newbury Park ... Cal
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City ... Japan
Vari-Ohm Electronics Inc, E Northport ... N Y
Vogue Instrument Corp, Plainview ... NY
Voltronics, Inc, Chicago ... Ill
Waters Mfg Inc, Wayland ... Mass
Weston Components Div, Archbald ... Pa
Winslow Tele-Tronics Inc, Asbury Park ... NJ

POTENTIOMETERS--WIREWOUND MULTITURN

AMPHENOL, JANESVILLE ... WISC
BECKMAN INSTRUMENTS INC, HELIPOT DIV
  FULLERTON ... CAL
BLISS-GAMEWELL, DIV E W BLISS CO, NEWTON UPPER FALLS
  MASS ... ADV PG 491
CTS CORP, ELKHART ... IND
DALE ELECTRONICS INC, COLUMBUS, NEB ... ADV PGS 486,487
FLUKE MFG CO INC, JOHN, SEATTLE ... WASH
JAPAN RESISTOR MFG CO LTD, TOKYO ... JAPAN
MALLORY & CO INC, P R, INDIANAPOLIS ... IND

SPECTROL ELECTRONICS CORP, CITY OF INDUSTRY ... CAL
WESTON COMPONENTS DIV, ARCHBALD
  PA ... ADV PGS 492,493
Amphenol, Janesville ... Wisc
Astro Electronics, Inc, Fullerton ... Cal
Beckman Instruments Inc, Helipot Div, Fullerton ... Cal
Bliss-Gamewell, Div E W Bliss Co
  Newton Upper Falls ... Mass
Bourns Inc Trimpot Div, Riverside ... Cal
Brys Instrument Corp, Brooklyn ... N Y
Carter Mfg Corp, Hudson ... Mass
Clarostat Mfg Co Inc, Dover ... N H
Continental-Wirt Electronics Corp, Philadelphia ... Pa
CTS Corp, Elkhart ... Ind
Dale Electronics Inc, Columbus ... Neb
Digilog Electronics Corp, Seattle ... Wash
Duncan Electronics Inc, Costa Mesa ... Cal
Electro Scientific Industries Inc, Portland ... Ore
Fairchild Controls, Hicksville ... N Y
Fluke Mfg Co Inc, John, Seattle ... Wash
General Scientific Corp, San Fernando ... Cal
Impectron Inc, New York ... N Y
IRC Div TRW Inc, Philadelphia ... Pa
ITT Europe Inc Components Gp, Brussels 1 ... Belgium
Japan Resistor Mfg Co Ltd, Tokyo ... Japan
Litton Industries, Potentiometer Div, Mt Vernon ... N Y
Mallory & Co Inc, P R, Indianapolis ... Ind
Mallory Controls Co, Frankfort ... Ind
Mektron Div, Calif Gen Corp Inc, Chula Vista ... Cal
Miniature Electronic Components Corp, Holbrook ... Mass
Miniature Electronic Components Ltd, Surrey ... England
Nutron, Mountain View ... Cal
Nytronics Inc, Berkeley Heights ... N J
Peerless Instrument Co Inc, Elmhurst ... NY
Perkin-Elmer Corp, Norwalk ... Conn
Perkin-Elmer, Electronic Prods Div, Wilton ... Conn
Perkin-Elmer Corp, Optical Group, Norwalk ... Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Sakae Tsushin Kogyo Co Ltd, Tokyo ... Japan
Spectrol Electronics Corp, City of Industry ... Cal
SP Elettronica SpA, Pero, Milan ... Italy
Techno-Components Corp, Van Nuys ... Cal
Technology Instrument Corp Sub Bowmar Instr Corp
  Newbury Park ... Cal
Vari-Ohm Electronics Inc, E Northport ... N Y
Voak Engineering Co Inc, Upland ... Cal
Vogue Instrument Corp, Plainview ... NY
Waters Mfg Inc, Wayland ... Mass
Weston Components Div, Archbald ... Pa

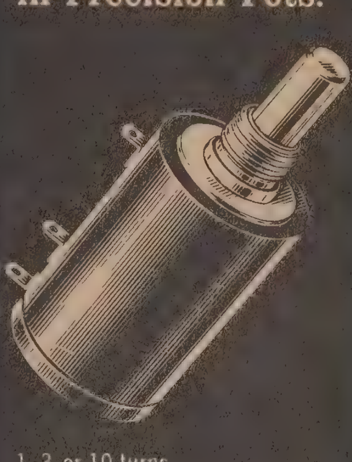
POTENTIOMETERS--WIREWOUND NONPRECISION

AMPHENOL, JANESVILLE ... WISC
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE
  WIS ... ADV PG 411
CTS CORP, ELKHART ... IND
DALE ELECTRONICS INC, COLUMBUS, NEB ... ADV PGS 486,487
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER ... N H
JAPAN RESISTOR MFG CO LTD, TOKYO ... JAPAN
MALLORY & CO INC, P R, INDIANAPOLIS ... IND
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
OBATA ELECTRIC CO LTD, TOKYO ... JAPAN
WESTON COMPONENTS DIV, ARCHBALD
  PA ... ADV PGS 492,493
Ace Electronics Associates, Inc, Somerville ... Mass
Amphenol, Janesville ... Wisc
Astro Electronics, Inc, Fullerton ... Cal
Bourns Inc Trimpot Div, Riverside ... Cal
British Radio Electronics (BREL), Washington ... D C
Brys Instrument Corp, Brooklyn ... N Y
Carter Precision Electric Co, Skokie ... Ill
Centralab, Div Globe-Union Inc, Milwaukee ... Wis
Clarostat Mfg Co Inc, Dover ... N H
Continental-Wirt Electronics Corp, Philadelphia ... Pa
CTS Corp, Elkhart ... Ind
CTS Electronics Inc, South Pasadena ... Cal
Dale Electronics Inc, Columbus ... Neb
Daven Div McGraw-Edison Co, Manchester ... N H
Duncan Electronics Inc, Costa Mesa ... Cal
Fairchild Controls, Hicksville ... N Y
General Radio Co, West Concord ... Mass
Impectron Inc, New York ... N Y
IRC Div TRW Inc, Philadelphia ... Pa
ITT Europe Inc Components Gp, Brussels 1 ... Belgium
Japan Resistor Mfg Co Ltd, Tokyo ... Japan
Lesa-Costruzioni Elettromeccaniche SPA, Milan ... Italy
Logan Electronics Corp, Revere ... Mass
LTV-Electrosystems Inc Memcor Div, Huntington ... Ind
Mackworth Rees Div, Madison Heights ... Mich
Mallory & Co Inc, P R, Indianapolis ... Ind
Mallory Controls Co, Frankfort ... Ind
Matsushita Electric Industrial Co Ltd, Osaka ... Japan
Maurey Instrument Corp, Chicago ... Ill
Mektron Div, Calif Gen Corp Inc, Chula Vista ... Cal
Mel-Rain Corp, Indianapolis ... Ind
Methode Electronics Inc, Chicago ... Ill
Milwaukee Resistor Corp, Milwaukee ... Wis
Miniature Electronic Components Corp, Holbrook ... Mass
Model Rectifier Corp, Brooklyn ... N Y
Obata Electric Co Ltd, Tokyo ... Japan
Ohmite Mfg Co, Skokie ... Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Priester Corp, H E, Scarsdale ... N Y
Samarius, Inc, Derby ... Conn
S E C I Soc Elettrotechica Chimica Italiana
  Milano ... Italy
Technology Instrument Corp Sub Bowmar Instr Corp
  Newbury Park ... Cal
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City ... Japan
Ward Leonard Electric Co, Mount Vernon ... N Y
Welwyn Electric Ltd, Northumberland ... England
Weston Components Div, Archbald ... Pa

POTENTIOMETERS--WIREWOUND PRECISION

AMPHENOL, JANESVILLE, WISC ... ADV PG 485
BECKMAN INSTRUMENTS INC, HELIPOT DIV, FULLERTON
  CAL ... ADV PG 485
BLISS-GAMEWELL, DIV E W BLISS CO, NEWTON UPPER FALLS
  MASS ... ADV PG491
DALE ELECTRONICS INC, COLUMBUS, NEB ... ADV PGS 486,487
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER ... N H
FLUKE MFG CO INC, JOHN, SEATTLE ... WASH
JAPAN RESISTOR MFG CO LTD, TOKYO ... JAPAN
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
OBATA ELECTRIC CO LTD, TOKYO, JAPAN ... ADV PG 56
SPECTROL ELECTRONICS CORP, CITY OF INDUSTRY ... CAL
WESTON COMPONENTS DIV, ARCHBALD
  PA ... ADV PGS 492,493
Ace Electronics Associates, Inc, Somerville ... Mass
Amphenol, Janesville ... Wisc
Astro Electronics, Inc, Fullerton ... Cal
Beckman Instruments Inc, Helipot Div, Fullerton ... Cal
Beckman Instruments Intl SA,
  1207 Geneva ... Switzerland
Biddle Co, James G, Plymouth Meeting ... Pa
Bliss-Gamewell, Div E W Bliss Co
  Newton Upper Falls ... Mass
Bourns Inc Trimpot Div, Riverside ... Cal
British Radio Electronics (BREL), Washington ... D C
Brys Instrument Corp, Brooklyn ... N Y
Carter Mfg Corp, Hudson ... Mass
Clarostat Mfg Co Inc, Dover ... N H
Continental-Wirt Electronics Corp, Philadelphia ... Pa
Dale Electronics Inc, Columbus ... Neb
Daven Div McGraw-Edison Co, Manchester ... N H
Digilog Electronics Corp, Seattle ... Wash
Duncan Electronics Inc, Costa Mesa ... Cal
Duncan Electronics Inc Midgi-Trim Div
  San Bernardino ... Cal
Electro-Mec Instrument Corp, Watertown ... Conn
Electro Scientific Industries Inc, Portland ... Ore
Fairchild Controls, Hicksville ... N Y
Ferranti Electric Inc, Plainview ... N Y
Ferranti, Ltd, Lancashire ... England
Fluke Mfg Co Inc, John, Seattle ... Wash
General Radio Co, West Concord ... Mass
General Scientific Corp, San Fernando ... Cal
Gulton Industries Inc Controls & Instru Grp
  Costa Mesa ... Cal
Humphrey Inc, San Diego ... Cal
IRC Div TRW Inc, Philadelphia ... Pa
ITT Europe Inc Components Gp, Brussels 1 ... Belgium
Japan Resistor Mfg Co Ltd, Tokyo ... Japan
Kendick Mfg Co Inc, Fort Wayne ... Ind
Kinetics A Teledyne Co, Solana Beach ... Cal
Link Group Gen Precision Sys Inc, Binghamton ... N Y
Litton Industries, Potentiometer Div, Mt Vernon ... N Y
Logan Electronics Corp, Revere ... Mass
Matsushita Electric Industrial Co Ltd, Osaka ... Japan
Maurey Instrument Corp, Chicago ... Ill
Mektron Div, Calif Gen Corp Inc, Chula Vista ... Cal
Methode Electronics Inc, Chicago ... Ill
Micro-Lectric Inc, Lindenhurst ... N Y
Micro Parts Inc, Los Angeles ... Cal
New England Instrument Co, Natick ... Mass
Nytronics Inc, Berkeley Heights ... N J
Obata Electric Co Ltd, Tokyo ... Japan
Painton & Co, Ltd, Northampton ... England
Peerless Instrument Co Inc, Elmhurst ... NY
Perkin-Elmer Corp, Norwalk ... Conn
Perkin-Elmer Corp, Optical Group, Norwalk ... Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
RFL Industries Inc, Instrumentation Div, Boonton ... N J

Specify Amphenol.
The leading name
in Precision Pots.



1, 3 or 10 turns
Military, industrial, commercial
Zero based or absolute linearity
From ⅞" diameter
Temperature to 150°C

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL

LOOKING FOR PRECISION POTENTIOMETERS?

Helipot has the industry's widest selection of multiturn and single-turn precision potentiometers and is the *only* single source for units with wirewound, cermet and conductive plastic resistance elements. For complete information contact the Helipot representative nearest you. He's listed in EBG's Manufacturers' Index.

Beckman
INSTRUMENTS, INC.

HELIPOT DIVISION
PULLERTON, CALIFORNIA • 92634

DALE® for Optimum Value in Potentiometers

TRIMMER QUICK REFERENCE GUIDE

- New rectilinear wirewound and film models
- New square wirewound models
- Expanded low-priced Econo-Trim series with sealability for pennies more
- Mil-style construction methods used throughout
- Panel mount models available in most series

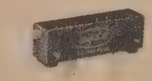
MILITARY GRADE TRIMMER POTENTIOMETERS (High Temperature, Precision)

SERIES	ILLUSTRATION	MODEL	CONFIGURATION	STANDARD RESISTANCE & TOLERANCE	HUMIDITY PROOF (Mil. Spec.)	POWER RATING	OPERATING TEMP. RANGE	ADJUSTMENT TURNS	HEIGHT	WIDTH	LENGTH
600	Mil. Equiv. RT-10	691 680 690* 697* 692*	• Alternate position Printed Circuit Pins 22 AWG • Printed Circuit Pins 22 AWG • Hook Type Wire Solder Terminal • 28 AWG Stranded Teflon Leads • 26 AWG Solid Leads	10 ohms to 100K ohms ±5%	Yes	1 watt at 70° C, derated to 0 at 175° C	−65° C to 175° C	15 ± 2	.18	.32	1.00
1200	Mil. Equiv. RT-11	1287 1288* 1299*	• Printed Circuit Pins 21 AWG • Stranded Teflon Leads 28 AWG • Spade Type Solder Lug	10 ohms to 100K ohms ±5%	Yes	1 watt at 70° C, derated to 0 at 175° C	−65° C to 175° C	25 ± 2	.28	.31	1.25
1600	Mil. Equiv. RT-12	1680 1697* 1692* 1690*	• Printed Circuit Pins 21 AWG • Stranded Teflon Leads 28 AWG • 22 AWG Solid Wire • Solder Lug	10 ohms to 100K ohms ±5%	Yes	1 watt at 70° C, derated to 0 at 175° C	−65° C to 175° C	22 ± 3	.19	.32	1.25
5000	Mil. Equiv. RT-22	5050 5080 5091	• Stranded Teflon Leads 30 AWG • Printed Circuit Pins 21 AWG, Edge Mount • Printed Circuit Pins 21 AWG	10 ohms to 50K ohms ±5%	Yes	1 watt at 70° C, derated to 0 at 175° C	−65° C to 175° C	25 ± 2	.19 .22	.50 .50	.50 .50
5800	Mil. Equiv. RT-24	5850 5891 5880 5887	• Stranded Teflon Leads 30 AWG • Printed Circuit Pins 22 AWG, Base Mount • Printed Circuit Pins 22 AWG, Edge Mount • Printed Circuit Pins 22 AWG Side Adjust	10 ohms to 50K ohms ±5%	Yes	1 watt at 70° C, derated to 0 at 175° C	−65° C to 175° C	25 ± 3	.145	.375	.375

*Indicates model is also available in Panel Mount version.

COMMERCIAL GRADE ECONO-TRIM POTENTIOMETERS

WIREWOUND ELEMENT

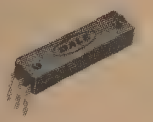
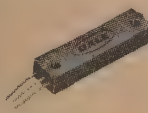
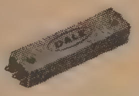
SERIES	ILLUSTRATION	MODEL	CONFIGURATION	STANDARD RESISTANCE & TOLERANCE	HUMIDITY PROOF (Mil. Spec.)	POWER RATING	OPERATING TEMP. RANGE	ADJUSTMENT TURNS	HEIGHT	WIDTH	LENGTH
2300		2387 2317 2389 2319	• Unsealed • Sealed } Printed Circuit Terminals, Gold Plated • Unsealed • Sealed } Hook-type Solder Lugs, Gold Plated	10 ohms to 50K ohms ±10%	Optional	0.5 watt at 25° C, derated to 0 at 105° C	−55° C to 105° C	15 turns nominal	.36	.28	1.00
2400		2487 2417	• Unsealed • Sealed } Printed Circuit Terminals, Gold Plated	10 ohms to 50K ohms ±10%	Optional	1 watt at 40° C, derated to 0 at 125° C	−55° C to 125° C	20 turns nominal	.31	.16	.75

FILM ELEMENT

SERIES	ILLUSTRATION	MODEL	CONFIGURATION	STANDARD RESISTANCE & TOLERANCE	HUMIDITY PROOF (Mil. Spec.)	POWER RATING	OPERATING TEMP. RANGE	ADJUSTMENT TURNS	HEIGHT	WIDTH	LENGTH
8300		8387 8317 8389 8319	• Unsealed • Sealed } Printed Circuit Terminals Gold Plated • Unsealed • Sealed } Hook-type Solder Lugs, Gold Plated	10 ohms to 2 Megohms ±10% 100Ω thru 500K ±20% all other values	Optional	.75 watt at 25° C, derated to 0 at 105° C	−55° C to 105° C	15 turns nominal	.36	.28	1.00
8400		8487 8417	• Unsealed • Sealed } Printed Circuit Terminals Gold Plated	10 ohms to 2 Megohms ±10% 100Ω thru 500K ±20% all other values	Optional	.75 watt at 25° C, derated to 0 at 125° C	−55° C to 125° C	20 turns nominal	.31	.16	.75

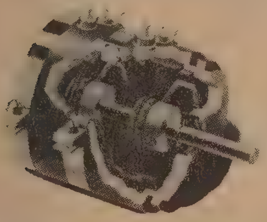
DALE® for Optimum Value in Potentiometers

INDUSTRIAL GRADE TRIMMER POTENTIOMETERS Wirewound and Film (Series 8100)

SERIES	ILLUSTRATION	MODEL	CONFIGURATION	STANDARD RESISTANCE & TOLERANCE	HUMIDITY PROOF (Mil. Spec.)	POWER RATING	OPERATING TEMP. RANGE	ADJUSTMENT TURNS	HEIGHT	WIDTH	LENGTH
100		195 193 194 198 199	• 28 AWG Stranded Vinyl Leads emerging separately • 28 AWG Stranded Vinyl Leads attached to Lugs • 28 AWG Stranded Vinyl Leads emerging as group • Gold-plated Printed Circuit Solder Lug • Gold-plated Solder Lug	10 ohms to 100K ohms ±5%	No	0.8 watt at 70° C, derated to 0 at 135° C	−65° C to 135° C	25 ± 2	.22 .22	.31 .31	1.32 1.25
200		295 293 294 298 299	• 28 AWG Stranded Vinyl Leads emerging separately • 28 AWG Stranded Vinyl Leads attached to Lugs • 28 AWG Stranded Vinyl Leads emerging as group • Gold-plated Printed Circuit Solder Lug • Gold-plated Solder Lug	10 ohms to 100K ohms ±10%	No	0.5 watt at 70° C, derated to 0 at 105° C	−65° C to 105° C	25 ± 2	.22 .22	.31 .31	1.32 1.25
300		398 399	• Gold-plated Printed Circuit Solder Lug • Gold-plated Solder Lug	100 ohms to 100K ohms ±15%	No	.25 watt at 70° C, derated to 0 at 85° C	−65° C to 85° C	25 ± 2	.22	.31	1.25
1100		1187 1188* 1199*	• Printed Circuit Pins 21 AWG • 28 AWG Stranded Teflon Leads • Spade-type Solder Lug	10 ohms to 100K ohms ±10%	No	1 watt at 70° C, derated to 0 at 175° C	−65° C to 175° C	25 ± 2	.28	.31	1.25
2100		2187 2188* 2199*	• Printed Circuit Pins 21 AWG • Stranded Vinyl Leads 28 AWG • Gold-plated Solder Lug	10 ohms to 100K ohms ±10%	Optional	1 watt at 70° C, derated to 0 at 125° C	−65° C to 125° C	25 ± 2	.28	.31	1.25
2200		2280 2292 2297	• Printed Circuit Pins 22 AWG • 26 AWG Solid Leads • 28 AWG Stranded Vinyl Leads	10 ohms to 100K ohms ±10%	Optional	1 watt at 70° C, derated to 0 at 125° C	−65° C to 125° C	15 ± 2	.18	.32	1.00
8100 (Film)		8187 8188* 8189*	• Printed Circuit Pins 21 AWG • Stranded Vinyl Leads 28 AWG • Gold-plated Solder Lug	10 ohms to 2 Megohms ±10% 100Ω to 500K ±20% other values	Optional	.75 watt at 70° C, derated to 0 at 125° C	−65° C to 125° C	25 ± 2	.28	.31	1.25

*Indicates model is also available in Panel Mount Version

PRECISION POTENTIOMETERS—SINGLE TURN *(Write for Catalog B)*

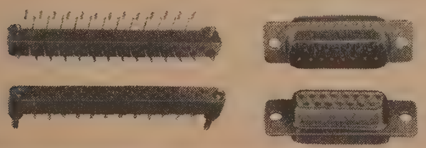


• Precision machined anodized aluminum cups • Molded Diallyl Phthalate liners • Welded tap and terminal construction • Precious metal wipers and slip rings • Flush clamp bands • Gold-plated terminals • Precision sleeve or ball bearings • Centerless ground stainless steel shafts • Single or ganged units.

SPECIFICATIONS:

- Meet requirements of MIL-R-12934 and NAS-710
- Eight physical sizes, 3/4" to 3" diameter
- Electrical angles and functions to specification
- Special mechanical configurations available

CONNECTORS, TOO!



Dale can provide rack and panel and printed circuit styles to meet MIL-C-8384, MIL-C-21097, MIL-C-5015 and MIL-J-6751 as well as special connector design assistance. Write for Connector literature or contact factory direct.

DALE® DALE ELECTRONICS, INC. 1316 28th Ave., Columbus, Nebraska 68601
PHONE 564-3131 • AREA CODE 402 • TWX 402–564-2807

CIC Infinite Resolution PRECISION COMPONENTS

ROTARY Single-Turn POTENTIOMETERS

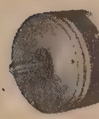
LINEAR-FUNCTIONAL/SINE-COSINE

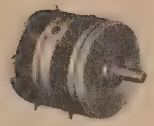
SHIPMENT FROM STOCK ON MOST MODELS. CHECK CURRENT AVAILABILITY. (516 IV 3-8200)

#51

#78

#105 (Ganged)


#205


#206 (Ganged)

#175 (Ganged Special)

SPECIFICATIONS

	LINEAR	SINE-COSINE
Mechanical Rotation	360° Continuous	
Electrical Function Angle	350° Nominal	360°
Resistance Range	0.5KΩ-2 MegΩ	500Ω-50KΩ/Quad.
Best Linearity or Conformity	.1% ÷ Inch of Dia.	.3% P-P ÷ Inch of Dia.
Virtual Resolution	1/250,000	
Wattage	Diameter x 2 Watt(s)	
Temperature Range	—55°C to 150°C	
Taps, Maximum No.	Diameter x 6	
Starting Torque (In.—Oz.)	Diameter x .15	Diameter x .2
Guaranteed Life (at 100 R.P.M.)	To 30 Million Cycles Depending on Circuitry	

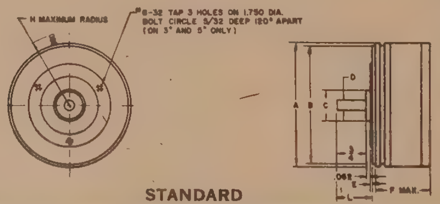
DIMENSIONS

MODEL	50 Linear	78 Linear	105 Linear 106 Sin-Cos	155 Linear 156 Sin-Cos	175 Linear 176 Sin-Cos	175S 206S 305S Linear	205 Linear 206 Sin-Cos	305 Linear 306 Sin-Cos	505 Linear 506 Sin-Cos
A	1/2	7/8	13/32	1 7/16	1 3/4	—	2	3	5
B*	4375	.7500	1.0300	1.3125	1.5620	—	1.8750	2.8750	4.8750
C*	—	—	—	—	—	—	—	7500	7500
D*	.1250	.1250	.1250	.1250	2500	—	2500	.2500	.2500
E	060	.040	.040	062	.060	—	060	.047	.047
F	47/64	.635	.635	.725	.985	.725 Each add'l cup adds only .200" length	.985	1.350	1.870
H	**	19/32	11/16	29/32	1 1/32		1 5/32	1 13/16	2 13/16
K	3/8	3/8	3/8	3/8	3/8		3/8	3/8	3/8
L	5/8	3/4	3/4	3/4	3/4		3/4	3/4	3/4

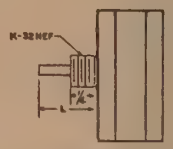
*+.0000
—.0005
**Axial Rear Terminations

Low Torque-Low Inertia Pots are Available in 1¾" O.D.

	177 Linear	178 Sin-Cos
Torque, In.-Oz.	.1	.2
Inertia, Oz.-In.²	.025	.065


H MAXIMUM RADIUS
6-32 TAP 3 HOLES ON 1.750 DIA. BOLT CIRCLE 5/32 DEEP 120° APART (ON 3" AND 5" ONLY)
A
B
C
D
E
.062
L
F MAX.

STANDARD



BUSHING MOUNT

ROTARY Multi-Turn POTENTIOMETERS

LINEAR-FUNCTIONAL

SHIPMENT FROM STOCK ON MOST MODELS. CHECK CURRENT AVAILABILITY. (516 IV 3-8200)

#5010

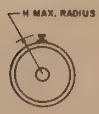
#7810

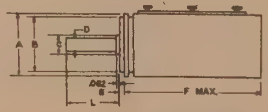
#20010

SPECIFICATIONS

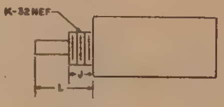
MODEL	5010	7810**	7820	7812	20010
Mechanical Rotation	3600° +20° —0°	3700° MIN.	7200° +100° —0°	3600° +100° —0°	3600° +110° —0°
Electrical Function Angle	3600° ±10°	3600° ±10°	7200° ±10°	3600° ±5°	3600° ±5°
Resistance Range	5KΩ—500KΩ	250Ω—125KΩ		5KΩ—1.5 MegΩ	5KΩ—3 MegΩ
Best Linearity or Conformity	0.1%	.075%	.05%	0.05%	0.01%
Virtual Resolution (Typical)	1/150,000	1/200,000		1/400,000	
Wattage at 25°C	2	1		2	4
Temperature Range	—55°C to +150°C				
Taps Maximum No.°	1		2	1	
Starting Torque (In. Oz.)	0.2	1.5		0.5	1.0
Guaranteed Life (at 100 R.P.M.)	100 x 10⁶ Revolutions Depending on Circuitry				
Stop Strength	10 IN.-OZ. MAX.			50 IN.-OZ.	160 IN .OZ.

° For voltage reference, specify 0° width taps. For current carrying, specify zero resistance taps.
** Available in Dual Units, same case dimensions.





STANDARD



BUSHING MOUNT

DIMENSIONS

MODEL	5010	7810	7820	7812	20010
A	.500	.875			2.000
B*	.4735	.750		.625	1.875
C	.188	.273		—	
D*	0.937	.1875		.1250	.250
E	.062				.035
F	1.531	1.953		1.687	2.625
H	.400	.600		.531	**
J	.250				.312
K	.250	.375			
L	.625	.750		.500	.750

*+.0000
—.0005

**Axial Rear Terminations

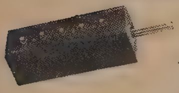
CIC COMPUTER INSTRUMENTS CORPORATION/92 MADISON AVE., HEMPSTEAD, N.Y. 11550/516-483-8200

CIC Infinite Resolution PRECISION COMPONENTS

LINEAR MOTION POTENTIOMETERS

LINEAR-FUNCTIONAL

SHIPMENT FROM STOCK ON MOST MODELS. CHECK CURRENT AVAILABILITY. (516 IV 3-8200)


#111

#110

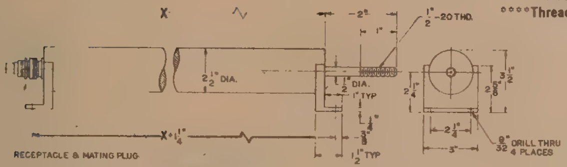
#113

#114

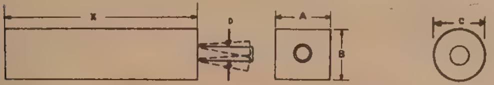
SPECIFICATIONS

MODEL	110*	111*	112	113*	114	116**	117	118**	119*
Electrical Stroke	To 60"	To 28"	To 12"	To 4"	To 1"	To 12"	To 1 5"	To 1 25"	To 10"
Cross Section Configuration	○	☐	▯	○	☐	▯	▭		○
Resistance Range	250Ω/in. to 200KΩ/in.	150Ω/in. to 200KΩ/in.		500Ω/in. to 250KΩ/in.		150Ω/in. to 125KΩ/in.	250Ω/in. to 125KΩ/in.	500Ω/in. to 250KΩ/in.	350Ω/in to 250KΩ/in.
Best Linearity	0.2% ±Length of Electrical Stroke								
Virtual Resolution	1/400,000								
Wattage	1 Watt per Inch of Stroke								
Temperature Range	−55° to +150°C								
Taps Maximum No.***	4	To Suit		1		To Suit	1		
Starting Force Oz. at 25°C	16	8	4	8	4		8		
Life	30 Million Strokes, Depending on Circuitry								
Shaft Misalignment Feature	Available			Not Available		Available	Not Available	Available	

*Available in Dual Units, same case dimensions.
**Available in Dual Unit providing the resistance and function of both elements is the same.
***For voltage reference, specify zero width taps. For current carrying, specify zero resistance taps.
****Threaded, ball, spring-return and other shaft endings available.



MODEL 110



DIMENSIONS

MODEL	110*	111*	112	113*	114	116**	117	118**	119*
A	—	1.00	.500	—	.250	500	.967	.875	—
B	—	1.00	1.10	—	312	1.100	.635	.500	—
C	2.50	—	—	.500	—	—	—	—	750
D	.50	.250	.187	.125	.0625	.1875	.1565	1875	
X	Length of Mech. Travel +6"	Length of Mech. Travel +1.125"	Length of Mech. Travel +1.210"	Length of Mech. Tfavel +1.375"	1.75"	Length of Mech. Travel +1.210"	3.01"	2 50"	Length of Mech Travel +2 00"

PRESSURE TRANSDUCERS & SWITCHES

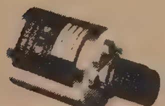
LINEAR/AIR SPEED/ALTITUDE/SQUARE ROOT/FLOW

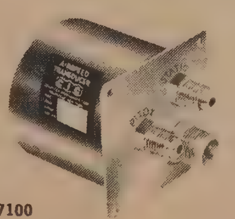
SHIPMENT FROM STOCK ON MOST MODELS. CHECK CURRENT AVAILABILITY. (516 IV 3-8200)

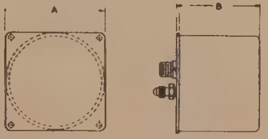
SPECIFICATIONS

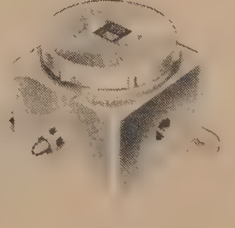
MODEL	1000 Miniature	3000 Commercial	4000 Commercial	4500 Oil Filled	4500F Delta P Flow	6000 Low Pressure	6100 Mil Standard	6200 Hi Pressure	6300 Sea Water Depth	7000 Altitude	7100 Air Speed
Pressure Range, PSI.	0-15 to 0-350 Gage, Diff., Absolute	0-200 to 0-5000 Gage	0-2 to 0-200 Gage, Diff., Absolute	0-2 to 0-200 Differential		0-.01 to 0-2 Gage, Differential	0-2 to 0-200 Gage, Diff., Absolute	0-100 to 0-5000 Gage, Diff., Absolute	0-200 to 0-500 Absolute	0-100,000 ft.	0-1000 Knots
Linearity	To 0.5%		To 0.3%		—	0.3%				0.4%	±1 Knot
Repeatability	0.1%		.05%	0.1%		.05%				15'	±0.4 Knot
Temp. Sensitivity	.02% per °C			.01% per °C					.02% per °C	.01% per °C	±01% per °C
Input: Wattage	0.2		0.25	0.4	0.25	.20	.25		.5	.25	
Standard Case Pressure	700 PSIA	—	200 PSIA	1000 PSIA		100 PSIA	150 PSIA	500 PSIA	200 PSIA	—	
Diameter A	1.156	1.62	2.00			3.20	2.44		2.68	2 44	
Length B	1.39	0.90	2.16	3.20		2.84	2.59	1.09	1.80	2.59	
Switch Differential	1%	.8%	.6%	1%		2%	8%	6%		—	
Switch Current	2 Amperes, Max., Resistive, All Models										
Switch Life	10 Million Cycles, Depending on Circuitry										

Note: Also available in current type pressure transmitters: ranges 0-2 to 0-5000 PSIA and current output of 1-5 ma, 4-20 ma. in EXPLOSION-PROOF housing.


#1000


#7100
Air Speed Transducer




EXPLOSION-PROOF
(Available in All Models)

COMPUTER INSTRUMENTS CORPORATION/92 MADISON AVE., HEMPSTEAD, N.Y. 11550/516-483-8200

CIC Infinite Resolution PRECISION COMPONENTS

COMMUTATORS—PRECISION SWITCHES

SPECIFICATIONS

MODEL	5015	715	115	1715	215	315	515
Mechanical Rotation	360° Continuous						
Max. Number of Isolated Conductive Segments	6	8	8	20		38	62
Tolerance on Contact Spacing	2°		1½°	1°		1/2°	
Max. Number of Wipers Per Cup	1		2		4		
Tolerance on Wiper Spacing	2°	1½°	1°		1/2°	1/4°	
Typ. Wiper Current	100 MA	250 MA					
Starting Torque (Max. In.—Oz.)°°	.05	.2		3		.5	.8
Temperature Range	—55° to +150°C						
Max. Operating Speed (R.P.M.)	1000	1000		900			500
Guaranteed Life†	To 90 x 10^4 at 1000 R.P.M.	To 30 x 10^4 Cycles at 100 R.P.M.					

°If Wire Terminations are used, Maximum No. of Poles can be Increased by a Factor of 3.
°°Less if Required, Specify.
†Depending on Circuitry

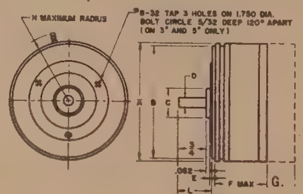
DIMENSIONS

MODEL	5015	715	115	1715	215	315	515
A	1/2	7/8	1 3/32	1 3/4	2	3	5
B°	.437	.7500	1.0300	1.5620	1.8750	2.8750	4.8750
C°	—	—	—	—	—	.7500	.7500
D°	.125	.1250	.1250	.2500	.2500	.2500	.2500
E	.060	.040	.040	.060	.060	.060	.060
F	.640	.635	.655	.985	.985	1.050	1.050
G	—	.250	.250	.465	.465	.500	.500
H		19/32	11/16	1 1/32	1 5/32	1 13/16	2 13/16
J	—	1/4	1/4	1/4	1/4	1/4	1/4
K	—	3/8	3/8	3/8	3/8	3/8	3/8

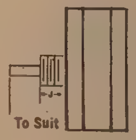
°Tolerance +.0000
—.0005

°°Axial Rear Wire Terminations

Commutators can be supplied in ganged assemblies with potentiometers.

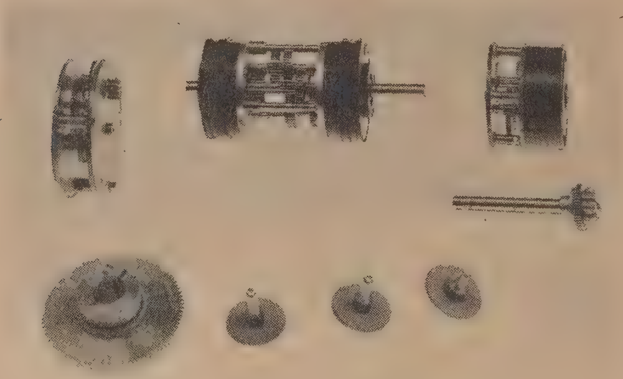

H MAXIMUM RADIUS
8-32 TAP 3 HOLES ON 1.750 DIA. BOLT CIRCLE 5/32 DEEP 120° APART (ON 3" AND 5" ONLY)
D
A
B
C
3/4
.062
E
L
F MAX
G.

STANDARD



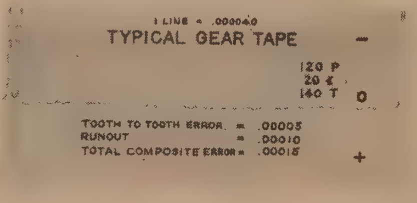
BUSHING MOUNT

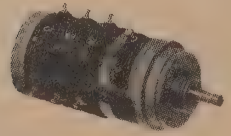
ELECTROMECHANICAL ASSEMBLIES



Gears, speed reducers, and slip clutches, as shown in this photo are typical examples of CIC design and manufacturing capability for precision components custom built to your requirements.

CIC uses modern gear cutting machinery such as Mikron 79 and Barber Colman-6-10 (not shown) to produce ultra precision gears.





Precision electroclutch-pot shown is typical of clutches, brakes, motors, switches, and commutators which CIC supplies as tested and guaranteed assemblies.

CIC COMPUTER INSTRUMENTS CORPORATION/92 MADISON AVE., HEMPSTEAD, N.Y. 11550/516-483-8200

BLISS GAMEWELL

A GULF + WESTERN COMPANY

MEET MIL SPECS AS THEY APPLY

CUSTOM-ENGINEERED WIRE WOUND AND CONDUCTIVE PLASTIC PRECISION POTENTIOMETERS

...FOR YOUR MOST DEMANDING APPLICATIONS—Higher standards of performance at competitive prices are being demanded of today's electronic equipment. How does the precision pot stack up in this situation? It almost becomes a necessity. With Gamewell you specify exactly what you want — *no* more and *no* less! Gamewell precision pots pay off in the long run. They're tough. They're dependable. And they're remarkably precise. In most cases they actually cost less, when all is considered, than so called "economy" pots. Choice? You tell us. We can do — note the broad line of types shown below. These types represent but a small segment of the scope of Gamewell's *craftsmanship.* Let your pot requirements take a turn for the better; call in your local Gamewell representative today or write for a copy of our new detailed pot catalog.

WIRE WOUND OR CONDUCTIVE PLASTIC ELEMENT, SINGLE-TURN METAL-CASED MODELS LINEAR—NON-LINEAR

MODEL (WW)		8WB	8W	10WB	12W	14WB	14W	17W	17SC*	17SC-2BR*	18W	18SC*
MODEL (CP)		—	8C	—	—	—	14C	17C	—	—	18C	18C —
Size		½	½	⅝	¾	⅞	⅞	1 1/16	1 1/16	1 1/16	1⅛	1⅛
Resistance Range	WW	50-55K	50-55K	50-40K	100-50K	100-100K	100-100K	125-120K	1K-35K	1K-35K	140-140K	300-20K Per Quad
Ohms (Std.)	CP	—	500-20K	—	—	—	500-20K	1K-20K	—	—	1K-20K	
LINEARITY (Std.)	WW	3.0	1.0	0.5	0.5	1.0	0.5	0.5	1% Conf.	1.5% Conf.	0.5	1% Conf.
±%	CP	—	1.0	—	—	—	0.5	0.5	—	—	0.5	Spec.

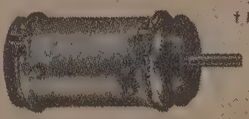
MODEL (WW)		21W	23W	26W	28W	30XS*	30XS ¼*	32W	32SC*	32MP†	48W	48SC*
MODEL (CP)		21C	23C	26C	28C	—	—	32C	32C —	32C —	48C	48C —
Size		1 5/16	1 7/16	1⅝	1¾	1⅞	1⅞	2	2	2	3	3
Resistance Range	WW	160-145K	200-155K	200-175K	250-200K	2K-80K	2K-80K	300-225K	500-60K Per Quad	100-475K	500-260K	1K-80K Per Quad
Ohms (Std.)	CP	1K-20K	1K-25K	1K-30K	1K-40K	—	—	1K-50K		1K-50K	5K-100K	
Linearity (Std.)	WW	0.3	0.25	0.25	0.25	0.7° Conf.	0.7° Conf.	0.15	0.6° Conf.	0.3	0.1	0.5° Conf.
±%	CP	0.5	0.4	0.35	0.35	—	—	0.3	Spec.	0.3	0.25	Spec.

Note: Precision units are usually supplied with servo mounting flangers — bushing or 3-hole mountings are available when specified.

** SINE COSINE MODELS*
† MODULAR TYPE

WIRE WOUND MULTITURN MODELS — 10 TURN 3 AND 5 TURNS AVAILABLE

MODELS	140	230	290
Size (OD-Inches)	⅞	1 7/16	1 13/16
Resistance Range (Ohms)	125-300K	250-400K	400-600K
Linearity (Std.) ±	±0.25%	±0.2%	±0.15%



WIRE WOUND SINGLE TURN PLASTIC-CASED MODELS

MODELS	A or B	A or B	A or B	A or B	A or B
Size (OD-Inches)	1¼	1⅝	2	3	5
Resistance Range (Ohms)	100-75K	150-110K	175-150K	300-260K	500-600K
Linearity (Std.) % ±	±0.25	+0.2	±0.15	±0.1	±0.07

"A" means non-phaseable "B" means phaseable (clamp rings)

SINE COSINE MODELS

MODEL	RL11*	RL14*
Size	2 5/16	4⅜
Resistance	16K (Std.	34.4K (Std.)
Conf. (P to N)	±0.8%	±0.6%

* Sine cosine types (Not illustrated)

All above models may be ganged when specified except for RL models

SINGLE AND DUAL TRANSLATORY MODELS

LINEAR

NON-LINEAR

Model 20T square case 1¼" — advise stroke length needed.

Stroke (Inch)	1.25	2.50	5.00	8.00	12.00	14.00	16.00
OA Length (Inch)	2.5	3.75	6.25	9.25	13.158	16.50	17.338
Resistance Range	100 Ohms to 40K Ohms/Inch for All Strokes ±5% Std.						
Linearity-Conf.	Independent Lin. ±1% Std. — Non-Linear Conf. ±0.5% Std.						

Conductive plastic and wire wound elements available in translatory models. ***"Elements Only" to Your Specification. Send for Details.***

FIRST WHEN PRECISION COUNTS!

BLISS-GAMEWELL • 1238 CHESTNUT STREET • NEWTON, MASSACHUSETTS 02164 • Telephone (617) 244-1240 • TWX 617-332-2527

WESTON-DAYSTROM®

HIGH TEMP. WIREWOUND SQUARETRIM®

210-00HS

218-00HS

255-00HS

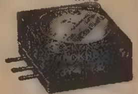
255-72HS

† 313-00HS

318-00HS

374-00HS

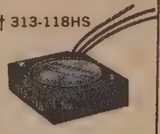
374-72HS



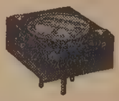
MILITARY GRADE WIREWOUND SQUARETRIM®

*MEET MIL-R-27208A
50 Ω THRU 20K
**MEETS MIL-R-39015
JAN M39015/2-(RC)PM
Substitute Resistance Code for (RC) when ordering

† 313-118HS



318-105HS



318-160HS

GENERAL PURPOSE WIREWOUND SQUARETRIM®

200-66HS

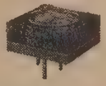
201-00HS

215-00HS

215-72HS

† 300-66HS

301-00HS



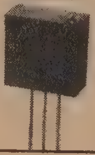
370-00HS

303-66H

553-00HS

554-00HS

555-00HS

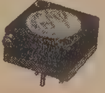


555-72HS

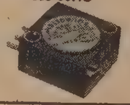
HI-STABILITY CERMET ELEMENT

386-00HS

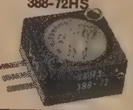
387-00HS



388-00HS



388-72HS



INDUSTRIAL COMMERCIAL WIREWOUND-TRIMMING

501-00S

502-00S

502-72S

504-00S

505-00S

515-00S

550-00S

551-00S

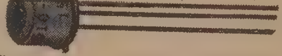
552-00S

552-72S

WIREWOUND SINGLE TURN HIGH TEMP.

510-60HS

510-00HS



510-75HS

MODEL No. NOTES 1, 2 & 3	TERMINALS NOTE 4
210-00HS	L
218-00HS	P
255-00HS	W
255-72HS	X
313-00HS	L
318-00HS	P
374-00HS	W
374-72HS	X
313-118HS*	L
318-105HS*	P
318-160HS**	P
200-66HS	L
201-00HS	P
202-00HS	P
215-00HS	W
215-72HS	X
300-66HS	L
301-00HS	P
312-00S	P
370-00HS	W
370-72HS	X
303-66H	L
553-00HS	L
554-00HS	P
555-00HS	W
555-72HS	X
386-00HS	L
387-00HS	P
388-00HS	W
388-72HS	X
501-00S	P
502-00S	W
502-72S	X
504-00S	P
505-00S	P
515-00S	P
550-00S	L
551-00S	P
552-00S	W
552-72S	X
510-60HS	S
510-00HS	P
510-75HS	S

NOTES:

1. Model No's. include 2 digits which designate standard slotted screw: Examples 210-00 and 300-66.
2. Models which include 'H' in the P/N are available with the MIL-Std. 202 method 106 moisture resistance characteristic: Example 310-00H.
3. Models which include 'S' in the P/N are available with slip clutch stop and idle feature: Example 313-00HS.
4. 'L' insulated flexible leads, 'P' printed circuit pins base mounted, 'W' printed circuit pins edge mounted 180° from screw, 'X' printed circuit pins edge mounted 90° from screw, 'S' solder lugs.
5. Factory quote for higher or lower resistance values.
6. 'H-Cyclic' (optional feature) meets MIL-Std. 202 method 106 and 'B-Steady' state meets MIL-Std. 202 method 103.

POTENTIOMETERS

SIZE INCHES	THICK INCHES	STAND. RES. RANGE (OHMS) NOTE 5	RES. TOL.	PWR. RATING (WATTS)	MAX. OPER. TEMP. FROM −55 DEG. C.	HUMIDITY NOTE 6	STOPS NOTE 3	MECH. ADJUST. (TURNS)
.375 x .375	.150	10Ωto 50K	±5%	1 at 50°C	175	H-Cyclic	Available	25
.375 x .375	.150	10Ωto 50K	±5%	1 at 50°C	175	H-Cyclic	Available	25
.410 x .375	.150	10Ωto 50K	±5%	1 at 50°C	175	H-Cyclic	Available	25
.410 x .375	.150	10Ωto 50K	±5%	1 at 50°C	175	H-Cyclic	Available	25
.500 x .500	.187	10Ωto 50K	±5%	1.5 at 50°C	200	H-Cyclic	Available	42
.500 x .500	.255	10Ωto 50K	±5%	1.5 at 50°C	200	H-Cyclic	Available	42
.500 x .500	.260	10Ωto 50K	±5%	1.5 at 50°C	200	H-Cyclic	Available	42
.500 x .500	.260	10Ωto 50K	±5%	1.5 at 50°C	200	H-Cyclic	Available	42
.500 x .500	.187	10Ωto 50K	±5%	.75 at 85°C	150	Mil-R-27208	Mil-R-27208	42
.500 x .500	.255	10Ωto 50K	±5%	.75 at 85°C	150	Mil-R-27208	Mil-R-27208	42
.500 x .500	.255	100 to 20K	± 5%	.75 at 85°C	150	MIL-R-39015	MIL-R-39015	42
.375 x .375	.150	10Ωto 50K	±5%	1 at 50°C	150	H-Cyclic	Available	25
.375 x .375	.150	10Ωto 50K	±5%	1 at 50°C	150	H-Cyclic	Available	25
.375 x .375	.180	10Ωto 50K	±5%	1 at 50°C	150	H-Cyclic	Available	25
.410 x .375	.150	10Ωto 50K	±5%	1 at 50°C	150	H-Cyclic	Available	25
.410 x .375	.150	10Ωto 50K	±5%	1 at 50°C	150	H-Cyclic	Available	25
.500 x .500	.187	10Ωto 50K	±5%	1 at 50°C	150	H-Cyclic	Available	42
.500 x .500	.255	10Ωto 50K	±5%	1 at 50°C	150	H-Cyclic	Available	42
.500 x .500	.195	10Ωto 50K	±5%	1 at 50°C	150	B-Steady	Available	42
.500 x .500	.260	10Ωto 50K	±5%	1 at 50°C	150	H-Cyclic	Available	42
.500 x .500	.260	10Ωto 50K	±5%	1 at 50°C	150	H-Cyclic	Available	42
.750 x .750	.280	10Ωto 150K	±5%	1.5 at 50°C	150	H-Cyclic	Not Available	42
.500 x .500	.187	10Ωto 50K	±5%	1 at 70°C	150	MIL-R-27208	Standard	35
.500 x .500	.22	10Ωto 50K	±5%	1 at 70°C	150	MIL-R-27208	Standard	35
.500 x .500	.22	10Ωto 50K	±5%	1 at 70°C	150	MIL-R-27208	Standard	35
.500 x .500	.22	10Ωto 50K	±5%	1 at 70°C	150	MIL-R-27208	Standard	35
.500 x .500	.187	1K to 500K	±20%	.75 at 70°C	150	MIL-R-22097	Available	42
.500 x .500	.255	1K to 500K	±20%	.75 at 70°C	150	MIL-R-22097	Available	42
.500 x .500	.260	1K to 500K	±20%	.75 at 70°C	150	MIL-R-22097	Available	42
.500 x .500	.260	1K to 500K	±20%	.75 at 70°C	150	MIL-R-22097	Available	42
.312 x .312	.175	10Ωto 20K	±5%	.6 at 70°C	150	B-Steady	Available	15
.312 x .312	.200	10Ωto 20K	±5%	.6 at 70°C	150	B-Steady	Available	15
.312 x .312	.200	10Ωto 20K	±5%	.6 at 70°C	150	B-Steady	Available	15
.312 x .312	.175	10Ωto 20K	±5%	.6 at 70°C	150	B-Steady	Available	1
.312 x .312	.190	10Ωto 20K	±5%	.6 at 70°C	150	B-Steady	Available	1
.525 Dia.	.317 (ref.)	10Ωto 50K	±5%	1 at 55°C	150	B-Steady	Solid Stop	1
.500 x .500	.187	10Ωto 50K	±5%	1 at 70°C	150	A-Steady	Standard	35
.500 x .500	.22	10Ωto 50K	±5%	1 at 70°C	150	A-Steady	Standard	35
.500 x .500	.22	10Ωto 50K	±5%	1 at 70°C	150	A-Steady	Standard	35
.500 x .500	.22	10Ωto 50K	±5%	1 at 70°C	150	A-Steady	Standard	35
.360 Dia.	.255	10Ωto 30K	±5%	1 at 50°C	175	H-Cyclic	Solid Stop	1
.360 Dia.	.255	10Ωto 30K	±5%	1 at 50°C	175	H-Cyclic	Solid Stop	1
.360 Dia.	.255	10Ωto 30K	±5%	1 at 50°C	175	H-Cyclic	Solid Stop	1

†Available with mounting brackets. To order, add suffix 'P'. Example: 300-66HSP

Specifications subject to change without notice.

Weston Components Division
Weston-Archbald • Archbald, Pa. 18403
a Schlumberger company
WESTON® *prime source for precision... since 1888*

Sakae Tsushin Kogyo Co Ltd, Tokyo	Japan
Samarius, Inc, Derby	Conn
San Fernando Electric Mfg Co, San Fernando	Cal
Spectrol Electronics Corp, City of Industry	Cal
SP Elettronica SpA, Pero, Milan	Italy
Taylor Instrument Cos, Rochester	N Y
Technology Instrument Corp Sub Bowmar Instr Corp Newbury Park	Cal
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
Vari-Ohm Electronics Inc, E Northport	N Y
Vogue Instrument Corp, Plainview	NY
Voltronics, Inc, Chicago	Ill
Waters Mfg Inc, Wayland	Mass
Weston Components Div, Archbald	Pa
Winslow Tele-Tronics Inc, Asbury Park	NJ

POTENTIOMETERS--WIREWOUND RECTILINEAR

AMPHENOL, JANESVILLE	**WISC**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
BLISS-GAMEWELL, DIV E W BLISS CO, NEWTON UPPER FALLS MASS	**ADV PG 491**
CTS CORP, ELKHART	**IND**
DALE ELECTRONICS INC, COLUMBUS, NEB	**ADV PGS 486,487**
JAPAN RESISTOR MFG CO LTD, TOKYO	**JAPAN**
WESTON COMPONENTS DIV, ARCHBALD PA	**ADV PGS 492,493**
Ace Electronics Associates, Inc, Somerville	Mass
Amphenol, Janesville	Wisc
Astro Electronics, Inc, Fullerton	Cal
Atohm Electronics Military & Commercial Prods Div Burbank	Cal
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Bliss-Gamewell, Div E W Bliss Co Newton Upper Falls	Mass
Bourns Inc Instrument Div, Riverside	Cal
Bourns Inc Trimpot Div, Riverside	Cal
Brys Instrument Corp, Brooklyn	N Y
Carter Mfg Corp, Hudson	Mass
Clarostat Mfg Co Inc, Dover	N H
CTS Corp, Elkhart	Ind
CTS Electronics Inc, South Pasadena	Cal
Dale Electronics Inc, Columbus	Neb
Digilog Electronics Corp, Seattle	Wash
Duncan Electronics Inc Midgi-Trim Div San Bernardino	Cal
Gulton Industries Inc Controls & Instru Grp Costa Mesa	Cal
Humphrey Inc, San Diego	Cal
IRC Div TRW Inc, Philadelphia	Pa
ITT Europe Inc Components Gp, Brussels 1	Belgium
Japan Resistor Mfg Co Ltd, Tokyo	Japan
Javex Electronics, Cherry Valley	Cal
Kinetics A Teledyne Co, Solana Beach	Cal
Link Group Gen Precision Sys Inc, Binghamton	N Y
Mektron Div, Calif Gen Corp Inc, Chula Vista	Cal
New England Instrument Co, Natick	Mass
Newport Instrument Corp, Newport Beach	Cal
Sakae Tsushin Kogyo Co Ltd, Tokyo	Japan
Samarius, Inc, Derby	Conn
S E C I Soc Elettrotechica Chimica Italiana Milano	Italy
Technology Instrument Corp Sub Bowmar Instr Corp Newbury Park	Cal
Vari-Ohm Electronics Inc, E Northport	N Y
Voltronics, Inc, Chicago	Ill
Waters Mfg Inc, Wayland	Mass
Weston Components Div, Archbald	Pa

POTENTIOMETER WIRE SEE WIRE--RESISTANCE

POTS--SOLDER SEE TOOLS

POTTING COMPOUND DISPENSERS SEE DISPENSERS

POTTING COMPOUNDS SEE RESINS--ENCAPSULATING

POTTING RESINS SEE RESINS--ENCAPSULATING

POWER AMPLIFIERS SEE AMPLIFIERS--A-F--MAGNETIC R-F

POWER BRIDGES SEE BRIDGES

POWER CONVERTERS SEE CONVERTERS--A-C OUTPUT

POWER-FACTOR METERS SEE METERS--POWER-FACTOR

POWER GENERATORS SEE GENERATORS--POWER

POWER-LEVEL METERS SEE METERS--POWER-LEVEL

POWER METERS SEE WATTMETERS

POWER SUPPLIES, A-C--REGULATED

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE, N Y	**ADV PG 498**
AMP INCORPORATED, HARRISBURG	**PA**
C M L INC, PLAINFIELD, N J	**ADV PGS 496,497**
ELECTRONIC MEASUREMENTS DIV ROWAN CONTROLLER CO OCEANPORT, N J	**ADV PG 498**
GAR ENTERPRISES INC, PASADENA	**CAL**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON N Y	**ADV PG 495**
INTERELECTRONICS CORP, CONGERS, N Y	**ADV PG 535**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4THOCOVER**
MAGNETICS INC, BUTLER	**PA**
MELCOR ELECTRONICS CORP, FARMINGDALE	**N Y**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
OPAD ELECTRIC CO, INC, NEW YORK	**N Y**
PLASTIC CAPACITORS INC, CHICAGO	**ILL**
SORENSEN OPERATION, RAYTHEON CO., NORWALK	**CONN**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
SUPERIOR ELECTRIC CO THE, BRISTOL	**CONN**
TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA	**N Y**
WAGNER ELECTRIC CORP, TUNG-SOL DIV, LIVINGSTON	**N J**
WANLASS ELECTRIC CO, SANTA ANA, CAL	**ADV PGS 526,527**
Abbott Transistor Labs, Inc, Los Angeles	Cal
Acme Electric Corp, Cuba	N Y
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Advanced Energy Conversion, Menlo Park	Cal
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Alcatel, Paris 8eme	France
Allis-Chalmers Mfg Co, Milwaukee	Wis
Ameco Inc, Phoenix	Ariz
American Rectifier Corp, College Point	N Y
American Systems, Inc, Van Nuys	Cal
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Ampex Corp, Redwood City	Cal
AMP Incorporated, Harrisburg	Pa
Amplifier Corp of America, Westbury	N Y
Applied Electronics Corp of N J, Metuchen	N J
Armec Corp, Huntington Station	N Y
Arnold Magnetics Corp, Los Angeles	Cal
Astro-Metrix Corp, Burbank	Cal
Atlas Controls Div Atlas Engrg Co Inc, Dorchester	Mass
Atomic Labs, Div Cenco Instr Corp, Chicago	Ill
Austron, Inc, Austin	Tex
Automation Services Inc, Endicott	N Y
Avtel Corp, Covina	Cal
Ballastran Corp, Fort Wayne	Ind
Barden Co, Hermosa Beach	Cal
Barwood Electronics, Inc, Glendale	Cal
Basler Electric Co, Highland	Ill
B & B Motor & Control Corp, New York	N Y
Bendix Corp Electric Power Div, Eatontown	NJ
Bergen Lab, Inc, Paterson	N J
Berkeley Nucleonics Corp, Berkeley	Cal
Bogue Electric Mfg Co, Paterson	N J
Borders Electronics Co Inc, Pennsauken	N J
Borg-Warner Controls Div Borg-Warner Corp Santa Ana	Cal
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
California Instruments Corp, San Diego	Cal
Cal-Power Corp, El Segundo	Cal
Canadian Research Institute, Don Mills	Ont
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Central Scientific Co, Chicago	Ill
Chu Associates Inc, Littleton	Mass
Clare-Electroseal Corp, Des Plaines	Ill
C M L Inc, Plainfield	N J
Cohu Electronics Inc, San Diego	Cal
Coil Co of America Inc, Northvale	N J
Collins Corp, G L, Long Beach	Cal
Components Specialties Inc, Freeport	N Y
Condor Industrial Corp, West Chicago	Ill
Continental Device Corp, Hawthorne	Cal
Control Circuits Inc, Middletown	Conn
Cooke Vacuum Products Inc, South Norwalk	Conn
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Custom Control Mfg Inc, Merriam	Kan
Darcy Industries Inc, Behlman Div, Santa Monica	Cal
Daytron Inc, Mountain View	Cal
Del Electronics Corp, Mt Vernon	N Y
Dentronics, Inc, Hackensack	N J
Dinion Coil Co Inc, Caledonia	N Y
Dresser Systems, Inc, Houston	Tex
Dynamco Ltd, Chertsey Surrey	Eng
Eastern Dynamics, Inc, Bloomfield	Conn
E G & G Inc Custom Equip Div, Bedford	Mass
E G & G Inc, Electronic Prods Div, Boston	Mass
Electronic Development Corp, Boston	Mass
Electronic Measurements Div Rowan Controller Co Oceanport	N J
Electronic Research Associates Inc, Cedar Grove	N J
Electronic Specialty Co, Los Angeles	Cal
Electro-Pacific Inc, Goleta	Cal
Elgar Corp, San Diego	Cal
Elgin Electronics Inc, Erie	Pa
EMP Electronics Inc, Tempe	Ariz
Euro Cedag, Milan	Italy
Extrudonics Inc, New Brunswick	N J
Fansteel Metallurgical Corp, North Chicago	Ill
Fisher Engineering Inc, Huntington	Ind
Freed Transformer Co Inc, Brooklyn	N Y
Gar Enterprises Inc, Pasadena	Cal

Power Supplies to Your Specifications

It is the unique power supply problem for which Peerless has the solution whether your operating requirements are commercial or Mil. Spec. Peerless experience covers both DC and AC supplies. AC inputs are normally 60 to 400 Hz. DC outputs extend to 30,000 V.D.C. at low current. Regulation values normally range from 0.25% to 10% no load to full load with peak-to-peak ripple voltages less than 1% of output voltage within this range. Peerless has designed and manufactured power supplies with two or more outputs, that operate in ambients up to 125°C and withstand shock to 50G.

For complete information, please write

PEERLESS
ELECTRICAL PRODUCTS
A Division of LTV Ling Altec, Inc., Anaheim, California 92803

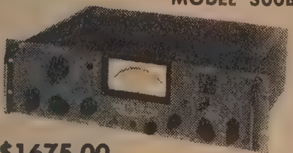
PRECISION ELECTRONIC EQUIPMENT

PHAZOR The operation of these instruments is based upon a newly developed multiplying device. When S and R represent the input and reference signals the meter deflection is equal to $\frac{1}{T}\int_0^T S\cdot R\,dt$

VECTOR V.T.V.M.

- INPHASE
- QUADRATURE
- TRUE RMS
- PHASE ANGLE
- NULL MEASUREMENTS

MODEL 300B



$1675.00

- Direct Reading Phase Angle
- Wide Frequency Range
- Rejection of Noise and Harmonics without Filters

SPECIFICATIONS

INPUT VOLTAGE:	1MV to 300 V
INPUT IMPEDANCE:	10 megohm
VOLTAGE ACCURACY:	2% Full Scale
PHASE ACCURACY:	±1 degree
FREQUENCY RANGE:	15 CPS to 30KC
REF. VOLTAGE:	5V to 220V
NULL SENSITIVITY:	10 Microvolts
HARM. REJECTION:	40 DB without filters
RACK PANEL SIZE:	19″ W x 5¼″ H

PHASE METER

A PRECISION PHASE MEASURING INSTRUMENT

MODEL 200A

$440.00

APPLICATIONS: Measures phase shift in transformers, amplifiers, etc. • Readings not affected by noise and harmonics • Measures in-phase or quadrature voltage components • .01 degree can be measured employing special techniques.

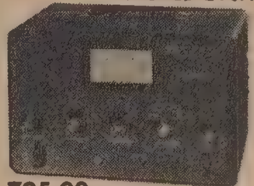
SPECIFICATIONS

ACCURACY	±2 degrees
FREQUENCY	20 CPS to 20 KC

PHASE METER

- DIRECT READING
- EASY TO USE
- READING NOT AFFECTED BY NOISE AND HARMONICS

MODEL 210AB



$ 795.00

This instrument retains the essential feature of other Phazor models in that accurate measurements can be made even though signals may be complicated by noise and harmonics. The quadrant is read directly on a projection readout. The angle within the quadrant is displayed on the meter.

SPECIFICATIONS

ACCURACY:	±2 degrees
FREQUENCY RANGE:	15 CPS—30KC
SENSITIVITY:	5 millivolts

NULL METER

A PHASE SENSITIVE NULL DETECTOR

MODEL 100A

$330.00

APPLICATIONS: A sensitive null meter for use in conjunction with bridge circuits • Simplified and precise zeroing of synchro devices • Nulling wherever null voltages may be complicated by noise and harmonics.

SPECIFICATIONS

SENSITIVITY	6 millivolts off-scale defl.
FREQUENCY	30 CPS—10 KC
SELECTIVITY	40 DB down on all noise and harmonics

MODEL 160

$560.00

Powertron ELECTRONIC GENERATORS

These A.C. Power Supplies consist of Precision Fixed or Variable Frequency Oscillators, coupled to High Gain Feedback amplifiers. Current and Voltage Feedback is employed in most units to provide low distortion and load regulation. All units are supplied in cabinets or rack enclosures and include forced air cooling where required.

SPECIFICATIONS (Model 160, Illustrated)

POWER OUTPUT:	160VA
FIXED FREQUENCY:	350 CPS — 450 CPS
EXTERNAL FREQUENCY:	45 CPS to 10KC
OUTPUT VOLTAGE:	0 - 130V R.M.S.
LOAD REGULATION:	0.5%
OUTPUT DISTORTION:	0.5%
INPUT POWER:	115V 60 CPS

- A COMPLETE LINE OF 1 Ø, 2 Ø, AND 3 Ø MODELS ARE AVAILABLE WITH OUTPUT POWER RATINGS FROM 3VA TO 9KVA.
- FREQUENCY ACCURACIES TO .001%.
- AMPLITUDE STABILITY TO .1%.

WRITE FOR COMPLETE POWERTRON CATALOG

IMPEDANCE COMPARATORS

PRECISE, RELIABLE AND RAPID COMPARISON OF COMPONENTS

MODEL 60

$ 250.00

The circuit consists of a bridge, two arms of which are precision resistors matched to .01%. The two remaining arms are the standard and the component under test. Any voltage resulting from bridge unbalance is amplified and fed to a phase discriminator. The percentage deviation is read directly in both sign and magnitude on a meter.

FEATURES: High Accuracy & Stability • Fast Response • Linear Meter Scales • Self Calibrated

SPECIFICATIONS

FREQUENCY	60 CPS
FULL SCALE RANGES	±1%, 5%, 10%, 20%
IMPEDANCE LIMITS:	
Resistance	5 ohms to 5 megohms
Capacitance	500 mmfd. to 500 mfd.
Inductance	15 milihy to 10,000 hy

MODEL 1010

$ 385.00

SPECIFICATIONS

FREQUENCY	Either 1 KC or 10 KC
FULL SCALE RANGES	±5%, 10%, 20%
IMPEDANCE LIMITS:	
Resistance	5 ohms to 5 megohms
Capacitance	50 mmfd. to 10 mfd.
Inductance	100 microhy to 100 hy

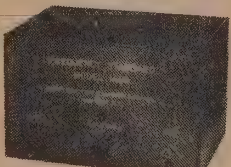
OTHER MODELS AVAILABLE
MODEL 1000—1000 CPS—±1%, 5%, 10%—$395.00
MODEL 1025—1KC, 25KC—±5%, 10%, 20%—$395.00

WRITE FOR CATALOGS

FREQUENCY STANDARD

MODEL 1400

A SELF-CONTAINED FORK STABILIZED FREQUENCY SOURCE



- Accurate
- Stable
- Low Distortion
- Variable output voltage

SPECIFICATIONS

ACCURACY	Available to .005%
DISTORTION	Less Than 1%
FREQUENCY	400 CPS or 1000 CPS (Other Freq. Avail.)
Dimension	6x9x6 inches
Power Supply	115 volts, 60 CPS

$ 290.00

OTHER MODELS AVAILABLE

MODEL 600 LOW FREQUENCY STANDARD

DESCRIPTION: Utilizes scaling circuits to provide tuning fork accuracies at frequencies below the range of precision tuning forks.

AUTOMATIC HI-POT TESTER

FAST, ACCURATE, DIELECTRIC TESTING FOR MULTI-CONDUCTOR DEVICES

MODEL A

DESCRIPTION: The function of this instrument is to apply a known voltage between the various conductors under test for a specific period of time and to indicate breakdowns when and where they occur. High sensitivity to breakdown is provided by a specially designed relay in series with the high voltage.

$2400.00

SPECIFICATIONS

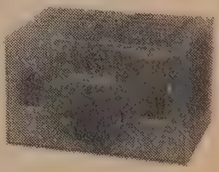
TEST VOLTAGE	0-2000 Volts RMS
TEST TIME	2-120 seconds
NUMBER OF TEST TERMINALS	11

PHASE SHIFTER

MODELS PS 60 and PS 400

FOR MEASUREMENT AND COMPARISON OF PHASE ANGLES OR AS A SECONDARY PHASE STANDARD.

$350.00



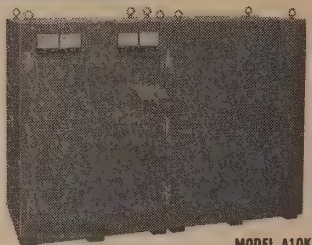
RANGE	0-360° (continuously variable)
ACCURACY	± 1 degree (Higher accuracies available)
FREQUENCY	60 CPS for PS 60 400 CPS for PS 400 (other frequencies available)

ITECO **INDUSTRIAL TEST EQUIPMENT CO.** • 20 Beechwood Ave., Port Washington, N.Y.

wide band power amplifiers for audio and ultrasonic testing

SPG series
1KVA to 200KVA

MODEL B5K


MODEL A10K

MODEL	OUTPUT POWER KVA	LOAD POWER FACTOR RANGE AT RATED KVA	STANDARD OUTPUT IMPEDANCE TAPS OHMS	DIMENSIONS* H x W x D (APPROX.) INCHES	WEIGHT (APPROX.) LBS.	TYPE OF COOLING
A1K	1KVA	±0.4 to Unity	4/16/36/64/144/576	22¾ x 19 x 20½	345	FORCED AIR
A2K	2	±0.4 to Unity	4/16/36/64/144/576	22¾ x 19 x 20½	400	
A3K	3	±0.1 to Unity	4/16/36/64/144/576	53 x 27 x 26	750	
S5K	5	±0.4 to Unity	16/64/256	62 x 17 x 17	800	
B5K	5	±0.1 to Unity	8/32/72/128/288/1152	45 x 24 x 24	850	
A10K	10	±0.1 to Unity	16/64/144/256/576/2304	47 x 68 x 24	1,700	
A20K	20	±0.3 to Unity	16/64/144/256/576	47 x 68 x 24	2,100	
VA30K	30	±0.1 to Unity	16/64/144/256/576	72 x 72 x 36	3,000	VAPOR COOLED
VA50K	50	±0.4 to Unity	16/64/144/256/576	72 x 72 x 36	4,200	
VA100K	100	±0.1 to Unity	16/64/144/256	2 sections, ea.: 90 x 72 x 57	9,400	
VA200K	200	±0.1 to Unity	16/64/144/256	3 sections, ea.: 90 x 72 x 57	14,100	

*Models A1K and A2K are standard 19" rack mount units; bench adapters available on special order. All other models are furnished complete in cabinet enclosures. Models A3K, S5K and B5K include casters.

- **Full power into reactive loads.**
- **Low distortion.**
- **±0.5 db frequency response.**
- **Ideal for CW and PULSED duty.**
- **Selectable output taps for matching wide range of load impedances.**
- **Rugged construction for marine or airborne installations.**

APPLICATIONS

SONAR TESTING — HIGH INTENSITY ACOUSTIC SYSTEMS
VIBRATION TESTING — INDUSTRIAL PROCESS CONTROL

SPECIFICATIONS

OUTPUT FREQUENCY: Standard full power frequency range is 100-10,000 cps except for Model A3K which has a 200-15,000 cps range. Other frequency ranges between 5 cps and 200KC are available on a custom basis.

OUTPUT CONFIGURATION: 2 wire floating.

DUTY CYCLE: Continuous duty at full rated output power. Please consult CML for pulsed or intermittent duty ratings.

FREQUENCY RESPONSE: ±0.5 db, 100-10,000 cps. Model A3K ±0.5 db 200-15,000 cps.

HARMONIC DISTORTION: Less than 3%, 100-10,000 cps; less than 1.5% mid-band.

HUM AND NOISE: At least 60 db below rated output tap voltage.

OUTPUT IMPEDANCE SELECTION: Taps are selected by link change. Front panel tap select switches are available at additional charge.

INPUT SERVICE: Models rated 1KVA to 20KVA require 208/230 volts, 3 phase, 60 cycles. Larger models require 440/460/480 volts, 3 phase, 60 cycles — higher input voltages available on special order
SIGNAL INPUT VOLTAGE: 1.0 volt RMS for rated output.
SIGNAL INPUT IMPEDANCE: 600 ohms, single ended.
KEYED OPERATION: All models are suitable for operation with keyed input signals.
METERING: All models include complete front panel metering. In addition, models rated at 5KVA to 200KVA have recessed front panel section with test points for critical circuit parameters — to keep down-time to a minimum.
PROTECTIVE CIRCUITS: CML instantaneous overload circuitry protects both amplifier and load. Rapid front panel reset permits return to normal operation with minimum down-time.
FINISH: Panels are satin green enamel; cabinets are green armorhide. Special colors are available on a custom basis.

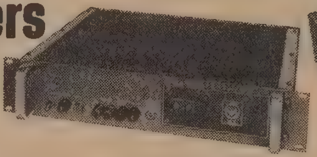
MODEL S5K

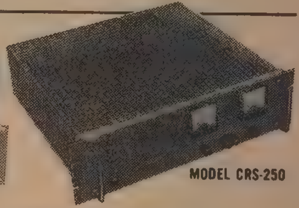
---

solid state frequency converters

CRS series
50/60 cycles to
400 cycles

LRS series
400 cycles to
60 cycles


MODEL CRS-100A


MODEL CRS-250

CRS series
50/60 CYCLE TO 400 CYCLE CONVERTERS

MODEL	OUTPUT VA	*45-65 CYCLE INPUT SINGLE ø VOLTS	DIMENSIONS H x W x D	WEIGHT (APPROX.) LBS.
CRS-50A	50	105-125	3½ x 19 x 14	24
CRS-100A	100	105-125	3½ x 19 x 14	26
CRS-150A	150	105-125	5¼ x 19 x 10	30
CRS-250	250	105-125	5¼ x 19 x 15	80
CRS-500	500	105-125	10½ x 19 x 16	115
CRS-1000	1000	105-125	15¾ x 19 x 16	150
CRS-2000	2000	200-240V 3ø	26¼ x 19 x 20	260

*350-450 Cycle input also available on a special basis.

- **50VA to 2KVA output.**
- **Low distortion sine wave output.**
- **Rugged construction for airborne, marine and ground support installations.**
- **0.5% voltage & frequency regulation.**
- **Full output power into both leading & lagging power factor loads.**
- **High efficiency switched mode operation.**
- **TRANSISTORIZED POWER STAGES rather than Silicon Controlled Rectifiers — thus insuring positive, controlled turn-off & turn-on characteristics for reliable, continuous operation.**

LRS series
400 CYCLE TO 60 CYCLE CONVERTERS

MODEL	OUTPUT VA	**350-450 CYCLE INPUT SINGLE ø VOLTS	DIMENSIONS H x W x D	WEIGHT (APPROX.) LBS.
LRS-200	200	105-125	7 x 19 x 15	110
LRS-500	500	105-125	12¼ x 19 x 16	130
LRS-1000	1000	105-125	21 x 19 x 16½	250

**45-65 Cycle input also available on a special basis.

---

transistorized DC to AC power inverters

MNS series
MRS series
60 cycles output

DRS series
400 cycles output

MNS-100

- 50 to 2000VA output.
- Low distortion sine wave
- Highly regulated.
- Reliable.
- Quiet operation.
- Overload & short circuit protection.
- Protected against input polarity reversal.
- High efficiency.
- Input to output isolation.
- No auxiliary cooling required.

DRS-500

MNS series — 60 CPS
Output: 105/115/125 Volts rms, Single Phase.
Input: 22-30 Volts D. C.
Frequency Regulation: 0.5%.

MODEL	OUTPUT VA	DIMENSIONS H x W x D	NET WT. LBS. (APPROX.)
MNS-50	50	5 x 11 x 11	28
MNS-100	100	5 x 11 x 11	28
MNS-500	500	8 x 14 x 14	80
MNS-1000	1000	14 x 17 x 19	162

MRS series — 60 CPS
Output: 115 Volts rms, Single Phase.
Input: 22-30 Volts D. C.
Voltage & Frequency
Regulation: 0.5%

MODEL	OUTPUT VA	DIMENSIONS H x W x D	NET WT. LBS. (APPROX.)
MRS-500	500	12 x 14 x 14	150
MRS-1000	1000	14 x 17 x 19	175
MRS-2000	2000	17 x 17 x 22	300

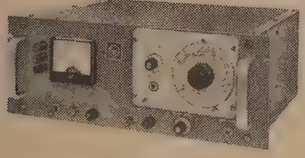
DRS series — 400 CPS
Output: 115 Volts rms, Single Phase.
Input: 22-30 Volts D. C.
Voltage & Frequency
Regulation: 0.5%.

MODEL	OUTPUT VA	DIMENSIONS H x W x D	NET WT. LBS. (APPROX.)
DRS-50	50	5 x 11 x 8	25
DRS-100	100	5 x 11 x 8	26
DRS-500	500	8 x 14 x 16	70
DRS-1000	1000	14 x 17 x 18	160

CML, Inc.
A Subsidiary of Tenney Engineering, Inc.
350 Leland Ave. • Plainfield, New Jersey 07062
Telephone (201) 754-5502 • TWX: 710-997-9529

CML

single phase AC power supplies



MODEL NS175-7A-V

NS series
70VA to 350VA

- **Fixed and adjustable output frequencies between 45 and 6000 cycles.**
- **Interchangeable Oscillators** . . . Oscillators are interchangeable via quick disconnect; frequency range and/or frequency stability may be changed at any time merely by replacing oscillator module.
- **Excellent frequency stability . . .** Fixed frequency models stable to ±0.001%. Variable frequency models stable to ±0.1%.
- **Low distortion sine wave output** . . . less than 1% total harmonic distortion between 300 and 1000 cycles, less than 3% between 45 and 6000 cycles.
- **Each model can be operated either as a precision AC power supply or as a wide band audio power amplifier.**
- **Constant voltage output** . . . 0.5% regulation for no load to full load change. Response time less than 50 microseconds.

REGULATED POWER AMPLIFIERS

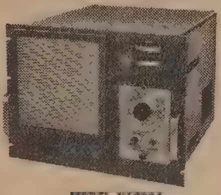
MODEL	OUTPUT POWER VOLT-AMPERES	*DIMENSIONS H x W x D	WEIGHT (APPROX.) LBS.
NS70	70	7" x 19" x 14"	53
NS120	120	7" x 19" x 14"	57
NS175	175	7" x 19" x 14"	60
NS350	350	8¾" x 19" x 20¾"	115

*Dimensions apply to standard rack mount models. Add ¾" to height if bench adapters are included.

STANDARD OSCILLATORS**

OUTPUT FREQUENCY	FREQUENCY STABILITY ±0.25%	±0.1%	±0.01%	±0.001%
	SUFFIX #			
Fixed 400 cps	—4A	—4B	—4E	—4G
Fixed 800 cps	—8A	—8B	—8E	—8G
Fixed 50 cps	—1A	—1B	—1E	Special Order
Fixed 60 cps	—2A	—2B	—2E	
Adjust. 350-450 cps	—5A	—5B	X	X
Adjust. 45-70 cps	—3A	—3B	X	X
Adjust. 300-2000 cps	—6A	—6B	X	X
Adjust. 45-6000 cps	—7A	X	X	X

**AUDIO AMPLIFIER ONLY: Each model is also available as an audio power amplifier only (without a built-in oscillator) with a full power range of 45-6000 cps. All standard models (with or without oscillator) include an input signal jack for use with external signal source. Specify the Basic Power Supply Model and Suffix # (—JA) if oscillator is not required.



MODEL N1000A
With SG-17A Plug-in Oscillator

NA series
500VA to 15KVA

The NA SERIES of AC POWER SUPPLIES are exceptionally flexible sources of audio power. Each power supply consists of a **REGULATED AUDIO POWER AMPLIFIER** with interchangeable fixed or variable **PLUG-IN OSCILLATORS** for a wide range of precision AC power applications. The Amplifier has a full power range of 45-6,000 cycles. With the incorporation of a **CML** Plug-in Oscillator precise fixed or adjustable output frequencies are available anywhere within this range. Plug-in Oscillators are Wein Bridge or Tuning Fork controlled.

Regulated Power Amplifiers with Precision Plug-in Oscillators

- **Each Model can be operated either as a precision AC Power Supply or as an Audio Power Amplifier.**
- **INTERCHANGEABLE PLUG-IN OSCILLATORS** . . . 23 standard oscillators are available — to provide fixed or adjustable output frequencies between 45 and 6,000 cps and stabilities to ±0.001%.
- **INSTANTANEOUS OVERLOAD PROTECTION**
- **MINIMUM PACKAGE SIZE** . . . 2000VA in 14" rack height; 750VA in 8¾" rack height.
- **CONSTANT VOLTAGE OUTPUT** . . . 0.5% regulation for no load to full load change — response time less than 50 microseconds.

Frequency stabilities range between ±0.25% and ±0.001%. Plug-in Oscillators include gain control as well as front panel jack for external signal drive. Each Power Amplifier model may also be operated without a plug-in oscillator; however, in that case, the Model SA-2 External Signal Adapter is required. Precise amplitude stability and low harmonic content are provided by a combination of positive current feedback and inverse voltage feedback.

REGULATED POWER AMPLIFIERS

MODEL	OUTPUT POWER—VA	INPUT	*DIMENSIONS H x W x D			WT. APPROX. LBS.
N500A	500	115V, 1ø, 47-65CPS	8¾	19	21	175
N750B	750	115V, 1ø, 47-65	8¾	19	21	180
N750A	750	208/230V, 3ø, 47-65	14	19	20½	260
N1000A	1,000	208/230V, 3ø, 57-65	14	19	20½	270
N1500A	1,500	208/230V, 3ø, 47-65	14	19	20½	315
N2000A	2,000	208/230V, 3ø, 47-65	14	19	20½	325
N5000A	5,000	208/230V, 3ø, 57-65	45	24	24	850
N15000A	15,000	208/230V, 3ø, 57-65	47	34	24	1600

*500VA to 2000VA units are standard rack mount models.
Add ¾" to height if bench adapters are included.
5000VA and 15000VA units are cabinet models.
Model N5000A includes casters.

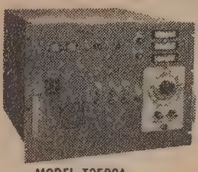
PLUG-IN OSCILLATORS**

OUTPUT FREQUENCY	FREQUENCY STABILITY ±0.25%	±0.1%	±0.01%	±0.001%
	MODEL #			
Fixed 400 cps	SG-14A	SG-14B	SG-14E	SG-14G
Fixed 800 cps	SG-18A	SG-18B	SG-18E	SG-18G
Fixed 60 cps	SG-12A	SG-12B	SG-12E	Special Order
Fixed 50 cps	SG-11A	SG-11B	SG-11E	
Adjustable 350-450 cps	SG-15A	SG-15B	X	X
Adjustable 45-70 cps	SG-13A	SG-13B	X	X
Adjustable 300-2,000 cps	SG-16A	SG-16B	X	X
Adjustable 45-6,000 cps	SG-17A	X	X	X
45-6,000 cps	EXTERNAL SIGNAL ADAPTER Model SA-2			

**All Plug-in Oscillators are provided with a jack for external signal drive.

CML

three phase frequency converters



MODEL T2500A
With SG-36B Oscillator

MODEL SG-35A
Plug-In Oscillator

TA series
150VA to 20KVA

The new TA Series of Three Phase Frequency Converters are exceptionally versatile sources of AC power. Each converter consists of a regulated **THREE PHASE AMPLIFIER** with interchangeable fixed or variable frequency **PLUG-IN OSCILLATORS** for a wide range of precision AC power applications. The amplifier has a full power range of 45-6.000 cps. With the incorporation of a CML plug-in oscillator (which includes 120° phase shift network) precise fixed or adjustable frequencies are available anywhere within this range.

- **MINIMUM PACKAGE SIZES** . . . 2500VA in 14" rack height.
- **INTERCHANGEABLE PLUG-IN OSCILLATORS** . . . 21 standard oscillators are available — to provide fixed or adjustable output frequencies between 45 and 6,000 cps and stabilities to ±0.001%.
- **INSTANTANEOUS OVERLOAD PROTECTION** . . . An overload of any one phase causes complete output shutdown, protecting 3 phase load.
- **DUAL OUTPUT VOLTAGE FOR △ OR Y LOADS** . . . Adjustable voltages 0-125 volts line-to-line as well as 0-217 volts line-to-line are presented at output terminals; output is isolated for maximum versatility.
- **CONSTANT VOLTAGE OUTPUT** . . . 0.5% regulation for no load to full load change — response time less than 50 microseconds.
- **OUTPUT VOLTAGE UNAFFECTED BY UNBALANCED LOADS.**

Plug-in oscillators are Wein bridge or tuning-fork controlled for frequency stabilities ranging between ±0.25% and ±0.001%. Dual output taps are standard for matching either Delta or Wye loads (output may be connected either 120 volts line-to-line or 208 volts line-to-line). Precise amplitude stability and low harmonic content are provided by a combination of positive current feedback and inverse voltage feedback.

THREE PHASE AMPLIFIERS

MODEL	3ø OUTPUT POWER — VA	INPUT	*DIMENSIONS H x W x D			WT. (APPROX.) LBS.
T150A	150	115V. 1ø. 47-65	7	19	17	105
T300B	300	115V. 1ø. 47-65	12¼	19	20	180
T500B	500	115V. 1ø. 47-65	12¼	19	20	190
T750A	750	208/230V. 3ø. 47-65	14	19	20½	275
T1200A	1,200	208/230V. 3ø. 57-65	14	19	20½	285
T1750A	1,750	208/230V. 3ø. 47-65	14	19	20½	355
T2500A	2,500	208/230V. 3ø. 47-65	14	19	20½	365
T5000A	5,000	208/230V. 3ø. 57-65	45	24	24	950
T15000A	15,000	208/230V. 3ø. 57-65	78	35	36	1700
T20000A	20,000	208/230V. 3ø. 57-65	78	35	36	1900

*150VA to 2500VA units are rack mount models with dimensions as shown above. Add ¾" to height if bench adapters are included.

PLUG-IN OSCILLATORS

3ø OUTPUT FREQUENCY	FREQUENCY STABILITY ±0.25%	±0.1%	±0.01%	±0.001%
	MODEL #			
Fixed 400 cps	SG-34A	SG-34B	SG-34E	SG-34G
Fixed 800 cps	SG-38A	SG-38B	SG-38E	SG-38G
Fixed 60 cps	SG-32A	SG-32B	SG-32E	Special Order
Fixed 50 cps	SG-31A	SG-31B	SG-31E	Special Order
Adjustable 350-450 cps	SG-35A	SG-35B	X	X
Adjustable 45-70 cps	SG-33A	SG-33B	X	X
Adjustable 300-2,000 cps	SG-36A	SG-36B	X	X
Adjustable 45-6,000 cps	SG-37A	X	X	X

5000VA-20,000VA units are cabinet models. Model T5000A includes casters

CML

CML, Inc. 350 Leland Ave. • Plainfield, New Jersey 07062
A Subsidiary of Tenney Engineering, Inc. Telephone (201) 754-5502 • TWX: 710-997-9529

95

AC Power Supplies?

Try Bulova First!

CALL:

Ariz	Tech-Ser Inc, 1805 E Indian School Rd Phoenix	602-265-3629
Cal	Straube Assoc., Inc., 483 Willow Rd., Menlo Pk	213-323-2476
Cal	Cardinal Assoc, 16024 Ventura Blvd Encino	213-788-4540
Conn	Samuel C Hooker Inc, Box 369 West Hartford	203-233-8000
Fla	Perrott Assoc, 1607 Forsyth Rd, Orlando	305-275-1132
Fla	Perrott Assoc, Box 4532, Clearwater	813-531-5513
Fla	Perrott Assoc, Box 6277 West Palm Beach	305-967-1770
Ga	Emmett Rushin Co, Box 486 Roswell	404-993-6498
Ill	Communications Eng, 7100 N Western Ave Chicago	312-R01-0548
Md	Daniel & Co, Box 124, Lutherville	301-825-8330
Mass	Samuel Hooker, Inc, Box 352 Winchester	617-729-5482
Minn	Wenco Sales Inc, 7728 Morgan Ave S Minneapolis	612-866-3639
Mo	J C Mankus & Assoc, 400 Brooks La Hazelwood	314-PE1-4334
NY	H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester	716-232-2688
NY	Cane Technical Sales, 555 E Boston Post Rd Mamaroneck	914-698-4411
NY	H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady	518-882-9303
NY	H C Johnson Agencies Inc, Box 215 Fayetteville	315-637-9595
NY	H C Johnson Agencies Inc, 8 Los Robles St Williamsville	716-632-7880
Pa	Daniel & Co, Box 3, Glenside	215-TU7-0550
Tex	Applied Eng Sales, 1st Bank & Trust, Richardson	214-AD1-1322
Wash	Jas J Backer Co, 221 W Galer St Seattle	206-AT3-6470

AMERICAN TIME PRODUCTS
BULOVA WATCH CO INC
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

POWER SUPPLIES

BY

E/M

SCR SERIES — High Power
The SCR Series is designed for high power requirements up to 500 Amps. and for voltages up to 500 Volts in a single unit.

RE SERIES — Lab Type
The RE Series is designed for both precise laboratory and systems applications. Ratings include 40 Volts at 5 and 10 Amps., 60 Volts at 2.5 and 5 Amps.

RIC SERIES — Slot
The RIC Series designed for I.C. logic and all OEM applications includes built in O.V. protection. Ratings include 2 to 6 Volts at 5 and 10 Amps., 10 to 20 Volts at 2.5 and 5 Amps.

ELECTRONIC MEASUREMENTS
division of ROWAN INDUSTRIES
2 Crescent Place • Oceanport, N.J. 07757
(201) 229-5000

Garrett Corp, Los Angeles	Cal
General Electric Co, ECSO, Schenectady	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
General Radio Co, West Concord	Mass
Geo Space Corp, Houston	Tex
Gibbs Mfg & Research Corp, Janesville	Wis
Gladding Corp, South Otselic	N Y
Glenn Pacific A Teledyne Co, Oakland	Cal
Glentek Inc, Santa Monica	Cal
Glentronics Inc, Glendora	Cal
Grafix Inc, Albuquerque	N Mex
Green Electric Corp, Fairlawn	NJ
Gulton Industries Inc, Metuchen	N J
Hill Magnetics, Inc, Redwood City	Cal
Hipotronics Inc, Brewster	N Y
Hirst Electric Industries Ltd, Crawley, Sussex	England
Holt Instrument Labs, Oconto	Wis
Honeywell Test Instruments Div, Denver	Colo
Hyperion Industries Corp, Watertown	Mass
Industrial Electronetics Corp, Satellite Beach	Fla
Industrial Gauging & Control Inc, Norwalk	Conn
Industrial Test Equipment Co, Port Washington	N Y
Inet Power A Teledyne Co, Gardena	Cal
Interelectronics Corp, Congers	N Y
Ionic Electrostatic Corp, Garfield	N J
Jefferson Electric Co, Bellwood	Ill
Julie Research Labs, Inc, New York	N Y
Kato Engineering Co, Mankato	Minn
Kepco Inc, Flushing	N Y
Kilovolt Corp, Hackensack	N J
Kokuyo Electric Co Ltd, Tokyo	Japan
Kontes Glass Co, Vineland	N J
Krohn-Hite Corp, Cambridge	Mass
Kuhnke, H, Elektrotechnische Fabrik Gmbh Holstein	Germany
Kurz & Root Co, Appleton	Wis
Landis & Gyr AG, Zug	Switzerland
Larago Electronics Mfgrs Inc, Melbourne	Fla
Lear Siegler Inc, Santa Monica	Cal
Linear Systems Inc, Watsonville	Cal
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
Loral Electronic Systems, Div Loral Corp, New York	NY
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Loyola Industries Inc, El Segundo	Cal
L P Associates Inc, Los Angeles	Cal
Madigan Electronic Corp, Washington	D C
Magnetic Engineering Corp, Danbury	Conn
Magnetics Inc, Butler	Pa
Magnetic Specialties Inc, Trenton	N J
McPherson Instrument Corp Sub GCA Corp, Acton	Mass
Melcor Electronics Corp, Farmingdale	N Y
Merrimack Magnetics Corp, Lowell	Mass
Metric Engineering Div Greenray Indus Inc Mechanicsburg	Pa
Microdot, Inc, South Pasadena	Cal
Microdot Magnetics Inc, Los Angeles	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Mid-Eastern Industries Inc, Springfield	N J
Mil Associates Inc, Hudson	NH
Motor Generator Div Hobart Bros Co, Troy	Ohio
Multi-Phase Electronics, Van Nuys	Cal
Multronics Inc, Rockville	Md
Neotec Corp, Rockville	Md
Neshaminy Electronic Corp, Furlong	Pa
NH Research Inc, Santa Ana	Cal
North Electric Co, Galion	Ohio
North Hills Electronics Inc, Glen Cove	N Y
Nuclear Corp of America, Nuclear Div, Denville	N J
Nytronics Inc, Berkeley Heights	N J
Opad Electric Co, Inc, New York	N Y
Optimation, Inc, Sun Valley	Cal
Parametrics, Costa Mesa	Cal
Paraplegics Mfg Co Inc, Bensenville	Ill
Pek, Inc, Sunnyvale	Cal
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pioneer Magnetics Inc, Santa Monica	Cal
Plastic Capacitors Inc, Chicago	Ill
Power Control Corp, Pittsburgh	Pa
Power Systems Inc, Venice	Cal
Powertec Div, Airtronics Corp, Chatsworth	Cal
Precision Transformers Inc, Anaheim	Cal
Preferred Electronics Inc, Westfield	Mass
Radio Engineering Labs, Div DCA, Long Island City	N Y
Radix Electronics Corp, Anaheim	Cal
Ramm Rectifier Co, Inc, Bronx	N Y
Ramyr Mfg Co, Buena Park	Cal
Randam Electronics Inc, Cincinnati	Ohio
Raven Electronics Inc, Burbank	Cal
Research Inc, R-I Controls Div, Minneapolis	Minn
R F S Engineering Co, Philadelphia	Pa
Roband Electronics Ltd, Surrey	England
Robicon Corp, Pittsburgh	Pa
Rowan Controller Co, Oceanport	N J
Roxter Corp, Long Island City	N Y
Sanken Electric Co, Ltd, Toshima-ku, Tokyo	Japan
SBD Systems Inc, Farmingdale	N Y
Scientific Electric Inc, Garfield	N J
Scientific Instruments Co, Chatsworth	Cal
Scott Electronics Corp, Orlando	Fla
Semiconductor Circuits, Inc, Woburn	Mass
Sentron Inc, Danbury	Conn
Singer Co, Metrics Div, Bridgeport	Conn
S K G Associates Inc, Boston	Mass
Sodilec SA Salies-S A, 91 Palaiseau	France
Sola-Basic Industries, Milwaukee	Wis
Sola Electric Div Sola Basic Industries Elk Grove Village	Ill
Solidstate Controls Inc, Columbus	Ohio
Sorensen Operation, Raytheon Co., Norwalk	Conn
Space Craft Inc, Huntsville	Ala
Space Power Associates Inc, Staten Island	N Y
Sparton Electronics, Jackson	Mich
Spatron Inc, Alhambra	Cal
Spencer-Kennedy Labs Inc, Boston	Mass
Staco Inc Std Elec Prods Co Div, Dayton	Ohio
Standard Industries, Buena Park	Cal
Stark Electronic Instruments Ltd, Ajax	Ont
Superior Electric Co The, Bristol	Conn
Swiss Industries, Costa Mesa	Cal
Symetrics Engineering Corp, Satellite Beach	Fla
Taber Instruments A Teledyne Co North Tonawanda	N Y
Taffet Electronics Inc, Woodside	N Y
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Tel-Instrument Electronics Corp, Carlstadt	N J
Tenco Electronics Inc, Boston	Mass
Thiem-Transrex Inc, El Segundo	Cal
T M C Systems & Power Corp, Springfield	Va
Topaz Inc, San Diego	Cal
Topping Electronics Ltd, Toronto 17	Ont
Transformer Engineers, San Gabriel	Cal
Transistor Devices Inc, Mt Tabor	N J
Transval Electronics Div Jetronic Indus Inc Gardena	Cal
Trepac Corp of America, Englewood	N J
Trio Laboratories Inc, Plainview	N Y
Unitron Div Electric Machy Mfg Co, Garland	Tex
Universal Precision, Inc, Endicott	N Y
Universal Transistor Products Div Link, Copiague	N Y
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Vector Engineering Inc, Springfield	N J
Vega Precision Labs, Vienna	Va
Venus Scientific Inc, Hicksville	N Y
Virginia Electronics Co Inc, Falls Church	Va
Wabash Magnetics Inc, Wabash	Ind
Wagner Electric Corp, Tung-Sol Div, Livingston	N J
Wanlass Electric Co, Santa Ana	Cal
Ward Leonard Electric Co, Mount Vernon	N Y
Westinghouse Electric Corp, Aerospace Electrical Div Lima	Ohio
Westinghouse Electric Corp Distribution Transformer Div Sharon	Pa
Wilcox Electric Co Inc, Kansas City	Mo
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan
Zaring Industries Inc, Carmel	Ind

POWER SUPPLIES, A-C--UNREGULATED

AMP INCORPORATED, HARRISBURG	**PA**
C M L INC, PLAINFIELD, N J	**ADV PGS 496,497**
GAR ENTERPRISES INC, PASADENA	**CAL**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON N Y	**ADV PG 495**
INTERELECTRONICS CORP, CONGERS, N Y	**ADV PG 535**
KEPCO INC, FLUSHING, N Y	**ADV PGS 501,4TH COVER**
MAGNETICS INC, BUTLER	**PA**
MELCOR ELECTRONICS CORP, FARMINGDALE	**N Y**
NOTHELFER WINDING LABS INC, TRENTON	**N J**
OPAD ELECTRIC CO, INC, NEW YORK	**N Y**
PLASTIC CAPACITORS INC, CHICAGO	**ILL**
SORENSEN OPERATION, RAYTHEON CO., NORWALK	**CONN**
SPELLMAN HIGH VOLTAGE ELECTRONICS CORP, BRONX N Y	**ADV PGS 502,503**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
WAGNER ELECTRIC CORP, TUNG-SOL DIV, LIVINGSTON	**N J**
Abbott Transistor Labs, Inc, Los Angeles	Cal
Acme Electric Corp, Cuba	N Y
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Advanced Energy Conversion, Menlo Park	Cal
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Aerotronic Associates, Inc, Contoocook	N H
Allis-Chalmers Mfg Co, Milwaukee	Wis
American Rectifier Corp, College Point	N Y
American Systems, Inc, Van Nuys	Cal
AMP Incorporated, Harrisburg	Pa
Amtron Inc, Midlothian	Ill
Applied Electronics Corp of N J, Metuchen	N J
Armec Corp, Huntington Station	N Y
Astro Lab, Westminster	Cal
Astro-Metrix Corp, Burbank	Cal
Atlas Controls Div Atlas Engrg Co Inc, Dorchester	Mass
ATR Electronics, Inc, St Paul	Minn
Automation Services Inc, Endicott	N Y
Avtel Corp, Covina	Cal
Ballastran Corp, Fort Wayne	Ind
Basler Electric Co, Highland	Ill
B & B Motor & Control Corp, New York	N Y
Bendix Corp Electric Power Div, Eatontown	NJ
Bennett Laboratories, Inc, Emeryville	Cal
Bergen Lab, Inc, Paterson	N J
Bogue Electric Mfg Co, Paterson	N J
Booth Co, Arthur E, Los Angeles	Cal
Borders Electronics Co Inc, Pennsauken	N J
Borg-Warner Controls Div Borg-Warner Corp Santa Ana	Cal
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Chu Associates Inc, Littleton	Mass
C M L Inc, Plainfield	N J
Coil Co of America Inc, Northvale	N J
Condor Industrial Corp, West Chicago	Ill
Conductron Corp, Ann Arbor	Mich
Continental Device Corp, Hawthorne	Cal
Continental X-Ray Corp, Chicago	Ill
Control Circuits Inc, Middletown	Conn
Cooke Vacuum Products Inc, South Norwalk	Conn
Daytron Inc, Mountain View	Cal
Del Electronics Corp, Mt Vernon	N Y
Denton Vacuum Inc, Cherry Hill	N J
Dinion Coil Co Inc, Caledonia	N Y
Dinsmore Instrument Co, Flint	Mich
Dresser Systems, Inc, Houston	Tex
Eastern Dynamics, Inc, Bloomfield	Conn

E G & G Inc Custom Equip Div, Bedford	Mass
Elcor, Div Halliburton Co, Silver Spring	Md
Electro-Kinetics Corp Div EPD Ind Inc, Long Beach	Cal
Electronic Research Associates Inc, Cedar Grove	N J
Electronic Specialty Co, Los Angeles	Cal
Electro-Pacific Inc, Goleta	Cal
Electro Technic Products, Chicago	Ill
Elgar Corp, San Diego	Cal
Elgin Electronics Inc, Erie	Pa
EMP Electronics Inc, Tempe	Ariz
Extrudonics Inc, New Brunswick	N J
Fansteel Metallurgical Corp, North Chicago	Ill
Fisher Berkeley Corp, Emeryville	Cal
Fisher Engineering Inc, Huntington	Ind
Freed Transformer Co Inc, Brooklyn	N Y
Galaxy Electronics Inc, Council Bluffs	Iowa
Gar Enterprises Inc, Pasadena	Cal
Gates Electronic Co Inc, Bronx	N Y
General Electric Co, ECSO, Schenectady	N Y
Geo Space Corp, Houston	Tex
Gibbs Mfg & Research Corp, Janesville	Wis
Glenn Pacific A Teledyne Co, Oakland	Cal
Glentek Inc, Santa Monica	Cal
Grafix Inc, Albuquerque	N Mex
Green Electric Corp, Fairlawn	NJ
Gulton Industries Inc, Metuchen	N J
Hill Magnetics, Inc, Redwood City	Cal
Hipotronics Inc, Brewster	N Y
Hirst Electric Industries Ltd, Crawley, Sussex	England
Hyperion Industries Corp, Watertown	Mass
Idalee Electronics Corp, Valley Stream	NY
Industrial Electronetics Corp, Satellite Beach	Fla
Industrial Test Equipment Co, Port Washington	N Y
Inet Power A Teledyne Co, Gardena	Cal
Information Control Corp, El Segundo	Cal
Interelectronics Corp, Congers	N Y
Ionic Electrostatic Corp, Garfield	N J
Jefferson Electric Co, Bellwood	Ill
Kato Engineering Co, Mankato	Minn
Keltec Florida Div Aiken Industries Ft Walton Beach	Fla
Kepco Inc, Flushing	N Y
Kilovolt Corp, Hackensack	N J
Kurz & Root Co, Appleton	Wis
Larago Electronics Mfgrs Inc, Melbourne	Fla
Lear Siegler Inc, Santa Monica	Cal
Loyola Industries Inc, El Segundo	Cal
Madigan Electronic Corp, Washington	D C
Magnetic Engineering Corp, Danbury	Conn
Magnetics Inc, Butler	Pa
Melcor Electronics Corp, Farmingdale	N Y
Microdot, Inc, South Pasadena	Cal
Microdot Magnetics Inc, Los Angeles	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Mid-Eastern Industries Inc, Springfield	N J
Mil Associates Inc, Hudson	NH
Model Rectifier Corp, Brooklyn	N Y
Motor Generator Div Hobart Bros Co, Troy	Ohio
NH Research Inc, Santa Ana	Cal
Norbatrol Electronics Corp, Murrysville	Pa
North Electric Co, Galion	Ohio
Nothelfer Winding Labs Inc, Trenton	N J
Nuclear Corp of America, Nuclear Div, Denville	N J
Nytronics Inc, Berkeley Heights	N J
Opad Electric Co, Inc, New York	N Y
Optimation, Inc, Sun Valley	Cal
Pek, Inc, Sunnyvale	Cal
Peschel Instruments Inc, Cape Coral	Fla
Philips Electronics Industries Ltd, Toronto 17	Ont
Pioneer Magnetics Inc, Santa Monica	Cal
Plastic Capacitors Inc, Chicago	Ill
Power Control Corp, Pittsburgh	Pa
Powertec Div, Airtronics Corp, Chatsworth	Cal
Precision Electronics Co, Marshfield	Mass
Precision Transformers Inc, Anaheim	Cal
Private Tele Communications Inc, Chicago	Ill
Radio Engineering Labs, Div DCA, Long Island City	N Y
Ramm Rectifier Co, Inc, Bronx	N Y
Ramyr Mfg Co, Buena Park	Cal
Randam Electronics Inc, Cincinnati	Ohio
Robicon Corp, Pittsburgh	Pa
Roxter Corp, Long Island City	N Y
Sanken Electric Co, Ltd, Toshima-ku, Tokyo	Japan
SBD Systems Inc, Farmingdale	N Y
Scientific Electric Inc, Garfield	N J
Scientific Instruments Co, Chatsworth	Cal
Scott Electronics Corp, Orlando	Fla
Semiconductor Circuits, Inc, Woburn	Mass
Sentron Inc, Danbury	Conn
S K G Associates Inc, Boston	Mass
Sodilec SA Salies-S A, 91 Palaiseau	France
Sola-Basic Industries, Milwaukee	Wis
Solidstate Controls Inc, Columbus	Ohio
Sorensen Operation, Raytheon Co., Norwalk	Conn
Space Power Associates Inc, Staten Island	N Y
Spatron Inc, Alhambra	Cal
Spellman High Voltage Electronics Corp, Bronx	N Y
Spencer-Kennedy Labs Inc, Boston	Mass
Staco Inc Std Elec Prods Co Div, Dayton	Ohio
Stark Electronic Instruments Ltd, Ajax	Ont
Swiss Industries, Costa Mesa	Cal
Taffet Electronics Inc, Woodside	N Y
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Telephone Components Inc, Brooklyn	N Y
Terado Corp, St Paul	Minn
Thiem-Transrex Inc, El Segundo	Cal
T M C Systems & Power Corp, Springfield	Va
Topaz Inc, San Diego	Cal
Topping Electronics Ltd, Toronto 17	Ont
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Engineers, San Gabriel	Cal
Transistor Devices Inc, Mt Tabor	N J
Transval Electronics Div Jetronic Indus Inc Gardena	Cal
Trepac Corp of America, Englewood	N J
Triad Transformer Corp, Venice	Cal
Unitron Div Electric Machy Mfg Co, Garland	Tex
Universal Precision, Inc, Endicott	N Y
Universal Transistor Products Div Link, Copiague	N Y
Vactronic Lab Equipment Inc, East Northport	N Y
Valradio Ltd, Feltham, Mdsx	Eng
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Vega Precision Labs, Vienna	Va
Venus Scientific Inc, Hicksville	N Y
Virginia Electronics Co Inc, Falls Church	Va
Wabash Magnetics Inc, Wabash	Ind
Wagner Electric Corp, Tung-Sol Div, Livingston	N J
Ward Leonard Electric Co, Mount Vernon	N Y
Westinghouse Electric Corp, Aerospace Electrical Div Lima	Ohio
Westinghouse Electric Corp Distribution Transformer Div Sharon	Pa
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh	Pa
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan
Zaring Industries Inc, Carmel	Ind

POWER SUPPLIES, D-C TO A-C SEE INVERTERS-D-C TO A-C—SOLID STATE

POWER SUPPLIES, D-C TO D-C SEE CONVERTERS—D-C TO D-C

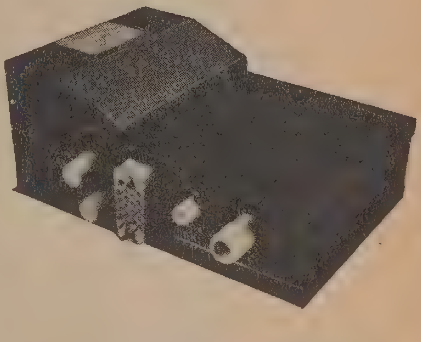
POWER SUPPLIES, D-C-- EHV (1000 KV & ABOVE)

AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
INTERELECTRONICS CORP, CONGERS, N Y	**ADV PG 535**
PLASTIC CAPACITORS INC, CHICAGO	**ILL**
UNIVERSAL VOLTRONICS CORP, MOUNT KISCO	**N Y**
WHITTAKER CORP GEN COM DIV, PLAINVIEW	**N Y**
ADC Products, Minneapolis	Minn
Aerospace Avionics Inc, Bohemia	NY
AMP Inc, Capitron Div, Elizabethtown	Pa
Ault, Inc, Minneapolis	Minn
Bogue Electric Mfg Co, Paterson	N J
Cober Electronics Inc, Stamford	Conn
Continental Device Corp, Hawthorne	Cal
Davidson Electronic Development Co, Erie	Pa
Del Electronics Corp, Mt Vernon	N Y
E G & G Inc Custom Equip Div, Bedford	Mass
Electronic Research Associates Inc, Cedar Grove	N J
Energy Beams Inc, Haskell	N J
Ferrotran Electronics Co Inc, New York	N Y
Fisher Engineering Inc, Huntington	Ind
General Electric Co, ECSO, Schenectady	N Y
Giannini-Voltex, Whittier	Cal
Gulton Industries Inc Engineered Magnetics Div Hawthorne	Cal
High Voltage Engineering Corp, Burlington	Mass
Hill Magnetics, Inc, Redwood City	Cal
Interelectronics Corp, Congers	N Y
Ionic Electrostatic Corp, Garfield	N J
Ionics Inc, Electronics Div, Watertown	Mass
Ion Physics Corp, Burlington	Mass
ITT Industrial Labs Div, Fort Wayne	Ind
Kilovolt Corp, Hackensack	N J
Kinney Vacuum Div New York Air Brake Co Boston	Mass
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
Microdot Magnetics Inc, Los Angeles	Cal
Microsemiconductor Corp, Culver City	Cal
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Plastic Capacitors Inc, Chicago	Ill
Power Control Corp, Pittsburgh	Pa
Reaction Research Labs of America, Groton	Conn
Resalab Inc, Menlo Park	Cal
Rho Engineering Co, Los Angeles	Cal
Scientific Electric Inc, Garfield	N J
Sola-Basic Industries, Milwaukee	Wis
Stark Electronic Instruments Ltd, Ajax	Ont
Swiss Industries, Costa Mesa	Cal
Universal Voltronics Corp, Mount Kisco	N Y
Varo Inc, Static Power Div, Plano	Tex
Ward Leonard Electric Co, Mount Vernon	N Y
Wesco Electrical Co Inc, Greenfield	Mass
Whittaker Corp Gen Com Div, Plainview	N Y

POWER SUPPLIES, D-C-- HIGH VOLTAGE (1 KV & ABOVE) REGULATED

AMP INCORPORATED, HARRISBURG	**PA**
AMP INC, CAPITRON DIV, ELIZABETHTOWN, PA	**ADV PG 499**
GAR ENTERPRISES INC, PASADENA	**CAL**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
INTERELECTRONICS CORP, CONGERS, N Y	**ADV PG 535**
KEPCO INC, FLUSHING, N Y	**ADV PGS 501,4TH COVER**
NJE CORP, KENILWORTH, N J	**ADV PGS 530,531**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
OPAD ELECTRIC CO, INC, NEW YORK	**N Y**
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM, CAL	**ADV PG 494**
PLASTIC CAPACITORS INC, CHICAGO	**ILL**
POWER DESIGNS, INC, WESTBURY, N Y	**ADV PGS 532,533**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
SORENSEN OPERATION, RAYTHEON CO., NORWALK CONN	**ADV PGS 528,529**
UNIVERSAL VOLTRONICS CORP, MOUNT KISCO N Y	**ADV PGS 504,505**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
WHITTAKER CORP GEN COM DIV, PLAINVIEW	**N Y**
Abbott Transistor Labs, Inc, Los Angeles	Cal

High Voltage CRT Power Supplies Custom Designed



This custom designed Head-Up Display power supply met the requirements listed below and solved a unique space and weight problem as well.

- Outputs:
  15 KVDC, 400 μa pk.
  1.7 KV (adj. 1.4 to 2.0 KV), ±30 μa
  300 VDC, ±15 μa
- Ripple: 0.5%
- Regulation ±0.1%
- Volume: less than 50 cu. in.
- Weight: 3¼ lbs.
- Temperature: −55°C to 110°C
- Ref. to MIL-STD-826
- MIL-E-5400
- Input: 115 V, 400 cps MIL-STD-704

Try stumping us with your problem. We'll put everything we have into solving it and probably come up with a design that saves weight and space. Write or call for details today.

AMP
INCORPORATED

CAPITRON DIVISION
155 Park Street • Elizabethtown, Pa.
717-367-1105 • TWX: 510-675-4561

new digital readout

Electronics
'69
Buyers' Guide

-lets your fingers flip through the entire electronics industry.

The '69 EBG gives you almost instantaneous desk top retrieval of 4 million bits of information that constitute the electronics industry.

If the answer to a problem involves finding a product or the people to supply it, this year the Electronics Buyers' Guide can help you find it faster than ever.

The '68 EBG yellow pages integrate editorial product listings and advertiser's specifications in one continuous alphabetical section that is 4,000 categories long.

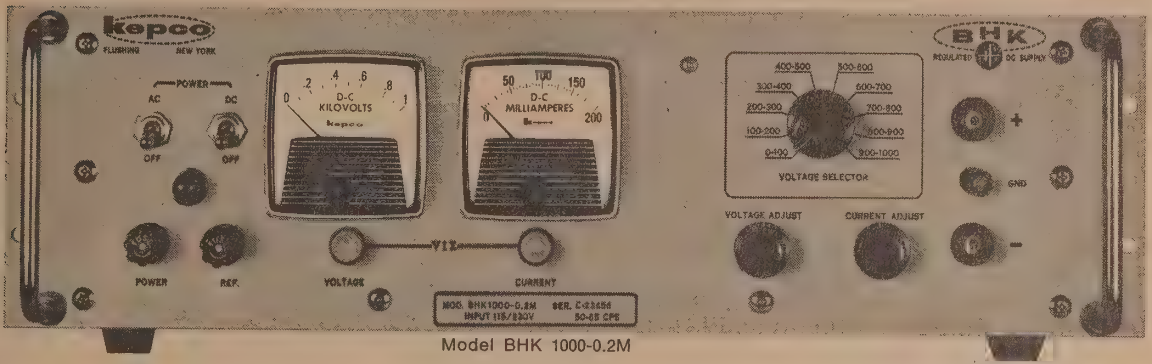
The green section tells you who's nearest, with the product you want, by listing local telephone numbers and addresses for more than 6,000 manufacturers.

Use the '69 EBG. And whenever you find an answer to your problem, tell them who sent you.

Electronics Buyers' Guide

A McGraw-Hill *Market Directed* Publication, 330 West 42nd Street, New York, N.Y. 10036

HIGH VOLTAGE FROM KEPCO

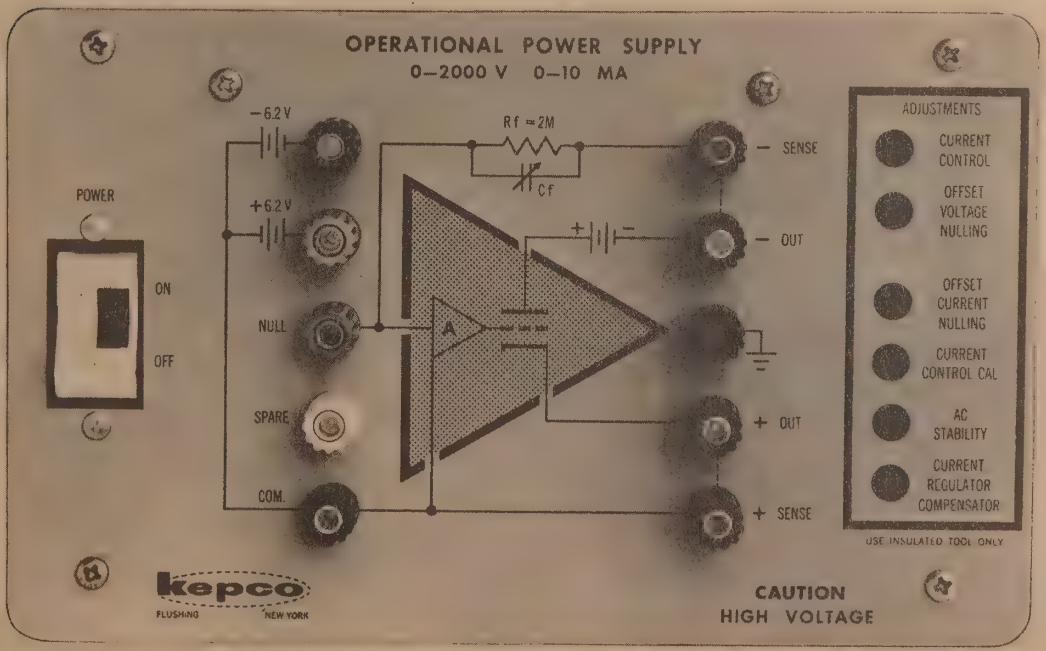

kepco
FLUSHING NEW YORK
POWER
AC
DC
OFF
OFF
D-C KILOVOLTS
D-C MILLIAMPERES
POWER
REF.
VOLTAGE
CURRENT
MOD. BHK1000-0.2M SER. C-23456
INPUT 115/230V 50-65 CPS
BHK
REGULATED DC SUPPLY
400-500
500-600
300-400
600-700
200-300
700-800
100-200
800-900
0-100
900-1000
VOLTAGE SELECTOR
VOLTAGE ADJUST
CURRENT ADJUST
GND

Model BHK 1000-0.2M

The hybrid circuit technique (tubes and transistors) is employed by Kepco in some fifteen high voltage power supplies ranging from 0-200 volts to 0-2500 volts. Power supplies are available in four different classifications, each offering a distinct class of output characteristics ranging from the small (20 watt) ABC-Hybrids, programmable laboratory bench supplies, (5 models) to the sophisticated BHK automatic crossover voltage/current regulators (3 models). Fast slewing capabilities are offered by the BHK models, as well as the unique OPS 2000, a 2000 volt, 10 mA operational amplifier!

	MODEL	DC OUTPUT RANGE		PRICE
		VOLTS	AMPS	
ABC	ABC 200M	0–200	0–0.1	$220.00
	ABC 425M	0–425	0–0.05	220.00
	ABC 1000M	0–1000	0–0.02	309.00
	ABC 1500M	0–1500	0–0.01	309.00
	ABC 2500M	0–2500	0–0.002	383.00
BHK	BHK 500–0.4M	0–500	0–0.4	825.00
	BHK 1000–0.2M	0–1000	0–0.2	825.00
	BHK 2000–0.1M	0–2000	0–0.1	850.00
HB	HB 2AM	0–325	0–0.2	325.00
	HB 4AM	0–325	0–0.4	365.00
	HB 6AM	0–325	0–0.6	395.00
	HB 8AM	0–325	0–0.8	435.00
	HB 250M	0–250	0–1	595.00
	HB 525M	0–525	0–0.5	550.00
OPS	OPS 2000	0–2000	0–0.01	368.00

Model OPS 2000


OPERATIONAL POWER SUPPLY
0–2000 V 0–10 MA
POWER
ON
OFF
−6.2 V
+6.2 V
NULL
SPARE
COM.
Rf ≈ 2M
Cf
A
− SENSE
− OUT
+ OUT
+ SENSE
ADJUSTMENTS
CURRENT CONTROL
OFFSET VOLTAGE NULLING
OFFSET CURRENT NULLING
CURRENT CONTROL CAL
AC STABILITY
CURRENT REGULATOR COMPENSATOR
USE INSULATED TOOL ONLY
kepco
FLUSHING NEW YORK
CAUTION
HIGH VOLTAGE

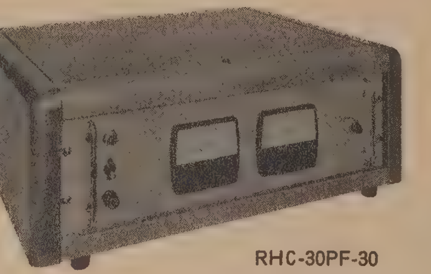
For complete Specifications and Applications Notes – Write for Kepco's new Catalog

KEPCO, INC. • 131-38 SANFORD AVENUE • FLUSHING, N.Y. 11352 • (212) 461-7000 • TWX #710-582-2631 • Telex: 12-6055

SPELLMAN

HIGH VOLTAGE POWER SUPPLIES

FOR INDUSTRY,
SCIENCE,
INSTRUMENTATION,
EDUCATION,
AEROSPACE,
DEFENSE,
DISPLAYS



RHC-30PF-30

0-30 KV/Regulated Focus Tap. Used in flying spot scanners and photomultipliers.

*Cabinet models RHC & UHC also available with same ratings. Models with reversible polarity available at additional cost.

RACK AND CABINET STYLES

HIGH VOLTAGE POWER SUPPLIES

Series **RHR** and **UHR** – Rack Mounted Units

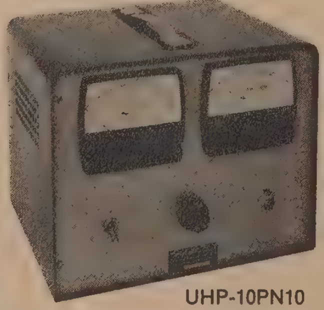
- All solid state
- All silicon
- Unique circuitry
- High performance
- Low Price
- 82 Models

	RHR/RHC	UHR/UHC
REGULATION	0.01% or 100mV, whichever is greater	Less than 20% of max rated voltage
RIPPLE (RMS=p-p/2.82)	0.02% RMS or 200mV RMS, whichever is greater	0.1% RMS of max rated output voltage
INPUT	105-125V; 50-60Hz; single phase	

Ask for Bulletins 6810 and 6820 for more detailed technical information.

PARTIAL LISTING

MAX RATINGS KV	MA.	REGULATED RACK MOUNTED *		UNREGULATED RACK MOUNTED		REGULATED PORTABLE		UNREGULATED PORTABLE	
5	2					RHP-5P10	$300	UHP-5P10	$175
5	6	RHR-5P30	$425	UHR-5P30	$300	RHP-5P30	$425	UHP-5P30	$300
5	10	RHR-5P60	$475	UHR-5P60	$350	RHP-5P60	$475	UHP-5P60	$350
10	1					RHP-10P10	$325	UHP-10P10	$175
10	3	RHR-10P30	$495	UHR-10P30	$320	RHP-10P30	$495	UHP-10P30	$320
10	6	RHR-10P60	$535	UHR-10P60	$350	RHP-10P60	$535	UHP-10P60	$350
10	10	RHR-10P120	$575	UHR-10P120	$380				
15	0.67					RHP-5P10	$480	UHP-5P10	$200
15	2	RHR-15P30	$620	UHR-15P30	$340	RHP-15P30	$620	UHP-15P30	$340
15	4	RHR-15P60	$670	UHR-15P60	$380	RHP-15P60	$670	UHP-15P60	$380
15	8	RHR-15P120	$720	UHR-15P120	$420				
20	0.50					RHP-20P10	$550	UHP-20P10	$250
20	1.5	RHR-20P30	$685	UHR-20P30	$360	RHP-20P30	$685	UHP-20P30	$360
20	3	RHR-20P60	$735	UHR-20P60	$400	RHP-20P60	$735	UHP-20P60	$400
20	6	RHR-20P120	$785	UHR-20P120	$440				
30	0.33					RHP-30P10	$600	UHP-30P10	$300
30	1	RHR-30P30	$750	UHR-30P30	$380	RHP-30P30	$750	UHP-30P30	$380
30	2	RHR-30P60	$800	UHR-30P60	$420	RHP-30P60	$800	UHP-30P60	$420
30	4	RHR-30P120	$850	UHR-30P120	$460			UHP-30P120	$460
40	0.25					RHP-40P10	$700	UHP-40P10	$400
40	0.75	RHR-40P30	$800	UHR-40P30	$480	RHP-40P30	$800	UHP-40P30	$480
40	1.5	RHR-40P60	$850	UHR-40P60	$520	RHP-40P60	$850	UHP-40P60	$520
40	3	RHR-40P120	$925	UHR-40P120	$560				
60	0.17					RHP-60P10	$1000	UHP-60P10	$600
60	0.50	RHR-60P30	$1150	UHR-60P30	$690	RHP-60P30	$1150	UHP-60P30	$690
60	1	RHR-60P60	$1250	UHR-60P60	$750	RHP-60P60	$1250	UHP-60P60	$750
60	2	RHR-60P120	$1350	UHR-60P120	$810				
90	1	RHR-90P90	$1600	UHR-90P90	$1100				



UHP-10PN10

Unregulated. Portable. Reversible Polarity.

PORTABLE STYLE

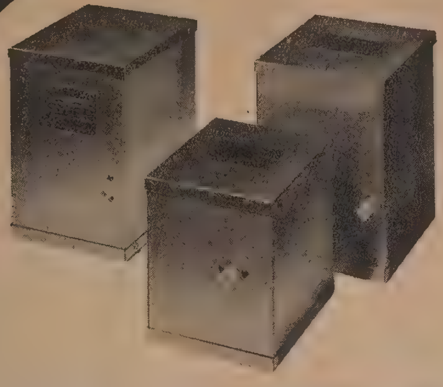
HIGH VOLTAGE POWER SUPPLIES

Series **RHP** Regulated
UHP Unregulated

- All Solid State
- All Silicon
- Compact and dependable designs
- Lightweight
- Built-in safety features
- Voltage and current meters
- 38 standard models

	RHP	UHP
REGULATION	Less than 0.1% or ±1 Volt, whichever is greater, for either line or load regulation	Less than 20% of max rated voltage
RIPPLE	0.1% or 1VRMS, whichever is greater	0.1% RMS of maximum rated output voltage
INPUT	105-125, 50-400Hz, single phase	

Ask for Bulletin 6830 for more detailed technical information



MODULAR STYLE

HIGH VOLTAGE POWER SUPPLIES

Series

RHM Narrow-Range-Adjustable REGULATED

FRHM Fixed output REGULATED

UHM UNREGULATED (Input-Controllable)

- All Solid State design
- 87 standard models (29 in each series)
- Heavy gage aluminum housing

	RHM	FRHM	UHM
REGULATION	0.01%	0.01%	Less than 20% of max rated voltage
RIPPLE (RMS=p-p/2.82)	0.02% RMS	0.02% RMS	0.1% RMS of max rated output voltage
INPUT AC (50-400 Hz) DC	 105-125V 24-32V	 105-125V 24-32V	 0-115V 1-30V

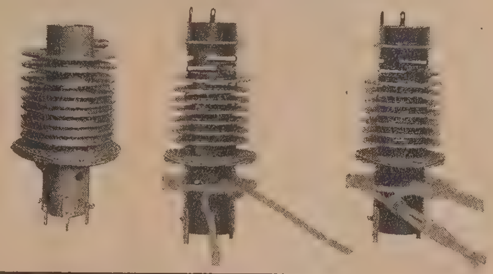
Ask for Bulletin 6840 for more detailed technical information

PARTIAL LISTING

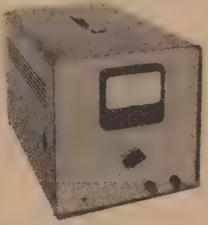
MAX. RATING KV	MA.	ADJ. REGULATED MODULE (AC INPUT)		FIXED, REGULATED MODULE (AC INPUT)		UNREGULATED MODULE (DC INPUT)	
5	2	RHM-5P10	$260	FRHM-5P10	$235	UHM-5P10D	$ 75
5	6	RHM-5P30	$385	FRHM-5P30	$360	UHM-5P30D	$200
5	10	RHM-5P60	$455	FRHM-5P60	$430		
10	1	RHM-10P10	$285	FRHM-10P10	$260	UHM-10P10D	$ 75
10	3	RHM-10P10	$455	FRHM-10P30	$430	UHM-10P30D	$220
10	6	RHM-10P60	$520	FRHM-10P30	$495		
10	10	RHM-10P120	$555	FRHM-10P120	$530		
15	0.67	RHM-15P10	$510	FRHM-5P10	$485	UHM-15P10D	$125
15	2	RHM-15P30	$580	FRHM-15P30	$555	UHM-15P30D	$240
15	4	RHM-15P60	$650	FRHM-15P60	$625		
15	8	RHM-15P120	$700	FRHM-15P120	$675		
20	0.50	RHM-20P10	$510	FRHM-20P10	$485	UHM-20P10D	$125
20	1.5	RHM-20P30	$645	FRHM-20P30	$620	UHM-20P30D	$260
20	3	RHM-20P30	$715	FRHM-20P60	$690		
20	6	RHM-20P120	$765	FRHM-20P120	$740		
30	0.33	RHM-30P10	$560	FRHM-30P10	$535	UHM-30P10D	$150
30	1	RHM-30P30	$710	FRHM-30P30	$685	UHM-30P30D	$280
30	2	RHM-30P60	$780	FRHM-30P60	$755		
30	4	RHM-30P120	$830	FRHM-30P120	$805		

HV POWER STEP-UP COILS

Furnished with complete technical data and schematic diagram for construction of self-oscillating RF circuit at approximately 120kHz; circuit includes recommended output rectification/filtering stages, to provide indicated HVDC output. Vacuum-tube designs include auxiliary filament windings for 1B3 rectifier tubes in recommended circuit (separate self-resonant RF autotransformers for 1B3 filament also available.) TRF-10 is for transistor oscillators, all others for vacuum-tube circuits.



MODEL NO.	OUTPUT VOLTS DC 1mA.	INPUT REQUIRED
TRF-10	0-15KV	0-28VDC @ approx 1A
5KV	1-7½KV	Up to 300VDC 50mA. max
10-15KV	10-15KV	Up to 425VDC 100mA. max
10-15KV-1 (1 rectifier)	10-15KV	Up to 425VDC 100mA, max
10-15KV-2 (2 rectifiers)	10-15KV	Up to 425VDC 100mA. max
25KV	25KV	Up to 425VDC 300mA. max
35KV	35KV (at 2mA.)	Up to 425VDC 500mA. max
70KV	70KV	Up to 425VDC 500mA. max



Model ST-60 Special-Purpose Heavy-Duty 60Hz Industrial Solid-State. 0-60KV, 0.25mA (1ma @ 20KV) portable HV supply. Low-priced stock item for industrial and similar process, test applications. Price **$395**

APPLICATIONS

INDUSTRIAL ELECTROSTATIC PROCESSES: Spray Painting; Flocking Systems; Particle Precipitation; Vacuum Deposition; Corona Testing; Electrostatic Printing; De-emulsifying; Insulation Fault Detection; High Voltage Forming; Plastic Pinning; Powder Deposition; Spot Knocking.

SCIENTIFIC RESEARCH: Nuclear Apparatus; Radiation Counters; Electron Microscopes; Lasers; High-Vacuum Processes; Ionization Chambers; Plasma Research; Mass Spectroscopes; Capacitor-Bank Charging For Plasma/Pinch Research; Acoustic/Oceanographic Equipment.

AEROSPACE: Radar Displays; Image Intensification Systems; BWO, TWT, Klystron Power; Radiation Detection; Infra-red Excitation; Projection Television; Flying-Spot Scanners.

INSTRUMENTATION: Air Pollution Instrumentation; Oscilloscopes; Mass Spectrometers; High-Resolution X-Ray; Electron Microscopes; Voltmeter, Voltbox Calibrators; Corona Testers; Insulation Testers; Photomultiplier Instrumentation.

EDUCATION: Physics Laboratories; Classroom Demonstrations; Large-Screen CRT Displays; Experimental Assemblies; Electronics Courses.

COMPUTER AND TACTICAL DISPLAYS: Area-grid Tactical Displays; CRT Storage; Image Intensifiers; Waveform Generators, Stabilized Pattern Displays; Flying-Spot Pattern Detection and Generation.

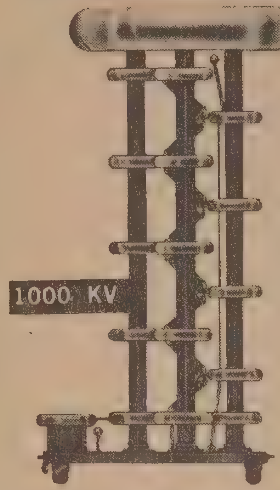
SPELLMAN
HIGH-VOLTAGE
ELECTRONICS
CORPORATION

OUR THIRD DECADE OF LEADERSHIP
IN HIGH-VOLTAGE TECHNOLOGY.

1930 ADEE AVENUE,
BRONX, NEW YORK 10469
(212) KI 7-0306

EHV by UVC

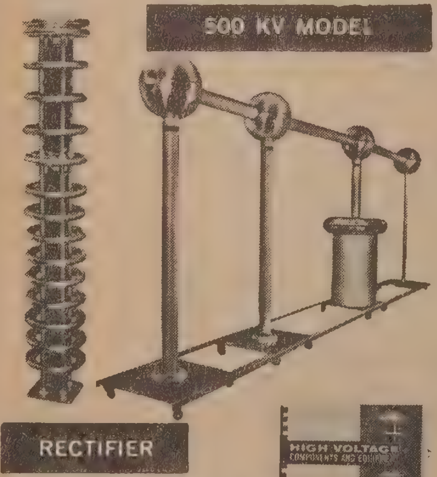
500 KV to 2000 KV



As specialists in the field of high voltage DC equipment, the Universal Voltronics Corporation has designed and delivered power supplies and components to both research and industrial organizations for high energy and power testing applications. We are pleased to announce a family of equipment encompassing voltage ratings of 500 kilovolts - 2000 kilovolts DC.

Our experience includes high energy particle acceleration, switching and circuit breaker testing, cable testing and electron microscopy.

Availability includes power packs, instrumented systems, rectifiers and dividers utilizing air, oil or gas as the insulating medium.



HIGH VOLTAGE COMPONENTS AND EQUIPMENT

Call or write for catalog 67-12

UNIVERSAL VOLTRONICS CORPORATION

Radio Circle, Mount Kisco, N.Y. 10549

Acme Electric Corp, Cuba	N Y
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Advanced Development Corp, Gardena	Cal
Advanced Energy Conversion, Menlo Park	Cal
Allied Research Associates, Inc, Concord	Mass
Alto Scientific Co, Inc, Palo Alto	Cal
AMP Incorporated, Harrisburg	Pa
AMP Inc, Capitron Div, Elizabethtown	Pa
Analog Technology Corp, Pasadena	Cal
Applied Electronics Corp of N J, Metuchen	N J
Arnold Magnetics Corp, Los Angeles	Cal
Astro-Metrix Corp, Burbank	Cal
Ault, Inc, Minneapolis	Minn
Avtel Corp, Covina	Cal
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bendix Corp Electro Optics Div, Ann Arbor	Mich
Bogue Electric Mfg Co, Paterson	N J
Brandenburg Ltd, South Croydon	Surrey U K
Canberra Industries, Middletown	Conn
Chu Associates Inc, Littleton	Mass
Cober Electronics Inc, Stamford	Conn
Cohu Electronics Inc, San Diego	Cal
Columbia Research Corp, Gaithersburg	Md
Components Corp, Denville	NJ
Component Technology Corp, Sunnyvale	Cal
Computing Devices of Canada Ltd, Ottawa	Ont
Cooke Vacuum Products Inc, South Norwalk	Conn
Darcy Industries Inc, Behlman Div, Santa Monica	Cal
Davidson Electronic Development Co, Erie	Pa
Decker Corp, Bala Cynwyd	Pa
Del Electronics Corp, Mt Vernon	N Y
Eastern Dynamics, Inc, Bloomfield	Conn
E G & G Inc Custom Equip Div, Bedford	Mass
Electrochrome Corp, Plainview	N Y
Electro Development Corp, Lynnwood	Wash
Electronic Research Associates Inc, Cedar Grove	N J
Electro Powerpacs Corp, Cambridge	Mass
EMP Electronics Inc, Tempe	Ariz
Energy Beams Inc, Haskell	N J
Energy Systems Inc, Palo Alto	Cal
Ferrotran Electronics Co Inc, New York	N Y
Gar Enterprises Inc, Pasadena	Cal
Gelman Instrument Co, Ann Arbor	Mich
General Electric Co, ECSO, Schenectady	N Y
Giannini-Voltex, Whittier	Cal
Gulton Industries Inc Engineered Magnetics Div Hawthorne	Cal
Hamner Electronics Co Inc, Cleveland	Ohio
Heraeus-Engelhard Vacuum Inc, Monroeville	Pa
Hewlett-Packard, Palo Alto	Cal
High Voltage Power Supply Co, Van Nuys	Cal
Hill Magnetics, Inc, Redwood City	Cal
Hill Research Co, Oakland	Cal
Hi-Tek Corp, Santa Ana	Cal
Honeywell Test Instruments Div, Denver	Colo
Industrial Gauging & Control Inc, Norwalk	Conn
Inet Power A Teledyne Co, Gardena	Cal
Instrument Research Co, Lincoln	Mass
Interelectronics Corp, Congers	N Y
Ionic Electrostatic Corp, Garfield	N J
Ionics Inc, Electronics Div, Watertown	Mass
ITT Industrial Labs Div, Fort Wayne	Ind
Johnston Labs, Inc, Baltimore	Md
Keithley Instruments Inc, Cleveland	Ohio
Keltec Florida Div Aiken Industries Ft Walton Beach	Fla
Kepco Inc, Flushing	N Y
Kilovolt Corp, Hackensack	N J
Kinney Vacuum Div New York Air Brake Co Boston	Mass
Laben S p A, Milan	Italy
Lake Engineering Co Ltd, Scarborough	Ont
Lear Siegler Inc, Santa Monica	Cal
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
Marche Mfg Co, Des Plaines	Ill
McKee-Pedersen Instruments, Danville	Cal
Microdot Magnetics Inc, Los Angeles	Cal
Micro Power Inc, Long Island City	N Y
Microsemiconductor Corp, Culver City	Cal
Mictron Inc, Albany	NY
Mil Associates Inc, Hudson	NH
Narda Microwave Corp, Plainview	N Y
Neutronic Associates, Farmingdale	N Y
Nichols Co Ltd, R H, Downsview	Ont
NJE Corp, Kenilworth	N J
Northeast Scientific Corp, Acton	Mass
North Electric Co, Galion	Ohio
North Hills Electronics Inc, Glen Cove	N Y
Nuclear-Chicago Corp, Des Plaines	Ill
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nytron, Palo Alto	Cal
Opad Electric Co, Inc, New York	N Y
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Peschel Instruments Inc, Cape Coral	Fla
Pioneer Magnetics Inc, Santa Monica	Cal
Plastic Capacitors Inc, Chicago	Ill
Power Control Corp, Pittsburgh	Pa
Power Designs, Inc, Westbury	N Y
Power Sources Div, Technical Operations Inc Burlington	Mass
Powertec Div, Airtronics Corp, Chatsworth	Cal
Precision Mecanique Labinal, 93 Saint-Ouen	France
Quantum Electronics Corp, San Ramon	Cal
Ramm Rectifier Co, Inc, Bronx	N Y
Reaction Research Labs of America, Groton	Conn
Resalab Inc, Menlo Park	Cal
Rho Engineering Co, Los Angeles	Cal
Rodale Electronics Inc, Garden City	NY
Ross Engineering Corp, Saratoga	Cal
Rowe Industries Inc, Toledo	Ohio
Scientific Electric Inc, Garfield	N J
Scientific Instruments Co, Chatsworth	Cal
Scott Electronics Corp, Orlando	Fla
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Sentron Inc, Danbury	Conn

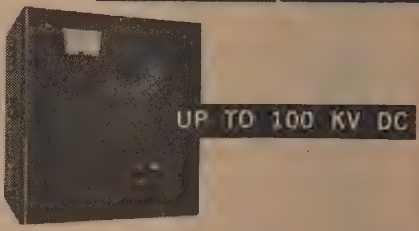
PRECISELY
REGULATED
HI-VOLTAGE
DC POWER SUPPLIES

DIGITAL DIALABLE

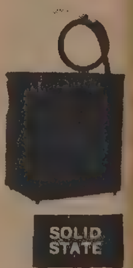
- Voltage from 2 kilovolts to 150 kilovolts DC
- Power to 40 kilowatts
- 0.05% to 0.1% regulation
- 0.01% ripple
- Fast response

The "BRE" series of precisely regulated high voltage power supplies guarantees regulation accuracy over an adjustment range of 500 volts to rated output, for input line variations and no load to full load changes. Voltage adjustment is in steps of 10 kilovolts, 1 kilovolt, 100 volts, 10 volts, 1 volt and 0-1 volt. The actual voltage output is always within 1% of the dial readings.

GENERAL PURPOSE



Universal Voltronics Corporation general-purpose regulated power supplies provide a continuously adjustable output from zero by means of coarse and vernier controls, with precisely regulated performance at rated output. Availability is up to 100 kilovolts DC, with controls including kilovoltmeter, high voltage pushbuttons and lights and primary line protection.



SERIES TUBE

HIGH VOLTAGE COMPONENTS AND EQUIPMENT

Call or write for catalog 67-12

UNIVERSAL VOLTRONICS CORPORATION

Radio Circle, Mount Kisco, N.Y. 10549

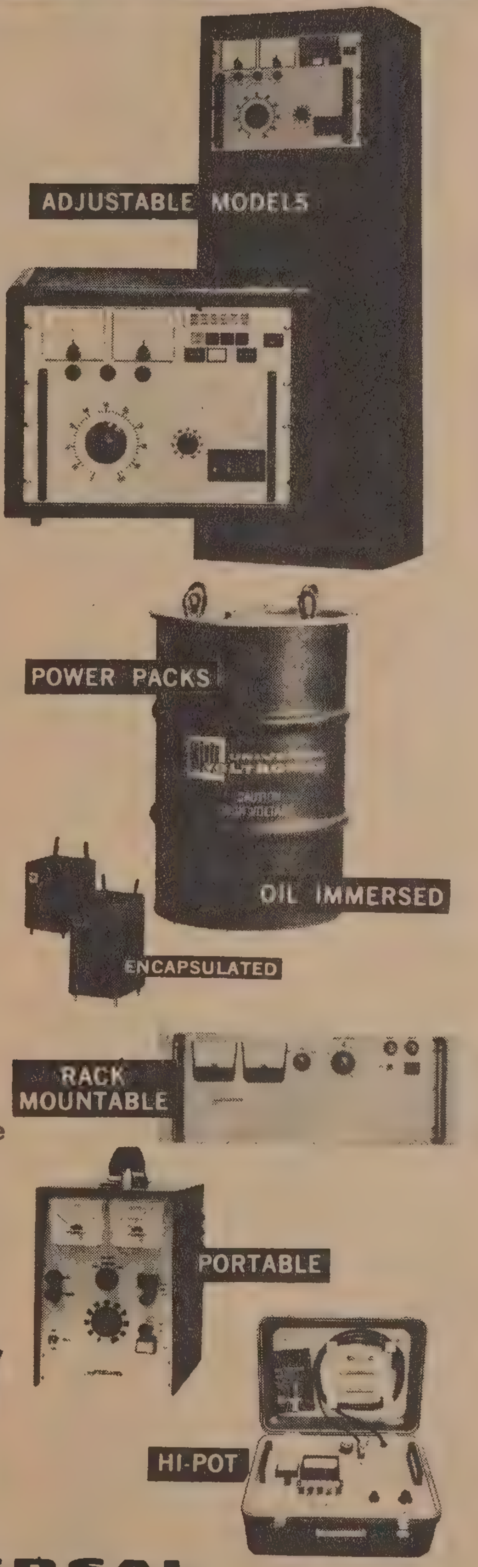
HIGH VOLTAGE
DC POWER SUPPLIES

- VOLTAGE FROM 2 KV TO 1000 KV DC
- POWER TO 64 KW
- REVERSIBLE POLARITY
- FULLY SELF-PROTECTING
- OPTIONAL APPLICATIONS-ORIENTED CONTROLS

Universal Voltronics Corporation offers a wide variety of high voltage DC power supplies, available with or without controls, in rack-mountable, fully-enclosed and portable configurations. Every Universal Voltronics Corporation power supply utilizes conservatively rated high voltage components to ensure high reliability and long-term trouble-free performance. Each power supply is shipped with a field and factory supported one-year warranty policy.

Call or write for catalog 67-10, which also describes high voltage multi-range power supplies, terminating hardware and DC kilovoltmeters.

UNIVERSAL VOLTRONICS CORPORATION
Radio Circle, Mount Kisco, N.Y. 10549



HIGH VOLTAGE

Servo Corp of America, Hicksville	N Y
S K G Associates Inc, Boston	Mass
Sola-Basic Industries, Milwaukee	Wis
Sorensen Operation, Raytheon Co., Norwalk	Conn
Sparton Electronics, Jackson	Mich
Stark Electronic Instruments Ltd, Ajax	Ont
Swiss Industries, Costa Mesa	Cal
Terra Corp, Albuquerque	N M
Ther Electric & Machine Works Inc, Chicago	Ill
Thiem-Transrex Inc, El Segundo	Cal
T M C Systems & Power Corp, Springfield	Va
Transformer Engineers, San Gabriel	Cal
Trio Laboratories Inc, Plainview	N Y
Universal Voltronics Corp, Mount Kisco	N Y
Varo Inc, Static Power Div, Plano	Tex
Vector Engineering Inc, Springfield	N J
Venus Scientific Inc, Hicksville	N Y
Wabash Magnetics Inc, Wabash	Ind
Walden Electronics Corp, Waltham	Mass
Weinschel Engineering Co Inc, Gaithersburg	Md
Wesco Electrical Co Inc, Greenfield	Mass
Whittaker Corp Gen Com Div, Plainview	N Y
Wilmore Electronics Co Inc, Durham	NC
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

POWER SUPPLIES, D-C--HIGH VOLTAGE (1 KV & ABOVE) UNREGULATED

AMP INCORPORATED, HARRISBURG	**• PA**
AMP INC, CAPITRON DIV, ELIZABETHTOWN, PA	**ADV PG 499**
GAR ENTERPRISES INC, PASADENA	**CAL**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
INTERELECTRONICS CORP, CONGERS, N Y	**ADV PG 535**
KEPCO INC, FLUSHING, N Y	**ADV PGS 501,4TH COVER**
NJE CORP, KENILWORTH, N J	**ADV PGS 530,531**
NOTHELFER WINDING LABS INC, TRENTON	**N J**
OPAD ELECTRIC CO, INC, NEW YORK	**N Y**
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM	**CAL**
PLASTIC CAPACITORS INC, CHICAGO	**ILL**
SORENSEN OPERATION, RAYTHEON CO., NORWALK CONN	**ADV PGS 528,529**
UNIVERSAL VOLTRONICS CORP, MOUNT KISCO N Y	**ADV PGS 504,505**
Abbott Transistor Labs, Inc, Los Angeles	Cal
Abtronics, Inc, Livermore	Cal
Acme Electric Corp, Cuba	N Y
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Advanced Energy Conversion, Menlo Park	Cal
Allied Research Associates, Inc, Concord	Mass
Alto Scientific Co, Inc, Palo Alto	Cal
Amglo Corp, Chicago	Ill
AMP Incorporated, Harrisburg	Pa
AMP Inc, Capitron Div, Elizabethtown	Pa
Astro-Metrix Corp, Burbank	Cal
Ault, Inc, Minneapolis	Minn
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bendix Corp Electro Optics Div, Ann Arbor	Mich
Bogue Electric Mfg Co, Paterson	N J
Chu Associates Inc, Littleton	Mass
Cober Electronics Inc, Stamford	Conn
Columbia Research Corp, Gaithersburg	Md
Components Corp, Denville	NJ
Component Technology Corp, Sunnyvale	Cal
Cooke Vacuum Products Inc, South Norwalk	Conn
Crystalab Products Corp, Rochelle Park	N J
Darrah Electric Co Inc, Cleveland	Ohio
Davidson Electronic Development Co, Erie	Pa
Decker Corp, Bala Cynwyd	Pa
Del Electronics Corp, Mt Vernon	N Y
Eastern Dynamics, Inc, Bloomfield	Conn
Edwards High Vacuum Inc, Grand Island	N Y
E G & G Inc Custom Equip Div, Bedford	Mass
Electrochrome Corp, Plainview	N Y
Electronic Research Associates Inc, Cedar Grove	N J
Electro Powerpacs Corp, Cambridge	Mass
EMP Electronics Inc, Tempe	Ariz
Energy Beams Inc, Haskell	N J
Energy Systems Inc, Palo Alto	Cal
Ferrotran Electronics Co Inc, New York	N Y
Fisher Engineering Inc, Huntington	Ind
Gar Enterprises Inc, Pasadena	Cal
General Electric Co, ECSO, Schenectady	N Y
Gulton Industries Inc Engineered Magnetics Div Hawthorne	Cal
High Voltage Power Supply Co, Van Nuys	Cal
Hill Magnetics, Inc, Redwood City	Cal
Hill Research Co, Oakland	Cal
Industron Corp, Needham Heights	Mass
Instrument Research Co, Lincoln	Mass
Interelectronics Corp, Congers	N Y
Ionic Electrostatic Corp, Garfield	N J
Ionics Inc, Electronics Div, Watertown	Mass
ITT Industrial Labs Div, Fort Wayne	Ind
Keltec Florida Div Aiken Industries Ft Walton Beach	Fla
Kepco Inc, Flushing	N Y
Kilovolt Corp, Hackensack	N J
Laben S p A, Milan	Italy
Lad Electronics Corp, Hicksville	N Y
Lake Engineering Co Ltd, Scarborough	Ont
Lear Siegler Inc, Santa Monica	Cal
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
Marche Mfg Co, Des Plaines	Ill
Microdot Magnetics Inc, Los Angeles	Cal
Microsemiconductor Corp, Culver City	Cal
Mil Associates Inc, Hudson	NH
Narda Microwave Corp, Plainview	N Y
Neutronic Associates, Farmingdale	N Y
NJE Corp, Kenilworth	N J
Northeast Scientific Corp, Acton	Mass

North Electric Co, Galion	Ohio
Nothelfer Winding Labs Inc, Trenton	N J
Omega Industries Inc, Newport Beach	Cal
Opad Electric Co, Inc, New York	N Y
Pacific Instrument Co, Oakland	cal
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Peschel Instruments Inc, Cape Coral	Fla
Pioneer Magnetics Inc, Santa Monica	Cal
Plastic Capacitors Inc, Chicago	Ill
Power Control Corp, Pittsburgh	Pa
Powertec Div, Airtronics Corp, Chatsworth	Cal
Precision Electronics Co, Marshfield	Mass
Quantum Electronics Corp, San Ramon	Cal
Ramm Rectifier Co, Inc, Bronx	N Y
Reaction Research Labs of America, Groton	Conn
Resalab Inc, Menlo Park	Cal
Rho Engineering Co, Los Angeles	Cal
Ross Engineering Corp, Saratoga	Cal
Rowe Industries Inc, Toledo	Ohio
Scientific Electric Inc, Garfield	N J
Scientific Instruments Co, Chatsworth	Cal
Scott Electronics Corp, Orlando	Fla
Sentron Inc, Danbury	Conn
S K G Associates Inc, Boston	Mass
Sola-Basic Industries, Milwaukee	Wis
Sorensen Operation, Raytheon Co., Norwalk	Conn
Stark Electronic Instruments Ltd, Ajax	Ont
Swiss Industries, Costa Mesa	Cal
Ther Electric & Machine Works Inc, Chicago	Ill
Thiem-Transrex Inc, El Segundo	Cal
Transformer Engineers, San Gabriel	Cal
Universal Voltronics Corp, Mount Kisco	N Y
Varo Inc, Static Power Div, Plano	Tex
Venus Scientific Inc, Hicksville	N Y
Wesco Electrical Co Inc, Greenfield	Mass
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

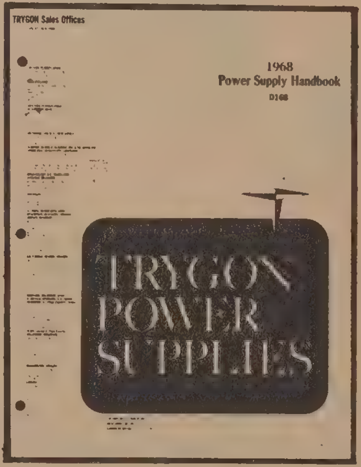
POWER SUPPLIES, D-C--REGULATED

ACOPIAN CORP, EASTON	**PA**
ALLIED ELECTRONICS CORP, CHICAGO	**ILL**
AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
AMP INCORPORATED, HARRISBURG	**PA**
AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
ANALOG DEVICES INC, CAMBRIDGE	**MASS**
AXEL ELECTRONICS, INC, JAMAICA	**N Y**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
CGS UNITS INC, ROCHESTER	**N Y**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL,	**PA**
C M L INC, PLAINFIELD, N J	ADV PGS 496,497
CONTEMPORARY ELECTRONICS INC, MINNEAPOLIS MINN	ADV PG 534
DECOURSEY ENGINEERING LAB, CULVER CITY	**CAL**
DYNAGE, INC, BLOOMFIELD, CONN	ADV PG 507
EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
ELECTRONIC MEASUREMENTS DIV ROWAN CONTROLLER CO OCEANPORT, N J	ADV PG 536
FLUKE MFG CO INC, JOHN, SEATTLE WASH	ADV PG 514
GAR ENTERPRISES INC, PASADENA, CAL	ADV PG 507
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	ADV PGS 7
HEATH CO, BENTON HARBOR	**MICH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	ADV PGS 8
INTERELECTRONICS CORP, CONGERS, N Y	ADV PG 535
INTRONICS INC, NEWTON	**MASS**
KEPCO INC, FLUSHING, N Y	ADV PGS 508-513,4TH COVER
LAMBDA ELECTRONICS CORP, PLAINVIEW N Y	ADV PGS 515-525
MAGNETICS INC, BUTLER	**PA**
MELCOR ELECTRONICS CORP, FARMINGDALE	**N Y**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH	**VA**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
NJE CORP, KENILWORTH, N J	ADV PGS 530,531
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
OPAD ELECTRIC CO, INC, NEW YORK	**N Y**
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM	**CAL**
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM	**MASS**
PLASTIC CAPACITORS INC, CHICAGO	**ILL**
POWER DESIGNS, INC, WESTBURY, N Y	ADV PGS 532,533
POWER/MATE CORP, HACKENSACK, N J	ADV PGS 506,536
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
SORENSEN OPERATION, RAYTHEON CO., NORWALK CONN	ADV PGS 528,529
SPELLMAN HIGH VOLTAGE ELECTRONICS CORP, BRONX N Y	ADV PGS 502,503
TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA	**N Y**
TECHNIPOWER INC, SUB BENRUS WATCH CO INC RIDGEFIELD	**CONN**
TEKTRONIX INC, BEAVERTON	**ORE**
TELE-SIGNAL CORP, WOODBURY	**N Y**
TRANSFORMER ELECTRONICS CO, BOULDER COLO	ADV PGS 2ND COVER & FACING PG
TRYGON ELECTRONICS INC, ROOSEVELT N Y	ADV PGS 506,536
UNIVERSAL VOLTRONICS CORP, MOUNT KISCO	**N Y**
WAGNER ELECTRIC CORP, TUNG-SOL DIV, LIVINGSTON N J	ADV PG 534
WANLASS ELECTRIC CO, SANTA ANA, CAL	ADV PGS 526,527
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
AB Atomenergi, 10072 Stockholm 43	Sweden
Abbott Transistor Labs, Inc, Los Angeles	Cal
Abtronics, Inc, Livermore	Cal
ACDC Electronics, Inc, Burbank	Cal
AC Electronics Co, Los Angeles	Cal

POWER/MATE CORP.
BP-118 UNIVERSAL BENCH SUPPLY
❊ 0-34 volts at 1.5 amps. ❊ 0.01% regulation ❊ 250 microvolts ripple ❊ Short circuit and overload protected ❊ 100,000 hours MTBF ❊ 5 year warranty. Send for Literature describing thousands of Power Supplies to 400 Volts and to 50 Amps.

VOLTS
AMPS
SAME DAY SHIPMENT

$118.00
PMC POWER/MATE CORPORATION
163 Clay St. ▪ Hackensack, N. J. 07601
(201) 343-6294 ▪ TWX (710) 990-5023


TRYGON Sales Offices
1968
Power Supply Handbook
D168
TRYGON POWER SUPPLIES

TRYGON
POWER SUPPLY
HANDBOOK

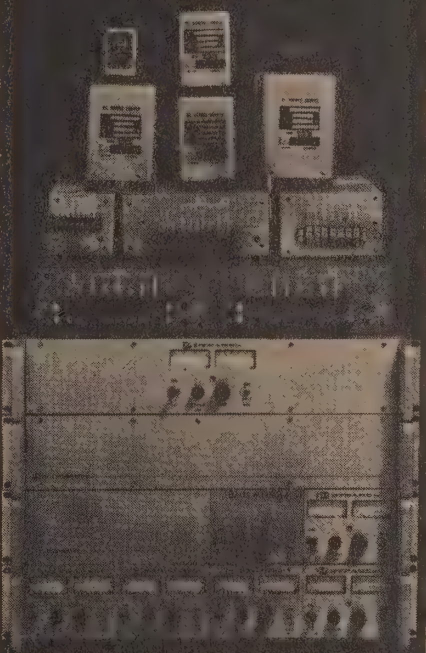
58 Pages Of Specifications and Application Notes. Over 200 Models Available.

Write Now For Your Free Copy

TRYGON ELECTRONICS INC.
111 Pleasant Ave., Roosevelt, New York 11575
TEL: 516-378-2800 • TWX: 510-225-3664

Acme Electric Corp, Cuba	N Y
Acme Products Co, Kensington	Conn
Acopian Corp, Easton	Pa
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Advanced Development Corp, Gardena	Cal
Advanced Energy Conversion, Menlo Park	Cal
Aerolite Electronics Corp, Union City	N J
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Aerospace Avionics Inc, Bohemia	NY
Aerotronic Associates, Inc, Contoocook	N H
AIM Electronics Ltd, Cambridge	U K
Airco Temescal, Berkeley	Cal
Air Technology Corp, Waltham	Mass
Alfred Electronics, Palo Alto	Cal
Allen-Bradley Co, Milwaukee	Wis
Allied Electronics Corp, Chicago	Ill
Allied Research Associates, Inc, Concord	Mass
Allis-Chalmers Mfg Co, Milwaukee	Wis
Alpha Scientific Labs Inc, Oakland	Cal
Amelco Semiconductor, A Teledyne Co Mountain View	Cal
American Monarch Div Mpls Scientific Controls Minneapolis	Minn
American Rectifier Corp, College Point	N Y
American Systems, Inc, Van Nuys	Cal
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Amglo Corp, Chicago	Ill
AMP Incorporated, Harrisburg	Pa
AMP Inc, Capitron Div, Elizabethtown	Pa
Amplifier Corp of America, Westbury	N Y
Analog Devices Inc, Cambridge	Mass
Analogic Corp, Waltham	Mass
Andonian Associates, Inc, Waltham	Mass
Applied Control Co, Cedar Grove	NJ
Applied Electro Mechanics Inc, Alexandria	Va
Applied Electronics Corp of N J, Metuchen	N J
Argonaut Associates, Inc, Beaverton	Ore
Arnold Magnetics Corp, Los Angeles	Cal
Associated Specialties Co, Orefield	Pa
Astro-Metrix Corp, Burbank	Cal
Atlas Controls Div Atlas Engrg Co Inc, Dorchester	Mass
Aul Instruments Inc, Long Island City	NY
Ault, Inc, Minneapolis	Minn
Automation Services Inc, Endicott	N Y
A V Electronics, Inc, Fresno	Cal
Avionics, Inc, South Bend	Ind
Avtel Corp, Covina	Cal
Axel Electronics, Inc, Jamaica	N Y
Ballastran Corp, Fort Wayne	Ind
Barden Co, Hermosa Beach	Cal
Barwood Electronics, Inc, Glendale	Cal
Basler Electric Co, Highland	Ill
B & B Motor & Control Corp, New York	N Y
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp, Communications Div, Towson	Md
Bendix Corp Electric Power Div, Eatontown	NJ
Bergen Lab, Inc, Paterson	N J
Berg Gibson Mfg Co, Kansas City	Mo
B & F Instruments, Inc, Cornwells Heights	Pa
Bogue Electric Mfg Co, Paterson	N J
Borders Electronics Co Inc, Pennsauken	N J
Bourns Inc Instrument Div, Riverside	Cal
Brad Thompson Industries Inc, Indio	Cal
Brandenburg Ltd, South Croydon	Surrey U K
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bruker Scientific Inc, Irvington-on-Hudson	N Y
Buchler Instruments Inc, Fort Lee	N J
Buckeye Stamping Co, Columbus	Ohio
Burr-Brown Research Corp, Tucson	Ariz
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
California Systems Components, Inc, Chatsworth	Cal
Cal-Power Corp, El Segundo	Cal
Canadian Research Institute, Don Mills	Ont
Cardinal Control Co Inc, Kensington	Conn
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Carter Co, J C, Electronics Div, Costa Mesa	Cal
CEA Div Berkleonics Inc, Monrovia	Cal
C-E Electronics Inc, Glenside	Pa
Central Scientific Co, Chicago	Ill
CGS Units Inc, Rochester	N Y
Chalco Engineering Corp, Gardena	Cal
Christie Electric Corp, Los Angeles	Cal
Chrysler Corp, Space Div, Huntsville Oper Huntsville	Ala
Chu Associates Inc, Littleton	Mass
Clare-Electroseal Corp, Des Plaines	Ill
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
C M L Inc, Plainfield	N J
C & N Electrical Ltd, Hants	England
Cober Electronics Inc, Stamford	Conn
Cohu Electronics Inc, San Diego	Cal
Coil Co of America Inc, Northvale	N J
Compagnie Generale de Metrologie Haute Savoie	France
Components Corp, Denville	NJ
Components Specialties Inc, Freeport	N Y
Component Technology Corp, Sunnyvale	Cal
Condenser Products Corp, Brooksville	Fla
Condor Industrial Corp, West Chicago	Ill
Consolidated Ohmic Devices Inc, Carle Place	N Y
Contemporary Electronics Inc, Minneapolis	Minn
Continental Device Corp, Hawthorne	Cal
Control Circuits Inc, Middletown	Conn
Cooke Vacuum Products Inc, South Norwalk	Conn
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Crane Electronics Corp, Santa Barbara	Cal
Crescent Technology Corp, Newport Beach	Cal
Darcy Industries Inc, Behlman Div, Santa Monica	Cal
Data Device Corp, Hicksville	N Y
Data Science Corp, San Diego	Cal
Daytron Inc, Mountain View	Cal
Decatur Electronics Inc, Decatur	Ill
DeCoursey Engineering Lab, Culver City	Cal
Del Electronics Corp, Mt Vernon	N Y
Deltron, Inc, North Wales	Pa
Dial Products Co, Bayonne	N J
Digital Electronics Inc, Plainview	N Y
Digital Equipment Corp, Maynard	Mass
Dinion Coil Co Inc, Caledonia	N Y
Dorsett Electronics Inc, Tulsa	Okla
Dressen-Barnes Electronics Corp, Pasadena	Cal
Dresser Systems, Inc, Houston	Tex
Dynage, Inc, Bloomfield	Conn
Dynalectron Corp Aerospace Prods Div San Leandro	Cal
Dynamic Instrument Corp, Plainview	N Y
Dynisco Div Microdot Inc, Westwood	Mass
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Eastern Dynamics, Inc, Bloomfield	Conn
Ectron Corp, San Diego	Cal
E G & G Inc Custom Equip Div, Bedford	Mass
Elasco Inc, Boston	Mass
Elcor, Div Halliburton Co, Silver Spring	Md
Electrical Design & Mfg Co, Warrington	Pa
Electro Circuits Inc, Lowell	Mass
Electro Development Corp, Lynnwood	Wash
Electronic Design Labs Inc, Philadelphia	Pa
Electronic Development Corp, Boston	Mass
Electronic Engineering Co of Cal, Santa Ana	Cal
Electronic Measurements Div Rowan Controller Co Oceanport	N J
Electronic Research Associates Inc, Cedar Grove	N J
Electronic Specialty Co, Los Angeles	Cal
Electro-Pacific Inc, Goleta	Cal
Electro Powerpacs Corp, Cambridge	Mass
Electro Products Labs Inc Power Supply Div Chicago	Ill
Electro Technic Products, Chicago	Ill
Elgin Electronics Inc, Erie	Pa
EMP Electronics Inc, Tempe	Ariz
Endevco Corp, Pasadena	Cal
Energy Systems Inc, Palo Alto	Cal
Engineering Associates, Dayton	Ohio
Eon Instrumentation Inc, Van Nuys	Cal
Epsco Inc, Westwood	Mass
Euro Cedag, Milan	Italy
Extrudonics Inc, New Brunswick	N J
Fairlane Electronics, Inc, Long Valley	N J
Fansteel Metallurgical Corp, North Chicago	Ill
Farrand Optical Co Inc, Bronx	N Y
Fenlow Electronics Ltd, Weybridge	England
Ferrotran Electronics Co Inc, New York	N Y
Fisher Engineering Inc, Huntington	Ind
Fluke Mfg Co Inc, John, Seattle	Wash
Fontaine, P, 91 Chilly-Mazarin	France
Freed Transformer Co Inc, Brooklyn	N Y
Fullmer Electronics Inc, Northridge	Cal
Gar Enterprises Inc, Pasadena	Cal
Gas Analysis Systems Inc, Basking Ridge	NJ
Gates Electronic Co Inc, Bronx	N Y
Gelman Instrument Co, Ann Arbor	Mich

ALL IN 3 1/2 INCHES
600 watts of regulated DC power
•
18 standard multi modular mounting configurations
•
8 dual output power supplies
•
total power supply capabilities



Dynage has the total capability to provide any level of DC power from milliwatts to kilowatts and any degree of performance from unregulated to extremely high stability with performance guaranteed by quality control.

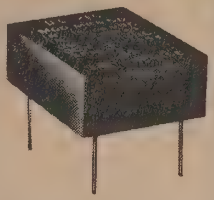
POWER SUPPLIES
PRECISION VOLTAGE REFERENCES
LABORATORY INSTRUMENTS

Complete catalog is available from representatives throughout the U. S. and Canada or write direct.

See E.E.M. pages 1802-1809

DYNAGE inc.
1331 Blue Hills Ave., Bloomfield
Conn. 06002 • (203) 243-0315

Miniature Voltage Regulator



Designed for installation in computers, control, automation GSE, and other digital logic systems.

The Model MRS Series Voltage Regulator: 1) dissipates only 20% of the power consumed by conventional regulators; 2) distributes power to digital systems in the form of higher voltage and lower current; 3) delivers high current only at the point of installation; 4) reduces system noise by reducing buss bar currents.

SPECIFICATIONS

1. Input voltage range: 16-24 VDC
2. Output voltage:
   Model MRS 45 — 4.5 VDC
   Model MRS 50 — 5.0 VDC
   Model MRS 55 — 5.5 VDC
3. Load current: 0-500 ma
4. Efficiency: 65% @ Full Load
5. Line regulation: ± 0.5% Max.
6. Load regulation:
   No load to full load: ± 0.5% Max.
7. Output ripple: 40 m v P-P Max.
8. Temperature stability: 2.0 m v/°C
9. Operating temperature: 0-65°c
10. Overload and short circuit protection:
    Protected against dead short and above 150% overload
11. Recovery time:
    (a) No load to full load: 0.75 m sec
    (b) Full load to no load: 4.5 m sec
12. Size: 1 9/16 x 1 1/4 x 1/2 inches high
    Leads: 5/8 inches long

GAR ENTERPRISES, Inc.
2029 No. Lincoln Avenue
Pasadena, Calif. 91103
Phone: (213) 798-0785

KEPCO POWER SUPPLIES

Kepco power supplies are categorized according to functions and ratings listed below. Find the group listings in categories of interest, then consult the columns at the right for a detail listing of the various models available within each design group.

AUTOMATIC CROSSOVER

(Twin internal amplifiers for voltage and current control) **BHK, CK, KO, KS Design Groups and OPS 2000.**

CURRENT REGULATORS

(Access terminals are available so that current feedback may be used) **ABC, BHK, BOP, CC, CK, CK-HS, CPS, HB, JQE, KO, KS, OPS, PAT, PAX and PCX Design Groups.**

GENERAL PURPOSE

(Designed for laboratory or system use) **ABC, CK, JQE, KO, KS, PR, SM and WR Design Groups.**

HIGH VOLTAGE

(Outputs in excess of 300V d-c) **ABC (Hybrid), BHK, HB, OPS 2000, PR, SM and WR Design Groups.**

HIGH SPEED

(Capacitorless output filtering for fast programming or quick-recovery current control) **BHK, BOP, CC, CK-HS, JQE-HS, OPS and PAX-HS Design Groups.**

MODULAR

(Packaged power for systems build-ins) **CPS, OPS, PAR, PAT, PAX, PCX, PRM and PWR Design Groups.**

OPERATIONAL

(Contain internal offset adjustments to optimize regulator for operational control) **BHK, BOP, CK-HS, JQE, JQE-HS and OPS Design Groups.**

PLUG-IN STYLE

(Multi-housing flexibility in narrow slot modules) **CC, KG, OPS, OPS-BTA, PAX, PCX and PCX-MAT Design Groups.**

PROGRAMMABLE

(Remote output control by resistance or electrical signals) **ABC, BHK, BOP, CC, CDT, CK, CK-HS, CPS, HB, JQE, JQE-HS, KG, KO, KS, OPS, PAR, PAT, PAX, PCX, PWR and PVS Design Groups.**

SPECIAL PURPOSE

(Dual tracking ± voltage) **CDT Design Group**
(Computer supplies with overvoltage protection) **CPS**
(Precision voltage source, BCD programmable) **PVS**
(a-c Line stepper regulator) **LSR**
(Bipolar operational power) **BOP**

ACCESSORIES

(Auto transformers 2:1 step down) **AT**
(Rack adapters) **RA**, (Relay) **VIX-1**

PROGRAMMERS

(Analog and digital control devices) **DPD, DPR, DPK, FG, KP and MP Models**

PROTECTORS

(Overvoltage crowbar) **VIP, VP Models**

© 1968 KEPCO, INC.

DESIGN GROUP INDEX

ABC®

REGULATION: <0.05% Line — <0.05% Load

- Voltage or Current Regulation (External Sensing)
- 10-Turn Voltage Control
- High Voltage Hybrid Models
- Full Range Programming
- Wide Voltage Range

ALL-TRANSISTOR MODELS

MODEL	VOLTS	AMPS	PRICE	WGT.
ABC 2–1M	0–2	0–1	$131.00	10
ABC 7.5–2M	0–7.5	0–2	175.00	14
ABC 10–0.75M	0–10	0–0.75	131.00	10
ABC 15–1M	0–15	0–1	175.00	13
ABC 18–0.5M	0–18	0–0.5	131.00	10
ABC 30–0.3M	0–30	0–0.3	131.00	10
ABC 40–0.5M	0–40	0–0.5	175.00	14
ABC 100–0.2M	0–100	0–0.2	197.00	14

HYBRID MODELS

MODEL	VOLTS	AMPS	PRICE	WGT.
*ABC 200M	0–200	0–0.1	220.00	14
*ABC 425M	0–425	0–0.05	220.00	15
*ABC 1000M	0–1000	0–0.02	309.00	15
*ABC 1500M	0–1500	0–0.01	309.00	15
*ABC 2500M	0–2500	0–0.002	383.00	18

*Fast Slewing models available on special order.

BHK

REGULATION: <0.005% Line — <0.01% Load

- Fast Slewing Capability
- Hybrid Design
- Operationally Controllable
- Automatic Crossover
- 10-turn Voltage and Current Controls

MODEL	VOLTS	AMPS	PRICE	WGT.
BHK 500–0.4M	0–500	0–0.4	$825.00	40
BHK 1000–0.2M	0–1000	0–0.2	825.00	41
BHK 2000–0.1M	0–2000	0–0.1	850.00	43

BOP

BIPOLAR OPERATIONAL POWER. OPEN LOOP GAIN >88 db.

- Adjusts Smoothly through Zero for Plus or Minus Output
- Operational Patch Panel
- Fast Programming, Wideband
- High Open Loop Gain, Low Offset

MODEL	VOLTS	AMPS	PRICE	WGT.
BOP 36–5M	-36 to +36	-5 to +5	$585.00	42

CC

CURRENT REGULATION: <0.0005% Line — <0.005% Load

- 10-turn Current Control
- Capacitorless Output Filter
- Fast Recovery Regulator
- Programmable

MODEL	VOLTS	AMPS	PRICE	WGT.
CC 7–2M	0–7	0–2	$195.00	6
CC 15–1.5M	0–15	0–1.5	195.00	6
CC 21–1M	0–21	0–1	195.00	6
CC 40–0.5M	0–40	0–0.5	195.00	6
CC 72–0.3M	0–72	0–0.3	195.00	6
CC 100–0.2M	0–100	0–0.2	195.00	6

CDT

REGULATION: <0.005% Line — <0.01% Load

- Complementary or Series Output
- Single Control, Adjustable Tracking
- Voltage, Current and Error Metering

MODEL	VOLTS	AMPS	PRICE	WGT.
CDT 15–1.5M	0–±15	0–±1.5	$399.00	19
CDT 40–0.5M	0–±40	0–±0.5	399.00	19
CDT 100–0.2M	0–±100	0–±0.2	399.00	19

CK

REGULATION: <0.005% Line — <0.01% Load

- Voltage and Current Regulation
- Automatic Crossover and VIX®
- 10-turn Voltage and Current Controls

MODEL	VOLTS	AMPS	PRICE	WGT.
CK 2–8M	0–2	0–8	$363.00	21
CK 8–5M	0–8	0–5	363.00	21
CK 18–3M	0–18	0–3	321.00	21
CK 36–1.5M	0–36	0–1.5	321.00	21
CK 40–0.8M	0–40	0–0.8	281.00	21
CK 60–0.5M	0–60	0–0.5	321.00	21

All Prices Net F.O.B. Flushing, N. Y. — Prices Subject to Change Without Notice

KEPCO, INC. • 131-38 SANFORD AVENUE • FLUSHING, N.Y. 11352 • (212) 461-7000 • TWX # 710-582-2631 • Telex: 12-6055 • Cable: KEPCOPOWER NEWYORK

KEPCO POWER SUPPLIES • SHORT FORM CATALOG & PRICE SCHEDULE

CK-HS

REGULATION: <0.005% Line – <0.01% Load
- Automatic Crossover and VIX® ■ Fast Slewing
- Operationally Programmable
- Adjustable Offsets

MODEL	VOLTS	AMPS	PRICE	WGT.
CK 8–5MHS	0–8	0–5	$410.00	21
CK 18–3MHS	0–18	0–3	368.00	21
CK 36–1.5MHS	0–36	0–1.5	368.00	21
CK 40–0.8MHS	0–40	0–0.8	328.00	21
CK 60–0.5MHS	0–60	0–0.5	368.00	21

CPS

REGULATION: <0.0005% Line – <0.005% Load
- Voltage Regulated, Current Limited
- Low Voltage – High Current for IC's ■ Lab/Modular Style
- Panel Adjusted Overvoltage Crowbar

MODEL	VOLTS	AMPS	PRICE	WGT.
CPS 6–10M	0–6	0–10	$ 366.00	21
CPS 6–10	0–6	0–10	336.00	21
CPS 6–22M	0–6	0–22	613.00	45
CPS 6–22	0–6	0–22	583.00	45
CPS 6–45M	0–6	0–45	692.00	45
CPS 6–45	0–6	0–45	662.00	45
CPS 6–90M	0–6	0–90	1,044.00	77
CPS 6–90	0–6	0–90	1,014.00	77
CPS 15–6M	0–15	0–6	366.00	21
CPS 15–6	0–15	0–6	336.00	21
CPS 15–12M	0–15	0–12	613.00	45
CPS 15–12	0–15	0–12	583.00	45
CPS 15–25M	0–15	0–25	692.00	45
CPS 15–25	0–15	0–25	662.00	45
CPS 15–50M	0–15	0–50	1,044.00	77
CPS 15–50	0–15	0–50	1,014.00	77

For 0.005% per °C TC OPTION: add suffix "T" to model no. and $30.00 to price.

HB

REGULATION: <0.01% Line – <0.01% Load
- Hybrid (Vacuum Tube Pass Element)
- Voltage or Current Regulation (External Sensing)
- 5-Position Range, 10-Turn Voltage Vernier

MODEL	VOLTS	AMPS	PRICE	WGT.
HB 2AM	0–325	0–0.2	$325.00	35
HB 4AM	0–325	0–0.4	365.00	35
HB 6AM	0–325	0–0.6	395.00	43
HB 8AM	0–325	0–0.8	435.00	43
HB 250M	0–250	0–1	595.00	43
HB 525M	0–525	0–0.5	550.00	43

JQE

REGULATION: <0.0005% Line – <0.005% Load
- Voltage Regulated, Current Limited ■ Dual-Range Metering
- Optional Overvoltage Crowbar ■ 10-turn Voltage Control
- Current Regulating with External Sensing ■ High Speed Option

MODEL	VOLTS	AMPS	PRICE	WGT.
JQE 6–10M	0–6	0–10	$289.00	21
JQE 6–22M	0–6	0–22	546.00	45
JQE 6–45M	0–6	0–45	625.00	45
JQE 6–90M	0–6	0–90	977.00	77
JQE 15–6M	0–15	0–6	289.00	21
JQE 15–12M	0–15	0–12	546.00	45
JQE 15–25M	0–15	0–25	625.00	45
JQE 15–50M	0–15	0–50	977.00	77
JQE 25–4M	0–25	0–4	289.00	21
JQE 36–3M	0–36	0–3	289.00	21
JQE 55–2M	0–55	0–2	300.00	21
JQE 75–1.5M	0–75	0–1.5	300.00	21
JQE 100–1M	0–100	0–1	300.00	21

Factory-Installed OVERVOLTAGE PROTECTOR: add suffix "VP" to model no. and $75.00 to price.
HIGH-SPEED OPTION: (100,000 V/s): add suffix "HS" and $50.00 to price (includes offset control).
Built-in OFFSET VOLTAGE CONTROL: add suffix "E" to model no. and $10.00 to price.
For 0.005% per °C TC OPTION: add suffix "T" to model no. and $30.00 to price.

KG

REGULATION: <0.001% Line – <0.005% Load
- Isolated from Power Line and Ground
- 10-turn Voltage Control
- Plug-in Mounting single or 8 abreast

ISOLATED PLUG-IN MODULE

MODEL	VOLTS	AMPS	PRICE	WGT.
KG 25–0.2	0–25	0–0.2	$175.00	4
KG 100–0.05	0–100	0–0.05	175.00	4

KO

REGULATION: <1% Line – <1% Load
- Automatic Crossover ■ High Power
- Voltage and Current Regulation
- 10-turn Voltage and Current Controls

MODEL	VOLTS	AMPS	PRICE	WGT.
KO 12–100M	0–12	0–100	$1,095.00	178
KO 25–50M	0–25	0–50	995.00	165
KO 45–30M	0–45	0–30	895.00	165
KO 70–20M	0–70	0–20	995.00	169

KS

REGULATION: <0.005% Line – <0.01% Load
- Voltage and Current Regulation
- SCR Preregulated – Full Transistor Regulator
- Auto.Crossover and VIX® ■ 10-turn Voltage/Current Controls

MODEL	VOLTS	AMPS	PRICE	WGT.
KS 8–15M	0–8	0–15	$ 657.00	45
KS 8–25M	0–8	0–25	798.00	65
KS 8–50M	0–8	0–50	1,103.00	95
KS 8–100M	0–8	0–100	1,523.00	170
KS 18–10M	0–18	0–10	604.00	45
KS 18–15M	0–18	0–15	762.00	65
KS 18–25M	0–18	0–25	1,018.00	95
KS 18–50M	0–18	0–50	1,428.00	170
KS 36–5M	0–36	0–5	552.00	45
KS 36–10M	0–36	0–10	657.00	65
KS 36–15M	0–36	0–15	767.00	95
KS 36–30M	0–36	0–30	1,208.00	170
KS 60–2M	0–60	0–2	552.00	45
KS 60–5M	0–60	0–5	678.00	65
KS 60–10M	0–60	0–10	940.00	95
KS 60–20M	0–60	0–20	1,418.00	170
KS 120–1M	0–120	0–1	578.00	45
KS 120–2.5M	0–120	0–2.5	730.00	65
KS 120–5M	0–120	0–5	1,019.00	95
KS 120–10M	0–120	0–10	1,523.00	170

LSR

REGULATION: <0.3% Line and Load
- AC Line Conditioner ■ High Efficiency
- Programmable Output Voltage
- Electromechanical Corrector, No Distortion Added

MODEL	VOLTS	AMPS	PRICE	WGT.
LSR–6	115/230(AC)	50/25	$975.00	160

OPS

OPERATIONAL POWER SUPPLY, OPEN LOOP GAIN >80 db.
- High Gain (DC) Amplifier ■ Offset and Lag Controls
- Operational Patch Panel ■ Choice of 1-6 Slot Housings
- Slide Plug-in Interchangeability

MODEL	VOLTS	AMPS	PRICE	WGT.
*OPS 7–2B	0–7	0–2	$137.00	4
OPS 7–2BTA	0–7	0–2	179.00	6
*OPS 15–1.5B	0–15	0–1.5	137.00	4
OPS 15–1.5BTA	0–15	0–1.5	179.00	6
*OPS 21–1B	0–21	0–1	137.00	4
OPS 21–1BTA	0–21	0–1	179.00	6
*OPS 40–0.5B	0–40	0–0.5	137.00	4
OPS 40–0.5BTA	0–40	0–0.5	179.00	6

(continued on the following page)

All Prices Net F.O.B. Flushing, N. Y. – Prices Subject to Change Without Notice

KEPCO, INC. • 131-38 SANFORD AVENUE • FLUSHING, N.Y. 11352 • (212) 461-7000 • TWX #710-582-2631 • Telex: 12-6055 • Cable: KEPCOPOWER NEWYORK

KEPCO POWER SUPPLIES • SHORT FORM CATALOG & PRICE SCHEDULE

OPS

OPERATIONAL POWER SUPPLY, OPEN LOOP GAIN >80 db.

- High Gain (DC) Amplifier
- Offset and Lag Controls
- Operational Patch Panel
- Choice of 1-6 Slot Housings
- Slide Plug-in Interchangeability

MODEL	VOLTS	AMPS	PRICE	WGT.
*OPS 72–0.3B	0–72	0–0.3	137.00	4
OPS 72–0.3BTA	0–72	0–0.3	179.00	6
*OPS 100–0.2B	0–100	0–0.2	137.00	4
OPS 100–0.2BTA	0–100	0–0.2	179.00	6
†OPS 20	0–20	0–0.05	200.00	7
†OPS 2000	0–2000	0–0.01	368.00	16

*Uncased Models, for Dust Cover Case: add suffix "C" to model no. and $11.00 to price.
Models with suffix "TA" fit plug-in housings CA-3, CA-4, CA-5 and RA 22-6.
†OPS 20 and OPS 2000 available in bench style only.

PAR

REGULATION: <0.005% Line — <0.01% Load

- Out-of-Band Programming
- Overload Current Cutoff
- Precision Regulator
- 50-440 Hz Power Frequencies

MODEL	VOLTS	AMPS	PRICE	WGT.
PAR–4	4±5%	0–11	$205.00	20
PAR–7	7±5%	0–10	205.00	20
PAR–12	12±5%	0–7	205.00	20
PAR–15	15±5%	0–6	205.00	20
PAR–24	24±5%	0–4	205.00	20
PAR–28	28±5%	0–3.7	205.00	20
PAR–36	36±5%	0–2.8	205.00	20
PAR–48	48±5%	0–2.3	205.00	20
PAR–60	60±5%	0–2	205.00	20

CASED UNIT: add suffix "C" to model no. and $11.00 to price.

PAT

REGULATION: <0.0005% Line — <0.005% Load

- Full Range Operationally Programmable
- All Silicon Design
- Compact Modern Package

MODEL	VOLTS	AMPS	PRICE	WGT.
PAT 7–2	0–7	0–2	$121.00	6
PAT 15–1.5	0–15	0–1.5	121.00	6
PAT 21–1	0–21	0–1	121.00	6
PAT 40–0.5	0–40	0–0.5	121.00	6
PAT 72–0.3	0–72	0–0.3	121.00	6
PAT 100–0.2	0–100	0–0.2	121.00	6

Built-in OFFSET VOLTAGE CONTROL: add suffix "E" to model no. and $10.00 to price.
For 0.005% per °C TC OPTION: add suffix "T" to model no. and $30.00 to price.
PROGRAMMING CALIBRATION CONTROL: add suffix "R" to model no. and $10.00 to price.

PAX

REGULATION: <0.05% Line — <0.05% Load

- Voltage or Current Regulation
- Continuous Full Range Programming
- Suffix "HS" — High Speed Programmability

MODEL	VOLTS	AMPS	PRICE	WGT.
PAX 7–1	0–7	0–1	$ 94.00	4
PAX 7–1HS	0–7	0–1	104.00	4
PAX 15–0.75	0–15	0–0.75	94.00	4
PAX 15–0.75HS	0–15	0–0.75	104.00	4
PAX 21–0.5	0–21	0–0.5	94.00	4
PAX 21–0.5HS	0–21	0–0.5	104.00	4
PAX 36–0.3	0–36	0–0.3	94.00	4
PAX 36–0.3HS	0–36	0–0.3	104.00	4
PAX 72–0.15	0–72	0–0.15	94.00	4
PAX 72–0.15HS	0–72	0–0.15	104.00	4
PAX 100–0.1	0–100	0–0.1	94.00	4
PAX 100–0.1HS	0–100	0–0.1	104.00	4

CASED UNIT: add suffix "C" to model no. and $11.00 to price.
PROGRAMMING CALIBRATION CONTROL: add suffix "R" to model no. and $10.00 to price.

The new PCX Module is the successor to Kepco's PBX Power Supplies

PCX

REGULATION: <0.0005% Line — <0.005% Load

- All Silicon Design
- Meters, Controls and Terminals
- 71°C Environment
- Voltage and Current Programming
- Slide Plug-in Interchangeability
- Choice of 1-6 Slot Housings

MODEL	VOLTS	AMPS	PRICE	WGT.
*PCX 7–2	0–7	0–2	$111.00	4
PCX 7–2MAT	0–7	0–2	168.00	6
*PCX 15–1.5	0–15	0–1.5	111.00	4
PCX 15–1.5MAT	0–15	0–1.5	168.00	6
*PCX 21–1	0–21	0–1	111.00	4
PCX 21–1MAT	0–21	0–1	168.00	6
*PCX 40–0.5	0–40	0–0.5	111.00	4
PCX 40–0.5MAT	0–40	0–0.5	168.00	6
*PCX 72–0.3	0–72	0–0.3	111.00	4
PCX 72–0.3MAT	0–72	0–0.3	168.00	6
*PCX 100–0.2	0–100	0–0.2	111.00	4
PCX 100–0.2MAT	0–100	0–0.2	168.00	6

*Uncased Models, for Dust Cover Case: add suffix "C" to model no. and $11.00 to price.
Models with suffix "MAT" fit plug-in housings CA-3, CA-4, CA-5 and RA 22-6.
For 0.005% per °C TC OPTION: add suffix "T" to model no. and $30.00 to price.
PROGRAMMING CALIBRATION CONTROL: add suffix "R" to model no. and $10.00 to price.

PR

- Continuous Full Range Voltage Control
- Flux-O-Tran® Line Regulator
- 60 Hz Models

SINGLE PHASE INPUT — REGULATION: <±1% Line

MODEL	VOLTS	AMPS	PRICE	WGT.
PR 15–10M	0–7.5–15	0–10	$378.00	48
PR 15–30M	0–15	0–30	552.00	103
PR 38–5M	0–19–38	0–5	357.00	47
PR 38–15M	0–38	0–15	520.00	92
PR 80–2.5M	0–40–80	0–2.5	357.00	45
PR 80–8M	0–80	0–8	499.00	90
PR 155–1M	0–78–155	0–1	357.00	40
PR 155–4M	0–155	0–4	473.00	80
PR 220–3M	0–220	0–3	473.00	80
PR 310–0.6M	0–165–310	0–0.6	378.00	40
PR 310–2M	0–310	0–2	473.00	80

50 Hz OPTION: add suffix "—50" to model no. and $30.00 to price.

3-PHASE INPUT — REGULATION: <±2% Line

MODEL	VOLTS	AMPS	PRICE	WGT.
PR 20–100AM	0–20	0–100	$1,103.00	250
PR 40–50AM	0–40	0–50	940.00	250
PR 50–40AM	0–50	0–40	940.00	250

50 Hz OPTION: add suffix "—50" to model no. and $90.00 to price.

PRM

REGULATION: <±1% Line

- Flux-O-Tran® Line Regulator
- Modular Package
- Fixed Output
- 60 Hz Models

SIZE "A" — 180 SERIES

MODEL	VOLTS	AMPS	PRICE	WGT.
PRM 5.2–25	5.2	0–25	$125.00	22
PRM 6–25	6.3	0–25	125.00	22
PRM 12–15	12	0–15	125.00	22
PRM 18–10	18	0–10	125.00	22
PRM 24–8	24	0–8	125.00	22
PRM 28–7	28	0–7	125.00	22
PRM 36–5	36	0–5	125.00	22
PRM 48–4	48	0–4	125.00	22
PRM 60–3	60	0–3	125.00	22
PRM 120–1.5	120	0–1.5	125.00	22

CASED UNIT: add suffix "C" to model no. and $11.00 to price.
50 Hz OPTION: add suffix "—50" to model no. and $15.00 to price.

All Prices Net F.O.B. Flushing, N. Y. — Prices Subject to Change Without Notice

KEPCO, INC. • 131-38 SANFORD AVENUE • FLUSHING, N.Y. 11352 • (212) 461-7000 • TWX #710-582-2631 • Telex: 12-6055 • Cable: KEPCOPOWER NEWYORK

KEPCO POWER SUPPLIES • SHORT FORM CATALOG & PRICE SCHEDULE

SIZE "B" – 120 SERIES

MODEL	VOLTS	AMPS	PRICE	WGT.
PRM 5.2–15	5.2	0–15	$104.00	17
PRM 6–15	6.3	0–15	104.00	17
PRM 12–10	12	0–10	104.00	17
PRM 18–6.7	18	0–6.7	104.00	17
PRM 24–5	24	0–5	104.00	17
PRM 28–4.3	28	0–4.3	104.00	17
PRM 36–3.3	36	0–3.3	104.00	17
PRM 48–2.5	48	0–2.5	104.00	17
PRM 60–2	60	0–2	104.00	17
PRM 120–1	120	0–1	104.00	17

AVAILABLE CASED ONLY.

EXTRA-FILTERED – SIZE "C" – 180 SERIES
RIPPLE REDUCTION >10:1

MODEL	VOLTS	AMPS	PRICE	WGT.
PRM 5.2–25F	5.2	0–25	$178.00	28
PRM 6–25F	6.3	0–25	178.00	28
PRM 12–15F	12	0–15	178.00	28
PRM 18–10F	18	0–10	178.00	28
PRM 24–8F	24	0–8	178.00	28
PRM 28–7F	28	0–7	178.00	28
PRM 36–5F	36	0–5	178.00	28
PRM 48–4F	48	0–4	178.00	28
PRM 60–3F	60	0–3	178.00	28
PRM 120–1.5F	120	0–1.5	178.00	28

DUAL OUTPUT – SIZE "C" – 300 SERIES
TWO INDEPENDENT OUTPUTS

MODEL	VOLTS	AMPS	PRICE	WGT.
PRM 2X4.5–20	4.5 4.5	0–20 0–20	$197.00	38
PRM 2X5.2–20	5.2 5.2	0–20 0–20	197.00	38
PRM 2X6–20	6.3 6.3	0–20 0–20	197.00	38
PRM 2X12–12	12 12	0–12 0–12	197.00	38
PRM 2X15–10	15 15	0–10 0–10	197.00	38
PRM 2X18–8	18 18	0–8 0–8	197.00	38
PRM 2X24–6	24 24	0–6 0–6	197.00	38
PRM 2X28–5	28 28	0–5 0–5	197.00	38
PRM 2X36–4	36 36	0–4 0–4	197.00	38
PRM 2X48–3	48 48	0–3 0–3	197.00	38
PRM 2X60–2.5	60 60	0–2.5 0–2.5	197.00	38

CASED UNIT: add suffix "C" to model no. and $11.00 to price.
50 Hz OPTION: add suffix "—50" to model no. and $15.00 to price.

PVS

REGULATION: <0.001% Line and Load

- 4 Digit Output Selection
- Digital Display
- 3 Decimal Range Selection
- Current Limiting
- BCD Programming (Switch Closures)

MODEL	VOLTS	AMPS	PRICE	WGT.
PVS 100–1M	0.0000–100.00	0–1	$875.00	28
*PVS 100–1MG	0.0000–100.00	0–1	815.00	28

*Less remote connector.

PWR

REGULATION: <0.005% Line – 0.05% Load

- Programmable Out-of-Band
- Flux-O-Tran® Power Transformer
- 60 Hz Models
- Overload Current Cutoff
- Modular Packaging

MODEL	VOLTS	AMPS	PRICE	WGT.
PWR 4–14	4±5%	0–14	$220.00	21
PWR 7–11	7±5%	0–11	220.00	21
PWR 12–7	12±5%	0–7	220.00	21
PWR 15–6	15±5%	0–6	220.00	21
PWR 24–4	24±5%	0–4	220.00	21
PWR 28–3.3	28±5%	0–3.3	220.00	21
PWR 36–3	36±5%	0–3	220.00	21
PWR 48–2	48±5%	0–2	220.00	21
PWR 60–1.5	60±5%	0–1.5	220.00	21

CASED UNIT: add suffix "C" to model no. and $11.00 to price.
50 Hz OPTION: add suffix "—50" to model no. and $15.00 to price.

SM

REGULATION: <0.01% Line – <0.05% Load

- All Transistor Design
- Continuous Voltage Control
- Flux-O-Tran® Power Transformer
- 60 Hz Models
- Models with 0.01% Load Regulation and Stability Available: add Suffix "X" to Model Number and $200 to price.

MODEL	VOLTS	AMPS	PRICE	WGT.
SM 14–7AM	0–14	0–7	$426.00	46
SM 14–15AM	0–14	0–15	552.00	65
SM 14–30AM	0–14	0–30	762.00	107
SM 36–5AM	0–36	0–5	415.00	46
SM 36–10AM	0–36	0–10	552.00	66
SM 36–15AM	0–36	0–15	657.00	99
SM 75–2AM	0–75	0–2	447.00	46
SM 75–5AM	0–75	0–5	552.00	70
SM 75–8AM	0–75	0–8	657.00	100
SM 160–1AM	0–160	0–1	447.00	45
SM 160–2AM	0–160	0–2	552.00	70
SM 160–4AM	0–160	0–4	657.00	96
SM 325–0.5AM	0–165–325	0–0.5	462.00	46
SM 325–1AM	0–325	0–1	583.00	70
SM 325–2AM	0–325	0–2	709.00	96

50 Hz OPTION: add suffix "—50" to model no. and $40.00 to price.

WR

REGULATION: <0.1%

- Multiple Output, Vacuum Tube Regulated
- Continuous Full Range Voltage Control
- Laboratory Style
- • Ganged Autotransformer

MODEL		VOLTS	AMPS	PRICE	WGT.
2400B	#1	0–150 bias	0–0.005	$ 625.00	111
	#2	0–400	0–0.15		
	#3	0–400	0–0.15		
Parallel	#2 & #3	0–400	0–0.3		
Series	#2 & #3	0–800	0–0.15		
400B		0–400	0–0.15	310.00	48
		0–150 bias	0–0.005		
• 430D	#1	0–450	0–0.3	762.00	140
	#2	0–450	0–0.3		
Parallel	#1 & #2	0–450	0–0.6		
Series	#1 & #2	0–900	0–0.3		
• 800B	#1	0–600	0–0.2	657.00	141
	#2	0–600	0–0.2		
Parallel	#1 & #2	0–600	0–0.4		
Series	#1 & #2	0–1200	0–0.2		
• 615B		0–600	0–0.3	394.00	74
		0–150 bias	0–0.005		
• 605		0–600	0–0.5	473.00	119
		0–150 bias	0–0.005		
• 103	#1	0–300	0–0.075	139.00	30
Unregulated	#2	0–300	0–0.075		
	#3	-50 to +50	0–0.005		
Parallel	#1 & #2	0–300	0–0.15		
• 1250 B		0–1000	0–0.5	730.00	203
• 1520 B		0–1500	0–0.2	788.00	204
• HB 2050		0–2000	0–0.5	1,733.00	312
• HB 2500		0–2500	0–0.05	1,024.00	85

METERS: Units having the suffix "M" in their model no. are equipped with meters. To order unmetered models in the following groups: **BHK, CK, CK-HS, HB, JQE, KO, KS, PR** and **SM**, delete the suffix "M" and reduce the price as follows: 1–11 units: Net price as listed.
12 or more units: Deduct $30.00 from listed price.

ABC MODELS (any quantity): Deduct $20.00

ABC 1000, 1500 and **2500** (any quantity): Deduct $15.00

Models BOP, CC, CDT, LSR, PCX-MAT, PVS and **WR** are supplied with meters only. **Models KG, OPS, OPS-BTA, PAR, PAT, PAX, PCX, PRM** and **PWR** are unmetered only.

All Prices Net F.O.B. Flushing, N. Y. – Prices Subject to Change Without Notice

KEPCO, INC. • 131-38 SANFORD AVENUE • FLUSHING, N.Y. 11352 • (212) 461-7000 • TWX #710-582-2631 • Telex: 12-6055 • Cable: KEPCOPOWER NEWYORK

KEPCO ACCESSORY EQUIPMENT

HARDWARE, ADAPTERS and ACCESSORY ITEMS for OPS, OPS-BTA, PAX, PCX and PCX-MAT MODULES

MODEL	DESCRIPTION	PRICE	SHIP WGT. (LBS.)
RA 22–6	Six-slot rack housing w/o plug boards*	$32.00	11
BPA–22	Blank panel assembly w/slide plate	11.00	2
RFP 22–1	Single filler panel for RA 22–6	6.00	½
RFP 22–2	Double filler panel for RA 22–6	6.00	½
RFP 22–3	Triple filler panel for RA 22–6	6.00	½
CA–1	Chassis mounting case (single)	11.00	2
CA–3	Single-slot housing w/plug board	20.00	6
CA–4	Double-slot housing w/plug board	30.00	7
CA–5	Triple-slot housing w/plug board	40.00	8
RA 12–1	1 unit Rack Adapter (cased)	11.00	3
RA 13–4	4 unit Rack Adapter (cased)	11.00	3
RA 11–6	6 unit Rack Adapter (cased)	11.00	3
PC–1	Printed circuit board connector	6.00	½
PC–2	Plug-in adapter*	9.00	1

*For plug-in convenience in the RA 22–6, use (1) PC–2 per slot.

PAR, PRM Size "A"—180 Series and PWR GROUPS

MODEL	DESCRIPTION	PRICE	SHIP. WGT. (LBS.)
CA–200	Case	$11.00	4
RA 8–2	2 Unit Rack Adapter	11.00	4
RA 9–3	3 Unit Rack Adapter	11.00	4
RA 10–1	1 PRM Unit Rack Adapter	11.00	4
RA 23–1	1 PWR Unit Rack Adapter	11.00	4
RA 25–1	1 PAR Unit Rack Adapter	11.00	4

PRM Size "B" — 120 Series Group

MODEL	DESCRIPTION	PRICE	SHIP. WGT. (LBS.)
RA 14–3	3 Unit Rack Adapter	$11.00	3
RA 15–1	1 Unit Rack Adapter	11.00	3
RA 16–4	4 Unit Rack Adapter	11.00	3
RA 17–5	5 Unit Rack Adapter	11.00	3

PRM Size "C" — Dual Output and Extra-Filtered GROUPS

MODEL	DESCRIPTION	PRICE	SHIP. WGT. (LBS.)
CA–300	Case	$11.00	4
RA 8–2	2 Unit Rack Adapter	11.00	3
RA 9–3	3 Unit Rack Adapter	11.00	3
RA 18–1	1 Unit Rack Adapter	11.00	3

PLUG-IN CABINETS for PRM Size "A" & "C"

MODEL	DESCRIPTION	PRICE	SHIP. WGT. (LBS.)
RA 20–3	3 Unit Housing	$100.00	12
RAP 20–1	1 Unit Panel Adapter	6.00	½
RFP 20–1	Rack Filler Panel	6.00	½

PLUG-IN CABINETS for PAR and PWR GROUPS

MODEL	DESCRIPTION	PRICE	SHIP WGT. (LBS.)
RA 21–3	3 Unit Housing	$100.00	12
RAP 21–1	1 Unit Panel Adapter	6.00	½
RFP 21–1	Rack Filler Panel	6.00	½

BOP, CDT, CPS, DPD, DPK, DPR, JQE, OPS 20, OPS 2000 and PVS

MODEL	DESCRIPTION	PRICE	SHIP. WGT. (LBS.)
RA 24	Double 5¼″ Half-Rack	$21.00	10
RAP 24–1	Panel Adapter to mount Unmetered CPS Models	6.00	½
RFP 24–1	¼ Filler Panel for RA 24	6.00	½
RFP 24–2	½ Filler Panel for RA 24	6.00	½
RFP 24–3	¾ Filler Panel for RA 24	6.00	½
RA 29–1	Rack Adapter for DPK-1	11.00	3

KG GROUP

MODEL	DESCRIPTION	PRICE	SHIP WGT. (LBS.)
CA–2	Single Unit Housing	$16.00	2
RA 19–8	Multi Unit Housing (8)	79.00	11
RFP 19–1	Single filler panel	6.00	½
RFP 19–2	Double filler panel	6.00	½
RFP 19–3	Triple filler panel	6.00	½

PAT GROUP

MODEL	DESCRIPTION	PRICE	SHIP. WGT. (LBS.)
RA 26–1	1 Unit Rack Adapter	$11.00	3
RA 27–2	2 Unit Rack Adapter	11.00	3
RA 28–4	4 Unit Rack Adapter	11.00	3

RACK ADAPTERS for ABC, CK, FG–100, KP–1, MP–1, MP–10 and VIX 1–C

MODEL	FOR USE WITH	PRICE	SHIP WGT. (LBS.)
RA 1 *(Single)*	Model 103 only	$16.00	5
RA 4 *(Dual)*	Above Listed Models	16.00	4
RA 5 *(Single)*	Above Listed Models	16.00	4
FP 1	Filler Panel for RA 4	5.00	½

All Prices Net F.O.B. Flushing, N. Y. — Prices Subject to Change Without Notice

KEPCO, INC. • 131-38 SANFORD AVENUE • FLUSHING, N.Y. 11352 • (212) 461-7000 • TWX #710-582-2631 • Telex: 12-6055 • Cable: KEPCOPOWER NEWYORK

LOAD PROTECTORS

MODEL	DESCRIPTION	PRICE	SHIP. WGT. (LBS.)
VIP—1	Overvoltage/Overcurrent	$132.00	21
VIP—3	Over and Undervoltage/ Over and Undercurrent	237.00	21
VIP—4	200 ampere Overvoltage crowbar	310.00	21

OVERVOLTAGE PROTECTIVE ATTACHMENTS

MODEL	DESCRIPTION	PRICE	SHIP WGT. (LBS.)
VP—PAR	All PAR models, 3-80V d-c	$ 75.00	3
VP—PWR	All PWR models, 3-80V d-c	75.00	3
VP—PX	All PAX and PCX models	80.00	3
VP—KCA	All ABC, CK and KS models (except those listed below)	110.00	3
VP—KS—1	KS 36-30M, 60-20M & 120-10M	125.00	6
VP—KS—2	KS 8-50M, 8-100M & 18-50M	155.00	6
VP—JQE	All JQE models	75.00	3

VIX RELAY

MODEL	PRICE	SHIP. WGT. (LBS.)
VIX—1 (uncased)	$73.00	12
VIX—1C (cased)	83.00	13

AUTOTRANSFORMERS

MODEL	POWER	PRICE	SHIP. WGT. (LBS.)
AT—100	100 VA	$ 27.00	5
AT—250	250 VA	37.00	8
AT—500	500 VA	53.00	14
AT—1000	1000 VA	79.00	23
AT—1500	1500 VA	105.00	30

VARIABLE RESISTIVE LOAD

MODEL	PRICE	SHIP. WGT. (LBS.)
KT 6212	$578.00	50

MOTORIZED PROGRAMMERS

MODEL	PRICE	SHIP. WGT. (LBS.)
MP—1	$595.00	11
MP—10	595.00	11

PROGRAMMER FUNCTION GENERATOR

MODEL	PRICE	SHIP WGT. (LBS.)
Model FG—100	$575.00	12

DIGITAL PROGRAMMING SYSTEM

MODEL	DESCRIPTION	PRICE	SHIP WGT. (LBS.)
DPK—1	Keyboard	$230.00	7
DPR—3	3-Digit Register	$ 980.00	24
DPR—4	4-Digit Register	1,090.00	24
DPR—5	5-Digit Register	1,200.00	24
DPD—1	0—1000.0V Decade	$790.00	17
DPD—2	0—100.00V Decade	735.00	17
DPD—3	0—1000.00V Decade	840.00	17
DPD—4	0—1000V Decade	710.00	17
DPD—5	0—100.0 Decade	660.00	17
DPD—6	0—10.00 Decade	660.00	17
DPD—7	Current Decade	630.00	17
A—3	Cable, 3′	$30.00	2
A—10	Cable, 10′	35.00	4
B—3	Cable, 3′	30.00	2
B—10	Cable, 10′	35.00	4

SYSTEM OPTIONS and ACCESSORIES

PROGRAM BOARDS		SUPPLIED IN DPD MODELS:						
MODEL	PRICE	—1	—2	—3	—4	—5	—6	—7
PB—10K	$100.00	*		*	*			
PB—1K	75.00	*	*	*	*	*		
PB—100	50.00	*	*	*	*	*	*	*
PB—10	50.00	*	*	*		*	*	*
PB—1	50.00		*	*			*	*

CURRENT CODE BOARDS: Plug into DPD—7 to control current. Board of choice is supplied with DPD—7, specified by appending suffix equal to current rating of supply being programmed, e.g.: DPD—7—15 for 15 amp code board. Additional code boards. **PRICE: $50.00 each**

OPTIONAL OFFSET CONTROL: Add suffix "E" to model number, e.g.: DPD—2E for an optional E_{io} (voltage offset) zeroing control. Used to control power supplies that lack zeroing facilities. **PRICE: $50.00**

DIGITAL PROGRAMMING PANELS

MODEL	RATIO Ω/V	PRICE	SHIP. WGT. (LBS.)
KP 1	1000	$273.00	10
KP 10	100	310.00	16

ELECTRONICS KIT

For experimental and pedagogical use; contains plug panel and keyed charts for 39 basic circuits. Power supply Model 103 is an ideal adjunct.

MODEL	PRICE	SHIP. WGT. (LBS.)
Model 104	$29.50	7

Warranty:

All Kepco products are backed by a **valid, unconditional** repair guarantee — for one year after date of sale. Our entire staff of nationwide representative field engineers are factory trained to assist you in obtaining the best performance from each Kepco Power Supply. Each field engineer is prepared to render on-the-spot field service and many of our representative organizations maintain full service centers for overhaul and maintenance. For the address and telephone number of your local Kepco Field Engineer, please refer to the Kepco catalog.

Communications:

Kepco maintains complete communication facilities including postal, telephone, Western Union Telex and teletype (TWX) facilities:

Mail Address ....**131-38 Sanford Avenue**
Flushing, N. Y. 11352
Telephone Number ....**(212) 461-7000**
TWX Number **710-582-2631**
Telex **12-6055**
Cable Address ....**KEPCOPOWER NEWYORK**

Power supplies DC regulated

Fluke precision power supplies 0 to 30,220 volts, up to 50 ma output

Fluke high voltage power supplies have long been the standard of the industry when quality and reliability are essential. Fluke HVPS offer high calibration accuracy, tight line-load regulation, fine voltage resolution, excellent long term stability, low temperature coefficient, and freedom from corona, jitter, bounce or overshoot.

Every specification of Fluke power supplies is conservative; customers have found this to be true in thousands of applications and have demonstrated their confidence by specifying Fluke when their voltage demands increase.

Many applications call for high calibration accuracy, while others require high stability and a low ripple component. All are combined with excellent line and load regulation to insure that Fluke power supplies meet or exceed virtually all systems requirements.

Fluke supplies are produced in volume and a large stock is maintained making them readily available and competitively priced.

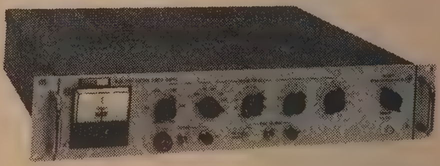
Typical applications include power BWO's and TWT's, klystrons, photomultiplier tubes, CRT acceleration and focusing, proportional counters, ionization chambers, mass spectrometry, voltmeter and volt box calibration, charging capacitor banks, high-resolution X-ray equipment. They are also extensively used in high voltage research and for component evaluation and test.

408B

412B

Specifications:

			Regulation		Stability		Calibration	Max.		
Model	Voltage	Current (ma)	Line (%)	Load (%)	% Per Hour	% Per Day	Accuracy (%)	Ripple (rms)	Resolution	Price
412B	0-2,100	0-30	0.001	0.001	0.002	0.01	0.25	500 μv	5 mv	$ 410
415B	0-3,111	0-20	0.001	0.001	0.005	0.02	0.25	500 μv	5 mv	$ 525
408B	0-6,000	0-20	0.001	0.001	0.005	0.02	0.25	1 mv	5 mv	$ 665
410B	0-10,000	0-10	0.001	0.001	0.005	0.02	0.25	1 mv	5 mv	$ 975
430A	10,000-30,220	0-10	0.005	0.01	0.005	0.03	0.25	5 mv	100 mv	$3900
430B	10,000-30,220	0-50	0.005	0.02	0.005	0.03	0.25	5 mv	100 mv	$4900


415A

Model 407D general purpose power supply

407D

The versatile Model 407D can be used for many laboratory and industrial applications. Prime contributors to all-around usefulness are 0.01% short term stability, 2 mv resolution, precision sampling string, dual bias and filament outputs, tight line and load regulation, and low ripple. For convenience and safety, the main DC output may be removed or applied instantly without disturbing bias or filament outputs. Rack version of this supply is available as Model 407DR.

Brief Specifications:

Voltage:
0-555 V

Current:
0-300 ma

Regulation:
Line—0.005%
Load—0.01%

Stability:
Per hour—0.01%
Per day—0.05%

Calibration accuracy:
0.5%

Max. Ripple RMS:
500 μv

Resolution:
2 mv

Price:
Cabinet Model (407D)—$450.00
Rack Model (407DR)—$470.00

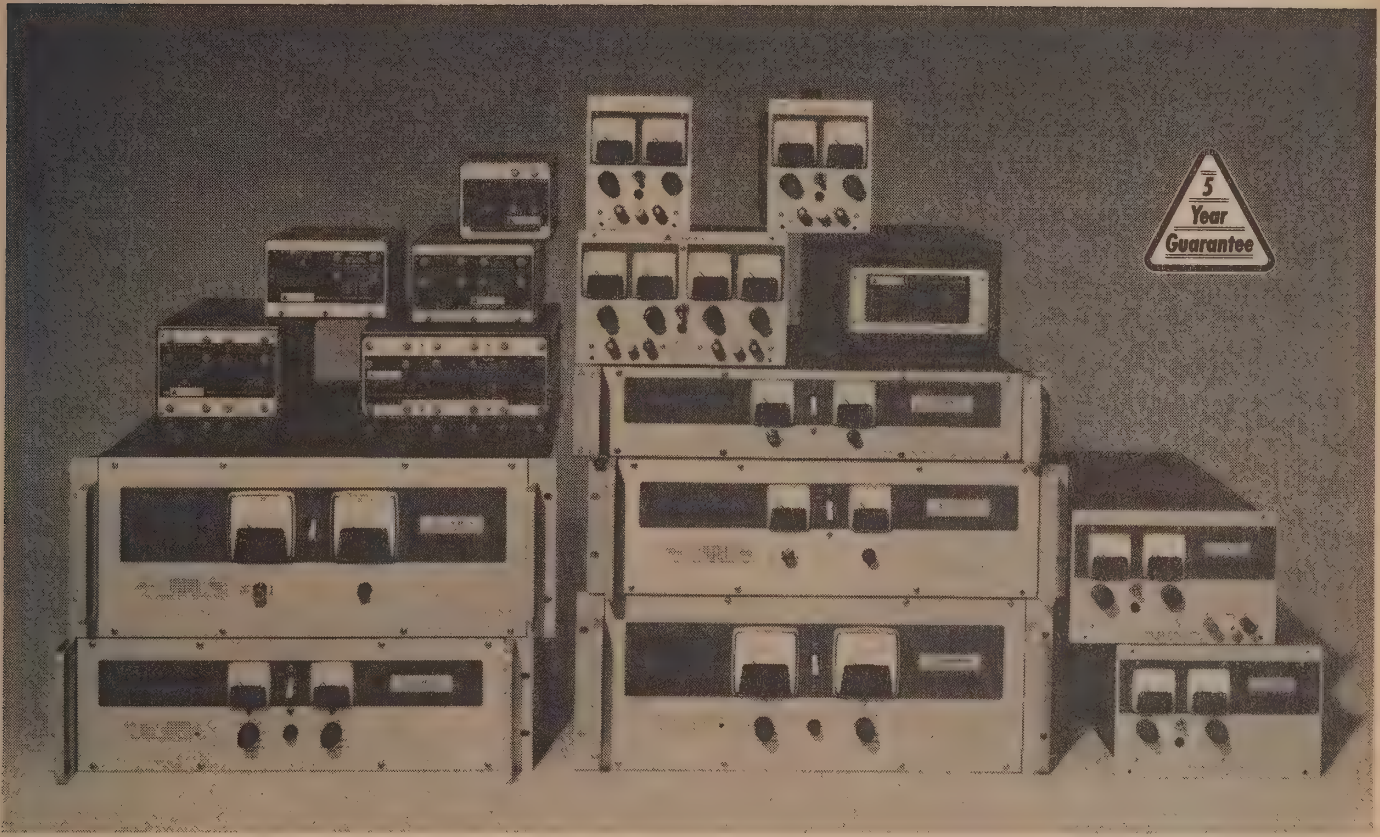
Fluke, Box 7428, Seattle, Washington 98133. Phone: (206) 774-2211. TWX: (910) 449-2850.
In Europe, address Fluke Nederland (N.V.), P.O. Box 5053, Tilburg, Holland.
Telex: 844-50237. In the U.K., address Fluke International Corp.,
P.O. Box 102, Watford Herts, England, Telex: 851-934-583.

FLUKE

λ LAMBDA

All Silicon Convection Cooled Power Supplies For Systems/Laboratory Use/Test Equipment/OEM

Up to 500 volts • Up to 150 amps



LAMBDA SALES AND SERVICE OFFICES

MID-EASTERN DISTRICT

Melville, New York 11746, 515 Broad Hollow Road
Tel. 516-694-4200 TWX: 510-224-6484

NEW ENGLAND DISTRICT

Braintree, Mass. 02184, 182 Forbes Road, Suite 4
Tel. 617-848-1610 TWX: 710-348-1161
Syracuse, New York, Tel. 315-471-2080

SOUTHEAST REGION

Rockville, Maryland, 20852 , 1075R Rockville Pike
Tel. 301-424-2010
Norristown, Pennsylvania, Tel. 215-272-7101
Orlando, Florida, Tel. 305-644-9012

MID-WESTERN REGION

Schiller Park, (Chicago) Ill. 60176, 4849 No. Scott St. Suite 309
Tel. 312-671-0182/83 TWX: 910-227-0067
Minneapolis, Minnesota, Tel. 612-332-6714
Indianapolis, Indiana, Tel. 317-631-9557

SOUTHWEST REGION

Richardson, Texas 75080, 777 So. Central Expwy.
Central Exchange Building, Suite 7E
Tel. 214-231-7191 TWX: 910-867-4726

Houston, Texas, Tel. 713-464-6554

FAR-WESTERN REGION

North Hollywood, Calif. 91605, 13425 Wyandotte St.
Tel. 213-877-0041 TWX: 910-499-2651

Scottsdale, Arizona, Tel. 602-945-1416

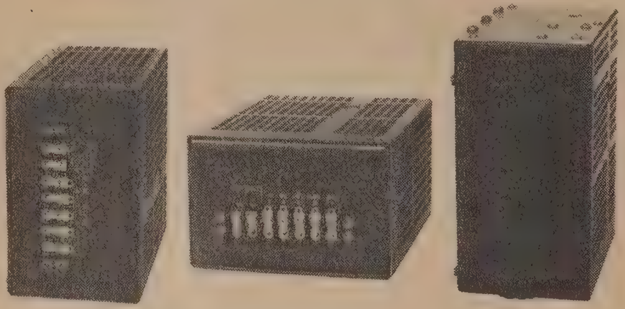
NORTHWEST DISTRICT

Los Altos, California 94022, P. O. Box 310
Tel. 415-941-3803 TWX: 910-370-7964

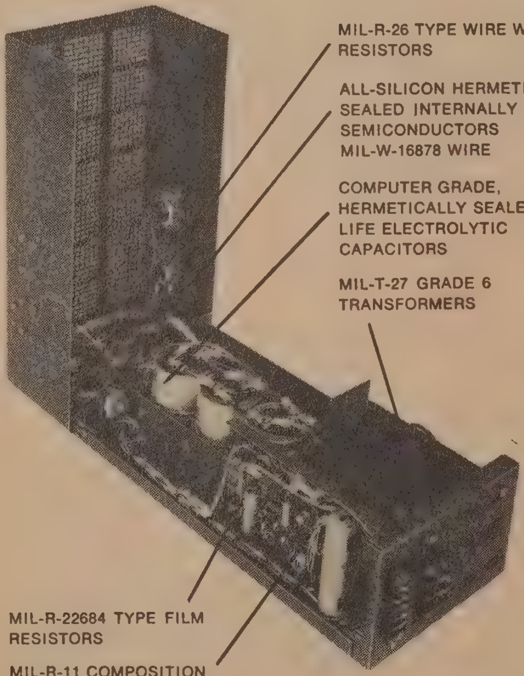
LM series features highest performance, protection, and physical versatility available

THREE-SURFACE MOUNTING

Mounting not influenced by heat sink or air flow considerations. Can be mounted on any of three mutually perpendicular planes, and in any position. (Except modules E and EE.)



QUALITY COMPONENTS


MIL-R-26 TYPE WIRE WOUND RESISTORS
ALL-SILICON HERMETICALLY SEALED INTERNALLY MOUNTED SEMICONDUCTORS
MIL-W-16878 WIRE
COMPUTER GRADE, HERMETICALLY SEALED 10-YEAR LIFE ELECTROLYTIC CAPACITORS
MIL-T-27 GRADE 6 TRANSFORMERS
MIL-R-22684 TYPE FILM RESISTORS
MIL-R-11 COMPOSITION RESISTORS

NEW EE PACKAGE

- **MEET MIL. ENVIRONMENT SPECS**
  Specify Lambda with assurance of meeting military requirements
  - RFI—MIL-I-16910
  - Vibration: MIL-T-4807A
  - Shock: MIL-E-4970A Proc. 1 & 2
  - Humidity: MIL-STD-810 Meth. 507
  - Temp. Shock: MIL-E-5272C (ASG) Proc. 1
  - Altitude: MIL-E-4970A (ASG) Proc. 1
  - Marking: MIL-STD-130
  - Quality: MIL-Q-9858
  - Fungus Proofing (optional): all models available with MIL-V-173 varnish for all fungi nutrient components.

- **CONVECTION-COOLED**
  No heat sinking or forced air required.

- **HIGHER RATINGS WITH FORCED AIR COOLING**
  Convection-cooled design offers greatest opportunity for increased ratings with forced air. Ventilated construction affords substantial increases in rating with small amounts of air flowing through the power supply. Consult Factory for details.

- **THERMALLY PROTECTED AND SHORT-CIRCUIT PROOF**
  Self-restoring current limiting and self-resetting thermostats protect supplies.

- **NO VOLTAGE SPIKES OR OVERSHOOT**
  on turn-on, turn-off, or power failure—for maximum load protection.

- **WIDE INPUT VOLTAGE AND FREQUENCY RANGE**
  105-132 VAC, 45-440 Hz (205-265 VAC, optional at no extra charge).

- **HIGH PERFORMANCE OPTION**
  Better regulation, ripple, and temperature coefficient for extra performance and safety margin in your system. All models available with these specifications at $15.00 surcharge:

LINE REGULATION: .01% + 1mV
LOAD REGULATION: .02% + 2mV
RIPPLE AND NOISE: 0.5mV rms; 1.5mVp-to-p with 60 Hz input
TEMP. COEFF.: .01%/°C

LAMBDA ELECTRONICS CORP.

LM series performance data

DC OUTPUT:

Voltage Range For voltage ranges see following pages.

Regulated Voltage.

Regulation (line) 0.05% plus 4 mV for line variations from 105-132 VAC.
0.01% plus 1.0 mV for line variations from 105-132 VAC. (Y option)

(load) 0.03% plus 3 mV load variations from 0 to full load.
0.02% plus 2 mV for load variations from 0 to full load. (Y option)

Remote Programing
Resistance ..... 200 ohms/volt, nominal
Voltage .... Volt per volt

Ripple and Noise .. 1 mV RMS, 3 mV p to p with either pos. or neg. terminal grounded.
0.5 mV RMS, 1.5 mV p to p with 60 Hz input. (Y option)

Temperature coefficient ..... 0.03%/°C.
0.01%/°C (Y option)

AC INPUT: Line .... 105-132 VAC: 45-440 Hz

Power:

LM 251, 257, 259, 263, 265	20 watts(1)
LM 201, 203, 260, 205, 207, 267	30 watts(1)
LM 202, 204, 261, 206, 208, 268	60 watts(1)
LM 252, 258, 262, 264, 266	70 watts(1)
Package B Models	80 watts(1)
Package C Models	140 watts(1)
Package CC Models	220 watts(1)
Package D Models	300 watts(1)
Package E Models	450 watts(1)
Package EE Models	750 watts(1)
Package F Models	900 watts(1)
Package G Models	1300 watts(1)
Package H Models	2200 watts(1)

(1)With output loaded to 40°C rating, input 132 VAC and 55-65 Hz

AMBIENT OPERATING TEMPERATURE: Continuous duty from −20°C to +71°C ambient with corresponding load current ratings for all modes of positions.

STORAGE TEMPERATURE: −55°C to +85°C.

OVERLOAD PROTECTION:

Thermal .... Thermostat; automatic reset when over-temp condition is eliminated.

Electrical:
External Overload Protection .... Fixed, automatic electronic current limiting circuit limits the output current upon external overloads, including short circuit, thereby providing protection for load as well as power supply.

INPUT & OUTPUT CONNECTIONS:

Heavy duty terminal block on rear of chassis.

CONTROLS:

DC output control .... Simple screwdriver voltage adjustment over entire voltage range.

Remote Sensing .. Provision is made for remote sensing to eliminate effect of power output lead resistance on DC regulation.

METERS: Metered panels available as an accessory for use with A, B, C, CC, D, E and EE packages in conjunction with Lambda LRA-3, LRA-4, LRA-5, LRA-6 and LRA-7 Rack Adapters.

Voltmeter and ammeter on metered models of packages F, G and H.

PHYSICAL DATA:

Weight ....

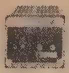
A Package Models	5 lbs. net;	6 lbs. ship.
B Package Models	6 lbs. net;	7 lbs. ship.
C Package Models	9 lbs. net;	10 lbs. ship.
CC Package Models	15 lbs. net;	17 lbs. ship.
D Package Models	20 lbs. net;	23 lbs. ship.
E Package Models	28 lbs. net;	31 lbs. ship.
EE Package Models	37 lbs. net;	47 lbs. ship.
F Package Models	54 lbs. net;	64 lbs. ship.
G Package Models	72 lbs. net;	84 lbs. ship.
H Package Models	110 lbs. net;	145 lbs. ship.

Finish .... A, B, C, CC, D, E and EE Packages—Grey, FED. STD. 595 No. 26081.
F, G and H Package Front Panels—Brushed aluminum clear anodized panels with grey inlay (standard).

Mounting .... Three surfaces, each with tapped mounting holes, can be utilized for mounting A, B, C, CC, and D Package Models.

LM series modular power supplies wide range models

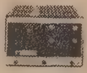
Package A 3³⁄₁₆" x 3¾" x 6½"



Use with:
Rack Adapters LRA-3, 4, 5, 6 or 7
Metered Panels MP-3 or MP-5
Non-Metered Panels P-3 or P-5

Model	ADJ. VOLT. RANGE VDC	MAX AMPS AT AMBIENT OF: [1] 40°C	50°C	60°C	71°C	Price [2]
LM-251	0–7	0.35	0.31	0.29	0.27	$69
LM-201	0–7	0.85	0.75	0.70	0.55	79
LM-202	0–7	1.7	1.5	1.4	1.1	89
LM-252	0–7	2.0	1.8	1.4	1.1	99
LM-257	0–14	0.27	0.24	0.23	0.22	69
LM-203	0–14	0.45	0.40	0.38	0.28	79
LM-204	0–14	0.90	0.80	0.75	0.55	89
LM-258	0–14	1.2	1.1	1.0	0.80	99
LM-259	0–24	0.18	0.16	0.15	0.14	69
LM-260	0–24	0.35	0.30	0.25	0.20	79
LM-261	0–24	0.70	0.65	0.60	0.45	89
LM-262	0–24	0.80	0.75	0.70	0.60	99
LM-263	0–32	0.14	0.12	0.11	0.10	69
LM-205	0–32	0.25	0.23	0.20	0.15	79
LM-206	0–32	0.50	0.45	0.40	0.30	89
LM-264	0–32	0.66	0.60	0.50	0.32	99
LM-265	0–60	0.08	0.07	0.07	0.06	79
LM-207	0–60	0.13	0.12	0.11	0.08	89
LM-208	0–60	0.25	0.23	0.21	0.16	99
LM-266	0–60	0.35	0.31	0.28	0.25	109
LM-267	0–120	0.10	0.09	0.08	0.07	109
LM-268	0–120	0.15	0.14	0.12	0.11	119

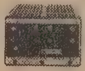
Package B 3³⁄₁₆" x 4¹⁵⁄₁₆" x 6½"



Use with:
Rack Adapters LRA-3, 4, 5, 6 or 7
Metered Panels MP-3 or MP-5
Non-Metered Panels P-3 or P-5

Model	ADJ. VOLT. RANGE VDC	MAX AMPS AT AMBIENT OF: [1] 40°C	50°C	60°C	71°C	Price [2]
LM-B-0-7	0–7	2.8	2.6	2.3	1.5	$109
LM-B-0-14	0–14	1.6	1.5	1.3	1.2	109
LM-B-0-32	0–32	0.8	0.7	0.6	0.5	109
LM-B-0-60	0–60	0.45	0.4	0.35	0.3	109
LM-217	8.5–14	2.1	1.9	1.7	1.3	119
LM-218	13–23	1.5	1.3	1.2	1.0	119
LM-219	22–32	1.2	1.1	1.0	0.8	119
LM-220	30–60	0.70	0.65	0.60	0.45	129

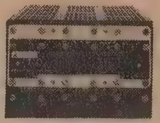
Package C 3³⁄₁₆" x 4¹⁵⁄₁₆" x 9⅜"



Use with:
Rack Adapters LRA-3, 4, 5, 6 or 7
Metered Panels MP-3 or MP-5
Non-Metered Panels P-3 or P-5

Model	ADJ. VOLT. RANGE VDC	MAX AMPS AT AMBIENT OF: [1] 40°C	50°C	60°C	71°C	Price [2]
LM-225	0–7	4.0	3.6	3.0	2.4	$139
LM-C-0-14	0–14	2.2	2.0	1.8	1.5	139
LM-C-0-32	0–32	1.1	1.0	0.90	0.80	139
LM-C-0-60	0–60	0.60	0.55	0.50	0.45	139
LM-226	8.5–14	3.3	3.0	2.5	2.0	139
LM-227	13–23	2.3	2.1	1.7	1.4	139
LM-228	22–32	2.0	1.8	1.5	1.2	139
LM-229	30–60	1.1	1.0	0.80	0.60	149

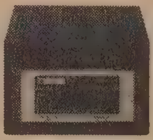
Package D 4¹⁵⁄₁₆" x 7½" x 9⅜"



Use with:
Rack Adapters LRA-3, 6 or 7
Metered Panel MP-5
Non-Metered Panel P-5

Model	ADJ. VOLT. RANGE VDC	MAX AMPS AT AMBIENT OF: [1] 40°C	50°C	60°C	71°C	Price [2]
LM-234	0–7	8.3	7.3	6.5	5.5	$199
LM-D-0-14	0–14	4.9	4.2	3.4	2.7	199
LM-D-0-32	0–32	2.5	2.1	1.7	1.3	180
LM-D-0-60	0–60	1.3	1.1	0.95	0.75	239
LM-235	8.5–14	7.7	6.8	6.0	4.8	199
LM-236	13–23	5.8	5.1	4.5	3.6	209
LM-237	22–32	5.0	4.4	3.9	3.1	219
LM-238	30–60	2.6	2.3	2.0	1.6	239

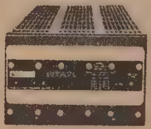
Package E 4¹⁵⁄₁₆" x 7½" x 11⅞"



Use with:
Rack Adapters LRA-3, 6 or 7
Metered Panel MP-5
Non-Metered Panel P-5

Model	ADJ. VOLT. RANGE VDC	MAX AMPS AT AMBIENT OF: [1] 40°C	50°C	60°C	71°C	Price [2]
LM-E-0-7	0–7	12.0	10.5	8.5	6.8	$249
LM-E-0-14	0–14	7.4	6.4	5.2	4.1	249
LM-E-0-32	0–32	3.7	3.2	2.6	2.1	249
LM-E-0-60	0–60	2.1	1.7	1.4	1.1	249

Package EE 4¹⁵⁄₁₆" x 7½" x 17"



Use with:
Rack Adapter LRA-7
Metered Panel MP-50
Non-Metered Panel P-50

Model	ADJ. VOLT. RANGE VDC	MAX AMPS AT AMBIENT OF: [1] 40°	50°	60°	71°	Price
LM-EE-0-7	0—7	16	13.5	11.2	9.2	$320
LM-EE-0-14	0—14	10.2	8.6	7.3	6.1	320
LM-EE-0-32	0—32	5.2	4.4	3.8	3.2	320
LM-EE-0-60	0—60	2.7	2.45	2.15	1.85	320

NOTES:

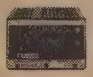
[1] CURRENT RATING IS FROM ZERO TO I MAX. CURRENT RATING APPLIES OVER ENTIRE OUTPUT VOLTAGE RANGE. CURRENT RATING APPLIES FOR INPUT VOLTAGE 105-132 VAC 55-65 HZ. FOR OPERATION AT 45-55 HZ DELETE 40°C RATING. FOR OPERATION AT 360-440 HZ CONSULT FACTORY FOR RATINGS AND SPECIFICATIONS.

[2] PRICES F.O.B. FACTORY, MELVILLE, N. Y. ALL SPECIFICATIONS AND PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

LAMBDA ELECTRONICS CORP.

LM series modular power supplies fixed-voltage models

Package B 3$\frac{3}{16}$" x 4$\frac{15}{16}$" x 6½"



Use with:
Rack Adapters LRA-3, 4, 5, 6 or 7
Metered Panels MP-3 or MP-5
Non-Metered Panels P-3 or P-5

Model	ADJ. VOLT. RANGE VDC	MAX AMPS AT AMBIENT OF: [1]				Price [2]
		40°C	50°C	60°C	71°C	
LM-B-3	3 ±5%	3.8	3.3	2.6	1.6	$119
LM-B-3-P-6	3.6±5%	3.8	3.3	2.6	1.6	119
LM-B-4	4 ±5%	3.8	3.3	2.6	1.6	119
LM-B-4-P-5	4.5±5%	3.7	3.2	2.5	1.5	119
LM-B-5	5 ±5%	3.7	3.2	2.5	1.5	119
LM-B-6	6 ±5%	3.2	2.9	2.4	1.4	119
LM-B-8	8 ±5%	3.2	2.9	2.4	1.4	119
LM-B-10	10 ±5%	2.7	2.5	2.2	1.4	119
LM-B-12	12 ±5%	2.5	2.3	2.1	1.3	119
LM-B-15	15 ±5%	2.2	2.0	1.8	1.3	119
LM-B-18	18 ±5%	2.0	1.8	1.7	1.3	119
LM-B-20	20 ±5%	1.8	1.6	1.5	1.2	119
LM-B-24	24 ±5%	1.4	1.3	1.2	1.1	119
LM-B-28	28 ±5%	1.3	1.2	1.1	1.0	119
LM-B-36	36 ±5%	1.1	1.0	0.90	0.85	119
LM-B-48	48 ±5%	0.9	0.85	0.80	0.75	119
LM-B-100	100 ±5%	0.37	0.34	0.30	0.28	139
LM-B-120	120 ±5%	0.30	0.28	0.25	0.23	139
LM-B-150	150 ±5%	0.25	0.23	0.20	0.19	139

Package C 3$\frac{3}{16}$" x 4$\frac{15}{16}$" x 9⅜"

Use with:
Rack Adapters LRA-3, 4, 5, 6 or 7
Metered Panels MP-3 or MP-5
Non-Metered Panels P-3 or P-5

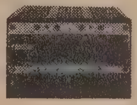
Model	ADJ. VOLT. RANGE VDC	MAX AMPS AT AMBIENT OF: [1]				Price [2]
		40°C	50°C	60°C	71°C	
LM-C-3	3 ±5%	5.3	4.6	3.7	2.5	$139
LM-C-3-P-6	3.6±5%	5.2	4.5	3.6	2.5	139
LM-C-4	4 ±5%	5.2	4.5	3.6	2.5	139
LM-C-4-P-5	4.5±5%	5.1	4.4	3.5	2.4	139
LM-C-5	5 ±5%	5.1	4.3	3.4	2.4	139
LM-C-6	6 ±5%	4.8	4.1	3.3	2.4	139
LM-C-8	8 ±5%	4.6	3.9	3.2	2.1	139
LM-C-10	10 ±5%	4.2	3.6	3.0	2.0	139
LM-C-12	12 ±5%	4.0	3.5	2.9	1.9	139
LM-C-15	15 ±5%	3.5	3.2	2.8	1.9	139
LM-C-18	18 ±5%	3.2	3.0	2.7	1.9	139
LM-C-20	20 ±5%	3.1	2.9	2.6	1.8	139
LM-C-24	24 ±5%	2.5	2.4	2.2	1.5	139
LM-C-28	28 ±5%	2.3	2.1	2.0	1.4	139
LM-C-36	36 ±5%	2.0	1.8	1.7	1.3	159
LM-C-48	48 ±5%	1.6	1.4	1.3	1.0	159
LM-C-100	100 ±5%	0.55	0.51	0.47	0.42	159
LM-C-120	120 ±5%	0.49	0.45	0.42	0.38	159
LM-C-150	150 ±5%	0.39	0.36	0.33	0.30	159

Package CC 4$\frac{15}{16}$" x 4$\frac{15}{16}$" x 9⅜"

Use with:
Rack Adapters LRA-3, 6 or 7
Metered Panel MP-5
Non-Metered Panel P-5

Model	ADJ. VOLT. RANGE VDC	MAX AMPS AT AMBIENT OF: [1]				Price [2]
		40°C	50°C	60°C	71°C	
LM-CC-3	3 ±5%	11.0	9.4	8.2	5.5	$179
LM-CC-3-P-6	3.6±5%	11.0	9.4	8.2	5.5	179
LM-CC-4	4 ±5%	11.0	9.4	8.2	5.5	179
LM-CC-4-P-5	4.5±5%	10.5	9.0	8.0	5.5	179
LM-CC-5	5 ±5%	10.5	9.0	8.0	5.5	179
LM-CC-6	6 ±5%	9.0	8.4	7.7	5.5	179
LM-CC-8	8 ±5%	8.5	7.9	7.2	5.5	179
LM-CC-10	10 ±5%	7.5	7.0	6.3	5.0	179
LM-CC-12	12 ±5%	7.3	6.8	5.9	4.7	179
LM-CC-15	15 ±5%	6.0	5.6	5.1	4.3	179
LM-CC-18	18 ±5%	5.5	5.1	4.7	4.1	179
LM-CC-20	20 ±5%	5.0	4.6	4.2	3.6	179
LM-CC-24	24 ±5%	4.0	3.7	3.4	3.0	179
LM-CC-28	28 ±5%	3.5	3.4	3.1	2.8	179
LM-CC-36	36 ±5%	3.0	2.9	2.7	2.4	199
LM-CC-48	48 ±5%	2.5	2.4	2.2	1.9	199
LM-CC-100	100 ±5%	1.0	0.96	0.90	0.80	199
LM-CC-120	120 ±5%	0.9	0.86	0.80	0.70	199
LM-CC-150	150 ±5%	0.7	0.67	0.62	0.55	199

Package D 4$\frac{15}{16}$" x 7½" x 9⅜"



Use with:
Rack Adapters LRA-3, 6 or 7
Metered Panel MP-5
Non-Metered Panel P-5

Model	ADJ. VOLT. RANGE VDC	MAX AMPS AT AMBIENT OF: [1]				Price [2]
		40°C	50°C	60°C	71°C	
LM-D-3	3 ±5%	13.1	11.3	9.2	6.2	$209
LM-D-3-P-6	3.6±5%	13.1	11.3	9.2	6.2	209
LM-D-4	4 ±5%	13.1	11.3	9.2	6.2	209
LM-D-4-P-5	4.5±5%	13.1	11.3	9.2	6.2	209
LM-D-5	5 ±5%	12.6	10.8	9.2	6.1	209
LM-D-6	6 ±5%	12.4	10.6	8.9	6.0	209
LM-D-8	8 ±5%	12.2	10.3	8.8	5.9	209
LM-D-10	10 ±5%	10.8	9.7	8.5	5.7	209
LM-D-12	12 ±5%	10.0	9.2	8.3	5.7	209
LM-D-15	15 ±5%	9.0	8.4	7.9	5.3	219
LM-D-18	18 ±5%	7.9	7.4	6.9	5.0	219
LM-D-20	20 ±5%	7.4	6.9	6.5	4.9	219
LM-D-24	24 ±5%	6.7	6.3	5.8	4.8	219
LM-D-28	28 ±5%	6.0	5.6	5.2	4.7	219
LM-D-36	36 ±5%	5.4	5.0	4.7	4.3	239
LM-D-48	48 ±5%	4.1	3.9	3.6	3.1	239
LM-D-100	100 ±5%	1.7	1.5	1.3	1.1	239
LM-D-120	120 ±5%	1.5	1.3	1.1	1.0	239
LM-D-150	150 ±5%	1.1	1.0	0.90	0.80	239

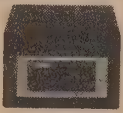
See notes 1 & 2 on page 4

GUARANTEED FOR 5 YEARS

LM series modular power supplies fixed-voltage models

See notes 1 & 2 on page 4

Package E 4^15/16" x 7½" x 11⅞"



Use with:
Rack Adapters LRA-3, 6 or 7
Metered Panel MP-5
Non-Metered Panel P-5

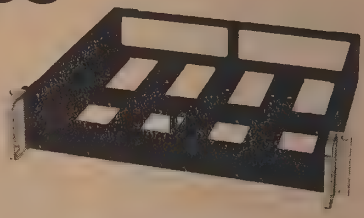
Model	ADJ. VOLT. RANGE VDC	MAX AMPS AT AMBIENT OF: [1] 40°C	50°C	60°C	71°C	Price [2]
LM-E-3	3 ±5%	22.0	20.0	16.5	10.0	$269
LM-E-3-P-6	3.6±5%	21.0	19.0	16.5	10.0	269
LM-E-4	4 ±5%	21.0	19.0	16.5	10.0	269
LM-E-4-P-5	4.5±5%	20.0	18.0	16.4	10.0	269
LM-E-5	5 ±5%	20.0	18.0	16.4	10.0	269
LM-E-6	6 ±5%	19.0	17.3	15.6	10.0	269
LM-E-8	8 ±5%	18.0	16.4	14.7	10.0	269
LM-E-10	10 ±5%	16.0	14.5	13.0	9.5	269
LM-E-12	12 ±5%	15.0	13.6	12.3	9.5	269
LM-E-15	15 ±5%	14.0	12.7	11.5	8.6	269
LM-E-18	18 ±5%	13.0	11.8	10.6	8.6	269
LM-E-20	20 ±5%	12.0	10.9	9.8	8.5	269
LM-E-24	24 ±5%	11.0	10.0	9.0	7.6	269
LM-E-28	28 ±5%	10.0	9.0	8.0	7.1	269
LM-E-36	36 ±5%	8.0	7.3	6.5	5.7	269
LM-E-48	48 ±5%	6.0	5.4	4.9	4.3	299
LM-E-100	100 ±5%	2.0	1.7	1.6	1.5	299
LM-E-120	120 ±5%	1.7	1.5	1.4	1.2	299
LM-E-150	150 ±5%	1.4	1.3	1.2	1.0	299

Package EE 4^15/16" x 7½" x 17"

Use with:
Rack Adapter LRA-7
Metered panel MP-50
Non-Metered Panel P-50

Model	ADJ. VOLT. RANGE VDC	MAX AMPS AT AMBIENT OF: [1] 40°C	50°C	60°C	71°C	Price [2]
LM-EE-3	3 ±5%	33.0	29.0	25.0	20.5	$320
LM-EE-3-P-6	3.6±5%	32.0	26.0	22.0	18.3	320
LM-EE-4	4 ±5%	32.0	26.0	22.0	18.3	320
LM-EE-4-P-5	4.5±5%	31.0	24.6	20.8	17.3	320
LM-EE-5	5 ±5%	31.0	24.6	20.8	17.3	320
LM-EE-6	6 ±5%	30.0	24.6	20.8	17.3	320
LM-EE-8	8 ±5%	28.0	23.5	19.7	16.5	320
LM-EE-10	10 ±5%	24.0	20.4	16.8	13.8	320
LM-EE-12	12 ±5%	21.0	19.0	16.1	13.2	320
LM-EE-15	15 ±5%	19.0	18.0	15.5	12.7	320
LM-EE-18	18 ±5%	16.5	14.8	12.4	10.1	320
LM-EE-20	20 ±5%	15.2	13.7	11.8	9.7	320
LM-EE-24	24 ±5%	14.0	12.5	10.8	9.0	320
LM-EE-28	28 ±5%	13.0	11.5	9.8	8.2	320
LM-EE-36	36 ±5%	10.4	9.8	8.6	7.1	320
LM-EE-48	48 ±5%	7.7	7.1	6.5	5.4	320
LM-EE-100	100 ±5%	3.3	3.0	2.5	2.1	350
LM-EE-120	120 ±5%	3.0	2.7	2.2	1.9	350
LM-EE-150	150 ±5%	2.2	2.0	1.75	1.50	350

accessories and performance options for LM series modules

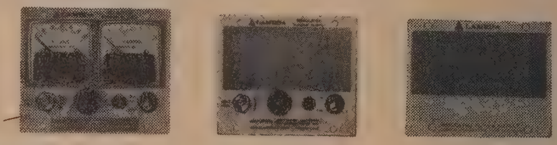


Rack Adapters

LRA-5 • 3½" height by 2-9/16" depth. Price $35.00
LRA-4 • 3½" height by 14" depth. Price $60.00
LRA-3 • 5¼" height by 2-9/16" depth. Price $35.00
LRA-6 • 5¼" height by 14" depth. Price $60.00
LRA-7 • 5¼" height by 21" depth. Price $70.00

Chassis Slides

For use with LRA-4, LRA-6 and LRA-7 add suffix "-CS" to LRA Model number and add $50.00 to price.



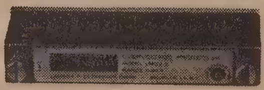
Metered Panels

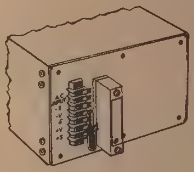
3½" Metered panel MP-3 is used with rack adapters LRA-4, LRA-5 and packages A, B and C. Price $45.00

5¼" Metered panel MP-5 is used with rack adapters LRA-6, LRA-3 and LRA-7 packages A, B, C, CC, D, and E. Price $45.00.

5¼" Metered panel MP-50 is used with rack adapter LRA-7 and package EE. Price: $55.00.

(add $10.00 to price for fungus proofing.)





Overvoltage Protectors

Model	Adj. Volt Range	Price
LM-OV-1	3-8V	$30
LM-OV-2	6-20V	30
LM-OV-3	18-70V	30
LM-OV-7 (for EE pkg.)	3-8V	75
LM-OV-8 (for EE pkg.)	6-20V	75
LM-OV-9 (for EE pkg.)	18-70V	75

High Performance Option

Add Suffix "-Y." All models available with these specifications for $15.00 extra; Line regulation .01% + 1 mV; Load regulation .02% +2 mV; Ripple and Noise 1/2 mV rms, 1½ mV p to p; with 60 Hz input;Temp. Coeff. .01%°C

AC Input Option

Add suffix "V." All units are available with 205-265 VAC, 45-440 Hz at no extra charge.

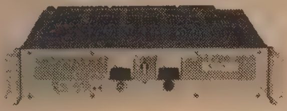
Fungus Proofing Option

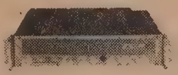
Add Suffix "-R." All models can be obtained with MIL-V-173 varnish for all fungi nutrient components at $10.00 surcharge.

LAMBDA ELECTRONICS CORP.

LM series full rack fixed voltage models

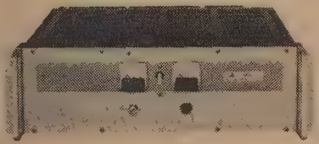
Package F 3½" x 19" x 16½"

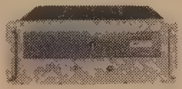




Model	ADJ. VOLT. ANGE VDC	MAX AMPS AT AMBIENT OF: [1] 40°C	50°C	60°C	71°C	Price [2]
LM-F-3	3 ±5%	48.0	42.0	34.0	25.0	$450
LM-F-3-P-6	3.6±5%	48.0	42.0	34.0	25.0	450
LM-F-4	4 ±5%	48.0	42.0	34.0	25.0	450
LM-F-4-P-5	4.5±5%	48.0	42.0	34.0	25.0	450
LM-F-5	5 ±5%	48.0	41.0	33.0	25.0	450
LM-F-6	6 ±5%	47.0	40.0	32.0	24.0	450
LM-F-8	8 ±5%	44.0	37.0	30.0	23.0	450
LM-F-10	10 ±5%	38.0	33.0	27.0	21.0	450
LM-F-12	12 ±5%	33.0	28.0	22.0	17.0	450
LM-F-15	15 ±5%	25.0	22.0	18.0	14.0	450
LM-F-18	18 ±5%	25.0	22.0	18.0	14.0	450
LM-F-20	20 ±5%	23.0	20.0	17.0	13.0	450
LM-F-24	24 ±5%	20.0	17.0	14.0	11.0	450
LM-F-28	28 ±5%	19.0	16.0	13.0	10.0	450
LM-F-36	36 ±5%	13.0	11.0	10.0	7.5	500
LM-F-48	48 ±5%	10.0	9.0	7.5	6.0	500
LM-F-100-M	100 ±5%	4.3	3.6	3.0	2.3	530
LM-F-120-M	120 ±5%	3.7	3.1	2.6	1.9	530
LM-F-150-M	150 ±5%	3.1	2.6	2.1	1.6	530

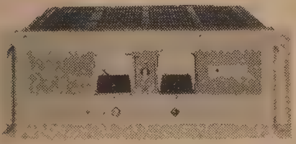
Package G 5¼" x 19" x 16½"

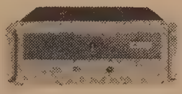




Model	ADJ. VOLT. RANGE VDC	MAX AMPS AT AMBIENT OF: [1] 40°C	50°C	60°C	71°C	Price [2]
LM-G-3	3 ±5%	95.0	80.0	62.0	45.0	$575
LM-G-3-P-6	3.6±5%	85.0	80.0	62.0	45.0	575
LM-G-4	4 ±5%	85.0	80.0	62.0	45.0	575
LM-G-4-P-5	4.5±5%	85.0	80.0	62.0	45.0	575
LM-G-5	5 ±5%	80.0	75.0	62.0	45.0	575
LM-G-6	6 ±5%	80.0	75.0	62.0	45.0	575
LM-G-8	8 ±5%	68.0	62.0	53.0	41.0	575
LM-G-10	10 ±5%	64.0	53.0	44.0	35.0	575
LM-G-12	12 ±5%	56.0	46.0	37.0	29.0	525
LM-G-15	15 ±5%	45.0	42.0	36.0	28.0	525
LM-G-18	18 ±5%	38.0	34.0	28.0	21.0	525
LM-G-20	20 ±5%	35.0	32.0	28.0	21.0	525
LM-G-24	24 ±5%	32.0	26.0	21.0	16.0	525
LM-G-28	28 ±5%	28.0	25.0	21.0	16.0	525
LM-G-36	36 ±5%	22.0	20.0	16.0	13.0	575
LM-G-48	48 ±5%	17.0	14.0	12.0	9.0	600
LM-G-100-M	100 ±5%	7.5	7.0	6.0	5.0	680
LM-G-120-M	120 ±5%	6.5	6.0	5.4	4.4	680
LM-G-150-M	150 ±5%	5.5	5.2	4.5	3.7	680

Package H 7" x 19" x 18½"





Model	ADJ. VOLT. RANGE VDC	MAX AMPS AT AMBIENT OF: [1] 40°C	50°C	60°C	71°C	Price [2]
LM-H-3	3 ±5%	150	140	125	91	$850
LM-H-3-P-6	3.6±5%	130	109	90	69	850
LM-H-4	4 ±5%	135	118	100	74	850
LM-H-4-P-5	4.5±5%	120	104	84	66	850
LM-H-5	5 ±5%	130	110	90	70	850
LM-H-6	6 ±5%	117	100	84	66	850
LM-H-10	10 ±5%	95	83	69	56	850
LM-H-12	12 ±5%	90	77	63	50	850

LM series full rack wide voltage models

Package F 3½" x 19" x 16½"

Model	ADJ. VOLT. ANGE VDC	MAX AMPS AT AMBIENT OF: [1] 40°C	50°C	60°C	71°C	Price [2]
LM-F-0-7	0–7	25.0	21.0	17.0	14.0	$450

Package G 5¼" x 19" x 16½"

Model	ADJ. VOLT. RANGE VDC	MAX AMPS AT AMBIENT OF: [1] 40°C	50°C	60°C	71°C	Price [2]
LM-G-0-7	0–7	35.0	29.0	24.0	20.0	$575

Package H 7" x 19" x 18½"

Model	ADJ. VOLT. RANGE VDC	MAX AMPS AT AMBIENT OF: [1] 40°C	50°C	60°C	71°C	Price [2]
LM-H-0-7	0–7	52	46	37	30	$675

NOTES

[1] CURRENT RATING IS FROM ZERO TO I MAX.
CURRENT RATING APPLIES OVER ENTIRE OUTPUT VOLTAGE RANGE.
CURRENT RATING APPLIES FOR INPUT VOLTAGE 105-132 VAC 55-65 HZ.
FOR OPERATION AT 45-55 HZ DELETE 40°C RATING.
FOR OPERATION AT 360-440 HZ CONSULT FACTORY FOR RATINGS AND SPECIFICATIONS.

[2] PRICES ARE FOR NON-METERED MODELS, EXCEPT FOR MODEL NUMBERS FOLLOWED BY SUFFIX "-M." FOR METERED MODELS ADD SUFFIX "-M" TO MODEL NUMBER AND $30.00 TO PRICE.

PRICES F.O.B. FACTORY, MELVILLE, N. Y. ALL SPECIFICATIONS AND PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

accessories and performance options for LM series power supplies

Meters—F, G and H LM Packages are full rack power supplies available metered or non-metered. For metered models, add suffix "-M" to the model number and add $30 to the non-metered price.

Model numbers followed by suffix "-M" are not available non-metered.

Overvoltage Protection—F, G and H packages are available with *built-in* crowbar type overvoltage protection up to 70 VDC. To order overvoltage protection for F, G and H packages, add sufffix "-OV" to the model number and, for F and G packages, add $90. to the price; for H packages add $120 to the price.

To order F, G and H packages with both overvoltage and meters specify by adding suffix "-OV-M" to model number.

Examples LM-G-3-OV-M LM-F-4-OV-M

Chassis Slides
F, G and H packages are available with mounted chassis slides. Add suffix "-CS" to model number, and add $60 to the price of F and G models, $100 to the price of H models.

High Performance Option
All models available with these specifications:

Line regulation: .01% + 1mV
Load regulation: .02% + 2mV
Ripple and Noise: 0.5mV rms; 1.5mVp-to-p with 60 Hz input
Temp. Coeff. .01%/°C

To order add suffix "-Y" to the model number and add $15.00 to the price.

AC Input Option
All models are available with 205-265 VAC input voltage *at no extra cost.*
To order add suffix "-V" to model number.

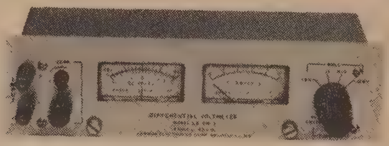
Fungus Proofing Option
All models available with fungus proofing with MIL-V-173 varnish for all fungi nutrient components.
To order add suffix "-R" to model number and add $15 to the price of F, G and H package models.

The LS series high precision plug-in conversion to power

Buy the basic LS series

High Precision Power Source

With this plug-in accessory...



it becomes a HIGH PRECISION POWER DIFFERENTIAL VOLTMETER that obsoletes any instrument now offered for this service

Basic Non-Metered Model	Voltage Range	Max. Amps at Ambient of[1]				Price[2]	Diff. VM Accessory	
		30°C	40°C	50°C	60°C		Model	Price
LS-511	0-10VDC	2.8A	2.5A	2.1A	1.7A	$375	LS-DM1	$85
LS-512	0-20VDC	1.8A	1.6A	1.3A	1.1A	375	LS-DM2	85
LS-513	0-40VDC	1.0A	0.9A	0.75A	0.6A	375	LS-DM3	85
LS-515	0-120VDC	0.33A	0.29A	0.25A	0.21A	375	LS-DM5	85
LS-516	0-250VDC	0.1A	0.09A	0.08A	0.07A	380	LS-DM6	85

1 Current rating applies over entire voltage range. Ratings based on 55-65 Hz operation.

2 This price is for Precision Power Source only. Addition of Differential Voltmeter Accessory Plug-In (next two columns) is necessary for unit to function as High Precision Power Differential Voltmeter.

- **Draw power as you measure voltage**—The first and only differential voltmeter to furnish high stability power output while being used as a voltmeter . . . no need for a separate power supply.
- **2 meters**—Monitor both voltage and current simultaneously and continuously.
- **Guaranteed for 5 years**—The only 5-year guarantee that includes labor as well as parts. Guarantee applies to operation at *full published specifications.*
- **All-silicon design** for maximum reliability
- **Convection-cooled** for convenience and reliability . . . no blowers or heat sinks.
- **5 voltage ranges:** 0-10, 0-20, 0-40, 0-120, 0-250VDC—Wide selection of ranges to suit your specific needs.
- **Illuminated Digital Readout Millimatic(TM) gang dialing**—5-digital voltage dials with automatic decade turnover provides convenient precise adjustment.
- **Only 5¼″ high**—Convenient half rack size for rack or bench use.
- **0.01% + 1mV accuracy**
- **Stability** 0.001% + 100μV for 8 hours
- **Completely protected:** short-circuit proof; continuously adjustable automatic current limiting
- **Overvoltage protection** available as low cost add-on accessory
- **Rubber Feet** provided for bench use.

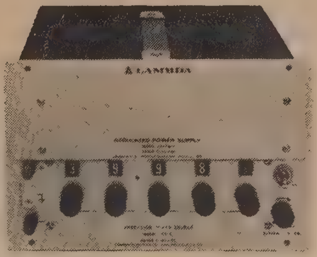
- **Mount in Rack Adapters**—LRA-1 ($60.00) or LRA-2 ($35.00).
- **AC Input**—105-132 VAC, 47-440 Hz (Ratings based on 55-65 Hz)

Power Supply specifications for Voltmeter same as for Power Supply—see next page

LAMBDA ELECTRONICS CORP.

power supplies with differential voltmeters

Buy the basic LS series **High Precision Power Source**



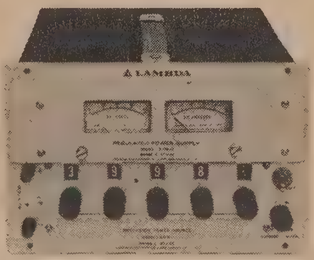
With this plug-in accessory...

it becomes a METERED HIGH PRECISION POWER SUPPLY that offers all these features

Basic Non-Metered Model	Voltage Range	Max. Amps at Ambient of (1)				Price (2)	Metered Accessory	
		30°C	40°C	50°C	60°C		Model	Price
LS-511	0-10VDC	2.8A	2.5A	2.1A	1.7A	$375	LS-FM1	$55
LS-512	0-20VDC	1.8A	1.6A	1.3A	1.1A	375	LS-FM2	55
LS-513	0-40VDC	1.0A	0.9A	0.75A	0.6A	375	LS-FM3	55
LS-515	0-120VDC	0.33A	0.29A	0.25A	0.21A	375	LS-FM5	55
LS-516	0-250VDC	0.1A	0.09A	0.08A	0.07A	380	LS-FM6	55

1 Current rating applies over entire voltage range. Ratings based on 55-65 Hz operation.

2 This price is for non-metered Precision Power Source. Addition of Metered Accessory Plug-In (next two columns) is necessary to have Metered High Precision Power Supply.



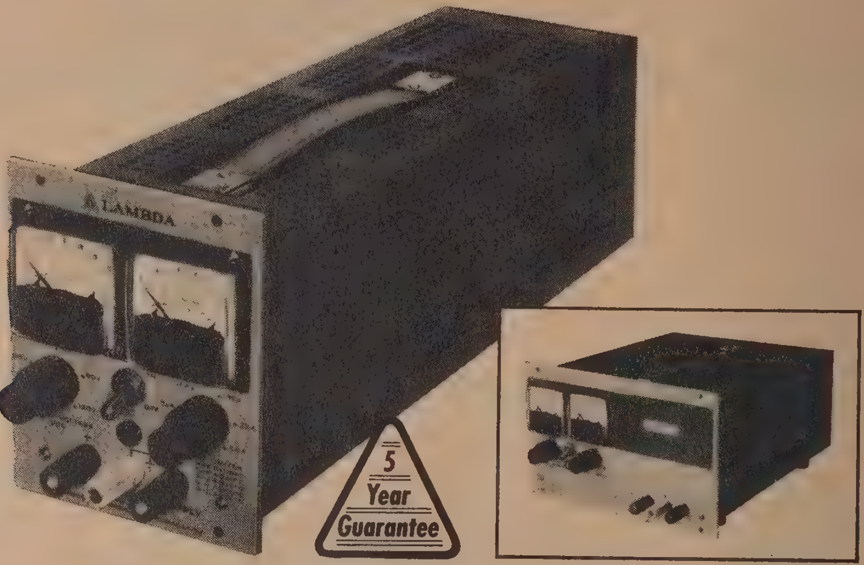
- **0.0005% plus 100 μV regulation**—Best of any high stability power supply in this price range.
- **Ripple**—35μV rms; 100μV p=p.
- **Twice the power** in a convenient ½-rack package
- **2 meters**—Monitor both voltage and current simultaneously and continuously.
- **Guaranteed for 5 years**—The only 5-year guarantee that includes labor as well as parts. Guarantee applies to operation at *full published specifications.*
- **Multi-Current-Rated** for 30°C, 40°C, 50°C, 60°C—Covers temperatures most often encountered in laboratory work.
- **5 voltage ranges:** 0-10, 0-20, 0-40, 0-120, 0-250VDC—Wide selection of ranges to suit your specific needs.
- **Illuminated Digital Readout Millimatic(TM) gang dialing**—5-digital voltage dials with automatic decade turnover provides convenient precise adjustment.
- **Only 5¼" high**—Convenient half rack size for rack or bench use.
- **0.01% + 1mV accuracy**
- **Stability** 0.001% + 100μV for 8 hours
- **All-silicon design** for maximum reliability
- **Convection-cooled** for convenience and reliability . . . no blowers or heat sinks.
- **Remote programing** by changes in voltage or resistance for convenience in systems, test equipment and automatic equipment applications.
- **Auto Series/Auto Parallel** with Master-Slave tracking
- **Constant I/Constant V** by automatic crossover
- **Completely protected:** short-circuit proof; continuously adjustable automatic current limiting
- **Overvoltage protection** available as low cost add-on accessory
- **Rubber Feet** provided for bench use.
- **AC Input**—105-132 VAC, 47-440 Hz (Ratings based on 55-65 Hz)

OVERVOLTAGE PROTECTION

For Use With	Model	Adj. Volt. Range	Price
LS-511	LHOV-4	3-24 V	$35
LS-512	LHOV-4	3-24 V	$35
LS-513	LHOV-5	3-47 V	$35

GUARANTEED FOR 5 YEARS

Lambda LR High Performance Series for rack or bench use



- **0.0005% plus 100μV regulation.**
- **35μV rms ripple.**
- **AC Input:** 105-132 VAC, 47-440 Hz (Ratings based on 55-65 Hz) 205-265 VAC on request at no extra charge ("-V" option).
- **2 meters** monitor both voltage and current simultaneously and continuously.
- **With Remote Programing**
  Accuracy—0.01% plus 1mV
  Stability—0.001% plus 100μV for 8 hours
  Temp. Coeff.—0.001% plus 10μV/°C
- **Guaranteed for 5 years.** The only 5-year guarantee that includes labor as well as parts. Guarantee applies to operation *at full published specifications* at end of 5 years.
- **Multi-Current-Rated.**
- **Only 5¼" high.** Convenient ¼ and ½ rack sizes for rack or bench use.
- **All-silicon** design for maximum reliability.
- **Convection cooled** for convenience and reliability... no blowers or heat sinks.
- **Remote programing** by changes in voltage or resistance for convenience in systems, test equipment and automatic equipment applications.
- **Auto Series/Auto Parallel** with Master-Slave tracking.
- **Constant I/Constant V** by automatic cross-over.
- **Completely protected:** short-circuit proof; continuously adjustable automatic current limiting.
- **Overvoltage protection** available as low cost add-on accessory.

FOUR ¼-RACK MODELS

Model	Voltage Range	MAX. AMPS AT AMBIENT OF[1] 30°C	40°C	50°C	60°C	Price
LR-602-FM	0-20 VDC	1.1	.95	.80	.64	$265
LR-603-FM	0-40 VDC	.60	.50	.42	.33	265
LR-605-FM	0-120 VDC	.23	.20	.17	.14	295
LR-606-FM	0-250 VDC	80ma	72ma	65ma	60ma	310

FOUR ½-RACK MODELS

Model	Voltage Range	MAX. AMPS AT AMBIENT OF[1] 30°C	40°C	50°C	60°C	Price[2]
LR-612-FM	0-20 VDC	1.8A	1.6A	1.3A	1.1A	$305
LR-613-FM	0-40 VDC	1.0A	0.9A	0.75A	0.6A	305
LR-615-FM	0-120 VDC	0.33A	0.29A	0.25A	0.21A	320
LR-616-FM	0-250 VDC	100ma	90ma	80ma	70ma	340

[1] Current rating applies over entire voltage range. Ratings based on 55-65 Hz operation.

[2] Prices are for metered models. LR Series models are not available without meters.

Prices F.O.B. factory, Melville, N. Y. All specifications and prices subject to change without notice.

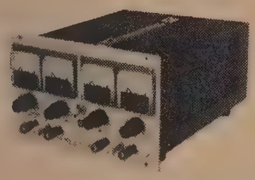
OVERVOLTAGE PROTECTION

For Use With	Model	Adj. Volt. Range	Price
LR-602-FM, LR-612-FM	LH-OV-4	3-24 V	$35
LR-603-FM, LR-613-FM	LH-OV-5	3-47 V	$35

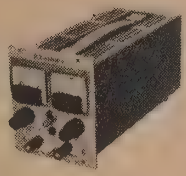
LAMBDA ELECTRONICS CORP.

OR choose from these other Lambda power supplies

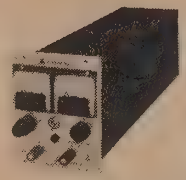
LPD



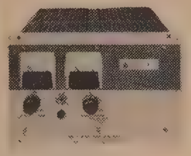
LP



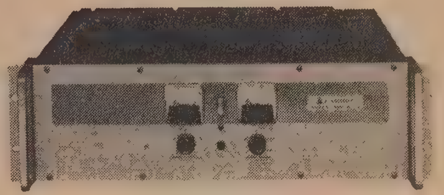
LH



LH, LK



LK 5½" (7" model also)



LP-LPD Series

A-C Input: 105-132 VAC, 47-440 Hz
Regulation: (line or load) 0.01%+1mV
Ripple: 500 μV rms, 1.5mV p. to p.

LH-LK Series

Regulation: (line or load) 0.015% or 1 mV
Ripple: LH models—250 μV rms,
1 mV p. to p.
LK models—500 μV rms

AC Input:

LH models—105-135 VAC, 47-480 Hz
LK models—105-132 VAC, 47-63 Hz
(LK7" package available in
188-238 V and 205-265 V only)

Size 5³⁄₁₆" x 8⅜" x 10⅝" ½ Rack • LPD Series

Model (2)	Voltage Range Per output/ **Outputs in series**	I MAX AMPS AT AMBIENT OF: (1) Per output/ **Outputs in parallel**				Price (3) US and Canada
	VDC	30 C	40 C	50 C	60 C	
LPD-421-FM	0-±20/**0-40**	1.7A/**3.4A**	1.5A/**3.0A**	1.3A/**2.6A**	0.9A/**1.8A**	$325
LPD-422-FM	0-±40/**0-80**	1.0A/**2.0A**	0.85A/**1.7A**	0.7A/**1.4A**	0.55A/**1.1A**	260
LPD-423-FM	0-±60/**0-120**	0.7A/**1.4A**	0.6A/**1.2A**	0.5A/**1.0A**	0.4A/**0.8A**	325
LPD-424-FM	0-±120/**0-240**	0.38A/**0.76A**	0.32A/**0.64A**	0.26A/**0.52A**	0.20A/**0.40A**	325
LPD-425-FM	0-±250/**0-500**	0.13A/**0.26A**	0.12A/**0.24A**	0.11A/**0.22A**	0.10A/**0.20A**	350

Size 5³⁄₁₆" x 4³⁄₁₆" x 10" ¼ Rack • LP Series

Model[2]	Voltage Range	CURRENT RANGE AT AMBIENT OF:[1]				Price[2]
		30 C	40 C	50 C	60 C	
LP-410	0-10 VDC	0-2A	0-1.8A	0-1.6A	0-1.4A	$129
LP-411	0-20 VDC	0-1.2A	0-1.1A	0-1.0A	0-0.8A	119
LP-412	0-40 VDC	0-0.70A	0-0.65A	0-0.60A	0-0 50A	114
LP-413	0-60 VDC	0-0 45A	0-0.41A	0-0.37A	0-0.33A	129
LP-414	0-120 VDC	0-0.20A	0-0 18A	0-0.16A	0-0.12A	149
LP-415	0-250 VDC	0-80mA	0-72mA	0-65mA	0-60mA	164

Size 5³⁄₁₆" x 4³⁄₁₆" x 15½" ¼ Rack • LH Series

Model[2]	Voltage Range	CURRENT RANGE AT AMBIENT OF:[1]				Price[2]
		30 C	50 C	60 C	71 C	
LH-118A	0–10VDC	0–4.0A	0–3.5A	0–2.9A	0–2.3A	$180
LH-121 A	0–20VDC	0–2.4A	0–2.2A	0–1.8A	0–1.5A	170
LH-124 A	0–40VDC	0–1 3A	0–1.1A	0–0 9A	0–0.7A	170
LH-127A	0–60VDC	0–0 9A	0–0.7A	0–0.6A	0–0.5A	185
LH-130	0–120VDC	0–0 50A	0–0 40A	0–0.35A	0–0.25A	240

Size 5³⁄₁₆" x 8⅜" x 15⅝" ½ Rack • LH Series

Model[2]	Voltage Range	CURRENT RANGE AT AMBIENT OF:[1]				Price[2]
		30 C	50 C	60 C	71 C	
LH-119A	0–10VDC	0– 9 0A	0– 8 0A	0– 6 9A	0–5 8A	$289
LH-122A	0–20VDC	0– 5 7A	0– 4 7A	0– 4 0A	0-3 3A	260
LH-125A	0–40VDC	0– 3 0A	0– 2 7A	0– 2 3A	0–1 9A	269
LH-128A	0–60VDC	0– 2 4A	0– 2 1A	0– 1 8A	0–1 5A	315
LH-131	0–120VDC	0– 1.2A	0– 0 9A	0– 0 8A	0–0 6A	320

Size 5³⁄₁₆" x 8⅜" x 15⅝" ½ Rack • LK Series

Model[2]	Voltage Range	CURRENT RANGE AT AMBIENT OF:[1]				Price[2]
		40 C	50 C	60 C	71 C	
LK-340A	0–20VDC	0– 8 0A	0– 7 0A	0– 6 1A	0–4 9A	$330
LK-341A	0–20VDC	0–13 5A	0–11 0A	0–10 0A	0–7 7A	385
LK-342A	0–36VDC	0– 5 2A	0– 5 0A	0– 4 5A	0–3 7A	335
LK-343A	0–36VDC	0– 9 0A	0– 8 5A	0– 7 6A	0–6 1A	395
LK-344A	0–60VDC	0– 4 0A	0– 3 5A	0– 3 0A	0–2 5A	340
LK-345A	0–60VDC	0– 6 0A	0– 5 2A	0– 4 5A	0–4 0A	395

λ GUARANTEED FOR 5 YEARS

Size 5¼" x 19" x 16½" Full Rack • LK Series

Model[2]	Voltage Range	CURRENT RANGE AT AMBIENT OF:[1]				Price[2]
		40 C	50 C	60 C	71 C	
LK-350	0–20VDC	0–35A	0–31A	0–26A	0–20A	$675
LK-351	0–36VDC	0–25A	0–23A	0–20A	0–15A	640
LK-352	0–60VDC	0–15A	0–14A	0–12.5A	0–10A	650

Size 7" x 19" x 18½" Full Rack • LK Series

Model[2]	Voltage Range	CURRENT RANGE AT AMBIENT OF:[1]				Price[3]
		40 C	50 C	60 C	71 C	
LK-360-FM	0–20VDC	0–66A	0–59A	0–50A	0–40A	$995
LK-361-FM	0–36VDC	0–48A	0–43A	0–36A	0–30A	950
LK-362-FM	0–60VDC	0–25A	0–24A	0–22A	0–19A	995

Overvoltage Protection

Overvoltage protection up to 70VDC is available as a plug-in accessory with all LR, LP and LPD models and for LH and LK models with Suffix "A".

For models with this VDC	Specify this OV Accessory	Adj. Volt Range	Price
0-10, 0-20	LH-OV-4	3-24V	$35
0-36, 0-40	LH-OV-5	3-47VDC	35
0-60	LH-OV-6	3-70VDC	35

Overvoltage protection up to 70 VDC as a built-in option for full rack LK models. To order, add suffix (—OV) and add $90.00 to price of models LK-350—352; add $120.00 for models LK-360-FM—362-FM.

NOTES:

1 Current rating applies over entire range. Ratings based on 57-63 Hz operation.
2 Prices are for non-metered models. For metered models, add suffix "-FM" and add $10 to price for LP, $30 for LH and LK.
3 Available metered only.
4 For chassis slides for full-rack models, add suffix "-CS" and add $60 to price for 5¼" LK models, $100 for 7" LK models.

All specifications and prices subject to change without notice.

Write, wire, or call to order direct, for information, or for new Lambda Power Instruments catalog. LAMBDA Electronics Corp., 515 Broad Hollow Road, Melville, L. I., New York 11746, TEL. 516-694-4200, TWX-510-224-6484

NEW CONCEPTS IN POWER CONVERSION

R-3000

SOLID STATE AC VOLTAGE REGULATORS

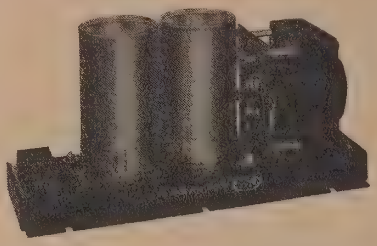
Designed Especially for OEM Application. Two Lines Available.

SPECIFICATIONS

	R-3100	R-3200
Type of Voltage Regulation	True RMS	Peak
Regulation Technique	Peak Clipping	Peak Clipping
Type of Reference	RMS Sensor	Zener Diode
Input	100-130 VAC 47-63 Hz	100-130 VAC 47-63 Hz
Output	115 VAC	115 VAC (RMS)
Line Regulation (±10% line variation)	±0.5%	±1.0%
Load Regulation (10% to Full Load)	±0.5%	±1.0%
Frequency Regulation (47-63 Hz)	±0.5%	±1.0%
Power Factor Regulation (+0.7 to —0.7)	±0.5%	±1.0%
Phase Shift	None	None
Response Time	10-50 μsec.	10-50 μsec.
Models Available	15-1000 va	15-1000 va

LX

ECONOMY SOLID STATE POWER SUPPLIES



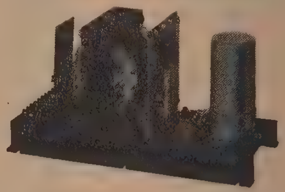
Now...A low cost Power Supply with 1% Line and Load Regulation, Minimum Ripple, 3% Output Voltage Adjustability, Frequency Insensitive with 47-63 Cycle Operation. 45 Standard Models, 4-240 vdc 0-25 Amps.

Three Lines Available

60-LX	60 watts output	$85 each
120-LX	120 watts output	$125 each
200-LX	200 watts output	$170 each

IC

INTEGRATED CIRCUIT POWER SUPPLIES



Designed Specifically for Original Equipment Applications.

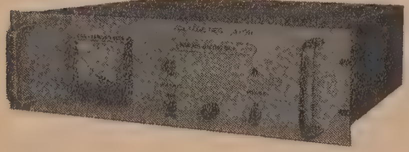
THE IC PRODUCT LINE

After a careful analysis of existing power supply product lines, Wanlass Electric concluded that there was an important omission in these lines, namely, the low-cost quality supply for use by OEM's with their integrated circuits. The Wanlass IC line is aimed specifically at this market. This line features a quality series regulator but no frills . . . no expensive package, no unnecessary precision components, 0.25% regulation not 0.05%, 5 millivolts ripple not 1 millivolt, overvoltage protection is available as an option.

7.5 Amp Model	.......$105.00
15 Amp Model	........$150.00

RF-1300

DYNAMICALLY FILTERED AC VOLTAGE REGULATOR



Designed especially for Precision Laboratory AC Line Regulation.

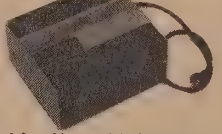
SPECIFICATIONS

Line Regulation	95-130 volts input ±0.1% for ±10% input variation
Load Regulation	±0.1% for zero to full load
Dynamic Filter	No residual SCR or overvoltage transients
Distortion	Less than 3%
Response	Regulator—30 milliseconds. Dynamic Filter—less than 1 microsecond
Output Voltage Adjustment	110-120 volts
Frequency	50 or 60 cps
Remote Sensing	Programmable
Current Limiting	Standard feature

Model	Power Rating	Price (including Exclusive Dynamic Filter)
RF-1310	1000 va	$500
RF-1330	3000 va	$800
RF-1350	5000 va	$1100

R-2000

MULTI-FREQUENCY AC VOLTAGE REGULATOR



Ideal for Use with Locally Generated Power where Frequency is not held constant.

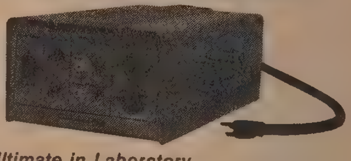
SPECIFICATIONS

Line Regulation	100-130 volts input ±0.5% for ±10% volts input variation
Load Regulation	±0.5% for 10% to full load
Output Voltage Adjustable	110-120 volts
Frequency Insensitive	Wide range including 47-63 cps operation
Power Factor Insensitive	Typically 1.0 to 0.7 lagging
Response	30-100 milliseconds
Operating Temperature	0.50°C
Stability	±½% after warm up
No Zero Load Circulating Currents	Better Efficiency
Current Limitation	Inherently Self limiting
No SCR Circuits	No "spikes"
Magnetic Techniques	Variable Inductor Element

Model	Power Rating	Price
R-2002	250 va	$125
R-2005	500 va	$205
R-2010	1000 va	$270
R-2030	3000 va	$425

WANLASS PARAX T.M.

TRANSIENT FREE PARAMETRIC POWER



The Ultimate in Laboratory and OEM Power Conversion Equipment.

Parametric Power

If the inductance of a winding can be changed while a current is flowing through that winding, then energy can be transferred. If this change in inductance can be accomplished without the usual use of mutual inductance, then transient free energy transfer can be achieved. By inventing a technique for rhythmically varying the parameters of a magnetic circuit without relying on mutual inductance, Wanlass Electric has discovered an important new way to convert electrical energy. This we have named Parametric Power.

This concept has been translated into a complete line of parametric power conversion products, including: Voltage Regulators, Line Filters, AC Power Supplies, DC Power Supplies, Inverters, DC Converters, and Frequency Converters. All will bear the name PARAX T.M.

P-1405 500 va Line Conditioners . . .$275.00

WANLASS ELECTRIC COMPANY
A SUBSIDIARY OF **AMBAC** INDUSTRIES INC.
WANLASS PARAX

1540 EAST EDINGER AVENUE
PHONE 714 546-8990
SANTA ANA, CALIFORNIA 92707
TWX 910-595-1526

THE WANLASS PARAFORMER™

As shown by Equation #1, electromotive force, and hence the transfer of electrical energy can be achieved in two ways: (1) by flux coupling, or (2) by parametric coupling. Existing passive devices such as transformers and ferroresonant transformers depend almost exclusively on the flux coupling term of Equation #1. However, Wanlass Electric has now invented a new component, the Paraformer™, which operates exclusively on the basis of parametric coupling and consequently is a device in which the flux coupling or mutual inductance is zero. (Thus, all energy is passed by the $i\frac{dL}{dt}$ term of Equation #1.)

$$E = \frac{d}{dt}(LI) = \underbrace{\frac{Ldi}{dt}}_{\text{Flux Coupling Term}} + \underbrace{i\frac{dL}{dt}}_{\text{Parametric Coupling Term}}$$

Equation #1

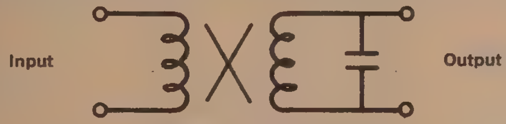
The relative advantages of the new device are summarized in the following table.

TABLE I

	Transformer	Ferroresonant Transformer	Paraformer™
All Passive Device	Yes	Yes	Yes
All Static Device	Yes	Yes	Yes
Number of Components	3 (Two coils & a core)	5 (three coils, a core & a capacitor)	4 (Two coils, a core & a capacitor)
Multiple secondaries permissible	Yes	Yes	Yes
Line Isolation	Yes	Yes	Yes
Voltage Transformation	Yes	Yes	Yes
Line Voltage Regulation	None	±1%	±¼%
Line Filtering (Noise)	No	Slight	Over 50 db attenuation
Load Filtering (Noise)	No	Slight	Over 50 db attenuation
Overload Protection	No	Partial	Yes
Low Line Voltage Protection	None	None	Yes

As will be noted from Table I, the Paraformer™ is inherently a line voltage regulator and line power filter. In fact, the Paraformer's most useful property appears to be its ability to prevent load voltage fluctuations from reaching the line and line voltage fluctuations from reaching the load. As will be noted from the above table, such fluctuations (noise, distortions, etc.) are attenuated by over 50 db for frequencies from a few cycles per second up to 1 megacycle per second..

Having noted the outstanding advantages of the Paraformer™, it is perhaps appropriate to note the simplicity of the device.



Paraformer™ Symbol

Figure 1

As shown in Figure 1 (see also Fig. 2), the Paraformer consists only of a primary winding, a secondary winding, a magnetic core and an AC capacitor. **NO OTHER COMPONENTS** are used. After reviewing the symbol, it is perhaps important to restate that **the Paraformer™ is not a ferroresonant transformer.** The mechanism for energy transfer is entirely different and most of the basic characteristics are entirely different. Table II highlights some of these differences.

Relative to Table II, the test results observed for the Paraformer are most easily understood if one thinks of this device as a power oscillator which is parametrically pumped by the line and hence is phase locked to the line frequency. (For instance, shorting the output of any oscillator causes the oscillations to stop, thus accounting for the results observed in Test #1).

TABLE II

TEST	OBSERVATIONS		
	Transformer	Ferroresonant Transformer	Paraformer™
1. Short circuit output terminals	High load currents	Twice rated load current	Zero load current
2. Remove output capacitor		Output voltage decreases by 25%	Output voltage goes to zero
3. Apply low input voltage (e.g. 50% of normal)	Low output voltage (e.g. 50%)	Low output voltage (e.g. 50%)	Output voltage goes to zero
4. Apply voltage to output terminals instead of input terminals	Bilateral Operation (Voltage observed on input terminals)	Bilaterial Operation (Voltage observed on input terminals)	Unilateral Operation (no voltage observed at input terminals)
5. Measure phase shift through device	Constant at 180°	Highly variable (varies with load)	Constant at 90°

Figure #2 depicts the design of one version of the Wanlass Paraformer™ (two C—Cores rotated 90°).

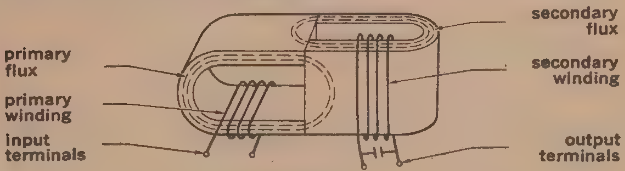
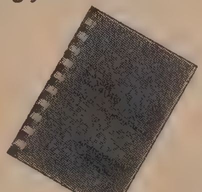


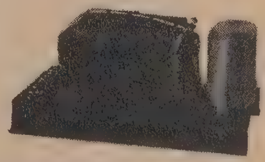
Figure #2

Note that the geometry is such that the primary flux does not link the secondary winding and that the secondary flux does not link the primary winding. (Accordingly, the classical flux coupling is zero). However, note that the primary flux does modulate the reluctance associated with the secondary flux, and hence the primary does modulate the inductance of the secondary. This modulation can be achieved only by transferring electrical power from the primary to the secondary. This power in turn sustains the secondary oscillations and delivers power to the load. It is this unique parametric power transfer mechanism that makes the Paraformer™ a revolutionary new component.

ORDER A PARAFORMER™ TODAY AND SEE FOR YOURSELF

Knowing that every conceptually new component must be carefully tested by prospective users before it can be included within their own equipment, Wanlass Electric has available for immediate delivery a 60 watt Paraformer (Model PEC—60). May we suggest that you buy one of these units and satisfy yourself relative to its amazing properties. When you place your order, be sure to ask for our new book entitled "The Wanlass Paraformer™". This treatise on the subject of parametric power conversion discusses the theory and application of parametric devices and will assist you in evaluating your PEC—60.





PEC—60 SPECIFICATIONS

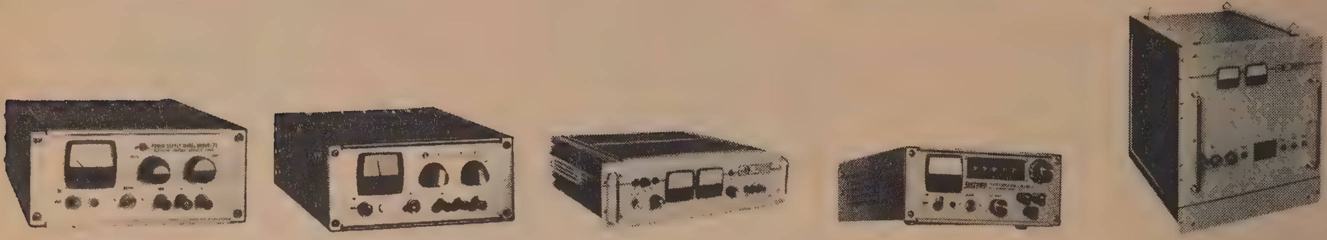
Input Voltage	115 VAC ±10%, 60 Hz, 1ϕ (50-150 VAC input voltage range dependent upon load current)
Output Voltage	117 VAC, 60 Hz, 1ϕ
Output Capacity	60 Va
Noise Attenuation	Over 50 lb (0-1 MHz)
Line Regulation (±10%)	±0.25%
Load Regulation (0-FL)	±1.5%
Size (approx)	6½" L x 4" W x 3½" H
Weight (approx)	10 lbs.
Price (including book)	$95.00

Ask us about other WANLASS PARAMETRIC POWER CONVERSION PRODUCTS

WANLASS ELECTRIC COMPANY
A SUBSIDIARY OF **AMBAC** INDUSTRIES INC.
1540 EAST EDINGER AVENUE SANTA ANA, CALIFORNIA 92707
PHONE 714 546-8990 TWX 910-595-1526

WANLASS PARAX

Meet the Sorensen POWER SUPPLIES



DC Power Supplies

QRS Series Wide range, transistorized—versatile and economical—for precision laboratory or systems applications—self contained or rack mountable. Seven models with prices starting at $145.
0-15Vdc @ 2 amp
0-20Vdc @ 4 amp
0-30Vdc @ 1 amp
0-40Vdc @ .75 amp
0-40Vdc @ 2 amp
0-60Vdc @ .5 amp
0-60Vdc @ 1.5 amp

QRD Series Highly regulated, wide range, power sources which have all the desirable features of precision laboratory or systems power supplies, plus a High Speed remote programming capability (to 10 microseconds) which makes them particularly suitable for digital and servo system applications. Seven models (same as QRS Series)with prices starting at $178.—optional overvoltage protection available.

QRC Series High efficiency, wide range, transistorized power sources—precision constant voltage and constant current modes with automatic cross-over—0.005% regulation—self contained or rack mountable. Seven models with voltages to 40Vdc at power levels to 1200 watts.—prices start at $325.

QHS Series High stability, precision power sources—three models:
0-20Vdc @ 1 amp
0-40Vdc @ .5 amp
0-100Vdc @ .2 amp
—2ppm line voltage regulation-5ppm load regulation—stability: 15ppm for 8 hours; 35ppm for 1 week—price $345.

DCR Series High power, high efficiency, all silicon laboratory or industrial power sources—constant voltage and constant current modes with automatic crossover—meets MIL-I-26600 and MIL-I-6181D—30 models with voltages to 600Vdc at power levels to 20,000 watts—prices start at $360.—optional overvoltage protection available.

Sorensen Power Supplies —for flexibility in laboratory and OEM instrumentation

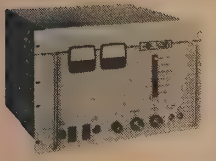
Sorensen's family includes regulated DC Power Supplies, High Voltage DC Power Supplies and AC Line Voltage Regulators—all available off-the-shelf, and at competitive prices. Sorensen has over 25 years of experience in designing and manufacturing power supplies to your requirements. Above are representative 1969 product lines. Other standard or custom models are included in Sorensen's catalog, available on request.

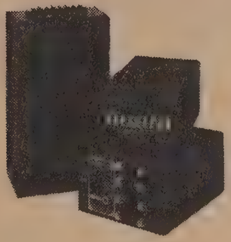
All prices shown are domestic U.S. list prices.

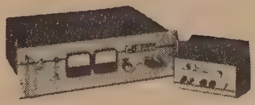
Sales Representatives

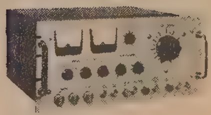
ALABAMA
Huntsville—BCS Associates, Inc.: 205-534-1648
ALASKA
Anchorage—ARVA, Inc.: 907-272-5231
ARIZONA
Phoenix—Barnhill Associates: 602-959-2115
CALIFORNIA
Pasadena—Ward-Davis Associates: 213-684-2840
Palo Alto—Ward-Davis Associates: 415-968-7116
San Diego—Ward-Davis Associates: 714-297-4619
COLORADO
Denver—Barnhill Associates: 303-934-5505
CONNECTICUT
Hartford—Instrument Associates, Inc.: 203-525-9367
FLORIDA
Orlando—BCS Associates, Inc.: 305-425-2764
HAWAII
Honolulu—Earl Associates, Inc.: 808-996-953
ILLINOIS
Chicago—Pivan Engineering Company: 312-539-4838
INDIANA
Indianapolis—Pivan Engineering Company: 317-253-1681
IOWA
Cedar Rapids—Pivan Engineering Company: 319-365-6635
KANSAS
Shawnee Mission—S. Sterling Company: 913-432-0555
MARYLAND
Kensington—Electronic Marketing Associates: 301-946-0300

family...









DCR-HV Series Regulated, high efficiency, solid state high voltage DC power source—all silicon air insulated design—voltage regulation: ±0.075% for line and load changes combined.

DCR600-2.5A	$875
DCR1500-1A	$995
DCR3000-.5A	$1250
DCR6000-.25A	$1495

QSA Series Modular, wide range, laboratory grade precision power sources—ideal for OEM and systems applications—remote programming/remote sensing/series and parallel operation—requires no external heat sink in ambients to 71°C—29 models with voltages to 330Vdc at power levels to 300 Watts—prices start at $89.

QSB/QRE Series
Designed for modern integrated circuitry—10 microsecond overvoltage protection—±0.005% regulation—250 microvolt ripple—no turn on/turn off overshoots—20 models with current availability to 50 amperes—prices start at $115.

AC Line Voltage Regulators

All solid state designs providing up to 15KVA in single phase configurations and up to 45KVA in three phase configurations—voltage regulation to ±0.1%—30 millisecond response time—efficiencies to 95%—eight models with prices starting at $310.

High Voltage DC Power Supplies

Seven distinct lines cover the field: 200 Series—0-30KV, 3-12MA; 1000 Series—3-150KV, 5-200MA; 2000 Series—3-350KV, 8-1000MA; 5000 Series—1-30KV, 0-8MA; 9000 Series—5-60KV, 5-10MA; P Series—6-150KV, 4-1000MA; MP Series—6-150KV, 80-2500MA.

Custom Design

Sorensen's standard product technology provides the basis for the company's custom design capability.

To most effectively implement the custom design program the company has organized a separate applications engineering, design engineering, and manufacturing task force to handle custom work. This group functions almost as a subsidiary of the company, guaranteeing that each custom application will receive the undiluted, uninterrupted attention of a group of specialists concerned only with the optimum solution to each specific problem.

MASSACHUSETTS
Boston Area—Instrument Associates, Inc.: 617-648-2922
MICHIGAN
Southfield—S. Sterling Company: 313-357-3700
MINNESOTA
Minneapolis—Pivan Engineering Company: 612-537-4501
MISSOURI
St. Louis—S. Sterling Company: 314-542-3636
NEW JERSEY
Southern N.J.—Sonco: 201-542-1441
Northern N.J.—SBM Associates, Inc.: 201-687-8737
NEW MEXICO
Albuquerque—Barnhill Associates: 505-265-7766
NEW YORK
Metropolitan Area—SBM Associates, Inc.: 914-769-1811
Long Island Area—SBM Associates, Inc.: 516-433-1421
Rochester—SBM Associates, Inc.: 716-381-8330
Syracuse—SBM Associates, Inc.: 315-454-9377
NORTH CAROLINA
Greensboro—BCS Associates, Inc.: 919-273-1918
OHIO
Cleveland—S. Sterling Company: 216-442-8080
Dayton—S. Sterling Company: 513-298-7573
OREGON
Portland—ARVA, Inc.: 503-292-8762
PENNSYLVANIA
Mid-State Area—Sonco: 717-761-0577
Philadelphia Area—Sonco: 215-265-3250
Pittsburgh—S. Sterling Company: 412-922-5720
TEXAS
Richardson—Barnhill Associates: 214-231-2573
Houston—Barnhill Associates: 713-621-0040
WASHINGTON
Seattle—ARVA, Inc.: 206-622-0177
WISCONSIN
Waukesha—Pivan Engineering Company: 414-547-5131

FOREIGN REPRESENTATIVES

Central Export Offices
Lexington, Massachusetts—Raytheon Company: 617-862-6600
CANADA
Western—ARVA, Inc. (Vancouver): 604-736-6377
Eastern—Megatronix Ltd. (Toronto): 416-783-3329
Eastern—Megatronix Ltd. (Ottawa): 613-731-3860
Eastern—Megatronix Ltd. (Montreal): 514-488-0404
CONTINENTAL EUROPE
Switzerland—Sorensen-Ard Ag (Zurich): 51-358724
FRANCE
Societe Anonymede Mechines Electrostatiques: 38 01 94
WEST GERMANY
Frankfurt am Main—Sorensen G.m.b.H.: 338502
UNITED KINGDOM
Harlow, Essex—Cossor Instrument Ltd.: Harlow 26862

RAYTHEON COMPANY☐SORENSEN OPERATION
Richards Avenue, Norwalk, Connecticut ☐ 06856
Telephone 203-838-6571 ☐ TWX 710-468-2940

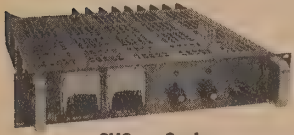
RAYTHEON

POWER SUPPLIES

AUGUST 1968 PRICE LIST

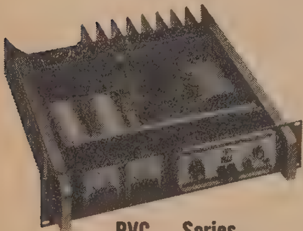
LVC — Series

- Three-Range Voltmeter
- Dual-Range Ammeter
- Coarse/Fine Voltage Adjust
- Master Slave Series/Parallel
- Adjustable Current Limiting
- Mil-T-27 Grade Transformers
- All-Silicon Construction
- Dual-Tracking Outputs



SVC — Series

- All Silicon Design
- Regulated Voltage and / or Current
- Mode Indicator Lamps
- 0-71°C Operating
- 0-20V, 0-40V, 0-60V, 0-125V units



RVC — Series

- Regulated Voltage and/or Current
- 0-36 Volt Supplies
- 0-50°C Operating
- 50 microsecond response

Voltage Range	Current 50°C	Current 75°C	Regulation Load ±	Regulation Line ±	Ripple (RMS)	Design Code	Size	Model	Price	Catalog Code
0-5.5V	14A	11A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-5-14.0	$ 299.	S
0-5.5V	20.5A	20.5A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-5-20.5	380.	S
0-5.5V	40.0A	40.0A	.05%	.05%	1mv	VCL	5¼ x 19 x 16½	FS-5-40.0	555.	S
5.5-6.5V	15.0A	11.0A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-6-15	268.	S
5.5-6.5V	24.5A	18.0A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-6-24.5	340.	S
5.5-6.5V	46.0A	38.0A	.05%	.05%	1mv	VCL	5¼ x 19 x 16½	FS-6-46	515.	S
7.0-9.0V	14.5A	10.5A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-8-14.5	268.	S
7.0-9.0V	22.5A	17.5A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-8-22.5	340.	S
7.0-9.0V	43.0A	36.0A	.05%	.05%	1mv	VCL	5¼ x 19 x 16½	FS-8-43.0	515.	S
0-10V	2A (60°C)		.01%	.01%	.250mv	VCC	4¾ x 4 x 12	LVC-10-2	113.	L
0-10V	10A		.01%	.01%	1mv	VCL	3½ x 19 x 16⅝	QR-10-10	410.	L
9.0-11.0V	14.0A	10.5A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-10-14	268.	S
9.0-11.0V	21.0A	16.5A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-10-21	340.	S
9.0-11.0V	41.0A	35.0A	.05%	.05%	1mv	VCL	5¼ x 19 x 16½	FS-10-41	515.	S
11.0-13.0V	14.0A	10.5A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-12-14	268.	S
11.0-13.0V	20.5A	16.0A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-12-20.5	340.	S
11.0-13.0V	40.0A	33.0A	.05%	.05%	1mv	VCL	5¼ x 19 x 16½	FS-12-40	515.	S
5-14V	15A		.5%	.5%	1%	VCP	3½ x 19 x 14⅝	TC-14-15	365.	L
5-14V	30A		.5%	.5%	1%	VCP	5¼ x 19 x 16⅝	TC-14-30	500.	L
5-14V	200A		.5%	.5%	1%	VCP	21 x 19 x 16⅝	TC-14-200	1550.	L
0-15V	20A		.01%	.01%	1mv	VCL	5½ x 19 x 16⅝	QR-15-20	510.	L
14-16V	13.0A	10.0A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-15-13	268.	S
14-16V	17.5A	13.0A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-15-17.5	340.	S
14-16V	35.0A	30.0A	.05%	.05%	1mv	VCL	5¼ x 19 x 16⅝	FS-15-35	515.	S
0-18V	3A		.02%	.03%	1mv	VCL	4½ x 8 x 14	TR-18-3	195.	L
0-18V	3A		.01%	.01%	.250mv	VCC	4½ x 8 x 14	RB-18-3-M	225.	L
0-18V	6A		.005%	.02%	1mv	VCL	3½ x 19 x 16⅝	QR-18-6	410.	L
0-18V	30A		.01%	.02%	1mv	VCL	7 x 19 x 16⅝	CR-18-30	600.	L
5-18V	30A		.01%	.01%	1mv	VCL	5¼ x 19 x 16⅝	SY-18-30-M	580.	L
17-19V	11.0A	9.0A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-18-11	268.	S
17-19V	16.5A	12.5A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-18-16.5	340.	S
17-19V	32.0A	29.0A	.05%	.05%	1mv	VCL	5¼ x 19 x 16½	FS-18-32	515.	S
0-20V	1A (60°C)		.01%	.01%	.250mv	VCC	4½ x 4 x 12	LVC-20-1	113.	L
0-20V	7.5A (60°C)		.01%	.01%	1mv	VCC	8 x 5 x 14	SVC-20-7.5-M	375.	L
0-20V	15A (60°C)		.01%	.01%	1mv	VCC	3½ x 19 x 16⅝	SVC-20-15-M	490.	L
0-20V	30A (60°C)		.01%	.01%	1mv	VCC	5¼ x 19 x 16⅝	SVC-20-30-M	690.	L
19-21V	10.0A	8.5A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-20-10	268.	S
19-21V	15.5A	12.0A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-20-15.5	340.	S
19-21V	30.0A	28.0A	.05%	.05%	1mv	VCL	5¼ x 19 x 16½	FS-20-30	515.	S
22-26V	9.0A	8.0A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-24-9	268.	S
22-26V	13.5A	11.5A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-24-13.5	340.	S
22-26V	25.0A	21.5A	.05%	.05%	1mv	VCL	5¼ x 19 x 16½	FS-24-25	480.	S
27-31V	8.0A	7.5A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-29-8.0	268.	S
27-31V	12.0A	10.5A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-29-12	340.	S
27-31V	23.0A	20.0A	.05%	.05%	1mv	VCL	5¼ x 19 x 16½	FS-29-23	480.	S
0-32V	10A		5.5%	.5%	1%	VCP	14 x 19 x 14⅝	ELB-32-10	500.	L
0-32V	10A		2.5%	.5%	1%	VCP	14 x 19 x 14⅝	ELA-32-10	550.	L
10-32V	10A		.5%	.5%	1%	VCP	3½ x 19 x 14⅝	TC-32-10	320.	L
0-32V	20A		5.5%	.5%	1%	VCP	26¼ x 19 x 16⅝	ELB-32-20	610.	L
0-32V	20A		2.5%	.5%	1%	VCP	26¼ x 19 x 16⅝	ELA-32-20	720.	L
10-32V	20A		100mv	50mv	35mv	VCL	5¼ x 19 x 16	SP-32-20	525.	S
10-32V	20A		.5%	.5%	1%	VCP	5¼ x 19 x 16⅝	TC-32-20	445.	L
0-32V	30A		5.5%	.5%	1%	VCP	26¼ x 19 x 16⅝	ELA-32-30	1010.	L
0-32V	30A		2.5%	.5%	1%	VCP	26¼ x 19 x 16⅝	ELB-32-30	850.	L
10-32V	30A		100mv	50mv	35mv	VCL	7 x 19 x 16	SP-32-30	562.	S
10-32V	30A		.5%	.5%	1%	VCP	7 x 19 x 16⅝	TC-32-30	585.	L
10-32V	50A		100mv	50mv	35mv	VCL	10½ x 19 x 16	SP-32-50	735.	S
10-32V	50A		.5%	±.5%	1%	VCP	10½ x 19 x 16⅝	TC-32-50	865.	L
10-32V	100A		100mv	50mv	35mv	VCL	17½ x 19 x 16	SP-32-100	1450.	S
10-32V	120A		.5%	.5%	120mv	VCL	21 x 19 x 16⅝	TC-32-120	1570.	L
31-35V	7.0A	7.0A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-33-7.0	268.	S
31-35V	11.0A	9.5A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-33-11	340.	S
31-35V	21.0A	18.5A	.05%	.05%	1mv	VCL	5¼ x 19 x 16½	FS-33-21	515.	S
0-36V	2A		.02%	.03%	1mv	VCL	4½ x 8 x 14	TR-36-2	195.	L

NOTES: All HS, FS, SP Models Priced Without Meters.
Line and Load Regulations all have ±2mv, Whichever is Greater.
Lower Specs.

SY — Series

- Wide Slot Voltage Adjustable (5-18V) (10-36V) (10-60V)
- 0-50°C Operating
- 75 Microsecond response

RB — Series

- Regulated Voltage and/or Current
- Half Rack Bench Supply (Rack Adaptable)
- 0-50°C operating
- 50 Microsec Response

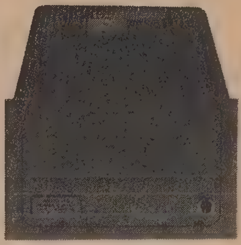
UNLIMITED *from* NJE!

AND SHORT FORM CATALOG

Voltage	Current		Regulation		Ripple	Design				Catalog
Range	50°C	75°C	Load ±	Line ±	(RMS)	Code	Size	Model	Price	Code
0-36V	2A		.01%	.01%	.250mv	VCC	4½ x 8 x 14	RB-36-2-M	$225.	L
0-36V	4A		.005%	.02%	1mv	VCL	3½ x 19 x 16⅝	QR-36-4	430.	L
0-36V	5A		.01%	.01%	1mv	VCC	3½ x 19 x 16⅝	RVC-36-5-M	375.	L
0-36V	8A		.01%	.02%	1mv	VCL	3½ x 19 x 16⅝	CR-36-8	475.	L
0-36V	10A		.01%	.02%	1mv	VCL	5¼ x 19 x 16⅝	QR-36-10	490.	L
10-36V	10A		.01%	.01%	1mv	VCL	3½ x 19 x 16⅝	SY-36-10-M	390.	L
0-36V	15A		.01%	.02%	1mv	VCL	5¼ x 19 x 16⅝	CR-36-15	520.	L
0-36V	15A		.01%	.01%	1mv	VCC	5¼ x 19 x 16⅝	RVC-36-15-M	545.	L
0-36V	20A		.01%	.02%	1mv	VCL	7 x 19 x 16⅝	CR-36-20	620.	L
10-36V	20A		.01%	.01%	1mv	VCL	5¼ x 19 x 16⅝	SY-36-20-M	485.	L
0-36V	25A		.01%	.01%	1mv	VCC	7 x 19 x 16⅝	RVC-36-25-M	690.	L
0-36V	30A		.01%	.02%	1mv	VCL	8¾ x 19 x 16⅝	CR-36-30	745.	L
10-36V	30A		.01%	.01%	1mv	VCL	7 x 19 x 16⅝	SY-36-30-M	645.	L
0-36V	50A		.01%	.02%	1mv	VCL	17½ x 19 x 16⅝	CR-36-50	1475.	L
35-39V	6.5A	6.0A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-37-6.5	268.	S
35-39V	10.A	8.5A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-37-10	340.	S
35-39V	19.0A	16.5A	.05%	.05%	1mv	VCL	5¼ x 19 x 16½	FS-37-19	515.	S
0-40V	5A (60°C)		.01%	.01%	1mv	VCC	8 x 5 x 14	SVC-40-5-M	345.	L
0-40V	10A (60°C)		.01%	.01%	1mv	VCC	3½ x 19 x 16⅝	SVC-40-10-M	475.	L
0-40V	20A (60°C)		.01%	.01%	1mv	VCC	5¼ x 19 x 16⅝	SVC-40-20-M	670.	L
0-40V	50A		5%	N/A	1%	VCP	17½ x 19 x 16⅞	EB-40-50	1080.	L
0-40V	50A		2%	N/A	1%	VCP	17½ x 19 x 16⅞	EA-40-50	1100.	L
0-40V	100A		5%	N/A	1%	VCP	35 x 19 x 16⅞	EB-40-100	1610.	L
0-40V	100A		2%	N/A	1%	VCP	35 x 19 x 16⅞	EA-40-100	1660.	L
41-45A	5.5A	5.5A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-43-5.5	268.	S
41-45A	9.0A	7.5A	.05%	.05%	1mv	VCL	5¼ x 8½ x 15 11/16	HS-43-9.0	340.	S
41-45A	17.0A	15.0A	.05%	.05%	1mv	VCL	5¼ x 19 x 16½	FS-43-17	515.	S
0-50V	.5A (60°C)		.01%	.01%	.250mv	VCC	4¾ x 4 x 12	LVC-50-.5	113.	L
0-50V	1.5A		.01%	.01%	.250mv	VCC	4½ x 8 x 14	RB-50-1.5-M	245.	L
45-51V	5.0A	5.0A	.05%	.05%	1mv	VCL	5¼ x 8¾ x 16½	HS-48-5	299.	S
45-51V	8.0A	7.0A	.05%	.05%	1mv	VCL	5¼ x 8¾ x 16½	HS-48-8	365.	S
45-51V	16.0A	14.0A	.05%	.05%	1mv	VCL	5¼ x 19 x 16½	FS-48-16	565.	S
20-52V	6A		.5%	.5%	1%	VCP	3½ x 19 x 14⅝	TC-52-6	420.	L
20-52V	12A		.5%	.5%	1%	VCP	5¼ x 19 x 16⅝	TC-52-12	465.	L
30-52V	20A		100mv	50mv	35mv	VCL	7 x 19 x 16	SP-41-20	800.	S
20-52V	30A		.5%	.5%	1%	VCP	10½ x 19 x 16⅝	TC-52-30	850.	L
30-52V	30A		100mv	50mv	35mv	VCL	10½ x 19 x 16	SP-41-30	940.	S
30-52V	50A		100mv	50mv	35mv	VCL	14 x 19 x 16	SP-41-50	1310.	S
0-60V	2.5A		.005%	.02%	1mv	VCL	3½ x 19 x 16⅝	QR-60-2.5	420.	L
0-60V	3.5A (60°C)		.01%	.01%	1mv	VCC	8 x 5 x 14	SVC-60-3.5-M	365.	L
0-60V	6A		.005%	.02%	1mv	VCL	5¼ x 19 x 16⅝	QR-60-6	550.	L
10-60V	6A		.01%	.01%	1mv	VCL	3½ x 19 x 16⅝	SY-60-6-M	420.	L
0-60V	7A		.01%	.01%	1mv	VCC	3½ x 19 x 16⅝	SVC-60-7-M	595.	L
0-60V	9A		.01%	.01%	1mv	VCL	5¼ x 19 x 16⅝	CR-60-9	620.	L
10-60V	12A		.01%	.01%	1mv	VCL	5¼ x 19 x 16⅝	SY-60-12-M	515.	L
0-60V	14A (60°C)		.01%	.01%	1mv	VCC	5¼ x 19 x 16⅝	SVC-60-14-M	690.	L
0-60V	18A		.01%	.01%	1mv	VCL	8¾ x 19 x 16⅝	CR-60-18	900.	L
10-60V	18A		.01%	.01%	1mv	VCL	7 x 19 x 16⅝	SY-60-18-M	665.	L
0-80V	4A		5.5%	.5%	1%	VCP	14 x 19 x 14⅝	ELB-80-4	500.	L
0-80V	4A		2.5%	.5%	1%	VCP	14 x 19 x 14⅝	ELA-80-4	530.	L
25-80V	4A		.5%	.5%	1%	VCP	3½ x 19 x 16⅝	TC-80-4	320.	L
0-80V	8A		5.5%	.5%	1%	VCP	26¼ x 19 x 16⅝	ELB-80-8	590.	L
0-80V	8A		2.5%	.5%	1%	VCP	26¼ x 19 x 16⅝	ELA-80-8	640.	L
25-80V	8A		.5%	.5%	1%	VCP	5¼ x 19 x 16⅝	TC-80-8	545.	L
0-80V	15A		5.5%	.5%	1%	VCP	29¾ x 19 x 16⅝	ELB-80-15	940.	L
0-80V	15A		2.5%	.5%	1%	VCP	29¾ x 19 x 16⅝	ELA-80-15	1030.	L
25-80V	20A		.5%	.5%	1%	VCP	10½ x 19 x 16⅝	TC-80-20	850.	L
0-80V	30A		5.0%	N/A	1%	VCP	17½ x 19 x 16⅝	EB-80-30	1150.	L
0-80V	30A		2.0%	N/A	1%	VCP	17½ x 19 x 16⅝	EA-80-30	1170.	L
0-80V	50A		5.0%	N/A	1%	VCP	35 x 19 x 16⅝	EB-80-50	1550.	L
0-80V	50A		2.0%	N/A	1%	VCP	35 x 19 x 16⅝	EA-80-50	1600.	L
0-80V	100A		5.0%	N/A	1%	VCP	35 x 19 x 16⅝	EB-80-100	1750.	L
0-80V	100A		2.0%	N/A	1%	VCP	35 x 19 x 16⅝	EA-80-100	2030.	L
0-120V	10A		5.5%	.5%	1%	VCP	29¾ x 19 x 16⅝	ELB-120-10	930.	L
0-120V	10A		2.5%	.5%	1%	VCP	29¾ x 19 x 16⅝	ELA-120-10	1000.	L
0-125V	1.6A		.01%	.01%	1mv	VCC	8 x 5 x 14	SVC-125-1.6-M	515.	L
0-125V	3.2A		.01%	.01%	1mv	VCC	3½ x 19 x 16⅝	SVC-125-3.2-M	765.	L
0-125V	6.5A		.01%	.01%	1mv	VCC	5¼ x 19 x 16⅝	SVC-125-6.5-M	1110.	L

CODES:
"S" Systems Catalog (old Con Avionics products)
"L" Lab. Catalog (old NJE)

"VCL" Voltage Regulated with current limit
"VCC" Voltage Regulated with current regulation
"VCP" Voltage Regulated with current protection (other than electronic)

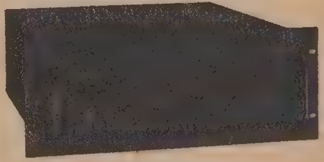


HS — Series

- Self-Cooled — No External Heat Sink Needed
- Series Operation Capability
- Fully Repairable
- Current Limiting Automatic Short Circuit Protection
- All Silicon Transistors
- Remote Sensing

FS — Series

- Self-Cooled — No External Heat Sink Needed
- Series Operation Capability
- Fully Repairable
- Current Limiting Automatic Short Circuit Protection
- All Silicon Transistors
- Remote Sensing



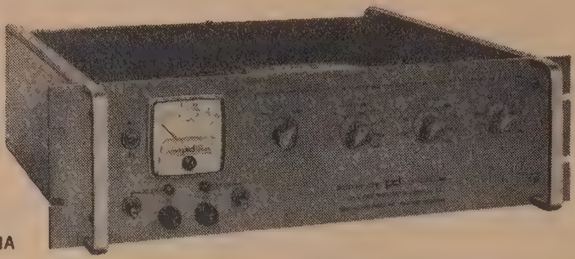
SP — Series

- Wide Slot Voltage Adjustment (10-32) (30-52)
- 0-50°C Operating
- 50mv Line Reg.
- 100mv Load Reg.
- 35mv RMS

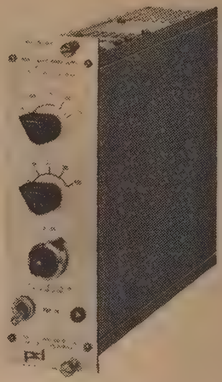
NJE CORPORATION
Electronic Development and Manufacture
a subsidiary of CONDEC Corporation

Kenilworth, New Jersey 07033 / (201) 272-6000 / TELEFAX: FFP • TWX: (710) 996-5967

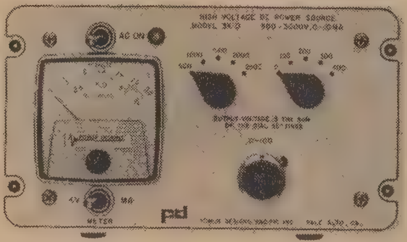
Model 1565
1-2012VDC at 10MA



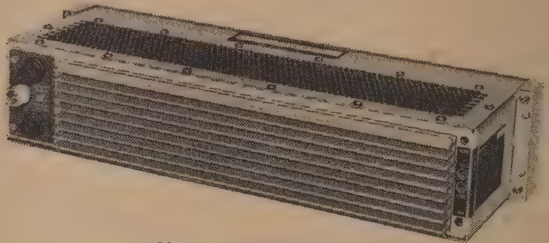
Model 1584
1KV-20KV at 3 MA



Model AEC-315
500-3000VDC at 10MA



Model 3K10
500-3000VDC at 10MA



Model AEC-320-3
±12VDC at 2A
±24VDC at 1A

HIGH VOLTAGE
AND
NUCLEAR INSTRUMENTATION POWER SOURCES

HIGH VOLTAGE HYBRID rack mounted precision power sources utilizing all silicon solid state circuitry and a vacuum tube pass element. Voltage ranges available to 10 KV and current ranges to 40 MA. This series features low noise and ripple, 0.25% calibration accuracy and a stability of 0.005%/hour. These models are ideally suited for photomultiplier amplifiers, radiation monitors and applications requiring a precise high voltage dc source.

HIGH VOLTAGE ALL SOLID STATE power sources which furnish stable, noise free voltages for the operation of high resolution CRT display systems, electron beam microscopes and similar devices. Extensive use of epoxy encapsulation techniques allows a remarkable reduction in size as well as effective environmental isolation. The Models 1584 and 1579 have an output of 1 KV to 20 KV at 3 MA and 10 KV to 30 KV at 1 MA, respectively. They feature a stability of 0.01%/hr, calibration accuracy of 0.25%, ripple of 250 MV P-P and regulation of 0.0025%.

NUCLEAR INSTRUMENTATION MODULES* (NIM System) provide power supplies conforming to AEC Report TID 20893. Multi-output rear mounting AEC-320-3 (shown in photo) complimented by modules specifically designed for photomultiplier tubes, solid state detectors and digital integrated circuits.

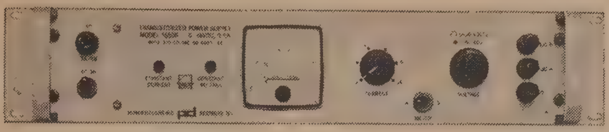
*PER USAEC STD TID-20893, REV2 (JAN. '68)

WRITE FOR SPECIFICATION SHEETS

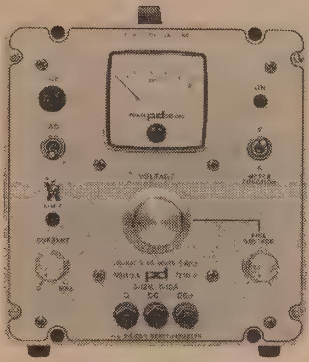
POWER DESIGNS PACIFIC, INC.
3381 JUNIPERO SERRA • PALO ALTO, CALIFORNIA
415-321-6111 TWX: 910-373-1251

POWER DESIGNS, INC.
1700 SHAMES DRIVE • WESTBURY, N.Y.
516 EDgewood 3-6200 TWX: 510-222-6561

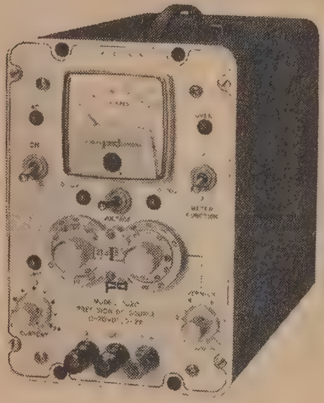
Model TW5005
0-50VDC, 0-0.5A each
0-1000VDC, 0-0.5A Series
0-50VDC, 0-1A Parallel



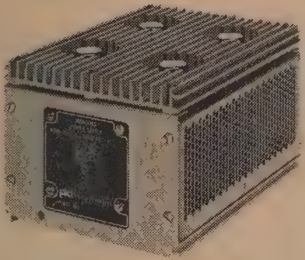
Model 3650R
0-36VDC, 0-5.0A



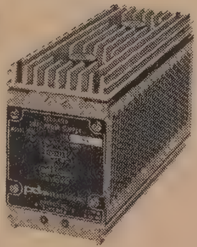
Model 1210S
0-12VDC, 0-10A



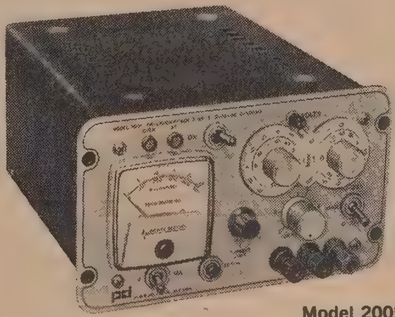
Model 2020
0-20VDC, 0-2A



Model UPMD-6
3, 4, 5, 6VDC, 0-10A



Model UPM-11
Dual 0-16VDC, 0-1A



Model 2005
0-20VDC, 0.5A

MODULAR, LABORATORY AND RACK MOUNTED POWER SOURCES

LABORATORY
Voltage ranges to 100VDC and current ranges to 10A. High resolution voltage controls, adjustable current limiting models available with indicating current limit monitor.

PRECISION
Voltage ranges to 100VDC and current ranges to 2A. Models have 0.1% absolute calibration accuracy with up to six place readout. All units feature long term stability better than 50PPM per day, and unusually low noise levels.

RACK MOUNTED
SCR controlled units with voltages to 36VDC at 25A. All units feature fast recovery rectifiers to minimize switching transients.

MODULAR
The Redule® series features universal plug-in modules, each of which may be set to a number of output voltages and modes of operation by pre-programming the mating connector.

WRITE FOR SPECIFICATION SHEETS

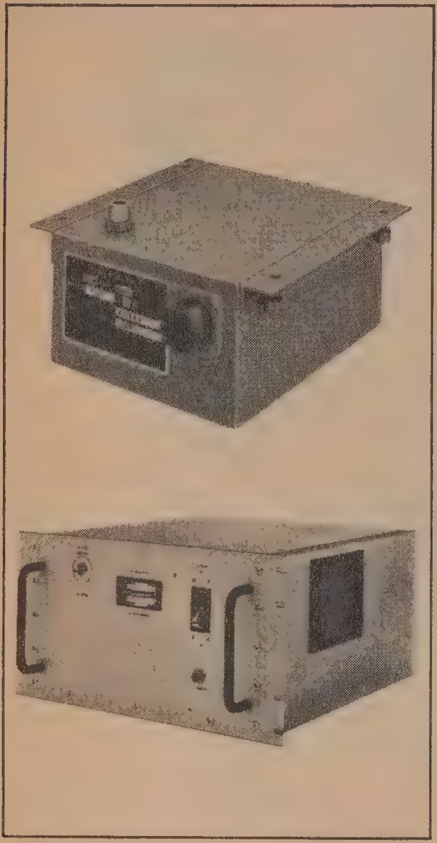
POWER DESIGNS, INC.
1700 SHAMES DRIVE • WESTBURY, N.Y.
516 EDgewood 3-6200 TWX: 510-222-6561

POWER DESIGNS PACIFIC, INC.
3381 JUNIPERO SERRA • PALO ALTO, CALIFORNIA
415-321-6111 TWX: 910-373-1251

CENTER LINE QUALITY®

TUNG-SOL®

Solid State Power Supplies



The Tung-Sol power supply is a unique combination of precise performance and ultimate efficiency achieved at minimal cost.

Few power supply manufacturers can equal Tung-Sol in engineering experience and production and test facilities. No other producer of custom power supplies makes so many of the major components under one roof.

Because Tung-Sol is not dependent on vendors for the more critical parts, production schedules, product performance and reliability are not limited by commercial standards.

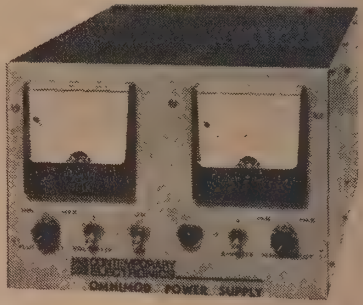
Tung-Sol engineers are qualified to aid systems engineers in determining the electrical specifications and mechanical design that will provide optimum performance at lowest cost. Tung-Sol custom power supplies are tailor-made for the specific application without need for compromising system parameters. Usually, they cost no more than off-the-shelf supplies—often, they cost less. Write for Bulletin T-361.

TUNG-SOL DIVISION
Wagner Electric Corporation
One Summer Avenue, Newark, N.J. 07104

® Reg. T.M. Wagner Electric Corporation

General Design Inc, Sun Valley	Cal
General Electric Co, ECSO, Schenectady	N Y
General Power Corp, Culver City	Cal
General Precision Systems Inc, Kearfott Gp Little Falls	N J
General Radio Co, West Concord	Mass
General Resistance Inc, New York	NY
General Transducer Co, Santa Clara	Cal
Genisco Technology Corp, Compton	Cal
Geo Space Corp, Houston	Tex
Gladding Corp, South Otselic	N Y
Glentek Inc, Santa Monica	Cal
Glentronics Inc, Glendora	Cal
Gow-Mac Instrument Co, Madison	N J
Grafix Inc, Albuquerque	N Mex
Grason Stadler Co Inc, West Concord	Mass
Green Rectifier Corp, Fair Lawn	N J
Guide Industries Inc, Sun Valley	Cal
Gulton Industries Inc, Metuchen	N J
Gulton Industries Inc Engineered Magnetics Div Hawthorne	Cal
Hamilton Electronics Corp, Chicago	Ill
Hamner Electronics Co Inc, Cleveland	Ohio
Haydon Co The, A W, Waterbury	Conn
Heath Co, Benton Harbor	Mich
Helix Research Assoc Inc, La Mesa	Cal
Helm Instrument Co Inc, Toledo	Ohio
Hewlett-Packard, Palo Alto	Cal
High Voltage Engineering Corp, Burlington	Mass
High Voltage Power Supply Co, Van Nuys	Cal
Hill Magnetics, Inc, Redwood City	Cal
Hipotronics Inc, Brewster	N Y
Hirst Electric Industries Ltd, Crawley, Sussex	England
Hi-Tek Corp, Santa Ana	Cal
Honeywell Industrial Div, Fort Washington	Pa
Honeywell Test Instruments Div, Denver	Colo
Hughes Electronics Co, Los Angeles	Cal
Hyperion Industries Corp, Watertown	Mass
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
Incor Inc, Plainview	N Y
Industrial Electronetics Corp, Satellite Beach	Fla
Industrial Gauging & Control Inc, Norwalk	Conn
Industrial Transformer Corp, Gouldsboro	Pa
Inet Power A Teledyne Co, Gardena	Cal
Information Control Corp, El Segundo	Cal
Instrulab Inc, Dayton	Ohio
Instrument Components Co, Maple Heights	Ohio
Instruments Inc, San Diego	Cal
Interelectronics Corp, Congers	N Y
Intronics Inc, Newton	Mass
Ionic Electrostatic Corp, Garfield	N J
Ionics Inc, Electronics Div, Watertown	Mass
I T I Electronics Inc, Clifton	N J
Janus Control Div Tyco, Waltham	Mass
Jefferson Electric Co, Bellwood	Ill
Jones Inc, Norman, South Merrimack	N H
Julie Research Labs, Inc, New York	N Y
Kato Engineering Co, Mankato	Minn
Keithley Instruments Inc, Cleveland	Ohio
Keltec Florida Div Aiken Industries Ft Walton Beach	Fla
Kepco Inc, Flushing	N Y
Kilovolt Corp, Hackensack	N J
Kokuyo Electric Co Ltd, Tokyo	Japan
Krohn-Hite Corp, Cambridge	Mass
Kruse-Storke Electronics, Mountain View	Cal
Kurz & Root Co, Appleton	Wis
Laben S p A, Milan	Italy
Lambda Electronics Corp, Plainview	N Y
Langevin Div, Scientific Ind, Inc, Santa Ana	Cal
Larago Electronics Mfgrs Inc, Melbourne	Fla
Lectrotech Inc, Chicago	Ill
Leeds & Northrup Co, Philadelphia	Pa
Life Instrument Co Inc, Franklin	Mass
Linear Systems Inc, Watsonville	Cal
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
Litton Industries, Electron Tube Div, San Carlos	Cal
Logic Corp, Haddonfield	N J
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Loyola Industries Inc, El Segundo	Cal
L P Associates Inc, Los Angeles	Cal
Macarr Inc, Bronx	N Y
Madison Labs, Inc, Madison	Conn
Magnetic Engineering Corp, Danbury	Conn
Magnetico Inc, East Northport	N Y
Magnetics Inc, Butler	Pa
Magnetic Specialties Inc, Trenton	N J
Marche Mfg Co, Des Plaines	Ill
McKee-Pedersen Instruments, Danville	Cal
McPherson Instrument Corp Sub GCA Corp, Acton	Mass
Melcor Electronics Corp, Farmingdale	N Y
Melpar Inc, Special Prods Dept, Falls Church	Va
Merrimack Magnetics Corp, Lowell	Mass
Microdot, Inc, South Pasadena	Cal
Microdot Magnetics Inc, Los Angeles	Cal
Micro Power Inc, Long Island City	N Y
Mid-Eastern Industries Inc, Springfield	N J
Mil Associates Inc, Hudson	NH
Miller Electric Mfg Co, Appleton	Wis
3M Company, St Paul	Minn
Monroe Electronics Inc, Middleport	N Y
Moran Instrument Corp, Pasadena	Cal
Motoresearch Mfg Co Inc, Racine	Wis
Motor Generator Div Hobart Bros Co, Troy	Ohio
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Multiper N V, Den Haag	Netherlands
Multi-Phase Electronics, Van Nuys	Cal
Nanosecond Systems Inc, Fairfield	Conn
Neff Instrument Corp, Duarte	Cal
Neotec Corp, Rockville	Md
Neshaminy Electronic Corp, Furlong	Pa
Neutronic Associates, Farmingdale	N Y
Newport Labs Inc, Newport Beach	Cal
NH Research Inc, Santa Ana	Cal
Nichols Co Ltd, R H, Downsview	Ont
NJE Corp, Kenilworth	N J
Northeast Electronics Corp, Concord	N H
Northeast Scientific Corp, Acton	Mass

CONTEMPORARY ELECTRONICS IS THE COMPLETE SOURCE FOR SYSTEM POWER SUPPLIES



STANDARD OFF-THE-SHELF POWER SUPPLIES—Contemporary Electronics' off-the-shelf system power supplies are specially designed to be used with electronic systems using integrated circuits. Write for Data Sheet #108 for more information.

CUSTOM SYSTEM POWER SUPPLIES DESIGNED AND PRODUCED TO YOUR SPECIFICATION—. . . using Contemporary Electronics' award winning OMNIMOD concept. Write for Data Sheet #101 describing the OMNIMOD concept and Application Note #606 for tips on how to specify power supplies for required performance at lowest cost.

BUILD YOUR OWN CUSTOM POWER SUPPLIES—. . . as easy as 1, 2, 3 . . . using Contemporary Electronics' award winning OMNIMOD concept. Write for Application Note #600 which will help you design a successful custom power supply with our dc to dc regulator modules.

System power supplies have been delivered for

- Digital Computers
- Memory Systems
- Peripheral Equipment
- Ground support equipment

Contemporary Electronics' power supply application engineers are familiar with the power needs of computers and high reliability industrial and military electronic equipment. Why not talk over your needs with one of our experts.

PRODUCTION FACILITIES IN MINNESOTA AND PUERTO RICO. SALES REPRESENTATIVES IN MAJOR U. S. CITIES, CANADA AND EUROPE.

CONTEMPORARY ELECTRONICS

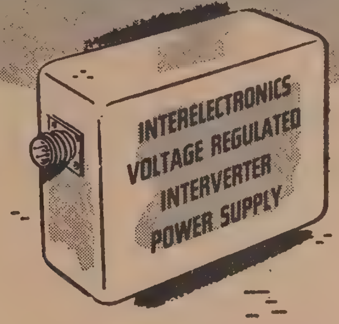
EXTRA SERVICE TO THE DATA PROCESSING INDUSTRY

4838 W. 35th St., Minneapolis, Minn.
55416
Telephone 612/920/6444

PROVEN RELIABILITY—

DC-DC, DC-AC, SOLID-STATE POWER INVERTERS

over 260,000 logged hours— voltage-regulated, frequency-controlled, for missile, telemeter, ground-support, 135°C all-silicon units available now—



Interelectronics all-silicon thyratron-like gating elements and cubic-grain toroidal magnetic components convert DC to any desired number of AC or DC outputs from 1 to 10,000 watts.

Ultra-reliable in operation (over 260,000 logged hours), no moving parts, unharmed by shorting output or reversing input polarity. High conversion efficiency (to 92%, including voltage regulation by Interelectronics patented reflex high-efficiency magnetic amplifier circuitry).

Wide input voltage range (1 to 250 volts DC). Wide input voltage regulation (output voltage maintained with variations up to 50% in input voltage).

Light weight (to 6 watts/oz.), compact (to 8 watts/cu. in.), low ripple (to 0.01 mv. p-p), excellent voltage regulation (to 0.1%), precise frequency control (to 0.2%) with Interelectronics extreme environment magnetostrictive standards or to 0.0001% with fork or piezoelectric standards.

Complies with MIL specs. for shock (100G 11 misc.), acceleration (100G 15 min.), vibration (100G 5 to 5,000 cps.), temperature (to 150 degrees C), RF noise (I-26600).

AC single and polyphase units supply sine waveform output (to 2% harmonics), will deliver up to ten times rated line current into a short circuit to actuate MIL type magnetic circuit breakers or fuses, will start gyros and motors with starting current surges up to ten times normal operating line current.

Now in use in major missiles, powering telemeter transmitters, radar beacons, electronic equipment. Single and polyphase units now power airborne and marine missile gyros, synchros, servos, magnetic amplifiers.

Interelectronics—first and most experienced in the solid-state power supply field produces its own all-silicon solid-state gating elements, all high flux density magnetic components, high temperature ultra-reliable film capacitors and components, has complete facilities and know how—has designed and delivered more working KVA than any other firm!

For complete engineering data, write Interelectronics today, or call (914) ELmwood 8-8000
in Congers, N.Y.

INTERELECTRONICS CORPORATION

500 U.S. Route 303, Congers, N.Y. 10920

PMC

UNI-POWER

UNIVERSAL WIDE-RANGE POWER SUPPLIES

WHERE ELSE CAN YOU GET...

☐ SAME DAY DELIVERY

☐ WIDE RANGE

☐ LOW PRICE
UNI-76 — 0-34 volts at 0.5 amps $ 76.00
UNI-88 — 0-34 volts at 1.5 amps $ 99.00
UNI-128-16—0-16 volts at 4 amps $128.00
UNI-128-34—15-34 volts at 4 amps $128.00
UNI-TWIN-164 — dual output — 0-25 volts at 0.75 amps $164.00

☐ UN-MATCHED PERFORMANCE — Meet MIL-E-5272 Environmental Specs, MIL-1-6181 RFI Specs and have MTBF in excess of 100,000 hours per MIL HDBK 217.

☐ FULLY PROTECTED — Overload and Short Circuit Proof. Instantaneous recovery and auto-reset.

☐ REGULATION — better than ±0.005% +1 mv. (±0.01% on the UNI-TWIN 164).

☐ RIPPLE — less than 250 uv (500 uv on the UNI-TWIN 164).

☐ TEMPERATURE COEFFICIENT — 0.01% +.5 mv/°C.

☐ COMPLETE SELECTION — Rack and metered accessories available.

If all this seems hard to believe, why not let us prove it. Write today for FREE LITERATURE describing these and many other POWER/MATE CORP. Power Supply Modules.

PMC POWER/MATE CORP.

163 Clay Street, Hackensack, New Jersey 07601
Phone: (201) 343-6294

TRYGON
POWER SUPPLIES
PRECISION DC

MODULES—LABORATORY—SYSTEMS

Bench and Rack Mount

0-300 VDC up to 200A

All Silicon —
5 Year Warranty

TRYGON ELECTRONICS INC.
111 Pleasant Ave.
Roosevelt, New York 11575
Tel: 516-378-2800 • TWX: 510-225-3664

POWER SUPPLIES
BY
E/M

SCR SERIES — High Power
The SCR Series is designed for high power requirements up to 500 Amps. and for voltages up to 500 Volts in a single unit.

RE SERIES — Lab Type
The RE Series is designed for both precise laboratory and systems applications. Ratings include 40 Volts at 5 and 10 Amps., 60 Volts at 2.5 and 5 Amps.

RIC SERIES — Slot
The RIC Series designed for I.C. logic and all OEM applications includes built in O.V. protection. Ratings include 2 to 6 Volts at 5 and 10 Amps., 10 to 20 Volts at 2.5 and 5 Amps.

ELECTRONIC MEASUREMENTS
division of ROWAN INDUSTRIES
2 Crescent Place • Oceanport, N.J. 07757
(201) 229-5000

North Electric Co, Galion	Ohio
North Hills Electronics Inc, Glen Cove	N Y
Novatronics Inc, Pompano Beach	Fla
Nuclear-Chicago Corp, Des Plaines	Ill
Nuclear Corp of America, Nuclear Div, Denville	N J
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nuclear Supplies, Encino	Cal
Nuclide Corp, AGV Div, Acton	Mass
Nytron, Palo Alto	Cal
Nytronics Inc, Berkeley Heights	N J
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Opad Electric Co, Inc, New York	N Y
Opamp Labs, Los Angeles	Cal
Optical Electronics Inc, Tuscon	Ariz
Optimized Devices, Inc, Pleasantville	N Y
Pastoriza Electronics Inc, Newton Upper Falls	Mass
Payne Engineering Co, South Charleston	W Va
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Pegasus Labs Inc, Berkley	Mich
Pek, Inc, Sunnyvale	Cal
Petroleum Electronics Mfg Inc, Tulsa	Okla
Philbrick/Nexus Research A Teledyne Co Dedham	Mass
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Physical Electronics Labs, Menlo Park	Cal
Pioneer Magnetics Inc, Santa Monica	Cal
Plastic Capacitors Inc, Chicago	Ill
Polyphase Instrument Co, Bridgeport	Pa
Power Control Corp, Pittsburgh	Pa
Power Designs, Inc, Westbury	N Y
Power Inc, Electronics Div, Burnsville	Minn
Power/Mate Corp, Hackensack	N J
Power Systems Inc, Venice	Cal
Powertec Div, Airtronics Corp, Chatsworth	Cal
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Precision Mecanique Labinal, 93 Saint-Ouen	France
Precision Transformers Inc, Anaheim	Cal
Preferred Electronics Inc, Westfield	Mass
Preston Scientific, Inc, Anaheim	Cal
Princeton Applied Research Corp, Princeton	N J
Private Tele Communications Inc, Chicago	Ill
Prod-El, Prodotti Elettronici Spa, 20132 Milan	Italy
Quantum Electronics Corp, San Ramon	Cal
Qutronic Transformer Corp, Oneonta	N Y
Radette Co, Pleasantville	N J
Radiometer A/S, Copenhagen NV	Denmark
Radix Electronics Corp, Anaheim	Cal
Ramapo Instrument Co Inc, Bloomingdale	NJ
Ramm Rectifier Co, Inc, Bronx	N Y
Ramyr Mfg Co, Buena Park	Cal
Randam Electronics Inc, Cincinnati	Ohio
Ratelco Inc, Seattle	Wash
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
RdF Corp, Hudson	N H
Rectifier Engineering & Supply Co Inc, St Louis	Mo
Reliance Electric Co, Cleveland	Ohio
Resalab Inc, Menlo Park	Cal
Research Inc, R-I Controls Div, Minneapolis	Minn
Rho Engineering Co, Los Angeles	Cal
RO Associates Inc, Menlo Park	Cal
Roband Electronics Ltd, Surrey	England
Robicon Corp, Pittsburgh	Pa
Robinson-Halpern Co, W Conshohocken	Pa
Rodale Electronics Inc, Garden City	NY
Rosemount Engineering Co, Minneapolis	Minn
Rosemount Plug-In Inc, Nashville	Tenn
Round Hill Associates, Inc, New York	N Y
Rowan Controller Co, Oceanport	N J
Rowe Industries Inc, Toledo	Ohio
Sanken Electric Co, Ltd, Toshima-ku, Tokyo	Japan
Sansha Electric Mfg Co Ltd, Osaka	Japan
SBD Systems Inc, Farmingdale	N Y
Schauer Mfg Corp, Cincinnati	Ohio
Schoeffel Instrument Co, Westwood	NJ
Schott Co Inc, Oscar A, Minneapolis	Minn
Scientific Data Systems Inc, El Segundo	Cal
Scientific Electric Inc, Garfield	N J
Scientific Instruments Co, Chatsworth	Cal
Scintillonics Inc, Fort Collins	Colo
Scott Electronics Corp, Orlando	Fla
Sedco Systems Inc, Farmingdale	N Y
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Semiconductor Circuits, Inc, Woburn	Mass
Sensor Corp, Greenwich	Conn
Sentron Inc, Danbury	Conn
Servo Corp of America, Hicksville	N Y
Sigma Systems Corp, Sub Applied Science Inc Dallas	Tex
Siltronics Inc, Oakmont	Pa
Singer Co, Metrics Div, Bridgeport	Conn
S K G Associates Inc, Boston	Mass
Sodilec SA Salies-S A, 91 Palaiseau	France
Sola-Basic Industries, Milwaukee	Wis
Sola Electric Div Sola Basic Industries Elk Grove Village	Ill
Solidstate Controls Inc, Columbus	Ohio
Sonex Inc, Philadelphia	Pa
Sorensen Operation, Raytheon Co., Norwalk	Conn
Soundolier Inc, St Louis	Mo
Space Craft Inc, Huntsville	Ala
Space Power Associates Inc, Staten Island	N Y
Space & Systems Div General Time Corp Stamford	Conn
Spar Electronics Inc, San Diego	Cal
Sparton Electronics, Jackson	Mich
Sparton Southwest Inc, Albuquerque	NM
Spatron Inc, Alhambra	Cal
Spellman High Voltage Electronics Corp, Bronx	N Y
Sprague Electric Co, North Adams	Mass
SRC Div Moxon Electronics Corp, Los Angeles	Cal
Staco Inc Std Elec Prods Co Div, Dayton	Ohio
Standard Industries, Buena Park	Cal
Stark Electronic Instruments Ltd, Ajax	Ont
Streeter-Amet, Grayslake	Ill
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Syntron Div FMC Corp, Homer City	Pa

Taber Instruments A Teledyne Co North Tonawanda	N Y
Taffet Electronics Inc, Woodside	N Y
Takeda Riken Industry Co Ltd, Tokyo	Japan
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Technical Products Co of L A, Los Angeles	Cal
Technipower Inc, Sub Benrus Watch Co Inc Ridgefield	Conn
Tecnica Elettronica Systems S a s, Milan	Italy
Tektronix Inc, Beaverton	Ore
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Tele-Signal Corp, Woodbury	N Y
Ther Electric & Machine Works Inc, Chicago	Ill
Thiem-Transrex Inc, El Segundo	Cal
Thwing-Albert Instrument Co, Philadelphia	Pa
T M C Systems & Power Corp, Springfield	Va
Topping Electronics Ltd, Toronto 17	Ont
Transformer Electronics Co, Boulder	Colo
Transformer Engineers, San Gabriel	Cal
Transistor Devices Inc, Mt Tabor	N J
Transval Electronics Div Jetronic Indus Inc Gardena	Cal
Trelcom Engineering Co Inc, Baltimore	Md
Trepac Corp of America, Englewood	N J
Triad Transformer Corp, Venice	Cal
Trio Laboratories Inc, Plainview	N Y
Trueline Instruments Inc, Englewood	Colo
Trygon Electronics Inc, Roosevelt	N Y
Unitron Div Electric Machy Mfg Co, Garland	Tex
Universal Electronics Co, Santa Monica	Cal
Universal Precision, Inc, Endicott	N Y
Universal Transistor Products Div Link, Copiague	N Y
Universal Voltronics Corp, Mount Kisco	N Y
Valor Instruments Inc, Gardena	Cal
Varian Assoc, Portland Plant, Portland	Ore
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Vector Engineering Inc, Springfield	N J
Vega Precision Labs, Vienna	Va
Velonex Div Pulse Engineering Inc, Santa Clara	Cal
Venner Electronics Ltd, New Malden, Surrey	Eng
Ventron Instruments Corp Magnion Div, Burlington	Mass
Venus Scientific Inc, Hicksville	N Y
Versatron Inc, Monterey	Cal
Virginia Electronics Co Inc, Falls Church	Va
Voltex Co Inc, Farmingdale	N Y
Wagner Electric Corp, Tung-Sol Div, Livingston	N J
Walden Electronics Corp, Waltham	Mass
Wanlass Electric Co, Santa Ana	Cal
Ward Leonard Electric Co, Mount Vernon	N Y
Webster Electric Co, Racine	Wisc
Weinschel Engineering Co Inc, Gaithersburg	Md
Weltronic Co, Southfield	Mich
Wesco Electrical Co Inc, Greenfield	Mass
Westinghouse Electric Corp, Aerospace Electrical Div Lima	Ohio
Westinghouse Electric Corp, Cryogenic Systems Pittsburgh	Pa
Westinghouse Electric Corp Distribution Transformer Div Sharon	Pa
Westinghouse Electric Corp, Gen Control Div Pittsburgh	Pa
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh	Pa
Wilmore Electronics Co Inc, Durham	NC
Woodward Machine Inc, Elctns Div, Detroit	Mich
Wyle Laboratories, El Segundo	Cal
X Cel Controls Inc, South Bend	Ind
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan
Zeiss Inc, Carl, New York	N Y

POWER SUPPLIES, D-C-- UNREGULATED

ACOPIAN CORP, EASTON	**PA**
AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
AMP INCORPORATED, HARRISBURG	**PA**
AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
ASSOCIATED RESEARCH, INC, CHICAGO	**ILL**
AXEL ELECTRONICS, INC, JAMAICA	**N Y**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL	**PA**
C M L INC, PLAINFIELD, N J	**ADV PGS 496,497**
GAR ENTERPRISES INC, PASADENA	**CAL**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HEATH CO, BENTON HARBOR	**MICH**
INTERELECTRONICS CORP, CONGERS, N Y	**ADV PG 535**
KEPCO INC, FLUSHING, N Y	**ADV PGS 539,4TH COVER**
KINELOGIC CORP, PASADENA	**CAL**
MAGNETICS INC, BUTLER	**PA**
MELCOR ELECTRONICS CORP, FARMINGDALE	**N Y**
NJE CORP, KENILWORTH, N J	**ADV PGS 530,531**
NOTHELFER WINDING LABS INC, TRENTON	**N J**
OPAD ELECTRIC CO, INC, NEW YORK, N Y	**ADV PG 537**
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM	**CAL**
PLASTIC CAPACITORS INC, CHICAGO	**ILL**
POWER/MATE CORP, HACKENSACK	**N J**
SORENSEN OPERATION, RAYTHEON CO., NORWALK CONN	**ADV PGS.528,529**
SPELLMAN HIGH VOLTAGE ELECTRONICS CORP, BRONX N Y	**ADV PGS 502,503**
TECHNIPOWER INC, SUB BENRUS WATCH CO INC RIDGEFIELD	**CONN**
TELE-SIGNAL CORP, WOODBURY	**N Y**
TRANSFORMER ELECTRONICS CO, BOULDER COLO	**ADV PGS 2ND COVER & FACING PG**
TRYGON ELECTRONICS INC, ROOSEVELT	**N Y**
UNIVERSAL VOLTRONICS CORP, MOUNT KISCO	**N Y**
WAGNER ELECTRIC CORP, TUNG-SOL DIV, LIVINGSTON N J	**ADV PG 538**

D. C. POWER SUPPLIES

Opad SINCE 1947

D.C. VOLTS	D.C. AMPS	MODEL	STYLE	RIPPLE	DIMENSIONS H X W X D	FIG.	A.C. INPUT	BULLETIN
0-32	5	KM75	RACK	100MV	8¾" X 19" X 9½"	A	115 VAC 60 Hz 1Ø	102A
	5	KM75B	BENCH	100MV	9" X 17" X 9"	C		
	10	KM81	RACK	100MV	8¾" X 19" X 9½"	A		
	10	KM81B	BENCH	100MV	9" X 17" X 9"	C		
	20	KM87	RACK	100MV	8¾" X 19" X 9½"	A		
	20	KM87B	BENCH	100MV	10½" X 22" X 12"	D		
	40	KM93	RACK	100MV	12¼" X 19" X 13"	B		
	40	KM93B	BENCH	100MV	14" X 22" X 15"	E		
	100	KM100	RACK	160MV	12¼" X 19" X 17¼"	F	208-230 VAC 60 Hz 3Ø*	104
	150	KM150	BENCH	160MV	19¼" X 22" X 18"	G		
0-60	10	KN5	RACK	150MV	10½" X 19" X 13½"	B	115 VAC 60 Hz 1Ø	106
	10	KN5B	BENCH	150MV	12¼" X 22" X 15"	E		
	20	KN10	RACK	150MV	12¼" X 19" X 13½"	B		
	20	KN10B	BENCH	150MV	14" X 22" X 15"	E		
0-125	5	RS20	RACK	1.25V	10½" X 19" X 13"	B	117 VAC 60 Hz 1Ø	204A
	5	RS20B	BENCH	1.25V	12¼" X 22" X 15"	E		
	10	RS30	RACK	1.25V	12¼" X 19" X 13"	B		
	10	RS30B	BENCH	1.25V	14" X 22" X 15"	E		
	20	RS40	RACK	1.25V	17½" X 19" X 13"	—		
	20	RS40B	BENCH	1.25V	19¼" X 22" X 15"	G		
	24	RS50	RACK	1.25V	12¼" X 19" X 17¼"	F	208-230 VAC 60 Hz 3Ø*	205
	40	RS60	BENCH	1.25V	19¼" X 22" X 18"	G		
	80	RS70	FLOOR	2.5V	48" X 22" X 18"	H		
	120	RS80	FLOOR	2.5V	48" X 22" X 24"	H		
0-250	5	RU60	RACK	2.5V	12¼" X 19" X 13½"	B	11/ VAC 60 Hz 1Ø	206
	5	RU60B	BENCH	2.5V	14" X 22" X 15"	E		
	10	RU70	RACK	2.5V	17½" X 19" X 13½"	—		
	10	RU70B	BENCH	2.5V	19" X 22" X 15"	G		
	12	RU80	RACK	625MV	12¼" X 19" X 17¼"	F	208-230 VAC 60 Hz 3Ø*	207
	20	RU90	BENCH	625MV	19¼" X 22" X 18"	G		
	40	RU100	FLOOR	625MV	48" X 22" X 18"	H		
	60	RU150	FLOOR	2.5V	48" X 22" X 24"	H		
0-500	5	RW80	RACK	1.25V	12¼" X 19" X 17¼"	F	208-230 VAC 60 Hz 3Ø*	210
	10	RW90	BENCH	1.25V	19¼" X 22" X 18"	G		
	20	RW100	FLOOR	1.25V	48" X 22" X 18"	H		
	30	RW150	FLOOR	1.25V	48" X 22" X 24"	H		
	40	RW200	FLOOR	1.25V	52" X 22" X 24"	H		
0-1000	2.5	SX80	RACK	2.5V	12¼" X 19" X 17¼"	F	208-230 VAC 60 Hz 3Ø*	215
	5	SX90	BENCH	2.5V	19¼" X 22" X 18"	G		
	10	SX100	FLOOR	2.5V	48" X 22" X 18"	H		
	15	SX150	FLOOR	2.5V	48" X 22" X 24"	H		
	20	SX200	FLOOR	2.5V	52" X 22" X 24"	H		
0-1500	1.5	TY80	RACK	3.75V	12¼" X 19" X 17¼"	F	208-230 VAC 60 Hz 3Ø*	217
	3	TY90	BENCH	3.75V	19¼" X 22" X 18"	G		
	7	TY100	FLOOR	3.75V	48" X 22" X 18"	H		
	10	TY150	FLOOR	3.75V	48" X 22" X 24"	H		
	13	TY200	FLOOR	3.75V	52" X 22" X 24"	H		
0-2000	1.25	VZ80	RACK	5V	12¼" X 19" X 17¼"	F	208-230 VAC 60 Hz 3Ø*	219
	2.25	VZ90	BENCH	5V	19¼" X 22" X 18"	G		
	5	VZ100	FLOOR	5V	48" X 22" X 18"	H		
	7.5	VZ150	FLOOR	5V	48" X 22" X 24"	H		
	10	VZ200	FLOOR	5V	52" X 22" X 24"	H		

*Three-phase units, incorporating the exclusive FAZEGUARD Sensor (Patented), a solid state phase failure circuit that will turn off the power supply if one or more of the three input phases opens.

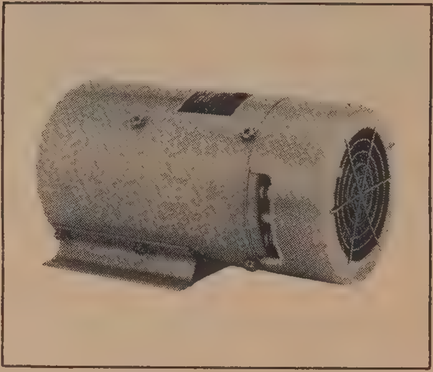
Opad

OPAD ELECTRIC COMPANY, INC.
43-5 WALKER STREET • NEW YORK, N. Y. 10013
Telephone: (212) WOrth 6-0380

Abbott Transistor Labs, Inc, Los Angeles	Cal
Abtronics, Inc, Livermore	Cal
AC Electronics Co, Los Angeles	Cal
Acme Electric Corp, Cuba	N Y
Acme Products Co, Kensington	Conn
Acopian Corp, Easton	Pa
Action Systems Co Div Conn Consolidated Inds Inc Meriden	Conn
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Advanced Energy Conversion, Menlo Park	Cal
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Allied Research Associates, Inc, Concord	Mass
Allis-Chalmers Mfg Co, Milwaukee	Wis
Alpha Scientific Labs Inc, Oakland	Cal
American Monarch Div Mpls Scientific Controls Minneapolis	Minn
American Rectifier Corp, College Point	N Y
American Systems, Inc, Van Nuys	Cal
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Amglo Corp, Chicago	Ill
AMP Incorporated, Harrisburg	Pa
AMP Inc, Capitron Div, Elizabethtown	Pa
Amtron Inc, Midlothian	Ill
Antronic Corp, Chicago	Ill
Applied Control Co, Cedar Grove	NJ
Applied Electronics Corp of N J, Metuchen	N J
Associated Research, Inc, Chicago	Ill
Astro-Metrix Corp, Burbank	Cal
Atlas Controls Div Atlas Engrg Co Inc, Dorchester	Mass
ATR Electronics, Inc, St Paul	Minn
Aul Instruments Inc, Long Island City	NY
Ault, Inc, Minneapolis	Minn
Automation Services Inc, Endicott	N Y
A V Electronics, Inc, Fresno	Cal
Avtel Corp, Covina	Cal
Axel Electronics, Inc, Jamaica	N Y
Ballastran Corp, Fort Wayne	Ind
Basler Electric Co, Highland	Ill
B & B Motor & Control Corp, New York	N Y
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Bendix Corp, Communications Div, Towson	Md
Bendix Corp Electric Power Div, Eatontown	NJ
Bennett Laboratories, Inc, Emeryville	Cal
Bergen Lab, Inc, Paterson	N J
Berg Gibson Mfg Co, Kansas City	Mo
B F Electronics, Solana Beach	Cal
Bogue Electric Mfg Co, Paterson	N J
Booth Co, Arthur E, Los Angeles	Cal
Borders Electronics Co Inc, Pennsauken	N J
Brad Thompson Industries Inc, Indio	Cal
Brandenburg Ltd, South Croydon	Surrey U K
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bruker Scientific Inc, Irvington-on-Hudson	N Y
Buchler Instruments Inc, Fort Lee	N J
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Cal-Power Corp, El Segundo	Cal
Canadian Research Institute, Don Mills	Ont
Cardinal Control Co Inc, Kensington	Conn
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Chalco Engineering Corp, Gardena	Cal
Chicago Condenser Corp, Chicago	Ill
Christie Electric Corp, Los Angeles	Cal
Chu Associates Inc, Littleton	Mass
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill	Pa
C M L Inc, Plainfield	N J
Cober Electronics Inc, Stamford	Conn
Coil Co of America Inc, Northvale	N J
Components Corp, Denville	NJ
Component Technology Corp, Sunnyvale	Cal
Condenser Products Corp, Brooksville	Fla
Condor Industrial Corp, West Chicago	Ill
Continental X-Ray Corp, Chicago	Ill
Control Circuits Inc, Middletown	Conn
Control Panel Corp, Chicago	Ill
Cooke Vacuum Products Inc, South Norwalk	Conn
Darrah Electric Co Inc, Cleveland	Ohio
Daytron Inc, Mountain View	Cal
Del Electronics Corp, Mt Vernon	N Y
Deltron, Inc, North Wales	Pa
Dinion Coil Co Inc, Caledonia	N Y
Dorsett Electronics Inc, Tulsa	Okla
Dressen-Barnes Electronics Corp, Pasadena	Cal
Dresser Systems, Inc, Houston	Tex
Dynalectron Corp Aerospace Prods Div San Leandro	Cal
Eastern Delta Corp, Fair Lawn	N J
Eastern Dynamics, Inc, Bloomfield	Conn
E G & G Inc Custom Equip Div, Bedford	Mass
EICO Electronic Instrument Co Inc, Brooklyn	NY
Elasco Inc, Boston	Mass
Elcor, Div Halliburton Co, Silver Spring	Md
Electronic Design Labs Inc, Philadelphia	Pa
Electronic Research Associates Inc, Cedar Grove	N J
Electronic Specialty Co, Los Angeles	Cal
Electro-Pacific Inc, Goleta	Cal
Electro Powerpacs Corp, Cambridge	Mass
Electro Products Labs Inc Power Supply Div Chicago	Ill
Electro-Standards Labs Inc, Miami	Fla
Electro Technic Products, Chicago	Ill
Elgin Electronics Inc, Erie	Pa
EMP Electronics Inc, Tempe	Ariz
Energy Systems Inc, Palo Alto	Cal
Extrudonics Inc, New Brunswick	N J
Fairlane Electronics, Inc, Long Valley	N J
Fansteel Metallurgical Corp, North Chicago	Ill
Ferrotran Electronics Co Inc, New York	N Y
Fidelity Amplifier Co, Chicago	Ill
Film Capacitors Inc, Passaic	N J
Fisher Engineering Inc, Huntington	Ind
Fontaine, P, 91 Chilly-Mazarin	France
Freed Transformer Co Inc, Brooklyn	N Y
Fullmer Electronics Inc, Northridge	Cal
Gar Enterprises Inc, Pasadena	Cal
Gates Electronic Co Inc, Bronx	N Y
General Electric Co, ECSO, Schenectady	N Y
General Radio Co, West Concord	Mass
Geo Space Corp, Houston	Tex
Glenn Pacific A Teledyne Co, Oakland	Cal
Glentek Inc, Santa Monica	Cal
Glentronics Inc, Glendora	Cal
Grafix Inc, Albuquerque	N Mex
Grand Transformers Inc, Grand Haven	Mich
Grason Stadler Co Inc, West Concord	Mass
Green Rectifier Corp, Fair Lawn	N J
Guide Industries Inc, Sun Valley	Cal
Gulton Industries Inc, Metuchen	N J
Gulton Industries Inc Engineered Magnetics Div Hawthorne	Cal
Hamilton Electronics Corp, Chicago	Ill
Harvard Apparatus Co Inc, Millis	Mass
Heath Co, Benton Harbor	Mich
Helix Research Assoc Inc, La Mesa	Cal
Heller Corp, G K, Las Vegas	Nev
Helm Instrument Co Inc, Toledo	Ohio
High Voltage Engineering Corp, Burlington	Mass
High Voltage Power Supply Co, Van Nuys	Cal
Hill Magnetics, Inc, Redwood City	Cal
Hill Research Co, Oakland	Cal
Hipotronics Inc, Brewster	N Y
Hirst Electric Industries Ltd, Crawley, Sussex	England
Hyperion Industries Corp, Watertown	Mass
Industrial Electronetics Corp, Satellite Beach	Fla
Industrial Transformer Corp, Gouldsboro	Pa
Interelectronics Corp, Congers	N Y
Ionic Electrostatic Corp, Garfield	N J
Ionics Inc, Electronics Div, Watertown	Mass
I T I Electronics Inc, Clifton	N J
Janus Control Div Tyco, Waltham	Mass
Jefferson Electric Co, Bellwood	Ill
Karg Labs Inc, South Norwalk	Conn
Kato Engineering Co, Mankato	Minn
Kepco Inc, Flushing	N Y
Kilovolt Corp, Hackensack	N J
Kinelogic Corp, Pasadena	Cal
Kurz & Root Co, Appleton	Wis
Lad Electronics Corp, Hicksville	N Y
Larago Electronics Mfgrs Inc, Melbourne	Fla
Ledex Div Ledex Inc, Dayton	Ohio
Life Instrument Co Inc, Franklin	Mass
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
Litton Industries, Electron Tube Div, San Carlos	Cal
Macarr Inc, Bronx	N Y
Madison Labs, Inc, Madison	Conn
Magnetic Circuit Elements Inc, Montrose	Cal
Magnetic Engineering Corp, Danbury	Conn
Magnetics Inc, Butler	Pa
Marche Mfg Co, Des Plaines	Ill
Melcor Electronics Corp, Farmingdale	N Y
Merrimack Magnetics Corp, Lowell	Mass
Microdot Magnetics Inc, Los Angeles	Cal
Micro Instrument Co, Hawthorne	Cal
Mid-Eastern Industries Inc, Springfield	N J
Mil Associates Inc, Hudson	NH
Millen Mfg Co Inc, James, Malden	Mass
Miller Electric Mfg Co, Appleton	Wis
3M Company, St Paul	Minn
Model Rectifier Corp, Brooklyn	N Y
Motor Generator Div Hobart Bros Co, Troy	Ohio
Multiper N V, Den Haag	Netherlands
Neshaminy Electronic Corp, Furlong	Pa
Neutronic Associates, Farmingdale	N Y
NJE Corp, Kenilworth	N J
Norbatrol Electronics Corp, Murrysville	Pa
Northeast Electronics Corp, Concord	N H
North Electric Co, Galion	Ohio
Nothelfer Winding Labs Inc, Trenton	N J
Novatronics Inc, Pompano Beach	Fla
Nuclear Corp of America, Nuclear Div, Denville	N J
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nytron, Palo Alto	Cal
Nytronics Inc, Berkeley Heights	N J
Opad Electric Co, Inc, New York	N Y
Opamp Labs, Los Angeles	Cal
Pacific Instrument Co, Oakland	cal
Payne Engineering Co, South Charleston	W Va
Peco Corp, Mountain View	Cal
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Pek, Inc, Sunnyvale	Cal
Peschel Instruments Inc, Cape Coral	Fla
Petroleum Electronics Mfg Inc, Tulsa	Okla
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pioneer Magnetics Inc, Santa Monica	Cal
Plastic Capacitors Inc, Chicago	Ill
Power Control Corp, Pittsburgh	Pa
Power Inc, Electronics Div, Burnsville	Minn
Power/Mate Corp, Hackensack	N J
Powertec Div, Airtronics Corp, Chatsworth	Cal
Precision Electronics Co, Marshfield	Mass
Precision Mecanique Labinal, 93 Saint-Ouen	France
Private Tele Communications Inc, Chicago	Ill
Quantum Electronics Corp, San Ramon	Cal
Qutronic Transformer Corp, Oneonta	N Y
Ramm Rectifier Co, Inc, Bronx	N Y
Ramyr Mfg Co, Buena Park	Cal
Randam Electronics Inc, Cincinnati	Ohio
Rectifier Engineering & Supply Co Inc, St Louis	Mo
Reliance Electric Co, Cleveland	Ohio
Rho Engineering Co, Los Angeles	Cal
Roband Electronics Ltd, Surrey	England
Robicon Corp, Pittsburgh	Pa
Rosemount Plug-In Inc, Nashville	Tenn
Rowe Industries Inc, Toledo	Ohio
Sanford Miller Corp, Brooklyn	N Y
Sanken Electric Co, Ltd, Toshima-ku, Tokyo	Japan
Saturn Electronics Corp, Garland	Tex
SBD Systems Inc, Farmingdale	N Y
Schauer Mfg Corp, Cincinnati	Ohio
Schott Co Inc, Oscar A, Minneapolis	Minn
Scientific Electric Inc, Garfield	N J
Scientific Instruments Co, Chatsworth	Cal

CENTER LINE
TUNG-SOL®
QUALITY

28G5P SERIES POWER SUPPLIES



up to 200 AMPS. D.C. in compact weight-saving packages

The Tung-Sol 28G5P series consists of four standard units that supply 25, 50, 100 or 200 amps. at 28 volts D.C. These are production power supplies available on an off-the-shelf basis. These transformer-rectifiers are designed for continuous operation under the most adverse environmental conditions. Their light weight and small package size allows remote installation of the transformer-rectifiers in communications shelters, field equipment, GSE, and maintenance shops. They are ideal for equipment that is to be transported by air.

An internal blower together with a modified pressure cooling system insure uniform heat dissipation in any mounting attitude.

28G5P25	28G5P50
Output: 25 Amps. Size: 10¼" L x 5" W x 5¼" H Weight: 15 lbs.	Output: 50 Amps. Size: 12" L x 6" W x 6¼" H Weight: 25 lbs.
28G5P100	**28G5P200**
Output: 100 Amps. Size: 12" L x 8" W x 8¼" H Weight: 40 lbs.	Output: 200 Amps. Size: 16½" L x 8" W x 8¼" H Weight: 65 lbs.

TUNG-SOL DIVISION
Wagner Electric Corporation
One Summer Avenue, Newark, N.J. 07104

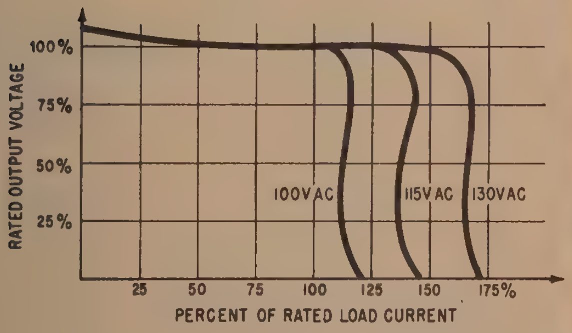
® Reg. T.M. Wagner Electric Corporation

IN HIGH POWER MODULES KEPCO MAKES THE DIFFERENCE!

EXCEPTIONAL POWER/VOLUME/COST RATIOS!

- Wide coverage of fixed output voltages 4.5 volts (dual) to 120 volts single output.
- Kepco's patented Flux-O-Tran® (regulating transformer) provides line regulation and current limiting
- Ambient operating temperature range: −20°C to +55°C
- Reliability: MTBF > 140,000 hours
- Convection cooling
- Short circuit proof (see overload graph)
- Silicon rectifiers
- Dual output and extra filtered models
- Versatile mounting (cased and uncased) Rack adapters available, mount 1 to 5 units

Applicable Patent Nos. furnished on request

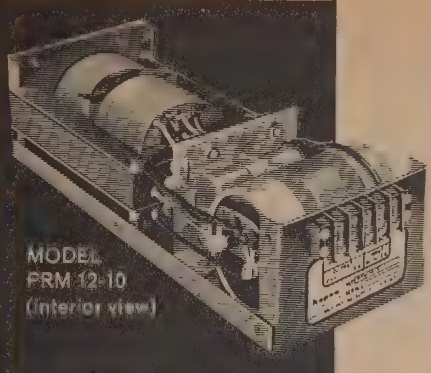


CURRENT LIMITING OVERLOAD CHARACTERISTICS

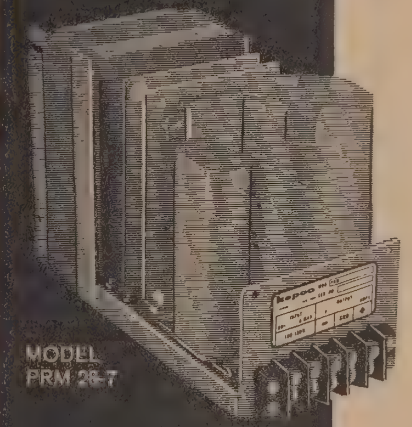
KEPCO
POWER SUPPLIES

NEW CATALOG
CONTAINING COMPLETE
SPECIFICATIONS AND
APPLICATIONS NOTES
IS NOW AVAILABLE

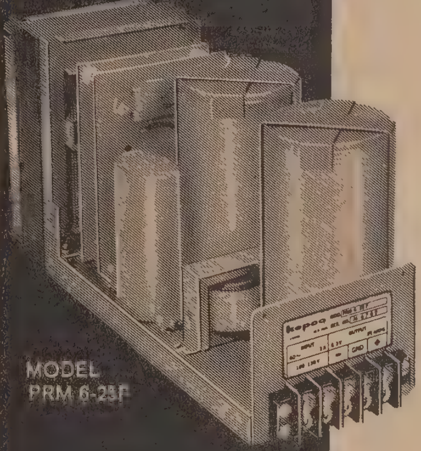
WRITE DEPT. BG
FOR YOUR FREE COPY!



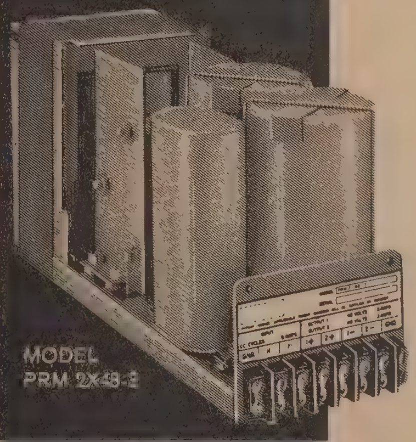
MODEL
PRM 12-10
(interior view)



MODEL
PRM 28-7



MODEL
PRM 6-25F



MODEL
PRM 2X48-3

kepco®

SIZE "B" — 120 SERIES
CASED UNIT — $104.00**
3 13/32" H x 5" W x 13 13/16" D

MODEL	DC OUTPUT VOLTS	DC OUTPUT AMPS
PRM 5.2—15	5.2	0—15
PRM 6—15	6.3	0—15
PRM 12—10	12	0—10
PRM 18—6.7	18	0—6.7
PRM 24—5	24	0—5
PRM 28—4.3	28	0—4.3
PRM 36—3.3	36	0—3.3
PRM 48—2.5	48	0—2.5
PRM 60—2	60	0—2
PRM 120—1	120	0—1

**Available cased only

SIZE "A" — 180 SERIES
UNCASED UNIT — $125.00*
6¾" H x 4¾" W x 10⅜" D

PRM 5.2—25	5.2	0—25
PRM 6—25	6.3	0—25
PRM 12—15	12	0—15
PRM 18—10	18	0—10
PRM 24—8	24	0—8
PRM 28—7	28	0—7
PRM 36—5	36	0—5
PRM 48—4	48	0—4
PRM 60—3	60	0—3
PRM 120—1.5	120	0—1.5

EXTRA FILTERED MODELS SIZE "C" — 180F SERIES
UNCASED UNIT — $178.00*
6¾" H x 4¾" W x 14⅜" D

PRM 5.2—25F	5.2	0—25
PRM 6—25F	6.3	0—25
PRM 12—15F	12	0—15
PRM 18—10F	18	0—10
PRM 24—8F	24	0—8
PRM 28—7F	28	0—7
PRM 36—5F	36	0—5
PRM 48—4F	48	0—4
PRM 60—3F	60	0—3
PRM 120—1.5F	120	0—1.5

DUAL OUTPUT MODELS SIZE "C" — 300 SERIES
UNCASED UNIT — $197.00*
6¾" H x 4¾" W x 14⅜" D

PRM 2X 4.5—20	4.5 4.5	0—20 0—20
PRM 2X5.2—20	5.2 5.2	0—20 0—20
PRM 2X 6—20	6.3 6.3	0—20 0—20
PRM 2X 12—12	12.0 12.0	0—12 0—12
PRM 2X 15—10	15.0 15.0	0—10 0—10
PRM 2X 18—8	18.0 18.0	0—8 0—8
PRM 2X 24—6	24.0 24.0	0—6 0—6
PRM 2X 28—5	28.0 28.0	0—5 0—5
PRM 2X 36—4	36.0 36.0	0—4 0—4
PRM 2X 48—3	48.0 48.0	0—3 0—3
PRM 2X 60—2.5	60.0 60.0	0—2.5 0—2.5

*Case optional — add $11.00 to price

131-38 SANFORD AVENUE • FLUSHING, N.Y. 11352 • (212) 461-7000 • TWX #710-582-2631 • Telex: 12-6055 • Cable: KEPCOPOWER NEWYORK

Scintillonics Inc, Fort Collins	Colo
Scott Electronics Corp, Orlando	Fla
Sedco Systems Inc, Farmingdale	N Y
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Semiconductor Circuits, Inc, Woburn	Mass
Sensor Corp, Greenwich	Conn
Sentron Inc, Danbury	Conn
Siltronics Inc, Oakmont	Pa
S K G Associates Inc, Boston	Mass
Skyway Magnetics, Inglewood	Cal
Sodilec SA Salies-S A, 91 Palaiseau	France
Sola-Basic Industries, Milwaukee	Wis
Solidstate Controls Inc, Columbus	Ohio
Sorensen Operation, Raytheon Co., Norwalk	Conn
Soundolier Inc, St Louis	Mo
Space Power Associates Inc, Staten Island	N Y
Spar Electronics Inc, San Diego	Cal
Spatron Inc, Alhambra	Cal
Spellman High Voltage Electronics Corp, Bronx	N Y
Staco Inc Std Elec Prods Co Div, Dayton	Ohio
Stark Electronic Instruments Ltd, Ajax	Ont
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Syntron Div FMC Corp, Homer City	Pa
Taffet Electronics Inc, Woodside	N Y
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Technipower Inc, Sub Benrus Watch Co Inc Ridgefield	Conn
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Tele-Signal Corp, Woodbury	N Y
Ther Electric & Machine Works Inc, Chicago	Ill
Thiem-Transrex Inc, El Segundo	Cal
Topping Electronics Ltd, Toronto 17	Ont
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Electronics Co, Boulder	Colo
Transformer Engineers, San Gabriel	Cal
Transistor Devices Inc, Mt Tabor	N J
Transistor Electronics Corp, Minneapolis	Minn
Transval Electronics Div Jetronic Indus Inc Gardena	Cal
Trelcom Engineering Co Inc, Baltimore	Md
Trepac Corp of America, Englewood	N J
Triad Transformer Corp, Venice	Cal
Triple A Specialty Co, Chicago	Ill
Trueline Instruments Inc, Englewood	Colo
Trygon Electronics Inc, Roosevelt	N Y
Unitron Div Electric Machy Mfg Co, Garland	Tex
Universal Audio, North Hollywood	Cal
Universal Electronics Co, Santa Monica	Cal
Universal Precision, Inc, Endicott	N Y
Universal Transistor Products Div Link, Copiague	N Y
Universal Voltronics Corp, Mount Kisco	N Y
Valradio Ltd, Feltham, Mdsx	Eng
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Vector Engineering Inc, Springfield	N J
Vega Precision Labs, Vienna	Va
Velonex Div Pulse Engineering Inc, Santa Clara	Cal
Venus Scientific Inc, Hicksville	N Y
Virginia Electronics Co Inc, Falls Church	Va
Voltex Co Inc, Farmingdale	N Y
Wabash Magnetics Inc, Wabash	Ind
Wagner Electric Corp, Tung-Sol Div, Livingston	N J
Ward Leonard Electric Co, Mount Vernon	N Y
Wesco Electrical Co Inc, Greenfield	Mass
Westinghouse Electric Corp, Aerospace Electrical Div Lima	Ohio
Westinghouse Electric Corp Distribution Transformer Div Sharon	Pa
Westinghouse Electric Corp, Gen Control Div Pittsburgh	Pa
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh	Pa
Wilcox Electric Co Inc, Kansas City	Mo
Wyle Laboratories, El Segundo	Cal
X Cel Controls Inc, South Bend	Ind
Xenon Corp, Watertown	Mass
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

POWER SUPPLIES, D-C--WELDING

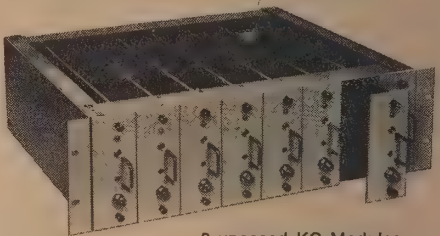
EWALD INSTRUMENTS CORP, KENT	**CONN**
HEWLETT-PACKARD, PALO ALTO	**CAL**
PLASTIC CAPACITORS INC, CHICAGO	**ILL**
SORENSEN OPERATION, RAYTHEON CO., NORWALK CONN	**ADV PGS 528,529**
ADC Products, Minneapolis	Minn
Burns & Towne, Inc, Malden	Mass
Cal-Power Corp, El Segundo	Cal
Cober Electronics Inc, Stamford	Conn
Energy Beams Inc, Haskell	N J
Ewald Instruments Corp, Kent	Conn
Hewlett-Packard, Palo Alto	Cal
Hirst Electric Industries Ltd, Crawley, Sussex	England
Larago Electronics Mfgrs Inc, Melbourne	Fla
Lear Siegler Inc, Santa Monica	Cal
Ling Electronics Div LTV Alteç Inc, Anaheim	Cal
Miller Electric Mfg Co, Appleton	Wis
Plastic Capacitors Inc, Chicago	Ill
Research Inc, R-I Controls Div, Minneapolis	Minn
Silver & Assoc Inc G H, Newtonville	Mass
Sola-Basic Industries, Milwaukee	Wis
Sorensen Operation, Raytheon Co., Norwalk	Conn
Stark Electronic Instruments Ltd, Ajax	Ont
Taylor-Winfield Corp, Warren	Ohio
Thiem-Transrex Inc, El Segundo	Cal
Wabash Magnetics Inc, Wabash	Ind
Weldmatic Div Unitek Corp, Monrovia	Cal
Wells Electronics Inc Equipment Div, South Bend	Ind

POWER SUPPLIES--ISOLATED

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE,	**N Y**
AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL	**PA**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
INTERELECTRONICS CORP, CONGERS, N Y	**ADV PG 535**
KEPCO INC, FLUSHING, N Y	**ADV PGS 540,4TH COVER**
MAGNETICS INC, BUTLER	**PA**
NJE CORP, KENILWORTH	**N J**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
NOTHELFER WINDING LABS INC, TRENTON	**N J**
POWER/MATE CORP, HACKENSACK	**N J**
TRANSFORMER ELECTRONICS CO, BOULDER COLO	**ADV PGS 2ND COVER & FACING PG**
WANLASS ELECTRIC CO, SANTA ANA, CAL	**ADV PGS 526,527**
Abbott Transistor Labs, Inc, Los Angeles	Cal
Abtronics, Inc, Livermore	Cal
Acme Electric Corp, Cuba	N Y
ADC Products, Minneapolis	Minn
Advanced Energy Conversion, Menlo Park	Cal
Alto Scientific Co, Inc, Palo Alto	Cal
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
AMP Inc, Capitron Div, Elizabethtown	Pa
Applied Electronics Corp of N J, Metuchen	N J
Arnold Magnetics Corp, Los Angeles	Cal
Astro-Metrix Corp, Burbank	Cal
Aul Instruments Inc, Long Island City	NY
Ault, Inc, Minneapolis	Minn
Automation Services Inc, Endicott	N Y
Barden Co, Hermosa Beach	Cal
B & B Motor & Control Corp, New York	N Y
Bendix Corp, Communications Div, Towson	Md
B & F Instruments, Inc, Cornwells Heights	Pa
Bogue Electric Mfg Co, Paterson	N J
Bourns Inc Instrument Div, Riverside	Cal
Brandenburg Ltd, South Croydon	Surrey U K
Cal-Power Corp, El Segundo	Cal
Canadian Research Institute, Don Mills	Ont
CEA Div Berkleonics Inc, Monrovia	Cal
Clare-Electroseal Corp, Des Plaines	Ill
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill	Pa
Cober Electronics Inc, Stamford	Conn
Coil Co of America Inc, Northvale	N J
Components Corp, Denville	NJ
Component Technology Corp, Sunnyvale	Cal
Data Device Corp, Hicksville	N Y
Daytron Inc, Mountain View	Cal
Del Electronics Corp, Mt Vernon	N Y
Deltron, Inc, North Wales	Pa
Dinion Coil Co Inc, Caledonia	N Y
Dressen-Barnes Electronics Corp, Pasadena	Cal
Dynamics Instrumentation Co, Monterey Park	Cal
Eastern Dynamics, Inc, Bloomfield	Conn
Ectron Corp, San Diego	Cal
Elasco Inc, Boston	Mass
Elcor, Div Halliburton Co, Silver Spring	Md
Electronic Design Labs Inc, Philadelphia	Pa
Electronic Research Associates Inc, Cedar Grove	N J
Electro Scientific Industries Inc, Portland	Ore
Elgin Electronics Inc, Erie	Pa
Endevco Corp, Pasadena	Cal
Energy Systems Inc, Palo Alto	Cal
Eon Instrumentation Inc, Van Nuys	Cal
Extrudonics Inc, New Brunswick	N J
Fisher Engineering Inc, Huntington	Ind
Fontaine, P, 91 Chilly-Mazarin	France
Fullmer Electronics Inc, Northridge	Cal
Gates Electronic Co Inc, Bronx	N Y
General Instrument Corp Thermoelectric Div Newark	N J
Glentek Inc, Santa Monica	Cal
Harvard Apparatus Co Inc, Millis	Mass
Helix Research Assoc Inc, La Mesa	Cal
Helm Instrument Co Inc, Toledo	Ohio
Hewlett-Packard, Palo Alto	Cal
Hill Magnetics, Inc, Redwood City	Cal
Honeywell Test Instruments Div, Denver	Colo
Ikor, Inc, Burlington	Mass
Incor Inc, Plainview	N Y
Inet Power A Teledyne Co, Gardena	Cal
Instrulab Inc, Dayton	Ohio
Interelectronics Corp, Congers	N Y
Keltec Florida Div Aiken Industries Ft Walton Beach	Fla
Kepco Inc, Flushing	N Y
Kilovolt Corp, Hackensack	N J
Larago Electronics Mfgrs Inc, Melbourne	Fla
Life Instrument Co Inc, Franklin	Mass
Magnetics Inc, Butler	Pa
McKee-Pedersen Instruments, Danville	Cal
Mid-Eastern Industries Inc, Springfield	N J
Mil Associates Inc, Hudson	NH
3M Company, St Paul	Minn
Molecular Research Inc, Palm Beach Gardens	Fla
Newport Labs Inc, Newport Beach	Cal
NJE Corp, Kenilworth	N J
North Electric Co, Galion	Ohio
North Hills Electronics Inc, Glen Cove	N Y
Nothelfer Winding Labs Inc, Trenton	N J
Nytron, Palo Alto	Cal
Power Control Corp, Pittsburgh	Pa
Power/Mate Corp, Hackensack	N J
Powertec Div, Airtronics Corp, Chatsworth	Cal
Qutronic Transformer Corp, Oneonta	N Y
Radette Co, Pleasantville	N J
Ramm Rectifier Co, Inc, Bronx	N Y
Rho Engineering Co, Los Angeles	Cal
RO Associates Inc, Menlo Park	Cal
Rowe Industries Inc, Toledo	Ohio
Schauer Mfg Corp, Cincinnati	Ohio

KEPCO

ISOLATED POWER FOR TRANSDUCER BRIDGES



8 uncased KG Modules in multiunit Housing RA 19–8

Kepco's KG Power Supplies have been especially optimized for unusual isolation of its DC terminals. This isolation is reflected in the lumped parameters for input-output coupling, and ground coupling:

Isolation Ratings:

10,000 megohms to ground in parallel with 200 pF maximum

Leakage Current:

50 nA maximum

Input-Output Coupling:

1 pF maximum

Condensed specifications:

Line Regulation: 0.001%

Load Regulation: 0.005% or 0.5 mV*

Ripple: 100 microvolts rms

8-Hour Stability: 0.005% or 1 mV*

**whichever is greater*

MODEL	DC OUTPUT RANGE		PRICE
	VOLTS	AMPS	
KG 25–0.2	0–25	0–0.2	$175.00
KG 100–0.05	0–100	0–0.05	175.00

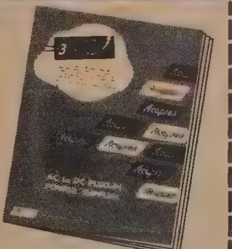
FOR COMPLETE SPECIFICATIONS AND APPLICATIONS NOTES WRITE DEPT. BG-2

kepco

131-38 SANFORD AVENUE • FLUSHING, N.Y. 11352
(212) 461-7000 • TWX #710-582-2631
Telex: 12-6055 • Cable: KEPCOPOWER NEWYORK

IN JUST 3 DAYS

ACOPIAN WILL SHIP ANY OF 62,000 DIFFERENT POWER SUPPLIES



This catalog lists 62,000 models of AC to DC plug-in power supplies available for shipment in just three days. Choose the exact outputs you need. Singles or duals, regulated or unregulated. Write or phone for your free copy.

Name

Title

Company

City

State Zip

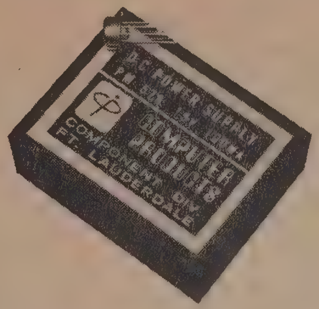
Acopian

Acopian Corp., Easton, Penna. 18042
Phone: (215) 258-5441

REGULATED D-C POWER SUPPLIES

$24.95

15V 100MA



Direct Operation From AC Line

SPECIFICATIONS: Model PM 576

Size	1.75x2.25x1 in.
Input	115 VAC, ± 10 VAC 60 to 400 Hz
Output Voltage	15 VDC
Output Current	0-100 MA Short circuit proof
Load Regulation	.02% NL-FL
Line Regulation	± .02%
Temp. Coeff.	.02%/°C
Ripple and Noise	0.5 MV, RMS
Output Z	0.2 ohms @ 10 KC
Operating Temp.	0 to 70° C
Derate 5 MA/° C above 55° C	
Derate 1 MA/° C below 15° C	
Storage Temp.	−25 to +85°C
Delivery	Stock
PRICE (1-9)	$24.95
(10-24)	$19.95

A complete family of single output modules:

PM 538	170V	10 MA
PM 562	28V	40 MA
PM 585	24V	50 MA
PM 556	22V	55 MA
PM 563	12V	100 MA
PM 522	6V	200 MA
PM 529	5V	250 MA
PM 544	3.6V	250 MA

Computer Products, Inc., 2801 E. Oakland Park Blvd., Ft. Lauderdale, Fla. 33306
Phone 305 - 565-9565.

COMPUTER PRODUCTS™

EBG — one stop shopping center.

Find a product listing and advertiser's message together.

Scintillonics Inc, Fort Collins	Colo
Scott Electronics Corp, Orlando	Fla
Semiconductor Circuits, Inc, Woburn	Mass
S K G Associates Inc, Boston	Mass
Sola-Basic Industries, Milwaukee	Wis
Sonex Inc, Philadelphia	Pa
Spar Electronics Inc, San Diego	Cal
Spatron Inc, Alhambra	Cal
SRC Div Moxon Electronics Corp, Los Angeles	Cal
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Transformer Electronics Co, Boulder	Colo
Transformer Engineers, San Gabriel	Cal
Trio Laboratories Inc, Plainview	N Y
Unholtz-Dickie Corp, Hamden	Conn
Unitron Div Electric Machy Mfg Co, Garland	Tex
Universal Precision, Inc, Endicott	N Y
Valor Instruments Inc, Gardena	Cal
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Vector Engineering Inc, Springfield	N J
Velonex Div Pulse Engineering Inc, Santa Clara	Cal
Wanlass Electric Co, Santa Ana	Cal

POWER SUPPLIES--MODULAR

ACOPIAN CORP, EASTON, PA	**ADV PG 541**
ANALOG DEVICES INC, CAMBRIDGE	**MASS**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
COMPUTER PRODUCTS INC, FORT LAUDERDALE FLA	**ADV PG 541**
GAR ENTERPRISES INC, PASADENA	**CAL**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INTRONICS INC, NEWTON	**MASS**
KEPCO INC, FLUSHING, N Y	**ADV PGS 542,543,4TH COVER**
LAMBDA ELECTRONICS CORP, PLAINVIEW N Y	**ADV PGS 515-525**
NJE CORP, KENILWORTH	**N J**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM	**MASS**
PLASTIC CAPACITORS INC, CHICAGO	**ILL**
POWER/MATE CORP, HACKENSACK	**N J**
TECHNIPOWER INC, SUB BENRUS WATCH CO INC, RIDGEFIELD CONN	**ADV PG 544**
TRYGON ELECTRONICS INC, ROOSEVELT	**N Y**
Abbott Transistor Labs, Inc, Los Angeles	Cal
ACDC Electronics, Inc, Burbank	Cal
Acopian Corp, Easton	Pa
ADC Products, Minneapolis	Minn
Advanced Energy Conversion, Menlo Park	Cal
AIM Electronics Ltd, Cambridge	U K
Analog Devices Inc, Cambridge	Mass
Analogic Corp, Waltham	Mass
Applied Electronics Corp of N J, Metuchen	N J
Ault, Inc, Minneapolis	Minn
Barden Co, Hermosa Beach	Cal
Burns & Towne, Inc, Malden	Mass
Burr-Brown Research Corp, Tucson	Ariz
Computer Products Inc, Fort Lauderdale	Fla
Conductron Corp, Ann Arbor	Mich
Control Science Corp, Alexandria	Va
Crane Electronics Corp, Santa Barbara	Cal
Del Electronics Corp, Mt Vernon	N Y
Deltron, Inc, North Wales	Pa
Elasco Inc, Boston	Mass
Electronic Design Labs Inc, Philadelphia	Pa
Electronic Research Associates Inc, Cedar Grove	N J
EMP Electronics Inc, Tempe	Ariz
Fenlow Electronics Ltd, Weybridge	England
Ferrotran Electronics Co Inc, New York	N Y
Fullmer Electronics Inc, Northridge	Cal
Gar Enterprises Inc, Pasadena	Cal
Helm Instrument Co Inc, Toledo	Ohio
Hewlett-Packard, Palo Alto	Cal
Incor Inc, Plainview	N Y
Intronics Inc, Newton	Mass
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kepco Inc, Flushing	N Y
Lambda Electronics Corp, Plainview	N Y
Larago Electronics Mfgrs Inc, Melbourne	Fla

KEPCO...THE SOURCE FOR POWER

MODULES Type CPS

CPS Power Supplies in unmetered form are intended as modules for OEM computer applications. Featuring a fully programmable linear IC regulator and integral forced cooling, the CPS modules provide a lot of well-controlled power in a small space. Current limiting and an integral overvoltage protector complete the package.

MODEL	DC OUTPUT RANGE VOLTS	AMPS	PRICE
CPS 6–10	0–6	0–10	$336.00
CPS 6–22	0–6	0–22	583.00
CPS 6–45	0–6	0–45	662.00
CPS 6–90	0–6	0–90	1,014.00
CPS 15–6	0–15	0–6	336.00
CPS 15–12	0–15	0–12	583.00
CPS 15–25	0–15	0–25	662.00
CPS 15–50	0–15	0–50	1,014.00

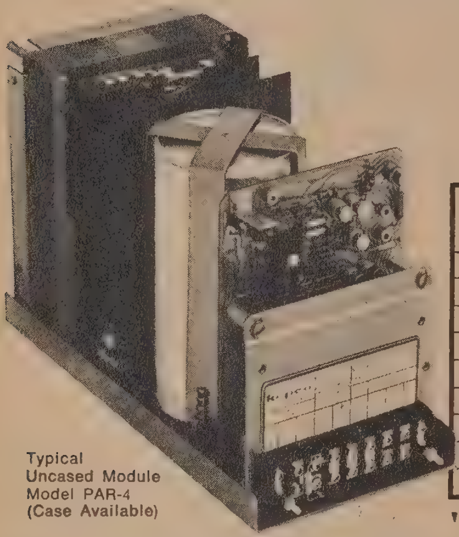
SPECIFICATION	VOLTAGE MODE
OUTPUT RANGE	0–100% E_o max.
REGULATION, LINE	<0.0005%
REGULATION, LOAD (No Load/Full Load)	<0.005% or 0.2 mV*
STABILITY, 8 HR.	<0.01% or 1 mV*
TEMP. COEFFICIENT	<0.01% per °C
RIPPLE, rms	<0.2 mV

*whichever is greater

Typical Unmetered CPS Module

MODULES Type PAR

PAR modules are moderate power d-c power supplies, featuring input flexibility for 105-125 or 210-250V a-c, 50-440 Hz power mains. A unique *current cutoff* overload protection mechanism automatically diminishes both voltage *and* current when the module is overloaded.



Typical Uncased Module Model PAR-4 (Case Available)

MODEL (uncased)	OUTPUT† VOLTS	OUTPUT CURRENT at ambient temp 65°C ▼ 55°C ▼▼	40°C ▼ 30°C ▼▼	PRICE (uncased)
PAR–4	4±5%	0–9.0	0–11.0	$205.00
PAR–7	7±5%	0–8.0	0–10.0	205.00
PAR–12	12±5%	0–5.5	0–7.0	205.00
PAR–15	15±5%	0–4.6	0–6.0	205.00
PAR–24	24±5%	0–3.4	0–4.0	205.00
PAR–28	28±5%	0–3.1	0–3.7	205.00
PAR–36	36±5%	0–2.3	0–2.8	205.00
PAR–48	48±5%	0–1.8	0–2.3	205.00
PAR–60	60±5%	0–1.5	0–2.0	205.00

▼Uncased ▼▼Cased

SPECIFICATION	VOLTAGE MODE
OUTPUT RANGE	±5% †
REGULATION, LINE	<0.005%
REGULATION, LOAD	<0.01% or 0.5 mV*
STABILITY (8 HR.)	<0.02% or 2 mV*
TEMP. COEFFICIENT	<0.02% per °C
RIPPLE, rms	<0.25 mV

*whichever is greater
†Adjustable to zero with corresponding current derating

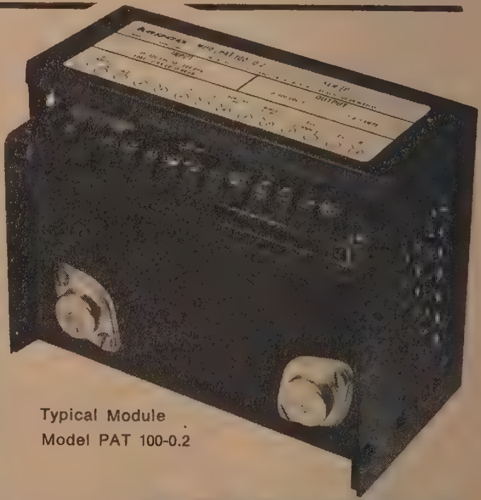
MODULES Type PAT

PAT modules embody the extraordinary linear IC regulator circuit developed by Kepco to bring a whole new order of magnitude to power supply performance. In a compact convection-cooled package that requires no external heat sinking, PAT modules are fully programmable for systems OEM use.

MODEL	DC OUTPUT RANGE VOLTS	AMPS	PRICE
PAT 7–2	0–7	0–2	$121.00
PAT 15–1.5	0–15	0–1.5	121.00
PAT 21–1	0–21	0–1	121.00
PAT 40–0.5	0–40	0–0.5	121.00
PAT 72–0.3	0–72	0–0.3	121.00
PAT 100–0.2	0–100	0–0.2	121.00

SPECIFICATION	VOLTAGE MODE
OUTPUT RANGE	0–100% E_o max.
REGULATION, LINE	<0.0005%
REGULATION, LOAD (No Load/Full Load)	<0.005% or 0.2 mV*
STABILITY, 8 HR.	<0.01% or 1 mV*
TEMP. COEFFICIENT	<0.01% per °C
RIPPLE, rms	<0.1 mV

*whichever is greater



Typical Module Model PAT 100-0.2

FOR LATEST CATALOG CONTAINING COMPLETE
SPECIFICATIONS AND APPLICATIONS NOTES
WRITE DEPT. BG

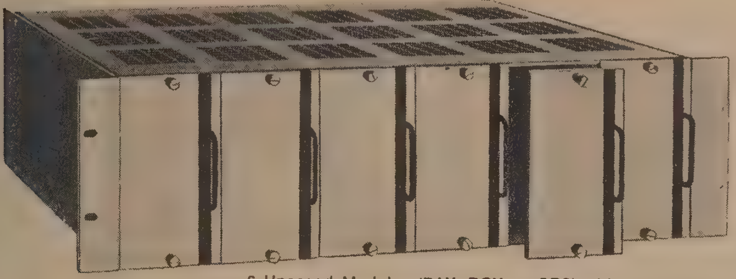
kepco®

For a complete listing of Kepco Power Supplies, refer to Pages 508-513

MODULES OF ALL DESCRIPTIONS

MODULES Type PCX

PCX modules, the successors to Kepco's popular PBX design group, substitute a linear IC regulator for the conventional discrete circuit to obtain a significant improvement in performance. Also available with meters and controls as PCX-MAT. Mounting facilities include single, double, triple and six-pack housings.



6 Uncased Modules (PAX, PCX, or OPS) with BPA-22 Panel Adapters in Rack Cabinet RA 22-6

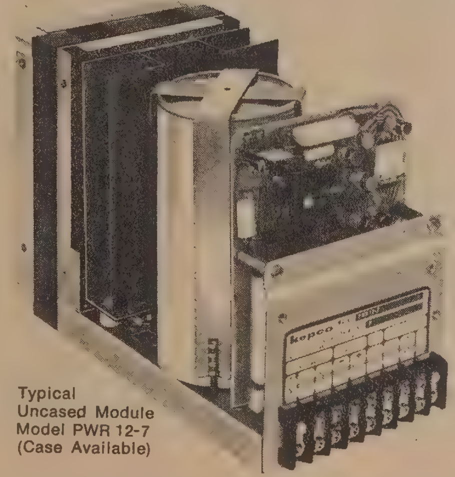
MODEL (uncased)	DC OUTPUT RANGE VOLTS	AMPS	PRICE (uncased)
PCX 7–2	0–7	0–2	$111.00
PCX 15–1.5	0–15	0–1.5	111.00
PCX 21–1	0–21	0–1	111.00
PCX 40–0.5	0–40	0–0.5	111.00
PCX 72–0.3	0–72	0–0.3	111.00
PCX 100–0.2	0–100	0–0.2	111.00

SPECIFICATION	VOLTAGE MODE
OUTPUT RANGE	0–100% E_o max.
REGULATION, LINE	<0.0005%
REGULATION, LOAD (No Load/Full Load)	<0.005% or 0.2 mV*
STABILITY, 8 HR.	<0.01% or 1 mV*
TEMP. COEFFICIENT	<0.01% per °C
RIPPLE, rms	<0.1 mV*

*whichever is greater

MODULES Type PWR

PWR Power Modules offer a large choice of fixed (±5% adjustable) outputs regulated with a combination of ferro-resonant and feedback transistor-amplifier techniques. Overload protection is by a unique cutoff circuit which folds back the the output current and voltage. Optional overvoltage protectors are available.



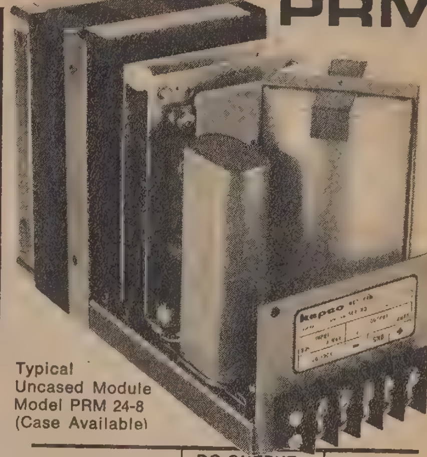
Typical Uncased Module Model PWR 12-7 (Case Available)

MODEL (uncased)	DC OUTPUT RANGE VOLTS	AMPS	PRICE (uncased)
PWR 4–14	4±5%	0–14	$220.00
PWR 7–11	7±5%	0–11	220.00
PWR 12–7	12±5%	0–7	220.00
PWR 15–6	15±5%	0–6	220.00
PWR 24–4	24±5%	0–4	220.00
PWR 28–3.3	28±5%	0–3.3	220.00
PWR 36–3	36±5%	0–3	220.00
PWR 48–2	48±5%	0–2	220.00
PWR 60–1.5	60±5%	0–1.5	220.00

SPECIFICATION	VOLTAGE MODE
OUTPUT RANGE	±5% E_o†
REGULATION, LINE	<0.005%
REGULATION, LOAD	<0.05% or 1 mV*
STABILITY (8 HR.)	<0.05% or 3 mV*
TEMP. COEFFICIENT	<0.05% per °C
RIPPLE, rms.	<0.25 mV

*whichever is greater
†Adjustable to zero with corresponding current derating

MODULES Type PRM



Typical Uncased Module Model PRM 24-8 (Case Available)

MODEL (uncased)	DC OUTPUT RANGE VOLTS	AMPS	PRICE (uncased)
SIZE "A" — 180 SERIES			
PRM 5.2–25	5.2	0–25	$125.00
PRM 6–25	6.3	0–25	125.00
PRM 12–15	12	0–15	125.00
PRM 18–10	18	0–10	125.00
PRM 24–8	24	0–8	125.00
PRM 28–7	28	0–7	125.00
PRM 36–5	36	0–5	125.00
PRM 48–4	48	0–4	125.00
PRM 60–3	60	0–3	125.00
PRM 120–1.5	120	0–1.5	125.00

These volt-ampere combinations also available in a slightly larger Size "C" featuring an extra filter section.

SIZE "B" — 120 SERIES			
PRM 5.2–15	5.2	0–15	$104.00
PRM 6–15	6.3	0–15	104.00
PRM 12–10	12	0–10	104.00
PRM 18–6.7	18	0–6.7	104.00
PRM 24–5	24	0–5	104.00
PRM 28–4.3	28	0–4.3	104.00
PRM 36–3.3	36	0–3.3	104.00
PRM 48–2.5	48	0–2.5	104.00
PRM 60–2	60	0–2	104.00
PRM 120–1	120	0–1	104.00

DUAL OUTPUT MODELS SIZE "C" — 300 SERIES			
PRM 2X4.5–20	4.5 4.5	0–20 0–20	$197.00
PRM 2X5.2–20	5.2 5.2	0–20 0–20	197.00
PRM 2X6–20	6.3 6.3	0–20 0–20	197.00
PRM 2X12–12	12 12	0–12 0–12	197.00
PRM 2X15–10	15 15	0–10 0–10	197.00
PRM 2X18–8	18 18	0–8 0–8	197.00
PRM 2X24–6	24 24	0–6 0–6	197.00
PRM 2X28–5	28 28	0–5 0–5	197.00
PRM 2X36–4	36 36	0–4 0–4	197.00
PRM 2X48–3	48 48	0–3 0–3	197.00
PRM 2X60–2.5	60 60	0–2.5 0–2.5	197.00

For the characteristics of the PRM modules, see our full page ad in DC Unregulated Section, Page 539

KEPCO, INC. • 131-38 SANFORD AVENUE • FLUSHING, N.Y. 11352
(212) 461-7000 • TWX #710-582-2631
Telex: 12-6055 • Cable: KEPCOPOWER NEWYORK

NOW AVAILABLE — NEW 1968
64-PAGE COMPREHENSIVE CATALOG

TECHNIPOWER

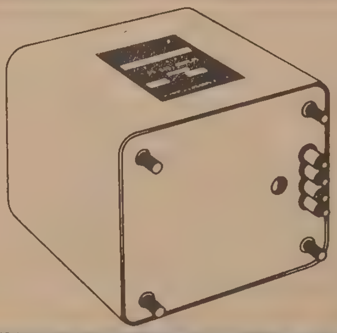
ALL SILICON
POWER MODULES & POWER SUPPLIES

AC-DC Regulated & Unregulated Modules
(including MIL SPEC qualified units)
Modular DC-DC Converters
Modular DC-DC Series Regulators
Modular DC-AC Inverters
AC-DC Laboratory Supplies
plus Heat Sinks, Rack Mounts, Options

Technipower makes a wider line of all-silicon power modules than any other manufacturer — literally thousands of models to meet just about any requirements, including MIL environmental (certified by a leading independent laboratory).

Several all-new lines have been added in the current year, advancing the state of the art and providing users with heretofore unobtainable compactness, performance, and economy in power supplies.

Whatever your power supply problem, you're sure to find the answer in the new Technipower catalog, which not only describes the entire Technipower line, with specifications and prices, but also includes a wealth of installation and thermal data — a must for the power supply user. Your Technipower rep or the factory has a copy waiting for you. Mail or phone your request today!



NEW! SMALLER-THAN-EVER POWER MODULES

The state-of-art PL-80 Series of closely regulated AC-DC modules is, power-for-power, approx. 25% smaller than any other modules of equivalent specifications!

ALSO NEW: Wide-range regulated AC-DC supplies; wide-range regulated DC-DC converters—, highly efficient, compact, low cost. See catalog for details.

TECHNIPOWER

A BENRUS Subsidiary Ridgefield, Connecticut 06877 Telephone: (203) 438-0333

Lectrotech Inc, Chicago	Ill
Litton Industries, Electron Tube Div, San Carlos	Cal
Microdot Magnetics Inc, Los Angeles	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Micro Power Inc, Long Island City	N Y
Microwave Associates Inc, Burlington	Mass
Mid-Eastern Industries Inc, Springfield	N J
Neotec Corp, Rockville	Md
Newport Labs Inc, Newport Beach	Cal
NJE Corp, Kenilworth	N J
North Hills Electronics Inc, Glen Cove	N Y
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nytron, Palo Alto	Cal
Pastoriza Electronics Inc, Newton Upper Falls	Mass
Philbrick/Nexus Research A Teledyne Co Dedham	Mass
Plastic Capacitors Inc, Chicago	Ill
Power Control Corp, Pittsburgh	Pa
Power/Mate Corp, Hackensack	N J
Reaction Research Labs of America, Groton	Conn
Rho Engineering Co, Los Angeles	Cal
Rosemount Plug-In Inc, Nashville	Tenn
Scintillonics Inc, Fort Collins	Colo
Scott Electronics Corp, Orlando	Fla
Semiconductor Circuits, Inc, Woburn	Mass
S K G Associates Inc, Boston	Mass
Sonex Inc, Philadelphia	Pa
Spar Electronics Inc, San Diego	Cal
Swiss Industries, Costa Mesa	Cal
Technipower Inc, Sub Benrus Watch Co Inc Ridgefield	Conn
Trygon Electronics Inc, Roosevelt	N Y
Universal Electronics Co, Santa Monica	Cal
Valor Instruments Inc, Gardena	Cal
Virginia Electronics Co Inc, Falls Church	Va
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

POWER SUPPLIES--LASER

AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INTERELECTRONICS CORP, CONGERS, N Y	**ADV PG 535**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH COVER**
OPAD ELECTRIC CO, INC, NEW YORK	**N Y**
Abtronics, Inc, Livermore	Cal
Advanced Energy Conversion, Menlo Park	Cal
Advanced Kinetics, Inc, Costa Mesa	Cal
American Optical Co Space Defense Div Southbridge	Mass
Amglo Corp, Chicago	Ill
AMP Inc, Capitron Div, Elizabethtown	Pa
Arnold Magnetics Corp, Los Angeles	Cal
Austron, Inc, Austin	Tex
Cober Electronics Inc, Stamford	Conn
Coherent Radiation Labs, Palo Alto	Cal
Component Technology Corp, Sunnyvale	Cal
Del Electronics Corp, Mt Vernon	N Y
Eastern Dynamics, Inc, Bloomfield	Conn
E G & G Inc Custom Equip Div, Bedford	Mass
Electro Powerpacs Corp, Cambridge	Mass
Energy Systems Inc, Palo Alto	Cal
Fisher Engineering Inc, Huntington	Ind
Gates Electronic Co Inc, Bronx	N Y
Hewlett-Packard, Palo Alto	Cal
Hughes Aircraft Co, Electron Dynamics Div Torrance	Cal
Interelectronics Corp, Congers	N Y
Kepco Inc, Flushing	N Y
Kilovolt Corp, Hackensack	N J
Lad Electronics Corp, Hicksville	N Y
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
Leitz Canada Ltd, Ernst, Midland	Ont
Magnetic Engineering Corp, Danbury	Conn
Mil Associates Inc, Hudson	NH
Nytron, Palo Alto	Cal
Opad Electric Co, Inc, New York	N Y
Optics Technology Inc, Palo Alto	Cal
Pek, Inc, Sunnyvale	Cal
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Powertec Div, Airtronics Corp, Chatsworth	Cal
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Rowe Industries Inc, Toledo	Ohio
Scientific Instruments Co, Chatsworth	Cal
S K G Associates Inc, Boston	Mass
Sola-Basic Industries, Milwaukee	Wis
Spectra-Physics, Mountain View	Cal
University Labs Inc, Berkeley	Cal
Vari Tech Co, Grand Rapids	Mich
Venus Scientific Inc, Hicksville	N Y
Wabash Magnetics Inc, Wabash	Ind
Wilmore Electronics Co Inc, Durham	NC

PREAMPLIFIERS--COMMUNICATION RECEIVERS SEE AMPLIFIERS--R-F

PREAMPLIFIERS--STEREO SEE AMPLIFIERS--A-F HIGH FIDELITY STEREO

PRECIOUS METALS RECOVERY & REFINING

Alloys Unlimited Inc, Melville	N Y
American Metal Climax Inc, New York	N Y
Attleboro Refining Co, Inc, Attleboro	Mass
Burns & Towne, Inc, Malden	Mass
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Handy & Harman, New York	N Y
Indium Corp of America, Utica	N Y
Johnson Matthey & Mallory Ltd, Toronto 15	Ont
Koch Light Labs Ltd, Colnbrook, Bucks	England
MDC Industries, Philadelphia	Pa
Metal Ceram Inc, Mount Vernon	N Y
Metz Refining Co, South Plainfield	N J
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Semi-Alloys Inc, Mt Vernon	N Y
Simmons Refining Corp, Chicago	Ill
United Refining & Smelting Co, Franklin Park	Ill
Var-Lac-Oid Chemical Co, Elizabeth	N J
Western Gold & Platinum Co, Belmont	Cal
Wilkinson Co, Westlake Village	Cal

PRECIPITATORS--ELECTRONIC SEE ALSO CLEANERS--AIR

SPELLMAN HIGH VOLTAGE ELECTRONICS CORP, BRONX	**N Y**
Del Electronics Corp, Mt Vernon	N Y
Koppers Co Inc, Pittsburgh	Pa
Ramney Industries Corp, Farmingdale	N J
Spellman High Voltage Electronics Corp, Bronx	N Y
Trion Inc, McKees Rocks	Pa
Wheelabrator Corp Wheelabrator Div Mishawaka	Ind

PREFORMS--CERAMIC

FUSITE CORP, CINCINNATI	**OHIO**
SUPERIOR STEATITE & CERAMIC CORP, ENGLEWOOD	**N J**
Alloys Unlimited Inc, Melville	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Aremco Products Inc, Briarcliff Manor	N Y
Atlantic Optical Moulding Co, Dudley	Mass
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Carborundum Co Electrical & Elctns Br, Niagara Falls	NY
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Duramic Products Inc, Sub Kawecki Chemical Co Palisades Park	N J
Fusite Corp, Cincinnati	Ohio
Glass Beads Co, Latrobe	Pa
Latronics Corp, Latrobe	Pa
Metal Ceram Inc, Mount Vernon	N Y
Metalized Ceramics Corp, Providence	R I
National Beryllia Corp, Haskell	N J
Roosevelt Metal Co Inc, Brooklyn	N Y
Saxonburg Ceramics Inc, Pittsburgh	Pa
Semi-Alloys Inc, Mt Vernon	N Y
Stettner-Trush Inc, Cazenovia	N Y
Superior Steatite & Ceramic Corp, Englewood	N J
United American Metals Div, Brooklyn	N Y
U S Stoneware Inc, Orville Plant, Orrville	Ohio
Vitta Corp, Wilton	Conn
Western Gold & Platinum Co, Belmont	Cal

PREFORMS--EPOXY

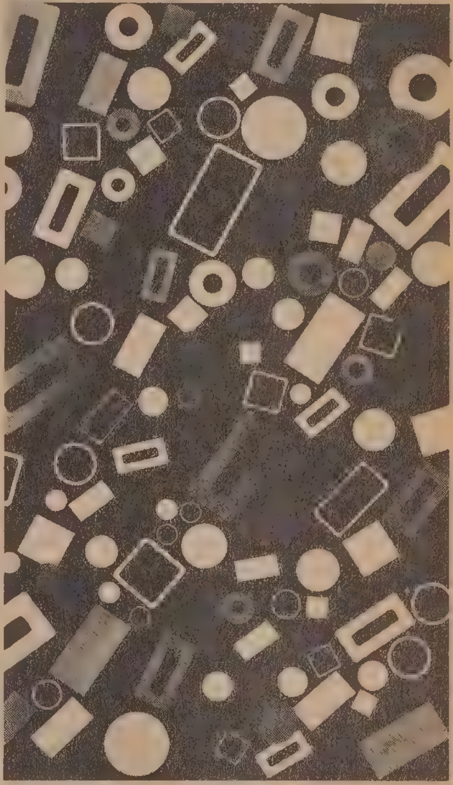
SUPERIOR STEATITE & CERAMIC CORP, ENGLEWOOD	**N J**
Castall Research Lab Inc, Brockton	Mass
Emerson & Cuming Inc, Canton	Mass
Hysol Div, The Dexter Corp, Olean	N Y
Isochem Resins Co, Lincoln	RI
Metal Ceram Inc, Mount Vernon	N Y
Morton Chemical Co Div Morton Intl Inc, Chicago	Ill
Roosevelt Metal Co Inc, Brooklyn	N Y
Seastrom Mfg Co Inc, Glendale	Cal
Semi-Alloys Inc, Mt Vernon	N Y
Superior Steatite & Ceramic Corp, Englewood	N J

PREFORMS--METAL

ART WIRE & STAMPING CO, NEWARK	**N J**
BUCKBEE MEARS CO, ST PAUL	**MINN**
CONSOLIDATED REACTIVE METALS INC, MAMARONECK N Y	**ADV PG 545**
MICRO CONTACTS, INC, HICKSVILLE	**N Y**
WILLIAMS GOLD REFINING CO INC PRECIOUS METALS DIV BUFFALO	**N Y**
Alloys Unlimited Inc, Melville	N Y
All-State Welding Alloys Co, Inc, White Plains	N Y
Alpha Metals Inc, Jersey City	NJ
American Silver Co Div, Flushing	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Art Wire & Stamping Co, Newark	N J
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bow Solder Products Co Inc, Newark	N J
Buckbee Mears Co, St Paul	Minn
Cohn Corp, Sigmund, Mt Vernon	N Y
Cominco American Inc Electronic Matls Div, Spokane	Wash
Consolidated Reactive Metals Inc, Mamaroneck	N Y
Cramco Solder Alloys, Scarborough	Ont
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Division Lead Co, Summit	Ill
Electronic Metals & Alloys Inc, North Attleboro	Mass
Electronic Space Products Inc, Los Angeles	Cal
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Fansteel Metallurgical Corp, North Chicago	Ill
General Findings Co Industrial Div, Attleboro	Mass

PREFORMS

for semiconductor assembly



with quality service to match quality products

CRM makes perfect preforms of eutectic alloys of Gold-Tin, Gold-Silicon, and Gold-Germanium.

CRM also makes preforms of Silver/Copper braze alloys and soft solder alloys.

CRM preforms can help you to produce perfect ICs, hybrids, transistors, and diodes. Quality is controlled from the ingot on, including not only standard tests, but also checks of foil surface finish and flow characteristics. The extensive die inventory at CRM makes most preforms available without delay and without a tooling charge.

CRM will meet your strictest specifications.

CRM delivers what it promises.

CRM delivers on TIME.

Call or write CRM for a quotation on your preforms or the CRM catalog with a list of over 300 stock dies.

CONSOLIDATED
CRM REACTIVE
METALS, INC.

114 Hoyt Avenue, Mamaroneck, N.Y. 10543
Tel: (914) 698-2300 ☐ TWX 914-835-3380

Handy & Harman, New York	N Y
Indium Corp of America, Utica	N Y
Johnson Matthey & Mallory Ltd, Toronto 15	Ont
Kester Solder Co, Chicago	Ill
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Lucas-Milhaupt Inc, Cudahy	Wis
Magnetic Metals Co, Camden	N J
Metal Ceram Inc, Mount Vernon	N Y
Metz Refining Co, South Plainfield	N J
Micro Contacts, Inc, Hicksville	N Y
Micro Science Assoc, Mountain View	Cal
O'Hara Metal Products Co, San Francisco	Cal
Roosevelt Metal Co Inc, Brooklyn	N Y
Roxter Corp, Long Island City	N Y
Seastrom Mfg Co Inc, Glendale	Cal
Semi-Alloys Inc, Mt Vernon	N Y
Staver Co Inc, Bay Shore	N Y
Sylvania Elec Prods Inc, Chem & Met Div, Towanda	Pa
Teiner Co Inc, Roland, Everett	Mass
United American Metals Div, Brooklyn	N Y
Victor Metal Products Corp, Harrisonburg	Va
Vitta Corp, Wilton	Conn
Western Gold & Platinum Co, Belmont	Cal
Wilkinson Co, Westlake Village	Cal
Williams Gold Refining Co Inc Precious Metals Div Buffalo	N Y

EBG

the industry's

only computer

compiled directory.

This makes information in the Electronics Buyers' Guide the latest and most accurate anywhere.

Electronics Buyers' Guide

PRESSURE CHAMBERS SEE CHAMBERS—ENVIRONMENTAL

PRESSURE CONTROLS SEE CONTROLS—PRESSURE

PRESSURE GAGES SEE INDICATORS—PRESSURE

PRESSURE INDICATORS SEE INDICATORS—PRESSURE

PRESSURE-SENSITIVE LABELS SEE LABELS

PRESSURE TRANSDUCERS SEE TRANSDUCERS

PRESSURIZATION SYSTEMS

Adel Div De Laval Turbine Calif Inc, Burbank	Cal
Aerodyne Controls Corp, Farmingdale	N Y
Compudyne Corp, Hatboro	Pa
Cryolab Div, Statics-Dynamics Inc, Los Osos	Cal
Eastern Industries Div Lab for Electronics Inc Hamden	Conn
Firewel Co Inc, Buffalo	N Y
Gabriel Electronics Div Maremont Corp, Saco	Maine
Guide Industries Inc, Sun Valley	Cal
Hektor Scientific Co Inc, Foxboro	Mass
International Controls Corp, Fairfield,	N J
Kahn & Co Inc, Wethersfield	Conn
Kidde & Co Inc, Walter, Belleville	N J
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Romec Div, Elyria	Ohio
Pall Corp, Environmental Control Systems Div Long Island City	NY
Pentronics Corp, Dorchester	Mass
Phelps Dodge Electronic Products Corp North Haven	Conn
Superior Continental Corp, Hickory	N C
TRW Systems Group, Redondo Beach	Cal
Wells Industries Corp, North Hollywood	Cal

PRINTED-CIRCUIT ASSEMBLY MACHINES SEE MACHINES—ASSEMBLY

PRINTED-CIRCUIT ASSEMBLY TESTERS SEE TESTERS—PRINTED-CIRCUIT ASSEMBLY

PRINTED-CIRCUIT BOARD FRAMES SEE FRAMES—MOUNTING

PRINTED-CIRCUIT BOARDS SEE LAMINATES—COPPER-CLAD

PRINTED-CIRCUIT CHEMICALS SEE CHEMICALS—PRINTED-CIRCUIT

PRINTED-CIRCUIT CLEANERS SEE CHEMICALS—PRINTED-CIRCUIT

PRINTED-CIRCUIT COMPONENTS SEE MODULES; SEE ALSO LISTINGS FOR DESIRED COMPONENTS

PRINTED-CIRCUIT CONNECTORS SEE CONNECTORS

PRINTED-CIRCUIT PAINTS SEE PAINTS—PRINTED-CIRCUIT

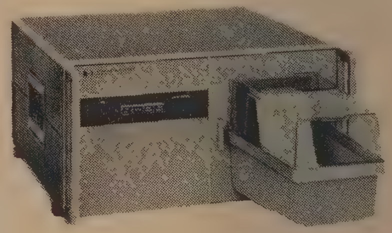
PRINTED-CIRCUIT SCREENS SEE SCREENS

PRINTED WIRING SEE CIRCUITS—PRINTED WIRING; CABLES—FLAT, PRINTED

PRINTERS--DIGITAL

HEWLETT-PACKARD, PALO ALTO, CAL	**ADV PG 546**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
SYSTRON DONNER CORP, CONCORD	**CAL**
VICTOR COMPTOMETER CORP, BUSINESS MACH GROUP CHICAGO, ILL	**ADV PG 547**
A D Data Systems Inc, Rochester	N Y
Amark Corp, Plainview	N Y
Analogic Corp, Waltham	Mass
Baird-Atomic, Inc, Cambridge	Mass
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
California Electro-Scientific Corp, Santa Ana	Cal
Canberra Industries, Middletown	Conn
Century Electronics & Instruments Inc, Tulsa	Okla
CMC/Rutherford, San Fernando	Cal
Codamite Div Pacific Ordnance & Elctns Co Anaheim	Cal
Connecticut Technical Corp, Hartford	Conn
Control Data Corp, Minneapolis	Minn
Control Data Corp, Rochester Div, Rochester	Mich
Data Mark Inc, Westbury	N Y
Datatotal Inc, Arlington	Tex
Di/An Controls Inc, Boston	Mass
Digitronics Corp, Albertson	N Y
Disc Instruments Inc, Santa Ana	Cal
Dynamco Ltd, Chertsey Surrey	Eng
Dytro Corp, Hicksville	NY
E N M Co, Chicago	Ill
General Electric Co, Printer-Reader Bus Sec Philadelphia	Pa
Giannini-Voltex, Whittier	Cal
Hecon Corp, New Shrewsbury	N J
Heuer Electronics Corp, Norwalk	Conn
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Howell Instruments Co, Fort Worth	Tex
Iwatsu Electric Co Ltd, Tokyo	Japan
Landis & Gyr AG, Zug	Switzerland
Lehigh Valley Electronics Engrg & Mfg Co, Inc Fogelsville	Pa
Litton Datalog Div, Litton Ind Inc, San Francisco	Cal
Martin-Decker Corp, Santa Ana	Cal
Massey Dickinson Co Inc, Saxonville	Mass
Mite Corp, New Haven	Conn
Mohawk Data Sciences Corp, Boston	Mass
Notifier Co Sub Emhart Corp, Lincoln	Neb
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Oki Electric Industry Co Ltd, Tokyo	Japan
Packard Instrument Co, Inc, Downers Grove	Ill
Potter Instrument Co, Inc, Plainview	N Y
Presin Co Inc, Shelton	Conn
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass

DIGITAL PRINTERS



NEW MODEL 5050A

Prints up to 20 lines/sec and 18 columns. Reliable and quiet. BCD codes and formats changed by simple mechanical means. $1900 + $35 / column. Optional built-in digital clock, $950.

MODEL 562A PRINTER

Up to 5 lines/sec and 11 columns. BCD and decimal codes. Analog outputs optional. Price varies with capacity; typically $1715 for 6 columns, $2183 for 11 columns.

HEWLETT hp PACKARD

02816

Why does the best-selling digital printer sell for $335?

Because Victor sells so many of them.

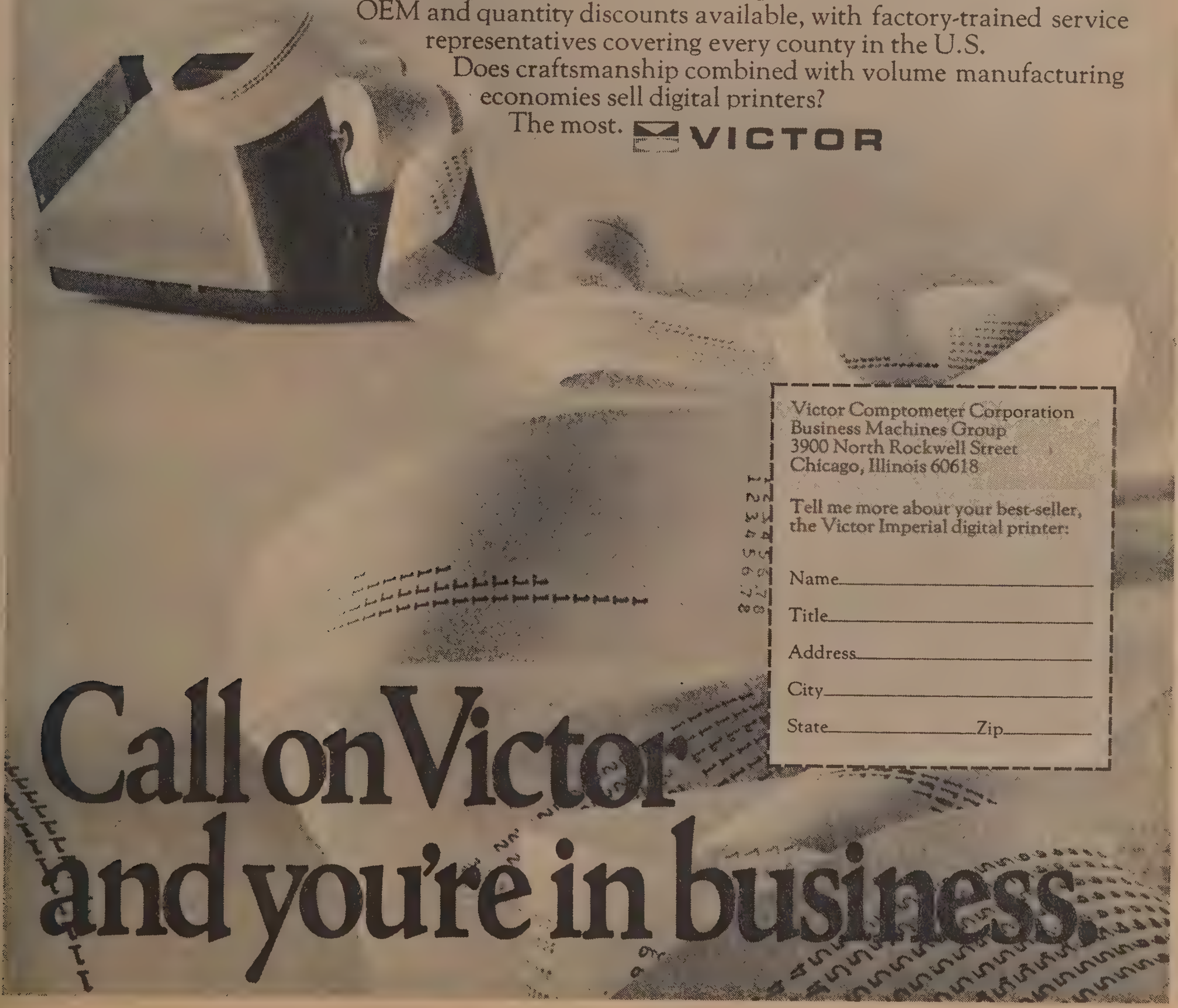
The Victor Imperial digital printer does superbly what any top-quality serial entry printer does. For less money. Because we sell so many.

It prints 8 column figures from remote sources on either 24 or 48 volt solenoids. Addition and subtraction for just $50 more. Ten column capacity? Add $20. Victor's exclusive printing press action reduces wear (and extra parts), and assures legibility and long, long life, under the roughest use.

OEM and quantity discounts available, with factory-trained service representatives covering every county in the U.S.

Does craftsmanship combined with volume manufacturing economies sell digital printers?

The most. VICTOR



Victor Comptometer Corporation
Business Machines Group
3900 North Rockwell Street
Chicago, Illinois 60618

Tell me more about your best-seller, the Victor Imperial digital printer:

Name____________________

Title____________________

Address____________________

City____________________

State__________ Zip__________

Call on Victor and you're in business.

Schneider Radio-Television Div, Ivry	France
Scientific Data Systems Inc, El Segundo	Cal
Shepard Labs Inc, Summit	NJ
Siemens America Inc, New York	N Y
Simpson Electric Co, Chicago	Ill
Sonex Inc, Philadelphia	Pa
Soroban Engineering, Inc, Melbourne	Fla
Sossner Steel Stamps Inc, Long Island City	N Y
Stark Electronic Instruments Ltd, Ajax	Ont
Streeter-Amet, Grayslake	Ill
Systron Donner Corp, Concord	Cal
Takeda Riken Industry Co Ltd, Tokyo	Japan
Teletype Corp, Skokie	Ill
United Systems Corp, Dayton	Ohio
Veeder-Root, Hartford	Conn
Victor Comptometer Corp, Business Mach Group Chicago	Ill

PRINTERS--KEYBOARD

IBM, INDUSTRIAL PRODUCTS MARKETING, NEW YORK	**NY**
VICTOR COMPTOMETER CORP, BUSINESS MACH GROUP CHICAGO	**ILL**
Automated Business Sys Div Litton Industries Carlstadt	N J
Codamite Div Pacific Ordnance & Elctns Co Anaheim	Cal
Connecticut Technical Corp, Hartford	Conn
Data Trends Inc, Parsippany	N J
Di/An Controls Inc, Boston	Mass
Dimensions Inc, Hempstead	N Y
Dynamco Ltd, Chertsey Surrey	Eng
E N M Co, Chicago	Ill
Fujitsu Ltd, Tokyo	Japan
IBM, Industrial Products Marketing, New York	NY
IBM Data Processing Div, White Plains	N Y
Invac Corp, Waltham	Mass
Kleinschmidt, Div SCM Corp, Deerfield	Ill
Litton Datalog Div, Litton Ind Inc, San Francisco	Cal
Mite Corp, New Haven	Conn
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Potter Instrument Co, Inc, Plainview	N Y
Scientific Data Systems Inc, El Segundo	Cal
Siemens America Inc, New York	N Y
Soroban Engineering, Inc, Melbourne	Fla
Teletype Corp, Skokie	Ill
Victor Comptometer Corp, Business Mach Group Chicago	Ill

PRINTERS--LINE

SYSTRON DONNER CORP, CONCORD	**CAL**
VICTOR COMPTOMETER CORP, BUSINESS MACH GROUP CHICAGO	**ILL**
Adtrol Electronics Inc, Philadelphia	Pa
Bell-Mark Corp, Bloomfield	N J
Bristol Div, American Chain & Cable Co Waterbury	Conn
Burroughs Corp Component Sales Dept Los Angeles	Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
California Electro-Scientific Corp, Santa Ana	Cal
Canadian Motorola Electronics Co, Agincourt	Ont
Century Electronics & Instruments Inc, Tulsa	Okla
Circuit Technology Inc, San Carlos	Cal
Clary Corp, San Gabriel	Cal
Codamite Div Pacific Ordnance & Elctns Co Anaheim	Cal
Connecticut Technical Corp, Hartford	Conn
Control Data Corp, Minneapolis	Minn
Control Data Corp, Rochester Div, Rochester	Mich
Data Mark Inc, Westbury	N Y
Data Products Corp, Culver City	Cal
Datatotal Inc, Arlington	Tex
Di/An Controls Inc, Boston	Mass
DuCom Inc, Salem	Mass
E N M Co, Chicago	Ill
Fujitsu Ltd, Tokyo	Japan
General Electric Co Info Sys Equip Div, Phoenix	Ariz
General Electric Co, Printer-Reader Bus Sec Philadelphia	Pa
General Instrument Corp Radio Receptor Div Hicksville	N Y
Honeywell-EDP Div, Wellesley Hills	Mass
IBM Data Processing Div, White Plains	N Y
ITT Federal Labs, Fort Wayne	Ind
Kleinschmidt, Div SCM Corp, Deerfield	Ill
Litton Datalog Div, Litton Ind Inc, San Francisco	Cal
Matthews & Co Jas H, Pittsburgh	Pa
Mohawk Data Sciences Corp, Boston	Mass
National Cash Register Co, Dayton	Ohio
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Potter Instrument Co, Inc, Plainview	N Y
Precision Crafts, La Cresenta	Cal
Scientific Data Systems Inc, El Segundo	Cal
Shepard Labs Inc, Summit	NJ
Siemens America Inc, New York	N Y
Systron Donner Corp, Concord	Cal
Venner Electronics Ltd, New Malden, Surrey	Eng
Victor Comptometer Corp, Business Mach Group Chicago	Ill

PRINTERS--PRINTED-CIRCUIT SEE MACHINES--PRINTED-CIRCUIT PRODUCTION

PRISMS--PENTA

Bausch & Lomb, Inc, Rochester	N Y
Broomer Research Corp, Plainview	N Y
Buhl Optical Co, Pittsburgh	Pa
Fairchild Space & Defense Sys Div Fairchild Cam & Inst Corp, El Segundo	Cal
Gaertner Scientific Corp, Chicago	Ill
General Electrodynamics Corp, Garland	Tex
Industrial Optics Corp, Newark	N J
Jones Optical Works Inc A D, Burlington	Mass
Laser Optics Inc, Danbury	Conn
Leitz Canada Ltd, Ernst, Midland	Ont
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
Optical Products A Teledyne Co, Monrovia	Cal
O & S Research Inc, Riverton	N J
Pacific Optical Div Chicago Aerial Ind Los Angeles	Cal
Perkin-Elmer Corp, Norwalk	Conn
Perkin-Elmer Corp Laser Dept, Wilton	Conn
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Ransom Labs, John H, Los Angeles	Cal
Razdow Labs Inc, Newark	N J
Republic Lens Co Inc, Bronx	N Y
Spectrum Systems, Inc, Waltham	Mass
Y T & T Corp, Roslyn Heights	NY
Zenith Optical Laboratory, Dobbs Ferry	N Y

PROBES--HIGH VOLTAGE

HEATH CO, BENTON HARBOR	**MICH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL**
POMONA ELECTRONICS CO INC, POMONA	**CAL**
TEKTRONIX INC, BEAVERTON	**ORE**
Automatic Metal Products Corp, Brooklyn	N Y
Beckman Instruments Inc, Fullerton,	Cal
California Instruments Corp, San Diego	Cal
Compagnie Generale de Metrologie Haute Savoie	France
Components Specialties Inc, Freeport	N Y
EICO Electronic Instrument Co Inc, Brooklyn	NY
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Heath Co, Benton Harbor	Mich
Hewlett-Packard, Palo Alto	Cal
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
Keithley Instruments Inc, Cleveland	Ohio
Metermaster, Inc, Los Angeles	Cal
Neptune Electronics Co, New York	N Y
Pomona Electronics Co Inc, Pomona	Cal
Radio Corp of America, Electronic Components, Harrison	N J
Radiometer A/S, Copenhagen NV	Denmark
Ross Engineering Corp, Saratoga	Cal
Sencore Inc, Addison	Ill
Simpson Electric Co, Chicago	Ill
Singer Co, Metrics Div, Bridgeport	Conn
Slaughter Co, Ardmore	Okla
Stark Electronic Instruments Ltd, Ajax	Ont
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Tektronix Inc, Beaverton	Ore
Tru-Connector Corp, Peabody	Mass

PROBES--MICROWAVE

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE	**NY**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK	**N Y**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
RADAR DESIGN CORP, SYRACUSE	**N Y**
Aircom Inc, Union	N H
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Automatic Metal Products Corp, Brooklyn	N Y
Coax Devices, Chelsea	Mass
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Diamond Antenna & Microwave Corp, Winchester	Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Epsco Inc, Westwood	Mass
Filmohm Corp, Long Island City	N Y
General Microwave Corp, Farmingdale	N Y
Guide Industries Inc, Sun Valley	Cal
Hewlett-Packard, Palo Alto	Cal
Maury Microwave Corp, Montclair	Cal
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
MCS Corp, Monrovia	Cal
Microlab/F X R, Livingston	N J
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Development Labs Inc Needham Heights	Mass
Microwave Labs of America, Brooklyn	N Y
Narda Microwave Corp, Plainview	N Y
Nichols Products Co, Inc, Moorestown	N J
Nippon Electric Co Ltd, Tokyo	Japan
Omega Laboratories Inc, Rowley	Mass
Pabst Engineering Equipment Co Inc, Elizabeth	NJ
Portchester Instrument Corp, Port Chester	N Y
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Radar Design Corp, Syracuse	N Y
R F Systems Inc, Cohasset	Mass
RLC Electronics Inc, Port Chester	N Y
Tru-Connector Corp, Peabody	Mass
Vector Industries A Teledyne Co, Palo Alto	Cal
Victor R F & Microwave Co, Wakefield	Mass

PROBES--OSCILLOSCOPE

HEATH CO, BENTON HARBOR	**MICH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
POMONA ELECTRONICS CO INC, POMONA	**CAL**
TEKTRONIX INC, BEAVERTON	**ORE**
Aul Instruments Inc, Long Island City	NY
Beutronics Labs Inc, Kenilworth	N J
Bioelectric Instruments Inc, Hastings-on-Hudson	N Y
Bradley Ltd G & E, London NW 10	England
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Compagnie Generale de Metrologie Haute Savoie	France
Data Instrument Div, Pennsauken	N J
EICO Electronic Instrument Co Inc, Brooklyn	NY
Fairlane Electronics, Inc, Long Valley	N J
Greenpar Engineering Ltd, Electronics Div Essex	England
Heath Co, Benton Harbor	Mich
Hewlett-Packard, Palo Alto	Cal
I T I Electronics Inc, Clifton	N J
Iwatsu Electric Co Ltd, Tokyo	Japan
Measurement Control Devices Inc, Philadelphia	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pomona Electronics Co Inc, Pomona	Cal
Radio Corp of America, Electronic Components, Harrison	N J
Robertson Instrument Co, Azusa	Cal
Simpson Electric Co, Chicago	Ill
Smith Inc, Herman H, Brooklyn	N Y
Stark Electronic Instruments Ltd, Ajax	Ont
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Tektronix Inc, Beaverton	Ore
Walden Electronics Corp, Waltham	Mass

PROBES--R-F FOR VTVM

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
HEATH CO, BENTON HARBOR	**MICH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
POMONA ELECTRONICS CO INC, POMONA	**CAL**
Aero/Space Devices, Inc, Miami	Fla
Anritsu Electric Co Ltd, Tokyo	Japan
Aul Instruments Inc, Long Island City	NY
Beutronics Labs Inc, Kenilworth	N J
Boonton Electronics Corp, Parsippany	N J
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Compagnie Generale de Metrologie, Haute Savoie	France
EICO Electronic Instrument Co Inc, Brooklyn	NY
Filmohm Corp, Long Island City	N Y
General Radio Co, West Concord	Mass
Genisco Technology Corp, Compton	Cal
Heath Co, Benton Harbor	Mich
Hewlett-Packard, Palo Alto	Cal
I T I Electronics Inc, Clifton	N J
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
Metermaster, Inc, Los Angeles	Cal
Millivac Instruments Inc, Schenectady	N Y
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Pomona Electronics Co Inc, Pomona	Cal
Radio Corp of America, Electronic Components, Harrison	N J
Radiometer A/S, Copenhagen NV	Denmark
Robertson Instrument Co, Azusa	Cal
Seco Electronics Corp, Hopkins	Minn
Simpson Electric Co, Chicago	Ill
Stark Electronic Instruments Ltd, Ajax	Ont
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Winslow Tele-Tronics Inc, Asbury Park	NJ

PROBES--TEMPERATURE

HEWLETT-PACKARD, PALO ALTO	**CAL**
VICTORY ENGINEERING CORP, SPRINGFIELD N J	**ADV PGS FACING PG 1**
Advanced Electronics, Inc, Rocky Hill	Conn
Advanced Products Co, North Haven	Conn
Aero Research Instrument Dept American Standard Franklin Park	Ill
Aircraft Components Inc, Benton Harbor	Mich
Alcor Aviation, Inc, San Antonio	Texas
Alpine Geophysical Assoc Inc, Norwood	N J
Amlab Inc, Rahway	NJ
Andonian Associates, Inc, Waltham	Mass
Applied Research Austin Inc, Austin	Tex
Atkins Technical, Inc, Gainesville	Fla
Auto-Control Labs Div Rucker Co, Los Angeles	Cal
Barnes Engineering Co Def & Space Div Stamford	Conn
Bendix Corp Environmental Science Div, Baltimore	Md
Bissett-Berman Corp, Santa Monica	Cal
Components Specialties Inc, Freeport	N Y.
Conax Corp, Buffalo	N Y
Consolidated Controls Corp, El Segundo	Cal
Consolidated Controls Corp, Bethel	Conn
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Continental Sensing Inc, Melrose Park	Ill
Device Seals Inc, Sun Valley	Cal
Edison, Thomas A Industries, Instr Div West Orange	N J
Electronic Development Labs Inc, Plainview	N Y
Fenwal Inc, Ashland	Mass
General Laboratory Assoc Inc, Norwich	N Y
General Transducer Co, Santa Clara	Cal
Hafstrom Technical Products Inc, San Diego	Cal
Hewlett-Packard, Palo Alto	Cal
Honeywell Industrial Div, Fort Washington	Pa
Hy-Cal Engineering, Santa Fe Springs	Cal
Hydro Products Div Dillingham Corp, San Diego	Cal
Inca Engineering Corp, San Gabriel	Cal
Industrial Electronetics Corp, Satellite Beach	Fla
Jersey Technical Consultants, Morristown	NJ
Kahl Scientific Instrument Corp, El Cajon	Cal
Lewis Engineering Co, Naugatuck	Conn
Marin Controls Co, Belmont	Cal
Marlin Mfg Corp, Cleveland	Ohio
Marshall Instruments Inc, Van Nuys	Cal
McCullough Aero Corp, Hawthorne	Cal
Meteorology Research Inc, Altadena	Cal
Metermaster, Inc, Los Angeles	Cal
Microdot, Inc, South Pasadena	Cal
Minco Products Inc, Minneapolis	Minn
Montedoro Corp, San Luis Obispo	Cal
Mura Corp, Great Neck	N Y
Nucleonic Industries, Tucson	Ariz
Omega Engineering Inc, Stamford	Conn
Pacific Transducer Corp, Los Angeles	Cal
Pall Trinity Micro Corp, Cortland	N Y
RdF Corp, Hudson	N H
Relco Products Inc, Denver	Colo
RFL Industries Inc, Thermocontrol Div, Boonton	N J
Riverbank Labs, Dept of Engrg, Geneva	Ill
Rosemount Engineering Co, Minneapolis	Minn
Rosemount Plug-In Inc, Nashville	Tenn
Rustrak Instrument Div Gulton Ind Inc, Manchester	NH
Scientific Engineering Mfg Co Inc North Hollywood	Cal
Simpson Electric Co, Chicago	Ill
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Thermal Systems Inc, Los Angeles	Cal
Thermo-Couple Products Co Inc, Winfield	Ill
United Sensor & Control Corp, Watertown	Mass
United Systems Corp, Dayton	Ohio
Versitherm, Inc, Farmingdale	N Y
Victory Engineering Corp, Springfield	N J
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Waynco Inc, Winona	Minn
West Coast Research Corp, Los Angeles	Cal
Winsco Instruments & Controls Co Inc Santa Monica	Cal
Yellow Springs Instrument Co Inc, Yellow Springs	Ohio

Pain Killer.

If vendors have you in a pinch and another source of supply will help, turn to the Electronics Buyers' Guide. You'll find all the information you need on over 1,363 sources of power supplies, listed under 11 headings from *AC Regulated Power Supplies to Laser Power Supplies.*

Electronics Buyers' Guide

PROBES--TEST LEAD

BIRNBACH CO INC, FREEPORT	**N Y**
CGS UNITS INC, ROCHESTER	**N Y**
CIRCON COMPONENT CORP, GOLETA, CAL	**ADV PG 332**
CONTROL KNOBS INC, JAMAICA	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
E-Z-HOOK TEST PRODUCTS, COVINGTON	**KY**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INTRONICS INC, NEWTON	**MASS**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
POMONA ELECTRONICS CO INC, POMONA	**CAL**
Aerolite Electronics Corp, Union City	N J
Allegri-Tech Inc, Nutley	N J
Allen/UTI, Kalamazoo	Mich
Amatom Electronic Hardware, New Rochelle	N Y
American Electronic Labs Inc, Lansdale	Pa
Aul Instruments Inc, Long Island City	NY
Bendix Corp, Communications Div, Towson	Md
Beutronics Labs Inc, Kenilworth	N J
Birnbach Co Inc, Freeport	N Y
Bruno-New York Industries Corp, New York	N Y
Canadian Research Institute, Don Mills	Ont
Carol Electronics Div Weeco Inc, Martinsburg	W Va
CGS Units Inc, Rochester	N Y
Circon Component Corp, Goleta	Cal
Cleverly Electrical Works Inc, Philadelphia	Pa
Components Specialties Inc, Freeport	N Y
Control Knobs Inc, Jamaica	N Y
Daburn Electronics & Cable Corp, Bronx	N Y
Diotran Pacific, Mountain View	Cal
EICO Electronic Instrument Co Inc, Brooklyn	NY
E-Z-Hook Test Products, Covington	KY
Fairhill Products Corp, Philadelphia	Pa
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Hewlett-Packard, Palo Alto	Cal
Holex Inc, Hollister	Cal
Hydro Molding Co Inc, Plattsburgh	N Y
Intronics Inc, Newton	Mass
Iwatsu Electric Co Ltd, Tokyo	Japan
Jones Electronics, Hiram, Burbank	Cal
Keithley Instruments Inc, Cleveland	Ohio
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Metermaster, Inc, Los Angeles	Cal
Micro Tech Mfg Inc, Worcester	Mass
Miller Mfg Co, M A, Libertyville	Ill
Morey Corp, Downers Grove	Ill
Moser Jewel Co, Perth Amboy	N J
Mutron Corp, Brockton	Mass
National Tel-Tronics Corp, Great Neck	N Y
Neptune Electronics Co, New York	N Y
Ostby & Barton Co, Providence	R I
Paraplegics Mfg Co Inc, Bensenville	Ill
Philmore Mfg Co Inc, Richmond Hill	N Y
Pomona Electronics Co Inc, Pomona	Cal
Radio Corp of America, Electronic Components, Harrison	N J
Robertson Instrument Co, Azusa	Cal
Rye Industries, Inc, Mamaroneck	N Y
Simpson Electric Co, Chicago	Ill
Sittler Corp, Chicago	Ill
Slaughter Co, Ardmore	Okla
Smith Inc, Herman H, Brooklyn	N Y
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taffet Electronics Inc, Woodside	N Y
Techni-Tool Inc, Philadelphia	Pa
Test Equipment Corp, Dallas	Tex
Transistor Automation A Teledyne Co, Woburn	Mass
United-Carr Inc, Boston	Mass
Vector Electronic Co Inc, Los Angeles	Cal

PROCESS CONTROL COMPUTERS SEE COMPUTERS—SPECIAL

PROCESS CONTROL SIMULATORS SEE SIMULATORS

PRODUCTION MACHINES SEE MACHINES; TOOLS

PROFILING MACHINES SEE MACHINES—ENGRAVING &PROFILING

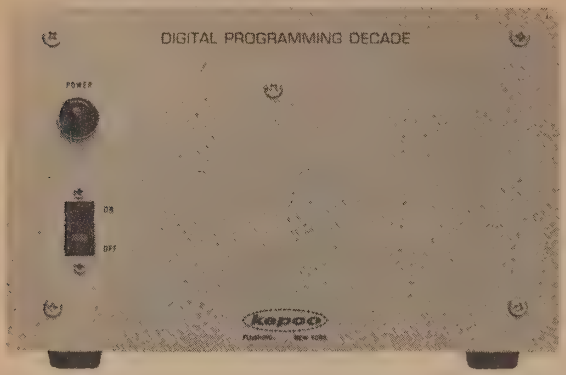
PROFILING SERVICES SEE ENGRAVING & PROFILINGSERVICES

PROGRAMMERS

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BLUE M ENGINEERING CO, BLUE ISLAND	**ILL**
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT	**IOWA**
HEWLETT-PACKARD, PALO ALTO	**CAL**
KEPCO INC, FLUSHING, N Y	**ADV PGS 550,551, 4TH COVER**
KINELOGIC CORP, PASADENA	**CAL**
LEACH CORP, SOUTH PASADENA	**CAL**
Abrams Instrument Corp, Lansing	Mich
Adar Associates Inc, Somerville	Mass
Adcole Corp, Waltham	Mass
Aerotronic Associates, Inc, Contoocook	N H
Agastat Div, Elastic Stop Nut Corp, Elizabeth	N J
A L Controls Co, New Haven	Conn
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Amtron Inc, Midlothian	Ill
Analogic Corp, Waltham	Mass
Artisan Electronics Corp, Parsippany	N J
Automation Development Co, Culver City	Cal
Autronics Corp, Pasadena	Cal
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp Environmental Science Div, Baltimore	Md
Blue M Engineering Co, Blue Island	Ill
Boston Digital Corp, Ashland	Mass
Bradley Ltd G & E, London NW 10	England
Bristol Motors-Timer Div Vocaline Corp of Amer Inc Old Saybrook	Conn
Canberra Industries, Middletown	Conn
Charter Labs Inc, East Northport	NY
Coldspring Instrument Corp, Huntington	N Y
Condor Industrial Corp, West Chicago	Ill
Control Data Corp, Minneapolis	Minn
Control Equipment Corp, Needham Heights	Mass
Control Logic Inc, Natick	Mass
Co-Ord Div LVC Industries Inc, Corona	NY
Datametrics Inc, Waltham	Mass
Data Science Corp, San Diego	Cal
Di/An Controls Inc, Boston	Mass
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Ebauches SA Dept Oscilloquartz 2001 Neuchatel	Switz
E D P Corp, Orlando	Fla
Elpac Inc Controls Div, Irvine	Cal
Evans Associates, Berkeley	Cal
Fairchild Space & Defense Sys Div Fairchild Cam Instr Corp, Syosset	NY
Fisher-Akin Co, Manhattan Beach	Cal
Flow Corp, Watertown	Mass
General Devices Inc, Instrumentation Div Princeton	N J
Giannini-Voltex, Whittier	Cal
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Gulton Industries Inc, Metuchen	N J
Hafstrom Technical Products Inc, San Diego	Cal
Harrel Inc, East Norwalk	Conn
Haydon Co The, A W, Waterbury	Conn
Hewlett-Packard, Palo Alto	Cal
Honeywell Industrial Div, Fort Washington	Pa
Hugle Industries, Sunnyvale	Cal
Humphrey Electronics Inc, Raleigh	N C
IBM Corp, Armonk	N Y
IKL Inc, Newport Beach	Cal
Industrial Solid State Controls Inc, York	Pa
Information Instruments, Inc, Ann Arbor	Mich
Information International Inc, Cambridge	Mass
Instrumentation Technology Corp, Northridge	Cal
Keltec Industries, Alexandria Div, Alexandria	Va
Kepco Inc, Flushing	N Y
Kinelogic Corp, Pasadena	Cal
Leach Corp, South Pasadena	Cal
Ledex Div Ledex Inc, Dayton	Ohio
Loyola Industries Inc, El Segundo	Cal
Luft Instruments Inc, Lincoln	Mass
Lundy Electronics & Systems Inc, Glen Head	N Y
Massey Dickinson Co Inc, Saxonville	Mass
Measurement Technology Corp, Canoga Park	Cal
Micro Metrics Inc, Paterson	N J
3M Instrument Products, Camarillo	Cal
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Numex Corp, Waltham	Mass
Parabam Inc, Hawthorne	Cal
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Philco-Ford Corp, Washington	D C
Plessey Airborne Corp, Hillside	NJ
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass
Research Inc, R-I Controls Div, Minneapolis	Minn
Scam Instrument Corp, Skokie	Ill
Sealectro Corp, Mamaroneck	N Y
Space & Systems Div General Time Corp Stamford	Conn
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Stoelting Co, C H, Chicago	Ill
Systems Research Labs Inc, Dayton	Ohio
Tape-Athon, Inglewood	Cal
Taurus Corp, Lambertville	N J
Tenor Co Inc, New Berlin	Wis
Transitron Electronic Corp, Wakefield	Mass
Trepac Corp of America, Englewood	N J
TRW Systems Group, Redondo Beach	Cal
Vector Electronic Co Inc, Los Angeles	Cal
Vocaline Co of America Inc, Old Saybrook	Conn
West Instrument Corp, Schiller Park	Ill

KEPCO DIGITAL PROGRAMMING SYSTEM

DIGITAL PROGRAMMING DECADE



MODEL	DESCRIPTION		COMPANION REGISTER	CABLE TO DPR
DPD–1	4 digit	0–1000.0V	DPR–4	Cable A
DPD–2	4 digit	0–100.00V	DPR–4	Cable B
DPD–3	5 digit	0–1000.00V	DPR–5	Cable A
DPD–4	3 digit	0–1000V	DPR–3	Cable A
DPD–5	3 digit	0–100.0V	DPR–3	Cable B
DPD–6	3 digit	0–10.00V	DPR–3	Cable B
DPD–7	3 digit	Current	DPR–3	Cable B

FUNCTION:
To control the output level (voltage or current) of a d-c Power Supply by means of digitally encoded commands.

OUTPUT RANGE: Each DPD will program 10% overrange and when using the voltage control board has three selectable decimal levels. The largest is shown in the chart; e.g., Model DPD–1, a 4 digit overranging instrument will program: 0–10.999 volts, 0–109.99 volts and 0–1099.9 volts. The DPD–7, a three-digit instrument for the control of current has two selectable decimal levels. A current code board, compatible with the *current rating* of the power supply being controlled, is needed with the DPD–7. Specify the *current code board* when ordering by appending a suffix number to the model equal to the *ampere* rating of the supply being controlled. Specify Model DPD–7–22A for an instrument to control a 22 ampere power supply. The *current code board* in Model DPD–7 causes the programmed current to correspond to the numerical display of the companion DPR–3 Register.

DESCRIPTION: The DPD's use transistor-driven reed relays to actuate resistors in a 1–2–4–8 BCD code. The input is parallel (RTL) logic levels or switch closures; the output a four-wire resistance and control current command capable of programming any Kepco Operationally Programmable Power Supplies. The DPD's may be driven by the suitable companion DPR which provides serial-parallel conversion, data storage and display.

TIMING: Commands to the DPD are sequenced: hold—execute—program, requiring a 10 millisecond sequence time. This sequencing is provided by the DPR when used together.

INPUT: 21 lines, logic "0" is 0 to 0.3V d-c
logic "1" is 1 to 3V d-c
input impedance: 3K ohms

POWER REQUIREMENTS:
115V ±10V a-c or 230V ±20V a-c, 50-440 Hz single phase

SIZE: Half-rack: 5¼" H x 8-11/32" W x 13⅜" D
Rack adapter (Model RA-24) is available)

CABLES: Connect DPK–1 to any DPR via a cable "A"

TYPE	10′ length	3′ length	CONNECTS DPR–3–4–5 TO
A	A–10	A–3	DPK–1, DPD–1–3 & 4
B	B–10	B–3	DPD–2–5–6 & 7

DIGITAL PROGRAMMING REGISTER

DIGITAL PROGRAMMING REGISTER
KEPCO
POWER ON
DISPLAY CLEAR
PROGRAM OPERATE
INDEX
ADVANCE
AUTO
START/PRINT
CONTROLS REMOTE
OFF
STANDBY
HOLD
MANUAL
LOCAL

MODEL	NUMBER OF DISPLAY REGISTERS
DPR–3	3 + Overrange
DPR–4	4 + Overrange
DPR–5	5 + Overrange

FUNCTION:
The DPR accepts serial BCD or decimal coded programming signals, stores them and provides a parallel output signal to the DPD decade.

DESCRIPTION:
DPR processes incoming serial data into storage/display registers including a segmented numeric readout. The data is presented in parallel, continuous form to a DPD Programmer. The DPR also processes index and decimal point commands from a keyboard or machine input.

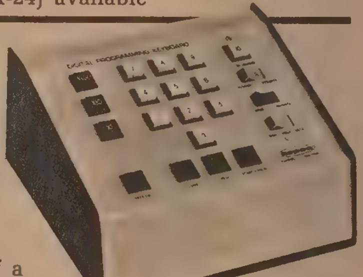
INPUT: Decimal — 10 lines
BCD — 5 lines including data pulse
Range selection (decimal point) — 3 lines;
Function command — 5 lines
Logic levels: "0" is 0 to 0.3V d-c; "1" is 1 to 3V d-c.

OUTPUTS: To DPD: 21 lines parallel data.
To Printer (optional): 20 lines parallel (logic levels).
Print signal: 150 ohms output impedance.
Print complete signal: 1000 ohms input impedance.

POWER REQUIREMENTS:
115V ±10V ac or 230 ±20V ac, 50-440 Hz single phase.

SIZE: Half-rack 5¼" H x 8-11/32" W x 17⅜" D
Rack Adapter (RA-24) available

Model DPK-1 DIGITAL PROGRAMMING KEYBOARD



FUNCTION:
To control the output of a regulated d-c Power Supply with an adding machine keyboard, through a DPR logic and DPD analog converter. DPK-1 is a manual input — in serial form — for the DPR registers.

DESCRIPTION:
The DPK-1 uses SPDT keys to generate decimal code and register control signals, which are shaped and processed for delivery to the DPR storage register. Model DPK-1 will program registers DPR-3, DPR-4 and DPR-5.

COMMANDS:
10 digit decimal signals, 3 ranges, Space, Clear, Start/Print, Index, Hold/Advance, Standby/Operate, Preview, Polarity.

POWER: Derived from DPR
Rack adapter (Model RA 19-1) available.

KEPCO, INC. • 131-38 SANFORD AVENUE • FLUSHING, N.Y. 11352 • (212) 461-7000 • TWX #710-582-2631 • Telex: 12-6055 • Cable: KEPCOPOWER NEWYORK

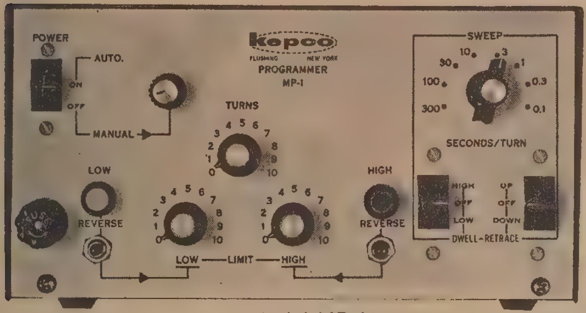
KEPCO PROGRAMMERS

Kepco is especially aware of the need for programmable mechanisms to provide the maximum benefit from the programming versatility built into modern d-c regulators.

A variety of types are manufactured

- Digital decades provide six-digit voltage selection, three-digit current selection.
- Motorized sweepers generate ultraslow, reversible sweeps with adjustable rates and end limits.
- Function generator: Model FG-100 provides triangular waveforms with symmetric and asymmetric waveshapes.

MOTORIZED PROGRAMMER


POWER
AUTO.
ON
OFF
MANUAL
kepco
FLUSHING NEW YORK
PROGRAMMER
MP-1
TURNS
LOW
HIGH
REVERSE
REVERSE
LOW
LIMIT
HIGH
SWEEP
SECONDS/TURN
HIGH
OFF
LOW
UP
OFF
DOWN
DWELL-RETRACE

Model MP 1

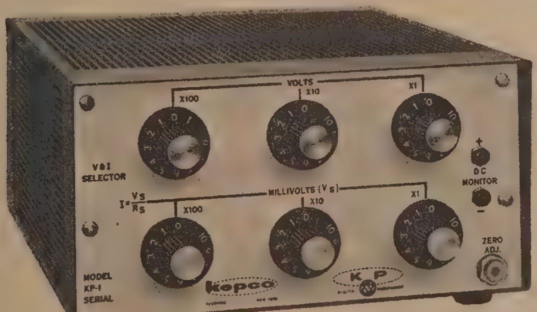
MODELS	SECONDS PER REVOLUTION (MAXIMUM: 10 REVOLUTIONS, 3600)								PRICE
MP–1	0.1	0.3	1.0	3.0	10.0	30.0	100.0	300.0	$595.00
MP–10	1.0	3.0	10.0	30.0	100.0	300.0	1000.0	3000.0	595.00

TIMING ACCURACY:

±5% referenced to 60 Hz line frequency.

LIMITS, (Mechanically Adjustable):

Low Limit: Range from 0-9⅔ turns.
High Limit: Range from ⅓ to 10-turns.
Minimum Sweep Range: ⅓ turn (120°)


VOLTS
X100
X10
X1
V&I SELECTOR
MILLIVOLTS (Vs)
DC MONITOR
ZERO ADJ.
MODEL KP-1 SERIAL
kepco
KP

Price: $273.00

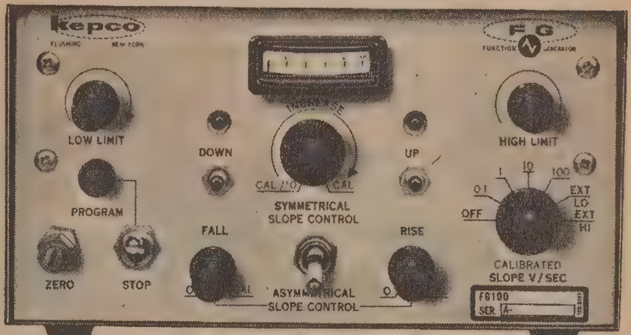
MODEL KP-1

DECADES: 6-digit voltage programming. 3-digit current programming.

RANGE: 0-1,011,110 ohms in 1 ohm steps (0 to 1,011.110V in 1 millivolt steps at 1000Ω/V).

ACCURACY: Decades contain 0.1% resistor except units decade (millivolts) which contain 1% resistors.

PROGRAMMER, FUNCTION GENERATOR
MODEL FG-100


kepco
FLUSHING NEW YORK
FG
FUNCTION GENERATOR
LOW LIMIT
HIGH LIMIT
DOWN
UP
CAL
CAL
SYMMETRICAL SLOPE CONTROL
PROGRAM
FALL
RISE
OFF
EXT
LO
EXT
HI
CALIBRATED SLOPE V/SEC
ZERO
STOP
ASYMMETRICAL SLOPE CONTROL
FG100
SER

Price: $575.00

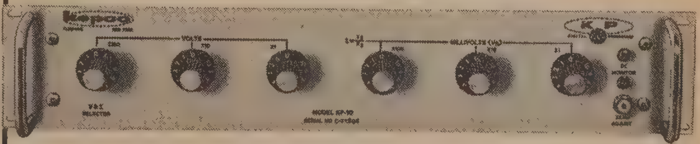
OUTPUTS:

#1 — 0-20V d-c, 0-20 ma.
#2 — 0-10 ma to program 100 ohm/volt power supply.
#3 — 0-1 ma to program 1000 ohm/volt power supply.
All outputs available simultaneously,

INPUT: 105-125V or 210-250V a-c, 50-440 Hz.

TIMING: 4 ranges: 0.1V/sec., 1.0V/sec., 10V/sec., 100V/sec. Rising and falling slopes continuously adjustable between ranges either separately or symmetrically. For outputs #2 and #3, divide the above timing by 2000 and 20,000 respectively to obtain milliamperes per second.

LIMITS: Separately adjustable high limit and low limit permits operation between any two pre-set voltages or currents.


kepco
VOLTS
MILLIVOLTS (Vs)
KP
V&I SELECTOR
MODEL KP-10

Price: $310.00

MODEL KP-10

DECADES: 6-digit voltage programming. 3-digit current programming.

RANGE: 0-101,111.0 ohms in 0.1 ohm steps (0-1,011.110V in 1 millivolt steps at 100Ω/V).

ACCURACY: All decades contain 0.1% resistors.

For complete Specifications and Applications Notes — Write for Catalog B—691.

KEPCO, INC. • 131-38 SANFORD AVENUE • FLUSHING, N.Y. 11352 • (212) 461-7000 • TWX #710-582-2631 • Telex: 12-6055 • Cable: KEPCOPOWER NEWYORK

KEPCO OVERVOLTAGE PROTECTORS

MODEL	VOLTS	AMPS	FOR USE WITH	DIMENSIONS H	DIMENSIONS W	DIMENSIONS D	PRICE
VP–PAR	3–80V	12A	All PAR Models	4¹³⁄₁₆"	4½"	2¼"	$75.00
VP–PWR	3–80V	15A	All PWR Models	4¹³⁄₁₆"	4½"	2¼" + Fuse	75.00
VP–PX	3–110V	3A	All PAX and PBX Models	2¹⁹⁄₃₂"	5⁷⁄₃₂"	3¹⁄₁₆"	80.00
VP–KCA	3–160V	25A	All ABC Transistorized), CK and KS Models (except those listed below)	2⅜"	8⅛"	3⁹⁄₁₆" + Terminals	110.00
VP–KS–1	3–160V	30A	KS 36-30M, 60-20M & 120-10M	4"	10¾"	3⅛" + Terminals	125.00
VP–KS–2	3–30V	100A	KS 8-50M, 8-100M & 18-50M	4"	10¾"	3⅛" + Terminals	155.00
VP–JQE	3–160V	10A	All JQE models	Mounts internally in prepared space			75.00

SPECIFICATIONS:

OPERATING LEVEL:
The trigger point may be set to within 5% or 0.25V (whichever is greater) of power supply setting.

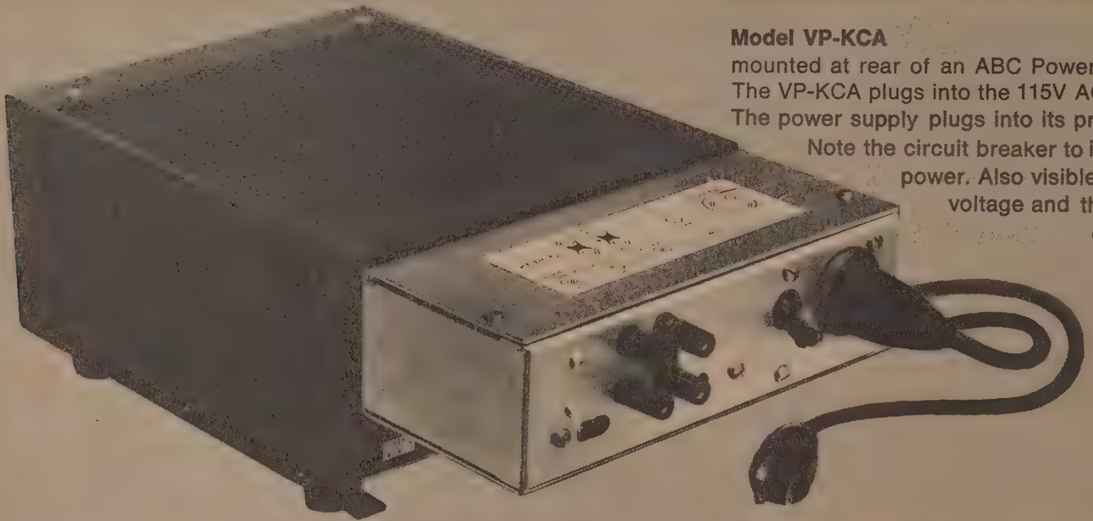
TEMPERATURE COEFFICIENT:
0.1% or 0.1V (whichever is greater) per °C.

REMOTE ERROR SENSING:
Compensates up to 1 volt per output lead.

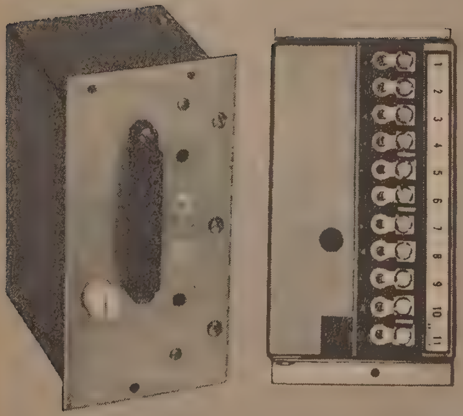
TRIGGERING TIME, (adjustable delay):
5 to 10 microseconds with an adjustable delay to minimize the false alarm rate.

Power Supplies may be ordered with the overvoltage protector factory-installed.

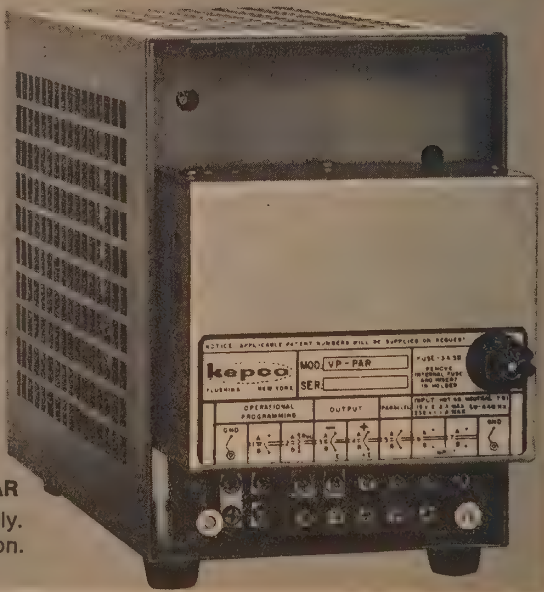
Installation charges 1-11: $25.00 ea.
12-23: $10.00 ea.
24 or more $3.00 ea.



Model VP-KCA
mounted at rear of an ABC Power Supply. The VP-KCA plugs into the 115V AC mains. The power supply plugs into its protector. Note the circuit breaker to interrupt power. Also visible are the voltage and threshold controls.



Model VP-PX
mounts on the rear of RA 22-6 (6 unit housing) and substitutes for the PC-2 as a plug-in connector.



Model VP-PAR
mounted on a PAR Power Supply. Note fuse for backup protection.

KEPCO, INC. • 131-38 SANFORD AVENUE • FLUSHING, N.Y. 11352 • (212) 461-7000 • TWX #710-582-2631 • Telex: 12-6055 • Cable: KEPCOPOWER NEWYORK

PROJECTION LAMPS SEE LAMPS

PROPORTIONAL COUNTERS SEE COUNTERS--NUCLEAR-PARTICLE

PROPORTIONING CONTROLS SEE CONTROLS--PROPORTIONING

PROTECTORS--VOLTAGE CURRENT SURGE

AMERICANA X-RAY CO, ENGLEWOOD	**N J**
BECKMAN INSTRUMENTS INC, HELIPOT DIV, FULLERTON CAL	ADV PG 553
DALE ELECTRONICS INC, COLUMBUS	**NEB**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
EDAL INDUSTRIES INC, EAST HAVEN	**CONN**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
KEPCO INC, FLUSHING, N Y	ADV PG 552, **4TH COVER**
STANDARD CONDENSER CORP, CHICAGO	**ILL**
Aerospace Avionics Inc, Bohemia	NY
Amark Corp, Plainview	N Y
Americana X-Ray Co, Englewood	N J
A & M Instruments Inc, Great Neck	N Y
ATR Electronics, Inc, St Paul	Minn
Aviation Electric Ltd, St Laurent, Montreal	Que
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Beckwith Electric Co Inc, Mt Prospect	Ill
Bellaire Electronics, Inc, Red Bank	N J
Bomac Div Varian Associates, Beverly	Mass
Bradley Semiconductor Corp, New Haven	Conn
Burns & Towne, Inc, Malden	Mass
Carborundum Co Electrical & Elctns Br, Niagara Falls	NY
Cardion Communications, Woodbury	N Y
Condor Industrial Corp, West Chicago	Ill
Controlotron Corp, Farmingdale	N Y
Dale Electronics Inc, Columbus	Neb
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Delco Radio Div General Motors Corp, Kokomo	Ind
Dressen-Barnes Electronics Corp, Pasadena	Cal
Dynamic Controls Corp, South Windsor	Conn
Eastern Delta Corp, Fair Lawn	N J
Edal Industries Inc, East Haven	Conn
E G & G Inc Custom Equip Div, Bedford	Mass
E G & G Inc, Electronic Prods Div, Boston	Mass
Elasco Inc, Boston	Mass
Electronic Research Associates Inc, Cedar Grove	N J
Electrons Co, Newark	N J
Electrospace Corp, Glen Cove	N Y
Ericsson Centrum Inc, New York	N Y
General Electric Co, ECSO, Schenectady	N Y
General Electric Co Magnetic Matls Bus Sect Edmore	Mich
General Semiconductor Div, Tempe	Ariz
Giannini-Voltex, Whittier	Cal
Green Rectifier Corp, Fair Lawn	N J
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Hartman Electrical Mfg Co, Mansfield	Ohio
Hoagland Instrument Co, Red Bank	N J
International Rectifier Semiconductor Div El Segundo	Cal
ITT Semiconductors, West Palm Beach	Fla
Joslyn Electronic Systems Div, Goleta	Cal
Kepco Inc, Flushing	N Y
Lark Electronics Inc, New York	N Y
MCG Electronics, Deer Park	N Y
Morganite Resistors Ltd, Jarrow	England
Motorola Semiconductor Products Inc, Phoenix	Ariz
Plessey Airborne Corp, Hillside	NJ
Quality Components Inc, St Marys	Pa
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Reliable Electric Co, Franklin Park	Ill
Research Associates Inc, Linden	N J
RO Associates Inc, Menlo Park	Cal
Ross Engineering Corp, Saratoga	Cal
Roveti Instruments, Annapolis	Md
Siemens America Inc, New York	N Y
Sola Electric Div Sola Basic Industries Elk Grove Village	Ill
Staffall, Inc, Providence	R I
Standard Condenser Corp, Chicago	Ill
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Superex Electronics Corp, Yonkers	N Y
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Thorn Automation Ltd, Rugeley, Staffs	England
Trio Laboratories Inc, Plainview	N Y
Wuerth Products Corp, Hollywood	Fla
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

PROXIMITY FUZES SEE FUZES--ELECTRONIC

PUBLIC ADDRESS SYSTEMS SEE SOUND SYSTEMS

PULSE AMPLIFIERS SEE AMPLIFIERS--R-F

PULSE-FORMING NETWORKS SEE CAPACITORS--FIXED;NETWORKS--PULSE-FORMING

PULSE GENERATORS SEE GENERATORS--SIGNAL

LOOKING FOR OVERVOLTAGE PROTECTION?

Helipot overvoltage crowbars are miniature cermet thick film devices that feature:

- Adjustable trip voltages from 5 to 40 volts
- Adjustable response time
- Low standby current
- −55° to +125°C operation
- Small size (1" x 0.5" x 0.170" high)
- Low cost and local stock availability

ULTRA HIGH SPEED FUSE AVAILABLE TOO!

- Less than 500 μsec response
- Available from 1 to 3 amps
- −55° to +125°C operation
- TO-46 (0.230" dia.) packaging
- Low-cost and local stock availability

For complete information contact the Helipot representative nearest you. He's listed in EBG's Manufacturers' Index.

Beckman
INSTRUMENTS, INC.
HELIPOT DIVISION
FULLERTON, CALIFORNIA • 92634

PULSE HEIGHT ANALYZERS SEE ANALYZERS--PULSE HEIGHT

PULSE INTERVAL TIMERS SEE TIMERS--ELECTRONIC

PULSE-LIMITING AMPLIFIERS SEE AMPLIFIERS--R-F

PULSE MODULATORS SEE MODULATORS

PULSE-TIME-MODULATION TRANSMITTERS SEE TRANSMITTERS--RADIO COMMUNICATION

PULSE-TO-ANALOG CONVERTERS SEE CONVERTERS--COMPUTER

PULSE TRANSFORMERS SEE TRANSFORMERS--SPECIAL

PUMPS--DIFFUSION

Adel Div De Laval Turbine Calif Inc, Burbank	Cal
Alcatel, Paris 8eme	France
Andonian Associates, Inc, Waltham	Mass
Bendix Vacuum Div, Rochester	N Y
Bendix Corp, Vacuum Div, Rochester	N Y
Buchler Instruments Inc, Fort Lee	N J
Cathey Enterprises, Mountain View	Cal
Central Scientific Co, Chicago	Ill
CHA Industries, Div Carl Herrmann Assoc Menlo Park	Cal
Consolidated Vacuum Corp, Rochester	N Y
Cooke Vacuum Products Inc, South Norwalk	Conn
Denton Vacuum Inc, Cherry Hill	N J
Edwards High Vacuum Inc, Grand Island	N Y
Edwards High Vacuum 9Canada0 Ltd, Oakville	Ont
Energy Beams Inc, Haskell	N J
General Electric Co Vacuum Prods Business Section Schenectady	N Y
Heraeus-Engelhard Vacuum Inc, Monroeville	Pa
High Vacuum Equipment Corp, Hingham	Mass
High Voltage Engineering Corp, Burlington	Mass
Japan Vacuum Engineering Co Ltd, Tokyo	Japan
Kinney Vacuum Div New York Air Brake Co Boston	Mass
Mullard Ltd, London, WC 1	Eng
Nelson Vacuum Pump Co, Berkeley	Cal
Norton Co Vacuum Equip Div, Newton	Mass
Pennsalt Chemicals Corp Equipment Div Philadelphia	Pa
Sunbeam Vacuum Furnace Corp, North Billerica	Mass
T-M Vacuum Products, Riverton	N J
20th Century Electronics Ltd New Addington, Surrey	England
Vactronic Lab Equipment Inc, East Northport	N Y
Vacuum Industries Inc Sub GCA Corp, Somerville	Mass
Vacuum Instrument Corp, Huntington Station	N Y
Veeco Instruments Inc, Plainview	N Y
Welch Scientific Co, Skokie	Ill

PUMPS--VACUUM

Adel Div De Laval Turbine Calif Inc, Burbank	Cal
Air Control Inc, Norristown	Pa
Aircraft Components Inc, Benton Harbor	Mich
Air-Vac Engineering Co, Milford	Conn
Alcatel, Paris 8eme	France
Allis-Chalmers Mfg Co, Milwaukee	Wis
Andar/ITI Inc, Palo Alto	Cal
Andonian Associates, Inc, Waltham	Mass
Aviation Electric Ltd, St Laurent, Montreal	Que
Bacharach Instrument Co, Pittsburgh	Pa
Beach-Russ Co, New York	N Y
Bendix Vacuum Div, Rochester	N Y
Bendix Corp, Vacuum Div, Rochester	N Y
Central Scientific Co, Chicago	Ill
CHA Industries, Div Carl Herrmann Assoc Menlo Park	Cal
Consolidated Vacuum Corp, Rochester	N Y
Cooke Vacuum Products Inc, South Norwalk	Conn
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Denton Vacuum Inc, Cherry Hill	N J
Edwards High Vacuum Inc, Grand Island	N Y
Edwards High Vacuum 9Canada0 Ltd, Oakville	Ont
Energy Beams Inc, Haskell	N J
Ferranti, Ltd, Lancashire	England
500 Inc Sub Arthur D Little Inc, Cambridge	Mass
Gardner-Denver Co, Quincy	Ill
Gardner Lab Inc, Bethesda	Md
Garrett Corp, Los Angeles	Cal
Gelman Instrument Co, Ann Arbor	Mich
General Electric Co Vacuum Prods Business Section Schenectady	N Y
Globe Industries Div TRW Inc, Dayton	Ohio
Granville-Philips Co, Boulder	Colo
Guide Industries Inc, Sun Valley	Cal
Heraeus-Engelhard Vacuum Inc, Monroeville	Pa
High Vacuum Equipment Corp, Hingham	Mass
High Voltage Engineering Corp, Burlington	Mass
Hoffman Industries Inc Div Clarkson Ind Inc New York	N Y
Hughes Aircraft Co Vacuum Tube Prods Div Vacuum Devices Dept, Oceanside	Cal
Hull Corp, Hatboro	Pa
Japan Vacuum Engineering Co Ltd, Tokyo	Japan
Kahl Scientific Instrument Corp, El Cajon	Cal
Kinney Vacuum Div New York Air Brake Co Boston	Mass
Kontes Glass Co, Vineland	N J
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Romec Div, Elyria	Ohio
Leiman Bros Inc, East Rutherford	N J
Lindberg Hevi-Duty Div Sola Basic Industries Chicago	Ill
MGD Pneumatics Inc, Racine	Wis
Mullard Ltd, London, WC 1	Eng
Nelson Vacuum Pump Co, Berkeley	Cal
Norton Co Vacuum Equip Div, Newton	Mass
Pennsalt Chemicals Corp Equipment Div Philadelphia	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Precision Scientific Co Sub GCA Corp, Chicago	Ill
Red Point Corp, Burbank	Cal
Rotron Mfg Co Inc, Woodstock	N Y
Sunbeam Vacuum Furnace Corp, North Billerica	Mass
Techni-Tool Inc, Philadelphia	Pa
Ultek Div Perkin-Elmer, Palo Alto	Cal
Vactronic Lab Equipment Inc, East Northport	N Y
Vacuum Industries Inc Sub GCA Corp, Somerville	Mass
Vacuum Instrument Corp, Huntington Station	N Y
Varian, Palo Alto	Cal
Veeco Instruments Inc, Plainview	N Y
Welch Scientific Co, Skokie	Ill
Westinghouse Electric Corp, Tube Div, Elmira	NY

PUNCHED-CARD OR PUNCHED-TAPE CONTROLS SEE CONTROLS--MACHINE TOOL

PUNCHED-CARD-TO-TAPE CONVERTERS SEE CONVERTERS--COMPUTER

PUNCHED CARD & TAPE READERS SEE READERS

PUNCHES--PAPER TAPE SEE PERFORATORS

PUNCHING EQUIPMENT SEE MACHINES--PRINTED-CIRCUIT PRODUCTION

PYROMETER--CALIBRATOR SEE CALIBRATORS

PYROMETERS

API INSTRUMENTS CO, CHESTERLAND	**OHIO**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
J-B-T INSTRUMENTS INC, NEW HAVEN	**CONN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Alcor Aviation, Inc, San Antonio	Texas
A & M Instruments Inc, Great Neck	N Y
Amprobe Instrument Div Soss Mfg Co, Lynbrook	N Y
Amstro Corp, Fairfield	N J
API Instruments Co, Chesterland	Ohio
Atkins Technical, Inc, Gainesville	Fla
Aviation Electric Ltd, St Laurent, Montreal	Que
Bailey Meter Co, Wickliffe	Ohio
Barnes Engineering Co Def & Space Div Stamford	Conn
Beckman Instruments Inc, Fullerton,	Cal
Beede Electrical Instrument Co, Inc, Penacook	N H
Bristol Div, American Chain & Cable Co Waterbury	Conn
Burling Instrument Co, Chatham	N J
Canadian Research Institute, Don Mills	Ont
Consolidated Controls Corp, El Segundo	Cal
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Dohrmann Instruments Co, Mountain View	Cal
Douglas Instrument Lab, Boston	Mass
Edison, Thomas A Industries, Instr Div West Orange	N J
Elastronics Labs, Tarzana	Cal
Electronic Control Systems Inc, Fairmont	W Va
Electronic Development Labs Inc, Plainview	N Y
En-Cer Inc, South Holland	Ill
Epic Inc, New York	N Y
Gardner Lab Inc, Bethesda	Md
General Electric Co, ECSO, Schenectady	N Y
Gruenberg Electric Co Inc, Garden City	N Y
Gulton Industries Inc, Metuchen	N J
Hafstrom Technical Products Inc, San Diego	Cal
Hastings Plastics Inc, Santa Monica	Cal
Helm Instrument Co Inc, Toledo	Ohio
Hill Inc E Vernon, San Francisco	Cal
Honeywell Industrial Div, Fort Washington	Pa
Howell Instruments Co, Fort Worth	Tex
Huppert Co, K H, South Holland	Ill
Infrared Industries Inc, Santa Barbara	Cal
Instrument Development Labs Div Kollmorgen Corp Attleboro	Mass
Ircon Inc, Niles	Ill
JB Electronic Transformers Inc, Chicago	Ill
J-B-T Instruments Inc, New Haven	Conn
Leeds & Northrup Co, Philadelphia	Pa
Lewis Engineering Co, Naugatuck	Conn
Milletron, Inc, Pittsburgh	Pa
Minco Products Inc, Minneapolis	Minn
Monroe Electronics Inc, Middleport	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Norbatrol Electronics Corp, Murrysville	Pa
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Pacific Transducer Corp, Los Angeles	Cal
Phoenix Materials Corp, Monroeville	Pa
Plessey Airborne Corp, Hillside	NJ
Pyrometer Co of America Inc, Penndel	Pa
Pyrometer Instrument Co Inc, Northvale	N J
Pyro-Serv Instruments, Inc, North Arlington	N J
Pyrotel Corp c/o Milletron Inc, Pittsburgh	Pa
Raytek Inc, Mountain View	Cal
Simpson Electric Co, Chicago	Ill
Sticht Co Inc, Herman H, New York	N Y
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Thermo Electric Co Inc, Saddle Brook	N J
Van Products Co, Erie	Pa
Velotron Inc, Brooklyn	N Y
West Instrument Corp, Schiller Park	Ill
Williamson Development Co Inc, West Concord	Mass

Q METERS SEE METERS--Q

QUARTZ CRYSTAL HOLDERS SEE HOLDERS

QUARTZ CRYSTALS SEE CRYSTAL UNITS; CRYSTALBLANKS; CRYSTALS--PIEZOELECTRIC

QUARTZ, FUSED--FINISHED PARTS

ANDERSEN LABORATORIES, INC, BLOOMFIELD	**CONN**
BLACKBURN INC, P W, DOBBS FERRY	**N Y**
Andersen Laboratories, Inc, Bloomfield	Conn
Applied Magnetics Corp, Ferrite Head Div Santa Barbara	Cal
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Bausch & Lomb, Inc, Rochester	N Y
Blackburn Inc, P W, Dobbs Ferry	N Y
Black Light Corp of America, San Gabriel	Cal
Bram Metallurgical Chemical Co, Philadelphia	Pa
Buhl Optical Co, Pittsburgh	Pa
Carler Products Corp, E Syracuse	N Y
Corning Glass Works, Corning	N Y
Crystalab Products Corp, Rochelle Park	N J
Davidson Optronics Inc, West Covina	Cal
Dynasil Corp of America, Berlin	N J
Eimac Div, Varian Associates, San Carlos	Cal
Electro Technic Products, Chicago	Ill
Flexi Optics Labs Inc, Somerville	Mass
Gaertner Scientific Corp, Chicago	Ill
Garner Glass Co, Claremont	Cal
General Electric Co, Lamp Glass Dept Willoughby	Ohio
General Electrodynamics Corp, Garland	Tex
Ikor, Inc, Burlington	Mass
Industrial Optics Corp, Newark	N J
Insaco Inc, Quakertown	Pa
Isomet Corp, Palisades Park	N J
Jones Optical Works Inc A D, Burlington	Mass
Kontes Glass Co, Vineland	N J
Laser Optics Inc, Danbury	Conn
Leitz Canada Ltd, Ernst, Midland	Ont
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
Mackay Inc, A D, New York	N Y
Meller Co, Adolf, Providence	R I
Mindrum Precision Products, Cucamonga	Cal
Optical Products A Teledyne Co, Monrovia	Cal
Optics Electronics Corp, Dallas	Tex
O & S Research Inc, Riverton	N J
Pan American Trade Development Corp, New York	N Y
Perkin-Elmer Corp Laser Dept, Wilton	Conn
Quartzite Processing, Inc, Malden	Mass
Quartz & Silice, Paris 8 eme	France
Ransom Labs, John H, Los Angeles	Cal
Razdow Labs Inc, Newark	N J
Republic Lens Co Inc, Bronx	N Y
Schoeffel Instrument Co, Westwood	NJ
Semiconductor Specialties Corp, Fair Lawn	NJ
Semi-Elements Inc, Saxonburg	Pa
Spectrum Systems, Inc, Waltham	Mass
Syncor Products Co, Inc, Malden	Mass
Thermal American Fused Quartz Co, Montville	N J
Ultra-Violet Products Inc, San Gabriel	Cal
Wilmad Glass Co Inc, Buena	N J

QUARTZ, FUSED--RAW MATERIAL

Bram Metallurgical Chemical Co, Philadelphia	Pa
Corning Glass Works, Corning	N Y
Dynasil Corp of America, Berlin	N J
Flexi Optics Labs Inc, Somerville	Mass
General Electric Co, Lamp Glass Dept Willoughby	Ohio
Mackay Inc, A D, New York	N Y
Pan American Trade Development Corp, New York	N Y
Quartz & Silice, Paris 8 eme	France
Semi-Elements Inc, Saxonburg	Pa
Syncor Products Co, Inc, Malden	Mass
Thermal American Fused Quartz Co, Montville	N J

QUARTZ, NATURAL--FINISHED PARTS (EXCEPT CRYSTAL UNITS)

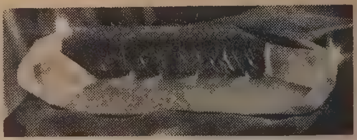
HOFFMAN CO PR DIV AIKEN INDUSTRIES, CARLISLE	**PA**
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Bausch & Lomb, Inc, Rochester	N Y
Betron-IRE-SpA, Livorno	Italy
Corning Glass Works, Corning	N Y
Flexi Optics Labs Inc, Somerville	Mass
General Electric Co, Lamp Glass Dept Willoughby	Ohio
General Electrodynamics Corp, Garland	Tex
Hoffman Co PR Div Aiken Industries, Carlisle	Pa
Industrial Optics Corp, Newark	N J
Isomet Corp, Palisades Park	N J
Jones Optical Works Inc A D, Burlington	Mass
Laser Optics Inc, Danbury	Conn
Meller Co, Adolf, Providence	R I
Optical Products A Teledyne Co, Monrovia	Cal
Pan American Trade Development Corp, New York	N Y
Razdow Labs Inc, Newark	N J
Semiconductor Specialties Corp, Fair Lawn	NJ
Semi-Elements Inc, Saxonburg	Pa
Spectrum Systems, Inc, Waltham	Mass
Thermal American Fused Quartz Co, Montville	N J
Westinghouse Electric Corp, Lamp Div, Bloomfield	N J

EBG — one stop
shopping center.

QUARTZ--RAW

HOFFMAN CO PR DIV AIKEN INDUSTRIES, CARLISLE PA	**ADV PG 554**
Betron-IRE-SpA, Livorno	Italy
Corning Glass Works, Corning	N Y
Flexi Optics Labs Inc, Somerville	Mass
Hoffman Co PR Div Aiken Industries, Carlisle	Pa
Mackay Inc, A D, New York	N Y
Pan American Trade Development Corp, New York	N Y
Sawyer Research Products Inc, Eastlake	Ohio
Semi-Elements Inc, Saxonburg	Pa
Syncor Products Co, Inc, Malden	Mass
Thermal American Fused Quartz Co, Montville	N J

HIGHEST QUALITY
SYNTHETIC QUARTZ
IS PRODUCED BY
P. R. HOFFMAN CO.



- Produced in electronically monitored, high pressure autoclaves to assure high quality . . . high Q, minimum seed veil and lattice defects.
- Our stock of crystals is composed of an amazingly large selection of sizes and orientations. This permits us to select pieces which will best suit your needs and to ship your order—at once.
- Available as bars, semi-bars—raw, ground smooth or oriented.

Send for complete detailed literature on P. R. Hoffman's highly superior synthetic crystal.

P. R. HOFFMAN CO.
321 Cherry St.
Carlisle, Pa. (717) 243-2011
Div. of Howard Aiken Industries Inc.

QUICK DISCONNECT COUPLINGS SEE COUPLINGS--QUICK DISCONNECT

RACK PANELS SEE PANELS

RACKS--AGING, VACUUM TUBE & TRANSISTOR

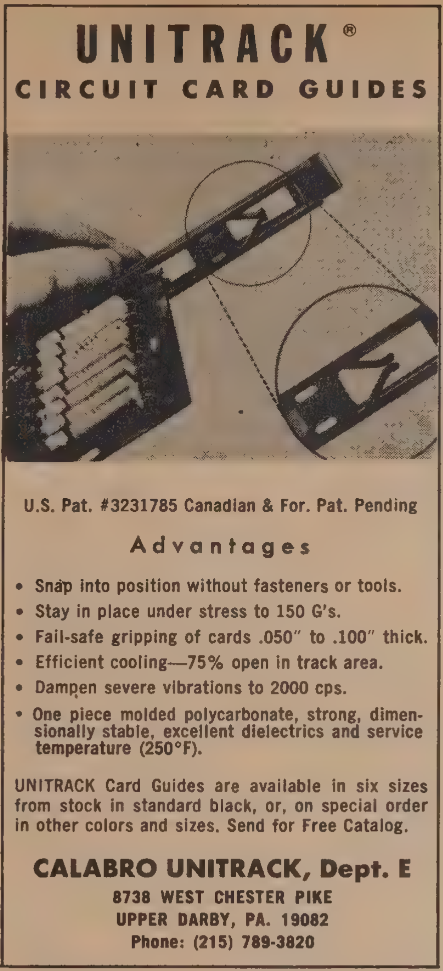
AMCO ENGINEERING CO, CHICAGO	**ILL**
BARNES CORP, LANSDOWNE	**PA**
CGS UNITS INC, ROCHESTER	**N Y**
OPAD ELECTRIC CO, INC, NEW YORK	**N Y**
Amco Engineering Co, Chicago	Ill
Anchor Specialty Mfg Co Inc, Teterboro	N J
Barnes Corp, Lansdowne	Pa
B & T Systems Div, Haverhill	Mass
Calcor Space Facility Inc, Whittier	Cal
Canadian Research Institute, Don Mills	Ont
CBC Industries Inc, Philadelphia	Pa
CGS Units Inc, Rochester	N Y
Eugene Engineering Co Inc, Rockland	Mass
Kahle Engineering Co, Union City	N J
Micro Instrument Co, Hawthorne	Cal
Opad Electric Co, Inc, New York	N Y
RIL Electronics Inc, Southampton	Pa
Sunshine Scientific Instruments Inc, Philadelphia	Pa
System Enclosures Inc, Div Anetsberger Bros Inc Northbrook	Ill
Trott Electronics Inc, Rochester	N Y

RACKS--MOUNTING & RELAY

AMCO ENGINEERING CO, CHICAGO .... **ILL**
BORG-WARNER CORP, INGERSOLL PRODUCTS DIV CHICAGO .... **ILL**
FORMICA METAL PRODUCTS CO INC, MEDFORD .... **MASS**
IBM, INDUSTRIAL PRODUCTS MARKETING, NEW YORK .... **NY**
SCIENTIFIC-ATLANTA INC, ATLANTA .... **GA**
VENT-RAK INC, INDIANAPOLIS, IND .... **ADV PG 79**
VERO ELECTRONICS, INC, FARMINGDALE .... **N Y**
Abalon Precision Mfg Corp, Bronx .... N Y
Abtronics, Inc, Livermore .... Cal
Amco Engineering Co, Chicago Ill
Anchor Specialty Mfg Co Inc, Teterboro .... N J
A V Electronics, Inc, Fresno .... Cal
Baltic Metal Products Co, Brooklyn .... N Y
Barnes Engineering Co, Santa Ana .... Cal
Barry Controls Div Barry Wright Corp, Watertown .... Mass

Binary Electronics of Cal Div Avionic Structures Inc Anaheim .... Cal
Borg-Warner Corp, Ingersoll Products Div, Chicago Ill
Boston Precision Parts Co Inc, Hyde Park .... Mass
Bud Radio Inc, Willoughby .... Ohio
Cabtron Corp, Chicago Ill
Calcor Space Facility Inc, Whittier .... Cal
California Chassis Co, Lynwood .... Cal
California Systems Components, Inc, Chatsworth .... Cal
Clavier Corp, Richmond Hill .... NY
C & N Electrical Ltd, Hants .... England
Conforming Matrix Corp, Toledo .... Ohio
Control Panel Corp, Chicago Ill
Craig Systems Corp, Lawrence .... Mass
Dahlstrom Mfg Corp, Jamestown .... N Y
Dynalectron Corp Aerospace Prods Div San Leandro .... Cal
Elco Corp, Willow Grove .... Pa
Electronic Enclosures, El Segundo .... Cal
Electro Rack Products Co, Anaheim .... Cal
Elzee Metal Products Co Inc, Brooklyn .... N Y
Enclosure Corp, Pennsauken .... N J
Equipment & Service Co, Dallas .... Tex
Equipto Enclosure Systems Div Equipto Elctns Corp Aurora Ill
Eugene Engineering Co Inc, Rockland .... Mass
Falstrom Co, Passaic .... N J
Formica Metal Products Co Inc, Medford .... Mass
Golding Mfg Co, North Arlington .... N J
Hammond Mfg Co Ltd, Guelph, Ont .... Can
Holbrook Merrill Co, Sunnyvale .... Cal
IBM, Industrial Products Marketing, New York .... NY
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Jan Hardware Mfg Co Inc, Long Island City .... N Y
Kirk & Blum Mfg Co, Cincinnati .... Ohio
K L A Labs Inc, Detroit .... Mich
Lynch Mfg Co, R H, South San Gabriel .... Cal
Machinery Electrification Inc, Northboro .... Mass
Marquardt Industrial Products Co, Chicago Ill
Metal Works Inc, Hermann .... Mo
Mid-West Metal Products Inc, Kansas City .... Kans
Mobil Electronics Inc, Anderson .... Ind
North Electric Co, Galion .... Ohio
Par-Metal Products Div EON Corp Long Island City .... N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Pneumafil Corp, Charlotte .... N C
Premier Metal Products Co Inc, New York .... N Y
Private Tele Communications Inc, Chicago Ill
Radio Corp of America, Comml Elctn Prods Div Camden .... N J
Riester & Thesmacher Co, Cleveland .... Ohio
Rosemount Plug-In Inc, Nashville .... Tenn
Rosselli Del Turco Rossello, Rome .... Italy
Rotary Co, Inc, Buffalo .... N Y
Rundel Electric Co, Millbrae .... Cal
Schrack Electrical Sales Corp, New York .... N Y
Scientific-Atlanta Inc, Atlanta .... Ga
Siltronics Inc, Oakmont .... Pa
System Enclosures Inc, Div Anetsberger Bros Inc Northbrook Ill
Taffet Electronics Inc, Woodside .... N Y
Trott Electronics Inc, Rochester .... N Y
Vent-Rak Inc, Indianapolis .... Ind
Vero Electronics, Inc, Farmingdale .... N Y
Virginia Panel Corp, Waynesboro .... Va
Wyco Metal Products, North Hollywood .... Cal
York Metal Products Inc, Long Island City .... N Y
Zero Mfg Co, Burbank .... Cal

When you find it in EBG,
Tell our advertisers —
They appreciate it.
So do we.



UNITRACK®
CIRCUIT CARD GUIDES

U.S. Pat. #3231785 Canadian & For. Pat. Pending

Advantages

- Snap into position without fasteners or tools.
- Stay in place under stress to 150 G's.
- Fail-safe gripping of cards .050" to .100" thick.
- Efficient cooling—75% open in track area.
- Dampen severe vibrations to 2000 cps.
- One piece molded polycarbonate, strong, dimensionally stable, excellent dielectrics and service temperature (250°F).

UNITRACK Card Guides are available in six sizes from stock in standard black, or, on special order in other colors and sizes. Send for Free Catalog.

CALABRO UNITRACK, Dept. E
8738 WEST CHESTER PIKE
UPPER DARBY, PA. 19082
Phone: (215) 789-3820

RACKS--PRINTED CIRCUIT BOARDS

CALABRO PLASTICS INC, UPPER DARBY, PA .... **ADV PG 555**
AIM Electronics Ltd, Cambridge .... U K
Atlee Corp, Winchester .... Mass
A V Electronics, Inc, Fresno .... Cal
Birtcher Corp, Industrial Div, Monterey Park .... Cal
Bud Radio Inc, Willoughby .... Ohio
Calabro Plastics Inc, Upper Darby .... Pa
Canoga Electronics Corp, Chatsworth .... Cal
Circuit Structures Lab, Burbank .... Cal
Computer Logic Corp, Santa Monica .... Cal
Douglas Electronics Inc, San Leandro .... Cal
Elco Corp, Willow Grove .... Pa
Incor Inc, Plainview .... N Y
Industrial Circuits Co, Fairfield .... N J
Information Control Corp, El Segundo .... Cal
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Lake Engineering Co Ltd, Scarborough .... Ont
Mid-West Metal Products Inc, Kansas City .... Kans
Monitor Systems Inc, Fort Washington .... Pa
Rosemount Plug-In Inc, Nashville .... Tenn
Rosselli Del Turco Rossello, Rome .... Italy
Rundel Electric Co, Millbrae .... Cal
Scanbe Mfg Corp, Monterey Park .... Cal
Scientific Data Systems Inc, El Segundo .... Cal
Vero Electronics Ltd, Southampton .... England

RADAR (INCL C-W, DOPPLER & PULSE)--AIRBORNE FIRE CONTROL

Admiral Corp, Gov Electronics Div, Chicago Ill
Applied Devices Corp, College Point .... n y
Avco Corp Electronics Div, Cincinnati .... Ohio
Bendix Corp Electrodynamics Div, North Hollywood .... Cal
California Microwave, Sunnyvale .... Cal
Cardion Electronics Div Gen Signal Corp, Woodbury .... N Y
Clavier Corp, Richmond Hill .... NY
Conductron Corp, Ann Arbor .... Mich

C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles .... France
Ferranti, Ltd, Lancashire .... England
General Instrument Corp Radio Receptor Div Hicksville .... N Y
Goodyear Aerospace Corp, Akron .... Ohio
Ikor, Inc, Burlington .... Mass
Kobe Industries Corp, Kobe .... Japan
Maxson Electronics Div, Maxson Electronics Corp Great River .... N Y
Micronetics Div Teledyne Systems Co, San Diego .... Cal
Micro-Radionics Inc, Van Nuys .... Cal
M Tech Corp, Pomona .... Cal
Norden Div, United Aircraft Corp, Norwalk .... Conn
Radiation Systems Inc, McLean .... Va
Raytheon Co, Government Marketing, Lexington .... Mass
RCA, Defense Electronic Products, Moorestown .... N J
Reeves Instrument Div, DCA, Garden City .... N Y
Sanders Associates, Inc, Nashua .... N H
Sedco Systems Inc, Farmingdale .... N Y
Selenia - Industrie Elettroniche Assoc, Rome .... Italy
Sperry Gyroscope Div Sperry Rand Corp Great Neck .... N Y
Sylvania Electronic Systems, Waltham .... Mass
Texas Instruments Incorporated, Dallas .... Tex
Thomson Electric Co, Sub Cie Fran Thomson Houston New York .... N Y
Westinghouse Electric Corp, Aerospace Div Baltimore .... Md

RADAR (INCL C-W, DOPPLER & PULSE)--AIRBORNE SEARCH

NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
TRG DIV CONTROL DATA CORP, EAST BOSTON .... **MASS**
Applied Devices Corp, College Point .... n y
Avco Corp Electronics Div, Cincinnati .... Ohio
Bendix Corp Electrodynamics Div, North Hollywood .... Cal
California Microwave, Sunnyvale .... Cal
Canoga Electronics Corp, Chatsworth .... Cal
Cardion Electronics Div Gen Signal Corp, Woodbury .... N Y
Clavier Corp, Richmond Hill .... NY
Conductron Corp, Ann Arbor .... Mich
Crescent Technology Corp, Newport Beach .... Cal
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles .... France
Ferranti, Ltd, Lancashire .... England
General Electric Co, Aerospace Elctns Dept, Utica .... N Y
Goodyear Aerospace Corp, Akron .... Ohio
Ikor, Inc, Burlington .... Mass
Kobe Industries Corp, Kobe .... Japan
Laboratory for Electronics Inc Elctns Div, Boston .... Mass
Loral Electronic Systems, Div Loral Corp, New York .... NY
Maxson Electronics Div, Maxson Electronics Corp Great River .... N Y
Micronetics Div Teledyne Systems Co, San Diego .... Cal
Micro-Radionics Inc, Van Nuys .... Cal
M Tech Corp, Pomona .... Cal
Nippon Electric Co Ltd, Tokyo .... Japan
Norden Div, United Aircraft Corp, Norwalk .... Conn
Radiation Systems Inc, McLean .... Va
Raytheon Co, Government Marketing, Lexington .... Mass
RCA, Defense Electronic Products, Moorestown .... N J
Reeves Instrument Div, DCA, Garden City .... N Y
Sanders Associates, Inc, Nashua .... N H
Sedco Systems Inc, Farmingdale .... N Y
Sierra Research Corp, Buffalo .... N Y
Sperry Gyroscope Div Sperry Rand Corp Great Neck .... N Y
Standard Telephones & Cables Ltd London WC 2 .... England
Sylvania Electronic Systems, Waltham .... Mass
Texas Instruments Incorporated, Dallas .... Tex
TRG Div Control Data Corp, East Boston .... Mass
TRW Systems Group, Redondo Beach .... Cal
Westinghouse Electric Corp, Aerospace Div Baltimore .... Md

RADAR (INCL C-W, DOPPLER & PULSE)--AIRBORNE WEATHER

NIPPON ELECTRIC CO LTD, TOKYO .... **JAPAN**
TRG DIV CONTROL DATA CORP, EAST BOSTON .... **MASS**
Applied Devices Corp, College Point .... n y
Atmospherics Inc, Fresno .... Cal
Bendix Corp Avionics Div, Fort Lauderdale .... Fla
Bendix Corp, Communications Div, Towson .... Md
Canoga Electronics Corp, Chatsworth .... Cal
Cardion Electronics Div Gen Signal Corp, Woodbury .... N Y
Clavier Corp, Richmond Hill .... NY
Conductron Corp, Ann Arbor .... Mich
Crescent Technology Corp, Newport Beach .... Cal
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles .... France
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown .... Md
General Instrument Corp Radio Receptor Div Hicksville .... N Y
Goodyear Aerospace Corp, Akron .... Ohio
Kobe Industries Corp, Kobe .... Japan
Micronetics Div Teledyne Systems Co, San Diego .... Cal
Micro-Radionics Inc, Van Nuys .... Cal
Nippon Electric Co Ltd, Tokyo .... Japan
Norden Div, United Aircraft Corp, Norwalk .... Conn
Radiation Systems Inc, McLean .... Va
Raytheon Co, Government Marketing, Lexington .... Mass
Sedco Systems Inc, Farmingdale .... N Y
Sierra Research Corp, Buffalo .... N Y

Sperry Gyroscope Div Sperry Rand Corp Great Neck .... N Y
TRG Div Control Data Corp, East Boston .... Mass
TRW Systems Group, Redondo Beach .... Cal

RADAR (INCL C-W, DOPPLER & PULSE)--BEACONS (AIR, GROUND OR SHIP)

TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
Admiral Corp, Gov Electronics Div, Chicago	Ill
Alpine Geophysical Assoc Inc, Norwood	N J
Avco Corp Electronics Div, Cincinnati	Ohio
Bell Aerosystems Co, Buffalo	N Y
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Canoga Electronics Corp, Chatsworth	Cal
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Clavier Corp, Richmond Hill	NY
Conductron Corp, Ann Arbor	Mich
Control Science Corp, Alexandria	Va
Cosmos Industries Inc, Brooklyn	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Decitron Electronics Corp, Brooklyn	N Y
EMI Cossor Electronics Ltd, Dartmouth, N S.	Can
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
General Instrument Corp Radio Receptor Div Hicksville	N Y
Goodyear Aerospace Corp, Akron	Ohio
Ikor, Inc, Burlington	Mass
Keltec Industries, Alexandria Div, Alexandria	Va
Kobe Industries Corp, Kobe	Japan
Loral Electronic Systems, Div Loral Corp, New York	NY
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Micronetics Div Teledyne Systems Co, San Diego	Cal
Micro-Radionics Inc, Van Nuys	Cal
Philco-Ford Corp, Washington	D C
Radiation Systems Inc, McLean	Va
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Reeves Instrument Div, DCA, Garden City	N Y
Regency Electronics Inc, Indianapolis	Ind
Resdel Engineering Corp, Pasadena	Cal
Rodale Electronics Inc, Garden City	NY
Scope Inc, Reston	Va
Sedco Systems Inc, Farmingdale	N Y
Sierra Research Corp, Buffalo	N Y
Space Craft Inc, Huntsville	Ala
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Standard Telephones & Cables Ltd London WC 2	England
Sylvania Electronic Systems, Waltham	Mass
Tasker Industries, Van Nuys	Cal
Texas Instruments Incorporated, Dallas	Tex
TRG Div Control Data Corp, East Boston	Mass
TRW Systems Group, Redondo Beach	Cal
United Telecontrol Electronics Inc, Asbury Park	N J
Vega Precision Labs, Vienna	Va
Whittaker Corp Technical Products Div, Chatsworth	Cal
Wilcox Electric Co Inc, Kansas City	Mo

RADAR (INCL C-W, DOPPLER & PULSE)--GCA (PRECISION AIRCRAFT APPROACH CONTROL)

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Avco Corp Electronics Div, Cincinnati	Ohio
Bell Aerosystems Co, Buffalo	N Y
Bendix Corp, Communications Div, Towson	Md
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Clavier Corp, Richmond Hill	NY
Conductron Corp, Ann Arbor	Mich
Cosmos Industries Inc, Brooklyn	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
General Instrument Corp Radio Receptor Div Hicksville	N Y
Goodyear Aerospace Corp, Akron	Ohio
GPL Div Gen Precision Systems Inc, Pleasantville	N Y
Ikor, Inc, Burlington	Mass
ITT Gilfillan Inc, Van Nuys	Cal
Laboratory for Electronics Inc Elctns Div, Boston	Mass
LFE Electronics Div, Lab for Electronics Inc Waltham	Mass
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Micronetics Div Teledyne Systems Co, San Diego	Cal
M Tech Corp, Pomona	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Radiation Systems Inc, McLean	Va
RCA, Defense Electronic Products, Moorestown	N J
Reeves Instrument Div, DCA, Garden City	N Y
Sedco Systems Inc, Farmingdale	N Y
Sierra Research Corp, Buffalo	N Y
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Standard Telephones & Cables Ltd London WC 2	England
Tasker Industries, Van Nuys	Cal
Telefunken Sales Corp, Garden City	N Y
Texas Instruments Incorporated, Dallas	Tex

RADAR (INCL C-W, DOPPLER & PULSE)--GROUND ARTILLERY CONTROL

Admiral Corp, Gov Electronics Div, Chicago	Ill
Applied Devices Corp, College Point	n y
Blass Antenna Electronics Corp, Leonia	N J
California Microwave, Sunnyvale	Cal
Clavier Corp, Richmond Hill	NY
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus	N J
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
Goodyear Aerospace Corp, Akron	Ohio
Ikor, Inc, Burlington	Mass
ITT Gilfillan Inc, Van Nuys	Cal
Marconi Co Ltd, Chelmsford	England
Micronetics Div Teledyne Systems Co, San Diego	Cal
M Tech Corp, Pomona	Cal
Philips Electronics Industries Ltd, Toronto 17	Ont
Radiation Systems Inc, McLean	Va
RCA, Defense Electronic Products, Moorestown	N J
Sedco Systems Inc, Farmingdale	N Y
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Sylvania Electronic Systems, Waltham	Mass
Tasker Industries, Van Nuys	Cal
TRW Systems Group, Redondo Beach	Cal

RADAR (INCL C-W, DOPPLER & PULSE)--GROUND HEIGHT FINDER

Applied Devices Corp, College Point	n y
Avco Corp Electronics Div, Cincinnati	Ohio
Blass Antenna Electronics Corp, Leonia	N J
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Clavier Corp, Richmond Hill	NY
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Decca Radar, Inc, New York	N Y
Decitron Electronics Corp, Brooklyn	N Y
Ferranti, Ltd, Lancashire	England
Goodyear Aerospace Corp, Akron	Ohio
Ikor, Inc, Burlington	Mass
ITT Gilfillan Inc, Van Nuys	Cal
Kobe Industries Corp, Kobe	Japan
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Micronetics Div Teledyne Systems Co, San Diego	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radiation Systems Inc, McLean	Va
RCA, Defense Electronic Products, Moorestown	N J
Sedco Systems Inc, Farmingdale	N Y
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Spar Aerospace Products Ltd, Toronto	Ont
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Sylvania Electronic Systems, Waltham	Mass
Tasker Industries, Van Nuys	Cal
TRW Systems Group, Redondo Beach	Cal

RADAR (INCL C-W, DOPPLER & PULSE)--GROUND MISSILE CONTROL

Applied Devices Corp, College Point	n y
Avco Corp Electronics Div, Cincinnati	Ohio
Blass Antenna Electronics Corp, Leonia	N J
Canoga Electronics Corp, Chatsworth	Cal
Clavier Corp, Richmond Hill	NY
Conductron Corp, Ann Arbor	Mich
Continental Electronics Mfg Co Sub LTV Electrosystems Inc, Dallas	Tex
Crescent Technology Corp, Newport Beach	Cal
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Energy Systems Inc, Palo Alto	Cal
Epsco Inc, Westwood	Mass
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus	N J
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
Goodyear Aerospace Corp, Akron	Ohio
ITT Gilfillan Inc, Van Nuys	Cal
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
M Tech Corp, Pomona	Cal
Radiation Systems Inc, McLean	Va
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Reeves Instrument Div, DCA, Garden City	N Y
Resdel Engineering Corp, Pasadena	Cal
Sedco Systems Inc, Farmingdale	N Y
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Sylvania Electronic Systems, Waltham	Mass
Tasker Industries, Van Nuys	Cal
TRW Systems Group, Redondo Beach	Cal
Westinghouse Electric Corp, Aerospace Div Baltimore	Md

RADAR (INCL C-W, DOPPLER & PULSE)--GROUND MORTAR CONTROL

Blass Antenna Electronics Corp, Leonia	N J
Clavier Corp, Richmond Hill	NY
Conductron Corp, Ann Arbor	Mich
Cosmos Industries Inc, Brooklyn	N Y
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus	N J
Goodyear Aerospace Corp, Akron	Ohio
ITT Gilfillan Inc, Van Nuys	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
M Tech Corp, Pomona	Cal
Radiation Systems Inc, McLean	Va
RCA, Defense Electronic Products, Moorestown	N J
Sedco Systems Inc, Farmingdale	N Y
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Sylvania Electronic Systems, Waltham	Mass
Tasker Industries, Van Nuys	Cal
TRW Systems Group, Redondo Beach	Cal

RADAR (INCL C-W, DOPPLER & PULSE)--GROUND SEARCH

Admiral Corp, Gov Electronics Div, Chicago	Ill
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Allied Research Associates, Inc, Concord	Mass
Atmospherics Inc, Fresno	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Bendix Corp, Communications Div, Towson	Md
Blass Antenna Electronics Corp, Leonia	N J
Canoga Electronics Corp, Chatsworth	Cal
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Clavier Corp, Richmond Hill	NY
Conductron Corp, Ann Arbor	Mich
Continental Electronics Mfg Co Sub LTV Electrosystems Inc, Dallas	Tex
Cosmos Industries Inc, Brooklyn	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Decitron Electronics Corp, Brooklyn	N Y
Energy Systems Inc, Palo Alto	Cal
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus	N J
Ferranti, Ltd, Lancashire	England
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
General Instrument Corp Radio Receptor Div Hicksville	N Y
Goodyear Aerospace Corp, Akron	Ohio
ITT Gilfillan Inc, Van Nuys	Cal
Kobe Industries Corp, Kobe	Japan
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Micronetics Div Teledyne Systems Co, San Diego	Cal
M Tech Corp, Pomona	Cal
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Reeves Instrument Div, DCA, Garden City	N Y
Sanders Associates, Inc, Nashua	N H
Sedco Systems Inc, Farmingdale	N Y
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Sylvania Electronic Systems, Waltham	Mass
Tasker Industries, Van Nuys	Cal
Telefunken Sales Corp, Garden City	N Y
Texas Instruments Incorporated, Dallas	Tex
TRW Systems Group, Redondo Beach	Cal

RADAR (INCL C-W, DOPPLER & PULSE)--GROUND WEATHER

MITSUBISHI ELECTRIC CORP, TOKYO,	**JAPAN**
Atmospherics Inc, Fresno	Cal
Bendix Corp, Communications Div, Towson	Md
Canoga Electronics Corp, Chatsworth	Cal
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Clavier Corp, Richmond Hill	NY
Decca Radar, Inc, New York	N Y
Energy Systems Inc, Palo Alto	Cal
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus	N J
Kobe Industries Corp, Kobe	Japan
Lear Siegler Inc, Santa Monica	Cal
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Mitsubishi Electric Corp, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Sedco Systems Inc, Farmingdale	N Y
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Sierra Research Corp, Buffalo	N Y

Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
TRW Systems Group, Redondo Beach	Cal

RADAR (INCL C-W, DOPPLER & PULSE)--SHIP FIRE CONTROL

Applied Devices Corp, College Point	n y
Blass Antenna Electronics Corp, Leonia	N J
California Microwave, Sunnyvale	Cal
Clavier Corp, Richmond Hill	NY
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus	N J
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
Goodyear Aerospace Corp, Akron	Ohio
ITT Gilfillan Inc, Van Nuys	Cal
Lockheed Electronics Co, Plainfield	N J
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
M Tech Corp, Pomona	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radiation Systems Inc, McLean	Va
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Reeves Instrument Div, DCA, Garden City	N Y
Sedco Systems Inc, Farmingdale	N Y
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Sylvania Electronic Systems, Waltham	Mass
Tasker Industries, Van Nuys	Cal

RADAR (INCL C-W, DOPPLER & PULSE)--SHIP NAVIGATION & SEARCH

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Applied Devices Corp, College Point	n y
Avco Corp Electronics Div, Cincinnati	Ohio
Blass Antenna Electronics Corp, Leonia	N J
Canadian Marconi Co, Montreal 16	Quebec
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
CEC-Benmar, Santa Ana	Cal
Clavier Corp, Richmond Hill	NY
Cosmos Industries Inc, Brooklyn	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Decca Radar, Inc, New York	N Y
Decitron Electronics Corp, Brooklyn	N Y
Energy Systems Inc, Palo Alto	Cal
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus	N J
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
Geo Space Systems Inc, St Petersburg	Fla
Goodyear Aerospace Corp, Akron	Ohio
ITT Gilfillan Inc, Van Nuys	Cal
Kaar Electronics Corp, Linden	N J
Kobe Industries Corp, Kobe	Japan
Lockheed Electronics Co, Plainfield	N J
Loral Electronic Systems, Div Loral Corp, New York	NY
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Micronetics Div Teledyne Systems Co, San Diego	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radiation Systems Inc, McLean	Va
Radio Corp of America, Radiomarine Dept Camden	N J
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Reeves Instrument Div, DCA, Garden City	N Y
Sedco Systems Inc, Farmingdale	N Y
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Sierra Research Corp, Buffalo	N Y
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
States Electronics Corp, Bludworth Marine Div Linden	N J
Sylvania Electronic Systems, Waltham	Mass
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

RADAR (INCL C-W, DOPPLER & PULSE)--SPEED & DRIFT COMPUTING (DOPPLER NAVIGATION)

MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
Applied Devices Corp, College Point	n y
Canadian Marconi Co, Montreal 16	Quebec
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Clavier Corp, Richmond Hill	NY
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Decatur Electronics Inc, Decatur	Ill
Ferranti, Ltd, Lancashire	England
Goodyear Aerospace Corp, Akron	Ohio
GPL Div Gen Precision Systems Inc, Pleasantville	N Y
Kobe Industries Corp, Kobe	Japan
Laboratory for Electronics Inc Elctns Div, Boston	Mass
LFE Electronics Div, Lab for Electronics Inc Waltham	Mass
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Micronetics Div Teledyne Systems Co, San Diego	Cal
Mitsubishi Electric Corp, Tokyo	Japan
Muni Quip Corp Sub Duncan Parking Meter Corp Elk Grove Village	Ill
RCA, Defense Electronic Products, Moorestown	N J
Sedco Systems Inc, Farmingdale	N Y
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
TRW Systems Group, Redondo Beach	Cal

RADAR (INCL C-W, DOPPLER & PULSE)--TAXI (AIRPORT SURFACE)

MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Alpine Geophysical Assoc Inc, Norwood	N J
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Clavier Corp, Richmond Hill	NY
Conductron Corp, Ann Arbor	Mich
Cosmos Industries Inc, Brooklyn	N Y
Crescent Technology Corp, Newport Beach	Cal
Decatur Electronics Inc, Decatur	Ill
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Ferranti, Ltd, Lancashire	England
Goodyear Aerospace Corp, Akron	Ohio
ITT Gilfillan Inc, Van Nuys	Cal
Kobe Industries Corp, Kobe	Japan
Mitsubishi Electric Corp, Tokyo	Japan
NanoFast, Inc, Chicago	Ill
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Sedco Systems Inc, Farmingdale	N Y
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

RADAR ANTENNAS SEE ANTENNAS--RADAR

RADAR GUIDANCE SYSTEMS SEE GUIDANCE SYSTEMS

RADAR MOVING-TARGET SIMULATORS SEE SIMULATORS

RADAR-RANGE CALIBRATORS SEE CALIBRATORS--RADAR-RANGE

RADAR RECORDING CAMERAS SEE CAMERAS--PHOTOGRAPHIC

RADAR TESTERS SEE SPECIFIC EQUIPMENT

RADAR TRAFFIC CONTROLS SEE CONTROLS--TRAFFIC

RADAR TRAINERS SEE SIMULATORS--RADAR

RADIATION COUNTER TUBES SEE TUBES--COUNTER

RADIATION COUNTERS SEE COUNTERS NUCLEAR-PARTICLE

RADIATION PYROMETERS SEE PYROMETERS

RADIATION SHIELDING SEE SHIELDING

RADIOACTIVE ISOTOPES SEE SOURCES--RADIOACTIVE

RADIOACTIVITY MONITORS SEE MONITORS--RADIOACTIVITY

RADIO ANTENNAS SEE ANTENNAS

RADIO BEACONS SEE BEACONS--RADIO NAVIGATION

RADIO CARRIER SYSTEMS SEE COMMUNICATION SYSTEMS

RADIO COMMUNICATION SYSTEMS SEE COMMUNICATION SYSTEMS

RADIO COMMUNICATION TRANSMITTERS SEE TRANSMITTERS--RADIO COMMUNICATION

RADIO--COMPASSES SEE RECEIVERS--RADIO NAVIGATION DIRECTION FINDER

RADIO CONTROLS--DOOR SEE CONTROLS--DOOR

RADIOGRAPHIC EQUIPMENT--GAMMA RAY

AMERICANA X-RAY CO, ENGLEWOOD	**N J**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
Americana X-Ray Co, Englewood	N J
Canberra Industries, Middletown	Conn
Conam Inspection Inc, Rahway	N J
Eberline Instrument Corp, Santa Fe	N M
EON Corp, Brooklyn	N Y
General Electric Co, ECSO, Schenectady	N Y
Gilardoni S p A, Mandello Lario Como	Italy
High Voltage Engineering Corp, Burlington	Mass
Ion Physics Corp, Burlington	Mass
Ludlum Measurements Inc, Sweetwater	Tex
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Nuclear Technology Corp, White Plains	N Y
Picker Nuclear, White Plains	N Y
Quantum Electronics Corp, San Ramon	Cal
RIL Electronics Inc, Southampton	Pa
St John X-Ray Laboratory, Califon	N J
U S Nuclear Corp, Burbank	Cal
Victoreen Instrument Div, Cleveland	Ohio

RADIOGRAPHIC EQUIPMENT--X-RAY, INDUSTRIAL

AMERICANA X-RAY CO, ENGLEWOOD	**N J**
Americana X-Ray Co, Englewood	N J
Automation Industries Inc, Nondestructive Testing Div, Danbury	Conn
Balteau Electric Corp, Stamford	Conn
Campbell/Taylor Inc, Salem	Mass
Canberra Industries, Middletown	Conn
Continental X-Ray Corp, Chicago	Ill
Dunlee Corp, Bellwood	Ill
Eastman Kodak Co, Rochester	N Y
Eberline Instrument Corp, Santa Fe	N M
Field Emission Corp, McMinnville	Ore
General Electric Co X-Ray Dept, Milwaukee	Wis
Gilardoni S p A, Mandello Lario Como	Italy
Halsey X-Ray Products Inc, Brooklyn	N Y
High Voltage Engineering Corp, Burlington	Mass
Ion Physics Corp, Burlington	Mass
Ludlum Measurements Inc, Sweetwater	Tex
Nuclear Technology Corp, White Plains	N Y
Philips Electronic Instruments, Anal Inst, Mount Vernon	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Picker Nuclear, White Plains	N Y
Quantum Electronics Corp, San Ramon	Cal
St John X-Ray Laboratory, Califon	N J
Sharp Electronics Corp, Carlstadt	N J
Standard X-Ray Co, Chicago	Ill
Torr Labs Inc, Los Angeles	Cal
United States Radium Corp, Morristown	N J
Universal X-Ray Products Co, Chicago	Ill
Varian, Palo Alto	Cal
Victoreen Instrument Div, Cleveland	Ohio

RADIOGRAPHIC EQUIPMENT--X-RAY, MEDICAL

AMERICANA X-RAY CO, ENGLEWOOD	**N J**
Americana X-Ray Co, Englewood	N J
Campbell/Taylor Inc, Salem	Mass
Continental X-Ray Corp, Chicago	Ill
Dunlee Corp, Bellwood	Ill
Field Emission Corp, McMinnville	Ore
Fischer & Co, H G, Franklin Park	Ill
General Electric Co X-Ray Dept, Milwaukee	Wis
Gilardoni S p A, Mandello Lario Como	Italy
Halsey X-Ray Products Inc, Brooklyn	N Y
Hayakawa Electric Co Ltd, Osaka	Japan
High Voltage Engineering Corp, Burlington	Mass
Ion Physics Corp, Burlington	Mass
Keleket Div Laboratory For Electronics Inc Waltham	Mass
Liebel-Flarsheim Co, Cincinnati	Ohio
3M Company, St Paul	Minn
Nuclear Technology Corp, White Plains	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland

Picker Nuclear, White Plains	N Y
Sharp Electronics Corp, Carlstadt	N J
Standard X-Ray Co, Chicago	Ill
United States Radium Corp, Morristown	N J
Universal X-Ray Products Co, Chicago	Ill
Varian, Palo Alto	Cal
Victoreen Instrument Div, Cleveland	Ohio

RADIO GUIDANCE SYSTEMS SEE GUIDANCE SYSTEMS

RADIO INTERFERENCE FILTERS SEE FILTERS

RADIOMETERS--COMPARISON

Aerospace Research, Inc, Boston	Mass
Air Technology Corp, Waltham	Mass
Barnes Engineering Co Def & Space Div Stamford	Conn
Beckman Instruments Inc, Fullerton,	Cal
Bissett-Berman Corp, Santa Monica	Cal
Cary Instruments a Varian Sub, Monrovia	Cal
Electronics Communications Div Atlantic Research Corp Alexandria	Va
Ewen-Knight Corp, East Natick	Mass
Farrand Optical Co Inc, Bronx	N Y
Hy-Cal Engineering, Santa Fe Springs	Cal
Infrared Industries Inc, Santa Barbara	Cal
Instrument Development Labs Div Kollmorgen Corp Attleboro	Mass
MCS Corp, Monrovia	Cal
Montedoro Corp, San Luis Obispo	Cal
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Pyrotel Corp c/o Milletron Inc, Pittsburgh	Pa
Spacekom Inc, Goleta	Cal
Teltronics Inc, Nashua	N H
TRW Systems Group, Redondo Beach	Cal

RADIOMETERS--DIRECT

Aerospace Research, Inc, Boston	Mass
Avco Corp Electronics Div, Cincinnati	Ohio
Beckman Instruments Inc, Fullerton,	Cal
E G & G Inc, Electronic Prods Div, Boston	Mass
Eppley Lab Inc, Newport	R I
Ewen-Knight Corp, East Natick	Mass
Hy-Cal Engineering, Santa Fe Springs	Cal
Infrared Industries Inc, Santa Barbara	Cal
ITT Industrial Labs Div, Fort Wayne	Ind
Kahl Scientific Instrument Corp, El Cajon	Cal
MCS Corp, Monrovia	Cal
Montedoro Corp, San Luis Obispo	Cal
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
RdF Corp, Hudson	N H
Somerset Radiation Lab Inc, Arlington	Va
Teltronics Inc, Nashua	N H
TRW Instruments, El Segundo	Cal
TRW Systems Group, Redondo Beach	Cal
Yellow Springs Instrument Co Inc, Yellow Springs	Ohio

RADIOMETERS--MICROWAVE

R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Electromagnetic Technology Corp, Mountain View	Cal
General Instrument Corp Radio Receptor Div Hicksville	N Y
International Microwave Corp, Cos Cob	Conn
Montedoro Corp, San Luis Obispo	Cal
R H G Electronics Lab Inc, Farmingdale	N Y
Sedco Systems Inc, Farmingdale	N Y
Sperry Microwave Electronics Div, Clearwater	Fla
Symetrics Engineering Corp, Satellite Beach	Fla
Teltronics Inc, Nashua	N H

RADIO-NAVIGATION BEACONS SEE TRANSMITTERS--RADIO-NAVIGATION

RADIO-NAVIGATION RECEIVERS SEE RECEIVERS--RADIO-NAVIGATION

RADIO-NAVIGATION TRANSMITTERS SEE TRANSMITTERS--RADIO-NAVIGATION

RADIO RECEIVERS SEE RECEIVERS--RADIO

RADIO RELAYS SEE RELAY SYSTEMS

RADIO REMOTE CONTROLS SEE CONTROLS--RADIO REMOTE

RADIOSONDES

Ball Brothers Research Corp, Boulder	Colo
Bendix Corp Environmental Science Div, Baltimore	Md
Cosmos Industries Inc, Brooklyn	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Electronics Communications Div Atlantic Research Corp Alexandria	Va
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Metox, Paris 20	France
Oki Electric Industry Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Raven Industries Inc, Sioux Falls	SD
Sparton Electronics, Jackson	Mich
Sylvania Electronic Systems, Waltham	Mass
Technology/Versatronics Inc, Yellow Springs	Ohio

RADIO TELESCOPES--ANTENNAS

MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
Ainslie Corp, Braintree	Mass
Andrew Corp, Orland Park	Ill
Blaw-Knox Co, Blaw-Knox Equip Div, Pittsburgh	Pa
Carco Electronics, Menlo Park	Cal
Chu Associates Inc, Littleton	Mass
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Goodyear Aerospace Corp, Akron	Ohio
Mitsubishi Electric Corp, Tokyo	Japan
Philco-Ford Corp, Washington	D C
Philmore Mfg Co Inc, Richmond Hill	N Y
Radiation Inc Systems Div, Melbourne	Fla
Radiation Systems Inc, McLean	Va
RCA, Defense Electronic Products, Moorestown	N J
R F Systems Inc, Cohasset	Mass
Scientific-Atlanta Inc, Atlanta	Ga
Symetrics Engineering Corp, Satellite Beach	Fla
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Tenatronics Ltd, Cleveland	Ohio
TRG Div Control Data Corp, East Boston	Mass
Whittaker Corp Technical Products Div, Chatsworth	Cal

RADIO TELESCOPES--RECEIVERS

MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
Aerospace Research, Inc, Boston	Mass
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Ewen-Knight Corp, East Natick	Mass
Goodyear Aerospace Corp, Akron	Ohio
Mitsubishi Electric Corp, Tokyo	Japan
Montedoro Corp, San Luis Obispo	Cal
Philco-Ford Corp, Washington	D C
RCA, Defense Electronic Products, Moorestown	N J
R H G Electronics Lab Inc, Farmingdale	N Y
Teltronics Inc, Nashua	N H

RADIO TRANSMITTERS SEE TRANSMITTERS

RADOMES--AIR SUPPORTED

MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
Air Inflatable Products Co, East Haven	Conn
Birdair Structures Inc, Buffalo	N Y
Chu Associates Inc, Littleton	Mass
Gladding Corp, South Otselic	N Y
Goodyear Aerospace Corp, Akron	Ohio
Kidde & Co Inc, Walter, Belleville	N J
Mitsubishi Electric Corp, Tokyo	Japan
Topper Mfg Co Inc, Great Neck	N Y

RADOMES--FLEXIBLE

Air Inflatable Products Co, East Haven	Conn
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Birdair Structures Inc, Buffalo	N Y
Chu Associates Inc, Littleton	Mass
Daniels Inc, C R, Daniels	Md
Gladding Corp, South Otselic	N Y
Goodyear Aerospace Corp, Akron	Ohio
Koppers Co Inc, Pittsburgh	Pa
Raytheon Co, Government Marketing, Lexington	Mass
Topper Mfg Co Inc, Great Neck	N Y

RADOMES--RIGID

MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
American Electronic Labs Inc, Lansdale	Pa
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Atkins & Merrill Inc Reinforced Plastic Div Marlboro	Mass
Ceram Corp, La Mesa	Cal
Chu Associates Inc, Littleton	Mass
Corning Glass Works, Corning	N Y
Custom Materials Inc, Chelmsford	Mass
Electronic Space Structures Corp, West Concord	Mass
Eljay Corp, Baltimore	Md
Emerson & Cuming Inc, Canton	Mass
Emerson Plastics Corp, Bronx	New York
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Gladding Corp, South Otselic	N Y
Goodyear Aerospace Corp, Akron	Ohio
Insulating Shapes Inc, Bronx	N Y
Jerrold Electronics Corp, Philadelphia	Pa
Koppers Co Inc, Pittsburgh	Pa
Laminair, Inc, Los Angeles	Cal
Marconi Co Ltd, Chelmsford	England
McMillan Radiation Labs Inc, Ipswich	Mass
Mitsubishi Electric Corp, Tokyo	Japan
Parabam Inc, Hawthorne	Cal
Raytheon Co, Government Marketing, Lexington	Mass
Shielding Corp, Moorestown	N J
Symetrics Engineering Corp, Satellite Beach	Fla
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Topper Mfg Co Inc, Great Neck	N Y
Wickes Industries Inc, Camden	N J

RADOMES--SUBMERSIBLE

Andrew California Corp, Claremont	Cal
Atkins & Merrill Inc Reinforced Plastic Div Marlboro	Mass
Chu Associates Inc, Littleton	Mass
Corning Glass Works, Corning	N Y
Electronic Space Structures Corp, West Concord	Mass
Emerson Plastics Corp, Bronx	New York
Gladding Corp, South Otselic	N Y
Goodyear Aerospace Corp, Akron	Ohio
Koppers Co Inc, Pittsburgh	Pa
Laminair, Inc, Los Angeles	Cal
Straza Industries Div Ametek Inc, El Cajon	Cal
Topper Mfg Co Inc, Great Neck	N Y

RAILROAD COMMUNICATION SYSTEMS SEE COMMUNICATION SYSTEMS

RAILROAD RADIO RECEIVERS SEE RECEIVERS--RADIO COMMUNICATION

RAILROAD TRANSMITTERS SEE TRANSMITTERS--RADIO COMMUNICATION

RARE EARTHS

Active Alloys Inc, Brooklyn	N Y
American Potash & Chemical Corp, Los Angeles	Cal
American Potash & Chemical Corp Rare Earth Div West Chicago	Ill
Aremco Products Inc, Briarcliff Manor	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Cerac Inc, Butler	Wis
Johnson Matthey & Mallory Ltd, Toronto 15	Ont
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Materials Research Corp, Orangeburg	N Y
Michigan Chemical Corp, Chicago	Ill
Molybdenum Corp of America, New York	N Y
Research Chemical Div, Nuclear Corp of America Phoenix	Ariz
Ring, Inc, Bernard, New York	N Y
Rocky Mountain Research Inc, Denver	Colo
Ronson Metals Corp, Newark	N J
Semi-Alloys Inc, Mt Vernon	N Y
United Mineral & Chemical Corp, New York	N Y
United Refining & Smelting Co, Franklin Park	Ill
Var-Lac-Oid Chemical Co, Elizabeth	N J

RATE GYROS SEE GYROS

RATIOMETERS

FLUKE MFG CO INC, JOHN, SEATTLE	**WASH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PG 8**
NON-LINEAR SYSTEMS INC, DEL MAR	**CAL**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW	**N Y**
A & M Instruments Inc, Great Neck	N Y

Beckman Instruments Inc, Fullerton,	Cal
Bristol Div, American Chain & Cable Co Waterbury	Conn
Canadian Research Institute, Don Mills	Ont
Cohu Electronics Inc, San Diego	Cal
Dana Laboratories Inc, Irvine	Cal
Data Device Corp, Hicksville	N Y
Doric Scientific Corp, San Diego	Calif
Electro Scientific Industries Inc, Portland	Ore
Epsco Inc, Westwood	Mass
Fluke Mfg Co Inc, John, Seattle	Wash
Hewlett-Packard, Palo Alto	Cal
Honeywell Test Instruments Div, Denver	Colo
Idalee Electronics Corp, Valley Stream	NY
Julie Research Labs, Inc, New York	N Y
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
McMahon Electronic Engineering Res & Dev Lab San Pedro	Cal
Micro Metrics Inc, Paterson	N J
Non-Linear Systems Inc, Del Mar	Cal
North Atlantic Industries Inc, Plainview	N Y
Pacific Metrology Labs, Inc, San Diego	Cal
Robertson Instrument Co, Azusa	Cal
Singer Co, Metrics Div, Bridgeport	Conn
Somerset Radiation Lab Inc, Arlington	Va
Transformers Inc, Vestal	N Y
Tresco Inc, Philadelphia	Pa
Wac Line Div Simmonds Precision Prods, Dayton	Ohio

REACTORS--FILTER SEE COILS--CHOKE, POWER-FREQUENCY

REACTORS--SATURABLE SEE

ALSO AMPLIFIERS--MAGNETIC

DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MAGNETICS INC, BUTLER	**PA**
NOTHELFER WINDING LABS INC, TRENTON, N J	**ADV PG 743**
TORWICO ELECTRONICS, INC, LAKEWOOD	**N J**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK N Y	**ADV PG 559**
Acme Electric Corp, Cuba	N Y
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
American Rectifier Corp, College Point	N Y
Arnold Magnetics Corp, Los Angeles	Cal
Atlas Coil Corp, Ansonia	Conn
Ballastran Corp, Fort Wayne	Ind
Basler Electric Co, Highland	Ill
Bullock Magnetics Corp, Pomona	Cal
Caledonia Electronics & Transformer Div Caledonia	N Y
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Central Transformer Co, Chicago	Ill
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Daltronics Inc, Providence	R I
Dietz Design Inc, Belton	Mo
Electrical Windings Inc, Chicago	Ill
Electro Networks Inc, Caledonia	N Y
Electronic Devices Inc, North Ridgeville	Ohio
Electronic Transformer Corp, Paterson	N J
Fuji Electric Co Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Gladding Corp, South Otselic	N Y
Hadley Co Inc, Robert M, Los Angeles	Cal
Hammond Mfg Co Ltd, Guelph, Ont	Can
Hevi-Duty Electric Div Sola Basic Industries Goldsboro	N C
Hill Magnetics, Inc, Redwood City	Cal
Idalee Electronics Corp, Valley Stream	NY
Industrial Control Co, Farmingdale	N Y
Johnson Electric Coil Co, Elmhurst	Ill
Kapitol Magnetic Corp, Chicago	Ill
Leeds & Northrup Co, Philadelphia	Pa
Macarr Inc, Bronx	N Y
Magnetic Devices Inc, Lemon Grove	Cal
Magnetic Engineering Corp, Danbury	Conn
Magnetico Inc, East Northport	N Y
Magnetics Inc, Butler	Pa
Magnetic Specialties Inc, Trenton	N J
Microtran Co Inc, Valley Stream	N Y
Neshaminy Electronic Corp, Furlong	Pa
New England Transformer Co Inc, Newton	Mass
Northern Engineering Co, Baraboo	Wis
Nothelfer Winding Labs Inc, Trenton	N J
Petroleum Electronics Mfg Inc, Tulsa	Okla
Polyphase Instrument Co, Bridgeport	Pa
Precision Electronics Co, Marshfield	Mass
Preferred Electronics Inc, Westfield	Mass
Qutronic Transformer Corp, Oneonta	N Y
Ramm Rectifier Co, Inc, Bronx	N Y
Sanford Miller Corp, Brooklyn	N Y
Sigma Instruments Inc, Braintree	Mass
S K G Associates Inc, Boston	Mass
Spatron Inc, Alhambra	Cal
Sterling Transformer Corp, Brooklyn	N Y
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Thiem-Transrex Inc, El Segundo	Cal
Torelco Inc, Irvington	N J
Torwico Electronics, Inc, Lakewood	N J
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Manufacturers Inc, Chicago	Ill
Transformers Inc, Vestal	N Y
Trenton Transformer Corp, Rancocas	N J
United Transformer Co Div TRW Inc, New York	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Utrad Corp, Huntington	Ind
Varo Inc, Garland	Tex
Westinghouse Electric Corp, Spec Transf Div Greenville	Pa
Whitewater Electronics Inc, Whitewater	Wis
Wiltek, Inc, Wilton	Conn

UTC
PIONEERS IN MINIATURIZATION

SATURABLE REACTORS
•
MAGNETIC AMPLIFIERS

- MIL-T-27B & industrial
- Immediate delivery from stock
- Specials made to specs.
- Microwatts to 100 KVA

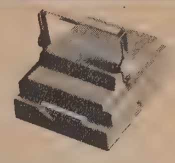
Over 1300 top quality ironcore inductance devices available from stock.

UNITED TRANSFORMER COMPANY
DIVISION OF TRW INC.
150 Varick Street, New York, N. Y. 10013
TWX: 710-581-2722 / (212) AL 5-3500
For nearest Rep see UTC ad, page 727

READERS, COMPUTER--CARD

AMP INCORPORATED, HARRISBURG, PA	**ADV PG 559**
COMPUTER MECHANISMS CORPORATION SOUTH HACKENSACK	**N J**
INDUSTRIAL TIMER CORP, PARSIPPANY	**N J**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
AMP Incorporated, Harrisburg	Pa
Burroughs Corp Component Sales Dept Los Angeles	Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Computer Mechanisms Corporation South Hackensack	N J
Connecticut Technical Corp, Hartford	Conn
Control Data Corp, Minneapolis	Minn
Co-Ord Div LVC Industries Inc, Corona	NY
Flexi Optics Labs Inc, Somerville	Mass
Friden Inc, San Leandro	Cal
Fujitsu Ltd, Tokyo	Japan
General Electric Co Info Sys Equip Div, Phoenix	Ariz
Honeywell-EDP Div, Wellesley Hills	Mass
IBM Corp, Armonk	N Y
Industrial Timer Corp, Parsippany	N J
MKC Electronics Corp, Kansas City	Kans
Motorola Instrumentation & Control Inc, Phoenix	Ariz
National Cash Register Co, Dayton	Ohio
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Omnitec Corp, Phoenix	Ariz
Performance Measurements Co, Detroit	Mich
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Scientific Data Systems Inc, El Segundo	Cal
Sealectro Corp, Mamaroneck	N Y
Soroban Engineering, Inc, Melbourne	Fla
Taurus Corp, Lambertville	N J
Uptime Corp, Englewood	Colo
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Western Reserve Electronics, Inc, Cleveland	Ohio
Wyle Laboratories, El Segundo	Cal

COMPUTER CARD READERS



Compact, accurate and easy-to-use manual card programming system accepts all standard tab cards. Suitable to programming applications for which high-speed programmers are not justifiable from the standpoint of cost and adaptability. Desk top or rack mount styles available. A reliable credit card reader is also available.

DISTRICT OFFICES

MID-ATLANTIC
Camden, N.J. 08102
(609) WOodlawn 4-5955

EASTERN
Stratford, Conn. 06497
(203) DRexel 8-2691

SOUTHERN PACIFIC
Hawthorne,
Calif. 90250
(213) 675-1186 and
772-4261
TWX: 213-647-5125

NORTHERN PACIFIC
Palo Alto, Calif. 94303
(415) 321-6292
TWX: 415-492-9447

CENTRAL
Columbus, Ohio 43212
(614) 486-0276

MID-WESTERN
Chicago, Ill. 60630
(312) SPring 4-1800
TWX: 312-265-1195

SOUTHERN
Atlanta, Ga. 30054
(404) 261-4151
or 4152

WORLD HEADQUARTERS
Harrisburg, Pa. 17105
(717) 564-0101
TWX: 717-564-4103

AMP
INCORPORATED
Harrisburg, Pennsylvania

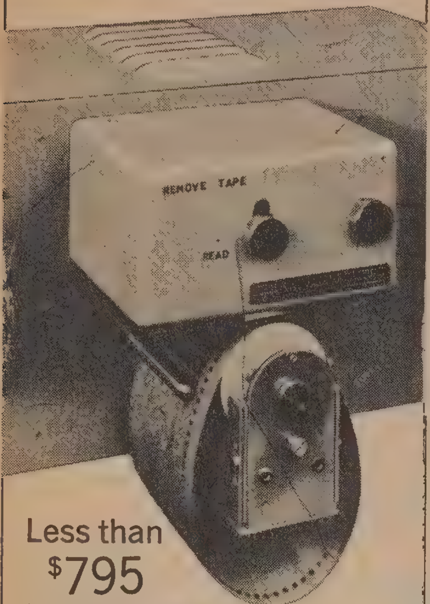
READERS, COMPUTER--MAGNETIC

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Burroughs Corp Component Sales Dept Los Angeles	Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Coldspring Instrument Corp, Huntington	N Y
Control Data Corp, Minneapolis	Minn
Digitronics Corp, Albertson	N Y
Fujitsu Ltd, Tokyo	Japan
General Electric Co Info Sys Equip Div, Phoenix	Ariz
Honeywell-EDP Div, Wellesley Hills	Mass
IBM Corp, Armonk	N Y
National Cash Register Co, Dayton	Ohio
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Potter Instrument Co, Inc, Plainview	N Y
RCA, Defense Electronic Products, Moorestown	N J
Scientific Data Systems Inc, El Segundo	Cal

READERS, COMPUTER--OPTICAL

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Bausch & Lomb, Inc, Rochester	N Y
Burroughs Corp Component Sales Dept Los Angeles	Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Control Data Corp, Minneapolis	Minn
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Flexi Optics Labs Inc, Somerville	Mass
General Electric Co Info Sys Equip Div, Phoenix	Ariz
Hayakawa Electric Co Ltd, Osaka	Japan
Honeywell-EDP Div, Wellesley Hills	Mass
IBM Corp, Armonk	N Y
Information International Inc, Cambridge	Mass
ITT Industrial Labs Div, Fort Wayne	Ind
Mechanical Technology Inc, Latham	N Y
National Cash Register Co, Dayton	Ohio
Navigation Computer Corp, Norristown	Pa
Nippon Electric Co Ltd, Tokyo	Japan
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Philco-Ford Corp, Washington	D C
Photologic Co, Orange	Cal
Rabinow Electronics Inc, Rockville	Md
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Remex Electronics, Hawthorne	Cal
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass
Siemens America Inc, New York	N Y

NEW! Direct reading punched tape programmers control 22, 42 or 82 circuits.



Less than $795
(82 channels 115V)

Expressly designed for multiple circuit industrial control applications, this new Tape Reader combines the durability of toggle switches, the flexibility of a patchboard, the repeat accuracy of a cam timer, with the advantages of punched tape programming.

It is a direct-reading tape programmer in which sustained switch closure is provided without memory or lock-up relays. Through the action of make-before-break contact brushes, two or more successive holes in each tape channel still sustain a switch closure.

The tape is driven through the reader either from an external switch closure, stepping from position to position, or at a sustained speed of 25 lines per second. Stepping and sustained advance programs are easily mixed.

Three basic tape drives are available; synchronous motor in many speeds (lines per second), stepping/fast advance (advancing the tape line by line from the receipt of an external switch closure), and a variable speed drive.

Current applications include: sequencing targets on a rifle range, medical analysis equipment, automated plating, loom programming, automatic coil winding, water temperature control for injection molding, durability testing of automatic transmissions, tire manufacturing, food batching, and many others.

Series	Prices	Number of Channels	Drive Type
212	$400.00	12	Stepping
222	$520.00	22	Stepping
242	$620.00	42	Stepping
282	$795.00	82	Stepping

Write for a demonstration, or our 8 page catalog, it will be sent by return mail.

INDUSTRIAL TIMER CORPORATION
Interstate Highway #287, Parsippany, N. J. 07054.
In Canada: Vapor Canada Ltd. Montreal

READERS, COMPUTER--TAPE

COMPUTER MECHANISMS CORPORATION, SOUTH HACKENSACK N J	**ADV PG 560**
COMPUTER PRODUCTS INC, FORT LAUDERDALE	**FLA**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INDUSTRIAL TIMER CORP, PARSIPPANY, N J	**ADV PG 560**
KINELOGIC CORP, PASADENA	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SUPERIOR ELECTRIC CO THE, BRISTOL	**CONN**
Abrams Instrument Corp, Lansing	Mich
Automated Business Sys Div Litton Industries Carlstadt	N J
Bendix Corp, Communications Div, Towson	Md
Burroughs Corp Component Sales Dept Los Angeles	Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Chalco Engineering Corp, Gardena	Cal
Coleman Engineering Co Inc, Santa Ana	Cal
Computer Mechanisms Corporation South Hackensack	N J
Computer Products Inc, Fort Lauderdale	Fla
Connecticut Technical Corp, Hartford	Conn
Control Data Corp, Minneapolis	Minn
Data-Vox Corp, Sarasota	Fla
Digitronics Corp, Albertson	N Y
E D P Corp, Orlando	Fla
Electronic Engineering Co of Cal, Santa Ana	Cal
Friden Inc, San Leandro	Cal
Fujitsu Ltd, Tokyo	Japan
General Electric Co Info Sys Equip Div, Phoenix	Ariz
General Electric Co, Printer-Reader Bus Sec Philadelphia	Pa
General Kinetics Inc, Reston	Va
Grason Stadler Co Inc, West Concord	Mass
Hartman Systems Co Inc, Huntington Station	N Y
Hewlett-Packard, Palo Alto	Cal
Honeywell-EDP Div, Wellesley Hills	Mass
IBM Corp, Armonk	N Y
Idea Associates Inc, South Hackensack	N J
Industrial Timer Corp, Parsippany	N J
Invac Corp, Waltham	Mass
Kennedy Co, Altadena	Cal
Kinelogic Corp, Pasadena	Cal
Kleinschmidt, Div SCM Corp, Deerfield	Ill
Mite Corp, New Haven	Conn
National Cash Register Co, Dayton	Ohio
Navigation Computer Corp, Norristown	Pa
Nippon Electric Co Ltd, Tokyo	Japan
Ohr-Tronics Inc, Montvale	N J
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Photologic Co, Orange	Cal
Potter Instrument Co, Inc, Plainview	N Y
RCA, Defense Electronic Products, Moorestown	N J
Regency Electronics Inc, Indianapolis	Ind
Remex Electronics, Hawthorne	Cal
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass
Scientific Data Systems Inc, El Segundo	Cal
Sharp Electronics Corp, Carlstadt	N J
Soroban Engineering, Inc, Melbourne	Fla
Superior Electric Co The, Bristol	Conn
Tally Corp, Seattle	Wash
Tech Serv Inc, Beltsville	Md
Teletype Corp, Skokie	Ill
Transistor Automation A Teledyne Co, Woburn	Mass
Wang Labs Inc, Tewksbury	Mass
Wiltek, Inc, Wilton	Conn

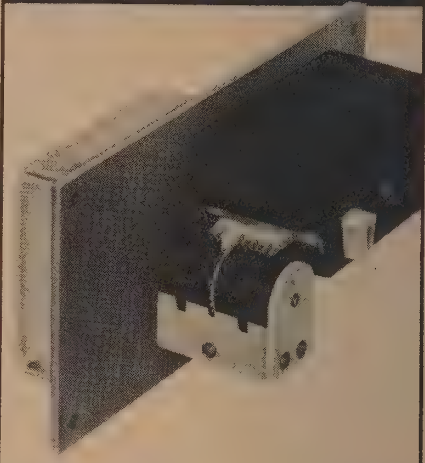
READOUTS SEE DISPLAYS

RECEIVERS--CITIZENS' BAND

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Aikow Shoji Kaisha Ltd, Osaka	Japan
Aircraft Components Inc, Benton Harbor	Mich
Allied Research Associates, Inc, Concord	Mass
Autronics Corp, Pasadena	Cal
Browning Laboratories Inc, Laconia	N H
Communication Electronics Inc, Rockville	Md
Dinion Coil Co Inc, Caledonia	N Y
Electronic Applications Co, Pine Brook	N J
Electronic Homes Co, New York	N Y
Fujitsu Ltd, Tokyo	Japan
Hayakawa Electric Co Ltd, Osaka	Japan
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Midland International Corp, North Kansas City	Mo
Multi-Elmac Co, Oak Park	Mich
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Pearce-Simpson Inc, Miami	Fla
Raytheon Co, Marine Products Operation S San Francisco	Cal
Regency Electronics Inc, Indianapolis	Ind
Round Hill Associates, Inc, New York	N Y
Sharp Electronics Corp, Carlstadt	N J
Squires-Sanders Inc, Liberty Corner	N J
States Electronics Corp, Bludworth Marine Div Linden	N J
Utica Electronics Inc, Chicago	Ill
Webster Mfg, South San Francisco	Cal

RECEIVERS--FACSIMILE SEE FACSIMILE EQUIPMENT

Economy
ONLY $180
Simplicity
VALUE ENGINEERED
Reliability
EXCEEDS 100 MILLION CYCLES



CMC MODEL 18 Tape Reader

This simple unit reads tape uni-directionally . . . at 30 characters per second. Starwheels sense holes; output is in the form of contact closures.

Model 18 Tape Reader provides control equivalent to that of far more costly units without complex circuitry or timing. As easy to use as a relay.

Priced at only $180 F.O.B.

COMPUTER MECHANISMS CORPORATION

290 Huyler St., S. Hackensack,
N.J. 07606 (201) 487-1970

RECEIVERS--PANORAMIC

American Electronic Labs Inc, Lansdale	Pa
California Microwave, Sunnyvale	Cal
Communication Electronics Inc, Rockville	Md
Defense Electronics Inc, Rockville	Md
Electro-Data Inc, Garland	Tex
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam	N Y
Engineering Associates, Dayton	Ohio
General Instrument Corp Radio Receptor Div Hicksville	N Y
Itek Corp, Lexington	Mass
Melabs, Palo Alto	Cal
Micro Tel Corp, Baltimore	Md
Optimax Inc, Ambler	Pa
Racal Communications Inc, Silver Spring	Md
Singer Co, Metrics Div, Bridgeport	Conn
Squires-Sanders Inc, Liberty Corner	N J
Sylvania Electronic Systems, Waltham	Mass
Watkins-Johnson Co, Palo Alto	Cal
Wiltek, Inc, Wilton	Conn

RECEIVERS--RADAR

LEL DIV VARIAN ASSOCIATES, COPIAGUE	**N Y**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
Aerospace Research, Inc, Boston	Mass
American Astrionics Inc, Palo Alto	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Bendix Corp, Communications Div, Towson	Md
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Blass Antenna Electronics Corp, Leonia	N J
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Conductron Corp, Ann Arbor	Mich
Dinion Coil Co Inc, Caledonia	N Y
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus	N J
General Instrument Corp Radio Receptor Div Hicksville	N Y
Goodyear Aerospace Corp, Akron	Ohio
Itek Corp, Lexington	Mass
Lel Div Varian Associates, Copiague	N Y
Marconi Co Ltd, Chelmsford	England
Micro-Radionics Inc, Van Nuys	Cal
Microwave Associates Inc, Burlington	Mass
Microwave/Systems Inc, East Syracuse	N Y
Raven Electronics Inc, Burbank	Cal
Resdel Engineering Corp, Pasadena	Cal
R H G Electronics Lab Inc, Farmingdale	N Y
Sedco Systems Inc, Farmingdale	N Y
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Tasker Industries, Van Nuys	Cal

RECEIVERS, RADIO COMMUNICATION -- AIRCRAFT

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PACIFIC PLANTRONICS INC, SANTA CRUZ	**CAL**
Admiral Corp, Gov Electronics Div, Chicago	Ill
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Advanced Energy Conversion, Menlo Park	Cal
Aerocom, Miami	Fla
Aerojet-General Corp Electronics Div, Azusa	Cal
Aircraft Components Inc, Benton Harbor	Mich
Aircraft Radio Corp, Boonton	N J
Applied Devices Corp, College Point	n y
Avco Corp Electronics Div, Cincinnati	Ohio
Bendix Corp Avionics Div, Fort Lauderdale	Fla
Bendix Corp, Communications Div, Towson	Md
Brelonix Inc, Seattle	Wash
Bruno-New York Industries Corp, New York	N Y
C C A Electronics Corp, Gloucester	NJ
Clavier Corp, Richmond Hill	NY
Collins Radio Co, Dallas	Tex
Communication Associates Inc, New Hyde Park	N Y
Communication Electronics Inc, Rockville	Md
Communications Co, Coral Gables	Fla
Conductron Corp, Ann Arbor	Mich
Cosmos Industries Inc, Brooklyn	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Daltronics Inc, Providence	R I
Dynair Aviation Products, El Cajon	Cal
Electronic Communications Inc (ECI), St Petersburg	Fla
Emcee Electronics Inc, New Castle	Del
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus	N J
General Instrument Corp Radio Receptor Div Hicksville	N Y
International Scanatron Systems Corp, Wyandanch	N Y
ITT Federal Labs, Fort Wayne	Ind
Karg Labs Inc, South Norwalk	Conn
Kobe Industries Corp, Kobe	Japan
Lafayette Radio Electronics, Syosset	NY
Linear Systems Inc, Watsonville	Cal
Loral Electronic Systems, Div Loral Corp, New York	NY
Lorch Electronics Corp, Englewood	N J
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Micronetics Div Teledyne Systems Co, San Diego	Cal
Midland International Corp, North Kansas City	Mo
Miles Industries Inc, Garnerville	N Y
Narco Avionics Div Natl Scientific Industries Fort Washington	Pa
National Radio Co Inc, Melrose	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Pacific Plantronics Inc, Santa Cruz	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polarad Electronic Instruments Div Long Island City	N Y
RCA, Defense Electronic Products, Moorestown	N J
Resdel Engineering Corp, Pasadena	Cal
R F Communications Inc, Rochester	N Y
Sparton Electronics, Jackson	Mich
Squires-Sanders Inc, Liberty Corner	N J
Standard Telephones & Cables Ltd London WC 2	England
SunAir Electronics Inc, Ft Lauderdale	Fla
Sylvania Electronic Systems, Waltham	Mass
Technical Materiel Corp, Mamaroneck	N Y
Telephonics Div, Instrument Systems Corp Huntington	NY
Tokyo Cosmos Electric Co Ltd, Tokyo	Japan
Topping Electronics Ltd, Toronto 17	Ont
TRF Inc, Springfield	Va
Ventron Electronics Corp, Bradford	Pa
Versatek Industries Inc, Indianapolis	Ind
Wilcox Electric Co Inc, Kansas City	Mo

RECEIVERS, RADIO COMMUNICATION --A-M

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
HEATH CO, BENTON HARBOR	**MICH**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
TOA ELECTRIC CO LTD, KOBE	**JAPAN**
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Aerocom, Miami	Fla
Aerospace Research, Inc, Boston	Mass
Aircraft Components Inc, Benton Harbor	Mich
Alltronics-Howard Co, Boston	Mass
Anritsu Electric Co Ltd, Tokyo	Japan
Astro Communication Lab Div Aiken Industries Gaithersburg	Md
Automatic Radio Sales Inc, Melrose	Mass
Avco Corp Electronics Div, Cincinnati	Ohio
Bendix Corp, Communications Div, Towson	Md
B F Electronics, Solana Beach	Cal
Brelonix Inc, Seattle	Wash
Calbest Electronics, Los Angeles	Cal
C C A Electronics Corp, Gloucester	NJ
Clavier Corp, Richmond Hill	NY
Collins Radio Co, Dallas	Tex
Communication Associates Inc, New Hyde Park	N Y
Communication Electronics Inc, Rockville	Md
Communications Co, Coral Gables	Fla
Daltronics Inc, Providence	R I
Decitron Electronics Corp, Brooklyn	N Y
Dinion Coil Co Inc, Caledonia	N Y
Dowa Trading Co Ltd, Kobe	Japan
Drake Co, R L, Miamisburg	Ohio
Dynair Aviation Products, El Cajon	Cal
Dynalectron Corp Aerospace Prods Div San Leandro	Cal
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam	N Y
Electronic Applications Co, Pine Brook	N J
Electronic Assistance Corp, Red Bank	N J
Electronic Communications Inc (ECI), St Petersburg	Fla
Fuji Electric Co Ltd, Tokyo	Japan
General Instrument Corp Radio Receptor Div Hicksville	N Y
Hammarlund Mfg Co, Mars Hill	N C
Heath Co, Benton Harbor	Mich
Intercontinental Electronics Corp, Fairport	N Y
International Scanatron Systems Corp, Wyandanch	N Y
ITT Federal Labs, Fort Wayne	Ind
Kahn Research Labs Inc, Freeport	N Y
Karg Labs Inc, South Norwalk	Conn
Kobe Industries Corp, Kobe	Japan
Kokusai Electric Co Ltd, Tokyo	Japan
Lorch Electronics Corp, Englewood	N J
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Marconi Instruments Div, English Electric Corp Englewood	N J
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Mobil Electronics Inc, Anderson	Ind
National Radio Co Inc, Melrose	Mass
Newcomb Audio Products Co, Sylmar	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Osaka Onkyo Co, Ltd, Asahi-Ku, Osaka	Japan
Pearce-Simpson Inc, Miami	Fla
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Racal Communications Inc, Silver Spring	Md
Radio Corp of America, Radiomarine Dept Camden	N J
Rauland-Borg Corp, Chicago	Ill
RCA, Defense Electronic Products, Moorestown	N J
R F Communications Inc, Rochester	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Servo Corp of America, Hicksville	N Y
Squires-Sanders Inc, Liberty Corner	N J
Standard Telephones & Cables Ltd London WC 2	England
Sylvania Electronic Systems, Waltham	Mass
Taffet Electronics Inc, Woodside	N Y
Technical Materiel Corp, Mamaroneck	N Y
Telefunken Sales Corp, Garden City	N Y
Telstar Electronics Corp, Southold	N Y
Toa Electric Co Ltd, Kobe	Japan
Tokyo Cosmos Electric Co Ltd, Tokyo	Japan
TRF Inc, Springfield	Va
Utica Electronics Inc, Chicago	Ill
Wilcox Electric Co Inc, Kansas City	Mo
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

RECEIVERS, RADIO COMMUNICATION -- AMATEUR

HEATH CO, BENTON HARBOR	**MICH**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Alltronics-Howard Co, Boston	Mass
American Geloso Electronics Inc, New York	N Y
Clavier Corp, Richmond Hill	NY
Collins Radio Co, Dallas	Tex
Dinion Coil Co Inc, Caledonia	N Y
Drake Co, R L, Miamisburg	Ohio
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Applications Co, Pine Brook	N J
Galaxy Electronics Inc, Council Bluffs	Iowa
Hammarlund Mfg Co, Mars Hill	N C
Heath Co, Benton Harbor	Mich
Intercontinental Electronics Corp, Fairport	N Y
International Scanatron Systems Corp, Wyandanch	N Y
Lafayette Radio Electronics, Syosset	NY
Linear Systems Inc, Watsonville	Cal
Marconi Instruments Div, English Electric Corp Englewood	N J
Matsushita Electric Industrial Co Ltd, Osaka	Japan
National Radio Co Inc, Melrose	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Raytheon Co, Marine Products Operation S San Francisco	Cal
Squires-Sanders Inc, Liberty Corner	N J
Technical Materiel Corp, Mamaroneck	N Y
Utica Electronics Inc, Chicago	Ill
Weitermann Electronics, Milwaukee	Wis

RECEIVERS, RADIO COMMUNICATION -- DIVERSITY RECEPTION

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PETERSEN RADIO CO INC, COUNCIL BLUFFS IOWA	ADV PG 563
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Advanced Technology Corp, Chambersburg	Pa
Aerocom, Miami	Fla
Aerospace Research, Inc, Boston	Mass
Anritsu Electric Co Ltd, Tokyo	Japan
Bendix Corp, Communications Div, Towson	Md
Clavier Corp, Richmond Hill	NY
C & N Electrical Ltd, Hants	England
Collins Radio Co, Dallas	Tex
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Defense Electronics Inc, Rockville	Md
Electrac Inc, Anaheim	Cal
Farinon Electric, San Carlos	Cal
Galaxy Electronics Inc, Council Bluffs	Iowa
General Instrument Corp Radio Receptor Div Hicksville	N Y
Hammarlund Mfg Co, Mars Hill	N C
International Scanatron Systems Corp, Wyandanch	N Y
Kahn Research Labs Inc, Freeport	N Y
Kokusai Electric Co Ltd, Tokyo	Japan
Lorch Electronics Corp, Englewood	N J
Marconi Div, English Electric Corp, New York	N Y
National Radio Co Inc, Melrose	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Northern Radio Co Inc, New York	N Y
Petersen Radio Co Inc, Council Bluffs	Iowa
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Racal Communications Inc, Silver Spring	Md
Radio Corp of America, Radiomarine Dept Camden	N J
Radio Engineering Labs, Div DCA, Long Island City	N Y
Rantec Div Emerson Electric Co, Calabasas	Cal
RCA, Defense Electronic Products, Moorestown	N J
R H G Electronics Lab Inc, Farmingdale	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Squires-Sanders Inc, Liberty Corner	N J
Standard Telephones & Cables Ltd London WC 2	England
Storno, Copenhagen S	Den
Sylvania Electronic Systems, Waltham	Mass
Technical Materiel Corp, Mamaroneck	N Y
Telefunken Sales Corp, Garden City	N Y
Telstar Electronics Corp, Southold	N Y
Video Research Corp, Rockville	Md
Weitermann Electronics, Milwaukee	Wis
Wilcox Electric Co Inc, Kansas City	Mo

RECEIVERS, RADIO COMMUNICATION --F-M

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Aeromarine Electronics, Inc, San Diego	Cal
Aerospace Research, Inc, Boston	Mass
Anritsu Electric Co Ltd, Tokyo	Japan
Astro Communication Lab Div Aiken Industries Gaithersburg	Md
Automatic Radio Sales Inc, Melrose	Mass
Avco Corp Electronics Div, Cincinnati	Ohio
Babcock Electronic Corp, Costa Mesa	Cal
Belar Electronics Lab Inc, Upper Darby	Pa
Bendix Corp, Communications Div, Towson	Md
B F Electronics, Solana Beach	Cal
Calbest Electronics, Los Angeles	Cal
Canadian Motorola Electronics Co, Agincourt	Ont
Clavier Corp, Richmond Hill	NY
Collins Radio Co, Dallas	Tex
Communication Electronics Inc, Rockville	Md
Communications Co, Coral Gables	Fla
Comrex Corp, W Concord	Mass
Conic Corp, San Diego	Cal
Control Science Corp, Alexandria	Va
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Defense Electronics Inc, Rockville	Md
Disan Engineering Corp, Nowata	Okla
Dowa Trading Co Ltd, Kobe	Japan
Dynalectron Corp Aerospace Prods Div San Leandro	Cal
Electronic Communications Inc (ECI), St Petersburg	Fla
ELIT-Elettronica Italiana S r l, 20151 Milan	Italy
Fargo Co, San Francisco	Cal
Farinon Electric, San Carlos	Cal
General Electric Co Communication Products Dept Lynchburg	Va
General Instrument Corp Radio Receptor Div Hicksville	N Y
Hammarlund Mfg Co, Mars Hill	N C
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
Intercontinental Electronics Corp, Fairport	N Y
International Scanatron Systems Corp, Wyandanch	N Y
ITT Federal Labs, Fort Wayne	Ind
Karg Labs Inc, South Norwalk	Conn
Kel Corp, Belmont	Mass
Kobe Industries Corp, Kobe	Japan
Kokusai Electric Co Ltd, Tokyo	Japan
Konigsberg Electronics Inc, So San Francisco	Cal
Lafayette Radio Electronics, Syosset	NY
Major Electronics Corp, Brooklyn	N Y
Marconi Instruments Div, English Electric Corp Englewood	N J
Marti Electronics, Cleburne	Tex
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McMartin Industries Inc, Omaha	Neb
Micro Communications Co, Denver	Colo
Microwave Associates Inc, Burlington	Mass
Miles Reproducer Co Inc, New York	N Y
Motorola Communications & Electronics Div Chicago	Ill
Newcomb Audio Products Co, Sylmar	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Osaka Onkyo Co, Ltd, Asahi-Ku, Osaka	Japan
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plectron Corp, Overton	Nebr
Polytronics Communications, Baltimore Div Baltimore	Md
Racal Communications Inc, Silver Spring	Md
Radio Engineering Labs, Div DCA, Long Island City	N Y
Rauland-Borg Corp, Chicago	Ill
Reach Electronics Inc, Lexington	Neb
Regency Electronics Inc, Indianapolis	Ind
Repco Inc, Orlando	Fla
Resdel Engineering Corp, Pasadena	Cal
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Schjeldahl Co, G T, Northfield	Minn
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Signal & Communications Div Westinghouse Air Brake Co Pittsburgh	Pa
Smyth Research Associates, San Diego	Cal
Squires-Sanders Inc, Liberty Corner	N J
Stoelting Co, C H, Chicago	Ill
Storno, Copenhagen S	Den
Sylvania Electronic Systems, Waltham	Mass
Tokyo Cosmos Electric Co Ltd, Tokyo	Japan
TRF Inc, Springfield	Va
Utica Electronics Inc, Chicago	Ill
Ventron Electronics Corp, Bradford	Pa
Versatek Industries Inc, Indianapolis	Ind
Viking Instruments Inc, East Haddam	Conn
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

Electronics Buyers' Guide

Your black book of

6500 manufacturers

addresses and phone

numbers.

Check the green section

When you find it in EBG,

Tell our advertisers —

They appreciate it.

So do we.

RECEIVERS, RADIO COMMUNICATION --MARINE

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
HEATH CO, BENTON HARBOR	**MICH**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Aeromarine Electronics, Inc, San Diego	Cal
Anritsu Electric Co Ltd, Tokyo	Japan
Atlantic Instruments & Electronics, Inc Watertown	Mass
Automatic Radio Sales Inc, Melrose	Mass
Avco Corp Electronics Div, Cincinnati	Ohio
Bendix Corp, Communications Div, Towson	Md
Brelonix Inc, Seattle	Wash
CEC-Benmar, Santa Ana	Cal
Clavier Corp, Richmond Hill	NY
Communications Co, Coral Gables	Fla
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Decitron Electronics Corp, Brooklyn	N Y
Electronic Communications Inc (ECI), St Petersburg	Fla
Electronics of Clearfield Inc, Clearfield	Pa
EMI Cossor Electronics Ltd, Dartmouth, N S	Can
Forway Industries Inc, Woodbury	N J
General Instrument Corp Radio Receptor Div Hicksville	N Y
Gray Radio Co Inc, West Palm Beach	Fla
Hammarlund Mfg Co, Mars Hill	N C
Heath Co, Benton Harbor	Mich
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
International Scanatron Systems Corp, Wyandanch	N Y
ITT Federal Labs, Fort Wayne	Ind
Jetronic Industries Inc, Philadelphia	Pa
Johnson Electronics Inc, Casselberry	Fla
Karg Labs Inc, South Norwalk	Conn
Kidde & Co Inc, Walter, Belleville	N J
Kobe Industries Corp, Kobe	Japan
Kokusai Electric Co Ltd, Tokyo	Japan
Linear Systems Inc, Watsonville	Cal
Lorch Electronics Corp, Englewood	N J
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Marconi Instruments Div, English Electric Corp Englewood	N J
Motorola Communications & Electronics Div Chicago	Ill
National Radio Co Inc, Melrose	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Osaka Onkyo Co, Ltd, Asahi-Ku, Osaka	Japan
Pearce-Simpson Inc, Miami	Fla
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Racal Communications Inc, Silver Spring	Md
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Radio Corp of America, Radiomarine Dept Camden	N J
Raytheon Co, Marine Products Operation S San Francisco	Cal
RCA, Defense Electronic Products, Moorestown	N J
R F Communications Inc, Rochester	N Y
Servo-Tek Products Co, Marine Div, Hawthorne	N J
Servo-Tek Products Co, Hawthorne	N J
Squires-Sanders Inc, Liberty Corner	N J
States Electronics Corp, Bludworth Marine Div Linden	N J
Storno, Copenhagen S	Den
Technical Materiel Corp, Mamaroneck	N Y

RECEIVERS, RADIO COMMUNICATION --MICROWAVE

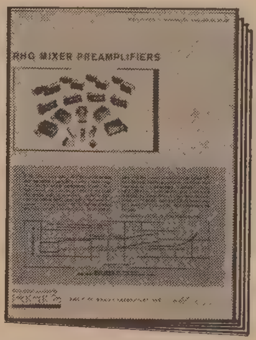
LEL DIV VARIAN ASSOCIATES, COPIAGUE	**N Y**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
R H G ELECTRONICS LAB INC, FARMINGDALE N Y	**ADV PG 563**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Aertech, Sunnyvale	Cal
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
American Electronic Labs Inc, Lansdale	Pa
Antlab, Inc, Worthington	Ohio
Astro Communication Lab Div Aiken Industries Gaithersburg	Md
Babcock Electronic Corp, Costa Mesa	Cal
Bendix Corp, Communications Div, Towson	Md
Blass Antenna Electronics Corp, Leonia	N J
California Microwave, Sunnyvale	Cal
Canadian Motorola Electronics Co, Agincourt	Ont
Canoga Electronics Corp, Chatsworth	Cal
Cardion Communications, Woodbury	N Y
Clavier Corp, Richmond Hill	NY
Collins Radio Co, Dallas	Tex
Communication Electronics Inc, Rockville	Md
Cosmos Industries Inc, Brooklyn	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Defense Electronics Inc, Rockville	Md
Electro-Data Inc, Garland	Tex
Electronic Communications Inc (ECI), St Petersburg	Fla
Electronic Specialty Co, Los Angeles	Cal
Engineering Associates, Dayton	Ohio
Ewen-Knight Corp, East Natick	Mass
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Farinon Electric, San Carlos	Cal
Frequency Engineering Labs, Farmingdale	N J
Fujitsu Ltd, Tokyo	Japan
General Atronics Corp, Philadelphia	Pa
General Instrument Corp Radio Receptor Div Hicksville	N Y
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
International Microwave Corp, Cos Cob	Conn
International Scanatron Systems Corp, Wyandanch	N Y
ITT Defense Communications Div, Nutley	N J
ITT Federal Labs, Fort Wayne	Ind
Lel Div Varian Associates, Copiague	N Y
Loral Electronic Systems, Div Loral Corp, New York	NY
Marconi Co Ltd, Chelmsford	England
Marti Electronics, Cleburne	Tex
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Melabs, Palo Alto	Cal
Micro Communications Co, Denver	Colo
Micro Tel Corp, Baltimore	Md
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Products Group Div C A S Inc Carle Place	N Y
Motorola Communications & Electronics Div Chicago	Ill
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polarad Electronic Instruments Div Long Island City	N Y
Portchester Instrument Corp, Port Chester	N Y
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Radio Engineering Labs, Div DCA, Long Island City	N Y
Rantec Div Emerson Electric Co, Calabasas	Cal
Raven Electronics Inc, Burbank	Cal
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Resdel Engineering Corp, Pasadena	Cal
RF Amplifier Co, Lake Grove	N Y
R H G Electronics Lab Inc, Farmingdale	N Y
Scientific-Atlanta Inc, Atlanta	Ga
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Sierra Research Corp, Buffalo	N Y
Smyth Research Associates, San Diego	Cal
Standard Telephones & Cables Ltd London WC 2	England
Sylvania Electronic Systems, Waltham	Mass
Telefunken Sales Corp, Garden City	N Y
Varian, Palo Alto	Cal
Watkins-Johnson Co, Palo Alto	Cal
Weinschel Engineering Co Inc, Gaithersburg	Md

RHG

offers microwave transmitters, receivers and components

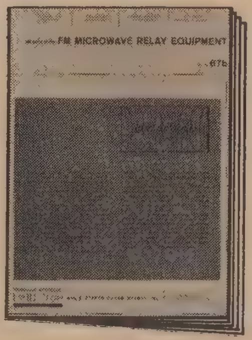
new!

CATALOG 68a
MICROWAVE RECEIVERS AND RECEIVER COMPONENTS



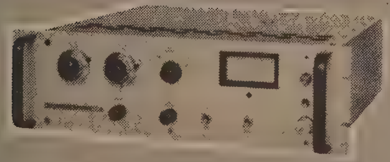
new!

BULLETIN MP-102
MIXER PREAMPLIFIERS



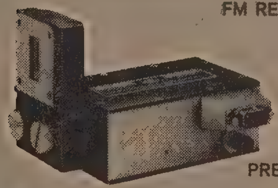
CATALOG 67b
ALL SOLID STATE FM MICROWAVE RELAY EQUIPMENT

Our new catalogs describe our comprehensive line of standard models, custom designs, and many other receiver and transmitter components. Send for catalogs or refer to detailed listing in EEM Section 3400.

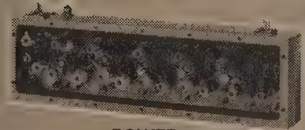


FM RECEIVER

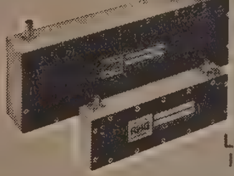
PORTABLE FM-TV RELAY LINK



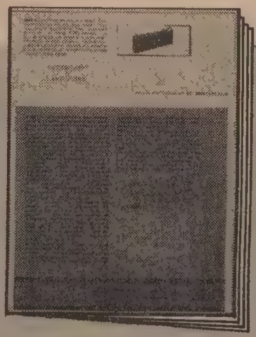
MIXER PREAMPLIFIER



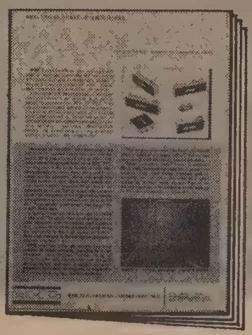
POWER AMPLIFIER



LOGARITHMIC IF AMPLIFIER



BULLETIN LA-101
LOGARITHMIC IF AMPLIFIERS



BULLETIN IFA-103
SOLID STATE IF AMPLIFIERS

RHG ELECTRONICS LABORATORY • INC
94 MILBAR BOULEVARD ■ FARMINGDALE ■ LONG ISLAND ■ NEW YORK 11735 (516) 694-3100

RECEIVERS, RADIO COMMUNICATION --MOBILE

ANRITSU ELECTRIC CO LTD, TOKYO ... JAPAN
HEATH CO, BENTON HARBOR ... MICH
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
PETERSEN RADIO CO INC, COUNCIL BLUFFS ... IOWA
Aerospace Research, Inc, Boston ... Mass
Anritsu Electric Co Ltd, Tokyo ... Japan
Automatic Radio Sales Inc, Melrose ... Mass
Autronics Corp, Pasadena ... Cal
Avco Corp Electronics Div, Cincinnati ... Ohio
Bendix Corp, Communications Div, Towson ... Md
B F Electronics, Solana Beach ... Cal
Canadian Marconi Co, Montreal 16 ... Quebec
Canadian Motorola Electronics Co, Agincourt ... Ont
Canoga Electronics Corp, Chatsworth ... Cal
Cie De Signaux Et D'Entreprises Electriques Paris 17eme ... France
Clavier Corp, Richmond Hill ... NY
Communication Associates Inc, New Hyde Park ... N Y
Communications Co, Coral Gables ... Fla
Comrex Corp, W Concord ... Mass
Cosmos Industries Inc, Brooklyn ... N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles ... France
Defense Electronics Inc, Rockville ... Md
Dewey Corp, G C, New York ... N Y
EICO Electronic Instrument Co Inc, Brooklyn ... NY
Electronic Communications Inc (ECI), St Petersburg ... Fla
Fujitsu Ltd, Tokyo ... Japan
General Instrument Corp Radio Receptor Div Hicksville ... N Y
Hammarlund Mfg Co, Mars Hill ... N C
Heath Co, Benton Harbor ... Mich
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa ... Japan
International Scanatron Systems Corp, Wyandanch ... N Y
ITT Federal Labs, Fort Wayne ... Ind
Kel Corp, Belmont ... Mass
Kobe Industries Corp, Kobe ... Japan
Kokusai Electric Co Ltd, Tokyo ... Japan
Lafayette Radio Electronics, Syosset ... NY
Linear Systems Inc, Watsonville ... Cal
Lorch Electronics Corp, Englewood ... N J
Marconi Co Ltd, Chelmsford ... England
Marconi Div, English Electric Corp, New York ... N Y
Marti Electronics, Cleburne ... Tex
Matsushita Electric Industrial Co Ltd, Osaka ... Japan
Memcor Div LTV Electrosystems Inc, Huntington ... Ind
Micro Communications Co, Denver ... Colo
Microwave Associates Inc, Burlington ... Mass
Mobil Electronics Inc, Anderson ... Ind
Motorola Communications & Electronics Div Chicago ... Ill
National Radio Co Inc, Melrose ... Mass
Nippon Electric Co Ltd, Tokyo ... Japan
Oki Electric Industry Co Ltd, Tokyo ... Japan
Pearce-Simpson Inc, Miami ... Fla
Petersen Radio Co Inc, Council Bluffs ... Iowa
Philips Electronics Industries Ltd, Toronto 17 ... Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Plectron Corp, Overton ... Nebr
Racal Communications Inc, Silver Spring ... Md
Radio Corp of America, Comml Elctn Prods Div Camden ... N J
Raytheon Co, Marine Products Operation S San Francisco ... Cal
RCA, Defense Electronic Products, Moorestown ... N J
Regency Electronics Inc, Indianapolis ... Ind
Resdel Engineering Corp, Pasadena ... Cal
Selenia - Industrie Elettroniche Assoc, Rome ... Italy
Squires-Sanders Inc, Liberty Corner ... N J
Storno, Copenhagen S ... Den
Sylvania Electronic Systems, Waltham ... Mass
Symetrics Engineering Corp, Satellite Beach ... Fla
Technical Materiel Corp, Mamaroneck ... N Y
Telefunken Sales Corp, Garden City ... N Y
Universal Transistor Products Div Link, Copiague ... N Y
Utica Electronics Inc, Chicago ... Ill

RECEIVERS, RADIO COMMUNICATION --MULTIPLEX CARRIER

ANRITSU ELECTRIC CO LTD, TOKYO ... JAPAN
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
TELE-SIGNAL CORP, WOODBURY ... N Y
Advanced Communications Inc Sub Conductron Corp Chatsworth ... Cal
Advanced Technology Corp, Chambersburg ... Pa
Aerospace Research, Inc, Boston ... Mass
Anritsu Electric Co Ltd, Tokyo ... Japan
Automatic Radio Sales Inc, Melrose ... Mass
Avco Corp Electronics Div, Cincinnati ... Ohio
Babcock Electronic Corp, Costa Mesa ... Cal
Belar Electronics Lab Inc, Upper Darby ... Pa
Bendix Corp, Communications Div, Towson ... Md
Bogen Communications Div Lear Siegler Inc Paramus ... N J
Browning Laboratories Inc, Laconia ... N H
Calbest Electronics, Los Angeles ... Cal
Canadian Motorola Electronics Co, Agincourt ... Ont
Cardion Communications, Woodbury ... N Y
Cie De Signaux Et D'Entreprises Electriques Paris 17eme ... France
Clavier Corp, Richmond Hill ... NY
Collins Radio Co, Dallas ... Tex
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles ... France
Dayton Electronics Products Co, Dayton ... Ohio
Electrac Inc, Anaheim ... Cal
Electronic Communications Inc (ECI), St Petersburg ... Fla

Farinon Electric, San Carlos ... Cal
Fujitsu Ltd, Tokyo ... Japan
General Atronics Corp, Philadelphia ... Pa
General Electric Co Communication Products Dept Lynchburg ... Va
General Instrument Corp Radio Receptor Div Hicksville ... N Y
International Scanatron Systems Corp, Wyandanch ... N Y
International Tel & Tel Corp Industrial Prods Div San Fernando ... Cal
ITT Federal Labs, Fort Wayne ... Ind
Johnson Electronics Inc, Casselberry ... Fla
Kobe Industries Corp, Kobe ... Japan
Kokusai Electric Co Ltd, Tokyo ... Japan
Lorch Electronics Corp, Englewood ... N J
Lynch Communication Systems, San Francisco ... Cal
Marconi Co Ltd, Chelmsford ... England
McMartin Industries Inc, Omaha ... Neb
Microwave Associates Inc, Burlington ... Mass
Montedoro Corp, San Luis Obispo ... Cal
Nippon Electric Co Ltd, Tokyo ... Japan
Oki Electric Industry Co Ltd, Tokyo ... Japan
Oki Electronics of America, Inc, Fort Lauderdale ... Fla
Osaka Onkyo Co, Ltd, Asahi-Ku, Osaka ... Japan
Philco-Ford Corp, Washington ... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Radio Corp of America, Comml Elctn Prods Div Camden ... N J
Radio Engineering Labs, Div DCA, Long Island City ... N Y
Raytheon Co, Communications & Data Processing Oper Norwood ... Mass
Raytheon Co, Government Marketing, Lexington ... Mass
RCA, Defense Electronic Products, Moorestown ... N J
Resdel Engineering Corp, Pasadena ... Cal
Rycom Instruments, Raytown ... Mo
Selenia - Industrie Elettroniche Assoc, Rome ... Italy
Sierra Research Corp, Buffalo ... N Y
Squires-Sanders Inc, Liberty Corner ... N J
Standard Telephones & Cables Ltd London WC 2 ... England
Technical Materiel Corp, Mamaroneck ... N Y
Tele-Signal Corp, Woodbury ... N Y
Wilcox Electric Co Inc, Kansas City ... Mo

RECEIVERS, RADIO COMMUNICATION --PORTABLE

ANRITSU ELECTRIC CO LTD, TOKYO ... JAPAN
HEATH CO, BENTON HARBOR ... MICH
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
Advanced Communications Inc Sub Conductron Corp Chatsworth ... Cal
Aerospace Research, Inc, Boston ... Mass
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park ... N Y
Aircraft Components Inc, Benton Harbor ... Mich
Allied Research Associates, Inc, Concord ... Mass
Anritsu Electric Co Ltd, Tokyo ... Japan
Automatic Radio Sales Inc, Melrose ... Mass
Avco Corp Electronics Div, Cincinnati ... Ohio
Bendix Corp, Communications Div, Towson ... Md
Canadian Motorola Electronics Co, Agincourt ... Ont
Clavier Corp, Richmond Hill ... NY
C & N Electrical Ltd, Hants ... England
Communication Associates Inc, New Hyde Park ... N Y
Communication Electronics Inc, Rockville ... Md
Communications Co, Coral Gables ... Fla
Comrex Corp, W Concord ... Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles ... France
Daltronics Inc, Providence ... R I
Defense Electronics Inc, Rockville ... Md
Dynair Aviation Products, El Cajon ... Cal
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam ... N Y
Electronic Communications Inc (ECI), St Petersburg ... Fla
Fargo Co, San Francisco ... Cal
Fujitsu Ltd, Tokyo ... Japan
General Electric Co Communication Products Dept Lynchburg ... Va
General Instrument Corp Radio Receptor Div Hicksville ... N Y
Heath Co, Benton Harbor ... Mich
International Scanatron Systems Corp, Wyandanch ... N Y
ITT Federal Labs, Fort Wayne ... Ind
Jetronic Industries Inc, Philadelphia ... Pa
Kel Corp, Belmont ... Mass
Kobe Industries Corp, Kobe ... Japan
Lafayette Radio Electronics, Syosset ... NY
Linear Systems Inc, Watsonville ... Cal
Marconi Instruments Div, English Electric Corp Englewood ... N J
Matsushita Electric Industrial Co Ltd, Osaka ... Japan
Memcor Div LTV Electrosystems Inc, Huntington ... Ind
Micro Communications Co, Denver ... Colo
Microwave Associates Inc, Burlington ... Mass
Miles Reproducer Co Inc, New York ... N Y
Montedoro Corp, San Luis Obispo ... Cal
Motorola Communications & Electronics Div Chicago ... Ill
Multitone Electronics Ltd, New York ... N Y
National Radio Co Inc, Melrose ... Mass
Nippon Electric Co Ltd, Tokyo ... Japan
Oki Electric Industry Co Ltd, Tokyo ... Japan
Osaka Onkyo Co, Ltd, Asahi-Ku, Osaka ... Japan
Philips Electronics Industries Ltd, Toronto 17 ... Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Plectron Corp, Overton ... Nebr
Racal Communications Inc, Silver Spring ... Md
Radio Corp of America, Comml Elctn Prods Div Camden ... N J

RCA, Defense Electronic Products, Moorestown ... N J
Reach Electronics Inc, Lexington ... Neb
Resdel Engineering Corp, Pasadena ... Cal
Round Hill Associates, Inc, New York ... N Y
Schjeldahl Co, G T, Northfield ... Minn
Selenia - Industrie Elettroniche Assoc, Rome ... Italy
Signal & Communications Div Westinghouse Air Brake Co Pittsburgh ... Pa
Squires-Sanders Inc, Liberty Corner ... N J
Storno, Copenhagen S ... Den
Sylvania Electronic Systems, Waltham ... Mass
Symetrics Engineering Corp, Satellite Beach ... Fla
Technical Materiel Corp, Mamaroneck ... N Y
Telefunken Sales Corp, Garden City ... N Y
TRF Inc, Springfield ... Va
Utica Electronics Inc, Chicago ... Ill
Zenith Radio Co Govt & Special Prod Div, Chicago ... Ill

RECEIVERS, RADIO COMMUNICATION --PULSE TIME MODULATION

NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
Aerospace Research, Inc, Boston ... Mass
American Systems, Inc, Van Nuys ... Cal
Babcock Electronic Corp, Costa Mesa ... Cal
Beckman Instruments Inc, Fullerton ... Cal
Cie De Signaux Et D'Entreprises Electriques Paris 17eme ... France
Clavier Corp, Richmond Hill ... NY
Conic Corp, San Diego ... Cal
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles ... France
Defense Electronics Inc, Rockville ... Md
Ebauches SA Dept Oscilloquartz 2001 Neuchatel ... Switz
Electrac Inc, Anaheim ... Cal
Electronic Communications Inc (ECI), St Petersburg ... Fla
Fujitsu Ltd, Tokyo ... Japan
General Instrument Corp Radio Receptor Div Hicksville ... N Y
International Scanatron Systems Corp, Wyandanch ... N Y
Kobe Industries Corp, Kobe ... Japan
Micro Tel Corp, Baltimore ... Md
Microwave Associates Inc, Burlington ... Mass
National Radio Co Inc, Melrose ... Mass
Nippon Electric Co Ltd, Tokyo ... Japan
Philco-Ford Corp, Washington ... D C
Resdel Engineering Corp, Pasadena ... Cal
Selenia - Industrie Elettroniche Assoc, Rome ... Italy
Sylvania Electronic Systems, Waltham ... Mass
Utility Communication Systems Inc, Essington ... Pa

RECEIVERS, RADIO COMMUNICATION --RAILROAD

ANRITSU ELECTRIC CO LTD, TOKYO ... JAPAN
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
Anritsu Electric Co Ltd, Tokyo ... Japan
Canadian Motorola Electronics Co, Agincourt ... Ont
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles ... France
Farinon Electric, San Carlos ... Cal
International Scanatron Systems Corp, Wyandanch ... N Y
Kokusai Electric Co Ltd, Tokyo ... Japan
Lynch Communication Systems, San Francisco ... Cal
Micro Communications Co, Denver ... Colo
Microwave Associates Inc, Burlington ... Mass
Motorola Communications & Electronics Div Chicago ... Ill
Nippon Electric Co Ltd, Tokyo ... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Polytronics Communications, Baltimore Div Baltimore ... Md
Signal & Communications Div Westinghouse Air Brake Co Pittsburgh ... Pa
Squires-Sanders Inc, Liberty Corner ... N J
Storno, Copenhagen S ... Den
Telefunken Sales Corp, Garden City ... N Y
Utica Electronics Inc, Chicago ... Ill

RECEIVERS, RADIO COMMUNICATION --SINGLE SIDEBAND

ANRITSU ELECTRIC CO LTD, TOKYO ... JAPAN
HEATH CO, BENTON HARBOR ... MICH
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
Advanced Communications Inc Sub Conductron Corp Chatsworth ... Cal
Aerocom, Miami ... Fla
Aeromarine Electronics, Inc, San Diego ... Cal
Aerospace Research, Inc, Boston ... Mass
Anritsu Electric Co Ltd, Tokyo ... Japan
Avco Corp Electronics Div, Cincinnati ... Ohio
Bendix Corp, Communications Div, Towson ... Md
Brelonix Inc, Seattle ... Wash
Canadian Marconi Co, Montreal 16 ... Quebec
Clavier Corp, Richmond Hill ... NY
Collins Radio Co, Dallas ... Tex
Communication Associates Inc, New Hyde Park ... N Y
Communications Co, Coral Gables ... Fla
Cosmos Industries Inc, Brooklyn ... N Y

C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Drake Co, R L, Miamisburg	Ohio
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electrac Inc, Anaheim	Cal
Electronic Applications Co, Pine Brook	N J
EMI Cossor Electronics Ltd, Dartmouth, N S	Can
Fujitsu Ltd, Tokyo	Japan
Galaxy Electronics Inc, Council Bluffs	Iowa
General Atronics Corp, Philadelphia	Pa
General Instrument Corp Radio Receptor Div Hicksville	N Y
Granger Associates, Palo Alto	Cal
Hammarlund Mfg Co, Mars Hill	N C
Heath Co, Benton Harbor	Mich
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
Intercontinental Electronics Corp, Fairport	N Y
International Scanatron Systems Corp, Wyandanch	N Y
ITT Federal Labs, Fort Wayne	Ind
Kahn Research Labs Inc, Freeport	N Y
Kobe Industries Corp, Kobe	Japan
Kokusai Electric Co Ltd, Tokyo	Japan
Linear Systems Inc, Watsonville	Cal
Lorch Electronics Corp, Englewood	N J
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Marconi Instruments Div, English Electric Corp Englewood	N J
National Radio Co Inc, Melrose	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polarad Electronic Instruments Div Long Island City	N Y
Racal Communications Inc, Silver Spring	Md
Radio Corp of America, Radiomarine Dept Camden	N J
Raytheon Co, Marine Products Operation S San Francisco	Cal
RCA, Defense Electronic Products, Moorestown	N J
Resdel Engineering Corp, Pasadena	Cal
R F Communications Inc, Rochester	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Rycom Instruments, Raytown	Mo
Squires-Sanders Inc, Liberty Corner	N J
Standard Telephones & Cables Ltd London WC 2	England
SunAir Electronics Inc, Ft Lauderdale	Fla
Sylvania Electronic Systems, Waltham	Mass
Technical Materiel Corp, Mamaroneck	N Y
Telefunken Sales Corp, Garden City	N Y
Telstar Electronics Corp, Southold	N Y
Thomson Electric Co, Sub Cie Fran Thomson Houston New York	N Y
Transcon Electronics Inc, Escondido	Cal
TRW Systems Group, Redondo Beach	Cal
Weitermann Electronics, Milwaukee	Wis
Wilcox Electric Co Inc, Kansas City	Mo
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

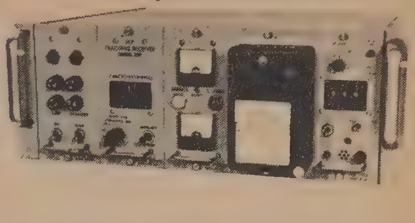
RECEIVERS, RADIO COMMUNICATION -- TELEMETERING

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
Accurate Electronics Corp, Elyria	Ohio
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Anritsu Electric Co Ltd, Tokyo	Japan
Astro Communication Lab Div Aiken Industries Gaithersburg	Md
Avco Corp Electronics Div, Cincinnati	Ohio
Babcock Electronic Corp, Costa Mesa	Cal
Ball Brothers Research Corp, Boulder	Colo
B F Electronics, Solana Beach	Cal
B I F Unit General Signal Corp, Providence	R I
Canadian Motorola Electronics Co, Agincourt	Ont
Canoga Electronics Corp, Chatsworth	Cal
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Clavier Corp, Richmond Hill	NY
Communication Electronics Inc, Rockville	Md
Conic Corp, San Diego	Cal
Control Science Corp, Alexandria	Va
Cosmos Industries Inc, Brooklyn	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Data-Control Systems Inc, Danbury	Conn
Defense Electronics Inc, Rockville	Md
Electrac Inc, Anaheim	Cal
Electronic Communications Inc (ECI), St Petersburg	Fla
Electronic Mfg & Engineering Corp, Tulsa	Okla
Electronic Specialty Co, Los Angeles	Cal
Epsco Inc, Westwood	Mass
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fujitsu Ltd, Tokyo	Japan
GCA Technology Div GCA Corp, Bedford	Mass
General Instrument Corp Radio Receptor Div Hicksville	N Y
Genisco Technology Corp, Compton	Cal
Industrial Electronetics Corp, Satellite Beach	Fla
International Microwave Corp, Cos Cob	Conn
International Scanatron Systems Corp, Wyandanch	N Y
ITT Federal Labs, Fort Wayne	Ind
Kokusai Electric Co Ltd, Tokyo	Japan
Lynch Communication Systems, San Francisco	Cal
Marti Electronics, Cleburne	Tex
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Mennen-Greatbatch Electronics Inc, Clarence	N Y
Micro Communications Co, Denver	Colo
Microwave Associates Inc, Burlington	Mass
Microwave Products Group Div C A S Inc Carle Place	N Y
National Radio Co Inc, Melrose	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Noller Control Systems Inc, Richmond	Cal
Optimax Inc, Ambler	Pa
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polarad Electronic Instruments Div Long Island City	N Y
Radiation Systems Inc, McLean	Va
Rantec Div Emerson Electric Co, Calabasas	Cal
Raven Electronics Inc, Burbank	Cal
RCA, Defense Electronic Products, Moorestown	N J
Regency Electronics Inc, Indianapolis	Ind
Resdel Engineering Corp, Pasadena	Cal
R H G Electronics Lab Inc, Farmingdale	N Y
Rouge Electronics Co, Oklahoma City	Okla
Selenia - Industrie Elettroniche Assoc, Rome	Italy
Siemens America Inc, New York	N Y
Sierra Research Corp, Buffalo	N Y
Smyth Research Associates, San Diego	Cal
Squires-Sanders Inc, Liberty Corner	N J
Standard Telephones & Cables Ltd London WC 2	England
Stoelting Co, C H, Chicago	Ill
Sylvania Electronic Systems, Waltham	Mass
Topping Electronics Ltd, Toronto 17	Ont
TRF Inc, Springfield	Va
TRW Systems Group, Redondo Beach	Cal
Utility Communication Systems Inc, Essington	Pa
Varian, Palo Alto	Cal
Vibration Instruments Co, Anaheim	Cal
Video Research Corp, Rockville	Md

RECEIVERS, RADIO COMMUNICATION --VLF

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
FLUKE MFG CO INC, JOHN, SEATTLE, WASH	**ADV PG 565**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TRACOR INC, AUSTIN, TEX	**ADV PG 565**
Aerospace Research, Inc, Boston	Mass
Air Technology Corp, Waltham	Mass
Air Technology Corp, Waltham	Mass
Anritsu Electric Co Ltd, Tokyo	Japan
Beckman Instruments Inc, Fullerton,	Cal
C C A Electronics Corp, Gloucester	NJ
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Clavier Corp, Richmond Hill	NY
Collins Radio Co, Dallas	Tex
Communication Electronics Inc, Rockville	Md

TRACOR VLF/LF RECEIVER/COMPARATORS



Continuous tuning 3.00 to 99.95 kHz in 50 Hz increments, image and noise rejection without filters.

Model 599-J receives all carrier-stabilized VLF/LF transmissions (including OMEGA). Optional chart recorder, linear print-out with 10 or 100 micro-seconds full scale for any received frequency. Used in frequency calibration (precision oscillator rating), timekeeping, propagation studies, solar flare detection, and navigation.

Model 890 receives both 20 (WWVL) and 60 kHz (WWVB) NBS stabilized frequency broadcasts for time and frequency measurements anywhere in the U.S. Recorder calibration linear, 100 microseconds full scale.

TRACOR™

6500 TRACOR LANE/AUSTIN, TEXAS 78721
512-926-2800/TWX 512-926-0441

Fluke VLF Receivers

The new model 207-1 Receiver/Comparator for frequency standardization offers world-wide VLF reception with 10 nanovolt sensitivity. Featuring 80 db dynamic range without AGC or operator adjustment, the Model 207-1 allows proper operation over wide range of signal fluctuation. Of solid state and integrated circuit design, this instrument covers 240 channels from 8 KHz to 31.9 KHz plus a channel at 60 KHz. The instrument offers a unique phase tracking servo and both chart and digital readout.

Brief Specifications:

Frequency Coverage:
8.0 to 31.9 KHz in steps of 100 Hz, plus channel at 60.0 KHz.

Sensitivity:
10 nanovolt signal at 50 ohm antenna input terminal enables phase tracking.

Dynamic Range:
An 80 db range of carrier level without the use of AGC. The total signal level operating range is in excess of 140 db, including 60 db front panel attenuator.

Servo Bandwidth:
(Equivalent noise bandwidth)—Equal to selected tracking rate times received frequency. Thus servo bandwidth when receiving 16 KHz is from 0.00048 Hz to 0.016 Hz depending on tracking rate.

Readout:
Front panel chart recording and digital accumulator in steps of 0.1 microsecond.

Size:
Designed for 19″ relay-rack, 7″ high, 18″ deep. Net weight is approximately 35 lbs.

Power Requirements:
The receiver operates from 95-125 or 190-250 VAC, 48-440 Hz, or from a DC source of ±12 VDC standby batteries.

Price:
$2,775.

Options include additional comparison inputs, an internal standard, and internal standard standby batteries.

New Fluke Omega Commutator

Omega Commutator provides synchronous decoding of the Omega transmissions as well as the FSK timing transmissions from WWVL, Boulder, Colorado. Adaptable to all Model 207 VLF receivers with no modification required. Price $495.

FLUKE

Fluke, Box 7428, Seattle, Washington 98133. Phone: (206) 774-2211. TWX: (910) 449-2850.
In Europe, address Fluke Nederland (N.V.), P.O. Box 5053, Tilburg, Holland.
Telex: 844-50237. In the U.K., address Fluke International Corp.,
P.O. Box 102, Watford Herts, England, Telex: 851-934-583.

C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam	N Y
Electronic Engineering Co of Cal, Santa Ana	Cal
Engineering Associates, Dayton	Ohio
Fluke Mfg Co Inc, John, Seattle	Wash
Geo Space Systems Inc, St Petersburg	Fla
Hammarlund Mfg Co, Mars Hill	N C
International Scanatron Systems Corp, Wyandanch	N Y
Kokusai Electric Co Ltd, Tokyo	Japan
Marconi Instruments Div, English Electric Corp Englewood	N J
National Radio Co Inc, Melrose	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Philips Electronics Industries Ltd, Toronto 17	Ont
Racal Communications Inc, Silver Spring	Md
Radio Corp of America, Radiomarine Dept Camden	N J
RCA, Defense Electronic Products, Moorestown	N J
RMS Engineering Inc, Atlanta	Ga
Rycom Instruments, Raytown	Mo
Singer Co, Metrics Div, Gertsch Dept, Los Angeles	Cal
Solar Electronics Co, Hollywood	Cal
Squires-Sanders Inc, Liberty Corner	N J
Sylvania Electronic Systems, Waltham	Mass
Technical Materiel Corp, Mamaroneck	N Y
Tracor Inc, Austin	Tex

RECEIVERS, RADIO COMMUNICATION --WWV

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
PETERSEN RADIO CO INC, COUNCIL BLUFFS	**IOWA**
SPECIFIC PRODUCTS DIV DR H L RICHTER CORP MONROVIA	**CAL**
Anritsu Electric Co Ltd, Tokyo	Japan
Beckman Instruments Inc, Fullerton,	Cal
Clavier Corp, Richmond Hill	NY
Engineering Associates, Dayton	Ohio
General Microwave Corp, Farmingdale	N Y
Karg Labs Inc, South Norwalk	Conn
Lavoie Labs Div Spedcor, Morganville	N J
Lorch Electronics Corp, Englewood	N J
Motorola Communications & Electronics Div Chicago	Ill
National Radio Co Inc, Melrose	Mass
Petersen Radio Co Inc, Council Bluffs	Iowa
R F Communications Inc, Rochester	N Y
Singer Co, Metrics Div, Gertsch Dept, Los Angeles	Cal
Specific Products Div Dr H L Richter Corp Monrovia	Cal
Squires-Sanders Inc, Liberty Corner	N J
Technical Materiel Corp, Mamaroneck	N Y
Weitermann Electronics, Milwaukee	Wis
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

RECEIVERS, RADIO ENTERTAINMENT --A-M

HEATH CO, BENTON HARBOR	**MICH**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Aircraft Components Inc, Benton Harbor	Mich
ATR Electronics, Inc, St Paul	Minn
Audiotronics Corp, North Hollywood	Cal
Automatic Radio Sales Inc, Melrose	Mass
Bogen Communications Div Lear Siegler Inc Paramus	N J
Calbest Electronics, Los Angeles	Cal
Channel Master Corp, Ellenville	N Y
Clavier Corp, Richmond Hill	NY
Dayton Electronics Products Co, Dayton	Ohio
Delco Radio Div General Motors Corp, Kokomo	Ind
Dinion Coil Co Inc, Caledonia	N Y
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electron Enterprises Inc, Berwyn	Ill
Electronic Creations Co Inc, Mount Vernon	N Y
Electronic Homes Co, New York	N Y
Electro-Voice Inc Sub Gulton Industries Buchanan	Mich
Flush Wall Radio Co, Clearwater	Fla
Fuji Electric Co Ltd, Tokyo	Japan
Hayakawa Electric Co Ltd, Osaka	Japan
Heath Co, Benton Harbor	Mich
Karg Labs Inc, South Norwalk	Conn
Kobe Industries Corp, Kobe	Japan
Lafayette Radio Electronics, Syosset	NY
Lear Jet Industries Inc, Detroit	Mich
Lear Siegler Inc, Santa Monica	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Midland International Corp, North Kansas City	Mo
Newcomb Audio Products Co, Sylmar	Cal
Osaka Onkyo Co, Ltd, Asahi-Ku, Osaka	Japan
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Realtone Electronics Corp, Jersey City	NJ
Sampson Electronic Products Div, Chicago	Ill
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Schneider Radio-Television Div, Ivry	France
Sharp Electronics Corp, Carlstadt	N J
Sony Corp, Tokyo	Japan
Squires-Sanders Inc, Liberty Corner	N J
Standard Telephones & Cables Ltd London WC 2	England
Telefunken Sales Corp, Garden City	N Y
Trans-Aire Electronics Inc, New Hyde Park	N Y
Versatek Industries Inc, Indianapolis	Ind
V-M Corp, Benton Harbor	Mich

RECEIVERS, RADIO ENTERTAINMENT --A-M/F-M

HEATH CO, BENTON HARBOR	**MICH**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Aikow Shoji Kaisha Ltd, Osaka	Japan
Aircraft Components Inc, Benton Harbor	Mich
American Geloso Electronics Inc, New York	N Y
Audiotronics Corp, North Hollywood	Cal
Automatic Radio Sales Inc, Melrose	Mass
Avco Corp Electronics Div, Cincinnati	Ohio
Bogen Communications Div Lear Siegler Inc Paramus	N J
Calbest Electronics, Los Angeles	Cal
Channel Master Corp, Ellenville	N Y
Clavier Corp, Richmond Hill	NY
Dayton Electronics Products Co, Dayton	Ohio
Delco Radio Div General Motors Corp, Kokomo	Ind
Dynavox Electronics Corp, Long Island City	N Y
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electron Enterprises Inc, Berwyn	Ill
Electronic Homes Co, New York	N Y
Electro-Voice Inc Sub Gulton Industries Buchanan	Mich
Fuji Electric Co Ltd, Tokyo	Japan
Goodmans Loudspeakers Ltd, Middlesex	Eng
Hayakawa Electric Co Ltd, Osaka	Japan
Heath Co, Benton Harbor	Mich
Karg Labs Inc, South Norwalk	Conn
Kobe Industries Corp, Kobe	Japan
Lafayette Radio Electronics, Syosset	NY
Lear Siegler Inc, Santa Monica	Cal
Major Electronics Corp, Brooklyn	N Y
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McIntosh Laboratory Inc, Binghamton	N Y
Midland International Corp, North Kansas City	Mo
Newcomb Audio Products Co, Sylmar	Cal
Oki Electric Industry Co Ltd, Tokyo	Japan
Osaka Onkyo Co, Ltd, Asahi-Ku, Osaka	Japan
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Realtone Electronics Corp, Jersey City	NJ
Sampson Electronic Products Div, Chicago	Ill
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Schneider Radio-Television Div, Ivry	France
Scott Inc, H H, Maynard	Mass
Sharp Electronics Corp, Carlstadt	N J
Sherwood Electronic Labs Inc, Chicago	Ill
Shrader Sound Inc, Washington	D C
Sony Corp, Tokyo	Japan
Standard Telephones & Cables Ltd London WC 2	England
Stanford International, San Carlos	Cal
Sylvania Entertainment Prods, Batavia	N Y
Telefunken Sales Corp, Garden City	N Y
Television Manufacturers of America Co, Wheeling	Ill
Tenatronics Ltd, Cleveland	Ohio
Trans-Aire Electronics Inc, New Hyde Park	N Y
Trutone Electronics Inc, Van Nuys	Cal
Versatek Industries Inc, Indianapolis	Ind
V-M Corp, Benton Harbor	Mich

RECEIVERS, RADIO ENTERTAINMENT --AUTO

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
ATR Electronics, Inc, St Paul	Minn
Automatic Radio Sales Inc, Melrose	Mass
Bendix Corp, Automotive Electronics Div, Baltimore	Md
Channel Master Corp, Ellenville	N Y
Delco Radio Div General Motors Corp, Kokomo	Ind
Electronic Homes Co, New York	N Y
Hayakawa Electric Co Ltd, Osaka	Japan
Kobe Industries Corp, Kobe	Japan
Lear Jet Industries Inc, Detroit	Mich
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Midland International Corp, North Kansas City	Mo
Osaka Onkyo Co, Ltd, Asahi-Ku, Osaka	Japan
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Realtone Electronics Corp, Jersey City	NJ
Schneider Radio-Television Div, Ivry	France
Sharp Electronics Corp, Carlstadt	N J
Sony Corp, Tokyo	Japan
Tenatronics Ltd, Cleveland	Ohio
Trans-Aire Electronics Inc, New Hyde Park	N Y

RECEIVERS, RADIO ENTERTAINMENT --F-M

HEATH CO, BENTON HARBOR	**MICH**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Acoustech Div Koss Electronics Inc, Milwaukee	Wis
Aikow Shoji Kaisha Ltd, Osaka	Japan
Audio Dynamics Corp, New Milford	Conn
Automatic Radio Sales Inc, Melrose	Mass
Bogen Communications Div Lear Siegler Inc Paramus	N J
Calbest Electronics, Los Angeles	Cal
Channel Master Corp, Ellenville	N Y
Clavier Corp, Richmond Hill	NY
Dayton Electronics Products Co, Dayton	Ohio
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Creations Co Inc, Mount Vernon	N Y
Electronic Homes Co, New York	N Y
Electro-Voice Inc Sub Gulton Industries Buchanan	Mich
Fuji Electric Co Ltd, Tokyo	Japan
Hayakawa Electric Co Ltd, Osaka	Japan
Heath Co, Benton Harbor	Mich
Johnson Electronics Inc, Casselberry	Fla
Karg Labs Inc, South Norwalk	Conn
Lafayette Radio Electronics, Syosset	NY
Lear Jet Industries Inc, Detroit	Mich
Lear Siegler Inc, Santa Monica	Cal
Major Electronics Corp, Brooklyn	N Y
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McIntosh Laboratory Inc, Binghamton	N Y
Newcomb Audio Products Co, Sylmar	Cal
Oki Electric Industry Co Ltd, Tokyo	Japan
Osaka Onkyo Co, Ltd, Asahi-Ku, Osaka	Japan
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Realtone Electronics Corp, Jersey City	NJ
Sampson Electronic Products Div, Chicago	Ill
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Schneider Radio-Television Div, Ivry	France
Scott Inc, H H, Maynard	Mass
Sharp Electronics Corp, Carlstadt	N J
Sherwood Electronic Labs Inc, Chicago	Ill
Shrader Sound Inc, Washington	D C
Sony Corp, Tokyo	Japan
Standard Telephones & Cables Ltd London WC 2	England
Telefunken Sales Corp, Garden City	N Y
Trans-Aire Electronics Inc, New Hyde Park	N Y
Trutone Electronics Inc, Van Nuys	Cal
University Sound Div Ltv Ling Altec Inc Oklahoma City	Okla

RECEIVERS, RADIO ENTERTAINMENT --PORTABLE

HEATH CO, BENTON HARBOR	**MICH**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Aikow Shoji Kaisha Ltd, Osaka	Japan
Aircraft Components Inc, Benton Harbor	Mich
Automatic Radio Sales Inc, Melrose	Mass
Channel Master Corp, Ellenville	N Y
Clavier Corp, Richmond Hill	NY
Dynavox Electronics Corp, Long Island City	N Y
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electron Enterprises Inc, Berwyn	Ill
Electronic Homes Co, New York	N Y
Fuji Electric Co Ltd, Tokyo	Japan
Hayakawa Electric Co Ltd, Osaka	Japan
Heath Co, Benton Harbor	Mich
Karg Labs Inc, South Norwalk	Conn
Lafayette Radio Electronics, Syosset	NY
Lear Jet Industries Inc, Detroit	Mich
Lear Siegler Inc, Santa Monica	Cal
Major Electronics Corp, Brooklyn	N Y
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Midland International Corp, North Kansas City	Mo
Oki Electric Industry Co Ltd, Tokyo	Japan
Osaka Onkyo Co, Ltd, Asahi-Ku, Osaka	Japan
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Realtone Electronics Corp, Jersey City	NJ
Sampson Electronic Products Div, Chicago	Ill
Schneider Radio-Television Div, Ivry	France
Sharp Electronics Corp, Carlstadt	N J
Sony Corp, Tokyo	Japan
Standard Telephones & Cables Ltd London WC 2	England
Sylvania Entertainment Prods, Batavia	N Y
Telefunken Sales Corp, Garden City	N Y
Trans-Aire Electronics Inc, New Hyde Park	N Y

RECEIVERS, RADIO NAVIGATION-- AUTOMATIC ALARM, SHIP

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
Aerojet-General Corp Electronics Div, Azusa	Cal
Aerospace Research, Inc, Boston	Mass
Anritsu Electric Co Ltd, Tokyo	Japan
Bell Aerosystems Co, Buffalo	N Y
Cosmos Industries Inc, Brooklyn	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
General Instrument Corp Radio Receptor Div Hicksville	N Y
ITT Federal Labs, Fort Wayne	Ind
Kobe Industries Corp, Kobe	Japan
Loral Electronic Systems, Div Loral Corp, New York	NY
Marconi Div, English Electric Corp, New York	N Y
Radio Corp of America, Radiomarine Dept Camden	N J
Sharp Electronics Corp, Carlstadt	N J
Sierra Research Corp, Buffalo	N Y
Squires-Sanders Inc, Liberty Corner	N J

RECEIVERS, RADIO NAVIGATION-- BEACON

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
Aerocom, Miami	Fla
Aerospace Research, Inc, Boston	Mass
Alpine Geophysical Assoc Inc, Norwood	N J
Bell Aerosystems Co, Buffalo	N Y
Bendix Corp Avionics Div, Fort Lauderdale	Fla
Brelonix Inc, Seattle	Wash
C C A Electronics Corp, Gloucester	NJ

Communication Associates Inc, New Hyde Park	N Y
Conductron Corp, Ann Arbor	Mich
Cosmos Industries Inc, Brooklyn	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Decca Radar, Inc, New York	N Y
Decitron Electronics Corp, Brooklyn	N Y
Dewey Corp, G C, New York	N Y
Dynalectron Corp Aerospace Prods Div San Leandro	Cal
EICO Electronic Instrument Co Inc, Brooklyn	NY
General Aviation Electronics Inc, Indianapolis	Ind
General Instrument Corp Radio Receptor Div Hicksville	N Y
Geodyne Div EG&G Int'l, Waltham	Mass
Hydro Products Div Dillingham Corp, San Diego	Cal
ITT Federal Labs, Fort Wayne	Ind
Kobe Industries Corp, Kobe	Japan
Loral Electronic Systems, Div Loral Corp, New York	NY
Marconi Co Ltd, Chelmsford	England
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Philips Electronics Industries Ltd, Toronto 17	Ont
Regency Electronics Inc, Indianapolis	Ind
Resdel Engineering Corp, Pasadena	Cal
Rouge Electronics Co, Oklahoma City	Okla
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Servo Corp of America, Hicksville	N Y
Sharp Electronics Corp, Carlstadt	N J
Sierra Research Corp, Buffalo	N Y
Sparton Electronics, Jackson	Mich
Squires-Sanders Inc, Liberty Corner	N J
TRW Systems Group, Redondo Beach	Cal
Vega Precision Labs, Vienna	Va
Wilcox Electric Co Inc, Kansas City	Mo

RECEIVERS, RADIO NAVIGATION-- DIRECTION FINDER

HEATH CO, BENTON HARBOR	**MICH**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
Aerospace Research, Inc, Boston	Mass
Aircraft Components Inc, Benton Harbor	Mich
Amecom Div Litton Industries, Silver Spring	Md
American Electronic Labs Inc, Lansdale	Pa
Applied Devices Corp, College Point	n y
Becker Flugfunkwerk GMBH, 757 Baden-Baden-Oos	Germany
Bendix Corp Avionics Div, Fort Lauderdale	Fla
Beukers Labs Inc, John M, Medford	NY
CEC-Benmar, Santa Ana	Cal
Collins Radio Co, Dallas	Tex
Communication Electronics Inc, Rockville	Md
Conductron Corp, Ann Arbor	Mich
Control Electronics Co Inc, Farmingdale	N Y
Cosmos Industries Inc, Brooklyn	N Y
Decitron Electronics Corp, Brooklyn	N Y
Dewey Corp, G C, New York	N Y
EICO Electronic Instrument Co Inc, Brooklyn	NY
Ewen-Knight Corp, East Natick	Mass
Forway Industries Inc, Woodbury	N J
General Coil Products Corp, Brooklyn	N Y
General Instrument Corp Radio Receptor Div Hicksville	N Y
Gyrotron Corp, Waterbury	Conn
Heath Co, Benton Harbor	Mich
Hydro Products Div Dillingham Corp, San Diego	Cal
Itek Corp, Lexington	Mass
ITT Federal Labs, Fort Wayne	Ind
Jetronic Industries Inc, Philadelphia	Pa
Kidde & Co Inc, Walter, Belleville	N J
Konigsberg Electronics Inc, So San Francisco	Cal
Livingston Electronic Div Jettron Prods Inc Hanover	N J
Loral Electronic Systems, Div Loral Corp, New York	NY
Lorch Electronics Corp, Englewood	N J
Marconi Co Ltd, Chelmsford	England
Marconi Div; English Electric Corp, New York	N Y
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Nippon Electric Co Ltd, Tokyo	Japan
Pearce-Simpson Inc, Miami	Fla
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Racal Communications Inc, Silver Spring	Md
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Radio Corp of America, Radiomarine Dept Camden	N J
Raven Electronics Inc, Burbank	Cal
Raytheon Co, Marine Products Operation S San Francisco	Cal
RCA, Defense Electronic Products, Moorestown	N J
Resdel Engineering Corp, Pasadena	Cal
Servo Corp of America, Hicksville	N Y
Servo-Tek Products Co, Marine Div, Hawthorne	N J
Servo-Tek Products Co, Hawthorne	N J
Sierra Research Corp, Buffalo	N Y
Squires-Sanders Inc, Liberty Corner	N J
Standard Telephones & Cables Ltd London WC 2	England
States Electronics Corp, Bludworth Marine Div Linden	N J
Sylvania Electronic Systems, Waltham	Mass
Telefunken Sales Corp, Garden City	N Y
TRW Systems Group, Redondo Beach	Cal

RECEIVERS, RADIO NAVIGATION-- DIRECTION FINDER, AUTOMATIC

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
ACR Electronics Corp, New York	N Y
Aeromarine Electronics, Inc, San Diego	Cal
Aerospace Research, Inc, Boston	Mass
Aircraft Components Inc, Benton Harbor	Mich
Amecom Div Litton Industries, Silver Spring	Md
American Electronic Labs Inc, Lansdale	Pa
Avco Corp Electronics Div, Cincinnati	Ohio
Bendix Corp Avionics Div, Fort Lauderdale	Fla
Beukers Labs Inc, John M, Medford	NY
CEC-Benmar, Santa Ana	Cal
Collins Radio Co, Dallas	Tex
Conductron Corp, Ann Arbor	Mich
Control Electronics Co Inc, Farmingdale	N Y
Cosmos Industries Inc, Brooklyn	N Y
Decitron Electronics Corp, Brooklyn	N Y
EMI Cossor Electronics Ltd, Dartmouth, N S	Can
Epsco Inc, Westwood	Mass
Ewen-Knight Corp, East Natick	Mass
General Instrument Corp Radio Receptor Div Hicksville	N Y
Gyrotron Corp, Waterbury	Conn
Itek Corp, Lexington	Mass
ITT Federal Labs, Fort Wayne	Ind
Jetronic Industries Inc, Philadelphia	Pa
Kel Corp, Belmont	Mass
Kidde & Co Inc, Walter, Belleville	N J
Konigsberg Electronics Inc, So San Francisco	Cal
Loral Electronic Systems, Div Loral Corp, New York	NY
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Narco Avionics Div Natl Scientific Industries Fort Washington	Pa
Nippon Electric Co Ltd, Tokyo	Japan
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Raytheon Co, Marine Products Operation S San Francisco	Cal
Resdel Engineering Corp, Pasadena	Cal
Scope Inc, Reston	Va
Servo Corp of America, Hicksville	N Y
Squires-Sanders Inc, Liberty Corner	N J
Sylvania Electronic Systems, Waltham	Mass
TRW Systems Group, Redondo Beach	Cal

RECEIVERS, RADIO NAVIGATION--LORAN

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Aeromarine Electronics, Inc, San Diego	Cal
Aerospace Research, Inc, Boston	Mass
Beukers Labs Inc, John M, Medford	NY
CEC-Benmar, Santa Ana	Cal
Collins Radio Co, Dallas	Tex
Computing Devices of Canada Ltd, Ottawa	Ont
Decca Radar, Inc, New York	N Y
Decitron Electronics Corp, Brooklyn	N Y
Edo Corp, College Point	NY
ITT Federal Labs, Fort Wayne	Ind
Jetronic Industries Inc, Philadelphia	Pa
Konigsberg Electronics Inc, So San Francisco	Cal
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
LFE Electronics Div, Lab for Electronics Inc Waltham	Mass
Loral Electronic Systems, Div Loral Corp, New York	NY
Micronetics Div Teledyne Systems Co, San Diego	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Norden Div, United Aircraft Corp, Norwalk	Conn
Oki Electric Industry Co Ltd, Tokyo	Japan
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Radio Corp of America, Radiomarine Dept Camden	N J
Resdel Engineering Corp, Pasadena	Cal
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
TRF Inc, Springfield	Va
TRW Systems Group, Redondo Beach	Cal

RECEIVERS, RADIO NAVIGATION-- TACAN

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Applied Devices Corp, College Point	n y
General Instrument Corp Radio Receptor Div Hicksville	N Y
Lear Siegler Inc, Santa Monica	Cal
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Memcor Div LTV Electrosystems Inc, Huntington	Ind
Nippon Electric Co Ltd, Tokyo	Japan
Republic Electronic Industries Corp, Huntington	N Y
Resdel Engineering Corp, Pasadena	Cal
Sierra Research Corp, Buffalo	N Y
Standard Telephones & Cables Ltd London WC 2	England

TRACOR OMEGA/VLF NAVIGATION SYSTEMS

The 7000 series Omega/VLF Navigation Systems provide world-wide ½ mile position accuracy with continuous all-weather track and position data.
The low cost Model 7007 ($6700) uses U.S. Navy Omega transmissions for position determination. Other TRACOR Omega/VLF Navigation systems offer reliability and flexibility to meet a wide spectrum of navigation requirements.

TRACOR™

6500 TRACOR LANE/AUSTIN, TEXAS 78721
512-926-2800/TWX 512-926-0441

RECEIVERS, RADIO NAVIGATION--OMEGA

TRACOR INC, AUSTIN, TEX	**ADV PG 567**
Beukers Labs Inc, John M, Medford	NY
Micronetics Div Teledyne Systems Co, San Diego	Cal
Northrop Nortronics, Palos Verdes Peninsula	Cal
Resdel Engineering Corp, Pasadena	Cal
Tracor Inc, Austin	Tex

RECEIVERS, RADIO NAVIGATION-- VHF OMNIRANGE

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
Aircraft Components Inc, Benton Harbor	Mich
Aircraft Radio Corp, Boonton	N J
American Electronic Labs Inc, Lansdale	Pa
Becker Flugfunkwerk GMBH, 757 Baden-Baden-Oos	Germany
Bendix Corp Avionics Div, Fort Lauderdale	Fla
C C A Electronics Corp, Gloucester	NJ
Communication Electronics Inc, Rockville	Md
Cosmos Industries Inc, Brooklyn	N Y
Decca Radar, Inc, New York	N Y
Dynair Aviation Products, El Cajon	Cal
General Aviation Electronics Inc, Indianapolis	Ind
General Instrument Corp Radio Receptor Div Hicksville	N Y
Konigsberg Electronics Inc, So San Francisco	Cal
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Midland International Corp, North Kansas City	Mo
Narco Avionics Div Natl Scientific Industries Fort Washington	Pa
Nippon Electric Co Ltd, Tokyo	Japan
Realtone Electronics Corp, Jersey City	NJ
Regency Electronics Inc, Indianapolis	Ind
Resdel Engineering Corp, Pasadena	Cal
Servo Corp of America, Hicksville	N Y
Springer Aircraft-Radio Corp, Shelbyville	Ind
Squires-Sanders Inc, Liberty Corner	N J
Standard Telephones & Cables Ltd London WC 2	England
SunAir Electronics Inc, Ft Lauderdale	Fla
Thomson Electric Co, Sub Cie Fran Thomson Houston New York	N Y
TRW Systems Group, Redondo Beach	Cal
Wilcox Electric Co Inc, Kansas City	Mo

RECEIVERS—SONAR SEE SONAR

RECEIVERS, TV--BATTERY PORTABLE

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Automatic Radio Sales Inc, Melrose	Mass
Electronic Homes Co, New York	N Y
Hayakawa Electric Co Ltd, Osaka	Japan
Lear Siegler Inc, Santa Monica	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Microwave Associates Inc, Burlington	Mass
Montedoro Corp, San Luis Obispo	Cal
Osaka Onkyo Co, Ltd, Asahi-Ku, Osaka	Japan
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Sampson Electronic Products Div, Chicago	Ill
Schneider Radio-Television Div, Ivry	France
Sharp Electronics Corp, Carlstadt	N J
Shiba Electric Co Ltd, Woodside	N Y
Sony Corp, Tokyo	Japan
Tele Measurements Inc, Clifton	N J

RECEIVERS, TV--BLACK AND WHITE

HEATH CO, BENTON HARBOR	**MICH**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Amphicon Systems Inc, Moonachie	N J
Canoga Electronics Corp, Chatsworth	Cal
Conrac Corp, New York	N Y
Electronic Homes Co, New York	N Y
Hayakawa Electric Co Ltd, Osaka	Japan
Heath Co, Benton Harbor	Mich
K L A Labs Inc, Detroit	Mich
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Montedoro Corp, San Luis Obispo	Cal
Osaka Onkyo Co, Ltd, Asahi-Ku, Osaka	Japan
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Sampson Electronic Products Div, Chicago	Ill
Schneider Radio-Television Div, Ivry	France
Setchell Carlson, Inc, New Brighton	Minn
Sharp Electronics Corp, Carlstadt	N J
Shiba Electric Co Ltd, Woodside	N Y
Sony Corp, Tokyo	Japan
Standard Telephones & Cables Ltd London WC 2	England
Sylvania Entertainment Prods, Batavia	N Y
Tele Measurements Inc, Clifton	N J
Television Manufacturers of America Co, Wheeling	Ill
Valradio Ltd, Feltham, Mdsx	Eng

RECEIVERS, TV--COLOR

HEATH CO, BENTON HARBOR	**MICH**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Amphicon Systems Inc, Moonachie	N J
Conrac Corp, New York	N Y
Dinion Coil Co Inc, Caledonia	N Y
Electronic Homes Co, New York	N Y
Hayakawa Electric Co Ltd, Osaka	Japan
Heath Co, Benton Harbor	Mich
Lear Siegler Inc, Santa Monica	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Osaka Onkyo Co, Ltd, Asahi-Ku, Osaka	Japan
Panther Electronics Inc, Burbank	Cal
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Sampson Electronic Products Div, Chicago	Ill
Schneider Radio-Television Div, Ivry	France
Setchell Carlson, Inc, New Brighton	Minn
Sharp Electronics Corp, Carlstadt	N J
Sony Corp, Tokyo	Japan
Sylvania Entertainment Prods, Batavia	N Y
Tele Measurements Inc, Clifton	N J
Television Manufacturers of America Co, Wheeling	Ill

RECEPTACLES SEE CONNECTORS; JACKS; PLUGS

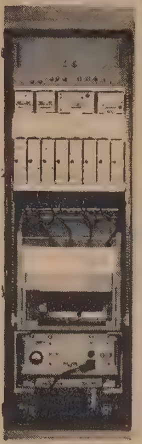
RECORD CHANGERS SEE PHONOGRAPHS

If it isn't in EBG's

product directory,

it probably hasn't

been invented yet.



ANALOG MAGNETIC
DRUM RECORDERS

- Data retrieval
- Signal correlation and analysis
- Time delay
- On-line and off-line dubbing
- Repetitive reproduction of data

Audio
Wide-band
Pre-detection
FM or direct

- Helical or circular scan
- Erasure accomplished "on-the-fly"
- Compatible with instrumentation tape recorders
- Provisions for synchronizing to other equipments
- Exceptionally low flutter
- Low maintenance — extremely long-life recording components
- Can be furnished to MIL SPECS

KENTON ENGINEERING CORP.
8232 N. Christiana Av. - Skokie, Ill. 60076
Telephone 312 - 677 - 8280

RECORDERS--DRUM, MAGNETIC

KENTON ENGINEERING CORP, SKOKIE, ILL	**ADV PG 568**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Applied Magnetics Corp, Goleta	Cal
Bryant Computer Products, Walled Lake	Mich
Control Data Corp, Minneapolis	Minn
Dresser Systems, Inc, Houston	Tex
Electron-Ohio Inc, Cleveland	Ohio
Geo Space Corp, Houston	Tex
Hathaway Instruments Inc, Denver	Colo
Hayakawa Electric Co Ltd, Osaka	Japan
Kenton Engineering Corp, Skokie	Ill
Magnasync/Moviola Corp, North Hollywood	Cal
Miles Reproducer Co Inc, New York	N Y
MVR Corp, Palo Alto	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Raytheon Learning Systems Co, Michigan City	Ind
RCA, Defense Electronic Products, Moorestown	N J
Systematics & Magne-Head Divs Gen Instrument Corp Hawthorne	Cal
Telecontrol Corp, Old Greenwich	Conn
Telectro Systems Corp, Corona	N Y
Thermionic Products Electronics Ltd Southampton	England
Video Research Corp, Rockville	Md

RECORDERS--EVENT

CLEVITE CORP, BRUSH INSTRUMENTS DIV, CLEVELAND OHIO	**ADV PGS 570,571**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GEOTECH A TELEDYNE CO, GARLAND	**TEX**
MIDWESTERN INSTRUMENTS INC, DIV TELEX CORP TULSA	**OKLA**
Adtrol Electronics Inc, Philadelphia	Pa
Alden Electronic & Impulse Recording Equip Co Inc Westboro	Mass
Alfax Paper & Engineering Co, Westboro	Mass
Alpine Geophysical Assoc Inc, Norwood	N J
Amprobe Instrument Div Soss Mfg Co, Lynbrook	N Y
Artisan Electronics Corp, Parsippany	N J
Audn Corp, Hamburg	N Y
Bausch & Lomb, Inc, Rochester	N Y
Beckman Instruments Inc, Fullerton,	Cal
Bristol Div, American Chain & Cable Co Waterbury	Conn
Calculagraph Co, Hanover	N J
California Electro-Scientific Corp, Santa Ana	Cal
Clevite Corp, Brush Instruments Div, Cleveland	Ohio
Conklin Instrument Corp, Pleasant Valley	N Y
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Control Equipment Corp, Needham Heights	Mass
Control Logic Inc, Natick	Mass
Cybetronics Inc, Waltham	Mass
Dresser Controls, Houston	Texas
Dresser Systems, Inc, Houston	Tex
Dynamco Ltd, Chertsey Surrey	Eng
Edo Corp, College Point	NY
E G & G Inc, Systems Devel Div, Bedford	Mass
Electric Tachometer Corp, Philadelphia	Pa
Endevco Corp, Pasadena	Cal
Engler Instrument Co, Jersey City	N J
Esterline Angus Div Esterline Corp, Indianapolis	Ind
General Electric Co, ECSO, Schenectady	N Y
Geotech A Teledyne Co, Garland	Tex
Gilmore Industries Inc, Cleveland	Ohio
Gulton Industries Inc, Metuchen	N J
Hathaway Instruments Inc, Denver	Colo
Heuer Electronics Corp, Norwalk	Conn
Larson Instrument Co, Orangeburg	N Y
McKiernan-Terry Marine Div Litton Industries Paramus	N J
Midwestern Instruments Inc, Div Telex Corp Tulsa	Okla
Motorola Instrumentation & Control Inc, Phoenix	Ariz
Photron Instrument Co, Cleveland	Ohio
Roback Corp, Huntingdon Valley	Pa
Rochester Instrument Systems Inc, Rochester	N Y
Rustrak Instrument Div Gulton Ind Inc, Manchester	NH
Scam Instrument Corp, Skokie	Ill
Simpson Electric Co, Chicago	Ill
Space & Systems Div General Time Corp Stamford	Conn
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Techni-Rite Electronics Inc, Warwick	R I
Telautograph Corp, Los Angeles	Cal
Texas Instruments Incorporated, Dallas	Tex
Thorn Automation Ltd, Rugeley, Staffs	England
Utility Communication Systems Inc, Essington	Pa
Vapor Corp, Chicago	Ill
Veeder-Root, Hartford	Conn

RECORDERS--FACSIMILE SEE FACSIMILE EQUIPMENT

RECORDERS, FILM (SOUND)--EMBOSSED

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Gordon Enterprises, North Hollywood	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Miles Reproducer Co Inc, New York	N Y
Optomechanisms Inc, Plainview	N Y
Yokogawa Electric Works Inc, Larchmont	N Y

RECORDERS, FILM (SOUND)--MAGNETIC

Cosmos Industries Inc, Brooklyn	N Y
Gordon Enterprises, North Hollywood	Cal
Gregory Magnetic Industries Inc, Pompano Beach	Fla
Litton Industries, Electron Tube Div, San Carlos	Cal
Magnasync/Moviola Corp, North Hollywood	Cal
National Cine Equipment Inc, New York	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Stancil-Hoffman Corp, Hollywood	Cal
Stuart, Matthew & Co Inc, Bronx	NY
Westrex Div Litton Industries, Inc, Hollywood	Cal

RECORDERS, FILM (SOUND)--PHOTOGRAPHIC

Giannini Scientific Corp, Flight Rsch Div, Richmond	Va
Gordon Enterprises, North Hollywood	Cal
Litton Industries, Electron Tube Div, San Carlos	Cal
National Cine Equipment Inc, New York	N Y
Optomechanisms Inc, Plainview	N Y
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Vue-Tronics Inc, Van Nuys	Cal
Westrex Div Litton Industries, Inc, Hollywood	Cal

RECORDERS--FLIGHT SEE AVIONIC EQUIPMENT

RECORDERS, GRAPHIC--CIRCULAR CHART

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
Antlab, Inc, Worthington	Ohio
Bailey Meter Co, Wickliffe	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio

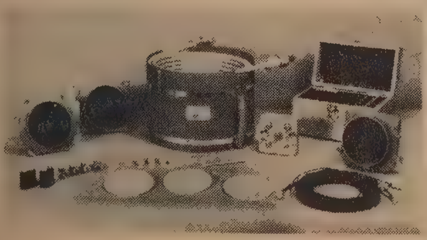
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham	Mass
Bristol Div, American Chain & Cable Co Waterbury	Conn
Brookdeal of America Inc, North Falmouth	Mass
Coltron Industries, Inc, Charlotte	N C
Edison, Thomas A Industries, Instr Div West Orange	N J
Edo Corp, College Point	NY
Engler Instrument Co, Jersey City	N J
Fischer & Porter Co, Warminster	Pa
Foxboro Co, Foxboro	Mass.
Fulton Sylphon Div Robertshaw Controls Co Knoxville	Tenn
General Electric Co, ECSO, Schenectady	N Y
Gilmore Industries Inc, Cleveland	Ohio
Hersey-Sparling Meter Co, El Monte	Cal
Honeywell Industrial Div, Fort Washington	Pa
ITT Barton Controls & Instr Div, Monterey Park	Calif
Kingmann-White Inc, Placentia	Cal
Leeds & Northrup Co, Philadelphia	Pa
Martin-Decker Corp, Santa Ana	Cal
Measurement Technology Corp, Canoga Park	Cal
Pacific Transducer Corp, Los Angeles	Cal
Scientific-Atlanta Inc, Atlanta	Ga
Strandberg Engineering Labs Inc, Greensboro	N C
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taylor Instrument Cos, Rochester	N Y
Thorn Automation Ltd, Rugeley, Staffs	England
United Electric Controls Co, Watertown	Mass
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J

RECORDERS, GRAPHIC--IMPEDANCE

HEWLETT-PACKARD, PALO ALTO	**CAL**
HOUSTON INSTRUMENT DIV BAUSCH & LOMB, BELLAIRE TEX	**ADV PG 573**
TEXSCAN CORP INDIANAPOLIS IND	**ADV PG 569**
Alford Mfg Co, Winchester	Mass
Bristol Div, American Chain & Cable Co Waterbury	Conn
Conklin Instrument Corp, Pleasant Valley	N Y
Dohrmann Instruments Co, Mountain View	Cal
Elpac Inc Controls Div, Irvine	Cal
Hewlett-Packard, Palo Alto	Cal
Houston Instrument Div Bausch & Lomb, Bellaire	Tex
Larson Instrument Co, Orangeburg	N Y
Techni-Rite Electronics Inc, Warwick	R I
Westronics Inc, Fort Worth	Tex

Impedance Plotters

- COAXIAL
- WAVEGUIDE
- 3 MHz—12.4 GHz



Texscan
Technical Products Division
7707 Records Street
Indianapolis, Indiana 46226
Phone (317) 545-2101
Telex: 27-2110 TWX: 810-341-3184

RECORDERS, GRAPHIC--MINIATURE

API INSTRUMENTS CO, CHESTERLAND	**OHIO**
CLEVITE CORP, BRUSH INSTRUMENTS DIV, CLEVELAND OHIO	**ADV PGS 570,571**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
MIDWESTERN INSTRUMENTS INC, DIV TELEX CORP TULSA	**OKLA**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
Adtrol Electronics Inc, Philadelphia	Pa
Amprobe Instrument Div Soss Mfg Co, Lynbrook	N Y
API Instruments Co, Chesterland	Ohio
Argonaut Associates, Inc, Beaverton	Ore
Bailey Meter Co, Wickliffe	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Bristol Div, American Chain & Cable Co Waterbury	Conn
Century Electronics & Instruments Inc, Tulsa	Okla
Clevite Corp, Brush Instruments Div, Cleveland	Ohio
Computer Instruments Corp, Hempstead	N Y
Conklin Instrument Corp, Pleasant Valley	N Y
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Dohrmann Instruments Co, Mountain View	Cal
Edison, Thomas A Industries, Instr Div West Orange	N J
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Fischer & Porter Co, Warminster	Pa
Foxboro Co, Foxboro	Mass
Gulton Industries Inc, Metuchen	N J
Hersey-Sparling Meter Co, El Monte	Cal
Hewlett-Packard, Palo Alto	Cal
Honeywell Industrial Div, Fort Washington	Pa
Hydro Products Div Dillingham Corp, San Diego	Cal
Instrument Corp of America, Timonium	Md
Kokuyo Electric Co Ltd, Tokyo	Japan
Leeds & Northrup Co, Philadelphia	Pa
McKiernan-Terry Marine Div Litton Industries Paramus	N J
Mennen-Greatbatch Electronics Inc, Clarence	N Y
Midwestern Instruments Inc, Div Telex Corp Tulsa	Okla
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Pacific Transducer Corp, Los Angeles	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Photron Instrument Co, Cleveland	Ohio
Robertshaw Controls Co, Aero & Instrument Div Anaheim	Cal
Rustrak Instrument Div Gulton Ind Inc, Manchester	NH
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taylor Instrument Cos, Rochester	N Y
Techni-Rite Electronics Inc, Warwick	R I
Texas Instruments Incorporated, Dallas	Tex
Texas Instruments Inc Indl Prods Div, Houston	Tex
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
West Instrument Corp, Schiller Park	Ill
Westronics Inc, Fort Worth	Tex
Yeiser Labs, Costa Mesa	Cal
Yokogawa Electric Works Inc, Larchmont	N Y

RECORDERS, GRAPHIC--MULTICHANNEL

CLEVITE CORP, BRUSH INSTRUMENTS DIV, CLEVELAND OHIO	**ADV PGS 570,571**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GEOTECH A TELEDYNE CO, GARLAND	**TEX**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
HOUSTON INSTRUMENT DIV BAUSCH & LOMB, BELLAIRE TEX	**ADV PG 573**
MIDWESTERN INSTRUMENTS INC, DIV TELEX CORP TULSA	**OKLA**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
Adtrol Electronics Inc, Philadelphia	Pa
Alden Electronic & Impulse Recording Equip Co Inc Westboro	Mass
Alfax Paper & Engineering Co, Westboro	Mass
Allco S A, Gentilly	France
Applied Devices Corp, College Point	n y
Argonaut Associates, Inc, Beaverton	Ore
Audn Corp, Hamburg	N Y
Baird-Atomic, Inc, Cambridge	Mass
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
B & F Instruments, Inc, Cornwells Heights	Pa
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham	Mass
Bristol Div, American Chain & Cable Co Waterbury	Conn
Canadian Research Institute, Don Mills	Ont
Century Electronics & Instruments Inc, Tulsa	Okla
Clevite Corp, Brush Instruments Div, Cleveland	Ohio
Conklin Instrument Corp, Pleasant Valley	N Y
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Dresser Systems, Inc, Houston	Tex
E G & G Int'l Inc Geodyne Div, Waltham	Mass
Electric Tachometer Corp, Philadelphia	Pa
Electro-Med Instruments Inc, Houston	Tex
Electronic Control Systems Inc, Fairmont	W Va
Electron-Ohio Inc, Cleveland	Ohio
Engler Instrument Co, Jersey City	N J
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Foxboro Co, Foxboro	Mass
General Electric Co, ECSO, Schenectady	N Y
Geotech A Teledyne Co, Garland	Tex
Gilmore Industries Inc, Cleveland	Ohio
Gulton Industries Inc, Metuchen	N J
Harvard Apparatus Co Inc, Millis	Mass
Hewlett-Packard, Palo Alto	Cal
Honeywell Industrial Div, Fort Washington	Pa
Honeywell Test Instruments Div, Denver	Colo
Houston Instrument Div Bausch & Lomb, Bellaire	Tex
ITT Barton Controls & Instr Div, Monterey Park	Calif
Kahl Scientific Instrument Corp, El Cajon	Cal
Keinath Instrument Co, Columbus	Ohio
Larson Instrument Co, Orangeburg	N Y
Leeds & Northrup Co, Philadelphia	Pa
Martin-Decker Corp, Santa Ana	Cal
McKiernan-Terry Marine Div Litton Industries Paramus	N J
Mechanics for Electronics Inc, Cambridge	Mass
Midwestern Instruments Inc, Div Telex Corp Tulsa	Okla
Motorola Instrumentation & Control Inc, Phoenix	Ariz
Nichols Co Ltd, R H, Downsview	Ont
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Photron Instrument Co, Cleveland	Ohio
Research Calculations Div ADP of Mass Inc Chestnut Hill	Mass
Rustrak Instrument Div Gulton Ind Inc, Manchester	NH
Simpson Electric Co, Chicago	Ill
Stoelting Co, C H, Chicago	Ill
Taylor Instrument Cos, Rochester	N Y
Techni-Rite Electronics Inc, Warwick	R I
Texas Instruments Incorporated, Dallas	Tex
Texas Instruments Inc Indl Prods Div, Houston	Tex
Thorn Automation Ltd, Rugeley, Staffs	England
Varian, Palo Alto	Cal
West Instrument Corp, Schiller Park	Ill
Westronics Inc, Fort Worth	Tex
Yeiser Labs, Costa Mesa	Cal
Yellow Springs Instrument Co Inc, Yellow Springs	Ohio
Yokogawa Electric Works Inc, Larchmont	N Y

RECORDERS, GRAPHIC--SELF-BALANCING POTENTIOMETER TYPE

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HEATH CO, BENTON HARBOR	**MICH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HOUSTON INSTRUMENT DIV BAUSCH & LOMB, BELLAIRE TEX	**ADV PG 573**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
Argonaut Associates, Inc, Beaverton	Ore
Audn Corp, Hamburg	N Y
Bailey Meter Co, Wickliffe	Ohio
Baird-Atomic, Inc, Cambridge	Mass
Bausch & Lomb, Inc, Rochester	N Y
Beckman Instruments Inc, Fullerton,	Cal
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio
Bristol Div, American Chain & Cable Co Waterbury	Conn
Canadian Research Institute, Don Mills	Ont
Conklin Instrument Corp, Pleasant Valley	N Y
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Dohrmann Instruments Co, Mountain View	Cal
Electronic Control Systems Inc, Fairmont	W Va
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Foxboro Co, Foxboro	Mass
Gelman Instrument Co, Ann Arbor	Mich
General Electric Co, ECSO, Schenectady	N Y
General Radio Co, West Concord	Mass
Gilmore Industries Inc, Cleveland	Ohio
Gulton Industries Inc, Metuchen	N J
Heath Co, Benton Harbor	Mich
Hewlett-Packard, Palo Alto	Cal
Honeywell Industrial Div, Fort Washington	Pa
Houston Instrument Div Bausch & Lomb, Bellaire	Tex
Instrument Corp of America, Timonium	Md
Keinath Instrument Co, Columbus	Ohio
Leeds & Northrup Co, Philadelphia	Pa
McKee-Pedersen Instruments, Danville	Cal
Meguro Denpa Sokki K K, Meguro-ku, Tokyo	Japan
Motorola Instrumentation & Control Inc, Phoenix	Ariz
Nichols Co Ltd, R H, Downsview	Ont
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Scientific-Atlanta Inc, Atlanta	Ga
Stoelting Co, C H, Chicago	Ill
Strandberg Engineering Labs Inc, Greensboro	N C
Taylor Instrument Cos, Rochester	N Y
Texas Instruments Incorporated, Dallas	Tex
Texas Instruments Inc Indl Prods Div, Houston	Tex
Thorn Automation Ltd, Rugeley, Staffs	England
Varian, Palo Alto	Cal
Varian Aerograph, Walnut Creek	Cal
West Instrument Corp, Schiller Park	Ill
Westronics Inc, Fort Worth	Tex
Yeiser Labs, Costa Mesa	Cal
Yokogawa Electric Works Inc, Larchmont	N Y

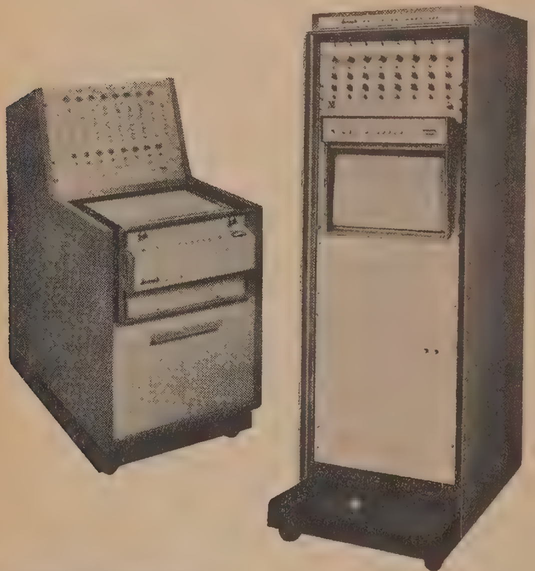
To put it in writing... look to the great family of BRUSH® recorders.

No matter what your direct writing recording requirements, look to Brush for the optimum answer. There's the famous Mark 200® series of modular systems plus a complete line of high-performance portable and general purpose recorders. All built by Brush to give you the best written records in the world.

BRUSH® Recorder Mark 200® Series

All Solid State • Series 1707 Position-Feedback Controlled

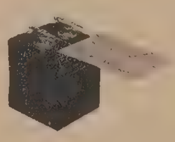
The Series 1707 line is a new generation of Brush Mark 200 Recorder System combining the advantages of all solid state electronics with modular construction and a flexibility in application never before achieved. The result is a totally new concept in instrument design which allows any system to be tailored to specific requirements by selection from a broad range of "building block" subsystems.



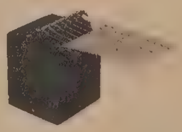
Choice of Penmotors

(Mark 200 accommodates any 4; Mark 240 accommodates any 2)

80 mm

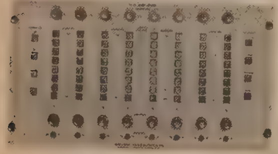


Dual 40 mm

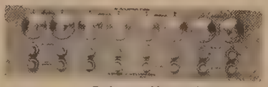


8-channel "Multimarker"

Choice of Input Preamplifiers



Pushbutton attenuator (Series 4100)

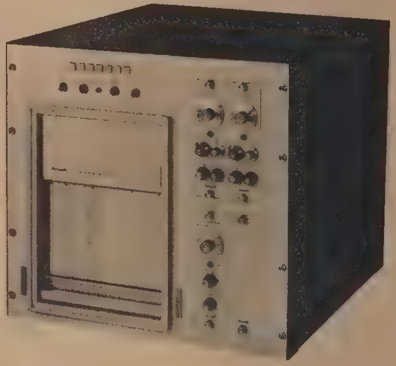


Rotary attenuator (Series 4100 & 4400)

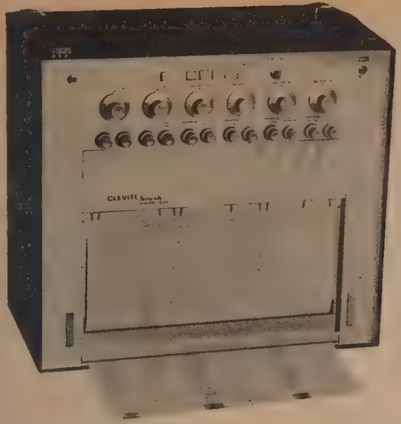
Plug-in modules (Series 4200)

All Solid State Recorder • Mark 240 Position-Feedback Controlled

This versatile, high accuracy direct writing recorder is a complete, self-contained system designed for a very wide range of applications where resolution and precision in measurement are required. It may be mounted vertically or horizontally in standard 19" racks to RETMA specifications, or in Brush racks, or bench-top cabinets.



	Mark 200	Mark 240
No. of Channels	Choice of 2 to 8-40 mm ch. 1 to 4-80 mm ch. 8 to 32-event ch.	Choice of 2 to 4-40 mm ch. 1 to 2-80 mm ch. 8 to 16-event ch.
	(ALL ALIKE, OR IN COMBINATION)	
Penmotor type	Position feedback	Position feedback
Writing method	Pressurized ink or thermal	Pressurized ink or thermal
Trace presentation	Rectilinear	Rectilinear
Chart speeds	0.05, 0.1, 0.2, 0.5 1, 2, 5, 10, 20, 50 100, 200mm/sec.	0.05, 0.1, 0.2, 0.5, 1, 2, 5, 10, 20, 50 100, 200mm/sec.
Chart capacity	500′	275′
Frequency response 40mm penmotors 80mm penmotors	 55 Hz full scale; 30 Hz full scale;	 55 Hz full scale; 30 Hz full scale;
Linearity	½% full scale	½% full scale
Configuration	Vertical or horizontal oscillograph	Mounts in any position
Input characteristics	Depends on preamplifier used	Depends on preamplifier used
Choice of input preamplifiers (High gain, very high gain, strain, servo and converter types)	**4- or 8-channel** 4100 SERIES (50mV, 50K) • pushbutton attenuator • rotary attenuator 4400 SERIES (1mV, 1 meg) • without calibrated zero suppression • with calibrated zero suppression **PLUG-IN MODULES** 4200 SERIES Coupling preamps (50mV, 50K) • without zero suppression • with zero suppression Medium gain (1mV, 1 meg) High gain (100 microvolts, 1 meg) • without zero suppression • with zero suppression Very high gain 100K (1 microvolt, 1 meg) • without zero suppression • with zero suppression Strain-gage (carrier) Phase-sens. demodulator Hi-voltage (1000VDC off-ground) Frequency deviation converters • 50 Hz • 60 Hz • 400 Hz AC watts converter AC volts to DC volts AC amps to DC volts	**PLUG-IN MODULES** 4200 SERIES Coupling preamps (50mV, 50K) • without zero suppression • with zero suppression Medium gain (1mV, 1 meg) High gain (100 microvolts, 1 meg) • without zero suppression • with zero suppression Very high gain 100K (1 microvolt, 1 meg) • without zero suppression • with zero suppression Strain-gage (carrier) Phase-sens. demodulator Hi-voltage (1000VDC off-ground) Frequency deviation converters • 50 Hz • 60 Hz • 400 Hz AC watts converter AC volts to DC volts AC amps to DC volts



Mark 260 6-channel Portable. Low Cost-per-channel

Big-system capability at half the big-system price. Pressure-fluid rectilinear writing in *2 colors.* Four event-markers standard. Built-in preamps, 1mv sensitivity. Only 65 lbs.

Mark 220— New High Performance Portable

Weighs just 25 pounds; uses same patented writing system as Mark 200 Series. "Throw-away" cartridge contains ink for one year of normal writing.

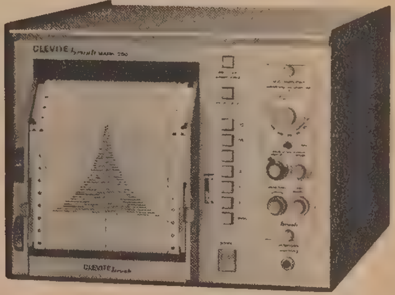
Mark 280 Dual 80mm Position Feedback Penmotor Recorder

Portable dual channel system with rectilinear forced-fluid writing. "Double-width" 80mm channels.

SPECIFICATIONS

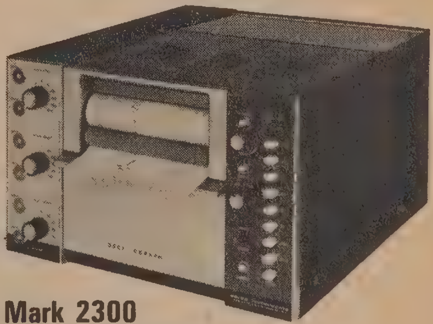
	Mark 260	Mark 220	Mark 280	Mark 250	Mark 2300
No. Channels Analog Event	6 4 standard	2 2 standard	2 2 standard	1 2 (accessory)	1 to 16
Channel width	40mm	40mm	80mm	4½"	6"*
Penmotor type	Position feedback	Position feedback	Position feedback	Position feedback	Lightbeam galvos
Writing method	Pressurized ink	Pressurized ink	Pressurized ink	Pressurized ink	Tungsten† lightbeam
Trace presentation	Rectilinear 2 Colors	Rectilinear	Rectilinear	Rectilinear	Rectilinear
Chart speeds	1, 5, 25 125mm/sec and mm/min	1, 5, 25, 125 mm/sec	0.05, 0.1, 0.2 0.5, 1, 2, 5, 10, 20, 50, 100, 200mm/sec	0.1, 0.2, 0.5, 1, 2, 5 inches/sec. and inches/min.	0.2, 0.4, 1, 2, 5, 10, 25 and 50 ips, plus above speeds ÷100
Frequency response	45 Hz full scale (40mm)	45 Hz full scale (40mm)	35 Hz full scale (80mm)	10 cps full scale (4½ inches)	Depends on galvo selected —to 2500 Hz
Linearity	½% full scale	½% full scale	½% full scale	½% full scale	2% full scale
Input characteristics	1mv/div; differential; 10 meg	1mv/div; differential, 10 meg	0.5mv/div; 1 meg constant; floating	Interchangeable preamps (see listing at left)	Varies with galvo selected impedance 100K floating with Brush galvo amplifier

*Total chart width
†Patent pending



Mark 250 5" Strip Chart Recorder

Fastest, most versatile strip-chart recorder anywhere. To 10Hz fullscale, 40 ms rise time. Contactless servo. Detachable chart magazine. Portable or rack mounting. Accepts 4200 Series preamps listed under "Mark 240" on opposite page.



Mark 2300 Lightbeam Oscillograph

Application possibilities of this versatile portable recorder are almost unlimited. Simple incandescent light-source is fail-safe.

Write for Literature or, for Application Assistance, Contact Your Brush Factory Branch or Representative.

Clevite Corporation, Brush Instruments Division
37th and Perkins, Cleveland, Ohio 44114.

Sales, service and warehousing centers at Boston, New York, Washington, Orlando, Cleveland, Detroit, Chicago, Denver, Houston, Los Angeles, San Francisco, and Seattle; in Europe: Antwerp, Belgium; engineering representatives in all key locations.

CLEVITE BRUSH

RECORDERS, GRAPHIC--STRIP CHART

CLEVITE CORP, BRUSH INSTRUMENTS DIV, CLEVELAND OHIO . . . . ADV PGS 570,571
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y . . . . ADV PGS 7
HEWLETT-PACKARD, PALO ALTO, CAL . . . . ADV PG 572
HOUSTON INSTRUMENT DIV BAUSCH & LOMB, BELLAIRE TEX . . . . ADV PG 573
SCIENTIFIC-ATLANTA INC, ATLANTA . . . . [illegible]
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON . . . . TEX
TRACOR INC, AUSTIN, TEX . . . . ADV PG 572
Alden Electronic & Impulse Recording Equip Co Inc Westboro . . . . Mass
Amprobe Instrument Div Soss Mfg Co, Lynbrook . . . . N Y
Antlab, Inc, Worthington . . . . Ohio
Argonaut Associates, Inc, Beaverton . . . . Ore
Audn Corp, Hamburg . . . . N Y
Auto-Trol Corp, Arvada . . . . Colo
Bacharach Instrument Co, Pittsburgh . . . . Pa
Bailey Meter Co, Wickliffe . . . . Ohio
Baird-Atomic, Inc, Cambridge . . . . Mass
Bausch & Lomb, Inc, Rochester . . . . N Y

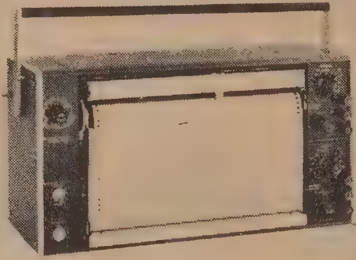
Beckman Instruments Inc, Fullerton, ... Cal
Bendix Corp Environmental Science Div, Baltimore . . . . Md
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham . . . . Mass
Bristol Div, American Chain & Cable Co Waterbury . . . . Conn
Canadian Research Institute, Don Mills . . . . Ont
Clevite Corp, Brush Instruments Div, Cleveland . . . . Ohio
Conklin Instrument Corp, Pleasant Valley . . . . N Y
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena . . . . Cal
Decca Radar, Inc, New York . . . . N Y
Disc Instruments Inc, Santa Ana . . . . Cal
Dohrmann Instruments Co, Mountain View . . . . Cal
Edo Corp, College Point . . . . NY
E G & G Int'l Inc Geodyne Div, Waltham . . . . Mass
Electric Tachometer Corp, Philadelphia . . . . Pa
Electro-Data Inc, Garland . . . . Tex
Electron-Ohio Inc, Cleveland . . . . Ohio
Engler Instrument Co, Jersey City . . . . N J
Esterline Angus Div Esterline Corp, Indianapolis . . . . Ind
Foxboro Co, Foxboro . . . . Mass
Gelman Instrument Co, Ann Arbor . . . . Mich
General Electric Co, ECSO, Schenectady . . . . N Y
General Radio Co, West Concord . . . . Mass
Gilmore Industries Inc, Cleveland . . . . Ohio
Gulton Industries Inc, Metuchen . . . . N J
Hallmark Standards Inc, Mamaroneck . . . . N Y
Harvard Apparatus Co Inc, Millis . . . . Mass
Hewlett-Packard, Palo Alto . . . . Cal
Honeywell Industrial Div, Fort Washington . . . . Pa
Houston Instrument Div Bausch & Lomb, Bellaire . . . . Tex
Inertia Switch Inc, New York . . . . N Y
Instrument Corp of America, Timonium . . . . Md
Kahl Scientific Instrument Corp, El Cajon . . . . Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim . . . . Cal
Leeds & Northrup Co, Philadelphia . . . . Pa
Leupold & Stevens Instruments Inc, Portland . . . . Ore
Martindale Electric Co, Cleveland . . . . Ohio
Martin-Decker Corp, Santa Ana . . . . Cal
Mast Development Co, Davenport . . . . Iowa
McKee-Pedersen Instruments, Danville . . . . Cal
Mechanics for Electronics Inc, Cambridge . . . . Mass
Mennen-Greatbatch Electronics Inc, Clarence . . . . N Y
Motorola Instrumentation & Control Inc, Phoenix . . . . Ariz
Nichols Co Ltd, R H, Downsview . . . . Ont
Nuclear Enterprises Ltd, Edinburgh 11 . . . . Scotland
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon . . . . NY
Philips' Gloeilampenfabrieken, N V, Eindhoven . . . . Holland
Photron Instrument Co, Cleveland . . . . Ohio
Research Calculations Div ADP of Mass Inc Chestnut Hill . . . . Mass
Robertshaw Controls Co, Aero & Instrument Div Anaheim . . . . Cal
Rohde & Schwarz Sales Co USA Inc, Passaic . . . . N J
Rustrak Instrument Div Gulton Ind Inc, Manchester . . . . NH
Schwarzer Corp, Framingham . . . . Mass
Scientific-Atlanta Inc, Atlanta . . . . Ga
Simpson Electric Co, Chicago Ill
Stoelting Co, C H, Chicago Ill
Sunshine Scientific Instruments Inc, Philadelphia . . . . Pa
Taylor Instrument Cos, Rochester . . . . N Y
Techni-Rite Electronics Inc, Warwick . . . . R I
Texas Instruments Incorporated, Dallas . . . . Tex
Texas Instruments Inc Indl Prods Div, Houston . . . . Tex
Thorn Automation Ltd, Rugeley, Staffs . . . . England
Tipptronic Inc, Chagrin Falls . . . . Ohio
Tracor Inc, Austin . . . . Tex
Varian, Palo Alto . . . . Cal
Varian Aerograph, Walnut Creek . . . . Cal
Westinghouse Electric Corp, Relay & Instr Dept Newark . . . . N J
West Instrument Corp, Schiller Park Ill
Westronics Inc, Fort Worth . . . . Tex
Yeiser Labs, Costa Mesa . . . . Cal
Yellow Springs Instrument Co Inc, Yellow Springs . . . . Ohio
Yokogawa Electric Works Inc, Larchmont . . . . N Y

WESTRONICS MULTIPOINT & CONTINUOUS-WRITING CHART RECORDERS

The Series "D" Multipoint Recorder incorporates Selectronic printing with print rate variable from 1 to 45 seconds per point. Single or multicolor printing as well as 11″ calibrated chart. A few of the available options are: dual speed assemblies, five and ten speed DIALOMATIC chart speed assemblies, event markers, retransmitting slidewire, chart illumination, automatic multirange recording and ½ second pen speed. Continuous-writing recorders in 5″ or 11″ chart width, chart speeds to 30″ per hour. All recorders only 9¼″ high. Westronics, Inc.

TRACOR™

6500 TRACOR LANE/AUSTIN, TEXAS 78721
512-926-2800/TWX 512-926-0441



STRIP CHART RECORDERS

VERSATILE PERFORMANCE

INK OR ELECTRIC WRITING

Model	Use	Writing width	Pens	Price	Chart speeds	Speed range	Voltage range (full-scale)
680	Laboratory	5″	1	$750	8	8″/min - 1″/hr	5 mV to 100 volts
H01-680	Laboratory	5″	1	$800	8		1 mV to 100 volts
7101B	Laboratory	10″	1	$1000 (main frame only)	12	2″/sec - 1″/hr	Input Models 17500A: 5 mV - 100 V, $250 17501A: 1 mV - 100 V, $350 17502A: single span to match thermocouple, $250 17530A: single span; 1 mV, $250 17504A: single span; 5 mV - 100 V, $200
7100B	Laboratory	10″	2	$1300 (main frame only)	12	2″/sec - 1″/hr	
7127A	Laboratory-Industrial	10″	1	$850 (main frame only)	4	1/4″/min - 2″/min or 6″/hr - 48″/hr or, 1.5″/hr - 12″/hr.	
7128A	Laboratory-Industrial	10″	2	$1150 (main frame only)	4	Same as 7127A	
*H10-7127A	Gas chromatography	10″	1	$1100	4	Same as 7127A	1 mV
*H10-7128A	Gas chromatography	10″	2	$1650	4	Same as 7127A	1 mV

HEWLETT hp PACKARD

EBG

the industry's only computer compiled directory.

This makes information in the Electronics Buyers' Guide the latest and most accurate anywhere.

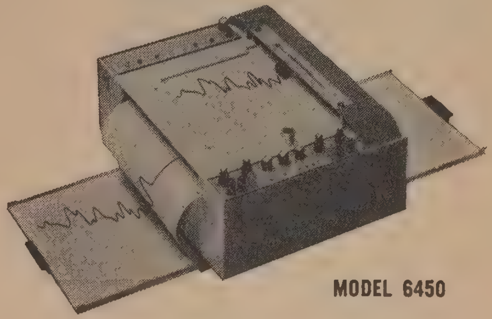
Electronics Buyers' Guide

Omnigraphic$_{tm}$ X-Y and X-Y-Y' Recording

Unique in Concept — Reliable in Function

MODEL 6450 — 11" x 17" X-Y Recording Surface $1950

Say "good-bye" to hand loading of charts with this new OMNIGRAPHIC$_{tm}$ X-Y Recorder which has all the advantages of conventional X-Y's, yet is based on a radically new but proven recording principle. Automatic chart advance eliminates the need to manually load and unload each chart. Recording mechanism has two independent servo drives for X and Y and automatic index or reversal of chart on command — local or remote. Slewing speed is 20 in/sec. on Y (pen) axis and is 15 in/sec. on X (paper) axis. Input impedence 1 megohm, all ranges fixed and variable. Accuracy ±0.2% of full scale, repeatability ±0.1%. 18 calibrated DC voltage ranges (continuously variable between ranges). Pen control local or remote. Front panel controls switch from English to Metric scaling.



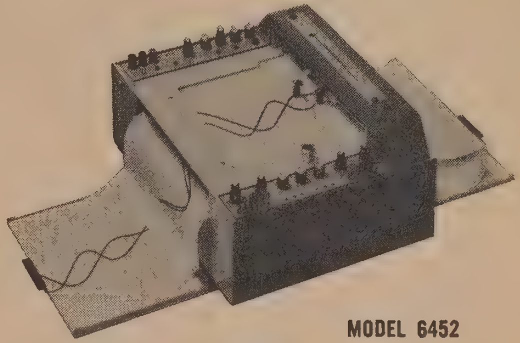
MODEL 6450

MODEL 6420 — 8½" x 11" X-Y Recording Surface $1950

Same specifications as Model 6450.

MODEL 6452 — 11" x 17" X-Y-Y' (2-pen) Recording Surface $2720

Same specifications as Model 6450 above. For more detailed information, request Bulletin #6400868



MODEL 6452

MODEL 6840

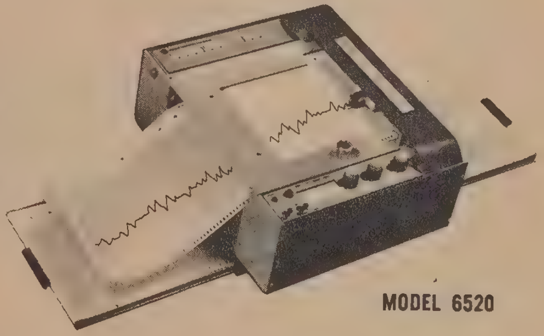
Time Base $225.00

7 ranges from .5 sec. to 50 sec./chart div. in 1-2-5 sequence. Accuracy ± 1% full scale. Zener Reference. 6¼" x 3¹¹⁄₁₆" x 5⅙". 3½ pounds. Use on any X-Y recorder.

MODEL 6520

Six Functions in One Recorder $2650

This unique Omnigraphic$_{tm}$ Recorder does the job of six . . . without additions or modifications. It performs all these functions: strip chart, X-Y, sequential chart, external chart control, X-Y programmed voltage, X-Y programmed movement. Features include: continuous or automatic paper feed, 18 speed selections from 2"/sec. to .05 in/hr. (144,000:1 range). Pen speed 20 in/sec. Accuracy 0.2% full scale. 20 voltage ranges, 1mv full scale and infinite input resistance. For more detailed information, request Bulletin #2686520



MODEL 6520

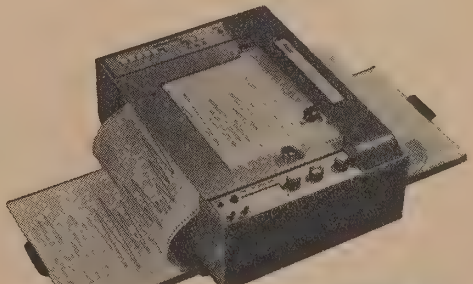
MODEL 6540 $2950

Same X axis as Model 6520, above. Y axis: 40"/sec. Slewing Speed, 1mv/in. Sensitivity, 0.2% Accuracy Full Scale, 0.1" Repeatability Full Scale. 8½" x 11" or 11" x 17" charts.

MODEL 6800

Analog Adapter $450.00

X axis analog DC voltage control for Model 6520. Sensitivity 0.1, 1 and 10 volts/in. Speed 2.0 in/sec. Attaches to 6520 in 5 minutes installation time. For more detailed information, request Bulletin #2686520



MODEL 6540

Various optional features are available for these OMNIGRAPHIC$_{tm}$ Recorders. Write for appropriate brochure.

houston instrument | DIVISION OF **BAUSCH & LOMB**

4950 TERMINAL AVENUE, BELLAIRE, TEXAS 77401

(713) 667 7403 CABLE HOINCO

X-Y RECORDERS

Autogrip® electric paper hold-down, with no moving parts
inputs with 1-megohm null loading
calibrated multi-scale ranges
dc sensitivity to 100 μV/inch
ac sensitivity to 5 mV/inch
zero offset up to 4 scale lengths
140 dB dc common mode rejection
120 dB ac common mode rejection

Model	Chart size	Performance level	Pens	Sensitivity mV/inch	Input resistance (maximum sensitivity)	AC	Time sweep	Rack model	Price
7035B	8½ x 11	general purpose	1	1 10	Potentiometric 100 k	no	internal—no external—yes (Model 17108A)	same	$985
135	8½ x 11	medium	1	0.5	*200 k/volt	no	yes	same	1650
135A	8½ x 11	medium	1	0.5	*1 meg	no	yes	same	1650
136A	8½ x 11	medium	2	0.5	*1 meg	no	yes	same	2650
7030A	8½ x 11	high	1	0.1	*1 meg	no	yes	same	1895
7005B	11 x 17	general purpose	1	1 10	Potentiometric 100 k	no	internal—no external—yes (Model 17108A)	same	1195
7004A	11 x 17	high	1	0.5**	1 meg	no	yes**	same	1295†
2FA	11 x 17	medium	2	0.5	*1 meg	no	yes	2FRA	3375
7000A	11 x 17	high	1	0.1 dc 5 ac	*1 meg	yes	yes	7000AR	2495
7001A	11 x 17	high	1	0.1 dc	*1 meg	no	yes	7001AR	2175

*Potentiometric input possible on most sensitive ranges by removing straps on input board.
**Depends on plug-in. † (less plug-in)

HEWLETT hp PACKARD

RECORDERS, GRAPHIC--X-Y

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
DISCON CORP, FORT LAUDERDALE	**FLA**
HEWLETT-PACKARD, PALO ALTO, CAL	**ADV PG 574**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
HOUSTON INSTRUMENT DIV BAUSCH & LOMB, BELLAIRE TEX	**ADV PG 573**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
Aero Service Corp, Philadelphia	Pa
Antlab, Inc, Worthington	Ohio
Applied Devices Corp, College Point	n y
Arvin Systems Inc, Dayton	Ohio
Audn Corp, Hamburg	N Y
Automation Development Co, Culver City	Cal
Auto-Trol Corp, Arvada	Colo
Baird-Atomic, Inc, Cambridge	Mass
Bolt Beranek & Newman, Data Equip Div Santa Ana	Cal
Bristol Div, American Chain & Cable Co Waterbury	Conn
California Computer Products Inc, Anaheim	Cal
Central Scientific Co, Chicago	Ill
Concord Control Inc, Boston	Mass
Conductron Corp, Ann Arbor	Mich
Discon Corp, Fort Lauderdale	Fla
Dohrmann Instruments Co, Mountain View	Cal
Electronic Associates Inc, West Long Branch	N J
Engler Instrument Co, Jersey City	N J
Gerber Scientific Instrument Co, Hartford	Conn
Gilmore Industries Inc, Cleveland	Ohio
Hartman Systems Co Inc, Huntington Station	N Y
Hewlett-Packard, Palo Alto	Cal
Honeywell Industrial Div, Fort Washington	Pa
Honeywell Test Instruments Div, Denver	Colo
Houston Instrument Div Bausch & Lomb, Bellaire	Tex
IBM Data Processing Div, White Plains	N Y
Itek Corp, Lexington	Mass
Keinath Instrument Co, Columbus	Ohio
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Leeds & Northrup Co, Philadelphia	Pa
Link Group Gen Precision Sys Inc, Binghamton	N Y
Measurement Technology Corp, Canoga Park	Cal
Milgo Electronic Corp, Miami	Fla
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nuclear Measurements Corp, Indianapolis	Ind
Philco-Ford Corp, Washington	D C
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Precision Mecanique Labinal, 93 Saint-Ouen	France
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Scientific Data Systems Inc, El Segundo	Cal
Stark Electronic Instruments Ltd, Ajax	Ont
Straza Industries Div Ametek Inc, El Cajon	Cal
Texas Instruments Incorporated, Dallas	Tex
Texas Instruments Inc Indl Prods Div, Houston	Tex
Universal Drafting Machine Corp, Bedford Heights	Ohio
Varian, Palo Alto	Cal
Yeiser Labs, Costa Mesa	Cal
Yokogawa Electric Works Inc, Larchmont	N Y

RECORDERS--HUMIDITY, ELECTRONIC

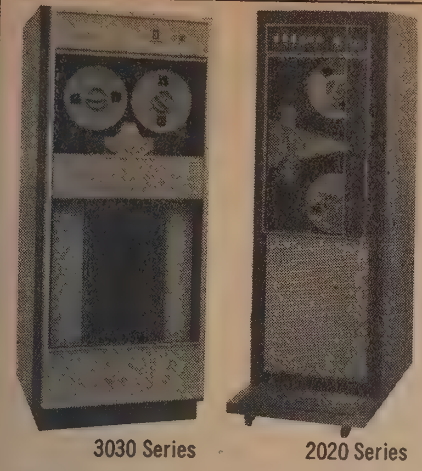
Abrax Instrument Corp, Jamaica	N Y
Aircraft Components Inc, Benton Harbor	Mich
Aviation Electric Ltd, St Laurent, Montreal	Que
Cambridge Systems Inc, Newton	Mass
Canadian Motorola Electronics Co, Agincourt	Ont
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Cargocaire Engineering Corp, Amesbury	Mass
Conklin Instrument Corp, Pleasant Valley	N Y
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Decca Radar, Inc, New York	N Y
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Foxboro Co, Foxboro	Mass
Honeywell Industrial Div, Fort Washington	Pa
Hygrodynamics Inc, Silver Spring	Md
Keinath Instrument Co, Columbus	Ohio
Leeds & Northrup Co, Philadelphia	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Sigma Instruments Canada Ltd,-Toronto 18 Ont	Canada
Sigma Instruments Inc, Braintree	Mass
Strandberg Engineering Labs Inc, Greensboro	N C
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taylor Instrument Cos, Rochester	N Y
Westronics Inc, Fort Worth	Tex

RECORDERS, MAGNETIC TAPE-- COMMUNICATION MONITORING

CROWN INT'L RADIO & ELECTRONICS CORP, ELKHART	**IND**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
LEACH CORP, SOUTH PASADENA	**CAL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MIDWESTERN INSTRUMENTS INC, DIV TELEX CORP TULSA	**OKLA**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TRACOR INC, AUSTIN	**TEX**
Ampex Corp, Redwood City	Cal
Audio Instrument Co Inc, Union City	N J
Auricord Corp, Long Island City	N Y
Broadcast Electronics Inc, Silver Spring	Md
Casco Music Systems Inc, Hyde Park	Mass
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Crown Int'l Radio & Electronics Corp, Elkhart	Ind
Data Cartridge Inc, Mountain View	Cal
Data Science Corp, San Diego	Cal
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Design Labs Inc, Philadelphia	Pa
EMI Electronics Ltd, Hayes, Middlesex	England
Fargo Co, San Francisco	Cal
Genisco Technology Corp, Compton	Cal
Gotham Audio Corp, New York	N Y
Hewlett-Packard, Palo Alto	Cal
Himmelstein & Co, S, Elk Grove Village	Ill
Honeywell Test Instruments Div, Denver	Colo
Itek Corp, Lexington	Mass
Leach Corp, South Pasadena	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Magnasync/Moviola Corp, North Hollywood	Cal
Matrix Div, Schafer Electronics, Chatsworth	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Metrotech, Inc, Mountain View	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Midwestern Instruments Inc, Div Telex Corp Tulsa	Okla
Mincom Div 3M Co, Camarillo	Cal
3M Company, St Paul	Minn
Nippon Electric Co Ltd, Tokyo	Japan
Northrop Nortronics, Palos Verdes Peninsula	Cal
Pacific Electro Magnetics Co Inc, Palo Alto	Cal
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Potter Instrument Co, Inc, Plainview	N Y
Precision Instrument Co, Palo Alto	Cal
Raymond Engineering Inc, Middletown	Conn
Raytheon Learning Systems Co, Michigan City	Ind
Sanders Associates, Inc, Nashua	N H
Shrader Sound Inc, Washington	D C
Siemens America Inc, New York	N Y
SoundScriber Corp, West Haven	Conn
Sparta Electronic Corp, Sacramento	Cal
Stancil-Hoffman Corp, Hollywood	Cal
Stuart, Matthew & Co Inc, Bronx	NY
Tally Corp, Seattle	Wasl
Tape-Athon, Inglewood	Cal
Telectro Systems Corp, Corona	N Y
Telex Communications Div, Minneapolis	Minn
Thermionic Products Electronics Ltd Southampton	England
Tracor Inc, Austin	Tex
United Control Corp, Redmond	Wash
United Control-Data Div, South El Monte	Cal
Vetter Co, A R, Rebersburg	Pa
Video Research Corp, Rockville	Md
Visual Electronics Labs Audio Div, Pasadena	Cal
Wiltek, Inc, Wilton	Conn

RECORDERS, MAGNETIC TAPE-- COMPUTER

HEWLETT-PACKARD, PALO ALTO, CAL	**ADV PG 575**
KINELOGIC CORP, PASADENA	**CAL**
LEACH CORP, SOUTH PASADENA	**CAL**
MIDWESTERN INSTRUMENTS INC, DIV TELEX CORP TULSA	**OKLA**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
Ampex Corp, Redwood City	Cal
Auricord Corp, Long Island City	N Y
Borg-Warner Controls Div Borg-Warner Corp Santa Ana	Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Calma Co, Santa Clara	Cal
Coldspring Instrument Corp, Huntington	N Y
Communitype Corp, New York	N Y
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Control Data Corp, Minneapolis	Minn
Cybetronics Inc, Waltham	Mass
Data Science Corp, San Diego	Cal
Digi-Data Corp, Bladensburg	Md
Digitronics Corp, Albertson	N Y
Fujitsu Ltd, Tokyo	Japan
General Electric Co Info Sys Equip Div, Phoenix	Ariz
Genisco Technology Corp, Compton	Cal
Hewlett-Packard, Palo Alto	Cal
Himmelstein & Co, S, Elk Grove Village	Ill
Honeywell-EDP Div, Wellesley Hills	Mass
IBM Data Processing Div, White Plains	N Y
Kennedy Co, Altadena	Cal



Digital magnetic tape units

Medium and low-speed tape units for interfacing to digital systems.
1 ips to 75 ips
7 or 9 Track Operation
NRZI Recording
200, 556 and 800 characters per inch
Transfer Rates, 200 Hz to 60 KHz

HEWLETT hp PACKARD

MAGNETIC RECORDERS

Kinelogic Corp, Pasadena ..... Cal
Leach Corp, South Pasadena ..... Cal
Lockheed Electronics Co, Indus Technology Div Edison ..... N J
Logic Corp, Haddonfield ..... N J
Midwestern Instruments Inc, Div Telex Corp Tulsa ..... Okla
Mincom Div 3M Co, Camarillo ..... Cal
3M Company, St Paul ..... Minn
Mohawk Data Sciences Corp, Boston ..... Mass
National Cash Register Co, Dayton ..... Ohio
Nippon Electric Co Ltd, Tokyo ..... Japan
Oki Electric Industry Co Ltd, Tokyo ..... Japan
Oki Electronics of America, Inc, Fort Lauderdale ..... Fla
Peripheral Equipment Corp, Chatsworth ..... Cal
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon ..... NY
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Potter Instrument Co, Inc, Plainview ..... N Y
Precision Instrument Co, Palo Alto ..... Cal
Raytheon Learning Systems Co, Michigan City ..... Ind
RCA, Defense Electronic Products, Moorestown ..... N J
Scientific Data Systems Inc, El Segundo ..... Cal
Space & Systems Div General Time Corp Stamford ..... Conn
Sylvania Electronic Systems, Waltham ..... Mass
Telectro Systems Corp, Corona ..... N Y
Telefunken Sales Corp, Garden City ..... N Y
Texas Instruments Inc Indl Prods Div, Houston ..... Tex
Thermionic Products Electronics Ltd Southampton ..... England
Univac Div; Sperry Rand Corp, Philadelphia ..... Pa
Video Research Corp, Rockville ..... Md
Wiltek, Inc, Wilton ..... Conn
Winston Research Corp, Los Angeles ..... Cal

RECORDERS, MAGNETIC TAPE-- DICTATION

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
American Geloso Electronics Inc, New York ..... N Y
Audio Magnetics Corp, Gardena ..... Cal
Auricord Corp, Long Island City ..... N Y
Cardion Electronics Div Gen Signal Corp, Woodbury ..... N Y
Concord Electronics Corp, Los Angeles ..... Cal
EMI Electronics Ltd, Hayes, Middlesex ..... England
Fen-Tone Corp, New York ..... N Y
Gregory Magnetic Industries Inc, Pompano Beach ..... Fla
IBM Corp, Armonk ..... N Y
Matsushita Electric Industrial Co Ltd, Osaka ..... Japan
Merchant Co, Robert C, Carmel Valley ..... Cal
Miles Reproducer Co Inc, New York ..... N Y
Oki Electric Industry Co Ltd, Tokyo ..... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Sankyo Seiki Mfg Co, Ltd, Tokyo ..... Japan
Shrader Sound Inc, Washington ..... D C
Stanford International, San Carlos ..... Cal
Stuart, Matthew & Co Inc, Bronx ..... NY

RECORDERS, MAGNETIC TAPE-- EDUCATIONAL

CROWN INT'L RADIO & ELECTRONICS CORP, ELKHART ..... IND
LEACH CORP, SOUTH PASADENA ..... CAL
MIDWESTERN INSTRUMENTS INC, DIV TELEX CORP TULSA ..... OKLA
Ampex Corp, Redwood City ..... Cal
Audiotronics Corp, North Hollywood ..... Cal
Auricord Corp, Long Island City ..... N Y
A V Electronics, Inc, Fresno ..... Cal
Casco Music Systems Inc, Hyde Park ..... Mass
Concord Electronics Corp, Los Angeles ..... Cal
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena ..... Cal
Crown Int'l Radio & Electronics Corp, Elkhart ..... Ind
Electronic Design Labs Inc, Philadelphia ..... Pa
Electronic Futures Inc Div KMS Indus Inc North Haven ..... Conn
Elpa Mktg Industries Inc, New Hyde Park ..... N Y
EMI Electronics Ltd, Hayes, Middlesex ..... England
Gregory Magnetic Industries Inc, Pompano Beach ..... Fla
K L A Labs Inc, Detroit ..... Mich
Leach Corp, South Pasadena ..... Cal
Merchant Co, Robert C, Carmel Valley ..... Cal
Midwestern Instruments Inc, Div Telex Corp Tulsa ..... Okla
Multi Media Engineering Inc, Rockville ..... Md
Newcomb Audio Products Co, Sylmar ..... Cal
Oki Electric Industry Co Ltd, Tokyo ..... Japan
Orrtronics Inc, Toledo ..... Ohio
Perfectone Sound Labs, Allendale ..... NJ
Raytheon Learning Systems Co, Michigan City ..... Ind
Shrader Sound Inc, Washington ..... D C
Sony Corp, Tokyo ..... Japan
Tape-Athon, Inglewood ..... Cal
Telex Communications Div, Minneapolis ..... Minn
Telstar Electronics Corp, Southold ..... N Y
Thermionic Products Electronics Ltd Southampton ..... England
Vetter Co, A R, Rebersburg ..... Pa
Video Research Corp, Rockville ..... Md
Visual Electronics Labs Audio Div, Pasadena ..... Cal
V-M Corp, Benton Harbor ..... Mich
Webster Electric Co, Racine ..... Wisc

RECORDERS, MAGNETIC TAPE-- ENTERTAINMENT

CROWN INT'L RADIO & ELECTRONICS CORP, ELKHART ..... IND
MIDWESTERN INSTRUMENTS INC, DIV TELEX CORP TULSA ..... OKLA
Ampex Corp, Redwood City ..... Cal
Audio Instrument Co Inc, Union City ..... N J
Auricord Corp, Long Island City ..... N Y
Automatic Radio Sales Inc, Melrose ..... Mass
Casco Music Systems Inc, Hyde Park ..... Mass
Concord Electronics Corp, Los Angeles ..... Cal
Crown Int'l Radio & Electronics Corp, Elkhart ..... Ind
Dynavox Electronics Corp, Long Island City ..... N Y
Electronic Engineering Co Inc, Norfolk ..... Va
Electronic Homes Co, New York ..... N Y
Elpa Mktg Industries Inc, New Hyde Park ..... N Y
Ercona Corp, New York ..... N Y
Gregory Magnetic Industries Inc, Pompano Beach ..... Fla
Karg Labs Inc, South Norwalk ..... Conn
K L A Labs Inc, Detroit ..... Mich
Lesa-Costruzioni Elettromeccaniche SPA, Milan ..... Italy
Major Electronics Corp, Brooklyn ..... N Y
Metrotech, Inc, Mountain View ..... Cal
Midland International Corp, North Kansas City ..... Mo
Midwestern Instruments Inc, Div Telex Corp Tulsa ..... Okla
Newcomb Audio Products Co, Sylmar ..... Cal
Oki Electric Industry Co Ltd, Tokyo ..... Japan
Perfectone Sound Labs, Allendale ..... NJ
Raytheon Learning Systems Co, Michigan City ..... Ind
Sankyo Seiki Mfg Co, Ltd, Tokyo ..... Japan
Sharp Electronics Corp, Carlstadt ..... N J
Shrader Sound Inc, Washington ..... D C
Sony Corp, Tokyo ..... Japan
Stancil-Hoffman Corp, Hollywood ..... Cal
Superscope Inc, Sun Valley ..... Cal
Tape-Athon, Inglewood ..... Cal
Telefunken Sales Corp, Garden City ..... N Y
Telex Communications Div, Minneapolis ..... Minn
United Control Corp, Redmond ..... Wash
Visual Electronics Labs Audio Div, Pasadena ..... Cal
V-M Corp, Benton Harbor ..... Mich

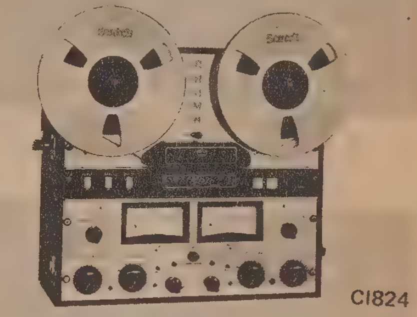
RECORDERS, MAGNETIC TAPE-- INSTRUMENT

CROWN INT'L RADIO & ELECTRONICS CORP, ELKHART IND ..... ADV PG 575
GEOTECH A TELEDYNE CO, GARLAND, TEX ..... ADV PG 576
HEWLETT-PACKARD, PALO ALTO, CAL ..... ADV PG 576
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO ..... ADV PGS 8
KINELOGIC CORP, PASADENA ..... CAL
LEACH CORP, SOUTH PASADENA ..... CAL
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
MIDWESTERN INSTRUMENTS INC, DIV TELEX CORP, TULSA OKLA ..... ADV PG 577
TRACOR INC, AUSTIN, TEX ..... ADV PG 576
Ampex Corp, Redwood City ..... Cal
Audio Instrument Co Inc, Union City ..... N J
Auricord Corp, Long Island City ..... N Y
Bionic Instruments Inc, Bala Cynwyd ..... Pa
B & K Instruments Inc of Bruel & Kjaer Cleveland ..... Ohio

Crown — first choice of those who demand the best!

Leadership IN ANALOG DATA RECORDERS

OVER 40 MODELS
NAB OR DIRECT RECORD
1-4 CHANNELS ON ¼" TAPE



TWO TRANSPORT STYLES:

700 TRANSPORT - Rugged, simple, high-quality deck with only 10 moving parts.

800 TRANSPORT - Instant-response IC logic control never breaks tape. Compatible for systems integration.

TYPICAL PERFORMANCE (NAB)

IPS	RESPONSE	WOW	S/N
15	50-30,000	0.06	60
7½	30-30,000	0.09	60
3¾	30-18,000	0.18	55

CUSTOM MODIFICATIONS FOR O.E.M. USE

PRICES - $545 to $4500

BOX 1000, DEPT. EBG-68

Crown INTERNATIONAL
1718 Mishawaka Rd. • Elkhart, Ind.

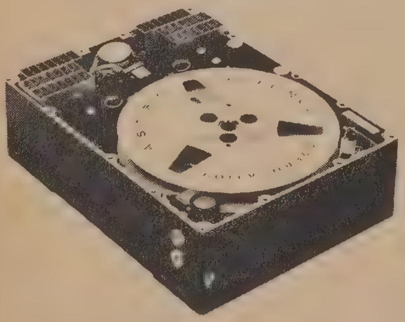
MAGNETIC
RECORDING SYSTEMS

3950A

Instrumentation systems for direct, FM and pulse recording and reproducing. Three basic bandwidths available: 100 kHz, 300 kHz, 1.5 MHz.

HEWLETT hp PACKARD
MAGNETIC RECORDERS

ASTRO-SCIENCE
AIRBORNE
TAPE RECORDERS



Instrumentation tape recorders/reproducers for use in hostile environments such as: surface vehicles, shipboard, subsurface, nuclear hardened sites, airborne and space environments. Typical of the engineering excellence involved in the Astro-Science data acquisition systems is the MARS series tape recorders — the smallest and lightest multi-speed, multi-channel airborne recorders available. Astro-Science Corporation,

TRACOR™
6500 TRACOR LANE/AUSTIN, TEXAS 78721
512-926-2800/TWX 512-926-0441

Borg-Warner Controls Div Borg-Warner Corp Santa Ana	Cal
Broadcast Electronics Inc, Silver Spring	Md
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Casco Music Systems Inc, Hyde Park	Mass
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Crown Int'l Radio & Electronics Corp, Elkhart	Ind
Data Cartridge Inc, Mountain View	Cal
Data Science Corp, San Diego	Cal
Digi-Data Corp, Bladensburg	Md
Disa Elektronik A/S, Herlev	Denmark
Dowa Trading Co Ltd, Kobe	Japan
Dresser Systems, Inc, Houston	Tex
E G & G Int'l Inc Geodyne Div, Waltham	Mass
Electronic Design Labs Inc, Philadelphia	Pa
EMI Electronics Ltd, Hayes, Middlesex	England
EMI Cossor Electronics Ltd, Dartmouth, N S	Can
Ercona Corp, New York	N Y
Fenlow Electronics Ltd, Weybridge	England
Fen-Tone Corp, New York	N Y
General Radio Co, West Concord	Mass
Genisco Technology Corp, Compton	Cal
Geodyne Div EG&G Int'l, Waltham	Mass
Geotech A Teledyne Co, Garland	Tex
Hewlett-Packard, Palo Alto	Cal
Himmelstein & Co, S, Elk Grove Village	Ill
Honeywell Test Instruments Div, Denver	Colo
Infotronics Corp, Houston	Texas
International Electro-Magnetics Inc, Palatine	Ill
Jetronic Industries Inc, Philadelphia	Pa
Kennedy Co, Altadena	Cal
Kinelogic Corp, Pasadena	Cal
Leach Corp, South Pasadena	Cal
Lear Siegler Inc, Santa Monica	Cal
Lockheed Electronics Co, Plainfield	N J
Lockheed Electronics Co, Indus Technology Div Edison	N J
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McKiernan-Terry Marine Div Litton Industries Paramus	N J
Merchant Co, Robert C, Carmel Valley	Cal
Midwestern Instruments Inc, Div Telex Corp Tulsa	Okla
Mincom Div 3M Co, Camarillo	Cal
3M Company, St Paul	Minn
NUS Corp, Underwater Sys Div, Paramus	N J
Pacific Electro Magnetics Co Inc, Palo Alto	Cal
Perfectone Sound Labs, Allendale	NJ
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Potter Instrument Co, Inc, Plainview	N Y
Precision Instrument Co, Palo Alto	Cal
Raymond Engineering Inc, Middletown	Conn
RCA, Defense Electronic Products, Moorestown	N J
Sanders Associates, Inc, Nashua	N H
Sangamo Electric Co, Springfield	Ill
Shrader Sound Inc, Washington	D C
Sony Corp, Tokyo	Japan
Streeter-Amet, Grayslake	Ill
Tally Corp, Seattle	Wash
Tape-Athon, Inglewood	Cal
Telectro Systems Corp, Corona	N Y
Texas Instruments Incorporated, Dallas	Tex
Thermionic Products Electronics Ltd Southampton	England
Tracor Inc, Austin	Tex
United Control-Data Div, South El Monte	Cal
Vetter Co, A R, Rebersburg	Pa
Video Research Corp, Rockville	Md
Visual Electronics Labs Audio Div, Pasadena	Cal
Wiltek, Inc, Wilton	Conn
Winston Research Corp, Los Angeles	Cal

Electronics Buyers' Guide

Your black book of 6500 manufacturers addresses and phone numbers.

Check the green section

NEW
one-inch
14 channel
LT/FM*
recorder

Model 19429 LT/FM Recorder/Reproducer

*Model 19429 is the latest in Geotech's series of LT/FM (Long-Term/Frequency Modulation) single speed tape recorders. You can record 14 channels on one-inch tape, play back in real time any one channel. Three-way power choice and four recording-speed options put this portable recorder in a class by itself! Operation from a 12 v dc, 24 v dc or 115 v ac 60 Hz power source is easily accomplished by plugging in the appropriate power cord.

- slowest speed recorder available
- direct or FM record/reproduce
- truly portable: 50 lbs, suitcase size 17" x 22" x 11"
- ac/dc operation
- real time, flux responsive reproduction
- IRIG standard, 1" tape
- four standard recording speeds: 0.03, 0.06, 15/160 or 15/16 ips
- 40 db dynamic range without compensation

For data and pricing, write Dept. 11
3401 Shiloh Rd., Garland, Texas 75040

GEOTECH
A TELEDYNE COMPANY

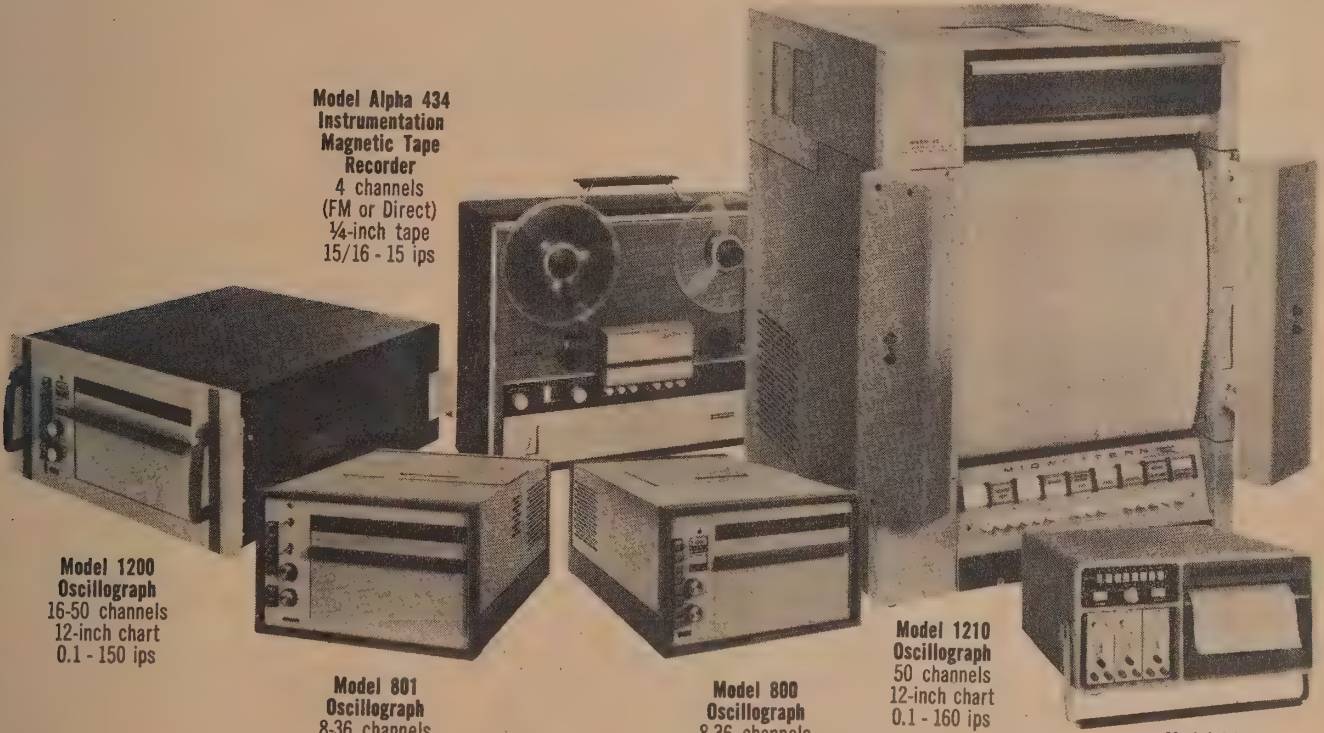
MIDWESTERN'S WORKING FAMILY
- at your service!

The **Midwestern Instruments** family of analog recorders has been developed to cover a broad spectrum of recording requirements — up to 20 kHz in oscillographic recordings and up to 60 kHz in magnetic tape recordings. The family is made up of 3-channel through 50-channel light-beam oscillograph systems and a portable 4-channel instrumentation tape recorder with separate FM and Direct record/reproduce modules.

These instruments are designed to work well together and to be compatible with most existing signal conditioning equipment regardless of brand or manufacturer.

Midwestern's family of instruments simultaneously offers you the lowest cost and the highest performance.

It's a growing family — **watch for the next addition.**



Model Alpha 434
Instrumentation
Magnetic Tape
Recorder
4 channels
(FM or Direct)
¼-inch tape
15/16 - 15 ips

Model 1200
Oscillograph
16-50 channels
12-inch chart
0.1 - 150 ips

Model 801
Oscillograph
8-36 channels
8-inch chart
.125 - 128 ips

Model 800
Oscillograph
8-36 channels
8-inch chart
0.1 - 150 ips

Model 1210
Oscillograph
50 channels
12-inch chart
0.1 - 160 ips

Model LCR
Oscillograph
3-14 channels
6-inch chart
0.2 - 80 ips

FREE LITERATURE ON REQUEST

MIDWESTERN INSTRUMENTS / TELEX

DATA SYSTEMS DIVISION

A SUBSIDIARY OF THE TELEX CORPORATION
6422 E. 41st STREET TULSA, OKLAHOMA 74135
PHONE 918 - 627-1111 TWX 918 - 627-6030 TELEX 49-2489

RECORDERS, MAGNETIC TAPE-- NUMERICAL CONTROL

Boston Digital Corp, Ashland	Mass
Coldspring Instrument Corp, Huntington	N Y
Data Science Corp, San Diego	Cal
Digi-Data Corp, Bladensburg	Md
Electronic Design Labs Inc, Philadelphia	Pa
Himmelstein & Co, S, Elk Grove Village	Ill
Infotronics Corp, Houston	Texas
Kennedy Co, Altadena	Cal
Oki Electric Industry Co Ltd, Tokyo	Japan
Peripheral Equipment Corp, Chatsworth	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Precision Instrument Co, Palo Alto	Cal
Raytheon Learning Systems Co, Michigan City	Ind
RCA, Defense Electronic Products, Moorestown	N J
Tally Corp, Seattle	Wash
Thermionic Products Electronics Ltd Southampton	England
Universal Drafting Machine Corp, Bedford Heights	Ohio
Video Research Corp, Rockville	Md

RECORDERS, MAGNETIC TAPE-- TELEMETRY

CROWN INT'L RADIO & ELECTRONICS CORP, ELKHART	**IND**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
KINELOGIC CORP, PASADENA	**CAL**
LEACH CORP, SOUTH PASADENA	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Ampex Corp, Redwood City	Cal
Auricord Corp, Long Island City	N Y
Borg-Warner Controls Div Borg-Warner Corp Santa Ana	Cal
Broadcast Electronics Inc, Silver Spring	Md
Casco Music Systems Inc, Hyde Park	Mass
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Crown Int'l Radio & Electronics Corp, Elkhart	Ind
Data Cartridge Inc, Mountain View	Cal
Data-Control Systems Inc, Danbury	Conn
Data Science Corp, San Diego	Cal
Defense Electronics Inc, Rockville	Md
E G & G Int'l Inc Geodyne Div, Waltham	Mass
Electronic Specialty Co, Los Angeles	Cal
Genisco Technology Corp, Compton	Cal
Geodyne Div EG&G Int'l, Waltham	Mass
Hewlett-Packard, Palo Alto	Cal
Himmelstein & Co, S, Elk Grove Village	Ill
Honeywell Test Instruments Div, Denver	Colo
Kinelogic Corp, Pasadena	Cal
Leach Corp, South Pasadena	Cal
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Lockheed Electronics Co, Indus Technology Div Edison	N J
Miles Reproducer Co Inc, New York	N Y
Mincom Div 3M Co, Camarillo	Cal
3M Company, St Paul	Minn
Nippon Electric Co Ltd, Tokyo	Japan
Pacific Electro Magnetics Co Inc, Palo Alto	Cal
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Precision Instrument Co, Palo Alto	Cal
RCA, Defense Electronic Products, Moorestown	N J
Sangamo Electric Co, Springfield	Ill
Sharp Electronics Corp, Carlstadt	N J
Streeter-Amet, Grayslake	Ill
Telectro Systems Corp, Corona	N Y
Video Research Corp, Rockville	Md
Visual Electronics Labs Audio Div, Pasadena	Cal
Winston Research Corp, Los Angeles	Cal

RECORDERS, MAGNETIC TAPE-- VIDEO

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
American Photocopy Equipment Co, Evanston	Ill
Ampex Corp, Redwood City	Cal
Borg-Warner Controls Div Borg-Warner Corp Santa Ana	Cal
Concord Electronics Corp, Los Angeles	Cal
Conductron Corp, Ann Arbor	Mich
Defense Electronics Inc, Rockville	Md
Electronic Engineering Co Inc, Norfolk	Va
EMI Electronics Ltd, Hayes, Middlesex	England
Gordon Enterprises, North Hollywood	Cal
Hydro Products Div Dillingham Corp, San Diego	Cal
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
Itek Corp, Lexington	Mass
Lake Systems Corp, Newton	Mass
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Multi Media Engineering Inc, Rockville	Md
Nippon Electric Co Ltd, Tokyo	Japan
Perfectone Sound Labs, Allendale	NJ
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Picker Nuclear, White Plains	N Y
Pierpont Television Co, Birmingham	Ala
Precision Instrument Co, Palo Alto	Cal
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Raytheon Learning Systems Co, Michigan City	Ind
RCA, Defense Electronic Products, Moorestown	N J
Sharp Electronics Corp, Carlstadt	N J
Shiba Electric Co Ltd, Woodside	N Y
Shrader Sound Inc, Washington	D C
Sony Corp, Tokyo	Japan
Tele Measurements Inc, Clifton	N J
Video Research Corp, Rockville	Md
Westel Co, Redwood City	Cal
Winston Research Corp, Los Angeles	Cal

RECORDERS--MECHANICAL

Bacharach Instrument Co, Pittsburgh	Pa
Bailey Meter Co, Wickliffe	Ohio
Bendix Corp Environmental Science Div, Baltimore	Md
Borg-Warner Controls Div Borg-Warner Corp Santa Ana	Cal
Bristol Div, American Chain & Cable Co Waterbury	Conn
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Electric Tachometer Corp, Philadelphia	Pa
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Fischer & Porter Co, Warminster	Pa
Harvard Apparatus Co Inc, Millis	Mass
Honeywell Industrial Div, Fort Washington	Pa
Kahl Scientific Instrument Corp, El Cajon	Cal
Keinath Instrument Co, Columbus	Ohio
Miles Reproducer Co Inc, New York	N Y
Muni Quip Corp Sub Duncan Parking Meter Corp Elk Grove Village	Ill
Ohr-Tronics Inc, Montvale	N J
Simplex Time Recorder Co, Gardner	Mass
Streeter-Amet, Grayslake	Ill
Taylor Instrument Cos, Rochester	N Y
Texas Instruments Incorporated, Dallas	Tex
United Control-Data Div, South El Monte	Cal
Video Research Corp, Rockville	Md

RECORDERS--MINIATURE SEE RECORDERS--MAGNETIC TAPE

RECORDERS--pH

HEATH CO, BENTON HARBOR	**MICH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
Analytical Measurements, Inc, Chatham	NJ
Bailey Meter Co, Wickliffe	Ohio
Beckman Instruments Inc, Fullerton	Cal
Bristol Div, American Chain & Cable Co Waterbury	Conn
Conklin Instrument Corp, Pleasant Valley	N Y
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Fischer & Porter Co, Warminster	Pa
Foxboro Co, Foxboro	Mass
Fuji Electric Co Ltd, Tokyo	Japan
Gulton Industries Inc, Metuchen	N J
Heath Co, Benton Harbor	Mich
Hewlett-Packard, Palo Alto	Cal
Honeywell Industrial Div, Fort Washington	Pa
Horiba Instruments Inc, Kyoto	Japan
Instrumentation Lab Inc, Watertown	Mass
Kahl Scientific Instrument Corp, El Cajon	Cal
Leeds & Northrup Co, Philadelphia	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radiometer A/S, Copenhagen NV	Denmark
Robertshaw Controls Co, Aero & Instrument Div Anaheim	Cal
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taylor Instrument Cos, Rochester	N Y
Thorn Automation Ltd, Rugeley, Staffs	England
Utility Communication Systems Inc, Essington	Pa
Westronics Inc, Fort Worth	Tex
Yokogawa Electric Works Inc, Larchmont	N Y

RECORDERS--POLAR COORDINATE SEE RECORDERS--GRAPHIC

RECORDERS--SMOKE & COMBUSTION, ELECTRONIC

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
Bailey Meter Co, Wickliffe	Ohio
Beckman Instruments Inc, Fullerton	Cal
Decca Radar, Inc, New York	N Y
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Fuji Electric Co Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
Hays Corp, Michigan City	Ind
Keinath Instrument Co, Columbus	Ohio
Leeds & Northrup Co, Philadelphia	Pa
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Phoenix Precision Instrument Co, Inc, Philadelphia	Pa
Photomation Inc, Mountain View	Cal
Royco Instruments Inc, Menlo Park	Cal
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Thorn Automation Ltd, Rugeley, Staffs	England
Westronics Inc, Fort Worth	Tex

RECORDERS--SOUND SEE RECORDERS--MAGNETIC TAPE

RECORDERS--TAPE SEE RECORDERS--MAGNETIC TAPE

RECORDERS--TELEPHONE

Broadcast Electronics Inc, Silver Spring	Md
Calculagraph Co, Hanover	N J
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Fairlane Electronics, Inc, Long Valley	N J
Miles Reproducer Co Inc, New York	N Y
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Shrader Sound Inc, Washington	D C
Stuart, Matthew & Co Inc, Bronx	NY
Telectro Systems Corp, Corona	N Y
Thermionic Products Electronics Ltd Southampton	England

RECORDERS--TEMPERATURE, ELECTRONIC

HEWLETT-PACKARD, PALO ALTO	**CAL**
OVEN INDUSTRIES, MECHANICSBURG	**PA**
Amprobe Instrument Div Soss Mfg Co, Lynbrook	N Y
Applied Research Austin Inc, Austin	Tex
Audn Corp, Hamburg	N Y
Bailey Meter Co, Wickliffe	Ohio
Bausch & Lomb, Inc, Rochester	N Y
Beckman Instruments Inc, Fullerton	Cal
Bristol Div, American Chain & Cable Co Waterbury	Conn
Canadian Motorola Electronics Co, Agincourt	Ont
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Coltron Industries, Inc, Charlotte	N C
Conklin Instrument Corp, Pleasant Valley	N Y
Decca Radar, Inc, New York	N Y
Dynamco Ltd, Chertsey Surrey	Eng
Dynatronic Instruments Corp Div Lab-Line Inst Inc Melrose Park	Ill
Edison, Thomas A Industries, Instr Div West Orange	N J
E G & G Int'l Inc Geodyne Div, Waltham	Mas
Engler Instrument Co, Jersey City	N J
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Fostoria-Fannon Inc, Fostoria	Ohio
Foxboro Co, Foxboro	Mass
Fuji Electric Co Ltd, Tokyo	Japan
Gardner Lab Inc, Bethesda	Md
Geodyne Div EG&G Int'l, Waltham	Mass
Gulton Industries Inc, Metuchen	N J
Harrel Inc, East Norwalk	Conn
Hewlett-Packard, Palo Alto	Cal
Honeywell Industrial Div, Fort Washington	Pa
Howell Instruments Co, Fort Worth	Tex
Instrument Corp of America, Timonium	Md
ITT Barton Controls & Instr Div, Monterey Park	Calif
Kahl Scientific Instrument Corp, El Cajon	Cal
Keinath Instrument Co, Columbus	Ohio
Kokuyo Electric Co Ltd, Tokyo	Japan
Kollsman Instrument Ltd, Southampton	England
Leeds & Northrup Co, Philadelphia	Pa
Marlin Mfg Corp, Cleveland	Ohio
Oven Industries, Mechanicsburg	Pa
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Princeton Applied Research Corp, Princeton	N J
Pyrometer Co of America Inc, Penndel	Pa
Pyrometer Instrument Co Inc, Northvale	N J
Ramsay Engineering Co, Anaheim	Cal
Relco Products Inc, Denver	Colo
Robertshaw Controls Co, Aero & Instrument Div Anaheim	Cal
Rustrak Instrument Div Gulton Ind Inc, Manchester	NH
Sigma Instruments Canada Ltd, Toronto 18 Ont	Canada
Sigma Instruments Inc, Braintree	Mass
Space & Systems Div General Time Corp Stamford	Conn
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taylor Instrument Cos, Rochester	N Y
Temtech, Santa Ana	Cal
Thermo Electric Co Inc, Saddle Brook	N J
Thorn Automation Ltd, Rugeley, Staffs	England
Tipptronic Inc, Chagrin Falls	Ohio
United Electric Controls Co, Watertown	Mass
United Systems Corp, Dayton	Ohio
West Instrument Corp, Schiller Park	Ill
Westronics Inc, Fort Worth	Tex
Yellow Springs Instrument Co Inc, Yellow Springs	Ohio
Yokogawa Electric Works Inc, Larchmont	N Y

RECORDERS--VIDEO TAPE SEE RECORDERS MAGNETIC TAPE

RECORDERS--WIRE

Applied Magnetics Corp, Goleta	Cal
California Systems Components, Inc, Chatsworth	Cal
Telectro Systems Corp, Corona	N Y

RECORDERS--X-Y SEE RECORDERS--GRAPHIC

RECORDING CAMERAS SEE CAMERAS

RECORDING DISKS SEE DISKS

RECORDING FILM--PHOTOGRAPHIC SEE FILMS--PHOTOGRAPHIC

RECORDING PAPER SEE PAPER--RECORDING

RECORDING PAPER--FACSIMILE SEE FACSIMILE EQUIPMENT

RECTIFIERS--COPPER-OXIDE

EDAL INDUSTRIES INC, EAST HAVEN	**CONN**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Bradley Semiconductor Corp, New Haven	Conn
Conant Labs, Lincoln	Neb
Edal Industries Inc, East Haven	Conn
General Electric Co, ECSO, Schenectady	N Y
Metermaster, Inc, Los Angeles	Cal
Mura Corp, Great Neck	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Rectifier Engineering & Supply Co Inc, St Louis	Mo
Sanken Electric Co, Ltd, Toshima-ku, Tokyo	Japan
Schauer Mfg Corp, Cincinnati	Ohio
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y

RECTIFIERS--COPPER-SULFIDE

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Nippon Electric Co Ltd, Tokyo	Japan
Rectifier Engineering & Supply Co Inc, St Louis	Mo
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y

RECTIFIERS--GERMANIUM DIODE

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE R I	**/ADV PGS 748,749**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
VARO INC SEMICONDUCTOR DIV, GARLAND TEX	**ADV PG 581**
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville	R I
Bendix Corp Semiconductor Div, Holmdel	N J
Dowa Trading Co Ltd, Kobe	Japan
Erie Technological Products Inc, Erie	Pa
Fuji Electric Co Ltd, Tokyo	Japan
Fujitsu Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
International Electronics Corp, Melville	NY
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kobe Industries Corp, Kobe	Japan
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Motorola Semiconductor Products Inc, Phoenix	Ariz
Mullard Ltd, London, WC 1	Eng
Nippon Electric Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Sampson Electronic Products Div, Chicago	Ill
Schauer Mfg Corp, Cincinnati	Ohio
Semiconductor Products Inc, Lawrence	Mass
Siemens America Inc, New York	N Y
Standard Telephones & Cables Ltd London WC 2	England
Sylvania Electric Products Inc, Semiconductor Div Woburn	Mass
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Trans-Tek Mfg Co Inc, Garwood	N J
Varo Inc, Garland	Tex
Varo Inc Semiconductor Div, Garland	Tex
VP Co, Pasadena	Cal

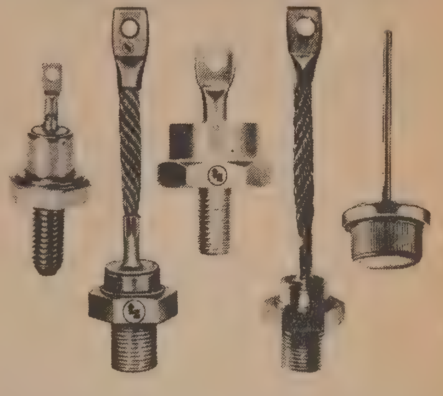
RECTIFIERS--SELENIUM STACKS

EDAL INDUSTRIES INC, EAST HAVEN	**CONN**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
OPAD ELECTRIC CO, INC, NEW YORK	**N Y**
Alpha Components Corp, Venice	Cal
American Rectifier Corp, College Point	N Y
B & B Motor & Control Corp, New York	N Y
Bradley Semiconductor Corp, New Haven	Conn
Conant Labs, Lincoln	Neb
Darrah Electric Co Inc, Cleveland	Ohio
Eastern Delta Corp, Fair Lawn	N J
Edal Industries Inc, East Haven	Conn
Electroid Corp, Union	N J
Electronic Devices Inc (Incl Trans Sil Div), Yonkers	N Y
Electro-Standards Labs Inc, Miami	Fla
Fansteel Metallurgical Corp, North Chicago	Ill
Fuji Electric Co Ltd, Tokyo	Japan
Fujitsu Ltd, Tokyo	Japan
Gates Electronic Co Inc, Bronx	N Y
General Electric Co, ECSO, Schenectady	N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
Green Rectifier Corp, Fair Lawn	N J
Holmes Co, Carl E, Los Angeles	Cal
International Rectifier Semiconductor Div El Segundo	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Semiconductors, West Palm Beach	Fla
Ledex Div Ledex Inc, Dayton	Ohio
M & T Chemicals Inc Sub American Can Co Rahway	N J
Nippon Electric Co Ltd, Tokyo	Japan
Opad Electric Co, Inc, New York	N Y
Origin Electric Co Ltd, Tokyo	Japan
Petroleum Electronics Mfg Inc, Tulsa	Okla
Ramm Rectifier Co, Inc, Bronx	N Y
Rectico Inc, Cedar Grove	N J
Recticon Corp, Conshohocken	Pa
Rectifier Engineering & Supply Co Inc, St Louis	Mo
Sampson Electronic Products Div, Chicago	Ill
Sanford Miller Corp, Brooklyn	N Y
Sanken Electric Co, Ltd, Toshima-ku, Tokyo	Japan
Sansha Electric Mfg Co Ltd, Osaka	Japan
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Sarkes Tarzian Inc, Semiconductor Div Bloomington	Ind
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Semikron International Inc, Scarsdale	N Y
Siemens America Inc, New York	N Y
Standard Telephones & Cables Ltd London WC 2	England
Syntron Div FMC Corp, Homer City	Pa
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Telefunken Sales Corp, Garden City	N Y
Ther Electric & Machine Works Inc, Chicago	Ill
VP Co, Pasadena	Cal
Westinghouse Electric Corp, Gen Control Div Pittsburgh	Pa

RECTIFIERS--SILICON CONTROLLED

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH COVER**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NATIONAL ELECTRONICS INC VARIAN SUB, GENEVA ILL	**ADV PG 579**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
OPAD ELECTRIC CO, INC, NEW YORK	**N Y**
TECHNIC INC, CRANSTON	**RI**
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK N J	**ADV PG 579**
Allen Aircraft Products, Ravenna	Ohio
Allied Research Products Inc Sub Richardson Co Baltimore	Md
Allis-Chalmers Mfg Co, Milwaukee	Wis
Ancrona Corp, New York	N Y
B & B Motor & Control Corp, New York	N Y
Centralab Semiconductor Prods, Elctn Div, Globe-Union Inc, El Monte	Cal

CENTER LINE
TUNG-SOL® QUALITY®
SILICON POWER
RECTIFIERS

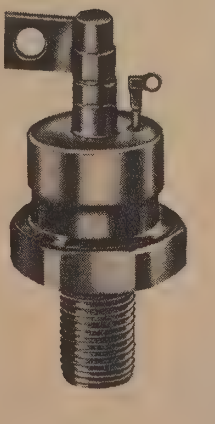


Tung-Sol silicon power rectifiers offer distinct advantages over similar competitive types. Exclusive design features combine with Tung-Sol's historically rigid quality control to assure designers unmatched operational reliability. Wide interchangeability permits specification of these outstanding components for most commercial and military applications. Write for complete technical data.

® Reg. T.M. Wagner Electric Corporation

TUNG-SOL DIVISION
Wagner Electric Corporation
One Summer Avenue, Newark, N.J. 07104

di/dt capability
10 times industry's best
EVEN WITH LOW POWER GATE DRIVE



NATIONAL® INVENTS THE REGENERATIVE GATE* SCR

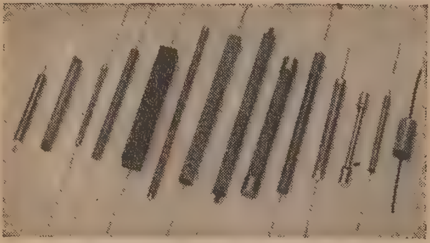
NATIONAL ELECTRONICS, INC. regenerative gate SCR is the only SCR that will give 600 amps/µ sec. when tested according to JEDEC SUGGESTED STANDARD NO. 7 Section 5.1.2.4. This is a di/dt rating at three times the peak on-state current and ½ the switching loss of any SCR now on the market. No sacrifice is required in gate drive, turn-on time, turn-off time or any other characteristic. Now available in 55 and 110 amps.

*Patent Pending

NATIONAL
ELECTRONICS, INC.
REQUEST BULLETIN

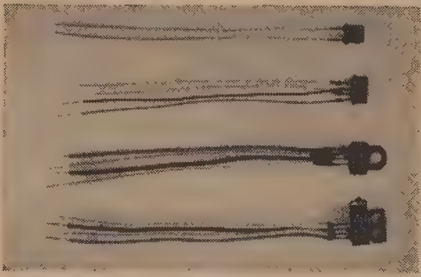
a varian subsidiary
PHONE (312) 232 4300 · GENEVA, ILLINOIS 60134

EDAL
RECTIFIERS
SILICON • COPPER OXIDE • SELENIUM



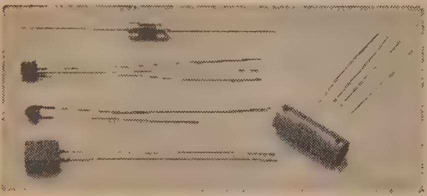
HIGH VOLTAGE SELENIUM RECTIFIERS

Produced on thinner base high voltage material to offer substantial reductions in rectifier length. Available in many constructions including hermetic sealed, phenolic enclosed, metal end ferrules, axial and radial leads. *Request Bulletin 103.*

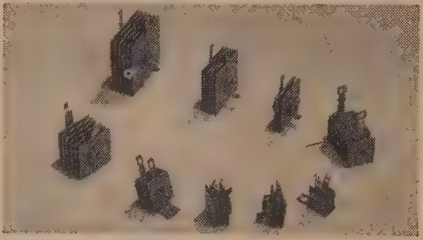


COPPER OXIDE INSTRUMENT RECTIFIERS

A high quality stabilized line of rectifiers for instrument applications. *Request Bulletin 102.*

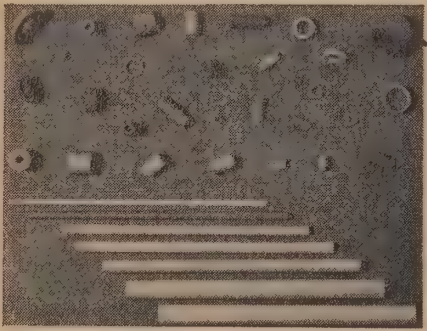


SELENIUM RECTIFIERS • DIODES • ARC SUPPRESSORS AND CONTACT PROTECTORS • MULTIPLE CIRCUITS • SPRING CLIP ASSEMBLIES. *Bulletin 101.*



ENTERTAINMENT RECTIFIERS

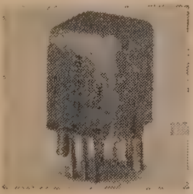
Intended for the entertainment industry. Available in eyelet and stud constructions. Also plug in types for printed circuit applications. *Request Bulletin 106.*



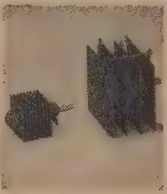
PHENOLIC TUBING • SPACERS • STAND-OFFS • THREADED STAND-OFFS. Produced by Current, Inc., affiliated with Edal Industries, Inc. *Bulletin C-50, C-51.*

SILICON RECTIFIERS

HERMETICALLY SEALED • MINIATURE • MULTIPLE CIRCUIT • MEDIUM CURRENT • HIGH VOLTAGE CARTRIDGES • HIGH VOLTAGE MINIATURE CIRCUITS • MINIATURIZED MULTIPLE CIRCUITS POWER RECTIFIERS • ASSEMBLIES AND SPECIAL PACKAGING. *Request Bulletins.*



MODULATORS • VARISTORS • DEMODULATORS • PHASE COMPARATORS • BALANCED BRIDGE AND RING CIRCUITS
Request Bulletin 102.



POWER RECTIFIERS

For industrial and commercial applications requiring high quality and reliability. Available in both high voltage and high density type cells which allow considerable reduction of space for a given rating. *Request Bulletin 105.*

EDAL INDUSTRIES, INC.
4 SHORT BEACH ROAD • EAST HAVEN, CONN. 06512
Area Code 203 467-2591

C G E, 91 Marcoussis	France
Christie Electric Corp, Los Angeles	Cal
Clark Control Div, A O Smith Corp, Cleveland	Ohio
C O G I E, Aubervilliers 93	France
Dohrmann Instruments Co, Mountain View	Cal
Electroid Corp, Union	N J
Electronic Control Corp, Euless	Tex
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Fuji Electric Co Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
General Instrument Europe SPA, Milano	Italy
Holmes Co, Carl E, Los Angeles	Cal
Hughes Electronics Co, Los Angeles	Cal
International Electronics Corp, Melville	NY
International Rectifier Semiconductor Div El Segundo	Cal
Ionics Inc, Electronics Div, Watertown	Mass
IRC Div TRW Inc, Philadelphia	Pa
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kepco Inc, Flushing	N Y
Leeds & Northrup Co, Philadelphia	Pa
Loyola Industries Inc, El Segundo	Cal
Mitsubishi Electric Corp, Tokyo	Japan
Motorola Semiconductor Products Inc, Phoenix	Ariz
M & T Chemicals Inc Sub American Can Co Rahway	N J
Mullard Ltd, London, WC 1	Eng
National Electronics Inc Varian Sub, Geneva	Ill
Nippon Electric Co Ltd, Tokyo	Japan
Opad Electric Co, Inc, New York	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Power Semiconductors Inc, Devon	Conn
Radio Corp of America, Electronic Components, Harrison	N J
Sanken Electric Co, Ltd, Toshima-ku, Tokyo	Japan
Sansha Electric Mfg Co Ltd, Osaka	Japan
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Sarkes Tarzian Inc, Semiconductor Div Bloomington	Ind
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Semiconductor Products Inc, Lawrence	Mass
Semicon Inc, Bedford	Mass
Semikron International Inc, Scarsdale	N Y
SILEC, Paris	France
Solid State Products Co, Salem	Mass
Sprague Electric Co, North Adams	Mass
Standard Telephones & Cables Ltd London WC 2	England
Sylvania Electric Products Inc, Semiconductor Div Woburn	Mass
Syntron Div FMC Corp, Homer City	Pa
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Technic Inc, Cranston	RI
Texas Instruments France, Villeneuve-Loubet	France
Texas Instruments Incorporated, Dallas	Tex
Transitron Electronic Corp, Wakefield	Mass
Tung-Sol Div Wagner Electric Corp, Newark	N J
Varian, Palo Alto	Cal
Westinghouse Electric Corp, Semiconductor Div Youngwood	Pa

RECTIFIERS--SILICON CONTROLLED, GATE DRIVEN

Allen Aircraft Products, Ravenna	Ohio
Centralab Semiconductor Prods, Elctn Div, Globe-Union Inc, El Monte	Cal
C O G I E, Aubervilliers 93	France
Dohrmann Instruments Co, Mountain View	Cal
Electronic Control Corp, Euless	Tex
Firing Circuits Inc, Norwalk	Conn
International Rectifier Semiconductor Div El Segundo	Cal
IRC Div TRW Inc, Philadelphia	Pa
Magnetic Specialties Inc, Trenton	N J
SILEC, Paris	France
Syntron Div FMC Corp, Homer City	Pa
Trans-Tek Mfg Co Inc, Garwood	N J

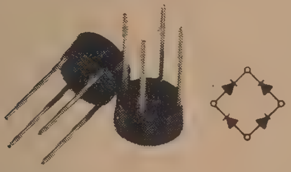
RECTIFIERS--SILICON DIODE

EDAL INDUSTRIES INC, EAST HAVEN, CONN	**ADV PG 580**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
OPAD ELECTRIC CO, INC, NEW YORK	**N Y**
SEMTECH CORP, NEWBURY PARK, CAL	**ADV PG 582**
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK	**N J**
UNITRODE CORP, WATERTOWN, MASS	**ADV PG 263**
VARO INC SEMICONDUCTOR DIV, GARLAND TEX	**ADV PG 581**
Allen Aircraft Products, Ravenna	Ohio
Allied Research Products Inc Sub Richardson Co Baltimore	Md
Allis-Chalmers Mfg Co, Milwaukee	Wis
Alpha Components Corp, Venice	Cal
American Semiconductor Corp, Arlington Heights	Ill
Atlantic Semiconductor Inc, Asbury Park	N J
B & B Motor & Control Corp, New York	N Y
Bendix Corp Semiconductor Div, Holmdel	N J
Bradley Semiconductor Corp, New Haven	Conn
Centralab Semiconductor Prods, Elctn Div, Globe-Union Inc, El Monte	Cal

SILICON RECTIFIERS

Full Wave Epoxy Bridge Rectifiers

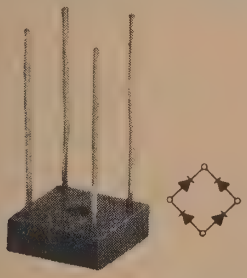
Each of these Varo epoxy bridge rectifiers has full-wave bridge, controlled avalanche, and 200V, 400V, and 600V ratings.



1 amp EBR. For printed circuit board mounting.

Only 91¢

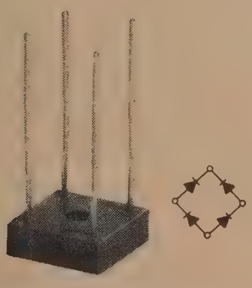
in 200V rating and quantity of 1,000.



2 amp EBR. For circuit board mounting.

Only 95¢

in 200V rating and quantity of 1,000.

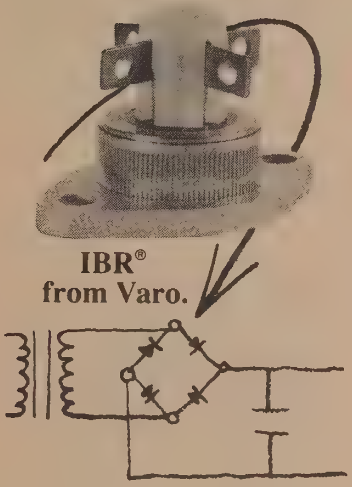


6 amp EBR. For chassis mounting.

Only $1.59

in 200V rating and quantity of 1,000.

Full Wave Integrated Bridge Rectifiers



IBR®
from Varo.

Varo's Integrated Bridge Rectifier requires just one-half to one-twentieth as much space as its competition. Saves design and installation time and reduces error.

Our IBR® is available as a 10-Amp, 10 Amp fast recovery and 25-Amp full-wave bridge rectifier. 200V, 400V and 600V controlled avalanche ratings. Electrically insulated case for direct chassis mounting. Three mounting options: Press mount, TO3 flange, single stud.

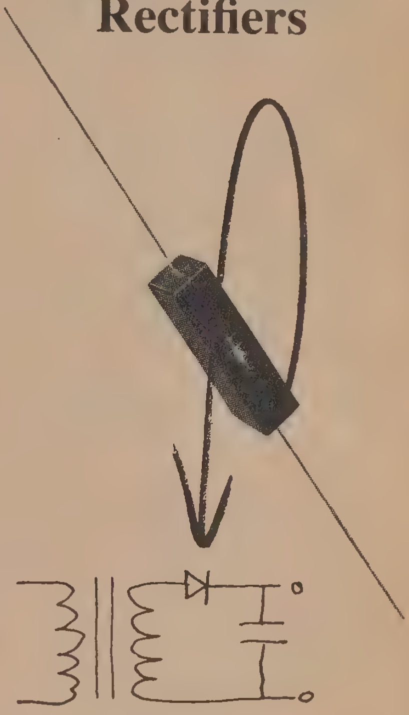
**25-Amp IBR® only
$3.05***

**10-Amp fast-recovery
IBR® only
$4.75***

**10-Amp IBR® only
$2.35***

*In 200V rating and quantity of 1,000 (press mount).

High Voltage Rectifiers



**New!
From Varo.**

Silicon Rectifiers At Selenium Prices!

At last, economical high voltage silicon rectifiers. Ideal for use in all high voltage, low current applications.

- 5,000-40,000 Volts
- 5, 10, 25 milliamp ratings
- Standard and Fast Recovery
- In ¼" square package.

These are the high voltage rectifiers that make completely solid state television circuits possible. Equally well suited for use in other cathode ray tube applications, electrostatic power supplies and voltage multipliers.

Only $1.32

10,000V, 5mA rating. Quantity of 1,000. Complete details, applications, and price list available.

SEMICONDUCTOR DIVISION P.O. BOX 1437, 2203 WALNUT ST., GARLAND, TEXAS 75040, (214) 272-3561,

VARO

SEMTECH™ "COOL POWER" SILICON RECTIFIERS & ASSEMBLIES

SEMPAC.

100 to 10,000 volts

Sempac is a multipurpose high current silicon rectifier. Solid internal construction and pure silver leads allow better electrical characteristics and excellent thermal conductivity. Designed to meet stringent temperature-cycling and humidity requirements.

Applications include military, industrial and consumer applications.

Miniature

PIV rating 100 to 1,000 volts
Average rectified current at 55°C, 1000 mA
Type No. SCE1, 2, 4, 6, 8, 0

Sub-Miniature High Voltage

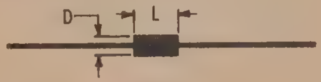
PIV rating 1000 to 10000 volts
Average rectified current at 55°C
100 to 250mA
Type No. IN3643, 4, 5, 6, 7, IN5181, 2, 3, 4

High Current Axial Lead

PIV ratings 50 to 600 volts
Average Rectified Current at 55°C, 3 amps
Type No. IN5197, 8, 9, IN5200, IN5201

Case Sizes

SCE1 to SCE0 .235±.005"L, 125±.003"D
IN3643 to IN3647
.235±.005"L, .125±.005"D
IN5181 to IN5184
.410±.005"L, .140±.005"D
IN5197 to IN5201
.375±.005"L, .195±.005"D



MIL types

General Purpose MIL-S-19500/286B
PIV Ratings 200 to 1000 Volts
Average Rectified Current: 1 Amp @100°C
TX & JAN Types IN4245, 6, 7, 8, 9 Case A

Fast Recovery MIL-S-19500/359A(USAF)
PIV Ratings 200 to 1000 Volts
Average Rectified Current: 1 Amp @55°C
Reverse Recovery: 150 to 250 nanosecs
TX & JAN Types IN4942, 4, 6, 7, 8 Case A & B

General Purpose High Current
MIL-S-19500/367
PIV Ratings 50 to 600 Volts
Average Rectified Current: 3 Amps @25°C
Type Nos. IN5197, 8, 9, IN5200, 201 Case C

High Voltage MIL-S-19500/279(NAVY)
PIV Ratings 1000 to 3000 Volts
Average Rectified Current: 250 mAdc
@25°C Type Nos. IN3643, 4, 5, 6, 7 Case B

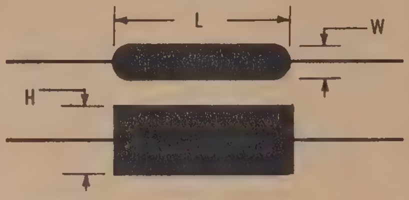
Case A Length .275 Diameter .135±.010

Case B Length .235±.005" Diameter .125±.003"
Case C Length .375±.005" Diameter .195±.005"

SLIMPAC.

5 kV to 45 kV

"Slimpac" is a new high density high voltage high current silicon rectifier for use in industrial and military applications which require small, lightweight rectifiers without compromise on the required high reliability criteria. The rectifier can be utilized in all standard, single and polyphase rectifier circuits. Designed to be corona free, the unit is capable of meeting stringent electrical, mechanical, and environmental specifications.



Slimpac

PIV rating 5000 to 25000 volts
Average Rectified Current at 55°C .5 amps
Type No. SCH5000, SCH7500, SCH10000, SCH12500, SCH15000, SCH20000, SCH25000
Case Sizes: .50"H, .250"W, 1.125" to 4.250"L

Medium Recovery (trr) 1 Microsecond

PIV ratings 5000 to 25000 volts
Average Rectified Current at 55°C .5 amps
Type No. SCHF5000, SCHF7500, SCHF10000, SCHF12500, SCHF15000, SCHF20000, SCHF25000
Case Sizes: .50"H, .250"W, 1.125" to 4.250"L

Fast Recovery (trr) 150 Nanoseconds

PIV rating 2,500 to 12,500 volts
Average Rectified Current at 55°C .5 amps
Type No. SCF2500, SCF5000, SCF7500, SCF10000, SCF12500
Case Sizes: .50"H, .250"W, 1.125" to 4.250"L

"Slimpac Jr."

PIV ratings 15,000 to 45,000 volts
Average Rectified Current at 55°C 50 mA
Type No. SCHJ15K, SCHJ22.5K, SCHJ30K, SCHJ37.5K, SCHJ45K
Case Sizes: .25"H, .25"W, 1.5" to 3.5"L.

"Slimpac Sr."

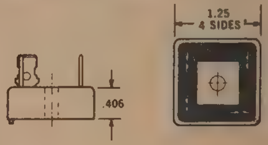
PIV ratings 2500 to 15000 volts
Average Rectified Current at 55°C 2 amps
Type No. SCHS2500, SCHS5000, SCHS7500, SCHS10000, SCHS12500, SCHS15000
Case Sizes: .687"H, .379"W, 1.5" to 6.5"L

Slimpac current ratings double in oil

ALPAC®

50 volts to 600 volts

"ALPAC," a complete line of Silicon Bridge Rectifiers circuits, doublers and center taps. Aluminum Case Provides maximum thermal conductivity and simple installation. All terminals are insulated from the case.

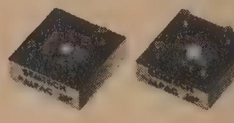


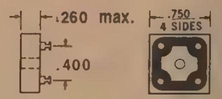
Alpac Bridge

PIV ratings 50 to 600 volts
Average Rectified Current 25 amps at 55°C
Type No. SCBA05, SCBA1, SCBA2, SCBA3, SCBA4, SCBA6
Units have 3 way terminals: fast disconnect, wire wrap around and hole for soldering wire.

Alpac Jr.

PIV ratings: 50 to 600 volts
Average Rectified Current: 5 amps at 55°C
Type No. SCAJ 05, SCAJ 1, 2, 3, 4, 5, 6



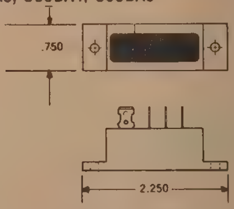


Doublers & Center Taps

PIV ratings 50 to 600 volts
Average Rectified Current 15 amps at 55°C
Type No. SCDA05, SCPA05, SCNA05, SCDA1, SCPA1, SCNA1, SCDA2, SCPA2, SCNA2, SCDA3, SCPA3, SCNA3, SCDA4, SCPA4, SCNA4, SCDA6, SCPA6, SCNA6

Alpac 3 3-Phase Bridge Rectifier

PIV ratings 50 to 600 volts
Average Rectified Current, 25 amps at 55°C
Type No. SC3BA05, SC3BA1, SC3BA2, SC3BA3, SC3BA4, SC3BA6



SEMTECH™ CORPORATION

652 Mitchell Road, Newbury Park, California 91320 (805) 498-2111, (213) 628-5392 / TWX: 910-336-1264
San Francisco — 941 E. Charleston, Suite 10, Palo Alto, California 94303 (415) 328-8025
Chicago — 140 N. La Grange Road, La Grange, Illinois 60525 (312) 352-3227 / TWX: 910-683-1896
Dallas — 402 Irving Bank Tower, Irving, Texas 75060 / (214) 253-7644
New York — 116-55 Queens Blvd., Forest Hills, New York 11375 (212) 263-3115 / TWX: 710-582-2959
European Sales — Bournes A. G., Alpenstrasse 1, Zug, Switzerland (042) 4 82 72/73

C G E, 91 Marcoussis ... France
C O G I E, Aubervilliers 93 ... France
Computer Diode Corp, Fairlawn ... NJ
Continental Device Corp, Hawthorne ... Cal
Delco Radio Div General Motors Corp, Kokomo ... Ind
Delta Semiconductors Div Natl Instr Corp Costa Mesa ... Cal
Dickson Electronics Corp, Scottsdale ... Ariz
Diodes Inc, Chatsworth ... Cal
Eastern Delta Corp, Fair Lawn ... N J
Edal Industries Inc, East Haven ... Conn
Electroid Corp, Union ... N J
Electronic Control Corp, Euless ... Tex
Electronic Devices Inc (Incl Trans Sil Div), Yonkers ... N Y
Electronic Transistors Corp, Flushing ... N Y
Erie Technological Products Inc, Erie ... Pa
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View ... Cal
Ferranti, Ltd, Lancashire ... England
Fuji Electric Co Ltd, Tokyo ... Japan
Fujitsu Ltd, Tokyo ... Japan
General Electric Co, ECSO, Schenectady ... N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville ... N Y
General Instrument Europe SPA, Milano ... Italy
General Semiconductor Div, Tempe ... Ariz
Hitachi Ltd, Chiyoda-Ku, Tokyo ... Japan
Holmes Co, Carl E, Los Angeles ... Cal
Hughes Aircraft Co, Newport Beach ... Cal
Hughes Electronics Co, Los Angeles ... Cal
Hull & Co Inc, R O, Cleveland ... Ohio
International Electronics Corp, Melville ... NY
International Rectifier Semiconductor Div El Segundo ... Cal
IRC Div TRW Inc, Philadelphia ... Pa
Isofilm International, Chatsworth ... Cal
ITT Europe Inc Components Gp, Brussels 1 ... Belgium
ITT Semiconductors, West Palm Beach ... Fla
Kobe Industries Corp, Kobe ... Japan
Kurz & Root Co, Appleton ... Wis
Ledex Div Ledex Inc, Dayton ... Ohio
Mallory & Co Inc, P R, Indianapolis ... Ind
Microsemiconductor Corp, Culver City ... Cal
Mitsubishi Electric Corp, Tokyo ... Japan
Motorola Semiconductor Products Inc, Phoenix ... Ariz
M & T Chemicals Inc Sub American Can Co Rahway ... N J
Mullard Ltd, London, WC 1 ... Eng
Nippon Electric Co Ltd, Tokyo ... Japan
Oneida Electronic Mfg Co, Meadville ... Pa
Opad Electric Co, Inc, New York ... N Y
Origin Electric Co Ltd, Tokyo ... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Power Components Inc, Scottdale ... Pa
Radio Corp of America, Electronic Components, Harrison ... N J
Recticon Corp, Conshohocken ... Pa
Rectifier Engineering & Supply Co Inc, St Louis ... Mo
Sampson Electronic Products Div, Chicago ... Ill
Sanken Electric Co, Ltd, Toshima-ku, Tokyo ... Japan
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington ... Ind
Sarkes Tarzian Inc, Semiconductor Div Bloomington ... Ind
Schauer Mfg Corp, Cincinnati ... Ohio
Sel-Rex Corp & Sub The Meaker Co, Nutley ... N J
Semiconductor Products Inc, Lawrence ... Mass
Semicon Inc, Bedford ... Mass
Semikron International Inc, Scarsdale ... N Y
Semtech Corp, Newbury Park ... Cal
Siemens America Inc, New York ... N Y
Sifco Metachemical Div Steel Improvement & Forge Co Cleveland ... Ohio
SILEC, Paris ... France
Slater Electric Inc, Glen Cove ... N Y
Solitron Devices Inc, Tappan ... NY
Standard Telephones & Cables Ltd London WC 2 ... England
Syntron Div FMC Corp, Homer City ... Pa
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn ... N Y
Texas Instruments France, Villeneuve-Loubet ... France

Texas Instruments Incorporated, Dallas ... Tex
Ther Electric & Machine Works Inc, Chicago ... Ill
Transitron Electronic Corp, Wakefield ... Mass
Trans-Tek Mfg Co Inc, Garwood ... N J
TRW Semiconductors Inc, Los Angeles ... Cal
Tung-Sol Div Wagner Electric Corp, Newark ... N J
Unitrode Corp, Watertown ... Mass
Varo Inc, Garland ... Tex
Varo Inc Semiconductor Div, Garland ... Tex
VP Co, Pasadena ... Cal
Western Semiconductors Inc, Santa Ana ... Cal
Westinghouse Electric Corp, Semiconductor Div Youngwood ... Pa
Workman Electronic Products Inc, Sarasota ... Fla

RECTIFIERS--SILICON STACKS

EDAL INDUSTRIES INC, EAST HAVEN ... CONN
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y ... ADV PGS 3RD COVER INLEAF
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
OPAD ELECTRIC CO, INC, NEW YORK ... N Y
SEMTECH CORP, NEWBURY PARK, CAL ... ADV PG 582
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK N J ... ADV PG 583
UNITRODE CORP, WATERTOWN, MASS ... ADV PG 263
VARO INC SEMICONDUCTOR DIV, GARLAND TEX ... ADV PG 581
Allis-Chalmers Mfg Co, Milwaukee ... Wis
Alpha Components Corp, Venice ... Cal
American Rectifier Corp, College Point ... N Y
Atlantic Semiconductor Inc, Asbury Park ... N J
B & B Motor & Control Corp, New York ... N Y
Bendix Corp Semiconductor Div, Holmdel ... N J
Bradley Semiconductor Corp, New Haven ... Conn
C G E, 91 Marcoussis ... France
C O G I E, Aubervilliers 93 ... France
Computer Diode Corp, Fairlawn ... NJ
Dickson Electronics Corp, Scottsdale ... Ariz
Diodes Inc, Chatsworth ... Cal
Edal Industries Inc, East Haven ... Conn
Electronic Devices Inc (Incl Trans Sil Div), Yonkers ... N Y
Electro-Standards Labs Inc, Miami ... Fla
Erie Technological Products Inc, Erie ... Pa
Fansteel Metallurgical Corp, North Chicago ... Ill
Ferranti, Ltd, Lancashire ... England
Fuji Electric Co Ltd, Tokyo ... Japan
Gates Electronic Co Inc, Bronx ... N Y
General Electric Co, ECSO, Schenectady ... N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville ... N Y
General Instrument Europe SPA, Milano ... Italy
General Semiconductor Div, Tempe ... Ariz
Holmes Co, Carl E, Los Angeles ... Cal
Hughes Aircraft Co, Newport Beach ... Cal
International Electronics Corp, Melville ... NY
International Rectifier Semiconductor Div El Segundo ... Cal
IRC Div TRW Inc, Philadelphia ... Pa
Isofilm International, Chatsworth ... Cal
ITT Semiconductors, West Palm Beach ... Fla
Microsemiconductor Corp, Culver City ... Cal
Motorola Semiconductor Products Inc, Phoenix ... Ariz
M & T Chemicals Inc Sub American Can Co Rahway ... N J
Mullard Ltd, London, WC 1 ... Eng
Nippon Electric Co Ltd, Tokyo ... Japan
Opad Electric Co, Inc, New York ... N Y
Origin Electric Co Ltd, Tokyo ... Japan
Payne Engineering Co, South Charleston ... W Va
Power Components Inc, Scottdale ... Pa
Radio Corp of America, Electronic Components, Harrison ... N J
Radix Electronics Corp, Anaheim ... Cal
Ramm Rectifier Co, Inc, Bronx ... N Y
Recticon Corp, Conshohocken ... Pa
Rectifier Engineering & Supply Co Inc, St Louis ... Mo
Sanford Miller Corp, Brooklyn ... N Y
Sanken Electric Co, Ltd, Toshima-ku, Tokyo ... Japan
Sansha Electric Mfg Co Ltd, Osaka ... Japan
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington ... Ind
Sarkes Tarzian Inc, Semiconductor Div Bloomington ... Ind
Sel-Rex Corp & Sub The Meaker Co, Nutley ... N J
Semiconductor Products Inc, Lawrence ... Mass
Semicon Inc, Bedford ... Mass
Semikron International Inc, Scarsdale ... N Y
Semtech Corp, Newbury Park ... Cal
Siemens America Inc, New York ... N Y
SILEC, Paris ... France
Slater Electric Inc, Glen Cove ... N Y
Solitron Devices Inc, Tappan ... NY
Standard Telephones & Cables Ltd London WC 2 ... England
Syntron Div FMC Corp, Homer City ... Pa
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn ... N Y
Texas Instruments France, Villeneuve-Loubet ... France
Tung-Sol Div Wagner Electric Corp, Newark ... N J
Unitrode Corp, Watertown ... Mass
Varo Inc, Garland ... Tex
Varo Inc Semiconductor Div, Garland ... Tex
VP Co, Pasadena ... Cal
Western Semiconductors Inc, Santa Ana ... Cal
Westinghouse Electric Corp, Semiconductor Div Youngwood ... Pa
Workman Electronic Products Inc, Sarasota ... Fla

RECTIFIERS—TUBE SEE TUBES—RECTIFYING

RECTIFIER TUBE POWER SUPPLIES SEE POWER SUPPLIES—D-C

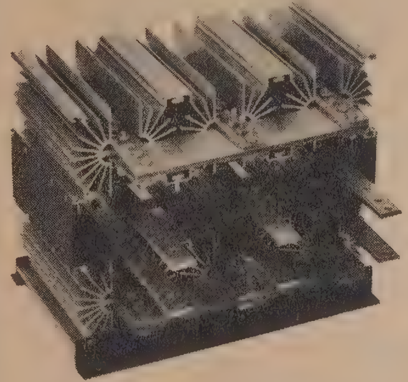
REELS--MAGNETIC TAPE

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
American Geloso Electronics Inc, New York ... N Y
Ampex Corp, Redwood City ... Cal
Audio Devices Inc Sub Capitol Indus, New York ... N Y
Boonton Molding Co Inc, Boonton ... N J
Burns & Towne, Inc, Malden ... Mass
Computron Inc, Bedford ... Mass
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena ... Cal
Corning Glass Works, Corning ... N Y
Cybetronics Inc, Waltham ... Mass
Diebel Mfg Co, Morton Grove ... Ill
Duotone Co Inc, Miami ... Fla
General Electric Co Info Sys Equip Div, Phoenix ... Ariz
Honeywell-EDP Div, Wellesley Hills ... Mass
IBM Corp, Armonk ... N Y
Magnasync/Moviola Corp, North Hollywood ... Cal
Matsushita Electric Industrial Co Ltd, Osaka ... Japan
Memorex Corp, Santa Clara ... Cal
3M Company, St Paul ... Minn
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon ... NY
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Reeves Soundcraft Div, Reeves Industries Inc Danbury ... Conn
Robins Industries Corp, Flushing ... N Y
Roman Industries, Harbor City ... Cal
Rye Industries, Inc, Mamaroneck ... N Y
Scientific Data Systems Inc, El Segundo ... Cal
Shrader Sound Inc, Washington ... D C

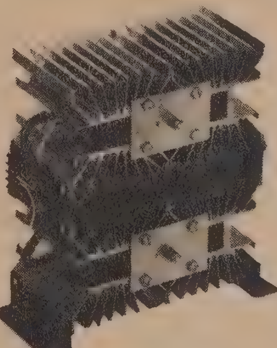
TUNG-SOL® CENTER LINE QUALITY

Silicon Rectifier Assemblies

YOUR SPECIAL REQUIREMENTS
MAY BE A TUNG-SOL STANDARD

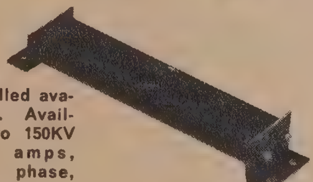


High current, three phase bridge. 1400 amps continuous.



Silicon rectifier and SCR hybrid. Up to 270 amps continuous.

Single phase or three phase bridge. Up to 31 amps D.C. and PVR's up to 1KV.



Controlled avalanche. Available to 150KV at 3 amps, single phase, halfwave.

Tung-Sol design capability encompasses wide power range. Write describing requirements. No obligation.

TUNG-SOL DIVISION
Wagner Electric Corporation
One Summer Avenue, Newark, N.J. 07104

® Reg. T.M. Wagner Electric Corporation

Sony Corp, Tokyo	Japan
Sparta Electronic Corp, Sacramento	Cal
Stanford International, San Carlos	Cal
Superscope Inc, Sun Valley	Cal
Telephone Dynamics Corp, North Bellmore	N Y
U S Magnetic Tape Co, Huntley	Ill

REELS--RETRACTILE, CABLE AND WIRE

Appleton Electric Co, Chicago	Ill
Applied Research Austin Inc, Austin	Tex
Hunter Spring Div Ametek Inc, Hatfield	Pa
Hy-Kon Mfg Co, Alliance	Ohio
Mason Mfg Co Div Fram Corp, East Providence	R I
Morey Corp, Downers Grove	Ill
Standard Precision Inc Accuride Div, Santa Fe Springs	Cal
Taffet Electronics Inc, Woodside	N Y

REFINERS OF PRECIOUS METALS SEE PRECIOUS METALS RECOVERY & REFINING

REFLECTOMETERS SEE ALSO COUPLERS--DIRECTIONAL; DETECTORS--STANDING WAVE

BIRD ELECTRONIC CORP, CLEVELAND (SOLON)	**OHIO**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alfred Electronics, Palo Alto	Cal
Anzac Electronics, Waltham	Mass
Bendix Corp, Microwave Devices Div, Franklin	Ind
Bird Electronic Corp, Cleveland (Solon)	Ohio
Blonder-Tongue Labs Inc, Newark	N J
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Gamma Scientific Inc, San Diego	Cal
Gardner Lab Inc, Bethesda	Md
General Microwave Corp, Farmingdale	N Y
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hewlett-Packard, Palo Alto	Cal
Instrument Development Labs Div Kollmorgen Corp Attleboro	Mass
Maury Microwave Corp, Montclair	Cal
MCS Corp, Monrovia	Cal
Microwave Instruments Co, Corona del Mar	Cal
Narda Microwave Corp, Plainview	N Y
Omega Laboratories Inc, Rowley	Mass
Ottawa, Paris	France
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Schoeffel Instrument Co, Westwood	NJ
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach	Cal

REFLECTORS--PASSIVE, MICROWAVE

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Ainslie Corp, Braintree	Mass
Costelow Co Inc, Topeka	Kans
Dbm Research Corp, Cocoa Beach	Fla
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Electroforms Inc, Gardena	Cal
Emerson & Cuming Inc, Canton	Mass
Gabriel Electronics Div Maremont Corp, Saco	Maine
Goodyear Aerospace Corp, Akron	Ohio
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Lignes Telegraphiques et Telephoniques Paris 16	France
Master Tower Co, Sioux City	Iowa
MCS Corp, Monrovia	Cal
Microflect Co, Inc, Salem	Ore
Micronetics Div Teledyne Systems Co, San Diego	Cal
Nippon Electric Co Ltd, Tokyo	Japan
R F Systems Inc, Cohasset	Mass
Rohn Mfg Co, Peoria	Ill
Vacuum Metallizing, Van Nuys	Cal

REGISTERS--SHIFT

Allen-Bradley Co, Milwaukee	Wis
American Micro-Systems, Inc, Santa Clara	Cal
Amtron Inc, Midlothian	Ill
Artronic Instrument Co, Silver Spring	Md
C & K Components Inc, Watertown	Mass
Components Corp, Denville	NJ
Control Equipment Corp, Needham Heights	Mass
Control Logic Inc, Natick	Mass
Data Science Corp, San Diego	Cal
Di/An Controls Inc, Boston	Mass
E D P Corp, Orlando	Fla
Ferranti, Ltd, Lancashire	England
LFE Electronics Div, Lab for Electronics Inc Waltham	Mass
Metric Systems Corp, Fort Walton Beach	Fla
National Semiconductor Corp, Santa Clara	Cal
Preston Scientific, Inc, Anaheim	Cal
Pulse Communications Inc, Falls Church	Va
Signal Analysis Industries Corp, Copiague	N Y
Sprague Electric Co, North Adams	Mass
Thorn Automation Ltd, Rugeley, Staffs	England
Veeder-Root, Hartford	Conn
Wiltek, Inc, Wilton	Conn

REGULATORS, CURRENT--A-C

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
INTERELECTRONICS CORP, CONGERS	**N Y**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH COVER**
MAGNETICS INC, BUTLER	**PA**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
OPAD ELECTRIC CO, INC, NEW YORK	**N Y**
SORENSEN OPERATION, RAYTHEON CO., NORWALK	**CONN**
SUPERIOR ELECTRIC CO THE, BRISTOL	**CONN**
WANLASS ELECTRIC CO, SANTA ANA	**CAL**
American Rectifier Corp, College Point	N Y
Applied Electronics Corp of N J, Metuchen	N J
Astro-Metrix Corp, Burbank	Cal
Beckman Instruments Inc, Fullerton,	Cal
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Central Transformer Co, Chicago	Ill
C I T E, Santa Margherita Ligure	Italy
Eastern Dynamics, Inc, Bloomfield	Conn
Electronic Specialty Co, Los Angeles	Cal
Fuji Electric Co Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
Giannini-Voltex, Whittier	Cal
Glenn Pacific A Teledyne Co, Oakland	Cal
Green Electric Corp, Fairlawn	NJ
Hevi-Duty Electric Div Sola Basic Industries Goldsboro	N C
Interelectronics Corp, Congers	N Y
Kepco Inc, Flushing	N Y
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
Leland Airborne Products Div AMF, Vandalia	Ohio
Loyola Industries Inc, El Segundo	Cal
Magnetics Inc, Butler	Pa
Magnetic Specialties Inc, Trenton	N J
Motorola Semiconductor Products Inc, Phoenix	Ariz
North Hills Electronics Inc, Glen Cove	N Y
Novatronics Inc, Pompano Beach	Fla
Opad Electric Co, Inc, New York	N Y
Power Control Corp, Pittsburgh	Pa
Radix Electronics Corp, Anaheim	Cal
Ramsey Controls Inc, Mahwah	N J
Robicon Corp, Pittsburgh	Pa
Scientific Instruments Co, Chatsworth	Cal
Sedco Systems Inc, Farmingdale	N Y
S K G Associates Inc, Boston	Mass
Sola-Basic Industries, Milwaukee	Wis
Sorensen Operation, Raytheon Co., Norwalk	Conn
Superior Electric Co The, Bristol	Conn
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Thiem-Transrex Inc, El Segundo	Cal
Topping Electronics Ltd, Toronto 17	Ont
Varo Inc, Garland	Tex
Wanlass Electric Co, Santa Ana	Cal
Ward Leonard Electric Co, Mount Vernon	N Y
Welex Electronics, Div Halliburton Co Silver Spring	Md
Westinghouse Electric Corp, Aerospace Electrical Div Lima	Ohio
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

REGULATORS, CURRENT--D-C

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
INTERELECTRONICS CORP, CONGERS	**N Y**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH 'COVER**
MAGNETICS INC, BUTLER	**PA**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
OPAD ELECTRIC CO, INC, NEW YORK	**N Y**
American Rectifier Corp, College Point	N Y
Applied Electronics Corp of N J, Metuchen	N J
Astro-Metrix Corp, Burbank	Cal
Beckman Instruments Inc, Fullerton,	Cal
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Cal-Power Corp, El Segundo	Cal
Components Corp, Denville	NJ
Control Logic Inc, Natick	Mass
Dorsett Electronics Inc, Tulsa	Okla
Eastern Delta Corp, Fair Lawn	N J
Eastern Dynamics, Inc, Bloomfield	Conn
Elasco Inc, Boston	Mass
Electronic Specialty Co, Los Angeles	Cal
Elgin Electronics Inc, Erie	Pa
Fansteel Metallurgical Corp, North Chicago	Ill
Fuji Electric Co Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
General Systems Inc, Erie	Pa
Giannini-Voltex, Whittier	Cal
Grafix Inc, Albuquerque	N Mex
Halmar Electronics Inc, Columbus	Ohio
Helix Research Assoc Inc, La Mesa	Cal
Instrulab Inc, Dayton	Ohio
Instrument Components Co, Maple Heights	Ohio
Interelectronics Corp, Congers	N Y
Ionics Inc, Electronics Div, Watertown	Mass
Julie Research Labs, Inc, New York	N Y
Kepco Inc, Flushing	N Y
Kruse-Storke Electronics, Mountain View	Cal
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
Leland Airborne Products Div AMF, Vandalia	Ohio
Loyola Industries Inc, El Segundo	Cal
Macarr Inc, Bronx	N Y
Magnetics Inc, Butler	Pa
Magnetic Specialties Inc, Trenton	N J
Motorola Semiconductor Products Inc, Phoenix	Ariz
Norbatrol Electronics Corp, Murrysville	Pa
North Hills Electronics Inc, Glen Cove	N Y
Novatronics Inc, Pompano Beach	Fla
Nuclide Corp, AGV Div, Acton	Mass
Opad Electric Co, Inc, New York	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polyphase Instrument Co, Bridgeport	Pa
Power Control Corp, Pittsburgh	Pa
Princeton Applied Research Corp, Princeton	N J
Quantum Electronics Corp, San Ramon	Cal
Radix Electronics Corp, Anaheim	Cal
Ramsey Controls Inc, Mahwah	N J
Rho Engineering Co, Los Angeles	Cal
Robicon Corp, Pittsburgh	Pa
Safety Electrical Equipment Corp, New Haven	Conn
Scientific Instruments Co, Chatsworth	Cal
Sedco Systems Inc, Farmingdale	N Y
S K G Associates Inc, Boston	Mass
Sola-Basic Industries, Milwaukee	Wis
Space Craft Inc, Huntsville	Ala
SRC Div Moxon Electronics Corp, Los Angeles	Cal
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Thiem-Transrex Inc, El Segundo	Cal
Topping Electronics Ltd, Toronto 17	Ont
Trio Laboratories Inc, Plainview	N Y
Varo Inc, Garland	Tex
Vector Engineering Inc, Springfield	N J
Ward Leonard Electric Co, Mount Vernon	N Y
Welex Electronics, Div Halliburton Co Silver Spring	Md
Weltronic Co, Southfield	Mich
Westinghouse Electric Corp, Aerospace Electrical Div Lima	Ohio
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

REGULATORS--FREQUENCY

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
C M L INC, PLAINFIELD	**N J**
FORK STANDARDS INC, WEST CHICAGO	**ILL**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Applied Electronics Corp of N J, Metuchen	N J
Basler Electric Co, Highland	Ill
Bogue Electric Mfg Co, Paterson	N J
Bramco Controls Div Ledex Inc, Piqua	Ohio
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
C M L Inc, Plainfield	N J
Eastern Dynamics, Inc, Bloomfield	Conn
Electronic Specialty Co, Los Angeles	Cal
Elgar Corp, San Diego	Cal
Fansteel Metallurgical Corp, North Chicago	Ill
Fork Standards Inc, West Chicago	Ill
Frequency Electronics Inc, New Hyde Park	N Y
Fuji Electric Co Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
Giannini-Voltex, Whittier	Cal
Kato Engineering Co, Mankato	Minn
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
Leland Airborne Products Div AMF, Vandalia	Ohio
Macarr Inc, Bronx	N Y
Metal Removal Co, Chicago	Ill
Microdot Magnetics Inc, Los Angeles	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Power Systems Inc, Venice	Cal
Relcom, Mountain View	Cal
Riverbank Labs, Dept of Engrg, Geneva	Ill
Robicon Corp, Pittsburgh	Pa
Sola-Basic Industries, Milwaukee	Wis
Space Craft Inc, Huntsville	Ala
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Ward Leonard Electric Co, Mount Vernon	N Y
Westinghouse Electric Corp, Aerospace Electrical Div Lima	Ohio

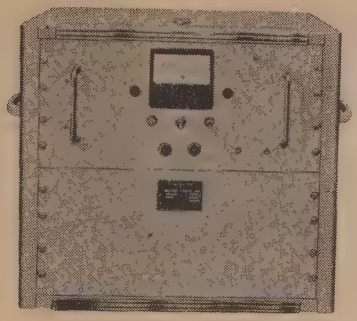
Who Do You Call?

Find his name and telephone number in EBG's Manufacturer's index (green pages).

REGULATORS, VOLTAGE--A-C

C M L INC, PLAINFIELD	**N J**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7, 585**
INTERELECTRONICS CORP, CONGERS	**N Y**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH COVER**
MAGNETICS INC, BUTLER	**PA**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
OPAD ELECTRIC CO, INC, NEW YORK	**N Y**
SORENSEN OPERATION, RAYTHEON CO., NORWALK	**CONN**
STEVENS-ARNOLD INC, SOUTH BOSTON, MASS	**ADV PG 144**
SUPERIOR ELECTRIC CO THE, BRISTOL, CONN	**ADV PG 585**
WANLASS ELECTRIC CO, SANTA ANA	**CAL**
Abbott Transistor Labs, Inc, Los Angeles	Cal
American Rectifier Corp, College Point	N Y
Applied Electronics Corp of N J, Metuchen	N J
Astro-Metrix Corp, Burbank	Cal
Aviation Electric Ltd, St Laurent, Montreal	Que
Basler Electric Co, Highland	Ill
Beckman Instruments Inc, Fullerton,	Cal
Bergen Lab, Inc, Paterson	N J
Bogue Electric Mfg Co, Paterson	N J
Borg-Warner Controls Div Borg-Warner Corp Santa Ana	Cal
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Burns & Towne, Inc, Malden	Mass
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
California Instruments Corp, San Diego	Cal
Cal-Power Corp, El Segundo	Cal
CBC Industries Inc, Philadelphia	Pa
Central Transformer Co, Chicago	Ill
C I T E, Santa Margherita Ligure	Italy
Clare-Electroseal Corp, Des Plaines	Ill
C M L Inc, Plainfield	N J
Del Electronics Corp, Mt Vernon	N Y
Dinion Coil Co Inc, Caledonia	N Y
Eastern Dynamics, Inc, Bloomfield	Conn
Electronic Control Corp, Euless	Tex
Electronic Research Associates Inc, Cedar Grove	N J
Electronic Specialty Co, Los Angeles	Cal
Elgar Corp, San Diego	Cal
Elgin Electronics Inc, Erie	Pa
Euro Cedag, Milan	Italy
Ferranti, Ltd, Lancashire	England
Fuji Electric Co Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
General Magnetics Inc, Bloomfield	N J
General Radio Co, West Concord	Mass
Geo Space Corp, Houston	Tex
Giannini-Voltex, Whittier	Cal
Glenn Pacific A Teledyne Co, Oakland	Cal
Green Rectifier Corp, Fair Lawn	N J
Gulton Industries Inc, Metuchen	N J
Gulton Industries Inc Engineered Magnetics Div Hawthorne	Cal
Hevi-Duty Electric Div Sola Basic Industries Goldsboro	N C
Hi-Altitude Instrument Co, Inc., Denver	Colo
Hill Magnetics, Inc, Redwood City	Cal
Interelectronics Corp, Congers	N Y
Iwatsu Electric Co Ltd, Tokyo	Japan
Kato Engineering Co, Mankato	Minn
Kelk Ltd, George, Don Mills	Ont
Kepco Inc, Flushing	N Y
Kuhnke, H, Elektrotechnische Fabrik Gmbh Holstein	Germany
Landis & Gyr AG, Zug	Switzerland
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
Leland Airborne Products Div AMF, Vandalia	Ohio
Loyola Industries Inc, El Segundo	Cal
Macarr Inc, Bronx	N Y
Magnetics Inc, Butler	Pa
Magnetic Specialties Inc, Trenton	N J
McGraw-Edison Power Systems Div, Milwaukee	Wis
Microdot, Inc, South Pasadena	Cal
Microdot Magnetics Inc, Los Angeles	Cal
Mid-Eastern Industries Inc, Springfield	N J
Motorola Semiconductor Products Inc, Phoenix	Ariz
NH Research Inc, Santa Ana	Cal
Norbatrol Electronics Corp, Murrysville	Pa
North Hills Electronics Inc, Glen Cove	N Y
Opad Electric Co, Inc, New York	N Y
Origin Electric Co Ltd, Tokyo	Japan
Phoenix Transformer Co, Phoenix	Ariz
Power Control Corp, Pittsburgh	Pa
Power Systems Inc, Venice	Cal
Qutronic Transformer Corp, Oneonta	N Y
Radix Electronics Corp, Anaheim	Cal
Ramsey Controls Inc, Mahwah	N J
Robicon Corp, Pittsburgh	Pa
Scientific Instruments Co, Chatsworth	Cal
Sedco Systems Inc, Farmingdale	N Y
Servomex Controls Ltd, Sussex	England
S K G Associates Inc, Boston	Mass
Sola-Basic Industries, Milwaukee	Wis
Sola Electric Div Sola Basic Industries Elk Grove Village	Ill
Sorensen Operation, Raytheon Co., Norwalk	Conn
Staco Inc Std Elec Prods Co Div, Dayton	Ohio
Stevens-Arnold Inc, South Boston	Mass
Superior Electric Co The, Bristol	Conn
Syracuse Electronics Corp, Syracuse	N Y
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Tel-Instrument Electronics Corp, Carlstadt	N J
Thiem-Transrex Inc, El Segundo	Cal
Topping Electronics Ltd, Toronto 17	Ont
Transval Electronics Div Jetronic Indus Inc Gardena	Cal
Twinco Inc, Dorchester	Mass
Vapor Corp, Chicago	Ill
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Wanlass Electric Co, Santa Ana	Cal
Ward Leonard Electric Co, Mount Vernon	N Y
Westinghouse Electric Corp, Aerospace Electrical Div Lima	Ohio

STABILINE®
Automatic Voltage Regulators
IN RATED OUTPUTS TO 275 KVA

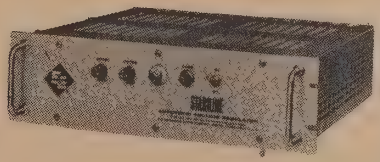


ELECTROMECHANICAL

EMT — Electro Mechanical Transistorized types in ratings from 2.3 to 118 kva. Control circuit completely transistorized. POWERKOTE Coils in power section permit higher output ratings. Rated accuracy ±.75% for all variations of line voltage or load current within stated range of unit.

EMS — Electro Mechanical Transistorized types with ratings from 25 to 275 kva. Several types available with individual line control. Plug-in transistorized control circuit.

EMK — Electro Mechanical high speed, high accuracy types in ratings of 2.5/5.0 kva. Accuracy ±1.0% of nominal output voltage.



SOLID-STATE

IES — Feature completely solid-state circuitry with accuracy within 100 millivolts bandwidth, efficiency up to 95%, fast response, low distortion and wide operating frequency range. Ratings to 15 kva. No vacuum tubes, motors or blowers. All have provision for remote sensing and have removable plug-in solid-state circuit boards.

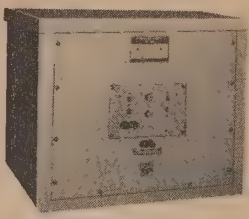
OTHER TYPES: All-boost marine, militarized, 400 cycle and full range regulator controllers.

Write for Bulletin SVR766

THE SUPERIOR ELECTRIC COMPANY
1200 Middle Street
Bristol, Connecticut 06010

Speedy Relief for Voltage Headaches - -

INDUCTROL® VOLTAGE REGULATORS



1. Inductrol regulators precisely control input to all electronic and electric equipment, providing speedy relief from the voltage fluctuations that can make equipment operate erratically.

2. Inductrol regulators operate on an induction principle, with no brushes to maintain. High reliability is inherent, and automatic voltage regulations is accurate to ±1 percent.

3. Inductrol regulators are available in three basic designs—in a wide range of ratings—and for a variety of voltage- or current controlled applications.

Write for Bulletin GEC-1450

For complete information, contact nearest GE Sales Office, see list on page 7, or write to Section 998-38, General Electric Company, Schenectady, N. Y. 12305

REGULATORS, VOLTAGE--D-C

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
BECKMAN INSTRUMENTS INC, HELIPOT DIV, FULLERTON CAL	**ADV PG [illegible]**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
ELECTRONIC MEASUREMENTS DIV ROWAN CONTROLLER CO OCEANPORT	**N J**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
INTERELECTRONICS CORP, CONGERS	**N Y**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH COVER**
MAGNETICS INC, BUTLER	**PA**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
OPAD ELECTRIC CO, INC, NEW YORK	**N Y**
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM	**MASS**
TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA	**N Y**
WANLASS ELECTRIC CO, SANTA ANA	**CAL**
Abbott Transistor Labs, Inc, Los Angeles	Cal
Aerospace Avionics Inc, Bohemia	NY
Amark Corp, Plainview	N Y
Amelco Semiconductor, A Teledyne Co Mountain View	Cal
American Rectifier Corp, College Point	N Y
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Applied Electronics Corp of N J, Metuchen	N J
Astro-Metrix Corp, Burbank	Cal
Ault, Inc, Minneapolis	Minn
Aviation Electric Ltd, St Laurent, Montreal	Que
Basler Electric Co, Highland	Ill
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Bendix Corp Semiconductor Div, Holmdel	N J
Bergen Lab, Inc, Paterson	N J
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Bogue Electric Mfg Co, Paterson	N J
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Burns & Towne, Inc, Malden	Mass
Burr-Brown Research Corp, Tucson	Ariz
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Cal-Power Corp, El Segundo	Cal
Chalco Engineering Corp, Gardena	Cal
Clare-Electroseal Corp, Des Plaines	Ill
Components Corp, Denville	NJ
Control Logic Inc, Natick	Mass
Data Device Corp, Hicksville	N Y
Dayton Electronics Products Co, Dayton	Ohio
Dynamic Controls Corp, South Windsor	Conn
Eastern Delta Corp, Fair Lawn	N J

LOOKING FOR VOLTAGE REGULATORS?

Helipot has a complete line of positive, negative, fixed and adjustable output miniature d-c voltage regulators that feature:

- Output range from +3 to +32 volts or −3 to −32 volts
- ±0.05% regulation
- Small size (1″ x 0.5″ x 0.170″)
- Short circuit proof models
- −55° to +125°C operation
- 60 db ripple attenuation
- Cermet thick film construction
- Fully sealed housing
- Mil Spec testing
- Local stock availability
- List prices from $12.50

For complete information contact the Helipot representative nearest you. He's listed in EBG's Manufacturers' Index.

Beckman®
INSTRUMENTS, INC.
HELIPOT DIVISION
FULLERTON, CALIFORNIA • 92634

Eastern Dynamics, Inc, Bloomfield	Conn
Elasco Inc, Boston	Mass
Electroid Corp, Union	N J
Electronic Measurements Div Rowan Controller Co Oceanport	N J
Electronic Research Associates Inc, Cedar Grove	N J
Electronic Specialty Co, Los Angeles	Cal
Elgin Electronics Inc, Erie	Pa
Fairchild Controls, Hicksville	N Y
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Fairlane Electronics, Inc, Long Valley	N J
Fansteel Metallurgical Corp, North Chicago	Ill
Fuji Electric Co Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
General Systems Inc, Erie	Pa
Geo Space Corp, Houston	Tex
Giannini-Voltex, Whittier	Cal
Grafix Inc, Albuquerque	N Mex
Guide Industries Inc, Sun Valley	Cal
Gulton Industries Inc, Metuchen	N J
Gulton Industries Inc Engineered Magnetics Div Hawthorne	Cal
Halmar Electronics Inc, Columbus	Ohio
Hamilton Electronics Corp, Chicago	Ill
Helix Research Assoc Inc, La Mesa	Cal
Instrulab Inc, Dayton	Ohio
Interelectronics Corp, Congers	N Y
Ionics Inc, Electronics Div, Watertown	Mass
Julie Research Labs, Inc, New York	N Y
Kato Engineering Co, Mankato	Minn
Kepco Inc, Flushing	N Y
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
Leece-Neville Co, Cleveland	Ohio
Leland Airborne Products Div AMF, Vandalia	Ohio
Loyola Industries Inc, El Segundo	Cal
Macarr Inc, Bronx	N Y
Magnetics Inc, Butler	Pa
Magnetic Specialties Inc, Trenton	N J
Metric Engineering Div Greenray Indus Inc Mechanicsburg	Pa
Microdot Magnetics Inc, Los Angeles	Cal
Mid-Eastern Industries Inc, Springfield	N J
Motorola Semiconductor Products Inc, Phoenix	Ariz
Norbatrol Electronics Corp, Murrysville	Pa
North Hills Electronics Inc, Glen Cove	N Y
Opad Electric Co, Inc, New York	N Y
Opamp Labs, Los Angeles	Cal
Origin Electric Co Ltd, Tokyo	Japan
Philbrick/Nexus Research A Teledyne Co Dedham	Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polyphase Instrument Co, Bridgeport	Pa
Power Control Corp, Pittsburgh	Pa
Power Systems Inc, Venice	Cal
Princeton Applied Research Corp, Princeton	N J
Qutronic Transformer Corp, Oneonta	N Y
Radiometer A/S, Copenhagen NV	Denmark
Radix Electronics Corp, Anaheim	Cal
Ramsey Controls Inc, Mahwah	N J
Ratelco Inc, Seattle	Wash
Relco Products Inc, Denver	Colo
Rho Engineering Co, Los Angeles	Cal
RO Associates Inc, Menlo Park	Cal
Robicon Corp, Pittsburgh	Pa
Safety Electrical Equipment Corp, New Haven	Conn
Schauer Mfg Corp, Cincinnati	Ohio
Scientific Instruments Co, Chatsworth	Cal
Sedco Systems Inc, Farmingdale	N Y
S K G Associates Inc, Boston	Mass
Sola-Basic Industries, Milwaukee	Wis
Sola Electric Div Sola Basic Industries Elk Grove Village	Ill
Sonex Inc, Philadelphia	Pa
Space Craft Inc, Huntsville	Ala
SRC Div Moxon Electronics Corp, Los Angeles	Cal
Staco Inc Std Elec Prods Co Div, Dayton	Ohio
Syracuse Electronics Corp, Syracuse	N Y
Taber Instruments A Teledyne Co North Tonawanda	N Y
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N.Y
Thiem-Transrex Inc, El Segundo	Cal
Topping Electronics Ltd, Toronto 17	Ont
Transval Electronics Div Jetronic Indus Inc Gardena	Cal
Trio Laboratories Inc, Plainview	N Y
Universal Electronics Co, Santa Monica	Cal
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Vector Engineering Inc, Springfield	N J
Victoreen Instrument Div, Cleveland	Ohio
Vishay Resistor Prods Div Vishay Intertechnology Inc, Malvern	Pa
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Wanlass Electric Co, Santa Ana	Cal
Ward Leonard Electric Co, Mount Vernon	N Y
Weltronic Co, Southfield	Mich
Westinghouse Electric Corp, Aerospace Electrical Div Lima	Ohio

RELAY BASES SEE BASES

RELAY COILS SEE COILS--WINDING ONLY

RELAY COMMUNICATIONS SEE RELAY SYSTEMS

RELAY CORES SEE CORES--LAMINATED

RELAY-RACK PANELS SEE PANELS

RELAY RACKS SEE RACKS--MOUNTING & RELAY

RELAYS--COAXIAL

AMPHENOL, DANBURY	**CONN**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
GENERAL REED CO, CLARK	**N J**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL**
MAGNECRAFT ELECTRIC CO, CHICAGO	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
RANDALL INC, DOUGLAS, SUB WALTER KIDDE & CO INC WESTERLY	**R I**
TRANSCO PRODUCTS INC, VENICE	**CAL**
Aemco Div, Midtex Inc, Mankato	Minn
Allied Control Co Inc, New York	N Y
American Cable Electronic Supply Inc, Sacramento	Cal
Amphenol, Danbury	Conn
Artisan Electronics Corp, Parsippany	N J
Automated Measurements Corp, Los Gatos	Cal
Automatic Metal Products Corp, Brooklyn	N Y
Ava Electronics & Machine Corp, Upper Darby	Pa
Ball Brothers Research Corp, Boulder	Colo
Clare & Co, C P, Chicago	Ill
Coax Devices, Chelsea	Mass
Computer Components Inc, Jamaica	N Y
Coto-Coil Co Inc, Providence	R I
Electronic Applications Co, Pine Brook	N J
Electronic Instrument & Specialty Corp Winchester	Mass
General Microwave Corp, Farmingdale	N Y
General Reed Co, Clark	N J
General Relay Corp, Dover	N J
Guide Industries Inc, Sun Valley	Cal
Hart-Advance Relay Div Oak Electro/Netics Corp Elkhorn	Wis
Herley Industries, Inc, Westbury	N Y
Hi-G Inc, Windsor Locks	Conn
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
Jerrold Electronics Corp, Philadelphia	Pa
Kidde & Co Inc, Walter, Belleville	N J
Kurman Instruments Corp, Syosset	N Y
Lake Engineering Co Ltd, Scarborough	Ont
Magnecraft Electric Co, Chicago	Ill
Matrix Div, Schafer Electronics, Chatsworth	Cal
Meridian Metalcraft Inc, Whittier	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Ottawa, Paris	France
Pollak Corp, Joseph, Boston	Mass
Randall Inc, Douglas, Sub Walter Kidde & Co Inc Westerly	R I
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Scherma Mfg Co Inc, F A, New York	N Y
Solid State Electronics Corp, Sepulveda	Cal
Standard Relay Corp, Brooklyn	N Y
Struthers-Dunn Inc, Pitman	N J
Teledata Inc, Queens Village	N Y
Teltronics Inc, Nashua	N H
Transco Products Inc, Venice	Cal
Trompeter Electronics Inc, Chatsworth	Cal
Tru-Connector Corp, Peabody	Mass
United Standard Industries Inc, Glenview	Ill
Wheelock Signals Inc, Long Branch	N J
Whistler Electronics Inc, Northridge	Cal
Win-Elco, Gold Hill	Ore

RELAYS--ELECTROMAGNETIC, HIGH SPEED

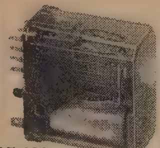
AMERICAN ZETTLER, INC, COSTA MESA, CAL	**ADV PG 587**
ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
BABCOCK ELECTRONICS, RELAY DIV, COSTA MESA	**CAL**
COUCH ORDNANCE INC, NORTH QUINCY	**MASS**
ELECTRO-TEC CORP, ORMOND BEACH	**FLA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL REED CO, CLARK	**N J**
GRIGSBY BARTON INC, ARLINGTON HEIGHTS	**ILL**
GUARDIAN ELECTRIC MFG CO, CHICAGO, ILL	**ADV PG 601**
IBM, INDUSTRIAL PRODUCTS MARKETING, NEW YORK	**NY**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL**
LEACH CORP, SOUTH PASADENA, CAL	**ADV PGS 596-599**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON	**IND**
PRINTACT RELAY DIV EXECUTONE INC LONG ISLAND CITY	**N Y**
RANDALL INC, DOUGLAS, SUB WALTER KIDDE & CO INC WESTERLY	**R I**
STEVENS-ARNOLD INC, SOUTH BOSTON, MASS	**ADV PG 144**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
UNIVERSAL RELAY CORP, NEW YORK	**N Y**
VANGUARD RELAY CORP, LINDENHURST	**NY**
Adams & Westlake Co, Elkhart	Ind
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
Alco Electronic Products, Inc, Lawrence	Mass
Allen-Bradley Co, Milwaukee	Wis
Allied Control Co Inc, New York	N Y
Alpha Relays Inc, Jersey City	N J
American Solenoid Co, Inc, Rahway	N J
American Zettler, Inc, Costa Mesa	Cal
Anritsu Electric Co Ltd, Tokyo	Japan
Arco S P A, Milano	Italy
Automatic Electric Co, Northlake	Ill
Automatic Switch Co, Florham Park	N J
Babcock Electronics, Relay Div, Costa Mesa	Cal
Bourns Inc Trimpot Div, Riverside	Cal
Branson Corp, Denville	N J
Bristol Div, American Chain & Cable Co Waterbury	Conn
Clare & Co, C P, Chicago	Ill
Compac Engineering Inc, Hollister	Cal
Computer Components Inc, Jamaica	N Y
Cook Electric Co Automatic Controls Div, Palatine	Ill
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Coto-Coil Co Inc, Providence	R I
Couch Ordnance Inc, North Quincy	Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Cutler-Hammer Inc, Milwaukee	Wisc
Deutsch Filtors Relay Div, East Northport	N Y
Dormeyer Industries, Chicago	Ill
Elec-Trol Inc, Saugus	Cal
Electronic Controls Inc, Wilton	Conn
Electronic Instrument & Specialty Corp Winchester	Mass
Electronic Specialty Co, Los Angeles	Cal
Electro-Tec Corp, Ormond Beach	Fla
Essex Wire Corp Controls Div RBM Controls Logansport	Ind
Fifth Dimension Inc, Princeton	N J
Fitre, 20143 Milano	Italy
General Automatic Corp, Bayonne	N J
General Electric Co, ECSO, Schenectady	N Y
General Reed Co, Clark	N J
Giannini-Voltex, Whittier	Cal
Grigsby Barton Inc, Arlington Heights	Ill
Guardian Electric Mfg Co, Chicago	Ill
Guide Industries Inc, Sun Valley	Cal
Hart-Advance Relay Div Oak Electro/Netics Corp Elkhorn	Wis
Hartman Electrical Mfg Co, Mansfield	Ohio
High Vacuum Electronics Inc, South Pasadena	Cal
IBM, Industrial Products Marketing, New York	NY
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
Jaidinger Mfg Co Inc, Chicago	Ill
James Electronics Inc, Chicago	Ill
Jerrold Electronics Corp, Philadelphia	Pa
Kuhnke, H, Elektrotechnische Fabrik Gmbh Holstein	Germany
Kurman Instruments Corp, Syosset	N Y
LCC-CICE, 93 Montreuil-sous-Bois	Franc
Leach Corp, South Pasadena	Cal
Life Instrument Co Inc, Franklin	Mass
Line Electric Co, Parsippany	N J
Mack Electric Devices Inc, Wyncote	Pa
MCI Electronics, Marina Del Rey	Cal

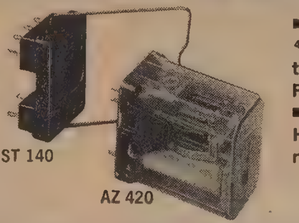
American Zettler, inc.

RELAYS AND SOLENOIDS

SERIES AZ 420* – MINIATURE GENERAL PURPOSE RELAYS – UP TO 6 FORM C

ST 154


AZ 421


ST 140

AZ 420

■ International standard-type relay ■ Plug-in or PC-terminals ■ Dimensions: $\frac{47}{64}$x1$\frac{5}{16}$x1$\frac{3}{16}$ (2-pole); $\frac{47}{64}$x1$\frac{11}{64}$x1$\frac{3}{16}$ (4-pole) ■ Plastic dust cover ■ Life Expectancy to 100 million operations ■ Operate time: 5 to 10 ms; release time: 2 to 4 ms ■ Pull-in power (2-pole) less than 100 milliwatts; less than 150 milliwatts 4-pole ■ Relay extends only ¾″ from PC board when used with rightangle socket ■ Hermetically sealed version available ■ Lower cost from mass production techniques ■ Prices from $1.80 each in production quantities ■ Available from stock

TABLE I—BASIC TYPES

Mounting	2 or 5 amp 2C Contacts	2 or 5 amp 4C, 6A, 6B Contacts	High Voltage Contacts	High Frequency Contacts
Plug-in or Solder Stud Mounting	AZ 420	AZ 421	AZ 421/8	AZ 426 (not plug-in)
PC-terminals No Mounting Stud	AZ 428	AZ 429	AZ 429/8	—

TABLE III —CONTACT CODE

	Light Duty 2 amps @ 26 vdc 1 amp @ 115 vac Single Button	Light Duty 2 amps @ 26 vdc 1 amp @ 115 vac Bifurcated Button	Heavy Duty 5 amps @ 26 vdc 3 amps @ 115 vac Single Button	High Voltage 2 amps @ 115 vdc 1 amp @ 250 vac Single Button	High Frequency 250 milli amps @ 125 vac 0.6 pf capacity Single Wire
4 FORM C	1L	10L	1H	—	—
6 FORM A	2L	20L	2H	—	—
6 FORM B	3L	30L	3H	—	—
2 FORM C	4L	40L	4H	8L	9L

TABLE II—COIL CODE—STANDARD COILS

Nom. Oper. vdc	Max. Continuous vdc	Coil Code	Resistance ohms ± 10%
6	10	15	52
12	19	1011	185
18	30	80	430
20	35	08	600
24	38	70	700
26	45	07	1 K
48	72	56	2.5K
72	110	40	5.8K
90	142	408	10 K
115	175	035	15 K

HOW TO ORDER

1. select basic relay type from Table I
2. add coil code from Table II
3. add contact code from Table III

For Example: AZ 421 — 07 — 1L

Plug-in type (AZ 421)
1000 ohm coil resistance (07)
4 PDT contacts single, light duty (1L)

SOCKETS

Relay	Socket	R.A. Socket	Retainer	Ground Clip
AZ 420	ST 140-U1	ST 247-U1	ST 140-1	ST 140-2
AZ 421	ST 141-U1	ST 154-U1	ST 141-1	ST 140-2

SERIES AZ 430* – MULTIPOLE MINIATURE RELAY

TABLE I

BASIC TYPE	DESCRIPTION
AZ 431	Polycarbonate dustcover, combined solder/plug-in terminals
AZ 439	Polycarbonate dustcover, printed circuit terminals

TABLE II—STANDARD COILS

COIL DATA					MUST OPERATE (2)			
Coil Code	Nom. Oper. VDC	Max. Cont. VDC	Resist. Ohms ± 10%	Induct. Henrys (1)	2 Amp. Cont. Single mA	2 Amp. Cont. Single VDC	5 Amp. Cont. Single 2 Amp. Cont. Bifur mA	5 Amp. Cont. Single 2 Amp. Cont. Bifur VDC
18	6	7	25	0.4	106	3.2	140	4
13	12	14	80	1.3	59	5.5	78	8
80	24	30	430	5.5	29	14	38	18
07	36	45	1000	15	17	20	24	26
06	48	61	1800	26	13.5	27	18	35
56	60	72	2500	38	11	31	15	41
04	115	138	9000	120	6.5	62	8.5	85

All values at 20°C

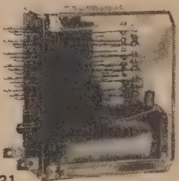
(1) Inductance for closed armature. For open armature, divide by two.
(2) Relay will pull in with less than "must operate" value.

TABLE III—STANDARD CONTACTS

Cont. Code	Contact Rating @ 26VDC
1L	2 Amp Single Fine Silver Goldpl.
10L	2 Amp Bifurcated Fine Silver Goldpl.
1H	5 Amp Single Silver Cadmium Ox.

ST 354

ST 345

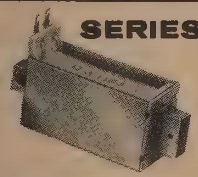

AZ 431

■ Relay has same structure and design features as AZ 420 ■ Dimensions: $\frac{47}{64}$ x 1$\frac{13}{32}$ x 1$\frac{3}{16}$ ■ Round core and larger coil volume give more efficient magnetic circuit ■ Unique fiberglass filled polycarbonate base and socket ■ Molded cradle eliminates phenolic dust ■ Knife type connector socket eliminates flux contamination.

HARDWARE

Part No.	Description
ST 345-A1	Socket for Wiring or PC Board
ST 354-A1	Right Angle Socket for PC Board
ST 345-1	Retainer
ST 140-2	Grounding Clip

Same ordering information as the AZ 420
Other Coils and Diff. Contact material available



SERIES AZM 260 – MINIATURE PULL SOLENOIDS FOR DC OPERATION

■ Compact design ■ Rectangular shape for highest space-power efficiency ■ One hole mounting ■ Maximum stroke, $\frac{5}{16}$″ ■ Molded bobbin ■ Brass sleeving ■ Prices from $1.20 ea. in production quantities ■ Available from stock

STANDARD SOLENOIDS

TYPE	DIMENSIONS (Inches)	CONTINUOUS DUTY					10% Duty (½ sec. max. on / 4½ sec. min. off)				
		Pull Force at 1/16″ stroke	Coil Resistance for 6 vdc	Coil Resistance for 12 vdc	Coil Resistance for 24 vdc	Coil Resistance for 115 vdc	Pull Force at 1/16″ stroke	Coil Resistance for 6 vdc	Coil Resistance for 12 vdc	Coil Resistance for 24 vdc	Coil Resistance for 115 vdc
AZM 260	$\frac{15}{32}$x$\frac{5}{16}$x1$\frac{11}{16}$	2¼	10	32	150	3700	10	1.4	4	16	415
AZM 261	$\frac{17}{32}$x$\frac{13}{32}$x1$\frac{11}{16}$	3¼	8.6	30	130	2500	14	—	3.3	13	280
AZM 262	$\frac{5}{8}$x$\frac{1}{2}$x1$\frac{29}{32}$	6¼	5.7	21	80	2300	20	—	—	10	220
AZM 263	$\frac{7}{8}$x$\frac{11}{16}$x2$\frac{1}{8}$	12½	4.2	16	73	1450	72	—	—	8	115

All data at 20°C—Other coils for different duty cycles or voltages available—to order add coil resistance to type

*Pat. Pend.

American Zettler, inc.

697 RANDOLPH AVE. • COSTA MESA, CALIF. 92626 • PHONE (714) 540-4190 • CABLE ZETELEC

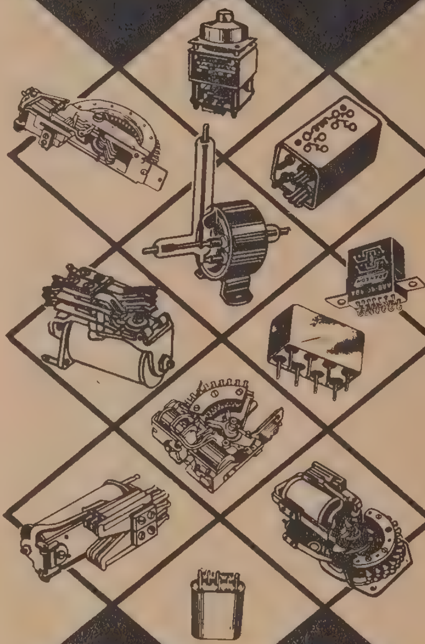
MKC Electronics Corp, Kansas City	Kans
Mossman-Elliott Corp, Joliet	Ill
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Pacific Relays Inc, Van Nuys	Cal
Pollak Corp, Joseph, Boston	Mass
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton	Ind
Price Electric Corp, Frederick	Md
Printact Relay Div Executone Inc, Long Island City	N Y
Randall Inc, Douglas, Sub Walter Kidde & Co Inc Westerly	R I
Relays Inc, New York	N Y
Relay Specialties Inc, Fair Lawn	N J
Relcoa Sub Hi-G Inc, Hauppauge	N Y
Rowan Controller Co, Oceanport	N J
Schrack Electrical Sales Corp, New York	N Y
Sigma Instruments Inc, Braintree	Mass
Solid State Electronics Corp, Sepulveda	Cal
Sorenson Lighted Controls Inc, West Hartford	Conn
Square D Co, Park Ridge	Ill
Standard Relay Corp, Brooklyn	N Y
Stevens-Arnold Inc, South Boston	Mass
Struthers-Dunn Inc, Pitman	N J
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Tokyo Electric Co Ltd, Tokyo	Japan
Torr Labs Inc, Los Angeles	Cal
Trompeter Electronics Inc, Chatsworth	Cal
Universal Relay Corp, New York	N Y
Vactric Control Equipment Ltd, Morden	England
Vanguard Relay Corp, Lindenhurst	NY
Welex Electronics, Div Halliburton Co Silver Spring	Md
Wells Co Inc, Gary, Yonkers	N Y
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J
Wheelock Signals Inc, Long Branch	N J
Win-Elco, Gold Hill	Ore
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

RELAYS-ELECTROMAGNETIC, HIGH VOLTAGE

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
GRIGSBY BARTON INC, ARLINGTON HEIGHTS	**ILL**
GUARDIAN ELECTRIC MFG CO, CHICAGO	**ILL**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL**
LEACH CORP, SOUTH PASADENA, CAL	**ADV PGS 596-599**
MAGNECRAFT ELECTRIC CO, CHICAGO	**ILL**
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON	**IND**
UNIVERSAL RELAY CORP, NEW YORK	**N Y**
VANGUARD RELAY CORP, LINDENHURST	**NY**
Aemco Div, Midtex Inc, Mankato	Minn
Allied Control Co Inc, New York	N Y
American Solenoid Co, Inc, Rahway	N J
Anritsu Electric Co Ltd, Tokyo	Japan
Arco S P A, Milano	Italy
Automatic Electric Co, Northlake	Ill
Automatic Switch Co, Florham Park	N J
Cardinal Control Co Inc, Kensington	Conn
Clare & Co, C P, Chicago	Ill
Comar Electric Co, Chicago	Ill
Compac Engineering Inc, Hollister	Cal
Computer Components Inc, Jamaica	N Y
Coto-Coil Co Inc, Providence	R I
Crest Mfg Co, East Berlin	Conn
Cutler-Hammer Inc, Milwaukee	Wisc
Ebert Electronics Corp, Floral Park	N Y
Eimac Div, Varian Associates, San Carlos	Cal
Elec-Trol Inc, Saugus	Cal
Electronic Instrument & Specialty Corp Winchester	Mass
Essex Wire Corp Controls Div RBM Controls Logansport	Ind
Fuji Electric Co Ltd, Tokyo	Japan
Giannini-Voltex, Whittier	Cal
Grigsby Barton Inc, Arlington Heights	Ill
Guardian Electric Mfg Co, Chicago	Ill
Hart-Advance Relay Div Oak Electro/Netics Corp Elkhorn	Wis
Hartman Electrical Mfg Co, Mansfield	Ohio
High Vacuum Electronics Inc, South Pasadena	Cal
Hipotronics Inc, Brewster	N Y
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
Kurman Instruments Corp, Syosset	N Y
Lake Engineering Co Ltd, Scarborough	Ont
LaPine Scientific Co, Chicago	Ill
Leach Corp, South Pasadena	Cal
Line Electric Co, Parsippany	N J
Mack Electric Devices Inc, Wyncote	Pa
Magnecraft Electric Co, Chicago	Ill
MCI Electronics, Marina Del Rey	Cal
McKee Automation Corp Sub James Cunningham Inc San Fernando	Cal
MKC Electronics Corp, Kansas City	Kans
Mossman-Elliott Corp, Joliet	Ill
Parelco, Inc, San-Juan Capistrano	Cal
Pepco, Inc, North Hollywood	Cal
Pollak Corp, Joseph, Boston	Mass
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton	Ind
Price Electric Corp, Frederick	Md
Relays Inc, New York	N Y
Relcoa Sub Hi-G Inc, Hauppauge	N Y
Ross Engineering Corp, Saratoga	Cal
Rowan Controller Co, Oceanport	N J
Schrack Electrical Sales Corp, New York	N Y
Sigma Instruments Inc, Braintree	Mass
Solid State Electronics Corp, Sepulveda	Cal
Square D Co, Park Ridge	Ill
Standard Relay Corp, Brooklyn	N Y
Struthers-Dunn Inc, Pitman	N J
Switching Controls Corp, North Hollywood	Cal

LARGEST AND MOST DIVERSIFIED STOCK OF RELAYS IN THE WORLD!

We also stock MICROSWITCHES®



Save time and money on purchasing relays

OFF THE SHELF DELIVERY!

SEND FOR CATALOG EBG

Universal RELAY CORP.

42 White St., New York, N.Y. 10013
(212) 925-6900

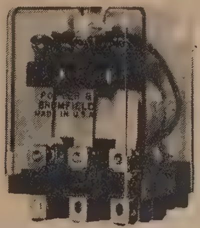
TWX 710-581-4461

®Honeywell, Inc.

Universal Relay Corp, New York	N Y
Vanguard Relay Corp, Lindenhurst	NY
Welex Electronics, Div Halliburton Co Silver Spring	Md
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J
Wheelock Signals Inc, Long Branch	N J
Win-Elco, Gold Hill	Ore
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

RELAYS--ELECTROMAGNETIC, IMPULSE

AMERICAN ZETTLER, INC, COSTA MESA, CAL	**ADV PG 587**
ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
BABCOCK ELECTRONICS, RELAY DIV, COSTA MESA	**CAL**
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT IOWA	**ADV PG 600**
GRIGSBY BARTON INC, ARLINGTON HEIGHTS	**ILL**
GUARDIAN ELECTRIC MFG CO, CHICAGO	**ILL**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL**
LEACH CORP, SOUTH PASADENA, CAL	**ADV PGS 596-599**
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON	**IND**
PRINTACT RELAY DIV EXECUTONE INC LONG ISLAND CITY	**N Y**
RANDALL INC, DOUGLAS, SUB WALTER KIDDE & CO INC WESTERLY	**R I**
TAKAMISAWA ELECTRIC CO, LTD, TOKYO	**JAPAN**
UNIVERSAL RELAY CORP, NEW YORK	**N Y** **ADV PG 588**
VANGUARD RELAY CORP, LINDENHURST	**NY**
Adams & Westlake Co, Elkhart	Ind
Aemco Div, Midtex Inc, Mankato	Minn
Alco Electronic Products, Inc, Lawrence	Mass
A L Controls Co, New Haven	Conn
Allied Control Co Inc, New York	N Y
Alpha Relays Inc, Jersey City	N J
American Solenoid Co, Inc, Rahway	N J
American Zettler, Inc, Costa Mesa	Cal
Anritsu Electric Co Ltd, Tokyo	Japan
Arco S P A, Milano	Italy
Artisan Electronics Corp, Parsippany	N J
Automatic Electric Co, Northlake	Ill
Automatic Switch Co, Florham Park	N J
Babcock Electronics, Relay Div, Costa Mesa	Cal
Branson Corp, Denville	N J
Cardinal Control Co Inc, Kensington	Conn
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Comar Electric Co, Chicago	Ill
Compac Engineering Inc, Hollister	Cal
Computer Components Inc, Jamaica	N Y
Cook Electric Co Automatic Controls Div, Palatine	Ill
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Crest Mfg Co, East Berlin	Conn
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Deutsch Filtors Relay Div, East Northport	N Y
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Ebert Electronics Corp, Floral Park	N Y
Elec-Trol Inc, Saugus	Cal
Electronic Controls Inc, Wilton	Conn
Ericsson Centrum Inc, New York	N Y
Essex Wire Corp Controls Div RBM Controls Logansport	Ind
General Automatic Corp, Bayonne	N J
Giannini-Voltex, Whittier	Cal
Grason Stadler Co Inc, West Concord	Mass
Grigsby Barton Inc, Arlington Heights	Ill
Guardian Electric Mfg Co, Chicago	Ill
Guide Industries Inc, Sun Valley	Cal
Hart-Advance Relay Div Oak Electro/Netics Corp Elkhorn	Wis
Hartman Electrical Mfg Co, Mansfield	Ohio
High Vacuum Electronics Inc, South Pasadena	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
Jaidinger Mfg Co Inc, Chicago	Ill
James Electronics Inc, Chicago	Ill
Kameco Ltd, Montreal	Que
Kuhnke, H, Elektrotechnische Fabrik Gmbh Holstein	Germany
LCC-CICE, 93 Montreuil-sous-Bois	France
Leach Corp, South Pasadena	Cal
Line Electric Co, Parsippany	N J
MKC Electronics Corp, Kansas City	Kans
Oki Electric Industry Co Ltd, Tokyo	Japan
Pepco, Inc, North Hollywood	Cal
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton	Ind
Price Electric Corp, Frederick	Md
Printact Relay Div Executone Inc, Long Island City	N Y
Randall Inc, Douglas, Sub Walter Kidde & Co Inc Westerly	R I
Rele Finder Sas, 14440 Almese (To)	Italy
Rowan Controller Co, Oceanport	N J
Schrack Electrical Sales Corp, New York	N Y
Sierra Electric Inc, Gardena	Cal
Sigma Instruments Inc, Braintree	Mass
Solid State Electronics Corp, Sepulveda	Cal
Sorenson Lighted Controls Inc, West Hartford	Conn
Standard Relay Corp, Brooklyn	N Y
Struthers-Dunn Inc, Pitman	N J
Switching Controls Corp, North Hollywood	Cal
Syracuse Electronics Corp, Syracuse	N Y
Takamisawa Electric Co, Ltd, Tokyo	Japan
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Teledyne Relays A Teledyne Co, Hawthorne	Cal
Torr Labs Inc, Los Angeles	Cal



P&B Electromechanical Relays

KUP RELAY

The new 10 amp KUP relay is one example of more than 60 P&B relay types. Its quick connect terminals and true 10 amp nylon socket can save up to $2.40 per relay over octal socket types. Available with built in push-to-test button, neon lamp, tapped case or bracket. Covered by U/L component recognition program.

For further information on P&B relays, see the following categories:

Latching	Page No. 591
Mercury	Page No. 592
Mil-spec., High Reliability	Page No. 593
Power (up to 25 amps)	Page No. 595
Reed	Page No. 601
Telephone	Page No. 611
Time Delay	Page No. 612

A wide variety of general purpose and special purpose relays are carried in stock.

For information on the whole P&B line, write for Industrial Catalog 68 or Distributor Catalog 100. Data sheets describing engineering details of individual relays are also available.

AMF | POTTER & BRUMFIELD
Division American Machine & Foundry Company, Princeton, Indiana 47570
Export: AMF International, 261 Madison Avenue, New York, N. Y. 10016

P&B Relays are available from your local electronic parts distributor.

Universal Relay Corp, New York	N Y
Vanguard Relay Corp, Lindenhurst	NY
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J
Wheelock Signals Inc, Long Branch	N J
Win-Elco, Gold Hill	Ore

RELAYS--ELECTROMECHANICAL

AMERICAN ZETTLER, INC, COSTA MESA	**CAL**
BABCOCK ELECTRONICS, RELAY DIV, COSTA MESA CAL	**ADV PG 590**
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT IOWA	**ADV PG 600**
GRIGSBY BARTON INC, ARLINGTON HEIGHTS	**ILL**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE CAL	**ADV PG 589**
LEACH CORP, SOUTH PASADENA, CAL	**ADV PGS 596-599**
MAGNECRAFT ELECTRIC CO, CHICAGO	**ILL**
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON, IND	**ADV PG 589**
PRINTACT RELAY DIV EXECUTONE INC LONG ISLAND CITY	**N Y**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
Acme Products Co, Kensington	Conn
Aemco Div, Midtex Inc, Mankato	Minn
Allen-Bradley Co, Milwaukee	Wis
Allied Control Co Inc, New York	N Y
Alpha Relays Inc, Jersey City	N J
American Monarch Div Mpls Scientific Controls Minneapolis	Minn
American Zettler, Inc, Costa Mesa	Cal
Aviation Electric Ltd, St Laurent, Montreal	Que
Babcock Electronics, Relay Div, Costa Mesa	Cal
Bourns Inc Trimpot Div, Riverside	Cal
Bristol Div, American Chain & Cable Co Waterbury	Conn
B/W Controller Corp, Birmingham	Mich
Cardinal Control Co Inc, Kensington	Conn
Cook Electric Co Automatic Controls Div, Palatine	Ill
Crest Mfg Co, East Berlin	Conn
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dormeyer Industries, Chicago	Ill
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Essex Wire Corp Controls Div RBM Controls Logansport	Ind
Fitre, 20143 Milano	Italy
Fujitsu Ltd, Tokyo	Japan
Furnas Electric Co, Batavia	Ill
Giannini-Voltex, Whittier	Cal
Grigsby Barton Inc, Arlington Heights	Ill
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal

MILGRAY STOCKS RELAYS

Every kind you can imagine. (And some you can't.) From stockpiles strategically located for overnight or faster delivery to anywhere in the world. We stock more so you can worry less. A call to your local Milgray man will start the motion.

MILGRAY

Milgray/New York 212-YU 9-1600
Milgray/Delaware Valley 215-BA 8-2000
Milgray/Washington 301-864-1111
Milgray/Cleveland 216-881-8800
Milgray/International 212-YU 9-1600
Milgray/New England, Inc. 617-272-6800

RELAYS

Light duty general purpose
Medium duty
Heavy duty
Hermetic seal
Polarized
Counting relays and selector switches
Dry reed
Mercury-wetted
Solid state hybrid

SWITCHES

Rotary
Slide

CONTACTS

Dry reed
Mercury-wetted

CONTACTORS

In addition to these off-the-shelf products, ITT Jennings custom designs and mass produces relays to meet your specific application needs. For complete information, write ITT Jennings, a division of International Telephone and Telegraph Corporation, 970 McLaughlin Avenue, San Jose, Calif. 95108.

JENNINGS ITT

BABCOCK RELAYS

Full-size, half-size, 1/6 size—latching or non-latching, soldered or welded—crystal can relays, to MIL-R-5757 or MIL-R-6106.

AVAILABLE OFF-THE-SHELF at these quantity distributors.....

AVNET ELECTRONICS CORPORATION
10916 Washington Boulevard
Culver City, California
Phone: (213) 870-0111, (213) 870-6141
TLX 674-354

344 Middlefield Road
Mountain View, California 94041
Phone: (415) 961-7700; TLX 34-8441

First National Bank Building, East
5301 Central Avenue N.E., Suite 1400E
Albuquerque, New Mexico 87108
Phone: (505) 265-7926; TLX 74-6459

2318 6th Avenue
Seattle, Washington 98121
Phone: (206) 623-8824; TLX 32-249

1729 North 28th Avenue
Phoenix, Arizona 85009
Phone: (602) 272-6821; TLX 66-750

1020 W. Ellsworth Avenue
Denver, Colorado 80223
Phone: (303) 623-6255; TLX 45-687

207 Cambridge Street
Burlington, Massachusetts 02103
Phone: (617) 272-3060

3901 Pace Court
Schiller Park, Illinois 60176
Phone: (312) 678-6310; TWX 312-678-2522

70 State Street
Westbury, L.I., New York 11590
Phone: (516) 333-8650; TLX 12-5928

4940 Viking Drive, Suite 208
Minneapolis, Minnesota 55435
Phone: (612) 920-5866; TWX 910-576-2784,
TLX 029-5250

87 Wingold Avenue
Toronto 19, Ontario, Canada
Phone: (416) 789-1838; TLX 02-29195

1505 Louvain Street West
Montreal 11, Quebec, Canada
Phone: (514) 0381-9127; TLX 01-20678

P. D. Q. ELECTRONICS CORPORATION
9559 Irondale Avenue
Chatsworth, California 91311
Phone: (213) 882-0500; TWX 910-494-1235

POWELL ELECTRONICS, INC.
S. Island Road, P. O. Box 18765
Philadelphia, Pennsylvania 19101
Phone: (215) 724-1900; TWX 710-670-0465

10728 Hanna Street
Beltsville, Maryland 20705
Phone: (301) 474-1030; TWX 710-828-9710

P. O. Box 488
Fayetteville, Tennessee 37334
Phone: (615) 433-5737; TWX 810-380-3890

2049 W. Central Boulevard
Orlando, Florida 32805
Phone: (305) 423-8586; TWX 810-850-0155

Foreign Representation:

SWEDISH ELEKTROLINK AB
Stora Nygatan 39
Stockholm C. Sweden
Phone 114595; Cable Telelink

A.E.M.G.P.
115 Avenue J. B. Clement
Boulogne s/Seine, France
Phone 825-96-20; Telex 842-27985

BODAMER GmbH
8022 Grunwald Bei Munchen
Keltenstr. 2a, West Germany
Phone 471862

LAURENTIDE ELECTRONICS, LTD.
52 Morley Road
Basingstoke HANTS, England
Phone Basingstoke 5330

SHOSHIN SHOJI KAISHA, LTD.
P.O. Box 173
Nihonbashi, Tokyo, Japan
Phone 270-5921; TLX: 0222-3423, TOSHOSHIN Tok

BABCOCK RELAYS
3501 Harbor Boulevard
Costa Mesa, California • 92626

Hartman Electrical Mfg Co, Mansfield	Ohio
Haydon Co The, A W, Waterbury	Conn
Hi-G Inc, Windsor Locks	Conn
Hillburn Relay Corp, Farmingdale	N Y
Impectron Inc, New York	N Y
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
Kameco Ltd, Montreal	Que
Kurman Instruments Corp, Syosset	N Y
Lake Engineering Co Ltd, Scarborough	Ont
LCC-CICE, 93 Montreuil-sous-Bois	France
Leach Corp, South Pasadena	Cal
Ledex Div Ledex Inc, Dayton	Ohio
Magnecraft Electric Co, Chicago	Ill
Miniature Electronic Components Corp, Holbrook	Mass
Ohmite Mfg Co, Skokie	Ill
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Pacific Relays Inc, Van Nuys	Cal
Parelco, Inc, San-Juan Capistrano	Cal
P & D Mfg Co Inc Sub Bendix Corp Long Island City	N Y
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton	Ind
Printact Relay Div Executone Inc, Long Island City	N Y
Relay Specialties Inc, Fair Lawn	N J
Relcoa Sub Hi-G Inc, Hauppauge	N Y
Rele Finder Sas, 14440 Almese (To)	Italy
Rowan Controller Co, Oceanport	N J
Scherma Mfg Co Inc, F A, New York	N Y
Schrack Electrical Sales Corp, New York	N Y
Siemens America Inc, New York	N Y
Sigma Instruments Inc, Braintree	Mass
Signal & Communications Div Westinghouse Air Brake Co Pittsburgh	Pa
Simplex Time Recorder Co, Gardner	Mass
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Solid State Electronics Corp, Sepulveda	Cal
Square D Co, Park Ridge	Ill
Standard Relay Corp, Brooklyn	N Y
Stelma Inc, Stamford	Conn
Stromberg-Carlson Sub Gen Dynamics, Rochester	N Y
Struthers-Dunn Inc, Pitman	N J
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Syracuse Electronics Corp, Syracuse	N Y
Teledyne Relays A Teledyne Co, Hawthorne	Cal
Tokyo Electric Co Ltd, Tokyo	Japan
Vapor Corp, Chicago	Ill
Wells Co Inc, Gary, Yonkers	N Y
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J
Westinghouse Electric Corp, Standard Control Div Beaver	Pa
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan
Zenith Controls Inc, Chicago	Ill

RELAYS--FREQUENCY SELECTIVE (AUDIO TONE-OPERATED)

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
J-B-T INSTRUMENTS INC, NEW HAVEN	**CONN**
MAGNECRAFT ELECTRIC CO, CHICAGO	**ILL**
MESON ELECTRONICS CO, INC, ROCHESTER	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
STEVENS-ARNOLD INC, SOUTH BOSTON, MASS	**ADV PG 144**
UNIVERSAL RELAY CORP, NEW YORK	**N Y**
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
Allied Control Co Inc, New York	N Y
American Systems, Inc, Van Nuys	Cal
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Automatic Switch Co, Florham Park	N J
Autronics Corp, Pasadena	Cal
Bramco Controls Div Ledex Inc, Piqua	Ohio
Datametrics Corp, Van Nuys	Cal
Deans Co, W S, Downey	Cal
Fujitsu Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Guide Industries Inc, Sun Valley	Cal
Hammarlund Mfg Co, Mars Hill	N C
Hathaway Instruments Inc, Denver	Colo
JB Electronic Transformers Inc, Chicago	Ill
J-B-T Instruments Inc, New Haven	Conn
Larson Instrument Co, Orangeburg	N Y
Logitek Inc, Farmingdale	N Y
Magnecraft Electric Co, Chicago	Ill
Meson Electronics Co, Inc, Rochester	N Y
Microwave Associates Inc, Burlington	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Reach Electronics Inc, Lexington	Neb
Simplex Time Recorder Co, Gardner	Mass
Solid State Electronics Corp, Sepulveda	Cal
Standard Relay Corp, Brooklyn	N Y
Stevens-Arnold Inc, South Boston	Mass
Trepac Corp of America, Englewood	N J
Universal Relay Corp, New York	N Y
Varo Inc, Garland	Tex
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J
Win-Elco, Gold Hill	Ore

RELAYS--HIGH-G

BABCOCK ELECTRONICS, RELAY DIV, COSTA MESA	**CAL**
COUCH ORDNANCE INC, NORTH QUINCY	**MASS**
ELECTRO-TEC CORP, ORMOND BEACH	**FLA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GUARDIAN ELECTRIC MFG CO, CHICAGO	**ILL**
LEACH CORP, SOUTH PASADENA, CAL	**ADV PGS 596-599**
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON	**IND**
PRINTACT RELAY DIV EXECUTONE INC LONG ISLAND CITY	**N Y**
RANDALL INC, DOUGLAS, SUB WALTER KIDDE & CO INC WESTERLY	**R I**
UNIVERSAL RELAY CORP, NEW YORK	**N Y**
Allied Control Co Inc, New York	N Y
Alpha Relays Inc, Jersey City	N J
Babcock Electronics, Relay Div, Costa Mesa	Cal
Bourns Inc Trimpot Div, Riverside	Cal
Branson Corp, Denville	N J
Cook Electric Co Automatic Controls Div, Palatine	Ill
Couch Ordnance Inc, North Quincy	Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Deutsch Filtors Relay Div, East Northport	N Y
Dialtron Corp, Brooklyn	N Y
Elec-Trol Inc, Saugus	Cal
Electronic Controls Inc, Wilton	Conn
Electronic Instrument & Specialty Corp Winchester	Mass
Electronic Specialty Co, Los Angeles	Cal
Electro-Tec Corp, Ormond Beach	Fla
General Electric Co, ECSO, Schenectady	N Y
Guardian Electric Mfg Co, Chicago	Ill
Hart-Advance Relay Div Oak Electro/Netics Corp Elkhorn	Wis
Hartman Electrical Mfg Co, Mansfield	Ohio
High Vacuum Electronics Inc, South Pasadena	Cal
Hi-G Inc, Windsor Locks	Conn
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kidde & Co Inc, Walter, Belleville	N J
Kurman Instruments Corp, Syosset	N Y
LCC-CICE, 93 Montreuil-sous-Bois	France
Leach Corp, South Pasadena	Cal
Pacific Relays Inc, Van Nuys	Cal
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton	Ind
Price Electric Corp, Frederick	Md
Printact Relay Div Executone Inc, Long Island City	N Y
Randall Inc, Douglas, Sub Walter Kidde & Co Inc Westerly	R I
Relays Inc, New York	N Y
Sigma Instruments Inc, Braintree	Mass
Solid State Electronics Corp, Sepulveda	Cal
Standard Relay Corp, Brooklyn	N Y
Struthers-Dunn Inc, Pitman	N J
Teledyne Relays A Teledyne Co, Hawthorne	Cal
Torr Labs Inc, Los Angeles	Cal
Universal Relay Corp, New York	N Y
Vactric Control Equipment Ltd, Morden	England
Wheelock Signals Inc, Long Branch	N J
Win-Elco, Gold Hill	Ore

RELAYS--KEYING & BREAK-IN

ALLEN ELECTRONICS DIV ALLEN ORGAN CO, MACUNGIE PA	**ADV PG 716**
ALLIED ELECTRONICS CORP, CHICAGO, ILL	**ADV PG 594**
ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
GUARDIAN ELECTRIC MFG CO, CHICAGO	**ILL**
LEACH CORP, SOUTH PASADENA, CAL	**ADV PGS 596-599**
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON	**IND**
UNIVERSAL RELAY CORP, NEW YORK	**N Y**
VANGUARD RELAY CORP, LINDENHURST	**NY**
Aemco Div, Midtex Inc, Mankato	Minn
Allen Electronics Div Allen Organ Co, Macungie	Pa
Allied Control Co Inc, New York	N Y
Allied Electronics Corp, Chicago	Ill
Alpha Relays Inc, Jersey City	N J
Anritsu Electric Co Ltd, Tokyo	Japan
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
General Automatic Corp, Bayonne	N J
Giannini-Voltex, Whittier	Cal
Guardian Electric Mfg Co, Chicago	Ill
Hillburn Relay Corp, Farmingdale	N Y
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kurman Instruments Corp, Syosset	N Y
LCC-CICE, 93 Montreuil-sous-Bois	France
Leach Corp, South Pasadena	Cal
Mossman-Elliott Corp, Joliet	Ill
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton	Ind
Relays Inc, New York	N Y
Relcoa Sub Hi-G Inc, Hauppauge	N Y
Schrack Electrical Sales Corp, New York	N Y
Sigma Instruments Inc, Braintree	Mass
Solid State Electronics Corp, Sepulveda	Cal
Standard Relay Corp, Brooklyn	N Y
Stelma Inc, Stamford	Conn
Trepac Corp of America, Englewood	N J
Universal Relay Corp, New York	N Y
Vanguard Relay Corp, Lindenhurst	NY
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

RELAYS--LATCHING

BABCOCK ELECTRONICS, RELAY DIV, COSTA MESA	**CAL**
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT IOWA	**ADV PG 600**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL REED CO, CLARK	**N J**
GRIGSBY BARTON INC, ARLINGTON HEIGHTS	**ILL**
GUARDIAN ELECTRIC MFG CO, CHICAGO	**ILL**
IBM, INDUSTRIAL PRODUCTS MARKETING, NEW YORK	**NY**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL**
LEACH CORP, SOUTH PASADENA, CAL	**ADV PGS 596-599**
MAGNECRAFT ELECTRIC CO, CHICAGO	**ILL**
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON, IND	**ADV PG 591**
PRINTACT RELAY DIV EXECUTONE INC, LONG ISLAND CITY N Y	**ADV PG 591**
RANDALL INC, DOUGLAS, SUB WALTER KIDDE & CO INC WESTERLY	**R I**
TAKAMISAWA ELECTRIC CO, LTD, TOKYO	**JAPAN**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
UNIVERSAL RELAY CORP, NEW YORK	**N Y**
VANGUARD RELAY CORP, LINDENHURST	**NY**
Acme Products Co, Kensington	Conn
Adams & Westlake Co, Elkhart	Ind
Aemco Div, Midtex Inc, Mankato	Minn
Allen-Bradley Co, Milwaukee	Wis
Allied Control Co Inc, New York	N Y
Alpha Relays Inc, Jersey City	N J
American Monarch Div Mpls Scientific Controls Minneapolis	Minn
American Systems, Inc, Van Nuys	Cal
Arco Electronics, Inc, Great Neck	N Y
Arco S P A, Milano	Italy
Artisan Electronics Corp, Parsippany	N J
Automatic Electric Co, Northlake	Ill
Babcock Electronic Corp, Costa Mesa	Cal
Babcock Electronics, Relay Div, Costa Mesa	Cal
Branson Corp, Denville	N J
Cardinal Control Co Inc, Kensington	Conn
Clare & Co, C P, Chicago	Ill
Clark Control Div, A O Smith Corp, Cleveland	Ohio
Comar Electric Co, Chicago	Ill
Computer Components Inc, Jamaica	N Y
Control Data Corp, LaJolla Div, Minneapolis	Minn
Cook Electric Co Automatic Controls Div, Palatine	Ill
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Coto-Coil Co Inc, Providence	R I
Crest Mfg Co, East Berlin	Conn
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Cutler-Hammer Inc, Milwaukee	Wisc
Davis Electric Co, Cape Girardeau	Mo
Deutsch Filtors Relay Div, East Northport	N Y
Dormeyer Industries, Chicago	Ill
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Ebert Electronics Corp, Floral Park	N Y
Elec-Trol Inc, Saugus	Cal
Electronic Controls Inc, Wilton	Conn
Electronic Specialty Co, Los Angeles	Cal
Euro Cedag, Milan	Italy
Fifth Dimension Inc, Princeton	N J
Fitre, 20143 Milano	Italy
Furnas Electric Co, Batavia	Ill
Gems Co Inc, Farmington	Conn
General Automatic Corp, Bayonne	N J
General Electric Co, ECSO, Schenectady	N Y
General Reed Co, Clark	N J
Globe Electrical Mfg Co, Gardena	Cal
Grigsby Barton Inc, Arlington Heights	Ill
Guardian Electric Mfg Co, Chicago	Ill
Hart-Advance Relay Div Oak Electro/Netics Corp Elkhorn	Wis
Hartman Electrical Mfg Co, Mansfield	Ohio
High Vacuum Electronics Inc, South Pasadena	Cal
Hi-G Inc, Windsor Locks	Conn
Hillburn Relay Corp, Farmingdale	N Y
IBM, Industrial Products Marketing, New York	NY
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
Jaidinger Mfg Co Inc, Chicago	Ill
Kameco Ltd, Montreal	Que
Kidde & Co Inc, Walter, Belleville	N J
Kuhnke, H, Elektrotechnische Fabrik Gmbh Holstein	Germany
Kurman Instruments Corp, Syosset	N Y
Lake Engineering Co Ltd, Scarborough	Ont
Larson Instrument Co, Orangeburg	N Y
LCC-CICE, 93 Montreuil-sous-Bois	France
Leach Corp, South Pasadena	Cal
Ledex Div Ledex Inc, Dayton	Ohio
Life Instrument Co Inc, Franklin	Mass
Line Electric Co, Parsippany	N J
Magnecraft Electric Co, Chicago	Ill
McKee Automation Corp Sub James Cunningham Inc San Fernando	Cal
Micro Metrics Inc, Paterson	N J
MKC Electronics Corp, Kansas City	Kans
Mossman-Elliott Corp, Joliet	Ill
New Product Engineering Inc Sub Wabash Magnetics Inc Wabash	Ind
North Electric Co, Galion	Ohio
Ohmite Mfg Co, Skokie	Ill
Oki Electric Industry Co Ltd, Tokyo	Japan
Pacific Relays Inc, Van Nuys	Cal
Painton & Co, Ltd, Northampton	England
Parelco, Inc, San-Juan Capistrano	Cal
Pepco, Inc, North Hollywood	Cal
Phipps Precision Products, Van Nuys	Cal
Plessey Airborne Corp, Hillside	NJ
Pollak Corp, Joseph, Boston	Mass
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton	Ind
Price Electric Corp, Frederick	Md
Printact Relay Div Executone Inc, Long Island City	N Y
Randall Inc, Douglas, Sub Walter Kidde & Co Inc Westerly	R I
Relay Specialties Inc, Fair Lawn	N J
Relcoa Sub Hi-G Inc, Hauppauge	N Y
Rele Finder Sas, 14440 Almese (To)	Italy
Scherma Mfg Co Inc, F A, New York	N Y
Schrack Electrical Sales Corp, New York	N Y
Siemens America Inc, New York	N Y
Sigma Instruments Inc, Braintree	Mass
Slocum Industries, Inc, Reseda	Cal
Solid State Electronics Corp, Sepulveda	Cal
Square D Co, Park Ridge	Ill
Standard Relay Corp, Brooklyn	N Y
Struthers-Dunn Inc, Pitman	N J
Switching Controls Corp, North Hollywood	Cal
Syracuse Electronics Corp, Syracuse	N Y
Takamisawa Electric Co, Ltd, Tokyo	Japan
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Teledyne Relays A Teledyne Co, Hawthorne	Cal
Telefunken Sales Corp, Garden City	N Y
Tokyo Electric Co Ltd, Tokyo	Japan
Torr Labs Inc, Los Angeles	Cal
Touch-Plate Mfg Corp, Paramount	Cal
Trepac Corp of America, Englewood	N J
Trompeter Electronics Inc, Chatsworth	Cal
Universal Relay Corp, New York	N Y
Vanguard Relay Corp, Lindenhurst	NY
Wabash Magnetics Inc, Wabash	Ind
Ward Leonard Electric Co, Mount Vernon	N Y
Westinghouse Electric Corp, Standard Control Div Beaver	Pa
Wheelock Signals Inc, Long Branch	N J
Win-Elco, Gold Hill	Ore

P&B LATCHING RELAYS

KB SERIES RELAY

The KB is one of many latching relays available from P&B. One coil operates relay to set latch and the other coil releases it. Ideal for memory applications. Operates on momentary pulse to either coil. Listed by U/L and Canadian Standards Association.

Also available with dust cover as KBP Series, furnished with 20-pin octal plug for socket mounting.

For complete specifications on latching and many other relay types, send for Catalog 68.

AMF | POTTER & BRUMFIELD
Division American Machine & Foundry Company, Princeton, Indiana 47570
Export: AMF International, 261 Madison Avenue, New York, N.Y. 10016

P&B Relays are available from your local electronic parts distributor.

Check the top of the pages for alphabetical listing of product categories

NEW MAGNETIC RELAY plugs into your PC board!

NO Springs, NO Wiring,
NO Sockets, NO Soldering,
NO Mechanical Linkage

Printact®

Standard Series G
Latching Series LS/LD

(actual size)

Plated Conductors on Your PC Board are the Fixed Contacts

Save SPACE, MONEY and MANHOURS with these new small, lightweight, highly reliable Standard and Latching PRINTACT Relays.

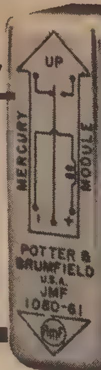
Available with Bifurcated Palladium or Gold Alloy contacts for more than 10 million cycle 2 to 4* pole switching. Handles up to 2 amp. res. loads. Coils for 6, 12, 24 and 48 vdc at 500 mw. Operating temperature —30°C to +95°C. Operate time 7 ms. The little gem is an 0.8 oz. ⅞" cube.

Quality features include: double-break contacts; balanced armature, enclosed housing, plug-in application; encapsulated coil; self-wiping contacts and inherent snap-action — saves sockets soldering, and wiring and the cost is lower than you think!

*Switches up to 4 form A plus B, or 4 form C.

For data and prices write or call:
212-EX2-4800

Executone
PRINTACT RELAY DIVISION
47-37 Austell Place
Long Island City, N.Y. 11101



P&B MERCURY-WETTED RELAYS

JMF SERIES

DELIVER
BILLIONS OF HIGH SPEED,
BOUNCE-FREE OPERATIONS.

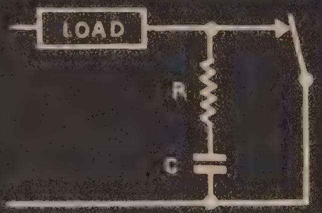
The new JMF modules have a very low profile for PC board mounting and are compatible with solid state circuits.

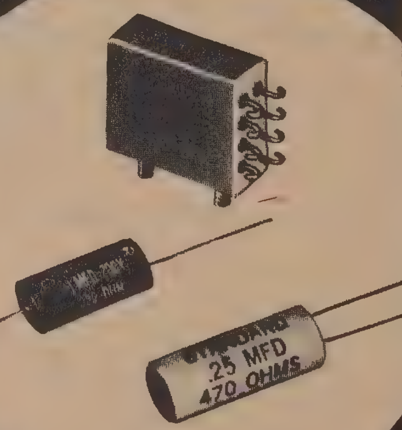
All versions, the JML and JMC with non-bridging contacts and the JMP polarized series for single-side-stable, bi-stable and chopper operations, as well as the JM's with from SPDT to 4PDT bridging contacts, are available.

Write for the P&B Mercury-Wetted Contact Relay Catalog. It explains the extreme longevity, high speed and unvarying dependability you can expect from these relays.

AMF | POTTER & BRUMFIELD
Division American Machine & Foundry Company, Princeton, Indiana 47570
Export: AMF International, 261 Madison Avenue, New York, N. Y. 10016

P&B Relays are available from your local electronic parts distributor.





RELAY CONTACT PROTECTION

FOR THE ULTIMATE IN RELAY LONGEVITY

R-C Networks designed to meet your individual requirements. Standard Condenser Arc Suppressors reduce damaging build-up on relay contacts and will greatly prolong the life of relays in your equipment.

Standard Condenser guarantees complete R-C Network compatibility with your present or proposed system.

Send specifications or, if you desire further information, write:

Standard
CONDENSER CORPORATION

Dept. BG-9, 1065 W. Addison St.,
Chicago, Ill. 60613 • 312-327-5440

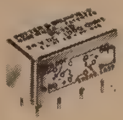
RELAYS--MERCURY

BABCOCK ELECTRONICS, RELAY DIV, COSTA MESA	**CAL**
GRIGSBY BARTON INC, ARLINGTON HEIGHTS	**ILL**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL**
MAGNECRAFT ELECTRIC CO, CHICAGO	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON, IND	**ADV PG 592**
RANDALL INC, DOUGLAS, SUB WALTER KIDDE & CO INC WESTERLY	**R I**
STANDARD CONDENSER CORP, CHICAGO, ILL	**ADV PG 592**
UNIVERSAL RELAY CORP, NEW YORK	**N Y**
Adams & Westlake Co, Elkhart	Ind
Aemco Div, Midtex Inc, Mankato	Minn
Alpha Relays Inc, Jersey City	N J
Automatic Electric Co, Northlake	Ill
Avnet Electronics, Westbury	N Y
Babcock Electronic Corp, Costa Mesa	Cal
Babcock Electronics, Relay Div, Costa Mesa	Cal
Cardinal Control Co Inc, Kensington	Conn
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Clare & Co, C P, Chicago	Ill
Computer Components Inc, Jamaica	N Y
Coto-Coil Co Inc, Providence	R I
Crest Mfg Co, East Berlin	Conn
Dormeyer Industries, Chicago	Ill
Durakool Inc, Elkhart	Ind
Ebert Electronics Corp, Floral Park	N Y
Elec-Trol Inc, Saugus	Cal
Electronic Instrument & Specialty Corp Winchester	Mass
Fifth Dimension Inc, Princeton	N J
Fitre, 20143 Milano	Italy
Fujitsu Ltd, Tokyo	Japan
Grigsby Barton Inc, Arlington Heights	Ill
Hart-Advance Relay Div Oak Electro/Netics Corp Elkhorn	Wis
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
James Electronics Inc, Chicago	Ill
Kahl Scientific Instrument Corp, El Cajon	Cal
Kidde & Co Inc, Walter, Belleville	N J
Lake Engineering Co Ltd, Scarborough	Ont
Mack Electric Devices Inc, Wyncote	Pa
Magnecraft Electric Co, Chicago	Ill
MCI Electronics, Marina Del Rey	Cal
Mercury Contacts Inc, Dayton	Ohio
Micro Metrics Inc, Paterson	N J
MKC Electronics Corp, Kansas City	Kans
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Phipps Precision Products, Van Nuys	Cal
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton	Ind
Randall Inc, Douglas, Sub Walter Kidde & Co Inc Westerly	R L
Standard Condenser Corp, Chicago	Ill
Standard Relay Corp, Brooklyn	N Y
Struthers-Dunn Inc, Pitman	N J
Tele-Norm Corp, Woodside	N Y
Trompeter Electronics Inc, Chatsworth	Cal
Universal Relay Corp, New York	N Y
Wheelock Signals Inc, Long Branch	N J
Win-Elco, Gold Hill	Ore

RELAYS--OVERLOAD

AMERICANA X-RAY CO, ENGLEWOOD	**N J**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GRIGSBY BARTON INC, ARLINGTON HEIGHTS	**ILL**
GUARDIAN ELECTRIC MFG CO, CHICAGO	**ILL**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL**
LEACH CORP, SOUTH PASADENA, CAL	**ADV PGS 596-599**
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON	**IND**
RANDALL INC, DOUGLAS, SUB WALTER KIDDE & CO INC WESTERLY	**R I**
VANGUARD RELAY CORP, LINDENHURST	**NY**
Acme Products Co, Kensington	Conn
Adams & Westlake Co, Elkhart	Ind
ADC Electronics, Inc, Harbor City	Cal
Aemco Div, Midtex Inc, Mankato	Minn
Allen-Bradley Co, Milwaukee	Wis
Allied Control Co Inc, New York	N Y
Alpha Relays Inc, Jersey City	N J
Americana X-Ray Co, Englewood	N J
Arco Electronics, Inc, Great Neck	N Y
Automatic Switch Co, Florham Park	N J
Autronics Corp, Pasadena	Cal
Bitronics Inc, Bethlehem	Pa
B/W Controller Corp, Birmingham	Mich
Cardinal Control Co Inc, Kensington	Conn
Clark Control Div, A O Smith Corp, Cleveland	Ohio
Computer Components Inc, Jamaica	N Y
Consolidated Electric Corp, Seattle	Wash
Cook Electric Co Automatic Controls Div, Palatine	Ill
Crest Mfg Co, East Berlin	Conn
Cutler-Hammer Inc, Milwaukee	Wisc
Data Device Corp, Hicksville	N Y
Ebert Electronics Corp, Floral Park	N Y
Electronic Control Corp, Detroit	Mich
Essex Wire Corp Controls Div RBM Controls Logansport	Ind
E-T-A Products Co of America, Chicago	Ill
Fuji Electric Co Ltd, Tokyo	Japan
Furnas Electric Co, Batavia	Ill
Gems Co Inc, Farmington	Conn
General Automatic Corp, Bayonne	N J
General Electric Co, ECSO, Schenectady	N Y
Giannini-Voltex, Whittier	Cal
Grigsby Barton Inc, Arlington Heights	Ill
Guardian Electric Mfg Co, Chicago	Ill
G-V Controls Inc, Livingston	N J
Hartman Electrical Mfg Co, Mansfield	Ohio
Heinemann Electric Co, Trenton	N J
Hoagland Instrument Co, Red Bank	N J
Inet Power A Teledyne Co, Gardena	Cal
Instrumentation & Control Systems Inc, Addison	Ill
International Rectifier Semiconductor Div El Segundo	Cal
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
Kidde & Co Inc, Walter, Belleville	N J
Kurman Instruments Corp, Syosset	N Y
LaPine Scientific Co, Chicago	Ill
Larson Instrument Co, Orangeburg	N Y
Leach Corp, South Pasadena	Cal
Life Instrument Co Inc, Franklin	Mass
Machinery Electrification Inc, Northboro	Mass
Mossman-Elliott Corp, Joliet	Ill
Networks Electronic Corp, Chatsworth	Cal
Pacific Relays Inc, Van Nuys	Cal
Parko Electronics Co Inc, Santa Ana	Cal
Plessey Airborne Corp, Hillside	NJ
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton	Ind
Randall Inc, Douglas, Sub Walter Kidde & Co Inc Westerly	R I
Ross Engineering Corp, Saratoga	Cal
Rowan Controller Co, Oceanport	N J
Schrack Electrical Sales Corp, New York	N Y
Sigma Instruments Inc, Braintree	Mass
Square D Co, Park Ridge	Ill
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Standard Relay Corp, Brooklyn	N Y
Struthers-Dunn Inc, Pitman	N J
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Teledyne Relays A Teledyne Co, Hawthorne	Cal
Texas Instruments Incorporated, Dallas	Tex
Vanguard Relay Corp, Lindenhurst	NY
Ward Leonard Electric Co, Mount Vernon	N Y
Wells Co Inc, Gary, Yonkers	N Y
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J
Westinghouse Electric Corp, Standard Control Div Beaver	Pa
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

P&B
HIGH PERFORMANCE RELAYS


HL RELAY

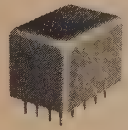
The HL is a micro-miniature, dual coil, polarized magnetic latching relay for high reliability and positive performance in dry circuit to 2 amp applications. Random vibration tested to .4g²/Hz. Hermetic seals are verified with radioactive krypton 85. Meets MIL-R-5757D.

Other high performance P&B relays include the following:

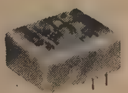
HC RELAY

Same as HL except non-polarized and non-latching.

TL RELAY



Four-pole micro-miniature magnetic latching for severe environs. Available in 1 and 2 coil versions. Rated at 3 amps—4PDT.


FC & FL RELAY

Micro-miniature, latching or non-latching for printed circuits. Rated 3 or 5 amps, DPDT. Shock: 150g. Coil pick up: FC, 160mw; FL, 150mw.

SC & SL RELAY

Micro-miniature permanent magnet or magnetic latching relays. Rated at 2 or 3 amps, DPDT. Coil pick up: SC, 260mw; SL, 230mw.

All of these relays are rated to withstand 150g shock and 30g to 2000 Hz vibration.

For data on other P&B relays see pages 589,591,592,595, 601,611,612

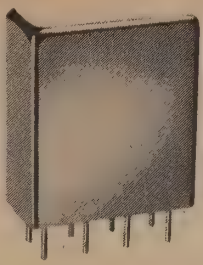
For information on the whole P&B line, write for Industrial Catalog 68 or Distributor Catalog 100. Data sheets describing engineering details of individual relays are also available.

AMF | POTTER & BRUMFIELD
Division American Machine & Foundry Company, Princeton, Indiana 47570
Export: AMF International, 261 Madison Avenue, New York, N.Y. 10016

P&B Relays are available from your local electronic parts distributor.

BABCOCK RELAYS

MODEL BR42


Actual Size

$6.50 (1,000 pcs.)

- FULL-SIZE, WELDED CRYSTAL CAN
- DRY CIRCUIT TO 2 AMPS.
- CONTAMINANT-FREE
- TO MIL-R-5757

NOW AVAILABLE OFF-THE-SHELF FROM BABCOCK DISTRIBUTORS
Listed on Page 590

RELAYS--MIL SPEC, HIGH RELIABILITY

AMERICAN ZETTLER, INC, COSTA MESA, CAL	**ADV PG 587**
BABCOCK ELECTRONICS, RELAY DIV, COSTA MESA CAL	**ADV PG 593**
COUCH ORDNANCE INC, NORTH QUINCY	**MASS**
ELECTRO-TEC CORP, ORMOND BEACH, FLA	**ADV PG 593**
GENERAL REED CO, CLARK	**N J**
LEACH CORP, SOUTH PASADENA, CAL	**ADV PGS 596-599**
MAGNECRAFT ELECTRIC CO, CHICAGO	**ILL**
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON IND	**ADV PG 593**
UNIVERSAL RELAY CORP, NEW YORK	**N Y**
Allied Control Co Inc, New York	N Y
Alpha Relays Inc, Jersey City	N J
American Zettler, Inc, Costa Mesa	Cal
Babcock Electronic Corp, Costa Mesa	Cal
Babcock Electronics, Relay Div, Costa Mesa	Cal
Branson Corp, Denville	N J
Bristol Div, American Chain & Cable Co Waterbury	Conn
Comar Electric Co, Chicago	Ill
Cook Electric Co Automatic Controls Div, Palatine	Ill
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Couch Ordnance Inc, North Quincy	Mass
Cutler-Hammer Inc, Milwaukee	Wisc
Deutsch Filtors Relay Div, East Northport	N Y
Electronic Controls Inc, Wilton	Conn
Electronic Instrument & Specialty Corp Winchester	Mass
Electro-Tec Corp, Ormond Beach	Fla
General Reed Co, Clark	N J
Giannini-Voltex, Whittier	Cal
Globe Electrical Mfg Co, Gardena	Cal
Hart-Advance Relay Div Oak Electro/Netics Corp Elkhorn	Wis
Hartman Electrical Mfg Co, Mansfield	Ohio
Hi-G Inc, Windsor Locks	Conn
Kidde & Co Inc, Walter, Belleville	N J
LCC-CICE, 93 Montreuil-sous-Bois	France
Leach Corp, South Pasadena	Cal
Magnecraft Electric Co, Chicago	Ill
Networks Electronic Corp, Chatsworth	Cal
North Electric Co, Galion	Ohio
Pacific Relays Inc, Van Nuys	Cal
Price Electric Corp, Frederick	Md
Sigma Instruments Inc, Braintree	Mass
Signal & Communications Div Westinghouse Air Brake Co Pittsburgh	Pa
Solid State Electronics Corp, Sepulveda	Cal
Standard Relay Corp, Brooklyn	N Y
Struthers-Dunn Inc, Pitman	N J
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Teledyne Relays A Teledyne Co, Hawthorne	Cal
Texas Instruments Incorporated, Dallas	Tex
Universal Relay Corp, New York	N Y
Win-Elco, Gold Hill	Ore

Wedge-Action*

Relays

Hermetically-sealed, electromagnetic relays that provide high performance and reliability under the most difficult operating conditions in dry-circuit to 2 amp applications.

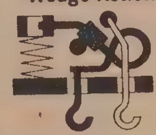
2 PDT
MARK II, SERIES 500
MIL-R-5757/9

2 PDT
MARK II, SERIES 400
(1.35" high)
SERIES 410 (1" high)
MIL-R-5757/8

6 PDT 4 PDT
(1" x 1")
MARK II, SERIES 300
(6 PDT).
SERIES 350 (4 PDT).
MIL-R-5757/1 and
MIL-R-5757/7

6 PDT
MARK II, SERIES 085
(−55°C to +85°C)
SERIES 100
(−65°C to +125°C),
SERIES 200
(−65°C to +200°C).
MIL-R-5757/1.

*Wedge-Action



The moving contacts are mounted between two stationary contacts. On actuation, they drive into the stationary contacts, creating high pressures and low contact resistance at all current levels. In addition, wedge-action contact wipe provides self-cleaning of the precious-metal contacts.
*Patent No. 2,866,046 and others pending.

For complete data write Relay Sales and Engineering Office, P. O. Box 667, Ormond Beach, Fla. 32074, Phone 904-677-1771, TWX 810-857-0305.

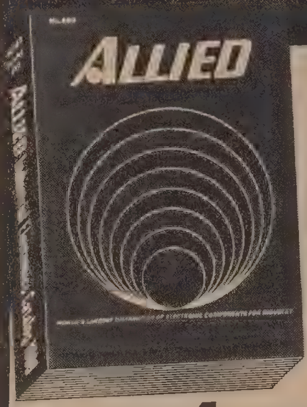
Electro-Tec Corp.
A DIVISION OF KDI CORPORATION kdi

RELAYS--OVERVOLTAGE & UNDERVOLTAGE

AMERICANA X-RAY CO, ENGLEWOOD	**N J**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL REED CO, CLARK	**N J**
GUARDIAN ELECTRIC MFG CO, CHICAGO	**ILL**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL**
LEACH CORP, SOUTH PASADENA, CAL	**ADV PGS 596-599**
PARKER INSTRUMENT CORP, STAMFORD	**CONN**
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON	**IND**
PRINTACT RELAY DIV EXECUTONE INC LONG ISLAND CITY	**N Y**
RANDALL INC, DOUGLAS, SUB WALTER KIDDE & CO INC WESTERLY	**R I**
TORWICO ELECTRONICS, INC, LAKEWOOD	**N J**
VANGUARD RELAY CORP, LINDENHURST	**NY**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
Acme Products Co, Kensington	Conn
ADC Electronics, Inc, Harbor City	Cal
Allen-Bradley Co, Milwaukee	Wis
Allied Control Co Inc, New York	N Y
Americana X-Ray Co, Englewood	N J
Arco Electronics, Inc, Great Neck	N Y
Automatic Switch Co, Florham Park	N J
Autronics Corp, Pasadena	Cal
Basler Electric Co, Highland	Ill
Beckwith Electric Co Inc, Mt Prospect	Ill
Bitronics Inc, Bethlehem	Pa
Cardinal Control Co Inc, Kensington	Conn
Computer Components Inc, Jamaica	N Y
Condor Industrial Corp, West Chicago	Ill
Consolidated Electric Corp, Seattle	Wash
Control Data Corp, LaJolla Div, Minneapolis	Minn
Crest Mfg Co, East Berlin	Conn
Custom Control Mfg Inc, Merriam	Kan
Cutler-Hammer Inc, Milwaukee	Wisc
Data Device Corp, Hicksville	N Y
Deltron, Inc, North Wales	Pa
Ebert Electronics Corp, Floral Park	N Y
Emerson Electric Co, Indl Controls & Elctns Div St Louis	Mo
Essex Wire Corp Controls Div RBM Controls Logansport	Ind
Fuji Electric Co Ltd, Tokyo	Japan
Furnas Electric Co, Batavia	Ill
General Automatic Corp, Bayonne	N J
General Electric Co, ECSO, Schenectady	N Y
General Reed Co, Clark	N J
General Relay Corp, Dover	N J
Giannini-Voltex, Whittier	Cal
Guardian Electric Mfg Co, Chicago	Ill
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Guide Industries Inc, Sun Valley	Cal
G-V Controls Inc, Livingston	N J
Hart-Advance Relay Div Oak Electro/Netics Corp Elkhorn	Wis
Hartman Electrical Mfg Co, Mansfield	Ohio
Hi-G Inc, Windsor Locks	Conn
Hillburn Relay Corp, Farmingdale	N Y
Hi-Tek Corp, Santa Ana	Cal
Hoagland Instrument Co, Red Bank	N J
Inet Power A Teledyne Co, Gardena	Cal
Intertechnique, Plaisir, 78	France
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
Jaidinger Mfg Co Inc, Chicago	Ill
Kidde & Co Inc, Walter, Belleville	N J
Kurman Instruments Corp, Syosset	N Y
Larson Instrument Co, Orangeburg	N Y
Leach Corp, South Pasadena	Cal
Life Instrument Co Inc, Franklin	Mass
Marche Mfg Co, Des Plaines	Ill
Mossman-Elliott Corp, Joliet	Ill
Motor Generator Div Hobart Bros Co, Troy	Ohio
Natel Engineering Co Inc, Van Nuys	Cal
Nichols Co Ltd, R H, Downsview	Ont
Pacific Relays Inc, Van Nuys	Cal
Parker Instrument Corp, Stamford	Conn
Parko Electronics Co Inc, Santa Ana	Cal
Plessey Airborne Corp, Hillside	NJ
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton	Ind
Printact Relay Div Executone Inc, Long Island City	N Y
Randall Inc, Douglas, Sub Walter Kidde & Co Inc Westerly	R I
Regent Controls Inc, Stamford	Conn
Relays Inc, New York	N Y
Ross Engineering Corp, Saratoga	Cal
Safety Electrical Equipment Corp, New Haven	Conn
Schrack Electrical Sales Corp, New York	N Y
Sigma Instruments Inc, Braintree	Mass
Square D Co, Park Ridge	Ill
Standard Relay Corp, Brooklyn	N Y
Struthers-Dunn Inc, Pitman	N J
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Teledyne Relays A Teledyne Co, Hawthorne	Cal
Texas Instruments Incorporated, Dallas	Tex
Thorn Automation Ltd, Rugeley, Staffs	England
Tia Electric Co, Princeton	N J
Torwico Electronics, Inc, Lakewood	N J
Vanguard Relay Corp, Lindenhurst	NY
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Ward Leonard Electric Co, Mount Vernon	N Y
Wells Co Inc, Gary, Yonkers	N Y
Westinghouse Electric Corp, Aerospace Electrical Div Lima	Ohio
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J
Weston Instruments Div Weston Instr Inc, Newark	N J
Win-Elco, Gold Hill	Ore
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

the No. 1 book in industrial electronics!

FREE



- World's largest selection
- Factory OEM prices
- Same-day shipment

1969 ALLIED

600-PAGE INDUSTRIAL ELECTRONICS CATALOG

FEATURING

P&B RELAYS

Allied stocks Potter & Brumfield Relays in depth: General purpose, special purpose, power, high performance, mercury wetted contact, reed and telephone types.

ALLIED ELECTRONICS

A Subsidiary of Allied Radio Corp.

Our 48th Year

100 N. Western Ave., Chicago, Ill. 60680

ALLIED Electronics, Dept. 349
100 N. Western Ave., Chicago, Illinois 60680
Rush new 1969 Industrial Catalog — FREE

Name____________________
Company____________________
Address____________________
City____________________
State__________ Zip__________

RELAYS--POLARIZED

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL REED CO, CLARK	**N J**
GRIGSBY BARTON INC, ARLINGTON HEIGHTS	**ILL**
GUARDIAN ELECTRIC MFG CO, CHICAGO	**ILL**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL**
LEACH CORP, SOUTH PASADENA, CAL	**ADV PGS 596-599**
MAGNECRAFT ELECTRIC CO, CHICAGO	**ILL**
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON	**IND**
PRINTACT RELAY DIV EXECUTONE INC LONG ISLAND CITY	**N Y**
RANDALL INC, DOUGLAS, SUB WALTER KIDDE & CO INC WESTERLY	**R I**
STEVENS-ARNOLD INC, SOUTH BOSTON, MASS	**ADV PG 144**
TAKAMISAWA ELECTRIC CO, LTD, TOKYO	**JAPAN**
UNIVERSAL RELAY CORP, NEW YORK	**N Y**
Adams & Westlake Co, Elkhart	Ind
Allied Control Co Inc, New York	N Y
Alltronics-Howard Co, Boston	Mass
Alpha Relays Inc, Jersey City	N J
Automatic Electric Co, Northlake	Ill
Autronics Corp, Pasadena	Cal
Barber-Colman Co, EMP Div, Rockford	Ill
Bristol Div, American Chain & Cable Co Waterbury	Conn
Cardinal Control Co Inc, Kensington	Conn
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Clare & Co, C P, Chicago	Ill
Computer Components Inc, Jamaica	N Y
Control Data Corp, LaJolla Div, Minneapolis	Minn
Cook Electric Co Automatic Controls Div, Palatine	Ill
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Coto-Coil Co Inc, Providence	R I
Crest Mfg Co, East Berlin	Conn
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Data Device Corp, Hicksville	N Y
Ebert Electronics Corp, Floral Park	N Y
Electronic Specialty Co, Los Angeles	Cal
Essex Wire Corp Controls Div RBM Controls Logansport	Ind
Fuji Electric Co Ltd, Tokyo	Japan
Fujitsu Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
General Magnetics Inc, Bloomfield	N J
General Reed Co, Clark	N J
Giannini-Voltex, Whittier	Cal
Grigsby Barton Inc, Arlington Heights	Ill
Guardian Electric Mfg Co, Chicago	Ill
Hart-Advance Relay Div Oak Electro/Netics Corp Elkhorn	Wis
Hartman Electrical Mfg Co, Mansfield	Ohio
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
Kameco Ltd, Montreal	Que
Larson Instrument Co, Orangeburg	N Y
LCC-CICE, 93 Montreuil-sous-Bois	France
Leach Corp, South Pasadena	Cal
Life Instrument Co Inc, Franklin	Mass
Magnecraft Electric Co, Chicago	Ill
Magnetic Systems Corp, Clearwater	Fla
MKC Electronics Corp, Kansas City	Kans
North Electric Co, Galion	Ohio
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Pacific Relays Inc, Van Nuys	Cal
Phipps Precision Products, Van Nuys	Cal
Plessey Airborne Corp, Hillside	NJ
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton	Ind
Price Electric Corp, Frederick	Md
Printact Relay Div Executone Inc, Long Island City	N Y
Randall Inc, Douglas, Sub Walter Kidde & Co Inc Westerly	R I
Relays Inc, New York	N Y
Relcoa Sub Hi-G Inc, Hauppauge	N Y
Siemens America Inc, New York	N Y
Sigma Instruments Inc, Braintree	Mass
Solid State Electronics Corp, Sepulveda	Cal
Standard Relay Corp, Brooklyn	N Y
Stevens-Arnold Inc, South Boston	Mass
Struthers-Dunn Inc, Pitman	N J
Takamisawa Electric Co, Ltd, Tokyo	Japan
Teledata Inc, Queens Village	N Y
Teledyne Relays A Teledyne Co, Hawthorne	Cal
Torr Labs Inc, Los Angeles	Cal
Trepac Corp of America, Englewood	N J
Universal Relay Corp, New York	N Y
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Welex Electronics, Div Halliburton Co Silver Spring	Md
Wells Co Inc, Gary, Yonkers	N Y
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J
Wheelock Signals Inc, Long Branch	N J
Win-Elco, Gold Hill	Ore

EBG — the industry's store.

Your marketplace for products

RELAYS--POWER (OVER 100 MILLIWATTS)

AMERICAN ZETTLER, INC, COSTA MESA, CAL	**ADV PG 587**
BABCOCK ELECTRONICS, RELAY DIV, COSTA MESA CAL	**ADV PG 595**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GRIGSBY BARTON INC, ARLINGTON HEIGHTS	**ILL**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL**
LEACH CORP, SOUTH PASADENA, CAL	**ADV PGS 596-599**
MAGNECRAFT ELECTRIC CO, CHICAGO, ILL	**ADV PG 595**
POTTER & BRUMFIELD DIV AMER MACH & FDRY CO PRINCETON IND	**ADV PG 595**
TAKAMISAWA ELECTRIC CO, LTD, TOKYO	**JAPAN**
UNIVERSAL RELAY CORP, NEW YORK	**N Y**
VANGUARD RELAY CORP, LINDENHURST, NY	**ADV PG 595**
Acme Products Co, Kensington	Conn
Adams & Westlake Co, Elkhart	Ind
Aemco Div, Midtex Inc, Mankato	Minn
A L Controls Co, New Haven	Conn
Allied Control Co Inc, New York	N Y
Alpha Relays Inc, Jersey City	N J
American Solenoid Co, Inc, Rahway	N J
American Zettler, Inc, Costa Mesa	Cal
Artisan Electronics Corp, Parsippany	N J
ATR Electronics, Inc, St Paul	Minn
Automatic Switch Co, Florham Park	N J
Babcock Electronics, Relay Div, Costa Mesa	Cal
Branson Corp, Denville	N J
Clark Control Div, A O Smith Corp, Cleveland	Ohio
Comar Electric Co, Chicago	Ill
Cook Electric Co Automatic Controls Div, Palatine	Ill
Cutler-Hammer Inc, Milwaukee	Wisc
Deutsch Filtors Relay Div, East Northport	N Y
Elec-Trol Inc, Saugus	Cal
Electronic Instrument & Specialty Corp Winchester	Mass
Essex Wire Corp Controls Div RBM Controls Logansport	Ind
Fitre, 20143 Milano	Italy
General Automatic Corp, Bayonne	N J
General Electric Co, ECSO, Schenectady	N Y
Giannini-Voltex, Whittier	Cal
Grigsby Barton Inc, Arlington Heights	Ill
Hart-Advance Relay Div Oak Electro/Netics Corp Elkhorn	Wis
Hartman Electrical Mfg Co, Mansfield	Ohio
High Vacuum Electronics Inc, South Pasadena	Cal
Hi-G Inc, Windsor Locks	Conn
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
Jaidinger Mfg Co Inc, Chicago	Ill
Kidde & Co Inc, Walter, Belleville	N J
Kurman Instruments Corp, Syosset	N Y
Lake Engineering Co Ltd, Scarborough	Ont
Leach Corp, South Pasadena	Cal
Life Instrument Co Inc, Franklin	Mass
Line Electric Co, Parsippany	N J
Magnecraft Electric Co, Chicago	Ill
MCI Electronics, Marina Del Rey	Cal
Ohmite Mfg Co, Skokie	Ill

P&B

POWER TYPE RELAYS

PR SERIES RELAY

The PR is a heavy duty power relay for industrial control applications requiring long life and fast action. Used extensively in elevator controls, motor starting and high current and voltage switching applications.

PR relays are listed by Underwriters' Laboratories and Canadian Standards Association.

Coil Voltages: AC: 6V to 480V 50/60 Hz
DC: 6V to 110V

Contact Ratings: 1 HP or 25 amps up to 240V AC 50/60 Hz single phase

A wide range of contact arrangements, mountings, terminals and dust covers are available in P&B's power relay line.

Write for Catalog 68 for complete specifications.

AMF | POTTER & BRUMFIELD
Division American Machine & Foundry Company, Princeton, Indiana 47570
Export: AMF International, 261 Madison Avenue, New York, N. Y. 10016

P&B Relays are available from your local electronic parts distributor.

***Magnecraft*® Relays**

As relay specialists, we produce one of the largest lines of stock relays in a variety of types and sizes. These relays include:

- GENERAL PURPOSE
- TELEPHONE TYPE
- INDUSTRIAL POWER
- TIME DELAY
- HERMETICALLY SEALED
- COAXIAL
- MERCURY-WETTED AND DRY REED RELAYS

We also furnish specially designed relays to fit any unusual application. Magnecraft Relays are available through our sales representatives around the nation. Check the listing in back of this directory for the rep nearest to you. He'll provide data on the complete Magnecraft line. Or send for free stock catalog.

MAGNECRAFT STOCK RELAYS
The Relays You Can Rely On
CATALOG 269

FREE PRODUCT FILE

***Magnecraft*®**
ELECTRIC CO.
5575 NORTH LYNCH AVENUE
CHICAGO, ILLINOIS 60630

VANGUARD RELAY CORPORATION

Producers of quality relays, competitively priced and delivered on time—every time.

Designs are based on time tested principles for achieving optimum electrical and mechanical parameters to result in full dependability over a wide range of applications.

VANGUARD's full line of relays include:

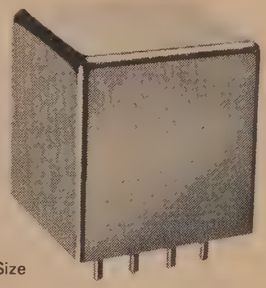
- MIDGET-MOLDED PHENOLIC
- PLUG-IN, PLASTIC ENCLOSURE
- SENSITIVE
- PRINTED CIRCUIT
- MIDGET-POWER
- CONTACTOR
- TIME DELAY
- ANTENNA
- LATCHING
- ACTUATORS

RELAYS FROM 1 TO 4 POLES AND 2 TO 25 AMPERES.
FULL DESCRIPTIVE CATALOGUE AVAILABLE UPON REQUEST

VR 225 CORTLAND STREET
LINDENHURST, NEW YORK 11757 VR

BABCOCK RELAYS BR

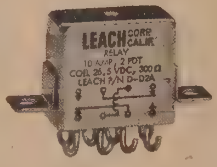
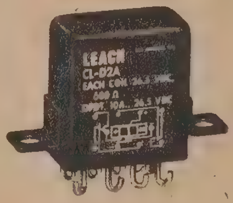
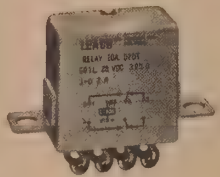
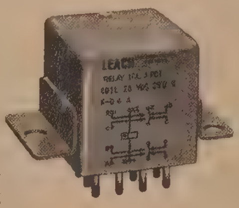
MODEL BR30


Actual Size

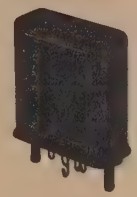
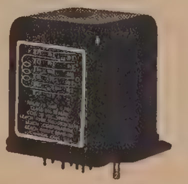
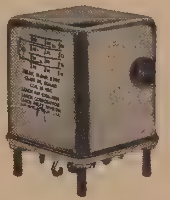
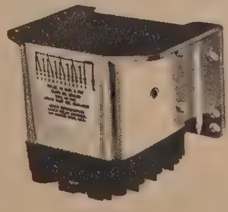
- **4PDT—10 AMP.—28VDC**
- **1 INCH CUBE**
- **TO MIL-R-6106**

NOW AVAILABLE OFF-THE-SHELF FROM BABCOCK DISTRIBUTORS
Listed on Page 590

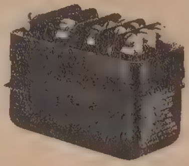
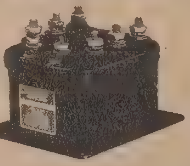
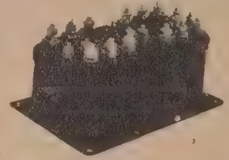
Leach Subminiature Relays Dry Circuit to 10 Amps

LEACH CORPORATION RELAY DIVISION 5915 Avalon Boulevard Los Angeles, California Tel: (213) 232-8221		Contact Rating, Amps—Resistive	Contact Configuration	Nominal Operating Voltages	Resistance, Ohms ± 10% @ 25°C (For 26.5 or 28 VDC)	Bounce Time, Sec. Max. @ 26.5 VDC	Release Time, Sec. Max. Incl. Bounce @ 26.5 VDC	Operate Time, Sec. Max. Incl. Bounce @ 26.5 VDC	Sinusoidal Vibration, Minimum, G	Shock, Minimum, G	Weight, Maximum, Oz.
2 Amp, 2PDT **Series E** All welded half size relay for dry circuit/low level and 2 amp switching. Bifilar coil winding available. 6 mounting and 3 terminal types. MIL-R-5757. .800" x .410" x .400".		Dry Circuit to 2	2PDT	6, 12, 26.5 VDC	700	.002	.004	.004	30	100	.30
10 Amp, 2PDT **Series D** Most compact, welded relay for use where size and performance are critical. 6 mounting styles and 3 terminal types. MIL-R-5757. 1.015" x .885" x .515".		10	2PDT	6, 12, 26.5 VDC	300	.002	.010	.010	20	50	1.2
10 Amp, 2PDT **Magnetic Latching** **Series CL** Magnetic latch, all welded relay. Resistive contact rating: 10 amps. 5 mounting and 3 terminal types. MIL-R-5757. 1.015"x1.100"x .515".		10	2PDT Magnetic Latch	6, 12, 26.5, 48 VDC	600	.002	NA	.015	30	50	1.6
10 Amp, 2PDT **Series J** Balanced-Force* Relay. All welded, hermetically sealed. Special features insure meeting rupture and overload requirements. 3 mounting and 3 terminal types. MIL-R-6106. 1.015" x 1.000" x .515". AC coil model available, 1.015" x 1.125" x .515". *Patent pending		10	2PDT	6, 12, 28 VDC, 115 VAC	320	.001	DC Coils .010 AC Coils .050	DC Coils .010 AC Coils .015	30	100	DC Coils 1.4 AC Coils 1.4
10 Amp, 4PDT **Series K** Balanced-Force* Relay. All welded, polarized. Special features insure meeting rupture and overload requirements. 3 mounting and 3 terminal types. MIL-R-6106. AC coil model available. 1.015" x 1.000" x 1.015". *Patent pending		10	4PDT	6, 12, 28 VDC, 115 VAC	290	.001	DC Coils .015 AC Coils .050	DC Coils .015 AC Coils .020	30	100	DC Coils 2.5 AC Coils 2.7

Leach Power and Control Relays 5 to 15 Amps

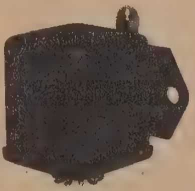
LEACH CORPORATION **RELAY DIVISION** 5915 Avalon Boulevard Los Angeles, California Tel: (213) 232-8221		Contact Rating, Amps—Resistive	Contact Configuration	Nominal Operating Voltages	Resistance, Ohms ± 10% @ 25°C	Maximum Release Time, Seconds	Maximum Operate Time, Seconds	Bounce Time, Seconds, Maximum	Sinusoidal, Vibration, Minimum, G	Shock, Minimum, G	Weight, Maximum, Lbs.
5 Amp, 2PDT **Series 9229** **Series 9235; Magnetic Latch** Contact rating @ 28 VDC or 115 VAC, 400 Hz. Resistive: 5 amps; Inductive: 3 amps. 1.750″ x 1.531″ x .687″. MIL-R-6106, MIL-R-5757.		5	2PDT	28 VDC 115 VAC, 400 Hz 115 VAC, 60 Hz	9229 248Ω	AC Coils .050	AC Coils .025	.002	10	25	.18
					9235 310Ω	DC Coils .020	DC Coils .020				
5 Amp, 4PDT **Series 9220** **Series 9228; Magnetic Latch** Contact rating @ 28 VDC or 115 VAC, 400 Hz. Resistive: 5 amps; Inductive: 3 amps. 1.750″ x 1.531″ x 1.032″. MIL-R-6106, MIL-R-5757.		5	4PDT	28 VDC 115 VAC, 400 Hz 115 VAC, 60 Hz	9220 248Ω	AC Coils .050	AC Coils .025	.002	10	25	.30
					9228 200Ω	DC Coils .020	DC Coils .020				
5 Amp, 6PDT **Series 9226** **Series 9223; Magnetic Latch** Contact rating @ 28 VDC or 115 VAC, 400 Hz. Resistive: 5 amps; Inductive: 3 amps. 1.812″ x 1.531″ x 1.531″. MIL-R-6106, MIL-R-5757.		5	6PDT	28 VDC 115 VAC, 400 Hz 115 VAC, 60 Hz	9226 180Ω	AC Coils .050	AC Coils .025	.002	10	25	.35
					9223 200Ω	DC Coils .020	DC Coils .020				
10 Amp, 2PDT **Series 9227** **Series 9237; Magnetic Latch** Contact rating @ 28 VDC or 3 phase 115/200 VAC, 400 Hz. Resistive: 10 amps; Inductive: 6 amps DC and 10 amps AC. 1.781″ x 1.531″ x 1.032″. MIL-R-6106, MIL-R-5757.		10	2PDT	28 VDC 115 VAC, 400 Hz 115 VAC, 60 Hz	9227 175Ω	AC Coils .050	AC Coils .025	.002	10	25	.30
					9237 200Ω	DC Coils .020	DC Coils .020				
10 Amp, 4PDT **Series 9224** **Series 9225; Magnetic Latch** Contact rating @ 28 VDC or 3 phase 115/200 VAC, 400 Hz. Resistive: 10 amps; Inductive: 6 amps DC and 10 amps AC. 1.812″ x 1.531″ x 1.531″. MIL-R-6106, MIL-R-5757.		10	4PDT	28 VDC 115 VAC, 400 Hz 115 VAC, 60 Hz	9224 110Ω	AC Coils .050	AC Coils .025	.002	10	25	.43
					9225 200Ω	DC Coils .020	DC Coils .020				
15 Amp, 4PDT **Series 9274** Contact rating @ 28 VDC or 3 phase 115/200 VAC, 400 Hz. Resistive: 10 amps DC and 15 amps AC; Inductive: 10 DC and AC. 1.80″ x 2.06″ x 2.06″. MIL-R-6106.		15	4PDT	28 VDC 115 VAC, 400 Hz 115 VAC, 60 Hz	92Ω	AC Coils .050	AC Coils .025	.003	10	25	.80
						DC Coils .020	DC Coils .025				

Leach Power Contactors 20 to 400 Amps

LEACH CORPORATION **RELAY DIVISION** 5915 Avalon Boulevard Los Angeles, California Tel: (213) 232-8221		Contact Ratings, Amps—Resistive	Contact Configuration	Nominal Operating Voltages	Resistance—Ohms ± 10% @ 25°C—26.5 VDC	Bounce Time, Seconds, Maximum	Release Time, Seconds, Maximum	Operate Time, Seconds, Maximum	Sinusoidal Vibration, Minimum, G	Shock, Minimum, G	Weight, Maximum, Lbs.	Latch Model Available
20 Amp **Series 9324** **3PST/NO** 25g shock, 10g vibration Bifilar coil winding available. MIL-R-6106.		20	3PST/NO	28 VDC; 115 VAC, 400 Hz; 115 VAC, 60 Hz	160	.002	AC Coils .050 DC Coils .010	AC Coils .025 DC Coils .020	10	25	.60	No
20 Amp **Series 9325** **3PDT/NO** Mechanical interlock version of 9324. MIL-R-6106.		20	3PDT/NO	28 VDC; 115 VAC, 400 Hz; 115 VAC, 60 Hz	160	.005	AC Coils .050 DC Coils .010	AC Coils .025 DC Coils .020	10	25	1.4	Mech. Interlock
25 Amp **Series 9123** **3PST/NO** 50g shock, 15g vibration. Auxiliary 5 amp contacts available. MIL-R-6106.		25	3PST/NO	28 VDC; 115 VAC, 400/60 Hz	50	.002	AC Coils .050 DC Coils .010	.025	15	50	1.25	No
50 Amp **Series 9124** **3PST/NO** 50g shock, 15g vibration, Auxiliary 5 amp contacts available. MIL-R-6106.		50	3PST/NO	28 VDC; 115 VAC, 400/60 Hz	50	.002	AC Coils .050 DC Coils .010	.025	15	50	1.25	No
50 Amp **Series 9125** **6PST/NO** Mechanical interlock version of 9124. MIL-R-6106. Aux. 5 amp contacts available.		50	6PST/NO	28 VDC; 115 VAC, 400/60 Hz	50	.002	AC Coils .050 DC Coils .010	.030	10	50	2.90	Mech. Interlock
100 Amp **Series 9213** Sealed rotary, 1, 2, 3 and 4 pole. Auxiliary contacts from 5 amps. MIL-R-6106.		100	3PST/NO 4PST/NO	28 VDC; 115 VAC, 400 Hz; 115 VAC, 60 Hz	44.5	.010	AC Coils .060 DC Coils .020	AC Coils .040 DC Coils .030	10	25	2.7	No
25 to 100 Amp **Series 9207** Unsealed rotary, 1, 2, 3 and 4 pole. Auxiliary contacts from 5 amps. MIL-R-6106.		25-100	3PST/NO 4PST/NO	28 VDC; 115 VAC, 400 Hz; 115 VAC, 60 Hz	44.5	.010	AC Coils .050 DC Coils .020	.030	10	50	1.6	No
25 to 400 Amp **Solenoid Type Power Contactors** MIL-R-6106.		25-400	1PST/NO 3PST/NO	28 VDC	Varying	N/A	.015	.040	2	25	2.6	No

Leach Electronic Time Delays

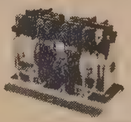
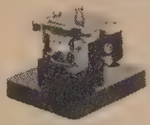
LEACH
CORPORATION
RELAY DIVISION
5915 Avalon Boulevard
Los Angeles, California
Tel: (213) 232-8221

		Contact Rating	Contact Configuration	Type of Operation	Timing Range ①	Temperature Range	Accuracy ①	Input Voltage Range	Operating Current @ 25°C	Weight	Dimensions, Maximum
50 MS to 300 Seconds Timer Model S102 SPNO, contact rating of 150, 350, and 500 ma. Delay on operate, fixed or adjustable. All solid state.		150, 350 and 500 ma	SPNO	Delay on Operate, Fixed or Adjustable	50 ms to 300 seconds	−55°C to +125°C	±10%	18-32 VDC	30 ma max.	3.7 oz. max.	1.81″ x 1.53″ x 1.53″
500 MS to 200 Minutes Timer Model S103 SPNO, contact rating of 150, 350, and 500 ma. Delay on operate, fixed or adjustable with non-destruct memory. All solid state.		150, 350 and 500 ma	SPNO	Delay on Operate, Fixed or Adjustable	500 ms to 200 minutes	−55°C to +85°C	±5%	18-32 VDC	35 ma max.	4 oz. max.	1.81″ x 1.53″ x 1.53″
50 MS to 20 Seconds Timer Model S205 SPNO, contact rating of 150 and 350 ma. Delay on operate, fixed or adjustable. All solid state.		150, 350 ma	SPNO	Delay on Operate, Fixed or Adjustable	50 ms to 20 seconds	−55°C to +125°C	±10%	18-32 VDC	25 ma max.	1.0 oz. max.	.90″ x .80″ x .40″
100 MS to 300 Seconds Timer Model R101 DPDT, contact rating of 2, 5 or 10 amp. Delay on operate or release, fixed or adjustable. Solid state timer with relay output.		10, 5 or 2 amp resistive	SPDT or DPDT	Delay on Operate or Release, Fixed or Adjustable	100 ms to 300 seconds	−55°C to +125°C	±10%	18-32 VDC	130 ma max.	8.0 oz. max.	1.81″ x 1.53″ x 1.53″
500 MS to 200 Minutes Timer Model R102 DPDT, contact rating of 2, 5 or 10 amp. Delay on operate or release, fixed or adjustable with non-destruct memory. Solid state timer with relay output.		10, 5 or 2 amp resistive	SPDT or DPDT	Delay on Operate or Release, Fixed or Adjustable	500 ms to 200 minutes	−55°C to +85°C	±5%	18-32 VDC	130 ma max.	8.0 oz. max.	1.81″ x 1.53″ x 1.53″
100 MS to 100 Seconds Timer Model R215 DPDT, contact rating of 2 amp. Delay on operate or release, fixed or adjustable. Solid state timer with relay output.		2 amp resistive	SPDT or DPDT	Delay on Operate or Release, Fixed or Adjustable	100 ms to 100 seconds	−55°C to +125°C	±10%	18-32 VDC	110 ma max.	2.0 oz. max.	1.57″ x 1.02″ x .76″

① Units with extended timing ranges and greater accuracy are available on special order.

General Purpose And Medium Power Relays

The quality control and value engineering behind Eagle relays are your assurance of reliability and maximum life expectancy. Their operating characteristics exceed those of other relays in their class. Many options are available in contact materials, ratings, coils, and electrical characteristics within the economical area of standard, catalog items. In addition, Eagle can fulfill special requirements. Besides standard slotted solder lug terminals, printed circuit and ³⁄₁₆″ disconnect terminals are available. Contacts on the general purpose and medium power relays are silver cadmium oxide; all 5 Amp and 10 Amp contacts are gold flashed. Dust covers and hermetic sealing are available for all units. Write for your copy of complete, new 16-page, color relay catalog.

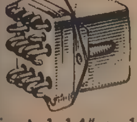
	Type and Description	Contact Arrangement	Contact Rating	Size and Weight	Pull-In Speed	Drop-Out Speed
	20AA Economy Open Type for AC, DC, and Plate Circuit	SPDT DPDT 3PDT	5A and 10A @ 115 Vac	1⅞″ x 1⁷⁄₃₂″ x 1½″ 2 ounces	22 ms avr.	12 ms avr.
	20BA Economy Open Type Sensitive Plate Circuit	SPDT	5A @ 115 Vac	1⅞″ x 1⁵⁄₁₆″ x 1½″ 2 ounces		
	22AP Enclosed Plug-In with 8 and 11 pins for AC, DC, and Plate Circuit	SPDT DPDT (8 pin) 3PDT (11 pin)	5A and 10A @ 115 Vac	1⅜″ x 2⅛″ x 1⅜″ 3 ounces	22 ms avr.	12 ms avr.
	25AA Open Type for AC, DC, and Plate Circuit	SPDT DPDT 3PDT	5A and 10A @ 115 Vac 5A-¹⁄₁₀ HP @ 115 VAC ⅙ HP @ 230 Vac 10A-⅙ HP @ 115 Vac ⅓ HP @ 230 Vac	1⅞″ x 1⁹⁄₃₂″ x 1½″ 2 ounces	22 ms avr.	12 ms avr.
	25AB Open Type Printed Circuit for AC, DC, and Plate Circuit	SPDT DPDT 3PDT	5A and 10A @ 115 Vac 5A-¹⁄₁₀ HP @ 115 Vac ⅙ HP @ 230 Vac 10A-⅙ HP @ 115 Vac ⅓ HP @ 230 Vac	2⁷⁄₃₂″ x 1⁹⁄₃₂″ x 1½″ 2 ounces	22 ms avr.	12 ms avr.
	**25BL Dual Latcher** for AC, DC	2PDT 4PDT 6PDT	5A and 10A @ 115 Vac	2⅞″ x 2¼″ x 1½″ 4.5 ounces	22 ms avr.	12 ms avr.
	**25PD Medium Power** 25 Amp Double Break for AC, DC	SPST-NO-DB	15A @ 115/230 Vac 25A @ 115/230 Vac 1½ HP @ 115/230 Vac	2³⁄₃₂″ x 1⁹⁄₃₂″ x 1²⁷⁄₃₂″ 2¾ ounces	50 ms max.	30 ms max.
	25PS Medium Power 20 Amp for AC, DC	SPDT	20A @ 115/230 Vac 1 HP @ 115/230 Vac	2¼″ x 1⁹⁄₃₂″ x 1¹³⁄₁₆″ 3 ounces	50 ms max.	30 ms max.
	LA57 Power Relay. Ideal for Tungsten Lamploads.	DPDT Double Break	15A Tungsten Lampload @ 120 VAC 240 A inrush 50 A Res @ 120 VAC 30 A Res @ 240 VAC	3¼″ x 1⅝″ x 2¼″ 12 ounces	14 ms	16 ms

NOTE: Over 3,000 types of General Purpose and Medium Relays are available from basic components. For complete description and specifications, write to Eagle Signal Division, E. W. Bliss Company, Federal Street, Davenport, Iowa.

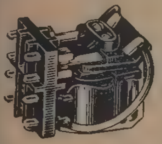
BLISS **EAGLE SIGNAL**

A GULF + WESTERN COMPANY

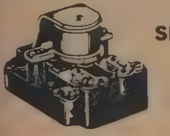
RELAYS AC DC



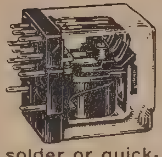
SERIES 4005 RELAY
The smallest, lightest commercially available 4 PDT relay that will switch a three-phase 10 amp. inductive or resistive load. Weighs only $2\frac{1}{2}$ oz.; measures just 1.14" x 1.125" x 1.03". Rated 28 VDC or 115 or 115/200 V 400 cycles AC. Meets or exceeds MIL-R-6106-D with no restrictions on overload or rupture tests.



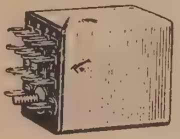
SERIES 1200 RELAY
Small, efficient relay rated at 10 amperes, 115 volts, non-inductive A.C. Heavy solder lug terminals molded in phenolic block, with barriers for over-surface insulation. Up to three pole, double throw contacts. Size: $1\frac{11}{16}$" x $1\frac{1}{4}$" x $1\frac{3}{8}$". Approx. wt. 1.9 oz.



SERIES 2300 POWER RELAY
Has 15 amp. contacts. Inverted coil construction protects armature and contacts. Contacts D.P.D.T. U/L rated for 15 amps at 115 VAC non-inductive, or 1 H.P. at 115/230 v., 60 c. Screw type terminals easily accessible. Size: $3\frac{5}{16}$" x $2\frac{1}{2}$" x $2\frac{1}{16}$". Shipping wt. 8 oz.



SERIES 1220 RELAY
10 ampere DPDT or 3PDT relay is designed to reduce both cost and height by eliminating radio-type plug, extra wiring and sub-assembly between relay and plug. Complete with dust cover and mounting bracket. Plug-in, solder or quick-connect terminals. U/L listed. Size: $1\frac{5}{32}$" x $1\frac{11}{16}$" x $1\frac{9}{16}$". Coils available for 6-240 VAC, 6-110 VDC.



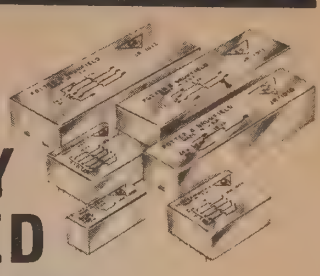
SERIES 1310 RELAY
This is Guardian's 4PDT 3 amp plug-in relay. Designed and built for maximum endurance and reliability, it is especially suitable for computers, data processing, logic systems, business machines, or any other application that requires uncompromising quality. The new 1300 Series is available AC or DC, plug-in or quick-disconnect, 6 to 115 VAC and 6 to 110 VDC. Contact rating 3 amps at 30 VDC or 115 VAC resistive.

Get your entire Control Assembly from Guardian, Complete and Ready to Plug-in... Anything from a Single Switch to a complete Machine Control. • Write today.

GUARDIAN® ELECTRIC

GUARDIAN ELECTRIC MANUFACTURING COMPANY, 1550-T West Carroll Avenue, Chicago, Illinois 60607

P&B DRY REED RELAYS



JR STANDARD RELAYS
JRM MINIATURE RELAYS

Fast response, reliable performance, high sensitivity, and long life make these P&B reed relays especially suited for data processing applications, computer equipment, logic circuitry and various other sophisticated control circuits.

JR and JRM relays employ dry reed glass capsules with two basic types of contact arrangements, Form A (SPST-NO) or Form C (SPDT).

Write for catalog featuring the complete P&B line of reed relays.

AMF | POTTER & BRUMFIELD
Division American Machine & Foundry Company, Princeton, Indiana 47570
Export: AMF International, 261 Madison Avenue, New York, N.Y. 10016

P&B Relays are available from your local electronic parts distributor.

Pacific Relays Inc, Van Nuys	Cal
Price Electric Corp, Frederick	Md
Relay & Control Corp, Long Island City	N Y
Relcoa Sub Hi-G Inc, Hauppauge	N Y
Rele Finder Sas, 14440 Almese (To)	Italy
Schrack Electrical Sales Corp, New York	N Y
Sigma Instruments Inc, Braintree	Mass
Signal & Communications Div Westinghouse Air Brake Co Pittsburgh	Pa
Solid State Electronics Corp, Sepulveda	Cal
Standard Relay Corp, Brooklyn	N Y
Struthers-Dunn Inc, Pitman	N J
Syracuse Electronics Corp, Syracuse	N Y
Takamisawa Electric Co, Ltd, Tokyo	Japan
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Teledyne Relays A Teledyne Co, Hawthorne	Cal
Universal Relay Corp, New York	N Y
Vanguard Relay Corp, Lindenhurst	NY
Warco Mfg Co, St Louis	Mo
Ward Leonard Electric Co, Mount Vernon	N Y
Wells Co Inc, Gary, Yonkers	N Y
Win-Elco, Gold Hill	Ore
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

If it isn't in EBG's product directory, it probably hasn't been invented yet.

RELAYS--REED

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
COMPUTER PRODUCTS INC, FORT LAUDERDALE	**FLA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL REED CO, CLARK, N J	**ADV PG 601**
GRIGSBY BARTON INC, ARLINGTON HEIGHTS	**ILL**
IBM, INDUSTRIAL PRODUCTS MARKETING, NEW YORK NY	**ADV PGS 604,605**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL**
MAGNECRAFT ELECTRIC CO, CHICAGO	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON, IND	**ADV PG 601**
RANDALL INC, DOUGLAS, SUB WALTER KIDDE & CO INC WESTERLY, R I	**ADV PGS 602,603**
TAKAMISAWA ELECTRIC CO, LTD, TOKYO	**JAPAN**
TOROTEL, INC, GRANDVIEW	**MO**
UNIVERSAL RELAY CORP, NEW YORK	**N Y**
VANGUARD RELAY CORP, LINDENHURST	**NY**
Ace Coil & Electronics Co, Metuchen	N J
Adams & Westlake Co, Elkhart	Ind
ALA Industries Inc, Harrison	NY
Allen-Bradley Co, Milwaukee	Wis
Alpha Relays Inc, Jersey City	N J
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Automatic Electric Co, Northlake	Ill
Automation Services Inc, Endicott	N Y
Biddle Co, James G, Plymouth Meeting	Pa
Calowa Electronics, Pacifica	Cal
Cardinal Control Co Inc, Kensington	Conn
Clare & Co, C P, Chicago	Ill
Co-Ax Inc, Roslyn	N Y
Comar Electric Co, Chicago	Ill
Compac Engineering Inc, Hollister	Cal
Component Specialties Corp, Temple City	Cal
Computer Components Inc, Jamaica	N Y
Computer Products Inc, Fort Lauderdale	Fla
Cook Electric Co Automatic Controls Div, Palatine	Ill
Coto-Coil Co Inc, Providence	R I
Crest Mfg Co, East Berlin	Conn
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Delco Radio Div General Motors Corp, Kokomo	Ind
Delta Coils, Philadelphia	Pa
Dinion Coil Co Inc, Caledonia	N Y
Dormeyer Industries, Chicago	Ill
Ebert Electronics Corp, Floral Park	N Y
Elec-Trol Inc, Saugus	Cal

Plastic-cased Miniature REED RELAYS

Molded plastic cases combine high insulation with mechanical and environmental protection.
Diallyl phthalate header assures maximum insulation-resistance.
Internal cushioning resists effects of vibration and shock.
Strain-free connection between capsules and base-pins.
Standard PC-grid spacing of .025" pins.
Magnetic shielding minimizes interaction.
12 contact-combinations—single-pole to four-pole, using Form A and patented, snap-action Form C capsules.
Excellent operating characteristics: fast operate-time, long life, high reliability.

ASK FOR BULLETIN GR-8

GenReed®
GENERAL REED COMPANY

Box 858, Clark, N.J. 07066 Tel. 201-382-7373

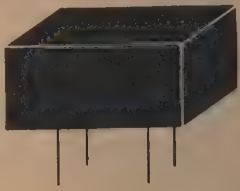
REED RELAYS · LOGIC MODULES · MERCURY WETTED CONTACT RELAYS

doranic

Doranic Reed Relays are low in cost, sensitive and compact. Hermetically sealed contacts, proven design and rugged construction assure long, trouble-free service. A wide range of miniature and standard reed relays, molded, cased and tubular are available.

We specialize in those hard-to-get items: miniature, plug-in, high voltage, AC operated reed relays, printed circuit board-reed relay assemblies, reed relay flip flop, logic relays and magnetic and electrical latching reed relays.

Douglas Randall maintains complete engineering and design facilities to assist the engineer in choosing the best relay for his specific circuit objectives. "Standard" items can be modified to meet special physical or electrical requirements.

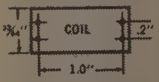
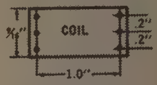
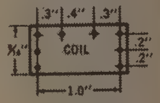
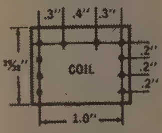
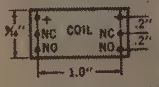
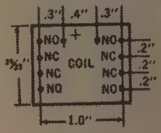
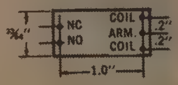
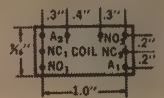


Miniature Reed Relays

Miniature Molded Series (mm) and Open Bobbin Series (mg)

Electrical Specifications
Contact Rating:
Form "A" & "B" units: 10W or 12VA (500ma or 250V max)
Form "C" type: 3W (250ma or 28V max)
Life Expectancy: 10 to 200 million operations depending upon load

Physical Specifications
Pin Dimensions: Contact .022 nominal series (mm)
Contact .026 nominal series (mg)
Coil: .026 nominal
Size (MM & MC): Height 9/16" max; Length 1-1/8"
Size (MT): Diameter 3/8"; Body Length 15/16"
Also available in this series: One form "B" and two form "B"

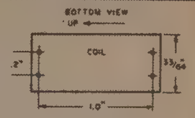
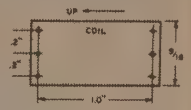
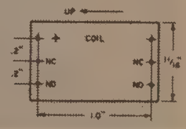
CONTACT FORM	COIL RATING (mw)	MM PART NUMBER	MG PART NUMBER	NOMINAL VOLTAGE	DC COIL RESISTANCE (ohms)	CURRENT @ NOM. VOLT. (ma)	DIMENSIONS (Series mg)
A	144	6MM-1A 12MM-1A 24MM-1A	6MG-1A 12MG-1A 24MG-1A	6V 12V 24V (28V)	250 1000 4000	24 12 6	
A·A	215	6MM-2A 12MM-2A 24MM-2A	6MG-2A 12MG-2A 24MG-2A	6V 12V 24V (28V)	170 675 2700	35 17.5 9	
A·A·A	330	6MM-3A 12MM-3A 24MM-3A	6MG-3A 12MG-3A 24MG-3A	6V 12V 24V (28V)	110 450 1800	55 27 13.5	
A·A·A·A	380	6MM-4A 12MM-4A 24MM-4A		6V 12V 24V (28V)	95 375 1500	63 32 16	
A·B	330	6MM-1A1B 12MM-1A1B 24MM-1A1B	6MG-1A1B 12MG-1A1B 24MG-1A1B	6V 12V 24V (28V)	110 450 1800	55 27 13.5	
A·A B·B	720	6MM-2A2B 12MM-2A2B 24MM-2A2B		6V 12V 24V (28V)	50 200 800	120 60 30	 .3" .4" .3" NO + NO NC COIL NC NC NC NO NO .2" .2" .2" 1.0"
C	144	6MM-1C 12MM-1C 24MM-1C	6MG-1C 12MG-1C 24MG-1C	6V 12V 24V (28V)	250 1000 4000	24 12 6	
C·C	215	6MM-2C 12MM-2C 24MM-2C	6MG-2C 12MG-2C 24MG-2C	6V 12V 24V (28V)	170 675 2700	35 17.5 9	 .3" .4" .3" A2 NO2 NC1 COIL NC2 NO1 A1 .2" .2" 1.0"

REED RELAYS · LOGIC MODULES · MERCURY WETTED CONTACT RELAYS

Mercury Wetted Contact Relays Miniature Series (hgm)

Electrical Specifications
Contact Rating: 1 amp or 28VDC max.
Contact Resistance: 50 milliohms max.
Life Expectancy: 10 million min. at full load;
Almost infinite at low level.

Physical Specifications
Length: All units 1-1/8″ max.
Height: All units ⅝″ maximum
Pin Dimensions: .026 nominal 1/4″ long
Other standard items available in this series: four form "A" / one form "B"

CONTACT FORM	COIL RATING (mw)	HGM PART NUMBER	NOMINAL VOLTAGE	DC COIL RESISTANCE (ohms)	CURRENT @ NOM. VOLT. (ma)	DIMENSIONS
A	225	6HGM-1A 12HGM-1A 24HGM-1A	6V 12V 24V (28V)	160 625 2500	37.5 19.2 9.6	
A·A	340	6HGM-2A 12HGM-2A 24HGM-2A	6V 12V 24V (28V)	105 425 1700	57 28.2 14.1	
A·B	480 (non-bridging)	6HGM-1A1B 12HGM-1A1B 24HGM-1A1B	6V 12V 24V (28V)	45 175 700	133 68.5 34.2	 UP COIL .2" NC .2" NO NC NO 11/16" 1.0"

Standard Reed Relays

Standard Molded Series (sm) and Standard Open Bobbin Series (sg)

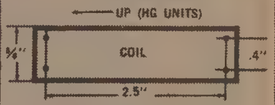
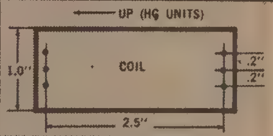
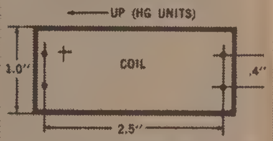
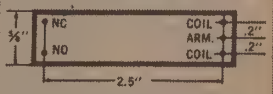
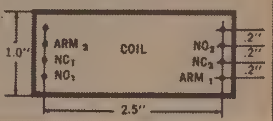
Electrical Specifications
Contact Rating:
Form "A" & "B" units: 15VA or 15W (1 amp or 250V max.)
Form "C" types: 3W (500ma or 250V max.)

Contact Resistance:
Form "A" & "B" units: .075 ohms max. initial
Form "C" types: .100 ohms max. initial
Life Expectancy: 20 to 200 million operations depending upon load

Physical Specifications
Size: Height 5/8″ max; Length 2-3/4″
Pin Dimensions: 1/4″ long; .032″ diameter tinned copper

Also available in open bobbin series (hgmg)

Pin locations for all types can be readily modified to accommodate your most convenient printed board layout.

CONTACT FORM	COIL RATING (mw)	SM PART NUMBER	SG PART NUMBER	NOMINAL VOLTAGE	DC COIL RESISTANCE (ohms)	CURRENT @ NOM. VOLT. (ma)	DIMENSIONS (Series sm)
A	200	6SM-1A 12SM-1A 24SM-1A	6SG-1A 12SG-1A 24SG-1A	6V 12V 24V (28V)	180 725 2900	33 16.5 8.3	
A·A	210	6SM-2A 12SM-2A 24SM-2A	6SG-2A 12SG-2A 24SG-2A	6V 12V 24V (28V)	175 700 2750	34 17 8.5	
B	210	6SM-1B 12SM-1B 24SM-1B	6SG-1B 12SG-1B 24SG-1B	6V 12V 24V (28V)	175 700 2750	34 17 8.5	
C	200	6SM-1C 12SM-1C 24SM-1C	6SG-1C 12SG-1C 24SG-1C	6V 12V 24V (28V)	180 725 2900	33 16.5 8.3	 ⅝" NC NO COIL ARM. COIL .2" .2" 2.5"
C·C	210	6SM-2C 12SM-2C 23SM-2C	6SG-2C 12SG-2C 24SG-2C	6V 12V 24V (28V)	175 700 2750	34 17 8.8	 1.0" ARM 2 NC1 NO1 COIL NO2 NC2 ARM 1 .2" .2" .2" 2.5"

For a comprehensive catalog on our complete line of reed relays, including economy open bobbin styles, write: **douglas randall inc.**

DIVISION OF WALTER KIDDE & COMPANY, INC.
6 Pawcatuck Ave., Westerly, Rhode Island 02891
Tel.: Area Code 203/599-1750 (Pawcatuck, Conn.)

Kidde

Quality Circuit Components from IBM

IBM offers a growing range of quality components and accessories to meet logic circuit design and packaging problems. These products include: reed relays, miniature dry reed switches, wire contact relays, permissive make relays; as well as complete modular circuit packages and digital logic circuit cards.

They were all originally designed for IBM's exclusive use. And they are manufactured with the same care, measure up to the same exacting standards and are, in fact, drawn from the same inventories as the components used in our own systems.

IBM components are being employed increasingly by electronic equipment manufacturers to solve problems such as electro-mechanical switching and interfacing solid-state and relay circuitry.

Read the following application descriptions. Consider the product features. Compare the performance data. You'll find they tell a story of consistent quality. IBM quality.

IBM Wire Contact Relays

For counting, logic switching, shift registers, flip-flop and timing circuits. In numerical control, communications, test equipment, process control, data processing and supervisory control systems. They operate as fast as 4.5 ms, have coil voltages up to 100 VDC with contact arrangements of 4, 6 and 12 pole Form-C, 4 and 6 pole latch.

IBM Permissive-Make Relays

High-speed operation with low contact bounce characteristics and long life. Recommended where speed and life requirements exceed the ratings of IBM wire contact relays. They perform up to 400 million operations, operate as low as 2.0-2.5 ms with contact arrangements of 4 and 6 pole, Form-C.

IBM Reed Relays

Economical interface between electronic and electromechanical circuit elements. Wide range of logic functions . . . wherever high-speed operation, low actuate power and long trouble-free life are prime requisites. Built around IBM's highly reliable rhodium-gold reed switch. Pluggable mountings. Magnetically shielded. Available in 1-2-4 and 6-pole Form-A; 2-, 4- and 6-pole Form-B configurations; plus various combinations with either pick or both pick and hold coils.

IBM SMS Circuit Packaging System

Connects printed circuit cards, receptacles, relays, and associated hardware on rectangular modular frames. Field-proven and widely used in IBM data processing systems. Provides a wide range of circuit packaging options.

International Business Machines Corporation
Industrial Products • 1000 Westchester Avenue
White Plains, New York 10604

Wire Contact Relays

No. of Form C Contracts	D. C. Resistance	Rated DC Voltage All Voltages ± 10%	Nominal Current (MA)	Operate Time (MS)	Part Number	Price††
Single Coil **4 PDT**	65	6	92	15.0	769083	$4.00
	80	10	125	10.0	769007	4.00
	100	20	200	4.0	770009	4.00
	175	20	114	6.0	769003	4.00
	330	20	60	10.0	769009	4.00
	500	26	52	10.0	769011	4.00
	720	45	62.5	5.5	196206	3.70
	2100	100	47.5	—	769139	4.00
	2130	48	22	7.5	769091	4.00
	2100	45	21.5	7.5	769489	4.00
	7250	100	14	6.5	333242	4.00
6 PDT	65	10	154	8.0	769013	5.45
	80	20	240	4.5	770015	5.25
	150	20	133	6.0	769004	5.45
	260	20	77	10.0	769015	5.45
	425	26	61	10.0	769017	5.45
	216	45	200	4.5	107558	5.45
	622	45	72	6.0	196196	4.90
	1350	45	33.5	10.0	769019	5.45
	6250	100	16	9.0	769021	5.45
12 PDT	50	10	200	10.0	769023	7.60
	105	20	200	7.0	769005	7.60
	335	26	78	10.0	769027	7.60
	205	45	220	4.5	107556	6.85
	395	45	114	6.0	196186	6.90
	1060	45	42.4	10.0	769488	7.60
	4400	100	23	10.0	769050	7.60
Double Operate Coil (and/or function) **4 PDT**	624 622	45 45	72 72	5.5 5.5	196207	5.00
6 PDT	622 695	45 45	72 65	6.0 6.0	196197	5.70
12 PDT	395 411	45 45	114 110	6.0 6.0	196187	7.80
Double Coil (operate and hold) **4 PDT**	424 865	45 45	106 52	4.5 —	104753	5.00
	624 1735	45 45	72 26	5.5 —	196208	5.00
	234 770	45 45	193 58.5	2.5 —	226628	6.00
6 PDT	247 578	45 45	182 78	4.5 —	107560	5.60
	285 310	26 26	91 84	10.0 —	769078	6.35
	622 1080	45 45	72 41.7	6.0 —	196198	5.80
	622 1185	45 45	72 38	7.0 —	769087	6.35
	388 1120	45 45	116 40	5.0 —	257113	5.70
	247 1080	45 45	182 41.7	4.5 —	257659	5.70
12 PDT	167 618	45 45	270 73	4.5 —	108388	7.75
	395 600	45 45	114 75	6.0 —	255735	7.80
	395 1000	45 45	114 45	7.0 —	769085	8.70
Triple Coil (double operate and hold) **4 PDT**	560 234 770	45 45 45	80 193 58.5	4.5 4.5 —	186696	6.30
Double Coil Latch (operate and trip) **4 PDT**	20 15	10 10	500 667	6.0 —	769030	11.35
	80 60	20 20	250 334	6.0 —	769033	11.35
	170 130	26 26	152 200	6.0 —	769055	11.35
	212 325	26 26	113 73	6.0 —	769063	11.35
	395 332	45 45	114 132	6.0 —	186685	10.70
	2000 1500	100 100	50 66	6.0 —	769036	11.35
6 PDT	20 15	10 10	500 667	6.0 —	769039	12.65
	75 60	20 20	267 334	6.0 —	769042	12.65
	150 130	26 26	173 215	6.0 —	769045	12.65
	310 332	45 45	145 126	6.0 —	186686	11.80
	2000 1500	100 100	50 66	7.0 —	769048	12.65
Triple Coil Latch (double operate and trip) **4 PDT**	145 145 130	26 26 26	179 179 200	6.0 6.0 —	769065	12.50
	400 410 332	45 45 45	112 110 135	6.0 6.0 —	186247	11.80
	400 410 332	45 45 45	112 110 135	6.0 6.0 —	239188	11.85

Accessories and mounting hardware also available.
All specifications and prices subject to change without notice.
Quantity Discounts available on Relays and Receptacles.

Wire Contact Relay Dust Covers

Part Number	Description	Price
1961841	Dust Cover 4 pole	$.20
1961842	Dust Cover 4 pole long & latch	.25
1961843	Dust Cover 6 pole	.25
1961844	Dust Cover 12 pole	.35

Permissive-Make Relays

4 Pole (Form C), Double Coil (Operate and Hold), Price $6.50

DC Resistance	Rated Voltage D.C.	Nom. Current (MA)	Operate Time MS @ Rated Voltage	Part No.
70 700	20 48	285.0 68.5	2.0-2.5 —	719003
126 700	20 48	159.0 68.5	2.5-3.2 —	719005
400 700	48 48	120.0 68.5	2.0-2.5 —	344601
400 1300	48 48	120.0 37.0	2.0-2.5 —	311713
680 700	48 48	71.0 68.5	2.5-3.2 —	344600
680 1300	48 48	71.0 37.0	2.5-3.2 —	311712

6 Pole (Form C), Double Coil (Operate and Hold), Price $7.75

DC Resistance	Rated Voltage D.C.	Nom. Current (MA)	Operate Time MS @ Rated Voltage	Part No.
24 37	12 12	— —	2.0-2.5 —	624027
105 600	20 48	119.0 80.0	2.5-3.2 —	719007
360 600	48 48	133.0 80.0	2.0-2.5 —	344621
360 1000	48 48	133.0 48.0	2.0-2.5 —	311715
600 600	48 48	80.0 80.0	2.5-3.2 —	344620
600 1000	48 48	80.0 48.0	2.5-3.2 —	311714

Accessories and mounting hardware also available.
All specifications and prices subject to change without notice.

Reed Relays

Type	Rated Coil Voltage (VDC) ±10%	No. of Turns	Nominal Resistance (ohms)	Nominal Current (MA)	Part No.	Price*
1-Position Form A, Pick	48	18,000	7385	6.1	766086	$ 3.00
	24	15,750	4190	5.7	766068	3.00
	18	10,000	2195	8.2	766065	3.00
	12	6,660	966	12.4	766040	3.00
	6	3,330	241	25	766060	3.00
	3	1,665	60	50.3	766059	3.00
1-Position Form A, Pick & Hold	12 12	5,000 5,000	770 1095	15.6 11	766042	3.40
2-Position Form A, Pick	48	15,750	5735	8.4	766072	4.15
	24	7,800	1520	15.8	766067	4.15
	12	3,900	377	31.8	766043	4.15
2-Position Form A, Pick & Hold	48 48	9,000 9,000	4500 5700	10.6 8.4	766087	4.65
	12 12 **	4,000 2,750	653 695	18.4 17.3	766057	4.65
	12 12	2,900 3,500	377 765	31.8 15.7	766044	4.65
2-Position Form B, Pick	48 ***	15,750	5735	6.6	766080	5.50
	12	3,900	377	31.8	766056	5.50
	12	5,700	808	14.9	766041	5.50
2-Position Form B, Pick & Hold	12 12	2,900 3,500	377 765	31.8 15.7	766045	6.00
4-Position Form A, Pick	48	8,300	3460	13.9	766071	6.30
	24	4,400	794	30.3	766066	6.30
	12	2,200	195	61.5	766046	6.30
4-Position Form A, Pick & Hold	48 48	7,000 5,400	3045 4110	15.8 11.8	766079	6.90
	12 12	1,750 1,350	191 269	62.8 44.6	766047	6.90
4-Position Form B, Pick	48 12	8,300 1,750	3460 191	13.9 62.8	766081	9.00
4-Position Form B, Pick & Hold	48	7,000	3045	15.8	766048	9.00
	48	5,400	4110	11.8	766082	9.60
2-Position Form A, 2-Position Form B, Pick	48	8,300	3460	13.9	766073	8.00
	24	4,400	794	30.3	766069	8.00
	12	2,200	195	61.5	766049	8.00
	6	1,100	50	120	766061	8.00
2-Position Form A, 2-Position Form B, Pick & Hold	48 48	7,000 5,400	3045 4110	15.8 11.8	766074	8.60
	12 12	1,750 1,350	191 269	62.8 44.6	766053	8.60
6-Position Form A, Pick	48	5,000	1940	24.8	766070	8.55
	12	1,250	116	103	766036	8.55
6-Position Form A, Pick & Hold	48 48	4,500 4,500	1815 3085	26.5 15.6	766084	9.20
	12 12	1,250 825	119 147	101 81.6	766052	9.20
6-Position Form B, Pick	48	5,000	1940	24.8	766083	12.55
	12	1,250	116	103	766050	12.55
6-Position Form B, Pick & Hold	48 48	4,500 4,500	1815 3085	26.5 15.6	766085	13.20
	12 12	1,250 825	119 147	101 81.6	766054	13.20
4-Position Form A, 2-Position Form B, Pick	48	5,000	1940	24.8	766076	10.30
	12	1,250	116	103	766051	10.30
4-Position Form A, 4-Position Form B, Pick & Hold	48 48	4,500 4,500	1815 3085	26.5 15.6	766078	10.95
	12 12	1,250 825	119 147	101 81.6	766055	10.95
4-Position Form B, 2-Position Form A, Pick	48	5,000	1940	24.8	766075	11.55
	12	1,250	116	103	766058	11.55
4-Position Form B, 2-Position Form A, Pick & Hold	48 48	4,500 4,500	1815 3085	26.5 15.6	766077	12.20

Accessories and mounting hardware also available.
All specifications and prices subject to change without notice.
*Quantity Discounts also available.
**±4% rated voltages. ***Requires 1500 Ω series resistor.

Call us at:

Northeast Area
1730 Cambridge Street
Cambridge, Massachusetts 02138
(617) 267-9400

Mid-Atlantic Area
20 Franklin Turnpike
Waldwick, New Jersey 07463
(201) 447-0600

1050 North Kings Highway
Cherry Hill, New Jersey 08034
(609) 667-4141

Seven Penn Center Plaza
Philadelphia, Pa. 19103
(215) 864-2335

Southeast Area
700 Banyan Trail
Boca Raton, Florida 33432
(305) 391-0500

Midwest Area
7700 Second Avenue
Detroit, Michigan 48202
(313) TR 5-7900

7321 Lake Street
River Forest, Illinois 60305
(312) 383-9600

245 Marquette Avenue
Minneapolis, Minnesota 55401
(612) 338-8541

2506 Willow Brook Pkwy
Indianapolis, Indiana 46205
(317) 924-3371

Southwest Area
2911 Cedar Springs Road
Dallas, Texas 75219
(214) LA 6-7651

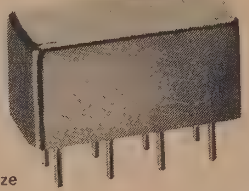
3424 North Central Avenue
Phoenix, Arizona 85012
(602) 277-2661

Western Area
Monterey and Cottle Roads
San Jose, California 95114
(408) 227-7100

9045 Lincoln Boulevard
Los Angeles, California 90045
(213) 670-8350 or
(213) 776-3931

IBM®
INDUSTRIAL
PRODUCTS

Electronic Instrument & Specialty Corp Winchester	Mass
Electronic Specialty Co, Los Angeles	Cal
Essex Wire Corp Controls Div RBM Controls Logansport	Ind
Fisher-Akin Co, Manhattan Beach	Cal
Fitre, 20143 Milano	Italy
Fujitsu Ltd, Tokyo	Japan
General Automatic Corp, Bayonne	N J
General Electric Co, ECSO, Schenectady	N Y
General Reed Co, Clark	N J
General Relay Corp, Dover	N J
Grigsby Barton Inc, Arlington Heights	Ill
Guide Industries Inc, Sun Valley	Cal
Hart-Advance Relay Div Oak Electro/Netics Corp Elkhorn	Wis
Hathaway Instruments Inc, Denver	Colo
Hi-G Inc, Windsor Locks	Conn
IBM, Industrial Products Marketing, New York	NY
Instrument Resistors Co, Brick Town	NJ
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
Jaidinger Mfg Co Inc, Chicago	Ill
James Electronics Inc, Chicago	Ill
Kahl Scientific Instrument Corp, El Cajon	Cal
Kidde & Co Inc, Walter, Belleville	N J
Kurman Instruments Corp, Syosset	N Y
Lake Engineering Co Ltd, Scarborough	Ont
Larago Electronics Mfgrs Inc, Melbourne	Fla
LCC-CICE, 93 Montreuil-sous-Bois	France
Life Instrument Co Inc, Franklin	Mass
Line Electric Co, Parsippany	N J
Magnecraft Electric Co, Chicago	Ill
Matrix Div, Schafer Electronics, Chatsworth	Cal
MCI Electronics, Marina Del Rey	Cal
McKee Automation Corp Sub James Cunningham Inc San Fernando	Cal
Micro Metrics Inc, Paterson	N J
MKC Electronics Corp, Kansas City	Kans
Mossman-Elliott Corp, Joliet	Ill
New Product Engineering Inc Sub Wabash Magnetics Inc Wabash	Ind
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Parko Electronics Co Inc, Santa Ana	Cal
Phipps Precision Products, Van Nuys	Cal
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Pollak Corp, Joseph, Boston	Mass
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton	Ind
Price Electric Corp, Frederick	Md
Randall Inc, Douglas, Sub Walter Kidde & Co Inc Westerly	R I
Research Instrument Co Inc, Westbury	N Y
Schrack Electrical Sales Corp, New York	N Y
Self-Organizing Systems Inc, Dallas	Tex
Sensor Corp, Greenwich	Conn
Silicone Seals Inc, Chicago	Ill
Slocum Industries, Inc, Reseda	Cal
Solid State Electronics Corp, Sepulveda	Cal
Standard Relay Corp, Brooklyn	N Y
Standard Telephones & Cables Ltd London WC 2	England
Struthers-Dunn Inc, Pitman	N J
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Takamisawa Electric Co, Ltd, Tokyo	Japan
Tele-Norm Corp, Woodside	N Y
Thermosen Inc, Stamford	Conn
Torotel, Inc, Grandview	Mo
Torr Labs Inc, Los Angeles	Cal
Triridge Corp, Aliquippa	Pa
Trompeter Electronics Inc, Chatsworth	Cal
United Standard Industries Inc, Glenview	Ill
Universal Relay Corp, New York	N Y
Vanguard Relay Corp, Lindenhurst	NY
Wabash Magnetics Inc, Wabash	Ind
Wells Co Inc, Gary, Yonkers	N Y
Wheelock Signals Inc, Long Branch	N J
Win-Elco, Gold Hill	Ore



BABCOCK B RELAYS R

MODEL BR26

Actual Size

$7.50 (1,000 pcs.)

- HALF-SIZE, WELDED CRYSTAL CAN
- DRY CIRCUIT TO 2 AMPS.
- TO MIL-R-5757

NOW AVAILABLE OFF-THE-SHELF FROM BABCOCK DISTRIBUTORS

Listed on Page 590

ACCUVOLT

BESPONDER

CINDERELLA

If you're confused over product trade names, locate the source easily in EBG's Trade Name Listing in the back of the green section.

RELAYS--SENSITIVE (100 MILLIWATTS OR LESS)

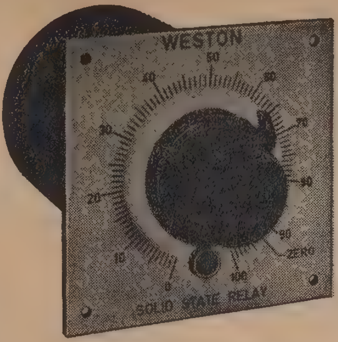
AMERICAN ZETTLER, INC, COSTA MESA, CAL	**ADV PG 587**
BABCOCK ELECTRONICS, RELAY DIV, COSTA MESA CAL.	**ADV PG 606**
COUCH ORDNANCE INC, NORTH QUINCY	**MASS**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y.	**ADV PGS 7**
GENERAL REED CO, CLARK	**N J**
GRIGSBY BARTON INC, ARLINGTON HEIGHTS	**ILL**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL**
LEACH CORP, SOUTH PASADENA, CAL	**ADV PGS 596-599**
MAGNECRAFT ELECTRIC CO, CHICAGO	**ILL**
RANDALL INC, DOUGLAS, SUB WALTER KIDDE & CO INC WESTERLY	**R I**
TAKAMISAWA ELECTRIC CO, LTD, TOKYO	**JAPAN**
TORWICO ELECTRONICS, INC, LAKEWOOD	**N J**
UNIVERSAL RELAY CORP, NEW YORK, N Y	**ADV PG 588**
VANGUARD RELAY CORP, LINDENHURST	**NY**
WESTON INSTRUMENTS DIV WESTON INSTR INC, NEWARK N J.	**ADV PG 607**
Acme Products Co, Kensington	Conn
Adams & Westlake Co, Elkhart	Ind
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
Allied Control Co Inc, New York	N Y
Alpha Relays Inc, Jersey City	N J
American Zettler, Inc, Costa Mesa	Cal
Arco Electronics, Inc, Great Neck	N Y
Artisan Electronics Corp, Parsippany	N J
ATR Electronics, Inc, St Paul	Minn
Automatic Switch Co, Florham Park	N J
Babcock Electronics, Relay Div, Costa Mesa	Cal
Clare & Co, C P, Chicago	Ill
Comar Electric Co, Chicago	Ill
Cook Electric Co Automatic Controls Div, Palatine	Ill
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Couch Ordnance Inc, North Quincy	Mass
Custom Control Mfg Inc, Merriam	Kan
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Data Device Corp, Hicksville	N Y
Deutsch Filtors Relay Div, East Northport	N Y
Edison, Thomas A Industries, Instr Div West Orange	N J
Elec-Trol Inc, Saugus	Cal
Electronic Instrument & Specialty Corp Winchester	Mass
Essex Wire Corp Controls Div RBM Controls Logansport	Ind
Fitre, 20143 Milano	Italy
General Automatic Corp, Bayonne	N J
General Electric Co, ECSO, Schenectady	N Y
General Reed Co, Clark	N J
Giannini-Voltex, Whittier	Cal
Grigsby Barton Inc, Arlington Heights	Ill
Hart-Advance Relay Div Oak Electro/Netics Corp Elkhorn	Wis
Hi-G Inc, Windsor Locks	Conn
Hillburn Relay Corp, Farmingdale	N Y
Instrumentation & Control Systems Inc, Addison	Ill
Instrument Resistors Co, Brick Town	NJ
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
Jaidinger Mfg Co Inc, Chicago	Ill
Kidde & Co Inc, Walter, Belleville	N J
Kurman Instruments Corp, Syosset	N Y
Larson Instrument Co, Orangeburg	N Y
LCC-CICE, 93 Montreuil-sous-Bois	France
Leach Corp, South Pasadena	Cal
Life Instrument Co Inc, Franklin	Mass
Line Electric Co, Parsippany	N J
Magnecraft Electric Co, Chicago	Ill
MCI Electronics, Marina Del Rey	Cal
Ohmite Mfg Co, Skokie	Ill
Pacific Relays Inc, Van Nuys	Cal
Parelco, Inc, San-Juan Capistrano	Cal
Plessey Airborne Corp, Hillside	NJ
Price Electric Corp, Frederick	Md
Randall Inc, Douglas, Sub Walter Kidde & Co Inc Westerly	R I
Relay Specialties Inc, Fair Lawn	N J
Relcoa Sub Hi-G Inc, Hauppauge	N Y
Rele Finder Sas, 14440 Almese (To)	Italy
Schrack Electrical Sales Corp, New York	N Y
Siemens America Inc, New York	N Y
Sigma Instruments Inc, Braintree	Mass
Signal & Communications Div Westinghouse Air Brake Co Pittsburgh	Pa
Simpson Electric Co, Chicago	Ill
Slocum Industries, Inc, Reseda	Cal
Solid State Electronics Corp, Sepulveda	Cal
Space & Systems Div General Time Corp Stamford	Conn
Standard Relay Corp, Brooklyn	N Y
Struthers-Dunn Inc, Pitman	N J
Takamisawa Electric Co, Ltd, Tokyo	Japan
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Teledyne Relays A Teledyne Co, Hawthorne	Cal
Telstar Electronics Corp, Southold	N Y
Torwico Electronics, Inc, Lakewood	N J
Universal Relay Corp, New York	N Y
Vanguard Relay Corp, Lindenhurst	NY
Wells Co Inc, Gary, Yonkers	N Y
Weston Instruments Div Weston Instr Inc, Newark	N J
Win-Elco, Gold Hill	Ore
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

Fast acting.

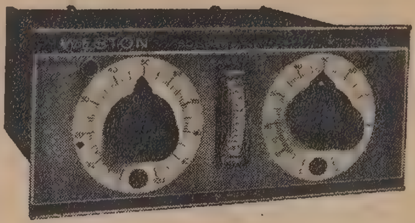
The Electronics Buyers' Guide can get you on the right frequency in a hurry. For example, there are 14 different kinds of oscillators listed. Everything from AF oscillators to voltage controlled crystal oscillators. There are three sections in your EBG, devoted to products, manufacturers and trade names. So see your fast-acting EBG.

Electronics Buyers' Guide

familiar faces from the world's broadest line of indicating relays



***Model 1062 Control Relay**—no moving parts, not even relay contacts; voltage ranges from 0-1 volt, current ranges from 0-100 μa; 200-millisecond response time with 0.5% repeatability typical; zero adjust and trip indicator on 320° scale.*



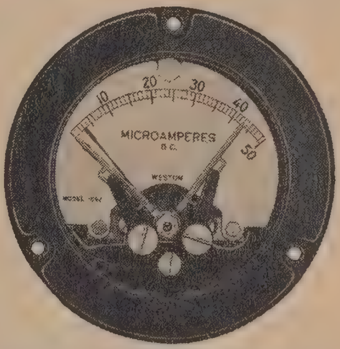
***Model 1066 Dual Set-Point Relay**—with input monitor and independently adjustable set points. Repeatability ±½%; accuracy ±2%; selectivity to 1 μa; switching capacity 1 amp at 117 volts AC.*

WESTON SENSITROL RELAY
MILLIAMPS

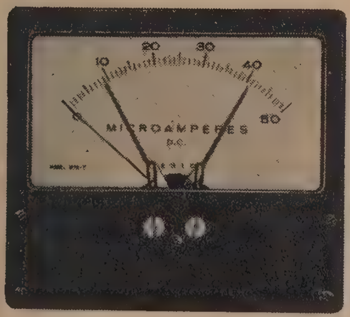
***Model 705 Sensitrol® Relay**—highly sensitive; surface or flush mounted; single or double, fixed or adjustable contact; ranges as low as 0.5-0-0.5 μa.*

MICROAMPS
WESTON SENSITROL RELAY

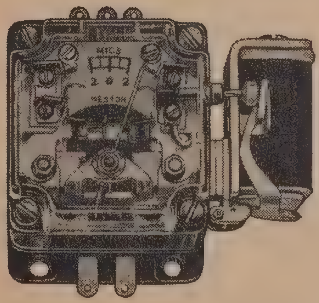
***Model 723 Sensitrol® Relay**—sealed; shielded; internal reset; solder terminals; single or double magnetic contact; ranges as low as 1-0-1 μa.*



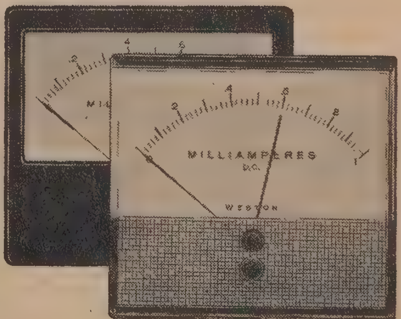
***Model 1097 Ruggedized 3½" Relay**—LCCA type fully meets applicable portions of military spec; sealed; magnetically shielded; solder terminals; single or double adjustable contacts. **Model 1093** 2½" size available.*



***Model 1075 Photronic* Relay**—operates without physical contact; single or double adjustable set points; continuous reading beyond set point; taut band frictionless mechanism; solid state switching circuit; ranges from 10 μa.*



***Model 813 Miniature Relay**—compact and lightweight; sensitive and Sensitrol (magnetic) contacts; single or double contact; ranges as low as 2-0-2 μa.*



***Model 1930/1940 Photronic* Relay**—3½" and 4½" in either bakelite or plastic front; low cost; add-on power supply and solid state switching circuit; shielded; non-physical, adjustable contact.*

**Photronic is a Trademark of Weston Instruments, Inc.*

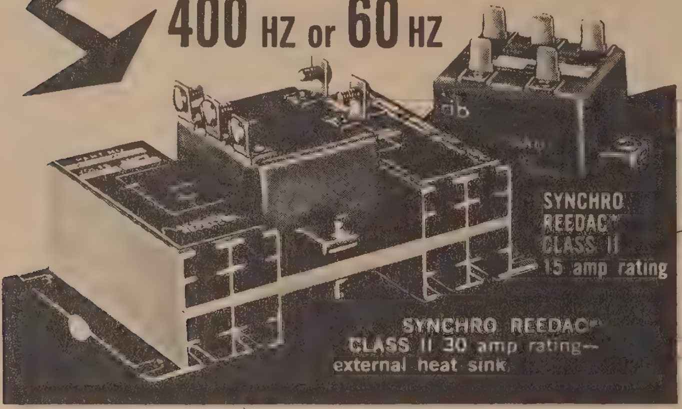
Weston Instruments Inc., Weston-Newark,
Newark, N.J. 07114, a Schlumberger company

WESTON® *prime source for precision... since 1888*

Meet the most Current members of our REEDAC* family

Solid State Heavy Duty Switching Synchronous or Standard

400 HZ or 60 HZ


SYNCHRO REEDAC* CLASS II 15 amp rating
SYNCHRO REEDAC* CLASS II 30 amp rating— external heat sink

*Copyright pending

You'll find a strong family resemblance in these new **REEDAC*RELAYS.** They have that precision and quality that mark the lineage unmistakably as Grigsby-Barton.

These new **REEDAC*RELAYS** combine the advantages of reed relay switching with solid state dependability. **Rated at 15 amps 220V RMS to 30 amps 220V RMS with external heat sinking. Switches on at 4V max. and off at current zero. Virtually zero RFI.**

Completely sealed case measures 2.625 x 1.625. Terminals are quick disconnect, screw type or solder type (alternate: octal plug mounting). Typical switching applications: (a) Tungsten lamp loads; (b) highly inductive or capacitive loads; (c) any heavy AC loads triggered by transistor logic; (d) control motors and solenoids with or without transistor logic. (e) Interface with DTL logic.

Other **REEDAC*RELAYS** are available for specialized applications. Write for information on the complete line of Grigsby-Barton reed relays, logic cards and switching systems.

gb **GRIGSBY-BARTON, INC.**
107 N. Hickory, Arlington Heights, Ill. 60006
Phone Area Code 312/392-5900

RELAYS--SOLID STATE

AMERICANA X-RAY CO, ENGLEWOOD	**N J**
API INSTRUMENTS CO, CHESTERLAND	**OHIO**
BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS WOODSIDE	**NY**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GRIGSBY BARTON INC, ARLINGTON HEIGHTS ILL	**ADV PG 608**
GUARDIAN ELECTRIC MFG CO, CHICAGO	**ILL**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL**
LEACH CORP, SOUTH PASADENA, CAL	**ADV PGS 596-599**
MICRO SWITCH DIV, HONEYWELL, FREEPORT	**ILL**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
OPAD ELECTRIC CO, INC, NEW YORK	**N Y**
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON	**IND**
TELE-SIGNAL CORP, WOODBURY	**N Y**
TRANSMAGNETICS INC, FLUSHING	**N Y**
UNIVERSAL RELAY CORP, NEW YORK	**N Y**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
Acme Products Co, Kensington	Conn
Acromag Inc, Wixom	Mich
ADC Electronics, Inc, Harbor City	Cal
Aeromarine Electronics, Inc, San Diego	Cal
Aircraft Instruments Co, Montgomeryville	Pa
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
Allied Control Co Inc, New York	N Y
Alpha Relays Inc, Jersey City	N J
Amelco Semiconductor, A Teledyne Co Mountain View	Cal
Americana X-Ray Co, Englewood	N J
Amtron Inc, Midlothian	Ill
API Instruments Co, Chesterland	Ohio
Applied Electronics Corp of N J, Metuchen	N J
Artisan Electronics Corp, Parsippany	N J
Audn Corp, Hamburg	N Y
Automatic Switch Co, Florham Park	N J
Autronics Corp, Pasadena	Cal
Avien, Inc, Woodside	N Y
Avionics, Inc, South Bend	Ind
Barber-Colman Co, EMP Div, Rockford	Ill
Basler Electric Co, Highland	Ill
Beckwith Electric Co Inc, Mt Prospect	Ill
Bergen Lab, Inc, Paterson	N J
Branson Corp, Denville	N J
Brower Labs Inc, Westboro	Mass
Bulova Watch Co Inc Elctns Div Servo Products Woodside	NY
Cardinal Control Co Inc, Kensington	Conn
Condor Industrial Corp, West Chicago	Ill
Control Data Corp, LaJolla Div, Minneapolis	Minn
Controlotron Corp, Farmingdale	N Y
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Cramer Div Conrac Corp, Old Saybrook	Conn
Crane Electronics Corp, Santa Barbara	Cal
Crest Mfg Co, East Berlin	Conn
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Custom Control Mfg Inc, Merriam	Kan
Cutler-Hammer Inc, Milwaukee	Wisc
Data Device Corp, Hicksville	N Y
Design Products Corp, Troy	Mich
De-Tec-Tronic Corp, Chicago	Ill
Diamond Repeater Co, Madison	N J
Dickson Electronics Corp, Scottsdale	Ariz
Digitech Inc, Ridgefield	Conn
Dynamic Controls Corp, South Windsor	Conn
Ebert Electronics Corp, Floral Park	N Y
Electronic Control Corp, Euless	Tex
Electronic Specialty Co, Los Angeles	Cal
Essex Wire Corp Controls Div RBM Controls Logansport	Ind
Fairchild Controls, Hicksville	N Y
Fidelity Amplifier Co, Chicago	Ill
Frost Electronics Corp, Rockaway	N J
Fuji Electric Co Ltd, Tokyo	Japan
Fujitsu Ltd, Tokyo	Japan
Furnas Electric Co, Batavia	Ill
Gems Co Inc, Farmington	Conn
General Automatic Corp, Bayonne	N J
General Electric Co, ECSO, Schenectady	N Y
General Magnetics Inc, Bloomfield	N J
Geo Space Systems Inc, St Petersburg	Fla
Giannini-Voltex, Whittier	Cal
Grigsby Barton Inc, Arlington Heights	Ill
Guardian Electric Mfg Co, Chicago	Ill
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
G-V Controls Inc, Livingston	N J
Hartman Electrical Mfg Co, Mansfield	Ohio
Heinemann Electric Co, Trenton	N J
Helix Research Assoc Inc, La Mesa	Cal
Hillburn Relay Corp, Farmingdale	N Y
Hi-Tek Corp, Santa Ana	Cal
Industrial Solid State Controls Inc, York	Pa
Inet Power A Teledyne Co, Gardena	Cal
Instrumentation & Control Systems Inc, Addison	Ill
International Rectifier Semiconductor Div El Segundo	Cal
Intertechnique, Plaisir, 78	France
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
Jay-El Products Inc, Gardena	Cal
Kameco Ltd, Montreal	Que
Kinetics A Teledyne Co, Solana Beach	Cal
Kurman Instruments Corp, Syosset	N Y
Lark Electronics Inc, New York	N Y
Larson Instrument Co, Orangeburg	N Y
La Telemecanique Electrique, 92 Rueil	France
Leach Corp, South Pasadena	Cal
Ledex Div Ledex Inc, Dayton	Ohio
Liebel-Flarsheim Co, Cincinnati	Ohio
Life Instrument Co Inc, Franklin	Mass

Loyola Industries Inc, El Segundo .... Cal
Madison Labs, Inc, Madison .... Conn
Marconi Co Ltd, Chelmsford .... England
Marin Controls Co, Belmont .... Cal
MCI Electronics, Marina Del Rey .... Cal
Micro Switch Div, Honeywell, Freeport Ill
Microwave Associates Inc, Burlington .... Mass
Microwave Products Group Div C A S Inc Carle Place .... N Y
Microwave/Systems Inc, East Syracuse .... N Y
Mossman-Elliott Corp, Joliet Ill
Motor Control Corp Sub Zenrad Computer Corp, Huntington .... NY
Nash Controls Inc, Caldwell .... N J
National Acme Co Electrical Controls Div Cleveland .... Ohio
Neill Engineering Co, East Hartland .... Conn
Nippon Electric Co Ltd, Tokyo .... Japan
Norbatrol Electronics Corp, Murrysville .... Pa
Northern Radio Co Inc, New York .... N Y
Ohmite Mfg Co, Skokie Ill
Oki Electric Industry Co Ltd, Tokyo .... Japan
Opad Electric Co, Inc, New York .... N Y
Pacific Magnetic Corp, Romoland .... Cal
Parko Electronics Co Inc, Santa Ana .... Cal
Payne Engineering Co, South Charleston .... W Va
Plessey Airborne Corp, Hillside .... NJ
Pollak Corp, Joseph, Boston .... Mass
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton .... Ind
Power Control Corp, Pittsburgh .... Pa
Precision Thermometer & Instrument Co Southampton .... Pa
Raytheon Co, Components Div, Ind Compnts Oper Quincy .... Mass
Regent Controls Inc, Stamford .... Conn
Relay Specialties Inc, Fair Lawn .... N J
Robicon Corp, Pittsburgh .... Pa
Sensor Corp, Greenwich .... Conn
Siemens America Inc, New York .... N Y
Sigma Instruments Inc, Braintree .... Mass
S K G Associates Inc, Boston .... Mass
Slocum Industries, Inc, Reseda .... Cal
Solid State Electronics Corp, Sepulveda .... Cal
Square D Co, Park Ridge Ill
Standard Relay Corp, Brooklyn .... N Y
Stelma Inc, Stamford .... Conn
Struthers-Dunn Inc, Pitman .... N J
Syracuse Electronics Corp, Syracuse .... N Y
Systems Matrix Inc, Trenton .... N J
Tateisi Electronics Co, Ukyo-ku, Kyoto .... Japan
Techrand Corp of America, Muskegon .... Mich
Teledata Inc, Queens Village .... N Y
Tele-Signal Corp, Woodbury .... N Y
Telstar Electronics Corp, Southold .... N Y
Teltronics Inc, Nashua .... N H
Transmagnetics Inc, Flushing .... N Y
Trepac Corp of America, Englewood .... N J
Universal Relay Corp, New York .... N Y
Vapor Corp, Chicago Ill
Versitron Inc, Washington .... D C
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio
Wavelabs Co Div Systron-Donner Corp, San Diego .... Cal
Welex Electronics, Div Halliburton Co Silver Spring .... Md
Western Telematic Inc, Arcadia .... Cal
Westinghouse Electric Corp, Relay & Instr Dept Newark .... N J
Westinghouse Electric Corp, Standard Control Div Beaver .... Pa
Weston Instruments Div Weston Instr Inc, Newark .... N J
Win-Elco, Gold Hill .... Ore
Yaskawa Electric Mfg Co Ltd, Tokyo .... Japan

RELAYS--STEPPING

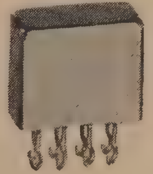
DALE ELECTRONICS INC, SIOUX DIV, YANKTON .... S DAK
GENERAL REED CO, CLARK .... N J
GUARDIAN ELECTRIC MFG CO, CHICAGO ILL
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE .... CAL
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON .... IND
TAKAMISAWA ELECTRIC CO, LTD, TOKYO .... JAPAN
UNIVERSAL RELAY CORP, NEW YORK .... N Y
Alpha Relays Inc, Jersey City .... N J
Arco S P A, Milano .... Italy
Artisan Electronics Corp, Parsippany .... N J
Automatic Electric Co, Northlake Ill
Clare & Co, C P, Chicago Ill
Comar Electric Co, Chicago Ill
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark .... N J
Dale Electronics Inc, Sioux Div, Yankton .... S Dak
Ericsson Centrum Inc, New York .... N Y
Fisher-Akin Co, Manhattan Beach .... Cal
Fujitsu Ltd, Tokyo .... Japan
General Reed Co, Clark .... N J
Giannini-Voltex, Whittier .... Cal
Grason Stadler Co Inc, West Concord .... Mass
Guardian Electric Mfg Co, Chicago Ill
Guardian Electric Mfg Co of Cal Inc, Culver City .... Cal
Hart-Advance Relay Div Oak Electro/Netics Corp Elkhorn .... Wis
Hillburn Relay Corp, Farmingdale .... N Y
Instrumentation & Control Systems Inc, Addison Ill
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
ITT Jennings Div, Intl Tel & Tel Corp, San Jose .... Cal
Kameco Ltd, Montreal .... Que
Kuhnke, H, Elektrotechnische Fabrik Gmbh Holstein .... Germany
Ledex Div Ledex Inc, Dayton .... Ohio
Mossman-Elliott Corp, Joliet Ill
Motor Control Corp Sub Zenrad Computer Corp, Huntington .... NY
Nippon Electric Co Ltd, Tokyo .... Japan
North Electric Co, Galion .... Ohio
Oki Electric Industry Co Ltd, Tokyo .... Japan
Oki Electronics of America, Inc, Fort Lauderdale .... Fla
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton .... Ind
Schrack Electrical Sales Corp, New York .... N Y
Siemens America Inc, New York .... N Y
Standard Relay Corp, Brooklyn .... N Y
Standard Telephones & Cables Ltd London WC 2 .... England
Struthers-Dunn Inc, Pitman .... N J
Takamisawa Electric Co, Ltd, Tokyo .... Japan
Tateisi Electronics Co, Ukyo-ku, Kyoto .... -Japan
Trompeter Electronics Inc, Chatsworth .... Cal
Universal Relay Corp, New York .... N Y
Westinghouse Electric Corp, Relay & Instr Dept Newark .... N J

RELAYS--SUBMINIATURE (MICROMINIATURE)

AMERICAN ZETTLER, INC, COSTA MESA, CAL .... ADV PG 587
ANRITSU ELECTRIC CO LTD TOKYO JAPAN .... ADV PG 610
BABCOCK ELECTRONICS, RELAY DIV, COSTA MESA CAL .... ADV PG 609
COUCH ORDNANCE INC, NORTH QUINCY, MASS .... ADV PG 609
ELECTRO-TEC CORP, ORMOND BEACH .... FLA
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7,610
GENERAL REED CO, CLARK .... N J
GRIGSBY BARTON INC, ARLINGTON HEIGHTS ILL
GUARDIAN ELECTRIC MFG CO, CHICAGO ILL
LEACH CORP, SOUTH PASADENA, CAL .... ADV PGS 596-599
MAGNECRAFT ELECTRIC CO, CHICAGO ILL
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON .... IND
PRINTACT RELAY DIV EXECUTONE INC LONG ISLAND CITY .... N Y
RANDALL INC, DOUGLAS, SUB WALTER KIDDE & CO INC WESTERLY .... R I
TAKAMISAWA ELECTRIC CO, LTD, TOKYO JAPAN .... ADV PG 610
UNIVERSAL RELAY CORP, NEW YORK .... N Y
Aemco Div, Midtex Inc, Mankato .... Minn
Alco Electronic Products, Inc, Lawrence .... Mass
Allied Control Co Inc, New York .... N Y
Alpha Relays Inc, Jersey City .... N J
American Zettler, Inc, Costa Mesa .... Cal
Arco Electronics, Inc, Great Neck .... N Y
Aristo-Craft Distinctive Miniatures, New York .... N Y
Avnet Electronics, Westbury .... N Y
Babcock Electronic Corp, Costa Mesa .... Cal
Babcock Electronics, Relay Div, Costa Mesa .... Cal
Bourns Inc Trimpot Div, Riverside .... Cal

BABCOCK RELAYS

MODEL BR10



Actual Size

- 1/6-SIZE, WELDED CRYSTAL CAN
- DRY CIRCUIT TO 1 AMP.
- TO MIL-R-5757

NOW AVAILABLE OFF-THE-SHELF FROM BABCOCK DISTRIBUTORS

Listed on Page 590

Couch 2X 1/7-size relays meet MIL-R-5757D/19 in 1/25th of a cubic inch

The new, third generation Couch 2X relays solve switching problems where space and weight are critical. Thoroughly field-proven in electronic and space applications. Relays are delivered *fully tested.* Additional screening tests available at your option.

	2X (DPDT)	1X (SPDT)
Size	0.2"x0.4"x0.5"	same
Weight	0.1 ox. max.	same
Contacts	0.5 amp @30 VDC	same
Coil Operating Power	100 mw 150 mw	70 mw 100 mw
Coil Resistance	60 to 4000 ohms	125 to 4000 ohms
Temperature	—65°C to 125°C	same
Vibration	20 G to 2000 Hz	same
Shock	75 G, 11 Ms	same

Broad choice of terminals, coil resistances, mounting styles. Write for detailed data sheets.

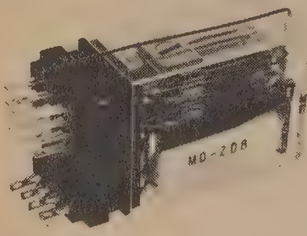
RUGGED ROTARY RELAYS Dynamically and Statically Balanced

Couch 1894

COUCH ORDNANCE INC.
3 Arlington St., North Quincy, Mass. 02171
Area Code 617 CYpress 8-4147
A subsidiary of S. H. COUCH COMPANY, INC.

Takamisawa Means Reliable Relay Performance

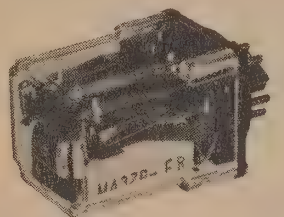
Takamisawa Electric's superior know-how acquired through years of experience makes it a stand-out in the field of production of dependable relays.



MQ Series

Miniature, High Performance DC Relays

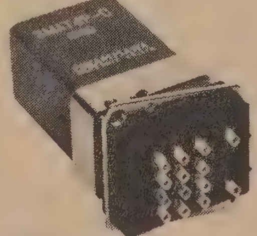
■ Contact current 0.7 Amp. at 100V DC ■ DPDT, 4PDT combination ■ 6mS operating time ■ Mechanical life of over 50 million operations ■Superb anti-shock 5G, antivibration capacity ■ Measures only 39.5×29.7×18.8mm



MA-R Series

Compact DC/AC Relays with Extra-Large Contact Load Capacity

■ Normal contact current 5 Amp. at 100V AC ■ 2PDT or 3PDT combination ■ 20mS operating time ■ Mechanical life of over 10 million operations ■ 50 megohms insulation resistance at 500V DC ■ Plug-in type



SMAT4 Series

Hermetically Sealed Miniature Relays

Contains nitrogen gas of 1 atmospheric pressure to prevent harmful effect wrought by high humidity, low atmospheric pressure, etc. Ideal for airborne or other uses requiring high relay reliability.

■ Contact current 5 Amp. 100V AC or 0.7 Amp. at 100V DC ■ 4-transfer combination ■ 13mS operating time ■ Resists 10G shock and vibration ■ 1,500 megohms insulation resistance at 500V DC ■ Plug-in type also available

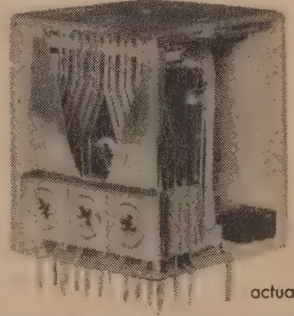
For catalogs, please write to Export Dept.

TAKAMISAWA ELECTRIC CO., LTD.

35-4, 1-chome, Koyama, Shinagawa-ku, Tokyo, Japan

Branson Corp, Denville	N J
Bristol Div, American Chain & Cable Co Waterbury	Conn
Comar Electric Co, Chicago	Ill
Compac Engineering Inc, Hollister	Cal
Computer Components Inc, Jamaica	N Y
Cook Electric Co Automatic Controls Div, Palatine	Ill
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Couch Ordnance Inc, North Quincy	Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Davis Electric Co, Cape Girardeau	Mo
Deans Co, W S, Downey	Cal
Deutsch Filtors Relay Div, East Northport	N Y
Dialight Corp, Brooklyn	N Y
Dialtron Corp, Brooklyn	N Y
Elec-Trol Inc, Saugus	Cal
Electronic Controls Inc, Wilton	Conn
Electronic Instrument & Specialty Corp Winchester	Mass
Electronic Specialty Co, Los Angeles	Cal
Electro-Tec Corp, Ormond Beach	Fla
Fairchild Controls, Hicksville	N Y
Fifth Dimension Inc, Princeton	N J
General Electric Co, ECSO, Schenectady	N Y
General Reed Co, Clark	N J
Giannini-Voltex, Whittier	Cal
Grigsby Barton Inc, Arlington Heights	Ill
Guardian Electric Mfg Co, Chicago	Ill
Hart-Advance Relay Div Oak Electro/Netics Corp Elkhorn	Wis
Hi-G Inc, Windsor Locks	Conn
Intertechnique, Plaisir, 78	France
ITT Europe Inc Components Gp, Brussels 1	Belgium
Jaidinger Mfg Co Inc, Chicago	Ill
Kameco Ltd, Montreal	Que
Kurman Instruments Corp, Syosset	N Y
LCC-CICE, 93 Montreuil-sous-Bois	France
Leach Corp, South Pasadena	Cal
Magnecraft Electric Co, Chicago	Ill
Microwave Associates Inc, Burlington	Mass
Miniature Electronic Components Corp, Holbrook	Mass
MKC Electronics Corp, Kansas City	Kans
Naybor Laboratories Inc, E V, Port Washington	N Y
New Product Engineering Inc Sub Wabash Magnetics Inc Wabash	Ind
North Electric Co, Galion	Ohio
Oki Electric Industry Co Ltd, Tokyo	Japan
Pacific Relays Inc, Van Nuys	Cal
Phipps Precision Products, Van Nuys	Cal
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton	Ind
Price Electric Corp, Frederick	Md
Printact Relay Div Executone Inc, Long Island City	N Y
Randall Inc, Douglas, Sub Walter Kidde & Co Inc Westerly	R I
Relays Inc, New York	N Y

MINIATURE RELAY



actual size

- 100,000,000 operations or more
- Up to 6 transfer contacts
- Twin contacts
- Card driving lift off system

Rated voltage: 12, 24, 48V
Max. switching current: 0.5A

Anritsu Electric Co., Ltd.

12-20, Minamiazabu 4-chome, Minato-ku, Tokyo, Japan
Phone: Tokyo 442-8171/ Telex: 0242-2353
Cable: ANRITDENKI TOKYO

HERMETICALLY SEALED RELAYS

150 GRID-SPACE (3SCB, 3SBM)

Small size—only 0.32" high
Terminals on 0.150" centers
All-welded construction

Type	Contact Form	Contact Rating	Sensitivity
3SBC	2PDT	2A at 28 Vd-c	135 mw
	IPNO & IPNC or IPDT		50 mw
3SBH	4PDT		250 mw
3SBM	4PDT*		200 mw§

*Mag. latch. §Dual coil.

HALF-SIZE MICRO (3SAV)

Terminals on 0.2" centers
All-welded construction
Bifurcated contacts
Power or low-level switching

Contact Form	Contact Rating	Sensitivity
2PDT	2A at 28Vd-c	260 mw

GRID MICRO (3SAF)

Terminals on 0.2" centers
Balanced armature design
All-welded construction
Long mechanical life

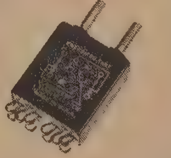
Contact Form	Contact Rating	Sensitivity
2PDT	3A at 28Vd-c	300 mw

5-AMP GRID MICRO (3SBK)

Standard micro enclosure
Low operate sensitivity
All-welded construction

Contact Form	Contact Rating	Sensitivity
2PDT	5A at 28Vd-c	300 mw

LATCHING MICRO



All-welded construction
Snap action—no hang-up
50 milliwatt sensitivity
Power or low-level switching
Grid spaced

Contact Form	Contact Rating	Sensitivity
2PDT	2A at 28Vd-c	50 mw 75 mw

SENSITIVE MICRO (3SAT)

Operates on 40 milliwatts
(25 miliwatts for SPDT)
Full 2-amp contact rating
All-welded construction

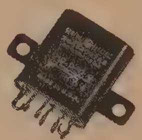
Contact Form	Contact Rating	Sensitivity
2PDT	2A at 28Vd-c	40 mw
1PDT		25 mw

4-POLE MICRO (3SAH)

All-welded construction
No solder, solder flux
Power or low-level switching
Terminals on 0.2" centers

Contact Form	Contact Rating	Sensitivity
4PDT	2A at 26.5Vd-c	400 mw

CRYSTAL CAN (3SAE, 3SAC)



Voltage or current calibrated
Dual-coil construction

Contact Form	Contact Rating	Sensitivity
2PDT	2A at 28Vd-c	330 mw 200 mw

Write for Bulletin GEA-6628

For complete information contact nearest GE Sales Office, see list on page 7, or write to General Electric Co., Section 998-38, Schenectady, N. Y. 12305.

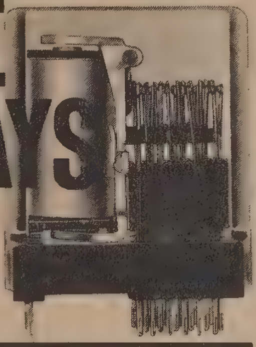
GENERAL ELECTRIC

Relcoa Sub Hi-G Inc, Hauppauge	N Y
Schrack Electrical Sales Corp, New York	N Y
Sigma Instruments Inc, Braintree	Mass
Signal & Communications Div Westinghouse Air Brake Co Pittsburgh	Pa
Smiths Industries North America Ltd, Jamaica	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Solid State Electronics Corp, Sepulveda	Cal
Space & Systems Div General Time Corp Stamford	Conn
Standard Relay Corp, Brooklyn	N Y
Standard Telephones & Cables Ltd London WC 2	England
Struthers-Dunn Inc, Pitman	N J
Takamisawa Electric Co, Ltd, Tokyo	Japan
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Teledyne Relays A Teledyne Co, Hawthorne	Cal
Terado Corp, St Paul	Minn
Thermosen Inc, Stamford	Conn
Universal Relay Corp, New York	N Y
Vactric Control Equipment Ltd, Morden	England
Wabash Magnetics Inc, Wabash	Ind
Wheelock Signals Inc, Long Branch	N J
Win-Elco, Gold Hill	Ore

RELAYS--TELEPHONE

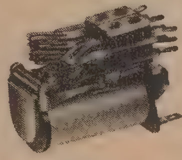
AMERICAN ZETTLER, INC, COSTA MESA, CAL	**ADV PG 587**
GUARDIAN ELECTRIC MFG CO, CHICAGO	**ILL**
IBM, INDUSTRIAL PRODUCTS MARKETING, NEW YORK	**NY**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL**
MAGNECRAFT ELECTRIC CO, CHICAGO	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON, IND	**ADV PG 611**
PRINTACT RELAY DIV EXECUTONE INC LONG ISLAND CITY	**N Y**
TAKAMISAWA ELECTRIC CO, LTD, TOKYO	**JAPAN**
UNIVERSAL RELAY CORP, NEW YORK	**N Y**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
Acme Products Co, Kensington	Conn
Aemco Div, Midtex Inc, Mankato	Minn
Allied Control Co Inc, New York	N Y
Alpha Relays Inc, Jersey City	N J
American Zettler, Inc, Costa Mesa	Cal
Arco Electronics, Inc, Great Neck	N Y
ATR Electronics, Inc, St Paul	Minn
Automatic Electric Co, Northlake	Ill
Cardinal Control Co Inc, Kensington	Conn
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Clare & Co, C P, Chicago	Ill
Comar Electric Co, Chicago	Ill
Cook Electric Co Automatic Controls Div, Palatine	Ill
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Crest Mfg Co, East Berlin	Conn
Davis Electric Co, Cape Girardeau	Mo
Delta Coils, Philadelphia	Pa
Ericsson Centrum Inc, New York	N Y
Essex Wire Corp Controls Div RBM Controls Logansport	Ind
Fitre, 20143 Milano	Italy
Fujitsu Ltd, Tokyo	Japan
General Automatic Corp, Bayonne	N J
Globe Electrical Mfg Co, Gardena	Cal
Guardian Electric Mfg Co, Chicago	Ill
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Hart-Advance Relay Div Oak Electro/Netics Corp Elkhorn	Wis
Hi-G Inc, Windsor Locks	Conn
IBM, Industrial Products Marketing, New York	NY
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
ITT Telecommunications, New York	N Y
Kameco Ltd, Montreal	Que
Lake Engineering Co Ltd, Scarborough	Ont
Line Electric Co, Parsippany	N J
Magnecraft Electric Co, Chicago	Ill
Mossman-Elliott Corp, Joliet	Ill
Nippon Electric Co Ltd, Tokyo	Japan
North Electric Co, Galion	Ohio
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Parelco, Inc, San-Juan Capistrano	Cal
Pepco, Inc, North Hollywood	Cal
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Pollak Corp, Joseph, Boston	Mass
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton	Ind
Price Electric Corp, Frederick	Md
Printact Relay Div Executone Inc, Long Island City	N Y
Relays Inc, New York	N Y
Relay Specialties Inc, Fair Lawn	N J
Relcoa Sub Hi-G Inc, Hauppauge	N Y
Scherma Mfg Co Inc, F A, New York	N Y
Schrack Electrical Sales Corp, New York	N Y
Siemens America Inc, New York	N Y
Sigma Instruments Inc, Braintree	Mass
Standard Relay Corp, Brooklyn	N Y
Standard Telephones & Cables Ltd London WC 2	England
Stelma Inc, Stamford	Conn
Stromberg-Carlson Sub Gen Dynamics, Rochester	N Y
Switching Controls Corp, North Hollywood	Cal
Takamisawa Electric Co, Ltd, Tokyo	Japan
Tele-Norm Corp, Woodside	N Y
Universal Relay Corp, New York	N Y
Wells Co Inc, Gary, Yonkers	N Y
Weston Instruments Div Weston Instr Inc, Newark	N J
Wheelock Signals Inc, Long Branch	N J
Win-Elco, Gold Hill	Ore

P&B TELEPHONE TYPE RELAYS



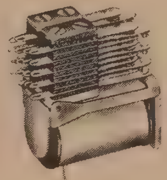
LSP RELAY

This relay-socket-cover combination enables you to save nearly $2.00 per relay over a factory wired octal-type plug. Wire the socket, then just plug in the LS relay and slip on the transparent dust cover.



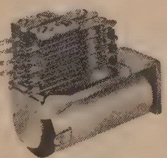
LS SERIES

Reliable, medium coil. Lightweight armature for fast action. To 240V AC or 220V DC. Rated 4 amps. Maximum 24 springs, DC.



MH SERIES

Miniature telephone type for a wide range of switching duties. 240V AC-110V DC. Rated 5 amps @ 120V AC Res. Maximum 18 springs, DC.



ML SERIES

Small size, sensitive DC relay with minimum power requirements. Ideal for battery powered communication equipment. Rated 3 amps, maximum 18 springs.

MC SERIES

Built with ceramic contact spacers for RF switching to minimize losses at high frequencies. 6V to 110V, rated 1 amp. DC: to 3PST, AC: DPDT.

MG SERIES

Sub-miniature telephone type relay can be furnished open, sealed or in nylon dust cover. 6V to 110V, rated 2 amps. To 4PDT.

AMF | POTTER & BRUMFIELD

Division American Machine & Foundry Company, Princeton, Indiana 47570

Export: AMF International, 261 Madison Avenue, New York, N. Y. 10016

P&B Relays are available from your local electronic parts distributor.

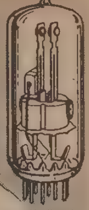
RELAYS--THERMAL

AMPERITE CO INC, UNION CITY, N J	**ADV PG 612**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL**
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK	**N J**
UNIVERSAL RELAY CORP, NEW YORK	**N Y**
Acme Products Co, Kensington	Conn
Amperite Co Inc, Union City	N J
Arco S P A, Milano	Italy
Betts & Betts Corp, Woodbury	Conn
Branson Corp, Denville	N J
Cardinal Control Co Inc, Kensington	Conn
Clark Control Div, A O Smith Corp, Cleveland	Ohio
Cook Electric Co Automatic Controls Div, Palatine	Ill
Crest Mfg Co, East Berlin	Conn
Dialight Corp, Brooklyn	N Y
Dialtron Corp, Brooklyn	N Y
Ebert Electronics Corp, Floral Park	N Y
Edison, Thomas A Industries, Instr Div West Orange	N J
Elesta Ltd Electronics, Bad Ragaz	Switzerland
Essex Wire Corp Controls Div RBM Controls Logansport	Ind
E-T-A Products Co of America, Chicago	Ill
Fuji Electric Co Ltd, Tokyo	Japan
Fujitsu Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
G-V Controls Inc, Livingston	N J
Hart-Advance Relay Div Oak Electro/Netics Corp Elkhorn	Wis
Hayakawa Electric Co Ltd, Osaka	Japan
Hoagland Instrument Co, Red Bank	N J
Intertechnique, Plaisir, 78	France
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
Jaidinger Mfg Co Inc, Chicago	Ill
Kahl Scientific Instrument Corp, El Cajon	Cal
Lake Engineering Co Ltd, Scarborough	Ont
Larson Instrument Co, Orangeburg	N Y
Life Instrument Co Inc, Franklin	Mass
Livingston Electronic Div Jettron Prods Inc Hanover	N J
Networks Electronic Corp, Chatsworth	Cal
Pollak Corp, Joseph, Boston	Mass
Power Control Corp, Pittsburgh	Pa
Precision Thermometer & Instrument Co Southampton	Pa
Relay & Control Corp, Long Island City	N Y
Relay Specialties Inc, Fair Lawn	N J
Rowan Controller Co, Oceanport	N J
Selco Electronics Inc, Palisades Park	N J
Sigma Instruments Inc, Braintree	Mass
Square D Co, Park Ridge	Ill
Standard Relay Corp, Brooklyn	N Y
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Texas Instruments Incorporated, Dallas	Tex
Thermal Controls Inc, Belleville	N J
Transitron Electronic Corp, Wakefield	Mass
Tung-Sol Div Wagner Electric Corp, Newark	N J
Universal Relay Corp, New York	N Y
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

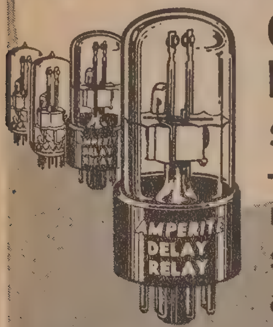
Forget the manufacturer's phone number?

Check the green pages.

GLASS ENCLOSED
Thermostatic
DELAY RELAYS



by AMPERITE



Offer true hermetic sealing— —assure maximum stability and life!

Delays: 2 to 180 seconds

Actuated by a heater, they operate on A.C., D.C., or Pulsating Current . . . Being **hermetically sealed**, they are not affected by altitude, moisture, or climate changes . . . **SPST only** — normally open or normally closed . . . Compensated for ambient temperature changes from −55° to +80°C. . . . Heaters consume approximately 2 W. and may be operated continuously. The units are **rugged, explosion-proof, long-lived,** and **inexpensive!**

TYPES: Standard Radio Octal and 9-Pin Miniature. . . . . **List Price, $4.00**

PROBLEM? Send for Bulletin No. TR-81.

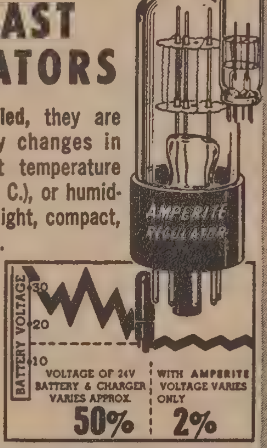
AMPERITE

BALLAST REGULATORS

Hermetically sealed, they are not affected by changes in altitude, ambient temperature (−50° to +70° C.), or humidity . . . Rugged, light, compact, most inexpensive.

List Price, $3.00

Write for 4-page Technical Bulletin No. AB-51


AMPERITE REGULATOR
BATTERY VOLTAGE
30
20
10
VOLTAGE OF 24V BATTERY & CHARGER VARIES APPROX.
50%
WITH AMPERITE VOLTAGE VARIES ONLY
2%

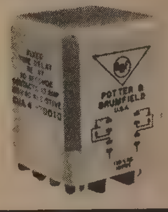
AMPERITE

600 PALISADE AVE., UNION CITY, N.J. 07087
Telephone: 201 UNion 4-9503
In Canada: Atlas Radio Corp., Ltd.,
50 Wingold Ave., Toronto 10

RELAYS--TIME-DELAY

AMERICANA X-RAY CO, ENGLEWOOD	N J
AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	N Y
AMPERITE CO INC, UNION CITY, N J	ADV PG 612
ANRITSU ELECTRIC CO LTD, TOKYO	JAPAN
BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS WOODSIDE	NY
COUCH ORDNANCE INC, NORTH QUINCY	MASS
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT IOWA	ADV PG 600
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	ADV PGS 7
GUARDIAN ELECTRIC MFG CO, CHICAGO	ILL
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	CONN
INDUSTRIAL TIMER CORP, PARSIPPANY	N J
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	CAL
LEACH CORP, SOUTH PASADENA, CAL	ADV PGS 596-599
MAGNECRAFT ELECTRIC CO, CHICAGO	ILL
MESON ELECTRONICS CO, INC, ROCHESTER N Y	ADV PG 613
NIPPON ELECTRIC CO LTD, TOKYO	JAPAN
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON, IND	ADV PG 612
TECHMETRIC CO, REDWOOD CITY	CAL
UNIVERSAL RELAY CORP, NEW YORK	N Y
VANGUARD RELAY CORP, LINDENHURST	NY
Acme Products Co, Kensington	Conn
Adams & Westlake Co, Elkhart	Ind
ADC Electronics, Inc, Harbor City	Cal
Aemco Div, Midtex Inc, Mankato	Minn
Aerolite Electronics Corp, Union City	N J
Agastat Div, Elastic Stop Nut Corp, Elizabeth	N J
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
A L Controls Co, New Haven	Conn
Allen-Bradley Co, Milwaukee	Wis
Allied Control Co Inc, New York	N Y
Alpha Relays Inc, Jersey City	N J
Americana X-Ray Co, Englewood	N J
American Instrument Co, Inc, Silver Spring	Md
American Systems, Inc, Van Nuys	Cal
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Amperite Co Inc, Union City	N J
Amtron Inc, Midlothian	Ill
Anritsu Electric Co Ltd, Tokyo	Japan
Arco Electronics, Inc, Great Neck	N Y
Artisan Electronics Corp, Parsippany	N J
Audn Corp, Hamburg	N Y
Automatic Electric Co, Northlake	Ill
Automatic Switch Co, Florham Park	N J
Autronics Corp, Pasadena	Cal
Bourns Inc Trimpot Div, Riverside	Cal
Branson Corp, Denville	N J
Bristol Motors-Timer Div Vocaline Corp of Amer Inc Old Saybrook	Conn
Bulova Watch Co Inc Elctns Div Servo Products Woodside	NY
Cardinal Control Co Inc, Kensington	Conn
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Clare-Electroseal Corp, Des Plaines	Ill
Clare & Co, C P, Chicago	Ill
Clark Control Div, A O Smith Corp, Cleveland	Ohio
Computer Components Inc, Jamaica	N Y
Condor Industrial Corp, West Chicago	Ill
Connor-Winfield Corp, Winfield	Ill
Conrac Corp, New York	N Y
Consolidated Electric Corp, Seattle	Wash
Controlotron Corp, Farmingdale	N Y
Cook Electric Co Automatic Controls Div, Palatine	Ill
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark	N J
Couch Ordnance Inc, North Quincy	Mass
Cramer Div Conrac Corp, Old Saybrook	Conn
Crane Electronics Corp, Santa Barbara	Cal
Crest Mfg Co, East Berlin	Conn
Custom Control Mfg Inc, Merriam	Kan
Cutler-Hammer Inc, Milwaukee	Wisc
Datametrics Inc, Waltham	Mass
De-Tec-Tronic Corp, Chicago	Ill
Dialight Corp, Brooklyn	N Y
Dialtron Corp, Brooklyn	N Y
Diamond Repeater Co, Madison	N J
Di/An Controls Inc, Boston	Mass
Dickson Electronics Corp, Scottsdale	Ariz
Digit Co Inc, Marblehead	Mass
Durakool Inc, Elkhart	Ind
Dynamic Controls Corp, South Windsor	Conn
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Ebert Electronics Corp, Floral Park	N Y
Edison, Thomas A Industries, Instr Div West Orange	N J
Electronic Control Corp, Detroit	Mich
Electronic Control Corp, Euless	Tex
Electronic Controls Inc, Wilton	Conn
Electronic Specialty Co, Los Angeles	Cal
Elesta Ltd Electronics, Bad Ragaz	Switzerland
Essex Engineering Co Inc, Essex	Conn
Essex Wire Corp Controls Div RBM Controls Logansport	Ind
E-T-A Products Co of America, Chicago	Ill
Fidelity Amplifier Co, Chicago	Ill
Fitre, 20143 Milano	Italy
Frost Electronics Corp, Rockaway	N J
Fuji Electric Co Ltd, Tokyo	Japan
Fujitsu Ltd, Tokyo	Japan
Furnas Electric Co, Batavia	Ill
Gems Co Inc, Farmington	Conn
General Automatic Corp, Bayonne	N J
General Electric Co, ECSO, Schenectady	N Y
General Time, Industrial Controls Div, Torrington	Conn
Giannini-Voltex, Whittier	Cal
Gibbs Mfg & Research Corp, Janesville	Wis
Globe Electrical Mfg Co, Gardena	Cal
Guardian Electric Mfg Co, Chicago	Ill

P&B
SOLID STATE
TIME DELAY
RELAYS



CU RELAY

as low as

$12.50

Three separate series of solid state time delay controls are available, the CD series, the CH series, and the CU series. The differences between the three types consist in their degree of accuracy, the variety available in each series, and their cost.

CD SERIES Remarkably dependable, accurate and flexible, the CD series offers an unusually wide selection of operational configurations, all with accurate time delay values, fast reset time and excellent repeatability. It is available in two types: Knob-adjustable in two versions, one with the relay in the same enclosure as the solid state unit, the other with an auxiliary relay. A second type is adjustable with an external resistor. The CD series is available for time delay on operate or on release.

CH SERIES The CH series is intended for a wide range of industrial applications where economy is of greater interest than highly critical performance. It is available in two types: Knob-adjustable with the relay in the same enclosure as the solid state unit. The second type has a fixed time delay period that is set at the factory and cannot be modified; its case has no knob. The CH series is available for time delay on operate and on release.

CU SERIES An outstanding value in a solid state time delay relay at low cost. Available in two types: Fixed time delay and adjustable with an external resistor. The CU series is offered with delay on operate only.

COMPARISON OF SPECIFICATIONS OF CD WITH CH AND CU SERIES

TYPE	DIAL SETTING	ACCURACY OR TOLERANCE	RESET TIME	REPEAT-ABILITY
CD	Time, calibrated ±5% of full scale	±5% of nominal	60 Milli-seconds	±1%
CH	Reference scale	±10% of nominal	100 Milli-seconds	±2%
CU	Not applicable	Tolerance: Fixed ±5% of nominal; resist. adj. ±10% of nom.	150 Milli-seconds	±3%

For information on the whole P&B line, write for Solid State Products Catalog or Distributor Catalog 100. Data sheets describing engineering details of individual relays are also available.

AMF | POTTER & BRUMFIELD
Division American Machine & Foundry Company, Princeton, Indiana 47570
Export: AMF International, 261 Madison Avenue, New York, N.Y. 10016

P&B Relays are available from your local electronic parts distributor.

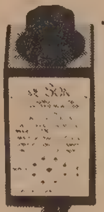
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Guide Industries Inc, Sun Valley	Cal
G-V Controls Inc, Livingston	N J
Hart-Advance Relay Div Oak Electro/Netics Corp Elkhorn	Wis
Hartman Electrical Mfg Co, Mansfield	Ohio
Hayakawa Electric Co Ltd, Osaka	Japan
Haydon Co The, A W, Waterbury	Conn
Haydon Products, Ind Controls Div Gen Time Corp, Torrington	Conn
Haydon Switch & Instrument Inc, Waterbury	Conn
Heinemann Electric Co, Trenton	N J
Hi-G Inc, Windsor Locks	Conn
Hillburn Relay Corp, Farmingdale	N Y
Hi-Tek Corp, Santa Ana	Cal
Hoagland Instrument Co, Red Bank	N J
Indicator Industries Inc, New York	N Y
Industrial Solid State Controls Inc, York	Pa
Industrial Timer Corp, Parsippany	N J
Instrumentation & Control Systems Inc, Addison	Ill
Intertechnique, Plaisir, 78	France
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
Jaidinger Mfg Co Inc, Chicago	Ill
Jay-El Products Inc, Gardena	Cal
Jettron Products Inc, Hanover	N J
Kameco Ltd, Montreal	Que
Kurman Instruments Corp, Syosset	N Y
Lake Engineering Co Ltd, Scarborough	Ont
La Telemecanique Electrique, 92 Rueil	France
Leach Corp, South Pasadena	Cal
Ledex Div Ledex Inc, Dayton	Ohio
Life Instrument Co Inc, Franklin	Mass
Line Electric Co, Parsippany	N J
Livingston Electronic Div Jettron Prods Inc Hanover	N J
Logitek Inc, Farmingdale	N Y
Machinery Electrification Inc, Northboro	Mass
Magnecraft Electric Co, Chicago	Ill
Meson Electronics Co, Inc, Rochester	N Y
Mossman-Elliott Corp, Joliet	Ill
Naybor Laboratories Inc, E V, Port Washington	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Ohmite Mfg Co, Skokie	Ill
Oki Electric Industry Co Ltd, Tokyo	Japan
Pacific Relays Inc, Van Nuys	Cal
Painton & Co, Ltd, Northampton	England
Parko Electronics Co Inc, Santa Ana	Cal
Payne Engineering Co, South Charleston	W Va
Phipps Precision Products, Van Nuys	Cal
Photobell Co Inc, New York	N Y
Plessey Airborne Corp, Hillside	NJ
Pollak Corp, Joseph, Boston	Mass
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton	Ind
Reach Electronics Inc, Lexington	Neb
Regent Controls Inc, Stamford	Conn
Relay Specialties Inc, Fair Lawn	N J
Rhodes Inc, M H, Hartford	Conn
Rowan Controller Co, Oceanport	N J
Selco Electronics Inc, Palisades Park	N J
Sigma Instruments Inc, Braintree	Mass
Skan-A-Matic Corp, Skaneateles	N Y
Slocum Industries, Inc, Reseda	Cal
Solid State Electronics Corp, Sepulveda	Cal
Square D Co, Park Ridge	Ill
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Standard Relay Corp, Brooklyn	N Y
Struthers-Dunn Inc, Pitman	N J
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Syracuse Electronics Corp, Syracuse	N Y
Systems Matrix Inc, Trenton	N J
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Techmetric Co, Redwood City	Cal
Tenor Co Inc, New Berlin	Wis
Thermal Controls Inc, Belleville	N J
Timeco Inc, Huntington	W Va
Transitron Electronic Corp, Wakefield	Mass
Trepac Corp of America, Englewood	N J
Universal Relay Corp, New York	N Y
Vanguard Relay Corp, Lindenhurst	NY
Vapor Corp, Chicago	Ill
Vocaline Co of America Inc, Old Saybrook	Conn
Warco Mfg Co, St Louis	Mo
Ward Leonard Electric Co, Mount Vernon	N Y
Wells Co Inc, Gary, Yonkers	N Y
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J
Westinghouse Electric Corp, Standard Control Div Beaver	Pa
Win-Elco, Gold Hill	Ore
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan
Zenith Controls Inc, Chicago	Ill

Check the top of
the pages for
alphabetical listing
of product categories

COMPARE
Meson's Price!
COMPARE
Meson's
Specs!

TIME DELAY RELAYS

1500 SERIES
Choice of: fixed, variable, externally variable
Output: DPDT
Contact rating: 10 amps
High repeatability
Wide temperature range
Choice of 5 input voltages



1700 SERIES
Choice of: fixed, variable, externally variable
Output: SPDT
Contact rating: 3 amps

RESONANT REED RELAYS
and
OSCILLATOR CONTROLS
Single and double tine

ASSOCIATED ELECTRONIC PACKAGES
Ingenuity makes the Difference!

COMPARE
Meson's Specs!
COMPARE
Meson's
Price!

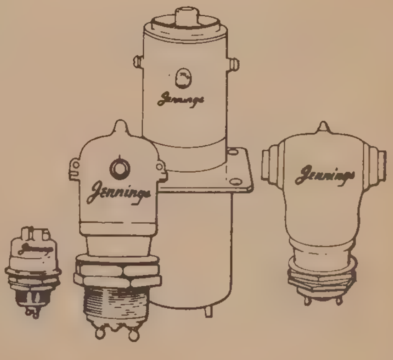
MESON
ELECTRONICS CO., INC.
380 COTTAGE STREET
ROCHESTER, N. Y. 14611
(Area Code 716) 235-7070
A publicly owned company

Forget the manufacturer's
phone number?
Check the green pages.

RELAYS--VACUUM CONTACT

GRIGSBY BARTON INC, ARLINGTON HEIGHTS	**ILL**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE CAL	**ADV PG 613**
MAGNECRAFT ELECTRIC CO, CHICAGO	**ILL**
RANDALL INC, DOUGLAS, SUB WALTER KIDDE & CO INC WESTERLY	**R I**
UNIVERSAL RELAY CORP, NEW YORK	**N Y**
Bendix Corp, Vacuum Div, Rochester	N Y
Cardinal Control Co Inc, Kensington	Conn
Computer Components Inc, Jamaica	N Y
Coto-Coil Co Inc, Providence	R I
Crest Mfg Co, East Berlin	Conn
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Eimac Div, Varian Associates, San Carlos	Cal
Electronic Instrument & Specialty Corp Winchester	Mass
Ferranti, Ltd, Lancashire	England
Fifth Dimension Inc, Princeton	N J
Fitre, 20143 Milano	Italy
Grigsby Barton Inc, Arlington Heights	Ill
High Vacuum Electronics Inc, South Pasadena	Cal
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
LCC-CICE, 93 Montreuil-sous-Bois	France
Mack Electric Devices Inc, Wyncote	Pa
Magnecraft Electric Co, Chicago	Ill
Penn Keystone Corp, Ansonia	Conn
Phipps Precision Products, Van Nuys	Cal
Pollak Corp, Joseph, Boston	Mass
Randall Inc, Douglas, Sub Walter Kidde & Co Inc Westerly	R I
Ross Engineering Corp, Saratoga	Cal
Standard Relay Corp, Brooklyn	N Y
Struthers-Dunn Inc, Pitman	N J
Torr Labs Inc, Los Angeles	Cal
Universal Relay Corp, New York	N Y
Wheelock Signals Inc, Long Branch	N J
Win-Elco, Gold Hill	Ore

VACUUM
RELAYS

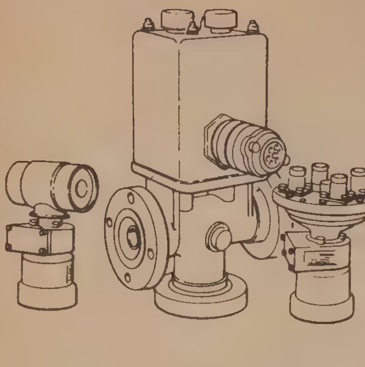


The ability to withstand high voltages and efficiently carry current distinguishes the ITT Jennings line of vacuum relays. Used primarily in critical high voltage and high current equipment such as controls, radar, power supplies and communications, they are ideal for use in applications from high power equipment to dry circuits at frequencies from DC to 600 mc. They are unexcelled at all power levels where reliability is required.

For application and specification data, write for catalog No. 102. ITT Jennings, a division of International Telephone and Telegraph Corporation, 970 McLaughlin Avenue, San Jose, California 95108. Phone (408) 292-4025, TWX 910-338-0159.

JENNINGS ITT

VACUUM COAXIAL RELAYS



The use of vacuum as a dielectric and contact environment makes the ITT Jennings line of vacuum coaxial relays more reliable than conventional types, with permanently low and stable insertion loss, and VSWR. Low noise level and low loss operation are inherent advantages. All operate at speeds of 25 to 50 milliseconds and some as fast as 3 to 5 milliseconds.

For complete application data and specifications, write for catalog No. 103. ITT Jennings, a division of International Telephone and Telegraph Corporation. 970 McLaughlin Avenue, San Jose, California 95108. Phone (408) 292-4025. TWX 910-338-0159.

JENNINGS ITT

RELAY SYSTEMS--COMMUNICATION

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL** **ADV PG 614**
LEACH CORP, SOUTH PASADENA	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TAKAMISAWA ELECTRIC CO, LTD, TOKYO	**JAPAN**
TELE-SIGNAL CORP, WOODBURY	**N Y**
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Amtron Inc, Midlothian	Ill
Anritsu Electric Co Ltd, Tokyo	Japan
Automatic Electric Co, Northlake	Ill
Avco Corp Electronics Div, Cincinnati	Ohio
Bendix Corp, Communications Div, Towson	Md
Canadian Motorola Electronics Co, Agincourt	Ont
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Electronic Controls Inc, Wilton	Conn
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Farinon Electric, San Carlos	Cal
Fisher-Akin Co, Manhattan Beach	Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Fujitsu Ltd, Tokyo	Japan
General Electric Co Communication Products Dept Lynchburg	Va
Giannini-Voltex, Whittier	Cal
Gunnar Labs Inc, Bradenton	Fla
Hayakawa Electric Co Ltd, Osaka	Japan
ITT Defense Communications Div, Nutley	N J
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
Jetronics Co Div J L Hall Co Inc, Redwood City	Cal
Kameco Ltd, Montreal	Que
Leach Corp, South Pasadena	Cal
Lenkurt Electric Co Inc, San Carlos	Cal
Marin Controls Co, Belmont	Cal
McKee Automation Corp Sub James Cunningham Inc San Fernando	Cal
Micro Communications Co, Denver	Colo
Microwave Associates Inc, Burlington	Mass
Mobil Electronics Inc, Anderson	Ind
Moseley Associates Inc, Goleta	Cal
Nippon Electric Co Ltd, Tokyo	Japan
North Electric Co, Galion	Ohio
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Omega-t Systems Inc, Richardson	Tex
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Pulse Communications Inc, Falls Church	Va
Raytheon Co, Communications & Data Processing Oper Norwood	Mass
Reach Electronics Inc, Lexington	Neb
Schjeldahl Co, G T, Northfield	Minn
Siemens America Inc, New York	N Y
Soundolier Inc, St Louis	Mo
Stelma Inc, Stamford	Conn
Storno, Copenhagen S	Den
Takamisawa Electric Co, Ltd, Tokyo	Japan
Tele-Norm Corp, Woodside	N Y
Tele-Signal Corp, Woodbury	N Y
Trepac Corp of America, Englewood	N J
Trompeter Electronics Inc, Chatsworth	Cal
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J
Wheelock Signals Inc, Long Branch	N J

RELAY SYSTEMS--MICROWAVE

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Aircom Inc, Union	N H
Automatic Metal Products Corp, Brooklyn	N Y
Canadian Motorola Electronics Co, Agincourt	Ont
Cardion Communications, Woodbury	N Y
Costelow Co Inc, Topeka	Kans
Farinon Electric, San Carlos	Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Fujitsu Ltd, Tokyo	Japan
General Electric Co Communication Products Dept Lynchburg	Va
ITT Defense Communications Div, Nutley	N J
Lake Systems Corp, Newton	Mass
Lenkurt Electric Co Inc, San Carlos	Cal
Marconi Div, English Electric Corp, New York	N Y
Marti Electronics, Cleburne	Tex
Microwave Associates Inc, Burlington	Mass
Microwave Development Labs Inc Needham Heights	Mass
Moseley Associates Inc, Goleta	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Omega-t Systems Inc, Richardson	Tex
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Radio Engineering Labs, Div DCA, Long Island City	N Y
Raytheon Co, Communications & Data Processing Oper Norwood	Mass
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Resdel Engineering Corp, Pasadena	Cal
R H G Electronics Lab Inc, Farmingdale	N Y
Siemens America Inc, New York	N Y
Telefunken Sales Corp, Garden City	N Y
Trompeter Electronics Inc, Chatsworth	Cal
Varian, Palo Alto	Cal
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J

RELAY SYSTEMS--RADIO

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Canadian Marconi Co, Montreal 16	Quebec
Canadian Motorola Electronics Co, Agincourt	Ont
Cardion Communications, Woodbury	N Y
Farinon Electric, San Carlos	Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Fujitsu Ltd, Tokyo	Japan
Jetronics Co Div J L Hall Co Inc, Redwood City	Cal
Lenkurt Electric Co Inc, San Carlos	Cal
Marti Electronics, Cleburne	Tex
Micro Communications Co, Denver	Colo
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Omega-t Systems Inc, Richardson	Tex
Precision Mecanique Labinal, 93 Saint-Ouen	France
Prod-El, Prodotti Elettronici Spa, 20132 Milan	Italy
RCA, Defense Electronic Products, Moorestown	N J
Schjeldahl Co, G T, Northfield	Minn
Trompeter Electronics Inc, Chatsworth	Cal
Vinco Industries, Orange	Cal

RELIEFS--STRAIN

DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
Amatom Electronic Hardware, New Rochelle	N Y
Carleton Controls Corp, East Aurora	N Y
Carol Cable Co, Pawtucket	R I
Daburn Electronics & Cable Corp, Bronx	N Y
Fastex Div Illinois Tool Works, Des Plaines	Ill
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Heyman Mfg Co, Kenilworth	N J
Lake Engineering Co Ltd, Scarborough	Ont
Lunkenheimer Co Sub Condec Corp, Cincinnati	Ohio
Minor Rubber Co Inc, Bloomfield	N J
Pacific Electricord Co, Gardena	Cal
Product Components Corp, Hastings-on-Hudson	N Y
Seastrom Mfg Co Inc, Glendale	Cal
Sierra Electric Inc, Gardena	Cal
Smith Inc, Herman H, Brooklyn	N Y
Tyton Corp of America, Metuchen	N J
Waber Electronics Inc, Philadelphia	Pa
Weckesser Co Inc, Chicago	Ill

REMOTE CONTROL SYSTEMS SEE CONTROLS--REMOTE

REMOTE POSITIONERS SEE ACTUATORS--SERVO;

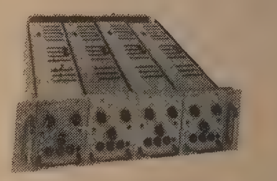
CONTROLS--REMOTE; CONTROLS--SERVO;

INDICATORS--POSITIONING

REPEATERS--MICROWAVE SEE RELAY SYSTEMS

REPEATERS--DATA

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TELE-SIGNAL CORP, WOODBURY, N Y	**ADV PG 614**
Automation Development Co, Culver City	Cal
Decca Radar, Inc, New York	N Y
Diamond Repeater Co, Madison	N J
Electronics Communications Div Atlantic Research Corp Alexandria	Va
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Lenkurt Electric Co Inc, San Carlos	Cal
Micro Metrics Inc, Paterson	N J
Microwave Associates Inc, Burlington	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Novatronics Inc, Pompano Beach	Fla
Parabam Inc, Hawthorne	Cal
Pulse Communications Inc, Falls Church	Va
Stelma Inc, Stamford	Conn
Teledata Inc, Queens Village	N Y
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Tele-Signal Corp, Woodbury	N Y
Theta Instrument Corp, Fairfield	N J
Trepac Corp of America, Englewood	N J



REGENERATIVE REPEATER

Model 608D universal regenerative repeater is used to retime and reshape sync or S/S data or TTY signals automatically. Accepts up to 47% input signal distortion without frequency adjustment and regenerates signals with less than 2% distortion. Provides phase correction on 1/128 bit on each positive going data transition. Fully solid state employing IC's and silicon transistors for high stability. Crystal controlled time base generator.

TELE-SIGNAL CORPORATION

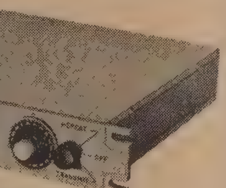
A Subsidiary of the Singer Company
250 Crossways Park Drive
Woodbury, L. I., New York 11797

SYNCHRO ANGLE REPEATERS
½ RACK PACKAGE

■ **Model 1052 — Single Speed**
- ± 6' ACCURACY
- 26°/SEC. SLEW SPEED
- 1' REPEATABILITY

■ **$777.00** 2 Weeks A.R.O.

■ **Model 1035**
Repeater/Transmitter Combination



Repeater Mode
- ± 6' ACCURACY
- 26°/SEC. SLEW SPEED
- 1' REPEATABILITY

Transmitter Mode (Hand Set)
- ± 2' ACCURACY
- 1' REPEATABILITY

■ **$938.00** 5 Weeks A.R.O.

Quantity Discounts Available.

LINAIR DESIGN CORP.
1016 E. ELIZABETH AVE.
LINDEN, N. J. 07036
A/C 201—486-1722

REPEATERS--SERVO

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
LINAIR DESIGN CORP, LINDEN, N J	**ADV PG 615**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW	**N Y**
Astrosystems Inc, New Hyde Park	N Y
Automation Development Co, Culver City	Cal
Avien, Inc, Woodside	N Y
Bowmar Instrument Corp, Fort Wayne	Ind
Carbonara Instrument Engrg Labs, Victor E, Port Washington	N Y
Cedar Engineering Div Control Data Corp Minneapolis	Minn
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Decca Radar, Inc, New York	N Y
Electric Tachometer Corp, Philadelphia	Pa
Gap Instrument Corp, Westbury	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Hartman Systems Co Inc, Huntington Station	N Y
Henschel Corp, Amesbury	Mass
Kollsman Instrument Ltd, Southampton	England
Kollsman Motor Corp, Dublin	Pa
Linair Design Corp, Linden	N J
McMaster Products Corp, Chicago	Ill
Micro Metrics Inc, Paterson	N J
M Ten Bosch, Inc, Pleasantville	N Y
Muirhead Instruments Inc, Mountainside	N J
North Atlantic Industries Inc, Plainview	N Y
Precision Mechanisms Corp, Westbury	N Y
Reflex Controls Corp, Huntington Station	NY
Servo Development Corp, Hicksville	N Y
Servonetics Inc, Los Angeles	Cal
Sunbeam Electronics, Fort Lauderdale	Fla
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
Theta Instrument Corp, Fairfield	N J
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Weston-Transicoil, Weston Instruments Inc Worcester	Pa

REPEATERS--TELEPHONE LINE

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Altec Lansing Div LTV Ling Altec Inc, Anaheim	Cal
Anritsu Electric Co Ltd, Tokyo	Japan
Electronics Communications Div Atlantic Research Corp Alexandria	Va
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Lenkurt Electric Co Inc, San Carlos	Cal
Microwave Associates Inc, Burlington	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Novatronics Inc, Pompano Beach	Fla
Oki Electric Industry Co Ltd, Tokyo	Japan
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Pulse Communications Inc, Falls Church	Va
Stelma Inc, Stamford	Conn
Stromberg-Carlson Sub Gen Dynamics, Rochester	N Y
Systems Engineering Ltd, Grouse Creek	Utah
Teledata Inc, Queens Village	N Y
Trepac Corp of America, Englewood	N J

RESINS, ENCAPSULATING & POTTING--EPOXY

ASTRODYNE INC, BURLINGTON	**MASS**
NITINE INC, WHIPPANY	**N J**
Ablestik Adhesive Co, Gardena	Cal
Acme Chemicals & Insulation, New Haven	Conn
Allaco Products, Braintree	Mass
Allied Chemical Corp Plastics Div, New York	N Y
Amicon Corp, Lexington	Mass
Astro Chemical Co, Schenectady	N Y
Astrodyne Inc, Burlington	Mass
Automation Services Inc, Endicott	N Y
Bacon Industries, Inc, Watertown	Mass
Baker Castor Oil Co, Bayonne	N J
Biggs Co, Santa Monica	Cal
Biwax Corp, Des Plaines	Ill
Castall Research Lab Inc, Brockton	Mass
Chomerics, Inc, Arlington	Mass
Ciba Products Co, Summit	N J
Columbia Technical Corp, Woodside	N Y
Conap Inc, Allegany	N Y
Custom Materials Inc, Chelmsford	Mass
Daylen Co, South Gate	Cal
Dbm Research Corp, Cocoa Beach	Fla
DCMT Machinery Div Avnet Inc, Plainview	N Y
Dennis Chemical Co, St Louis	Mo
Devcon Corp, Danvers	Mass
Dolph Co, John C, Monmouth Junction	N J
Dow Chemical Co, Midland	Mich
Dynaloy, Inc, Hanover	N J
Electronized Chemicals Corp, Burlington	Mass
Electro Science Labs Inc, Philadelphia	Pa
Eljay Corp, Baltimore	Md
Emerson & Cuming Inc, Canton	Mass
EPD Industries Inc, Long Beach	Cal
Epoxy Products Co Div Allied Prod Inc New Haven	Conn
Fenwal Inc, Ashland	Mass
Freed Transformer Co Inc, Brooklyn	N Y
Furane Plastics Inc, Los Angeles	Cal
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
Geoscience Instruments Corp, Mt Vernon	N Y
Hardman Inc, Belleville	N J
Hightemp Resins Inc, Stamford	Conn
Hysol Div, The Dexter Corp, Olean	N Y
Isochem Resins Co, Lincoln	RI
Janel Inc, Stirling	N J
Kenics Corp, Danvers	Mass
Koppers Co Inc, Pittsburgh	Pa
Leffingwell Chemical Co, Brea	Cal
Marblette Co Div Allied Prods Corp Long Island City	N Y
Mereco Prods Inc, Div Metachem Resins Corp Cranston	RI
Micronics Corp of America, Providence	RI
Miller-Stephenson Chemical Co Inc, Danbury	Conn
3M Company, St Paul	Minn
Mitchell Rand Mfg Corp, Hillborn	N Y
Morton Chemical Co Div Morton Intl Inc, Chicago	Ill
National Engineering Products Inc, Washington	D C
Nitine Inc, Whippany	N J
Nopco Chemical Div Diamond Shamrock Chem Co Newark	N J
Pacific Resins & Chemicals Inc, Plastics Div Milwaukee	Wis
Pennsylvania Industrial Chemical Corp, Clairton	Pa
Polymer Corp, Reading	Pa
Polysciences Inc, Warrington	Pa
Products Research Co, Burbank	Cal
Rector Engineering & Plastics Co, Washington	D C
Reichhold Chemicals Inc, White Plains	N Y
Roberts & Associates Inc, E V, Culver City	Cal
Rogers Corp, Rogers	Conn
Seezak Products Inc, Los Angeles	Cal
Shell Chemical Co, New York	N Y
Smooth-On Inc, Gillette	N J
Sterling Varnish Co, Sewickley	Pa
Techform Labs Inc, Venice	Cal
Techni-Tool Inc, Philadelphia	Pa
Tra-Con, Inc, Medford	Mass
Transene Co Inc, Rowley	Mass
Union Carbide Corp Chemicals & Plastics New York	N Y
U S Polymeric Inc, Santa Ana	Cal
Wabash Magnetics Inc, Wabash	Ind
Westinghouse Electric Corp Insulating Materials Div Trafford	Pa

RESINS, ENCAPSULATING & POTTING--POLYESTER

MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
Ablestik Adhesive Co, Gardena	Cal
Allaco Products, Braintree	Mass
American Cable Electronic Supply Inc, Sacramento	Cal
American Cyanamid Co, Wayne	N J
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Automation Services Inc, Endicott	N Y
Bishop Mfg Corp, Cedar Grove	N J
Biwax Corp, Des Plaines	Ill
Camie Co Inc, St Louis	Mo
Castall Research Lab Inc, Brockton	Mass
Columbia Technical Corp, Woodside	N Y
Custom Materials Inc, Chelmsford	Mass
Dolph Co, John C, Monmouth Junction	N J
Durez Div Hooker Chemical Corp North Tonawanda	N Y
Electro Science Labs Inc, Philadelphia	Pa
Eljay Corp, Baltimore	Md
Emerson & Cuming Inc, Canton	Mass
EPD Industries Inc, Long Beach	Cal
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
Geoscience Instruments Corp, Mt Vernon	N Y
Hastings Plastics Inc, Santa Monica	Cal
Isochem Resins Co, Lincoln	RI
Janel Inc, Stirling	N J
Koppers Co Inc, Pittsburgh	Pa
Mereco Prods Inc, Div Metachem Resins Corp Cranston	RI
3M Company, St Paul	Minn
Mitsubishi Electric Corp, Tokyo	Japan
Nopco Chemical Div Diamond Shamrock Chem Co Newark	N J
Norrich Plastics Corp, Roosevelt	N Y
Polysciences Inc, Warrington	Pa
Products Research Co, Burbank	Cal
Product Techniques, Inc, Downey	Cal
Reichhold Chemicals Inc, White Plains	N Y
Revere Corp of America, Wallingford	Conn
Roosevelt Metal Co Inc, Brooklyn	N Y
Schenectady Chemicals Inc, Schenectady	N Y
Seezak Products Inc, Los Angeles	Cal
Sterling Varnish Co, Sewickley	Pa
Techform Labs Inc, Venice	Cal
Tra-Con, Inc, Medford	Mass
United American Metals Div, Brooklyn	N Y
U S Polymeric Inc, Santa Ana	Cal
Westinghouse Electric Corp Insulating Materials Div Trafford	Pa

RESINS, ENCAPSULATING & POTTING--URETHANE

Baker Castor Oil Co, Bayonne	N J
Conap Inc, Allegany	N Y
Furane Plastics Inc, Los Angeles	Cal

RESINS--RAW SEE PLASTICS--RAW

RESISTANCE BRIDGES SEE BRIDGES

RESISTANCE COMPARATORS SEE COMPARATORS

RESISTANCE PAINTS SEE PAINTS--PRINTED-CIRCUIT

RESISTANCE STANDARDS SEE STANDARDS

RESISTANCE THERMOMETERS SEE THERMOMETERS--RESISTANCE

RESISTANCE WIRE SEE WIRE--RESISTANCE

RESISTOR BOARDS SEE BOARDS--CAPACITOR OR RESISTOR

RESISTOR BOXES SEE BOXES--DECADE

RESISTOR-CAPACITOR MODULES SEE MODULES--PASSIVE

RESISTOR FORMS SEE FORMS--COIL & RESISTOR

RESISTOR MANUFACTURING MACHINES SEE MACHINES--RESISTOR MANUFACTURING

LOOKING FOR TRIMMING POTENTIOMETERS?

Helitrim® trimming potentiometers, with Helipot's exclusive cermet resistance elements, are available from local stock with:

- *essentially infinite resolution*
- *voltage setting ability within ±0.01%*
- *resistance values from 10Ω to 2 megΩ*
- *operation to +200°C*
- *Mil Spec RJ11 and RJ12*
- *small size—¼" diameter*
- *low cost*
- *high reliability*

For complete information contact the Helipot representative nearest you. He's listed in EBG's Manufacturers' Index.

Beckman
INSTRUMENTS, INC.
HELIPOT DIVISION
FULLERTON, CALIFORNIA • 92634

RESISTORS--ADJUSTABLE

AMPEREX ELECTRONIC CORP, COMPONENT DIV, HAUPPAUGE N Y	**ADV PG 617**
BECKMAN INSTRUMENTS INC, HELIPOT DIV, FULLERTON CAL	**ADV / PG 616**
DALE ELECTRONICS INC, COLUMBUS	**NEB**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
RESISTORS INC, CHICAGO	**ILL**
Amperex Electronic Corp, Component Div Hauppauge	N Y
Angstrohm Precision, Inc, Van Nuys	Cal
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Carter Mfg Corp, Hudson	Mass
Clarostat Mfg Co Inc, Dover	N H
Dale Electronics Inc, Columbus	Neb
Deutsche Vitrohm GMBH & Co KG, 208 Pinneberg	Germany
Diplohmatic Div Harry Levinson Co, Seattle	Wash
Electra/Midland Corp, Kansas City	Kan
Gamble Industries, Charles T, Riverside	N J
General Electric Co, ECSO, Schenectady	N Y
General Radio Co, West Concord	Mass
Hallmark Standards Inc, Mamaroneck	N Y
Industrial Winding Machinery Corp, River Edge	N J
IRC Div TRW Inc, Philadelphia	Pa
Lectrohm Inc, Chicago	Ill
Milwaukee Resistor Corp, Milwaukee	Wis
Model Rectifier Corp, Brooklyn	N Y
Newport Instrument Corp, Newport Beach	Cal
Nytronics Inc, Precision Resistor Div, Kutztown	Pa
Ohmite Mfg Co, Skokie	Ill
Painton & Co, Ltd, Northampton	England
Resistors Inc, Chicago	Ill
Rotohmeters Inc, Yonkers	N Y
S E C I Soc Elettrotechica Chimica Italiana Milano	Italy
Tech-Ohm Electronics Inc, Long Island City	N Y
Telefunken Sales Corp, Garden City	N Y
Vacco Electronics Div, Vacco Industries South El Monte	Cal
Ward Leonard Electric Co, Mount Vernon	N Y
Welwyn Electric Ltd, Northumberland	England

RESISTORS--COAXIAL-TERMINATION

BIRD ELECTRONIC CORP, CLEVELAND (SOLON)	**OHIO**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
RADAR DESIGN CORP, SYRACUSE	**N Y**
RESISTORS INC, CHICAGO	**ILL**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Astrolab Inc, Linden	N J
Ava Electronics & Machine Corp, Upper Darby	Pa
Bird Electronic Corp, Cleveland (Solon)	Ohio
Constanta Co of Canada Ltd, Montreal	Quebec
EMC Technology Inc, Philadelphia	Pa
Film Components Div Reon Resister Corp, Yonkers	N Y
Filmohm Corp, Long Island City	N Y
General Microwave Corp, Farmingdale	N Y
General Radio Co, West Concord	Mass
Hayakawa Electric Co Ltd, Osaka	Japan
Hewlett-Packard, Palo Alto	Cal
MCS Corp, Monrovia	Cal
Metavac Inc, Flushing	N Y
Microwave Labs of America, Brooklyn	N Y
Narda Microwave Corp, Plainview	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Nytronics Inc, Berkeley Heights	N J
Nytronics Inc, Precision Resistor Div, Kutztown	Pa
Ohmite Mfg Co, Skokie	Ill
Ottawa, Paris	France
Precision Resistor Co Inc, Hillside	N J
Pyrofilm Resistor Co Inc, Cedar Knolls	N J
Radar Design Corp, Syracuse	N Y
Reon Resistor Corp, Yonkers	N Y
Resistors Inc, Chicago	Ill
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
S E C I Soc Elettrotechica Chimica Italiana Milano	Italy
Transcon Electronics Inc, Escondido	Cal
Tru-Connector Corp, Peabody	Mass
United Mineral & Chemical Corp, New York	N Y
Vac-Ohm Electronics Co, Haddonfield	N J
Weinschel Engineering Co Inc, Gaithersburg	Md
Welwyn Electric Ltd, Northumberland	England
Welwyn International Inc, Westlake	Ohio

RESISTORS, FIXED--COMPOSITION

AMPEREX ELECTRONIC CORP, COMPONENT DIV, HAUPPAUGE N Y	**ADV PG 617**
JAPAN RESISTOR MFG CO LTD, TOKYO	**JAPAN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
STACKPOLE CARBON CO, ST MARYS, PA	**ADV PG 675**
Advance Carbon Products, Inc, San Francisco	Cal
Aerovox Corp Distr Sales, New Bedford	Mass
Aikow Shoji Kaisha Ltd, Osaka	Japan
Airco Speer Electronic Components, Bradford	Pa
Airco Speer Electronic Components, Dubois	Pa
Allen-Bradley Co, Milwaukee	Wis
Amperex Electronic Corp, Component Div Hauppauge	N Y
Avnet Electronics, Westbury	N Y
Bourns Inc Trimpot Div, Riverside	Cal
Carbone Corp, Boonton	N J
Carborundum Co Electrical & Elctns Br, Niagara Falls	NY
Components Specialties Inc, Freeport	N Y
Delta Products Inc, Grand Junction	Colo
Deutsche Vitrohm GMBH & Co KG, 208 Pinneberg	Germany
Dickson Electronics Corp, Scottsdale	Ariz
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Hallett, Inglewood	Cal
Hayakawa Electric Co Ltd, Osaka	Japan
Ionetics Corp, Avenel	N J
IRC Div TRW Inc, Philadelphia	Pa
ITT Europe Inc Components Gp, Brussels 1	Belgium
Japan Resistor Mfg Co Ltd, Tokyo	Japan
Kamaya Electric Co Ltd, Tokyo	Japan
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Model Rectifier Corp, Brooklyn	N Y
Morganite Resistors Ltd, Jarrow	England
Ohio Carbon Co, Cleveland	Ohio
Ohmite Mfg Co, Skokie	Ill
Sampson Electronic Products Div, Chicago	Ill
S E C I Soc Elettrotechica Chimica Italiana Milano	Italy
Stackpole Carbon Co, St Marys	Pa
Taiyo Denki Co Ltd, Sakai-C., Osaka	Japan
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
United Mineral & Chemical Corp, New York	N Y

GUARANTEED UNIFORMITY IN ELECTRICAL, PHYSICAL CHARACTERISTICS

- Available in 2, 1, ½ and ¼ watt sizes.
- Uniform from resistor to resistor, order to order.
- 100% tested for resistance value.
- Same day shipment on 9 orders out of 10.
- Solderability, load life and humidity-temperature characteristic checked.
- Impregnated to assure moisture resistance.
- Write for literature.

STACKPOLE
CARBON COMPANY
Electronic Components Division
Kane, Pa. 16735

MILGRAY STOCKS RESISTORS

Every kind you can imagine. (And some you can't.) From stockpiles strategically located for overnight or faster delivery to anywhere in the world. We stock more so you can worry less. A call to your local Milgray man will start the motion.

MILGRAY
Milgray/New York 212-YU 9-1600
Milgray/Delaware Valley 215-BA 8-2000
Milgray/Washington 301-864-1111
Milgray/Cleveland 216-881-8800
Milgray/International 212-YU 9-1600
Milgray/New England, Inc. 617-272-6800

RESISTORS, FIXED--DEPOSITED CARBON & BOROCARBON

AMPEREX ELECTRONIC CORP, COMPONENT DIV, HAUPPAUGE N Y	**ADV PG 617**
DALE ELECTRONICS INC, COLUMBUS, NEB	**ADV PGS 618,619**
JAPAN RESISTOR MFG CO LTD, TOKYO	**JAPAN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Advance Carbon Products, Inc, San Francisco	Cal
Aerovox Corp Distr Sales, New Bedford	Mass
Aikow Shoji Kaisha Ltd, Osaka	Japan
Alcatel, Paris 8eme	France
American Components, Inc, Conshohocken	Pa
Amperex Electronic Corp, Component Div Hauppauge	N Y
Angstrohm Precision, Inc, Van Nuys	Cal
Avnet Electronics, Westbury	N Y
British Radio Electronics (BREL), Washington	D C
Compagnie Generale de Metrologie Haute Savoie	France
Constanta Co of Canada Ltd, Montreal	Quebec
Continental-Wirt Electronics Corp, Philadelphia	Pa
Dale Electronics Inc, Columbus	Neb
Film Components Div Reon Resister Corp, Yonkers	N Y
Filmohm Corp, Long Island City	N Y
Fujitsu Ltd, Tokyo	Japan

Amperex Resistors LINEAR NON-LINEAR

CARBON FILM

These resistors offer high stability, low noise and long life. For applications requiring steady low power drop. Accuracy and consistency are relatively unaffected by adverse climatic conditions. Range from 1Ω to 10M. Pure carbon or nickel film deposited on a high grade ceramic body.

	1/10W	1/4W	1/2W
P_{nom} $T_A \lessapprox 70°C$	0.1W	0.25W	0.5W
Max. voltage AC or DC	150V	250V	350V
Permissible RMS applied for 1 sec. across insulation	300V	500V	700V
Insulation resistance	10^4MΩ	10^4MΩ	10^6MΩ

Amb. temp. (all types) **—55 to + 155°C**

Style	Range	Tolerance (±)
CR16 (1/10W)	10Ω to 220k 270k to 1M	5% 10%
CR25 (1/4W)	1Ω to 3.9Ω 4.3Ω to 1M 10Ω to 1M 1.2M to 10M	10% 5% 2% 10%
CR37 (1/2W)	1Ω to 10M 4.3Ω to 1M 10Ω to 1M	10% 5% 2%

CR37

CARBON POTENTIOMETER

Reliable trimmers, despite small size and low cost, for tube or transistorized PCs. Consist of annular carbon track riveted to base plate of resin bonded paper. Screw driver slot or plastic knob for readjustment. Available in seven mechanical types.

Dimensions

Type	Length	Width	Depth
E097	0.787	0.709	0.177
E086	0.394	0.394	0.150
	Diameter		Depth
440	.488 ± .002		.205 ± .008

Type E086: Linear Resistance Range: 100Ω to 1M ±20%: 13 ranges

Effective angle of rotation ....240 ±5°
Maximum permissible power dissipation (of total resistance)
at an ambient temperature of 40°C 0.1W
Permissible ambient temperature range ....—30° to +70°C

Type E097: Linear Resistance Range: 100Ω to 4.7M ±20%: 15 ranges

Effective angle of rotation ....220 ±5°
Maximum permissible power dissipation (of total resistance)
at ambient temperature of 40°C 0.25W
Permissible ambient temperature range ....—30° to +70°C

Type 440: Linear Resistance Range: 4700Ω, 10KΩ, 22KΩ, ±20%

Nominal resistance values 4.7K, 10K, 22K
Resistance law ....linear and logarithmic
Working temperature range ....—10° to +70°C
Life expectancy ....in excess of 15,000 cycles

(Available with ON-OFF switch as Type 441)

E086

E097

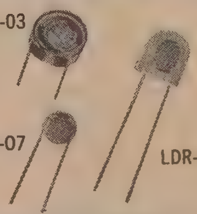
441

LIGHT DEPENDENT

LDRs, made from cadmium sulfide, are semiconductors whose conductivity increases when irradiated by wave lengths within a certain range of the spectrum. Made in specific versions with relevant electrical characteristics for control, counting, measuring, alarm and switching applications.

Type	Description	Diameter (")	Thickness (")
LDR-03	Makrolon case and epoxy resin	0.55 ± 0.196	0.35 ± 0.06
LDR-05	Plastic case and epoxy resin	0.43 ± 0.006	0.14 ± 0.004
LDR-07	Lacquered protective coating	0.34 ± 0.16	0.071 ± 0.002

Applications: Auto Parking & Headlight Dimmers,
TV Brightness Control, Exposure Meters,
Flame Control in Oil Burners, Magnetic Tape Controls, etc.



VOLTAGE DEPENDENT

Most important property is the non-linearity between their resistance and the applied voltage. Voltage dependency is due to contact resistance between the silicon carbide crystals. Crystal contacts form a network of series and parallel resistors which determine the electrical characteristics.

Available Types

Disc types available: 0.8W to 3W
Rod types available: 0.7W

Applications

VDRs can be used in spark suppression and contact-protection applications, as well as in series with a resistor for voltage stabilization. Although the stabilizing circuit with a VDR cannot compete with more elaborate circuits, it has vital advantages of simplicity and small space adaptability.

POSITIVE TEMPERATURE COEFFICIENT THERMISTORS

PTC Thermistors increase in resistance as the temperature increases. PTCs are disc shaped with connecting leads and are lacquer coated for protection against atmospheric influences.

Available Types

Standard Discs 1W 40 to 50V series
Standard Discs 0.5W 25V series

Applications

Resistance changes of 10%/°C or better permit the use of PTCs wherever any of the following factors are decisive: ambient temperature; dissipated power; inertia of PTC and positive temperature coefficient.

Discs

NEGATIVE TEMPERATURE COEFFICIENT THERMISTORS

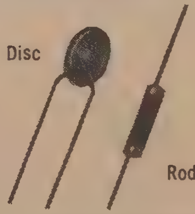
NTC thermistors are resistors which exhibit a high negative temperature coefficient of resistivity. They are made of semiconducting oxidic materials. The resistance of the oxides decreases rapidly when the temperature rises.

Available Types

Rod Type
Disc Type
Miniature Bead Type
Special Types for Automobiles
Special Types for Radio and TV

Applications

Resistance changes of 3% to 6% per °C permit the use of NTCs in applications such as: ambient temperature measurement and control; resistance determined by dissipation and time delays.



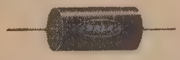
AMPEREX ELECTRONIC CORPORATION
Component Division: 35 Hoffman Ave., Hauppauge, N.Y.
Telephone: 516-234-7000 TWX 510-227-8552

Amperex®
TOMORROW'S THINKING IN TODAY'S PRODUCTS

DALE® for Optimum Value in Resistors

Wirewound Resistors, Film Resistors, Wirewound Trimmer and Precision Potentiometers—no matter how exacting your specifications—Dale can meet them. This ability stems from unmatched experience in wire winding and film deposition as well as superiority in producing resistance devices with improved metallurgical and performance characteristics. If your needs are not listed here, contact Dale at once.

ESTABLISHED RELIABILITY RESISTORS *(Write for Catalog A)*

TYPE	RANGE	SIZES	WATTAGES	TOLERANCE	FEATURES
TYPE **ARS**	0.1 ohm to 40K ohms	3	2, 5, 10	1%	Established reliability, failure rate less than .00015% at 1000 hours of operation at 50% at rated power at 25° C.
TYPE **AGS**	.1 ohm to 12.4K ohms	4	1, 2.25, 4, 7	1%	Established reliability, failure rate .000054% per 1000 hours. Estimated failure rate after GARD screening .00009% per 1000 hours. Beryllium oxide core for greater stability and hot spot elimination.
TYPE **ARH**	.1 ohm to 39.2K ohms	4	5, 10, 15, 30	1%	Established reliability power wirewound resistor designed to utilize maximum heat-sink effect of chassis mounting. Manufactured under white room conditions with quality verified by acceptance testing.
 TYPE **AWA**	.1 ohm to 1.21 Meg.	4	.15, .25, .33, 1	.01% to 1%	Established reliability epoxy-molded precision bobbin wirewound resistor with high stability and low T.C.; offers excellent moisture protection and low noise. Quality verified by acceptance testing.
TYPE **EMF** (METAL FILM)	24.9 ohms to 1 Meg.	3	1/10, 1/8, 1/4	.1% to 1%	Established reliability epoxy-molded metal film resistor. Failure rate estimated at .1%. Goal is .001% to conditions of MIL-R-55182.

WIREWOUND PRECISION RESISTORS *(Write for Catalog A)*

TYPE **RS & RLS**	.1 ohm to 273K ohms	11	.4, .75, 1, 1.1, 2.5, 3, 3.25, 4, 5, 7, 10	0.05% to 5%	Meet requirements of MIL-R-26E and MIL-R-23379. Silicone coated and molded styles. Weldable leads available. RS has axial leads. RLS has radial leads.
TYPE **NS & NLS**	1 ohm to 136.5K ohms	10	½, 1, 2, 2½, 3, 5, 7, 10	0.05% to 3%	Silicone coated, non-inductive winding. Type NLS has radial leads. Weldable leads available.
TYPE **G & GL** TYPE **GN & GNL**	.1 ohm to 273K ohms 1 ohm to 136.5K ohms	10	1, 1½, 2¼, 4, 6, 7 10, 15	0.05% to 3%	**G & GL** resistance units offer decreased size with increased heat dissipation. Silicone coated and molded. Meet requirements of MIL-R-26E and MIL-R-23379. GL has radial leads. **GN & GNL** have identical construction but are non-inductively wound. GNL has radial leads. Weldable leads available.
TYPE **HG & NHG**	**HG:** .1 ohm to 273K ohms **NHG:** .1 ohm to 136.5K ohms	4	15, 20, 35, 50	0.05% to 3%	**HG** features maximum heat dissipation at no increase in size. Meets or exceeds requirements of MIL-R-18546. Chassis mounted molded radiator housing. **NHG** has identical construction but is non-inductively wound.
TYPE **RH & NH**	**RH:** .1 ohm to 273K ohms **NH:** .1 ohm to 136.5K ohms	6	7.5, 12.5, 25, 50, 100, 250	0.05% to 3%	**RH** resistance unit molded into radiator housing. Meets requirements of MIL-R-18546. Mounts on chassis. **NH** has identical construction but is non-inductively wound.
TYPE **PH**	.1 ohm to 95.2K ohms	4	10, 25, 50, 100	0.05% to 3%	Precision power wirewound resistance unit in radiator housing. Mounts through hole in chassis. Also available with non-inductive winding. Wide choice of dual or axial terminals. Single terminal (chassis-grounded) and plug-in models also available.
TYPE **WWA**	.1 ohm to 23 Meg.	10	.1, .125, .15, .2, .25, .33, .5, .75, .875, 1	0.05% to 1%	Bobbin type design with patented Dale features. Non-inductive winding, epoxy molded. Meets requirements of MIL-R-93, Char. C. and MIL-R-39005.
TYPE **WWP**	.1 ohm to 1.5 Meg.	2	1/8, 1/4	.02% to 1%	Rectangular or round miniature epoxy-molded precision bobbin wirewound resistors. High stability and low T.C. Excellent moisture protection and low noise. High resistance per unit volume.
SPECIAL WIREWOUNDS	Can be readily made-to-order utilizing varied resistance element alloys and construction methods. Close tolerances (to .005%). Special resistance and tolerance matching available.				

DALE for Optimum Value in Resistors

For detailed information on the resistors listed here, write for Catalog A. Complete data on Trimmer Potentiometers and Precision Potentiometers will be found in Catalog B.

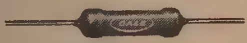
INDUSTRIAL WIREWOUND RESISTORS *(Write for Catalog A)*

TYPE	RANGE	SIZES	WATTAGES	TOLERANCE	FEATURES
TYPE **CW**	.1 ohm to 273K ohms	7	2.5, 3, 3.25, 4, 5, 7, 10	±5% (±10% below 1 ohm)	Commercial resistor with high power to size ratio. Complete welded construction.
TYPE **HL & NHL**	**HL:** .1 ohm to 1.3 meg. **NHL:** 1 ohm to 90K ohms	25	5 thru 225	±5% (HL ±10% below 1 ohm)	Two styles, tubular and flat, replace vitreous enamel resistors. Multi-layer silicone coating. Meet requirements of MIL-R-26. Terminal or thru-bolt mounted. Tubular styles available with non-inductive windings (NHL).
TYPE **HLT**	**HLT:** .1 ohm to 1.1 meg.	17	11 thru 225	±10% HLT	Silicone coated tapped (HLT) and adjustable (HLA) units for voltage divided and multi-tap applications.
TYPE **HLA**	**HLA:** 1 ohm to 100K ohms	16	12 thru 225	± 5% HLA	
TYPE **HLM**	**HLM:** .1 ohm to 51K ohms	3	**HLM:** 10, 15 and 20	±5% (±10% below 1 ohm)	Silicone coated miniature flat (HLM) and tubular style with wire leads (HLW)
TYPE **HLW**	**HLW:** .1 ohm to 80K ohms	6	**HLW:** 3, 6, 10, 12, 15 and 20		

DEPOSITED CARBON RESISTORS *(Write for Catalog A)*

TYPE **DC**	1 ohm to 300 meg.	7	1/10, 1/8, 1/4, 1/2, 1, 2, 5	.5%, 1%, 2%	DC has epoxy coating. Meets requirements of Char. X and B, MIL-R-10509.
TYPE **MC**	1 ohm to 125 meg.	6	1/10, 1/8, 1/4, 1/2, 1, 2	.5%, 1%, 2%	Molded housing completely insulates and protects against environmental and mechanical damage. Weldable leads available. Meets requirements of Char. D of MIL-R-10509F.

METAL FILM RESISTORS *(Write for Catalog A)*

TYPE **MF**	10 ohms to 10 meg.	7	1/20, 1/10, 1/8, 1/4, 1/2, 3/4, 1, 2	.1%, .25%, .5%, 1%	Molded housing for complete environmental protection. Meets requirements of Char. C, D and E of MIL-R-10509F.
 TYPE **MFF**	10 ohms to 10 meg.	5	1/8, 1/4, 1/2, 1, 2	.1%, .25%, .5%, 1%	Epoxy coating. Meets requirements of Char. C, D of MIL-R-10509F, but is dimensionally smaller.
TYPE **D & P**	50 ohms to 2.6 meg.	3 (D) 1 (P)	D = 4, 8, 12 P = 8	.10%, .25%, .5%, 1%, 2%	Molded in aluminum housing. Type D mounts on chassis. Type P mounts through chassis. Complete environmental protection. High stability. Low reactance at high frequency.
TYPE **MP**	25.5 ohms to 100K ohms each element	5	50 milli-watts per element at 125° C	.10%, .25%, .5%, 1%, 2%, 5%	Epoxy molded micro-resistive networks with 2 to 6 resistors. Environmental and mechanical protection meet requirements of MIL-R-10509F. Complete flexibility for matching T.C. and tolerance to specific ratios.

PACKAGED NETWORKS *(Write for Catalog A)*

Dale offers a choice of linear wirewound, bobbin wirewound, metal film, carbon film or cermet elements packaged to meet your requirements. Dale networks meet or exceed requirements of MIL-R-26, MIL-R-93 or MIL-R-10509, depending on element used. Contact the factory for complete information on standard designs and for special design assistance.

ORDERING INFORMATION

WHERE TO ORDER:

From your Authorized Dale Distributor, your Dale Representative, or Dale Electronics, Inc., Box 609, Columbus, Nebraska 68601 — PHONE 564-3131 AREA CODE 402 TWX 402-564-2807

TERMS: 1% 10—Net 30

F.O.B. POINT: Columbus, Nebraska

SPECIAL CHARGES:

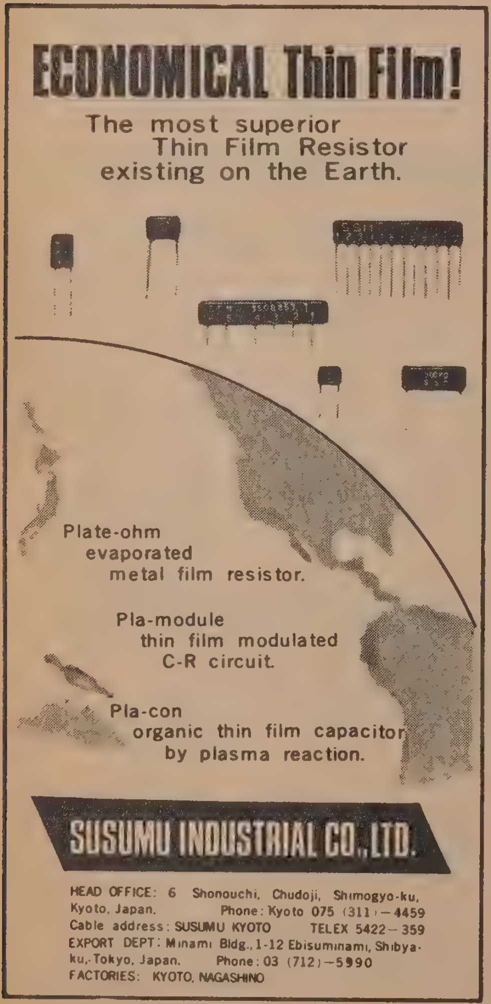
Minimum Order Charge	$10.00
Minimum Item Charge	$ 7.50

DALE ELECTRONICS, INC.
1316 28th Ave., Columbus, Nebraska 68601

Hayakawa Electric Co Ltd, Osaka	Japan
Impectron Inc, New York	N Y
Ionetics Corp, Avenel	N J
IRC Div TRW Inc, Philadelphia	Pa
ITT Europe Inc Components Gp, Brussels 1	Belgium
Japan Resistor Mfg Co Ltd, Tokyo	Japan
Kidco Inc, Medford	N J
LCC-CICE, 93 Montreuil-sous-Bois	France
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Mepco Inc, Morristown	N J
Nytronics Inc, Berkeley Heights	N J
Palmer Ltd, G A Stanley, W Molesey, Surrey	England
Penn Resistor Corp, Lansdale	Pa
Priester Corp, H E, Scarsdale	N Y
Pyrofilm Resistor Co Inc, Cedar Knolls	N J
Reon Resistor Corp, Yonkers	N Y
S E C I Soc Elettrotechica Chimica Italiana Milano	Italy
Standard Telephones & Cables Ltd London WC 2	England
Superex Electronics Corp, Yonkers	N Y
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
Telefunken Sales Corp, Garden City	N Y
Texas Instruments France, Villeneuve-Loubet	France
Texas Instruments Incorporated, Dallas	Tex
Toyo Electronics Industry Corp, Kyoto	Japan
United Mineral & Chemical Corp, New York	N Y
Victoreen Instrument Div, Cleveland	Ohio
Wells Co Inc, Gary, Yonkers	N Y
Welwyn Electric Ltd, Northumberland	England

RESISTORS, FIXED--FILM METALIZED

CTS CORP, ELKHART	**IND**
DALE ELECTRONICS INC, COLUMBUS, NEB	**ADV PGS 618,619**
JAPAN RESISTOR MFG CO LTD, TOKYO	**JAPAN**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MEGADYNE INDUSTRIES INC, ROCHESTER	**N Y**
MURATA MFG CO, LTD, KYOTO	**JAPAN**
SUSUMU INDUSTRIAL CO LTD, KYOTO, JAPAN	**ADV PG 620**
Aerovox Corp Distr Sales, New Bedford	Mass
Aikow Shoji Kaisha Ltd, Osaka	Japan
Airco Speer Electronic Components, Dubois	Pa
American Components, Inc, Conshohocken	Pa
Angstrohm Precision, Inc, Van Nuys	Cal
Avnet Electronics, Westbury	N Y
Constanta Co of Canada Ltd, Montreal	Quebec
Continental-Wirt Electronics Corp, Philadelphia	Pa
Corning Glass Works, Corning	N Y
CTS Corp, Elkhart	Ind
CTS Electronics Inc, South Pasadena	Cal
CTS Research Inc, West LaFayette	Ind
Dale Electronics Inc, Columbus	Neb
Denki Kogyo Co Ltd, Tokyo	Japan
Deutsche Vitrohm GMBH & Co KG, 208 Pinneberg	Germany
Electrosil Ltd, Sunderland, Durham	England
EMC Technology Inc, Philadelphia	Pa
Film Components Div Reon Resister Corp, Yonkers	N Y
Filmohm Corp, Long Island City	N Y
Halex Inc, Torrance	Cal
Impectron Inc, New York	N Y
Ionetics Corp, Avenel	N J
IRC Div TRW Inc, Philadelphia	Pa
Japan Resistor Mfg Co Ltd, Tokyo	Japan
Kidco Inc, Medford	N J
LCC-CICE, 93 Montreuil-sous-Bois	France
Lek-Trol, Inc, Grapevine	Tex
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Controls Co, Frankfort	Ind
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Megadyne Industries Inc, Rochester	N Y
Mepco Inc, Morristown	N J
Metavac Inc, Flushing	N Y
Mial S P A, I 20124 Milano	Italy
Mial USA Inc, Nutley	N J
Morganite Resistors Ltd, Jarrow	England
Murata Mfg Co, Ltd, Kyoto	Japan
Nytronics Inc, Berkeley Heights	N J
Nytronics Inc, Precision Resistor Div, Kutztown	Pa
Ohmite Mfg Co, Skokie	Ill
Painton & Co, Ltd, Northampton	England
Palmer Ltd, G A Stanley, W Molesey, Surrey	England
Priester Corp, H E, Scarsdale	N Y
Pyrofilm Resistor Co Inc, Cedar Knolls	N J
Quantum Devices, Bergenfield	NJ
Reon Resistor Corp, Yonkers	N Y
S E C I Soc Elettrotechica Chimica Italiana Milano	Italy
Sovcor Electronique, Le Vesinet 78	France
Sprague Electric Co, North Adams	Mass
Stettner-Trush Inc, Cazenovia	N Y
Susumu Industrial Co Ltd, Kyoto	Japan
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
Toyo Electronics Industry Corp, Kyoto	Japan
United Mineral & Chemical Corp, New York	N Y
Vac-Ohm Electronics Co, Haddonfield	N J
Vacuum Metallizing, Van Nuys	Cal
Vishay Resistor Prods Div Vishay Intertechnology Inc, Malvern	Pa
Ward Leonard Electric Co, Mount Vernon	N Y
Welwyn Electric Ltd, Northumberland	England
Welwyn International Inc, Westlake	Ohio



ECONOMICAL Thin Film!

The most superior
Thin Film Resistor
existing on the Earth.

Plate-ohm
evaporated
metal film resistor.

Pla-module
thin film modulated
C-R circuit.

Pla-con
organic thin film capacitor
by plasma reaction.

SUSUMU INDUSTRIAL CO., LTD.

HEAD OFFICE: 6 Shonouchi, Chudoji, Shimogyo-ku,
Kyoto, Japan. Phone: Kyoto 075 (311)—4459
Cable address: SUSUMU KYOTO TELEX 5422—359
EXPORT DEPT: Minami Bldg., 1-12 Ebisuminami, Shibya-
ku, Tokyo, Japan. Phone: 03 (712)—5990
FACTORIES: KYOTO, NAGASHINO

RESISTORS, FIXED--FILM NONMETALIZED

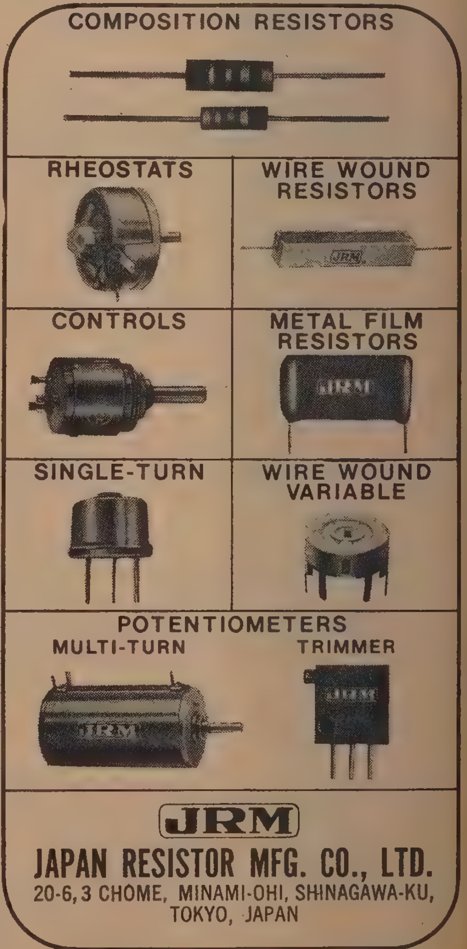
AMPEREX ELECTRONIC CORP, COMPONENT DIV, HAUPPAUGE N Y	**ADV PG 617**
DALE ELECTRONICS INC, COLUMBUS, NEB	**ADV PGS 618,619**
JAPAN RESISTOR MFG CO LTD, TOKYO	**JAPAN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
American Components, Inc, Conshohocken	Pa
Amperex Electronic Corp, Component Div Hauppauge	N Y
Brys Instrument Corp, Brooklyn	N Y
Caddock Electronics Inc, Riverside	Cal
Constanta Co of Canada Ltd, Montreal	Quebec
Corning Glass Works, Corning	N Y
Dale Electronics Inc, Columbus	Neb
Electro Materials Corp of America, Mamaroneck	N Y
EMC Technology Inc, Philadelphia	Pa
Ionetics Corp, Avenel	N J
IRC Div TRW Inc, Philadelphia	Pa
Japan Resistor Mfg Co Ltd, Tokyo	Japan
Matsushita Electric Industrial Co Ltd, Osaka	Japan
MCI Electronics, Marina Del Rey	Cal
Nytronics Inc, Berkeley Heights	N J
Palmer Ltd, G A Stanley, W Molesey, Surrey	England
Priester Corp, H E, Scarsdale	N Y
Pyrofilm Resistor Co Inc, Cedar Knolls	N J
Resistance Products Co, Harrisburg	Pa
S E C I Soc Elettrotechica Chimica Italiana Milano	Italy
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
Telefunken Sales Corp, Garden City	N Y
United Mineral & Chemical Corp, New York	N Y
Vac-Ohm Electronics Co, Haddonfield	N J
Wells Co Inc, Gary, Yonkers	N Y
Welwyn Electric Ltd, Northumberland	England
Welwyn International Inc, Westlake	Ohio

RESISTORS, FIXED--TAPE

DALE ELECTRONICS INC, COLUMBUS, NEB	**ADV PGS 618,619**
Brys Instrument Corp, Brooklyn	N Y
Dale Electronics Inc, Columbus	Neb
IRC Div TRW Inc, Philadelphia	Pa
Lectrohm Inc, Chicago	Ill
Minco Products Inc, Minneapolis	Minn
Morganite Resistors Ltd, Jarrow	England
Ohmweve Co Inc, West Hartford	Conn
S E C I Soc Elettrotechica Chimica Italiana Milano	Italy
Square D Co, Park Ridge	Ill
Vitta Corp, Wilton	Conn
Welwyn Electric Ltd, Northumberland	England

RESISTORS, FIXED--WIREWOUND (UNDER 10 WATTS)

DALE ELECTRONICS INC, COLUMBUS, NEB	**ADV PGS 618,619**
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER N H	**ADV PG 621**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY	**N Y**
JAPAN RESISTOR MFG CO LTD, TOKYO, JAPAN	**ADV PG 620**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
OMTRONICS MFG INC, OMAHA	**NEB**
R C L ELECTRONICS INC, IRVINGTON, N J	**ADV PG 621**
RESISTORS INC, CHICAGO	**ILL**
STANDARD CONDENSER CORP, CHICAGO	**ILL**
Ace Coil & Electronics Co, Metuchen	N J
Atlas Coil Corp, Ansonia	Conn
Balco Capacitors, Orange	NJ
Bradford Components Inc, Salamanca	N Y
Caddock Electronics Inc, Riverside	Cal
C-F Electronics Inc, Van Nuys	Cal
Clarostat Mfg Co Inc, Dover	N H
Colber Corp, Irvington	N J
Consolidated Resistance Specialties Inc, Yonkers	N Y
Dale Electronics Inc, Columbus	Neb
Daven Div McGraw-Edison Co, Manchester	N H
Deutsche Vitrohm GMBH & Co KG, 208 Pinneberg	Germany
Diplohmatic Div Harry Levinson Co, Seattle	Wash
Eastern Precision Resistor Div Cardwell Condenser Corp Lindenhurst	N Y
Electro-Mech Components Inc, San Gabriel	Cal
Electro Scientific Industries Inc, Portland	Ore
Elgiloy Co, Elgin	Ill
Fugle-Miller Labs Inc, Kenilworth	N J
Gamble Industries, Charles T, Riverside	N J
General Electric Co, ECSO, Schenectady	N Y
General Radio Co, West Concord	Mass
General Resistance Inc, New York	NY
Impectron Inc, New York	N Y
Instrument Resistors Co, Brick Town	NJ
IRC Div TRW Inc, Philadelphia	Pa
Japan Resistor Mfg Co Ltd, Tokyo	Japan
Jordan Electric Co, Van Nuys	Cal
Julie Research Labs, Inc, New York	N Y
Kelvin, Van Nuys	Cal
K-F Development Co, Redwood City	Cal
Lectrohm Inc, Chicago	Ill
Leeds & Northrup Co, Philadelphia	Pa
Mallory & Co Inc, P R, Indianapolis	Ind
Marstan Electronics Div Balco Elctns Inc, Orange	N J
Mepco Inc, Morristown	N J
Micro Ohm Corp, El Monte	Cal
Milwaukee Resistor Corp, Milwaukee	Wis
Miniature Electronic Components Ltd, Surrey	England
Model Rectifier Corp, Brooklyn	N Y



COMPOSITION RESISTORS
RHEOSTATS
WIRE WOUND RESISTORS
CONTROLS
METAL FILM RESISTORS
SINGLE-TURN
WIRE WOUND VARIABLE
POTENTIOMETERS
MULTI-TURN
TRIMMER

JRM
JAPAN RESISTOR MFG. CO., LTD.
20-6, 3 CHOME, MINAMI-OHI, SHINAGAWA-KU,
TOKYO, JAPAN

JUST OFF THE PRESS!

Precision Wire Wound Resistors, Networks ... Pages 3-13
Hi-Speed Wire Wound Resistors ... Pages 14-17
RCL

RCL's NEW RESISTOR CATALOG

the industry's most extensive and most accurate compilation of engineering information on wire-wound resistors

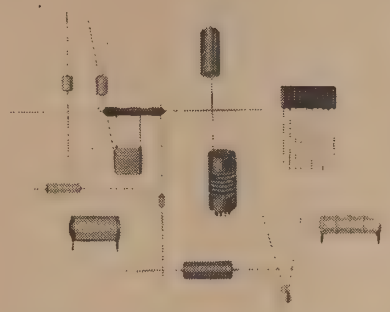
PRECISION/HI-SPEED POWER/WIRE-WOUND RESISTORS

including: beryllium oxide core power resistors . . . 22 special temperature coefficients from —50 PPM to +6000 PPM . . . subminiature precision resistors . . . ladder and summing networks.

Write for your free copy today!

RCL
ELECTRONICS, INC.
700 South 21st Street
Irvington, New Jersey 07111

precision
WIRE WOUND RESISTORS AND NETWORKS



High Reliability series. Encapsulated styles — non-inductively wound; Axial and lug terminal types; Subminiature Styles; Printed Circuit Styles; Instrument Grade Styles. Power, Fuse, High Frequency Resistors. Catalog No. WW-55.

DAVEN McGRAW EDISON
DIVISION OF THOMAS A. EDISON INDUSTRIES
GRENIER FIELD, MANCHESTER, N.H. 03103
(603) 669-0940 • TWX 603-623-4938

Nytronics Inc, Precision Resistor Div, Kutztown	Pa
Ohmite Mfg Co, Skokie	Ill
Omtronics Mfg Inc, Omaha	Neb
Pacific Resistor Co, Los Angeles	Cal
Penn Resistor Corp, Lansdale	Pa
Precision Coil Mfg Co, Santa Monica	Cal
Precision Inc, Minneapolis	Minn
Precision Resistor Co Inc, Hillside	N J
Priester Corp, H E, Scarsdale	N Y
R C L Electronics Inc, Irvington	N J
Reon Resistor Corp, Yonkers	N Y
Resistance Products Co, Harrisburg	Pa
Resistors Inc, Chicago	Ill
Rho Engineering Co, Los Angeles	Cal
Riedon Avionics, Inc, Van Nuys	Cal
Robinson Electronic Components, Temple City	Cal
Sage Electronics Corp, Rochester	NY
S E C I Soc Elettrotechica Chimica Italiana Milano	Italy
Shallcross Mfg Co Sub Cutler-Hammer, Selma	N C
SP Elettronica SpA, Pero, Milan	Italy
Sprague Electric Co, North Adams	Mass
Standard Condenser Corp, Chicago	Ill
Stettner-Trush Inc, Cazenovia	N Y
Swanson Electronics Co, Chicago	Ill
Tech-Ohm Electronics Inc, Long Island City	N Y
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
Tel-Labs Inc, Manchester	N H
Tepro of Florida Inc, Dunedin	Fla
Ultronix Inc, Grand Junction	Colo
United Mineral & Chemical Corp, New York	N Y
Ward Leonard Electric Co, Mount Vernon	N Y
Wells Co Inc, Gary, Yonkers	N Y
Welwyn Electric Ltd, Northumberland	England

RESISTORS, FIXED--WIREWOUND (10 WATTS & OVER)

DALE ELECTRONICS INC, COLUMBUS, NEB	**ADV PGS 618,619**
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER	**N H**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY	**N Y**
JAPAN RESISTOR MFG CO LTD, TOKYO	**JAPAN**
OMTRONICS MFG INC, OMAHA, NEB	**ADV PG 622**
R C L ELECTRONICS INC, IRVINGTON	**N J**
RESISTORS INC, CHICAGO, ILL	**ADV PG 621**
Alpha Components Corp, Venice	Cal
Atlas Coil Corp, Ansonia	Conn
Bradford Components Inc, Salamanca	N Y
Caddock Electronics Inc, Riverside	Cal
C-F Electronics Inc, Van Nuys	Cal
Clark Control Div, A O Smith Corp, Cleveland	Ohio
Clarostat Mfg Co Inc, Dover	N H
Colber Corp, Irvington	N J

Our Ohmic Capabilities Are Perfect For Short-tempered Buyers With Rigid Resistor Requirements!

We Produce:

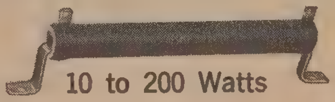
AXIAL LEAD TYPE

3 to 10 Watts

FIXED LUG TYPE

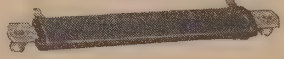
5 to 200 Watts

NON-INDUCTIVE TYPE



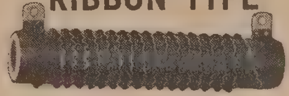
10 to 200 Watts

FLAT OVAL TYPE



30, 40, 55, 65, 75 Watts

RIBBON TYPE



90 to 400 Watts

ALSO MIL-R-26E

More than a quarter century of custom resistor design and manufacturing. Send us your prints, We'll satisfy your requirements and be more than kind to your temper.

Write, Wire or Phone for Catalog.

resistors, inc.
5226 WEST 26th STREET
CHICAGO, ILLINOIS 60650
LONG DISTANCE PHONE:
Area Code 312 Olympic 2-7555
CHICAGO PHONES:
Bishop 2-1539 • Bishop 2-1540

OMI
RESISTORS

Precision Power Wire Wound

"T" SERIES
Mil R 26 Type

17 Basic sizes of highly reliable silicone coated resistors manufactured with power ratings from ½ to 10 watts.

"F" SERIES

Silicone coated beryllium oxide core allowing higher power dissipation with no increase in size.

If you think you've had good service...try Omtronics!
THE CUSTOMER-ORIENTED COMPANY

"HT" & "HF" SERIES
Mil R 18546 Type

Aluminum housed, molded construction, 4 models rated 5 thru 50 watts.

HT chassis mount with resistance ranges from .1 ohm to 250 K.

HF identical to HT but utilizes beryllium oxide core for optimum heat dissipation and higher power ratings.

OMTRONICS MANUFACTURING INCORPORATED
2406 Leavenworth Street
Omaha, Nebraska 68105
Phone (402) 348-9500
TWX 910 622 8820

Dale Electronics Inc, Columbus	Neb
Daven Div McGraw-Edison Co, Manchester	N H
Deutsche Vitrohm GMBH & Co KG, 208 Pinneberg	Germany
Diplohmatic Div Harry Levinson Co, Seattle	Wash
Gamble Industries, Charles T, Riverside	N J
General Electric Co, ECSO, Schenectady	N Y
Impectron Inc, New York	N Y
IRC Div TRW Inc, Philadelphia	Pa
Japan Resistor Mfg Co Ltd, Tokyo	Japan
Julie Research Labs, Inc, New York	N Y
Kameco Ltd, Montreal	Que
K-F Development Co, Redwood City	Cal
Lectrohm Inc, Chicago	Ill
Milwaukee Resistor Corp, Milwaukee	Wis
Model Rectifier Corp, Brooklyn	N Y
Nytronics Inc, Precision Resistor Div, Kutztown	Pa
Ohmite Mfg Co, Skokie	Ill
Omtronics Mfg Inc, Omaha	Neb
Pacific Resistor Co, Los Angeles	Cal
Precision Coil Mfg Co, Santa Monica	Cal
Precision Inc, Minneapolis	Minn
Precision Resistor Co Inc, Hillside	N J
Priester Corp, H E, Scarsdale	N Y
Quartz Radiation Corp, Fairfield	N J
R C L Electronics Inc, Irvington	N J
Resistance Products Co, Harrisburg	Pa
Resistors Inc, Chicago	Ill
Robinson Electronic Components, Temple City	Cal
Sage Electronics Corp, Rochester	NY
S E C I Soc Elettrotechica Chimica Italiana Milano	Italy
Shallcross Mfg Co Sub Cutler-Hammer, Selma	N C
Sprague Electric Co, North Adams	Mass
Tech-Ohm Electronics Inc, Long Island City	N Y
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
Tel-Labs Inc, Manchester	N H
Tepro of Florida Inc, Dunedin	Fla
Ultronix Inc, Grand Junction	Colo
Ward Leonard Electric Co, Mount Vernon	N Y
Wells Co Inc, Gary, Yonkers	N Y
Welwyn Electric Ltd, Northumberland	England
Wiegand Co, Edwin L, Pittsburgh	Pa
Y T & T Corp, Roslyn Heights	NY

Who Do You Call?
Find his name and telephone number in EBG's Manufacturer's index (green pages).

RESISTORS, FIXED--WOVEN WIRE

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
Bourns Inc Trimpot Div, Riverside	Cal
Epco Products Inc, Wallkill	N Y
General Electric Co, ECSO, Schenectady	N Y
General Resistance Inc, New York	NY
Leeds & Northrup Co, Philadelphia	Pa
Memcor Div LTV Electrosystems Inc, Huntington	Ind
Nytronics Inc, Precision Resistor Div, Kutztown	Pa
Ohmweve Co Inc, West Hartford	Conn
S E C I Soc Elettrotechica Chimica Italiana Milano	Italy
Wiegand Co, Edwin L, Pittsburgh	Pa

RESISTORS--FUSE

DALE ELECTRONICS INC, COLUMBUS, NEB	**ADV PGS 618,619**
JAPAN RESISTOR MFG CO LTD, TOKYO	**JAPAN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
R C L ELECTRONICS INC, IRVINGTON	**N J**
Bradford Components Inc, Salamanca	N Y
Brys Instrument Corp, Brooklyn	N Y
Colber Corp, Irvington	N J
Cole-Hersee Co, S Boston	Mass
Dale Electronics Inc, Columbus	Neb
Deutsche Vitrohm GMBH & Co KG, 208 Pinneberg	Germany
Dowa Trading Co Ltd, Kobe	Japan
G C Electronics Div, Hydrometals Inc, Rockford	Ill
IRC Div TRW Inc, Philadelphia	Pa
Japan Resistor Mfg Co Ltd, Tokyo	Japan
Lectrohm Inc, Chicago	Ill
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Milwaukee Resistor Corp, Milwaukee	Wis
Ohio Carbon Co, Cleveland	Ohio
Oneida Electronic Mfg Co, Meadville	Pa
Pacific Resistor Co, Los Angeles	Cal
R C L Electronics Inc, Irvington	N J
Sage Electronics Corp, Rochester	NY
S E C I Soc Elettrotechica Chimica Italiana Milano	Italy
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
Tel-Labs Inc, Manchester	N H
United Mineral & Chemical Corp, New York	N Y
Workman Electronic Products Inc, Sarasota	Fla

RESISTORS, VARIABLE--COMPOSITION (FILM)

AMPEREX ELECTRONIC CORP, COMPONENT DIV, HAUPPAUGE N Y	**ADV PG 617**
AMPHENOL, JANESVILLE	**WISC**
BECKMAN INSTRUMENTS INC, HELIPOT DIV, FULLERTON CAL	**ADV PG 622**
BLISS-GAMEWELL, DIV E W BLISS CO NEWTON UPPER FALLS	**MASS**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
CTS CORP, ELKHART	**IND**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
STACKPOLE CARBON CO, ST MARYS	**PA**
Amperex Electronic Corp, Component Div Hauppauge	N Y
Amphenol, Janesville	Wisc
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Bliss-Gamewell, Div E W Bliss Co Newton Upper Falls	Mass
Bourns Inc Trimpot Div, Riverside	Cal
Clarostat Mfg Co Inc, Dover	N H
Computer Instruments Corp, Hempstead	N Y
CTS Corp, Elkhart	Ind
CTS Electronics Inc, South Pasadena	Cal
Custom Coating & Laminating Corp, Worcester	Mass
Duncan Electronics Inc, Costa Mesa	Cal
Electro Materials Corp of America, Mamaroneck	N Y
IRC Div TRW Inc, Philadelphia	Pa
Litton Industries, Potentiometer Div, Mt Vernon	N Y
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Morganite Resistors Ltd, Jarrow	England
Nippon Electric Co Ltd, Tokyo	Japan
Palmer Electronics Inc, Garfield	N J
Priester Corp, H E, Scarsdale	N Y
Reon Resistor Corp, Yonkers	N Y
Stackpole Carbon Co, St Marys	Pa
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
United Mineral & Chemical Corp, New York	N Y
Vacco Electronics Div, Vacco Industries South El Monte	Cal
Workman Electronic Products Inc, Sarasota	Fla

LOOKING FOR TRIMMING POTENTIOMETERS?

Helitrim® trimming potentiometers, with Helipot's exclusive cermet resistance elements, are available from local stock with:

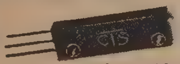
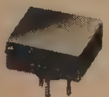
- *essentially infinite resolution*
- *voltage setting ability within ±0.01%*
- *resistance values from 10Ω to 2 megΩ*
- *operation to +200°C*
- *Mil Spec RJ11 and RJ12*
- *small size—¼" diameter*
- *low cost*
- *high reliability*

For complete information contact the Helipot representative nearest you. He's listed in EBG's Manufacturers' Index.

Beckman
INSTRUMENTS, INC.
HELIPOT DIVISION
FULLERTON, CALIFORNIA • 92634

CTS CORPORATION ELKHART, INDIANA

Specialists In Precision Mass Production Of Variable Resistors

	Application	Size (Diameter)	Power Rating (Watts)	Resistance (ohms)	CTS Series	Data Sheet	Manufactured By (see plant listings)
COMPOSITION VARIABLE RESISTORS	Commercial	15/16"	¼ to ¾	200Ω—10 Meg.	45	Cat. 1000	(1) (2) (4) (7)
	Military (RV5)**	¾"	½	100Ω—2.5 Meg.	65	2400	(4) (7)
	Commercial	¾"	2/10 to 3/10	200Ω—7.5 Meg.	70	1100	(4) (7)
	Military (RV2)**	15/16"	1	100Ω—5 Meg.	90	2300	(4) (7)
	Commercial	⅝"	2/10 to 1/4	200Ω—2.5 Meg.	200	1200	(1)
	Commercial	Side by Side	1/4 to 1/3	250Ω—10 Meg.	X52-53	2700	(2)
	Commercial	2"	2	5K—50 Meg.	HVC	1600	(2)
	Commercial	3" linea	1/4 to 3/4	100Ω—10 Meg.	480	1480	(1)
WIREWOUND VARIABLE RESISTORS	Commercial	15/16"	5	1Ω—25K	AW	2100	(2) (4) (7)
	Commercial	15/16"	5	1Ω—25K	VA-AW	2150	(2)
	Military (RA20)*	1¼"	2	3Ω—15K	WP	2200	(2)
	Commercial	1¼"	2	1Ω—50K	2W	1800	(2)
	Commercial	1 17/32"	4	3Ω—25K	25	2001	(4) (7)
	Military (RA30)*	1 17/32"	4	3Ω—25K	25	2000	(4) (7)
	Commercial	¾"	1.5 to 3	½Ω—10K	110	1700	(3) (4)
	Commercial	¾"	2 to 3	½Ω—10K	115	1750	(3) (4)
	Commercial	1 17/64"	2	3Ω—15K	252	1901	(4) (7)
	Military (RA20)*	1 17/64"	2	3Ω—15K	252	1900	(4) (7)
CARBON-CERAMIC VARIABLE RESISTORS	Military (RV6)**	½"	¾	100Ω—2.5 Meg.	300	2450	(4) (7)
	Military (RV4)**	1 1/16"	3	250Ω—1 Meg.	320	1400	(4) (7)
	Industrial	1 1/16"	3	250Ω—2.5 Meg.	321	1401	(4) (7)
CERMET VARIABLE RESISTORS	Industrial	1 3/64"	3	100Ω—5 Meg.	400	Cermet Cat.	(3) (4)
	Military (RV4)**	1 3/64"	3	100Ω—5 Meg.	400	Cermet Cat.	(3) (4)
	Industrial	¾"	1½	100Ω—5 Meg.	500	Cermet Cat.	(3) (4)
	Military (RV5)**	¾"	1½	100Ω—5 Meg.	500	Cermet Cat.	(3) (4)
	Industrial	¾"	2	50Ω—1 Meg.	550	Cermet Cat.	(3) (4)
	Industrial	½"	¾	100Ω—5 Meg.	600	Cermet Cat.	(3) (4)
	Military (RV6)**	½"	¾	100Ω—5 Meg.	600	Cermet Cat.	(3) (4)
COMPOSITION VARIABLE RESISTORS	Military (RJ11)*	1¼"x.295"x.350"	¼	100Ω—1 Meg.	140	2600	(4) (7)
	Commercial	1¼"x.295"x.350"	¼	100Ω—1 Meg.	140	2600	(4) (7)
	Commercial	19/32"	⅛	250Ω—2.5 Meg.	201	1201	(1)
	Commercial	7/16"x5/16"x½"	⅛	250Ω—2.5 Meg.	220	2500	(7)
	Commercial	9/32"	1/10	100Ω—10 Meg.	M-250	1300	(2)
	Industrial	½"	⅜	100Ω—2.5 Meg.	330	2330	(4) (7)
WIREWOUND TRIMMER POTENTIOMETERS	Military	1.262"x.288"x.323"	½	400Ω—2K	IRW	5625	(4)
	Industrial	1"x.180"x.320"	¾	100Ω—20K	160	5160	(3)
	Military	1"x.180"x.320"	¾	100Ω—20K	160	5160	(3)
	Industrial	½"	1	50Ω—20K	350	5500	(2)
	Military	½"	1	50Ω—20K	350	5500	(2)
CERMET TRIMMER POTENTIOMETERS	Military (RJ22)*	½" Sq.	½	100Ω—1 Meg.	175	Cermet Cat.	(3) (4)
	Industrial (RJ11)	1¼"x.290"x.364"	1	25Ω—1 Meg.	185	3185	(9)
	Industrial	11/32"	⅛	100Ω—500K	385	Cermet Cat.	(3)
	Military**	11/32"	⅛	100Ω—500K	385	Cermet Cat.	(3)
	Industrial	½"	½	20Ω—2.5 Meg.	630	Cermet Cat.	(3) (4)
	Industrial	⅜"	¼	100Ω—500K	660	Cermet Cat.	(3)
	Military**	⅜"	¼	100Ω—500K	660	Cermet Cat.	(3)

*meets or exceeds MIL-R-22097 **meets or exceeds MIL-R-94B and MIL-R-23285B

(1) Elkhart, Indiana (2) Skyland, N. Carolina (3) Berne, Indiana (4) Streetville, Ontario, Canada (7) S. Pasadena, California (9) Lafayette, Indiana

RESISTORS, VARIABLE-- CONDUCTIVE PLASTIC (FILM)

BECKMAN INSTRUMENTS INC, HELIPOT DIV
FULLERTON .... CAL
BLISS-GAMEWELL, DIV E W BLISS CO
NEWTON UPPER FALLS .... MASS
COMPUTER INSTRUMENTS CORP, HEMPSTEAD .... N Y
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA .... JAPAN
Ace Electronics Associates, Inc, Somerville .... Mass
Beckman Instruments Inc, Helipot Div, Fullerton .... Cal
Bliss-Gamewell, Div E W Bliss Co
Newton Upper Falls .... Mass
Bourns Inc Trimpot Div, Riverside .... Cal
Brys Instrument Corp, Brooklyn .... N Y
Carter Mfg Corp, Hudson .... Mass
Computer Instruments Corp, Hempstead .... N Y
Custom Coating & Laminating Corp, Worcester .... Mass
Duncan Electronics Inc, Costa Mesa .... Cal
Fairchild Controls, Hicksville .... N Y
Litton Industries, Potentiometer Div, Mt Vernon .... N Y
Logan Electronics Corp, Revere .... Mass
Markite Corp, New York .... N Y
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
New England Instrument Co, Natick .... Mass
Reon Resistor Corp, Yonkers .... N Y
Samarius, Inc, Derby .... Conn

RESISTORS, VARIABLE-- DEPOSITED CARBON (FILM)

AMPEREX ELECTRONIC CORP, COMPONENT DIV, HAUPPAUGE
N Y .... ADV PG 617
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE
WIS .... ADV PG 411
CTS CORP, ELKHART, IND .... ADV PG 623
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA .... JAPAN
MITSUMI ELECTRIC CO LTD, TOKYO .... JAPAN
MURATA MFG CO, LTD, KYOTO .... JAPAN
American Components, Inc, Conshohocken .... Pa
Amperex Electronic Corp, Component Div
Hauppauge .... N Y
Bourns Inc Trimpot Div, Riverside .... Cal
Centralab, Div Globe-Union Inc, Milwaukee .... Wis
CTS Corp, Elkhart .... Ind
Ferranti, Ltd, Lancashire .... England
Litton Industries, Potentiometer Div, Mt Vernon .... N Y
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Mitsumi Electric Co Ltd, Tokyo .... Japan
Murata Mfg Co, Ltd, Kyoto .... Japan
Tech-Ohm Electronics Inc, Long Island City .... N Y
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City .... Japan
Telefunken Sales Corp, Garden City .... N Y
Tokyo Cosmos Electric Co Ltd, Tokyo .... Japan
United Mineral & Chemical Corp, New York .... N Y
Workman Electronic Products Inc, Sarasota .... Fla

Fast

acting.

The Electronics Buyers' Guide can get you on the right frequency in a hurry. For example, there are 14 different kinds of oscillators listed. Everything from AF oscillators to voltage controlled crystal oscillators. There are three sections in your EBG, devoted to products, manufacturers and trade names. So see your fast-acting EBG.

Electronics Buyers' Guide

Specify Amphenol. The leading name in Metal Film Trimmers.

Metal-film
Military, industrial
Square or rectangular
Humidity-proof
Essentially infinite resolution

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL™

RESISTORS, VARIABLE-- METAL FILM

AMPHENOL, JANESVILLE, WISC. .... ADV PG 624
BLISS-GAMEWELL, DIV E W BLISS CO
NEWTON UPPER FALLS .... MASS
CTS CORP, ELKHART .... IND
DALE ELECTRONICS INC, COLUMBUS, NEB .... ADV PGS 618,619
MITSUMI ELECTRIC CO LTD, TOKYO .... JAPAN
American Components, Inc, Conshohocken .... Pa
Amphenol, Janesville .... Wisc
Angstrohm Precision, Inc, Van Nuys .... Cal
Bliss-Gamewell, Div E W Bliss Co
Newton Upper Falls .... Mass
Bourns Inc Trimpot Div, Riverside .... Cal
Bunker-Ramo Corp Defense Systems Div
Canoga Park .... Cal
CTS Corp, Elkhart .... Ind
CTS Electronics Inc, South Pasadena .... Cal
Dale Electronics Inc, Columbus .... Neb
Digilog Electronics Corp, Seattle .... Wash
Duncan Electronics Inc Midgi-Trim Div
San Bernardino .... Cal
Fairchild Controls, Hicksville .... N Y
Metavac Inc, Flushing .... N Y
Miniature Electronic Components Corp, Holbrook .... Mass
Mitsumi Electric Co Ltd, Tokyo .... Japan
Newport Instrument Corp, Newport Beach .... Cal
Precision Electronic Components Ltd, Toronto 15 .... Ont
SP Elettronica SpA, Pero, Milan .... Italy
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City .... Japan
Tokyo Cosmos Electric Co Ltd, Tokyo .... Japan
Vacco Electronics Div, Vacco Industries
South El Monte .... Cal

RESISTORS, VARIABLE-- MOLDED CARBON

CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE
WIS .... ADV PG 411
Allen-Bradley Co, Milwaukee .... Wis

Bourns Inc Trimpot Div, Riverside .... Cal
Brys Instrument Corp, Brooklyn .... N Y
Carter Mfg Corp, Hudson .... Mass
Centralab, Div Globe-Union Inc, Milwaukee .... Wis
Clarostat Mfg Co Inc, Dover .... N H
Duncan Electronics Inc, Costa Mesa .... Cal
IRC Div TRW Inc, Philadelphia .... Pa
Litton Industries, Potentiometer Div, Mt Vernon .... N Y
Ohmite Mfg Co, Skokie Ill
Precision Electronic Components Ltd, Toronto 15 .... Ont

Priester Corp, H E, Scarsdale .... N Y
Reon Resistor Corp, Yonkers .... N Y
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City .... Japan

RESISTORS, VARIABLE-- WIREWOUND SEE ALSO POTENTIOMETERS

AMPHENOL, JANESVILLE .... WISC
BECKMAN INSTRUMENTS INC, HELIPOT DIV
FULLERTON .... CAL
BLISS-GAMEWELL, DIV E W BLISS CO
NEWTON UPPER FALLS .... MASS
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE
WIS .... ADV PG 411
CTS CORP, ELKHART .... IND
DALE ELECTRONICS INC, COLUMBUS, NEB .... ADV PGS 618,619
FLUKE MFG CO INC, JOHN, SEATTLE .... WASH
GENERAL ELECTRIC CO, ECSO, SCHENECTADY
N Y .... ADV PGS 7
JAPAN RESISTOR MFG CO LTD, TOKYO .... JAPAN
MALLORY & CO INC, P R, INDIANAPOLIS .... IND
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA .... JAPAN
RESISTORS INC, CHICAGO ILL
Ace Electronics Associates, Inc, Somerville .... Mass
Amphenol, Janesville .... Wisc
Astro Electronics, Inc, Fullerton .... Cal
Atohm Electronics Military & Commercial Prods Div
Burbank .... Cal
Avnet Electronics, Westbury .... N Y
Beckman Instruments Inc, Helipot Div, Fullerton .... Cal
Bliss-Gamewell, Div E W Bliss Co
Newton Upper Falls .... Mass
Bourns Inc Trimpot Div, Riverside .... Cal
Brys Instrument Corp, Brooklyn .... N Y
Carter Precision Electric Co, Skokie Ill
Centralab, Div Globe-Union Inc, Milwaukee .... Wis
Central Scientific Co, Chicago Ill
Clarostat Mfg Co Inc, Dover .... N H
Cole-Hersee Co, S Boston .... Mass
Continental-Wirt Electronics Corp, Philadelphia .... Pa
CTS Corp, Elkhart .... Ind
CTS Electronics Inc, South Pasadena .... Cal
Dale Electronics Inc, Columbus .... Neb
Denki Kogyo Co Ltd, Tokyo .... Japan
Deutsche Vitrohm GMBH & Co KG,
208 Pinneberg .... Germany
Digilog Electronics Corp, Seattle .... Wash
Diplohmatic Div Harry Levinson Co, Seattle .... Wash
Duncan Electronics Inc, Costa Mesa .... Cal
Duncan Electronics Inc Midgi-Trim Div
San Bernardino .... Cal
Electro-Mec Instrument Corp, Watertown .... Conn
Electro Scientific Industries Inc, Portland .... Ore
Fairchild Controls, Hicksville .... N Y
Ferranti, Ltd, Lancashire .... England
Fluke Mfg Co Inc, John, Seattle .... Wash
Fujitsu Ltd, Tokyo .... Japan
General Electric Co, ECSO, Schenectady .... N Y
General Radio Co, West Concord .... Mass
Hallmark Standards Inc, Mamaroneck .... N Y
Humphrey Inc, San Diego .... Cal
Impectron Inc, New York .... N Y
Industrial Winding Machinery Corp, River Edge .... N J
IRC Div TRW Inc, Philadelphia .... Pa
Japan Resistor Mfg Co Ltd, Tokyo .... Japan
Lectrohm Inc, Chicago Ill
Litton Industries, Potentiometer Div, Mt Vernon .... N Y
Logan Electronics Corp, Revere .... Mass
LTV-Electrosystems Inc Memcor Div, Huntington .... Ind
Mallory & Co Inc, P R, Indianapolis .... Ind
Mallory Controls Co, Frankfort .... Ind
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Maurey Instrument Corp, Chicago Ill
Mektron Div, Calif Gen Corp Inc, Chula Vista .... Cal
Mel-Rain Corp, Indianapolis .... Ind
Memcor Div LTV Electrosystems Inc, Huntington .... Ind
Micro-Lectric Inc, Lindenhurst .... N Y
Milwaukee Resistor Corp, Milwaukee .... Wis
Miniature Electronic Components Corp, Holbrook .... Mass
Model Rectifier Corp, Brooklyn .... N Y
New England Instrument Co, Natick .... Mass
Newport Instrument Corp, Newport Beach .... Cal
Ohmite Mfg Co, Skokie Ill
Painton & Co, Ltd, Northampton .... England
Resistors Inc, Chicago Ill
Rotohmeters Inc, Yonkers .... N Y
Samarius, Inc, Derby .... Conn
S E C I Soc Elettrotechica Chimica Italiana
Milano .... Italy
Space & Systems Div General Time Corp
Stamford .... Conn
SP Elettronica SpA, Pero, Milan .... Italy
Sticht Co Inc, Herman H, New York .... N Y
Technology Instrument Corp Sub Bowmar Instr Corp
Newbury Park .... Cal
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City .... Japan
Tokyo Cosmos Electric Co Ltd, Tokyo .... Japan
United Mineral & Chemical Corp, New York .... N Y
Vacco Electronics Div, Vacco Industries
South El Monte .... Cal
Verni Trim Corp, Yonkers .... N Y
Voltronics, Inc, Chicago Ill
Ward Leonard Electric Co, Mount Vernon .... N Y
Waters Mfg Inc, Wayland .... Mass
Welwyn Electric Ltd, Northumberland .... England
Winslow Tele-Tronics Inc, Asbury Park .... NJ
Workman Electronic Products Inc, Sarasota .... Fla

RESISTS SEE CHEMICALS--PRINTED-CIRCUIT

RESONANT CAVITIES SEE CAVITIES--MICROWAVE;ECHO BOXES

RESOLVERS SEE SYNCHROS

RESOLVER—SYNCHRO SIMULATORS & BRIDGES

NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW N Y	**ADV PG 625**
North Atlantic Industries Inc, Plainview	N Y

Resolver/Synchro Simulators and Bridges

- *2 arc seconds accuracy*
- *5° to 0.0001° resolution*
- *26V/115V excitation*
- *all line-to-line voltages*
- *direct in-line display angle*
- *dual-modes for resolver and synchro*

Your North Atlantic representative has complete data.

See listing in the Green Pages.

NORTH ATLANTIC *industries, inc.*
PLAINVIEW, NEW YORK 11803 516–681-8600

RETRACTILE CORDS SEE CORDS–RETRACTILE

R-F AMMETERS SEE AMMETERS

R-F ATTENUATORS SEE ATTENUATORS

R-F CABLES–SHIELDED SEE CABLES–SHIELDED

R-F CABLES–UNSHIELDED SEE CABLES–UNSHIELDED

R-F CALIBRATORS SEE CALIBRATORS–FREQUENCY

R-F NOISE GENERATORS SEE GENERATORS–NOISE

R-F POWER AMPLIFIERS SEE AMPLIFIERS–R-F

R-F POWER BRIDGES SEE BRIDGES

R-F POWER MONITORS SEE MONITORS--POWER

R-F PROBES SEE PROBES

R-F SIGNAL GENERATORS SEE GENERATORS--SIGNAL

R-F WAVEFORM INDICATORS SEE OSCILLOSCOPES

RHEOSTATS--INDUSTRIAL (7 1/2 WATTS & UP)

SEE ALSO RESISTORS– VARIABLE

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
JAPAN RESISTOR MFG CO LTD, TOKYO	**JAPAN**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
Allen-Bradley Co, Milwaukee	Wis
Biddle Co, James G, Plymouth Meeting	Pa
Clark Control Div, A O Smith Corp, Cleveland	Ohio
Clarostat Mfg Co Inc, Dover	N H
Dowa Trading Co Ltd, Kobe	Japan
Electro Technic Products, Chicago	Ill
General Electric Co, ECSO, Schenectady	N Y
Industrial Winding Machinery Corp, River Edge	N J
Japan Resistor Mfg Co Ltd, Tokyo	Japan
LTV-Electrosystems Inc Memcor Div, Huntington	Ind
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Controls Co, Frankfort	Ind
Memcor Div LTV Electrosystems Inc, Huntington	Ind
Milwaukee Resistor Corp, Milwaukee	Wis
Model Rectifier Corp, Brooklyn	N Y
Ohmite Mfg Co, Skokie	Ill
S E C I Soc Elettrotechica Chimica Italiana Milano	Italy
Sticht Co Inc, Herman H, New York	N Y
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
Ward Leonard Electric Co, Mount Vernon	N Y

RIBBON CABLES SEE CABLES--FLAT

RIGID COAXIAL CABLE SEE WAVEGUIDES

RINGS--COLLECTOR

AIRFLYTE ELECTRONICS CO, BAYONNE	**N J**
ELECTRO-TEC CORP, ORMOND BEACH	**FLA**
GRAPHITE METALLIZING CORP, YONKERS, N Y	**ADV PG 76**
HANSEN MFG CO INC, PRINCETON	**IND**
MICRO CONTACTS, INC, HICKSVILLE	**N Y**
NEY CO, J M, BLOOMFIELD	**CONN**
Airflyte Electronics Co, Bayonne	N J
Alloys Unlimited Inc, Melville	N Y
Brainin Corp, C S, Mt Vernon	N Y
Electro Miniatures Corp, South Hackensack	N J
Electro-Tec Corp, Ormond Beach	Fla
Fabricast Inc, South El Monte	Cal
General Findings Co Industrial Div, Attleboro	Mass
Graphite Metallizing Corp, Yonkers	N Y
Hansen Mfg Co Inc, Princeton	Ind
Himmelstein & Co, S, Elk Grove Village	Ill
Improved Seamless Wire Co, Providence	R I
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia	Pa
Metal Ceram Inc, Mount Vernon	N Y
Micro Contacts, Inc, Hicksville	N Y
Ney Co, J M, Bloomfield	Conn
Nippert Electric Products Co, Delaware	Ohio
Northern Precision Labs Inc, Fairfield	N J
Occo Mfg Corp, South Hackensack	N J
Semi-Alloys Inc, Mt Vernon	N Y
Superior Carbon Products Inc, Cleveland	Ohio
Texas Instruments Incorporated, Dallas	Tex
U S Stoneware Inc, Orville Plant, Orrville	Ohio

RINGS--RETAINING

SECS, INC, LONG ISLAND CITY	**N Y**
Allmetal Screw Products Co Inc, Garden City	N Y
Alloys Unlimited Inc, Melville	N Y
Amatom Electronic Hardware, New Rochelle	N Y
APM-Hexseal Corp, Englewood	N J
Connor Spring Mfg Co Div Sloss & Britain San Francisco	Cal
Eaton Yale & Towne Inc Reliance Div, Massillon	Ohio
Elgiloy Co, Elgin	Ill
Fastex Div Illinois Tool Works, Des Plaines	Ill
Federal Screw Products Inc, Chicago	Ill
Industrial Retaining Ring Co, Irvington	N J
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia	Pa
Kling Metal Spinning & Stpg Corp, New York	N Y
Metal Ceram Inc, Mount Vernon	N Y
Oneida Electronic Mfg Co, Meadville	Pa
Parechoc S A, Ch 1347 Le Sentier	Switzerland
PIC Design Corp, East Rockaway	N Y
Ramsey Corp Sub TRW, St Louis	Mo
Rotor Clip Co, Inc, Bronx	N Y
Secs, Inc, Long Island City	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Standard Polymer Inc, Van Nuys	Cal
Tinnerman Products Inc, Cleveland	Ohio
United Aircraft Products Inc, Dayton	Ohio
Vaco Products Co, Chicago	Ill
Waldes Kohinoor Inc, Long Island City	N Y

RIVETS

CARR FASTENER CO DIV UNITED-CARR INC, CAMBRIDGE MASS	**ADV PGS 284,285**
CIRCON COMPONENT CORP, GOLETA, CAL	**ADV PG 332**
STIMPSON CO INC, EDWIN B, BROOKLYN	**N Y**
Abscoa Industries, Inglewood	Cal
Allmetal Screw Products Co Inc, Garden City	N Y
Aluminum Co of America, Pittsburgh	Pa
Anti-Corrosive Metal Products Co, Inc, Albany	N Y
Bigelow Components Co, Newark	N J
Brainin Corp, C S, Mt Vernon	N Y
Carr Fastener Co Div United-Carr Inc, Cambridge	Mass
Channel Master Corp, Ellenville	N Y
Chicago Rivet & Machine Co, Bellwood	Ill
Circon Component Corp, Goleta	Cal
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Eaton Yale & Towne Inc Reliance Div, Massillon	Ohio
Elco Tool & Screw Corp, Rockford	Ill
Fastex Div Illinois Tool Works, Des Plaines	Ill
Federal Screw Products Inc, Chicago	Ill
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Findings Co Industrial Div, Attleboro	Mass
Gibson Electric Co, Div Talon Inc, Delmont	Pa
Gries Reproducer Co Div Coats & Clark Inc New Rochelle	N Y
Harper Co, H M, Morton Grove	Ill
Hassall Inc, John, Westbury	N Y
Hi-Shear Corp, Torrance	Cal
Huck Mfg Co, Detroit	Mich
Metal Ceram Inc, Mount Vernon	N Y
Milford Rivet & Machine Co, Milford	Conn
Norrich Plastics Corp, Roosevelt	N Y
Product Components Corp, Hastings-on-Hudson	N Y
Pylon Co, Inc, Attleboro	Mass
Republic Steel Corp, Cleveland	Ohio
Richards Metal Products Inc, Wolcott	Conn
Russell, Burdsall & Ward, Bolt & Nut Co Port Chester	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Smith Inc, Herman H, Brooklyn	N Y
Southco Inc, Lester	Pa
Stimpson Co Inc, Edwin B, Brooklyn	N Y
Townsend Co, TRS Div, Braintree	Mass
United-Carr Inc, Boston	Mass
USM Fastener Co Div United Shoe Machy Corp Shelton	Conn
Vaco Products Co, Chicago	Ill

ROCHELLE SALT CRYSTALS SEE CRYSTAL BLANKS;CRYSTALS--PIEZOELECTRIC

RODS--GROUND

DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
STAR STAINLESS SCREW CO, PATERSON	**N J**
Allmetal Screw Products Co Inc, Garden City	N Y
Anglo American Vulcanized Fibre Co Ltd London EC 1	England
Armco Steel Corp, Middletown	Ohio
Associated Engineering & Mfg Corp, Glen Ridge	N J
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Channel Master Corp, Ellenville	N Y
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Daburn Electronics & Cable Corp, Bronx	N Y
Emerson & Cuming Inc, Canton	Mass
Firth Sterling Inc, Pittsburgh	Pa
Franklin Fibre-Lamitex Corp, Wilmington	Del
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Goodrich Industrial Prods Co, B F, Akron	Ohio
Harvel Plastics Inc, Easton	Pa
Insulating Shapes Inc, Bronx	N Y
Laminated Fabricators, San Bruno	Cal
Mackay Inc, A D, New York	N Y
Maryland Lava Co Inc, Bel Air	Md
McGraw-Edison Power Systems Div, Milwaukee	Wis
Metal Ceram Inc, Mount Vernon	N Y
National Steel Service Center Inc, Evanston	Ill
Norrich Plastics Corp, Roosevelt	N Y
Parker Metal Goods Co, Worcester	Mass
Polymer Corp, Reading	Pa
Porcelain Products Co Div Clarken Co, Carey	Ohio
Premax Products Div, Chisholm-Ryder Co Inc Niagara Falls	N Y
Republic Industrial Corp, Lathrup Village	Mich
Rohn Mfg Co, Peoria	Ill
Rowe Industries Inc, Toledo	Ohio
Semi-Alloys Inc, Mt Vernon	N Y
Siltronics Inc, Oakmont	Pa
Star Stainless Screw Co, Paterson	N J
Sterling Instrument Div, Designatronics Inc Mineola	N Y
Sylvania Elec Prods Inc, Chem & Met Div, Towanda	Pa
Trylon Inc, Elverson	Pa
Union Carbide Corp, Materials Systems Div Kokomo	Ind
United Mineral & Chemical Corp, New York	N Y
Universal-Cyclops Specialty Steel Div Cyclops Corp Pittsburgh	Pa
Wah Chang Corp, Glen Cove	N Y

RODS--METAL SEE METAL DESIRED

RODS--PLASTIC SEE PLASTICS--ROD & TUBING

RODS--THREADED SEE METAL PARTS--THREADED RODS

ROLLER BEARINGS SEE BEARINGS

ROOMS--SCREEN SEE CHAMBERS--ENVIRONMENTAL

ROTARY ACTUATORS SEE ACTUATORS

ROTARY BEAM ANTENNAS SEE ANTENNAS--COMMUNICATION

ROTARY CONVERTERS SEE CONVERTERS--POWER

ROTARY INVERTERS SEE INVERTERS

ROTARY JOINTS SEE JOINTS--ROTARY

ROTARY SOLENOIDS SEE SOLENOIDS

ROTATORS--ANTENNA

AUTOMATION DEVELOPMENT CO, CULVER CITY ... CAL
DORNE & MARGOLIN INC, BOHEMIA ... N Y
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK ... N Y
SCIENTIFIC-ATLANTA INC, ATLANTA ... GA
Alliance Mfg Co Inc, Alliance ... Ohio
American Electronic Labs Inc, Lansdale ... Pa
Andrew Corp, Orland Park ... Ill
Antenna Products Co Div All Products Co Mineral Wells ... Tex
Automation Development Co, Culver City ... Cal
B & B Motor & Control Corp, New York ... N Y
Channel Master Corp, Ellenville ... N Y
Chu Associates Inc, Littleton ... Mass
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark ... N J
Cubex Co, Altadena ... Cal
Denki Kogyo Co Ltd, Tokyo ... Japan
Dorne & Margolin Inc, Bohemia ... N Y
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck ... N Y

G C Electronics Div, Hydrometals Inc, Rockford ... Ill
Goodyear Aerospace Corp, Akron ... Ohio
Hy-Gain Electronic Corp, Lincoln ... Neb
K L A Labs Inc, Detroit ... Mich
Louis Allis Co Div Litton Industries, Milwaukee ... Wisc
Magnetic Technology Inc, Canoga Park ... Cal
Parker Metal Goods Co, Worcester ... Mass
Scientific-Atlanta Inc, Atlanta ... Ga
Telrex Communication Engineering Labs Asbury Park ... N J
Trylon Inc, Elverson ... Pa
Uriel Corp, Ronkonkoma ... NY
Vega Precision Labs, Vienna ... Va

ROTORS--CASTINGS

Arwood Corp, Rockleigh ... NJ

RUBBER--PARTS, RODS, SHEETS & TUBING

WALDOM ELECTRONICS INC, CHICAGO ... ILL
Abesto Corp, Bloomfield ... N J
Acushnet Process Co, New Bedford ... Mass
APM-Hexseal Corp, Englewood ... N J
Atlantic India Rubber Works, Inc, Chicago ... Ill
Auburn Mfg Co, Middletown ... Conn
Bacon Industries, Inc, Watertown ... Mass
B & C Insulation Products, Inc, Iselin ... N J
Beemer Engineering Co, Fort Washington ... Pa
Bendix Corp Rubber Prods Plant, Toledo ... Ohio
Bentley-Harris Mfg Co, Conshohocken ... Pa
Budd Co Polychem Div, Newark ... Del
Camie Co Inc, St Louis ... Mo
Connecticut Hard Rubber Co, New Haven ... Conn
Da/Pro Rubber Inc, Van Nuys ... Cal
Dow Corning Corp, Midland ... Mich
Fel Pro Inc Div Felt Products Mfg Co, Skokie ... Ill
Florida General Electronics Inc, Daytona Beach ... Fla
General Compounds Co, Div Kai R Kuhl Co Los Angeles ... Cal
General Gaskets Inc, Middletown ... Conn
Goodrich Industrial Prods Co, B F, Akron ... Ohio
Industrial Electronic Rubber Co, Twinsburg ... Ohio
Jan Hardware Mfg Co Inc, Long Island City ... N Y
Kirkhill Rubber Co, Brea ... Cal
MB Bedding Co, Wilkes-Barre ... Pa
Mechanical Rubber Products Co, Inc, Warwick ... NY
Minnesota Rubber Co, Minneapolis ... Minn
Minor Rubber Co Inc, Bloomfield ... N J
M & M Electronics Corp, Amityville, ... N Y
Molded Rubber & Plastic Corp, Butler ... Wisc
Moxness Products Inc, Racine ... Wis
Multi - Flex Seals Inc, Bronx ... N Y
Norrich Plastics Corp, Roosevelt ... N Y
Pelmor Labs Inc, Newtown ... Pa
Porter Co Inc H K Thermoid Div, Pittsburgh ... Pa
Raybestos-Manhattan Inc, Passaic ... N J
Republic Industrial Corp, Lathrup Village ... Mich
Robintech Inc, Burbank ... Cal
Sherwood Industries Flexco Div, Bell Gardens ... Cal
Staff Gasket Mfg Corp, New York ... N Y
Tyton Corp of America, Metuchen ... N J
Waldom Electronics Inc, Chicago ... Ill

RUBBER--RAW MATERIAL

MITSUBISHI ELECTRIC CORP, TOKYO ... JAPAN
Dow Corning Corp, Midland ... Mich
Du Pont De Nemours & Co Inc E I, Wilmington ... Del
General Compounds Co, Div Kai R Kuhl Co Los Angeles ... Cal
General Electric Co Silicone Prods Dept, Waterford ... N Y
General Tire & Rubber Co, Akron ... Ohio
Hoover Hanes Rubber Corp, New York ... N Y
MB Bedding Co, Wilkes-Barre ... Pa
Mechanical Rubber Products Co, Inc, Warwick ... NY
Minor Rubber Co Inc, Bloomfield ... N J
Mitsubishi Electric Corp, Tokyo ... Japan
Pelmor Labs Inc, Newtown ... Pa
Stauffer Chemical Co Silicone Div, New York ... N Y
Uniroyal Chemical Div Uniroyal Inc, Naugatuck ... Conn

RUBBERIZED HAIR-- SEE PACKAGING MATERIALS

SALVAGE OF PRECIOUS METALS SEE PRECIOUS METALS RECOVERY & REFINING

SAPPHIRE--FINISHED PARTS

KELLER INC, HUGO P, NEW YORK ... N Y
Alberox Corp, New Bedford ... Mass
Alessi Industries, El Segundo ... Cal
Amiproducts Corp, New York ... N Y
Applied Magnetics Corp, Ferrite Head Div Santa Barbara ... Cal
Basic Ceramics Inc Sub Basic Inc, Hawthorne ... NJ
Bird Co Inc, Richard H, Waltham ... Mass
Ceramic Magnetics Inc, Fairfield ... N J
Ceramics International Corp, Mahwah ... NJ
Crystalab Products Corp, Rochelle Park ... N J
Industrial Optics Corp, Newark ... N J
Insaco Inc, Quakertown ... Pa
Jones Optical Works Inc A D, Burlington ... Mass

Keller Inc, Hugo P, New York ... N Y
Laser Optics Inc, Danbury ... Conn
Meller Co, Adolf, Providence ... R I
Moser Jewel Co, Perth Amboy ... N J
Optics Electronics Corp, Dallas ... Tex
Quartzite Processing, Inc, Malden ... Mass
Ransom Labs, John H, Los Angeles ... Cal
Semi-Elements Inc, Saxonburg ... Pa
Swiss Jewel Co, Philadelphia ... Pa
Syncor Products Co, Inc, Malden ... Mass

SAPPHIRE--RAW, NATURAL OR SYNTHETIC

KELLER INC, HUGO P, NEW YORK ... N Y
Airtron, Div of Litton Industries, Inc, Morris Plains ... N J
Alessi Industries, El Segundo ... Cal
Electronic Space Products Inc, Los Angeles ... Cal
Insaco Inc, Quakertown ... Pa
Keller Inc, Hugo P, New York ... N Y
Koch Light Labs Ltd, Colnbrook, Bucks ... England
Meller Co, Adolf, Providence ... R I
Moser Jewel Co, Perth Amboy ... N J
Semi-Elements Inc, Saxonburg ... Pa
Swiss Jewel Co, Philadelphia ... Pa

SATURABLE REACTORS SEE REACTORS--SATURABLE

SCALERS SEE COUNTERS--ELECTRONIC

SCANNERS--FACSIMILE SEE FACSIMILE EQUIPMENT

SCANNERS--IMAGE

NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
Avco Corp Electronics Div, Cincinnati ... Ohio
Avion Electronics Inc, Unit Gen Signal Corp Paramus ... NJ
Barnes Engineering Co Def & Space Div Stamford ... Conn
Beta Instrument Corp, Newton Upper Falls ... Mass
Cardion Electronics Div Gen Signal Corp, Woodbury ... N Y
Colorado Video Inc, Boulder ... Colo
Dalto Electronics Corp, Norwood ... N J
E G & G Inc, Systems Devel Div, Bedford ... Mass
Elastronics Labs, Tarzana ... Cal
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown ... Md
Fairchild Space & Defense Sys Div Fairchild Cam Instr Corp, Syosset ... NY
Goodyear Aerospace Corp, Akron ... Ohio
Graphic Electronics Inc, La Salle ... Ill
Hycon, Monrovia ... Cal
Information Control Corp, El Segundo ... Cal
Information International Inc, Cambridge ... Mass
Infrared Industries Inc, Santa Barbara ... Cal
ITT Industrial Labs Div, Fort Wayne ... Ind
Keuffel & Esser Co, Hoboken ... N J
Link Group Gen Precision Sys Inc, Binghamton ... N Y
Litton Industries, Electron Tube Div, San Carlos ... Cal
Nippon Electric Co Ltd, Tokyo ... Japan
Nuclear-Chicago Corp, Des Plaines ... Ill
Nuclear Enterprises Ltd, Edinburgh 11 ... Scotland
Nuclear Research Instruments, Berkeley ... Cal
Philco-Ford Corp, Washington ... D C
Picker Nuclear, White Plains ... N Y
Ransom Labs, John H, Los Angeles ... Cal
Scope Inc, Reston ... Va
Space & Systems Div General Time Corp Stamford ... Conn
Technical Operations Inc, Burlington ... Mass
Te Company, Santa Barbara ... Cal
Westinghouse Electric Corp, Tube Div, Elmira ... NY

SCANNERS--INPUT

HEWLETT-PACKARD, PALO ALTO ... CAL
NON-LINEAR SYSTEMS INC, DEL MAR ... CAL
Hewlett-Packard, Palo Alto ... Cal
Lear Siegler Inc, Cimron Div, San Diego ... Cal
Non-Linear Systems Inc, Del Mar ... Cal
Vidar Corp, Mountain View ... Cal

SCANNERS--OPTICAL

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE, N Y ... ADV PG 626
DISCON CORP, FORT LAUDERDALE ... FLA
HYDRA-ELECTRIC CO, BURBANK ... CAL
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
Aeroflex Labs, Inc, Plainview ... N Y
American Instrument Co, Inc, Silver Spring ... Md
American Time Products, Elctns Div Bulova Watch Co Inc Woodside ... N Y
Applachian Electronic Instruments Inc Ronceverte ... W Va
Avco Corp Electronics Div, Cincinnati ... Ohio
Avion Electronics Inc, Unit Gen Signal Corp Paramus ... NJ
Barnes Engineering Co Def & Space Div Stamford ... Conn
Bausch & Lomb, Inc, Rochester ... N Y

Chicago Aerial Industries Inc, Barrington ... Ill
Conductron Corp, Ann Arbor ... Mich
Consolidated Ohmic Devices Inc, Carle Place ... N Y
Control Data Corp, Minneapolis ... Minn
Crystalab Products Corp, Rochelle Park ... N J

Optical Scanners?

Try Bulova First!

CALL:

Ariz Tech-Ser Inc, 1805 E Indian School Rd Phoenix ... 602-265-3629
Cal Straube Assoc., Inc., 483 Willow Rd., Menlo Pk ... 213-323-2476
Cal Cardinal Assoc, 16024 Ventura Blvd Encino ... 213-788-4540
Conn Samuel C Hooker Inc, Box 369 West Hartford ... 203-233-8000
Fla Perrott Assoc, 1607 Forsyth Rd, Orlando ... 305-275-1132
Fla Perrott Assoc, Box 4532, Clearwater. 813-531-5513
Fla Perrott Assoc, Box 6277 West Palm Beach ... 305-967-1770
Ga Emmett Rushin Co, Box 486 Roswell ... 404-993-6498
Ill Communications Eng, 7100 N Western Ave Chicago ... 312-R01-0548
Md Daniel & Co, Box 124, Lutherville. .301-825-8330
Mass Samuel Hooker, Inc, Box 352 Winchester ... 617-729-5482
Minn Wenco Sales Inc, 7728 Morgan Ave S Minneapolis ... 612-866-3639
Mo J C Mankus & Assoc, 400 Brooks La Hazelwood ... 314-PE1-4334
NY H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester ... 716-232-2688
NY Cane Technical Sales, 555 E Boston Post Rd Mamaroneck ... 914-698-4411
NY H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady ... 518-882-9303
NY H C Johnson Agencies Inc, Box 215 Fayetteville ... 315-637-9595
NY H C Johnson Agencies Inc, 8 Los Robles St Williamsville ... 716-632-7880
Pa Daniel & Co, Box 3, Glenside ... 215-TU7-0550
Tex Applied Eng Sales, 1st Bank & Trust, Richardson ... 214-AD1-1322
Wash Jas J Backer Co, 221 W Galer St Seattle ... 206-AT3-6470

AMERICAN TIME PRODUCTS
BULOVA WATCH CO INC
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

Data Trends Inc, Parsippany	N J
Discon Corp, Fort Lauderdale	Fla
Dolan Jenner Industries Inc, Melrose	Mass
Elastronics Labs, Tarzana	Cal
Electro-Mechanics Co, Austin	Tex
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Space & Defense Sys Div Fairchild Cam Instr Corp, Syosset	NY
Farrand Optical Co Inc, Bronx	N Y
Gaertner Scientific Corp, Chicago	Ill
General Electric Co Info Sys Equip Div, Phoenix	Ariz
Goodyear Aerospace Corp, Akron	Ohio
Graphic Electronics Inc, La Salle	Ill
Gulton Industries Inc, Metuchen	N J
Honeywell-EDP Div, Wellesley Hills	Mass
Hycon, Monrovia	Cal
Hydra-Electric Co, Burbank	Cal
IBM Corp, Armonk	N Y
IBM Data Processing Div, White Plains	N Y
Industrial Control Co, Farmingdale	N Y
Information International Inc, Cambridge	Mass
Infrared Industries Inc, Santa Barbara	Cal
Laser Optics Inc, Danbury	Conn
Link Group Gen Precision Sys Inc, Binghamton	N Y
Litton Industries, Electron Tube Div, San Carlos	Cal
Machinery Electrification Inc, Northboro	Mass
Nanosecond Systems Inc, Fairfield	Conn
National Cash Register Co, Dayton	Ohio
Nippon Electric Co Ltd, Tokyo	Japan
Northrop Nortronics, Palos Verdes Peninsula	Cal
Nuclear Research Instruments, Berkeley	Cal
Optomechanisms Inc, Plainview	N Y
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Perkin-Elmer Corp, Norwalk	Conn
Philco-Ford Corp, Washington	D C
Photobell Co Inc, New York	N Y
Rabinow Electronics Inc, Rockville	Md
Ransom Labs, John H, Los Angeles	Cal
Schoeffel Instrument Co, Westwood	NJ
Space Rays Inc, Burlington	Mass
Stocker & Yale Inc, Beverly	Mass
Sylvania Electronic Systems, Waltham	Mass
Technical Operations Inc, Burlington	Mass
Te Company, Santa Barbara	Cal
TRW Systems Group, Redondo Beach	Cal
Visual Inspection Products, Lynn	Mass
Westinghouse Electric Corp, Aerospace Div Baltimore	Md

SCANNERS--SWITCHING SEE COMMUTATORS--SWITCHING

SCINTILLATION COUNTERS SEE COUNTERS--NUCLEAR PARTICLE

SCINTILLATION CRYSTALS SEE CRYSTALS--SCINTILLATION

SCINTILLATORS

Atomic Labs, Div Cenco Instr Corp, Chicago	Ill
Baird-Atomic, Inc, Cambridge	Mass
Collins & Assoc Don L, Glendale	Cal
Cryogenic Research Co Inc, Boulder	Colo
Crystalab Products Corp, Rochelle Park	N J
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland	Ohio
Horiba Instruments Inc, Kyoto	Japan
Isotopes A Teledyne Co, Westwood	N J
Kahl Scientific Instrument Corp, El Cajon	Cal
Kobe Industries Corp, Kobe	Japan
Koch Light Labs Ltd, Colnbrook, Bucks	England
Nuclear-Chicago Corp, Des Plaines	Ill
Nuclear Diodes, Inc, Prairie View	Ill
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Nuclear Measurements Corp, Indianapolis	Ind
Nuclear Supplies, Encino	Cal
Packard Instrument Co, Inc, Downers Grove	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pilot Chemicals Inc, Watertown	Mass
Polysciences Inc, Warrington	Pa
Quartz & Silice, Paris 8 eme	France
Semi-Elements Inc, Saxonburg	Pa

SCRAMBLERS--SPEECH

HEWLETT-PACKARD, PALO ALTO	**CAL**
TELE-SIGNAL CORP, WOODBURY	**N Y**
Bendix Corp, Communications Div, Towson	Md
Hewlett-Packard, Palo Alto	Cal
Kahn Research Labs Inc, Freeport	N Y
Lynch Communication Systems, San Francisco	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Philco-Ford Corp, Washington	D C
P M C Electronics Corp, Philadelphia	Pa
Sylvania Electronic Systems, Waltham	Mass
Tele-Signal Corp, Woodbury	N Y

SCREEN ROOMS SEE CHAMBERS--ENVIRONMENTAL

SCREENS, PRINTED CIRCUIT--SILK

KRESSILK PRODUCTS INC, ELMSFORD	**N Y**
WIRE CLOTH ENTERPRISES INC, PITTSBURGH PA	**ADV PG 281**
Abacus Electronics Corp, Dobbs Ferry	N Y
Advanced Space Age Products Inc, Alexandria	Va
Avionics Ltd, Niagara-on-the-Lake	Ont
Coastal Dynamics Corp, Venice	Cal
Feay Co, Neal, Goleta	Cal
Kepro Circuit Systems Inc, St Louis	Mo
Kressilk Products Inc, Elmsford	N Y
Lambert Co, Inc, Boston	Mass
Markon Mfg Inc, Englewood	Colo
Mid-West Metal Products Inc, Kansas City	Kans
Morey Corp, Downers Grove	Ill
Naz-Dar Co, Chicago	Ill
Podgor Co Inc, Joseph E, Philadelphia	Pa
Qualitron Corp, Danbury	Conn
Strandberg Engineering Labs Inc, Greensboro	N C
Towne Labs Inc, Somerville	N J
Wire Cloth Enterprises Inc, Pittsburgh	Pa

SCREENS, PRINTED CIRCUIT--WIRE MESH

BUCKBEE MEARS CO, ST PAUL	**MINN**
KRESSILK PRODUCTS INC, ELMSFORD	**N Y**
WIRE CLOTH ENTERPRISES INC, PITTSBURGH PA	**ADV PG 281**
Abacus Electronics Corp, Dobbs Ferry	N Y
Advanced Space Age Products Inc, Alexandria	Va
Affiliated Manufacturers Inc, Whitehouse	N J
Avionics Ltd, Niagara-on-the-Lake	Ont
Buckbee Mears Co, St Paul	Minn
Coastal Dynamics Corp, Venice	Cal
Dry Screen Process Inc, Pittsburgh	Pa
Etchomatic Inc, Waltham	Mass
Kepro Circuit Systems Inc, St Louis	Mo
Kressilk Products Inc, Elmsford	N Y
Lambert Co, Inc, Boston	Mass
Markon Mfg Inc, Englewood	Colo
Morey Corp, Downers Grove	Ill
Naz-Dar Co, Chicago	Ill
Newark Wire Cloth Co, Newark	N J
Podgor Co Inc, Joseph E, Philadelphia	Pa
Towne Labs Inc, Somerville	N J
Tyler Co, W S, Mentor	Ohio
Unique Wire Weaving Co Inc, Hillside	N J
Wire Cloth Enterprises Inc, Pittsburgh	Pa
Wire Cloth Manufacturers Inc, Parsippany	N J

SCREWS

CIRCON COMPONENT CORP, GOLETA, CAL	**ADV PG 332**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
KINETRON CORP, ASBURY PARK	**N J**
SECS, INC, LONG ISLAND CITY	**N Y**
STAR STAINLESS SCREW CO, PATERSON, N J	**ADV PG 286**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Abscoa Industries, Inglewood	Cal
Acme Model Engineering Co, Ridgefield	N J
Admiral Controls Inc, Los Angeles	Cal
Allen Mfg Co, Hartford	Conn
Allmetal Screw Products Co Inc, Garden City	N Y
Aluminum Co of America, Pittsburgh	Pa
Amatom Electronic Hardware, New Rochelle	N Y
Anti-Corrosive Metal Products Co, Inc, Albany	N Y
APM-Hexseal Corp, Englewood	N J
Camcar Screw & Mfg, A Textron Div, Rockford	Ill
Central Screw Co, Broadview	Ill
Chase Metals Service Div Chase Brass & Copper Co Cleveland	Ohio
Circon Component Corp, Goleta	Cal
Concord Electronics Corp, New York	N Y
Continental Screw Co, New Bedford	Mass
Cox Mfg Co, San Antonio	Tex
Daburn Electronics & Cable Corp, Bronx	N Y
Eaton Yale & Towne Inc Reliance Div, Massillon	Ohio
Elco Tool & Screw Corp, Rockford	Ill
Eugene Engineering Co Inc, Rockland	Mass
Federal Screw Products Inc, Chicago	Ill
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Gemp Terminals Inc, Yonkers	N Y
General Findings Co Industrial Div, Attleboro	Mass
Gillette Electronic Products Co, Beverly	N J
Great Eastern Metal Products Co, Yonkers	N Y
Gries Reproducer Co Div Coats & Clark Inc New Rochelle	N Y
Harper Co, H M, Morton Grove	Ill
Hydro Molding Co Inc, Plattsburgh	N Y
Kinetron Corp, Asbury Park	N J
Long-Lok Corp Sub Whittaker Corp, Los Angeles	Cal
MacLean-Fogg Lock Nut Co, Mundelein	Ill
Mercury Div Whittaker Corp, Culver City	Cal
Micro Parts Inc, Los Angeles	Cal
Morris Co, J I, Southbridge	Mass
Multi - Flex Seals Inc, Bronx	N Y
Norrich Plastics Corp, Roosevelt	N Y
Nutmeg Screw Machine Products Co, Waterbury	Conn
Nylogrip Products, Waltham	Mass
Parker-Kalon Corp, United Shoe Machy Corp Clifton	N J
Parker Metal Goods Co, Worcester	Mass
Product Components Corp, Hastings-on-Hudson	N Y
Pylon Co, Inc, Attleboro	Mass
Republic Industrial Corp, Lathrup Village	Mich
Republic Steel Corp, Cleveland	Ohio
Russell, Burdsall & Ward, Bolt & Nut Co Port Chester	N Y
Secs, Inc, Long Island City	N Y
Shakeproof Div, Illinois Tool Works Inc, Elgin	Ill
Shigoto Industries Ltd, New York	N Y
Southco Inc, Lester	Pa
Stake Fastener Co, S El Monte	Cal
Standard Polymer Inc, Van Nuys	Cal
Star Stainless Screw Co, Paterson	N J
Teale Machine Co Inc, Rochester	N Y
Tridair Industries Fastener Div, Torrance	Cal
Waldom Electronics Inc, Chicago	Ill
Weckesser Co Inc, Chicago	Ill

SEALERS SEE COATINGS

SEALING MACHINES SEE MACHINES--HERMETIC-SEALING

SEALING SERVICES--HERMETIC

KINETRON CORP, ASBURY PARK	**N J**
Accratronics Seals Corp, Burbank	Cal
Alberox Corp, New Bedford	Mass
APM-Hexseal Corp, Englewood	N J
Astro Seal Inc, S El Monte	Cal
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Castall Research Lab Inc, Brockton	Mass
Ceramics International Corp, Mahwah	NJ
Clare-Electroseal Corp, Des Plaines	Ill
Conax Corp, Buffalo	N Y
Crystal Components Plant, GTI Corp, Warren	Pa
Crystal Components Saegertown Div GTI Corp Warren	Pa
Detoronics Corp, S El Monte	Cal
Device Seals Inc, Sun Valley	Cal
Electrospace Corp, Glen Cove	N Y
Glasseal Products Co Inc, Linden	N J
Greenfield Components Corp, Greenfield	Mass
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead	Cal
Hermetite Corp, Avon	Mass
H J Electronic Seal Co, South Norwalk	Conn
Isotronics Inc, New Bedford	Mass
Kinetron Corp, Asbury Park	N J
Latronics Corp, Latrobe	Pa
Litton Industries, Electron Tube Div, San Carlos	Cal
Lundey Associates Inc, Waltham	Mass
Microdot, Inc, South Pasadena	Cal
Minnesota Rubber Co, Minneapolis	Minn
Mitronics Inc, Murray Hill	N J
National Beryllia Corp, Haskell	N J
Northeast Electronics Corp, Milford	Conn
Precision Optics Div Penna Optical Co, Reading	Pa
Relay Specialties Inc, Fair Lawn	N J
Research Instrument Co Inc, Westbury	N Y
Seal-A-Metic, Inc, Haledon	N J
Sealtron Corp, Cincinnati	Ohio
Silicone Seals Inc, Chicago	Ill
Silver & Assoc Inc G H, Newtonville	Mass
Uni-Seal Div G-V Controls, Dover	N J
United Products Co, Orange	N J
U S Stoneware Inc, Orville Plant, Orrville	Ohio
Varo Inc Microcircuit Products Div, Garland	Tex

SEALS, HERMETIC--METAL-TO- CERAMIC

AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
ELECTRICAL INDUSTRIES, DIV PHILIPS ELCTNS & PHARM IND CORP, MURRAY HILL	**N J**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
NGK SPARK PLUG CO LTD, MIZUHO-KU NAGOYA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Accratronics Seals Corp, Burbank	Cal
Alberox Corp, New Bedford	Mass
Alloys Unlimited Inc, Melville	N Y
American Lava Corp, Chattanooga	Tenn
Astro Seal Inc, S El Monte	Cal
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Bendix Corp Electrical Components Div, Sidney	N Y
Castall Research Lab Inc, Brockton	Mass
Ceramaseal Inc, Sub Lapp Insulator Co Inc New Lebanon Center	N Y
Ceramics International Corp, Mahwah	NJ
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Comtek Microwave Dept Allied Rsch Assoc Inc Woburn	Mass
Consolidated Ceramics & Metalizing Corp Flemington	N J
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Coors Porcelain Co, Golden	Colo
Corning Glass Works, Corning	N Y
Culbertson Products Inc, Bernardsville	N J
Detoronics Corp, S El Monte	Cal
Device Seals Inc, Sun Valley	Cal
Eimac Div, Varian Associates, San Carlos	Cal
Electrical Industries, Div Philips Elctns & Pharm Ind Corp Murray Hill	N J
Ferranti, Ltd, Lancashire	England
Frenchtown/CFI Inc, Frenchtown	N J
General Electric Co, ECSO, Schenectady	N Y
General Laboratory Assoc Inc, Norwich	N Y
Glass Beads Co, Latrobe	Pa

"How more rigid can quality control get?"

E-I GLASS-TO-METAL SEALS —

Specialized manufacture, with continual R & D pinpointed to absolute seal perfection

— PROVED IN CRITICAL AERO-SPACE PROJECTS!

Years of E-I specialized production, with research and development devoted exclusively to the ultimate in hermetic sealing, have resulted in electrical and mechanical characteristics compatible with today's highly sophisticated applications. Engineers and designers requiring high reliability in vacuum-tight sealing, should check these advantages:

- High dielectric strength, severe shock and vibration resistance
- Cushioned glass construction, maximum rigidity and durability
- Withstand wide fluctuations in temperature and humidity
- Miniaturization, design standardization

E-I sealed terminations include hundreds of stock items. Where custom seals or unusual lead configurations are required, E-I sales engineers will make recommendations from your blueprints, sketches or data.

Write for E-I Catalog — Complete data on standard types, custom seal components and sealing to your specifications. Address requests on company letterhead.

Hermetically Sealed Terminals
Plug-in Connectors and Multi-lead Headers
Semiconductor Bases
Condenser End Seals
Compression Type Threaded End Seals
Special Application Custom Seal Components

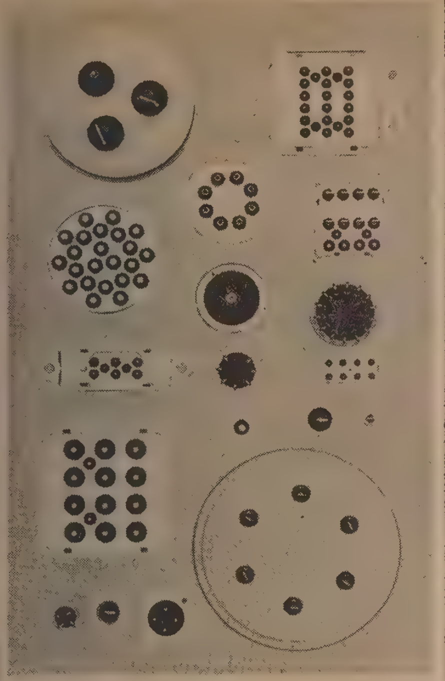
Electrical Industries
A Division of Philips Electronics and Pharmaceutical Industries Corp.
Murray Hill, N. J. 07971 — Tel. (201) 464-3200

Patented in U.S.A., No. 3,035,372; In Canada, No. 523,390; in United Kingdom, No. 734,583; other patents pending.

Glasseal Products Co Inc, Linden	N J
Greenfield Components Corp, Greenfield	Mass
GTI Corp, Advac Div, Stamford	Conn
GTI Corp, Dix Engineering Div, Costa Mesa	Cal
Haveg Industries, Inc, Precision Molding Div Taunton	Mass
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead	Cal
H J Electronic Seal Co, South Norwalk	Conn
Indium Corp of America, Utica	N Y
Isochem Resins Co, Lincoln	RI
Isotronics Inc, New Bedford	Mass
Latronics Corp, Latrobe	Pa
LCC-CICE, 93 Montreuil-sous-Bois	France
Litton Industries, Electron Tube Div, San Carlos	Cal
Livingston Electronic Div Jettron Prods Inc Hanover	N J
Loctite Corp, Newington	Conn
Lundey Associates Inc, Waltham	Mass
Metalized Ceramics Corp, Providence	R I
Mitronics Inc, Murray Hill	N J
Molecular Dielectrics Inc, Clifton	N J
Mycalex Corp of Amer Sub Spaulding Fibre Co Inc Clifton	N J
National Beryllia Corp, Haskell	N J
Networks Electronic Corp, Chatsworth	Cal
NGK Spark Plug Co Ltd, Mizuho-ku Nagoya	Japan
Nippon Electric Co Ltd, Tokyo	Japan
Nuclear Materials & Equipment Corp, Apollo	Pa
Physical Sciences Corp, Arcadia	Cal
Precision Optics Div Penna Optical Co, Reading	Pa
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Reuter-Stokes Electronic Components Inc Cleveland	Ohio
Royal Worcester Industrial Ceramics Inc, New York	NY
Schjeldahl Co, G T, Northfield	Minn
Silicone Seals Inc, Chicago	Ill
Spectra-Mat Inc, Watsonville	Cal
Sphere Co Inc, Little Falls	N J
Statham Instruments Inc, Los Angeles	Cal
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Thermal American Fused Quartz Co, Montville	N J
20th Century Electronics Ltd New Addington, Surrey	England
United Products Co, Orange	N J
U S Stoneware Inc, Orville Plant, Orrville	Ohio
Vacuum Ceramics Div, Cary	Ill
Varian, Palo Alto	Cal
Veritron West Inc, Chatsworth	Cal
Vitta Corp, Wilton	Conn
Wagner Industries, San Jose	Cal
Washington Electrical Products Co, Washington	Mo

SEALS, HERMETIC--METAL-TO- GLASS

ATLAS CHEMICAL INDUSTRIES INC AEROSPACE COMPONENTS DIV, VALLEY FORGE, PA	**ADV PG 629**
EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
ELECTRICAL INDUSTRIES, DIV PHILIPS ELCTNS & PHARM IND CORP, MURRAY HILL, N J	**ADV PG 628**
FUSITE CORP, CINCINNATI, OHIO	**ADV PG 629**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
UNIFORM TUBES INC, COLLEGEVILLE	**PA**
Accratronics Seals Corp, Burbank	Cal
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
Alloys Unlimited Inc, Melville	N Y
Aremco Products Inc, Briarcliff Manor	N Y
Astro Seal Inc, S El Monte	Cal
Atlas Chemical Industries Inc Aerospace Components Div Valley Forge	Pa
Bendix Corp Electrical Components Div, Sidney	N Y
Castall Research Lab Inc, Brockton	Mass
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Corning Glass Works, Corning	N Y
Crystal Components Plant, GTI Corp, Warren	Pa
Crystal Components Saegertown Div GTI Corp Warren	Pa
Culbertson Products Inc, Bernardsville	N J
Dage Electric Co Inc, Franklin	Ind
Detoronics Corp, S El Monte	Cal
Device Seals Inc, Sun Valley	Cal
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Electrical Industries, Div Philips Elctns & Pharm Ind Corp Murray Hill	N J
Electronic Parts Mfg Co Inc, Union City	N J
Electron Technology Inc, Kearny	N J
El-Tronics Inc Warren Components Div, Warren	Pa
Fansteel Metallurgical Corp, North Chicago	Ill
Ferranti, Ltd, Lancashire	England
Fish-Schurman Corp, New Rochelle	N Y
Fredericks Co, Huntingdon Valley	Pa
Fusite Corp, Cincinnati	Ohio
Gardner Lab Inc, Bethesda	Md
General Electric Co, ECSO, Schenectady	N Y
Glasseal Products Co Inc, Linden	N J
Granville-Philips Co, Boulder	Colo
Greenfield Components Corp, Greenfield	Mass
GTI Corp, Dix Engineering Div, Costa Mesa	Cal
Gulton Industries Inc Controls & Instru Grp Costa Mesa	Cal
Hermaseal Co Inc, Elkhart	Ind
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead	Cal
Hermetite Corp, Avon	Mass
H J Electronic Seal Co, South Norwalk	Conn



FUSITE HERMETIC TERMINALS

available in 1000 current designs or built to order

Fusite standard or custom terminals help build extra value and reliability in your electronic components or equipment. The physical and electrical integrity of Fusite glass-to-metal hermetic terminals have been proved in thousands of industrial, military and consumer applications. Standard and custom designs are available with fusion, compression, or matched-type seals in single or multiple electrode terminals; Fusite's in-house plating capability assures quality finishes with all standard materials, including precious metals. Fusite has *complete* capability from smelting to final assembly—at competitive prices in any quantity. *Call Fusite first . . . at (513) 731-2020.*

FUSITE

GLASS-TO-METAL HERMETIC TERMINALS
GLASS / GLASS-CERAMIC PREFORMS & SUBSTRATES

6000 Fernview Ave., Cincinnati, Ohio 45212

Fusite N.V., Konigweg 16, Almelo, Holland; Fusite-Japan, Gotemga, Japan; Terminal Products, Hormigueros, Puerto Rico; or, Fusite GmbH, Dieselstrasse 5, Karlsruhe, West Germany.

GLASS-TO-METAL SEALS

- Over 150 standard single-pin terminals in stock.
- Custom headers made precisely to your specs. Certain configurations available from stock.
- Expert assistance for your tough design problems.
- The industry's most precise production equipment.
- All performance-proved in controlled-environment tests.

For quality, reliability, on-time delivery, and favorable prices in single-pin terminals and custom headers, or for expert advice on your design dilemmas, count on Atlas. Write us, or phone (215) 666-0700.

ATLAS

CHEMICAL INDUSTRIES, INC.
Aerospace Components Division
Valley Forge, Pa. 19481

Indium Corp of America, Utica	N Y
Isochem Resins Co, Lincoln	RI
Isotronics Inc, New Bedford	Mass
ITT Industrial Labs Div, Fort Wayne	Ind
Latronics Corp, Latrobe	Pa
LCC-CICE, 93 Montreuil-sous-Bois	France
Litton Industries, Electron Tube Div, San Carlos	Cal
Livingston Electronic Div Jettron Prods Inc Hanover	N J
Loctite Corp, Newington	Conn
Mason-Renshaw Industries, Carpinteria	Cal
Matthey Bishop Inc, Malvern	Pa
Metalized Ceramics Corp, Providence	R I
Microdot, Inc, South Pasadena	Cal
Micro Parts Inc, Los Angeles	Cal
Micro Science Assoc, Mountain View	Cal
Networks Electronic Corp, Chatsworth	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Northeast Electronics Corp, Milford	Conn
Owens-Illinois Consumer & Tech Products Div Toledo	Ohio
Precision Optics Div Penna Optical Co, Reading	Pa
Seal-A-Metic, Inc, Haledon	N J
Sealtron Corp, Cincinnati	Ohio
Silver Glo Picture Tubes Ltd, Edmonton	Alb
Standard Telephones & Cables Ltd London WC 2	England
Statham Instruments Inc, Los Angeles	Cal
Syncor Products Co, Inc, Malden	Mass
T & E Industries, Inc, Hillside	N J
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Texas Instruments Incorporated, Dallas	Tex
Thermal Controls Inc, Belleville	N J
20th Century Electronics Ltd New Addington, Surrey	England
Uniform Tubes Inc, Collegeville	Pa
Uni-Seal Div G-V Controls, Dover	N J
United-Carr Inc, Boston	Mass
Vacuum Ceramics Div, Cary	Ill
Varo Inc Microcircuit Products Div, Garland	Tex
Veritron West Inc, Chatsworth	Cal
Vitta Corp, Wilton	Conn
Wagner Industries, San Jose	Cal

SEALS, HERMETIC--SAPPHIRE- TO-GLASS

Alloys Unlimited Inc, Melville	N Y
Corning Glass Works, Corning	N Y
Fredericks Co, Huntingdon Valley	Pa
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead	Cal
ITT Industrial Labs Div, Fort Wayne	Ind
Latronics Corp, Latrobe	Pa
Litton Industries, Electron Tube Div, San Carlos	Cal

Meller Co, Adolf, Providence	R I
Metal Ceram Inc, Mount Vernon	N Y
National Beryllia Corp, Haskell	N J
Precision Optics Div Penna Optical Co, Reading	Pa
Seal-A-Metic, Inc, Haledon	N J
Semi-Alloys Inc, Mt Vernon	N Y
Syncor Products Co, Inc, Malden	Mass
Vacuum Ceramics Div, Cary	Ill
Veritron West Inc, Chatsworth	Cal
Wagner Industries, San Jose	Cal

SEALS--MECHANICAL

GRAPHITE METALLIZING CORP, YONKERS	**N Y**
Abesto Corp, Bloomfield	N J
Abscoa Industries, Inglewood	Cal
Acroscope Engineering Inc, Los Angeles	Cal
Advance Carbon Products, Inc, San Francisco	Cal
APM-Hexseal Corp, Englewood	N J
Bal Seal Engineering Co, Santa Fe Springs	Cal
Beemer Engineering Co, Fort Washington	Pa
Bendix Corp Rubber Prods Plant, Toledo	Ohio
Castall Research Lab Inc, Brockton	Mass
Chemplast Inc, Wayne	N J
Chomerics, Inc, Arlington	Mass
Conax Corp, Buffalo	N Y
Coors Porcelain Co, Golden	Colo
Cryolab Div, Statics-Dynamics Inc, Los Osos	Cal
Da/Pro Rubber Inc, Van Nuys	Cal
Dixon Corp, Bristol	R I
Emerson Plastics Corp, Bronx	New York
Fel Pro Inc Div Felt Products Mfg Co, Skokie	Ill
Felters Co, Millbury	Mass
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Graphite Metallizing Corp, Yonkers	N Y
GTI Corp, Advac Div, Stamford	Conn
Industrial Electronic Rubber Co, Twinsburg	Ohio
Insulating Shapes Inc, Bronx	N Y
Latronics Corp, Latrobe	Pa
Mason-Renshaw Industries, Carpinteria	Cal
Mechanical Rubber Products Co, Inc, Warwick	NY
Metal Ceram Inc, Mount Vernon	N Y
Minor Rubber Co Inc, Bloomfield	N J
Multi - Flex Seals Inc, Bronx	N Y
National Beryllia Corp, Haskell	N J
Norton Co Vacuum Equip Div, Newton	Mass
Ohio Carbon Co, Cleveland	Ohio
Parker Seal Co, Culver City	Cal
Penn Fibre & Specialty Co, Philadelphia	Pa
Polymer Corp, Reading	Pa
Republic Industrial Corp, Lathrup Village	Mich
St Marys Carbon Co, St Marys	Pa
Sealol Inc, Providence	R I
Semi-Alloys Inc, Mt Vernon	N Y
Servotronics Inc, Buffalo	N Y
Shamban & Co, W S, Los Angeles	Cal
Standard Polymer Inc, Van Nuys	Cal
Tec Seal Corp, Wilmington	Cal
Union Carbide Corp, Carbon Products Div New York	N Y
United Aircraft Products Inc, Dayton	Ohio

SEARCHLIGHT SEE SEARCHLIGHT SECTION

SELENIUM

GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
Aceto Chemical Co, Inc, Flushing	NY
Alpha Components Corp, Venice	Cal
American Smelting & Refining Co, New York	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bemol Co, Newton	Mass
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerac Inc, Butler	Wis
Cerro Corp, New York	NY
Cerro Sales Corp, New York	NY
City Chemical Corp, New York	N Y
Eastern Delta Corp, Fair Lawn	N J
Electronic Space Products Inc, Los Angeles	Cal
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
General Instrument Europe SPA, Milano	Italy
Green Electric Corp, Fairlawn	NJ
Hayakawa Electric Co Ltd, Osaka	Japan
Holmes Co, Carl E, Los Angeles	Cal
Interman Industrial Products Ltd, Garden City	NY
International Rectifier Semiconductor Div El Segundo	Cal
Kawecki Chemical Co, New York	N Y
Koch Light Labs Ltd, Colnbrook, Bucks	England
Metal Ceram Inc, Mount Vernon	N Y
Ramm Rectifier Co, Inc, Bronx	N Y
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
Semikron International Inc, Scarsdale	N Y
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J

SEMICONDUCTORS SEE SPECIFIC TYPE

SENSORS SEE DETECTORS

SEISMOGRAPHS

ITHACO INC, ITHACA	**N Y**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
Electro-Technical Labs Div Mandrel Indus Inc Houston	Tex
Fieldstone Corp Hardco Scientific Div, Cincinnati	Ohio
Geo Space Corp, Houston	Tex
Ithaco Inc, Ithaca	N Y
Metrix Instrument Co, Houston	Tex
Oki Electric Industry Co Ltd, Tokyo	Japan
Texas Instruments Incorporated, Dallas	Tex
Texas Instruments Inc Indl Prods Div, Houston	Tex
Yokogawa Electric Works Inc, Larchmont	N Y

SERVICES SEE BRAZING; CALIBRATION; CIRCUITS--

PRINTED WIRING; COMPUTING; ELECTROFORMING;

ENCAPSULATION; ENGRAVING & PROFILING; ETCHING;

FUNGIPROOFING; HEAT-TREATING; LABORATORIES--

TESTING; LAPPING & HONING; METALIZING;

PACKAGING; PLASTIC MOLDING; PLATING; SEALING--

HERMETIC; SHIPPING; SILK-SCREEN PROCESSING;

SOLDERING; TINNING; TOWER SERVICE; WELDING;

WIRE-MARKING; FOR MACHINING SERVICES SEE

METAL PARTS LISTINGS

SERVO ANALYZERS SEE ANALYZERS--SERVO

SERVOS--ACTUATORS

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL, PA	**ADV PG 631**
IMC MAGNETICS CORP EASTERN DIV, WESTBURY	**N Y**
IMC MAGNETICS CORP WESTERN DIV, MAYWOOD	**CAL**
Adel Div De Laval Turbine Calif Inc, Burbank	Cal
Advance Gear & Machine corp, Los Angeles	Cal
Aeroflex Labs, Inc, Plainview	N Y
American Electronics, Inc, Fullerton	Cal
American Precision Industries Inc, East Aurora	NY
Automation Development Co, Culver City	Cal
Aviation Electric Ltd, St Laurent, Montreal	Que
Barber-Colman Co, EMP Div, Rockford	Ill
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Bendix Corp Navigation & Control Div, Teterboro,	N J
Bowmar Instrument Corp, Fort Wayne	Ind
Cadillac Gage Co, Warren	Mich
Carbonara Instrument Engrg Labs, Victor E, Port Washington	N Y
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
Compudyne Corp, Hatboro	Pa
Conductron Corp, Ann Arbor	Mich
Consolidated Controls Corp, El Segundo	Cal
Consolidated Controls Corp, Bethel	Conn
Control Technology Co Inc, Long Island City	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Curry Engineering Co, N Hollywood	Cal
Electro-Kinetics Corp Div EPD Ind Inc, Long Beach	Cal
Farrand Controls Inc, Valhalla	N Y
Gap Instrument Corp, Westbury	N Y
General Design Inc, Sun Valley	Cal
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Hartman Systems Co Inc, Huntington Station	N Y
IMC Magnetics Corp Eastern Div, Westbury	N Y
IMC Magnetics Corp Western Div, Maywood	Cal
Industrial Control Co, Farmingdale	N Y
Instru-Lec Corp, Mt Vernon	N Y
Jordan Controls Inc, Milwaukee	Wis
Kollsman Motor Corp, Dublin	Pa
Lamb Electric Div Ametek Inc, Kent	Ohio
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
Lunkenheimer Co Sub Condec Corp, Cincinnati	Ohio
Magnetic Technology Inc, Canoga Park	Cal
McMaster Products Corp, Chicago	Ill
Moog Inc, Industrial Div, East Aurora	N Y
Muirhead Instruments Inc, Mountainside	N J
Nash Controls Inc, Caldwell	N J
Pegasus Labs Inc, Berkley	Mich
Photocircuits Corp, Glen Cove	N Y
Precision Mechanisms Corp, Westbury	N Y
Reflex Controls Corp, Huntington Station	NY
Rotating Components Div Instrument Sys Corp Bay Shore	N Y
Seneca Falls Machine Co, Seneca Falls	N Y
Servo Development Corp, Hicksville	N Y
Servo Labs Inc, Van Nuys	Cal
Servonetics Inc, Los Angeles	Cal
SieBelAir Co, Los Angeles	Cal
Sperry Flight Systems Div Sperry Rand Corp Phoenix	Ariz
Sunbeam Electronics, Fort Lauderdale	Fla
Superior Mfg & Instrument Co, Long Island City	N Y
Tensitron Inc, Harvard	Mass
United Shoe Machinery Corp, Harmonic Drive Div Beverly	Mass
United Systems Corp, Dayton	Ohio
Uriel Corp, Ronkonkoma	NY
Vactric Control Equipment Ltd, Morden	England
Vapor Corp, Chicago	Ill
Vibrac Corp, Chelmsford	Mass
Western Gear Corp Electro Products Div, Pasadena	Cal
Weston Hydraulics, Van Nuys	Cal
Weston-Transicoil, Weston Instruments Inc Worcester	Pa
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

SERVOS--AMPLIFIERS

ANALOG DEVICES INC, CAMBRIDGE	**MASS**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS WOODSIDE, NY	**ADV PG 6 30**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL, PA	**ADV PG 631**
MELCOR ELECTRONICS CORP, FARMINGDALE	**N Y**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
TABER INSTRUMENTS A TELEDYNE CO NORTH TONAWANDA	**N Y**
Adel Div De Laval Turbine Calif Inc, Burbank	Cal
Aerospace Avionics Inc, Bohemia	NY
Aetna Electronics Corp, North Branch	N J
AIM Electronics Ltd, Cambridge	U K
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
Allied Research Associates, Inc, Concord	Mass
Amtron Inc, Midlothian	Ill
Analog Devices Inc, Cambridge	Mass
Antlab, Inc, Worthington	Ohio
Applied Control Co, Cedar Grove	NJ
Applied Devices Corp, College Point	n y
Audn Corp, Hamburg	N Y
Automation Development Co, Culver City	Cal
Aviation Instrument Mfg Corp, Houston	Tex
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bell Aerosystems Co, Buffalo	N Y
Bendix Corp Navigation & Control Div, Teterboro,	N J
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Bowmar Instrument Corp, Fort Wayne	Ind
Bulova Watch Co Inc Elctns Div Servo Products Woodside	NY
Burr-Brown Research Corp, Tucson	Ariz
Butler Electronics Co, Escondido	Cal
Canadian Marconi Co, Montreal 16	Quebec
Canoga Electronics Corp, Chatsworth	Cal
Carco Electronics, Menlo Park	Cal
Cardinal Control Co Inc, Kensington	Conn
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Celtic Industries Inc, Van Nuys	Cal
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
Coast Electronics Inc, Manhattan Beach	Cal
Compudyne Corp, Hatboro	Pa
Conductron Corp, Ann Arbor	Mich
Control Technology Co Inc, Long Island City	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Curry Engineering Co, N Hollywood	Cal
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Dynamic Precision Controls Corp, Hagerstown	Ind
Electro Development Corp, Lynnwood	Wash
EMI Electronics Ltd, Hayes, Middlesex	England
Ensco Inc, Salt Lake City	Utah
Exactel Instrument Co Div Statham Instrs Inc Mountain View	Cal
Farrand Controls Inc, Valhalla	N Y
Gap Instrument Corp, Westbury	N Y
Gaylord Rives Co, Pasadena	Cal
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Gladding Corp, South Otselic	N Y
Goerz Optical Co Inc, Inwood	N Y
Hartman Systems Co Inc, Huntington Station	N Y
Industrial Control Co, Farmingdale	N Y
Inland Controls Inc Sub Kollmorgen Corp Brighton	Mass
Instrumentation Lab Inc, Watertown	Mass
Jordan Controls Inc, Milwaukee	Wis
Julie Research Labs, Inc, New York	N Y
Kollsman Instrument Ltd, Southampton	England
Kollsman Motor Corp, Dublin	Pa
Lamb Electric Div Ametek Inc, Kent	Ohio
LCC-CICE, 93 Montreuil-sous-Bois	France
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
Leeds & Northrup Co, Philadelphia	Pa
Lundy Electronics & Systems Inc, Glen Head	N Y
Magnetico Inc, East Northport	N Y
Mayberry Electronics Co, Inglewood	Cal
McFadden Electronics Co, South Gate	Cal
Measurement Systems Inc, Norwalk	Conn
Melcor Electronics Corp, Farmingdale	N Y
Micro Metrics Inc, Paterson	N J
Moog Inc, Industrial Div, East Aurora	N Y
M Ten Bosch, Inc, Pleasantville	N Y
Muirhead Instruments Inc, Mountainside	N J
Nash Controls Inc, Caldwell	N J
Norbatrol Electronics Corp, Murrysville	Pa
Pegasus Labs Inc, Berkley	Mich
Photocircuits Corp, Glen Cove	N Y
Prototype Transformer Corp, East Orange	NJ
Radix Electronics Corp, Anaheim	Cal
Reflex Controls Corp, Huntington Station	NY
Robertson Instrument Co, Azusa	Cal
Saturn Electronics Corp, Garland	Tex
Schaevitz Engineering, Pennsauken	N J
Scientific-Atlanta Inc, Atlanta	Ga
Sedco Systems Inc, Farmingdale	N Y
Seneca Falls Machine Co, Seneca Falls	N Y
Servo Development Corp, Hicksville	N Y
Servonetics Inc, Los Angeles	Cal
Singer Co, Diehl Div, Somerville	N J
Solar Electronics Co, Hollywood	Cal
Sperry Flight Systems Div Sperry Rand Corp Phoenix	Ariz
Strandberg Engineering Labs Inc, Greensboro	N C
Sunbeam Electronics, Fort Lauderdale	Fla
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Superior Mfg & Instrument Co, Long Island City	N Y
Taber Instruments A Teledyne Co North Tonawanda	N Y
Taylor Instrument Cos, Rochester	N Y
Telephonics Div, Instrument Systems Corp Huntington	NY
Tensitron Inc, Harvard	Mass
United Control Corp, Redmond	Wash
United Systems Corp, Dayton	Ohio
Vapor Corp, Chicago	Ill
Westamp Inc, Santa Monica	Cal
Weston-Transicoil, Weston Instruments Inc Worcester	Pa
Woodward Machine Inc, Elctns Div, Detroit	Mich
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

Servo Amplifiers?

Try Bulova First!

CALL:

Ariz Tech-Ser Inc, 1805 E Indian School Rd Phoenix 602-265-3629
Cal El Com Sales Co, 3600 Motor Ave Los Angeles 213-870-4707
Fla Perrott Assoc, 1607 Forsyth Rd, Orlando 305-275-1132
Fla Perrott Assoc, Box 4532, Clearwater. 813-531-5513
Fla Perrott Assoc, Box 6277 West Palm Beach 305-967-1770

Ill Communications Eng, 7100 N Western Ave Chicago 312-R01-0548
Md Callas Electronics Inc, 6409 Frederick Ave Baltimore 301-744-7711
Mich Sheridan Assoc., 25625 Southfield Rd., Southfield 313-358-3333
Mass Aborn Labs Inc, 223 Crescent St Waltham 891-4850
Minn Wenco Sales Inc, 7728 Morgan Ave S Minneapolis 612-866-3639
Mo J C Mankus & Assoc, 400 Brooks La Hazelwood 314-PE1-4334
NY L-Tron Corp, 2-4 Fennell St, Skaneateles 315-685-6172
NY Comtronic Assoc, 1551 Franklin Ave Mineola 516-P11-8966
Ohio Sheridan Assoc., 10 Knollcrest Dr., Reading 513-761-5432
Pa Garrettson Co Inc, 92-14 Masland St Philadelphia H04-2275
Tex Tech-Ser Inc, 10210 Monroe Dr Dallas 214-358-2504
Can Canadian Micro Elctns, 1390 Raven Ave Ottawa, Ont 725-2332

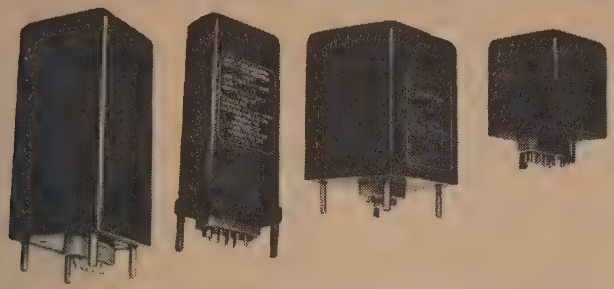
BULOVA WATCH CO INC
SERVO PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

SERVOS--COMPUTER

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
TOWSON LABS INC, BALTIMORE	**MD**
Analog General Corp, East Rockaway	N Y
Applied Devices Corp, College Point	n y
Audn Corp, Hamburg	N Y
Automation Development Co, Culver City	Cal
Bowmar Instrument Corp, Fort Wayne	Ind
Burr-Brown Research Corp, Tucson	Ariz
Canoga Electronics Corp, Chatsworth	Cal
Carbonara Instrument Engrg Labs, Victor E, Port Washington	N Y
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Compudyne Corp, Hatboro	Pa
Computer Instruments Corp, Hempstead	N Y
Conductron Corp, Ann Arbor	Mich
Control Technology Co Inc, Long Island City	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Curry Engineering Co, N Hollywood	Cal

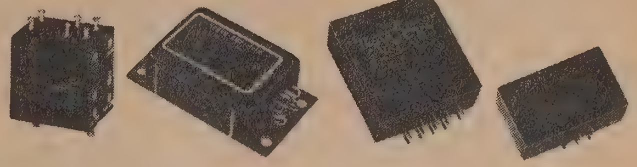
Buy CLIFTON QUALITY

ELECTRONIC MODULES



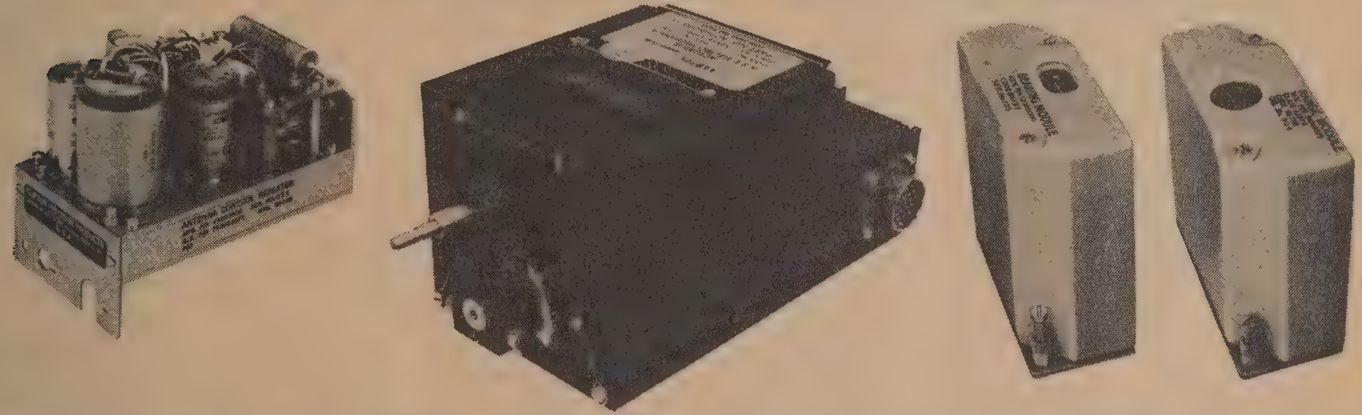
Clifton designs and manufactures power supplies (regulated and unregulated), signal comparators, summing and isolation amplifiers, single and dual channel amplifiers, amplifiers and resolvers chains, and a wide variety of similar items. Call Clifton for quality electronics.

SERVO AMPLIFIERS



Clifton amplifiers include a wide variety of 0°-180° and 90° units, summing, isolation and booster amplifiers. Many of these have been especially designed to work compatibly with Clifton motors or resolvers. Call Clifton for sophisticated amplifier-resolver chains.

FLIGHT CONTROL AND ELECTROMECHANICAL SUB ASSEMBLIES

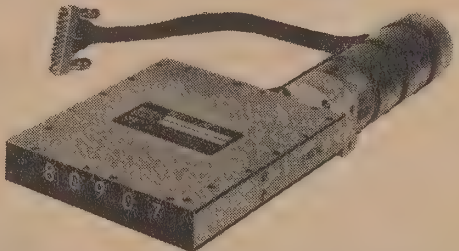


Clifton can custom design and manufacture servo packages to meet your special needs. As examples of our competence, shown above are (from left to right) a servo assembly in the F-111 aircraft, an automatic stabilization actuator used in the Sea Knight CH46A helicopter, and Tacan range and bearing couplers in use on a number of aircraft. Clifton also manufactures D/A and A/D converters, precise angle indicators, lat/long indicators. What's your special need?

D/A, SHAFT ANGLE CONVERTERS

Multispeed transducers are combined with miniature, all solid state electronics to form these highly superior encoders. They are highly accurate, rugged, highly reliable and offer long service life. They provide high volumetric bit density and low power requirements. These Clifton converters are designed for sophisticated space guidance, navigation and tactical data systems.

READOUT DEVICES



Clifton's DECI-LINE is an inline digital readout display with several outstanding advantages. Modular stacking allows maximum data with a minimum of panel space. DECI-LINE figures are large, .3125″ high. Other features include fast response, low power, high accuracy, rugged construction, military design. Call Clifton for your readout problems.

SEE pgs. 686 & 437 for description of our wide line of Synchros, Motors and many other Rotating Components

CLIFTON
DIVISION OF LITTON INDUSTRIES

GENERAL SALES OFFICE: 5050 State Rd., Drexel Hill, Pa.
215 622-1000 TWX: 510 669-8217

EMI Electronics Ltd, Hayes, Middlesex	England
Gap Instrument Corp, Westbury	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Hartman Systems Co Inc, Huntington Station	N Y
H H Controls Co Inc, Arlington	Mass
Industrial Control Co, Farmingdale	N Y
Kollsman Motor Corp, Dublin	Pa
Lamb Electric Div Ametek Inc, Kent	Ohio
Lear Siegler Inc, Santa Monica	Cal
Magnetic Technology Inc, Canoga Park	Cal
McFadden Electronics Co, South Gate	Cal
McMaster Products Corp, Chicago	Ill
Micro Metrics Inc, Paterson	N J
M Ten Bosch, Inc, Pleasantville	N Y
Northridge Engineering Co Div Republic Corp Northridge	Cal
Orbit Instrument Corp, Syosset	N Y
Precision Mechanisms Corp, Westbury	N Y
Reeves Instrument Div, DCA, Garden City	N Y
Reflex Controls Corp, Huntington Station	NY
Saturn Electronics Corp, Garland	Tex
Sedco Systems Inc, Farmingdale	N Y
Servo Development Corp, Hicksville	N Y
Servo Labs Inc, Van Nuys	Cal
Servonetics Inc, Los Angeles	Cal
Superior Mfg & Instrument Co, Long Island City	N Y
Taylor Instrument Cos, Rochester	N Y
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
Towson Labs Inc, Baltimore	Md
Uriel Corp, Ronkonkoma	NY
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Weston-Transicoil, Weston Instruments Inc Worcester	Pa
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

SERVOS--CONTROL

ANALOG DEVICES INC, CAMBRIDGE	**MASS**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BECKMAN INSTRUMENTS INC, HELIPOT DIV, FULLERTON CAL	**ADV PG 632**
BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL, PA	**ADV PG 631**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
DATA TECHNOLOGY, INC, WATERTOWN	**MASS**
IMC MAGNETICS CORP EASTERN DIV, WESTBURY	**N Y**
IMC MAGNETICS CORP WESTERN DIV, MAYWOOD	**CAL**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
SUPERIOR ELECTRIC CO THE, BRISTOL	**CONN**
Adel Div De Laval Turbine Calif Inc, Burbank	Cal
Advance Instrument Corp, Belmar	N J
Aeroflex Labs, Inc, Plainview	N Y
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
American Aerospace Controls Inc, Farmingdale	N Y
American Electronics, Inc, Fullerton	Cal
Amtron Inc, Midlothian	Ill
Analog Devices Inc, Cambridge	Mass
Analog General Corp, East Rockaway	N Y
Andrew Corp, Orland Park	Ill
Antlab, Inc, Worthington	Ohio
Applied Control Co, Cedar Grove	NJ
Applied Devices Corp, College Point	n y
Audn Corp, Hamburg	N Y
Autocon Industries, Inc, St Paul	Minn
Automation Development Co, Culver City	Cal
Aviation Electric Ltd, St Laurent, Montreal	Que
Barber-Colman Co, EMP Div, Rockford	Ill
B & B Motor & Control Corp, New York	N Y
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Bendix Corp Navigation & Control Div, Teterboro,	N J
Bowmar Instrument Corp, Fort Wayne	Ind
Canoga Electronics Corp, Chatsworth	Cal
Carbonara Instrument Engrg Labs, Victor E, Port Washington	N Y
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
Coast Electronics Inc, Manhattan Beach	Cal
Compudyne Corp, Hatboro	Pa
Computer Instruments Corp, Hempstead	N Y
Conductron Corp, Ann Arbor	Mich
Control Technology Co Inc, Long Island City	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Curry Engineering Co, N Hollywood	Cal
Data Technology, Inc, Watertown	Mass
Decker Corp, Bala Cynwyd	Pa
Dynalectron Corp Aerospace Prods Div San Leandro	Cal
Dynamic Precision Controls Corp, Hagerstown	Ind
EMI Electronics Ltd, Hayes, Middlesex	England
Exactel Instrument Co Div Statham Instrs Inc Mountain View	Cal
Farrand Controls Inc, Valhalla	N Y
Ferranti, Ltd, Lancashire	England
Foxboro Co, Foxboro	Mass
Fujitsu Ltd, Tokyo	Japan
Gap Instrument Corp, Westbury	N Y
Gaylord Rives Co, Pasadena	Cal
General Design Inc, Sun Valley	Cal
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Geo Space Systems Inc, St Petersburg	Fla
Goerz Optical Co Inc, Inwood	N Y
Harowe Servo Controls Inc, West Chester	Pa
Hartman Systems Co Inc, Huntington Station	N Y
H H Controls Co Inc, Arlington	Mass
IMC Magnetics Corp Eastern Div, Westbury	N Y
IMC Magnetics Corp Western Div, Maywood	Cal
Industrial Control Co, Farmingdale	N Y
Inland Controls Inc Sub Kollmorgen Corp Brighton	Mass
Kollsman Motor Corp, Dublin	Pa
Lamb Electric Div Ametek Inc, Kent	Ohio
Lear Siegler Inc, Santa Monica	Cal
Luft Instruments Inc, Lincoln	Mass
Lundy Electronics & Systems Inc, Glen Head	N Y
Magnetic Technology Inc, Canoga Park	Cal
Mast Development Co, Davenport	Iowa
MB Electronics A Textron Co, New Haven	Conn
McFadden Electronics Co, South Gate	Cal
McMaster Products Corp, Chicago	Ill
Measurement Systems Inc, Norwalk	Conn
Micro Metrics Inc, Paterson	N J
Moog Inc, Industrial Div, East Aurora	N Y
M Ten Bosch, Inc, Pleasantville	N Y
Muirhead Instruments Inc, Mountainside	N J
Nash Controls Inc, Caldwell	N J
Northridge Engineering Co Div Republic Corp Northridge	Cal
Orbit Instrument Corp, Syosset	N Y
Pegasus Labs Inc, Berkley	Mich
Photocircuits Corp, Glen Cove	N Y
Precision Mechanisms Corp, Westbury	N Y
Pyro-Serv Instruments, Inc, North Arlington	N J
Reeves Instrument Div, DCA, Garden City	N Y
Reflex Controls Corp, Huntington Station	NY
Robertson Instrument Co, Azusa	Cal
Rotating Components Div Instrument Sys Corp Bay Shore	N Y
Rundel Electric Co, Millbrae	Cal
Saturn Electronics Corp, Garland	Tex
Scientific-Atlanta Inc, Atlanta	Ga
Sedco Systems Inc, Farmingdale	N Y
Servo Development Corp, Hicksville	N Y
Servo Labs Inc, Van Nuys	Cal
Servonetics Inc, Los Angeles	Cal
Servo-Tek Products Co, Hawthorne	N J
SieBelAir Co, Los Angeles	Cal
Solar Electronics Co, Hollywood	Cal
Strandberg Engineering Labs Inc, Greensboro	N C
Sunbeam Electronics, Fort Lauderdale	Fla
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Superior Electric Co The, Bristol	Conn
Superior Mfg & Instrument Co, Long Island City	N Y
Taylor Instrument Cos, Rochester	N Y
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
Tensitron Inc, Harvard	Mass
Theta Instrument Corp, Fairfield	N J
Uriel Corp, Ronkonkoma	NY
Vapor Corp, Chicago	Ill
Vega Servo-Control Inc, Troy	Mich
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Wer Industrial Corp, Buffalo	N Y
Weston Hydraulics, Van Nuys	Cal
Weston-Transicoil, Weston Instruments Inc Worcester	Pa
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

LOOKING FOR
PRECISION
POTENTIOMETERS?

Helipot has the industry's widest selection of multiturn and single-turn precision potentiometers and is the *only* single source for units with wirewound, cermet and conductive plastic resistance elements. For complete information contact the Helipot representative nearest you. He's listed in EBG's Manufacturers' Index.

Beckman
INSTRUMENTS, INC.

HELIPOT DIVISION

FULLERTON, CALIFORNIA • 92634

LOOKING FOR
SERVO SYSTEMS?
OR
COMPONENTS?

Helipot has a complete line of industrial servo system components. They include motor-pots, power supplies, amplifiers, command pots and turns-counting dials. With these components you can build a *complete* servo system for as little as $169.95. For complete information contact the Helipot representative nearest you. He's listed in EBG's Manufacturers' Index.

Beckman
INSTRUMENTS, INC.

HELIPOT DIVISION

FULLERTON, CALIFORNIA • 92634

SERVOS--MECHANISMS

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BECKMAN INSTRUMENTS INC, HELIPOT DIV, FULLERTON CAL	**ADV PG 632**
BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL, PA	**ADV PG 631**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
LINAIR DESIGN CORP, LINDEN	**N J**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW	**N Y**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
Adel Div De Laval Turbine Calif Inc, Burbank	Cal
Advance Gear & Machine corp, Los Angeles	Cal
Advance Instrument Corp, Belmar	N J
Aeroflex Labs, Inc, Plainview	N Y
Alcatel, Paris 8eme	France
American Aerospace Controls Inc, Farmingdale	N Y
American Precision Industries Inc, East Aurora	NY
Analog General Corp, East Rockaway	N Y
Antlab, Inc, Worthington	Ohio
Applied Devices Corp, College Point	n y
Automation Development Co, Culver City	Cal
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Bendix Corp Navigation & Control Div, Teterboro,	N J
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Bowmar Instrument Corp, Fort Wayne	Ind
Bristol Div, American Chain & Cable Co Waterbury	Conn
Canoga Electronics Corp, Chatsworth	Cal
Carbonara Instrument Engrg Labs, Victor E, Port Washington	N Y
Carco Electronics, Menlo Park	Cal
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
Computer Instruments Corp, Hempstead	N Y
Conductron Corp, Ann Arbor	Mich
Control Technology Co Inc, Long Island City	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Curry Engineering Co, N Hollywood	Cal
Decker Corp, Bala Cynwyd	Pa
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Dynamic Gear Co Inc, Amityville	N Y
Dynamic Instrument Corp, Plainview	N Y
Electric Tachometer Corp, Philadelphia	Pa
Essex Engineering Co Inc, Essex	Conn
Esterline Angus Div Esterline Corp, Indianapolis	Ind

Exactel Instrument Co Div Statham Instrs Inc Mountain View	Cal
Fae Instrument Corp, Huntington Station	N Y
Farrand Controls Inc, Valhalla	N Y
Ferranti, Ltd, Lancashire	England
Gap Instrument Corp, Westbury	N Y
Gaylord Rives Co, Pasadena	Cal
General Design Inc, Sun Valley	Cal
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Goerz Optical Co Inc, Inwood	N Y
Hartman Systems Co Inc, Huntington Station	N Y
Industrial Control Co, Farmingdale	N Y
Inland Controls Inc Sub Kollmorgen Corp Brighton	Mass
Instru-Lec Corp, Mt Vernon	N Y
ITT Federal Labs, Fort Wayne	Ind
Jordan Controls Inc, Milwaukee	Wis
Kinetic Instrument Co Div Nortek Inc, Brooklyn	N Y
Kollsman Motor Corp, Dublin	Pa
Lamb Electric Div Ametek Inc, Kent	Ohio
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
Linair Design Corp, Linden	N J
Magnetic Technology Inc, Canoga Park	Cal
Maurey Instrument Corp, Chicago	Ill
McMaster Products Corp, Chicago	Ill
Measurement Systems Inc, Norwalk	Conn
Micro Metrics Inc, Paterson	N J
Mitsubishi Electric Corp, Tokyo	Japan
Moog Inc, Industrial Div, East Aurora	N Y
M Ten Bosch, Inc, Pleasantville	N Y
Muirhead Instruments Inc, Mountainside	N J
Nash Controls Inc, Caldwell	N J
Neotec Corp, Rockville	Md
North Atlantic Industries Inc, Plainview	N Y
Northern Precision Labs Inc, Fairfield	N J
Nuclear Research Instruments, Berkeley	Cal
Occo Mfg Corp, South Hackensack	N J
Orbit Instrument Corp, Syosset	N Y
Pegasus Labs Inc, Berkley	Mich
Photocircuits Corp, Glen Cove	N Y
Planet Instrument Inc, Ft Wayne	Ind
Precision Mechanisms Corp, Westbury	N Y
Reeves Instrument Div, DCA, Garden City	N Y
Reflex Controls Corp, Huntington Station	NY
Robertson Instrument Co, Azusa	Cal
Rotating Components Div Instrument Sys Corp Bay Shore	N Y
Scientific-Atlanta Inc, Atlanta	Ga
Sedco Systems Inc, Farmingdale	N Y
Seneca Falls Machine Co, Seneca Falls	N Y
Servo Development Corp, Hicksville	N Y
Servo Labs Inc, Van Nuys	Cal
Servonetics Inc, Los Angeles	Cal
SieBelAir Co, Los Angeles	Cal
Sunbeam Electronics, Fort Lauderdale	Fla
Superior Mfg & Instrument Co, Long Island City	N Y
Taylor Instrument Cos, Rochester	N Y
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
Telephonics Div, Instrument Systems Corp Huntington	NY
Tensitron Inc, Harvard	Mass
Theta Instrument Corp, Fairfield	N J
Vactric Control Equipment Ltd, Morden	England
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Vibrac Corp, Chelmsford	Mass
Wer Industrial Corp, Buffalo	N Y
Western Gear Corp Electro Products Div, Pasadena	Cal
Weston Hydraulics, Van Nuys	Cal
Weston-Transicoil, Weston Instruments Inc Worcester	Pa
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

SERVOS--REPEATER

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL, PA	**ADV PG 631**
DATA TECHNOLOGY, INC, WATERTOWN	**MASS**
LINAIR DESIGN CORP, LINDEN	**N J**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW	**N Y**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
Advance Instrument Corp, Belmar	N J
Analog General Corp, East Rockaway	N Y
Applied Devices Corp, College Point	n y
Automation Development Co, Culver City	Cal
Bendix Corp Navigation & Control Div, Teterboro,	N J
Bowmar Instrument Corp, Fort Wayne	Ind
Canoga Electronics Corp, Chatsworth	Cal
Carbonara Instrument Engrg Labs, Victor E, Port Washington	N Y
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
Conductron Corp, Ann Arbor	Mich
Control Technology Co Inc, Long Island City	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Curry Engineering Co, N Hollywood	Cal
Data Technology, Inc, Watertown	Mass
Electric Tachometer Corp, Philadelphia	Pa
Essex Engineering Co Inc, Essex	Conn
Farrand Controls Inc, Valhalla	N Y
Gap Instrument Corp, Westbury	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Hartman Systems Co Inc, Huntington Station	N Y
Industrial Control Co, Farmingdale	N Y
Kollsman Motor Corp, Dublin	Pa
Linair Design Corp, Linden	N J
McMaster Products Corp, Chicago	Ill
Memcor Div LTV Electrosystems Inc, Huntington	Ind
Micro Metrics Inc, Paterson	N J
M Ten Bosch, Inc, Pleasantville	N Y
North Atlantic Industries Inc, Plainview	N Y
Northern Precision Labs Inc, Fairfield	N J
Northridge Engineering Co Div Republic Corp Northridge	Cal
Orbit Instrument Corp, Syosset	N Y
Precision Mechanisms Corp, Westbury	N Y
Reflex Controls Corp, Huntington Station	NY
Scientific-Atlanta Inc, Atlanta	Ga
Servo Development Corp, Hicksville	N Y
Servonetics Inc, Los Angeles	Cal
Sunbeam Electronics, Fort Lauderdale	Fla
Superior Mfg & Instrument Co, Long Island City	N Y
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
Theta Instrument Corp, Fairfield	N J
Weston-Transicoil, Weston Instruments Inc Worcester	Pa

SERVOS--SYSTEMS SEE ALSO SYNCHROS

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BECKMAN INSTRUMENTS INC, HELIPOT DIV, FULLERTON CAL	**ADV PG 633**
BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS WOODSIDE	**NY**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL, PA	**ADV PG 631**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
DATA TECHNOLOGY, INC, WATERTOWN	**MASS**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW	**N Y**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
Abbey Electronics Corp, Westbury	NY
Adel Div De Laval Turbine Calif Inc, Burbank	Cal
Advance Instrument Corp, Belmar	N J
Aerospace Avionics Inc, Bohemia	NY
American Electronics, Inc, Fullerton	Cal
Analog General Corp, East Rockaway	N Y
Antlab, Inc, Worthington	Ohio
Applied Devices Corp, College Point	n y
Astrodata Inc, Anaheim	Cal
Automation Development Co, Culver City	Cal
Aviation Electric Ltd, St Laurent, Montreal	Que
Barber-Colman Co, EMP Div, Rockford	Ill
B & B Motor & Control Corp, New York	N Y
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Bendix Corp, Flight & Engine Instr Div South Montrose	Pa
Bendix Corp Navigation & Control Div, Teterboro,	N J
Bowmar Instrument Corp, Fort Wayne	Ind
Bulova Watch Co Inc Elctns Div Servo Products Woodside	NY
Canoga Electronics Corp, Chatsworth	Cal
Carbonara Instrument Engrg Labs, Victor E, Port Washington	N Y
Carco Electronics, Menlo Park	Cal
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
Compudyne Corp, Hatboro	Pa
Computer Instruments Corp, Hempstead	N Y
Computing Devices of Canada Ltd, Ottawa	Ont
Conductron Corp, Ann Arbor	Mich
Consolidated Airborne Systems, Carle Place	N Y
Consolidated Controls Corp, Bethel	Conn
Control Technology Co Inc, Long Island City	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Curry Engineering Co, N Hollywood	Cal
Dalto Electronics Corp, Norwood	N J
Data Technology, Inc, Watertown	Mass
Decker Corp, Bala Cynwyd	Pa
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Dynalectron Corp Aerospace Prods Div San Leandro	Cal
Dynasciences Corp, Blue Bell	Pa
Electric Tachometer Corp, Philadelphia	Pa
EMI Electronics Ltd, Hayes, Middlesex	England
EMR-Hatboro Div Weston Insts Inc, Hatboro	Pa
Epsco Inc, Westwood	Mass
Fae Instrument Corp, Huntington Station	N Y
Farrand Controls Inc, Valhalla	N Y
Gap Instrument Corp, Westbury	N Y
General Electric Co Ordnance Dept, Pittsfield	Mass
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Geo Space Systems Inc, St Petersburg	Fla
Goodyear Aerospace Corp, Akron	Ohio
Harowe Servo Controls Inc, West Chester	Pa
Hartman Systems Co Inc, Huntington Station	N Y
Hi-Altitude Instrument Co, Inc., Denver	Colo
Inca Engineering Corp, San Gabriel	Cal
Industrial Control Co, Farmingdale	N Y
Inland Controls Inc Sub Kollmorgen Corp Brighton	Mass
Instru-Lec Corp, Mt Vernon	N Y
ITT Federal Labs, Fort Wayne	Ind
Jordan Controls Inc, Milwaukee	Wis
Kinetic Instrument Co Div Nortek Inc, Brooklyn	N Y
Kollsman Instrument Corp, Syosset	N Y
Kollsman Instrument Ltd, Southampton	England
Kollsman Motor Corp, Dublin	Pa
LCC-CICE, 93 Montreuil-sous-Bois	France
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Power Equipment Div, Cleveland	Ohio
Leeds & Northrup Co, Philadelphia	Pa
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
McFadden Electronics Co, South Gate	Cal
McMaster Products Corp, Chicago	Ill
Measurement Systems Inc, Norwalk	Conn
Metric Systems Corp, Fort Walton Beach	Fla
Micro Metrics Inc, Paterson	N J
Milgo Electronic Corp, Miami	Fla
Moog Inc, Industrial Div, East Aurora	N Y
M Ten Bosch, Inc, Pleasantville	N Y
Muirhead Instruments Inc, Mountainside	N J
Nash Controls Inc, Caldwell	N J
North Atlantic Industries Inc, Plainview	N Y
Northern Precision Labs Inc, Fairfield	N J
Nuclear Research Instruments, Berkeley	Cal
Occo Mfg Corp, South Hackensack	N J
Omega Industries Inc, Newport Beach	Cal
Omega-t Systems Inc, Richardson	Tex
Orbit Instrument Corp, Syosset	N Y
Photocircuits Corp, Glen Cove	N Y
Precision Mecanique Labinal, 93 Saint-Ouen	France
Precision Mechanisms Corp, Westbury	N Y
Reeves Instrument Div, DCA, Garden City	N Y
Reflex Controls Corp, Huntington Station	NY
Sciaky Bros Inc, Chicago	Ill
Scientific-Atlanta Inc, Atlanta	Ga
Sedco Systems Inc, Farmingdale	N Y
Seneca Falls Machine Co, Seneca Falls	N Y
Servo Development Corp, Hicksville	N Y
Servonetics Inc, Los Angeles	Cal
Singer Co, Diehl Div, Somerville	N J
Solar Electronics Co, Hollywood	Cal
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Sunbeam Electronics, Fort Lauderdale	Fla
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Superior Mfg & Instrument Co, Long Island City	N Y
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
Tensitron Inc, Harvard	Mass
Theta Instrument Corp, Fairfield	N J
United Systems Corp, Dayton	Ohio
Vactric Control Equipment Ltd, Morden	England
Vega Servo-Control Inc, Troy	Mich
Wer Industrial Corp, Buffalo	N Y
Weston Hydraulics, Van Nuys	Cal
Weston-Transicoil, Weston Instruments Inc Worcester	Pa
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

LOOKING FOR SERVO SYSTEMS? OR COMPONENTS?

Helipot has a complete line of industrial servo system components. They include motor-pots, power supplies, amplifiers, command pots and turns-counting dials. With these components you can build a *complete* servo system for as little as $169.95. For complete information contact the Helipot representative nearest you. He's listed in EBG's Manufacturers' Index.

Beckman

INSTRUMENTS, INC.

HELIPOT DIVISION

FULLERTON, CALIFORNIA • 92634

SERVO TESTERS SEE TESTERS--SERVO

SHAFT COUPLINGS SEE COUPLINGS--SHAFT

SHAFT POSITION ENCODERS SEE ENCODERS

SHAFTS--FLEXIBLE

SECS, INC, LONG ISLAND CITY N Y
Anchor Plastics Co Inc, Long Island City N Y
Aviation Electric Ltd, St Laurent, Montreal Que
Avionics, Inc, South Bend Ind
Bendix Corp Fluid Power Div, Utica N Y
Bud Radio Inc, Willoughby Ohio
Foredom Electric Co Inc, Bethel Conn
Lear Siegler Inc, Santa Monica Cal
Secs, Inc, Long Island City N Y
Smith Inc, Herman H, Brooklyn N Y
Standard Precision Div Electronic Commun Inc Wichita Kan
Sterling Instrument Div, Designatronics Inc Mineola N Y
Stow Mfg Co, Binghamton N Y
White Industrial, S S, New York N Y

SHAKE TABLES SEE VIBRATORS (SHAKE TABLES)

SHEET METAL SEE METAL DESIRED

SHELLS SEE CANS; CASES

SHELLS-ENCAPSULATING RESIN (INCL. EPOXY)

SUPERIOR STEATITE & CERAMIC CORP, ENGLEWOOD N J
Acme Chemicals & Insulation, New Haven Conn
Approved Plastics Co, Port Orange Fla
Atomite Electronics Corp, Roosevelt N Y
Castall Research Lab Inc, Brockton Mass
Cycle Products Co Inc, Newark N J
Dbm Research Corp, Cocoa Beach Fla
Dorco Electronics Inc, Compton Cal
EPD Industries Inc, Long Beach Cal
Epoxtronics Corp, Lowell Mass
Henry Engineering Co, Burbank Cal
Industrial Electronic Rubber Co, Twinsburg Ohio
Insulating Shapes Inc, Bronx N Y
Jones Inc, Norman, South Merrimack N H
Maryland Lava Co Inc, Bel Air Md
Norrich Plastics Corp, Roosevelt N Y
Resdel Corp, Rio Grande N J
Richards Metal Products Inc, Wolcott Conn
Robison Electronics Inc, Hawthorne Cal
Ross Co, Milton, Southampton Pa
Rostone Corp, Lafayette Ind
Slocum Industries, Inc, Reseda Cal
Stanwyck Winding Co, Newburgh N Y
Stevens Products Inc, East Orange N J
Stevens Tubing Corp, East Orange N J
Superior Steatite & Ceramic Corp, Englewood N J
U S Dielectric Inc, Worcester Mass
Victor Metal Products Corp, Harrisonburg Va

SHELTERS--ELECTRONIC EQUIPMENT, AIR TRANSPORTABLE

Air Inflatable Products Co, East Haven Conn
Birdair Structures Inc, Buffalo N Y
Bruce Industries Inc, Gardena Cal
Chrysler Corp, Space Div, Huntsville Oper Huntsville Ala
Craig Systems Corp, Lawrence Mass
Daniels Inc, C R, Daniels Md
Donnelly Mfg Co, Waltham Mass
Elder-Oilfield Inc, Houston Tex
Electro Mechanical Corp, Sayre Pa
Electronic Space Structures Corp, West Concord Mass
Fairchild Hiller Corp Republic Aviation Div Farmingdale N Y
Falstrom Co, Passaic N J
Goldsman Inc, Philadelphia Pa
Goodyear Aerospace Corp, Akron Ohio
Kidde & Co Inc, Walter, Belleville N J
Lectro Magnetics Inc, Los Angeles Cal
R F Communications Inc, Rochester N Y
Schjeldahl Co, G T, Northfield Minn
Technical Materiel Corp, Mamaroneck N Y
Wickes Industries Inc, Camden N J
Zero Mfg Co, Burbank Cal

SHIELDED CABLES SEE CABLES--SHIELDED

SHIELDED ENCLOSURES & SCREEN ROOMS SEE CHAMBERS--ENVIRONMENTAL

SHIELDED WIRE SEE WIRE

SHIELDING, ELECTROSTATIC--METAL SHEET OR SCREEN

INSTRUMENT SPECIALTIES CO INC, LITTLE FALLS N J
Ace Engineering & Machine Co, Inc Huntingdon Valley Pa
Aircraft & Electronic Specialties, Inc, Plainfield Ind
Air Inflatable Products Co, East Haven Conn
All Star Products Inc, Defiance Ohio
Amuneal Mfg Corp, Philadelphia Pa
Auburn Mfg Co, Middletown Conn
Braun Tool & Instrument Co Inc, H, Hawthorne N J
Da/Pro Rubber Inc, Van Nuys Cal
Dbm Research Corp, Cocoa Beach Fla
Emerson & Cuming Inc, Canton Mass
Estes Engineering Co, Gardena Cal
Hallett, Inglewood Cal
Instrument Specialties Co Inc, Little Falls N J
Lash Labs, Inc, San Diego Cal
Lectro Magnetics Inc, Los Angeles Cal
Magnetic Metals Co, Camden N J
Metal Ceram Inc, Mount Vernon N Y
Metex Corp, Edison N J
3M Company, St Paul Minn
Primec Corp, Los Angeles Cal
Ray Proof Corp, Norwalk Conn
Roosevelt Metal Co Inc, Brooklyn N Y
Shielding Corp, Moorestown N J
Sierracin Corp, Sylmar Cal
Tapecon Inc, Rochester N Y
Technical Wire Products Inc, Cranford N J
Topatron Inc, Costa Mesa Cal
Vacuum Metallizing, Van Nuys Cal
Webster Mfg, South San Francisco Cal

EBG

the industry's

only computer

compiled directory.

This makes information in the Electronics Buyers' Guide the latest and most accurate anywhere.

Electronics Buyers' Guide

SHIELDING, MAGNETIC--CANS OR HOUSINGS

ELDRE COMPONENTS INC, ROCHESTER N Y
KINETRON CORP, ASBURY PARK N J
MAGNETIC SHIELD DIV, PERFECTION MICA CO, CHICAGO ILL ADV PG 635
PERMACOR DIV, RADIO CORES INC, OAK LAWN ILL
POMONA ELECTRONICS CO INC, POMONA CAL
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK N Y
Ainslie Corp, Braintree Mass
Allegheny Ludlum Steel Corp, Pittsburgh Pa
All Star Products Inc, Defiance Ohio
Amuneal Mfg Corp, Philadelphia Pa
Arnold Engineering Co, Marengo Ill
Arnold Engineering Co Pacific Div, Fullerton Cal
Automation Services Inc, Endicott N Y
Cambridge Thermionic Corp, Cambridge Mass
Da/Pro Rubber Inc, Van Nuys Cal
Eldre Components Inc, Rochester N Y
Estes Engineering Co, Gardena Cal
Eyelematic Mfg Co Inc, Oakville Conn
Flexible Metal Hose Mfg Co, CostaMesa Cal
Inter-Technical Group Inc, Irvington-on-Hudson N Y
Jan Hardware Mfg Co Inc, Long Island City N Y
Kinetron Corp, Asbury Park N J
Lash Labs, Inc, San Diego Cal
Lectro Magnetics Inc, Los Angeles Cal
Magnetic Metals Co, Camden N J
Magnetic Shield Div, Perfection Mica Co, Chicago Ill
Metox, Paris 20 France
Millen Mfg Co Inc, James, Malden Mass
National Moldite Co Inc, Newark N J
Paul & Beekman Inc, Philadelphia Pa
Permacor Div, Radio Cores Inc, Oak Lawn Ill
Pomona Electronics Co Inc, Pomona Cal
Primec Corp, Los Angeles Cal
Richards Metal Products Inc, Wolcott Conn
Staver Co Inc, Bay Shore N Y
Tavco, Inc, Santa Monica Cal
Technical Wire Products Inc, Cranford N J
United Transformer Co Div TRW Inc, New York N Y
Universal Precision, Inc, Endicott N Y
Victor Metal Products Corp, Harrisonburg Va
Zero Mfg Co, Burbank Cal

SHIELDING, MAGNETIC--FERRITE

INDIANA GENERAL CORP ELECTRONICS DIV/FERRITES, KEASBEY N J
MAGNETIC SHIELD DIV, PERFECTION MICA CO, CHICAGO ILL ADV PG 635
Applied Magnetics Corp, Ferrite Head Div Santa Barbara Cal
B & B Electronics Corp, Gardena Cal
Cambridge Thermionic Corp, Cambridge Mass
Ceramic Magnetics Inc, Fairfield N J
Custom Components Inc, Caldwell N J
Ferricore Div Natl Moldite Co Inc, Newark N J
Indiana General Corp Electronics Div/Ferrites, Keasbey N J
LCC-CICE, 93 Montreuil-sous-Bois France
Magnetic Shield Div, Perfection Mica Co, Chicago Ill
National Moldite Co Inc, Newark N J
Siemens America Inc, New York N Y
Technical Wire Products Inc, Cranford N J

SHIELDING, MAGNETIC--SHEETS OR STRIPS

MAGNETIC SHIELD DIV, PERFECTION MICA CO, CHICAGO ILL ADV PG 635
Allegheny Ludlum Steel Corp, Pittsburgh Pa
All Star Products Inc, Defiance Ohio
American Silver Co Div, Flushing N Y
Amuneal Mfg Corp, Philadelphia Pa
Arnold Engineering Co, Marengo Ill
Arnold Engineering Co Pacific Div, Fullerton Cal
Dbm Research Corp, Cocoa Beach Fla
Emerson & Cuming Inc, Canton Mass
Flexible Metal Hose Mfg Co, CostaMesa Cal
G-L Industries Inc, G-L Electronics Div, Westville N J
Inter-Technical Group Inc, Irvington-on-Hudson N Y
Jan Hardware Mfg Co Inc, Long Island City N Y
Lash Labs, Inc, San Diego Cal
Magnetic Metals Co, Camden N J
Magnetic Shield Div, Perfection Mica Co, Chicago Ill
Metal Ceram Inc, Mount Vernon N Y
Millen Mfg Co Inc, James, Malden Mass
National Moldite Co Inc, Newark N J
Primec Corp, Los Angeles Cal
Rodney Metals A Teledyne Co, New Bedford Mass
Sumitomo Special Metals Co Ltd, Osaka Japan
Tapecon Inc, Rochester N Y
Technical Wire Products Inc, Cranford N J
Texas Instruments Incorporated, Dallas Tex
Universal Precision, Inc, Endicott N Y
Vacuum Barrier Corp, Woburn Mass
Westinghouse Electric Corp, Materials Mfg Div Blairsville Pa
Zippertubing Co, Los Angeles Cal

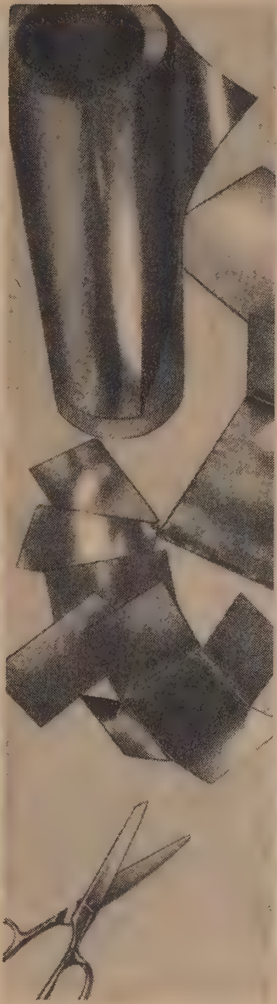
The Six MSD's

1 FABRICATION

MSD's Netic and Co-Netic Magnetic Shields can be fabricated in any size, shape and quantity, from a miniature tube to a shielded room.

2 SHEET STOCK

For fabrication in your plant or ours. Low cost shielding solutions are provided by fully hydrogen annealed Perfection Annealed stock which normally requires no further heat treatment.



3 FOIL

MSD Netic and Co-Netic Foils are ideal for prototype evaluation and production applications. Available in both plain and adhesive backing, they can be easily shaped in minutes to fit your needs.

NETIC
NETIC

4 TAPE PRESERVER CONTAINERS

Used world-wide to protect against loss of valuable tape data. Round and rectangular portable units include the new, smartly designed "Executive." Stacked, sectionalized units for permanent storage are also available.

5 TECHNICAL ASSISTANCE

The concentration of design experience and engineering knowledge that has provided over 80% of the magnetic shield designs now in use is yours to assist you in solving an engineering, R&D or production problem. Phone 312, EV 4-2122.

Co-Netic MAGNETIC SHIELD DIV. Netic

Co-Netic MAGNETIC SHIELD DIV. Netic

Co-Netic MAGNETIC SHIELD DIV. Netic

Co-Netic MAGNETIC SHIELD DIV. Netic

Co-Netic MAGNETIC SHIELD DIV. Netic

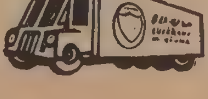
Netic and Co-Netic are not affected by ordinary shock, have minimal retentivity and do not require periodic annealing

MAGNETIC SHIELD DIVISION PERFECTION MICA COMPANY

1322 N. Elston Ave., Chicago, Illinois 60622. TWX 910 221-0105

6 FAST, CONVENIENT DELIVERY is the SIXTH MSD.

Some items from stock. Fabricated items 3-4 weeks.



CHEMTREE

SPECIAL NUCLEAR SHIELDING

CHEMTREE CORPORATION
Central Valley, N.Y.
914-928-2293

SHIELDING--NUCLEAR RADIATION

CHEMTREE CORP, CENTRAL VALLEY, N Y	**ADV PG 636**
NATIONAL LEAD CO, NEW YORK	**N Y**
Allied Engineering & Production Corp, Alameda	Cal
Beckman Instruments Inc, Fullerton,	Cal
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Brooks & Perkins Inc, Detroit	Mich
Chemtree Corp, Central Valley	N Y
Corning Glass Works, Corning	N Y
Dbm Research Corp, Cocoa Beach	Fla
Division Lead Co, Summit	Ill
Electro-Neutronics Inc, Oakland	Cal
Emerson & Cuming Inc, Canton	Mass
High Voltage Engineering Corp, Burlington	Mass
Indium Corp of America, Utica	N Y
Isotopes A Teledyne Co, Westwood	N J
Kennametal Inc, Latrobe	Pa
Kewaunee Scientific Equipment, Adrian	Mich
Kobe Industries Corp, Kobe	Japan
Lectro Magnetics Inc, Los Angeles	Cal
Lockheed Georgia Nuclear Lab, Marietta	Ga
National Lead Co, New York	N Y
Northrop Nortronics, Palos Verdes Peninsula	Cal
Norton Co Metals Div, Newton	Mass
Nuclear-Chicago Corp, Des Plaines	Ill
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Nuclear Measurements Corp, Indianapolis	Ind
Nuclear Supplies, Encino	Cal
Nuclear Technology Corp, White Plains	N Y
Packard Instrument Co, Inc, Downers Grove	Ill
Permali Inc, Mt Pleasant	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Poco Graphite, Inc, Garland	Tex
Quantum Electronics Corp, San Ramon	Cal
Ray Proof Corp, Norwalk	Conn
RIL Electronics Inc, Southampton	Pa
Rodney Metals A Teledyne Co, New Bedford	Mass
Roosevelt Metal Co Inc, Brooklyn	N Y
Standard X-Ray Co, Chicago	Ill
TRW Systems Group, Redondo Beach	Cal
U S Nuclear Corp, Burbank	Cal
Victoreen Instrument Div, Cleveland	Ohio
Westinghouse Electric Corp, Industrial Micarta Div Hampton	S C

ACCUVOLT

BESPONDER

CINDERELLA

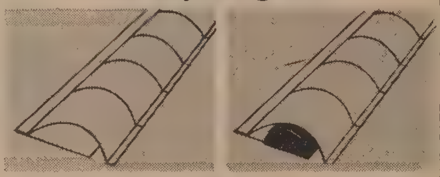
If you're confused over product trade names, locate the source easily in EBG's Trade Name Listing in the back of the green section.

SHIELDING--RFI-EMI

INSTRUMENT SPECIALTIES CO INC, LITTLE FALLS N J	**ADV PG 636**
Instrument Specialties Co Inc, Little Falls	N J
Metex Corp, Edison	N J

sticky fingers®

Attaches faster, shields better, than anything else!



In addition to the superior shielding for plane and magnetic waves, Sticky Fingers with optional Magnefil® is available for optimum effectiveness at the magnetic frequencies.

- Made of Beryllium Copper for superior spring and shielding characteristics!
- Self-adhesive speeds installation and eliminates old fashioned soldering and fasteners!
- Unique pressure sensitive backing forms a tight permanent bond that grows even stronger with age!
- RFI/EMI shielding effectiveness greater than 108 dB at 10 GHz plane wave and 70 dB at 200 kHz magnetic!
- Unaffected by temperatures from —65°F to 160°F!

INSTRUMENT SPECIALTIES CO., INC.
Dept. EBG-69
Little Falls, N.J. 07424
Phone—201-256-3500
TWX—710-988-5732

SHIELDING, WIRE--BRAIDED (INCL IGNITION)

BIRNBACH CO INC, FREEPORT	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
MAGNETIC SHIELD DIV, PERFECTION MICA CO, CHICAGO ILL	**ADV PG 635**
Aircraft & Electronic Specialties, Inc, Plainfield	Ind
Birnbach Co Inc, Freeport	N Y
Breeze Corps Inc, Union	N J
Carol Cable Co, Pawtucket	R I
Co-Operative Industries Inc, Chester	N J
Daburn Electronics & Cable Corp, Bronx	N Y
Dearborn Wire & Cable Co, Chicago	Ill
Estes Engineering Co, Gardena	Cal
Flexible Metal Hose Mfg Co, CostaMesa	Cal
General Cable Corp, New York	N Y

Gladding Corp, South Otselic	N Y
Hallett, Inglewood	Cal
Magnetic Shield Div, Perfection Mica Co, Chicago	Ill
Montgomery Co, Windsor Locks	Conn
Nonotuck Mfg Co, South Hadley Falls	Mass
Pacific Automation Products Inc, Glendale	Cal
Ross Matthews Corp, Fall River	Mass
Technical Wire Products Inc, Cranford	N J
Thermax Wire Corp, New York	N Y

SHIELDING--WOVEN WIRE

BIRNBACH CO INC, FREEPORT	**N Y**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
Aircraft & Electronic Specialties, Inc, Plainfield	Ind
Auburn Mfg Co, Middletown	Conn
B & B Electronics Corp, Gardena	Cal
Birnbach Co Inc, Freeport	N Y
Brookfield Wire Co Inc, Brookfield	Mass
Chester Cable Co Div Tennessee Corp, Chester	N Y
Chomerics, Inc, Arlington	Mass
Daburn Electronics & Cable Corp, Bronx	N Y
Dearborn Wire & Cable Co, Chicago	Ill
Estes Engineering Co, Gardena	Cal
General Cable Corp, New York	N Y
Gladding Corp, South Otselic	N Y
Hallett, Inglewood	Cal
Metex Corp, Edison	N J
Primec Corp, Los Angeles	Cal
Ross Matthews Corp, Fall River	Mass
Technical Wire Products Inc, Cranford	N J
Thermax Wire Corp, New York	N Y
Unique Wire Weaving Co Inc, Hillside	N J
Wire Cloth Manufacturers Inc, Parsippany	N J
Zippertubing Co, Los Angeles	Cal

SHIELDS--LAMPS, PANEL, PILOT AND DIAL

Aerolite Electronics Corp, Union City	N J
Amatom Electronic Hardware, New Rochelle	N Y
Cleveland Container Corp, New York	N Y
Drake Mfg Co, Harwood Heights	Ill
Livingston Electronic Div Jettron Prods Inc Hanover	N J
Metex Corp, Edison	N J
Primec Corp, Los Angeles	Cal
Staver Co Inc, Bay Shore	N Y
Technical Wire Products Inc, Cranford	N J
Vemaline Products Co, Inc, Wycoff	N J

SHIELDS, TUBE--CATHODE RAY TUBE, INSULATING

ELDRE COMPONENTS INC, ROCHESTER	**N Y**
Amuneal Mfg Corp, Philadelphia	Pa
Cleveland Container Corp, New York	N Y
Eldre Components Inc, Rochester	N Y
Eyelematic Mfg Co Inc, Oakville	Conn
Fansteel Metallurgical Corp, North Chicago	Ill
Jan Hardware Mfg Co Inc, Long Island City	N Y
Lash Labs, Inc, San Diego	Cal
Litton Industries, Electron Tube Div, San Carlos	Cal
Measurement Control Devices Inc, Philadelphia	Pa
Metal Ceram Inc, Mount Vernon	N Y
Paul & Beekman Inc, Philadelphia	Pa
Primec Corp, Los Angeles	Cal

SHIELDS, TUBE--CATHODE RAY TUBE, MAGNETIC

ELDRE COMPONENTS INC, ROCHESTER	**N Y**
MAGNETIC SHIELD DIV, PERFECTION MICA CO, CHICAGO ILL	**ADV PG 635**
Ainslie Corp, Braintree	Mass
Allegheny Ludlum Steel Corp, Pittsburgh	Pa.
Amuneal Mfg Corp, Philadelphia	Pa
Arnold Engineering Co Pacific Div, Fullerton	Cal
CELCO, Mahwah	N J
Eldre Components Inc, Rochester	N Y
Eyelematic Mfg Co Inc, Oakville	Conn
Fansteel Metallurgical Corp, North Chicago	Ill
Inter-Technical Group Inc, Irvington-on-Hudson	N Y
Jan Hardware Mfg Co Inc, Long Island City	N Y
Johnson & Hoffman Mfg Corp, Carle Place	N Y
Lash Labs, Inc, San Diego	Cal
Magnetic Metals Co, Camden	N J
Magnetic Shield Div, Perfection Mica Co, Chicago	Ill
Measurement Control Devices Inc, Philadelphia	Pa
Millen Mfg Co Inc, James, Malden	Mass
Paul & Beekman Inc, Philadelphia	Pa
Primec Corp, Los Angeles	Cal

SHIELDS, TUBE--ELECTROSTATIC

ELDRE COMPONENTS INC, ROCHESTER	**N Y**
MAGNETIC SHIELD DIV, PERFECTION MICA CO, CHICAGO ILL	**ADV PG 635**
Aircraft & Electronic Specialties, Inc, Plainfield	Ind
Amuneal Mfg Corp, Philadelphia	Pa

Braun Tool & Instrument Co Inc, H, Hawthorne ... N J
Eldre Components Inc, Rochester ... N Y
Eyelematic Mfg Co Inc, Oakville ... Conn
International Electronic Research Corp, Burbank ... Cal
Jan Hardware Mfg Co Inc, Long Island City ... N Y
Lash Labs, Inc, San Diego ... Cal
Litton Industries, Electron Tube Div, San Carlos ... Cal
Magnetic Shield Div, Perfection Mica Co, Chicago ... Ill
Metal Ceram Inc, Mount Vernon ... N Y
Methode Electronics Inc, Chicago ... Ill
Millen Mfg Co Inc, James, Malden ... Mass
Paul & Beekman Inc, Philadelphia ... Pa
Primec Corp, Los Angeles ... Cal
Semi-Alloys Inc, Mt Vernon ... N Y
Staver Co Inc, Bay Shore ... N Y
Technical Wire Products Inc, Cranford ... N J
Victor Metal Products Corp, Harrisonburg ... Va

SHIELDS, TUBE--HEAT-DISSIPATING

CINCH MFG CO, ELK GROVE VILLAGE ... ILL
ELDRE COMPONENTS INC, ROCHESTER ... N Y
Atlee Corp, Winchester ... Mass
Birtcher Corp, Industrial Div, Monterey Park ... Cal
Cinch Mfg Co, Elk Grove Village ... Ill
Eby Co Hugh H, Philadelphia ... Pa
Eldre Components Inc, Rochester ... N Y
Eyelematic Mfg Co Inc, Oakville ... Conn
Fansteel Metallurgical Corp, North Chicago ... Ill
Impectron Inc, New York ... N Y
International Electronic Research Corp, Burbank ... Cal
Lash Labs, Inc, San Diego ... Cal
Methode Electronics Inc, Chicago ... Ill
Paul & Beekman Inc, Philadelphia ... Pa
Technical Wire Products Inc, Cranford ... N J
Vemaline Products Co, Inc, Wycoff ... N J
Victor Metal Products Corp, Harrisonburg ... Va
Waterbury Pressed Metal Co, Waterbury ... Conn

SHIFTERS, PHASE--A-F

ANDERSEN LABORATORIES, INC, BLOOMFIELD ... CONN
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL ... PA
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON N Y ... ADV PG 495
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW ... N Y
NORTH HILLS ELECTRONICS INC, GLEN COVE ... N Y
SEG ELECTRONICS DIV, E J HOWLES INC, BROOKLYN ... NY
Aetna Electronics Corp, North Branch ... N J
AIM Electronics Ltd, Cambridge ... U K
Allied Research Associates, Inc, Concord ... Mass
Andersen Laboratories, Inc, Bloomfield ... Conn
Arco Electronics, Inc, Great Neck ... N Y
Beckwith Electric Co Inc, Mt Prospect ... Ill
Brookdeal of America Inc, North Falmouth ... Mass
Chadwick Helmuth Co Inc, Monrovia ... Cal
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill ... Pa
Control Science Corp, Alexandria ... Va
Dytronics Co Inc, Columbus ... Ohio
Gladding Corp, South Otselic ... N Y
Grason Stadler Co Inc, West Concord ... Mass
Industrial Test Equipment Co, Port Washington ... N Y
ITT Federal Labs, Fort Wayne ... Ind
Knopp Inc, Oakland ... Cal
Micro Metrics Inc, Paterson ... N J
Microwave Development Labs Inc Needham Heights ... Mass
Millen Mfg Co Inc, James, Malden ... Mass
Nilsen Mfg Co, Haines City ... Fla
Nippon Electric Co Ltd, Tokyo ... Japan
North Atlantic Industries Inc, Plainview ... N Y
North Hills Electronics Inc, Glen Cove ... N Y
Princeton Applied Research Corp, Princeton ... N J
Procedyne Corp, New Brunswick ... N J
Reeves Instrument Div, DCA, Garden City ... N Y
Seg Electronics Div, E J Howles Inc, Brooklyn ... NY
Theta Instrument Corp, Fairfield ... N J
VP Co, Pasadena ... Cal
Weston-Transicoil, Weston Instruments Inc Worcester ... Pa

SHIFTERS, PHASE--MICROWAVE

ALUMINUM DESIGN CORP, BROOKFIELD ... ILL
AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE ... NY
ANAREN MICROWAVE INC, SYRACUSE ... N Y
ANDERSEN LABORATORIES, INC, BLOOMFIELD ... CONN
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y ... ADV PGS 58,59
FERROTEC INC, NEWTON ... MASS
GENERAL MICROWAVE CORP, FARMINGDALE ... N Y
HEWLETT-PACKARD, PALO ALTO ... CAL
MICROWAVE CAVITY LABS INC, LA GRANGE ... ILL
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
RADAR DESIGN CORP, SYRACUSE ... N Y
SCIENTIFIC-ATLANTA INC, ATLANTA ... GA
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG ... MD
Addington Labs Inc, Sunnyvale ... Cal
Advanced Microwave Labs, Sunnyvale ... Cal
Aircom Inc, Union ... N H
Airtec Inc, Roselle ... N J
Airtron, Div of Litton Industries, Inc, Morris Plains ... N J
Alford Mfg Co, Winchester ... Mass
Aluminum Design Corp, Brookfield ... Ill
Amperex Electronic Corp, Professional Tube Div, Hicksville ... NY
Anaren Microwave Inc, Syracuse ... N Y
Andersen Laboratories, Inc, Bloomfield ... Conn
Anzac Electronics, Waltham ... Mass
Applied Microwave Lab, Inc, Andover ... Mass
Arra, Inc, Bayshore ... NY
Astrolab Inc, Linden ... N J
Automatic Metal Products Corp, Brooklyn ... N Y
Bendix Corp Electrodynamics Div, North Hollywood ... Cal
Bishop Instrument, Portland ... Maine
Core-Tronics, Inc, Orange ... N J
DeMornay-Bonardi Div Datapulse Inc, Pasadena ... Cal
Diamond Antenna & Microwave Corp, Winchester ... Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck ... N Y
Eastern Microwave Corp, Winchester ... Mass
Electromagnetic Radiation Labs Inc, West Acton ... Mass
Electronic Specialty Co, Los Angeles ... Cal
E & M Labs, North Hollywood ... Cal
Ferrotec Inc, Newton ... Mass
Frequency Engineering Labs, Farmingdale ... N J
General Instrument Corp Radio Receptor Div Hicksville ... N Y
General Microwave Corp, Farmingdale ... N Y
Guide Industries Inc, Sun Valley ... Cal
Herley Industries, Inc, Westbury ... N Y
Hewlett-Packard, Palo Alto ... Cal
Hyletronics Corp, Wilmington ... Mass
ITT Federal Labs, Fort Wayne ... Ind
Lignes Telegraphiques et Telephoniques Paris 16 ... France
Loral Electronic Systems, Div Loral Corp, New York ... NY
Maxson Electronics Div, Maxson Electronics Corp Great River ... N Y
MCS Corp, Monrovia ... Cal
Melabs, Palo Alto ... Cal
Meridian Metalcraft Inc, Whittier ... Cal
Merrimac Research & Development Inc West Caldwell, ... N J
Microlab/F X R, Livingston ... N J
Micromega Div Amphenol Corp, Venice ... Cal
Micronetics Div Teledyne Systems Co, San Diego ... Cal
Micro State Electronics Oper Raytheon Co Murray Hill ... N J
Microwave Associates Inc, Burlington ... Mass
Microwave Cavity Labs Inc, La Grange ... Ill
Microwave Development Labs Inc Needham Heights ... Mass
Narda Microwave Corp, Plainview ... N Y
Neico Microwave Co, Waltham ... Mass
Nippon Electric Co Ltd, Tokyo ... Japan
Oki Electronics of America, Inc, Fort Lauderdale ... Fla
Omega Laboratories Inc, Rowley ... Mass
Philco-Ford Corp, Washington ... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Portchester Instrument Corp, Port Chester ... N Y
Radar Design Corp, Syracuse ... N Y
Radio Corp of America, Electronic Components, Harrison ... N J
Rantec Div Emerson Electric Co, Calabasas ... Cal
Raytheon Co, Microwave & Power Tube Div Waltham ... Mass
RLC Electronics Inc, Port Chester ... N Y
Sanders Associates, Inc, Nashua ... N H
Scientific-Atlanta Inc, Atlanta ... Ga
Sedco Systems Inc, Farmingdale ... N Y
Sierra Research Corp, Buffalo ... N Y
Sperry Microwave Electronics Div, Clearwater ... Fla
Tek-Wave Inc, Princeton ... N J
Victor R F & Microwave Co, Wakefield ... Mass
Waveline Inc, West Caldwell ... N J
Weinschel Engineering Co Inc, Gaithersburg ... Md
Western Microwave Labs Inc, Santa Clara ... Cal
Wheeler Laboratories Inc, Great Neck ... N Y
Wiltron Co, Palo Alto ... Cal

SHIFTERS, PHASE--R-F

ANDERSEN LABORATORIES, INC, BLOOMFIELD ... CONN
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y ... ADV PGS 58,59
FERROTEC INC, NEWTON ... MASS
GENERAL MICROWAVE CORP, FARMINGDALE ... N Y
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
SCIENTIFIC-ATLANTA INC, ATLANTA ... GA
SEG ELECTRONICS DIV, E J HOWLES INC, BROOKLYN ... NY
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG ... MD
Aerospace Research, Inc, Boston ... Mass
Alford Mfg Co, Winchester ... Mass
Andersen Laboratories, Inc, Bloomfield ... Conn
Anzac Electronics, Waltham ... Mass
Applied Microwave Lab, Inc, Andover ... Mass
Automatic Metal Products Corp, Brooklyn ... N Y
Aviation Electric Ltd, St Laurent, Montreal ... Que
DeMornay-Bonardi Div Datapulse Inc, Pasadena ... Cal
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck ... N Y
Dytronics Co Inc, Columbus ... Ohio
Electromagnetic Radiation Labs Inc, West Acton ... Mass
Ferrotec Inc, Newton ... Mass
General Instrument Corp Radio Receptor Div Hicksville ... N Y
General Microwave Corp, Farmingdale ... N Y
Herley Industries, Inc, Westbury ... N Y
ITT Federal Labs, Fort Wayne ... Ind
Loral Electronic Systems, Div Loral Corp, New York ... NY
Meridian Metalcraft Inc, Whittier ... Cal
Merrimac Research & Development Inc West Caldwell, ... N J
Micronetics Div Teledyne Systems Co, San Diego ... Cal
Micro State Electronics Oper Raytheon Co Murray Hill ... N J
Microwave Associates Inc, Burlington ... Mass
Microwave Development Labs Inc Needham Heights ... Mass
Nilsen Mfg Co, Haines City ... Fla
Nippon Electric Co Ltd, Tokyo ... Japan
Parzen Research Inc Sub Ovitron Corp, Westbury ... N Y
Philco-Ford Corp, Washington ... D C
Portchester Instrument Corp, Port Chester ... N Y
Radiation Systems Inc, McLean ... Va
Rantec Div Emerson Electric Co, Calabasas ... Cal
Reeves Instrument Div, DCA, Garden City ... N Y
RLC Electronics Inc, Port Chester ... N Y
Scientific-Atlanta Inc, Atlanta ... Ga
Seg Electronics Div, E J Howles Inc, Brooklyn ... NY
TRW Systems Group, Redondo Beach ... Cal
Weinschel Engineering Co Inc, Gaithersburg ... Md
Western Microwave Labs Inc, Santa Clara ... Cal
Wiltron Co, Palo Alto ... Cal

SHIFT REGISTERS SEE REGISTERS--SHIFT

SHIPPING SERVICES

Aero Mayflower Transit Co, Inc, Indianapolis ... Ind
Air France, New York ... N Y
Allied Van Lines Inc, Chicago ... Ill
Bekins Van Lines, Los Angeles 15 ... Cal
Flying Tiger Line, Los Angeles ... Cal
Inertia Switch Inc, New York ... N Y
R E A Express, New York ... N Y
Swissair, New York ... N Y
United Air Lines, Chicago ... Ill
United Van Lines Inc, Fenton ... Mo

SHOCK MOUNTS SEE MOUNTS--VIBRATION & SHOCK

SHOCK RECORDERS SEE SEISMOGRAPHS

SHOCK-TESTING MACHINES SEE MACHINES--SHOCK-TESTING

SHORT-WAVE CONVERTERS SEE CONVERTERS--SIGNAL

SHUNTS--METER

DALE ELECTRONICS INC, COLUMBUS ... NEB
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
HEWLETT-PACKARD, PALO ALTO ... CAL
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND ... OHIO
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO ... ADV PGS 8
MODUTEC INC, NORWALK ... CONN
PARKER INSTRUMENT CORP, STAMFORD ... CONN
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK ... N J
A & M Instruments Inc, Great Neck ... N Y
Angstrohm Precision, Inc, Van Nuys ... Cal
Beede Electrical Instrument Co, Inc, Penacook ... N H
Bitronics Inc, Bethlehem ... Pa
Bruno-New York Industries Corp, New York ... N Y
Canadian Research Institute, Don Mills ... Ont
C-F Electronics Inc, Van Nuys ... Cal
Dale Electronics Inc, Columbus ... Neb
Daytron Inc, Mountain View ... Cal
Dowa Trading Co Ltd, Kobe ... Japan
E I L Instrument Div Unitec Industries, Timonium ... Md
En-Cer Inc, South Holland ... Ill
Esterline Angus Div Esterline Corp, Indianapolis ... Ind
Ferranti, Ltd, Lancashire ... England
Fuji Electric Co Ltd, Tokyo ... Japan
General Electric Co, ECSO, Schenectady ... N Y
Hallmark Standards Inc, Mamaroneck ... N Y
Hewlett-Packard, Palo Alto ... Cal
Hickok Electrical Instrument Co, Cleveland ... Ohio
Honeywell Test Instruments Div, Denver ... Colo
Impectron Inc, New York ... N Y
Instrument & Accessories Co Inc, Sayville ... N Y
Janco Corp, Burbank ... Cal
Jordan Electric Co, Van Nuys ... Cal
Julie Research Labs, Inc, New York ... N Y
Mastercraft Instrument Co, Dubuque ... Iowa
Metermaster, Inc, Los Angeles ... Cal
Modutec Inc, Norwalk ... Conn
Nelson Electronic Labs Inc, Plano ... Tex
Parker Instrument Corp, Stamford ... Conn
Ram Meter Inc, Ferndale ... Mich
Ramm Rectifier Co, Inc, Bronx ... N Y
Ross Engineering Corp, Saratoga ... Cal
Seastrom Mfg Co Inc, Glendale ... Cal
Singer Co, Metrics Div, Bridgeport ... Conn
Sprague Electric Co, North Adams ... Mass
Stark Electronic Instruments Ltd, Ajax ... Ont
Sunshine Scientific Instruments Inc, Philadelphia ... Pa
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn ... N Y
Tel-Labs Inc, Manchester ... N H
Triplett Electrical Instrument Co, Bluffton ... Ohio
United Systems Corp, Dayton ... Ohio
Wac Line Div Simmonds Precision Prods, Dayton ... Ohio
Westinghouse Electric Corp, Relay & Instr Dept Newark ... N J
Weston Instruments Div Weston Instr Inc, Newark ... N J

SIGNAL CONVERTERS SEE CONVERTERS--SIGNAL

SIGNAL GENERATORS SEE GENERATORS--SIGNAL

SIGNAL LAMPS SEE LAMPS

SIGNAL TRACERS SEE TESTERS--SIGNAL-TRACING

SILICA--FUSED SEE QUARTZ--FUSED

SILICON

Abesto Corp, Bloomfield	N J
Alloys Unlimited Inc, Melville	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerac Inc, Butler	Wis
Chisso Corp Silicon Div, Tokyo	Japan
Dowa Trading Co Ltd, Kobe	Japan
Dow Corning Corp, Midland	Mich
Electronic Space Products Inc, Los Angeles	Cal
Elmat Div Semimetals Inc, Mountain View	Cal
General Diode Corp, Framingham	Mass
Geoscience Instruments Corp, Mt Vernon	N Y
Glidden Metals, SCM Corp, Cleveland	Ohio
Hughes Aircraft Co, Newport Beach	Cal
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Interman Industrial Products Ltd, Garden City	NY
International Rectifier Semiconductor Div El Segundo	Cal
Koch Light Labs Ltd, Colnbrook, Bucks	England
Kollstan Semiconductor Elements, Westbury	NY
Laser Optics Inc, Danbury	Conn
Mackay Inc, A D, New York	N Y
Mallinckrodt Chemical Works, St Louis	Mo
Metal Ceram Inc, Mount Vernon	N Y
Monsanto Co, St Peters	Mo
Optical Products A Teledyne Co, Monrovia	Cal
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Semiconductor Specialties Corp, Fair Lawn	NJ
Semi-Elements Inc, Saxonburg	Pa
Semimetals Inc, Westbury	N Y
Spectrum Systems, Inc, Waltham	Mass
Texas Instruments Incorporated, Dallas	Tex
Union Carbide Corp, Mining & Metals Div New York	N Y
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Electronics Corp, Bradford	Pa
Wacker Chemical Corp, New York	N Y

SILICON CARBIDE

Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Babcock & Wilcox Co Refractories Div, Augusta	Ga
Bram Metallurgical Chemical Co, Philadelphia	Pa
Carborundum Co Electrical & Elctns Br, Niagara Falls	NY
Cerac Inc, Butler	Wis
City Chemical Corp, New York	N Y
Electronic Space Products Inc, Los Angeles	Cal
Kawecki Chemical Co, New York	N Y
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
MDC Industries, Philadelphia	Pa
3M Company, St Paul	Minn
Norton Co, Worcester	Mass
Pyrometer Co of America Inc, Penndel	Pa
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Elements Inc, Saxonburg	Pa
Texas Instruments Incorporated, Dallas	Tex
United American Metals Div, Brooklyn	N Y
Universal Shellac & Supply Co Inc, Brooklyn	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Electronics Corp, Bradford	Pa
Wacker Chemical Corp, New York	N Y
White Cross Labs, New York	NY

SILICON CRYSTALS SEE CRYSTALS--SEMICONDUCTOR

SILICON DIODES SEE DIODES--CRYSTAL

SILICONE ADHESIVES SEE ADHESIVES

SILICONE LAMINATES SEE LAMINATES--COPPER-CLAD

SILICONE RUBBER SEE RUBBER

SILICONES **SEE ALSO LAMINATES; PLASTICS; RUBBER**

ELECTRICAL INSULATION CO INC, COPIAGUE	**N Y**
Abesto Corp, Bloomfield	N J
Allaco Products, Braintree	Mass
Anglo American Vulcanized Fibre Co Ltd London EC 1	England
Auburn Mfg Co, Middletown	Conn
Bacon Industries, Inc, Watertown	Mass
Barco Chemical Products Co, Chicago	Ill
Beemer Engineering Co, Fort Washington	Pa
Bel-Ray Co, Inc, Farmingdale	N J
Bishop Mfg Corp, Cedar Grove	N J
Camie Co Inc, St Louis	Mo
Chomerics, Inc, Arlington	Mass
Connecticut Hard Rubber Co, New Haven	Conn
Da/Pro Rubber Inc, Van Nuys	Cal
Dbm Research Corp, Cocoa Beach	Fla
Devcon Corp, Danvers	Mass
Dowa Trading Co Ltd, Kobe	Japan
Dow Corning Corp, Midland	Mich
Electrical Insulation Co Inc, Copiague	N Y
Emerson & Cuming Inc, Canton	Mass
Emerson Plastics Corp, Bronx	New York
Fel Pro Inc Div Felt Products Mfg Co, Skokie	Ill
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
General Electric Co Silicone Prods Dept, Waterford	N Y
Hastings Plastics Inc, Santa Monica	Cal
Industrial Electronic Rubber Co, Twinsburg	Ohio
Insulating Shapes Inc, Bronx	N Y
Isochem Resins Co, Lincoln	RI
Mechanical Rubber Products Co, Inc, Warwick	NY
Miller-Stephenson Chemical Co Inc, Danbury	Conn
Minor Rubber Co Inc, Bloomfield	N J
Moxness Products Inc, Racine	Wis
Multi - Flex Seals Inc, Bronx	N Y
Polysciences Inc, Warrington	Pa
Port Plastics Inc, Montebello	Cal
Products Research Co, Burbank	Cal
Roberts & Associates Inc, E V, Culver City	Cal
Smooth-On Inc, Gillette	N J
Stauffer Chemical Co Silicone Div, New York	N Y
Synthane Corp, Oaks	Pa
Technical Wire Products Inc, Cranford	N J
Tra-Con, Inc, Medford	Mass
Transene Co Inc, Rowley	Mass

SILICON RECTIFIERS SEE RECTIFIERS

SILICON TRANSISTORS SEE TRANSISTORS

SILK SCREEN INKS SEE INKS

SILK SCREEN PRINTERS SEE MACHINES--PRINTED-CIRCUIT PRODUCTION

SILK-SCREEN PROCESSING SERVICES

NATIONAL TEL-TRONICS CORP; GREAT NECK	**N Y**
WIRE CLOTH ENTERPRISES INC, PITTSBURGH	**PA**
Advanced Space Age Products Inc, Alexandria	Va
Aeromarine Electronics, Inc, San Diego	Cal
Affiliated Manufacturers Inc, Whitehouse	N J
American Electronic Labs Inc, Lansdale	Pa
Apahouser Corp of N E, Boston	Mass
Avionics Ltd, Niagara-on-the-Lake	Ont
Brown Engineering-A Teledyne Co, Huntsville	Ala
Burtek Inc, Tulsa	Okla
Canrad Precision Industries Inc, New York	N Y
Chicago Etching Corp, Chicago	Ill
Coastal Dynamics Corp, Venice	Cal
Coast Coil Co Atlantic Research Corp, Los Angeles	Cal
Curry Arts Molding & Laminating Co, Scranton	Pa
Devco Engineering Inc, Fairfield (Caldwell)	N J
Dinsmore Instrument Co, Flint	Mich
Dry Screen Process Inc, Pittsburgh	Pa
Dura Plastics of N Y Inc, New York	NY
Eljay Corp, Baltimore	Md
Elzee Metal Products Co Inc, Brooklyn	N Y
Ever Ready Label Corp, Belleville	N J
Feay Co, Neal, Goleta	Cal
Film Components Div Reon Resister Corp, Yonkers	N Y
General Research Inc, Sparta	Mich
Gentape Corp, Bloomfield	N J
Hampden Mfg Co Inc, Thompsonville	Conn
Harva Co Inc, Schoharie	N Y
Industrial Engravers Inc, Jamaica	N Y
Infra-Red Systems Inc, Riverdale	N J
Jan Hardware Mfg Co Inc, Long Island City	N Y
Keil Engineering Products Inc, St Louis	Mo
Lake Engineering Co Ltd, Scarborough	Ont
Lambert Co, Inc, Boston	Mass
Lansky Die Cutting Corp, Long Island City	N Y
Leed Insulator Corp, Los Angeles	Cal
Livingston Electronic Div Jettron Prods Inc Hanover	N J
Mann Co, Henry, Cornwell Heights	Pa
Markon Mfg Inc, Englewood	Colo
Mid-West Metal Products Inc, Kansas City	Kans
Motson Co, J Frank, Flourtown	Pa
Nameplate Inc, Gardena	Cal
National Tel-Tronics Corp, Great Neck	N Y
Naz-Dar Co, Chicago	Ill
Nucleonic Industries, Tucson	Ariz
Panelgraphic Corp, Caldwell	N J
Photo Chemical Products Inc, Santa Monica	Cal
Precision Crafts, La Cresenta	Cal
Printloid Inc, Long Island City	N Y
Rosemount Plug-In Inc, Nashville	Tenn
Seastrom Mfg Co Inc, Glendale	Cal
Seton Name Plate Corp, New Haven	Conn
Stafford Mfg Co Inc, Brooklyn	N Y
Strandberg Engineering Labs Inc, Greensboro	N C
Tadco Mfg Inc, Gloucester	Mass
Technical Products Co of L A, Los Angeles	Cal
Tri-Tronics Lab Inc, Euless	Tex
Universal Circuits Inc, Minneapolis	Minn
Victoria Co, West Chicago	Ill
Waber Electronics Inc, Philadelphia	Pa
Wire Cloth Enterprises Inc, Pittsburgh	Pa
Zero Mfg Co, Burbank	Cal

SILK SCREENS SEE SCREENS

SILVER

UNIFORM TUBES INC, COLLEGEVILLE	**PA**
WILLIAMS GOLD REFINING CO INC PRECIOUS METALS DIV BUFFALO	**N Y**
Alpha Metals Inc, Jersey City	NJ
American Metal Climax Inc, New York	N Y
American Silver Co Div, Flushing	N Y
American Smelting & Refining Co, New York	N Y
Anadite, Inc, South Gate	Cal
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Attleboro Refining Co, Inc, Attleboro	Mass
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bemol Co, Newton	Mass
Brainin Corp, C S, Mt Vernon	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerac Inc, Butler	Wis
Cerro Corp, New York	NY
Cerro Sales Corp, New York	NY
Chomerics, Inc, Arlington	Mass
Cominco American Inc Electronic Matls Div, Spokane	Wash
Cox Mfg Co, San Antonio	Tex
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Eastern Smelting & Refining Corp, Lynn	Mass
Electro Science Labs Inc, Philadelphia	Pa
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Gardiner Solder Co, Chicago	Ill
General Findings Co Industrial Div, Attleboro	Mass
Hamilton Precision Metals Div Hamilton Watch Co Lancaster	Pa
Handy & Harman, New York	N Y
Improved Seamless Wire Co, Providence	R I
Isochem Resins Co, Lincoln	RI
Johnson Matthey & Mallory Ltd, Toronto 15	Ont
Kester Solder Co, Chicago	Ill
Koch Light Labs Ltd, Colnbrook, Bucks	England
Leach & Garner Co, Industrial Div, Attleboro	Mass
Mallinckrodt Chemical Works, St Louis	Mo
Materials Research Corp, Orangeburg	N Y
Metal Ceram Inc, Mount Vernon	N Y
Metaplast Electrochemicals Corp, Bronx	N Y
Metz Refining Co, South Plainfield	N J
Montgomery Co, Windsor Locks	Conn
M & T Chemicals Inc Sub American Can Co Rahway	N J
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
Simmons Refining Corp, Chicago	Ill
Uniform Tubes Inc, Collegeville	Pa
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
United Refining & Smelting Co, Franklin Park	Ill
Var-Lac-Oid Chemical Co, Elizabeth	N J
Vitta Corp, Wilton	Conn
Western Gold & Platinum Co, Belmont	Cal
Wilkinson Co, Westlake Village	Cal
Williams Gold Refining Co Inc Precious Metals Div Buffalo	N Y

SILVER-CELL BATTERIES SEE BATTERIES

SILVER PLATING SEE PLATING SERVICES

SILVER PREFORMS SEE PREFORMS

SILVER SOLDER SEE SOLDER

SIMULATORS--FLIGHT

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
LINAIR DESIGN CORP, LINDEN	**N J**
AAI Corp, Cockeysville	Md
Aeroflex Labs, Inc, Plainview	N Y
Automation Development Co, Culver City	Cal
Burtek Inc, Tulsa	Okla
Carco Electronics, Menlo Park	Cal
Conductron Corp, Ann Arbor	Mich
Curtiss-Wright Corp Electronics Div, E Paterson	N J
Dalto Electronics Corp, Norwood	N J
Dynasciences Corp, Blue Bell	Pa
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Farrand Optical Co Inc, Bronx	N Y
Ferranti, Ltd, Lancashire	England
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Geo Space Corp, Houston	Tex
Goodyear Aerospace Corp, Akron	Ohio
Hartman Systems Co Inc, Huntington Station	N Y
Inland Controls Inc Sub Kollmorgen Corp Brighton	Mass
Kollsman Instrument Corp, Syosset	N Y
Linair Design Corp, Linden	N J
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
Link Group Gen Precision Sys Inc, Binghamton	N Y
McFadden Electronics Co, South Gate	Cal
Northridge Engineering Co Div Republic Corp Northridge	Cal
Oki Electric Industry Co Ltd, Tokyo	Japan
Otis Elevator Co, Defense Oper, Stamford	Conn
Sylvania Electronic Systems, Waltham	Mass
Zeltex inc, Concord	Cal

SIMULATORS--NUCLEAR REACTOR

Curtiss-Wright Corp Electronics Div, E Paterson	N J
Eimac Div, Varian Associates, San Carlos	Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Geo Space Corp, Houston	Tex
Goodyear Aerospace Corp, Akron	Ohio
Link Group Gen Precision Sys Inc, Binghamton	N Y
Lockheed Georgia Nuclear Lab, Marietta	Ga
Nuclear Equipment Chemical Corp, Farmingdale	N Y

SIMULATORS--PROCESS CONTROL

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
BURR-BROWN RESEARCH CORP, TUCSON	**ARIZ**
MILGO ELECTRONIC CORP, MIAMI	**FLA**
Automation Development Co, Culver City	Cal
Burr-Brown Research Corp, Tucson	Ariz
C & N Electrical Ltd, Hants	England
Compudyne Corp, Hatboro	Pa
Control Data Corp, Minneapolis	Minn
Control Logic Inc, Natick	Mass
Curtiss-Wright Corp Electronics Div, E Paterson	N J
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Geo Space Corp, Houston	Tex
Goodyear Aerospace Corp, Akron	Ohio
Hektor Scientific Co Inc, Foxboro	Mass
Honeywell Inc, Computer Control Div Framingham	Mass
Honeywell Industrial Div, Fort Washington	Pa
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Link Group Gen Precision Sys Inc, Binghamton	N Y
Milgo Electronic Corp, Miami	Fla
Northridge Engineering Co Div Republic Corp Northridge	Cal
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Reeves Instrument Div, DCA, Garden City	N Y
Signet Controls Inc, Tulsa	Okla
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y

SIMULATORS--RADAR

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
AAI Corp, Cockeysville	Md
Aerospace Avionics Inc, Bohemia	NY
Amecom Div Litton Industries, Silver Spring	Md
Applied Devices Corp, College Point	n y
Applied Microwave Lab, Inc, Andover	Mass
Bendix Corp Navigation & Control Div, Teterboro,	N J
Canoga Electronics Corp, Chatsworth	Cal
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Conductron Corp, Ann Arbor	Mich
Control Science Corp, Alexandria	Va
Curtiss-Wright Corp Electronics Div, E Paterson	N J
Decitron Electronics Corp, Brooklyn	N Y
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Dewey Corp, G C, New York	N Y
Dynasciences Corp, Blue Bell	Pa
Eldorado Electronics, Concord	Cal
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus	N J
Ferranti, Ltd, Lancashire	England
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
General Atronics Corp, Philadelphia	Pa
Geo Space Corp, Houston	Tex
Geo Space Systems Inc, St Petersburg	Fla
Goodyear Aerospace Corp, Akron	Ohio
Hartman Systems Co Inc, Huntington Station	N Y
ITT Gilfillan Inc, Van Nuys	Cal
Keltec Industries, Alexandria Div, Alexandria	Va
Link Group Gen Precision Sys Inc, Binghamton	N Y
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Measurement Technology Corp, Canoga Park	Cal
Metric Systems Corp, Fort Walton Beach	Fla
Missouri Research Labs Inc, St Louis	Mo
M Tech Corp, Pomona	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Otis Elevator Co, Defense Oper, Stamford	Conn
Rantec Div Emerson Electric Co, Calabasas	Cal
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
Reeves Instrument Div, DCA, Garden City	N Y
Sanders Associates, Inc, Nashua	N H
Sperry Gyroscope Div Sperry Rand Corp Great Neck	N Y
Sperry Microwave Electronics Div, Clearwater	Fla
Sylvania Electronic Systems, Waltham	Mass
Symetrics Engineering Corp, Satellite Beach	Fla
Systems Research Labs Inc, Dayton	Ohio
Tasker Industries, Van Nuys	Cal
Trak Microwave Corp, Tampa	Fla
Vega Precision Labs, Vienna	Va
Vitro Labs Div Vitro Corp of America, Silver Spring	Md
Whittaker Corp Technical Products Div, Chatsworth	Cal
Wiltron Co, Palo Alto	Cal

SIMULATORS--RESOLVER-SYNCHRO SEE RESOLVER-SYNCHRO SIMULATORS & BRIDGES

SIMULATORS--SPACE

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
AAI Corp, Cockeysville	Md
Aeroflex Labs, Inc, Plainview	N Y
Aero Vac Corp, Troy	N Y
Associated Testing Labs, Inc, Wayne	N J
Bendix Corp, Vacuum Div, Rochester	N Y
Bethlehem Corp, Bethlehem	Pa
Canoga Electronics Corp, Chatsworth	Cal
CHA Industries, Div Carl Herrmann Assoc Menlo Park	Cal
Conductron Corp, Ann Arbor	Mich
Curtiss-Wright Corp Electronics Div, E Paterson	N J
CVI Corp, Columbus	Ohio
Dalto Electronics Corp, Norwood	N J
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Electro-Optical Systems Inc, Pasadena	Cal
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Garrett Corp, Los Angeles	Cal
General Atronics Corp, Philadelphia	Pa
General Electric Co Vacuum Prods Business Section Schenectady	N Y
Goerz Optical Co Inc, Inwood	N Y
Goodyear Aerospace Corp, Akron	Ohio
High Vacuum Equipment Corp, Hingham	Mass
Hughes Aircraft Co Vacuum Tube Prods Div Vacuum Devices Dept, Oceanside	Cal
Ilikon Corp, Natick	Mass
Japan Vacuum Engineering Co Ltd, Tokyo	Japan
Kollsman Instrument Corp, Syosset	N Y
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Link Group Gen Precision Sys Inc, Binghamton	N Y
Lockheed Georgia Nuclear Lab, Marietta	Ga
Nippon Electric Co Ltd, Tokyo	Japan
Norton Co Vacuum Equip Div, Newton	Mass
Nuclide Corp, AGV Div, Acton	Mass
Otis Elevator Co, Defense Oper, Stamford	Conn
Pennsalt Chemicals Corp Equipment Div Philadelphia	Pa
Spectrolab Div, Textron Electronics Inc, Sylmar	Cal
Spitz Labs Inc, Yorklyn	Del
Strong Electric Corp, Toledo	Ohio
Sunbeam Vacuum Furnace Corp, North Billerica	Mass
Tenney Engineering Inc, Union	N J
Tenvac, Inc, Pembroke	Mass
Ultek Div Perkin-Elmer, Palo Alto	Cal
Vactronic Lab Equipment Inc, East Northport	N Y
Varian, Palo Alto	Cal
Westinghouse Electric Corp, Aerospace Div Baltimore	Md

SINGLE-SIDEBAND CONVERTERS SEE CONVERTERS--SIGNAL

SINGLE-SIDEBAND GENERATORS SEE GENERATORS--SIGNAL

SINGLE-SIDEBAND RECEIVERS SEE RECEIVERS--RADIO COMMUNICATION

SINGLE-SIDEBAND SYSTEMS SEE COMMUNICATION SYSTEMS

SINGLE-SIDEBAND TRANSMITTERS SEE TRANSMITTERS--RADIO COMMUNICATION

SLEEVING--COTTON, ASBESTOS, SILK

Dearborn Wire & Cable Co, Chicago	Ill
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
Gladding Corp, South Otselic	N Y
Suflex Corp, Woodside	N Y

SLEEVING--GLASS YARN

DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
B & C Insulation Products, Inc, Iselin	N J
Bentley-Harris Mfg Co, Conshohocken	Pa
Daburn Electronics & Cable Corp, Bronx	N Y
Dearborn Wire & Cable Co, Chicago	Ill
Dielectric Materials Co, Chicago	Ill
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
General Plastics Corp, Bloomfield	N J
Gladding Corp, South Otselic	N Y
Icore Electro-Plastics, Sunnyvale	Cal
Markel & Sons Inc L Frank, Norristown	Pa
Syncor Products Co, Inc, Malden	Mass
Varflex Corp, Rome	N Y

SLEEVING--INSIDE COATED, SATURATED

DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
B & C Insulation Products, Inc, Iselin	N J
Bentley-Harris Mfg Co, Conshohocken	Pa
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Chomerics, Inc, Arlington	Mass
Daburn Electronics & Cable Corp, Bronx	N Y
Dearborn Wire & Cable Co, Chicago	Ill
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
General Plastics Corp, Bloomfield	N J
Gladding Corp, South Otselic	N Y
Markel & Sons Inc L Frank, Norristown	Pa
Varflex Corp, Rome	N Y

SLEEVING--SATURATED

DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
B & C Insulation Products, Inc, Iselin	N J
Bentley-Harris Mfg Co, Conshohocken	Pa
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Daburn Electronics & Cable Corp, Bronx	N Y
Dearborn Wire & Cable Co, Chicago	Ill
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
General Plastics Corp, Bloomfield	N J
Gladding Corp, South Otselic	N Y
Markel & Sons Inc L Frank, Norristown	Pa
Natvar Corp, Woodbridge	N J
Port Plastics Inc, Montebello	Cal
Varflex Corp, Rome	N Y

SLEEVING--SILICONE TREATED

DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
B & C Insulation Products, Inc, Iselin	N J
Bentley-Harris Mfg Co, Conshohocken	Pa
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Daburn Electronics & Cable Corp, Bronx	N Y
Dearborn Wire & Cable Co, Chicago	Ill
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
Gladding Corp, South Otselic	N Y
Markel & Sons Inc L Frank, Norristown	Pa
Natvar Corp, Woodbridge	N J
Port Plastics Inc, Montebello	Cal
Suflex Corp, Woodside	N Y
Superior Continental Corp, Hickory	N C
Varflex Corp, Rome	N Y
Westline Products, Los Angeles	Cal

SLIDES--CHASSIS

AMCO ENGINEERING CO, CHICAGO	**ILL**
BORG-WARNER CORP, INGERSOLL PRODUCTS DIV CHICAGO	**ILL**
CHASSIS-TRAK INC, INDIANAPOLIS, IND	**ADV PG 640**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
Amco Engineering Co, Chicago	Ill
Barnes Engineering Co, Santa Ana	Cal
Borg-Warner Corp, Ingersoll Products Div, Chicago	Ill
Boston Precision Parts Co Inc, Hyde Park	Mass
Bud Radio Inc, Willoughby	Ohio
Chassis-Trak Inc, Indianapolis	Ind
Eugene Engineering Co Inc, Rockland	Mass
G C Electronics Div, Hydrometals Inc, Rockford	Ill

chassis Trak inc.

ENGINEERING FACTS AND FIGURES

Construction—Chassis-Trak Slides are made of hard, cold-rolled steel for maximum strength and wearing qualities and are cadmium-plated for extra corrosion resistance. Smooth operation is achieved by means of Poxylube 75 dry film lubricant which becomes increasingly slick with use. This permanent formulation is dust-repellent and withstands pressure loading of more than 50,000 psi at 25 ft./min. Finish has passed JAN 100-hour salt spray test and is approved for military use.

Installation—"Pencil thin" Chassis-Trak design permits installation of standard 17" chassis in standard 19" panel racks without modification. Standard slides bolt to front rail and rear of cabinet. On most models, a prefabricated gusset assembly can be furnished for use where load does not exceed 100 lbs. Gusset automatically aligns slides and permits mounting at front rail only. Templates, rear mounting brackets and all hardware furnished together with complete assembly instructions.

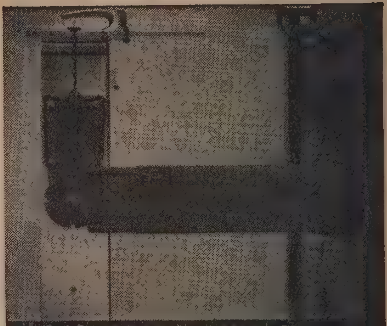
Operation—Chassis-Trak Slides are available in non-tilt, tilt, and tilt-detent models. Slides with "B" in the model designation tilt upward only; "D" models tilt and lock in seven different service postions. Choice of solid bearing or roller bearing operation. Roller bearings are recommended for equipment requiring frequent service. Chassis of any length can be fully extended without disconnecting rear cables. Pushbutton spring mechanism releases chassis for convenient slip-out, slip-in servicing.

For additional engineering information, accessories hardware catalog, and prices, write:

chassis Trak inc.

525 SOUTH WEBSTER AVENUE
INDIANAPOLIS, INDIANA 46219

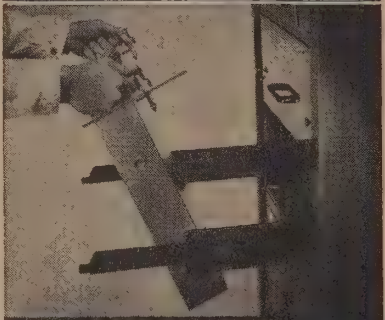
C-300 to 50 lbs.



C-230 to 100 lbs.

D-600 to 125 lbs.

CTB to 175 lbs.



CTHRD to 275 lbs.

CB to 1000 lbs.

ROLLER BEARING SLIDES	Model	SLIDE LENGTH								LBS. MAX. LOAD
		10	12	14	16	18	20	22	24	
Basic	CTRB	X	X	X	X	X	X	X	X	175
Detent	CTRD		X	X	X	X	X	X	X	175
Cradle Track	CTEZ			X	X	X	X	X	X	125
Heavy Duty Basic	CTHRB			X	X	X	X	X	X	275
Heavy Duty Detent	CTHRD			X	X	X	X	X	X	275
Lightweight	C-357		X	X	X	X	X	X	X	150
Circulating Ball	CB	16″ to 60″								1000

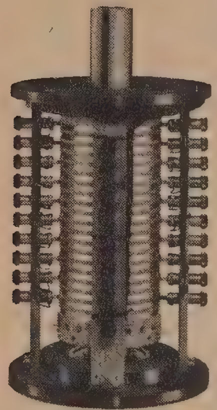
SOLID BEARING SLIDES	Model	SLIDE LENGTH								LBS. MAX. LOAD
		10	12	14	16	18	20	22	24	
Basic	CTB	X	X	X	X	X	X	X	X	175
Detent	CTD		X	X	X	X	X	X	X	175
Lightweight	CTL			X	X	X	X	X	X	100
Heavy Duty Basic	CTHB			X	X	X	X	X	X	250
Heavy Duty Detent	CTHD			X	X	X	X	X	X	250
1¾ Inch	C-300	X	X	X	X	X	X	X	X	50
Light-Duty	C-300	X	X	X	X	X	X	X	X	50
Aluminum	D-600	X	X	X	X	X	X	X	X	125
Utility	C-230		X	X	X	X	X	X	X	100

BEARING MOUNTED SLIP-RING ASSEMBLIES

EAY-502

CAY-150

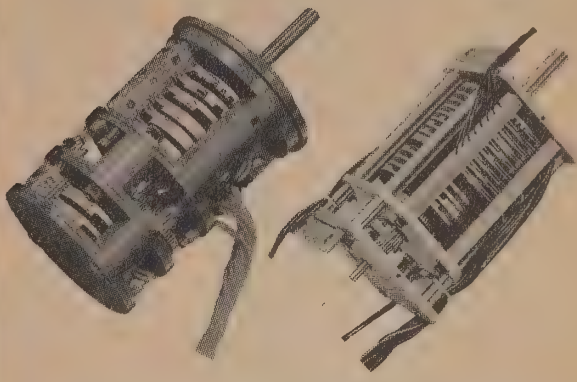
CAY-110



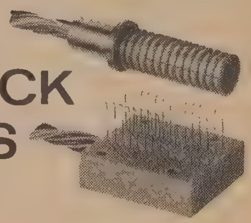
CAY-125

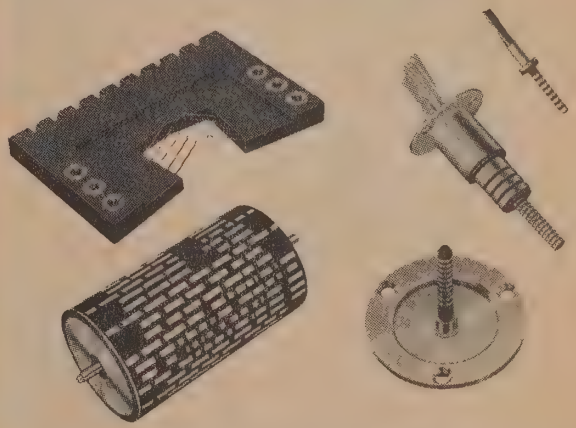
SHAFT POSITION ENCODERS

analog-digital converters

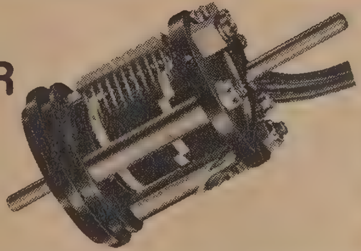


SLIP-RING AND BRUSH BLOCK ASSEMBLIES AND SWITCHING COMMUTATORS





ROTARY SELECTOR SWITCH



Illustrated is a partial selection of the many and varied products available from Airflyte's complete line of rotating components. Airflyte's extensive services and facilities, from research and design to prototype and mass production, enable the manufacture of both standard and modified components, geared to customer specifications and application. Tooling costs can be eliminated in most instances by the availability of a large selection of company-owned jigs, fixtures, dies and molds. Airflyte Electronics invites your inquiry.

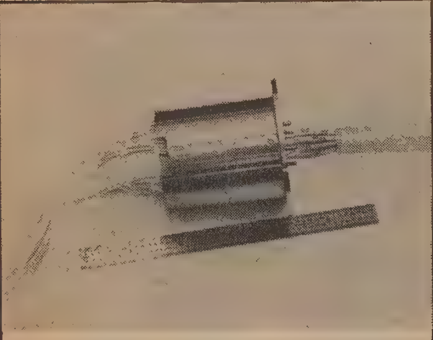
Airflyte

WRITE FOR CATALOG TEN NEW HOOK ROAD, BAYONNE, NEW JERSEY 07002
PHONE (201) 436-2230 TWX (201) 437-4896

Grant Pulley & Hardware Corp, West Nyack	N Y
Jan Hardware Mfg Co Inc, Long Island City	N Y
Jonathan Mfg Co, Fullerton	Cal
Premier Metal Products Co Inc, New York	N Y
Scientific-Atlanta Inc, Atlanta	Ga
Sliding Mechanisms Inc, Chicago	Ill
Standard Precision Inc Accuride Div, Santa Fe Springs	Cal
Taffet Electronics Inc, Woodside	N Y
Watson Mfg Co Inc, Jamestown	N Y
Wyco Metal Products, North Hollywood	Cal
Zero Mfg Co, Burbank	Cal

SLIP-RING ASSEMBLIES SEE ALSO COMMUTATORS

AIRFLYTE ELECTRONICS CO, BAYONNE, N J	**ADV PG 641**
ELECTRO-TEC CORP, ORMOND BEACH	**FLA**
GRAPHITE METALLIZING CORP, YONKERS, N Y	**ADV PG 76**
NEY CO, J M, BLOOMFIELD	**CONN**
POLY SCIENTIFIC DIV LITTON INDUSTRIES, BLACKSBURG VA	**ADV PG 642**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
Airflyte Electronics Co, Bayonne	N J
American Circuit-Tronics Corp, Royal Oak	Mich
Avionics, Inc, South Bend	Ind
Breeze Corps Inc, Union	N J
Collectron Corp, New York	N Y
Consolidated Controls Corp, El Segundo	Cal
Consolidated Controls Corp, Bethel	Conn
Electro Miniatures Corp, South Hackensack	N J
Electro-Tec Corp, Ormond Beach	Fla
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Fabricast Inc, South El Monte	Cal
Franklin Fibre-Lamitex Corp, Wilmington	Del
Goodyear Aerospace Corp, Akron	Ohio
Graphite Metallizing Corp, Yonkers	N Y
Himmelstein & Co, S, Elk Grove Village	Ill
Hydro Products Div Dillingham Corp, San Diego	Cal
Instru-Lec Corp, Mt Vernon	N Y
Johnson Matthey & Mallory Ltd, Toronto 15	Ont
Kendick Mfg Co Inc, Fort Wayne	Ind
Larson Aero Development, Concord	Cal
Lebow Associates Inc, Oak Park	Mich
Lehigh Valley Electronics Engrg & Mfg Co, Inc Fogelsville	Pa
Lind Electro Development A Teledyne Co Mountain View	Cal
Maurey Instrument Corp, Chicago	Ill
Meridian Lab Inc, Madison	Wis
Metal Ceram Inc, Mount Vernon	N Y
Michigan Scientific Corp, Milford	Mich
Midwest Molding & Mfg Co, Gurnee	Ill
Mycalex Corp of Amer Sub Spaulding Fibre Co Inc Clifton	N J
Ney Co, J M, Bloomfield	Conn
Northern Precision Labs Inc, Fairfield	N J
Occo Mfg Corp, South Hackensack	N J
Omega Industries Inc, Newport Beach	Cal
Poly Scientific Div Litton Industries, Blacksburg	VA
Rostone Corp, Lafayette	Ind
Schaevitz Engineering, Pennsauken	N J
Scientific-Atlanta Inc, Atlanta	Ga
Semi-Alloys Inc, Mt Vernon	N Y
Superior Carbon Products Inc, Cleveland	Ohio
Toledo Commutator Co, Owosso	Mich
Washington Scientific Industries Inc, Minnetonka	Minn
Wendon Co Inc, Stamford	Conn



- Slip Ring Assemblies
- Flex Leads and Twist Capsules
- Rotary Switches
- Electronic Modules
- Ground/Test Equipment

Poly-Scientific Division
LITTON INDUSTRIES
Blacksburg, Virginia

SLOTTED SECTIONS--MICROWAVE

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE	**NY**
HEWLETT-PACKARD, PALO ALTO	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TRG DIV CONTROL DATA CORP, EAST BOSTON MASS	**ADV PG 418**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Aircom Inc, Union	N H
Alford Mfg Co, Winchester	Mass
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Cardwell Condenser Corp, Lindenhurst	N Y
Herley Industries, Inc, Westbury	N Y
Hewlett-Packard, Palo Alto	Cal
Lieco Inc, West Babylon	N Y
Maury Microwave Corp, Montclair	Cal
MCS Corp, Monrovia	Cal
Microwave Associates Inc, Burlington	Mass
Narda Microwave Corp, Plainview	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Omega Laboratories Inc, Rowley	Mass
Omni Spectra Inc, Farmington	Mich
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
R F Systems Inc, Cohasset	Mass
RLC Electronics Inc, Port Chester	N Y
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst	NY
TRG Div Control Data Corp, East Boston	Mass
Weinschel Engineering Co Inc, Gaithersburg	Md
Wiltron Co, Palo Alto	Cal

SOCKETS--DIODE

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
BARNES CORP, LANSDOWNE	**PA**
CINCH MFG CO, ELK GROVE VILLAGE	**ILL**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Accurate Electronics Corp, Elyria	Ohio
Azimuth Electronics, Denville	N J
Barnes Corp, Lansdowne	Pa
Cinch Mfg Co, Elk Grove Village	Ill
Dowa Trading Co Ltd, Kobe	Japan
Eimac Div, Varian Associates, San Carlos	Cal
Electronic Molding Corp, Pawtucket	R I
Impectron Inc, New York	N Y
Jettron Products Inc, Hanover	N J
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Methode Electronics Inc, Chicago	Ill
Metox, Paris 20	France
Oneida Electronic Mfg Co, Meadville	Pa
Permonite Mfg Co, Chicago	Ill
Robinson-Nugent Inc, New Albany	Ind
Ross Co, Milton, Southampton	Pa
Rye Industries, Inc, Mamaroneck	N Y
SAE Advanced Packaging Inc, Santa Ana	Cal
Shigoto Industries Ltd, New York	N Y
Smith Inc, Herman H, Brooklyn	N Y
Textool Products Inc, Irving	Tex
Trans-Tek Mfg Co Inc, Garwood	N J

SOCKETS--CRYSTAL

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AUGAT, INC, ATTLEBORO, MASS	**ADV PG 644**
BARNES CORP, LANSDOWNE	**PA**
CINCH MFG CO, ELK GROVE VILLAGE	**ILL**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
MOSLEY ELECTRONICS INC, BRIDGETON	**MO**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Accurate Electronics Corp, Elyria	Ohio
Augat, Inc, Attleboro	Mass
Barnes Corp, Lansdowne	Pa
Chemelec Products, Inc, Cherry Hill	N J
Cinch Mfg Co, Elk Grove Village	Ill
Dowa Trading Co Ltd, Kobe	Japan
Eby Co Hugh H, Philadelphia	Pa
Electronic Molding Corp, Pawtucket	R I
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Industrial Electronic Hardware Corp, New York	N Y
Jan Hardware Mfg Co Inc, Long Island City	N Y
Javex Electronics, Cherry Valley	Cal
Jettron Products Inc, Hanover	N J
Mandex Mfg Co Inc, Chicago	Ill
Methode Electronics Inc, Chicago	Ill
Metox, Paris 20	France
Millen Mfg Co Inc, James, Malden	Mass
Mitsumi Electric Co Ltd, Tokyo	Japan
Mosley Electronics Inc, Bridgeton	Mo
National Radio Co Inc, Melrose	Mass
Norrich Plastics Corp, Roosevelt	N Y
Oneida Electronic Mfg Co, Meadville	Pa
Permonite Mfg Co, Chicago	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Robinson-Nugent Inc, New Albany	Ind
Ross Co, Milton, Southampton	Pa
Rye Industries, Inc, Mamaroneck	N Y
SAE Advanced Packaging Inc, Santa Ana	Cal
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Smith Inc, Herman H, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
Waldom Electronics Inc, Chicago	Ill
Westcott Electronics, Clifton	NJ

SOCKETS--LAMP-DIAL, PANEL & PILOT

BARNES CORP, LANSDOWNE	**PA**
CIRCON COMPONENT CORP, GOLETA	**CAL**
ELECTRONIC MOLDING CORP, PAWTUCKET R I	**ADV PG 695**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
Adronics Inc, Elrob Mfg Corp, Verona	N J
Aerolite Electronics Corp, Union City	N J
Aeronautical Electric Co, Chicago	Ill
Aristo-Craft Distinctive Miniatures, New York	N Y
Barnes Corp, Lansdowne	Pa
Cambridge Thermionic Corp, Cambridge	Mass
Christiana Industries Corp, Chicago,	Ill
Circon Component Corp, Goleta	Cal
Cole-Hersee Co, S Boston	Mass
Control Switch Div Controls Co of America, Folcroft	Pa
Dialight Corp, Brooklyn	N Y
Dinsmore Instrument Co, Flint	Mich
Dowa Trading Co Ltd, Kobe	Japan
Drake Mfg Co, Harwood Heights	Ill
Eagle Electric Mfg Co Inc, Long Island City	N Y
Electronic Molding Corp, Pawtucket	R I
Evans Equipment Co, Brookfield	Conn
Federal Screw Products Inc, Chicago	Ill
Grimes Mfg Co, Urbana	Ohio
Industrial Devices Inc, Edgewater	N J
Johnson Co, E F, Waseca	Minn
Korry Mfg Co, Seattle	Wash
Lake Engineering Co Ltd, Scarborough	Ont
Leviton Mfg Co Inc, Brooklyn	N Y
Mandex Mfg Co Inc, Chicago	Ill
Metox, Paris 20	France
Molex Products Co, Downers Grove	Ill
Morse Co, Frank W, Boston	Mass
Oneida Electronic Mfg Co, Meadville	Pa
Pass & Seymour, Syracuse	N Y
Permonite Mfg Co, Chicago	Ill
Republic Industrial Corp, Lathrup Village	Mich
Rye Industries, Inc, Mamaroneck	N Y
SAE Advanced Packaging Inc, Santa Ana	Cal
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Sloan Co, Sun Valley	Cal
Smith Inc, Herman H, Brooklyn	N Y
Stromberg-Carlson Sub Gen Dynamics, Rochester	N Y
Sylvania Electric Prods Inc Lamp Div, Danvers	Mass
Trimm Inc, Libertyville	Ill
United-Carr Inc, Boston	Mass
Vernaline Products Co, Inc, Wycoff	N J
Westmoreland Plastics Co, Latrobe	Pa

SOCKETS--PENCIL TUBE

BARNES CORP, LANSDOWNE	**PA**
GRAYHILL INC, LA GRANGE	**ILL**
Barnes Corp, Lansdowne	Pa
Chemelec Products, Inc, Cherry Hill	N J
Dowa Trading Co Ltd, Kobe	Japan
Eby Co Hugh H, Philadelphia	Pa
Elco Corp, Willow Grove	Pa
Grayhill Inc, La Grange	Ill
Jettron Products Inc, Hanover	N J
Metox, Paris 20	France
Robinson-Nugent Inc, New Albany	Ind
SAE Advanced Packaging Inc, Santa Ana	Cal
Shigoto Industries Ltd, New York	N Y

SOCKETS--PRINTED CIRCUIT

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AUGAT, INC, ATTLEBORO, MASS	**ADV PG 644**
BARNES CORP, LANSDOWNE, PA	**ADV PG 645**
BIRNBACH CO INC, FREEPORT	**N Y**
CINCH MFG CO, ELK GROVE VILLAGE, ILL	**ADV PGS 188,189**
CIRCON COMPONENT CORP, GOLETA	**CAL**
IBM, INDUSTRIAL PRODUCTS MARKETING, NEW YORK	**NY**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Accurate Electronics Corp, Elyria	Ohio
Aikow Shoji Kaisha Ltd, Osaka	Japan
Armel Electronics, Inc, North Bergen	N J
Augat, Inc, Attleboro	Mass
Auto-Swage Products, Inc, Shelton	Conn
Barnes Corp, Lansdowne	Pa
Birnbach Co Inc, Freeport	N Y
Cambridge Thermionic Corp, Cambridge	Mass
Cinch Mfg Co, Elk Grove Village	Ill
Circon Component Corp, Goleta	Cal
Dowa Trading Co Ltd, Kobe	Japan
Drake Mfg Co, Harwood Heights	Ill
Hosiden Electronics Co Ltd, Osaka	Japan
IBM, Industrial Products Marketing, New York	NY
Industrial Electronic Hardware Corp, New York	N Y
ITT Europe Inc Components Gp, Brussels 1	Belgium
Jettron Products Inc, Hanover	N J
Mandex Mfg Co Inc, Chicago	Ill
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Methode Electronics Inc, Chicago	Ill
Metox, Paris 20	France
Molex Products Co, Downers Grove	Ill
Oneida Electronic Mfg Co, Meadville	Pa
Pylon Co, Inc, Attleboro	Mass
Republic Industrial Corp, Lathrup Village	Mich
Robinson-Nugent Inc, New Albany	Ind
Ross Co, Milton, Southampton	Pa
SAE Advanced Packaging Inc, Santa Ana	Cal
Schrack Electrical Sales Corp, New York	N Y
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Smith Inc, Herman H, Brooklyn	N Y
Texas Instruments Incorporated, Dallas	Tex
Textool Products Inc, Irving	Tex
Transitron Electronic Corp, Wakefield	Mass
UID Electronics Corp, Hollywood	Fla
United-Carr Inc, Boston	Mass
United Mineral & Chemical Corp, New York	N Y
USECO Div, Litton Industries, Van Nuys	Cal
Vector Electronic Co Inc, Los Angeles	Cal
Waldom Electronics Inc, Chicago	Ill

Pain

Killer.

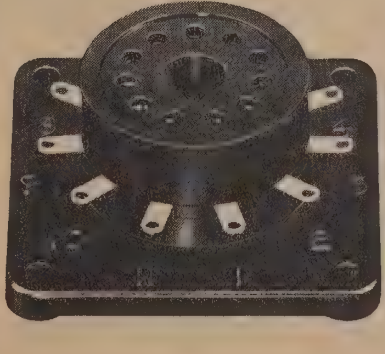
If vendors have you in a pinch and another source of supply will help, turn to the Electronics Buyers' Guide. You'll find all the information you need on over 1,363 sources of power supplies, listed under 11 headings from *AC Regulated Power Supplies to Laser Power Supplies.*

Electronics Buyers' Guide

SOCKETS--RELAY

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AMERICAN ZETTLER, INC, COSTA MESA	**CAL**
AMPHENOL, BROADVIEW, ILL	**ADV PG 643**
AUGAT, INC, ATTLEBORO, MASS	**ADV PG 644**
BARNES CORP, LANSDOWNE	**PA**
BURNDY CORP, NORWALK	**CONN**
CINCH MFG CO, ELK GROVE VILLAGE	**ILL**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
ELECTRO-TEC CORP, ORMOND BEACH	**FLA**
IBM, INDUSTRIAL PRODUCTS MARKETING, NEW YORK	**NY**
LEACH CORP, SOUTH PASADENA	**CAL**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
POMONA ELECTRONICS CO INC, POMONA, CAL	**ADV PG 643**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
Accurate Electronics Corp, Elyria	Ohio
AirBorn Inc, Dallas	Tex
Allied Control Co Inc, New York	N Y
American Zettler, Inc, Costa Mesa	Cal
Amphenol, Broadview	Ill
Armel Electronics, Inc, North Bergen	N J
Augat, Inc, Attleboro	Mass
Automech Associates, Inc, North Haven	Conn
Aviation Electric Ltd, St Laurent, Montreal	Que
Azimuth Electronics, Denville	N J
Barnes Corp, Lansdowne	Pa
Branson Corp, Denville	N J
Burndy Corp, Norwalk	Conn
Cambridge Thermionic Corp, Cambridge	Mass
Cinch Mfg Co, Elk Grove Village	Ill
Dan-L Inc, E Northport	N Y
Dowa Trading Co Ltd, Kobe	Japan
Eby Co Hugh H, Philadelphia	Pa
Elco Corp, Willow Grove	Pa
Electronic Molding Corp, Pawtucket	R I
Electro-Tec Corp, Ormond Beach	Fla
Giannini-Voltex, Whittier	Cal
IBM, Industrial Products Marketing, New York	NY
Industrial Electronic Hardware Corp, New York	N Y
ITT Europe Inc Components Gp, Brussels 1	Belgium
Leach Corp, South Pasadena	Cal
Methode Electronics Inc, Chicago	Ill
Metox, Paris 20	France
Molex Products Co, Downers Grove	Ill
Parelco, Inc, San-Juan Capistrano	Cal
Photologic Co, Orange	Cal
Pomona Electronics Co Inc, Pomona	Cal
Robinson-Nugent Inc, New Albany	Ind
Rundel Electric Co, Millbrae	Cal
SAE Advanced Packaging Inc, Santa Ana	Cal
Schjeldahl Co G T, Connector Dept, Osseo	Minn
Schrack Electrical Sales Corp, New York	N Y
Schurter AG, H, 6002 Lucerne	Switzerland
Shigoto Industries Ltd, New York	N Y
Struthers-Dunn Inc, Pitman	N J
Tokyo Electric Co Ltd, Tokyo	Japan
Transitron Electronic Corp, Wakefield	Mass
Winchester Electronic Div, Litton Industries Oakville	Conn

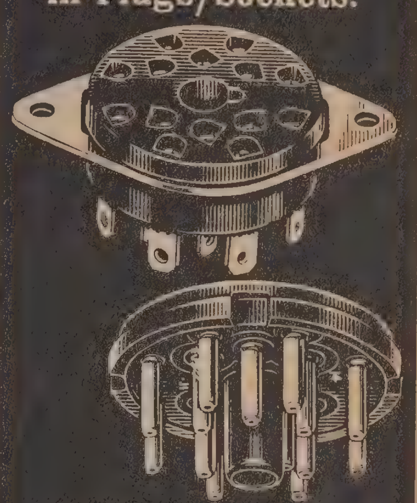
RELAY SOCKETS



Featured in our 1968 general catalog. Listing a complete line of ¾" and ½" banana plugs and accessories • adapters • test probes • jumpers • patch cords • shielded component-mounting "Black Boxes" • cable assemblies • miscellaneous test accessories. Write for your free copy.

POMONA
ELECTRONICS CO., INC.
1500 E. Ninth Street, Pomona, Calif. 91766

Specify Amphenol.
The leading name
in Plugs/Sockets.



UL approved types
Tube, MIP, PC and miniature types
Industrial and commercial relays

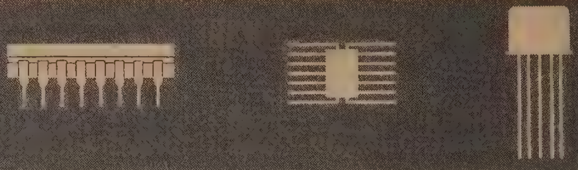
For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL™

SOCKETS--INTEGRATED CIRCUITS

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AUGAT, INC, ATTLEBORO, MASS	**ADV PG 644**
BARNES CORP, LANSDOWNE, PA	**ADV PG 645**
CINCH MFG CO, ELK GROVE VILLAGE, ILL	**ADV PGS 188,189**
ELECTRONIC MOLDING CORP, PAWTUCKET . R I	**ADV PG 695**
Accurate Electronics Corp, Elyria	Ohio
Augat, Inc, Attleboro	Mass
Azimuth Electronics, Denville	N J
Barnes Corp, Lansdowne	Pa
Cambridge Thermionic Corp, Cambridge	Mass
Chemelec Products, Inc, Cherry Hill	N J
Cinch Mfg Co, Elk Grove Village	Ill
Control Logic Inc, Natick	Mass
Dowa Trading Co Ltd, Kobe	Japan
Drake Mfg Co, Harwood Heights	Ill
Elco Corp, Willow Grove	Pa
Electronic Molding Corp, Pawtucket	R I
Ferranti, Ltd, Lancashire	England
Jettron Products Inc, Hanover	N J
Metox, Paris 20	France
Positronic Industries Inc, Springfield	Mo
Pylon Co, Inc, Attleboro	Mass
Robinson-Nugent Inc, New Albany	Ind
Ross Co, Milton, Southampton	Pa
SAE Advanced Packaging Inc, Santa Ana	Cal
Scanbe Mfg Corp, Monterey Park	Cal
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Texas Instruments Incorporated, Dallas	Tex
Textool Products Inc, Irving	Tex
Vector Electronic Co Inc, Los Angeles	Cal

AUGAT

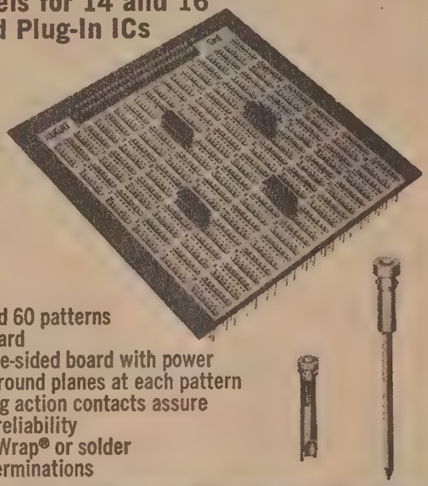


Integrated Circuit Sockets and Panel Assemblies

FOR TESTING, BREADBOARDING AND PACKAGING

HIGH DENSITY PACKAGING PANEL

Panels for 14 and 16 Lead Plug-In ICs



30 and 60 patterns standard
Double-sided board with power and ground planes at each pattern
Wiping action contacts assure high reliability
Wire-Wrap® or solder pot terminations

BREADBOARD AND TEST PANELS

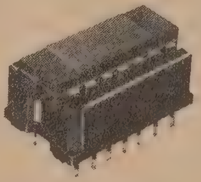
10 to 50 patterns standard. Eliminates soldering or welding I C leads. Also solderless jumper interconnections.

Also available for flat pack and TO-5 IC's

LOW PROFILE SOCKETS

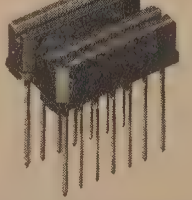
Available for 14 & 16 lead packages, accepts all packages with round or flat leads. Inner rail design. In diallyl phthalate or black phenolic with gold or tin plated contacts.

PC Style. Directly interchangeable! Exclusive socket configuration identical to IC package. Saves time, simplifies mounting on PC board.



Has wiping type beryllium copper contacts

Wire-Wrap Style permits fast, easy mounting on boards. For .036 diameter holes. Retention and alignment assured without cement or special fasteners.



Contacts individually replaceable without removal of entire socket. Wire-wrap terminals — .025″ square tails. Sufficient length for 3 levels of 30 gauge wire.

TO-5 CASE SIZE TEST AND PACKAGING SOCKETS

Positive retention — high contact reliability. Test sockets permit easy, fast insertion and withdrawal.

6-8-10-12 contact arrangements.
Wide range of terminal styles.
Teflon insulated body with beryllium copper, gold-plated contacts.

Large selection of Module and Transistor Sockets also available.

®Trademark Gardner-Denver Co.

Our flexible designs permit fast, easy modifications to suit particular requirements without premium charges or extended deliveries.

For fast, economical service on your I C Handling Problems, request Catalog 364.

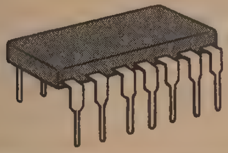
Other AUGAT Products:

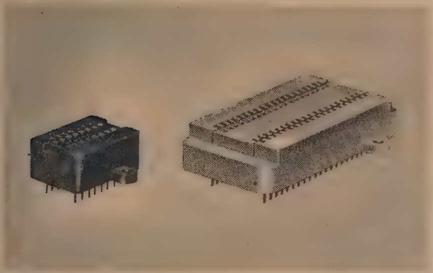
- Transistor Sockets
- Crystal Sockets
- Relay Sockets
- Lead Sockets
- Test Jacks
- Heat Sinks
- Component Holders
- Clamps
- Battery Holders

AUGAT INC. 35 PERRY AVE., ATTLEBORO, MASS. 02703

SOCKET SOLUTIONS ...PLUS!

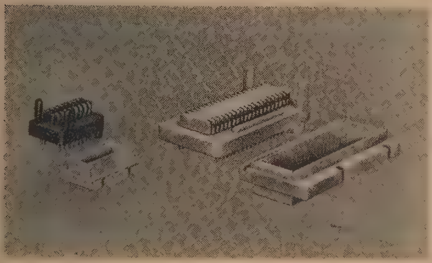
BARNES has the largest selection of sockets for I.C., MSI, LSI and Transistors in the industry... PLUS the world's most complete line of carriers / contactors and breadboards!





DIP SOCKETS . . .

For testing, aging, burn-in and breadboarding. Features easy loading, long, reliable life with no lead deformation.

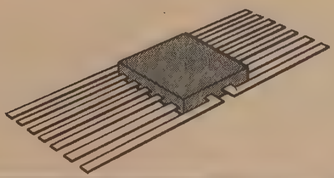


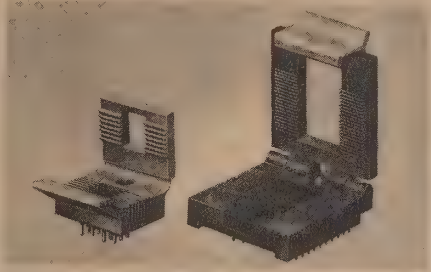
DIP CARRIERS/CONTACTORS . . .

For device protection during shipment, testing and manual or automatic handling. Provides uniform geometry and polarization protection for all package sizes and types.

DIP PRODUCTION SOCKETS . . .

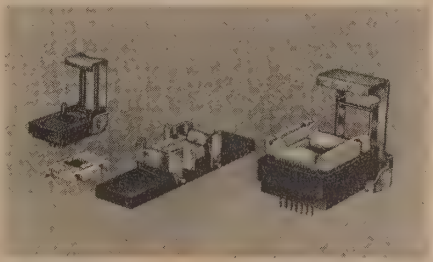
For high density production mounting of I.C.'s. Features low body profile, available in wire-wrap or solder tab terminals, temperatures to 150°C.





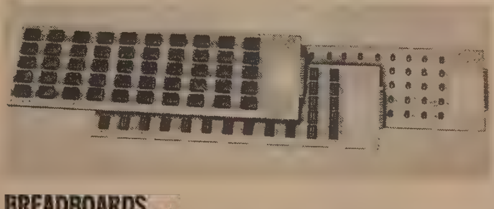
FLAT PACK SOCKETS . . .

For testing, aging, burn-in, breadboarding and production mounting. Features fast, one-hand loading and unloading, and positive lead separation with no deformation.



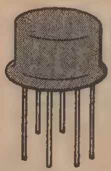
FLAT PACK CARRIERS/CONTACTORS . . .

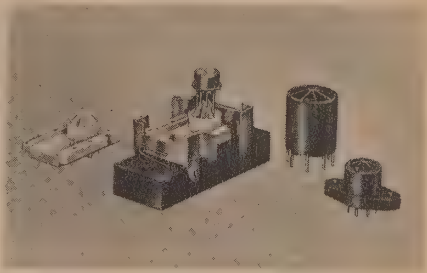
For device protection during shipment, testing and manual or automatic handling. Provides uniform geometry and polarization protection for all package sizes and types.



BREADBOARDS . . .

For high temperature circuit design, environmental testing, aging and burn-in for Dual-in-Line, Flat Pack and TO style I.C. packages. Available with 5 to 75 device positions per board with card receptacle edge connector.





TO SOCKETS, CARRIERS/CONTACTORS . . .

For testing, aging, burn-in and breadboarding . . . and for device protection during shipment, testing and handling for all sizes and pin configurations.

TRANSISTOR SOCKETS . . .

For testing, aging, burn-in, breadboarding and production mounting. Features easy insertion, excellent electrical characteristics and low profile for high density production mounting, as well as wide temperature range capability.

For more information about socket solutions plus the world's most complete line of carriers, contactors and breadboards, write for a comprehensive BARNES catalog.

barnes
CORPORATION

LANSDOWNE, PA. 19050 ■ 215/MA 2-1525
TWX: 510/669-9977

BARNES' complete line also includes Spring Sockets, Op-Amp Sockets, Modular Test Sockets, Relay Sockets, TH-037 Test Handler Series, Universal Mating Connector System

SOCKETS--SUBMINIATURE

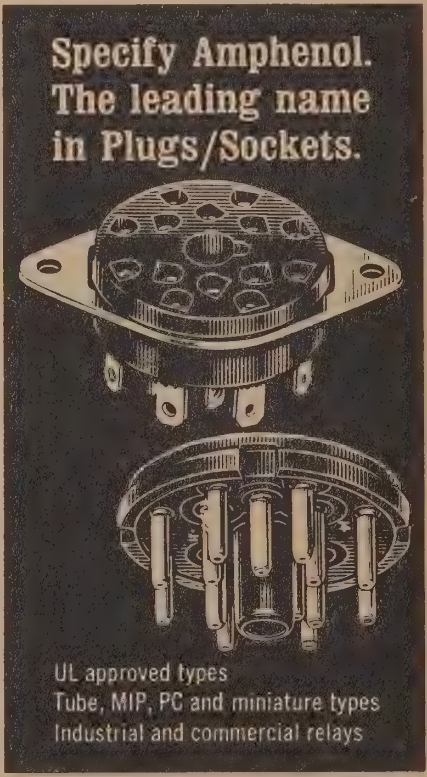
ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AMPHENOL, BROADVIEW	**ILL**
AMP INCORPORATED, HARRISBURG	**PA**
AUGAT, INC, ATTLEBORO, MASS	**ADV PG 644**
BARNES CORP, LANSDOWNE	**PA**
CINCH MFG CO, ELK GROVE VILLAGE	**ILL**
CIRCON COMPONENT CORP, GOLETA	**CAL**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
ELECTRO-TEC CORP, ORMOND BEACH	**FLA**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
STAR STAINLESS SCREW CO, PATERSON	**N J**
Accurate Electronics Corp, Elyria	Ohio
Aikow Shoji Kaisha Ltd, Osaka	Japan
Amphenol, Broadview	Ill
AMP Incorporated, Harrisburg	Pa
Aristo-Craft Distinctive Miniatures, New York	N Y
Armel Electronics, Inc, North Bergen	N J
Augat, Inc, Attleboro	Mass
Auto-Swage Products, Inc, Shelton	Conn
Azimuth Electronics, Denville	N J
Barnes Corp, Lansdowne	Pa
Cambridge Thermionic Corp, Cambridge	Mass
Chemelec Products, Inc, Cherry Hill	N J
Cinch Mfg Co, Elk Grove Village	Ill
Circon Component Corp, Goleta	Cal
Control Logic Inc, Natick	Mass
Dialight Corp, Brooklyn	N Y
Dowa Trading Co Ltd, Kobe	Japan
Drake Mfg Co, Harwood Heights	Ill
Eby Co Hugh H, Philadelphia	Pa
Elco Corp, Willow Grove	Pa
Electronic Molding Corp, Pawtucket	R I
Electro-Tec Corp, Ormond Beach	Fla
Hosiden Electronics Co Ltd, Osaka	Japan
Industrial Electronic Hardware Corp, New York	N Y
Jettron Products Inc, Hanover	N J
Livingston Electronic Div Jettron Prods Inc Hanover	N J
Methode Electronics Inc, Chicago	Ill
Metox, Paris 20	France
Mitsumi Electric Co Ltd, Tokyo	Japan
Molex Products Co, Downers Grove	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Photologic Co, Orange	Cal
Pylon Co, Inc, Attleboro	Mass
Robinson-Nugent Inc, New Albany	Ind
Ross Co, Milton, Southampton	Pa
Rye Industries, Inc, Mamaroneck	N Y
SAE Advanced Packaging Inc, Santa Ana	Cal
Schurter AG, H, 6002 Lucerne	Switzerland
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Star Stainless Screw Co, Paterson	N J
Sylvania Electric Prods Inc Lamp Div, Danvers	Mass
Textool Products Inc, Irving	Tex
USECO Div, Litton Industries, Van Nuys	Cal
United Mineral & Chemical Corp, New York	N Y
Vemaline Products Co, Inc, Wycoff	N J
Waldom Electronics Inc, Chicago	Ill

SOCKETS--TRANSISTOR

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AUGAT, INC, ATTLEBORO, MASS	**ADV PG 644**
BARNES CORP, LANSDOWNE	**PA**
CINCH MFG CO, ELK GROVE VILLAGE, ILL	**ADV PGS 188,189**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I** **ADV PG 695**
GRAYHILL INC, LA GRANGE	**ILL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
POMONA ELECTRONICS CO INC, POMONA	**CAL**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Accurate Electronics Corp, Elyria	Ohio
Aikow Shoji Kaisha Ltd, Osaka	Japan
Armel Electronics, Inc, North Bergen	N J
Augat, Inc, Attleboro	Mass
Azimuth Electronics, Denville	N J
Barnes Corp, Lansdowne	Pa
Cambridge Thermionic Corp, Cambridge	Mass
Chemelec Products, Inc, Cherry Hill	N J
Cinch Mfg Co, Elk Grove Village	Ill
Dowa Trading Co Ltd, Kobe	Japan
Eby Co Hugh H, Philadelphia	Pa
Elco Corp, Willow Grove	Pa
Electronic Molding Corp, Pawtucket	R I
Grayhill Inc, La Grange	Ill
Hopt KG, R E, Rottweil a Neckar	Germany
Hosiden Electronics Co Ltd, Osaka	Japan
Industrial Electronic Hardware Corp, New York	N Y
Jettron Products Inc, Hanover	N J
Mandex Mfg Co Inc, Chicago	Ill
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Methode Electronics Inc, Chicago	Ill
Metox, Paris 20	France
Mitsumi Electric Co Ltd, Tokyo	Japan
Molex Products Co, Downers Grove	Ill
Oneida Electronic Mfg Co, Meadville	Pa
Philmore Mfg Co Inc, Richmond Hill	N Y
Photologic Co, Orange	Cal
Pomona Electronics Co Inc, Pomona	Cal
Positronic Industries Inc, Springfield	Mo
Robinson-Nugent Inc, New Albany	Ind
Ross Co, Milton, Southampton	Pa
SAE Advanced Packaging Inc, Santa Ana	Cal
Schurter AG, H, 6002 Lucerne	Switzerland
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Tekna Products Co, Rochester	N Y
Textool Products Inc, Irving	Tex
UID Electronics Corp, Hollywood	Fla

SOCKETS--TUBE

AMPHENOL, BROADVIEW, ILL	**ADV PG 646**
BARNES CORP, LANSDOWNE	**PA**
CINCH MFG CO, ELK GROVE VILLAGE, ILL	**ADV PGS 188,189**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
POMONA ELECTRONICS CO INC, POMONA	**CAL**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Aerovox Corp Distr Sales, New Bedford	Mass
Aerovox Corp New Bedford Div, New Bedford	Mass
Aikow Shoji Kaisha Ltd, Osaka	Japan
Amphenol, Broadview	Ill
Auto-Swage Products, Inc, Shelton	Conn
Azimuth Electronics, Denville	N J
Barnes Corp, Lansdowne	Pa
Chemelec Products, Inc, Cherry Hill	N J
Cinch Mfg Co, Elk Grove Village	Ill
Circuit Structures Lab, Burbank	Cal
D-Cemco Inc, Burbank	Cal
Dowa Trading Co Ltd, Kobe	Japan
Eby Co Hugh H, Philadelphia	Pa
Eimac Div, Varian Associates, San Carlos	Cal
Elco Corp, Willow Grove	Pa
Erie Technological Products Inc, Erie	Pa
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Hosiden Electronics Co Ltd, Osaka	Japan
Industrial Electronic Hardware Corp, New York	N Y
ITT Europe Inc Components Gp, Brussels 1	Belgium
Jan Hardware Mfg Co Inc, Long Island City	N Y
Jettron Products Inc, Hanover	N J
Johnson Co, E F, Waseca	Minn
Livingston Electronic Div Jettron Prods Inc Hanover	N J
Mandex Mfg Co Inc, Chicago	Ill
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Methode Electronics Inc, Chicago	Ill
Metox, Paris 20	France
Millen Mfg Co Inc, James, Malden	Mass
Mitsumi Electric Co Ltd, Tokyo	Japan
Molex Products Co, Downers Grove	Ill
Mycalex Corp of Amer Sub Spaulding Fibre Co Inc Clifton	N J
Oneida Electronic Mfg Co, Meadville	Pa
Permonite Mfg Co, Chicago	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Pomona Electronics Co Inc, Pomona	Cal
Republic Industrial Corp, Lathrup Village	Mich
Richards Metal Products Inc, Wolcott	Conn
SAE Advanced Packaging Inc, Santa Ana	Cal
Schrack Electrical Sales Corp, New York	N Y
Schurter AG, H, 6002 Lucerne	Switzerland
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Smith Inc, Herman H, Brooklyn	N Y
Sparta Mfg Co, Dover	Ohio
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
United Mineral & Chemical Corp, New York	N Y
Vector Electronic Co Inc, Los Angeles	Cal
Waldom Electronics Inc, Chicago	Ill


Specify Amphenol.
The leading name
in Plugs/Sockets.

UL approved types
Tube, MIP, PC and miniature types
Industrial and commercial relays

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL

Fast
acting.

The Electronics Buyers' Guide can get you on the right frequency in a hurry. For example, there are 14 different kinds of oscillators listed. Everything from AF oscillators to voltage controlled crystal oscillators. There are three sections in your EBG, devoted to products, manufacturers and trade names. So see your fast-acting EBG.

Electronics Buyers' Guide

SOCKETS--WIRING PLUG

BARNES CORP, LANSDOWNE	**PA**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
SUPERIOR ELECTRIC CO THE, BRISTOL	**CONN**
Atomite Electronics Corp, Roosevelt	N Y
Auto-Swage Products, Inc, Shelton	Conn
Aviation Electric Ltd, St Laurent, Montreal	Que
Barnes Corp, Lansdowne	Pa
Carol Cable Co, Pawtucket	R I
Chemelec Products, Inc, Cherry Hill	N J
Eagle Electric Mfg Co Inc, Long Island City	N Y
Eby Co Hugh H, Philadelphia	Pa
Elco Corp, Willow Grove	Pa
Harvey Hubbell Inc, Bridgeport	Conn
Impectron Inc, New York	N Y
Leviton Mfg Co Inc, Brooklyn	N Y
Methode Electronics Inc, Chicago	Ill
Metox, Paris 20	France
Mohawk Electronics Corp, Frederica	Del
Molex Products Co, Downers Grove	Ill
Permonite Mfg Co, Chicago	Ill
Robinson-Nugent Inc, New Albany	Ind
SAE Advanced Packaging Inc, Santa Ana	Cal
Schrack Electrical Sales Corp, New York	N Y
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Slater Electric Inc, Glen Cove	N Y
Star-A Electric Mfg Co Inc, Brooklyn	N Y
Superior Electric Co The, Bristol	Conn
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Waber Electronics Inc, Philadelphia	Pa
Zell Electric Mfg Co, Inc, New York	N Y

SOLAR CELLS SEE CELLS--PHOTOVOLTAIC

What's your major problem in buying solders and fluxes?

Product range? No problem with Dutch Boy. Select from pig solder, slab, bar, sheet, ribbon, solid wire, drop, pulverized or paste. Select from corrosive, intermediate, non-corrosive or activated rosin fluxes—in liquid or paste form . . . or in cored wire solders.

Reliability? You can rely on Dutch Boy solders for formula integrity. They're properly refined and made under the most rigid quality control standards to meet your most exacting requirements. You can rely on Dutch Boy fluxes for dependability of acid number, resistivity of water, fluxing action, spread factor, dryness, effect on electroplating copper or electrically polarized wire.

Service? You can get coast-to-coast service from 14 strategically located plants and 28 service offices.

Information? Write for your copy of "Solders and Fluxes for the Electronics Industry." National Lead Company, Room 4304 , 111 Broadway, New York, N.Y. 10006.

Dutch Boy: The no-problem solders and fluxes. From National Lead.

SOLDERS • FLUXES
National Lead
Metal Division

The Material of Unlimited Uses...

SOLDERING "UNSOLDERABLES"

...is but one of the thousands of uses for advanced low-melting-temperature alloys such as Cerroseal® 35. Cerroseal 35 melts between 238 and 260° F., and can be used with ordinary soldering techniques. When soldered with this versatile alloy, "toughies" such as glass-to-metal, ceramic-to-metal and metal-to-metal seals stay tight even in a deep vacuum. Other Cerro® Alloys, including specials made to your individual specs, are perfect for joining ultra-delicate parts like integrated circuits which cannot be heat-sinked during soldering. Low-temperature soldering as cool as 117° F. can also be accomplished with certain Cerro Alloys.

For detailed information contact Cerro Alloy Dept., Cerro Copper & Brass Company, Stamford, Conn. 06907...R. S. Darnell (203) 327-0550.

CERRO®

SOLDER

CERRO COPPER & BRASS CO DIV CERRO CORP ALLOYS DEPT SPRINGDALE, CONN	**ADV PG 648**
CIRCON COMPONENT CORP, GOLETA, CAL	**ADV PG 332**
NATIONAL LEAD CO, NEW YORK, N Y	**ADV PG 647**
Aikow Shoji Kaisha Ltd, Osaka	Japan
Alloys Unlimited Inc, Melville	N Y
All-State Welding Alloys Co, Inc, White Plains	N Y
Alpha Metals Inc, Jersey City	NJ
American Silver Co Div, Flushing	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bow Solder Products Co Inc, Newark	N J
Cerro Copper & Brass Co Div Cerro Corp Alloys Dept Springdale	Conn
Cerro Copper & Brass Co, Stamford Wks Stamford,	Conn
Cerro Corp, New York	NY
Chase Brass & Copper Co, Cleveland	Ohio
Chase Metals Service Div Chase Brass & Copper Co Cleveland	Ohio
Chemalloy Electronics Corp, Santee	Cal
Chemtronics Inc, Brooklyn	NY
Chomerics, Inc, Arlington	Mass
Circon Component Corp, Goleta	Cal
Cominco American Inc Electronic Matls Div, Spokane	Wash
Cramco Solder Alloys, Scarborough	Ont
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Division Lead Co, Summit	Ill
Dunton Co, M W, Providence	R I
Eagle Electric Mfg Co Inc, Long Island City	N Y
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Epoxy Products Co Div Allied Prod Inc New Haven	Conn
Etchomatic Inc, Waltham	Mass
Fairmount Chemical Co Inc, Newark	N J
Farrelloy Co, Philadelphia	Pa
Gardiner Solder Co, Chicago	Ill
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Glidden Metals, SCM Corp, Cleveland	Ohio
Hi-Grade Alloy Corp, East Hazelcrest	Ill
Improved Seamless Wire Co, Providence	R I
Indium Corp of America, Utica	N Y
Johnson Mfg Co Inc, Princeton	Iowa
Johnson Matthey & Mallory Ltd, Toronto 15	Ont
Kester Solder Co, Chicago	Ill
Lake Chemical Co, Chicago	Ill
Leach & Garner Co, Industrial Div, Attleboro	Mass
Lucas-Milhaupt Inc, Cudahy	Wis
Metal Ceram Inc, Mount Vernon	N Y
Mico Instrument Co, Cambridge	Mass
Multicore Sales Corp Div British Industries Corp Westbury	N Y
National Lead Co, New York	N Y
Oneida Electronic Mfg Co, Meadville	Pa
Rayline Inc, Mineola	N Y
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Unibraze Corp, New Rochelle	N Y
United American Metals Div, Brooklyn	N Y
Wilkinson Co, Westlake Village	Cal
Zeva Electric Corp, New York	N Y

SOLDERING SERVICES

ELECTRONIC CLOSURES, SPRINGFIELD	**NJ**
KINETRON CORP, ASBURY PARK	**N J**
MESON ELECTRONICS CO, INC, ROCHESTER	**N Y**
Acme Model Engineering Co, Ridgefield	N J
Alpha Metals Inc, Jersey City	NJ
American Cable Electronic Supply Inc, Sacramento	Cal
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Astro-Space Labs Inc, Huntsville	Ala
Automation Services Inc, Endicott	N Y
Autronics Corp, Pasadena	Cal
Brown Engineering-A Teledyne Co, Huntsville	Ala
Castall Research Lab Inc, Brockton	Mass
Condor Industrial Corp, West Chicago	Ill
Conductorlab Inc, Groton	Mass
Cramco Solder Alloys, Scarborough	Ont
Dee Electric Co, Chicago	Ill
Device Seals Inc, Sun Valley	Cal
Doran Mfg Co, Cincinnati	Ohio
Dutchess Design & Develop Inc, Poughkeepsie	N Y
Eagle Electric Mfg Co Inc, Long Island City	N Y
Electronic Closures, Springfield	NJ
Electrospace Corp, Glen Cove	N Y
El-Tech Mfg Co Inc, Norristown	Pa
Estes Engineering Co, Gardena	Cal
Eugene Engineering Co Inc, Rockland	Mass
Falstrom Co, Passaic	N J
Flexible Products Inc, North St Paul	Minn
Godfrey Mfg Co, Chicago	Ill
Hexacon Electric Co, Roselle Park	N J
Hi-Lo Mfg Corp, Chicago	Ill
Hopwood Retinning Corp, Malden	Mass
Ikor, Inc, Burlington	Mass
Kester Solder Co, Chicago	Ill
Kinetron Corp, Asbury Park	N J
Lake Chemical Co, Chicago	Ill
Livingston Electronic Div Jettron Prods Inc Hanover	N J
MacDonald & Co, Glendale	Cal
Manger Electric Co Inc, Stamford	Conn
Meson Electronics Co, Inc, Rochester	N Y
Metal Ceram Inc, Mount Vernon	N Y
Mid-West Metal Products Inc, Kansas City	Kans
Miles Industries Inc, Garnerville	N Y
Miller Co, L C, Monterey Park	Cal
Mohawk Electronics Corp, Frederica	Del
Oneida Electronic Mfg Co, Meadville	Pa
Pabst Engineering Equipment Co Inc, Elizabeth	NJ
Paraplegics Mfg Co Inc, Bensenville	Ill
Roosevelt Metal Co Inc, Brooklyn	N Y
Roxter Corp, Long Island City	N Y
Seastrom Mfg Co Inc, Glendale	Cal
Sphere Co Inc, Little Falls	N J
Steel Industries Inc, Crawfordsville	Ind
Strandberg Engineering Labs Inc, Greensboro	N C
Teletronics Labs Inc, El Segundo	Cal
Tescom Corp, Minneapolis	Minn
Tricraft Products Corp, Chicago	Ill
Unex Labs Div Nichols & Clark Inc, Hathorne	Mass
Ungar Div Eldon Industries Inc, Hawthorne	Cal
Unibraze Corp, New Rochelle	N Y
United American Metals Div, Brooklyn	N Y
Varo Inc, Garland	Tex
Waber Electronics Inc, Philadelphia	Pa
Washington Electrical Products Co, Washington	Mo
Weller Electric Corp, Easton	Pa
Wright Metalcoaters Inc, South Hackensack	N J
Zell Electric Mfg Co, Inc, New York	N Y
Zephyr Mfg Co Inc, Inglewood	Cal
Zeva Electric Corp, New York	N Y

SOLDERING FLUXES SEE FLUXES

SOLDERING IRONS & POTS SEE TOOLS--SOLDERING

SOLDERING MACHINES SEE MACHINES--DIP-SOLDERING; MACHINES--SOLDERING; ULTRASONICEQUIPMENT

SOLDERING TOOLS SEE TOOLS--SOLDERING;MACHINES--SOLDERING

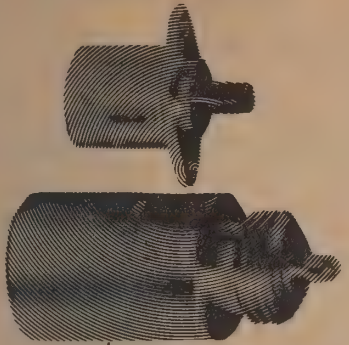
SOLDERING CONNECTORS SEE CONNECTORS--SOLDERLESS

SOLENOID COILS SEE COILS--WINDINGS ONLY

SOLENOID CORES SEE CORES--LAMINATED

SOLENOIDS--LINEAR

AMERICAN ZETTLER, INC, COSTA MESA, CAL	**ADV PG 587**
CAPTOR CORP, TIPP CITY	**OHIO**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GUARDIAN ELECTRIC MFG CO, CHICAGO, ILL	**ADV PG 649**
IMC MAGNETICS CORP EASTERN DIV, WESTBURY N Y	**ADV PG 649**
IMC MAGNETICS CORP WESTERN DIV, MAYWOOD CAL	**ADV PG 649**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
VANGUARD RELAY CORP, LINDENHURST	**NY**
Acme Products Co, Kensington	Conn
Allen-Bradley Co, Milwaukee	Wis
Alpha Scientific Labs Inc, Oakland	Cal
American Precision Industries Inc, East Aurora	NY
American Zettler, Inc, Costa Mesa	Cal
Amk Electronics Co Inc, Edison	N J
A P W Co Inc, Rockaway	N J
Aqualite Corp, North Hollywood	Cal
Artisan Electronics Corp, Parsippany	N J
Assembly Engineers Div Rucker Co, Los Angeles	Cal
Automatic Switch Co, Florham Park	N J
Brys Instrument Corp, Brooklyn	N Y
B/W Controller Corp, Birmingham	Mich
Captor Corp, Tipp City	Ohio
Cardinal Control Co Inc, Kensington	Conn
Carleton Controls Corp, East Aurora	N Y
Chet Engineering Co, Sepulveda	Cal
Coil Co of America Inc, Northvale	N J
Comar Electric Co, Chicago	Ill
Component Specialties Corp, Temple City	Cal
Consolidated Controls Corp, El Segundo	Cal
Controls Co of America, Schiller Park	Ill
Crest Mfg Co, East Berlin	Conn
Cutler-Hammer Inc, Milwaukee	Wisc
Device Seals Inc, Sun Valley	Cal
Dormeyer Industries, Chicago	Ill
Electrical Windings Inc, Chicago	Ill
Electroid Corp, Union	N J
Electro-Pacific Inc, Goleta	Cal
Electro Winders Co Inc, Covina	Cal
Endicott Coil Co Inc, Binghamton	N Y
General Design Inc, Sun Valley	Cal
General Electric Co, ECSO, Schenectady	N Y
Guardian Electric Mfg Co, Chicago	Ill
Hammond Mfg Co Ltd, Guelph, Ont	Can
Hart-Advance Relay Div Oak Electro/Netics Corp Elkhorn	Wis
Hartman Electrical Mfg Co, Mansfield	Ohio
IMC Magnetics Corp Eastern Div, Westbury	N Y
IMC Magnetics Corp Western Div, Maywood	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
Janitrol Aero Div Midland-Ross Corp, Columbus	Ohio
Johnson Electric Coil Co, Elmhurst	Ill
Kuhnke, H, Elektrotechnische Fabrik Gmbh Holstein	Germany


SCHLEP*

*work, push, pull, tug.

24 solenoids that pull up to 32 pounds, hold up to 60 pounds, (0.375 to 2.26-inch OD) are all immediately available to work with consistent reliability in your system.

Western Division
IMC Magnetics Corp.
6058 Walker Ave.
Maywood, Calif. 90270
Tel (213) 583-4785
TWX 910-321-3089
imc

Ledex Div Ledex Inc, Dayton	Ohio
Lisk Co Inc, G W, Clifton Springs	N Y
Magnetic Technology Inc, Canoga Park	Cal
Meltronics Inc, Massapequa	NY
Micro Parts Inc, Los Angeles	Cal
Mossman-Elliott Corp, Joliet	Ill
National Acme Co Electrical Controls Div Cleveland	Ohio
Naybor Laboratories Inc, E V, Port Washington	N Y
Pollak Corp, Joseph, Boston	Mass
Precision Coil Mfg Co, Santa Monica	Cal
Precision Inc, Minneapolis	Minn
Regdon Corp, Brookfield	Ill
Rocker Solenoid Co, Wilmington	Cal
Servotronics Inc, Buffalo	N Y
Southern Electronics Co Inc, Greeneville	Tenn
S R Engineering Inc, Gardena	Cal
Synchro-Start Products Inc, Skokie	Ill
Tokyo Electric Co Ltd, Tokyo	Japan
Transco Motor Mfg Inc, Arcadia	Cal
U S Electronics Corp, Lyndhurst	N J
Universal Precision, Inc, Endicott	N Y
Vanguard Relay Corp, Lindenhurst	NY
Varo Inc, Garland	Tex

SOLENOIDS--LINEAR, SUBMINIATURE

AMERICAN ZETTLER, INC, COSTA MESA, CAL	**ADV PG 587**
CAPTOR CORP, TIPP CITY	**OHIO**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
GUARDIAN ELECTRIC MFG CO, CHICAGO	**ILL**
IMC MAGNETICS CORP WESTERN DIV, MAYWOOD	**CAL**
TAKAMISAWA ELECTRIC CO, LTD, TOKYO	**JAPAN**
Acme Products Co, Kensington	Conn
American Precision Industries Inc, East Aurora	NY
American Zettler, Inc, Costa Mesa	Cal
Amk Electronics Co Inc, Edison	N J
A P W Co Inc, Rockaway	N J
Artisan Electronics Corp, Parsippany	N J
Assembly Engineers Div Rucker Co, Los Angeles	Cal
Brys Instrument Corp, Brooklyn	N Y
Captor Corp, Tipp City	Ohio
Cardinal Control Co Inc, Kensington	Conn
Carleton Controls Corp, East Aurora	N Y
Chet Engineering Co, Sepulveda	Cal
Coil Co of America Inc, Northvale	N J
Component Specialties Corp, Temple City	Cal
Crest Mfg Co, East Berlin	Conn
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Device Seals Inc, Sun Valley	Cal
Dormeyer Industries, Chicago	Ill
Electroid Corp, Union	N J
Electro-Mechanisms Inc, Monrovia	Cal
Electro-Pacific Inc, Goleta	Cal
Electro Winders Co Inc, Covina	Cal
General Relay Corp, Dover	N J
Guardian Electric Mfg Co, Chicago	Ill
IMC Magnetics Corp Western Div, Maywood	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kuhnke, H, Elektrotechnische Fabrik Gmbh Holstein	Germany
Ledex Div Ledex Inc, Dayton	Ohio
Lisk Co Inc, G W, Clifton Springs	N Y
Meltronics Inc, Massapequa	NY
Modelectric Products Corp, Asbury Park	N J
Mossman-Elliott Corp, Joliet	Ill
Naybor Laboratories Inc, E V, Port Washington	N Y
Pollak Corp, Joseph, Boston	Mass
Precision Coil Mfg Co, Santa Monica	Cal
Regdon Corp, Brookfield	Ill
Rocker Solenoid Co, Wilmington	Cal
S R Engineering Inc, Gardena	Cal
Takamisawa Electric Co, Ltd, Tokyo	Japan
Transco Motor Mfg Inc, Arcadia	Cal
U S Electronics Corp, Lyndhurst	N J
Universal Precision, Inc, Endicott	N Y

SOLENOIDS--ROTARY

LEACH CORP, SOUTH PASADENA	**CAL**
Acme Products Co, Kensington	Conn
Bicron Electronics Co, Canaan	Conn
Brys Instrument Corp, Brooklyn	N Y
Cardinal Control Co Inc, Kensington	Conn
Crest Mfg Co, East Berlin	Conn
Device Seals Inc, Sun Valley	Cal
Dinion Coil Co Inc, Caledonia	N Y
Electro-Pacific Inc, Goleta	Cal
Electro Winders Co Inc, Covina	Cal
IMC Magnetics Corp Ariz Div, Tempe	Ariz
Kuhnke, H, Elektrotechnische Fabrik Gmbh Holstein	Germany
Leach Corp, South Pasadena	Cal
Ledex Div Ledex Inc, Dayton	Ohio
Lisk Co Inc, G W, Clifton Springs	N Y
Magnetic Technology Inc, Canoga Park	Cal
Micro Parts Inc, Los Angeles	Cal
Microwave Associates Inc, Burlington	Mass
Oak Mfg Co, Div Oak Electro/Netics Corp Crystal Lake	Ill
Transco Motor Mfg Inc, Arcadia	Cal
Varo Inc, Garland	Tex
Western Gear Corp Electro Products Div, Pasadena	Cal

SOLENOID VALVES SEE VALVES--SOLENOID

SOLID-STATE COMMUTATORS SEE COMMUTATORS

SOLID-STATE FLASHERS SEE FLASHERS--SOLID-STATE

SOLID-STATE INVERTERS SEE INVERTERS

SOLID-STATE MODULES SEE MODULES--ACTIVE

SOLID-STATE RELAYS SEE RELAYS--SOLID-STATE

SOLID-STATE TIMERS SEE TIMERS--ELECTRONIC

SOLVENTS

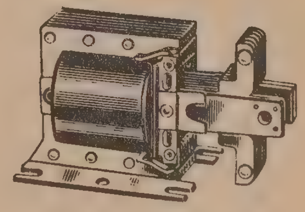
CAIG LABS INC, WESTBURY	**N Y**
NITINE INC, WHIPPANY	**N J**
SPRAYON PRODUCTS INC, BEDFORD HEIGHTS	**OHIO**
Alpha Metals Inc, Jersey City	NJ
Ambroid Co, Inc, Boston	Mass
Amicon Corp, Lexington	Mass
Bacon Industries, Inc, Watertown	Mass
Barco Chemical Products Co, Chicago	Ill
Bel-Ray Co, Inc, Farmingdale	N J
Brulin & Co Inc, Indianapolis	Ind
Caig Labs Inc, Westbury	N Y
Camie Co Inc, St Louis	Mo
Chemclean Corp, College Point	N Y
Chemtronics Inc, Brooklyn	NY
City Chemical Corp, New York	N Y
Clarkson Labs Inc, Camden	NJ
Cobehn Inc, Fairfield	N J
Conversion Chemical Corp, Rockville	Conn
Corco Chemical Corp, Fairless Hills	Pa
Cramco Solder Alloys, Scarborough	Ont
Dow Chemical Co, Midland	Mich
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Dynaloy, Inc, Hanover	N J
Electrofilm, Inc, North Hollywood	Cal
Electrolube Ltd, Slough	England
Electronic Space Products Inc, Los Angeles	Cal
Enthone Inc, New Haven	Conn
Fidelity Chemical Products Corp, Newark	N J
Gardiner Solder Co, Chicago	Ill
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal

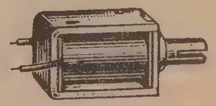
SOLENOIDS

The Guardian solenoid line is the most complete in the industry. It includes intermittent or continuous duty types up to 230V, A.C. or up to 230V, D.C. A new line of tubular solenoids now provides a range from a pull of 50 pounds to a fraction of an ounce.

Guardian's engineering department is ready at all times to assist in modifying standard solenoids or developing custom engineered units to fit your specialized applications.

Production samples or additional information promptly supplied on request.


No. 18 — AC only


No. 22 — DC only

NEW No. T6 — DC Solenoid

Write for free Solenoid Bulletins No. TS and G
Also see Guardian ads at "Relays" and "Switches"

GUARDIAN® ELECTRIC

GUARDIAN ELECTRIC MANUFACTURING COMPANY, 1550-T West Carroll Avenue, Chicago, Illinois 60607

Hi-Grade Alloy Corp, East Hazelcrest ... Ill
Humble Oil & Refining Co, Houston ... Tex
Industrial Formulations Corp, Plainview ... N Y
Janel Inc, Stirling ... N J
Kester Solder Co, Chicago ... Ill
Koppers Co Inc, Pittsburgh ... Pa
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge ... Pa
London Chemical Co Inc, Melrose Park ... Ill
Mallinckrodt Chemical Works, St Louis ... Mo
Mann Co, Henry, Cornwell Heights ... Pa
Miller-Stephenson Chemical Co Inc, Danbury ... Conn
Nitine Inc, Whippany ... N J
Oakite Products Inc, Berkeley Heights ... N J
Oneida Electronic Mfg Co, Meadville ... Pa
Pennsalt Chemicals Corp, Philadelphia ... Pa
Phillips Mfg Co, Chicago ... Ill
Pierce & Stevens Chemical Corp, Buffalo ... N Y
Polysciences Inc, Warrington ... Pa
Preco Chemical Corp, Plainview ... N Y
Pro-Chem Inc, Cleveland ... Ohio
Product Techniques, Inc, Downey ... Cal
Quietrole Co, Spartanburg ... S C
Solutec Corp, St Petersburg ... Fla
Sprayon Products Inc, Bedford Heights ... Ohio
Texwipe Co, Hillsdale ... N J
Tra-Con, Inc, Medford ... Mass

SOLVENTS--CLEANING ULTRASONIC

BLACKSTONE ULTRASONICS INC, SHEFFIELD ... PA
CAIG LABS INC, WESTBURY ... N Y
NITINE INC, WHIPPANY ... N J
Aerometrics Div Aerojet-General Corp, San Ramon ... Cal
Alpha Metals Inc, Jersey City ... NJ
Barco Chemical Products Co, Chicago ... Ill
Blackstone Ultrasonics Inc, Sheffield ... Pa
Brulin & Co Inc, Indianapolis ... Ind
Caig Labs Inc, Westbury ... N Y
Camie Co Inc, St Louis ... Mo
Chemclean Corp, College Point ... N Y
Clarkson Labs Inc, Camden ... NJ
Cobehn Inc, Fairfield ... N J
Cramco Solder Alloys, Scarborough ... Ont
CRC Chemicals, Dresher ... Pa
Crest Ultrasonics Corp, Trenton ... N J
DoAll Co, Des Plaines ... Ill
Dow Chemical Co, Midland ... Mich
Du Pont De Nemours & Co Inc E I, Wilmington ... Del
Dynaloy, Inc, Hanover ... N J
Eastern Specialty Co, Philadelphia ... Pa
Etchomatic Inc, Waltham ... Mass
Fidelity Chemical Products Corp, Newark ... N J
Geoscience Instruments Corp, Mt Vernon ... N Y
Hi-Grade Alloy Corp, East Hazelcrest ... Ill
Janel Inc, Stirling ... N J
Jetronic Industries Inc, Philadelphia ... Pa
Kester Solder Co, Chicago ... Ill
London Chemical Co Inc, Melrose Park ... Ill
L & R Mfg Co, Kearny ... N J
Mallinckrodt Chemical Works, St Louis ... Mo
Micronics Corp of America, Providence ... RI
Miller-Stephenson Chemical Co Inc, Danbury ... Conn
3M Company, St Paul ... Minn
Multisonic Cleaning Systems, Cleveland ... Ohio
Nitine Inc, Whippany ... N J
Nuclear Equipment Chemical Corp, Farmingdale ... N Y
Oakite Products Inc, Berkeley Heights ... N J
Pennsalt Chemicals Corp, Philadelphia ... Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Phillips Mfg Co, Chicago ... Ill
Polysciences Inc, Warrington ... Pa
Pro-Chem Inc, Cleveland ... Ohio
Techni-Tool Inc, Philadelphia ... Pa
Transene Co Inc, Rowley ... Mass
Ultrasonic Appliances of America Inc, Lindenhurst ... N Y
Ultrasonic Devices Inc, Deer Park ... NY
Universal Shellac & Supply Co Inc, Brooklyn ... N Y
Westinghouse Electric Corp Indus Equip Div Baltimore ... Md

SONAR--DOMES

Aquadyne Inc, East Falmouth ... Mass
Atkins & Merrill Inc Reinforced Plastic Div Marlboro ... Mass
Edo Corp, College Point ... NY
Electronic Space Structures Corp, West Concord ... Mass
Goodyear Aerospace Corp, Akron ... Ohio
Insulating Shapes Inc, Bronx ... N Y
Raytheon Co, Government Marketing, Lexington ... Mass
Sperry Gyroscope Div Sperry Rand Corp Great Neck ... N Y
Straza Industries Div Ametek Inc, El Cajon ... Cal

SONAR--TRANSDUCERS

ITHACO INC, ITHACA ... N Y
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
Acoustica Associates Inc, Los Angeles ... Cal
Aerojet-General Corp Electronics Div, Azusa ... Cal
Alcatel, Paris 8eme ... France
Bendix Corp Electrodynamics Div, North Hollywood ... Cal
Burnett Electronics Lab Inc, San Diego ... Cal
Channel Industries Inc, Santa Barbara ... Cal
Chesapeake Instrument Corp, Shadyside ... Md
Columbia Research Labs Inc, Woodlyn ... Pa
Edo Corp, College Point ... NY
Edo Western Corp, Salt Lake City ... Utah
E G & G Inc, Systems Devel Div, Bedford ... Mass
E G & G Int'l Inc Geodyne Div, Waltham ... Mass
Electra Scientific Div Gulton Indus Inc, Fullerton ... Cal
Electronics Communications Div Atlantic Research Corp Alexandria ... Va
EMI Cossor Electronics Ltd, Dartmouth, N S ... Can
Empire Scientific Corp, Garden City ... N Y
General Atronics Corp, Philadelphia ... Pa
General Instrument Corp, Harris ASW Div Westwood ... Mass
Gulton Industries Inc, Metuchen ... N J
International Transducer Corp, Goleta ... Cal
Ithaco Inc, Ithaca ... N Y
Linden Labs Inc, State College ... Pa
Lowrance Electronic Mfg Corp, Tulsa ... Okla
Massa Div Dynamics Corp of America, Hingham ... Mass
Nippon Electric Co Ltd, Tokyo ... Japan
Ocean Sonics Inc, El Segundo ... Cal
Raytheon Co, Government Marketing, Lexington ... Mass
Research Mfg Corp, San Diego ... Cal
Ross Laboratories Inc, Seattle ... Wash
Sonus Corp, Natick ... Mass
Sparton Electronics, Jackson ... Mich
States Electronics Corp, Bludworth Marine Div Linden ... N J
Straza Industries Div Ametek Inc, El Cajon ... Cal

SONAR--TRANSMITTERS & RECEIVERS

C M L INC, PLAINFIELD ... N J
ITHACO INC, ITHACA ... N Y
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
Acoustica Associates Inc, Los Angeles ... Cal
Aerojet-General Corp Electronics Div, Azusa ... Cal
Alcatel, Paris 8eme ... France
Alden Electronic & Impulse Recording Equip Co Inc Westboro ... Mass
Alpine Geophysical Assoc Inc, Norwood ... N J
American Machine & Foundry Co Alexandria Div Alexandria ... Va
Bendix Corp Electrodynamics Div, North Hollywood ... Cal
Burnett Electronics Lab Inc, San Diego ... Cal
Chesapeake Instrument Corp, Shadyside ... Md
C M L Inc, Plainfield ... N J
Decitron Electronics Corp, Brooklyn ... N Y
Edo Western Corp, Salt Lake City ... Utah
E G & G Inc, Systems Devel Div, Bedford ... Mass
E G & G Int'l Inc Geodyne Div, Waltham ... Mass
EMI Cossor Electronics Ltd, Dartmouth, N S ... Can
Euro Cedag, Milan ... Italy
General Atronics Corp, Philadelphia ... Pa
General Instrument Corp, Harris ASW Div Westwood ... Mass
General Instrument Corp Radio Receptor Div Hicksville ... N Y
Geodyne Div EG&G Int'l, Waltham ... Mass
Gulton Industries Inc, Metuchen ... N J
Instruments Inc, San Diego ... Cal
Ithaco Inc, Ithaca ... N Y
Jetronic Industries Inc, Philadelphia ... Pa
Ling Electronics Div LTV Altec Inc, Anaheim ... Cal
Listening Inc, Arlington ... Mass
Lowrance Electronic Mfg Corp, Tulsa ... Okla
Massa Div Dynamics Corp of America, Hingham ... Mass
Nippon Electric Co Ltd, Tokyo ... Japan
Ocean Sonics Inc, El Segundo ... Cal
Oki Electric Industry Co Ltd, Tokyo ... Japan
Philips Electronics Industries Ltd, Toronto 17 ... Ont
Raytheon Co, Government Marketing, Lexington ... Mass
Reeves Instrument Div, DCA, Garden City ... N Y
Republic Electronic Industries Corp, Huntington ... N Y
Research Mfg Corp, San Diego ... Cal
Rich Electronics Inc, Miami ... Fla
Ross Laboratories Inc, Seattle ... Wash
Sparton Electronics, Jackson ... Mich
Sperry Gyroscope Div Sperry Rand Corp Great Neck ... N Y
States Electronics Corp, Bludworth Marine Div Linden ... N J
Straza Industries Div Ametek Inc, El Cajon ... Cal
Ultra Electronics Ltd, London, W 3 ... England
Vocaline Co of America Inc, Old Saybrook ... Conn

SONOBUOYS

Bunker-Ramo Corp Defense Systems Div Canoga Park ... Cal
Cardion Electronics Div Gen Signal Corp, Woodbury ... N Y
Edo Corp, College Point ... NY
Edo Western Corp, Salt Lake City ... Utah
Electronics Communications Div Atlantic Research Corp Alexandria ... Va
EMI Cossor Electronics Ltd, Dartmouth, N S ... Can
Goodyear Aerospace Corp, Akron ... Ohio
Lear Siegler Inc, Santa Monica ... Cal
Linden Labs Inc, State College ... Pa
Massa Div Dynamics Corp of America, Hingham ... Mass
Oki Electric Industry Co Ltd, Tokyo ... Japan
Otis Elevator Co, Defense Oper, Stamford ... Conn
Reeves Instrument Div, DCA, Garden City ... N Y
R F Communications Inc, Rochester ... N Y
Sanders Associates, Inc, Nashua ... N H
Space & Systems Div General Time Corp Stamford ... Conn
Sparton Corp, Jackson ... Mich
Sparton Electronics, Jackson ... Mich
Sparton of Canada Ltd, London ... Ontario
Sperry Gyroscope Div Sperry Rand Corp Great Neck ... N Y
Sylvania Electronic Systems, Waltham ... Mass
Symetrics Engineering Corp, Satellite Beach ... Fla
Ultra Electronics Ltd, London, W 3 ... England
Vocaline Co of America Inc, Old Saybrook ... Conn

SORTERS SEE CONTROLS--PHOTOELECTRIC;CONTROLS--SORTING; MACHINES

SOUND SYSTEMS--ENTERTAINMENT

ALLIED ELECTRONICS CORP, CHICAGO ... ILL
HEATH CO, BENTON HARBOR ... MICH
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
Action Systems Co Div Conn Consolidated Inds Inc Meriden ... Conn.
Allied Electronics Corp, Chicago ... Ill
Altec Lansing Div LTV Ling Altec Inc, Anaheim ... Cal
American Geloso Electronics Inc, New York ... N Y
Ampex Corp, Redwood City ... Cal
Argos Products Co, Inc, Genoa ... Ill
Atlas Sound Div Amer Trading & Prod Corp Parsippany ... N J
Audio Instrument Co Inc, Union City ... N J
Audio Vox Intercom Inc, Montreal 12 ... Que
Automatic Clerical Systems Inc, Pasadena ... Cal
Bell P/A Products Corp, Columbus ... Ohio
Bergen Lab, Inc, Paterson ... N J
Bogen Communications Div Lear Siegler Inc Paramus ... N J
Canadian Motorola Electronics Co, Agincourt ... Ont
Decker Corp, Bala Cynwyd ... Pa
DuKane Corp, St Charles ... Ill
EICO Electronic Instrument Co Inc, Brooklyn ... NY
Electronic Engineering Co Inc, Norfolk ... Va
Electronic Homes Co, New York ... N Y
Electro-Voice Inc Sub Gulton Industries Buchanan ... Mich
Ercona Corp, New York ... N Y
Executone Inc, Long Island City ... N Y
F & M Systems Co, Div Fischbach & Moore, Inc Dallas ... Tex
Hamilton Electronics Corp, Chicago ... Ill
Hayakawa Electric Co Ltd, Osaka ... Japan
Heath Co, Benton Harbor ... Mich
Jensen Mfg Div, The Muter Co, Chicago ... Ill
K L A Labs Inc, Detroit ... Mich
Lafayette Radio Electronics, Syosset ... NY
Langevin Div, Scientific Ind, Inc, Santa Ana ... Cal
Lear Jet Industries Inc, Detroit ... Mich
Lear Siegler Inc, Santa Monica ... Cal
Lowrance Electronic Mfg Corp, Tulsa ... Okla
Major Electronics Corp, Brooklyn ... N Y
Matsushita Electric Industrial Co Ltd, Osaka ... Japan
Midwest Audio Corp, Chicago ... Ill
MP Audio Corp, Fairfield ... Conn
Nelson-Hershfield Electronics Co, Phoenix ... Ariz
Newcomb Audio Products Co, Sylmar ... Cal
Oki Electric Industry Co Ltd, Tokyo ... Japan
Perma-Power Co, Chicago ... Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Private Tele Communications Inc, Chicago ... Ill
Rauland-Borg Corp, Chicago ... Ill
Round Hill Associates, Inc, New York ... N Y
Rundel Electric Co, Millbrae ... Cal
Sampson Electronic Products Div, Chicago ... Ill
Schober Organ Corp, New York ... N Y
Scott Inc, H H, Maynard ... Mass
Show Sound, Inc, New York ... N Y
Shrader Sound Inc, Washington ... D C
Stuart, Matthew & Co Inc, Bronx ... NY
Tape-Athon, Inglewood ... Cal
Ultra Electronics Ltd, London, W 3 ... England
University Sound Div Ltv Ling Altec Inc Oklahoma City ... Okla
Visual Electronics Labs Audio Div, Pasadena ... Cal
Wald Sound, Sun Valley ... Cal
Webster Electric Co, Racine ... Wisc

SOUND SYSTEMS--INDUSTRIAL

ALLIED ELECTRONICS CORP, CHICAGO ... ILL
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
Action Systems Co Div Conn Consolidated Inds Inc Meriden ... Conn
Advanced Purification System Co Inc, Great Neck ... N Y
Allied Electronics Corp, Chicago ... Ill
Altec Lansing Div LTV Ling Altec Inc, Anaheim ... Cal
American Geloso Electronics Inc, New York ... N Y
Ampex Corp, Redwood City ... Cal
Applied Control Co, Cedar Grove ... NJ
Applied Electro Mechanics Inc, Alexandria ... Va
Atlas Sound Div Amer Trading & Prod Corp Parsippany ... N J
Audio Instrument Co Inc, Union City ... N J
Automatic Clerical Systems Inc, Pasadena ... Cal
Beama Engineering Ltd, Toronto 15 ... Ont
Bell P/A Products Corp, Columbus ... Ohio
Bennett Laboratories, Inc, Emeryville ... Cal
Bogen Communications Div Lear Siegler Inc Paramus ... N J
Casco Music Systems Inc, Hyde Park ... Mass
CM Laboratories, Norwalk ... Conn
Cognitronics Corp, Mount Kisco ... NY
Decker Corp, Bala Cynwyd ... Pa
DuKane Corp, St Charles ... Ill
EICO Electronic Instrument Co Inc, Brooklyn ... NY
Electronic Engineering Co Inc, Norfolk ... Va
Executone Inc, Long Island City ... N Y
F & M Systems Co, Div Fischbach & Moore, Inc Dallas ... Tex
Gai-Tronics Corp, Reading ... Pa
Hamilton Electronics Corp, Chicago ... Ill
Hayakawa Electric Co Ltd, Osaka ... Japan

Holmin Corp, Wm A, Rockford	Ill
ITT Terryphone Corp, Harrisburg	Pa
Jensen Mfg Div, The Muter Co, Chicago	Ill
Karlson Research & Mfg Div KRC Corp, Hempstead	NY
Kidde & Co Inc, Walter, Belleville	N J
K L A Labs Inc, Detroit	Mich
Langevin Div, Scientific Ind, Inc, Santa Ana	Cal
Lear Siegler Inc, Santa Monica	Cal
Loge Electronics, Los Angeles	Cal
Marquardt Industrial Products Co, Chicago	Ill
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Midwest Audio Corp, Chicago	Ill
MP Audio Corp, Fairfield	Conn
Nelson-Hershfield Electronics Co, Phoenix	Ariz
Newcomb Audio Products Co, Sylmar	Cal
Partrick & Wilkins Co, Philadelphia	Pa
Perma-Power Co, Chicago	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Private Tele Communications Inc, Chicago	Ill
Rauland-Borg Corp, Chicago	Ill
Round Hill Associates, Inc, New York	N Y
Santa Rita Technology Inc, Menlo Park	Cal
Shigoto Industries Ltd, New York	N Y
Show Sound, Inc, New York	N Y
Shrader Sound Inc, Washington	D C
Tape-Athon, Inglewood	Cal
Ultra Electronics Ltd, London, W 3	England
University Sound Div Ltv Ling Altec Inc Oklahoma City	Okla
Utility Communication Systems Inc, Essington	Pa
Visual Electronics Labs Audio Div, Pasadena	Cal
Wald Sound, Sun Valley	Cal
Webster Electric Co, Racine	Wisc

SOUND SYSTEMS--PAGING

ALLIED ELECTRONICS CORP, CHICAGO	**ILL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Action Systems Co Div Conn Consolidated Inds Inc Meriden	Conn
Advanced Purification System Co Inc, Great Neck	N Y
Allied Electronics Corp, Chicago	Ill
Altec Lansing Div LTV Ling Altec Inc, Anaheim	Cal
American Geloso Electronics Inc, New York	N Y
Applied Electro Mechanics Inc, Alexandria	Va
Atlas Sound Div Amer Trading & Prod Corp Parsippany	N J
Audio Instrument Co Inc, Union City	N J
Audio Vox Intercom Inc, Montreal 12	Que
Automatic Clerical Systems Inc, Pasadena	Cal
Beama Engineering Ltd, Toronto 15	Ont
Bell P/A Products Corp, Columbus	Ohio
Bennett Laboratories, Inc, Emeryville	Cal
Bogen Communications Div Lear Siegler Inc Paramus	N J
Canadian Motorola Electronics Co, Agincourt	Ont
Canoga Electronics Corp, Chatsworth	Cal
Casco Music Systems Inc, Hyde Park	Mass
Decker Corp, Bala Cynwyd	Pa
DuKane Corp, St Charles	Ill
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Engineering Co Inc, Norfolk	Va
Executone Inc, Long Island City	N Y
Fisher Berkeley Corp, Emeryville	Cal
Fujitsu Ltd, Tokyo	Japan
Gai-Tronics Corp, Reading	Pa
Hamilton Electronics Corp, Chicago	Ill
ITT Terryphone Corp, Harrisburg	Pa
Jensen Mfg Div, The Muter Co, Chicago	Ill
Lafayette Radio Electronics, Syosset	NY
Lake Systems Corp, Newton	Mass
Lear Siegler Inc, Santa Monica	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Midwest Audio Corp, Chicago	Ill
Miles Reproducer Co Inc, New York	N Y
Nelson-Hershfield Electronics Co, Phoenix	Ariz
Perma-Power Co, Chicago	Ill
Perry-Briggs Co, Cleveland	Ohio
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Private Tele Communications Inc, Chicago	Ill
Rauland-Borg Corp, Chicago	Ill
Round Hill Associates, Inc, New York	N Y
Shigoto Industries Ltd, New York	N Y
Show Sound, Inc, New York	N Y
Shrader Sound Inc, Washington	D C
United Control Corp, Redmond	Wash
University Sound Div Ltv Ling Altec Inc Oklahoma City	Okla
Utility Communication Systems Inc, Essington	Pa
Visual Electronics Labs Audio Div, Pasadena	Cal
Wald Sound, Sun Valley	Cal
Webster Electric Co, Racine	Wisc

SOURCES--INFRARED SEE INFRARED EQUIPMENT

SOURCES--RADIOACTIVE

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
American Atomics Corp, Tucson	Ariz
Atomic Labs, Div Cenco Instr Corp, Chicago	Ill
Canrad Precision Industries Inc, New York	N Y
C & N Electrical Ltd, Hants	England
Eberline Instrument Corp, Santa Fe	N M
General Electric Co, ECSO, Schenectady	N Y
In-Val-Co, Tulsa	Okla
Isotopes A Teledyne Co, Westwood	N J
Lockheed Georgia Nuclear Lab, Marietta	Ga
3M Company, St Paul	Minn
Nuclear-Chicago Corp, Des Plaines	Ill
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Nuclear Materials & Equipment Corp, Apollo	Pa
Nuclear Supplies, Encino	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Picker Nuclear, White Plains	N Y
Standard X-Ray Co, Chicago	Ill
U S Nuclear Corp, Burbank	Cal
United States Radium Corp, Morristown	N J

SPEAKER HOUSINGS SEE ENCLOSURES--LOUDSPEAKER

SPEAKERS

CTS CORP, ELKHART	**IND**
HEATH CO, BENTON HARBOR	**MICH**
KNOWLES ELECTRONICS INC, FRANKLIN PARK	**ILL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
TOA ELECTRIC CO LTD, KOBE, JAPAN	**ADV PG 651**
ADEC Inc, Newark	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
Altec Lansing Div LTV Ling Altec Inc, Anaheim	Cal
American Geloso Electronics Inc, New York	N Y
Ampex Corp, Redwood City	Cal
Atlas Sound Div Amer Trading & Prod Corp Parsippany	N J
Audio Equipment Co Div Walter Kidde & Co Inc Port Washington	NY
Automatic Clerical Systems Inc, Pasadena	Cal
Barker Sales Co, Ridgefield	NJ
Becker Electronics Mfg Corp, Valley Stream	N Y
Bell P/A Products Corp, Columbus	Ohio
Bogen Communications Div Lear Siegler Inc Paramus	N J
Boji Electronics Inc, McGregor	Iowa
Carbonneau Industries Inc, Grand Rapids	Mich
Channel Master Corp, Ellenville	N Y
Cleveland Electronics Inc Speaker Div, Cleveland	Ohio
Components Specialties Inc, Freeport	N Y
CTS Corp, Elkhart	Ind
CTS Electronics Inc, South Pasadena	Cal
CTS of Paducah Inc, Paducah	Ky
Decker Corp, Bala Cynwyd	Pa
Dowa Trading Co Ltd, Kobe	Japan
DuKane Corp, St Charles	Ill
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electro-Voice Inc Sub Gulton Industries Buchanan	Mich
Era Acoustics Corp, Moonachie	N J
Ercona Corp, New York	N Y
Fedtro Inc, Rockville Centre	N Y
Fen-Tone Corp, New York	N Y
Foster Electric Co Ltd, Tokyo	Japan
Fourjay Industries, Dayton	Ohio
Gates Radio Co, Quincy	Ill
Goodmans Loudspeakers Ltd, Middlesex	Eng
Hamilton Electronics Corp, Chicago	Ill
Hartley Products Corp, Ho-Ho-Kus	NJ
Hayakawa Electric Co Ltd, Osaka	Japan
Heath Co, Benton Harbor	Mich
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Terryphone Corp, Harrisburg	Pa
Jensen Mfg Div, The Muter Co, Chicago	Ill
K L A Labs Inc, Detroit	Mich
Knowles Electronics Inc, Franklin Park	Ill
Lansing Sound Inc, James B, Los Angeles	Cal
Lowell Mfg Co, St Louis	Mo
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McGregor Electronic Industries Inc, McGregor	Iowa
Micro-Magna Electronics Corp, Cleveland	Ohio
Midland International Corp, North Kansas City	Mo
Midwest Audio Corp, Chicago	Ill
Minneapolis Speaker Co, Minneapolis	Minn
3M Company, St Paul	Minn
Murdock Corp, Chelsea	Mass
Oaktron Industries Inc, Monroe	Wis
Oxford Electric Corp, Chicago	Ill
Permoflux Corp, Glendale	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Pioneer Electronic Corp, Ohta-ku, Tokyo	Japan
Private Tele Communications Inc, Chicago	Ill
Quam Nichols Co, Chicago	Ill
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Rola Co Inc, Cleveland	Ohio
Sampson Electronic Products Div, Chicago	Ill
Shrader Sound Inc, Washington	D C
Taffet Electronics Inc, Woodside	N Y
Telephonics Div, Instrument Systems Corp Huntington	NY
Toa Electric Co Ltd, Kobe	Japan
Tonegen Electric Co Ltd, Joto-ku, Osaka	Japan
Ultra Electronics Ltd, London, W 3	England
University Sound Div Ltv Ling Altec Inc Oklahoma City	Okla
Utah Electronics Div, Utah-American Corp Huntington	Ind
Wharfedale Div, British Industries Corp, Westbury	N Y
Wilder Engineering Products, Chicago	Ill

Toa
PA
system

Main Products

PA amplifier
Reflex Horn Speaker
Coaxial Speaker
Column Speaker
Microphone
Wireless PA system
Transistor Megaphone

TOA ELECTRIC CO., LTD.
Hyogo-Shimosawa 5, Kobe, Japan

SPEAKERS--CONES, PAPER

WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Acoustical Products Mfg Co, Livingston	N J
American Geloso Electronics Inc, New York	N Y
Cleveland Electronics Inc Speaker Div, Cleveland	Ohio
CTS of Paducah Inc, Paducah	Ky
Dowa Trading Co Ltd, Kobe	Japan
Fibre Form Corp, Columbia City	Ind
Goodmans Loudspeakers Ltd, Middlesex	Eng
ITT Terryphone Corp, Harrisburg	Pa
McGregor Electronic Industries Inc, McGregor	Iowa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Sampson Electronic Products Div, Chicago	Ill
Sanon Co Ltd, Osaka	Japan
Shigoto Industries Ltd, New York	N Y
Tonegen Electric Co Ltd, Joto-ku, Osaka	Japan
Toyo Cone Paper Co Ltd, Osaka	Japan
Utah Electronics Div, Utah-American Corp Huntington	Ind
Waldom Electronics Inc, Chicago	Ill

SPEAKERS--ELECTROSTATIC

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Acoustech Div Koss Electronics Inc, Milwaukee	Wis
Acoustica Associates Inc, Los Angeles	Cal
Altec Lansing Div LTV Ling Altec Inc, Anaheim	Cal
CTS Electronics Inc, South Pasadena	Cal
Decker Corp, Bala Cynwyd	Pa
ITT Europe Inc Components Gp, Brussels 1	Belgium
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Neshaminy Electronic Corp, Furlong	Pa
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Shrader Sound Inc, Washington	D C

SPEAKERS--SYSTEMS

HEATH CO, BENTON HARBOR	**MICH**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Acoustica Associates Inc, Los Angeles	Cal
Acoustic Research Inc, Cambridge	Mass
Altec Lansing Div LTV Ling Altec Inc, Anaheim	Cal
American Geloso Electronics Inc, New York	N Y
Applied Electro Mechanics Inc, Alexandria	Va
Argos Products Co, Inc, Genoa	Ill
Atlas Sound Div Amer Trading & Prod Corp Parsippany	N J
Audio Dynamics Corp, New Milford	Conn
Audio Equipment Co Div Walter Kidde & Co Inc Port Washington	NY
Audiotronics Corp, North Hollywood	Cal
Automatic Clerical Systems Inc, Pasadena	Cal
Bogen Communications Div Lear Siegler Inc Paramus	N J
Boji Electronics Inc, McGregor	Iowa
Calbest Electronics, Los Angeles	Cal
Chiyoda Electronic Co Ltd, Tokyo	Japan
Decker Corp, Bala Cynwyd	Pa
Dowa Trading Co Ltd, Kobe	Japan

DuKane Corp, St Charles	Ill
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electro-Voice Inc Sub Gulton Industries Buchanan	Mich
Empire Scientific Corp, Garden City	N Y
Era Acoustics Corp, Moonachie	N J
Ercona Corp, New York	N Y
Executone Inc, Long Island City	N Y
Foster Electric Co Ltd, Tokyo	Japan
Fourjay Industries, Dayton	Ohio
Goodmans Loudspeakers Ltd, Middlesex	Eng
Hamilton Electronics Corp, Chicago	Ill
Hartley Products Corp, Ho-Ho-Kus	NJ
Heath Co, Benton Harbor	Mich
ITT Terryphone Corp, Harrisburg	Pa
Jensen Mfg Div, The Muter Co, Chicago	Ill
Karg Labs Inc, South Norwalk	Conn
Karlson Research & Mfg Div KRC Corp, Hempstead	NY
Kidde & Co Inc, Walter, Belleville	N J
K L A Labs Inc, Detroit	Mich
Koss Electronics Inc, Milwaukee	Wis
Lafayette Radio Electronics, Syosset	NY
Lansing Sound Inc, James B, Los Angeles	Cal
Lear Jet Industries Inc, Detroit	Mich
Lear Siegler Inc, Santa Monica	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McGregor Electronic Industries Inc, McGregor	Iowa
Minneapolis Speaker Co, Minneapolis	Minn
Mobil Electronics Inc, Anderson	Ind
Nelson-Hershfield Electronics Co, Phoenix	Ariz
Neptune Electronics Co, New York	N Y
Neshaminy Electronic Corp, Furlong	Pa
Oaktron Industries Inc, Monroe	Wis
Perma-Power Co, Chicago	Ill
Perry-Briggs Co, Cleveland	Ohio
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Pioneer Electronic Corp, Ohta-ku, Tokyo	Japan
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Private Tele Communications Inc, Chicago	Ill
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Rauland-Borg Corp, Chicago	Ill
Remler Co, San Francisco	Cal
Rola Co Inc, Cleveland	Ohio
Schober Organ Corp, New York	N Y
Scott Inc, H H, Maynard	Mass
Sherwood Electronic Labs Inc, Chicago	Ill
Shigoto Industries Ltd, New York	N Y
Show Sound, Inc, New York	N Y
Shrader Sound Inc, Washington	D C
Stephens Electronics, Burbank	Cal
Telex Communications Div, Minneapolis	Minn
Tonegen Electric Co Ltd, Joto-ku, Osaka	Japan
Ultra Electronics Ltd, London, W 3	England
University Sound Div Ltv Ling Altec Inc Oklahoma City	Okla
Utah Electronics Div, Utah-American Corp Huntington	Ind
Wald Sound, Sun Valley	Cal
Wharfedale Div, British Industries Corp, Westbury	N Y
Wilder Engineering Products, Chicago	Ill

SPECTROMETERS & SPECTROGRAPHS

HEWLETT-PACKARD, PALO ALTO	**CAL**
AB Atomenergi, 10072 Stockholm 43	Sweden
Aerojet-General Corp Electronics Div, Azusa	Cal
Aero Vac Corp, Troy	N Y
Alpha Scientific Labs Inc, Oakland	Cal
American Instrument Co, Inc, Silver Spring	Md
Analog Technology Corp, Pasadena	Cal
Applied Research Labs, Sunland	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Baird-Atomic, Inc, Cambridge	Mass
Ball Brothers Research Corp, Boulder	Colo
Barnes Engineering Co Def & Space Div Stamford	Conn
Barringer Research Ltd, Rexdale	Ontario
Bausch & Lomb, Inc, Rochester	N Y
Beckman Instruments Inc, Fullerton,	Cal
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio
Block Engineering Inc, Cambridge	Mass
Bruker Scientific Inc, Irvington-on-Hudson	N Y
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Ealing Corp, Cambridge	Mass
Electronic Associates Inc Scien Instr, Palo Alto	Cal
EMI Electronics Ltd, Hayes, Middlesex	England
Eppley Lab Inc, Newport	R I
Gaertner Scientific Corp, Chicago	Ill
GCA Technology Div GCA Corp, Bedford	Mass
General Electric Co Vacuum Prods Business Section Schenectady	N Y
General Electric Co X-Ray Dept, Milwaukee	Wis
Grace Electronics Inc, Cleveland	Ohio
Hamner Electronics Co Inc, Cleveland	Ohio
Hewlett-Packard, Palo Alto	Cal
High Voltage Engineering Corp, Burlington	Mass
ITT Industrial Labs Div, Fort Wayne	Ind
Jarrell-Ash Co, Waltham	Mass
Kahl Scientific Instrument Corp, El Cajon	Cal
Kay Electric Co, Pine Brook	N J
McPherson Instrument Corp Sub GCA Corp, Acton	Mass
Measurement Systems Inc, Norwalk	Conn
Nuclear-Chicago Corp, Des Plaines	Ill
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Nuclide Corp, AGV Div, Acton	Mass
Pacific Electric Motor Co, Oakland	Cal
Packard Instrument Co, Inc, Downers Grove	Ill
Perkin-Elmer Corp, Norwalk	Conn
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Philips Electronic Instruments, Anal Inst, Mount Vernon	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Physicon Co, Boston	Mass
Precision Research Inc, Stamford	Conn
RIL Electronics Inc, Southampton	Pa
Schoeffel Instrument Co, Westwood	NJ
Texas Instruments Incorporated, Dallas	Tex
Thomson Electric Co, Sub Cie Fran Thomson Houston New York	N Y
TRW Instruments, El Segundo	Cal
Varian, Palo Alto	Cal
Veeco Instruments Inc, Plainview	N Y
Warner & Swasey Co Control Instr Div, Flushing	N Y
Wilks Scientific Corp, South Norwalk	Conn
Zeiss Inc, Carl, New York	N Y

SPECTROPHOTOMETERS

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HEATH CO, BENTON HARBOR	**MICH**
Aerojet-General Corp Electronics Div, Azusa	Cal
American Instrument Co, Inc, Silver Spring	Md
Bausch & Lomb, Inc, Rochester	N Y
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Block Engineering Inc, Cambridge	Mass
Canadian Research Institute, Don Mills	Ont
Cary Instruments a Varian Sub, Monrovia	Cal
Durrum Instrument Corp, Palo Alto	Cal
Electro-Optical Systems Inc, Pasadena	Cal
Farrand Optical Co Inc, Bronx	N Y
General Electric Co, ECSO, Schenectady	N Y
Grace Electronics Inc, Cleveland	Ohio
Heath Co, Benton Harbor	Mich
Instrumentation Lab Inc, Watertown	Mass
Instrument Development Labs Div Kollmorgen Corp Attleboro	Mass
ITT Industrial Labs Div, Fort Wayne	Ind
Jarrell-Ash Co, Waltham	Mass
Kahl Scientific Instrument Corp, El Cajon	Cal
Leeds & Northrup Co, Philadelphia	Pa
Lion Research Corp, Newton	Mass
McKee-Pedersen Instruments, Danville	Cal
McPherson Instrument Corp Sub GCA Corp, Acton	Mass
Measurement Systems Inc, Norwalk	Conn
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Perkin-Elmer Corp, Norwalk	Conn
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Phoenix Precision Instrument Co, Inc, Philadelphia	Pa
Process & Instruments Corp, Brooklyn	N Y
Schoeffel Instrument Co, Westwood	NJ
Varian, Palo Alto	Cal
Zeiss Inc, Carl, New York	N Y

SPECTROSCOPES

Applied Research, Inc, Port Washington	N Y
Applied Research Labs, Sunland	Cal
Bausch & Lomb, Inc, Rochester	N Y
Central Scientific Co, Chicago	Ill
Ealing Corp, Cambridge	Mass
Ercona Corp, New York	N Y
Gaertner Scientific Corp, Chicago	Ill
Jarrell-Ash Co, Waltham	Mass
Measurement Systems Inc, Norwalk	Conn
Nuclide Corp, AGV Div, Acton	Mass
Schoeffel Instrument Co, Westwood	NJ
Siemens America Inc, New York	N Y
Stark Electronic Instruments Ltd, Ajax	Ont
Zeiss Inc, Carl, New York	N Y

SPEECH SCRAMBLERS SEE SCRAMBLERS--SPEECH

SPLICERS--MAGNETIC TAPE

Ampex Corp, Redwood City	Cal
Dowa Trading Co Ltd, Kobe	Japan
Duotone Co Inc, Miami	Fla
Elpa Mktg Industries Inc, New Hyde Park	N Y
Ercona Corp, New York	N Y
Fen-Tone Corp, New York	N Y
G C Electronics Div, Hydrometals Inc, Rockford	Ill
K L A Labs Inc, Detroit	Mich
Magnecessories, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Recoton Corp, Long Island City	N Y
Robins Data Devices Inc, Flushing	N Y
Robins Industries Corp, Flushing	N Y

SPLICERS--WIRE

AMP INCORPORATED, HARRISBURG	**PA**
BURNDY CORP, NORWALK	**CONN**
Allmetal Screw Products Co Inc, Garden City	N Y
AMP Incorporated, Harrisburg	Pa
Burndy Corp, Norwalk	Conn
Electric Terminal Corp, Warwick	R I
General Staple Co, New York	N Y
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Javex Electronics, Cherry Valley	Cal
Jonard Industries Corp, Bronx	N Y
Kent Corp, Mundelein	Ill
Penn-Union Electric A Teledyne Co, Edinboro	Pa
Preformed Line Products Co, Cleveland	Ohio
Reliable Electric Co, Franklin Park	Ill
Schjeldahl Co G T, Connector Dept, Osseo	Minn
Superior Continental Corp, Hickory	N C
Winslow Tele-Tronics Inc, Asbury Park	NJ

SPOT WELDERS SEE WELDERS--SPOT

SPRAY SYSTEMS--ELECTROSTATIC SEE ELECTROSTATIC SPRAY SYSTEMS

SPRINGS--ANTENNA TENSION

Ace Spring Mfg Co, Inc, Brooklyn	N Y
Connor Spring Mfg Co Div Sloss & Britain San Francisco	Cal
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Dudek & Bock Spring Mfg Co, Chicago	Ill
Elgiloy Co, Elgin	Ill
Helix Spring Corp, Long Island City	NY

SPRINGS--COMMON

Accurate Spring Mfg Co Div United Greenfield Corp River Grove	Ill
Ace Spring Mfg Co, Inc, Brooklyn	N Y
Acme Model Engineering Co, Ridgefield	N J
Alloys Unlimited Inc, Melville	N Y
Chatillon & Sons, John, Kew Gardens	N Y
Connor Spring Mfg Co Div Sloss & Britain San Francisco	Cal
Dudek & Bock Spring Mfg Co, Chicago	Ill
Elgiloy Co, Elgin	Ill
Emtec Inc, Empire Spring Div, Elyria	Ohio
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Helix Spring Corp, Long Island City	NY
Hunter Spring Div Ametek Inc, Hatfield	Pa
Larago Electronics Mfgrs Inc, Melbourne	Fla
Lee Spring Co, Brooklyn	N Y
Metal Ceram Inc, Mount Vernon	N Y
O'Hara Metal Products Co, San Francisco	Cal
Reliable Spring & Wire Forms Co, Cleveland	Ohio
Semi-Alloys Inc, Mt Vernon	N Y
Sterling Instrument Div, Designatronics Inc Mineola	N Y

SPRINGS--CONTACT

BARNES CORP, LANSDOWNE	**PA**
INSTRUMENT SPECIALTIES CO INC, LITTLE FALLS	**N J**
MICRO CONTACTS, INC, HICKSVILLE	**N Y**
Accurate Spring Mfg Co Div United Greenfield Corp River Grove	Ill
Alloys Unlimited Inc, Melville	N Y
American Silver Co Div, Flushing	N Y
Barnes Corp, Lansdowne	Pa
Braun Tool & Instrument Co Inc, H, Hawthorne	N J
Carbone Corp, Boonton	N J
Chemical & Aerospace Products Inc, Wilmington	Cal
Connor Spring Mfg Co Div Sloss & Britain San Francisco	Cal
Diebel Mfg Co, Morton Grove	Ill
Dudek & Bock Spring Mfg Co, Chicago	Ill
Elgiloy Co, Elgin	Ill
Emtec Inc, Empire Spring Div, Elyria	Ohio
Ferranti, Ltd, Lancashire	England
General Findings Co Industrial Div, Attleboro	Mass
Henry Engineering Co, Burbank	Cal
Hit Products Corp, South Norwalk	Conn
Improved Seamless Wire Co, Providence	R I
Instrument Specialties Co Inc, Little Falls	N J
Lee Spring Co, Brooklyn	N Y
Metal Ceram Inc, Mount Vernon	N Y
Micro Contacts, Inc, Hicksville	N Y
Micro Science Assoc, Mountain View	Cal
O'Hara Metal Products Co, San Francisco	Cal
Ostby & Barton Co, Providence	R I
Reliable Spring & Wire Forms Co, Cleveland	Ohio
Robinson-Nugent Inc, New Albany	Ind
Seastrom Mfg Co Inc, Glendale	Cal
Semi-Alloys Inc, Mt Vernon	N Y
Texas Instruments Incorporated, Dallas	Tex
Textool Products Inc, Irving	Tex
Volkert Stampings Inc Sub Stanley Works Queens Village	N Y
Wells Co Inc, Gary, Yonkers	N Y
Wilkinson Co, Westlake Village	Cal

SPRINGS--INSTRUMENT HAIRSPRING

DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
A & M Instruments Inc, Great Neck	N Y
Chatillon & Sons, John, Kew Gardens	N Y
Connor Spring Mfg Co Div Sloss & Britain San Francisco	Cal

Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Elgiloy Co, Elgin	Ill
Emtec Inc, Empire Spring Div, Elyria	Ohio
Metal Ceram Inc, Mount Vernon	N Y
O'Hara Metal Products Co, San Francisco	Cal
Precision Products Co Inc of Waltham, Waltham	Mass
Semi-Alloys Inc, Mt Vernon	N Y
Sun Electric Corp, Chicago	Ill
Volkert Stampings Inc Sub Stanley Works Queens Village	N Y
Wells Co Inc, Gary, Yonkers	N Y

SQUARE-WAVE GENERATORS SEE GENERATORS--SIGNAL

STABILIZERS--KLYSTRON

HEWLETT-PACKARD, PALO ALTO	**CAL**
MICRO-NOW INSTRUMENT CO INC, CHICAGO	**ILL**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE N Y	**ADV PG 653**
Frequency Engineering Labs, Farmingdale	N J
Hewlett-Packard, Palo Alto	Cal
Micro-Now Instrument Co Inc, Chicago	Ill
Microwave/Systems Inc, East Syracuse	N Y
Narda Microwave Corp, Plainview	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
Polarad Electronic Instruments Div Long Island City	N Y
Teltronics Inc, Nashua	N H

STABISTORS

EDAL INDUSTRIES INC, EAST HAVEN	**CONN**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
Anglo American Vulcanized Fibre Co Ltd London EC 1	England
Atlantic Semiconductor Inc, Asbury Park	N J
Burns & Towne, Inc, Malden	Mass
Eastern Delta Corp, Fair Lawn	N J
Edal Industries Inc, East Haven	Conn
General Electric Co, ECSO, Schenectady	N Y
General Semiconductor Div, Tempe	Ariz
Green Rectifier Corp, Fair Lawn	N J
Power Components Inc, Scottdale	Pa
Schauer Mfg Corp, Cincinnati	Ohio
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y

STAMPED CIRCUITS SEE CIRCUITS--PRINTED WIRING

STAMPING MACHINES SEE MACHINES HOT-STAMPING;MACHINES--MARKING & NUMBERING; MACHINES--FORMING

STAMPINGS & PUNCHINGS--PLASTICS SEE PLASTICS--FINISHED PARTS

STAMPINGS--METAL SEE METAL PARTS--SMALLMETAL STAMPINGS

STAMPINGS--PAPER SEE PAPER

STAMPS--MARKING

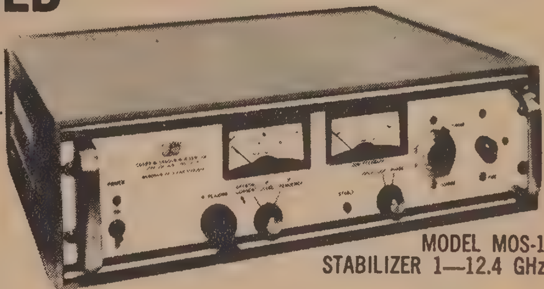
MARKWIK CORP, SYOSSET	**N Y**
Ackerman Gould Co, Inc, Oceanside	N Y
Acromark Co, Elizabeth	N J
Apex Machine Co, Fort Lauderdale	Fla
Kingsley Machine Co, Hollywood	Cal
Markem Machine Co, Keene	NH
Markon Mfg Inc, Englewood	Colo
Markwik Corp, Syosset	N Y
Master Engraving, Rochelle Park	N J
Matthews & Co Jas H, Pittsburgh	Pa
Noble & Westbrook Div, Bristol Brass Corp East Hartford	Conn
parker-hartford corp, windsor	conn
Photo Chemical Products Inc, Santa Monica	Cal
Royson Engineering Co, Hatboro	Pa
Seton Name Plate Corp, New Haven	Conn
Sossner Steel Stamps Inc, Long Island City	N Y
Stafford Mfg Co Inc, Brooklyn	N Y
Wilkens Inc, Alwin Fr, Pawling	N Y

STANDARD CELLS SEE CELLS--STANDARD

Products with a blend of
Innovation and Engineering Excellence

FREQUENCY STABILITY INSTRUMENTATION TO MEET EVERY NEED

- Spectroscopy
- Doppler Systems
- System Calibration
- Stalos
- Precision Measurements



MODEL MOS-1
STABILIZER 1—12.4 GHz

Finest Continuously Tunable Stabilizer available. Phase locks klystrons, BWOs, VTMs, solid-state sources equally well. Stability: One part in 10^9 per millisecond.

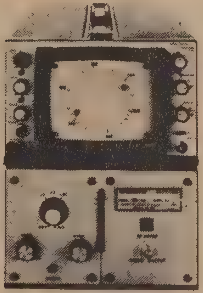
Microwave Frequency Stabilizers
Type MOS, 1—40GHz continuously tunable. Provisions for referencing to external frequency standard.

Frequency Stability Analyzers
Type SMS, 1—40 GHz
Direct measurement of microwave oscillator long and short-term stability.

Microwave Synchronizers
Type PLS,—Lock two microwave oscillators together with crystal controlled frequency offset.
IF input models to 160 MHz
RF input models to 40 GHz

Custom Stabilizers & Synchronizers
Specially designed to meet exact system requirements.

SPECIAL MICROWAVE INSTRUMENTATION



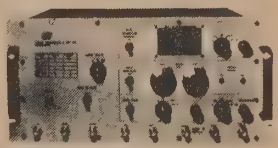
Instantaneous Frequency Indicating Receiver
- Spectrum Surveillance
- Production Line Testing
- Laboratory Instrumentation

Truly wide open over wide bands from 1—18 GHz. Measures the frequency of a single RF Pulse to one per cent or better. Up to —75 dbm sensitivity with preamplification. Digital output options available.

MODEL IFR-Ku, 12—18 GHz

CUSTOM DIGITAL/ANALOG SYSTEMS AND SERVICES

Perhaps you need to drive a frequency synthesizer (decimal) with a binary computer output, or possibly a device to measure the RF of pulsed signals using counter techniques, automatically. Perhaps you are wondering who will program your new computer controlled network analyzer. M/S supplies such custom services at modest cost.



TIME DOMAIN FILTER
For real time pulse train de-interleaving. The most flexible and useful instrument of its type. Digital interval settings: Amplitude, width and interval selection or rejection.

M/S ®

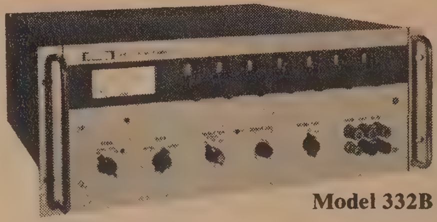
MICROWAVE / SYSTEMS, INC
formerly Curry, McLaughlin & Len, Inc.
1 Adler Drive East Syracuse, N.Y. 13057 Tel. (315) 437-9951

Standards Voltage DC

Fluke Precision Voltage/ Current Calibrators

Newest instrument in the line of Fluke precision calibrators is the multi-function Model 335A DC Voltage Calibrator, Differential Voltmeter and Null Detector. The new unit measures and supplies DC voltages from 0 to 1100 volts with an output of 0 to 50 ma. As a source and as a differential voltmeter, absolute accuracy is within 0.002% of setting. Resolution for any voltage range is 0.1 ppm. The null detector which can be used the same time the instrument is being used as a voltage source, offers an accuracy of 3% of end scale on all ranges.

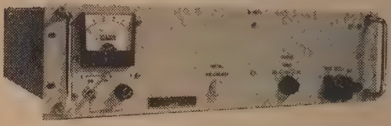
The Model 315A offers high speed remote programming of voltage, current limit, and polarity. Voltage changes are programmed by a 1-2-4-8 BCD code in increments as small as 100 microvolts. Settling time is 1 ms/volt at 500 ma and 5 ms/volt at 1 amp.



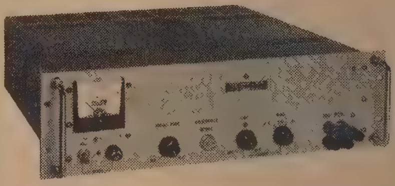
Model 332B

Specifications:

Model	Voltage	Current	Regulation Line (%)	Regulation Load (%)	Stability % Per Hour	Stability % Per Day	Stability % Per Month	Calibration Accuracy (%)	Max. Ripple (rms)	Resolution	Price
301E	1.02-512	0-300 ma	0.005	0.01	0.005	0.01	0.01	0.1	2 mv	500 µv	$ 795
301C	1.02-1,012	0-400 ma	0.005	0.01	0.005	0.01	0.01	0.1	2 mv	500 µv	$1195
313A	0-50	0-2 a	0.0005	0.0005	0.002	0.0025	0.005	0.01	50 µv	10 µv	$1295
382A (voltage mode)	0-50	0-2 a	0.0005	0.0005	0.002	0.0025	0.005	0.01	50 µv	10 µv	$1595
382A (current mode)	0-50	0-2 a	0.0005	0.001	0.0025	0.005	0.005	0.02	0.002% of range	10 na	
383B (voltage mode)	0-50	0-2 a	0.0005	0.0005	0.005	0.005	0.01	0.025	50 µv	100 µv	$1950
383B (current mode)	0-50	0-2 a	0.001	0.001	0.005	0.005	0.01	0.025	0.005% of range	10 na	
332B	0-1,111	0-50 ma	0.0002	0.0002	0.0015/Wk. 0.002/6 Mos.			0.002	20 µv—40 µv	0.1 ppm	$2295
315A	0-50	0-1 a	0.0005	0.0005	0.005	0.005	0.01	0.025	500 µv	100 µv	$1850
335A	0-1,111	0-50 ma	0.0002	0.0002	0.0015/Wk. 0.002/6 Mos.			0.002	20 µv—40 µv	0.1 ppm	$2485



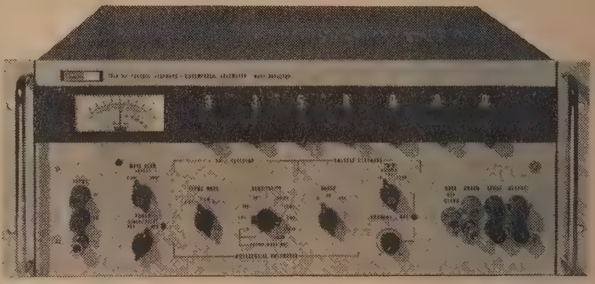
Model 315A



Model 383B

Fluke DC Voltage & Ratio Calibration Systems

System 7100 offers the user a complete DC calibration system with the ability to supply, measure, and compare DC voltages and ratios in the range of 0 to 1100 volts at state-of-the-art accuracies. These systems consist of Fluke voltage calibrators, reference dividers, null detectors, lead compensators, and Kelvin Varley Dividers.

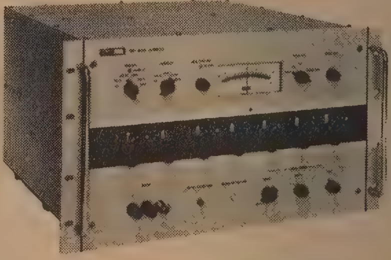


Model 335A

New Fluke Model 760A Meter Calibrator

The new Model 760A Meter Calibrator calibrates AC/DC, volt or ammeters directly in terms of percent error. This calibration standards instrument is guaranteed to stay within specifications for one full year over a wide range of environmental conditions. Compared to existing equipment on the market, the instrument is genuinely portable.

A minimum number of controls and indicators simplify and speed operation of the instrument. You can dial up any parameter without range changing or switching. Interlocks and other safety features prevent damage to the instrument under test and harm to the user. A stable, low frequency oscillator is used to provide either 60 Hz or 400 Hz.



Brief Specifications:

Voltage Range:
0.001 to 1000 volts.
DC Accuracy:
± 0.1% to 1000 volts.

AC Accuracy:
± 0.25% to 1000 volts.
Current Range:
1 microampere to 10 amperes.
Accuracy:
± 0.25%.

Resistance Range:
0 to 10 megohms.
Accuracy:
± 0.1%.
Price:
$2485.

Fluke, Box 7428, Seattle, Washington 98133. Phone: (206) 774-2211. TWX: (910) 449-2850.
In Europe, address Fluke Nederland (N.V.), P.O. Box 5053, Tilburg, Holland.
Telex: 844-50237. In the U.K., address Fluke International Corp.,
P.O. Box 102, Watford, Herts, England, Telex: 851-934-583.

FLUKE

STANDARDS--A-C VOLTAGE, ELECTRONIC

FLUKE MFG CO INC, JOHN, SEATTLE	**WASH**
FORK STANDARDS INC, WEST CHICAGO	**ILL**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH COVER**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
American Machine & Foundry Co Alexandria Div Alexandria	Va
Ballantine Laboratories, Inc, Boonton	N J
Beckman Instruments Inc, Fullerton,	Cal
Bradley Ltd G & E, London NW 10	England
Connor-Winfield Corp, Winfield	Ill
Dynamco Ltd, Chertsey Surrey	Eng
Electronic Development Corp, Boston	Mass
Fluke Mfg Co Inc, John, Seattle	Wash
Fork Standards Inc, West Chicago	Ill
Grafix Inc, Albuquerque	N Mex
Holt Instrument Labs, Oconto	Wis
Idalee Electronics Corp, Valley Stream	NY
Kepco Inc, Flushing	N Y
Nelson Electronic Labs Inc, Plano	Tex
Northeast Electronics Corp, Concord	N H
North Hills Electronics Inc, Glen Cove	N Y
Optimation, Inc, Sun Valley	Cal
RFL Industries Inc, Instrumentation Div, Boonton	N J
Simpson Electric Co, Chicago	Ill
Singer Co, Metrics Div, Bridgeport	Conn
Singer Co, Metrics Div, Gertsch Dept, Los Angeles	Cal
Somerset Radiation Lab Inc, Arlington	Va
Stark Electronic Instruments Ltd, Ajax	Ont
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Twinco Inc, Dorchester	Mass
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Western Instrument Corp, Burbank	Cal
Weston Instruments Div Weston Instr Inc, Newark	N J
Weston Lexington Weston Instruments Div Lexington	Mass
Yokogawa Electric Works Inc, Larchmont	N Y

STANDARDS--CAPACITANCE

HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
Arco Electronics, Inc, Great Neck	N Y
Beckman Instruments Inc, Fullerton,	Cal
Boonton Electronics Corp, Parsippany	N J
Cardwell Condenser Corp, Lindenhurst	N Y
Electro Scientific Industries Inc, Portland	Ore
General Radio Co, West Concord	Mass
Honeywell Test Instruments Div, Denver	Colo
Leeds & Northrup Co, Philadelphia	Pa
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Sprague Electric Co, North Adams	Mass
Wayne Kerr Corp, Montclair	NJ
Winslow Tele-Tronics Inc, Asbury Park	NJ

STANDARDS--D-C VOLTAGE, ELECTRONIC

DYNAGE, INC, BLOOMFIELD	**CONN**
FLUKE MFG CO INC, JOHN, SEATTLE. WASH	**ADV PG 654**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PG 8**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH COVER**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
POWER DESIGNS, INC, WESTBURY, N Y	**ADV PGS 532,533**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
American Machine & Foundry Co Alexandria Div Alexandria	Va
Analogic Corp, Waltham	Mass
Beckman Instruments Inc, Fullerton,	Cal
Bradley Ltd G & E, London NW 10	England
Cohu Electronics Inc, San Diego	Cal
Don Bosco Electronics Inc, Hanover	N J
Doric Scientific Corp, San Diego	Calif
Dynage, Inc, Bloomfield	Conn
Elasco Inc, Boston	Mass
Electronic Design Labs Inc, Philadelphia	Pa
Electronic Development Corp, Boston	Mass
Eppley Lab Inc, Newport	R I
Fluke Mfg Co Inc, John, Seattle	Wash
General Resistance Inc, New York	NY
Grafix Inc, Albuquerque	N Mex
Guildline Instruments Ltd, Smiths Falls	Ont
Gulton Industries Inc Engineered Magnetics Div Hawthorne	Cal
Hewlett-Packard, Palo Alto	Cal
Honeywell Test Instruments Div, Denver	Colo
Howell Instruments Co, Fort Worth	Tex
IB Instruments Inc, Cleveland	Ohio
Instrulab Inc, Dayton	Ohio
Julie Research Labs, Inc, New York	N Y
Keithley Instruments Inc, Cleveland	Ohio
Kepco Inc, Flushing	N Y
Lorch Electronics Corp, Englewood	N J
Medistor Instrument Co, Seattle	Wash
3M Company, St Paul	Minn
Monroe Electronics Inc, Middleport	N Y
Nelson Electronic Labs Inc, Plano	Tex
North Hills Electronics Inc, Glen Cove	N Y
Power Designs, Inc, Westbury	N Y
Precision Standards Corp, San Marino	Cal
Preston Scientific, Inc, Anaheim	Cal
Princeton Applied Research Corp, Princeton	N J
RFL Industries Inc, Instrumentation Div, Boonton	N J
Simpson Electric Co, Chicago	Ill
Singer Co, Metrics Div, Bridgeport	Conn
Stark Electronic Instruments Ltd, Ajax	Ont
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Takeda Riken Industry Co Ltd, Tokyo	Japan
Twinco Inc, Dorchester	Mass
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Weston Instruments Div Weston Instr Inc, Newark	N J
Weston Lexington Weston Instruments Div Lexington	Mass
Yokogawa Electric Works Inc, Larchmont	N Y

STANDARDS--FREQUENCY, A- F

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE, N Y	**ADV PG 655**
C M L INC, PLAINFIELD	**N J**
FORK STANDARDS INC, WEST CHICAGO, ILL	**ADV PG 655**
GREENRAY INDUSTRIES INC, MECHANICSBURG	**PA**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON N Y	**ADV PG 495**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH	**VA**
MESON ELECTRONICS CO, INC, ROCHESTER	**N Y**
TRACOR INC, AUSTIN, TEX	**ADV PG 655**
Accutronics, Inc, Geneva	Ill
Advanced Energy Conversion, Menlo Park	Cal
American Machine & Foundry Co Alexandria Div Alexandria	Va
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Anadex Instruments, Inc, Van Nuys	Cal
Armec Corp, Huntington Station	N Y
Barden Co, Hermosa Beach	Cal
Beckman Instruments Inc, Fullerton,	Cal
C M L Inc, Plainfield	N J
Connor-Winfield Corp, Winfield	Ill
Darcy Industries Inc, TSI Div, Santa Monica	Cal
Ebauches SA Dept Oscilloquartz 2001 Neuchatel	Switz
Fork Standards Inc, West Chicago	Ill
Frequency Electronics Inc, New Hyde Park	N Y
General Radio Co, West Concord	Mass
Gibbs Mfg & Research Corp, Janesville	Wis
Greenray Industries Inc, Mechanicsburg	Pa
H B Engineering Corp, Silver Spring	Md
Hewlett-Packard, Palo Alto	Cal
Industrial Test Equipment Co, Port Washington	N Y
Measurements A McGraw-Edison Div, Boonton	N J
Melpar Inc, Special Prods Dept, Falls Church	Va
Meson Electronics Co, Inc, Rochester	N Y
Muirhead Instruments Inc, Mountainside	N J
NH Research Inc, Santa Ana	Cal
Norrman Laboratories. Ernst, Williams Bay	Wis

AF Freq. Standards?

Try Bulova First!

CALL:

Ariz Tech-Ser Inc, 1805 E Indian School Rd Phoenix ... 602-265-3629
Cal Straube Assoc., Inc., 483 Willow Rd., Menlo Pk ... 213-323-2476
Cal Cardinal Assoc, 16024 Ventura Blvd Encino ... 213-788-4540
Conn Samuel C Hooker Inc, Box 369 West Hartford ... 203-233-8000
Fla Perrott Assoc, 1607 Forsyth Rd, Orlando ... 305-275-1132
Fla Perrott Assoc, Box 4532, Clearwater ... 813-531-5513
Fla Perrott Assoc, Box 6277 West Palm Beach ... 305-967-1770
Ga Emmett Rushin Co, Box 486 Roswell ... 404-993-6498
Ill Communications Eng, 7100 N Western Ave Chicago ... 312-R01-0548
Md Daniel & Co, Box 124, Lutherville ... 301-825-8330
Mass Samuel Hooker, Inc, Box 352 Winchester ... 617-729-5482
Minn Wenco Sales Inc, 7728 Morgan Ave S Minneapolis ... 612-866-3639
Mo J C Mankus & Assoc, 400 Brooks La Hazelwood ... 314-PE1-4334
NY H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester ... 716-232-2688
NY Cane Technical Sales, 555 E Boston Post Rd Mamaroneck ... 914-698-4411
NY H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady ... 518-882-9303
NY H C Johnson Agencies Inc, Box 215 Fayetteville ... 315-637-9595
NY H C Johnson Agencies Inc, 8 Los Robles St Williamsville ... 716-632-7880
Pa Daniel & Co, Box 3, Glenside ... 215-TU7-0550
Tex Applied Eng Sales, 1st Bank & Trust, Richardson ... 214-AD1-1322
Wash Jas J Backer Co, 221 W Galer St Seattle ... 206-AT3-6470

AMERICAN TIME PRODUCTS
BULOVA WATCH CO INC
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

FREQUENCY STANDARDS?

Yes . . .

Select your precision
FREQUENCY STANDARD
from Fork Standards' comprehensive product display.
See page 457

FORK STANDARDS, INC.
251 Main St., West Chicago Ill. 60185
Telephone Area Code 312—231-3511

SULZER
REFERENCE SIGNAL
GENERATORS

The Sulzer Model RS-10 Tape-Recorder Calibrator provides an on-tape calibration that completely eliminates Wow and removes 75% of Flutter. Inherent flexibility of the RS-10 covers a wide range of tape speeds.

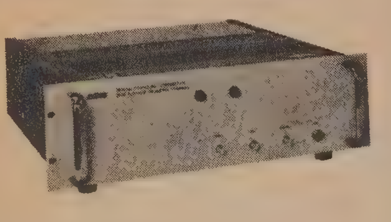
TRACOR™
6500 TRACOR LANE/AUSTIN, TEXAS 78721
512-926-2800/TWX 512-926-0441

Northeast Electronics Corp, Concord	N H
Riverbank Labs, Dept of Engrg, Geneva	Ill
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Simpson Electric Co, Chicago	Ill
Singer Co, Metrics Div, Bridgeport	Conn
Solid State Electronics Corp, Sepulveda	Cal
Systems Electronics Inc, Cleveland	Ohio
Takeda Riken Industry Co Ltd, Tokyo	Japan
T M C Systems (Ariz) Inc, Tempe	Ariz
Tracor Inc, Austin	Tex
Varo Inc, Garland	Tex
Vectron Labs Inc, Stamford	Conn
Venner Electronics Ltd, New Malden, Surrey	Eng

STANDARDS--FREQUENCY, ATOMIC TYPE

HEWLETT-PACKARD, PALO ALTO	**CAL**
TRACOR INC, AUSTIN, TEX	**ADV PG 656**
Amark Corp, Plainview	N Y
Ebauches SA Dept Oscilloquartz 2001 Neuchatel	Switz
Hewlett-Packard, Palo Alto	Cal
National Radio Co Inc, Melrose	Mass
Tracor Inc, Austin	Tex
TRW Systems Group, Redondo Beach	Cal
Varian, Palo Alto	Cal

GENERAL TECHNOLOGY
RUBIDIUM FREQUENCY
STANDARDS



Rubidium Frequency Standard is accurate, stable, compact, and rugged. For use in timing, standards laboratories, navigation systems, missile and satellite tracking and communication systems. Synthesizer translates atomic resonance frequency to outputs at standard frequencies. Time scale selector permits switch selection of output time scale to accommodate future changes in UT2 and to select A1 or UT2. Initial frequency setting of ±5 × 10^{-11} relative to customer prescribed frequency or time scale (±2 × 10^{-11} if set at the National Bureau of Standards). Long-term stability is 5 × 10^{-11} (one year).

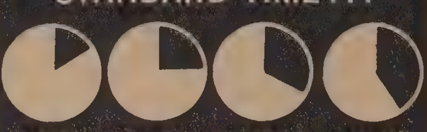
TRACOR™

6500 TRACOR LANE/AUSTIN, TEXAS 78721
512-926-2800/TWX 512-926-0441

STANDARDS--FREQUENCY, MICROWAVE

HEWLETT-PACKARD, PALO ALTO	**CAL**
MICRO-NOW INSTRUMENT CO INC, CHICAGO	**ILL**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SYSTRON DONNER CORP, CONCORD	**CAL**
Beckman Instruments Inc, Fullerton,	Cal
Frequency Electronics Inc, New Hyde Park	N Y
General Radio Co, West Concord	Mass
Greenpar Engineering Ltd, Electronics Div Essex	England
Hewlett-Packard, Palo Alto	Cal
J A C Electronics Ltd, Camberley	England
MCS Corp, Monrovia	Cal
Micro-Now Instrument Co Inc, Chicago	Ill
Microwave Development Labs Inc Needham Heights	Mass
Microwave/Systems Inc, East Syracuse	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Somerset Radiation Lab Inc, Arlington	Va
Systron Donner Corp, Concord	Cal

WHATEVER YOUR STANDARD TIME . . .



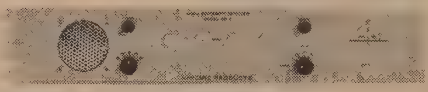
ALWAYS USE
SPECIFIC
STANDARD TIME!!

The Most Complete Line of Standard Time and Frequency Receivers

MODEL CS-60 60 KHZ Time Code Receiver

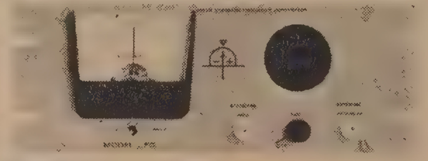
Model CS-60, a new, low current drain time code receiver, is so sensitive that it will receive NBS signals from 2,000 or more miles away. The new unit will receive radio station WWVB signals, considered to be the most accurate time signals available. Designed for long term, remote, unattended operation.

Model CS-60-A $580.00



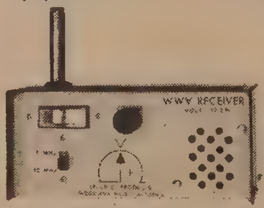
Model AR-4 5 to 20 MHz
Automatic Frequency Diversity Receiver

For use in reception of the transmissions from WWV and WWVH. The receiver uses frequency diversity reception on the frequencies of 5, 10, 15 and 20 MHz. When the antenna that is supplied is properly installed, the receiver is guaranteed to operate anywhere in the United States or Canada. **Model AR-4 $1785.00**



MODEL LFC 60 kHz
Frequency Comparison Receiver

The Model LFC is an all transistorized receiver and frequency comparator, designed to calibrate local standards (1 MHz or 100 kHz) to the standard frequency transmissions from Radio Station WWVB. Fills the need for a small, easily operated comparator which will indicate accuracies to one part in 10^9 without any auxiliary equipment. **Model LFC $595.00**



MODEL 1015M
10-15 MC
Portable
WWV Receiver

An extra small, exceptionally lightweight WWV Receiver that can easily be carried in one hand. Has a crystal controlled transistorized sensitive receiver for the 10 and 15 MC time and frequency transmissions from the NBS stations WWV and WWHV. **$189.50**

Model 1015 (without meter) $139.50

SPECIFIC PRODUCTS
A Division of The Dr. Henry L. Richter Corp.
1237 So. Shamrock Ave.
Monrovia, California 91016
Phone: (213) 359-6636

TRACOR VLF/LF
RECEIVER/COMPARATORS

Continuous tuning 3.00 to 99.95 kHz in 50 Hz increments, image and noise rejection without filters.

Model 599-J receives all carrier-stabilized VLF/LF transmissions (including OMEGA). Optional chart recorder, linear print-out with 10 or 100 micro-seconds full scale for any received frequency. Used in frequency calibration (precision oscillator rating), timekeeping, propagation studies, solar flare detection, and navigation.

Model 890 receives both 20 (WWVL) and 60 kHz (WWVB) NBS stabilized frequency broadcasts for time and frequency measurements anywhere in the U.S. Recorder calibration linear, 100 microseconds full scale.

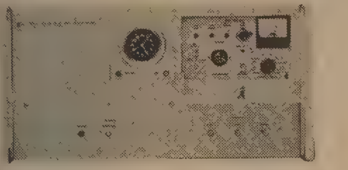
TRACOR™

6500 TRACOR LANE/AUSTIN, TEXAS 78721
512-926-2800/TWX 512-926-0441

STANDARDS--FREQUENCY, R- F

FORK STANDARDS INC, WEST CHICAGO, ILL	**ADV PG 457**
GREENRAY INDUSTRIES INC, MECHANICSBURG	**PA**
HEWLETT-PACKARD, PALO ALTO, CAL	**ADV PG 657**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH	**VA**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
PETERSEN RADIO CO INC, COUNCIL BLUFFS	**IOWA**
REEVES-HOFFMAN DIV, CARLISLE	**PA**
SPECIFIC PRODUCTS DIV DR H L RICHTER CORP, MONROVIA CAL	**ADV PG 656**
TRACOR INC, AUSTIN, TEX	**ADV PG 656.657**
Accutronics, Inc, Geneva	Ill
Aerospace Research, Inc, Boston	Mass
Airmec Instruments Ltd, Buckinghamshire	England
Alpha Industries Inc, Newton Upper Falls	Mass
Beckman Instruments Inc, Fullerton,	Cal
Betron-IRE-SpA, Livorno	Italy
Darcy Industries Inc, TSI Div, Santa Monica	Cal
Ebauches SA Dept Oscilloquartz 2001 Neuchatel	Switz
Fork Standards Inc, West Chicago	Ill
Frequency Electronics Inc, New Hyde Park	N Y
General Radio Co, West Concord	Mass
Geo Space Systems Inc, St Petersburg	Fla
Gibbs Mfg & Research Corp, Janesville	Wis
Greenpar Engineering Ltd, Electronics Div Essex	England
Greenray Industries Inc, Mechanicsburg	Pa
Hewlett-Packard, Palo Alto	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
J A C Electronics Ltd, Camberley	England
Lorch Electronics Corp, Englewood	N J
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Measurements A McGraw-Edison Div, Boonton	N J
Melpar Inc, Special Prods Dept, Falls Church	Va
Microwave Development Labs Inc Needham Heights	Mass
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Norman Laboratories, Ernst, Williams Bay	Wis
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Petersen Radio Co Inc, Council Bluffs	Iowa
Racal Communications Inc, Silver Spring	Md
Reeves-Hoffman Div, Carlisle	Pa
Singer Co, Metrics Div, Bridgeport	Conn
Solid State Electronics Corp, Sepulveda	Cal
Somerset Radiation Lab Inc, Arlington	Va
Specific Products Div Dr H L Richter Corp Monrovia	Cal
Systems Electronics Inc, Cleveland	Ohio
T M C Systems (Ariz) Inc, Tempe	Ariz
Tracor Inc, Austin	Tex
Vectron Labs Inc, Stamford	Conn
Venner Electronics Ltd, New Malden, Surrey	Eng
Viking Instruments Inc, East Haddam	Conn

FREQUENCY AND TIME STANDARDS



5061A Cesium Beam Atomic Standard

Cesium Beam Standard—Portable primary standard accurate to $\pm1x10^{-11}$. Provided better than 1 microsecond time comparisons between worldwide timekeeping centers in HP's Flying Clock Experiments. Built-in synthesizer for time scale changes. $14,800. Optional built-in standby power and clock.

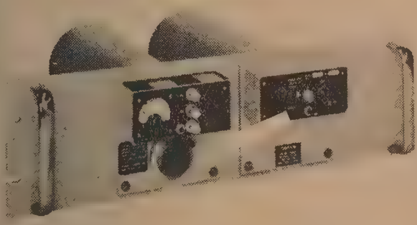
Rubidium Atomic Standard—Low cost portable (37 lbs.) standard; noted for excellent short term stability ($<7x10^{-12}$ rms, 1 s. avg.) Long term stability $<2x10^{-11}$ / mo. Built-in synthesizer for time scale changes. $7,500 Optional built-in standby power and clock.

Quartz Oscillators—Aging rates to $5x10^{-11}$/ day, short-term stability down to $1.0x10^{-11}$ rms/sec. $1250 to $3900. Models for extreme environmental conditions available.

HEWLETT hp PACKARD

02816

SULZER CRYSTAL FREQUENCY STANDARDS



The **Model 5C** is designed specifically for fast frequency stabilization, and reaches an aging rate of 5×10^{-10}, within 12 hours after turn on. The output frequency changes less than 1×10^{-11} per 1°C. over a temperature range from -10 to $+60$°C. Meets requirements of MIL-E-16400E. Typical ultimate aging rate per 24 hrs is 1×10^{-10}.

MODEL 2.5C The ultimate in crystal stability, the Model 2.5C provides a guaranteed aging rate per 24 hours of 5×10^{-11}, with a typical ultimate aging rate of 1×10^{-11} per 24 hours.

TRACOR™

6500 TRACOR LANE/AUSTIN, TEXAS 78721
512-926-2800/TWX 512-926-0441

STANDARDS--INDUCTANCE

HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
Ando Electric Co Ltd, Ohta-ku, Tokyo	Japan
General Radio Co, West Concord	Mass
Hewlett-Packard, Palo Alto	Cal
Honeywell Test Instruments Div, Denver	Colo
Leeds & Northrup Co, Philadelphia	Pa
Singer Co, Metrics Div, Bridgeport	Conn
Sprague Electric Co, North Adams	Mass
United Transformer Co Div TRW Inc, New York	N Y

STANDARDS--PHASE

INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON	**N Y**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW	**N Y**
Acton Laboratories Inc, Acton	Mass
Advanced Energy Conversion, Menlo Park	Cal
Ad-Yu Electronics Inc, Passaic	N J
Astrosystems Inc, New Hyde Park	N Y
Dytronics Co Inc, Columbus	Ohio
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
General Resistance Inc, New York	NY
Industrial Test Equipment Co, Port Washington	N Y
Merrimac Research & Development Inc West Caldwell,	N J
North Atlantic Industries Inc, Plainview	N Y
Procedyne Corp, New Brunswick	N J
Rantec Div Emerson Electric Co, Calabasas	Cal
Singer Co, Metrics Div, Bridgeport	Conn
Theta Instrument Corp, Fairfield	N J
Western Instrument Corp, Burbank	Cal

STANDARDS--Q

HEWLETT-PACKARD, PALO ALTO	**CAL**
Hewlett-Packard, Palo Alto	Cal
Winslow Tele-Tronics Inc, Asbury Park	NJ

STANDARDS--RESISTANCE

DALE ELECTRONICS INC, COLUMBUS	**NEB**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Ando Electric Co Ltd, Ohta-ku, Tokyo	Japan
Beckman Instruments Inc, Fullerton,	Cal
Biddle Co, James G, Plymouth Meeting	Pa
Central Scientific Co, Chicago	Ill
Dale Electronics Inc, Columbus	Neb
Electro Scientific Industries Inc, Portland	Ore
General Radio Co, West Concord	Mass
General Resistance Inc, New York	NY
Guildline Instruments Ltd, Smiths Falls	Ont
Hallmark Standards Inc, Mamaroneck	N Y
Hewlett-Packard, Palo Alto	Cal
Honeywell Test Instruments Div, Denver	Colo
Julie Research Labs, Inc, New York	N Y
Keithley Instruments Inc, Cleveland	Ohio
Leeds & Northrup Co, Philadelphia	Pa
Marstan Electronics Div Balco Elctns Inc, Orange	N J
Monroe Electronics Inc, Middleport	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Rosemount Engineering Co, Minneapolis	Minn
Singer Co, Metrics Div, Bridgeport	Conn
Takeda Riken Industry Co Ltd, Tokyo	Japan
Weinschel Engineering Co Inc, Gaithersburg	Md
Winslow Tele-Tronics Inc, Asbury Park	NJ
Yokogawa Electric Works Inc, Larchmont	N Y

STANDARDS--TIME

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE	**N Y**
FORK STANDARDS INC, WEST CHICAGO	**ILL**
HEWLETT-PACKARD, PALO ALTO	**CAL**
MESON ELECTRONICS CO, INC, ROCHESTER	**N Y**
TRACOR INC, AUSTIN, TEX	**ADV PG 657**
Ad-Yu Electronics Inc, Passaic	N J
Aerospace Research, Inc, Boston	Mass
Amark Corp, Plainview	N Y
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Austron, Inc, Austin	Tex
Beckman Instruments Inc, Fullerton,	Cal
Connor-Winfield Corp, Winfield	Ill
Ebauches SA Dept Oscilloquartz 2001 Neuchatel	Switz
Ferwalt Inc W H, Lapwai	Idaho
Flow Corp, Watertown	Mass
Fork Standards Inc, West Chicago	Ill
General Radio Co, West Concord	Mass
Geo Space Systems Inc, St Petersburg	Fla
Gibbs Mfg & Research Corp, Janesville	Wis
Hewlett-Packard, Palo Alto	Cal
J A C Electronics Ltd, Camberley	England
Meson Electronics Co, Inc, Rochester	N Y
National Radio Co Inc, Melrose	Mass
Norman Laboratories, Ernst, Williams Bay	Wis
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Preston Scientific, Inc, Anaheim	Cal
Razdow Labs Inc, Newark	N J
Riverbank Labs, Dept of Engrg, Geneva	Ill
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Somerset Radiation Lab Inc, Arlington	Va
Space & Systems Div General Time Corp Stamford	Conn
Systems Electronics Inc, Cleveland	Ohio
Tracor Inc, Austin	Tex
Varian, Palo Alto	Cal
Varo Inc, Garland	Tex
Vectron Labs Inc, Stamford	Conn
Venner Electronics Ltd, New Malden, Surrey	Eng

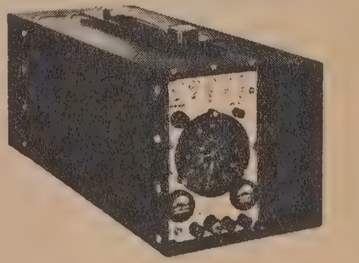
SULZER CRYSTAL CLOCKS

Model A5 generates precise (10^{-10}) time references under extreme environmental conditions. Choice of internal oscillator determines characteristics: D5 has excellent frequency stability over wide temperature range, D2.5 provides even higher frequency stability. Pulse outputs down to 1 per second, sine wave outputs at 5, 1.0 and 0.1 MHz and 10 kHz. Mechanical register indicates elapsed time in hrs., mins., seconds. Typical time lost or gained during first 24 hours after frequency adjustment, after 6 months operation, is 2 microseconds.

TRACOR™

6500 TRACOR LANE/AUSTIN, TEXAS 78721
512-926-2800/TWX 512-926-0441

GENERAL TECHNOLOGY PORTABLE ATOMIC CLOCKS



Model 307B, industry's first truly **portable** Atomic Clock transports time data between remote stations which must operate in microsecond synchronism. Operates on either internal batteries (8 or 14 hours) or 115 VAC. Incorporates proven reliability of Model 304-B, has environmentally rugged resonator unit developed for ballistic missile application. Optional Time Scale Selector permits any frequency offset in range 900×10^{-10}. Long Term Stability 5×10^{-11} (standard deviation) per year. Initial frequency setting $\pm2\times10^{-11}$ if set at the National Bureau of Standards. 7″ × 7½″ × 17⅝″, 38 pounds **with batteries.**

TRACOR™

6500 TRACOR LANE/AUSTIN, TEXAS 78721
512-926-2800/TWX 512-926-0441

STANDARD CALIBRATION SERVICES SEE CALIBRATION SERVICES

STANDING-WAVE DETECTORS SEE DETECTORS--STANDING-WAVE

STANDOFF INSULATORS SEE INSULATORS--ANTENNA

STATIC CONTROLS SEE REACTORS--SATURABLE;AMPLIFIERS--MAGNETIC

STATIC RELAYS SEE RELAYS

STEATITE SEE CERAMICS

STEEL

SUPERIOR TUBE CO, NORRISTOWN	**PA**
UNIFORM TUBES INC, COLLEGEVILLE	**PA**
Allegheny Ludlum Steel Corp, Pittsburgh	Pa
Armco Steel Corp, Middletown	Ohio
Carpenter Steel Co, Reading	Pa
Crucible Steel Co, Pittsburgh	Pa
Eastern Rolling Mills Inc, New York	N Y
Hamilton Precision Metals Div Hamilton Watch Co Lancaster	Pa
Mackay Inc, A D, New York	N Y
National Steel Service Center Inc, Evanston	Ill
Republic Steel Corp, Cleveland	Ohio
Rodney Metals A Teledyne Co, New Bedford	Mass
Ryerson & Son Inc, J T, Chicago	Ill
Superior Tube Co, Norristown	Pa
Timken Roller Bearing Co, Canton	Ohio
Uniform Tubes Inc, Collegeville	Pa
U S Steel Corp, Pittsburgh	Pa
Universal-Cyclops Specialty Steel Div Cyclops Corp Pittsburgh	Pa

STEEL--ELECTRIC (FOR CORES)

Allegheny Ludlum Steel Corp, Pittsburgh	Pa
Alloys Unlimited Inc, Melville	N Y
Armco Steel Corp, Middletown	Ohio
Carpenter Steel Co, Reading	Pa
Hamilton Precision Metals Div Hamilton Watch Co Lancaster	Pa
Special Metals Corp, New Hartford	NY
Thomas & Skinner Inc, Indianapolis	Ind
Universal-Cyclops Specialty Steel Div Cyclops Corp Pittsburgh	Pa

STEEL--STAINLESS

PFIZER MINERALS, PIGMENTS & METALS DIV NEW YORK	**NY**
STAR STAINLESS SCREW CO, PATERSON	**N J**
SUPERIOR TUBE CO, NORRISTOWN	**PA**
UNIFORM TUBES INC, COLLEGEVILLE	**PA**
Active Alloys Inc, Brooklyn	N Y
Allegheny Ludlum Steel Corp, Pittsburgh	Pa
American Silver Co Div, Flushing	N Y
Armco Steel Corp, Middletown	Ohio
Carpenter Steel Co, Reading	Pa
Chase Metals Service Div Chase Brass & Copper Co Cleveland	Ohio
Crucible Steel Co, Pittsburgh	Pa
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Glidden Metals, SCM Corp, Cleveland	Ohio
Hamilton Precision Metals Div Hamilton Watch Co Lancaster	Pa
Harper Co, H M, Morton Grove	Ill
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia	Pa
Laser Optics Inc, Danbury	Conn
Mackay Inc, A D, New York	N Y
National Steel Service Center Inc, Evanston	Ill
Pfizer Minerals, Pigments & Metals Div, New York	NY
Porter Co Inc H K, Fabricated Metals Div Pittsburgh	Pa
Republic Steel Corp, Cleveland	Ohio
Rodney Metals A Teledyne Co, New Bedford	Mass
Ryerson & Son Inc, J T, Chicago	Ill
Somers Thin Strip Inc Sub Olin, Waterbury	Conn
Special Metals Corp, New Hartford	NY
Star Stainless Screw Co, Paterson	N J
Superior Tube Co, Norristown	Pa
Timken Roller Bearing Co, Canton	Ohio
Uniform Tubes Inc, Collegeville	Pa
Universal-Cyclops Specialty Steel Div Cyclops Corp Pittsburgh	Pa
Wallingford Steel Co, Wallingford	Conn

STEPPING MOTORS SEE MOTORS

STEPPING SWITCHES SEE RELAYS--STEPPING;SWITCHES--MULTICONTACT

STERILIZERS--MEDICAL SEE ULTRASONIC EQUIPMENT

STORAGE BATTERIES SEE BATTERIES

STORAGE TUBES SEE TUBES--CATHODE RAY

STRAIGHTENERS--TUBE PIN

Ercona Corp, New York	N Y
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Haydu Products Inc, Opa Locka	Fla
Seco Electronics Corp, Hopkins	Minn
Smith Inc, Herman H, Brooklyn	N Y
Workman Electronic Products Inc, Sarasota	Fla

STRAIN GAGES SEE GAGES--STRAIN

STRAIN INDICATORS SEE INDICATORS--STRAIN

STRAIN INSULATORS SEE INSULATORS--ANTENNA

STRAIN RELIEFS SEE RELIEFS--STRAIN

STRETCHERS--LINE, MICROWAVE

DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK	**N Y**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Aircom Inc, Union	N H
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alford Mfg Co, Winchester	Mass
Applied Engineering Prods Div Samarius Inc Ansonia	Conn
Astrolab Inc, Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
Bart Microwave Div Bart Mfg Corp, Newark	N J
Bishop Instrument, Portland	Maine
Diamond Antenna & Microwave Corp, Winchester	Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam	N Y
General Microwave Corp, Farmingdale	N Y
General Radio Co, West Concord	Mass
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hewlett-Packard, Palo Alto	Cal
Maury Microwave Corp, Montclair	Cal
MCS Corp, Monrovia	Cal
Microlab/F X R, Livingston	N J
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Labs of America, Brooklyn	N Y
Neico Microwave Co, Waltham	Mass
Omega Laboratories Inc, Rowley	Mass
Rantec Div Emerson Electric Co, Calabasas	Cal
RLC Electronics Inc, Port Chester	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Weinschel Engineering Co Inc, Gaithersburg	Md

STRIP-LINE COMPONENTS--MICROWAVE (INCL FILTERS)

AMPHENOL, DANBURY, CONN	**ADV PG 658**
ANAREN MICROWAVE INC, SYRACUSE, N Y	**ADV PG 658**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	**ADV PGS 58,59**
FERROTEC INC, NEWTON	**MASS**
HEWLETT-PACKARD, PALO ALTO	**CAL**
LEL DIV VARIAN ASSOCIATES, COPIAGUE	**N Y**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
RADAR DESIGN CORP, SYRACUSE	**N Y**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
TRG DIV CONTROL DATA CORP, EAST BOSTON MASS	**ADV PG 418**
VARI-L CO INC, STAMFORD	**CONN**
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alpha Industries Inc, Newton Upper Falls	Mass
American Electronic Labs Inc, Lansdale	Pa
American Radar Components, Inc, Denville	N J
Amphenol, Danbury	Conn
Anaren Microwave Inc, Syracuse	N Y
Applied Microwave Lab, Inc, Andover	Mass
Applied Research, Inc, Port Washington	N Y
Ark Electronics, Inc, Willow Grove	Pa
Astrolab Inc, Linden	N J

Specify Amphenol.
The leading name
in Waveguide
Components.

Custom filters, directional couplers, detectors, hybrid junctions, waveguide to coax transitions, loads, mixers, modulators, attenuators, antenna components

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL

STRIPLINE
COMPONENTS
BY ANAREN*

Wide range of components offering • Size/Weight/Cost reductions • High reliability • Superior performance • Ready availability • Flexibility to meet requirements.

Look to ANAREN* for dependability and quick delivery of:

Amplifiers
Couplers (Hybrids)
Mixers
Power Combiners/Dividers
Correlators
Discriminators
Antenna Feeds
SSB Modulators

ANAREN MICROWAVE, INC.
478 EAST BRIGHTON AVE., SYRACUSE, N Y 13210
Phone: 315-475-1621 TWX 710-541-1507

*TM ANAREN MICROWAVE INC.

Automatic Metal Products Corp, Brooklyn	N Y
Aviation Electric Ltd, St Laurent, Montreal	Que
Aviel Electronics, Inc, Van Nuys	Cal
Bendix Corp, Communications Div, Towson	Md
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Electromagnetic Technology Corp, Mountain View	Cal
Electronic Components Div United Aircraft Corp Trevose	Pa
Electronic Specialty Co, Los Angeles	Cal
Electronic Standards Corp, Plainfield	N J
Elpac Inc Systems Div RF, Irvine	Cal
Ferrotec Inc, Newton	Mass
Film Components Div Reon Resister Corp, Yonkers	N Y
Filmohm Corp, Long Island City	N Y
Frequency Engineering Labs, Farmingdale	N J
Fujitsu Ltd, Tokyo	Japan
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hewlett-Packard, Palo Alto	Cal
Honig Laboratories Inc, Westbury	N Y
Hyletronics Corp, Wilmington	Mass
Indit Corp, Albertson	N Y
Lel Div Varian Associates, Copiague	N Y
MCS Corp, Monrovia	Cal
Melabs, Palo Alto	Cal
Meridian Metalcraft Inc, Whittier	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Mi-Kro Connector Corp, Long Island City	N Y
M-O Valve Co Ltd, Hammersmith, London W6	Eng
Narda Microwave Corp, Plainview	N Y
Neico Microwave Co, Waltham	Mass
Omega Laboratories Inc, Rowley	Mass
Omni Spectra Inc, Farmington	Mich
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Phelps Dodge Electronic Products Corp North Haven	Conn
Polymer Corp, Reading	Pa
Premier Microwave Corp, Port Chester	N Y
Radar Design Corp, Syracuse	N Y
Radiation Systems Inc, McLean	Va
Rantec Div Emerson Electric Co, Calabasas	Cal
R H G Electronics Lab Inc, Farmingdale	N Y
Sanders Associates, Inc, Nashua	N H
Scientific-Atlanta Inc, Atlanta	Ga
Sedco Systems Inc, Farmingdale	N Y
Star Tronics Inc, Georgetown	Mass
TRG Div Control Data Corp, East Boston	Mass
Varian, Palo Alto	Cal
Vari-L Co Inc, Stamford	Conn
Vector Industries A Teledyne Co, Palo Alto	Cal
Vega Precision Labs, Vienna	Va
Western Microwave Labs Inc, Santa Clara	Cal

STRIPPERS, WIRE--AUTOMATIC

EWALD INSTRUMENTS CORP, KENT, CONN	**ADV PG 659**
GAGNE ASSOCIATES INC, BINGHAMTON	**N Y**
Artos Engineering Co, New Berlin	Wis
Carpenter Mfg Co Inc, Manlius	NY
Eraser Co Inc, Syracuse	NY
Eubanks Engineering Co, Monrovia	Cal
Ewald Instruments Corp, Kent	Conn
Gagne Associates Inc, Binghamton	N Y
Gore & Assoc Inc, W L, Newark	Del
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Industrial Winding Machinery Corp, River Edge	N J
Kent Corp, Mundelein	Ill
Keymox Inc, Whittier	Cal
Manger Electric Co Inc, Stamford	Conn
Muirhead Instruments Inc, Mountainside	N J
Philmore Mfg Co Inc, Richmond Hill	N Y
Technical Devices Co, Culver City	Cal
Techni-Tool Inc, Philadelphia	Pa
Thomas Instrument Co, Phoenix	N Y
Western Electronic Products Co, San Clemente	Cal

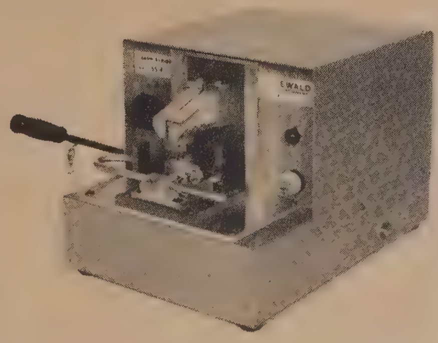
STRIPPERS, WIRE--CHEMICAL

Chemclean Corp, College Point	N Y
Clarkson Labs Inc, Camden	NJ
Division Lead Co, Summit	Ill
Dynaloy, Inc, Hanover	N J
Enthone Inc, New Haven	Conn
Fidelity Chemical Products Corp, Newark	N J
Hi-Grade Alloy Corp, East Hazelcrest	Ill
Isochem Resins Co, Lincoln	RI
Lea Mfg Co, Waterbury	Conn
London Chemical Co Inc, Melrose Park	Ill
Mann Co, Henry, Cornwell Heights	Pa
Mereco Prods Inc, Div Metachem Resins Corp Cranston	RI
Mona Industries Inc, Paterson	N J
M & T Chemicals Inc Sub American Can Co Rahway	N J
Oakite Products Inc, Berkeley Heights	N J
Omega Engineering Inc, Stamford	Conn

STRIPPERS, WIRE--HAND

AMPHENOL, BROADVIEW	**ILL**
EWALD INSTRUMENTS CORP, KENT	**CONN**
GAGNE ASSOCIATES INC, BINGHAMTON	**N Y**
Aerospace Systems A Teledyne Co, Fairmont	Minn
Aerovox Corp Distr Sales, New Bedford	Mass
Aircraft Components Inc, Benton Harbor	Mich
Amphenol, Broadview	Ill
Bailey Co, Washington	D C
Blonder-Tongue Labs Inc, Newark	N J
Carpenter Mfg Co Inc, Manlius	NY
Clauss Cutlery Co Div Alco Standard Corp Fremont	Ohio
Clinton Instrument Co, Clinton	Conn
Douglas Div Kingston Products Corp, Bronson	Mich
Engineering & Electronic Devices Inc, Los Angeles	Cal
Ewald Instruments Corp, Kent	Conn
Gagne Associates Inc, Binghamton	N Y
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Hardware Mfg Co Inc, New York	N Y
Holub Industries Inc, Sycamore	Ill
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Ideal Industries Inc, Sycamore	Ill
Janel Inc, Stirling	N J
Jonard Industries Corp, Bronx	N Y
Kinetics A Teledyne Co, Solana Beach	Cal
Klein & Sons Inc, Mathias, Chicago	Ill
MacDonald & Co, Glendale	Cal
Mann Co, Henry, Cornwell Heights	Pa
Martindale Electric Co, Cleveland	Ohio
Micronics Corp of America, Providence	RI
Omega Engineering Inc, Stamford	Conn
Philmore Mfg Co Inc, Richmond Hill	N Y
Stevens Mfg Co Inc, Geo, Chicago	Ill
Techni-Tool Inc, Philadelphia	Pa
Triple A Specialty Co, Chicago	Ill
Utica-Bonney Tools, Kelsey-Hayes Co, Orangeburg	S C
Vaco Products Co, Chicago	Ill
Wenco Mfg Co (Simplex), Chicago	Ill
Western Electronic Products Co, San Clemente	Cal

EWALD
FLASH STRIPPER®
for shielding braid



The model SS 41 Flash Stripper is designed to sever braided wire shielding on co-axial cables. It requires no particular skill or training to set up and to use. It can process copper, steel, stainless steel or other metallic shielding.

Braid is melted, not cut.
No damage to insulation.
Wire ends are fused together.

EWALD INSTRUMENTS CORP.
KENT, CONN. 06757

STRIPPERS, WIRE--HOT WIRE

American Electrical Heater Co, Detroit	Mich
Contact, Inc, Hudson	N H
Eraser Co Inc, Syracuse	NY
Henes Mfg Co, Phoenix	Ariz
Ideal Industries Inc, Sycamore	Ill
Janel Inc, Stirling	N J
Jonard Industries Corp, Bronx	N Y
Keymox Inc, Whittier	Cal
Kinetics A Teledyne Co, Solana Beach	Cal
Mann Co, Henry, Cornwell Heights	Pa
Micronics Corp of America, Providence	RI
Pioneer Magnetics Inc, Santa Monica	Cal
Techni-Tool Inc, Philadelphia	Pa
Western Electronic Products Co, San Clemente	Cal
Zephyr Mfg Co Inc, Inglewood	Cal

STRIP-TRANSMISSION LINES--MICROWAVE

DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	**ADV PGS 58,59**
MEGADYNE INDUSTRIES INC, ROCHESTER	**N Y**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Astrolab Inc, Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
Aviel Electronics, Inc, Van Nuys	Cal
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electronic Standards Corp, Plainfield	N J
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hyletronics Corp, Wilmington	Mass
MCS Corp, Monrovia	Cal
Megadyne Industries Inc, Rochester	N Y
Melabs, Palo Alto	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Micro-Radionics Inc, Van Nuys	Cal
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Premier Microwave Corp, Port Chester	N Y
Radiation Systems Inc, McLean	Va
Sanders Associates, Inc, Nashua	N H
Terra Corp, Albuquerque	N M
Vega Precision Labs, Vienna	Va

STROBOSCOPES

C M L INC, PLAINFIELD	**N J**
Amstro Corp, Fairfield	N J
B & K Instruments Inc of Bruel & Kjaer Cleveland	Ohio
Central Scientific Co, Chicago	Ill
Chadwick Helmuth Co Inc, Monrovia	Cal
C M L Inc, Plainfield	N J
Conn Corp, Elkhart	Ind
Dawe Instruments Ltd, London W3	England
Dytronics Co Inc, Columbus	Ohio
E G & G Inc, Electronic Prods Div, Boston	Mass
Electronic Brazing Co, Montclair	N J
Electro Powerpacs Corp, Cambridge	Mass
Epic Inc, New York	N Y
General Radio Co, West Concord	Mass
Ionics Inc, Electronics Div, Watertown	Mass
Kahl Scientific Instrument Corp, El Cajon	Cal
Nichols Co Ltd, R H, Downsview	Ont
Park Products Engineering Co Inc, Tinley Park	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Power Instruments Inc, Skokie	Ill
Slaughter Co, Ardmore	Okla
Stark Electronic Instruments Ltd, Ajax	Ont
Sticht Co Inc, Herman H, New York	N Y
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Tenney Engineering Inc, Union	N J
U S Scientific Instruments Inc, Watertown	Mass

STROBOSCOPIC LAMPS SEE LAMPS

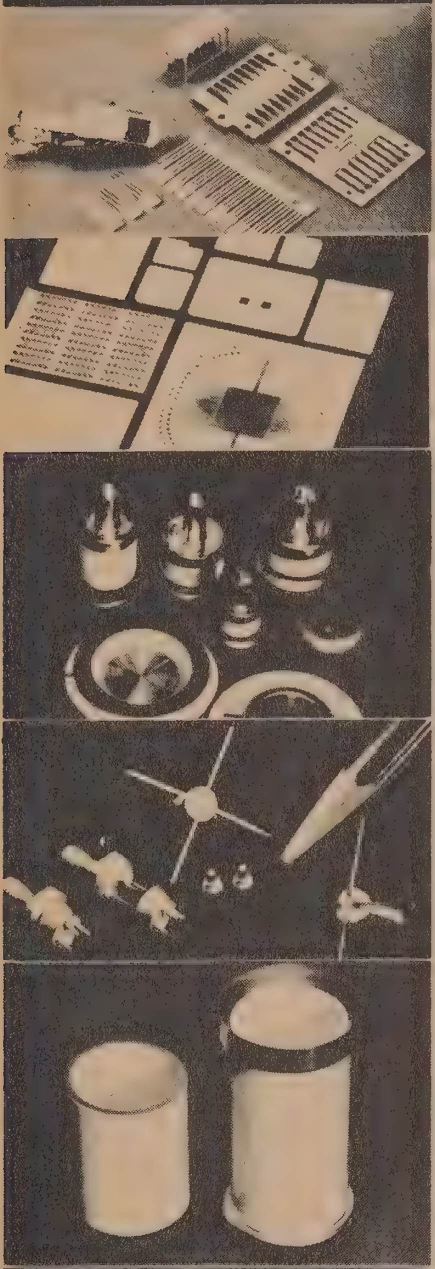
STRONTIUM--STRONTIUM COMPOUNDS

Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Barium and Chemicals, Inc, Steubenville	Ohio
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerac Inc, Butler	Wis
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Foote Mineral Co, Exton	Pa
King Laboratories Inc, Syracuse	N Y
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mallinckrodt Chemical Works, St Louis	Mo
Metal Ceram Inc, Mount Vernon	N Y
3M Company, St Paul	Minn
Rocky Mountain Research Inc, Denver	Colo
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Corp Metal Hydrides Div, Beverly	Mass

SUBCARRIER OSCILLATOR SEE OSCILLATORS--R-F

SUBMINIATURE LAMPS SEE LAMPS

NTK
for better metalized
electro-ceramics.



NTK products are mass-produced under rigid quality-control.
They include
- Rectifier Containers
- Transistor Headers
- Transistor Packages
- Varactors
- I.C. Substrates & Packages
- Hermetic Terminals
- Output windows
- Envelope for Vacuum Circuit Breakers

For further information, call or write to:
NGK SPARK PLUGS (U.S.A.), INC.
4010 Sawtelle Blvd., Los Angeles, California 90066 Phone: 213-397-8184
NGK SPARK PLUG CO., LTD.
NTK Special Ceramics Division
Mizuho-ku, Nagoya, Japan
Cable: PLUGNGK NAGOYA

SUBSTRATES--CERAMIC

AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE WIS	**ADV PG 411**
FUSITE CORP, CINCINNATI	**OHIO**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
KYOTO CERAMIC CO LTD, NAKAGYO-KU, KYOTO	**JAPAN**
NGK SPARK PLUG CO LTD, MIZUHO-KU NAGOYA JAPAN	**ADV PG 660**
Alloys Unlimited Inc, Melville	N Y
American Feldmuehle Corp, Glenbrook	Conn
American Lava Corp, Chattanooga	Tenn
American Technical Ceramics, Huntington Station	N Y
Applied Magnetics Corp, Ferrite Head Div Santa Barbara	Cal
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Brush Beryllium Co, Cleveland	Ohio
Carborundum Co Electrical & Elctns Br, Niagara Falls	NY
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Ceramics International Corp, Mahwah	NJ
Consolidated Ceramics & Metalizing Corp Flemington	N J
Coors Co Inc, H F, Inglewood	Cal
Coors Porcelain Co, Golden	Colo
Corning Glass Works, Corning	N Y
Custom Materials Inc, Chelmsford	Mass
Device Seals Inc, Sun Valley	Cal
Erie Technological Products Inc, Erie	Pa
Frenchtown/CFI Inc, Frenchtown	N J
Fusite Corp, Cincinnati	Ohio
General Electric Co, ECSO, Schenectady	N Y
Glass Beads Co, Latrobe	Pa
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead	Cal
Impectron Inc, New York	N Y
Jones Optical Works Inc A D, Burlington	Mass
Keith Co Inc, W P, Pico Rivera	Cal
Kyoto Ceramic Co Ltd, Nakagyo-ku, Kyoto	Japan
LCC-CICE, 93 Montreuil-sous-Bois	France
Linden Labs Inc, State College	Pa
Maryland Lava Co Inc, Bel Air	Md
Meller Co, Adolf, Providence	R I
Metal Ceram Inc, Mount Vernon	N Y
Metalized Ceramics Corp, Providence	R I
Mindrum Precision Products, Cucamonga	Cal
3M Company, St Paul	Minn
Mitronics Inc, Murray Hill	N J
National Beryllia Corp, Haskell	N J
NGK Spark Plug Co Ltd, Mizuho-ku Nagoya	Japan
Saxonburg Ceramics Inc, Pittsburgh	Pa
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
Steward Mfg Co, D M, Chattanooga	Tenn
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Thermal American Fused Quartz Co, Montville	N J
Union Carbide Corp, Carbon Products Div New York	N Y
United Mineral & Chemical Corp, New York	N Y
U S Stoneware Inc, Orville Plant, Orrville	Ohio
Veritron West Inc, Chatsworth	Cal
Vitta Corp, Wilton	Conn
Western Gold & Platinum Co, Belmont	Cal

SUBSTRATES--GLASS

FUSITE CORP, CINCINNATI	**OHIO**
Atlantic Optical Moulding Co, Dudley	Mass
Bentley-Harris Mfg Co, Conshohocken	Pa
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Corning Glass Works, Corning	N Y
Device Seals Inc, Sun Valley	Cal
Fish-Schurman Corp, New Rochelle	N Y
Fusite Corp, Cincinnati	Ohio
Glass Beads Co, Latrobe	Pa
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead	Cal
Intellux Inc, Goleta	Cal
Interman Industrial Products Ltd, Garden City	NY
Jones Optical Works Inc A D, Burlington	Mass
Laser Optics Inc, Danbury	Conn
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
Metal Ceram Inc, Mount Vernon	N Y
Mindrum Precision Products, Cucamonga	Cal
Optics Electronics Corp, Dallas	Tex
O & S Research Inc, Riverton	N J
Pacific Universal Products Corp, Pasadena	Cal
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
Spectrum Systems, Inc, Waltham	Mass
Vitta Corp, Wilton	Conn

SUBSTRATES--THIN FILM

AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
ANDERSEN LABORATORIES, INC, BLOOMFIELD	**CONN**
MEGADYNE INDUSTRIES INC, ROCHESTER	**N Y**
Alloys Unlimited Inc, Melville	N Y
American Lava Corp, Chattanooga	Tenn
American Technical Ceramics, Huntington Station	N Y
Andersen Laboratories, Inc, Bloomfield	Conn
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Carborundum Co Electrical & Elctns Br, Niagara Falls	NY
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Coors Porcelain Co, Golden	Colo
Dilectrix Corp, Farmingdale	N Y
Fish-Schurman Corp, New Rochelle	N Y
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead	Cal
Intellux Inc, Goleta	Cal
Interman Industrial Products Ltd, Garden City	NY
Isomet Corp, Palisades Park	N J
Jones Optical Works Inc A D, Burlington	Mass
Laser Optics Inc, Danbury	Conn
LCC-CICE, 93 Montreuil-sous-Bois	France
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Lek-Trol, Inc, Grapevine	Tex
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
Materials Research Corp, Orangeburg	N Y
Megadyne Industries Inc, Rochester	N Y
Meller Co, Adolf, Providence	R I
Metal Ceram Inc, Mount Vernon	N Y
Metalized Ceramics Corp, Providence	R I
3M Company, St Paul	Minn
Pacific Universal Products Corp, Pasadena	Cal
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
Spectrum Systems, Inc, Waltham	Mass
Union Carbide Corp, Carbon Products Div New York	N Y
Varo Inc, Garland	Tex
Varo Inc Microcircuit Products Div, Garland	Tex
Veritron West Inc, Chatsworth	Cal
Vitta Corp, Wilton	Conn

SUPPRESSORS

DALE ELECTRONICS INC, COLUMBUS	**NEB**
Chomerics, Inc, Arlington	Mass
Continental-Wirt Electronics Corp, Philadelphia	Pa
Dale Electronics Inc, Columbus	Neb
Delco Radio Div General Motors Corp, Kokomo	Ind
Eastern Delta Corp, Fair Lawn	N J
Estes Engineering Co, Gardena	Cal
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Green Rectifier Corp, Fair Lawn	N J
Philmore Mfg Co Inc, Richmond Hill	N Y
Semikron International Inc, Scarsdale	N Y

SUPPRESSORS--NOISE SEE FILTERS

SURGE PROTECTORS SEE PROTECTORS--SURGE

SURPLUS EQUIPMENT SEE SEARCHLIGHT SECTION

SURVEYING EQUIPMENT--GEOPHYSICAL & MINERAL SEE GEOPHYSICAL APPARATUS

SWEEP AMPLIFIERS SEE AMPLIFIERS--R-F

SWEEP CALIBRATORS SEE GENERATORS--SIGNAL

SWEEP OSCILLATORS SEE GENERATORS--SIGNAL,R-F SWEEP

SWITCHES--BAROMETRIC

COMPUTER INSTRUMENTS CORP, HEMPSTEAD N Y	**ADV PGS 488-490**
HYDRA-ELECTRIC CO, BURBANK	**CAL**
Aero Mechanism, Inc, Van Nuys	Cal
Bendix Corp Environmental Science Div, Baltimore	Md
Bourns Inc Instrument Div, Riverside	Cal
Bristol Div, American Chain & Cable Co Waterbury	Conn
Computer Instruments Corp, Hempstead	N Y
Consolidated Controls Corp, El Segundo	Cal
Consolidated Controls Corp, Bethel	Conn
Cook Electric Co Automatic Controls Div, Palatine	Ill
Custom Component Switches Inc, Chatsworth	Cal
Datametrics Inc, Waltham	Mass
Dowa Trading Co Ltd, Kobe	Japan
Fairchild Controls, Hicksville	N Y
Garrett Corp, Los Angeles	Cal
Gorn Corp, Stamford	Conn
Hydra-Electric Co, Burbank	Cal
Lear Siegler Inc, Romec Div, Elyria	Ohio
Meletron Corp, Los Angeles	Cal
NUS Corp, Underwater Sys Div, Paramus	N J
Precision Sensors Inc, Bridgeport	Conn
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Sparton Southwest Inc, Albuquerque	NM
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
UOP Instruments Div, Greenwich	Conn

SWITCHES--ELECTROCHEMICAL (LIQUID)

CHICAGO SWITCH F & F, CHICAGO	**ILL**
Acoustica Associates Inc, Los Angeles	Cal
Autocon Industries, Inc, St Paul	Minn
Bergen Lab, Inc, Paterson	N J
Chicago Switch F & F, Chicago	Ill
Dowa Trading Co Ltd, Kobe	Japan
Meletron Corp, Los Angeles	Cal
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Vapor Corp, Chicago	Ill

SWITCHES--EXPLOSIVE-ACTUATED

CHICAGO SWITCH F & F, CHICAGO	**ILL**
HYDRA-ELECTRIC CO, BURBANK	**CAL**
Chicago Switch F & F, Chicago	Ill
Consolidated Controls Corp, El Segundo	Cal
Dowa Trading Co Ltd, Kobe	Japan
Gray & Huleguard Inc, Santa Monica	Cal
Hydra-Electric Co, Burbank	Cal
Milli-Switch Corp, Gladwyne	Pa
Raymond Engineering Inc, Middletown	Conn
Research Inc, R-I Controls Div, Minneapolis	Minn
SieBelAir Co, Los Angeles	Cal
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Vapor Corp, Chicago	Ill
Varian, Palo Alto	Cal

SWITCHES--FLOAT

GENERAL ELECTRIC CO, ECSO, SCHENECTADY	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
ROBERTSHAW CONTROLS CO, ACRO DIV, COLUMBUS OHIO	**ADV PG 661**
Adel Div De Laval Turbine Calif Inc, Burbank	Cal
Allen-Bradley Co, Milwaukee	Wis
Allis-Chalmers Mfg Co, Milwaukee	Wis
Autocon Industries, Inc, St Paul	Minn
Automation Products, Inc, Houston	Tex
Consolidated Controls Corp, El Segundo	Cal
Controlotron Corp, Farmingdale	N Y
Controls Co of America, Schiller Park	Ill
Cutler-Hammer Inc, Milwaukee	Wisc
Divac Electronics, Hawthorne	Cal
Dowa Trading Co Ltd, Kobe	Japan
Fulton Sylphon Div Robertshaw Controls Co Knoxville	Tenn
Furnas Electric Co, Batavia	Ill
Gems Co Inc, Farmington	Conn
General Control Co, Boston	Mass
General Electric Co, ECSO, Schenectady	N Y
Gorn Corp, Stamford	Conn
In-Val-Co, Tulsa	Okla
La Telemecanique Electrique, 92 Rueil	France
Madison Labs, Inc, Madison	Conn
Magnetrol Inc, Downers Grove	Ill
McDonnell & Miller Inc, Chicago	Ill
Meletron Corp, Los Angeles	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Precision Sensors Inc, Bridgeport	Conn
Relay & Control Corp, Long Island City	N Y
Revere Corp of America, Wallingford	Conn
Robertshaw Controls Co, Acro Div, Columbus	Ohio
Square D Co, Park Ridge	Ill
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
United Control Corp, Redmond	Wash
UOP Instruments Div, Greenwich	Conn
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

SWITCHES--FOOT

CHICAGO SWITCH F & F, CHICAGO	**ILL**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
INDUSTRIAL TIMER CORP, PARSIPPANY	**N J**
MICRO SWITCH DIV, HONEYWELL, FREEPORT	**ILL**
Allen-Bradley Co, Milwaukee	Wis
Allis-Chalmers Mfg Co, Milwaukee	Wis
American Solenoid Co, Inc, Rahway	N J
Barwood Electronics, Inc, Glendale	Cal
Birtcher Corp, Industrial Div, Monterey Park	Cal
Chicago Switch F & F, Chicago	Ill
Clark Control Div, A O Smith Corp, Cleveland	Ohio
Cole-Hersee Co, S Boston	Mass
CTS Electronics Inc, South Pasadena	Cal
Cutler-Hammer Inc, Milwaukee	Wisc
Divac Electronics, Hawthorne	Cal
Douglas Div Kingston Products Corp, Bronson	Mich
Dowa Trading Co Ltd, Kobe	Japan
Furnas Electric Co, Batavia	Ill
General Control Co, Boston	Mass
General Electric Co, ECSO, Schenectady	N Y
H M H Industries, Huntington Beach	Cal
Industrial Timer Corp, Parsippany	N J
La Telemecanique Electrique, 92 Rueil	France
Lektra Labs Inc Div Kriser Corp, College Point	N Y
Leviton Mfg Co Inc, Brooklyn	N Y
Line Electric Co, Parsippany	N J
Mackworth Rees Div, Madison Heights	Mich
McGill Mfg Co Inc, Electrical Div, Valparaiso	Ind
Micro Switch Div, Honeywell, Freeport	Ill
Partrick & Wilkins Co, Philadelphia	Pa
Republic Industrial Corp, Lathrup Village	Mich
Risk Industries Inc, George, Columbus	Neb
Rowe Industries Inc, Toledo	Ohio
Rye Industries, Inc, Mamaroneck	N Y
Square D Co, Park Ridge	Ill
Tapeswitch Corp of America, Farmingdale	N Y
Techni-Tool Inc, Philadelphia	Pa
Vemaline Products Co, Inc, Wycoff	N J
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

MILGRAY STOCKS SWITCHES

Every kind you can imagine. (And some you can't.) From stockpiles strategically located for overnight or faster delivery to anywhere in the world. We stock more so you can worry less. A call to your local Milgray man will start the motion.

MILGRAY

Milgray/New York 212-YU 9-1600
Milgray/Delaware Valley 215-BA 8-2000
Milgray/Washington 301-864-1111
Milgray/Cleveland 216-881-8800
Milgray/International 212-YU 9-1600
Milgray/New England, Inc. 617-272-6800

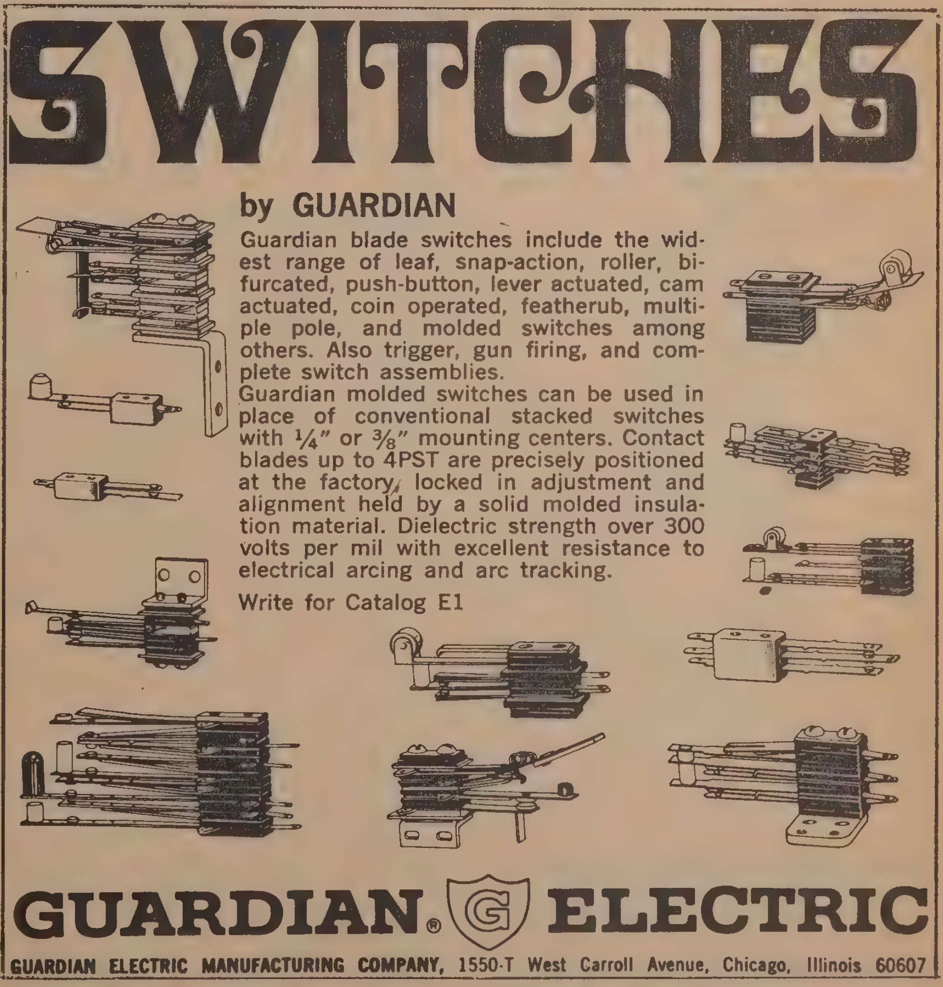
Robertshaw

PRECISION SWITCHES

SALES OFFICES

PHONE
ATLANTA, GEORGIA (30315) 404-762-5548
3349C Hamilton Blvd., SW
BOSTON, MASSACHUSETTS (02021) 617-828-5155
480 Neponset St., Canton, Mass.
CHICAGO, ILLINOIS (60007) 312-569-2200
190 Gordon St., Elk Grove Village
CLEVELAND, OHIO (44102) 216-391-0530
6116 St. Clair Ave.
COLUMBUS, OHIO (43119) 614-878-5071
223 Koebel-Suydam Rd., Galloway, Ohio
DETROIT, MICHIGAN (48227) 313-272-5000
13333 Puritan Ave.
FORT LAUDERDALE, FLORIDA (33306) 305-564-1477
W. Chester Smith (Agent), 2000 N.E. 26th Dr.
LOS ANGELES, CALIFORNIA (92803) 714-774-8410
1601 S. Manchester Blvd., Anaheim, Calif. (Anaheim)
NEW YORK, NEW YORK (11368) 212-899-4550
86-35 43rd Ave., Corona, N.Y.
PARAMUS, NEW JERSEY (07652) 201-265-6670
600 Industrial Ave.
PHOENIX, ARIZONA (85001) 602-258-7893
Shefler-Kahn (Agent) P.O. Box 1587
SAN FRANCISCO, CALIFORNIA (94103) 415-392-6947
967 Howard St.
ST. LOUIS, MISSOURI (63042) 314-432-1260
11645 Adie Rd., Maryland Heights, Missouri
SEATTLE, WASHINGTON, (98108) 206-762-7373
C. B. Parsons (Agent), 5319 4th Ave. South
SPRINGFIELD, MASSACHUSETTS (01118) 413-734-8410
24 Wayside St.

Robertshaw
ACRO DIVISION
P.O. BOX 449, COLUMBUS, OHIO 43216
PHONE 614-875-2351



SWITCHES

by GUARDIAN

Guardian blade switches include the widest range of leaf, snap-action, roller, bifurcated, push-button, lever actuated, cam actuated, coin operated, featherub, multiple pole, and molded switches among others. Also trigger, gun firing, and complete switch assemblies.

Guardian molded switches can be used in place of conventional stacked switches with 1/4" or 3/8" mounting centers. Contact blades up to 4PST are precisely positioned at the factory, locked in adjustment and alignment held by a solid molded insulation material. Dielectric strength over 300 volts per mil with excellent resistance to electrical arcing and arc tracking.

Write for Catalog E1

GUARDIAN® ELECTRIC

GUARDIAN ELECTRIC MANUFACTURING COMPANY, 1550-T West Carroll Avenue, Chicago, Illinois 60607

SWITCHES--ILLUMINATED, PUSHBUTTON

AMERICAN ZETTLER, INC, COSTA MESA	**CAL**
BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
CAPITOL MACHINE & SWITCH CO, DANBURY CONN	**ADV PG 662**
CHICAGO DYNAMIC INDUSTRIES INC, PRECISION PRODS DIV CHICAGO	**ILL**
CHICAGO SWITCH F & F, CHICAGO	**ILL**
DIGITRAN CO, PASADENA	**CAL**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GRAYHILL INC, LA GRANGE	**ILL**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
MICRO SWITCH DIV, HONEYWELL, FREEPORT ILL	**ADV PG 662**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
Alco Electronic Products, Inc, Lawrence	Mass
Allen-Bradley Co, Milwaukee	Wis
American Solenoid Co, Inc, Rahway	N J
American Zettler, Inc, Costa Mesa	Cal
Avnet Electronics, Westbury	N Y
Bowmar Instrument Corp, Fort Wayne	Ind
Cable Electric Products Inc, Providence	R I
Capitol Machine & Switch Co, Danbury	Conn
Carling Electric Inc, West Hartford	Conn
Carter Precision Electric Co, Skokie	Ill
Chicago Dynamic Industries Inc, Precision Prods Div Chicago	Ill
Chicago Switch F & F, Chicago	Ill
Clare-Pendar Co, Post Falls	Idaho
Clark Control Div, A O Smith Corp, Cleveland	Ohio
Cole-Hersee Co, S Boston	Mass
Control Switch Div Controls Co of America, Folcroft	Pa
Cutler-Hammer Inc, Milwaukee	Wisc
Dialight Corp, Brooklyn	N Y
Digitran Co, Pasadena	Cal
Dowa Trading Co Ltd, Kobe	Japan
Eagle Electric Mfg Co Inc, Long Island City	N Y
Eldema Div Genisco Technology Corp, Compton	Cal
Electro-Mech Components Inc, San Gabriel	Cal
Ericsson Centrum Inc, New York	N Y
Fitre, 20143 Milano	Italy
Fujitsu Ltd, Tokyo	Japan
Furnas Electric Co, Batavia	Ill
General Control Co, Boston	Mass
General Electric Co, ECSO, Schenectady	N Y
Grayhill Inc, La Grange	Ill
Grimes Mfg Co, Urbana	Ohio
Hayakawa Electric Co Ltd, Osaka	Japan
Haydon Switch & Instrument Inc, Waterbury	Conn
Impectron Inc, New York	N Y
Industrial Devices Inc, Edgewater	N J
ITT Europe Inc Components Gp, Brussels 1	Belgium
Jav-El Products Inc, Gardena	Cal
Kameco Ltd, Montreal	Que
Kirkland Co, H R, Morristown	N J
Korry Mfg Co, Seattle	Wash
La Telemecanique Electrique, 92 Rueil	France
Leecraft Mfg Co Inc, Long Island City	N Y
Licon Div, Illinois Tool Works Inc, Chicago	Ill
Luminator Inc Display-Control Div, Plano	Tex
Machinery Electrification Inc, Northboro	Mass
Mackworth Rees Div, Madison Heights	Mich
Marco-Oak Industries, Anaheim	Cal
Master Specialties Co, Costa Mesa	Cal
Methode Electronics Inc, Chicago	Ill
Micro Switch Div, Honeywell, Freeport	Ill
Molex Products Co, Downers Grove	Ill
Mossman Inc, Donald P, Brewster	N Y
Navigation Computer Corp, Norristown	Pa
Nutronics, Keycode Div, Paramus	N J
Oak Mfg Co, Div Oak Electro/Netics Corp Crystal Lake	Ill
Pepco, Inc, North Hollywood	Cal
Precision Mecanique Labinal, 93 Saint-Ouen	France
Radar Relay Div, Teledyne Inc, Santa Monica	Cal
RILS Industries Inc, Audubon	Pa
Risk Industries Inc, George, Columbus	Neb
Rovalco Controls, Torrance	Cal
Rowan Controller Co, Oceanport	N J
Rundel Electric Co, Millbrae	Cal
Schurter AG, H, 6002 Lucerne	Switzerland
Seacor Inc, Norwood	NJ
Shelly Associates, Inc, El Segundo	Cal
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Sierra Electric Inc, Gardena	Cal
Smith Inc, Herman H, Brooklyn	N Y
Sorenson Lighted Controls Inc, West Hartford	Conn
Square D Co, Park Ridge	Ill
Staco Inc, Standard Elec Prods Co, Costa Mesa	Cal
Star-A Electric Mfg Co Inc, Brooklyn	N Y
Switchcraft Inc, Chicago	Ill
Switching Controls Corp, North Hollywood	Cal
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Tokyo Electric Co Ltd, Tokyo	Japan
Touch-Plate Mfg Corp, Paramount	Cal
Transistor Electronics Corp, Minneapolis	Minn
Truco Inc, Simsbury	Conn
Ucinite Co Div United-Carr, Newtonville	Mass
Unimax Switch Div Maxson Electronics Corp Wallingford	Conn
United-Carr Inc, Boston	Mass
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

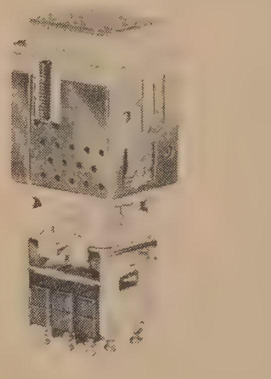
SWITCHES--INERTIA

HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
HYDRA-ELECTRIC CO, BURBANK	**CAL**
Aerodyne Controls Corp, Farmingdale	N Y
Aircraft Components Inc, Benton Harbor	Mich
Ansul Co Electro Controls Div, Los Angeles	Cal
Assembly Engineers Div Rucker Co, Los Angeles	Cal
Bendix Corp Electrical Components Div, Sidney	N Y
Bergen Lab, Inc, Paterson	N J
Betts & Betts Corp, Woodbury	Conn
Bourns Inc Instrument Div, Riverside	Cal
Consolidated Controls Corp, El Segundo	Cal
Data Science Corp, San Diego	Cal
Dowa Trading Co Ltd, Kobe	Japan
Haydon Switch & Instrument Inc, Waterbury	Conn
Hydra-Electric Co, Burbank	Cal
Indicator Industries Inc, New York	N Y
Inertia Switch Inc, New York	N Y
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
Raymond Engineering Inc, Middletown	Conn
Space & Systems Div General Time Corp Stamford	Conn
Sparton Southwest Inc, Albuquerque	NM
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal

SWITCHES--INTERLOCK (SAFETY)

CAPITOL MACHINE & SWITCH CO, DANBURY	**CONN**
CHERRY ELECTRICAL PRODUCTS CORP, HIGHLAND PARK	**ILL**
CHICAGO SWITCH F & F, CHICAGO	**ILL**
MICRO SWITCH DIV, HONEYWELL, FREEPORT	**ILL** **ADV PG 663**
ROBERTSHAW CONTROLS CO, ACRO DIV, COLUMBUS	**OHIO**
Aikow Shoji Kaisha Ltd, Osaka	Japan
Alco Electronic Products, Inc, Lawrence	Mass
American Solenoid Co, Inc, Rahway	N J
Ansul Co Electro Controls Div, Los Angeles	Cal
Ark-Les Switch Corp, Watertown	Mass
Automatic Switch Co, Florham Park	N J
Betts & Betts Corp, Woodbury	Conn
Capitol Machine & Switch Co, Danbury	Conn
Carter Precision Electric Co, Skokie	Ill
Cherry Electrical Products Corp, Highland Park	Ill
Chicago Switch F & F, Chicago	Ill
Clare-Pendar Co, Post Falls	Idaho
Clark Control Div, A O Smith Corp, Cleveland	Ohio
Cole-Hersee Co, S Boston	Mass
Control Switch Div Controls Co of America, Folcroft	Pa
Cutler-Hammer Inc, Milwaukee	Wisc
Dowa Trading Co Ltd, Kobe	Japan
Electronic Controls Inc, Wilton	Conn
Electro Switch Corp, Weymouth	Mass
High Vacuum Electronics Inc, South Pasadena	Cal
Inertia Switch Inc, New York	N Y
Kameco Ltd, Montreal	Que
Korry Mfg Co, Seattle	Wash
La Telemecanique Electrique, 92 Rueil	France

ILLUMINATED PUSHBUTTONS



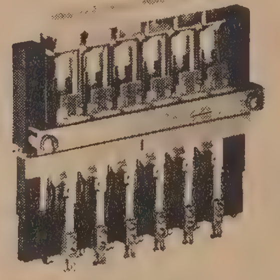
Styling and reliability in a wide range of models including modular matrix-mount pushbutton units. One to four-lamp illumination and display. Alternate or momentary action. Also matching indicator units. Request Catalog 51.

MICRO SWITCH
FREEPORT, ILLINOIS, U.S.A.
A DIVISION OF HONEYWELL

How many contacts do you need? How many buttons?

At Capitol we can supply switches with many combinations of contacts and buttons to suit your individual needs

Here is a typical Capitol Switch



LIGHTED PUSH BUTTON MODEL SP-ID SERIES

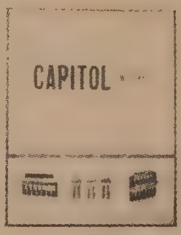
Positive lockout feature—only 1 button can engaged at a time.

Multiple positions—standard from 2-16. Accommodates either T 1¾ or T-2 short base lamp.

Lamp is stationary (doesn't travel withplunger)

Required on most military applications. Multiple contact arrangement per button gives great flexibility in circuit design.

Contacts are rated at 3 amp 110V AC Non-Inductive (either palladium or gold alloy)



Write for our 24 page catalogue showing our wide variety of top quality switches.

Representatives in principal cities.

CAPITOL SWITCHES

THE CAPITOL MACHINE & SWITCH CO.
87 NEWTOWN RD. DANBURY, CONN. 06810

SAFETY INTERLOCK SWITCHES

Door interlock switches for hazardous electronic cabinets. Automatically turn off power when an enclosure is opened. But they may be manually operated for circuit testing — eliminating dangerous jumpers or tie-downs. Normal protection resumed upon closing. Request Catalog 50.

MICRO SWITCH
FREEPORT, ILLINOIS, U.S.A.
A DIVISION OF HONEYWELL

Licon Div, Illinois Tool Works Inc, Chicago	Ill
Luminator Inc Display-Control Div, Plano	Tex
Micro Switch Div, Honeywell, Freeport	Ill
Milli-Switch Corp, Gladwyne	Pa
Pepco, Inc, North Hollywood	Cal
Risk Industries Inc, George, Columbus	Neb
Robertshaw Controls Co, Acro Div, Columbus	Ohio
Schurter AG, H, 6002 Lucerne	Switzerland
Signet Scientific Co, Burbank	Cal
Smith Inc, Herman H, Brooklyn	N Y
Square D Co, Park Ridge	Ill
Switchcraft Inc, Chicago	Ill
Switching Controls Corp, North Hollywood	Cal
Tapeswitch Corp of America, Farmingdale	N Y
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Truco Inc, Simsbury	Conn
Unimax Switch Div Maxson Electronics Corp Wallingford	Conn
United Electric Controls Co, Watertown	Mass
Vapor Corp, Chicago	Ill
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

SWITCHES--KEY OPERATED

DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV. PGS 7**
GRAYHILL INC, LA GRANGE	**ILL**
MICRO SWITCH DIV, HONEYWELL, FREEPORT	**ILL**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
American Solenoid Co, Inc, Rahway	N J
Ark-Les Switch Corp, Watertown	Mass
Cable Electric Products Inc, Providence	R I
C & K Components Inc, Watertown	Mass
Clark Control Div, A O Smith Corp, Cleveland	Ohio
Cole-Hersee Co, S Boston	Mass
Condor Industrial Corp, West Chicago	Ill
Cutler-Hammer Inc, Milwaukee	Wisc
Daburn Electronics & Cable Corp, Bronx	N Y
Dowa Trading Co Ltd, Kobe	Japan
Electro Switch Corp, Weymouth	Mass
Furnas Electric Co, Batavia	Ill
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Electric Co, ECSO, Schenectady	N Y
General Equipment & Mfg Co, Louisville	Ky
Grayhill Inc, La Grange	Ill
Harvey Hubbell Inc, Bridgeport	Conn
Indak Mfg Co, Northbrook	Ill
Janco Corp, Burbank	Cal
Kameco Ltd, Montreal	Que
La Telemecanique Electrique, 92 Rueil	France
Leeds & Northrup Co, Philadelphia	Pa
Leviton Mfg Co Inc, Brooklyn	N Y
Luminator Inc Display-Control Div, Plano	Tex
Machinery Electrification Inc, Northboro	Mass
Mackworth Rees Div, Madison Heights	Mich
Micro Switch Div, Honeywell, Freeport	Ill
Pass & Seymour, Syracuse	N Y
Pollak Corp, Joseph, Boston	Mass
Precision Mecanique Labinal, 93 Saint-Ouen	France
Rundel Electric Co, Millbrae	Cal
Schurter AG, H, 6002 Lucerne	Switzerland
Sierra Electric Inc, Gardena	Cal
Slater Electric Inc, Glen Cove	N Y
Smith Inc, Herman H, Brooklyn	N Y
Square D Co, Park Ridge	Ill
Stettner-Trush Inc, Cazenovia	N Y
Stromberg-Carlson Sub Gen Dynamics, Rochester	N Y
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Tokyo Electric Co Ltd, Tokyo	Japan
Transistor Electronics Corp, Minneapolis	Minn
Vapor Corp, Chicago	Ill
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

SWITCHES--KNIFE

BIRNBACH CO INC, FREEPORT	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
Anderson Power Products Inc, Boston	Mass
Betts & Betts Corp, Woodbury	Conn
Birnbach Co Inc, Freeport	N Y
Cable Electric Products Inc, Providence	R I
Clark Control Div, A O Smith Corp, Cleveland	Ohio
Consolidated Electric Corp, Seattle	Wash
Cutler-Hammer Inc, Milwaukee	Wisc
Daburn Electronics & Cable Corp, Bronx	N Y
Dowa Trading Co Ltd, Kobe	Japan
Eagle Electric Mfg Co Inc, Long Island City	N Y
Fuji Electric Co Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
Kameco Ltd, Montreal	Que
Kolton Electric Mfg Co, Newark	N J
Leviton Mfg Co Inc, Brooklyn	N Y
Multronics Inc, Rockville	Md
Parker Metal Goods Co, Worcester	Mass
Philmore Mfg Co Inc, Richmond Hill	N Y
Shigoto Industries Ltd, New York	N Y
Sierra Electric Inc, Gardena	Cal
Square D Co, Park Ridge	Ill
Star-A Electric Mfg Co Inc, Brooklyn	N Y
Wadsworth Electric Mfg Co Inc, Covington	Ky
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

SWITCHES--LEVER

AMERICAN ZETTLER, INC, COSTA MESA	**CAL**
CAPITOL MACHINE & SWITCH CO, DANBURY	**CONN**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE	**WIS**
CHERRY ELECTRICAL PRODUCTS CORP, HIGHLAND PARK	**ILL**
CHICAGO SWITCH F & F, CHICAGO	**ILL**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY	**N Y**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
J-B-T INSTRUMENTS INC, NEW HAVEN	**CONN**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
MICRO SWITCH DIV, HONEYWELL, FREEPORT ILL	
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON	**IND**
ROBERTSHAW CONTROLS CO, ACRO DIV, COLUMBUS	**OHIO**
STANDARD GRIGSBY CO, AURORA	**ILL**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
American Solenoid Co, Inc, Rahway	N J
American Zettler, Inc, Costa Mesa	Cal
Ansul Co Electro Controls Div, Los Angeles	Cal
Ark-Les Switch Corp, Watertown	Mass
Automatic Electric Co, Northlake	Ill
Betts & Betts Corp, Woodbury	Conn
Cable Electric Products Inc, Providence	R I
Capitol Machine & Switch Co, Danbury	Conn
Carling Electric Inc, West Hartford	Conn
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Cherry Electrical Products Corp, Highland Park	Ill
Chicago Switch F & F, Chicago	Ill
Clare & Co, C P, Chicago	Ill
Cole-Hersee Co, S Boston	Mass
Condor Industrial Corp, West Chicago	Ill
Control Switch Div Controls Co of America, Folcroft	Pa
Controls Co of America, Schiller Park	Ill
Cutler-Hammer Inc, Milwaukee	Wisc
Dowa Trading Co Ltd, Kobe	Japan
Electronic Controls Inc, Wilton	Conn
Electrospace Corp, Glen Cove	N Y
Electro Switch Corp, Weymouth	Mass
Fitre, 20143 Milano	Italy
Furnas Electric Co, Batavia	Ill
General Control Co, Boston	Mass
General Electric Co, ECSO, Schenectady	N Y
Giannini-Voltex, Whittier	Cal
Harvey Hubbell Inc, Bridgeport	Conn
Haydon Switch & Instrument Inc, Waterbury	Conn
Indak Mfg Co, Northbrook	Ill
ITT Europe Inc Components Gp, Brussels 1	Belgium
Iwatsu Electric Co Ltd, Tokyo	Japan
JB Electronic Transformers Inc, Chicago	Ill
J-B-T Instruments Inc, New Haven	Conn
Kameco Ltd, Montreal	Que
Leviton Mfg Co Inc, Brooklyn	N Y
Licon Div, Illinois Tool Works Inc, Chicago	Ill
Mackworth Rees Div, Madison Heights	Mich
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Controls Co, Frankfort	Ind
Metox, Paris 20	France
Micro Switch Div, Honeywell, Freeport	Ill
Milli-Switch Corp, Gladwyne	Pa
Mossman Inc, Donald P, Brewster	N Y
Oak Mfg Co, Div Oak Electro/Netics Corp Crystal Lake	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton	Ind
Precision Mecanique Labinal, 93 Saint-Ouen	France
Relay & Control Corp, Long Island City	N Y
Robertshaw Controls Co, Acro Div, Columbus	Ohio
Ross Co, Milton, Southampton	Pa
Rovalco Controls, Torrance	Cal
Schurter AG, H, 6002 Lucerne	Switzerland
Seacor Inc, Norwood	NJ
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Sierra Electric Inc, Gardena	Cal
Smith Inc, Herman H, Brooklyn	N Y
Sorenson Lighted Controls Inc, West Hartford	Conn
Square D Co, Park Ridge	Ill
Staco Inc, Standard Elec Prods Co, Costa Mesa	Cal
Standard Grigsby Co, Aurora	Ill
Switchcraft Inc, Chicago	Ill
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Tokyo Electric Co Ltd, Tokyo	Japan
Tower Mfg Corp, Providence	R I
Unimax Switch Div Maxson Electronics Corp Wallingford	Conn
Wadsworth Electric Mfg Co Inc, Covington	Ky
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

SWITCHES--LIMIT

CHERRY ELECTRICAL PRODUCTS CORP, HIGHLAND PARK	**ILL**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GRAYHILL INC, LA GRANGE	**ILL**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
MICRO SWITCH DIV, HONEYWELL, FREEPORT ILL	**ADV PG 663**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
ROBERTSHAW CONTROLS CO, ACRO DIV, COLUMBUS	**OHIO**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
Airmec Instruments Ltd, Buckinghamshire	England
Airpax Electronics Inc, Cambridge Div, Cambridge	Md
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
Allen-Bradley Co, Milwaukee	Wis
Allis-Chalmers Mfg Co, Milwaukee	Wis
American Solenoid Co, Inc, Rahway	N J
Ark-Les Switch Corp, Watertown	Mass
Automatic Electric Co, Northlake	Ill
Betts & Betts Corp, Woodbury	Conn
Cherry Electrical Products Corp, Highland Park	Ill
Clark Control Div, A O Smith Corp, Cleveland	Ohio
Cole-Hersee Co, S Boston	Mass
Control Engineering Div J B Webb Co, Detroit	Mich
Control Switch Div Controls Co of America, Folcroft	Pa
Controls Co of America, Schiller Park	Ill
Custom Component Switches Inc, Chatsworth	Cal
Cutler-Hammer Inc, Milwaukee	Wisc
Denison Inc, R B, Bedford	Ohio

LIMIT SWITCHES

MICRO
MICRO SWITCH

Oiltight reed limit switches for reliable, long-life operation of dry circuits and numerically controlled machinery. Also complete line of high capacity snap-action limit switches. Request Catalog 50.

MICRO SWITCH
FREEPORT, ILLINOIS 61032
A DIVISION OF HONEYWELL

SWITCH TO TECH LABS for the Most Versatile Line of Precision Switches & Attenuators

FOUNDED 1935

These switches are representative of the many types produced by TECH LABS meeting applicable Government Specs. Wire or teletype for further information.

TEL: 201 - WI 4-2221
TWX: 201-947-4730

TAP SWITCHES

TYPE 3A MINIATURE TAP SWITCH

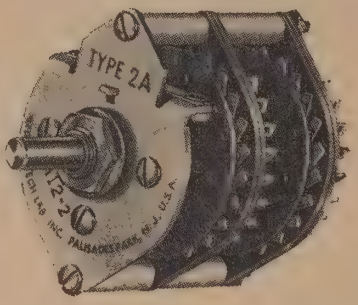
MOLDED FROM DIALLYL PHTHALATE HAS ADJUSTABLE STOPS.

$ 3.45 List

Specifications

- Size: 1″ diameter. 1¼″ with terminals. 1 deck, 1¹⁄₁₆″ long, ½″ for each additional deck.
- Rating: 1200 volts rms, 2000 VDC, 5 amps. (carrying) 115 V.
- Insulating resistance: 100 megohms minimum at 500 volts DC.
- Life: 1.5 — 2 million revolutions.
- Temperature range: —65°C to 100°C.
- Mounting: single hole.

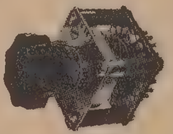
TYPE 2A & 2M



The Type 2A, a standard control switch for precision instruments and equipments, comes in 2-24 positions and 1-4 poles per deck, with phenolic insulation. The 2M is identical except for Melamine insulation. Both are rated for 3 AMP and have adjustable stops.

Code "S" denotes "shorting" and "N" "non-shorting".

Type	Code	No. Pos.	No. Decks	Poles/Deck	Price
2A	1S24	24	1	1	$5.20
2A	4S5	4	1	5	$7.00
2A	N10-2	10	2	1	$8.05
2M	1S24	24	1	1	$6.30
2M	4N3	3	1	4	$8.10

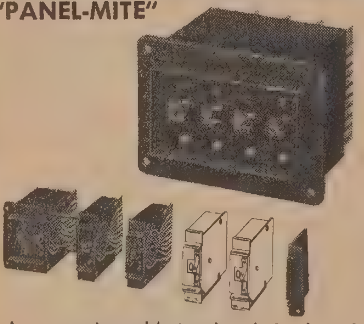


TYPE 10A TAP SWITCH

A multi-deck switch of small dimensions, 1⁵⁄₁₆″ sq. This is a precision switch designed to meet high requirements in smallest possible space. Up to 24 positions, shorting. Price approx. $10 per deck, plus frame $5. Adjustable stops available.

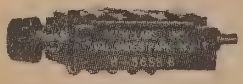
THUMBWHEEL SWITCHES

"PANEL-MITE"



A compact, molded, printed-circuit wafer switch for limited space and in line readout. Modular type for either front or back of panel mounting: modules ½″ between center lines, height 2″. Single or double pole, 10 position, binary or complementary codes, standard. Other codes available on request. Adjustable stops available.

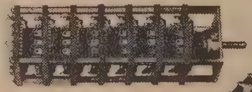
CAM SWITCHES



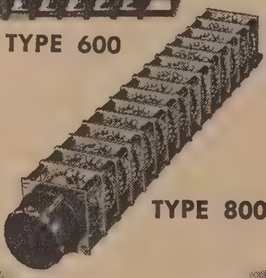
TYPE 8A CAM SWITCH

A new development of great interest. Small size, long life and great flexibility. Have been made with from one to 30 contact springs. Will carry 3 amp. Standard unit has four contact springs and 10 positions, price $12.50.

SQUARE SWITCHES



TYPE 600



TYPE 800

TYPE 900

These standard rugged control switches are the stand-by for equipment calling for dependable switches in a hurry. Will meet all standard government specs. All parts carried in stock. An infinite number of combinations possible. Teletype your specs.

The price of the basic frame is the same for all, viz. $4.60 each. The price per deck is: Type 600, $6.90; Type 800, $9.20; Type 900, $10.95. Adjustable stops available.

Type	Size	Rating	Max. Pos. Short.	Max. Pos. Non-Short.
600	1¾″ sq.	5A.	24	12
800	2¼″ sq.	5A.	32	16
900	2¾″ sq.	10A.	48	24

STEPPING SWITCHES

TECH LABS switches are now standard equipment in missiles as well as in ground controls. Furnished sealed to meet all specs. Write for details. Prices on request.

ATTENUATORS

A complete line of audio and r.f. attenuators with both manual and REMOTE CONTROL. We will design components to meet your specific requirements, if standard units are inadequate. Please write for catalogue and send us your specs for estimate.

WRITE FOR NEW BULLETINS ON SWITCHES • DECADE RESISTORS • POTENTIOMETERS

TECH LABORATORIES INC. • Palisades Park, New Jersey

Divac Electronics, Hawthorne	Cal
Dowa Trading Co Ltd, Kobe	Japan
Electro-Sonic-Control, Manteca	Cal
Energy Conversion Devices Inc, Troy	Mich
Fuji Electric Co Ltd, Tokyo	Japan
Furnas Electric Co, Batavia	Ill
General Control Co, Boston	Mass
General Electric Co, ECSO, Schenectady	N Y
General Equipment & Mfg Co, Louisville	Ky
Grayhill Inc, La Grange	Ill
Haydon Switch & Instrument Inc, Waterbury	Conn
Kinetics A Teledyne Co, Solana Beach	Cal
La Telemecanique Electrique, 92 Rueil	France
Licon Div, Illinois Tool Works Inc, Chicago	Ill
Luminator Inc Display-Control Div, Plano	Tex
Machinery Electrification Inc, Northboro	Mass
Mackworth Rees Div, Madison Heights	Mich
Martin-Decker Corp, Santa Ana	Cal
Micro Switch Div, Honeywell, Freeport	Ill
Microwave Associates Inc, Burlington	Mass
Milli-Switch Corp, Gladwyne	Pa
National Acme Co Electrical Controls Div Cleveland	Ohio
Nippon Electric Co Ltd, Tokyo	Japan
Otto Controls, Morton Grove	Ill
Photobell Co Inc, New York	N Y
Precision Mecanique Labinal, 93 Saint-Ouen	France
Precision Mechanisms Corp, Westbury	N Y
Relay & Control Corp, Long Island City	N Y
Rex Chainbelt Inc, Milwaukee	Wis
Risk Industries Inc, George, Columbus	Neb
Robertshaw Controls Co, Acro Div, Columbus	Ohio
Ross Co, Milton, Southampton	Pa
Smith Inc, Herman H, Brooklyn	N Y
Square D Co, Park Ridge	Ill
Tapeswitch Corp of America, Farmingdale	N Y
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Texas Instruments Incorporated, Dallas	Tex
Thordarson Meissner Inc, Mt Carmel	Ill
Tokyo Electric Co Ltd, Tokyo	Japan
Unimax Switch Div Maxson Electronics Corp Wallingford	Conn
United Electric Controls Co, Watertown	Mass
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

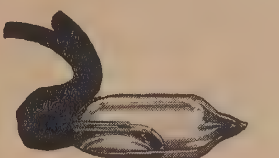
SWITCHES--MAGNET-ACTUATED

AMERICAN ZETTLER, INC, COSTA MESA	**CAL**
ANSLEY MFG CO, ARTHUR, NEW HOPE	**PA**
CHERRY ELECTRICAL PRODUCTS CORP, HIGHLAND PARK	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MICRO SWITCH DIV, HONEYWELL, FREEPORT	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
Alco Electronic Products, Inc, Lawrence	Mass
Allen-Bradley Co, Milwaukee	Wis
American Zettler, Inc, Costa Mesa	Cal
Ansley Mfg Co, Arthur, New Hope	Pa
Automated Measurements Corp, Los Gatos	Cal
Automatic Equipment Corp, Cincinnati	Ohio
Automatic Switch Co, Florham Park	N J
Beltone Electronics Corp, Chicago	Ill
Cherry Electrical Products Corp, Highland Park	Ill
Clare-Pendar Co, Post Falls	Idaho
Clark Control Div, A O Smith Corp, Cleveland	Ohio
Consolidated Controls Corp, El Segundo	Cal
Control Switch Div Controls Co of America, Folcroft	Pa
Controls Co of America, Schiller Park	Ill
Cutler-Hammer Inc, Milwaukee	Wisc
Daburn Electronics & Cable Corp, Bronx	N Y
Divac Electronics, Hawthorne	Cal
Dowa Trading Co Ltd, Kobe	Japan
Ericsson Centrum Inc, New York	N Y
Fifth Dimension Inc, Princeton	N J
Fuji Electric Co Ltd, Tokyo	Japan
Fulton Sylphon Div Robertshaw Controls Co Knoxville	Tenn
Furnas Electric Co, Batavia	Ill
General Control Co, Boston	Mass
General Electric Co, ECSO, Schenectady	N Y
General Equipment & Mfg Co, Louisville	Ky
Gordos Corp, Bloomfield	N J
Gorn Corp, Stamford	Conn
Hamlin Inc, Lake Mills	Wis
High Vacuum Electronics Inc, South Pasadena	Cal
Indicator Industries Inc, New York	N Y
Inertia Switch Inc, New York	N Y
James Electronics Inc, Chicago	Ill
Kahl Scientific Instrument Corp, El Cajon	Cal
Kameco Ltd, Montreal	Que
Ledex Div Ledex Inc, Dayton	Ohio
Luminator Inc Display-Control Div, Plano	Tex
Mackworth Rees Div, Madison Heights	Mich
Madison Labs, Inc, Madison	Conn
McKee Automation Corp Sub James Cunningham Inc San Fernando	Cal
Micro Metrics Inc, Paterson	N J
Micro Switch Div, Honeywell, Freeport	Ill
Mosler Electronic Systems Div Mosler Safe Co Danbury	Conn
Mossman-Elliott Corp, Joliet	Ill
Nippon Electric Co Ltd, Tokyo	Japan
Ohmite Mfg Co, Skokie	Ill
Park Products Engineering Co Inc, Tinley Park	Ill
RILS Industries Inc, Audubon	Pa
Risk Industries Inc, George, Columbus	Neb
Schurter AG, H, 6002 Lucerne	Switzerland
Square D Co, Park Ridge	Ill
Staco Inc, Standard Elec Prods Co, Costa Mesa	Cal
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Tokyo Electric Co Ltd, Tokyo	Japan
Transistor Electronics Corp, Minneapolis	Minn
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

SWITCHES--MERCURY

MICRO SWITCH DIV, HONEYWELL, FREEPORT ILL	**ADV PG 665**
NIPPON ELECTRIC CO LTD, TOKYO JAPAN	**ADV PGS 752,753**
Adams & Westlake Co, Elkhart	Ind
Beltone Electronics Corp, Chicago	Ill
Cable Electric Products Inc, Providence	R I
Dowa Trading Co Ltd, Kobe	Japan
Durakool Inc, Elkhart	Ind
Eagle Electric Mfg Co Inc, Long Island City	N Y
Fifth Dimension Inc, Princeton	N J
Fujitsu Ltd, Tokyo	Japan
Gordos Corp, Bloomfield	N J
Hamlin Inc, Lake Mills	Wis
Harvey Hubbell Inc, Bridgeport	Conn
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kahl Scientific Instrument Corp, El Cajon	Cal
Leviton Mfg Co Inc, Brooklyn	N Y
Mack Electric Devices Inc, Wyncote	Pa
Mercury Contacts Inc, Dayton	Ohio
Micro Switch Div, Honeywell, Freeport	Ill
Nippon Electric Co Ltd, Tokyo	Japan
Risk Industries Inc, George, Columbus	Neb
Sierra Electric Inc, Gardena	Cal
Slater Electric Inc, Glen Cove	N Y
Star-A Electric Mfg Co Inc, Brooklyn	N Y
Thordarson Meissner Inc, Mt Carmel	Ill
Vapor Corp, Chicago	Ill
Waber Electronics Inc, Philadelphia	Pa

MERCURY SWITCHES



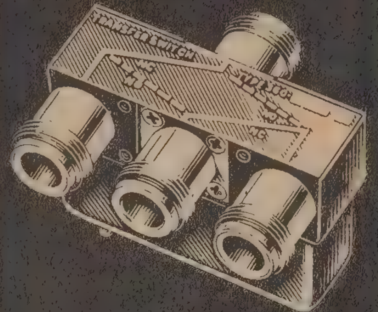
Tilt-operated low force mercury switches, including shock-resistant embedded types. Wide variety of mountings, electrical capacities and circuitries. Request Catalog 50.

MICRO SWITCH
FREEPORT, ILLINOIS 61032
A DIVISION OF HONEYWELL

SWITCHES--MICROWAVE, COAXIAL

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE	**NY**
AMPHENOL, DANBURY, CONN	**ADV PG 665**
BIRD ELECTRONIC CORP, CLEVELAND (SOLON)	**OHIO**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	**ADV PGS 58,59**
FERROTEC INC, NEWTON, MASS	**ADV PG 666**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
TEXSCAN CORP, INDIANAPOLIS	**IND**
TRANSCO PRODUCTS INC, VENICE, CAL	**ADV PG 666**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Addington Labs Inc, Sunnyvale	Cal
Advanced Microwave Labs, Sunnyvale	Cal
Alford Mfg Co, Winchester	Mass
Alpha Industries Inc, Newton Upper Falls	Mass
American Electronic Labs Inc, Lansdale	Pa
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Amphenol, Danbury	Conn
Andrew Corp, Orland Park	Ill
Applied Microwave Lab, Inc, Andover	Mass
Arra, Inc, Bayshore	NY
Astrolab Inc, Linden	N J
Automated Measurements Corp, Los Gatos	Cal
Automatic Metal Products Corp, Brooklyn	N Y
Ava Electronics & Machine Corp, Upper Darby	Pa
Aviation Electric Ltd, St Laurent, Montreal	Que
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Bendix Corp, Microwave Devices Div, Franklin	Ind
Bird Electronic Corp, Cleveland (Solon)	Ohio
Coax Devices, Chelsea	Mass
Daico Industries Inc, Gardena	Cal
Diamond Antenna & Microwave Corp, Winchester	Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Dowa Trading Co Ltd, Kobe	Japan
Eastern Microwave Corp, Winchester	Mass
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electronic Applications Co, Pine Brook	N J
Electronic Specialty Co, Los Angeles	Cal
E & M Labs, North Hollywood	Cal
Ferranti, Ltd, Lancashire	England
Ferrotec Inc, Newton	Mass
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
General Microwave Corp, Farmingdale	N Y
Gorn Corp, Stamford	Conn
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hewlett-Packard, Palo Alto	Cal
Honig Laboratories Inc, Westbury	N Y
Hyletronics Corp, Wilmington	Mass
Jerrold Electronics Corp, Philadelphia	Pa
MCS Corp, Monrovia	Cal
Mektron Div, Calif Gen Corp Inc, Chula Vista	Cal
Melabs, Palo Alto	Cal
Meridian Metalcraft Inc, Whittier	Cal
Metcom Inc, Salem	Mass
Microlab/F X R, Livingston	N J
Micromega Div Amphenol Corp, Venice	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Development Labs Inc Needham Heights	Mass
Microwave Labs of America, Brooklyn	N Y
Narda Microwave Corp, Plainview	N Y
N-H Microwave Inc, Red Bank	N J
Nippon Electric Co Ltd, Tokyo	Japan
Ottawa, Paris	France

Specify Amphenol.
The leading name
in Microwave
Switches.

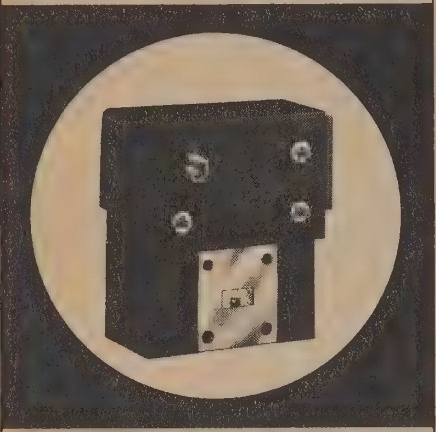


Dynaform® coaxial switches
High frequency coaxial switches
Miniature coaxial switches
Special coaxial switches

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL™

ELECTRONIC
SHUTTERS
from
FERROTEC

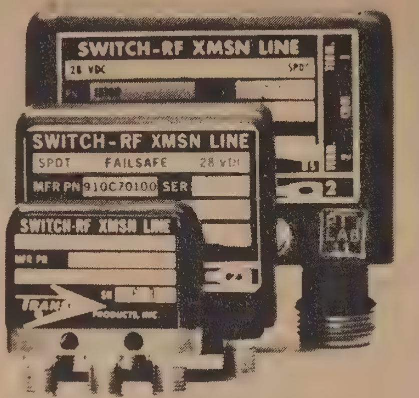


Ferrotec is presently manufacturing a line of Electronic Shutters. The Electronic Shutter is a Latched Ferrite Circulator with extremely fast switching time, which does not require holding power. The circulator is a three port ferrite device in which the magnet has been replaced with a solenoid. The basic Electronic Shutter is capable of 20 db isolation in all radar and communications bands (coaxial and waveguide) over the most severe environments.

The unit pictured above was designed for use in WR-28 waveguide (600 mc bandwidth). The unit contains an integral driver circuit capable of obtaining switching speeds of 100 nanoseconds maximum. Its more salient features include: 1) The ability to remain in a switched state without holding power or keep alive energy and: 2) Because it is a ferrite device it does not deteriorate with time when operated within its rated specifications.

Other salient features include:
Isolation ....20.0 db min.
Insertion Loss ......0.5 db max.
VSWR ....1.20 max.
Temp. Range ...−55°C to +71°C
Switching Energy ....
100 micro-joules (approx.)

FERROTEC
INC.
Chapel Bridge Park • 80 Bridge Street
Newton, Massachusetts 02158 • 617-332-7600
Design • Development
Production of Microwave Ferrite Components



SWITCHES,
COAXIAL

...the most complete line.

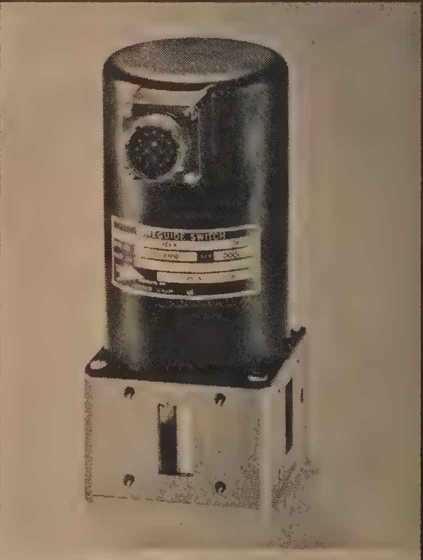
REQUEST A CATALOG.

TRANSCO PRODUCTS, INC.
TRANSCO®
4241 Glencoe Ave.
Venice, Calif. 90291
213/391-7291•TWX 910-343-6469

Pollak Corp, Joseph, Boston	Mass
Premier Microwave Corp, Port Chester	N Y
Quantatron Div, Teledyne Inc, Santa Monica	Cal
Radiation Systems Inc, McLean	Va
Ramcor Inc, Huntington	NY
Rantec Div Emerson Electric Co, Calabasas	Cal
RLC Electronics Inc, Port Chester	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Sanders Associates, Inc, Nashua	N H
Scientific-Atlanta Inc, Atlanta	Ga
Sedco Systems Inc, Farmingdale	N Y
Somerset Radiation Lab Inc, Arlington	Va
Sperry Microwave Electronics Div, Clearwater	Fla
Teledata Inc, Queens Village	N Y
Telonic Instruments Div Telonic Indus Inc Beech Grove	Ind
Teltronics Inc, Nashua	N H
Texscan Corp, Indianapolis	Ind
Torr Labs Inc, Los Angeles	Cal
Transco Products Inc, Venice	Cal
Varian, Palo Alto	Cal
Vector Industries A Teledyne Co, Palo Alto	Cal
Victor R F & Microwave Co, Wakefield	Mass
Weinschel Engineering Co Inc, Gaithersburg	Md
Western Microwave Labs Inc, Santa Clara	Cal
Winslow Tele-Tronics Inc, Asbury Park	NJ

SWITCHES--MICROWAVE, WAVEGUIDE

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE	**NY**
AMPHENOL, DANBURY	**CONN**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	**ADV PGS 58,59**
FERROTEC INC, NEWTON	**MASS**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
TRANSCO PRODUCTS INC, VENICE, CAL	**ADV PG 666**
TRG DIV CONTROL DATA CORP, EAST BOSTON MASS	**ADV PG 418**
Advanced Microwave Labs, Sunnyvale	Cal
Airtec Inc, Roselle	N J
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alpha Industries Inc, Newton Upper Falls	Mass
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Amphenol, Danbury	Conn
Andrew Corp, Orland Park	Ill
Arra, Inc, Bayshore	NY
Astrolab Inc, Linden	N J
Ava Electronics & Machine Corp, Upper Darby	Pa
Aviation Electric Ltd, St Laurent, Montreal	Que
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Beckman Instruments Inc, Fullerton,	Cal
Bomac Div Varian Associates, Beverly	Mass
Cardwell Condenser Corp, Lindenhurst	N Y
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Diamond Antenna & Microwave Corp, Winchester	Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Dowa Trading Co Ltd, Kobe	Japan
Eastern Microwave Corp, Winchester	Mass
Electromagnetic Technology Corp, Mountain View	Cal
E & M Labs, North Hollywood	Cal
Ewen-Knight Corp, East Natick	Mass
Ferranti, Ltd, Lancashire	England
Ferrotec Inc, Newton	Mass
Filmohm Corp, Long Island City	N Y
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
General Microwave Corp, Farmingdale	N Y
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Honig Laboratories Inc, Westbury	N Y
Lieco Inc, West Babylon	N Y
MCS Corp, Monrovia	Cal
Mektron Div, Calif Gen Corp Inc, Chula Vista	Cal
Melabs, Palo Alto	Cal
Meridian Metalcraft Inc, Whittier	Cal
Metcom Inc, Salem	Mass
Microlab/F X R, Livingston	N J
Micromega Div Amphenol Corp, Venice	Cal
Micronetics Div Teledyne Systems Co, San Diego	Cal
Microwave Associates Inc, Burlington	Mass
Microwave Development Labs Inc Needham Heights	Mass
Microwave Labs of America, Brooklyn	N Y
M-O Valve Co Ltd, Hammersmith, London W6	Eng
MSI Electronics Inc, Woodside	N Y
Neico Microwave Co, Waltham	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Omega Laboratories Inc, Rowley	Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Portchester Instrument Corp, Port Chester	N Y
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Premier Microwave Corp, Port Chester	N Y
Quantatron Div, Teledyne Inc, Santa Monica	Cal
Ramcor Inc, Huntington	NY
Rantec Div Emerson Electric Co, Calabasas	Cal
R F Systems Inc, Cohasset	Mass
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst	NY
Scientific-Atlanta Inc, Atlanta	Ga
Scope Inc, Reston	Va
Sedco Systems Inc, Farmingdale	N Y
Somerset Radiation Lab Inc, Arlington	Va
Sperry Microwave Electronics Div, Clearwater	Fla



SWITCHES,
WAVEGUIDE

...all types & W.G. sizes/ridged guide; SPDT/transfer, switch-under-full-power.

TRANSCO PRODUCTS, INC.
TRANSCO®
4241 Glencoe Ave.
Venice, Calif. 90291
213/391-7291•TWX 910-343-6469

Torr Labs Inc, Los Angeles	Cal
Transco Products Inc, Venice	Cal
TRG Div Control Data Corp, East Boston	Mass
Varian, Palo Alto	Cal
Victor R F & Microwave Co, Wakefield	Mass
Waveline Inc, West Caldwell	N J
Western Microwave Labs Inc, Santa Clara	Cal

SWITCHES--MINIATURE

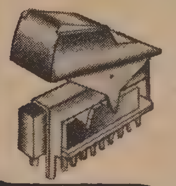
AIRFLYTE ELECTRONICS CO, BAYONNE	**N J**
AMERICAN ZETTLER, INC, COSTA MESA	**CAL**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE	**WIS**
CHERRY ELECTRICAL PRODUCTS CORP, HIGHLAND PARK ILL	**ADV PG 679**
CHICAGO SWITCH F & F, CHICAGO, ILL	**ADV PG 667**
COUCH ORDNANCE INC, NORTH QUINCY	**MASS**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER	**N H**
DIGITRAN CO, PASADENA	**CAL**
ELECTRO-TEC CORP, ORMOND BEACH	**FLA**
GRAYHILL INC, LA GRANGE	**ILL**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
J-B-T INSTRUMENTS INC, NEW HAVEN	**CONN**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
MICRO SWITCH DIV, HONEYWELL, FREEPORT ILL	**ADV PG 667**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON	**IND**
R C L ELECTRONICS INC, IRVINGTON	**N J**
ROBERTSHAW CONTROLS CO, ACRO DIV, COLUMBUS	**OHIO**
STANDARD GRIGSBY CO, AURORA	**ILL**
TECH LABORATORIES INC, PALISADES PARK N J	**ADV PG 664**
Aikow Shoji Kaisha Ltd, Osaka	Japan
Airflyte Electronics Co, Bayonne	N J
Alco Electronic Products, Inc, Lawrence	Mass
American Electronic Labs Inc, Lansdale	Pa
American Monarch Div Mpls Scientific Controls Minneapolis	Minn
American Solenoid Co, Inc, Rahway	N J
American Zettler, Inc, Costa Mesa	Cal
Ansul Co Electro Controls Div, Los Angeles	Cal
Arra, Inc, Bayshore	NY
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Bourns Inc Trimpot Div, Riverside	Cal
Bristol Div, American Chain & Cable Co Waterbury	Conn
Carter Precision Electric Co, Skokie	Ill
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Cherry Electrical Products Corp, Highland Park	Ill
Chicago Switch F & F, Chicago	Ill
Clare-Pendar Co, Post Falls	Idaho
Columbus Electric Mfg Co, Columbus	Ohio
Continental-Wirt Electronics Corp, Philadelphia	Pa
Control Switch Div Controls Co of America, Folcroft	Pa
Controls Co of America, Schiller Park	Ill
Couch Ordnance Inc, North Quincy	Mass
CTS Electronics Inc, South Pasadena	Cal
Cutler-Hammer Inc, Milwaukee	Wisc
Daburn Electronics & Cable Corp, Bronx	N Y
Daven Div McGraw-Edison Co, Manchester	N H
Digitran Co, Pasadena	Cal
Divac Electronics, Hawthorne	Cal
Dowa Trading Co Ltd, Kobe	Japan
Electronic Controls Inc, Wilton	Conn
Electro Switch Corp, Weymouth	Mass
Electro-Tec Corp, Ormond Beach	Fla
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Devices Inc, Instrumentation Div Princeton	N J
General Equipment & Mfg Co, Louisville	Ky
Gordos Corp, Bloomfield	N J
Grayhill Inc, La Grange	Ill
Gulton Industries Inc Controls & Instru Grp Costa Mesa	Cal
Hamlin Inc, Lake Mills	Wis
Haydon Switch & Instrument Inc, Waterbury	Conn
Herley Industries, Inc, Westbury	N Y
Hi-Tek Corp, Santa Ana	Cal
Janco Corp, Burbank	Cal
JB Electronic Transformers Inc, Chicago	Ill
J-B-T Instruments Inc, New Haven	Conn
Ledex Div Ledex Inc, Dayton	Ohio
Leviton Mfg Co Inc, Brooklyn	N Y
Licon Div, Illinois Tool Works Inc, Chicago	Ill
Luminator Inc Display-Control Div, Plano	Tex
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Controls Co, Frankfort	Ind
McGill Mfg Co Inc, Electrical Div, Valparaiso	Ind
Metox, Paris 20	France
Micro Switch Div, Honeywell, Freeport	Ill
Microwave Associates Inc, Burlington	Mass
Miniature Electronic Components Corp, Holbrook	Mass
Molex Products Co, Downers Grove	Ill
New Product Engineering Inc Sub Wabash Magnetics Inc Wabash	Ind
Nutronics, Keycode Div, Paramus	N J
Oak Mfg Co, Div Oak Electro/Netics Corp Crystal Lake	Ill
Ohmite Mfg Co, Skokie	Ill
Otto Controls, Morton Grove	Ill
Painton & Co, Ltd, Northampton	England
Pala Switch Co, Santa Ana	Cal
Pollak Corp, Joseph, Boston	Mass
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton	Ind
R C L Electronics Inc, Irvington	N J
Republic Industrial Corp, Lathrup Village	Mich
Risk Industries Inc, George, Columbus	Neb
Robertshaw Controls Co, Acro Div, Columbus	Ohio
Ross Co, Milton, Southampton	Pa
Rowan Controller Co, Oceanport	N J

Specify
CHICAGO SWITCH
MINIATURE
SWITCHES

• complete selection • fast, easy to install • slip on, solder lug, printed circuit types • advanced design • low cost general purpose switches

SNAP-IN SNAP ACTION ROCKER
U.L. Approved. SPST thru DPDT, and 3 position circuit arrangements
Rated 10 amps. 120VA.C.
Some illuminated models available

Matching Panel Lights
—incandescent or neon

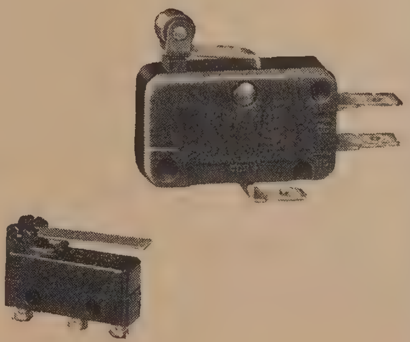


HALF ROCKER
4 PDT or 6 PDT Momentary or Maintained action
3 amps at 120V A.C. or ½ amp at 120V D.C.
5,000,000 operations

See Other Adv. Under Switches: Subminiature

CHICAGO SWITCH
Div. of F & F Enterprises, Inc.
2035 Wabansia Ave., Chicago, Ill. 60647
Phone: (312) 489-5500

Miniature and Subminiature Switches



Long-life, precision operation in miniature sizes. Industry's greatest variety of actuators, terminals, circuitry, and operating characteristics. Request Catalog 50.

MICRO SWITCH
FREEPORT, ILLINOIS 61032
A DIVISION OF HONEYWELL

Rundel Electric Co, Millbrae	Cal
Rye Industries, Inc, Mamaroneck	N Y
Scaico Div, Wavetronics Industries Inc West Pittston	Pa
Schurter AG, H, 6002 Lucerne	Switzerland
Shallcross Mfg Co Sub Cutler-Hammer, Selma	N C
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Smith Inc, Herman H, Brooklyn	N Y
Sparton Southwest Inc, Albuquerque	NM
Staco Inc, Standard Elec Prods Co, Costa Mesa	Cal
Standard Grigsby Co, Aurora	Ill
Stettner-Trush Inc, Cazenovia	N Y
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Switchcraft Inc, Chicago	Ill
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Tech Laboratories Inc, Palisades Park	N J
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
Telefunken Sales Corp, Garden City	N Y
Texas Instruments Incorporated, Dallas	Tex
Torr Labs Inc, Los Angeles	Cal
Transistor Electronics Corp, Minneapolis	Minn
TRW Systems Group, Redondo Beach	Cal
Unimax Switch Div Maxson Electronics Corp Wallingford	Conn
United-Carr Inc, Boston	Mass
U S Switch Corp, Sub Westport Dev & Mfg Co Inc Milford	Conn
Wabash Magnetics Inc, Wabash	Ind
Wavetronics Industries Inc, West Pittston	Pa
Wilmington Controls Div Ledex Inc, Wilmington	Ohio

SWITCHES--MULTI-CONTACT, CROSSBAR

CHERRY ELECTRICAL PRODUCTS CORP, HIGHLAND PARK ILL	**ADV PG 679**
CHICAGO SWITCH F & F, CHICAGO	**ILL**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
A D Data Systems Inc, Rochester	N Y
Automated Measurements Corp, Los Gatos	Cal
Cherry Electrical Products Corp, Highland Park	Ill
Chicago Switch F & F, Chicago	Ill
Comar Electric Co, Chicago	Ill
Cunningham Son & Co Inc, James, Honeoye Falls	N Y
Dowa Trading Co Ltd, Kobe	Japan
Electronic Controls Inc, Wilton	Conn
Ericsson Centrum Inc, New York	N Y
Fisher-Akin Co, Manhattan Beach	Cal
Fujitsu Ltd, Tokyo	Japan
General Devices Inc, Instrumentation Div Princeton	N J
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
ITT Telecommunications, New York	N Y
Luminator Inc Display-Control Div, Plano	Tex
McKee Automation Corp Sub James Cunningham Inc San Fernando	Cal
Mura Corp, Great Neck	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Nutronics, Keycode Div, Paramus	N J
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Pala Switch Co, Santa Ana	Cal
Permonite Mfg Co, Chicago	Ill
Republic Industrial Corp, Lathrup Village	Mich
Square D Co, Park Ridge	Ill
Tokyo Electric Co Ltd, Tokyo	Japan
Trompeter Electronics Inc, Chatsworth	Cal
Vitramon Inc, Bridgeport	Conn
Whistler Electronics Inc, Northridge	Cal
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

SWITCHES--MULTI-CONTACT, MOTOR DRIVEN

AIRFLYTE ELECTRONICS CO, BAYONNE	**N J**
CHICAGO DYNAMIC INDUSTRIES INC, PRECISION PRODS DIV CHICAGO	**ILL**
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER	**N H**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
INDUSTRIAL TIMER CORP, PARSIPPANY	**N J**
MICRO SWITCH DIV, HONEYWELL, FREEPORT	**ILL**
R C L ELECTRONICS INC, IRVINGTON	**N J**
TECH LABORATORIES INC, PALISADES PARK	**N J**
Airflyte Electronics Co, Bayonne	N J
Ansul Co Electro Controls Div, Los Angeles	Cal
Autotronics Inc, Joplin	Mo
Bayside Timers, Inc, Flushing	N Y
Breeze Corps Inc, Union	N J
Bristol Motors-Timer Div Vocaline Corp of Amer Inc Old Saybrook	Conn
Chicago Dynamic Industries Inc, Precision Prods Div Chicago	Ill
Cole-Hersee Co, S Boston	Mass
Condor Industrial Corp, West Chicago	Ill
Controls Co of America, Schiller Park	Ill
Cramer Div Conrac Corp, Old Saybrook	Conn
Datametrics Inc, Waltham	Mass
Daven Div McGraw-Edison Co, Manchester	N H
Dowa Trading Co Ltd, Kobe	Japan
Essex Engineering Co Inc, Essex	Conn
Fifth Dimension Inc, Princeton	N J
Fisher-Akin Co, Manhattan Beach	Cal
Fuji Electric Co Ltd, Tokyo	Japan
General Devices Inc, Instrumentation Div Princeton	N J
Haydon Co The, A W, Waterbury	Conn
Haydon Switch & Instrument Inc, Waterbury	Conn
Industrial Timer Corp, Parsippany	N J
Instrument Development Labs Div Kollmorgen Corp Attleboro	Mass
Kinetics A Teledyne Co, Solana Beach	Cal

Langevin Div, Scientific Ind, Inc, Santa Ana	Cal
Lind Electro Development A Teledyne Co Mountain View	Cal
Maurey Instrument Corp, Chicago	Ill
Micro-Lectric Inc, Lindenhurst	N Y
Micro Switch Div, Honeywell, Freeport	Ill
Motor Control Corp Sub Zenrad Computer Corp, Huntington	NY
Northern Precision Labs Inc, Fairfield	N J
Ohmite Mfg Co, Skokie	Ill
Plessey Inc, Farmingdale	N Y
R C L Electronics Inc, Irvington	N J
Republic Industrial Corp, Lathrup Village	Mich
Rovalco Controls, Torrance	Cal
Sealectro Corp, Mamaroneck	N Y
Servonetics Inc, Los Angeles	Cal
Shallcross Mfg Co Sub Cutler-Hammer, Selma	N C
Siemens America Inc, New York	N Y
Siemon Mfg Co, Wayne	Ill
Sierra Electric Inc, Gardena	Cal
Signet Scientific Co, Burbank	Cal
Sparton Southwest Inc, Albuquerque	NM
Square D Co, Park Ridge	Ill
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Tech Laboratories Inc, Palisades Park	N J
Technology Instrument Corp Sub Bowmar Instr Corp Newbury Park	Cal
Tenor Co Inc, New Berlin	Wis
Vactric Control Equipment Ltd, Morden	England
Vocaline Co of America Inc, Old Saybrook	Conn
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan
Zenith Controls Inc, Chicago	Ill

SWITCHES--MULTI-CONTACT, ROTARY MULTI-DECK OR SINGLE DECK

AIRFLYTE ELECTRONICS CO, BAYONNE	**N J**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE	**WIS**
CHICAGO DYNAMIC INDUSTRIES INC, PRECISION PRODS DIV CHICAGO	**ILL**
COUCH ORDNANCE INC, NORTH QUINCY	**MASS**
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER	**N H**
ELECTRO-TEC CORP, ORMOND BEACH	**FLA**
GRAYHILL INC, LA GRANGE	**ILL**
J-B-T INSTRUMENTS INC, NEW HAVEN	**CONN**
MICRO SWITCH DIV, HONEYWELL, FREEPORT	**ILL**
R C L ELECTRONICS INC, IRVINGTON	**N J**
STANDARD GRIGSBY CO, AURORA	**ILL**
TECH LABORATORIES INC, PALISADES PARK N J	**ADV PG 664**
Ace Electronics Associates, Inc, Somerville	Mass
Airflyte Electronics Co, Bayonne	N J
Allen-Bradley Co, Milwaukee	Wis
American Solenoid Co, Inc, Rahway	N J
Ansul Co Electro Controls Div, Los Angeles	Cal
Ark-Les Switch Corp, Watertown	Mass
Autotronics Inc, Joplin	Mo
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Bourns Inc Trimpot Div, Riverside	Cal
Breeze Corps Inc, Union	N J
Carter Mfg Corp, Hudson	Mass
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Chicago Dynamic Industries Inc, Precision Prods Div Chicago	Ill
Couch Ordnance Inc, North Quincy	Mass
CTS Electronics Inc, South Pasadena	Cal
Cutler-Hammer Inc, Milwaukee	Wisc
Daven Div McGraw-Edison Co, Manchester	N H
Dowa Trading Co Ltd, Kobe	Japan
Eastern Specialty Co, Philadelphia	Pa
Electro Switch Corp, Weymouth	Mass
Electro-Tec Corp, Ormond Beach	Fla
Ericsson Centrum Inc, New York	N Y
Fujitsu Ltd, Tokyo	Japan
General Devices Inc, Instrumentation Div Princeton	N J
Giannini-Voltex, Whittier	Cal
Grayhill Inc, La Grange	Ill
Haydon Co The, A W, Waterbury	Conn
Janco Corp, Burbank	Cal
JB Electronic Transformers Inc, Chicago	Ill
J-B-T Instruments Inc, New Haven	Conn
Kinetics A Teledyne Co, Solana Beach	Cal
Langevin Div, Scientific Ind, Inc, Santa Ana	Cal
Ledex Div Ledex Inc, Dayton	Ohio
Leeds & Northrup Co, Philadelphia	Pa
Lind Electro Development A Teledyne Co Mountain View	Cal
Micro Switch Div, Honeywell, Freeport	Ill
Northern Precision Labs Inc, Fairfield	N J
Oak Mfg Co, Div Oak Electro/Netics Corp Crystal Lake	Ill
Ohmite Mfg Co, Skokie	Ill
Oki Electric Industry Co Ltd, Tokyo	Japan
Painton & Co, Ltd, Northampton	England
Pala Switch Co, Santa Ana	Cal
Pepco, Inc, North Hollywood	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Switch Corp, Marlboro	N J
R C L Electronics Inc, Irvington	N J
Relay & Control Corp, Long Island City	N Y
Seacor Inc, Norwood	NJ
Shallcross Mfg Co Sub Cutler-Hammer, Selma	N C
Shigoto Industries Ltd, New York	N Y
Signet Scientific Co, Burbank	Cal
Sparton Southwest Inc, Albuquerque	NM
Square D Co, Park Ridge	Ill
Staco Inc, Standard Elec Prods Co, Costa Mesa	Cal
Standard Grigsby Co, Aurora	Ill
Switching Controls Corp, North Hollywood	Cal
Tech Laboratories Inc, Palisades Park	N J

Telefunken Sales Corp, Garden City	N Y
Tenor Co Inc, New Berlin	Wis
Trompeter Electronics Inc, Chatsworth	Cal
United-Carr Inc, Boston	Mass
Vactric Control Equipment Ltd, Morden	England
Wilmington Controls Div Ledex Inc, Wilmington	Ohio
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

SWITCHES--MULTI-CONTACT, TAP

CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE	**WIS**
CHICAGO DYNAMIC INDUSTRIES INC, PRECISION PRODS DIV CHICAGO	**ILL**
GRAYHILL INC, LA GRANGE	**ILL**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
R C L ELECTRONICS INC, IRVINGTON	**N J**
TECH LABORATORIES INC, PALISADES PARK	**N J**
American Solenoid Co, Inc, Rahway	N J
Ansul Co Electro Controls Div, Los Angeles	Cal
Ark-Les Switch Corp, Watertown	Mass
Bourns Inc Trimpot Div, Riverside	Cal
Carson Mfg Co Inc, Indianapolis	Ind
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Chicago Dynamic Industries Inc, Precision Prods Div Chicago	Ill
Dowa Trading Co Ltd, Kobe	Japan
Eastern Specialty Co, Philadelphia	Pa
Electro Switch Corp, Weymouth	Mass
Grayhill Inc, La Grange	Ill
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Controls Co, Frankfort	Ind
Maurey Instrument Corp, Chicago	Ill
Millen Mfg Co Inc, James, Malden	Mass
Nutronics, Keycode Div, Paramus	N J
Ohmite Mfg Co, Skokie	Ill
Pala Switch Co, Santa Ana	Cal
R C L Electronics Inc, Irvington	N J
Shallcross Mfg Co Sub Cutler-Hammer, Selma	N C
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Siemens America Inc, New York	N Y
Square D Co, Park Ridge	Ill
Staco Inc, Standard Elec Prods Co, Costa Mesa	Cal
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Tech Laboratories Inc, Palisades Park	N J
Washington Electrical Products Co, Washington	Mo

SWITCHES--POWER, SOLID STATE

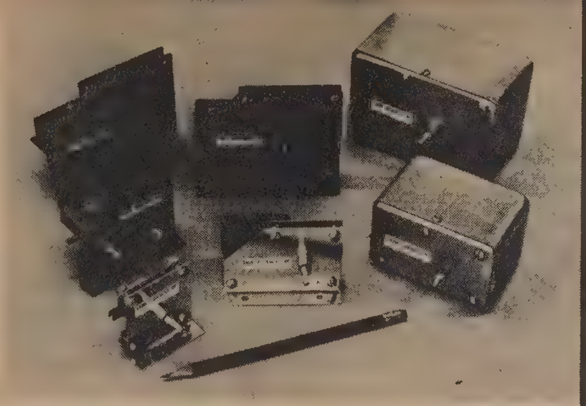
AMERICANA X-RAY CO, ENGLEWOOD	**N J**
GRIGSBY BARTON INC, ARLINGTON HEIGHTS	**ILL**
ADC Electronics, Inc, Harbor City	Cal
Americana X-Ray Co, Englewood	N J
American Electronic Labs Inc, Lansdale	Pa
Applied Microwave Lab, Inc, Andover	Mass
Burns & Towne, Inc, Malden	Mass
Computer Logic Corp, Santa Monica	Cal
Daico Industries Inc, Gardena	Cal
Denison Inc, R B, Bedford	Ohio
Electronic Control Corp, Euless	Tex
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Furnas Electric Co, Batavia	Ill
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Gorn Corp, Stamford	Conn
Grigsby Barton Inc, Arlington Heights	Ill
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Inet Power A Teledyne Co, Gardena	Cal
International Rectifier Semiconductor Div El Segundo	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kameco Ltd, Montreal	Que
Ledex Div Ledex Inc, Dayton	Ohio
MCG Electronics, Deer Park	N Y
Motor Control Corp Sub Zenrad Computer Corp, Huntington	NY
Neill Engineering Co, East Hartland	Conn
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Sensor Corp, Greenwich	Conn
Slocum Industries, Inc, Reseda	Cal
Sonus Corp, Natick	Mass

SWITCHES--PRESSURE-ACTUATED, GAS

CHICAGO SWITCH F & F, CHICAGO	**ILL**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD N Y	**ADV PGS 488-490**
GAGNE ASSOCIATES INC, BINGHAMTON	**N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
HYDRA-ELECTRIC CO, BURBANK, CAL	**ADV PG 668**
Aero Mechanism, Inc, Van Nuys	Cal
Allen-Bradley Co, Milwaukee	Wis
Assembly Engineers Div Rucker Co, Los Angeles	Cal
Automatic Equipment Corp, Cincinnati	Ohio
Bendix Corp Environmental Science Div, Baltimore	Md
Bendix Corp, Flight & Engine Instr Div South Montrose	Pa
Bourns Inc Instrument Div, Riverside	Cal
Bristol Div, American Chain & Cable Co Waterbury	Conn
Carleton Controls Corp, East Aurora	N Y
Celtic Industries Inc, Van Nuys	Cal
Century Electronics & Instruments Inc, Tulsa	Okla
Chicago Switch F & F, Chicago	Ill
Computer Instruments Corp, Hempstead	N Y
Consolidated Controls Corp, El Segundo	Cal
Consolidated Controls Corp, Bethel	Conn
Controls Co of America, Schiller Park	Ill
Cook Electric Co Automatic Controls Div, Palatine	Ill
Corning Glass Works, Corning	N Y
Custom Component Switches Inc, Chatsworth	Cal
Cutler-Hammer Inc, Milwaukee	Wisc
Datametrics Inc, Waltham	Mass
Dietz Co Inc, Henry G, Long Island City	N Y
Divac Electronics, Hawthorne	Cal
Dowa Trading Co Ltd, Kobe	Japan
Ellison Instrument Div Dieterich Std Corp New Buffalo	Mich
Fairchild Controls, Hicksville	N Y
Fulton Sylphon Div Robertshaw Controls Co Knoxville	Tenn
Furnas Electric Co, Batavia	Ill
Gagne Associates Inc, Binghamton	N Y
General Electric Co, ECSO, Schenectady	N Y
Genisco Technology Corp, Compton	Cal
Glassco Instrument Co, Pasadena	Cal
Gorn Corp, Stamford	Conn
Gulton Industries Inc Controls & Instru Grp Costa Mesa	Cal
Haydon Switch & Instrument Inc, Waterbury	Conn
Hydra-Electric Co, Burbank	Cal
IMC Magnetics Corp Ariz Div, Tempe	Ariz
International Controls Corp, Fairfield	N J
In-Val-Co, Tulsa	Okla
Kidde & Co Inc, Walter, Belleville	N J
La Telemecanique Electrique, 92 Rueil	France
Lear Siegler Inc, Romec Div, Elyria	Ohio
Meletron Corp, Los Angeles	Cal
National Acme Co Electrical Controls Div Cleveland	Ohio
NUS Corp, Underwater Sys Div, Paramus	N J
Precision Sensors Inc, Bridgeport	Conn
Risk Industries Inc, George, Columbus	Neb
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Sparton Corp, Jackson	Mich
Sparton Southwest Inc, Albuquerque	NM
Square D Co, Park Ridge	Ill
Tavco, Inc, Santa Monica	Cal
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
United Electric Controls Co, Watertown	Mass
U S Switch Corp, Sub Westport Dev & Mfg Co Inc Milford	Conn
UOP Instruments Div, Greenwich	Conn
Wallace & Tieman Inc, Belleville	N J

PRESSURE SWITCHES
A COMPLETE LINE...DESIGNS FOR ALL APPLICATIONS.
Hydra-Electric Co.
3151 KENWOOD ST., BURBANK
CALIF. 91503 • (213) 849-4601

NEW sensiflex Fluidic Switches
Wide Range of Sizes, Styles, Sensitivity



Sensiflex Fluidic Switches react to air, liquid flow or level, and vacuum or pressure changes. Ideal for new product design . . . easy to adapt to existing equipment. Accessories and all-air amplifiers available.

Our engineers will be glad to supply information on applying Sensiflex Switches to your own job at no obligation. No Salesman Will Call.

Special Features
- Switches operate on as little as 0.001 psi air pressure. Can be made to work with other sensitivities or to work on vacuum.
- Service-proved precision SPDT switch, to 25A; also DPDT. Flex-tested polyurethane bellows, or high temperature silicone diaphragms.
- Enclosed protective aluminum cases with conduit outlets. Mounting plates permit any-position mounting.
- Switch dimensions from 2.25" long, 1.69" wide, 2.31" high.

Also Available: Ultra-sensitive all-air models, permitting use in hazardous environments, and eliminating electricals.
New super-sensitive models with billion-cycle capacities.
Fluidic switch test stand: Complete unit for testing and designing fluidic systems.

For further information write:
sensiflex, Dept. 8EBG
GAGNE ASSOCIATES, INC., 50 Wall St.
Binghamton, N.Y. 13901 Phone: 607-723-9556

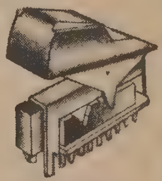
Specify
CHICAGO SWITCH
FOR
MINIATURE
AND
SUBMINIATURE
SWITCHES
for printed circuit
and IC applications

Wide versatile line of

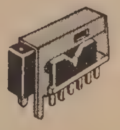
Rotary, Slide and Slide-Snap general purpose switches for OEM, industrial and military applications

Computer Grade. Reliability & Quality, Low Cost

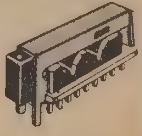
4 Pin SPDT



(Half Rocker)



4 Pole DT



6 PDT

SWITCHES--PRESSURE-ACTUATED, LIQUID

CHICAGO SWITCH F & F, CHICAGO	**ILL**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD N Y	**ADV PGS 488-490**
GAGNE ASSOCIATES INC, BINGHAMTON, N Y	**ADV PG 669**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
HYDRA-ELECTRIC CO, BURBANK, CAL	**ADV PG 668**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
Acoustica Associates Inc, Los Angeles	Cal
Adel Div De Laval Turbine Calif Inc, Burbank	Cal
Aerojet-General Corp Electronics Div, Azusa	Cal
Aero Mechanism, Inc, Van Nuys	Cal
Allen-Bradley Co, Milwaukee	Wis
Assembly Engineers Div Rucker Co, Los Angeles	Cal
Automatic Equipment Corp, Cincinnati	Ohio
Bendix Corp Environmental Science Div, Baltimore	Md
Bendix Corp, Flight & Engine Instr Div South Montrose	Pa
Bourns Inc Instrument Div, Riverside	Cal
Bristol Div, American Chain & Cable Co Waterbury	Conn
Carleton Controls Corp, East Aurora	N Y
Century Electronics & Instruments Inc, Tulsa	Okla
Chicago Switch F & F, Chicago	Ill
Computer Instruments Corp, Hempstead	N Y
Consolidated Controls Corp, El Segundo	Cal
Consolidated Controls Corp, Bethel	Conn
Controlotron Corp, Farmingdale	N Y
Control Products Inc, East Hanover	N J
Controls Co of America, Schiller Park	Ill
Cook Electric Co Automatic Controls Div, Palatine	Ill
Custom Component Switches Inc, Chatsworth	Cal
Dietz Co Inc, Henry G, Long Island City	N Y
Divac Electronics, Hawthorne	Cal
Dowa Trading Co Ltd, Kobe	Japan
Dynamic Controls Corp, South Windsor	Conn
Fairchild Controls, Hicksville	N Y
Fulton Sylphon Div Robertshaw Controls Co Knoxville	Tenn
Furnas Electric Co, Batavia	Ill
Gagne Associates Inc, Binghamton	N Y
Gems Co Inc, Farmington	Conn
General Electric Co, ECSO, Schenectady	N Y
Genisco Technology Corp, Compton	Cal
Glassco Instrument Co, Pasadena	Cal
Gorn Corp, Stamford	Conn
Gulton Industries Inc Controls & Instru Grp Costa Mesa	Cal
Haydon Switch & Instrument Inc, Waterbury	Conn
Hydra-Electric Co, Burbank	Cal
IMC Magnetics Corp Ariz Div, Tempe	Ariz
Industrial Instrument Corp, Austin	Tex
International Controls Corp, Fairfield	N J
In-Val-Co, Tulsa	Okla
ITT Barton Controls & Instr Div, Monterey Park	Calif
La Telemecanique Electrique, 92 Rueil	France
Lucci & Co, Sarasota	Fla
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Timers Co, Indianapolis	Ind
Martin-Decker Corp, Santa Ana	Cal
Meletron Corp, Los Angeles	Cal
National Acme Co Electrical Controls Div Cleveland	Ohio
NUS Corp, Underwater Sys Div, Paramus	N J
Precision Sensors Inc, Bridgeport	Conn
Rex Chainbelt Inc, Milwaukee	Wis
Risk Industries Inc, George, Columbus	Neb
Scaico Div, Wavetronics Industries Inc West Pittston	Pa
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Sparton Corp, Jackson	Mich
Sparton Southwest Inc, Albuquerque	NM
Square D Co, Park Ridge	Ill
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Tavco, Inc, Santa Monica	Cal
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
United Electric Controls Co, Watertown	Mass
U S Switch Corp, Sub Westport Dev & Mfg Co Inc Milford	Conn
UOP Instruments Div, Greenwich	Conn
Wavetronics Industries Inc, West Pittston	Pa

SWITCHES--PRINTED CIRCUIT TERMINAL

AIRFLYTE ELECTRONICS CO, BAYONNE	**N J**
AMERICAN ZETTLER, INC, COSTA MESA	**CAL**
ANSLEY MFG CO, ARTHUR, NEW HOPE	**PA**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE	**WIS**
CHERRY ELECTRICAL PRODUCTS CORP, HIGHLAND PARK	**ILL**
CHICAGO DYNAMIC INDUSTRIES INC, PRECISION PRODS DIV CHICAGO	**ILL**
CHICAGO SWITCH F & F, CHICAGO, ILL	**ADV PG 669**
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER	**N H**
DIGITRAN CO, PASADENA	**CAL**
GENERAL REED CO, CLARK	**N J**
GRAYHILL INC, LA GRANGE	**ILL**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
MICRO SWITCH DIV, HONEYWELL, FREEPORT	**ILL**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
NEY CO, J M, BLOOMFIELD	**CONN**
R C L ELECTRONICS INC, IRVINGTON	**N J**
STANDARD GRIGSBY CO, AURORA	**ILL**
TECH LABORATORIES INC, PALISADES PARK	**N J**
Aikow Shoji Kaisha Ltd, Osaka	Japan
Airflyte Electronics Co, Bayonne	N J
Alco Electronic Products, Inc, Lawrence	Mass

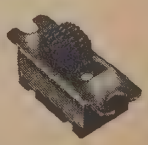
Specify
CHICAGO SWITCH
SUBMINIATURE
SWITCHES

Everything tiny but performance

Advanced design for OEM, Industrial or Military Uses

Ultraminiature DPDT slide
rated 500 MA @ 120V A.C. or 250 MA @ 9V D.C.
For printed circuit application
Ultra long life

Mini Slide
smallest in its field
does 10 times as many jobs in ¼ the space
anti-tease design
4 pin Z, 1A-1B, 1C Circuits
2 amps at 120V A.C.
½ amp at 120V D.C.



TO-5 Rotary
2 to 8 positions for PC and IC applications
detent action

See Other Adv. Under Switches: Miniature

Want to start something? Send for samples, catalog.

CHICAGO SWITCH
Div. of F & F Enterprises, Inc.
2035 Wabansia Ave., Chicago, Ill. 60647
Phone: (312) 489-5500

This is our Molex 1175. A lighted push button switch. Snap mounts. Spade or wire terminals make assembly easy. In quantity, costs about sixty cents.

You could pay more, but that's the point. Men who use switches have told us, "enough is enough". We take that seriously. By creating switches that do the job right, yet aren't over-engineered to the point that costs wind up in left field.

So this switch is available in nine colors, 500 variations, and is built to go on and off —and on and on. For about sixty cents.

If that makes sense to you, and you would like a free sample of our 1175 switch, write or phone (312) 969-4550.

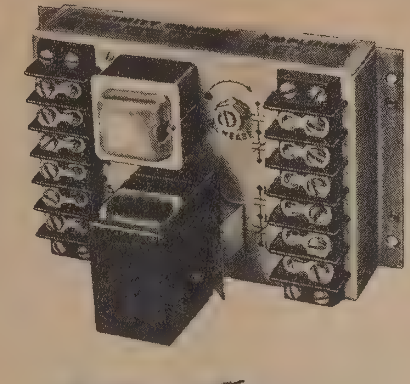
molex

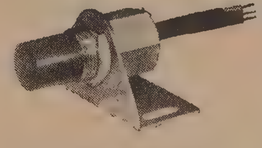
MOLEX PRODUCTS COMPANY
[illegible] Grove, Ill. 60515

American Monarch Div Mpls Scientific Controls Minneapolis ... Minn
American Zettler, Inc, Costa Mesa ... Cal
Ansley Mfg Co, Arthur, New Hope ... Pa
Astrolab Inc, Linden ... N J
Autotronics Inc, Joplin ... Mo
Beckman Instruments Inc, Helipot Div, Fullerton ... Cal
Bulova Watch Co Inc, Timer Lab, Flushing ... N Y
Centralab, Div Globe-Union Inc, Milwaukee ... Wis
Cherry Electrical Products Corp, Highland Park ... Ill
Chicago Dynamic Industries Inc, Precision Prods Div Chicago ... Ill
Chicago Switch F & F, Chicago ... Ill
Condor Industrial Corp, West Chicago ... Ill
Continental-Wirt Electronics Corp, Philadelphia ... Pa
Control Switch Div Controls Co of America, Folcroft ... Pa
Co-Ord Div LVC Industries Inc, Corona ... NY
CTS Electronics Inc, South Pasadena ... Cal
Daven Div McGraw-Edison Co, Manchester ... N H
Digilog Electronics Corp, Seattle ... Wash
Digitran Co, Pasadena ... Cal
Dowa Trading Co Ltd, Kobe ... Japan
Electro-Mec Instrument Corp, Watertown ... Conn
General Devices Inc, Instrumentation Div Princeton ... N J
General Reed Co, Clark ... N J
Grayhill Inc, La Grange ... Ill
Impectron Inc, New York ... N Y
Inter-Market Inc, Glenview ... Ill
Janco Corp, Burbank ... Cal
Kameco Ltd, Montreal ... Que
Langevin Div, Scientific Ind, Inc, Santa Ana ... Cal
Licon Div, Illinois Tool Works Inc, Chicago ... Ill
Luminator Inc Display-Control Div, Plano ... Tex
Mallory & Co Inc, P R, Indianapolis ... Ind
Mallory Controls Co, Frankfort ... Ind
Methode Electronics Inc, Chicago ... Ill
Micro Switch Div, Honeywell, Freeport ... Ill
Molex Products Co, Downers Grove ... Ill
Ney Co, J M, Bloomfield ... Conn
Oak Mfg Co, Div Oak Electro/Netics Corp Crystal Lake ... Ill
Omega-t Systems Inc, Richardson ... Tex
Pala Switch Co, Santa Ana ... Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
R C L Electronics Inc, Irvington ... N J
Republic Industrial Corp, Lathrup Village ... Mich
Risk Industries Inc, George, Columbus ... Neb
Rye Industries, Inc, Mamaroneck ... N Y
Schurter AG, H, 6002 Lucerne ... Switzerland
Seacor Inc, Norwood ... NJ
Shallcross Mfg Co Sub Cutler-Hammer, Selma ... N C
Sharpe Instruments Div Scintrex Inc, Buffalo ... NY
Showa Musen Kogyo Co Ltd, Tokyo ... Japan
Standard Grigsby Co, Aurora ... Ill
Tateisi Electronics Co, Ukyo-ku, Kyoto ... Japan
Tech Laboratories Inc, Palisades Park ... N J
Torsion Balance Co, Clifton ... N J
UID Electronics Corp, Hollywood ... Fla
Unimax Switch Div Maxson Electronics Corp Wallingford ... Conn
Vactric Control Equipment Ltd, Morden ... England
Wilmington Controls Div Ledex Inc, Wilmington ... Ohio

SWITCHES--PROGRAMMABLE

AIRFLYTE ELECTRONICS CO, BAYONNE ... N J
CHERRY ELECTRICAL PRODUCTS CORP, HIGHLAND PARK ... ILL
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER ... N H
DIGITRAN CO, PASADENA ... CAL
HAYDON SWITCH & INSTRUMENT INC, WATERBURY ... CONN
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND ... OHIO
R C L ELECTRONICS INC, IRVINGTON ... N J
TECH LABORATORIES INC, PALISADES PARK N J ... ADV PG 664
Airflyte Electronics Co, Bayonne ... N J
American Monarch Div Mpls Scientific Controls Minneapolis ... Minn
American Solenoid Co, Inc, Rahway ... N J
Astro Lab, Westminster ... Cal
Autotronics Inc, Joplin ... Mo
Autronics Corp, Pasadena ... Cal
Bristol Motors-Timer Div Vocaline Corp of Amer Inc Old Saybrook ... Conn
Bulova Watch Co Inc, Timer Lab, Flushing ... N Y
Burnett Electronics Lab Inc, San Diego ... Cal
Carter Mfg Corp, Hudson ... Mass
Cherry Electrical Products Corp, Highland Park ... Ill
Daven Div McGraw-Edison Co, Manchester ... N H
DeMornay-Bonardi Div Datapulse Inc, Pasadena ... Cal
Digitran Co, Pasadena ... Cal
Dowa Trading Co Ltd, Kobe ... Japan
Ericsson Centrum Inc, New York ... N Y
Essex Engineering Co Inc, Essex ... Conn
Giannini-Voltex, Whittier ... Cal
Haydon Switch & Instrument Inc, Waterbury ... Conn
Hickok Electrical Instrument Co, Cleveland ... Ohio
Kinetics A Teledyne Co, Solana Beach ... Cal
Ledex Div Ledex Inc, Dayton ... Ohio
Matrix Div, Schafer Electronics, Chatsworth ... Cal
Measurement Technology Corp, Canoga Park ... Cal
3M Company, St Paul ... Minn
3M Instrument Products, Camarillo ... Cal
Monitor Systems Inc, Fort Washington ... Pa
Montgomery Mfg Co, Inc, Owensville ... Ind
Parzen Research Inc Sub Ovitron Corp, Westbury ... N Y
Plessey Inc, Farmingdale ... N Y
Precision Mecanique Labinal, 93 Saint-Ouen ... France
Precision Mechanisms Corp, Westbury ... N Y
R C L Electronics Inc, Irvington ... N J
Schrack Electrical Sales Corp, New York ... N Y
Space & Systems Div General Time Corp Stamford ... Conn
Sparton Southwest Inc, Albuquerque ... NM
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia ... Pa
Tech Laboratories Inc, Palisades Park ... N J
Tenor Co Inc, New Berlin ... Wis
Vocaline Co of America Inc, Old Saybrook ... Conn





Proximity Switches

Detects without physical contact. Ideal for high speed automatic production lines. Complete line, including all-metals and ferromagnetic sensitive systems, high speed counting systems, AND/OR logic systems, etc. Request Catalog 50.

MICRO SWITCH
FREEPORT, ILLINOIS, U.S.A.
A DIVISION OF HONEYWELL

SWITCHES--PROXIMITY

DABURN ELECTRONICS & CABLE CORP, BRONX ... N Y
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
MICRO SWITCH DIV, HONEYWELL, FREEPORT ILL ... ADV PG 671
ROBERTSHAW CONTROLS CO, ACRO DIV, COLUMBUS ... OHIO
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK ... N J
Aerodyne Controls Corp, Farmingdale ... N Y
Airmec Instruments Ltd, Buckinghamshire ... England
Allen-Bradley Co, Milwaukee ... Wis
Amark Corp, Plainview ... N Y
Amtron Inc, Midlothian ... Ill
Automatic Equipment Corp, Cincinnati ... Ohio
Control Switch Div Controls Co of America, Folcroft ... Pa
Cutler-Hammer Inc, Milwaukee ... Wisc
Daburn Electronics & Cable Corp, Bronx ... N Y
Decker Corp, Bala Cynwyd ... Pa
Denison Inc, R B, Bedford ... Ohio
Dolan Jenner Industries Inc, Melrose ... Mass
Dowa Trading Co Ltd, Kobe ... Japan
Drexelbrook Engineering Co, Glenside ... Pa
Electro Products Labs Inc Transducer Div, Chicago ... Ill
Euclid Electric & Mfg Div Harvey Hubbell Inc, Madison ... Ohio
General Electric Co, ECSO, Schenectady ... N Y
General Equipment & Mfg Co, Louisville ... Ky
Hird-Brown Ltd, Bolton, Lancs ... England
Hosiden Electronics Co Ltd, Osaka ... Japan
Hyde Park Electronics Inc, Dayton ... Ohio
Licon Div, Illinois Tool Works Inc, Chicago ... Ill
Luminator Inc Display-Control Div, Plano ... Tex
Martin-Decker Corp, Santa Ana ... Cal
Micro Switch Div, Honeywell, Freeport ... Ill
National Acme Co Electrical Controls Div Cleveland ... Ohio
Peco Corp, Mountain View ... Cal
Photobell Co Inc, New York ... N Y
Precision Systems Corp, Columbus ... Ohio
Research Associates Inc, Linden ... N J
Revere Corp of America, Wallingford ... Conn
Robertshaw Controls Co, Acro Div, Columbus ... Ohio
Sensor Corp, Greenwich ... Conn
Siemens America Inc, New York ... N Y
Square D Co, Park Ridge ... Ill
Tateisi Electronics Co, Ukyo-ku, Kyoto ... Japan
Tung-Sol Div Wagner Electric Corp, Newark ... N J
Vapor Corp, Chicago ... Ill
Wavelabs Co Div Systron-Donner Corp, San Diego ... Cal
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh ... Pa
Whittaker Corp Instrument Sys Div North Hollywood ... Cal

SWITCHES--PUSHBUTTON

AMERICAN ZETTLER, INC, COSTA MESA ... CAL
BIRNBACH CO INC, FREEPORT ... N Y
BOWMAR INSTRUMENT CORP, FORT WAYNE ... IND
CAPITOL MACHINE & SWITCH CO, DANBURY ... CONN
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE WIS ... ADV PG 411
CHERRY ELECTRICAL PRODUCTS CORP, HIGHLAND PARK ... ILL
CHICAGO DYNAMIC INDUSTRIES INC, PRECISION PRODS DIV CHICAGO. ILL ... ADV PG 682
CHICAGO SWITCH F & F, CHICAGO ... ILL
COUCH ORDNANCE INC, NORTH QUINCY ... MASS
DABURN ELECTRONICS & CABLE CORP, BRONX ... N Y
DIGITRAN CO, PASADENA ... CAL
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
GRAYHILL INC, LA GRANGE, ILL ... ADV PG 673
GUARDIAN ELECTRIC MFG CO, CHICAGO, ILL ... ADV PG 661
HAYDON SWITCH & INSTRUMENT INC, WATERBURY ... CONN
MALLORY & CO INC, P R, INDIANAPOLIS ... IND
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
MICRO SWITCH DIV, HONEYWELL, FREEPORT ILL ... ADV PG 671
MITSUMI ELECTRIC CO LTD, TOKYO ... JAPAN
MOLEX PRODUCTS CO, DOWNERS GROVE, ILL ... ADV PG 670
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON ... IND
ROBERTSHAW CONTROLS CO, ACRO DIV, COLUMBUS ... OHIO
STANDARD GRIGSBY CO, AURORA, ILL ... ADV PG 672
TAKAMISAWA ELECTRIC CO, LTD, TOKYO ... JAPAN
TOKYO ELECTRIC CO LTD, TOKYO ... JAPAN
TOYO MUSEN CO LTD, TOKYO, ... JAPAN
Adalet Mfg Co, Div Scott & Fetzer Co, Cleveland ... Ohio
Agastat Div, Elastic Stop Nut Corp, Elizabeth ... N J
Alco Electronic Products, Inc, Lawrence ... Mass
Allen-Bradley Co, Milwaukee ... Wis
Allmetal Screw Products Co Inc, Garden City ... N Y
American Monarch Div Mpls Scientific Controls Minneapolis ... Minn
American Solenoid Co, Inc, Rahway ... N J
American Zettler, Inc, Costa Mesa ... Cal
Ansul Co Electro Controls Div, Los Angeles ... Cal
Ark-Les Switch Corp, Watertown ... Mass
Automatic Electric Co, Northlake ... Ill
Automatic Switch Co, Florham Park ... N J
Avnet Electronics, Westbury ... N Y
Beltone Electronics Corp, Chicago ... Ill
Betts & Betts Corp, Woodbury ... Conn
Birnbach Co Inc, Freeport ... N Y
Bowmar Instrument Corp, Fort Wayne ... Ind
Brosseau Co, Joseph E, Franklin Park ... Ill
Capitol Machine & Switch Co, Danbury ... Conn
Carling Electric Inc, West Hartford ... Conn
Carter Precision Electric Co, Skokie ... Ill
Centralab, Div Globe-Union Inc, Milwaukee ... Wis
Cherry Electrical Products Corp, Highland Park ... Ill
Chicago Dynamic Industries Inc, Precision Prods Div Chicago ... Ill

PUSHBUTTON SWITCHES

Compact assemblies with one to four precision snap-acting switches, each SPDT. Momentary or maintained contact action. Variety of button styles and colors. Also modular matrix-mount units. Request Catalog 51.

MICRO SWITCH
FREEPORT, ILLINOIS, U.S.A.
A DIVISION OF HONEYWELL

standard grigsby SWITCHES

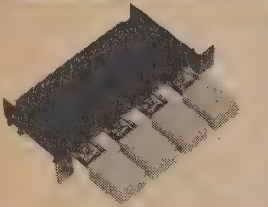
your ONE CALL SOURCE for...

QUALITY
DELIVERY
LOW COST

PUSHBUTTON, SLIDE, SUBMINIATURE ROTARY & LEVER, ROTARY, LEVER and THUMBWHEEL SWITCHES

Standard Grigsby Co. is devoted exclusively to engineering, designing and manufacturing of commerical, industrial, and military specification switches. Our mechanical and electronic engineers welcome your inquiry for regular, special, unusual, and printed circuit switch design applications. We will develop a switch from a sketch, completely tool up, and provide high speed production for any quantity of the exact switch to fulfill your requirements.

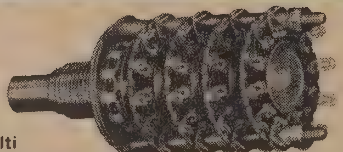
MODULE PUSHBUTTONS



NEW

1-20 buttons, in 1 thru 12 poles per button. Button spacings .590" and .708". Numerous functions in wire thru or printed circuit contacts.

SUBMINIATURES



For multi circuit application where space is limited. Strut screw mounting ¾". Optional assemblies include spring return, A.C. and concentric shafts.

ROTARY SWITCHES

From 1⁵⁄₃₂" strut centers thru 2⁷⁄₃₂". Switching from 2 to 28 positions. Available in a multiplicity of applications.

LEVERS

Available up to 4 positions in basic designs of subminiature and rotary switches.

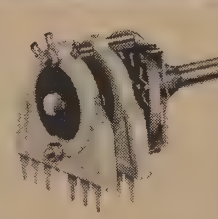
THUMBWHEELS

Ideal for sub-miniaturization. Designed to convert rotary motion switches to thumbwheel action. 10 positions standard.

PRINTED CIRCUIT BOARDS

NEW

Multi-deck Rotary Switches SKPC exclusive for printed circuit board use. Ideal for fast, low cost assembly. No hand wiring. Ruggedized, plug-in terminals and glass alkyd molded wafers.



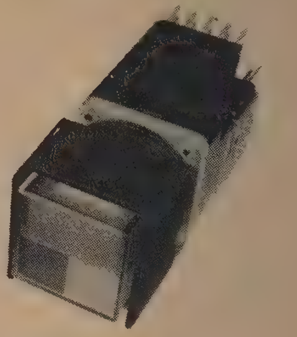
Consult your Standard Grigsby representative or write Dept. B for copy of our New Switch Catalog

SK *standard grigsby co.*
A DIVISION OF Standard Kollsman INDUSTRIES INC
920 Rathbone Ave., Aurora, Illinois 60507

TELEPHONE: AREA CODE 312
CHICAGO LINE 242-4080
AURORA 897-8417
TWX 910-232-3138

IN CANADA:
GENERAL OFFICE AND PLANT,
37 DRUMMOND ST., MIMICO
TORONTO 14, ONTARIO.
TELEPHONE: 259-7651

MINIATURE OILTIGHT PUSHBUTTONS



Lighted and unlighted miniature pushbuttons and indicators for industrial electronic equipment. Contemporary square shape, large clear legends, up to four lamps per button. Up to four SPDT circuits per unit. Request Product Sheet PM.

MICRO SWITCH
FREEPORT, ILLINOIS, U.S.A.
A DIVISION OF HONEYWELL

Chicago Switch F & F, Chicago	Ill
C & K Components Inc, Watertown	Mass
Clare-Pendar Co, Post Falls	Idaho
Clare & Co, C P, Chicago	Ill
Clark Control Div, A O Smith Corp, Cleveland	Ohio
Cole-Hersee Co, S Boston	Mass
Control Switch Div Controls Co of America, Folcroft	Pa
Couch Ordnance Inc, North Quincy	Mass
Cutler-Hammer Inc, Milwaukee	Wisc
Daburn Electronics & Cable Corp, Bronx	N Y
Dialight Corp, Brooklyn	N Y
Digitran Co, Pasadena	Cal
Divac Electronics, Hawthorne	Cal
Dowa Trading Co Ltd, Kobe	Japan
Durant Mfg Co, Milwaukee	Wis
Eagle Electric Mfg Co Inc, Long Island City	N Y
Eby Co Hugh H, Philadelphia	Pa
Electro-Mech Components Inc, San Gabriel	Cal
Electronic Controls Inc, Wilton	Conn
Ericsson Centrum Inc, New York	N Y
Euclid Electric & Mfg Div Harvey Hubbell Inc, Madison	Ohio
Fitre, 20143 Milano	Italy
Fuji Electric Co Ltd, Tokyo	Japan
Fujitsu Ltd, Tokyo	Japan
Furnas Electric Co, Batavia	Ill
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Control Co, Boston	Mass
General Electric Co, ECSO, Schenectady	N Y
Grayhill Inc, La Grange	Ill
Guardian Electric Mfg Co, Chicago	Ill
Harvey Hubbell Inc, Bridgeport	Conn
Haydon Switch & Instrument Inc, Waterbury	Conn
Impectron Inc, New York	N Y
Indak Mfg Co, Northbrook	Ill
Indicator Industries Inc, New York	N Y
Industrial Devices Inc, Edgewater	N J
ITT Europe Inc Components Gp, Brussels 1	Belgium
Jaidinger Mfg Co Inc, Chicago	Ill
Janco Corp, Burbank	Cal
Jay-El Products Inc, Gardena	Cal
Kameco Ltd, Montreal	Que
Korry Mfg Co, Seattle	Wash
La Telemecanique Electrique, 92 Rueil	France
LCC-CICE, 93 Montreuil-sous-Bois	France
Leviton Mfg Co Inc, Brooklyn	N Y
Licon Div, Illinois Tool Works Inc, Chicago	Ill
Luminator Inc Display-Control Div, Plano	Tex
Machinery Electrification Inc, Northboro	Mass
Mackworth Rees Div, Madison Heights	Mich
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Controls Co, Frankfort	Ind
Marco-Oak Industries, Anaheim	Cal
Master Specialties Co, Costa Mesa	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McGill Mfg Co Inc, Electrical Div, Valparaiso	Ind
Methode Electronics Inc, Chicago	Ill
Metox, Paris 20	France
Micro Metrics Inc, Paterson	N J
Micro Switch Div, Honeywell, Freeport	Ill
Miles Industries Inc, Garnerville	N Y

When Only Excellent is Adequate TURN to Grayhill

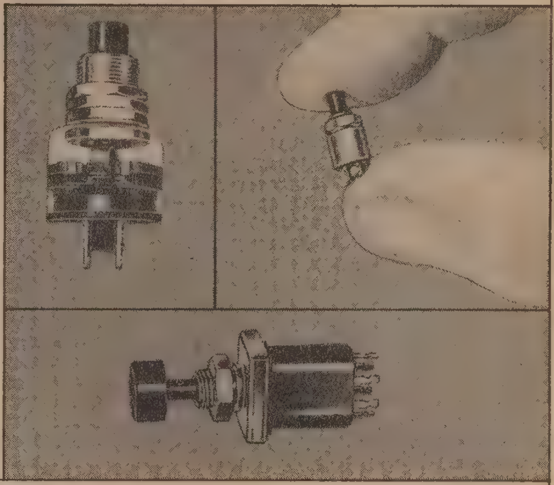
for PUSH BUTTON SWITCHES
MINIATURE. WIPING, SNAP ACTION and BUTT CONTACTS.
SPST, SPDT, DPST, DPDT.
PUSH-PULL. LIGHTED.
25,000 to 1,000,000 OPERATIONS.

Select Materials

- Contacts — Fine Silver
- Springs — Tinned Music Wire
- Housing — Molded Phenolic per MIL-M-14
- Shorting Bar and Terminals — Fine Silver or Silver Plated Copper Alloy

Typical Specifications

- ¼ Amp. to 10 Amps., 115 VAC Resistive
- Contact Resistance 10 Milliohms
- Insulation Resistance — 25,000 to 900,000 Megohms



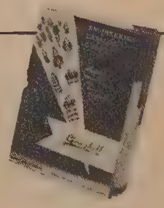
for ROTARY SWITCHES
MINIATURE. TOTALLY ENCLOSED. MULTI-POLE.
TEMPERATURE TO 125°C.
30°, 36°, 45°, 60° and 90° ANGLE OF THROW.
100,000 OPERATIONS OR BETTER.

Typical Specifications

- Explosion Proof
- Contact Resistance 10 Milliohms
- Make or Break ¼ Amp. to 15 Amps., 115 VAC Resistive
- 1 to 6 poles per Deck
- 2 to 12 Positions per Pole
- 1 to 12 Decks

for ELECTRONIC COMPONENTS
MINIATURE —
SUB-MINIATURE —
ULTRA-MINIATURE.
HIGH RELIABILITY
UNDER EXTREME ENVIRONMENTAL
AND OPERATING CONDITIONS.

Telephone us for
the latest Grayhill
Engineering Catalog
G-304-A



Grayhill INC.

537 Hillgrove Avenue
LaGrange, Illinois 60525
Area Code 312, Phone 354-1040

... the Difference Between Excellent and Adequate

Milli-Switch Corp, Gladwyne ..... Pa
Mitsumi Electric Co Ltd, Tokyo ..... Japan
Molex Products Co, Downers Grove Ill
Mossman Inc, Donald P, Brewster ..... N Y
Mura Corp, Great Neck ..... N Y
National Acme Co Electrical Controls Div Cleveland ..... Ohio
Navigation Computer Corp, Norristown ..... Pa
Oak Mfg Co, Div Oak Electro/Netics Corp Crystal Lake Ill
Otto Controls, Morton Grove Ill
Painton & Co, Ltd, Northampton ..... England
Partrick & Wilkins Co, Philadelphia ..... Pa
Paul & Stein Bros Inc, F H, New York ..... N Y
Pepco, Inc, North Hollywood ..... Cal
Philmore Mfg Co Inc, Richmond Hill ..... N Y
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton ..... Ind
Precision Mecanique Labinal, 93 Saint-Ouen ..... France
Radar Relay Div, Teledyne Inc, Santa Monica ..... Cal
Republic Industrial Corp, Lathrup Village ..... Mich
RILS Industries Inc, Audubon ..... Pa
Risk Industries Inc, George, Columbus ..... Neb
Robertshaw Controls Co, Acro Div, Columbus ..... Ohio
Ross Co, Milton, Southampton ..... Pa
Rowan Controller Co, Oceanport ..... N J
Rundel Electric Co, Millbrae ..... Cal
Seacor Inc, Norwood ..... NJ
Shigoto Industries Ltd, New York ..... N Y
Showa Musen Kogyo Co Ltd, Tokyo ..... Japan
Smith Inc, Herman H, Brooklyn ..... N Y
Square D Co, Park Ridge Ill
Staco Inc, Standard Elec Prods Co, Costa Mesa ..... Cal
Standard Grigsby Co, Aurora Ill
Star-A Electric Mfg Co Inc, Brooklyn ..... N Y
Stettner-Trush Inc, Cazenovia ..... N Y
Switchcraft Inc, Chicago Ill
Switching Controls Corp, North Hollywood ..... Cal
Takamisawa Electric Co, Ltd, Tokyo ..... Japan
Tateisi Electronics Co, Ukyo-ku, Kyoto ..... Japan
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City ..... Japan
Telefunken Sales Corp, Garden City ..... N Y
Texas Instruments Incorporated, Dallas ..... Tex
Tokyo Electric Co Ltd, Tokyo ..... Japan
Touch-Plate Mfg Corp, Paramount ..... Cal
Tower Mfg Corp, Providence ..... R I
Toyo Musen Co Ltd, Tokyo ..... Japan

Transformer Engineers, San Gabriel ..... Cal
Transistor Electronics Corp, Minneapolis ..... Minn
Trimm Inc, Libertyville Ill
Truco Inc, Simsbury ..... Conn
Ucinite Co Div United-Carr, Newtonville ..... Mass
UID Electronics Corp, Hollywood ..... Fla
Unimax Switch Div Maxson Electronics Corp Wallingford ..... Conn
United-Carr Inc, Boston ..... Mass
Vemaline Products Co, Inc, Wycoff ..... N J
Vitramon Inc, Bridgeport ..... Conn
Ward Leonard Electric Co, Mount Vernon ..... N Y
Westinghouse Electric Corp, Standard Control Div Beaver ..... Pa
Yaskawa Electric Mfg Co Ltd, Tokyo ..... Japan

SWITCHES--REED

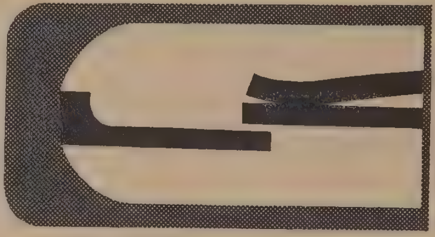
AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE ..... N Y
ANSLEY M.G CO, ARTHUR, NEW HOPE, PA ..... ADV PG 674
CHERRY ELECTRICAL PRODUCTS CORP, HIGHLAND PARK ILL ..... ADV PG 679
FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE ..... N J
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ..... ADV PGS 7
GENERAL REED CO, CLARK, N J ..... ADV PG 674
IBM, INDUSTRIAL PRODUCTS MARKETING, NEW YORK ..... NY
MICRO SWITCH DIV, HONEYWELL, FREEPORT ILL ..... ADV PG 674
NIPPON ELECTRIC CO LTD, TOKYO JAPAN ..... ADV PGS 752,753
ADC Products, Minneapolis ..... Minn
Allen-Bradley Co, Milwaukee ..... Wis
American Time Products, Elctns Div Bulova Watch Co Inc Woodside ..... N Y
Ansley Mfg Co, Arthur, New Hope ..... Pa
Caton Industries Inc, Roselle ..... N J
Cherry Electrical Products Corp, Highland Park Ill
Clare-Pendar Co, Post Falls ..... Idaho
Control Switch Div Controls Co of America, Folcroft ..... Pa
Cunningham Son & Co Inc, James, Honeoye Falls ..... N Y
Daico Industries Inc, Gardena ..... Cal
Dowa Trading Co Ltd, Kobe ..... Japan
Essex Wire Corp Controls Div RBM Controls Logansport ..... Ind
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove ..... N J
General Devices Inc, Instrumentation Div Princeton ..... N J
General Electric Co, ECSO, Schenectady ..... N Y
General Reed Co, Clark ..... N J
Gordos Corp, Bloomfield ..... N J
Hamlin Inc, Lake Mills ..... Wis
Hathaway Instruments Inc, Denver ..... Colo
IBM, Industrial Products Marketing, New York ..... NY
ITT Europe Inc Components Gp, Brussels 1 ..... Belgium
Kameco Ltd, Montreal ..... Que
Madison Labs, Inc, Madison ..... Conn
Martin-Decker Corp, Santa Ana ..... Cal
McKee Automation Corp Sub James Cunningham Inc San Fernando ..... Cal
Micro Switch Div, Honeywell, Freeport Ill
M-O Valve Co Ltd, Hammersmith, London W6 ..... Eng
National Acme Co Electrical Controls Div Cleveland ..... Ohio
New Product Engineering Inc Sub Wabash Magnetics Inc Wabash ..... Ind
Nippon Electric Co Ltd, Tokyo ..... Japan
Oki Electric Industry Co Ltd, Tokyo ..... Japan
Research Instrument Co Inc, Westbury ..... N Y
Revere Corp of America, Wallingford ..... Conn
Risk Industries Inc, George, Columbus ..... Neb
United Standard Industries Inc, Glenview Ill
Wabash Magnetics Inc, Wabash ..... Ind

SWITCHES--ROTARY

AIRFLYTE ELECTRONICS CO, BAYONNE, N J ..... ADV PG 641
ANSLEY MFG CO, ARTHUR, NEW HOPE ..... PA
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON ..... CAL
BLISS-GAMEWELL, DIV E W BLISS CO NEWTON UPPER FALLS ..... MASS
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE WIS ..... ADV PG 411
CHICAGO DYNAMIC INDUSTRIES INC, PRECISION PRODS DIV CHICAGO ILL ..... ADV PG 662
CHICAGO SWITCH F & F, CHICAGO ILL
COMPUTER INSTRUMENTS CORP, HEMPSTEAD ..... N Y
COUCH ORDNANCE INC, NORTH QUINCY ..... MASS
CTS CORP, ELKHART, IND ..... ADV PG 677
DABURN ELECTRONICS & CABLE CORP, BRONX ..... N Y
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER N H ..... ADV PG 675
DIGITRAN CO, PASADENA ..... CAL
ELECTRO-TEC CORP, ORMOND BEACH ..... FLA
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ..... ADV PGS 7
GENERAL REED CO, CLARK ..... N J
GRAYHILL INC, LA GRANGE, ILL ..... ADV PG 677
J-B-T INSTRUMENTS INC, NEW HAVEN, CONN ..... ADV PG 675
MALLORY & CO INC, P R, INDIANAPOLIS ..... IND
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ..... JAPAN
MICRO SWITCH DIV, HONEYWELL, FREEPORT ILL ..... ADV PG 674
NIPPON ELECTRIC CO LTD, TOKYO ..... JAPAN
POLY SCIENTIFIC DIV LITTON INDUSTRIES, BLACKSBURG ..... VA
R C L ELECTRONICS INC, IRVINGTON, N J ..... ADV PG 675
ROBERTSHAW CONTROLS CO, ACRO DIV, COLUMBUS ..... OHIO
SPECTROL ELECTRONICS CORP, CITY OF INDUSTRY ..... CAL
STACKPOLE CARBON CO, ST MARYS, PA ..... ADV PG 675
STANDARD GRIGSBY CO, AURORA ILL
TECH LABORATORIES INC, PALISADES PARK ..... N J
Ace Electronics Associates, Inc, Somerville ..... Mass
Airflyte Electronics Co, Bayonne ..... N J

Alco Electronic Products, Inc, Lawrence ..... Mass
Alpha Industries Inc, Newton Upper Falls ..... Mass
American Solenoid Co, Inc, Rahway ..... N J
Ansley Mfg Co, Arthur, New Hope ..... Pa
Ansul Co Electro Controls Div, Los Angeles ..... Cal
Ark-Les Switch Corp, Watertown ..... Mass
Assembly Engineers Div Rucker Co, Los Angeles ..... Cal
Autotronics Inc, Joplin ..... Mo
Beckman Instruments Inc, Fullerton, ... Cal

GENREED SWITCHES
help you do
AMAZING THINGS



You just can't "tease" the GENREED® snap-action reed switch.

Let us show you how you can tell when one of our reed switches or relays is the best thing to use on land, sea, in the air, or in outer space. Efficient, reliable, compact—GENREED switches may belong in your designs. Let's talk it over!

In a hurry . . . ?
We can ship from stock—TODAY!

GenReed®
GENERAL REED COMPANY

Box 858, Clark, N.J. 07066 Tel. 201-382-7373

REED SWITCHES

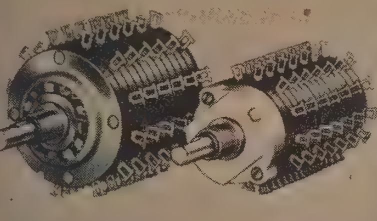
High reliability miniature dry reed switches for operation by coils or permanent magnets. Hermetically sealed contacts, extremely long life, wide range of operating characteristics. Request Product Sheet 1CS.

MICRO SWITCH
FREEPORT, ILLINOIS 61032
A DIVISION OF HONEYWELL

ROTO-REED
ANSLEY
SWITCHES
Hermetically Sealed Contacts
High Speed
Long Life
No Sliding Contact
Low Torque

Standard Types 10 to 100 Contacts
WE WELCOME "SPECIALS"
EVEN IN SMALL QUANTITIES
ARTHUR ANSLEY MFG. CO.
A subsidiary of The Thomas and Betts Co.
Makers of ANSLEY Printed Circuits
NEW HOPE PA 18938 • PHONE 215 297 5606

ENVIRONMENT PROOF ROTARY SWITCHES



Series 600 1⅝" Dia.—Series 100 1⅛" Dia.

- Both index mechanism and electrical sections are completely enclosed.
- Corrosive atmospheres, dust, dirt and moisture are permanently sealed out, lubricants sealed in.
- Solder or quick-connect terminals molded permanently into position minimize production damage.
- Standard index angles include 15°, 30°, 36°, 60° and 90°, special angles available on request.
- Write for engineering bulletin.

STACKPOLE
COMPONENTS COMPANY
P. O. Box 14466
Raleigh, N. C. 27610

Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Bendix Corp Electrical Components Div, Sidney	N Y
Betts & Betts Corp, Woodbury	Conn
Bliss-Gamewell, Div E W Bliss Co Newton Upper Falls	Mass
Bourns Inc Trimpot Div, Riverside	Cal
Breeze Corps Inc, Union	N J
Bulova Watch Co Inc, Timer Lab, Flushing	N Y
Cable Electric Products Inc, Providence	R I
Carling Electric Inc, West Hartford	Conn
Carson Mfg Co Inc, Indianapolis	Ind
Carter Mfg Corp, Hudson	Mass
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Chicago Dynamic Industries Inc, Precision Prods Div Chicago	Ill
Chicago Switch F & F, Chicago	Ill
Clark Control Div, A O Smith Corp, Cleveland	Ohio
Clarostat Mfg Co Inc, Dover	N H
Cole-Hersee Co, S Boston	Mass
Collectron Corp, New York	N Y
Computer Instruments Corp, Hempstead	N Y
Couch Ordnance Inc, North Quincy	Mass
CTS Corp, Elkhart	Ind
CTS Electronics Inc, South Pasadena	Cal
Cutler-Hammer Inc, Milwaukee	Wisc
Dabum Electronics & Cable Corp, Bronx	N Y
Daven Div McGraw-Edison Co, Manchester	N H
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Digilog Electronics Corp, Seattle	Wash
Digitran Co, Pasadena	Cal
Divac Electronics, Hawthorne	Cal
Douglas Div Kingston Products Corp, Bronson	Mich
Dowa Trading Co Ltd, Kobe	Japan
Eagle Electric Mfg Co Inc, Long Island City	N Y
Eastern Specialty Co, Philadelphia	Pa
Electro-Mec Instrument Corp, Watertown	Conn
Electro Switch Corp, Weymouth	Mass
Electro-Tec Corp, Ormond Beach	Fla
Ericsson Centrum Inc, New York	N Y
Eugene Engineering Co Inc, Rockland	Mass
Fujitsu Ltd, Tokyo	Japan
Furnas Electric Co, Batavia	Ill
General Control Co, Boston	Mass
General Devices Inc, Instrumentation Div Princeton	N J
General Electric Co, ECSO, Schenectady	N Y
General Reed Co, Clark	N J
Grayhill Inc, La Grange	Ill
Hallmark Standards Inc, Mamaroneck	N Y
Haydon Co The, A W, Waterbury	Conn
Impectron Inc, New York	N Y
Indak Mfg Co, Northbrook	Ill
Industrial Devices Inc, Edgewater	N J
ITT Europe Inc Components Gp, Brussels 1	Belgium
Iwatsu Electric Co Ltd, Tokyo	Japan
Janco Corp, Burbank	Cal
Javex Electronics, Cherry Valley	Cal
JB Electronic Transformers Inc, Chicago	Ill
J-B-T Instruments Inc, New Haven	Conn
Kinetics A Teledyne Co, Solana Beach	Cal
Langevin Div, Scientific Ind, Inc, Santa Ana	Cal

RCL

miniature rotary switches

Actual Size

U.S. Pat. #3352979

INDUSTRY'S MOST COMPLETE SELECTION

- Shorting AND non-shorting poles may be grouped on one deck in any combination.
- Up to 12 positions per deck shorting or non-shorting.
- As many as 6 poles per deck.
- All individual deck parts are self-contained, and are permanently molded into place.
- Life expectancy 200,000 mechanical operations.
- Meets MIL-S-3786B

"Off-the-Shelf" Shipments

Write for complete engineering information

RCL

General Sales Office
RCL ELECTRONICS, INC.
700 South 21st Street
Irvington, New Jersey 07111

J-B-T ROTARY SWITCHES

• SUB-MINIATURE

SR05S Panel Sealed

MIL-S-3786B, type SR05N (unsealed) and SR05S (Panel sealed), also X and V non-military models; crisp 30° indexing. Bulletin SM32E

• *NEW*
HIGH PERFORMANCE
V/M SERIES, FOR
INSTRUMENTATION
SYSTEMS

(Above) V/M Series for uses where circuit stability is essential. Features include: **Initial Contact Resistance**, .002 ohms; **Life Cycling** (make and break), 100,000 cycles at 1 amp., 120 VAC and 28 VDC inductive; **Adjustable Detent Action** for variable torque. **Cat. 568, V/M-66.** *(Below)* Molded and laminated, including multi-pole Series 20M, and 5 and 6 pos. lever types. **Cat. 568.**

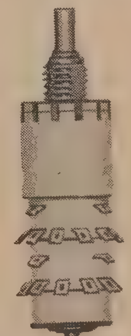
• 14- and 20-POS. OPEN OR ENCLOSED

20M Multi-pole

MS-20-1L5A

J-B-T INSTRUMENTS, INC.
NEW HAVEN, CONNECTICUT 06508
(203) 772-2220 or 787-5824

rotary switches



Daven manufactures the industries most dependable line of rotary switches. Standard, open frame types in single and multiple decks, shorting, non-shorting, pre-wired, motor driven and spring return. Subminiature dust or explosion proof types single and multiple decks. Environmentally sealed switches with 10^{-4} leak rates for Hi-Rel. Hermetically sealed rotaries with 10^{-8} leak rates for space applications.

DAVEN McGRAW EDISON

DIVISION OF THOMAS A. EDISON INDUSTRIES
GRENIER FIELD, MANCHESTER, N.H. 03103
(603) 669-0940 • TWX 603-623-4938

When Only Excellent is Adequate TURN to Grayhill

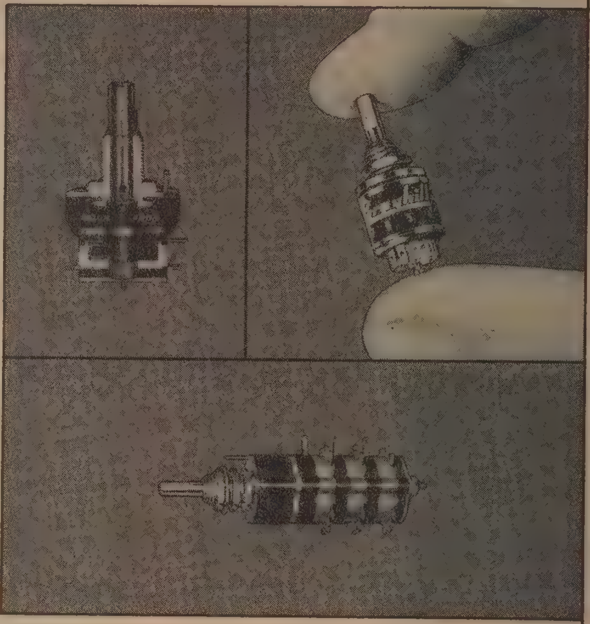
for ROTARY SWITCHES.
MINIATURE • TOTALLY ENCLOSED • MULTI-POLE.
TEMPERATURE TO 125°C. 30°, 36°, 45°, 60° and 90° ANGLE OF THROW.
100,000 OPERATIONS.

Select Materials

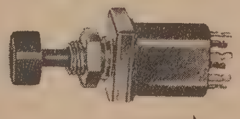
- Contacts: Silver Alloy, Silver Plated Brass, Gold Plated when needed.
- Terminals: Silver Alloy or Brass — Plated with Gold, Silver or Lead-Tin
- Molded Parts: Thermosetting Plastic to MIL-M-14
- Detent Spring: Tinned Music Wire
- All other Metal Parts: Stainless Steel or Cadmium Plated Brass

Typical Specifications

- Explosion Proof
- Contact Resistance 10 Milliohms
- Make or Break ¼ Amp. to 15 Amps., 115 VAC Resistive
- 1 to 6 Poles Per Deck
- 2 to 12 Positions per Pole
- 1 to 12 Decks



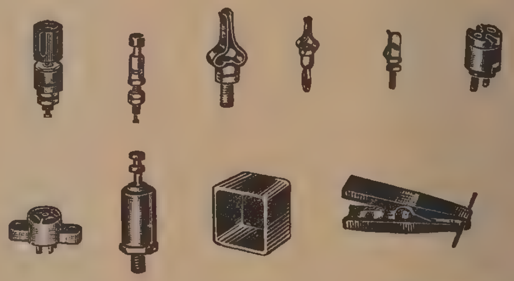
for PUSH BUTTON SWITCHES.
MINIATURE. WIPING,
SNAP ACTION and BUTT
CONTACTS. SPST, SPDT,
DPST, DPDT. PUSH-PULL.
LIGHTED. 25,000 to
1,000,000 OPERATIONS.



Typical Specifications

- ¼ Amp. to 10 Amps., 115 VAC Resistive
- Contact Resistance 10 Milliohms
- Insulation Resistance —25,000 to 900,000 Megohms

for ELECTRONIC COMPONENTS.
MINIATURE —
SUB-MINIATURE —
ULTRA-MINIATURE.
HIGH RELIABILITY
UNDER EXTREME ENVIRONMENTAL
AND OPERATING CONDITIONS.



Grayhill INC.

537 Hillgrove Avenue
LaGrange, Illinois 60525
Area Code 312, Phone 354-1040

Telephone us for
the latest Grayhill
Engineering Catalog
G-304-A

...the Difference Between Excellent and Adequate

CTS CORPORATION ELKHART, INDIANA

*Specialists In Precision Mass Production
Of Rotary Selector Switches*

WHY ENGINEERS SPECIFY CTS SWITCHES

"NO BREAKAGE"
They don't break on production lines or on finished equipment if dropped or jarred . . . CTS glass alkyd wafers are not brittle like phenolic . . . easy to handle.

"NO SHIFTING"
Precision molded construction eliminates mechanical shifting of stator circuitry and terminals.

"MORE COMPACT"
No spacers needed when stacking wafers . . . Maximum switching capability with minimum depth . . . Smaller diameter — only 1⅛" (Series 212 wafers)

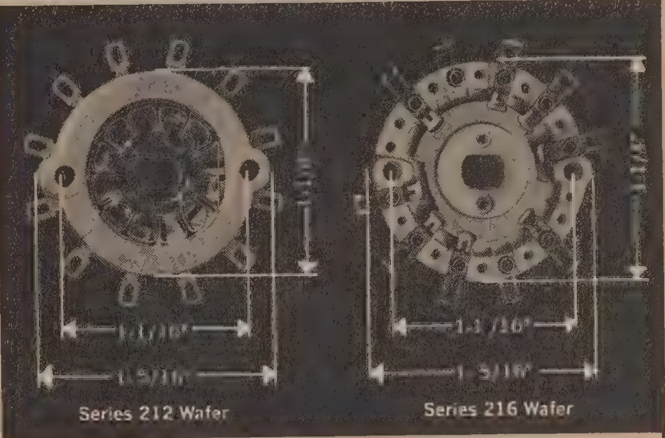
"VERSATILITY OF CIRCUITS"
Many circuit variations available due to varied rotor contact configurations. External jumpers eliminated by CTS internal connections between positions.

"AVAILABILITY OF POWER SWITCHES":
Available with 4 types of power switches and/or numerous potentiometers.

"SUPERIOR INSULATION"
Glass alkyd is superior to phenolic insulation.

- Soldering heat can't loosen terminals.
- Meet MIL-S-3786 A&B, Style SRO3 (Series 211 and 212.)
- Balanced contact spring.
- Natural solder barrier provided by glass alkyd insulation.
- Unlimited shaft lengths.

Description	Series	Data Sheet	Manufactured by (see plant listings)
Sub-miniature ½" diameter	210	4210	(1) (4)
1⅛" diameter rotary wafer switch with star wheel detent	211	4000	(4) (7)
1⅛" diameter rotary wafer switch with hill and valley detent	212	4000	(1) (4) (7)
1⅛" diameter rotary wafer switch with double ball detent	215	4216	(1) (4)
1¼" diameter rotary wafer switch with hill and valley detent	216	4216	(1) (4)
1¼" diameter rotary wafer switch with star wheel index	217	4216	(4) (7)
1¼" diameter rotary wafer switch with double ball detent	218	4216	(1) (4)
1⅛" diameter rotary wafer switch with die cast detent	222	4216	(1) (4)
1¼" diameter rotary wafer switch with die cast detent	226	4216	(1) (4)



Series 212 Wafer

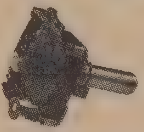
Series 216 Wafer

DETENTS

Type 211 — STAR WHEEL DETENT
HIGHEST QUALITY • POSITIVE FEEL • 250,000 CYCLE LIFE • FREE FROM END AND SIDE THRUST • HIGH SWITCHING TORQUE 15—60" OZ.

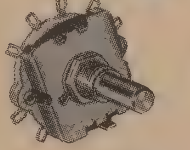
Type 212 — HILL AND VALLEY DETENT
LOW COST • DESIGNED FOR HOME-ENTERTAINMENT AND LOW COST INSTRUMENT APPLICATIONS • 25,000 CYCLE LIFE • SWITCHING TORQUE 20—48" OZ.

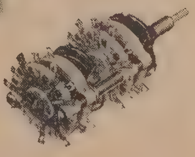
Type 212 ND — DIE CAST DETENT
LOWEST COST OF ALL DETENTS • LOW COST STAKED CONSTRUCTION • AVAILABLE FOR 1 AND 2 WAFER SWITCHES • 20,000 CYCLE LIFE • SWITCHING TORQUE 18—40" OZ.

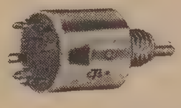


Type 215 — DOUBLE BALL DETENT
DESIGNED PRIMARILY FOR INSTRUMENT MARKET • HIGH QUALITY • CRISP FEEL • 100,000 CYCLE LIFE • SWITCHING TORQUE 6—35" OZ.

Adjustable stops on all detents except Type 212ND.







CTS Series 210
½" Diameter Sub-miniature Rotary Selector Switch

(1) Elkhart, Indiana. (4) Streetsville, Ontario, Canada. (7) S. Pasadena, California.

**Discover for yourself the advantages of working with CTS for your switch requirements.
Request Catalog 4000 containing the full CTS Switch line.**

Leeds & Northrup Co, Philadelphia	Pa
Lesa-Costruzioni Elettromeccaniche SPA, Milan	Italy
Leviton Mfg Co Inc, Brooklyn	N Y
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Controls Co, Frankfort	Ind
Marco-Oak Industries, Anaheim	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Meletron Corp, Los Angeles	Cal
Micro Switch Div, Honeywell, Freeport	Ill
Microwave Associates Inc, Burlington	Mass
Miles Industries Inc, Garnerville	N Y
Millen Mfg Co Inc, James, Malden	Mass
Milli-Switch Corp, Gladwyne	Pa
Miniature Electronic Components Corp, Holbrook	Mass
Mossman Inc, Donald P, Brewster	N Y
Muirhead Instruments Inc, Mountainside	N J
Nippon Electric Co Ltd, Tokyo	Japan
North Electric Co, Galion	Ohio
Oak Mfg Co, Div Oak Electro/Netics Corp Crystal Lake	Ill
Ohmite Mfg Co, Skokie	Ill
Oki Electric Industry Co Ltd, Tokyo	Japan
Ottawa, Paris	France
Painton & Co, Ltd, Northampton	England
Pepco, Inc, North Hollywood	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Pollak Corp, Joseph, Boston	Mass
Poly Scientific Div Litton Industries, Blacksburg	VA
Precision Mecanique Labinal, 93 Saint-Ouen	France
Radio Switch Corp, Marlboro	N J
R C L Electronics Inc, Irvington	N J
Relay & Control Corp, Long Island City	N Y
Robertshaw Controls Co, Acro Div, Columbus	Ohio
Rye Industries, Inc, Mamaroneck	N Y
Seacor Inc, Norwood	NJ
Sealectro Corp, Mamaroneck	N Y
Shallcross Mfg Co Sub Cutler-Hammer, Selma	N C
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Siemens America Inc, New York	N Y
Sierra Electric Inc, Gardena	Cal
Smith Inc, Herman H, Brooklyn	N Y
Sparton Southwest Inc, Albuquerque	NM
Spectrol Electronics Corp, City of Industry	Cal
Square D Co, Park Ridge	Ill
Stackpole Carbon Co, St Marys	Pa
Staco Inc, Standard Elec Prods Co, Costa Mesa	Cal
Standard Grigsby Co, Aurora	Ill
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Switching Controls Corp, North Hollywood	Cal
Tech Laboratories Inc, Palisades Park	N J
Technology Instrument Corp Sub Bowmar Instr Corp Newbury Park	Cal
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
Telefunken Sales Corp, Garden City	N Y
Tenor Co Inc, New Berlin	Wis
Tower Mfg Corp, Providence	R I
Vactric Control Equipment Ltd, Morden	England
Voltronics, Inc, Chicago	Ill
Wilmington Controls Div Ledex Inc, Wilmington	Ohio
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

SWITCHES--SILICON CONTROLLED (INCL LIGHT ACTIVATED)

GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
ADC Electronics, Inc, Harbor City	Cal
Aeromarine Electronics, Inc, San Diego	Cal
Autronics Corp, Pasadena	Cal
Crane Electronics Corp, Santa Barbara	Cal
Dowa Trading Co Ltd, Kobe	Japan
Dynamic Controls Corp, South Windsor	Conn
Electronic Control Corp, Euless	Tex
Electro-Sonic-Control, Manteca	Cal
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
Hunt Electronics Co, Dallas	Tex
International Rectifier Semiconductor Div El Segundo	Cal
Loyola Industries Inc, El Segundo	Cal
Metrological Data Corp, Garfield	N J
Nippon Electric Co Ltd, Tokyo	Japan
Payne Engineering Co, South Charleston	W Va
Power Control Corp, Pittsburgh	Pa
Power Instruments Inc, Skokie	Ill
Regent Controls Inc, Stamford	Conn
Slocum Industries, Inc, Reseda	Cal
Solid State Electronics Corp, Sepulveda	Cal
Solid State Products Co, Salem	Mass
Stern Co Inc M L, Charlotte	N C
Systems Matrix Inc, Trenton	N J
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Texas Instruments Incorporated, Dallas	Tex
Versatek Industries Inc, Indianapolis	Ind
Wac Line Div Simmonds Precision Prods, Dayton	Ohio

SWITCHES--SLIDE

AIRFLYTE ELECTRONICS CO, BAYONNE	**N J**
AMERICAN ZETTLER, INC, COSTA MESA	**CAL**
BIRNBACH CO INC, FREEPORT	**N Y**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE	**WIS**
CHICAGO SWITCH F & F, CHICAGO	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MICRO SWITCH DIV, HONEYWELL, FREEPORT	**ILL**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
STACKPOLE CARBON CO, ST MARYS	**PA**
STANDARD GRIGSBY CO, AURORA	**ILL**
Aikow Shoji Kaisha Ltd, Osaka	Japan
Airflyte Electronics Co, Bayonne	N J
Alco Electronic Products, Inc, Lawrence	Mass
American Zettler, Inc, Costa Mesa	Cal
Ark-Les Switch Corp, Watertown	Mass
Betts & Betts Corp, Woodbury	Conn
Birnbach Co Inc, Freeport	N Y
Carling Electric Inc, West Hartford	Conn
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Chicago Switch F & F, Chicago	Ill
Cole-Hersee Co, S Boston	Mass
Components Specialties Inc, Freeport	N Y
Continental-Wirt Electronics Corp, Philadelphia	Pa
Cutler-Hammer Inc, Milwaukee	Wisc
Daburn Electronics & Cable Corp, Bronx	N Y
Douglas Div Kingston Products Corp, Bronson	Mich
Dowa Trading Co Ltd, Kobe	Japan
Eagle Electric Mfg Co Inc, Long Island City	N Y
Federal Screw Products Inc, Chicago	Ill
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Electric Co, ECSO, Schenectady	N Y
Gulton Industries Inc Controls & Instru Grp Costa Mesa	Cal
Hosiden Electronics Co Ltd, Osaka	Japan
Indak Mfg Co, Northbrook	Ill
Industrial Electronic Hardware Corp, New York	N Y
Iwatsu Electric Co Ltd, Tokyo	Japan
Langevin Div, Scientific Ind, Inc, Santa Ana	Cal
Leviton Mfg Co Inc, Brooklyn	N Y
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Methode Electronics Inc, Chicago	Ill
Micro Switch Div, Honeywell, Freeport	Ill
Mitsumi Electric Co Ltd, Tokyo	Japan
Oak Mfg Co, Div Oak Electro/Netics Corp Crystal Lake	Ill
Oneida Electronic Mfg Co, Meadville	Pa
Paul & Stein Bros Inc, F H, New York	N Y
Philmore Mfg Co Inc, Richmond Hill	N Y
Pollak Corp, Joseph, Boston	Mass
Republic Industrial Corp, Lathrup Village	Mich
Rye Industries, Inc, Mamaroneck	N Y
Seacor Inc, Norwood	NJ
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Smith Inc, Herman H, Brooklyn	N Y
Stackpole Carbon Co, St Marys	Pa
Standard Grigsby Co, Aurora	Ill
Switchcraft Inc, Chicago	Ill
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
Telefunken Sales Corp, Garden City	N Y
UID Electronics Corp, Hollywood	Fla

SWITCHES--SNAP ACTION

BIRNBACH CO INC, FREEPORT	**N Y**
CHERRY ELECTRICAL PRODUCTS CORP, HIGHLAND PARK, ILL	**ADV PG 679**
CHICAGO SWITCH F & F, CHICAGO	**ILL**
ELECTRONIC RESEARCH CO, A TEXTRON CO OVERLAND PARK	**KAN**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GRAYHILL INC, LA GRANGE	**ILL**
GUARDIAN ELECTRIC MFG CO, CHICAGO	**ILL**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
HYDRA-ELECTRIC CO, BURBANK	**CAL**
MICRO SWITCH DIV, HONEYWELL, FREEPORT ILL	**ADV PG 678**
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON	**IND**
R C L ELECTRONICS INC, IRVINGTON	**N J**
ROBERTSHAW CONTROLS CO, ACRO DIV, COLUMBUS	**OHIO**
STANDARD GRIGSBY CO, AURORA	**ILL**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
Allen-Bradley Co, Milwaukee	Wis
Allmetal Screw Products Co Inc, Garden City	N Y
American Solenoid Co, Inc, Rahway	N J
Ansul Co Electro Controls Div, Los Angeles	Cal
Ark-Les Switch Corp, Watertown	Mass
Avnet Electronics, Westbury	N Y
Beltone Electronics Corp, Chicago	Ill
Betts & Betts Corp, Woodbury	Conn
Birnbach Co Inc, Freeport	N Y
Carling Electric Inc, West Hartford	Conn
Carson Mfg Co Inc, Indianapolis	Ind
Carter Precision Electric Co, Skokie	Ill
Cherry Electrical Products Corp, Highland Park	Ill
Chicago Switch F & F, Chicago	Ill
Clare-Pendar Co, Post Falls	Idaho
Clark Control Div, A O Smith Corp, Cleveland	Ohio
Clarostat Mfg Co Inc, Dover	N H
Cole-Hersee Co, S Boston	Mass
Columbus Electric Mfg Co, Columbus	Ohio
Consolidated Controls Corp, El Segundo	Cal
Control Products Inc, East Hanover	N J
Control Switch Div Controls Co of America, Folcroft	Pa
Controls Co of America, Schiller Park	Ill
Cutler-Hammer Inc, Milwaukee	Wisc
Denison Inc, R B, Bedford	Ohio
Douglas Div Kingston Products Corp, Bronson	Mich
Dowa Trading Co Ltd, Kobe	Japan
Eagle Electric Mfg Co Inc, Long Island City	N Y
Electronic Research co, A Textron Co Overland Park	Kan
Electro Switch Corp, Weymouth	Mass
Ericsson Centrum Inc, New York	N Y
Federal Screw Products Inc, Chicago	Ill
Fuji Electric Co Ltd, Tokyo	Japan
Furnas Electric Co, Batavia	Ill
General Electric Co, ECSO, Schenectady	N Y
Grayhill Inc, La Grange	Ill
Guardian Electric Mfg Co, Chicago	Ill
Gulton Industries Inc Controls & Instru Grp Costa Mesa	Cal
Harvey Hubbell Inc, Bridgeport	Conn
Haydon Switch & Instrument Inc, Waterbury	Conn
Hi-Tek Corp, Santa Ana	Cal
Hosiden Electronics Co Ltd, Osaka	Japan
Hydra-Electric Co, Burbank	Cal
Jaidinger Mfg Co Inc, Chicago	Ill
Kameco Ltd, Montreal	Que
La Telemecanique Electrique, 92 Rueil	France
Leviton Mfg Co Inc, Brooklyn	N Y
Licon Div, Illinois Tool Works Inc, Chicago	Ill
Luminator Inc Display-Control Div, Plano	Tex
Marco-Oak Industries, Anaheim	Cal
McGill Mfg Co Inc, Electrical Div, Valparaiso	Ind
Meletron Corp, Los Angeles	Cal
Metox, Paris 20	France
Micro Switch Div, Honeywell, Freeport	Ill
Milli-Switch Corp, Gladwyne	Pa
National Acme Co Electrical Controls Div Cleveland	Ohio
Network Industries Inc, Bayonne	N J
Otto Controls, Morton Grove	Ill
Pass & Seymour, Syracuse	N Y
Pepco, Inc, North Hollywood	Cal
Pollak Corp, Joseph, Boston	Mass
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton	Ind
R C L Electronics Inc, Irvington	N J
Relay & Control Corp, Long Island City	N Y
Relay Specialties Inc, Fair Lawn	N J
Robertshaw Controls Co, Acro Div, Columbus	Ohio
Ross Co, Milton, Southampton	Pa
Scaico Div, Wavetronics Industries Inc West Pittston	Pa
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Sierra Electric Inc, Gardena	Cal
Smith Inc, Herman H, Brooklyn	N Y
Square D Co, Park Ridge	Ill
Staco Inc, Standard Elec Prods Co, Costa Mesa	Cal
Standard Grigsby Co, Aurora	Ill
Switching Controls Corp, North Hollywood	Cal
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
Texas Instruments Incorporated, Dallas	Tex
Tokyo Electric Co Ltd, Tokyo	Japan
Tower Mfg Corp, Providence	R I
Transformer Engineers, San Gabriel	Cal
Transistor Electronics Corp, Minneapolis	Minn
Truco Inc, Simsbury	Conn
Ucinite Co Div United-Carr, Newtonville	Mass
Unimax Switch Div Maxson Electronics Corp Wallingford	Conn
United-Carr Inc, Boston	Mass
United Control Corp, Redmond	Wash

MICRO SWITCH

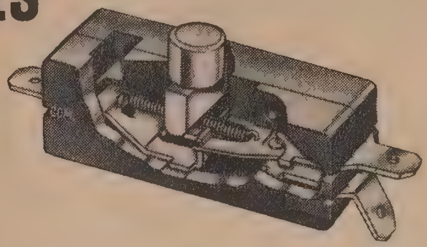
Snap-Action Switches

World's most complete line of precision snap-action switches. Complete variety of actuators, terminals, electrical capacities, circuitries, and sizes. Manufactured to high quality standards. Request Catalog 50.

MICRO SWITCH
FREEPORT, ILLINOIS 61032
A DIVISION OF HONEYWELL

CHERRY®

LONG-LIFE PRECISION SWITCHES

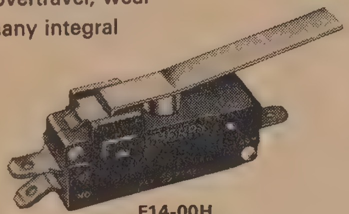


At the heart of every Cherry precision switch is the unique stainless steel coil spring that insures outstanding operating reliability and consistent performance. Precision-made, carefully assembled and tested, this rugged coil steel spring provides greater overtravel, greater repeatability of operating points in every Cherry Switch you specify.

GENERAL PURPOSE E-14 SERIES

A rugged switch with large overtravel, wear resistant nylon button and many integral hinged actuator variations.

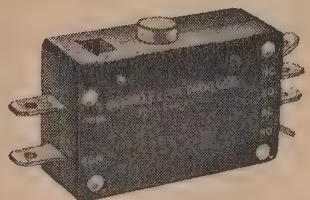
Electrical Ratings—25 amps.,
125-250 VAC—1 H.P.,
125 VAC—2 H.P., 250 VAC



E14-00H

E-20 SERIES DOUBLE POLE SWITCH

Heavy-duty, yet extremely compact unit for double pole service, features wide range of actuator variations and large overtravel.



E20-00A

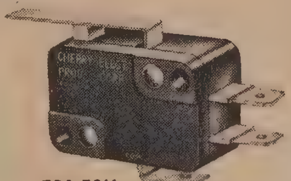
Electrical Ratings—
20 amps.,
125-250 VAC—1 H.P.
125 VAC—2 H.P., 250 VAC

MINIATURE E-34 SERIES

Compact precision unit with high electrical capacity for heavy-duty miniature switch use. Available with QC, solder or screw terminals.

Electrical Ratings—15 amps.,
1/2 H.P., 125-250 VAC

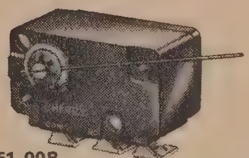
Miniature series available in a variety of electrical ratings with operating forces as low as 1-1/4 grams.



E34-50H

COIN SWITCHES

Low torque rotary action long life switch. Operating torque 4 inch-grams maximum.



E51-00B

Electrical Ratings—5 amps.,
125-250 VAC

E51-00B Clockwise
.205 x .032 QC Terminals

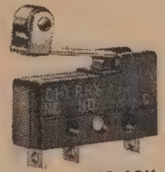
Other coin switches available in variety of terminations and with counterclockwise actuation.

SUBMINIATURE E-62 SERIES

A high capacity subminiature switch with large overtravel and integral hinged actuators.

Electrical Ratings—10.1 amps.,
125-250 VAC 1/4 H.P., 125 VAC
Switch Body—25/32" x 23/64" x 1/4"

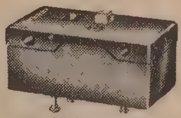
Subminiature series available in light force version E-61 with electrical rating of 5 amps., 125-250 VAC.



E62-10K

E-66 SERIES "SNAP/REED" SWITCH

This magnetic snap-action reed switch combines the mechanical utility of the snap action switch with the electrical reliability of the reed switch. Ideal for low energy switching, the repeatability of this device matches that of the solid state elements it controls, yet it possesses the advantages of hard contacts and moderate price.



E66-00A

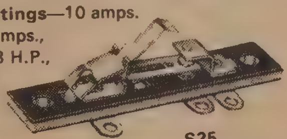
Maximum Resistive Loads—
28 Volts DC
110 Milliamperes
3 Watts

Insertion Resistance—
150 Milliohms Maximum

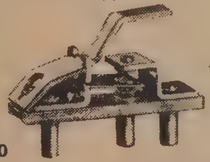
OPEN TYPE SWITCHES

Heavy-duty type for cam follower actuation. Can be ganged for multi-circuit control. Many actuator and terminal variations including printed circuit terminals on S30 type.

Electrical Ratings—10 amps.
125 VAC—5 amps.,
250 VAC—1/3 H.P.,
125-250 VAC



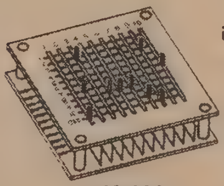
S25



S30

SELECTOR SWITCHES

So compact, one hundred sequencing positions are accommodated in 10 sq. inches of panel area. Cross-grid printed circuitboard eliminates soldering—no jungle of wires to cause problems either. Choose from eleven standard models with from 100 to 2780 switching positions.



C10-20A

CHERRY®

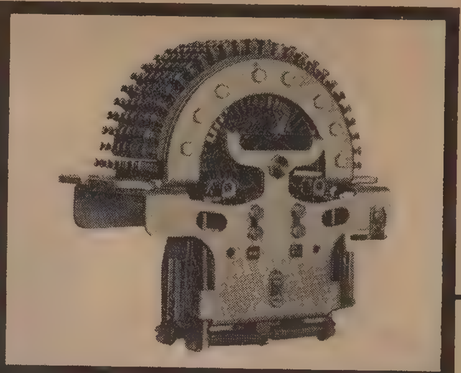
CHERRY ELECTRICAL PRODUCTS CORP. 1656BG Old Deerfield Road—Highland Park, Illinois 60035

United Electric Controls Co, Watertown .... Mass
U S Switch Corp, Sub Westport Dev & Mfg Co Inc Milford .... Conn
Vulcan Electric ITT, Danvers .... Mass
Waber Electronics Inc, Philadelphia .... Pa
Wadsworth Electric Mfg Co Inc, Covington .... Ky
Wavetronics Industries Inc, West Pittston .... Pa

SWITCHES--SOLID STATE SEE BASIC COMPONENT &CIRCUITS--PACKAGED

SWITCHES--SPEED-ACTUATED

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
Airpax Electronics Inc, Cambridge Div, Cambridge .... Md
Airpax Electronics Inc Seminole Div Fort Lauderdale .... Fla
Allen-Bradley Co, Milwaukee .... Wis
Consolidated Controls Corp, Bethel .... Conn
Dowa Trading Co Ltd, Kobe .... Japan
Electric Tachometer Corp, Philadelphia .... Pa
Electro Products Labs Inc Transducer Div, Chicago Ill
Euclid Electric & Mfg Div Harvey Hubbell Inc, Madison .... Ohio
General Devices Inc, Instrumentation Div Princeton .... N J
General Electric Co, ECSO, Schenectady .... N Y
General Equipment & Mfg Co, Louisville .... Ky
Gorn Corp, Stamford .... Conn
Indicator Industries Inc, New York .... N Y
Inertia Switch Inc, New York .... N Y
Kahn & Co Inc, Wethersfield .... Conn
Meletron Corp, Los Angeles .... Cal
Scaico Div, Wavetronics Industries Inc West Pittston .... Pa
Smiths Industries Ltd, Aviation Div Wembley, Mdsx .... England
Sparton Southwest Inc, Albuquerque .... NM
Synchro-Start Products Inc, Skokie Ill
Tateisi Electronics Co, Ukyo-ku, Kyoto .... Japan
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City .... Japan
Torq Engineered Products Inc, Bedford .... Ohio
UOP Instruments Div, Greenwich .... Conn
Versatek Industries Inc, Indianapolis .... Ind
Vibrac Corp, Chelmsford .... Mass
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio
Wavetronics Industries Inc, West Pittston .... Pa


2 WAY
Genalex Precision Stepping Switch
for circuits which require a switch that steps positively, in either direction, around a bank of 25 contacts.
FEATURING:
- self-cycle or remote control operation
- 65 steps per second on self-interruption
- bridging or non-bridging wipers
- 20 steps per second from external impulses

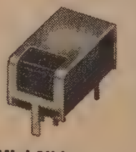
Over 10,000,000 steps in each direction without replacement.
for complete data on this and other unique GENALEX switches, write:
IMTRA CORPORATION
P.O. BOX 46, 151 MYSTIC AVE., MEDFORD, MASS. 02153
U.S. Agents for the General Electric Company, Ltd. of England

SWITCHES--STEPPING

AIRFLYTE ELECTRONICS CO, BAYONNE .... N J
AUTOMATION DEVELOPMENT CO, CULVER CITY .... CAL
CHICAGO DYNAMIC INDUSTRIES INC, PRECISION PRODS DIV CHICAGO ILL
CHICAGO SWITCH F & F, CHICAGO ILL
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER .... N H
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT .... IOWA
HAYDON SWITCH & INSTRUMENT INC, WATERBURY .... CONN
IMTRA CORP, MEDFORD, MASS .... ADV PG 680
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE .... CAL
TECH LABORATORIES INC, PALISADES PARK .... N J
TOKYO ELECTRIC CO LTD, TOKYO .... JAPAN
Agastat Div, Elastic Stop Nut Corp, Elizabeth .... N J
Airflyte Electronics Co, Bayonne .... N J
Alco Electronic Products, Inc, Lawrence .... Mass
Ansul Co Electro Controls Div, Los Angeles .... Cal
Astro Lab, Westminster .... Cal
Automatic Electric Co, Northlake Ill
Automation Development Co, Culver City .... Cal
Beckman Instruments Inc, Fullerton, ... Cal
Breeze Corps Inc, Union .... N J
Chicago Dynamic Industries Inc, Precision Prods Div Chicago Ill
Chicago Switch F & F, Chicago Ill
Comar Electric Co, Chicago Ill
Conrac Corp, New York .... N Y
Datametrics Inc, Waltham .... Mass
Daven Div McGraw-Edison Co, Manchester .... N H
Dowa Trading Co Ltd, Kobe .... Japan
Dynamic Controls Corp, South Windsor .... Conn
Eagle Signal Div E W Bliss Co, Davenport .... Iowa
Electro Switch Corp, Weymouth .... Mass
Ericsson Centrum Inc, New York .... N Y
Fisher-Akin Co, Manhattan Beach .... Cal
Fujitsu Ltd, Tokyo .... Japan
General Devices Inc, Instrumentation Div Princeton .... N J
Giannini-Voltex, Whittier .... Cal
Haydon Co The, A W, Waterbury .... Conn
Haydon Switch & Instrument Inc, Waterbury .... Conn
Imtra Corp, Medford .... Mass
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
ITT Jennings Div, Intl Tel & Tel Corp, San Jose .... Cal
ITT Telecommunications, New York .... N Y
Kinetics A Teledyne Co, Solana Beach .... Cal
Langevin Div, Scientific Ind, Inc, Santa Ana .... Cal
Ledex Div Ledex Inc, Dayton .... Ohio
Luminator Inc Display-Control Div, Plano .... Tex
Motor Control Corp Sub Zenrad Computer Corp, Huntington .... NY
Muirhead Instruments Inc, Mountainside .... N J
Oki Electric Industry Co Ltd, Tokyo .... Japan
Scaico Div, Wavetronics Industries Inc West Pittston .... Pa
Schrack Electrical Sales Corp, New York .... N Y
Sealectro Corp, Mamaroneck .... N Y
Shallcross Mfg Co Sub Cutler-Hammer, Selma .... N C
Siemens America Inc, New York .... N Y
Stromberg-Carlson Sub Gen Dynamics, Rochester .... N Y
Tapeswitch Corp of America, Farmingdale .... N Y
Tech Laboratories Inc, Palisades Park .... N J
Technology Instrument Corp Sub Bowmar Instr Corp Newbury Park .... Cal
Tenor Co Inc, New Berlin .... Wis
Tokyo Electric Co Ltd, Tokyo .... Japan
Wavetronics Industries Inc, West Pittston .... Pa

SWITCHES--SUBMINIATURE

AIRFLYTE ELECTRONICS CO, BAYONNE .... N J
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON .... CAL
BIRNBACH CO INC, FREEPORT .... N Y
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE .... WIS
CHERRY ELECTRICAL PRODUCTS CORP, HIGHLAND PARK ILL
CHICAGO SWITCH F & F, CHICAGO, ILL .... ADV PG 680
DABURN ELECTRONICS & CABLE CORP, BRONX .... N Y
DAVEN DIV MCGRAW-EDISON CO, MANCHESTER .... N H
GENERAL REED CO, CLARK .... N J
GRAYHILL INC, LA GRANGE ILL
HAYDON SWITCH & INSTRUMENT INC, WATERBURY CONN .... ADV PG 681
J-B-T INSTRUMENTS INC, NEW HAVEN .... CONN
MICRO SWITCH DIV, HONEYWELL, FREEPORT ILL .... ADV PG 681
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON .... IND
R C L ELECTRONICS INC, IRVINGTON .... N J
ROBERTSHAW CONTROLS CO, ACRO DIV, COLUMBUS .... OHIO
SPECTROL ELECTRONICS CORP, CITY OF INDUSTRY .... CAL
STANDARD GRIGSBY CO, AURORA ILL
TECH LABORATORIES INC, PALISADES PARK N J .... ADV PG 664
Airflyte Electronics Co, Bayonne .... N J
Alco Electronic Products, Inc, Lawrence .... Mass
Ansul Co Electro Controls Div, Los Angeles .... Cal
Arra, Inc, Bayshore .... NY
Autotronics Inc, Joplin .... Mo
Avnet Electronics, Westbury .... N Y
Beckman Instruments Inc, Helipot Div, Fullerton .... Cal
Birnbach Co Inc, Freeport .... N Y
Bristol Div, American Chain & Cable Co Waterbury .... Conn
Bulova Watch Co Inc, Timer Lab, Flushing .... N Y
Carter Precision Electric Co, Skokie Ill
Centralab, Div Globe-Union Inc, Milwaukee .... Wis
Chatham Controls Corp, Chatham .... N J
Cherry Electrical Products Corp, Highland Park Ill
Chicago Switch F & F, Chicago Ill
C & K Components Inc, Watertown .... Mass



Specify
CHICAGO SWITCH
SUBMINIATURE
SWITCHES
Everything tiny but performance
Advanced design for OEM, *Industrial or Military Uses*

Ultraminiature DPDT slide
rated 500 MA @ 120V A.C. or 250 MA @ 9V D.C.
For printed circuit application
Ultra long life

Mini Slide
smallest in its field
does 10 times as many jobs in ¼ the space
anti-tease design
4 pin Z, 1A-1B, 1C Circuits
2 amps at 120V A.C.
½ amp at 120V D.C.

TO-5 Rotary
2 to 8 positions for PC and IC applications
detent action

See Other Adv. Under Switches: Miniature
Want to start something? Send for samples, catalog.

CHICAGO SWITCH
Div. of F & F Enterprises, Inc.
2035 Wabansia Ave., Chicago, Ill. 60647
Phone: (312) 489-5500

SUBMINIATURE
SWITCHES

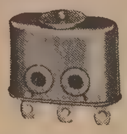
Long-life, precision operation in miniature sizes. Industry's greatest variety of actuators, terminals, and operating characteristics. Request Catalog 50.

MICRO SWITCH
FREEPORT, ILLINOIS, U.S.A.
A DIVISION OF HONEYWELL

Clare-Pendar Co, Post Falls	Idaho
Columbus Electric Mfg Co, Columbus	Ohio
Continental-Wirt Electronics Corp, Philadelphia	Pa
Control Switch Div Controls Co of America, Folcroft	Pa
CTS Electronics Inc, South Pasadena	Cal
Cutler-Hammer Inc, Milwaukee	Wisc
Daburn Electronics & Cable Corp, Bronx	N Y
Daven Div McGraw-Edison Co, Manchester	N H
Dialight Corp, Brooklyn	N Y
Dowa Trading Co Ltd, Kobe	Japan
Fifth Dimension Inc, Princeton	N J
General Devices Inc, Instrumentation Div Princeton	N J
General Reed Co, Clark	N J
Grayhill Inc, La Grange	Ill
Gulton Industries Inc Controls & Instru Grp Costa Mesa	Cal
Hamlin Inc, Lake Mills	Wis
Haydon Switch & Instrument Inc, Waterbury	Conn
Hi-Tek Corp, Santa Ana	Cal
Indicator Industries Inc, New York	N Y
ITT Europe Inc Components Gp, Brussels 1	Belgium
Janco Corp, Burbank	Cal
JB Electronic Transformers Inc, Chicago	Ill
J-B-T Instruments Inc, New Haven	Conn
Lear Siegler Inc, Santa Monica	Cal
Ledex Div Ledex Inc, Dayton	Ohio
Licon Div, Illinois Tool Works Inc, Chicago	Ill
Luminator Inc Display-Control Div, Plano	Tex
Micro Switch Div, Honeywell, Freeport	Ill
Microwave Associates Inc, Burlington	Mass
Milli-Switch Corp, Gladwyne	Pa
Miniature Electronic Components Corp, Holbrook	Mass
Miniature Electronic Components Ltd, Surrey	England
Networks Electronic Corp, Chatsworth	Cal
New Product Engineering Inc Sub Wabash Magnetics Inc Wabash	Ind
Oak Mfg Co, Div Oak Electro/Netics Corp Crystal Lake	Ill
Otto Controls, Morton Grove	Ill
Pala Switch Co, Santa Ana	Cal
Pollak Corp, Joseph, Boston	Mass
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton	Ind
R C L Electronics Inc, Irvington	N J
Risk Industries Inc, George, Columbus	Neb
Robertshaw Controls Co, Acro Div, Columbus	Ohio
Rye Industries, Inc, Mamaroneck	N Y
Scaico Div, Wavetronics Industries Inc West Pittston	Pa
Shallcross Mfg Co Sub Cutler-Hammer, Selma	N C
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Smith Inc, Herman H, Brooklyn	N Y
Space & Systems Div General Time Corp Stamford	Conn
Sparton Southwest Inc, Albuquerque	NM
Spectrol Electronics Corp, City of Industry	Cal
Staco Inc, Standard Elec Prods Co, Costa Mesa	Cal

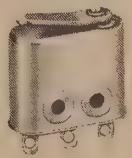
SWITCHES for ELECTRONICS
from the H·S·I® switchline

SERIES 6100
HERMETICALLY SEALED
PRECISION SWITCHES



Patented Elastomer Seal and one-piece snap action blade performs reliably under extreme vibration conditions. Temp. rating: —65° +300°F. Available to +400°F. **Electrical ratings:** 28 VDC/115 VAC. 5 amp resistive, 3 amp inductive. Meets requirements of MIL-S-8805. **Actuators:** Leaf, roller, toggle and push button. Low operating force. **Reference: Cat. No. 72**

SERIES 6300
HERMETICALLY SEALED
PRECISION SWITCHES

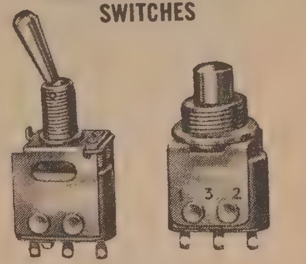


Housing: Corrosion resistant housing with integral wobble diaphragm. One piece snap action blade as in 6100 Series, proven in years of performance. **Standard rating:** —85°F +300°F. **Electrical ratings:** 28 VDC/115 VAC. 5 amps resistive, 3 amps inductive, 3 amps motor. Meets requirements of MIL-S-8805.

SERIES 6200
HIGH TEMPERATURE
HERMETICALLY SEALED
SWITCHES

With metal to metal and glass to metal seals corrosion resistant steel base and housing heliarc welded to avoid use of fluxes normally used in solder sealing. Actuator operates switch through metal diaphragm integral with housing. **Standard rating:** —65° +660°F. Meets requirements of MIL-S-8805.

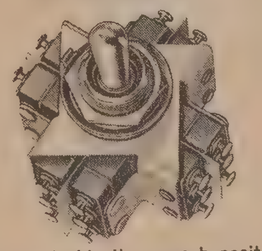
PUSH-BUTTON AND
TOGGLE ACTUATED,
HERMETICALLY SEALED
SWITCHES



Incorporate Series 6100 basic switch to meet requirement of MIL-S-8805, enclosure 4. Also available with 6300 Series switch to meet enclosure 5 requirements of MIL-S-8805. Toggle switches are available in various configurations of one-pole and 2-pole, 2-position and 3-position.

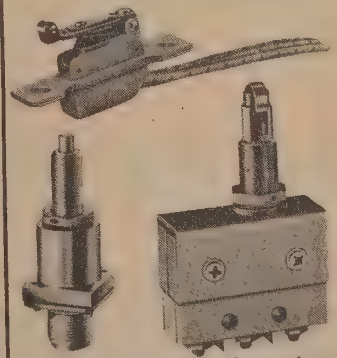
Reference: Bul. No. 61T-1

SERIES 5300
4 WAY TOGGLE SWITCH



2 pole double throw each position. Center off. Momentary contact, maintained contact, or combinations. 28 VDC/115 VAC: 5 amps resistive, 3 amps inductive. **Reference: Bul. No. 53T-3.** Available with water tight panel seal.

SPECIAL SEALED SWITCHES



H.S.I. has had years of experience in providing answers to difficult switching problems. Let our engineers help you.

For specifications on the complete H.S.I. switchline, send for catalog.
H·S·I®
HAYDON SWITCH & INSTRUMENT, INC.
1500 Meriden Road, Waterbury, Conn. 06720

ELIMINATE DOWN-TIME ON ROTARY & THUMBWHEEL SWITCHES

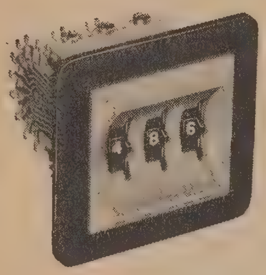
and also get accurate, precise control

UNLIMITED APPLICATIONS CDI switches offer fast sure settings and quick read-out for computer, automated and control equipment, and for test and programming applications, etc.

QUICK SERVICEABILITY Unique 5-second wafer replacement obsoletes other switches. Simply lift out old wafer, slip in new wafer. No unsoldering . . . no disassembling . . . no wire removing.

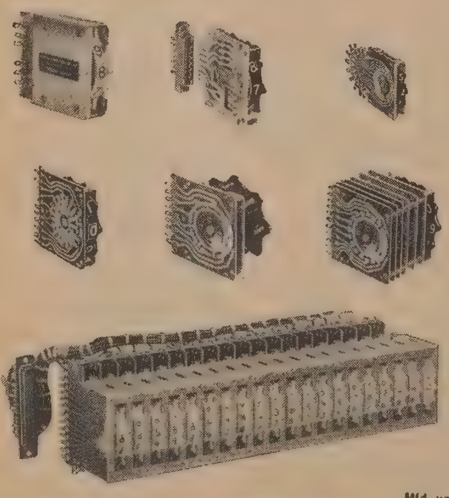
EXTREME VERSATILITY Regardless of size or shape needed CDI is well prepared to meet your every switch requirement.

THUMBWHEEL SWITCHES

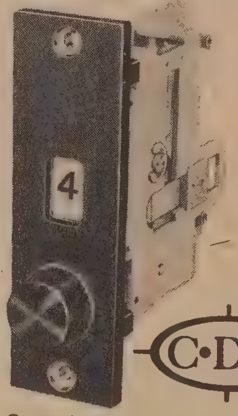


C•D•I

Digital and Binary. Meet MIL-S-22710. For critical reliability applications. Available with internal lighting MIL-L-25467A. Switch modules with panel and switching elements separately sealed for complete protection are available. Bezel types have no visible screws when rear mounted.

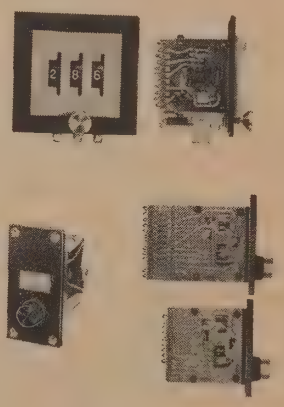


PUSHBUTTON SWITCHES



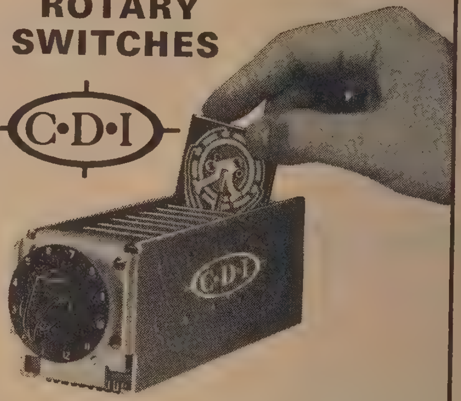
C•D•I

Completely impervious to dust and liquids with sealed front panels on Series PSB binary and decimal rotary push button switches. Ten Positions. Ideal for limited space requiring only 1" panel space per module. Simply press button to operate.

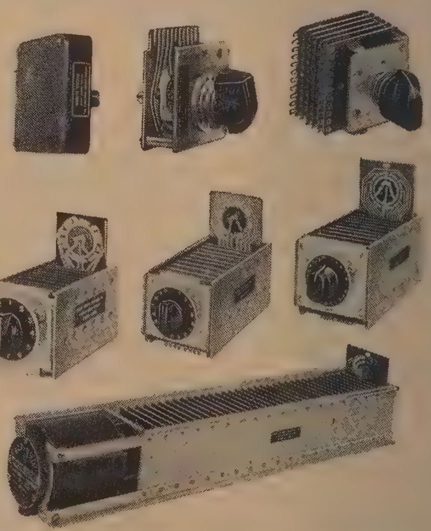


ROTARY SWITCHES

C•D•I



For critical reliability applications. Meet MIL-S-22710. Removable wafers permit quick changing of programs, configurations, circuits. CDI patented switches with dust covers available in sizes 2" x 2", 3" x 3" and 4" x 4" with lengths to accommodate up to 36 wafers. Operation may be manual, motor or solenoid.



Mfd. under Tabet U. S. Patents 2,841,660, 2,971,066, 3,015,000, 2,956,131, 2,988,607

C•D•I CHICAGO DYNAMIC INDUSTRIES, INC.

PRECISION PRODUCTS DIVISION 1725 Diversey Blvd., Chicago, Illinois 60614 Phone 312, 935-4600

Standard Grigsby Co, Aurora	Ill
Stettner-Trush Inc, Cazenovia	N Y
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Tech Laboratories Inc, Palisades Park	N J
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
Torsion Balance Co, Clifton	N J
Transistor Electronics Corp, Minneapolis	Minn
TRW Systems Group, Redondo Beach	Cal
Unimax Switch Div Maxson Electronics Corp Wallingford	Conn
U S Switch Corp, Sub Westport Dev & Mfg Co Inc Milford	Conn
Wabash Magnetics Inc, Wabash	Ind
Wavetronics Industries Inc, West Pittston	Pa
Wilmington Controls Div Ledex Inc, Wilmington	Ohio

SWITCHES--THUMBWHEEL

AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE	**N Y**
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
CHICAGO DYNAMIC INDUSTRIES INC, PRECISION PRODS DIV CHICAGO, ILL	**ADV PG 682**
DIGITRAN CO, PASADENA, CAL	**ADV PG 683**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
STANDARD GRIGSBY CO, AURORA	**ILL**
TECH LABORATORIES INC, PALISADES PARK N J	**ADV PG 664**
Amperex Electronic Corp, Component Div Hauppauge	N Y
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Carter Precision Electric Co, Skokie	Ill
Chicago Dynamic Industries Inc, Precision Prods Div Chicago	Ill
Condor Industrial Corp, West Chicago	Ill
Co-Ord Div LVC Industries Inc, Corona	NY
Digitran Co, Pasadena	Cal
Dowa Trading Co Ltd, Kobe	Japan
Electronic Engineering Co of Cal, Santa Ana	Cal
General Electric Co, ECSO, Schenectady	N Y
Haydon Co The, A W, Waterbury	Conn
Inter-Market Inc, Glenview	Ill
Lear Siegler Inc, Santa Monica	Cal
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Controls Co, Frankfort	Ind
Oak Mfg Co, Div Oak Electro/Netics Corp Crystal Lake	Ill
Precision Mecanique Labinal, 93 Saint-Ouen	France
Standard Grigsby Co, Aurora	Ill
Tech Laboratories Inc, Palisades Park	N J
Tower Mfg Corp, Providence	R I

SWITCHES--THERMAL (HEAT-ACTUATED)

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HYDRA-ELECTRIC CO, BURBANK	**CAL**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
Acoustica Associates Inc, Los Angeles	Cal
Aeromarine Electronics, Inc, San Diego	Cal
American Solenoid Co, Inc, Rahway	N J
Ark-Les Switch Corp, Watertown	Mass
Betts & Betts Corp, Woodbury	Conn
Burling Instrument Co, Chatham	N J
Chatham Controls Corp, Chatham	N J
Consolidated Controls Corp, El Segundo	Cal
Control Products Inc, East Hanover	N J
Custom Component Switches Inc, Chatsworth	Cal
Dales Co, Franklin, Akron	Ohio
Dowa Trading Co Ltd, Kobe	Japan
Energy Conversion Devices Inc, Troy	Mich
Essex Wire Corp Stemco Controls, Mansfield	Ohio
Fenwal Inc, Ashland	Mass
Fulton Sylphon Div Robertshaw Controls Co Knoxville	Tenn
General Electric Co, ECSO, Schenectady	N Y
G-V Controls Inc, Livingston	N J
Hydra-Electric Co, Burbank	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
Jaidinger Mfg Co Inc, Chicago	Ill
Microwave/Systems Inc, East Syracuse	N Y
Networks Electronic Corp, Chatsworth	Cal
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Plessey Airborne Corp, Hillside	NJ
Precision Thermometer & Instrument Co Southampton	Pa
Protective Controls Inc, Chartley	Mass
Relay & Control Corp, Long Island City	N Y
Relay Specialties Inc, Fair Lawn	N J
Rowan Controller Co, Oceanport	N J
Scaico Div, Wavetronics Industries Inc West Pittston	Pa
Signet Scientific Co, Burbank	Cal
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Systems Matrix Inc, Trenton	N J
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Temtech, Santa Ana	Cal
Therm-O-Disc Inc, Mansfield	Ohio
United Control Corp, Redmond	Wash
United Electric Controls Co, Watertown	Mass
Varian, Palo Alto	Cal
Vulcan Electric ITT, Danvers	Mass
Wavetronics Industries Inc, West Pittston	Pa
Yaskawa Electric Mfg Co Ltd, Tokyo	Japan

Free Thumbwheel Switch Catalog (and application data) on Digiswitch® and Miniswitch®

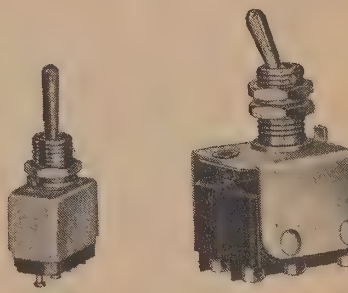
Choose from the industry's most complete line of standard and miniature switches:
- Available with or without environmental sealing.
- More than 100 standard types of coded output.
- Up to 40 switching positions.
- Completely modular — gang as many as you want.
- Designed to meet specification of Mil-S-22710.
- Wide variety of terminations.

Our engineers will be happy to discuss any special requirements you have. To get your free catalog copy, simply drop us your name and address.

THE DIGITRAN COMPANY
Subsidiary of Becton, Dickinson and Company B-D
855 S. Arroyo Pkwy./Pasadena, Cal. 91105
Tel: (213) 449-3110/TWX 910-588-3794

SWITCHES--TOGGLE

AMERICAN ZETTLER, INC, COSTA MESA	**CAL**
BIRNBACH CO INC, FREEPORT	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
J-B-T INSTRUMENTS INC, NEW HAVEN, CONN	**ADV PG 684**
KULKA ELECTRIC CORP, MOUNT VERNON, N Y	**ADV PG 698**
MICRO SWITCH DIV, HONEYWELL, FREEPORT ILL	**ADV PG 683**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
ROBERTSHAW CONTROLS CO, ACRO DIV, COLUMBUS	**OHIO**
Aikow Shoji Kaisha Ltd, Osaka	Japan
Aircraft Components Inc, Benton Harbor	Mich
Alco Electronic Products, Inc, Lawrence	Mass
American Zettler, Inc, Costa Mesa	Cal
Ansul Co Electro Controls Div, Los Angeles	Cal
Ark-Les Switch Corp, Watertown	Mass
Automatic Switch Co, Florham Park	N J
Avnet Electronics, Westbury	N Y
Beltone Electronics Corp, Chicago	Ill
Betts & Betts Corp, Woodbury	Conn
Birnbach Co Inc, Freeport	N Y
Cable Electric Products Inc, Providence	R I
Carling Electric Inc, West Hartford	Conn
C & K Components Inc, Watertown	Mass
Clark Control Div, A O Smith Corp, Cleveland	Ohio
Cole-Hersee Co, S Boston	Mass
Control Switch Div Controls Co of America, Folcroft	Pa
Cutler-Hammer Inc, Milwaukee	Wisc
Daburn Electronics & Cable Corp, Bronx	N Y
Dowa Trading Co Ltd, Kobe	Japan
Eagle Electric Mfg Co Inc, Long Island City	N Y
Electronic Controls Inc, Wilton	Conn
Electrospace Corp, Glen Cove	N Y
Federal Screw Products Inc, Chicago	Ill
Furnas Electric Co, Batavia	Ill
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Control Co, Boston	Mass
General Electric Co, ECSO, Schenectady	N Y
Harvey Hubbell Inc, Bridgeport	Conn
Haydon Switch & Instrument Inc, Waterbury	Conn
Hosiden Electronics Co Ltd, Osaka	Japan
Impectron Inc, New York	N Y
Indak Mfg Co, Northbrook	Ill
ITT Europe Inc Components Gp, Brussels 1	Belgium
JB Electronic Transformers Inc, Chicago	Ill
J-B-T Instruments Inc, New Haven	Conn
Kay Electric Co, Pine Brook	N J
Kulka Electric Corp, Mount Vernon	N Y
Leviton Mfg Co Inc, Brooklyn	N Y
Licon Div, Illinois Tool Works Inc, Chicago	Ill
Master Specialties Co, Costa Mesa	Cal
McGill Mfg Co Inc, Electrical Div, Valparaiso	Ind



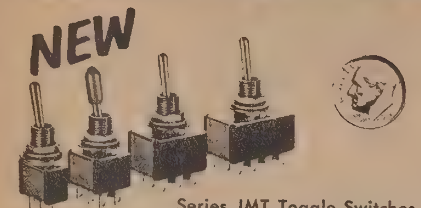
Toggle Switches

Wide variety of high quality panel mount toggle switches, including miniature, heavy duty or electronic duty, sealed, multi-circuit, special circuitries and actions, standard or pull-to-unlock levers, holding coils. Request Catalog 51.

MICRO SWITCH
FREEPORT, ILLINOIS 61032
A DIVISION OF HONEYWELL

J-B-T TOGGLE SWITCHES

NEW



Series JMT Toggle Switches
1-, 2-, 3-, and 4-pole DT

• **SUB-MINIATURE TYPE SERIES JMT**

Manufactured by J-B-T in Connecticut, with a distinctive green body. Single-pole types are ¼" thin, weigh 0.19 oz.; double-pole are ½" square, 0.23 oz., 3-pole and 4-pole models are correspondingly small. Nominal rating is 5 amp resistive load at 125 VAC and 24 VDC. The ¼" mounting bushing will not turn or work loose in surface plate; terminals are firmly staked and will withstand repeated soldering. Additional models are shown below.

Series MPC for direct mounting in printed circuit

Series PC1 for right angle mounting

Series FH with non-turn flat handle

Ask for Bulletin JMT-448, Catalog 568, and appropriate SK specification drawings.

MS35058-21
SPDT
Lever Seal

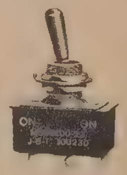
MS25068-27
4-pole DT
Lever Seal

• **HEAVY DUTY MIL, JAN & AN TYPES**

Generous proportions of selected silver alloys add overload protection and keep contact resistance under .005 ohms in MIL-S-3950C types: single-pole MS35058, double-pole MS35059 and 4-pole MS25068; also MIL-S-6745 Series AN3021 and AN3027. Many JAN-S-23, ST-40, -42, -50, and -52 models are similarly made. 20 amp at 125 VAC, 10 amp 250 VAC.

• **MEDIUM DUTY MIL & JAN TYPES**

Medium-duty describes the current carrying capacity — nominal rating 6 Amp. at 125 VAC, 3 Amp. at 250 VAC — rather than the life characteristic of these MIL-S-3950C types: Single-pole MS25098 and double-pole MS25100; also JAN-S-23 types ST12 through ST27. All use self-wiping heavily-silver-plated double-grip contacts for exceptional reliability.



MS25100-23
Self-wiping
Contacts

Ask for Catalog TS-966A.

• **INDUSTRIAL QUANTITY PRICES**

Authorized distributors are back by extensive factory stocks for attractive deliveries at industrial quantity prices.

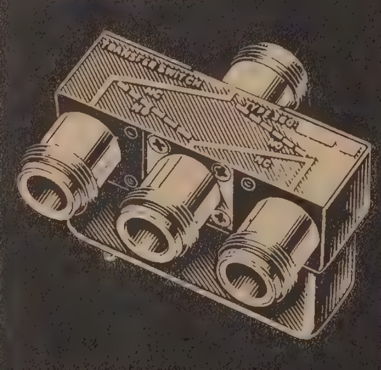
J-B-T INSTRUMENTS, INC.
NEW HAVEN, CONNECTICUT 06508
(203) 772-2220 or 787-5824

Micro Switch Div, Honeywell, Freeport	Ill
Microwave Associates Inc, Burlington	Mass
Miles Industries Inc, Garnerville	N Y
Milli-Switch Corp, Gladwyne	Pa
Miniature Electronic Components Ltd, Surrey	England
Mitsumi Electric Co Ltd, Tokyo	Japan
Network Industries Inc, Bayonne	N J
Painton & Co, Ltd, Northampton	England
Pass & Seymour, Syracuse	N Y
Philmore Mfg Co Inc, Richmond Hill	N Y
Pollak Corp, Joseph, Boston	Mass
Relay & Control Corp, Long Island City	N Y
Republic Industrial Corp, Lathrup Village	Mich
Robertshaw Controls Co, Acro Div, Columbus	Ohio
Rye Industries, Inc, Mamaroneck	N Y
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Sierra Electric Inc, Gardena	Cal
Slater Electric Inc, Glen Cove	N Y
Smith Inc, Herman H, Brooklyn	N Y
Star-A Electric Mfg Co Inc, Brooklyn	N Y
Stettner-Trush Inc, Cazenovia	N Y
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Teledata Inc, Queens Village	N Y
Telefunken Sales Corp, Garden City	N Y
Texas Instruments Incorporated, Dallas	Tex
Torsion Balance Co, Clifton	N J
Tower Mfg Corp, Providence	R I
Unimax Switch Div Maxson Electronics Corp Wallingford	Conn

SWITCHES--TRANSFER

AMPHENOL, DANBURY, CONN	**ADV PG 684**
CHICAGO SWITCH F & F, CHICAGO	**ILL**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL REED CO, CLARK	**N J**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL**
Allen-Bradley Co, Milwaukee	Wis
American Solenoid Co, Inc, Rahway	N J
Amphenol, Danbury	Conn
Andrew California Corp, Claremont	Cal
Ansul Co Electro Controls Div, Los Angeles	Cal
Automatic Switch Co, Florham Park	N J
Betts & Betts Corp, Woodbury	Conn
Chicago Switch F & F, Chicago	Ill
Cutler-Hammer Inc, Milwaukee	Wisc
Daico Industries Inc, Gardena	Cal
Dowa Trading Co Ltd, Kobe	Japan
Electronic Controls Inc, Wilton	Conn
Electro Switch Corp, Weymouth	Mass
Furnas Electric Co, Batavia	Ill
General Electric Co, ECSO, Schenectady	N Y
General Reed Co, Clark	N J
Haydon Switch & Instrument Inc, Waterbury	Conn
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal

Specify Amphenol.
The leading name
in Microwave
Switches.



Dynaform® coaxial switches
High frequency coaxial switches
Miniature coaxial switches
Special coaxial switches

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

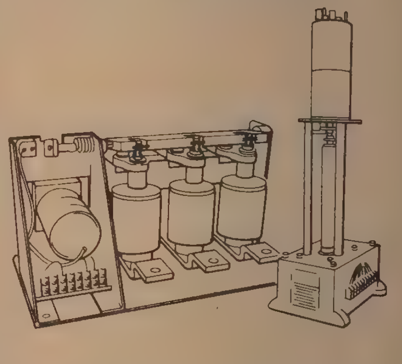
AMPHENOL

Johnson Co, E F, Waseca	Minn
Kinetics A Teledyne Co, Solana Beach	Cal
Ledex Div Ledex Inc, Dayton	Ohio
McGraw-Edison Power Systems Div, Milwaukee	Wis
Microwave Associates Inc, Burlington	Mass
Pala Switch Co, Santa Ana	Cal
Quantatron Div, Teledyne Inc, Santa Monica	Cal
Radar Relay Div, Teledyne Inc, Santa Monica	Cal
RLC Electronics Inc, Port Chester	N Y
Ross Engineering Corp, Saratoga	Cal
Torr Labs Inc, Los Angeles	Cal
Wadsworth Electric Mfg Co Inc, Covington	Ky
Zenith Controls Inc, Chicago	Ill

SWITCHES--VACUUM (HIGH VOLTAGE)

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE CAL	**ADV PG 684**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
Allis-Chalmers Mfg Co, Milwaukee	Wis
Bomac Div Varian Associates, Beverly	Mass
Consolidated Controls Corp, Bethel	Conn
Continental X-Ray Corp, Chicago	Ill
Custom Component Switches Inc, Chatsworth	Cal
Del Electronics Corp, Mt Vernon	N Y
Dowa Trading Co Ltd, Kobe	Japan
Edwards High Vacuum 9Canada0 Ltd, Oakville	Ont
E G & G Inc, Electronic Prods Div, Boston	Mass
Eimac Div, Varian Associates, San Carlos	Cal
Ellison Instrument Div Dieterich Std Corp New Buffalo	Mich
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Fredericks Co, Huntingdon Valley	Pa
General Electric Co, ECSO, Schenectady	N Y
Gordos Corp, Bloomfield	N J
Hamlin Inc, Lake Mills	Wis
Herley Industries, Inc, Westbury	N Y
High Vacuum Electronics Inc, South Pasadena	Cal
High Vacuum Equipment Corp, Hingham	Mass
Ikor, Inc, Burlington	Mass
Ion Physics Corp, Burlington	Mass
ITT Jennings Div, Intl Tel & Tel Corp, San Jose	Cal
Japan Vacuum Engineering Co Ltd, Tokyo	Japan
Meletron Corp, Los Angeles	Cal
Mitsubishi Electric Corp, Tokyo	Japan
Norton Co Vacuum Equip Div, Newton	Mass
Pollak Corp, Joseph, Boston	Mass
Porter Co Inc, H K Electrical Div, Pittsburgh	Pa
Ross Engineering Corp, Saratoga	Cal
Scaico Div, Wavetronics Industries Inc West Pittston	Pa

HIGH VOLTAGE
VACUUM
CONTACTORS



ITT Jennings vacuum power contactors are used for controlling dc, rf and 50, 60 and 400 cycle circuits at all voltage levels, primarily in high power electronic equipment up to 70 peak kilovolts and several hundred continuous amperes. Noted for their small size and light weight, these contactors require no maintenance and can accomplish positive current interruption in a maximum of 33 ms.

For application and specification data, write for catalog No. 104. ITT Jennings, a division of International Telephone and Telegraph Corporation, 970 McLaughlin Avenue, San Jose, California 95108. Phone (408) 292-4025, TWX 910-338-0159.

JENNINGS ITT

Thordarson Meissner Inc, Mt Carmel	Ill
Torr Labs Inc, Los Angeles	Cal
United-Carr Inc, Boston	Mass
United Electric Controls Co, Watertown	Mass
Vacuum Industries Inc Sub GCA Corp, Somerville	Mass
Varian, Palo Alto	Cal
Wavetronics Industries Inc, West Pittston	Pa
Westinghouse Electric Corp, Tube Div, Elmira	NY
Win-Elco, Gold Hill	Ore

SWITCHING COMMUTATORS SEE COMMUTATORS

SWITCHING DIODES SEE DIODES–SWITCHING

SWITCHING MAGNETIC AMPLIFIERS SEE AMPLIFIERS--MAGNETIC

SWITCHING REACTORS SEE REACTORS--SATURABLE

SWITCHING SYSTEMS

BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON	**CAL**
CHICAGO SWITCH F & F, CHICAGO	**ILL**
HYDRA-ELECTRIC CO, BURBANK	**CAL**
MICRO SWITCH DIV, HONEYWELL, FREEPORT	**ILL**
TELE-SIGNAL CORP, WOODBURY	**N Y**
TRANSCO PRODUCTS INC, VENICE	**CAL**
Acoustica Associates Inc, Los Angeles	Cal
A D Data Systems Inc, Rochester	N Y
Alma Engineering Inc, San Diego	Cal
American Machine & Foundry Co Alexandria Div Alexandria	Va
American Solenoid Co, Inc, Rahway	N J
Amtron Inc, Midlothian	Ill
Andrew California Corp, Claremont	Cal
Astro Lab, Westminster	Cal
Automated Measurements Corp, Los Gatos	Cal
Automatic Electric Co, Northlake	Ill
Automatic Metal Products Corp, Brooklyn	N Y
Automatic Switch Co, Florham Park	N J
A V Electronics, Inc, Fresno	Cal
Bay Engineering Co, San Francisco	Cal
Beckman Instruments Inc, Helipot Div, Fullerton	Cal
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bulova Watch Co Inc, Timer Lab, Flushing	N Y
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Central Dynamics Ltd, Pte Claire	Que
Chicago Switch F & F, Chicago	Ill
Clare-Pendar Co, Post Falls	Idaho
Clark Control Div, A O Smith Corp, Cleveland	Ohio
Cohu Electronics Inc, San Diego	Cal
Condor Industrial Corp, West Chicago	Ill
Control Equipment Corp, Needham Heights	Mass
Control Logic Inc, Natick	Mass
Co-Ord Div LVC Industries Inc, Corona	NY
Crane Electronics Corp, Santa Barbara	Cal
Cunningham Son & Co Inc, James, Honeoye Falls	N Y
Davidson Electronic Development Co, Erie	Pa
Delta Electronics Inc, Alexandria	Va
Divac Electronics, Hawthorne	Cal
Dowa Trading Co Ltd, Kobe	Japan
Dynair Electronics Inc, San Diego	Cal
Dynamic Controls Corp, South Windsor	Conn
E-H Research Labs Inc, Oakland	Cal
Electronic Controls Inc, Wilton	Conn
Electrospace Corp, Glen Cove	N Y
Fairchild Controls, Hicksville	N Y
Fisher-Akin Co, Manhattan Beach	Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Fujitsu Ltd, Tokyo	Japan
General Devices Inc, Instrumentation Div Princeton	N J
General Equipment & Mfg Co, Louisville	Ky
Giannini-Voltex, Whittier	Cal
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Hathaway Instruments Inc, Denver	Colo
Hayakawa Electric Co Ltd, Osaka	Japan
Haydon Co The, A W, Waterbury	Conn
Hugle Industries, Sunnyvale	Cal
Hydra-Electric Co, Burbank	Cal
International Rectifier Semiconductor Div El Segundo	Cal
ITT Defense Communications Div, Nutley	N J
ITT Telecommunications, New York	N Y
Langevin Div, Scientific Ind, Inc, Santa Ana	Cal
Ledex Div Ledex Inc, Dayton	Ohio
Liebel-Flarsheim Co, Cincinnati	Ohio
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
Luminator Inc Display-Control Div, Plano	Tex
Machinery Electrification Inc, Northboro	Mass
Massey Dickinson Co Inc, Saxonville	Mass
Matrix Div, Schafer Electronics, Chatsworth	Cal
Maytronics Inc, Colorado Springs	Colo
McKee Automation Corp Sub James Cunningham Inc San Fernando	Cal
Micro Metrics Inc, Paterson	N J
Micro Switch Div, Honeywell, Freeport	Ill
3M Company, St Paul	Minn
3M Instrument Products, Camarillo	Cal
Monitor Systems Inc, Fort Washington	Pa
Moore Associates Div Rocker Co, San Carlos	Cal
Oki Electric Industry Co Ltd, Tokyo	Japan
Omega-t Systems Inc, Richardson	Tex
Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Philco-Ford Corp, Washington	D C
Philips Electronics Industries Ltd, Toronto 17	Ont
Plessey Airborne Corp, Hillside	NJ
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Radar Relay Div, Teledyne Inc, Santa Monica	Cal
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Ramcor Inc, Huntington	NY
Regent Controls Inc, Stamford	Conn
Republic Industrial Corp, Lathrup Village	Mich
Ross Engineering Corp, Saratoga	Cal
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Sedco Systems Inc, Farmingdale	N Y
Servo Development Corp, Hicksville	N Y
Siemens America Inc, New York	N Y
Stephens Electronics, Burbank	Cal
Stromberg-Carlson Sub Gen Dynamics, Rochester	N Y
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Sylvania Electronic Systems, Waltham	Mass
Systems Research Labs Inc, Dayton	Ohio
Technology Instrument Corp Sub Bowmar Instr Corp Newbury Park	Cal
Teledyne Telemetry Co, Los Angeles	Cal
Tele-Signal Corp, Woodbury	N Y
Time-O-Matic Inc, Danville	Ill
T M C Systems & Power Corp, Springfield	Va
Transco Products Inc, Venice	Cal
Trepac Corp of America, Englewood	N J
Trompeter Electronics Inc, Chatsworth	Cal
Virginia Electronics Co Inc, Falls Church	Va
Vital Industries Inc, Gainesville	Fla
Whistler Electronics Inc, Northridge	Cal
Zehntel Inc, Berkeley	Cal

SWITCHING TRANSISTORS SEE TRANSISTORS

SWITCH SEALS SEE SEALS--MECHANICAL

SYNCHRO-ERROR TESTERS SEE TESTERS--SYNCHRO-ERROR

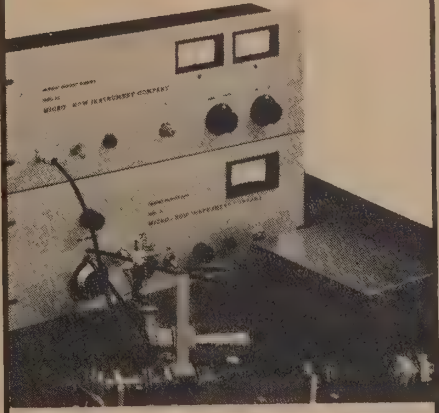
SYNCHRONIZERS—OSCILLATOR

MICRO-NOW INSTRUMENT CO INC, CHICAGO ILL	ADV PG 685

Standard and Custom-Built
MICROWAVE INSTRUMENTS

See Micro-Now for:

Oscillator Synchronizers
Klystron stabilizers
Microwave Oscillators
Frequency Multipliers
Microwave Receivers
ESR Spectrometers



Micro-Now
Instrument Co., Inc.
Area Code 312—282-0846
6124 N. Pulaski Rd., Chicago 60646

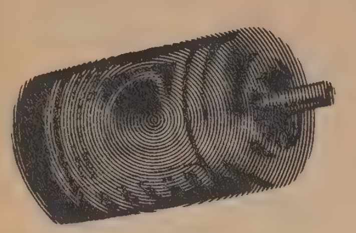
EBG

What's in it for you?

1. Listing of more than 4,000 products.
2. 6,500 manufacturers with local outlets, addresses and phone numbers.
3. Complete and up-to-date Trade Name Directory
4. The most complete industry source of supply and product specs.

Electronics Buyers' Guide

ANGLING?



Find your angle with an IMC Size 8 or 11 synchro (CT, CDX, CX, TX & C.) or a Size 15 resolver.

Econosync (low cost) and BUWEPS types are factory stocked for immediate delivery.

Western Division
IMC Magnetics Corp.
6058 Walker Ave.
Maywood, Calif. 90270
Tel (213) 583-4785
TWX 910-321-3089

SYNCHROS--CONTROL TRANSFORMERS

CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL, PA	**ADV PG 686**
IMC MAGNETICS CORP EASTERN DIV, WESTBURY N Y	**ADV PG 686**
IMC MAGNETICS CORP WESTERN DIV, MAYWOOD CAL	**ADV PG 686**
ADC Electronics, Inc, Harbor City	Cal
American Electronics, Inc, Fullerton	Cal
Bendix Corp, Flight & Engine Instr Div South Montrose	Pa
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Curry Engineering Co, N Hollywood	Cal
Electric Indicator Co Inc, Wilton	Conn
Farrand Controls Inc, Valhalla	N Y
Ferranti, Ltd, Lancashire	England
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Harowe Servo Controls Inc, West Chester	Pa
Henschel Corp, Amesbury	Mass
IMC Magnetics Corp Eastern Div, Westbury	N Y
•IMC Magnetics Corp Western Div, Maywood	Cal
Kollsman Motor Corp, Dublin	Pa
LCC-CICE, 93 Montreuil-sous-Bois	France
Muirhead Instruments Inc, Mountainside	N J
Northridge Engineering Co Div Republic Corp Northridge	Cal
Polyphase Instrument Co, Bridgeport	Pa
Reeves Instrument Div, DCA, Garden City	N Y
Singer Co, Metrics Div, Gertsch Dept, Los Angeles	Cal
Smiths Industries North America Ltd, Jamaica	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Solvere Inc, Santa Ana	Cal
Sunbeam Electronics, Fort Lauderdale	Fla
Vactric Control Equipment Ltd, Morden	England
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Weston-Transicoil, Weston Instruments Inc Worcester	Pa

SYNCHROS--DIFFERENTIALS

CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL, PA	**ADV PG 686**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
IMC MAGNETICS CORP WESTERN DIV, MAYWOOD	**CAL**
American Electronics, Inc, Fullerton	Cal
Aviation Electric Ltd, St Laurent, Montreal	Que
Bendix Corp, Flight & Engine Instr Div South Montrose	Pa
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Electric Indicator Co Inc, Wilton	Conn
General Electric Co, ECSO, Schenectady	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Harowe Servo Controls Inc, West Chester	Pa
IMC Magnetics Corp Western Div, Maywood	Cal
Jungner Instrument AB, S-10440 Stockholm 14	Sweden
Kollsman Motor Corp, Dublin	Pa
LCC-CICE, 93 Montreuil-sous-Bois	France
Muirhead Instruments Inc, Mountainside	N J
Northridge Engineering Co Div Republic Corp Northridge	Cal
Reeves Instrument Div, DCA, Garden City	N Y
Smiths Industries North America Ltd, Jamaica	N Y
Solvere Inc, Santa Ana	Cal
Sunbeam Electronics, Fort Lauderdale	Fla
Vactric Control Equipment Ltd, Morden	England
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Weston-Transicoil, Weston Instruments Inc Worcester	Pa

SYNCHROS--INDICATORS REMOTE

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
IMC MAGNETICS CORP WESTERN DIV, MAYWOOD	**CAL**
LINAIR DESIGN CORP, LINDEN	**N J**
TOWSON LABS INC, BALTIMORE	**MD**
Advance Instrument Corp, Belmar	N J
Astrosystems Inc, New Hyde Park	N Y
Aviation Electric Ltd, St Laurent, Montreal	Que
Bendix Corp, Flight & Engine Instr Div South Montrose	Pa
Carbonara Instrument Engrg Labs, Victor E. Port Washington	N Y
Chrysler Corp, Missile Div, Detroit	Mich
Consolidated Electric Corp, Seattle	Wash
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Curry Engineering Co, N Hollywood	Cal
Electric Indicator Co Inc, Wilton	Conn
Electric Tachometer Corp, Philadelphia	Pa
Gap Instrument Corp, Westbury	N Y

BUY CLIFTON QUALITY IN SYNCHROS

CLIFTON
DIVISION OF LITTON INDUSTRIES
General Sales Office: 5050 State Rd., Drexel Hill, Pa.
215 622-1000 TWX: 510 669-8217

SEE PAGE 631 FOR DESCRIPTION OF OUR WIDE LINE OF AMPLIFIERS, POWER SUPPLIES, ELECTROMECHANICAL PACKAGES.

SILVERLINE THE NEW GENERATION OF CLIFTON SYNCHROS

RESOLVER
TYPE S08-A-4
SILVERLINE
CLIFTON
TRANSMITTER
TYPE 608A7
SILVERLINE
CLIFTON
DIFFERENTIAL
TYPE D08-A1
SILVERLINE
CLIFTON
CONTROL TRANSFORMER
TYPE 108-A4
SILVERLINE
CLIFTON

Higher Accuracy. 5′ Standard • Outstanding Repeatability of Calibration Pattern • Stability of Calibration over Temperature • 150°C Standard Operating Temperature • Lower Null Voltage

Keeping pace with the developing aerospace field, Clifton has developed SILVERLINE, a new, superior line of standard synchros.

These units, a natural evolution from our present line of quality synchros, embody certain new manufacturing techniques and space age materials. The result is a standard synchro which outperforms present synchros in the above five distinct ways.

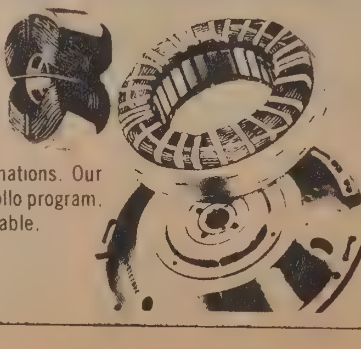
RESOLVER
TYPE CSH-
cppc
PRECISION PRODUCTS
CONTROL TRANSFORMER
TYPE CTH-11-B-2
cppc
PRECISION PRODUCTS
TRANSMITTER
cppc
PRECISION PRODUCTS
RECEIVER
TYPE CRH-8-
PAT. PEND.
cppc
PRECISION PRODUCTS

SYNCHROS

Clifton synchros offer high accuracy (7′ max. error is typical), low nulls, low phase shifts, corrosion resistant construction, stainless steel or aluminum housings. Double ended shafts, BuWeps types and ultra high temperature resistant types (450°F) are available. Clifton manufactures an extremely wide variety of transmitters, receivers, control transformers, differentials, resolvers, precision computing resolvers, linear transformers, as well as a complete line of motors and motor rate tachometers.

GYRO PICKOFF SYNCHROS AND RESOLVERS

Gyro pick-offs generally require individual mounting configurations and electrical parameters. Clifton can custom design them for your particular needs. Beryllium, aluminum or stainless steel housings. A wide selection of bores, stack heights, widths and diameters are available from existing laminations. Our gyro pick-offs are used extensively in the Apollo program.
Custom designed torque motors also available.



General Electric Co, ECSO, Schenectady	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Harowe Servo Controls Inc, West Chester	Pa
Henschel Corp, Amesbury	Mass
IMC Magnetics Corp Western Div, Maywood	Cal
Jungner Instrument AB, S-10440 Stockholm 14	Sweden
Kollsman Instrument Ltd, Southampton	England
Kollsman Motor Corp, Dublin	Pa
LCC-CICE, 93 Montreuil-sous-Bois	France
Leupold & Stevens Instruments Inc, Portland	Ore
Linair Design Corp, Linden	N J
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Measurement Technology Corp, Canoga Park	Cal
Memcor Div LTV Electrosystems Inc, Huntington	Ind
Muirhead Instruments Inc, Mountainside	N J
Natel Engineering Co Inc, Van Nuys	Cal
Northridge Engineering Co Div Republic Corp Northridge	Cal
Reeves Instrument Div, DCA, Garden City	N Y
Rotating Components Div Instrument Sys Corp Bay Shore	N Y
Smiths Industries North America Ltd, Jamaica	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Solvere Inc, Santa Ana	Cal
Sunbeam Electronics, Fort Lauderdale	Fla
Theta Instrument Corp, Fairfield	N J
Towson Labs Inc, Baltimore	Md
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Weston-Transicoil, Weston Instruments Inc Worcester	Pa

SYNCHROS--PANCAKE RESOLVERS

CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL, PA	**ADV PG 686**
PICO PRODUCTS INC, RONKONKOMA	**NY**
American Electronics, Inc, Fullerton	Cal
Aviation Electric Ltd, St Laurent, Montreal	Que
Avionics, Inc, South Bend	Ind
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill	Pa
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Curry Engineering Co, N Hollywood	Cal
Farrand Controls Inc, Valhalla	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Harowe Servo Controls Inc, West Chester	Pa
Kollsman Motor Corp, Dublin	Pa
LCC-CICE, 93 Montreuil-sous-Bois	France
Pico Products Inc, Ronkonkoma	NY
Reeves Instrument Div, DCA, Garden City	N Y
Smiths Industries North America Ltd, Jamaica	N Y
Solvere Inc, Santa Ana	Cal
Sunbeam Electronics, Fort Lauderdale	Fla
Vactric Control Equipment Ltd, Morden	England
Weston-Transicoil, Weston Instruments Inc Worcester	Pa

SYNCHROS--RECEIVERS

CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL, PA	**ADV PG 686**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
IMC MAGNETICS CORP WESTERN DIV, MAYWOOD	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
American Electronics, Inc, Fullerton	Cal
Aviation Electric Ltd, St Laurent, Montreal	Que
Bendix Corp, Flight & Engine Instr Div South Montrose	Pa
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill	Pa
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Curry Engineering Co, N Hollywood	Cal
Electric Indicator Co Inc, Wilton	Conn
Farrand Controls Inc, Valhalla	N Y
General Electric Co, ECSO, Schenectady	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Harowe Servo Controls Inc, West Chester	Pa
Henschel Corp, Amesbury	Mass
IMC Magnetics Corp Western Div, Maywood	Cal
Jungner Instrument AB, S-10440 Stockholm 14	Sweden
Kollsman Motor Corp, Dublin	Pa
LCC-CICE, 93 Montreuil-sous-Bois	France
Memcor Div LTV Electrosystems Inc, Huntington	Ind
Muirhead Instruments Inc, Mountainside	N J
Nippon Electric Co Ltd, Tokyo	Japan
Reeves Instrument Div, DCA, Garden City	N Y
Smiths Industries North America Ltd, Jamaica	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Solvere Inc, Santa Ana	Cal
Sunbeam Electronics, Fort Lauderdale	Fla
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Weston-Transicoil, Weston Instruments Inc Worcester	Pa

SYNCHROS--RESOLVERS

CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL, PA	**ADV PG 686**
IMC MAGNETICS CORP WESTERN DIV, MAYWOOD	**CAL**
TRANSMAGNETICS INC, FLUSHING	**N Y**
American Electronics, Inc, Fullerton	Cal
Aviation Electric Ltd, St Laurent, Montreal	Que
Bendix Corp, Flight & Engine Instr Div South Montrose	Pa
Biddle Co, James G, Plymouth Meeting	Pa
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill	Pa
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Curry Engineering Co, N Hollywood	Cal
Electric Indicator Co Inc, Wilton	Conn
Farrand Controls Inc, Valhalla	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Harowe Servo Controls Inc, West Chester	Pa
IMC Magnetics Corp Western Div, Maywood	Cal
Julie Research Labs, Inc, New York	N Y
Jungner Instrument AB, S-10440 Stockholm 14	Sweden
Kollsman Instrument Corp, Syosset	N Y
Kollsman Motor Corp, Dublin	Pa
LCC-CICE, 93 Montreuil-sous-Bois	France
Memcor Div LTV Electrosystems Inc, Huntington	Ind
Muirhead Instruments Inc, Mountainside	N J
Reeves Instrument Div, DCA, Garden City	N Y
Singer Co, Metrics Div, Gertsch Dept, Los Angeles	Cal
Smiths Industries North America Ltd, Jamaica	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Solvere Inc, Santa Ana	Cal
Sunbeam Electronics, Fort Lauderdale	Fla
Transmagnetics Inc, Flushing	N Y
Vactric Control Equipment Ltd, Morden	England
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Weston-Transicoil, Weston Instruments Inc Worcester	Pa

SYNCHROS--TRANSMITTERS

CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL, PA	**ADV PG 686**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
IMC MAGNETICS CORP WESTERN DIV, MAYWOOD	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TRANSMAGNETICS INC, FLUSHING	**N Y**
American Electronics, Inc, Fullerton	Cal
Aviation Electric Ltd, St Laurent, Montreal	Que
Bendix Corp, Flight & Engine Instr Div South Montrose	Pa
Cedar Engineering Div Control Data Corp Minneapolis	Minn
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill	Pa
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Curry Engineering Co, N Hollywood	Cal
Electric Indicator Co Inc, Wilton	Conn
Farrand Controls Inc, Valhalla	N Y
General Electric Co, ECSO, Schenectady	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Harowe Servo Controls Inc, West Chester	Pa
Henschel Corp, Amesbury	Mass
IMC Magnetics Corp Western Div, Maywood	Cal
Jungner Instrument AB, S-10440 Stockholm 14	Sweden
Kollsman Instrument Ltd, Southampton	England
Kollsman Motor Corp, Dublin	Pa
LCC-CICE, 93 Montreuil-sous-Bois	France
Memcor Div LTV Electrosystems Inc, Huntington	Ind
Muirhead Instruments Inc, Mountainside	N J
Nippon Electric Co Ltd, Tokyo	Japan
Reeves Instrument Div, DCA, Garden City	N Y
Smiths Industries North America Ltd, Jamaica	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Solvere Inc, Santa Ana	Cal
Sunbeam Electronics, Fort Lauderdale	Fla
Transmagnetics Inc, Flushing	N Y
Vactric Control Equipment Ltd, Morden	England
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Weston-Transicoil, Weston Instruments Inc Worcester	Pa

SYNCHROSCOPES SEE OSCILLOSCOPES

EBG

What's in it for you?

1. Listing of more than 4,000 products.
2. 6,500 manufacturers with local outlets, addresses and phone numbers.
3. Complete and up-to-date Trade Name Directory
4. The most complete industry source of supply and product specs.

Electronics Buyers' Guide

Fluke Frequency Synthesizers

Model 644

The new family of Fluke frequency synthesizers offers a new standard of performance in the smallest package ever. Just seven inches of panel space offer a range of DC to 40 MHz with a non-harmonic spurious content at least 90 db below the fundamental.

Model 644 covers DC to 40 MHz. Model 633 covers DC to 11 MHz. Model 622 covers DC to 2 MHz. All three units feature, in addition to exceptionally low spurious content, high signal to noise ratio, modern packaging, in-line, in-plane frequency readout, and fast remote programming. Frequency can be changed in a fraction of a millisecond.

Model 633

Model 622

Brief Specifications

Model	644	633	622
Frequency Range	DC - 40 MHz 0.1 Hz Steps	DC - 11 MHz 0.1 Hz Steps	DC - 2 MHz 0.1 Hz Steps
Non-Harmonic Spurious	At least 90 DB Below the Fundamental	–90 DB to 5.5 MHz –80 DB to 6.5 MHz –60 DB to 11 MHz	–90 DB
Harmonics	At least 30 DB Below the Fundamental	–35 DB	–35 DB
Internal Standard	1 part in 10 to the 8th per day stability Higher stabilities optional		
Size	7″ high, 17″ wide, 23″ deep Mounting ears fit standard 19″ rack		
Power	100/115/200/230 VAC plus or minus 10% 50 - 400 Hz 75 watts max.		
Price	$10,490	$7,090	$6,490

Special Models

Because Fluke synthesizers are designed modularly, special requirements can be met quickly. For instance, Fluke has built units with dual tracking outputs with fixed separation, and separate fixed frequency outputs. Least increments of 0.01Hz are also available. Of special note is the Model 314 which, as a receiver local oscillator, offers spurious cleanliness better than 100 db.

Fluke, Box 7428, Seattle, Washington 98133. Phone: (206) 774-2211. TWX: (910) 449-2850.
In Europe, address Fluke Nederland (N.V.), P.O. Box 5053, Tilburg, Holland.
Telex: 844-50237. In the U.K., address Fluke International Corp.,
P.O. Box 102, Watford, Herts, England. Telex: 851-934-583.

FLUKE

SYNTHESIZERS--FREQUENCY

ANRITSU ELECTRIC CO LTD, TOKYO, JAPAN ...... ADV PG 689
FLUKE MFG CO INC, JOHN, SEATTLE, WASH .... ADV PG 688
HEWLETT-PACKARD, PALO ALTO, CAL ... ADV PG 689
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND ... OHIO
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO ... ILL
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
SPECTRA-ELECTRONICS INC, LOS ALTOS ... CAL
TRACOR INC, AUSTIN ... TEX
Advanced Communications Inc Sub Conductron Corp Chatsworth ... Cal
Akers Electronics, Horten ... Norway
Anritsu Electric Co Ltd, Tokyo ... Japan
Applied Research, Inc, Port Washington ... N Y
Bendix Corp, Communications Div, Towson ... Md
California Microwave, Sunnyvale ... Cal
Canoga Electronics Corp, Chatsworth ... Cal
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles ... France
Damon Engineering Inc, Needham Heights ... Mass
Dynamco Ltd, Chertsey Surrey ... Eng
E F Assoc Inc, Scotch Plains ... N J
Epsco Inc, Westwood ... Mass
Fluke Mfg Co Inc, John, Seattle ... Wash
Frequency Electronics Inc, New Hyde Park ... N Y
Frequency Engineering Labs, Farmingdale ... N J
General Radio Co, West Concord ... Mass
Hewlett-Packard, Palo Alto ... Cal
Hickok Electrical Instrument Co, Cleveland ... Ohio
Inet Power A Teledyne Co, Gardena ... Cal
Kay Electric Co, Pine Brook ... N J
Keltec Industries, Alexandria Div, Alexandria ... Va
Lorch Electronics Corp, Englewood ... N J
Marconi Div, English Electric Corp, New York ... N Y
Measurements A McGraw-Edison Div, Boonton ... N J
Microdot Magnetics Inc, Los Angeles ... Cal
Micro Power Inc, Long Island City ... N Y
Monsanto Elec Tech Center, West Caldwell ... N J
Motorola Commun & Elctns Inc Prec Instr Prods Chicago ... Ill
National Radio Co Inc, Melrose ... Mass
Nippon Electric Co Ltd, Tokyo ... Japan
Parzen Research Inc Sub Ovitron Corp, Westbury ... N Y
Philco-Ford Corp, Washington ... D C
Polarad Electronic Instruments Div Long Island City ... N Y
Racal Communications Inc, Silver Spring ... Md
Radio Engineering Labs, Div DCA, Long Island City ... N Y
Resdel Engineering Corp, Pasadena ... Cal
R F Communications Inc, Rochester ... N Y
RMS Engineering Inc, Atlanta ... Ga
Rohde & Schwarz Sales Co USA Inc, Passaic ... N J
Smyth Research Associates, San Diego ... Cal
Space Craft Inc, Huntsville ... Ala
Spectra-Electronics Inc, Los Altos ... Cal
Sperry Microwave Electronics Div, Clearwater ... Fla
Squires-Sanders Inc, Liberty Corner ... N J
Technical Materiel Corp, Mamaroneck ... N Y
Telstar Electronics Corp, Southold ... N Y
Topping Electronics Ltd, Toronto 17 ... Ont
Tracor Inc, Austin ... Tex
TRW Systems Group, Redondo Beach ... Cal

SYNTHETIC MICA SEE MICA

TACHOMETERS--ELECTRONIC

ALLIED ELECTRONICS CORP, CHICAGO ... ILL
BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON ... CAL
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL, ... PA
DATA TECHNOLOGY, INC, WATERTOWN ... MASS
ELECTRO-CRAFT CORP, HOPKINS ... MINN
HEATH CO, BENTON HARBOR ... MICH
HEWLETT-PACKARD, PALO ALTO ... CAL
INDIANA GENERAL CORP ELECTRO-MECHANICAL DIV OGLESBY ... ILL
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
TECHMETRIC CO, REDWOOD CITY ... CAL
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK ... N J
Advanced Technology Corp, Chambersburg ... Pa
Airguide Instrument Co, Chicago ... Ill
Airmec Instruments Ltd, Buckinghamshire ... England
Airpax Electronics Inc, Cambridge Div, Cambridge ... Md
Airpax Electronics Inc Seminole Div Fort Lauderdale ... Fla
Allied Electronics Corp, Chicago ... Ill
American Machine & Foundry Co Alexandria Div Alexandria ... Va
Amstro Corp, Fairfield ... N J
Amtron Inc, Midlothian ... Ill
Audn Corp, Hamburg ... N Y
Autronics Corp, Pasadena ... Cal
Aviation Electric Ltd, St Laurent, Montreal ... Que
Baldwin Electronics Inc, Little Rock ... Ark
Beckman Instruments Inc, Fullerton, ... Cal
Beckman Instruments Inc, Helipot Div, Fullerton ... Cal
Bendix Corp, Automotive Electronics Div, Baltimore ... Md
Bendix Corp Electrical Components Div, Sidney ... N Y
Bently Nevada Corp, Minden ... Nev
Biocom, Inc, Culver City ... Cal
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill, ... Pa
Consolidated Airborne Systems, Carle Place ... N Y
Cox Instruments Div Lynch Corp, Detroit ... Mich
Curry Engineering Co, N Hollywood ... Cal
Data Technology, Inc, Watertown ... Mass
Delta Products Inc, Grand Junction ... Colo
Digitrol Systems Inc, Amenia ... N Y
Disa Elektronik A/S, Herlev ... Denmark
Dixson Inc Meter Div, Grand Junction ... Colo
Dowa Trading Co Ltd, Kobe ... Japan
Dynamic Precision Controls Corp, Hagerstown ... Ind
Eldorado Electronics, Concord ... Cal
Electro-Craft Corp, Hopkins ... Minn
Electromatic Equipment Co, Cedarhurst ... N Y
Electro Products Labs Inc Transducer Div, Chicago ... Ill
EMD Components Inc, Wickliffe ... Ohio
Flowcon Co, Anaheim ... Cal
Foxboro Co, Foxboro ... Mass
General Radio Co, West Concord ... Mass
Hallmark Standards Inc, Mamaroneck ... N Y
Heath Co, Benton Harbor ... Mich
Hewlett-Packard, Palo Alto ... Cal
Hill Inc E Vernon, San Francisco ... Cal
Howell Instruments Co, Fort Worth ... Tex
Indiana General Corp Electro-Mechanical Div Oglesby ... Ill
Industrial Control Co, Farmingdale ... N Y
J A C Electronics Ltd, Camberley ... England
Kokuyo Electric Co Ltd, Tokyo ... Japan
Kollsman Instrument Ltd, Southampton ... England
Kollsman Motor Corp, Dublin ... Pa
Kyoritsu Electrical Instruments Works Ltd, Tokyo ... Japan
Lear Siegler Inc, Instrument Div, Grand Rapids ... Mich
Louis Allis Co Div Litton Industries, Milwaukee ... Wisc
Magtrol Inc, Buffalo ... N Y
Martin-Decker Corp, Santa Ana ... Cal
Mastercraft Instrument Co, Dubuque ... Iowa
Matrix Corp, Beech Grove ... Ind
Matsushita Electric Industrial Co Ltd, Osaka ... Japan
Mechanical Technology Inc, Latham ... N Y
Meriam Instrument Co, Cleveland ... Ohio
Meteorology Research Inc, Altadena ... Cal
Metron Instruments, Inc, Denver ... Colo
Microdot, Inc, South Pasadena ... Cal
Monarch Industries Inc, El Segundo ... Cal
Nelson Electronic Labs Inc, Plano ... Tex
Optomechanisms Inc, Plainview ... N Y
Performance Measurements Co, Detroit ... Mich
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Photocircuits Corp, Glen Cove ... N Y
Pioneer Electric & Research Corp, Forest Park ... Ill
Power Instruments Inc, Skokie ... Ill
Radatron Inc, North Tonawanda ... N Y
Reliance Electric Co, Cleveland ... Ohio
Schauer Mfg Corp, Cincinnati ... Ohio
Schlumberger, 92-Montrouge 32 ... France
Simpson Electric Co, Chicago ... Ill
Slaughter Co, Ardmore ... Okla
Smiths Industries Ltd, Aviation Div Wembley, Mdsx ... England
Solid State Electronics Corp, Sepulveda ... Cal
Sticht Co Inc, Herman H, New York ... N Y
Strandberg Engineering Labs Inc, Greensboro ... N C
Sun Electric Corp, Chicago ... Ill
Sunshine Scientific Instruments Inc, Philadelphia ... Pa
Takeda Riken Industry Co Ltd, Tokyo ... Japan
Techmetric Co, Redwood City ... Cal
Telstar Electronics Corp, Southold ... N Y
Trio-Tech Inc of California, Burbank ... Cal
Triple A Specialty Co, Chicago ... Ill
Trump Ross Industrial Controls Inc North Billerica ... Mass
Venner Electronics Ltd, New Malden, Surrey ... Eng
Voltron Products Inc, Pasadena ... Cal
Waters Mfg Inc, Wayland ... Mass
Westberg Mfg Co, Sonoma ... Cal
Westinghouse Electric Corp, Relay & Instr Dept Newark ... N J
Weston Instruments Div Weston Instr Inc, Newark ... N J
Yokogawa Electric Works Inc, Larchmont ... N Y

TACHOMETERS--GENERATOR TYPE

BECKMAN INSTRUMENTS INC, HELIPOT DIV FULLERTON ... CAL
BOWMAR INSTRUMENT CORP, FORT WAYNE ... IND
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL, ... PA
ELECTRO-CRAFT CORP, HOPKINS ... MINN
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
GEORATOR CORP, MANASSAS ... VA
HEWLETT-PACKARD, PALO ALTO ... CAL
IMC MAGNETICS CORP EASTERN DIV, WESTBURY ... N Y
INDIANA GENERAL CORP ELECTRO-MECHANICAL DIV OGLESBY ... ILL
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK ... N J
Aircraft Components Inc, Benton Harbor ... Mich
American Electronics, Inc, Fullerton ... Cal
Avionics, Inc, South Bend ... Ind
Avtron Mfg, Inc, Cleveland ... Ohio
B & B Motor & Control Corp, New York ... N Y
Beckman Instruments Inc, Fullerton, ... Cal
Beckman Instruments Inc, Helipot Div, Fullerton ... Cal
Bendix Corp, Flight & Engine Instr Div South Montrose ... Pa
Bowmar Instrument Corp, Fort Wayne ... Ind
Bristol Div, American Chain & Cable Co Waterbury ... Conn
Canadian Research Institute, Don Mills ... Ont
Carter Motor Co, Chicago ... Ill
Cedar Engineering Div Control Data Corp Minneapolis ... Minn
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill, ... Pa
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles ... France
Curry Engineering Co, N Hollywood ... Cal
Disc Instruments Inc, Santa Ana ... Cal
Dixson Inc Meter Div, Grand Junction ... Colo

SYNTHESIZERS

MG514A/B/C 200Hz～100MHz
A 5 x 10^{-8}/day ...... $ 5,900
B 5 x 10^{-9}/day ...... $ 6,215
C 2 x 10^{-9}/day ...... $ 6,425

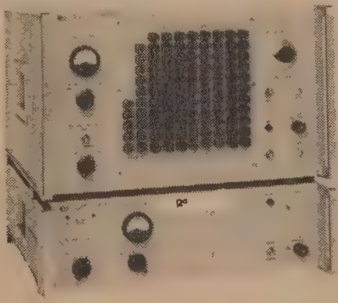
MG41A 200Hz～30MHz $ 4,835
MG31A 10Hz～1MHz $ 4,835

Prices f. o. b. Yokohama.

Anritsu Electric Co. Ltd.
12-20, Minamiazabu 4-chome, Minato-ku, Tokyo, Japan
Phone: Tokyo 442-8171/ Telex: 0242-2353
Cable: ANRITDENKI TOKYO

FREQUENCY SYNTHESIZERS

Rapidly switched (20 μ sec, typical), spectrally pure variable frequency sources with incremental and swept frequency changes.



Model 5105A—0.1 to 500 MHz range. 0.1 Hz to 100 MHz increments. $13,500.
Model 5100B—0.01 Hz to 50 MHz range. 0.01 Hz to 10 MHz increments. $12,500.
Model 5103A—DC to 10 MHz range. 0.1 Hz to 1 MHz increments. $7100.
Model 5102A—DC to 1 MHz range. 0.01 Hz to 100 kHz increments. $6500.

HEWLETT hp PACKARD

Dowa Trading Co Ltd, Kobe	Japan
Eastern Air Devices Inc, Dover	N H
Electric Indicator Co Inc, Wilton	Conn
Electric Tachometer Corp, Philadelphia	Pa
Electro-Craft Corp, Hopkins	Minn
Electro-Devices Inc Servospeed Div, Paterson	N J
Electromatic Equipment Co, Cedarhurst	N Y
Electro-Pacific Inc, Goleta	Cal
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Gaylord Rives Co, Pasadena	Cal
General Electric Co, ECSO, Schenectady	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Georator Corp, Manassas	Va
Globe Industries Div TRW Inc, Dayton	Ohio
Harowe Servo Controls Inc, West Chester	Pa
Hewlett-Packard, Palo Alto	Cal
Ideal Industries Inc, Sycamore	Ill
IMC Magnetics Corp Eastern Div, Westbury	N Y
Indiana General Corp Electro-Mechanical Div Oglesby	Ill
Inland Motor Corp, Radford	Va
Jordan Controls Inc, Milwaukee	Wis
Kollsman Instrument Corp, Syosset	N Y
Kollsman Instrument Ltd, Southampton	England
Kollsman Motor Corp, Dublin	Pa
Louis Allis Co Div Litton Industries, Milwaukee	Wisc
Magnetic Technology Inc, Canoga Park	Cal
Martin-Decker Corp, Santa Ana	Cal
Memcor Div LTV Electrosystems Inc, Huntington	Ind
Meriam Instrument Co, Cleveland	Ohio
Metermaster, Inc, Los Angeles	Cal
Metrological Data Corp, Garfield	N J
Muirhead Instruments Inc, Mountainside	N J
Nelson Electronic Labs Inc, Plano	Tex
Nichols Co Ltd, R H, Downsview	Ont
Pacific Magnetic Corp, Romoland	Cal
Performance Measurements Co, Detroit	Mich
Photocircuits Corp, Glen Cove	N Y
Reliance Electric Co, Cleveland	Ohio
Rosemount Plug-In Inc, Nashville	Tenn
Rotamec Inc, Los Angeles	Cal
Servo-Tek Products Co, Hawthorne	N J
Siemon Mfg Co, Wayne	Ill
Signet Scientific Co, Burbank	Cal
Singer Co, Diehl Div, Somerville	N J
Skurka Engineering Co, Los Angeles	Cal
Small Motors Inc Sub Sigma Instr Inc, Chicago	Ill
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Solvere Inc, Santa Ana	Cal
Standard Electric Time Co, Springfield	Mass
Stark Electronic Instruments Ltd, Ajax	Ont
Sticht Co Inc, Herman H, New York	N Y
Strandberg Engineering Labs Inc, Greensboro	N C
Sunbeam Electronics, Fort Lauderdale	Fla
Sun Electric Corp, Chicago	Ill

EBG — one stop shopping center.

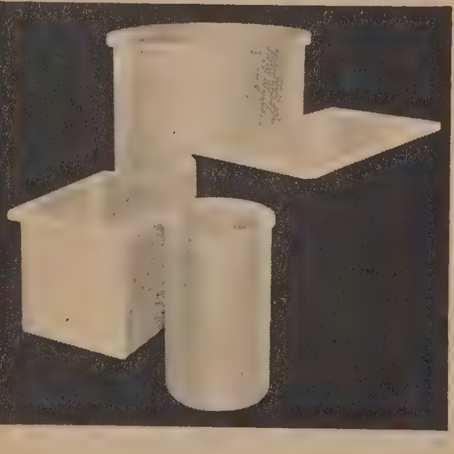
Find a product listing and advertiser's message together.

Sunshine Scientific Instruments Inc, Philadelphia	Pa
Tachtronic Instruments Inc, New Ulm	Minn
Takeda Riken Industry Co Ltd, Tokyo	Japan
Task Corp, Anaheim	Cal
Trump Ross Industrial Controls Inc North Billerica	Mass
Uriel Corp, Ronkonkoma	NY
Varo Inc, Garland	Tex
Vernitron Corp Precision Comp Group, Farmingdale	N Y
Vibrac Corp, Chelmsford	Mass
Westberg Mfg Co, Sonoma	Cal
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J
Weston Instruments Div Weston Instr Inc, Newark	N J
Weston-Transicoil, Weston Instruments Inc Worcester	Pa
Yokogawa Electric Works Inc, Larchmont	N Y
Zero-Max Co, Minneapolis	Minn

TANKS--POLYETHELYNE

AGILE DIV, NALGE CO, ROCHESTER N Y	**ADV PGS 690, 381 141**
Agile Div, Nalge Co, Rochester	N Y

Rotomolded Polyethylene
TANKS for Processing Printed Circuits



Modern printed circuit installations use Agile corrosion-resistant polyethylene tanks to meet their toughest requirements for plating, etching, or cleaning. Molded from premium-grade virgin polyethylene, they are chemically inert (even to HF), nontoxic, non-contaminating. Light in weight, easy to handle and clean. Rugged, leak-proof, never require painting. Available for immediate delivery, or we will custom mold to your specifications.

Over 120 different sizes, rectangular and cylindrical, 5 to 1000 gal.

AGILE
NALGE COMPANY
a division of Ritter Pfaudler Corporation
81 Panorama Creek Dr., Rochester, N.Y. 14602
(716) 586-8800

Send for our new Catalog. Contains complete information on sizes, specifications and prices.

TANTALUM

REMBAR CO INC, DOBBS FERRY	**N Y**
UNIFORM TUBES INC, COLLEGEVILLE	**PA**
Active Alloys Inc, Brooklyn	N Y
American Silver Co Div, Flushing	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bemol Co, Newton	Mass
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerac Inc, Butler	Wis
City Chemical Corp, New York	N Y
Cross Co, H, Weehawken	N J
Electronic Space Products Inc, Los Angeles	Cal
Fansteel Metallurgical Corp, North Chicago	Ill
Hamilton Precision Metals Div Hamilton Watch Co Lancaster	Pa
Hilton Inc, H H, Glens Falls	N Y
Japan Vacuum Engineering Co Ltd, Tokyo	Japan
Kawecki Chemical Co, New York	N Y
Kennametal Inc, Latrobe	Pa
Koch Light Labs Ltd, Colnbrook, Bucks	England
Materials Research Corp, Orangeburg	N Y
Norton Co Metals Div, Newton	Mass
Nuclear Materials & Equipment Corp, Apollo	Pa
Paul & Stein Bros Inc, F H, New York	N Y
Rembar Co Inc, Dobbs Ferry	N Y
Rodney Metals A Teledyne Co, New Bedford	Mass
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
Shieldalloy Corp, Newfield	N J
Sylvania Elec Prods Inc, Chem & Met Div, Towanda	Pa
Uniform Tubes Inc, Collegeville	Pa
Union Carbide Corp, Materials Systems Div Kokomo	Ind
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Wah Chang Corp, Glen Cove	N Y

TAPE DECKS--MAGNETIC TAPE

ALLIED ELECTRONICS CORP, CHICAGO	**ILL**
CROWN INT'L RADIO & ELECTRONICS CORP, ELKHART	**IND**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PG 8**
KINELOGIC CORP, PASADENA	**CAL**
MIDWESTERN INSTRUMENTS INC, DIV TELEX CORP TULSA	**OKLA**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
Allied Electronics Corp, Chicago	Ill
Ampex Corp, Redwood City	Cal
Auricord Corp, Long Island City	N Y
A V Electronics, Inc, Fresno	Cal
Bell P/A Products Corp, Columbus	Ohio
Bionic Instruments Inc, Bala Cynwyd	Pa
Borg-Warner Controls Div Borg-Warner Corp Santa Ana	Cal
Broadcast Electronics Inc, Silver Spring	Md
Burroughs Corp Component Sales Dept Los Angeles	Cal
Burroughs Corp, Defense, Space & Spec Sys Group Paoli	Pa
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Casco Music Systems ,Inc, Hyde Park	Mass
Concord Electronics Corp, Los Angeles	Cal
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Crown Int'l Radio & Electronics Corp, Elkhart	Ind
Data Products Corp, Culver City	Cal
Data Science Corp, San Diego	Cal
Digitronics Corp, Albertson	N Y
Dowa Trading Co Ltd, Kobe	Japan
Dynamco Ltd, Chertsey Surrey	Eng
EICO Electronic Instrument Co Inc, Brooklyn	NY
EMI Electronics Ltd, Hayes, Middlesex	England
Ercona Corp, New York	N Y
Fen-Tone Corp, New York	N Y
Gates Radio Co, Quincy	Ill
General Electric Co Info Sys Equip Div, Phoenix	Ariz
Genisco Technology Corp, Compton	Cal
Gotham Audio Corp, New York	N Y
Gregory Magnetic Industries Inc, Pompano Beach	Fla
Hathaway Instruments Inc, Denver	Colo
Hewlett-Packard, Palo Alto	Cal
Himmelstein & Co, S, Elk Grove Village	Ill
Honeywell Test Instruments Div, Denver	Colo
International Electro-Magnetics Inc, Palatine	Ill
Jetronic Industries Inc, Philadelphia	Pa
Karg Labs Inc, South Norwalk	Conn
Kennedy Co, Altadena	Cal
Kinelogic Corp, Pasadena	Cal
Lafayette Radio Electronics, Syosset	NY
Lear Jet Industries Inc, Detroit	Mich
Lundy Electronics & Systems Inc, Glen Head	N Y
Magnasync/Moviola Corp, North Hollywood	Cal
Merchant Co, Robert C, Carmel Valley	Cal
Metrotech, Inc, Mountain View	Cal
Midwestern Instruments Inc, Div Telex Corp Tulsa	Okla
3M Company, St Paul	Minn
Mohawk Data Sciences Corp, Boston	Mass
Oki Electric Industry Co Ltd, Tokyo	Japan
Orrtronics Inc, Toledo	Ohio
Pacific Electro Magnetics Co Inc, Palo Alto	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Potter Instrument Co, Inc, Plainview	N Y
Precision Instrument Co, Palo Alto	Cal
Private Tele Communications Inc, Chicago	Ill
Raecord Inc, Paterson	N J

Scientific Data Systems Inc, El Segundo	Cal
Shrader Sound Inc, Washington	D C
Sony Corp, Tokyo	Japan
Sparta Electronic Corp, Sacramento	Cal
Stancil-Hoffman Corp, Hollywood	Cal
Stanford International, San Carlos	Cal
Stuart, Matthew & Co Inc, Bronx	NY
Superscope Inc, Sun Valley	Cal
Tape-Athon, Inglewood	Cal
Telectro Systems Corp, Corona	N Y
Telex Communications Div, Minneapolis	Minn
Texas Instruments Incorporated, Dallas	Tex
Texas Instruments Inc Indl Prods Div, Houston	Tex
Thermionic Products Electronics Ltd Southampton	England
Video Research Corp, Rockville	Md
Visual Electronics Labs Audio Div, Pasadena	Cal
V-M Corp, Benton Harbor	Mich
Webster Electric Co, Racine	Wisc
Wiltek, Inc, Wilton	Conn

TAPE DECKS--MECHANISMS

ALLIED ELECTRONICS CORP, CHICAGO	**ILL**
CROWN INT'L RADIO & ELECTRONICS CORP, ELKHART	**IND**
HEWLETT-PACKARD, PALO ALTO	**CAL**
KINELOGIC CORP, PASADENA	**CAL**
Allied Electronics Corp, Chicago	Ill
Auricord Corp, Long Island City	N Y
Broadcast Electronics Inc, Silver Spring	Md
Casco Music Systems Inc, Hyde Park	Mass
Crown Int'l Radio & Electronics Corp, Elkhart	Ind
Dowa Trading Co Ltd, Kobe	Japan
Dynamic Gear Co Inc, Amityville	N Y
EMI Electronics Ltd, Hayes, Middlesex	England
Ercona Corp, New York	N Y
Fen-Tone Corp, New York	N Y
General Electric Co Info Sys Equip Div, Phoenix	Ariz
Genisco Technology Corp, Compton	Cal
Hewlett-Packard, Palo Alto	Cal
Jetronic Industries Inc, Philadelphia	Pa
Kennedy Co, Altadena	Cal
Kinelogic Corp, Pasadena	Cal
Lear Jet Industries Inc, Detroit	Mich
Magnasync/Moviola Corp, North Hollywood	Cal
Major Electronics Corp, Brooklyn	N Y
Merchant Co, Robert C, Carmel Valley	Cal
Metrotech, Inc, Mountain View	Cal
Pioneer Electronic Corp, Ohta-ku, Tokyo	Japan
Potter Instrument Co, Inc, Plainview	N Y
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Sankyo Seiki Mfg Co, Ltd, Tokyo	Japan
Stuart, Matthew & Co Inc, Bronx	NY
Tape-Athon, Inglewood	Cal
Telectro Systems Corp, Corona	N Y
Telex Communications Div, Minneapolis	Minn
Texas Instruments Incorporated, Dallas	Tex
Thermionic Products Electronics Ltd Southampton	England
Video Research Corp, Rockville	Md
Visual Electronics Labs Audio Div, Pasadena	Cal
Whiteford Lab, Lynn	Mass

TAPE DECKS--PAPER TAPE

COMPUTER MECHANISMS CORPORATION SOUTH HACKENSACK	**N J**
INDUSTRIAL TIMER CORP, PARSIPPANY	**N J**
Automatic Radio Sales Inc, Melrose	Mass
Bishop Industries Corp, North Hollywood	Cal
Chalco Engineering Corp, Gardena	Cal
Computer Mechanisms Corporation South Hackensack	N J
Connecticut Technical Corp, Hartford	Conn
Cycle Equipment Co, Los Gatos	Cal
Data Products Corp, Culver City	Cal
Digitronics Corp, Albertson	N Y
Dowa Trading Co Ltd, Kobe	Japan
Dynamco Ltd, Chertsey Surrey	Eng
General Electric Co Info Sys Equip Div, Phoenix	Ariz
General Electric Co, Printer-Reader Bus Sec Philadelphia	Pa
Industrial Timer Corp, Parsippany	N J
Invac Corp, Waltham	Mass
Nitto Electric Industrial Co Ltd, Osaka	Japan
Ohr-Tronics Inc, Montvale	N J
Photologic Co, Orange	Cal
Potter Instrument Co, Inc, Plainview	N Y
Remex Electronics, Hawthorne	Cal
Scientific Data Systems Inc, El Segundo	Cal
Whiteford Lab, Lynn	Mass

TAPE ERASERS--BULK SEE ERASERS

TAPE PERFORATORS SEE PERFORATORS

TAPE READERS SEE READERS--COMPUTER

TAPE RECORDERS SEE RECORDERS--MAGNETIC TAPE

TAPE REEL FLANGE GAGE

SEE GAGES—TAPE REEL, FLANGE

TAPE REELS SEE REELS

TAPES--GLASS REINFORCED

Acme Chemicals & Insulation, New Haven	Conn
Bemis Co, Inc, Minneapolis	Minn
Budd Co Polychem Div, Newark	Del
Chase & Sons Inc, Randolph	Mass
Chemplast Inc, Wayne	N J
Connecticut Hard Rubber Co, New Haven	Conn
Crane Packing Co, Morton Grove	Ill
Dixon Corp, Bristol	R I
Dodge Industries, Hoosick Falls	N Y
Emerson Plastics Corp, Bronx	New York
Engineered Plastics Inc, Gibsonville	N C
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
General Plastics Corp, Bloomfield	N J
Gentape Corp, Bloomfield	N J
McMillan Radiation Labs Inc, Ipswich	Mass
3M Company, St Paul	Minn
Moxness Products Inc, Racine	Wis
Mystik Tape, Borden Inc, Northfield	Ill
Natvar Corp, Woodbridge	N J
Nitto Electric Industrial Co Ltd, Osaka	Japan
Permacel, New Brunswick	N J
Polyken Div The Kendall Co, Chicago	Ill
Porter Co Inc H K Thermoid Div, Pittsburgh	Pa
Port Plastics Inc, Montebello	Cal
Saunders Corp, Los Angeles	Cal
Tapecon Inc, Rochester	N Y
U S Polymeric Inc, Santa Ana	Cal
Universal Shellac & Supply Co Inc, Brooklyn	N Y
Vitta Corp, Wilton	Conn
Westinghouse Electric Corp Insulating Materials Div Trafford	Pa

TAPES--HIGH TEMPERATURE (EXCEPT MICA)

GUDEBROD BROS SILK CO INC ELECTRONICS DIV PHILADELPHIA	**PA**
Acme Chemicals & Insulation, New Haven	Conn
Adhesive Engineering Co, San Carlos	Cal
Auburn Mfg Co, Middletown	Conn
Budd Co Polychem Div, Newark	Del
By-Buk Co, Los Angeles	Cal
Chase & Sons Inc, Randolph	Mass
Chemplast Inc, Wayne	N J
Connecticut Hard Rubber Co, New Haven	Conn
Crane Packing Co, Morton Grove	Ill
Dennison Mfg Co, Framingham	Mass
Dilectrix Corp, Farmingdale	N Y
Dixon Corp, Bristol	R I
Emerson Plastics Corp, Bronx	New York
Engineered Plastics Inc, Gibsonville	N C
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
General Plastics Corp, Bloomfield	N J
Gudebrod Bros Silk Co Inc Electronics Div Philadelphia	Pa
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Insulating Shapes Inc, Bronx	N Y
Lamart Corp, Clifton	N J
Lash Labs, Inc, San Diego	Cal
Markel & Sons Inc L Frank, Norristown	Pa
3M Company, St Paul	Minn
Moxness Products Inc, Racine	Wis
Mystik Tape, Borden Inc, Northfield	Ill
Natvar Corp, Woodbridge	N J
Nitto Electric Industrial Co Ltd, Osaka	Japan
Permacel, New Brunswick	N J
Permaluster Inc, Burbank	Cal
Polyken Div The Kendall Co, Chicago	Ill
Polymer Corp, Reading	Pa
Porter Co Inc H K Thermoid Div, Pittsburgh	Pa
Port Plastics Inc, Montebello	Cal
Saunders Corp, Los Angeles	Cal
Tapecon Inc, Rochester	N Y
Tensolite Insulated Wire Co Inc, Tarrytown	N Y
Thermal American Fused Quartz Co, Montville	N J
Thermal Wire & Electronics Corp, South Hero	Vt
U S Magnetic Tape Co, Huntley	Ill
U S Polymeric Inc, Santa Ana	Cal
Vitta Corp, Wilton	Conn
Westinghouse Electric Corp Insulating Materials Div Trafford	Pa

TAPES--INSULATING, HEAT SEALING

TENSOLITE INSULATED WIRE CO INC, TARRYTOWN	**N Y**
American Cable Electronic Supply Inc, Sacramento	Cal
Arlin Mfg Co Inc, Lowell	Mass
Auburn Mfg Co, Middletown	Conn
Bishop Industries Corp, North Hollywood	Cal
Bishop Mfg Corp, Cedar Grove	N J
Budd Co Polychem Div, Newark	Del
Chase & Sons Inc, Randolph	Mass
Chemplast Inc, Wayne	N J
Connecticut Hard Rubber Co, New Haven	Conn
Dennison Mfg Co, Framingham	Mass
Dilectrix Corp, Farmingdale	N Y
Dixon Corp, Bristol	R I
Dodge Industries, Hoosick Falls	N Y
Dowa Trading Co Ltd, Kobe	Japan
Electronized Chemicals Corp, Burlington	Mass
Emerson Plastics Corp, Bronx	New York
Fedtro Inc, Rockville Centre	N Y
Flexible Products Inc, North St Paul	Minn
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
Goodrich Industrial Prods Co, B F, Akron	Ohio
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Insulating Shapes Inc, Bronx	N Y
Laminated Sheet Products Corp, Norwood	Mass
Markel & Sons Inc L Frank, Norristown	Pa
3M Company, St Paul	Minn
Mystik Tape, Borden Inc, Northfield	Ill
New Jersey Machine Corp, Hoboken	N J
Nitto Electric Industrial Co Ltd, Osaka	Japan
Pervel Industries, Inc, Plainfield	Conn
Polyken Div The Kendall Co, Chicago	Ill
Polymer Corp, Reading	Pa
Porter Co Inc H K Thermoid Div, Pittsburgh	Pa
Pres-On Products Co, Addison	Ill
Saunders Corp, Los Angeles	Cal
Schjeldahl Co, G T, Northfield	Minn
Shamban & Co, W S, Los Angeles	Cal
Smith Inc, Herman H, Brooklyn	N Y
Star-A Electric Mfg Co Inc, Brooklyn	N Y
Tapecon Inc, Rochester	N Y
Tensolite Insulated Wire Co Inc, Tarrytown	N Y
Thermal Wire & Electronics Corp, South Hero	Vt
Trimtex Inc, Williamsport	Pa
Tri-Point Industries Inc, Commack	NY
Vitta Corp, Wilton	Conn

TAPES--INSULATING, PRESSURE SENSITIVE

Acme Chemicals & Insulation, New Haven	Conn
Acme Model Engineering Co, Ridgefield	N J
American Cable Electronic Supply Inc, Sacramento	Cal
Arno Adhesive Tapes, Inc, Michigan City	Ind
Auburn Mfg Co, Middletown	Conn
Bishop Industries Corp, North Hollywood	Cal
Bishop Mfg Corp, Cedar Grove	N J
Brady Co, W H, Milwaukee	Wis
Cable Electric Products Inc, Providence	R I
Chase & Sons Inc, Randolph	Mass
Chemplast Inc, Wayne	N J
Connecticut Hard Rubber Co, New Haven	Conn
Crane Packing Co, Morton Grove	Ill
Dilectrix Corp, Farmingdale	N Y
Dodge Industries, Hoosick Falls	N Y
Dowa Trading Co Ltd, Kobe	Japan
Eagle Electric Mfg Co Inc, Long Island City	N Y
Emerson Plastics Corp, Bronx	New York
Engineered Plastics Inc, Gibsonville	N C
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
General Plastics Corp, Bloomfield	N J
Insulating Shapes Inc, Bronx	N Y
Joclin Mfg Co, Wallingford	Conn
Lamart Corp, Clifton	N J
Markel & Sons Inc L Frank, Norristown	Pa
3M Company, St Paul	Minn
Mystik Tape, Borden Inc, Northfield	Ill
National Laminating Mfg Co, Beverly Hills	Cal
Nitto Electric Industrial Co Ltd, Osaka	Japan
Permacel, New Brunswick	N J
Pervel Industries, Inc, Plainfield	Conn
Polyken Div The Kendall Co, Chicago	Ill
Porter Co (Can) Ltd, H K, Guelph	Ont
Porter Co Inc H K Thermoid Div, Pittsburgh	Pa
Port Plastics Inc, Montebello	Cal
Pres-On Products Co, Addison	Ill
Products Research Co, Burbank	Cal
Ross Matthews Corp, Fall River	Mass
Rye Industries, Inc, Mamaroneck	N Y
Saunders Corp, Los Angeles	Cal
Smith Inc, Herman H, Brooklyn	N Y
Sparta Mfg Co, Dover	Ohio
Staff Gasket Mfg Corp, New York	N Y
Tapecon Inc, Rochester	N Y
Technical Tape Corp, New Rochelle	N Y
Technical Wire Products Inc, Cranford	N J
United Mineral & Chemical Corp, New York	N Y
Vitta Corp, Wilton	Conn

TAPES--LACING SEE CORDS--LACING

TAPES--MAGNETIC RECORDING, ENTERTAINMENT

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Ampex Corp, Redwood City	Cal
Astatic Corp, Conneaut	Ohio
Audio Devices Inc Sub Capitol Indus, New York	N Y
Audio Magnetics Corp, Gardena	Cal
Broadcast Electronics Inc, Silver Spring	Md
Burgess Battery Div Clevite Corp, Freeport	Ill
Casco Music Systems Inc, Hyde Park	Mass
Channel Master Corp, Ellenville	N Y
Computron Inc, Bedford	Mass
Dowa Trading Co Ltd, Kobe	Japan
Duotone Co Inc, Miami	Fla
Electronic Homes Co, New York	N Y
EMI Electronics Ltd, Hayes, Middlesex	England
Fuji Photo Film Co Ltd, Tokyo	Japan
Greentree Electronics Corp, A Bell & Howell Co Costa Mesa	Cal
Marathon Products Corp, West Boylston	Mass

Matsushita Electric Industrial Co Ltd, Osaka	Japan
3M Company, St Paul	Minn
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Realtone Electronics Corp, Jersey City	NJ
Recoton Corp, Long Island City	N Y
Reeves Soundcraft Div, Reeves Industries Inc Danbury	Conn
Robins Industries Corp, Flushing	N Y
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Sarkes Tarzian Inc, Magnetic Tape Div Bloomington	Ind
S E C I Soc Elettrotechica Chimica Italiana Milano	Italy
Show Sound, Inc, New York	N Y
Shrader Sound Inc, Washington	D C
Sony Corp, Tokyo	Japan
Sparta Electronic Corp, Sacramento	Cal
Stanford International, San Carlos	Cal
Stuart, Matthew & Co Inc, Bronx	NY
Superscope Inc, Sun Valley	Cal
TDK Electronics Co Ltd, Chiyoda-ku, Tokyo	Japan
Telephone Dynamics Corp, North Bellmore	N Y

TAPES--MAGNETIC RECORDING, INSTRUMENT & COMPUTER

TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
Alpine Geophysical Assoc Inc, Norwood	N J
Ampex Corp, Redwood City	Cal
Audio Devices Inc Sub Capitol Indus, New York	N Y
Audio Magnetics Corp, Gardena	Cal
Burroughs Corp Component Sales Dept Los Angeles	Cal
Casco Music Systems Inc, Hyde Park	Mass
Computron Inc, Bedford	Mass
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Control Data Corp, Minneapolis	Minn
Dowa Trading Co Ltd, Kobe	Japan
EMI Electronics Ltd, Hayes, Middlesex	England
Fuji Photo Film Co Ltd, Tokyo	Japan
General Electric Co Info Sys Equip Div, Phoenix	Ariz
Honeywell-EDP Div, Wellesley Hills	Mass
IBM Corp, Armonk	N Y
Lash Labs, Inc, San Diego	Cal
Mac Panel Co Div Adams-Millis Corp, High Point	N C
Marathon Products Corp, West Boylston	Mass
Memorex Corp, Santa Clara	Cal
3M Company, St Paul	Minn
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Reeves Soundcraft Div, Reeves Industries Inc Danbury	Conn
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
S E C I Soc Elettrotechica Chimica Italiana Milano	Italy
Shrader Sound Inc, Washington	D C
Sony Corp, Tokyo	Japan
TDK Electronics Co Ltd, Chiyoda-ku, Tokyo	Japan
Telephone Dynamics Corp, North Bellmore	N Y
Texas Instruments Incorporated, Dallas	Tex
Texas Instruments Inc Indl Prods Div, Houston	Tex
U S Magnetic Tape Co, Huntley	Ill
Univac Div, Sperry Rand Corp, Philadelphia	Pa
Wabash Magnetics Inc, Wabash	Ind

TAPES--MAGNETIC RECORDING, PRERECORDED

Ampex Corp, Redwood City	Cal
Audio Magnetics Corp, Gardena	Cal
Casco Music Systems Inc, Hyde Park	Mass
Cook Co, Ken, Milwaukee	Wis
Dowa Trading Co Ltd, Kobe	Japan
Electronic Futures Inc Div KMS Indus Inc North Haven	Conn
EMI Electronics Ltd, Hayes, Middlesex	England
Greentree Electronics Corp, A Bell & Howell Co Costa Mesa	Cal
IBM Corp, Armonk	N Y
Marathon Products Corp, West Boylston	Mass
3M Company, St Paul	Minn
Shrader Sound Inc, Washington	D C
Tape-Athon, Inglewood	Cal
TDK Electronics Co Ltd, Chiyoda-ku, Tokyo	Japan
Telephone Dynamics Corp, North Bellmore	N Y
United Control Corp, Redmond	Wash

TAPES--MAGNETIC RECORDING, VIDEO

Ampex Corp, Redwood City	Cal
Audio Devices Inc Sub Capitol Indus, New York	N Y
Concord Electronics Corp, Los Angeles	Cal
Dowa Trading Co Ltd, Kobe	Japan
EMI Electronics Ltd, Hayes, Middlesex	England
Fuji Photo Film Co Ltd, Tokyo	Japan
Gordon Enterprises, North Hollywood	Cal
Hydro Products Div Dillingham Corp, San Diego	Cal
Lake Systems Corp, Newton	Mass
Lash Labs, Inc, San Diego	Cal
Memorex Corp, Santa Clara	Cal
3M Company, St Paul	Minn
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Sarkes Tarzian Inc, Magnetic Tape Div Bloomington	Ind
Shiba Electric Co Ltd, Woodside	N Y
Shrader Sound Inc, Washington	D C
Sony Corp, Tokyo	Japan
TDK Electronics Co Ltd, Chiyoda-ku, Tokyo	Japan
U S Magnetic Tape Co, Huntley	Ill

TAPES, NONINSULATING, PRESSURE SENSITIVE

American Cable Electronic Supply Inc, Sacramento	Cal
Arno Adhesive Tapes, Inc, Michigan City	Ind
Bemis Co, Inc, Minneapolis	Minn
Bishop Industries Corp, North Hollywood	Cal
Borden Chemical Co, New York	N Y
Brady Co, W H, Milwaukee	Wis
By-Buk Co, Los Angeles	Cal
Canrad Precision Industries Inc, New York	N Y
Chartpak Rotex Div Avery Prods Corp, Leeds	Mass
Chase & Sons Inc, Randolph	Mass
Connecticut Hard Rubber Co, New Haven	Conn
Dennison Mfg Co, Framingham	Mass
Emerson Plastics Corp, Bronx	New York
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
Ideas Inc, Laramie	Wyo
Insulating Shapes Inc, Bronx	N Y
Labelon Corp, Canadaigua	N Y
Lash Labs, Inc, San Diego	Cal
Mechanical Rubber Products Co, Inc, Warwick	NY
3M Company, St Paul	Minn
Mystik Tape, Borden Inc, Northfield	Ill
National Laminating Mfg Co, Beverly Hills	Cal
Nitto Electric Industrial Co Ltd, Osaka	Japan
Permacel, New Brunswick	N J
Polyken Div The Kendall Co, Chicago	Ill
Porter Co Inc H K Thermoid Div, Pittsburgh	Pa
Port Plastics Inc, Montebello	Cal
Pres-On Products Co, Addison	Ill
Seton Name Plate Corp, New Haven	Conn
Stanpat Products Inc, Port Washington	N Y
Tapecon Inc, Rochester	N Y
Topflight Corp, York	Pa
Union Carbide Corp Chemicals & Plastics New York	N Y
United Mineral & Chemical Corp, New York	N Y
Vitta Corp, Wilton	Conn

TAPES--PAPER, COMPUTER

Arvey Corp, Chicago	Ill
Bemis Co, Inc, Minneapolis	Minn
Digitronics Corp, Albertson	N Y
Friden Inc, San Leandro	Cal
General Electric Co Info Sys Equip Div, Phoenix	Ariz
National Cash Register Co, Dayton	Ohio
Ohr-Tronics Inc, Montvale	N J
Robins Data Devices Inc, Flushing	N Y
Tally Corp, Seattle	Wash

TAPES--PRINTED OR COLOR CODED

MARKWIK CORP, SYOSSET	**N Y**
NITINE INC, WHIPPANY	**N J**
Arlin Mfg Co Inc, Lowell	Mass
Bemis Co, Inc, Minneapolis	Minn
Bishop Industries Corp, North Hollywood	Cal
Brady Co, W H, Milwaukee	Wis
By-Buk Co, Los Angeles	Cal
Canrad Precision Industries Inc, New York	N Y
Chartpak Rotex Div Avery Prods Corp, Leeds	Mass
Chase & Sons Inc, Randolph	Mass
Dennison Mfg Co, Framingham	Mass
Dilectrix Corp, Farmingdale	N Y
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
Gentape Corp, Bloomfield	N J
GM Nameplate, Seattle	Wash
Labelon Corp, Canadaigua	N Y
Markwik Corp, Syosset	N Y
Master Tape Printers Inc, Chicago	Ill
3M Company, St Paul	Minn
Mystik Tape, Borden Inc, Northfield	Ill
Nitine Inc, Whippany	N J
Panelgraphic Corp, Caldwell	N J
Porter Co Inc H K Thermoid Div, Pittsburgh	Pa
Robins Data Devices Inc, Flushing	N Y
Stanpat Products Inc, Port Washington	N Y
Sun Dial & Panel Corp, Caldwell	N J
Topflight Corp, York	Pa

TAPES--SHIELDING

American Cable Electronic Supply Inc, Sacramento	Cal
Arlin Mfg Co Inc, Lowell	Mass
Arno Adhesive Tapes, Inc, Michigan City	Ind
Automation Services Inc, Endicott	N Y
Chase & Sons Inc, Randolph	Mass
Chemplast Inc, Wayne	N J
Dilectrix Corp, Farmingdale	N Y
Electronized Chemicals Corp, Burlington	Mass
Flexible Products Inc, North St Paul	Minn
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
Lamart Corp, Clifton	N J
Lash Labs, Inc, San Diego	Cal
Magnetic Metals Co, Camden	N J
Metal Ceram Inc, Mount Vernon	N Y
3M Company, St Paul	Minn
Mystik Tape, Borden Inc, Northfield	Ill
Saunders Corp, Los Angeles	Cal
Schjeldahl Co, G T, Northfield	Minn
Semi-Alloys Inc, Mt Vernon	N Y
Tapecon Inc, Rochester	N Y
Technical Wire Products Inc, Cranford	N J

TAPES--TEMPERATURE SENSITIVE

NITINE INC, WHIPPANY	**N J**
Ackerman Gould Co, Inc, Oceanside	N Y
Adhesive Engineering Co, San Carlos	Cal
Bishop Industries Corp, North Hollywood	Cal
Brady Co, W H, Milwaukee	Wis
General Compounds Co, Div Kai R Kuhl Co Los Angeles	Cal
Master Tape Printers Inc, Chicago	Ill
Metal Ceram Inc, Mount Vernon	N Y
Minco Products Inc, Minneapolis	Minn
3M Company, St Paul	Minn
Nitine Inc, Whippany	N J
Semi-Alloys Inc, Mt Vernon	N Y
Tempil Corp, New York	N Y

TAPE-TO-PUNCHED CONVERTERS SEE CONVERTERS--COMPUTER

TEACHING MACHINES

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
KINELOGIC CORP, PASADENA	**CAL**
Allegri-Tech Inc, Nutley	N J
Applied Electronics Corp of N J, Metuchen	N J
Automation Development Co, Culver City	Cal
Automation Services Inc, Endicott	N Y
Avco Corp Electronics Div, Cincinnati	Ohio
A V Electronics, Inc, Fresno	Cal
Burtek Inc, Tulsa	Okla
Cognitronics Corp, Mount Kisco	NY
Cook Co, Ken, Milwaukee	Wis
Elco Corp, Willow Grove	Pa
Electronic Futures Inc Div KMS Indus Inc North Haven	Conn
Fairchild Industrial Products, Plainview	N Y
Gamco Industries Datamate Div, Big Spring	Texas
General Electronic Labs Inc, Boston	Mass
Gregory Magnetic Industries Inc, Pompano Beach	Fla
Hickok Teaching Systems Inc, Cambridge	Mass
Kinelogic Corp, Pasadena	Cal
Litton Educational Technology Div, White Plains	N Y
Mast Development Co, Davenport	Iowa
McElroy Electronics Corp, Shirley	Mass
McMahon Electronic Engineering Res & Dev Lab San Pedro	Cal
Micro Metrics Inc, Paterson	N J
Nuclear Research Instruments, Berkeley	Cal
Pastoriza Electronics Inc, Newton Upper Falls	Mass
P & H Electronics, Lafayette	Ind
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Raytheon Learning Systems Co, Michigan City	Ind
Reflex Controls Corp, Huntington Station	NY
Sony Corp, Tokyo	Japan
Spitz Labs Inc, Yorklyn	Del
Sylvania Electric Prods Inc, Coml Elctns Div Bedford	Mass
Telex Communications Div, Minneapolis	Minn
Visual Electronics Labs Audio Div, Pasadena	Cal

TEES--COAXIAL

AMPHENOL, DANBURY	**CONN**
ANAREN MICROWAVE INC, SYRACUSE	**N Y**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	**ADV PGS 58,59**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
TRANSCO PRODUCTS INC, VENICE	**CAL**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Ad-Yu Electronics Inc, Passaic	N J
Alford Mfg Co, Winchester	Mass
Alpha Industries Inc, Newton Upper Falls	Mass
Amphenol, Danbury	Conn
Anaren Microwave Inc, Syracuse	N Y
Andrew California Corp, Claremont	Cal
Anzac Electronics, Waltham	Mass
Applied Engineering Prods Div Samarius Inc Ansonia	Conn
Arra, Inc, Bayshore	NY
Astrolab Inc, Linden	N J

Automatic Metal Products Corp, Brooklyn	N Y
Ava Electronics & Machine Corp, Upper Darby	Pa
Compagnie Generale de Metrologie Haute Savoie	France
Diamond Antenna & Microwave Corp, Winchester	Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Electromagnetic Radiation Labs Inc, West Acton	Mass
Filmohm Corp, Long Island City	N Y
General Microwave Corp, Farmingdale	N Y
General Radio Co, West Concord	Mass
General RF Fittings Inc, Port Salerno	Fla
Greenpar Engineering Ltd, Electronics Div Essex	England
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hewlett-Packard, Palo Alto	Cal
Hyletronics Corp, Wilmington	Mass
Indit Corp, Albertson	N Y
Lunkenheimer Co Sub Condec Corp, Cincinnati	Ohio
Maury Microwave Corp, Montclair	Cal
Meridian Metalcraft Inc, Whittier	Cal
Merrimac Research & Development Inc West Caldwell	N J
Microlab/F X R, Livingston	N J
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Development Labs Inc Needham Heights	Mass
Microwave Filter Co Inc, East Syracuse	NY
Microwave Labs of America, Brooklyn	N Y
Nanosecond Systems Inc, Fairfield	Conn
Neico Microwave Co, Waltham	Mass
Omega Laboratories Inc, Rowley	Mass
Omni Spectra Inc, Farmington	Mich
Ottawa, Paris	France
Phelps Dodge Electronic Prods Corp, Commun Prods Div Marlboro	N J
Rantec Div Emerson Electric Co, Calabasas	Cal
RLC Electronics Inc, Port Chester	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Ted Mfg Corp, Shawnee Mission	Kans
Transco Products Inc, Venice	Cal
Trompeter Electronics Inc, Chatsworth	Cal
Tru-Connector Corp, Peabody	Mass
Vector Industries A Teledyne Co, Palo Alto	Cal
Victor R F & Microwave Co, Wakefield	Mass
Weinschel Engineering Co Inc, Gaithersburg	Md

TEES-WAVEGUIDE

ALUMINUM DESIGN CORP, BROOKFIELD	**ILL**
AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE	**NY**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	**ADV PGS 58,59**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
TRANSCO PRODUCTS INC, VENICE	**CAL**
TRG DIV CONTROL DATA CORP, EAST BOSTON MASS	**ADV PG 418**
Ainslie Corp, Braintree	Mass
Airtec Inc, Roselle	N J
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Allied Research & Engineering Co, Los Angeles	Cal
Alpha Industries Inc, Newton Upper Falls	Mass
Aluminum Design Corp, Brookfield	Ill
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Arra, Inc, Bayshore	NY
Astrolab Inc, Linden	N J
Beckman Instruments Inc, Fullerton,	Cal
Cardwell Condenser Corp, Lindenhurst	N Y
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Diamond Antenna & Microwave Corp, Winchester	Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electronic Specialty Co, Los Angeles	Cal
General Microwave Corp, Farmingdale	N Y
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Lieco Inc, West Babylon	N Y
Maury Microwave Corp, Montclair	Cal
MCS Corp, Monrovia	Cal
Meridian Metalcraft Inc, Whittier	Cal
Microlab/F X R, Livingston	N J
Micro-Radionics Inc, Van Nuys	Cal
Microwave Associates Inc, Burlington	Mass
Microwave Development Labs Inc Needham Heights	Mass
Microwave Guide Inc, Lowell	Mass
Microwave Labs of America, Brooklyn	N Y
3M Company, St Paul	Minn
Neico Microwave Co, Waltham	Mass
O'Dell Brothers, Mountain View	Cal
Omega Laboratories Inc, Rowley	Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Premier Microwave Corp, Port Chester	N Y
Radiation Systems Inc, McLean	Va
Rantec Div Emerson Electric Co, Calabasas	Cal
R F Systems Inc, Cohasset	Mass
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst	NY
Specialty Waveguide Corp, Burlington	Mass
Transco Products Inc, Venice	Cal
TRG Div Control Data Corp, East Boston	Mass
Vector Industries A Teledyne Co, Palo Alto	Cal
Victor R F & Microwave Co, Wakefield	Mass
Waveline Inc, West Caldwell	N J

TELEMETERING SEE COMMUNICATION SYSTEMS; COMMUNICATORS--SWITCHING; CONVERTERS--SIGNAL; DECOMMUNICATORS; FILTERS--TELEMETERING; GENERATORS--SIGNAL; OSCILLATORS--A-F; OSCILLATORS--R-F; RECEIVERS--RADIO COMMUNICATION; RECORDERS--GRAPHIC; RECORDERS--MAGNETIC TAPE; SWITCHES--MULTI-CONTACT; TRANSDUCERS; TRANSLATORS--TELEMETERING; TRANSMITTERS--

TELEPHONES--HANDSETS

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
NITSUKO LTD, KANAGAWA-PREF	**JAPAN**
PRIMO CO LTD, TOKYO	**JAPAN**
Action Systems Co Div Conn Consolidated Inds Inc Meriden	Conn
ADEC Inc, Newark	N J
Audiosears Corp, Stamford	N Y
Automatic Electric Co, Northlake	Ill
Bogen Communications Div Lear Siegler Inc Paramus	N J
Canadian Research Institute, Don Mills	Ont
Clavier Corp, Richmond Hill	NY
Continental Electronics Corp, Brooklyn	N Y
DuKane Corp, St Charles	Ill
Electrospace Corp, Glen Cove	N Y
Fitre, 20143 Milano	Italy
Fujitsu Ltd, Tokyo	Japan
Gai-Tronics Corp, Reading	Pa
ITT Telecommunications, Apparatus Dept, Corinth	Miss
ITT Terryphone Corp, Harrisburg	Pa
Iwatsu Electric Co Ltd, Tokyo	Japan
Midwest Audio Corp, Chicago	Ill
Murdock Corp, Chelsea	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Nitsuko Ltd, Kanagawa-Pref	Japan
North Electric Co, Galion	Ohio
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Primo Co Ltd, Tokyo	Japan
Private Tele Communications Inc, Chicago	Ill
Roanwell Corp, New York	N Y
Shure Brothers Inc, Evanston	Ill
Simplex Time Recorder Co, Gardner	Mass
Simpson Electronics, Inc, Miami	Fla
Standard Telephones & Cables Ltd London WC 2	England
Stromberg-Carlson Sub Gen Dynamics, Rochester	N Y
Stuart, Matthew & Co Inc, Bronx	NY
Tele-Norm Corp, Woodside	N Y
Telephone Components Inc, Brooklyn	N Y
Telephone Dynamics Corp, North Bellmore	N Y
Webster Electric Co, Racine	Wisc

TELEPHONE RECORDERS SEE RECORDERS--TELEPHONE

TELEPHONE REPEATERS SEE REPEATERS--TELEPHONE-LINE

TELEPRINTER SYSTEMS SEE COMMUNICATION SYSTEMS

TELETYPEWRITER EQUIPMENT

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Alltronics-Howard Co, Boston	Mass
Aquadyne Inc, East Falmouth	Mass
Bendix Corp, Communications Div, Towson	Md
Berkeley/Dynamics, Hillsboro	Cal
Century Electronics & Instruments Inc, Tulsa	Okla
Codamite Div Pacific Ordnance & Elctns Co Anaheim	Cal
Connecticut Technical Corp, Hartford	Conn
Di/An Controls Inc, Boston	Mass
Dimensions Inc, Hempstead	N Y
Electronics Communications Div Atlantic Research Corp Alexandria	Va
Fisher-Akin Co, Manhattan Beach	Cal
Frederick Electronics Corp, Frederick	Md
Invac Corp, Waltham	Mass
Kleinschmidt, Div SCM Corp, Deerfield	Ill
Litton Datalog Div, Litton Ind Inc, San Francisco	Cal
Mite Corp, New Haven	Conn
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pulse Communications Inc, Falls Church	Va
Quindar Electronics Inc, Springfield	NJ
Siemens America Inc, New York	N Y
Soroban Engineering, Inc, Melbourne	Fla
Stelma Inc, Stamford	Conn
Teledata Inc, Queens Village	N Y
Teletype Corp, Skokie	Ill
Towaco Electronics, Towaco	N J
Trepac Corp of America, Englewood	N J
Tuck Electronics, New Cumberland	Pa

TELEVISION SEE TV LISTINGS

TELLURIDES SEE INTERMETALLICS

TELLURIUM

American Smelting & Refining Co, New York	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bemol Co, Newton	Mass
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerac Inc, Butler	Wis
Cerro Corp, New York	NY
Cerro Sales Corp, New York	NY
Cominco American Inc Electronic Matls Div, Spokane	Wash
Consolidated Ohmic Devices Inc, Carle Place	N Y
Division Lead Co, Summit	Ill
Electronic Space Products Inc, Los Angeles	Cal
Kawecki Chemical Co, New York	N Y
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Metal Ceram Inc, Mount Vernon	N Y
Ohio Semitronics Inc, Columbus	Ohio
Roosevelt Metal Co Inc, Brooklyn	N Y
Ryerson & Son Inc, J T, Chicago	Ill
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
Spectrum Systems, Inc, Waltham	Mass
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Electronics Corp, Bradford	Pa
Wacker Chemical Corp, New York	N Y

TEMPERATURE CHAMBERS SEE CHAMBERS--ENVIRONMENTAL

TEMPERATURE CONTROL SEE CONTROLS--TEMPERATURE

TEMPERATURE INDICATORS SEE CRAYONS, INDICATORS--TEMPERATURE; PAINTS--TEMPERATURE

TEMPERATURE MEASURING DEVICES SEE METERS--THERMOCOUPLE; PYROMETERS; THERMOCOUPLES; THERMOMETERS

TEMPERATURE RECORDERS SEE RECORDERS--TEMPERATURE

TERMINAL INSERTERS SEE MACHINES--TERMINAL-INSTALLING

TERMINAL SYSTEMS (MULTIPLEX)

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TELE-SIGNAL CORP, WOODBURY	**N Y**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
Admiral Controls Inc, Los Angeles	Cal
Alpine Electronic Components Inc, Wolcott	Conn
American Cable Electronic Supply Inc, Sacramento	Cal
Anritsu Electric Co Ltd, Tokyo	Japan
Armel Electronics, Inc, North Bergen	N J

Astrodata Inc, Anaheim	Cal
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp, Communications Div, Towson	Md
Berkeley/Dynamics, Hillsboro	Cal
Canadian Motorola Electronics Co, Agincourt	Ont
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Colorado Instruments Inc, Broomfield	Colo
Computer Equipment Corp, Houston	Tex
Concord Electronics Corp, New York	N Y
Dowa Trading Co Ltd, Kobe	Japan
Farinon Electric, San Carlos	Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
General Devices Inc, Instrumentation Div Princeton	N J
General Electric Co, Printer-Reader Bus Sec Philadelphia	Pa
Gleason-Avery Co, Auburn	N Y
IBM Data Processing Div, White Plains	N Y
Lenkurt Electric Co Inc, San Carlos	Cal
Molex Products Co, Downers Grove	Ill
Monitor Systems Inc, Fort Washington	Pa
Moore Associates Div Rocker Co, San Carlos	Cal
National Radio Co Inc, Melrose	Mass
Nippon Electric Co Ltd, Tokyo	Japan
North Electric Co, Galion	Ohio
Northern Radio Co Inc, New York	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Positive Connector Co, Derby	Conn
RCA, Defense Electronic Products, Moorestown	N J
RFL Industries Inc, Communications Div, Boonton	N J
Rixon Electronics Inc, Silver Spring	Md
Rowan Controller Co, Oceanport	N J
Siemens America Inc, New York	N Y
Sonex Inc, Philadelphia	Pa
Stelma Inc, Stamford	Conn
Teledata Inc, Queens Village	N Y
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Tele-Signal Corp, Woodbury	N Y
Tokyo Electric Co Ltd, Tokyo	Japan
Whitso Inc, Schiller Park	Ill
Wickes Industries Inc, Camden	N J
Wiltek, Inc, Wilton	Conn

TERMINALS--FEED-THROUGH SEE INSULATORS--FEED-THROUGH

TERMINALS--HERMETICALLY SEALED

AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
ELECTRICAL INDUSTRIES, DIV PHILIPS ELCTNS & PHARM IND CORP, MURRAY HILL	**N J**
ELECTRONIC CLOSURES, SPRINGFIELD	**NJ**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
FUSITE CORP, CINCINNATI	**OHIO**
TORWICO ELECTRONICS, INC, LAKEWOOD	**N J**
Alberox Corp, New Bedford	Mass
Alloys Unlimited Inc, Melville	N Y
American Cable Electronic Supply Inc, Sacramento	Cal
American Lava Corp, Chattanooga	Tenn
Astro Seal Inc, S El Monte	Cal
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Ceramaseal Inc, Sub Lapp Insulator Co Inc New Lebanon Center	N Y
Coors Porcelain Co, Golden	Colo
Crystal Components Plant, GTI Corp, Warren	Pa
Detoronics Corp, S El Monte	Cal
Dowa Trading Co Ltd, Kobe	Japan
Electrical Industries, Div Philips Elctns & Pharm Ind Corp Murray Hill	N J
Electronic Closures, Springfield	NJ
Electronic Molding Corp, Pawtucket	R I
Electronic Seals Co Inc, Van Nuys	Cal
Fusite Corp, Cincinnati	Ohio
Gemp Terminals Inc, Yonkers	N Y
Glasseal Products Co Inc, Linden	N J
Great Eastern Metal Products Co, Yonkers	N Y
Greenfield Components Corp, Greenfield	Mass
Hermaseal Co Inc, Elkhart	Ind
Hermetite Corp, Avon	Mass
Lake Engineering Co Ltd, Scarborough	Ont
Latronics Corp, Latrobe	Pa
Lundey Associates Inc, Waltham	Mass
Metalized Ceramics Corp, Providence	R I
Mitronics Inc, Murray Hill	N J
Royal Worcester Industrial Ceramics Inc, New York	NY
Schjeldahl Co, G T, Northfield	Minn
Seal-A-Metic, Inc, Haledon	N J
Silicone Seals Inc, Chicago	Ill
Sphere Co Inc, Little Falls	N J
T & E Industries, Inc, Hillside	N J
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Torwico Electronics, Inc, Lakewood	N J
Transitron Electronic Corp, Wakefield	Mass
U S Stoneware Inc, Orville Plant, Orrville	Ohio
Vacuum Ceramics Div, Cary	Ill
Wagner Industries, San Jose	Cal

TERMINALS--LUGS

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ALDEN PRODUCTS CO, INC, BROCKTON, MASS	**ADV PG 193**
AMP INCORPORATED, HARRISBURG	**PA**
BIRNBACH CO INC, FREEPORT	**N Y**
BURNDY CORP, NORWALK, CONN	**ADV PG 694**
CADDELL BURNS MFG CO INC, MINEOLA	**N Y**
CINCH MFG CO, ELK GROVE VILLAGE	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
KULKA ELECTRIC CORP, MOUNT VERNON, N Y	**ADV PG 698**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
PRECISION METAL PRODUCTS CO OF MALDEN INC STONEHAM	**MASS**
STIMPSON CO INC, EDWIN B, BROOKLYN	**N Y**
VERO ELECTRONICS, INC, FARMINGDALE	**N Y**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Abacus Electronics Corp, Dobbs Ferry	N Y
Accurate Electronics Corp, Elyria	Ohio
ACI, Inc, Princeton	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
Alden Products Co, Inc, Brockton	Mass
Allmetal Screw Products Co Inc, Garden City	N Y
Alloys Unlimited Inc, Melville	N Y
Amatom Electronic Hardware, New Rochelle	N Y
American Cable Electronic Supply Inc, Sacramento	Cal
AMP Incorporated, Harrisburg	Pa
Ark-Les Switch Corp, Watertown	Mass
Armel Electronics, Inc, North Bergen	N J
Atomite Electronics Corp, Roosevelt	N Y
BEC Inc, Brooklyn	NY
BeMan Mfg, Inc, New Cumberland	Pa
Berg Electronics, Inc, New Cumberland	Pa
Birnbach Co Inc, Freeport	N Y
Blinn Co Inc, Delbert, Pomona	Cal
Buchanan Electrical Products Corp, Union	NJ
Burndy Corp, Norwalk	Conn
Caddell Burns Mfg Co Inc, Mineola	N Y
Cambridge Thermionic Corp, Cambridge	Mass
Cinch Mfg Co, Elk Grove Village	Ill
Concord Electronics Corp, New York	N Y
Daburn Electronics & Cable Corp, Bronx	N Y
Dante Electric Mfg Co, Bantam	Conn
D-Cemco Inc, Burbank	Cal
Doran Mfg Co, Cincinnati	Ohio
Dowa Trading Co Ltd, Kobe	Japan
Electro Assemblies Inc, Chicago	Ill
Electronic Molding Corp, Pawtucket	R I
Emtec Inc, Empire Spring Div, Elyria	Ohio
Essex Wire Corp Terminal Sales, Chicago	Ill
Estes Engineering Co, Gardena	Cal
ETC Inc, Cleveland	Ohio
Fastex Div Illinois Tool Works, Des Plaines	Ill
Federal Screw Products Inc, Chicago	Ill
Force Electronics, Los Angeles	Cal
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Electric Co, ECSO, Schenectady	N Y
Goe Engineering Co, City-of-Industry	Cal
Hollingsworth Solderless Terminal Co, Phoenixville	Pa
Jan Engineering, Santa Monica	Cal
Jones Electronics, Hiram, Burbank	Cal
Kent Corp, Mundelein	Ill
Keystone Electronics Corp, New York	N Y
Kolton Electric Mfg Co, Newark	N J
Kulka Electric Corp, Mount Vernon	N Y
Laka Tool & Stamping Co, Inc, Westbury	N Y
Malco Mfg Co Inc, Chicago	Ill
Metal Ceram Inc, Mount Vernon	N Y
Micro Parts Inc, Los Angeles	Cal
Molex Products Co, Downers Grove	Ill
National Tel-Tronics Corp, Great Neck	N Y
Network Industries Inc, Bayonne	N J
Norrich Plastics Corp, Roosevelt	N Y
Nutmeg Screw Machine Products Co, Waterbury	Conn
Olson & Co Inc, B W, Fullerton	Cal
Oneida Electronic Mfg Co, Meadville	Pa
Patton-MacGuyer Co, Providence	R I
Penn-Union Electric A Teledyne Co, Edinboro	Pa
Permonite Mfg Co, Chicago	Ill
Philmore Mfg Co Inc, Richmond Hill	N Y
Positive Connector Co, Derby	Conn
Precision Metal Products Co of Malden Inc Stoneham	Mass
Republic Industrial Corp, Lathrup Village	Mich
Robinson-Nugent Inc, New Albany	Ind
Rye Industries, Inc, Mamaroneck	N Y
Sealectro Corp, Mamaroneck	N Y
Seastrom Mfg Co Inc, Glendale	Cal
Semi-Alloys Inc, Mt Vernon	N Y
Shakeproof Div, Illinois Tool Works Inc, Elgin	Ill
Shigoto Industries Ltd, New York	N Y
Smith Inc, Herman H, Brooklyn	N Y
Square-D Co, Park Ridge	Ill
Stimpson Co Inc, Edwin B, Brooklyn	N Y
Taurus Corp, Lambertville	N J
Thomas & Betts Co Inc, Elizabeth	N J
Transitron Electronic Corp, Wakefield	Mass
Tri-Point Industries Inc, Commack	NY
Twin Lock Inc, Los Angeles	Cal
USECO Div, Litton Industries, Van Nuys	Cal
Vector Electronic Co Inc, Los Angeles	Cal
Veritron West Inc, Chatsworth	Cal
Vero Electronics, Inc, Farmingdale	N Y
V M P Inc, Sun Valley	Cal
Waldom Electronics Inc, Chicago	Ill
Winslow Tele-Tronics Inc, Asbury Park	NJ
Zierick Mfg Corp, Mount Kisco	N Y

Terminals, Splices and Tap Connectors
For Your Specific Needs

UNIRING® • HYRING®

TAP CONNECTORS

One-piece UNIRING or two-piece HYRING connectors provide a fast, reliable compression method of terminating grounding shielded or coax cables. Write for Cat. YEC-66

INSULUG® • HYLUG® • VINYLUG®

TERMINALS and SPLICES
Bare or insulated either in NYLON or cost-saving VINYL, Burndy terminals and splices come in a wide variety of wire sizes and tongue configurations including ring, fork, flanged fork and flag. Write for Cat. HY-59.

BURNDY

Richards Avenue
Norwalk, Connecticut 06852

TERMINALS--PRINTED WIRING BOARD, EDGE GRIPPING

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AMP INCORPORATED, HARRISBURG	**PA**
ART WIRE & STAMPING CO, NEWARK	**N J**
BURNDY CORP, NORWALK	**CONN**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
VERO ELECTRONICS, INC, FARMINGDALE	**N Y**
Accurate Electronics Corp, Elyria	Ohio
Admiral Controls Inc, Los Angeles	Cal
Alloys Unlimited Inc, Melville	N Y
American Cable Electronic Supply Inc, Sacramento	Cal
AMP Incorporated, Harrisburg	Pa
Ark-Les Switch Corp, Watertown	Mass
Art Wire & Stamping Co, Newark	N J
Atlee Corp, Winchester	Mass
Auto-Swage Products, Inc, Shelton	Conn
BeMan Mfg, Inc, New Cumberland	Pa
Burndy Corp, Norwalk	Conn
Cambridge Thermionic Corp, Cambridge	Mass
Components Corp, Denville	NJ
Dowa Trading Co Ltd, Kobe	Japan
Elco Corp, Willow Grove	Pa
Electronic Molding Corp, Pawtucket	R I
Emtec Inc, Empire Spring Div, Elyria	Ohio
Essex Wire Corp Terminal Sales, Chicago	Ill
ETC Inc, Cleveland	Ohio
Force Electronics, Los Angeles	Cal
Gridcraft Inc, Fort Wayne	Ind
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kent Corp, Mundelein	Ill
Malco Mfg Co Inc, Chicago	Ill
Meadows Terminal Boards, Cupertino	Cal
Metox, Paris 20	France
Molex Products Co, Downers Grove	Ill
Network Industries Inc, Bayonne	N J
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Positive Connector Co, Derby	Conn
Rye Industries, Inc, Mamaroneck	N Y
Seezak Products Inc, Los Angeles	Cal
Semi-Alloys Inc, Mt Vernon	N Y
Sphere Co Inc, Little Falls	N J
Taurus Corp, Lambertville	N J
Transitron Electronic Corp, Wakefield	Mass
Vector Electronic Co Inc, Los Angeles	Cal
Vero Electronics, Inc, Farmingdale	N Y

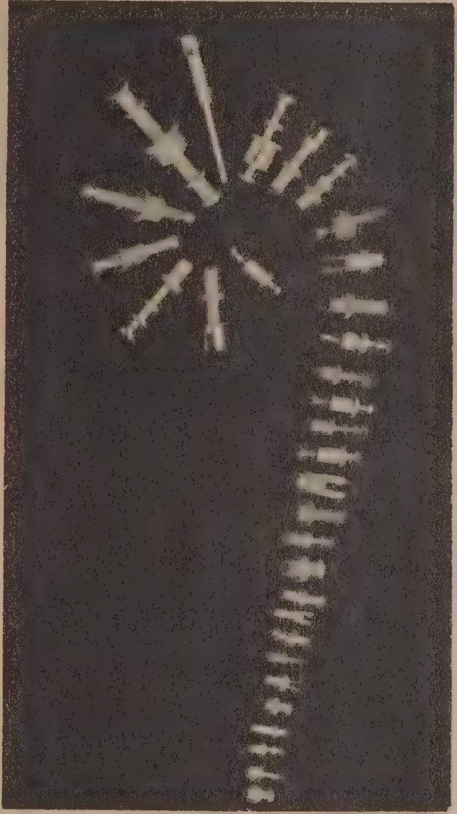
TERMINALS--PRINTED WIRING BOARD, SOLDERED IN PLACE

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
BURNDY CORP, NORWALK	**CONN**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
KULKA ELECTRIC CORP, MOUNT VERNON, N Y	**ADV PG 698**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
PRECISION METAL PRODUCTS CO OF MALDEN INC STONEHAM	**MASS**
VERO ELECTRONICS, INC, FARMINGDALE	**N Y**
Abacus Electronics Corp, Dobbs Ferry	N Y
Accurate Electronics Corp, Elyria	Ohio
Allegri-Tech Inc, Nutley	N J
Alloys Unlimited Inc, Melville	N Y
Alpine Electronic Components Inc, Wolcott	Conn
American Cable Electronic Supply Inc, Sacramento	Cal
Anritsu Electric Co Ltd, Tokyo	Japan
Ark-Les Switch Corp, Watertown	Mass
Armel Electronics, Inc, North Bergen	N J
Auto-Swage Products, Inc, Shelton	Conn
Bead Chain Mfg Co, Bridgeport	Conn
BeMan Mfg, Inc, New Cumberland	Pa
Berg Electronics, Inc, New Cumberland	Pa
Burndy Corp, Norwalk	Conn
Cambridge Thermionic Corp, Cambridge	Mass
Components Corp, Denville	NJ
Concord Electronics Corp, New York	N Y
Dowa Trading Co Ltd, Kobe	Japan
Elco Corp, Willow Grove	Pa
Electronic Molding Corp, Pawtucket	R I
Electro-Sonics, Inc, Spofford	N H
Emtec Inc, Empire Spring Div, Elyria	Ohio
Ercona Corp, New York	N Y
Essex Wire Corp Terminal Sales, Chicago	Ill
ETC Inc, Cleveland	Ohio
Force Electronics, Los Angeles	Cal
Gridcraft Inc, Fort Wayne	Ind
Jones Electronics, Hiram, Burbank	Cal
Kent Corp, Mundelein	Ill
Keystone Electronics Corp, New York	N Y
Kulka Electric Corp, Mount Vernon	N Y
Malco Mfg Co Inc, Chicago	Ill
Metox, Paris 20	France
Molex Products Co, Downers Grove	Ill
National Tel-Tronics Corp, Great Neck	N Y
Permonite Mfg Co, Chicago	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
P M C Electronics Corp, Philadelphia	Pa
Positive Connector Co, Derby	Conn
Precision Metal Products Co of Malden Inc Stoneham	Mass
Robinson-Nugent Inc, New Albany	Ind
Schjeldahl Co G T, Connector Dept, Osseo	Minn
Sealectro Corp, Mamaroneck	N Y
Shigoto Industries Ltd, New York	N Y
Transitron Electronic Corp, Wakefield	Mass
Vector Electronic Co Inc, Los Angeles	Cal
Vero Electronics, Inc, Farmingdale	N Y
Vero Electronics Ltd, Southampton	England

TERMINALS--REGULAR & MINIATURE (CHASSIS & STRIP)

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ALDEN PRODUCTS CO, INC, BROCKTON, MASS	**ADV PG 193**
AMP INCORPORATED, HARRISBURG	**PA**
ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
ART WIRE & STAMPING CO, NEWARK	**N J**
BIRNBACH CO INC, FREEPORT	**N Y**
BURNDY CORP, NORWALK	**CONN**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
ELECTRONIC MOLDING CORP, PAWTUCKET, R I	**ADV PG 695**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
KULKA ELECTRIC CORP, MOUNT VERNON, N Y	**ADV PG 698**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
NATIONAL TEL-TRONICS CORP, GREAT NECK N Y	**ADV PG 696**
PRECISION METAL PRODUCTS CO OF MALDEN INC, STONEHAM MASS	**ADV PG 695**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Abacus Electronics Corp, Dobbs Ferry	N Y
Accurate Electronics Corp, Elyria	Ohio
Admiral Controls Inc, Los Angeles	Cal
Alden Products Co, Inc, Brockton	Mass
Alloys Unlimited Inc, Melville	N Y
Alpine Electronic Components Inc, Wolcott	Conn
Amatom Electronic Hardware, New Rochelle	N Y
American Cable Electronic Supply Inc, Sacramento	Cal
AMP Incorporated, Harrisburg	Pa
Anritsu Electric Co Ltd, Tokyo	Japan
Ark-Les Switch Corp, Watertown	Mass
Armel Electronics, Inc, North Bergen	N J
Art Wire & Stamping Co, Newark	N J
Atlee Corp, Winchester	Mass
Atomite Electronics Corp, Roosevelt	N Y
Auto-Swage Products, Inc, Shelton	Conn
Bead Chain Mfg Co, Bridgeport	Conn
BeMan Mfg, Inc, New Cumberland	Pa
Berg Electronics, Inc, New Cumberland	Pa
Birnbach Co Inc, Freeport	N Y
Blinn Co Inc, Delbert, Pomona	Cal
Buchanan Electrical Products Corp, Union	NJ
Burndy Corp, Norwalk	Conn

NO END OF PRECISION METAL TERMINALS



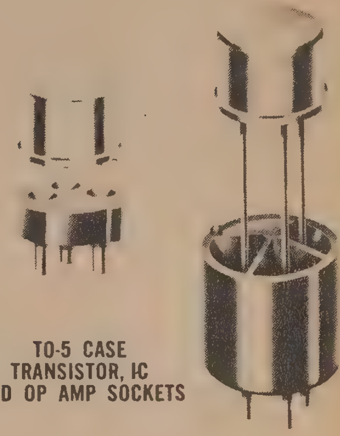
Stock or special, PMP can supply you with no end of low cost, precision machined terminals. Select from the most complete line in the industry (over 500 stock items). Specials are our specialty, often there's no tooling charge. We offer free engineering assistance in terminal selection or design.

WRITE FOR FREE SAMPLES AND NEW CATALOG

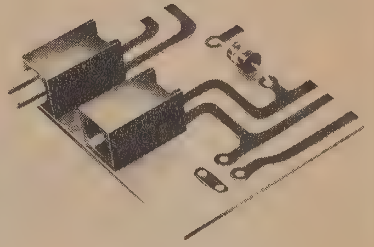
P M P
PRECISION METAL PRODUCTS

PRECISION METAL PRODUCTS CO.
41 ELM ST STONEHAM, MASS. 02180
Telephone (Area Code 617) 438-3650

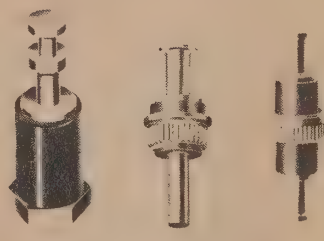
EMC
Interconnection Specialists



TO-5 CASE TRANSISTOR, IC AND OP AMP SOCKETS



LAMP SOCKETS



STANDOFF FEED-THRU
TERMINALS

TEST JACKS PER MS16108 AND MIL-C-39024

BINDING POSTS

ELECTRONIC MOLDING CORP.
44 CHURCH STREET
PAWTUCKET, R. I. 02860
Phone (401) 726-2100

TURRET TERMINALS

TURRET TERMINALS: 68 types. One and two sides. Split, hollow, rivet, and swage. One, two, and three flats. Plated. Meet Mil Specs.
Standard Terminal Boards: 24 standard configurations .
Custom Terminal Boards: Turret terminals, lugs, brackets, connectors, special fabricating and machining. All materials: paper, cloth, glass, nylon laminates. Lacquered, varnished, imprinted, engraved, stamped, fungicide. Meets Mil Specs.

NATIONAL TEL-TRONICS OFFERS COMPLETE AND EXTENSIVE LINES OF:

Binding Post Boards, Binding Posts, Grip Type Terminals, Contact Strips, Contact Connectors, Terminal Strips, Interlocks, Fuse Mounting Bases, Anode Conectors, Turret Terminals, Solder and Solderless Lugs, Tip Jacks, Alligator Clips, Test Prods, Phone Plugs and Jacks, Phono Plugs and Jacks and Terminal Blocks.

COMPLETE CATALOG UPON REQUEST

ntt
National Tel-Tronics Corp.
55 NORTHERN BOULEVARD, GREAT NECK
LONG ISLAND, N. Y. 11021, TEL: (516) 466-5100

Cambridge Thermionic Corp, Cambridge	Mass
Concord Electronics Corp, New York	N Y
Curtis Development & Mfg Co, Milwaukee	Wis
Daburn Electronics & Cable Corp, Bronx	N Y
D-Cemco Inc, Burbank	Cal
Diebel Mfg Co, Morton Grove	Ill
Doran Mfg Co, Cincinnati	Ohio
Dowa Trading Co Ltd, Kobe	Japan
Elco Corp, Willow Grove	Pa
Electric Terminal Corp, Warwick	R I
Electrix Corp, Esmond	R I
Electronic Molding Corp, Pawtucket	R I
Emtec Inc, Empire Spring Div, Elyria	Ohio
Ercona Corp, New York	N Y
Essex Wire Corp Terminal Sales, Chicago	Ill
Federal Screw Products Inc, Chicago	Ill
Force Electronics, Los Angeles	Cal
Franklin Fibre-Lamitex Corp, Wilmington	Del
Goe Engineering Co, City-of-Industry	Cal
Jan Engineering, Santa Monica	Cal
Jones Electronics, Hiram, Burbank	Cal
Kent Corp, Mundelein	Ill
Keystone Electronics Corp, New York	N Y
Kulka Electric Corp, Mount Vernon	N Y
Lake Engineering Co Ltd, Scarborough	Ont
Malco Mfg Co Inc, Chicago	Ill
Mandex Mfg Co Inc, Chicago	Ill
Microdot, Inc, South Pasadena	Cal
Micro Parts Inc, Los Angeles	Cal
Millen Mfg Co Inc, James, Malden	Mass
Mitsumi Electric Co Ltd, Tokyo	Japan
Molex Products Co, Downers Grove	Ill
National Tel-Tronics Corp, Great Neck	N Y
Nutmeg Screw Machine Products Co, Waterbury	Conn
Painton & Co, Ltd, Northampton	England
Penn-Union Electric A Teledyne Co, Edinboro	Pa
Permonite Mfg Co, Chicago	Ill
Positive Connector Co, Derby	Conn
Precision Metal Products Co of Malden Inc Stoneham	Mass
Reliable Electric Co, Franklin Park	Ill
Robinson-Nugent Inc, New Albany	Ind
Sealectro Corp, Mamaroneck	N Y
Seastrom Mfg Co Inc, Glendale	Cal
Seezak Products Inc, Los Angeles	Cal
Semi-Alloys Inc, Mt Vernon	N Y
Shigoto Industries Ltd, New York	N Y
Smith Inc, Herman H, Brooklyn	N Y
Sphere Co Inc, Little Falls	N J
Square D Co, Park Ridge	Ill
Staffall, Inc, Providence	R I
Taurus Corp, Lambertville	N J
Transitron Electronic Corp, Wakefield	Mass
USECO Div, Litton Industries, Van Nuys	Cal
Vector Electronic Co Inc, Los Angeles	Cal
Veritron West Inc, Chatsworth	Cal
V M P Inc, Sun Valley	Cal
Waldom Electronics Inc, Chicago	Ill
Whitso Inc, Schiller Park	Ill
Zierick Mfg Corp, Mount Kisco	N Y

TERMINALS--SPLICES

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AMP INCORPORATED, HARRISBURG	**PA**
BURNDY CORP, NORWALK	**CONN**
Accurate Electronics Corp, Elyria	Ohio
American Cable Electronic Supply Inc, Sacramento	Cal
AMP Incorporated, Harrisburg	Pa
BEC Inc, Brooklyn	NY
BeMan Mfg, Inc, New Cumberland	Pa
Buchanan Electrical Products Corp, Union	NJ
Burndy Corp, Norwalk	Conn
Dowa Trading Co Ltd, Kobe	Japan
Electric Terminal Corp, Warwick	R I
Electrix Corp, Esmond	R I
Essex Wire Corp Terminal Sales, Chicago	Ill
ETC Inc, Cleveland	Ohio
Force Electronics, Los Angeles	Cal
General Staple Co, New York	N Y
Hollingsworth Solderless Terminal Co, Phoenixville	Pa
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Kent Corp, Mundelein	Ill
Malco Mfg Co Inc, Chicago	Ill
Patton-MacGuyer Co, Providence	R.I
Penn-Union Electric A Teledyne Co, Edinboro	Pa
Positive Connector Co, Derby	Conn
Robinson-Nugent Inc, New Albany	Ind
Schjeldahl Co, G T, Northfield	Minn
Semi-Alloys Inc, Mt Vernon	N Y
Smith Inc, Herman H, Brooklyn	N Y
Thomas & Betts Co Inc, Elizabeth	N J
Transitron Electronic Corp, Wakefield	Mass
Triple A Specialty Co, Chicago	Ill
USECO Div, Litton Industries, Van Nuys	Cal
Zierick Mfg Corp, Mount Kisco	N Y

TERMINALS--SUBMINIATURE (CHASSIS STRIP)

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AMP INCORPORATED, HARRISBURG	**PA**
BURNDY CORP, NORWALK	**CONN**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
PRECISION METAL PRODUCTS CO OF MALDEN INC STONEHAM	**MASS**
Abacus Electronics Corp, Dobbs Ferry	N Y
Accurate Electronics Corp, Elyria	Ohio
Admiral Controls Inc, Los Angeles	Cal
Alco Electronic Products, Inc, Lawrence	Mass
Alloys Unlimited Inc, Melville	N Y
Amatom Electronic Hardware, New Rochelle	N Y
AMP Incorporated, Harrisburg	Pa
Ark-Les Switch Corp, Watertown	Mass
Armel Electronics, Inc, North Bergen	N J
Atomite Electronics Corp, Roosevelt	N Y
Auto-Swage Products, Inc, Shelton	Conn
Bead Chain Mfg Co, Bridgeport	Conn
BeMan Mfg, Inc, New Cumberland	Pa
Blinn Co Inc, Delbert, Pomona	Cal
Burndy Corp, Norwalk	Conn
Cambridge Thermionic Corp, Cambridge	Mass
Concord Electronics Corp, New York	N Y
D-Cemco Inc, Burbank	Cal
Dowa Trading Co Ltd, Kobe	Japan
Elco Corp, Willow Grove	Pa
Electronic Molding Corp, Pawtucket	R I
Emtec Inc, Empire Spring Div, Elyria	Ohio
Essex Wire Corp Terminal Sales, Chicago	Ill
Force Electronics, Los Angeles	Cal
Franklin Fibre-Lamitex Corp, Wilmington	Del
Grayhill Moldtronics Inc, Downers Grove	Ill
Jones Electronics, Hiram, Burbank	Cal
Kent Corp, Mundelein	Ill
Keystone Electronics Corp, New York	N Y
Malco Mfg Co Inc, Chicago	Ill
Mandex Mfg Co Inc, Chicago	Ill
Meadows Terminal Boards, Cupertino	Cal
Microdot, Inc, South Pasadena	Cal
Molex Products Co, Downers Grove	Ill
National Tel-Tronics Corp, Great Neck	N Y
Norrich Plastics Corp, Roosevelt	N Y
Nutmeg Screw Machine Products Co, Waterbury	Conn
Painton & Co, Ltd, Northampton	England
Permonite Mfg Co, Chicago	Ill
Positive Connector Co, Derby	Conn
Precision Metal Products Co of Malden Inc Stoneham	Mass
Robinson-Nugent Inc, New Albany	Ind
Rye Industries, Inc, Mamaroneck	N Y
Sealectro Corp, Mamaroneck	N Y
Seezak Products Inc, Los Angeles	Cal
Shigoto Industries Ltd, New York	N Y
Smith Inc, Herman H, Brooklyn	N Y
Taurus Corp, Lambertville	N J
Transitron Electronic Corp, Wakefield	Mass
USECO Div, Litton Industries, Van Nuys	Cal
Vector Electronic Co Inc, Los Angeles	Cal
Veritron West Inc, Chatsworth	Cal
Whitso Inc, Schiller Park	Ill

TERMINALS--WIRE, SOLDERED

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ALDEN PRODUCTS CO, INC, BROCKTON, MASS	**ADV PG 193**
ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
BIRNBACH CO INC, FREEPORT	**N Y**
BURNDY CORP, NORWALK	**CONN**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
PRECISION METAL PRODUCTS CO OF MALDEN INC STONEHAM	**MASS**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Abacus Electronics Corp, Dobbs Ferry	N Y
Accurate Electronics Corp, Elyria	Ohio
Acme Model Engineering Co, Ridgefield	N J
Admiral Controls Inc, Los Angeles	Cal
Alden Products Co, Inc, Brockton	Mass
Alloys Unlimited Inc, Melville	N Y
Anritsu Electric Co Ltd, Tokyo	Japan
Armel Electronics, Inc, North Bergen	N J
Auto-Swage Products, Inc, Shelton	Conn
Bead Chain Mfg Co, Bridgeport	Conn
BeMan Mfg, Inc, New Cumberland	Pa
Berg Electronics, Inc, New Cumberland	Pa
Birnbach Co Inc, Freeport	N Y
Burndy Corp, Norwalk	Conn
Cambridge Thermionic Corp, Cambridge	Mass
Cole-Hersee Co, S Boston	Mass
Concord Electronics Corp, New York	N Y
Daburn Electronics & Cable Corp, Bronx	N Y
Dante Electric Mfg Co, Bantam	Conn
Davis & Hemphill Inc, Elkridge	Md
Dowa Trading Co Ltd, Kobe	Japan
Eastern Specialty Co, Philadelphia	Pa
Elco Corp, Willow Grove	Pa
Electric Terminal Corp, Warwick	R I
Emporium Specialties Co Inc, Cleveland	Ohio
Emtec Inc, Empire Spring Div, Elyria	Ohio
Ercona Corp, New York	N Y
Fastex Div Illinois Tool Works, Des Plaines	Ill
Federal Screw Products Inc, Chicago	Ill
Force Electronics, Los Angeles	Cal
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Goe Engineering Co, City-of-Industry	Cal
Hermetite Corp, Avon	Mass
Jan Engineering, Santa Monica	Cal
Jones Electronics, Hiram, Burbank	Cal
Keystone Electronics Corp, New York	N Y
Kolton Electric Mfg Co, Newark	N J
Malco Mfg Co Inc, Chicago	Ill
Metox, Paris 20	France
Miles Industries Inc, Garnerville	N Y
Molex Products Co, Downers Grove	Ill
National Tel-Tronics Corp, Great Neck	N Y
Network Industries Inc, Bayonne	N J
Olson & Co Inc, B W, Fullerton	Cal
Oneida Electronic Mfg Co, Meadville	Pa
Patton-MacGuyer Co, Providence	R I
Penn Engineering & Mfg Corp, Doylestown	Pa
Penn-Union Electric A Teledyne Co, Edinboro	Pa
Permonite Mfg Co, Chicago	Ill
Positive Connector Co, Derby	Conn
Precision Metal Products Co of Malden Inc Stoneham	Mass
Robinson-Nugent Inc, New Albany	Ind
Semi-Alloys Inc, Mt Vernon	N Y
Smith Inc, Herman H, Brooklyn	N Y
Teale Machine Co Inc, Rochester	N Y
Transitron Electronic Corp, Wakefield	Mass
Triple A Specialty Co, Chicago	Ill
Uni-Seal Div G-V Controls, Dover	N J
U S Stoneware Inc, Orville Plant, Orrville	Ohio
USECO Div, Litton Industries, Van Nuys	Cal
Vector Electronic Co Inc, Los Angeles	Cal
Waldom Electronics Inc, Chicago	Ill
Zierick Mfg Corp, Mount Kisco	N Y

TERMINALS--WIRE, SOLDERLESS

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
AMP INCORPORATED, HARRISBURG, PA	**ADV PG 697**
ART WIRE & STAMPING CO, NEWARK	**N J**
BIRNBACH CO INC, FREEPORT	**N Y**
BURNDY CORP, NORWALK	**CONN**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
KEYSTONE ELECTRONICS CORP, NEW YORK	**N Y**
MICRO CONTACTS, INC, HICKSVILLE	**N Y**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Accurate Electronics Corp, Elyria	Ohio
ACI, Inc, Princeton	N J
Aerovox Corp Distr Sales, New Bedford	Mass
Alloys Unlimited Inc, Melville	N Y
AMP Incorporated, Harrisburg	Pa
Ark-Les Switch Corp, Watertown	Mass
Art Wire & Stamping Co, Newark	N J
Auto-Swage Products, Inc, Shelton	Conn
Bead Chain Mfg Co, Bridgeport	Conn
BEC Inc, Brooklyn	NY
BeMan Mfg, Inc, New Cumberland	Pa

SOLDERLESS TERMINALS AND SPLICES

Widest range in the industry; available in every size and shape. Meet or exceed most military and commercial specifications. They offer the advantages of the matched tool and terminal technique developed by AMP for uniform connections with high resistance to corrosion, shock and vibration, and superior conductivity. Available for wire sizes from 26 AWG through 1125 MCM.

DISTRICT OFFICES

MID-ATLANTIC
Camden, N.J. 08102
(609) WOodlawn 4-5955

CENTRAL
Columbus, Ohio 43212
(614) 486-0276

EASTERN
Stratford, Conn. 06497
(203) DRexel 8-2691

MID-WESTERN
Chicago, Ill. 60630
(312) SPring 4-1800
TWX: 312-265-1195

SOUTHERN PACIFIC
Hawthorne,
Calif. 90250
(213) 675-1186 and
772-4261
TWX: 213-647-5125

SOUTHERN
Atlanta, Ga. 30054
(404) 261-4151
or 4152

NORTHERN PACIFIC
Palo Alto, Calif. 94303
(415) 321-6292
TWX: 415-492-9447

WORLD HEADQUARTERS
Harrisburg, Pa. 17105
(717) 564-0101
TWX: 717-564-4103

AMP
INCORPORATED
Harrisburg, Pennsylvania

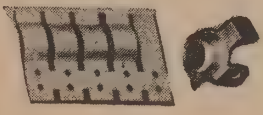
Berg Electronics, Inc, New Cumberland	Pa
Birnbach Co Inc, Freeport	N Y
Buchanan Electrical Products Corp, Union	NJ
Burndy Corp, Norwalk	Conn
Cable Electric Products Inc, Providence	R I
Cole-Hersee Co, S Boston	Mass
Daburn Electronics & Cable Corp, Bronx	N Y
Dante Electric Mfg Co Bantam	Conn
Douglas Div Kingston Products Corp, Bronson	Mich
Dowa Trading Co Ltd, Kobe	Japan
Eastern Specialty Co, Philadelphia	Pa
Elco Corp, Willow Grove	Pa
Electric Terminal Corp, Warwick	R I
Electrix Corp, Esmond	R I
Electronic Training Aids Co, Cambridge	Mass
Emporium Specialties Co Inc, Cleveland	Ohio
Emtec Inc, Empire Spring Div, Elyria	Ohio
Ercona Corp, New York	N Y
Essex Wire Corp Terminal Sales, Chicago	Ill
Estes Engineering Co, Gardena	Cal
ETC Inc, Cleveland	Ohio
Fastex Div Illinois Tool Works, Des Plaines	Ill
Force Electronics, Los Angeles	Cal
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Staple Co, New York	N Y
Hermetite Corp, Avon	Mass
Hollingsworth Solderless Terminal Co, Phoenixville	Pa
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Kent Corp, Mundelein	Ill
Keystone Electronics Corp, New York	N Y
Kolton Electric Mfg Co, Newark	N J
Malco Mfg Co Inc, Chicago	Ill
Meadows Terminal Boards, Cupertino	Cal
Micro Contacts, Inc, Hicksville	N Y
Mitsumi Electric Co Ltd, Tokyo	Japan
Molex Products Co, Downers Grove	Ill
National Tel-Tronics Corp, Great Neck	N Y
Network Industries Inc, Bayonne	N J
Olson & Co Inc, B W, Fullerton	Cal
Patton-MacGuyer Co, Providence	R I
Penn-Union Electric A Teledyne Co, Edinboro	Pa
Permonite Mfg Co, Chicago	Ill
Positive Connector Co, Derby	Conn
Robinson-Nugent Inc, New Albany	Ind
Semi-Alloys Inc, Mt Vernon	N Y
Smith Inc, Herman H, Brooklyn	N Y
Square D Co, Park Ridge	Ill
Teale Machine Co Inc, Rochester	N Y
Thomas & Betts Co Inc, Elizabeth	N J
Transitron Electronic Corp, Wakefield	Mass
Triple A Specialty Co, Chicago	Ill
Twin Lock Inc, Los Angeles	Cal
USECO Div, Litton Industries, Van Nuys	Cal
Vaco Products Co, Chicago	Ill
Vector Electronic Co Inc, Los Angeles	Cal
Waldom Electronics Inc, Chicago	Ill
Whitso Inc, Schiller Park	Ill
Zierick Mfg Corp, Mount Kisco	N Y

ACCURATE
PRECISION ELECTRONIC and
ELECTROMECHANICAL COMPONENTS

TERMINAL BOARDS AND TERMINALS

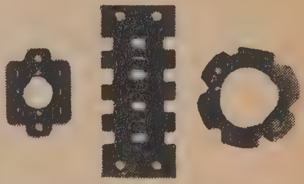
Accurate manufactures a wide range of high quality terminal boards and terminals for all applications. Many standard types are available from stock tooling.

METAL STAMPINGS



Accurate also manufactures precision stamped metal components of brass, phospher, bronze, beryllium copper, steel, etc. Many metal components are available from stock dies.

PLASTIC STAMPINGS



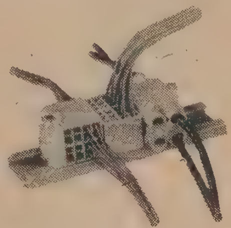
Accurate precision fabricated plastic components are carefully manufactured to provide you with maximum insulating and mechanical characteristics that fit and enhance your products.

PHONE: (216) 365-1211
ACCURATE ELECTRONICS CORPORATION
169 SOUTH ABBE ROAD – ELYRIA, OHIO 44035

TERMINAL STRIPS--BOARDS, FLAT

ACCURATE ELECTRONICS CORP, ELYRIA, OHIO	**ADV PG 697**
BURNDY CORP, NORWALK CONN	**ADV PG 697**
CINCH MFG CO, ELK GROVE VILLAGE, ILL	**ADV PGS 188,189**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
ELECTRICAL INSULATION CO INC, COPIAGUE	**N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PG. 7**
KEYSTONE ELECTRONICS CORP, NEW YORK N Y	**ADV PG 699**
KULKA ELECTRIC CORP, MOUNT VERNON, N Y	**ADV PG 698**
MOLEX PRODUCTS CO, DOWNERS GROVE	**ILL**
NATIONAL TEL-TRONICS CORP, GREAT NECK	**N Y**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Abacus Electronics Corp, Dobbs Ferry	N Y
Accurate Electronics Corp, Elyria	Ohio
Acme Model Engineering Co, Ridgefield	N J
Advanced Development Corp, Gardena	Cal
Aeronautical Electric Co, Chicago	Ill
Alco Electronic Products, Inc, Lawrence	Mass
Allegri-Tech Inc, Nutley	N J
Alloys Unlimited Inc, Melville	N Y
Amatom Electronic Hardware, New Rochelle	N Y
Apahouser Corp of N E, Boston	Mass
Ark-Les Switch Corp, Watertown	Mass
Armel Electronics, Inc, North Bergen	N J
Atomite Electronics Corp, Roosevelt	N Y
Avionics Ltd, Niagara-on-the-Lake	Ont
Bead Chain Mfg Co, Bridgeport	Conn
Berg Electronics, Inc, New Cumberland	Pa
Buchanan Electrical Products Corp, Union	NJ
Burndy Corp, Norwalk	Conn
Cambridge Thermionic Corp, Cambridge	Mass
Cinch Mfg Co, Elk Grove Village	Ill
Comco Plastics Inc, Richmond Hill	N Y
Concord Electronics Corp, New York	N Y
Continental Connector Corp, Woodside	N Y
Custom Control Mfg Inc, Merriam	Kan
Daburn Electronics & Cable Corp, Bronx	N Y
D-Cemco Inc, Burbank	Cal
DeSoto Electrical Products, DeSoto	Mo
Doran Mfg Co, Cincinnati	Ohio
Dowa Trading Co Ltd, Kobe	Japan
Electrical Insulation Co Inc, Copiague	N Y
Electro-Etch Circuits Inc, Los Angeles	Cal
Elgin Electronics Inc, Erie	Pa
Emerson Plastics Corp, Bronx	New York
Engineered Plastics Inc, Gibsonville	N C
Ercona Corp, New York	N Y
ETC Inc, Cleveland	Ohio
Federal Screw Products Inc, Chicago	Ill
Fidelity Amplifier Co, Chicago	Ill
Fisher & Crome, Inc, Philadelphia	Pa

MINILOK® • MODULOK® • CRABLOK®
TERMINAL BLOCKS
For Your Specific Needs



Standard and miniature-sized terminal blocks are of versatile modular design for terminating and feeding three standard single conductor wire, standard and coax cables. MINILOK and MODULOK permit unlimited numbers of conductors to be accommodated in tracks of any length. CRABLOK assures ruggedness, high strength and temperature resistance.

BURNDY
Richards Avenue
Norwalk, Connecticut 06852

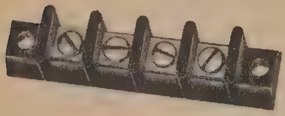
Kulka TERMINAL BOARDS

STANDARD

410, 600, 600A, 601, 602 Series. Current range 5 thru 30 Amps; Voltage Range 1000 thru; 600 RMS; Wire sizes 20-14 Ga.; 1 thru 26 Terminals.

HEAVY DUTY

603, 604, 605 Series, Current range 50 thru 90 Amps, Voltage 1700 thru 2100 RMS; Wire Sizes #6 to 2 ga.; 1 thru 12 terminals.



SINGLE ROW

599, 699, 812 Series. Current range 15 thru 30 Amps; Voltage range 1100 thru 1600 RMS; Wire sizes: #22 to #12 ga.; 1 thru 23 terminals.

STUD and TURRET

For greater wiring convenience. Choice of terminals:

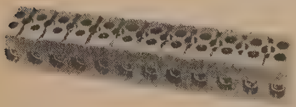
- Regular Screw Type
- Solder Turret
- Feedthru
- Threaded Stud, etc.

Also, choice of finishes: electro-tinned, silver-plated, even gold over silver. Our design facilities are available for your special requirements.

"KLIPTITE"

For fast connect and disconnect. Available on Kulka's full line of terminal boards.

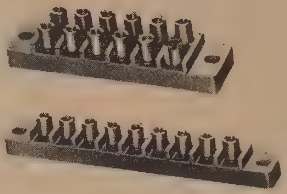
- Just clip on wire terminal fast for tight connection.
- Up to 6 connections per stage.
- Vari-angled tabs.
- Available rivetted to terminal hardware or with screw assembly.



PRESSURE CONTACT

9-85 SERIES

Ideal for power equipment. One-piece molded plastic for industrial or military use. Extra-safe, completely enclosed. 2 to 12 terminals. Rated at 85 Amps, 8000 Volts.

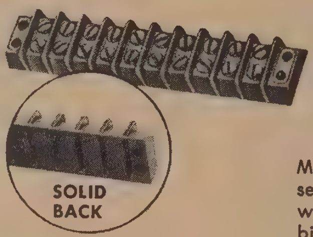


MILITARY BOARDS

Per MIL-T-16784B

Designed by the Bureau of Ships according to MIL-T-16784B, superseding MIL-T-16784A (Ships). They are made to BUSHIPS 9000-S6505-73214 drawings, with the latest revisions, and BUORD S64101.

MOLDED MATERIAL: MAI-60, in accordance with MIL-M-14F.



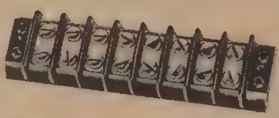
MILITARY BOARDS

SOLID BACK

MADE to MEET or EXCEED

MIL-T-55164

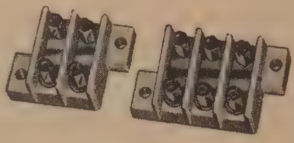
Molded-in Terminals. Equal molded sections. Kulka improved design, for weight saving, greater strength, flexibility. All sizes available, classes 37TB thru 42TB.



CLOSED BACK TERMINAL BOARDS

CLOSED BACK

670, 670A, 671, 672 Series. Current range 15 to 30 Amps, Voltage range 2500 to 3300 Volts RMS. Wire sizes #22 thru #12 ga.; 1 thru 30 terminals.



HIGH HEAT

1215 SERIES

For temperatures up to 850°. Made in two and three terminal units with incremental configuration. Stainless steel stud type terminals.

TOGGLE SWITCHES

SCREW Terminals

SOLDER Terminals

KLIPTITE* Terminals

Made to Military Specifications: JAN-S-23, MIL-S-21195, MIL-S-6745 and MIL-S-3950B. Available in SPST, SPDT, DPST and DPDT types. DA and AC up to 1600 cps. Your choice of terminals: Screw, solder or tab. See Switches Section for Detailed Listing of Kulka Switches.

Also, MINIATURE, SUBMINIATURE, TAPER PIN, PRINTED CIRCUIT, WIRE-WRAP, SCREW CLAMP TERMINAL BOARDS AND ACCESSORIES. Available in a variety of Military and Commercial Grade materials.

**Manufacturers of
Wiring Devices
for more than a
Quarter Century**

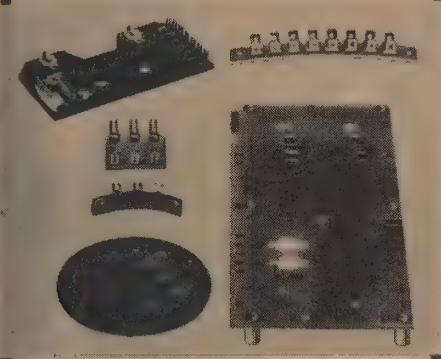
Kulka Electric Corporation

520 South Fulton Avenue, Mount Vernon, N.Y. 10551
TEL: 914 664 4024 TWX: 710 562-0104 TELEX: 137413

**KULKA
COMPLETE
TERMINAL BOARD
CATALOG 17A
ON REQUEST**

Need Volume Production or Short Run? Specify KEYSTONE

CUSTOM FABRICATED TERMINAL BOARDS



We are equipped to produce economically short and long runs of special assemblies made to your specifications.
Also a complete line of Standardized Components or modification of our standard line. Inquiries promptly quoted.

• TERMINAL BOARDS • BATTERY HOLDERS • TERMINALS • PRE-PUNCHED BOARDS • PLUG-IN HOUSINGS • BUSHINGS • STAKING TOOLS

NEW FREE CATALOG ON REQUEST

KEYSTONE ELECTRONICS CORP.
49 Bleecker Street • New York, N.Y. 10012

G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Electric Co, ECSO, Schenectady	N Y
General Products Corp, Union Springs	N Y
Globe Electrical Mfg Co, Gardena	Cal
Grayhill Moldtronics Inc, Downers Grove	Ill
Greene Electronics Inc, Cranston	R I
Gridcraft Inc, Fort Wayne	Ind
Gunnar Labs Inc, Bradenton	Fla
Harva Co Inc, Schoharie	N Y
Industrial Electronic Hardware Corp, New York	N Y
Insulating Fabricators Inc, East Rutherford	N J
Insulating Shapes Inc, Bronx	N Y
Jetron Mfg Co, Chicago	Ill
Kameco Ltd, Montreal	Que
Kent Corp, Mundelein	Ill
Keystone Electronics Corp, New York	N Y
Kulka Electric Corp, Mount Vernon	N Y
Lake Engineering Co Ltd, Scarborough	Ont
Laminated Fabricators, San Bruno	Cal
Leed Insulator Corp, Los Angeles	Cal
Lockhart Industries Inc, Paramount	Cal
Long Inc, Thomas J, Carle Place	N Y
Malco Mfg Co Inc, Chicago	Ill
Mandex Mfg Co Inc, Chicago	Ill
Maryland Lava Co Inc, Bel Air	Md
McElroy Electronics Corp, Shirley	Mass
Meadows Terminal Boards, Cupertino	Cal
Millen Mfg Co Inc, James, Malden	Mass
Molex Products Co, Downers Grove	Ill
Morey Corp, Downers Grove	Ill
Murdock Corp, Chelsea	Mass
National Tel-Tronics Corp, Great Neck	N Y
Penn Fibre & Specialty Co, Philadelphia	Pa
Penn-Union Electric A Teledyne Co, Edinboro	Pa
Permonite Mfg Co, Chicago	Ill
Positive Connector Co, Derby	Conn
Precision Paper Tube Co, Wheeling	Ill
Reliable Electric Co, Franklin Park	Ill
Robinson-Nugent Inc, New Albany	Ind
Rosenthal-Isolatoren GMBH, 8672 Selb	W Germany
Ross Co, Milton, Southampton	Pa
Rowan Controller Co, Oceanport	N J
Rye Industries, Inc, Mamaroneck	N Y
Schjeldahl Co G T, Connector Dept, Osseo	Minn
Schurter AG, H, 6002 Lucerne	Switzerland
Sealectro Corp, Mamaroneck	N Y
Seastrom Mfg Co Inc, Glendale	Cal
Seton Name Plate Corp, New Haven	Conn
Shigoto Industries Ltd, New York	N Y
Showa Musen Kogyo Co Ltd, Tokyo	Japan
Smith Inc, Herman H, Brooklyn	N Y
Spaulding Fibre Co Inc, Tonawanda	N Y
Sphere Co Inc, Little Falls	N J
Spruce Pine Mica Co Inc, Spruce Pine	N C
Square D Co, Park Ridge	Ill
Stamptronics Inc, Azusa	Cal
Thomas & Betts Co Inc, Elizabeth	N J
Transitron Electronic Corp, Wakefield	Mass
Tri-Dex Co, Visalia	Cal
USECO Div, Litton Industries, Van Nuys	Cal
Vector Electronic Co Inc, Los Angeles	Cal
Veritron West Inc, Chatsworth	Cal
Victoria Co, West Chicago	Ill
V M P Inc, Sun Valley	Cal
Waldom Electronics Inc, Chicago	Ill

TERMINAL STRIPS--MOLDED

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
BURNDY CORP, NORWALK	**CONN**
CINCH MFG CO, ELK GROVE VILLAGE, ILL	**ADV PGS 188,189**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
KULKA ELECTRIC CORP, MOUNT VERNON, N Y	**ADV PG 698**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
Accurate Electronics Corp, Elyria	Ohio
ADC Products, Minneapolis	Minn
Allen-Bradley Co, Milwaukee	Wis
Armel Electronics, Inc, North Bergen	N J
Beauchaine & Sons Inc, Laconia	NH
BeMan Mfg, Inc, New Cumberland	Pa
Berg Electronics, Inc, New Cumberland	Pa
British Radio Electronics (BREL), Washington	D C
Buchanan Electrical Products Corp, Union	NJ
Burndy Corp, Norwalk	Conn
Cambridge Thermionic Corp, Cambridge	Mass
Cicoil Corp, Chatsworth	Cal
Cinch Mfg Co, Elk Grove Village	Ill
Continental Connector Corp, Woodside	N Y
Curtis Development & Mfg Co, Milwaukee	Wis
Dowa Trading Co Ltd, Kobe	Japan
Elco Corp, Willow Grove	Pa
Electronic Molding Corp, Pawtucket	R I
Emerson Plastics Corp, Bronx	New York
Ercona Corp, New York	N Y
ETC Inc, Cleveland	Ohio
Federal Screw Products Inc, Chicago	Ill
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Electric Co, ECSO, Schenectady	N Y
General Products Corp, Union Springs	N Y
Grayhill Moldtronics Inc, Downers Grove	Ill
Insulating Shapes Inc, Bronx	N Y
Jones Inc, Norman, South Merrimack	N H
Kameco Ltd, Montreal	Que
Kaye & Co Inc, Joseph, Cambridge	Mass
Kent Corp, Mundelein	Ill
Kessler-Ellis Products Co, Atlantic Highlands	N J
Kulka Electric Corp, Mount Vernon	N Y
Lind Electro Development A Teledyne Co Mountain View	Cal
Machinery Electrification Inc, Northboro	Mass
Microdot, Inc, South Pasadena	Cal
Midwest Molding & Mfg Co, Gurnee	Ill
Mitsumi Electric Co Ltd, Tokyo	Japan
Morey Corp, Downers Grove	Ill
Olson & Co Inc, B W, Fullerton	Cal
Olympic Plastics Co, Los Angeles	Cal
Penn-Union Electric A Teledyne Co, Edinboro	Pa
Robinson-Nugent Inc, New Albany	Ind
Rye Industries, Inc, Mamaroneck	N Y
Schjeldahl Co G T, Connector Dept, Osseo	Minn
Seastrom Mfg Co Inc, Glendale	Cal
Shigoto Industries Ltd, New York	N Y
Sierra Electric Inc, Gardena	Cal
Smith Inc, Herman H, Brooklyn	N Y
Square D Co, Park Ridge	Ill
Thomas & Betts Co Inc, Elizabeth	N J
Transitron Electronic Corp, Wakefield	Mass
Trimm Inc, Libertyville	Ill
USECO Div, Litton Industries, Van Nuys	Cal

TERMINATIONS (LOADS)--DUMMY

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE	**NY**
BIRD ELECTRONIC CORP, CLEVELAND (SOLON)	**OHIO**
BURNDY CORP, NORWALK	**CONN**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	**ADV PGS 58,59**
HEWLETT-PACKARD, PALO ALTO	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
RADAR DESIGN CORP, SYRACUSE, N Y	**ADV PG 699**
TEXSCAN CORP, INDIANAPOLIS	**IND**
TRG DIV CONTROL DATA CORP, EAST BOSTON MASS	**ADV PG 418**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Aircom Inc; Union	N H
Airtec Inc, Roselle	N J
Americon Corp, Waltham	Mass
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Applied Research, Inc, Port Washington	N Y
Astrolab Inc, Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
Auto-Swage Products, Inc, Shelton	Conn
Aviation Electric Ltd, St Laurent, Montreal	Que
Aviel Electronics, Inc, Van Nuys	Cal
Bendix Corp, Microwave Devices Div, Franklin	Ind
Bird Electronic Corp, Cleveland (Solon)	Ohio
Brown & Wiley Inc, Langhorne	Pa
Burndy Corp, Norwalk	Conn
Cardwell Condenser Corp, Lindenhurst	N Y
Chemalloy Electronics Corp, Santee	Cal
Coax Devices, Chelsea	Mass
Compagnie Generale de Metrologie Haute Savoie	France
Corning Glass Works, Corning	N Y
Custom Materials Inc, Chelmsford	Mass
Delta Coils, Philadelphia	Pa
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Diamond Antenna & Microwave Corp, Winchester	Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Eastern Microwave Corp, Winchester	Mass
Electro Impulse Lab Inc, Red Bank	N J
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam	N Y
Electronic Specialty Co, Los Angeles	Cal
EMC Technology Inc, Philadelphia	Pa
Emerson & Cumipg Inc, Canton	Mass
Ferranti, Ltd, Lancashire	England
Film Components Div Reon Resister Corp, Yonkers	N Y
Filmohm Corp, Long Island City	N Y
General Radio Co, West Concord	Mass
Greenpar Engineering Ltd, Electronics Div Essex	England
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hewlett-Packard, Palo Alto	Cal
Holland Electronics, Brooklyn	N Y
Inet Power A Teledyne Co, Gardena	Cal
Jerrold Electronics Corp, Philadelphia	Pa
Lieco Inc, West Babylon	N Y
Maury Microwave Corp, Montclair	Cal
MCS Corp, Monrovia	Cal
Meca Electronics, Inc, Denville	N J
Meridian Metalcraft Inc, Whittier	Cal
Merrimac Research & Development Inc West Caldwell,	N J
Microlab/F X R, Livingston	N J
Microwave Associates Inc, Burlington	Mass
Microwave Development Labs Inc Needham Heights	Mass
Microwave Filter Co Inc, East Syracuse	NY
Mobil Electronics Inc, Anderson	Ind
Montedoro Corp, San Luis Obispo	Cal
Motorola Semiconductor Products Inc, Phoenix	Ariz
Nanosecond Systems Inc, Fairfield	Conn
Narda Microwave Corp, Plainview	N Y
Neico Microwave Co, Waltham	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Ohmite Mfg Co, Skokie	Ill
Oki Electric Industry Co Ltd, Tokyo	Japan
Pabst Engineering Equipment Co Inc, Elizabeth	NJ
Phelps Dodge Electronic Products Corp North Haven	Conn
Philco-Ford Corp, Washington	D C
Radar Design Corp, Syracuse	N Y
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Ramcor Inc, Huntington	NY
Reeve Electronics Inc, Chicago	Ill
RLC Electronics Inc, Port Chester	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst	NY

Coaxial POWER TERMINATIONS
low-medium-high

Minimum parts design and the use of rugged ceramic coaxial resistors impart a high reliability and long life to these terminations.

D 5032
Frequency:
DC-4.0 GHz
VSWR: 1.15 Max.
Power:
10 Watts Avg.
(5 KW Peak)
Impedance:
50 OHMS

D 870
High Power
5000 Watts
3⅛ EIA

D804
Frequency:
DC-10.0 GHz
VSWR: 1.20 Max.
Power:
2 Watts Avg.
(2 KW Peak)
Impedance:
50 OHMS

Send for complete information . . .

RADAR DESIGN
CORPORATION
510 PICKARD DR ■ SYRACUSE, N Y 13211
PHONE 315-454-4418

Sealectro Corp, Mamaroneck	N Y
S E C I Soc Elettrotechica Chimica Italiana Milano	Italy
Star Tronics Inc, Georgetown	Mass
Stoddart Electro Systems, Gardena	Cal
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Technical Materiel Corp, Mamaroneck	N Y
Texscan Corp, Indianapolis	Ind
TRG Div Control Data Corp, East Boston	Mass
Trim Line Connectors Ltd, Weston	Ont
Tru-Connector Corp, Peabody	Mass
Trylon Inc, Elverson	Pa
United Products Co, Orange	N J
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Waveline Inc, West Caldwell	N J
Weinschel Engineering Co Inc, Gaithersburg	Md
Winslow Tele-Tronics Inc, Asbury Park	NJ
Workman Electronic Products Inc, Sarasota	Fla

TERMINATIONS (LOADS)--MICROWAVE, FIXED

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE	**NY**
AMPHENOL, DANBURY	**CONN**
BIRD ELECTRONIC CORP, CLEVELAND (SOLON)	**OHIO**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	**ADV PGS 58,59**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
RADAR DESIGN CORP, SYRACUSE	**N Y**
TEXSCAN CORP, INDIANAPOLIS	**IND**
TRANSCO PRODUCTS INC, VENICE	**CAL**
TRG DIV CONTROL DATA CORP, EAST BOSTON MASS	**ADV PG 418**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Ad-Yu Electronics Inc, Passaic	N J
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Aircom Inc, Union	N H
Airtec Inc, Roselle	N J
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alford Mfg Co, Winchester	Mass
Altronic Research Corp, Cleveland	Ohio
Americon Corp, Waltham	Mass
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Amphenol, Danbury	Conn
Angstrohm Precision, Inc, Van Nuys	Cal
Applied Microwave Lab, Inc, Andover	Mass
Arra, Inc, Bayshore	NY
Astrolab Inc, Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
Aviel Electronics, Inc, Van Nuys	Cal
Barth Electronics, Inc, Cleveland	Ohio
Bendix Corp, Microwave Devices Div, Franklin	Ind
Bird Electronic Corp, Cleveland (Solon)	Ohio
Cardwell Condenser Corp, Lindenhurst	N Y
Chemalloy Electronics Corp, Santee	Cal
Coax Devices, Chelsea	Mass
Custom Components Inc, Caldwell	N J
Custom Materials Inc, Chelmsford	Mass
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Diamond Antenna & Microwave Corp, Winchester	Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Eastern Microwave Corp, Winchester	Mass
Electro Impulse Lab Inc, Red Bank	N J
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electro-Metrics Corp Sub Fairchild Cam & Instr Corp Amsterdam	N Y
Electronic Specialty Co, Los Angeles	Cal
Electronic Standards Corp, Plainfield	N J
EMC Technology Inc, Philadelphia	Pa
Emerson & Cuming Inc, Canton	Mass
E & M Labs, North Hollywood	Cal
Film Components Div Reon Resister Corp, Yonkers	N Y
Filmohm Corp, Long Island City	N Y
General Microwave Corp, Farmingdale	N Y
General Radio Co, West Concord	Mass
General RF Fittings Inc, Port Salerno	Fla
Greenpar Engineering Ltd, Electronics Div Essex	England
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hewlett-Packard, Palo Alto	Cal
Jerrold Electronics Corp, Philadelphia	Pa
Lieco Inc, West Babylon	N Y
Marconi Co Ltd, Chelmsford	England
Maury Microwave Corp, Montclair	Cal
MCS Corp, Monrovia	Cal
Meca Electronics, Inc, Denville	N J
Meridian Metalcraft Inc, Whittier	Cal
Merrimac Research & Development Inc West Caldwell,	N J
Microlab/F X R, Livingston	N J
Microwave Associates Inc, Burlington	Mass
Microwave Development Labs Inc Needham Heights	Mass
Microwave Filter Co Inc, East Syracuse	NY
Microwave Guide Inc, Lowell	Mass
Microwave Labs of America, Brooklyn	N Y
Microwave Products Inc, Chatsworth	Cal
Narda Microwave Corp, Plainview	N Y
Neico Microwave Co, Waltham	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Nytronics Inc, Berkeley Heights	N J
Oki Electric Industry Co Ltd, Tokyo	Japan
Omni Spectra Inc, Farmington	Mich
Ottawa, Paris	France
Pabst Engineering Equipment Co Inc, Elizabeth	NJ
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Portchester Instrument Corp, Port Chester	N Y
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Radar Design Corp, Syracuse	N Y
Ramcor Inc, Huntington	NY
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Reeve Electronics Inc, Chicago	Ill
R F Systems Inc, Cohasset	Mass
RLC Electronics Inc, Port Chester	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst	NY
Specialty Waveguide Corp, Burlington	Mass
Stoddart Electro Systems, Gardena	Cal
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach	Cal
Texscan Corp, Indianapolis	Ind
Transco Products Inc, Venice	Cal
TRG Div Control Data Corp, East Boston	Mass
Tru-Connector Corp, Peabody	Mass
United Products Co, Orange	N J
Vector Industries A Teledyne Co, Palo Alto	Cal
Victor R F & Microwave Co, Wakefield	Mass
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Waveline Inc, West Caldwell	N J
Weinschel Engineering Co Inc, Gaithersburg	Md

TERMINATIONS (LOADS)--MICROWAVE, VARIABLE

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE	**NY**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	**ADV PGS 58,59**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
RADAR DESIGN CORP, SYRACUSE	**N Y**
TRG DIV CONTROL DATA CORP, EAST BOSTON MASS	**ADV PG 418**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Aircom Inc, Union	N H
Airtec Inc, Roselle	N J
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Astrolab Inc, Linden	N J
Automatic Metal Products Corp, Brooklyn	N Y
Aviation Electric Ltd, St Laurent, Montreal	Que
Coax Devices, Chelsea	Mass
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Diamond Antenna & Microwave Corp, Winchester	Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Electromagnetic Technology Corp, Mountain View	Cal
Electronic Specialty Co, Los Angeles	Cal
General Microwave Corp, Farmingdale	N Y
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hewlett-Packard, Palo Alto	Cal
Insulating Shapes Inc, Bronx	N Y
Lieco Inc, West Babylon	N Y
Maury Microwave Corp, Montclair	Cal
MCS Corp, Monrovia	Cal
Meridian Metalcraft Inc, Whittier	Cal
Microlab/F X R, Livingston	N J
Microwave Associates Inc, Burlington	Mass
Microwave Development Labs Inc Needham Heights	Mass
Microwave Filter Co Inc, East Syracuse	NY
Microwave Labs of America, Brooklyn	N Y
Narda Microwave Corp, Plainview	N Y
Neico Microwave Co, Waltham	Mass
Pabst Engineering Equipment Co Inc, Elizabeth	NJ
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Portchester Instrument Corp, Port Chester	N Y
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Radar Design Corp, Syracuse	N Y
Ramcor Inc, Huntington	NY
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
R F Systems Inc, Cohasset	Mass
RLC Electronics Inc, Port Chester	N Y
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
TRG Div Control Data Corp, East Boston	Mass
Varian, Palo Alto	Cal
Vector Industries A Teledyne Co, Palo Alto	Cal
Victor R F & Microwave Co, Wakefield	Mass
Waveline Inc, West Caldwell	N J
Weinschel Engineering Co Inc, Gaithersburg	Md

TEST CHAMBERS SEE CHAMBERS--ENVIRONMENTAL

TESTERS SEE ANALYZERS; ALSO SPECIFIC EQUIPMENT

TESTERS--BATTERY

EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
NON-LINEAR SYSTEMS INC, DEL MAR	**CAL**
Aerotronic Associates, Inc, Contoocook	N H
Aircraft Components Inc, Benton Harbor	Mich
Allen/UTI, Kalamazoo	Mich
Anchor Specialty Mfg Co Inc, Teterboro	N J
Canadian Research Institute, Don Mills	Ont
Christie Electric Corp, Los Angeles	Cal
Dixson Inc Meter Div, Grand Junction	Colo
Don Bosco Electronics Inc, Hanover	N J
Dowa Trading Co Ltd, Kobe	Japan
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Associates Inc, West Long Branch	N J
Electronic Measurements Corp, New York	N Y
Ferranti, Ltd, Lancashire	England
Forney Industries Inc, Fort Collins	Colo
Harris Mfg Co Inc, Cambridge	Mass
Hickok Electrical Instrument Co, Cleveland	Ohio
Kahl Scientific Instrument Corp, El Cajon	Cal
Kyoritsu Electrical Instruments Works Ltd, Tokyo	Japan
Macarr Inc, Bronx	N Y
Mercury Electronics Inc, Mineola	N Y
Modern Mfg Co Inc, Willow Grove	Pa
Nichols Co Ltd, R H, Downsview	Ont
Non-Linear Systems Inc, Del Mar	Cal
Philmore Mfg Co Inc, Richmond Hill	N Y
Precision Mecanique Labinal, 93 Saint-Ouen	France
Q V S Inc, East Orange	N J
Schauer Mfg Corp, Cincinnati	Ohio
Scope Inc, Reston	Va
Servo-Tek Products Co, Marine Div, Hawthorne	N J
Servo-Tek Products Co, Hawthorne	N J
Simpson Electric Co, Chicago	Ill
Stark Electronic Instruments Ltd, Ajax	Ont
Sterling Mfg Co, Cleveland	Ohio
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Triple A Specialty Co, Chicago	Ill
Yokogawa Electric Works Inc, Larchmont	N Y

TESTERS--CABLE

ASSOCIATED RESEARCH, INC, CHICAGO	**ILL**
CIRCON COMPONENT CORP, GOLETA	**CAL**
HEWLETT-PACKARD, PALO ALTO	**CAL**
INTRONICS INC, NEWTON	**MASS**
A D Data Systems Inc, Rochester	N Y
Aerospace Avionics Inc, Bohemia	NY
Anchor Specialty Mfg Co Inc, Teterboro	N J
Associated Research, Inc, Chicago	Ill
Automation Dynamics Corp, Northvale	N J
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Biddle Co, James G, Plymouth Meeting	Pa
Cablemaster Div Accurate Elctns Corp North Hollywood	Cal
Campbell/Taylor Inc, Salem	Mass
Canadian Research Institute, Don Mills	Ont
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Circon Component Corp, Goleta	Cal
Cleverly Electrical Works Inc, Philadelphia	Pa
Clinton Instrument Co, Clinton	Conn
Condor Industrial Corp, West Chicago	Ill
Conductron Corp, Ann Arbor	Mich
Cunningham Son & Co Inc, James, Honeoye Falls	N Y
Dalmo Victor, A Textron Div, Belmont	Cal
Davidson Electronic Development Co, Erie	Pa
Dowa Trading Co Ltd, Kobe	Japan
Dynalectron Corp Aerospace Prods Div San Leandro	Cal
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Controls Inc, Wilton	Conn
Electrospace Corp, Glen Cove	N Y
Elgiloy Co, Elgin	Ill
Fedtro Inc, Rockville Centre	N Y
Ferranti, Ltd, Lancashire	England
General Radio Co, West Concord	Mass
Giannini-Voltex, Whittier	Cal
Hewlett-Packard, Palo Alto	Cal
Hill Research Co, Oakland	Cal
Hipotronics Inc, Brewster	N Y
Industrial Winding Machinery Corp, River Edge	N J
Instrument Labs Corp, Chicago	Ill
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Intronics Inc, Newton	Mass
Kyoritsu Electrical Instruments Works Ltd, Tokyo	Japan
Lane Industries, Electronics Div, North Hollywood	Cal
Martin-Decker Corp, Santa Ana	Cal
McKee Automation Corp Sub James Cunningham Inc San Fernando	Cal
Measuring Instrument Controls Inc Berkeley Heights	N J
Micro Metrics Inc, Paterson	N J
3M Company, St Paul	Minn
Neptune Electronics Co, New York	N Y
Peschel Instruments Inc, Cape Coral	Fla
Reaction Research Labs of America, Groton	Conn
Rycom Instruments, Raytown	Mo
Sentron Inc, Danbury	Conn
Simpson Electric Co, Chicago	Ill
Slaughter Co, Ardmore	Okla
Spedcor Electronics Inc, Glendale	N Y
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Tinius Olsen Testing Machine Co, Willow Grove	Pa
Wickes Industries Inc, Camden	N J

TESTERS--CAPACITOR & DIELECTRIC

SEE ALSO MACHINES--CAPACITOR MANUFACTURING, SORTING

ASSOCIATED RESEARCH, INC, CHICAGO	**ILL**
DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
HEATH CO, BENTON HARBOR	**MICH**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON	**N Y**
Advanced Technology & Systems Corp Old Greenwich	Conn

Airmec Instruments Ltd, Buckinghamshire .... England
Amstro Corp, Fairfield .... N J
Anchor Specialty Mfg Co Inc, Teterboro .... N J
Associated Research, Inc, Chicago Ill
Ballantine Laboratories, Inc, Boonton .... N J
Beckman Instruments Inc, Fullerton, ... Cal
Beckman Instruments Intl SA, 1207 Geneva .... Switzerland
B & K Mfg Co Div Dynascan Corp, Chicago Ill
Boonton Electronics Corp, Parsippany .... N J
B & T Systems Div, Haverhill .... Mass
Canadian Research Institute, Don Mills .... Ont
Consolidated Airborne Systems, Carle Place .... N Y
Continental Device Corp, Hawthorne .... Cal
Cornell-Dubilier Electronics Div Federal Pacific Electric Co, Newark .... N J
Davidson Electronic Development Co, Erie .... Pa
Del Electronics Corp, Mt Vernon .... N Y
Dowa Trading Co Ltd, Kobe .... Japan
Dranetz Engineering Labs Inc, Plainfield .... N J
Dytronics Co Inc, Columbus .... Ohio
E G & G Inc Laboratory Prods Div, Goleta .... Cal
EICO Electronic Instrument Co Inc, Brooklyn .... NY
Fairchild Instrumentation, Sunnyvale .... Cal
General Radio Co, West Concord .... Mass
Graham Testers Inc, Minneapolis .... Minn
Heath Co, Benton Harbor .... Mich
Hickok Electrical Instrument Co, Cleveland .... Ohio
Hipotronics Inc, Brewster .... N Y
Inca Engineering Corp, San Gabriel .... Cal
Industrial Test Equipment Co, Port Washington .... N Y
Kahl Scientific Instrument Corp, El Cajon .... Cal
Kilovolt Corp, Hackensack .... N J
Landis & Gyr, Inc, New York .... N Y
London Co, Westlake .... Ohio
Mercury Electronics Inc, Mineola .... N Y
Micro Instrument Co, Hawthorne .... Cal
Optimized Devices, Inc, Pleasantville .... N Y
Peschel Instruments Inc, Cape Coral .... Fla
Precision Mecanique Labinal, 93 Saint-Ouen .... France
Reaction Research Labs of America, Groton .... Conn
Rohde & Schwarz Sales Co USA Inc, Passaic .... N J
Roveti Instruments, Annapolis .... Md
Sanwa Electric Instrument Co, Ltd, Tokyo .... Japan
Sentron Inc, Danbury .... Conn
Simpson Electric Co, Chicago Ill
Slaughter Co, Ardmore .... Okla
Spedcor Electronics Inc, Glendale .... N Y
Sprague Electric Co, North Adams .... Mass
Stark Electronic Instruments Ltd, Ajax .... Ont
Teradyne Inc, Boston .... Mass
Trott Electronics Inc, Rochester .... N Y

Vestal Modern Design Corp, Vestal .... N Y
Wayne Kerr Corp, Montclair .... NJ

TESTERS--CATHODE-RAY SEE TESTERS--TUBE

TESTERS--CIRCUIT

ASSOCIATED RESEARCH, INC, CHICAGO ILL
BURR-BROWN RESEARCH CORP, TUCSON .... ARIZ
CIRCON COMPONENT CORP, GOLETA .... CAL
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND .... OHIO
INTRONICS INC, NEWTON .... MASS
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA .... JAPAN
TEKTRONIX INC, BEAVERTON .... ORE
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON .... TEX
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK .... N J
AAI Corp, Cockeysville .... Md
Adar Associates Inc, Somerville .... Mass
A D Data Systems Inc, Rochester .... N Y
Aerospace Avionics Inc, Bohemia .... NY
Allen/UTI, Kalamazoo .... Mich
American Machine & Foundry Co Alexandria Div Alexandria .... Va
Amprobe Instrument Div Soss Mfg Co, Lynbrook .... N Y
Anchor Specialty Mfg Co Inc, Teterboro .... N J
Applied Control Co, Cedar Grove .... NJ
Associated Research, Inc, Chicago Ill
Automated Measurements Corp, Los Gatos .... Cal
Automation Dynamics Corp, Northvale .... N J
Automation Services Inc, Endicott .... N Y
Aviation Electric Ltd, St Laurent, Montreal .... Que
Avtron Mfg, Inc, Cleveland .... Ohio
Bacharach Instrument Co, Pittsburgh .... Pa
Beckman Instruments Inc, Fullerton, ... Cal
Biddle Co, James G, Plymouth Meeting .... Pa
Birtcher Corp Instrument Div, Monterey Park .... Cal
Bitronics Inc, Bethlehem .... Pa
Bright Star Industries Inc, Clifton .... N J
Bruno-New York Industries Corp, New York .... N Y
B & T Systems Div, Haverhill .... Mass
Burnworth Tester Co, El Cerrito .... Cal
Burr-Brown Research Corp, Tucson .... Ariz
Cable Electric Products Inc, Providence .... R I
Cablemaster Div Accurate Elctns Corp North Hollywood .... Cal
Canadian Research Institute, Don Mills .... Ont
CBC Industries Inc, Philadelphia .... Pa
Circon Component Corp, Goleta .... Cal
Clinton Instrument Co, Clinton .... Conn
Coast Electronics Inc, Manhattan Beach .... Cal
Components Specialties Inc, Freeport .... N Y
Computer Test Corp, Cherry Hill .... N J
Condor Industrial Corp, West Chicago Ill
Conductron Corp, Ann Arbor .... Mich
Continental Device Corp, Hawthorne .... Cal
Cunningham Son & Co Inc, James, Honeoye Falls .... N Y
Dalmo Victor, A Textron Div, Belmont .... Cal
Davidson Electronic Development Co, Erie .... Pa
Desco Mfg Co, Glendale .... Cal
Design Automation Inc, Lexington .... Mass
DeSoto Electrical Products, DeSoto .... Mo
Don Bosco Electronics Inc, Hanover .... N J
Dowa Trading Co Ltd, Kobe .... Japan
EICO Electronic Instrument Co Inc, Brooklyn .... NY
Electronic Controls Inc, Wilton .... Conn
Electronics Communications Div Atlantic Research Corp Alexandria .... Va
Electrospace Corp, Glen Cove .... N Y
Fairchild Instrumentation, Sunnyvale .... Cal
Fisher-Akin Co, Manhattan Beach .... Cal
General Electric Co, ECSO, Schenectady .... N Y
GHV Electronics, River Edge .... N J
Graham Testers Inc, Minneapolis .... Minn
Hallmark Standards Inc, Mamaroneck .... N Y
Hickok Electrical Instrument Co, Cleveland .... Ohio
Hunter Industries, Santa Fe Springs .... Cal
Ideal Industries Inc, Sycamore Ill
Instrument Labs Corp, Chicago Ill
Intronics Inc, Newton .... Mass
Knopp Inc, Oakland .... Cal
Kokuyo Electric Co Ltd, Tokyo .... Japan
Kyoritsu Electrical Instruments Works Ltd, Tokyo .... Japan
Lane Industries,Electronics Div, North Hollywood .... Cal
Lavoie Labs Div Spedcor, Morganville .... N J
LTV Electrosystems Inc, Garland Div, Dallas .... Tex
MacDonald & Co, Glendale .... Cal
Martindale Electric Co, Cleveland .... Ohio
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
MB Electronics A Textron Co, New Haven .... Conn
Measurement Technology Corp, Canoga Park .... Cal
Mercury Electronics Inc, Mineola .... N Y
Microdyne Instruments, Waltham .... Mass
Micro Instrument Co, Hawthorne .... Cal
Micro Metrics Inc, Paterson .... N J
3M Company, St Paul .... Minn
3M Instrument Products, Camarillo .... Cal
Monitor Systems Inc, Fort Washington .... Pa
Neptune Electronics Co, New York .... N Y
Northeast Electronics Corp, Concord .... N H
Optimized Devices, Inc, Pleasantville .... N Y
Performance Measurements Co, Detroit .... Mich
Philco-Ford Corp, Washington .... D C
Pipetron Co Div Western Tech Prods North Hollywood .... Cal
Redcor Corp, Canoga Park .... Cal
Rodale Electronics Inc, Garden City .... NY
Scans Associates Inc, Livonia .... Mich
Seco Electronics Corp, Hopkins .... Minn
Semiconductor Circuits, Inc, Woburn .... Mass
Signetics Corp, Sunnyvale .... Cal
Siltronics Inc, Oakmont .... Pa
Simpson Electric Co, Chicago Ill
Slaughter Co, Ardmore .... Okla
Spedcor Electronics Inc, Glendale .... N Y

Stark Electronic Instruments Ltd, Ajax .... Ont
Sticht Co Inc, Herman H, New York .... N Y
Sunshine Scientific Instruments Inc, Philadelphia .... Pa
Taffet Electronics Inc, Woodside .... N Y
Tektronix Inc, Beaverton .... Ore
Teradyne Inc, Boston .... Mass
Texas Instruments Incorporated, Dallas .... Tex
Texas Instruments Inc Indl Prods Div, Houston .... Tex
Universal Comptronics Div Microwave Corp of Amer Thornwood .... N Y
Vaco Products Co, Chicago Ill
Vari Tech Co, Grand Rapids .... Mich
Weston Instruments Div Weston Instr Inc, Newark .... N J
Wickes Industries Inc, Camden .... N J
Yokogawa Electric Works Inc, Larchmont .... N Y
Zehntel Inc, Berkeley .... Cal

TESTERS--COIL

INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON .... N Y
INTRONICS INC, NEWTON .... MASS
Allen/UTI, Kalamazoo .... Mich
Anchor Specialty Mfg Co Inc, Teterboro .... N J
Automation Services Inc, Endicott .... N Y
Avtron Mfg, Inc, Cleveland .... Ohio
Canadian Research Institute, Don Mills .... Ont
Carol Electronics Div Weeco Inc, Martinsburg .... W Va
Davidson Electronic Development Co, Erie .... Pa
Dowa Trading Co Ltd, Kobe .... Japan
EICO Electronic Instrument Co Inc, Brooklyn .... NY
Freed Transformer Co Inc, Brooklyn .... N Y
Graham Testers Inc, Minneapolis .... Minn
Industrial Test Equipment Co, Port Washington .... N Y
Intronics Inc, Newton .... Mass
J-Omega Co, Mountain View .... Cal
Kartron, Huntington Beach .... Cal
Martindale Electric Co, Cleveland .... Ohio
New Product Engineering Inc Sub Wabash Magnetics Inc Wabash .... Ind
Schauer Mfg Corp, Cincinnati .... Ohio
Simpson Electric Co, Chicago Ill
Slaughter Co, Ardmore .... Okla
Spedcor Electronics Inc, Glendale .... N Y
Stevens Mfg Co Inc, Geo, Chicago Ill
Sunshine Scientific Instruments Inc, Philadelphia .... Pa
Wabash Magnetics Inc, Wabash .... Ind

TESTERS--CRYSTAL DIODE

EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN .... MO
MASTECH INC, SYRACUSE .... N Y
NON-LINEAR SYSTEMS INC, DEL MAR .... CAL
TEKTRONIX INC, BEAVERTON .... ORE
Advanced Technology Corp, Chambersburg .... Pa
Aerotronic Associates, Inc, Contoocook .... N H
Automated Measurements Corp, Los Gatos .... Cal
Beckman Instruments Inc, Fullerton, ... Cal
Birtcher Corp Instrument Div, Monterey Park .... Cal
Burns & Towne, Inc, Malden .... Mass
Components Corp, Denville .... NJ
Continental Device Corp, Hawthorne .... Cal
Davidson Electronic Development Co, Erie .... Pa
Dowa Trading Co Ltd, Kobe .... Japan
Eagle-Picher Industries Inc, Electronics Div, Joplin .... Mo
Fairchild Instrumentation, Sunnyvale .... Cal
Harris Mfg Co Inc, Cambridge .... Mass
Instrument Research Co, Lincoln .... Mass
J-Omega Co, Mountain View .... Cal
Kokuyo Electric Co Ltd, Tokyo .... Japan
Mastech Inc, Syracuse .... N Y
Non-Linear Systems Inc, Del Mar .... Cal
Optimized Devices, Inc, Pleasantville .... N Y
Quaker Electronics, Hunlock Creek .... Pa
Rantec Div Emerson Electric Co, Calabasas .... Cal
Schauer Mfg Corp, Cincinnati .... Ohio
Scientific Instruments Co, Chatsworth .... Cal
Simpson Electric Co, Chicago Ill
Solitron Devices Inc, Tappan .... NY
Spedcor Electronics Inc, Glendale .... N Y
Tektronix Inc, Beaverton .... Ore
Teradyne Inc, Boston .... Mass
Test Equipment Corp, Dallas .... Tex
Texas Instruments Incorporated, Dallas .... Tex
Trott Electronics Inc, Rochester .... N Y
Versatek Industries Inc, Indianapolis .... Ind
Wiltron Co, Palo Alto .... Cal

TESTERS--DIGITAL MODULE

AUTOMATION DEVELOPMENT CO, CULVER CITY .... CAL
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL, ... PA
NON-LINEAR SYSTEMS INC, DEL MAR .... CAL
TEKTRONIX INC, BEAVERTON .... ORE
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON .... TEX
AAI Corp, Cockeysville .... Md
Adar Associates Inc, Somerville .... Mass
Astrodata Inc, Anaheim .... Cal
Automated Measurements Corp, Los Gatos .... Cal
Automation Development Co, Culver City .... Cal
Bendix Corp, Communications Div, Towson .... Md
Bendix Corp Navigation & Control Div, Teterboro, ... N J
Birtcher Corp Instrument Div, Monterey Park .... Cal
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill, ... Pa
Coast Coil Co Atlantic Research Corp, Los Angeles .... Cal
Conductron Corp, Ann Arbor .... Mich
Continental Device Corp, Hawthorne .... Cal
Control Logic Inc, Natick .... Mass
Davidson Electronic Development Co, Erie .... Pa
Design Automation Inc, Lexington .... Mass
Digital Equipment Corp, Maynard .... Mass

Dowa Trading Co Ltd, Kobe .... Japan
Dynatronics Oper Elctns Div Gen Dynamics Corp Orlando .... Fla
Fairchild Instrumentation, Sunnyvale .... Cal
Fisher-Akin Co, Manhattan Beach .... Cal
Gap Instrument Corp, Westbury .... N Y
Honeywell Inc, Computer Control Div Framingham .... Mass
Logic Corp, Haddonfield .... N J
Measurement Technology Corp, Canoga Park .... Cal
Metric Systems Corp, Fort Walton Beach .... Fla
Microdyne Instruments, Waltham .... Mass
Micro Instrument Co, Hawthorne .... Cal
3M Company, St Paul .... Minn
3M Instrument Products, Camarillo .... Cal
Monitor Systems Inc, Fort Washington .... Pa
Navigation Computer Corp, Norristown .... Pa
Non-Linear Systems Inc, Del Mar .... Cal
Optimized Devices, Inc, Pleasantville .... N Y
Philco-Ford Corp, Washington .... D C
Randam Electronics Inc, Cincinnati .... Ohio
R F S Engineering Co, Philadelphia .... Pa
Roback Corp, Huntingdon Valley .... Pa
Scientific Data Systems Inc, El Segundo .... Cal
Signetics Corp, Sunnyvale .... Cal
Spedcor Electronics Inc, Glendale .... N Y
Sperry Microwave Electronics Div, Clearwater .... Fla
Sunshine Scientific Instruments Inc, Philadelphia .... Pa
Tektronix Inc, Beaverton .... Ore
Teradyne Inc, Boston .... Mass
Texas Instruments Incorporated, Dallas .... Tex
Texas Instruments Inc Indl Prods Div, Houston .... Tex
Trott Electronics Inc, Rochester .... N Y
U S Microwave, Delran .... N J
Universal Comptronics Div Microwave Corp of Amer Thornwood .... N Y
Wyle Laboratories, El Segundo .... Cal
Zehntel Inc, Berkeley .... Cal

TESTERS--DISTORTION SEE ANALYZERS--DISTORTION

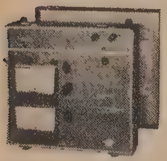
TESTERS--GYRO

NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW .... N Y
NORTH HILLS ELECTRONICS INC, GLEN COVE .... N Y
Aeroflex Labs, Inc, Plainview .... N Y
Aircraft Components Inc, Benton Harbor .... Mich
Allied Research Associates, Inc, Concord .... Mass
Anchor Specialty Mfg Co Inc, Teterboro .... N J
Aviation Electric Ltd, St Laurent, Montreal .... Que
Bendix Corp Navigation & Control Div, Teterboro, ... N J
California Instruments Corp, San Diego .... Cal
Carco Electronics, Menlo Park .... Cal
Cie De Signaux Et D'Entreprises Electriques Paris 17eme .... France
Comdel Inc, Beverly .... Mass

ASSOCIATED RESEARCH, INC.

INSULATION TESTING INSTRUMENTS

Portable DC HYPOTS® to 100 KV



Output of the several portable DC HYPOTS is continuously variable from 0 to maximum with the voltage metered directly in the output. Leakage current measurements are on four range meters reading down to as low as 0.05 microamps. Features: 2% metering accuracies, electronic circuit protection, by-pass and metered return terminals, grounded steel cases, silicon rectifiers, plug-in high voltage leads, etc.

Model	Output Voltage	Output Current	Price
5205	0-5 KV	2.0	$ 550
5212	0-10 KV	2.0	675
5220	0-20 KV	2.0	735
5271	0-50 KV	2.5	2250
5321	0-100 KV	5.0	3115

Request Portable DC HYPOT Bulletins

Insulation Resistance Testers

Ranges from 100 to 10 million megohms at test potentials to 10 KV.

The VIBROTEST megohmmeter provides a wide selection of battery and line-powered instruments for accurate insulation resistance measurements of circuits, components, cables, motors, etc. They are direct reading and push button operated requiring no cranking or leveling.

Select from 17 models ranging from pocket-size to portable 10 KV with variable voltage. Some models combine megohm with ohm and AC-DC volt scales in one instrument. Five popular models are:

Model	DC Test Voltage	Max. Megohms	Features	Price
2000	500	100	Pocket-size	$ 95
201	500	200	Includes 2K ohm and six AC-DC volt scales	148
211	1000	2000	200 K ohm range	255
2850	500/50	10 Million	Constant test voltage through 6 decades	295
2955	0-2,500	50,000	Adjustable test voltage	890

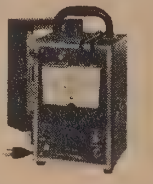
Request VIBROTEST Megohmmeter Bulletins by model number.

Testing Manual Available

This 60 page collection of Bulletins covers specs, prices and applications of insulation resistance testers, AC HYPOT Juniors, portable and mobile DC test sets, corona and materials test equipment, kilovoltmeters, precision ohmmeter, current transformers, phase sequence indicators.

Request Manual 2900 on company letterhead

A-C HYPOT Jrs... to 10 KV, limited current



Portable a-c dielectric strength testers providing outputs continuously variable from 0-1500 V up to 10,000 V a-c. Use of neon breakdown and leakage current indicators in conjunction with collapsing field-type high voltage transformers assures rapid and safe production testing.

The leakage current indicator is adjustable from 0.3 to 3 ma. A 4½" kilovoltmeter provides high accuracy. Short-circuit current cannot exceed 18 ma.

Three popular models are:

Model	Output Voltage	Price
411	0-2,500	$155
404	0-4,000	170
422	0-10,000	245

HYPOT Jr. Automatic "Squawker" Models

Available with output voltages from 0-1500 volts to 0-6000 volts a-c. Similar to the standard HYPOT Jr. models but include an audible signal unit and external control terminals.

DC and Combined AC/DC HYPOT Jrs.

offer same features as described above, plus test potentials to 5 KV.

Request AC & DC HYPOT Jr. Bulletins.

Insulating Materials Testers

A full range of testers for solid and liquid insulating materials to 100 KV and higher is available. Due to the rapid progress of insulating materials and testing techniques, new equipment is added whenever required to meet ASTM, MIL and Federal test specifications.

Model 4501 Materials Testing HYPOT 0-35 KV at 2 KVA

This popular model meets dielectric strength testing requirements of Specification D-149, ASTM Standards on Electrical Insulation Materials. Output continuously variable from 0-35 KV a-c at 2 KVA (intermittent rating). Magnetic breaker trips when specimen breaks down. Output termination in jacks at center of the lucite cabinet top accepts the interchangeable ARI materials testing fixtures. Optional features: interlocked clear lucite test cage and selection of ARI plug-in materials testing fixtures, automatic rate of rise, dual sensitivity circuit breaker, etc.

Request Insulation Materials Tester Bulletin

High Voltage Test Equipment to 500 KV AC and 1,000 KV DC

A full range of instruments for extra high voltage dielectric strength testing. AC or DC potentials at capacities of up to 150 KVA or more. Control and measurement features include: automatic rate of voltage rise, memory circuit to record breakdown voltage, output current metering, separate low voltage control and high voltage test cabinets and many others.

AR has over 30 years experience in the design and manufacture of heavy duty very high voltage test equipment. All instruments are ruggedly constructed and fully tested in our own high voltage laboratory.

Corona Testing Equipment

New instruments detect, display and measure corona caused by voids, surface or other conditions in insulation sample or equipment under test.

Instruments include: specially constructed corona-free HYPOT test set, a pickup network to extract the true corona signal and the corona detection display module. The detector also incorporates a calibrator to make quantitative corona measurements down to 0.1 picocoulombs.

These modules are available as individual units or as a complete integrated instrument. Standard models with test potentials of 10 to 100 KV AC include these two popular models:

Model	Output KV	KVA Capacity	Cabinet Style	Price
4074	10	0.25	Bench	$2250
4309	35	1.0	Console	3950

Request Bulletin 4-1.9.

Mobile HYPOTS . . . to 150 KV DC

Heavy-duty mobile test sets for determining insulation leakage and dielectric strength of cables, bushings, switchgear, transformers, motors and generators.

Outputs continuously variable from 0 to 45 KV and on up to 150 KV, with ratings of 2.5, 5, 10 ma. at full voltage.

Features include: 4½" kilovoltmeter connected directly across the high voltage output; three-range 4½" microammeter electronically protected against overload; zero return interlock; connector for remote safety interlock; fast-acting magnetic circuit breaker in output to protect high voltage circuits and external load; thermal overload breaker to protect input circuits; long-life silicon high voltage rectifiers; metered return and bypass return terminals for measurement of load (leakage) or bypass (guard) currents.

Request Mobile DC HYPOT Bulletin 5-1.12

ASSOCIATED RESEARCH, INC.

3788 W. BELMONT AVE., CHICAGO, ILL. 60618 • (312) 267-4040

Dowa Trading Co Ltd, Kobe	Japan
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Genisco Technology Corp, Compton	Cal
Goerz Optical Co Inc, Inwood	N Y
Gyrotron Corp, Waterbury	Conn
Ideal Aerosmith, Cheyenne	Wyo
Inland Controls Inc Sub Kollmorgen Corp Brighton	Mass
Kahl Scientific Instrument Corp, El Cajon	Cal
Larson Aero Development, Concord	Cal
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Litton Systems (Canada) Ltd, Rexdale	Ont
McFadden Electronics Co, South Gate	Cal
Micro Metrics Inc, Paterson	N J
North Atlantic Industries Inc, Plainview	N Y
North Hills Electronics Inc, Glen Cove	N Y
Northrop Nortronics, Palos Verdes Peninsula	Cal
Nortronics Div, Northrop Corp, Prec Prods Dept Norwood	Mass
Razdow Labs Inc, Newark	N J
Reeves Instrument Div, DCA, Garden City	N Y
Theta Instrument Corp, Fairfield	N J
Winslow Tele-Tronics Inc, Asbury Park	NJ

TESTERS--HEARING SEE AUDIOMETERS

TESTERS--INSULATION

ASSOCIATED RESEARCH, INC, CHICAGO, ILL	**ADV PG 702**
GAR ENTERPRISES INC, PASADENA	**CAL**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON N Y	**ADV PG 495**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
OPAD ELECTRIC CO, INC, NEW YORK	**N Y**
SPELLMAN HIGH VOLTAGE ELECTRONICS CORP, BRONX	**N Y**
Advanced Technology & Systems Corp Old Greenwich	Conn
Aircraft Components Inc, Benton Harbor	Mich
Airmec Instruments Ltd, Buckinghamshire	England
Amstro Corp, Fairfield	N J
Anchor Specialty Mfg Co Inc, Teterboro	N J
Ardel Corp, Glendale	Cal
Associated Research, Inc, Chicago	Ill
Automation Dynamics Corp, Northvale	N J
Avtron Mfg, Inc, Cleveland	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Beckman Instruments Intl SA, 1207 Geneva	Switzerland
Bendix Corp Navigation & Control Div, Teterboro	N J
Biddle Co, James G, Plymouth Meeting	Pa
Campbell/Taylor Inc, Salem	Mass
Canadian Research Institute, Don Mills	Ont
Clinton Instrument Co, Clinton	Conn
Compagnie Generale de Metrologie Haute Savoie	France
Connolly & Co Inc, Mountain View	Cal
Continental Device Corp, Hawthorne	Cal
Cunningham Son & Co Inc, James, Honeoye Falls	N Y
Custom Scientific Instruments Inc, Whippany	N J
Davidson Electronic Development Co, Erie	Pa
Del Electronics Corp, Mt Vernon	N Y
Dowa Trading Co Ltd, Kobe	Japan
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Brazing Co, Montclair	N J
Electrospace Corp, Glen Cove	N Y
Electro Technic Products, Chicágo	Ill
Formulabs Industrial Inks Inc, Escondido	Cal
Freed Transformer Co Inc, Brooklyn	N Y
Fuji Electric Co Ltd, Tokyo	Japan
Gar Enterprises Inc, Pasadena	Cal
General Electric Co, ECSO, Schenectady	N Y
General Radio Co, West Concord	Mass
Grand Transformers Inc, Grand Haven	Mich
Hallmark Standards Inc, Mamaroneck	N Y
Hammarlund Mfg Co Data Communications Div Amityville	N Y
Hill Research Co, Oakland	Cal
Hipotronics Inc, Brewster	N Y
Industrial Test Equipment Co, Port Washington	N Y
Industrial Transformer Corp, Gouldsboro	Pa
Industrial Winding Machinery Corp, River Edge	N J
Janco Corp, Burbank	Cal
Kilovolt Corp, Hackensack	N J
Kokuyo Electric Co Ltd, Tokyo	Japan
Lear Siegler Inc, Cimron Div, San Diego	Cal
Martindale Electric Co, Cleveland	Ohio
Measuring Instrument Controls Inc Berkeley Heights	N J
Metermaster, Inc, Los Angeles	Cal
Micro Instrument Co, Hawthorne	Cal
Micro Metrics Inc, Paterson	N J
3M Company, St Paul	Minn
Muirhead Instruments Inc, Mountainside	N J
Nichols Co Ltd, R H, Downsview	Ont
North Hills Electronics Inc, Glen Cove	N Y
Opad Electric Co, Inc, New York	N Y
Peschel Instruments Inc, Cape Coral	Fla
Pipetron Co Div Western Tech Prods North Hollywood	Cal
Q V S Inc, East Orange	N J
Reaction Research Labs of America, Groton	Conn
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Sanwa Electric Instrument Co, Ltd, Tokyo	Japan
Scientific Electric Inc, Garfield	N J
Sentron Inc, Danbury	Conn
Simpson Electric Co, Chicago	Ill
Slaughter Co, Ardmore	Okla
Spedcor Electronics Inc, Glendale	N Y
Spellman High Voltage Electronics Corp, Bronx	N Y
Stark Electronic Instruments Ltd, Ajax	Ont
Sticht Co Inc, Herman H, New York	N Y
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Tac Technical Instrument Corp, Trenton	N J
Takk Corp, Newark	Ohio
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Wickes Industries Inc, Camden	N J
Winslow Tele-Tronics Inc, Asbury Park	NJ
Yokogawa Electric Works Inc, Larchmont	N Y

TESTERS--INTEGRATED CIRCUIT

NON-LINEAR SYSTEMS INC, DEL MAR	**CAL**
TEKTRONIX INC, BEAVERTON	**ORE**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
Birtcher Corp, Industrial Div, Monterey Park	Cal
Fairchild Instrumentation, Sunnyvale	Cal
Miracle-Hill Electronics, Santa Clara	Cal
Non-Linear Systems Inc, Del Mar	Cal
Tektronix Inc, Beaverton	Ore
Texas Instruments Incorporated, Dallas	Tex
Texas Instruments Inc Indl Prods Div, Houston	Tex

TESTERS--LEAK SEE DETECTORS--LEAK

TESTERS--METER SEE CALIBRATORS--METER

TESTERS--MULTI-FUNCTION SEE VOLT-OHM-MILLIAMMETERS

TESTERS--POTENTIOMETER LINEARITY

ASSOCIATED RESEARCH, INC, CHICAGO	**ILL**
COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
NON-LINEAR SYSTEMS INC, DEL MAR	**CAL**
Associated Research, Inc, Chicago	Ill
Computer Instruments Corp, Hempstead	N Y
Custom Scientific Instruments Inc, Whippany	N J
Doric Scientific Corp, San Diego	Calif
Dowa Trading Co Ltd, Kobe	Japan
Dytro Corp, Hicksville	NY
Electro-Mec Instrument Corp, Watertown	Conn
Electro Scientific Industries Inc, Portland	Ore
Fairchild Controls, Hicksville	N Y
Ferranti, Ltd, Lancashire	England
Genisco Technology Corp, Compton	Cal
Hallmark Standards Inc, Mamaroneck	N Y
Howell Instruments Co, Fort Worth	Tex
Julie Research Labs, Inc, New York	N Y
Lear Siegler Inc, Cimron Div, San Diego	Cal
Micro Metrics Inc, Paterson	N J
Non-Linear Systems Inc, Del Mar	Cal
Technical Products Co of L A, Los Angeles	Cal
Yokogawa Electric Works Inc, Larchmont	N Y

TESTERS--PRINTED-CIRCUIT ASSEMBLIES

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
NON-LINEAR SYSTEMS INC, DEL MAR	**CAL**
TEKTRONIX INC, BEAVERTON	**ORE**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
AAI Corp, Cockeysville	Md
Advanced Technology & Systems Corp Old Greenwich	Conn
Allen/UTI, Kalamazoo	Mich
Astrodata Inc, Anaheim	Cal
Automated Measurements Corp, Los Gatos	Cal
Automation Dynamics Corp, Northvale	N J
Avtron Mfg, Inc, Cleveland	Ohio
Birtcher Corp Instrument Div, Monterey Park	Cal
Borders Electronics Co Inc, Pennsauken	N J
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Canadian Research Institute, Don Mills	Ont
Coast Electronics Inc, Manhattan Beach	Cal
Conductron Corp, Ann Arbor	Mich
Continental Device Corp, Hawthorne	Cal
Control Logic Inc, Natick	Mass
Cunningham Son & Co Inc, James, Honeoye Falls	N Y
Davidson Electronic Development Co, Erie	Pa
Dowa Trading Co Ltd, Kobe	Japan
Fairchild Instrumentation, Sunnyvale	Cal
Ferranti, Ltd, Lancashire	England
Fisher-Akin Co, Manhattan Beach	Cal
General Electric Co, ECSO, Schenectady	N Y
Kahn & Co Inc, Wethersfield	Conn
Kyoritsu Electrical Instruments Works Ltd, Tokyo	Japan
Lavoie Labs Div Spedcor, Morganville	N J
McKee Automation Corp Sub James Cunningham Inc San Fernando	Cal
Micro Instrument Co, Hawthorne	Cal
Micro Metrics Inc, Paterson	N J
3M Company, St Paul	Minn
3M Instrument Products, Camarillo	Cal
Motor Control Corp Sub Zenrad Computer Corp, Huntington	NY
Nichols Co Ltd, R H, Downsview	Ont
Non-Linear Systems Inc, Del Mar	Cal
Ostby & Barton Co, Providence	R I
Performance Measurements Co, Detroit	Mich
Randam Electronics Inc, Cincinnati	Ohio
Raven Industries Inc, Sioux Falls	SD
Ren Electronics Corp, South Hadley Falls	Mass
R F S Engineering Co, Philadelphia	Pa
Rodale Electronics Inc, Garden City	NY
Siemens America Inc, New York	N Y
Signetics Corp, Sunnyvale	Cal
Simpson Electric Co, Chicago	Ill
Slaughter Co, Ardmore	Okla
Spedcor Electronics Inc, Glendale	N Y
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Tektronix Inc, Beaverton	Ore
Teradyne Inc, Boston	Mass
Test Equipment Corp, Dallas	Tex
Texas Instruments Incorporated, Dallas	Tex
Texas Instruments Inc Indl Prods Div, Houston	Tex
Trott Electronics Inc, Rochester	N Y
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y

TESTERS--RELAY

ASSOCIATED RESEARCH, INC, CHICAGO	**ILL**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
Acme Products Co, Kensington	Conn
Advanced Technology & Systems Corp Old Greenwich	Conn
Aerospace Avionics Inc, Bohemia	NY
Allied Control Co Inc, New York	N Y
American Systems, Inc, Van Nuys	Cal
Anchor Specialty Mfg Co Inc, Teterboro	N J
Associated Research, Inc, Chicago	Ill
Avtron Mfg, Inc, Cleveland	Ohio
Beckwith Electric Co Inc, Mt Prospect	Ill
Booth Co, Arthur E, Los Angeles	Cal
Canadian Research Institute, Don Mills	Ont
Cardinal Control Co Inc, Kensington	Conn
Clinton Instrument Co, Clinton	Conn
Continental Device Corp, Hawthorne	Cal
Crest Mfg Co, East Berlin	Conn
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Custom Control Mfg Inc, Merriam	Kan
Digitech Inc, Ridgefield	Conn
Dowa Trading Co Ltd, Kobe	Japan
Eastern Specialty Co, Philadelphia	Pa
Electronic Controls Inc, Wilton	Conn
Electronic Counters Inc, Englewood	N J
Electronic Engineering Co of Cal, Santa Ana	Cal
Electronics Communications Div Atlantic Research Corp Alexandria	Va
Fairchild Instrumentation, Sunnyvale	Cal
Fisher-Akin Co, Manhattan Beach	Cal
Fleetwood Labs Inc, New Rochelle	N Y
Fuji Electric Co Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
Hathaway Instruments Inc, Denver	Colo
Hi-G Inc, Windsor Locks	Conn
Hycon, Monrovia	Cal
Instrumentation & Control Systems Inc, Addison	Ill
Jonard Industries Corp, Bronx	N Y
Kokuyo Electric Co Ltd, Tókyo	Japan
Lab Electro-Acoustique, 92 Rueil-Malmaison	France
Micro Metrics Inc, Paterson	N J
Northeast Electronics Corp, Concord	N H
Optimized Devices, Inc, Pleasantville	N Y
Photologic Co, Orange	Cal
Robertson Instrument Co, Azusa	Cal
Rodale Electronics Inc, Garden City	NY
Siemens America Inc, New York	N Y
Sigma Instruments Inc, Braintree	Mass
Simpson Electric Co, Chicago	Ill
Slaughter Co, Ardmore	Okla
Sparton Corp, Jackson	Mich
Teradyne Inc, Boston	Mass
Towaco Electronics, Towaco	N J
United Mfg Div, UMC Electronics Co North Haven	Conn
United Standard Industries Inc, Glenview	Ill
Wickes Industries Inc, Camden	N J

TESTERS--SEMICONDUCTOR

BARNES CORP, LANSDOWNE	**PA**
HEATH CO, BENTON HARBOR	**MICH**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
MASTECH INC, SYRACUSE, N Y	**ADV PG 705**
NON-LINEAR SYSTEMS INC, DEL MAR	**CAL**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
TEKTRONIX INC, BEAVERTON	**ORE**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
AAI Corp, Cockeysville	Md
Advanced Technology Corp, Chambersburg	Pa
Advanced Technology & Systems Corp Old Greenwich	Conn
Aerotronic Associates, Inc, Contoocook	N H
American Electronic Labs Inc, Lansdale	Pa
Ando Electric Co Ltd, Ohta-ku, Tokyo	Japan
Automated Measurements Corp, Los Gatos	Cal
Barnes Corp, Lansdowne	Pa
Beckman Instruments Inc, Fullerton,	Cal
Birtcher Corp Instrument Div, Monterey Park	Cal
B & K Mfg Co Div Dynascan Corp, Chicago	Ill
B & T Systems Div, Haverhill	Mass
Burns & Towne, Inc, Malden	Mass
Canadian Research Institute, Don Mills	Ont

Compagnie Generale de Metrologie Haute Savoie	France
Computer Test Corp, Cherry Hill	N J
Continental Device Corp, Hawthorne	Cal
Custom Scientific Instruments Inc, Whippany	N J
Dahlberg Electronics Inc, Minneapolis	Minn
Doric Scientific Corp, San Diego	Calif
Dowa Trading Co Ltd, Kobe	Japan
E-H Research Labs Inc, Oakland	Cal
Elmat Div Semimetals Inc, Mountain View	Cal
Fairchild Instrumentation, Sunnyvale	Cal
GHV Electronics, River Edge	N J
Harris Mfg Co Inc, Cambridge	Mass
Heath Co, Benton Harbor	Mich
Hickok Electrical Instrument Co, Cleveland	Ohio
Hughes Aircraft Co, Newport Beach	Cal
International Data Systems Inc, Dallas	Tex
International Energy Conversion Inc, Garland	Tex
International Equipment Co, Needham Heights	Mass
Kokusai Electric Co Ltd, Tokyo	Japan
Kokuyo Electric Co Ltd, Tokyo	Japan
Lucci & Co, Sarasota	Fla
Marin Controls Co, Belmont	Cal
Mastech Inc, Syracuse	N Y
Microdyne Instruments, Waltham	Mass
Micro Instrument Co, Hawthorne	Cal
Micro Ohm Corp, El Monte	Cal
Micro Tech Mfg Inc, Worcester	Mass
3M Instrument Products, Camarillo	Cal
Monitor Systems Inc, Fort Washington	Pa
NanoFast, Inc, Chicago	Ill
Non-Linear Systems Inc, Del Mar	Cal
North Hills Electronics Inc, Glen Cove	N Y
Ohio Semitronics Inc, Columbus	Ohio
Optimized Devices, Inc, Pleasantville	N Y
Philco-Ford Corp, Washington	D C
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Quan-Tech Labs Inc, Whippany	N J
Rantec Div Emerson Electric Co, Calabasas	Cal
RCK, Inc, Sunnyvale	Cal
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Roveti Instruments, Annapolis	Md
Sanwa Electric Instrument Co, Ltd, Tokyo	Japan
Seco Electronics Corp, Hopkins	Minn
Self-Organizing Systems Inc, Dallas	Tex
Semiconductor Circuits, Inc, Woburn	Mass
Sencore Inc, Addison	Ill
Sensory Systems, Costa Mesa	Cal
Signetics Corp, Sunnyvale	Cal
Solitron Devices Inc, Tappan	NY
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Tektronix Inc, Beaverton	Ore
Teradyne Inc, Boston	Mass
Texas Instruments Incorporated, Dallas	Tex
Texas Instruments Inc Indl Prods Div, Houston	Tex
Trio-Tech Inc of California, Burbank	Cal
Trott Electronics Inc, Rochester	N Y
U S Microwave, Delran	N J
Vestal Modern Design Corp, Vestal	N Y
Wiltron Co, Palo Alto	Cal
Workman Electronic Products Inc, Sarasota	Fla

TESTERS--SERVO

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL	**PA**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW	**N Y**
Advance Instrument Corp, Belmar	N J
Aeroflex Labs, Inc, Plainview	N Y
Aetna Electronics Corp, North Branch	N J
Astrosystems Inc, New Hyde Park	N Y
Automation Development Co, Culver City	Cal
Aviation Electric Ltd, St Laurent, Montreal	Que
Bendix Corp Navigation & Control Div, Teterboro,	N J
Carbonara Instrument Engrg Labs, Victor E, Port Washington	N Y
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
Compudyne Corp, Hatboro	Pa
Consolidated Airborne Systems, Carle Place	N Y
Control Technology Co Inc, Long Island City	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dowa Trading Co Ltd, Kobe	Japan
EMR-Hatboro Div Weston Insts Inc, Hatboro	Pa
Gap Instrument Corp, Westbury	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Industrial Control Co, Farmingdale	N Y
Industrial Measurements Corp, Pomona	Cal
Julie Research Labs, Inc, New York	N Y
Kollsman Instrument Ltd, Southampton	England
Ling Electronics Div LTV Altec Inc, Anaheim	Cal
Luft Instruments Inc, Lincoln	Mass
McFadden Electronics Co, South Gate	Cal
Micro Metrics Inc, Paterson	N J
Muirhead Instruments Inc, Mountainside	N J
North Atlantic Industries Inc, Plainview	N Y
Razdow Labs Inc, Newark	N J
Reeves Instrument Div, DCA, Garden City	N Y
Sanders Associates, Inc, Nashua	N H
Servomex Controls Ltd, Sussex	England
Singer Co, Metrics Div, Gertsch Dept, Los Angeles	Cal
Superior Mfg & Instrument Co, Long Island City	N Y
Theta Instrument Corp, Fairfield	N J

TESTERS--SIGNAL-TRACING

HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
B & K Mfg Co Div Dynascan Corp, Chicago	Ill
Components Specialties Inc, Freeport	N Y
Don Bosco Electronics Inc, Hanover	N J
Dowa Trading Co Ltd, Kobe	Japan
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Measurements Corp, New York	N Y
Fairchild Instrumentation, Sunnyvale	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Stark Electronic Instruments Ltd, Ajax	Ont
Workman Electronic Products Inc, Sarasota	Fla

TESTERS--SYNCHRO ERROR

CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL	**PA**
LINAIR DESIGN CORP, LINDEN	**N J**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW	**N Y**
SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
Advance Instrument Corp, Belmar	N J
Astrosystems Inc, New Hyde Park	N Y
Bendix Corp Navigation & Control Div, Teterboro,	N J
Carbonara Instrument Engrg Labs, Victor E, Port Washington	N Y
Chrysler Corp, Missile Div, Detroit	Mich
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill,	Pa
Consolidated Airborne Systems, Carle Place	N Y
Dowa Trading Co Ltd, Kobe	Japan
Gap Instrument Corp, Westbury	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Industrial Control Co, Farmingdale	N Y
Kollsman Instrument Ltd, Southampton	England
Linair Design Corp, Linden	N J
Micro Metrics Inc, Paterson	N J
Muirhead Instruments Inc, Mountainside	N J
North Atlantic Industries Inc, Plainview	N Y
Northridge Engineering Co Div Republic Corp Northridge	Cal
Razdow Labs Inc, Newark	N J
Reeves Instrument Div, DCA, Garden City	N Y
Scientific-Atlanta Inc, Atlanta	Ga
Singer Co, Metrics Div, Gertsch Dept, Los Angeles	Cal
Superior Mfg & Instrument Co, Long Island City	N Y
Theta Instrument Corp, Fairfield	N J
Voltron Products Inc, Pasadena	Cal

TESTERS--TAPE-PROGRAMMED

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
INDUSTRIAL TIMER CORP, PARSIPPANY	**N J**
NON-LINEAR SYSTEMS INC, DEL MAR	**CAL**
TEKTRONIX INC, BEAVERTON	**ORE**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
AAI Corp, Cockeysville	Md
Adar Associates Inc, Somerville	Mass
A D Data Systems Inc, Rochester	N Y
Automated Measurements Corp, Los Gatos	Cal
Automation Dynamics Corp, Northvale	N J
Bendix Corp Navigation & Control Div, Teterboro,	N J
Computer Test Corp, Cherry Hill	N J
Conductron Corp, Ann Arbor	Mich
Connecticut Technical Corp, Hartford	Conn
Continental Device Corp, Hawthorne	Cal
Control Logic Inc, Natick	Mass
Cunningham Son & Co Inc, James, Honeoye Falls	N Y
Dalmo Victor, A Textron Div, Belmont	Cal
Data Automation Inc, Elk Grove	Ill
Davidson Electronic Development Co, Erie	Pa
Dowa Trading Co Ltd, Kobe	Japan
E D P Corp, Orlando	Fla
Electronic Controls Inc, Wilton	Conn
Fairchild Instrumentation, Sunnyvale	Cal
General Electric Co, ECSO, Schenectady	N Y
General Kinetics Inc, Reston	Va
Goodyear Aerospace Corp, Akron	Ohio
Hartman Systems Co Inc, Huntington Station	N Y
Industrial Timer Corp, Parsippany	N J
Julie Research Labs, Inc, New York	N Y
Lavoie Labs Div Spedcor, Morganville	N J
Litton Systems (Canada) Ltd, Rexdale	Ont
Logic Corp, Haddonfield	N J
McKee Automation Corp Sub James Cunningham Inc San Fernando	Cal
Measurement Technology Corp, Canoga Park	Cal
Microdyne Instruments, Waltham	Mass
Micro Metrics Inc, Paterson	N J
3M Company, St Paul	Minn
3M Instrument Products, Camarillo	Cal
Non-Linear Systems Inc, Del Mar	Cal
Northrop Nortronics, Palos Verdes Peninsula	Cal
Optimized Devices, Inc, Pleasantville	N Y
Optomechanisms Inc, Plainview	N Y
Rodale Electronics Inc, Garden City	NY
Spedcor Electronics Inc, Glendale	N Y
Sperry Microwave Electronics Div, Clearwater	Fla
Tektronix Inc, Beaverton	Ore
Teradyne Inc, Boston	Mass
Test Equipment Corp, Dallas	Tex
Texas Instruments Inc Indl Prods Div, Houston	Tex
Zehntel Inc, Berkeley	Cal

TESTERS--TORQUE

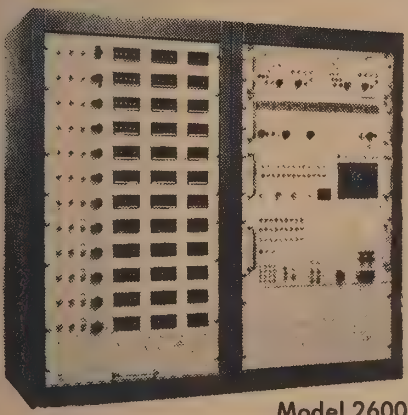
Anchor Specialty Mfg Co Inc, Teterboro	N J
Bendix Corp Fluid Power Div, Utica	N Y
Bergen Lab, Inc, Paterson	N J
B & F Instruments, Inc, Cornwells Heights	Pa
Chatillon & Sons, John, Kew Gardens	N Y
Consolidated Airborne Systems, Carle Place	N Y
Doric Scientific Corp, San Diego	Calif
Dowa Trading Co Ltd, Kobe	Japan
Dynamics Research Corp, Stoneham	Mass
General Thermodynamics Corp, North Wilmington	Mass
Himmelstein & Co, S, Elk Grove Village	Ill
Industrial Electronetics Corp, Satellite Beach	Fla
Jo-Line Tools Inc, South Gate	Cal
Kahn & Co Inc, Wethersfield	Conn
Martin-Decker Corp, Santa Ana	Cal
McFadden Electronics Co, South Gate	Cal
MPB Corp, Keene	N H
Performance Measurements Co, Detroit	Mich
Power Instruments Inc, Skokie	Ill
Sturtevant Co, P A, Addison	Ill
Sweeney Mfg Co, B K, Denver	Colo
Torque Tronics, San Gabriel	Cal
Waters Mfg Inc, Wayland	Mass
West Coast Research Corp, Los Angeles	Cal

TESTERS--TRANSISTOR

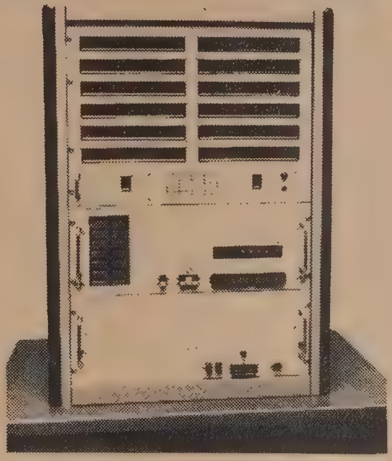
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HEATH CO, BENTON HARBOR	**MICH**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
MASTECH INC, SYRACUSE, N Y	**ADV PG 705**
NON-LINEAR SYSTEMS INC, DEL MAR	**CAL**
TEKTRONIX INC, BEAVERTON	**ORE**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
Abbey Electronics Corp, Westbury	NY
A D Data Systems Inc, Rochester	N Y
Aerotronic Associates, Inc, Contoocook	N H
American Electronic Labs Inc, Lansdale	Pa
Ando Electric Co Ltd, Ohta-ku, Tokyo	Japan
Applied Electronics Corp of N J, Metuchen	N J
Automated Measurements Corp, Los Gatos	Cal
Baird-Atomic, Inc, Cambridge	Mass
Beckman Instruments Inc, Fullerton,	Cal
Birtcher Corp Instrument Div, Monterey Park	Cal
B & K Mfg Co Div Dynascan Corp, Chicago	Ill
B & T Systems Div, Haverhill	Mass
Burns & Towne, Inc, Malden	Mass
Canadian Research Institute, Don Mills	Ont
Compagnie Generale de Metrologie Haute Savoie	France
Components Corp, Denville	NJ
Components Specialties Inc, Freeport	N Y
Continental Device Corp, Hawthorne	Cal
Custom Scientific Instruments Inc, Whippany	N J
Dahlberg Electronics Inc, Minneapolis	Minn
Davidson Electronic Development Co, Erie	Pa
Desco Mfg Co, Glendale	Cal
Doric Scientific Corp, San Diego	Calif
Dowa Trading Co Ltd, Kobe	Japan
E-H Research Labs Inc, Oakland	Cal
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Mfg & Engineering Corp, Tulsa	Okla
Electronic Measurements Corp, New York	N Y
Electronic Research Associates Inc, Cedar Grove	N J
Evans Equipment Co, Brookfield	Conn
Fairchild Instrumentation, Sunnyvale	Cal
General Electric Co, ECSO, Schenectady	N Y
GHV Electronics, River Edge	N J
Gralex Industries Inc, Copiague	N Y
Heath Co, Benton Harbor	Mich
Hickok Electrical Instrument Co, Cleveland	Ohio
International Data Systems Inc, Dallas	Tex
International Energy Conversion Inc, Garland	Tex
International Tel & Tel Corp Industrial Prods Div San Fernando	Cal
Kokusai Electric Co Ltd, Tokyo	Japan
Kokuyo Electric Co Ltd, Tokyo	Japan
Lafayette Radio Electronics, Syosset	NY
Lectrotech Inc, Chicago	Ill
Logic Corp, Haddonfield	N J
Mastech Inc, Syracuse	N Y
Measurements A McGraw-Edison Div, Boonton	N J
Metermaster, Inc, Los Angeles	Cal
Microdyne Instruments, Waltham	Mass
Micro Instrument Co, Hawthorne	Cal
Micro Tech Mfg Inc, Worcester	Mass
Monroe Electronics Inc, Middleport	N Y
Nichols Co Ltd, R H, Downsview	Ont
Non-Linear Systems Inc, Del Mar	Cal
Optimized Devices, Inc, Pleasantville	N Y
Philco-Ford Corp, Washington	D C
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Quan-Tech Labs Inc, Whippany	N J
Rantec Div Emerson Electric Co, Calabasas	Cal
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Roveti Instruments, Annapolis	Md
Seco Electronics Corp, Hopkins	Minn
Semiconductor Circuits, Inc, Woburn	Mass
Sencore Inc, Addison	Ill
Sensory Systems, Costa Mesa	Cal
Siliconix Inc, Sunnyvale	Cal
Simpson Electric Co, Chicago	Ill
Spedcor Electronics Inc, Glendale	N Y
Stark Electronic Instruments Ltd, Ajax	Ont
Tektronix Inc, Beaverton	Ore
Teradyne Inc, Boston	Mass
Test Equipment Corp, Dallas	Tex
Texas Instruments Incorporated, Dallas	Tex
Texas Instruments Inc Indl Prods Div, Houston	Tex
Trio-Tech Inc of California, Burbank	Cal
Triplett Electrical Instrument Co, Bluffton	Ohio
Trott Electronics Inc, Rochester	N Y
U S Microwave, Delran	N J
Wiltron Co, Palo Alto	Cal
Workman Electronic Products Inc, Sarasota	Fla

MASTECH, INC.

Semiconductor Test Equipment



Model 2600



Model 2610

MASTECH manufactures semiconductor test systems for use in incoming test, quality control and manufacturing lines.

Our high speed automatic go no-go type systems such as the Model 2600 are designed for use with mechanical loaders and segregators on transistor and diode production lines, including pellet check areas. Model 2600 employs a digital switch programmer, but other type programmers such as punched card readers and core memory devices can be used. All of the contact closures necessary for operation of the handling equipment are provided in the system, including the contacts for automatic bin selection. Type classification and priority selection is accomplished by insertion of pins into a diode pin matrix board.

Similar systems such as the Model 2610 which feature a direct digital readout mode of operation have been designed for incoming test and quality control areas. These systems have the same programming means and high speed go no-go capabilities as the Model 2600 but in addition can be cycled on command to the go no-go balance point. At this point a direct digital display of the transistor or diode characteristic is presented.

All of these systems can be supplied with six, twelve or twenty-four test capability. Tests can be made in any desired combination or sequence and include hFE, breakdown or peak inverse voltage, sustaining voltage, leakage current, saturation or forward voltage drop and small signal beta. Other special sets designed to test PNPN devices, SCR's, and UJT transistors are available.

Technical bulletins along with price and delivery information are available on request.

MASTECH, INC.
PICKARD BUILDING • EAST MOLLOY ROAD
P.O. BOX 178 • SYRACUSE, NEW YORK 13211
PHONE 315 — 455-6662

TESTERS, TUBE--MICROWAVE TUBE (INCL KLYSTRON)

NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
WHITTAKER CORP GEN COM DIV, PLAINVIEW ... N Y
Alto Scientific Co, Inc, Palo Alto ... Cal
Cober Electronics Inc, Stamford ... Conn
Dowa Trading Co Ltd, Kobe ... Japan
Griffiths Electronics Inc, Linden ... N J
J-Omega Co, Mountain View ... Cal
Kilovolt Corp, Hackensack ... N J
Mercury Electronics Inc, Mineola ... N Y
Nippon Electric Co Ltd, Tokyo ... Japan
Raytheon Co, Microwave & Power Tube Div
  Waltham ... Mass
Triplett Electrical Instrument Co, Bluffton ... Ohio
Whittaker Corp Gen Com Div, Plainview ... N Y
Wiltron Co, Palo Alto ... Cal

TESTERS, TUBE--SELF-SERVICE

HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND ... OHIO
Compagnie Generale de Metrologie
  Haute Savoie ... France
Dowa Trading Co Ltd, Kobe ... Japan
Fedtro Inc, Rockville Centre ... N Y
Hickok Electrical Instrument Co, Cleveland ... Ohio
Kyoritsu Electrical Instruments Works Ltd, Tokyo ... Japan
Mercury Electronics Inc, Mineola ... N Y
RIL Electronics Inc, Southampton ... Pa
Seco Electronics Corp, Hopkins ... Minn
Sencore Inc, Addison ... Ill
Sunshine Scientific Instruments Inc, Philadelphia ... Pa

TESTERS, TUBE--THYRATRON

HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND ... OHIO
B & K Mfg Co Div Dynascan Corp, Chicago ... Ill
Canadian Research Institute, Don Mills ... Ont
Cober Electronics Inc, Stamford ... Conn
Dowa Trading Co Ltd, Kobe ... Japan
Hickok Electrical Instrument Co, Cleveland ... Ohio
International Data Systems Inc, Dallas ... Tex
Kilovolt Corp, Hackensack ... N J
Kokuyo Electric Co Ltd, Tokyo ... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland

TESTERS--VACUUM TUBE

HEATH CO, BENTON HARBOR ... MICH
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND ... OHIO
American Electronic Controls Inc, Philadelphia ... Pa
B & K Mfg Co Div Dynascan Corp, Chicago ... Ill
Canadian Research Institute, Don Mills ... Ont
Cober Electronics Inc, Stamford ... Conn
Compagnie Generale de Metrologie
  Haute Savoie ... France
Controlomag Labs, Roslyn ... Pa
Dowa Trading Co Ltd, Kobe ... Japan
EICO Electronic Instrument Co Inc, Brooklyn ... NY
Electronic Measurements Corp, New York ... N Y
Forway Industries Inc, Woodbury ... N J
Griffiths Electronics Inc, Linden ... N J
Heath Co, Benton Harbor ... Mich
Hickok Electrical Instrument Co, Cleveland ... Ohio
Kilovolt Corp, Hackensack ... N J
Kokuyo Electric Co Ltd, Tokyo ... Japan
Kyoritsu Electrical Instruments Works Ltd, Tokyo ... Japan
Lafayette Radio Electronics, Syosset ... NY
Lectrotech Inc, Chicago ... Ill
Mercury Electronics Inc, Mineola ... N Y
Miles Reproducer Co Inc, New York ... N Y
Nichols Co Ltd, R H, Downsview ... Ont
Research Industrolectronics, Roslyn ... Pa
RIL Electronics Inc, Southampton ... Pa
Seco Electronics Corp, Hopkins ... Minn
Sencore Inc, Addison ... Ill
Simpson Electric Co, Chicago ... Ill
Stark Electronic Instruments Ltd, Ajax ... Ont
Sunshine Scientific Instruments Inc, Philadelphia ... Pa
Triplett Electrical Instrument Co, Bluffton ... Ohio

TESTERS--VIBRATOR

TRACOR INC, AUSTIN ... TEX
Agac-Derritron Inc, Alexandria ... Va
All American Tool & Mfg Co Inc, Skokie ... Ill
Chadwick Helmuth Co Inc, Monrovia ... Cal
Consolidated Electrodynamics Corp Sub Bell & Howell Co
  Pasadena ... Cal
Dowa Trading Co Ltd, Kobe ... Japan
EICO Electronic Instrument Co Inc, Brooklyn ... NY
Kokusai Electric Co Ltd, Tokyo ... Japan
L A B Corp, Skaneateles ... N Y
Ling Electronics Div LTV Altec Inc, Anaheim ... Cal
Mercury Electronics Inc, Mineola ... N Y
Ormond, Inc, Santa Fe Springs ... Cal
Tracor Inc, Austin ... Tex

TESTERS—VOLTAGE SEE VOLTMETERS

TEST LEADS SEE LEADS

TESTING LABORATORIES SEE LABORATORIES

TEST RECORDS--DISK SEE RECORDS

TEST SETS SEE TESTERS

TEST SYSTEMS, AUTOMATIC CHECKOUT--AVIONIC

ASSOCIATED RESEARCH, INC, CHICAGO	**ILL**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
DISCON CORP, FORT LAUDERDALE	**FLA**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
NON-LINEAR SYSTEMS INC, DEL MAR	**CAL**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW N Y	**ADV PG 706**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
AAI Corp, Cockeysville	Md
A D Data Systems Inc, Rochester	N Y
Admiral Corp, Gov Electronics Div, Chicago	Ill
Aerospace Avionics Inc, Bohemia	NY
Air Technology Corp, Waltham	Mass
Allen/UTI, Kalamazoo	Mich
Amecom Div Litton Industries, Silver Spring	Md
Anchor Specialty Mfg Co Inc, Teterboro	N J
Applied Electronics Corp of N J, Metuchen	N J
Associated Research, Inc, Chicago	Ill
Astrodata Inc, Anaheim	Cal
Astro Lab, Westminster	Cal
Astrosystems Inc, New Hyde Park	N Y
Automated Measurements Corp, Los Gatos	Cal
Automation Development Co, Culver City	Cal
Automation Dynamics Corp, Northvale	N J
Aviation Electric Ltd, St Laurent, Montreal	Que
Avien, Inc, Woodside	N Y
Avtron Mfg, Inc, Cleveland	Ohio
Ball Brothers Research Corp, Boulder	Colo
Bendix Corp Navigation & Control Div, Teterboro,	N J
Bradley Ltd G & E, London NW 10	England
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bruno-New York Industries Corp, New York	N Y
Bunker-Ramo Corp Defense Systems Div Canoga Park	Cal
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Collins Radio Co, Dallas	Tex
Compudyne Corp, Hatboro	Pa
Conductron Corp, Ann Arbor	Mich
Consolidated Airborne Systems, Carle Place	N Y
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Control Technology Co Inc, Long Island City	N Y
Cosmos Industries Inc, Brooklyn	N Y
Cunningham Son & Co Inc, James, Honeoye Falls	N Y
Discon Corp, Fort Lauderdale	Fla
Doric Scientific Corp, San Diego	Calif
Dynamco Ltd, Chertsey Surrey	Eng
E D P Corp, Orlando	Fla
Electronic Communications Inc (ECI), St Petersburg	Fla
Electronic Controls Inc, Wilton	Conn
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus	N J
Fisher-Akin Co, Manhattan Beach	Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
Gap Instrument Corp, Westbury	N Y
Garrett Corp, Los Angeles	Cal
General Aviation Electronics Inc, Indianapolis	Ind
General Microwave Corp, Farmingdale	N Y
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Goodyear Aerospace Corp, Akron	Ohio
Hartman Systems Co Inc, Huntington Station	N Y
Industrial Control Co, Farmingdale	N Y
Infrared Industries Inc, Santa Barbara	Cal
Itek Corp, Lexington	Mass
ITT Federal Labs, Fort Wayne	Ind
Janus Control Div Tyco, Waltham	Mass
Julie Research Labs, Inc, New York	N Y
Kahn & Co Inc, Wethersfield	Conn
Kidde & Co Inc, Walter, Belleville	N J
Lane Industries,Electronics Div, North Hollywood	Cal
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Ledex Div Ledex Inc, Dayton	Ohio
LFE Electronics Div, Lab for Electronics Inc Waltham	Mass
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Litton Systems (Canada) Ltd, Rexdale	Ont
Loral Electronic Systems, Div Loral Corp, New York	NY
Malaker Corp, High Bridge	N J
Measurement Technology Corp, Canoga Park	Cal
Micro Metrics Inc, Paterson	N J
3M Instrument Products, Camarillo	Cal
Missouri Research Labs Inc, St Louis	Mo
NanoFast, Inc, Chicago	Ill
Nanosecond Systems Inc, Fairfield	Conn
Non-Linear Systems Inc, Del Mar	Cal
North Atlantic Industries Inc, Plainview	N Y
Northridge Engineering Co Div Republic Corp Northridge	Cal
Northrop Nortronics, Palos Verdes Peninsula	Cal
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Quantic Industries Inc, San Carlos	Cal
Radiation Inc Systems Div, Melbourne	Fla
Randam Electronics Inc, Cincinnati	Ohio
RCA, Defense Electronic Products, Moorestown	N J
Redcor Corp, Canoga Park	Cal
Reeves Instrument Div, DCA, Garden City	N Y
Resdel Engineering Corp, Pasadena	Cal
Roback Corp, Huntingdon Valley	Pa
Rodale Electronics Inc, Garden City	NY
Sanders Associates, Inc, Nashua	N H
Servo Corp of America, Hicksville	N Y
Sierra Research Corp, Buffalo	N Y
Siltronics Inc, Oakmont	Pa
Space Craft Inc, Huntsville	Ala
Spedcor Electronics Inc, Glendale	N Y
Sperry Flight Systems Div Sperry Rand Corp Phoenix	Ariz
Sperry Microwave Electronics Div, Clearwater	Fla
Sylvania Electronic Systems, Waltham	Mass
Symetrics Engineering Corp, Satellite Beach	Fla
Teledyne Telemetry Co, Los Angeles	Cal
Texas Instruments Incorporated, Dallas	Tex
Transval Electronics Div Jetronic Indus Inc Gardena	Cal
Trott Electronics Inc, Rochester	N Y
TRW Systems Group, Redondo Beach	Cal
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Westinghouse Electric Corp, Aerospace Electrical Div Lima	Ohio

Checkout System Modules

SYNCHRO-TO-DIGITAL CONVERTERS

- *20,000°/second tracking*
- *.01° BCD*
- *16 Bit binary*

DIGITAL-TO-SYNCHRO CONVERTERS

- *11 to 16 Bits*
- *30 arc seconds accuracy*
- *short-circuit proof*

DIGITAL ANGLE GENERATORS

- *1 arc minute/second to 20,000°/second*
- *provide digital rate data for D/S Converters*

PHASE-SENSITIVE AC-TO-DC CONVERTERS

- *fully programmable*
- *0.1% linearity*
- *sensitivity 10 mv for 10VDC output*

Your North Atlantic representative has complete data.
See listing in the Green Pages.

NORTH ATLANTIC
industries, inc.
PLAINVIEW, NEW YORK 11803 516-681-8600

TEST SYSTEMS, AUTOMATIC CHECKOUT--DIGITAL

ASSOCIATED RESEARCH, INC, CHICAGO	**ILL**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
DISCON CORP, FORT LAUDERDALE	**FLA**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
MICROWAVE/SYSTEMS INC, EAST SYRACUSE	**N Y**
NON-LINEAR SYSTEMS INC, DEL MAR	**CAL**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
SYSTRON DONNER CORP, CONCORD	**CAL**
TEKTRONIX INC, BEAVERTON	**ORE**
TEXAS INSTRUMENTS INC INDL PRODS DIV, HOUSTON	**TEX**
AAI Corp, Cockeysville	Md
Adage Inc, Boston	Mass
Adar Associates Inc, Somerville	Mass
A D Data Systems Inc, Rochester	N Y
Aerotronic Associates, Inc, Contoocook	N H
Allen/UTI, Kalamazoo	Mich
American Electronic Controls Inc, Philadelphia	Pa
Applied Control Co, Cedar Grove	NJ
Applied Electronics Corp of N J, Metuchen	N J
Associated Research, Inc, Chicago	Ill
Astrodata Inc, Anaheim	Cal
Astro Lab, Westminster	Cal
Automated Measurements Corp, Los Gatos	Cal
Automation Development Co, Culver City	Cal
Automation Dynamics Corp, Northvale	N J
Avtron Mfg, Inc, Cleveland	Ohio
Ball Brothers Research Corp, Boulder	Colo
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp, Communications Div, Towson	Md
Brown Engineering-A Teledyne Co, Huntsville	Ala
California Computer Products Inc, Anaheim	Cal
Canoga Electronics Corp, Chatsworth	Cal
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Chrysler Corp, Space Div, Huntsville Oper Huntsville	Ala
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Cohu Electronics Inc, San Diego	Cal
Compton Industries, Inc, Vestal	N Y
Compudyne Corp, Hatboro	Pa
Computer Logic Corp, Santa Monica	Cal
Computer Test Corp, Cherry Hill	N J
Conductron Corp, Ann Arbor	Mich
Connecticut Technical Corp, Hartford	Conn
Consolidated Airborne Systems, Carle Place	N Y
Continental Device Corp, Hawthorne	Cal
Control Data Corp, Minneapolis	Minn
Cunningham Son & Co Inc, James, Honeoye Falls	N Y
Darcy Industries Inc, Behlman Div, Santa Monica	Cal
Data Trends Inc, Parsippany	N J
Datum Inc, Anaheim	Cal
Davidson Electronic Development Co, Erie	Pa
Defense Electronics Inc, Rockville	Md
Digital Equipment Corp, Maynard	Mass
Discon Corp, Fort Lauderdale	Fla
Doric Scientific Corp, San Diego	Calif
Dutchess Design & Develop Inc, Poughkeepsie	N Y
Dynamco Ltd, Chertsey Surrey	Eng
Dynatronics Oper Elctns Div Gen Dynamics Corp Orlando	Fla
E D P Corp, Orlando	Fla
Electronic Communications Inc (ECI), St Petersburg	Fla
Electronics Communications Div Atlantic Research Corp Alexandria	Va
E N M Co, Chicago	Ill
Fairchild Instrumentation, Sunnyvale	Cal
Ferranti, Ltd, Lancashire	England
Fisher-Akin Co, Manhattan Beach	Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Frequency Engineering Labs, Farmingdale	N J
Gap Instrument Corp, Westbury	N Y
Garrett Corp, Los Angeles	Cal
General Precision Systems Inc, Kearfott Gp Little Falls	N J
General Resistance Inc, New York	NY
Goodyear Aerospace Corp, Akron	Ohio
Hewlett-Packard, Palo Alto	Cal
Holt Instrument Labs, Oconto	Wis
Honeywell Test Instruments Div, Denver	Colo
Information Control Corp, El Segundo	Cal
Infrared Industries Inc, Santa Barbara	Cal
Instrumentation Technology Corp, Northridge	Cal
ITT Federal Labs, Fort Wayne	Ind
Janus Control Div Tyco, Waltham	Mass
Julie Research Labs, Inc, New York	N Y
Kahn & Co Inc, Wethersfield	Conn
Lear Siegler Inc, Cimron Div, San Diego	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Logic Corp, Haddonfield	N J
Loral Electronic Systems, Div Loral Corp, New York	NY
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Magnetic Systems Corp, Clearwater	Fla
Measurement Technology Corp, Canoga Park	Cal
Microdyne Inc, Rolling Meadows	Ill
Microdyne Instruments, Waltham	Mass
Micro Instrument Co, Hawthorne	Cal
Micro Metrics Inc, Paterson	N J
Microwave/Systems Inc, East Syracuse	N Y
3M Company, St Paul	Minn
3M Instrument Products, Camarillo	Cal
Missouri Research Labs Inc, St Louis	Mo
Monitor Systems Inc, Fort Washington	Pa
Moore Associates Div Rocker Co, San Carlos	Cal
NanoFast, Inc, Chicago	Ill
Nanosecond Systems Inc, Fairfield	Conn
Non-Linear Systems Inc, Del Mar	Cal
Northeast Electronics Corp, Concord	N H
Northridge Engineering Co Div Republic Corp Northridge	Cal
Northrop Nortronics, Palos Verdes Peninsula	Cal
Nortronics Div, Northrop Corp, Prec Prods Dept Norwood	Mass
Novatronics Inc, Pompano Beach	Fla
Optimized Devices, Inc, Pleasantville	N Y
Pacific Electro Dynamics Inc, Seattle	Wash
Performance Measurements Co, Detroit	Mich
Philco-Ford Corp, Washington	D C
Precision Mecanique Labinal, 93 Saint-Ouen	France
Radiation Inc Systems Div, Melbourne	Fla
Randam Electronics Inc, Cincinnati	Ohio
Razdow Labs Inc, Newark	N J
RCA, Defense Electronic Products, Moorestown	N J
RC-95 Inc, New York	N Y
Redcor Corp, Canoga Park	Cal
Remex Electronics, Hawthorne	Cal
Resdel Engineering Corp, Pasadena	Cal
Research Industrolectronics, Roslyn	Pa
R F S Engineering Co, Philadelphia	Pa

Rixon Electronics Inc, Silver Spring	Md
Roback Corp, Huntingdon Valley	Pa
Rodale Electronics Inc, Garden City	NY
Scientific Data Systems Inc, El Segundo	Cal
Servo Corp of America, Hicksville	N Y
Siemens America Inc, New York	N Y
Smyth Research Associates, San Diego	Cal
Space Craft Inc, Huntsville	Ala
Spedcor Electronics Inc, Glendale	N Y
Sperry Microwave Electronics Div, Clearwater	Fla
Stelma Inc, Stamford	Conn
Stone Laboratories Inc, Boston	Mass
Sylvania Electronic Systems, Waltham	Mass
Symetrics Engineering Corp, Satellite Beach	Fla
Systems Engineering Labs Inc, Ft Lauderdale	Fla
Systron Donner Corp, Concord	Cal
Takeda Riken Industry Co Ltd, Tokyo	Japan
Tek-Sel Labs Inc, Saddle Brook	N J
Tektronix Inc, Beaverton	Ore
Teledyne Telemetry Co, Los Angeles	Cal
Teradyne Inc, Boston	Mass
Texas Instruments Incorporated, Dallas	Tex
Texas Instruments Inc Indl Prods Div, Houston	Tex
Trott Electronics Inc, Rochester	N Y
TRW Systems Group, Redondo Beach	Cal
United Systems Corp, Dayton	Ohio
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Vari Tech Co, Grand Rapids	Mich
Vestal Modern Design Corp, Vestal	N Y
Vidar Corp, Mountain View	Cal
Zehntel Inc, Berkeley	Cal

TEST SYSTEMS, AUTOMATIC CHECKOUT--FACSIMILE

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Aerospace Avionics Inc, Bohemia	NY
Alden Electronic & Impulse Recording Equip Co Inc Westboro	Mass
Brown Engineering-A Teledyne Co, Huntsville	Ala
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Compudyne Corp, Hatboro	Pa
Cosmos Industries Inc, Brooklyn	N Y
Dynamco Ltd, Chertsey Surrey	Eng
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Gilmore Industries Inc, Cleveland	Ohio
Goodyear Aerospace Corp, Akron	Ohio
Janus Control Div Tyco, Waltham	Mass
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Muirhead Instruments Inc, Mountainside	N J
Nippon Electric Co Ltd, Tokyo	Japan
Norden Div, United Aircraft Corp, Norwalk	Conn
Northrop Nortronics, Palos Verdes Peninsula	Cal
Randam Electronics Inc, Cincinnati	Ohio
Roback Corp, Huntingdon Valley	Pa
Spedcor Electronics Inc, Glendale	N Y
Symetrics Engineering Corp, Satellite Beach	Fla
TRW Systems Group, Redondo Beach	Cal

TEST SYSTEMS, AUTOMATIC CHECKOUT--MICROWAVE

GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
SYSTRON DONNER CORP, CONCORD	**CAL**
AAI Corp, Cockeysville	Md
Alto Scientific Co, Inc, Palo Alto	Cal
Amecom Div Litton Industries, Silver Spring	Md
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Canoga Electronics Corp, Chatsworth	Cal
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Conductron Corp, Ann Arbor	Mich
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Frequency Engineering Labs, Farmingdale	N J
General Microwave Corp, Farmingdale	N Y
Goodyear Aerospace Corp, Akron	Ohio
Hewlett-Packard, Palo Alto	Cal
Itek Corp, Lexington	Mass
ITT Federal Labs, Fort Wayne	Ind
Measurement Technology Corp, Canoga Park	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Norden Div, United Aircraft Corp, Norwalk	Conn
Northeast Electronics Corp, Concord	N H
Northrop Nortronics, Palos Verdes Peninsula	Cal
Polarad Electronic Instruments Div Long Island City	N Y
Premier Microwave Corp, Port Chester	N Y
Rantec Div Emerson Electric Co, Calabasas	Cal
Reeves Instrument Div, DCA, Garden City	N Y
Resdel Engineering Corp, Pasadena	Cal
Servo Corp of America, Hicksville	N Y
Somerset Radiation Lab Inc, Arlington	Va
Spedcor Electronics Inc, Glendale	N Y
Sperry Microwave Electronics Div, Clearwater	Fla
Sylvania Electronic Systems, Waltham	Mass
Systron Donner Corp, Concord	Cal
Watkins-Johnson Co, Palo Alto	Cal
Wayne Electronic Products Co, Oklahoma City	Okla
Wiltron Co, Palo Alto	Cal

TEST SYSTEMS, AUTOMATIC CHECKOUT--MISSILE & DRONE

AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
NON-LINEAR SYSTEMS INC, DEL MAR	**CAL**
AAI Corp, Cockeysville	Md
Anchor Specialty Mfg Co Inc, Teterboro	N J
Astrodata Inc, Anaheim	Cal
Automated Measurements Corp, Los Gatos	Cal
Automation Development Co, Culver City	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Aviation Electric Ltd, St Laurent, Montreal	Que
Babcock Electronic Corp, Costa Mesa	Cal
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Bendix Corp Navigation & Control Div, Teterboro	N J
Canoga Electronics Corp, Chatsworth	Cal
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Chrysler Corp, Space Div, Huntsville Oper Huntsville	Ala
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Compudyne Corp, Hatboro	Pa
Conductron Corp, Ann Arbor	Mich
Consolidated Airborne Systems, Carle Place	N Y
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Control Data Corp, Minneapolis	Minn
Control Technology Co Inc, Long Island City	N Y
Cunningham Son & Co Inc, James, Honeoye Falls	N Y
Doric Scientific Corp, San Diego	Calif
Dynamco Ltd, Chertsey Surrey	Eng
E D P Corp, Orlando	Fla
Electronics Communications Div Atlantic Research Corp Alexandria	Va
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus	N J
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
General Electric Co Ordnance Dept, Pittsfield	Mass
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Gilmore Industries Inc, Cleveland	Ohio
Goodyear Aerospace Corp, Akron	Ohio
Hycon, Monrovia	Cal
Information Control Corp, El Segundo	Cal
Infrared Industries Inc, Santa Barbara	Cal
Inland Controls Inc Sub Kollmorgen Corp Brighton	Mass
ITT Federal Labs, Fort Wayne	Ind
Janus Control Div Tyco, Waltham	Mass
Kahn & Co Inc, Wethersfield	Conn
Kidde & Co Inc, Walter, Belleville	N J
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Lockheed Electronics Co, Plainfield	N J
Magnetic Systems Corp, Clearwater	Fla
Measurement Technology Corp, Canoga Park	Cal
Micro Metrics Inc, Paterson	N J
Monitor Systems Inc, Fort Washington	Pa
Neptune Electronics Co, New York	N Y
Non-Linear Systems Inc, Del Mar	Cal
Norden Div, United Aircraft Corp, Norwalk	Conn
Northrop Nortronics, Palos Verdes Peninsula	Cal
Philco-Ford Corp, Washington	D C
Radiation Inc Systems Div, Melbourne	Fla
Randam Electronics Inc, Cincinnati	Ohio
RCA, Defense Electronic Products, Moorestown	N J
RC-95 Inc, New York	N Y
Redcor Corp, Canoga Park	Cal
Reeves Instrument Div, DCA, Garden City	N Y
Resdel Engineering Corp, Pasadena	Cal
Roback Corp, Huntingdon Valley	Pa
Rodale Electronics Inc, Garden City	NY
Sanders Associates, Inc, Nashua	N H
Scans Associates Inc, Livonia	Mich
Space Craft Inc, Huntsville	Ala
Spedcor Electronics Inc, Glendale	N Y
Sperry Microwave Electronics Div, Clearwater	Fla
Teledyne Telemetry Co, Los Angeles	Cal
Transval Electronics Div Jetronic Indus Inc Gardena	Cal
TRW Systems Group, Redondo Beach	Cal
Universal Comptronics Div Microwave Corp of Amer Thornwood	N Y
Vega Precision Labs, Vienna	Va

TEST SYSTEMS, AUTOMATIC CHECKOUT--RADAR

GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
AAI Corp, Cockeysville	Md
Admiral Corp, Gov Electronics Div, Chicago	Ill
Amecom Div Litton Industries, Silver Spring	Md
Automated Measurements Corp, Los Gatos	Cal
Bendix Corp Electrodynamics Div, North Hollywood	Cal
California Microwave, Sunnyvale	Cal
Canoga Electronics Corp, Chatsworth	Cal
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
CMC/Rutherford, San Fernando	Cal
Conductron Corp, Ann Arbor	Mich
Cosmos Industries Inc, Brooklyn	N Y
Dewey Corp, G C, New York	N Y
Dynamco Ltd, Chertsey Surrey	Eng
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Ford Instrument Div, Sperry Rand Corp Long Island City	N Y
Frequency Engineering Labs, Farmingdale	N J
General Microwave Corp, Farmingdale	N Y
Goodyear Aerospace Corp, Akron	Ohio
Information Control Corp, El Segundo	Cal
ITT Gilfillan Inc, Van Nuys	Cal
Janus Control Div Tyco, Waltham	Mass
Laboratory for Electronics Inc Elctns Div, Boston	Mass
LFE Electronics Div, Lab for Electronics Inc Waltham	Mass
Loral Electronic Systems, Div Loral Corp, New York	NY
Measurement Technology Corp, Canoga Park	Cal
Missouri Research Labs Inc, St Louis	Mo
M Tech Corp, Pomona	Cal
NanoFast, Inc, Chicago	Ill
Northrop Nortronics, Palos Verdes Peninsula	Cal
Randam Electronics Inc, Cincinnati	Ohio
Razdow Labs Inc, Newark	N J
RCA, Defense Electronic Products, Moorestown	N J
Reeves Instrument Div, DCA, Garden City	N Y
Resdel Engineering Corp, Pasadena	Cal
Sierra Research Corp, Buffalo	N Y
Space Craft Inc, Huntsville	Ala
Spedcor Electronics Inc, Glendale	N Y
Sperry Microwave Electronics Div, Clearwater	Fla
Sylvania Electronic Systems, Waltham	Mass
Texas Instruments Incorporated, Dallas	Tex
TRW Systems Group, Redondo Beach	Cal
Vega Precision Labs, Vienna	Va
Wiltron Co, Palo Alto	Cal

TEST SYSTEMS, AUTOMATIC CHECKOUT--SONAR

DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
AAI Corp, Cockeysville	Md
Alcatel, Paris 8eme	France
Automated Measurements Corp, Los Gatos	Cal
Bendix Corp Electrodynamics Div, North Hollywood	Cal
Cardion Electronics Div Gen Signal Corp, Woodbury	N Y
Conductron Corp, Ann Arbor	Mich
Control Technology Co Inc, Long Island City	N Y
Dewey Corp, G C, New York	N Y
Dranetz Engineering Labs Inc, Plainfield	N J
Dynamco Ltd, Chertsey Surrey	Eng
Edo Corp, College Point	NY
Empire Scientific Corp, Garden City	N Y
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Goodyear Aerospace Corp, Akron	Ohio
Information Control Corp, El Segundo	Cal
Janus Control Div Tyco, Waltham	Mass
Loral Electronic Systems, Div Loral Corp, New York	NY
Measurement Technology Corp, Canoga Park	Cal
NanoFast, Inc, Chicago	Ill
Northrop Nortronics, Palos Verdes Peninsula	Cal
Randam Electronics Inc, Cincinnati	Ohio
Reeves Instrument Div, DCA, Garden City	N Y
Sierra Research Corp, Buffalo	N Y
Space Craft Inc, Huntsville	Ala
Spedcor Electronics Inc, Glendale	N Y
Straza Industries Div Ametek Inc, El Cajon	Cal
Systems Electronics Inc, Cleveland	Ohio

THERMAL CELLS SEE CELLS--THERMAL

THERMAL SHOCK CHAMBERS SEE CHAMBERS--ENVIRONMENTAL

THERMISTOR BRIDGES SEE BRIDGES

THERMISTORS

AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE	**N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
INTERELECTRONICS CORP, CONGERS	**N Y**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
VICTORY ENGINEERING CORP, SPRINGFIELD N J	**ADV PGS FACING PG 1**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG MD	**ADV PG 63**
Advance Carbon Products, Inc, San Francisco	Cal
Amiproducts Corp, New York	N Y
Amperex Electronic Corp, Component Div Hauppauge	N Y
Athena Controls Inc, Conshohocken	Pa
Atkins Technical, Inc, Gainesville	Fla
Carbone Corp, Boonton	N J
Carborundum Co Electrical & Elctns Br, Niagara Falls	NY
C M Mfg Co, Bloomfield	N J
Conax Corp, Buffalo	N Y
Control Panel Corp, Chicago	Ill
Delta Semiconductors Div Natl Instr Corp Costa Mesa	Cal
Dowa Trading Co Ltd, Kobe	Japan
Fenwal Electronics Inc, Framingham	Mass
Filmohm Corp, Long Island City	N Y
Foxboro Co, Foxboro	Mass
Fujitsu Ltd, Tokyo	Japan

Garrett Corp, Los Angeles	Cal
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Electric Co, ECSO, Schenectady	N Y
General Electric Co Magnetic Matls Bus Sect Edmore	Mich
Gulton Industries Inc, Metuchen	N J
Hayakawa Electric Co Ltd, Osaka	Japan
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
Interelectronics Corp, Congers	N Y
Keystone Carbon Co Thermistor Div, St Marys	Pa
Kidde & Co Inc, Walter, Belleville	N J
LCC-CICE, 93 Montreuil-sous-Bois	France
Microlab/F X R, Livingston	N J
Narda Microwave Corp, Plainview	N Y
Nichicon Capacitor Ltd, Nakagyo-ku, Kyoto	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Palmer Electronics Inc, Garfield	N J
Pennsylvania Electronics Technology, Inc, Pittsburgh	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Power Control Corp, Pittsburgh	Pa
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Precision Research Inc, Stamford	Conn
Priester Corp, H E, Scarsdale	N Y
Sampson Electronic Products Div, Chicago	Ill
S E C I Soc Elettrotechica Chimica Italiana Milano	Italy
Servo Corp of America, Hicksville	N Y
Siemens America Inc, New York	N Y
Simpson Electric Co, Chicago	Ill
Standard Telephones & Cables Ltd London WC 2	England
Telefunken Sales Corp, Garden City	N Y
Temtech, Santa Ana	Cal
Texas Instruments Incorporated, Dallas	Tex
United Systems Corp, Dayton	Ohio
Victory Engineering Corp, Springfield	N J
Vitta Corp, Wilton	Conn
Weinschel Engineering Co Inc, Gaithersburg	Md
Winsco Instruments & Controls Co Inc Santa Monica	Cal
Workman Electronic Products Inc, Sarasota	Fla
Yellow Springs Instrument Co Inc, Yellow Springs	Ohio

THERMOCOUPLE REFERENCE JUNCTIONS

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
Acromag Inc, Wixom	Mich
Aeromarine Electronics, Inc, San Diego	Cal
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Andonian Associates, Inc, Waltham	Mass
Bristol Div, American Chain & Cable Co Waterbury	Conn
Consolidated Controls Corp, Bethel	Conn
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Consolidated Ohmic Devices Inc, Carle Place	N Y
Control Panel Corp, Chicago	Ill
Doric Scientific Corp, San Diego	Calif
Dynamco Ltd, Chertsey Surrey	Eng
Dynatech Products Co Div Dynatech Corp Burlington	Mass
Eon Instrumentation Inc, Van Nuys	Cal
General Electric Co, ECSO, Schenectady	N Y
General Resistance Inc, New York	NY
Gulton Industries Inc, Metuchen	N J
Howell Instruments Co, Fort Worth	Tex
Hy-Cal Engineering, Santa Fe Springs	Cal
Kaye & Co Inc, Joseph, Cambridge	Mass
Marlin Mfg Corp, Cleveland	Ohio
Mepco Inc, Morristown	N J
Motorola Instrumentation & Control Inc, Phoenix	Ariz
Nanmac Corp, Framingham Centre	Mass
National Beryllia Corp, Haskell	N J
Omega Engineering Inc, Stamford	Conn
Pall Trinity Micro Corp, Cortland	N Y
RdF Corp, Hudson	N H
Research Inc, R-I Controls Div, Minneapolis	Minn
Rosemount Plug-In Inc, Nashville	Tenn
Scientific Engineering Mfg Co Inc North Hollywood	Cal
Sigma Instruments Canada Ltd, Toronto 18 Ont	Canada
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
Temtech, Santa Ana	Cal
Thermo Electric Co Inc, Saddle Brook	N J
West Instrument Corp, Schiller Park	Ill
Weston Instruments Div Weston Instr Inc, Newark	N J
Whittaker Corp Instrument Sys Div North Hollywood	Cal

THERMOCOUPLES

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE	**NY**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
J-B-T INSTRUMENTS INC, NEW HAVEN	**CONN**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
Advanced Dynamics Inc Div Alco Std Corp Cleveland	Ohio
Advanced Electronics, Inc, Rocky Hill	Conn
Advanced Products Co, North Haven	Conn
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Aero Research Instrument Dept American Standard Franklin Park	Ill
Aircraft Components Inc, Benton Harbor	Mich
Alcor Aviation, Inc, San Antonio	Texas
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Andonian Associates, Inc, Waltham	Mass
Auto-Control Labs Div Rucker Co, Los Angeles	Cal
Aviation Electric Ltd, St Laurent, Montreal	Que
Bailey Meter Co, Wickliffe	Ohio
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham	Mass
Bram Metallurgical Chemical Co, Philadelphia	Pa
Bristol Div, American Chain & Cable Co Waterbury	Conn
Canadian Research Institute, Don Mills	Ont
C M Mfg Co, Bloomfield	N J
Conax Corp, Buffalo	N Y
Consolidated Controls Corp, Bethel	Conn
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Continental Sensing Inc, Melrose Park	Ill
Control Panel Corp, Chicago	Ill
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Device Seals Inc, Sun Valley	Cal
Edison, Thomas A Industries, Instr Div West Orange	N J
Electric Thermometers, Inc, Norwalk	Conn
Electroglas Inc, Menlo Park	Cal
Electronic Control Systems Inc, Fairmont	W Va
Electronic Development Labs Inc, Plainview	N Y
Electro-Standards Labs Inc, Miami	Fla
En-Cer Inc, South Holland	Ill
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Foxboro Co, Foxboro	Mass
General Electric Co, ECSO, Schenectady	N Y
General Electric Co, Lamp Glass Dept Willoughby	Ohio
General Laboratory Assoc Inc, Norwich	N Y
General Resistance Inc, New York	NY
Gulton Industries Inc, Metuchen	N J
Honeywell Industrial Div, Fort Washington	Pa
Huppert Co, K H, South Holland	Ill
Hy-Cal Engineering, Santa Fe Springs	Cal
JB Electronic Transformers Inc, Chicago	Ill
J-B-T Instruments Inc, New Haven	Conn
Keith Co Inc, W P, Pico Rivera	Cal
Kidde & Co Inc, Walter, Belleville	N J
Korfund Dynamics Corp, Westbury	N Y
Leeds & Northrup Co, Philadelphia	Pa
Lewis Engineering Co, Naugatuck	Conn
Marlin Mfg Corp, Cleveland	Ohio
Mastercraft Instrument Co, Dubuque	Iowa
McHugh Thermodynamics Corp, Trevose	Pa
Microdot, Inc, South Pasadena	Cal
3M Company, St Paul	Minn
Nanmac Corp, Framingham Centre	Mass
Narda Microwave Corp, Plainview	N Y
National Beryllia Corp, Haskell	N J
Omega Engineering Inc, Stamford	Conn
Pall Trinity Micro Corp, Cortland	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pyrometer Co of America Inc, Penndel	Pa
Pyrometer Instrument Co Inc, Northvale	N J
Pyro-Serv Instruments, Inc, North Arlington	N J
Quantic Industries Inc, San Carlos	Cal
RCK, Inc, Sunnyvale	Cal
RdF Corp, Hudson	N H
Revere Corp of America, Wallingford	Conn
Rustrak Instrument Div Gulton Ind Inc, Manchester	NH
Scientific Engineering Mfg Co Inc North Hollywood	Cal
Sigma Instruments Canada Ltd, Toronto 18 Ont	Canada
Simpson Electric Co, Chicago	Ill
Singer Co, Metrics Div, Bridgeport	Conn
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Sola-Basic Industries, Milwaukee	Wis
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Temtech, Santa Ana	Cal
Texas Instruments Incorporated, Dallas	Tex
Thermo-Couple Products Co Inc, Winfield	Ill
Thermo Electric Co Inc, Saddle Brook	N J
Trans-Sonics Inc, Lexington	Mass
United Sensor & Control Corp, Watertown	Mass
Wacker Chemical Corp, New York	N Y
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
West Instrument Corp, Schiller Park	Ill
Weston Instruments Div Weston Instr Inc, Newark	N J
Winsco Instruments & Controls Co Inc Santa Monica	Cal

THERMOCOUPLES--VACUUM

American Thermo Electric Co, Los Angeles	Cal
Andonian Associates, Inc, Waltham	Mass
Barker Sales Co, Ridgefield	NJ
Best Electric Div Harry Levinson Co, Seattle	Wash
CHA Industries, Div Carl Herrmann Assoc Menlo Park	Cal
Consolidated Controls Corp, Bethel	Conn
Consolidated Vacuum Corp, Rochester	N Y
Control Panel Corp, Chicago	Ill
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Energy Beams Inc, Haskell	N J
Fredericks Co, Huntingdon Valley	Pa
Hallmark Standards Inc, Mamaroneck	N Y
Heraeus-Engelhard Vacuum Inc, Monroeville	Pa
Hughes Aircraft Co Vacuum Tube Prods Div Vacuum Devices Dept, Oceanside	Cal
Kinney Vacuum Div New York Air Brake Co Boston	Mass
Marlin Mfg Corp, Cleveland	Ohio
Norton Co Vacuum Equip Div, Newton	Mass
Omega Engineering Inc, Stamford	Conn
Pall Trinity Micro Corp, Cortland	N Y
Rawson-Lush Instrument Co Inc, Acton	Mass
Singer Co, Metrics Div, Bridgeport	Conn
Sunbeam Vacuum Furnace Corp, North Billerica	Mass
Temtech, Santa Ana	Cal
Thermo-Couple Products Co Inc, Winfield	Ill
Vacuum Products Inc, Mt Vernon	N Y
Winslow Tele-Tronics Inc, Asbury Park	NJ

THERMOCOUPLE WIRE SEE WIRE--THERMOCOUPLE

THERMOELECTRIC GENERATORS

Alcatel, Paris 8eme	France
Asarco Intermetallics Corp, New York	N Y
Consolidated Controls Corp, Bethel	Conn
Electro Impulse Lab Inc, Red Bank	N J
Ferranti, Ltd, Lancashire	England
General Instrument Corp Thermoelectric Div Newark	N J
General Instrument Europe SPA, Milano	Italy
International Energy Conversion Inc, Garland	Tex
LCC-CICE, 93 Montreuil-sous-Bois	France
Materials Electronic Products Corp, Trenton	N J
3M Company, St Paul	Minn
Nuclear Materials & Equipment Corp, Apollo	Pa
RCA, Defense Electronic Products, Moorestown	N J

THERMOELECTRIC MODULES

GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
VICTORY ENGINEERING CORP, SPRINGFIELD N J	**ADV PGS FACING PG 1**
Alcatel, Paris 8eme	France
Asarco Intermetallics Corp, New York	N Y
Avionics Ltd, Niagara-on-the-Lake	Ont
Bailey Co, Washington	D C
Borg-Warner, Thermoelectric Div, Des Plaines	Ill
Cambridge Thermionic Corp, Cambridge	Mass
C O G I E, Aubervilliers 93	France
Cominco American Inc Electronic Matls Div, Spokane	Wash
Connolly & Co Inc, Mountain View	Cal
Dynamco Ltd, Chertsey Surrey	Eng
Dynatech Products Co Div Dynatech Corp Burlington	Mass
E G & G Inc, Electronic Prods Div, Boston	Mass
Electro Impulse Lab Inc, Red Bank	N J
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
General Instrument Corp Thermoelectric Div Newark	N J
General Microwave Corp, Farmingdale	N Y
International Energy Conversion Inc, Garland	Tex
LCC-CICE, 93 Montreuil-sous-Bois	France
Materials Electronic Products Corp, Trenton	N J
3M Company, St Paul	Minn
Nuclear Materials & Equipment Corp, Apollo	Pa
Ohio Semitronics Inc, Columbus	Ohio
RCA, Defense Electronic Products, Moorestown	N J
Scientific Columbus Inc, Columbus	Ohio
Sharp Electronics Corp, Carlstadt	N J
Signet Scientific Co, Burbank	Cal
Victory Engineering Corp, Springfield	N J
Wakefield Engineering Inc, Wakefield	Mass

THERMOMETERS--RESISTANCE

WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
Andonian Associates, Inc, Waltham	Mass
Applied Research Austin Inc, Austin	Tex
Athena Controls Inc, Conshohocken	Pa
Atkins Technical, Inc, Gainesville	Fla
Bailey Meter Co, Wickliffe	Ohio
Bayley Instrument Co, Danville	Cal
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham	Mass
Bristol Div, American Chain & Cable Co Waterbury	Conn
Burns Engineering Inc, Minneapolis	Minn
Consolidated Controls Corp, Bethel	Conn
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Delta Semiconductors Div Natl Instr Corp Costa Mesa	Cal
Dentronics, Inc, Hackensack	N J
Dohrmann Instruments Co, Mountain View	Cal
Doric Scientific Corp, San Diego	Calif
Dynamco Ltd, Chertsey Surrey	Eng
Edison, Thomas A Industries, Instr Div West Orange	N J
Electric Thermometers, Inc, Norwalk	Conn
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Eon Instrumentation Inc, Van Nuys	Cal
Fenwal Inc, Ashland	Mass
Foxboro Co, Foxboro	Mass
General Transducer Co, Santa Clara	Cal
Gulton Industries Inc, Metuchen	N J
Hafstrom Technical Products Inc, San Diego	Cal
Harrel Inc, East Norwalk	Conn
Hi-Altitude Instrument Co, Inc., Denver	Colo
Hill Inc E Vernon, San Francisco	Cal

Honeywell Industrial Div, Fort Washington	Pa
Innes Instruments, Pasadena	Cal
Kahl Scientific Instrument Corp, El Cajon	Cal
Leeds & Northrup Co, Philadelphia	Pa
Lewis Engineering Co, Naugatuck	Conn
Malaker Corp, High Bridge	N J
Marshall Instruments Inc, Van Nuys	Cal
Minco Products Inc, Minneapolis	Minn
Montedoro Corp, San Luis Obispo	Cal
Motorola Instrumentation & Control Inc, Phoenix	Ariz
National Beryllia Corp, Haskell	N J
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
PMF Electronics Inc, Dayton	Ohio
Princeton Applied Research Corp, Princeton	N J
RdF Corp, Hudson	N H
Relco Products Inc, Denver	Colo
RFL Industries Inc, Thermocontrol Div, Boonton	N J
Rosemount Engineering Co, Minneapolis	Minn
Sanwa Electric Instrument Co, Ltd, Tokyo	Japan
Scientific Engineering Mfg Co Inc North Hollywood	Cal
Simpson Electric Co, Chicago	Ill
Solitron Devices Inc Transistor Div, Riviera Beach	Fla
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taylor Instrument Cos, Rochester	N Y
Thermo Electric Co Inc, Saddle Brook	N J
Time-O-Matic Inc, Danville	Ill
Trans-Sonics Inc, Lexington	Mass
United Systems Corp, Dayton	Ohio
Versitherm, Inc, Farmingdale	N Y
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
West Coast Research Corp, Los Angeles	Cal
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J
West Instrument Corp, Schiller Park	Ill
Weston Instruments Div Weston Instr Inc, Newark	N J
Winsco Instruments & Controls Co Inc Santa Monica	Cal
Winslow Tele-Tronics Inc, Asbury Park	NJ

THERMOPILES

Alcor Aviation, Inc, San Antonio	Texas
Altronic Research Corp, Cleveland	Ohio
Barnes Engineering Co Def & Space Div Stamford	Conn
Biddle Co, James G, Plymouth Meeting	Pa
Electro Impulse Lab Inc, Red Bank	N J
Eppley Lab Inc, Newport	R I
General Instrument Corp Thermoelectric Div Newark	N J
Hy-Cal Engineering, Santa Fe Springs	Cal
LCC-CICE, 93 Montreuil-sous-Bois	France
Leeds & Northrup Co, Philadelphia	Pa
Nanmac Corp, Framingham Centre	Mass
Omega Engineering Inc, Stamford	Conn
Precision Research Inc, Stamford	Conn
Pyrometer Co of America Inc, Penndel	Pa
Quantic Industries Inc, San Carlos	Cal
RdF Corp, Hudson	N H
Scientific Engineering Mfg Co Inc North Hollywood	Cal
Sigma Instruments Canada Ltd, Toronto 18 Ont	Canada
Thermo-Couple Products Co Inc, Winfield	Ill
Wac Line Div Simmonds Precision Prods, Dayton	Ohio

THERMOSTATS

ELECTRONIC RESEARCH CO, A TEXTRON CO, OVERLAND PARK KAN	**ADV PG 709**
ELMWOOD SENSORS INC, CRANSTON, R I	**ADV PG 709**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV.PGS 7**
Arco Electronics, Inc, Great Neck	N Y
Betron-IRE-SpA, Livorno	Italy
Burling Instrument Co, Chatham	N J
Chatham Controls Corp, Chatham	N J
Computer Logic Corp, Santa Monica	Cal
Control Products Inc, East Hanover	N J
Dales Co, Franklin, Akron	Ohio
Dowa Trading Co Ltd, Kobe	Japan
Edison, Thomas A Industries, Instr Div West Orange	N J
Electronic Research co, A Textron Co Overland Park	Kan
Elmwood Sensors Inc, Cranston	R I
Essex Wire Corp Stemco Controls, Mansfield	Ohio
Fenwal Inc, Ashland	Mass
General Electric Co, ECSO, Schenectady	N Y
Gruenberg Electric Co Inc, Garden City	N Y
G-V Controls Inc, Livingston	N J
Hafstrom Technical Products Inc, San Diego	Cal
Intertechnique, Plaisir, 78	France
Kahl Scientific Instrument Corp, El Cajon	Cal
Luft Instruments Inc, Lincoln	Mass
Precision Thermometer & Instrument Co Southampton	Pa
Protective Controls Inc, Chartley	Mass
Pyrotector Inc, Hingham	Mass
Scaico Div, Wavetronics Industries Inc West Pittston	Pa
Scientific Engineering Mfg Co Inc North Hollywood	Cal
Stratocon Corp, Newark	N J
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Taylor Instrument Cos, Rochester	N Y
Texas Instruments Incorporated, Dallas	Tex
Thermal Engineering & Design Co, Akron	Ohio
Therm-O-Disc Inc, Mansfield	Ohio
United Electric Controls Co, Watertown	Mass
Vapor Corp, Chicago	Ill
Vulcan Electric ITT, Danvers	Mass
Wavetronics Industries Inc, West Pittston	Pa
Westcott Electronics, Clifton	NJ
Wiegand Co, Edwin L, Pittsburgh	Pa

erc

THERMOSTATS
Snap Action

Temperature settings 40°C to 110°C
Factory adjusted, operational and temperature certified.

New long life design virtually eliminates pitting and sticking failures.

Depending on the temperature differential required, either quick contact breaking or creeping types can be supplied.

Units for both commercial and military application.

Mil. specifications applied.

Custom designs available.

Write for complete literature

erc frequency control products

A TEXTRON COMPANY

electronic research co.

913—ME. 1-6700

10,000 W. 75 • Overland Park, Kans. 66204

ELMWOOD SNAP-ACTION THERMOSTATS

Sub-miniature, Precision-Engineered Switches for Fast, Reliable Response and Long Life Expectancy

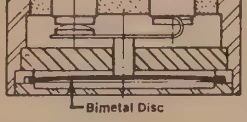
Commercial Applications: 2450, 2455

Rated to ¼ hp Ind. • 15 Amps Res.

- Factory Preset and Non-Adjustable
- Snap Action of Disc Limits Radio and Television Interference
- Contact Wiping Insures Long Contact Life
- Disc is Thermally and Electrically Insulated from Current-Carrying Parts
- Disc is 100% Temperature Checked
- Thermostat is 100% Operationally Checked
- Single Contact Protected by Dust Shield Insures Trouble-Free Operations

Precision/Military Applications: 3100

- Many mounting arrangements
- Thermal Range from —85° to +600°F
- Proven Military and Civilian Performance Record
- Narrow or Wide Differential
- Rated at 6 Amps.
- Immediate Delivery
- Custom Packaging



May We Quote on Your Application?

WRITE, WIRE, PHONE
for detailed information

ELMWOOD SENSORS, INC.
1647 Elmwood Avenue, Cranston, R. I. 02907
TWX 710-381-6413

THERMOSTATS--ELECTRONIC SEE CONTROLS--TEMPERATURE

THORIUM

American Potash & Chemical Corp Rare Earth Div West Chicago	Ill
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Associated Engineering & Mfg Corp, Glen Ridge	N J
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Cerac Inc, Butler	Wis
Electronic Space Products Inc, Los Angeles	Cal
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Metal Ceram Inc, Mount Vernon	N Y
National Beryllia Corp, Haskell	N J
Nuclear Fuel Services, Inc, Wheaton	Md
Nuclear Materials & Equipment Corp, Apollo	Pa
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Corp Metal Hydrides Div, Beverly	Mass
Ventron Electronics Corp, Bradford	Pa
Vitro Labs Div Vitro Corp of America, Silver Spring	Md

THORIUM OXIDE

American Potash & Chemical Corp Rare Earth Div West Chicago	Ill
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Cerac Inc, Butler	Wis
City Chemical Corp, New York	N Y
C M Mfg Co, Bloomfield	N J
Electronic Space Products Inc, Los Angeles	Cal
Henley & Co Inc, New York	N Y
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
National Beryllia Corp, Haskell	N J
Nuclear Fuel Services, Inc, Wheaton	Md
Nuclear Materials & Equipment Corp, Apollo	Pa
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Elements Inc, Saxonburg	Pa
Thermal American Fused Quartz Co, Montville	N J
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Vitro Labs Div Vitro Corp of America, W Orange	N J

THYRATRON CONTROLS SEE CONTROLS--MOTOR SPEED;CONTROLS--WELDING

THYRATRONS--TUBE SEE TUBES--THYRATRON

THYRATRON TESTERS SEE TESTERS--TUBE

TIES--WIRE & CABLE

DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
GUDEBROD BROS SILK CO INC ELECTRONICS DIV PHILADELPHIA	**PA**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Daburn Electronics & Cable Corp, Bronx	N Y
Dek Inc, Lombard	Ill
Electrovert Inc, Mt Vernon	N Y
Fastex Div Illinois Tool Works, Des Plaines	Ill
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Gries Reproducer Co Div Coats & Clark Inc New Rochelle	N Y
Gudebrod Bros Silk Co Inc Electronics Div Philadelphia	Pa
Hanscom & Co Inc, H F, Providence	R I
Holub Industries Inc, Sycamore	Ill
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Ideal Industries Inc, Sycamore	Ill
Kent Corp, Mundelein	Ill
MacDonald & Co, Glendale	Cal
Panduit Corp, Tinley Park	Ill
Plastiglide Mfg Corp, Santa Monica	Cal
Preformed Line Products Co, Cleveland	Ohio
Product Components Corp, Hastings-on-Hudson	N Y
Richco Plastic Co, Chicago	Ill
Ross Co, Milton, Southampton	Pa
Ross Matthews Corp, Fall River	Mass
Smith Inc, Herman H, Brooklyn	N Y
Waldom Electronics Inc, Chicago	Ill
Weckesser Co Inc, Chicago	Ill

TIME DELAY FUSES SEE FUSES

TIME DELAYS--A-F, VARIABLE SEE DELAYS--TIME

TIMERS--COIN-OPERATED

Bristol Motors-Timer Div Vocaline Corp of Amer Inc Old Saybrook	Conn
Hoagland Instrument Co, Red Bank	N J
Landis & Gyr AG, Zug	Switzerland
Vocaline Co of America Inc, Old Saybrook	Conn

TIMERS--ELECTROMECHANICAL

EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT IOWA	**ADV PG 711**
INDUSTRIAL TIMER CORP, PARSIPPANY	**N J**
LEACH CORP, SOUTH PASADENA	**CAL**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH	**VA**
SYSTRON DONNER CORP, CONCORD	**CAL**
TECHNIC INC, CRANSTON	**RI**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
Abrams Instrument Corp, Lansing	Mich
Advanced Technology Corp, Chambersburg	Pa
Aemco Div, Midtex Inc, Mankato	Minn
Agastat Div, Elastic Stop Nut Corp, Elizabeth	N J
Allen-Bradley Co, Milwaukee	Wis
Allied Control Co Inc, New York	N Y
A & M Instruments Inc, Great Neck	N Y
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp Fluid Power Div, Utica	N Y
Bergen Lab, Inc, Paterson	N J
Bissett-Berman Corp, Santa Monica	Cal
Bristol Motors-Timer Div Vocaline Corp of Amer Inc Old Saybrook	Conn
Bulova Watch Co Inc, Timer Lab, Flushing	N Y
Canberra Industries, Middletown	Conn
Chrono-Log Corp, Broomall	Pa
Condor Industrial Corp, West Chicago	Ill
Conrac Corp, New York	N Y
Controls Co of America, Schiller Park	Ill
Cox Instruments Div Lynch Corp, Detroit	Mich
Cramer Div Conrac Corp, Old Saybrook	Conn
Delta Design Inc, La Mesa	Cal
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Furnas Electric Co, Batavia	Ill
General Time, Industrial Controls Div, Torrington	Conn
Gibbs Mfg & Research Corp, Janesville	Wis
Haydon Co The, A W, Waterbury	Conn
Heuer Electronics Corp, Norwalk	Conn
Hird-Brown Ltd, Bolton, Lancs	England
Industrial Timer Corp, Parsippany	N J
Ingraham Industries Div McGraw Edison, Bristol	Conn
ITT Europe Inc Components Gp, Brussels 1	Belgium
KDI Precision Prods Div KDI Corp, Cincinnati	Ohio
LaPine Scientific Co, Chicago	Ill
Leach Corp, South Pasadena	Cal
Ledex Div Ledex Inc, Dayton	Ohio
Lehigh Valley Electronics Engrg & Mfg Co, Inc Fogelsville	Pa
Magnasync/Moviola Corp, North Hollywood	Cal
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Timers Co, Indianapolis	Ind
McElroy Electronics Corp, Shirley	Mass
Melpar Inc, Special Prods Dept, Falls Church	Va
Montgomery Mfg Co, Inc, Owensville	Ind
National Time & Signal Co, Detroit	Mich
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Parabam Inc, Hawthorne	Cal
Ramyr Mfg Co, Buena Park	Cal
Raymond Engineering Inc, Middletown	Conn
Robertson Instrument Co, Azusa	Cal
Sangamo Electric Co, Springfield	Ill
Seely Instrument Co Inc, Niagara Falls	N Y
Sela Electronics Co, New York	N Y
Self-Organizing Systems Inc, Dallas	Tex
Servo Development Corp, Hicksville	N Y
Siemens America Inc, New York	N Y
Siemon Mfg Co, Wayne	Ill
Simplex Time Recorder Co, Gardner	Mass
Space & Systems Div General Time Corp Stamford	Conn
Square D Co, Park Ridge	Ill
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Standard Relay Corp, Brooklyn	N Y
Systron Donner Corp, Concord	Cal
Technic Inc, Cranston	RI
Tenor Co Inc, New Berlin	Wis
Tokyo Electric Co Ltd, Tokyo	Japan
Trott Electronics Inc, Rochester	N Y
Veeder-Root, Hartford	Conn
Vocaline Co of America Inc, Old Saybrook	Conn
Waber Electronics Inc, Philadelphia	Pa
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J
Zenith Controls Inc, Chicago	Ill

TIMERS--ELECTRON TUBE

Allen-Bradley Co, Milwaukee	Wis
Cutler-Hammer Inc, Milwaukee	Wisc
Edison, Thomas A Industries, Instr Div West Orange	N J
Fidelity Amplifier Co, Chicago	Ill
Lektra Labs Inc Div Kriser Corp, College Point	N Y
Raven Industries Inc, Sioux Falls	SD
Rocket Research Corp, Redmond	Wash
Square D Co, Park Ridge	Ill

TIMERS—INTERVAL & RESET SEE TIMERS—SYNCHRONOUS MOTOR-OPERATED

Solid State Timers?

Try Bulova First!

CALL:

Ariz	Tech-Ser Inc, 1805 E Indian School Rd Phoenix	602-265-3629
Cal	Straube Assoc., Inc., 483 Willow Rd., Menlo Pk	213-323-2476
Cal	Cardinal Assoc, 16024 Ventura Blvd Encino	213-788-4540
Conn	Samuel C Hooker Inc, Box 369 West Hartford	203-233-8000
Fla	Perrott Assoc, 1607 Forsyth Rd, Orlando	305-275-1132
Fla	Perrott Assoc, Box 4532, Clearwater	813-531-5513
Fla	Perrott Assoc, Box 6277 West Palm Beach	305-967-1770
Ga	Emmett Rushin Co, Box 486 Roswell	404-993-6498
Ill	Communications Eng, 7100 N Western Ave Chicago	312-R01-0548
Md	Daniel & Co, Box 124, Lutherville	301-825-8330
Mass	Samuel Hooker, Inc, Box 352 Winchester	617-729-5482
Minn	Wenco Sales Inc, 7728 Morgan Ave S Minneapolis	612-866-3639
Mo	J C Mankus & Assoc, 400 Brooks La Hazelwood	314-PE1-4334
NY	H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester	716-232-2688
NY	Cane Technical Sales, 555 E Boston Post Rd Mamaroneck	914-698-4411
NY	H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady	518-882-9303
NY	H C Johnson Agencies Inc, Box 215 Fayetteville	315-637-9595
NY	H C Johnson Agencies Inc, 8 Los Robles St Williamsville	716-632-7880
Pa	Daniel & Co, Box 3, Glenside	215-TU7-0550
Tex	Applied Eng Sales, 1st Bank & Trust, Richardson	214-AD1-1322
Wash	Jas J Backer Co, 221 W Galer St Seattle	206-AT3-6470

AMERICAN TIME PRODUCTS
BULOVA WATCH CO INC
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

SOLID STATE TIMERS

CAPACITY TO 50 KW

RANGES from Milliseconds to 5 minutes

ACCURACY to .002

RECYCLE .005 Max.

SURFACE/PANEL MOUNT.
Remote control.

"O" VOLTAGE SWITCHING FOR HEAVY INDUCTIVE LOADS.

FOR CONTROLLING

- Induction Heating
- Safety Controls
- Machine Tool Sequencing
- Motor Controls
- Conveyor Systems
- Process Control
- And Many Other Industrial Applications

TIMERS DIVISION

OF AMERICANA X RAY CO.

568 GRAND AVENUE
ENGLEWOOD, N.J. (201) 944-0010

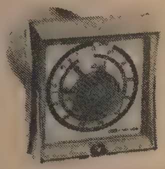
TIMERS--SOLID STATE

AMERICANA X-RAY CO, ENGLEWOOD, N J	**ADV PG 710**
AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE, N Y	**ADV PG 710**
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT IOWA	**ADV PG 711**
FORK STANDARDS INC, WEST CHICAGO	**ILL**
LEACH CORP, SOUTH PASADENA	**CAL**
MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH	**VA**
MESON ELECTRONICS CO, INC, ROCHESTER	**N Y**
TECHMETRIC CO, REDWOOD CITY	**CAL**
TOKYO ELECTRIC CO LTD, TOKYO	**JAPAN**
Abrams Co, H B, Los Angeles	Cal
Abrams Instrument Corp, Lansing	Mich
ADC Electronics, Inc, Harbor City	Cal
Aerospace Research, Inc, Boston	Mass
Agastat Div, Elastic Stop Nut Corp, Elizabeth	N J
AIM Electronics Ltd, Cambridge	U K
Allen-Bradley Co, Milwaukee	Wis
Allied Control Co Inc, New York	N Y
Amark Corp, Plainview	N Y
Americana X-Ray Co, Englewood	N J
American Time Products, Elctns Div Bulova Watch Co Inc Woodside	N Y
Amtron Inc, Midlothian	Ill
Applied Electronics Corp of N J, Metuchen	N J
Artisan Electronics Corp, Parsippany	N J
Audn Corp, Hamburg	N Y
Autronics Corp, Pasadena	Cal
Avien, Inc, Woodside	N Y
Barden Co, Hermosa Beach	Cal
Beckman Instruments Inc, Fullerton,	Cal
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Bristol Motors-Timer Div Vocaline Corp of Amer Inc Old Saybrook	Conn
Cable Electronics, West Hartford	Conn
Campbell/Taylor Inc, Salem	Mass
Canberra Industries, Middletown	Conn
Chrono-Log Corp, Broomall	Pa
Clare-Electroseal Corp, Des Plaines	Ill
Computer Logic Corp, Santa Monica	Cal
Condor Industrial Corp, West Chicago	Ill
Controlomag Labs, Roslyn	Pa
Controlotron Corp, Farmingdale	N Y
Cook Electric Co Automatic Controls Div, Palatine	Ill
Cramer Div Conrac Corp, Old Saybrook	Conn
Datametrics Inc, Waltham	Mass
Data Science Corp, San Diego	Cal
De-Tec-Tronic Corp, Chicago	Ill
Dynamco Ltd, Chertsey Surrey	Eng
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Electro Circuits Inc, Lowell	Mass
Electro Development Corp, Lynnwood	Wash
Electro Miniatures Corp, South Hackensack	N J
Electronic Counters Inc, Englewood	N J
Electronic Ideas Inc, Wyncote	Pa
Elmek Div Electro Mechanics Inc, New Britain	Conn
EMI Electronics Ltd, Hayes, Middlesex	England
En-Cer Inc, South Holland	Ill
Farmer Electric Products Co Inc, Natick	Mass
Ferwalt Inc W H, Lapwai	Idaho
Fidelity Amplifier Co, Chicago	Ill
Fisher-Akin Co, Manhattan Beach	Cal
Fitre, 20143 Milano	Italy
Flow Corp, Watertown	Mass
Fork Standards Inc, West Chicago	Ill
Furnas Electric Co, Batavia	Ill
Gammatronix Inc, Dublin	Ohio
Gems Co Inc, Farmington	Conn
General Instrument Corp Radio Receptor Div Hicksville	N Y
General Instrument Europe SPA, Milano	Italy
General Time, Industrial Controls Div, Torrington	Conn
Geo Space Systems Inc, St Petersburg	Fla
Giannini-Voltex, Whittier	Cal
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Gulton Industries Inc, Metuchen	N J
Hamner Electronics Co Inc, Cleveland	Ohio
Haydon Co The, A W, Waterbury	Conn
Heuer Electronics Corp, Norwalk	Conn
Hi-Tek Corp, Santa Ana	Cal
Hoagland Instrument Co, Red Bank	N J
Hugle Industries, Sunnyvale	Cal
Humphrey Electronics Inc, Raleigh	N C
Instrumentation & Control Systems Inc, Addison	Ill
Instrument Components Co, Maple Heights	Ohio
Intertechnique, Plaisir, 78	France
Kameco Ltd, Montreal	Que
KDI Precision Prods Div KDI Corp, Cincinnati	Ohio
Laben S p A, Milan	Italy
Larago Electronics Mfgrs Inc, Melbourne	Fla
Leach Corp, South Pasadena	Cal
Ledex Div Ledex Inc, Dayton	Ohio
Lehigh Valley Electronics Engrg & Mfg Co, Inc Fogelsville	Pa
Lek-Trol, Inc, Grapevine	Tex
Liebel-Flarsheim Co, Cincinnati	Ohio
Magnetic Specialties Inc, Trenton	N J
Mallory Timers Co, Indianapolis	Ind
Massey Dickinson Co Inc, Saxonville	Mass
MCG Electronics, Deer Park	N Y
McKee-Pedersen Instruments, Danville	Cal
Melpar Inc, Special Prods Dept, Falls Church	Va
Meson Electronics Co, Inc, Rochester	N Y
Monsanto Elec Tech Center, West Caldwell	N J
Motorola Semiconductor Products Inc, Phoenix	Ariz
NanoFast, Inc, Chicago	Ill
Neill Engineering Co, East Hartland	Conn
Neotec Corp, Rockville	Md
Northeast Electronics Corp, Concord	N H
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Nuclear Supplies, Encino	Cal
Omega Industries Inc, Newport Beach	Cal
Pacific Electro Dynamics Inc, Seattle	Wash
Parabam Inc, Hawthorne	Cal
Parko Electronics Co Inc, Santa Ana	Cal

Industrial and Commercial Time/Count Controls

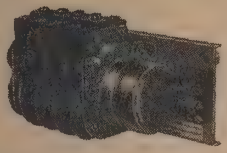
The broad line of Eagle Time/Count Controls includes electronic, electro-mechanical and pneumatic types in commercial, industrial, and military grades. Besides standard, catalog items, Eagle Signal designs and produces many custom time/count devices and systems for special applications. Write to the home office for complete catalog data or Bulletins mentioned. Application engineering consultation without obligation.

REPEAT CYCLE TIMERS



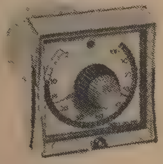
HG100 PLUG-IN FLEXOPULSE—BULLETIN 321

A dual-function timer with a single, easy-to-set dial providing adjustable "on" and "off" time periods for cycles ranging from 30 seconds to 60 hours. Can be adjusted without setting cams or changing gears.



MULTIPULSE CAM TIMER—BULLETIN 340

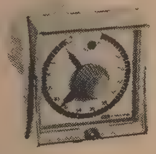
2 to 12 SPDT switches are actuated by adjustable cams. A complete selection of change gears and motors provides cycles from 6 sec. to 36 hours. Contact rating, 10 Amps. @ 120 VAC.



SOLID STATE REPEAT CYCLE TIMER—BULLETIN 322

Provides continuous on-off cycles from 3 to 1000 times a minute. The on and off cycles are individually adjustable on the dial. Load handling capacity 1 Amp. @ 120 VAC.

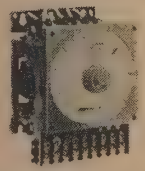
TIME DELAY OR SINGLE CYCLE TIMERS



CYCL-FLEX PLUG-IN TIMER—BULLETIN 125

Plug in feature provides easy installation and reduces down time. Dial ranges from 5 sec. to 60 hours.

The Cycl-Flex series also includes a transistorized reset timer, an 80 count counter, pulse timer and percentage timer.

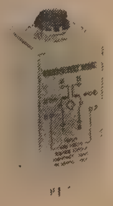


MICROFLEX TIMER—BULLETIN 110

Precision timing of 1/10 percent of full scale is provided by the 20 turn micrometer dial. Dial ranges from 20 sec. to 120 hours. Three load contacts are adjustable to hundreds of contact combinations—eliminate relays.

MULTIFLEX MULTIPLE CIRCUIT TIMER—BULLETIN 130

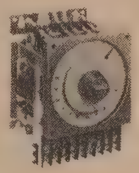
1 to 6 circuits are tripped open or closed according to settings on the linear scales. A repeat cycle model is available for continuous sequencing or programming.



SOLID STATE—CG SERIES—BULLETIN 158

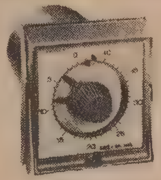
A solid state time delay relay that is reliable, accurate, and economical for applications requiring a delay up to 60 seconds. This knob-adjustable timer plugs into an octal relay socket and is a perfect replacement for pneumatic timers.

COUNTERS



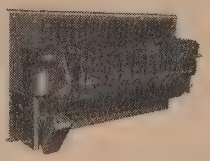
MICROFLEX RESET COUNTER—BULLETIN 720

Trips 3 SPST contacts at end of preset count. (19), (400), and (1000) count dials. Automatic reset. Available in impulse and shaft driven types. Contact rating 15 Amps. @ 120 VAC.



HZ 170 CYCL-FLEX COUNTER—BULLETIN 726

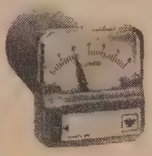
An impulse counter housed in the famous Cycl-Flex plug-in case. It has a single-turn dial with count ranges of 40 and 100. One switch operates simultaneously with the clutch coil as a hold-in circuit. Two other switches actuate at end of count.



STEP SWITCH—BULLETIN 780

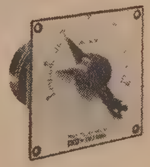
Up to 19 circuits turned ON and OFF in steps according to sequence established by break out cams. Use for programming machines and processes.

COMMERCIAL TIME/COUNT CONTROLS FOR CUSTOM APPLICATION



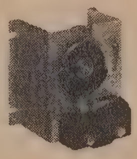
RESET TIMER—MODEL 88

A versatile little timer that can be used either as a delay timer, an interval timer, or a combination of the two. Precision adjustment, 10 amp contacts at 120/240 VAC, 6 seconds — 48 hour time ranges, and a cycle progress pointer are features.



MOTOR RESET TIMER—MODEL 84

Actuates a 5 Amp. SPDT switch at the end of a preset interval. Time ranges from 4 sec. to 5 minutes. A red cycle progress pointer indicates the progress of the timed interval.



REPEAT CYCLE TIMER—MODEL 220

This compact and easily adjustable timer with up to 25 amp contact rating has 286 standard time ranges and can be operated in any position. It is ideal for those applications in which an electrical circuit is to be interrupted in accordance with a prearranged time setting.

For complete description and specifications, write to Eagle Signal Division, E. W. Bliss Company, Federal Street, Davenport, Iowa.

In Canada: Eagle Signal Division,
E. W. Bliss Company
(Canada) Ltd.

BLISS **EAGLE SIGNAL**

A GULF + WESTERN COMPANY

Parzen Research Inc Sub Ovitron Corp, Westbury	N Y
Peco Corp, Mountain View	Cal
Plessey Airborne Corp, Hillside	NJ
Pulse Communications Inc, Falls Church	Va
Ramsey Controls Inc, Mahwah	N J
Raven Electronics Inc, Burbank	Cal
Raven Industries Inc, Sioux Falls	SD
Relay Specialties Inc, Fair Lawn	N J
Siemon Mfg Co, Wayne	Ill
Slocum Industries, Inc, Reseda	Cal
Space Craft Inc, Huntsville	Ala
Space & Systems Div General Time Corp Stamford	Conn
Square D Co, Park Ridge	Ill
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Sulzer Brothers Ltd, Industrial Elctns Div Winterthur	Switzerland
Syracuse Electronics Corp, Syracuse	N Y
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Techmetric Co, Redwood City	Cal
Tek-Sel Labs Inc, Saddle Brook	N J
Tokyo Electric Co Ltd, Tokyo	Japan
Topping Electronics Ltd, Toronto 17	Ont
Trelcom Engineering Co Inc, Baltimore	Md
Veeder-Root, Hartford	Conn
Vitro Labs Div Vitro Corp of America, W Orange	N J
Vocaline Co of America Inc, Old Saybrook	Conn
Warner Electric Brake & Clutch Co, Beloit	Wisc
Watesta Electronics Ltd, London-E 11	England
Westinghouse Electric Corp, Standard Control Div Beaver	Pa
Zehntel Inc, Berkeley	Cal

TIMERS--SYNCHRONOUS MOTOR OPERATED

BOWMAR INSTRUMENT CORP, FORT WAYNE	**IND**
DIMCO-GRAY CO, DAYTON	**OHIO**
EAGLE SIGNAL DIV E W BLISS CO, DAVENPORT IOWA	**ADV PG 711**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
HURST MFG CORP, PRINCETON	**IND**
INDUSTRIAL TIMER CORP, PARSIPPANY, N J	**ADV PG 712**
J-B-T INSTRUMENTS INC, NEW HAVEN	**CONN**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO PRINCETON	**IND**
TOKYO ELECTRIC CO LTD, TOKYO, JAPAN	**ADV PG 712**
Abrams Instrument Corp, Lansing	Mich
Aemco Div, Midtex Inc, Mankato	Minn
A L Controls Co, New Haven	Conn
Allen-Bradley Co, Milwaukee	Wis
Barwood Electronics, Inc, Glendale	Cal
Bayside Timers, Inc, Flushing	N Y
Bowmar Instrument Corp, Fort Wayne	Ind
Bristol Motors-Timer Div Vocaline Corp of Amer Inc Old Saybrook	Conn
Brosseau Co, Joseph E, Franklin Park	Ill
Calculagraph Co, Hanover	N J
Condor Industrial Corp, West Chicago	Ill
Conrac Corp, New York	N Y
Controls Co of America, Schiller Park	Ill
Cook Electric Co Automatic Controls Div, Palatine	Ill
Co-Ord Div LVC Industries Inc, Corona	NY
Cramer Div Conrac Corp, Old Saybrook	Conn
Custom Control Mfg Inc, Merriam	Kan
Cutler-Hammer Inc, Milwaukee	Wisc
Datametrics Inc, Waltham	Mass
Dimco-Gray Co, Dayton	Ohio
Eagle Signal Div E W Bliss Co, Davenport	Iowa
Electric Tachometer Corp, Philadelphia	Pa
Electron-Ohio Inc, Cleveland	Ohio
Engler Instrument Co, Jersey City	N J
Essex Engineering Co Inc, Essex	Conn
Fidelity Amplifier Co, Chicago	Ill
Foster & Allen Inc, Chatham	N J
Fuji Electric Co Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
General Electric Co, Housewares Div, Ashland	Mass
General Time, Industrial Controls Div, Torrington	Conn
Geodyne Div EG&G Int'l, Waltham	Mass
Gibbs Mfg & Research Corp, Janesville	Wis
Globe Industries Div TRW Inc, Dayton	Ohio
Grimes Mfg Co, Urbana	Ohio
Hafstrom Technical Products Inc, San Diego	Cal
Harvard Apparatus Co Inc, Millis	Mass
Haydon Co The, A W, Waterbury	Conn
Haydon Products, Ind Controls Div Gen Time Corp, Torrington	Conn
Haydon Switch & Instrument Inc, Waterbury	Conn
Hird-Brown Ltd, Bolton, Lancs	England
Hurst Mfg Corp, Princeton	Ind
Industrial Timer Corp, Parsippany	N J
Ingraham Industries Div McGraw Edison, Bristol	Conn
JB Electronic Transformers Inc, Chicago	Ill
J-B-T Instruments Inc, New Haven	Conn
KDI Precision Prods Div KDI Corp, Cincinnati	Ohio
Landis & Gyr AG, Zug	Switzerland
LaPine Scientific Co, Chicago	Ill
Larson Aero Development, Concord	Cal
Lear Siegler Inc, Instrument Div, Grand Rapids	Mich
Liebel-Flarsheim Co, Cincinnati	Ohio
Lind Electro Development A Teledyne Co Mountain View	Cal
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Timers Co, Indianapolis	Ind
McElroy Electronics Corp, Shirley	Mass
Metermaster, Inc, Los Angeles	Cal
Minarik Electric Co, Los Angeles	Cal
Montgomery Mfg Co, Inc, Owensville	Ind
National Time & Signal Co, Detroit	Mich
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Nuclear Supplies, Encino	Cal
Parabam Inc, Hawthorne	Cal
Pennwood Numechron Co Tymeter Electronics Pittsburgh	Pa
Potter & Brumfield, Div Amer Mach & Fdry Co Princeton	Ind
Precision Mechanisms Corp, Westbury	N Y
Precision Scientific Co Sub GCA Corp, Chicago	Ill
Ramyr Mfg Co, Buena Park	Cal
Rawco Instruments Inc, Fort Worth	Tex
Raymond Engineering Inc, Middletown	Conn
Rhodes Inc, M H, Hartford	Conn
Sankyo Seiki Mfg Co, Ltd, Tokyo	Japan
Seely Instrument Co Inc, Niagara Falls	N Y
Servo Development Corp, Hicksville	N Y
Siemon Mfg Co, Wayne	Ill
Simplex Time Recorder Co, Gardner	Mass
Space & Systems Div General Time Corp Stamford	Conn
Standard Electric Time Co, Springfield	Mass
Standard Instrument Corp Div Automatic Timing & Controls Inc, King of Prussia	Pa
Standard Relay Corp, Brooklyn	N Y
Sticht Co Inc, Herman H, New York	N Y
Struthers-Dunn Inc, Pitman	N J
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Tateisi Electronics Co, Ukyo-ku, Kyoto	Japan
Taylor Instrument Cos, Rochester	N Y
Tenor Co Inc, New Berlin	Wis
Thordarson Meissner Inc, Mt Carmel	Ill
Time-O-Matic Inc, Danville	Ill
Tokyo Electric Co Ltd, Tokyo	Japan
Torque Tronics, San Gabriel	Cal
U S Time Corp, Waterbury	Conn
Venner Electronics Ltd, New Malden, Surrey	Eng
Vocaline Co of America Inc, Old Saybrook	Conn
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J
Wickes Industries Inc, Camden	N J
Zenith Controls Inc, Chicago	Ill

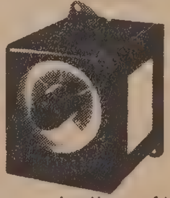
TIMERS--THERMAL

Edison, Thomas A Industries, Instr Div West Orange	N J
Hoagland Instrument Co, Red Bank	N J
KDI Precision Prods Div KDI Corp, Cincinnati	Ohio
Relay Specialties Inc, Fair Lawn	N J
Standard Relay Corp, Brooklyn	N Y
Ulanet Co, George, Newark	N J

TRANSISTOR TIMER

An electronic timer in which transistors and relay are combined with a CR delay circuit. Highly stable and accurate, small and light, precision-made and of plug-in type. Four types available. Repeat accuracy of ±3%. Contact rating: AC 220v, 3a.

Precision Timers!

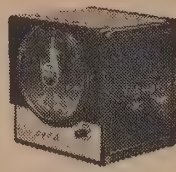


MOTOR TIMER

A versatile, multipurpose motor timer of high stability. Wide range of 11 types—from 30 seconds to 24 hours—available. Easy maintenance and checking possible because of plug-in type. Light and compact. With convenient movement needle. Contact rating: AC 220v, 2a.

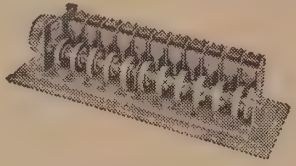
TOKYO ELECTRIC CO., LTD.
The 5th Hasegawa Bldg., 14-8, 1-chome,
Uchi-Kanda, Chiyoda-ku, Tokyo, Japan

INDUSTRIAL TIMERS



MEASURE

short time intervals from 1/100 to 60 sec. with Series SC-100 Stop Clock. Bulletin #706.



PROGRAM

from 1 to 20 circuits in one of 600 time cycles ranging from 2/3 sec. to 72 hours. Described in Bulletin #206, and 208.

OPERATE

load circuit, turn it off and automatically reset. Time cycles from 1/60 sec. to 3 hours. Bulletin #403.

DELAY

a circuit operation after a switch closure. Automatic reset, available in many models and time cycles ranging from 1/60 sec. to 3 hours. Details in Bulletin #305.

DO YOU HAVE A TIMING PROBLEM? IF SO, WE'D LIKE TO HEAR ABOUT IT. IN ANY CASE, WRITE FOR ONE OF OUR CATALOGS.

1. TIMING CONTROLS—64 pages.
2. RELAYS—64 pages.
3. PHOTOGRAPHIC PRODUCTS—18 pages.

456 U.S. HIGHWAY 287 • PARSIPPANY, N. J.

INDUSTRIAL TIMER CORPORATION

TIMERS--WELDING, ELECTRONIC

AMERICANA X-RAY CO, ENGLEWOOD	**N J**
EWALD INSTRUMENTS CORP, KENT	**CONN**
FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
SORENSEN OPERATION, RAYTHEON CO., NORWALK	**CONN**
TECHMETRIC CO, REDWOOD CITY	**CAL**
Agastat Div, Elastic Stop Nut Corp, Elizabeth	N J
A L Controls Co, New Haven	Conn
Americana X-Ray Co, Englewood	N J
Amtron Inc, Midlothian	Ill
Bristol Motors-Timer Div Vocaline Corp of Amer Inc Old Saybrook	Conn
Clare-Electroseal Corp, Des Plaines	Ill
Cramer Div Conrac Corp, Old Saybrook	Conn
Dynamco Ltd, Chertsey Surrey	Eng
Eisler Engineering Co, Newark	N J
Euro Cedag, Milan	Italy
Ewald Instruments Corp, Kent	Conn
Farmer Electric Products Co Inc, Natick	Mass
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Forney Industries Inc, Fort Collins	Colo
Furnas Electric Co, Batavia	Ill
General Electric Co, ECSO, Schenectady	N Y
Griffiths Electronics Inc, Linden	N J
Guardian Electric Mfg Co of Cal Inc, Culver City	Cal
Hirst Electric Industries Ltd, Crawley, Sussex	England
Industrial Solid State Controls Inc, York	Pa
Janus Control Div Tyco, Waltham	Mass
KSM Div Omark Industries Inc, Moorestown	N J
Liebel-Flarsheim Co, Cincinnati	Ohio
Livingston Electronic Div Jettron Prods Inc Hanover	N J
Machinery Electrification Inc, Northboro	Mass
Miller Electric Mfg Co, Appleton	Wis
Photobell Co Inc, New York	N Y
Plessey Airborne Corp, Hillside	NJ
Robotron Corp, Detroit	Mich
Sciaky Bros Inc, Chicago	Ill
Sorensen Operation, Raytheon Co., Norwalk	Conn
Square D Co, Park Ridge	Ill
Syracuse Electronics Corp, Syracuse	N Y
Taylor-Winfield Corp, Warren	Ohio
Techmetric Co, Redwood City	Cal
Thordarson Meissner Inc, Mt Carmel	Ill
Thom Automation Ltd, Rugeley, Staffs	England
Timeco Inc, Huntington	W Va
Vocaline Co of America Inc, Old Saybrook	Conn
Weldmatic Div Unitek Corp, Monrovia	Cal
Wells Electronics Inc Equipment Div, South Bend	Ind
Weltronic Co, Southfield	Mich
Western Arctronic, Monrovia	Cal

TIME STANDARDS SEE STANDARDS

TIMING MOTORS SEE MOTORS--TIMER & CLOCK

TIN

Alloys Unlimited Inc, Melville	N Y
Alpha Metals Inc, Jersey City	NJ
American Silver Co Div, Flushing	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bow Solder Products Co Inc, Newark	N J
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerac Inc, Butler	Wis
Cominco American Inc Electronic Matls Div, Spokane	Wash
Cramco Solder Alloys, Scarborough	Ont
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Division Lead Co, Summit	Ill
Gardiner Solder Co, Chicago	Ill
Hi-Grade Alloy Corp, East Hazelcrest	Ill
Kawecki Chemical Co, New York	N Y
Kester Solder Co, Chicago	Ill
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Materials Research Corp, Orangeburg	N Y
Metal Ceram Inc, Mount Vernon	N Y
M & T Chemicals Inc Sub American Can Co Rahway	N J
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Electronics Corp, Bradford	Pa
Wah Chang Corp, Glen Cove	N Y

TINNING SERVICES (HOT DIP)

DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
Alloys Unlimited Inc, Melville	N Y
Anadite, Inc, South Gate	Cal
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Cambridge Plating Co Inc, Belmont	Mass
Daburn Electronics & Cable Corp, Bronx	N Y
Device Seals Inc, Sun Valley	Cal
Electro-Sonics, Inc, Spofford	N H
Electrovert Inc, Mt Vernon	N Y
Flexible Products Inc, North St Paul	Minn
Hopwood Retinning Corp, Malden	Mass
Lake Engineering Co Ltd, Scarborough	Ont
Manger Electric Co Inc, Stamford	Conn
Montgomery Co, Windsor Locks	Conn
New England Retinning Inc, Everett	Mass
Paraplegics Mfg Co Inc, Bensenville	Ill
Roosevelt Metal Co Inc, Brooklyn	N Y
Somers Thin Strip Inc Sub Olin, Waterbury	Conn
Teletronics Labs Inc, El Segundo	Cal
United American Metals Div, Brooklyn	N Y
Veritron West Inc, Chatsworth	Cal
Wright Metalcoaters Inc, South Hackensack	N J

TIN PLATING SEE ELECTROPLATING SERVICES

TITANATES

AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
CLEVITE CORP PIEZOELECTRIC DIV, BEDFORD	**OHIO**
MURATA MFG CO, LTD, KYOTO	**JAPAN**
American Lava Corp, Chattanooga	Tenn
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerac Inc, Butler	Wis
Channel Industries Inc, Santa Barbara	Cal
City Chemical Corp, New York	N Y
Clevite Corp Piezoelectric Div, Bedford	Ohio
C M Mfg Co, Bloomfield	N J
Du Pont De Nemours & Co Inc E I, Wilmington	Del
Edo Corp, College Point	NY
Edo Western Corp, Salt Lake City	Utah
Electra Scientific Div Gulton Indus Inc, Fullerton	Cal
Koch Light Labs Ltd, Colnbrook, Bucks	England
Linden Labs Inc, State College	Pa
Mackay Inc, A D, New York	N Y
M & T Chemicals Inc Sub American Can Co Rahway	N J
Murata Mfg Co, Ltd, Kyoto	Japan
Pennsylvania Electronics Technology, Inc, Pittsburgh	Pa
Rocky Mountain Research Inc, Denver	Colo
Semi-Elements Inc, Saxonburg	Pa
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Vitta Corp, Wilton	Conn

TITANIUM

EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV JOPLIN	**MO**
SUPERIOR TUBE CO, NORRISTOWN	**PA**
UNIFORM TUBES INC, COLLEGEVILLE	**PA**
Active Alloys Inc, Brooklyn	N Y
Alloys Unlimited Inc, Melville	N Y
Aluminum Co of America, Pittsburgh	Pa
American Silver Co Div, Flushing	N Y
Anadite, Inc, South Gate	Cal
Armco Steel Corp, Middletown	Ohio
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Bemol Co, Newton	Mass
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerac Inc, Butler	Wis
City Chemical Corp, New York	N Y
Crucible Steel Co, Pittsburgh	Pa
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Eagle-Picher Industries Inc, Electronics Div, Joplin	Mo
Electronic Space Products Inc, Los Angeles	Cal
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Hamilton Precision Metals Div Hamilton Watch Co Lancaster	Pa
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Materials Research Corp, Orangeburg	N Y
Metal Ceram Inc, Mount Vernon	N Y
Nuclear Materials & Equipment Corp, Apollo	Pa
Rodney Metals A Teledyne Co, New Bedford	Mass
Ryerson & Son Inc, J T, Chicago	Ill
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
Somers Thin Strip Inc Sub Olin, Waterbury	Conn
Superior Tube Co, Norristown	Pa
Uniform Tubes Inc, Collegeville	Pa
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Ventron Corp Metal Hydrides Div, Beverly	Mass
Ventron Electronics Corp, Bradford	Pa
Vitro Labs Div Vitro Corp of America, W Orange	N J
Wah Chang Corp, Glen Cove	N Y

TITANIUM CARBIDE

Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerac Inc, Butler	Wis
City Chemical Corp, New York	N Y
Electronic Space Products Inc, Los Angeles	Cal
Firth Sterling Inc, Pittsburgh	Pa
Kennametal Inc, Latrobe	Pa
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Semi-Elements Inc, Saxonburg	Pa
Shieldalloy Corp, Newfield	N J
Texas Instruments Incorporated, Dallas	Tex
Var-Lac-Oid Chemical Co, Elizabeth	N J
Vitro Labs Div Vitro Corp of America, W Orange	N J
Wah Chang Corp, Glen Cove	N Y

TONE OSCILLATORS--AUDIO SEE OSCILLATORS--A-F

TOOLS--CUTTERS (HOLE, GROOVE & SLIT (INCL SAWS)

ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES	**CAL**
DoAll Co, Des Plaines	Ill
Fineisen Co A R, Westwood	NJ
General Hardware Mfg Co Inc, New York	N Y
Greenlee Tool Co, Rockford	Ill
Hammel, Riglander & Co Inc, New York	N Y
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
Janel Inc, Stirling	N J
Jonard Industries Corp, Bronx	N Y
Kuhlmann-Impex, Inc, Houston	Tex
Mann Co, Henry, Cornwell Heights	Pa
Metal Removal Co, Chicago	Ill
Mico Instrument Co, Cambridge	Mass
Modern Mfg Co Inc, Willow Grove	Pa
Murphy Industries G W Cleco Pneumatic Div Houston	Tex
Niagara Machine & Tool Works, Buffalo	N Y
Pratt & Whitney Machine Tool Div, West Hartford	Conn
Smith Inc, Herman H, Brooklyn	N Y
Utica-Bonney Tools, Kelsey-Hayes Co, Orangeburg	S C
Waldes Kohinoor Inc, Long Island City	N Y
Wallace Murray Corp, Fitchburg	Mass

TOOLS--DESOLDERING

EDSYN, INC, VAN NUYS, CAL	**ADV PG 713**
American Electrical Heater Co, Detroit	Mich
Edsyn, Inc, Van Nuys	Cal
Newman Corp, M M, Marblehead	Mass

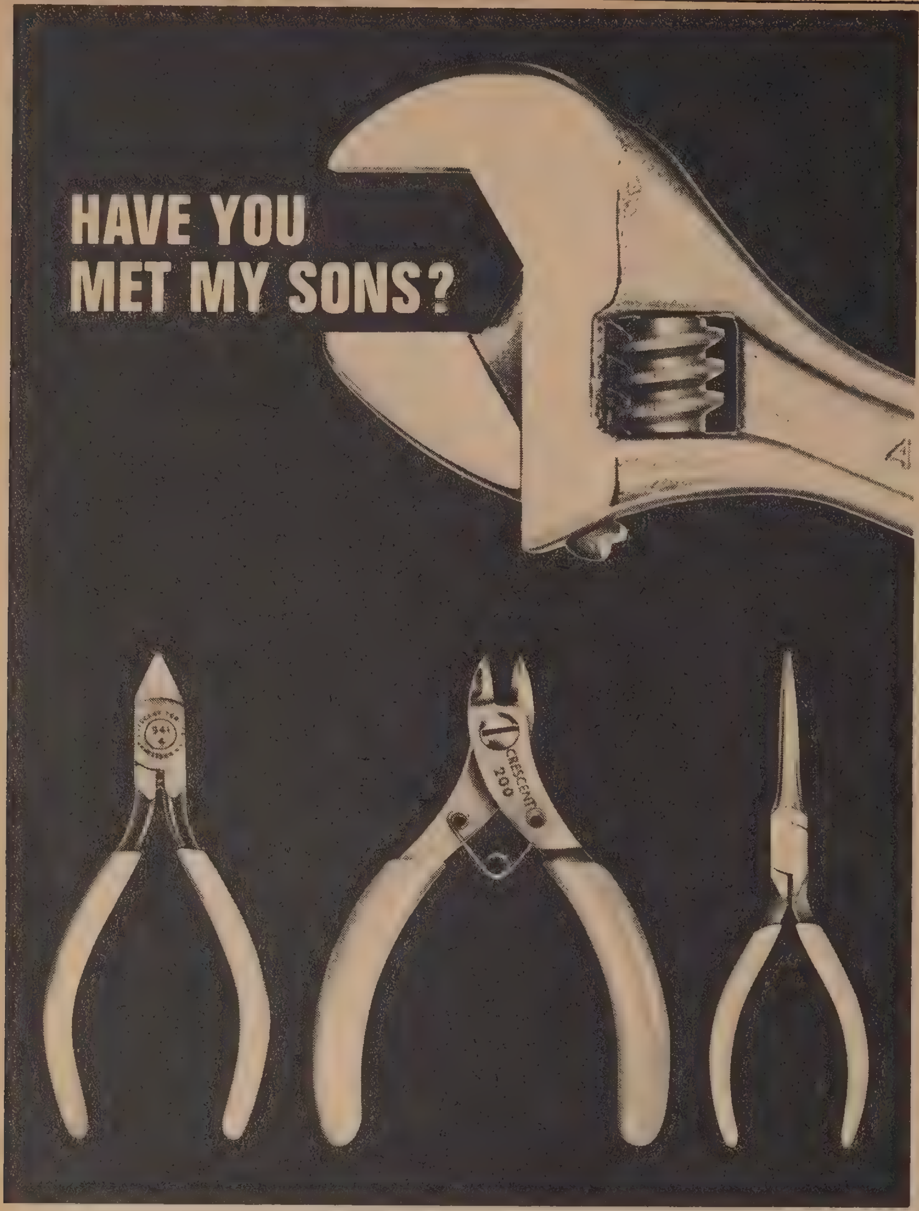
REMOVE SOLDER FAST
SOLDAPULLT®
DESOLDERING TOOLS

- SWIFT/POSITIVE VACUUM ACTION
- SELF-CLEANING AS IT RELOADS
- LIGHTWEIGHT AND PORTABLE
- ALL MODELS INEXPENSIVELY PRICED

The SOLDAPULLT® DESOLDERING TOOL is a portable hand tool designed for component re-working. Molten solder is drawn into the receiving chamber with a high impulse vacuum stroke by simple thumb release of a spring loaded piston.

EDSYN INC. 15954 Arminta St. Van Nuys, California 91406

Cable Address: EDSYNEX / Phone (213) 989-2324



Or any of my 1,000 other kids? We're the Crescent Tool Family, and we get a grip on a lot of things. You'll find all kinds of pliers in our family, including exclusive stainless steel cutting pliers, long nose, chain nose and diagonal cutting pliers. And screwdrivers . . . all types and sizes for hundreds of uses. Every tool in the line meets the original Crescent standards for quality and reliability. They're great kids. If they weren't, they wouldn't bear the Crescent name or be backed by the famous Crescent guarantee.

Quality in production, guaranteed in performance and priced to compete. The Crescent Tool Family has a lot to offer.

GUARANTEE

Crescent hand tools are guaranteed to give complete satisfaction or return for free replacement.

Shouldn't you be ordering Crescent Tools? Write today for your complete catalog.

CRESCENT® C®

CRESCENT TOOL COMPANY / DIVISION OF CRESCENT NIAGARA CORPORATION / 70 NIAGARA STREET, BUFFALO, NEW YORK 14202

TOOL--HAND OR MECHANICAL NOTE:

INCLUDES GRINDERS, MILLING CUTTERS, PLIERS, PUNCHES, REAMERS, SCREWDRIVERS, TAPS, WRENCHES; WRENCHES, TORQUE, ETC

AMP INCORPORATED, HARRISBURG	**PA**
BURNDY CORP, NORWALK	**CONN**
CRESCENT TOOL CO DIV CRESCENT NIAGARA CORP, BUFFALO N Y	**ADV PG 714**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Aerodyne Controls Corp, Farmingdale	N Y
Aerovox Corp Distr Sales, New Bedford	Mass
Aikow Shoji Kaisha Ltd, Osaka	Japan
AMP Incorporated, Harrisburg	Pa
Applied Electro Mechanics Inc, Alexandria	Va
Armite Laboratories, Los Angeles	Cal
Armstrong Bros Tool Co, Chicago	Ill
Associated American (Amacoil) Winding Machinery Inc New Rochelle	N Y
A V Electronics, Inc, Fresno	Cal
Bearing Inspection, Inc, Santa Fe Springs	Cal
Beauchaine & Sons Inc, Laconia	NH
Buchanan Electrical Products Corp, Union	NJ
Burndy Corp, Norwalk	Conn
By-Buk Co, Los Angeles	Cal
Channellock Inc, Meadville	Pa
Clauss Cutlery Co Div Alco Standard Corp Fremont	Ohio
Colbert Die Cast Co Inc, South Gate	Cal
Crescent Tool Co Div Crescent Niagara Corp Buffalo	N Y
Desco Mfg Co, Glendale	Cal
Diamond Tool & Horseshoe Co, Duluth	Minn
Diebel Mfg Co, Morton Grove	Ill
DoAll Co, Des Plaines	Ill
Douglas Div Kingston Products Corp, Bronson	Mich
D-Vel Research Labs Inc, Bedford Hills	N Y
Elco Corp, Willow Grove	Pa
Electro-Stylus Mfg Co, Colorado Springs	Colo
Emporium Specialties Co Inc, Cleveland	Ohio
Engineering & Electronic Devices Inc, Los Angeles	Cal
Everard Tap & Die Corp, Bronx	N Y
Eyelet Tool Co, Cambridge	Mass
Fineisen Co A R, Westwood	NJ
Firth Sterling Inc, Pittsburgh	Pa
Flotron Industries Inc, El Segundo	Cal
Foredom Electric Co Inc, Bethel	Conn
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Hardware Mfg Co Inc, New York	N Y
Geoscience Instruments Corp, Mt Vernon	N Y
Greenlee Tool Co, Rockford	Ill
Hammel, Riglander & Co Inc, New York	N Y
Harwil Co, Santa Monica	Cal
Hunter Industries, Santa Fe Springs	Cal
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Ideal Industries Inc, Sycamore	Ill
Injectorall Electronics Corp, Great Neck	NY
Jadow & Sons Inc, B, New York	N Y
James Electronic Tool Co, Palo Alto	Cal
Janel Inc, Stirling	N J
Jo-Line Tools Inc, South Gate	Cal
Jonard Industries Corp, Bronx	N Y
Kedman Co, Salt Lake City	Utah
Klein & Sons Inc, Mathias, Chicago	Ill
MacDonald & Co, Glendale	Cal
Mann Co, Henry, Cornwell Heights	Pa
Metal Removal Co, Chicago	Ill
Mico Instrument Co, Cambridge	Mass
Micronics Corp of America, Providence	RI
Modern Mfg Co Inc, Willow Grove	Pa
Moody Machine Products Co Inc, Providence	R I
Murphy Industries G W Cleco Pneumatic Div Houston	Tex
Niagara Machine & Tool Works, Buffalo	N Y
Overload Controls Inc, Bronxville	N Y
Owatonna Tool Co, Owatonna	Minn
Panduit Corp, Tinley Park	Ill
Peck Stow & Wilcox Co, Southington	Conn
Philmore Mfg Co Inc, Richmond Hill	N Y
Pi Tape, Lemon Grove	Cal
Pratt & Whitney Machine Tool Div, West Hartford	Conn
Sankyo Seiki Mfg Co, Ltd, Tokyo	Japan
Standard Pneumatic Motor Co, Whittier	Cal
Starrett Co, L S, Athol	Mass
Sturtevant Co, P A, Addison	Ill
Sweeney Mfg Co, B K, Denver	Colo
Technical Devices Co, Culver City	Cal
Techni-Tool Inc, Philadelphia	Pa
Thomas & Betts Co Inc, Elizabeth	N J
Triple A Specialty Co, Chicago	Ill
Uber Grafic Instruments, Palo Alto	Cal
Upson Tools Inc, Rochester	N Y
Utica-Bonney Tools, Kelsey-Hayes Co, Orangeburg	S C
Vaco Products Co, Chicago	Ill
Waldom Electronics Inc, Chicago	Ill
Wendon Co Inc, Stamford	Conn
Wen Products Inc, Chicago	Ill
Wharton Unitools, Moosup	Conn
Xcelite Inc, Orchard Park	N Y
Yokogawa Electric Works Inc, Larchmont	N Y
Zephyr Mfg Co Inc, Inglewood	Cal

TOOLS--MICROMINIATURE (INCL DRILLS, REAMERS, ROUTERS, ETC)

CIRCON COMPONENT CORP, GOLETA, CAL	**ADV PG 332**
Beauchaine & Sons Inc, Laconia	NH
Circon Component Corp, Goleta	Cal
DoAll Co, Des Plaines	Ill
Electronic Space Products Inc, Los Angeles	Cal
Everard Tap & Die Corp, Bronx	N Y
Fineisen Co A R, Westwood	NJ
Foredom Electric Co Inc, Bethel	Conn
General Hardware Mfg Co Inc, New York	N Y
Hammel, Riglander & Co Inc, New York	N Y
Hunter Industries, Santa Fe Springs	Cal
Hydro Molding Co Inc, Plattsburgh	N Y
Jadow & Sons Inc, B, New York	N Y
Janel Inc, Stirling	N J
Jonard Industries Corp, Bronx	N Y
Kuhlmann-Impex, Inc, Houston	Tex
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Levin & Son Inc, Louis, Culver City	Cal
Mann Co, Henry, Cornwell Heights	Pa
Metal Removal Co, Chicago	Ill
Micronics Corp of America, Providence	RI
Moody Machine Products Co Inc, Providence	R I
Orbit Industries, Div Countis Industries San Luis Obispo	Cal
Ramyr Mfg Co, Buena Park	Cal
Super Tool Co, Elk Rapids	Mich
Techni-Tool Inc, Philadelphia	Pa
Uber Grafic Instruments, Palo Alto	Cal
Wallace Murray Corp, Fitchburg	Mass
Wendon Co Inc, Stamford	Conn
Wharton Unitools, Moosup	Conn

TOOLS--PNEUMATIC ASSEMBLY

ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP LOS ANGELES	**CAL**
Buchanan Electrical Products Corp, Union	NJ
Conrac Corp, New York	N Y
Elco Corp, Willow Grove	Pa
Gardner-Denver Co, Quincy	Ill
Huck Mfg Co, Detroit	Mich
Itt Cannon Electric Div Intl Tel & Tel Corp Los Angeles	Cal
Mann Co, Henry, Cornwell Heights	Pa
Modern Mfg Co Inc, Willow Grove	Pa
Murphy Industries G W Cleco Pneumatic Div Houston	Tex
Ostby & Barton Co, Providence	R I
Panduit Corp, Tinley Park	Ill
Rico Crimping Tools Co, Santa Fe Springs	Cal
Simonds Machine Co Inc, Southbridge	Mass
Standard Pneumatic Motor Co, Whittier	Cal
Techni-Tool Inc, Philadelphia	Pa
Utica-Bonney Tools, Kelsey-Hayes Co, Orangeburg	S C
Yokogawa Electric Works Inc, Larchmont	N Y

TOOLS, SOLDERING--ELECTRIC SOLDERING IRONS

CAIG LABS INC, WESTBURY	**N Y**
CIRCON COMPONENT CORP, GOLETA	**CAL**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HEATH CO, BENTON HARBOR	**MICH**
American Electrical Heater Co, Detroit	Mich
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Antex Ltd, Croydon, Surrey	England
Antronic Corp, Chicago	Ill
Beauchaine & Sons Inc, Laconia	NH
Caig Labs Inc, Westbury	N Y
Canadian Research Institute, Don Mills	Ont
CBC Industries Inc, Philadelphia	Pa
Circon Component Corp, Goleta	Cal
Components Specialties Inc, Freeport	N Y
Dowa Trading Co Ltd, Kobe	Japan
Electric Soldering Iron Co Inc, Deep River	Conn
Enterprise Development Corp, Indianapolis	Ind
Fedtro Inc, Rockville Centre	N Y
Forney Industries Inc, Fort Collins	Colo
General Electric Co, ECSO, Schenectady	N Y
General Transducer Co, Santa Clara	Cal
Heath Co, Benton Harbor	Mich
Hexacon Electric Co, Roselle Park	N J
Hunter Industries, Santa Fe Springs	Cal
Janel Inc, Stirling	N J
Jonard Industries Corp, Bronx	N Y
Mann Co, Henry, Cornwell Heights	Pa
Micronics Corp of America, Providence	RI
National Specialties Co Inc, Fort Wayne	Ind
Newman Corp, M M, Marblehead	Mass
Oneida Electronic Mfg Co, Meadville	Pa
Philmore Mfg Co Inc, Richmond Hill	N Y
Roosevelt Metal Co Inc, Brooklyn	N Y
Sachs KG, Ersa Ernst, Wertheim/Main	W Germany
Techni-Tool Inc, Philadelphia	Pa
Telvac Instrument Co, Tarzana	Cal
Ungar Div Eldon Industries Inc, Hawthorne	Cal
United American Metals Div, Brooklyn	N Y
Wall Manufacturing Co, Kinston	N C
Weller Electric Corp, Easton	Pa
Wen Products Inc, Chicago	Ill
Yokogawa Electric Works Inc, Larchmont	N Y
Zephyr Mfg Co Inc, Inglewood	Cal
Zeva Electric Corp, New York	N Y

TOOLS, SOLDERING--PRINTED CIRCUIT, SPECIAL TIPS

CIRCON COMPONENT CORP, GOLETA	**CAL**
American Electrical Heater Co, Detroit	Mich
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Antex Ltd, Croydon, Surrey	England
Canadian Research Institute, Don Mills	Ont
Circon Component Corp, Goleta	Cal
Colbert Die Cast Co Inc, South Gate	Cal
Components Specialties Inc, Freeport	N Y
Electric Soldering Iron Co Inc, Deep River	Conn
Engineering & Electronic Devices Inc, Los Angeles	Cal
Enterprise Development Corp, Indianapolis	Ind
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Transducer Co, Santa Clara	Cal
Henes Mfg Co, Phoenix	Ariz
Hexacon Electric Co, Roselle Park	N J
Hydro Molding Co Inc, Plattsburgh	N Y
Janel Inc, Stirling	N J
Mann Co, Henry, Cornwell Heights	Pa
Newman Corp, M M, Marblehead	Mass
Oneida Electronic Mfg Co, Meadville	Pa
Roosevelt Metal Co Inc, Brooklyn	N Y
Techni-Tool Inc, Philadelphia	Pa
Ungar Div Eldon Industries Inc, Hawthorne	Cal
United American Metals Div, Brooklyn	N Y
Wall Manufacturing Co, Kinston	N C
Weldmatic Div Unitek Corp, Monrovia	Cal
Wells Electronics Inc Equipment Div, South Bend	Ind
Wen Products Inc, Chicago	Ill
Zeva Electric Corp, New York	N Y

TOOLS, SOLDERING--RESISTANCE SOLDERING TOOLS

CIRCON COMPONENT CORP, GOLETA	**CAL**
American Electrical Heater Co, Detroit	Mich
Circon Component Corp, Goleta	Cal
Component Specialties Corp, Temple City	Cal
Contact, Inc, Hudson	N H
Forney Industries Inc, Fort Collins	Colo
G C Electronics Div, Hydrometals Inc, Rockford	Ill
Henes Mfg Co, Phoenix	Ariz
Hydro Molding Co Inc, Plattsburgh	N Y
Ideal Industries Inc, Sycamore	Ill
Janel Inc, Stirling	N J
Jonard Industries Corp, Bronx	N Y
Luma Electric Equipment Co, Toledo	Ohio
Mann Co, Henry, Cornwell Heights	Pa
Techni-Tool Inc, Philadelphia	Pa
Zephyr Mfg Co Inc, Inglewood	Cal

TOOLS, SOLDERING--SOLDER POTS

CAIG LABS INC, WESTBURY	**N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
American Electrical Heater Co, Detroit	Mich
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Caig Labs Inc, Westbury	N Y
Coil-O-Matic Co, Pawtucket	R I
Electric Soldering Iron Co Inc, Deep River	Conn
General Electric Co, ECSO, Schenectady	N Y
Janel Inc, Stirling	N J
Mann Co, Henry, Cornwell Heights	Pa
Ohmweve Co Inc, West Hartford	Conn
Roosevelt Metal Co Inc, Brooklyn	N Y
Sta-Warm Electric Co Inc, Ravenna	Ohio
Techni-Tool Inc, Philadelphia	Pa
Telvac Instrument Co, Tarzana	Cal
Ungar Div Eldon Industries Inc, Hawthorne	Cal
United American Metals Div, Brooklyn	N Y
Waage Electric Inc, Kenilworth	N J
Wenesco Inc, Chicago	Ill
Wiegand Co, Edwin L, Pittsburgh	Pa
Zeva Electric Corp, New York	N Y

TOOLS, SOLDERING--SOLDERING TORCHES

American Gas Furnace Co, Elizabeth	N J
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Henes Mfg Co, Phoenix	Ariz
Janel Inc, Stirling	N J
Johnson Mfg Co Inc, Princeton	Iowa
Kidde & Co Inc, Walter, Belleville	N J
Mann Co, Henry, Cornwell Heights	Pa
Marlane Development Co Inc, New York	N Y
Micronics Corp of America, Providence	RI
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Roosevelt Metal Co Inc, Brooklyn	N Y
Selectrons Ltd, New York	N Y
Techni-Tool Inc, Philadelphia	Pa
United American Metals Div, Brooklyn	N Y

TOOLS, SOLDERING--ULTRASONIC SOLDERING IRONS

Bronwill Scientific, Rochester	N Y
Burnett Electronics Lab Inc, San Diego	Cal
Gulton Industries Inc, Metuchen	N J
Hydro Molding Co Inc, Plattsburgh	N Y
Sonobond Corp, West Chester	Pa

TOOLS--WIRE-STRIPPING SEE STRIPPERS

TOOLS--WIRE-WRAPPING

GUDEBROD BROS SILK CO INC ELECTRONICS DIV PHILADELPHIA	**PA**
Davey Products, Fairfield	Conn
Ferranti, Ltd, Lancashire	England
Gardner-Denver Co, Quincy	Ill
Gudebrod Bros Silk Co Inc Electronics Div Philadelphia	Pa
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Jonard Industries Corp, Bronx	N Y
Mann Co, Henry, Cornwell Heights	Pa
Ostby & Barton Co, Providence	R I
Standard Pneumatic Motor Co, Whittier	Cal
Torrington Co, Specialties Div, Torrington	Conn
Utica-Bonney Tools, Kelsey-Hayes Co, Orangeburg	S C

TORCHES SEE MACHINES--METALIZING, MOLTEN SPRAY(PLASMA TORCHES); TOOLS--SOLDERING

EBG

the industry's

only computer

compiled directory.

This makes information in the Electronics Buyers' Guide the latest and most accurate anywhere.

Electronics Buyers' Guide

TOROIDS

ALLEN ELECTRONICS DIV ALLEN ORGAN CO, MACUNGIE PA	**ADV PG 716**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE	**N Y**
CADDELL BURNS MFG CO INC, MINEOLA N Y	**ADV PGS 162,163**
CONTEMPORARY ELECTRONICS INC, MINNEAPOLIS	**MINN**
DALE ELECTRONICS INC, COLUMBUS	**NEB**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON S DAK	**ADV PG 160**
DECOURSEY ENGINEERING LAB, CULVER CITY	**CAL**
HISONIC INC, OLATHE, KAN	**ADV PG 717**
INDIANA GENERAL CORP ELECTRONICS DIV/FERRITES, KEASBEY	**N J**
KAPPA NETWORKS INC, CARTERET	**N J**
MAGNETICS INC, BUTLER	**PA**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
R F INTERONICS INC, BAY SHORE	**N Y**
SEG ELECTRONICS DIV, E J HOWLES INC, BROOKLYN	**NY**
TOROIDAL SPECIALTIES INC, DANBURY, CONN	**ADV PG 716**
TOROTEL, INC, GRANDVIEW, MO	**ADV PGS 716 718**
TORWICO ELECTRONICS, INC, LAKEWOOD, N J	**ADV PG 719**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK. N Y	**ADV PG 718**
UNIVERSAL VOLTRONICS CORP, MOUNT KISCO	**N Y**
Ace Coil & Electronics Co, Metuchen	N J
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Allen Electronics Div Allen Organ Co, Macungie	Pa
American Trans-Coil Corp, Richmond Hill	NY
Amk Electronics Co Inc, Edison	N J
Arnold Magnetics Corp, Los Angeles	Cal
Artted Co, Inc, Springfield	Mass
Atlas Coil Corp, Ansonia	Conn
Ault, Inc, Minneapolis	Minn
Automatic Coil Co Div Designatronics, Inc Mineola	N Y
Automation Services Inc, Endicott	N Y
Avco Corp Electronics Div, Cincinnati	Ohio
Barwood Electronics, Inc, Glendale	Cal
Basler Electric Co, Highland	Ill
B & B Magnetics Co, La Habra	Cal
Bel-Tronics Corp, Addison	Ill
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Bundy Electronics Corp, Springfield	N J
Caddell Burns Mfg Co Inc, Mineola	N Y
Cambridge Thermionic Corp, Cambridge	Mass
Central Coil Co Inc, Martinsville	Ind
Ceramic Magnetics Inc, Fairfield	N J
Coil Co of America Inc, Northvale	N J
Coilcraft Inc, Cary	Ill
Collins Radio Co, Electronic Components Newport Beach	Cal
Connolly & Co Inc, Mountain View	Cal
Contemporary Electronics Inc, Minneapolis	Minn
Dale Electronics Inc, Columbus	Neb

TOROIDS

Automatically wound miniature and micro-miniature . . . to .035" finished I.D.

- Automatically wound heavy toroids . . . hundreds of turns of **#20** heavy magnet wire to finished I.D.s as small as **5/32"** (heavier than #20 wire available on special applications).
- Design and manufacture toroidal inducters and transformers, bobbin-wound coils and transformers.

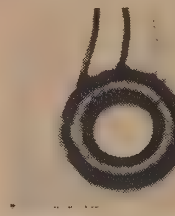
Call or write for further information.

TOROIDAL SPECIALTIES, Inc.

87 Beaver Brook Road
Danbury, Conn. 06810
(203) 748-5015

TOROIDS

Over 150 sizes (most with center tap) available from stock include Permalloy, Ferrite and Powdered iron types. Inductance tolerance ± 2%.



OSCILLATORS

Type C Range: 15Hz to 10kHz
Use: A transistorized, encapsulated, sinewave frequency source, featuring rugged construction and good frequency stability.

AMPLIFIERS

The T-20 and T-50 transistorized amplifiers by Allen utilize the latest developments in solid-state technology. Designed for electronic musical instrument applications, these amplifiers have been successfully utilized in many diverse applications.

Always in stock at Allen Electronics Division

Allen Electronics Division manufactures these components in quantity, under the most rigid quality controls, including thorough inspection and testing, for use in the world's finest electronic organs. For this reason we constantly maintain a complete inventory, which is also available to you who desire the added benefits of lower-than-competitive prices and immediate out-of-stock delivery. So whatever your application, get the finest components available, from Allen. And get them pronto.

SEND FOR CATALOG SHEETS WITH COMPLETE DETAILS ON ALL ALLEN COMPONENTS.

ALLEN electronics division

Allen ORGAN COMPANY

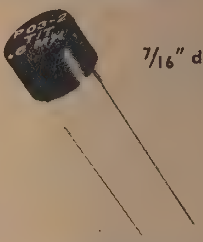
Dept. G68, Macungie, Pa. 18062

24 HOUR DELIVERY

PLEASE CONTACT OUR NEAREST REPRESENTATIVE

MICRO-MINIATURE ENCAPSULATED TOROIDS

NEW



CASE SIZE
7/16 DIA. X ¼ HIGH
INDUCTANCE RANGE
30 MICRO-HENRIES—200 MILLIHENRIES

MOLDED TOROIDS

47163
TOROTEL
P90-1
2.5MH

P 48
33 Inductances
2.0 MH—600. MH

P 89
35 Inductances
1.5 MH—600. MH

P 06
53 Inductances
5.0 MH—7.2 HY

P 30
61 Inductances
5.0 MH—17.5 HY

P 90
56 Inductances
3.0 MH—6.0 HY

P 54
57 Inductances
20. MH—40. MH

QUALITY

P50-69
TOROTEL
4 HY

P 45
43 Inductances
.05 MH—15. MH

P 50
52 Inductances
1.0 MH—4.0 HY

P 51
36 Inductances
1.0 MH—500. MH

STOCK

MAY WE QUOTE ON YOUR:
FILTERS
DELAY LINES
PULSE TRANSFORMERS

WRITE FOR OUR COMPLETE CATALOGUE.

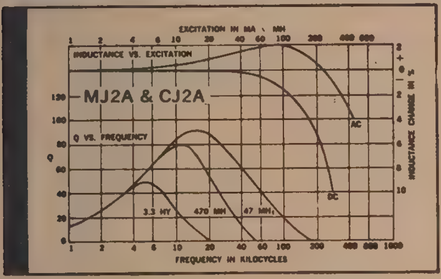
TOROTEL INC.

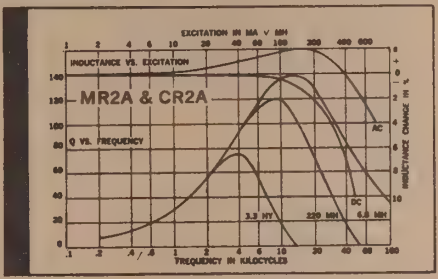
13402 SOUTH 71 HIWAY
GRANDVIEW, MO. 64030
PHONE: SO 1-6314

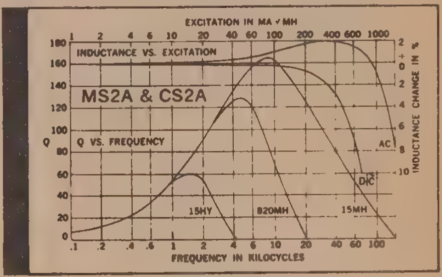
hisonic inc.

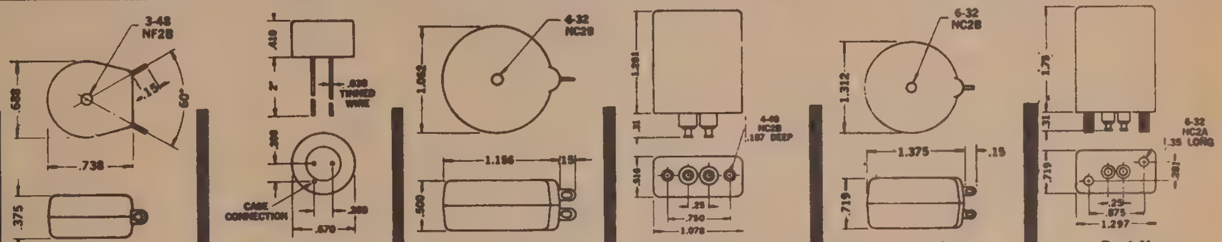
TOROIDAL INDUCTORS

Hisonic Toroidal Inductors are wound on either nickel-iron molybdenum (molybdenum permalloy) or carbonyl iron powder cores. Standard tolerance is 1% and values are true inductance. Units are available uncased, molded or cased as shown. Molded units are compression molded in high strength, high temperature thermosetting resin and pass requirements of MIL T 27 B Grade 5 Class S. Cased units are hermetically sealed in shield cans and pass requirements of MIL T 27 B Grade 4 Class R or S.









Ind. Val.	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.
5.6 MH	MJ2A41	CJ2A41	—	—	—	—
6.8 MH	MJ2A42	CJ2A42	MR2A42	CR2A42	MS2A42	CS2A42
8.2 MH	MJ2A43	CJ2A43	MR2A43	CR2A43	MS2A43	CS2A43
10 MH	MJ2A44	CJ2A44	MR2A44	CR2A44	MS2A44	CS2A44
12 MH	MJ2A45	CJ2A45	MR2A45	CR2A45	MS2A45	CS2A45
15 MH	MJ2A46	CJ2A46	MR2A46	CR2A46	MS2A46	CS2A46
18 MH	MJ2A47	CJ2A47	MR2A47	CR2A47	MS2A47	CS2A47
22 MH	MJ2A48	CJ2A48	MR2A48	CR2A48	MS2A48	CS2A48
27 MH	MJ2A49	CJ2A49	MR2A49	CR2A49	MS2A49	CS2A49
33 MH	MJ2A50	CJ2A50	MR2A50	CR2A50	MS2A50	CS2A50
39 MH	MJ2A51	CJ2A51	MR2A51	CR2A51	MS2A51	CS2A51
47 MH	MJ2A52	CJ2A52	MR2A52	CR2A52	MS2A52	CS2A52
56 MH	MJ2A53	CJ2A53	MR2A53	CR2A53	MS2A53	CS2A53
68 MH	MJ2A54	CJ2A54	MR2A54	CR2A54	MS2A54	CS2A54
82 MH	MJ2A55	CJ2A55	MR2A55	CR2A55	MS2A55	CS2A55
100 MH	MJ2A56	CJ2A56	MR2A56	CR2A56	MS2A56	CS2A56
120 MH	MJ2A57	CJ2A57	MR2A57	CR2A57	MS2A57	CS2A57
150 MH	MJ2A58	CJ2A58	MR2A58	CR2A58	MS2A58	CS2A58
180 MH	MJ2A59	CJ2A59	MR2A59	CR2A59	MS2A59	CS2A59
220 MH	MJ2A60	CJ2A60	MR2A60	CR2A60	MS2A60	CS2A60
270 MH	MJ2A61	CJ2A61	MR2A61	CR2A61	MS2A61	CS2A61
330 MH	MJ2A62	CJ2A62	MR2A62	CR2A62	MS2A62	CS2A62
390 MH	MJ2A63	CJ2A63	MR2A63	CR2A63	MS2A63	CS2A63
470 MH	MJ2A64	CJ2A64	MR2A64	CR2A64	MS2A64	CS2A64
560 MH	MJ2A65	CJ2A65	MR2A65	CR2A65	MS2A65	CS2A65
680 MH	MJ2A66	CJ2A66	MR2A66	CR2A66	MS2A66	CS2A66
820 MH	MJ2A67	CJ2A67	MR2A67	CR2A67	MS2A67	CS2A67
1.0 HY	MJ2A68	CJ2A68	MR2A68	CR2A68	MS2A68	CS2A68
1.2 HY	MJ2A69	CJ2A69	MR2A69	CR2A69	MS2A69	CS2A69
1.5 HY	MJ2A70	CJ2A70	MR2A70	CR2A70	MS2A70	CS2A70
1.8 HY	MJ2A71	CJ2A71	MR2A71	CR2A71	MS2A71	CS2A71
2.2 HY	MJ2A72	CJ2A72	MR2A72	CR2A72	MS2A72	CS2A72
2.7 HY	MJ2A73	CJ2A73	MR2A73	CR2A73	MS2A73	CS2A73
3.3 HY	MJ2A74	CJ2A74	MR2A74	CR2A74	MS2A74	CS2A74
3.9 HY	—	—	MR2A75	CR2A75	MS2A75	CS2A75
4.7 HY	—	—	MR2A76	CR2A76	MS2A76	CS2A76
5.6 HY	—	—	MR2A77	CR2A77	MS2A77	CS2A77
6.8 HY	—	—	MR2A78	CR2A78	MS2A78	CS2A78
8.2 HY					MS2A79	CS2A79
10.0 HY					MS2A80	CS2A80
12.0 HY					MS2A81	CS2A81
15.0 HY					MS2A82	CS2A82

"above units also available in encapsulated construction with pin terminals arranged for printed circuit board applications. Write for information on 5101 - 5102 and 5105 series."

The above units represent only a small percentage of those available as standard from Hisonic, but represent those most commonly used. Thousands of additional standard inductors are available, one of which should meet your requirements. Special requirements get prompt and accurate development from Hisonic Custom Design Service.

Hisonic, with a background of over 20 years experience in toroidal components, is headquarters for all your needs.

Write today for the Hisonic, Inc. catalog which contains full information on all Hisonic standard Toroidal Inductors and Hisonic Custom Design Service.

Write, Call or Wire

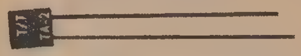
hisonic inc.

249 N. Troost
Olathe, Kansas 66061
Telephone: 913-782-0012
TELEX 4-2562

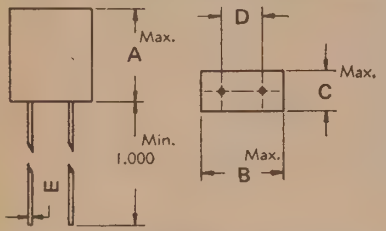
TOROTEL INC.

SUBMINIATURE INDUCTORS

MINI-L SERIES



- DESIGNED TO MEET THE REQUIREMENTS OF MIL-C-15305 C, GRADE 1, CLASS B (–55°C to +125°C)
- INDUCTANCE VALUES: From 0.01 uh to 10,000 uh.
- FREQUENCY RANGE: 50 KHz to 300 MHz.
- DIELECTRIC WITHSTANDING VOLTAGE: 700 volts rms.
- RATED TEMPERATURE RISE: 35°C at an ambient temperature of 90°C.
- LEADS: Tinned Copper. Weldable leads available by special order.

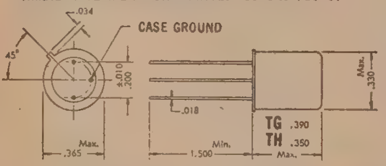


DIMENSIONS

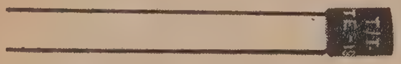
Series	A	B	C	D	E	Max. Power
TA	.225	.210	.110	.100	.020	0.2 Watt
TB	.300	.280	.160	.200	.025	0.33 Watt
TD	.390	.390	.197	.200	.025	0.5 Watt
TF	.225	.210	.110	.100	.020	0.2 Watt

TG & TH SERIES INDUCTORS

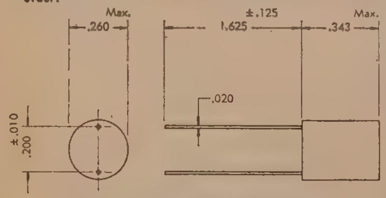
- HERMETICALLY SEALED INDUCTORS IN A STANDARD TO-5 TRANSISTOR CONFIGURATION.
- LOW EXTERNAL MAGNETIC & ELECTROSTATIC FIELD.
- TG SERIES DESIGNED TO MEET MIL-T-27B, GRADE 4, CLASS R.
- TH SERIES DESIGNED TO MEET MIL-C-15305 C, GRADE 1, CLASS 0.
- INDUCTANCE VALUES: TH Series, 10.0 uh to 1000 uh. TG Series, 1.0 mh to 500 mh.
- FREQUENCY RANGE: 10 KHz to 10 MHz, depending upon series and inductance value.
- DIELECTRIC WITHSTANDING VOLTAGE: 100 volts rms.
- AMBIENT TEMPERATURE RANGE: –55°C to +85°C.



TE-SERIES INDUCTORS



- DESIGNED TO MEET MIL-C-15305 C, GRADE 1, CLASS B (–55°C to +125°C)
- INDUCTANCE VALUES: 0.10 mh to 220.0 mh.
- FREQUENCY RANGE: 25 KHz to 2.5 MHz.
- DIELECTRIC WITHSTANDING VOLTAGE: 500 volts rms.
- RATED TEMPERATURE RISE: 35°C at an ambient temperature of 90°C.
- LEADS: Tinned Copper. Weldable leads available by special order.



CALL OR WRITE FOR ADDITIONAL INFORMATION

TOROTEL, Inc.

13402 SOUTH 71 HIGHWAY GRANDVIEW, MO. 64030
PHONE 816 SO 1-6314 TWX 910-7777037

Dale Electronics Inc, Sioux Div, Yankton	S Dak
Daytron Inc, Mountain View	Cal
DeCoursey Engineering Lab, Culver City	Cal
Delevan Electronics Div Amer Prec Indus Inc East Aurora	N Y
Delta Coils, Philadelphia	Pa
Dietz Design Inc, Belton	Mo
Dresser Systems, Inc, Houston	Tex
Electro Networks Inc, Caledonia	N Y
Electronic Coils Inc, Springfield	Mass
Electronic Devices Inc, North Ridgeville	Ohio
Electronic Transformer Corp, Paterson	N J
Electro Windings & Components Inc, Kenilworth	N J
El-Rad Mfg Co, Chicago	Ill
EMP Electronics Inc, Tempe	Ariz
Ferricore Div Natl Moldite Co Inc, Newark	N J
Forbes & Wagner Inc, Silver Creek	N Y
Freed Transformer Co Inc, Brooklyn	N Y
Fugle-Miller Labs Inc, Kenilworth	N J
Fullmer Electronics Inc, Northridge	Cal
General Instrument Corp F W Sickles Div Chicopee	Mass
Genisco Technology Corp, Compton	Cal
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Geo Space Corp, Houston	Tex
Hammond Mfg Co Ltd, Guelph, Ont	Can
Harder Co, Inc, Donald C, San Diego	Cal
Hill Magnetics, Inc, Redwood City	Cal
Hisonic Inc, Olathe	Kan
Indiana General Corp Electronics Div/Ferrites, Keasbey	N J
Inductor Engineering Inc, Lewes	Del
Industrial Coils Inc, Baraboo	Wisc
Industrial Control Co, Farmingdale	N Y
Instrument & Accessories Co Inc, Sayville	N Y
ITT Europe Inc Components Gp, Brussels 1	Belgium
JB Electronic Transformers Inc, Chicago	Ill
Kapitol Magnetic Corp, Chicago	Ill
Kappa Networks Inc, Carteret	N J
Lowrance Electronic Mfg Corp, Tulsa	Okla
Magnetic Circuit Elements Inc, Montrose	Cal
Magnetic Core Corp, Newburgh	N Y
Magnetic Devices Inc, Lemon Grove	Cal
Magnetic Metals Co, Camden	N J
Magnetico Inc, East Northport	N Y
Magnetics Inc, Butler	Pa
Magnetic Specialties Inc, Trenton	N J
Magnetic Systems Corp, Clearwater	Fla
Magnetika Inc, Venice	Cal
Marin Controls Co, Belmont	Cal
Microdot Magnetics Inc, Los Angeles	Cal
Micromagnetics Div Gulton Ind, Visalia	Cal
Microtran Co Inc, Valley Stream	N Y
Midwest Electric Products Inc, Mankato	Minn
Montedoro Corp, San Luis Obispo	Cal
North Hills Electronics Inc, Glen Cove	N Y
Nytronics Inc, Berkeley Heights	N J
Osborne Transformer Corp, Detroit	Mich
Pacific Instrument Co, Oakland	cal
Pacific Magnetic Corp, Romoland	Cal
PCA Electronics Inc, Sepulveda	Cal
Polyphase Instrument Co, Bridgeport	Pa
Precision Coil Mfg Co, Santa Monica	Cal
Precision Electronics Inc, Amityville	N Y
Precision Inc, Minneapolis	Minn
Precision Transformers Inc, Anaheim	Cal
Preferred Electronics Inc, Westfield	Mass
Profile Electronics Inc, Concord	N H
Ratel Inc, Goleta	Cal
Rayco Electronic Mfg Inc, Los Angeles	Cal
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Re-Al Electronics Co, Waterbury	Conn
Redman Electronics Corp, Thompsonville	Conn
R F Interonics Inc, Bay Shore	N Y
R F L Industries Inc Components Div, Brandon	Vt
Saturn Electronics Corp, Garland	Tex
Seg Electronics Div, E J Howles Inc, Brooklyn	NY
Siemens America Inc, New York	N Y
S K G Associates Inc, Boston	Mass
Skyway Magnetics, Inglewood	Cal
Solid State Electronics Corp, Sepulveda	Cal
Space Craft Inc, Huntsville	Ala
Sterling Transformer Corp, Brooklyn	N Y
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Tele Coil Co Inc, Camden	N J
Thordarson Meissner Inc, Mt Carmel	Ill
Torelco Inc, Irvington	N J
Toroidal Components Co, Pasadena	Cal
Toroidal Specialties Inc, Danbury	Conn
Toroid-Trans Electronics Co Inc, Danbury	Conn
Torotel, Inc, Grandview	Mo
Torwico Electronics, Inc, Lakewood	N J
Transformer Engineers, San Gabriel	Cal
Transformers Inc, Vestal	N Y
Transformer Technicians Inc, Chicago	Ill
Tresco Inc, Philadelphia	Pa
Triad Distributor Div Litton Industries, Huntington	Ind
Triwec Transformer Co, Chicago	Ill
United Transformer Co Div TRW Inc, New York	N Y
Universal Precision, Inc, Endicott	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Universal Voltronics Corp, Mount Kisco	N Y
Vanguard Electronics Co, Inglewood	Cal
Varo Inc, Garland	Tex
Washington Electrical Products Co, Washington	Mo
Wells Electronics Inc, Components Div, South Bend	Ind
Wescoil Co Inc, Tinley Park	Ill
Wintron Co Inc, S El Monte	Cal

TOROID-WINDING MACHINES SEE MACHINES--COIL-WINDING

TORQUE CONTROLS SEE CONTROLS—TORQUE

UTC
PIONEERS IN MINIATURIZATION

TOP QUALITY

TEMPERATURE - STABLE

TOROIDS

HIGH Q COILS

INDUCTANCE DECADES

LOW FREQUENCY

MEDIUM FREQUENCY

FIXED TOROIDS

TAPPED TOROIDS

VARIABLE TOROIDS

TAPPED VARIABLE

VERNIER VARIABLE

LUMPED CONSTANT DELAY LINES

- MIL-T-27B & industrial
- Immediate delivery from stock
- Specials made to specs.
- DC to 400 MHz

Over 1300 top quality ironcore inductance devices available from stock.

UNITED TRANSFORMER COMPANY

DIVISION OF **TRW** INC.

150 Varick Street, New York, N. Y. 10013
TWX: 710-581-2722 / (212) AL 5-3500
For nearest Rep see UTC ad, page 727

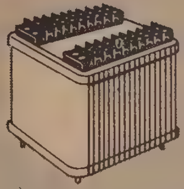
TORWICO

TORODIAL INDUCTORS

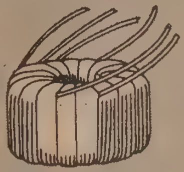
Torwico Electronics offers a complete line of toroidal inductors for use in commercial or military applications. The standard inductance values range from 1 MH to 50 HY and can be supplied in any of the following configurations:

- Open Construction (MIL-T-27B, Grade 6)
- Epoxy Encapsulated (MIL-T-27B, Grade 5)
- Encapsulated for P.C. Mounting (MIL-T-27B, Grade 5)
- Steel Cased (MIL-T-27B, Grade 4)

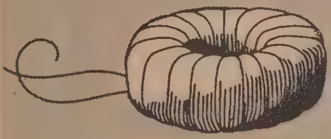
Please phone or write for prompt quotations



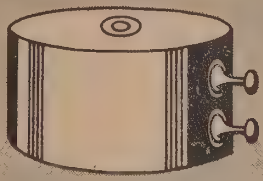
MAGNETIC AMPLIFIERS



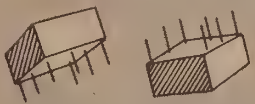
SATURABLE REACTORS



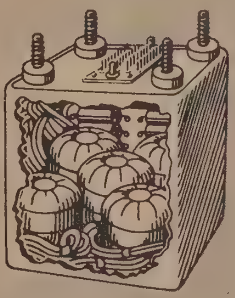
TOROIDAL COILS



TOROIDAL INDUCTORS



MINIATURE INDUCTORS AND TRANSFORMERS



MAGNETIC AMPLIFIER CONTROL ASSEMBLIES

TORODIAL COILS

Specialist in the design and manufacture of toroidal magnetic components since 1951 with an engineering team devoted to creating the practical component for your application . . . whether one, or ten thousand.

Torwico's engineering staff stands ready to assist you in the solution of your particular application problem or to provide custom design service in accordance with your specifications.

. . . Fast Delivery on prototype quantities. Performance Guaranteed.

Please phone or write for prompt quotations

TORWICO ELECTRONICS, INC.

HWY #70, LAKEWOOD, NEW JERSEY

201-364-1800 • TWX-201-363-1611

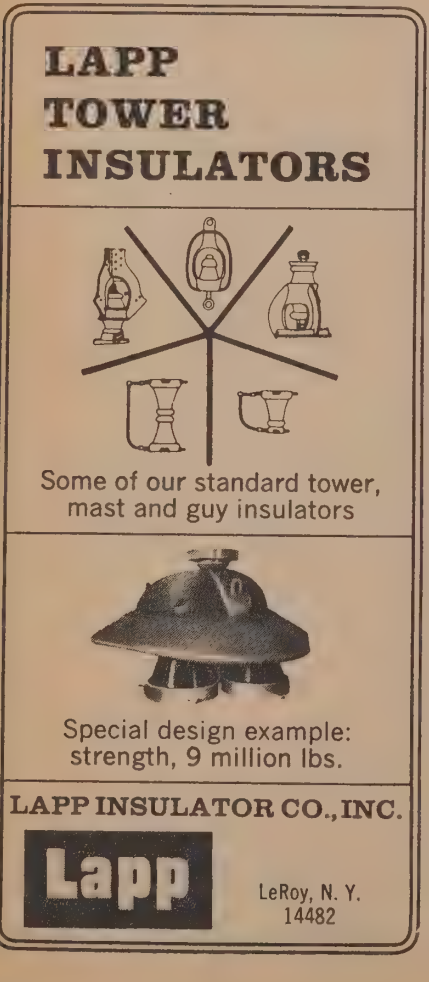
TORQUE INDICATORS SEE INDICATORS--TORQUE

TOTALIZERS--DIGITAL SEE PRINTERS--DIGITAL

TOURMALINE CRYSTAL SEE CRYSTAL BLANKS;CRYSTALS--PIEZOELECTRIC; CRYSTAL UNITS-TOURMALINE

TOWERS--ANTENNA

SCIENTIFIC-ATLANTA INC, ATLANTA	**GA**
Ampex Corp, Redwood City	Cal
Andrew Corp, Orland Park	Ill
Antenna Products Co Div All Products Co Mineral Wells	Tex
Antlab, Inc, Worthington	Ohio
Birdair Structures Inc, Buffalo	N Y
Blaw-Knox Co, Blaw-Knox Equip Div, Pittsburgh	Pa
Carco Electronics, Menlo Park	Cal
Channel Master Corp, Ellenville	N Y
Clear Beam Antenna, Sylmar	Cal
Costelow Co Inc, Topeka	Kans
Craig Systems Corp, Lawrence	Mass
Cubex Co, Altadena	Cal
Denki Kogyo Co Ltd, Tokyo	Japan
Electro-Mechanics Co, Austin	Tex
Electronic Space Structures Corp, West Concord	Mass
Eugene Engineering Co Inc, Rockland	Mass
E-Z Way Products Inc, Tampa	Fla
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Flint Steel Corp, Tulsa	Okla
Gabriel Electronics Div Maremont Corp, Saco	Maine
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Precision Systems Inc, Kearfott Gp Little Falls	N J
Goodyear Aerospace Corp, Akron	Ohio
Granger Associates, Palo Alto	Cal
Hy-Gain Electronic Corp, Lincoln	Neb
Jampro Antenna Co, Sacramento	Cal
Jontz Mfg Co Inc, Mishawaka	Ind
Lance Antenna Corp, Sylmar	Cal
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Master Tower Co, Sioux City	Iowa
Microflect Co, Inc, Salem	Ore
Multronics Inc, Rockville	Md
Parker Metal Goods Co, Worcester	Mass
Pfaff & Kendall, Newark	N J
R F Systems Inc, Cohasset	Mass
Rohn Mfg Co, Peoria	Ill
Scientific-Atlanta Inc, Atlanta	Ga
Shielding Corp, Moorestown	N J
Spaulding Products Co Inc, Frankfort	Ind
Stainless Inc, North Wales	Pa
Telrex Communication Engineering Labs Asbury Park	N J
Thomas Mold & Die Co, Wooster	Ohio
Tri-Ex Tower Corp, Visalia	Cal
Trylon Inc, Elverson	Pa
Up-Right Scaffolds, Div Up-Right Inc, Berkeley	Cal
Vega Precision Labs, Vienna	Va


LAPP TOWER INSULATORS

Some of our standard tower, mast and guy insulators

Special design example: strength, 9 million lbs.

LAPP INSULATOR CO., INC.

Lapp

LeRoy, N. Y.
14482

TOWER SERVICES--INSTALLERS, ERECTORS & MAINTAINERS

Canadian Motorola Electronics Co, Agincourt	Ont
Clear Beam Antenna, Sylmar	Cal
Costelow Co Inc, Topeka	Kans
Denki Kogyo Co Ltd, Tokyo	Japan
Electronic Space Structures Corp, West Concord	Mass
E-Z Way Products Inc, Tampa	Fla
Flint Steel Corp, Tulsa	Okla
Jampro Antenna Co, Sacramento	Cal
Master Tower Co, Sioux City	Iowa
Microflect Co, Inc, Salem	Ore
Multronics Inc, Rockville	Md
Rohn Mfg Co, Peoria	Ill
Solitron Devices Inc, Tappan	NY
Stainless Inc, North Wales	Pa
Trylon Inc, Elverson	Pa

TRACERS--SIGNAL SEE TESTERS--SIGNAL-TRACING

TRACKING ANTENNAS SEE ANTENNAS--TRACKING

TRACKS--PRINTED CIRCUIT BOARD SEE GUIDES--PRINTED CIRCUIT

TRAFFIC CONTROLS SEE CONTROLS--TRAFFIC

TRAILERS & VANS--ELECTRONIC EQUIPMENT

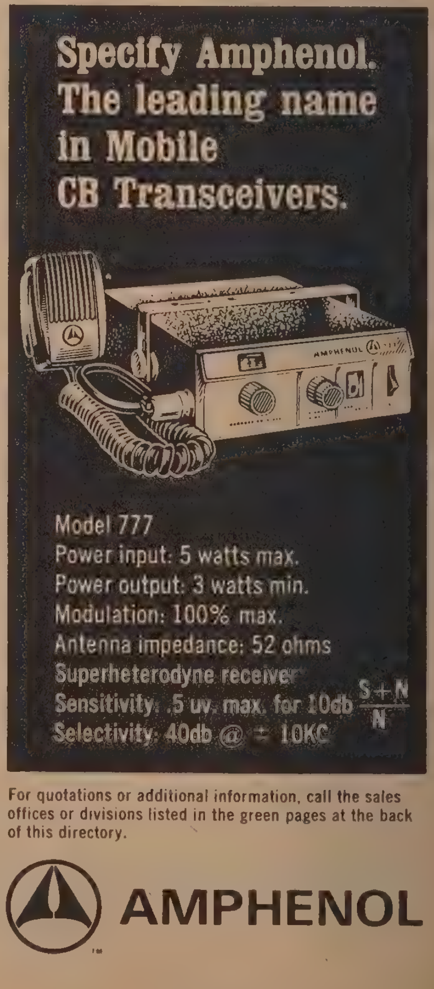
TELE-SIGNAL CORP, WOODBURY	**N Y**
Ace Engineering & Machine Co, Inc Huntingdon Valley	Pa
Binary Electronics of Cal Div Avionic Structures Inc Anaheim	Cal
Chrysler Corp, Space Div, Huntsville Oper Huntsville	Ala
Craig Systems Corp, Lawrence	Mass
Defense Electronics Inc, Rockville	Md
Electro Mechanical Corp, Sayre	Pa
E-Z Way Products Inc, Tampa	Fla
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Goodyear Aerospace Corp, Akron	Ohio
Hartman Systems Co Inc, Huntington Station	N Y
Kidde & Co Inc, Walter, Belleville	N J
Lake Systems Corp, Newton	Mass
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Lindsay Structures Div, Intl Steel Co, Evansville	Ind
Otis Elevator Co, Defense Oper, Stamford	Conn
Parabam Inc, Hawthorne	Cal
Philco-Ford Corp, Washington	D C
R F Communications Inc, Rochester	N Y
Symetrics Engineering Corp, Satellite Beach	Fla
Technical Materiel Corp, Mamaroneck	N Y
Tele-Signal Corp, Woodbury	N Y
Tri-Ex Tower Corp, Visalia	Cal
Wells Industries Corp, North Hollywood	Cal
Wickes Industries Inc, Camden	N J
Zero Mfg Co, Burbank	Cal

TRANSCEIVERS--AIRBORNE

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Admiral Corp, Gov Electronics Div, Chicago	Ill
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Aerocom, Miami	Fla
Aerospace Research, Inc, Boston	Mass
Aircraft Components Inc, Benton Harbor	Mich
American Electronic Labs Inc, Lansdale	Pa
Avco Corp Electronics Div, Cincinnati	Ohio
Becker Flugfunkwerk GMBH, 757 Baden-Baden-Oos	Germany
Bendix Corp Avionics Div, Fort Lauderdale	Fla
Bendix Corp, Communications Div, Towson	Md
Brelonix Inc, Seattle	Wash
Collins Radio Co, Dallas	Tex
Conic Corp, San Diego	Cal
Daltronics Inc, Providence	R I
Dorsett Electronics Inc, Tulsa	Okla
Dynair Aviation Products, El Cajon	Cal
Electronic Communications Inc (ECI), St Petersburg	Fla
Emcee Electronics Inc, New Castle	Del
General Electric Co, Aerospace Elctns Dept, Utica	N Y
General Instrument Corp Radio Receptor Div Hicksville	N Y
ITT Federal Labs, Fort Wayne	Ind
Kel Corp, Belmont	Mass
Linear Systems Inc, Watsonville	Cal
Marconi Co Ltd, Chelmsford	England
Nippon Electric Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polytronics Communications, Baltimore Div Baltimore	Md
RCA, Defense Electronic Products, Moorestown	N J
Regency Electronics Inc, Indianapolis	Ind
R F Communications Inc, Rochester	N Y
Sierra Research Corp, Buffalo	N Y
Springer Aircraft-Radio Corp, Shelbyville	Ind
Squires-Sanders Inc, Liberty Corner	N J
SunAir Electronics Inc, Ft Lauderdale	Fla
Sylvania Electronic Systems, Waltham	Mass
Technical Materiel Corp, Mamaroneck	N Y
TRW Systems Group, Redondo Beach	Cal
Ultra Electronics Ltd, London, W 3	England
Westinghouse Electric Corp, Aerospace Div Baltimore	Md
Wilcox Electric Co Inc, Kansas City	Mo
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

TRANSCEIVERS--CITIZENS' BAND

ALLIED ELECTRONICS CORP, CHICAGO	**ILL**
AMPHENOL, BROADVIEW, ILL	**ADV PG 720**
HEATH CO, BENTON HARBOR	**MICH**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Aircraft Components Inc, Benton Harbor	Mich
Allied Electronics Corp, Chicago	Ill
Allied Research Associates, Inc, Concord	Mass
Amphenol, Broadview	Ill
Automatic Radio Sales Inc, Melrose	Mass
Autronics Corp, Pasadena	Cal
B & K Mfg Co Div Dynascan Corp, Chicago	Ill
Browning Laboratories Inc, Laconia	N H
Canadian Marconi Co, Montreal 16	Quebec
Channel Master Corp, Ellenville	N Y
Concord Electronics Corp, Los Angeles	Cal
Courier Communications Inc Sub Whittaker Corp Newark	N J
Dowa Trading Co Ltd, Kobe	Japan
EICO Electronic Instrument Co Inc, Brooklyn	NY


Specify Amphenol. The leading name in Mobile CB Transceivers.

Model 777
Power input: 5 watts max.
Power output: 3 watts min.
Modulation: 100% max.
Antenna impedance: 52 ohms
Superheterodyne receiver
Sensitivity: .5 uv. max. for 10db $\frac{S+N}{N}$
Selectivity: 40db @ ± 10KC

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL

Electronic Applications Co, Pine Brook	N J
Electronic Homes Co, New York	N Y
Fanon Electronic Industries Div Courier Commun Inc Newark	N J
Fen-Tone Corp, New York	N Y
Fujitsu Ltd, Tokyo	Japan
Heath Co, Benton Harbor	Mich
Johnson Co, E F, Waseca	Minn
Kaar Electronics Corp, Linden	N J
Lafayette Radio Electronics, Syosset	NY
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Midland International Corp, North Kansas City	Mo
Mobil Electronics Inc, Anderson	Ind
Multi-Elmac Co, Oak Park	Mich
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Pearce-Simpson Inc, Miami	Fla
Polytronics Communications, Baltimore Div Baltimore	Md
Raytheon Co, Marine Products Operation S San Francisco	Cal
Realtone Electronics Corp, Jersey City	NJ
Regency Electronics Inc, Indianapolis	Ind
Sharp Electronics Corp, Carlstadt	N J
Sony Corp, Tokyo	Japan
Squires-Sanders Inc, Liberty Corner	N J
Trans-Aire Electronics Inc, New Hyde Park	N Y
Utica Electronics Inc, Chicago	Ill
Webster Mfg, South San Francisco	Cal
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

TRANSCEIVERS--EMERGENCY

AMPHENOL, BROADVIEW	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
ACR Electronics Corp, New York	N Y
Aircraft Components Inc, Benton Harbor	Mich
Amphenol, Broadview	Ill
Avco Corp Electronics Div, Cincinnati	Ohio
Becker Flugfunkwerk GMBH, 757 Baden-Baden-Oos	Germany
Bendix Corp, Communications Div, Towson	Md
Dorsett Electronics Inc, Tulsa	Okla
Electronic Communications Inc (ECI), St Petersburg	Fla
Emcee Electronics Inc, New Castle	Del
Granger Associates, Palo Alto	Cal
ITT Federal Labs, Fort Wayne	Ind
Kel Corp, Belmont	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Polytronics Communications, Baltimore Div Baltimore	Md
Radio Specialty Mfg Co, Portland	Ore
Simpson Electronics, Inc, Miami	Fla
Squires-Sanders Inc, Liberty Corner	N J
Storno, Copenhagen S	Den
Telephonics Div, Instrument Systems Corp Huntington	NY
Ultra Electronics Ltd, London, W 3	England

TRANSCEIVERS--F-M

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Aeromarine Electronics, Inc, San Diego	Cal
Aerospace Research, Inc, Boston	Mass
American Systems, Inc, Van Nuys	Cal
Anritsu Electric Co Ltd, Tokyo	Japan
Avco Corp Electronics Div, Cincinnati	Ohio
Bendix Corp, Communications Div, Towson	Md
Canadian Marconi Co, Montreal 16	Quebec
Canadian Motorola Electronics Co, Agincourt	Ont
Comrex Corp, W Concord	Mass
Conic Corp, San Diego	Cal
Delco Radio Div General Motors Corp, Kokomo	Ind
Disan Engineering Corp, Nowata	Okla
Dorsett Electronics Inc, Tulsa	Okla
Dumont Mobile Communications Div LTV Ling Altec Inc Anaheim	Cal
Electronic Communications Inc (ECI), St Petersburg	Fla
Farinon Electric, San Carlos	Cal
FRL Inc Fisher Research Lab, Palo Alto	Cal
General Instrument Corp Radio Receptor Div Hicksville	N Y
Hammarlund Mfg Co, Mars Hill	N C
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
ITT Federal Labs, Fort Wayne	Ind
Kaar Electronics Corp, Linden	N J
Kel Corp, Belmont	Mass
Kokusai Electric Co Ltd, Tokyo	Japan
Micro Communications Co, Denver	Colo
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Pearce-Simpson Inc, Miami	Fla
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polytronics Communications, Baltimore Div Baltimore	Md
Prod-El, Prodotti Elettronici Spa, 20132 Milan	Italy
Radio Corp of America, Radiomarine Dept Camden	N J
Radio Specialty Mfg Co, Portland	Ore
RCA, Defense Electronic Products, Moorestown	N J
Resdel Engineering Corp, Pasadena	Cal
Simpson Electronics, Inc, Miami	Fla
Squires-Sanders Inc, Liberty Corner	N J
Storno, Copenhagen S	Den
Sylvania Electronic Systems, Waltham	Mass
TRW Systems Group, Redondo Beach	Cal
Ultra Electronics Ltd, London, W 3	England
Utica Electronics Inc, Chicago	Ill
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

TRANSCEIVERS--PORTABLE

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
ACR Electronics Corp, New York	N Y
Aerospace Research, Inc, Boston	Mass
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Allied Research Associates, Inc, Concord	Mass
Anritsu Electric Co Ltd, Tokyo	Japan
Avco Corp Electronics Div, Cincinnati	Ohio
Becker Flugfunkwerk GMBH, 757 Baden-Baden-Oos	Germany
Bendix Corp, Communications Div, Towson	Md
Canadian Marconi Co, Montreal 16	Quebec
Comrex Corp, W Concord	Mass
Daltronics Inc, Providence	R I
Delco Radio Div General Motors Corp, Kokomo	Ind
Dorsett Electronics Inc, Tulsa	Okla
Dumont Mobile Communications Div LTV Ling Altec Inc Anaheim	Cal
Dynair Aviation Products, El Cajon	Cal
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Communications Inc (ECI), St Petersburg	Fla
Emcee Electronics Inc, New Castle	Del
Fen-Tone Corp, New York	N Y
General Instrument Corp Radio Receptor Div Hicksville	N Y
Granger Associates, Palo Alto	Cal
Hammarlund Mfg Co, Mars Hill	N C
Hayakawa Electric Co Ltd, Osaka	Japan
Itek Corp, Lexington	Mass
ITT Federal Labs, Fort Wayne	Ind
Johnson Co, E F, Waseca	Minn
Kokusai Electric Co Ltd, Tokyo	Japan
Linear Systems Inc, Watsonville	Cal
Marconi Co Ltd, Chelmsford	England
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Micro Communications Co, Denver	Colo
Midland International Corp, North Kansas City	Mo
National Radio Co Inc, Melrose	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polytronics Communications, Baltimore Div Baltimore	Md
Prod-El, Prodotti Elettronici Spa, 20132 Milan	Italy
Racal Communications Inc, Silver Spring	Md
Radio Specialty Mfg Co, Portland	Ore
RCA, Defense Electronic Products, Moorestown	N J
Repco Inc, Orlando	Fla
Resdel Engineering Corp, Pasadena	Cal
R F Communications Inc, Rochester	N Y
Squires-Sanders Inc, Liberty Corner	N J
Storno, Copenhagen S	Den
SunAir Electronics Inc, Ft Lauderdale	Fla
Sylvania Electronic Systems, Waltham	Mass
Technical Materiel Corp, Mamaroneck	N Y
Telefunken Sales Corp, Garden City	N Y
Trans-Aire Electronics Inc, New Hyde Park	N Y
Ultra Electronics Ltd, London, W 3	England
Webster Mfg, South San Francisco	Cal
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

TRANSCEIVERS--SSB

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
HEATH CO, BENTON HARBOR	**MICH**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Aeromarine Electronics, Inc, San Diego	Cal
Aerospace Research, Inc, Boston	Mass
Anritsu Electric Co Ltd, Tokyo	Japan
Automatic Radio Sales Inc, Melrose	Mass
Avco Corp Electronics Div, Cincinnati	Ohio
Bendix Corp, Communications Div, Towson	Md
Brelonix Inc, Seattle	Wash
Canadian Marconi Co, Montreal 16	Quebec
CEC-Benmar, Santa Ana	Cal
Collins Radio Co, Dallas	Tex
Communication Associates Inc, New Hyde Park	N Y
Cosmos Industries Inc, Brooklyn	N Y
Delco Radio Div General Motors Corp, Kokomo	Ind
Dorsett Electronics Inc, Tulsa	Okla
Drake Co, R L, Miamisburg	Ohio
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Applications Co, Pine Brook	N J
FRL Inc Fisher Research Lab, Palo Alto	Cal
Galaxy Electronics Inc, Council Bluffs	Iowa
General Instrument Corp Radio Receptor Div Hicksville	N Y
Granger Associates, Palo Alto	Cal
Heath Co, Benton Harbor	Mich
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
ITT Federal Labs, Fort Wayne	Ind
Johnson Co, E F, Waseca	Minn
Kahn Research Labs Inc, Freeport	N Y
Kokusai Electric Co Ltd, Tokyo	Japan
Linear Systems Inc, Watsonville	Cal
Marconi Div, English Electric Corp, New York	N Y
National Radio Co Inc, Melrose	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Racal Communications Inc, Silver Spring	Md
Radio Corp of America, Radiomarine Dept Camden	N J
RCA, Defense Electronic Products, Moorestown	N J
Resdel Engineering Corp, Pasadena	Cal
R F Communications Inc, Rochester	N Y
Squires-Sanders Inc, Liberty Corner	N J
SunAir Electronics Inc, Ft Lauderdale	Fla
Sylvania Electronic Systems, Waltham	Mass
Technical Materiel Corp, Mamaroneck	N Y
Transcon Electronics Inc, Escondido	Cal
TRW Systems Group, Redondo Beach	Cal
Weitermann Electronics, Milwaukee	Wis
Wilcox Electric Co Inc, Kansas City	Mo
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

TRANSCEIVERS--UHF

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Admiral Corp, Gov Electronics Div, Chicago	Ill
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Aerospace Research, Inc, Boston	Mass
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
American Systems, Inc, Van Nuys	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Becker Flugfunkwerk GMBH, 757 Baden-Baden-Oos	Germany
Bendix Corp, Communications Div, Towson	Md
Canadian Marconi Co, Montreal 16	Quebec
Canadian Motorola Electronics Co, Agincourt	Ont
Collins Radio Co, Dallas	Tex
Comrex Corp, W Concord	Mass
Conic Corp, San Diego	Cal
Cosmos Industries Inc, Brooklyn	N Y
Daltronics Inc, Providence	R I
Dayton Electronics Products Co, Dayton	Ohio
Delco Radio Div General Motors Corp, Kokomo	Ind
Dorsett Electronics Inc, Tulsa	Okla
Dynair Aviation Products, El Cajon	Cal
Electronic Communications Inc (ECI), St Petersburg	Fla
Farinon Electric, San Carlos	Cal
General Instrument Corp Radio Receptor Div Hicksville	N Y
Itek Corp, Lexington	Mass
ITT Federal Labs, Fort Wayne	Ind
Kaar Electronics Corp, Linden	N J
Kel Corp, Belmont	Mass
Kobe Industries Corp, Kobe	Japan
Kokusai Electric Co Ltd, Tokyo	Japan
Micro Communications Co, Denver	Colo
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Pearce-Simpson Inc, Miami	Fla
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Prod-El, Prodotti Elettronici Spa, 20132 Milan	Italy
Radio Specialty Mfg Co, Portland	Ore
RCA, Defense Electronic Products, Moorestown	N J
Resdel Engineering Corp, Pasadena	Cal
Scope Inc, Reston	Va
Squires-Sanders Inc, Liberty Corner	N J
Storno, Copenhagen S	Den
Sylvania Electronic Systems, Waltham	Mass
Symetrics Engineering Corp, Satellite Beach	Fla
TRW Systems Group, Redondo Beach	Cal
Ultra Electronics Ltd, London, W 3	England
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

TRANSCEIVERS--VHF

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
HEATH CO, BENTON HARBOR	**MICH**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Admiral Corp, Gov Electronics Div, Chicago	Ill
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Aeromarine Electronics, Inc, San Diego	Cal
Aerospace Research, Inc, Boston	Mass
American Systems, Inc, Van Nuys	Cal
Anritsu Electric Co Ltd, Tokyo	Japan
Avco Corp Electronics Div, Cincinnati	Ohio
Becker Flugfunkwerk GMBH, 757 Baden-Baden-Oos	Germany
Bendix Corp Avionics Div, Fort Lauderdale	Fla
Bendix Corp, Communications Div, Towson	Md
Canadian Marconi Co, Montreal 16	Quebec
Canadian Motorola Electronics Co, Agincourt	Ont
Comrex Corp, W Concord	Mass
Conic Corp, San Diego	Cal
Cosmos Industries Inc, Brooklyn	N Y
Dayton Electronics Products Co, Dayton	Ohio
Delco Radio Div General Motors Corp, Kokomo	Ind
Dorsett Electronics Inc, Tulsa	Okla
Dynair Aviation Products, El Cajon	Cal
Emcee Electronics Inc, New Castle	Del
Farinon Electric, San Carlos	Cal
FRL Inc Fisher Research Lab, Palo Alto	Cal
General Instrument Corp Radio Receptor Div Hicksville	N Y
Granger Associates, Palo Alto	Cal
Hammarlund Mfg Co, Mars Hill	N C
Heath Co, Benton Harbor	Mich
ITT Federal Labs, Fort Wayne	Ind
Kaar Electronics Corp, Linden	N J
Kel Corp, Belmont	Mass
Kobe Industries Corp, Kobe	Japan
Kokusai Electric Co Ltd, Tokyo	Japan
Konigsberg Electronics Inc, So San Francisco	Cal
Marconi Co Ltd, Chelmsford	England
Mobil Electronics Inc, Anderson	Ind
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Palomar Instrument Co, Escondido	Cal
Pearce-Simpson Inc, Miami	Fla
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polytronics Communications, Baltimore Div Baltimore	Md
Prod-El, Prodotti Elettronici Spa, 20132 Milan	Italy

Radio Corp of America, Radiomarine Dept Camden .... N J
Radio Specialty Mfg Co, Portland .... Ore
RCA, Defense Electronic Products, Moorestown .... N J
Resdel Engineering Corp, Pasadena .... Cal
R F Communications Inc, Rochester .... N Y
Scope Inc, Reston .... Va
Sigma Systems Corp, Sub Applied Science Inc Dallas .... Tex
Simpson Electronics, Inc, Miami .... Fla
Springer Aircraft-Radio Corp, Shelbyville .... Ind
Squires-Sanders Inc, Liberty Corner .... N J
Stomo, Copenhagen S .... Den
Sylvania Electronic Systems, Waltham .... Mass
Symetrics Engineering Corp, Satellite Beach .... Fla
Telefunken Sales Corp, Garden City .... N Y
TRW Systems Group, Redondo Beach .... Cal
Ultra Electronics Ltd, London, W 3 .... England
Utica Electronics Inc, Chicago Ill
Weitermann Electronics, Milwaukee .... Wis
Wilcox Electric Co Inc, Kansas City .... Mo
Zenith Radio Co Govt & Special Prod Div, Chicago Ill

TRANSCRIBING MACHINES SEE DICTATING MACHINES

TRANSDUCER CALIBRATORS SEE CALIBRATORS–TRANSDUCER

TRANSDUCERS--ANGULAR ACCELERATION

SYSTRON DONNER CORP, CONCORD .... CAL
Acco Gyro Div, Amer Chain & Cable Co Inc Waterbury .... Conn
Amtron Inc, Midlothian Ill
Beckman Instruments Inc, Fullerton, ... Cal
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham .... Mass
Brys Instrument Corp, Brooklyn .... N Y
Conductron Corp, Ann Arbor .... Mich
Consolidated Controls Corp, El Segundo .... Cal
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena .... Cal
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles .... France
Decker Corp, Bala Cynwyd .... Pa
Ferranti, Ltd, Lancashire .... England
Garrett Corp, Los Angeles .... Cal
General Precision Systems Inc, Kearfott Gp Little Falls .... N J
Genisco Technology Corp, Compton .... Cal
Gulton Industries Inc, Metuchen .... N J
Humphrey Inc, San Diego .... Cal
Larson Aero Development, Concord .... Cal
Nortronics Div, Northrop Corp, Prec Prods Dept Norwood .... Mass
Schaevitz Engineering, Pennsauken .... N J
Smiths Industries Ltd, Aviation Div Wembley, Mdsx .... England
Statham Instruments Inc, Los Angeles .... Cal
Systron Donner Corp, Concord .... Cal
United Control Corp, Redmond .... Wash

TRANSDUCERS--ANGULAR DISPLACEMENT

CLEVITE CORP, BRUSH INSTRUMENTS DIV, CLEVELAND .... OHIO
CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC DREXEL HILL .... PA
COMPUTER INSTRUMENTS CORP, HEMPSTEAD .... N Y
DATA TECHNOLOGY, INC, WATERTOWN .... MASS
DISCON CORP, FORT LAUDERDALE .... FLA
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO .... ADV PGS 8
KAVLICO ELECTRONICS INC, CHATSWORTH .... CAL
SYSTRON DONNER CORP, CONCORD .... CAL
Acco Gyro Div, Amer Chain & Cable Co Inc Waterbury .... Conn
Amtron Inc, Midlothian Ill
Baldwin Electronics Inc, Little Rock .... Ark
Barnes Engineering Co Def & Space Div Stamford .... Conn
Bendix Corp, Flight & Engine Instr Div South Montrose .... Pa
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham .... Mass
Bourns Inc Instrument Div, Riverside .... Cal
Brys Instrument Corp, Brooklyn .... N Y
C-E Electronics Inc, Glenside .... Pa
Charter Labs Inc, East Northport .... NY
Chrysler Corp, Missile Div, Detroit .... Mich
Clevite Corp, Brush Instruments Div, Cleveland .... Ohio
Clifton Div Litton Industries Litton Prec Prods Inc Drexel Hill .... Pa
Computer Instruments Corp, Hempstead .... N Y
Conductron Corp, Ann Arbor .... Mich
Consolidated Controls Corp, El Segundo .... Cal
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena .... Cal
Crescent Technology Corp, Newport Beach .... Cal
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles .... France
Data Technology, Inc, Watertown .... Mass
Decker Corp, Bala Cynwyd .... Pa
Del Electronics Corp, Mt Vernon .... N Y
Discon Corp, Fort Lauderdale .... Fla
Dynamic Precision Controls Corp, Hagerstown .... Ind
Dynamics Research Corp, Stoneham .... Mass
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee Ill
Electro Products Labs Inc Transducer Div, Chicago Ill
Farrand Controls Inc, Valhalla .... N Y
Ferranti, Ltd, Lancashire .... England
Foxboro Co, Foxboro .... Mass
Garrett Corp, Los Angeles .... Cal
General Precision Systems Inc, Kearfott Gp Little Falls .... N J
Gulton Industries Inc, Metuchen .... N J
Gulton Industries Inc Controls & Instru Grp Costa Mesa .... Cal
Hamlin Inc, Lake Mills .... Wis
Harvard Apparatus Co Inc, Millis .... Mass
H H Controls Co Inc, Arlington .... Mass
Honeywell Test Instruments Div, Denver .... Colo
Humphrey Inc, San Diego .... Cal
International Electro-Magnetics Inc, Palatine Ill
Itek Corp, Lexington .... Mass
Kavlico Electronics Inc, Chatsworth .... Cal
Larson Aero Development, Concord .... Cal
Litton Industries, Guidance & Controls Sys Div Woodland Hills .... Cal
Louis Allis Co Div Litton Industries, Milwaukee .... Wisc
Markite Corp, New York .... N Y
Mechanical Technology Inc, Latham .... N Y
Mechanics for Electronics Inc, Cambridge .... Mass
Meteorology Research Inc, Altadena .... Cal
Metrological Data Corp, Garfield .... N J
Minnetech Labs Inc, Minneapolis .... Minn
Nihon Kohden Kogyo Co Ltd, Tokyo .... Japan
Nortronics Div, Northrop Corp, Prec Prods Dept Norwood .... Mass
Pickering & Co Inc, Plainview .... N Y
Precision Mecanique Labinal, 93 Saint-Ouen .... France
Quantic Industries Inc, San Carlos .... Cal
Radio Corp of America, Electronic Components, Harrison .... N J
Razdow Labs Inc, Newark .... N J
Reeves Instrument Div, DCA, Garden City .... N Y
Remex Electronics, Hawthorne .... Cal
Schaevitz Engineering, Pennsauken .... N J
Seneca Falls Machine Co, Seneca Falls .... N Y
Special Devices Labs Inc, South Orange .... N J
Straindyne Engineering Co, Los Altos Hills .... Cal
Systron Donner Corp, Concord .... Cal
Takeda Riken Industry Co Ltd, Tokyo .... Japan
Technology Instrument Corp Sub Bowmar Instr Corp Newbury Park .... Cal
Theta Instrument Corp, Fairfield .... N J
Transducers, Inc, Santa Fe Springs .... Cal
Trump Ross Industrial Controls Inc North Billerica .... Mass
Wayne-George Co Div Itek Corp, Newton .... Mass
West Coast Research Corp, Los Angeles .... Cal
Weston-Transicoil, Weston Instruments Inc Worcester .... Pa

TRANSDUCERS--DIGITAL

ANRITSU ELECTRIC CO LTD, TOKYO .... JAPAN
DATA TECHNOLOGY, INC, WATERTOWN .... MASS
DISCON CORP, FORT LAUDERDALE .... FLA
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
SYSTRON DONNER CORP, CONCORD .... CAL
Amtron Inc, Midlothian Ill
Anritsu Electric Co Ltd, Tokyo .... Japan
Avtron Mfg, Inc, Cleveland .... Ohio
Baldwin Electronics Inc, Little Rock .... Ark
Bristol Div, American Chain & Cable Co Waterbury .... Conn
Charter Labs Inc, East Northport .... NY
Consolidated Controls Corp, El Segundo .... Cal
Control Equipment Corp, Needham Heights .... Mass
Data Technology, Inc, Watertown .... Mass
Decca Radar, Inc, New York .... N Y
Del Electronics Corp, Mt Vernon .... N Y
Discon Corp, Fort Lauderdale .... Fla
Doric Scientific Corp, San Diego .... Calif
Dynamics Research Corp, Stoneham .... Mass
Dynapar Digital Center, Louis Allis Co Div Litton Ind Gurnee Ill
E G & G Int'l Inc Geodyne Div, Waltham .... Mass
Electro Products Labs Inc Transducer Div, Chicago Ill
Flow Technology Inc, Tempe .... Ariz
Garrett Corp, Los Angeles .... Cal
Geodyne Div EG&G Int'l, Waltham .... Mass
H H Controls Co Inc, Arlington .... Mass
International Electro-Magnetics Inc, Palatine Ill
Itek Corp, Lexington .... Mass
Larson Aero Development, Concord .... Cal
LEM Instrument Corp, Farmingdale .... N Y
Litton Industries, Guidance & Controls Sys Div Woodland Hills .... Cal
Louis Allis Co Div Litton Industries, Milwaukee .... Wisc
Meriam Instrument Co, Cleveland .... Ohio
Meteorology Research Inc, Altadena .... Cal
Metrological Data Corp, Garfield .... N J
Minnetech Labs Inc, Minneapolis .... Minn
Nippon Electric Co Ltd, Tokyo .... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Precision Mecanique Labinal, 93 Saint-Ouen .... France
Precision Research Inc, Stamford .... Conn
Reach Electronics Inc, Lexington .... Neb
Remex Electronics, Hawthorne .... Cal
Solid State Electronics Corp, Sepulveda .... Cal
Strandberg Engineering Labs Inc, Greensboro .... N C
Systron Donner Corp, Concord .... Cal
Takeda Riken Industry Co Ltd, Tokyo .... Japan
Taylor Instrument Cos, Rochester .... N Y
Temtech, Santa Ana .... Cal
Theta Instrument Corp, Fairfield .... N J
Trans-Sonics Inc, Lexington .... Mass
Trump Ross Industrial Controls Inc North Billerica .... Mass
Veeder-Root, Hartford .... Conn
Wayne-George Co Div Itek Corp, Newton .... Mass
World Magnetics Inc Sub Fairchild Cam & Inst Corp Charlotte .... Mich

TRANSDUCERS--DISPLACEMENT

AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE .... N Y
CLEVITE CORP, BRUSH INSTRUMENTS DIV, CLEVELAND .... OHIO
COMPUTER INSTRUMENTS CORP, HEMPSTEAD .... N Y
DATA TECHNOLOGY, INC, WATERTOWN .... MASS
HEWLETT-PACKARD, PALO ALTO .... CAL
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO .... ADV PGS 8
KAVLICO ELECTRONICS INC, CHATSWORTH .... CAL
STOW LABS, INC, STOW .... MASS
Acco Gyro Div, Amer Chain & Cable Co Inc Waterbury .... Conn
Allied Research Associates, Inc, Concord .... Mass
Amperex Electronic Corp, Component Div Hauppauge .... N Y
Bendix Corp, Flight & Engine Instr Div South Montrose .... Pa
Bently Nevada Corp, Minden .... Nev
Biocom, Inc, Culver City .... Cal
Bourns Inc Instrument Div, Riverside .... Cal
Brys Instrument Corp, Brooklyn .... N Y
C-E Electronics Inc, Glenside .... Pa
Celtic Industries Inc, Van Nuys .... Cal
Clevite Corp, Brush Instruments Div, Cleveland .... Ohio
Collins Corp, G L, Long Beach .... Cal
Columbia Research Labs Inc, Woodlyn .... Pa
Computer Instruments Corp, Hempstead .... N Y
Consolidated Controls Corp, El Segundo .... Cal
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena .... Cal
Crescent Technology Corp, Newport Beach .... Cal
Data Technology, Inc, Watertown .... Mass
Daytronic Corp, Dayton .... Ohio
Decca Radar, Inc, New York .... N Y
Decker Corp, Bala Cynwyd .... Pa
Disa Elektronik A/S, Herlev .... Denmark
Dynamics Research Corp, Stoneham .... Mass
Electro-Med Instruments Inc, Houston .... Tex
Electronic Instrument & Specialty Corp Winchester .... Mass
Electronics Communications Div Atlantic Research Corp Alexandria .... Va
Electro Products Labs Inc Transducer Div, Chicago Ill
Electro-Sonic-Control, Manteca .... Cal
Fairchild Controls, Hicksville .... N Y
Farrand Controls Inc, Valhalla .... N Y
Ferranti, Ltd, Lancashire .... England
Foxboro Co, Foxboro .... Mass
General Precision Systems Inc, Kearfott Gp Little Falls .... N J
General Radio Co, West Concord .... Mass
Genisco Technology Corp, Compton .... Cal
Gilmore Industries Inc, Cleveland .... Ohio
Gulton Industries Inc, Metuchen .... N J
Gulton Industries Inc Controls & Instru Grp Costa Mesa .... Cal
Harvard Apparatus Co Inc, Millis .... Mass
Helm Instrument Co Inc, Toledo .... Ohio
Hewlett-Packard, Palo Alto .... Cal
Honeywell Test Instruments Div, Denver .... Colo
Humphrey Inc, San Diego .... Cal
Indikon Co Inc, Watertown .... Mass
International Electro-Magnetics Inc, Palatine Ill
Itek Corp, Lexington .... Mass
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs .... Colo
Kavlico Electronics Inc, Chatsworth .... Cal
Larson Aero Development, Concord .... Cal
Life Instrument Co Inc, Franklin .... Mass
Lion Research Corp, Newton .... Mass
Lockheed Electronics Co, Houston Aerospace Systems Div Houston .... Tex
Markite Corp, New York .... N Y
Mechanical Technology Inc, Latham .... N Y
Minnetech Labs Inc, Minneapolis .... Minn
Nortronics Div, Northrop Corp, Prec Prods Dept Norwood .... Mass
Ohio Semitronics Inc, Columbus .... Ohio
Optron Corp, New Haven .... Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Pickering & Co Inc, Plainview .... N Y
Plessey Airborne Corp, Hillside .... NJ
Precision Research Inc, Stamford .... Conn
Research Inc, R-I Controls Div, Minneapolis .... Minn
Revere Corp of America, Wallingford .... Conn
Robinson-Halpern Co, W Conshohocken .... Pa
Schaevitz Engineering, Pennsauken .... N J
Seneca Falls Machine Co, Seneca Falls .... N Y
Sensor Corp, Greenwich .... Conn
Servotronics Inc, Buffalo .... N Y
Sigma Systems Corp, Sub Applied Science Inc Dallas .... Tex
Space Craft Inc, Huntsville .... Ala
Sparton Corp, Jackson .... Mich
Sparton Southwest Inc, Albuquerque .... NM
Special Devices Labs Inc, South Orange .... N J
Statham Instruments Inc, Los Angeles .... Cal
Stow Labs, Inc, Stow .... Mass
Straindyne Engineering Co, Los Altos Hills .... Cal
Streeter-Amet, Grayslake Ill
Systems Research Labs Inc, Dayton .... Ohio
Taylor Instrument Cos, Rochester .... N Y
Technology Instrument Corp Sub Bowmar Instr Corp Newbury Park .... Cal
Tensitron Inc, Harvard .... Mass
Theta Instrument Corp, Fairfield .... N J
Thwing-Albert Instrument Co, Philadelphia .... Pa
Transducer Controls Corp, Covina .... Cal
Tresco Inc, Philadelphia .... Pa
Trump Ross Industrial Controls Inc North Billerica .... Mass
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio
Wayne-George Co Div Itek Corp, Newton .... Mass
Wayne Kerr Corp, Montclair .... NJ
West Coast Research Corp, Los Angeles .... Cal
Whittaker Corp Instrument Sys Div North Hollywood .... Cal

TRANSDUCERS--FLOW

COMPUTER INSTRUMENTS CORP, HEMPSTEAD N Y .... ADV PGS 488-490
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO .... ADV PGS 8
Acoustica Associates Inc, Los Angeles .... Cal
Avien, Inc, Woodside .... N Y
Bailey Meter Co, Wickliffe .... Ohio
B I F Unit General Signal Corp, Providence .... R I
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham .... Mass
Bristol Div, American Chain & Cable Co Waterbury .... Conn
Chesapeake Instrument Corp, Shadyside .... Md
Computer Instruments Corp, Hempstead .... N Y
Conductron Corp, Ann Arbor .... Mich
Consolidated Controls Corp, Bethel .... Conn
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena .... Cal
Cox Instruments Div Lynch Corp, Detroit .... Mich
Datametrics Inc, Waltham .... Mass
Decca Radar, Inc, New York .... N Y
Decker Corp, Bala Cynwyd .... Pa
Disa Elektronik A/S, Herlev .... Denmark
Don Bosco Electronics Inc, Hanover .... N J
Dynamic Precision Controls Corp, Hagerstown .... Ind
Elastronics Labs, Tarzana .... Cal
ElectroSyn Technology Labs, Inc, Canton .... Mass
Fairchild Controls, Hicksville .... N Y
Flowcon Co, Anaheim .... Cal
Flow Corp, Watertown .... Mass
Flow Technology Inc, Tempe .... Ariz
Foxboro Co, Foxboro .... Mass
Foxboro Co Valenica Plant, Valencia .... Cal
Fuji Electric Co Ltd, Tokyo .... Japan
General Precision Systems Inc, Indl Controls Div Morton Grove Ill
Hagan Computer Systems Div Westinghouse Pittsburgh .... Pa
Hastings-Raydist A Teledyne Co, Hampton .... Va
Hersey-Sparling Meter Co, El Monte .... Cal
Honeywell Industrial Div, Fort Washington .... Pa
Honeywell Test Instruments Div, Denver .... Colo
Hydro Products Div Dillingham Corp, San Diego .... Cal
Leeds & Northrup Co, Philadelphia .... Pa
Lion Research Corp, Newton .... Mass
Liquid Level Lectronics Inc, Richardson .... Tex
Meteorology Research Inc, Altadena .... Cal
Motorola Instrumentation & Control Inc, Phoenix .... Ariz
Plessey Airborne Corp, Hillside .... NJ
Precision Mecanique Labinal, 93 Saint-Ouen .... France
Precision Research Inc, Stamford .... Conn
Ramapo Instrument Co Inc, Bloomingdale .... NJ
Raytheon Co, Government Marketing, Lexington .... Mass
Revere Corp of America, Wallingford .... Conn
Rockwell Mfg Co, Msmt & Control Div, Pittsburgh .... Pa
Rosemount Engineering Co, Minneapolis .... Minn
Schaevitz Engineering, Pennsauken .... N J
Schlumberger, 92-Montrouge 32 .... France
Signet Controls Inc, Tulsa .... Okla
Space & Systems Div General Time Corp Stamford .... Conn
Statham Instruments Inc, Los Angeles .... Cal
Takeda Riken Industry Co Ltd, Tokyo .... Japan
Taylor Instrument Cos, Rochester .... N Y
Technology/Versatronics Inc, Yellow Springs .... Ohio
Thermo-Systems Inc, St Paul .... Minn
Trans-Sonics Inc, Lexington .... Mass
United Control Corp, Redmond .... Wash
West Coast Research Corp, Los Angeles .... Cal

TRANSDUCERS--FLUID LEVEL

COMPUTER INSTRUMENTS CORP, HEMPSTEAD N Y .... ADV PGS 488-490
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO .... ADV PGS 8
KAVLICO ELECTRONICS INC, CHATSWORTH .... CAL
MURATA MFG CO, LTD, KYOTO .... JAPAN
Acoustica Associates Inc, Los Angeles .... Cal
Aerometrics Div Aerojet-General Corp, San Ramon .... Cal
Aladdin Controls Div Aladdin Electronics Nashville .... Tenn
Audn Corp, Hamburg .... N Y
Avien, Inc, Woodside .... N Y
Bailey Meter Co, Wickliffe .... Ohio
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham .... Mass
Bristol Div, American Chain & Cable Co Waterbury .... Conn
C-E Electronics Inc, Glenside .... Pa
Computer Instruments Corp, Hempstead .... N Y
Conductron Corp, Ann Arbor .... Mich
Conrac Corp, New York .... N Y
Consolidated Controls Corp, Bethel .... Conn
Controlotron Corp, Farmingdale .... N Y
Decca Radar, Inc, New York .... N Y
Decker Corp, Bala Cynwyd .... Pa
Delavan Mfg Co, West Des Moines .... Iowa
Don Bosco Electronics Inc, Hanover .... N J
Drexelbrook Engineering Co, Glenside .... Pa
Edison, Thomas A Industries, Instr Div West Orange .... N J
ElectroSyn Technology Labs, Inc, Canton .... Mass
Fairchild Controls, Hicksville .... N Y
Foxboro Co, Foxboro .... Mass
Fuji Electric Co Ltd, Tokyo .... Japan
Garrett Corp, Los Angeles .... Cal
General Precision Systems Inc, Indl Controls Div Morton Grove Ill
Hagan Computer Systems Div Westinghouse Pittsburgh .... Pa
Honeywell Industrial Div, Fort Washington .... Pa
Honeywell Test Instruments Div, Denver .... Colo
Hydro Products Div Dillingham Corp, San Diego .... Cal
Kavlico Electronics Inc, Chatsworth .... Cal
Linden Labs Inc, State College .... Pa
Liquid Level Lectronics Inc, Richardson .... Tex
Magnetrol Inc, Downers Grove Ill
Metritape Controls Inc, West Concord .... Mass
Motorola Instrumentation & Control Inc, Phoenix .... Ariz
Murata Mfg Co, Ltd, Kyoto .... Japan
Nuclear Enterprises Ltd, Edinburgh 11 .... Scotland
Photobell Co Inc, New York .... N Y
Plessey Airborne Corp, Hillside .... NJ
Reach Electronics Inc, Lexington .... Neb
Revere Corp of America, Wallingford .... Conn
Robinson-Halpern Co, W Conshohocken .... Pa
Schaevitz Engineering, Pennsauken .... N J
Scientific Engineering Mfg Co Inc North Hollywood .... Cal
Statham Instruments Inc, Los Angeles .... Cal
Taylor Instrument Cos, Rochester .... N Y
Trans-Sonics Inc, Lexington .... Mass
United Control Corp, Redmond .... Wash

TRANSDUCERS--FORCE

HEWLETT-PACKARD, PALO ALTO .... CAL
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO .... ADV PGS 8
STOW LABS, INC, STOW .... MASS
Acco Gyro Div, Amer Chain & Cable Co Inc Waterbury .... Conn
Bendix Corp, Flight & Engine Instr Div South Montrose .... Pa
Bergen Lab, Inc, Paterson .... N J
Biocom, Inc, Culver City .... Cal
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham .... Mass
Bytrex Inc, Waltham .... Mass
C-E Electronics Inc, Glenside .... Pa
Celtic Industries Inc, Van Nuys .... Cal
Clark Electronics, Santa Ana .... Cal
Cleveland Electronics Inc Speaker Div, Cleveland .... Ohio
Columbia Research Labs Inc, Woodlyn .... Pa
Conductron Corp, Ann Arbor .... Mich
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena .... Cal
Cox Instruments Div Lynch Corp, Detroit .... Mich
Crescent Technology Corp, Newport Beach .... Cal
Daytronic Corp, Dayton .... Ohio
DB Products Inc, Pasadena .... Cal
Decca Radar, Inc, New York .... N Y
Decker Corp, Bala Cynwyd .... Pa
Dentronics, Inc, Hackensack .... N J
Dillon & Co Inc, W C, Van Nuys .... Cal
Disa Elektronik A/S, Herlev .... Denmark
Doric Scientific Corp, San Diego .... Calif
Dynisco Div Microdot Inc, Westwood .... Mass
Elastronics Labs, Tarzana .... Cal
Electronics Communications Div Atlantic Research Corp Alexandria .... Va
Endevco Corp, Pasadena .... Cal
Fairchild Controls, Hicksville .... N Y
Foxboro Co, Foxboro .... Mass
Frost Engineering Development Corp, Englewood .... Colo
General Transducer Co, Santa Clara .... Cal
Gilmore Industries Inc, Cleveland .... Ohio
Hewlett-Packard, Palo Alto .... Cal
Honeywell Test Instruments Div, Denver .... Colo
Industrial Electronetics Corp, Satellite Beach .... Fla
Kelk Ltd, George, Don Mills .... Ont
Kistler Instrument Corp, Clarence .... N Y
Lebow Associates Inc, Oak Park .... Mich
Ling Electronics Div LTV Altec Inc, Anaheim .... Cal
Lion Research Corp, Newton .... Mass
Lockheed Electronics Co, Houston Aerospace Systems Div Houston .... Tex
Martin-Decker Corp, Santa Ana .... Cal
Measurement Systems Inc, Norwalk .... Conn
Minnetech Labs Inc, Minneapolis .... Minn
Pcb Electronics, Cheektowaga .... N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Plessey Airborne Corp, Hillside .... NJ
Reliance Electric Co, Cleveland .... Ohio
Revere Corp of America, Wallingford .... Conn
Schaevitz Engineering, Pennsauken .... N J
Scientific Advances Inc, Columbus .... Ohio
Sigma Systems Corp, Sub Applied Science Inc Dallas .... Tex
Statham Instruments Inc, Los Angeles .... Cal
Stow Labs, Inc, Stow .... Mass
Straindyne Engineering Co, Los Altos Hills .... Cal
Strainsert Co, Bryn Mawr .... Pa
Streeter-Amet, Grayslake Ill
Takeda Riken Industry Co Ltd, Tokyo .... Japan
Task Corp, Anaheim .... Cal
Tensitron Inc, Harvard .... Mass
Thwing-Albert Instrument Co, Philadelphia .... Pa
Transducer Controls Corp, Covina .... Cal
Transducers, Inc, Santa Fe Springs .... Cal
Unholtz-Dickie Corp, Hamden .... Conn
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio
West Coast Research Corp, Los Angeles .... Cal
Whittaker Corp Instrument Sys Div North Hollywood .... Cal
Wilcoxon Research, Bethesda .... Md

TRANSDUCERS--HUMIDITY

Cambridge Systems Inc, Newton .... Mass
Control Equipment Corp, Needham Heights .... Mass
Decca Radar, Inc, New York .... N Y
Decker Corp, Bala Cynwyd .... Pa
Foxboro Co, Foxboro .... Mass
Hygrodynamics Inc, Silver Spring .... Md
Kahl Scientific Instrument Corp, El Cajon .... Cal
Meteorology Research Inc, Altadena .... Cal

TRANSDUCERS--LINEAR ACCELERATION

COMPUTER INSTRUMENTS CORP, HEMPSTEAD N Y .... ADV PGS 488-490
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO .... ADV PGS 8
MURATA MFG CO, LTD, KYOTO .... JAPAN
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
STOW LABS, INC, STOW .... MASS
SYSTRON DONNER CORP, CONCORD .... CAL
Acco Gyro Div, Amer Chain & Cable Co Inc Waterbury .... Conn
Akers Electronics, Horten .... Norway
Applied Devices Corp, College Point .... n y
B & F Instruments, Inc, Cornwells Heights .... Pa
Bourns Inc Instrument Div, Riverside .... Cal
Bytrex Inc, Waltham .... Mass
Columbia Research Labs Inc, Woodlyn .... Pa
Computer Instruments Corp, Hempstead .... N Y
Conductron Corp, Ann Arbor .... Mich
Conrac Corp, New York .... N Y
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena .... Cal
Decker Corp, Bala Cynwyd .... Pa
Electro Products Labs Inc Transducer Div, Chicago Ill
Endevco Corp, Pasadena .... Cal
Fairchild Controls, Hicksville .... N Y
Ferranti, Ltd, Lancashire .... England
Ford Instrument Div, Sperry Rand Corp Long Island City .... N Y
Garrett Corp, Los Angeles .... Cal
General Precision Systems Inc, Kearfott Gp Little Falls .... N J
General Radio Co, West Concord .... Mass
Genisco Technology Corp Components, Genistron Divs Compton .... Cal
Gulton Industries Inc, Metuchen .... N J
Gulton Industries Inc Controls & Instru Grp Costa Mesa .... Cal
Honeywell Test Instruments Div, Denver .... Colo
Humphrey Inc, San Diego .... Cal
Instrumentation Div West Gulton Indus Inc Costa Mesa .... Cal
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs .... Colo
Kistler Instrument Corp, Clarence .... N Y
Kollsman Instrument Ltd, Southampton .... England
Korfund Dynamics Corp, Westbury .... N Y
Larson Aero Development, Concord .... Cal
Litton Industries, Guidance & Controls Sys Div Woodland Hills .... Cal
Litton Industries, Potentiometer Div, Mt Vernon .... N Y
MB Electronics A Textron Co, New Haven .... Conn
Metrix Instrument Co, Houston .... Tex
Monarch Industries Inc, El Segundo .... Cal
Murata Mfg Co, Ltd, Kyoto .... Japan
Nippon Electric Co Ltd, Tokyo .... Japan
Nortronics Div, Northrop Corp, Prec Prods Dept Norwood .... Mass
Optron Corp, New Haven .... Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Pickering & Co Inc, Plainview .... N Y
Reeves Instrument Div, DCA, Garden City .... N Y
Schaevitz Engineering, Pennsauken .... N J
Smiths Industries Ltd, Aviation Div Wembley, Mdsx .... England
Sparton Southwest Inc, Albuquerque .... NM
Statham Instruments Inc, Los Angeles .... Cal
Stow Labs, Inc, Stow .... Mass
Superior Mfg & Instrument Co, Long Island City .... N Y
Systron Donner Corp, Concord .... Cal
Transducer Controls Corp, Covina .... Cal
Unholtz-Dickie Corp, Hamden .... Conn

United Control Corp, Redmond .... Wash
Wayne-George Co Div Itek Corp, Newton .... Mass
Whittaker Corp Instrument Sys Div North Hollywood .... Cal

TRANSDUCERS--LINEAR POSITION

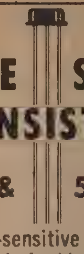
Cedar Engineering Div Control Data Corp Minneapolis .... Minn

TRANSDUCERS--LINEAR VELOCITY

COMPUTER INSTRUMENTS CORP, HEMPSTEAD N Y	**ADV PGS 488-490**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
KAVLICO ELECTRONICS INC, CHATSWORTH, CAL	**ADV PG 724**
SYSTRON DONNER CORP, CONCORD	**CAL**
Acco Gyro Div, Amer Chain & Cable Co Inc Waterbury	Conn
Airpax Electronics Inc Seminole Div Fort Lauderdale	Fla
C-E Electronics Inc, Glenside	Pa
Collins Corp, G L, Long Beach	Cal
Columbia Research Labs Inc, Woodlyn	Pa
Computer Instruments Corp, Hempstead	N Y
Conductron Corp, Ann Arbor	Mich
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Crescent Technology Corp, Newport Beach	Cal
Decker Corp, Bala Cynwyd	Pa
Don Bosco Electronics Inc, Hanover	N J
Electric Tachometer Corp, Philadelphia	Pa
Electro Products Labs Inc Transducer Div, Chicago	Ill
Electro-Sonic-Control, Manteca	Cal
Electro-Voice Inc Sub Gulton Industries Buchanan	Mich
Flow Corp, Watertown	Mass
General Precision Systems Inc, Kearfott Gp Little Falls	N J
General Radio Co, West Concord	Mass
Gulton Industries Inc, Metuchen	N J
Hewlett-Packard, Palo Alto	Cal
Honeywell Test Instruments Div, Denver	Colo
Kavlico Electronics Inc, Chatsworth	Cal
Kollsman Instrument Ltd, Southampton	England
Korfund Dynamics Corp, Westbury	N Y
Larson Aero Development, Concord	Cal
Litton Industries, Guidance & Controls Sys Div Woodland Hills	Cal
Lockheed Electronics Co, Houston Aerospace Systems Div Houston	Tex
MB Electronics A Textron Co, New Haven	Conn
Monarch Industries Inc, El Segundo	Cal
Nortronics Div, Northrop Corp, Prec Prods Dept Norwood	Mass
Optron Corp, New Haven	Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pickering & Co Inc, Plainview	N Y
Reliance Electric Co, Cleveland	Ohio
Schaevitz Engineering, Pennsauken	N J
Space Craft Inc, Huntsville	Ala
Sparton Southwest Inc, Albuquerque	NM
Strandberg Engineering Labs Inc, Greensboro	N C
Systron Donner Corp, Concord	Cal
Transducer Controls Corp, Covina	Cal
West Coast Research Corp, Los Angeles	Cal

TRANSDUCERS--PRESSURE

COMPUTER INSTRUMENTS CORP, HEMPSTEAD N Y	**ADV PGS 488-490**
HAYDON SWITCH & INSTRUMENT INC, WATERBURY	**CONN**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
HYDRA-ELECTRIC CO, BURBANK	**CAL**
KAVLICO ELECTRONICS INC, CHATSWORTH	**CAL**
STOW LABS, INC, STOW, MASS	**ADV PG 724**
TABER INSTRUMENTS A TELEDYNE CO, NORTH TONAWANDA N Y	**ADV PG 725**
VIATRAN CORP, BUFFALO, N Y	**ADV PG 724**
Aerojet-General Corp Electronics Div, Azusa	Cal
Aero Mechanism, Inc, Van Nuys	Cal
Akers Electronics, Horten	Norway
American-Standard, Monrovia Instrument Dept Monrovia	Cal
A & M Instruments Inc, Great Neck	N Y
Bailey Meter Co, Wickliffe	Ohio
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp Environmental Science Div, Baltimore	Md
Bendix Corp, Flight & Engine Instr Div South Montrose	Pa
Biocom, Inc, Culver City	Cal
Birtcher Corp Medical Div, Los Angeles	Cal
Bissett-Berman Corp, Santa Monica	Cal
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham	Mass
Bourns Inc Instrument Div, Riverside	Cal
Bristol Div, American Chain & Cable Co Waterbury	Conn
Brys Instrument Corp, Brooklyn	N Y
Bytrex Inc, Waltham	Mass
Canadian Motorola Electronics Co, Agincourt	Ont
C-E Electronics Inc, Glenside	Pa
Celtic Industries Inc, Van Nuys	Cal
Channel Industries Inc, Santa Barbara	Cal
Charter Labs Inc, East Northport	NY
Clark Electronics, Santa Ana	Cal
Columbia Research Labs Inc, Woodlyn	Pa
Computer Instruments Corp, Hempstead	N Y
Conrac Corp, New York	N Y
Consolidated Controls Corp, Bethel	Conn
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Crescent Technology Corp, Newport Beach	Cal
Crystal Research Inc, Cambridge	Mass
Datametrics Inc, Waltham	Mass
Daytronic Corp, Dayton	Ohio
Decca Radar, Inc, New York	N Y
Decker Corp, Bala Cynwyd	Pa
Dentronics, Inc, Hackensack	N J
Disa Elektronik A/S, Herlev	Denmark
Don Bosco Electronics Inc, Hanover	N J
Doric Scientific Corp, San Diego	Calif
DuWagen Instrument Co, Yardley	Pa



PRESSURE SENSITIVE TRANSISTORS

¼—2 & 5 PSID

PITRAN™ pressure-sensitive transistor transducers are now available for bi-directional ranges of ¼, 2 and 5 psid. Linear outputs of more than 20% of the supply voltage (1-50 volts) can be obtained WITHOUT AMPLIFICATION.

PITRANS are silicon planar NPN transistors with emitter-base junctions mechanically coupled to a diaphragm located in the top of a TO-46 can. A force or a pressure on the diaphragm produces a large, reversible change in the transistor's characteristics. Because it is an active circuit element, a variety of circuits can be used for linear, binary, FM, and PWM outputs.

Mechanical resonance frequency is 100 kHz minimum. Diaphragm displacement is a few microinches. Linear dynamic range is better than 72 dB. Overload capability 500% of full-scale. Excellent common-mode pressure rejection.

Typical Applications: Dynamic blood pressure measurement, fluidic/electronic interfacing, high-speed weighing, traffic counting, altitude sensing, and high-speed, ultra-reliable pressure switching.

Call or write for more details and catalogue.
Tel: 617-562-9347

STOLAB

STOW LABORATORIES, INC.
161 BARTON ROAD, STOW, MASS. 01775

when Mach 3 bakes, shakes, freezes and rolls – this transducer keeps its cool!

Some of the most advanced, high performance aircraft and missiles now use KAVLICO TRANSDUCERS of the following types.

- Linear (LVDT) and angular (RVDT) position transducers.
- Pressure transducers (PSIG and PSID).
- Liquid level sensing systems (Servo).
- Torque transducers (no brushes or slip rings).
- Velocity transducers (LVT).
- Proximity sensors. (Prox.)

LVDT
RVDT
PSIG
PSID
PROX
LVT

Free Catalog and Engineering Advice on Request.

KAVLICO ELECTRONICS, INC.

20869 Plummer Street, Chatsworth, California 91311 • Telephone: 882-2400 (Area Code 213)

NEW . . . a bonded strain gage PRESSURE TRANSDUCER

designed and priced specifically for OEM, chemical and industrial applications

• Infinite resolution • all stainless steel construction • no moving parts • natural ruggedness and temperature stability of bonded strain gage design • removable pressure cap for easy cleaning

Viatran
PRESSURE
VIATRAN CORPORATION

A TRUE QUALITY INSTRUMENT

±3/4%
error band
Model PTB 102
$130.00

Model PTB 202 ±½% error band 0-10 thru 0-10,000 psi, gage or absolute, AC or DC excitation

** Low cost readout instrumentation also available*

Delivery stock to two weeks

Write or phone for complete specifications

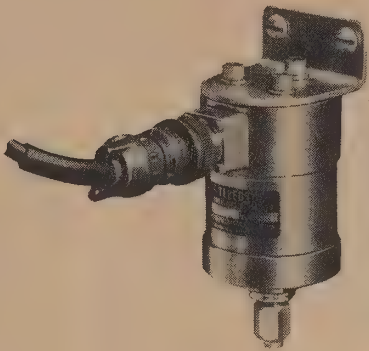
Viatran
CORPORATION
1720 Military Rd.
Buffalo, N. Y. 14217 • Phone (716) 874-3300

TELEDYNE® and TELEFLIGHT® instrumentation...

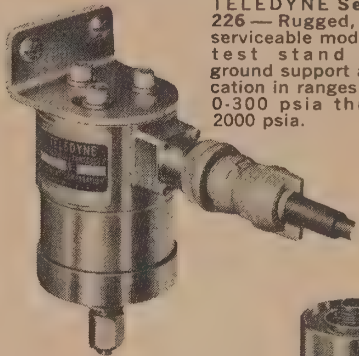
FOR ACCURATE, RUGGED, RELIABLE PRESSURE MEASUREMENT

TELEDYNE *pressure transducers*

TELEDYNE Series 185 — 0-100 thru 0-3000 psia or psis ranges for airborne and flight simulation applications.

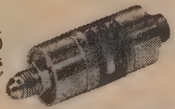


TELEDYNE Series 206 — Rugged, field serviceable model for test stand and ground support application in pressure range from 0-300 psig thru 0-6000 psig.

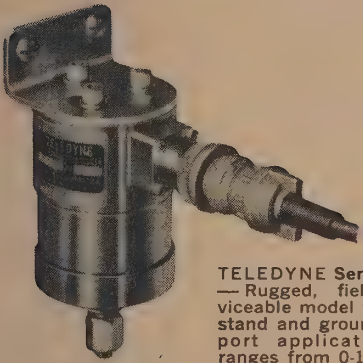


TELEDYNE Series 226 — Rugged, field serviceable model for test stand and ground support application in ranges from 0-300 psia thru 0-2000 psia.

TELEDYNE Series 2101 — For 0-150 thru 0-5000 psia or psis pressure ranges with improved accuracy, lower cost.

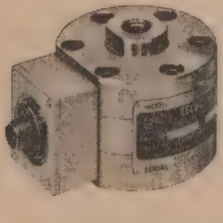


TELEDYNE Series 2201 — Miniature unit for 0-200 thru 0-5000 psia or psis pressure range. Only 1" dia. and 3½ oz. weight.



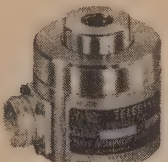
TELEDYNE Series 217 — Rugged, field serviceable model for test stand and ground support application in ranges from 0-100 and 0-200 psia or psis.

TELEDYNE Series 254 — Rugged, field serviceable model for test stand and ground support application in ranges from 0-15 thru 0-100 psia.

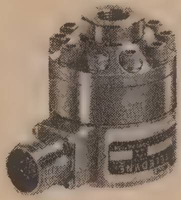


TELEDYNE Series 2102 — For differential pressure ranges ±100 thru ±500 psid at 1000 psi base pressure.

TELEDYNE Series 2103 — For applications where accurate low pressure readings must be taken after high overloads. Pressure ranges of 0-5 and 0-10 psia.

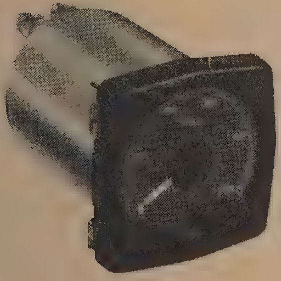


TELEDYNE Series 2301 — A dependable, lower-cost model for general purpose applications in ranges from 0-500 to 0-5000 psig.



TELEDYNE Series 250 —For high pressure measurements in the 0-5000 to 0-20,000 psig ranges. High quality stainless steel housing, pressure cavity, and diaphragms protect against adverse environments and corrosive media.

Indicators

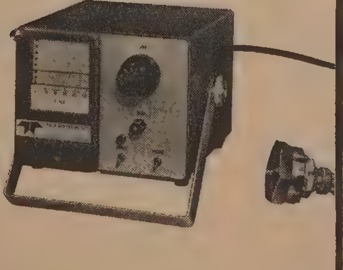


TELEDYNE Series 237 — Integrated design with zero, span and calibration checking controls on the outside front cover, for use with any bridge type sensor.

Many other instruments for pressure measurement are available. For more detailed information and specifications, or for the complete Taber instrument catalog, write to:

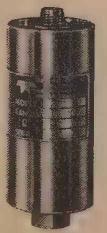
TABER INSTRUMENTS
A TELEDYNE COMPANY
428 BRYANT ST., NORTH TONAWANDA, N.Y. 14120

Series 2500 Pressure and Recording System



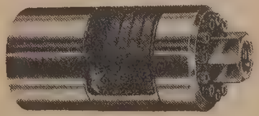
Complete low-cost system with multi-range transducer and accurate 31-day recorder ready for operation. Choice of 0-10 through 0-5000 psig transducers.

high level pressure transducers



TELEDYNE Series 2401 — features high level 5 volt output and wide selection of pressure ranges from 0-100 thru 0-5000 psia or psis. Integrated circuit DC amplifier, filter and regulator incorporated within unit.

TELEDYNE Series 2402 — High level 5 volt output transducer measures low pressure ranges of 0-15 thru 0-100 psia, yet withstands overloads of 500 psi. Integral IC DC amplifier and associated electronics for accurately controlled output.



Dynamic Precision Controls Corp, Hagerstown	Ind
Dynisco Div Microdot Inc, Westwood	Mass
Edison, Thomas A Industries, Instr Div West Orange	N J
E G & G Int'l Inc Geodyne Div, Waltham	Mass
Elastronics Labs, Tarzana	Cal
Electro Development Corp, Lynnwood	Wash
Electrodyne Div Becton, Dickinson Co, Westwood	Mass
Electro-Med Instruments Inc, Houston	Tex
Electronics Communications Div Atlantic Research Corp Alexandria	Va
ElectroSyn Technology Labs, Inc, Canton	Mass
Endevco Corp, Pasadena	Cal
Exactel Instrument Co Div Statham Instrs Inc Mountain View	Cal
Fairchild Controls, Hicksville	N Y
Ferranti, Ltd, Lancashire	England
Foxboro Co, Foxboro	Mass
Frost Engineering Development Corp, Englewood	Colo
Fuji Electric Co Ltd, Tokyo	Japan
Furnas Electric Co, Batavia	Ill
Garrett Corp, Los Angeles	Cal
General Precision Systems Inc, Indl Controls Div Morton Grove	Ill
General Transducer Co, Santa Clara	Cal
Geodyne Div EG&G Int'l, Waltham	Mass
Glassco Instrument Co, Pasadena	Cal
Gulton Industries Inc, Metuchen	N J
Gulton Industries Inc Controls & Instru Grp Costa Mesa	Cal
Hagan Computer Systems Div Westinghouse Pittsburgh	Pa
Harvard Apparatus Co Inc, Millis	Mass
Hastings-Raydist A Teledyne Co, Hampton	Va
Haydon Switch & Instrument Inc, Waterbury	Conn
Hersey-Sparling Meter Co, El Monte	Cal
Hewlett-Packard, Palo Alto	Cal
Honeywell Industrial Div, Fort Washington	Pa
Honeywell Test Instruments Div, Denver	Colo
Hydra-Electric Co, Burbank	Cal
Hydro Products Div Dillingham Corp, San Diego	Cal
Kaman Nuclear Div Kaman Sciences Corp Colorado Springs	Colo
Kavlico Electronics Inc, Chatsworth	Cal
Kelk Ltd, George, Don Mills	Ont
Kistler Instrument Corp, Clarence	N Y
Kollsman Instrument Corp, Syosset	N Y
Kollsman Instrument Ltd, Southampton	England
Leeds & Northrup Co, Philadelphia	Pa
Lion Research Corp, Newton	Mass
Lockheed Electronics Co, Plainfield	N J
Martin-Decker Corp, Santa Ana	Cal
Massa Div Dynamics Corp of America, Hingham	Mass
MB Electronics A Textron Co, New Haven	Conn
Metrix Instrument Co, Houston	Tex
Microdot, Inc, South Pasadena	Cal
Micro Parts Inc, Los Angeles	Cal
MKS Instruments Inc, Burlington	Mass
Motorola Instrumentation & Control Inc, Phoenix	Ariz
Nihon Kohden Kogyo Co Ltd, Tokyo	Japan
Norden Div, United Aircraft Corp, Norwalk	Conn
Nortronics Div, Northrop Corp, Prec Prods Dept Norwood	Mass
Pcb Electronics, Cheektowaga	N Y
Plessey Airborne Corp, Hillside	NJ
Precision Mecanique Labinal, 93 Saint-Ouen	France
Precision Research Inc, Stamford	Conn
Procedyne Corp, New Brunswick	N J
Ramsay Engineering Co, Anaheim	Cal
Revere Corp of America, Wallingford	Conn
Robinson-Halpern Co, W Conshohocken	Pa
Rosemount Engineering Co, Minneapolis	Minn
Rotax Ltd, London NW 10	Eng
Schaevitz Engineering, Pennsauken	N J
Scientific Advances Inc, Columbus	Ohio
Sensor Corp, Greenwich	Conn
Sigma Systems Corp, Sub Applied Science Inc Dallas	Tex
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Solid State Electronics Corp, Sepulveda	Cal
Sparton Corp, Jackson	Mich
Sparton Southwest Inc, Albuquerque	NM
Standard Controls Inc, Seattle	Wash
Statham Instruments Inc, Los Angeles	Cal
Stow Labs, Inc, Stow	Mass
Straindyne Engineering Co, Los Altos Hills	Cal
Strainsert Co, Bryn Mawr	Pa
Taber Instruments A Teledyne Co North Tonawanda	N Y
Takeda Riken Industry Co Ltd, Tokyo	Japan
Taylor Instrument Cos, Rochester	N Y
Teledyne Systems Control Sys A Teledyne Co El Segundo	Cal
Telex Communications Div, Minneapolis	Minn
Tensitron Inc, Harvard	Mass
Texas Instruments Incorporated, Dallas	Tex
Transducers, Inc, Santa Fe Springs	Cal
United Control Corp, Redmond	Wash
United Electric Controls Co, Watertown	Mass
U S Catheter & Instrument Corp, Glen Falls	N Y
Vacco Electronics Div, Vacco Industries South El Monte	Cal
Viatran Corp, Buffalo	N Y
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
West Coast Research Corp, Los Angeles	Cal
Whittaker Corp Instrument Sys Div North Hollywood	Cal
Wilcoxon Research, Bethesda	Md
Winsco Instruments & Controls Co Inc Santa Monica	Cal

TRANSDUCERS--STRAIN

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
STOW LABS, INC, STOW	**MASS**
Accurate Electronics Corp, Elyria	Ohio
American-Standard, Monrovia Instrument Dept Monrovia	Cal
Biocom, Inc, Culver City	Cal
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham	Mass
C-E Electronics Inc, Glenside	Pa
Celtic Industries Inc, Van Nuys	Cal
Clark Electronics, Santa Ana	Cal
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Daytronic Corp, Dayton	Ohio
Decca Radar, Inc, New York	N Y
Decker Corp, Bala Cynwyd	Pa
Dentronics, Inc, Hackensack	N J
Doric Scientific Corp, San Diego	Calif
Dynamic Precision Controls Corp, Hagerstown	Ind
Dynisco Div Microdot Inc, Westwood	Mass
Endevco Corp, Pasadena	Cal
Fairchild Controls, Hicksville	N Y
Ferranti, Ltd, Lancashire	England
Foxboro Co, Foxboro	Mass
Frost Engineering Development Corp, Englewood	Colo
Gulton Industries Inc, Metuchen	N J
Gulton Industries Inc Controls & Instru Grp Costa Mesa	Cal
Helm Instrument Co Inc, Toledo	Ohio
Honeywell Test Instruments Div, Denver	Colo
Korfund Dynamics Corp, Westbury	N Y
Lebow Associates Inc, Oak Park	Mich
Linden Labs Inc, State College	Pa
Lion Research Corp, Newton	Mass
Lockheed Electronics Co, Plainfield	N J
Lockheed Electronics Co, Houston Aerospace Systems Div Houston	Tex
Martin-Decker Corp, Santa Ana	Cal
Microdot, Inc, South Pasadena	Cal
Micro Measurements Inc, Romulus	Mich
Moore Products Co, Spring House	Pa
Optron Corp, New Haven	Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plessey Airborne Corp, Hillside	NJ
Revere Corp of America, Wallingford	Conn
Schaevitz Engineering, Pennsauken	N J
Sigma Systems Corp, Sub Applied Science Inc Dallas	Tex
Statham Instruments Inc, Los Angeles	Cal
Stow Labs, Inc, Stow	Mass
Strainsert Co, Bryn Mawr	Pa
Streeter-Amet, Grayslake	Ill
Takeda Riken Industry Co Ltd, Tokyo	Japan
Task Corp, Anaheim	Cal
Taylor Instrument Cos, Rochester	N Y
Tensitron Inc, Harvard	Mass
Thwing-Albert Instrument Co, Philadelphia	Pa
Transducer Controls Corp, Covina	Cal
Transducers, Inc, Santa Fe Springs	Cal
West Coast Research Corp, Los Angeles	Cal
Whittaker Corp Instrument Sys Div North Hollywood	Cal

TRANSDUCERS--TEMPERATURE

COMPUTER INSTRUMENTS CORP, HEMPSTEAD N Y	**ADV PGS 488-490**
HEWLETT-PACKARD, PALO ALTO	**CAL**
ADC Products, Minneapolis	Minn
Aerojet-General Corp Electronics Div, Azusa	Cal
Aero Research Instrument Dept American Standard Franklin Park	Ill
A & M Instruments Inc, Great Neck	N Y
Andonian Associates, Inc, Waltham	Mass
Astro-Space Labs Inc, Huntsville	Ala
Audn Corp, Hamburg	N Y
Avien, Inc, Woodside	N Y
Bailey Meter Co, Wickliffe	Ohio
Barnes Engineering Co Def & Space Div Stamford	Conn
Beckman Instruments Inc, Fullerton,	Cal
Bergen Lab, Inc, Paterson	N J
Bissett-Berman Corp, Santa Monica	Cal
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham	Mass
Bristol Div, American Chain & Cable Co Waterbury	Conn
Burns Engineering Inc, Minneapolis	Minn
Charter Labs Inc, East Northport	NY
Computer Instruments Corp, Hempstead	N Y
Consolidated Controls Corp, Bethel	Conn
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena	Cal
Daniel Industries, Inc, Houston	Tex
Decca Radar, Inc, New York	N Y
Decker Corp, Bala Cynwyd	Pa
Dohrmann Instruments Co, Mountain View	Cal
Doric Scientific Corp, San Diego	Calif
Dynamic Precision Controls Corp, Hagerstown	Ind
Edison, Thomas A Industries, Instr Div West Orange	N J
E G & G Int'l Inc Geodyne Div, Waltham	Mass
Elastronics Labs, Tarzana	Cal
Electric Thermometers, Inc, Norwalk	Conn
ElectroSyn Technology Labs, Inc, Canton	Mass
Energy Conversion Devices Inc, Troy	Mich
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Eon Instrumentation Inc, Van Nuys	Cal
Fenwal Electronics Inc, Framingham	Mass
Foxboro Co, Foxboro	Mass
Fuji Electric Co Ltd, Tokyo	Japan
Garrett Corp, Los Angeles	Cal
General Transducer Co, Santa Clara	Cal
Geodyne Div EG&G Int'l, Waltham	Mass
Gow-Mac Instrument Co, Madison	N J
Gulton Industries Inc, Metuchen	N J
Hagan Computer Systems Div Westinghouse Pittsburgh	Pa
Harrel Inc, East Norwalk	Conn
Hayakawa Electric Co Ltd, Osaka	Japan
Helm Instrument Co Inc, Toledo	Ohio
Hewlett-Packard, Palo Alto	Cal
Honeywell Industrial Div, Fort Washington	Pa
Hy-Cal Engineering, Santa Fe Springs	Cal
Hydro Products Div Dillingham Corp, San Diego	Cal
Inca Engineering Corp, San Gabriel	Cal
Kollsman Instrument Corp, Syosset	N Y
Leeds & Northrup Co, Philadelphia	Pa
Lewis Engineering Co, Naugatuck	Conn
Malaker Corp, High Bridge	N J
Meteorology Research Inc, Altadena	Cal
Microdot, Inc, South Pasadena	Cal
Micro Measurements Inc, Romulus	Mich
Minco Products Inc, Minneapolis	Minn
Moore Products Co, Spring House	Pa
Motorola Instrumentation & Control Inc, Phoenix	Ariz
Nanmac Corp, Framingham Centre	Mass
Nihon Kohden Kogyo Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Photobell Co Inc, New York	N Y
Plessey Airborne Corp, Hillside	NJ
Precision Mecanique Labinal, 93 Saint-Ouen	France
Precision Research Inc, Stamford	Conn
Pyro Electric Inc, Walkerton	Ind
Ramsay Engineering Co, Anaheim	Cal
RdF Corp, Hudson	N H
Relco Products Inc, Denver	Colo
Revere Corp of America, Wallingford	Conn
Riverbank Labs, Dept of Engrg, Geneva	Ill
Rosemount Engineering Co, Minneapolis	Minn
Rustrak Instrument Div Gulton Ind Inc, Manchester	NH
Scientific Engineering Mfg Co Inc North Hollywood	Cal
Sigma Instruments Canada Ltd, Toronto 18 Ont	Canada
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Sparton Southwest Inc, Albuquerque	NM
Taylor Instrument Cos, Rochester	N Y
Temtech, Santa Ana	Cal
Thermal Systems Inc, Los Angeles	Cal
Thermo Electric Co Inc, Saddle Brook	N J
Thermo-Systems Inc, St Paul	Minn
Trans-Sonics Inc, Lexington	Mass
Tylan Corp, Torrance	Cal
United Control Corp, Redmond	Wash
Versitherm, Inc, Farmingdale	N Y
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
West Coast Research Corp, Los Angeles	Cal
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J
Whittaker Corp Instrument Sys Div North Hollywood	Cal
Winsco Instruments & Controls Co Inc Santa Monica	Cal
Yellow Springs Instrument Co Inc, Yellow Springs	Ohio

TRANSDUCERS--TORQUE

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
KAVLICO ELECTRONICS INC, CHATSWORTH	**CAL**
Accurate Electronics Corp, Elyria	Ohio
Bendix Corp, Flight & Engine Instr Div South Montrose	Pa
Bergen Lab, Inc, Paterson	N J
B & F Instruments, Inc, Cornwells Heights	Pa
BLH Electronics Inc Sub Baldwin-Lima-Hamilton Waltham	Mass
Bytrex Inc, Waltham	Mass
C-E Electronics Inc, Glenside	Pa
Consolidated Controls Corp, El Segundo	Cal
Crescent Technology Corp, Newport Beach	Cal
Daytronic Corp, Dayton	Ohio
Decca Radar, Inc, New York	N Y
Decker Corp, Bala Cynwyd	Pa
Doric Scientific Corp, San Diego	Calif
Dynamic Precision Controls Corp, Hagerstown	Ind
Dynamics Research Corp, Stoneham	Mass
Himmelstein & Co, S, Elk Grove Village	Ill
Inca Engineering Corp, San Gabriel	Cal
Kavlico Electronics Inc, Chatsworth	Cal
Korfund Dynamics Corp, Westbury	N Y
Lebow Associates Inc, Oak Park	Mich
Martin-Decker Corp, Santa Ana	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Schaevitz Engineering, Pennsauken	N J
Servotronics Inc, Buffalo	N Y
Smiths Industries Ltd, Aviation Div Wembley, Mdsx	England
Strainsert Co, Bryn Mawr	Pa
Takeda Riken Industry Co Ltd, Tokyo	Japan
Task Corp, Anaheim	Cal
Taylor Instrument Cos, Rochester	N Y
Transducer Controls Corp, Covina	Cal
Vibrac Corp, Chelmsford	Mass
West Coast Research Corp, Los Angeles	Cal

TRANSDUCERS--ULTRASONIC VIBRATION

COMPUTER INSTRUMENTS CORP, HEMPSTEAD	**N Y**
MURATA MFG CO, LTD, KYOTO	**JAPAN**
TOHOKU METAL INDUSTRIES, LTD, TOKYO	**JAPAN**
Acoustica Associates Inc, Los Angeles	Cal
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Alcatel, Paris 8eme	France
Alpine Geophysical Assoc Inc, Norwood	N J
Birtcher Corp Medical Div, Los Angeles	Cal
Bronwill Scientific, Rochester	N Y
Channel Industries Inc, Santa Barbara	Cal
Commander Labs Inc, Escondido	Cal
Computer Instruments Corp, Hempstead	N Y
Conrac Corp, New York	N Y
Delavan Mfg Co, West Des Moines	Iowa
DoAll Co, Des Plaines	Ill

Don Bosco Electronics Inc, Hanover........ N J
Dytronics Co Inc, Columbus........ Ohio
Edo Corp, College Point........ NY
Edo Western Corp, Salt Lake City........ Utah
Electra Scientific Div Gulton Indus Inc, Fullerton........ Cal
Erie Technological Products Inc, Erie........ Pa
General Radio Co, West Concord........ Mass
Gilardoni S p A, Mandello Lario Como........ Italy
Gulton Industries Inc, Metuchen........ N J
Gulton Industries Inc Controls & Instru Grp
  Costa Mesa........ Cal
Hayakawa Electric Co Ltd, Osaka........ Japan
Interlab Inc, Pleasantville........ N Y
International Transducer Corp, Goleta........ Cal
Kistler Instrument Corp, Clarence........ N Y
Kulicke & Soffa Industries Inc, Fort Washington........ Pa
Lewis Corp, Woodbury........ Conn
Linden Labs Inc, State College........ Pa
Lowrance Electronic Mfg Corp, Tulsa........ Okla
Macrosonics Corp, Rahway........ NJ
Massa Div Dynamics Corp of America, Hingham........ Mass
Mechanical Technology Inc, Latham........ N Y
Murata Mfg Co, Ltd, Kyoto........ Japan
National Sonics Corp, Farmingdale........ N Y
Oki Electric Industry Co Ltd, Tokyo........ Japan
Reliance Electric Co, Cleveland........ Ohio
Taylor Instrument Cos, Rochester........ N Y
Tohoku Metal Industries, Ltd, Tokyo........ Japan
Ultrasonic Appliances of America Inc, Lindenhurst........ N Y
Ultrasonic Devices Inc, Deer Park........ NY
United Control Corp, Redmond........ Wash
Vibrasonics Inc, Needham........ Mass

TRANSDUCERS—UNDERWATER SOUND SEE HYDROPHONES

TRANSDUCERS--VIBRATION

DRANETZ ENGINEERING LABS INC, PLAINFIELD........ N J
GEOTECH A TELEDYNE CO, GARLAND........ TEX
HONEYWELL TEST INSTRUMENTS DIV, DENVER
  COLO........ ADV PGS 8
MURATA MFG CO, LTD, KYOTO........ JAPAN
TOHOKU METAL INDUSTRIES, LTD, TOKYO........ JAPAN
Agac-Derritron Inc, Alexandria........ Va
Allied Research Associates, Inc, Concord........ Mass
Bently Nevada Corp, Minden........ Nev
Biocom, Inc, Culver City........ Cal
B & K Instruments Inc of Bruel & Kjaer
  Cleveland........ Ohio
Bourns Inc Instrument Div, Riverside........ Cal
Bronwill Scientific, Rochester........ N Y
Channel Industries Inc, Santa Barbara........ Cal
Cleveland Electronics Inc Speaker Div, Cleveland........ Ohio
Columbia Research Labs Inc, Woodlyn........ Pa
Consolidated Electrodynamics Corp Sub Bell & Howell Co
  Pasadena........ Cal
Decker Corp, Bala Cynwyd........ Pa
Disa Elektronik A/S, Herlev........ Denmark
Don Bosco Electronics Inc, Hanover........ N J
Dranetz Engineering Labs Inc, Plainfield........ N J
Dytronics Co Inc, Columbus........ Ohio
Electro-Sonic-Control, Manteca........ Cal
Endevco Corp, Pasadena........ Cal
Ercona Corp, New York........ N Y
Frost Engineering Development Corp, Englewood........ Colo
General Radio Co, West Concord........ Mass
Geotech A Teledyne Co, Garland........ Tex
Gulton Industries Inc, Metuchen........ N J
Hayakawa Electric Co Ltd, Osaka........ Japan
Helm Instrument Co Inc, Toledo........ Ohio
Honeywell Test Instruments Div, Denver........ Colo
Indikon Co Inc, Watertown........ Mass
Instrumentation Div West Gulton Indus Inc
  Costa Mesa........ Cal
International Research & Development Corp
  Worthington........ Ohio
International Tel & Tel Corp Industrial Prods Div
  San Fernando........ Cal
Kaman Nuclear Div Kaman Sciences Corp
  Colorado Springs........ Colo
Keinath Instrument Co, Columbus........ Ohio
Kistler Instrument Corp, Clarence........ N Y
Korfund Dynamics Corp, Westbury........ N Y
Larson Aero Development, Concord........ Cal
Ling Electronics Div LTV Altec Inc, Anaheim........ Cal
Lion Research Corp, Newton........ Mass
Massa Div Dynamics Corp of America, Hingham........ Mass
MB Electronics A Textron Co, New Haven........ Conn
Metrix Instrument Co, Houston........ Tex
Murata Mfg Co, Ltd, Kyoto........ Japan
Optron Corp, New Haven........ Conn
Pcb Electronics, Cheektowaga........ N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven........ Holland
Photobell Co Inc, New York........ N Y
Pickering & Co Inc, Plainview........ N Y
Precision Systems Corp, Columbus........ Ohio
Reliance Electric Co, Cleveland........ Ohio

Shure Brothers Inc, Evanston........ Ill
Statham Instruments Inc, Los Angeles........ Cal
Tohoku Metal Industries, Ltd, Tokyo........ Japan
Unholtz-Dickie Corp, Hamden........ Conn
Vibrasonics Inc, Needham........ Mass
Wavelabs Co Div Systron-Donner Corp, San Diego........ Cal
Wayne Kerr Corp, Montclair........ NJ
Wilcoxon Research, Bethesda........ Md

TRANSDUCERS--VISCOSITY

Brookfield Engineering Labs Inc, Stoughton........ Mass
Decker Corp, Bala Cynwyd........ Pa
Dynamics Research Corp, Stoneham........ Mass

ElectroSyn Technology Labs, Inc, Canton........ Mass
Ferranti, Ltd, Lancashire........ England
Ikor, Inc, Burlington........ Mass
Photobell Co Inc, New York........ N Y
Thwing-Albert Instrument Co, Philadelphia........ Pa

TRANSFORMER LAMINATIONS SEE LAMINATIONS

TRANSFORMERS--A-F INPUT, INTERSTAGE OR OUTPUT, GENERAL PURPOSE

ALLEN AVIONICS INC,DIV A K ALLEN CO INC, MINEOLA........ N Y
ALLIED ELECTRONICS CORP, CHICAGO........ ILL
DALE ELECTRONICS INC, COLUMBUS........ NEB
DRANETZ ENGINEERING LABS INC, PLAINFIELD........ N J
HISONIC INC, OLATHE........ KAN
K G S ELECTRONICS INC, PASADENA........ CAL
NOTHELFER WINDING LABS INC, TRENTON........ N J
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC
  ANAHEIM, CAL........ ADV PG 728
TOROTEL, INC, GRANDVIEW........ MO
TORWICO ELECTRONICS, INC, LAKEWOOD........ N J
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK........ N Y
  ADV PG 727
ACDC Electronics, Inc, Burbank........ Cal
AC Electronics Co, Los Angeles........ Cal
ADC Electronics, Inc, Harbor City........ Cal
ADC Products, Minneapolis........ Minn
Aikow Shoji Kaisha Ltd, Osaka........ Japan
Allen Avionics Inc,Div A K Allen Co Inc, Mineola........ N Y
Allied Electronics Corp, Chicago........ Ill
Amk Electronics Co Inc, Edison........ N J
Applied Electro Mechanics Inc, Alexandria........ Va
Arco S P A, Milano........ Italy
Atlas Coil Corp, Ansonia........ Conn
Automation Services Inc, Endicott........ N Y
Avco Corp Electronics Div, Cincinnati........ Ohio
Ballastran Corp, Fort Wayne........ Ind
Basler Electric Co, Highland........ Ill
Berkshire Transformer Corp, Kent........ Conn
Better Coil & Transformer Corp, Goodland........ Ind
B & K Instruments Inc of Bruel & Kjaer
  Cleveland........ Ohio
Bullock Magnetics Corp, Pomona........ Cal
Bush Transformer Div, Gladding-Keystone Corp
  Oneonta........ NY
Cable Electric Products Inc, Providence........ R I
Caledonia Electronics & Transformer Div
  Caledonia........ N Y
Canadian Marconi Co, Montreal 16........ Quebec
Carol Electronics Div Weeco Inc, Martinsburg........ W Va
CBC Industries Inc, Philadelphia........ Pa
Central Transformer Co, Chicago........ Ill
Centroid Inc, Garden City Park........ N Y
Chu Associates Inc, Littleton........ Mass
Coast Coil Co Atlantic Research Corp, Los Angeles........ Cal
Coil Co of America Inc, Northvale........ N J
Coiltronics Inc, Buena Park........ Cal
Component Specialties Corp, Temple City........ Cal
Computer Components Inc, Jamaica........ N Y
CP Electronics Inc, Columbus........ Ind
Custom Coil Co, Zanesville........ Ohio
Cycle Transformer Corp, West Orange........ N J
Dale Electronics Inc, Columbus........ Neb
Daytron Inc, Mountain View........ Cal
Dietz Design Inc, Belton........ Mo
Dranetz Engineering Labs Inc, Plainfield........ N J
Dresser Systems, Inc, Houston........ Tex
Dynaco Inc, Philadelphia........ Pa
Dynamic Components Corp, Hornell........ N Y
Edko Electronics Inc, Brooklyn........ N Y
Electran Mfg Co, Chicago........ Ill
Electrical Windings Inc, Chicago........ Ill
Electro Mfg Corp, Hazelhurst........ Wis
Electro Networks Inc, Caledonia........ N Y
Electronic Components Corp, Addison........ Ill
Electronic Devices Inc, North Ridgeville........ Ohio
Electronic Transformer Corp, Paterson........ N J
Electro Powerpacs Corp, Cambridge........ Mass
Electro Technic Products, Chicago........ Ill
Electro Winders Co Inc, Covina........ Cal
Electro Windings & Components Inc, Kenilworth........ N J
Elnetic Electronics Inc, Venice........ Cal
Ensign Coil Co, Chicago........ Ill
Epco Products Inc, Wallkill........ N Y
Ferranti, Ltd, Lancashire........ England
Field Electronics Inc, Chatham........ N J
Fisher Engineering Inc, Huntington........ Ind
Florida Transformer Co, Transitron Sub
  De Leon Springs........ Fla
Foster Transformer Co, Cincinnati........ Ohio
Freed Transformer Co Inc, Brooklyn........ N Y
Fugle-Miller Labs Inc, Kenilworth........ N J
Fullmer Electronics Inc, Northridge........ Cal
General Radio Co, West Concord........ Mass
Genisco Technology Corp Components, Genistron Divs
  Compton........ Cal
Geo Space Corp, Houston........ Tex

Gladding Corp, South Otselic........ N Y
Goslin Corp, Burbank........ Cal
Grand Transformers Inc, Grand Haven........ Mich
Hadley Co Inc, Robert M, Los Angeles........ Cal
Hammond Mfg Co Ltd, Guelph, Ont........ Can

PIONEERS IN MINIATURIZATION

AUDIO TRANSFORMERS

BRIDGING
CHOPPER
CIRCUIT DEVELOPMENT
DRIVER
HYBRID
INPUT
INTERSTAGE
LOW CAPACITY
MATCHING
MIXING
MODULATION
OUTPUT
PLATE TO LINE
TRANSISTOR

- MIL-T-27B & industrial
- Immediate delivery from stock
- Specials made to specs.
- .01 Hz to 400 MHz microwatts to 50 KW

Over 1300 top quality ironcore inductance devices available from stock.

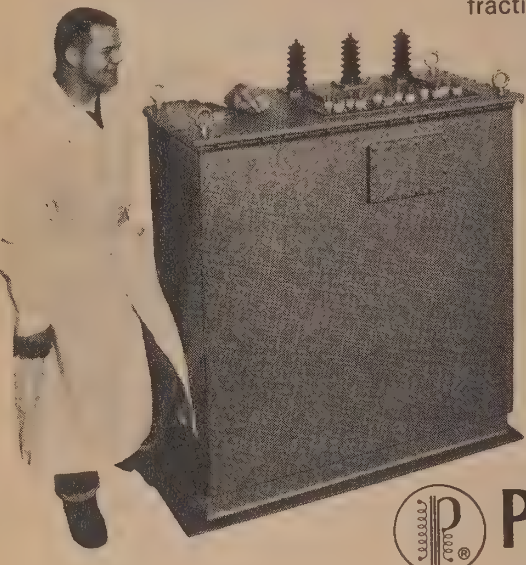
SALES REPRESENTATIVES

Scottsdale, Ariz.—Carter Assoc., Inc.—(602) 947-4355
Magnolia, Ark.—J.Y. Schoonmaker Co., Inc.—(501) 234-3778
Los Altos, Calif.—Recht Associates—(415) 941-0336
Los Ang., Calif.—Ellard E. Strassner—(213) 666-1511
Hollywood, Calif.—Westaironics—(213) 466-6201
N. Haven, Conn.—Gerber Sls Co., Inc.—(203) 777-6279
Wntr Pk., Fla.—Millar-Hutto Ass., Inc.—(305) 647-7407
Atlanta, Ga.—Millar-Hutto Ass., Inc.—(404) 261-6160
Chicago, Illinois—Al Quackenbush—(312) 321-1503
Chicago, Illinois—Whitmore Associates—(312) 321-1503
Cedar Rapids, Iowa—Lorenz Sales, Inc.—(319) 366-0774
Hyattsville, Md.—L. D. Lowery, Inc.—(301) 773-4977
E. Longm'dow, Mass.—Gerber Sls Co., Inc.—(413) 525-3059
Waltham, Mass.—Gerber Sls. Co., Inc.—(617) 891-8040
Minneapolis, Minne.—Fred B. Hill Co.—(612) 929-6727
Grandv'w, Mo.—L. R. Harry & Assoc. Inc.—(816) 763-3634
Ithaca, N.Y.—Bob Dean, Inc.—(607) 272-2187
Mineola, N.Y.—Comtronic Associates—(516) 741-8966
Raleigh, N.C.—Millar-Hutto As., Inc.—(919) 787-9564
Dayton, Ohio—Bek Associates, Inc.—(513) 278-1343
Broomall, Pa.—L. D. Lowery, Inc.—(215) 356-5300
Harrisburg, Pa.—L. D. Lowery, Inc.—(717) 233-0917
Pittsburgh, Pa.—Gene S. Root & Co.—(412) 561-4125
Dallas, T.—J. Y. Schoonmaker Co., Inc.—(214) 357-8481
Houstn, T.—J. Y. Schoonmaker Co., Inc.—(613) 926-9510
San Anton., T.—J. Y. Schoonmaker Co., Inc.—(512) 342-0251
Seattle, Wash.—Jas. J. Backer Co.—(206) 283-6470
Alberta, Can.—A. C. Simmonds & Sons Ltd.—(403) 242-1806
Ontario, Can.—A. C. Simmonds & Sons Ltd.—(416) 445-9111

UNITED TRANSFORMER COMPANY

DIVISION OF TRW INC.

150 Varick Street, New York, N. Y. 10013
TWX: 710-581-2722 / (212) AL 5-3500



Transformers to Your Specifications

Since 1935, Peerless has designed and manufactured transformers of highest reliability to meet exacting specifications in electronic applications. Transformers engineered and built by Peerless include sizes from 0.1 cubic inch to more than 20 cubic feet; from fractional to 30,000 volts; from less than one cycle to approximately 0.5 megacycles; and in one, two, and three-phase and phase-changing configurations. Open-frame or potted, hermetically sealed or vacuum impregnated, varnished, fosterited, epoxy, silastic impregnated or encapsulated...whatever your transformer needs, Peerless can fill them.

For complete information, please write

PEERLESS
ELECTRICAL PRODUCTS
A Division of LTV Ling Altec, Inc., Anaheim, California 92803

Harder Co, Inc, Donald C, San Diego	Cal
Hayakawa Electric Co Ltd, Osaka	Japan
Heyboer Transformers, Grand Haven	Mich
Hisonic Inc, Olathe	Kan
Inductor Engineering Inc, Lewes	Del
Industrial Transformer Corp, Gouldsboro	Pa
James Electronics Inc, Chicago	Ill
JB Electronic Transformers Inc, Chicago	Ill
Johnson Electric Coil Co, Elmhurst	Ill
Kapitol Magnetic Corp, Chicago	Ill
Karkar Electronics Inc, San Francisco	Cal
Kenyon Electronics Inc, Jersey City	N J
Kessler Co, Inc, Frank, Long Island City	N Y
K G S Electronics Inc, Pasadena	Cal
Kidde & Co Inc, Walter, Belleville	N J
Lafayette Radio Electronics, Syosset	NY
Lake Engineering Co Ltd, Scarborough	Ont
LCC-CICE, 93 Montreuil-sous-Bois	France
Lear Siegler Inc, Santa Monica	Cal
Magnetic Circuit Elements Inc, Montrose	Cal
Magnetic Devices Inc, Lemon Grove	Cal
Magnetic Engineering Corp, Danbury	Conn
Magnetic Systems Corp, Clearwater	Fla
Magnetika Inc, Venice	Cal
Matsunaga Mfg Co Ltd, Tokyo	Japan
McGregor Electronic Industries Inc, McGregor	Iowa
Merit Coil & Transformer Corp, Hollywood	Fla
Merrimack Magnetics Corp, Lowell	Mass
Microdot Magnetics Inc, Los Angeles	Cal
Micromagnetics Div Gulton Ind, Visalia	Cal
Microtran Co Inc, Valley Stream	N Y
Mid-West Coil & Transformer Co, Chicago	Ill
Morris Enterprises Inc, Sepulveda	Cal
Multiper N V, Den Haag	Netherlands
National Coil Co Inc, Sheridan	Wyo
New England Transformer Co Inc, Newton	Mass
New York Coil Co Inc, Phoenixville	Pa
Nothelfer Winding Labs Inc, Trenton	N J
Nytronics Inc, Berkeley Heights	N J
Oneida Electronic Mfg Co, Meadville	Pa
Orega Electronique & Mecanique Vincennes, Seine	France
Pacific Instrument Co, Oakland	cal
Pacific Magnetic Corp, Romoland	Cal
PCA Electronics Inc, Sepulveda	Cal
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Permoflux Corp, Glendale	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Phoenix Transformer Co, Phoenix	Ariz
Polyphase Instrument Co, Bridgeport	Pa
Precision Electronics Co, Marshfield	Mass
Precision Electronics Inc, Amityville	N Y
Precision Inc, Minneapolis	Minn
Profile Electronics Inc, Concord	N H
Prototype Transformer Corp, East Orange	NJ
Pulse Engineering Inc, Santa Clara	Cal
Qutronic Transformer Corp, Oneonta	N Y
Radio Engineering Labs, Div DCA, Long Island City	N Y
Ratel Inc, Goleta	Cal
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Re-Al Electronics Co, Waterbury	Conn
Robinson Electronic Components, Temple City	Cal
Scott Electronics Corp, Orlando	Fla
Sennheiser Electronic Corp (NY), New York	N Y
Shigoto Industries Ltd, New York	N Y
Shure Brothers Inc, Evanston	Ill
Signal Transformer Co Inc, Brooklyn	N Y
S K G Associates Inc, Boston	Mass
Skyway Magnetics, Inglewood	Cal
Solid State Electronics Corp, Sepulveda	Cal
Southern Electronics Co Inc, Greeneville	Tenn
Spatron Inc, Alhambra	Cal
Staco Inc Std Elec Prods Co Div, Dayton	Ohio
Stancor Controls Div Essex Wire Corp, Chicago	Ill
Standard Industries, Buena Park	Cal
Standard Winding Co Div Ovitron Corp, Newburgh	N Y
Sterling Transformer Corp, Brooklyn	N Y
Sylvania Elec Prods Inc Special Prod Div. Danvers	Mass
Tabuchi Electric Co Ltd, Osaka	Japan
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Tele Coil Co Inc, Camden	N J
Thordarson Meissner Inc, Mt Carmel	Ill
Tilton Electronics Corp, Winnisquam	N H
Tonegen Electric Co Ltd, Joto-ku, Osaka	Japan
Toroid-Trans Electronics Co Inc, Danbury	Conn
Torotel, Inc, Grandview	Mo
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
Torwico Electronics, Inc, Lakewood	N J
Tranex Inc, Mountain View	Cal
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Engineers, San Gabriel	Cal
Transformer Manufacturers Inc, Chicago	Ill
Transformer Technicians Inc, Chicago	Ill
Tresco Inc, Philadelphia	Pa
Triad Distributor Div Litton Industries, Huntington	Ind
Triad Transformer Corp, Venice	Cal
Triwec Transformer Co, Chicago	Ill
United Transformer Co Div TRW Inc, New York	N Y
Universal Precision, Inc, Endicott	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Utah Electronics Div, Utah-American Corp Huntington	Ind
Utrad Corp, Huntington	Ind
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Virginia Electronics Co Inc, Falls Church	Va
Wescoil Co Inc, Tinley Park	Ill
Westinghouse Electric Corp, Spec Transf Div Greenville	Pa
Whitewater Electronics Inc, Whitewater	Wis
Wintron Co Inc, S El Monte	Cal
Woodward-Schumacher Electric Corp, Chicago	Ill
Zaring Industries Inc, Carmel	Ind

TRANSFORMERS--A-F MINIATURE

ALLEN AVIONICS INC,DIV A K ALLEN CO INC, MINEOLA	**N Y**
ALLIED ELECTRONICS CORP, CHICAGO	**ILL**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE, N Y	ADV PG 729
DALE ELECTRONICS INC, COLUMBUS	**NEB**
HISONIC INC, OLATHE	**KAN**
K G S ELECTRONICS INC, PASADENA	**CAL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM	**CAL**
TOROTEL, INC, GRANDVIEW	**MO**
TORWICO ELECTRONICS, INC, LAKEWOOD	**N J**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
AC Electronics Co, Los Angeles	Cal
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Aikow Shoji Kaisha Ltd, Osaka	Japan
Allen Avionics Inc,Div A K Allen Co Inc, Mineola	N Y
Allied Electronics Corp, Chicago	Ill
American Trans-Coil Corp, Richmond Hill	NY
Amk Electronics Co Inc, Edison	N J
Applied Electro Mechanics Inc, Alexandria	Va
Arnold Magnetics Corp, Los Angeles	Cal
Astrosystems Inc, New Hyde Park	N Y
Atlas Coil Corp, Ansonia	Conn
Automation Services Inc, Endicott	N Y
Ballastran Corp, Fort Wayne	Ind
Barwood Electronics, Inc, Glendale	Cal
Basler Electric Co, Highland	Ill
Bayly Engineering Ltd, Ajax	Ontario
Berkshire Transformer Corp, Kent	Conn
Better Coil & Transformer Corp, Goodland	Ind
Bicron Electronics Co, Canaan	Conn
Bourns Inc Trimpot Div, Riverside	Cal
Bullock Magnetics Corp, Pomona	Cal
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Caledonia Electronics & Transformer Div Caledonia	N Y
Canadian Marconi Co, Montreal 16	Quebec
Carol Electronics Div Weeco Inc, Martinsburg	W Va
CBC Industries Inc, Philadelphia	Pa
Central Transformer Co, Chicago	Ill
Chu Associates Inc, Littleton	Mass
Coast Coil Co Atlantic Research Corp, Los Angeles	Cal
Coil Co of America Inc, Northvale	N J
Coiltronics Inc, Buena Park	Cal
Component Specialties Corp, Temple City	Cal
Components Specialties Inc, Freeport	N Y
Computer Components Inc, Jamaica	N Y
CP Electronics Inc, Columbus	Ind
Custom Coil Co, Zanesville	Ohio
Cycle Transformer Corp, West Orange	N J
Dale Electronics Inc, Columbus	Neb
DB Products Inc, Pasadena	Cal
Delevan Electronics Div Amer Prec Indus Inc East Aurora	N Y
Delta Coils, Philadelphia	Pa
Dietz Design Inc, Belton	Mo
Dinion Coil Co Inc, Caledonia	N Y
Dowa Trading Co Ltd, Kobe	Japan
Dresser Systems, Inc, Houston	Tex
Dynamic Components Corp, Hornell	N Y
Edko Electronics Inc, Brooklyn	N Y
Electran Mfg Co, Chicago	Ill
Electrical Windings Inc, Chicago	Ill
Electro Networks Inc, Caledonia	N Y
Electronic Components Corp, Addison	Ill
Electronic Transformer Corp, Paterson	N J
Electro Winders Co Inc, Covina	Cal
Electro Windings & Components Inc, Kenilworth	N J
Elnetic Electronics Inc, Venice	Cal
Epco Products Inc, Wallkill	N Y
Ferranti, Ltd, Lancashire	England
Freed Transformer Co Inc, Brooklyn	N Y
Fugle-Miller Labs Inc, Kenilworth	N J
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Geo Space Corp, Houston	Tex
Gladding Corp, South Otselic	N Y
Goslin Corp, Burbank	Cal
Gotham Audio Corp, New York	N Y
Grand Transformers Inc, Grand Haven	Mich
Hadley Co Inc, Robert M, Los Angeles	Cal
Hammond Mfg Co Ltd, Guelph, Ont	Can
Hill Magnetics, Inc, Redwood City	Cal
Hisonic Inc, Olathe	Kan
Inductor Engineering Inc, Lewes	Del
Industrial Transformer Corp, Gouldsboro	Pa
JB Electronic Transformers Inc, Chicago	Ill
Kapitol Magnetic Corp, Chicago	Ill
Karkar Electronics Inc, San Francisco	Cal
Kenyon Electronics Inc, Jersey City	N J
Kessler Co, Inc, Frank, Long Island City	N Y
K G S Electronics Inc, Pasadena	Cal
Kidde & Co Inc, Walter, Belleville	N J
Lake Engineering Co Ltd, Scarborough	Ont
LCC-CICE, 93 Montreuil-sous-Bois	France
Magnetic Circuit Elements Inc, Montrose	Cal
Magnetic Devices Inc, Lemon Grove	Cal
Magnetic Engineering Corp, Danbury	Conn
Magnetika Inc, Venice	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McGregor Electronic Industries Inc, McGregor	Iowa
Merit Coil & Transformer Corp, Hollywood	Fla
Merrimack Magnetics Corp, Lowell	Mass
Microdot Magnetics Inc, Los Angeles	Cal
Micromagnetics Div Gulton Ind, Visalia	Cal
Microtran Co Inc, Valley Stream	N Y
Mid-West Coil & Transformer Co, Chicago	Ill
Mode Electronics Inc, Cincinnati	Ohio

Miniature Transformers?
Try Bulova First!
CALL:
Ariz Tech-Ser Inc, 1805 E Indian School Rd Phoenix ... 602-265-3629
Cal Straube Assoc, 483 Willow Rd Menlo Pk ... 213-323-2476
Cal W J Carnes & Co, 420 S D St Tustin ... 213-838-0575
Conn Samuel C Hooker Inc, Box 369 W Hartford ... 203-233-8000
Fla Perrott Assoc, 1607 Forsyth Rd, Orlando ... 305-275-1132
Fla Perrott Assoc, Box 6277 West Palm Beach ... 305-967-1770
Fla Perrott Assoc, Box 4532, Clearwater. 813-531-5513
Ill J R Sales Engineering 7132 N Harlem Ave, Chicago ... 312-774-8550
Iowa J R Sales Engrg, 3350 Cottage Grove Ave SE, Cedar Rapids ... 319-365-5259
Md Callas Electronics, 6409 Frederick Ave Baltimore ... 301-744-7711
Mass Samuel Hooker, Inc, Box 352 Winchester ... 617-729-5482
Minn Wenco Sales Inc, 7728 Morgan Ave S Minneapolis ... 612-866-3639
Mo J C Mankus & Assoc, 400 Brooks La Hazelwood ... 314-PE1-4334
NY Kahgan Sales Corp, 1261 Broadway New York ... 212-MU4-7772
NY H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester ... 716-232-2688
NY Comtronic Assoc, 1551 Franklin Ave Mineola ... 516-P11-8966
NY H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady ... 518-374-5901
NY H C Johnson Agencies Inc, Box 215 Fayetteville ... 315-637-9383
NY H C Johnson Agencies Inc, 8 Los Robles St Williamsville ... 716-632-7880
Ohio Augey Natalino Assoc, 209 Harmony Hills Akron ... 216-666-1447
Pa C H Newson & Assoc Inc, 627 Bethlehem Pike, Philadelphia ... 215-248-3377
Tex Blackburn Assoc., Inc., 137 Walnut Hill Village, Box 20073, Dallas ... 214-351-9991
Wash Jas J Backer Co, 221 W Galer St Seattle ... 206-AT3-6470
Can Canadian Micro Electronics, Box 6157 Sta J, Ottawa ... 725-2332
BULOVA WATCH CO INC
FREQUENCY CONTROL PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

National Coil Co Inc, Sheridan	Wyo
New England Transformer Co Inc, Newton	Mass
New York Coil Co Inc, Phoenixville	Pa
Nytronics Inc, Berkeley Heights	N J
Orega Electronique & Mecanique Vincennes, Seine	France
Pacific Instrument Co, Oakland	cal
Pacific Magnetic Corp, Romoland	Cal
PCA Electronics Inc, Sepulveda	Cal
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Permoflux Corp, Glendale	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Phoenix Transformer Co, Phoenix	Ariz
Polyphase Instrument Co, Bridgeport	Pa
Precision Electronics Co, Marshfield	Mass
Precision Electronics Inc, Amityville	N Y
Precision Inc, Minneapolis	Minn
Precision Transformers Inc, Anaheim	Cal
Profile Electronics Inc, Concord	N H
Prototype Transformer Corp, East Orange	NJ
Pulse Engineering Inc, Santa Clara	Cal
Qutronic Transformer Corp, Oneonta	N Y
Radio Engineering Labs, Div DCA, Long Island City	N Y
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Re-Al Electronics Co, Waterbury	Conn
Robinson Electronic Components, Temple City	Cal
Schott Co Inc, Oscar A, Minneapolis	Minn
Scott Electronics Corp, Orlando	Fla
Sennheiser Electronic Corp (NY), New York	N Y
Shigoto Industries Ltd, New York	N Y
Signal Transformer Co Inc, Brooklyn	N Y
S K G Associates Inc, Boston	Mass
Skyway Magnetics, Inglewood	Cal
Solid State Electronics Corp, Sepulveda	Cal
Spatron Inc, Alhambra	Cal
Staco Inc Std Elec Prods Co Div, Dayton	Ohio
Stancor Controls Div Essex Wire Corp, Chicago	Ill
Standard Industries, Buena Park	Cal
Sterling Transformer Corp, Brooklyn	N Y
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Tabuchi Electric Co Ltd, Osaka	Japan
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Tele Coil Co Inc, Camden	N J
Tenco Electronics Inc, Boston	Mass
Thordarson Meissner Inc, Mt Carmel	Ill
Tilton Electronics Corp, Winnisquam	N H
Toroidal Components Co, Pasadena	Cal
Toroid-Trans Electronics Co Inc, Danbury	Conn
Torotel, Inc, Grandview	Mo
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
Torwico Electronics, Inc, Lakewood	N J
Tranex Inc, Mountain View	Cal
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Engineers, San Gabriel	Cal
Transformer Manufacturers Inc, Chicago	Ill
Transformer Technicians Inc, Chicago	Ill
Tresco Inc, Philadelphia	Pa
Triad Distributor Div Litton Industries, Huntington	Ind
Triad Transformer Corp, Venice	Cal
Triwec Transformer Co, Chicago	Ill
United Transformer Co Div TRW Inc, New York	N Y
Universal Precision, Inc, Endicott	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Utrad Corp, Huntington	Ind
Vactric Control Equipment Ltd, Morden	England
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Virginia Electronics Co Inc, Falls Church	Va
Wescoil Co Inc, Tinley Park	Ill
Whitewater Electronics Inc, Whitewater	Wis
Wintron Co Inc, S El Monte	Cal
Woodward-Schumacher Electric Corp, Chicago	Ill
Zaring Industries Inc, Carmel	Ind

MILGRAY
STOCKS
TRANSFORMERS
Every kind you can imagine. (And some you can't.) From stockpiles strategically located for overnight or faster delivery to anywhere in the world. We stock more so you can worry less. A call to your local Milgray man will start the motion.
MILGRAY
Milgray/New York 212-YU 9-1600
Milgray/Delaware Valley 215-BA 8-2000
Milgray/Washington 301-864-1111
Milgray/Cleveland 216-881-8800
Milgray/International 212-YU 9-1600
Milgray/New England, Inc. 617-272-6800

TRANSFORMERS--A-F MODULATOR

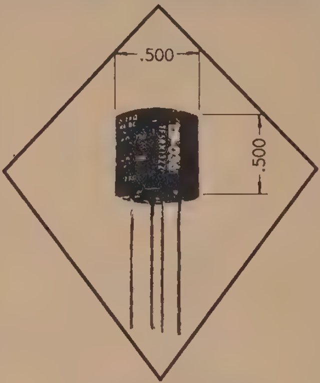
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE	**N Y**
DALE ELECTRONICS INC, COLUMBUS	**NEB**
HISONIC INC, OLATHE	**KAN**
K G S ELECTRONICS INC, PASADENA	**CAL**
NOTHELFER WINDING LABS INC, TRENTON	**N J**
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM	**CAL**
TOROTEL, INC, GRANDVIEW	**MO**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
ACDC Electronics, Inc, Burbank	Cal
AC Electronics Co, Los Angeles	Cal
ADC Products, Minneapolis	Minn
Atlas Coil Corp, Ansonia	Conn
Automation Services Inc, Endicott	N Y
Ballastran Corp, Fort Wayne	Ind
Barwood Electronics, Inc, Glendale	Cal
Basler Electric Co, Highland	Ill
Better Coil & Transformer Corp, Goodland	Ind
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bullock Magnetics Corp, Pomona	Cal
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Caledonia Electronics & Transformer Div Caledonia	N Y
Canadian Marconi Co, Montreal 16	Quebec
Carol Electronics Div Weeco Inc, Martinsburg	W Va
CBC Industries Inc, Philadelphia	Pa
Central Transformer Co, Chicago	Ill
Chu Associates Inc, Littleton	Mass
Coast Coil Co Atlantic Research Corp, Los Angeles	Cal
Coil Co of America Inc, Northvale	N J
Coiltronics Inc, Buena Park	Cal
Component Specialties Corp, Temple City	Cal
Computer Components Inc, Jamaica	N Y
CP Electronics Inc, Columbus	Ind
Cycle Transformer Corp, West Orange	N J
Dale Electronics Inc, Columbus	Neb
Dresser Systems, Inc, Houston	Tex
Dynamic Components Corp, Hornell	N Y
Edko Electronics Inc, Brooklyn	N Y
Electrical Windings Inc, Chicago	Ill
Electro Networks Inc, Caledonia	N Y
Electronic Components Corp, Addison	Ill
Electronic Transformer Corp, Paterson	N J
Electro Winders Co Inc, Covina	Cal
Elnetic Electronics Inc, Venice	Cal
Ensign Coil Co, Chicago	Ill
Epco Products Inc, Wallkill	N Y
Ferranti, Ltd, Lancashire	England
Field Electronics Inc, Chatham	N J
Fisher Engineering Inc, Huntington	Ind
Foster Transformer Co, Cincinnati	Ohio
Freed Transformer Co Inc, Brooklyn	N Y
Fugle-Miller Labs Inc, Kenilworth	N J
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Gladding Corp, South Otselic	N Y
Goslin Corp, Burbank	Cal
Grand Transformers Inc, Grand Haven	Mich
Hammond Mfg Co Ltd, Guelph, Ont	Can
Hill Magnetics, Inc, Redwood City	Cal
Hisonic Inc, Olathe	Kan
Inductor Engineering Inc, Lewes	Del
Industrial Transformer Corp, Gouldsboro	Pa
James Electronics Inc, Chicago	Ill
Johnson Electric Coil Co, Elmhurst	Ill
Kenyon Electronics Inc, Jersey City	N J
Kessler Co, Inc, Frank, Long Island City	N Y
K G S Electronics Inc, Pasadena	Cal
Kidde & Co Inc, Walter, Belleville	N J
Magnetic Circuit Elements Inc, Montrose	Cal
Magnetic Engineering Corp, Danbury	Conn
Magnetika Inc, Venice	Cal
Merit Coil & Transformer Corp, Hollywood	Fla
Merrimack Magnetics Corp, Lowell	Mass
Microdot Magnetics Inc, Los Angeles	Cal
Microtran Co Inc, Valley Stream	N Y
Mid-West Coil & Transformer Co, Chicago	Ill
Multiper N V, Den Haag	Netherlands
National Coil Co Inc, Sheridan	Wyo
New England Transformer Co Inc, Newton	Mass
New York Coil Co Inc, Phoenixville	Pa
Nothelfer Winding Labs Inc, Trenton	N J
Nytronics Inc, Berkeley Heights	N J
Pacific Instrument Co, Oakland	cal
PCA Electronics Inc, Sepulveda	Cal
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Phoenix Transformer Co, Phoenix	Ariz
Polyphase Instrument Co, Bridgeport	Pa
Precision Electronics Co, Marshfield	Mass
Precision Electronics Inc, Amityville	N Y
Prototype Transformer Corp, East Orange	NJ
Qutronic Transformer Corp, Oneonta	N Y
Radio Engineering Labs, Div DCA, Long Island City	N Y
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Schott Co Inc, Oscar A, Minneapolis	Minn
Scott Electronics Corp, Orlando	Fla
Signal Transformer Co Inc, Brooklyn	N Y
S K G Associates Inc, Boston	Mass
Skyway Magnetics, Inglewood	Cal
Solid State Electronics Corp, Sepulveda	Cal
Spatron Inc, Alhambra	Cal
Staco Inc Std Elec Prods Co Div, Dayton	Ohio
Stancor Controls Div Essex Wire Corp, Chicago	Ill
Standard Industries, Buena Park	Cal
Sterling Transformer Corp, Brooklyn	N Y
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Tele Coil Co Inc, Camden	N J
Thordarson Meissner Inc, Mt Carmel	Ill
Tilton Electronics Corp, Winnisquam	N H
Torotel, Inc, Grandview	Mo
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
Tranex Inc, Mountain View	Cal
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Engineers, San Gabriel	Cal
Transformer Manufacturers Inc, Chicago	Ill
Transformer Technicians Inc, Chicago	Ill
Tresco Inc, Philadelphia	Pa
Triad Distributor Div Litton Industries, Huntington	Ind
Triad Transformer Corp, Venice	Cal
Triwec Transformer Co, Chicago	Ill
United Transformer Co Div TRW Inc, New York	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Utrad Corp, Huntington	Ind
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Virginia Electronics Co Inc, Falls Church	Va
Wescoil Co Inc, Tinley Park	Ill
Whitewater Electronics Inc, Whitewater	Wis
Woodward-Schumacher Electric Corp, Chicago	Ill
Workman Electronic Products Inc, Sarasota	Fla

TRANSFORMERS--A-F PRINTED CIRCUIT TERMINALS

ALLEN AVIONICS INC, DIV A K ALLEN CO INC, MINEOLA	**N Y**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE	**N Y**
DALE ELECTRONICS INC, COLUMBUS	**NEB**
HISONIC INC, OLATHE	**KAN**
K G S ELECTRONICS INC, PASADENA	**CAL**
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM	**CAL**
TOROTEL, INC, GRANDVIEW	**MO**
	ADV PG 730
TORWICO ELECTRONICS, INC, LAKEWOOD	**N J**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
ACDC Electronics, Inc, Burbank	Cal
AC Electronics Co, Los Angeles	Cal
ADC Products, Minneapolis	Minn
Aikow Shoji Kaisha Ltd, Osaka	Japan
Allen Avionics Inc, Div A K Allen Co Inc, Mineola	N Y
Amk Electronics Co Inc, Edison	N J
Arco S P A, Milano	Italy
Atlas Coil Corp, Ansonia	Conn
Automation Services Inc, Endicott	N Y
Ballastran Corp, Fort Wayne	Ind
Barwood Electronics, Inc, Glendale	Cal
Basler Electric Co, Highland	Ill
Better Coil & Transformer Corp, Goodland	Ind
Bicron Electronics Co, Canaan	Conn
Bourns Inc Trimpot Div, Riverside	Cal
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bullock Magnetics Corp, Pomona	Cal
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Caledonia Electronics & Transformer Div Caledonia	N Y
Cambridge Thermionic Corp, Cambridge	Mass
Carol Electronics Div Weeco Inc, Martinsburg	W Va
CBC Industries Inc, Philadelphia	Pa
Central Transformer Co, Chicago	Ill
Chu Associates Inc, Littleton	Mass
Coast Coil Co Atlantic Research Corp, Los Angeles	Cal
Coil Co of America Inc, Northvale	N J
Coiltronics Inc, Buena Park	Cal
Component Specialties Corp, Temple City	Cal
Computer Components Inc, Jamaica	N Y
CP Electronics Inc, Columbus	Ind
Custom Coil Co, Zanesville	Ohio
Cycle Transformer Corp, West Orange	N J
Dale Electronics Inc, Columbus	Neb
Delta Coils, Philadelphia	Pa
Dietz Design Inc, Belton	Mo
Dinion Coil Co Inc, Caledonia	N Y
Dresser Systems, Inc, Houston	Tex
Dynamic Components Corp, Hornell	N Y
Electran Mfg Co, Chicago	Ill
Electrical Windings Inc, Chicago	Ill
Electro Mfg Corp, Hazelhurst	Wis
Electro Networks Inc, Caledonia	N Y
Electronic Components Corp, Addison	Ill
Electronic Transformer Corp, Paterson	N J
Electro Winders Co Inc, Covina	Cal
Electro Windings & Components Inc, Kenilworth	N J
Elnetic Electronics Inc, Venice	Cal
Ensign Coil Co, Chicago	Ill
Epco Products Inc, Wallkill	N Y
Ferranti, Ltd, Lancashire	England
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Foster Transformer Co, Cincinnati	Ohio
Freed Transformer Co Inc, Brooklyn	N Y
Fugle-Miller Labs Inc, Kenilworth	N J
Fullmer Electronics Inc, Northridge	Cal
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Geo Space Corp, Houston	Tex
Gladding Corp, South Otselic	N Y
Goslin Corp, Burbank	Cal
Gotham Audio Corp, New York	N Y
Grand Transformers Inc, Grand Haven	Mich
Hammond Mfg Co Ltd, Guelph, Ont	Can
Heyboer Transformers, Grand Haven	Mich
Hill Magnetics, Inc, Redwood City	Cal
Hisonic Inc, Olathe	Kan
Inductor Engineering Inc, Lewes	Del
Industrial Transformer Corp, Gouldsboro	Pa
James Electronics Inc, Chicago	Ill
JB Electronic Transformers Inc, Chicago	Ill
Johnson Electric Coil Co, Elmhurst	Ill
Kapitol Magnetic Corp, Chicago	Ill
Kenyon Electronics Inc, Jersey City	N J
Kessler Co, Inc, Frank, Long Island City	N Y
K G S Electronics Inc, Pasadena	Cal
Kidde & Co Inc, Walter, Belleville	N J
Lake Engineering Co Ltd, Scarborough	Ont
Larago Electronics Mfgrs Inc, Melbourne	Fla
LCC-CICE, 93 Montreuil-sous-Bois	France
Magnetic Circuit Elements Inc, Montrose	Cal
Magnetic Engineering Corp, Danbury	Conn
Magnetika Inc, Venice	Cal
McGregor Electronic Industries Inc, McGregor	Iowa
Merit Coil & Transformer Corp, Hollywood	Fla
Merrimack Magnetics Corp, Lowell	Mass
Meteor Transformer Mfg Co, Detroit	Mich
Microdot Magnetics Inc, Los Angeles	Cal
Micromagnetics Div Gulton Ind, Visalia	Cal
Microtran Co Inc, Valley Stream	N Y
Mid-West Coil & Transformer Co, Chicago	Ill
National Coil Co Inc, Sheridan	Wyo
New England Transformer Co Inc, Newton	Mass
New York Coil Co Inc, Phoenixville	Pa
Nytronics Inc, Berkeley Heights	N J
Pacific Instrument Co, Oakland	cal
Pacific Magnetic Corp, Romoland	Cal
PCA Electronics Inc, Sepulveda	Cal
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Phoenix Transformer Co, Phoenix	Ariz
Polyphase Instrument Co, Bridgeport	Pa
Precision Electronics Co, Marshfield	Mass
Precision Inc, Minneapolis	Minn
Profile Electronics Inc, Concord	N H
Prototype Transformer Corp, East Orange	NJ
Qutronic Transformer Corp, Oneonta	N Y
Radio Engineering Labs, Div DCA, Long Island City	N Y
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Re-Al Electronics Co, Waterbury	Conn
Robinson Electronic Components, Temple City	Cal
Schott Co Inc, Oscar A, Minneapolis	Minn
Scott Electronics Corp, Orlando	Fla
Sennheiser Electronic Corp (NY), New York	N Y
Signal Transformer Co Inc, Brooklyn	N Y
S K G Associates Inc, Boston	Mass
Skyway Magnetics, Inglewood	Cal
Solid State Electronics Corp, Sepulveda	Cal
Southern Electronics Co Inc, Greeneville	Tenn
Staco Inc Std Elec Prods Co Div, Dayton	Ohio
Stancor Controls Div Essex Wire Corp, Chicago	Ill
Standard Industries, Buena Park	Cal
Standard Winding Co Div Ovitron Corp, Newburgh	N Y
Sterling Transformer Corp, Brooklyn	N Y
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Tele Coil Co Inc, Camden	N J
Thordarson Meissner Inc, Mt Carmel	Ill
Tilton Electronics Corp, Winnisquam	N H
Toroidal Components Co, Pasadena	Cal
Toroid-Trans Electronics Co Inc, Danbury	Conn
Torotel, Inc, Grandview	Mo
Torwico Electronics, Inc, Lakewood	N J
Tranex Inc, Mountain View	Cal
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Engineers, San Gabriel	Cal
Transformer Manufacturers Inc, Chicago	Ill
Transformer Technicians Inc, Chicago	Ill
Tresco Inc, Philadelphia	Pa
Triad Distributor Div Litton Industries, Huntington	Ind
Triad Transformer Corp, Venice	Cal
Triwec Transformer Co, Chicago	Ill
United Transformer Co Div TRW Inc, New York	N Y
Universal Precision, Inc, Endicott	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Utrad Corp, Huntington	Ind
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Virginia Electronics Co Inc, Falls Church	Va
Wescoil Co Inc, Tinley Park	Ill
Whitewater Electronics Inc, Whitewater	Wis
Woodward-Schumacher Electric Corp, Chicago	Ill
Zaring Industries Inc, Carmel	Ind

PRINTED CIRCUIT APPLICATIONS

L.B. SERIES

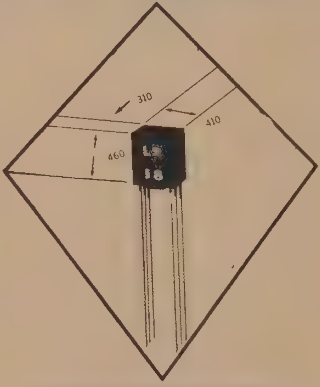


MINIATURE TRANSISTOR TRANSFORMERS

"LB'S" ARE MANUFACTURED TO MIL-T-27A, GRADE 5, CLASS R SPECIFICATIONS, WITH 20AWG TINNED HARD DRAWN COPPER LEADS. ALSO AVAILABLE, ON SPECIAL REQUEST, WITH DUMET WIRE MAGNETIC SHIELDS MAY BE SUPPLIED FOR ALL TYPES.

24 HOUR DELIVERY

L.S. SERIES



SUBMINIATURIZED TRANSFORMERS

THE "LS'S" ARE MANUFACTURED TO MIL-T-27A, CLASS R, GRADE 5. WEIGHT LESS THAN 0.1 OZ., GRID SPACING IDEAL FOR TRANSISTOR APPLICATION UTILIZING PRINTED CIRCUIT BOARD DESIGN, EXTERNAL MAGNETIC SHIELD AVAILABLE FOR ALL TYPES

MAY WE QUOTE ON YOUR:
PULSE TRANSFORMERS, FILTERS, DELAY LINES, AND INDUCTORS
WRITE FOR OUR COMPLETE CATALOGUE

TOROTEL INC.

13402 SOUTH 71 HIWAY
GRANDVIEW, MO. 64030
PHONE: SO 1-6314

TRANSFORMERS--A-F ULTRASONIC

BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE	**N Y**
CADDELL BURNS MFG CO INC, MINEOLA N Y	ADV PGS 162,163
HISONIC INC, OLATHE	**KAN**
K G S ELECTRONICS INC, PASADENA	**CAL**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
NOTHELFER WINDING LABS INC, TRENTON	**N J**
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM	**CAL**
TOROTEL, INC, GRANDVIEW	**MO**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
ACDC Electronics, Inc, Burbank	Cal
ADC Products, Minneapolis	Minn
Alcatel, Paris 8eme	France
Atlas Coil Corp, Ansonia	Conn
Barwood Electronics, Inc, Glendale	Cal
Basler Electric Co, Highland	Ill
Beebe Electronics Co, White Plains	N Y
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Caddell Burns Mfg Co Inc, Mineola	N Y
Carol Electronics Div Weeco Inc, Martinsburg	W Va
CBC Industries Inc, Philadelphia	Pa
Central Transformer Co, Chicago	Ill
Chu Associates Inc, Littleton	Mass
Coil Co of America Inc, Northvale	N J
Coiltronics Inc, Buena Park	Cal
Cycle Transformer Corp, West Orange	N J
Dresser Systems, Inc, Houston	Tex
Dynamic Components Corp, Hornell	N Y
Edko Electronics Inc, Brooklyn	N Y
Electronic Transformer Corp, Paterson	N J
Electro Winders Co Inc, Covina	Cal
Elnetic Electronics Inc, Venice	Cal
El-Rad Mfg Co, Chicago	Ill
Epco Products Inc, Wallkill	N Y
Fisher Engineering Inc, Huntington	Ind
Freed Transformer Co Inc, Brooklyn	N Y
Fullmer Electronics Inc, Northridge	Cal
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Gladding Corp, South Otselic	N Y
Goslin Corp, Burbank	Cal
Hammond Mfg Co Ltd, Guelph, Ont	Can
Hill Magnetics, Inc, Redwood City	Cal
Hisonic Inc, Olathe	Kan
Inductor Engineering Inc, Lewes	Del
Industrial Transformer Corp, Gouldsboro	Pa

JB Electronic Transformers Inc, Chicago	Ill
Kapitol Magnetic Corp, Chicago	Ill
Karkar Electronics Inc, San Francisco	Cal
Kenyon Electronics Inc, Jersey City	N J
K G S Electronics Inc, Pasadena	Cal
Kidde & Co Inc, Walter, Belleville	N J
Lake Engineering Co Ltd, Scarborough	Ont
Larago Electronics Mfgrs Inc, Melbourne	Fla
Light Electric Corp, Newark	N J
Magnetic Engineering Corp, Danbury	Conn
Magnetika Inc, Venice	Cal
Merit Coil & Transformer Corp, Hollywood	Fla
Merrimack Magnetics Corp, Lowell	Mass
Microdot Magnetics Inc, Los Angeles	Cal
Micromagnetics Div Gulton Ind, Visalia	Cal
Microtran Co Inc, Valley Stream	N Y
National Coil Co Inc, Sheridan	Wyo
New England Transformer Co Inc, Newton	Mass
New York Coil Co Inc, Phoenixville	Pa
North Hills Electronics Inc, Glen Cove	N Y
Nothelfer Winding Labs Inc, Trenton	N J
Pacific Magnetic Corp, Romoland	Cal
PCA Electronics Inc, Sepulveda	Cal
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Phoenix Transformer Co, Phoenix	Ariz
Polyphase Instrument Co, Bridgeport	Pa
Precision Electronics Co, Marshfield	Mass
Precision Electronics Inc, Amityville	N Y
Precision Inc, Minneapolis	Minn
Prototype Transformer Corp, East Orange	NJ
Qutronic Transformer Corp, Oneonta	N Y
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Robinson Electronic Components, Temple City	Cal
Schott Co Inc, Oscar A, Minneapolis	Minn
Scott Electronics Corp, Orlando	Fla
Signal Transformer Co Inc, Brooklyn	N Y
S K G Associates Inc, Boston	Mass
Stancor Controls Div Essex Wire Corp, Chicago	Ill
Standard Industries, Buena Park	Cal
Sterling Transformer Corp, Brooklyn	N Y
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Tele Coil Co Inc, Camden	N J
Thordarson Meissner Inc, Mt Carmel	Ill
Tilton Electronics Corp, Winnisquam	N H
Toroid-Trans Electronics Co Inc, Danbury	Conn
Torotel, Inc, Grandview	Mo
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Engineers, San Gabriel	Cal
Transformer Manufacturers Inc, Chicago	Ill
Transformer Technicians Inc, Chicago	Ill
Tresco Inc, Philadelphia	Pa
Triad Transformer Corp, Venice	Cal
United Transformer Co Div TRW Inc, New York	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Utrad Corp, Huntington	Ind
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Wintron Co Inc, S El Monte	Cal

TRANSFORMERS--D-C SEE CONVERTERS--D-C TO D-C

TRANSFORMERS--ETCHED WINDING

TOROTEL, INC, GRANDVIEW	**MO**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
ADC Products, Minneapolis	Minn
Coil Co of America Inc, Northvale	N J
Dowa Trading Co Ltd, Kobe	Japan
Electro Winders Co Inc, Covina	Cal
Kenyon Electronics Inc, Jersey City	N J
New England Transformer Co Inc, Newton	Mass
Standard Industries, Buena Park	Cal
Thordarson Meissner Inc, Mt Carmel	Ill
Torotel, Inc, Grandview	Mo
Transformer Engineers, San Gabriel	Cal
United Transformer Co Div TRW Inc, New York	N Y
Utrad Corp, Huntington	Ind

TRANSFORMERS--FERRORESONANT

KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH COVER**
K G S ELECTRONICS INC, PASADENA	**CAL**
Acme Electric Corp, Cuba	N Y
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
American Monarch Div Mpls Scientific Controls Minneapolis	Minn
Ault, Inc, Minneapolis	Minn
Automation Services Inc, Endicott	N Y
Basler Electric Co, Highland	Ill
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Central Transformer Co, Chicago	Ill
Chu Associates Inc, Littleton	Mass
Coil Co of America Inc, Northvale	N J
Cycle Transformer Corp, West Orange	N J
Elasco Inc, Boston	Mass
Elgin Electronics Inc, Erie	Pa
Field Electronics Inc, Chatham	N J
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Geo Space Corp, Houston	Tex
Hammond Mfg Co Ltd, Guelph, Ont	Can
Johnson Electric Coil Co, Elmhurst	Ill
Kepco Inc, Flushing	N Y
K G S Electronics Inc, Pasadena	Cal
Magnetic Devices Inc, Lemon Grove	Cal
Merrimack Magnetics Corp, Lowell	Mass
Microdot Magnetics Inc, Los Angeles	Cal
New England Transformer Co Inc, Newton	Mass
North Electric Co, Galion	Ohio
Phoenix Transformer Co, Phoenix	Ariz
Precision Transformers Inc, Anaheim	Cal
Qutronic Transformer Corp, Oneonta	N Y
Scott Electronics Corp, Orlando	Fla
Signal Transformer Co Inc, Brooklyn	N Y
S K G Associates Inc, Boston	Mass
Sola-Basic Industries, Milwaukee	Wis
Sterling Transformer Corp, Brooklyn	N Y
Transformer Engineers, San Gabriel	Cal
Triad Distributor Div Litton Industries, Huntington	Ind
Triwec Transformer Co, Chicago	Ill
Universal Precision, Inc, Endicott	N Y
Varo Inc, Static Power Div, Plano	Tex

TRANSFORMERS--HIGH VOLTAGE POWER SUPPLY

AMP INCORPORATED, HARRISBURG	**PA**
AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
ASSOCIATED RESEARCH, INC, CHICAGO	**ILL**
AXEL ELECTRONICS, INC, JAMAICA	**N Y**
ELECTRONIC MEASUREMENTS DIV ROWAN CONTROLLER CO OCEANPORT, N J	ADV PG 731
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
INTERELECTRONICS CORP, CONGERS	**N Y**
K G S ELECTRONICS INC, PASADENA	**CAL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NOTHELFER WINDING LABS INC, TRENTON	**N J**
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM	**CAL**
SPELLMAN HIGH VOLTAGE ELECTRONICS CORP, BRONX	**N Y**
TOROTEL, INC, GRANDVIEW	**MO**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
UNIVERSAL VOLTRONICS CORP, MOUNT KISCO	**N Y**
Abbott Transistor Labs, Inc, Los Angeles	Cal
Ace Coil & Electronics Co, Metuchen	N J
Acme Electric Corp, Cuba	N Y
A C Transformer Corp, Newark	N J
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Aikow Shoji Kaisha Ltd, Osaka	Japan
Airco Temescal, Berkeley	Cal
American Rectifier Corp, College Point	N Y
AMP Incorporated, Harrisburg	Pa
AMP Inc, Capitron Div, Elizabethtown	Pa
Arco S P A, Milano	Italy
Associated Research, Inc, Chicago	Ill
Ault, Inc, Minneapolis	Minn
Automation Services Inc, Endicott	N Y
Axel Electronics, Inc, Jamaica	N Y
Ballastran Corp, Fort Wayne	Ind
Basler Electric Co, Highland	Ill
Beckman Instruments Inc, Fullerton,	Cal
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Caledonia Electronics & Transformer Div Caledonia	N Y
Campbell/Taylor Inc, Salem	Mass
Canadian Marconi Co, Montreal 16	Quebec
Carol Electronics Div Weeco Inc, Martinsburg	W Va
CBC Industries Inc, Philadelphia	Pa
Central Transformer Co, Chicago	Ill
Chu Associates Inc, Littleton	Mass
C I T E, Santa Margherita Ligure	Italy
Coast Coil Co Atlantic Research Corp, Los Angeles	Cal
Coil Co of America Inc, Northvale	N J
Coiltronics Inc, Buena Park	Cal
Continental X-Ray Corp, Chicago	Ill
Cortran Mfg Co, Washington	Mo
Custom Coil Co, Zanesville	Ohio
Cycle Transformer Corp, West Orange	N J
Daytron Inc, Mountain View	Cal
Del Electronics Corp, Mt Vernon	N Y
Dietz Design Inc, Belton	Mo
Dinion Coil Co Inc, Caledonia	N Y
Dressen-Barnes Electronics Corp, Pasadena	Cal
Dresser Electric Co, Detroit	Mich
Dresser Systems, Inc, Houston	Tex
Dynamic Components Corp, Hornell	N Y
Edko Electronics Inc, Brooklyn	N Y
Electran Mfg Co, Chicago	Ill
Electro Networks Inc, Caledonia	N Y
Electronic Components Corp, Addison	Ill
Electronic Corp of America, Los Angeles	Cal
Electronic Devices Inc, North Ridgeville	Ohio
Electronic Measurements Div Rowan Controller Co Oceanport	N J
Electronic Transformer Corp, Paterson	N J
Electro Powerpacs Corp, Cambridge	Mass
Electro Technic Products, Chicago	Ill
Electro Winders Co Inc, Covina	Cal
Elgin Electronics Inc, Erie	Pa
Elnetic Electronics Inc, Venice	Cal
Energy Systems Inc, Palo Alto	Cal
Epco Products Inc, Wallkill	N Y
Ferranti, Ltd, Lancashire	England
Field Electronics Inc, Chatham	N J
Fisher Engineering Inc, Huntington	Ind
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Foster Transformer Co, Cincinnati	Ohio
Freed Transformer Co Inc, Brooklyn	N Y
Fuji Electric Co Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
Geo Space Corp, Houston	Tex
Gladding Corp, South Otselic	N Y
Goslin Corp, Burbank	Cal
Grand Transformers Inc, Grand Haven	Mich
Gulton Industries Inc Engineered Magnetics Div Hawthorne	Cal
Hammond Mfg Co Ltd, Guelph, Ont	Can
Harder Co, Inc, Donald C, San Diego	Cal
High Voltage Engineering Corp, Burlington	Mass
Hill Magnetics, Inc, Redwood City	Cal
Hyperion Industries Corp, Watertown	Mass
Industrial Gauging & Control Inc, Norwalk	Conn
Industrial Transformer Corp, Gouldsboro	Pa
Industron Corp, Needham Heights	Mass
Interelectronics Corp, Congers	N Y
Ionics Inc, Electronics Div, Watertown	Mass
I-T-E Circuit Breaker Co, Philadelphia	Pa
Jefferson Electric Co, Bellwood	Ill
Johnson Electric Coil Co, Elmhurst	Ill
Kapitol Magnetic Corp, Chicago	Ill
Kenyon Electronics Inc, Jersey City	N J
K G S Electronics Inc, Pasadena	Cal
Kidde & Co Inc, Walter, Belleville	N J
Larago Electronics Mfgrs Inc, Melbourne	Fla
Light Electric Corp, Newark	N J
Magnetic Engineering Corp, Danbury	Conn
Matsunaga Mfg Co Ltd, Tokyo	Japan
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Merit Coil & Transformer Corp, Hollywood	Fla
Meteor Transformer Mfg Co, Detroit	Mich
Microdot Magnetics Inc, Los Angeles	Cal
Microtran Co Inc, Valley Stream	N Y
Mil Associates Inc, Hudson	NH
Miller Co, J W, Los Angeles	Cal
New England Transformer Co Inc, Newton	Mass
New York Coil Co Inc, Phoenixville	Pa
North Electric Co, Galion	Ohio
Northern Engineering Co, Baraboo	Wis
Nothelfer Winding Labs Inc, Trenton	N J
Nytronics Inc, Berkeley Heights	N J
Orega Electronique & Mecanique Vincennes, Seine	France
Osborne Electric Co, Ltd, Toronto 18	Ont
Pacific Instrument Co, Oakland	cal
Pacific Magnetic Corp, Romoland	Cal
PCA Electronics Inc, Sepulveda	Cal
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Peschel Instruments Inc, Cape Coral	Fla
Phoenix Transformer Co, Phoenix	Ariz
Polyphase Instrument Co, Bridgeport	Pa
Precision Electronics Co, Marshfield	Mass
Precision Electronics Inc, Amityville	N Y
Precision Transformers Inc, Anaheim	Cal
Prototype Transformer Corp, East Orange	NJ
Qutronic Transformer Corp, Oneonta	N Y
Radio Engineering Labs, Div DCA, Long Island City	N Y
Ramm Rectifier Co, Inc, Bronx	N Y

POWER SUPPLIES

BY

E/M

SCR SERIES — High Power
The SCR Series is designed for high power requirements up to 500 Amps. and for voltages up to 500 Volts in a single unit.

RE SERIES — Lab Type
The RE Series is designed for both precise laboratory and systems applications. Ratings include 40 Volts at 5 and 10 Amps., 60 Volts at 2.5 and 5 Amps.

RIC SERIES — Slot
The RIC Series designed for I.C. logic and all OEM applications includes built in O.V. protection. Ratings include 2 to 6 Volts at 5 and 10 Amps., 10 to 20 Volts at 2.5 and 5 Amps.

ELECTRONIC MEASUREMENTS
division of ROWAN INDUSTRIES
2 Crescent Place • Oceanport, N.J. 07757
(201) 229-5000

Raytheon Co, Microwave & Power Tube Div Waltham ..... Mass
Re-Al Electronics Co, Waterbury ..... Conn
Rowan Controller Co, Oceanport ..... N J
Schott Co Inc, Oscar A, Minneapolis ..... Minn
Scott Electronics Corp, Orlando ..... Fla
S K G Associates Inc, Boston ..... Mass
Sola-Basic Industries, Milwaukee ..... Wis
Sorgel Electric Co, Milwaukee ..... Wis
Sparton Electronics, Jackson ..... Mich
Spatron Inc, Alhambra ..... Cal
Spellman High Voltage Electronics Corp, Bronx ..... N Y
Staco Inc Std Elec Prods Co Div, Dayton ..... Ohio
Stancor Controls Div Essex Wire Corp, Chicago Ill
Standard Industries, Buena Park ..... Cal
Sterling Transformer Corp, Brooklyn ..... N Y
Sylvania Elec Prods Inc Special Prod Div Danvers ..... Mass
Taylor-Winfield Corp, Warren ..... Ohio
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn ..... N Y
Thordarson Meissner Inc, Mt Carmel Ill
Tilton Electronics Corp, Winnisquam ..... N H
Torotel, Inc, Grandview ..... Mo
Tranex Inc, Mountain View ..... Cal
Transformer Design Inc of Milwaukee, Milwaukee ..... Wis
Transformer Engineers, San Gabriel ..... Cal
Transformer Manufacturers Inc, Chicago Ill
Transformers Inc, Vestal ..... N Y
Transformer Technicians Inc, Chicago Ill
Trenton Transformer Corp, Rancocas ..... N J
Triad Transformer Corp, Venice ..... Cal
Triwec Transformer Co, Chicago Ill
United Transformer Co Div TRW Inc, New York ..... N Y
Universal Precision, Inc, Endicott ..... N Y
Universal Voltronics Corp, Mount Kisco ..... N Y
Utrad Corp, Huntington ..... Ind
Varo Inc, Garland ..... Tex
Ward Leonard Electric Co, Mount Vernon ..... N Y
Westinghouse Electric Corp Distribution Transformer Div Sharon ..... Pa
Westinghouse Electric Corp, Spec Transf Div Greenville ..... Pa

TRANSFORMERS--I-F

ALLEN AVIONICS INC,DIV A K ALLEN CO INC, MINEOLA ..... N Y
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE ..... N Y
CADDELL BURNS MFG CO INC, MINEOLA N Y ..... ADV PGS 162,163
DALE ELECTRONICS INC, COLUMBUS ..... NEB
DALE ELECTRONICS INC, SIOUX DIV, YANKTON ..... S DAK
KAPPA NETWORKS INC, CARTERET ..... N J
K G S ELECTRONICS INC, PASADENA ..... CAL
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ..... JAPAN
MITSUMI ELECTRIC CO LTD, TOKYO ..... JAPAN
NORTH HILLS ELECTRONICS INC, GLEN COVE ..... N Y
TOROTEL, INC, GRANDVIEW ..... MO
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK ..... N Y
Ace Coil & Electronics Co, Metuchen ..... N J
AC Electronics Co, Los Angeles ..... Cal
ADC Products, Minneapolis ..... Minn
Aikow Shoji Kaisha Ltd, Osaka ..... Japan
Aladdin Electronics Div Aladdin Industries, Inc Nashville ..... Tenn
ALA Industries Inc, Harrison ..... NY
Allen Avionics Inc,Div A K Allen Co Inc, Mineola ..... N Y
American Trans-Coil Corp, Richmond Hill ..... NY
Amk Electronics Co Inc, Edison ..... N J
Applied Electro Mechanics Inc, Alexandria ..... Va
Artted Co, Inc, Springfield ..... Mass
Astrolab Inc, Linden ..... N J
Atlas Coil Corp, Ansonia ..... Conn
Automatic Coil Co Div Designatronics, Inc Mineola ..... N Y
Avco Corp Electronics Div, Cincinnati ..... Ohio
Bicron Electronics Co, Canaan ..... Conn
Bourns Inc Trimpot Div, Riverside ..... Cal
Brown Engineering-A Teledyne Co, Huntsville ..... Ala
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside ..... N Y
Caddell Burns Mfg Co Inc, Mineola ..... N Y
Cambridge Thermionic Corp, Cambridge ..... Mass
Canadian Marconi Co, Montreal 16 ..... Quebec
Carol Electronics Div Weeco Inc, Martinsburg ..... W Va
Central Coil Co Inc, Martinsville ..... Ind
Clavier Corp, Richmond Hill ..... NY
Coilcraft Inc, Cary Ill
Component Specialties Corp, Temple City ..... Cal
Components Specialties Inc, Freeport ..... N Y
Computer Components Inc, Jamaica ..... N Y
Dale Electronics Inc, Columbus ..... Neb
Dale Electronics Inc, Sioux Div, Yankton ..... S Dak
Delevan Electronics Div Amer Prec Indus Inc East Aurora ..... N Y
Delta Coils, Philadelphia ..... Pa
DeMornay-Bonardi Div Datapulse Inc, Pasadena ..... Cal
Dowa Trading Co Ltd, Kobe ..... Japan
Dresser Systems, Inc, Houston ..... Tex
Electronic Coil Co, Burbank ..... Cal
El-Rad Mfg Co, Chicago Ill
Ferranti, Ltd, Lancashire ..... England
Fisher Engineering Inc, Huntington ..... Ind
Fugle-Miller Labs Inc, Kenilworth ..... N J
Fujitsu Ltd, Tokyo ..... Japan
General Coil Products Corp, Brooklyn ..... N Y
General Instrument Corp Automatic Mfg Div Newark ..... N J
General Instrument Corp F W Sickles Div Chicopee ..... Mass
General Instrument Europe SPA, Milano ..... Italy
Genisco Technology Corp Components, Genistron Divs Compton ..... Cal
Impectron Inc, New York ..... N Y
Inductor Engineering Inc, Lewes ..... Del
Kappa Networks Inc, Carteret ..... N J
K G S Electronics Inc, Pasadena ..... Cal
Lake Engineering Co Ltd, Scarborough ..... Ont
Larago Electronics Mfgrs Inc, Melbourne ..... Fla
LCC-CICE, 93 Montreuil-sous-Bois ..... France
Lowrance Electronic Mfg Corp, Tulsa ..... Okla
LTV-Electrosystems Inc Memcor Div, Huntington ..... Ind
Matsushita Electric Industrial Co Ltd, Osaka ..... Japan
McGregor Electronic Industries Inc, McGregor ..... Iowa
Merit Coil & Transformer Corp, Hollywood ..... Fla
Merrimack Magnetics Corp, Lowell ..... Mass
Millen Mfg Co Inc, James, Malden ..... Mass
Miller Co, J W, Los Angeles ..... Cal
Mitsumi Electric Co Ltd, Tokyo ..... Japan
Morey Corp, Downers Grove Ill
National Coil Co Inc, Sheridan ..... Wyo
New England Transformer Co Inc, Newton ..... Mass
Nippon Ferrite Industrial Co Ltd, Tokyo ..... Japan
North Hills Electronics Inc, Glen Cove ..... N Y
Nytronics Inc, Berkeley Heights ..... N J
Orega Electronique & Mecanique Vincennes, Seine ..... France
Philips' Gloeilampenfabrieken, N V, Eindhoven ..... Holland
Piconics Inc, North Billerica ..... Mass
Precision Coil Mfg Co, Santa Monica ..... Cal
Preferred Electronics Inc, Westfield ..... Mass
Radio Television Products Corp, Grass Lake ..... Mich
Ratel Inc, Goleta ..... Cal
Redman Electronics Corp, Thompsonville ..... Conn
Renco Electronics Inc, Hicksville ..... N Y
Rollan Electric Co, Chicago Ill
Sartron Inc, Newberg ..... Ore
Shigoto Industries Ltd, New York ..... N Y
Smallwood Ltd, S G, Kitchener ..... Ont
Sola-Basic Industries, Milwaukee ..... Wis
Sonus Corp, Natick ..... Mass
Standard Winding Co Div Ovitron Corp, Newburgh ..... N Y
Stanwyck Winding Co, Newburgh ..... N Y
Tele Coil Co Inc, Camden ..... N J
Thordarson Meissner Inc, Mt Carmel Ill
Torotel, Inc, Grandview ..... Mo
Transformer Design Inc of Milwaukee, Milwaukee ..... Wis
Transformer Engineers, San Gabriel ..... Cal
TRW Electronic Components Div TRW Inc, Camden ..... N J
United Transformer Co Div TRW Inc, New York ..... N Y
Vanguard Electronics Co, Inglewood ..... Cal
Varo Inc, Garland ..... Tex
Virginia Electronics Co Inc, Falls Church ..... Va
Voltronics, Inc, Chicago Ill
Wells Electronics Inc, Components Div, South Bend ..... Ind
Whitewater Electronics Inc, Whitewater ..... Wis
Workman Electronic Products Inc, Sarasota ..... Fla

TRANSFORMERS--MATRIX

K G S ELECTRONICS INC, PASADENA ..... CAL
MITSUMI ELECTRIC CO LTD, TOKYO ..... JAPAN
TOROTEL, INC, GRANDVIEW ..... MO
TORWICO ELECTRONICS, INC, LAKEWOOD ..... N J
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK ..... N Y
ADC Products, Minneapolis ..... Minn
Astrolab Inc, Linden ..... N J
Bush Transformer Div, Gladding-Keystone Corp Oneonta ..... NY
Carol Electronics Div Weeco Inc, Martinsburg ..... W Va
CBC Industries Inc, Philadelphia ..... Pa
Central Coil Co Inc, Martinsville ..... Ind
Electro Winders Co Inc, Covina ..... Cal
Freed Transformer Co Inc, Brooklyn ..... N Y
Kapitol Magnetic Corp, Chicago Ill
Kenyon Electronics Inc, Jersey City ..... N J
K G S Electronics Inc, Pasadena ..... Cal
Microtran Co Inc, Valley Stream ..... N Y
Mitsumi Electric Co Ltd, Tokyo ..... Japan
National Coil Co Inc, Sheridan ..... Wyo
New England Transformer Co Inc, Newton ..... Mass
Prototype Transformer Corp, East Orange ..... NJ
Sola-Basic Industries, Milwaukee ..... Wis
Stancor Controls Div Essex Wire Corp, Chicago Ill
Thordarson Meissner Inc, Mt Carmel Ill
Torotel, Inc, Grandview ..... Mo
Torwico Electronics, Inc, Lakewood ..... N J
Transformer Engineers, San Gabriel ..... Cal
United Transformer Co Div TRW Inc, New York ..... N Y
Utrad Corp, Huntington ..... Ind

TRANSFORMERS--MICROWAVE IMPEDANCE

DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK ..... N Y
K G S ELECTRONICS INC, PASADENA ..... CAL
MICROWAVE CAVITY LABS INC, LA GRANGE ILL
PREMIER MICROWAVE CORP, PORT CHESTER ..... N Y
RADAR DESIGN CORP, SYRACUSE ..... N Y
VARI-L CO INC, STAMFORD ..... CONN
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG ..... MD
ADC Products, Minneapolis ..... Minn
Aircom Inc, Union ..... N H
Airtron, Div of Litton Industries, Inc, Morris Plains ..... N J
Anzac Electronics, Waltham ..... Mass
Applied Microwave Lab, Inc, Andover ..... Mass
Astrolab Inc, Linden ..... N J
Carol Electronics Div Weeco Inc, Martinsburg ..... W Va
Central Transformer Co, Chicago Ill
Chu Associates Inc, Littleton ..... Mass
CP Electronics Inc, Columbus ..... Ind
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck ..... N Y
Electromagnetic Radiation Labs Inc, West Acton ..... Mass
Electronic Transformer Corp, Paterson ..... N J
Electro Winders Co Inc, Covina ..... Cal
Foster Transformer Co, Cincinnati ..... Ohio
Geo Space Corp, Houston ..... Tex
Herley Industries, Inc, Westbury ..... N Y
Karkar Electronics Inc, San Francisco ..... Cal
K G S Electronics Inc, Pasadena ..... Cal
Maury Microwave Corp, Montclair ..... Cal
MCS Corp, Monrovia ..... Cal
Merrimac Research & Development Inc West Caldwell, ... N J
Meteor Transformer Mfg Co, Detroit ..... Mich
Microwave Cavity Labs Inc, La Grange Ill
Microwave Development Labs Inc Needham Heights ..... Mass
Microwave Labs of America, Brooklyn ..... N Y
Microwave Products Inc, Chatsworth ..... Cal
New England Transformer Co Inc, Newton ..... Mass
Phelps Dodge Electronic Products Corp North Haven ..... Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven ..... Holland
Premier Microwave Corp, Port Chester ..... N Y
Prototype Transformer Corp, East Orange ..... NJ
Radar Design Corp, Syracuse ..... N Y
Rantec Div Emerson Electric Co, Calabasas ..... Cal
Raytheon Co, Microwave & Power Tube Div Waltham ..... Mass
Sartron Inc, Newberg ..... Ore
Thordarson Meissner Inc, Mt Carmel Ill
Transformer Engineers, San Gabriel ..... Cal
Transformer Technicians Inc, Chicago Ill
Utrad Corp, Huntington ..... Ind
Vari-L Co Inc, Stamford ..... Conn
Vector Industries A Teledyne Co, Palo Alto ..... Cal
Weinschel Engineering Co Inc, Gaithersburg ..... Md

TRANSFORMERS--POWER, CURRENT LIMITING

AMP INCORPORATED, HARRISBURG ..... PA
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ..... ADV PGS 7
K G S ELECTRONICS INC, PASADENA ..... CAL
MAGNETICS INC, BUTLER ..... PA
NOTHELFER WINDING LABS INC, TRENTON, N J ..... ADV PG 743
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM ..... CAL
TOROTEL, INC, GRANDVIEW ..... MO
UNITED TRANSFORMER CO DIV TRW INC. NEW YORK ..... N Y ADV PG 733
ACDC Electronics, Inc, Burbank ..... Cal
Acme Electric Corp, Cuba ..... N Y
A C Transformer Corp, Newark ..... N J
ADC Electronics, Inc, Harbor City ..... Cal
ADC Products, Minneapolis ..... Minn
American Monarch Div Mpls Scientific Controls Minneapolis ..... Minn
American Rectifier Corp, College Point ..... N Y
AMP Incorporated, Harrisburg ..... Pa
Atlas Coil Corp, Ansonia ..... Conn
Ault, Inc, Minneapolis ..... Minn
Ballastran Corp, Fort Wayne ..... Ind
Barwood Electronics, Inc, Glendale ..... Cal
Basler Electric Co, Highland Ill
Bicron Electronics Co, Canaan ..... Conn
Bronson Corp, Sub Kurz & Root Co, Appleton ..... Wisc
Brown Engineering-A Teledyne Co, Huntsville ..... Ala
Bullock Magnetics Corp, Pomona ..... Cal
Bush Transformer Div, Gladding-Keystone Corp Oneonta ..... NY
Caledonia Electronics & Transformer Div Caledonia ..... N Y
Carol Electronics Div Weeco Inc, Martinsburg ..... W Va
CBC Industries Inc, Philadelphia ..... Pa
Central Transformer Co, Chicago Ill
Chu Associates Inc, Littleton ..... Mass
Coast Coil Co Atlantic Research Corp, Los Angeles ..... Cal
Coil Co of America Inc, Northvale ..... N J
Coiltronics Inc, Buena Park ..... Cal
Component Specialties Corp, Temple City ..... Cal
Cortran Mfg Co, Washington ..... Mo
Cycle Transformer Corp, West Orange ..... N J
Daytron Inc, Mountain View ..... Cal
Del Electronics Corp, Mt Vernon ..... N Y
Dietz Design Inc, Belton ..... Mo
Dinion Coil Co Inc, Caledonia ..... N Y
Divac Electronics, Hawthorne ..... Cal
Dormeyer Industries, Chicago Ill
Dresser Systems, Inc, Houston ..... Tex
Dynamic Components Corp, Hornell ..... N Y
Edko Electronics Inc, Brooklyn ..... N Y
E G & G Inc, Electronic Prods Div, Boston ..... Mass
Electran Mfg Co, Chicago Ill
Electrical Windings Inc, Chicago Ill
Electronic Components Corp, Addison Ill
Electronic Devices Inc, North Ridgeville ..... Ohio
Electronic Transformer Corp, Paterson ..... N J
Electro Technic Products, Chicago Ill
Electro Winders Co Inc, Covina ..... Cal
Electro Windings & Components Inc, Kenilworth ..... N J
Elgin Electronics Inc, Erie ..... Pa
Elnetic Electronics Inc, Venice ..... Cal
Energy Systems Inc, Palo Alto ..... Cal
Epco Products Inc, Wallkill ..... N Y
Ferranti, Ltd, Lancashire ..... England
Field Electronics Inc, Chatham ..... N J
Fisher Engineering Inc, Huntington ..... Ind
Florida Transformer Co, Transitron Sub De Leon Springs ..... Fla
Foster Transformer Co, Cincinnati ..... Ohio
Freed Transformer Co Inc, Brooklyn ..... N Y
Fuji Electric Co Ltd, Tokyo ..... Japan
General Electric Co, ECSO, Schenectady ..... N Y
Genisco Technology Corp Components, Genistron Divs Compton ..... Cal
Geo Space Corp, Houston ..... Tex
Gladding Corp, South Otselic ..... N Y

UTC
PIONEERS IN MINIATURIZATION

POWER TRANSFORMERS

ADJUSTABLE VOLTAGE
BIAS
BOOSTER
CURRENT LIMITING
FILAMENT
400 Hz
HIGH TEMPERATURE
ISOLATION
MINIATURE
PHOTO-FLASH
PLATE
PRECISION REFERENCE
SIGNAL
STEP-DOWN
STEP-UP
THREE PHASE
TRANSISTOR INVERTER
TRANSISTOR SUPPLY

- MIL-T-27B & industrial
- Immediate delivery from stock
- Specials made to specs.
- Milliwatts to 100 KVA

Over 1300 top quality ironcore inductance devices available from stock.

UNITED TRANSFORMER COMPANY
DIVISION OF TRW INC.

150 Varick Street, New York, N. Y. 10013
TWX: 710-581-2722 / (212) AL 5-3500
For nearest Rep see UTC ad, page 727

Goslin Corp, Burbank	Cal
Green Rectifier Corp, Fair Lawn	N J
Gulton Industries Inc Engineered Magnetics Div Hawthorne	Cal
Hadley Co Inc, Robert M, Los Angeles	Cal
Hammond Mfg Co Ltd, Guelph, Ont	Can
Hill Magnetics, Inc, Redwood City	Cal
Hirst Electric Industries Ltd, Crawley, Sussex	England
Industrial Transformer Corp, Gouldsboro	Pa
Jefferson Electric Co, Bellwood	Ill
Jensen Mfg Div, The Muter Co, Chicago	Ill
Johnson Electric Coil Co, Elmhurst	Ill
Kapitol Magnetic Corp, Chicago	Ill
K G S Electronics Inc, Pasadena	Cal
Kurz & Root Co, Appleton	Wis
Lear Siegler Inc, Santa Monica	Cal
Light Electric Corp, Newark	N J
Magnetic Devices Inc, Lemon Grove	Cal
Magnetic Engineering Corp, Danbury	Conn
Magnetics Inc, Butler	Pa
Magnetika Inc, Venice	Cal
McGregor Electronic Industries Inc, McGregor	Iowa
Merrimack Magnetics Corp, Lowell	Mass
Meteor Transformer Mfg Co, Detroit	Mich
Microdot, Inc, South Pasadena	Cal
Microdot Magnetics Inc, Los Angeles	Cal
Microtran Co Inc, Valley Stream	N Y
Mid-Eastern Industries Inc, Springfield	N J
Neshaminy Electronic Corp, Furlong	Pa
New England Transformer Co Inc, Newton	Mass
New York Coil Co Inc, Phoenixville	Pa
North Electric Co, Galion	Ohio
Nothelfer Winding Labs Inc, Trenton	N J
Osborne Transformer Corp, Detroit	Mich
Pacific Instrument Co, Oakland	cal
Pacific Magnetic Corp, Romoland	Cal
PCA Electronics Inc, Sepulveda	Cal
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Permoflux Corp, Glendale	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Phoenix Transformer Co, Phoenix	Ariz
Polyphase Instrument Co, Bridgeport	Pa
Precision Electronics Co, Marshfield	Mass
Precision Electronics Inc, Amityville	N Y
Precision Transformers Inc, Anaheim	Cal
Prototype Transformer Corp, East Orange	NJ
Qutronic Transformer Corp, Oneonta	N Y
Ramm Rectifier Co, Inc, Bronx	N Y
Ramyr Mfg Co, Buena Park	Cal
Re-Al Electronics Co, Waterbury	Conn
Sanford Miller Corp, Brooklyn	N Y
Sartron Inc, Newberg	Ore
Schauer Mfg Corp, Cincinnati	Ohio
Schott Co Inc, Oscar A, Minneapolis	Minn
Scott Electronics Corp, Orlando	Fla
Sierra Electric Inc, Gardena	Cal
Signal Transformer Co Inc, Brooklyn	N Y
S K G Associates Inc, Boston	Mass
Sola-Basic Industries, Milwaukee	Wis
Sola Electric Div Sola Basic Industries Elk Grove Village	Ill
Sorgel Electric Co, Milwaukee	Wis
Standard Industries, Buena Park	Cal
Sterling Transformer Corp, Brooklyn	N Y
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Thordarson Meissner Inc, Mt Carmel	Ill
Tilton Electronics Corp, Winnisquam	N H
Torotel, Inc, Grandview	Mo
Touch-Plate Mfg Corp, Paramount	Cal
Tranex Inc, Mountain View	Cal
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Engineers, San Gabriel	Cal
Transformer Manufacturers Inc, Chicago	Ill
Transformer Technicians Inc, Chicago	Ill
Trenton Transformer Corp, Rancocas	N J
Triad Transformer Corp, Venice	Cal
Triwec Transformer Co, Chicago	Ill
United Transformer Co Div TRW Inc, New York	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Utrad Corp, Huntington	Ind
Varo Inc, Garland	Tex
Ward Leonard Electric Co, Mount Vernon	N Y
Washington Electrical Products Co, Washington	Mo
Westinghouse Electric Corp Distribution Transformer Div Sharon	Pa
Westinghouse Electric Corp, Spec Transf Div Greenville	Pa
Wintron Co Inc, S El Monte	Cal
Woodward-Schumacher Electric Corp, Chicago	Ill
Zaring Industries Inc, Carmel	Ind

TRANSFORMERS--POWER, HIGH VOLTAGE POWER SUPPLY

AMP INCORPORATED, HARRISBURG	**PA**
AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
AXEL ELECTRONICS, INC, JAMAICA	**N Y**
ELECTRONIC MEASUREMENTS DIV ROWAN CONTROLLER CO OCEANPORT, N J	**ADV PG 733**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
K G S ELECTRONICS INC, PASADENA	**CAL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NOTHELFER WINDING LABS INC, TRENTON, N J	**ADV PG 743**
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM	**CAL**
SPELLMAN HIGH VOLTAGE ELECTRONICS CORP, BRONX	**N Y**
TOROTEL, INC, GRANDVIEW	**MO**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
UNIVERSAL VOLTRONICS CORP, MOUNT KISCO	**N Y**
Abbott Transistor Labs, Inc, Los Angeles	Cal
Acme Electric Corp, Cuba	N Y
A C Transformer Corp, Newark	N J
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Airco Temescal, Berkeley	Cal
American Monarch Div Mpls Scientific Controls Minneapolis	Minn
American Rectifier Corp, College Point	N Y
AMP Incorporated, Harrisburg	Pa
AMP Inc, Capitron Div, Elizabethtown	Pa
Applied Electro Mechanics Inc, Alexandria	Va
Arnold Magnetics Corp, Los Angeles	Cal
Atlas Coil Corp, Ansonia	Conn
Ault, Inc, Minneapolis	Minn
Axel Electronics, Inc, Jamaica	N Y
Ballastran Corp, Fort Wayne	Ind
Barwood Electronics, Inc, Glendale	Cal
Basler Electric Co, Highland	Ill
Bicron Electronics Co, Canaan	Conn
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Caledonia Electronics & Transformer Div Caledonia	N Y
Canadian Marconi Co, Montreal 16	Quebec
Carol Electronics Div Weeco Inc, Martinsburg	W Va
CBC Industries Inc, Philadelphia	Pa
Central Transformer Co, Chicago	Ill
Chu Associates Inc, Littleton	Mass
C I T E, Santa Margherita Ligure	Italy
Coast Coil Co Atlantic Research Corp, Los Angeles	Cal
Coil Co of America Inc, Northvale	N J
Coiltronics Inc, Buena Park	Cal
Continental X-Ray Corp, Chicago	Ill
Cortran Mfg Co, Washington	Mo
Custom Coil Co, Zanesville	Ohio
Cycle Transformer Corp, West Orange	N J
Daytron Inc, Mountain View	Cal
Del Electronics Corp, Mt Vernon	N Y
Dietz Design Inc, Belton	Mo
Dinion Coil Co Inc, Caledonia	N Y
Dressen-Barnes Electronics Corp, Pasadena	Cal
Dresser Electric Co, Detroit	Mich
Dresser Systems, Inc, Houston	Tex
Dynamic Components Corp, Hornell	N Y
Edko Electronics Inc, Brooklyn	N Y
Electran Mfg Co, Chicago	Ill
Electronic Components Corp, Addison	Ill
Electronic Corp of America, Los Angeles	Cal
Electronic Devices Inc, North Ridgeville	Ohio
Electronic Measurements Div Rowan Controller Co Oceanport	N J
Electronic Transformer Corp, Paterson	N J
Electro Powerpacs Corp, Cambridge	Mass
Electro Winders Co Inc, Covina	Cal
Elgin Electronics Inc, Erie	Pa
Elnetic Electronics Inc, Venice	Cal
Energy Systems Inc, Palo Alto	Cal

POWER SUPPLIES BY E/M

SCR SERIES — High Power
The SCR Series is designed for high power requirements up to 500 Amps. and for voltages up to 500 Volts in a single unit.

RE SERIES — Lab Type
The RE Series is designed for both precise laboratory and systems applications. Ratings include 40 Volts at 5 and 10 Amps., 60 Volts at 2.5 and 5 Amps.

RIC SERIES — Slot
The RIC Series designed for I.C. logic and all OEM applications includes built in O.V. protection. Ratings include 2 to 6 Volts at 5 and 10 Amps., 10 to 20 Volts at 2.5 and 5 Amps.

ELECTRONIC MEASUREMENTS
division of ROWAN INDUSTRIES
2 Crescent Place • Oceanport, N.J. 07757
(201) 229-5000

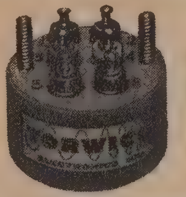
Epco Products Inc, Wallkill	N Y
Ferranti, Ltd, Lancashire	England
Ferrotran Electronics Co Inc, New York	N Y
Field Electronics Inc, Chatham	N J
Fisher Engineering Inc, Huntington	Ind
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Foster Transformer Co, Cincinnati	Ohio
Freed Transformer Co Inc, Brooklyn	N Y
Fuji Electric Co Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Geo Space Corp, Houston	Tex
Gladding Corp, South Otselic	N Y
Goslin Corp, Burbank	Cal
Gulton Industries Inc Engineered Magnetics Div Hawthorne	Cal
Hadley Co Inc, Robert M, Los Angeles	Cal
Hammond Mfg Co Ltd, Guelph, Ont	Can
Harder Co, Inc, Donald C, San Diego	Cal
Hevi-Duty Electric Div Sola Basic Industries Goldsboro	N C
High Voltage Engineering Corp, Burlington	Mass
Hill Magnetics, Inc, Redwood City	Cal
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
Industrial Gauging & Control Inc, Norwalk	Conn
Industrial Transformer Corp, Gouldsboro	Pa
Industron Corp, Needham Heights	Mass
Ionics Inc, Electronics Div, Watertown	Mass
I-T-E Circuit Breaker Co, Philadelphia	Pa
Jefferson Electric Co, Bellwood	Ill
Johnson Electric Coil Co, Elmhurst	Ill
Kapitol Magnetic Corp, Chicago	Ill
Kenyon Electronics Inc, Jersey City	N J
K G S Electronics Inc, Pasadena	Cal
Kidde & Co Inc, Walter, Belleville	N J
Light Electric Corp, Newark	N J
Magnetic Engineering Corp, Danbury	Conn
Magnetika Inc, Venice	Cal
Matsunaga Mfg Co Ltd, Tokyo	Japan
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Merit Coil & Transformer Corp, Hollywood	Fla
Meteor Transformer Mfg Co, Detroit	Mich
Microdot Magnetics Inc, Los Angeles	Cal
Microtran Co Inc, Valley Stream	N Y
Mid-West Coil & Transformer Co, Chicago	Ill
Mil Associates Inc, Hudson	NH
New England Transformer Co Inc, Newton	Mass
New York Coil Co Inc, Phoenixville	Pa
North Electric Co, Galion	Ohio
Northern Engineering Co, Baraboo	Wis
Nothelfer Winding Labs Inc, Trenton	N J
Nytronics Inc, Berkeley Heights	N J
Osborne Electric Co, Ltd, Toronto 18	Ont
Osborne Transformer Corp, Detroit	Mich
Pacific Instrument Co, Oakland	cal
Pacific Magnetic Corp, Romoland	Cal
PCA Electronics Inc, Sepulveda	Cal
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Peschel Instruments Inc, Cape Coral	Fla
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Phoenix Transformer Co, Phoenix	Ariz
Polyphase Instrument Co, Bridgeport	Pa
Porter Co Inc, H K Electrical Div, Pittsburgh	Pa
Precision Electronics Co, Marshfield	Mass
Precision Electronics Inc, Amityville	N Y
Prototype Transformer Corp, East Orange	NJ
Radio Engineering Labs, Div DCA, Long Island City	N Y
Ramm Rectifier Co, Inc, Bronx	N Y
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Re-Al Electronics Co, Waterbury	Conn
Rowan Controller Co, Oceanport	N J
Sanken Electric Co, Ltd, Toshima-ku, Tokyo	Japan
Sartron Inc, Newberg	Ore
Schott Co Inc, Oscar A, Minneapolis	Minn
Scott Electronics Corp, Orlando	Fla
Signal Transformer Co Inc, Brooklyn	N Y
S K G Associates Inc, Boston	Mass
Sola-Basic Industries, Milwaukee	Wis
Sorgel Electric Co, Milwaukee	Wis
Sparton Electronics, Jackson	Mich
Spatron Inc, Alhambra	Cal
Spellman High Voltage Electronics Corp, Bronx	N Y
Staco Inc Std Elec Prods Co Div, Dayton	Ohio
Stancor Controls Div Essex Wire Corp, Chicago	Ill
Standard Industries, Buena Park	Cal
Sterling Transformer Corp, Brooklyn	N Y
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Taylor-Winfield Corp, Warren	Ohio
Thiem-Transrex Inc, El Segundo	Cal
Thordarson Meissner Inc, Mt Carmel	Ill
Tilton Electronics Corp, Winnisquam	N H
Torotel, Inc, Grandview	Mo
Tranex Inc, Mountain View	Cal
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Engineers, San Gabriel	Cal
Transformer Manufacturers Inc, Chicago	Ill
Transformer Technicians Inc, Chicago	Ill
Trenton Transformer Corp, Rancocas	N J
Tresco Inc, Philadelphia	Pa
Triad Transformer Corp, Venice	Cal
Triwec Transformer Co, Chicago	Ill
United Transformer Co Div TRW Inc, New York	N Y
Universal Precision, Inc, Endicott	N Y
Universal Voltronics Corp, Mount Kisco	N Y
Utrad Corp, Huntington	Ind
Varo Inc, Garland	Tex
Ward Leonard Electric Co, Mount Vernon	N Y
Washington Electrical Products Co, Washington	Mo
Westinghouse Electric Corp Distribution Transformer Div Sharon	Pa
Westinghouse Electric Corp, Spec Transf Div Greenville	Pa
Woodward-Schumacher Electric Corp, Chicago	Ill
Zeiss Inc, Carl, New York	N Y

TRANSFORMERS--POWER, ISOLATION

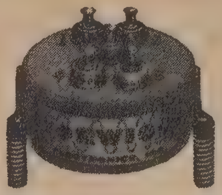
ALLIED ELECTRONICS CORP, CHICAGO	**ILL**
AMP INCORPORATED, HARRISBURG	**PA**
DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
K G S ELECTRONICS INC, PASADENA	**CAL**
MAGNETICS INC, BUTLER	**PA**
NOTHELFER WINDING LABS INC, TRENTON, N J	**ADV PG 743**
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM	**CAL**
TOROTEL, INC, GRANDVIEW	**MO**
TORWICO ELECTRONICS, INC, LAKEWOOD, N J	**ADV PG 735**
TRANSFORMER ELECTRONICS CO, BOULDER COLO	**ADV PGS 2ND COVER & FACING PG**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
UNIVERSAL VOLTRONICS CORP, MOUNT KISCO	**N Y**
Abbott Transistor Labs, Inc, Los Angeles	Cal
ACDC Electronics, Inc, Burbank	Cal
AC Electronics Co, Los Angeles	Cal
Acme Electric Corp, Cuba	N Y
A C Transformer Corp, Newark	N J
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Advanced Development Corp, Gardena	Cal
Airco Temescal, Berkeley	Cal
Allied Electronics Corp, Chicago	Ill
American Monarch Div Mpls Scientific Controls Minneapolis	Minn
American Rectifier Corp, College Point	N Y
AMP Incorporated, Harrisburg	Pa
Applied Electro Mechanics Inc, Alexandria	Va
Arnold Magnetics Corp, Los Angeles	Cal
Atlas Coil Corp, Ansonia	Conn
Ault, Inc, Minneapolis	Minn
Ballastran Corp, Fort Wayne	Ind
Barwood Electronics, Inc, Glendale	Cal
Basler Electric Co, Highland	Ill
B & B Magnetics Co, La Habra	Cal
Berkshire Transformer Corp, Kent	Conn
Better Coil & Transformer Corp, Goodland	Ind
Bicron Electronics Co, Canaan	Conn
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bullock Magnetics Corp, Pomona	Cal
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Caledonia Electronics & Transformer Div Caledonia	N Y
Canadian Marconi Co, Montreal 16	Quebec
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Carson Mfg Co Inc, Indianapolis	Ind
CBC Industries Inc, Philadelphia	Pa
Central Transformer Co, Chicago	Ill
Chu Associates Inc, Littleton	Mass
C I T E, Santa Margherita Ligure	Italy
Coast Coil Co Atlantic Research Corp, Los Angeles	Cal
Coil Co of America Inc, Northvale	N J
Coiltronics Inc, Buena Park	Cal
Comar Electric Co, Chicago	Ill
Component Specialties Corp, Temple City	Cal
Condenser Products Corp, Brooksville	Fla
Continental X-Ray Corp, Chicago	Ill
Cortran Mfg Co, Washington	Mo
CP Electronics Inc, Columbus	Ind
Custom Coil Co, Zanesville	Ohio
Cycle Transformer Corp, West Orange	N J
Data Device Corp, Hicksville	N Y
Del Electronics Corp, Mt Vernon	N Y
Dinion Coil Co Inc, Caledonia	N Y
Dormeyer Industries, Chicago	Ill
Dranetz Engineering Labs Inc, Plainfield	N J
Dressen-Barnes Electronics Corp, Pasadena	Cal
Dresser Electric Co, Detroit	Mich
Dresser Systems, Inc, Houston	Tex
Dynamic Components Corp, Hornell	N Y
Edko Electronics Inc, Brooklyn	N Y
Elasco Inc, Boston	Mass
Elcor, Div Halliburton Co, Silver Spring	Md
Electran Mfg Co, Chicago	Ill
Electrical Windings Inc, Chicago	Ill
Electro Networks Inc, Caledonia	N Y
Electronic Components Corp, Addison	Ill
Electronic Corp of America, Los Angeles	Cal
Electronic Design Labs Inc, Philadelphia	Pa
Electronic Devices Inc, North Ridgeville	Ohio
Electronic Transformer Corp, Paterson	N J
Electro Powerpacs Corp, Cambridge	Mass
Electro Winders Co Inc, Covina	Cal
Elgin Electronics Inc, Erie	Pa
Elnetic Electronics Inc, Venice	Cal
EMP Electronics Inc, Tempe	Ariz
Energy Systems Inc, Palo Alto	Cal
Ensign Coil Co, Chicago	Ill
Epco Products Inc, Wallkill	N Y
Ferranti, Ltd, Lancashire	England
Ferrotran Electronics Co Inc, New York	N Y
Field Electronics Inc, Chatham	N J
Fisher Engineering Inc, Huntington	Ind
Fleishman Electric Co, Clifton	N J
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Foster Transformer Co, Cincinnati	Ohio
Freed Transformer Co Inc, Brooklyn	N Y
Fullmer Electronics Inc, Northridge	Cal
Gates Electronic Co Inc, Bronx	N Y
General Electric Co, ECSO, Schenectady	N Y
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Geo Space Corp, Houston	Tex
Gladding Corp, South Otselic	N Y
Goslin Corp, Burbank	Cal
Grand Transformers Inc, Grand Haven	Mich
Green Rectifier Corp, Fair Lawn	N J
Hadley Co Inc, Robert M, Los Angeles	Cal
Hammond Mfg Co Ltd, Guelph, Ont	Can
Harder Co, Inc, Donald C, San Diego	Cal
Harvard Apparatus Co Inc, Millis	Mass
Hevi-Duty Electric Div Sola Basic Industries Goldsboro	N C
Heyboer Transformers, Grand Haven	Mich
Hill Magnetics, Inc, Redwood City	Cal
Hughey & Phillips Inc, Burbank	Cal
Industrial Transformer Corp, Gouldsboro	Pa
Ionics Inc, Electronics Div, Watertown	Mass
James Electronics Inc, Chicago	Ill
JB Electronic Transformers Inc, Chicago	Ill
Jefferson Electric Co, Bellwood	Ill
Johnson Electric Coil Co, Elmhurst	Ill
Kapitol Magnetic Corp, Chicago	Ill
Kenyon Electronics Inc, Jersey City	N J
K G S Electronics Inc, Pasadena	Cal
Kidde & Co Inc, Walter, Belleville	N J
Lear Siegler Inc, Santa Monica	Cal
Light Electric Corp, Newark	N J
Magnetic Circuit Elements Inc, Montrose	Cal
Magnetic Devices Inc, Lemon Grove	Cal
Magnetic Engineering Corp, Danbury	Conn
Magnetico Inc, East Northport	N Y
Magnetics Inc, Butler	Pa
Magnetic Specialties Inc, Trenton	N J
Magnetika Inc, Venice	Cal
Merit Coil & Transformer Corp, Hollywood	Fla
Merrimack Magnetics Corp, Lowell	Mass
Meteor Transformer Mfg Co, Detroit	Mich
Microdot, Inc, South Pasadena	Cal
Microdot Magnetics Inc, Los Angeles	Cal
Microtran Co Inc, Valley Stream	N Y
Mid-Eastern Industries Inc, Springfield	N J
Mid-West Coil & Transformer Co, Chicago	Ill
Mil Associates Inc, Hudson	NH
Neshaminy Electronic Corp, Furlong	Pa
New England Transformer Co Inc, Newton	Mass
New York Coil Co Inc, Phoenixville	Pa
Northern Engineering Co, Baraboo	Wis
Nothelfer Winding Labs Inc, Trenton	N J
Nytronics Inc, Berkeley Heights	N J
Osborne Electric Co, Ltd, Toronto 18	Ont
Osborne Transformer Corp, Detroit	Mich
Pacific Instrument Co, Oakland	cal
Pacific Magnetic Corp, Romoland	Cal
PCA Electronics Inc, Sepulveda	Cal
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Permoflux Corp, Glendale	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Phoenix Transformer Co, Phoenix	Ariz
Polyphase Instrument Co, Bridgeport	Pa
Precision Electronics Co, Marshfield	Mass
Precision Electronics Inc, Amityville	N Y
Precision Transformers Inc, Anaheim	Cal
Profile Electronics Inc, Concord	N H
Prototype Transformer Corp, East Orange	NJ
Qutronic Transformer Corp, Oneonta	N Y
Radio Engineering Labs, Div DCA, Long Island City	N Y
Ramm Rectifier Co, Inc, Bronx	N Y
Ramyr Mfg Co, Buena Park	Cal
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Re-Al Electronics Co, Waterbury	Conn
Robinson Electronic Components, Temple City	Cal
Sanken Electric Co, Ltd, Toshima-ku, Tokyo	Japan
Sartron Inc, Newberg	Ore
Schott Co Inc, Oscar A, Minneapolis	Minn
Scintillonics Inc, Fort Collins	Colo
Scott Electronics Corp, Orlando	Fla
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Signal Transformer Co Inc, Brooklyn	N Y
S K G Associates Inc, Boston	Mass
Skyway Magnetics, Inglewood	Cal
Sola-Basic Industries, Milwaukee	Wis
Sorgel Electric Co, Milwaukee	Wis
Spatron Inc, Alhambra	Cal
Staco Inc Std Elec Prods Co Div, Dayton	Ohio
Stancor Controls Div Essex Wire Corp, Chicago	Ill
Standard Industries, Buena Park	Cal
Sterling Transformer Corp, Brooklyn	N Y
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Thiem-Transrex Inc, El Segundo	Cal
Thordarson Meissner Inc, Mt Carmel	Ill
Tilton Electronics Corp, Winnisquam	N H
Topaz Inc, San Diego	Cal
Torotel, Inc, Grandview	Mo
Torwico Electronics, Inc, Lakewood	N J
Tranex Inc, Mountain View	Cal
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Electronics Co, Boulder	Colo
Transformer Engineers, San Gabriel	Cal
Transformer Manufacturers Inc, Chicago	Ill
Transformers Inc, Vestal	N Y
Transformer Technicians Inc, Chicago	Ill
Trenton Transformer Corp, Rancocas	N J
Tresco Inc, Philadelphia	Pa
Triad Distributor Div Litton Industries, Huntington	Ind
Triad Transformer Corp, Venice	Cal
Triwec Transformer Co, Chicago	Ill
United Transformer Co Div TRW Inc, New York	N Y
Universal Precision, Inc, Endicott	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Universal Voltronics Corp, Mount Kisco	N Y
Utrad Corp, Huntington	Ind
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Washington Electrical Products Co, Washington	Mo
Westinghouse Electric Corp Distribution Transformer Div Sharon	Pa
Westinghouse Electric Corp, Spec Transf Div Greenville	Pa
Wintron Co Inc, S El Monte	Cal
Woodward-Schumacher Electric Corp, Chicago	Ill
Zaring Industries Inc, Carmel	Ind

TORWICO ELECTRONICS LEADER IN MAGNETIC COMPONENTS

TINYMAX
Miniature 400 Cycle Power Transformers



This Case style
available in
1.5 through 250 VA



This Case style
available in
1.5 through 9 VA

TINYMAX
CONDENSED PERFORMANCE DATA FOR STANDARD TINYMAX 400 CYCLE POWER TRANSFORMERS

VA Rating	Secondary Voltage-VRMS* (Choose any one voltage within limits listed)	O.D. ±1/32	Height ±1/32	Nominal Weight	Nominal Regulation	Nominal Temp. Rise MIL-T-27 (with no heat sink)
1.5	6.0 to 300	1"	15/32"	0.89 oz.	20%	13°C
1.5 (with electrostatic shield)	6.0 to 300	1"	19/32"	1.1 oz.	15%	13°C
3	6.0 to 300	1"	19/32"	1.1 oz.	15%	15°C
3 (with electrostatic shield)	6.0 to 300	1"	13/16"	1.5 oz.	10%	15°C
6	6.0 to 300	1"	13/16"	1.5 oz.	10%	18°C
6 (with electrostatic shield)	6.0 to 300	1"	1 1/16"	2 oz.	8%	18°C
9	6.0 to 300	1"	1 1/16"	2 oz.	8%	23°C
9 (with electrostatic shield)	6.0 to 300	1 3/8"	1 1/8"	3.5 oz.	7%	23°C
16	6.0 to 300	1 3/8"	1 1/8"	3.5 oz.	7%	25°C
25	6.0 to 300	1 3/8"	1 3/8"	4.5 oz.	6%	36°C
50	6.0 to 300	2"	1 1/2"	10 oz.	2.5%	26°C
75	10 to 300	2"	1 3/4"	12 oz.	2.5%	32°C
100	12 to 300	2 1/4"	2"	17 oz.	2%	35°C
250	26 to 300	2 7/8"	2"	27.5 oz.	1.5%	47°C

*with primary 115V, 400 cps

TINYMAX Power Transformers are hermetically sealed in drawn steel cases and shall meet all requirements of MIL-T-27; Military Designation: TF4S01YY.

24 hour delivery for prototype quantities. Don't settle for less — Prices on these custom-engineered transformers equal those of competitive shelf items — Phone today for your comprehensive TINYMAX catalog.

TINYMAX
POWER TRANSFORMERS FOR PRINTED CIRCUIT APPLICATIONS

TORWICO
ELECTRONICS INC

TORWICO
ELECTRONICS, INC

VA Rating	Secondary Voltage—VRMS* (Choose any one voltage within limits listed)	Dimensions ±1/32"	Nominal Weight	Nominal Regulation	Nominal Temp. Rise
1.5	6.0 to 300	1 1/16" square x 7/16" tall	0.75 oz.	20%	13°C
3	6.0 to 300	1 1/16" square x 9/16" tall	1.0 oz.	15%	15°C
6	6.0 to 300	1 1/16" square x 3/4" tall	1.25 oz.	10%	18°C
9	6.0 to 300	1 1/16" square x 1" tall	1.63 oz.	8%	23°C

*with primary 115V, 400 cps

TINYMAX Power Transformers for printed circuit applications are hermetically sealed in thermoset plastic and shall meet all requirements of MIL-T-27; Military Designation: TF5SX01ZZ.

TORWICO
ELECTRONICS INC. LAKEWOOD, N. J.

TRANSFORMERS--POWER, MODULATION

AMP INCORPORATED, HARRISBURG	**PA**
AXEL ELECTRONICS, INC, JAMAICA	**N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
K G S ELECTRONICS INC, PASADENA	**CAL**
NOTHELFER WINDING LABS INC, TRENTON, N J	**ADV PG 743**
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM	**CAL**
TOROTEL, INC, GRANDVIEW	**MO**
TORWICO ELECTRONICS, INC, LAKEWOOD, N J	**ADV PG 735**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
ADC Products, Minneapolis	Minn
Airco Temescal, Berkeley	Cal
AMP Incorporated, Harrisburg	Pa
Atlas Coil Corp, Ansonia	Conn
Axel Electronics, Inc, Jamaica	N Y
Ballastran Corp, Fort Wayne	Ind
Barwood Electronics, Inc, Glendale	Cal
Basler Electric Co, Highland	Ill
B & B Magnetics Co, La Habra	Cal
Better Coil & Transformer Corp, Goodland	Ind
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bullock Magnetics Corp, Pomona	Cal
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Caledonia Electronics & Transformer Div Caledonia	N Y
Carol Electronics Div Weeco Inc, Martinsburg	W Va
CBC Industries Inc, Philadelphia	Pa
Central Transformer Co, Chicago	Ill
Chu Associates Inc, Littleton	Mass
Coast Coil Co Atlantic Research Corp, Los Angeles	Cal
Coil Co of America Inc, Northvale	N J
Coiltronics Inc, Buena Park	Cal
Component Specialties Corp, Temple City	Cal
CP Electronics Inc, Columbus	Ind
Cycle Transformer Corp, West Orange	N J
Dressen-Barnes Electronics Corp, Pasadena	Cal
Dresser Systems, Inc, Houston	Tex
Dynamic Components Corp, Hornell	N Y
Edko Electronics Inc, Brooklyn	N Y
Electrical Windings Inc, Chicago	Ill
Electro Networks Inc, Caledonia	N Y
Electronic Components Corp, Addison	Ill
Electronic Devices Inc, North Ridgeville	Ohio
Electronic Transformer Corp, Paterson	N J
Electro Winders Co Inc, Covina	Cal
Elnetic Electronics Inc, Venice	Cal
Energy Systems Inc, Palo Alto	Cal
Epco Products Inc, Wallkill	N Y
Ferranti, Ltd, Lancashire	England
Field Electronics Inc, Chatham	N J
Fisher Engineering Inc, Huntington	Ind
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Foster Transformer Co, Cincinnati	Ohio
Freed Transformer Co Inc, Brooklyn	N Y
General Electric Co, ECSO, Schenectady	N Y
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Gladding Corp, South Otselic	N Y
Goslin Corp, Burbank	Cal
Grand Transformers Inc, Grand Haven	Mich
Hadley Co Inc, Robert M, Los Angeles	Cal
Hammond Mfg Co Ltd, Guelph, Ont	Can
Hevi-Duty Electric Div Sola Basic Industries Goldsboro	N C
Hill Magnetics, Inc, Redwood City	Cal
Industrial Transformer Corp, Gouldsboro	Pa
James Electronics Inc, Chicago	Ill
Johnson Electric Coil Co, Elmhurst	Ill
Kapitol Magnetic Corp, Chicago	Ill
Kenyon Electronics Inc, Jersey City	N J
K G S Electronics Inc, Pasadena	Cal
Kidde & Co Inc, Walter, Belleville	N J
Light Electric Corp, Newark	N J
Magnetic Engineering Corp, Danbury	Conn
Magnetika Inc, Venice	Cal
Merit Coil & Transformer Corp, Hollywood	Fla
Merrimack Magnetics Corp, Lowell	Mass
Meteor Transformer Mfg Co, Detroit	Mich
Microdot Magnetics Inc, Los Angeles	Cal
Microtran Co Inc, Valley Stream	N Y
Mid-West Coil & Transformer Co, Chicago	Ill
New England Transformer Co Inc, Newton	Mass
New York Coil Co Inc, Phoenixville	Pa
Nothelfer Winding Labs Inc, Trenton	N J
Nytronics Inc, Berkeley Heights	N J
PCA Electronics Inc, Sepulveda	Cal
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Phoenix Transformer Co, Phoenix	Ariz
Polyphase Instrument Co, Bridgeport	Pa
Precision Electronics Co, Marshfield	Mass
Precision Electronics Inc, Amityville	N Y
Prototype Transformer Corp, East Orange	NJ
Pulse Engineering Inc, Santa Clara	Cal
Qutronic Transformer Corp, Oneonta	N Y
Radio Engineering Labs, Div DCA, Long Island City	N Y
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Sartron Inc, Newberg	Ore
Schott Co Inc, Oscar A, Minneapolis	Minn
Scott Electronics Corp, Orlando	Fla
Signal Transformer Co Inc, Brooklyn	N Y
S K G Associates Inc, Boston	Mass
Skyway Magnetics, Inglewood	Cal
Sola-Basic Industries, Milwaukee	Wis
Sorgel Electric Co, Milwaukee	Wis
Spatron Inc, Alhambra	Cal
Staco Inc Std Elec Prods Co Div, Dayton	Ohio
Stancor Controls Div Essex Wire Corp, Chicago	Ill
Standard Industries, Buena Park	Cal
Sterling Transformer Corp, Brooklyn	N Y
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Thordarson Meissner Inc, Mt Carmel	Ill
Tilton Electronics Corp, Winnisquam	N H
Torotel, Inc, Grandview	Mo
Torwico Electronics, Inc, Lakewood	N J
Tranex Inc, Mountain View	Cal
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Engineers, San Gabriel	Cal
Transformer Manufacturers Inc, Chicago	Ill
Transformers Inc, Vestal	N Y
Transformer Technicians Inc, Chicago	Ill
Tresco Inc, Philadelphia	Pa
Triad Transformer Corp, Venice	Cal
Triwec Transformer Co, Chicago	Ill
United Transformer Co Div TRW Inc, New York	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Utrad Corp, Huntington	Ind
Varo Inc, Garland	Tex
Washington Electrical Products Co, Washington	Mo
Westinghouse Electric Corp, Spec Transf Div Greenville	Pa
Woodward-Schumacher Electric Corp, Chicago	Ill

TRANSFORMERS--POWER PLATE & FILAMENT

ALLIED ELECTRONICS CORP, CHICAGO	**ILL**
AMP INCORPORATED, HARRISBURG	**PA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
K G S ELECTRONICS INC, PASADENA, CAL	**ADV PG 736**
NOTHELFER WINDING LABS INC, TRENTON, N J	**ADV PG 743**
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM	**CAL**
TOROTEL, INC, GRANDVIEW	**MO**
TORWICO ELECTRONICS, INC, LAKEWOOD, N J	**ADV PG 735**
TRANSFORMER ELECTRONICS CO, BOULDER COLO	**ADV PGS 2ND COVER & FACING PG**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
Abbott Transistor Labs, Inc, Los Angeles	Cal
ACDC Electronics, Inc, Burbank	Cal
AC Electronics Co, Los Angeles	Cal
Acme Electric Corp, Cuba	N Y
A C Transformer Corp, Newark	N J
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Airco Temescal, Berkeley	Cal
Allied Electronics Corp, Chicago	Ill
AMP Incorporated, Harrisburg	Pa
Atlas Coil Corp, Ansonia	Conn
Automation Services Inc, Endicott	N Y
Ballastran Corp, Fort Wayne	Ind
Barwood Electronics, Inc, Glendale	Cal
Basler Electric Co, Highland	Ill
B & B Magnetics Co, La Habra	Cal
Berkshire Transformer Corp, Kent	Conn
Better Coil & Transformer Corp, Goodland	Ind
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bullock Magnetics Corp, Pomona	Cal
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Caledonia Electronics & Transformer Div Caledonia	N Y
Carol Electronics Div Weeco Inc, Martinsburg	W Va
CBC Industries Inc, Philadelphia	Pa
Central Transformer Co, Chicago	Ill
Centroid Inc, Garden City Park	N Y
Chu Associates Inc, Littleton	Mass
Coast Coil Co Atlantic Research Corp, Los Angeles	Cal
Coil Co of America Inc, Northvale	N J
Coiltronics Inc, Buena Park	Cal
Comar Electric Co, Chicago	Ill
Component Specialties Corp, Temple City	Cal
Continental X-Ray Corp, Chicago	Ill
Cortran Mfg Co, Washington	Mo
CP Electronics Inc, Columbus	Ind
Custom Coil Co, Zanesville	Ohio
Cycle Transformer Corp, West Orange	N J
Daytron Inc, Mountain View	Cal
Del Electronics Corp, Mt Vernon	N Y
Dietz Design Inc, Belton	Mo
Dinion Coil Co Inc, Caledonia	N Y
Dormeyer Industries, Chicago	Ill
Dressen-Barnes Electronics Corp, Pasadena	Cal
Dresser Systems, Inc, Houston	Tex
Dynamic Components Corp, Hornell	N Y
Edko Electronics Inc, Brooklyn	N Y
Elasco Inc, Boston	Mass
Electran Mfg Co, Chicago	Ill
Electrical Windings Inc, Chicago	Ill
Electro Mfg Corp, Hazelhurst	Wis
Electro Networks Inc, Caledonia	N Y
Electronic Components Corp, Addison	Ill
Electronic Corp of America, Los Angeles	Cal
Electronic Design Labs Inc, Philadelphia	Pa
Electronic Devices Inc, North Ridgeville	Ohio
Electronic Transformer Corp, Paterson	N J
Electro Powerpacs Corp, Cambridge	Mass
Electro Technic Products, Chicago	Ill
Electro Winders Co Inc, Covina	Cal
Elnetic Electronics Inc, Venice	Cal
EMP Electronics Inc, Tempe	Ariz
Energy Systems Inc, Palo Alto	Cal
Ensign Coil Co, Chicago	Ill
Epco Products Inc, Wallkill	N Y
Ferranti, Ltd, Lancashire	England
Ferrotran Electronics Co Inc, New York	N Y
Field Electronics Inc, Chatham	N J
Fisher Engineering Inc, Huntington	Ind
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Foster Transformer Co, Cincinnati	Ohio
Freed Transformer Co Inc, Brooklyn	N Y
General Electric Co, ECSO, Schenectady	N Y
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Geo Space Corp, Houston	Tex
Gladding Corp, South Otselic	N Y
Goslin Corp, Burbank	Cal
Grand Transformers Inc, Grand Haven	Mich
Green Rectifier Corp, Fair Lawn	N J
Hadley Co Inc, Robert M, Los Angeles	Cal
Hammond Mfg Co Ltd, Guelph, Ont	Can
Harder Co, Inc, Donald C, San Diego	Cal
Hevi-Duty Electric Div Sola Basic Industries Goldsboro	N C
Heyboer Transformers, Grand Haven	Mich
Hill Magnetics, Inc, Redwood City	Cal
Industrial Transformer Corp, Gouldsboro	Pa
Industron Corp, Needham Heights	Mass
Ionics Inc, Electronics Div, Watertown	Mass
JB Electronic Transformers Inc, Chicago	Ill
Johnson Electric Coil Co, Elmhurst	Ill
Kapitol Magnetic Corp, Chicago	Ill
Kenyon Electronics Inc, Jersey City	N J
K G S Electronics Inc, Pasadena	Cal
Kidde & Co Inc, Walter, Belleville	N J
Knopp Inc, Oakland	Cal
Lake Engineering Co Ltd, Scarborough	Ont
Larago Electronics Mfgrs Inc, Melbourne	Fla
Light Electric Corp, Newark	N J
Magnetic Circuit Elements Inc, Montrose	Cal
Magnetic Devices Inc, Lemon Grove	Cal
Magnetic Engineering Corp, Danbury	Conn
Magnetika Inc, Venice	Cal
Merit Coil & Transformer Corp, Hollywood	Fla
Merrimack Magnetics Corp, Lowell	Mass
Meteor Transformer Mfg Co, Detroit	Mich
Microdot, Inc, South Pasadena	Cal
Microdot Magnetics Inc, Los Angeles	Cal
Microtran Co Inc, Valley Stream	N Y
Mid-West Coil & Transformer Co, Chicago	Ill
National Coil Co Inc, Sheridan	Wyo
Neshaminy Electronic Corp, Furlong	Pa
New England Transformer Co Inc, Newton	Mass
New York Coil Co Inc, Phoenixville	Pa
Nothelfer Winding Labs Inc, Trenton	N J
Nytronics Inc, Berkeley Heights	N J
Orega Electronique & Mecanique Vincennes, Seine	France
Osborne Transformer Corp, Detroit	Mich
Pacific Instrument Co, Oakland	cal
Pacific Magnetic Corp, Romoland	Cal
PCA Electronics Inc, Sepulveda	Cal
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Phoenix Transformer Co, Phoenix	Ariz

Stocked for immediate delivery!

K.G.S. electronics, inc.

POWER TRANSFORMERS HIGH CURRENT CHOKES

All types and ratings to 1000 VA — designed, engineered and manufactured.

Windings provide series parallel operation per Mil-T-27B, Class B performance

Free Catalog On Request.

Contains transformers-rectifier voltage, current tables and graphs for easy selection.

K. G. S. ELECTRONICS, Inc.
2029 No. Lincoln Ave.
Pasadena, Calif. 91103
Phone: (213) 798-0787

Polyphase Instrument Co, Bridgeport	Pa
Precision Electronics Co, Marshfield	Mass
Precision Electronics Inc, Amityville	N Y
Profile Electronics Inc, Concord	N H
Prototype Transformer Corp, East Orange	NJ
Qutronic Transformer Corp, Oneonta	N Y
Radio Engineering Labs, Div DCA, Long Island City	N Y
Ramm Rectifier Co, Inc, Bronx	N Y
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Re-Al Electronics Co, Waterbury	Conn
Robinson Electronic Components, Temple City	Cal
Sartron Inc, Newberg	Ore
Schott Co Inc, Oscar A, Minneapolis	Minn
Scott Electronics Corp, Orlando	Fla
Shigoto Industries Ltd, New York	N Y
Signal Transformer Co Inc, Brooklyn	N Y
S K G Associates Inc, Boston	Mass
Skyway Magnetics, Inglewood	Cal
Sola-Basic Industries, Milwaukee	Wis
Sola Electric Div Sola Basic Industries Elk Grove Village	Ill
Sorgel Electric Co, Milwaukee	Wis
Spatron Inc, Alhambra	Cal
Staco Inc Std Elec Prods Co Div, Dayton	Ohio
Stancor Controls Div Essex Wire Corp, Chicago	Ill
Standard Industries, Buena Park	Cal
Sterling Transformer Corp, Brooklyn	N Y
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Tabuchi Electric Co Ltd, Osaka	Japan
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Thordarson Meissner Inc, Mt Carmel	Ill
Tilton Electronics Corp, Winnisquam	N H
Torotel, Inc, Grandview	Mo
Torwico Electronics, Inc, Lakewood	N J
Tranex Inc, Mountain View	Cal
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Electronics Co, Boulder	Colo
Transformer Engineers, San Gabriel	Cal
Transformer Manufacturers Inc, Chicago	Ill
Transformers Inc, Vestal	N Y
Transformer Technicians Inc, Chicago	Ill
Trelcom Engineering Co Inc, Baltimore	Md
Trenton Transformer Corp, Rancocas	N J
Tresco Inc, Philadelphia	Pa
Triad Distributor Div Litton Industries, Huntington	Ind
Triad Transformer Corp, Venice	Cal
Triwec Transformer Co, Chicago	Ill
United Transformer Co Div TRW Inc, New York	N Y
Universal Precision, Inc, Endicott	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Utrad Corp, Huntington	Ind
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Washington Electrical Products Co, Washington	Mo
Westinghouse Electric Corp Distribution Transformer Div Sharon	Pa
Westinghouse Electric Corp, Spec Transf Div Greenville	Pa
Wintron Co Inc, S El Monte	Cal
Woodward-Schumacher Electric Corp, Chicago	Ill

TRANSFORMERS--POWER, SATURABLE

AMP INCORPORATED, HARRISBURG	**PA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HISONIC INC, OLATHE, KAN	**ADV PG 737**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH COVER**
K G S ELECTRONICS INC, PASADENA	**CAL**
NOTHELFER WINDING LABS INC, TRENTON, N J	**ADV PG 743**
STEVENS-ARNOLD INC, SOUTH BOSTON, MASS	**ADV PG 144**
TOROTEL, INC, GRANDVIEW	**MO**
TORWICO ELECTRONICS, INC, LAKEWOOD, N J	**ADV PG 735**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
ACDC Electronics, Inc, Burbank	Cal
Acme Electric Corp, Cuba	N Y
A C Transformer Corp, Newark	N J
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Airco Temescal, Berkeley	Cal
American Rectifier Corp, College Point	N Y
AMP Incorporated, Harrisburg	Pa
Arnold Magnetics Corp, Los Angeles	Cal
Atlas Coil Corp, Ansonia	Conn
Ault, Inc, Minneapolis	Minn
Ballastran Corp, Fort Wayne	Ind
Barwood Electronics, Inc, Glendale	Cal
Basler Electric Co, Highland	Ill
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bullock Magnetics Corp, Pomona	Cal
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Canadian Marconi Co, Montreal 16	Quebec
Carol Electronics Div Weeco Inc, Martinsburg	W Va
CBC Industries Inc, Philadelphia	Pa
Central Transformer Co, Chicago	Ill
Chu Associates Inc, Littleton	Mass
Coast Coil Co Atlantic Research Corp, Los Angeles	Cal
Coil Co of America Inc, Northvale	N J
Coiltronics Inc, Buena Park	Cal
Component Specialties Corp, Temple City	Cal
Cortran Mfg Co, Washington	Mo
Cycle Transformer Corp, West Orange	N J
Daytron Inc, Mountain View	Cal
Del Electronics Corp, Mt Vernon	N Y
Delta Coils, Philadelphia	Pa
Dietz Design Inc, Belton	Mo
Dresser Electric Co, Detroit	Mich
Dresser Systems, Inc, Houston	Tex
Dynamic Components Corp, Hornell	N Y
Electronic Devices Inc, North Ridgeville	Ohio
Electronic Transformer Corp, Paterson	N J
Electro Technic Products, Chicago	Ill
Electro Winders Co Inc, Covina	Cal
EMP Electronics Inc, Tempe	Ariz
Epco Products Inc, Wallkill	N Y
Ferranti, Ltd, Lancashire	England
Field Electronics Inc, Chatham	N J
Fisher Engineering Inc, Huntington	Ind
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Forbes & Wagner Inc, Silver Creek	N Y
Forney Industries Inc, Fort Collins	Colo
Foster Transformer Co, Cincinnati	Ohio
Freed Transformer Co Inc, Brooklyn	N Y
General Electric Co, ECSO, Schenectady	N Y
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Geo Space Corp, Houston	Tex
Gladding Corp, South Otselic	N Y
Goslin Corp, Burbank	Cal
Green Rectifier Corp, Fair Lawn	N J
Hadley Co Inc, Robert M, Los Angeles	Cal
Hammond Mfg Co Ltd, Guelph, Ont	Can
Hevi-Duty Electric Div Sola Basic Industries Goldsboro	N C
Hill Magnetics, Inc, Redwood City	Cal
Hirst Electric Industries Ltd, Crawley, Sussex	England
Hisonic Inc, Olathe	Kan
Inductor Engineering Inc, Lewes	Del
Industrial Transformer Corp, Gouldsboro	Pa
Ionics Inc, Electronics Div, Watertown	Mass
Johnson Electric Coil Co, Elmhurst	Ill
Kapitol Magnetic Corp, Chicago	Ill
Kenyon Electronics Inc, Jersey City	N J
Kepco Inc, Flushing	N Y
K G S Electronics Inc, Pasadena	Cal
Larago Electronics Mfgrs Inc, Melbourne	Fla
Light Electric Corp, Newark	N J
Magnetic Devices Inc, Lemon Grove	Cal
Magnetic Engineering Corp, Danbury	Conn
Magnetic Specialties Inc, Trenton	N J
Magnetika Inc, Venice	Cal
Microdot, Inc, South Pasadena	Cal
Microdot Magnetics Inc, Los Angeles	Cal
Microtran Co Inc, Valley Stream	N Y
Neshaminy Electronic Corp, Furlong	Pa
New England Transformer Co Inc, Newton	Mass
New York Coil Co Inc, Phoenixville	Pa
North Electric Co, Galion	Ohio
Nothelfer Winding Labs Inc, Trenton	N J
Pacific Instrument Co, Oakland	cal
Pacific Magnetic Corp, Romoland	Cal
PCA Electronics Inc, Sepulveda	Cal
Phoenix Transformer Co, Phoenix	Ariz
Polyphase Instrument Co, Bridgeport	Pa
Precision Electronics Co, Marshfield	Mass
Precision Electronics Inc, Amityville	N Y
Prototype Transformer Corp, East Orange	NJ
Qutronic Transformer Corp, Oneonta	N Y
Ramm Rectifier Co, Inc, Bronx	N Y
Ramyr Mfg Co, Buena Park	Cal
Re-Al Electronics Co, Waterbury	Conn
Sanken Electric Co, Ltd, Toshima-ku, Tokyo	Japan
Sartron Inc, Newberg	Ore
Schott Co Inc, Oscar A, Minneapolis	Minn
Scott Electronics Corp, Orlando	Fla
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
S K G Associates Inc, Boston	Mass
Skyway Magnetics, Inglewood	Cal
Sola-Basic Industries, Milwaukee	Wis
Sorgel Electric Co, Milwaukee	Wis
Spatron Inc, Alhambra	Cal
Standard Industries, Buena Park	Cal
Sterling Transformer Corp, Brooklyn	N Y
Stevens-Arnold Inc, South Boston	Mass
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Thordarson Meissner Inc, Mt Carmel	Ill
Tilton Electronics Corp, Winnisquam	N H
Torotel, Inc, Grandview	Mo
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
Torwico Electronics, Inc, Lakewood	N J
Tranex Inc, Mountain View	Cal
Transformer Engineers, San Gabriel	Cal
Transformer Manufacturers Inc, Chicago	Ill
Transformer Technicians Inc, Chicago	Ill
Trenton Transformer Corp, Rancocas	N J
Tresco Inc, Philadelphia	Pa
Triad Transformer Corp, Venice	Cal
Triwec Transformer Co, Chicago	Ill
United Transformer Co Div TRW Inc, New York	N Y
Universal Precision, Inc, Endicott	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Utrad Corp, Huntington	Ind
Valor Electronics Inc, Gardena	Cal
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Virginia Electronics Co Inc, Falls Church	Va
Ward Leonard Electric Co, Mount Vernon	N Y
Washington Electrical Products Co, Washington	Mo
Westinghouse Electric Corp Distribution Transformer Div Sharon	Pa
Westinghouse Electric Corp, Spec Transf Div Greenville	Pa
Zaring Industries Inc, Carmel	Ind

TOROIDAL TRANSFORMERS

Toroidal, power saturating for converter applications. Designed and manufactured to your specified requirements. Ferrite or nickel alloy cores employed as appropriate to performance/cost considerations. Supplied uncased or in plastic or metallic cases. Ratings from 3 to 300 watts. Operating frequencies from 400 Hz to several KHz.

We also specialize in low level, wide band impedance matching and other special transformers suitable to toroidal construction. Write, phone or wire:

hisonic inc.

249 N. Troost, Olathe, Kansas 66061
Phone 913-782-0012

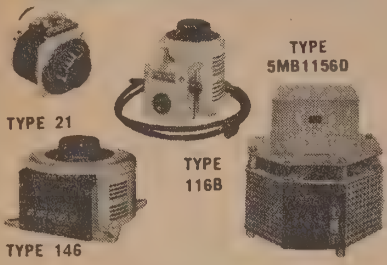
TRANSFORMERS--POWER, VARIABLE

CAIG LABS INC, WESTBURY	**N Y**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
K G S ELECTRONICS INC, PASADENA	**CAL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
SUPERIOR ELECTRIC CO THE, BRISTOL, CONN	**ADV PG 738**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
ADC Electronics, Inc, Harbor City	Cal
Airco Temescal, Berkeley	Cal
American Rectifier Corp, College Point	N Y
Basler Electric Co, Highland	Ill
Bicron Electronics Co, Canaan	Conn
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Brown Engineering-A Teledyne Co, Huntsville	Ala
Caig Labs Inc, Westbury	N Y
Canadian Marconi Co, Montreal 16	Quebec
Carson Mfg Co Inc, Indianapolis	Ind
Chu Associates Inc, Littleton	Mass
Continental X-Ray Corp, Chicago	Ill
Cortran Mfg Co, Washington	Mo
Custom Coil Co, Zanesville	Ohio
Del Electronics Corp, Mt Vernon	N Y
Divac Electronics, Hawthorne	Cal
Dresser Electric Co, Detroit	Mich
Electronic Transformer Corp, Paterson	N J
Electro Technic Products, Chicago	Ill
Electro Winders Co Inc, Covina	Cal
Ferranti, Ltd, Lancashire	England
Field Electronics Inc, Chatham	N J
Fisher Engineering Inc, Huntington	Ind
Foster Transformer Co, Cincinnati	Ohio
General Electric Co, ECSO, Schenectady	N Y
General Radio Co, West Concord	Mass
Glenn Pacific A Teledyne Co, Oakland	Cal
Green Rectifier Corp, Fair Lawn	N J
Hill Magnetics, Inc, Redwood City	Cal
Kenyon Electronics Inc, Jersey City	N J
K G S Electronics Inc, Pasadena	Cal
Matsunaga Mfg Co Ltd, Tokyo	Japan
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McGregor Electronic Industries Inc, McGregor	Iowa
Merit Coil & Transformer Corp, Hollywood	Fla
Microdot Magnetics Inc, Los Angeles	Cal
Mid-West Coil & Transformer Co, Chicago	Ill
New England Transformer Co Inc, Newton	Mass
New York Coil Co Inc, Phoenixville	Pa
Ohmite Mfg Co, Skokie	Ill
Osborne Electric Co, Ltd, Toronto 18	Ont
Permoflux Corp, Glendale	Cal
Prototype Transformer Corp, East Orange	NJ
Radio Engineering Labs, Div DCA, Long Island City	N Y
Ramyr Mfg Co, Buena Park	Cal
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Sola-Basic Industries, Milwaukee	Wis
Staco Inc Std Elec Prods Co Div, Dayton	Ohio
Stancor Controls Div Essex Wire Corp, Chicago	Ill

POWERSTAT®

Variable Transformers

now with POWERKOTE COILS



Most specified by industry, POWERSTAT Variable Transformers with new epoxy-coated POWERKOTE Coils give an average of 20% higher current ratings, 10:1 greater overload capability, longer life, greater resistance to fungus, salt spray and other contaminating atmospheres. Also feature excellent regulation, negligible waveform distortion, conservative ratings, high efficiency, precious-metal plated commutators and rugged construction. All manually operated types listed in the chart (except the 10B and 12 series) are also available with motor drives in speeds of 5, 15, 30 or 60 seconds for full range travel. Ratings for ganged assemblies can be easily calculated from single unit ratings given in the chart. Types are available up to 244 kva.

BASIC TYPE	INPUT VOLTS	OUTPUT				
		VOLTS	CONSTANT CURRENT LOAD		CONSTANT IMPEDANCE LOAD*	
			MAX. AMP.	MAX. KVA	MAX. AMP.	MAX. KVA
2PF10‡	120	0-132	1	0.13	—	—
10B§	120	0-120/132	2 25†	0.27/0 30	3†	0 36
21	120	0-120/140	4.5	0.54/0.63	6.5	0.78
116B	120	0-120/140	10	1.2/1.4	13	1.6
117B‡	120	0-120	12	1 4	15	1.8
126	120	0-120/140	15	1.8/2.1	20	2.4
136B	120	0-120/140	22	2.6/3.1	28	3.4
146	120	0-120/140	30	3.6/4 2	35	4.2
1156D	120	0-120/140	50	6 0/7.0	55	6.6
12	240	0 240/264	0 7†	0 17/0 13	0 9†	0.22
22	240	0-240/280	2.5	0 60/0 70	3.75	0.90
216B	240#	0-240/280	3.5	0.84/0.98	5	1.2
217B‡	240	0-240	5	1 2	7	1.7
226	240#	0-240/280	7.5	1 8/2.1	10	2 4
236B	240#	0-240/280	10	2.4 2 8	13	3.1
246	240#	0-240/280	15	3 6 4 2	19	4.6
1256D	240#	0-240/280	28	6 7/7 8	28	6.7

*Line voltage connection only. §Overvoltage connection 60 cycle only.
†Metal panel mounted rating. See published derating for brackets and nonmetallic panels
#Can be connected for 120 volt input with 0-280 volt output. Max. current is for 0-150 volt output; see published curve for max. current at higher output voltages.
‡60 cycles only. All others 50/60 cycles.

OTHER TYPES: High frequency, metered knob, 40-volt, line correctors, explosion-proof, oil-cooled and VOLTBOX® A-C Power Supplies.

Write for Catalog P1065G-2

THE
SUPERIOR ELECTRIC
COMPANY

1200 Middle Street
Bristol, Connecticut 06010

Standard Industries, Buena Park	Cal
Sterling Transformer Corp, Brooklyn	N Y
Superior Electric Co The, Bristol	Conn
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Terado Corp, St Paul	Minn
Thiem-Transrex Inc, El Segundo	Cal
Thordarson Meissner Inc, Mt Carmel	Ill
Tilton Electronics Corp, Winnisquam	N H
Transformer Engineers, San Gabriel	Cal
Transformer Technicians Inc, Chicago	Ill
United Transformer Co Div TRW Inc, New York	N Y
Varo Inc, Garland	Tex
Virginia Electronics Co Inc, Falls Church	Va
Ward Leonard Electric Co, Mount Vernon	N Y
Washington Electrical Products Co, Washington	Mo
Westinghouse Electric Corp Distribution Transformer Div Sharon	Pa
Zaring Industries Inc, Carmel	Ind

TRANSFORMERS--POWER, VIBRATOR

K G S ELECTRONICS INC, PASADENA	**CAL**
NOTHELFER WINDING LABS INC, TRENTON, N J	**ADV PG 743**
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM	**CAL**
TOROTEL, INC, GRANDVIEW	**MO**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
Atlas Coil Corp, Ansonia	Conn
Barwood Electronics, Inc, Glendale	Cal
Better Coil & Transformer Corp, Goodland	Ind
Brown Engineering-A Teledyne Co, Huntsville	Ala
Carol Electronics Div Weeco Inc, Martinsburg	W Va
CBC Industries Inc, Philadelphia	Pa
Central Transformer Co, Chicago	Ill
Coil Co of America Inc, Northvale	N J
Component Specialties Corp, Temple City	Cal
CP Electronics Inc, Columbus	Ind
Custom Coil Co, Zanesville	Ohio
Cycle Transformer Corp, West Orange	N J
Dietz Design Inc, Belton	Mo
Dresser Systems, Inc, Houston	Tex
Dynamic Components Corp, Hornell	N Y
Edko Electronics Inc, Brooklyn	N Y
Electrical Windings Inc, Chicago	Ill
Electronic Devices Inc, North Ridgeville	Ohio
Electronic Transformer Corp, Paterson	N J
Electro Powerpacs Corp, Cambridge	Mass
Electro Winders Co Inc, Covina	Cal
Elnetic Electronics Inc, Venice	Cal
Epco Products Inc, Wallkill	N Y
Field Electronics Inc, Chatham	N J
Fisher Engineering Inc, Huntington	Ind
Foster Transformer Co, Cincinnati	Ohio
Freed Transformer Co Inc, Brooklyn	N Y
Geo Space Corp, Houston	Tex
Gladding Corp, South Otselic	N Y
Goslin Corp, Burbank	Cal
Grand Transformers Inc, Grand Haven	Mich
Green Rectifier Corp, Fair Lawn	N J
Hadley Co Inc, Robert M, Los Angeles	Cal
Hammond Mfg Co Ltd, Guelph, Ont	Can
Hill Magnetics, Inc, Redwood City	Cal
Industrial Transformer Corp, Gouldsboro	Pa
Johnson Electric Coil Co, Elmhurst	Ill
Kapitol Magnetic Corp, Chicago	Ill
Kenyon Electronics Inc, Jersey City	N J
K G S Electronics Inc, Pasadena	Cal
Kidde & Co Inc, Walter, Belleville	N J
Lake Engineering Co Ltd, Scarborough	Ont
Larago Electronics Mfgrs Inc, Melbourne	Fla
Magnetic Circuit Elements Inc, Montrose	Cal
Magnetic Engineering Corp, Danbury	Conn
Magnetika Inc, Venice	Cal
McGregor Electronic Industries Inc, McGregor	Iowa
Merit Coil & Transformer Corp, Hollywood	Fla
Meteor Transformer Mfg Co, Detroit	Mich
Microtran Co Inc, Valley Stream	N Y
Mid-West Coil & Transformer Co, Chicago	Ill
New England Transformer Co Inc, Newton	Mass
New York Coil Co Inc, Phoenixville	Pa
Nothelfer Winding Labs Inc, Trenton	N J
Pacific Instrument Co, Oakland	cal
PCA Electronics Inc, Sepulveda	Cal
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Phoenix Transformer Co, Phoenix	Ariz
Precision Electronics Co, Marshfield	Mass
Prototype Transformer Corp, East Orange	NJ
Qutronic Transformer Corp, Oneonta	N Y
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Sartron Inc, Newberg	Ore
Scott Electronics Corp, Orlando	Fla
S K G Associates Inc, Boston	Mass
Sola-Basic Industries, Milwaukee	Wis
Staco Inc Std Elec Prods Co Div, Dayton	Ohio
Stancor Controls Div Essex Wire Corp, Chicago	Ill
Standard Industries, Buena Park	Cal
Sterling Transformer Corp, Brooklyn	N Y
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Thordarson Meissner Inc, Mt Carmel	Ill
Tilton Electronics Corp, Winnisquam	N H
Torotel, Inc, Grandview	Mo
Transformer Engineers, San Gabriel	Cal
Transformer Manufacturers Inc, Chicago	Ill
Transformer Technicians Inc, Chicago	Ill
Tresco Inc, Philadelphia	Pa
Triad Distributor Div Litton Industries, Huntington	Ind
Triad Transformer Corp, Venice	Cal
Triwec Transformer Co, Chicago	Ill
United Transformer Co Div TRW Inc, New York	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Utrad Corp, Huntington	Ind
Varo Inc, Garland	Tex

TRANSFORMERS--POWER, VOLTAGE REGULATING & STABILIZING

AMP INCORPORATED, HARRISBURG	**PA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
KEPCO INC, FLUSHING, N Y	**ADV PGS 4TH COVER**
K G S ELECTRONICS INC, PASADENA	**CAL**
MAGNETICS INC, BUTLER	**PA**
OPAD ELECTRIC CO, INC, NEW YORK	**N Y**
STEVENS-ARNOLD INC, SOUTH BOSTON, MASS	**ADV PG 144**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
Acme Electric Corp, Cuba	N Y
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Airco Temescal, Berkeley	Cal
American Monarch Div Mpls Scientific Controls Minneapolis	Minn
American Rectifier Corp, College Point	N Y
AMP Incorporated, Harrisburg	Pa
Atlas Coil Corp, Ansonia	Conn
Ault, Inc, Minneapolis	Minn
Automation Services Inc, Endicott	N Y
Ballastran Corp, Fort Wayne	Ind
Barwood Electronics, Inc, Glendale	Cal
Basler Electric Co, Highland	Ill
Berkshire Transformer Corp, Kent	Conn
Bicron Electronics Co, Canaan	Conn
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bullock Magnetics Corp, Pomona	Cal
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Caledonia Electronics & Transformer Div Caledonia	N Y
Canadian Marconi Co, Montreal 16	Quebec
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Central Transformer Co, Chicago	Ill
Chu Associates Inc, Littleton	Mass
C I T E, Santa Margherita Ligure	Italy
Coil Co of America Inc, Northvale	N J
Coiltronics Inc, Buena Park	Cal
Cycle Transformer Corp, West Orange	N J
Daytron Inc, Mountain View	Cal
Del Electronics Corp, Mt Vernon	N Y
Divac Electronics, Hawthorne	Cal
Dynamic Components Corp, Hornell	N Y
Elasco Inc, Boston	Mass
Electro Networks Inc, Caledonia	N Y
Electronic Components Corp, Addison	Ill
Electronic Design Labs Inc, Philadelphia	Pa
Electronic Devices Inc, North Ridgeville	Ohio
Electronic Transformer Corp, Paterson	N J
Electro Powerpacs Corp, Cambridge	Mass
Electro Winders Co Inc, Covina	Cal
Elgin Electronics Inc, Erie	Pa
Energy Systems Inc, Palo Alto	Cal
Ferranti, Ltd, Lancashire	England
Field Electronics Inc, Chatham	N J
Fisher Engineering Inc, Huntington	Ind
Fleishman Electric Co, Clifton	N J
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Forney Industries Inc, Fort Collins	Colo
Foster Transformer Co, Cincinnati	Ohio
Freed Transformer Co Inc, Brooklyn	N Y
Fuji Electric Co Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
Genisco Technology Corp, Compton	Cal
Geo Space Corp, Houston	Tex
Gladding Corp, South Otselic	N Y
Glenn Pacific A Teledyne Co, Oakland	Cal
Goslin Corp, Burbank	Cal
Green Rectifier Corp, Fair Lawn	N J
Gulton Industries Inc Engineered Magnetics Div Hawthorne	Cal
Hevi-Duty Electric Div Sola Basic Industries Goldsboro	N C
Hill Magnetics, Inc, Redwood City	Cal
Jensen Mfg Div, The Muter Co, Chicago	Ill
Johnson Electric Coil Co, Elmhurst	Ill
Kepco Inc, Flushing	N Y
K G S Electronics Inc, Pasadena	Cal
Kurz & Root Co, Appleton	Wis
Lear Siegler Inc, Santa Monica	Cal
Light Electric Corp, Newark	N J
Magnetic Devices Inc, Lemon Grove	Cal
Magnetic Engineering Corp, Danbury	Conn
Magnetics Inc, Butler	Pa
Matsunaga Mfg Co Ltd, Tokyo	Japan
McGraw-Edison Power Systems Div, Milwaukee	Wis
Microdot, Inc, South Pasadena	Cal
Microdot Magnetics Inc, Los Angeles	Cal
Microtran Co Inc, Valley Stream	N Y
Mid-West Coil & Transformer Co, Chicago	Ill
Neshaminy Electronic Corp, Furlong	Pa
New England Transformer Co Inc, Newton	Mass
New York Coil Co Inc, Phoenixville	Pa
North Electric Co, Galion	Ohio
Nytronics Inc, Berkeley Heights	N J
Opad Electric Co, Inc, New York	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Phoenix Transformer Co, Phoenix	Ariz
Polyphase Instrument Co, Bridgeport	Pa
Precision Electronics Inc, Amityville	N Y
Qutronic Transformer Corp, Oneonta	N Y
Ramm Rectifier Co, Inc, Bronx	N Y
Ramyr Mfg Co, Buena Park	Cal
Rowan Controller Co, Oceanport	N J
Sanken Electric Co, Ltd, Toshima-ku, Tokyo	Japan
Sartron Inc, Newberg	Ore
Schott Co Inc, Oscar A, Minneapolis	Minn
Scott Electronics Corp, Orlando	Fla
Signal Transformer Co Inc, Brooklyn	N Y
S K G Associates Inc, Boston	Mass
Sola-Basic Industries, Milwaukee	Wis

Sola Electric Div Sola Basic Industries Elk Grove Village	Ill
Sterling Transformer Corp, Brooklyn	N Y
Stevens-Arnold Inc, South Boston	Mass
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Technical Apparatus Builders Div Power Alternating Direct Corp, Brooklyn	N Y
Thiem-Transrex Inc, El Segundo	Cal
Thordarson Meissner Inc, Mt Carmel	Ill
Transformer Engineers, San Gabriel	Cal
Transformer Technicians Inc, Chicago	Ill
Triad Distributor Div Litton Industries, Huntington	Ind
Triad Transformer Corp, Venice	Cal
Triwec Transformer Co, Chicago	Ill
United Transformer Co Div TRW Inc, New York	N Y
Universal Precision, Inc, Endicott	N Y
Utrad Corp, Huntington	Ind
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Ward Leonard Electric Co, Mount Vernon	N Y

TRANSFORMERS--POWER, WELDING

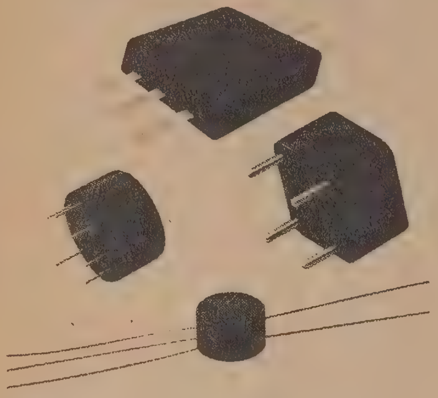
EWALD INSTRUMENTS CORP, KENT	**CONN**
FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
NOTHELFER WINDING LABS INC, TRENTON, N J	**ADV PG 743**
TOROTEL, INC, GRANDVIEW	**MO**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
Acme Electric Corp, Cuba	N Y
A C Transformer Corp, Newark	N J
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Allen/UTI, Kalamazoo	Mich
American Rectifier Corp, College Point	N Y
Applied Electro Mechanics Inc, Alexandria	Va
Atlas Coil Corp, Ansonia	Conn
Basler Electric Co, Highland	Ill
B & B Magnetics Co, La Habra	Cal
Berkshire Transformer Corp, Kent	Conn
Brown Engineering-A Teledyne Co, Huntsville	Ala
Central Transformer Co, Chicago	Ill
Chu Associates Inc, Littleton	Mass
Coil Co of America Inc, Northvale	N J
Coiltronics Inc, Buena Park	Cal
Cycle Transformer Corp, West Orange	N J
Del Electronics Corp, Mt Vernon	N Y
Dynamic Components Corp, Hornell	N Y
Edko Electronics Inc, Brooklyn	N Y
Eisler Engineering Co, Newark	N J
Electran Mfg Co, Chicago	Ill
Electronic Devices Inc, North Ridgeville	Ohio
Electronic Transformer Corp, Paterson	N J
Electro Winders Co Inc, Covina	Cal
Elnetic Electronics Inc, Venice	Cal
Epco Products Inc, Wallkill	N Y
Ewald Instruments Corp, Kent	Conn
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Field Electronics Inc, Chatham	N J
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Forney Industries Inc, Fort Collins	Colo
Foster Transformer Co, Cincinnati	Ohio
Fuji Electric Co Ltd, Tokyo	Japan
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Geo Space Corp, Houston	Tex
Hammond Mfg Co Ltd, Guelph, Ont	Can
Heyboer Transformers, Grand Haven	Mich
Hill Magnetics, Inc, Redwood City	Cal
Hirst Electric Industries Ltd, Crawley, Sussex	England
Johnson Electric Coil Co, Elmhurst	Ill
Kapitol Magnetic Corp, Chicago	Ill
Kirkhof Mfg Corp, Grand Rapids	Mich
Light Electric Corp, Newark	N J
Meteor Transformer Mfg Co, Detroit	Mich
Microdot Magnetics Inc, Los Angeles	Cal
Neshaminy Electronic Corp, Furlong	Pa
New England Transformer Co Inc, Newton	Mass
Nothelfer Winding Labs Inc, Trenton	N J
Phoenix Transformer Co, Phoenix	Ariz
Precision Electronics Co, Marshfield	Mass
Prototype Transformer Corp, East Orange	NJ
Radio Engineering Labs, Div DCA, Long Island City	N Y
Ramm Rectifier Co, Inc, Bronx	N Y
Sartron Inc, Newberg	Ore
Sola-Basic Industries, Milwaukee	Wis
Sorgel Electric Co, Milwaukee	Wis
Sterling Transformer Corp, Brooklyn	N Y
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Taylor-Winfield Corp, Warren	Ohio
Thiem-Transrex Inc, El Segundo	Cal
Thordarson Meissner Inc, Mt Carmel	Ill
Torotel, Inc, Grandview	Mo
Tranex Inc, Mountain View	Cal
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Engineers, San Gabriel	Cal
Transformer Manufacturers Inc, Chicago	Ill
Trenton Transformer Corp, Rancocas	N J
United Transformer Co Div TRW Inc, New York	N Y
Varo Inc, Garland	Tex
Washington Electrical Products Co, Washington	Mo
Westinghouse Electric Corp Distribution Transformer Div Sharon	Pa
Westinghouse Electric Corp, Spec Transf Div Greenville	Pa
Wintron Co Inc, S El Monte	Cal

TRANSFORMERS--POWER, X- RAY

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
K G S ELECTRONICS INC, PASADENA	**CAL**
NOTHELFER WINDING LABS INC, TRENTON, N J	**ADV PG 743**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
Acme Electric Corp, Cuba	N Y
Atlas Coil Corp, Ansonia	Conn
Ballastran Corp, Fort Wayne	Ind
Basler Electric Co, Highland	Ill
Brown Engineering-A Teledyne Co, Huntsville	Ala
Campbell/Taylor Inc, Salem	Mass
Central Transformer Co, Chicago	Ill
Chu Associates Inc, Littleton	Mass
Coil Co of America Inc, Northvale	N J
Coiltronics Inc, Buena Park	Cal
Continental X-Ray Corp, Chicago	Ill
Del Electronics Corp, Mt Vernon	N Y
Edko Electronics Inc, Brooklyn	N Y
Electronic Components Corp, Addison	Ill
Electronic Transformer Corp, Paterson	N J
Field Electronics Inc, Chatham	N J
Fisher Engineering Inc, Huntington	Ind
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Foster Transformer Co, Cincinnati	Ohio
General Electric Co, ECSO, Schenectady	N Y
Geo Space Corp, Houston	Tex
Hammond Mfg Co Ltd, Guelph, Ont	Can
High Voltage Engineering Corp, Burlington	Mass
Hill Magnetics, Inc, Redwood City	Cal
Industrial Gauging & Control Inc, Norwalk	Conn
Industrial Transformer Corp, Gouldsboro	Pa
Johnson Electric Coil Co, Elmhurst	Ill
Kapitol Magnetic Corp, Chicago	Ill
Keleket Div Laboratory For Electronics Inc Waltham	Mass
Kenyon Electronics Inc, Jersey City	N J
K G S Electronics Inc, Pasadena	Cal
Light Electric Corp, Newark	N J
Magnetic Engineering Corp, Danbury	Conn
New England Transformer Co Inc, Newton	Mass
Nothelfer Winding Labs Inc, Trenton	N J
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Picker Nuclear, White Plains	N Y
Precision Electronics Inc, Amityville	N Y
Prototype Transformer Corp, East Orange	NJ
Radio Engineering Labs, Div DCA, Long Island City	N Y
Re-Al Electronics Co, Waterbury	Conn
Sorgel Electric Co, Milwaukee	Wis
Spatron Inc, Alhambra	Cal
Standard X-Ray Co, Chicago	Ill
Thordarson Meissner Inc, Mt Carmel	Ill
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Engineers, San Gabriel	Cal
Transformer Manufacturers Inc, Chicago	Ill
Transformer Technicians Inc, Chicago	Ill
United Transformer Co Div TRW Inc, New York	N Y
Utrad Corp, Huntington	Ind
Varo Inc, Garland	Tex
Westinghouse Electric Corp Distribution Transformer Div Sharon	Pa

TRANSFORMERS--PRINTED CIRCUIT TERMINALS

ALLEN AVIONICS INC,DIV A K ALLEN CO INC, MINEOLA	**N Y**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE	**N Y**
CADDELL BURNS MFG CO INC, MINEOLA N Y	**ADV PGS 162,163**
HISONIC INC, OLATHE	**KAN**
K G S ELECTRONICS INC, PASADENA	**CAL**
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM	**CAL**
TECHNITROL INC, PHILADELPHIA	**PA**
TOROTEL, INC, GRANDVIEW, MO	**ADV PG 730**
TORWICO ELECTRONICS, INC, LAKEWOOD	**N J**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
ACDC Electronics, Inc, Burbank	Cal
AC Electronics Co, Los Angeles	Cal
ADC Products, Minneapolis	Minn
Allen Avionics Inc,Div A K Allen Co Inc, Mineola	N Y
Amk Electronics Co Inc, Edison	N J
Astrolab Inc, Linden	N J
Ballastran Corp, Fort Wayne	Ind
Barwood Electronics, Inc, Glendale	Cal
Basler Electric Co, Highland	Ill
B & B Magnetics Co, La Habra	Cal
Better Coil & Transformer Corp, Goodland	Ind
Bicron Electronics Co, Canaan	Conn
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Caddell Burns Mfg Co Inc, Mineola	N Y
Caledonia Electronics & Transformer Div Caledonia	N Y
Cambridge Thermionic Corp, Cambridge	Mass
Carol Electronics Div Weeco Inc, Martinsburg	W Va
CBC Industries Inc, Philadelphia	Pa
Central Transformer Co, Chicago	Ill
Chu Associates Inc, Littleton	Mass
Coast Coil Co Atlantic Research Corp, Los Angeles	Cal
Coil Co of America Inc, Northvale	N J
Coiltronics Inc, Buena Park	Cal
Component Specialties Corp, Temple City	Cal
CP Electronics Inc, Columbus	Ind
Cycle Transformer Corp, West Orange	N J
DB Products Inc, Pasadena	Cal
Delevan Electronics Div Amer Prec Indus Inc East Aurora	N Y
Dietz Design Inc, Belton	Mo
Dresser Systems, Inc, Houston	Tex
Dynamic Components Corp, Hornell	N Y
Electran Mfg Co, Chicago	Ill
Electrical Windings Inc, Chicago	Ill
Electronic Components Corp, Addison	Ill
Electronic Design Labs Inc, Philadelphia	Pa
Electronic Transformer Corp, Paterson	N J
Electro Winders Co Inc, Covina	Cal
Electro Windings & Components Inc, Kenilworth	N J
Elnetic Electronics Inc, Venice	Cal
EMP Electronics Inc, Tempe	Ariz
Ferranti, Ltd, Lancashire	England
Ferrotran Electronics Co Inc, New York	N Y
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Foster Transformer Co, Cincinnati	Ohio
Freed Transformer Co Inc, Brooklyn	N Y
Fugle-Miller Labs Inc, Kenilworth	N J
Fullmer Electronics Inc, Northridge	Cal
Geo Space Corp, Houston	Tex
Gladding Corp, South Otselic	N Y
Grand Transformers Inc, Grand Haven	Mich
Hadley Co Inc, Robert M, Los Angeles	Cal
Hammond Mfg Co Ltd, Guelph, Ont	Can
Hill Magnetics, Inc, Redwood City	Cal
Hisonic Inc, Olathe	Kan
Inductor Engineering Inc, Lewes	Del
Industrial Transformer Corp, Gouldsboro	Pa
JB Electronic Transformers Inc, Chicago	Ill
Johnson Electric Coil Co, Elmhurst	Ill
Kapitol Magnetic Corp, Chicago	Ill
K G S Electronics Inc, Pasadena	Cal
Kidde & Co Inc, Walter, Belleville	N J
Lake Engineering Co Ltd, Scarborough	Ont
Larago Electronics Mfgrs Inc, Melbourne	Fla
Laselco Pacific, Palo Alto	Cal
LCC-CICE, 93 Montreuil-sous-Bois	France
Lowrance Electronic Mfg Corp, Tulsa	Okla
LTV-Electrosystems Inc Memcor Div, Huntington	Ind
Magnetic Circuit Elements Inc, Montrose	Cal
Magnetic Engineering Corp, Danbury	Conn
Magnetika Inc, Venice	Cal
McGregor Electronic Industries Inc, McGregor	Iowa
Merit Coil & Transformer Corp, Hollywood	Fla
Micromagnetics Div Gulton Ind, Visalia	Cal
Microtran Co Inc, Valley Stream	N Y
Mid-West Coil & Transformer Co, Chicago	Ill
Miller Co, J W, Los Angeles	Cal
Montedoro Corp, San Luis Obispo	Cal
National Coil Co Inc, Sheridan	Wyo
Neshaminy Electronic Corp, Furlong	Pa
New England Transformer Co Inc, Newton	Mass
New York Coil Co Inc, Phoenixville	Pa
Nytronics Inc, Berkeley Heights	N J
Pacific Instrument Co, Oakland	cal
Pacific Magnetic Corp, Romoland	Cal
PCA Electronics Inc, Sepulveda	Cal
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Phoenix Transformer Co, Phoenix	Ariz
Polyphase Instrument Co, Bridgeport	Pa
Precision Coil Mfg Co, Santa Monica	Cal
Precision Electronics Co, Marshfield	Mass
Profile Electronics Inc, Concord	N H
Prototype Transformer Corp, East Orange	NJ
Pulse Engineering Inc, Santa Clara	Cal
Qutronic Transformer Corp, Oneonta	N Y
Radio Engineering Labs, Div DCA, Long Island City	N Y
Re-Al Electronics Co, Waterbury	Conn
Robinson Electronic Components, Temple City	Cal
Sartron Inc, Newberg	Ore
Schott Co Inc, Oscar A, Minneapolis	Minn
Scott Electronics Corp, Orlando	Fla
Signal Transformer Co Inc, Brooklyn	N Y
S K G Associates Inc, Boston	Mass
Smallwood Ltd, S G, Kitchener	Ont
Solid State Electronics Corp, Sepulveda	Cal
Sprague Electric Co, North Adams	Mass
Staco Inc Std Elec Prods Co Div, Dayton	Ohio
Stancor Controls Div Essex Wire Corp, Chicago	Ill
Sterling Transformer Corp, Brooklyn	N Y
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Technitrol Inc, Philadelphia	Pa
Thordarson Meissner Inc, Mt Carmel	Ill
Tilton Electronics Corp, Winnisquam	N H
Toroid-Trans Electronics Co Inc, Danbury	Conn
Torotel, Inc, Grandview	Mo
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
Torwico Electronics, Inc, Lakewood	N J
Tranex Inc, Mountain View	Cal
Transformer Engineers, San Gabriel	Cal
Transformer Manufacturers Inc, Chicago	Ill
Transformers Inc, Vestal	N Y
Transformer Technicians Inc, Chicago	Ill
Tresco Inc, Philadelphia	Pa
Triad Distributor Div Litton Industries, Huntington	Ind
Triad Transformer Corp, Venice	Cal
Triwec Transformer Co, Chicago	Ill
United Transformer Co Div TRW Inc, New York	N Y
Universal Precision, Inc, Endicott	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Utrad Corp, Huntington	Ind
Valor Electronics Inc, Gardena	Cal
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Wescoil Co Inc, Tinley Park	Ill
Whitewater Electronics Inc, Whitewater	Wis
Woodward-Schumacher Electric Corp, Chicago	Ill
Workman Electronic Products Inc, Sarasota	Fla



ONE OF THE LARGEST PRODUCERS OF PULSE TRANSFORMERS IN THE WORLD

TOP PRODUCTION FACILITIES—During 1966, Contemporary Electronics produced 200,000 pulse transformers per month in two modern climate controlled plants. Write for Data Sheet #201 for the Contemporary facilities-capabilities story.

WIDE SELECTION OF PACKAGE STYLES—Contemporary has its own plastic moulding facilities for the production of pulse transformer packages. Currently tooling is available for 19 popular case styles. Write for Data Sheet #202 for complete information on available packages.

WIDE SELECTION OF STANDARD TYPES—219 Standard pulse transformer types in 13 popular packages covering a wide range of needs. Write for Data Sheet #203 for a listing of available types.

ENGINEERING ASSISTANCE AVAILABLE—Contemporary Electronics' applications engineering is available to help you with your pulse transformer selection and specification problems. Write for the following useful application notes:

AN602 Pulse Transformer Parameters—Their definition, measurement, specification
AN603 Specifying Interstage Pulse Transformers
AN604 Specifying Memory Core Drive Pulse Transformers
AN605 Specifying Common Mode Chokes

CONTEMPORARY ELECTRONICS PRODUCES OVER 300 CUSTOM PULSE TRANSFORMERS

Call us for a custom design. Fast service.

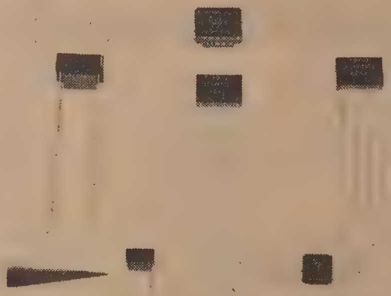
PRODUCTION FACILITIES IN MINNESOTA AND PUERTO RICO. SALES REPRESENTATIVES IN MAJOR U. S. CITIES, CANADA AND EUROPE.

CONTEMPORARY ELECTRONICS
EXTRA SERVICE TO THE DATA PROCESSING INDUSTRY
4838 W. 35th St., Minneapolis, Minn. 55416
Telephone 612/920/6444

TRANSFORMERS--PULSE

AMP INCORPORATED, HARRISBURG	**PA**	
AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**	
AXEL ELECTRONICS, INC, JAMAICA, N Y		
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE	**N Y**	
CADDELL BURNS MFG CO INC, MINEOLA	**N Y**	**ADV PGS 162,163**
CONTEMPORARY ELECTRONICS INC, MINNEAPOLIS	**MINN**	**ADV PG 740**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**	
GENERAL ELECTRIC CO, ECSO, SCHENECTADY	**N Y**	**ADV PGS 7**
HISONIC INC, OLATHE	**KAN**	
KAPPA NETWORKS INC, CARTERET	**N J**	
K G S ELECTRONICS INC, PASADENA	**CAL**	
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**	
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM	**CAL**	
TECHNITROL INC, PHILADELPHIA, PA		**ADV PG 740**
TOHOKU METAL INDUSTRIES, LTD, TOKYO	**JAPAN**	
TOROTEL, INC, GRANDVIEW	**MO**	
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**	**ADV PG 740**

Ace Coil & Electronics Co, Metuchen	N J
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Aladdin Electronics Div Aladdin Industries, Inc Nashville	Tenn
American Trans-Coil Corp, Richmond Hill	NY
AMP Incorporated, Harrisburg	Pa
AMP Inc, Capitron Div, Elizabethtown	Pa
Andover Corp, Lafayette	Ind
Artronic Instrument Co, Silver Spring	Md
Artted Co, Inc, Springfield	Mass
Atlas Coil Corp, Ansonia	Conn
Ault, Inc, Minneapolis	Minn
Automatic Coil Co Div Designatronics, Inc Mineola	N Y
Axel Electronics, Inc, Jamaica	N Y
Ballastran Corp, Fort Wayne	Ind
Barwood Electronics, Inc, Glendale	Cal
Better Coil & Transformer Corp, Goodland	Ind
Bicron Electronics Co, Canaan	Conn
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Caddell Burns Mfg Co Inc, Mineola	N Y
Caledonia Electronics & Transformer Div Caledonia	N Y
Canadian Marconi Co, Montreal 16	Quebec
Carol Electronics Div Weeco Inc, Martinsburg	W Va
CBC Industries Inc, Philadelphia	Pa
Central Transformer Co, Chicago	Ill
Chu Associates Inc, Littleton	Mass
Coast Coil Co Atlantic Research Corp, Los Angeles	Cal
Coil Co of America Inc, Northvale	N J
Coilcraft Inc, Cary	Ill
Coiltronics Inc, Buena Park	Cal
Component Specialties Corp, Temple City	Cal
Contemporary Electronics Inc, Minneapolis	Minn
Cortran Mfg Co, Washington	Mo
Cycle Transformer Corp, West Orange	N J
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Data Delay Devices, Clifton	N J
Daytron Inc, Mountain View	Cal
DB Products Inc, Pasadena	Cal
Del Electronics Corp, Mt Vernon	N Y
Delevan Electronics Div Amer Prec Indus Inc East Aurora	N Y
Dietz Design Inc, Belton	Mo
Dinion Coil Co Inc, Caledonia	N Y
Dresser Systems, Inc, Houston	Tex
Dynamic Components Corp, Hornell	N Y
E G & G Inc Custom Equip Div, Bedford	Mass
E G & G Inc, Electronic Prods Div, Boston	Mass
E G & G Inc, Systems Devel Div, Bedford	Mass
E-H Research Labs Inc, Oakland	Cal
Electro Networks Inc, Caledonia	N Y
Electronic Corp of America, Los Angeles	Cal
Electronic Transformer Corp, Paterson	N J
Electro Winders Co Inc, Covina	Cal
Elnetic Electronics Inc, Venice	Cal
El-Rad Mfg Co, Chicago	Ill
EMP Electronics Inc, Tempe	Ariz
Energy Systems Inc, Palo Alto	Cal
Epco Products Inc, Wallkill	N Y
Ferranti, Ltd, Lancashire	England
Ferritronics Ltd, Richmond Hill	Ont
Field Electronics Inc, Chatham	N J
Fisher Engineering Inc, Huntington	Ind
Foster Transformer Co, Cincinnati	Ohio
Freed Transformer Co Inc, Brooklyn	N Y
Fugle-Miller Labs Inc, Kenilworth	N J
General Electric Co, ECSO, Schenectady	N Y
General Instrument Corp F W Sickles Div Chicopee	Mass
Gladding Corp, South Otselic	N Y
Goslin Corp, Burbank	Cal
Grand Transformers Inc, Grand Haven	Mich
Gudeman Div Gulton Industries, Inc, Chicago	Ill
Gulton Industries Inc, Metuchen	N J
Hammond Mfg Co Ltd, Guelph, Ont	Can
Hill Magnetics, Inc, Redwood City	Cal
Hirst Electric Industries Ltd, Crawley, Sussex	England
Hisonic Inc, Olathe	Kan
Inductor Engineering Inc, Lewes	Del
Industrial Transformer Corp, Gouldsboro	Pa
James Electronics Inc, Chicago	Ill
JB Electronic Transformers Inc, Chicago	Ill
Johnson Electric Coil Co, Elmhurst	Ill



pulse transformers

Technitrol
1952 E. Allegheny Ave. Phila., Pa. 19134
(215) 426-9105

UTC PIONEERS IN MINIATURIZATION

PULSE TRANSFORMERS

METAL ENCASED
MOLDED
ENCAPSULATED

- MIL-T-21038B & industrial
- Immediate delivery from stock
- Specials made to specs.
- Microwatts to 10 megawatts

Over 1300 top quality ironcore inductance devices available from stock.

UNITED TRANSFORMER COMPANY
DIVISION OF TRW INC.
150 Varick Street, New York, N. Y. 10013
TWX: 710-581-2722 / (212) AL 5-3500
For nearest Rep see UTC ad, page 727

Kapitol Magnetic Corp, Chicago	Ill
Kappa Networks Inc, Carteret	N J
K G S Electronics Inc, Pasadena	Cal
Kidde & Co Inc, Walter, Belleville	N J
Lad Electronics Corp, Hicksville	N Y
Lake Engineering Co Ltd, Scarborough	Ont
Larago Electronics Mfgrs Inc, Melbourne	Fla
LCC-CICE, 93 Montreuil-sous-Bois	France
LFE Electronics Div, Lab for Electronics Inc Waltham	Mass
Lowrance Electronic Mfg Corp, Tulsa	Okla
Magnetic Circuit Elements Inc, Montrose	Cal
Magnetic Devices Inc, Lemon Grove	Cal
Magnetic Engineering Corp, Danbury	Conn
Magnetika Inc, Venice	Cal
Merit Coil & Transformer Corp, Hollywood	Fla
Meteor Transformer Mfg Co, Detroit	Mich
Microdot Magnetics Inc, Los Angeles	Cal
Micromagnetics Div Gulton Ind, Visalia	Cal
Microtran Co Inc, Valley Stream	N Y
Mid-West Coil & Transformer Co, Chicago	Ill
Mode Electronics Inc, Cincinnati	Ohio
Montedoro Corp, San Luis Obispo	Cal
Morey Corp, Downers Grove	Ill
Neshaminy Electronic Corp, Furlong	Pa
New England Transformer Co Inc, Newton	Mass
New York Coil Co Inc, Phoenixville	Pa
Nihon Kohden Kogyo Co Ltd, Tokyo	Japan
North Hills Electronics Inc, Glen Cove	N Y
Nytronics Inc, Berkeley Heights	N J
Pacific Instrument Co, Oakland	cal
Pacific Magnetic Corp, Romoland	Cal
PCA Electronics Inc, Sepulveda	Cal
Pearson Electronics Inc, Palo Alto	Cal
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polyphase Instrument Co, Bridgeport	Pa
Precision Coil Mfg Co, Santa Monica	Cal
Precision Transformers Inc, Anaheim	Cal
Preferred Electronics Inc, Westfield	Mass
Profile Electronics Inc, Concord	N H
Prototype Transformer Corp, East Orange	NJ
Pulse Engineering Inc, Santa Clara	Cal
Qutronic Transformer Corp, Oneonta	N Y
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Re-Al Electronics Co, Waterbury	Conn
Redman Electronics Corp, Thompsonville	Conn
Sartron Inc, Newberg	Ore
Schott Co Inc, Oscar A, Minneapolis	Minn
Scott Electronics Corp, Orlando	Fla
Seed Electronics Corp, Lexington	Mass
Siemens America Inc, New York	N Y
S K G Associates Inc, Boston	Mass
Sola-Basic Industries, Milwaukee	Wis
Spatron Inc, Alhambra	Cal
Sprague Electric Co, North Adams	Mass
Standard Industries, Buena Park	Cal
Sterling Transformer Corp, Brooklyn	N Y
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
TDK Electronics Co Ltd, Chiyoda-ku, Tokyo	Japan
Technitrol Inc, Philadelphia	Pa
Thiem-Transrex Inc, El Segundo	Cal
Thordarson Meissner Inc, Mt Carmel	Ill
Tilton Electronics Corp, Winnisquam	N H
Tohoku Metal Industries, Ltd, Tokyo	Japan
Toroidal Components Co, Pasadena	Cal
Toroid-Trans Electronics Co Inc, Danbury	Conn
Torotel, Inc, Grandview	Mo
Torotron Co Div Struthers Electronics Corp, Mamaroneck	N Y
Transformer Engineers, San Gabriel	Cal
Transformers Inc, Vestal	N Y
Transformer Technicians Inc, Chicago	Ill
Tresco Inc, Philadelphia	Pa
Triad Distributor Div Litton Industries, Huntington	Ind
Triad Transformer Corp, Venice	Cal
United Transformer Co Div TRW Inc, New York	N Y
Universal Precision, Inc, Endicott	N Y
Utrad Corp, Huntington	Ind
Valor Electronics Inc, Gardena	Cal
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Virginia Electronics Co Inc, Falls Church	Va
Westinghouse Electric Corp, Spec Transf Div Greenville	Pa
Wintron Co Inc, S El Monte	Cal
Workman Electronic Products Inc, Sarasota	Fla

TRANSFORMERS--R-F

ALLEN AVIONICS INC,DIV A K ALLEN CO INC, MINEOLA	**N Y**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE	**N Y**
CADDELL BURNS MFG CO INC, MINEOLA N Y	ADV PGS 162,163
DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
KAPPA NETWORKS INC, CARTERET	**N J**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
SPELLMAN HIGH VOLTAGE ELECTRONICS CORP, BRONX	**N Y**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
TOROTEL, INC, GRANDVIEW	**MO**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
VARI-L CO INC, STAMFORD	**CONN**
Ace Coil & Electronics Co, Metuchen	N J
AC Electronics Co, Los Angeles	Cal
ADC Products, Minneapolis	Minn
Aladdin Electronics Div Aladdin Industries, Inc Nashville	Tenn
Allen Avionics Inc,Div A K Allen Co Inc, Mineola	N Y
American Trans-Coil Corp, Richmond Hill	NY
Amk Electronics Co Inc, Edison	N J
Andrew California Corp, Claremont	Cal
Anzac Electronics, Waltham	Mass
Artted Co, Inc, Springfield	Mass
Astrolab Inc, Linden	N J
Atlas Coil Corp, Ansonia	Conn
Automatic Coil Co Div Designatronics, Inc Mineola	N Y
Automation Services Inc, Endicott	N Y
Avco Corp Electronics Div, Cincinnati	Ohio
Beebe Electronics Co, White Plains	N Y
Bicron Electronics Co, Canaan	Conn
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Caddell Burns Mfg Co Inc, Mineola	N Y
Cambridge Thermionic Corp, Cambridge	Mass
Canadian Marconi Co, Montreal 16	Quebec
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Chu Associates Inc, Littleton	Mass
Clavier Corp, Richmond Hill	NY
Coilcraft Inc, Cary	Ill
Coiltronics Inc, Buena Park	Cal
Component Specialties Corp, Temple City	Cal
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Delevan Electronics Div Amer Prec Indus Inc East Aurora	N Y
Delta Coils, Philadelphia	Pa
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electronic Coil Co, Burbank	Cal
Electro Winders Co Inc, Covina	Cal
El-Rad Mfg Co, Chicago	Ill
Ferritronics Ltd, Richmond Hill	Ont
Fisher Engineering Inc, Huntington	Ind
Fugle-Miller Labs Inc, Kenilworth	N J
General Coil Products Corp, Brooklyn	N Y
General Instrument Corp Automatic Mfg Div Newark	N J
General Instrument Corp F W Sickles Div Chicopee	Mass
Hill Magnetics, Inc, Redwood City	Cal
Inductor Engineering Inc, Lewes	Del
Industron Corp, Needham Heights	Mass
James Electronics Inc, Chicago	Ill
Kappa Networks Inc, Carteret	N J
Lake Engineering Co Ltd, Scarborough	Ont
Laselco Pacific, Palo Alto	Cal
LCC-CICE, 93 Montreuil-sous-Bois	France
Lowrance Electronic Mfg Corp, Tulsa	Okla
LTV-Electrosystems Inc Memcor Div, Huntington	Ind
Magnetic Devices Inc, Lemon Grove	Cal
Magnetika Inc, Venice	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McGregor Electronic Industries Inc, McGregor	Iowa
Merit Coil & Transformer Corp, Hollywood	Fla
Merrimac Research & Development Inc West Caldwell,	N J
Meteor Transformer Mfg Co, Detroit	Mich
Microdot Magnetics Inc, Los Angeles	Cal
Micromagnetics Div Gulton Ind, Visalia	Cal
Miller Co, J W, Los Angeles	Cal
Mitsumi Electric Co Ltd, Tokyo	Japan
Montedoro Corp, San Luis Obispo	Cal
Morey Corp, Downers Grove	Ill
National Coil Co Inc, Sheridan	Wyo
New England Transformer Co Inc, Newton	Mass
North Hills Electronics Inc, Glen Cove	N Y
Nytronics Inc, Berkeley Heights	N J
Orega Electronique & Mecanique Vincennes, Seine	France
PCA Electronics Inc, Sepulveda	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Piconics Inc, North Billerica	Mass
Precision Coil Mfg Co, Santa Monica	Cal
Preferred Electronics Inc, Westfield	Mass
Pulse Engineering Inc, Santa Clara	Cal
Radio Research Co, Rockaway	NJ
Rantec Div Emerson Electric Co, Calabasas	Cal
Ratel Inc, Goleta	Cal
Redman Electronics Corp, Thompsonville	Conn
Relcom, Mountain View	Cal
Renco Electronics Inc, Hicksville	N Y
Sartron Inc, Newberg	Ore
Smallwood Ltd, S G, Kitchener	Ont
Spellman High Voltage Electronics Corp, Bronx	N Y
Spencer-Kennedy Labs Inc, Boston	Mass
Standard Industries, Buena Park	Cal
Standard Winding Co Div Ovitron Corp, Newburgh	N Y
Stanwyck Winding Co, Newburgh	N Y
Taylor-Winfield Corp, Warren	Ohio
Tele Coil Co Inc, Camden	N J
Thordarson Meissner Inc, Mt Carmel	Ill
Tilton Electronics Corp, Winnisquam	N H
Torotel, Inc, Grandview	Mo
Transformer Design Inc of Milwaukee, Milwaukee	Wis
United Transformer Co Div TRW Inc, New York	N Y
Universal Precision, Inc, Endicott	N Y
Vanguard Electronics Co, Inglewood	Cal
Vari-L Co Inc, Stamford	Conn
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Vega Precision Labs, Vienna	Va
Vikoa Inc, Hoboken	N J
Virginia Electronics Co Inc, Falls Church	Va
Warsaw Coil Co, Warsaw	Ind
Wells Electronics Inc, Components Div, South Bend	Ind
Whitewater Electronics Inc, Whitewater	Wis
Wiltek, Inc, Wilton	Conn
Workman Electronic Products Inc, Sarasota	Fla
Y T & T Corp, Roslyn Heights	NY

TRANSFORMERS--R-F ANTENNA MATCHING

BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE	**N Y**
CADDELL BURNS MFG CO INC, MINEOLA N Y	ADV PGS 162,163
DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
KAPPA NETWORKS INC, CARTERET	**N J**
K G S ELECTRONICS INC, PASADENA	**CAL**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
TOROTEL, INC, GRANDVIEW	**MO**
VARI-L CO INC, STAMFORD	**CONN**
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Ace Coil & Electronics Co, Metuchen	N J
AC Electronics Co, Los Angeles	Cal
Aerocom, Miami	Fla
ALA Industries Inc, Harrison	NY
American Trans-Coil Corp, Richmond Hill	NY
Amk Electronics Co Inc, Edison	N J
Andrew California Corp, Claremont	Cal
Antennacraft Co Inc, Burlington	Iowa
Antenna Products Co Div All Products Co Mineral Wells	Tex
Anzac Electronics, Waltham	Mass
Artted Co, Inc, Springfield	Mass
Astrolab Inc, Linden	N J
Atlas Coil Corp, Ansonia	Conn
Automatic Coil Co Div Designatronics, Inc Mineola	N Y
Avco Corp Electronics Div, Cincinnati	Ohio
Blonder-Tongue Labs Inc, Newark	N J
Brown & Wiley Inc, Langhorne	Pa
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Caddell Burns Mfg Co Inc, Mineola	N Y
Cambridge Thermionic Corp, Cambridge	Mass
Canadian Marconi Co, Montreal 16	Quebec
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Chu Associates Inc, Littleton	Mass
Coiltronics Inc, Buena Park	Cal
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Denki Kogyo Co Ltd, Tokyo	Japan
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electronic Coil Co, Burbank	Cal
Electro Winders Co Inc, Covina	Cal
Finney Co, Bedford	Ohio
Fisher Engineering Inc, Huntington	Ind
Fugle-Miller Labs Inc, Kenilworth	N J
General Coil Products Corp, Brooklyn	N Y
General Instrument Corp Automatic Mfg Div Newark	N J
Granger Associates, Palo Alto	Cal
Inductor Engineering Inc, Lewes	Del
Kappa Networks Inc, Carteret	N J
K G S Electronics Inc, Pasadena	Cal
Lake Engineering Co Ltd, Scarborough	Ont
Larago Electronics Mfgrs Inc, Melbourne	Fla
LCC-CICE, 93 Montreuil-sous-Bois	France
McGregor Electronic Industries Inc, McGregor	Iowa
Merit Coil & Transformer Corp, Hollywood	Fla
Miller Co, J W, Los Angeles	Cal
Montedoro Corp, San Luis Obispo	Cal
Morey Corp, Downers Grove	Ill
Mutron Corp, Brockton	Mass
National Coil Co Inc, Sheridan	Wyo
New England Transformer Co Inc, Newton	Mass
Nippon Ferrite Industrial Co Ltd, Tokyo	Japan
North Hills Electronics Inc, Glen Cove	N Y
Novatronics Inc, Pompano Beach	Fla
Panther Electronics Inc, Burbank	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Precision Coil Mfg Co, Santa Monica	Cal
Racal Communications Inc, Silver Spring	Md
Radio Research Co, Rockaway	NJ
Rantec Div Emerson Electric Co, Calabasas	Cal
Renco Electronics Inc, Hicksville	N Y
Sartron Inc, Newberg	Ore
Sedco Systems Inc, Farmingdale	N Y
Siemens America Inc, New York	N Y
Smallwood Ltd, S G, Kitchener	Ont
Spencer-Kennedy Labs Inc, Boston	Mass
Stancor Controls Div Essex Wire Corp, Chicago	Ill
Standard Industries, Buena Park	Cal
Tele Coil Co Inc, Camden	N J
Thordarson Meissner Inc, Mt Carmel	Ill
Torotel, Inc, Grandview	Mo
Trylon Inc, Elverson	Pa
Universal Precision, Inc, Endicott	N Y
Vanguard Electronics Co, Inglewood	Cal
Vari-L Co Inc, Stamford	Conn
Varo Inc, Garland	Tex
Vega Precision Labs, Vienna	Va
Vikoa Inc, Hoboken	N J
Virginia Electronics Co Inc, Falls Church	Va
Weinschel Engineering Co Inc, Gaithersburg	Md
Wiltek, Inc, Wilton	Conn
Workman Electronic Products Inc, Sarasota	Fla

TRANSFORMERS--SPECIAL, FOIL WOUND

DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
K G S ELECTRONICS INC, PASADENA	**CAL**
NOTHELFER WINDING LABS INC, TRENTON, N J	ADV PG 743
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM	**CAL**
TOROTEL, INC, GRANDVIEW	**MO**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
Acme Electric Corp, Cuba	N Y
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Applied Electro Mechanics Inc, Alexandria	Va
Atlas Coil Corp, Ansonia	Conn
Ballastran Corp, Fort Wayne	Ind
Basler Electric Co, Highland	Ill
Brown Engineering-A Teledyne Co, Huntsville	Ala
CBC Industries Inc, Philadelphia	Pa
Central Transformer Co, Chicago	Ill
Chu Associates Inc, Littleton	Mass
Coil Co of America Inc, Northvale	N J
Coiltronics Inc, Buena Park	Cal

Cortran Mfg Co, Washington	Mo
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Daylen Co, South Gate	Cal
Daytron Inc, Mountain View	Cal
Dresser Systems, Inc, Houston	Tex
Dynamic Components Corp, Hornell	N Y
Electran Mfg Co, Chicago	Ill
Electronic Corp of America, Los Angeles	Cal
Electronic Transformer Corp, Paterson	N J
Electro Winders Co Inc, Covina	Cal
Ferranti, Ltd, Lancashire	England
Field Electronics Inc, Chatham	N J
Fisher Engineering Inc, Huntington	Ind
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Foster Transformer Co, Cincinnati	Ohio
Genisco Technology Corp, Compton	Cal
Gladding Corp, South Otselic	N Y
Hammond Mfg Co Ltd, Guelph, Ont	Can
Hill Magnetics, Inc, Redwood City	Cal
JB Electronic Transformers Inc, Chicago	Ill
Jefferson Electric Co, Bellwood	Ill
Johnson Electric Coil Co, Elmhurst	Ill
Kapitol Magnetic Corp, Chicago	Ill
Karkar Electronics Inc, San Francisco	Cal
K G S Electronics Inc, Pasadena	Cal
Larago Electronics Mfgrs Inc, Melbourne	Fla
Magnetic Engineering Corp, Danbury	Conn
Microdot Magnetics Inc, Los Angeles	Cal
Mid-Eastern Industries Inc, Springfield	N J
Morey Corp, Downers Grove	Ill
New England Transformer Co Inc, Newton	Mass
Nothelfer Winding Labs Inc, Trenton	N J
Osborne Electric Co, Ltd, Toronto 18	Ont
Pacific Instrument Co, Oakland	cal
PCA Electronics Inc, Sepulveda	Cal
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Permaluster Inc, Burbank	Cal
Polyphase Instrument Co, Bridgeport	Pa
Porter Co Inc, H K Electrical Div, Pittsburgh	Pa
Precision Electronics Co, Marshfield	Mass
Prototype Transformer Corp, East Orange	NJ
Radio Engineering Labs, Div DCA, Long Island City	N Y
Schauer Mfg Corp, Cincinnati	Ohio
Scott Electronics Corp, Orlando	Fla
Signal Transformer Co Inc, Brooklyn	N Y
S K G Associates Inc, Boston	Mass
Skyway Magnetics, Inglewood	Cal
Sola-Basic Industries, Milwaukee	Wis
Sterling Transformer Corp, Brooklyn	N Y
Tech-Ohm Electronics Inc, Long Island City	N Y
Thordarson Meissner Inc, Mt Carmel	Ill
Tilton Electronics Corp, Winnisquam	N H
Topaz Inc, San Diego	Cal
Torotel, Inc, Grandview	Mo
Tranex Inc, Mountain View	Cal
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Technicians Inc, Chicago	Ill
Tresco Inc, Philadelphia	Pa
United Transformer Co Div TRW Inc, New York	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Utrad Corp, Huntington	Ind
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Ward Leonard Electric Co, Mount Vernon	N Y
Washington Electrical Products Co, Washington	Mo
Westinghouse Electric Corp Distribution Transformer Div Sharon	Pa
Westinghouse Electric Corp, Spec Transf Div Greenville	Pa

TRANSFORMERS--SPECIAL, INSTRUMENT

ALLEN AVIONICS INC,DIV A K ALLEN CO INC, MINEOLA	**N Y**
ASSOCIATED RESEARCH, INC, CHICAGO	**ILL**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE	**N Y**
CADDELL BURNS MFG CO INC, MINEOLA N Y	**ADV PGS 162,163**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
INTERELECTRONICS CORP, CONGERS	**N Y**
KAPPA NETWORKS INC, CARTERET	**N J**
K G S ELECTRONICS INC, PASADENA	**CAL**
NOTHELFER WINDING LABS INC, TRENTON, N J	**ADV PG 743**
PARKER INSTRUMENT CORP, STAMFORD	**CONN**
STEVENS-ARNOLD INC, SOUTH BOSTON, MASS	**ADV PG 144**
TOROTEL, INC, GRANDVIEW	**MO**
TORWICO ELECTRONICS, INC, LAKEWOOD	**N J**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
ADC Products, Minneapolis	Minn
Allen Avionics Inc,Div A K Allen Co Inc, Mineola	N Y
Arnold Magnetics Corp, Los Angeles	Cal
Associated Research, Inc, Chicago	Ill
Astrosystems Inc, New Hyde Park	N Y
Atlas Coil Corp, Ansonia	Conn
Barwood Electronics, Inc, Glendale	Cal
Basler Electric Co, Highland	Ill
B & B Magnetics Co, La Habra	Cal
Berkshire Transformer Corp, Kent	Conn
Bicron Electronics Co, Canaan	Conn
Blonder-Tongue Labs Inc, Newark	N J
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Caddell Burns Mfg Co Inc, Mineola	N Y
Canadian Marconi Co, Montreal 16	Quebec
Canadian Research Institute, Don Mills	Ont
Carol Electronics Div Weeco Inc, Martinsburg	W Va
CBC Industries Inc, Philadelphia	Pa
Central Transformer Co, Chicago	Ill
Chu Associates Inc, Littleton	Mass
Coast Coil Co Atlantic Research Corp, Los Angeles	Cal
Coil Co of America Inc, Northvale	N J
Coiltronics Inc, Buena Park	Cal
Component Specialties Corp, Temple City	Cal
Custom Coil Co, Zanesville	Ohio
Cycle Transformer Corp, West Orange	N J
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Daytron Inc, Mountain View	Cal
DB Products Inc, Pasadena	Cal
Del Electronics Corp, Mt Vernon	N Y
Divac Electronics, Hawthorne	Cal
Dranetz Engineering Labs Inc, Plainfield	N J
Dresser Systems, Inc, Houston	Tex
Dynamic Components Corp, Hornell	N Y
Eagle Electric Mfg Co Inc, Long Island City	N Y
Electran Mfg Co, Chicago	Ill
Electrical Windings Inc, Chicago	Ill
Electronic Design Labs Inc, Philadelphia	Pa
Electronic Devices Inc, North Ridgeville	Ohio
Electronic Transformer Corp, Paterson	N J
Electro Scientific Industries Inc, Portland	Ore
Electro Windings & Components Inc, Kenilworth	N J
Elnetic Electronics Inc, Venice	Cal
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Ferranti, Ltd, Lancashire	England
Field Electronics Inc, Chatham	N J
Fisher Engineering Inc, Huntington	Ind
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Forbes & Wagner Inc, Silver Creek	N Y
Foster Transformer Co, Cincinnati	Ohio
Freed Transformer Co Inc, Brooklyn	N Y
Fugle-Miller Labs Inc, Kenilworth	N J
General Electric Co, ECSO, Schenectady	N Y
Geo Space Corp, Houston	Tex
Gladding Corp, South Otselic	N Y
Goslin Corp, Burbank	Cal
Grand Transformers Inc, Grand Haven	Mich
Hadley Co Inc, Robert M, Los Angeles	Cal
Hallmark Standards Inc, Mamaroneck	N Y
Hammond Mfg Co Ltd, Guelph, Ont	Can
Hevi-Duty Electric Div Sola Basic Industries Goldsboro	N C
Heyboer Transformers, Grand Haven	Mich
Hill Magnetics, Inc, Redwood City	Cal
Inductor Engineering Inc, Lewes	Del
Industrial Transformer Corp, Gouldsboro	Pa
Instrument & Accessories Co Inc, Sayville	N Y
Instruments Inc, San Diego	Cal
Interelectronics Corp, Congers	N Y
James Electronics Inc, Chicago	Ill
Johnson Electric Coil Co, Elmhurst	Ill
Kapitol Magnetic Corp, Chicago	Ill
Kappa Networks Inc, Carteret	N J
Karkar Electronics Inc, San Francisco	Cal
Kessler Co, Inc, Frank, Long Island City	N Y
K G S Electronics Inc, Pasadena	Cal
Kidde & Co Inc, Walter, Belleville	N J
Knopp Inc, Oakland	Cal
Laselco Pacific, Palo Alto	Cal
Magnetic Devices Inc, Lemon Grove	Cal
Magnetic Engineering Corp, Danbury	Conn
Magnetico Inc, East Northport	N Y
Magnetic Specialties Inc, Trenton	N J
Magnetika Inc, Venice	Cal
Merit Coil & Transformer Corp, Hollywood	Fla
Merrimack Magnetics Corp, Lowell	Mass
Microdot, Inc, South Pasadena	Cal
Microdot Magnetics Inc, Los Angeles	Cal
Micromagnetics Div Gulton Ind, Visalia	Cal
Microtran Co Inc, Valley Stream	N Y
Mid-Eastern Industries Inc, Springfield	N J
Mid-West Coil & Transformer Co, Chicago	Ill
Midwest Electric Products Inc, Mankato	Minn
Mil Associates Inc, Hudson	NH
Mode Electronics Inc, Cincinnati	Ohio
Morey Corp, Downers Grove	Ill
National Coil Co Inc, Sheridan	Wyo
New England Transformer Co Inc, Newton	Mass
New York Coil Co Inc, Phoenixville	Pa
Nothelfer Winding Labs Inc, Trenton	N J
Novatronics Inc, Pompano Beach	Fla
Optimation, Inc, Sun Valley	Cal
Osborne Electric Co, Ltd, Toronto 18	Ont
Pacific Instrument Co, Oakland	cal
Pacific Magnetic Corp, Romoland	Cal
Parker Instrument Corp, Stamford	Conn
PCA Electronics Inc, Sepulveda	Cal
Pearson Electronics Inc, Palo Alto	Cal
Permoflux Corp, Glendale	Cal
Phoenix Transformer Co, Phoenix	Ariz
Polyphase Instrument Co, Bridgeport	Pa
Precision Coil Mfg Co, Santa Monica	Cal
Precision Electronics Co, Marshfield	Mass
Precision Electronics Inc, Amityville	N Y
Precision Inc, Minneapolis	Minn
Profile Electronics Inc, Concord	N H
Prototype Transformer Corp, East Orange	NJ
Pulse Engineering Inc, Santa Clara	Cal
Robinson Electronic Components, Temple City	Cal
Sartron Inc, Newberg	Ore
Schott Co Inc, Oscar A, Minneapolis	Minn
Scott Electronics Corp, Orlando	Fla
Singer Co, Metrics Div, Bridgeport	Conn
Singer Co, Metrics Div, Gertsch Dept, Los Angeles	Cal
Sola-Basic Industries, Milwaukee	Wis
Spatron Inc, Alhambra	Cal
Staco Inc Std Elec Prods Co Div, Dayton	Ohio
Stancor Controls Div Essex Wire Corp, Chicago	Ill
Standard Industries, Buena Park	Cal
Standard Winding Co Div Ovitron Corp, Newburgh	N Y
Sterling Transformer Corp, Brooklyn	N Y
Stevens-Arnold Inc, South Boston	Mass
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Tele Coil Co Inc, Camden	N J
Thordarson Meissner Inc, Mt Carmel	Ill
Tilton Electronics Corp, Winnisquam	N H
Topaz Inc, San Diego	Cal
Torotel, Inc, Grandview	Mo
Torwico Electronics, Inc, Lakewood	N J
Tranex Inc, Mountain View	Cal
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Engineers, San Gabriel	Cal
Transformer Manufacturers Inc, Chicago	Ill
Transformers Inc, Vestal	N Y
Transformer Technicians Inc, Chicago	Ill
Trenton Transformer Corp, Rancocas	N J
Tresco Inc, Philadelphia	Pa
Triad Distributor Div Litton Industries, Huntington	Ind
Triad Transformer Corp, Venice	Cal
United Transformer Co Div TRW Inc, New York	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Utrad Corp, Huntington	Ind
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Ward Leonard Electric Co, Mount Vernon	N Y
Washington Electrical Products Co, Washington	Mo
Westinghouse Electric Corp Distribution Transformer Div Sharon	Pa
Westinghouse Electric Corp, Spec Transf Div Greenville	Pa
Weston Instruments Div Weston Instr Inc, Newark	N J

TRANSFORMERS--SPECIAL, PRECISION MATCHED

ALLEN AVIONICS INC,DIV A K ALLEN CO INC, MINEOLA	**N Y**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE, N Y	**ADV PG 742**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
K G S ELECTRONICS INC, PASADENA	**CAL**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW	**N Y**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
NOTHELFER WINDING LABS INC, TRENTON, N J	**ADV PG 743**
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM	**CAL**
TOROTEL, INC, GRANDVIEW	**MO**
TORWICO ELECTRONICS, INC, LAKEWOOD	**N J**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Allen Avionics Inc,Div A K Allen Co Inc, Mineola	N Y
Astrolab Inc, Linden	N J
Astrosystems Inc, New Hyde Park	N Y
Ballastran Corp, Fort Wayne	Ind
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc

Precision Transformers?

Try Bulova First!

CALL:

Ariz	Tech-Ser Inc, 1805 E Indian School Rd Phoenix	602-265-3629
Cal	Straube Assoc, 483 Willow Rd Menlo Pk	213-323-2476
Cal	W J Carnes & Co, 420 S D St Tustin	213-838-0575
Conn	Samuel C Hooker Inc, Box 369 W Hartford	203-233-8000
Fla	Perrott Assoc, 1607 Forsyth Rd, Orlando	305-275-1132
Fla	Perrott Assoc, Box 6277 West Palm Beach	305-967-1770
Fla	Perrott Assoc, Box 4532, Clearwater	813-531-5513
Ill	J R Sales Engineering 7132 N Harlem Ave, Chicago	312-774-8550
Iowa	J R Sales Engrg, 3350 Cottage Grove Ave SE, Cedar Rapids	319-365-5259
Md	Callas Electronics, 6409 Frederick Ave Baltimore	301-744-7711
Mass	Samuel Hooker, Inc, Box 352 Winchester	617-729-5482
Minn	Wenco Sales Inc, 7728 Morgan Ave S Minneapolis	612-866-3639
Mo	J C Mankus & Assoc, 400 Brooks La Hazelwood	314-PE1-4334
NY	Kahgan Sales Corp, 1261 Broadway New York	212-MU4-7772
NY	H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester	716-232-2688
NY	Comtronic Assoc, 1551 Franklin Ave Mineola	516-PI1-8966
NY	H C Johnson Agencies Inc, Box 86 Brandywine Sta, Schenectady	518-374-5901
NY	H C Johnson Agencies Inc, Box 215 Fayetteville	315-637-9383
NY	H C Johnson Agencies Inc, 8 Los Robles St Williamsville	716-632-7880
Ohio	Augey Natalino Assoc, 209 Harmony Hills Akron	216-666-1447
Pa	C H Newson & Assoc Inc, 627 Bethlehem Pike, Philadelphia	215-248-3377
Tex	Blackburn Assoc., Inc., 137 Walnut Hill Village, Box 20073, Dallas	214-351-9991
Wash	Jas J Backer Co, 221 W Galer St Seattle	206-AT3-6470
Can	Canadian Micro Electronics, Box 6157 Sta J, Ottawa	725-2332

BULOVA WATCH CO INC
FREQUENCY CONTROL PRODUCTS
61-20 WOODSIDE AVE
WOODSIDE, NY 11377

SPECIALISTS IN SPECIAL TRANSFORMERS

POWER & ELECTRONIC

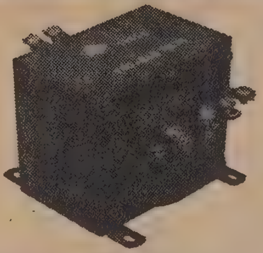
Your one source for all types...designed and manufactured
to your specifications or actual requirements

NWL designs and manufactures transformers:

FURNACE
FILAMENT
HEATING
LIGHTING
PULSE
PLATE
HIGH FREQUENCY
INSTRUMENT
PHASE CHANGING
WELDING
HIGH VOLTAGE
TESTING
HIGH REACTANCE
OUTPUT
also
SATURABLE CORE REACTORS
CHOKES
AC REACTORS
PACKAGED CONTROLS
AIR CORE REACTORS

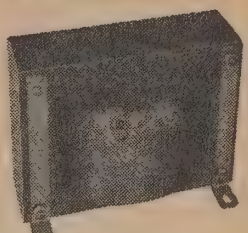
ESTABLISHED 1920

NEMA

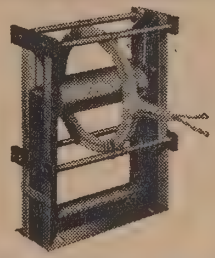


Instrument transformers, current and potential, 1-10,000 amperes, 1-50,000 volts. High accuracy, through type, bus bar, indoor and outdoor.

Plate, audio and modulation transformers in sizes from 50 VA to 100 KVA and up to 100,000 volts.

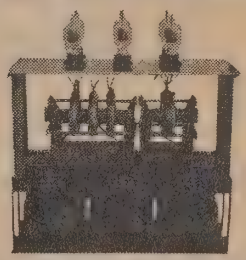


Chokes, linear and swinging. 0.1 millihenry to 10 henry.



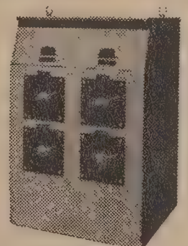
Filament transformers, single and multiple. Up to 100,000 volts, dry and oil types.

Saturable Core Reactors, from 50 VA to 500 KVA. Single and 3 phase.

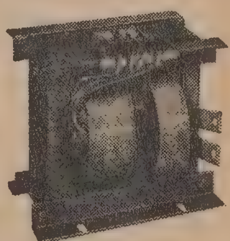


Rectifying transformers and supplies, 1, 2 or 3 phase. 1 to 3,000 amperes; up to 500 KVA.

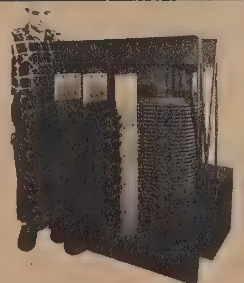
Oil filled specialty and high voltage transformers up to 300 KVA.



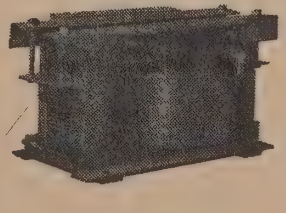
Heating transformers for resistance and induction furnaces. All types. Up to 1200 KVA.



High impedance type transformers, from 50 VA to 50 KVA and up to 10,000 volts.



High power and high current water-cooled transformers.



Reactors, 50 VA to 500 KVA. AC and DC. Linear and swinging.

Solid State SCR Power Controllers.

NWL **NOTHELFER** WINDING LABORATORIES, INC.
• POST OFFICE BOX 455 • TRENTON, NEW JERSEY, 08603 • 609-882-2500 •

"Call us for quotes or specs."

Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Canadian Marconi Co, Montreal 16	Quebec
Carol Electronics Div Weeco Inc, Martinsburg	W Va
CBC Industries Inc, Philadelphia	Pa
Central Transformer Co, Chicago	Ill
Chu Associates Inc, Littleton	Mass
Coil Co of America Inc, Northvale	N J
Coiltronics Inc, Buena Park	Cal
Component Specialties Corp, Temple City	Cal
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Daytron Inc, Mountain View	Cal
Dresser Systems, Inc, Houston	Tex
Dynamic Components Corp, Hornell	N Y
Electronic Components Corp, Addison	Ill
Electronic Devices Inc, North Ridgeville	Ohio
Electronic Transformer Corp, Paterson	N J
Elnetic Electronics Inc, Venice	Cal
Field Electronics Inc, Chatham	N J
Fisher Engineering Inc, Huntington	Ind
Foster Transformer Co, Cincinnati	Ohio
Freed Transformer Co Inc, Brooklyn	N Y
Fugle-Miller Labs Inc, Kenilworth	N J
Fullmer Electronics Inc, Northridge	Cal
Geo Space Corp, Houston	Tex
Gladding Corp, South Otselic	N Y
Goslin Corp, Burbank	Cal
Grand Transformers Inc, Grand Haven	Mich
Hadley Co Inc, Robert M, Los Angeles	Cal
Hammond Mfg Co Ltd, Guelph, Ont	Can
Hill Magnetics, Inc, Redwood City	Cal
Inductor Engineering Inc, Lewes	Del
Industrial Gauging & Control Inc, Norwalk	Conn
Industrial Transformer Corp, Gouldsboro	Pa
James Electronics Inc, Chicago	Ill
JB Electronic Transformers Inc, Chicago	Ill
Kapitol Magnetic Corp, Chicago	Ill
Karkar Electronics Inc, San Francisco	Cal
Kenyon Electronics Inc, Jersey City	N J
Kessler Co, Inc, Frank, Long Island City	N Y
K G S Electronics Inc, Pasadena	Cal
Knopp Inc, Oakland	Cal
Krohn-Hite Corp, Cambridge	Mass
Magnetic Engineering Corp, Danbury	Conn
Magnetico Inc, East Northport	N Y
Magnetika Inc, Venice	Cal
Merit Coil & Transformer Corp, Hollywood	Fla
Microtran Co Inc, Valley Stream	N Y
Mid-West Coil & Transformer Co, Chicago	Ill
Morey Corp, Downers Grove	Ill
Nanosecond Systems Inc, Fairfield	Conn
National Coil Co Inc, Sheridan	Wyo
New England Transformer Co Inc, Newton	Mass
New York Coil Co Inc, Phoenixville	Pa
North Atlantic Industries Inc, Plainview	N Y
North Hills Electronics Inc, Glen Cove	N Y
Nothelfer Winding Labs Inc, Trenton	N J
Novatronics Inc, Pompano Beach	Fla
Osborne Electric Co, Ltd, Toronto 18	Ont
Pacific Instrument Co, Oakland	cal
PCA Electronics Inc, Sepulveda	Cal
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Phoenix Transformer Co, Phoenix	Ariz
Polyphase Instrument Co, Bridgeport	Pa
Precision Coil Mfg Co, Santa Monica	Cal
Precision Electronics Co, Marshfield	Mass
Precision Electronics Inc, Amityville	N Y
Precision Inc, Minneapolis	Minn
Prototype Transformer Corp, East Orange	NJ
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Sartron Inc, Newberg	Ore
Schott Co Inc, Oscar A, Minneapolis	Minn
Scott Electronics Corp, Orlando	Fla
Signal Transformer Co Inc, Brooklyn	N Y
Singer Co, Metrics Div, Bridgeport	Conn
Standard Industries, Buena Park	Cal
Sterling Transformer Corp, Brooklyn	N Y
Tele Coil Co Inc, Camden	N J
Thordarson Meissner Inc, Mt Carmel	Ill
Torotel, Inc, Grandview	Mo
Torwico Electronics, Inc, Lakewood	N J
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Engineers, San Gabriel	Cal
Transformer Manufacturers Inc, Chicago	Ill
Transformers Inc, Vestal	N Y
Transformer Technicians Inc, Chicago	Ill
Tresco Inc, Philadelphia	Pa
Triad Transformer Corp, Venice	Cal
United Transformer Co Div TRW Inc, New York	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Utrad Corp, Huntington	Ind
Varo Inc, Garland	Tex
Varo Inc, Static Power Div, Plano	Tex
Ward Leonard Electric Co, Mount Vernon	N Y

TRANSFORMERS--SPECIAL, PRECISION VOLTAGE DIVIDING

ALLEN AVIONICS INC, DIV A K ALLEN CO INC, MINEOLA	**N Y**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE	**N Y**
CAIG LABS INC, WESTBURY	**N Y**
DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PG 7**
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW	**N Y**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
TOROTEL, INC, GRANDVIEW	**MO**
TORWICO ELECTRONICS, INC, LAKEWOOD	**N J**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Allen Avionics Inc,Div A K Allen Co Inc, Mineola	N Y
Arnold Magnetics Corp, Los Angeles	Cal
Astrosystems Inc, New Hyde Park	N Y
Atlas Coil Corp, Ansonia	Conn
Ballastran Corp, Fort Wayne	Ind
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Caig Labs Inc, Westbury	N Y
Canadian Marconi Co, Montreal 16	Quebec
CBC Industries Inc, Philadelphia	Pa
Central Transformer Co, Chicago	Ill
Coil Co of America Inc, Northvale	N J
Coiltronics Inc, Buena Park	Cal
Collins Corp, G L, Long Beach	Cal
Divac Electronics, Hawthorne	Cal
Dranetz Engineering Labs Inc, Plainfield	N J
Dresser Systems, Inc, Houston	Tex
Dynamic Components Corp, Hornell	N Y
Electronic Coils Inc, Springfield	Mass
Electronic Transformer Corp, Paterson	N J
Electro Scientific Industries Inc, Portland	Ore
Elnetic Electronics Inc, Venice	Cal
Field Electronics Inc, Chatham	N J
Fisher Engineering Inc, Huntington	Ind
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Foster Transformer Co, Cincinnati	Ohio
Freed Transformer Co Inc, Brooklyn	N Y
Fugle-Miller Labs Inc, Kenilworth	N J
Fullmer Electronics Inc, Northridge	Cal
General Electric Co, ECSO, Schenectady	N Y
Genisco Technology Corp Components, Genistron Divs Compton	Cal
Geo Space Corp, Houston	Tex
Gladding Corp, South Otselic	N Y
Goslin Corp, Burbank	Cal
Grand Transformers Inc, Grand Haven	Mich
Hadley Co Inc, Robert M, Los Angeles	Cal
Hallmark Standards Inc, Mamaroneck	N Y
Hammond Mfg Co Ltd, Guelph, Ont	Can
Idalee Electronics Corp, Valley Stream	NY
Industrial Transformer Corp, Gouldsboro	Pa
Kapitol Magnetic Corp, Chicago	Ill
Lear Siegler Inc, Santa Monica	Cal
Magnetic Circuit Elements Inc, Montrose	Cal
Magnetico Inc, East Northport	N Y
Magnetika Inc, Venice	Cal
Microdot, Inc, South Pasadena	Cal
Microdot Magnetics Inc, Los Angeles	Cal
Microtran Co Inc, Valley Stream	N Y
Morey Corp, Downers Grove	Ill
National Coil Co Inc, Sheridan	Wyo
New England Transformer Co Inc, Newton	Mass
New York Coil Co Inc, Phoenixville	Pa
North Atlantic Industries Inc, Plainview	N Y
North Hills Electronics Inc, Glen Cove	N Y
Novatronics Inc, Pompano Beach	Fla
Optimation, Inc, Sun Valley	Cal
Osborne Electric Co, Ltd, Toronto 18	Ont
PCA Electronics Inc, Sepulveda	Cal
Phoenix Transformer Co, Phoenix	Ariz
Precision Electronics Co, Marshfield	Mass
Precision Electronics Inc, Amityville	N Y
Prototype Transformer Corp, East Orange	NJ
Qutronic Transformer Corp, Oneonta	N Y
Sartron Inc, Newberg	Ore
Scott Electronics Corp, Orlando	Fla
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Signal Transformer Co Inc, Brooklyn	N Y
Singer Co, Metrics Div, Bridgeport	Conn
Singer Co, Metrics Div, Gertsch Dept, Los Angeles	Cal
Sola-Basic Industries, Milwaukee	Wis
Standard Industries, Buena Park	Cal
Sterling Transformer Corp, Brooklyn	N Y
Thordarson Meissner Inc, Mt Carmel	Ill
Tilton Electronics Corp, Winnisquam	N H
Topper Mfg Co Inc, Great Neck	N Y
Torotel, Inc, Grandview	Mo
Torwico Electronics, Inc, Lakewood	N J
Transformer Design Inc of Milwaukee, Milwaukee	Wis
Transformer Manufacturers Inc, Chicago	Ill
Transformers Inc, Vestal	N Y
Transformer Technicians Inc, Chicago	Ill
Tresco Inc, Philadelphia	Pa
Triad Transformer Corp, Venice	Cal
United Transformer Co Div TRW Inc, New York	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Utrad Corp, Huntington	Ind
Varo Inc, Garland	Tex
Westinghouse Electric Corp Distribution Transformer Div Sharon	Pa

TRANSFORMERS--SPECIAL, PULSE

AMP INCORPORATED, HARRISBURG	**PA**
AMP INC, CAPITRON DIV, ELIZABETHTOWN	**PA**
AXEL ELECTRONICS, INC, JAMAICA	**N Y**
BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL PRODS, WOODSIDE	**N Y**
CONTEMPORARY ELECTRONICS INC, MINNEAPOLIS	**MINN**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PG 7**
HISONIC INC, OLATHE	**KAN**
KAPPA NETWORKS INC, CARTERET	**N J**
K G S ELECTRONICS INC, PASADENA	**CAL**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM	**CAL**
TECHNITROL INC, PHILADELPHIA	**PA**
TOHOKU METAL INDUSTRIES, LTD, TOKYO	**JAPAN**
TOROTEL, INC, GRANDVIEW	**MO**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
VARI-L CO INC, STAMFORD	**CONN**
Ace Coil & Electronics Co, Metuchen	N J
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Aladdin Electronics Div Aladdin Industries, Inc Nashville	Tenn
American Trans-Coil Corp, Richmond Hill	NY
AMP Incorporated, Harrisburg	Pa
AMP Inc, Capitron Div, Elizabethtown	Pa
Atlas Coil Corp, Ansonia	Conn
Ault, Inc, Minneapolis	Minn
Axel Electronics, Inc, Jamaica	N Y
Ballastran Corp, Fort Wayne	Ind
Barwood Electronics, Inc, Glendale	Cal
Bicron Electronics Co, Canaan	Conn
Brown Engineering-A Teledyne Co, Huntsville	Ala
Bulova Watch Co Inc Elctns Div Frequency Control Prods Woodside	N Y
Bush Transformer Div, Gladding-Keystone Corp Oneonta	NY
Caledonia Electronics & Transformer Div Caledonia	N Y
Carol Electronics Div Weeco Inc, Martinsburg	W Va
CBC Industries Inc, Philadelphia	Pa
Central Transformer Co, Chicago	Ill
Coast Coil Co Atlantic Research Corp, Los Angeles	Cal
Coil Co of America Inc, Northvale	N J
Coiltronics Inc, Buena Park	Cal
Component Specialties Corp, Temple City	Cal
Contemporary Electronics Inc, Minneapolis	Minn
Cortran Mfg Co, Washington	Mo
Cycle Transformer Corp, West Orange	N J
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Daytron Inc, Mountain View	Cal
Del Electronics Corp, Mt Vernon	N Y
Delevan Electronics Div Amer Prec Indus Inc East Aurora	N Y
Dinion Coil Co Inc, Caledonia	N Y
Dresser Systems, Inc, Houston	Tex
Dynamic Components Corp, Hornell	N Y
Edko Electronics Inc, Brooklyn	N Y
E G & G Inc, Electronic Prods Div, Boston	Mass
E-H Research Labs Inc, Oakland	Cal
Electronic Corp of America, Los Angeles	Cal
Electronic Transformer Corp, Paterson	N J
El-Rad Mfg Co, Chicago	Ill
Energy Systems Inc, Palo Alto	Cal
Epco Products Inc, Wallkill	N Y
Ferranti, Ltd, Lancashire	England
Field Electronics Inc, Chatham	N J
Fisher Engineering Inc, Huntington	Ind
Flexi Optics Labs Inc, Somerville	Mass
Foster Transformer Co, Cincinnati	Ohio
Freed Transformer Co Inc, Brooklyn	N Y
Fugle-Miller Labs Inc, Kenilworth	N J
General Electric Co, ECSO, Schenectady	N Y
Gladding Corp, South Otselic	N Y
Goslin Corp, Burbank	Cal
Hammond Mfg Co Ltd, Guelph, Ont	Can
Hill Magnetics, Inc, Redwood City	Cal
Hirst Electric Industries Ltd, Crawley, Sussex	England
Hisonic Inc, Olathe	Kan
Inductor Engineering Inc, Lewes	Del
Industrial Gauging & Control Inc, Norwalk	Conn
Industrial Transformer Corp, Gouldsboro	Pa
Johnson Electric Coil Co, Elmhurst	Ill
Kapitol Magnetic Corp, Chicago	Ill
Kappa Networks Inc, Carteret	N J
K G S Electronics Inc, Pasadena	Cal
Kidde & Co Inc, Walter, Belleville	N J
Lad Electronics Corp, Hicksville	N Y
Larago Electronics Mfgrs Inc, Melbourne	Fla
LCC-CICE, 93 Montreuil-sous-Bois	France
LFE Electronics Div, Lab for Electronics Inc Waltham	Mass
Magnetic Circuit Elements Inc, Montrose	Cal
Magnetico Inc, East Northport	N Y
Merit Coil & Transformer Corp, Hollywood	Fla
Microdot, Inc, South Pasadena	Cal
Microdot Magnetics Inc, Los Angeles	Cal
Micromagnetics Div Gulton Ind, Visalia	Cal
Microtran Co Inc, Valley Stream	N Y
Mid-West Coil & Transformer Co, Chicago	Ill
Modelectric Products Corp, Asbury Park	N J
Mode Electronics Inc, Cincinnati	Ohio
Morey Corp, Downers Grove	Ill
Nanosecond Systems Inc, Fairfield	Conn
Neshaminy Electronic Corp, Furlong	Pa
New England Transformer Co Inc, Newton	Mass
New York Coil Co Inc, Phoenixville	Pa
North Hills Electronics Inc, Glen Cove	N Y
Nytronics Inc, Berkeley Heights	N J
Osborne Electric Co, Ltd, Toronto 18	Ont
Pacific Instrument Co, Oakland	cal
Pacific Magnetic Corp, Romoland	Cal
Panther Electronics Inc, Burbank	Cal
PCA Electronics Inc, Sepulveda	Cal
Pearson Electronics Inc, Palo Alto	Cal
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polyphase Instrument Co, Bridgeport	Pa
Precision Inc, Minneapolis	Minn
Precision Transformers Inc, Anaheim	Cal
Preferred Electronics Inc, Westfield	Mass
Profile Electronics Inc, Concord	N H
Prototype Transformer Corp, East Orange	NJ
Pulse Engineering Inc, Santa Clara	Cal
Qutronic Transformer Corp, Oneonta	N Y
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Sartron Inc, Newberg	Ore
Schaffner, Hans - Elektronische Bauteile Luterbach Sq	Switz
Schott Co Inc, Oscar A, Minneapolis	Minn
Scott Electronics Corp, Orlando	Fla

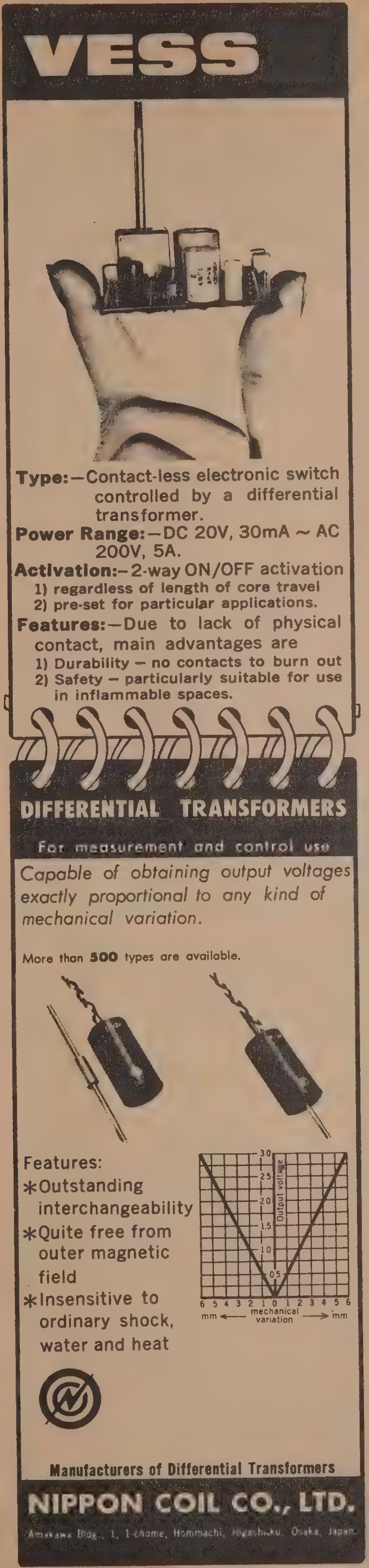
Siemens America Inc, New York	N Y
S K G Associates Inc, Boston	Mass
Skyway Magnetics, Inglewood	Cal
Sola-Basic Industries, Milwaukee	Wis
Sprague Electric Co, North Adams	Mass
Standard Industries, Buena Park	Cal
Standard X-Ray Co, Chicago	Ill
Sterling Transformer Corp, Brooklyn	N Y
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Technitrol Inc, Philadelphia	Pa
Thordarson Meissner Inc, Mt Carmel	Ill
Tilton Electronics Corp, Winnisquam	N H
Tohoku Metal Industries, Ltd, Tokyo	Japan
Toroidal Components Co, Pasadena	Cal
Torotel, Inc, Grandview	Mo
Transformer Engineers, San Gabriel	Cal
Transformer Technicians Inc, Chicago	Ill
Tresco Inc, Philadelphia	Pa
Triad Transformer Corp, Venice	Cal
20th Century Electronics Ltd New Addington, Surrey	England
United Transformer Co Div TRW Inc, New York	N Y
Universal Toroid Coil Winding Inc, Irvington	NJ
Utrad Corp, Huntington	Ind
Valor Electronics Inc, Gardena	Cal
Vari-L Co Inc, Stamford	Conn
Varo Inc, Garland	Tex
Virginia Electronics Co Inc, Falls Church	Va
Westinghouse Electric Corp, Spec Transf Div Greenville	Pa
Wintron Co Inc, S El Monte	Cal
Xenon Corp, Watertown	Mass
Zaring Industries Inc, Carmel	Ind

TRANSFORMERS--SPECIAL, TV, HORIZONTAL DEFLECTION

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Advance Ross Electronics Corp, Chicago	Ill
Arco S P A, Milano	Italy
Atlas Coil Corp, Ansonia	Conn
Beebe Electronics Co, White Plains	N Y
Coil Co of America Inc, Northvale	N J
El-Rad Mfg Co, Chicago	Ill
Fivre Dept Fabbrica Ital Mag Marelli, I - 27100 - Pavia	Italy
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Foster Transformer Co, Cincinnati	Ohio
General Instrument Corp F W Sickles Div Chicopee	Mass
Inelco S p A, Tavernerio	Italy
Lake Engineering Co Ltd, Scarborough	Ont
LCC-CICE, 93 Montreuil-sous-Bois	France
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Merit Coil & Transformer Corp, Hollywood	Fla
Morey Corp, Downers Grove	Ill
New England Transformer Co Inc, Newton	Mass
Nytronics Inc, Berkeley Heights	N J
Penn Transformer Co, Bellefonte	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Rollan Electric Co, Chicago	Ill
Siemens America Inc, New York	N Y
Smallwood Ltd, S G, Kitchener	Ont
Stancor Controls Div Essex Wire Corp, Chicago	Ill
Tele Coil Co Inc, Camden	N J
Thordarson Meissner Inc, Mt Carmel	Ill
Transformer Engineers, San Gabriel	Cal
Transformer Technicians Inc, Chicago	Ill
Triad Distributor Div Litton Industries, Huntington	Ind
Utrad Corp, Huntington	Ind
Videocraft Mfg Co, Chicago	Ill
Wescoil Co Inc, Tinley Park	Ill
Whitewater Electronics Inc, Whitewater	Wis

TRANSFORMERS--SPECIAL, TV, VERTICAL DEFLECTION (DIFFERENTIAL)

K G S ELECTRONICS INC, PASADENA	**CAL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON COIL CO LTD, HIGASHI-KU, OSAKA JAPAN	**ADV PG 745**
Advance Ross Electronics Corp, Chicago	Ill
Arco S P A, Milano	Italy
Atlas Coil Corp, Ansonia	Conn
Better Coil & Transformer Corp, Goodland	Ind
Brown Engineering-A Teledyne Co, Huntsville	Ala
Coil Co of America Inc, Northvale	N J
CP Electronics Inc, Columbus	Ind
Electronic Components Corp, Addison	Ill
Ensign Coil Co, Chicago	Ill
Fivre Dept Fabbrica Ital Mag Marelli, I - 27100 - Pavia	Italy
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Foster Transformer Co, Cincinnati	Ohio
K G S Electronics Inc, Pasadena	Cal
Lake Engineering Co Ltd, Scarborough	Ont
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Merit Coil & Transformer Corp, Hollywood	Fla
Mid-West Coil & Transformer Co, Chicago	Ill
Morey Corp, Downers Grove	Ill
New England Transformer Co Inc, Newton	Mass
Nytronics Inc, Berkeley Heights	N J
Orega Electronique & Mecanique Vincennes, Seine	France
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Smallwood Ltd, S G, Kitchener	Ont
Staco Inc Std Elec Prods Co Div, Dayton	Ohio
Tele Coil Co Inc, Camden	N J
Thordarson Meissner Inc, Mt Carmel	Ill
Transformer Manufacturers Inc, Chicago	Ill
Utrad Corp, Huntington	Ind


VESS

Type:—Contact-less electronic switch controlled by a differential transformer.
Power Range:—DC 20V, 30mA ~ AC 200V, 5A.
Activation:—2-way ON/OFF activation
1) regardless of length of core travel
2) pre-set for particular applications.
Features:—Due to lack of physical contact, main advantages are
1) Durability — no contacts to burn out
2) Safety — particularly suitable for use in inflammable spaces.

DIFFERENTIAL TRANSFORMERS

For measurement and control use

Capable of obtaining output voltages exactly proportional to any kind of mechanical variation.

More than **500** types are available.

Features:
*Outstanding interchangeability
*Quite free from outer magnetic field
*Insensitive to ordinary shock, water and heat

Manufacturers of Differential Transformers

NIPPON COIL CO., LTD.

Amakawa Bldg., 1, 1-chome, Hommachi, Higashi-ku, Osaka, Japan

TRANSFORMERS--TOROIDAL SEE TOROIDS

TRANSFORMERS--TV IMPEDANCE MATCHING

CADDELL BURNS MFG CO INC, MINEOLA N Y	**ADV PGS 162,163**
DALE ELECTRONICS INC, SIOUX DIV, YANKTON	**S DAK**
KAPPA NETWORKS INC, CARTERET	**N J**
K G S ELECTRONICS INC, PASADENA	**CAL**
NORTH HILLS ELECTRONICS INC, GLEN COVE	**N Y**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
Arco S P A, Milano	Italy
Atlas Coil Corp, Ansonia	Conn
B & B Magnetics Co, La Habra	Cal
Beama Engineering Ltd, Toronto 15	Ont
Berkshire Transformer Corp, Kent	Conn
Blonder-Tongue Labs Inc, Newark	N J
Brown Engineering-A Teledyne Co, Huntsville	Ala
Caddell Burns Mfg Co Inc, Mineola	N Y
Carol Electronics Div Weeco Inc, Martinsburg	W Va
CBC Industries Inc, Philadelphia	Pa
Channel Master Corp, Ellenville	N Y
Coil Co of America Inc, Northvale	N J
Dale Electronics Inc, Sioux Div, Yankton	S Dak
Daytron Inc, Mountain View	Cal
Dinion Coil Co Inc, Caledonia	N Y
Dynamic Components Corp, Hornell	N Y
Electronic Components Corp, Addison	Ill
Ensign Coil Co, Chicago	Ill
Entron Inc, Silver Spring	Md
Finney Co, Bedford	Ohio
Fisher Engineering Inc, Huntington	Ind
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Foster Transformer Co, Cincinnati	Ohio
Gavin Instruments Inc, Somerville	N J
General Coil Products Corp, Brooklyn	N Y
General Instrument Corp Automatic Mfg Div Newark	N J
JB Electronic Transformers Inc, Chicago	Ill
Kappa Networks Inc, Carteret	N J
K G S Electronics Inc, Pasadena	Cal
LCC-CICE, 93 Montreuil-sous-Bois	France
Magnetic Systems Corp, Clearwater	Fla
McGregor Electronic Industries Inc, McGregor	Iowa
Merit Coil & Transformer Corp, Hollywood	Fla
Mid-West Coil & Transformer Co, Chicago	Ill
Miller Co, J W, Los Angeles	Cal
Mode Electronics Inc, Cincinnati	Ohio
Montedoro Corp, San Luis Obispo	Cal
Morey Corp, Downers Grove	Ill
New England Transformer Co Inc, Newton	Mass
Nihon Kohden Kogyo Co Ltd, Tokyo	Japan
Nippon Ferrite Industrial Co Ltd, Tokyo	Japan
North Hills Electronics Inc, Glen Cove	N Y
Nytronics Inc, Berkeley Heights	N J
Orega Electronique & Mecanique Vincennes, Seine	France
Osborne Electric Co, Ltd, Toronto 18	Ont
Pacific Instrument Co, Oakland	cal
Panther Electronics Inc, Burbank	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Precision Electronics Inc, Amityville	N Y
Precision Inc, Minneapolis	Minn
Prototype Transformer Corp, East Orange	NJ
Schrack Electrical Sales Corp, New York	N Y
Show Sound, Inc, New York	N Y
Spencer-Kennedy Labs Inc, Boston	Mass
Staco Inc Std Elec Prods Co Div, Dayton	Ohio
Stancor Controls Div Essex Wire Corp, Chicago	Ill
Standard Winding Co Div Ovitron Corp, Newburgh	N Y
Sterling Transformer Corp, Brooklyn	N Y
Superex Electronics Corp, Yonkers	N Y
Tabuchi Electric Co Ltd, Osaka	Japan
Tele Coil Co Inc, Camden	N J
Thordarson Meissner Inc, Mt Carmel	Ill
Transformer Manufacturers Inc, Chicago	Ill
Transformer Technicians Inc, Chicago	Ill
United Transformer Co Div TRW Inc, New York	N Y
University Sound Div Ltv Ling Altec Inc Oklahoma City	Okla
Utrad Corp, Huntington	Ind
Vikoa Inc, Hoboken	N J
Wescoil Co Inc, Tinley Park	Ill
Whitewater Electronics Inc, Whitewater	Wis
Woodward-Schumacher Electric Corp, Chicago	Ill
Workman Electronic Products Inc, Sarasota	Fla

If it isn't in EBG's

product directory,

it probably hasn't

been invented yet.

TRANSFORMERS--WIDEBAND

CADDELL BURNS MFG CO INC, MINEOLA N Y	**ADV PGS 162,163**
HISONIC INC, OLATHE	**KAN**
K G S ELECTRONICS INC, PASADENA	**CAL**
NORTH HILLS ELECTRONICS INC, GLEN COVE N Y	**ADV PG 746**
PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC ANAHEIM	**CAL**
TECHNITROL INC, PHILADELPHIA	**PA**
TOROTEL, INC, GRANDVIEW	**MO**
TORWICO ELECTRONICS, INC, LAKEWOOD N J	**ADV PG 735**
UNITED TRANSFORMER CO DIV TRW INC, NEW YORK	**N Y**
VARI-L CO INC, STAMFORD, CONN	**ADV PG 746**
ADC Electronics, Inc, Harbor City	Cal
ADC Products, Minneapolis	Minn
Anidus Engineering, Arlington	Mass
Anzac Electronics, Waltham	Mass
Bayly Engineering Ltd, Ajax	Ontario
Caddell Burns Mfg Co Inc, Mineola	N Y
Coilcraft Inc, Cary	Ill
Dietz Design Inc, Belton	Mo
Dresser Systems, Inc, Houston	Tex
Edwin Industries Corp, Silver Spring	Md
Electromagnetic Radiation Labs Inc, West Acton	Mass
Ferranti, Ltd, Lancashire	England
Ferritronics Ltd, Richmond Hill	Ont
Field Electronics Inc, Chatham	N J
Florida Transformer Co, Transitron Sub De Leon Springs	Fla
Fugle-Miller Labs Inc, Kenilworth	N J
Fullmer Electronics Inc, Northridge	Cal
Hammond Mfg Co Ltd, Guelph, Ont	Can
Hill Magnetics, Inc, Redwood City	Cal
Hisonic Inc, Olathe	Kan
Instruments Inc, San Diego	Cal
K G S Electronics Inc, Pasadena	Cal
Magnetic Circuit Elements Inc, Montrose	Cal
Magnetic Devices Inc, Lemon Grove	Cal
Magnetico Inc, East Northport	N Y
Marconi Co Ltd, Chelmsford	England
Micromagnetics Div Gulton Ind, Visalia	Cal
Montedoro Corp, San Luis Obispo	Cal
Nihon Kohden Kogyo Co Ltd, Tokyo	Japan
North Hills Electronics Inc, Glen Cove	N Y
Peerless Electrical Prods Div LTV Ling Altec Inc Anaheim	Cal
Precision Coil Mfg Co, Santa Monica	Cal
Pulse Engineering Inc, Santa Clara	Cal
Qutronic Transformer Corp, Oneonta	N Y
Radio Research Co, Rockaway	NJ
Relcom, Mountain View	Cal
Scott Electronics Corp, Orlando	Fla
Siemens America Inc, New York	N Y
S K G Associates Inc, Boston	Mass
Technitrol Inc, Philadelphia	Pa
Tech-Ohm Electronics Inc, Long Island City	N Y
Torotel, Inc, Grandview	Mo
Torwico Electronics, Inc, Lakewood	N J
Tresco Inc, Philadelphia	Pa
United Transformer Co Div TRW Inc, New York	N Y
Vari-L Co Inc, Stamford	Conn

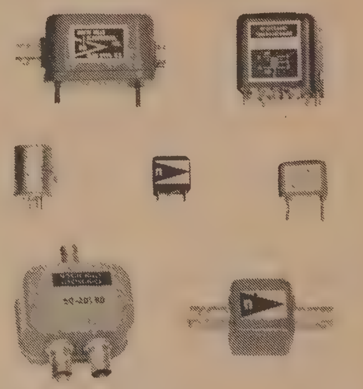
WIDEBAND

TRANSFORMERS, BALUNS, HYBRIDS, POWER ADDERS & DIVIDERS

20 Hz TO 400 MHz
SUBMINIATURE TO 10 KILOWATTS

Wide selection of standard designs available from stock in many case styles.

We do SPECIALS too!

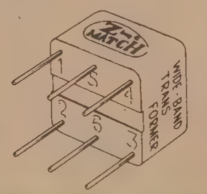


NORTH HILLS
ELECTRONICS, INC.
Glen Cove, N. Y. 11542
Phone (516) 671-5700

Z-MATCH

WIDEBAND TRANSFORMERS

The most widely used component for • IMPEDANCE MATCHING • ANTENNA MATCHING • PHASE DETECTION • INPUT, OUTPUT, and INTERSTAGE COUPLING • FREQUENCY MULTIPLICATION • INSTRUMENT PROTECTION against DC-SURGE BURNOUT • VOLTAGE or CURRENT STEP-UP and STEP-DOWN. Low Insertion Loss and VSWR. Power handling: 2-4 watts. Rugged, epoxy encapsulated package. We also make a stock line of WIDEBAND HYBRID JUNCTION/TRANSFORMERS which are very useful for DOUBLY BALANCED MIXERS and for VECTOR ADDITION and SUBTRACTION. They are all DC isolated. Write for Bulletin 368.



ACTUAL SIZE

WIDEBAND TRANSFORMER TYPES AVAILABLE FROM STOCK

MODEL	DESCRIPTION	RANGE OF FREQUENCY RESPONSE = −1 dB, MAX.	PRICE each 1-9 units
5012.5A	50 Ω unbal. / 12.5 Ω unbal.	100 KHz — 1 GHz	$20.80
5050A	50 Ω unbal. / 50 Ω unbal.	100 KHz — 1 GHz	12 90
5050B	50 Ω unbal. / 50 Ω unbal. reversing	100 KHz — 1 GHz	12.90
5050C	50 Ω unbal. / 50 Ω bal. symmetrical	50 KHz — 700 MHz	15 55
5050F	50 Ω unbal. / 50 Ω unbal. rev., DC-isol.	100 KHz — 500 MHz	15.55
5075B	50 Ω unbal. / 75 Ω unbal. reversing	40 KHz — 300 MHz	20.80
50200A	50 Ω unbal. / 200 Ω unbal.	250 KHz — 500 MHz	15.55
50200D	50 Ω unbal. / 200 Ω bal.	250 KHz — 500 MHz	15 55
50200E	50 Ω unbal. / 200 Ω bal. symmetrical	100 KHz — 1 GHz	20 80
50200F	50 Ω unbal. / 200 Ω unbal. rev., DC-isol.	200 KHz — 500 MHz	15.55
50200K	50 Ω bal. / 200 Ω bal. symmetrical	250 KHz — 1 GHz	20.80
50600H	50 Ω unbal. / 600 Ω bal.	100 KHz — 100 MHz	20 80
7575B	75 Ω unbal. / 75 Ω unbal. reversing	150 KHz — 1 GHz	12 90
7575C	75 Ω unbal. / 75 Ω bal.	100 KHz — 1 GHz	15 55
75300A	75 Ω unbal. / 300 Ω unbal.	250 KHz — 500 MHz	15.55
75300D	75 Ω unbal . 300 Ω bal.	250 KHz — 500 MHz	15.55
75300E	75 Ω unbal / 300 Ω bal. symmetrical	250 KHz — 900 MHz	20 80
75300K	75 Ω bal. / 300 Ω bal. symmetrical	400 KHz — 900 MHz	20 80
100100B	100 Ω unbal. / 100 Ω unbal. reversing	200 KHz — 1 GHz	12 90
100100C	100 Ω unbal. / 100 Ω bal.	100 KHz — 1 GHz	15.55

ALSO POWER TYPES: 10, 25, 50 watt models off the shelf, and larger versions on special order.

VARI-L COMPANY, INC. STAMFORD, CONN. 06904
203-323-2176 TWX: 710-474-3369

TRANSFORMER WINDINGS SEE COILS WINDINGS ONLY

TRANSIENT RECORDERS SEE OSCILLOGRAPHS

TRANSISTOR ANALYZERS SEE TESTERS--TRANSISTOR

TRANSISTORIZED EQUIPMENT SEE PRODUCT HAVING DESIRED FUNCTION

TRANSISTOR MANUFACTURING MACHINES SEE MACHINES--DIODE & TRANSISTOR MANUFACTURING

TRANSISTOR PARTS--CLIPS

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ART WIRE & STAMPING CO, NEWARK	**N J**
AUGAT, INC, ATTLEBORO	**MASS**
GUDEBROD BROS SILK CO INC ELECTRONICS DIV PHILADELPHIA	**PA**
Aavid Engineering Inc, Laconia	N H
Accurate Electronics Corp, Elyria	Ohio
Alloys Unlimited Inc, Melville	N Y
Art Wire & Stamping Co, Newark	N J
Atlee Corp, Winchester	Mass
Augat, Inc, Attleboro	Mass
Birtcher Corp, Industrial Div, Monterey Park	Cal
Braun Tool & Instrument Co Inc, H, Hawthorne	N J
Fastex Div Illinois Tool Works, Des Plaines	Ill
Franklin Fibre-Lamitex Corp, Wilmington	Del
Gudebrod Bros Silk Co Inc Electronics Div Philadelphia	Pa
Gudeman Div Gulton Industries, Inc, Chicago	Ill
Haydu Products Inc, Opa Locka	Fla
International Electronic Research Corp, Burbank	Cal
Seastrom Mfg Co Inc, Glendale	Cal
Staver Co Inc, Bay Shore	N Y
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Volkert Stampings Inc Sub Stanley Works Queens Village	N Y
Workman Electronic Products Inc, Sarasota	Fla

TRANSISTOR PARTS--HOLDERS

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
BARNES CORP, LANSDOWNE	**PA**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
Aavid Engineering Inc, Laconia	N H
Accurate Electronics Corp, Elyria	Ohio
Alloys Unlimited Inc, Melville	N Y
Atlee Corp, Winchester	Mass
Barnes Corp, Lansdowne	Pa
Birtcher Corp, Industrial Div, Monterey Park	Cal
Blinn Co Inc, Delbert, Pomona	Cal
Electronic Molding Corp, Pawtucket	R I
H J Electronic Seal Co, South Norwalk	Conn
International Electronic Research Corp, Burbank	Cal
Metalized Ceramics Corp, Providence	R I
Ross Co, Milton, Southampton	Pa
Seastrom Mfg Co Inc, Glendale	Cal
Staver Co Inc, Bay Shore	N Y
Thermalloy Co, Dallas	Tex
Vemaline Products Co, Inc, Wycoff	N J
Workman Electronic Products Inc, Sarasota	Fla

TRANSISTOR PARTS--MOUNTINGS

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
Aavid Engineering Inc, Laconia	N H
Accurate Electronics Corp, Elyria	Ohio
Alloys Unlimited Inc, Melville	N Y
Ates Componenti Elettronici SpA, Milano	Italy
Bendix Corp Semiconductor Div, Holmdel	N J
Birtcher Corp, Industrial Div, Monterey Park	Cal
Blinn Co Inc, Delbert, Pomona	Cal
Cinch-Monadnock, City of Industry	Cal
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Corning Glass Works, Corning	N Y
Do-Rite Mfg Co, East Paterson	N J
Electronic Molding Corp, Pawtucket	R I
Epoxy Products Co Div Allied Prod Inc New Haven	Conn
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
International Electronic Research Corp, Burbank	Cal
J-B Electronics, Inc, City of Commerce	Cal
Metalized Ceramics Corp, Providence	R I
Robinson-Nugent Inc, New Albany	Ind
Robison Electronics Inc, Hawthorne	Cal

Ross Co, Milton, Southampton	Pa
Royal Worcester Industrial Ceramics Inc, New York	NY
Schaffner, Hans - Elektronische Bauteile Luterbach Sq	Switz
Schurter AG, H, 6002 Lucerne	Switzerland
Siemens America Inc, New York	N Y
Staver Co Inc, Bay Shore	N Y
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Tekna Products Co, Rochester	N Y
Thermalloy Co, Dallas	Tex
Union Carbide Corp, Carbon Products Div New York	N Y
Vemaline Products Co, Inc, Wycoff	N J
Workman Electronic Products Inc, Sarasota	Fla

TRANSISTOR PARTS--PADS

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ELECTRONIC MOLDING CORP, PAWTUCKET	**R I**
GUDEBROD BROS SILK CO INC ELECTRONICS DIV PHILADELPHIA, PA	**ADV PG 747**
Aavid Engineering Inc, Laconia	N H
Accurate Electronics Corp, Elyria	Ohio
Allmetal Screw Products Co Inc, Garden City	N Y
Alloys Unlimited Inc, Melville	N Y
Bivar Co Inc, Palo Alto	Cal
Blinn Co Inc, Delbert, Pomona	Cal
Cambridge Thermionic Corp, Cambridge	Mass
Chemelec Products, Inc, Cherry Hill	N J
Cinch-Monadnock, City of Industry	Cal
Circuit Structures Lab, Burbank	Cal
D-Cemco Inc, Burbank	Cal
Dowa Trading Co Ltd, Kobe	Japan
Electronic Molding Corp, Pawtucket	R I
Epoxy Products Co Div Allied Prod Inc New Haven	Conn
Globe Plastics Inc, Pomona	Cal
Gudebrod Bros Silk Co Inc Electronics Div Philadelphia	Pa
J-B Electronics, Inc, City of Commerce	Cal
Lake Engineering Co Ltd, Scarborough	Ont
Metalized Ceramics Corp, Providence	R I
Navigation Computer Corp, Norristown	Pa
Robinson-Nugent Inc, New Albany	Ind
Robison Electronics Inc, Hawthorne	Cal
Ross Co, Milton, Southampton	Pa
Schurter AG, H, 6002 Lucerne	Switzerland
Seastrom Mfg Co Inc, Glendale	Cal
Space Products Inc, Long Beach	Cal
Staver Co Inc, Bay Shore	N Y
Tekna Products Co, Rochester	N Y
Thermalloy Co, Dallas	Tex

- Transistor Mounting Pads-Clips?
- Heat Sinks?
- Heat Sink Adapters?

GUDEBROD is your new, reliable source for this important circuit hardware.

Precision made with traditional English craftsmanship— by JERMYN Industries.

Stocked and sold exclusively in U.S.A. by GUDEBROD

Ask for catalog GJ110

GUDEBROD BROS.
FOUNDED 1870
SILK CO., INC.
Electronics Division
12 South 12th Street, Philadelphia, Pa. 19107
Telephone: (215) WA 2-1122

TRANSISTORS--AUDIO, GERMANIUM

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE R I	**ADV PGS 748,749**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
LANSDALE TRANSISTOR & ELECTRONICS INC, LANSDALE	**PA**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
AMC Semiconductor Corp, New York	N Y
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville	R I
Ates Componenti Elettronici SpA, Milano	Italy
Avnet Electronics, Westbury	N Y
Bendix Corp Semiconductor Div, Holmdel	N J
Delco Radio Div General Motors Corp, Kokomo	Ind
Dowa Trading Co Ltd, Kobe	Japan
Electronic Transistors Corp, Flushing	N Y
General Electric Co, ECSO, Schenectady	N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
General Instrument Europe SPA, Milano	Italy
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
International Electronics Corp, Melville	NY
International Rectifier Semiconductor Div El Segundo	Cal
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kobe Industries Corp, Kobe	Japan
KSC Semiconductor Corp, Chelmsford	Mass
Lake Engineering Co Ltd, Scarborough	Ont
Lansdale Transistor & Electronics Inc, Lansdale	Pa
Midland International Corp, North Kansas City	Mo
Mitsubishi Electric Corp, Tokyo	Japan
Motorola Semiconductor Products Inc, Phoenix	Ariz
Mullard Ltd, London, WC 1	Eng
Newmarket Transistors Ltd Newmarket, Suffolk	England
Nippon Electric Co Ltd, Tokyo	Japan
Oneida Electronic Mfg Co, Meadville	Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Electronic Components, Harrison	N J
Sampson Electronic Products Div, Chicago	Ill
Semiconductor Devices Inc, Santa Ana	Cal
Semiconductor Products Inc, Lawrence	Mass
Siemens America Inc, New York	N Y
Solitron Devices Inc, Tappan	NY
Solitron Devices Inc Transistor Div, Riviera Beach	Fla
Sprague Electric Co, North Adams	Mass
Standard Telephones & Cables Ltd London WC 2	England
Telefunken Sales Corp, Garden City	N Y
Texas Instruments France, Villeneuve-Loubet	France
Texas Instruments Incorporated, Dallas	Tex
Trans-Tek Mfg Co Inc, Garwood	N J
Walkirt Co, Los Angeles	Cal
Workman Electronic Products Inc, Sarasota	Fla

TRANSISTORS--AUDIO, SILICON

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE R I	**ADV PGS 748,749**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PG 7**
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y	**ADV PGS 3RD COVER INLEAF**
LANSDALE TRANSISTOR & ELECTRONICS INC, LANSDALE	**PA**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
AMC Semiconductor Corp, New York	N Y
Amelco Semiconductor, A Teledyne Co Mountain View	Cal
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville	R I
Ates Componenti Elettronici SpA, Milano	Italy
Avnet Electronics, Westbury	N Y
Bendix Corp Semiconductor Div, Holmdel	N J
Continental Device Corp, Hawthorne	Cal
Crystalonics A Teledyne Co, Cambridge	Mass
Delco Radio Div General Motors Corp, Kokomo	Ind
Dowa Trading Co Ltd, Kobe	Japan
Electronic Transistors Corp, Flushing	N Y
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View	Cal
Ferranti, Ltd, Lancashire	England
General Electric Co, ECSO, Schenectady	N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville	N Y
General Instrument Europe SPA, Milano	Italy
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
International Electronics Corp, Melville	NY
International Rectifier Semiconductor Div El Segundo	Cal
ITT Semiconductors, West Palm Beach	Fla
Kobe Industries Corp, Kobe	Japan
Lake Engineering Co Ltd, Scarborough	Ont
Lansdale Transistor & Electronics Inc, Lansdale	Pa
Lignes Telegraphiques et Telephoniques Paris 16	France
Motorola Semiconductor Products Inc, Phoenix	Ariz
Mullard Ltd, London, WC 1	Eng
National Semiconductor Corp, Santa Clara	Cal
Newmarket Transistors Ltd Newmarket, Suffolk	England
Nippon Electric Co Ltd, Tokyo	Japan
Oneida Electronic Mfg Co, Meadville	Pa
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland

Quick
Reference
Guide to
Amperex
Semiconductors

Amperex
SEMICONDUCTORS

SILICON PLANAR TRANSISTORS
AF, RF, MF, HF, VHF & UHF Types; High Voltage, TV, Low Level Amplifier Industrial, General Purpose, Fast Switching; Choppers; Differential Amplifiers, Drivers & Pulse Shapers.

GERMANIUM TRANSISTORS
AF, RF, MF, HF, VHF & UHF Types; Power and Switching Types; Matched Pairs.

RECTIFIERS
Silicon Power Rectifiers; H.V. Rectifier Stacks.

DIODES (Germanium & Silicon)
Germanium High Forward Conductance; Germanium Detectors; Silicon Switching & Computer; Variable Capacitors; Varactors; Reference; Control Rectifiers.

MICROELECTRONIC PRODUCTS
Leadless Inverted Devices (LIDS); Integrated Circuits.

SPECIAL PRODUCTS
Germanium Phototransistors; Germanium Photodiodes.

PRINTED CIRCUIT ASSEMBLIES
Amplifiers, Tuners, Preamps.

For your free copy, write:
Amperex Electronic Corporation,
Semiconductor Division
Slatersville, R. I., 02876
Regional Offices:
Calif.: 801 E. Charleston, Palo Alto
Ill.: 360 E. North Ave., Northlake
Amperex®
TOMORROW'S THINKING IN TODAY'S PRODUCTS

Amperex Semiconductors

GERMANIUM TRANSISTORS

(METAL CANS)

Audio, Low Level

TYPE	CONSTRUCTION
2N2428	TO-1
2N2429	TO-1
2N2430	TO-1
2N2706	TO-1

Audio, Power

TYPE	CONSTRUCTION
2N2431	TO-1
2N2431 (MP)	TO-1
2N2707 (CP)	TO-1
2N4077	Small TO-3
2N4078	Small TO-3
2N4078 (MP)	Small TO-3
2N4079 (CP)	Small TO-3
2N4106	TO-1
2N4107 (CP)	TO-1
2N4136 (CP)	TO-1
2N4241	TO-3
2N4241 (MP)	TO-3

R.F. Amplifiers

TYPE	CONSTRUCTION
2N987	TO-18
USA 2N987	TO-18
2N990	TO-18
2N993	TO-18
2N1224	TO-5
USA 2N1224	TO-5
2N1225	TO-5
USA 2N1225	TO-5
2N1226	TO-5
2N1395	TO-5
2N1396	TO-5
2N2084	TO-5
USA 2N2084	TO-5
2N2089	TO-5
2N2092	TO-5
2N2495	TO-5
2N2496	TO-18
2N2654	TO-5
2N2671	TO-5
2N2672	TO-5
2N3399	TO-18
2N3588	TO-18

Switches

TYPE	CONSTRUCTION
1302 (PNP)	TO-5
1303 (PNP)	TO-5
1304 (NPN)	TO-5
1305 (PNP)	TO-5
1306 (NPN)	TO-5
1307 (PNP)	TO-5
1308 (NPN)	TO-5
1309 (PNP)	TO-5

CP = Complementary Pair
MP = Matched Pair

N-CHANNEL, JUNCTION FETS

(Metal TO-18's)

TYPE	APPLICATION
2N4221	A. F. Amplifier
2N4221A	A. F. Amplifier
2N4222	A. F. Amplifier
2N4222A	A. F. Amplifier
2N4391	High speed switch
2N4392	High speed switch
2N4393	High speed switch
2N5103	Low Level, Low Noise
2N5104	Low Level, Low Noise
2N5105	Low Level, Low Noise
A190	Low Level, Low Noise
A191	Low Level, Low Noise
A192	R. F. Amplifier
A193	R. F. Amplifier
2N3823	R. F. Amplifier

FETS, ZENERS, DUAL ISOLATED DIODES, RF & IF AMPLIFIERS & SWITCHES available in LDS

LIDS, (Leadless Inverted Devices) introduced by Amperex are the microelectronic packages for semiconductors which brought mechanized production to hybrid circuit manufacture.

TYPE	DESCRIPTION
LDA 400/401	Low level amplifier (NPN) similar to 2N929/2N930
LDA 402/403	Medium current switch and amplifier (NPN)
LDA 404/405	Medium current switch and amplifier (NPN) similar to 2N2218/2N2219
LDA 406/407	Very high frequency amplifier (NPN) similar to 2N918/2N2857
LDA 410	High gain, low capacity IF amplifier (NPN)
LDA 450/451	Low current amplifier and switch (PNP) similar to 2N2604
LDA 452/453	Medium current amplifier and switch (PNP) similar to 2N2904/2N2905
LDD 5	Single fast diode similar to IN914
LDD 10	Dual diode common cathode similar to IN914
LDD 50	Dual diode common anode (IN914)
LDD 15	Dual diode fully isolated (IN914)
LDF 603/604/605	Junction field effect transistor DC-100 MHz
LDS 200/201	High speed switch (NPN) similar to 2N2368/2N2369
LDS 205	Very high speed switch similar to 2N709 (NPN)
LDS 206/208	D/A switch (NPN)
LDZ 70 Series	5% zener diode 4 to 10 Volts

DIODES

Germanium		Silicon	
TYPE	DESCRIPTION	TYPE	DESCRIPTION
A20	Bias diode	A13	Switching
IN34A	General Purpose	A23	Switching
IN67A	General Purpose	A33	H. F. Varicap
IN68A	General Purpose	A34	H. F. Varicap
IN87	Small Signal Detector	A35	H. F. Varicap
IN87A	Small Signal Detector	A45	Clamping
IN90	General Purpose	A48	Clamping
IN116	General Purpose	A74	High Voltage Rectifier
IN117	General Purpose	A82	R. F. Switch
IN126	General Purpose	A93	H. F. Varicap Triplet
IN128	General Purpose	A94	H. F. Varicap Triplet
IN191	Switching	A95	H. F. Varicap Triplet
IN270	High Conductance	BA114	Stabistor
IN541	Small Signal Detector	BY100	Power Rectifier
IN542	Small Signal Detector	BY122	Bridge Rectifier
IN616	General Purpose	BY123	Bridge Rectifier
IN617	General Purpose	BY126	Power Rectifier
IN618	General Purpose	BY127	Power Rectifier
IN698	Switching	IN914	Switching
AA119MP	Small Signal Detector	IN914A	Switching
AA119	Small Signal Detector	IN3182	Varicap

INTEGRATED CIRCUITS

Hybrid Linear Thin Film

TYPE	DESCRIPTION
ATF 401	Operational amplifier
ATF 402	High gain operational amplifier

Monolithic, Linear, Silicon

TYPE	DESCRIPTION
TAB 101	Ring modulator/demodulator
TAA 103	3-stage, low-level amplifier
OM 200	Hearing-aid amplifier
TAA 263	3-stage, DC coupled, low-level amplifier
TAA 293	3-stage preamplifier
TAA 310	AF high-gain preamplifier
TAA 320	MOS/Bipolar amplifier
TAA 350	IF strip, FM and TV sound
TAA 370	1 mw hearing-aid amplifier

SILICON POWER DEVICES

RF Power Transistors (NPN)

TYPE	PACKAGE
A201	TO-60
A210	TO-39
A211	TO-39
2N3924	TO-5
2N3926	TO-60
2N3927	TO-60
2N3375	TO-60
2N3553	TO-5
2N3632	TO-60
2N3866	TO-39
2N4427	TO-39

Varactors (DO-4's)

TYPE	DESCRIPTION
IN4885	UHF, VHF HiFrequency Multiplier 24W output
IN4886	UHF, VHF HiFrequency Multiplier 16W output

Hi-Voltage Switch (TO-3)

A705	1400V, 25 Amps Switch

and Microcircuits

SILICON SIGNAL TRANSISTORS

Low Level Audio

TYPE	PACKAGE	CONSTRUCTION
A141	Micro Min	NPN
A142	Micro Min	NPN
A143	Micro Min	NPN
A151	Micro Min	NPN
A152	Micro Min	NPN
A153	Micro Min	NPN
A157	TO-18	NPN
A158	TO-18	NPN
A159	TO-18	NPN
A177	TO-18	PNP
A178	TO-18	PNP
A179	TO-18	PNP
A747	Autosert*	NPN
A748	Autosert*	NPN
A749	Autosert*	NPN
A757	Autosert*	PNP
A758	Autosert*	PNP
A759	Autosert*	PNP

RF Amplifier

TYPE	PACKAGE	CONSTRUCTION
A415	TO-18	NPN
A417	TO-18	NPN
A418	TO-18	NPN
A419	TO-18	NPN
A420	TO-18	NPN
A430	TO-18	NPN
A431	TO-71	NPN
A444	PLASTIC	NPN
A445	PLASTIC	NPN
A467	TO-18	NPN
A473	TO-18	NPN
A482	TO-18	NPN
A483	TO-18	NPN
A484	TO-18	NPN
A485	TO-18	NPN
A490	TO-18	NPN
A492	TO-18	NPN
A494	Autosert*	NPN
A495	Autosert*	NPN
A496	Autosert*	NPN
A497	Autosert*	NPN
A777	TO-5	NPN
A778	TO-5	NPN
A779	TO-5	NPN
2N2857	TO-18	NPN
2N5053	TO-18	NPN
2N5054	TO-18	NPN

** new transistor configuration with rigid alloy leads that permits automatic insertion into all standard PC boards.*

ACTUAL SIZE

HEAVY CURRENT, POWER CONTROL DEVICES

Diodes

TYPE	DESCRIPTION
BYX25 Series	600 to 1000V, 20A
BYX30 Series	200 to 600V, 14A
BYX39 Series	600 to 1000V, 6A
BYX38 Series	300 to 1200V, 2.5A
BYX42 Series	300 to 1000V, 10A

For Reverse Polarity on above add R to type number when specifying.

Thyristors

TYPE	DESCRIPTION
BTX47	11.5 A average, 1000V, 1200V, 1400V
BTX48	16.0 A average, 1000V, 1200V, 1400V
BTX49/BTX50	70.0 A average, 1000V, 1200V, 1400V

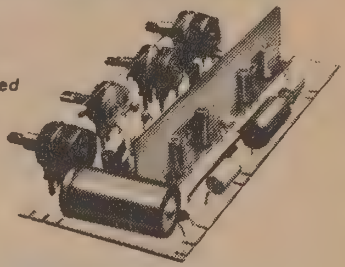
Rectifier Stacks

Series 9110 and Series 9210 Rectifier Stacks are assemblies of the standard BYX25/1000R and BYX39/100R series of rectifiers listed above and are available to your custom specifications.

SOLID STATE, PRINTED CIRCUIT ASSEMBLIES

Audio Amplifiers

Employing the most advanced Complementary Symmetry designs, Amperex assemblies provide the ultimate in economical circuitry for reliable audio applications from one watt to twenty.



TYPE	DESCRIPTION
PCA-3B-18-1	4W/Channel Stereo Amplifier with Volume, Balance, Treble and Bass Controls
PCA-4-9	1W, Single Channel Amplifier for Guitar, P.A. or Microphone
PCA-4-9A	Same as PCA-4-9 with Treble Control
PCA-4-18	3.5W Single Channel Amplifier for Guitar, P.A. or Microphone
PCA-4-18A	Same as PCA-4-18 with Treble Control
PCA-6A-25	10W/Channel Stereo Amplifier with 0.5 volt Sensitivity for Ceramic Cartridge, Tuner, etc.
PCA-6A-25SCS	Same as PCA-6A-25 but with Separate Preamplifier Section
PCA-8-36	20W Single Channel Power Amplifier with 0.5 volt Sensitivity. No controls
PCA-10-36	15W Guitar Amplifier with Tone, Volume and Tremolo Controls

DIFFERENTIAL DUAL TRANSISTORS

TO-77's	DESCRIPTION
A600	NPN, 10% hFE, 10mV, 10 μV/°C
A601	NPN, 10% hFE, 10mV, 10 μV/°C
A602	NPN, 20% hFE, 20mV, 20 μV/°C
A603	NPN, 20% hFE, 5mV, 10 μV/°C
A604	NPN, 20% hFE, 10mV, 10 μV/°C
A605	NPN, 10% hFE, 5mV, 10 μV/°C
A606	NPN, 10% hFE, 10mV, 10 μV/°C
A607	NPN, 10% hFE, 1.5mV, 5μV/°C
A608	NPN, 10% hFE, 3mV, 10 μV/°C
A646	NPN, 40% hFE, 20mV, 30 μV/°C
2N2913	NPN, medium gain, low cost
2N2914	NPN, high gain, low cost
2N2915	NPN, 10% hFE, 3mV, 10 μV/°C
2N2916	NPN, 10% hFE, 3mV, 10 μV/°C
2N2917	NPN, 20% hFE, 5mV, 20 μV/°C
2N2918	NPN, 20% hFE, 5mV, 20 μV/°C
2N2919	NPN, 10% hFE, 3mV, 10 μV/°C
2N2920	NPN, 10% hFE, 3mV, 10 μV/°C
2N4315	NPN, 10% hFE, 10mV, 10 μV/°C

TEC's*	DESCRIPTION
A640	NPN, 10% hFE, 3mV, 10 μV/°C
A641	NPN, same as A640 except hFE, 80-200
A642	NPN, same as A640 except hFE, 160-400
A643	NPN, 20% hFE, 15mV, 50 μV/°C
A644	NPN, same as A643 except hFE, 60-300
A645	NPN, same as A643 except hFE, 120-600
A647	PNP, 20% hFE, 15mV, 50 μV/°C
A648	PNP, 20% hFE, 15mV, 50 μV/°C
A649	NPN, 10% hFE, 1mV, 3 μV/°C

**TEC units are two matched TO-18's in a thermal equalizing clip.*

Amperex®

TOMORROW'S THINKING IN TODAY'S PRODUCTS

AMPEREX ELECTRONIC CORPORATION

Semiconductor Factory, Slatersville, Rhode Island 02876
Distributor Sales Dept., Hicksville, L. I., New York 11802

TAYLOR IS YOUR
BEST SOURCE
FOR
FAIRCHILD
GENERAL
ITT
RAYTHEON
MICROWAVE
ASSOCIATES
SEMICONDUCTOR
PRODUCTS
AND
IERC
SEMICONDUCTOR
HEAT DISSAPATORS
FOR FAST DELIVERY
CALL 516 BA 3-8000
TAYLOR ELECTRONICS CORP.
2270 Grand Ave., Baldwin, New York

Radio Corp of America, Electronic Components, Harrison .... N J
Raytheon Co, Components Div, Semiconductor Oper Mountain View .... Cal
Sampson Electronic Products Div, Chicago Ill
Semiconductor Devices Inc, Santa Ana .... Cal
Semiconductor Products Inc, Lawrence .... Mass
Siemens America Inc, New York .... N Y
Silicon Transistor Corp, Garden City .... NY
Solitron Devices Inc, Tappan .... NY
Solitron Devices Inc Transistor Div, Riviera Beach .... Fla
Sprague Electric Co, North Adams .... Mass
Standard Telephones & Cables Ltd London WC 2 .... England
Telefunken Sales Corp, Garden City .... N Y
Texas Instruments France, Villeneuve-Loubet .... France
Texas Instruments Incorporated, Dallas .... Tex
Transitron Electronic Corp, Wakefield .... Mass
Trans-Tek Mfg Co Inc, Garwood .... N J
Union Carbide Electronics, Semiconductor Prods Mountain View .... Cal
United Aircraft Corp Electronic Components Div Trevose .... PA
Walkirt Co, Los Angeles .... Cal
Workman Electronic Products Inc, Sarasota .... Fla

TRANSISTORS--FIELD EFFECT JUNCTION TYPE

GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y .... ADV PGS 3RD COVER INLEAF
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
Akers Electronics, Horten .... Norway
Amelco Semiconductor, A Teledyne Co Mountain View .... Cal
Avnet Electronics, Westbury .... N Y
Continental Device Corp, Hawthorne .... Cal
Crystalonics A Teledyne Co, Cambridge .... Mass
Dickson Electronics Corp, Scottsdale .... Ariz
Emihus Microcomponents Ltd Hounslow, Middx .... England
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View .... Cal
Ferranti, Ltd, Lancashire .... England
General Instrument Corp, Semiconductor Prods Grp, Hicksville .... N Y
General Instrument Europe SPA, Milano .... Italy
Hitachi Ltd, Chiyoda-Ku, Tokyo .... Japan
International Rectifier Semiconductor Div El Segundo .... Cal
Kobe Industries Corp, Kobe .... Japan
Lake Engineering Co Ltd, Scarborough .... Ont
Motorola Semiconductor Products Inc, Phoenix .... Ariz
National Semiconductor Corp, Santa Clara .... Cal
Nippon Electric Co Ltd, Tokyo .... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland

Siliconix Inc, Sunnyvale .... Cal
Sprague Electric Co, North Adams .... Mass
Texas Instruments France, Villeneuve-Loubet .... France
Texas Instruments Incorporated, Dallas .... Tex
Trans-Tek Mfg Co Inc, Garwood .... N J
Union Carbide Electronics, Semiconductor Prods Mountain View .... Cal
United Aircraft Corp Electronic Components Div Trevose .... PA

TRANSISTORS--FIELD EFFECT INSULATED GATE TYPE

GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y .... ADV PGS 3RD COVER INLEAF
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
American Micro-Systems, Inc, Santa Clara .... Cal
Ates Componenti Elettronici SpA, Milano .... Italy
Continental Device Corp, Hawthorne .... Cal
Electronic Components Div United Aircraft Corp Trevose .... Pa
Emihus Microcomponents Ltd Hounslow, Middx .... England
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View .... Cal
Ferranti, Ltd, Lancashire .... England
General Instrument Corp, Semiconductor Prods Grp, Hicksville .... N Y
General Instrument Europe SPA, Milano .... Italy
Hitachi Ltd, Chiyoda-Ku, Tokyo .... Japan
Hughes Aircraft Co, Newport Beach .... Cal
KMC Semiconductor Corp, Long Valley .... N J
Marconi Co Ltd, Chelmsford .... England
Motorola Semiconductor Products Inc, Phoenix .... Ariz
Mullard Ltd, London, WC 1 .... Eng
Nippon Electric Co Ltd, Tokyo .... Japan
Philco-Ford Corp, Washington .... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Radio Corp of America, Electronic Components, Harrison .... N J
Siliconix Inc, Sunnyvale .... Cal
Sprague Electric Co, North Adams .... Mass
Texas Instruments Incorporated, Dallas .... Tex
TRW Semiconductors Inc, Los Angeles .... Cal
Union Carbide Electronics, Semiconductor Prods Mountain View .... Cal
United Aircraft Corp Electronic Components Div Trevose .... PA

MILGRAY
STOCKS
TRANSISTORS

Every kind you can imagine. (And some you can't.) From stockpiles strategically located for overnight or faster delivery to anywhere in the world. We stock more so you can worry less. A call to your local Milgray man will start the motion.

MILGRAY

Milgray/New York 212-YU 9-1600
Milgray/Delaware Valley 215-BA 8-2000
Milgray/Washington 301-864-1111
Milgray/Cleveland 216-881-8800
Milgray/International 212-YU 9-1600
Milgray/New England, Inc. 617-272-6800

TRANSISTORS--HIGH VOLTAGE

GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y .... ADV PGS 3RD COVER INLEAF
Amelco Semiconductor, A Teledyne Co Mountain View .... Cal
Ferranti, Ltd, Lancashire .... England
General Instrument Corp, Semiconductor Prods Grp, Hicksville .... N Y
Hitachi Ltd, Chiyoda-Ku, Tokyo .... Japan
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
MS Transistor Corp Sub Silicon Transistor Corp Elmhurst .... N Y
Siemens America Inc, New York .... N Y
Silicon Transistor Corp, Garden City .... NY
Texas Instruments Incorporated, Dallas .... Tex
Trans-Tek Mfg Co Inc, Garwood .... N J
Walkirt Co, Los Angeles .... Cal

TRANSISTORS--I-F & H-F

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE R I .... ADV PGS 748,749
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y .... ADV PGS 3RD COVER INLEAF
LANSDALE TRANSISTOR & ELECTRONICS INC, LANSDALE .... PA
MITSUBISHI ELECTRIC CORP, TOKYO .... JAPAN
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
AMC Semiconductor Corp, New York .... N Y
Amelco Semiconductor, A Teledyne Co Mountain View .... Cal
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville .... R I
Ates Componenti Elettronici SpA, Milano .... Italy
Avnet Electronics, Westbury .... N Y
Bendix Corp Semiconductor Div, Holmdel .... N J
Continental Device Corp, Hawthorne .... Cal
Electronic Components Div United Aircraft Corp Trevose .... Pa
Electronic Transistors Corp, Flushing .... N Y
Emihus Microcomponents Ltd Hounslow, Middx .... England
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View .... Cal
Ferranti, Ltd, Lancashire .... England
General Electric Co, ECSO, Schenectady .... N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville .... N Y
Hitachi Ltd, Chiyoda-Ku, Tokyo .... Japan
International Electronics Corp, Melville .... NY
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
ITT Semiconductors, West Palm Beach .... Fla
KMC Semiconductor Corp, Long Valley .... N J
Kobe Industries Corp, Kobe .... Japan
Lake Engineering Co Ltd, Scarborough .... Ont
Lansdale Transistor & Electronics Inc, Lansdale .... Pa

Lignes Telegraphiques et Telephoniques Paris 16 .... France
Mitsubishi Electric Corp, Tokyo .... Japan
Motorola Semiconductor Products Inc, Phoenix .... Ariz
Mullard Ltd, London, WC 1 .... Eng
National Semiconductor Corp, Santa Clara .... Cal
Newmarket Transistors Ltd Newmarket, Suffolk .... England
Nippon Electric Co Ltd, Tokyo .... Japan
Philco-Ford Corp, Washington .... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Radio Corp of America, Electronic Components, Harrison .... N J
Raytheon Co, Components Div, Semiconductor Oper Mountain View .... Cal
Sampson Electronic Products Div, Chicago Ill
Semiconductor Products Inc, Lawrence .... Mass
Semiconductor Specialists Inc, Chicago Ill
Siemens America Inc, New York .... N Y
Solitron Devices Inc Transistor Div, Riviera Beach .... Fla
Sprague Electric Co, North Adams .... Mass
Standard Telephones & Cables Ltd London WC 2 .... England
Telefunken Sales Corp, Garden City .... N Y
Texas Instruments France, Villeneuve-Loubet .... France
Texas Instruments Incorporated, Dallas .... Tex
Transitron Electronic Corp, Wakefield .... Mass
Trans-Tek Mfg Co Inc, Garwood .... N J
TRW Semiconductors Inc, Los Angeles .... Cal
Union Carbide Electronics, Semiconductor Prods Mountain View .... Cal
Workman Electronic Products Inc, Sarasota .... Fla

TRANSISTORS--MICROMINIATURE, CASED

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y .... ADV PGS 3RD COVER INLEAF
LANSDALE TRANSISTOR & ELECTRONICS INC, LANSDALE .... PA
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
Amelco Semiconductor, A Teledyne Co Mountain View .... Cal
Continental Device Corp, Hawthorne .... Cal
Crystalonics A Teledyne Co, Cambridge .... Mass
Dahlberg Electronics Inc, Minneapolis .... Minn
Electronic Components Div United Aircraft Corp Trevose .... Pa
Emihus Microcomponents Ltd Hounslow, Middx .... England

Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View ... Cal
Ferranti, Ltd, Lancashire ... England
General Electric Co, ECSO, Schenectady ... N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville ... N Y
General Instrument Europe SPA, Milano ... Italy
Hughes Aircraft Co, Newport Beach ... Cal
ITT Europe Inc Components Gp, Brussels 1 ... Belgium
ITT Semiconductors, West Palm Beach ... Fla
KMC Semiconductor Corp, Long Valley ... N J
Kobe Industries Corp, Kobe ... Japan
Lansdale Transistor & Electronics Inc, Lansdale ... Pa
Motorola Semiconductor Products Inc, Phoenix ... Ariz
National Semiconductor Corp, Santa Clara ... Cal
Nippon Electric Co Ltd, Tokyo ... Japan
Oki Electric Industry Co Ltd, Tokyo ... Japan
Philco-Ford Corp, Washington ... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Raytheon Co, Components Div, Semiconductor Oper Mountain View ... Cal
Semiconductor Specialists Inc, Chicago ... Ill
Siemens America Inc, New York ... N Y
Siliconix Inc, Sunnyvale ... Cal
Solitron Devices Inc Transistor Div, Riviera Beach ... Fla
Sprague Electric Co, North Adams ... Mass
Standard Telephones & Cables Ltd London WC 2 ... England
Telefunken Sales Corp, Garden City ... N Y
Texas Instruments France, Villeneuve-Loubet ... France
Texas Instruments Incorporated, Dallas ... Tex
Transitron Electronic Corp, Wakefield ... Mass
TRW Semiconductors Inc, Los Angeles ... Cal
Union Carbide Electronics, Semiconductor Prods Mountain View ... Cal
United Aircraft Corp Electronic Components Div Trevose ... PA

TRANSISTORS--MICROMINIATURE, UNCASED (INCL BEAD, PASSIVATED, ETC)

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y ... ADV PGS 3RD COVER INLEAF
Amelco Semiconductor, A Teledyne Co Mountain View ... Cal
Continental Device Corp, Hawthorne ... Cal
Dahlberg Electronics Inc, Minneapolis ... Minn
Electronic Components Div United Aircraft Corp Trevose ... Pa
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View ... Cal
Ferranti, Ltd, Lancashire ... England
General Electric Co, ECSO, Schenectady ... N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville ... N Y
General Instrument Europe SPA, Milano ... Italy
Hitachi Ltd, Chiyoda-Ku, Tokyo ... Japan
Hughes Aircraft Co, Newport Beach ... Cal
Integrated Circuit Engineering Corp, Phoenix ... Ariz
ITT Europe Inc Components Gp, Brussels 1 ... Belgium
National Semiconductor Corp, Santa Clara ... Cal
Newmarket Transistors Ltd Newmarket, Suffolk ... England
Oki Electric Industry Co Ltd, Tokyo ... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Raytheon Co, Components Div, Semiconductor Oper Mountain View ... Cal
Semiconductor Specialists Inc, Chicago ... Ill
Solitron Devices Inc Transistor Div, Riviera Beach ... Fla
Sprague Electric Co, North Adams ... Mass
Standard Telephones & Cables Ltd London WC 2 ... England
Texas Instruments Incorporated, Dallas ... Tex
Transitron Electronic Corp, Wakefield ... Mass
Trans-Tek Mfg Co Inc, Garwood ... N J
TRW Semiconductors Inc, Los Angeles ... Cal
Union Carbide Electronics, Semiconductor Prods Mountain View ... Cal

TRANSISTORS--PHOTO

AMBEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE R I ... ADV PGS 748,749
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y ... ADV PGS 3RD COVER INLEAF
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN

Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville ... R I
Crystalonics A Teledyne Co, Cambridge ... Mass
Dahlberg Electronics Inc, Minneapolis ... Minn
E G & G Inc, Electronic Prods Div, Boston ... Mass
Electro-Nuclear Lab Inc, Menlo Park ... Cal
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View ... Cal
General Electric Co, ECSO, Schenectady ... N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville ... N Y
General Sensors Inc, Athens ... Tex
Hitachi Ltd, Chiyoda-Ku, Tokyo ... Japan
International Electronics Corp, Melville ... NY
ITT Europe Inc Components Gp, Brussels 1 ... Belgium
Matsushita Electric Industrial Co Ltd, Osaka ... Japan
Motorola Semiconductor Products Inc, Phoenix ... Ariz
Mullard Ltd, London, WC 1 ... Eng
Nippon Electric Co Ltd, Tokyo ... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Raytheon Co, Components Div, Semiconductor Oper Mountain View ... Cal
Semiconductor Specialists Inc, Chicago ... Ill
Siemens America Inc, New York ... N Y
Siliconix Inc, Sunnyvale ... Cal
Texas Instruments France, Villeneuve-Loubet ... France
Texas Instruments Incorporated, Dallas ... Tex

TRANSISTORS--POWER, GERMANIUM

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE R I ... ADV PGS 748,749
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y ... ADV PGS 3RD COVER INLEAF
LANSDALE TRANSISTOR & ELECTRONICS INC, LANSDALE ... PA
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
MITSUBISHI ELECTRIC CORP, TOKYO ... JAPAN
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
AMC Semiconductor Corp, New York ... N Y
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville ... R I
Ates Componenti Elettronici SpA, Milano ... Italy
Avnet Electronics, Westbury ... N Y
Bendix Corp Semiconductor Div, Holmdel ... N J
Delco Radio Div General Motors Corp, Kokomo ... Ind
Electronic Transistors Corp, Flushing ... N Y
General Electric Co, ECSO, Schenectady ... N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville ... N Y
Hitachi Ltd, Chiyoda-Ku, Tokyo ... Japan
International Electronics Corp, Melville ... NY
International Rectifier Semiconductor Div El Segundo ... Cal
ITT Europe Inc Components Gp, Brussels 1 ... Belgium
Kobe Industries Corp, Kobe ... Japan
KSC Semiconductor Corp, Chelmsford ... Mass
Lake Engineering Co Ltd, Scarborough ... Ont
Lansdale Transistor & Electronics Inc, Lansdale ... Pa
Matsushita Electric Industrial Co Ltd, Osaka ... Japan
Mitsubishi Electric Corp, Tokyo ... Japan
Motorola Semiconductor Products Inc, Phoenix ... Ariz
MS Transistor Corp Sub Silicon Transistor Corp Elmhurst ... N Y
Mullard Ltd, London, WC 1 ... Eng
Newmarket Transistors Ltd Newmarket, Suffolk ... England
Nippon Electric Co Ltd, Tokyo ... Japan
Oneida Electronic Mfg Co, Meadville ... Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Radio Corp of America, Electronic Components, Harrison ... N J
Sampson Electronic Products Div, Chicago ... Ill
Semiconductor Products Inc, Lawrence ... Mass
Semiconductor Specialists Inc, Chicago ... Ill
Siemens America Inc, New York ... N Y
Silicon Transistor Corp, Garden City ... NY
Solitron Devices Inc, Tappan ... NY
Solitron Devices Inc Transistor Div, Riviera Beach ... Fla
Standard Telephones & Cables Ltd London WC 2 ... England
Telefunken Sales Corp, Garden City ... N Y
Texas Instruments France, Villeneuve-Loubet ... France
Texas Instruments Incorporated, Dallas ... Tex
Trans-Tek Mfg Co Inc, Garwood ... N J
Walkirt Co, Los Angeles ... Cal
Workman Electronic Products Inc, Sarasota ... Fla

TRANSISTORS--POWER, SILICON

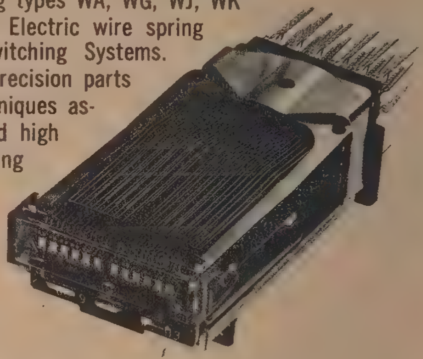
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
LANSDALE TRANSISTOR & ELECTRONICS INC, LANSDALE ... PA
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
AMC Semiconductor Corp, New York ... N Y
Ates Componenti Elettronici SpA, Milano ... Italy
Avnet Electronics, Westbury ... N Y
Bendix Corp Semiconductor Div, Holmdel ... N J
Continental Device Corp, Hawthorne ... Cal
Crystalonics A Teledyne Co, Cambridge ... Mass
Delco Radio Div General Motors Corp, Kokomo ... Ind
Delta Semiconductors Div Natl Instr Corp Costa Mesa ... Cal
Electronic Components Div United Aircraft Corp Trevose ... Pa
Electronic Transistors Corp, Flushing ... N Y
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View ... Cal
Ferranti, Ltd, Lancashire ... England
General Electric Co, ECSO, Schenectady ... N Y
Hitachi Ltd, Chiyoda-Ku, Tokyo ... Japan
International Electronics Corp, Melville ... NY
International Rectifier Semiconductor Div El Segundo ... Cal
ITT Europe Inc Components Gp, Brussels 1 ... Belgium
KMC Semiconductor Corp, Long Valley ... N J
Kobe Industries Corp, Kobe ... Japan
Lake Engineering Co Ltd, Scarborough ... Ont
Lansdale Transistor & Electronics Inc, Lansdale ... Pa
Lignes Telegraphiques et Telephoniques Paris 16 ... France
Matsushita Electric Industrial Co Ltd, Osaka ... Japan
Motorola Semiconductor Products Inc, Phoenix ... Ariz
MS Transistor Corp Sub Silicon Transistor Corp Elmhurst ... N Y
Mullard Ltd, London, WC 1 ... Eng
National Semiconductor Corp, Santa Clara ... Cal
Newmarket Transistors Ltd Newmarket, Suffolk ... England
Nippon Electric Co Ltd, Tokyo ... Japan
Oneida Electronic Mfg Co, Meadville ... Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Radio Corp of America, Electronic Components, Harrison ... N J
Sampson Electronic Products Div, Chicago ... Ill
Sanken Electric Co, Ltd, Toshima-ku, Tokyo ... Japan
Semiconductor Devices Inc, Santa Ana ... Cal
Semiconductor Products Inc, Lawrence ... Mass
Semiconductor Specialists Inc, Chicago ... Ill
Silicon Transistor Corp, Garden City ... NY
Slater Electric Inc, Glen Cove ... N Y
Solid State Products Co, Salem ... Mass
Solitron Devices Inc, Tappan ... NY
Solitron Devices Inc Transistor Div, Riviera Beach ... Fla
Standard Telephones & Cables Ltd London WC 2 ... England
Texas Instruments France, Villeneuve-Loubet ... France
Texas Instruments Incorporated, Dallas ... Tex
Transitron Electronic Corp, Wakefield ... Mass
Trans-Tek Mfg Co Inc, Garwood ... N J
United Aircraft Corp Electronic Components Div Trevose ... PA
Varian, Palo Alto ... Cal
Walkirt Co, Los Angeles ... Cal
Westinghouse Electric Corp, Semiconductor Div Youngwood ... Pa
Workman Electronic Products Inc, Sarasota ... Fla

TRANSISTORS
TRANSISTORS
TRANSISTORS
TRANSISTORS
Transistors
transistors
TRANSISTORS
TRANSISTORS
WHY
WORRY!
CALL
FAIRMONT
ELECTRONIC SALES CORP
60 Smith Street / Farmingdale NY 11735
(516) 694-8200
1560 Missile Way / Anaheim, Calif 92801
(714) 871-0050

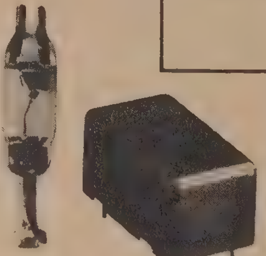
NIPPON ELECTRIC IS A WORLD LEADER IN ELECTRONIC COMPONENTS. KNOWLEDGEABLE ENGINEERS SPECIFY NEC PRODUCTS FOR ESTABLISHED RELIABILITY ("ER"). OUR PRICES ARE COMPETITIVE AND PERFORMANCE OF THE HIGHEST QUALITY.

NEC MINIATURE RELAY—MR11. Characteristics are similar to the W. E. MB Relay. Highly recommended for general industrial application, MR11 Relays are especially suitable for printed circuit configurations. **Gold plated twin contacts add greater reliability and durability.**

NEC WIRE SPRING RELAY TYPE WJ (24-Make)—shown here—is one of a group including types WA, WG, WJ, WK and WM, similar to Western Electric wire spring relays used in Crossbar Switching Systems. Finest quality wire springs, precision parts and the latest assembly techniques assure long life expectancy and high speed operation. NEC Wire Spring Relays are highly recommended for sophisticated telephone exchange systems, and wherever control relays are used.



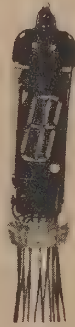
NEC TYPE MC-2, MC-3 and MC-4 MERCURY-WETTED SWITCHES. Type MC-4 is shown here, in its housing MD-116A. All NEC Mercury-Wetted Switches are equipped with a high efficiency type **"Switch Capsule,"** insuring super longevity and maximum reliability for high speed performance. A smaller size "Form C" type switch now being perfected will soon be placed on the market.



NEC DRY REED SWITCHES (RD-1, RD-3 and RD-5). The contact is carefully sealed in a glass tube, and can be adapted to various other types of reed relays when combined with an exciting coil. NEC Dry Reed Switches are widely used as proximity magnetic switches in conjunction with a permanent magnet. A smaller Dry Reed Switch now under development at NEC will soon be available.

NEC GAS LASER. The type GLG-103 shown here (1 mW minimum, with multimode) is a unique product of NEC technology. A companion model, the GLG-2004 (1 mW minimum), is a single mode laser slightly smaller in size, but has most of the sophisticated characteristics of the GLG-103.

NEC Gas Laser Generators are light weight, portable, with self-contained mirror (in the HE-NE type Gas Laser Tube), which is fixed inside the cylindrical case. The internal mirror gas laser, **a major NEC achievement, is self-adjusting, shockproof and dustproof, and exceptionally stable**—no customer alignment is necessary. NEC Gas Lasers operate on low anode voltage with small input line power.



NEC LD-915 DIGITAL INDICATOR TUBE is engineered for use in place of the usual read-out tube, for integrated circuit applications where lower voltage supply requirements are desirable. The LD-915 electron tube provides "Uni-Planar" display of numerical figures, mathematical symbols and characters. Uniquely efficient performance is due to composition based on green phosphor coated segments, charged with electrons imparted from a directly heated filament.

NEC LASER DETECTOR—TYPE LD-769. This static crossed-field photomultiplier detects low-level laser light, modulated by a signal frequency which switches from DC to microwave. In the static crossed electric and magnetic fields (produced by suitable arrangements of electrodes) the cycloidal electron motion has very small transit-time dispersion. Thus, the photomultiplier delivers flatter and wider frequency response (extending to the microwave region) than the conventional tube.

The LD-769 is packaged with a compact, completely shielded permanent magnet. A 50-ohm coaxial output terminal mates with connector type UG-21d/U.

NEC ESAKI DIODES are recommended for high-speed switching applications. Specifications available upon request.

NEC MICROWAVE TRANSISTORS—enthusiastically approved by leading telecommunications and electronic data processing engineers. In complex communications systems, NEC Microwave Transistors provide consistently excellent performance under the most difficult ambient environmental conditions. Our Type V417 Microwave Transistor, which operates with NF 9dB at 4 GH_z, is well known. In this same group we also recommend our types V327 and V415 Microwave Transistors.

Specification inquiries and consultations cordially invited, without obligation.

NEC manufactures high quality **SCR, SR, TRIAC, DIAC,** Unijunction, Voltage Reference Diodes ($V_Z 7^V$ — 1S550 through 1SS552), and HF Zener Diodes (RD7H, 8H and 10H). NEC Silicon Controlled Rectifiers and Silicon Rectifiers are recommended for high current, high voltage applications. NEC also produces SCR and SR, tailored for a vast range of current/voltage requirements.

UNIJUNCTION TRANSISTORS

TYPE NO.	P (mW)	V_{BB} (V)
2SH11	450	35
2SH12	450	35
2SH16	200	25
2SH17	200	25

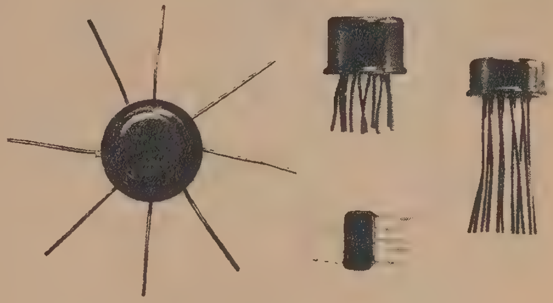
TRIACS

I_O (A)	V_{BLM} (V) 200	400	I_{GT} (mA)	V_{GT} (V)
6.0	AC06B	AC06D	±50	±3.0
6.0	AC06BS	AC06DS	±50	±3.0
10	AC10B	AC10D	±50	±3.0
10	AC10BS	AC10DS	±50	±3.0

DIAC

TYPE NO.	V_{BO_1} (V)	I_P (A)
V413	±26~40	±2.0

NEC "ESVAC" (Epitaxial Silicon Capacitance Diode) includes three groups: 1S1617, 1S1618 and 1S1619. Our outstanding Capacitance Diodes utilize "Hyper-Abrupt Junction," (the rate of junction capacitance varying with applied voltage). Especially recommended for use in automatic gain control, automatic frequency control, frequency modulation, phase modulation and voltage tuning circuits, with high reliability and excellent temperature characteristics.

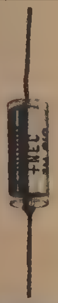


INTEGRATED CIRCUITS: Nippon Electric **is Japan's foremost manufacturer of Integrated Circuits.** Recognizing the vital role of miniaturization in the electronic industry, NEC has perfected mini-microscopic IC's to insure maximum economy, function and durability.

FOR DESK CALCULATORS: The NEC MOS Series (μPD 9-15), now available in production quantities, offers high reliability with very stable performance. NEC will soon begin production of LSI (Large Scale Integration) to meet the industry's growing needs.

FOR INDUSTRIAL USE: NEC's new family of TTL, designated the μPB200 Series, provides total compatibility with standard U.S.A. products. Our μPC51 is designed for use in Operational Amplifiers, and the μPC71 for Comparator applications.

FOR CONSUMER PRODUCTS: The μPC16 is a linear IC for IF amplification in television audio circuits. Performance is excellent in limiting characteristics, linearity of detector and temperature stability. Advanced design concepts make the μPC16 significantly superior to circuits employing the usual discrete components.



NEC'S EXTENSIVE RANGE OF CAPACITORS ARE GUARANTEED TO MEET YOUR MOST EXACTING SPECIFICATIONS:

"BL" CAPACITORS. Special "Boundary Layer" ceramic semiconductor capacitors developed by NEC are based on a new principle enabling optimized by-passing applications in H F. and High Speed Pulse circuits, with improved temperature and frequency characteristics.

TANTALUM "E" SERIES. Small, rectangular, solid tantalum capacitors, transfer molded with plastic material, supplied with uni-directional leads for use in printed circuits.

TANTALUM "H" SERIES. Hermetically sealed in a metal case, designed expressly for communications equipment, industrial control systems and electronic computers.

"MICROSOLID" TANTALUM. Smaller size is more suitable for use in high density electronic circuits.

"MYLEX" (MYLAR FILM). More compact and lighter in weight than the polyester type, "Mylex" capacitors provide highly efficient operation at very low voltages.

NEC

FOR THE U.S.A. AND CANADA, WRITE TO
Nippon Electric NEW YORK INC.
PAN AM BUILDING 200 PARK AVE. NEW YORK, N.Y. 10017

OTHER COUNTRIES PLEASE DIRECT INQUIRIES TO
Nippon Electric Company Limited
P.O. BOX 1, TAKANAWA TOKYO, JAPAN

TRANSISTORS--SWITCHING, GERMANIUM

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE R I .... ADV PGS 748,749
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y........ ADV PGS 7
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y........ ADV PGS 3RD COVER INLEAF
LANSDALE TRANSISTOR & ELECTRONICS INC, LANSDALE PA .... ADV PG 754
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN

24 HOUR
quote and delivery service . . .
IN QUALITY-TESTED
TRANSISTORS

PHILCO

MADT		MAT	SPAT		
2N501A	2N1754	2N393	2N495	2N861	2N2280
2N1500	2N779A	2N1122	2N1118	2N863	2N2274
2N1499A	2N2400	2N1411	2N859	2N865	2N2275
2N2048	2N2401				

and many others

LANSDALE ATES

2N3731	2N2614	2N1180	2N406	2N217	2N1906
2N3732	2N1177	2N2083	2N408	2N2870	2N2147
2N3730	2N1178	2N1639	2N109	2N301A	2N2148
2N2613	2N1179	2N1638	2N467	2N2869	

LANSDALE LINEAR IC'S

MIL 702 710 709 711
COMMERCIAL 702 C 710 C 709 C 711C

LANSDALE
TRANSISTOR &
ELECTRONICS INC

Our Only Competition in Delivery

1111 N. BROAD STREET
LANSDALE, PA
AREA 215 855 9002

AMC Semiconductor Corp, New York .... N Y
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville .... R I
Ates Componenti Elettronici SpA, Milano .... Italy
Avnet Electronics, Westbury .... N Y
Bendix Corp Semiconductor Div, Holmdel .... N J
Delco Radio Div General Motors Corp, Kokomo .... Ind
Electronic Transistors Corp, Flushing .... N Y
Fujitsu Ltd, Tokyo .... Japan
General Electric Co, ECSO, Schenectady .... N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville .... N Y
Hitachi Ltd, Chiyoda-Ku, Tokyo .... Japan
International Electronics Corp, Melville .... NY
International Rectifier Semiconductor Div El Segundo .... Cal
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Kobe Industries Corp, Kobe .... Japan
KSC Semiconductor Corp, Chelmsford .... Mass
Lansdale Transistor & Electronics Inc, Lansdale .... Pa

Motorola Semiconductor Products Inc, Phoenix .... Ariz
MS Transistor Corp Sub Silicon Transistor Corp Elmhurst .... N Y
Mullard Ltd, London, WC 1 .... Eng
Newmarket Transistors Ltd Newmarket, Suffolk .... England
Nippon Electric Co Ltd, Tokyo .... Japan
Oki Electric Industry Co Ltd, Tokyo .... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Radio Corp of America, Electronic Components, Harrison .... N J
Sampson Electronic Products Div, Chicago Ill
Semiconductor Devices Inc, Santa Ana .... Cal
Semiconductor Products Inc, Lawrence .... Mass
Semiconductor Specialists Inc, Chicago Ill
Siemens America Inc, New York .... N Y
Silicon Transistor Corp, Garden City .... NY
Solitron Devices Inc, Tappan .... NY
Solitron Devices Inc Transistor Div, Riviera Beach .... Fla
Sprague Electric Co, North Adams .... Mass
Standard Telephones & Cables Ltd London WC 2 .... England
Telefunken Sales Corp, Garden City .... N Y
Texas Instruments France, Villeneuve-Loubet .... France
Texas Instruments Incorporated, Dallas .... Tex
Walkirt Co, Los Angeles .... Cal
Workman Electronic Products Inc, Sarasota .... Fla

TRANSISTORS--SWITCHING, SILICON

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE R I .... ADV PGS 748,749
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y........ ADV PGS 7
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y........ ADV PGS 3RD COVER INLEAF
LANSDALE TRANSISTOR & ELECTRONICS INC, LANSDALE .... PA
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
Akers Electronics, Horten .... Norway
AMC Semiconductor Corp, New York .... N Y
Amelco Semiconductor, A Teledyne Co Mountain View .... Cal
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville .... R I
Ates Componenti Elettronici SpA, Milano .... Italy
Avnet Electronics, Westbury .... N Y
Bendix Corp Semiconductor Div, Holmdel .... N J
Continental Device Corp, Hawthorne .... Cal
Crystalonics A Teledyne Co, Cambridge .... Mass
Delco Radio Div General Motors Corp, Kokomo .... Ind
Delta Semiconductors Div Natl Instr Corp Costa Mesa .... Cal
Electronic Components Div United Aircraft Corp Trevose .... Pa
Electronic Transistors Corp, Flushing .... N Y
Emihus Microcomponents Ltd Hounslow, Middx .... England
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View .... Cal
Ferranti Electric Inc, Plainview .... N Y
Ferranti, Ltd, Lancashire .... England
Fujitsu Ltd, Tokyo .... Japan
General Electric Co, ECSO, Schenectady .... N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville .... N Y
Hitachi Ltd, Chiyoda-Ku, Tokyo .... Japan
Hughes Aircraft Co, Newport Beach .... Cal
International Electronics Corp, Melville .... NY
International Rectifier Semiconductor Div El Segundo .... Cal
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
ITT Semiconductors, West Palm Beach .... Fla
Kobe Industries Corp, Kobe .... Japan
Lansdale Transistor & Electronics Inc, Lansdale .... Pa
Lignes Telegraphiques et Telephoniques Paris 16 .... France
Marconi Co Ltd, Chelmsford .... England
Motorola Semiconductor Products Inc, Phoenix .... Ariz
MS Transistor Corp Sub Silicon Transistor Corp Elmhurst .... N Y
Mullard Ltd, London, WC 1 .... Eng
National Semiconductor Corp, Santa Clara .... Cal
Newmarket Transistors Ltd Newmarket, Suffolk .... England
Nippon Electric Co Ltd, Tokyo .... Japan
Oki Electric Industry Co Ltd, Tokyo .... Japan
Philco-Ford Corp, Washington .... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Radio Corp of America, Electronic Components, Harrison .... N J
Raytheon Co, Components Div, Semiconductor Oper Mountain View .... Cal
Sampson Electronic Products Div, Chicago Ill
Sanken Electric Co, Ltd, Toshima-ku, Tokyo .... Japan
Semiconductor Products Inc, Lawrence .... Mass
Semiconductor Specialists Inc, Chicago Ill
Siemens America Inc, New York .... N Y
Silicon Transistor Corp, Garden City .... NY
Solid State Products Co, Salem .... Mass
Solitron Devices Inc, Tappan .... NY
Solitron Devices Inc Transistor Div, Riviera Beach .... Fla
Sprague Electric Co, North Adams .... Mass
Standard Telephones & Cables Ltd London WC 2 .... England
Telefunken Sales Corp, Garden City .... N Y
Texas Instruments France, Villeneuve-Loubet .... France
Texas Instruments Incorporated, Dallas .... Tex
Transitron Electronic Corp, Wakefield .... Mass
TRW Semiconductors Inc, Los Angeles .... Cal
Union Carbide Electronics, Semiconductor Prods Mountain View .... Cal
United Aircraft Corp Electronic Components Div Trevose .... PA
Walkirt Co, Los Angeles .... Cal
Westinghouse Electric Corp, Semiconductor Div Youngwood .... Pa

Workman Electronic Products Inc, Sarasota .... Fla

TRANSISTORS--TETRODE

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y........ ADV PGS 7
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View .... Cal
General Electric Co, ECSO, Schenectady .... N Y
National Semiconductor Corp, Santa Clara .... Cal
Nippon Electric Co Ltd, Tokyo .... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Semiconductor Specialists Inc, Chicago Ill
Solitron Devices Inc, Tappan .... NY
Solitron Devices Inc Transistor Div, Riviera Beach .... Fla
Texas Instruments France, Villeneuve-Loubet .... France
Texas Instruments Incorporated, Dallas .... Tex
Transitron Electronic Corp, Wakefield .... Mass

TRANSISTORS--UHF

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE R I .... ADV PGS 748,749
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y........ ADV PGS 7
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y........ ADV PGS 3RD COVER INLEAF
LANSDALE TRANSISTOR & ELECTRONICS INC, LANSDALE .... PA
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
Amelco Semiconductor, A Teledyne Co Mountain View .... Cal
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville .... R I
Ates Componenti Elettronici SpA, Milano .... Italy
Bendix Corp Semiconductor Div, Holmdel .... N J
Continental Device Corp, Hawthorne .... Cal
Electronic Components Div United Aircraft Corp Trevose .... Pa
Electronic Transistors Corp, Flushing .... N Y
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View .... Cal
Ferranti, Ltd, Lancashire .... England
General Electric Co, ECSO, Schenectady .... N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville .... N Y
Hitachi Ltd, Chiyoda-Ku, Tokyo .... Japan
International Electronics Corp, Melville .... NY
International Rectifier Semiconductor Div El Segundo .... Cal
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
ITT Semiconductors, West Palm Beach .... Fla
KMC Semiconductor Corp, Long Valley .... N J
Kobe Industries Corp, Kobe .... Japan
Lansdale Transistor & Electronics Inc, Lansdale .... Pa
Motorola Semiconductor Products Inc, Phoenix .... Ariz
Mullard Ltd, London, WC 1 .... Eng
National Semiconductor Corp, Santa Clara .... Cal
Newmarket Transistors Ltd Newmarket, Suffolk .... England
Nippon Electric Co Ltd, Tokyo .... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Radio Corp of America, Electronic Components, Harrison .... N J
Raytheon Co, Components Div, Semiconductor Oper Mountain View .... Cal
Sampson Electronic Products Div, Chicago Ill
Semiconductor Specialists Inc, Chicago Ill
Siemens America Inc, New York .... N Y
Solitron Devices Inc Transistor Div, Riviera Beach .... Fla
Sprague Electric Co, North Adams .... Mass
Standard Telephones & Cables Ltd London WC 2 .... England
Telefunken Sales Corp, Garden City .... N Y
Texas Instruments France, Villeneuve-Loubet .... France
Texas Instruments Incorporated, Dallas .... Tex
TRW Semiconductors Inc, Los Angeles .... Cal
Union Carbide Electronics, Semiconductor Prods Mountain View .... Cal
United Aircraft Corp Electronic Components Div Trevose .... PA
Workman Electronic Products Inc, Sarasota .... Fla

TRANSISTORS--VHF

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE R I .... ADV PGS 748,749
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y........ ADV PGS 7
GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP, HICKSVILLE, N Y........ ADV PGS 3RD COVER INLEAF
LANSDALE TRANSISTOR & ELECTRONICS INC, LANSDALE .... PA
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
Amelco Semiconductor, A Teledyne Co Mountain View .... Cal
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville .... R I
Ates Componenti Elettronici SpA, Milano .... Italy
Bendix Corp Semiconductor Div, Holmdel .... N J
Continental Device Corp, Hawthorne .... Cal
Electronic Components Div United Aircraft Corp Trevose .... Pa
Electronic Transistors Corp, Flushing .... N Y
Fairchild Semiconductor Div Fairchild Cam & Inst Corp Mountain View .... Cal
Ferranti, Ltd, Lancashire .... England
General Electric Co, ECSO, Schenectady .... N Y
General Instrument Corp, Semiconductor Prods Grp, Hicksville .... N Y
Hitachi Ltd, Chiyoda-Ku, Tokyo .... Japan
International Electronics Corp, Melville .... NY

ITT Europe Inc Components Gp, Brussels 1 .... Belgium
ITT Semiconductors, West Palm Beach .... Fla
KMC Semiconductor Corp, Long Valley .... N J
Kobe Industries Corp, Kobe .... Japan
Lansdale Transistor & Electronics Inc, Lansdale .... Pa
Marconi Co Ltd, Chelmsford .... England
Motorola Semiconductor Products Inc, Phoenix .... Ariz
MS Transistor Corp Sub Silicon Transistor Corp Elmhurst .... N Y
Mullard Ltd, London, WC 1 .... Eng
National Semiconductor Corp, Santa Clara .... Cal
Newmarket Transistors Ltd Newmarket, Suffolk .... England
Nippon Electric Co Ltd, Tokyo .... Japan

Special ingredients.

Does the laser have the special ingredients your project needs? The names and addresses of laser suppliers are listed alphabetically in the Electronics Buyers' Guide, classified by 5 kinds of lasers, from crystal lasers to ruby lasers.

Electronics Buyers' Guide

Oki Electric Industry Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Electronic Components, Harrison	N J
Raytheon Co, Components Div, Semiconductor Oper Mountain View	Cal
Sampson Electronic Products Div, Chicago	Ill
Semiconductor Specialists Inc, Chicago	Ill
Siemens America Inc, New York	N Y
Silicon Transistor Corp, Garden City	NY
Solitron Devices Inc Transistor Div, Riviera Beach	Fla
Sprague Electric Co, North Adams	Mass
Standard Telephones & Cables Ltd London WC 2	England
Telefunken Sales Corp, Garden City	N Y
Texas Instruments France, Villeneuve-Loubet	France
Texas Instruments Incorporated, Dallas	Tex
TRW Semiconductors Inc, Los Angeles	Cal
Union Carbide Electronics, Semiconductor Prods Mountain View	Cal
United Aircraft Corp Electronic Components Div Trevose	PA
Workman Electronic Products Inc, Sarasota	Fla

TRANSISTOR TESTERS SEE TESTERS--TRANSISTOR

TRANSISTOR-TYPE CONVERTERS--A-C TO A-C SEE CONVERTERS--POWER

TRANSITIONS--COAXIAL

DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	**ADV PGS 58,59**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
Aircom Inc, Union	N H
Airtec Inc, Roselle	N J
Alford Mfg Co, Winchester	Mass
Andrew California Corp, Claremont	Cal
Arra, Inc, Bayshore	NY
Aviation Electric Ltd, St Laurent, Montreal	Que
Bendix Corp, Microwave Devices Div, Franklin	Ind
Coax Devices, Chelsea	Mass
Compagnie Generale de Metrologie Haute Savoie	France
Diamond Antenna & Microwave Corp, Winchester	Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electronic Standards Corp, Plainfield	N J
General RF Fittings Inc, Port Salerno	Fla
Greenpar Engineering Ltd, Electronics Div Essex	England
Gremar Mfg Co Inc, Wakefield	Mass
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Maury Microwave Corp, Montclair	Cal
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Development Labs Inc Needham Heights	Mass
Microwave Guide Inc, Lowell	Mass
Montedoro Corp, San Luis Obispo	Cal
Omega Laboratories Inc, Rowley	Mass
Ottawa, Paris	France
Phelps Dodge Electronic Products Corp North Haven	Conn
Rantec Div Emerson Electric Co, Calabasas	Cal
RLC Electronics Inc, Port Chester	N Y
Tek-Wave Inc, Princeton	N J
Victor R F & Microwave Co, Wakefield	Mass
Waveline Inc, West Caldwell	N J

TRANSITIONS--WAVEGUIDE

DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	**ADV PGS 58,59**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
Aircom Inc, Union	N H
Airtec Inc, Roselle	N J
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alpha Industries Inc, Newton Upper Falls	Mass
Andrew California Corp, Claremont	Cal
Arra, Inc, Bayshore	NY
Aviation Electric Ltd, St Laurent, Montreal	Que
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp, Microwave Devices Div, Franklin	Ind
Coax Devices, Chelsea	Mass
Diamond Antenna & Microwave Corp, Winchester	Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Electromagnetic Radiation Labs Inc, West Acton	Mass
Electronic Specialty Co, Los Angeles	Cal
Gabriel Electronics Div Maremont Corp, Saco	Maine
General Microwave Corp, Farmingdale	N Y
General RF Fittings Inc, Port Salerno	Fla
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hewlett-Packard, Palo Alto	Cal
Laminair, Inc, Los Angeles	Cal
Maury Microwave Corp, Montclair	Cal
Meridian Metalcraft Inc, Whittier	Cal
Microwave Associates Inc, Burlington	Mass
Microwave Development Labs Inc Needham Heights	Mass
Microwave Guide Inc, Lowell	Mass
Neico Microwave Co, Waltham	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Omega Laboratories Inc, Rowley	Mass
Phelps Dodge Electronic Products Corp North Haven	Conn
Premier Microwave Corp, Port Chester	N Y
Radiation Systems Inc, McLean	Va
Rantec Div Emerson Electric Co, Calabasas	Cal
R F Systems Inc, Cohasset	Mass
Specialty Waveguide Corp, Burlington	Mass
Victor R F & Microwave Co, Wakefield	Mass
Waveline Inc, West Caldwell	N J

TRANSLATORS--TELEMETERING

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
R H G ELECTRONICS LAB INC, FARMINGDALE	**N Y**
SUPERIOR ELECTRIC CO THE, BRISTOL	**CONN**
Accurate Electronics Corp, Elyria	Ohio
Aeroscience Electronics Inc, Atlanta	Ga
Astrodata Inc, Anaheim	Cal
Beckman Instruments Inc, Fullerton,	Cal
Bristol Div, American Chain & Cable Co Waterbury	Conn
CAE Industries Ltd, Montreal 3	Que
Dynatronics Oper Elctns Div Gen Dynamics Corp Orlando	Fla
Electronic Engineering Co of Cal, Santa Ana	Cal
Eon Instrumentation Inc, Van Nuys	Cal
Giannini-Voltex, Whittier	Cal
Landis & Gyr AG, Zug	Switzerland
Melabs, Palo Alto	Cal
Nippon Electric Co Ltd, Tokyo	Japan
North Electric Co, Galion	Ohio
Plessey Co Ltd, Telecommunications Group, Liverpool 7	England
Resdel Engineering Corp, Pasadena	Cal
R H G Electronics Lab Inc, Farmingdale	N Y
Solid State Electronics Corp, Sepulveda	Cal
Sonex Inc, Philadelphia	Pa
Superior Electric Co The, Bristol	Conn
United Aircraft Corp Electronic Components Div Trevose	PA

TRANSMISSION LINES--RIGID CONTROL

SEE ALSO CABLE--COAXIAL; CABLES—UNSHIELDED: STRIP TRANSMISSION LINE; WAVEGUIDES

ANAREN MICROWAVE INC, SYRACUSE	**N Y**
ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK	**N Y**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
ACI, Inc, Princeton	N J
Ainslie Corp, Braintree	Mass
Aircom Inc, Union	N H
Anaren Microwave Inc, Syracuse	N Y
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Anritsu Electric Co Ltd, Tokyo	Japan
Columbia Wire Products Co, Chicago	Ill
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Electromagnetic Radiation Labs Inc, West Acton	Mass
General Microwave Corp, Farmingdale	N Y
Herley Industries, Inc, Westbury	N Y
Ion Physics Corp, Burlington	Mass
Maury Microwave Corp, Montclair	Cal
MCS Corp, Monrovia	Cal
Microwave Associates Inc, Burlington	Mass
Microwave Guide Inc, Lowell	Mass
National Wire & Cable Corp, Los Angeles	Cal
Pacific Electricord Co, Gardena	Cal
Phelps Dodge Copper Products Corp, New York	N Y
Phelps Dodge Electronic Products Corp North Haven	Conn
Phelps Dodge Electronic Prods Corp, Commun Prods Div Marlboro	N J
Portchester Instrument Corp, Port Chester	N Y
Prodelin Inc, Hightstown	N J
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Specialty Waveguide Corp, Burlington	Mass
Surface Conduction Inc, New York	N Y
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne	NY
Tek-Wave Inc, Princeton	N J
Waveline Inc, West Caldwell	N J

TRANSMISSION TEST SETS SEE TEST SYSTEMS

TRANSMITTERS, BROADCAST--A-M

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Advanced Technology Corp, Chambersburg	Pa
American Electronic Labs Inc, Lansdale	Pa
Bauer Broadcast Div Granger Assoc, Palo Alto	Cal
Canadian Marconi Co, Montreal 16	Quebec
C C A Electronics Corp, Gloucester	NJ
Collins Radio Co, Dallas	Tex
Continental Electronics Mfg Co Sub LTV Electrosystems Inc, Dallas	Tex
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Gates Radio Co, Quincy	Ill
Granger Associates, Palo Alto	Cal
Kobe Industries Corp, Kobe	Japan
Kokusai Electric Co Ltd, Tokyo	Japan
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
P & H Electronics, Lafayette	Ind
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Shiba Electric Co Ltd, Woodside	N Y
Technical Materiel Corp, Mamaroneck	N Y
Telefunken Sales Corp, Garden City	N Y
Thomson Electric Co, Sub Cie Fran Thomson Houston New York	N Y
Utica Electronics Inc, Chicago	Ill

TRANSMITTERS, BROADCAST--F-M

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
American Electronic Labs Inc, Lansdale	Pa
Bauer Broadcast Div Granger Assoc, Palo Alto	Cal
Belar Electronics Lab Inc, Upper Darby	Pa
Canadian Marconi Co, Montreal 16	Quebec
C C A Electronics Corp, Gloucester	NJ
Collins Radio Co, Dallas	Tex
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Gates Radio Co, Quincy	Ill
Granger Associates, Palo Alto	Cal
Kobe Industries Corp, Kobe	Japan
Kokusai Electric Co Ltd, Tokyo	Japan

Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Marti Electronics, Cleburne	Tex
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Nippon Electric Co Ltd, Tokyo	Japan
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Shiba Electric Co Ltd, Woodside	N Y
Telefunken Sales Corp, Garden City	N Y
Thomson Electric Co, Sub Cie Fran Thomson Houston New York	N Y

TRANSMITTERS, BROADCAST-- F-M, SCA

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
American Electronic Labs Inc, Lansdale	Pa
Bauer Broadcast Div Granger Assoc, Palo Alto	Cal
Belar Electronics Lab Inc, Upper Darby	Pa
C C A Electronics Corp, Gloucester	NJ
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Gates Radio Co, Quincy	Ill
Kobe Industries Corp, Kobe	Japan
Marti Electronics, Cleburne	Tex
Moseley Associates Inc, Goleta	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Philips Electronics Industries Ltd, Toronto 17	Ont
Thomson Electric Co, Sub Cie Fran Thomson Houston New York	N Y

TRANSMITTERS, BROADCAST-- STEREO, F-M

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
American Electronic Labs Inc, Lansdale	Pa
Bauer Broadcast Div Granger Assoc, Palo Alto	Cal
Belar Electronics Lab Inc, Upper Darby	Pa
Canadian Marconi Co, Montreal 16	Quebec
C C A Electronics Corp, Gloucester	NJ
Collins Radio Co, Dallas	Tex
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Gates Radio Co, Quincy	Ill
Granger Associates, Palo Alto	Cal
Kobe Industries Corp, Kobe	Japan
Kokusai Electric Co Ltd, Tokyo	Japan
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Moseley Associates Inc, Goleta	Cal
Nippon Electric Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Shiba Electric Co Ltd, Woodside	N Y
Telefunken Sales Corp, Garden City	N Y

TRANSMITTERS, BROADCAST-- TV, COLOR

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Ampex Corp, Redwood City	Cal
Canadian Marconi Co, Montreal 16	Quebec
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Electronics Missiles & Communications Inc White Haven	Pa
Energy Systems Inc, Palo Alto	Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Gates Radio Co, Quincy	Ill
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
Kobe Industries Corp, Kobe	Japan
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Microwave Associates Inc, Burlington	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Precision Mecanique Labinal, 93 Saint-Ouen	France
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Shiba Electric Co Ltd, Woodside	N Y
Technical Materiel Corp, Mamaroneck	N Y
Thomson Electric Co, Sub Cie Fran Thomson Houston New York	N Y

TRANSMITTERS, BROADCAST-- TV, MONACHROME

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Alto Scientific Co, Inc, Palo Alto	Cal
Ampex Corp, Redwood City	Cal
Benco Television Assoc Div Redifon Can Ltd Rexdale	Ont
Canadian Marconi Co, Montreal 16	Quebec
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Electronics Missiles & Communications Inc White Haven	Pa
Energy Systems Inc, Palo Alto	Cal
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
Gates Radio Co, Quincy	Ill
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
Kobe Industries Corp, Kobe	Japan
Kokusai Electric Co Ltd, Tokyo	Japan
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Microwave Associates Inc, Burlington	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Precision Mecanique Labinal, 93 Saint-Ouen	France
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Telefunken Sales Corp, Garden City	N Y
Thomson Electric Co, Sub Cie Fran Thomson Houston New York	N Y

TRANSMITTERS—FACSIMILE SEE FACSIMILE EQUIPMENT

TRANSMITTERS--JAMMING & COUNTERMEASURE

Alto Scientific Co, Inc, Palo Alto	Cal
Amecom Div Litton Industries, Silver Spring	Md
American Astrionics Inc, Palo Alto	Cal
American Electronic Labs Inc, Lansdale	Pa
American Systems, Inc, Van Nuys	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
C C A Electronics Corp, Gloucester	NJ
Cober Electronics Inc, Stamford	Conn
Cosmos Industries Inc, Brooklyn	N Y
Energy Systems Inc, Palo Alto	Cal
Engineering Associates, Dayton	Ohio
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fairchild Hiller Corp Republic Aviation Div Farmingdale	N Y
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus	N J
General Atronics Corp, Philadelphia	Pa
General Electric Co, Aerospace Elctns Dept, Utica	N Y
General Instrument Corp Radio Receptor Div Hicksville	N Y
Goodyear Aerospace Corp, Akron	Ohio
Instruments for Industry Inc, Farmingdale	N Y
Itek Corp, Lexington	Mass
ITT Gilfillan Inc, Van Nuys	Cal
Loral Electronic Systems, Div Loral Corp, New York	NY
Maxson Electronics Div, Maxson Electronics Corp Great River	N Y
M Tech Corp, Pomona	Cal
Otis Elevator Co, Defense Oper, Stamford	Conn
Philco-Ford Corp, Washington	D C
Raytheon Co, Government Marketing, Lexington	Mass
RCA, Defense Electronic Products, Moorestown	N J
R F Communications Inc, Rochester	N Y
Scope Inc, Reston	Va
Sierra Research Corp, Buffalo	N Y
Squires-Sanders Inc, Liberty Corner	N J
Sylvania Electronic Systems, Waltham	Mass
Systems Research Labs Inc, Dayton	Ohio
Tasker Industries, Van Nuys	Cal
Technical Materiel Corp, Mamaroneck	N Y
Telephonics Div, Instrument Systems Corp Huntington	NY
TRW Systems Group, Redondo Beach	Cal
Watkins-Johnson Co, Palo Alto	Cal
Wilcox Electric Co Inc, Kansas City	Mo
Wiltek, Inc, Wilton	Conn

TRANSMITTERS—RADAR SEE RADAR

TRANSMITTERS, RADIO COMMUNICATION--AIRCRAFT

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Advanced Energy Conversion, Menlo Park	Cal
Aerocom, Miami	Fla
Aircraft Components Inc, Benton Harbor	Mich
Aircraft Radio Corp, Boonton	N J
American Electronic Labs Inc, Lansdale	Pa
Anritsu Electric Co Ltd, Tokyo	Japan
Avco Corp Electronics Div, Cincinnati	Ohio
Avion Electronics Inc, Unit Gen Signal Corp Paramus	NJ
Bendix Corp Avionics Div, Fort Lauderdale	Fla
Bendix Corp, Communications Div, Towson	Md
Brelonix Inc, Seattle	Wash
C C A Electronics Corp, Gloucester	NJ
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Collins Radio Co, Dallas	Tex
Communication Associates Inc, New Hyde Park	N Y
Communications Co, Coral Gables	Fla
Conductron Corp, Ann Arbor	Mich
Cosmos Industries Inc, Brooklyn	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Daltronics Inc, Providence	R I
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Dynair Aviation Products, El Cajon	Cal
Electronic Communications Inc (ECI), St Petersburg	Fla
Emcee Electronics Inc, New Castle	Del
General Instrument Corp Radio Receptor Div Hicksville	N Y
ITT Federal Labs, Fort Wayne	Ind
Kobe Industries Corp, Kobe	Japan
Kokusai Electric Co Ltd, Tokyo	Japan
Linear Systems Inc, Watsonville	Cal
Loral Electronic Systems, Div Loral Corp, New York	NY
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Microwave Cavity Labs Inc, La Grange	Ill
Miles Reproducer Co Inc, New York	N Y
Narco Avionics Div Natl Scientific Industries Fort Washington	Pa
Nippon Electric Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Prod-El, Prodotti Elettronici Spa, 20132 Milan	Italy
RCA, Defense Electronic Products, Moorestown	N J
R F Communications Inc, Rochester	N Y
Rowe Industries Inc, Toledo	Ohio
Simpson Electronics, Inc, Miami	Fla
Sonex Inc, Philadelphia	Pa
Sparton Electronics, Jackson	Mich
Squires-Sanders Inc, Liberty Corner	N J
Standard Telephones & Cables Ltd London WC 2	England
Sylvania Electronic Systems, Waltham	Mass
Technical Materiel Corp, Mamaroneck	N Y
Telephonics Div, Instrument Systems Corp Huntington	NY
TRW Systems Group, Redondo Beach	Cal
Wilcox Electric Co Inc, Kansas City	Mo

TRANSMITTERS, RADIO COMMUNICATION--AMATEUR

HEATH CO, BENTON HARBOR	**MICH**
Alltronics-Howard Co, Boston	Mass
American Geloso Electronics Inc, New York	N Y
Automatic Radio Sales Inc, Melrose	Mass
Collins Radio Co, Dallas	Tex
Cosmos Industries Inc, Brooklyn	N Y
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Dowa Trading Co Ltd, Kobe	Japan
Drake Co, R L, Miamisburg	Ohio
EICO Electronic Instrument Co Inc, Brooklyn	NY
Galaxy Electronics Inc, Council Bluffs	Iowa
Hammarlund Mfg Co, Mars Hill	N C
Heath Co, Benton Harbor	Mich
ITT Federal Labs, Fort Wayne	Ind
Johnson Co, E F, Waseca	Minn
Linear Systems Inc, Watsonville	Cal
Miles Reproducer Co Inc, New York	N Y
National Radio Co Inc, Melrose	Mass
Polytronics Communications, Baltimore Div Baltimore	Md
Squires-Sanders Inc, Liberty Corner	N J
Technical Materiel Corp, Mamaroneck	N Y
Utica Electronics Inc, Chicago	Ill
Weitermann Electronics, Milwaukee	Wis

TRANSMITTERS, RADIO COMMUNICATION--CITIZENS' BAND

AMPHENOL, BROADVIEW, ILL	**ADV PG 757**
HEATH CO, BENTON HARBOR	**MICH**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Allied Research Associates, Inc, Concord	Mass
Amphenol, Broadview	Ill
Autronics Corp, Pasadena	Cal
Browning Laboratories Inc, Laconia	N H
Dowa Trading Co Ltd, Kobe	Japan
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Applications Co, Pine Brook	N J
Electronic Homes Co, New York	N Y
Fargo Co, San Francisco	Cal
Fujitsu Ltd, Tokyo	Japan
Heath Co, Benton Harbor	Mich
Johnson Co, E F, Waseca	Minn
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Mobil Electronics Inc, Anderson	Ind
Multi-Elmac Co, Oak Park	Mich
Oki Electric Industry Co Ltd, Tokyo	Japan
Pearce-Simpson Inc, Miami	Fla
Polytronics Communications, Baltimore Div Baltimore	Md
Raytheon Co, Marine Products Operation S San Francisco	Cal
Regency Electronics Inc, Indianapolis	Ind
Round Hill Associates, Inc, New York	N Y
Squires-Sanders Inc, Liberty Corner	N J
States Electronics Corp, Bludworth Marine Div Linden	N J
Trott Electronics Inc, Rochester	N Y
Utica Electronics Inc, Chicago	Ill

Specify Amphenol.
The leading name
in CB Radio.
only
$79.95
Model 750 6 channels
Power input: 5 watts max.
Power output 2.5 watts min.
Antenna impedance: 50 ohms
Modulations: 90% min. 100% max.
Solid-state receiver
Sensitivity: .5 uv. for 10 db $\frac{S+N}{N}$

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL™

TRANSMITTERS, RADIO COMMUNICATION--F-M

ANRITSU ELECTRIC CO LTD, TOKYO .... JAPAN
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
R H G ELECTRONICS LAB INC, FARMINGDALE .... N Y
Advanced Communications Inc Sub Conductron Corp Chatsworth .... Cal
Aeromarine Electronics, Inc, San Diego .... Cal
Alto Scientific Co, Inc, Palo Alto .... Cal
American Electronic Labs Inc, Lansdale .... Pa
Anritsu Electric Co Ltd, Tokyo .... Japan
Avco Corp Electronics Div, Cincinnati .... Ohio
Aviation Electric Ltd, St Laurent, Montreal .... Que
Babcock Electronic Corp, Costa Mesa .... Cal
Bendix Corp, Communications Div, Towson .... Md
Bergen Lab, Inc, Paterson .... N J
B F Electronics, Solana Beach .... Cal
Canadian Marconi Co, Montreal 16 .... Quebec
Canadian Motorola Electronics Co, Agincourt .... Ont
Cardion Communications, Woodbury .... N Y
C C A Electronics Corp, Gloucester .... NJ
Cie De Signaux Et D'Entreprises Electriques Paris 17eme .... France
Collins Radio Co, Dallas .... Tex
Communications Co, Coral Gables .... Fla
Comrex Corp, W Concord .... Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles .... France
Dowa Trading Co Ltd, Kobe .... Japan
Dumont Mobile Communications Div LTV Ling Altec Inc Anaheim .... Cal
Dynalectron Corp Aerospace Prods Div San Leandro .... Cal
Electronic Communications Inc (ECI), St Petersburg .... Fla
ELIT-Elettronica Italiana S r l, 20151 Milan .... Italy
Fargo Co, San Francisco .... Cal
Farinon Electric, San Carlos .... Cal
Gates Radio Co, Quincy Ill
General Electric Co Communication Products Dept Lynchburg .... Va
General Instrument Corp Radio Receptor Div Hicksville .... N Y
Giannini-Voltex, Whittier .... Cal
Hammarlund Mfg Co, Mars Hill .... N C
Kel Corp, Belmont .... Mass
Kobe Industries Corp, Kobe .... Japan
Kokusai Electric Co Ltd, Tokyo .... Japan
Marconi Co Ltd, Chelmsford .... England
Marconi Div, English Electric Corp, New York .... N Y
Marti Electronics, Cleburne .... Tex
Micro Communications Co, Denver .... Colo
Miles Reproducer Co Inc, New York .... N Y
Moseley Associates Inc, Goleta .... Cal
Motorola Communications & Electronics Div Chicago Ill
Nippon Electric Co Ltd, Tokyo .... Japan
Oki Electric Industry Co Ltd, Tokyo .... Japan
Philco-Ford Corp, Washington .... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Polytronics Communications, Baltimore Div Baltimore .... Md
Radio Corp of America, Radiomarine Dept Camden .... N J
Radio Engineering Labs, Div DCA, Long Island City .... N Y
RCA, Defense Electronic Products, Moorestown .... N J
R H G Electronics Lab Inc, Farmingdale .... N Y
Schjeldahl Co, G T, Northfield .... Minn
Sennheiser Electronic Corp (NY), New York .... N Y
Signal & Communications Div Westinghouse Air Brake Co Pittsburgh .... Pa
Simpson Electronics, Inc, Miami .... Fla
Sonex Inc, Philadelphia .... Pa
Squires-Sanders Inc, Liberty Corner .... N J
Storno, Copenhagen S .... Den
Sylvania Electronic Systems, Waltham .... Mass
Systems Engineering Ltd, Grouse Creek .... Utah
Teledyne Telemetry Co, Los Angeles .... Cal
Telefunken Sales Corp, Garden City .... N Y
Utica Electronics Inc, Chicago Ill
Ventron Electronics Corp, Bradford .... Pa

TRANSMITTERS, RADIO COMMUNICATION--MARINE (SHIP)

ANRITSU ELECTRIC CO LTD, TOKYO .... JAPAN
HEATH CO, BENTON HARBOR .... MICH
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
Advanced Technology Corp, Chambersburg .... Pa
Anritsu Electric Co Ltd, Tokyo .... Japan
Atlantic Instruments & Electronics, Inc Watertown .... Mass
Brelonix Inc, Seattle .... Wash
Canadian Marconi Co, Montreal 16 .... Quebec
C C A Electronics Corp, Gloucester .... NJ
CEC-Benmar, Santa Ana .... Cal
Communication Associates Inc, New Hyde Park .... N Y
Communications Co, Coral Gables .... Fla
Comrex Corp, W Concord .... Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles .... France
Dayton Aircraft Products Inc, Fort Lauderdale .... Fla
Decitron Electronics Corp, Brooklyn .... N Y
Electronic Communications Inc (ECI), St Petersburg .... Fla
Gates Radio Co, Quincy Ill
General Coil Products Corp, Brooklyn .... N Y
General Instrument Corp Radio Receptor Div Hicksville .... N Y
Gray Radio Co Inc, West Palm Beach .... Fla
Hammarlund Mfg Co, Mars Hill .... N C
Heath Co, Benton Harbor .... Mich
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa .... Japan
Jetronic Industries Inc, Philadelphia .... Pa
Kobe Industries Corp, Kobe .... Japan
Konigsberg Electronics Inc, So San Francisco .... Cal
Linear Systems Inc, Watsonville .... Cal
Marconi Co Ltd, Chelmsford .... England
Marconi Div, English Electric Corp, New York .... N Y
Miles Reproducer Co Inc, New York .... N Y
Motorola Communications & Electronics Div Chicago Ill
Nippon Electric Co Ltd, Tokyo .... Japan
Oki Electric Industry Co Ltd, Tokyo .... Japan
Pearce-Simpson Inc, Miami .... Fla
Polytronics Communications, Baltimore Div Baltimore .... Md
Racal Communications Inc, Silver Spring .... Md
Radio Corp of America, Comml Elctn Prods Div Camden .... N J
Radio Corp of America, Radiomarine Dept Camden .... N J
Raytheon Co, Marine Products Operation S San Francisco .... Cal
RCA, Defense Electronic Products, Moorestown .... N J
R F Communications Inc, Rochester .... N Y
Servo-Tek Products Co, Marine Div, Hawthorne .... N J
Servo-Tek Products Co, Hawthorne .... N J
Simpson Electronics, Inc, Miami .... Fla
Squires-Sanders Inc, Liberty Corner .... N J
Standard Telephones & Cables Ltd London WC 2 .... England
States Electronics Corp, Bludworth Marine Div Linden .... N J
Storno, Copenhagen S .... Den
Technical Materiel Corp, Mamaroneck .... N Y

TRANSMITTERS, RADIO COMMUNICATION--MOBILE

ANRITSU ELECTRIC CO LTD, TOKYO .... JAPAN
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
Allied Research Associates, Inc, Concord .... Mass
Anritsu Electric Co Ltd, Tokyo .... Japan
Autronics Corp, Pasadena .... Cal
Avco Corp Electronics Div, Cincinnati .... Ohio
Bendix Corp, Communications Div, Towson .... Md
Brelonix Inc, Seattle .... Wash
Canadian Marconi Co, Montreal 16 .... Quebec
Canadian Motorola Electronics Co, Agincourt .... Ont
Communication Associates Inc, New Hyde Park .... N Y
Communications Co, Coral Gables .... Fla
Comrex Corp, W Concord .... Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles .... France
Daltronics Inc, Providence .... R I
Dayton Aircraft Products Inc, Fort Lauderdale .... Fla
Dewey Corp, G C, New York .... N Y
Dumont Mobile Communications Div LTV Ling Altec Inc Anaheim .... Cal
Electronic Communications Inc (ECI), St Petersburg .... Fla
Farinon Electric, San Carlos .... Cal
Fujitsu Ltd, Tokyo .... Japan
Gates Radio Co, Quincy Ill
General Electric Co Communication Products Dept Lynchburg .... Va
General Instrument Corp Radio Receptor Div Hicksville .... N Y
Hammarlund Mfg Co, Mars Hill .... N C
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa .... Japan
Itek Corp, Lexington .... Mass
Johnson Co, E F, Waseca .... Minn
Kel Corp, Belmont .... Mass
Kobe Industries Corp, Kobe .... Japan
Kokusai Electric Co Ltd, Tokyo .... Japan
Linear Systems Inc, Watsonville .... Cal
Marconi Co Ltd, Chelmsford .... England
Marconi Div, English Electric Corp, New York .... N Y
Marti Electronics, Cleburne .... Tex
Memcor Div LTV Electrosystems Inc, Huntington .... Ind
Micro Communications Co, Denver .... Colo
Mobil Electronics Inc, Anderson .... Ind
Motorola Communications & Electronics Div Chicago Ill
National Radio Co Inc, Melrose .... Mass
Nippon Electric Co Ltd, Tokyo .... Japan
Oki Electric Industry Co Ltd, Tokyo .... Japan
Pearce-Simpson Inc, Miami .... Fla
Philips Electronics Industries Ltd, Toronto 17 .... Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Polytronics Communications, Baltimore Div Baltimore .... Md
Racal Communications Inc, Silver Spring .... Md
Radio Corp of America, Comml Elctn Prods Div Camden .... N J
Radio Engineering Labs, Div DCA, Long Island City .... N Y
Raytheon Co, Marine Products Operation S San Francisco .... Cal
RCA, Defense Electronic Products, Moorestown .... N J
R F Communications Inc, Rochester .... N Y
Signal & Communications Div Westinghouse Air Brake Co Pittsburgh .... Pa
Squires-Sanders Inc, Liberty Corner .... N J
Standard Telephones & Cables Ltd London WC 2 .... England
Storno, Copenhagen S .... Den
Sylvania Electronic Systems, Waltham .... Mass
Symetrics Engineering Corp, Satellite Beach .... Fla
Technical Materiel Corp, Mamaroneck .... N Y
Telefunken Sales Corp, Garden City .... N Y
Utica Electronics Inc, Chicago Ill

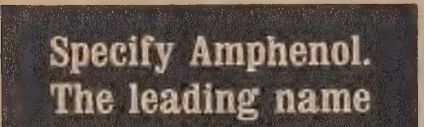
TRANSMITTERS, RADIO COMMUNICATION--MULTIPLEX CARRIER

ANRITSU ELECTRIC CO LTD, TOKYO .... JAPAN
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
R H G ELECTRONICS LAB INC, FARMINGDALE .... N Y
TELE-SIGNAL CORP, WOODBURY .... N Y
Advanced Technology Corp, Chambersburg .... Pa
Aeroscience Electronics Inc, Atlanta .... Ga
Aerospace Research, Inc, Boston .... Mass
Alto Scientific Co, Inc, Palo Alto .... Cal
Anritsu Electric Co Ltd, Tokyo .... Japan
Avco Corp Electronics Div, Cincinnati .... Ohio
Canadian Motorola Electronics Co, Agincourt .... Ont
Cardion Communications, Woodbury .... N Y
C C A Electronics Corp, Gloucester .... NJ
Cie De Signaux Et D'Entreprises Electriques Paris 17eme .... France
Collins Radio Co, Dallas .... Tex
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles .... France
Dorsett Electronics Inc, Tulsa .... Okla
Electronic Communications Inc (ECI), St Petersburg .... Fla
Epsco Inc, Westwood .... Mass
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown .... Md
Farinon Electric, San Carlos .... Cal
Gates Radio Co, Quincy Ill
General Atronics Corp, Philadelphia .... Pa
General Electric Co Communication Products Dept Lynchburg .... Va
General Instrument Corp Radio Receptor Div Hicksville .... N Y
Jetronics Co Div J L Hall Co Inc, Redwood City .... Cal
Kokusai Electric Co Ltd, Tokyo .... Japan
Lenkurt Electric Co Inc, San Carlos .... Cal
Lynch Communication Systems, San Francisco .... Cal
Marconi Co Ltd, Chelmsford .... England
Marconi Div, English Electric Corp, New York .... N Y
Nippon Electric Co Ltd, Tokyo .... Japan
Oki Electric Industry Co Ltd, Tokyo .... Japan
Oki Electronics of America, Inc, Fort Lauderdale .... Fla
Philco-Ford Corp, Washington .... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Radio Engineering Labs, Div DCA, Long Island City .... N Y
Raytheon Co, Communications & Data Processing Oper Norwood .... Mass
Raytheon Co, Government Marketing, Lexington .... Mass
RCA, Defense Electronic Products, Moorestown .... N J
R F Communications Inc, Rochester .... N Y
R H G Electronics Lab Inc, Farmingdale .... N Y

Sierra Research Corp, Buffalo	N Y
Sonex Inc, Philadelphia	Pa
Technical Materiel Corp, Mamaroneck	N Y
Telefunken Sales Corp, Garden City	N Y
Tele-Signal Corp, Woodbury	N Y
Wilcox Electric Co Inc, Kansas City	Mo

TRANSMITTERS, RADIO COMMUNICATION--PORTABLE

AMPHENOL, BROADVIEW, ILL	**ADV PG 758**
ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
HEATH CO, BENTON HARBOR	**MICH**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Aeroscience Electronics Inc, Atlanta	Ga
Aircraft Components Inc, Benton Harbor	Mich
Amphenol, Broadview	Ill
Anritsu Electric Co Ltd, Tokyo	Japan
Avco Corp Electronics Div, Cincinnati	Ohio
Bendix Corp, Communications Div, Towson	Md
Canadian Motorola Electronics Co, Agincourt	Ont
C C A Electronics Corp, Gloucester	NJ
Communication Associates Inc, New Hyde Park	N Y
Communications Co, Coral Gables	Fla
Comrex Corp, W Concord	Mass
Conductron Corp, Ann Arbor	Mich
Cosmos Industries Inc, Brooklyn	N Y
C S F-Cie Gèn de Telegraphie Sans Fil 78 Versailles	France
Daltronics Inc, Providence	R I
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Dumont Mobile Communications Div LTV Ling Altec Inc Anaheim	Cal
Dynair Aviation Products, El Cajon	Cal
Electronic Communications Inc (ECI), St Petersburg	Fla
Fujitsu Ltd, Tokyo	Japan
Gates Radio Co, Quincy	Ill
General Electric Co Communication Products Dept Lynchburg	Va
General Instrument Corp Radio Receptor Div Hicksville	N Y
Hammarlund Mfg Co, Mars Hill	N C
Heath Co, Benton Harbor	Mich
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
ITT Federal Labs, Fort Wayne	Ind
Johnson Co, E F, Waseca	Minn
Kel Corp, Belmont	Mass
Kobe Industries Corp, Kobe	Japan
Kokusai Electric Co Ltd, Tokyo	Japan
Linear Systems Inc, Watsonville	Cal
Marconi Co Ltd, Chelmsford	England
Marti Electronics, Cleburne	Tex
Memcor Div LTV Electrosystems Inc, Huntington	Ind
Micro Communications Co, Denver	Colo
Microwave Associates Inc, Burlington	Mass
Motorola Communications & Electronics Div Chicago	Ill
Multitone Electronics Ltd, New York	N Y
National Radio Co Inc, Melrose	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polytronics Communications, Baltimore Div Baltimore	Md
RCA, Defense Electronic Products, Moorestown	N J
Repco Inc, Orlando	Fla
R F Communications Inc, Rochester	N Y
Schjeldahl Co, G T, Northfield	Minn
Signal & Communications Div Westinghouse Air Brake Co Pittsburgh	Pa
Squires-Sanders Inc, Liberty Corner	N J
Storno, Copenhagen S	Den
Sylvania Electronic Systems, Waltham	Mass
Symetrics Engineering Corp, Satellite Beach	Fla
Technical Materiel Corp, Mamaroneck	N Y
Telefunken Sales Corp, Garden City	N Y
Utica Electronics Inc, Chicago	Ill



For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL

TRANSMITTERS, RADIO COMMUNICATION--PULSE TIME MODULATION

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Aerospace Research, Inc, Boston	Mass
American Systems, Inc, Van Nuys	Cal
Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Cober Electronics Inc, Stamford	Conn
Conic Corp, San Diego	Cal
Control Science Corp, Alexandria	Va
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Dorsett Electronics Inc, Tulsa	Okla
Gates Radio Co, Quincy	Ill
General Instrument Corp Radio Receptor Div Hicksville	N Y
Giannini-Voltex, Whittier	Cal
Lad Electronics Corp, Hicksville	N Y
Nippon Electric Co Ltd, Tokyo	Japan
Philco-Ford Corp, Washington	D C
Raytheon Co, Communications & Data Processing Oper Norwood	Mass
RCA, Defense Electronic Products, Moorestown	N J
R F Communications Inc, Rochester	N Y
Sonex Inc, Philadelphia	Pa
TRW Systems Group, Redondo Beach	Cal
Utility Communication Systems Inc, Essington	Pa
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J

TRANSMITTERS, RADIO COMMUNICATION--RAILROAD

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Anritsu Electric Co Ltd, Tokyo	Japan
Canadian Motorola Electronics Co, Agincourt	Ont
C C A Electronics Corp, Gloucester	NJ
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Farinon Electric, San Carlos	Cal
Gates Radio Co, Quincy	Ill
General Electric Co Communication Products Dept Lynchburg	Va
Hammarlund Mfg Co, Mars Hill	N C
Kokusai Electric Co Ltd, Tokyo	Japan
Lenkurt Electric Co Inc, San Carlos	Cal
Lynch Communication Systems, San Francisco	Cal
Micro Communications Co, Denver	Colo
Motorola Communications & Electronics Div Chicago	Ill
Nippon Electric Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Signal & Communications Div Westinghouse Air Brake Co Pittsburgh	Pa
Squires-Sanders Inc, Liberty Corner	N J
Storno, Copenhagen S	Den
Telefunken Sales Corp, Garden City	N Y
Utica Electronics Inc, Chicago	Ill

TRANSMITTERS, RADIO COMMUNICATION--SINGLE SIDEBAND

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
HEATH CO, BENTON HARBOR	**MICH**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Aerocom, Miami	Fla
American Electronic Labs Inc, Lansdale	Pa
Anritsu Electric Co Ltd, Tokyo	Japan
Aquadyne Inc, East Falmouth	Mass
Avco Corp Electronics Div, Cincinnati	Ohio
Bendix Corp, Communications Div, Towson	Md
Brelonix Inc, Seattle	Wash
Canadian Marconi Co, Montreal 16	Quebec
C C A Electronics Corp, Gloucester	NJ
CEC-Benmar, Santa Ana	Cal
Collins Radio Co, Dallas	Tex
Communication Associates Inc, New Hyde Park	N Y
Communications Co, Coral Gables	Fla
Continental Electronics Mfg Co Sub LTV Electrosystems Inc, Dallas	Tex
Cosmos Industries Inc, Brooklyn	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Drake Co, R L, Miamisburg	Ohio
EICO Electronic Instrument Co Inc, Brooklyn	NY
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus	N J
Galaxy Electronics Inc, Council Bluffs	Iowa
Gates Radio Co, Quincy	Ill
General Atronics Corp, Philadelphia	Pa
General Instrument Corp Radio Receptor Div Hicksville	N Y
Granger Associates, Palo Alto	Cal
Hammarlund Mfg Co, Mars Hill	N C
Heath Co, Benton Harbor	Mich
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
Johnson Co, E F, Waseca	Minn
Kahn Research Labs Inc, Freeport	N Y
Kokusai Electric Co Ltd, Tokyo	Japan
Konigsberg Electronics Inc, So San Francisco	Cal
Linear Systems Inc, Watsonville	Cal
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
National Radio Co Inc, Melrose	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
P & H Electronics, Lafayette	Ind
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Racal Communications Inc, Silver Spring	Md
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Radio Corp of America, Radiomarine Dept Camden	N J
Raytheon Co, Communications & Data Processing Oper Norwood	Mass
RCA, Defense Electronic Products, Moorestown	N J
R F Communications Inc, Rochester	N Y
Squires-Sanders Inc, Liberty Corner	N J
Sylvania Electronic Systems, Waltham	Mass
Technical Materiel Corp, Mamaroneck	N Y
Telefunken Sales Corp, Garden City	N Y
Transcon Electronics Inc, Escondido	Cal
TRW Systems Group, Redondo Beach	Cal
Weitermann Electronics, Milwaukee	Wis
Wilcox Electric Co Inc, Kansas City	Mo

TRANSMITTERS, RADIO COMMUNICATION--SINGLE SIDEBAND ADAPTER

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Anritsu Electric Co Ltd, Tokyo	Japan
C C A Electronics Corp, Gloucester	NJ
Cosmos Industries Inc, Brooklyn	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Gates Radio Co, Quincy	Ill
General Instrument Corp Radio Receptor Div Hicksville	N Y
Kahn Research Labs Inc, Freeport	N Y
Marconi Co Ltd, Chelmsford	England
Nippon Electric Co Ltd, Tokyo	Japan
R F Communications Inc, Rochester	N Y
Squires-Sanders Inc, Liberty Corner	N J
Technical Materiel Corp, Mamaroneck	N Y
Wilcox Electric Co Inc, Kansas City	Mo

TRANSMITTERS, RADIO COMMUNICATION--TELEMETERING

ACCURATE ELECTRONICS CORP, ELYRIA	**OHIO**
ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Accurate Electronics Corp, Elyria	Ohio
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Aeromarine Electronics, Inc, San Diego	Cal
Aeroscience Electronics Inc, Atlanta	Ga
Aerospace Research, Inc, Boston	Mass
Aircom Inc, Union	N H
Alto Scientific Co, Inc, Palo Alto	Cal
American Electronic Labs Inc, Lansdale	Pa
Anritsu Electric Co Ltd, Tokyo	Japan
Aquadyne Inc, East Falmouth	Mass
Avco Corp Electronics Div, Cincinnati	Ohio
Babcock Electronic Corp, Costa Mesa	Cal
Ball Brothers Research Corp, Boulder	Colo
B F Electronics, Solana Beach	Cal
B I F Unit General Signal Corp, Providence	R I
Canadian Motorola Electronics Co, Agincourt	Ont
C C A Electronics Corp, Gloucester	NJ

Cie De Signaux Et D'Entreprises Electriques Paris 17eme	France
Comrex Corp, W Concord	Mass
Concord Control Inc, Boston	Mass
Conductron Corp, Ann Arbor	Mich
Conic Corp, San Diego	Cal
Control Science Corp, Alexandria	Va
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Dorsett Electronics Inc, Tulsa	Okla
Dresser Controls, Houston	Texas
Electrac Inc, Anaheim	Cal
Electro Marine Corp, Falmouth	Mass
Electronic Communications Inc (ECI), St Petersburg	Fla
Electronics Communications Div Atlantic Research Corp Alexandria	Va
Electronic Specialty Co, Los Angeles	Cal
EMR Div Weston Instruments Inc, Princeton	N J
Energy Systems Inc, Palo Alto	Cal
Epsco Inc, Westwood	Mass
Fairchild Hiller Corp, Space & Electronics Sys Div Germantown	Md
Fujitsu Ltd, Tokyo	Japan
Gates Radio Co, Quincy	Ill
GCA Technology Div GCA Corp, Bedford	Mass
General Instrument Corp Radio Receptor Div Hicksville	N Y
Giannini-Voltex, Whittier	Cal
Hammarlund Mfg Co Data Communications Div Amityville	N Y
Industrial Electronetics Corp, Satellite Beach	Fla
International Electronic Research Corp, Burbank	Cal
Jetronics Co Div J L Hall Co Inc, Redwood City	Cal
Kokusai Electric Co Ltd, Tokyo	Japan
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Lynch Communication Systems, San Francisco	Cal
Marti Electronics, Cleburne	Tex
Micro Communications Co, Denver	Colo
Microdot, Inc, South Pasadena	Cal
Micromega Div Amphenol Corp, Venice	Cal
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Moore Associates Div Rocker Co, San Carlos	Cal
Motorola Communications & Electronics Div Chicago	Ill
Nippon Electric Co Ltd, Tokyo	Japan
Noller Control Systems Inc, Richmond	Cal
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Raven Electronics Inc, Burbank	Cal
RCA, Defense Electronic Products, Moorestown	N J
Resdel Engineering Corp, Pasadena	Cal
R F Communications Inc, Rochester	N Y
Rodale Electronics Inc, Garden City	NY
Rouge Electronics Co, Oklahoma City	Okla
Siemens America Inc, New York	N Y
Sierra Research Corp, Buffalo	N Y
Sonex Inc, Philadelphia	Pa
Squires-Sanders Inc, Liberty Corner	N J
Stoelting Co, C H, Chicago	Ill
Sylvania Electronic Systems, Waltham	Mass
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Teledyne Telemetry Co, Los Angeles	Cal
Telemet Co, Video Prods & Airborne Telemetry Amityville	N Y
TRF Inc, Springfield	Va
TRW Systems Group, Redondo Beach	Cal
Utility Communication Systems Inc, Essington	Pa
Varian, Palo Alto	Cal
Vega Precision Labs, Vienna	Va
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J

TRANSMITTERS, RADIO COMMUNICATION--TROPOSCATTER

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Alto Scientific Co, Inc, Palo Alto	Cal
C C A Electronics Corp, Gloucester	NJ
Cober Electronics Inc, Stamford	Conn
Collins Radio Co, Dallas	Tex
Continental Electronics Mfg Co Sub LTV Electrosystems Inc, Dallas	Tex
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Energy Systems Inc, Palo Alto	Cal
Epsco Inc, Westwood	Mass
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus	N J
Gates Radio Co, Quincy	Ill
General Atronics Corp, Philadelphia	Pa
General Instrument Corp Radio Receptor Div Hicksville	N Y
ITT Defense Communications Div, Nutley	N J
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
National Radio Co Inc, Melrose	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Philco-Ford Corp, Washington	D C
Radio Engineering Labs, Div DCA, Long Island City	N Y
RCA, Defense Electronic Products, Moorestown	N J
Standard Telephones & Cables Ltd London WC 2	England
Sylvania Electronic Systems, Waltham	Mass
TRW Systems Group, Redondo Beach	Cal

Upset Stomach?

If you're looking for a remedy and you can't remember the name of a fast-acting brand, just consult the Trade Name Directory in your Electronics Buyers' Guide. You'll have your answer in seconds. EBG also has a Directory of Products and a Directory of Manufacturers and Sales Offices. Use it often.

Electronics Buyers' Guide

TRANSMITTERS, RADIO COMMUNICATION--UHF

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Aerospace Research, Inc, Boston	Mass
Anritsu Electric Co Ltd, Tokyo	Japan
Avco Corp Electronics Div, Cincinnati	Ohio
Avtel Corp, Covina	Cal
Babcock Electronic Corp, Costa Mesa	Cal
Bendix Corp, Communications Div, Towson	Md
B F Electronics, Solana Beach	Cal
Canadian Marconi Co, Montreal 16	Quebec
Canadian Motorola Electronics Co, Agincourt	Ont
Cardion Communications, Woodbury	N Y
C C A Electronics Corp, Gloucester	NJ
Collins Radio Co, Dallas	Tex
Communication Associates Inc, New Hyde Park	N Y
Communications Co, Coral Gables	Fla
Conic Corp, San Diego	Cal
Continental Electronics Mfg Co Sub LTV Electrosystems Inc, Dallas	Tex
Control Science Corp, Alexandria	Va
Cosmos Industries Inc, Brooklyn	N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Electronic Communications Inc (ECI), St Petersburg	Fla
Energy Systems Inc, Palo Alto	Cal
Epsco Inc, Westwood	Mass
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus	N J
Fargo Co, San Francisco	Cal
Farinon Electric, San Carlos	Cal
Fujitsu Ltd, Tokyo	Japan
Gates Radio Co, Quincy	Ill
General Electric Co Communication Products Dept Lynchburg	Va
General Instrument Corp Radio Receptor Div Hicksville	N Y
Giannini-Voltex, Whittier	Cal
Itek Corp, Lexington	Mass
ITT Defense Communications Div, Nutley	N J
ITT Federal Labs, Fort Wayne	Ind
Kel Corp, Belmont	Mass
Kobe Industries Corp, Kobe	Japan
Kokusai Electric Co Ltd, Tokyo	Japan
LTV Electrosystems Inc, Garland Div, Dallas	Tex
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Micro Communications Co, Denver	Colo
Microdot, Inc, South Pasadena	Cal
Microwave Cavity Labs Inc, La Grange	Ill
Motorola Communications & Electronics Div Chicago	Ill
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Philco-Ford Corp, Washington	D C
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Engineering Labs, Div DCA, Long Island City	N Y
Raven Electronics Inc, Burbank	Cal
RCA, Defense Electronic Products, Moorestown	N J
Resdel Engineering Corp, Pasadena	Cal
Servo Corp of America, Hicksville	N Y
Somerset Radiation Lab Inc, Arlington	Va
Squires-Sanders Inc, Liberty Corner	N J
Standard Telephones & Cables Ltd London WC 2	England
Storno, Copenhagen S	Den
Sylvania Electronic Systems, Waltham	Mass
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia	Pa
Teledyne Telemetry Co, Los Angeles	Cal
Telefunken Sales Corp, Garden City	N Y
Thomson Electric Co, Sub Cie Fran Thomson Houston New York	N Y
TRW Systems Group, Redondo Beach	Cal
Vega Precision Labs, Vienna	Va

TRANSMITTERS, RADIO COMMUNICATION--VHF

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
HEATH CO, BENTON HARBOR	**MICH**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SERVO CORP OF AMERICA, HICKSVILLE	**N Y**
Advanced Communications Inc Sub Conductron Corp Chatsworth	Cal
Aerocom, Miami	Fla
Aerospace Research, Inc, Boston	Mass
American Electronic Labs Inc, Lansdale	Pa
Anritsu Electric Co Ltd, Tokyo	Japan
A R F Products, Inc, Raton	N M
Avco Corp Electronics Div, Cincinnati	Ohio
Bendix Corp Avionics Div, Fort Lauderdale	Fla
Bendix Corp, Communications Div, Towson	Md
B F Electronics, Solana Beach	Cal
Canadian Marconi Co, Montreal 16	Quebec
Canadian Motorola Electronics Co, Agincourt	Ont
C C A Electronics Corp, Gloucester	NJ
CEC-Benmar, Santa Ana	Cal
Collins Radio Co, Dallas	Tex
Communication Associates Inc, New Hyde Park	N Y
Communications Co, Coral Gables	Fla
Conic Corp, San Diego	Cal
Continental Electronics Mfg Co Sub LTV Electrosystems Inc, Dallas	Tex
Control Science Corp, Alexandria	Va
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Dumont Mobile Communications Div LTV Ling Altec Inc Anaheim	Cal
Dynair Aviation Products, El Cajon	Cal
Dynalectron Corp Aerospace Prods Div San Leandro	Cal
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus	N J
Fargo Co, San Francisco	Cal
Farinon Electric, San Carlos	Cal
Fujitsu Ltd, Tokyo	Japan
Gates Radio Co, Quincy	Ill
General Electric Co Communication Products Dept Lynchburg	Va
General Instrument Corp Radio Receptor Div Hicksville	N Y
Giannini-Voltex, Whittier	Cal
Granger Associates, Palo Alto	Cal
Hammarlund Mfg Co, Mars Hill	N C
Heath Co, Benton Harbor	Mich
Instruments for Industry Inc, Farmingdale	N Y
ITT Defense Communications Div, Nutley	N J
ITT Federal Labs, Fort Wayne	Ind
Kel Corp, Belmont	Mass
Kobe Industries Corp, Kobe	Japan
Kokusai Electric Co Ltd, Tokyo	Japan
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Marti Electronics, Cleburne	Tex
Microdot, Inc, South Pasadena	Cal
Micro State Electronics Oper Raytheon Co Murray Hill	N J
Microwave Cavity Labs Inc, La Grange	Ill
Millen Mfg Co Inc, James, Malden	Mass
Motorola Communications & Electronics Div Chicago	Ill
Multitone Electronics Ltd, New York	N Y
Narco Avionics Div Natl Scientific Industries Fort Washington	Pa
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Pearce-Simpson Inc, Miami	Fla
Philco-Ford Corp, Washington	D C
Philips Electronics Industries Ltd, Toronto 17	Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polytronics Communications, Baltimore Div Baltimore	Md
Radio Corp of America, Radiomarine Dept Camden	N J
RCA, Defense Electronic Products, Moorestown	N J
Regency Electronics Inc, Indianapolis	Ind
Resdel Engineering Corp, Pasadena	Cal
Schjeldahl Co, G T, Northfield	Minn
Servo Corp of America, Hicksville	N Y
Simpson Electronics, Inc, Miami	Fla

Sonex Inc, Philadelphia .... Pa
Squires-Sanders Inc, Liberty Corner .... N J
Standard Telephones & Cables Ltd London WC 2 .... England
Storno, Copenhagen S .... Den
Sylvania Electronic Systems, Waltham .... Mass
Tele-Dynamics Div, American Bosch Arma Corp Philadelphia .... Pa
Teledyne Telemetry Co, Los Angeles .... Cal
Telefunken Sales Corp, Garden City .... N Y
Thomson Electric Co, Sub Cie Fran Thomson Houston New York .... N Y
TRW Systems Group, Redondo Beach .... Cal

Utica Electronics Inc, Chicago Ill
Vega Precision Labs, Vienna .... Va
Wilcox Electric Co Inc, Kansas City .... Mo

TRANSMITTERS, RADIO COMMUNICATION--VLF

ANRITSU ELECTRIC CO LTD, TOKYO .... JAPAN
C M L INC, PLAINFIELD .... N J
Anritsu Electric Co Ltd, Tokyo .... Japan
C C A Electronics Corp, Gloucester .... NJ
Cie De Signaux Et D'Entreprises Electriques Paris 17eme .... France
C M L Inc, Plainfield .... N J
Collins Radio Co, Dallas .... Tex
Continental-Electronics Mfg Co Sub LTV Electrosystems Inc, Dallas .... Tex
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles .... France
Gates Radio Co, Quincy Ill
Instruments Inc, San Diego .... Cal
Ling Electronics Div LTV Altec Inc, Anaheim .... Cal
Marconi Co Ltd, Chelmsford .... England
Pearce-Simpson Inc, Miami .... Fla
Philco-Ford Corp, Washington .... D C
Philips Electronics Industries Ltd, Toronto 17 .... Ont
RCA, Defense Electronic Products, Moorestown .... N J
Southern Avionics Co, Beaumont .... Tex
Squires-Sanders Inc, Liberty Corner .... N J
Sylvania Electronic Systems, Waltham .... Mass
Technical Materiel Corp, Mamaroneck .... N Y
Thomson Electric Co, Sub Cie Fran Thomson Houston New York .... N Y
TRW Systems Group, Redondo Beach .... Cal

TRANSMITTERS, RADIO NAVIGATION--BEACON

ANRITSU ELECTRIC CO LTD, TOKYO .... JAPAN
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
ACR Electronics Corp, New York .... N Y
Aerocom, Miami .... Fla
Aerospace Research, Inc, Boston .... Mass
Alpine Geophysical Assoc Inc, Norwood .... N J
Anritsu Electric Co Ltd, Tokyo .... Japan
A R F Products, Inc, Raton .... N M
Avco Corp Electronics Div, Cincinnati .... Ohio
Bendix Corp, Communications Div, Towson .... Md
Carol Electronics Div Weeco Inc, Martinsburg .... W Va
C C A Electronics Corp, Gloucester .... NJ
Communication Associates Inc, New Hyde Park .... N Y
Concord Control Inc, Boston .... Mass
Conductron Corp, Ann Arbor .... Mich
Conic Corp, San Diego .... Cal
Control Science Corp, Alexandria .... Va
Cosmos Industries Inc, Brooklyn .... N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles .... France
Dayton Aircraft Products Inc, Fort Lauderdale .... Fla
Decca Radar, Inc, New York .... N Y
Dewey Corp, G C, New York .... N Y
Dorsett Electronics Inc, Tulsa .... Okla
Dowa Trading Co Ltd, Kobe .... Japan
E G & G Int'l Inc Geodyne Div, Waltham .... Mass
Energy Systems Inc, Palo Alto .... Cal
Epsco Inc, Westwood .... Mass
Gates Radio Co, Quincy Ill
General Instrument Corp Radio Receptor Div Hicksville .... N Y
Geodyne Div EG&G Int'l, Waltham .... Mass
Hydro Products Div Dillingham Corp, San Diego .... Cal
Kobe Industries Corp, Kobe .... Japan
Kokusai Electric Co Ltd, Tokyo .... Japan
Loral Electronic Systems, Div Loral Corp, New York .... NY
Marconi Co Ltd, Chelmsford .... England
Marconi Div, English Electric Corp, New York .... N Y
Nippon Electric Co Ltd, Tokyo .... Japan
Philips Electronics Industries Ltd, Toronto 17 .... Ont
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Raven Electronics Inc, Burbank .... Cal
RCA, Defense Electronic Products, Moorestown .... N J
Resdel Engineering Corp, Pasadena .... Cal
R F Communications Inc, Rochester .... N Y
Rouge Electronics Co, Oklahoma City .... Okla
Southern Avionics Co, Beaumont .... Tex
Standard Telephones & Cables Ltd London WC 2 .... England
Sylvania Electronic Systems, Waltham .... Mass
Teledyne Telemetry Co, Los Angeles .... Cal
Terra Corp, Albuquerque .... N M
Topping Electronics Ltd, Toronto 17 .... Ont
TRF Inc, Springfield .... Va
TRW Systems Group, Redondo Beach .... Cal
Vega Precision Labs, Vienna .... Va
Ventron Electronics Corp, Bradford .... Pa
Wilcox Electric Co Inc, Kansas City .... Mo

TRANSMITTERS, RADIO NAVIGATION--DIRECTION FINDING

Aerocom, Miami .... Fla
American Electronic Labs Inc, Lansdale .... Pa
Bendix Corp, Communications Div, Towson .... Md
Carol Electronics Div Weeco Inc, Martinsburg .... W Va
C C A Electronics Corp, Gloucester .... NJ
Collins Radio Co, Dallas .... Tex
Conductron Corp, Ann Arbor .... Mich
Cosmos Industries Inc, Brooklyn .... N Y

Dayton Aircraft Products Inc, Fort Lauderdale .... Fla
Dewey Corp, G C, New York .... N Y
Dowa Trading Co Ltd, Kobe .... Japan
Electro Marine Corp, Falmouth .... Mass
Energy Systems Inc, Palo Alto .... Cal
Gates Radio Co, Quincy Ill
Loral Electronic Systems, Div Loral Corp, New York .... NY
Marconi Co Ltd, Chelmsford .... England
Marconi Div, English Electric Corp, New York .... N Y
Parzen Research Inc Sub Ovitron Corp, Westbury .... N Y
Radio Corp of America, Comml Elctn Prods Div Camden .... N J
Rouge Electronics Co, Oklahoma City .... Okla
Southern Avionics Co, Beaumont .... Tex
Squires-Sanders Inc, Liberty Corner .... N J
Standard Telephones & Cables Ltd London WC 2 .... England
States Electronics Corp, Bludworth Marine Div Linden .... N J
Sylvania Electronic Systems, Waltham .... Mass
TRW Systems Group, Redondo Beach .... Cal
Wilcox Electric Co Inc, Kansas City .... Mo

TRANSMITTERS, RADIO NAVIGATION--LORAN

NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
Carol Electronics Div Weeco Inc, Martinsburg .... W Va
Computing Devices of Canada Ltd, Ottawa .... Ont
Conductron Corp, Ann Arbor .... Mich
Continental Electronics Mfg Co Sub LTV Electrosystems Inc, Dallas .... Tex
Dowa Trading Co Ltd, Kobe .... Japan
Edo Corp, College Point .... NY
Energy Systems Inc, Palo Alto .... Cal
Gates Radio Co, Quincy Ill
Nippon Electric Co Ltd, Tokyo .... Japan
Sperry Gyroscope Div Sperry Rand Corp Great Neck .... N Y
TRW Systems Group, Redondo Beach .... Cal

TRANSMITTERS, RADIO NAVIGATION--RADIO RANGE

Bell Aerosystems Co, Buffalo .... N Y
C C A Electronics Corp, Gloucester .... NJ
Conductron Corp, Ann Arbor .... Mich
Cosmos Industries Inc, Brooklyn .... N Y
Dowa Trading Co Ltd, Kobe .... Japan
Energy Systems Inc, Palo Alto .... Cal
Gates Radio Co, Quincy Ill
General Instrument Corp Radio Receptor Div Hicksville .... N Y
Guide Industries Inc, Sun Valley .... Cal
Loral Electronic Systems, Div Loral Corp, New York .... NY

TRANSMITTERS, RADIO NAVIGATION--TACAN

NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
Applied Devices Corp, College Point .... n y
Conductron Corp, Ann Arbor .... Mich
Dowa Trading Co Ltd, Kobe .... Japan
Energy Systems Inc, Palo Alto .... Cal
Gates Radio Co, Quincy Ill
General Instrument Corp Radio Receptor Div Hicksville .... N Y
Loral Electronic Systems, Div Loral Corp, New York .... NY
Maxson Electronics Div, Maxson Electronics Corp Great River .... N Y
Memcor Div LTV Electrosystems Inc, Huntington .... Ind
National Radio Co Inc, Melrose .... Mass
Nippon Electric Co Ltd, Tokyo .... Japan
Republic Electronic Industries Corp, Huntington .... N Y
Sierra Research Corp, Buffalo .... N Y
Standard Telephones & Cables Ltd London WC 2 .... England
Wilcox Electric Co Inc, Kansas City .... Mo

TRANSMITTERS, RADIO NAVIGATION--VHF OMNIRANGE

NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
Conductron Corp, Ann Arbor .... Mich
Cosmos Industries Inc, Brooklyn .... N Y
Decca Radar, Inc, New York .... N Y

When you find it in EBG,
Tell our advertisers —
They appreciate it.
So do we.

Dowa Trading Co Ltd, Kobe .... Japan
Gates Radio Co, Quincy Ill
General Instrument Corp Radio Receptor Div Hicksville .... N Y
Loral Electronic Systems, Div Loral Corp, New York .... NY
Nippon Electric Co Ltd, Tokyo .... Japan
Regency Electronics Inc, Indianapolis .... Ind
Standard Telephones & Cables Ltd London WC 2 .... England
TRW Systems Group, Redondo Beach .... Cal
Vega Precision Labs, Vienna .... Va
Wilcox Electric Co Inc, Kansas City .... Mo

TRANSMITTERS--SONAR SEE SONAR

TRANSPONDERS SEE RADAR--BEACONS

TRANSPORTS--MAGNETIC TAPE SEE TAPE DECKS

TRAPS--ION MAGNETS--PERMANENT

TRAVELING-WAVE TUBES SEE TUBES--MICROWAVE

TR TUBES SEE TUBE--TR

TROPOSCATTER SEE ANTENNAS-TROPOSCATTER; COMMUNICATIONS SYSTEMS; TRANSMITTERS

TUBE COOLING UNITS SEE COOLING UNITS

TUBE MANUFACTURING MACHINES SEE MACHINES--TUBE ELECTRON MANUFACTURING

ACCUVOLT
BESPONDER
CINDERELLA

If you're confused over product trade names, locate the source easily in EBG's Trade Name Listing in the back of the green section.

EBG

What's

in it

for you?

1. Listing of more than 4,000 products.

2. 6,500 manufacturers with local outlets, addresses and phone numbers.

3. Complete and up-to-date Trade Name Directory

4. The most complete industry source of supply and product specs.

Electronics Buyers' Guide

TUBE PARTS--ANODES, CARBON & GRAPHITE

STACKPOLE CARBON CO, ST MARYS	**PA**
Eimac Div, Varian Associates, San Carlos	Cal
Electro Technic Products, Chicago	Ill
Energy Beams Inc, Haskell	N J
Helwig Carbon Products Inc, Milwaukee	Wisc
Met-Bay Inc, Bay City	Mich
Semi-Alloys Inc, Mt Vernon	N Y
Stackpole Carbon Co, St Marys	Pa
Ultra Carbon Corp, Bay City	Mich
Union Carbide Corp, Carbon Products Div New York	N Y
U S Graphite Co Div The Wickes Corp, Saginaw	Mich

TUBE PARTS--ANODES, METAL

ART WIRE & STAMPING CO, NEWARK	**N J**
KENTUCKY ELECTRONICS INC, OWENSBORO, KY	**ADV PG 767**
SUPERIOR TUBE CO, NORRISTOWN	**PA**
Aluminum Co of America, Pittsburgh	Pa
Art Wire & Stamping Co, Newark	N J
Associated Engineering & Mfg Corp, Glen Ridge	N J
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Clover Co Inc F G, Rockaway	N J
Eimac Div, Varian Associates, San Carlos	Cal
Electronic Metals & Alloys Inc, North Attleboro	Mass
Electro Technic Products, Chicago	Ill
Energy Beams Inc, Haskell	N J
Fansteel Metallurgical Corp, North Chicago	Ill
Griffiths Electronics Inc, Linden	N J
Haydu Products Inc, Opa Locka	Fla
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia	Pa
Johnson & Hoffman Mfg Corp, Carle Place	N Y
Kentucky Electronics Inc, Owensboro	Ky
Kobe Industries Corp, Kobe	Japan
Norrich Plastics Corp, Roosevelt	N Y
Norton Co Metals Div, Newton	Mass
Philips Metalonics, Mount Vernon	N Y
Premium Allied Tool Inc, Owensboro	Ky
Richards Metal Products Inc, Wolcott	Conn
Romac Electronics Inc, Long Island City	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Spectra-Mat Inc, Watsonville	Cal
Superior Tube Co, Norristown	Pa
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Volkert Stampings Inc Sub Stanley Works Queens Village	N Y
Westinghouse Electric Corp, Lamp Div, Bloomfield	N J

TUBE PARTS--BASE PINS

ART WIRE & STAMPING CO, NEWARK, N J	**ADV PG 814**
Anaconda American Brass Co, Waterbury	Conn
Art Wire & Stamping Co, Newark	N J
Associated Engineering & Mfg Corp, Glen Ridge	N J
Auto-Swage Products, Inc, Shelton	Conn
Bead Chain Mfg Co, Bridgeport	Conn
Eimac Div, Varian Associates, San Carlos	Cal
Eyelematic Mfg Co Inc, Oakville	Conn
Haydu Products Inc, Opa Locka	Fla
Norrich Plastics Corp, Roosevelt	N Y
Richards Metal Products Inc, Wolcott	Conn
Schurter AG, H, 6002 Lucerne	Switzerland
Semi-Alloys Inc, Mt Vernon	N Y
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Vector Electronic Co Inc, Los Angeles	Cal
Westinghouse Electric Corp, Lamp Div, Bloomfield	N J

TUBE PARTS--BASES

AMPHENOL, BROADVIEW	**ILL**
NATIONAL ELECTRONICS INC VARIAN SUB, GENEVA	**ILL**
Amphenol, Broadview	Ill
Associated Engineering & Mfg Corp, Glen Ridge	N J
Atomite Electronics Corp, Roosevelt	N Y
Ceramics International Corp, Mahwah	NJ
Device Seals Inc, Sun Valley	Cal
Eimac Div, Varian Associates, San Carlos	Cal
Eljay Corp, Baltimore	Md
Epoxy Products Co Div Allied Prod Inc New Haven	Conn
Griffiths Electronics Inc, Linden	N J
Haveg Industries, Inc, Precision Molding Div Taunton	Mass
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia	Pa
National Electronics Inc Varian Sub, Geneva	Ill
Norrich Plastics Corp, Roosevelt	N Y
Romac Electronics Inc, Long Island City	N Y
Saxonburg Ceramics Inc, Pittsburgh	Pa
Schrack Electrical Sales Corp, New York	N Y
Schurter AG, H, 6002 Lucerne	Switzerland
Semi-Alloys Inc, Mt Vernon	N Y
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
20th Century Electronics Ltd New Addington, Surrey	England
Vector Electronic Co Inc, Los Angeles	Cal
Westinghouse Electric Corp, Lamp Div, Bloomfield	N J

TUBE PARTS--BULBS (ENVELOPES), CERAMIC

AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE	**WIS**
KYOTO CERAMIC CO LTD, NAKAGYO-KU, KYOTO	**JAPAN**
Alberox Corp, New Bedford	Mass
American Lava Corp, Chattanooga	Tenn
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Carborundum Co Electrical & Elctns Br, Niagara Falls	NY
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Consolidated Ceramics & Metalizing Corp Flemington	N J
Coors Porcelain Co, Golden	Colo
Corning Glass Works, Corning	N Y
Eimac Div, Varian Associates, San Carlos	Cal
Frenchtown/CFI Inc, Frenchtown	N J
Glass Beads Co, Latrobe	Pa
Kyoto Ceramic Co Ltd, Nakagyo-ku, Kyoto	Japan
Latronics Corp, Latrobe	Pa
McDanel Refractory Porcelain Co, Beaver Falls	Pa
Miles Reproducer Co Inc, New York	N Y
National Beryllia Corp, Haskell	N J
Royal Worcester Industrial Ceramics Inc, New York	NY
Saxonburg Ceramics Inc, Pittsburgh	Pa
Schurter AG, H, 6002 Lucerne	Switzerland
Semi-Alloys Inc, Mt Vernon	N Y
Spectra-Mat Inc, Watsonville	Cal
U S Stoneware Inc, Orville Plant, Orrville	Ohio
Western Gold & Platinum Co, Belmont	Cal

TUBE PARTS--BULBS (ENVELOPES), GLASS

Amglo Corp, Chicago	Ill
Corning Glass Works, Corning	N Y
Eimac Div, Varian Associates, San Carlos	Cal
Electron Technology Inc, Kearny	N J
Friedrich & Dimmock, Inc, Mays Landing	N J
General Electric Co, Lamp Glass Dept Willoughby	Ohio
Giannini-Voltex, Whittier	Cal
Kobe Industries Corp, Kobe	Japan
Lancaster Glass Corp, Lancaster	Ohio
Owens-Illinois Consumer & Tech Products Div Toledo	Ohio
Precision Optics Div Penna Optical Co, Reading	Pa
Syncor Products Co, Inc, Malden	Mass
20th Century Electronics Ltd New Addington, Surrey	England

TUBE PARTS--BULBS (ENVELOPES), METAL

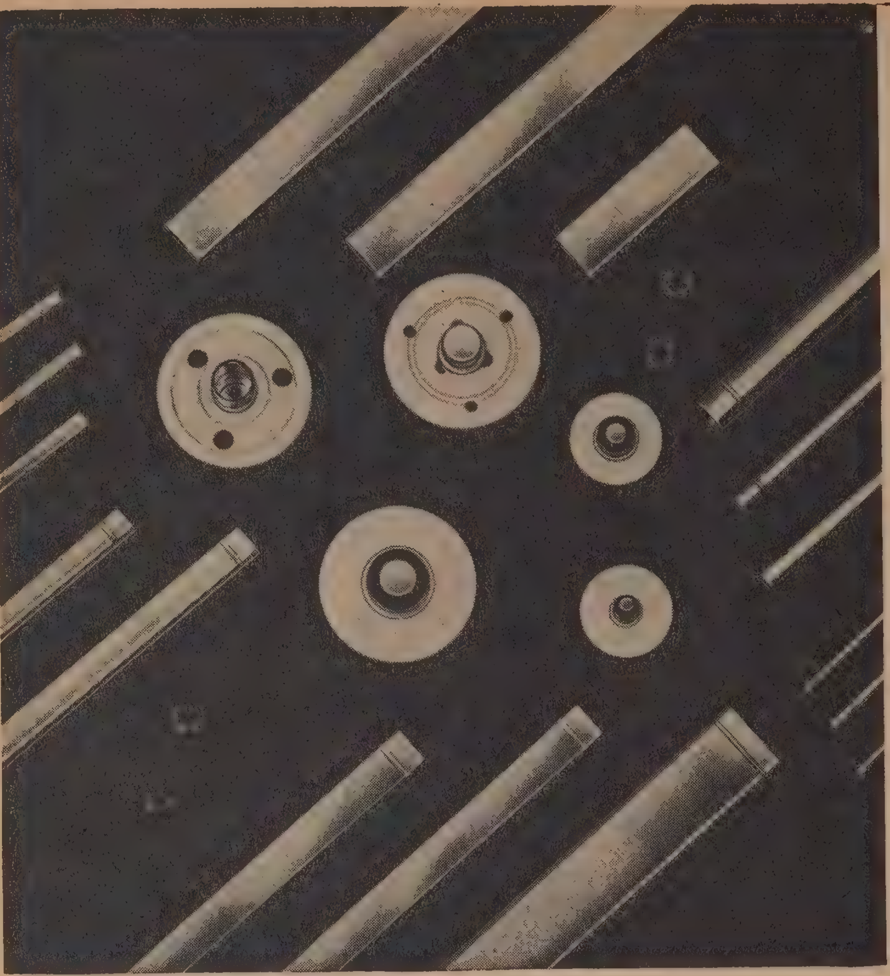
SUPERIOR TUBE CO, NORRISTOWN	**PA**
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Eimac Div, Varian Associates, San Carlos	Cal
Eyelematic Mfg Co Inc, Oakville	Conn
Fansteel Metallurgical Corp, North Chicago	Ill
Kobe Industries Corp, Kobe	Japan
Radio Corp of America, Electronic Components, Harrison	N J
Romac Electronics Inc, Long Island City	N Y
Superior Tube Co, Norristown	Pa

TUBE PARTS--BUTTON STEMS

Eimac Div, Varian Associates, San Carlos	Cal
Electron Technology Inc, Kearny	N J
Eyelematic Mfg Co Inc, Oakville	Conn
General Electric Co, Lamp Glass Dept Willoughby	Ohio
Kobe Industries Corp, Kobe	Japan
Radio Corp of America, Electronic Components, Harrison	N J
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
20th Century Electronics Ltd New Addington, Surrey	England
Veritron West Inc, Chatsworth	Cal

TUBE PARTS--CAPS (TOP)

ALDEN PRODUCTS CO, INC, BROCKTON	**MASS**
SUPERIOR STEATITE & CERAMIC CORP, ENGLEWOOD	**N J**
Alden Products Co, Inc, Brockton	Mass
Associated Engineering & Mfg Corp, Glen Ridge	N J
Bud Radio Inc, Willoughby	Ohio
Eimac Div, Varian Associates, San Carlos	Cal
Eljay Corp, Baltimore	Md
Eyelematic Mfg Co Inc, Oakville	Conn
Hobson Brothers Inc, Chicago	Ill
National Radio Co Inc, Melrose	Mass
Norrich Plastics Corp, Roosevelt	N Y
Richards Metal Products Inc, Wolcott	Conn
Romac Electronics Inc, Long Island City	N Y
Schurter AG, H, 6002 Lucerne	Switzerland
Superior Steatite & Ceramic Corp, Englewood	N J
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
20th Century Electronics Ltd New Addington, Surrey	England
Volkert Stampings Inc Sub Stanley Works Queens Village	N Y



NEED CATHODES?
WANT ON-TIME DELIVERY?

It's a reasonable request. And Superior gives you tangible assurances. First, every cathode we make is for our customers—none for ourselves. Second, we have two large, modern plants, located about 600 miles apart, with identical facilities to protect you against delays. And you can choose from the widest variety of cathode types and materials in the field. So why do you suppose we are the world's leading independent cathode supplier? Send for our Catalog 52. Dept. 2500.

Superior Tube ®
The big name in small tubing
NORRISTOWN, PA. 19404
West Coast: Pacific Tube Company, Los Angeles, California

Johnson & Hoffman Mfg. Corp., Carle Place, N. Y.—an affiliated company making precision metal stampings and deep-drawn parts

TUBE PARTS--CATHODES (SLEEVES, DISKS & TUBES)

KENTUCKY ELECTRONICS INC, OWENSBORO, KY	**ADV PG 767**
SUPERIOR TUBE CO, NORRISTOWN, PA	**ADV PG 762**
Alloys Unlimited Inc, Melville	N Y
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
C M Mfg Co, Bloomfield	N J
Eimac Div, Varian Associates, San Carlos	Cal
Energy Beams Inc, Haskell	N J
Eyelematic Mfg Co Inc, Oakville	Conn
Fansteel Metallurgical Corp, North Chicago	Ill
Griffiths Electronics Inc, Linden	N J
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia	Pa
Johnson & Hoffman Mfg Corp, Carle Place	N Y
Kentucky Electronics Inc, Owensboro	Ky
Kobe Industries Corp, Kobe	Japan
Philips Metalonics, Mount Vernon	N Y
Premium Allied Tool Inc, Owensboro	Ky
Radio Corp of America, Electronic Components, Harrison	N J
Richards Metal Products Inc, Wolcott	Conn
Romac Electronics Inc, Long Island City	N Y
Semicon Associates Inc, Lexington	Ky
Spectra-Mat Inc, Watsonville	Cal
Superior Tube Co, Norristown	Pa
Sylvania Elec Prods Inc, Chem & Met Div, Towanda	Pa
U S Stoneware Inc, Orville Plant, Orrville	Ohio
Varian, Palo Alto	Cal

TUBE PARTS--CONTACTS, SIDE (CATHODE RAY TUBE)

ART WIRE & STAMPING CO, NEWARK	**N J**
MICRO CONTACTS, INC, HICKSVILLE	**N Y**
Art Wire & Stamping Co, Newark	N J
Eimac Div, Varian Associates, San Carlos	Cal
Electronic Instrument Div Gen Atronics Corp Philadelphia	Pa
Fansteel Metallurgical Corp, North Chicago	Ill
Haydu Products Inc, Opa Locka	Fla
Micro Contacts, Inc, Hicksville	N Y
Premium Allied Tool Inc, Owensboro	Ky
Radio Corp of America, Electronic Components, Harrison	N J
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Volkert Stampings Inc Sub Stanley Works Queens Village	N Y

TUBE PARTS--ELECTRON GUN MOUNTS

FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Corning Glass Works, Corning	N Y
Electronic Instrument Div Gen Atronics Corp Philadelphia	Pa
Emporium Specialties Co Inc, Cleveland	Ohio
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Griffiths Electronics Inc, Linden	N J
Haydu Products Inc, Opa Locka	Fla
Kobe Industries Corp, Kobe	Japan
Radio Corp of America, Electronic Components, Harrison	N J
Spectra-Mat Inc, Watsonville	Cal
Superior Electronics Co Div Aiken Indus, Inc, Clifton	N J
20th Century Electronics Ltd New Addington, Surrey	England
Union Carbide Corp, Carbon Products Div New York	N Y
U S Stoneware Inc, Orville Plant, Orrville	Ohio
Volkert Stampings Inc Sub Stanley Works Queens Village	N Y

TUBE PARTS--ELECTRON GUNS

FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
KENTUCKY ELECTRONICS INC, OWENSBORO, KY	**ADV PG 767**
SUPERIOR TUBE CO, NORRISTOWN	**PA**
Airco Temescal, Berkeley	Cal
Apex Electronics, Inc, Passaic	N J
Edwards High Vacuum Inc, Grand Island	N Y
Electronic Instrument Div Gen Atronics Corp Philadelphia	Pa
Energy Beams Inc, Haskell	N J
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Griffiths Electronics Inc, Linden	N J
Kentucky Electronics Inc, Owensboro	Ky
Kobe Industries Corp, Kobe	Japan
Litton Industries, Electron Tube Div, San Carlos	Cal
National Video Corp, Chicago	Ill
Nuclide Corp, AGV Div, Acton	Mass
Premium Allied Tool Inc, Owensboro	Ky
Radio Corp of America, Electronic Components, Harrison	N J

Richards Metal Products Inc, Wolcott	Conn
Spectra-Mat Inc, Watsonville	Cal
Superior Tube Co, Norristown	Pa
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
20th Century Electronics Ltd New Addington, Surrey	England
Ultek Div Perkin-Elmer, Palo Alto	Cal
Veeco Instruments Inc, Plainview	N Y

TUBE PARTS--GRIDS & SUPPORTS

ART WIRE & STAMPING CO, NEWARK	**N J**
FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
KENTUCKY ELECTRONICS INC, OWENSBORO, KY	**ADV PG 767**
SUPERIOR TUBE CO, NORRISTOWN	**PA**
WHITTAKER CORP GEN COM DIV, PLAINVIEW	**N Y**
Alloys Unlimited Inc, Melville	N Y
Art Wire & Stamping Co, Newark	N J
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
C M Mfg Co, Bloomfield	N J
Corning Glass Works, Corning	N Y
Eimac Div, Varian Associates, San Carlos	Cal
Energy Beams Inc, Haskell	N J
Fansteel Metallurgical Corp, North Chicago	Ill
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
General Electric Co Lamp Metals & Components Dept Cleveland	Ohio
Haydu Products Inc, Opa Locka	Fla
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia	Pa
Johnson & Hoffman Mfg Corp, Carle Place	N Y
Kentucky Electronics Inc, Owensboro	Ky
Kobe Industries Corp, Kobe	Japan
Newark Wire Cloth Co, Newark	N J
Norton Co Metals Div, Newton	Mass
Philips Metalonics, Mount Vernon	N Y
Premium Allied Tool Inc, Owensboro	Ky
Radio Corp of America, Electronic Components, Harrison	N J
Richards Metal Products Inc, Wolcott	Conn
Romac Electronics Inc, Long Island City	N Y
Schurter AG, H, 6002 Lucerne	Switzerland
Superior Tube Co, Norristown	Pa
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Union Carbide Corp, Carbon Products Div New York	N Y
Volkert Stampings Inc Sub Stanley Works Queens Village	N Y
Whittaker Corp Gen Com Div, Plainview	N Y

TUBE PARTS--GETTERS

FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
Bram Metallurgical Chemical Co, Philadelphia	Pa
C M Mfg Co, Bloomfield	N J
Corning Glass Works, Corning	N Y
Eimac Div, Varian Associates, San Carlos	Cal
Fansteel Metallurgical Corp, North Chicago	Ill
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Griffiths Electronics Inc, Linden	N J
King Laboratories Inc, Syracuse	N Y
Romac Electronics Inc, Long Island City	N Y
Ronson Metals Corp, Newark	N J
Union Carbide Corp, Electronics Div, Compnts Dept Greenville	S C
Westinghouse Electric Corp, Lamp Div, Bloomfield	N J

TUBE PARTS--HEAT RADIATORS

Atlee Corp, Winchester	Mass
Bud Radio Inc, Willoughby	Ohio
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
C M Mfg Co, Bloomfield	N J
Eimac Div, Varian Associates, San Carlos	Cal
Energy Beams Inc, Haskell	N J
Fansteel Metallurgical Corp, North Chicago	Ill
General Electric Co Lamp Metals & Components Dept Cleveland	Ohio
International Electronic Research Corp, Burbank	Cal
Lockhart Industries Inc, Paramount	Cal
Romac Electronics Inc, Long Island City	N Y
Sylvania Electric Prods Inc, Parts Div, Warren	Pa

TUBE PARTS--POWDERS, CATHODE RAY SCREEN

General Electric Co Lamp Metals & Components Dept Cleveland	Ohio
Griffiths Electronics Inc, Linden	N J
Radio Corp of America, Electronic Components, Harrison	N J
Sylvania Elec Prods Inc, Chem & Met Div, Towanda	Pa
Thomas Electronics Inc, Wayne	N J
United States Radium Corp, Morristown	N J

TUBE PARTS--SPACERS, CERAMIC

AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
CENTRALAB, DIV GLOBE-UNION INC, MILWAUKEE	**WIS**
KYOTO CERAMIC CO LTD, NAKAGYO-KU, KYOTO	**JAPAN**
SUPERIOR STEATITE & CERAMIC CORP, ENGLEWOOD	**N J**
Alberox Corp, New Bedford	Mass
Alloys Unlimited Inc, Melville	N Y
American Lava Corp, Chattanooga	Tenn
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Carborundum Co Electrical & Elctns Br, Niagara Falls	NY
Centralab, Div Globe-Union Inc, Milwaukee	Wis
Ceram Corp, La Mesa	Cal
Coors Porcelain Co, Golden	Colo
Corning Glass Works, Corning	N Y
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Du-Co Ceramics Co, Saxonburg	Pa
Eimac Div, Varian Associates, San Carlos	Cal
Electrical Refractories Co, East Palestine	Ohio
Frenchtown/CFI Inc, Frenchtown	N J
Insaco Inc, Quakertown	Pa
Kyoto Ceramic Co Ltd, Nakagyo-ku, Kyoto	Japan
Maryland Lava Co Inc, Bel Air	Md
Materials for Electronics, Inc, Jamaica	N Y
McDanel Refractory Porcelain Co, Beaver Falls	Pa
Metalized Ceramics Corp, Providence	R I
National Beryllia Corp, Haskell	N J
Quartzite Processing, Inc, Malden	Mass
Saxonburg Ceramics Inc, Pittsburgh	Pa
Spectra-Mat Inc, Watsonville	Cal
Steward Mfg Co, D M, Chattanooga	Tenn
Superior Steatite & Ceramic Corp, Englewood	N J
Syncor Products Co, Inc, Malden	Mass
Union Carbide Corp, Carbon Products Div New York	N Y
U S Stoneware Inc, Orville Plant, Orrville	Ohio
Veritron West Inc, Chatsworth	Cal
Volkert Stampings Inc Sub Stanley Works Queens Village	N Y
Western Gold & Platinum Co, Belmont	Cal

TUBE PARTS--SPACERS, MICA

MAGNETIC SHIELD DIV, PERFECTION MICA CO, CHICAGO	**ILL**
Anglo American Vulcanized Fibre Co Ltd London EC 1	England
Asheville-Schoonmaker Mica Co, Newport News	Va
Budd Co Polychem Div, Newark	Del
Cleveland Mica Co, Lakewood	Ohio
Columbia Technical Corp, Woodside	N Y
Ford Radio & Mica Corp, Brooklyn	N Y
Magnetic Shield Div, Perfection Mica Co, Chicago	Ill
Micacraft Products, Inc, Newark	N J
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
United Mineral & Chemical Corp, New York	N Y

TUBE PARTS--SUPPORTS (INCL WIRE PARTS)

ART WIRE & STAMPING CO, NEWARK	**N J**
FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
KENTUCKY ELECTRONICS INC, OWENSBORO, KY	**ADV PG 767**
Art Wire & Stamping Co, Newark	N J
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Clover Co Inc F G, Rockaway	N J
Corning Glass Works, Corning	N Y
Electronic Metals & Alloys Inc, North Attleboro	Mass
Electronic Parts Mfg Co Inc, Union City	N J
Emporium Specialties Co Inc, Cleveland	Ohio
Emtec Inc, Empire Spring Div, Elyria	Ohio
Fansteel Metallurgical Corp, North Chicago	Ill
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
General Electric Co Lamp Metals & Components Dept Cleveland	Ohio
Haydu Products Inc, Opa Locka	Fla
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia	Pa
Johnson & Hoffman Mfg Corp, Carle Place	N Y
Kentucky Electronics Inc, Owensboro	Ky
King Laboratories Inc, Syracuse	N Y
Kobe Industries Corp, Kobe	Japan
Norton Co Metals Div, Newton	Mass
O'Hara Metal Products Co, San Francisco	Cal
Pix Mfg Co, Newark	N J
Premium Allied Tool Inc, Owensboro	Ky
Radio Corp of America, Electronic Components, Harrison	N J
Schurter AG, H, 6002 Lucerne	Switzerland
Semi-Alloys Inc, Mt Vernon	N Y
Sylvania Elec Prods Inc, Chem & Met Div, Towanda	Pa
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Veritron West Inc, Chatsworth	Cal
Westinghouse Electric Corp, Lamp Div, Bloomfield	N J

TUBE PARTS--TUBE, SEAL LEADS

ART WIRE & STAMPING CO, NEWARK	**N J**
SUPERIOR TUBE CO, NORRISTOWN	**PA**
Art Wire & Stamping Co, Newark	N J
Associated Engineering & Mfg Corp, Glen Ridge	N J
Bead Chain Mfg Co, Bridgeport	Conn
Corning Glass Works, Corning	N Y
Eimac Div, Varian Associates, San Carlos	Cal
Electronic Parts Mfg Co Inc, Union City	N J
General Electric Co Lamp Metals & Components Dept Cleveland	Ohio
ITT Industrial Labs Div, Fort Wayne	Ind
Kobe Industries Corp, Kobe	Japan
MacKay Research Labs, Wickenburg	Ariz
Superior Tube Co, Norristown	Pa
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Union City Filament Corp, Union City	N J
Veritron West Inc, Chatsworth	Cal
Westinghouse Electric Corp, Lamp Div, Bloomfield	N J

TUBE SHIELDS SEE SHIELDS--TUBE

TUBE SOCKETS SEE SOCKETS

Special ingredients.

Does the laser have the special ingredients your project needs? The names and addresses of laser suppliers are listed alphabetically in the Electronics Buyers' Guide, classified by 5 kinds of lasers, from crystal lasers to ruby lasers.

Electronics Buyers' Guide

Amperex Industrial, Communication,

TUBE TYPE

0A2
0B2
0E3
0G3
1A3/DA90
1AB6
1AC6
IAH5
1AJ4
1AN5
1B3GT
1BG2
1CP1
ICP31/DH3-91
1G3GT/1B3GT
1L4/DF92
1M3/DM70
1N3/DM71
1R5/DK91
1S2A/DY87
1S5/DAF91
1T4/DF91
1U4
1U5/DAF92
1X2B
2D21
2D21W
2ER5/XC95
2FY5/XC97
2GK5
2HA5
2J42
2J55
3AMP1/DG7-32
3A4/DL93
3A5/DCC90
3AU6
3BH2
3BU8
3B28
3BKP2/DN7-78
3BKP7/DP7-78
3BKP11/DB7-78
3BKP31/DH7-78
3BYP2/DN7-11
3BYP7/DP7-11
3BYP11/DB7-11
3BYP31/DH7-11
3BZ6
3C4/DL96
3CB6
3EH7/XF183
3EJ7/XF184
3ER5
3GK5
3HA5/LC900
3NP4/MW6-2
3Q4/DL95
3S4/DL92
3V4/DL94
3-400Z
4-65A
4-125A
4-250A
4-400A
4B32
4BL8/XCF80
4C35
4CX250B
4CX250F
4X250FG/8621
4CX250R
4CX350A/
4CX350F
4EH7
4EJ7
4ES8/XCC189
4GK5
4HA5/PC900
4X150A
4X150D
4X150D/7035(JAN)
4X500A
5AQ4
5AR4/GZ34
5BHP2
5BHP7
5BHP31
5C22
5EJP31/D13-26GH
5ELP2/D13-21GP
5ELP7/D13-21GM
5ELP11/D13-21BE
5ELP31/D13-21GH
5GJ7/LCF801

TUBE TYPE

5HG8/LCF86
5R4GY
5R4GYB
5U8
5U9/LCF201
5X9/LCF200
5Z4G/GZ30
6AB8
6AF9
6AJ8/ECH81
6AK5/EF95
6AK5W
6AK8
6AL3/EY88
6AL5/EAA91
6AL5W
6AM5
6AM6
6AQ4
6AQ5/EL90
6AQ5/EL90MP
6AQ5A
6AQ5AMP
6AQ8/ECC85
6AT6/EBC90
6AU4GTA
6AU6/EF94
6AU6A
6AV6/EBC91
6AX4GT
6AX4GTB
6BA6/EF93
6BD7A
6BE6/EK90
6BE7
6BL8/ECF80
6BM8/ECL82
6BN5
6BQ5/EL84
6BQ5/EL84MP
6BR5/EM80
6BT4
6BX6/EF80
6BY7
6BZ6
6C4/EC90
6CA4/EZ81
6CA7/EL34
6CA7/EL34MP
6CB6A
6CD7/EM34
6CG7
6CH6
6CJ5
6CJ6
6CK5
6CK6
6CM4/EC86
6CM5
6CN6
6CQ6
6CS6/EH90
6CT7
6CU7
6CV7
6CW5/EL86
6CW7
6DA5/EM81
6DA6/EF89
6DC8/EBF89
6DE6
6DJ8/ECC88
6DL4/EC88
6DL5/EL95
6DL5MP/EL95MP
6DR8
6DS8
6DT6
6DX8/ECL84
6EA8
6EC4
6ED4
6EH7/EF183
6EJ7/EF184
6ER5/EC95
6ES6
6ES8/ECC189
6ET6
6EU7
6FG6/EM84
6FY5/EC97
6GB5/EL500
6GH8A
6GJ7/ECF801
6GK5
6GK6

TUBE TYPE

6GM8/ECC86
6GV8/ECL85
6GW8/ECL86
6HA5/EC900
6HG8/ECF86
6HU6/EM87
6HU8/ELL80
6J6/ECC91
6J6A
6JW8/ECF802
6JX8/ECH84
6KG6
6LFG
6LN8/LCF80
6LX8/LCF802
6N3
6N8
6Q4/EC80
6R3/EY81
6R4/EC81
6S2
6S2A
6S4A
6SN7GTB
6U3
6U8
6U8A
6U9/ECF201
6V4/EZ80
6V9/ECH200
6W4GT
6X2
6X4/EZ90
6X9/ECF200
6Y9/EFL200
7AN7
7AU7
7C24
7DJ8
7ES8
7HG8/PCF86
8BQ5/XL84
8CW5/XL86
8GJ7/PCK801
8MB6
8MG6
8MY6
8U9/PCF201
8X9/PCF200
9A8/PCF80
9AB4
9AK8
9AQ8/PCC85
9ED4
9GV8/XCL85
9U8/PCF82
9U8A
9V9/PCH200
10CW5/LL86
10DX8/LCL84
10LD6
11AF9
11Y9/LFL200
12AC5
12AJ7
12AT6/HBC90
12AT7/ECC81
12AU6/HF94
12AU7/ECC82
12AU7A
12AV6/HBC91
12AX4GTA
12AX4GTB
12AX7A/ECC83
12BE6
12BL6
12DS7
12DS7A
12S7
12SN7GTA
12X4/HZ90
13GB5/XL500
14GW8
14K7
14L7
15A6
15CW5/PL84
15DQ8/PCL84
16A5
16A8/PCL82
16AQ3/XY88
16GK6
16Y9/PFL200
17C8

TUBE TYPE

17EW8/HCC85
17Z3
18GB5/LL500
18GV8
19AU4
19AU4GTA
19BR5
19D8
19FL8
19X3
19Y3
20AQ3/LY88
21A6
25E5
25L6GT
27GB5/PL500
30A5
30AE3
31A3
35L6GT
38A3
40KG6
42EC4
45A5
45B5/UL84
45B5/UL84MP
50BM8/UCL82
50BM8/UCL82MP
50C5
52AVP
53AVP
53CG
53UVP
54AVP
54UVP
55N3
56AVP
56AVP/03
56AVP/05
56CVP
56P17/2
56P17/3
56TVP
56TUVP
56UVP
57AVP
58AVP
58CG
58CV
58UVP
60AVP
75C1
75N
75NB3
76NB3
80N
85A1/OE3
85A2/OG3
90AG
90AV
90C1
90CG
90CV
90NB3/900V
90NB4/900V
90NS
92AV
100C
100CB
100E1
100HB
100LB
100NB/900V
120C
120BN/900V
150A1
150AVP
150B2/6354
150C1P
150CVP
150N/900V
150NB/900V
150UVP
153AVP
153C
155N
160G
161G
171G
200C
200CB
200HB
200LB
200N

TUBE TYPE

200NB/900V
356
367
300PC
310PC
400PC
404A
417A
500N
501N
501R
502N
504R
505N
506N
507N
575A
632B
651
652
653B
655
673
725A
805
807
810
811A
812A
813
828
829B
832A
833A
833A(JAN)
838
845
849
857B
857B(JAN)
866AX
869B
869B(JAN)
869BL
872AX
880
892
892R
912NB3/900V
912NB4/900V
967
1164
1561
1805
1838
1849
1875
1908
1913
1941A
2050
2050A
3200
3533A
3538
3545
3546PW
3554
4065
4152
4654
4699
5544
5545
5551A
5552A
5553B
5555
5557/FG17
5559
5560/FG95
5586
5604
5632/C3J
5651
5654/6AK5W
5658
5666
5667
5678
5684/C3JA
5685/C6JA
5718
5726/6AL5W

TUBE TYPE

5727/2D21W
5759
5762
5771
5822A
5823
5842
5842(JAN)
5847
5847(JAN)
5861/EC55
5866
5866A
5867
5867A
5868
5869
5870
5894
5894(JAN)
5894A
5895B/8737
5895
5911
5913
5920
5923
5924
5924A
6007
6008
6075
6076
6076/QY5-3000A
6077
6078
6079
6083
6084
6085
6146
6146A
6146B/8298A
6155
6156
6159
6159B
6189/12AU7WA
6201
6211
6211A
6218
6227
6252
6252(JAN)
6267/EF86
6268
6279
6339
6354
6360
6360(JAN)
6360A
6370
6375
6463
6508
6617
6618
6681/12AX7A
6686
6687
6688
6688A
6688(JAN)
6689
6693
6756
6759
6779
6786
6800A
6801
6816
6883
6883B/8032A
6884
6907
6907(JAN)
6922
6922(JAN)
6923
6939

TUBE TYPE

6960
6961
6977
6979
7025
7034
7035
7035(JAN)
7038
7062
7090
7091
7092
7119
7136
7189
7189A
7189MP
7203
7204
7237
7291
7292
7308
7308(JAN)
7316
7320/E84L
7325
7336
7377
7378
7459
7527
7534
7580
7580W/4CX250R
7609
7609(JAN)
7643
7645
7650
7693
7694
7697
7699
7709
7710
7714
7721/D3A
7722/E280F
7735A
7737
7737(JAN)
7753
7788
7788(JAN)
7800
7804
7805
7806
7807
7843
7844
7854
7899
7900
7983
7986/5866A
8008AX
8020AX
8032
8042
8078
8108/EC157
8116
8117A
8118
8119/TBL2/400
8120/TBL2/500
8163
8177
8179
8223/E288CC
8228
8233
8233(JAN)
8254
8255/E88C
8268
8269
8270
8278/EL503
8298A

AMPEREX ELECTRONIC CORPORATION
Hicksville, Long Island, New York 11802

Amperex®
TOMORROW'S THINKING IN TODAY'S PRODUCTS

and Receiving Tubes....

TUBE TYPE

8300
8321/4CX350A
8322/4CX350F
8348
8408
8416
8436/EC158
8453/Z550M
8457
8458
8463
8482
8483
8505A
8507
8509
8541
8556
8560/DX278
8572
8577
8579
8580
8591
8592
8593
8594
8595
8603
8608
8621(JAN)
8621/4CX250FG
8624
8637
8639
8639(JAN)
8643
8647
8654
8666
8667
8668
8669
8670
8679
8680
8683
8731
8732
8733
8735
8736
8737
8744
8752
8753
13201AE
18042
18045
18503
18504
18505
18506
18508
18509
18510
18515
18516
18517
18518
18522
18526
18529
18536
18550
18552
55850AM
55850N
55850S
55851N
55852N
56001

TUBE TYPE

Alpha-Numeral Listing

AB2
ABC1
AF3
AF7
AGR9950
AGR9951
AW17-69
AK2
AL4
AX50
AX105/FG105
AX260
AX5842
AX9900
AX9901
AX9902
AX9903
AX9904
AX9904R
AX9907
AX9907R
AX9908
AX9909
AX9910
AX9911
AX9912
AZ1
AZ4
AZ11
AZ12
AZ31
AZ41
C3J
C3JA
C3M
C6JA
C8
CF3
CF50
CK1
CL4
CY1
CY2
D3A/7721
D10-11BE
D10-11GH
D10-11GM
D10-11GP
D10-12BE
D10-12GH
D10-12GM
D10-12GP
D13-15BE
D13-15GH
D13-15GM
D13-15GP
D13-16BE
D13-16GH
D13-16GP
D13-17BE
D13-17GH
D13-17GP
D13-19BE
D13-19GH
D13-19GM
D13-19GP
D13-20BE
D13-21BE/5ELP11
D13-21GH/5ELP31
D13-21GM/5ELP7
D13-21GP/5ELP2
D13-22GH
D13-23GH
D13-24BE
D13-26GH/5EJP31
DA90
DAF40
DAF41
DAF91
DAF92
DAF96
DB711-/3BYP11
DB7-78/3BKP11
DC70/6375
DCC90
DCG1/250
DCG4/1000G
DCG5/5000EG
DF21
DF22
DF91

TUBE TYPE

DF92
DF96
DF97
DF904
DG7-5
DG7-6
DG7-31
DG7-32/3AMP1
DH3-91/1CP31
DH7-11/3BYP31
DH7-78/3BKP31
DH13-10
DK21
DK40
DK91
DK92
DK96
DL21
DL41
DL92
DL93
DL94
DL95
DL96
DLL21
DM70
DM71
DN7-11/3BYP2
DN7-78/3BKP2
DP7-11/3BYP7
DP7-78/3BKP7
DX206
DX278
DY86
DY87
E1T/6370
E10-10BE
E10-10GH
E10-10GM
E10-10GP
E10-12BE
E10-12GH
E10-12GM
E10-12GP
E55L/8233
E80CC/6085
E80CF/7643
E80F/6084
E80L/6227
E80T/6218
E81CC/6201
E82CC/6189
E81L/6686
E83F/6689
E84L/7320
E86C
E88C/8255
E88CC/6922
E90CC/5920
E90F/7693
E91AA
E91H/6687
E91N/5727
E92CC
E95F/5654
E99F
E130L/7534
E180CC/7062
E180F/6688
E182CC/7119
E182F/5847
E186F/7737
E188CC
E280F/7722
E283CC
E288CC/8233
EA52
EA53
EA76
EAA91
EABC80
EAC91
EAF42
EB34
EB41
EB91
EBC3
EBC33
EBC41
EBC81
EBC90/6AT6
EBC91/6AV6
EBF2
EBF32

TUBE TYPE

EBF35
EBF80
EBF83
EBF89
EBL1
EBL21
EC50
EC55/5861
EC80
EC81
EC86
EC88
EC90
EC91
EC92
EC95
EC97
EC157/8108
EC158/8436
EC900
EC1000/8254
EC8010
ECC32
ECC33
ECC34
ECC35
ECC40
ECC81
ECC82
ECC83
ECC84
ECC85
ECC86
ECC88/6DJ8
ECC91
ECC189
ECC2000
ECF1
ECF80
ECF82
ECF86
ECF200
ECF201
ECF801
ECF802
ECH3
ECH4
ECH21
ECH35
ECH41
ECH42
ECH81
ECH83
ECH84
ECH200
ECL80
ECL82
ECL83
ECL84
ECL85
ECL86
EEP1
EF6(N)
EF9
EF22
EF36
EF37A
EF39
EF40
EF41
EF42
EF43
EF50
EF55
EF80
EF83
EF85
EF86
EF89
EF91
EF92
EF93
EF94
EF95
EF97
EF98
EF183
EF184
EFF51
EFL200
EFP60
EH90
EK2
EK90
EL2

TUBE TYPE

EL3(N)
EL6
EL11
EL12
EL33
EL34
EL34MP
EL36
EL37
EL37MP
EL38
EL41
EL42
EL50
EL51
EL60
EL81
EL82
EL83
EL84
EL84MP
EL85
EL86
EL90
EL90MP
EL91
EL95
EL95MP
EL360
EL500
EL503
EL821
EL822
ELL80
EM4
EM34
EM80
EM81
EM84
EM87
EQ80
EY51
EY80
EY81
EY82
EY86
EY87
EY88
EZ2
EZ40
EZ41
EZ80
EZ81
EZ90
FG17/5557
FG95
FG105
GZ30
GZ32
GZ33
GZ34
HBC90
HBC91
HCC85
HCH81
HF94
HF200
HF300
HK90
HL92
HL94
HZ90
K81A
LC900
LCF80
LCF86
LCF200
LCF201
LCF801
LCF802
LCL84
LFL200/11Y9
LL86
LL500
LY88
ORP30
ORP50
ORP60
ORP61
ORP62
ORP63
PABC80
PB2/500
PC900

TUBE TYPE

PCC84
PCC85
PCC88
PCC189
PCF80
PCF82
PCF86
PCF200
PCF201
PCF801
PCH200
PCL82
PCL84
PCL85
PCL86
PE05/25
PE06/40E
PE06/40N
PE06/40P
PF86
PFL200
PL21
PL36
PL81
PL82
PL83
PL84
PL150
PL500
PL6574
PL6755
PY80
PY81
PY82
PY88
QE04/10
QY5-3000A
RPY17
RPY18
RPY19
RPY20
RPY27
RPY41
S-32995
S-32996
SD513
SD540
SD560
TBL2/400/8119
TBL2/500/8120
U30
UABC80
UAF42
UB41
UBC41
UBC81
UBF80
UBF89
UBL1
UBL21
UC92
UCC85
UCH4
UCH21
UCH41
UCH42
UCH81
UCL11
UCL82
UCL82MP
UCL83
UF41
UF42
UF80
UF85
UF86
UF89
UL41
UL84
UL84MP
UM4
UM80
UY1(N)
UY11
UY41
UY42
UY82
UY85
UY89
VC25/20
VC25/32
VC50/20
VC50/32
VC100/20

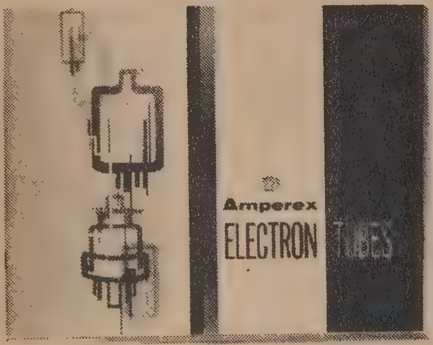
TUBE TYPE

VC100/32
VC250/32
XC95
XC97
XCC189
XCF80
XCL85
XF183
XF184
XL84
XL86
XL500
XP1000
XP1001
XP1002
XP1003
XP1004
XP1005
XP1010
XP1011
XP1014
XP1015
XP1020
XP1021
XP1023
XP1030
XP1031
XP1032
XP1033
XP1040
XP1110
XP1111
XP1112
XP1113
XP1114
XP1115
XP1116
XP1117
XP1118
XP1120
XP1121
XP1122
XP1123
XP1130
XP1131
XP1140
XP1141
XP1143
XP1180
XP1210
XY88/16AQ3
Z50T
Z70U/7710
Z70W/7709
Z71U/7711
Z303C
Z502S
Z504S
Z505S
Z550M/8453
Z803U/6779
Z805U/7714
Z900T/5823
ZB3200
ZM1030
ZM1032
ZZ1000/8228

AMPEREX ELECTRONIC CORPORATION
Hicksville, Long Island, New York 11802

Amperex®
TOMORROW'S THINKING IN TODAY'S PRODUCTS

Quick
Reference
Guide to
Amperex
Electron Tubes



- Backward Wave Oscillators
- Biquinary Numerical Indicators
- Cathode Ray Tubes
- Cold Cathode Indicator Diodes
- Cold Cathode Trigger Tubes
- Continuous Wave Magnetrons
- Counting, Selecting & Indicator Tubes
- Disc-Seal Triodes
- Entertainment & Audio Types
- Ignitrons
- Klystrons
- Magnetrons
- Microwave Tubes
- Miniature Tubes
- Plumbicon Tubes
- Power Tubes
- Premium Quality Tubes
- Premium Quality, 10,000 Hour Tubes
- Receiving Tubes
- Rectifiers-Diodes
- Special Purpose Tubes
- Subminiature Tubes
- Thyratrons
- Traveling-Wave Tubes
- Tuning Indicator Tubes
- UHF Special Purpose Tubes
- Vidicon Camera Tubes
- Voltage Reference & Regulators

For your free copy, write:
Amperex Electronic Corporation,
Tube Division
Hicksville, L. I., N.Y. 11802
Regional Offices:
Calif.: 801 E. Charleston, Palo Alto
Ill.: 360 E. North Ave. Northlake

Amperex®
TOMORROW'S THINKING IN TODAY'S PRODUCTS

TUBES--BALLAST

AMPERITE CO INC, UNION CITY	**N J**
ELECTRONIC ENTERPRISES INC, NEWARK	**N J**
Amperite Co Inc, Union City	N J
Electronic Enterprises Inc, Newark	N J
International Electronics Corp, Melville	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland

TUBES--BEAM-DEFLECTION SEE TUBES--COUNTER

TUBES, CATHODE RAY--DATA STORAGE

C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Digital Equipment Corp, Maynard	Mass
EMI Electronics Ltd, Hayes, Middlesex	England
English Electric Valve Co, Ltd Chelmsford, Essex	England
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
Hughes Aircraft Co Vac Tube Prods Div Storage Tubes & Comml Display Sys, Oceanside	Cal
International Electronics Corp, Melville	NY
ITT Electron Tube Div, Easton	Pa
ITT Europe Inc Components Gp, Brussels 1	Belgium
ITT Industrial Labs Div, Fort Wayne	Ind
Kobe Industries Corp, Kobe	Japan
National Union Electric Corp Electronics Div Bloomington	Ill
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Electronic Components, Harrison	N J
Rauland Corp, Melrose Park	Ill
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Sampson Electronic Products Div, Chicago	Ill
Sarco Co, Harrisonburg	Va
Shiba Electric Co Ltd, Woodside	N Y
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls	N Y
Thomas Electronics Inc, Wayne	N J
Transistor Electronics Corp, Minneapolis	Minn
20th Century Electronics Ltd New Addington, Surrey	England
Warnecke Electron Tubes Inc, Des Plaines	Ill
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh	Pa
Westinghouse Electric Corp, Tube Div, Elmira	NY
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

TUBES, CATHODE RAY--IMAGE ORTHICON

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PG 7**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
WHITTAKER CORP GEN COM DIV, PLAINVIEW	**N Y**
EMI Electronics Ltd, Hayes, Middlesex	England
English Electric Valve Co, Ltd Chelmsford, Essex	England
General Electric Co, ECSO, Schenectady	N Y
International Electronics Corp, Melville	NY
MacKay Research Labs, Wickenburg	Ariz
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Nippon Electric Co Ltd, Tokyo	Japan
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Electronic Components, Harrison	N J
Sarco Co, Harrisonburg	Va
Shiba Electric Co Ltd, Woodside	N Y
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls	N Y
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh	Pa
Westinghouse Electric Corp, Tube Div, Elmira	NY
Whittaker Corp Gen Com Div, Plainview	N Y

TUBES, CATHODE RAY--OSCILLOSCOPE MULTIPLE GUN

FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
Allstate Electronics, Inc, Ossining	N Y
Electronic Instrument Div Gen Atronics Corp Philadelphia	Pa
English Electric Valve Co, Ltd Chelmsford, Essex	England
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
Kobe Industries Corp, Kobe	Japan
MacKay Research Labs, Wickenburg	Ariz
M-O Valve Co Ltd, Hammersmith, London W6	Eng
Mullard Ltd, London, WC 1	Eng
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Rayonic Corp, Philadelphia	Pa
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Sampson Electronic Products Div, Chicago	Ill
Sarco Co, Harrisonburg	Va
Silver Glo Picture Tubes Ltd, Edmonton	Alb
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls	N Y
Telefunken Sales Corp, Garden City	N Y
20th Century Electronics Ltd New Addington, Surrey	England
Video Color Corp, El Segundo	Cal
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh	Pa
Westinghouse Electric Corp, Tube Div, Elmira	NY

TUBES, CATHODE RAY--OSCILLOSCOPE SINGLE GUN

AMPEREX ELECTRONIC CORP, ELECTRO OPTICAL DEVICES DIV SLATERSVILLE, R I	**ADV PGS 764,765**
FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Allstate Electronics, Inc, Ossining	N Y
Amperex Electronic Corp, Electro Optical Devices Div Slatersville	R I
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
E G & G Inc, Systems Devel Div, Bedford	Mass
Electronic Instrument Div Gen Atronics Corp Philadelphia	Pa
EMI Electronics Ltd, Hayes, Middlesex	England
English Electric Valve Co, Ltd Chelmsford, Essex	England
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
International Electronics Corp, Melville	NY
Kobe Industries Corp, Kobe	Japan
MacKay Research Labs, Wickenburg	Ariz
Matsushita Electric Industrial Co Ltd, Osaka	Japan
M-O Valve Co Ltd, Hammersmith, London W6	Eng
Mullard Ltd, London, WC 1	Eng
National Union Electric Corp Electronics Div Bloomington	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polaris Engineering Corp, Chicago	Ill
Radio Corp of America, Electronic Components, Harrison	N J
Rayonic Corp, Philadelphia	Pa
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Sampson Electronic Products Div, Chicago	Ill
Sarco Co, Harrisonburg	Va
Silver Glo Picture Tubes Ltd, Edmonton	Alb
Standard TV Tube Co, Jacksonville	Fla
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls	N Y
Telefunken Sales Corp, Garden City	N Y
Thomas Electronics Inc, Wayne	N J
20th Century Electronics Ltd New Addington, Surrey	England
Video Color Corp, El Segundo	Cal
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh	Pa
Westinghouse Electric Corp, Tube Div, Elmira	NY

TUBES, CATHODE RAY--SCAN CONVERTER

FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
General Electrodynamics Corp, Garland	Tex
Hughes Aircraft Co Vac Tube Prods Div Storage Tubes & Comml Display Sys, Oceanside	Cal
ITT Electron Tube Div, Easton	Pa
ITT Industrial Labs Div, Fort Wayne	Ind
MacKay Research Labs, Wickenburg	Ariz
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Electronic Components, Harrison	N J
Rauland Corp, Melrose Park	Ill
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Sarco Co, Harrisonburg	Va
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls	N Y
20th Century Electronics Ltd New Addington, Surrey	England
Warnecke Electron Tubes Inc, Des Plaines	Ill
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh	Pa
Westinghouse Electric Corp, Tube Div, Elmira	NY
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

TUBES, CATHODE RAY--SHAPED BEAM & CHARACTER

C B S Labs Div Columbia Bdcstg Sys Inc Stamford	Conn
Litton Industries, Electron Tube Div, San Carlos	Cal

FINE WIRE

Down to .0004″ diameter . . . alloy, clad and plated wire produced to a wide variety of physical properties. Spooled; coiled; single-end and multiple-end bobbins. Precision equipment for winding wire.

WIRE FORMS

In diameter from .003″ to .180″ . . . leads and contacts for diodes, transistors, resistors, capacitors, reed switches, etc.

METAL STAMPINGS

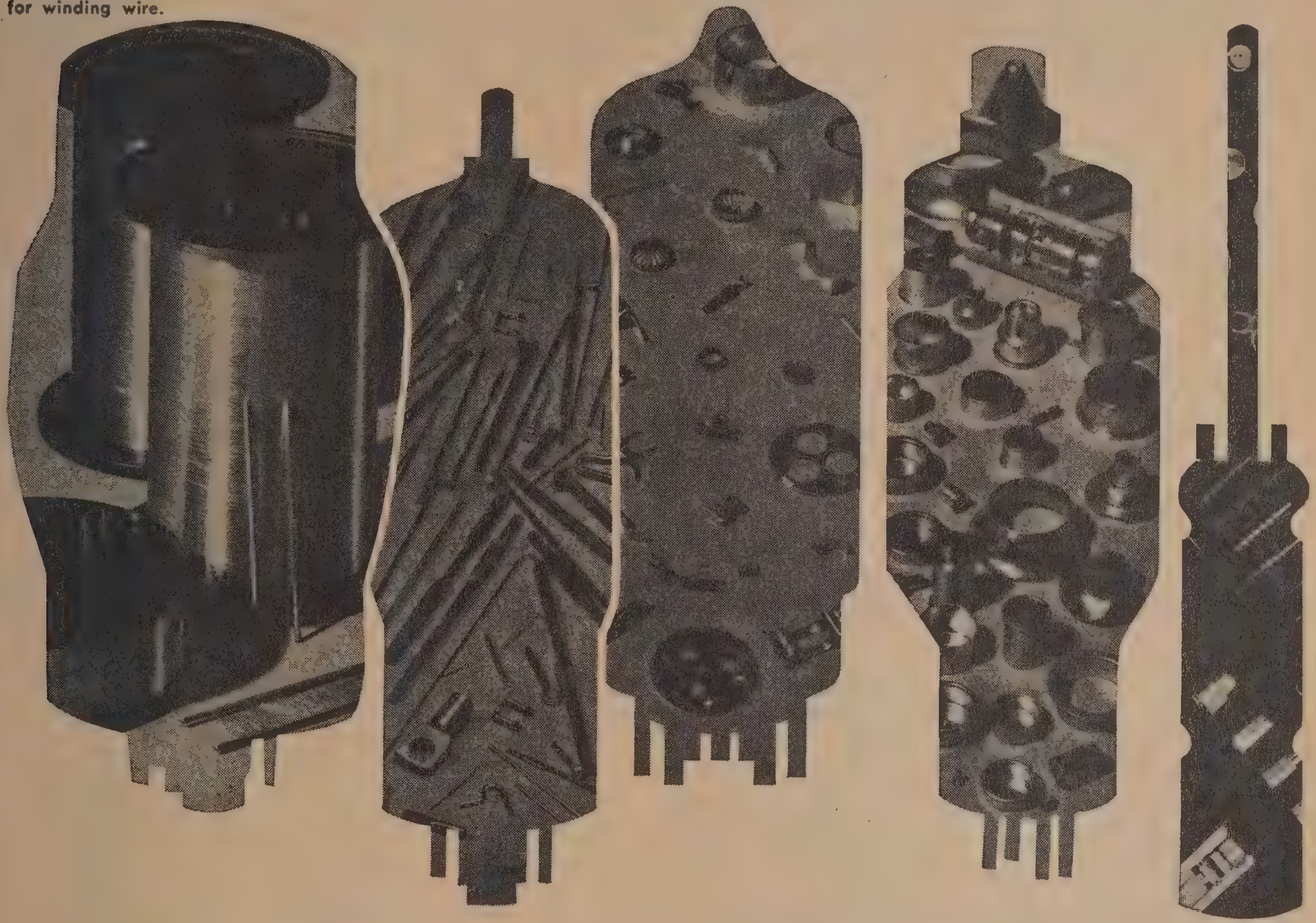
Custom, precision fabrications in a wide variety of shapes and metals.

DEEP-DRAWN EYELET PARTS

Cans, cylinders, grommets, bases, CRT gun parts for black-and-white TV, 70° and 90° color TV tubes, oscilloscopes, etc.

TV GUN ASSEMBLIES

Complete gun assemblies for color TV, from components all manufactured by Kentucky Electronics.



Now . . . a **single** source for basic components . . .

KENTUCKY ELECTRONICS, INC.

Creative engineering, based on long and varied experience, consistently reflects in both product improvements and important cost savings achieved by Kentucky Electronics. KE facilities now combine a fine wire mill with advanced forming equipment to assure unusual precision in producing wire forms. New deep-drawing equipment has been added to keep pace with the industry's demand for more and more precision-drawn parts.

KE grid wire has been a standard in the receiving tube industry for many years. More and more manufacturers are making Kentucky Electronics their prime source of precision fine wire, metal stampings and deep-drawn eyelet parts for electronic devices; of components for black-and-white television and of complete color TV gun assemblies for 70° and 90° television tubes; of parts for transistors, diodes, capacitors and many other applications.

This same unique KE combination—of proved abilities plus outstanding facilities—may well offer you the most profitable solution to your problems and/or needs. It's yours to command.

All KE products are available hydrogen fired and vacuum packed.

KE

"IT CAN BE DONE"

KENTUCKY ELECTRONICS, INC.
2727 Kentronics Drive
P. O. Box 511
Owensboro, Kentucky 42301
Phone: Area Code 502, 684-0431

MacKay Research Labs, Wickenburg .... Ariz
Marconi Co Ltd, Chelmsford .... England
Philco-Ford Corp, Washington .... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Rauland Corp, Melrose Park Ill
Raytheon Co, Components Div, Ind Compnts Oper Quincy .... Mass
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls .... N Y
Transistor Electronics Corp, Minneapolis .... Minn
Varian, Palo Alto .... Cal
Westinghouse Electric Corp, Tube Div, Elmira .... NY
Zenith Radio Co Govt & Special Prod Div, Chicago Ill

TUBES, CATHODE RAY--TV, BLACK & WHITE

AMPEREX ELECTRONIC CORP, ENTERTAINMENT TUBE DIV SLATERSVILLE, R I .... ADV PGS 764,765
FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE .... N J
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA .... JAPAN
Allstate Electronics, Inc, Ossining .... N Y
Amperex Electronic Corp, Entertainment Tube Div Slatersville .... R I
Channel Master Corp, Ellenville .... N Y
Dalto Electronics Corp, Norwood .... N J
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove .... N J
Ferranti, Ltd, Lancashire .... England
Fivre Dept Fabbrica Ital Mag Marelli, I - 27100 - Pavia .... Italy
General Electric Co, ECSO, Schenectady .... N Y
Hitachi Ltd, Chiyoda-Ku, Tokyo .... Japan
International Electronics Corp, Melville .... NY
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Kobe Industries Corp, Kobe .... Japan
Litton Industries, Electron Tube Div, San Carlos .... Cal
MacKay Research Labs, Wickenburg .... Ariz
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Mullard Ltd, London, WC 1 .... Eng
National Television Tube Inc, Saddle Brook .... N J
Philco-Ford Corp, Washington .... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Polaris Engineering Corp, Chicago Ill
Radio Corp of America, Electronic Components, Harrison .... N J
Rauland Corp, Melrose Park Ill
Sampson Electronic Products Div, Chicago Ill
Sarco Co, Harrisonburg .... Va
Silver Glo Picture Tubes Ltd, Edmonton .... Alb
Standard TV Tube Co, Jacksonville .... Fla
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls .... N Y
Thomas Electronics Inc, Wayne .... N J
Video Color Corp, El Segundo .... Cal
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh .... Pa
Westinghouse Electric Corp, Tube Div, Elmira .... NY

TUBES, CATHODE RAY--TV, COLOR

AMPEREX ELECTRONIC CORP, ENTERTAINMENT TUBE DIV SLATERSVILLE, R I .... ADV PGS 764,765
FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE .... N J
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PG 7
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA .... JAPAN
Allstate Electronics, Inc, Ossining .... N Y
Amperex Electronic Corp, Entertainment Tube Div Slatersville .... R I
Channel Master Corp, Ellenville .... N Y
Dalto Electronics Corp, Norwood .... N J
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove .... N J
Fivre Dept Fabbrica Ital Mag Marelli, I - 27100 - Pavia .... Italy
General Electric Co, ECSO, Schenectady .... N Y
Hitachi Ltd, Chiyoda-Ku, Tokyo .... Japan
International Electronics Corp, Melville .... NY
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Kobe Industries Corp, Kobe .... Japan
MacKay Research Labs, Wickenburg .... Ariz
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Mullard Ltd, London, WC 1 .... Eng
National Television Tube Inc, Saddle Brook .... N J
National Video Corp, Chicago Ill
Philco-Ford Corp, Washington .... D C
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Polaris Engineering Corp, Chicago Ill
Radio Corp of America, Electronic Components, Harrison .... N J
Rauland Corp, Melrose Park Ill
Sampson Electronic Products Div, Chicago Ill
Sarco Co, Harrisonburg .... Va
Standard TV Tube Co, Jacksonville .... Fla
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls .... N Y
Telefunken Sales Corp, Garden City .... N Y
Thomas Electronics Inc, Wayne .... N J
Video Color Corp, El Segundo .... Cal
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh .... Pa
Westinghouse Electric Corp, Tube Div, Elmira .... NY

TUBES, CATHODE RAY--VIDICON

AMPEREX ELECTRONIC CORP, ELECTRO OPTICAL DEVICES DIV SLATERSVILLE, R I .... ADV PGS 764,765
FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE .... N J
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PG 7
HAMAMATSU TV CO LTD, SHIZUOKA .... PRE JAPAN
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA .... JAPAN
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
WHITTAKER CORP GEN COM DIV, PLAINVIEW .... N Y
Amperex Electronic Corp, Electro Optical Devices Div Slatersville .... R I
EMI Electronics Ltd, Hayes, Middlesex .... England
English Electric Valve Co, Ltd Chelmsford, Essex .... England
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove .... N J
General Electric Co, ECSO, Schenectady .... N Y
General Electrodynamics Corp, Garland .... Tex
Hamamatsu TV Co Ltd, Shizuoka .... Pre Japan
Hitachi Ltd, Chiyoda-Ku, Tokyo .... Japan
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa .... Japan
International Electronics Corp, Melville .... NY
ITT Electron Tube Div, Easton .... Pa
MacKay Research Labs, Wickenburg .... Ariz
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Mullard Ltd, London, WC 1 .... Eng
Nippon Electric Co Ltd, Tokyo .... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Radio Corp of America, Electronic Components, Harrison .... N J
Sampson Electronic Products Div, Chicago Ill
Sarco Co, Harrisonburg .... Va
Shiba Electric Co Ltd, Woodside .... N Y
Standard X-Ray Co, Chicago Ill
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls .... N Y
Thomson Electric Co, Sub Cie Fran Thomson Houston New York .... N Y
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh .... Pa
Westinghouse Electric Corp, Tube Div, Elmira .... NY
Whittaker Corp Gen Com Div, Plainview .... N Y

TUBES--CERAMIC (ELECTRON)

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE, NY .... ADV PGS 764,765
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
MACHLETT LABS INC, THE, STAMFORD .... CONN
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK N J .... ADV PG 775
Amperex Electronic Corp, Professional Tube Div, Hicksville .... NY
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles .... France
English Électric Valve Co, Ltd Chelmsford, Essex .... England
General Electric Co, ECSO, Schenectady .... N Y
Hitachi Ltd, Chiyoda-Ku, Tokyo .... Japan
International Electronics Corp, Melville .... NY
ITT Electron Tube Div, Easton .... Pa
Machlett Labs Inc, The, Stamford .... Conn
M-O Valve Co Ltd, Hammersmith, London W6 .... Eng
Mullard Ltd, London, WC 1 .... Eng
Oki Electronics of America, Inc, Fort Lauderdale .... Fla
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Radio Corp of America, Electronic Components, Harrison .... N J
Siemens America Inc, New York .... N Y
Thomson Electric Co, Sub Cie Fran Thomson Houston New York .... N Y
Tung-Sol Div Wagner Electric Corp, Newark .... N J
Varian, Palo Alto .... Cal
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh .... Pa
Westinghouse Electric Corp, Tube Div, Elmira .... NY

TUBES, COUNTER--DECADE & PULSE

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE .... R I
BURROUGHS CORP ELECTRONIC COMPONENTS DIV PLAINFIELD .... N J
INTEGRATED CIRCUIT ELECTRONICS INC, WALTHAM MASS .... ADV PGS 299,267
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA .... JAPAN
NATIONAL ELECTRONICS INC VARIAN SUB, GENEVA ILL
TECHMETRIC CO, REDWOOD CITY .... CAL
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville .... R I
Baird-Atomic, Inc, Cambridge .... Mass
Burroughs Corp, Defense, Space & Spec Sys Group Paoli .... Pa
Burroughs Corp Electronic Components Div Plainfield .... N J
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles .... France
Electro-Neutronics Inc, Oakland .... Cal
Elesta Ltd Electronics, Bad Ragaz .... Switzerland
General Electric Co X-Ray Dept, Milwaukee .... Wis
Integrated Circuit Electronics Inc, Waltham .... Mass
International Electronics Corp, Melville .... NY
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Kobe Industries Corp, Kobe .... Japan
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Mullard Ltd, London, WC 1 .... Eng
National Electronics Inc Varian Sub, Geneva Ill
Okaya Electric Industries Co Ltd, Tokyo .... Japan
Packard Instrument Co, Inc, Downers Grove Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Raytheon Co, Components Div, Ind Compnts Oper Quincy .... Mass
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls .... N Y
Techmetric Co, Redwood City .... Cal

TUBES, COUNTER--RADIATION

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE, NY .... ADV PGS 764,765
WHITTAKER CORP GEN COM DIV, PLAINVIEW .... N Y
AB Atomenergi, 10072 Stockholm 43 .... Sweden
Amperex Electronic Corp, Professional Tube Div, Hicksville .... NY
Atomic Labs, Div Cenco Instr Corp, Chicago Ill
Eberline Instrument Corp, Santa Fe .... N M
Electro-Neutronics Inc, Oakland .... Cal
EON Corp, Brooklyn .... N Y
General Electric Co X-Ray Dept, Milwaukee .... Wis
International Electronics Corp, Melville .... NY
In-Val-Co, Tulsa .... Okla
Isotopes A Teledyne Co, Westwood .... N J
Johnston Labs, Inc, Baltimore .... Md
Kobe Industries Corp, Kobe .... Japan
Landis & Gyr AG, Zug .... Switzerland
Landsverk Electrometer Co, Glendale .... Cal
Mullard Ltd, London, WC 1 .... Eng
Nuclear-Chicago Corp, Des Plaines Ill
Nuclear Corp of America, Nuclear Div, Denville .... N J
Nuclear Development Lab, Inc, Kansas City .... Mo
Nuclear Enterprises Ltd, Edinburgh 11 .... Scotland
Nuclear Equipment Chemical Corp, Farmingdale .... N Y
Nuclear Supplies, Encino .... Cal
Packard Instrument Co, Inc, Downers Grove Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Picker Nuclear, White Plains .... N Y
Raytheon Co, Components Div, Ind Compnts Oper Quincy .... Mass
Reuter-Stokes Electronic Components Inc Cleveland .... Ohio
RIL Electronics Inc, Southampton .... Pa
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls .... N Y
Tracerlab, Div Lab for Electronics Inc, Waltham .... Mass
20th Century Electronics Ltd New Addington, Surrey .... England
Victoreen Instrument Div, Cleveland .... Ohio
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh .... Pa
Westinghouse Electric Corp, Tube Div, Elmira .... NY
Whittaker Corp Gen Com Div, Plainview .... N Y
Wood Counter Laboratory Inc, N, Chicago Ill

TUBES--GAS LASER SEE LASERS--GASEOUS

TUBES, GLOW OR DISCHARGE-- COLD CATHODE

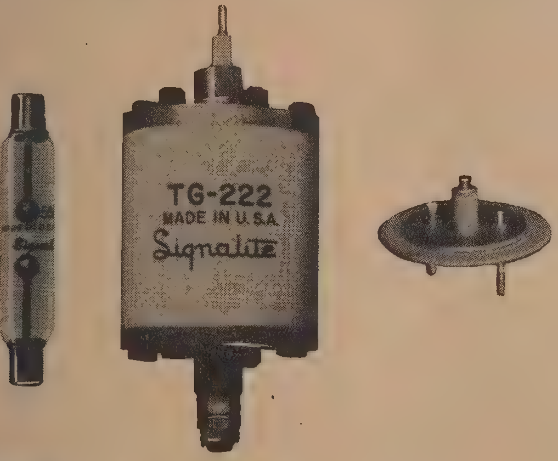
AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE, NY .... ADV PGS 764,765
BURROUGHS CORP ELECTRONIC COMPONENTS DIV PLAINFIELD .... N J
INTEGRATED CIRCUIT ELECTRONICS INC, WALTHAM MASS .... ADV PGS 229,267
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA .... JAPAN
SIGNALITE INC, NEPTUNE, N J .... ADV PG 769
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK N J .... ADV PG 775
Amglo Corp, Chicago Ill
Amperex Electronic Corp, Professional Tube Div, Hicksville .... NY
Baird-Atomic, Inc, Cambridge .... Mass
Black Light Corp of America, San Gabriel .... Cal
Burroughs Corp Electronic Components Div Plainfield .... N J
Cetron Electronic Corp, Geneva Ill
Dimensions Inc, Hempstead .... N Y
E G & G Inc, Electronic Prods Div, Boston .... Mass
Elesta Ltd Electronics, Bad Ragaz .... Switzerland
English Electric Valve Co, Ltd Chelmsford, Essex .... England
Ferranti, Ltd, Lancashire .... England
General Laboratory Assoc Inc, Norwich .... N Y
Integrated Circuit Electronics Inc, Waltham .... Mass
International Electronics Corp, Melville .... NY
ITT Electron Tube Div, Easton .... Pa
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Kemlite Labs Inc, Chicago Ill
Mackay Inc, A D, New York .... N Y
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Mullard Ltd, London, WC 1 .... Eng
Mura Corp, Great Neck .... N Y
National Union Electric Corp Electronics Div Bloomington Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Radio Corp of America, Electronic Components, Harrison .... N J
Raytheon Co, Components Div, Ind Compnts Oper Quincy .... Mass
Signalite Inc, Neptune .... N J
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls .... N Y

Signalite

...Your Single Source for Gas Discharge Tubes and Glow Lamps

SPARK GAPS

Signalite offers a wide range of two electrode and triggered spark gaps to protect your electronic components, transfer high energies, hold off a wide range of voltages, crowbar power supplies, etc. Over 300 standard gaps to fit 400 volt to 65,000 volt applications are available.

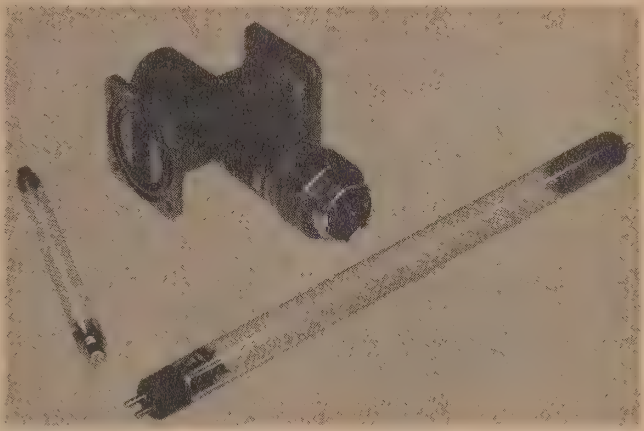


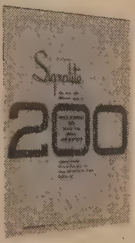
Signalite
300

Signalite "300" Spark Gap Brochure . . . fully details the complete Signalite line of over 300 types of two-electrode spark gaps and triggered spark gaps, includes application notes, characteristics, mounting arrangements, photographs, etc.

NOISE SOURCES AND MINIATURE NOISE GENERATORS

Signalite is the largest source in the world for your noise source and noise generator requirements. With the addition of the TUCOR (ESCO) line, Signalite now offers over 200 different types for use in noise figure test equipment and for monitoring system receiver sensitivities, from UHF to 90 GHz.





Signalite "200" Noise Source Brochure . . . provides a complete dissertation on over 200 types of microwave noise sources and miniature generators available, including fundamental noise measurement discussions, typical applications, detailed characteristics, etc.

If there is a Gas Discharge Device or Glow Lamp to meet your needs, We'll have it. If there isn't, We'll Design it!

A GENERAL INSTRUMENT COMPANY

Signalite
INCORPORATED

1933 HECK AVENUE, NEPTUNE • NEW JERSEY 07753 • (201) 775-2490

Systems Engineering Ltd, Grouse Creek	Utah
Telefunken Sales Corp, Garden City	N Y
Tung-Sol Div Wagner Electric Corp, Newark	N J
Ultra-Violet Products Inc, San Gabriel	Cal
Victoreen Instrument Div, Cleveland	Ohio
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh	Pa
Westinghouse Electric Corp, Tube Div, Elmira	NY

TUBES, GLOW OR DISCHARGE-- COLD CATHODE TRIGGER

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE, NY	**ADV PGS 764,765**
INTEGRATED CIRCUIT ELECTRONICS INC, WALTHAM MASS	**ADV PGS 299,267**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
SIGNALITE INC, NEPTUNE, N J	**ADV PG 769**
Aerolux Light Co Inc, New York	N Y
Amglo Corp, Chicago	Ill
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Baird-Atomic, Inc, Cambridge	Mass
Black Light Corp of America, San Gabriel	Cal
Cetron Electronic Corp, Geneva	Ill
E G & G Inc, Electronic Prods Div, Boston	Mass
Electro Technic Products, Chicago	Ill
Elesta Ltd Electronics, Bad Ragaz	Switzerland
English Electric Valve Co, Ltd Chelmsford, Essex	England
Ferranti, Ltd, Lancashire	England
General Laboratory Assoc Inc, Norwich	N Y
Integrated Circuit Electronics Inc, Waltham	Mass
International Electronics Corp, Melville	NY
ITT Europe Inc Components Gp, Brussels 1	Belgium
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Mullard Ltd, London, WC 1	Eng
National Union Electric Corp Electronics Div Bloomington	Ill
Okaya Electric Industries Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Electronic Components, Harrison	N J
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Signalite Inc, Neptune	N J
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls	N Y
Ultra-Violet Products Inc, San Gabriel	Cal
Victoreen Instrument Div, Cleveland	Ohio
Westinghouse Electric Corp, Tube Div, Elmira	NY

TUBES, GLOW OR DISCHARGE-- HOT CATHODE

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE, NY	**ADV PGS 764,765**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
SIGNALITE INC, NEPTUNE, N J	**ADV PG 769**
Aerolux Light Co Inc, New York	N Y
Amglo Corp, Chicago	Ill
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Black Light Corp of America, San Gabriel	Cal
International Electronics Corp, Melville	NY
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Mullard Ltd, London, WC 1	Eng
Packard Instrument Co, Inc, Downers Grove	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Electronic Components, Harrison	N J
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Signalite Inc, Neptune	N J
Ultra-Violet Products Inc, San Gabriel	Cal
Victoreen Instrument Div, Cleveland	Ohio
Westinghouse Electric Corp, Tube Div, Elmira	NY

TUBES--HEARING-AID

Mullard Ltd, London, WC 1	Eng
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass

TUBES--HYDROGEN-THYRATRON SEE TUBES--THYRATRON

TUBES--IGNITRON

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE, NY	**ADV PGS 764,765**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MARKWIK CORP, SYOSSET	**N Y**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NATIONAL ELECTRONICS INC VARIAN SUB, GENEVA	**ILL**
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
English Electric Valve Co, Ltd Chelmsford, Essex	England
Fivre Dept Fabbrica Ital Mag Marelli, I - 27100 - Pavia	Italy
General Electric Co, ECSO, Schenectady	N Y
International Electronics Corp, Melville	NY
Markwik Corp, Syosset	N Y
Mitsubishi Electric Corp, Tokyo	Japan
Mullard Ltd, London, WC 1	Eng
National Electronics Inc Varian Sub, Geneva	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Electronic Components, Harrison	N J
Sarco Co, Harrisonburg	Va
Varian, Palo Alto	Cal
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh	Pa
Westinghouse Electric Corp, Tube Div, Elmira	NY

• TUBES •
SEMICONDUCTORS
Telephones, Transformers &
Electronic Equipment

LARGEST DIVERSIFIED
ELECTRONIC TUBE
INVENTORY IN THE U.S.A.

- SPEEDY DELIVERY
- EXPERT PACKAGING
- WORLD-WIDE SHIPMENTS
- 1st QUALITY TUBES
- NAME BRANDS ONLY
- LAB ON PREMISES
- SENSIBLE PRICES
- YOUR INQUIRIES ANSWERED SAME DAY
- WRITE OR CALL

DIRECT FACTORY DISTRIBUTOR FOR:
BOMAC, EIMAC, MACHLETT,
NATIONAL ELECTRONICS, RAYTHEON,
VARIAN, WESTINGHOUSE,
AND MANY OTHERS

PURCHASING AGENTS: WRITE FOR
"BARRY'S GREEN SHEET" CATALOG

BARRY ELECTRONICS
512 BROADWAY, NYC, N.Y. 10012
212 WA 5-7000 Teletype: 710-581-6308

TUBES--IMAGE CONVERTER

MACHLETT LABS INC, THE, STAMFORD	**CONN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
WHITTAKER CORP GEN COM DIV, PLAINVIEW	**N Y**
Abtronics, Inc, Livermore	Cal
Bailey Co, Washington	D C
Bendix Corp Electro Optics Div, Ann Arbor	Mich
C B S Labs Div Columbia Bdcstg Sys Inc Stamford	Conn
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
EMI Electronics Ltd, Hayes, Middlesex	England
EMR Div Weston Instruments Inc, Princeton	N J
International Electronics Corp, Melville	NY
ITT Electron Tube Div, Easton	Pa
ITT Industrial Labs Div, Fort Wayne	Ind
Kobe Industries Corp, Kobe	Japan
Machlett Labs Inc, The, Stamford	Conn
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Mullard Ltd, London, WC 1	Eng
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Electronic Components, Harrison	N J
Rauland Corp, Melrose Park	Ill
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls	N Y
Telefunken Sales Corp, Garden City	N Y
TRW Systems Group, Redondo Beach	Cal
20th Century Electronics Ltd New Addington, Surrey	England
Varo Inc, Garland	Tex
Warnecke Electron Tubes Inc, Des Plaines	Ill
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh	Pa
Westinghouse Electric Corp, Tube Div, Elmira	NY
Whittaker Corp Gen Com Div, Plainview	N Y

TUBES--IMAGE TRANSFER

EMR Div Weston Instruments Inc, Princeton	N J
Keleket Div Laboratory For Electronics Inc Waltham	Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
20th Century Electronics Ltd New Addington, Surrey	England
Varian, Palo Alto	Cal
Westinghouse Electric Corp, Tube Div, Elmira	NY

TUBES--IONIZATION SEE CHAMBERS--IONIZATION

TUBES, MICROWAVE-- BACKWARD WAVE (INCL CARCINOTRON)

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Bomac Div Varian Associates, Beverly	Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
English Electric Valve Co, Ltd Chelmsford, Essex	England
Hughes Aircraft Co, Electron Dynamics Div Torrance	Cal
International Electronics Corp, Melville	NY
ITT Electron Tube Div, Easton	Pa
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kobe Industries Corp, Kobe	Japan
Litton Industries, Electron Tube Div, San Carlos	Cal
Microwave Associates Inc, Burlington	Mass
Microwave Electronics A Teledyne Co, Palo Alto	Cal
M-O Valve Co Ltd, Hammersmith, London W6	Eng
Mullard Ltd, London, WC 1	Eng
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Siemens America Inc, New York	N Y
Sperry Electronic Tube Div, Sperry Rand Corp Gainesville	Fla
Varian, Palo Alto	Cal
Warnecke Electron Tubes Inc, Des Plaines	Ill
Watkins-Johnson Co, Palo Alto	Cal

TUBES, MICROWAVE-- CROSSED FIELD (EXCEPT MAGNETRON)

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Bomac Div Varian Associates, Beverly	Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
International Electronics Corp, Melville	NY
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kobe Industries Corp, Kobe	Japan
Litton Industries, Electron Tube Div, San Carlos	Cal
Microwave Associates Inc, Burlington	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
S-F-D Labs Inc, Union	N J
Varian, Palo Alto	Cal
Warnecke Electron Tubes Inc, Des Plaines	Ill
Watkins-Johnson Co, Palo Alto	Cal

TUBES, MICROWAVE-- KLYSTRON

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE, NY	**ADV PGS 764,765**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PG 771**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
WHITTAKER CORP GEN COM DIV, PLAINVIEW	**N Y**
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Beam Tube Corp, Milford	Mass
Bomac Div Varian Associates, Beverly	Mass
Canadian Motorola Electronics Co, Agincourt	Ont
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
EMI Electronics Ltd, Hayes, Middlesex	England
English Electric Valve Co, Ltd Chelmsford, Essex	England
Ferranti Electric Inc, Plainview	N Y
Ferranti, Ltd, Lancashire	England
Fivre Dept Fabbrica Ital Mag Marelli, I - 27100 - Pavia	Italy
General Electric Co, ECSO, Schenectady	N Y

ELECTRON TUBES

COMPACTRON MULTIFUNCTION DEVICES

TV sets work better, cost less, and last longer with GE compactrons, which combine the functions of two or more ordinary tubes.

INDUSTRIAL AND SPECIAL-PURPOSE TUBES

Select from an extensive line of reliability proven industrial and special-purpose tubes including camera, ceramic, industrial and military cathode ray, communication, Five Star, glow tubes, ignitrons, industrial receiving, rectifier, thyratrons, and transmitting tubes.

KLYSTRONS

GE offers a complete family that includes tunable and broadband pulse-amplifier klystrons in L and S bands, multiple-beam klystrons, and transverse-wave klystrons.

METAL-CERAMIC COAXIAL TUBES

Available in triode and tetrode designs for high-power gain and broad bandwidth capabilities in a wide variety of advanced VHF-UHF RF power amplifier and oscillator applications.

METAL-CERAMIC PLANAR TUBES

GE offers an extensive line of planar tubes in diode and triode designs for oscillators, amplifiers, mixers, detectors, and other high-reliability applications from d-c to 10 gc. Highest available ratio of power, efficiency, and gain-bandwidth to size and weight.

VOLTAGE TUNABLE MAGNETRONS

VTM's are available from milliwatts to hundreds of watts, 250 to 5500 megacycles. Magnetically shielded VTMs also available.

For information contact nearest GE Sales Office, see list on page 7, or write to Section 998-38, General Electric Co., Schenectady, N. Y. 12305

Hughes Aircraft Co, Electron Dynamics Div Torrance	Cal
International Electronics Corp, Melville	NY
ITT Electron Tube Div, Easton	Pa
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kobe Industries Corp, Kobe	Japan
Litton Industries, Electron Tube Div, San Carlos	Cal
Metcom Inc, Salem	Mass
Microwave Associates Inc, Burlington	Mass
Mullard Ltd, London, WC 1	Eng
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Polarad Electronic Instruments Div Long Island City	N Y
Radio Corp of America, Electronic Components, Harrison	N J
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Siemens America Inc, New York	N Y
Sperry Electronic Tube Div, Sperry Rand Corp Gainesville	Fla
Telefunken Sales Corp, Garden City	N Y
Thomson Electric Co, Sub Cie Fran Thomson Houston New York	N Y
U S Microwave, Delran	N J
Varian, Palo Alto	Cal
Whittaker Corp Gen Com Div, Plainview	N Y

TUBES, MICROWAVE--MAGNETRON

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE, NY	**ADV PGS 764,765**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Bomac Div Varian Associates, Beverly	Mass
Comtek Microwave Dept Allied Rsch Assoc Inc Woburn	Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
English Electric Valve Co, Ltd Chelmsford, Essex	England
Ferranti Electric Inc, Plainview	N Y
Ferranti, Ltd, Lancashire	England
General Electric Co, ECSO, Schenectady	N Y
International Electronics Corp, Melville	NY
Kobe Industries Corp, Kobe	Japan
Litton Industries, Electron Tube Div, San Carlos	Cal
MacKay Research Labs, Wickenburg	Ariz
Metcom Inc, Salem	Mass
Microwave Associates Inc, Burlington	Mass
M-O Valve Co Ltd, Hammersmith, London W6	Eng
Mullard Ltd, London, WC 1	Eng
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Electronic Components, Harrison	N J
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
S-F-D Labs Inc, Union	N J
Telefunken Sales Corp, Garden City	N Y
Thomson Electric Co, Sub Cie Fran Thomson Houston New York	N Y
U S Microwave, Delran	N J
Varian, Palo Alto	Cal

TUBES, MICROWAVE--MAGNETRON, VOLTAGE TUNABLE

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Bomac Div Varian Associates, Beverly	Mass
Comtek Microwave Dept Allied Rsch Assoc Inc Woburn	Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
General Electric Co, ECSO, Schenectady	N Y
International Electronics Corp, Melville	NY
Microwave Associates Inc, Burlington	Mass
Mictron Inc, Albany	NY
Mullard Ltd, London, WC 1	Eng
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Varian, Palo Alto	Cal

TUBES, MICROWAVE--TRAVELING WAVE

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE, NY	**ADV PGS 764,765**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
English Electric Valve Co, Ltd Chelmsford, Essex	England
Ferranti, Ltd, Lancashire	England
Fivre Dept Fabbrica Ital Mag Marelli, I - 27100 - Pavia	Italy
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
Hughes Aircraft Co, Electron Dynamics Div Torrance	Cal
International Electronics Corp, Melville	NY
ITT Electron Tube Div, Easton	Pa
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kobe Industries Corp, Kobe	Japan
Litton Industries, Electron Tube Div, San Carlos	Cal
Microwave Associates Inc, Burlington	Mass
Microwave Electronics A Teledyne Co, Palo Alto	Cal
M-O Valve Co Ltd, Hammersmith, London W6	Eng
Mullard Ltd, London, WC 1	Eng
Nippon Electric Co Ltd, Tokyo	Japan
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Electronic Components, Harrison	N J
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
Siemens America Inc, New York	N Y
Sperry Electronic Tube Div, Sperry Rand Corp Gainesville	Fla
Telefunken Sales Corp, Garden City	N Y
Thomson Electric Co, Sub Cie Fran Thomson Houston New York	N Y
20th Century Electronics Ltd New Addington, Surrey	England
Varian, Palo Alto	Cal
Warnecke Electron Tubes Inc, Des Plaines	Ill
Watkins-Johnson Co, Palo Alto	Cal

TUBES--NOISE SOURCE

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE, NY	**ADV PGS 764,765**
BURROUGHS CORP ELECTRONIC COMPONENTS DIV PLAINFIELD	**N J**
SIGNALITE INC, NEPTUNE, N J	**ADV PG 769**
Airborne Instruments Lab, Div Cutler-Hammer Inc Deer Park	N Y
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Burroughs Corp Electronic Components Div Plainfield	N J
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
English Electric Valve Co, Ltd Chelmsford, Essex	England
Ferranti, Ltd, Lancashire	England
International Electronics Corp, Melville	NY
ITT Electron Tube Div, Easton	Pa
Kobe Industries Corp, Kobe	Japan
Lake Engineering Co Ltd, Scarborough	Ont
Litton Industries, Electron Tube Div, San Carlos	Cal
Metcom Inc, Salem	Mass
M-O Valve Co Ltd, Hammersmith, London W6	Eng
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Signalite Inc, Neptune	N J
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls	N Y
Thermosen Inc, Stamford	Conn
Varian, Palo Alto	Cal
Warnecke Electron Tubes Inc, Des Plaines	Ill
Watkins-Johnson Co, Palo Alto	Cal

TUBES--NUMERAL-INDICATING SEE INDICATORS--DIGITAL TUBE TYPE

TUBES--PENCIL

TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK N J	**ADV PG 775**
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
International Electronics Corp, Melville	NY
Mullard Ltd, London, WC 1	Eng
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Electronic Components, Harrison	N J
Siemens America Inc, New York	N Y
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls	N Y
Tung-Sol Div Wagner Electric Corp, Newark	N J

TUBES, PHOTOTUBES--GENERAL PURPOSE

AMPEREX ELECTRONIC CORP, ELECTRO OPTICAL DEVICES DIV SLATERSVILLE, R I	**ADV PGS 764,765**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HAMAMATSU TV CO LTD, SHIZUOKA	**PRE JAPAN**
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK N J	**ADV PG 775**
WHITTAKER CORP GEN COM DIV, PLAINVIEW	**N Y**
Abtronics, Inc, Livermore	Cal

MILGRAY STOCKS TUBES

Every kind you can imagine. (And some you can't.) From stockpiles strategically located for overnight or faster delivery to anywhere in the world. We stock more so you can worry less. A call to your local Milgray man will start the motion.

MILGRAY

Milgray/New York 212-YU 9-1600
Milgray/Delaware Valley 215-BA 8-2000
Milgray/Washington 301-864-1111
Milgray/Cleveland 216-881-8800
Milgray/International 212-YU 9-1600
Milgray/New England, Inc. 617-272-6800

EMI PHOTOMULTIPLIERS

MECHANICAL					CATHODE			TYPICAL OPERATING CONDITIONS A				B				
Tube Type	Nominal Dia. Inches	Seated Height	No. Dynodes & Type	Socket	Min. Dia. Inches	Spectral Response	Typical Sens. µA/L	Anode Sens. A/L	Gain x 10^6	Nanoamps Anode Dk Curr.	Overall Volts	Anode Sens. A/L	Gain x 10^6	Nanoamps Anode Dk Curr.	Overall Volts	Dark Noise Equivalent Input Watts
NEW BIALKALI TYPES SbKCs																
9750B	2	4.4	10VB	B19A	1.7	Bia.	60	50	0.8	0.2	1100	500	8.0	2.0	1450	
9750QB	2	4.4	10VB	B19A	1.7	Bia(Q)	60	50	0.8	0.2	1100	500	8.0	2.0	1450	
9635B	2	5.5	13VB	B19A	1.7	Bia.	70	2000	29	5	1300	5000	71	15	1450	
9635QB	2	5.5	13VB	B19A	1.7	Bia(Q)	70	2000	29	5	1300	5000	71	15	1450	9.7×10^{-17}
9635QD	2	5.5	13VB	B19A	1.7	Bia(Q)	50	2000	40	3	1300	5000	100	8	1450	
ONE INCH DIAMETER GENERAL PURPOSE TUBES S-11 & "S" CATHODES																
9524B	1.18	4.4	11BG	B14B	0.9	S-11	70	200	2.9	2	1000	2000	29	20	1350	2.8×10^{-16}
9524S	1.18	4.4	11BG	B14B	0.9	"S"	50	200	4.0	0.5	1100	2000	40	5	1500	1.5×10^{-16}
9601B	1.18	4.4	11BG	B14B	0.9	S-11(C)	70	200	2.9	2	1000	2000	29	20	1350	2.8×10^{-16}
9526B	1.18	4.4	11BG	B14B	0.9	S-13	70	200	2.9	2	1000	2000	29	20	1350	2.8×10^{-16}
9526S	1.18	4.4	11BG	B14B	0.9	"S"(Q)	50	200	4.0	0.5	1100	2000	40	5	1500	1.5×10^{-16}
9736B	1.18	3.4	9BG	B14B	0.9	S-11	70	50	0.7	1	1100	200	2.8	4	1400	2×10^{-16}
8736QB	1.18	3.4	9BG	B14B	0.9	S-13	70	50	0.7	1	1100	200	2.8	4	1400	2×10^{-16}
TWO INCH DIAMETER GENERAL PURPOSE TUBES S-11 & SUPER S-11 CATHODES																
9637B	2	3.3	6VB	B15B	1.7	S-11	70	1	.014	0.5	1200	5	.07	2.5	2000	
9637R	2	3.3	6VB	B15B	1.7	Super S-11	100	1	0.01	0.2	1100	5	0.05	1.0	1850	4.1×10^{-15}
9656KB	2	4.9	10VB	B14A	1.7	S-11	70	50	0.7	5	1250	500	7.0	50	1750	
9656R	2	3.9	10VB	B19A	1.7	Super S-11	100	50	0.5	2	1150	500	5.0	20	1600	5.7×10^{-16}
9656QKB	2	4.9	10VB	B14A	1.7	S-11	70	50	0.7	5	1250	500	7.0	50	1750	
9634QR	2	4.8	13VB	B19A	1.7	Super S-11	90	2000	22	30	1450	5000	55	75	1600	4.2×10^{-14}
9634QB	2	4.8	13VB	B19A	1.7	S-11	70	2000	29	50	1500	5000	71	125	1700	
SPECIAL LOW DARK CURRENT TWO INCH DIAMETER TUBES WITH 10MM CATHODES																
9502B	2	4.1	13VB	B15B	0.4	S-11	70	2000	29	3	1500	5000	71	8	1700	
9502S	2	4.1	13VB	B15B	0.4	"S"	50	2000	40	0.5	1700	5000	100	1.3	1900	4.1×10^{-17}
6256B	2	4.1	13VB	B15B	0.4	S-13	70	2000	29	3	1500	5000	71	8	1700	
6256S	2	4.1	13VB	B15B	0.4	"S"(Q)	50	2000	40	0.5	1700	5000	100	1.3	1900	4.1×10^{-17}
TUBES WITH RED SENSITIVE CATHODES																
9592B	1.18	4.4	11BG	B14B	0.9	S-10(C)	45	200	4.4	10	1100	2000	44	100	1500	1.4×10^{-14}
9529B	1.18	4.4	11BG	B14B	0.9	S-10(Q)	45	200	4.4	10	1100	2000	44	100	1500	1.4×10^{-14}
9698B	1.18	4.4	9BG	B14B	0.9	S-20	100	20	0.2	0.5	1300	50	0.5	1.5	1550	1.2×10^{-15}
9698QB	1.18	4.4	9BG	B14B	0.9	S-20(Q)	100	20	0.2	0.5	1300	50	0.5	1.5	1550	1.2×10^{-15}
9558B	2	5.5	11VB	B19A	1.7	S-20	150	200	1.3	2	1150	2000	13	20	1500	3.7×10^{-16}
9558QB	2	5.5	11VB	B19A	1.7	S-20(Q)	150	200	1.3	2	1150	2000	13	20	1500	3.7×10^{-16}
D224B	2	5.5	13VB	B19A	0.3*	S-20	140	200	1.4	0.4	1100	2000	14	4	1300	*Typical Operating Diameter
D224QB	2	5.5	13VB	B19A	0.3*	S-20(Q)	140	200	1.4	0.4	1100	2000	14	4	1300	
9684B	2	5.5	11BG	B19A	1.7	S-1	25	20	0.8	10µA	1400	50	2	25µA	1650	
FAST RESPONSE LINEAR FOCUSSED TUBES																
9594B	2	6.7	14LF	B20	1.6	S-11	70	5000	70	400	2300	10,000	140	800	2500	
9594QB	2	6.7	14LF	B20	1.6	S-13	70	5000	70	400	2300	10,000	140	800	2500	
RUGGEDIZED TUBES																
9734NB	1.18	3.4	9BG	B14B	0.9	S-11	70	50	0.7	1	1100	200	2.8	4	1400	2×10^{-16}
9647NB	2	4.4	11VB	B19A	1.7	S-11	80	200	2.5	5	1400	2000	25	50	1950	4.5×10^{-16}
9644NB	2	4.8	13VB	B19A	1.7	S-11	80	2000	25	50	1500	5000	63	125	1700	4.5×10^{-16}
9711NB	3.5	6.1	11VB	B19A	3.0	S-11	100	200	2	100	1400	2000	20	1000	1800	1×10^{-15}
9732NB	4	5.1	9VB	B19A	3.6	S-11	95	50	0.53	40	1350	500	5.3	400	2000	
9712NB	5	6.7	11VB	B19A	4.4	S-11	90	200	2.2	200	1500	2000	22	2000	1950	1.5×10^{-15}

WHITTAKER CORPORATION / GENCOM DIVISION / 80 EXPRESS STREET, PLAINVIEW, N. Y. 11803 / (516) 433-5900

- PREFERRED TUBE TYPES

THREE INCH AND LARGER DIAMETER TUBES S-11 & SUPER S-11 CATHODES

9708R	3	4.8	9VB	B19A	2.5	Super S-11	110	50	0.45	5	1250	500	4.5	50	1800	9.5 x 10^{-16}
9708KB	3	5.4	9VB	B14A	2.5	S-11	70	50	0.7	20	1350	500	7.0	200	2000	
9708QR	3	4.8	9VB	B19A	2.5	Super S-11(Q)	110	50	0.45	5	1250	500	4.5	50	1800	9.5 x 10^{-16}
9531B	3.5	6.1	11VB	B15B	3.0	S-11	70	200	2.9	100	1400	2000	29	1000	1800	
9531R	3.5	6.1	11VB	B15B	3.0	Super S-11	115	200	1.7	25	1300	2000	17	250	1700	1 x 10^{-15}
9531QR	3.5	6.1	11VB	B15B	3.0	Super S-11(Q)	115	200	1.7	25	1300	2000	17	250	1700	1 x 10^{-15}
9732B	4	5.1	9VB	B19A	3.6	S-11	70	50	0.7	40	1350	500	7.0	400	2000	
9732R	4	5.1	9VB	B19A	3.6	Super S-11	110	50	0.45	10	1250	500	4.5	100	1800	
9709KB	5	6.7	9VB	B14A	4.4	S-11	70	50	0.7	50	1450	500	7.0	500	2100	
9709R	5	5.7	9VB	B19A	4.4	Super S-11	105	50	0.48	15	1350	500	4.8	150	1900	2.3 x 10^{-15}
9709QR	5	5.7	9VB	B19A	4.4	Super S-11(Q)	105	50	0.48	15	1350	500	4.8	150	1900	2.3 x 10^{-15}
9618R	5	6.7	11VB	B15B	4.4	Super S-11	95	200	2.1	50	1400	2000	21	500	1800	1 x 10^{-15}
9618B	5	6.7	11VB	B15B	4.4	S-11	70	200	2.9	200	1500	2000	29	2000	1950	
9530B	5	6.7	11VB	B15B	4.4	S-11	70	200	2.9	200	1500	2000	29	2000	1950	
9530R	5	6.7	11VB	B15B	4.4	Super S-11	105	200	1.9	50	1400	2000	19	500	1800	1.5 x 10^{-15}
9530QR	5	6.7	11VB	B15B	4.4	Super S-11(Q)	105	200	1.9	50	1400	2000	19	500	1800	1.5 x 10^{-15}
9623B	7.5	8.8	11VB	B15B	7	S-11	60	200	3.3	300	1700	2000	33	3000	2250	3.3 x 10^{-15}
9545B	12	14.2	11VB	B15B	10	S-11	60	200	3.3	1000	1700	2000	33	10,000	2250	6 x 10^{-15}

0.5 INCH DIAMETER TUBE

9609B	0.5	2.7	11VB	F.L.	0.4	S-11(C)	40	20	0.5	10	1200	50	1.3	25	1350	1.8 x 10^{-15}

TUBES WITH SIDEWALL SENSITIVITY

9600B	1.18	4.4	11BG	B14B	0.9	S-11	60	200	3.3	10	1000	—	—	—	—	6.1 x 10^{-16}
9638B	2	5.5	11VB	B19A	1.7	S-11	70	200	2.9	10	1400	500	7.2	25	1950	6.1 x 10^{-16}
9726KB	2	3.8	6VB	B14A	1.7	S-11	70	1	0.02	2	1200	5	0.1	10	1800	4.1 x 10^{-15}

TUBES FOR HIGH TEMPERATURE OPERATION (TO 150°C) SbKNa CATHODES

9700B	1.18	4.4	9BG	B14B	0.9	Bia.	30	5	0.17	0.5	1500	20	0.7	2	1850	6.1 x 10^{-16}
9727B	2	5.5	13VB	B19A	1.7	Bia.	40	50	1.25	1	2000	200	5	4	2300	3.2 x 10^{-16}

TUBES WITH SOLAR BLIND CATHODES

6255Mg	2	4.8	13VB	B15B	1.7	Mg(Q)		Supplied to special order only. Spectral curves on request.
6255G	2	4.8	13VB	B15B	1.7	Au(Q)		
6255Cd	2	4.8	13VB	B15B	1.7	Cd(Q)		

PARTICLE MULTIPLIERS

9603/2B			15VB	B19A				Furnished in evacuated two inch glass envelopes with test filament. AgMgO Dynodes available on special order. Dynode assemblies may be purchased with or without built in high temperature resistors or with special tabs for ease in replacing dynodes.
9643/2B			17VB	B19A				
9642/2B			18VB	B19A				
9641/2B			17BG	B19A				

NOTES:

CONSTRUCTION
VB = Venetian Blind, BG = Box & Grid, LF = Linear Focussed, (C) = UV window (Corning 9741), (Q) = Spectrosil 1 and 2 inch tubes,—Quartz in larger sizes.

Secondary Emitting Surfaces: CsSb except for S-1, high temperature bialkali, and particle multipliers. Particle multipliers BeCuO, others AgMgO.

Tube Sockets: Tubes using B14B, B15B, B19A are supplied complete with Teflon socket, other types must be ordered separately.

Tube Shields (mu-metal): Available for all tubes—For 1" types PS8A; for 2" PS5A 4" long, PS5B 5.25" long; for 3" & 3½" PS7B; for 5" PS9B; for 12" SH-12.

MOUNTING
Any position. Material (any) in contact with the glass envelope must be at cathode potential or erratic operation/high dark current will result. Quartz or spectrosil tubes should not be clamped tightly as excess pressure will fracture the tube and void the warranty.

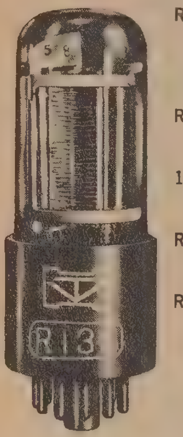
CALIBRATION
Each tube is individually calibrated, and the test ticket furnished with the tube specifies the cathode sensitivity in μA/L, the overall voltage for the specified overall sensitivity, and the dark current at that point. The gain at that voltage is determined by dividing the overall A/L by the cathode μA/L.

Tubes can be supplied with a monochromator spectral calibration on special order and carry the suffix M.

SUFFIX DESIGNATIONS
- **B** Standard tubes to published specifications, e.g., **6097B**. Available on all types.
- **A** Tubes selected for one or more parameters, e.g., **9524A**. The suffix gives no clue to the selection specification. Tubes may be selected for high photo-sensitivity, high gain, low dark current, resolution to Co^{60}; a group of tubes may be matched for gain.
- **C** A relaxed specification for tubes not meeting B specification. Subject to availability.
- **K** Overcapped (where normally supplied with glass base).
- **M** Supplied with spectral response curve on monochromator.
- **N** Supplied with vibration test certificate. Available on limited number of types.
- **R** Standard tubes to new high published specifications available on a limited number of types; including guaranteed resolution where applicable.
- **S** Tubes with SbCs cathodes processed for minimum thermionic emission. Subject to tritium counting test on tubes with 23 mm and 44 mm cathodes.

Information contained herein supersedes all prior published information. Manufacturer reserves the right to modify designs and specifications without prior notice.

WHITTAKER CORPORATION / GENCOM DIVISION / 80 EXPRESS STREET, PLAINVIEW, N. Y. 11803 / (516) 433-5900



HTV's
PHOTOMULTIPLIER
TUBES

R136 Hysteresis Free; 9-stage, Side-On, Fused-Silica Window Type having Wide Range Spectral Response.

R106 Side-On, 1600~6500 Å Spectral Response, U.V. and Visible Region Use.

1P28 Side-On, 1850~6500 Å Spectral Response, U.V. and Visible Region Use.

R166 Side-On, 1600~3200 Å Spectral Response, Solar Blind Use.

R196 Side-On, 4000~12000 Å Spectral Response, Infrared Region Use.

Many other photomultiplier tubes made specially for your instruments.

2 NEW INFRARED VIDICON TUBES

N156 : 1 inch dia., 6 inches long type
N157 : 1 inch dia., 5 inches long type

HAMAMATSU TV CO., LTD.

Head Office ■ 1126, ICHINO-CHO, HAMAMATSU CITY, JAPAN Telex:4225-185 JAPAN
East Coast ■ KINSHO-MATAICHI CORP.=80 PINE STREET, NEW YORK 5, N.Y., U.S.A. Phone : Digby 4-6226
West Coast ■ CALIFORNIA EASTERN LABO., INC= 1540 GILBRETH ROAD, BURLINGAME, CALIF. 94010, U.S.A. Phone : 697 - 6670

Amperex Electronic Corp, Electro Optical Devices Div Slatersville	R I
Cetron Electronic Corp, Geneva	Ill
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
General Electric Co, ECSO, Schenectady	N Y
Grace Electronics Inc, Cleveland	Ohio
Hamamatsu TV Co Ltd, Shizuoka	Pre Japan
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
International Electronics Corp, Melville	NY
ITT Electron Tube Div, Easton	Pa
ITT Industrial Labs Div, Fort Wayne	Ind
Lektra Labs Inc Div Kriser Corp, College Point	N Y
MacKay Research Labs, Wickenburg	Ariz
Mullard Ltd, London, WC 1	Eng
National Union Electric Corp Electronics Div Bloomington	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Electronic Components, Harrison	N J
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls	N Y
Sylvania Elec Prods Inc Special Prod Div Danvers	Mass
Telefunken Sales Corp, Garden City	N Y
Tung-Sol Div Wagner Electric Corp, Newark	N J
20th Century Electronics Ltd New Addington, Surrey	England
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh	Pa
Westinghouse Electric Corp, Tube Div, Elmira	NY
Whittaker Corp Gen Com Div, Plainview	N Y

TUBES, PHOTOTUBES--MULTIPLIER

AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE	**N Y**
AMPEREX ELECTRONIC CORP, ELECTRO OPTICAL DEVICES DIV SLATERSVILLE, R I	**ADV PGS 764,765**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HAMAMATSU TV CO LTD, SHIZUOKA PRE JAPAN	**ADV PG 774**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
WHITTAKER CORP GEN COM DIV, PLAINVIEW N Y	**ADV PGS 772,773**
Amperex Electronic Corp, Component Div Hauppauge	N Y
Amperex Electronic Corp, Electro Optical Devices Div Slatersville	R I
Bailey Co, Washington	D C
Bendix Corp Electro Optics Div, Ann Arbor	Mich
C B S Labs Div Columbia Bdcstg Sys Inc Stamford	Conn
EMI Electronics Ltd, Hayes, Middlesex	England
EMR Div Weston Instruments Inc, Princeton	N J
English Electric Valve Co, Ltd Chelmsford, Essex	England
General Electric Co, ECSO, Schenectady	N Y
Grace Electronics Inc, Cleveland	Ohio
Hamamatsu TV Co Ltd, Shizuoka	Pre Japan
International Electronics Corp, Melville	NY
ITT Electron Tube Div, Easton	Pa
ITT Industrial Labs Div, Fort Wayne	Ind
Johnston Labs, Inc, Baltimore	Md
Lektra Labs Inc Div Kriser Corp, College Point	N Y
MacKay Research Labs, Wickenburg	Ariz
Mullard Ltd, London, WC 1	Eng
Nippon Electric Co Ltd, Tokyo	Japan
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Electronic Components, Harrison	N J
Schoeffel Instrument Co, Westwood	NJ
Science Accessories Corp, Southport	Conn
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls	N Y
20th Century Electronics Ltd New Addington, Surrey	England
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh	Pa
Westinghouse Electric Corp, Tube Div, Elmira	NY
Whittaker Corp Gen Com Div, Plainview	N Y

TUBES--PIRANI SEE GAGES--VACUUM

TUBES--PLANAR

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE, NY	**ADV PGS 764,765**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MACHLETT LABS INC, THE, STAMFORD, CONN	**ADV PG 774**
Abtronics, Inc, Livermore	Cal
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Eimac Div, Varian Associates, San Carlos	Cal
General Electric Co, ECSO, Schenectady	N Y
Litton Industries, Electron Tube Div, San Carlos	Cal
Machlett Labs Inc, The, Stamford	Conn
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Siemens America Inc, New York	N Y

MACHLETT

ELECTRON TUBES

IMAGE INTENSIFIER TUBES
HIGH POWER TRIODES
HIGH POWER TETRODES
PULSE MODULATOR TUBES
UHF PLANAR TRIODES • TETRODES
HIGH VACUUM DIODES
VAPOR COOLING SYSTEMS

For information on the complete line of Machlett electron tubes, write: The Machlett Laboratories, Inc., 1063 Hope Street, Stamford, Connecticut 06907.

RAYTHEON

THE MACHLETT LABORATORIES, INC.
A SUBSIDIARY OF RAYTHEON COMPANY

TUBES--POWER AMPLIFIER

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE, NY	**ADV PGS 764,765**
ELECTRONIC ENTERPRISES INC, NEWARK	**N J**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MACHLETT LABS INC, THE, STAMFORD	**CONN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Cetron Electronic Corp, Geneva	Ill
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Eimac Div, Varian Associates, San Carlos	Cal
Electronic Enterprises Inc, Newark	N J
English Electric Valve Co, Ltd Chelmsford, Essex	England
General Electric Co, ECSO, Schenectady	N Y
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
International Electronics Corp, Melville	NY
ITT Electron Tube Div, Easton	Pa
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kobe Industries Corp, Kobe	Japan
Litton Industries, Electron Tube Div, San Carlos	Cal
Machlett Labs Inc, The, Stamford	Conn
Matsushita Electric Industrial Co Ltd, Osaka	Japan
M-O Valve Co Ltd, Hammersmith, London W6	Eng
Mullard Ltd, London, WC 1	Eng
National Union Electric Corp Electronics Div Bloomington	Ill
Nippon Electric Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Electronic Components, Harrison	N J
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Siemens America Inc, New York	N Y
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls	N Y
Telefunken Sales Corp, Garden City	N Y
Thomson Electric Co, Sub Cie Fran Thomson Houston New York	N Y
U S Microwave, Delran	N J
Varian, Palo Alto	Cal
Watkins-Johnson Co, Palo Alto	Cal
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh	Pa
Westinghouse Electric Corp, Tube Div, Elmira	NY

TUBES--RADIAL-BEAM SEE TUBES--COUNTER

TUBES--RECEIVING

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TOYO MUSEN CO LTD, TOKYO	**JAPAN**
Fivre Dept Fabbrica Ital Mag Marelli, I - 27100 - Pavia	Italy
General Electric Co, ECSO, Schenectady	N Y
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
International Electronics Corp, Melville	NY
ITT Europe Inc Components Gp, Brussels 1	Belgium
Kobe Industries Corp, Kobe	Japan
Matsushita Electric Industrial Co Ltd, Osaka	Japan
M-O Valve Co Ltd, Hammersmith, London W6	Eng
Mullard Ltd, London, WC 1	Eng
Nippon Electric Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Radio Corp of America, Electronic Components, Harrison	N J
Raytheon Co, Components Div, Ind Compnts Oper Quincy	Mass
Sampson Electronic Products Div, Chicago	Ill
Siemens America Inc, New York	N Y
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls	N Y
Telefunken Sales Corp, Garden City	N Y
Thermosen Inc, Stamford	Conn
Toyo Musen Co Ltd, Tokyo	Japan
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh	Pa
Westinghouse Electric Corp, Tube Div, Elmira	NY

TUBES, RECTIFYING--GAS FILLED

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV. HICKSVILLE, NY	**ADV PGS 764,765**
ELECTRONIC ENTERPRISES INC, NEWARK	**N J**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
NATIONAL ELECTRONICS INC VARIAN SUB, GENEVA	**ILL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK N J	**ADV PG 775**
Aerolux Light Co Inc, New York	N Y
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Cetron Electronic Corp, Geneva	Ill
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Electronic Enterprises Inc, Newark	N J
Electrons Co. Newark	N J

TUNG-SOL ELECTRON TUBES
Industrial-Military

The performance characteristics of Tung-Sol tubes provide a wide safety margin over the most stringent specifications. Let us supply complete technical information about Tung-Sol tubes for your military or industrial application.

VACUUM PULSE TUBES

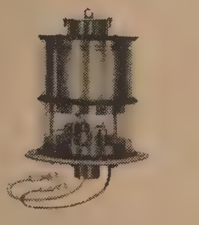
Partial list of types available: 3D21WB, 6889, 7248, 7403.

RECTIFIERS

Partial list of types available: 1Z2, 6H6WGT, 6X4WA, 6X4W, 25Z6WGT, 26Z5W, 5726, 5829WA.

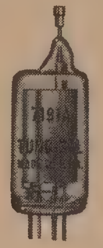
POWER TRIODES

Partial list of types available: 5998, 6080, 6080WA, 6080WB, 6082, 6082WA, 6082WB, 6336A, 6528, 6877,7236,7241,7242,7802,7802WA, 7802WB, 6336B, 6528A.



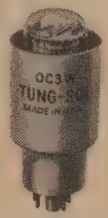
HYDROGEN DIODES

Partial list of types available: 7789, 7790, 7791, 7792, 7793, 8434, 8435. Ceramic: 8275, 8376, 8377, 7793A, 8492, CH1188.



HYDROGEN THYRATRONS

Partial list of types available: 1257, 1257A, 1258, 5948A, 5949A, 6587, 7190, 7191, 7191A, 7192, 7240, 7871, 7872, 8253.

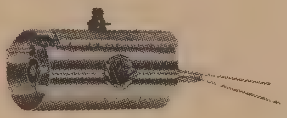


VOLTAGE REGULATORS

Partial list of types available: OC3W, OD3W, 5787, 5787WA, 7099.

PENTODES

Partial list of types available: 1AD4, 5636, 5639, 5654, 6AH6WA, 6AU6WB, 5672, 5678, 5702WB, 5725,5749,5784WB,6AJ5,6AK5WB, 6AS6, 5875, 5902, 6028, 6088, 6136, 8517, 8522.



PENCIL TUBES

Partial list of types available: 6263A, 6562, 7533, 5675, 5876, 5876A, 6264A.

CLIPPER TUBES

Partial list of types available: 8191, 8036, 7390, 8326, 7890, 8301, 8492.

INDICATOR TUBES

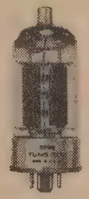
Partial list of types available: 6977, 8569.

TELEPHONE TUBES

Partial list of types available: 408A, 426A, 6028, 443A, 421A.

TWIN TRIODES

Partial list of types available: 6SU7GTY, 5687, 5744WB, 6188/6SU7WGT, 12AX7WA.



TRANSMITTING TUBES

Partial list of types available: 2E22, 8150, 8236.

VOLTAGE REFERENCE TUBES

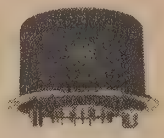
Partial list of types available: 5651, 5651WA, 5783, 5783WA.

POWER PENTODES

Partial list of types available: 2E22, 26E6WG, 5A6, 5881, 6AR6, 6098/6AR6WA, 6L6WGB, 6384, 6550, 6889, 6094, 7757.

ELECTRON MULTIPLIER TUBES

Multi-stage secondary emission tubes supply peak power pulses with negligible input power. Extremely fast rise time, low delay time with positive or negative going output pulse. Excellent for modulating traveling wave tubes and hydrogen thyratrons.



5 STAGE

8428—600v. peak pulse output at 4 amps. Load—150 ohms.

8455—1000v. peak pulse output at 4 amps. Load—250 ohms.

2 STAGE

DT1527A—50v. peak pulse output at 1 amp. Load — 50 ohms.

CENTER LINE QUALITY® **TUNG-SOL***

*Registered trademark Wagner Electric Corporation

TUNG-SOL DIVISION
Wagner Electric Corporation
ONE SUMMER AVE., NEWARK, N.J. 07104

English Electric Valve Co, Ltd Chelmsford, Essex .... England
Ferranti, Ltd, Lancashire .... England

Fivre Dept Fabbrica Ital Mag Marelli, I - 27100 - Pavia .... Italy
General Electric Co, ECSO, Schenectady .... N Y
Gordos Corp, Bloomfield .... N J
International Electronics Corp, Melville .... NY
ITT Electron Tube Div, Easton .... Pa
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Kobe Industries Corp, Kobe .... Japan
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
M-O Valve Co Ltd, Hammersmith, London W6 .... Eng
Mullard Ltd, London, WC 1 .... Eng
National Electronics Inc Varian Sub, Geneva Ill
Nippon Electric Co Ltd, Tokyo .... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Radio Corp of America, Electronic Components, Harrison .... N J
Raytheon Co, Components Div, Ind Compnts Oper Quincy .... Mass
Rectifier Engineering & Supply Co Inc, St Louis .... Mo
Siemens America Inc, New York .... N Y
Thomson Electric Co, Sub Cie Fran Thomson Houston New York .... N Y
Tung-Sol Div Wagner Electric Corp, Newark .... N J
United Electronics Co, Newark .... N J
U S Microwave, Delran .... N J
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh .... Pa
Westinghouse Electric Corp, Tube Div, Elmira .... NY

TUBES, RECTIFYING--VACUUM

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE, NY .... ADV PGS 764,765
ELECTRONIC ENTERPRISES INC, NEWARK, N J .... ADV PG 776
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
MACHLETT LABS INC, THE, STAMFORD .... CONN
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA .... JAPAN
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK N J .... ADV PG 775
Amperex Electronic Corp, Professional Tube Div, Hicksville .... NY
Cetron Electronic Corp, Geneva Ill
Eimac Div, Varian Associates, San Carlos .... Cal
Electronic Enterprises Inc, Newark .... N J
English Electric Valve Co, Ltd Chelmsford, Essex .... England

ELECTRONIC ENTERPRISES INC.

65-7th Avenue, Newark, N.J.

ORIGINAL TUBE MANUFACTURER

JAN tubes per MIL E-1

3B24WA
3B24WB
3B28
3B29
3B29W
3C23
3C45
3C45W
4B31
4B32
4C35A
5C22
FG-17
KU-17
KU-25
100TH
250R
250TH
250TL

EE300
HF300
KU23
T300
323B
371B
393A
394A
572B
576A
577W
578
705WA
719A
809
811A
811AW
812A
812AW

812HD
816
836
866A
866AE
872A
873
5956
5957
6130
6901
7410
8008
8008XE
8020
8020W
8370
E38

Phone (201) 485-8500

Eureka X-Ray Tube Corp Div Litton Indus, Chicago Ill
Ferranti, Ltd, Lancashire .... England
Fivre Dept Fabbrica Ital Mag Marelli, I - 27100 - Pavia .... Italy
General Electric Co, ECSO, Schenectady .... N Y
International Electronics Corp, Melville .... NY
ITT Electron Tube Div, Easton .... Pa
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Keleket Div Laboratory For Electronics Inc Waltham .... Mass
Kobe Industries Corp, Kobe .... Japan
Machlett Labs Inc, The, Stamford .... Conn
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
M-O Valve Co Ltd, Hammersmith, London W6 .... Eng
Mullard Ltd, London, WC 1 .... Eng
Nippon Electric Co Ltd, Tokyo .... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Radio Corp of America, Electronic Components, Harrison .... N J
Raytheon Co, Components Div, Ind Compnts Oper Quincy .... Mass
Siemens America Inc, New York .... N Y
Sylvania Electric Prods Inc, Electronic Tube Div Seneca Falls .... N Y
Telefunken Sales Corp, Garden City .... N Y
Thermosen Inc, Stamford .... Conn
Thomson Electric Co, Sub Cie Fran Thomson Houston New York .... N Y
Torr Labs Inc, Los Angeles .... Cal
Tung-Sol Div Wagner Electric Corp, Newark .... N J
United Electronics Co, Newark .... N J
U S Microwave, Delran .... N J
Victoreen Instrument Div, Cleveland .... Ohio
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh .... Pa
Westinghouse Electric Corp, Tube Div, Elmira .... NY

TUBES—STORAGE SEE TUBES—CATHODE-RAY

TUBES—STROBOSCOPIC SEE LAMPS

TUBES--THYRATRON

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE, NY .... ADV PGS 764,765
ELECTRONIC ENTERPRISES INC, NEWARK .... N J
GENERAL ELECTRIC CO, ECSO, SCHENECTADY .... N Y
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA .... JAPAN
NATIONAL ELECTRONICS INC VARIAN SUB, GENEVA ILL
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK N J .... ADV PG 775
Aerolux Light Co Inc, New York .... N Y
Amperex Electronic Corp, Professional Tube Div, Hicksville .... NY
Cetron Electronic Corp, Geneva Ill
E G & G Inc, Electronic Prods Div, Boston .... Mass
Electronic Enterprises Inc, Newark .... N J
Electrons Co, Newark .... N J
English Electric Valve Co, Ltd Chelmsford, Essex .... England
Ferranti, Ltd, Lancashire .... England
Fivre Dept Fabbrica Ital Mag Marelli, I - 27100 - Pavia .... Italy
General Electric Co, ECSO, Schenectady .... N Y
Hitachi Ltd, Chiyoda-Ku, Tokyo .... Japan
International Electronics Corp, Melville .... NY
ITT Electron Tube Div, Easton .... Pa
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Keleket Div Laboratory For Electronics Inc Waltham .... Mass
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
M-O Valve Co Ltd, Hammersmith, London W6 .... Eng
Mullard Ltd, London, WC 1 .... Eng
National Electronics Inc Varian Sub, Geneva Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Radio Corp of America, Electronic Components, Harrison .... N J
Raytheon Co, Components Div, Ind Compnts Oper Quincy .... Mass
Siemens America Inc, New York .... N Y
Telefunken Sales Corp, Garden City .... N Y
Thomson Electric Co, Sub Cie Fran Thomson Houston New York .... N Y
Tung-Sol Div Wagner Electric Corp, Newark .... N J
U S Microwave, Delran .... N J
Varian, Palo Alto .... Cal
Warnecke Electron Tubes Inc, Des Plaines Ill
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh .... Pa
Westinghouse Electric Corp, Tube Div, Elmira .... NY

TUBES--TRANSMITTING

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE, NY .... ADV PGS 764,765
ELECTRONIC ENTERPRISES INC, NEWARK .... N J
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
MACHLETT LABS INC, THE, STAMFORD .... CONN
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA .... JAPAN
NIPPON ELECTRIC CO LTD, TOKYO .... JAPAN
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK N J .... ADV PG 775
Amperex Electronic Corp, Professional Tube Div, Hicksville .... NY
Canadian Motorola Electronics Co, Agincourt .... Ont
Cetron Electronic Corp, Geneva Ill
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles .... France
Eimac Div, Varian Associates, San Carlos .... Cal
Electronic Enterprises Inc, Newark .... N J
English Electric Valve Co, Ltd Chelmsford, Essex .... England
Fivre Dept Fabbrica Ital Mag Marelli, I - 27100 - Pavia .... Italy
General Electric Co, ECSO, Schenectady .... N Y
Hitachi Ltd, Chiyoda-Ku, Tokyo .... Japan
International Electronics Corp, Melville .... NY
ITT Electron Tube Div, Easton .... Pa
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Kobe Industries Corp, Kobe .... Japan
Litton Industries, Electron Tube Div, San Carlos .... Cal
Machlett Labs Inc, The, Stamford .... Conn
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Microwave Associates Inc, Burlington .... Mass
M-O Valve Co Ltd, Hammersmith, London W6 .... Eng
Mullard Ltd, London, WC 1 .... Eng
Nippon Electric Co Ltd, Tokyo .... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Radio Corp of America, Electronic Components; Harrison .... N J
Raytheon Co, Components Div, Ind Compnts Oper Quincy .... Mass
Sampson Electronic Products Div, Chicago Ill
Siemens America Inc, New York .... N Y
Telefunken Sales Corp, Garden City .... N Y
Thomson Electric Co, Sub Cie Fran Thomson Houston New York .... N Y
Torr Labs Inc, Los Angeles .... Cal
Tung-Sol Div Wagner Electric Corp, Newark .... N J
United Electronics Co, Newark .... N J
U S Microwave, Delran .... N J
Varian, Palo Alto .... Cal
Watkins-Johnson Co, Palo Alto .... Cal
Westinghouse Electric Corp, Electronic Tube Div Pittsburgh .... Pa
Westinghouse Electric Corp, Tube Div, Elmira .... NY

TUBES--TR, PRE TR & ANTI TR

Bomac Div Varian Associates, Beverly .... Mass
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles .... France
Electromagnetic Technology Corp, Mountain View .... Cal
English Electric Valve Co, Ltd Chelmsford, Essex .... England
Ferranti Electric Inc, Plainview .... N Y
Ferranti, Ltd, Lancashire .... England
International Electronics Corp, Melville .... NY
Metcom Inc, Salem .... Mass
Microwave Associates Inc, Burlington .... Mass
M-O Valve Co Ltd, Hammersmith, London W6 .... Eng
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Varian, Palo Alto .... Cal
Westinghouse Electric Corp, Tube Div, Elmira .... NY

TUBES--TV CAMERA PICKUP

AMPEREX ELECTRONIC CORP, ELECTRO OPTICAL DEVICES DIV SLATERSVILLE, R I .... ADV PGS 764,765
Amperex Electronic Corp, Electro Optical Devices Div Slatersville .... R I

TUBES--VOLTAGE REFERENCE OR REGULATING (INCL CORONA-TYPE)

AMPEREX ELECTRONIC CORP SEMICONDUCTOR & MICROCIRCUITS DIV, SLATERSVILLE .... R I
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y .... ADV PGS 7
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA .... JAPAN
SIGNALITE INC, NEPTUNE .... N J
TUNG-SOL DIV WAGNER ELECTRIC CORP, NEWARK N J .... ADV PG 775
WHITTAKER CORP GEN COM DIV, PLAINVIEW .... N Y
Aerolux Light Co Inc, New York .... N Y
Amperex Electronic Corp Semiconductor & Microcircuits Div, Slatersville .... R I
Electro-Neutronics Inc, Oakland .... Cal
Elesta Ltd Electronics, Bad Ragaz .... Switzerland
English Electric Valve Co, Ltd Chelmsford, Essex .... England
EON Corp, Brooklyn .... N Y
Ferranti, Ltd, Lancashire .... England
General Electric Co, ECSO, Schenectady .... N Y
International Electronics Corp, Melville .... NY
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
M-O Valve Co Ltd, Hammersmith, London W6 .... Eng
Mullard Ltd, London, WC 1 .... Eng
National Union Electric Corp Electronics Div Bloomington Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Radio Corp of America, Electronic Components, Harrison .... N J
Raytheon Co, Components Div, Ind Compnts Oper Quincy .... Mass
Signalite Inc, Neptune .... N J
Telefunken Sales Corp, Garden City .... N Y
Tung-Sol Div Wagner Electric Corp, Newark .... N J
Victoreen Instrument Div, Cleveland .... Ohio
Westinghouse Electric Corp, Tube Div, Elmira .... NY
Whittaker Corp Gen Com Div, Plainview .... N Y

TUBES--X-RAY

AMERICANA X-RAY CO, ENGLEWOOD	**N J**
AMPEREX ELECTRONIC CORP, COMPONENT DIV HAUPPAUGE	**N Y**
MACHLETT LABS INC, THE, STAMFORD	**CONN**
Americana X-Ray Co, Englewood	N J
Amperex Electronic Corp, Component Div Hauppauge	N Y
Comet Co, Liebefeld, Berne	Switz
Dunlee Corp, Bellwood	Ill
Eureka X-Ray Tube Corp Div Litton Indus, Chicago	Ill
Ferranti, Ltd, Lancashire	England
Field Emission Corp, McMinnville	Ore
General Electric Co X-Ray Dept, Milwaukee	Wis
Gilardoni S p A, Mandello Lario Como	Italy
Hitachi Ltd, Chiyoda-Ku, Tokyo	Japan
Keleket Div Laboratory For Electronics Inc Waltham	Mass
Kobe Industries Corp, Kobe	Japan
Machlett Labs Inc, The, Stamford	Conn
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Picker Nuclear, White Plains	N Y
Sampson Electronic Products Div, Chicago	Ill
Standard X-Ray Co, Chicago	Ill
Torr Labs Inc, Los Angeles	Cal
20th Century Electronics Ltd New Addington, Surrey	England
Universal X-Ray Products Co, Chicago	Ill
Westinghouse Electric Corp, Tube Div, Elmira	NY
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

TUBE TESTERS SEE TESTERS--TUBE

TUBE-TYPE CONVERTERS--A-C TO A-C SEE CONVERTERS--A-C OUTPUT

TUBING--INSULATING

AMP INCORPORATED, HARRISBURG	**PA**
BIRNBACH CO INC, FREEPORT	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
EDAL INDUSTRIES INC, EAST HAVEN	**CONN**
Abesto Corp, Bloomfield	N J
Actioncraft Products, Port Washington	N Y
Adam Spence Corp, Edison	NJ
Alloys Unlimited Inc, Melville	N Y
AMP Incorporated, Harrisburg	Pa
Anchor Plastics Co Inc, Long Island City	N Y
Asheville-Schoonmaker Mica Co, Newport News	Va
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Bentley-Harris Mfg Co, Conshohocken	Pa
Birnbach Co Inc, Freeport	N Y
Bishop Mfg Corp, Cedar Grove	N J
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Buckeye Bobbin & Mfg Div Prec Paper Tube Co Westlake	Ohio
Cadillac Plastic & Chemical Co, Detroit	Mich
Chemplast Inc, Wayne	N J
Cleveland Container Corp, New York	N Y
Cleveland Mica Co, Lakewood	Ohio
Coors Porcelain Co, Golden	Colo
Crane Packing Co, Morton Grove	Ill
Daburn Electronics & Cable Corp, Bronx	N Y
Dielectric Materials Co, Chicago	Ill
Dilectrix Corp, Farmingdale	N Y
Edal Industries Inc, East Haven	Conn
Electrical Refractories Co, East Palestine	Ohio
Electronized Chemicals Corp, Burlington	Mass
Engineered Plastics Inc, Gibsonville	N C
Fluoro-Plastics Inc, Philadelphia	Pa
Franklin Fibre-Lamitex Corp, Wilmington	Del
General Plastics Corp, Bloomfield	N J
Gilbreth Co, Philadelphia	Pa
Gladding Corp, South Otselic	N Y
Goodrich Industrial Prods Co, B F, Akron	Ohio
Haveg Industries Inc, Super Temp Wire Div Winooski	Vt
Hudson Wire Co, Ossining	N Y
Icore Electro-Plastics, Sunnyvale	Cal
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Insulating Fabricators of N E Inc, Watertown	Mass
Insulating Shapes Inc, Bronx	N Y
Keith Co Inc, W P, Pico Rivera	Cal
Laminated Fabricators, San Bruno	Cal
Markel & Sons Inc L Frank, Norristown	Pa
Minor Rubber Co Inc, Bloomfield	N J
Moxness Products Inc, Racine	Wis
National Wire & Cable Corp, Los Angeles	Cal
Natvar Corp, Woodbridge	N J
Niemand Bros Inc, Elmhurst	N Y
Niemand Industries Inc, Statesville	N C
Norrich Plastics Corp, Roosevelt	N Y
Norton Co, Worcester	Mass
Omega Engineering Inc, Stamford	Conn
Owens-Illinois Consumer & Tech Products Div Toledo	Ohio
Paramount Industries Inc, Fort Wayne	Ind
Penntube Plastics Co Div Penna Fluorocarbon Co Clifton Heights	Pa
Port Plastics Inc, Montebello	Cal
Precision Paper Tube Co, Wheeling	Ill
Raychem Corp, Menlo Park	Cal
Resdel Corp, Rio Grande	N J
Richardson Company, Melrose Park	Ill
Shamban & Co, W S, Los Angeles	Cal
Spaulding Fibre Co Inc, Tonawanda	N Y
Staff Gasket Mfg Corp, New York	N Y
Stevens Tubing Corp, East Orange	N J
Stone Paper Tube Co Div Stone Ind Corp Washington	D C
Suflex Corp, Woodside	N Y
Superior Continental Corp, Hickory	N C
Syncor Products Co, Inc, Malden	Mass
Synthane Corp, Oaks	Pa
Thermax Wire Corp, New York	N Y
Tyton Corp of America, Metuchen	N J
Varflex Corp, Rome	N Y
Westinghouse Electric Corp, Industrial Micarta Div Hampton	S C
Westline Products, Los Angeles	Cal
Zippertubing Co, Los Angeles	Cal

TUBING--METALLIC

PRECISION TUBE CO INC, NORTH WALES	**PA**
SUPERIOR TUBE CO, NORRISTOWN	**PA**
UNIFORM TUBES INC, COLLEGEVILLE	**PA**
YOKOWO MFG CO LTD, TOKYO	**JAPAN**
Acme Model Engineering Co, Ridgefield	N J
Active Alloys Inc, Brooklyn	N Y
Allegheny Ludlum Steel Corp, Pittsburgh	Pa
Aluminum Co of America, Pittsburgh	Pa
Anaconda American Brass Co, Waterbury	Conn
Armco Steel Corp, Middletown	Ohio
Associated Engineering & Mfg Corp, Glen Ridge	N J
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Brainin Corp, C S, Mt Vernon	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
Carpenter Steel Co, Reading	Pa
Chase Brass & Copper Co, Cleveland	Ohio
Chase Metals Service Div Chase Brass & Copper Co Cleveland	Ohio
Co-Operative Industries Inc, Chester	N J
Crucible Steel Co, Pittsburgh	Pa
Estes Engineering Co, Gardena	Cal
Extrudonics Inc, New Brunswick	N J
Eyelematic Mfg Co Inc, Oakville	Conn
Fansteel Metallurgical Corp, North Chicago	Ill
General Electric Co Lamp Metals & Components Dept Cleveland	Ohio
General Findings Co Industrial Div, Attleboro	Mass
Handy & Harman, New York	N Y
Haydon Tube & Form Corp, Paterson	N J
Higbie Mfg Co, Rochester	Mich
Hoffman Industries Inc Div Clarkson Ind Inc New York	N Y
Improved Seamless Wire Co, Providence	R I
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia	Pa
Kawecki Chemical Co, New York	N Y
Leach & Garner Co, Industrial Div, Attleboro	Mass
Mason-Renshaw Industries, Carpinteria	Cal
Matthey Bishop Inc, Malvern	Pa
Metal Ceram Inc, Mount Vernon	N Y
Moore & Co, Samuel, Mantua	Ohio
National Steel Service Center Inc, Evanston	Ill
Ohio Seamless Tube Div, Copperweld Steel Co Shelby	Ohio
Omega Engineering Inc, Stamford	Conn
Pfaff & Kendall, Newark	N J
Phelps Dodge Copper Products Corp, New York	N Y
Porter Co Inc H K, Fabricated Metals Div Pittsburgh	Pa
Precision Tube Co Inc, North Wales	Pa
Republic Steel Corp, Cleveland	Ohio
Revere Copper & Brass, Inc, New York	N Y
Rohn Mfg Co, Peoria	Ill
Ryerson & Son Inc, J T, Chicago	Ill
Semi-Alloys Inc, Mt Vernon	N Y
Standard Metals Div Edw N Cook Plate Co, Inc North Attleboro	Mass
Superior Tube Co, Norristown	Pa
Sylvania Elec Prods Inc, Chem & Met Div, Towanda	Pa
Texas Instruments Incorporated, Dallas	Tex
Timken Roller Bearing Co, Canton	Ohio
Uniform Tubes Inc, Collegeville	Pa
United Wire & Supply Corp, Providence	R I
Var-Lac-Oid Chemical Co, Elizabeth	N J
Victor Metal Products Corp, Harrisonburg	Va
Wah Chang Corp, Glen Cove	N Y
Wallingford Steel Co, Wallingford	Conn
Wiegand Co, Edwin L, Pittsburgh	Pa
Wilkinson Co, Westlake Village	Cal
Yokowo Mfg Co Ltd, Tokyo	Japan
Zippertubing Co, Los Angeles	Cal

TUBING--NONMETALLIC (INCL SLEEVES)

AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
BIRNBACH CO INC, FREEPORT	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX N Y	**ADV PG 777**
FLEX PRODUCTS CORP, CARLSTADT	**N J**
MARKWIK CORP, SYOSSET	**N Y**
YOKOWO MFG CO LTD, TOKYO	**JAPAN**
Abesto Corp, Bloomfield	N J
Actioncraft Products, Port Washington	N Y
Adam Spence Corp, Edison	NJ
Alloys Unlimited Inc, Melville	N Y
Alpha Wire, Elizabeth	N J
American Lava Corp, Chattanooga	Tenn
Anchor Plastics Co Inc, Long Island City	N Y
Asheville-Schoonmaker Mica Co, Newport News	Va
Auburn Mfg Co, Middletown	Conn
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Beemer Engineering Co, Fort Washington	Pa
Bendix Corp Rubber Prods Plant, Toledo	Ohio
Bentley-Harris Mfg Co, Conshohocken	Pa
Birnbach Co Inc, Freeport	N Y
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Buckeye Bobbin & Mfg Div Prec Paper Tube Co Westlake	Ohio
Budd Co Polychem Div, Newark	Del
Cadillac Plastic & Chemical Co, Detroit	Mich
Chemplast Inc, Wayne	N J
Cleveland Mica Co, Lakewood	Ohio
Coors Co Inc, H F, Inglewood	Cal
Coors Porcelain Co, Golden	Colo
Corning Glass Works, Corning	N Y
Daburn Electronics & Cable Corp, Bronx	N Y
Diamonite Products Mfg Co, Shreve	Ohio
Dielectric Materials Co, Chicago	Ill
Dixon Corp, Bristol	R I
Dorco Electronics Inc, Compton	Cal
Electrical Refractories Co, East Palestine	Ohio
Electronized Chemicals Corp, Burlington	Mass
Emerson Plastics Corp, Bronx	New York
Flex Products Corp, Carlstadt	N J
Franklin Fibre-Lamitex Corp, Wilmington	Del
Frenchtown/CFI Inc, Frenchtown	N J
Friedrich & Dimmock, Inc, Mays Landing	N J
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Electric Co, Lamp Glass Dept Willoughby	Ohio
General Plastics Corp, Bloomfield	N J
Gilbreth Co, Philadelphia	Pa
Gladding Corp, South Otselic	N Y
Goodrich Industrial Prods Co, B F, Akron	Ohio
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Hoffman Industries Inc Div Clarkson Ind Inc New York	N Y
Hudson Wire Co, Ossining	N Y
Icore Electro-Plastics, Sunnyvale	Cal
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Insulating Shapes Inc, Bronx	N Y
ITT Wire & Cable Div, Clinton	Mass
Jonesville Paper Tube Corp, Jonesville	Mich
Koppers Co Reinforced Plastics Div, Pittsburgh	PA
Laminated Fabricators, San Bruno	Cal
Leed Insulator Corp, Los Angeles	Cal
Markel & Sons Inc L Frank, Norristown	Pa
Markwik Corp, Syosset	N Y
Maryland Lava Co Inc, Bel Air	Md
McDanel Refractory Porcelain Co, Beaver Falls	Pa
Mechanical Rubber Products Co, Inc, Warwick	NY
Middlesex Paper Tube Co Inc, Lowell	Mass
3M Company, St Paul	Minn
Moxness Products Inc, Racine	Wis
National Wire & Cable Corp, Los Angeles	Cal
Natvar Corp, Woodbridge	N J
Nelson Vacuum Pump Co, Berkeley	Cal
Niemand Bros Inc, Elmhurst	N Y

WIRE
CABLE
TUBING
TEFLON
CALL 212-295-0050
WRITE FOR CATALOG
CATALOGED IN RADIO MASTERS
ELECTRONIC COMPONENTS AND HARDWARE
CUSTOM CONSTRUCTION OUR SPECIALTY
DABURN ELECTRONIC & CABLE CORP.
2360 HOFFMAN ST., NEW YORK, N.Y. 10458

Niemand Industries Inc, Statesville	N C
Ny-Glass, Inc, Paramount	Cal
Omega Engineering Inc, Stamford	Conn
Pennsylvania Fluorocarbon Co Inc, Clifton Heights	Pa
Plastiglide Mfg Corp, Santa Monica	Cal
Polymer Corp, Reading	Pa
Port Plastics Inc, Montebello	Cal
Precision Paper Tube Co, Wheeling	Ill
Quartzite Processing, Inc, Malden	Mass
Raychem Corp, Menlo Park	Cal
Resdel Corp, Rio Grande	N J
Richardson Company, Melrose Park	Ill
Royal Worcester Industrial Ceramics Inc, New York	NY
Shamban & Co, W S, Los Angeles	Cal
Sherwood Industries Flexco Div, Bell Gardens	Cal
Smith Inc, Herman H, Brooklyn	N Y
Spaulding Fibre Co Inc, Tonawanda	N Y
Staff Gasket Mfg Corp, New York	N Y
Stevens Tubing Corp, East Orange	N J
Stone Paper Tube Co Div Stone Ind Corp Washington	D C
Suflex Corp, Woodside	N Y
Syncor Products Co, Inc, Malden	Mass
Synthane Corp, Oaks	Pa
Thermal American Fused Quartz Co, Montville	N J
Thermax Wire Corp, New York	N Y
Titeflex Inc, Springfield	Mass
Trimtex Inc, Williamsport	Pa
Tyton Corp of America, Metuchen	N J
Varflex Corp, Rome	N Y
Westline Products, Los Angeles	Cal
Wilmington Fibre Specialty Co, New Castle	Del
Yokowo Mfg Co Ltd, Tokyo	Japan
Zippertubing Co, Los Angeles	Cal

TUBING--PLASTIC

BIRNBACH CO INC, FREEPORT	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
FLEX PRODUCTS CORP, CARLSTADT	**N J**
Abacus Electronics Corp, Dobbs Ferry	N Y
Abesto Corp, Bloomfield	N J
Actioncraft Products, Port Washington	N Y
Adam Spence Corp, Edison	NJ
Alpha Wire, Elizabeth	N J
Anchor Plastics Co Inc, Long Island City	N Y
Atomite Electronics Corp, Roosevelt	N Y
Auburn Plastics, Inc, Auburn	N Y
Bentley-Harris Mfg Co, Conshohocken	Pa
Birnbach Co Inc, Freeport	N Y
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Buckeye Bobbin & Mfg Div Prec Paper Tube Co Westlake	Ohio
Cadillac Plastic & Chemical Co, Detroit	Mich
Chemelec Products, Inc, Cherry Hill	N J
Chemplast Inc, Wayne	N J
Crane Packing Co, Morton Grove	Ill
Daburn Electronics & Cable Corp, Bronx	N Y
De Vilbiss Co, Toledo	Ohio
Dielectric Materials Co, Chicago	Ill
Dilectrix Corp, Farmingdale	N Y
Dowa Trading Co Ltd, Kobe	Japan
Electronized Chemicals Corp, Burlington	Mass
Emerson Plastics Corp, Bronx	New York
Engineered Plastics Inc, Gibsonville	N C
Ethylene Corp, Murray Hill	N J
Flex Products Corp, Carlstadt	N J
Fluoro-Plastics Inc, Philadelphia	Pa
Franklin Fibre-Lamitex Corp, Wilmington	Del
Gardner Lab Inc, Bethesda	Md
General Plastics Corp, Bloomfield	N J
Gilbreth Co, Philadelphia	Pa
Gladding Corp, South Otselic	N Y
Goodrich Industrial Prods Co, B F, Akron	Ohio
Haveg Industries Inc, Super Temp Wire Div Winooski	Vt
Hudson Wire Co, Ossining	N Y
Icore Electro-Plastics, Sunnyvale	Cal
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Insulating Fabricators Inc, East Rutherford	N J
Insulating Fabricators of N E Inc, Watertown	Mass
Insulating Shapes Inc, Bronx	N Y
ITT Wire & Cable Div, Clinton	Mass
Kirkhill Rubber Co, Brea	Cal
Koppers Co Reinforced Plastics Div, Pittsburgh	PA
Laminated Fabricators, San Bruno	Cal
Leed Insulator Corp, Los Angeles	Cal
Long Inc, Thomas J, Carle Place	N Y
Markel & Sons Inc L Frank, Norristown	Pa
3M Company, St Paul	Minn
Moore & Co, Samuel, Mantua	Ohio
National Wire & Cable Corp, Los Angeles	Cal
Natvar Corp, Woodbridge	N J
Niemand Bros Inc, Elmhurst	N Y
Niemand Industries Inc, Statesville	N C
Norrich Plastics Corp, Roosevelt	N Y
Ny-Glass, Inc, Paramount	Cal
Omega Engineering Inc, Stamford	Conn
Penntube Plastics Co Div Penna Fluorocarbon Co Clifton Heights	Pa
Port Plastics Inc, Montebello	Cal
Precision Paper Tube Co, Wheeling	Ill
Pyramid Plastics Inc, Palatine	Ill
Raychem Corp, Menlo Park	Cal
Resdel Corp, Rio Grande	N J
Richardson Company, Melrose Park	Ill
Ryerson & Son Inc, J T, Chicago	Ill
Severna Div Amphenol Corp, East Orange	N J
Shamban & Co, W S, Los Angeles	Cal
Spaulding Fibre Co Inc, Tonawanda	N Y
Staff Gasket Mfg Corp, New York	N Y
Stevens Tubing Corp, East Orange	N J
Stone Paper Tube Co Div Stone Ind Corp Washington	D C
Superior Continental Corp, Hickory	N C
Synthane Corp, Oaks	Pa
Thermax Wire Corp, New York	N Y
Titeflex Inc, Springfield	Mass
Tyton Corp of America, Metuchen	N J
Varflex Corp, Rome	N Y
Westinghouse Electric Corp, Industrial Micarta Div Hampton	S C
Westline Products, Los Angeles	Cal
Zippertubing Co, Los Angeles	Cal

TUNERS--ENTERTAINMENT, STEREO F-M

HEATH CO, BENTON HARBOR	**MICH**
MALLORY & CO INC, P R, INDIANAPOLIS	**IND**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MITSUMI ELECTRIC CO LTD, TOKYO	**JAPAN**
Acoustech Div Koss Electronics Inc, Milwaukee	Wis
Bogen Communications Div Lear Siegler Inc Paramus	N J
Calbest Electronics, Los Angeles	Cal
Channel Master Corp, Ellenville	N Y
CM Laboratories, Norwalk	Conn
Dowa Trading Co Ltd, Kobe	Japan
Dynaco Inc, Philadelphia	Pa
Ercona Corp, New York	N Y
G W Electronics Inc, Torrance	Cal
Hayakawa Electric Co Ltd, Osaka	Japan
Heath Co, Benton Harbor	Mich
Hopt KG, R E, Rottweil a Neckar	Germany
Karg Labs Inc, South Norwalk	Conn
K L A Labs Inc, Detroit	Mich
Lear Siegler Inc, Santa Monica	Cal
Mallory & Co Inc, P R, Indianapolis	Ind
Mallory Timers Co, Indianapolis	Ind
Marantz Co Inc, Sun Valley	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Mitsumi Electric Co Ltd, Tokyo	Japan
Oak Mfg Co, Div Oak Electro/Netics Corp Crystal Lake	Ill
Philco-Ford Corp, Washington	D C
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Sherwood Electronic Labs Inc, Chicago	Ill
Sony Corp, Tokyo	Japan
Stanford International, San Carlos	Cal
Telefunken Sales Corp, Garden City	N Y
Trutone Electronics Inc, Van Nuys	Cal
Waller Corp, Crystal Lake	Ill

TUNERS--MICROWAVE (INCL SLIDING SHORTS)

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE	**NY**
AMPHENOL, DANBURY	**CONN**
AUTOMATION DEVELOPMENT CO, CULVER CITY	**CAL**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	ADV PGS 58,59
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
RADAR DESIGN CORP, SYRACUSE	**N Y**
TRG DIV CONTROL DATA CORP, EAST BOSTON MASS	ADV PG 418
WEINSCHEL ENGINEERING CO INC, GAITHERSBURG	**MD**
Aircom Inc, Union	N H
Airtec Inc, Roselle	N J
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Amphenol, Danbury	Conn
Arra, Inc, Bayshore	NY
Astrolab Inc, Linden	N J
Automation Development Co, Culver City	Cal
Avco Corp Electronics Div, Cincinnati	Ohio
Bendix Corp, Microwave Devices Div, Franklin	Ind
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Diamond Antenna & Microwave Corp, Winchester	Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Dowa Trading Co Ltd, Kobe	Japan
Electronic Specialty Co, Los Angeles	Cal
Frequency Engineering Labs, Farmingdale	N J
General Instrument Corp Radio Receptor Div Hicksville	N Y
General Microwave Corp, Farmingdale	N Y
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hewlett-Packard, Palo Alto	Cal
Maury Microwave Corp, Montclair	Cal
MCS Corp, Monrovia	Cal
Microlab/F X R, Livingston	N J
Microwave Associates Inc, Burlington	Mass
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Labs of America, Brooklyn	N Y
Narda Microwave Corp, Plainview	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Omega Laboratories Inc, Rowley	Mass
Omni Spectra Inc, Farmington	Mich
Pabst Engineering Equipment Co Inc, Elizabeth	NJ
Polarad Electronic Instruments Div Long Island City	N Y
Portchester Instrument Corp, Port Chester	N Y
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Premier Microwave Corp, Port Chester	N Y
Quantatron Div, Teledyne Inc, Santa Monica	Cal
Radar Design Corp, Syracuse	N Y
RLC Electronics Inc, Port Chester	N Y
TRG Div Control Data Corp, East Boston	Mass
Vector Industries A Teledyne Co, Palo Alto	Cal
Watkins-Johnson Co, Palo Alto	Cal
Waveline Inc, West Caldwell	N J
Weinschel Engineering Co Inc, Gaithersburg	Md

Forget the manufacturer's phone number?

Check the green pages.

TUNERS--TV

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MITSUMI ELECTRIC CO LTD, TOKYO, JAPAN	ADV PG 779
Dalto Electronics Corp, Norwood	N J
Dowa Trading Co Ltd, Kobe	Japan
Dynair Electronics Inc, San Diego	Cal
General Instrument Corp F W Sickles Div Chicopee	Mass
Hayakawa Electric Co Ltd, Osaka	Japan
Hopt KG, R E, Rottweil a Neckar	Germany
Kalart Co Inc, Plainville	Conn
K L A Labs Inc, Detroit	Mich
LCC-CICE, 93 Montreuil-sous-Bois	France
Lear Siegler Inc, Santa Monica	Cal
Lieco Inc, West Babylon	N Y
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Mitsumi Electric Co Ltd, Tokyo	Japan
Oak Mfg Co, Div Oak Electro/Netics Corp Crystal Lake	Ill
Orega Electronique & Mecanique Vincennes, Seine	France
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Ricagni SRL, Milano	Italy
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Sarkes Tarzian Inc, Tuner Div, Bloomington	Ind
Telefunken Sales Corp, Garden City	N Y

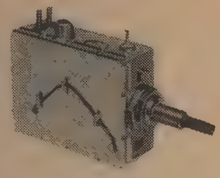
ACCUVOLT

BESPONDER

CINDERELLA

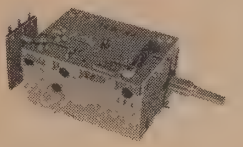
If you're confused over product trade names, locate the source easily in EBG's Trade Name Listing in the back of the green section.

MITSUMI COMPONENTS



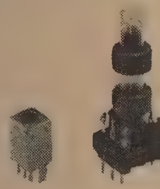
UHF TV TUNERS

Mitsumi UHF TV tuners are high in accuracy and excellent in durability because not only materials, configurations and platings but also soldering of their mechanical sections were well researched and developed. They are available at present in 3 models.



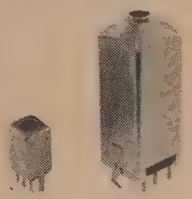
VHF TV TUNERS

Mitsumi VHF TV tuners are provided with a change-over switch to a UHF tuner, and have built-in IF amplifier and AGC(automatic gain control). They are perently avaialble in 3 models.



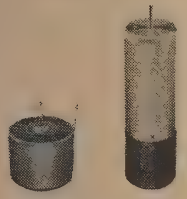
VARIOUS COILS

Mitsumi coils available at present are those for television receivers, heterodyne receivers, composite circuits(PACK) for IF detection, FM multiplex, FM tuners, etc.



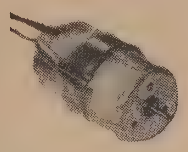
IF TRANSFORMER

There are many kinds of models for the use of television and radio receivers, various electronic equipments, etc. They are all specially quality-controlled so as to have stabilized mechanical characteristics and excellent electrical characteristics, and they are mass-produced by the full automatic coiling machines on the belt conveyor system.



MICRO MOTORS

At present, 11 models are available as those for small tape recorders, 8mm cinecameras, measuring instruments and so forth. They are excellent in starting movement, low in noise and long in life, resulting in the extremely stabilized revolutions. Super-flat type models are also available.

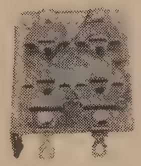


SYNCHRONOUS MOTORS

Mitsumi synchronous motors have the extremely high response and low revolving speed, resulting in less wear of bearings and moving parts, and higher durability.

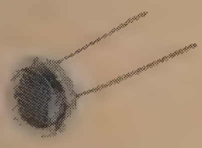
POLYVARICON (POLYETHYLENE VARIABLE CAPACITORS)

Polyvaricon is a miniature variable capacitor that was developed by our company. It has small size, light weight, strong resistivity for howling, excellent Q characteristics, high durabilities for use, temperature and humidity. Various models for AM and FM are available.



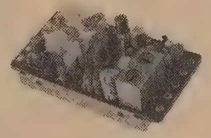
TRIMMER CAPACITORS

Mitsumi trimmer capacitors are superb in Q characteristics, and temperature and humidity characteristics. Various models for BC, SW and FM bands are available in 2 kinds of film trimmer capacitor and air trimmer capacitor.



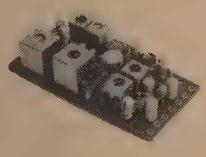
CdS PHOTO-CONDUCTIVE CELLS

Mitsumi photo-conductive cells having 8 patents, can obtain spectro-wavelength characteristics which match their purpose of use, due to the development of new sintered film. Presently available are 16 model including their applied products.



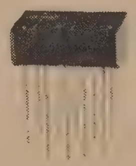
FM TUNERS

They are all transistorized, and the output IFT has 2 types, namely, single tuning type and double tuning type. The employed transistor is either silicon transistor or germanium transistor.



FM MULTIPLEX ADAPTER

It employs transistors, and has a built-in automatic stereo-monaural indicator. Separation is so good as more than 25dB at 300Hz ~ 4KHz. Distortion (content of higher harmonics) is negligible, and temperature characteristics are excellent.



HYBRID IC

There are 2 types of hybrid integrated circuits, namely, thin film type and thick film type. They are most suitable for such consumer electronic products as radio receivers, television receivers, stereo players, etc. Besides, variable-capacity diodes of MOS type were also developed.

Your Mitsumi Electric Co. is one of the largest electronic components munufacturers in Japan, and offers the worldwide electronic industries its highest quality products.

Mitsumi products are of high quality because they are produced by trained engineers, in the modern plant, and under the unique quality control technology.

Mitsumi products save your costs because they are produced under the superb mass production system, and designed by cost-conscious engineers to save your assembly costs.

MITSUMI

MITSUMI ELECTRIC CO., LTD.
Main Office: 1056 Koadachi, Komae-machi, Kitatama-gun, Tokyo, Japan Tel: 489-5333
Europe Office: Europe Office: Marientrasse 12, Dusseldorf, W. Germany Tel: 352701
MITSUMI ELECTRONICS CORPORATION
11 Broadway, New York 4, N.Y. 10004, U.S.A. Tel: HA-5-3085.–3086
MITSUMI COMPANY, Ltd. (Hong Kong Corp.)
302, Cheong Hing Building, 72, Nathan Road, Kowloon, Hongkong. Tel: 666925

MAIN PRODUCTS

*Polyvaricon *Trimmer Capacitor *IF Transformer *Various Coils *Resistor *Micro Motor *FM Tuner *Car Tuner *UHF TV Tuner *VHF TV Tuner *CdS Photo Conductive cell *Hybrid IC *Socket *Fuse Holder *Terminal *etc.

● Catalogs abailable; Please address your request for catalogs to our PR section. mentioning this advertising medium.

TUNGSTEN

REMBAR CO INC, DOBBS FERRY ... **N Y**
Active Alloys Inc, Brooklyn ... N Y
American Metal Climax Inc, New York ... N Y
Associated Engineering & Mfg Corp, Glen Ridge ... N J
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place ... N Y
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights ... NY
Bemol Co, Newton ... Mass
Bram Metallurgical Chemical Co, Philadelphia ... Pa
Cerac Inc, Butler ... Wis
Cerro Corp, New York ... NY
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon ... Ohio
C M Mfg Co, Bloomfield ... N J
Cox Mfg Co, San Antonio ... Tex
Cross Co, H, Weehawken ... N J
Fansteel Metallurgical Corp, North Chicago ... Ill
Firth Sterling Inc, Pittsburgh ... Pa
General Electric Co Lamp Metals & Components Dept Cleveland ... Ohio
Kennametal Inc, Latrobe ... Pa
Koch Light Labs Ltd, Colnbrook, Bucks ... England
Mackay Inc, A D, New York ... N Y
Materials Research Corp, Orangeburg ... N Y
Metal Ceram Inc, Mount Vernon ... N Y
3M Company, St Paul ... Minn
Norton Co Metals Div, Newton ... Mass
Philips Elmet Corp, Lewiston ... Me
Philips Metalonics, Mount Vernon ... N Y
Rembar Co Inc, Dobbs Ferry ... N Y
Ryerson & Son Inc, J T, Chicago ... Ill
Semi-Alloys Inc, Mt Vernon ... N Y
Semicon Associates Inc, Lexington ... Ky
Semi-Elements Inc, Saxonburg ... Pa
Shieldalloy Corp, Newfield ... N J
Spectra-Mat Inc, Watsonville ... Cal
Sylvania Elec Prods Inc, Chem & Met Div, Towanda ... Pa
Union Carbide Corp, Mining & Metals Div New York ... N Y
Union City Filament Corp, Union City ... N J
United Mineral & Chemical Corp, New York ... N Y
Var-Lac-Oid Chemical Co, Elizabeth ... N J
Vitro Labs Div Vitro Corp of America, W Orange ... N J
Wah Chang Corp, Glen Cove ... N Y
Westinghouse Electric Corp, Lamp Div, Bloomfield ... N J

TUNING CAPACITORS SEE CAPACITORS--VARIABLE

TUNING CONTROLS--AUTOMATIC SEE CONTROLS--AUTOMATIC TUNING

TUNING DEVICES--RECEIVER, MECHANICAL

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE ... **N Y**
AUTOMATION DEVELOPMENT CO, CULVER CITY ... **CAL**
JFD ELECTRONICS CO, COMPONENTS DIV, BROOKLYN ... **N Y**
MALLORY & CO INC, P R, INDIANAPOLIS ... **IND**
MITSUMI ELECTRIC CO LTD, TOKYO ... **JAPAN**
American Time Products, Elctns Div Bulova Watch Co Inc Woodside ... N Y
Automation Development Co, Culver City ... Cal
Avco Corp Electronics Div, Cincinnati ... Ohio
Barden Co, Hermosa Beach ... Cal
Cardwell Condenser Corp, Lindenhurst ... N Y
Hopt KG, R E, Rottweil a Neckar ... Germany
Impectron Inc, New York ... N Y
Instru-Lec Corp, Mt Vernon ... N Y
JFD Electronics Co, Components Div, Brooklyn ... N Y
Mallory & Co Inc, P R, Indianapolis ... Ind
Mallory Timers Co, Indianapolis ... Ind
Mitsumi Electric Co Ltd, Tokyo ... Japan
Squires-Sanders Inc, Liberty Corner ... N J
TRW Electronic Components Div TRW Inc, Camden ... N J
United Shoe Machinery Corp, Harmonic Drive Div Beverly ... Mass
Waller Corp, Crystal Lake ... Ill

TUNING DEVICES--TRANSMITTER, MECHANICAL

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO INC, WOODSIDE ... **N Y**
AUTOMATION DEVELOPMENT CO, CULVER CITY ... **CAL**
American Time Products, Elctns Div Bulova Watch Co Inc Woodside ... N Y
Automation Development Co, Culver City ... Cal
Avco Corp Electronics Div, Cincinnati ... Ohio
Barden Co, Hermosa Beach ... Cal
Cardwell Condenser Corp, Lindenhurst ... N Y
Gillette Electronic Products Co, Beverly ... N J
Hayakawa Electric Co Ltd, Osaka ... Japan
Industron Corp, Needham Heights ... Mass
Instru-Lec Corp, Mt Vernon ... N Y
Trans-Tek Mfg Co Inc, Garwood ... N J
TRW Electronic Components Div TRW Inc, Camden ... N J
United Shoe Machinery Corp, Harmonic Drive Div Beverly ... Mass

TUNING FORK OSCILLATORS SEE OSCILLATORS--A-F

TUNING FORKS SEE FORKS

TURNTABLE SEE PHONOGRAPHS

TV BROADCAST STATION ANTENNAS SEE ANTENNAS--BROADCAST STATION

TV CAMERAS SEE CAMERAS--TV

TV RECEIVERS SEE RECEIVERS--TV

TV RECEIVING ANTENNAS SEE ANTENNAS--TV,RECEIVING

TV SIGNAL GENERATORS SEE GENERATORS--SIGNAL

TV SYSTEMS, CLOSED CIRCUIT-- EDUCATIONAL

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... **JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO ... **JAPAN**
SPENCER-KENNEDY LABS INC, BOSTON ... **MASS**
Ameco Inc, Phoenix ... Ariz
Ampex Corp, Redwood City ... Cal
Amphicon Systems Inc, Moonachie ... N J
A V Electronics, Inc, Fresno ... Cal
Bendix Corp, Communications Div, Towson ... Md
Blonder-Tongue Labs Inc, Newark ... N J
Canadian Marconi Co, Montreal 16 ... Quebec
Canadian Motorola Electronics Co, Agincourt ... Ont
Canoga Electronics Corp, Chatsworth ... Cal
C B S Labs Div Columbia Bdcstg Sys Inc Stamford ... Conn
Central Dynamics Ltd, Pte Claire ... Que
Centurion Products Div, St Louis ... Mo
Channel Master Corp, Ellenville ... N Y
Cohu Electronics Inc, San Diego ... Cal
Concord Electronics Corp, Los Angeles ... Cal
Conrac Corp, New York ... N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles ... France
Cunningham Son & Co Inc, James, Honeoye Falls ... N Y
Dalto Electronics Corp, Norwood ... N J
Dbm Research Corp, Cocoa Beach ... Fla
Diamond Power Sub Babcock & Wilcox Lancaster ... Ohio
Dynair Electronics Inc, San Diego ... Cal
Dynasciences Corp, Blue Bell ... Pa
Electronics Missiles & Communications Inc White Haven ... Pa
EMI Electronics Ltd, Hayes, Middlesex ... England
Entron Inc, Silver Spring ... Md
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus ... N J
F & M Systems Co, Div Fischbach & Moore, Inc Dallas ... Tex
General Television Network, Ferndale ... Mich
GPL Div Gen Precision Systems Inc, Pleasantville ... N Y
Hayakawa Electric Co Ltd, Osaka ... Japan
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa ... Japan
Inelco S p A, Tavernerio ... Italy
I T I Electronics Inc, Clifton ... N J
Jerrold Electronics Corp, Philadelphia ... Pa
Kalart Co Inc, Plainville ... Conn
K L A Labs Inc, Detroit ... Mich
Kobe Industries Corp, Kobe ... Japan
Lake Systems Corp, Newton ... Mass
Lindsay Specialty Products Ltd, Lindsay ... Ontario
Litton Educational Technology Div, White Plains ... N Y
Marconi Co Ltd, Chelmsford ... England
Marconi Div, English Electric Corp, New York ... N Y
Maryland Telecommunications Inc, Cockeysville ... Md
Matsushita Electric Industrial Co Ltd, Osaka ... Japan
Micro-Link Systems, Varian Assoc, Copiague ... NY
Monitor Systems Inc, Fort Washington ... Pa
Motorola Communications & Electronics Div Chicago ... Ill
MVR Corp, Palo Alto ... Cal
Nelson-Hershfield Electronics Co, Phoenix ... Ariz
Nippon Electric Co Ltd, Tokyo ... Japan
Packard Bell Electronics, Closed Circuit TV Prods Newbury Park ... Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Pierpont Television Co, Birmingham ... Ala
Precision Mecanique Labinal, 93 Saint-Ouen ... France
Radio Corp of America, Comml Elctn Prods Div Camden ... N J
Raytheon Learning Systems Co, Michigan City ... Ind
RCA, Defense Electronic Products, Moorestown ... N J
Riker Video Div, Hauppauge ... N Y
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington ... Ind
Schneider Radio-Television Div, Ivry ... France
Shiba Electric Co Ltd, Woodside ... N Y
Shrader Sound Inc, Washington ... D C
Spencer-Kennedy Labs Inc, Boston ... Mass
Superior Continental Corp, Hickory ... N C
Surface Conduction Inc, New York ... N Y
Sylvania Electric Prods Inc, Coml Elctns Div Bedford ... Mass
Technical Materiel Corp, Mamaroneck ... N Y
Tele Measurements Inc, Clifton ... N J
Telemet Co, Video Prods & Airborne Telemetry Amityville ... N Y
Tel-Instrument Electronics Corp, Carlstadt ... N J
Thomson Electric Co, Sub Cie Fran Thomson Houston New York ... N Y
T M C Systems & Power Corp, Springfield ... Va
Varian, Palo Alto ... Cal
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh ... Pa
Winegard Co, Burlington ... Iowa

TV SYSTEMS, CLOSED CIRCUIT-- ENTERTAINMENT

NIPPON ELECTRIC CO LTD, TOKYO ... **JAPAN**
SPENCER-KENNEDY LABS INC, BOSTON ... **MASS**
Ampex Corp, Redwood City ... Cal
Amphicon Systems Inc, Moonachie ... N J
A V Electronics, Inc, Fresno ... Cal
Bendix Corp, Communications Div, Towson ... Md
Blonder-Tongue Labs Inc, Newark ... N J
Centurion Products Div, St Louis ... Mo
Channel Master Corp, Ellenville ... N Y
Communication Dynamics Corp, Yonkers ... N Y
Concord Electronics Corp, Los Angeles ... Cal
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles ... France
Dalto Electronics Corp, Norwood ... N J
Dbm Research Corp, Cocoa Beach ... Fla
Diamond Power Sub Babcock & Wilcox Lancaster ... Ohio
Dynair Electronics Inc, San Diego ... Cal
Dynasciences Corp, Blue Bell ... Pa
Electra Tronics Inc, Cocoa ... Fla
EMI Electronics Ltd, Hayes, Middlesex ... England
Entron Inc, Silver Spring ... Md
F & M Systems Co, Div Fischbach & Moore, Inc Dallas ... Tex
General Television Network, Ferndale ... Mich
GPL Div Gen Precision Systems Inc, Pleasantville ... N Y
Hayakawa Electric Co Ltd, Osaka ... Japan
Inelco S p A, Tavernerio ... Italy
Jerrold Electronics Corp, Philadelphia ... Pa
Kalart Co Inc, Plainville ... Conn
K L A Labs Inc, Detroit ... Mich
Lake Systems Corp, Newton ... Mass
Marconi Co Ltd, Chelmsford ... England
Marconi Div, English Electric Corp, New York ... N Y
Maryland Telecommunications Inc, Cockeysville ... Md
Midland International Corp, North Kansas City ... Mo
MVR Corp, Palo Alto ... Cal
Nelson-Hershfield Electronics Co, Phoenix ... Ariz
Nippon Electric Co Ltd, Tokyo ... Japan
Packard Bell Electronics, Closed Circuit TV Prods Newbury Park ... Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Radio Corp of America, Comml Elctn Prods Div Camden ... N J
Raytheon Learning Systems Co, Michigan City ... Ind
Riker Video Div, Hauppauge ... N Y
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington ... Ind
Schneider Radio-Television Div, Ivry ... France
Shiba Electric Co Ltd, Woodside ... N Y
Shrader Sound Inc, Washington ... D C
Spencer-Kennedy Labs Inc, Boston ... Mass
Superior Continental Corp, Hickory ... N C
Surface Conduction Inc, New York ... N Y
Sylvania Electric Prods Inc, Coml Elctns Div Bedford ... Mass
Technical Materiel Corp, Mamaroneck ... N Y
Tele Measurements Inc, Clifton ... N J
Thomson Electric Co, Sub Cie Fran Thomson Houston New York ... N Y
T M C Systems & Power Corp, Springfield ... Va
Winegard Co, Burlington ... Iowa

TV SYSTEMS, CLOSED CIRCUIT-- INDUSTRIAL

GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... **ADV PGS 7**
HAMAMATSU TV CO LTD, SHIZUOKA ... **PRE JAPAN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... **JAPAN**
MITSUBISHI ELECTRIC CORP, TOKYO ... **JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO ... **JAPAN**
SPENCER-KENNEDY LABS INC, BOSTON ... **MASS**
Admiral Corp, Gov Electronics Div, Chicago ... Ill
Ampex Corp, Redwood City ... Cal
Amphicon Systems Inc, Moonachie ... N J
A V Electronics, Inc, Fresno ... Cal
Ball Brothers Research Corp, Boulder ... Colo
Bendix Corp, Communications Div, Towson ... Md
Blonder-Tongue Labs Inc, Newark ... N J
Brown Engineering-A Teledyne Co, Huntsville ... Ala
Canadian Marconi Co, Montreal 16 ... Quebec
Canadian Motorola Electronics Co, Agincourt ... Ont
Canoga Electronics Corp, Chatsworth ... Cal
Centurion Products Div, St Louis ... Mo
Channel Master Corp, Ellenville ... N Y
Cohu Electronics Inc, San Diego ... Cal
Colorado Video Inc, Boulder ... Colo
Concord Electronics Corp, Los Angeles ... Cal
Conrac Corp, New York ... N Y
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles ... France

Cunningham Son & Co Inc, James, Honeoye Falls	N Y
Dalmo Victor, A Textron Div, Belmont	Cal
Dalto Electronics Corp, Norwood	N J
Dbm Research Corp, Cocoa Beach	Fla
Diamond Power Sub Babcock & Wilcox Lancaster	Ohio
Dynair Electronics Inc, San Diego	Cal
Dynasciences Corp, Blue Bell	Pa
EMI Electronics Ltd, Hayes, Middlesex	England
Entron Inc, Silver Spring	Md
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp, Paramus	N J
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
General Electric Co, ECSO, Schenectady	N Y
General Electrodynamics Corp, Garland	Tex
General Television Network, Ferndale	Mich
GPL Div Gen Precision Systems Inc, Pleasantville	N Y
Hamamatsu TV Co Ltd, Shizuoka	Pre Japan
Hayakawa Electric Co Ltd, Osaka	Japan
Hydro Products Div Dillingham Corp, San Diego	Cal
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
Inelco S p A, Tavernerio	Italy
ITT Industrial Labs Div, Fort Wayne	Ind
Jerrold Electronics Corp, Philadelphia	Pa
Kalart Co Inc, Plainville	Conn
K L A Labs Inc, Detroit	Mich
Kobe Industries Corp, Kobe	Japan
Lake Systems Corp, Newton	Mass
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Maryland Telecommunications Inc, Cockeysville	Md
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Midland International Corp, North Kansas City	Mo
Mitsubishi Electric Corp, Tokyo	Japan
Monitor Systems Inc, Fort Washington	Pa
Montedoro Corp, San Luis Obispo	Cal
Motorola Communications & Electronics Div Chicago	Ill
MVR Corp, Palo Alto	Cal
Nelson-Hershfield Electronics Co, Phoenix	Ariz
Nippon Electric Co Ltd, Tokyo	Japan
Olympus Corp of America, Rochester	N Y
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Packard Bell Electronics, Closed Circuit TV Prods Newbury Park	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pierpont Television Co, Birmingham	Ala
Precision Mecanique Labinal, 93 Saint-Ouen	France
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Raytheon Learning Systems Co, Michigan City	Ind
RCA, Defense Electronic Products, Moorestown	N J
Riker Video Div, Hauppauge	N Y
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Schneider Radio-Television Div, Ivry	France
Shiba Electric Co Ltd, Woodside	N Y
Shrader Sound Inc, Washington	D C
Spencer-Kennedy Labs Inc, Boston	Mass
States Electronics Corp, Bludworth Marine Div Linden	N J
Superior Continental Corp, Hickory	N C
Surface Conduction Inc, New York	N Y
Sylvania Electric Prods Inc, Coml Elctns Div Bedford	Mass
Technical Materiel Corp, Mamaroneck	N Y
Tele Measurements Inc, Clifton	N J
Telemet Co, Video Prods & Airborne Telemetry Amityville	N Y
Thomson Electric Co, Sub Cie Fran Thomson Houston New York	N Y
T M C Systems & Power Corp, Springfield	Va
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh	Pa

TV SYSTEMS, CLOSED CIRCUIT-- MEDICAL

HAMAMATSU TV CO LTD, SHIZUOKA	**PRE JAPAN**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
Admiral Corp, Gov Electronics Div, Chicago	Ill
Ampex Corp, Redwood City	Cal
Amphicon Systems Inc, Moonachie	N J
A V Electronics, Inc, Fresno	Cal
Bendix Corp, Communications Div, Towson	Md
Bionic Instruments Inc, Bala Cynwyd	Pa
Blonder-Tongue Labs Inc, Newark	N J
Brown Engineering-A Teledyne Co, Huntsville	Ala
Canadian Motorola Electronics Co, Agincourt	Ont
Canoga Electronics Corp, Chatsworth	Cal
C B S Labs Div Columbia Bdcstg Sys Inc Stamford	Conn
Centurion Products Div, St Louis	Mo
Channel Master Corp, Ellenville	N Y
Cohu Electronics Inc, San Diego	Cal
Colorado Video Inc, Boulder	Colo
Concord Electronics Corp, Los Angeles	Cal
Conrac Corp, New York	N Y
Dalto Electronics Corp, Norwood	N J
Diamond Power Sub Babcock & Wilcox Lancaster	Ohio
Dynair Electronics Inc, San Diego	Cal
Dynasciences Corp, Blue Bell	Pa
Electronics Missiles & Communications Inc White Haven	Pa
EMI Electronics Ltd, Hayes, Middlesex	England
Fairchild Space & Defense Sys Div Fairchild Cam & Instr Corp; Paramus	N J
F & M Systems Co, Div Fischbach & Moore, Inc Dallas	Tex
General Electrodynamics Corp, Garland	Tex
General Television Network, Ferndale	Mich
GPL Div Gen Precision Systems Inc, Pleasantville	N Y
Hamamatsu TV Co Ltd, Shizuoka	Pre Japan
Hayakawa Electric Co Ltd, Osaka	Japan
Ikegami Tsushinki Co Ltd, Kawasaki, Kanagawa	Japan
Inelco S p A, Tavernerio	Italy
Jerrold Electronics Corp, Philadelphia	Pa
Kalart Co Inc, Plainville	Conn
Keleket Div Laboratory For Electronics Inc Waltham	Mass
K L A Labs Inc, Detroit	Mich
Kobe Industries Corp, Kobe	Japan
Kollsman Instrument Corp, Syosset	N Y
Lake Systems Corp, Newton	Mass
Lear Siegler Inc, Electronic Instrumentation Div Anaheim	Cal
Marconi Co Ltd, Chelmsford	England
Marconi Div, English Electric Corp, New York	N Y
Maryland Telecommunications Inc, Cockeysville	Md
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Mitsubishi Electric Corp, Tokyo	Japan
Motorola Communications & Electronics Div Chicago	Ill
MVR Corp, Palo Alto	Cal
Nelson-Hershfield Electronics Co, Phoenix	Ariz
Nippon Electric Co Ltd, Tokyo	Japan
Olympus Corp of America, Rochester	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Picker Nuclear, White Plains	N Y
Pierpont Television Co, Birmingham	Ala
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Raytheon Learning Systems Co, Michigan City	Ind
RCA, Defense Electronic Products, Moorestown	N J
Riker Video Div, Hauppauge	N Y
Sarkes Tarzian Inc, Broadcast Equip Div Bloomington	Ind
Schneider Radio-Television Div, Ivry	France
Sharp Electronics Corp, Carlstadt	N J
Shiba Electric Co Ltd, Woodside	N Y
Spencer-Kennedy Labs Inc, Boston	Mass
Standard X-Ray Co, Chicago	Ill
Superior Continental Corp, Hickory	N C
Surface Conduction Inc, New York	N Y
Sylvania Electric Prods Inc, Coml Elctns Div Bedford	Mass
Technical Materiel Corp, Mamaroneck	N Y
Tele Measurements Inc, Clifton	N J
Thomson Electric Co, Sub Cie Fran Thomson Houston New York	N Y
Vue-Tronics Inc, Van Nuys	Cal
Westinghouse Electric Corp, Scien & Electro Optical Equip Dept, Pittsburgh	Pa
Zenith Radio Co Govt & Special Prod Div, Chicago	Ill

Upset Stomach?

If you're looking for a remedy and you can't remember the name of a fast-acting brand, just consult the Trade Name Directory in your Electronics Buyers' Guide. You'll have your answer in seconds. EBG also has a Directory of Products and a Directory of Manufacturers and Sales Offices. Use it often.

Electronics Buyers' Guide

TV TRANSMITTERS SEE TRANSMITTERS--BROADCAST

TV TUNERS SEE TUNERS

TV TWIN-LINES SEE CABLES--UNSHIELDED

TWEETERS SEE SPEAKERS

TWISTS--WAVEGUIDE SEE WAVEGUIDE FITTINGS

UHF ANTENNAS SEE ANTENNAS--COMMUNICATION;ANTENNAS--TV

UHF CABLES--SHIELDED SEE CABLES--SHIELDED

UHF CABLES--UNSHIELDED SEE CABLES--UNSHIELDED

UHF GENERATORS SEE GENERATORS--SIGNAL

UHF RECEIVERS SEE RECEIVERS--RADIOCOMMUNICATION

UHF SYSTEMS SEE COMMUNICATION SYSTEMS

UHF TRANSMITTERS SEE TRANSMITTERS--RADIOCOMMUNICATION

UHF TUNERS SEE TUNERS

UHF TV CONVERTERS SEE CONVERTERS--SIGNAL

ULF OSCILLATORS SEE OSCILLATORS--A-F

ULTRASONIC EQUIPMENT--AMPLIFIERS

C M L INC, PLAINFIELD	**N J**
ITHACO INC, ITHACA	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
Acoustica Associates Inc, Los Angeles	Cal
Arenberg Ultrasonic Lab, Inc, Jamaica Plain	Mass
Audn Corp, Hamburg	N Y
Clavier Corp, Richmond Hill	NY
C M L Inc, Plainfield	N J
Digital Devices Inc, Syosset	N Y
Digitrol Systems Inc, Amenia	N Y
Dinsmore Instrument Co, Flint	Mich
Electronic Applications Co, Pine Brook	N J
Hayakawa Electric Co Ltd, Osaka	Japan
Ithaco Inc, Ithaca	N Y
Krohn-Hite Corp, Cambridge	Mass
Matec Inc, Warwick	R I
Nippon Electric Co Ltd, Tokyo	Japan
Perfectone Sound Labs, Allendale	NJ
Rich Electronics Inc, Miami	Fla
Sensor Corp, Greenwich	Conn
Spencer-Kennedy Labs Inc, Boston	Mass
Straza Industries Div Ametek Inc, El Cajon	Cal
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan
Union Ultra-Sonics Corp, Lowell	Mass
Varo Inc, Garland	Tex

ULTRASONIC EQUIPMENT--ANALYZERS

NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
SPENCER-KENNEDY LABS INC, BOSTON	**MASS**
TRACOR INC, AUSTIN	**TEX**
AIM Electronics Ltd, Cambridge	U K
Automation Products, Inc, Houston	Tex
Burnett Electronics Lab Inc, San Diego	Cal
Chesapeake Instrument Corp, Shadyside	Md
Federal Scientific Corp, New York	N Y
General Radio Co, West Concord	Mass
Lab Electro-Acoustique, 92 Rueil-Malmaison	France
Magnaflux Corp, Chicago	Ill
Matec Inc, Warwick	R I
Microwave Instruments Co, Corona del Mar	Cal
Nippon Electric Co Ltd, Tokyo	Japan
NUS Corp, Underwater Sys Div, Paramus	N J
Probescope Co Inc, Syosset	N Y
Quan-Tech Labs Inc, Whippany	N J
Singer Co, Metrics Div, Bridgeport	Conn
Spencer-Kennedy Labs Inc, Boston	Mass
Straza Industries Div Ametek Inc, El Cajon	Cal
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taylor Instrument Cos, Rochester	N Y
Tracor Inc, Austin	Tex

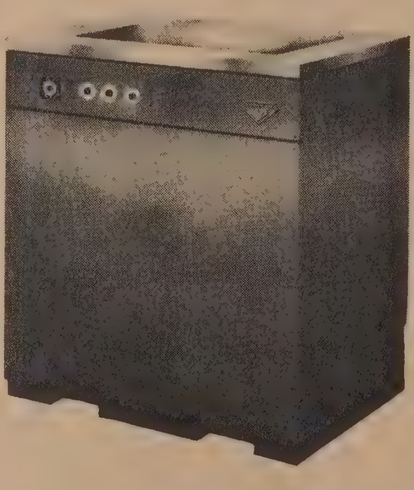
Looking for total flexibility in ultrasonics?

Look to Blackstone.

BPO/CT.5 Ultrasonic Kit

This new Blackstone Kit is the perfect laboratory combination of ultrasonic probe and cleaner with interchangeable single generator. Probe is ideally suited for cell disruption of small biological samples, dispersal of steroids, degassing and de-aeration of viscous fluids and acceleration of chemical reactions. It disrupts pills with a water-insoluble coating in one minute with 100% recovery for analysis. Probe can be carried from sample to sample for unsurpassed ease in reaching all areas of your work. Cleaning tank enables precision scrubbing of contaminated small parts and instruments. Solid state, 50 watt generator allows from 0 to 100% power control for selecting the most efficient power output.

New from Blackstone VE6.5-2



Critical cleaning problems disappear quickly and completely with Blackstone Ultrasonics' new VE units. Printed circuit boards, aircraft components, automotive bearings and carburetors, diesel parts, electric motors and many other applications.

Units feature both ultrasonic and vapor rinse, 300 series stainless steel tanks, 0 to 100% power control (optional), 5-micron filtering, solid-state, automatically tuned generators and up-front service for easy access to controls.

Let us solve your problem: Tell us what you have to process, or send us a sample. We'll tell you how to do it and lower your costs. Special ultrasonic processes and recommendations developed at no charge.

BLACKSTONE ULTRASONICS Inc.
1400 Howard Street • Sheffield, Pa.

ULTRASONIC EQUIPMENT--CLEANERS

BLACKSTONE ULTRASONICS INC, SHEFFIELD PA	**ADV PG 782**
CLEVITE CORP PIEZOELECTRIC DIV, BEDFORD	**OHIO**
KRESSILK PRODUCTS INC, ELMSFORD	**N Y**
Acoustica Associates Inc, Los Angeles	Cal
Advanced Purification System Co Inc, Great Neck	N Y
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Alcatel, Paris 8eme	France
Amsco Industrial Co Div Amer Sterilizer Co, Erie	Pa
Aviation Electric Ltd, St Laurent, Montreal	Que
Bausch & Lomb, Inc, Rochester	N Y
Beckman Instruments Inc, Fullerton,	Cal
Blackstone Ultrasonics Inc, Sheffield	Pa
Branson Equipment Div, Clark	N J
Branson Instruments Co, Stamford	Conn
Bronwill Scientific, Rochester	N Y
Bulova Watch Co Inc, Watchmaster Products Div Jackson Heights	N Y
Chemclean Corp, College Point	N Y
Clarkson Labs Inc, Camden	NJ
Clean Room Products Inc, Farmingdale	N Y
Clevite Corp Piezoelectric Div, Bedford	Ohio
Commander Labs Inc, Escondido	Cal
Conrac Corp, New York	N Y
Crest Ultrasonics Corp, Trenton	N J
Dawe Instruments Ltd, London W3	England
Delta Coils, Philadelphia	Pa
Delta Sonics Inc, Hawthorne	Cal
DoAll Co, Des Plaines	Ill
Dynasonics Corp, Pipestone	Minn
Eastern Specialty Co, Philadelphia	Pa
Electrovert Inc, Mt Vernon	N Y
Evans Equipment Co, Brookfield	Conn
General Kinetics Inc, Reston	Va
Geoscience Instruments Corp, Mt Vernon	N Y
Gulton Industries Inc, Metuchen	N J
Injectorall Electronics Corp, Great Neck	NY
Interlab Inc, Pleasantville	N Y
International Electronics Corp, Melville	NY
International Scanatron Systems Corp, Wyandanch	N Y
Jadow & Sons Inc, B, New York	N Y
Janel Inc, Stirling	N J
Kokusai Electric Co Ltd, Tokyo	Japan
Kressilk Products Inc, Elmsford	N Y
Lewis Corp, Woodbury	Conn
L & R Mfg Co, Kearny	N J
Macrosonics Corp, Rahway	NJ
Mann Co, Henry, Cornwell Heights	Pa
Marcal Electro-Sonics, Burbank	Cal
Mettler Electronics Corp, Pasadena	Cal
Micronics Corp of America, Providence	RI
Multisonic Cleaning Systems, Cleveland	Ohio
Nuclear Equipment Chemical Corp, Farmingdale	N Y
Oakite Products Inc, Berkeley Heights	N J
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Phillips Mfg Co, Chicago	Ill
Phoenix Materials Corp, Monroeville	Pa
Powerton Div Conrac Corp, Plainview	N Y
Ramyr Mfg Co, Buena Park	Cal
Redford Corp, Latham	N Y
Sara Scientific Co, San Francisco	Cal
Sel-Rex Corp & Sub The Meaker Co, Nutley	N J
Sharp Electronics Corp, Carlstadt	N J
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Techni-Tool Inc, Philadelphia	Pa
Tronic Corp, Belmont	Cal
Ultrasonic Appliances of America Inc, Lindenhurst	N Y
Ultrasonic Devices Inc, Deer Park	NY
Union Ultra-Sonics Corp, Lowell	Mass
Varian Aerograph, Walnut Creek	Cal
Westinghouse Electric Corp Indus Equip Div Baltimore	Md
Wheelabrator Corp Wheelabrator Div, Mishawaka	Ind

ULTRASONIC EQUIPMENT--CONTROLS

Abtronics, Inc, Livermore	Cal
Acoustica Associates Inc, Los Angeles	Cal
Alcatel, Paris 8eme	France
Audn Corp, Hamburg	N Y
Automation Products, Inc, Houston	Tex
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Conrac Corp, New York	N Y
Cutler-Hammer Inc, Milwaukee	Wisc
Delavan Mfg Co, West Des Moines	Iowa
Digitrol Systems Inc, Amenia	N Y
Dynasonics Corp, Pipestone	Minn
Electronic Control Corp, Detroit	Mich
Euphonics Corp, Guaynabo	P R
General Railway Signal Co, Rochester	N Y
Matec Inc, Warwick	R I
National Sonics Corp, Farmingdale	N Y
Rich Electronics Inc, Miami	Fla
Schlumberger, 92-Montrouge 32	France
Sensor Corp, Greenwich	Conn

ULTRASONIC EQUIPMENT--FLAW DETECTORS

Alden Electronic & Impulse Recording Equip Co Inc Westboro	Mass
Arenberg Ultrasonic Lab, Inc, Jamaica Plain	Mass
Automation Industries Inc, Nondestructive Testing Div, Danbury	Conn
Branson Instruments Co, Stamford	Conn

Burnett Electronics Lab Inc, San Diego	Cal
Dawe Instruments Ltd, London W3	England
Delta Sonics Inc, Hawthorne	Cal
Gilardoni S p A, Mandello Lario Como	Italy
Krautkramer Ultrasonics Inc, Stratford	Conn
Magnaflux Corp, Chicago	Ill
Microwave Instruments Co, Corona del Mar	Cal
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Tac Technical Instrument Corp, Trenton	N J
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan

ULTRASONIC EQUIPMENT--GENERATORS (OSCILLATORS)

C M L INC, PLAINFIELD	**N J**
ELGENCO INC, SANTA MONICA	**CAL**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Acoustica Associates Inc, Los Angeles	Cal
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Alcatel, Paris 8eme	France
Arenberg Ultrasonic Lab, Inc, Jamaica Plain	Mass
Audn Corp, Hamburg	N Y
Branson Instruments Co, Stamford	Conn
Bronson Corp, Sub Kurz & Root Co, Appleton	Wisc
Bronwill Scientific, Rochester	N Y
Cavitron Ultrasonics Div Cavitron Corp Long Island City	N Y
C M L Inc, Plainfield	N J
Conrac Corp, New York	N Y
Delta Sonics Inc, Hawthorne	Cal
Digitrol Systems Inc, Amenia	N Y
Dynaelectron Corp Aerospace Prods Div San Leandro	Cal
Electronic Applications Co, Pine Brook	N J
Elgenco Inc, Santa Monica	Cal
General Radio Co, West Concord	Mass
Gulton Industries Inc, Metuchen	N J
Interlab Inc, Pleasantville	N Y
International Electronics Corp, Melville	NY
James Electronics Inc, Chicago	Ill
Kokusai Electric Co Ltd, Tokyo	Japan
Lewis Corp, Woodbury	Conn
Macrosonics Corp, Rahway	NJ
Marcal Electro-Sonics, Burbank	Cal
Matec Inc, Warwick	R I
Muirhead Instruments Inc, Mountainside	N J
Multisonic Cleaning Systems, Cleveland	Ohio
Nippon Electric Co Ltd, Tokyo	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Powerton Div Conrac Corp, Plainview	N Y
Redford Corp, Latham	N Y
Rich Electronics Inc, Miami	Fla
Rowe Industries Inc, Toledo	Ohio
Sensor Corp, Greenwich	Conn
Tac Technical Instrument Corp, Trenton	N J
Tamura Seisakusho Co, Ltd, Nerima-Ku, Tokyo	Japan
Ultrasonic Appliances of America Inc, Lindenhurst	N Y
Ultrasonic Devices Inc, Deer Park	NY
Union Ultra-Sonics Corp, Lowell	Mass
Varo Inc, Garland	Tex
Westinghouse Electric Corp Indus Equip Div Baltimore	Md

ULTRASONIC EQUIPMENT--INSTRUMENTS

BLACKSTONE ULTRASONICS INC, SHEFFIELD	**PA**
DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
ELGENCO INC, SANTA MONICA	**CAL**
HEWLETT-PACKARD, PALO ALTO	**CAL**
SORENSEN OPERATION, RAYTHEON CO., NORWALK	**CONN**
Acoustica Associates Inc, Los Angeles	Cal
Alcatel, Paris 8eme	France
Alden Electronic & Impulse Recording Equip Co Inc Westboro	Mass
Arenberg Ultrasonic Lab, Inc, Jamaica Plain	Mass
Audn Corp, Hamburg	N Y
Automation Industries Inc, Nondestructive Testing Div, Danbury	Conn
Birtcher Corp Medical Div, Los Angeles	Cal
Blackstone Ultrasonics Inc, Sheffield	Pa
Branson Instruments Co, Stamford	Conn
Bronwill Scientific, Rochester	N Y
Burnett Electronics Lab Inc, San Diego	Cal
Dawe Instruments Ltd, London W3	England
Delavan Mfg Co, West Des Moines	Iowa
Delta Sonics Inc, Hawthorne	Cal
Digitrol Systems Inc, Amenia	N Y
Dranetz Engineering Labs Inc, Plainfield	N J
Dynasonics Corp, Pipestone	Minn
E G & G Int'l Inc Geodyne Div, Waltham	Mass
Elgenco Inc, Santa Monica	Cal
Geodyne Div EG&G Int'l, Waltham	Mass
Hewlett-Packard, Palo Alto	Cal
International Scanatron Systems Corp, Wyandanch	N Y
James Electronics Inc, Chicago	Ill
Krautkramer Ultrasonics Inc, Stratford	Conn
Macrosonics Corp, Rahway	NJ
Magnaflux Corp, Chicago	Ill
Matec Inc, Warwick	R I
Mechanical Technology Inc, Latham	N Y
Microwave Instruments Co, Corona del Mar	Cal
National Sonics Corp, Farmingdale	N Y
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
NUS Corp, Underwater Sys Div, Paramus	N J
Ramsay Engineering Co, Anaheim	Cal
Raytheon Co, Marine Products Operation S San Francisco	Cal
Raytheon Co Production Equip Dept, Norwalk	Conn
Rich Electronics Inc, Miami	Fla
Sorensen Operation, Raytheon Co., Norwalk	Conn
Straza Industries Div Ametek Inc, El Cajon	Cal
Techsonics, Taos	N M
Ultrasonic Appliances of America Inc, Lindenhurst	N Y
Ultrasonic Devices Inc, Deer Park	NY

ULTRASONIC EQUIPMENT--SOLDERING TOOLS

Alcatel, Paris 8eme	France
Branson Sonic Power Co, Danbury	Conn
Bronwill Scientific, Rochester	N Y
Delta Sonics Inc, Hawthorne	Cal
Electrovert Inc, Mt Vernon	N Y
Gulton Industries Inc, Metuchen	N J
Interlab Inc, Pleasantville	N Y
International Electronics Corp, Melville	NY
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Redford Corp, Latham	N Y
Sonobond Corp, West Chester	Pa

ULTRASONIC EQUIPMENT--STERILIZERS, MEDICAL

Acoustica Associates Inc, Los Angeles	Cal
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Alcatel, Paris 8eme	France
De Vilbiss Co, Toledo	Ohio
International Rectifier Semiconductor Div El Segundo	Cal
Nuclear Enterprises Ltd, Edinburgh 11	Scotland
Powerton Div Conrac Corp, Plainview	N Y
Ultrasonic Appliances of America Inc, Lindenhurst	N Y
Ultrasonic Devices Inc, Deer Park	NY
Union Ultra-Sonics Corp, Lowell	Mass

ULTRASONIC EQUIPMENT--THICKNESS GAGES

Alcatel, Paris 8eme	France
Astro-Space Labs Inc, Huntsville	Ala
Automation Industries Inc, Nondestructive Testing Div, Danbury	Conn
Branson Instruments Co, Stamford	Conn
Dawe Instruments Ltd, London W3	England
Delta Sonics Inc, Hawthorne	Cal
Gilardoni S p A, Mandello Lario Como	Italy
Krautkramer Ultrasonics Inc, Stratford	Conn
Magnaflux Corp, Chicago	Ill
Microwave Instruments Co, Corona del Mar	Cal
Schlumberger, 92-Montrouge 32	France
Teikoku Tsushin Kogyo Co, Ltd, Kawasaki City	Japan

ULTRASONIC EQUIPMENT--TRANSDUCERS, CRYSTAL

CLEVITE CORP PIEZOELECTRIC DIV, BEDFORD	**OHIO**
Acoustica Associates Inc, Los Angeles	Cal
Alcatel, Paris 8eme	France
Automation Industries Inc, Nondestructive Testing Div, Danbury	Conn
Branson Instruments Co, Stamford	Conn
Bronwill Scientific, Rochester	N Y
Channel Industries Inc, Santa Barbara	Cal
Clevite Corp Piezoelectric Div, Bedford	Ohio
Commander Labs Inc, Escondido	Cal
Crest Ultrasonics Corp, Trenton	N J
Delta Sonics Inc, Hawthorne	Cal
Dynasonics Corp, Pipestone	Minn
Edo Corp, College Point	NY
Edo Western Corp, Salt Lake City	Utah
Electra Scientific Div Gulton Indus Inc, Fullerton	Cal
Gulton Industries Inc, Metuchen	N J
International Transducer Corp, Goleta	Cal
Kistler Instrument Corp, Clarence	N Y
Kokusai Electric Co Ltd, Tokyo	Japan
Krautkramer Ultrasonics Inc, Stratford	Conn
Linden Labs Inc, State College	Pa
Macrosonics Corp, Rahway	NJ
Magnaflux Corp, Chicago	Ill
Massa Div Dynamics Corp of America, Hingham	Mass
Multisonic Cleaning Systems, Cleveland	Ohio
NUS Corp, Underwater Sys Div, Paramus	N J
Powerton Div Conrac Corp, Plainview	N Y
Quartz & Silice, Paris 8 eme	France
Redford Corp, Latham	N Y
Straza Industries Div Ametek Inc, El Cajon	Cal
Ultrasonic Appliances of America Inc, Lindenhurst	N Y

ULTRASONIC EQUIPMENT--TRANSDUCERS, MAGNETOSTRICTIVE

MURATA MFG CO, LTD, KYOTO	**JAPAN**
TOHOKU METAL INDUSTRIES, LTD, TOKYO	**JAPAN**
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
Alcatel, Paris 8eme	France
Cavitron Ultrasonics Div Cavitron Corp Long Island City	N Y
Commander Labs Inc, Escondido	Cal
Conrac Corp, New York	N Y
Control Electronics Co Inc, Farmingdale	N Y
Crest Ultrasonics Corp, Trenton	N J
Delavan Mfg Co, West Des Moines	Iowa
Digital Devices Inc, Syosset	N Y
Kokusai Electric Co Ltd, Tokyo	Japan
Krautkramer Ultrasonics Inc, Stratford	Conn
Lewis Corp, Woodbury	Conn
Massa Div Dynamics Corp of America, Hingham	Mass
Murata Mfg Co, Ltd, Kyoto	Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Redford Corp, Latham	N Y
States Electronics Corp, Bludworth Marine Div Linden	N J
Tohoku Metal Industries, Ltd, Tokyo	Japan
Ultrasonic Appliances of America Inc, Lindenhurst	N Y
Ultrasonic Devices Inc, Deer Park	NY
Union Ultra-Sonics Corp, Lowell	Mass
Westinghouse Electric Corp Indus Equip Div Baltimore	Md

ULTRASONIC EQUIPMENT--VIBRATORS & DRILLS

SORENSEN OPERATION, RAYTHEON CO., NORWALK	**CONN**
TOHOKU METAL INDUSTRIES, LTD, TOKYO	**JAPAN**
Alcatel, Paris 8eme	France
Cavitron Ultrasonics Div Cavitron Corp Long Island City	N Y
Dawe Instruments Ltd, London W3	England
Delta Sonics Inc, Hawthorne	Cal
Gulton Industries Inc, Metuchen	N J
International Electronics Corp, Melville	NY
Kokusai Electric Co Ltd, Tokyo	Japan
Metal Removal Co, Chicago	Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Raytheon Co Production Equip Dept, Norwalk	Conn
Sorensen Operation, Raytheon Co., Norwalk	Conn
Tohoku Metal Industries, Ltd, Tokyo	Japan

ULTRASONIC EQUIPMENT--WELDERS

Alcatel, Paris 8eme	France
Branson Sonic Power Co, Danbury	Conn
Bronwill Scientific, Rochester	N Y
Cavitron Ultrasonics Div Cavitron Corp Long Island City	N Y
Dawe Instruments Ltd, London W3	England
Delta Sonics Inc, Hawthorne	Cal
Dynasonics Corp, Pipestone	Minn
Hughes Aircraft Co, Newport Beach	Cal
Hugle Industries, Sunnyvale	Cal
Hydro Molding Co Inc, Plattsburgh	N Y
International Electronics Corp, Melville	NY
Kokusai Electric Co Ltd, Tokyo	Japan
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Marcal Electro-Sonics, Burbank	Cal
Redford Corp, Latham	N Y
Sonobond Corp, West Chester	Pa
Thermatron Div Wilcox & Gibbs Inc, New York	N Y
Weldmatic Div Unitek Corp, Monrovia	Cal

ULTRAVIOLET EQUIPMENT

Aerospace Controls Corp, Los Angeles	Cal
Atlantic Ultraviolet Corp, Long Island City	N Y
Barnes Engineering Co Def & Space Div Stamford	Conn
Beckman Instruments Inc, Fullerton	Cal
Bendix Corp Electro Optics Div, Ann Arbor	Mich
Bethlehem Corp, Bethlehem	Pa
Birtcher Corp Medical Div, Los Angeles	Cal
Black Light Corp of America, San Gabriel	Cal
Black Light Eastern Div Spectronics Corp Westbury	N Y
Black Light Products, Chicago	Ill
Canadian Research Institute, Don Mills	Ont
Edison, Thomas A Industries, Instr Div West Orange	N J
Engelhard Hanovia Inc, Newark	N J
GCA Technology Div GCA Corp, Bedford	Mass
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland	Ohio
Ikor, Inc, Burlington	Mass
Interlab Inc, Pleasantville	N Y
International Light Inc, Newburyport	Mass
Kollsman Instrument Corp, Syosset	N Y
McKee-Pedersen Instruments, Danville	Cal
Measurement Systems Inc, Norwalk	Conn
Metavac Inc, Flushing	N Y
Optomechanisms Inc, Plainview	N Y
Polysciences Inc, Warrington	Pa
Schoeffel Instrument Co, Westwood	NJ
Shannon Luminous Materials Co, Hollywood	Cal
Space Rays Inc, Burlington	Mass
Spectrum Systems, Inc, Waltham	Mass
Stroblite Co Inc, New York	N Y
Syncor Products Co, Inc, Malden	Mass
Thermal American Fused Quartz Co, Montville	N J
Thermal Research Inc, Union Beach	N J
Ultra-Violet Products Inc, San Gabriel	Cal
Vitro Labs Div Vitro Corp of America, W Orange	N J
Western Coil & Electrical Co, Racine	Wisc
Westinghouse Electric Corp, Aerospace Div Baltimore	Md

ULTRASONIC SOLVENTS SEE SOLVENTS--ULTRASONIC

ULTRAVIOLET LAMPS SEE LAMPS

UNSHIELDED CABLES SEE CABLES--UNSHIELDED

USED EQUIPMENT SEE SEARCHLIGHT SECTION

VACUUM CONTROLS SEE CONTROLS--VACUUM

VACUUM-FORMED PLASTICS SEE PLASTICS-FINISHED PARTS

VACUUM FURNACES SEE FURNACES--VACUUM

VACUUM GAGES SEE GAGES--VACUUM

VACUUM-IMPREGNATING MACHINES SEE MACHINES--IMPREGNATING

VACUUM-METALIZED COATINGS SEE COATINGS

VACUUM-METALIZING MACHINES SEE MACHINES-METALIZING

VACUUM-METALIZING SERVICES SEE METALIZING--SERVICES

VACUUM OVENS SEE OVENS

VACUUM PUMPS SEE PUMPS--VACUUM

VACUUM SYSTEMS

Abar Corp, Feasterville .... Pa
Aero Vac Corp, Troy .... N Y
Airco Temescal, Berkeley .... Cal
Alcatel, Paris 8eme .... France

Allen-Jones Electronics Corp, Gardena .... Cal
Andar/ITI Inc, Palo Alto .... Cal
Andonian Associates, Inc, Waltham .... Mass
Ardel Corp, Glendale .... Cal
Associated Testing Labs, Inc, Wayne .... N J
Atlas Engineering Corp, West Hartford .... Conn
Beach-Russ Co, New York .... N Y
Bendix Vacuum Div, Rochester .... N Y
Bendix Corp, Vacuum Div, Rochester .... N Y
Bethlehem Corp, Bethlehem .... Pa
Cathey Enterprises, Mountain View .... Cal
Central Scientific Co, Chicago Ill
CHA Industries, Div Carl Herrmann Assoc Menlo Park .... Cal
Consolidated Vacuum Corp, Rochester .... N Y
Cooke Vacuum Products Inc, South Norwalk .... Conn
Cryolab Div, Statics-Dynamics Inc, Los Osos .... Cal
Denton Vacuum Inc, Cherry Hill .... N J
Edwards High Vacuum Inc, Grand Island .... N Y
Edwards High Vacuum 9Canada0 Ltd, Oakville .... Ont
Electronic Space Products Inc, Los Angeles .... Cal
Energy Beams Inc, Haskell .... N J
Ferranti, Ltd, Lancashire .... England
Forney Industries Inc, Fort Collins .... Colo
Fredericks Co, Huntingdon Valley .... Pa
GCA Technology Div GCA Corp, Bedford .... Mass
General Electric Co Vacuum Prods Business Section Schenectady .... N Y
Granville-Philips Co, Boulder .... Colo
Heraeus-Engelhard Vacuum Inc, Monroeville .... Pa
High Vacuum Equipment Corp, Hingham .... Mass
High Voltage Engineering Corp, Burlington .... Mass
Hoffman Industries Inc Div Clarkson Ind Inc New York .... N Y
Hughes Aircraft Co Vacuum Tube Prods Div Vacuum Devices Dept, Oceanside .... Cal
Hull Corp, Hatboro .... Pa
Ilikon Corp, Natick .... Mass
Japan Vacuum Engineering Co Ltd, Tokyo .... Japan
Jersey Technical Consultants, Morristown .... NJ
Kahle Engineering Co, Union City .... N J
Kinney Vacuum Div New York Air Brake Co Boston .... Mass
Kyoritsu Electrical Instruments Works Ltd, Tokyo .... Japan
Lamb Electric Div Ametek Inc, Kent .... Ohio
LaPine Scientific Co, Chicago Ill
Malaker Corp, High Bridge .... N J
Materials Research Corp, Orangeburg .... N Y
Micronics Corp of America, Providence .... RI
Mt Vernon Research Co, Alexandria .... Va
Mullard Ltd, London, WC 1 .... Eng
Nelson Vacuum Pump Co, Berkeley .... Cal
Norton Co Vacuum Equip Div, Newton .... Mass
Nuclide Corp, AGV Div, Acton .... Mass
Pennsalt Chemicals Corp Equipment Div Philadelphia .... Pa
Process & Instruments Corp, Brooklyn .... N Y
Red Point Corp, Burbank .... Cal
Scans Associates Inc, Livonia .... Mich
Sloan Instruments Corp, Santa Barbara .... Cal
Sunbeam Vacuum Furnace Corp, North Billerica .... Mass
Systems Research Labs Inc, Dayton .... Ohio
Techni-Tool Inc, Philadelphia .... Pa
Tenney Engineering Inc, Union .... N J
Tenvac, Inc, Pembroke .... Mass
T-M Vacuum Products, Riverton .... N J
20th Century Electronics Ltd New Addington, Surrey .... England
Ultek Div Perkin-Elmer, Palo Alto .... Cal
Vactronic Lab Equipment Inc, East Northport .... N Y
Vacuum Accessories Corp of America Huntington Station .... N Y
Vacuum/Atmospheres Corp, N Hollywood .... Cal
Vacuum Barrier Corp, Woburn .... Mass
Vacuum Industries Inc Sub GCA Corp, Somerville .... Mass
Vacuum Instrument Corp, Huntington Station .... N Y
Vacuum Metallizing, Van Nuys .... Cal
Varian, Palo Alto .... Cal
Varian Assoc, Portland Plant, Portland .... Ore
Veeco Instruments Inc, Plainview .... N Y

VACUUM-TUBE VOLTMETERS SEE VOLTMETERS--ELECTRONIC

VALVES--CRYOGENIC

Adel Div De Laval Turbine Calif Inc, Burbank .... Cal
Aervalco Co, Rosemead .... Cal
Allied Engineering & Production Corp, Alameda .... Cal
Andonian Associates, Inc, Waltham .... Mass
Automatic Switch Co, Florham Park .... N J
Consolidated Controls Corp, El Segundo .... Cal
Consolidated Controls Corp, Bethel .... Conn
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena .... Cal
Cosmodyne Corp, Torrance .... Cal
Cryogenic Engineering Co, Denver .... Colo
Cryolab Div, Statics-Dynamics Inc, Los Osos .... Cal
CVI Corp, Columbus .... Ohio
Firewel Co Inc, Buffalo .... N Y
Fox Valve Development Co Inc, Hanover .... N J
Futurecraft Corp, City of Industry .... Cal
Gardner Cryogenics Corp, Bethlehem .... Pa
Garrett Corp, Los Angeles .... Cal
Goddard Valve Corp, Worcester .... Mass
Hafstrom Technical Products Inc, San Diego .... Cal
Heraeus-Engelhard Vacuum Inc, Monroeville .... Pa
High Vacuum Equipment Corp, Hingham .... Mass
Hoke Incorporated, Cresskill .... N J
International Controls Corp, Fairfield .... N J
International Controls Corp Cryogenics Div Fairfield .... N J
Lisk Co Inc, G W, Clifton Springs .... N Y
Micro Parts Inc, Los Angeles .... Cal
Raybestos-Manhattan Inc, Passaic .... N J
Robintech Inc, Burbank .... Cal
Sealol Inc, Providence .... R I
SieBelAir Co, Los Angeles .... Cal

Skinner Electric Valve Div, New Britain .... Conn
Vacuum Barrier Corp, Woburn .... Mass
Vapor Corp, Chicago Ill
Varian, Palo Alto .... Cal
Weston Hydraulics, Van Nuys .... Cal
Whittaker Corp Technical Products Div, Chatsworth .... Cal
Wright Components Inc, Clifton Springs .... N Y

VALVES--SERVO

Adel Div De Laval Turbine Calif Inc, Burbank .... Cal
Allied Control Co Inc, New York .... N Y
Bendix Corp Electrodynamics Div, North Hollywood .... Cal
Bendix Corp Fluid Power Div, Utica .... N Y
Bendix Corp, Vacuum Div, Rochester .... N Y
Bristol Div, American Chain & Cable Co Waterbury .... Conn
Cadillac Gage Co, Warren .... Mich
Consolidated Controls Corp, El Segundo .... Cal
Consolidated Controls Corp, Bethel .... Conn
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena .... Cal
Fluid Power Accessories Inc, Wheeling Ill
Fox Valve Development Co Inc, Hanover .... N J
Garrett Corp, Los Angeles .... Cal
General Precision Systems Inc, Indl Controls Div Morton Grove Ill
Heli-Coil Products, Div Heli-Coil Corp, Danbury .... Conn
Landis & Gyr AG, Zug .... Switzerland
Lear Siegler Inc, Santa Monica .... Cal
LTV Electrosystems Inc, Garland Div, Dallas .... Tex
Lundy Electronics & Systems Inc, Glen Head .... N Y
Lunkenheimer Co Sub Condec Corp, Cincinnati .... Ohio
Micro Parts Inc, Los Angeles .... Cal
Moog Inc, Industrial Div, East Aurora .... N Y
Pegasus Labs Inc, Berkley .... Mich
Ramcon Corp, Elgin Ill
Robintech Inc, Burbank .... Cal
Sanders Associates, Inc, Nashua .... N H
Sealol Inc, Providence .... R I
Servo Labs Inc, Van Nuys .... Cal
Taylor Instrument Cos, Rochester .... N Y
Vapor Corp, Chicago Ill
Weston Hydraulics, Van Nuys .... Cal

VALVES--SOLENOID

Adel Div De Laval Turbine Calif Inc, Burbank .... Cal
Aervalco Co, Rosemead .... Cal
Alco Controls Corp, St Louis .... Mo
A L Controls Co, New Haven .... Conn
Allied Control Co Inc, New York .... N Y
Andonian Associates, Inc, Waltham .... Mass
Aqualite Corp, North Hollywood .... Cal
Assembly Engineers Div Rucker Co, Los Angeles .... Cal
Automatic Switch Co, Florham Park .... N J
Bendix Corp Electrodynamics Div, North Hollywood .... Cal
Bendix Corp Fluid Power Div, Utica .... N Y
Bendix Corp, Vacuum Div, Rochester .... N Y
Caltron Products Co, Los Angeles .... Cal
Consolidated Controls Corp, El Segundo .... Cal
Consolidated Controls Corp, Bethel .... Conn
Consolidated Electrodynamics Corp Sub Bell & Howell Co Pasadena .... Cal
Controls Co of America, Schiller Park Ill
Dynamic Controls Corp, South Windsor .... Conn
Electro-Pacific Inc, Goleta .... Cal
Fluid Power Accessories Inc, Wheeling Ill
Fox Valve Development Co Inc, Hanover .... N J
Futurecraft Corp, City of Industry .... Cal
Garrett Corp, Los Angeles .... Cal
Hafstrom Technical Products Inc, San Diego .... Cal
Hoke Incorporated, Cresskill .... N J
IMC Magnetics Corp Ariz Div, Tempe .... Ariz
International Controls Corp, Fairfield .... N J
International Controls Corp Cryogenics Div Fairfield .... N J
Janitrol Aero Div Midland-Ross Corp, Columbus .... Ohio
Lake Town Mfg Corp, Waconia .... Minn
Lisk Co Inc, G W, Clifton Springs .... N Y
Lucifer Ltd, Geneva .... Switz
Lundy Electronics & Systems Inc, Glen Head .... N Y
Micro Parts Inc, Los Angeles .... Cal
Ramyr Mfg Co, Buena Park .... Cal
Robintech Inc, Burbank .... Cal
Rocker Solenoid Co, Wilmington .... Cal
Rockwell Mfg Co, Msmt & Control Div, Pittsburgh .... Pa
Rovalco Controls, Torrance .... Cal
Sealol Inc, Providence .... R I
Servo Labs Inc, Van Nuys .... Cal
SieBelAir Co, Los Angeles .... Cal
Skinner Electric Valve Div, New Britain .... Conn
Square D Co, Park Ridge Ill
Task Corp, Anaheim .... Cal
Tavco, Inc, Santa Monica .... Cal
Taylor-Winfield Corp, Warren .... Ohio
Ultek Div Perkin-Elmer, Palo Alto .... Cal
Vacuum Accessories Corp of America Huntington Station .... N Y
Vacuum Industries Inc Sub GCA Corp, Somerville .... Mass
Vapor Corp, Chicago Ill
Veeco Instruments Inc, Plainview .... N Y
Weston Hydraulics, Van Nuys .... Cal
Whittaker Corp Technical Products Div, Chatsworth .... Cal
Wright Components Inc, Clifton Springs .... N Y

VALVES--VACUUM

AMP INCORPORATED, HARRISBURG .... PA
MITSUBISHI ELECTRIC CORP, TOKYO .... JAPAN
Adel Div De Laval Turbine Calif Inc, Burbank .... Cal
Airco Temescal, Berkeley .... Cal
Aircraft Components Inc, Benton Harbor .... Mich

Alcatel, Paris 8eme .... France
Allen-Jones Electronics Corp, Gardena .... Cal
Allied Engineering & Production Corp, Alameda .... Cal
AMP Incorporated, Harrisburg .... Pa
Andar/ITI Inc, Palo Alto .... Cal
Andonian Associates, Inc, Waltham .... Mass
Aqualite Corp, North Hollywood .... Cal
Automatic Switch Co, Florham Park .... N J
Beach-Russ Co, New York .... N Y
Bendix Vacuum Div, Rochester .... N Y
Bendix Corp, Vacuum Div, Rochester .... N Y
Bethlehem Corp, Bethlehem .... Pa
Bristol Div, American Chain & Cable Co Waterbury .... Conn
Cathey Enterprises, Mountain View .... Cal
Central Scientific Co, Chicago Ill
CHA Industries, Div Carl Herrmann Assoc Menlo Park .... Cal
Comet Co, Liebefeld, Berne .... Switz
Consolidated Controls Corp, El Segundo .... Cal
Consolidated Controls Corp, Bethel .... Conn
Consolidated Vacuum Corp, Rochester .... N Y
Cooke Vacuum Products Inc, South Norwalk .... Conn
Cryolab Div, Statics-Dynamics Inc, Los Osos .... Cal
CVI Corp, Columbus .... Ohio
Denton Vacuum Inc, Cherry Hill .... N J
Dowa Trading Co Ltd, Kobe .... Japan
Edwards High Vacuum Inc, Grand Island .... N Y
Edwards High Vacuum 9Canada0 Ltd, Oakville .... Ont
Electronic Space Products Inc, Los Angeles .... Cal
Energy Beams Inc, Haskell .... N J
Ferranti, Ltd, Lancashire .... England
Fox Valve Development Co Inc, Hanover .... N J
Garrett Corp, Los Angeles .... Cal
General Electric Co Vacuum Prods Business Section Schenectady .... N Y
Gilmont Instruments Inc Roger, Great Neck .... N Y
Goddard Valve Corp, Worcester .... Mass
Granville-Philips Co, Boulder .... Colo
Heraeus-Engelhard Vacuum Inc, Monroeville .... Pa
High Vacuum Equipment Corp, Hingham .... Mass
High Voltage Engineering Corp, Burlington .... Mass
Hoke Incorporated, Cresskill .... N J
Hughes Aircraft Co Vacuum Tube Prods Div Vacuum Devices Dept, Oceanside .... Cal
Japan Vacuum Engineering Co Ltd, Tokyo .... Japan
Kahle Engineering Co, Union City .... N J

Kinney Vacuum Div New York Air Brake Co
Boston .... Mass
Lear Siegler Inc, Santa Monica .... Cal
Lear Siegler Inc, Romec Div, Elyria .... Ohio
Lisk Co Inc, G W, Clifton Springs .... N Y
Micro Parts Inc, Los Angeles .... Cal
Mitsubishi Electric Corp, Tokyo .... Japan
Mt Vernon Research Co, Alexandria .... Va
Mullard Ltd, London, WC 1 .... Eng
Nelson Vacuum Pump Co, Berkeley .... Cal
Norton Co Vacuum Equip Div, Newton .... Mass
Nuclide Corp, AGV Div, Acton .... Mass
Pennsalt Chemicals Corp Equipment Div
Philadelphia .... Pa
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Robintech Inc, Burbank .... Cal
Rovalco Controls, Torrance .... Cal
Sealol Inc, Providence .... R I
SieBelAir Co, Los Angeles .... Cal
Skinner Electric Valve Div, New Britain .... Conn
Sunbeam Vacuum Furnace Corp, North Billerica .... Mass
T-M Vacuum Products, Riverton .... N J
Ultek Div Perkin-Elmer, Palo Alto .... Cal
Vactronic Lab Equipment Inc, East Northport .... N Y
Vacuum Accessories Corp of America
Huntington Station .... N Y
Vacuum Industries Inc Sub GCA Corp, Somerville ... Mass
Vacuum Instrument Corp, Huntington Station .... N Y
Vapor Corp, Chicago Ill
Varian, Palo Alto .... Cal
Varian Assoc, Portland Plant, Portland .... Ore
Veeco Instruments Inc, Plainview .... N Y
Welch Scientific Co, Skokie Ill
Wright Components Inc, Clifton Springs .... N Y

VARIABLE CAPACITORS SEE CAPACITORS—VARIABLE

VARIABLE COILS SEE INDUCTANCES—POWER

VARIABLE TRANSFORMERS SEE TRANSFORMERS—POWER

VARISTORS

EDAL INDUSTRIES INC, EAST HAVEN .... CONN
GENERAL ELECTRIC CO, ECSO, SCHENECTADY
N Y .... ADV PG 7
VICTORY ENGINEERING CORP, SPRINGFIELD
N J .... ADV PGS FACING PG 1
Advance Carbon Products, Inc, San Francisco .... Cal
Bourns Inc Trimpot Div, Riverside .... Cal
Carbone Corp, Boonton .... N J
Carborundum Co Electrical & Elctns Br,
Niagara Falls .... NY
Edal Industries Inc, East Haven .... Conn
General Electric Co, ECSO, Schenectady .... N Y
General Electric Co Magnetic Matls Bus Sect
Edmore .... Mich
Green Rectifier Corp, Fair Lawn .... N J
Hitachi Ltd, Chiyoda-Ku, Tokyo .... Japan
IRC Div TRW Inc, Philadelphia .... Pa
ITT Europe Inc Components Gp, Brussels 1 .... Belgium
Kobe Industries Corp, Kobe .... Japan
LCC-CICE, 93 Montreuil-sous-Bois .... France
Origin Electric Co Ltd, Tokyo .... Japan
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Power Components Inc, Scottdale .... Pa

Rectifier Engineering & Supply Co Inc, St Louis .... Mo
Sampson Electronic Products Div, Chicago Ill
Sanken Electric Co, Ltd, Toshima-ku, Tokyo .... Japan
Schauer Mfg Corp, Cincinnati .... Ohio
S E C I Soc Elettrotechica Chimica Italiana
Milano .... Italy
Solitron Devices Inc, Tappan .... NY
Victory Engineering Corp, Springfield .... N J
Workman Electronic Products Inc, Sarasota .... Fla

VARNISHES

MELPAR INC, SPECIAL PRODS DEPT, FALLS CHURCH .... VA
SPRAYON PRODUCTS INC, BEDFORD HEIGHTS .... OHIO
Acme Chemicals & Insulation, New Haven .... Conn
Barrett Varnish Co, Cicero Ill
Dolph Co, John C, Monmouth Junction .... N J
Dow Corning Corp, Midland .... Mich
Du Pont De Nemours & Co Inc E I, Wilmington .... Del
Dynaloy, Inc, Hanover .... N J
Electro Science Labs Inc, Philadelphia .... Pa
Emerson & Cuming Inc, Canton .... Mass
General Electric Co Silicone Prods Dept, Waterford .. N Y
Isochem Resins Co, Lincoln .... RI
Melpar Inc, Special Prods Dept, Falls Church .... Va
3M Company, St Paul .... Minn
Pennsylvania Industrial Chemical Corp, Clairton .... Pa
Pierce & Stevens Chemical Corp, Buffalo .... N Y
Product Techniques, Inc, Downey .... Cal
Roberts & Associates Inc, E V, Culver City .... Cal
Schenectady Chemicals Inc, Schenectady .... N Y
Sprayon Products Inc, Bedford Heights .... Ohio
Sterling Varnish Co, Sewickley .... Pa
Westinghouse Electric Corp Insulating Materials Div
Trafford .... Pa

VEHICULAR RADIO SYSTEMS SEE COMMUNICATION SYSTEMS--LAND MOBILE

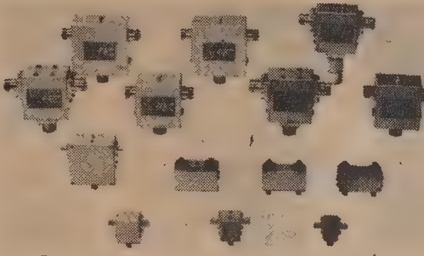
VERTICAL ANTENNAS SEE ANTENNAS—COMMUNICATION

VERTICAL DEFLECTION TRANSFORMERS SEE TRANSFORMERS--SPECIAL

VHF ANTENNAS SEE ANTENNAS--AVIONIC COMMUNICATION

VHF CIRCULATORS SEE CIRCULATORS—MICROWAVE
MITSUBISHI ELECTRIC CORP TOKYO
JAPAN .... ADV PG 785

MITSUBISHI
Miniature Circulators for VHF, UHF and SHF Bands



* Small size with high power handling capacity
* Wide band
* Wide temperature range
■ VHF and UHF Band
High power model
150MHz 125W; 400MHz 100W
Standard 20W model
50MHz; 150MHz; 450MHz
■ SHF Band
3-port model, 1.5GHz; 4GHz; 7GHz
4-port model, 4GHz

For further information, write to:
Chicago Rep.: 119 East Lake Street, Prudential Plaza, Chicago Tel: (312) 222-1172
New York Rep.: c/o Mitsubishi International Corporation, 277 Park Avenue, New York Tel: (212) 922-6767
Los Angeles Rep.: Room 319, 606 South Hill Street, Los Angeles Tel: (213) 623-6079

MITSUBISHI ELECTRIC CORPORATION
Head Office: Mitsubishi Denki Bldg., Marunouchi, Tokyo. Cable Address: MELCO TOKYO

VHF GENERATORS SEE GENERATORS--SIGNAL

VHF RECEIVERS SEE RECEIVERS—RADIO COMMUNICATION

VHF SYSTEMS SEE COMMUNICATION SYSTEMS

VHF TRANSMITTERS SEE TRANSMITTERS--RADIO COMMUNICATION

VIBRATION ANALYSIS EQUIPMENT (USED WITH SHAKE TABLES & VIBRATORS) SEE ALSO ANALYZERS VIBRATION

DRANETZ ENGINEERING LABS INC, PLAINFIELD .... N J
ELGENCO INC, SANTA MONICA .... CAL
GEOTECH A TELEDYNE CO, GARLAND .... TEX
HONEYWELL TEST INSTRUMENTS DIV, DENVER
COLO .... ADV PG 8
SPENCER-KENNEDY LABS INC, BOSTON .... MASS
TEKTRONIX INC, BEAVERTON .... ORE
TRACOR INC, AUSTIN .... TEX
Ad-Yu Electronics Inc, Passaic .... N J
Agac-Derritron Inc, Alexandria .... Va
AIM Electronics Ltd, Cambridge .... U K
Bently Nevada Corp, Minden .... Nev
Chadwick Helmuth Co Inc, Monrovia .... Cal
Consolidated Electrodynamics Corp Sub Bell & Howell Co
Pasadena .... Cal
Data-Control Systems Inc, Danbury .... Conn
Dranetz Engineering Labs Inc, Plainfield .... N J
Dynamco Ltd, Chertsey Surrey .... Eng
Dytronics Co Inc, Columbus .... Ohio
Elastronics Labs, Tarzana .... Cal
Elgenco Inc, Santa Monica .... Cal
EMR-Hatboro Div Weston Insts Inc, Hatboro .... Pa
Endevco Corp, Pasadena .... Cal
Epic Inc, New York .... N Y
Exact Electronics Inc, Hillsboro .... Ore
General Radio Co, West Concord .... Mass
Geoscience Instruments Corp, Mt Vernon .... N Y
Geotech A Teledyne Co, Garland .... Tex
Gulton Industries Inc, Metuchen .... N J
Honeywell Test Instruments Div, Denver .... Colo
Industrial Electronetics Corp, Satellite Beach .... Fla
Industrial Measurements Corp, Pomona .... Cal
Keinath Instrument Co, Columbus .... Ohio
Kidde & Co Inc, Walter, Belleville .... N J

Kistler Instrument Corp, Clarence .... N Y
Korfund Dynamics Corp, Westbury .... N Y
Ling Electronics Div LTV Altec Inc, Anaheim .... Cal
MB Electronics A Textron Co, New Haven .... Conn
MCG Electronics, Deer Park .... N Y
McMahon Electronic Engineering Res & Dev Lab
San Pedro .... Cal
Mechanical Technology Inc, Latham .... N Y
Muirhead Instruments Inc, Mountainside .... N J
Nelson-Ross Electronics Inc, Hicksville .... NY
Novatronics Inc, Pompano Beach .... Fla
Philips' Gloeilampenfabrieken, N V, Eindhoven .. Holland
Precision Systems Corp, Columbus .... Ohio
Quan-Tech Labs Inc, Whippany .... N J
Reliance Electric Co, Cleveland .... Ohio
Robertshaw Controls Co, Aero & Instrument Div
Anaheim .... Cal
Signal Analysis Industries Corp, Copiague .... N Y
Singer Co, Metrics Div, Bridgeport .... Conn
Spectral Dynamics Corp of San Diego, San Diego .... Cal
Spectrum Instruments Inc, Tuckahoe .... N Y
Spencer-Kennedy Labs Inc, Boston .... Mass
Sunshine Scientific Instruments Inc, Philadelphia .... Pa
Sylvania Electronic Systems, Waltham .... Mass
Technical Products Co of L A, Los Angeles .... Cal
Tek-Sel Labs Inc, Saddle Brook .... N J
Tektronix Inc, Beaverton .... Ore
Tracor Inc, Austin .... Tex
Unholtz-Dickie Corp, Hamden .... Conn
Vibration Instruments Co, Anaheim .... Cal
Wayne Kerr Corp, Montclair .... NJ
Wyle Laboratories, El Segundo .... Cal

VIBRATION EXCITERS SEE EXCITERS—VIBRATION

VIBRATION MOUNTS SEE MOUNTS—VIBRATION & SHOCK

VIBRATION-TESTING MACHINES SEE MACHINES—VIBRATION-TESTING

VIBRATORS--POWER SUPPLY

SEE ALSO CHOPPERS; DEMODULATORS

HEATH CO, BENTON HARBOR .... MICH
ATR Electronics, Inc, St Paul .... Minn
Automation Devices, Inc, Fairview .... Pa
Cambridge Scientific Industries Inc, Cambridge .... Md
Cornell-Dubilier Electronics Div Federal Pacific Electric
Co, Newark .... N J
Heath Co, Benton Harbor .... Mich
Mallory Electromagnetic Co, Du Quoin Ill
Oak Mfg Co, Div Oak Electro/Netics Corp
Crystal Lake Ill
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Vokar Products Inc, Ann Arbor .... Mich

VIBRATORS (SHAKE TABLES)

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
Agac-Derritron Inc, Alexandria .... Va
All American Tool & Mfg Co Inc, Skokie Ill
Automatic Clerical Systems Inc, Pasadena .... Cal
Carco Electronics, Menlo Park .... Cal
Electra Tronics Inc, Cocoa .... Fla
EMR-Hatboro Div Weston Insts Inc, Hatboro .... Pa
Geoscience Instruments Corp, Mt Vernon .... N Y
International Tel & Tel Corp Industrial Prods Div
San Fernando .... Cal
Kidde & Co Inc, Walter, Belleville .... N J
Korfund Dynamics Corp, Westbury .... N Y
L A B Corp, Skaneateles .... N Y
Ling Electronics Div LTV Altec Inc, Anaheim .... Cal
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
MB Electronics A Textron Co, New Haven .... Conn
McMahon Electronic Engineering Res & Dev Lab
San Pedro .... Cal
Ogden Technical Labs Inc, Monterey Park .... Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Space & Systems Div General Time Corp
Stamford .... Conn
Syntron Div FMC Corp, Homer City .... Pa
Unholtz-Dickie Corp, Hamden .... Conn

Pain Killer.

If vendors have you in a pinch and another source of supply will help, turn to the Electronics Buyers' Guide. You'll find all the information you need on over 1,363 sources of power supplies, listed under 11 headings from *AC Regulated Power Supplies to Laser Power Supplies.*

Electronics Buyers' Guide

VIDEO MIXER AMPLIFIERS SEE AMPLIFIERS--R-F

VIDEO MIXERS SEE AMPLIFIERS--R-F

VIDEO TAPE RECORDERS SEE RECORDERS--MAGNETIC TAPE, VIDEO

VINYLS SEE PLASTICS

VISCOSIMETERS SEE ULTRASONIC EQUIPMENT

VISCOSITY CONTROLS SEE CONTROLS--VISCOSITY

VLF RECEIVERS SEE RECEIVERS--RADIO COMMUNICATION

VLF TRANSMITTERS SEE TRANSMITTERS--RADIO COMMUNICATION

VIBRATORS--ULTRASONIC SEE ULTRASONIC EQUIPMENT

VIBRATOR TESTERS SEE TESTERS--VIBRATOR

VIBRATOR TYPE CONVERTERS--A-C TO A-C SEE CONVERTERS--A-C OUTPUT

VIBRATOR-TYPE INVERTERS SEE INVERTERS

VIDEO AMPLIFIERS SEE AMPLIFIERS--R-F

VIDEO ANALYZERS SEE ANALYZERS--VIDEO

VOLTAGE COMPARATORS SEE COMPARATORS

VOLTAGE DIVIDERS SEE DIVIDERS--VOLTAGE

VOLTAGE-REFERENCE TUBES SEE TUBES--VOLTAGE-REFERENCE

VOLTAGE-REGULATING TRANSFORMERS SEE TRANSFORMERS--POWER

VOLTAGE REGULATORS SEE REGULATORS--VOLTAGE

VOLTAGE SOURCES--DECADE

FLUKE MFG CO INC, JOHN, SEATTLE ... WASH
KEPCO INC, FLUSHING, N Y ... ADV PGS 4TH COVER
NORTH HILLS ELECTRONICS INC, GLEN COVE ... N Y
Analogic Corp, Waltham ... Mass
Argonaut Associates, Inc, Beaverton ... Ore
Bradley Ltd G & E, London NW 10 ... England
CEA Div Berkleonics Inc, Monrovia ... Cal
Cohu Electronics Inc, San Diego ... Cal
Continental Device Corp, Hawthorne ... Cal
Dynamco Ltd, Chertsey Surrey ... Eng
Electronic Design Labs Inc, Philadelphia ... Pa
Electronic Development Corp, Boston ... Mass
Emcee Electronics Inc, New Castle ... Del
Epsco Inc, Westwood ... Mass
Fenlow Electronics Ltd, Weybridge ... England
Fluke Mfg Co Inc, John, Seattle ... Wash
General Resistance Inc, New York ... NY
Hallmark Standards Inc, Mamaroneck ... N Y
Holt Instrument Labs, Oconto ... Wis
Idalee Electronics Corp, Valley Stream ... NY
Instrulab Inc, Dayton ... Ohio
Julie Research Labs, Inc, New York ... N Y
Keithley Instruments Inc, Cleveland ... Ohio
Kepco Inc, Flushing ... N Y
Lear Siegler Inc, Cimron Div, San Diego ... Cal
Matsunaga Mfg Co Ltd, Tokyo ... Japan
Medistor Instrument Co, Seattle ... Wash
NH Research Inc, Santa Ana ... Cal
North Hills Electronics Inc, Glen Cove ... N Y
Optimation, Inc, Sun Valley ... Cal
Precision Standards Corp, San Marino ... Cal
Princeton Applied Research Corp, Princeton ... N J
RFL Industries Inc, Instrumentation Div, Boonton ... N J
SRC Div Moxon Electronics Corp, Los Angeles ... Cal
Vishay Resistor Prods Div Vishay Intertechnology Inc, Malvern ... Pa
Yokogawa Electric Works Inc, Larchmont ... N Y

VOLTAGE-STABILIZING TRANSFORMERS SEE TRANSFORMERS

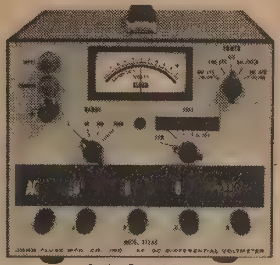
VOLTAGE STANDING-WAVE RATIOMETERS SEE DETECTORS--STANDING-WAVE

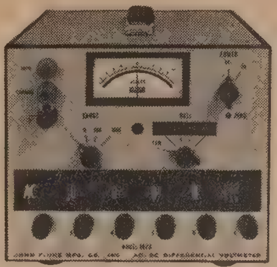
VOLTAGE-VARIABLE CAPACITORS SEE CAPACITORS--VARIABLE

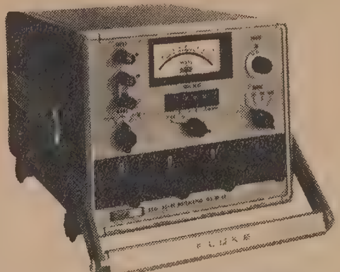
VOLTMETERS--A-C

AMMON INSTRUMENTS INC, MANCHESTER ... N H
API INSTRUMENTS CO, CHESTERLAND ... OHIO
DRANETZ ENGINEERING LABS INC, PLAINFIELD ... N J
ELECTRO-MECHANICAL INSTRUMENT CO, INC, PERKASIE ... PA
FLUKE MFG CO INC, JOHN, SEATTLE WASH ... ADV PG 787
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ... ADV PGS 7
HEATH CO, BENTON HARBOR ... MICH
HEWLETT-PACKARD, PALO ALTO ... CAL
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND ... OHIO
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO ... ADV PGS 8
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON ... N Y
MODUTEC INC, NORWALK ... CONN
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO, ILL ... ADV PG 465
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW ... N Y
PARKER INSTRUMENT CORP, STAMFORD ... CONN
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK ... N J
WHITTAKER CORP GEN COM DIV, PLAINVIEW ... N Y
Abbey Electronics Corp, Westbury ... NY
Ad-Yu Electronics Inc, Passaic ... N J
Airmec Instruments Ltd, Buckinghamshire ... England
American Machine & Foundry Co Alexandria Div Alexandria ... Va
A & M Instruments Inc, Great Neck ... N Y
Ammon Instruments Inc, Manchester ... N H
Amprobe Instrument Div Soss Mfg Co, Lynbrook ... N Y
API Instruments Co, Chesterland ... Ohio
Aul Instruments Inc, Long Island City ... NY
Ballantine Laboratories, Inc, Boonton ... N J
Beede Electrical Instrument Co, Inc, Penacook ... N H
Bitronics Inc, Bethlehem ... Pa
B & K Instruments Inc of Bruel & Kjaer Cleveland ... Ohio
Bristol Div, American Chain & Cable Co Waterbury ... Conn
Bruno-New York Industries Corp, New York ... N Y
California Instruments Corp, San Diego ... Cal
Canadian Research Institute, Don Mills ... Ont
Central Scientific Co, Chicago ... Ill
Cohu Electronics Inc, San Diego ... Cal
Columbia Electric Mfg Co, Cleveland ... Ohio
Compagnie Generale de Metrologie Haute Savoie ... France
Components Specialties Inc, Freeport ... N Y
Condor Industrial Corp, West Chicago ... Ill
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles ... France
Dana Laboratories Inc, Irvine ... Cal
Data Royal Corp, San Diego ... Cal
Data Technology Corp, Mountain View ... Cal
Dixson Inc Meter Div, Grand Junction ... Colo
Dowa Trading Co Ltd, Kobe ... Japan
Dranetz Engineering Labs Inc, Plainfield ... N J
Dynamco Ltd, Chertsey Surrey ... Eng
Dynamics Instrumentation Co, Monterey Park ... Cal
Edison, Thomas A Industries, Instr Div West Orange ... N J
EICO Electronic Instrument Co Inc, Brooklyn ... NY
E I L Instrument Div Unitec Industries, Timonium ... Md
Electro-Mechanical Instrument Co, Inc, Perkasie ... Pa
Electronic Space Products Inc, Los Angeles ... Cal
Electro Scientific Industries Inc, Portland ... Ore
Epic Inc, New York ... N Y
Esterline Angus Div Esterline Corp, Indianapolis ... Ind
Fairlane Electronics, Inc, Long Valley ... N J
Fen-Tone Corp, New York ... N Y
Ferranti, Ltd, Lancashire ... England
Filmohm Corp, Long Island City ... N Y
Fluke Mfg Co Inc, John, Seattle ... Wash
Fuji Electric Co Ltd, Tokyo ... Japan
General Electric Co, ECSO, Schenectady ... N Y
General Radio Co, West Concord ... Mass
Hallmark Standards Inc, Mamaroneck ... N Y
Heath Co, Benton Harbor ... Mich
Hewlett-Packard, Palo Alto ... Cal
Hickok Electrical Instrument Co, Cleveland ... Ohio
Hickok Teaching Systems Inc, Cambridge ... Mass
Holt Instrument Labs, Oconto ... Wis
Honeywell Precision Meter Div, Manchester ... N H
Honeywell Test Instruments Div, Denver ... Colo
Hoyt Electrical Instrument Works Inc Burton-Rogers Co Sls Div, Cambridge ... Mass
Ideal Precision Meter Co Inc, Brooklyn ... N Y
Industrial Test Equipment Co, Port Washington ... N Y
International Instruments Div Sigma Instr Inc, Orange ... Conn
International Tel & Tel Corp Industrial Prods Div San Fernando ... Cal
Kyoritsu Electrical Instruments Works Ltd, Tokyo ... Japan
Lafayette Radio Electronics, Syosset ... NY
Lake Engineering Co Ltd, Scarborough ... Ont
Lear Siegler Inc, Cimron Div, San Diego ... Cal
Lewis Engineering Co, Naugatuck ... Conn
Mastercraft Instrument Co, Dubuque ... Iowa
Measurements A McGraw-Edison Div, Boonton ... N J
Medistor Instrument Co, Seattle ... Wash
Mesur-Matic Electronic Corp, Warner ... N H
Metermaster, Inc, Los Angeles ... Cal
Millivac Instruments Inc, Schenectady ... N Y
3M Instrument Products, Camarillo ... Cal
Modutec Inc, Norwalk ... Conn
Motorola Commun & Elctns Inc Prec Instr Prods Chicago ... Ill
Mura Corp, Great Neck ... N Y
Nelson Electronic Labs Inc, Plano ... Tex
Nichols Co Ltd, R H, Downsview ... Ont
North Atlantic Industries Inc, Plainview ... N Y
Northeast Electronics Corp, Concord ... N H
Parker Instrument Corp, Stamford ... Conn
Phaostron Instrument & Electronic Co South Pasadena ... Cal
Philco-Ford Corp, Washington ... D C
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon ... NY
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
PMF Electronics Inc, Dayton ... Ohio
Precision Standards Corp, San Marino ... Cal
Q V S Inc, East Orange ... N J
Radiometer A/S, Copenhagen NV ... Denmark
Rawson-Lush Instrument Co Inc, Acton ... Mass
Robertson Instrument Co, Azusa ... Cal
Rohde & Schwarz Sales Co USA Inc, Passaic ... N J
Ross Engineering Corp, Saratoga ... Cal
Schober Organ Corp, New York ... N Y
Scientific Columbus Inc, Columbus ... Ohio
Semiconductor Circuits, Inc, Woburn ... Mass
Shurite Meters, New Haven ... Conn
Sigma Instruments Canada Ltd, Toronto 18 Ont ... Canada
Simpson Electric Co, Chicago ... Ill
Singer Co, Metrics Div, Bridgeport ... Conn
Sperry Instruments Inc A W, New York ... N Y
Stark Electronic Instruments Ltd, Ajax ... Ont
Sterling Mfg Co, Cleveland ... Ohio
Sun Electric Corp, Chicago ... Ill
Sunshine Scientific Instruments Inc, Philadelphia ... Pa
Theta Instrument Corp, Fairfield ... N J
Trio Laboratories Inc, Plainview ... N Y
Triplett Electrical Instrument Co, Bluffton ... Ohio
United Systems Corp, Dayton ... Ohio
Voltron Products Inc, Pasadena ... Cal
Wac Line Div Simmonds Precision Prods, Dayton ... Ohio
Wavetek, San Diego ... Cal
Welch Scientific Co, Skokie ... Ill
Western Reserve Electronics, Inc, Cleveland ... Ohio
Westinghouse Electric Corp, Relay & Instr Dept Newark ... N J
Weston Instruments Div Weston Instr Inc, Newark ... N J
Whittaker Corp Gen Com Div, Plainview ... N Y
Yokogawa Electric Works Inc, Larchmont ... N Y

Fluke AC/DC Differential Voltmeters


Model 873


Model 887


Model 893

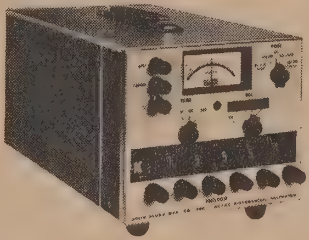
Fluke solid state AC/DC Differential Voltmeters offer the widest range of performance and accuracy in the market. Most units operate from either internal rechargeable batteries or 115/230 V, 50-440 Hz line power. Battery power is essential for measurement where maximum accuracy demands complete line isolation. Input ranges are 1, 10, 100 and 1000 volts, each with 10% overranging. Decimal point placement is automatic with range selection on all models.

Fluke voltmeters are electrically and mechanically designed to perform under the extremes of temperature, shock, vibration and humidity. Each zener diode reference is processed, computer matched and selected to establish excellent stability and temperature coefficient tracking. Fluke manufactures all of the precision wire wound resistors used. All solid state voltmeters are lightweight for portability and are provided with a tilt-back bail or functional detented handle for operator convenience. Recorder output is available on all Fluke differential voltmeters.

Solid State AC/DC

Model	Input Range	% of Input Accuracy DC	% of Input Accuracy AC	Frequency* Range	Max. Full Scale Sensitivity	Max. Meter Resolution	Reference	Price
873A	0-1100 v	±0.02	±0.2	20 Hz-10 KHz	1 mv	10 μv	Zener Diode	$ 875
883A	0-1100 v	±0.005	±0.1	20 Hz-5 KHz	100 μv	1 μv	Zener Diode	1,215
887A	0-1100 v	±0.0025	±0.05	30 Hz-5 KHz	100 μv	1 μv	Zener Diode	1,375
893A	0-1100 v	±0.01	±0.05	50 Hz-10 KHz	1 mv	10 μv	Zener Diode	995

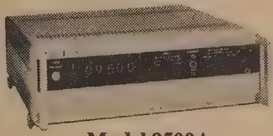
*Reduced accuracy over wider frequency range.


Model 883

Fluke True RMS Differential Voltmeters

Fluke offers the only line of analog and digital true rms ac voltmeters. These voltmeters combine the advantages of measuring any waveform without error and the null balance precision of a differential voltmeter.

New Fluke Model 9500A True RMS Automatic Digital Voltmeter


Model 9500A

SPECIFICATIONS

VOLTAGE RANGES: 0.001 to 1100 volts rms in five ranges of 0.1, 1, 10, 100, and 1000 volts with 20% overranging. Automatic or manual selection.

FREQUENCY RANGE: 20 Hz to 700 KHz.

ACCURACY: ±0.05% from 50 Hz to 10 KHz. Slightly reduced over other frequency ranges.

RESOLUTION: 0.01% of range.

CREST FACTOR: 10 or 1500 v peak.

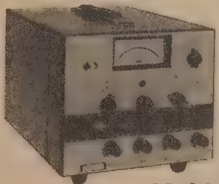
INPUT IMPEDANCE: Model 9500A (without probe), 1 megohm shunted by less than 17 pf. Model 9500A-01 (with probe), 1 megohm shunted by less than 7 pf.

COMMON MODE REJECTION: Greater than 80 db at 60 Hz and below, decreasing 6 db per octave to 20 db at 60 KHz. Greater than 20 db above 60 KHz.

OPTIONS: Probe input, $75. Rear panel BNC input, $50. 1-2-4-8 BCD digital output, $195. 1-2-2-4 BCD digital output, $195.

PRICE: $2485 including rack adapter kit.

Fluke Model 931A True RMS Digital Voltmeter


Model 931A

BRIEF SPECIFICATIONS

VOLTAGE RANGES

Differential Mode: 100 mv, 1 v, 10 v, 100 v, 1000 v with 10% overranging on each range.

TVM Mode: 10 mv end scale to 1000 v end scale in 1, 3, 10 progression.

ACCURACY

Differential Mode: ±0.05% of reading + 0.005% of range from 30 Hz-50 KHz. Reduced accuracy specifications from 10 Hz-1 MHz.

TVM Mode: ±3% of end scale.

INPUT IMPEDANCE

BNC: 1 Megohm shunted by less than 8 pf.

Probe: 1 Megohm shunted by less than 5 pf.

CREST FACTOR

Differential Mode: 10 or 1500 v peak.

Direct Mode: 10 at end scale increasing proportionately to 30 at ⅓ end scale, or 1500 v peak.

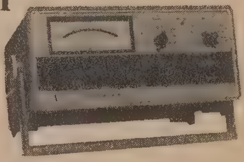
POWER INPUT: 115/230 vac, 50-440 Hz. (plus rechargeable batteries if desired.)

SIZE: 7″ high x 8½″ wide x 11¾″ deep.

PRICE: $895. **Probe Model:** $945.

Battery Option: $100 extra.

New Fluke High Accuracy, Wide Range Multimeter


Model 853A

The Fluke Model 853A Multimeter is the first instrument of its type to combine accuracy, outstanding measurement capability, and low price. All specifications are guaranteed to hold for one year without recalibration. Complete overload protection is featured. Units are available in the basic line and replaceable battery version or at extra cost, line and rechargeable batteries.

BRIEF SPECIFICATIONS

VOLTAGE

Range: 0 to 1.1 Kv.

Accuracy: DC, 0.2%. AC, 0.5%.

CURRENT

Range: 0 to 11 amperes.

Accuracy: DC, 0.2%. AC, 0.5%.

RESISTANCE

Range: 0 to 110 megohms.

Accuracy: 0.2%

PRICE: AC and replaceable batteries only: $445. AC and rechargeable batteries: $495.

Fluke, Box 7428, Seattle, Washington 98133. Phone: (206) 774-2211. TWX: (910) 449-2850.
In Europe, address Fluke Nederland (N.V.), P.O. Box 5053, Tilburg, Holland.
Telex: 844-50237. In the U.K., address Fluke International Corp.,
P.O. Box 102, Watford, Herts, England. Telex: 851-934-583.

FLUKE

VOLTMETERS--BALLISTIC

Dowa Trading Co Ltd, Kobe	Japan
Hallmark Standards Inc, Mamaroneck	N Y
Rockwell Engineering Co, Indianapolis	Ind
Singer Co, Metrics Div, Bridgeport	Conn

VOLTMETERS--CONTACT MAKING

API INSTRUMENTS CO, CHESTERLAND	**OHIO**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
A & M Instruments Inc, Great Neck	N Y
API Instruments Co, Chesterland	Ohio
Beede Electrical Instrument Co, Inc, Penacook	N H
Bitronics Inc, Bethlehem	Pa
Canadian Research Institute, Don Mills	Ont
Compagnie Generale de Metrologie Haute Savoie	France
Dowa Trading Co Ltd, Kobe	Japan
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Hickok Electrical Instrument Co, Cleveland	Ohio
Keithley Instruments Inc, Cleveland	Ohio
Lear Siegler Inc, Cimron Div, San Diego	Cal
Mesur-Matic Electronic Corp, Warner	N H
Millivac Instruments Inc, Schenectady	N Y
Nelson Electronic Labs Inc, Plano	Tex
Plessey Airborne Corp, Hillside	NJ
PMF Electronics Inc, Dayton	Ohio
Sigma Instruments Canada Ltd, Toronto 18 Ont	Canada
Simpson Electric Co, Chicago	Ill
Voltron Products Inc, Pasadena	Cal
Wac Line Div Simmonds Precision Prods, Dayton	Ohio

Fast

acting.

The Electronics Buyers' Guide can get you on the right frequency in a hurry. For example, there are 14 different kinds of oscillators listed. Everything from AF oscillators to voltage controlled crystal oscillators. There are three sections in your EBG, devoted to products, manufacturers and trade names. So see your fast-acting EBG.

Electronics Buyers' Guide

VOLTMETERS--D-C

AMMON INSTRUMENTS INC, MANCHESTER	**N H**
API INSTRUMENTS CO, CHESTERLAND	**OHIO**
ELECTRO-MECHANICAL INSTRUMENT CO, INC, PERKASIE	**PA**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
HEATH CO, BENTON HARBOR	**MICH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
HONEYWELL TEST INSTRUMENTS DIV, DENVER	**COLO**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MODUTEC INC, NORWALK	**CONN**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
PARKER INSTRUMENT CORP, STAMFORD	**CONN**
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM	**MASS**
TECHMETRIC CO, REDWOOD CITY	**CAL**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
WHITTAKER CORP GEN COM DIV, PLAINVIEW	**N Y**
Abbey Electronics Corp, Westbury	NY
Ad-Yu Electronics Inc, Passaic	N J
Aircraft Components Inc, Benton Harbor	Mich
Airmec Instruments Ltd, Buckinghamshire	England
American Machine & Foundry Co Alexandria Div Alexandria	Va
A & M Instruments Inc, Great Neck	N Y
Ammon Instruments Inc, Manchester	N H
Amprobe Instrument Div Soss Mfg Co, Lynbrook	N Y
API Instruments Co, Chesterland	Ohio
Aul Instruments Inc, Long Island City	NY
Ballantine Laboratories, Inc, Boonton	N J
Bartlett-Emery Instrument Co, Fort Madison	Iowa
Beede Electrical Instrument Co, Inc, Penacook	N H
Bitronics Inc, Bethlehem	Pa
Bruno-New York Industries Corp, New York	N Y
California Instruments Corp, San Diego	Cal
Canadian Research Institute, Don Mills	Ont
Central Scientific Co, Chicago	Ill
Cohu Electronics Inc, San Diego	Cal
Cole-Hersee Co, S Boston	Mass
Columbia Electric Mfg Co, Cleveland	Ohio
Compagnie Generale de Metrologie Haute Savoie	France
Components Specialties Inc, Freeport	N Y
Condor Industrial Corp, West Chicago	Ill
Control Data Corp, LaJolla Div, Minneapolis	Minn
C S F-Cie Gen de Telegraphie Sans Fil 78 Versailles	France
Data Technology Corp, Mountain View	Cal
Dixson Inc Meter Div, Grand Junction	Colo
Dowa Trading Co Ltd, Kobe	Japan
Dynamco Ltd, Chertsey Surrey	Eng
Dynamics Instrumentation Co, Monterey Park	Cal
Edison, Thomas A Industries, Instr Div West Orange	N J
EICO Electronic Instrument Co Inc, Brooklyn	NY
E I L Instrument Div Unitec Industries, Timonium	Md
Electro-Mechanical Instrument Co, Inc, Perkasie	Pa
Electronic Space Products Inc, Los Angeles	Cal
Epic Inc, New York	N Y
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Fairchild Instrumentation, Sunnyvale	Cal
Fen-Tone Corp, New York	N Y
Ferranti, Ltd, Lancashire	England
Filmohm Corp, Long Island City	N Y
Fuji Electric Co Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
General Radio Co, West Concord	Mass
Hallmark Standards Inc, Mamaroneck	N Y
Heath Co, Benton Harbor	Mich
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Hickok Teaching Systems Inc, Cambridge	Mass
Honeywell Precision Meter Div, Manchester	N H
Honeywell Test Instruments Div, Denver	Colo
Howell Instruments Co, Fort Worth	Tex
Hoyt Electrical Instrument Works Inc Burton-Rogers Co Sls Div, Cambridge	Mass
Ideal Precision Meter Co Inc, Brooklyn	N Y
Impectron Inc, New York	N Y
International Instruments Div Sigma Instr Inc, Orange	Conn
J-Omega Co, Mountain View	Cal
Julie Research Labs, Inc, New York	N Y
Keithley Instruments Inc, Cleveland	Ohio
Kyoritsu Electrical Instruments Works Ltd, Tokyo	Japan
Lafayette Radio Electronics, Syosset	NY
Lake Engineering Co Ltd, Scarborough	Ont
Lear Siegler Inc, Cimron Div, San Diego	Cal
Lewis Engineering Co, Naugatuck	Conn
Mastercraft Instrument Co, Dubuque	Iowa
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Measurements A McGraw-Edison Div, Boonton	N J
Medistor Instrument Co, Seattle	Wash
Mesur-Matic Electronic Corp, Warner	N H
Metermaster, Inc, Los Angeles	Cal
Millivac Instruments Inc, Schenectady	N Y
3M Instrument Products, Camarillo	Cal
Modutec Inc, Norwalk	Conn
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Mura Corp, Great Neck	N Y
Nelson Electronic Labs Inc, Plano	Tex
Nichols Co Ltd, R H, Downsview	Ont
Northeast Electronics Corp, Concord	N H
Parker Instrument Corp, Stamford	Conn
Phaostron Instrument & Electronic Co South Pasadena	Cal
Philbrick/Nexus Research A Teledyne Co Dedham	Mass
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plessey Airborne Corp, Hillside	NJ
PMF Electronics Inc, Dayton	Ohio
Precision Standards Corp, San Marino	Cal
Q V S Inc, East Orange	N J
Radiometer A/S, Copenhagen NV	Denmark
Rawson-Lush Instrument Co Inc, Acton	Mass
Roback Corp, Huntingdon Valley	Pa
Robertson Instrument Co, Azusa	Cal
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Semiconductor Circuits, Inc, Woburn	Mass
Servo-Tek Products Co, Marine Div, Hawthorne	N J
Servo-Tek Products Co, Hawthorne	N J
Shurite Meters, New Haven	Conn
Sigma Instruments Canada Ltd, Toronto 18 Ont	Canada
Simpson Electric Co, Chicago	Ill
Singer Co, Metrics Div, Bridgeport	Conn
SRC Div Moxon Electronics Corp, Los Angeles	Cal
Stark Electronic Instruments Ltd, Ajax	Ont
Sterling Mfg Co, Cleveland	Ohio
Sun Electric Corp, Chicago	Ill
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Taffet Electronics Inc, Woodside	N Y
Takeda Riken Industry Co Ltd, Tokyo	Japan
Techmetric Co, Redwood City	Cal
Trio Laboratories Inc, Plainview	N Y
Triplett Electrical Instrument Co, Bluffton	Ohio
United Systems Corp, Dayton	Ohio
Voltron Products Inc, Pasadena	Cal
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Welch Scientific Co, Skokie	Ill
Western Reserve Electronics, Inc, Cleveland	Ohio
Westinghouse Electric Corp, Relay & Instr Dept Newark	N J
Weston Instruments Div Weston Instr Inc, Newark	N J
Westronics Inc, Fort Worth	Tex
Whittaker Corp Gen Com Div, Plainview	N Y
Yokogawa Electric Works Inc, Larchmont	N Y

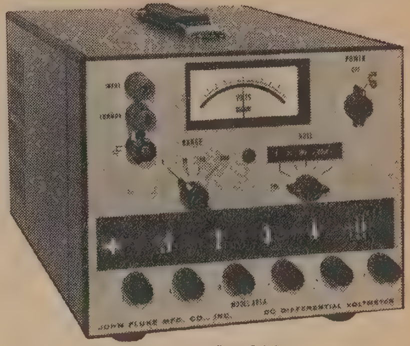
VOLTMETERS--D-C, DIFFERENTIAL, NULL OR REFERENCE

FLUKE MFG CO INC, JOHN, SEATTLE. WASH	**ADV PG 789**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
LAMBDA ELECTRONICS CORP, PLAINVIEW N Y	**ADV PGS 515-525**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MODUTEC INC, NORWALK	**CONN**
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM	**MASS**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
Ad-Yu Electronics Inc, Passaic	N J
Allen/UTI, Kalamazoo	Mich
A & M Instruments Inc, Great Neck	N Y
Beede Electrical Instrument Co, Inc, Penacook	N H
Boonton Electronics Corp, Parsippany	N J
Bruno-New York Industries Corp, New York	N Y
Cohu Electronics Inc, San Diego	Cal
Data Technology Corp, Mountain View	Cal
Doric Scientific Corp, San Diego	Calif
Dowa Trading Co Ltd, Kobe	Japan
Dynamics Instrumentation Co, Monterey Park	Cal
Edison, Thomas A Industries, Instr Div West Orange	N J
Electronic Development Corp, Boston	Mass
Electro Scientific Industries Inc, Portland	Ore
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Fairchild Instrumentation, Sunnyvale	Cal
Filmohm Corp, Long Island City	N Y
Fisher-Akin Co, Manhattan Beach	Cal
Fluke Mfg Co Inc, John, Seattle	Wash
General Resistance Inc, New York	NY
Hallmark Standards Inc, Mamaroneck	N Y
Hewlett-Packard, Palo Alto	Cal
Hickok Teaching Systems Inc, Cambridge	Mass
Honeywell Precision Meter Div, Manchester	N H
Honeywell Test Instruments Div, Denver	Colo
Howell Instruments Co, Fort Worth	Tex
IB Instruments Inc, Cleveland	Ohio
Impectron Inc, New York	N Y
Industrial Control Co, Farmingdale	N Y
Instrulab Inc, Dayton	Ohio
Julie Research Labs, Inc, New York	N Y
Keithley Instruments Inc, Cleveland	Ohio
Lambda Electronics Corp, Plainview	N Y
Mastercraft Instrument Co, Dubuque	Iowa
Matsushita Electric Industrial Co Ltd, Osaka	Japan
McMahon Electronic Engineering Res & Dev Lab San Pedro	Cal
Medistor Instrument Co, Seattle	Wash
Mesur-Matic Electronic Corp, Warner	N H
Millivac Instruments Inc, Schenectady	N Y
Modutec Inc, Norwalk	Conn
Mura Corp, Great Neck	N Y
Nelson Electronic Labs Inc, Plano	Tex
Optical Electronics Inc, Tuscon	Ariz
Philbrick/Nexus Research A Teledyne Co Dedham	Mass
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Plessey Airborne Corp, Hillside	NJ
PMF Electronics Inc, Dayton	Ohio
Precision Standards Corp, San Marino	Cal
Preston Scientific, Inc, Anaheim	Cal
Robertson Instrument Co, Azusa	Cal
Ross Engineering Corp, Saratoga	Cal
Sigma Instruments Canada Ltd, Toronto 18 Ont	Canada
Singer Co, Metrics Div, Bridgeport	Conn
SRC Div Moxon Electronics Corp, Los Angeles	Cal
Trio Laboratories Inc, Plainview	N Y
Voltron Products Inc, Pasadena	Cal
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Wavetek, San Diego	Cal
Western Reserve Electronics, Inc, Cleveland	Ohio
Weston Instruments Div Weston Instr Inc, Newark	N J
Westronics Inc, Fort Worth	Tex
Yokogawa Electric Works Inc, Larchmont	N Y

Voltmeters DC

Model 871

Model 881

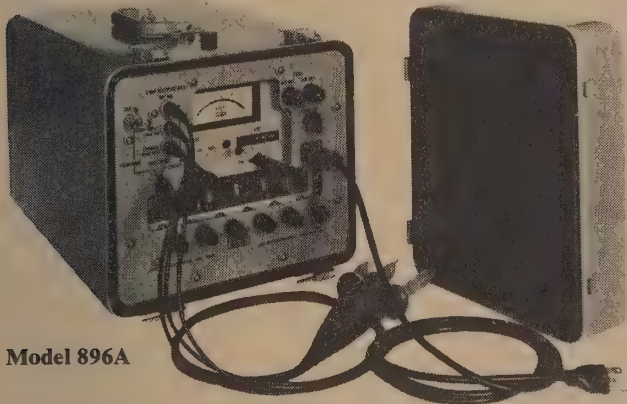


Model 895

Fluke DC Differential Voltmeters

Fluke solid state DC Differential Voltmeters offer the widest range of performance and accuracy in the market. Most units operate from either internal rechargeable batteries or 115/230 V, 50-440 Hz line power. Battery power is essential for measurement where maximum accuracy demands complete line isolation. Input ranges are 1, 10, 100 and 1000 volts, each with 10% overranging.

Fluke voltmeters are electrically and mechanically designed to perform under the extremes of temperature, shock, vibration and humidity. Each zener diode reference is processed, computer matched and selected to establish excellent stability and temperature coefficient tracking. Fluke manufactures all of the precision wire wound resistors used. All solid state voltmeters are lightweight for portability and are provided with a tilt-back bail or functional detented handle for operator convenience. Recorder output is available on all Fluke differential voltmeters.



Model 896A

The new Fluke Model 896A represents an outstanding expansion of the capabilities and applications of the Model 895A DC Differential Voltmeter. Features of the new unit include the ability to measure ±15 Kv at multiplier input, measure ±1100 volts potentiometrically with up to ±5 Kv DC common-mode, mil-spec combination case and splashproof panel, and 100 μv full-scale sensitivity with 6 digit readout. The unit meets the MIL-E-16400 environmental spec.

Model	Input Range	Accuracy	Max. Full Scale Sensitivity	Max. Meter Resolution	Reference	Price
871A	0-1100 v	±0.02%	1 mv	10 μv	Zener Diode	$ 565
881A	0-1100 v	±0.005%	100 μv	1 μv	Zener Diode	825
885A	0-1100 v	±0.0025%	100 μv	1 μv	Zener Diode	965
891A	0-1100 v	±0.01%	1 mv	10 μv	Zener Diode	695
895A*	0-1100 v	±0.0025%	100 μv	1 μv	Zener Diode	1,095
896A	0-±15000 v	±0.01%	100 μv	1 μv	Zener Diode	1,995

Solid state models available in either line-powered or combination rechargeable battery-line powered versions.
*Infinite output resistance to 1100 volts.

Fluke, Box 7428, Seattle, Washington 98133. Phone: (206) 774-2211. TWX: (910) 449-2850.
In Europe, address Fluke Nederland (N.V.), P.O. Box 5053, Tilburg, Holland.
Telex: 844-50237. In the U.K., address Fluke International Corp.,
P.O. Box 102, Watford Herts, England, Telex: 851-934-583.

FLUKE

Of all DVM's, only Honeywell Digitest gives you five functions (DC Voltage, AC Voltage, DC Current, AC Current, Resistance), a choice of two models, and

1 2 4 3
Digitest
ZERO
FULL SCALE
OHMS
DC
AC
OFF
SIGNAL
2 4 3
HONEYWELL
Digitest
MODEL 333

Bench/Rack, Model 333R

Bench/Portable, Model 333

a price tag of only $395!

With ±0.5% accuracy, 100μV resolution, absolutely clear 3½-digit readout, and simple, foolproof operation, the tough, compact little Digitest makes other low-cost DVM's look overpriced and under-engineered. We won't even mention a comparison with conventional meter-movement instruments.

Both models share the same specs, but Model 333 is completely portable thanks to built-in rechargeable ni-cad battery operation. It operates on AC as well. Both instruments give you 3½-digit readout, with Model 333R providing an overrange digit while Model 333 employs an overrange indicator.

Compare features, specs, and prices—you'll see that Digitest is your best DVM value. That $395 price, by the way, is *complete.* There are no shunts or plug-ins to buy, and even leads are furnished. The only option is a set of ni-cad batteries for the portable model at $33. **Order yours today!** Call Ron Craig (collect) at (303) 771-4717, or send your purchase order to Ron at Mail Station 222, Honeywell, Test Instruments Division, P.O. Box 5227, Denver, Colorado 80217. Both models are in stock for immediate delivery, so order now!

Honeywell

Honeywell engineers sell solutions

VOLTMETERS--DIGITAL

API INSTRUMENTS CO, CHESTERLAND	**OHIO**
DATA TECHNOLOGY, INC, WATERTOWN	**MASS**
FLUKE MFG CO INC, JOHN, SEATTLE. WASH	**ADV PG 793**
HEATH CO, BENTON HARBOR	**MICH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND OHIO	**ADV PG 791**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8, 790**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
NON-LINEAR SYSTEMS INC, DEL MAR, CAL	**ADV PG 792**
SYSTRON DONNER CORP, CONCORD, CAL	**ADV PG 791**
TECHMETRIC CO, REDWOOD CITY	**CAL**
TRYMETRICS CORP, ROOSEVELT, N Y	**ADV PG 791**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**

Abbey Electronics Corp, Westbury	NY
Adage Inc, Boston	Mass
A D Data Systems Inc, Rochester	N Y
Aerometrics Div Aerojet-General Corp, San Ramon	Cal
API Instruments Co, Chesterland	Ohio
Automated Measurements Corp, Los Gatos	Cal
Ballantine Laboratories, Inc, Boonton	N J
Beckman Instruments Inc, Fullerton,	Cal
Bendix Corp, Communications Div, Towson	Md
Bristol Div, American Chain & Cable Co Waterbury	Conn
California Instruments Corp, San Diego	Cal
Cohu Electronics Inc, San Diego	Cal
Dana Laboratories Inc, Irvine	Cal
Darcy Industries Inc, DVM Div, Santa Monica	Cal
Datascan Inc, Clifton	N J
Data Technology Corp, Mountain View	Cal
Data Technology, Inc, Watertown	Mass
Dentronics, Inc, Hackensack	N J
Doric Scientific Corp, San Diego	Calif
Dowa Trading Co Ltd, Kobe	Japan
Dynamco Ltd, Chertsey Surrey	Eng
Dytro Corp, Hicksville	NY
Electronic Associates Inc, West Long Branch	N J
Electronic Design Labs Inc, Philadelphia	Pa
Electronic Development Corp, Boston	Mass
Epsco Inc, Westwood	Mass
Fairchild Instrumentation, Sunnyvale	Cal
Fenlow Electronics Ltd, Weybridge	England
Fluke Mfg Co Inc, John, Seattle	Wash

Digital voltmeters and multimeters

Full line ranges from simple 3-digit DC voltmeter priced at $395 to .01% multimeters that measure voltage (AC & DC), current (AC & DC), and resistance. The precision integrating meters feature 100μv resolution, 80 db noise rejection, selectable input filtering, and reading speeds up to six per second. Automatic polarity indication and 20% over-ranging are standard on all meters. All meters use modern integrated circuits to enhance reliability.

Send for catalog

SYSTRON DONNER

Electronic Instrument Division,
888 Galindo St., Concord, Calif. 94520.
Phone (415) 682-6161. TWX 415-687-3200.

TRYMETRICS CORPORATION

.01% 4 DIGIT DVM
FROM $595

- Multimeters dc ac ohms
- Unit 1250 Models
- Plug-in Models
- Stable Stored Display
- Printer Output
- Manual and Auto Ranging

Write for complete catalog

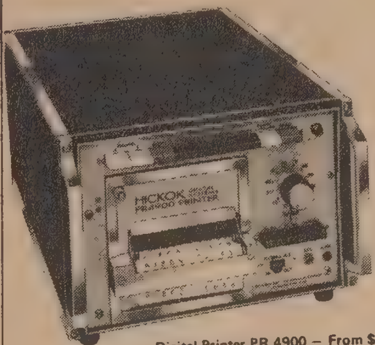
TRYMETRICS CORP.

204 Babylon Turnpike, Roosevelt, N. Y. 11575
Tel: 516-378-2800 • Twx: 510-225-3664

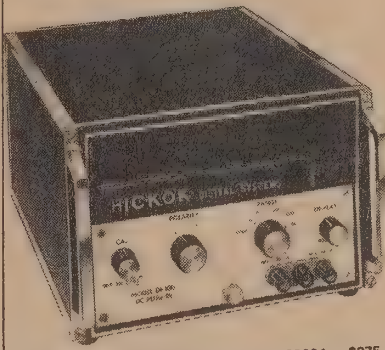
HICKOK

DMS-3200

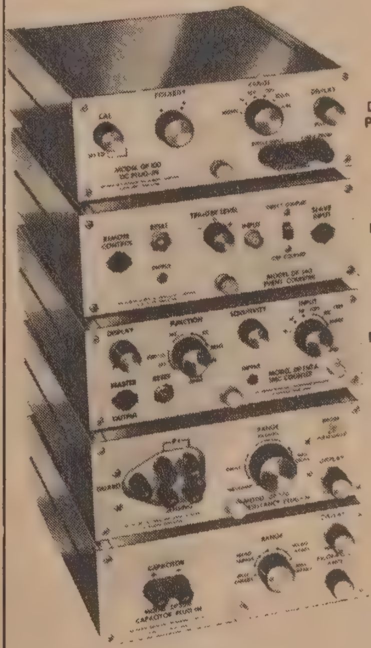
Digital Measuring System
(Fully solid state with IC's)



Digital Printer PR 4900 – From $760



Main Frame DMS 3200A – $375
(or DMS 3200P Main Frame with printer output – $450)
Shown with DC Voltmeter Plug-in



DC Voltmeter
Plug-in DP 100
$175

Event Counter
Plug-in DP 140
$90

1 MHz Counter
Plug-in DP 150A
$230

Ohmmeter
Plug-in DP 170
$275

Capacity Meter
Plug-in DP 200
$275

The HICKOK DMS 3200 Digital Measuring System is a precision electronic measuring device which displays readings in digital form instead of the relatively inaccurate and difficult-to-read moving-pointer meter display. A companion PR 4900 Digital Printer allows the displayed readings of the DMS 3200 System to be printed in permanent form for storage and future reference.

Because the DMS 3200 System consists of a main frame which will accept a number of "plug-in" units, it can be used to measure a variety of electrical parameters. The main frame provides display of the reading; the plug-in determines the application.

THE HICKOK ELECTRICAL INSTRUMENT COMPANY
10514 Dupont Avenue • Cleveland, Ohio 44108

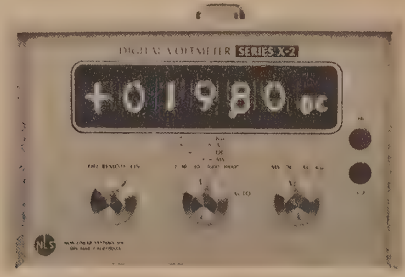
Digital Instrumentation

digital voltmeter series X-1
+000840

SERIES X-I DIGITAL VOLTMETER—Five digits plus sixth digit 20% overrange; 0.001% linearity; accuracy ±(0.005% of reading +0.001% of full scale); measures from 100 μV to 1 KV; automatic polarity and ranging.
Options include: AC measurements from 10 μV to 500 V; Frequency 50 Hz to 100 KHz. Resistance from 0.01 Ω to 12 Megohms; Preamplifier extends DC measurements down to 1 μV; Printout; Remote Trigger; Ratio; Active Filter.

X-I EIGHT RANGE OHMMETER—Automatic resistance measurements in eight ranges, from 100 μohms to 120 Megohms; DC measurements from 1 μV to 1 KV in five automatic or manually selectable ranges; incorporates high speed active filter to smooth out noisy input signals.

SERIES X-I COMPUTING MULTIMETER—Directly measures and computes the Deviation [(A — B)/B], Ratio (A/B) or Difference (A — B) of any two absolute numerical values where A and B are presented as analogs of Resistance, DC voltages from 1 microvolt to 1000 volts or AC voltages from 10 microvolts to 500 volts.
Applications in transformer ratio and linearity testing, potentiometer and resistor manufacture and quality control, resolver checkout, accelerometer calibration, and automated test set readout.



SERIES X-2 DIGITAL VOLTMETER—Four digits plus fifth digit 20% overrange; accuracy ±(0.02% of reading +0.01% of full scale); measures from 1 mV to 1 KV; auto polarity.
Options include: Auto Ranging; AC Measurements from 100 μV to 500 V; Frequency 50 Hz to 100 KHz. Dual function Ohms/Millivolts converter measures from 100 Milliohms to 12 Megohms and extends DC down to 10 μV; Remote Trigger and Printout; Function Display; Ratio; Current measurements from 1 nanoamp to 1 amp.

X-3A DIGITAL MULTIMETER—2000 digit display; measures from 10 μV to 1 KV, AC from 0.5 V to 300 V; Frequency 20 Hz to 500 MHz. Resistance from 10 mΩ to 2000 Megohms and Current from 10 picoamps to 200 mA; full input protection on all functions; Analog output; Power supply output. Options include: High Voltage Probe extends DC measurements to 30 KV; current shunt extends measurements to 2 amps.

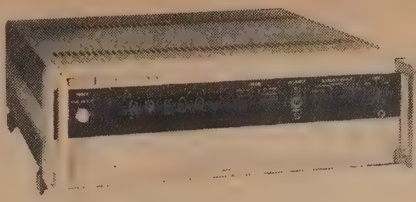
Call COLLECT (714) 755-1134 to request detailed brochures and/or applications engineering assistance.

Originator of the Digital Voltmeter
NON-LINEAR SYSTEMS, INC.
DEL MAR, CALIFORNIA 92014

Gap Instrument Corp, Westbury	N Y
Gralex Industries Inc, Copiague	N Y
Heath Co, Benton Harbor	Mich
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Hickok Teaching Systems Inc, Cambridge	Mass
Honeywell Test Instruments Div, Denver	Colo
Howell Instruments Co, Fort Worth	Tex
Janus Control Div Tyco, Waltham	Mass
J-Omega Co, Mountain View	Cal
Laben S p A, Milan	Italy
Lear Siegler Inc, Santa Monica	Cal
Lear Siegler Inc, Cimron Div, San Diego	Cal
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Microdyne Instruments, Waltham	Mass
Micro Instrument Co, Hawthorne	Cal
3M Company, St Paul	Minn
3M Instrument Products, Camarillo	Cal
Monsanto Elec Tech Center, West Caldwell	N J
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Nelson Electronic Labs Inc, Plano	Tex
Newport Labs Inc, Newport Beach	Cal
Nichols Co Ltd, R H, Downsview	Ont
Non-Linear Systems Inc, Del Mar	Cal
Optical Electronics Inc, Tuscon	Ariz
Pacific Measurements Inc, Palo Alto	Cal
Precision Research Inc, Stamford	Conn
RC-95 Inc, New York	N Y
Roback Corp, Huntingdon Valley	Pa
Roband Electronics Ltd, Surrey	England
Robertson Instrument Co, Azusa	Cal
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Schlumberger, 92-Montrouge 32	France
Schneider Radio-Television Div, Ivry	France
Simpson Electric Co, Chicago	Ill
Sodilec SA Salies-S A, 91 Palaiseau	France
Stark Electronic Instruments Ltd, Ajax	Ont
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Systron Donner Corp, Concord	Cal
Takeda Riken Industry Co Ltd, Tokyo	Japan
Techmetric Co, Redwood City	Cal
Technology/Versatronics Inc, Yellow Springs	Ohio
Tecnica Elettronica Systems S a s, Milan	Italy
Trio Laboratories Inc, Plainview	N Y
Trymetrics Corp, Roosevelt	N Y
United Systems Corp, Dayton	Ohio
Vidar Corp, Mountain View	Cal
Western Reserve Electronics, Inc, Cleveland	Ohio
Weston Instruments Div Weston Instr Inc, Newark	N J
Weston Lexington Weston Instruments Div Lexington	Mass
Yokogawa Electric Works Inc, Larchmont	N Y

VOLTMETERS--ELECTRONIC (VTVM)

ANRITSU ELECTRIC CO LTD, TOKYO	**JAPAN**
DRANETZ ENGINEERING LABS INC, PLAINFIELD	**N J**
FLUKE MFG CO INC, JOHN, SEATTLE	**WASH**
HEATH CO, BENTON HARBOR, MICH	ADV PG 793
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON N Y	ADV PG 495
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE	**CAL**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO, ILL	ADV PG 465
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW	**N Y**
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM	**MASS**
SYSTRON DONNER CORP, CONCORD	**CAL**
TEXSCAN CORP, INDIANAPOLIS,	**IND**
WHITTAKER CORP GEN COM DIV, PLAINVIEW	**N Y**
Airmec Instruments Ltd, Buckinghamshire	England
Allen/UTI, Kalamazoo	Mich
A & M Instruments Inc, Great Neck	N Y
Anritsu Electric Co Ltd, Tokyo	Japan
Aul Instruments Inc, Long Island City	NY
Ballantine Laboratories, Inc, Boonton	N J
B & K Mfg Co Div Dynascan Corp, Chicago	Ill
Boonton Electronics Corp, Parsippany	N J
Bradley Ltd G & E, London NW 10	England
Central Scientific Co, Chicago	Ill
Clough-Brengle Co, Chicago	Ill
C & N Electrical Ltd, Hants	England
Cohu Electronics Inc, San Diego	Cal
Compagnie Generale de Metrologie Haute Savoie	France
Control Data Corp, LaJolla Div, Minneapolis	Minn
Controlomag Labs, Roslyn	Pa
Data Instrument Div, Pennsauken	N J
Data Technology Corp, Mountain View	Cal
Dowa Trading Co Ltd, Kobe	Japan
Dranetz Engineering Labs Inc, Plainfield	N J
Dynamics Instrumentation Co, Montarey Park	Cal
EICO Electronic Instrument Co Inc, Brooklyn	NY
Electronic Associates Inc, West Long Branch	N J
Electronic Measurements Corp, New York	N Y
Fen-Tone Corp, New York	N Y
Fluke Mfg Co Inc, John, Seattle	Wash
General Radio Co, West Concord	Mass
General Resistance Inc, New York	NY
Hathaway Instruments Inc, Denver	Colo
Heath Co, Benton Harbor	Mich
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Hickok Teaching Systems Inc, Cambridge	Mass



Model 9500A true RMS Digital Voltmeter
Automatic Measurement and Display
All Solid State

For the first time, the advantages of a true RMS voltmeter and the ease of operation of a fully automatic digital voltmeter are combined in one instrument.

The 9500A precisely measures the true RMS value of any AC signal up to 1100 volts RMS regardless of waveshape or harmonic content. Input range selection, decimal point and calibration are truly automatic. Nixie® tubes provide a digital display, readable over a wide viewing angle. Both display and range may be varied by means of front panel control.

Options such as remote control, printer output and low capacity probe are available.

Brief Specifications:

Voltage Range:
1 mv to 1100 V RMS.

Accuracy:
±(0.05% of input +0.015% of range) from 50 Hz to 10 KHz.
Reduced accuracy specifications from 50 Hz to 700 KHz.

Frequency:
20 Hz to 700 KHz.

Input Resistance:
Model 9500A—1 megohm shunted by 20 pf.
Probe option—1 megohm shunted by 7 pf.

Crest Factor:
10.

Input Power:
115/230V AC 50-440 Hz.

Size:
5½" high x 17" wide x 15" deep.

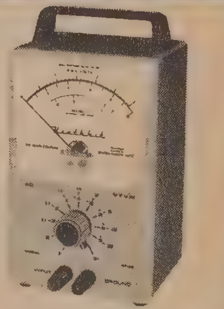
Price:
Model 9500A—$2490.00.

FLUKE

Fluke, Box 7428, Seattle Washington 98133. Phone: (206) 774-2211. TWX: (910) 449-2850.
In Europe, address Fluke Nederland (N.V.), P.O. Box 5053, Tilburg, Holland.
Telex: 844-50237. In the U.K., address Fluke International Corp.,
P.O. Box 102, Watford Herts, England, Telex: 851-934-583.

HEATHKIT® "Performance-Plus" Voltmeters

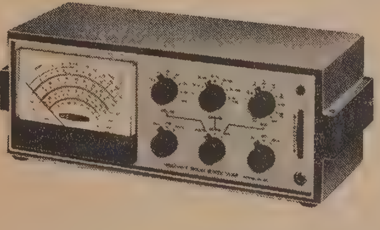
NEW Laboratory AC VTVM



The IM-38 is the essential instrument for virtually every kind of electronics work, and well suited too. Ten voltage ranges provide measurement capability from 10 millivolts to 300 volts — ideal for audio work; minimal circuit loading with the 10 megohm input. Extended frequency response of 10 Hz to 500 kHz ±1 dB and a calibrated dB scale for audio measurements too. The VU-type meter is ballistic damped for extra safety. The 2-stage amplifier provides 19 dB of negative feedback for high stability and linearity. Filament voltage is supplied from a transformer winding balanced to ground to keep AC noise to a minimum.

Kit IM-38	**$39.50**
Assembled IMW-38	**$54.95**

UNIQUE High Impedance VOM



For the first time, at less than $195, you can get a solid-state VOM that has: 9 DC voltage ranges — 150 mV-1500 V. • 9 AC ranges — 150 mV-1500 V. • 7 resistance ranges — 1 ohm-1000 megohms • 11 current ranges — 15 uA-1.5 A full scale • 11 megohm DC input • 10 megohm AC input • ±3% accuracy • AC response to 100 kHz • Zero center scale for + or — voltage measurements without switching • Portable or line operation • 120/240 VAC, 50-60 Hz wiring options

Kit IM-25	**$80.00**
Assembled IMW-25	**$115.00**

The Industry's Best Buy In A Solid-State High Impedance VOM

• Eight DC ranges — 0.5-1500 V. • Eight AC ranges — 0.5-1500 V • 7 ohmmeter ranges — 1 ohm-1000 megohms • 11 megohm input on DC • 1 megohm on AC • Multiple control knobs eliminate complex maze of figures • Operates from internal battery or 120/240 VAC, 50/60 Hz line • New Heathkit instrumentation styling

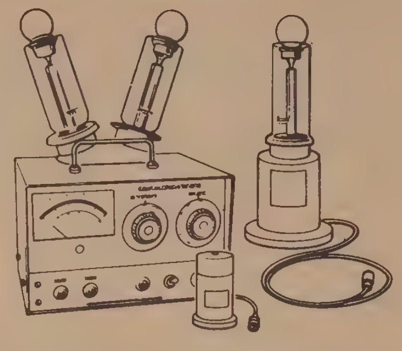
Kit IM-16	**$44.95**
Assembled IMW-16	**$64.95**

For your FREE copy of the 1969 Heathkit Scientific Instrument Catalog, write us on your school or company letterhead: HEATH CO., Dept. 520-32, Benton Harbor, Mich. 49022

Industrial Test Equipment Co, Port Washington ...... N Y
ITT Jennings Div, Intl Tel & Tel Corp, San Jose ...... Cal
Keithley Instruments Inc, Cleveland ...... Ohio
Kokuyo Electric Co Ltd, Tokyo ...... Japan
Korfund Dynamics Corp, Westbury ...... N Y
Kyoritsu Electrical Instruments Works Ltd, Tokyo .... Japan
Lab Electro-Acoustique, 92 Rueil-Malmaison ...... France
Lafayette Radio Electronics, Syosset ...... NY

Marconi Instruments Div, English Electric Corp Englewood ...... N J
Matsushita Electric Industrial Co Ltd, Osaka ...... Japan
McMahon Electronic Engineering Res & Dev Lab San Pedro ...... Cal
Measurements A McGraw-Edison Div, Boonton ...... N J
Medistor Instrument Co, Seattle ...... Wash
Meguro Denpa Sokki K K, Meguro-ku, Tokyo ...... Japan
Mesur-Matic Electronic Corp, Warner ...... N H
Metermaster, Inc, Los Angeles ...... Cal
Millivac Instruments Inc, Schenectady ...... N Y
Motorola Commun & Elctns Inc Prec Instr Prods Chicago Ill
Muirhead Instruments Inc, Mountainside ...... N J
Nelson Electronic Labs Inc, Plano ...... Tex
North Atlantic Industries Inc, Plainview ...... N Y
Northeast Electronics Corp, Concord ...... N H
Oki Electric Industry Co Ltd, Tokyo ...... Japan
Philbrick/Nexus Research A Teledyne Co Dedham ...... Mass
Philco-Ford Corp, Washington ...... D C
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon ...... NY
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Radio Corp of America, Electronic Components, Harrison ...... N J
Radiometer A/S, Copenhagen NV ...... Denmark
Robertson Instrument Co, Azusa ...... Cal
Ross Engineering Corp, Saratoga ...... Cal
Schneider Radio-Television Div, Ivry ...... France
Semiconductor Circuits, Inc, Woburn ...... Mass
Sencore Inc, Addison Ill
Sennheiser Electronic Corp (NY), New York ...... N Y
Simpson Electric Co, Chicago Ill
Singer Co, Metrics Div, Gertsch Dept, Los Angeles .... Cal
Stark Electronic Instruments Ltd, Ajax ...... Ont
Sunshine Scientific Instruments Inc, Philadelphia ..... Pa
Systron Donner Corp, Concord ...... Cal
Takeda Riken Industry Co Ltd, Tokyo ...... Japan
Tecnica Elettronica Systems S a s, Milan ...... Italy
Texscan Corp, Indianapolis ...... Ind
Theta Instrument Corp, Fairfield ...... N J
Trio Laboratories Inc, Plainview ...... N Y
Triplett Electrical Instrument Co, Bluffton ...... Ohio
Voltron Products Inc, Pasadena ...... Cal
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio
Whittaker Corp Gen Com Div, Plainview ...... N Y
Winslow Tele-Tronics Inc, Asbury Park ...... NJ
Yokogawa Electric Works Inc, Larchmont ...... N Y

HIGH VOLTAGE MEASURING EQUIPMENT



ITT Jennings manufactures a variety of compact, portable instruments for high voltage measurement, all designed as the smallest and lightest equipment available at their power levels. Included are a vacuum tube voltmeter, tester, vacuum dividers, a parallel RC voltage divider, an AC probe, vacuum capacitor voltage dividers and a line of accessories.

For application and specification data on these instruments, write for catalog No. 106. ITT Jennings, a division of International Telephone and Telegraph Corporation, 970 McLaughlin Avenue, San Jose, California 95108. Phone (408) 292-4025, TWX 910-338-0159.

JENNINGS ITT

VOLTMETERS-- ELECTROSTATIC

A & M Instruments Inc, Great Neck ...... N Y
Canadian Research Institute, Don Mills ...... Ont
Collins & Assoc Don L, Glendale ...... Cal
Dowa Trading Co Ltd, Kobe ...... Japan
Dynasciences Corp, Blue Bell ...... Pa
Ealing Corp, Cambridge ...... Mass
Ferranti, Ltd, Lancashire ...... England
Hallmark Standards Inc, Mamaroneck ...... N Y
Keithley Instruments Inc, Cleveland ...... Ohio
Landsverk Electrometer Co, Glendale ...... Cal
Medistor Instrument Co, Seattle ...... Wash
Monroe Electronics Inc, Middleport ...... N Y
Nichols Co Ltd, R H, Downsview ...... Ont
Rawco Instruments Inc, Fort Worth ...... Tex
Rawson-Lush Instrument Co Inc, Acton ...... Mass
Singer Co, Metrics Div, Bridgeport ...... Conn
Sweeney Mfg Co, B K, Denver ...... Colo
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio
Yokogawa Electric Works Inc, Larchmont ...... N Y

VOLTMETERS-- KILOVOLTMETERS

AMMON INSTRUMENTS INC, MANCHESTER ...... N H
ASSOCIATED RESEARCH, INC, CHICAGO ILL
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ...... ADV PG 7
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND ...... OHIO
ITT JENNINGS DIV, INTL TEL & TEL CORP, SAN JOSE CAL ...... ADV PG 794
PLASTIC CAPACITORS INC, CHICAGO ILL
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK ...... N J
A & M Instruments Inc, Great Neck ...... N Y
Ammon Instruments Inc, Manchester ...... N H
Associated Research, Inc, Chicago Ill
Aul Instruments Inc, Long Island City ...... NY
Ballantine Laboratories, Inc, Boonton ...... N J
Bartlett-Emery Instrument Co, Fort Madison ...... Iowa
Beckman Instruments Inc, Fullerton, ... Cal
Beckman Instruments Intl SA, 1207 Geneva ...... Switzerland
Beede Electrical Instrument Co, Inc, Penacook ...... N H
Bitronics Inc, Bethlehem ...... Pa
California Instruments Corp, San Diego ...... Cal
Canadian Research Institute, Don Mills ...... Ont
Compagnie Generale de Metrologie Haute Savoie ...... France
Control Data Corp, LaJolla Div, Minneapolis ...... Minn
Dana Laboratories Inc, Irvine ...... Cal
Dixson Inc Meter Div, Grand Junction ...... Colo
Dowa Trading Co Ltd, Kobe ...... Japan
Dynamco Ltd, Chertsey Surrey ...... Eng
E I L Instrument Div Unitec Industries, Timonium ..... Md
Fairchild Instrumentation, Sunnyvale ...... Cal
Fuji Electric Co Ltd, Tokyo ...... Japan
General Electric Co, ECSO, Schenectady ...... N Y
Hallmark Standards Inc, Mamaroneck ...... N Y
Hickok Electrical Instrument Co, Cleveland ...... Ohio
Honeywell Precision Meter Div, Manchester ...... N H

International Tel & Tel Corp Industrial Prods Div San Fernando ...... Cal
ITT Jennings Div, Intl Tel & Tel Corp, San Jose ...... Cal
J-Omega Co, Mountain View ...... Cal
Julie Research Labs, Inc, New York ...... N Y
Keithley Instruments Inc, Cleveland ...... Ohio
Kyoritsu Electrical Instruments Works Ltd, Tokyo .... Japan
Lear Siegler Inc, Cimron Div, San Diego ...... Cal
Mastercraft Instrument Co, Dubuque ...... Iowa
Medistor Instrument Co, Seattle ...... Wash
Metermaster, Inc, Los Angeles ...... Cal
Nelson Electronic Labs Inc, Plano ...... Tex
Nichols Co Ltd, R H, Downsview ...... Ont
Peschel Instruments Inc, Cape Coral ...... Fla
Phaostron Instrument & Electronic Co South Pasadena ...... Cal
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon ...... NY
Plastic Capacitors Inc, Chicago Ill
PMF Electronics Inc, Dayton ...... Ohio
Q V S Inc, East Orange ...... N J
Rawson-Lush Instrument Co Inc, Acton ...... Mass
Robertson Instrument Co, Azusa ...... Cal
Ross Engineering Corp, Saratoga ...... Cal
Scientific Columbus Inc, Columbus ...... Ohio
Sentron Inc, Danbury ...... Conn
Singer Co, Metrics Div, Bridgeport ...... Conn
Stark Electronic Instruments Ltd, Ajax ...... Ont
Sun Electric Corp, Chicago Ill
Sunshine Scientific Instruments Inc, Philadelphia ..... Pa
Sweeney Mfg Co, B K, Denver ...... Colo
Triplett Electrical Instrument Co, Bluffton ...... Ohio
United Systems Corp, Dayton ...... Ohio
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio
Westinghouse Electric Corp, Relay & Instr Dept Newark ...... N J
Weston Instruments Div Weston Instr Inc, Newark ... N J

VOLTMETERS-- MICROVOLTMETERS

FLUKE MFG CO INC, JOHN, SEATTLE ...... WASH
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ...... ADV PGS 7
HEWLETT-PACKARD, PALO ALTO ...... CAL
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND ...... OHIO
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO ...... ADV PGS 8
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW ...... N Y
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM ...... MASS
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK ...... N J
Airmec Instruments Ltd, Buckinghamshire ...... England
Amark Corp, Plainview ...... N Y
American Machine & Foundry Co Alexandria Div Alexandria ...... Va
A & M Instruments Inc, Great Neck ...... N Y
Aul Instruments Inc, Long Island City ...... NY
Ballantine Laboratories, Inc, Boonton ...... N J
Brower Labs Inc, Westboro ...... Mass
California Instruments Corp, San Diego ...... Cal
Cohu Electronics Inc, San Diego ...... Cal
Compagnie Generale de Metrologie Haute Savoie ...... France
Dixson Inc Meter Div, Grand Junction ...... Colo
Doric Scientific Corp, San Diego ...... Calif
Dowa Trading Co Ltd, Kobe ...... Japan
Dynamco Ltd, Chertsey Surrey ...... Eng
Dynamics Instrumentation Co, Monterey Park ...... Cal
Electronic Applications Co, Pine Brook ...... N J
Electro Scientific Industries Inc, Portland ...... Ore
Esterline Angus Div Esterline Corp, Indianapolis ...... Ind
Fairchild Instrumentation, Sunnyvale ...... Cal
Fluke Mfg Co Inc, John, Seattle ...... Wash
Fuji Electric Co Ltd, Tokyo ...... Japan
General Electric Co, ECSO, Schenectady ...... N Y
General Radio Co, West Concord ...... Mass
Hallmark Standards Inc, Mamaroneck ...... N Y
Hewlett-Packard, Palo Alto ...... Cal
Hickok Electrical Instrument Co, Cleveland ...... Ohio
Honeywell Precision Meter Div, Manchester ...... N H
Honeywell Test Instruments Div, Denver ...... Colo
IB Instruments Inc, Cleveland ...... Ohio
Industrial Control Co, Farmingdale ...... N Y
Infrared Industries Inc, Santa Barbara ...... Cal
Julie Research Labs, Inc, New York ...... N Y
Keithley Instruments Inc, Cleveland ...... Ohio
Lab Electro-Acoustique, 92 Rueil-Malmaison ...... France
Lear Siegler Inc, Cimron Div, San Diego ...... Cal
Mastercraft Instrument Co, Dubuque ...... Iowa
Medistor Instrument Co, Seattle ...... Wash
Mesur-Matic Electronic Corp, Warner ...... N H
Millivac Instruments Inc, Schenectady ...... N Y
Mura Corp, Great Neck ...... N Y
Nelson Electronic Labs Inc, Plano ...... Tex
North Atlantic Industries Inc, Plainview ...... N Y
Phaostron Instrument & Electronic Co South Pasadena ...... Cal
Philbrick/Nexus Research A Teledyne Co Dedham ...... Mass
Philco-Ford Corp, Washington ...... D C
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon ...... NY
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Plessey Airborne Corp, Hillside ...... NJ
PMF Electronics Inc, Dayton ...... Ohio
Rohde & Schwarz Sales Co USA Inc, Passaic ...... N J
Simpson Electric Co, Chicago Ill
Singer Co, Metrics Div, Bridgeport ...... Conn
Sun Electric Corp, Chicago Ill
Sunshine Scientific Instruments Inc, Philadelphia ..... Pa
Theta Instrument Corp, Fairfield ...... N J
United Systems Corp, Dayton ...... Ohio
Vidar Corp, Mountain View ...... Cal
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio
Welch Scientific Co, Skokie Ill

Westinghouse Electric Corp, Relay & Instr Dept Newark ...... N J
Weston Instruments Div Weston Instr Inc, Newark ... N J
Westronics Inc, Fort Worth ...... Tex
Yokogawa Electric Works Inc, Larchmont ...... N Y

VOLTMETERS-- MILLIVOLTMETERS

AMMON INSTRUMENTS INC, MANCHESTER ...... N H
API INSTRUMENTS CO, CHESTERLAND ...... OHIO
ELECTRO-MECHANICAL INSTRUMENT CO, INC, PERKASIE PA ...... ADV PG 795
FLUKE MFG CO INC, JOHN, SEATTLE ...... WASH
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y ...... ADV PGS 7
HEWLETT-PACKARD, PALO ALTO ...... CAL
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND ...... OHIO
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO ...... ADV PGS 8
MODUTEC INC, NORWALK ...... CONN
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO ILL
NORTH ATLANTIC INDUSTRIES INC, PLAINVIEW ...... N Y
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM ...... MASS
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK ...... N J
Abbey Electronics Corp, Westbury ...... NY
Airmec Instruments Ltd, Buckinghamshire ...... England
Allen/UTI, Kalamazoo ...... Mich
Amark Corp, Plainview ...... N Y
American Machine & Foundry Co Alexandria Div Alexandria ...... Va
A & M Instruments Inc, Great Neck ...... N Y
Ammon Instruments Inc, Manchester ...... N H
Amprobe Instrument Div Soss Mfg Co, Lynbrook ...... N Y
API Instruments Co, Chesterland ...... Ohio
Aul Instruments Inc, Long Island City ...... NY
Ballantine Laboratories, Inc, Boonton ...... N J
Bartlett-Emery Instrument Co, Fort Madison ...... Iowa
Beede Electrical Instrument Co, Inc, Penacook ...... N H
Bitronics Inc, Bethlehem ...... Pa
Boonton Electronics Corp, Parsippany ...... N J

EMICO high tork METERS

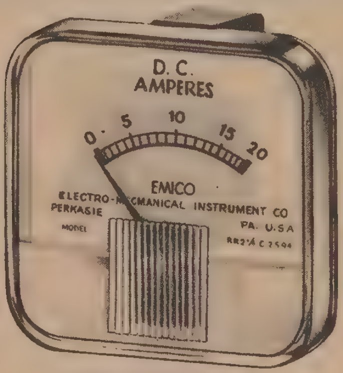
EMICO is the dependable VOLUME source for 100% American-made AC and DC meters, supplying both standard and custom types, for a wide range of applications in the electronics, automotive, appliances and test equipment fields...

- VOLTMETERS
- AMMETERS
- MILLIVOLT METERS
- MILLIAMMETERS
- MICROAMMETERS
- DB METERS
- VU METERS
- CIRCUIT INDICATORS
- VOLTAGE TESTERS
- INDUCTION METERS

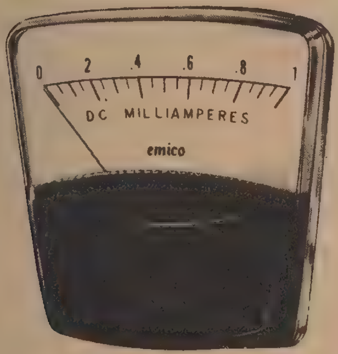
DC MILLIAMPERES
0 1 2 3 4 5
ELECTRO MECH INSTR. CO. PERKASIE, PA. U.S.

EDGE READING METER
Model 13
1 13/16″ × 3/4″

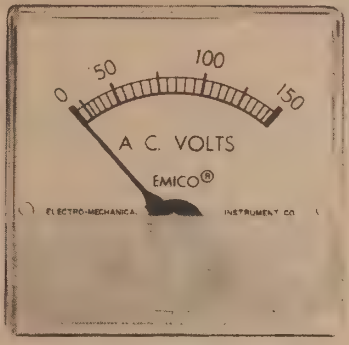
EDGE READING METER
Model 12 1 1/4″ x 5/16″


D.C. AMPERES
0 5 10 15 20
EMICO
ELECTRO-MECHANICAL INSTRUMENT CO
PERKASIE PA. U.S.A

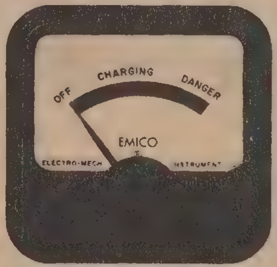
PLASTIC BEZEL METER
Model 42 2 5/16″ square


0 .2 .4 .6 .8 1
DC MILLIAMPERES
emico

STARLINE METER
Model 32
approx. 3″ square


0 50 100 150
A. C. VOLTS
EMICO®
ELECTRO-MECHANICAL INSTRUMENT CO

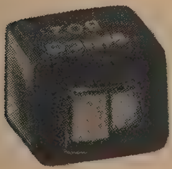
PLASTIC BEZEL METER
Model 52 approx. 2 3/8″ square


OFF
CHARGING
DANGER
EMICO
ELECTRO-MECH INSTRUMENT

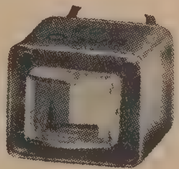
METAL BEZEL METER
Model 72 2 1/4″ square

MICRO-MINIATURE CIRCUIT INDICATORS

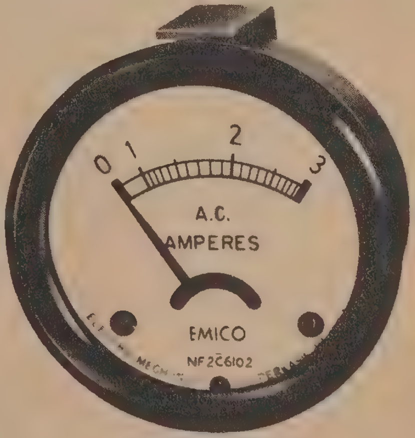
For monitoring on-off conditions, malfunctions, or battery charge conditions, select either Model 802P (pointer-type) or 802F (flag-type) indicator. Rugged, dependable, extremely low-cost. Available with either wire leads or plug-in jacks for easy installation. For technical details, request Bulletin R12-A.



Model 202F approx. 1/2″ square



Model 802P approx. 1/2″ square


0 1 2 3
A.C. AMPERES
EMICO
NF2C6102

METAL BEZEL METER
Model 73
2 1/4″ diameter

EMICO designs and engineers meters to your exact requirements, including any custom dial face, with special scale, trademark, name or colors. Send details or drawings for prompt quotation.

Phone: (215) 257-6561 TWX: 215 350-6084

ELECTRO-MECHANICAL INSTRUMENT CO. INC., PERKASIE, PENNSYLVANIA 18944

Bradley Ltd G & E, London NW 10 .... England
California Instruments Corp, San Diego .... Cal
Canadian Research Institute, Don Mills .... Ont
Compagnie Generale de Metrologie
  Haute Savoie .... France
Dana Laboratories Inc, Irvine .... Cal
Dixson Inc Meter Div, Grand Junction .... Colo
Doric Scientific Corp, San Diego .... Calif
Dowa Trading Co Ltd, Kobe .... Japan
Dynamco Ltd, Chertsey Surrey .... Eng
Dynamics Instrumentation Co, Monterey Park .... Cal
EICO Electronic Instrument Co Inc, Brooklyn .... NY
Electro-Mechanical Instrument Co, Inc, Perkasie .... Pa
Electro Scientific Industries Inc, Portland .... Ore
Fairchild Instrumentation, Sunnyvale .... Cal
Fen-Tone Corp, New York .... N Y
Ferranti, Ltd, Lancashire .... England
Filmohm Corp, Long Island City .... N Y
Fluke Mfg Co Inc, John, Seattle .... Wash
Fuji Electric Co Ltd, Tokyo .... Japan
General Electric Co, ECSO, Schenectady .... N Y
Gotham Audio Corp, New York .... N Y
Hallmark Standards Inc, Mamaroneck .... N Y
Hewlett-Packard, Palo Alto .... Cal
Hickok Electrical Instrument Co, Cleveland .... Ohio
Honeywell Precision Meter Div, Manchester .... N H
Honeywell Test Instruments Div, Denver .... Colo
Howell Instruments Co, Fort Worth .... Tex
IB Instruments Inc, Cleveland .... Ohio
Ideal Precision Meter Co Inc, Brooklyn .... N Y
International Instruments Div Sigma Instr Inc,
  Orange .... Conn
International Tel & Tel Corp Industrial Prods Div
  San Fernando .... Cal
Julie Research Labs, Inc, New York .... N Y
Keithley Instruments Inc, Cleveland .... Ohio
Lab Electro-Acoustique, 92 Rueil-Malmaison .... France
Lewis Engineering Co, Naugatuck .... Conn
Marconi Instruments Div, English Electric Corp
  Englewood .... N J
Mastercraft Instrument Co, Dubuque .... Iowa
Medistor Instrument Co, Seattle .... Wash
Mesur-Matic Electronic Corp, Warner .... N H
Metermaster, Inc, Los Angeles .... Cal
Millivac Instruments Inc, Schenectady .... N Y
Modutec Inc, Norwalk .... Conn
Monroe Electronics Inc, Middleport .... N Y
Motorola Commun & Elctns Inc Prec Instr Prods
  Chicago Ill
Mura Corp, Great Neck .... N Y
Nelson Electronic Labs Inc, Plano .... Tex
Nichols Co Ltd, R H, Downsview .... Ont
North Atlantic Industries Inc, Plainview .... N Y
Phaostron Instrument & Electronic Co
  South Pasadena .... Cal
Philbrick/Nexus Research A Teledyne Co
  Dedham .... Mass
Philips Electronic Instruments, Test & Measuring Inst
  Mount Vernon .... NY
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Plessey Airborne Corp, Hillside .... NJ
PMF Electronics Inc, Dayton .... Ohio
Q V S Inc, East Orange .... N J
Radiometer A/S, Copenhagen NV .... Denmark
Ramapo Instrument Co Inc, Bloomingdale .... NJ
Rawson-Lush Instrument Co Inc, Acton .... Mass
Robertson Instrument Co, Azusa .... Cal
Rohde & Schwarz Sales Co USA Inc, Passaic .... N J
Ross Engineering Corp, Saratoga .... Cal
Sigma Instruments Canada Ltd, Toronto 18 Ont .... Canada
Simpson Electric Co, Chicago Ill
Singer Co, Metrics Div, Bridgeport .... Conn
Sterling Mfg Co, Cleveland .... Ohio
Sun Electric Corp, Chicago Ill

Sunshine Scientific Instruments Inc, Philadelphia .... Pa
Tecnica Elettronica Systems S a s, Milan .... Italy
Theta Instrument Corp, Fairfield .... N J
Trio Laboratories Inc, Plainview .... N Y
Triplett Electrical Instrument Co, Bluffton .... Ohio
United Systems Corp, Dayton .... Ohio
Vidar Corp, Mountain View .... Cal
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio
Welch Scientific Co, Skokie Ill
Western Reserve Electronics, Inc, Cleveland .... Ohio
Westinghouse Electric Corp, Relay & Instr Dept
  Newark .... N J
Weston Instruments Div Weston Instr Inc, Newark .... N J
Westronics Inc, Fort Worth .... Tex
Yokogawa Electric Works Inc, Larchmont .... N Y

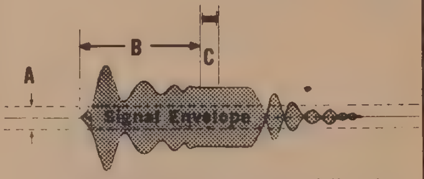
VOLTMETERS--PEAK

HEWLETT-PACKARD, PALO ALTO .... CAL
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND .... OHIO
NON-LINEAR SYSTEMS INC, DEL MAR .... CAL
American Machine & Foundry Co Alexandria Div
  Alexandria .... Va
A & M Instruments Inc, Great Neck .... N Y
Aul Instruments Inc, Long Island City .... NY
Ballantine Laboratories, Inc, Boonton .... N J
Control Data Corp, LaJolla Div, Minneapolis .... Minn
Dixson Inc Meter Div, Grand Junction .... Colo
Dowa Trading Co Ltd, Kobe .... Japan
Dynamco Ltd, Chertsey Surrey .... Eng
Fuji Electric Co Ltd, Tokyo .... Japan
Hallmark Standards Inc, Mamaroneck .... N Y
Hewlett-Packard, Palo Alto .... Cal
Hickok Electrical Instrument Co, Cleveland .... Ohio
Lear Siegler Inc, Cimron Div, San Diego .... Cal
Mastercraft Instrument Co, Dubuque .... Iowa
Measurements A McGraw-Edison Div, Boonton .... N J
Mesur-Matic Electronic Corp, Warner .... N H
Micro Instrument Co, Hawthorne .... Cal

new...
SAMPLING VOLTMETER

LETS YOU FORGET PEAK DETECTION AND STORAGE OSCILLOSCOPES!

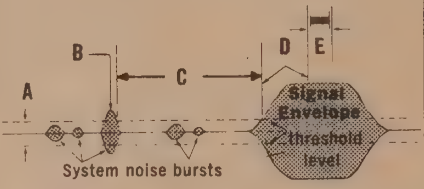
Model 215 Can measure the average value of an AC signal at a predetermined time with sampling periods as short as 100 microseconds.



A. Adjustable threshold 4 - 20% of full scale

B. Count cycles or provide a delayed trigger and sample after initial transient

C. Sampling periods of 0.1, 1.0 and 10 milliseconds depending upon signal frequency, 100 H to 1mHz

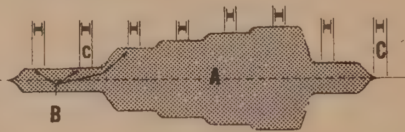


A. Adjustable threshold 4 - 20% of full scale

B. If this noise burst exceeds the threshold , provide a trigger any time in C

D. Sample 3 to 30 cycles after threshold

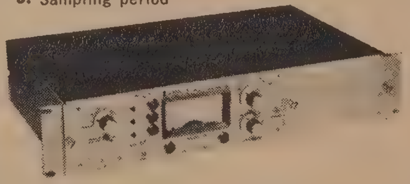
E. Sampling period



A. Signal envelope as the result of programmed voltage, current, frequency, etc.

B. Provide a delayed or coincident trigger for each programmed step or initiate the next step automatically after sampling

C. Sampling period



Write or call today for complete details —

DRANETZ
ENGINEERING LABORATORIES, INC.
1233 North Ave., Plainfield, N.J. 07062
Telephone Area Code: (201) 755-7080

IMPEDANCE — ADMITTANCE METERS ■ PHASE METERS ■ TRANSFER FUNCTION COMPUTERS ■ INSTRUMENT TRANSFORMERS ■ OSCILLATORS ■ SAMPLING VOLTMETERS ■ PULSE INSTRUMENTATION ■ FROM SINGLE INSTRUMENTS TO COMPLETE SYSTEMS

Nelson Electronic Labs Inc, Plano .... Tex
Non-Linear Systems Inc, Del Mar .... Cal
Philips Electronic Instruments, Test & Measuring Inst
  Mount Vernon .... NY
PMF Electronics Inc, Dayton .... Ohio
Rawson-Lush Instrument Co Inc, Acton .... Mass
Ross Engineering Corp, Saratoga .... Cal
Singer Co, Metrics Div, Bridgeport .... Conn
Sun Electric Corp, Chicago Ill
United Systems Corp, Dayton .... Ohio
Wac Line Div Simmonds Precision Prods, Dayton .... Ohio

VOLTMETERS--R-F

DRANETZ ENGINEERING LABS INC, PLAINFIELD .... N J
HEWLETT-PACKARD, PALO ALTO .... CAL
A & M Instruments Inc, Great Neck .... N Y
Aul Instruments Inc, Long Island City .... NY
Bartlett-Emery Instrument Co, Fort Madison .... Iowa
Bendix Corp, Communications Div, Towson .... Md
B & K Instruments Inc of Bruel & Kjaer
  Cleveland .... Ohio
Components Specialties Inc, Freeport .... N Y
Dowa Trading Co Ltd, Kobe .... Japan
Dranetz Engineering Labs Inc, Plainfield .... N J
Filmohm Corp, Long Island City .... N Y
General Radio Co, West Concord .... Mass
Hewlett-Packard, Palo Alto .... Cal
Philips Electronic Instruments, Test & Measuring Inst
  Mount Vernon .... NY
Radiometer A/S, Copenhagen NV .... Denmark
Rawson-Lush Instrument Co Inc, Acton .... Mass
Rohde & Schwarz Sales Co USA Inc, Passaic .... N J
Ross Engineering Corp, Saratoga .... Cal
Simpson Electric Co, Chicago Ill

VOLTMETERS--SAMPLING

DRANETZ ENGINEERING LABS INC, PLAINFIELD
N J .... ADV PG 796
Dranetz Engineering Labs Inc, Plainfield .... N J

Works in Seconds.

The '69 Electronics Buyers' Guide lets you find people, places, and things in seconds. In the Directory of Manufacturers and Sales Offices, for example, more than 6,000 manufacturers are listed, including addresses, telephone numbers, sales offices, the people to call for information, the total number of engineers and employees and sales volumes. So use your EBG. It works in seconds.

Electronics Buyers' Guide

VOLT-OHM-MILLIAMMETERS

AMPHENOL, BROADVIEW	**ILL**
HEATH CO, BENTON HARBOR	**MICH**
HEWLETT-PACKARD, PALO ALTO	**CAL**
HICKOK ELECTRICAL INSTRUMENT CO, CLEVELAND	**OHIO**
HONEYWELL TEST INSTRUMENTS DIV, DENVER COLO	**ADV PGS 8**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO, ILL	**ADV PG 465**
PHILBRICK/NEXUS RESEARCH A TELEDYNE CO DEDHAM	**MASS**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
WHITTAKER CORP GEN COM DIV, PLAINVIEW N Y	**ADV PG 797**
Abbey Electronics Corp, Westbury	NY
Advanced Measurement Instruments, Inc Somerville	Mass
A & M Instruments Inc, Great Neck	N Y
Amphenol, Broadview	Ill
Amprobe Instrument Div Soss Mfg Co, Lynbrook	N Y
Aul Instruments Inc, Long Island City	NY
Ballantine Laboratories, Inc, Boonton	N J
B & K Mfg Co Div Dynascan Corp, Chicago	Ill
Bruno-New York Industries Corp, New York	N Y
California Instruments Corp, San Diego	Cal
Canadian Research Institute, Don Mills	Ont
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Cohu Electronics Inc, San Diego	Cal
Compagnie Generale de Metrologie Haute Savoie	France
Components Specialties Inc, Freeport	N Y
Connolly & Co Inc, Mountain View	Cal
Delta Products Inc, Grand Junction	Colo
Dowa Trading Co Ltd, Kobe	Japan
E G & G Inc Laboratory Prods Div, Goleta	Cal
Electronic Homes Co, New York	N Y
Electronic Measurements Corp, New York	N Y
Electro Scientific Industries Inc, Portland	Ore
Fairchild Instrumentation, Sunnyvale	Cal
Fen-Tone Corp, New York	N Y
Gralex Industries Inc, Copiague	N Y
Hallmark Standards Inc, Mamaroneck	N Y
Heath Co, Benton Harbor	Mich
Hewlett-Packard, Palo Alto	Cal
Hickok Electrical Instrument Co, Cleveland	Ohio
Hickok Teaching Systems Inc, Cambridge	Mass
Honeywell Test Instruments Div, Denver	Colo
International Instruments Div Sigma Instr Inc, Orange	Conn
Julie Research Labs, Inc, New York	N Y
Keithley Instruments Inc, Cleveland	Ohio
Kyoritsu Electrical Instruments Works Ltd, Tokyo	Japan
Lafayette Radio Electronics, Syosset	NY
LaPine Scientific Co, Chicago	Ill
Lear Siegler Inc, Cimron Div, San Diego	Cal
Mastercraft Instrument Co, Dubuque	Iowa
Measurements A McGraw-Edison Div, Boonton	N J
Medistor Instrument Co, Seattle	Wash
Metermaster, Inc, Los Angeles	Cal
Millivac Instruments Inc, Schenectady	N Y
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Mura Corp, Great Neck	N Y
Nelson Electronic Labs Inc, Plano	Tex
Nichols Co Ltd, R H, Downsview	Ont
Northeast Electronics Corp, Concord	N H
Phaostron Instrument & Electronic Co South Pasadena	Cal
Philbrick/Nexus Research A Teledyne Co Dedham	Mass
Philips Electronic Instruments, Test & Measuring Inst Mount Vernon	NY
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Philmore Mfg Co Inc, Richmond Hill	N Y
Q V S Inc, East Orange	N J
Radio Corp of America, Electronic Components, Harrison	N J
Radiometer A/S, Copenhagen NV	Denmark
Robertson Instrument Co, Azusa	Cal
Sanwa Electric Instrument Co, Ltd, Tokyo	Japan
Simpson Electric Co, Chicago	Ill
Stark Electronic Instruments Ltd, Ajax	Ont
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Tecnica Elettronica Systems S a s, Milan	Italy
Trans-Tek Mfg Co Inc, Garwood	N J
Trio Laboratories Inc, Plainview	N Y
Triplett Electrical Instrument Co, Bluffton	Ohio
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Welch Scientific Co, Skokie	Ill
Western Reserve Electronics, Inc, Cleveland	Ohio
Weston Instruments Div Weston Instr Inc, Newark	N J
Whittaker Corp Gen Com Div, Plainview	N Y
Winslow Tele-Tronics Inc, Asbury Park	NJ
Yokogawa Electric Works Inc, Larchmont	N Y

VOLUME CONTROLS SEE POTENTIOMETERS

VSWR CALIBRATORS, INDICATORS, METERS, &MONITORS SEE DETECTORS--STANDING-WAVE

VULCANIZED FIBRE SEE FIBRE--VULCANIZED

VU METERS SEE METERS--SOUND LEVEL

WAMOSCOPES SEE OSCILLATORS

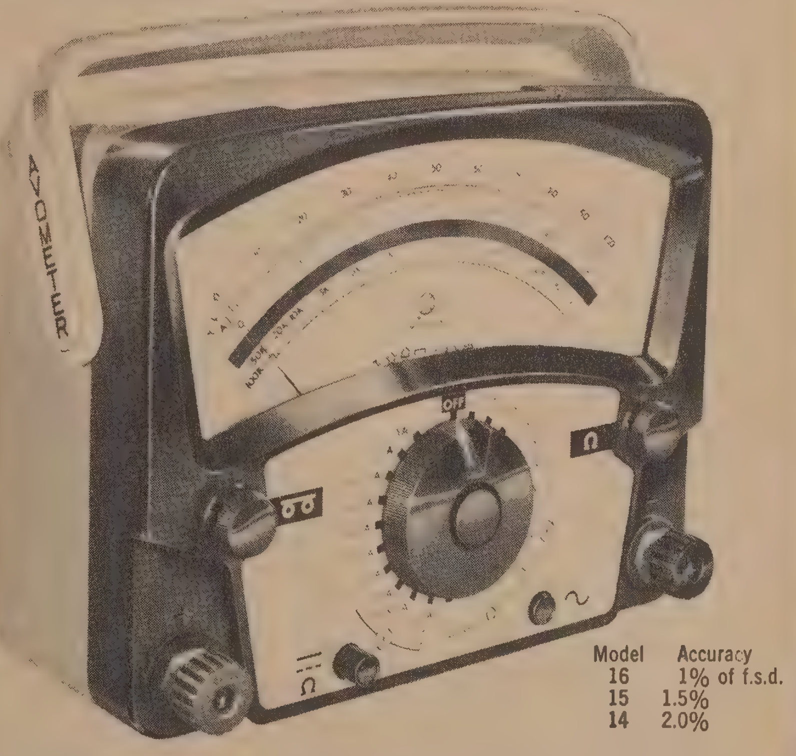
AVO

PASS ME THE AVO!

Por favor • Sil vous plait.

Worldwide, "Pass the AVO" means someone wants the most accurate and reliable multimeter... **anywhere.** The internationally famous Model 8 has for over 50 years set the highest standard... over a million in use today! The Model 16, just as accurate and reliable, offers a younger face and additional features.

- A wide easy to read mirrored scale, single control range selection, instant polarity reversal and pushbutton function selection.
- Thirty-six ranges for AC and DC current, voltage and resistance at your fingertips.
- Full meter protection includes fuse, velocity actuated mechanical cutout and diode protection for meter movement.
- Accidental application of DC voltages to AC ranges (or vice versa) will not damage instrument.
- Temperature compensation allows high current measurement with external shunts.
- Complete operating instructions and meter accuracy permanently printed on the back of the case.



Model	Accuracy
16	1% of f.s.d.
15	1.5%
14	2.0%

Many other specialized Avometers are available including:

- Multiminor Mk IV—a rugged Pocket/toolbox sized inexpensive instrument.
- Model 12 Auto Test set—designed for the automotive trade.
- Multi-Range No. 1 fungus resistant, anti-magnetic.
- Model 40 MK II—for the power engineer.

GENCOM DIVISION
Whittaker
CORPORATION
80 Express Street • Plainview, N.Y. 11803
516 433-5900

Calibration, parts and service by factory trained personnel are available at our Plainview N.Y. facility and in most countries throughout the world.

Write for your copy of catalog No. 958 describing these and many other AVO instruments.

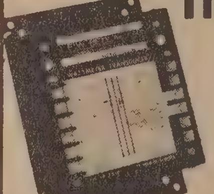
WASHERS SEE ALSO GROMMETS

AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
CIRCON COMPONENT CORP, GOLETA, CAL	**ADV PG 332**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
ELECTRICAL INSULATION CO INC, COPIAGUE	**N Y**
MICRO CONTACTS, INC, HICKSVILLE	**N Y**
SECS, INC, LONG ISLAND CITY	**N Y**
STAR PORCELAIN CO, TRENTON	**N J**
STAR STAINLESS SCREW CO, PATERSON	**N J**
STIMPSON CO INC, EDWIN B, BROOKLYN	**N Y**
WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Abacus Electronics Corp, Dobbs Ferry	N Y
Abesto Corp, Bloomfield	N J
Acme Model Engineering Co, Ridgefield	N J
Aikow Shoji Kaisha Ltd, Osaka	Japan
Aircraft Components Inc, Benton Harbor	Mich
Allmetal Screw Products Co Inc, Garden City	N Y
Alpha Metals Inc, Jersey City	NJ
Aluminum Co of America, Pittsburgh	Pa
Amatom Electronic Hardware, New Rochelle	N Y
American Lava Corp, Chattanooga	Tenn
Anaconda American Brass Co, Waterbury	Conn
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Anti-Corrosive Metal Products Co, Inc, Albany	N Y
Asheville-Schoonmaker Mica Co, Newport News	Va
Auburn Mfg Co, Middletown	Conn
Basic Ceramics Inc Sub Basic Inc, Hawthorne	NJ
Bendix Corp Rubber Prods Plant, Toledo	Ohio
Blinn Co Inc, Delbert, Pomona	Cal
Chase Metals Service Div Chase Brass & Copper Co Cleveland	Ohio
Chomerics, Inc, Arlington	Mass
Circon Component Corp, Goleta	Cal
Connor Spring Mfg Co Div Sloss & Britain San Francisco	Cal
Crane Packing Co, Morton Grove	Ill
Daburn Electronics & Cable Corp, Bronx	N Y
Division Lead Co, Summit	Ill
Dixon Corp, Bristol	R I
Eaton Yale & Towne Inc Reliance Div, Massillon	Ohio
Electrical Insulation Co Inc, Copiague	N Y
Eljay Corp, Baltimore	Md
Emeloid Co Inc, Hillside	N J
Emerson Plastics Corp, Bronx	New York
Emtec Inc, Empire Spring Div, Elyria	Ohio
Engineered Plastics Inc, Gibsonville	N C
Ethylene Corp, Murray Hill	N J
Eugene Engineering Co Inc, Rockland	Mass
Fastex Div Illinois Tool Works, Des Plaines	Ill
Federal Screw Products Inc, Chicago	Ill
Fel Pro Inc Div Felt Products Mfg Co, Skokie	Ill
Franklin Fibre-Lamitex Corp, Wilmington	Del
Gasket Mfg Co Inc, Los Angeles	Cal
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Findings Co Industrial Div, Attleboro	Mass
General Gaskets Inc, Middletown	Conn
Gillette Electronic Products Co, Beverly	N J
Goodrich Industrial Prods Co, B F, Akron	Ohio
Gries Reproducer Co Div Coats & Clark Inc New Rochelle	N Y
Harper Co, H M, Morton Grove	Ill
Hayakawa Electric Co Ltd, Osaka	Japan
Insulating Shapes Inc, Bronx	N Y
Leed Insulator Corp, Los Angeles	Cal
Maryland Lava Co Inc, Bel Air	Md
Mechanical Rubber Products Co, Inc, Warwick	NY
Mellowes Co, Milwaukee	Wis
Micro Contacts, Inc, Hicksville	N Y
Midwest Sintered Products Corp, Riverdale	Ill
Minor Rubber Co Inc, Bloomfield	N J
Morris Co, J I, Southbridge	Mass
Niemand Bros Inc, Elmhurst	N Y
Norrich Plastics Corp, Roosevelt	N Y
Nylogrip Products, Waltham	Mass
Penn Fibre & Specialty Co, Philadelphia	Pa
Permonite Mfg Co, Chicago	Ill
Plastiglide Mfg Corp, Santa Monica	Cal
Product Components Corp, Hastings-on-Hudson	N Y
Republic Industrial Corp, Lathrup Village	Mich
Richards Metal Products Inc, Wolcott	Conn
Roosevelt Metal Co Inc, Brooklyn	N Y
Seastrom Mfg Co Inc, Glendale	Cal
Secs, Inc, Long Island City	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Severna Div Amphenol Corp, East Orange	N J
Shakeproof Div, Illinois Tool Works Inc, Elgin	Ill
Shamban & Co, W S, Los Angeles	Cal
Smith Inc, Herman H, Brooklyn	N Y
Spaulding Fibre Co Inc, Tonawanda	N Y
Staff Gasket Mfg Corp, New York	N Y
Stake Fastener Co, S El Monte	Cal
Standard Polymer Inc, Van Nuys	Cal
Star Porcelain Co, Trenton	N J
Star Stainless Screw Co, Paterson	N J
Stimpson Co Inc, Edwin B, Brooklyn	N Y
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
United American Metals Div, Brooklyn	N Y
USM Fastener Co Div United Shoe Machy Corp Shelton	Conn
Waldom Electronics Inc, Chicago	Ill
Weckesser Co Inc, Chicago	Ill
Welco Electric Corp, South Bend	Ind
Wilmington Fibre Specialty Co, New Castle	Del
Wrought Washer Mfg Co, Milwaukee	Wis

WATER DEMINERALIZERS SEE DEMINERALIZING EQUIPMENT

WATTMETERS--ELECTRONIC

BELL, INC F W, COLUMBUS, OHIO	**ADV PG 798**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK	**N Y**
FLUKE MFG CO INC, JOHN, SEATTLE	**WASH**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
INDUSTRIAL TEST EQUIPMENT CO, PORT WASHINGTON	**N Y**
INTRONICS INC, NEWTON	**MASS**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
Airmec Instruments Ltd, Buckinghamshire	England
Allied Research Associates, Inc, Concord	Mass
American Aerospace Controls Inc, Farmingdale	N Y
A & M Instruments Inc, Great Neck	N Y
Automatic Metal Products Corp, Brooklyn	N Y
Bayly Engineering Ltd, Ajax	Ontario
Bell, Inc F W, Columbus	Ohio
Boonton Electronics Corp, Parsippany	N J
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Dowa Trading Co Ltd, Kobe	Japan
E I L Instrument Div Unitec Industries, Timonium	Md
Electronic Applications Co, Pine Brook	N J
Electronics of Clearfield Inc, Clearfield	Pa
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Fluke Mfg Co Inc, John, Seattle	Wash
General Microwave Corp, Farmingdale	N Y
Gillette Electronic Products Co, Beverly	N J
Halmar Electronics Inc, Columbus	Ohio
Hickok Teaching Systems Inc, Cambridge	Mass
Industrial Test Equipment Co, Port Washington	N Y
Intronics Inc, Newton	Mass
Marconi Instruments Div, English Electric Corp Englewood	N J
NH Research Inc, Santa Ana	Cal
Ohio Semitronics Inc, Columbus	Ohio
Philco-Ford Corp, Washington	D C
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Scientific Columbus Inc, Columbus	Ohio
Simpson Electric Co, Chicago	Ill
Tecnica Elettronica Systems S a s, Milan	Italy
Voltron Products Inc, Pasadena	Cal
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Weston Instruments Div Weston Instr Inc, Newark	N J
Weston Lexington Weston Instruments Div Lexington	Mass
Westronics Inc, Fort Worth	Tex



All New PT-2000
Series Wattmeter
Transducers

- 0.25% Linearity
- 0.5% power factor influence @ 50% PF
- Ruggedized Industrial Package

Takes advantage of the latest developments in magnetic circuit design to offer the finest performance now available. The PT-2000 Series is a high-precision, solid-state line of wattmeter transducers which provide a dc output directly proportional to ac power. The power computation is performed instantaneously by one or more hermetically sealed Hall effect multipliers contained in the sturdy steel case. The versatility, high performance and simplicity of the PT-2000 Series makes it ideal for measuring, recording and controlling power.

"Bell Products for Planned Progress"

F W BELL INC.

1356 Norton Ave.
Columbus, O. 43212
Ph.: (614) 294-4906 TWX: 810-482-1716

WATTMETERS--METER TYPE

API INSTRUMENTS CO, CHESTERLAND	**OHIO**
BIRD ELECTRONIC CORP, CLEVELAND (SOLON)	**OHIO**
GENERAL ELECTRIC CO, ECSO, SCHENECTADY N Y	**ADV PGS 7**
MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS CHICAGO	**ILL**
WESTON INSTRUMENTS DIV WESTON INSTR INC NEWARK	**N J**
A & M Instruments Inc, Great Neck	N Y
API Instruments Co, Chesterland	Ohio
Automatic Metal Products Corp, Brooklyn	N Y
B F Electronics, Solana Beach	Cal
Bird Electronic Corp, Cleveland (Solon)	Ohio
Bitronics Inc, Bethlehem	Pa
Canadian Research Institute, Don Mills	Ont
Components Specialties Inc, Freeport	N Y
Dowa Trading Co Ltd, Kobe	Japan
Drake Co, R L, Miamisburg	Ohio
E I L Instrument Div Unitec Industries, Timonium	Md
Epic Inc, New York	N Y
Esterline Angus Div Esterline Corp, Indianapolis	Ind
Ferranti, Ltd, Lancashire	England
Filmohm Corp, Long Island City	N Y
Fuji Electric Co Ltd, Tokyo	Japan
General Electric Co, ECSO, Schenectady	N Y
Hallmark Standards Inc, Mamaroneck	N Y
Halmar Electronics Inc, Columbus	Ohio
IB Instruments Inc, Cleveland	Ohio
Metermaster, Inc, Los Angeles	Cal
Motorola Commun & Elctns Inc Prec Instr Prods Chicago	Ill
Mura Corp, Great Neck	N Y
Nelson Electronic Labs Inc, Plano	Tex
Nichols Co Ltd, R H, Downsview	Ont
Scientific Columbus Inc, Columbus	Ohio
Simpson Electric Co, Chicago	Ill
Singer Co, Metrics Div, Bridgeport	Conn
Stark Electronic Instruments Ltd, Ajax	Ont
Sunshine Scientific Instruments Inc, Philadelphia	Pa
Triplett Electrical Instrument Co, Bluffton	Ohio
Voltron Products Inc, Pasadena	Cal
Wac Line Div Simmonds Precision Prods, Dayton	Ohio
Waters Mfg Inc, Wayland	Mass
Weston Instruments Div Weston Instr Inc, Newark	N J
Yokogawa Electric Works Inc, Larchmont	N Y

WATTMETERS--MICROWAVE CALORIMETRIC

GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
HEWLETT-PACKARD, PALO ALTO	**CAL**
TRG DIV CONTROL DATA CORP, EAST BOSTON MASS	**ADV PG 418**
Altronic Research Corp, Cleveland	Ohio
Aviation Electric Ltd, St Laurent, Montreal	Que
Bendix Corp, Microwave Devices Div, Franklin	Ind
Chemalloy Electronics Corp, Santee	Cal
Dowa Trading Co Ltd, Kobe	Japan
Electro Impulse Lab Inc, Red Bank	N J
Electronic Applications Co, Pine Brook	N J
General Microwave Corp, Farmingdale	N Y
Hektor Scientific Co Inc, Foxboro	Mass
Hewlett-Packard, Palo Alto	Cal
Marconi Co Ltd, Chelmsford	England
MSI Electronics Inc, Woodside	N Y
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Philco-Ford Corp, Washington	D C
PRD Electronics Inc, Sub H-I Corp, Westbury	N Y
Ramcor Inc, Huntington	NY
Raytheon Co, Microwave & Power Tube Div Waltham	Mass
RLC Electronics Inc, Port Chester	N Y
TRG Div Control Data Corp, East Boston	Mass
Varian, Palo Alto	Cal

WAVE ANALYZERS SEE ANALYZERS--WAVE

WAVEFORM GENERATORS SEE GENERATORS--SIGNAL

WAVEGUIDE ASSEMBLIES--ELECTROFORMED

BUCKBEE MEARS CO, ST PAUL	**MINN**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK	**N Y**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
Aircom Inc, Union	N H
Allied Research & Engineering Co, Los Angeles	Cal
Arra, Inc, Bayshore	NY
Aviel Electronics, Inc, Van Nuys	Cal
Bart Microwave Div Bart Mfg Corp, Newark	N J
Buckbee Mears Co, St Paul	Minn
Cardwell Condenser Corp, Lindenhurst	N Y
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Diamond Antenna & Microwave Corp, Winchester	Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Dynatex Corp, Redwood City	Cal
Eastern Microwave Corp, Winchester	Mass
Electroforms Inc, Gardena	Cal
Jerrold Electronics Corp, Philadelphia	Pa
MCS Corp, Monrovia	Cal
Metaplast Electrochemicals Corp, Bronx	N Y
Microwave Development Labs Inc Needham Heights	Mass
Nippon Electric Co Ltd, Tokyo	Japan
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst	NY
Vega Precision Labs, Vienna	Va
Waveline Inc, West Caldwell	N J

WAVEGUIDE ASSEMBLIES--FLEXIBLE

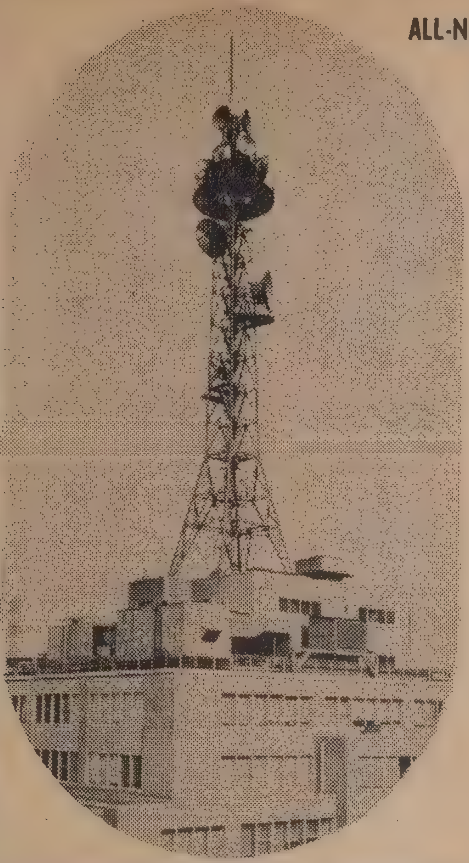
DAINICHI-NIPPON CABLES, LTD, TOKYO, JAPAN	**ADV PG 799**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
Airtec Inc, Roselle	N J
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alpha Industries Inc, Newton Upper Falls	Mass
Andrew Corp, Orland Park	Ill
Cardwell Condenser Corp, Lindenhurst	N Y
Co-Operative Industries Inc, Chester	N J
Costelow Co Inc, Topeka	Kans
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Gabriel Electronics Div Maremont Corp, Saco	Maine
Kobe Industries Corp, Kobe	Japan
Lieco Inc, West Babylon	N Y
MCS Corp, Monrovia	Cal
Meridian Metalcraft Inc, Whittier	Cal
Microwave Products Inc, Chatsworth	Cal
Mitsubishi Electric Corp, Tokyo	Japan
Nippon Electric Co Ltd, Tokyo	Japan
Portchester Instrument Corp, Port Chester	N Y
Premier Microwave Corp, Port Chester	N Y
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst	NY
Telefunken Sales Corp, Garden City	N Y
Topper Mfg Co Inc, Great Neck	N Y
United-Carr Inc, Plaxial Cable Dept Newton Highlands	Mass

WAVEGUIDE ASSEMBLIES--RIGID, FLEXIBLE

ALUMINUM DESIGN CORP, BROOKFIELD	**ILL**
AMPHENOL, DANBURY	**CONN**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
Airtec Inc, Roselle	N J
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alpha Industries Inc, Newton Upper Falls	Mass
Aluminum Design Corp, Brookfield	Ill
Amphenol, Danbury	Conn
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Ava Electronics & Machine Corp, Upper Darby	Pa
Cardwell Condenser Corp, Lindenhurst	N Y
Co-Operative Industries Inc, Chester	N J
Costelow Co Inc, Topeka	Kans
Diamond Antenna & Microwave Corp, Winchester	Mass
Gabriel Electronics Div Maremont Corp, Saco	Maine
General Microwave Corp, Farmingdale	N Y
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Kobe Industries Corp, Kobe	Japan
Lieco Inc, West Babylon	N Y
MCS Corp, Monrovia	Cal
Meridian Metalcraft Inc, Whittier	Cal
Metal Fab Div, Artisan Industries Inc, Waltham	Mass
Micro-Radionics Inc, Van Nuys	Cal
Microwave Guide Inc, Lowell	Mass
Microwave Products Inc, Chatsworth	Cal
Mitsubishi Electric Corp, Tokyo	Japan
Nippon Electric Co Ltd, Tokyo	Japan
Omega Laboratories Inc, Rowley	Mass
Portchester Instrument Corp, Port Chester	N Y
Premier Microwave Corp, Port Chester	N Y
R F Systems Inc, Cohasset	Mass
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst	NY

WAVEGUIDE ASSEMBLIES--RIGID

ALUMINUM DESIGN CORP, BROOKFIELD, ILL	**ADV PG 799**
AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE	**NY**
AMPHENOL, DANBURY, CONN	**ADV PG 800**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK	**N Y**
GENERAL MICROWAVE CORP, FARMINGDALE	**N Y**
MITSUBISHI ELECTRIC CORP, TOKYO	**JAPAN**
NIPPON ELECTRIC CO LTD, TOKYO	**JAPAN**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
TRG DIV CONTROL DATA CORP, EAST BOSTON	**MASS**
UNIFORM TUBES INC, COLLEGEVILLE	**PA**
Ainslie Corp, Braintree	Mass
Aircom Inc, Union	N H
Airtec Inc, Roselle	N J
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
Alpha Industries Inc, Newton Upper Falls	Mass
Aluminum Design Corp, Brookfield	Ill
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Amphenol, Danbury	Conn
Andrew California Corp, Claremont	Cal
Andrew Corp, Orland Park	Ill
Arra, Inc, Bayshore	NY
Ava Electronics & Machine Corp, Upper Darby	Pa
Aviel Electronics, Inc, Van Nuys	Cal
Bart Microwave Div Bart Mfg Corp, Newark	N J
Beckman Instruments Inc, Fullerton,	Cal
Cardwell Condenser Corp, Lindenhurst	N Y
Cavitron Electronics, Inc, Costa Mesa	Cal
Costelow Co Inc, Topeka	Kans
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal



ALL-NEW, ELLIPTICAL ALUMINIUM WAVEGUIDE
FROM DAINICHI-NIPPON CABLES

FEATURES

- Long and seamless
- Excellent electrical characteristics
- Semi flexibility
- No defective electrical contact or gas leak possibilities
- Wide frequency band type
- Light weight and easy installation

For further information, write to

DAINICHI-NIPPON
CABLES, LTD.
Umeda Bldg., 7-3, Umeda, Kitaku, Osaka, Japan.

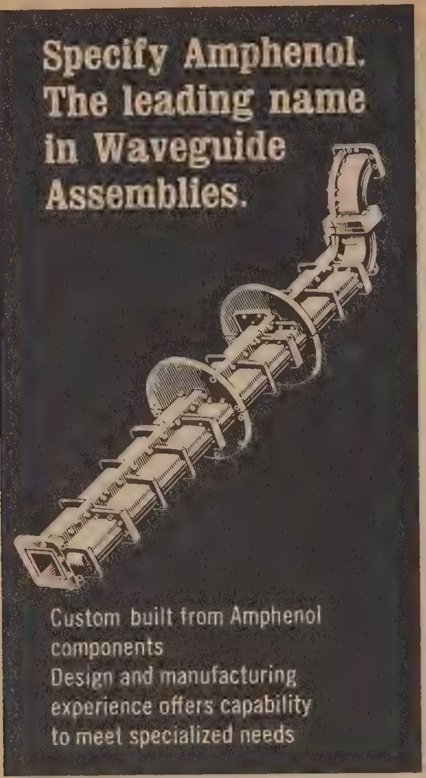
WAVEGUIDES

Unquestioned
RELIABILITY
in
- ALUMINUM FLUX-DIP BRAZING
- Electro-Mechanical Assemblies
- Microwave Components

Ask for Bulletin
ADC-R5-1267

aluminum design
corporation

9300 W. 47th Street, Brookfield, Illinois 60513
PHONE: 312 - 485-6290



Specify Amphenol.
The leading name
in Waveguide
Assemblies.

Custom built from Amphenol components
Design and manufacturing experience offers capability to meet specialized needs

For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL™

Diamond Antenna & Microwave Corp, Winchester ... Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck ... N Y
Eastern Microwave Corp, Winchester ... Mass
Electroforms Inc, Gardena ... Cal
Gabriel Electronics Div Maremont Corp, Saco ... Maine
General Microwave Corp, Farmingdale ... N Y
Guide Industries Inc, Sun Valley ... Cal
Herley Industries, Inc, Westbury ... N Y
Jerrold Electronics Corp, Philadelphia ... Pa
Kobe Industries Corp, Kobe ... Japan
Lieco Inc, West Babylon ... N Y
Maury Microwave Corp, Montclair ... Cal
MCS Corp, Monrovia ... Cal
Meridian Metalcraft Inc, Whittier ... Cal
Micro-Radionics Inc, Van Nuys ... Cal
Microwave Associates Inc, Burlington ... Mass
Microwave Development Labs Inc Needham Heights ... Mass
Microwave Guide Inc, Lowell ... Mass
Microwave Products Inc, Chatsworth ... Cal
Mitsubishi Electric Corp, Tokyo ... Japan
Neico Microwave Co, Waltham ... Mass
Nippon Electric Co Ltd, Tokyo ... Japan
O'Dell Brothers, Mountain View ... Cal
Omega Laboratories Inc, Rowley ... Mass
Pabst Engineering Equipment Co Inc, Elizabeth ... NJ
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Portchester Instrument Corp, Port Chester ... N Y
PRD Electronics Inc, Sub H-I Corp, Westbury ... N Y
Premier Microwave Corp, Port Chester ... N Y
Radiation Systems Inc, McLean ... Va
R F Systems Inc, Cohasset ... Mass
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst ... NY
Specialty Waveguide Corp, Burlington ... Mass
Taco (Technical Appliance Corp Sub Jerrold Corp) Sherburne ... NY
Teledata Inc, Queens Village ... N Y
TRG Div Control Data Corp, East Boston ... Mass
Tri-D Corp, Plainville ... Conn
Tru-Connector Corp, Peabody ... Mass
Uniform Tubes Inc, Collegeville ... Pa
Vector Industries A Teledyne Co, Palo Alto ... Cal
Vega Precision Labs, Vienna ... Va
Victor R F & Microwave Co, Wakefield ... Mass
Waveline Inc, West Caldwell ... N J

WAVEGUIDE ASSEMBLIES--SOLID DIELECTRIC

AMPHENOL, DANBURY ... CONN
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK ... N Y
GENERAL MICROWAVE CORP, FARMINGDALE ... N Y
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
PREMIER MICROWAVE CORP, PORT CHESTER ... N Y
Aircom Inc, Union ... N H
Amphenol, Danbury ... Conn
Aviel Electronics, Inc, Van Nuys ... Cal
Cardwell Condenser Corp, Lindenhurst ... N Y
DeMornay-Bonardi Div Datapulse Inc, Pasadena ... Cal
Diamond Antenna & Microwave Corp, Winchester ... Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck ... N Y
Eastern Microwave Corp, Winchester ... Mass
General Microwave Corp, Farmingdale ... N Y
Guide Industries Inc, Sun Valley ... Cal
Herley Industries, Inc, Westbury ... N Y
Jerrold Electronics Corp, Philadelphia ... Pa
Lieco Inc, West Babylon ... N Y
MCS Corp, Monrovia ... Cal
Meridian Metalcraft Inc, Whittier ... Cal
Microwave Associates Inc, Burlington ... Mass
Nippon Electric Co Ltd, Tokyo ... Japan
Omega Laboratories Inc, Rowley ... Mass
Pabst Engineering Equipment Co Inc, Elizabeth ... NJ
Portchester Instrument Corp, Port Chester ... N Y
Premier Microwave Corp, Port Chester ... N Y
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst ... NY

WAVEGUIDE ATTENUATORS--COAXIAL SEE ATTENUATORS--MICROWAVE

WAVEGUIDE DISSIPATIVE STRIPS

DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK ... N Y
NIPPON ELECTRIC CO LTD, TOKYO ... JAPAN
Chomerics, Inc, Arlington ... Mass
Coax Devices, Chelsea ... Mass

Core-Tronics, Inc, Orange ... N J
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck ... N Y
Film Components Div Reon Resister Corp, Yonkers ... N Y
Filmohm Corp, Long Island City ... N Y
Herley Industries, Inc, Westbury ... N Y
Metavac Inc, Flushing ... N Y
Microwave Filter Co Inc, East Syracuse ... NY
Morganite Resistors Ltd, Jarrow ... England
Nippon Electric Co Ltd, Tokyo ... Japan
Portchester Instrument Corp, Port Chester ... N Y

WAVEGUIDE FILTERS SEE FILTERS

WAVEGUIDE FITTINGS (BENDS, CORNERS, ELBOWS, TWISTS)

ALUMINUM DESIGN CORP, BROOKFIELD ... ILL
AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE ... NY
AMPHENOL, DANBURY ... CONN
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK ... N Y
GENERAL MICROWAVE CORP, FARMINGDALE ... N Y
PREMIER MICROWAVE CORP, PORT CHESTER ... N Y
TRG DIV CONTROL DATA CORP, EAST BOSTON ... MASS
Aircom Inc, Union ... N H
Airtec Inc, Roselle ... N J
Airtron, Div of Litton Industries, Inc, Morris Plains ... N J
Allied Research & Engineering Co, Los Angeles ... Cal
Alpha Industries Inc, Newton Upper Falls ... Mass
Aluminum Design Corp, Brookfield ... Ill
Amperex Electronic Corp, Professional Tube Div, Hicksville ... NY
Amphenol, Danbury ... Conn
Andrew California Corp, Claremont ... Cal
Andrew Corp, Orland Park ... Ill
Arra, Inc, Bayshore ... NY
Arwood Corp, Rockleigh ... NJ
Ava Electronics & Machine Corp, Upper Darby ... Pa
Bart Microwave Div Bart Mfg Corp, Newark ... N J
Beckman Instruments Intl SA, 1207 Geneva ... Switzerland
Cardwell Condenser Corp, Lindenhurst ... N Y
Chemalloy Electronics Corp, Santee ... Cal
Co-Operative Industries Inc, Chester ... N J
Costelow Co Inc, Topeka ... Kans
DeMornay-Bonardi Div Datapulse Inc, Pasadena ... Cal
Diamond Antenna & Microwave Corp, Winchester ... Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck ... N Y
Eastern Microwave Corp, Winchester ... Mass
Electromagnetic Radiation Labs Inc, West Acton ... Mass
Electronic Specialty Co, Los Angeles ... Cal
Gabriel Electronics Div Maremont Corp, Saco ... Maine
General Microwave Corp, Farmingdale ... N Y
Guide Industries Inc, Sun Valley ... Cal
Herley Industries, Inc, Westbury ... N Y
Lieco Inc, West Babylon ... N Y
Maury Microwave Corp, Montclair ... Cal
MCS Corp, Monrovia ... Cal
Meridian Metalcraft Inc, Whittier ... Cal
Microlab/F X R, Livingston ... N J
Microwave Associates Inc, Burlington ... Mass
Microwave Development Labs Inc Needham Heights ... Mass
Microwave Guide Inc, Lowell ... Mass
Microwave Labs of America, Brooklyn ... N Y
Narda Microwave Corp, Plainview ... N Y
Neico Microwave Co, Waltham ... Mass
O'Dell Brothers, Mountain View ... Cal
Oki Electric Industry Co Ltd, Tokyo ... Japan
Omega Laboratories Inc, Rowley ... Mass
Pabst Engineering Equipment Co Inc, Elizabeth ... NJ
Pem Machine Tool Co Inc, Cranford ... N J
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
PRD Electronics Inc, Sub H-I Corp, Westbury ... N Y
Premier Microwave Corp, Port Chester ... N Y
Radiation Systems Inc, McLean ... Va
R F Systems Inc, Cohasset ... Mass
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst ... NY
Specialty Waveguide Corp, Burlington ... Mass
Topper Mfg Co Inc, Great Neck ... N Y
TRG Div Control Data Corp, East Boston ... Mass
Victor R F & Microwave Co, Wakefield ... Mass
Waveline Inc, West Caldwell ... N J

WAVEGUIDE FLANGES

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE ... NY
AMPHENOL, DANBURY ... CONN
AMP INCORPORATED, HARRISBURG ... PA
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK ... N Y
TRG DIV CONTROL DATA CORP, EAST BOSTON ... MASS
Airtec Inc, Roselle ... N J
Airtron, Div of Litton Industries, Inc, Morris Plains ... N J
American Radar Components, Inc, Denville ... N J
Amperex Electronic Corp, Professional Tube Div, Hicksville ... NY
Amphenol, Danbury ... Conn
AMP Incorporated, Harrisburg ... Pa
Andrew California Corp, Claremont ... Cal
Andrew Corp, Orland Park ... Ill
Arwood Corp, Rockleigh ... NJ
Beckman Instruments Inc, Fullerton, ... Cal
Beckman Instruments Intl SA, 1207 Geneva ... Switzerland
Cardwell Condenser Corp, Lindenhurst ... N Y

Chomerics, Inc, Arlington ... Mass
Co-Operative Industries Inc, Chester ... N J
Costelow Co Inc, Topeka ... Kans
DeMornay-Bonardi Div Datapulse Inc, Pasadena ... Cal
Diamond Antenna & Microwave Corp, Winchester ... Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck ... N Y
Electronic Specialty Co, Los Angeles ... Cal
Formcraft Tool Co, Chicago ... Ill
Gabriel Electronics Div Maremont Corp, Saco ... Maine
Guide Industries Inc, Sun Valley ... Cal
Herley Industries, Inc, Westbury ... N Y
Janney Cylinder Co Sub Edgewater Steel Co Philadelphia ... Pa
Jerrold Electronics Corp, Philadelphia ... Pa
Kings Electronics Co Inc, Tuckahoe ... N Y
Lieco Inc, West Babylon ... N Y
Maury Microwave Corp, Montclair ... Cal
MCS Corp, Monrovia ... Cal
Meridian Metalcraft Inc, Whittier ... Cal
Microlab/F X R, Livingston ... N J
Micro Parts Inc, Los Angeles ... Cal
Microwave Associates Inc, Burlington ... Mass
Microwave Development Labs Inc Needham Heights ... Mass
Microwave Guide Inc, Lowell ... Mass
O'Dell Brothers, Mountain View ... Cal
Oki Electric Industry Co Ltd, Tokyo ... Japan
Omega Laboratories Inc, Rowley ... Mass
Pabst Engineering Equipment Co Inc, Elizabeth ... NJ
Pem Machine Tool Co Inc, Cranford ... N J
R F Systems Inc, Cohasset ... Mass
Schutter Microwave Div, Cardwell Condenser Corp Lindenhurst ... NY
Specialty Waveguide Corp, Burlington ... Mass
TRG Div Control Data Corp, East Boston ... Mass
Waveline Inc, West Caldwell ... N J

WAVEGUIDE HORNS SEE HORNS--WAVEGUIDE

WAVEGUIDE TUBING

DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK ... N Y
SUPERIOR TUBE CO, NORRISTOWN ... PA
UNIFORM TUBES INC, COLLEGEVILLE ... PA
YOKOWO MFG CO LTD, TOKYO ... JAPAN
Airtec Inc, Roselle ... N J
Airtron, Div of Litton Industries, Inc, Morris Plains ... N J
American Radar Components, Inc, Denville ... N J
Anaconda American Brass Co, Waterbury ... Conn
Andrew California Corp, Claremont ... Cal
Andrew Corp, Orland Park ... Ill
Beckman Instruments Intl SA, 1207 Geneva ... Switzerland
Cardwell Condenser Corp, Lindenhurst ... N Y
Chase Metals Service Div Chase Brass & Copper Co Cleveland ... Ohio
Connolly & Co Inc, Mountain View ... Cal
Costelow Co Inc, Topeka ... Kans
DeMornay-Bonardi Div Datapulse Inc, Pasadena ... Cal
Diamond Antenna & Microwave Corp, Winchester ... Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck ... N Y
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark ... N J
Formcraft Tool Co, Chicago ... Ill
Herley Industries, Inc, Westbury ... N Y
Improved Seamless Wire Co, Providence ... R I

Janney Cylinder Co Sub Edgewater Steel Co Philadelphia	Pa
Jerrold Electronics Corp, Philadelphia	Pa
Leach & Garner Co, Industrial Div, Attleboro	Mass
MCS Corp, Monrovia	Cal
Meridian Metalcraft Inc, Whittier	Cal
Metal'Fab Div, Artisan Industries Inc, Waltham	Mass
Microwave Associates Inc, Burlington	Mass
Microwave Development Labs Inc Needham Heights	Mass
Microwave Guide Inc, Lowell	Mass
Omega Laboratories Inc, Rowley	Mass
Revere Copper & Brass, Inc, New York	N Y
R F Systems Inc, Cohasset	Mass
Schütter Microwave Div, Cardwell Condenser Corp Lindenhurst	NY
Specialty Waveguide Corp, Burlington	Mass
Standard Metals Div Edw N Cook Plate Co, Inc North Attleboro	Mass
Superior Tube Co, Norristown	Pa
Uniform Tubes Inc, Collegeville	Pa
Waveline Inc, West Caldwell	N J
Yokowo Mfg Co Ltd, Tokyo	Japan

WAVEMETERS--MICROWAVE

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE	**NY**
DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP MAMARONECK, N Y	**ADV PGS 58,59**
GENERAL MICROWAVE CORP, FARMINGDALE N Y	**ADV PG 801**
HEWLETT-PACKARD, PALO ALTO	**CAL**
MICROWAVE CAVITY LABS INC, LA GRANGE	**ILL**
PREMIER MICROWAVE CORP, PORT CHESTER	**N Y**
RADAR DESIGN CORP, SYRACUSE	**N Y**
TRG DIV CONTROL DATA CORP, EAST BOSTON MASS	**ADV PG 418**
Aircom Inc, Union	N H
Alpha Industries Inc, Newton Upper Falls	Mass
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Bendix Corp, Microwave Devices Div, Franklin	Ind
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Diamond Antenna & Microwave Corp, Winchester	Mass
Douglas Microwave Co Div Struthers Electronics Corp Mamaroneck	N Y
Frequency Engineering Labs, Farmingdale	N J
General Microwave Corp, Farmingdale	N Y
Gombos Microwave Inc, Clifton	N J
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Hewlett-Packard, Palo Alto	Cal
MCS Corp, Monrovia	Cal
Micro-Radionics Inc, Van Nuys	Cal
Microwave Cavity Labs Inc, La Grange	Ill
Microwave Filter Co Inc, East Syracuse	NY
Microwave Labs of America, Brooklyn	N Y
Narda Microwave Corp, Plainview	N Y
Neico Microwave Co, Waltham	Mass
Oki Electric Industry Co Ltd, Tokyo	Japan
Oki Electronics of America, Inc, Fort Lauderdale	Fla
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Portchester Instrument Corp, Port Chester	N Y
Premier Microwave Corp, Port Chester	N Y
Radar Design Corp, Syracuse	N Y
Radio Corp of America, Comml Elctn Prods Div Camden	N J
Rohde & Schwarz Sales Co USA Inc, Passaic	N J
Telonic Engineering Co Div, Telonic Industries Inc Laguna Beach	Cal
TRG Div Control Data Corp, East Boston	Mass
TRW Electronic Components Div TRW Inc, Camden	N J
Victor R F & Microwave Co, Wakefield	Mass
Waveline Inc, West Caldwell	N J

MICROWAVE

DIRECT READING COAXIAL FREQUENCY METERS

Model N607
0.95 to 2.0 Gc
$325
Model N608A
3.95 to 8.2 Gc
$350
Model N604
1.9 to 4.0 Gc
$300
Model N610
7.0 to 12.4 Gc
$365

0.95 TO 12.4 Gc

REACTION or TRANSMISSION MODE

Four separate models provide added flexibility and economy. Direct reading accuracy of 0.1% over full frequency range. Can be used as reaction or transmission meters, or as high-Q tunable filters. Resolution at least 5 times rated accuracy. Fast, finger-tip tuning in either vertical (as shown) or horizontal position.

GENERAL MICROWAVE CORPORATION

155 Marine St, Farmingdale, N.Y. • 516-694-3600

WAXES

Baker Castor Oil Co, Bayonne	N J
Biwax Corp, Des Plaines	Ill
Enthone Inc, New Haven	Conn
Humble Oil & Refining Co, Houston	Tex
Mitchell Rand Mfg Corp, Hillborn	N Y
Stevenson Bro & Co, Philadelphia	Pa
Universal Shellac & Supply Co Inc, Brooklyn	N Y

WELDERS--ARC, INERT GAS

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
Air Products & Chemicals, Inc, Allentown	Pa
American Electric & Machine Co Inc Upper Saddle River	N J
Denki Kogyo Co Ltd, Tokyo	Japan
Dynatech Products Co Div Dynatech Corp Burlington	Mass
Electron Beam Corp, Lynn	Mass
Falstrom Co, Passaic	N J
Forney Industries Inc, Fort Collins	Colo
Fuji Electric Co Ltd, Tokyo	Japan
Hirst Electric Industries Ltd, Crawley, Sussex	England
Japan Vacuum Engineering Co Ltd, Tokyo	Japan
Liquid Carbonic Div, Gen Dynamics Corp, Chicago	Ill
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Miller Electric Mfg Co, Appleton	Wis
National Electric Welding Machines Co, Bay City	Mich
Precision Arc Co, Stratford	Conn
Precision Welder & Flexopress Corp, Cincinnati	Ohio
Pyromet Industries, San Carlos	Cal
Sciaky Bros Inc, Chicago	Ill
Silver & Assoc Inc G H, Newtonville	Mass
Taylor-Winfield Corp, Warren	Ohio
Thomson Electric Welder Co Inc, Lynn	Mass
Tranex Inc, Mountain View	Cal
Unibraze Corp, New Rochelle	N Y
Western Arctronic, Monrovia	Cal

WELDERS--ELECTRON BEAM

FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
Alcatel, Paris 8eme	France
Brad Thompson Industries Inc, Indio	Cal
Electron Beam Corp, Lynn	Mass
Energy Beams Inc, Haskell	N J
Evans Equipment Co, Brookfield	Conn
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Hamilton Standard Div UAC Industrial Prods Dept Windsor Locks	Conn
Japan Vacuum Engineering Co Ltd, Tokyo	Japan
National Electric Welding Machines Co, Bay City	Mich
Norton Co Vacuum Equip Div, Newton	Mass
Nuclide Corp, AGV Div, Acton	Mass
Sciaky Bros Inc, Chicago	Ill
Thomson Electric Welder Co Inc, Lynn	Mass

WELDERS--LASER BEAM

American Optical Co Space Defense Div Southbridge	Mass
Coherent Radiation Labs, Palo Alto	Cal
Electro Powerpacs Corp, Cambridge	Mass
Lear Siegler Inc, Santa Monica	Cal
Ovitron Corp Industrial Syst Div, Cheshire	Conn
Raytheon Co, Government Marketing, Lexington	Mass
Space Rays Inc, Burlington	Mass

WELDERS--POWER SUPPLY SEE POWER SUPPLIES, D-C--WELDING

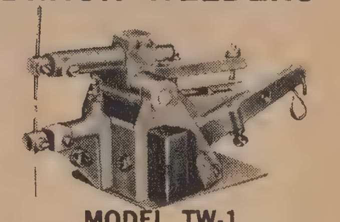
WELDERS--RESISTANCE

EWALD INSTRUMENTS CORP, KENT, CONN	**ADV PG 801**
FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE, N J	**ADV PG 801**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
SORENSEN OPERATION, RAYTHEON CO., NORWALK	**CONN**
Ace-Sycamore Inc, Sycamore	Ill
Allen-Jones Electronics Corp, Gardena	Cal
Atlantic Instruments & Electronics, Inc Watertown	Mass
Eisler Engineering Co, Newark	N J
Electron Beam Corp, Lynn	Mass
Evans Equipment Co, Brookfield	Conn

IDENTICAL WELDS

Through Constant Pressure with

TWEEZER-WELD BENCH WELDERS



MODEL TW-1

- Compact — only 5" x 4" x 12"
- Pressure — adjustable from 8 oz. up.

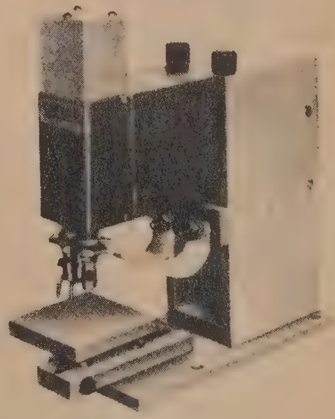
Constant, uniform, pressure and set-down . . . assured by the Tweezer-Weld patented cam-and-spring device . . . means identical welds, without cracking or granulation — a **must** in welding tiny electronic parts for micro-miniature modules. Each weld is exactly the same because the pressure is always the same. No matter how much or how little pressure the operator applies, the pressure at the weld remains constant. The result — perfect welds again, and again, and again, with Tweezer-Weld Bench Welders.

Illustrated 16-page brochure on request.

FEDERAL TOOL ENGINEERING CO.

1384 Pompton Ave., Cedar Grove, N. J. 07009

MINIATURE WELDERS



Bench Head WHD 4F. Pressure 1 to 20 lbs. Rigid, linear motion—2" stroke—foot or air operation.

Twin Head WHD 14 for onesided welds, step welds, parallel welds.

Miniature precision Head WHD 5A. Pressure 1 oz. to 3 lbs. for fine wire welds. .001" dia. and up. Model WHD 5B for gap electrodes.

Stored Energy Power Supplies 3.6 to 250 watt-sec. Precision AC Power supplies to 5 kva, inexpensive AC timer welders, Thermocouple welders, special welding equipment, Dice Bonders for Transistors.

Submit parts for sample welds and ask for data sheet.

EWALD INSTRUMENTS CORP.

Route 7E KENT, Conn.

Ewald Instruments Corp, Kent	Conn
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Hirst Electric Industries Ltd, Crawley, Sussex	England
Hughes Aircraft Co Welder Dept, Oceanside	Cal
Kahle Engineering Co, Union City	N J
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Miller Electric Mfg Co, Appleton	Wis
National Electric Welding Machines Co, Bay City	Mich
Omark Industries Inc, Portland	Ore
Precision Welder & Flexopress Corp, Cincinnati	Ohio
Raytheon Co Production Equip Dept, Norwalk	Conn
Sippican Corp, Ind Prods Div, Mattapoisett	Mass
Sorensen Operation, Raytheon Co., Norwalk	Conn
Taylor-Winfield Corp, Warren	Ohio
Technical Components Co Inc, Chicago Ridge	Ill
Texas Instruments Incorporated, Dallas	Tex
Thomson Electric Welder Co Inc, Lynn	Mass
Trueline Instruments Inc, Englewood	Colo
Unibraze Corp, New Rochelle	N Y
Weldmatic Div Unitek Corp, Monrovia	Cal
Wells Electronics Inc Equipment Div, South Bend	Ind
Western Arctronic, Monrovia	Cal

WELDERS--SPOT

EWALD INSTRUMENTS CORP, KENT	**CONN**
FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
SORENSEN OPERATION, RAYTHEON CO., NORWALK	**CONN**
Ace-Sycamore Inc, Sycamore	Ill
Delonics Corp, New York	N Y
Dynatech Products Co Div Dynatech Corp Burlington	Mass
Eisler Engineering Co, Newark	N J
Engineering & Electronic Devices Inc, Los Angeles	Cal
Evans Equipment Co, Brookfield	Conn
Ewald Instruments Corp, Kent	Conn
Falstrom Co, Passaic	N J
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Forney Industries Inc, Fort Collins	Colo
Henes Mfg Co, Phoenix	Ariz
Hirst Electric Industries Ltd, Crawley, Sussex	England
Hughes Aircraft Co Welder Dept, Oceanside	Cal
Kahle Engineering Co, Union City	N J
Liquid Carbonic Div, Gen Dynamics Corp, Chicago	Ill
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Miller Electric Mfg Co, Appleton	Wis
National Electric Welding Machines Co, Bay City	Mich
Origin Electric Co Ltd, Tokyo	Japan
Precision Arc Co, Stratford	Conn
Precision Welder & Flexopress Corp, Cincinnati	Ohio
Pyromet Industries, San Carlos	Cal
Raytheon Co Production Equip Dept, Norwalk	Conn
Sciaky Bros Inc, Chicago	Ill
Sippican Corp, Ind Prods Div, Mattapoisett	Mass
Sonobond Corp, West Chester	Pa
Sorensen Operation, Raytheon Co., Norwalk	Conn
Taylor-Winfield Corp, Warren	Ohio
Technical Components Co Inc, Chicago Ridge	Ill
Thomson Electric Welder Co Inc, Lynn	Mass
Unibraze Corp, New Rochelle	N Y
Weldmatic Div Unitek Corp, Monrovia	Cal
Wells Electronics Inc Equipment Div, South Bend	Ind
Western Arctronic, Monrovia	Cal

WELDERS--SPOT, ALUMINUM

EWALD INSTRUMENTS CORP, KENT	**CONN**
FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
SORENSEN OPERATION, RAYTHEON CO., NORWALK	**CONN**
Eisler Engineering Co, Newark	N J
Evans Equipment Co, Brookfield	Conn
Ewald Instruments Corp, Kent	Conn
Falstrom Co, Passaic	N J
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Hirst Electric Industries Ltd, Crawley, Sussex	England
Kahle Engineering Co, Union City	N J
Matsushita Electric Industrial Co Ltd, Osaka	Japan
National Electric Welding Machines Co, Bay City	Mich
Origin Electric Co Ltd, Tokyo	Japan
Precision Welder & Flexopress Corp, Cincinnati	Ohio
Raytheon Co Production Equip Dept, Norwalk	Conn
Sciaky Bros Inc, Chicago	Ill
Sonobond Corp, West Chester	Pa
Sorensen Operation, Raytheon Co., Norwalk	Conn
Taylor-Winfield Corp, Warren	Ohio
Tescom Corp, Minneapolis	Minn
Thomson Electric Welder Co Inc, Lynn	Mass

WELDERS--SPOT, FINE WIRE

EWALD INSTRUMENTS CORP, KENT	**CONN**
FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA	**JAPAN**
SORENSEN OPERATION, RAYTHEON CO., NORWALK	**CONN**
Allen-Jones Electronics Corp, Gardena	Cal
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atlantic Instruments & Electronics, Inc Watertown	Mass
Dynatech Products Co Div Dynatech Corp Burlington	Mass
Eisler Engineering Co, Newark	N J
Evans Equipment Co, Brookfield	Conn

Ewald Instruments Corp, Kent	Conn
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Forney Industries Inc, Fort Collins	Colo
Hirst Electric Industries Ltd, Crawley, Sussex	England
Hughes Aircraft Co Welder Dept, Oceanside	Cal
Jonard Industries Corp, Bronx	N Y
Kahle Engineering Co, Union City	N J
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Matsushita Electric Industrial Co Ltd, Osaka	Japan
Miller Electric Mfg Co, Appleton	Wis
Precision Welder & Flexopress Corp, Cincinnati	Ohio
Raytheon Co Production Equip Dept, Norwalk	Conn
Roosevelt Metal Co Inc, Brooklyn	N Y
Sciaky Bros Inc, Chicago	Ill
Scientific Electric Inc, Garfield	N J
Sippican Corp, Ind Prods Div, Mattapoisett	Mass
Sonobond Corp, West Chester	Pa
Sorensen Operation, Raytheon Co., Norwalk	Conn
Taylor-Winfield Corp, Warren	Ohio
Tescom Corp, Minneapolis	Minn
Texas Instruments Incorporated, Dallas	Tex
Thomson Electric Welder Co Inc, Lynn	Mass
United American Metals Div, Brooklyn	N Y
Weldmatic Div Unitek Corp, Monrovia	Cal
Wells Electronics Inc Equipment Div, South Bend	Ind

WELDERS--THIN FILM

EWALD INSTRUMENTS CORP, KENT	**CONN**
FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
Cavitron Ultrasonics Div Cavitron Corp Long Island City	N Y
Ewald Instruments Corp, Kent	Conn
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Hirst Electric Industries Ltd, Crawley, Sussex	England
Hughes Aircraft Co, Newport Beach	Cal
Hughes Aircraft Co Welder Dept, Oceanside	Cal
Hugle Industries, Sunnyvale	Cal
Miller Electric Mfg Co, Appleton	Wis
Nuclide Corp, AGV Div, Acton	Mass
Optomechanisms Inc, Plainview	N Y
Sippican Corp, Ind Prods Div, Mattapoisett	Mass
Sonobond Corp, West Chester	Pa
Taylor-Winfield Corp, Warren	Ohio
Weldmatic Div Unitek Corp, Monrovia	Cal
Wells Electronics Inc Equipment Div, South Bend	Ind
Western Arctronic, Monrovia	Cal

WELDERS--ULTRASONIC SEE ULTRASONIC EQUIPMENT

WELDING CONTROLS SEE CONTROLS--WELDING

WELDING SERVICES, ELECTRONIC-- MINIATURE PACKAGE

ELECTRONIC CLOSURES, SPRINGFIELD	**NJ**
FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE	**N J**
KINETRON CORP, ASBURY PARK	**N J**
Allegri-Tech Inc, Nutley	N J
Allen-Jones Electronics Corp, Gardena	Cal
American Atomics Corp, Tucson	Ariz
Atlantic Instruments & Electronics, Inc Watertown	Mass
Borders Electronics Co Inc, Pennsauken	N J
Brown Engineering-A Teledyne Co, Huntsville	Ala
Chemical & Aerospace Products Inc, Wilmington	Cal
Data Science Corp, San Diego	Cal
Do-Rite Mfg Co, East Paterson	N J
Elco Corp, Willow Grove	Pa
Electronic Closures, Springfield	NJ
Electronic Parts Mfg Co Inc, Union City	N J
El-Tech Mfg Co Inc, Norristown	Pa
Elzee Metal Products Co Inc, Brooklyn	N Y
Emtec Inc, Empire Spring Div, Elyria	Ohio
Eugene Engineering Co Inc, Rockland	Mass
Falstrom Co, Passaic	N J
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove	N J
Flexible Products Inc, North St Paul	Minn
Flexi Optics Labs Inc, Somerville	Mass
Greenfield Components Corp, Greenfield	Mass
Gyrotronics Inc, Asbury Park	N J
Hughes Aircraft Co Welder Dept, Oceanside	Cal
Kinetron Corp, Asbury Park	N J
Pabst Engineering Equipment Co Inc, Elizabeth	NJ
Paraplegics Mfg Co Inc, Bensenville	Ill
Precision Arc Co, Stratford	Conn
Radix Electronics Corp, Anaheim	Cal
Robotron Corp, Detroit	Mich
Rodale Electronics Inc, Garden City	NY
Rotary Co, Inc, Buffalo	N Y
Roxter Corp, Long Island City	N Y
Sciaky Bros Inc, Chicago	Ill
Silver & Assoc Inc G H, Newtonville	Mass
Sippican Corp, Ind Prods Div, Mattapoisett	Mass
Skyline Products Inc, Deer Park	N Y
Space Craft Inc, Huntsville	Ala
Sparton Southwest Inc, Albuquerque	NM
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Taffet Electronics Inc, Woodside	N Y
Tri-D Corp, Plainville	Conn
Trueline Instruments Inc, Englewood	Colo

TRW Systems Group, Redondo Beach	Cal
Vacuum Barrier Corp, Woburn	Mass
Walkirt Co, Los Angeles	Cal
Western Arctronic, Monrovia	Cal

WELDING TIMERS SEE TIMERS--WELDING

WHEATSTONE BRIDGE SEE BRIDGES

WHEELS--BONDED SEE ABRASIVES

WHEELS, DIAMOND--DICING OR PELLETIZING

Avco Bay State Abrasives Div, Westboro	Mass
Bronwill Scientific, Rochester	N Y
Diamonds Unlimited Inc, Rochester	N Y
DoAll Co, Des Plaines	Ill
Fish-Schurman Corp, New Rochelle	N Y
Jonard Industries Corp, Bronx	N Y
Micromech Mfg Corp, Union	N J
Norton Co, Worcester	Mass
Raybestos-Manhattan Inc, Passaic	N J
Universal Shellac & Supply Co Inc, Brooklyn	N Y

WHEELS, DIAMOND--WAFERING OR SLICING

Avco Bay State Abrasives Div, Westboro	Mass
Bronwill Scientific, Rochester	N Y
Diamonds Unlimited Inc, Rochester	N Y
DoAll Co, Des Plaines	Ill
Fish-Schurman Corp, New Rochelle	N Y
Greenlee Diamond Tool Co, Chicago	Ill
Henley & Co Inc, New York	N Y
Jonard Industries Corp, Bronx	N Y
Micromech Mfg Corp, Union	N J
Norton Co, Worcester	Mass
Techni-Tool Inc, Philadelphia	Pa
Universal Shellac & Supply Co Inc, Brooklyn	N Y

WHIP ANTENNAS SEE ANTENNAS--MOBILE

WHITE ROOMS SEE CLEAN ROOMS

WIDE-BAND AMPLIFIERS SEE AMPLIFIERS--R-F

WINDERS--PAPER TAPE

WALDOM ELECTRONICS INC, CHICAGO	**ILL**
Connecticut Technical Corp, Hartford	Conn
Cycle Equipment Co, Los Gatos	Cal
Digitronics Corp, Albertson	N Y
Remex Electronics, Hawthorne	Cal
Robins Data Devices Inc, Flushing	N Y
Teletype Corp, Skokie	Ill
Waldom Electronics Inc, Chicago	Ill

WINDING MACHINES SEE MACHINES--COIL-WINDING;

MACHINES--GRID-WINDING; MACHINES--

RESISTOR-MANUFACTURING

WINDINGS--TRANSFORMER SEE COILS--WINDINGS ONLY

WINDOWS--DIAL

Apahouser Corp of N E, Boston	Mass
Atlantic Optical Moulding Co, Dudley	Mass
Eljay Corp, Baltimore	Md
Felsenthal Instruments Co, Chicago	Ill
Franklin Fibre-Lamitex Corp, Wilmington	Del
Harva Co Inc, Schoharie	N Y
Jan Hardware Mfg Co Inc, Long Island City	N Y
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
Livingston Electronic Div Jettron Prods Inc Hanover	N J
Metavac Inc, Flushing	N Y
Optics Electronics Corp, Dallas	Tex
O & S Research Inc, Riverton	N J
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
U S Precision Lens & Plastics Inc, Cincinnati	Ohio

WINDOWS--INFRARED

KELLER INC, HUGO P, NEW YORK	**N Y**
Bausch & Lomb, Inc, Rochester	N Y
Bendix Corp Electro Optics Div, Ann Arbor	Mich
Ceramaseal Inc, Sub Lapp Insulator Co Inc New Lebanon Center	N Y
Coherent Radiation Labs, Palo Alto	Cal
Cominco American Inc Electronic Matls Div, Spokane	Wash
Corning Glass Works, Corning	N Y
Crystalab Products Corp, Rochelle Park	N J
Electronic Space Products Inc, Los Angeles	Cal
General Electrodynamics Corp, Garland	Tex
Geoscience Instruments Corp, Mt Vernon	N Y
Harshaw Chemical Co, Div Kewanee Oil Co Cleveland	Ohio
Industrial Optics Corp, Newark	N J
Infrared Industries Inc, Santa Barbara	Cal
Insaco Inc, Quakertown	Pa
Isomet Corp, Palisades Park	N J
Jones Optical Works Inc A D, Burlington	Mass
Keller Inc, Hugo P, New York	N Y
Laser Optics Inc, Danbury	Conn
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
Meller Co, Adolf, Providence	R I
Metavac Inc, Flushing	N Y
Optics Electronics Corp, Dallas	Tex
O & S Research Inc, Riverton	N J
Perkin-Elmer Corp, Norwalk	Conn
Perkin-Elmer Corp, Optical Group, Norwalk	Conn
Ransom Labs, John H, Los Angeles	Cal
Republic Lens Co Inc, Bronx	N Y
Semiconductor Specialties Corp, Fair Lawn	NJ
Semi-Elements Inc, Saxonburg	Pa
Sylvania Elec Prods Inc, Chem & Met Div, Towanda	Pa
Syncor Products Co, Inc, Malden	Mass
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Wacker Chemical Corp, New York	N Y
Wilks Scientific Corp, South Norwalk	Conn

WINDOWS--MICROWAVE

Aircom Inc, Union	N H
Airtron, Div of Litton Industries, Inc, Morris Plains	N J
American Electronic Labs Inc, Lansdale	Pa
Andrew Corp, Orland Park	Ill
Asheville-Schoonmaker Mica Co, Newport News	Va
Bomac Div Varian Associates, Beverly	Mass
Ceramaseal Inc, Sub Lapp Insulator Co Inc New Lebanon Center	N Y
Corning Glass Works, Corning	N Y
Custom Materials Inc, Chelmsford	Mass
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Dodge Industries, Hoosick Falls	N Y
Eastern Microwave Corp, Winchester	Mass
Electromagnetic Technology Corp, Mountain View	Cal
Emerson Plastics Corp, Bronx	New York
Filmohm Corp, Long Island City	N Y
Gabriel Electronics Div Maremont Corp, Saco	Maine
Guide Industries Inc, Sun Valley	Cal
Herley Industries, Inc, Westbury	N Y
Insulating Shapes Inc, Bronx	N Y
Jones Optical Works Inc A D, Burlington	Mass
Latronics Corp, Latrobe	Pa
Litton Industries, Electron Tube Div, San Carlos	Cal
MCS Corp, Monrovia	Cal
Meller Co, Adolf, Providence	R I
Microwave Associates Inc, Burlington	Mass
Microwave Development Labs Inc Needham Heights	Mass
National Beryllia Corp, Haskell	N J
Neico Microwave Co, Waltham	Mass
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Portchester Instrument Corp, Port Chester	N Y
R F Systems Inc, Cohasset	Mass
Rogers Corp, Rogers	Conn
Royal Worcester Industrial Ceramics Inc, New York	NY
Semi-Elements Inc, Saxonburg	Pa
Syncor Products Co, Inc, Malden	Mass
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Union Carbide Corp, Carbon Products Div New York	N Y
U S Dielectric Inc, Worcester	Mass
Varian, Palo Alto	Cal
Western Gold & Platinum Co, Belmont	Cal

WINDOWS--PRESSURIZED

FUSITE CORP, CINCINNATI	**OHIO**
Alloys Unlimited Inc, Melville	N Y
American Electronic Labs Inc, Lansdale	Pa
Corning Glass Works, Corning	N Y
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Dodge Industries, Hoosick Falls	N Y
Dynasil Corp of America, Berlin	N J
Electromagnetic Technology Corp, Mountain View	Cal
Electronic Specialty Co, Los Angeles	Cal
Electron Technology Inc, Kearny	N J
Ferranti, Ltd, Lancashire	England
Filmohm Corp, Long Island City	N Y
Fusite Corp, Cincinnati	Ohio
General Electric Co Vacuum Prods Business Section Schenectady	N Y
Glasseal Products Co Inc, Linden	N J
Granville-Philips Co, Boulder	Colo
Herley Industries, Inc, Westbury	N Y
Hermetic Seal Corp, Div Sterling Elctns Corp Rosemead	Cal
Hydro Products Div Dillingham Corp, San Diego	Cal
Laser Optics Inc, Danbury	Conn
MCS Corp, Monrovia	Cal
Microwave Development Labs Inc Needham Heights	Mass
O & S Research Inc, Riverton	N J
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Portchester Instrument Corp, Port Chester	N Y
Tekform Products Co Sub Bliss & Laughlin Indus Anaheim	Cal
Varian, Palo Alto	Cal

WINDOWS--R-F SUPPRESSION

Corning Glass Works, Corning	N Y
DeMornay-Bonardi Div Datapulse Inc, Pasadena	Cal
Dodge Industries, Hoosick Falls	N Y
Herley Industries, Inc, Westbury	N Y
Liberty Mirror Div Libbey-Owens Ford Glass Co Brackenridge	Pa
Metex Corp, Edison	N J
Ray Proof Corp, Norwalk	Conn
Technical Wire Products Inc, Cranford	N J

WIRE--ANTENNA

AMPHENOL, CHICAGO	**ILL**
BIRNBACH CO INC, FREEPORT	**N Y**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
HACKENSACK CABLE CORP, HACKENSACK	**N J**
Amphenol, Chicago	Ill
Anaconda Wire and Cable Co, New York	N Y
Belden Mfg Co, Chicago	Ill
Birnbach Co Inc, Freeport	N Y
Calcon Mfg Corp, Washington	Pa
Carol Cable Co, Pawtucket	R I
Chester Cable Co Div Tennessee Corp, Chester	N Y
Clear Beam Antenna, Sylmar	Cal
Columbia Wire Products Co, Chicago	Ill
Copperweld Steel Co Flexo Wire Div, Oswego	N Y
Daburn Electronics & Cable Corp, Bronx	N Y
Dayton Aircraft Products Inc, Fort Lauderdale	Fla
Dearborn Wire & Cable Co, Chicago	Ill
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Cable Corp, New York	N Y
Hackensack Cable Corp, Hackensack	N J
Hudson Wire Co, Ossining	N Y
ITT Wire & Cable Div, Clinton	Mass
ITT Wire & Cable Div, Pawtucket	R I
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
Judd Wire Div Electronized Chem Corp Turners Falls	Mass
K L A Labs Inc, Detroit	Mich
Lance Antenna Corp, Sylmar	Cal
National Standard Co, Niles	Mich
Pacific Electricord Co, Gardena	Cal
Parker Metal Goods Co, Worcester	Mass
Plastic Wire & Cable Corp, Jewett City	Conn
Plastoid Corp, Long Island City	N Y
Porter Co (Can) Ltd, H K, Guelph	Ont
Saxton Products Inc, Congers	N Y
Standard Wire & Cable Co, Los Angeles	Cal
Superior Insulated Wire Corp, Stony Point	N Y
Tevco Insulated Wire, Glendale	Cal
Texas Instruments Incorporated, Dallas	Tex
Universal-Cyclops Specialty Steel Div Cyclops Corp Pittsburgh	Pa
Welco Electric Corp, South Bend	Ind

WIRE, BARE--ALUMINUM

BIRNBACH CO INC, FREEPORT	**N Y**
CONSOLIDATED REACTIVE METALS INC, MAMARONECK	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
Alloys Unlimited Inc, Melville	N Y
All-State Welding Alloys Co, Inc, White Plains	N Y
Aluminum Co of America, Pittsburgh	Pa
American Brazing Alloys Corp, Pelham	N Y
American Metal Climax Inc, New York	N Y
Anaconda Wire and Cable Co, New York	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Birnbach Co Inc, Freeport	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
California Fine Wire Co, Grover City	Cal
Chase Metals Service Div Chase Brass & Copper Co Cleveland	Ohio
Cohn Corp, Sigmund, Mt Vernon	N Y
Cominco American Inc Electronic Matls Div, Spokane	Wash
Consolidated Reactive Metals Inc, Mamaroneck	N Y
Copperweld Steel Co Flexo Wire Div, Oswego	N Y
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Eaton Yale & Towne Inc Reliance Div, Massillon	Ohio
Electronic Space Products Inc, Los Angeles	Cal
General Cable Corp, New York	N Y
Hudson Wire Co, Ossining	N Y
International Wire Products Corp, Wyckoff	N J
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
Kaiser Aluminum & Chem Corp Electrical Prods Div Oakland	Cal
Koch Light Labs Ltd, Colnbrook, Bucks	England
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Little Falls Alloys Inc, Paterson	N J
Mackay Inc, A D, New York	N Y
Materials for Electronics, Inc, Jamaica	N Y
Materials Research Corp, Orangeburg	N Y
Molecu-Wire Corp, Farmingdale	N J
Montgomery Co, Windsor Locks	Conn
Nesor Alloy Corp, West Caldwell	N J
Paul & Stein Bros Inc, F H, New York	N Y
Permaluster Inc, Burbank	Cal
Phelps Dodge Copper Products Corp, New York	N Y
Porter Co (Can) Ltd, H K, Guelph	Ont
Rea Magnet Wire Co Inc, Fort Wayne	Ind
Reynolds Metals Co, Richmond	Va
Rome Cable Div Cyprus Mines Corp, Rome	N Y
Roosevelt Metal Co Inc, Brooklyn	N Y
Ryerson & Son Inc, J T, Chicago	Ill
Secon Wire Div, White Plains	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Steel Heddle Mfg Co, Philadelphia	Pa
Tatsuta Electric Wire & Cable Co Ltd, Osaka	Japan
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
United Wire & Supply Corp, Providence	R I
Wilkinson Co, Westlake Village	Cal
York Wire Co, Clifton	N J

WIRE, BARE--BERYLLIUM COPPER

KENTUCKY ELECTRONICS INC, OWENSBORO	**KY**
Associated Engineering & Mfg Corp, Glen Ridge	N J
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Beryllium Corp, Reading	Pa
Bram Metallurgical Chemical Co, Philadelphia	Pa
Brush Beryllium Co, Cleveland	Ohio
California Fine Wire Co, Grover City	Cal
Cohn Corp, Sigmund, Mt Vernon	N Y
Dearborn Wire & Cable Co, Chicago	Ill
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Eaton Yale & Towne Inc Reliance Div, Massillon	Ohio
Electronic Space Products Inc, Los Angeles	Cal
Essex Wire Corp Magnet Wire Div, Fort Wayne	Ind
Hudson Wire Co, Ossining	N Y
Kentucky Electronics Inc, Owensboro	Ky
Koch Light Labs Ltd, Colnbrook, Bucks	England
Little Falls Alloys Inc, Paterson	N J
Mackay Inc, A D, New York	N Y
Nesor Alloy Corp, West Caldwell	N J
Steel Heddle Mfg Co, Philadelphia	Pa
Sumitomo Special Metals Co Ltd, Osaka	Japan
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Var-Lac-Oid Chemical Co, Elizabeth	N J
Wilkinson Co, Westlake Village	Cal

WIRE, BARE--COLUMBIUM

REMBAR CO INC, DOBBS FERRY	**N Y**
Active Alloys Inc, Brooklyn	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Beryllium Corp, Reading	Pa
Bram Metallurgical Chemical Co, Philadelphia	Pa
Dearborn Wire & Cable Co, Chicago	Ill
Electronic Space Products Inc, Los Angeles	Cal
Fansteel Metallurgical Corp, North Chicago	Ill
Kawecki Chemical Co, New York	N Y
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Materials Research Corp, Orangeburg	N Y
Molecu-Wire Corp, Farmingdale	N J
Norton Co Metals Div, Newton	Mass
Nuclear Materials & Equipment Corp, Apollo	Pa
Polysciences Inc, Warrington	Pa
Rembar Co Inc, Dobbs Ferry	N Y
Roosevelt Metal Co Inc, Brooklyn	N Y
Union Carbide Corp, Materials Systems Div Kokomo	Ind
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Wah Chang Corp, Glen Cove	N Y

WIRE, BARE--COPPER

BIRNBACH CO INC, FREEPORT	**N Y**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
American Brazing Alloys Corp, Pelham	N Y
American Metal Climax Inc, New York	N Y
Anaconda Wire and Cable Co, New York	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Belden Mfg Co, Chicago	Ill
Beryllium Corp, Reading	Pa
Birnbach Co Inc, Freeport	N Y
Bridgeport Insulated Wire Co, Bridgeport	Conn

California Fine Wire Co, Grover City	Cal
Cerro Corp, New York	NY
Chase Brass & Copper Co, Cleveland	Ohio
Chase Metals Service Div Chase Brass & Copper Co Cleveland	Ohio
Chester Cable Co Div Tennessee Corp, Chester	N Y
Cohn Corp, Sigmund, Mt Vernon	N Y
Columbia Wire Products Co, Chicago	Ill
Copperweld Steel Co Flexo Wire Div, Oswego	N Y
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Eaton Yale & Towne Inc Reliance Div, Massillon	Ohio
Electronic Space Products Inc, Los Angeles	Cal
Essex Wire Corp Magnet Wire Div, Fort Wayne	Ind
General Cable Corp, New York	N Y
Hudson Wire Co, Ossining	N Y
International Wire Products Corp, Wyckoff	N J
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
Koch Light Labs Ltd, Colnbrook, Bucks	England
Leach & Garner Co, Industrial Div, Attleboro	Mass
Little Falls Alloys Inc, Paterson	N J
Materials Research Corp, Orangeburg	N Y
Molecu-Wire Corp, Farmingdale	N J
Montgomery Co, Windsor Locks	Conn
Nesor Alloy Corp, West Caldwell	N J
Nippert Electric Products Co, Delaware	Ohio
Nonotuck Mfg Co, South Hadley Falls	Mass
Omega Engineering Inc, Stamford	Conn
Phelps Dodge Copper Products Corp, New York	N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Plastic Wire & Cable Corp, Jewett City	Conn
Porter Co (Can) Ltd, H K, Guelph	Ont
Prestolite Wire & Cable, Prestolite Div, Eltra Corp Port Huron	Mich
Pyrometer Co of America Inc, Penndel	Pa
Rea Magnet Wire Co Inc, Fort Wayne	Ind
Rome Cable Div Cyprus Mines Corp, Rome	N Y
Roosevelt Metal Co Inc, Brooklyn	N Y
Saxton Products Inc, Congers	N, Y
Semi-Alloys Inc, Mt Vernon	N Y
Standard Wire & Cable Co, Los Angeles	Cal
Steel Heddle Mfg Co, Philadelphia	Pa
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Tatsuta Electric Wire & Cable Co Ltd, Osaka	Japan
Technical Components Co Inc, Chicago Ridge	Ill
Texas Instruments Incorporated, Dallas	Tex
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
United Wire & Supply Corp, Providence	R I
Viking Wire Co Inc, Danbury	Conn
Western Gold & Platinum Co, Belmont	Cal
Wilkinson Co, Westlake Village	Cal

WIRE, BARE--COPPER, GOLD PLATED

KENTUCKY ELECTRONICS INC, OWENSBORO	**KY**
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Beryllium Corp, Reading	Pa
Brainin Corp, C S, Mt Vernon	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
Burton Research Labs, Culver City	Cal
Burton Silverplating Co, Los Angeles	Cal
California Fine Wire Co, Grover City	Cal
Cohn Corp, Sigmund, Mt Vernon	N Y
Dearborn Wire & Cable Co, Chicago	Ill
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Hudson Wire Co, Ossining	N Y
Improved Seamless Wire Co, Providence	R I
International Wire Products Corp, Wyckoff	N J
Kentucky Electronics Inc, Owensboro	Ky
Mackay Inc, A D, New York	N Y
Nesor Alloy Corp, West Caldwell	N J
Roosevelt Metal Co Inc, Brooklyn	N Y
Secon Wire Div, White Plains	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Summit Finishing Div Beryllium Corp, Thomaston	Conn
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Texas Instruments Incorporated, Dallas	Tex
United American Metals Div, Brooklyn	N Y
United Refining & Smelting Co, Franklin Park	Ill

WIRE, BARE--COPPER, NICKEL CLAD

BIRNBACH CO INC, FREEPORT	**N Y**
KENTUCKY ELECTRONICS INC, OWENSBORO	**KY**
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Associated Engineering & Mfg Corp, Glen Ridge	N J
Beryllium Corp, Reading	Pa
Birnbach Co Inc, Freeport	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
California Fine Wire Co, Grover City	Cal
Copperweld Steel Co Flexo Wire Div, Oswego	N Y
Dearborn Wire & Cable Co, Chicago	Ill
Hudson Wire Co, Ossining	N Y
Improved Seamless Wire Co, Providence	R I
International Wire Products Corp, Wyckoff	N J
Kentucky Electronics Inc, Owensboro	Ky
Little Falls Alloys Inc, Paterson	N J
Mackay Inc, A D, New York	N Y
Molecu-Wire Corp, Farmingdale	N J
Montgomery Co, Windsor Locks	Conn
Nesor Alloy Corp, West Caldwell	N J
Phelps Dodge Copper Products Corp, New York	N Y
Porter Co Inc H K, Fabricated Metals Div Pittsburgh	Pa
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Standard Wire & Cable Co, Los Angeles	Cal
Steel Heddle Mfg Co, Philadelphia	Pa
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Texas Instruments Incorporated, Dallas	Tex
United American Metals Div, Brooklyn	N Y

WIRE, BARE--COPPER, SILVER PLATED

BIRNBACH CO INC, FREEPORT	**N Y**
KENTUCKY ELECTRONICS INC, OWENSBORO	**KY**
Belden Mfg Co, Chicago	Ill
Beryllium Corp, Reading	Pa
Birnbach Co Inc, Freeport	N Y
Brainin Corp, C S, Mt Vernon	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
Burton Research Labs, Culver City	Cal
Burton Silverplating Co, Los Angeles	Cal
California Fine Wire Co, Grover City	Cal
Copperweld Steel Co Flexo Wire Div, Oswego	N Y
Dearborn Wire & Cable Co, Chicago	Ill
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
General Cable Corp, New York	N Y
Hudson Wire Co, Ossining	N Y
Improved Seamless Wire Co, Providence	R I
International Wire Products Corp, Wyckoff	N J
Johnson Matthey & Mallory Ltd, Toronto 15	Ont
Kentucky Electronics Inc, Owensboro	Ky
Little Falls Alloys Inc, Paterson	N J
Mackay Inc, A D, New York	N Y
Molecu-Wire Corp, Farmingdale	N J
Montgomery Co, Windsor Locks	Conn
Nesor Alloy Corp, West Caldwell	N J
Semi-Alloys Inc, Mt Vernon	N Y
Standard Wire & Cable Co, Los Angeles	Cal
Steel Heddle Mfg Co, Philadelphia	Pa
Summit Finishing Div Beryllium Corp, Thomaston	Conn
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Technical Components Co Inc, Chicago Ridge	Ill
Texas Instruments Incorporated, Dallas	Tex
United Refining & Smelting Co, Franklin Park	Ill

WIRE, BARE--COPPER, TINNED

ALLIED ELECTRONICS CORP, CHICAGO	**ILL**
BIRNBACH CO INC, FREEPORT	**N Y**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
Allied Electronics Corp, Chicago	Ill
Anaconda Wire and Cable Co, New York	N Y
Belden Mfg Co, Chicago	Ill
Beryllium Corp, Reading	Pa
Birnbach Co Inc, Freeport	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cerro Corp, New York	NY
Chester Cable Co Div Tennessee Corp, Chester	N Y
Columbia Wire Products Co, Chicago	Ill
Consolidated Products Corp, Gardena	Cal
Copperweld Steel Co Flexo Wire Div, Oswego	N Y
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
General Cable Corp, New York	N Y
Hudson Wire Co, Ossining	N Y
International Wire Products Corp, Wyckoff	N J
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
Little Falls Alloys Inc, Paterson	N J
Mackay Inc, A D, New York	N Y
Montgomery Co, Windsor Locks	Conn
Nesor Alloy Corp, West Caldwell	N J
Nonotuck Mfg Co, South Hadley Falls	Mass
Phelps Dodge Copper Products Corp, New York	N Y
Porter Co (Can) Ltd, H K, Guelph	Ont
Prestolite Wire & Cable, Prestolite Div, Eltra Corp Port Huron	Mich
Rome Cable Div Cyprus Mines Corp, Rome	N Y
Saxton Products Inc, Congers	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Standard Wire & Cable Co, Los Angeles	Cal
Steel Heddle Mfg Co, Philadelphia	Pa
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Tatsuta Electric Wire & Cable Co Ltd, Osaka	Japan
Technical Components Co Inc, Chicago Ridge	Ill

WIRE, BARE--FINE WIRE SPECIALTIES (INCL GRID WIRE)

ART WIRE & STAMPING CO, NEWARK	**N J**
BIRNBACH CO INC, FREEPORT	**N Y**
CONSOLIDATED REACTIVE METALS INC, MAMARONECK N Y	**ADV PG 804**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
KENTUCKY ELECTRONICS INC, OWENSBORO, KY	**ADV PG 767**
Active Alloys Inc, Brooklyn	N Y
Alloys Unlimited Inc, Melville	N Y
Armco Steel Corp, Middletown	Ohio
Art Wire & Stamping Co, Newark	N J

PRECISION
WIRE

for electronic applications

CRM specializes in wire for precision electronic applications. All CRM wires are made with absolute uniformity of composition, smooth surface finish, and freedom from contamination. Packaging on unique platform-mounted spools in vapor-proof double plastic containers protects quality in storage and use.

. . Spectrographically controlled Gold and Aluminum bonding wire

. . Platinum alloys for potentiometers

. . 6-9's aluminum and other metals for vacuum deposition

. . Fine wire for thermistors

. . Custom enameled fine wire

Call or write CRM for a quotation or a copy of the latest, complete CRM catalog.

CONSOLIDATED
CRM REACTIVE
METALS, INC.

114 Hoyt Avenue, Mamaroneck, N.Y. 10543
Tel: (914) 698-2300 ☐ TWX 914-835-3380

Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Belden Mfg Co, Chicago	Ill
Beryllium Corp, Reading	Pa
Birnbach Co Inc, Freeport	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
Brookfield Wire Co Inc, Brookfield	Mass
California Fine Wire Co, Grover City	Cal
Carpenter Steel Co, Reading	Pa
Cerro Corp, New York	NY
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
Cohn Corp, Sigmund, Mt Vernon	N Y
Cominco American Inc Electronic Matls Div, Spokane	Wash
Consolidated Reactive Metals Inc, Mamaroneck	N Y
Copperweld Steel Co Flexo Wire Div, Oswego	N Y
Daburn Electronics & Cable Corp, Bronx	N Y
Dearborn Wire & Cable Co, Chicago	Ill
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Driver-Harris Co, Harrison	N J
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Fort Wayne Metals Inc, Fort Wayne	Ind
General Cable Corp,•New York	N Y
General Electric Co Lamp Metals & Components Dept Cleveland	Ohio
Handy & Harman, New York	N Y
Hudson Wire Co, Ossining	N Y
Improved Seamless Wire Co, Providence	R I
International Wire Products Corp, Wyckoff	N J
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
Kentucky Electronics Inc, Owensboro	Ky
Koch Light Labs Ltd, Colnbrook, Bucks	England
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Leach & Garner Co, Industrial Div, Attleboro	Mass
Little Falls Alloys Inc, Paterson	N J
Mackay Inc, A D, New York	N Y
Matthey Bishop Inc, Malvern	Pa
Molecu-Wire Corp, Farmingdale	N J
Montgomery Co, Windsor Locks	Conn
National Standard Co, Niles	Mich
Nesor Alloy Corp, West Caldwell	N J
Nonotuck Mfg Co, South Hadley Falls	Mass
Permaluster Inc, Burbank	Cal
Phelps Dodge Copper Products Corp, New York	N Y
Philips Elmet Corp, Lewiston	Me
Porter Co (Can) Ltd, H K, Guelph	Ont
Porter Co Inc H K, Fabricated Metals Div Pittsburgh	Pa
Pyrometer Co of America Inc, Penndel	Pa
Radio Corp of America, Electronic Components, Harrison	N J
Rea Magnet Wire Co Inc, Fort Wayne	Ind
Secon Wire Div, White Plains	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Steel Heddle Mfg Co, Philadelphia	Pa
Sylvania Elec Prods Inc, Chem & Met Div, Towanda	Pa
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Unique Wire Weaving Co Inc, Hillside	N J
United Mineral & Chemical Corp, New York	N Y
Universal-Cyclops Specialty Steel Div Cyclops Corp Pittsburgh	Pa
Viking Wire Co Inc, Danbury	Conn
Wilkinson Co, Westlake Village	Cal
York Wire Co, Clifton	N J

WIRE, BARE--GLASS SEALING

KENTUCKY ELECTRONICS INC, OWENSBORO	**KY**
MAGNETICS INC, BUTLER	**PA**
Active Alloys Inc, Brooklyn	N Y
Associated Engineering & Mfg Corp, Glen Ridge	N J
Brookfield Wire Co Inc, Brookfield	Mass
Carpenter Steel Co, Reading	Pa
Cerro Corp, New York	NY
Cohn Corp, Sigmund, Mt Vernon	N Y
Cominco American Inc Electronic Matls Div, Spokane	Wash
Dearborn Wire & Cable Co, Chicago	Ill
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Driver-Harris Co, Harrison	N J
General Electric Co Lamp Metals & Components Dept Cleveland	Ohio
Improved Seamless Wire Co, Providence	R I
Inter-Technical Group Inc, Irvington-on-Hudson	N Y
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
Kawecki Chemical Co, New York	N Y
Kentucky Electronics Inc, Owensboro	Ky
Mackay Inc, A D, New York	N Y
Magnetics Inc, Butler	Pa
Matthey Bishop Inc, Malvern	Pa
Molecu-Wire Corp, Farmingdale	N J
Nesor Alloy Corp, West Caldwell	N J
Porter Co (Can) Ltd, H K, Guelph	Ont
Porter Co Inc H K, Fabricated Metals Div Pittsburgh	Pa
Semi-Alloys Inc, Mt Vernon	N Y
Special Metals Corp, New Hartford	NY
Sumitomo Special Metals Co Ltd, Osaka	Japan
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
Texas Instruments Incorporated, Dallas	Tex
Universal-Cyclops Specialty Steel Div Cyclops Corp Pittsburgh	Pa

MILGRAY STOCKS
WIRE & CABLE

Every kind you can imagine. (And some you can't.) From stockpiles strategically located for overnight or faster delivery to anywhere in the world. We stock more so you can worry less. A call to your local Milgray man will start the motion.

MILGRAY

Milgray/New York 212-YU 9-1600
Milgray/Delaware Valley 215-BA 8-2000
Milgray/Washington 301-864-1111
Milgray/Cleveland 216-881-8800
Milgray/International 212-YU 9-1600
Milgray/New England, Inc. 617-272-6800

WIRE, BARE--GOLD

CONSOLIDATED REACTIVE METALS INC, MAMARONECK	**N Y**
KENTUCKY ELECTRONICS INC, OWENSBORO	**KY**
NEY CO, J M, BLOOMFIELD	**CONN**
WILLIAMS GOLD REFINING CO INC PRECIOUS METALS DIV BUFFALO	**N Y**
Alloys Unlimited Inc, Melville	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
California Fine Wire Co, Grover City	Cal
Cohn Corp, Sigmund, Mt Vernon	N Y
Cominco American Inc Electronic Matls Div, Spokane	Wash
Consolidated Reactive Metals Inc, Mamaroneck	N Y
Dearborn Wire & Cable Co, Chicago	Ill
Degussa Zweigniederlassung Hanau, D-6450 Hanau	Fed Rep Ger
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Electronic Space Products Inc, Los Angeles	Cal
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Handy & Harman, New York	N Y
Hudson Wire Co, Ossining	N Y
Improved Seamless Wire Co, Providence	R I
International Wire Products Corp, Wyckoff	N J
Jelliff Corp, C O, Southport	Conn
Johnson Matthey & Mallory Ltd, Toronto 15	Ont
Kentucky Electronics Inc, Owensboro	Ky
Kester Solder Co, Chicago	Ill
Koch Light Labs Ltd, Colnbrook, Bucks	England
Kulicke & Soffa Industries Inc, Fort Washington	Pa
Leach & Garner Co, Industrial Div, Attleboro	Mass
Mackay Inc, A D, New York	N Y
Materials Research Corp, Orangeburg	N Y
Matthey Bishop Inc, Malvern	Pa
Metz Refining Co, South Plainfield	N J
Molecu-Wire Corp, Farmingdale	N J
Nesor Alloy Corp, West Caldwell	N J
Ney Co, J M, Bloomfield	Conn
Polysciences Inc, Warrington	Pa
Roosevelt Metal Co Inc, Brooklyn	N Y
Secon Wire Div, White Plains	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
Standard Metals Div Edw N Cook Plate Co, Inc North Attleboro	Mass
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
United Refining & Smelting Co, Franklin Park	Ill
Var-Lac-Oid Chemical Co, Elizabeth	N J
Western Gold & Platinum Co, Belmont	Cal
Wilkinson Co, Westlake Village	Cal
Williams Gold Refining Co Inc Precious Metals Div Buffalo	N Y

WIRE, BARE--MOLYBDENUM

REMBAR CO INC, DOBBS FERRY	**N Y**
Active Alloys Inc, Brooklyn	N Y
Allen-Jones Electronics Corp, Gardena	Cal
Alloys Unlimited Inc, Melville	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Associated Engineering & Mfg Corp, Glen Ridge	N J
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
Cleveland Refractory Metals, Div Chase Brass Copper Co Solon	Ohio
C M Mfg Co, Bloomfield	N J
Dearborn Wire & Cable Co, Chicago	Ill
Electronic Space Products Inc, Los Angeles	Cal
Fansteel Metallurgical Corp, North Chicago	Ill
General Electric Co Lamp Metals & Components Dept Cleveland	Ohio
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Materials Research Corp, Orangeburg	N Y
Nesor Alloy Corp, West Caldwell	N J
Norton Co Metals Div, Newton	Mass
Nuclear Materials & Equipment Corp, Apollo	Pa
Philips Elmet Corp, Lewiston	Me
Rembar Co Inc, Dobbs Ferry	N Y
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
Sylvania Elec Prods Inc, Chem & Met Div, Towanda	Pa
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
Universal-Cyclops Specialty Steel Div Cyclops Corp Pittsburgh	Pa
Var-Lac-Oid Chemical Co, Elizabeth	N J
Wah Chang Corp, Glen Cove	N Y
Westinghouse Electric Corp, Lamp Div, Bloomfield	N J

WIRE, BARE--MONEL

KENTUCKY ELECTRONICS INC, OWENSBORO	**KY**
Active Alloys Inc, Brooklyn	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Beryllium Corp, Reading	Pa
Bram Metallurgical Chemical Co, Philadelphia	Pa
Brookfield Wire Co Inc, Brookfield	Mass
California Fine Wire Co, Grover City	Cal
Dearborn Wire & Cable Co, Chicago	Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Driver-Harris Co, Harrison	N J
Eaton Yale & Towne Inc Reliance Div, Massillon	Ohio
Fort Wayne Metals Inc, Fort Wayne	Ind
Harper Co, H M, Morton Grove	Ill
Hudson Wire Co, Ossining	N Y
International Wire Products Corp, Wyckoff	N J
Jelliff Corp, C O, Southport	Conn
Kentucky Electronics Inc, Owensboro	Ky
Leach & Garner Co, Industrial Div, Attleboro	Mass
Mackay Inc, A D, New York	N Y
Molecu-Wire Corp, Farmingdale	N J
Montgomery Co, Windsor Locks	Conn
Nesor Alloy Corp, West Caldwell	N J
Nonotuck Mfg Co, South Hadley Falls	Mass
Porter Co Inc H K, Fabricated Metals Div Pittsburgh	Pa
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Sumitomo Special Metals Co Ltd, Osaka	Japan
Sylvania Electric Prods Inc, Parts Div, Warren	Pa
United American Metals Div, Brooklyn	N Y
York Wire Co, Clifton	N J

WIRE, BARE--PHOSPHOR BRONZE

BIRNBACH CO INC, FREEPORT	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
HACKENSACK CABLE CORP, HACKENSACK	**N J**
KENTUCKY ELECTRONICS INC, OWENSBORO	**KY**
American Brazing Alloys Corp, Pelham	N Y
Anchor Alloys Inc, Brooklyn	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Belden Mfg Co, Chicago	Ill
Birnbach Co Inc, Freeport	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
California Fine Wire Co, Grover City	Cal
Chase Brass & Copper Co, Cleveland	Ohio
Chase Metals Service Div Chase Brass & Copper Co Cleveland	Ohio
Cohn Corp, Sigmund, Mt Vernon	N Y
Copperweld Steel Co Flexo Wire Div, Oswego	N Y
Daburn Electronics & Cable Corp, Bronx	N Y
Dearborn Wire & Cable Co, Chicago	Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Eaton Yale & Towne Inc Reliance Div, Massillon	Ohio
Hackensack Cable Corp, Hackensack	N J
Hudson Wire Co, Ossining	N Y
International Wire Products Corp, Wyckoff	N J
Kentucky Electronics Inc, Owensboro	Ky
Little Falls Alloys Inc, Paterson	N J
Mackay Inc, A D, New York	N Y
Montgomery Co, Windsor Locks	Conn
Nesor Alloy Corp, West Caldwell	N J
Nonotuck Mfg Co, South Hadley Falls	Mass
Porter Co Inc H K, Fabricated Metals Div Pittsburgh	Pa
Roosevelt Metal Co Inc, Brooklyn	N Y

Saxton Products Inc, Congers .... N Y
Secon Wire Div, White Plains .... N Y
Semi-Alloys Inc, Mt Vernon .... N Y
Standard Wire & Cable Co, Los Angeles .... Cal
Steel Heddle Mfg Co, Philadelphia .... Pa
United American Metals Div, Brooklyn .... N Y

WIRE, BARE--PLATINUM

CONSOLIDATED REACTIVE METALS INC, MAMARONECK .... N Y
KENTUCKY ELECTRONICS INC, OWENSBORO .... KY
WILLIAMS GOLD REFINING CO INC PRECIOUS METALS DIV
BUFFALO .... N Y
Active Alloys Inc, Brooklyn .... N Y
Alloys Unlimited Inc, Melville .... N Y
Anchor Alloys Inc, Brooklyn .... N Y
Anchor Metal Co, Inc Div, Brooklyn .... N Y
Atomergic Chemetals Co Div Gallard-Schlesinger
Chemical Mfg Corp, Carle Place .... N Y
Brainin Corp, C S, Mt Vernon .... N Y
Bram Metallurgical Chemical Co, Philadelphia .... Pa
California Fine Wire Co, Grover City .... Cal
Cohn Corp, Sigmund, Mt Vernon .... N Y
Consolidated Reactive Metals Inc, Mamaroneck .... N Y
Dearborn Wire & Cable Co, Chicago Ill
Degussa Zweigniederlassung Hanau, D-
6450 Hanau .... Fed Rep Ger
Driver, Wilbur B Div Sylvania Elec Prods Inc,
Newark .... N J
Electronic Space Products Inc, Los Angeles .... Cal
Engelhard Minerals & Chemicals Corp, Engelhard Indus
Div, Newark .... N J
Handy & Harman, New York .... N Y
Hudson Wire Co, Ossining .... N Y
Improved Seamless Wire Co, Providence .... R I
Jelliff Corp, C O, Southport .... Conn
Johnson Matthey & Mallory Ltd, Toronto 15 .... Ont
Kentucky Electronics Inc, Owensboro .... Ky
Kester Solder Co, Chicago Ill
Koch Light Labs Ltd, Colnbrook, Bucks .... England
Leach & Garner Co, Industrial Div, Attleboro .... Mass
Materials Research Corp, Orangeburg .... N Y
Matthey Bishop Inc, Malvern .... Pa
Metz Refining Co, South Plainfield .... N J
Molecu-Wire Corp, Farmingdale .... N J
Nesor Alloy Corp, West Caldwell .... N J
Omega Engineering Inc, Stamford .... Conn
Polysciences Inc, Warrington .... Pa
Pyrometer Co of America Inc, Penndel .... Pa
Radio Corp of America, Electronic Components,
Harrison .... N J
Roosevelt Metal Co Inc, Brooklyn .... N Y
Secon Wire Div, White Plains .... N Y
Semi-Alloys Inc, Mt Vernon .... N Y
Semi-Elements Inc, Saxonburg .... Pa
Standard Metals Div Edw N Cook Plate Co, Inc
North Attleboro .... Mass
United American Metals Div, Brooklyn .... N Y
United Mineral & Chemical Corp, New York .... N Y
United Refining & Smelting Co, Franklin Park Ill
Var-Lac-Oid Chemical Co, Elizabeth .... N J
Western Gold & Platinum Co, Belmont .... Cal
Wilkinson Co, Westlake Village .... Cal
Williams Gold Refining Co Inc Precious Metals Div
Buffalo .... N Y

WIRE, BARE--SILVER

CONSOLIDATED REACTIVE METALS INC, MAMARONECK .... N Y
KENTUCKY ELECTRONICS INC, OWENSBORO .... KY
NEY CO, J M, BLOOMFIELD .... CONN
WILLIAMS GOLD REFINING CO INC PRECIOUS METALS DIV
BUFFALO .... N Y
Active Alloys Inc, Brooklyn .... N Y
Alloys Unlimited Inc, Melville .... N Y
American Brazing Alloys Corp, Pelham .... N Y
Anchor Alloys Inc, Brooklyn .... N Y
Anchor Metal Co, Inc Div, Brooklyn .... N Y
Atomergic Chemetals Co Div Gallard-Schlesinger
Chemical Mfg Corp, Carle Place .... N Y
Brainin Corp, C S, Mt Vernon .... N Y
Bram Metallurgical Chemical Co, Philadelphia .... Pa
California Fine Wire Co, Grover City .... Cal
Cohn Corp, Sigmund, Mt Vernon .... N Y
Cominco American Inc Electronic Matls Div,
Spokane .... Wash
Consolidated Reactive Metals Inc, Mamaroneck .... N Y
Dearborn Wire & Cable Co, Chicago Ill
Degussa Zweigniederlassung Hanau, D-
6450 Hanau .... Fed Rep Ger
Electronic Space Products Inc, Los Angeles .... Cal
Engelhard Minerals & Chemicals Corp, Engelhard Indus
Div, Newark .... N J
Handy & Harman, New York .... N Y
Hudson Wire Co, Ossining .... N Y
Improved Seamless Wire Co, Providence .... R I
International Wire Products Corp, Wyckoff .... N J
Johnson Matthey & Mallory Ltd, Toronto 15 .... Ont
Kentucky Electronics Inc, Owensboro .... Ky
Kester Solder Co, Chicago Ill
Koch Light Labs Ltd, Colnbrook, Bucks .... England
Leach & Garner Co, Industrial Div, Attleboro .... Mass
Little Falls Alloys Inc, Paterson .... N J
Mackay Inc, A D, New York .... N Y
Materials Research Corp, Orangeburg .... N Y
Metz Refining Co, South Plainfield .... N J
Molecu-Wire Corp, Farmingdale .... N J
Montgomery Co, Windsor Locks .... Conn
Nesor Alloy Corp, West Caldwell .... N J
Ney Co, J M, Bloomfield .... Conn
Polysciences Inc, Warrington .... Pa
Roosevelt Metal Co Inc, Brooklyn .... N Y
Secon Wire Div, White Plains .... N Y

Semi-Alloys Inc, Mt Vernon .... N Y
Semi-Elements Inc, Saxonburg .... Pa
Standard Metals Div Edw N Cook Plate Co, Inc
North Attleboro .... Mass
Steel Heddle Mfg Co, Philadelphia .... Pa
United American Metals Div, Brooklyn .... N Y
United Mineral & Chemical Corp, New York .... N Y
United Refining & Smelting Co, Franklin Park Ill
Var-Lac-Oid Chemical Co, Elizabeth .... N J
Western Gold & Platinum Co, Belmont .... Cal
Wilkinson Co, Westlake Village .... Cal
Williams Gold Refining Co Inc Precious Metals Div
Buffalo .... N Y

WIRE, BARE--STEEL (INCL GUY WIRE)

BIRNBACH CO INC, FREEPORT .... N Y
HACKENSACK CABLE CORP, HACKENSACK .... N J
Armco Steel Corp, Middletown .... Ohio
Birnbach Co Inc, Freeport .... N Y
Bostitch Div Textron Inc, East Greenwich .... R I
Brookfield Wire Co Inc, Brookfield .... Mass
Dearborn Wire & Cable Co, Chicago Ill
Eaton Yale & Towne Inc Reliance Div, Massillon .... Ohio
General Cable Corp, New York .... N Y
Hackensack Cable Corp, Hackensack .... N J
Lance Antenna Corp, Sylmar .... Cal
National Standard Co, Niles .... Mich
Nesor Alloy Corp, West Caldwell .... N J
Parker Metal Goods Co, Worcester .... Mass
Porter Co Inc H K, Fabricated Metals Div
Pittsburgh .... Pa
Republic Steel Corp, Cleveland .... Ohio
Ryerson & Son Inc, J T, Chicago Ill
Saxton Products Inc, Congers .... N Y
Steel Heddle Mfg Co, Philadelphia .... Pa
Wright Steel & Wire Co, G F, Worcester .... Mass

WIRE, BARE--STEEL, COPPER CLAD

DABURN ELECTRONICS & CABLE CORP, BRONX .... N Y
DAINICHI-NIPPON CABLES, LTD, TOKYO .... JAPAN
KENTUCKY ELECTRONICS INC, OWENSBORO .... KY
Anaconda Wire and Cable Co, New York .... N Y
Anchor Alloys Inc, Brooklyn .... N Y
Anchor Metal Co, Inc Div, Brooklyn .... N Y
Belden Mfg Co, Chicago Ill
Brookfield Wire Co Inc, Brookfield .... Mass
Columbia Wire Products Co, Chicago Ill
Copperweld Steel Co Flexo Wire Div, Oswego .... N Y
Crown Metal Products, Wyano .... Pa
Daburn Electronics & Cable Corp, Bronx .... N Y
Dainichi-Nippon Cables, Ltd, Tokyo .... Japan
Dearborn Wire & Cable Co, Chicago Ill
Degussa Zweigniederlassung Hanau, D-
6450 Hanau .... Fed Rep Ger
General Cable Corp, New York .... N Y
Hudson Wire Co, Ossining .... N Y
Improved Seamless Wire Co, Providence .... R I
International Wire Products Corp, Wyckoff .... N J
Kentucky Electronics Inc, Owensboro .... Ky
Montgomery Co, Windsor Locks .... Conn
National Standard Co, Niles .... Mich
Nesor Alloy Corp, West Caldwell .... N J
Roosevelt Metal Co Inc, Brooklyn .... N Y
Saxton Products Inc, Congers .... N Y
Semi-Alloys Inc, Mt Vernon .... N Y
Steel Heddle Mfg Co, Philadelphia .... Pa
Sumitomo Special Metals Co Ltd, Osaka .... Japan
Sylvania Electric Prods Inc, Parts Div, Warren .... Pa
Texas Instruments Incorporated, Dallas .... Tex
United American Metals Div, Brooklyn .... N Y
Universal-Cyclops Specialty Steel Div Cyclops Corp
Pittsburgh .... Pa

WIRE, BARE--STEEL, STAINLESS

HACKENSACK CABLE CORP, HACKENSACK .... N J
KENTUCKY ELECTRONICS INC, OWENSBORO .... KY
Active Alloys Inc, Brooklyn .... N Y
Allegheny Ludlum Steel Corp, Pittsburgh .... Pa
Armco Steel Corp, Middletown .... Ohio
Bram Metallurgical Chemical Co, Philadelphia .... Pa
Brookfield Wire Co Inc, Brookfield .... Mass
California Fine Wire Co, Grover City .... Cal
Carpenter Steel Co, Reading .... Pa
Chase Metals Service Div Chase Brass & Copper Co
Cleveland .... Ohio
Copperweld Steel Co Flexo Wire Div, Oswego .... N Y
Crucible Steel Co, Pittsburgh .... Pa
Dearborn Wire & Cable Co, Chicago Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc,
Newark .... N J
Driver-Harris Co, Harrison .... N J
Eaton Yale & Towne Inc Reliance Div, Massillon .... Ohio
Fort Wayne Metals Inc, Fort Wayne .... Ind
General Cable Corp, New York .... N Y
Hackensack Cable Corp, Hackensack .... N J
Harper Co, H M, Morton Grove Ill
Hudson Wire Co, Ossining .... N Y
International Wire Products Corp, Wyckoff .... N J
Kentucky Electronics Inc, Owensboro .... Ky
Mackay Inc, A D, New York .... N Y
Molecu-Wire Corp, Farmingdale .... N J

National Standard Co, Niles .... Mich
Nesor Alloy Corp, West Caldwell .... N J
Podgor Co Inc, Joseph E, Philadelphia .... Pa
Porter Co Inc H K, Fabricated Metals Div
Pittsburgh .... Pa
Republic Steel Corp, Cleveland .... Ohio
Ryerson & Son Inc, J T, Chicago Ill
Saxton Products Inc, Congers .... N Y
Semi-Alloys Inc, Mt Vernon .... N Y
Steel Heddle Mfg Co, Philadelphia .... Pa
Sylvania Electric Prods Inc, Parts Div, Warren .... Pa
U S Steel Corp, Pittsburgh .... Pa
Universal-Cyclops Specialty Steel Div Cyclops Corp
Pittsburgh .... Pa
York Wire Co, Clifton .... N J

WIRE, BARE--TANTALUM

KENTUCKY ELECTRONICS INC, OWENSBORO .... KY
REMBAR CO INC, DOBBS FERRY .... N Y
Active Alloys Inc, Brooklyn .... N Y
Allen-Jones Electronics Corp, Gardena .... Cal
Atomergic Chemetals Co Div Gallard-Schlesinger
Chemical Mfg Corp, Carle Place .... N Y
Bram Metallurgical Chemical Co, Philadelphia .... Pa
Dearborn Wire & Cable Co, Chicago Ill
Electronic Space Products Inc, Los Angeles .... Cal
Fansteel Metallurgical Corp, North Chicago Ill
General Electric Co Lamp Metals & Components Dept
Cleveland .... Ohio
Japan Vacuum Engineering Co Ltd, Tokyo .... Japan
Kawecki Chemical Co, New York .... N Y
Kennametal Inc, Latrobe .... Pa
Kentucky Electronics Inc, Owensboro .... Ky
Koch Light Labs Ltd, Colnbrook, Bucks .... England
Mackay Inc, A D, New York .... N Y
Materials Research Corp, Orangeburg .... N Y
Norton Co Metals Div, Newton .... Mass
Nuclear Materials & Equipment Corp, Apollo .... Pa
Paul & Stein Bros Inc, F H, New York .... N Y
Polysciences Inc, Warrington .... Pa
Pyrometer Co of America Inc, Penndel .... Pa
Rembar Co Inc, Dobbs Ferry .... N Y
Ryerson & Son Inc, J T, Chicago Ill
Semi-Alloys Inc, Mt Vernon .... N Y
Semi-Elements Inc, Saxonburg .... Pa
Union Carbide Corp, Materials Systems Div
Kokomo .... Ind
United Mineral & Chemical Corp, New York .... N Y
Var-Lac-Oid Chemical Co, Elizabeth .... N J
Wah Chang Corp, Glen Cove .... N Y

WIRE, BARE--TITANIUM

Active Alloys Inc, Brooklyn .... N Y
Atomergic Chemetals Co Div Gallard-Schlesinger
Chemical Mfg Corp, Carle Place .... N Y
Bram Metallurgical Chemical Co, Philadelphia .... Pa
Cohn Corp, Sigmund, Mt Vernon .... N Y
Crucible Steel Co, Pittsburgh .... Pa
Dearborn Wire & Cable Co, Chicago Ill
Electronic Space Products Inc, Los Angeles .... Cal
Kawecki Chemical Co, New York .... N Y
Koch Light Labs Ltd, Colnbrook, Bucks .... England
Little Falls Alloys Inc, Paterson .... N J
Mackay Inc, A D, New York .... N Y
Materials Research Corp, Orangeburg .... N Y
Polysciences Inc, Warrington .... Pa
Ryerson & Son Inc, J T, Chicago Ill
Semi-Alloys Inc, Mt Vernon .... N Y
Semi-Elements Inc, Saxonburg .... Pa
United Mineral & Chemical Corp, New York .... N Y
Var-Lac-Oid Chemical Co, Elizabeth .... N J
Wah Chang Corp, Glen Cove .... N Y

WIRE, BARE--TUNGSTEN

REMBAR CO INC, DOBBS FERRY .... N Y
Active Alloys Inc, Brooklyn .... N Y
Allen-Jones Electronics Corp, Gardena .... Cal
Associated Engineering & Mfg Corp, Glen Ridge .... N J
Atomergic Chemetals Co Div Gallard-Schlesinger
Chemical Mfg Corp, Carle Place .... N Y
Bram Metallurgical Chemical Co, Philadelphia .... Pa
Cleveland Refractory Metals, Div Chase Brass Copper Co
Solon .... Ohio
C M Mfg Co, Bloomfield .... N J
Dearborn Wire & Cable Co, Chicago Ill
Fansteel Metallurgical Corp, North Chicago Ill
General Electric Co Lamp Metals & Components Dept
Cleveland .... Ohio
Koch Light Labs Ltd, Colnbrook, Bucks .... England
Mackay Inc, A D, New York .... N Y
Materials Research Corp, Orangeburg .... N Y
Norton Co Metals Div, Newton .... Mass
Omega Engineering Inc, Stamford .... Conn
Philips Elmet Corp, Lewiston .... Me
Polysciences Inc, Warrington .... Pa
Pyrometer Co of America Inc, Penndel .... Pa
Rembar Co Inc, Dobbs Ferry .... N Y
Ryerson & Son Inc, J T, Chicago Ill
Semi-Alloys Inc, Mt Vernon .... N Y
Semi-Elements Inc, Saxonburg .... Pa
Sylvania Elec Prods Inc, Chem & Met Div, Towanda .... Pa
United Mineral & Chemical Corp, New York .... N Y
Var-Lac-Oid Chemical Co, Elizabeth .... N J
Wah Chang Corp, Glen Cove .... N Y
Westinghouse Electric Corp, Lamp Div, Bloomfield .... N J

WIRE, BARE--ZIRCONIUM

Active Alloys Inc, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
Dearborn Wire & Cable Co, Chicago	Ill
Electronic Space Products Inc, Los Angeles	Cal
Hudson Wire Co, Ossining	N Y
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Materials Research Corp, Orangeburg	N Y
Nuclear Materials & Equipment Corp, Apollo	Pa
Polysciences Inc, Warrington	Pa
Ryerson & Son Inc, J T, Chicago	Ill
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Wah Chang Corp, Glen Cove	N Y

WIRE CLOTH SEE FABRICS

WIRE--CUT & STRIPPED

ALLIED ELECTRONICS CORP, CHICAGO	**ILL**
BIRNBACH CO INC, FREEPORT	**N Y**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
MARKWIK CORP, SYOSSET	**N Y**
MESON ELECTRONICS CO, INC, ROCHESTER	**N Y**
Abbott & Co, Prospect	Ohio
Aerospace Systems A Teledyne Co, Fairmont	Minn
Aircraft & Electronic Specialties, Inc, Plainfield	Ind
Allied Electronics Corp, Chicago	Ill
Alpha Wire, Elizabeth	N J
American Cable Electronic Supply Inc, Sacramento	Cal
American Electric Cable Co, Holyoke	Mass
Birnbach Co Inc, Freeport	N Y
Cable Electric Products Inc, Providence	R I
Carol Cable Co, Pawtucket	R I
Columbia Wire Products Co, Chicago	Ill
Consolidated Products Corp, Gardena	Cal
Continental Wire & Cable, York	Pa
Cordex, Inc, Mount Eaton	Ohio
Daburn Electronics & Cable Corp, Bronx	N Y
Dearborn Wire & Cable Co, Chicago	Ill
Drake Mfg Co, Harwood Heights	Ill
DuCom Inc, Salem	Mass
Empire Electronics Co Inc, Paterson	N J
Estes Engineering Co, Gardena	Cal
First Electronics Corp, Boston	Mass
Florida General Electronics Inc, Daytona Beach	Fla
Flow Electronic Cable Corp, Cambridge	Mass
Gavitt Wire & Cable Co Div Amerace Corp Brookfield	Mass
Gore & Assoc Inc, W L, Newark	Del
Haydu Products Inc, Opa Locka	Fla
Helix Spring Corp, Long Island City	NY
Holyoke Wire & Cable Corp, Holyoke	Mass
Industrial Winding Machinery Corp, River Edge	N J
ITT Wire & Cable Div, Clinton	Mass
ITT Wire & Cable Div, Pawtucket	R I
JPM Co, Lewisburg	Pa
Judd Wire Div Electronized Chem Corp Turners Falls	Mass
Keiser's Industries Inc, Mt Holly Springs	Pa
Lake Erie Electric Mfg, Inc, Erie	Pa
Manger Electric Co Inc, Stamford	Conn
Markwik Corp, Syosset	N Y
Mercury Electronics Corp, York	Pa
Meson Electronics Co, Inc, Rochester	N Y
Mid-West Metal Products Inc, Kansas City	Kans
Mohawk Electronics Corp, Frederica	Del
M-T Electronics Co, San Leandro	Cal
National Wire & Cable Corp, Los Angeles	Cal
Omega Leads Inc, Culver City	Cal
Pacific Electricord Co, Gardena	Cal
Paraplegics Mfg Co Inc, Bensenville	Ill
Parker Metal Goods Co, Worcester	Mass
Plastic Wire & Cable Corp, Jewett City	Conn
Precision Mecanique Labinal, 93 Saint-Ouen	France
Rhode Island Insulated Wire Co, Cranston	R I
Runzel Cord & Wire Co, Chicago	Ill
Saxton Products Inc, Congers	N Y
Seven Associates Inc, Sunnyvale	Cal
Sittler Corp, Chicago	Ill
South Bay Cable Corp, Gardena	Cal
Standard Wire & Cable Co, Los Angeles	Cal
Sumitomo Special Metals Co Ltd, Osaka	Japan
Technical Components Co Inc, Chicago Ridge	Ill
Techni-Tool Inc, Philadelphia	Pa
Teletronics Labs Inc, El Segundo	Cal
Tevco Insulated Wire, Glendale	Cal
Thermax Wire Corp, New York	N Y
Trueline Instruments Inc, Englewood	Colo
Victor Electric Wire & Cable Corp, West Warwick	R I
VP Co, Pasadena	Cal
Welco Electric Corp, South Bend	Ind
Westmoreland Plastics Co, Latrobe	Pa
Workman Electronic Products Inc, Sarasota	Fla
Zell Electric Mfg Co, Inc, New York	N Y

WIRE CUTTING MACHINES SEE MACHINES—WIRE-PROCESSING

WIRE—FINE WIRE SPECIALTIES SEE TUBE PARTS;WIRE--RESISTANCE; WIRE--BARE

WIRE--FUSE SEE WIRE-RESISTANCE

WIRE--GLASS-SEALING SEE WIRE--BARE, GLASS-SEALING

WIRE--GUY

HACKENSACK CABLE CORP, HACKENSACK, N J	**ADV PG 807**
G C Electronics Div, Hydrometals Inc, Rockford	Ill
General Cable Corp, New York	N Y
Hackensack Cable Corp, Hackensack	N J
Paraplegics Mfg Co Inc, Bensenville	Ill
Rohn Mfg Co, Peoria	Ill
Wright Steel & Wire Co, G F, Worcester	Mass

HACKENSACK
CABLES and
WIRE ROPES

CALL ON US FOR . . .
Aircraft Control Cables
Extra-Flexible Small Diameter Cables
Antenna Cables • Dial Cables
Guy Cables
MADE OF
STAINLESS STEEL
standard, non-magnetic.
and special heat and
corrosion-resistant types
GALVANIZED AND TINNED
CARBON STEEL CABLES
PHOSPHOR, SILICON, CADMIUM
AND ALUMINUM BRONZE ALLOYS
MONEL AND OTHER
NICKEL ALLOYS
NYLON AND VINYL COATINGS

See Our Catalog In Sweet's
Product Design File Or
Send for your own copy

MANUFACTURERS HACKENSACK Cable CORPORATION OF WIRE ROPE
110 Orchard Street
Telephone
Hackensack, N. J.
201 HUbbard 7-1100

WIRE HARNESSES SEE HARNESSES--WIRE;CABLE ASSEMBLIES

WIRE, HIGH TEMPERATURE--ALUMINUM OXIDE INSULATED

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE	**NY**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
Aero Research Instrument Dept American Standard Franklin Park	Ill
Amperex Electronic Corp, Professional Tube Div, Hicksville	NY
Bram Metallurgical Chemical Co, Philadelphia	Pa
C M Mfg Co, Bloomfield	N J
Consolidated Controls Corp, El Segundo	Cal
Consolidated Controls Corp, Bethel	Conn
Consolidated Wire & Associated Corps, Chicago	Ill
Continental Sensing Inc, Melrose Park	Ill
Control Panel Corp, Chicago	Ill
Dearborn Wire & Cable Co, Chicago	Ill
Marlin Mfg Corp, Cleveland	Ohio
National Beryllia Corp, Haskell	N J
Omega Engineering Inc, Stamford	Conn
Pall Trinity Micro Corp, Cortland	N Y
Permaluster Inc, Burbank	Cal
Philips' Gloeilampenfabrieken, N V, Eindhoven	Holland
Pyro Electric Inc, Walkerton	Ind
Pyrometer Co of America Inc, Penndel	Pa
Tensolite Insulated Wire Co Inc, Tarrytown	N Y

WIRE, HIGH TEMPERATURE--ASBESTOS INSULATED

CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN,	**CONN**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
Anaconda Wire and Cable Co, New York	N Y
Cable Electric Products Inc, Providence	R I
Carol Cable Co, Pawtucket	R I
Cerro Corp, New York	NY
Cerro Sales Corp, New York	NY
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Columbia Wire Products Co, Chicago	Ill
Consolidated Wire & Associated Corps, Chicago	Ill
Continental Sensing Inc, Melrose Park	Ill
Continental Wire & Cable, York	Pa
Dearborn Wire & Cable Co, Chicago	Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
General Cable Corp, New York	N Y
General Electric Co Wire & Cable Dept Bridgeport	Conn
Gulton Industries Inc, Metuchen	N J
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
ITT Wire & Cable Div, Pawtucket	R I
Kanthal Corp, Bethel	Conn
Lewis Engineering Co, Naugatuck	Conn
Miller Electric Co, Woonsocket	R I
Pall Trinity Micro Corp, Cortland	N Y
Porter Co (Can) Ltd, H K, Guelph	Ont
Pyro Electric Inc, Walkerton	Ind
Pyrometer Co of America Inc, Penndel	Pa
Radix Wire Co, Cleveland	Ohio
Revere Corp of America, Wallingford	Conn
Rhode Island Insulated Wire Co, Cranston	R I
Saxton Products Inc, Congers	N Y
Standard Wire & Cable Co, Los Angeles	Cal
Tatsuta Electric Wire & Cable Co Ltd, Osaka	Japan
Western Insulated Wire Co, Los Angeles	Cal

WIRE, HIGH TEMPERATURE--CERAMIC INSULATED

BIRNBACH CO INC, FREEPORT	**N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO ILL	**ADV PG 808**
Aero Research Instrument Dept American Standard Franklin Park	Ill
Birnbach Co Inc, Freeport	N Y
Consolidated Controls Corp, El Segundo	Cal
Consolidated Wire & Associated Corps, Chicago	Ill
Continental Sensing Inc, Melrose Park	Ill
Continental Wire & Cable, York	Pa
Control Panel Corp, Chicago	Ill
Dearborn Wire & Cable Co, Chicago	Ill
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
General Cable Corp, New York	N Y
Gulton Industries Inc, Metuchen	N J
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Marlin Mfg Corp, Cleveland	Ohio
Omega Engineering Inc, Stamford	Conn
Pall Trinity Micro Corp, Cortland	N Y
Permaluster Inc, Burbank	Cal
Physical Sciences Corp, Arcadia	Cal
Pyro Electric Inc, Walkerton	Ind
Pyrometer Co of America Inc, Penndel	Pa
Rea Magnet Wire Co Inc, Fort Wayne	Ind
Secon Wire Div, White Plains	N Y
Standard Wire & Cable Co, Los Angeles	Cal

WIRE, HIGH TEMPERATURE--GLASS INSULATED

BIRNBACH CO INC, FREEPORT	**N Y**
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN,	**CONN**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER	**N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
Anaconda Wire and Cable Co, New York	N Y
Belden Mfg Co, Chicago	Ill
Birnbach Co Inc, Freeport	N Y
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Bridgeport Insulated Wire Co, Bridgeport	Conn
Carol Cable Co, Pawtucket	R I
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Chester Cable Co Div Tennessee Corp, Chester	N Y
Columbia Wire Products Co, Chicago	Ill
Consolidated Wire & Associated Corps, Chicago	Ill
Continental Sensing Inc, Melrose Park	Ill
Continental Wire & Cable, York	Pa
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Dielectric Materials Co, Chicago	Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Driver-Harris Co, Harrison	N J
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark	N J
Essex Wire Corp Magnet Wire Div, Fort Wayne	Ind
Flexible Circuits Inc, Warrington	Pa
General Cable Corp, New York	N Y
General Electric Co Wire & Cable Dept Bridgeport	Conn
Gulton Industries Inc, Metuchen	N J
Haveg Industries Inc, Super Temp Wire Div Winooski	Vt
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y

CONSOLIDATED

FOR EVERY
ELECTRONIC NEED . . .

CONSOLIDATED OFFERS
THE PROPER WIRE OR CABLE

Aerial Wire
Air Conditioning Cable
Annunciator Wire
Audio Cable
Automotive Cable
Bare Copper Wire
Bonding Strap
Braided Copper
Broadcast Studio Cable
Bronze Wire
Bus Bar Wire
Cathode Ray Tube Cable
Coaxial Cable
Copper—Bare
Copper—Braided Tinned
Copper—Solid Tinned
Copper—Stranded Bare
Copper—Stranded Tinned
Cord—Power, Service
Cord Sets
Direct Burial Cable
Electrical Cordage
Heavy Formvar Magnet Wire
Hi-Fi Interconnecting Cable
Hi-Temp Wire
Hi Voltage Wire
Hook-up Wire:
  General Purpose
  Plastic
  Cotton
  Glass
  Nylon
Ignition Wire
Inter-Communication Cable
Juke Box Speaker Cable
Lamp Cord
Lead Covered Communication Cable
Lead Sheathed Cable
Magnet Wire
Microphone Cable—Plastic
Microphone Cable—Rubber
Military Specification:
  MIL-C-17C   MIL-C-3432B
  MIL-W-76B   MIL-W-5806A
  MIL-W-583B   MIL-C-7878
  MIL-W-3861   MIL-W-16878D
Multi-Conductor Cable—Shielded
Multi-Conductor Cable—Unshielded
Neoprene Cable
Phono Pick-up and Grid Wire—Shielded
Phono Pick-up and Grid Wire—Unshielded
Plain Enameled Magnet Wire
Plastic Hook-up Wire
Plastic Jacketed Cable, Shielded
Plastic Jacketed Cable, Unshielded
R. G. Coaxial Cables
Resistance Wire
Rubber Covered Cable, Shielded
Rubber Covered Cable, Unshielded
Teflon Wire and Cables
Telephone Wire and Cables
Television Wire and Cables
Test Lead Wire
Tinned Copper—Solid
Tinned Copper—Stranded
Transmission Line—Shielded
Transmission Line—Unshielded
U/L Lamp Cord—Plastic
U/L Lamp Cord—Rubber
U/L Service Cord—Neoprene
U/L Service Cord—Rubber
Underground—Plastic Covered Cable
Underground—Lead Covered Cable
Service Cord
Shielded Cable
Shielding—Braided Copper
Shielded—Hook-up Wire
Shielded Microphone Cable
Shielded Multi-Conductor Cable
Speaker Cable, Shielded
Speaker Cable, Unshielded
Spiral Wrapped Shielded Cable
S.R.H.V. Type (H.W.)
S.R.I.R. Type (M.W.)
Stereo Phono Pick-up Arm Cable, Shielded
Stereo Phono Pick-up Arm Cable, Unshielded

Send for complete catalog

CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

1639 So. Clinton Street
Chicago, Illinois 60616 • HA 1-4441

Holyoke Wire & Cable Corp, Holyoke	Mass
ITT Wire & Cable Div, Pawtucket	R I
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
Lewis Engineering Co, Naugatuck	Conn
Molecu-Wire Corp, Farmingdale	N J
National Wire & Cable Corp, Los Angeles	Cal
Omega Engineering Inc, Stamford	Conn
Pall Trinity Micro Corp, Cortland	N Y
Philadelphia Insulated Wire Co, Moorestown	N J
Plastoid Corp, Long Island City	N Y
Porter Co (Can) Ltd, H K, Guelph	Ont
Prestolite Wire & Cable, Prestolite Div, Eltra Corp Port Huron	Mich
Pyro Electric Inc, Walkerton	Ind
Pyrometer Co of America Inc, Penndel	Pa
Radix Wire Co, Cleveland	Ohio
Revere Corp of America, Wallingford	Conn
Rhode Island Insulated Wire Co, Cranston	R I
Standard Wire & Cable Co, Los Angeles	Cal
Suflex Corp, Woodside	N Y
Tensolite Insulated Wire Co Inc, Tarrytown	N Y
Varflex Corp, Rome	N Y
Wirecraft Products Inc, West Brookfield	Mass

WIRE, HIGH TEMPERATURE-- MICA INSULATED

CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN,	**CONN**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Consolidated Wire & Associated Corps, Chicago	Ill
Continental Wire & Cable, York	Pa
Dearborn Wire & Cable Co, Chicago	Ill
Gulton Industries Inc, Metuchen	N J
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Lewis Engineering Co, Naugatuck	Conn
Pall Trinity Micro Corp, Cortland	N Y
Revere Corp of America, Wallingford	Conn

WIRE, HIGH TEMPERATURE-- SILICONE INSULATED

BIRNBACH CO INC, FREEPORT	**N Y**
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN,	**CONN**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
Anaconda Wire and Cable Co, New York	N Y
Belden Mfg Co, Chicago	Ill
Birnbach Co Inc, Freeport	N Y
Cerro Corp, New York	NY
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Columbia Wire Products Co, Chicago	Ill
Consolidated Wire & Associated Corps, Chicago	Ill
Continental Wire & Cable, York	Pa
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Dielectric Materials Co, Chicago	Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Driver-Harris Co, Harrison	N J
Essex Wire Corp Magnet Wire Div, Fort Wayne	Ind
General Cable Corp, New York	N Y
General Electric Co Wire & Cable Dept Bridgeport	Conn
Gulton Industries Inc, Metuchen	N J
Hallett, Inglewood	Cal
Haveg Industries Inc, Super Temp Wire Div Winooski	Vt
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Holyoke Wire & Cable Corp, Holyoke	Mass
ITT Wire & Cable Div, Clinton	Mass
ITT Wire & Cable Div, Pawtucket	R I
Kaiser Aluminum & Chem Corp Electrical Prods Div Oakland	Cal
Lane Industries,Electronics Div, North Hollywood	Cal
Lewis Engineering Co, Naugatuck	Conn
Markel & Sons Inc L Frank, Norristown	Pa
Molecu-Wire Corp, Farmingdale	N J
National Wire & Cable Corp, Los Angeles	Cal
Omega Engineering Inc, Stamford	Conn
Pall Trinity Micro Corp, Cortland	N Y
Plastoid Corp, Long Island City	N Y
Porter Co (Can) Ltd, H K, Guelph	Ont
Prestolite Wire & Cable, Prestolite Div, Eltra Corp Port Huron	Mich
Radix Wire Co, Cleveland	Ohio
Rhode Island Insulated Wire Co, Cranston	R I
Rowe Industries Inc, Toledo	Ohio
Standard Wire & Cable Co, Los Angeles	Cal
Tatsuta Electric Wire & Cable Co Ltd, Osaka	Japan
Technical Components Co Inc, Chicago Ridge	Ill
Varflex Corp, Rome	N Y
Viking Wire Co Inc, Danbury	Conn
Western Insulated Wire Co, Los Angeles	Cal

WIRE, HIGH VOLTAGE, INSULATED-- SHIELDED

BIRNBACH CO INC, FREEPORT	**N Y**
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN,	**CONN**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER	**N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
Alpha Wire, Elizabeth	N J
American Electric Cable Co, Holyoke	Mass
Anaconda Wire and Cable Co, New York	N Y
Avnet Electronics, Westbury	N Y
Belden Mfg Co, Chicago	Ill
Birnbach Co Inc, Freeport	N Y
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Calmont Wire & Cable Inc, Santa Ana	Cal
Cerro Corp, New York	NY
Cerro Sales Corp, New York	NY
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Chester Cable Co Div Tennessee Corp, Chester	N Y
Columbia Wire Products Co, Chicago	Ill
Consolidated Wire & Associated Corps, Chicago	Ill
Continental Sensing Inc, Melrose Park	Ill
Continental Wire & Cable, York	Pa
Co-Operative Industries Inc, Chester	N J
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Dielectric Materials Co, Chicago	Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Electronized Chemicals Corp, Burlington	Mass
Estes Engineering Co, Gardena	Cal
General Cable Corp, New York	N Y
General Electric Co Wire & Cable Dept Bridgeport	Conn
Gore & Assoc Inc, W L, Newark	Del
Gulton Industries Inc, Metuchen	N J
Hallett, Inglewood	Cal
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Holyoke Wire & Cable Corp, Holyoke	Mass
ITT Wire & Cable Div, Clinton	Mass
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
Judd Wire Div Electronized Chem Corp Turners Falls	Mass
Kaiser Aluminum & Chem Corp Electrical Prods Div Oakland	Cal
Lenz Electric Mfg Co, Chicago	Ill
Lewis Engineering Co, Naugatuck	Conn
Markel & Sons Inc L Frank, Norristown	Pa
National Wire & Cable Corp, Los Angeles	Cal
Pacific Automation Products Inc, Glendale	Cal
Phalo Corp, Shrewsbury	Mass
Phelps Dodge Copper Products Corp, New York	N Y
Philadelphia Insulated Wire Co, Moorestown	N J
Plastoid Corp, Long Island City	N Y
Porter Co (Can) Ltd, H K, Guelph	Ont
Prestolite Wire & Cable, Prestolite Div, Eltra Corp Port Huron	Mich
Raychem Corp, Menlo Park	Cal
Reynolds Metals Co, Richmond	Va
Rhode Island Insulated Wire Co, Cranston	R I
Rome Cable Div Cyprus Mines Corp, Rome	N Y
Rowe Industries Inc, Toledo	Ohio
Saxton Products Inc, Congers	N Y
South Bay Cable Corp, Gardena	Cal
Standard Wire & Cable Co, Los Angeles	Cal
Tatsuta Electric Wire & Cable Co Ltd, Osaka	Japan
Tensolite Insulated Wire Co Inc, Tarrytown	N Y
Tevco Insulated Wire, Glendale	Cal
Victor Electric Wire & Cable Corp, West Warwick	R I

WIRE, HIGH VOLTAGE, INSULATED-- UNSHIELDED

ALLIED ELECTRONICS CORP, CHICAGO	**ILL**
BIRNBACH CO INC, FREEPORT	**N Y**
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN,	**CONN**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER	**N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
Allied Electronics Corp, Chicago	Ill
Alpha Wire, Elizabeth	N J
American Electric Cable Co, Holyoke	Mass
Anaconda Wire and Cable Co, New York	N Y
Belden Mfg Co, Chicago	Ill
Birnbach Co Inc, Freeport	N Y
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Calmont Wire & Cable Inc, Santa Ana	Cal
Cerro Corp, New York	NY
Cerro Sales Corp, New York	NY
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Chester Cable Co Div Tennessee Corp, Chester	N Y
Columbia Wire Products Co, Chicago	Ill
Consolidated Products Corp, Gardena	Cal
Consolidated Wire & Associated Corps, Chicago	Ill
Continental Wire & Cable, York	Pa
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Dielectric Materials Co, Chicago	Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Electronized Chemicals Corp, Burlington	Mass
Estes Engineering Co, Gardena	Cal

General Cable Corp, New York ..... N Y
General Electric Co Wire & Cable Dept Bridgeport ..... Conn
Gore & Assoc Inc, W L, Newark ..... Del
Gulton Industries Inc, Metuchen ..... N J
Hitemp Div Simplex Wire & Cable Co, Westbury ..... N Y
Holyoke Wire & Cable Corp, Holyoke ..... Mass
ITT Wire & Cable Div, Clinton ..... Mass
ITT Wire & Cable Div, Pawtucket ..... R I
Jefferson Wire & Cable Corp Sub Okonite Co Worcester ..... Mass
Judd Wire Div Electronized Chem Corp Turners Falls ..... Mass
Kaiser Aluminum & Chem Corp Electrical Prods Div Oakland ..... Cal
Lenz Electric Mfg Co, Chicago Ill
Lewis Engineering Co, Naugatuck ..... Conn
Markel & Sons Inc L Frank, Norristown ..... Pa
National Wire & Cable Corp, Los Angeles ..... Cal
Pacific Automation Products Inc, Glendale ..... Cal
Phalo Corp, Shrewsbury ..... Mass
Phelps Dodge Copper Products Corp, New York ..... N Y
Philadelphia Insulated Wire Co, Moorestown ..... N J
Plastoid Corp, Long Island City ..... N Y
Porter Co (Can) Ltd, H K, Guelph ..... Ont
Prestolite Wire & Cable, Prestolite Div, Eltra Corp Port Huron ..... Mich
Raychem Corp, Menlo Park ..... Cal
Reynolds Metals Co, Richmond ..... Va
Rhode Island Insulated Wire Co, Cranston ..... R I
Rome Cable Div Cyprus Mines Corp, Rome ..... N Y
Rowe Industries Inc, Toledo ..... Ohio
Saxton Products Inc, Congers ..... N Y
South Bay Cable Corp, Gardena ..... Cal
Standard Wire & Cable Co, Los Angeles ..... Cal
Tatsuta Electric Wire & Cable Co Ltd, Osaka ..... Japan
Tensolite Insulated Wire Co Inc, Tarrytown ..... N Y
Tevco Insulated Wire, Glendale ..... Cal
Triple A Specialty Co, Chicago Ill
Victor Electric Wire & Cable Corp, West Warwick ..... R I

WIRE, HOOKUP, INSULATED--COTTON

BIRNBACH CO INC, FREEPORT ..... N Y
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN, ... CONN
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO ILL
DABURN ELECTRONICS & CABLE CORP, BRONX ..... N Y
DAINICHI-NIPPON CABLES, LTD, TOKYO ..... JAPAN
Alpha Wire, Elizabeth ..... N J
American Electric Cable Co, Holyoke ..... Mass
Anaconda Wire and Cable Co, New York ..... N Y
Belden Mfg Co, Chicago Ill
Birnbach Co Inc, Freeport ..... N Y
Brand-Rex Div Amer Enka Corp, Willimantic ..... Conn
Cerro Wire & Cable Div Cerro Corp, New Haven, ... Conn
Columbia Wire Products Co, Chicago Ill
Consolidated Products Corp, Gardena ..... Cal
Consolidated Wire & Associated Corps, Chicago Ill
Daburn Electronics & Cable Corp, Bronx ..... N Y
Dainichi-Nippon Cables, Ltd, Tokyo ..... Japan
Dearborn Wire & Cable Co, Chicago Ill
Dielectric Materials Co, Chicago Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark ..... N J
Electronized Chemicals Corp, Burlington ..... Mass
Gavitt Wire & Cable Co Div Amerace Corp Brookfield ..... Mass
General Cable Corp, New York ..... N Y
General Electric Co Wire & Cable Dept Bridgeport ..... Conn
Gulton Industries Inc, Metuchen ..... N J
Hitemp Div Simplex Wire & Cable Co, Westbury ..... N Y
Holyoke Wire & Cable Corp, Holyoke ..... Mass
Hudson Wire Co, Ossining ..... N Y
Jefferson Wire & Cable Corp Sub Okonite Co Worcester ..... Mass
JPM Co, Lewisburg ..... Pa
Lenz Electric Mfg Co, Chicago Ill
Molecu-Wire Corp, Farmingdale ..... N J
Plastoid Corp, Long Island City ..... N Y
Porter Co (Can) Ltd, H K, Guelph ..... Ont
Prestolite Wire & Cable, Prestolite Div, Eltra Corp Port Huron ..... Mich
Revere Corp of America, Wallingford ..... Conn
Rhode Island Insulated Wire Co, Cranston ..... R I
Runzel Cord & Wire Co, Chicago Ill
Rye Industries, Inc, Mamaroneck ..... N Y
Saxton Products Inc, Congers ..... N Y
Superior Insulated Wire Corp, Stony Point ..... N Y
Technical Components Co Inc, Chicago Ridge Ill

WIRE, HOOKUP, INSULATED--COTTON OVER PLASTIC

BIRNBACH CO INC, FREEPORT ..... N Y
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN, ... CONN
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER ..... N Y
DABURN ELECTRONICS & CABLE CORP, BRONX ..... N Y
DAINICHI-NIPPON CABLES, LTD, TOKYO ..... JAPAN
Alpha Wire, Elizabeth ..... N J
American Electric Cable Co, Holyoke ..... Mass
Anaconda Wire and Cable Co, New York ..... N Y
Belden Mfg Co, Chicago Ill
Birnbach Co Inc, Freeport ..... N Y
Brand-Rex Div Amer Enka Corp, Willimantic ..... Conn
Cerro Wire & Cable Div Cerro Corp, New Haven, ... Conn
Chester Cable Co Div Tennessee Corp, Chester ..... N Y
Columbia Wire Products Co, Chicago Ill
Continental Wire & Cable, York ..... Pa
Daburn Electronics & Cable Corp, Bronx ..... N Y
Dainichi-Nippon Cables, Ltd, Tokyo ..... Japan
Dearborn Wire & Cable Co, Chicago Ill
Dielectric Materials Co, Chicago Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark ..... N J
Electronized Chemicals Corp, Burlington ..... Mass
Gavitt Wire & Cable Co Div Amerace Corp Brookfield ..... Mass
General Cable Corp, New York ..... N Y
General Electric Co Wire & Cable Dept Bridgeport ..... Conn
Gulton Industries Inc, Metuchen ..... N J
Hitemp Div Simplex Wire & Cable Co, Westbury ..... N Y
Holyoke Wire & Cable Corp, Holyoke ..... Mass
Hudson Wire Co, Ossining ..... N Y
Jefferson Wire & Cable Corp Sub Okonite Co Worcester ..... Mass
JPM Co, Lewisburg ..... Pa
Judd Wire Div Electronized Chem Corp Turners Falls ..... Mass
Kaiser Aluminum & Chem Corp Electrical Prods Div Oakland ..... Cal
Lenz Electric Mfg Co, Chicago Ill
Lewis Engineering Co, Naugatuck ..... Conn
Pacific Automation Products Inc, Glendale ..... Cal
Phalo Corp, Shrewsbury ..... Mass
Plastic Wire & Cable Corp, Jewett City ..... Conn
Plastoid Corp, Long Island City ..... N Y
Porter Co (Can) Ltd, H K, Guelph ..... Ont
Prestolite Wire & Cable, Prestolite Div, Eltra Corp Port Huron ..... Mich
Radix Wire Co, Cleveland ..... Ohio
Revere Corp of America, Wallingford ..... Conn
Rhode Island Insulated Wire Co, Cranston ..... R I
Rome Cable Div Cyprus Mines Corp, Rome ..... N Y
Runzel Cord & Wire Co, Chicago Ill
Saxton Products Inc, Congers ..... N Y
Superior Insulated Wire Corp, Stony Point ..... N Y
Technical Components Co Inc, Chicago Ridge Ill
Vikoa Inc, Hoboken ..... N J

WIRE, HOOKUP, INSULATED--GLASS OVER PLASTIC

AMPHENOL, CHICAGO ILL
BIRNBACH CO INC, FREEPORT ..... N Y
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN, ... CONN
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER ..... N Y
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO ILL
DABURN ELECTRONICS & CABLE CORP, BRONX ..... N Y
DAINICHI-NIPPON CABLES, LTD, TOKYO ..... JAPAN
Aircraft & Electronic Specialties, Inc, Plainfield ..... Ind
Alpha Wire, Elizabeth ..... N J
American Electric Cable Co, Holyoke ..... Mass
Amphenol, Chicago Ill
Anaconda Wire and Cable Co, New York ..... N Y
Birnbach Co Inc, Freeport ..... N Y
Brand-Rex Div Amer Enka Corp, Willimantic ..... Conn
Calmont Wire & Cable Inc, Santa Ana ..... Cal
Cerro Wire & Cable Div Cerro Corp, New Haven, ... Conn
Chester Cable Co Div Tennessee Corp, Chester ..... N Y
Columbia Wire Products Co, Chicago Ill
Consolidated Wire & Associated Corps, Chicago Ill
Continental Wire & Cable, York ..... Pa
Daburn Electronics & Cable Corp, Bronx ..... N Y
Dainichi-Nippon Cables, Ltd, Tokyo ..... Japan
Dearborn Wire & Cable Co, Chicago Ill
Dielectric Materials Co, Chicago Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark ..... N J
Gavitt Wire & Cable Co Div Amerace Corp Brookfield ..... Mass
General Cable Corp, New York ..... N Y
General Electric Co Wire & Cable Dept Bridgeport ..... Conn
Gulton Industries Inc, Metuchen ..... N J
Hitemp Div Simplex Wire & Cable Co, Westbury ..... N Y
Holyoke Wire & Cable Corp, Holyoke ..... Mass
Hudson Wire Co, Ossining ..... N Y
ITT Wire & Cable Div, Clinton ..... Mass
Jefferson Wire & Cable Corp Sub Okonite Co Worcester ..... Mass
JPM Co, Lewisburg ..... Pa
Judd Wire Div Electronized Chem Corp Turners Falls ..... Mass
Kaiser Aluminum & Chem Corp Electrical Prods Div Oakland ..... Cal
Lenz Electric Mfg Co, Chicago Ill
Lewis Engineering Co, Naugatuck ..... Conn
Pacific Automation Products Inc, Glendale ..... Cal
Phalo Corp, Shrewsbury ..... Mass
Philadelphia Insulated Wire Co, Moorestown ..... N J
Plastic Wire & Cable Corp, Jewett City ..... Conn
Plastoid Corp, Long Island City ..... N Y
Porter Co (Can) Ltd, H K, Guelph ..... Ont
Prestolite Wire & Cable, Prestolite Div, Eltra Corp Port Huron ..... Mich
Radix Wire Co, Cleveland ..... Ohio

WIRE
CABLE
TUBING
TEFLON

CALL 212-295-0050

CATALOGED IN RADIO MASTERS

ELECTRONIC COMPONENTS AND HARDWARE

WRITE FOR CATALOG

DABURN ELECTRONIC & CABLE CORP.
2360 HOFFMAN ST., NEW YORK, N. Y. 10458

Revere Corp of America, Wallingford ..... Conn
Rhode Island Insulated Wire Co, Cranston ..... R I
Rome Cable Div Cyprus Mines Corp, Rome ..... N Y
Saxton Products Inc, Congers ..... N Y
South Bay Cable Corp, Gardena ..... Cal
Standard Wire & Cable Co, Los Angeles ..... Cal
Tatsuta Electric Wire & Cable Co Ltd, Osaka ..... Japan
Technical Components Co Inc, Chicago Ridge Ill
Tensolite Insulated Wire Co Inc, Tarrytown ..... N Y
Thermax Wire Corp, New York ..... N Y

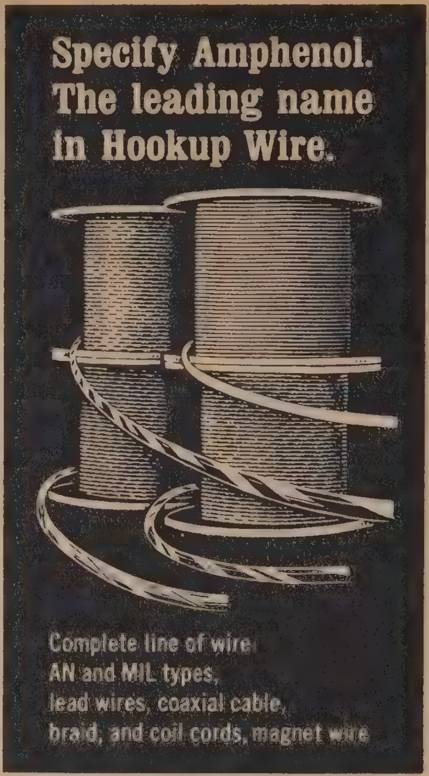
WIRE, HOOKUP, INSULATED--KEL-F (FLUOROCARBON)

CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO ILL
DABURN ELECTRONICS & CABLE CORP, BRONX ..... N Y
DAINICHI-NIPPON CABLES, LTD, TOKYO ..... JAPAN
Adam Spence Corp, Edison ..... NJ
Calmont Wire & Cable Inc, Santa Ana ..... Cal
Chemplast Inc, Wayne ..... N J
Consolidated Wire & Associated Corps, Chicago Ill
Daburn Electronics & Cable Corp, Bronx ..... N Y
Dainichi-Nippon Cables, Ltd, Tokyo ..... Japan
Dearborn Wire & Cable Co, Chicago Ill
Flexible Circuits Inc, Warrington ..... Pa
General Cable Corp, New York ..... N Y
General Electric Co Wire & Cable Dept Bridgeport ..... Conn
Haveg Industries Inc, Super Temp Wire Div Winooski ..... Vt
Hitemp Div Simplex Wire & Cable Co, Westbury ..... N Y
ITT Wire & Cable Div, Clinton ..... Mass
ITT Wire & Cable Div, Pawtucket ..... R I
Prestolite Wire & Cable, Prestolite Div, Eltra Corp Port Huron ..... Mich
Saxton Products Inc, Congers ..... N Y
Standard Wire & Cable Co, Los Angeles ..... Cal

WIRE, HOOKUP, INSULATED--NYLON

AMPHENOL, CHICAGO ILL
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN, ... CONN
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER ..... N Y
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO ILL
DABURN ELECTRONICS & CABLE CORP, BRONX ..... N Y
DAINICHI-NIPPON CABLES, LTD, TOKYO ..... JAPAN

American Electric Cable Co, Holyoke	Mass
Amphenol, Chicago	Ill
Anaconda Wire and Cable Co, New York	N Y
Belden Mfg Co, Chicago	Ill
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Calmont Wire & Cable Inc, Santa Ana	Cal
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Chester Cable Co Div Tennessee Corp, Chester	N Y
Columbia Wire Products Co, Chicago	Ill
Consolidated Products Corp, Gardena	Cal
Consolidated Wire & Associated Corps, Chicago	Ill
Continental Wire & Cable, York	Pa
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Dielectric Materials Co, Chicago	Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Electronized Chemicals Corp, Burlington	Mass
Gavitt Wire & Cable Co Div Amerace Corp Brookfield	Mass
General Cable Corp, New York	N Y
General Electric Co Wire & Cable Dept Bridgeport	Conn
Gulton Industries Inc, Metuchen	N J
Hallmark Standards Inc, Mamaroneck	N Y
Haveg Industries Inc, Super Temp Wire Div Winooski	Vt
Holyoke Wire & Cable Corp, Holyoke	Mass
ITT Wire & Cable Div, Clinton	Mass
ITT Wire & Cable Div, Pawtucket	R I
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
Judd Wire Div Electronized Chem Corp Turners Falls	Mass
Kaiser Aluminum & Chem Corp Electrical Prods Div Oakland	Cal
Lewis Engineering Co, Naugatuck	Conn
Markel & Sons Inc L Frank, Norristown	Pa
Mohawk Wire & Cable Corp, Leominster	Mass
National Wire & Cable Corp, Los Angeles	Cal
Pacific Automation Products Inc, Glendale	Cal
Phalo Corp, Shrewsbury	Mass
Philadelphia Insulated Wire Co, Moorestown	N J
Plastic Wire & Cable Corp, Jewett City	Conn
Plastoid Corp, Long Island City	N Y
Prestolite Wire & Cable, Prestolite Div, Eltra Corp Port Huron	Mich
Revere Corp of America, Wallingford	Conn
Rhode Island Insulated Wire Co, Cranston	R I
Rome Cable Div Cyprus Mines Corp, Rome	N Y
Saxton Products Inc, Congers	N Y
South Bay Cable Corp, Gardena	Cal
Standard Wire & Cable Co, Los Angeles	Cal
Tatsuta Electric Wire & Cable Co Ltd, Osaka	Japan
Technical Components Co Inc, Chicago Ridge	Ill



For quotations or additional information, call the sales offices or divisions listed in the green pages at the back of this directory.

AMPHENOL

WIRE, HOOKUP, INSULATED-- PLASTIC (GENERAL PURPOSE, BRAID, SOLID OR WRAP)

AMPHENOL, CHICAGO, ILL	**ADV PG 810**
BIRNBACH CO INC, FREEPORT	**N Y**
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN,	**CONN**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER	**N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
Alpha Wire, Elizabeth	N J
American Electric Cable Co, Holyoke	Mass
Amphenol, Chicago	Ill
Anaconda Wire and Cable Co, New York	N Y
Apex Wire & Cable Corp, Hauppauge	N Y
Birnbach Co Inc, Freeport	N Y
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Calmont Wire & Cable Inc, Santa Ana	Cal
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Chester Cable Co Div Tennessee Corp, Chester	N Y
Columbia Wire Products Co, Chicago	Ill
Consolidated Products Corp, Gardena	Cal
Consolidated Wire & Associated Corps, Chicago	Ill
Continental Wire & Cable, York	Pa
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Dielectric Materials Co, Chicago	Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Eagle Electric Mfg Co Inc, Long Island City	N Y
Electronized Chemicals Corp, Burlington	Mass
Gavitt Wire & Cable Co Div Amerace Corp Brookfield	Mass
General Cable Corp, New York	N Y
General Electric Co Wire & Cable Dept Bridgeport	Conn
Gore & Assoc Inc, W L, Newark	Del
Gulton Industries Inc, Metuchen	N J
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Holyoke Wire & Cable Corp, Holyoke	Mass
ITT Wire & Cable Div, Clinton	Mass
ITT Wire & Cable Div, Pawtucket	R I
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
JPM Co, Lewisburg	Pa
Judd Wire Div Electronized Chem Corp Turners Falls	Mass
Kaiser Aluminum & Chem Corp Electrical Prods Div Oakland	Cal
Lenz Electric Mfg Co, Chicago	Ill
Lewis Engineering Co, Naugatuck	Conn
Miller Electric Co, Woonsocket	R I
Mohawk Wire & Cable Corp, Leominster	Mass
National Wire & Cable Corp, Los Angeles	Cal
Pacific Automation Products Inc, Glendale	Cal
Pacific Electricord Co, Gardena	Cal
Phalo Corp, Shrewsbury	Mass
Philadelphia Insulated Wire Co, Moorestown	N J
Plastic Wire & Cable Corp, Jewett City	Conn
Plastoid Corp, Long Island City	N Y
Porter Co (Can) Ltd, H K, Guelph	Ont
Prestolite Wire & Cable, Prestolite Div, Eltra Corp Port Huron	Mich
Raychem Corp, Menlo Park	Cal
Rhode Island Insulated Wire Co, Cranston	R I
Rockland Insulated Wire & Cable Co, Haverstraw	N Y
Rome Cable Div Cyprus Mines Corp, Rome	N Y
Saxton Products Inc, Congers	N Y
South Bay Cable Corp, Gardena	Cal
Standard Wire & Cable Co, Los Angeles	Cal
Superior Continental Corp, Hickory	N C
Superior Insulated Wire Corp, Stony Point	N Y
Tatsuta Electric Wire & Cable Co Ltd, Osaka	Japan
Technical Components Co Inc, Chicago Ridge	Ill
Tensolite Insulated Wire Co Inc, Tarrytown	N Y
Tevco Insulated Wire, Glendale	Cal
Thermax Wire Corp, New York	N Y
Triple A Specialty Co, Chicago	Ill
Victor Electric Wire & Cable Corp, West Warwick	R I
Vikoa Inc, Hoboken	N J
Westmoreland Plastics Co, Latrobe	Pa
Workman Electronic Products Inc, Sarasota	Fla

WIRE, HOOKUP, INSULATED-- NYLON OVER PLASTIC

AMPHENOL, CHICAGO	**ILL**
BIRNBACH CO INC, FREEPORT	**N Y**
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN,	**CONN**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER	**N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
Alpha Wire, Elizabeth	N J
American Electric Cable Co, Holyoke	Mass
Amphenol, Chicago	Ill
Anaconda Wire and Cable Co, New York	N Y
Avnet Electronics, Westbury	N Y
Belden Mfg Co, Chicago	Ill
Birnbach Co Inc, Freeport	N Y
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Calmont Wire & Cable Inc, Santa Ana	Cal
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Chester Cable Co Div Tennessee Corp, Chester	N Y
Columbia Wire Products Co, Chicago	Ill
Consolidated Products Corp, Gardena	Cal
Consolidated Wire & Associated Corps, Chicago	Ill
Continental Wire & Cable, York	Pa
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Dielectric Materials Co, Chicago	Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Electronized Chemicals Corp, Burlington	Mass
Gavitt Wire & Cable Co Div Amerace Corp Brookfield	Mass
General Cable Corp, New York	N Y
General Electric Co Wire & Cable Dept Bridgeport	Conn
Gulton Industries Inc, Metuchen	N J
Hallmark Standards Inc, Mamaroneck	N Y
Haveg Industries Inc, Super Temp Wire Div Winooski	Vt
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Holyoke Wire & Cable Corp, Holyoke	Mass
ITT Wire & Cable Div, Clinton	Mass
ITT Wire & Cable Div, Pawtucket	R I
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
Judd Wire Div Electronized Chem Corp Turners Falls	Mass
Kaiser Aluminum & Chem Corp Electrical Prods Div Oakland	Cal
Lenz Electric Mfg Co, Chicago	Ill
Lewis Engineering Co, Naugatuck	Conn
Mohawk Wire & Cable Corp, Leominster	Mass
National Wire & Cable Corp, Los Angeles	Cal
Pacific Automation Products Inc, Glendale	Cal
Pacific Electricord Co, Gardena	Cal
Phalo Corp, Shrewsbury	Mass
Philadelphia Insulated Wire Co, Moorestown	N J
Plastic Wire & Cable Corp, Jewett City	Conn
Plastoid Corp, Long Island City	N Y
Porter Co (Can) Ltd, H K, Guelph	Ont
Prestolite Wire & Cable, Prestolite Div, Eltra Corp Port Huron	Mich
Radix Wire Co, Cleveland	Ohio
Revere Corp of America, Wallingford	Conn
Rhode Island Insulated Wire Co, Cranston	R I
Rome Cable Div Cyprus Mines Corp, Rome	N Y
Saxton Products Inc, Congers	N Y
South Bay Cable Corp, Gardena	Cal
Standard Wire & Cable Co, Los Angeles	Cal
Tatsuta Electric Wire & Cable Co Ltd, Osaka	Japan
Technical Components Co Inc, Chicago Ridge	Ill
Thermal Wire & Electronics Corp, South Hero	Vt

WIRE, HOOKUP, INSULATED-- POLYETHYLENE

AMPHENOL, CHICAGO	**ILL**
BIRNBACH CO INC, FREEPORT	**N Y**
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN,	**CONN**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER	**N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
American Electric Cable Co, Holyoke	Mass
Amphenol, Chicago	Ill
Anaconda Wire and Cable Co, New York	N Y
Apex Wire & Cable Corp, Hauppauge	N Y
Belden Mfg Co, Chicago	Ill
Birnbach Co Inc, Freeport	N Y
Brand-Rex Div Amer Enka Corp, Willimantic	Conn
Calmont Wire & Cable Inc, Santa Ana	Cal
Cerro Wire & Cable Div Cerro Corp, New Haven,	Conn
Chester Cable Co Div Tennessee Corp, Chester	N Y
Columbia Wire Products Co, Chicago	Ill
Consolidated Products Corp, Gardena	Cal
Consolidated Wire & Associated Corps, Chicago	Ill
Continental Wire & Cable, York	Pa
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Dielectric Materials Co, Chicago	Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Electronized Chemicals Corp, Burlington	Mass
Flexible Circuits Inc, Warrington	Pa
Gavitt Wire & Cable Co Div Amerace Corp Brookfield	Mass
General Cable Corp, New York	N Y
General Electric Co Wire & Cable Dept Bridgeport	Conn
Gulton Industries Inc, Metuchen	N J
Holyoke Wire & Cable Corp, Holyoke	Mass
ITT Wire & Cable Div, Clinton	Mass
ITT Wire & Cable Div, Pawtucket	R I
Jefferson Wire & Cable Corp Sub Okonite Co Worcester	Mass
JPM Co, Lewisburg	Pa
Judd Wire Div Electronized Chem Corp Turners Falls	Mass

Kaiser Aluminum & Chem Corp Electrical Prods Div
Oakland Cal
Lenz Electric Mfg Co, Chicago Ill
Lewis Engineering Co, Naugatuck Conn
Miller Electric Co, Woonsocket R I
Mohawk Wire & Cable Corp, Leominster Mass
National Wire & Cable Corp, Los Angeles Cal
Pacific Automation Products Inc, Glendale Cal
Pacific Electricord Co, Gardena Cal
Phalo Corp, Shrewsbury Mass
Plastic Wire & Cable Corp, Jewett City Conn
Plastoid Corp, Long Island City N Y
Porter Co (Can) Ltd, H K, Guelph Ont
Prestolite Wire & Cable, Prestolite Div, Eltra Corp
Port Huron Mich
Revere Corp of America, Wallingford Conn
Rhode Island Insulated Wire Co, Cranston R I
Rome Cable Div Cyprus Mines Corp, Rome N Y
Rye Industries, Inc, Mamaroneck N Y
Saxton Products Inc, Congers N Y
South Bay Cable Corp, Gardena Cal
Standard Wire & Cable Co, Los Angeles Cal
Superior Continental Corp, Hickory N C
Superior Insulated Wire Corp, Stony Point N Y
Tatsuta Electric Wire & Cable Co Ltd, Osaka Japan
Tevco Insulated Wire, Glendale Cal
Victor Electric Wire & Cable Corp, West Warwick R I

WIRE, HOOKUP, INSULATED-- POLYVINYLCHLORIDE

ALLIED ELECTRONICS CORP, CHICAGO ILL
AMPHENOL, CHICAGO ILL
BIRNBACH CO INC, FREEPORT N Y
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN CONN
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER N Y
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO ILL
DABURN ELECTRONICS & CABLE CORP, BRONX N Y
DAINICHI-NIPPON CABLES, LTD, TOKYO JAPAN
Allied Electronics Corp, Chicago Ill
Alpha Wire, Elizabeth N J
American Electric Cable Co, Holyoke Mass
Amphenol, Chicago Ill
Anaconda Wire and Cable Co, New York N Y
Apex Wire & Cable Corp, Hauppauge N Y
Avnet Electronics, Westbury N Y
Belden Mfg Co, Chicago Ill
BeMan Mfg, Inc, New Cumberland Pa
Birnbach Co Inc, Freeport N Y
Brand-Rex Div Amer Enka Corp, Willimantic Conn
Cablerie Charbonnet, Lyon 4 France
Calmont Wire & Cable Inc, Santa Ana Cal
Cerro Wire & Cable Div Cerro Corp, New Haven Conn
Chester Cable Co Div Tennessee Corp, Chester N Y
Columbia Wire Products Co, Chicago Ill
Consolidated Products Corp, Gardena Cal
Consolidated Wire & Associated Corps, Chicago Ill
Continental Wire & Cable, York Pa
Daburn Electronics & Cable Corp, Bronx N Y
Dainichi-Nippon Cables, Ltd, Tokyo Japan
Dearborn Wire & Cable Co, Chicago Ill
Dielectric Materials Co, Chicago Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc,
Newark N J
Electronized Chemicals Corp, Burlington Mass
Flexible Circuits Inc, Warrington Pa
Gavitt Wire & Cable Co Div Amerace Corp
Brookfield Mass
General Cable Corp, New York N Y
General Electric Co Wire & Cable Dept
Bridgeport Conn
Gulton Industries Inc, Metuchen N J
Holyoke Wire & Cable Corp, Holyoke Mass
ITT Wire & Cable Div, Clinton Mass
ITT Wire & Cable Div, Pawtucket R I
Jefferson Wire & Cable Corp Sub Okonite Co
Worcester Mass
JPM Co, Lewisburg Pa
Judd Wire Div Electronized Chem Corp
Turners Falls Mass
Kaiser Aluminum & Chem Corp Electrical Prods Div
Oakland Cal
K L A Labs Inc, Detroit Mich
Lenz Electric Mfg Co, Chicago Ill
Lewis Engineering Co, Naugatuck Conn
Miller Electric Co, Woonsocket R I
Mohawk Wire & Cable Corp, Leominster Mass
National Wire & Cable Corp, Los Angeles Cal
Pacific Automation Products Inc, Glendale Cal
Pacific Electricord Co, Gardena Cal
Phalo Corp, Shrewsbury Mass
Philadelphia Insulated Wire Co, Moorestown N J
Plastic Wire & Cable Corp, Jewett City Conn
Plastoid Corp, Long Island City N Y
Porter Co (Can) Ltd, H K, Guelph Ont
Prestolite Wire & Cable, Prestolite Div, Eltra Corp
Port Huron Mich
Radix Wire Co, Cleveland Ohio
Revere Corp of America, Wallingford Conn
Rhode Island Insulated Wire Co, Cranston R I
Rockland Insulated Wire & Cable Co, Haverstraw N Y
Rome Cable Div Cyprus Mines Corp, Rome N Y
Saxton Products Inc, Congers N Y
South Bay Cable Corp, Gardena Cal
Standard Wire & Cable Co, Los Angeles Cal
Suflex Corp, Woodside N Y
Superior Continental Corp, Hickory N C
Superior Insulated Wire Corp, Stony Point N Y
Tatsuta Electric Wire & Cable Co Ltd, Osaka Japan
Technical Components Co Inc, Chicago Ridge Ill
Tevco Insulated Wire, Glendale Cal
Victor Electric Wire & Cable Corp, West Warwick R I
Welco Electric Corp, South Bend Ind

If it isn't in EBG's

product directory,

it probably hasn't

been invented yet.

WIRE, HOOKUP, INSULATED-- SHIELDED

ALLIED ELECTRONICS CORP, CHICAGO ILL
BIRNBACH CO INC, FREEPORT N Y
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN CONN
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER N Y
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO ILL
DABURN ELECTRONICS & CABLE CORP, BRONX N Y
DAINICHI-NIPPON CABLES, LTD, TOKYO JAPAN
Allied Electronics Corp, Chicago Ill
Alpha Wire, Elizabeth N J
American Electric Cable Co, Holyoke Mass
Anaconda Wire and Cable Co, New York N Y
Avnet Electronics, Westbury N Y
Belden Mfg Co, Chicago Ill
Birnbach Co Inc, Freeport N Y
Brand-Rex Div Amer Enka Corp, Willimantic Conn
Cablerie Charbonnet, Lyon 4 France
Calmont Wire & Cable Inc, Santa Ana Cal
Cerro Wire & Cable Div Cerro Corp, New Haven Conn
Chester Cable Co Div Tennessee Corp, Chester N Y
Columbia Wire Products Co, Chicago Ill
Consolidated Products Corp, Gardena Cal
Consolidated Wire & Associated Corps, Chicago Ill
Continental Wire & Cable, York Pa
Daburn Electronics & Cable Corp, Bronx N Y
Dainichi-Nippon Cables, Ltd, Tokyo Japan
Dearborn Wire & Cable Co, Chicago Ill
Dielectric Materials Co, Chicago Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc,
Newark N J
Electronized Chemicals Corp, Burlington Mass
Flexible Circuits Inc, Warrington Pa
Gavitt Wire & Cable Co Div Amerace Corp
Brookfield Mass
General Cable Corp, New York N Y
General Electric Co Wire & Cable Dept
Bridgeport Conn
Gore & Assoc Inc, W L, Newark Del
Gulton Industries Inc, Metuchen N J
Hallett, Inglewood Cal
Hallmark Standards Inc, Mamaroneck N Y
Haveg Industries Inc, Super Temp Wire Div
Winooski Vt
Holyoke Wire & Cable Corp, Holyoke Mass
ITT Wire & Cable Div, Clinton Mass
ITT Wire & Cable Div, Pawtucket R I
Jefferson Wire & Cable Corp Sub Okonite Co
Worcester Mass
JPM Co, Lewisburg Pa
Judd Wire Div Electronized Chem Corp
Turners Falls Mass
Kaiser Aluminum & Chem Corp Electrical Prods Div
Oakland Cal
K L A Labs Inc, Detroit Mich
Lenz Electric Mfg Co, Chicago Ill
Lewis Engineering Co, Naugatuck Conn
Markel & Sons Inc L Frank, Norristown Pa
Mohawk Wire & Cable Corp, Leominster Mass
National Wire & Cable Corp, Los Angeles Cal
Pacific Automation Products Inc, Glendale Cal
Pacific Electricord Co, Gardena Cal
Phalo Corp, Shrewsbury Mass
Philadelphia Insulated Wire Co, Moorestown N J
Plastic Wire & Cable Corp, Jewett City Conn
Plastoid Corp, Long Island City N Y
Porter Co (Can) Ltd, H K, Guelph Ont
Prestolite Wire & Cable, Prestolite Div, Eltra Corp
Port Huron Mich
Raychem Corp, Menlo Park Cal
Revere Corp of America, Wallingford Conn
Rhode Island Insulated Wire Co, Cranston R I
Rockland Insulated Wire & Cable Co, Haverstraw N Y
Rome Cable Div Cyprus Mines Corp, Rome N Y
Runzel Cord & Wire Co, Chicago Ill
Rye Industries, Inc, Mamaroneck N Y
Saxton Products Inc, Congers N Y
South Bay Cable Corp, Gardena Cal
Standard Wire & Cable Co, Los Angeles Cal
Superior Continental Corp, Hickory N C
Superior Insulated Wire Corp, Stony Point N Y
Tatsuta Electric Wire & Cable Co Ltd, Osaka Japan
Technical Components Co Inc, Chicago Ridge Ill
Tensolite Insulated Wire Co Inc, Tarrytown N Y
Tevco Insulated Wire, Glendale Cal
Thermal Wire & Electronics Corp, South Hero Vt
Thermax Wire Corp, New York N Y
Victor Electric Wire & Cable Corp, West Warwick R I
Wiegand Co, Edwin L, Pittsburgh Pa
Wirecraft Products Inc, West Brookfield Mass

WIRE, HOOKUP, INSULATED-- SILICONE RUBBER

BIRNBACH CO INC, FREEPORT N Y
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN CONN
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO ILL
DABURN ELECTRONICS & CABLE CORP, BRONX N Y
DAINICHI-NIPPON CABLES, LTD, TOKYO JAPAN
Anaconda Wire and Cable Co, New York N Y
Belden Mfg Co, Chicago Ill
Birnbach Co Inc, Freeport N Y
Cerro Wire & Cable Div Cerro Corp, New Haven Conn
Columbia Wire Products Co, Chicago Ill
Consolidated Wire & Associated Corps, Chicago Ill
Continental Wire & Cable, York Pa
Daburn Electronics & Cable Corp, Bronx N Y
Dainichi-Nippon Cables, Ltd, Tokyo Japan
Dearborn Wire & Cable Co, Chicago Ill
General Cable Corp, New York N Y
General Electric Co Wire & Cable Dept
Bridgeport Conn
Gulton Industries Inc, Metuchen N J
Hallett, Inglewood Cal
Haveg Industries Inc, Super Temp Wire Div
Winooski Vt
Holyoke Wire & Cable Corp, Holyoke Mass
ITT Wire & Cable Div, Clinton Mass
ITT Wire & Cable Div, Pawtucket R I
Kaiser Aluminum & Chem Corp Electrical Prods Div
Oakland Cal
Lewis Engineering Co, Naugatuck Conn
Markel & Sons Inc L Frank, Norristown Pa
National Wire & Cable Corp, Los Angeles Cal
Plastoid Corp, Long Island City N Y
Porter Co (Can) Ltd, H K, Guelph Ont
Prestolite Wire & Cable, Prestolite Div, Eltra Corp
Port Huron Mich
Radix Wire Co, Cleveland Ohio
Rhode Island Insulated Wire Co, Cranston R I
Rye Industries, Inc, Mamaroneck N Y
Saxton Products Inc, Congers N Y
Standard Wire & Cable Co, Los Angeles Cal
Suflex Corp, Woodside N Y
Tatsuta Electric Wire & Cable Co Ltd, Osaka Japan
Technical Components Co Inc, Chicago Ridge Ill
Varflex Corp, Rome N Y

WIRE, HOOKUP, INSULATED-- SILK

BIRNBACH CO INC, FREEPORT N Y
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO ILL
DAINICHI-NIPPON CABLES, LTD, TOKYO JAPAN
American Electric Cable Co, Holyoke Mass
Birnbach Co Inc, Freeport N Y
Consolidated Wire & Associated Corps, Chicago Ill
Dainichi-Nippon Cables, Ltd, Tokyo Japan
Dearborn Wire & Cable Co, Chicago Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc,
Newark N J
General Cable Corp, New York N Y
Hudson Wire Co, Ossining N Y
Jefferson Wire & Cable Corp Sub Okonite Co
Worcester Mass
Plastoid Corp, Long Island City N Y
Rhode Island Insulated Wire Co, Cranston R I
Saxton Products Inc, Congers N Y

WIRE, HOOKUP, INSULATED-- TEFLON (FLUOROCARBON)

ALLIED ELECTRONICS CORP, CHICAGO ILL
BIRNBACH CO INC, FREEPORT N Y
CERRO WIRE & CABLE DIV CERRO CORP, NEW HAVEN CONN
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER N Y
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO ILL
DABURN ELECTRONICS & CABLE CORP, BRONX N Y
DAINICHI-NIPPON CABLES, LTD, TOKYO JAPAN
Adam Spence Corp, Edison NJ
Allied Electronics Corp, Chicago Ill
Alpha Wire, Elizabeth N J
Anaconda Wire and Cable Co, New York N Y
Avnet Electronics, Westbury N Y
Belden Mfg Co, Chicago Ill
BeMan Mfg, Inc, New Cumberland Pa
Birnbach Co Inc, Freeport N Y
Brand-Rex Div Amer Enka Corp, Willimantic Conn
Calmont Wire & Cable Inc, Santa Ana Cal
Cerro Corp, New York NY
Cerro Sales Corp, New York NY
Cerro Wire & Cable Div Cerro Corp, New Haven Conn
Chemplast Inc, Wayne N J
Chester Cable Co Div Tennessee Corp, Chester N Y
Cimco Wire & Cable Co, Allendale N J
Columbia Wire Products Co, Chicago Ill
Consolidated Products Corp, Gardena Cal
Consolidated Wire & Associated Corps, Chicago Ill
Continental Wire & Cable, York Pa

Daburn Electronics & Cable Corp, Bronx .... N Y
Dainichi-Nippon Cables, Ltd, Tokyo .... Japan
Dearborn Wire & Cable Co, Chicago Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc,
  Newark .... N J
Flexible Circuits Inc, Warrington .... Pa
Gavitt Wire & Cable Co Div Amerace Corp
  Brookfield .... Mass
General Cable Corp, New York .... N Y
Gore & Assoc Inc, W L, Newark .... Del
Harbour Industries Inc, Shelburne .... Vt
Haveg Industries Inc, Super Temp Wire Div
  Winooski .... Vt
Hitemp Div Simplex Wire & Cable Co, Westbury .... N Y
Holyoke Wire & Cable Corp, Holyoke .... Mass
Inso Electronic Products Inc, Nutley .... N J
ITT Wire & Cable Div, Clinton .... Mass
ITT Wire & Cable Div, Pawtucket .... R I
Lewis Engineering Co, Naugatuck .... Conn
Markel & Sons Inc L Frank, Norristown .... Pa
National Wire & Cable Corp, Los Angeles .... Cal
Philadelphia Insulated Wire Co, Moorestown .... N J
Plastoid Corp, Long Island City .... N Y
Prestolite Wire & Cable, Prestolite Div, Eltra Corp
  Port Huron .... Mich
Radix Wire Co, Cleveland .... Ohio
Revere Corp of America, Wallingford .... Conn
Saxton Products Inc, Congers .... N Y
Standard Wire & Cable Co, Los Angeles .... Cal
Tatsuta Electric Wire & Cable Co Ltd, Osaka .... Japan
Technical Components Co Inc, Chicago Ridge Ill
Tensolite Insulated Wire Co Inc, Tarrytown .... N Y
Thermal Wire & Electronics Corp, South Hero .... Vt
Thermax Wire Corp, New York .... N Y
Wirecraft Products Inc, West Brookfield .... Mass

WIRE--INDIUM

Alpha Metals Inc, Jersey City .... NJ
Atomergic Chemetals Co Div Gallard-Schlesinger
  Chemical Mfg Corp, Carle Place .... N Y
Bram Metallurgical Chemical Co, Philadelphia .... Pa
Cerro Corp, New York .... NY
City Chemical Corp, New York .... N Y
Cominco American Inc Electronic Matls Div,
  Spokane .... Wash
Cramco Solder Alloys, Scarborough .... Ont
Dearborn Wire & Cable Co, Chicago Ill
Degussa Zweigniederlassung Hanau, D-
  6450 Hanau .... Fed Rep Ger
Koch Light Labs Ltd, Colnbrook, Bucks .... England
Semi-Alloys Inc, Mt Vernon .... N Y
Semi-Elements Inc, Saxonburg .... Pa
United Mineral & Chemical Corp, New York .... N Y
Var-Lac-Oid Chemical Co, Elizabeth .... N J

WIRELESS INTERCOMMUNICATION SYSTEMS SEE INTERCOMMUNICATION SYSTEMS

WIRELESS MICROPHONES SEE MICROPHONES--WIRELESS

WIRE-LINE CARRIER SYSTEMS SEE COMMUNICATION SYSTEMS

WIRE--LINE-CORD

ALLIED ELECTRONICS CORP, CHICAGO .... **ILL**
BIRNBACH CO INC, FREEPORT, N Y .... **ADV PG 812**
CHESTER CABLE CO DIV TENNESSEE CORP, CHESTER .... **N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO .... **ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX .... **N Y**
Allied Electronics Corp, Chicago Ill
Anaconda Wire and Cable Co, New York .... N Y
Belden Mfg Co, Chicago Ill
Birnbach Co Inc, Freeport .... N Y
Cable Electric Products Inc, Providence .... R I
Carol Cable Co, Pawtucket .... R I
Cerro Corp, New York .... NY
Cerro Sales Corp, New York .... NY
Chester Cable Co Div Tennessee Corp, Chester .... N Y
Columbia Wire Products Co, Chicago Ill
Consolidated Wire & Associated Corps, Chicago Ill
Cordex, Inc, Mount Eaton .... Ohio
Daburn Electronics & Cable Corp, Bronx .... N Y
Dearborn Wire & Cable Co, Chicago Ill
Eagle Electric Mfg Co Inc, Long Island City .... N Y
General Cable Corp, New York .... N Y
General Electric Co Wire & Cable Dept
  Bridgeport .... Conn
ITT Wire & Cable Div, Clinton .... Mass
ITT Wire & Cable Div, Pawtucket .... R I
Miller Electric Co, Woonsocket .... R I
Pacific Electricord Co, Gardena .... Cal
Paraplegics Mfg Co Inc, Bensenville Ill
Phalo Corp, Shrewsbury .... Mass
Plastic Wire & Cable Corp, Jewett City .... Conn
Plastoid Corp, Long Island City .... N Y
Plessey Co Ltd, Telecommunications Group,
  Liverpool 7 .... England

BIRNBACH WIRE

A complete line of wire and cable for every use and requirement: Military, Industrial, Commercial.

MAGNET WIRE
SHIELDING BRAID
INSULATED COPPER
UNINSULATED COPPER
BRAIDING • HOOK-UP
PLASTIC • TEFLON
TEST LEAD • AUDIO
MULTI-CONDUCTOR
SUB-MINIATURE
CORD SETS
RETRACTILE CORDS

From your local authorized distributor, or contact:

BIRNBACH

177 HANSE AVE., FREEPORT, L. I., N. Y. 11520
(516) 223-8400

427 S. HINDRY STREET, INGLEWOOD, CALIF. 90301
(213) 673-2900

Porter Co (Can) Ltd, H K, Guelph .... Ont
Port Plastics Inc, Montebello .... Cal
Prestolite Wire & Cable, Prestolite Div, Eltra Corp
  Port Huron .... Mich
Saxton Products Inc, Congers .... N Y
Superior Insulated Wire Corp, Stony Point .... N Y
Tevco Insulated Wire, Glendale .... Cal
Victor Electric Wire & Cable Corp, West Warwick .... R I
Western Insulated Wire Co, Los Angeles .... Cal
Zell Electric Mfg Co, Inc, New York .... N Y

WIRE--LITZ

CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO .... **ILL**
Barker Sales Co, Ridgefield .... NJ
Belden Mfg Co, Chicago Ill
Bram Metallurgical Chemical Co, Philadelphia .... Pa
Bridgeport Insulated Wire Co, Bridgeport .... Conn
Consolidated Wire & Associated Corps, Chicago Ill
Dearborn Wire & Cable Co, Chicago Ill
General Electric Co Wire & Cable Dept
  Bridgeport .... Conn
Hudson Wire Co, Ossining .... N Y
Montgomery Co, Windsor Locks .... Conn
Pacific Electric Motor Co, Oakland .... Cal
Saxton Products Inc, Congers .... N Y
Slepian & Co, Arthur, Bridgeport .... Conn
Standard Wire & Cable Co, Los Angeles .... Cal

WIRE, MAGNET--COTTON ENAMELED

BIRNBACH CO INC, FREEPORT .... **N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO .... **ILL**
DAINICHI-NIPPON CABLES, LTD, TOKYO .... **JAPAN**
Anaconda Wire and Cable Co, New York .... N Y
Belden Mfg Co, Chicago Ill
Birnbach Co Inc, Freeport .... N Y
Bram Metallurgical Chemical Co, Philadelphia .... Pa
Bridgeport Insulated Wire Co, Bridgeport .... Conn
Consolidated Wire & Associated Corps, Chicago Ill
Dainichi-Nippon Cables, Ltd, Tokyo .... Japan
Dearborn Wire & Cable Co, Chicago Ill
Essex Wire Corp Magnet Wire Div, Fort Wayne .... Ind
General Cable Corp, New York .... N Y
General Electric Co Wire & Cable Dept
  Bridgeport .... Conn
Hudson Wire Co, Ossining .... N Y
Molecu-Wire Corp, Farmingdale .... N J
Phelps Dodge Magnet Wire Corp, Fort Wayne .... Ind
Saxton Products Inc, Congers .... N Y
Slepian & Co, Arthur, Bridgeport .... Conn
U S Steel Corp, Pittsburgh .... Pa

WIRE, MAGNET--DACRON, POLYESTER

BIRNBACH CO INC, FREEPORT .... **N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO .... **ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX .... **N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO .... **JAPAN**
Anaconda Wire and Cable Co, New York .... N Y
Barker Sales Co, Ridgefield .... NJ
Belden Mfg Co, Chicago Ill
Birnbach Co Inc, Freeport .... N Y
Bridgeport Insulated Wire Co, Bridgeport .... Conn
Consolidated Wire & Associated Corps, Chicago Ill
Daburn Electronics & Cable Corp, Bronx .... N Y
Dainichi-Nippon Cables, Ltd, Tokyo .... Japan
Dearborn Wire & Cable Co, Chicago Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc,
  Newark .... N J
Essex Wire Corp Magnet Wire Div, Fort Wayne .... Ind
General Cable Corp, New York .... N Y
General Electric Co Wire & Cable Dept
  Bridgeport .... Conn
Molecu-Wire Corp, Farmingdale .... N J
Phelps Dodge Magnet Wire Corp, Fort Wayne .... Ind
Porter Co (Can) Ltd, H K, Guelph .... Ont
Saxton Products Inc, Congers .... N Y
Siemens America Inc, New York .... N Y
Viking Wire Co Inc, Danbury .... Conn

WIRE, MAGNET--ENAMELED

ALLIED ELECTRONICS CORP, CHICAGO .... **ILL**
BIRNBACH CO INC, FREEPORT .... **N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO .... **ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX .... **N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO .... **JAPAN**
Allied Electronics Corp, Chicago Ill
Anaconda Wire and Cable Co, New York .... N Y
Barker Sales Co, Ridgefield .... NJ
Belden Mfg Co, Chicago Ill
Birnbach Co Inc, Freeport .... N Y
California Fine Wire Co, Grover City .... Cal
Consolidated Wire & Associated Corps, Chicago Ill
Daburn Electronics & Cable Corp, Bronx .... N Y
Dainichi-Nippon Cables, Ltd, Tokyo .... Japan
Dearborn Wire & Cable Co, Chicago Ill
Essex Wire Corp Magnet Wire Div, Fort Wayne .... Ind
General Cable Corp, New York .... N Y
General Electric Co Wire & Cable Dept
  Bridgeport .... Conn
Hitemp Div Simplex Wire & Cable Co, Westbury .... N Y
Hudson Wire Co, Ossining .... N Y
Molecu-Wire Corp, Farmingdale .... N J
Phalo Corp, Shrewsbury .... Mass
Phelps Dodge Magnet Wire Corp, Fort Wayne .... Ind
Philips Elmet Corp, Lewiston .... Me
Porter Co (Can) Ltd, H K, Guelph .... Ont
Rea Magnet Wire Co Inc, Fort Wayne .... Ind
Saxton Products Inc, Congers .... N Y
Schwalm Electronics Inc, Highland Park Ill
Siemens America Inc, New York .... N Y
Slepian & Co, Arthur, Bridgeport .... Conn
Tatsuta Electric Wire & Cable Co Ltd, Osaka .... Japan
U S Steel Corp, Pittsburgh .... Pa
Viking Wire Co Inc, Danbury .... Conn

WIRE, MAGNET--FORMVAR

ALLIED ELECTRONICS CORP, CHICAGO .... **ILL**
BIRNBACH CO INC, FREEPORT .... **N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO .... **ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX .... **N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO .... **JAPAN**
Allied Electronics Corp, Chicago Ill
Alpha Wire, Elizabeth .... N J
Anaconda Wire and Cable Co, New York .... N Y
Barker Sales Co, Ridgefield .... NJ
Belden Mfg Co, Chicago Ill
Birnbach Co Inc, Freeport .... N Y
Bram Metallurgical Chemical Co, Philadelphia .... Pa
Bridgeport Insulated Wire Co, Bridgeport .... Conn
California Fine Wire Co, Grover City .... Cal
Consolidated Wire & Associated Corps, Chicago Ill
Daburn Electronics & Cable Corp, Bronx .... N Y
Dainichi-Nippon Cables, Ltd, Tokyo .... Japan
Dearborn Wire & Cable Co, Chicago Ill
Essex Wire Corp Magnet Wire Div, Fort Wayne .... Ind
General Cable Corp, New York .... N Y
General Electric Co Wire & Cable Dept
  Bridgeport .... Conn

Hudson Wire Co, Ossining	N Y
Molecu-Wire Corp, Farmingdale	N J
Phalo Corp, Shrewsbury	Mass
Phelps Dodge Magnet Wire Corp, Fort Wayne	Ind
Philips Elmet Corp, Lewiston	Me
Porter Co (Can) Ltd, H K, Guelph	Ont
Rea Magnet Wire Co Inc, Fort Wayne	Ind
Saxton Products Inc, Congers	N Y
Schwalm Electronics Inc, Highland Park	Ill
Slepian & Co, Arthur, Bridgeport	Conn
United Mineral & Chemical Corp, New York	N Y
Viking Wire Co Inc, Danbury	Conn

WIRE, MAGNET--GLASS REINFORCED

BIRNBACH CO INC, FREEPORT	**N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
Birnbach Co Inc, Freeport	N Y
Consolidated Wire & Associated Corps, Chicago	Ill
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Essex Wire Corp Magnet Wire Div, Fort Wayne	Ind
General Cable Corp, New York	N Y
General Electric Co Wire & Cable Dept Bridgeport	Conn
Molecu-Wire Corp, Farmingdale	N J
Phelps Dodge Magnet Wire Corp, Fort Wayne	Ind
Porter Co (Can) Ltd, H K, Guelph	Ont

WIRE, MAGNET--NIOBIUM-TIN

CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Consolidated Wire & Associated Corps, Chicago	Ill
Dearborn Wire & Cable Co, Chicago	Ill
Kawecki Chemical Co, New York	N Y
Mackay Inc, A D, New York	N Y
Siemens America Inc, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Wah Chang Corp, Glen Cove	N Y

WIRE, MAGNET--NYLON

BIRNBACH CO INC, FREEPORT	**N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
Anaconda Wire and Cable Co, New York	N Y
Barker Sales Co, Ridgefield	NJ
Belden Mfg Co, Chicago	Ill
Birnbach Co Inc, Freeport	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
Bridgeport Insulated Wire Co, Bridgeport	Conn
California Fine Wire Co, Grover City	Cal
Consolidated Wire & Associated Corps, Chicago	Ill
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Essex Wire Corp Magnet Wire Div, Fort Wayne	Ind
General Cable Corp, New York	N Y
General Electric Co Wire & Cable Dept Bridgeport	Conn
Hudson Wire Co, Ossining	N Y
Molecu-Wire Corp, Farmingdale	N J
Phalo Corp, Shrewsbury	Mass
Porter Co (Can) Ltd, H K, Guelph	Ont
Rea Magnet Wire Co Inc, Fort Wayne	Ind
Saxton Products Inc, Congers	N Y
Slepian & Co, Arthur, Bridgeport	Conn
Viking Wire Co Inc, Danbury	Conn

WIRE, MAGNET--SELF BONDING

BIRNBACH CO INC, FREEPORT	**N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
Barker Sales Co, Ridgefield	NJ
Belden Mfg Co, Chicago	Ill
Birnbach Co Inc, Freeport	N Y
Bridgeport Insulated Wire Co, Bridgeport	Conn
California Fine Wire Co, Grover City	Cal
Consolidated Wire & Associated Corps, Chicago	Ill
Dearborn Wire & Cable Co, Chicago	Ill
Essex Wire Corp Magnet Wire Div, Fort Wayne	Ind
General Cable Corp, New York	N Y
General Electric Co Wire & Cable Dept Bridgeport	Conn
Hudson Wire Co, Ossining	N Y
Molecu-Wire Corp, Farmingdale	N J
Phelon Co Inc, R E, East Longmeadow	Mass
Phelps Dodge Magnet Wire Corp, Fort Wayne	Ind
Porter Co (Can) Ltd, H K, Guelph	Ont
Rea Magnet Wire Co Inc, Fort Wayne	Ind
Siemens America Inc, New York	N Y
Slepian & Co, Arthur, Bridgeport	Conn
Tatsuta Electric Wire & Cable Co Ltd, Osaka	Japan
United Mineral & Chemical Corp, New York	N Y
Viking Wire Co Inc, Danbury	Conn

WIRE, MAGNET--SOLDERS-STRIPPABLE

ALLIED ELECTRONICS CORP, CHICAGO	**ILL**
BIRNBACH CO INC, FREEPORT	**N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
Allied Electronics Corp, Chicago	Ill
Barker Sales Co, Ridgefield	NJ
Birnbach Co Inc, Freeport	N Y
Bridgeport Insulated Wire Co, Bridgeport	Conn
California Fine Wire Co, Grover City	Cal
Consolidated Wire & Associated Corps, Chicago	Ill
Daburn Electronics & Cable Corp, Bronx	N Y
Dearborn Wire & Cable Co, Chicago	Ill
Essex Wire Corp Magnet Wire Div, Fort Wayne	Ind
General Cable Corp, New York	N Y
General Electric Co Wire & Cable Dept Bridgeport	Conn
Hudson Wire Co, Ossining	N Y
Phalo Corp, Shrewsbury	Mass
Phelon Co Inc, R E, East Longmeadow	Mass
Phelps Dodge Magnet Wire Corp, Fort Wayne	Ind
Philips Elmet Corp, Lewiston	Me
Porter Co (Can) Ltd, H K, Guelph	Ont
Rea Magnet Wire Co Inc, Fort Wayne	Ind
Siemens America Inc, New York	N Y
Slepian & Co, Arthur, Bridgeport	Conn
United Mineral & Chemical Corp, New York	N Y
Viking Wire Co Inc, Danbury	Conn

WIRE, MAGNET--SQUARE OR RECTANGULAR

BIRNBACH CO INC, FREEPORT	**N Y**
CONSOLIDATED REACTIVE METALS INC, MAMARONECK	**N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
Aluminum Co of America, Pittsburgh	Pa
Anaconda Wire and Cable Co, New York	N Y
Belden Mfg Co, Chicago	Ill
Birnbach Co Inc, Freeport	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
Consolidated Reactive Metals Inc, Mamaroneck	N Y
Consolidated Wire & Associated Corps, Chicago	Ill
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Essex Wire Corp Magnet Wire Div, Fort Wayne	Ind
General Cable Corp, New York	N Y
General Electric Co Wire & Cable Dept Bridgeport	Conn
Phelps Dodge Magnet Wire Corp, Fort Wayne	Ind
Porter Co (Can) Ltd, H K, Guelph	Ont
Prestolite Wire & Cable, Prestolite Div, Eltra Corp Port Huron	Mich
Tatsuta Electric Wire & Cable Co Ltd, Osaka	Japan

WIRE, MAGNET--TEFLON

BIRNBACH CO INC, FREEPORT	**N Y**
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO	**ILL**
DABURN ELECTRONICS & CABLE CORP, BRONX	**N Y**
DAINICHI-NIPPON CABLES, LTD, TOKYO	**JAPAN**
Anaconda Wire and Cable Co, New York	N Y
Birnbach Co Inc, Freeport	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
Consolidated Wire & Associated Corps, Chicago	Ill
Daburn Electronics & Cable Corp, Bronx	N Y
Dainichi-Nippon Cables, Ltd, Tokyo	Japan
Dearborn Wire & Cable Co, Chicago	Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
General Cable Corp, New York	N Y
Gore & Assoc Inc, W L, Newark	Del
Haveg Industries Inc, Super Temp Wire Div Winooski	Vt
Hitemp Div Simplex Wire & Cable Co, Westbury	N Y
Thermal Wire & Electronics Corp, South Hero	Vt

WIRE--MAGNETIC RECORDING

Dearborn Wire & Cable Co, Chicago	Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
Fort Wayne Metals Inc, Fort Wayne	Ind
Molecu-Wire Corp, Farmingdale	N J

WIRE-MARKING MACHINES SEE MACHINES—WIRE-MARKING

WIRE MARKING SERVICES

BIRNBACH CO INC, FREEPORT	**N Y**
MARKWIK CORP, SYOSSET, N Y	**ADV PG 813**
Ackerman Gould Co, Inc, Oceanside	N Y
Acromark Co, Elizabeth	N J
Actioncraft Products, Port Washington	N Y
Alpha Wire, Elizabeth	N J
BeMan Mfg, Inc, New Cumberland	Pa
Birnbach Co Inc, Freeport	N Y
Carol Electronics Div Weeco Inc, Martinsburg	W Va
Dearborn Wire & Cable Co, Chicago	Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark	N J
DuCom Inc, Salem	Mass
ECP Corp, Cleveland	Ohio
Flow Electronic Cable Corp, Cambridge	Mass
General Plastics Corp, Bloomfield	N J
Gillies Co Inc, Duncan M, West Boylston	Mass
Ideal-Hellerman Canada Ltd, Ajax	Ontario
Kingsley Machine Co, Hollywood	Cal
Manger Electric Co Inc, Stamford	Conn
Markwik Corp, Syosset	N Y
Mercury Electronics Corp, York	Pa
Omega Leads Inc, Culver City	Cal
Panduit Corp, Tinley Park	Ill
Paraplegics Mfg Co Inc, Bensenville	Ill
Seton Name Plate Corp, New Haven	Conn
Stafford Mfg Co Inc, Brooklyn	N Y
Stratocon Corp, Newark	N J
Swift & Sons Inc, M, Hartford	Conn
Swiss Industries, Costa Mesa	Cal
Teletronics Labs Inc, El Segundo	Cal
Tyton Corp of America, Metuchen	N J
United States Machinery, Sub Geartronics Corp North Billerica	Mass
Welco Electric Corp, South Bend	Ind
Wirecraft Products Inc, West Brookfield	Mass

PERMANENT
WIRE MARKERS
and MARKING on
WIRE

480-17600-1
A-2
BX-7
AC INPUT

What we offer that no other marking services can:

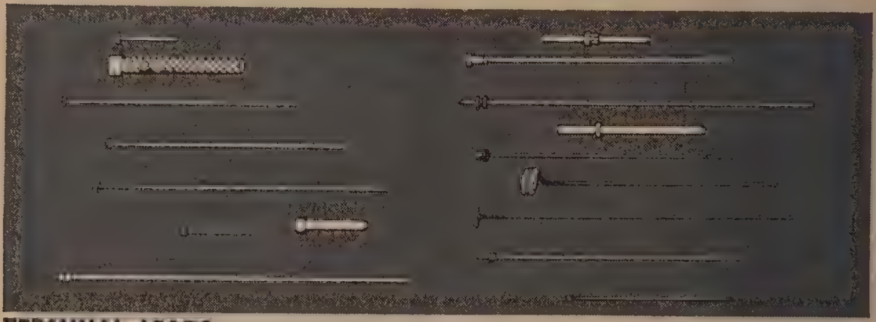
- PERMANENT IMPRINTS • PROMPT DELIVERY
- MARKING ON HEAT SHRINK THERMO-FIT TUBING
- MARKING ON SILICONE RUBBER TUBING
- MARKING DIRECTLY ON WIRE INCLUDING SILICONE RUBBER WIRE
- CUTTINGS — UNMARKED TUBING CUT TO ANY LENGTH
- WRITE FOR FREE CATALOGUE

MARKWIK®
MARKWIK CORP.
60 Queens Street
Syosset, L. I., N. Y.
Tel.: 516 WA 1-4900

we'll produce your wire forms and small metal stampings more economically and with greater precision!

Art Wire's automatic equipment is geared for high-speed production, precision and economy . . . three big reasons why we can produce wire forms and small metal stampings at big savings to you.

Send blueprints or sample for estimate!

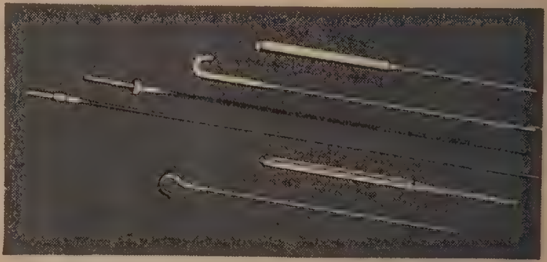


TERMINAL LEADS

For use in resistors, transistors, relays, etc. Wire diameters from .008 to .125. Perfectly concentric heads in diameters up to 4 times the wire diameter.

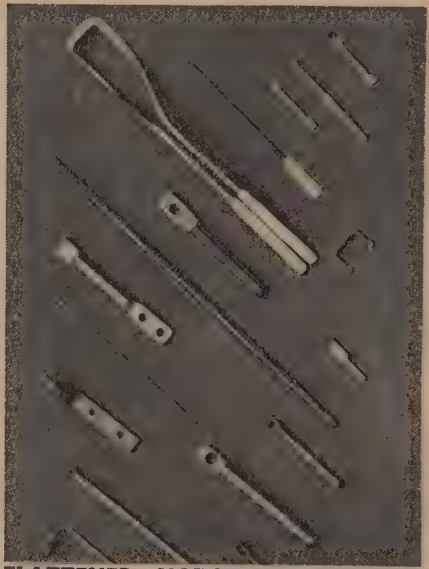
SWAGED LEADS

One-piece construction eliminates welded joint failures and resistance, increases rating output. In diameters from .015 to .080, necked down to as much as 50% original diameter.



WIRE FORMS

Shape and design limited only by the imagination. Available in round wire from .005 to .125 diameter, flat stock and ribbon.



FLATTENED, NOTCHED AND PIERCED PINS

In great variety to meet all needs for improved sealing, connections, etc., in wire as fine as .015 to .125. Rounded or square cut ends. Shaped to your specifications.

SMALL METAL STAMPINGS

Produced to specifications from all the basic metals and precious metals. Processes include stamping, blanking, forming and piercing.

ART WIRE and STAMPING COMPANY 18A Boyden Place, Newark 2, New Jersey

WIRE-MEASURING MACHINES SEE MACHINES—WIRE-PROCESSING

WIRE PARTS--FORMED

ART WIRE & STAMPING CO, NEWARK, N J ..... ADV PG 814
FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS, CEDAR GROVE .... N J
KENTUCKY ELECTRONICS INC, OWENSBORO, KY ... ADV PG 801
MICRO CONTACTS, INC, HICKSVILLE .... N Y
Accurate Spring Mfg Co Div United Greenfield Corp River Grove Ill
Acme Model Engineering Co, Ridgefield .... N J
Alloys Unlimited Inc, Melville .... N Y
Alpha Metals Inc, Jersey City .... NJ
Anchor Alloys Inc, Brooklyn .... N Y
Anchor Metal Co, Inc Div, Brooklyn .... N Y
Art Wire & Stamping Co, Newark .... N J
Associated Engineering & Mfg Corp, Glen Ridge .... N J
Auto-Swage Products, Inc, Shelton .... Conn
Bead Chain Mfg Co, Bridgeport .... Conn
BeMan Mfg, Inc, New Cumberland .... Pa
Columbia Wire Products Co, Chicago Ill
Connor Spring Mfg Co Div Sloss & Britain San Francisco .... Cal
Dearborn Wire & Cable Co, Chicago Ill
Dudek & Bock Spring Mfg Co, Chicago Ill
Eastern Tool & Mfg Co, Belleville .... N J
Electronic Metals & Alloys Inc, North Attleboro .... Mass
Electronic Parts Mfg Co Inc, Union City .... N J
Emporium Specialties Co Inc, Cleveland .... Ohio
Emtec Inc, Empire Spring Div, Elyria .... Ohio
Federal Tool Engineering Co Div Arvin Inds, Cedar Grove .... N J
General Electric Co Lamp Metals & Components Dept Cleveland .... Ohio
General Findings Co Industrial Div, Attleboro .... Mass
Haydu Products Inc, Opa Locka .... Fla
Helix Spring Corp, Long Island City .... NY
Industrial Winding Machinery Corp, River Edge .... N J
Kentucky Electronics Inc, Owensboro .... Ky
King Laboratories Inc, Syracuse .... N Y
Lee Spring Co, Brooklyn .... N Y
Manger Electric Co Inc, Stamford .... Conn
Masterite Industries Corp, Inglewood .... Cal
Micro Contacts, Inc, Hicksville .... N Y
O'Hara Metal Products Co, San Francisco .... Cal
Paraplegics Mfg Co Inc, Bensenville Ill
Parker Metal Goods Co, Worcester .... Mass
Pix Mfg Co, Newark .... N J
Premium Allied Tool Inc, Owensboro .... Ky
Radio Corp of America, Electronic Components, Harrison .... N J
Reliable Spring & Wire Forms Co, Cleveland .... Ohio
Republic Industrial Corp, Lathrup Village .... Mich
Ring, Inc, Bernard, New York .... N Y
Roosevelt Metal Co Inc, Brooklyn .... N Y
Semi-Alloys Inc, Mt Vernon .... N Y
Sylvania Elec Prods Inc, Chem & Met Div, Towanda .... Pa
Sylvania Electric Prods Inc, Parts Div, Warren .... Pa
Torrington Co, Specialties Div, Torrington .... Conn
United American Metals Div, Brooklyn .... N Y
Upson Tools Inc, Rochester .... N Y
Victor Metal Products Corp, Harrisonburg .... Va
Westinghouse Electric Corp, Lamp Div, Bloomfield .... N J
Wilkinson Co, Westlake Village .... Cal
Wire Cloth Manufacturers Inc, Parsippany .... N J
Workman Electronic Products Inc, Sarasota .... Fla
Zims Mfg Co, Irvington .... N J

WIRE-PROCESSING MACHINES SEE MACHINES—WIRE-PROCESSING

WIRE RECORDERS SEE RECORDERS—WIRE

WIRE REELS—RETRACTILE SEE REELS

WIRE, RESISTANCE--FILAMENT & HEATER

CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO ILL
Associated Engineering & Mfg Corp, Glen Ridge .... N J
Brookfield Wire Co Inc, Brookfield .... Mass
California Fine Wire Co, Grover City .... Cal
Cerro Corp, New York .... NY
Cerro Sales Corp, New York .... NY
Columbia Wire Products Co, Chicago Ill
Consolidated Wire & Associated Corps, Chicago Ill
Dearborn Wire & Cable Co, Chicago Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark .... N J
Driver-Harris Co, Harrison .... N J
General Electric Co Lamp Metals & Components Dept Cleveland .... Ohio
Hoskins Mfg Co, Detroit .... Mich
Hudson Wire Co, Ossining .... N Y
Jelliff Corp, C O, Southport .... Conn
Kanthal Corp, Bethel .... Conn
Matthey Bishop Inc, Malvern .... Pa
Molecu-Wire Corp, Farmingdale .... N J
Montgomery Co, Windsor Locks .... Conn
Nesor Alloy Corp, West Caldwell .... N J
Porter Co Inc H K, Fabricated Metals Div Pittsburgh .... Pa
Secon Wire Div, White Plains .... N Y
Spectra-Mat Inc, Watsonville .... Cal
Sumitomo Special Metals Co Ltd, Osaka .... Japan
Sylvania Elec Prods Inc, Chem & Met Div, Towanda .... Pa
Thermax Wire Corp, New York .... N Y
Wiegand Co, Edwin L, Pittsburgh .... Pa
Wilkinson Co, Westlake Village .... Cal

WIRE, RESISTANCE--FUSE

CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO ILL
California Fine Wire Co, Grover City .... Cal
Cohn Corp, Sigmund, Mt Vernon .... N Y
Consolidated Wire & Associated Corps, Chicago Ill
Dearborn Wire & Cable Co, Chicago Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark .... N J
Driver-Harris Co, Harrison .... N J
Jelliff Corp, C O, Southport .... Conn
Kanthal Corp, Bethel .... Conn
Molecu-Wire Corp, Farmingdale .... N J
Montgomery Co, Windsor Locks .... Conn
National Standard Co, Niles .... Mich
Nesor Alloy Corp, West Caldwell .... N J
Secon Wire Div, White Plains .... N Y
Workman Electronic Products Inc, Sarasota .... Fla

WIRE, RESISTANCE--POTENTIOMETER (PRECISION)

CONSOLIDATED REACTIVE METALS INC, MAMARONECK .... N Y
NEY CO, J M, BLOOMFIELD .... CONN
California Fine Wire Co, Grover City .... Cal
Cohn Corp, Sigmund, Mt Vernon .... N Y
Consolidated Reactive Metals Inc, Mamaroneck .... N Y
Dearborn Wire & Cable Co, Chicago Ill
Degussa Zweigniederlassung Hanau, D-6450 Hanau .... Fed Rep Ger
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark .... N J
Driver-Harris Co, Harrison .... N J
Jelliff Corp, C O, Southport .... Conn
Kanthal Corp, Bethel .... Conn
Molecu-Wire Corp, Farmingdale .... N J
Nesor Alloy Corp, West Caldwell .... N J
Ney Co, J M, Bloomfield .... Conn
Secon Wire Div, White Plains .... N Y
Sumitomo Special Metals Co Ltd, Osaka .... Japan

WIRE, RESISTANCE--RESISTOR, BARE

CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO ILL
KENTUCKY ELECTRONICS INC, OWENSBORO .... KY
Bram Metallurgical Chemical Co, Philadelphia .... Pa
California Fine Wire Co, Grover City .... Cal
Carpenter Steel Co, Reading .... Pa
Consolidated Wire & Associated Corps, Chicago Ill
Dearborn Wire & Cable Co, Chicago Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark .... N J
Driver-Harris Co, Harrison .... N J
Hoskins Mfg Co, Detroit .... Mich
Jelliff Corp, C O, Southport .... Conn
Kanthal Corp, Bethel .... Conn
Kentucky Electronics Inc, Owensboro .... Ky
Matthey Bishop Inc, Malvern .... Pa
Molecu-Wire Corp, Farmingdale .... N J
Montgomery Co, Windsor Locks .... Conn
Nesor Alloy Corp, West Caldwell .... N J
Precision Resistor Co Inc, Hillside .... N J
Wilkinson Co, Westlake Village .... Cal

WIRE, RESISTANCE--RESISTOR, INSULATED

CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO ILL
TENSOLITE INSULATED WIRE CO INC, TARRYTOWN .... N Y
California Fine Wire Co, Grover City .... Cal
Consolidated Wire & Associated Corps, Chicago Ill
Dearborn Wire & Cable Co, Chicago Ill
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark .... N J
Driver-Harris Co, Harrison .... N J
Holyoke Wire & Cable Corp, Holyoke .... Mass
Jelliff Corp, C O, Southport .... Conn
Kanthal Corp, Bethel .... Conn
Lewis Engineering Co, Naugatuck .... Conn
Molecu-Wire Corp, Farmingdale .... N J
Phalo Corp, Shrewsbury .... Mass
Precision Resistor Co Inc, Hillside .... N J
Tensolite Insulated Wire Co Inc, Tarrytown .... N Y
Thermax Wire Corp, New York .... N Y
Wiegand Co, Edwin L, Pittsburgh .... Pa

WIRE STRIPPERS SEE STRIPPERS--WIRE

WIRE--SUPERCONDUCTIVE

Active Alloys Inc, Brooklyn .... N Y
California Fine Wire Co, Grover City .... Cal
Dearborn Wire & Cable Co, Chicago Ill
ITT Wire & Cable Div, Clinton .... Mass
Kawecki Chemical Co, New York .... N Y
LCC-CICE, 93 Montreuil-sous-Bois .... France
Norton Co Supercon Div, Natick .... Mass
Semi-Alloys Inc, Mt Vernon .... N Y
Wah Chang Corp, Glen Cove .... N Y

WIRE--THERMOCOUPLE

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV, HICKSVILLE .... NY
CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO ILL
Advanced Dynamics Inc Div Alco Std Corp Cleveland .... Ohio
Advanced Products Co, North Haven .... Conn
Aero Research Instrument Dept American Standard Franklin Park Ill
Amperex Electronic Corp, Professional Tube Div, Hicksville .... NY
Bristol Div, American Chain & Cable Co Waterbury .... Conn
California Fine Wire Co, Grover City .... Cal
C M Mfg Co, Bloomfield .... N J
Cohn Corp, Sigmund, Mt Vernon .... N Y
Columbia Wire Products Co, Chicago Ill
Conax Corp, Buffalo .... N Y
Consolidated Controls Corp, Bethel .... Conn
Consolidated Wire & Associated Corps, Chicago Ill
Control Panel Corp, Chicago Ill
Dearborn Wire & Cable Co, Chicago Ill
Degussa Zweigniederlassung Hanau, D-6450 Hanau .... Fed Rep Ger
Driver, Wilbur B Div Sylvania Elec Prods Inc, Newark .... N J
Driver-Harris Co, Harrison .... N J
Dynatech Products Co Div Dynatech Corp Burlington .... Mass
Electric Thermometers, Inc, Norwalk .... Conn
Engelhard Minerals & Chemicals Corp, Engelhard Indus Div, Newark .... N J
Gavitt Wire & Cable Co Div Amerace Corp Brookfield .... Mass
Honeywell Industrial Div, Fort Washington .... Pa
Hoskins Mfg Co, Detroit .... Mich
Inso Electronic Products Inc, Nutley .... N J
ITT Wire & Cable Div, Clinton .... Mass
Johnson Matthey & Mallory Ltd, Toronto 15 .... Ont
Kanthal Corp, Bethel .... Conn
Leeds & Northrup Co, Philadelphia .... Pa
Lewis Engineering Co, Naugatuck .... Conn
Loudin Electric Co, Stamford .... Conn
Marlin Mfg Corp, Cleveland .... Ohio
Matthey Bishop Inc, Malvern .... Pa
McHugh Thermodynamics Corp, Trevose .... Pa
Moore & Co, Samuel, Mantua .... Ohio
Nanmac Corp, Framingham Centre .... Mass
Omega Engineering Inc, Stamford .... Conn
Pall Trinity Micro Corp, Cortland .... N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven .... Holland
Pyro Electric Inc, Walkerton .... Ind
Pyrometer Co of America Inc, Penndel .... Pa
Radix Wire Co, Cleveland .... Ohio
Revere Corp of America, Wallingford .... Conn
Saxton Products Inc, Congers .... N Y
Scientific Engineering Mfg Co Inc North Hollywood .... Cal
Semi-Alloys Inc, Mt Vernon .... N Y
Standard Wire & Cable Co, Los Angeles .... Cal
Tatsuta Electric Wire & Cable Co Ltd, Osaka .... Japan
Techni-Tool Inc, Philadelphia .... Pa
Temtech, Santa Ana .... Cal
Thermax Wire Corp, New York .... N Y
Thermo Electric Co Inc, Saddle Brook .... N J
Thermo Products Co Div Web Press Eng Cedarburg .... Wisc
United Sensor & Control Corp, Watertown .... Mass
Var-Lac-Oid Chemical Co, Elizabeth .... N J
West Instrument Corp, Schiller Park Ill
Wilkinson Co, Westlake Village .... Cal

WIRE--TINSEL

CONSOLIDATED WIRE & ASSOCIATED CORPS, CHICAGO ILL
Carol Cable Co, Pawtucket .... R I
Columbia Wire Products Co, Chicago Ill
Consolidated Wire & Associated Corps, Chicago Ill
Dearborn Wire & Cable Co, Chicago Ill
Gavitt Wire & Cable Co Div Amerace Corp Brookfield .... Mass
General Cable Corp, New York .... N Y
Hudson Wire Co, Ossining .... N Y
Miller Electric Co, Woonsocket .... R I
Montgomery Co, Windsor Locks .... Conn
Plastic Wire & Cable Corp, Jewett City .... Conn
Saxton Products Inc, Congers .... N Y
Semi-Alloys Inc, Mt Vernon .... N Y
Tape Cable Corp, Rochester .... N Y
Thermax Wire Corp, New York .... N Y

EBG

What's

in it

for you?

1. Listing of more than 4,000 products.
2. 6,500 manufacturers with local outlets, addresses and phone numbers.
3. Complete and up-to-date Trade Name Directory
4. The most complete industry source of supply and product specs.

Electronics Buyers' Guide

WIRE TWISTERS

Aircraft Components Inc, Benton Harbor .... Mich
Carpenter Mfg Co Inc, Manlius .... NY
Compton Industries, Inc, Vestal .... N Y
Eraser Co Inc, Syracuse .... NY
General Cable Corp, New York .... N Y
Jonard Industries Corp, Bronx .... N Y
MacDonald & Co, Glendale .... Cal
Mann Co, Henry, Cornwell Heights .... Pa
Swiss Industries, Costa Mesa .... Cal

WIRE-WOUND RESISTORS SEE RESISTORS--FIXED;VARIABLE

WIRE--WOVEN SEE FABRIC PARTS; FABRICS

WIRE WOVEN CIRCUITS SEE CIRCUITS--WOVEN WIRE

WIRE-WRAPPING TOOLS SEE TOOLS--WIRE-WRAPPING

WRAPPINGS--CABLE

BIRNBACH CO INC, FREEPORT .... N Y
DABURN ELECTRONICS & CABLE CORP, BRONX .... N Y
Birnbach Co Inc, Freeport .... N Y
Chase & Sons Inc, Randolph .... Mass
Daburn Electronics & Cable Corp, Bronx .... N Y
Dilectrix Corp, Farmingdale .... N Y
Electrovert Inc, Mt Vernon .... N Y
Force Electronics, Los Angeles .... Cal
Ideal-Hellerman Canada Ltd, Ajax .... Ontario
Industrial Winding Machinery Corp, River Edge .... N J
3M Company, St Paul .... Minn
Newman Corp, M M, Marblehead .... Mass
Panduit Corp, Tinley Park Ill
Port Plastics Inc, Montebello .... Cal
Schjeldahl Co, G T, Northfield .... Minn
Steel Heddle Mfg Co, Philadelphia .... Pa
Thermax Wire Corp, New York .... N Y
United States Machinery, Sub Geartronics Corp
North Billerica .... Mass
Westinghouse Electric Corp Insulating Materials Div
Trafford .... Pa
Zippertubing Co, Los Angeles .... Cal

X-RAY CAMERAS SEE CAMERAS

X-RAY DIFFRACTION EQUIPMENT

Canberra Industries, Middletown .... Conn
Dunlee Corp, Bellwood Ill
Electronics & Alloys Inc, Englewood .... N J
General Electric Co X-Ray Dept, Milwaukee .... Wis
Hamner Electronics Co Inc, Cleveland .... Ohio
Hayakawa Electric Co Ltd, Osaka .... Japan
Humphrey Electronics Inc, Raleigh .... N C
Isomet Corp, Palisades Park .... N J
Jarrell-Ash Co, Waltham .... Mass
Materials Research Corp, Orangeburg .... N Y
Nuclear Enterprises Ltd, Edinburgh 11 .... Scotland
Philips Electronic Instruments, Anal Inst,
Mount Vernon .... N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Picker Nuclear, White Plains .... N Y
Polaroid Corp, Cambridge .... Mass
St John X-Ray Laboratory, Califon .... N J
Siemens America Inc, New York .... N Y
Varian, Palo Alto .... Cal

X-RAY EQUIPMENT SEE RADIOGRAPHIC EQUIPMENT

X-RAY IMAGE INTENSIFIERS

AMERICANA X-RAY CO, ENGLEWOOD .... N J
Abtronics, Inc, Livermore .... Cal
Admiral Corp, Gov Electronics Div, Chicago Ill
Americana X-Ray Co, Englewood .... N J
Bendix Corp Electro Optics Div, Ann Arbor .... Mich
Continental X-Ray Corp, Chicago Ill
Ercona Corp, New York .... N Y
General Electric Co X-Ray Dept, Milwaukee .... Wis
Keleket Div Laboratory For Electronics Inc
Waltham .... Mass
3M Company, St Paul .... Minn
Philips Electronic Instruments, Anal Inst,
Mount Vernon .... N Y
Philips' Gloeilampenfabrieken, N V, Eindhoven ... Holland
Picker Nuclear, White Plains .... N Y
Rauland Corp, Melrose Park Ill
Raytheon Learning Systems Co, Michigan City .... Ind
Standard X-Ray Co, Chicago Ill
Zenith Radio Co Govt & Special Prod Div, Chicago Ill

X-Y RECORDERS SEE RECORDERS--GRAPHIC

Electronics Buyers' Guide

Your black book of
6500 manufacturers
addresses and phone
numbers.

Check the green section

YOKES, DEFLECTION--OSCILLOSCOPE

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
SYNTRONIC INSTRUMENTS INC, ADDISON, ILL .... ADV PG 817
Atlas Coil Corp, Ansonia .... Conn
Ferranti, Ltd, Lancashire .... England
International Tel & Tel Corp Industrial Prods Div
San Fernando .... Cal
LCC-CICE, 93 Montreuil-sous-Bois .... France
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Merit Coil & Transformer Corp, Hollywood .... Fla
Penn Transformer Co, Bellefonte .... Pa
Syntronic Instruments Inc, Addison Ill
Tele Coil Co Inc, Camden .... N J

YOKES, DEFLECTION--RADAR PPI

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
SYNTRONIC INSTRUMENTS INC, ADDISON, ILL ... ADV PG 817
Atlas Coil Corp, Ansonia .... Conn
CELCO, Mahwah .... N J
Ferranti, Ltd, Lancashire .... England
International Tel & Tel Corp Industrial Prods Div
San Fernando .... Cal
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Syntronic Instruments Inc, Addison Ill
Tele Coil Co Inc, Camden .... N J

YOKES, DEFLECTION--TV

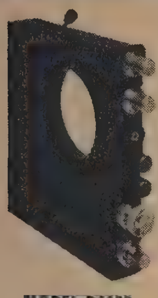
AMPEREX ELECTRONIC CORP, COMPONENT DIV
HAUPPAUGE .... N Y
MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, OSAKA ... JAPAN
Advance Ross Electronics Corp, Chicago Ill
American Electronic Controls Inc, Philadelphia .... Pa
Amperex Electronic Corp, Component Div
Hauppauge .... N Y
Arco S P A, Milano .... Italy
Cleveland Electronics Inc Deflection Components Div
Twinsburg .... Ohio
Controlomag Labs, Roslyn .... Pa
Fivre Dept Fabbrica Ital Mag Marelli, I - 27100 -
Pavia .... Italy
General Instrument Corp F W Sickles Div
Chicopee .... Mass
General Instrument Europe SPA, Milano .... Italy
Hayakawa Electric Co Ltd, Osaka .... Japan
Inelco S p A, Tavernerio .... Italy
International Tel & Tel Corp Industrial Prods Div
San Fernando .... Cal
LCC-CICE, 93 Montreuil-sous-Bois .... France
Matsushita Electric Industrial Co Ltd, Osaka .... Japan
Merit Coil & Transformer Corp, Hollywood .... Fla
Penn Transformer Co, Bellefonte .... Pa
Research Industrolectronics, Roslyn .... Pa
Rola Co Inc, Cleveland .... Ohio
Tele Coil Co Inc, Camden .... N J
Telectron Co, Fort Lauderdale .... Fla
Telefunken Sales Corp, Garden City .... N Y
Telvision Labs Inc, Wauconda Ill
Triad Distributor Div Litton Industries, Huntington ..... Ind
Utrad Corp, Huntington .... Ind
Videocraft Mfg Co, Chicago Ill

YTTRIUM--IRON OXIDE SEE CRYSTALS--GARNET

YOKE SPECIALISTS

COMPLETE LINE for every Military and Industrial Purpose in PRODUCTION QUANTITIES or CUSTOM DESIGNED to your specific requirements

- Yokes for ALL types of ⅞", 1", 1⅛", 1½", and 2⅛" neck dia. CRT's - only representative types are shown.
- Special designs for all types of computer and high speed character displays.
- Wide variety of coil impedances in both push-pull and single-ended configurations.
- Most experienced yoke engineers in the industry, plus complete production and testing capability.


MODEL C4499

MICROMETER—CONTROLLED PRECISION COIL ALIGNER

For fast, convenient alignment of yokes and focus coils in (1) ultra precision displays and flying spot scanners, and (2) laboratory research and prototype evaluation. **Exclusive** independent micrometer adjustment of pitch, yaw, horizontal and vertical translation . . . with firm precision locking. **Exclusive** true precision control and exact repeatability, plus rugged construction. For full details request catalog page.

TYPE F20

PRECISION ELECTRO-MAGNETIC FOCUS COILS for ⅞", 1½", 2⅛" and other neck dia. CRT's.

All designed for ultimate focus. Negligible effect on spot size when properly aligned to beam. Static types (all sizes)—low power or high power. Dynamic-static combinations (1½" neck dia.) . . . compact single gap design . . . or double gap design to simplify circuitry by eliminating coupling between static and dynamic coils. Wide range of coil resistances available. For full technical details, request catalog pages. Please specify your CRT and beam accelerating voltage.

TYPE P7

TYPE P8

ANTI-PINCUSHION DEVICES, both PM and EM types

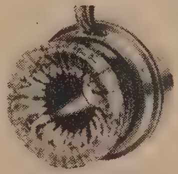
Eliminates CRT geometrical picture distortion. Type P7 permanent magnet anti-pincushion assembly requires no current . . . occupies small space . . . easily adjustable . . . mounts directly on standard yokes . . . available in wide choice of magnet strengths with tight tolerances. Type P8 electromagnetic coil anti-pincushion assembly has very high precision construction . . . allows convenient front panel adjustment. For full technical details request catalog page.

TYPE C4942

Request catalog page

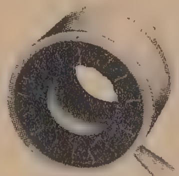
SHIELDED DYNAMIC FOCUS COIL

For sharp focus applications up to 25kv accelerating potential, such as scan converter storage tubes and flat faced high resolution CRT's. Static and dynamic coils combined into a single gap to ease alignment and position. Gap in forward position for superior focus and best image-to-object ratio.


TYPES Y58-Y60-Y62-Y64 for 42°, 52°, 70°, & 90° Deflection Angles

PRECISION STATOR YOKES for 1½" neck dia. CRT's.

High efficiency and accuracy achieved by stator type core which also provides exceptionally low astigmatism and residual magnetism. Push-pull or single-ended coils for time shared sweep displays, character displays and others. Request catalog sheet for full details.


TYPE Y66 Up to 60° Deflection Angle

LARGE I.D. YOKES for 2⅛" neck dia. CRT's.

Single-ended and push-pull designs especially for charactron CRT's to give minimum twisting or distortion of characters. Suitable also for precision displays with other types of 2⅛" neck dia. CRT's. Request catalog sheet for full details.

TYPES V21 & V22

VIDICON YOKES & FOCUS COILS for 1" Vidicons

IN VOLUME PRODUCTION NOW. For both commercial and military applications. Engineering Service available. Special designs for all types of 1" vidicons including electrostatic focus magnetic deflection types. For full technical details request catalog page.

TYPE Y25-R Series Up to 52° and 70° Deflection Angles

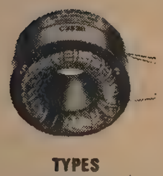
COMPACT ROTATING COIL YOKES for 1½" neck dia. CRT's

For Radar Plan Position Indicator and all other rotating coil applications. Versions available with dc off-centering coils. Complete in aluminum housing containing deflection coil, slip rings and brush assembly, drive gear and bearing for easy installation into any equipment design. Only 3¾" OD x 2^{11}/$_{16}$" long. For technical details request catalog page.

TYPE Y65 Up to 70° Deflection Angle

ENCAPSULATED MINIATURE PRECISION YOKE for ⅞" or 1" neck dia. CRT's.

Push-pull and single-ended coils available in a wide range of inpedances for transistor drivers or vacuum tube circuits. Features electrically balanced windings with equal deflection sensitivities. Close angular tolerances of the display are achieved by precise construction. Epoxy encapsulated to withstand extreme environments. For full technical details, request catalog page.


TYPES C3287/C3528

MAGNETIC SCAN-CONVERTER DEFLECTION YOKES

Stator Design for standard 1½ inch neck diameter scan converter storage tubes. High resolution, geometrical accuracy and sensitivity are combined to offer power savings, plus ultimate performance. A desirable short precision magnetic field is achieved by combining short overall length and small ears with the proper distribution, insertion and extreme care in construction. Magnetically shielded designs also available. Request catalog sheet for full details.

For engineering assistance in solving your display problems, please contact our nearest representative:

Boston-New England:..617-762-3164
New York:...212-695-3727
Philadelphia Area:...215-789-2320
Washington-Baltimore Area:...............................202-628-1023
Minneapolis:..612-920-1046
Los Angeles:..213-283-1201
San Francisco:...415-322-8461

syntronic INSTRUMENTS, INC

100 Industrial Road, Addison, Illinois 60101, (20 miles west of Chicago) Phone 312, 543-6444

Specialists in Components and Equipment used with Cathode Ray Tubes

ZINC

NATIONAL LEAD CO, NEW YORK	**N Y**
Alpha Metals Inc, Jersey City	NJ
American Metal Climax Inc, New York	N Y
American Silver Co Div, Flushing	N Y
American Smelting & Refining Co, New York	N Y
Anchor Metal Co, Inc Div, Brooklyn	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Baker Chemical Co, J T, Phillipsburg	N J
Belmont Smelting & Refng Wks Inc Sales Eng Ctr Roslyn Heights	NY
Cerac Inc, Butler	Wis
Cerro Corp, New York	NY
Cerro Sales Corp, New York	NY
Cominco American Inc Electronic Matls Div, Spokane	Wash
Hi-Grade Alloy Corp, East Hazelcrest	Ill
Kester Solder Co, Chicago	Ill
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
Materials Research Corp, Orangeburg	N Y
M & T Chemicals Inc Sub American Can Co Rahway	N J
National Lead Co, New York	N Y
Roosevelt Metal Co Inc, Brooklyn	N Y
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
United American Metals Div, Brooklyn	N Y
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J

ZINC PLATING SEE PLATING SERVICES

ZIRCONATES SEE CRYSTALS

ZIRCONIUM OXIDE

AMERICAN LAVA CORP, CHATTANOOGA	**TENN**
Aceto Chemical Co, Inc, Flushing	NY
American Lava Corp, Chattanooga	Tenn
American Metal Climax Inc, New York	N Y
Atomergic Chemetals Co Div Gallard-Schlesinger Chemical Mfg Corp, Carle Place	N Y
Bio-Rad Laboratories, Richmond	Cal
Cerac Inc, Butler	Wis
City Chemical Corp, New York	N Y
Electronic Space Products Inc, Los Angeles	Cal
Geoscience Instruments Corp, Mt Vernon	N Y
Koch Light Labs Ltd, Colnbrook, Bucks	England
Mackay Inc, A D, New York	N Y
National Beryllia Corp, Haskell	N J
Norton Co, Worcester	Mass
Phoenix Materials Corp, Monroeville	Pa
Ronson Metals Corp, Newark	N J
Semi-Elements Inc, Saxonburg	Pa
Sylvania Elec Prods Inc, Chem & Met Div, Towanda	Pa
Thermal American Fused Quartz Co, Montville	N J
United Mineral & Chemical Corp, New York	N Y
Universal Shellac & Supply Co Inc, Brooklyn	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Vitro Labs Div Vitro Corp of America, W Orange	N J
Wah Chang Corp, Glen Cove	N Y

ZIRCONIUM--SHEETS, BARS & RODS

SUPERIOR TUBE CO, NORRISTOWN	**PA**
Active Alloys Inc, Brooklyn	N Y
American Metal Climax Inc, New York	N Y
Bram Metallurgical Chemical Co, Philadelphia	Pa
City Chemical Corp, New York	N Y
Hamilton Precision Metals Div Hamilton Watch Co Lancaster	Pa
Koch Light Labs Ltd, Colnbrook, Bucks	England
Nuclear Materials & Equipment Corp, Apollo	Pa
Ryerson & Son Inc, J T, Chicago	Ill
Semi-Alloys Inc, Mt Vernon	N Y
Semi-Elements Inc, Saxonburg	Pa
Superior Tube Co, Norristown	Pa
Texas Instruments Incorporated, Dallas	Tex
Thermal American Fused Quartz Co, Montville	N J
United Mineral & Chemical Corp, New York	N Y
Var-Lac-Oid Chemical Co, Elizabeth	N J
Wah Chang Corp, Glen Cove	N Y
Zirconium Corp of America, Solon	Ohio

ZIRCONIUM TUBING SEE TUBING--METALIC

ZIRCONIUM WIRE SEE WIRE--BARE

Surplus Electronic Equipment

For details on Surplus Electronic Equipment see product listings below and advertisements on following pages.

COMMUNICATIONS EQUIPMENT

Air-Ground Electronics Co., Inc., P.O. Box 9368 North Hollywood 91609	Cal
Alvaradio Industries, 3101 Pico Blvd. Santa Monica	Cal
Anker Electronics, 1617 S. Main St. & Anker Rd. Wilkes Barre	Pa
Autodyne Eng. & Mfg. Co., 236 Park Ave. Bethpage 11714	NY
Belling Electronics, Geo., P.O. Box 1647 Oakland 94604	Cal
Columbia Electronics Sales, 4365 W. Pico Blvd. LA 90019	Cal
Communications Devices Co. Inc., 269 E. Shore Rd. Great Neck 11022	NY
Electro-Craft Inc., 1124 Dorchester Ave. Dorchester	Mass
Goodheart Co. Inc., R.E., P.O. Box 1220 Beverly Hills 90213	Cal
Liberty Electronics, 548 Broadway NYC	NY
Radio Research Inst. Co., 45 W. 45th St. NYC	NY
Space Electronics, 4178 Park Ave. Bronx	NY
Technical Systems Corp., 341 Connecticut Ave. Norwalk 06854	Conn

COMPONENT PARTS AND HARDWARE

Anker Electronics, 1617 S. Main St. & Anker Rd. Wilkes Barre	Pa
Autodyne Eng. & Mfg. Co., 236 Park Ave. Bethpage	NY
Columbia Electronics Sales, 4365 W. Pico Blvd. LA 90019	Cal
Communications Devices Co. Inc., 269 E. Shore Rd. Great Neck 11002	NY
Electro-Craft Inc., 1124 Dorchester Ave. Dorchester	Mass
Liberty Electronics, 548 Broadway NYC	NY
Space Electronics, 4178 Park Ave. Bronx	NY

CONNECTORS

Air-Ground Electronics Co., Inc., P.O. Box 9368 North Hollywood 91609	Cal
Anker Electronics, 1617 S. Main St. & Anker Rd. Wilkes Barre	Pa
Belling Electronics, Geo., P.O. Box 1647 Oakland 94604	Cal
Columbia Electronics Sales, 4365 W. Pico Blvd. LA 90019	Cal
Liberty Electronics, 548 Broadway NYC	NY
Wilgreen Industries Inc., 500 Milik St. Carteret 07008	NJ

ELECTROMECHANICAL COMPONENTS

Air-Ground Electronics Co., Inc., P.O. Box 9368 North Hollywood 91609	Cal
Anker Electronics, 1617 S. Main St. & Anker Rd. Wilkes Barre	Pa
Autodyne Eng. & Mfg. Co., 236 Park Ave. Bethpage 11714	NY
Belling Electronics, Geo., P.O. Box 1647 Oakland 94604	Cal
Columbia Electronics Sales, 4365 W. Pico Blvd. LA 90019	Cal
Communications Devices Co. Inc., 269 E. Shore Rd. Great Neck 11022	NY
Electro-Craft Inc., 1124 Dorchester Ave. Dorchester	Mass
Space Electronics, 4178 Park Ave. Bronx	NY

ELECTRON TUBES

Anker Electronics, 1617 S. Main St. & Anker Rd. Wilkes Barre	Pa
Belling Electronics, Geo., P.O. Box 1647 Oakland 94604	Cal
Columbia Electronics Sales, 4365 W. Pico Blvd. LA 90019	Cal
Communications Devices Co. Inc., 269 E. Shore Rd. Great Neck 11022	NY
Electro-Craft Inc., 1124 Dorchester Ave. Dorchester	Mass
Liberty Electronics, 548 Broadway NYC	NY
Radio Research Inst. Co., 45 W. 45th St. NYC	NY
Space Electronics, 4178 Park Ave. Bronx	NY

LABORATORY & TEST INSTRUMENTS

Air-Ground Electronics Co., Inc., P.O. Box 9368 North Hollywood 91609	Cal
Alvaradio Industries, 3101 Pico Blvd. Santa Monica	Cal
Anker Electronics, 1617 S. Main St. & Anker Rd. Wilkes Barre	Pa
Belling Electronics, Geo., P.O. Box 1647 Oakland 94604	Cal
C & H Sales Co., 2176 E. Colorado St. Pasadena	Cal
Columbia Electronics Sales, 4365 W. Pico Blvd. LA 90019	Cal
Communications Devices Co. Inc., 269 E. Shore Rd. Great Neck 11022	NY
Electro-Craft Inc., 1124 Dorchester Ave. Dorchester	Mass
Electronicraft Inc., P.O. Box 1113 Binghamton 13902	NY
Goodheart Co. Inc., R.E., P.O. Box 1220 Beverly Hills 90213	Cal
Liberty Electronics, 548 Broadway, NYC	NY
Space Electronics, 4178 Park Ave. Bronx	NY
Technical Systems Corp., 341 Connecticut Ave. Norwalk 06854	Conn

MATERIALS

Anker Electronics, 1617 S. Main St. & Anker Rd. Wilkes Barre	Pa

MICROWAVE COMPONENTS & SYSTEMS

Air-Ground Electronics Co., Inc., P.O. Box 9368 North Hollywood 91609	Cal
Anker Electronics, 1617 S. Main St. & Anker Rd. Wilkes Barre	Pa
Belling Electronics, Geo., P.O. Box 1647 Oakland 94604	Cal
Columbia Electronics Sales, 4365 W. Pico Blvd. LA 90019	Cal
Electro-Craft Inc., 1124 Dorchester Ave. Dorchester	Mass
Goodheart Co. Inc., R.E., P.O. Box 1220 Beverly Hills 90213	Cal
Radio Research Inst. Co., 45 W. 45th St. NYC	NY
Technical Systems Corp., 341 Connecticut Ave. Norwalk 06854	Conn

MOTORS & GENERATORS

Anker Electronics, 1617 S. Main St. & Anker Rd. Wilkes Barre	Pa
Belling Electronics, Geo., P.O. Box 1647 Oakland 94604	Cal
Columbia Electronics Sales, 4365 W. Pico Blvd. LA 90019	Cal
Communications Devices Co. Inc., 269 E. Shore Rd. Great Neck 11022	NY
Electro-Craft Inc., 1124 Dorchester Ave. Dorchester	Mass
Space Electronics, 4178 Park Ave. Bronx	NY

POWER SUPPLIES

Air-Ground Electronics Co., Inc., P.O. Box 9368 North Hollywood 91609	Cal
Anker Electronics, 1617 S. Main St. & Anker Rd. Wilkes Barre	Pa
Belling Electronics, Geo., P.O. Box 1647 Oakland 94604	Cal
Columbia Electronics Sales, 4365 W. Pico Blvd. LA 90019	Cal
Communications Devices Co. Inc., 269 E. Shore Rd. Great Neck 11022	NY
Electro-Craft Inc., 1124 Dorchester Ave. Dorchester	Mass
Goodheart Co. Inc., R.E., P.O. Box 1220 Beverly Hills 90213	Cal
Liberty Electronics, 548 Broadway NYC	NY
Space Electronics, 4178 Park Ave. Bronx	NY
Technical Systems Corp., 341 Connecticut Ave. Norwalk 06854	Conn

PRODUCTION EQUIPMENT

Anker Electronics, 1617 S. Main St. & Anker Rd. Wilkes Barre	Pa
Belling Electronics, Geo., P.O. Box 1647 Oakland 94604	Cal
Columbia Electronics Sales, 4365 W. Pico Blvd. LA 90019	Cal
Electro-Craft Inc., 1124 Dorchester Ave. Dorchester	Mass
Goodheart Co. Inc., R.E., P.O. Box 1220 Beverly Hills 90213	Cal

RADAR COMPONENTS & SYSTEMS

Air-Ground Electronics Co., Inc., P.O. Box 9368 North Hollywood 91609	Cal
Alvaradio Industries, 3101 Pico Blvd. Santa Monica	Cal
Anker Electronics, 1617 S. Main St. & Anker Rd. Wilkes Barre	Pa
Autodyne Eng. & Mfg. Co., 236 Park Ave. Bethpage 11714	NY
Belling Electronics, Geo., P.O. Box 1647 Oakland 94604	Cal
Columbia Electronics Sales, 4365 W. Pico Blvd. LA 90019	Cal
Communications Devices Co. Inc., 269 E. Shore Rd. Great Neck 11022	NY
Electro-Craft Inc., 1124 Dorchester Ave. Dorchester	Mass
Goodheart Co. Inc., R.E., P.O. Box 1220 Beverly Hills 90213	Cal
Jericho Electronic Supply, 235 Robbins Lane Syosset	NY
Radio Research Inst. Co., 45 W. 45th St. NYC	NY
Space Electronics, 4178 Park Ave. Bronx	NY
Technical Systems Corp., 341 Connecticut Ave. Norwalk 06854	Conn

SEMICONDUCTORS

Anker Electronics, 1617 S. Main St. & Anker Rd. Wilkes Barre	Pa
Electro-Craft Inc., 1124 Dorchester Ave. Dorchester	Mass
Liberty Electronics, 548 Broadway NYC	NY
Space Electronics, 4178 Park Ave. Bronx	NY

TELEVISION EQUIPMENT

Anker Electronics, 1617 S. Main St. & Anker Rd. Wilkes Barre	Pa
Belling Electronics, Geo., P.O. Box 1647 Oakland 94604	Cal

WIRE & CABLE

Anker Electronics, 1617 S. Main St. & Anker Rd. Wilkes Barre	Pa
Communications Devices Co. Inc., 269 E. Shore Rd. Great Neck 11022	NY

Columbia features America's largest stock—and the latest in electronics!

Since 1946, Columbia Electronics Sales has specialized in the world-wide distribution of military and commercial telecommunications equipment as well as all types of professional test equipment—including the latest models produced by Hewlett-Packard, Tektronix, General Radio, and others. All test equipment can be supplied calibrated and traceable to the U.S. National Bureau of Standards. Please send us your inquiries—both to buy AND TO SELL. Prompt reply assured.

CURRENT INVENTORY

- **Radio receiving sets:** BC-312, 342, 348, R-388/URR, R-389/URR, R-390A/URR, SP-600
- **Tactical radio communications:** AN/TRC-1, 3, 4, 7, 8, 24, 35, 36, 68, etc.
- **Vehicular radio communications:** AN/VRC-8, 9, 10, 12, 14, 16, 17, 18, 43 to 49
- **Naval radio communications:** TED-1 to 9, AN/URR-13, 27, 35, AN/URT-7, AN/URC-32, TDE, TDQ, TCS-12, TBL, TBK, TAJ, AN/SRT-14, 15, 16
- **Portable radio communications:** AN/PRC-6, 8, 8A, 9, 9A, 10, 10A, 25, 41, 47, 49, 74, 77
- **Aircraft radio communications:** AN/ARC-1, 2, 3, 5, 27, 33, 34, 44, 38, 45, 51, 52, 54, 58 ,59
- **Ground radio communications:** AN/GRC-3, to 8, 9, 9A, 26, 26D, 27, 30
- **Hi-power transmitters up to 40kW:** AN/FRT-5, 6, 15, 22, 27, 51
- **Aircraft navigation:** AN/ARN-6, 7, 14C, 14D, 21B, 21C, 52, 65
- **Radio direction finding:** AN/URD-2, 4, AN/TRD-4, 4A, 10, AN/SRD-7, AN/PRD-1
- **Teletype systems:** Models 14, 15, 19, 28, TG-7, TT-98/FG, TT-4/TG
- **Multiplex terminals:** AN/TCC-3, 4, 5, 7, 8, 20, 50, AN/UGC-1, AN/FGC-5
- **Field telephones and switchboards:** SB-22/PT, SB-86/P, TA-312, EE-8
- **SSB radio sets Mfg. by Collins Radio:** AN/URC-32, AN/TRC-75, AN/ARC-58
- **Meteorological equipment:** AN/GMD-1B, radiosondes AN/TMQ-5C
- **Generating sets and power plants:** PE-75, 95, PU-286/G, PU-26A/U, PU-104/U
- **TACAN and SHORAN:** AN/ARN-21B, 21C, 52, 65, AN/APN-4, 9, 70, AN/URN-3
- **Aircraft instruments. Gyros. Electron tubes. Semiconductors**
- **Survival radios:** AN/URC-4, 10, 11, 17, 49, AN/URT-21, AN/CRT-3, ACR-RT-10
- **Electronic test equipment:** AN/URM, AN/USM, AN/UPM, AN/ARM, TS, FR, ME, SG
- **Electronic countermeasures:** AN/APR-4, 9, 14, 17, AN/ALT-6, 7, 8, AN/SLR, AN/ALR
- **Radar systems:** AN/APS, AN/TPS, AN/FPS, AN/MPS, Navy types
- **IFF transponders:** AN/UPX-1, 4, 5, 6, 12, AN/APX-6, 7, 25, 28, 65, AN/UPA-24, 38, 39

Write for new 1969 catalog & buyers directory of military electronic equipment

COLUMBIA ELECTRONICS SALES

4365 West Pico Blvd., Los Angeles, Calif. 90019, USA
Cable: COLECTRON • Telephone: (213) 938-3731

GROUND RADAR — ELECTRONIC WARFARE

MILITARY | WORLD'S LARGEST STOCKS OF CURRENTLY OPERATIONAL

MEDIUM RANGE HEIGHT FINDER
AN/FPS-4, AN/MPS-8, AN/TPS-10D

The AN/FPS-4 is a medium range height finder. This set operates in X-band and is completely portable. Complete sets can be supplied • Freq.: 9230-9404 MC • Power Output 250 KW • Range: 120 MI • Accuracy: .7 MI. range 2.3° Azimuth 0.8° elevation • Beam width: 2.05 deg. horiz. 0.775 vert. • Input: 120-208 V 60 CYC. This system makes a fine weather radar. 115 V 400 CYC. Input. Mfg. by G.E.

LONG RANGE HEIGHT FINDER
AN/FPS-6, 6a, 6b, 89, 90 - AN/MPS-14

The AN/FPS-6 and its modifications are long range height finder radars. This system operates in S-band. We can supply complete systems and full support facilities as well as control room and plotting systems. The AN/FPS-6a uses the OA-929 indicator as well as modification to up-date performance. The AN/FPS-89 incorporates a ferrite isolator as well as other modifications. We maintain large stocks of this fine system, and spares to maintain these systems for many years • Freq.: 2700-2900 MC • Power: 5 megawatts • Pulse width: 2 micro-secs • Range: 200 MI • Rep. rate: 300-400 pps • Vert coverage: 60,000 ft. or 75,000 ft. to 32° angular • Ant. rotation speed: 180° point scan at a slewing rate of 7½ RPM • Ant. vert. scanning: 20-30 CPM • Range resolution: ⅜ MI • Range accuracy: 0.5° • 50 MI. sector scan • Ranges: —5,000 ft. to +60,000 ft., —5,000 ft. to +20,000 ft., +15,000 ft. to +35,000 ft., +35,000 ft. to +60,000 ft. • Input: 120/208 V 60 CYC 3 PH 4 W 60 KVA. The mobile version is the AN/MPS-14. Mfg. by G.E.

3-DIMENSIONAL RADAR
AN/FPS-7

The AN/FPS-7 is a very high power L-Band 1250-1350 MC monopulse 3-dimensional search/GCI radar. This system utilizes 7 stacked beams to provide simultaneous intelligence in range, azimuth and height. The ant. pattern is cosecant-squared. The search range is 300 miles. The height coverage is up to 150,000 ft. A klystron is used with a power output of 10 megawatts. Full M.T.I. is provided, as well as anti-jam features. Up to 10 pre-set transmitter frequencies are provided. Pulse width is 6 usec. Rep. rate is 244 P.P.S. Azimuth resolution is .5°, height resolution is .04°. Ant. tilt adjustment is —5° +0 + 3°. Scan rates are 3.3, 5, 6.6, 10 R.P.M. Systems as well as spares are avail. Mfg. G.E.

LONG RANGE SEARCH RADAR
AN/FPS-8 & AN/FPS-88 - AN/MPS-11

The AN/FPS-8 is a long range search radar. This system operates in L-band, and provides full M.T.I. facilities. Complete systems can be supplied as well as mod groups to convert to the AN/FPS-88. We maintain large stocks of this set. Full plotting and intercept room facilities can be furnished • Freq.: 1280-1350 MC • Power: 1 megawatt • Pulse width: 3 microsec • 360 pps rep. rate • Ant. rotation: 0-10 RPM • Resolution in Azimuth: ½° • Range Accuracy: 0.5 MI • Azimuth 0.5° • Beam width: 2.5° horiz., 9° vert • Ranges: 50, 100, 160 MI • Input: 120/208 V 60 CYC 3 PH. 20 KW. Mfg. by G.E.

OUR CAPABILITIES

We have moved to Connecticut

We are the world's largest suppliers of surplus rebuilt radar, ECM and auxiliary systems. Some new units are available for integration into these systems. We maintain huge stocks as well as spares to maintain systems for many years. We test these systems to tech. order specifications on order. We are always overhauling these radars in our fully equipped shops. All systems reconditioned are guaranteed for one year. We can supply control room, relay and display equipment for any ground radar. We can offer full survey, installation and service facilities in the European area, the Middle and Far East and Africa, through our continental cooperating companies. We welcome visitors by appointment and you can expect courteous treatment. We have many well satisfied customers the world over. All requests for quotation for spares should show item name, F.S.N., and Mfg. number from the illustrated part breakdown manuals. We solicit your inquiries. Telex 965969

WAVE GUIDE

We stock huge quantities of P, L, S, C, X, K, V, band wave guides in all configurations. We stock guides for AN/FPS, 3, 6, 7, 8, 10, 14, 18, 19, 20, 23, 24, 26, 30, 67, 88, 89, 90, 100. AN/CPS-6B, SCR-584, CPN-4, etc., etc.

MEDIUM RANGE SEARCH RADAR
AN/FPS-14 & 18

The AN/FPS-14 and 18 are medium range search radars. The AN/FPS-14 has an output of 400 KW in S-Band. The range covered is 70 miles. The system provides full M.T.I. The ant. beam width is 1.4° horiz. and 30° vert. for wide coverage. Either vertical or horizontal polarization may be selected at will. Pulse width is 1 microsec. rep rate is 891-909 PPS. PPI. presentation is used. Resolution is 1/9 MI in range and 1.4° in AZIM. Range accuracy is 1%. The AN/FPS-18 has a power output of 1-2 megawatts in S-Band. The search range is 50 MI. Full M.T.I. is provided. The ant. is 1.4° Horizontal. A klystron is used in the transmitter. Rec. sens. is 105 DBM. ACC. is 1° azimuth. Pulse width is 1 microsec. rep. rate is 1200 PPS. Power inputs for the FPS-14 is 120/208V 60CYC 3PH 4W 40AMPS. The FPS-18 input is 120/208 60CYC 3PH 4W 86AMPS.

These systems make fine airport search radars or unattended remote site radars. With the use of another antenna, these systems are being used for sea search in areas where there is danger of infiltration of subversive elements by boat. We can supply the systems configured this way. We stock very large quantities of both radars. The search can easily be extended. MFG by Bendix.

LONG RANGE SEARCH & G.C.I. RADAR
FPS-20, 66, 67, 93 & 100 - AN/GPS-4

The AN/FPS-20 is a very long range dual channel search and G.C.I. radar in wide use by the U.S.A.F. F.A.A. and in many countries under the map program. This very fine system operates in L-Band and provides full M.T.I., Anti-Jam and data transmitting facilities. A search range of 220 miles is provided. A klystron is used in the transmitting system. Power output is 2 megawatts. Pulse width is 6 microsec. rep rate is 360 PPS. Noise fig. is 9 decibels. Ant. gain is 35 DB. The ant. can be tilted. A very large ant. is used for a sharp beam with high resolution. Full anti-jam provisions are provided including anti-chaff rec. systems. Provisions are included for remote transmitting of data. The FPS-66, 67, 93, 100 are modification with diff. antennas and parametric amps. We maintain large stocks of systems, groups, antennas and parts for the FPS-20. The AN/GPS-4 is a mobile version. Mfg. Bendix.

DOPPLER PENETRATION WARNING RADAR
FPS-23

The AN/FPS-23 is a C.W. doppler radar alarm system utilizing a transmitting and rec. system. Separated by approx. 50 miles. The purpose of the system is to form a fence thru which no aircraft can pass without sounding an alarm. Any airborn etarget in motion will trigger the alarm. Additional stations may be tied into the system as repeaters to lengthen the screen. This system is used to protect a radar or other site against an aircraft that manages to pierce the search radar screen. Automatic target and fault alarms are provided, as well as recordings of penetrations. The coverage in elevation is approx. 200 ft. or less to 30,000 ft. operating freq. is 475-525 MC. output is 1,000 W C.W. power input is 120/208V 60CY 3P 4W. MFG by Motorola.

LONG RANGE SEARCH & G.C.I. RADAR
FPS-24

The AN/FPS-24 is a UHF dual channel freq. agile. Hi-Power tuneable search, G.C.I. and Sage radar system. This set is a primary radar for the SAGE system. Full M.T.I. SDSDV, ant-jam, video mapping facilities are provided. The search range is approx. 400 MI. Power output is approx. 20 MW. A very large ant is used. Input is 1814 KVA 480V 3PH. and 584 KVA 120/208V 3PH 4W 60CYC. Systems, groups, parts can be supplied. Mfg. by G.E.

MOBILE LONG RANGE SEARCH RADAR
AN/TPS 1D, 1E, 1F, 1G & AN/TPS-15 & 36

The AN/TPS-1D, 1E, 1F, 1G and AN/TPS-15, AN/FPS-36 are portable field radars with a range of 200 miles. These radars are in wide use throughout the world. The system operates in L-Band with a power output of 500 KW. The pulse width is 2 microsec and the rep. rate is 360-400PPS. Ranges of 20, 40, 80, 160 miles are provided. One P.P.I. 7" and one "A" scope 5" are utilized. Full M.T.I. is provided. Anti-jam groups for this set are avail. Ant. rotation is 0-15RPM. Range resolution is .33MI, Azimuth is 4°. Accuracy is 3% range, and 10 in azimuth. Beam width is 4° horiz., vert. is 12°. Power input is 115V 400CYC. 7.5KW. The various models of this system incorporate modifications to upgrade performance or mobility. The FPS-36 uses another antenna for increased range and resolution. We maintain large stock of this set as well as spares. Mfg. by Raytheon

TECHNICAL SYSTEMS CORP., 341 CONN. AV., NORWALK, CONN. 06854 (203) 866-1460

ACCESSORIES — SPARES — NAVAL RADAR

GROUND RADAR SYSTEMS AND SPARES COMMERCIAL

COUNTER MORTAR RADARS

AN/MPQ-10 & AN/MPQ-14

The AN/MPQ-10 is a S-band counter mortar mobile radar used to track mortar shells and provide counter battery fire. We can supply complete systems as well as spare parts and support systems • Freq.: 2900 MC • Range: 20,000 yds • Range accuracy: 20 yds • Elev. coverage: −215 mils + 1,540 mils • Sector scan • Ant. RPM conical scan.: 3,600 RPM • Input: 115 V 60 CYC 3 PH 5 KW.

MEDIUM RANGE HEIGHT FINDER

AM/MPS-4

The AN/MPS-4 is a medium range mobile C-band height finding radar that also provides a 360° search mode. This system completely waterproof. We can supply complete systems and spares. The AN/MPS-4 makes an excellent weather radar and many are being used for this purpose • Freq.: 6275-6575 MC • Range: 80 MI • Height finding: To 40,000 ft • Output: 140 KW • Indicators: 1 P.P.I., 1 R.H.I., 1 "A" Scope. Input 115V., 400 cyc. Mfg. by Hazeltine.

AUTOMATIC TRACKING RADARS

We can supply SCR-584, AN/MPQ-16, MPQ-22, MPQ-29, MPS-9, MPS-19, MSQ-1, MSS-2, AN/MSG-1, T-38, AN/GPG-1, AN/MPQ-29, M-33, T-9, AN/TPG-2, T-18, Automatic Tracking Radar Systems. We can also supply AN/GRS-1 and AN/GRQ-2 Missile Guidance & Instrumentation Radar/Command guidance systems as well as others. Plotting equip. is available.

IFF/SIF SYSTEMS

We can supply all types of TPX, GPX, MPX, UPX, APX, GPA, IFF systems and accessories. See our ad in the 1968 Electronics buyers guide.

RADAR TRAINERS - SIMULATORS

We can supply many types of training systems that will simulate targets, noise, jamming, S.I.F. Some of these are as follows:

R.H.I. SIMULATOR

This system will produce targets and noise on a R.H.I. indicator that are variable in range, height, azimuth and also provide ant. scanning. Single or multi targets are generated. Each one is independently variable as well as the noise and scanning rate. Input 115 V. 60 cyc. Used with 412L and GPA-73, etc.

P.P.I. SIMULATOR

This system will generate targets on a P.P.I. of a radar set and on its own P.P.I. indicator. Six or more variable targets can be generated at any range and azimuth to train operators. Input 115 V. 60 cyc.

P.P.I./S.I.F. SIMULATOR

This very elaborate system will generate many variable targets as well as S.I.F. interrogations and replies. Beacon responses are also generated. Jamming simulation is also provided. Up to 3 aircraft simultaneously can rec. all simulator functions. Used with 412L and GPA-73, etc. Many other types also available incl. 150 series.

AIRBORNE RADARS - NAV. EQUIP.

AN/APS-20
AN/APS 31, 33
AN/APS-42A, B
AN/APS-45
AN/APS-80, 88
AN/APS-95
AN/ASA-6, 7, 13, 14, 24, 25

Many other types. Send your inquiries.

ELECTRONIC WARFARE

We are suppliers of all types of active and passive ECM systems and components. We can supply systems in the HF thru S.H.F. bands in Airborne, ground and naval configurations.

PASSIVE TO 16 KMC

- Flint
- Electronic Reconnaissance
- Intercept Recording, Tape, Film
- Automatic Direction Finding
- Data Analysis and Reduction
- Panoramic Presentation
- Pulse Analysis
- Radar Homing and Warning (RHAW)
- Chaff Dispensers

ACTIVE

- Jammers to 10 KMC
- Look-thru Sweepers
- Deception Repeaters
- Range Gate Stealers
- Freq. Track Breakers
- Variable Echo Range Repeaters
- Inverse Conical-Scan Repeaters
- Freq. Tracker Jammers
- Modulation Generators
- Automatic Ground Jammers
- Computers

ECCM

- Anti-Jamming Groups
- Anti-Chaff Rec. Groups
- Video-Pulse Process Groups

ECM/ECCM TRAINERS

- Direct or R.F. Radiation

ACCESSORIES - ANTENNAS

- Scimitar, Helix, Horn, Stub, Slot, Log Periodic Antennas, C.W., Magnetrons, Carcinotrons, B.W.O.'s, Amplitrons, TWT's, Klystrons

COMMUNICATIONS EQUIP. AND SPARES

AN/GRC-3 thru 8
AN/GRC-9
AN/GRC-19
AN/GRC-26D
AN/GRC-27
AN/GRC-32B
AN/GRC-41
AN/GRC-87
AN/PRC-8, 9, 10, 25
AN/TRC-24
AN/TRC-35, 36
AN/TRC-75
TED-1 thru 9
URR-13, 35
AN/GRA-34
AN/TCC-3, 7
HI-POWER TRANSMITTERS
MANY OTHERS IN STOCK

OTHER GROUND & NAVAL RADARS

AN/CPN-4 G.C.A. Radar S & X Band
AN/FPN-33 Dual runway G.C.A. S & X Band
AN/CPN-18 Airport search S-Band
AN/CPS-6B Long Range G.C.I. S-Band
AN/FPN-16 GCA Radar X-Band
AN-FPS-26 Height Finder C-Band Hi-Power
AN/MPS-16 Mobile Height Finder—C-Band med. power
AN/TPS-10D Height Finder
AN/SPS-5 Sea Search
AN/SPS-6 Sea Search
AN/SPS-8 Height Finder
AN/SPS-10 Sea Search
AN/SPS-12 Sea/Air Search
AN/SPN-8 Aircraft Carrier G.C.A.
Accessories remote repeaters,
Many other Radar Systems in stock

RADAR AUXILIARY SYSTEMS

AN/UPA-25 10" P.P.I. indicator
AN/UPA-35 10" P.P.I. indicator
OA-99/CPS 10" P.P.I. indicator
OA-175/GPS 10" P.P.I. indicator
AN/GPA-29 6 ft. projection P.P.I. indicator
AN/GPA-5 video mapping group
AN/GPA-30 video mapping group
AN/FST-1 and 2 radar data XMit. groups
AN/FSW-1 radar site monitoring group
AN/GPA-28 interference blanker group
AN/GPA-23/GKA-1, 5 Sage ground to Air Digital Data XMit. system
AN/GPA-73 fully automatic ground to Air Digital Data XMit. system. SAGE & NATO
AN/GSA-12 display plotting group
C-1604/GP Data switching group
CV-601/FPS Height/Range Data conv. group
IBM, Burroughs, Litton Computers

HI-POWER C.W. AND PULSE SOURCES

We can supply from stock C.W. RF sources in the following categories:
50 MC-350 MC, 10-100 Watts. C.W.
225-400 MC, 70-1000 Watts. C.W.
300-1000 MC, 70-400 Watts. C.W.
1,000-10,500 MC, 150-400 Watts. C.W.

These sets are capable of spot or swept output at variable rates. Direct reading in MC, and continuously tuneable in the ranges listed. Inputs are 115V 400 CYC., and some 115V 60 CYC. Pulse sources from 400 MC-16 KMC also in stock. Outputs to 10 Megawatts.

TECHNICAL SYSTEMS CORP.

341 Connecticut Avenue
Norwalk, Connecticut 06854
203-866-1460

All calls for quotation, must be made person to person to Mr. Edward Charol, Sales Department.

OVERSEAS INQUIRY

For quick reply use TELEX our number 965969 — Answer back is "Radar Snor"

LARGEST DIVERSIFIED ELECTRONICS STOCKS

NOW IN NEW LARGE MODERN BUILDING

We maintain one of the largest stocks of military communications and test equipment in the country. Our specialty is supplying hard-to-find materials. Call or write for fast quotes. All material sold by us is tested in our own labs prior to shipment and is fully guaranteed. State Department License No. UQ-218.

SPECIAL NAVY EQUIPMENT IN STOCK

TED 1 thru 9 Transmitters
AN/URT 7 and 7D Transmitters
AN/URR-13, 27 and 35A, B, C, Receivers
AN/SRR-11, 12, and 13 Receivers
AS-390A/SRC and AT-150/SRC Antennas
AN/SRA-9, 12 Antenna filters and multicouplers
AN/URD-2, AN/URD-4, AN/FRT-15, AN/FRT-17
UPX 1, 5, 12 — R-390A Receivers

Large stock of test cables and spare parts for the above equipment.
Special test equipment for all Navy gear in stock.

Call collect for information and prices

SPACE ELECTRONICS CO.
A DIVISION OF
MILITARY ELECTRONICS CORP.
11 SUMMIT AVENUE, EAST PATERSON, N. J. 07407   TEL: (201) 791-5050

LARGE INVENTORY

LABORATORY-INDUSTRIAL-AIRCRAFT-MARINE ELECTRONICS

TEST EQUIPMENT	Signal Generators (Microwave, Mobile, Aircraft, etc.) Oscilloscopes, Frequency meters and counters, VTVMs etc.
WAVEGUIDES	Measuring Equipment, Twists, Bends, etc.
TUBES	Klystrons, Magnetrons, Special Purpose, Transmitting, and Receiving types.
RADAR-LORANS	Communications and special equipment.

WE BUY AND SELL COMMERCIAL AND GOVERNMENT INVENTORIES

ELECTRO-CRAFT Inc.
1124 Dorchester Av.
Dorchester, Mass.
617-825-0980

PARTS IS OUR BUSINESS—60 Acres of Communication Parts

WE HAVE PARTS & COMPONENTS FOR THE FOLLOWING SETS: BC • SCR • GRC • GRR • PRC • SB • TRC • VIA • ARN 21 • ARC 33 • ARC 34 • ARC 21 • ARC 65 • GMD1 • TRANSISTORS PWR SUPPLIES • DYNAMOTORS • ARC 44 • GRC 27 • GRT 3 • URC • FRC • TA • TCC • BC • VRC • GN • SRC • CD • PE • HAND SETS • HEAD SETS • TELEPHONE • CABLES • MANY, MANY OTHERS.

Send your inquiries by Sig-Fed-Mfr-Mil Dwg Numbers. Manufacturers Prototypes Avail. If it's Electronics we have it or may get it. The largest inventory available.

WE BUY AND SELL SURPLUS ELECTRONICS

ANKER ELECTRONICS
"THE EYES AND EARS OF THE INDUSTRY"

ANKER ELECTRONICS

1617 South Main Street and Anker Road Box 1001 - Wilkes-Barre, Pa. 18702 - Area Code 717 824-7859

Who's got that SURPLUS ELECTRONIC EQUIPMENT You can't locate?

Search me.

That's right. Search my Searchlight Section ads to see if the item you need is contained in them.

If not, search in the adjoining columns for the proper product listings head, and under it you'll find the names and addresses of used equipment dealers who carry such equipment.

Or, if you have time, fill out my Searchlight Equipment Locating Service coupon located in this section, and we'll have interested dealers contact you.

Why do 83,000 electronic buying influences (and an estimated audience of a half-million pass-along users) search me all year 'round?*

Search me — and find out.

ELECTRONICS '69 BUYERS' GUIDE

*Except when they're searching the Searchlight Section ads in the regular bi-weekly editions of ELECTRONICS.

ELECTRONIC

WAR TERMINATION INVENTORIES

WRITE OR WIRE FOR INFORMATION ON OUR COMPLETE LINE OF SURPLUS ELECTRONIC COMPONENTS. ALL PRICES NET F.O.B. PASADENA, CALIFORNIA

C&H
SALES CO.
2176-E East Colorado St.
Pasadena 8, California
MUrray 1-7393

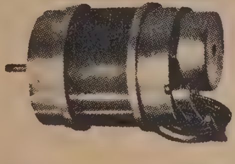
CHART RECORDERS

Esterline-Angus Model AW 0-1 MA. DC milliameter permanent magnet moving coil type. Dual speed drive (hour and minute). Spring wound or 110 VAC motor driven. Specify choice. Portable case. $200.00

Esterline-Angus Unit consists of 2 separate recorders driven by common shaft with 110 volt, 60 cycle, synchronous drive motor mounted in lighted flush-type case. $350.00

Esterline-Angus AW. Operation recorder, 40 pens, 28 VDC, separate circuits. Average ohm per circuit .705, 120 VAC, 60 cycle, single phase, chart drive, mounted in lighted flush-type case. $400.00

SELSYNS-SYNCHROS



1 CT cont. trans. 90/55V 60 cy	$17.50
1 DG diff. gen. 90/90V 60 cy	24.50
1F syn. mtr. 115/90V 60 cy	24.50
1G gen. 115V 60 cy	24.50
1 HCT	27.50
1 HDG	27.50
1 HG	34.50
1 SF syn. mtr. 115/90V 400 cy	12.50
11CX4A control transmitter	20.00
15CDX4A diff.	17.50
15CX4A control transmitter	17.50
15TR4A torque rec.	17.50
18CX4A control transmitter	27.50
18TC6	37 50
18TR4A torque rec.	27.50
18TR6	37.50
23CT4 control transmitter	27.50
23CT6 control transmitter	37.50
23CX4 control transmitter	32.50
23CX6 control transmitter	37.50
23RS4 resolver	33.50
23RS6A resolver	37.50
23TDX4A diff. transmitter	32.50
23TR4A torque rec.	32.50
23TR6 torque rec.	37.50
23TX6 torque transmitter	37.50
2J1F1 gen. 115/57.5V 400 cy	7.50
2J1F3 gen. 115/57.5V 400 cy	10.00
2J1FA1 gen. 115/57.5V 400 cy	7.50
2J1G1 57.5/57.5V 400 cy	5.00
2J1H1 diff. gen. 57.5V 400 cy	7.50
2J5D1 cont. transmitter 105/55V 60 cy	17.50
2J5F1 cont. transmitter 105/55V 60 cy	17.50
2J5H1 gen. 115/105V 60 cy	17.50
2J15M1 gen. 115/57.5V 400 cy	17.50
3F syn. motor 115/90V 60 cy	34.50
31TDX6 diff.	42.50
31TR4A torque rec.	37.50
31TX4A torque trans.	37.50
5CT cont. transmitter 90/55V 60 cy	34.50
5D diff. mtr. 90/90V 60 cy	34.50
5DG diff. gen. 90/90V 60 cy	34.50
5F syn. mtr. 115/90 VAC 60 cy	34.50
5G syn. gen. 115/90 VAC 60 cy	34.50
5HCT cont. transmitter 90/55V 60 cy	37.50
5HG gen. 115/90V 60 cy	42.50
5SDG diff. gen. 90/90V 400 cy	12.50
6DG diff. gen. 90/90V 60 cy	25.00
6G syn. gen. 115/90 VAC 60 cy	34.50
6HG gen. 115/90V 60 cy	42.50
7DG differential generator	37.50
7G syn. gen. 115/90 VAC 60 cy	42.50
7HG gen. 115/90V 60 cy	65.00
C69405-2 type 1-1 transm. 115V 60 cy	20.00
C69406 syn. transmitter 115V 60 cy	20.00
C78248 syn. transmitter 115V 60 cy	17.50
C78410 repeater 115V 60 cy	20.00
FPE 49-7 Diehl servo motor, 115 volts, 60 cycle, 10 watts	30.00

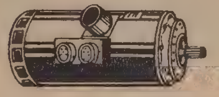
OIL CAPACITORS

1 MFD. 25,000 V. DC Westinghouse interteen type FP style 1313854. $39.95 each
10 or more, $35.00 each

SIGNAL GENERATOR
Military No. TS419/U

Same as Hew-Packard Model 614A and Aircraft Radio Corp. Model H12.
Frequency Range: 900 to 2100 megacycles per second.
Power Supply: 115 volts, ±10%, AC, 50 to 1600 cycles per second, single phase; 300 volts amperes maximum.
Type of Transmission: continuous wave, pulse modulated.
Pulse Modulation: internal or external.
- Pulse repetition rate: 40 to 4000 pulses per second, maximum.
- Pulse width: 0.5 to 10 microseconds, maximum.
- Pulse delay (relative to fixed sync out): 3 to 300 microseconds (maximum of 75% of interval between pulses, 187 microseconds max. at 4000 pulses per second).

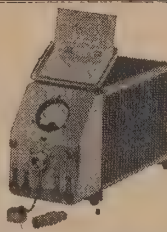
Peak amplitude, external modulation: 40 to 70 volts, positive or negative polarity.
Power output: 0 dbm to − 120 dbn (decibels below one milliwatt) to 0.2 microvolts into 50 ohms.
Voltage standing wave ratio looking into output terminals: less than 5 decibels.
Output impedance: 50 ohms
Accuracy: frequency ±1%
power output ±2 decibels
Excellent condition
PRICE $395.00



9KVA 400-CYCLE GENERATOR

120/208 volts, 3-phase power factor 1.0 CCW rotation. Approx. 13½" x 8" dia. 4000 rpm, mfg. Bendix Aviation P/N 1633-1A. $150.00

TS-118A/AP RADIO FREQUENCY WATTMETER

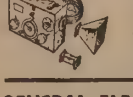


The rf wattmeter is a portable, load-resistor-type absorption wattmeter for measuring radio-frequency (rf) power within the frequency range of 20 to 1,400 megacycles per second (mcs). The wattmeter is used with a selected thermocouple to make power measurements; to aid in the tuning of transmitters; or, when used without a thermocouple, as a dummy antenna. In all these uses, the radio transmitter is operated without radiating energy into space.

Frequency range	20 to 1,400 mcs
Power	20 to 100 mcs, 2 to 300 w; 100 to 300 mcs, 2 to 500 w; 300 to 750 mcs, 2 to 250 w; 750 to 1,400 mcs, 2 to 125 w.
Circuit impedance	coaxial (50 ohms nominal).
Type of modulation	cw, am, or fm; measures average power.
Accuracy	±15% of absolute.

Price: $195.00

X-BAND POWER LEVEL TEST SET, TS-36/AP

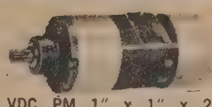


Brand new, in original packing, with accessories. Measures 10 to 30 dbm. 8700-9500 mc. $25.00

GENERAL ELECTRIC FULL WAVE BRIDGE GERMANIUM RECTIFIER

Input 117 volt AC, output 115 volt DC at 10 amperes approximate dimensions: 4¾" x 4¾" x 7½" long, weight: 3½ lbs.
PRICE . . . . $9.95 each

SMALL DC MOTORS



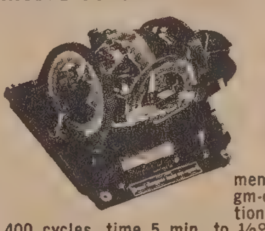
(approx. size over 3¾" x 1¼" dia.):

5067043 Delco 12 VDC PM 1" x 1" x 2", 10,000 rpm	$7.50
5067126 Delco PM, 27 VDC, 125 RPM, Governor Controlled	15.00 ea.
5069600 Delco PM 27.5 VDC 250 rpm	12.50
#5069625 120 rpm, mfr. Delco 27 VDC Governor Controlled	15.00
5069230 Delco PM 27.5 VDC 145 rpm	15.00
5068750 Delco 27.5 VDC 160 rpm w. brake	6.50
5068571 Delco PM 27.5 VDC 10,000 rpm (1x1x2")	5.00
5069790 Delco PM, 27 VDC, 100 RPM, Governor Controlled	15.00 ea.
#5069800 575 rpm, mfr. Delco, 27 VDC, PM reversible governor controlled, equipped with 27 VDC clutch	17.50
5072735 Delco 27 VDC 200 rpm Governor Controlled	15.00
5BA10A118 GE 24 VDC 110 rpm	10.00
5BA10AJ37 GE 27 VDC 250 rpm reversible	10.00
5BA10AJ52 27 VDC 145 rpm reversible	12.50
5BA10AJ50, G.E., 12 VDC, 140 rpm	15.00
5BA10FJ401B, G.E. 28 VDC, 215 rpm, 10 oz. in., 7 amp. contains brake	15.00
5BA10FJ421, G.E. 26 VDC, 4 rpm, reversible 6 oz. in., .65 amp	15.00

SPERRY VERTICAL GYRO

Part #673073, Motor 115 volts, 3 phase, 400 cycle, 8 watts, 20,000 RPM. 3-minute runup, synchro pickoffs, roll 360°, pitch 85°. Synchro excitation 26 volts, 400 cycle, 150 m.a. Vertical accuracy ±½° Weight 3½ lbs. Approx. dim. 5¾" L., 4½" W., 4½" H. . . . . Price $35.00

HONEYWELL VERTICAL GYRO MODEL JG7044A17



115 volts, 400 cycles, single phase, 35 watts. Pitch and roll potentiometer pickoffs 890 ohms, 40 volts max. AC or DC. Speed 20,000 rpm, ang. momentum 12,500,000 gm-cm 2/sec. Erection system 27 VAC, 400 cycles, time 5 min. to ½°; caging mechanism operates on 24 VDC. $49.50

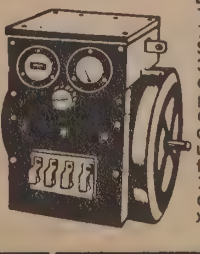
MINNEAPOLIS-HONEYWELL RATE GYRO (Control Flight)

Part no. JG7005A, 115 volts A.C., 400 cycle single phase potentiometer take off resistance 530 ohms. Speed 21,000 r.p.m. Angular momentum 2½ million, CM²/sec. Weight 2 lbs. Dimensions 4-7/32 x 3-29/32 x 3-31/64.
Price $22.50

SENSITIVE INTEGRATING GYROS

This is the famous HIG Gyro which is being used in missile guidance systems, radar stabilization and fine control systems. Government cost approximately $1500.
PRICE $50.00

400 CYCLE, 3 PHASE GENERATOR BY MASTER ELECTRIC



Type AG, frame 364Y, 7.5 kw, 3428 rpm, pf .95 Star connected 120/208 3 phase, 22 amps. Delta connected 120 volt single phase 6 amps. Self excited. Complete with control box, voltage regulator, AC voltmeter and frequency meter. Shaft 1" dia., 2" long; overall dim. of unit: 21"x18" x 20".
Price $395.00 each

are you looking for a quality source for military and commercial aviation and electronic equipment ?

contact Air-Ground Electronics!

AGECO

QUALITY • SERVICE

MILITARY TEST EQUIPMENT

APM
ARM
FR
GPN
SG
TS
UPM
URM
USM

COMMERCIAL TEST EQUIPMENT

Bird
Boonton
Collins
General Radio
Hewlett-Packard
Polarad
Tektronix
& Others

MISCELLANEOUS

Antennas
Connectors
Control Panels
Crystals
Headsets
Inverters
Microphones
Power Supplies
Shock Mounts
Other Items

COMMERCIAL EQUIPMENT

Bendix
Collins
Kollsman
Lear
Motorola
R.C.A.
Sperry
Wilcox
& Others

MILITARY AIRBORNE EQUIPMENT

APN-9
APN-22
APN-117
APR-9
APX-6
APX-25
ARA-19
ARA-25
ARC-27
ARC-33
ARC-34
ARC-36
ARC-38
ARC-44
ARC-45
ARC-49
ARC-52
ARC-55
ARC-73
ARC-84
ARN-6
ARN-14
ARN-21
& Others

MILITARY GROUND EQUIPMENT

GRC-3
GRC-9
GRC-26
GRC-27
GRC-32
PRC-6
PRC-8
PRC-9
PRC-10
TRC
VRC
& Others

AIRBORNE EMERGENCY EQUIPMENT

CRT-3
PRC-17
URC-4
URC-10
URC-11
& Others

The above is only a partial listing of our extensive inventory. All materials guaranteed. Large stock of on-the-shelf items for immediate delivery. Airborne equipment FAA certified on request. Buyers invited to personally inspect stock. Write, wire, cable or phone your needs for immediate reply.

AIR-GROUND ELECTRONICS CO., INC.
P.O. Box 9368 • 8216 Lankershim Boulevard • North Hollywood, California 91609
Cable: AGECOMPA • Phone (213) 875-0052

GET IT FROM GOODHEART!

We probably have the best inventory of Good Communic. & Lab Test Equpt in the country, alphabetically from AER. thru WATTMETERS. For example, listing below is just one category of materiel so please don't ask for General Catalog. Ask for types of material you need. Thanks! We also buy your excess! Tell us what you have.

0.01% SORENSEN Line Voltage Regulator

#1001 regul. against load changes 0-1 kva & line changes 95-130 v. 1 ph 55/65 cy; adj. output 110-120 v, holds to 0.01%. Distortion max. 3%. Response 0.1 sec. Regularly $570.00. From us, OK grtd, only **$275.00**

#500S is same, 0.5 kva, 0.1% **$89.50**

#1000S is same, 1 kva, 0.1% **$99.50**

#2000S is same, 1 kva, 0.1% **$179.50**

Sup. Electric #IE-5102 is same spec, electronic regul., but 2½ kva, 0.1% . . . **$199.50**

Sup. Elect. IE-20060: same specs as above but MIL-spec built, all potted xfrmrs, etc. Behind rack panel 21″ h, 14½″ dp, no cabinet. Regular $960. BRAND NEW, export boxed, 330# fob Utica, N.Y. **$279.50**

(Cabinet for above $30 fob Utica.)

Sorenson R5010 all-solid-state, zener reference, 0-5 kva, 90% efficient. Regular $792. With cabinet **$450.00**

Sup. Elect. IE-5105: Same specs as Sorensen "S" series. 0-5 kva, regularly $655.00. Only **$349.50**

Sorensen 10,000S: Same specs as all above, but 0-10 kva. Regular $1272. With spares, 670# fob San Diego **$695.00**

ALL ABOVE are 1 ph 95-130 v. Two below are 1 ph 190-250 v in, adjust. 220-240 v out, 0-5 kva. Same specs, choose Sorensen 5000-2S or Sup. IE-5205P. (Picture is #5000-2S.) **$349.50**

Above are electronic. Following are electromech. A servo system senses output, turns a Variac or Powerstat, corrects to 1% very fast. Life tested 99 years. 47-63 cy OK. AND NO DISTORTION!

Gen. Radio #1570AL: 0-6 kva, regular $530. From us only **$199.50**

Sup. Elect. EM-4106 in upright metered cabinet, 0-6 kva **$199.50**

Sup. Elect. EM-4115 in metered cabinet, 1 ph 0-15 kva **$295.00**

Sup. Elect. EM-4228 0-27.5 kva 1 ph **$495.00**

Above are all 95-130 v; 190-260 v follows:

Sup. Elect. EM-4228, 1 ph, 0-27½ kva, regular 750. New **$495.00**

EMT 6220Y (transistorized 3 ph 20 kva, $1200 value, only **$450.00**

R. E. GOODHEART CO. INC.
Box 1220-E, Beverly Hills, Calif. 90213
Phones: Area 213, office 272-5707, messages 275-5342

If you're considering buying connectors, first consider the source

Wilgreen Industries, Inc.

Reliability in connectors since 1947

You can go to almost any city in the country and find someone who's willing to sell you connectors. And that's fine. If you like taking chances on delivery dates and on product performance.

But if you prefer to place your order with a firm that has a proven record of reliability, we'd like to recommend us.

Wilgreen can deliver your exact requirement or equivalent connectors to meet current and scheduled needs!

All merchandise is quality inspected before being shipped from our 50,000 linear foot warehouse.

With an excess of 9,000,000 connectors on our shelves, Wilgreen can satisfy your requirements.

Wilgreen offers prompt service, competitive prices, and fast delivery!

Call us! When you have any connector inquire delivery problem or prototype design requirements.

Our skilled and experienced staff can simplify, and solve your connector problems.

All connectors supplied with Certificate of Compliance when requested.

Wilgreen's 2 decades of experience gives you reliability, quality, service in a single source.

Call, or write for our free literature.

WILGREEN INDUSTRIES, INC.
500 Milik Street, Carteret, New Jersey 07008
Phone: (201) 969-2300 (212) 964-2490
TWX Available

Items manufactured by the following on our shelves

Amphenol / Bendix / Cannon / Deutsch / Buggie / Burndy / Dage / Winchester / U.S. Components

ALVARADIO INDUSTRIES, INC.

ESTABLISHED 1947

TACAN Ground and Air:

AN/GRN-9(A, B, C, D); AN/URN-3(A), AN/TRN-6; AN/SRN-6; AN/GRA-34, AN/ARN-21; HLI-103; MX-1627, MX-2229; OS-54; TS-890; TS-891, SG-121, Spare Parts

TACAN Antennas:

AN/GRA-48, -49, -60, -61; AS-685, -686/URN-3, -3A; AS-1075/SRN-6; AT-592; AT-740/A; Spare Parts

UHF COMMUNICATION:

AN/GRC-27 100 Watts; AN/GRT-3 100 Watts; AN/ARC-12, -27, -33, -34, -52, -55, -65; TED, MAR, RDR, RDZ, TDZ, ERCO; R-361; AN/URR-13, AN/URR-35; AN/GRA-50, -51; AN/TRC-68; AN/VRC-24
AN/ASQ-17, -19, -37, -56, -57, -58

TRAINING DEVICES:

AN/UPA-37 (MTI)
AN/APQ-13 T2
AN/SQS-T3A Sonar
AN/GPN-T2; AN/GPQ-T1
Many Others

RADIAC DETECTORS:

Types AN/PDR-1, -6, -10, -18, -27, -27R, -53, -54; AN/PDR-T1B Trainer

DRONES:

AN/USD-1; AN/DPN-32, -62
AN/ARW, Test Sets

RADARS Airborne: AN/APS-20B, E, F; AN/APS-23, -31, -42, -45, -70; Spare Parts

RADAR Ground: AN/FPS-3, -6, -7, -8, -14, -20; AN/UPA-25, -35; AN/CPN-18; AN/MPS-11, -14; AN/MPQ-10; Fire Control AN/GPG-1, T-9, T-38; Antennas and Pedestals

HF COMMUNICATION: AN/ARC-58, -65, -87; AN/TRC-75; MW Westinghouse 3 KW

ALTIMETER: AN/APN-22 AN/APM-66; AN/ASQ-8; TS-85; TS-7; AN/ASM-3 Test Sets; Spare Parts

SONAR: AN/UQS-1B; AM-611, 612/SC; AN/SQS-T3A, AN/SSQ-23A; AN/QWM-1; AN/TSM-3 Test Set; AN/AQS-2

ECM COUNTERMEASURES:

AN/ALR-5, -13, -18; AN/ALQ-33; AN/ALT-4, -6, -7, -8; AN/APR-9; AN/ULT-2; AN/BLR, SLR, ULR; Analyzers IP-10, -210/SLA; AM/TLR-1-8; AN/ALM-7, -8, -9—Test Sets for AN/ALT-6B; Scimitar Antennas; AN/APS-54A—Shafts and shaft dispensers

IFF TRANSPONDERS:

AN/APX-6, -25, -28, -35, -46, -48, -64; C-1128, C-1158, C-1272; AN/UPX-1, -5, 12; AN/UPX-6; AN/APX-7; AN/TPX-17, -19, -21, -26, -27, -30. Test Sets: AN/UPM-70, AN/UPM-4A, AN/UPA-24, AN/UPA-38, AN/UPA-39; AN/UPM-6B, AN/UPM-8B, AN/UPM-10

MAINTENANCE TEST SETS:

AN/ARM-1, -9, -11, -17, -38, -60

HELICAL TELEMETRY ANTENNAS AND RECEIVERS.

TEST SETS:

UPM, URM, USM, TS, I, IE, L, S, C, X, K bands; Spectrum Analyzers; Panadapters; SG-230/ARN-55; AN/GPM-40

AIR-SEA RESCUE EQUIPMENT:

AN/CRT-3 Brand New
AN/URT-21; AN/URC-4, -11
Complete Spare Parts
MX-138A Lifeboat Reflectors
Rescue Locator Beacon, Simmonds P/N311025

SINGLE SIDEBAND COMMUNICATIONS:

AN/ARC-87, 1 KW Sideband Transceiver 2-30 mc, 36000 channels 1 kc spacing, single compact unit,—liquid cooled final. Supplied also as AN/MRC-20A or in shelter. AN/ARC-58; AN/ARC-65; AN/TRC-75

DIRECTION FINDERS:

Airborne: AN/ARA-25A, -48, -50; Ground: AN/URD-4; AN/CRD-6, -2; AN/TRD-10, -4; AN/PRD-7, -8; AN/PRR-6; AN/SRD-7; many other types.

KEYERS:

AN/APA-89; KY-95A; KY-118, -120GPX, KY-65, -71, -80, -84, -88, -188, -200

METEOROLOGICAL:

Rawin AN/GMD-1A, SCR-658; Recorder AN/TMQ-5; AN/AMT-6; Weather Radar AN/APQ-13; AN/GMM-1, -2
AN/AMT-6 Quantity available
Baseline Test Sets;
Radiosonde AN/ALE-3 Dispenser
Spare Parts; Accessories

SIMULATORS RADAR:

MTI Types, AN/UPM-41; AN/UPM-65, SM 65, AN/UPM-68

AIRCRAFT INSTRUMENTS:

Lears MA-1 Compass, MD-1; MC-1, ARU-17 (Model 4005); General Electric MA-1; Bendix J8-F1 Indicator

AIRCRAFT GROUND SUPPORT:

Equipment System Test M-1, MD-1, MB-1, MB-3, A-1, A-4, G-3, F-5; Application: F-104, F-106, F-102, -100, -86; Desiccator Tester

NAVIGATION:

AN/ASN-6, -13
AN/USE-27B, -39

Infrared and Test Sets for AN/ASG-14

BEACONS:

AN/CPN-6; AN/UPN1; AN/DPN-32; AN/WPN-1
AN/PPN-2

FACSIMILE:

CV-473 Converter
FNP-1S, TXC-1,
RD-92A/U, ACME

WEATHER RADAR SPECIAL: For Schools, Broadcast Stations, Airports: AN/APQ-13A Weather Radar—Accurate—Informative, Invaluable, for Weather Information—Inexpensive. Write for Brochure.

PROTOTYPE: As prototype specialists we have one of the world's largest stocks of military electronic material for prototype use. When bidding on government contracts check with us.

WRITE FOR LATEST 1968/69 LISTINGS

We ship complete — hardware — cables — spare parts. Our technical and export staff is fully qualified and have U.S. Navy Inspector, Federal Aviation Agency, U.S. Weather Bureau, Federal Communications Commission and European Military Electronics background. All Shipments are checked to Technical Orders and Military Specifications from our Library, one of the most complete in private industry. We stock what we offer — Our showrooms and warehouses are open to our customers. We are suppliers to NATO, SEATO, CENTO. FAA Certified Station No. 4769.

Alvaradio Industries, Inc.
3101 Pico Blvd., Santa Monica, California 90405 — (213) 870-0216
Cable Address: ALVARADIO — TWX (213) 879-1099

Specialists in Communication Systems.

AN/PRC-25 & 77, Man-pack Portable to latest Mil-Specs, in 30.0 to 75 MHz freq. range. Compact, reliable, modular construction, 920 channels, 1½ to 2 watts RF output. New Production.

AN/PRC-9A & -10A complete with all accessories. Thousands sold. Running spares and voluminous spares available. **PP-8910 & PP-8910A** Transistorized Power Supply for AN/PRC-8, -8A, -9, -9A, -10, -10A, with 6, 12, 24 V DC & 110/220 V AC 50-400 CPS inputs.

AN/VRC-53 and AN/GRC-125, a mobile version of the AN/PRC-25 & 77 incorporating Mounting rack, Amplifier Power Supply Group OA-3633/GRC, Cables, Antenna, complete. New Production to specs.

AN/GRM-55 Test Set, electronic circuit plug-in unit portable to rapidly test AN/PRC-25 & 77 in the field. With all cables, probes and instrumentation; with running spares. New production to MilSpecs.

AN/VRC-12, 43, 44, 45, 47, 48 & 49 for vehicular use, with automatically selected frequencies in 30.0 to 76.0 MHz range. With mounts, cables, antennas, auxiliary receiver, intercom and audio amplifiers, all complete, New Production to specs.

SSB, Portable pack-set, 2.0 - 15.0 MHz Freq. range; Transistorized Frequency Synthesizer for 1 KC. Increments plus VFO continuous coverage. Upper/Lower sideband & CW; power output 50 watts P.E.P., rechargeable battery, complete with all accessories, ready for use. Extra rugged & durable. New Production.

SINGLE SIDEBAND, AN/URC-58—2-15 Mgcs, 100 Watts PEP, on SSB & CW & 25 Watts AM. Continuous tuning upper/lower sideband. In 12, 24 V DC & 110/220 V AC Inputs. **Other models in lower and higher power available.**

U.H.F. TRANSMITTERS—TED-9 and Receivers—AN/URR-35D. 225-400 Mgcs, complete with all acccessories and Antenna AS-390/SRC.

POCKET-SIZE RADIO STATION—RS-6 (3.0 to 16.0 Mgcs, complete with all accessories; for all DC and AC inputs.

SPECIAL DEVICES:

Single Sideband units, Frequency Meters, Absorption Meters, Special Test Equipment, Handsets, Power Supplies, All-Band Receivers, Antennas, and many other items too numerous to describe herein, in 4 warehouses.

TRANSMITTERS

Up to 50,000 Watts, in 50 KW, 40 KW, 10 KW, 3 KW, 350 Watts. Made by R.C.A., General Electric, Federal T & T and others.

**BULLETINS ON ALL OF ABOVE
AND OTHER MATERIAL ON REQUEST.**

TELEPHONE—FIELD USE

TA-312/PT Portable field telephone replacing the famous EE-8. More flexible and updated to latest specs, all new production. **SB-22/PT** Emergency Portable Switchboard incorporates 12 lines and much smaller than old BD-72. Compact, man-carried, reliability proven; all new production to strict specs.

COMMUNICATION DEVICES COMPANY, INC.
269 EAST SHORE ROAD, GREAT NECK, NEW YORK 11022
Cable: COMMUNIDEV, GREATNECKNY
Telephone: 516-482-2320

AUTODYNE
ENGINEERING & MANUFACTURING COMPANY
236 PARK AVE., BETHPAGE, N. Y. 11714

**SYSTEMS & PARTS FOR:
ALL COMMUNICATIONS &
RADAR EQUIPMENT**

SPECIALTIES:

- **GRC-27, ARC-27, ARC-34, GRT-3 UHF 100 Watt Ground to Air Communications. Also PRC and TCC equipment.**
- **Collins parts**
- **Inquiries by identification numbers, i.e.,**
  - **Signal Corp.**
  - **Federal**
  - **Manufacturer**
  - **Military**

**"OWNED & OPERATED
BY GRADUATE ENGINEERS"**

SEARCHLIGHT
EQUIPMENT LOCATING SERVICE

No cost or obligation

This service is designed to help you, the reader of Searchlight Section, to locate used or rebuilt equipment not currently advertised.

How to use: Check the ads in this Searchlight Section, to see if what you want is advertised. If not, print clearly the specifications of the equipment and/or components wanted on the coupon below, or on your own letterhead.

This is a service to our readers. This publication does not buy, sell or stock equipment or materials of any type. Your requirements will be brought promptly to the attention of the used equipment dealers advertising in this section. You will receive replies directly from them.

Obviously, the list of such advertisers is limited by comparison with the over 83,000 subscribers to ELECTRONICS, all directly engaged in the electronics industry. A small 'Equipment Wanted' advertisement in the Searchlight Section will bring your needs to the attention of ALL who read ELECTRONICS. The cost is low . . . just $35.50 per advertising inch — ⅞" x 2-3/16".

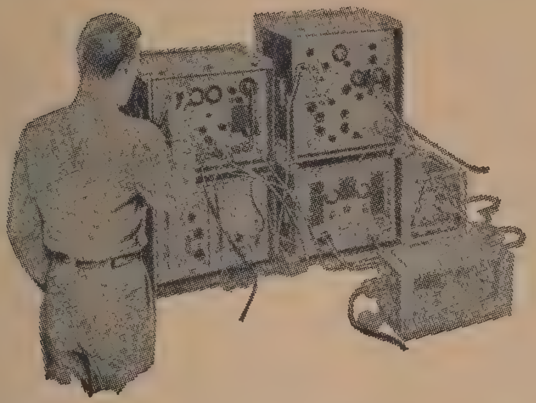
Electronics, Searchlight Equipment Locating Service, P.O. Box 12, New York 10036

Please help us locate the following used equipment:

Name Title Company

Street City State Zip Code

LARGE STOCKS OF COMPLETE COMMUNICATION SYSTEMS AND ELECTRONIC TEST EQUIPMENT · RADAR · TRANSMITTERS · CRYSTALS · TUBES · SEMI CONDUCTORS · RESOLVERS · RECEIVERS · AUTOSYNS · SYNCHRO'S · POWER SUPPLIES · METERS · SWITCHES · CONNECTORS · HEADSETS · COMPONENTS



AN/APR –9 - 1000-10,750 MC SEARCH RECEIVER

AN/APR —9 is an intercept receiver that is designed to detect the presence of radio and radar transmission in the frequency range of 10,750MC. Equipment consists of:

5 tuning units covering the frequency range
2 power supplys
1 – IF Amplifier – Converter
1 – Indicator
1 – Control Box Also replacement parts and components

AN/TRC 24 RADIO SETS

Radio Set AN/TRC-24 provides f-m (frequency modulated) radio facilities in the frequency range from 50 to 600 mc (only the range from 100 to 400 mc is available for use at the present time) for transmitting base-band signals in the frequency range from 250 to 68,000 cps over an unobstructed line-of-sight transmission path. In general the radio sets are used as radio connecting links in parts of multichannel telephone circuits where the laying of telephone cable is not practical.

We can supply over 9,000 types of ELECTRON TUBES & SEMICONDUCTORS from our vast inventory

ALWAYS AT THE

RIGHT PRICE!

CHECK LIBERTY'S PRICES FIRST BEFORE YOU BUY! UNBEATABLE ANYWHERE!

—NOW AVAILABLE—

ELECTRONIC EQUIPMENT & COMMUNICATION SETS CATALOG

also

TUBES & SEMICONDUCTOR CATALOG

*WRITE IMMEDIATELY FOR YOUR **FREE** COPY*

ALL REQUESTS FOR QUOTATIONS ANSWERED PROMPTLY WITHOUT OBLIGATION

FAST, ON-TIME DELIVERIES

PLEASE WRITE OR WIRE FOR ANY ELECTRONIC REQUIREMENTS

SPECIALS

Collins Transmitters 5KW Output,
Auto-Tune A1-A2-A3 2-30 Mc/s
Brand New OS-8/E Scopes

FREQUENCY METERS

AN/URM-79
AN/URM-81
BC-221
TS-173/U
FR-5/U
FR-6/U
TS-323/UR
TS-174/U
TS-175/U
TS-186/U

SIGNAL SOURCES & GENERATORS

AN/URM-25
AN/URM-26
TS-382/U
TS-497/URR
TS-418/U
TS-403A/U
MEAS. 80
TS-47/APR
TS-419/U
TS-155/U
SG-12/URM-48

VTVM, METERS,

Ballantine 300
TS-375A/U, 0-300V DO
TS-297/U, TS505D/U • TS-352/U
AN/PRM-15 • EN/PSM4-C

AIRBORNE TEST EQUIPMENT

SG-1, SG-17, SG-13,
SG-66/ARM-5, MD-83/ARN
Boonton 212A
Glide Slope Test Set
SG-38/URM-15 for AN/ARC-33

HEWLETT-PACKARD TEST EQUIPMENT

200C
202B
200D
202D
200CD
205AG
330B
400C
400CR
410A
410R
415AR
415B
420A
430B
455A
458A
475B
500A
520A
525A
526A
526B
526C
608B, C, D
614
616
616A
623
624
624B
H-530A
X-281A
X-421A
X-750C
X-880A
X-914A
X-920A

RADAR AND IFF TEST EQUIPMENT

AN/UPM-8
AN/UPM-99
AN/UPM-11A
AN/UPM-4
AN/UPM-10
TS-147ABCD
TS-148
TS-573/U

SCOPES

Dumont 324
Dumont 304AR
Dumont 256D
TEKTRONIX 535, 545 and 585

Also TS, UPM, URM, USM, ARM PRM, PSM, APN, CPN Sets

TUBES
DUMMY LOADS
COAXIAL SWITCHES
RECEIVERS
TRANSMITTERS Etc.

LIBERTY ELECTRONICS, INC.

548 BROADWAY
NEW YORK, N.Y. 10012
Telephone: 212/925-6000
CABLE: TELSERSUP

Completely Guaranteed • Money Back If Not Satisfied • Excellent Condition Equipment • Completely Checked • Reconditioned Where Necessary and Tested in Our Own, Fully Equipped Facilities • If You Are Having Trouble Locating Anything, We Can Get It for You • Export Certificate and Packing • We Buy and Trade Too!

COMPLETE SYSTEMS AND/OR SPARES IN STOCK

AN/ALQ-19
AN/ALT-6B
AN/ALT-8
AN/APA-44
AN/APG-5
AN/APG-13
AN/APG-26
AN/APG-30
AN/APG-32
AN/APG-33
AN/APG-51
AN/APN-3
AN/APN-7
AN/APN-12
AN/APN-19
AN/APN-60
AN/APN-69
AN/APN-81
AN/APN-82
AN/APN-84
AN/APN-102
AN/APN-126
AN APM-11
AN APM-12
AN/APQ-24A
AN/APQ-35B
AN/APS-4A
AN/APS-10
AN/APS-15B
AN/APS-20
AN/APS-21
AN/APS-23
AN/APS-27
AN/APS-28
AN/APS-31A
AN/APS-44
AN/APS-45
AN/APS-64
AN/APT-5
AN/APT-9
AN/APW-11
AN/APW-11A
AN/APX-6
AN/ARQ-8
AN/ASB-1
AN/ASB -12
AN/BPS-4
AN/CPN-2
AN/CPN-2A
AN/CPN-6
AN/CPN-8
AN/CPN-18
AN/CPS-6B
AN/CPS-9
AN/DJM-4
AN/DPN-1
AN/DPN-19
AN/DPN-32
AN/FPN-13
AN/FPN-32
AN/FPS-3
AN/FPS-4
AN/FPS-8
AN/FPS-14
AN/FPS-18
AN/FPS-20
AN/FPS-23
AN/FQS-1
AN/FPS-6
AN/FRC-23
AN/FRC-39
AN/FRC-56
AN/FRT-15
AN/GMD-1A
AN/GMD-2
AN/GNS-1
AN/GNS-2
AN/GPG-1
AN/GPQ-3
AN/GRA-47
AN/GRC-59
AN/GRQ-3
AN/MPA-4
AN/MPG-1
AN/MPG-2
AN/MPQ-4
AN/MPQ-7
AN/MPQ-9
AN/MPQ-18
AN/MPQ-29
AN/MPS-9
AN/MPS-19
AN/MRQ-7
AN/MSA-2
AN/MSA-6
AN/MSQ-1
AN/MSQ-1A
AN/MSQ-2
AN/MSQ-37
AN/MSW-1
AN/PPN-13
AN/QFA-16
AN/SPA-4A
AN/SPA-8
AN/SPN-5
AN/SPN-8
AN/SPN-11
AN/SPS-5B
AN/SPS-6B
AN/SPS-6C
AN/SPS-8
AN/SPS-10
AN/SQR-3
AN/SQR-8
AN/SPT-5
AN/TCC-7
AN/TLR-1
AN/TPQ-2
AN/TPQ-6
AN/TPS-1D
AN/TPS-1E
AN/TPS-10D
AN/TPS-15
AN/TPS-23
AN/TPS-28
AN/TPS-39V
AN/TPX-17
AN/TPX-21
AN/TRC-27
AN/TRC-56
AN/TRD
AN/TYC-3
AN/UKR-5A
AN/ULT-2
AN/UPA -25
AN/UPN-4
AN/UPN-7
AN/UQS-1B
AN/USD-1
AN/USM
AN/UPX-4
AN/UPX-6
AN/UPX-16
AN/URT-4
AN/WRT-4
AN/WPN-1
AN/WPN-2
AERO-21B
AVQ-5G
BL-6
CF-1 CF-2
CLR-6 CLR-7
CR-106
E-4 E-34
M-2 M-15
MA-7
M-27 M-33
MK II Mod 0
MK 5 Mod 3
MK 8 Mod 2
MK 28 Mod 3
MK 34 Mod 2
Mod 2 Reeves
Nike Ajax
OA-653/MS
OCY-1
QHB
RC-184
Rafax
RD-72/U
SB-442
SC-4 SC-5
SCR-584
SCR-784
ASR-1 ASR-2
SG-1 SG-6B
SG-58A
SJ-1
SO-6 SO-8
SO-9
SR, SR-3,
SV-1
Terrier
T-7 T-9 T-33
T-38
TD-2
TDY-1
VD-2
VE VK-5
VJ-1 VL-1

Radio-Research Instrument Co.
45 WEST 45TH ST. N. Y. 10036
212-JU 6-4691

TEST EQUIPMENT

We carry a large stock of new and reconditioned test equipment including such leading brands as: Hewlett-Packard, Tektronix, General Radio, Ballantine, Beckman, Bird, Daven, Kintel, Kepco, Lambda, etc.

An ample selection of high quality military test sets is also available.

We buy or trade your excess test equipment.

Let us add your name to our mailing list.

ELECTRONICRAFT

INC.
P.O. Box 1113
Binghamton, N. Y. 13902
Phone: (607) 724-5785

ELECTRONICS

for land, sea & air since 1947

WESTINGHOUSE WHITE NOISE generator 12KW. out. cont., 32KW int. AUDIO shaker amp, 220KW out. includes 357KVA. power supply, output xfmer, contactor, shaker exciter power.

PANORAMIC SPA-4 spectrum analyzer 10-44,000 mc, motorized 5 sliderule bands, all in 1 cabinet, $1250.00.

AN/UPM70A i.f.f. test set new $695.00 complete.

Supply 0-5800vdc @ 7.5A, cab. on wheels, all controls, w/ remote panel.

"Puregas" Compressor Refrigeration airdryers, pressurize cables, waveguide.

ElectroVert Co. "FRY" mod. #3, Flow-solder system, Complete, nice f/ckt boards, $995.00.

Time Standard receiving RDF Equip., 29-71kc. Get WWVB, tune out MSF QRM. New, book.

AN/FRT17, Transmitter 2-30mc, A1, A2, A3, F1, F2, F4, xtal or synthesizer oscs., 500w. output, 115/230/1ph/50-60cy.

AN/FRT5B, Collins design, 2-32mc, 15KW. orig. factory overseas pack, 13 boxes.

TMC t.u's TN274,50-100KC. new, $50.00.

Punched tape preparation unit f/mach. tool electron. control system 8 unit code.

AN/ARC65's SSB, Exc.; AN/TCC8, new.

AN/SPN40 Dish, W/42KMC. Plumbing.

Test sets, mil, commercial, transmitters, power supplies, modulators, call, fone

BELLING ELECTRONICS

825 - 27th AVE., Phone 415-536-6000
mail P.O. Box 1647, OAKLAND, CALIF. 94604

In electronics it's Electronics magazine to sell used equipment!

Your advertisement will produce Results in Electronics. Engineers turn to Electronics magazine for the latest technical developments — and for the latest buying information. You can reach them inexpensively in Electronics Searchlight Section.

For information:
Searchlight Section
Classified Advertising Division
Post Office Box 12
New York 10036

Electr
that sees better than the hum
easuring stored charge on a dio
w to design biotelemetry gea

NOTES

NOTES

Electronics

'69

Buyers' Guide

Directory of Manufacturers & Sales Offices

An alphabetical listing of over 6,000 manufacturers of Electronic Equipment, Components, Related Materials and Service Organizations.

The following information is supplied for each company:

1. Company name, address, telephone number with area code.
2. Name and title of individual to be contacted for sales information.
3. Number of engineers.
4. Number of employees.
5. Annual dollar volume of sales.
6. Local sales offices and/or manufacturers representatives listed geographically by state (Alabama through Wyoming) and then outside U.S. Addresses and telephone numbers are given for each sales office and/or manufacturers representative.
7. All advertisers listings are in boldface type for quick referral plus page numbers of advertisements.

All information displayed in the 1969 Electronics Buyers' Guide is supplied by manufacturers.

A A A CAPACITOR, INC, BOX F, CHERRY TREE
PA, 15724 .... 814 743-6601
J PREINER, EMP 25, ENG 2, $100-$250M

AA GAGE DIV U S INDUSTRIES, 350 FAIR ST, DETROIT
MICH, 48220, TWX KTQ 313 548-3810
N MILLER, EMP 175, ENG 75, $2,500-$5,000M
Ariz L Wharton, 4813 N 62nd Ave
Phoenix 602 934-6883
Cal John Stuart & Assoc, Box 1664
Glendale .... 213 CH 5-5600
Colo Measuring Devices Inc, Box 385
Broomfield 303 466-2321
Conn Wetzel Tool Corp, Box 97
Bloomfield 203 242-8535
Ill Casco Tool Co, 825 20th Ave
East Moline 309 755-9554
Ill Size Control, 2500 W Washington Blvd
Chicago .... 312 MO 6-6710
Ind Eaker Gage Corp, 4014 Stratford Ct
Indianapolis 317 787-6111
Mich N Ingalls, 3016 Forest Hill, Flint ... 313 CE 9-5303
Mich Burton Precision Co Inc, 900 Monroe NW
Grand Rapids 616 454-3321
NJ Pelham Machinery Co, 34 W Madison Ave
Dumont .... 201 DU 5-6800
NY Don Grant, Box 296, Northport ..... 516 AN 1-7381
NY J R Stewart Co Inc, 2900 E Erie Blvd
Syracuse 315 446-6300
Ohio Tooling Sales Assoc, 2178 Lee Rd
Cleveland .... 216 YE 2-3882
Ohio B Riecks, 3914 Miami Rd
Cincinnati 216 271-3659
Pa Geo S Maier Co, 115 N Monroe St
Media 215 565-2010
Tex Southwestern Precision Sales Inc, 5819 Denton Dr
Dallas .... 214 FL 7-0837
Utah T E Sweet & Co, 852 E 9th S
Salt Lake City .... 801 EM 4-0331
Wis D R Manecke, 18165 Chevy Chase
Brookfield 414 782-2525
Can Williams & Wilson Ltd, 544 Inspector St
Montreal 514 866-2851
GB Coventry Gauge & Tool Co Ltd
Box 39, Flechamstead Hwy, Coventry 75521
Jap Iwai-Takachiho Trading Co
6-7, 1-chome, Yushima, Bunkyo-ku
Tokyo 812 1151-7

AAI CORP, YORK RD, COCKEYSVILLE
MD, 21030, TWX 710-232-1800 .... 301 666-1400
R GLUCKSMAN, EMP 1275, ENG 275, OVER $10,000M
Ala AAI, 3322 S Memorial Pkwy
Huntsville 881-1662
Cal AAI, Pacific, 9000 Winnetka Ave
Northridge 341-7500
Colo AAI, Box 2138, Colo Springs 632-6920
Fla AAI, 999 Woodcock Rd, Orlando 841-4873
Ohio AAI, 4130 Linden Ave, Dayton 253-8891

AAVID ENGINEERING INC, 28 ARCH ST, LACONIA
N H, 03246 .... 603 524-4443
R DAVIS, EMP 50, ENG 2, $100-$250M
Cal H K Foraber Co, Box 1325, Fremont 657-2213
Cal Interstate Mktg Assoc, 22030 Ventura Blvd
Woodland Hills 883-7606
Fla Duay Enterprises Inc, 1515 Ensenada Dr
Orlando 277-3296
Ill J R Sales Engineering, 7132 N Harlem Ave
Chicago 889-6662
Iowa J R Sales Engineering, 3316 Rosewood Ct NE
Cedar Rapids 365-5259
NY W Jay Assoc, 23-25 Bell Blvd
Bayside 212 229-0150
NY Lloyd Hart Assoc, Box 8398
Rochester .... CH 4-3253
Ohio Frank E Kahsar Sales, 5229-A Glenway Ave
Cincinnati .... GR 1-9017
Can Dart Electronics Ltd, 11 Fiaxman Rd
Weston, Ont 742-3577

ABACUS ELECTRONICS CORP, 10 HUDSON TERR
DOBBS FERRY, N Y, 10522 .... 914 693-1450
M MEOLA, EMP 25, ENG 2, $250-$500M

ABALON PRECISION MFG CORP, 540 CASANOVA ST
BRONX, N Y, 10474 .... 212 LU 9-5682
L ORENT, EMP 25, ENG 2

ABAR CORP, 905 PENNSYLVANIA BLVD
FEASTERVILLE, PA, 19048 .... 215 355-4900
W HOKE, EMP 60, ENG 10, $2,500-$5,000M
Cal Lyle Smith Co, 714 W Olympic Blvd, Los Angeles
Fla Bay Mar Co, 5562 SW 1st Ct, Ft. Lauderdale
Ill Vico Assoc, 775 N Bank La, Lake Forest
Mass Technall Assoc, Box 2146 Montello Sta, Brockton
Ohio Cavanaugh, Bergman, McCann Assoc
1229 W 3rd St, Columbus
Can Finnan Engineered Prods, 60-8 Barbados Blvd
Scarsborough, Ont
Swit Cryophysics SA(022), 39 rue Rothschild 1202
Geneva

AB ATOMENERGI, BOX 43041, 10072 STOCKHOLM 43
SWEDEN,
A FRANZON,
For Universal Elektronik Imp GMBH, Makartgasse 3
1010 Wienna 1 579371
Fr Numelec, 2 Petit Pl, 78 Versailles 951-29-30
Ger Herfurth, Beerenweg 6-8
2000 Hamburg 50 898166
Nor Lehmkuhl Elektronik A/S, Hovfaret 11, Oslo 2

ABBEVILLE CORP, 332 S MICHIGAN AVE, CHICAGO
ILL, 60604 .... 312 922-7073
D SIMKINS, EMP 9, ENG 2, UP TO $100M
Fla H R Baisden, 2316 Villanova
Jacksonville .... PO 4-6416
Mo Edw E Clem Co, 4921 Bell St
Kansas City .... LO 1-7747
Ohio Noah Letsky Co, 1346 E Miner Rd
Cleveland 442-8686

ABBEY ELECTRONICS CORP, 200 SHAMES DRIVE
WESTBURY, N Y 11590 .... 516 333-6340
EMP 15, ENG 4, $500-$1,000M
Ariz Hyde Electronics Co, 4710 N 16th St
Phoenix 602 264-5609
Cal Time-Trol, Inc, 14552 Friar St
Van Nuys 213 873-5151
Cal Time-Trol, Inc, 1485 Bayshore Blvd
San Francisco 415 467-9441
Colo Hyde Electronics Co, 888 S Lipan St
Denver 303 936-3456
Conn Applied Measurements, 2531 Whitney Ave
Hamden 203 288-5288
Ill Automation Equipment, Box 321
Mount Prospect 312 825-5892
Kan Leemark Engrs Inc, 4518 W 89th St
Prairie Village 913 648-0124
Md Paddock-Joslow, 721 Ellsworth Dr
Silver Spring 301 589-6554
Mass Applied Measurements, 86 Hayward Rd
Acton 617 263-2766
Mich Elias Electronics, 26817 W 7 Mile Rd
Detroit 313 255-2111
Mo Leemark Engrs, Inc, 9623 St Charles Rock Rd
St Louis 314 423-8700
NJ Data-Rep Assoc, Box 645
Ridgewood 201 447-0660
NY Data-Rep Assoc, Box 164
Huntington Station 516 423-7677
Pa Data-Rep Assoc, Box 349
Norristown 215 279-8210
Wash Industrial Instrument Supply, E 2121 Riverside
Spokane .... KE 4-9353
Wash United Power & Control Sys, Inc, 431 N 34
Seattle .... 206 ME 2-8425
Wis Automation Equip, 12470 N River Rd
Mequon 414 242-1520
Can Electronic Mktg Co of Can, 3600 Barclay Ave
Montreal, Que 514 739-3206
For Szucs Intl, 50 Broad St
New York .... 214 WH 4-7486

ABBOTT & CO, 217 S ELM ST, PROSPECT
OHIO, 43342 .... 614 494-3211
C SISLER, EMP 160, ENG 1, $2,500-$5,000M

ABBOTT PRODUCTS, INC, 14-10 123RD ST
COLLEGE POINT, N Y, 11356 .... 212 FL 81400
B JACOBSON, EMP 74, ENG 1, $1,000-$2,500M

ABBOTT TRANSISTOR LABS, INC
5200 W JEFFERSON BLVD, LOS ANGELES
CAL, 90016 .... 213 WE 6-8185
R BALDARRAMA, EMP 70, ENG 5, $1,000-$2,500M

ABESTO CORP, 56 ACKERMAN ST, BLOOMFIELD
N J 201 338-6814
R KRUMSCHEID, EMP 50, UP TO $100M

ABILITIES INC, IU WILLETS BLVD, ALBERTSON
N Y, 11507 .... 516 PI 75400
A GAFARIAN, EMP 450, ENG 7, $2,500-$5,000M

ABLESTIK ADHESIVE CO, 833 W 182ND ST, GARDENA
CAL, 90247 .... 213 FA 1-6252
R HERZMAN, EMP 26, ENG 3
Ala Dean Mosier, 13015 Memorial Pkwy SE
Huntsville 205 883-2245
Cal Richards Assoc, 900 San Antonio Rd
Los Altos 415 941-3226
Ind Delta Slaes, Inc, 1407 N Illinois St
Indianapolis 317 631-4136
Md Berkley Fuller, 11657 Lockwood Dr
Silver Spring 301 593-6986
Mass L J Maroni Assoc, 15 Arbetten Dr
Framingham 617 875-5414
Mo Thos B Moore Co, Inc, 32 Progress Pkwy
Maryland Heights .... 314 HE 2-6650
NY Herbert Shprentz Co, 126 Deertrack La
Irvington .... 914 LY 1-7970

ABRAMS CO, H B, 5404 ALHAMBRA AVE
LOS ANGELES, CAL, 90032 .... 213 223-2874
H ABRAMS, EMP 1, ENG 1, UP TO $100M

ABRAMS INSTRUMENT CORP, 606 E SHIAWASSEE
LANSING
MICH, 48901, TWX 810-251-0785 ...... 517 484-9441
G MICHAEL, EMP 75, ENG 10, $1,000-$2,500M
Ariz Jewett Co, 132 E Stetson Dr
Scottsdale 945-9711
Cal Jewett Co, 13111 Ventura Blvd
N Hollywood 789-8103
Conn R P Mahan Co. Inc, Hopkins Rd
Watertown 274-2363
Kan Thunderbird Eng Sales & Serv, 7707 E Osie
Wichita 684-3941
Kan Thunderbird Eng Sales & Serv, 4014-A W 95th St
Prairie Village 642-7220
Md McCourt Co Inc, 610 Washington Ave
Towson 823-3455
Mass R P Hahan Co Inc, 572 Washington St
Wellesley 237-1040
Mo Thunderbird Eng Sales & Serv, 400 Brookes Dr
Hazelwood 731-4343
Wash J K Dooley Co Inc, 4110 Stone Way N
Seattle 632-1618

ABRAX INSTRUMENT CORP, 179-15 JAMAICA AVE
JAMAICA, N Y, 11432 .... 212 AX 7-5600
W MCCOOL, EMP 100, ENG 12, $500-$1,000M

ABSCOA INDUSTRIES, 1071 W ARBOR VITAE ST
INGLEWOOD
CAL, 90301, TWX 910-328-6180 .... 213 678-3931
J CASSIDY, EMP 50, ENG 2
Cal Abscoa Industries, 880 Hurlingame St
Redwood City 369-4897
Cal Abscoa Industries, 2375 San Diego Ave
San Diego 296-6243
Mo Abscoa Industries, 308 E 18th Ave
N Kansas City 421-338
NY Abscoa Industries, 25 W Hartsdale Ave
Hartsdale 761-0210

ABTRONICS, INC, BOX 712, LIVERMORE
CAL, 94550 .... 415 447-4785
J OWREN, EMP 15, ENG 6, $250-$500M

ACCEL ELECTRONIC PRODUCTS CO
3040 N SAN GABRIEL BLVD, S SAN GABRIEL
CAL, 91777 .... 213 288-5448
H HERMANN, EMP 2, ENG 1, UP TO $100M
Cal D & L Sales Co, 1430 Callecita
San Jose 269-9300

ACCO GYRO DIV, AMER CHAIN & CABLE CO INC
BOX 1629, WATERBURY
CONN, 06720 .... 203 756-4453
E SIFF, EMP 8900, ENG 360, OVER $10,000M
Cal Acco Gyro, 6800 E Acco St
Los Angeles .... RA 3-9751

ACCRATRONICS SEALS CORP, 2121 KENMERE AVE
BURBANK, CAL, 91504 .... 213 TH 3-1500
W FISCH, EMP 18, ENG 3, $250-$500M

ACCURATE ELECTRONICS CORP, BOX 935G, ELYRIA
OHIO, 44035 .... 216 365-1211
J SEYBOLD, EMP 30, ENG 4, $500-$1,000M
ADV PG 697
NY T H Marden, Inc, 15 Old East Dyke Way
Fayetteville 637-9836
NY F Taylor, Box 101, Cazenovia
Ohio Jos H Clark, Box 708, Cleveland 771-2241
Pa H W Fairbanks, 420 Chichester La
Wynnewood 642-5816

ACCURATE SPRING MFG CO DIV UNITED GREENFIELD
CORP, 8747 W PALMER, RIVER GROVE
ILL, 60171 .... 312 456-2700
R MADDEN, EMP 250, ENG 2, $2,500-$5,000M
Cal Pacific Component Sales, 2500 W 6th St
Los Angeles 213 384-1193
Ind D G Teeling Co, Box 20111
Indpls .... 317 CL 1-9571
Kan Koenig-Myers Assoc, 5500 Buena Vista Dr
Shawnee Mission .... HE 2-8300
Mich C J Bauer Jr, 4745 Pinehaven Dr
Saginaw 517 793-2215
Mich M G Chapin, 18230 Grand River Ave
Detroit .... VE 8-8950
Minn O R Kreutziger & Co, 6524 Walker St
Mnpls 929-1744
Mo Lee Homeyer Co, 7931 Clayton Rd
St Louis 314 725-8036
NY Precision Sales, Inc, 2967 Elmwood Ave
Kenmore .... GL 5-7000
Ohio D Williams & Assoc, Professional Bldg
Medina 725-4088
Tenn Melloy Sls Inc, 4711 Old Kingston Pike, Knoxville
Wis John V Gidley Jr, 4893 N Green Bay Ave
Milwaukee .... FR 4-7020
Can J R Fraser, 3010 Longfellow Ave
Windsor 969-1842

ACCUTRONICS, INC, 628 NORTH ST, GENEVA
ILL, 60134 .... 312 232-2600
W BENSON, EMP 25, ENG 7, $500-$1,000M
Cal Riner-Stillman Inc, 200 Third St
Los Altos 415 312-8867
Cal Riner-Stillman Inc, 3402 W Century Blvd
Inglewood 213 673-0800
Mass Addelco Corp, 56 Pickering St
Needham 444-4754
Minn Engineering Products Assoc, 2119 Grand Ave
St Paul 698-5531
NY H J Krasner Assoc, 33 Great Neck Rd
Great Neck 487-0690
NY RJC Assoc, 219 Oakridge Terr
Liverpool 315 457-3220
Pa Wm Dugger Co, 412 E Spring Ave
Ardmore .... MI 9-0889
Tex W Pat Fralia Co, Box 12625
Fort Worth .... 817 PE 8-2394

Fr Litton France S A Div Composants Electroniques 120, ave des Champs Elysees, Paris .... Bal 38-65
Ger Litton Prec Prods Intl, Stolzingstr 6 8 Munchen 61 .... 489395(0811)
GB Litton Prec Prods Intl, 503 Uxbridge Rd Hayes, Middlesex .... Hayes 8232
Ital Litton Prec Prods Intl, Foro Bonapart, 54 Milano 893362
Swed Litton Prec Prods Intl, Box 7277 Grev Turegaton 2 Stockholm, 7 114390
Swit Litton Prec Prods Intl, Schwamendingenstr 5 8050 Zurich 483544
Belg Litton Prec Prods Intl, 16, rue du Musee Brussels 02/12 55 52
Isrl S T G Intl Ltd, 52 Nachlat Benyamin St B 1276 .... Tel Aviv

ACDC ELECTRONICS, INC, 2979 N ONTARIO ST
BURBANK, CAL, 91504 .... 213 849-2414
J HULL, EMP 325, ENG 18, $2,500-$5,000M
Ala Beacon Electronic Assoc, Box 3127 Huntsville 205 565-5065
Cal Wm J Purdy Co, 312 Seventh St San Francisco 415 863-3300
Fla Beacon Electronic Assoc, Box 1278 Maitland 647-3498
Fla Beacon Electronic Assoc, Box 10212 Ft Lauderdale 564-4298
Ga Beacon Electronic Assoc Inc, Box 29201 Atlanta 404 636-7526
Md G L Brown Assoc, 5801 Annapolis Rd Bladensburg 779-1500
Mass Measurement Equip Co Inc, 591 North Ave Wakefield 617 245-4870
NY Harvey J Krasner Assoc, 33 Great Neck Rd Great Neck 487-0690
NC Beacon Electronic Assoc, Box 17584 Charlotte 366-9761
Pa Holdsworth & Co, Box 298 Newtown Square 215 356-8550
Tex Roger Martin Assoc, Box 1002, Bellaire .. 668-3877
Tex Roger Martin Assoc, Box 64513 Dallas 214 358-3704

ACE COIL & ELECTRONICS CO, 912 LINCOLN HWY
METUCHEN, N J, 08840 .... 201 548-3580
F SAMPSON, EMP 34, ENG 2, $100-$250M

ACE ELECTRONICS ASSOCIATES, INC, 99 DOVER ST
SOMERVILLE, MASS, 02144 .... 617 623-3800
N CURTIS, EMP 250, ENG 7, $1,000-$2,500M
Pa Elcom, Inc, 130 S Easton Rd, Glenside ... 885-1325

ACE ENGINEERING & MACHINE CO, INC
60 TOMLINSON RD, HUNTINGDON VALLEY
PA, 19006 .... 215-WI71900
C BORDEN, EMP 70, ENG 10, $1,000-$2,500M
Ariz Hyde Electronics Inc, 4710 N 16th St Phoenix 264-5609
Colo Hyde Electronics Inc, 888 S Lipan St Denver 936-3455
Ill Universal Sales & Supply Inc, 5144 Main St Skokie OR6-3650
Mass Measurement Equipment Co, 591 North Ave Wakefield 245-4870
Holl Instrumentenhandel Utrecht , Bus 513, Alb Perkstr Hilversum
Ital Motordiesel, La Spezia Casella Postale N 116 Minzoni
Gr K Karayannis, Klaftmonos Sq, Athens 124

AC ELECTRONICS CO, BOX 25916, LOS ANGELES
CAL, 90025 .... 213 478-4288
E ALMO, EMP 11, ENG 2

A C ELECTRONICS DIV GM, 7929 S HOWELL AVE
MILWAUKEE
WIS, 53201, TWX 910 262-1112 .... 414 762-7000
A WASSERMAN, EMP 7500, ENG 1500
Cal F B Doonan, 515 Arrowhead Ave San Bernardino 714 885-6571
Cal W E Weinberg, 950 N Sepulveda Blvd Los Angeles 213 322-5750
DC R H Wilkie, 1625 I St NW Washington 202 393-1133
Ohio R E Allen, 118 W First St, Dayton ... 513 445-5030
Tex P K Swackhamer, 1730 FM 528 Houston 713 591-2415

ACE PLASTIC CO, 91-54 VAN WYCK EXPWY, JAMAICA
N Y, 11435 .... 212 523-5500
S SEIDMAN, EMP 75, $500-$1,000M

ACE SPRING MFG CO, INC, 144 32ND ST, BROOKLYN
N Y, 11232 .... 212 ST 80100
L EDWARDS, EMP 25

ACE-SYCAMORE INC, 448 DEKALB AVE, SYCAMORE
ILL, 60178 .... 815 895-4573
K TIFFANY, EMP 6, ENG 1

ACETO CHEMICAL CO, INC, 126-02 NORTHERN BLVD
FLUSHING, NY, 11368 .... 212 TW 8-2300
H BRODKOWITZ, EMP 25, ENG 10, $2,500-$5,000M

ACHESON COLLOIDS CO, 1950 WASHINGTON AVE
PORT HURON, MICH, 48060 .... 313 984-4171
R HARTNETT, EMP 120, ENG 11, $1,000-$2,500M
Ill J Ondras, E Egloff, 510 N Dearborn St Chicago .... MO 4-2032
Ind Gerald L Rzeppa, 106 W Monroe South Bend 288-1011
Mass Murray B Baker, 6 Eastman Pl, Melrose ... 662-6787
Mich T J Mikula, 18023 Jas Couzens, Detroit .. 341-4431
NY W D Signer, 3100 Monroe Ave Rochester .... DU 1-7610
NY J F Murray, 1143 E Jersey St Elizabeth, N J 353-0414
Okla D M Conroy, 14600 Detroit Ave Cleveland 521-1900
Pa W E Newman, 3450 Babcock Blvd Pittsburgh 364-5112
Pa M E Dougherty, Box 64, Swarthmore .... LO 7-7113
Tex C C Horton, 600 Ave H E, Arlington 275-4264

ACI, INC, 206 INDUSTRIAL CTR, PRINCETON
N J, 08540 .... 609 924-3800
Ariz Jewett Co, Box 172, Scottsdale
Cal Transdynamics Inc, 4450 Lakeside Dr, Burbank
Cal Transdynamics Inc, 44 Encina Ave, Palo Alto
Cal Transdynamics Inc, 3108 Fifth Ave, San Diego
Colo Transdynamics, Inc, 3401 S Bannock St, Englewood
Conn John E Boeing Co Inc, 225 Montowese St Branford 203 488-8301
Ill Ropek-Cahill, 5439 W Division St Chicago 312 287-7292
Mass John E Boeing Co Inc, 18 Muzzey St Lexington 617 862-2500
Minn L F Murphy & Assoc Inc, 730 Chicago Ave Minneapolis
NY H C Johnson Agencies Inc, 11 Mt Hope Ave Rochester 716 232-2688
NY H C Johnson Agencies Inc, 8 Los Robles St Williamsville 716 632-7880
NY H C Johnson Agencies Inc, Box 215 Fayetteville 315 637-9383
NY H C Johnson Agencies Inc, Box 86, Brandywine Sta Schenectady 518 374-5901
NY HRC Assoc, 390 Plandome Rd Manhasset, NY 516 627-4644
Ohio A H Baier Co & Assoc, 3300 S Dixie Dr Dayton 513 298-9897
Ohio A H Baier Co & Assoc, 4399 Industrial Pkwy Willoughby 216 946-6080
Tex Koch Engrg & Sales Co, 309 Meadows Bldg, Dallas
Wash Transdynamics Inc, 7834 SE 32nd St, Mercer Island

ACKERMAN ENGRAVERS, INC, 43-22 36TH ST
LONG ISLAND CITY, N Y, 11101 .... 212 EM 1-2266
H RETZLAFF, EMP 175, ENG 9, $1,000-$2,500M
Ariz E V Roberts & Assoc, 412 N Marshall Way Scottsdale .... WH 7-1381
Cal Pacific Scientific Co, 6280 Chalet Dr City of Commerce 213 773-2020
Cal Pacific Scientific Co, 760 Harrison St San Francisco 415 362-0934

ACKERMAN GOULD CO, INC, 10 NEIL CT, OCEANSIDE
N Y, 11572 .... 516 678-4110
A FIOREY, EMP 20, ENG 3
Cal OEM Sales Co, 3820 E Colorado Blvd Pasadena 213 796-9937
Ill Marsland Distr Corp, 6699 Lincoln Ave Chicago .... 312 OR 6-1104
Md Oakmount Engr Co, 11161 New Hampshire Ave Silver Spring 301 593-5990
Mass Production Devices Corp, 489 Main St Stoneham 617 438-2772
NY Salit Assoc, Box 176 Spring Valley 914 352-4443
NY Maloney Sales Co, 11 Sunnybrook Dr Syracuse 315 488-3440
Ohio Electro Enterprises Co, 2621 Mardon Dr Dayton 513 426-6071
Ore Van Voorhees Assoc, 4415 NE Sandy Dr Portland 503 287-6633
Tex Sivright Co, 10028 Monroe Blvd Dallas .... 214 FL 7-6681
Can Rob Neill Co, 5200A Yonge St Willowdale, Ont 416 225-5200

ACME BATTERY CORP, 700 CANAL ST, STAMFORD
CONN, 06902 203-324-4125
L SCHUB, EMP 40, ENG 4, $500-$1,000M

ACME CHEMICALS & INSULATION, 166 CHAPEL ST
NEW HAVEN, CONN, 06513 .... 203 562-2171
R HEDBERG, EMP 100, ENG 12, $2,500-$5,000M
Ill J J Glenn & Co, 4300 S Tripp Ave Chicago 312 847-6401
Ill P Brunswick, 135 S LaSalle Chicago 312 263-2667
Mich A D Walter, 2711 E Jefferson Ave Detroit 567-6380
Mich R A Staff Co, 9141 E Jefferson Ave Detroit 821-4223
Minn C R Bergquist, 5324 W 60th St Minneapolis 929-6082
Mo R Klorer, 7500 Natural Bridge St Louis 314 381-6530
NJ E J Penberthy, 16 S Main St, Medford 654-8209
NJ F W Breandt, 7 Wade Ave, Cranford 276-4565
NY G Mills, 8838 69th Ave Forest Hills 212 268-6820
NY M Lombardo, 37-21 13th St Long Island City .... 212 ST 4-8100
Ohio R A Staff Co, 19684 Center Ridge Rd Rocky River 216 351-5100
Ohio J J Glenn & Co, 4629 Rumpke Rd Cincinnati 513 752-3709
Ohio N Perme, 3570 Warrensville Ctr Rd Shaker Heights 216 991-5735
Wis J J Glenn & Co, Box 553, Elm Grove

ACME ELECTRIC CORP, WATER ST, CUBA
N Y, 14727 .... 716 968-2400
F VAN ALSTYNE, EMP 1200, ENG 35, OVER $10,000M
Ariz Abbott Sales Co, 2030 W McDowell Rd Phoenix 252-6171
Ariz R Poister, 3922 N 30th Ave Phoenix 602 266-0043
Cal Baxter Co, 2024 Oakdale Ave San Francisco 826-8636
Cal R S Hopkins Co, 15016 Ventura Blvd Sherman Oaks 788-5501
Colo Ben T Clark, 211 Wazee Mkt, Denver 222-4893
Conn W Frey, Wynding Hills Rd East Granby 203 658-0196
Fla Glenn Assoc, 4711 SW 8th St, Miami 446-6406
Ga Hopper & McCoy, 870 Northside Dr NW Atlanta 872-5802
Ill Weinstein & White, 2211 W Grand Ave Chicago 243-1155
Ind Electric Sales Inc, 25 N Pine St Indianapolis 635-0144
Kan R E Gooley Co, 8101 Granada St Prairie Village 642-3233
La General Mfg Agents Inc, 1405 S Broad New Orleans 822-0571
Mass Roger Chambers, 29 Bromfield St Wollaston 472-3086
Mich J Kinnear & Co, 14514 Harper St Detroit 821-1100
Minn Howard A Cullen & Assoc, 1595 Selby Ave St Paul 646-7371
Mo Arnold Haumesser Co, 6378 Delmar St Louis 314 727-4955
NJ Arthur W King, 305 Prospect St S Orange 763-3554
NJ V J Benham, Box 245, Cherry Hill 429-1212
NY Robert L Varley, Box 100, Olean 372-8272
NY Richard J Milne, Box 1149 Poughkeepsie 462-0616
NY Edward D Sweeney, 4583 Brookhill Manlius 682-6915
NY M Montie, 558 Higbie La West Islip 516 587-5953
NC Barber-Ayers & Assoc, 826 Goldsboro St Greensboro 273-3629
NC R Stelmack, 3304 Sandburg Dr Greensboro 919 275-7937
Ohio Baehr-Greenleaf & Assoc, 14700 Detroit Ave Cleveland 221-9030
Tenn C J Roderick & Co, 212 N Lauderdale St Memphis 523-1434
Tex Peabody Assoc, 2903 St Louis at Oakland Dallas 747-4801
Tex Costello & Co, 5635 Yale Blvd, Dallas ... 363-9031
Tex Burrus & Matthews, 1116 Nagle St Houston 713 227-4251
Wash H M Denny Co, 3410 16th Ave W Seattle 282-7200

ACME MODEL ENGINEERING CO, 654 BERGEN BLVD
RIDGEFIELD, N J, 07657 .... 201 943-7650
L PARKS, EMP 16, ENG 1

ACME PRODUCTS CO, KENSINGTON RD, KENSINGTON
CONN, 06037 .... 203 828-6379
L BEATMAN, EMP 55, ENG 4, $500-$1,000M

ACME RESIN CO DIV CORN PRODUCTS CO
1401 CIRCLE AVE, FOREST PARK
ILL, 60130 .... 312 261-2804
R WRIGHT, EMP 80, ENG 5, $2,500-$5,000M
Cal W P Bennett, 10343 Dempsey Ave Granada Hills 363-8600
NY W D O'Hagan, 111 Willowbrook Rd Staten Island 447-5646
Pa F H Puls, 4 Tom's Circle, Malvern 647-0780

ACME TOOL & SPECIALTIES CO, 55 E BRADROCK DR
DES PLAINES, ILL, 60018 .... 312 296-3346
S GRYGLAS, EMP 35, ENG 4, $500-$1,000M

ACOPIAN CORP, BOX 585, EASTON
PA, 18042, TWX 510-6514919 .... 215 258-5441
J WHITAKER, EMP 23, ENG 1
ADV PG 541
Ala Gentry Assoc, Inc, 2109 W Clinton Ave Huntsville 534-9771
Ark Compar Rocky Mountain, Box 1607 Scottsdale 947-4336
Cal Held & Mollard, Inc, 1494 Oddstad Dr Redwood City 369-4871
Cal Wieler & Co, 10842 S Paramount Blvd Downey 861-9223
Colo Compar Rocky Mtn, 300 E Hampden Ave Englewood 781-0912
Fla Gentry Assoc, Inc, 550 Bumby Ave Orlando 841-7740
Ga Gentry Assoc, Inc, Box 13513 Sta K Atlanta 233-3816
Ill Potter-Mac Co, 6778 Northwest Hwy Chicago 775-6626
Mass American Dynamics Corp, 17 Dunster St Cambridge 491-6800
Minn Kirkeby & Assoc, 821 Second Ave, N Minneapolis .... FR 7-3239

Nev Systems Design Corp, 900 W Bonanza Rd Las Vegas DU 2-3037
NY L-Tron, Box 114, Latham St 5 5032
NY L-Tron, Box 147, Skaneateles 685-6172
NY L-Tron, 140 Keller St, Rochester ID 6-4410
NC J Rudisill Assoc, 2009 N Tryon St Charlotte 377-6901
Ohio J C Hofstetter Co, 742 Kenbridge Dr Cleveland 449-0944
Ohio J C Hofstetter Co, 3300 S Dixie Dr Dayton 298-0662
Ore Jud LeBrun Co, 1123 SW Yamhill St Portland 224-7710
Pa Beil & Whitaker Inc, 3623 Jacksonwald Ave Reading FR 5-6837
Pa Martin Electric Co, 6741 N 13th St Phila WA 7-5858
Tex Lawrence Sales Co, 921 Bowser Rd Richardson AD 5-5504
Can Ahearn & Soper Ltd, 844 Caledonia Rd Toronto 19, Ont RU 9-4325

ACOUSTECH DIV KOSS ELECTRONICS INC
2227 N 31ST ST, MILWAUKEE
WIS, 53208 414 444-9442
G CORNEHLS, EMP 94, ENG 2, $250-$500M
Ala John Russell, 3040 Whispering Pines Cir Birmingham 822-2196
Cal Sinai-Johnson, Inc, 817 Douglas St Redwood City 365-6263
Cal J Berman Co Inc, 1751 S LaCienega Blvd Los Angeles 870-4711
Colo John A Rowe Assoc, 3100 W 71 Ave Westminster 429-4595
Fla John Thompson, 322 Riverside Dr Ormond Beach 677-2298
Mass Bud Ente Sales Co, 64 Mandalay Rd Newton Centre 244-4842
Mass C A Berube Co, 30 White St, Westfield 562-6690
Mich L F Zaffina Co, 18806 Hayes Ave Detroit DR 2-3030
Mo Carmine A Vignola, 21 Schellridge Rd Jefferson City 635-1023
NY Bach Sales Corp, 78 Wellington Rd Garden City 741-0570
Ohio McFadden Sales Co, 150 E Broad St Columbus 221-3363
Pa Brendan O'Hara, 4952 Wynnefield Phila 473-3654
SC Hal Norman, Box 5185, Sta B Greenville 244-6254
Tex Leboeuf Nelson Sales, 2920 Weslayan Houston 621-1421
Wis Koss Electronics Inc, 2227 N 31st St Milwaukee 444-9442
Can R C Kahnert Sls Ltd, 359 Enford Rd Richmond Hill, Ont 884-8185
For Radio People, Ltd, 25, Chatham Rd Kowloon, Hong Kong
Ital Koss Electronics S r l, Via Bellini 7 Nova Milinese 0362-40-674
Jap Imai & Co, 6 Ichigaya-Tomihisacho, Shinjuku, Tokyo
Swit Koss-Impetus, S A, 2, Via Berna Lugano 091-38214
Aust Encel Electronics Pty, Ltd, 431 Bridge Rd Richmond Vic

ACOUSTICA ASSOCIATES INC, 5331 W 104TH ST
LOS ANGELES, CAL, 90045 213 OR 04803
J BANKSON, EMP 100, ENG 15, $2,500-$5,000M
Ariz Vinson Assocs, 44 E Indian School Rd Scottsdale 947-7371
Cal Industrial Products, Box 357 Lemon Grove 286-3911
Colo Vinson Assoc, 3600 S Lincoln Englewood 789-2203
Fla H J Oursler & Assoc, Box 252, Largo 595-2391
Kan Ken's Assoc, 5959 Sullivan Rd Wichita 838-6346
Mo Ken's Assocs, 9411 Miriam, Overland HA 9-0084
NJ Simberkoff Sales, 71 Valley St So Orange 763-7900
NJ Simberkoff Sales, 105 Coolidge Ave Collingswood 854-8659
NM Vinson Assoc, Box 3295 Sta D, Albuq 298-7442
NY Simberkoff Sales, 37 Parkwood St Albany 438-0437
NY Simberkoff Sales, 1072 Sweet Rd E Aurora 652-1997
Ohio Huntington Sales, 32250 Woodsdale La Solon 248-6773
Okla Indrepco, 4817 B East 34th St, Tulsa RI 3-5132
Tenn J P Johnson Co, 3535 Dell Trail Chattanooga 624-4128
Tex Vibro-Finishing Engineers, 130 SE 17th St Grand Prairie AN 4-1681
Tex Vibro-Finishing Engineers, 1800 Cockrell St Dallas RI 2-8497
Tex Durlam Assocs, 12714 Cobblestone Houston HO 8-4000
Va Simberkoff Sales, 420 W Arlington Towers Arlington 525-5898
Wash Cane-Jessup Co Inc, Box 250 Bellevue GL 4-0691
Wis Schneider & Assoc, 500 W Brown Deer Rd Milwaukee 352-6226
Can Atlas Instrument, 50 Wingold Ave Toronto 781-6174
Can Atlas Instrument, 3333 Cavendish Blvd Montreal 489-8495
Can Atlas Instrument, 342 1/2 Elgin St Ottawa 233-9471
Can Atlas Instruments, 17-10224-119th St Edmonton 482-1371
For Indus Basin Co, 34 Chartered Bank Bldg, Wood St Karachi
Fr Sicomin, 15 Rue De La Paix, Paris
GB Elliott Bros (London) Ltd, Bath Rd, Beenham Reading, Berks WOO 2121-5
Ital Soc Elettronica Lombarda, Via G Di Vittoria 307/28 Milano 28 67 55
Ital Elesud, Via Acherusio n 18 00199 Rome 834-249
Jap Sankyo Trading Co, Kobikikan Annex 1 6-Chome E Ginza, Chuo-Ku, Tokyo
Belg Belram S A, 83 Ave Des Mimosas, Brussels
Gr Marios Dallegio Reps, 2 Alopekis St, Athens

ACOUSTICAL PRODUCTS MFG CO, 94 NAYLON AVE
LIVINGSTON, N J, 07039 201 992-1335
EMP 10, ENG 1, $100-$250M

ACOUSTIC RESEARCH INC, 24 THORNDIKE ST
CAMBRIDGE, MASS, 02141 617 UN 4-7310
G LANDAU
Ga Jack Ross Assoc, Box 9711 Atlanta 404 451-0165

ACOUSTONE CORP, 80 WYTHE AVE, BROOKLYN
N Y, 11211 212 ST 2-5560
G BACKER, EMP 50, ENG 1
Cal Meyer, Ross & Fleming, Inc, 113-10th St San Francisco 431-0652
Cal Herman & Assoc, 6770 E Gage Bell Gardens 588-1175
Colo A-E-S Inc, 1549 Chester St, Aurora 366-0208
Fla Winfield Elect Sales Co, 666 N E 125th St No Miami PL 1-5566
Ga Winfield Southeast, 29910 N Druid Hills Rd Atlanta 636-3023
Haw Dougherty Enterprises, 1164 Waimanu St Honolulu 253-666
Ill Klem-Steffen Inc, 417 Harrison St Oak Park 921-1200
Ind Courier Sales, 2070 E 54th St, Indnpls CL 1-2401
Md AB&T Sales Corp, 3620 Queen Mary Dr Olney 924-4976
Mass R Smith Co, 59 Verndale St, Brookline AS 7-0017
Minn R Ripley, 6838 Pillsbury Ave S Minneapolis UN 6-8682
Miss LeRoy Massey Co, 304 E Jefferson St Greenwood GL 3-3038
Mo C A Vignola Assoc, 21 Schellridge Rd Jefferson City 635-1023
NY J Brown Electronic Sls, 207 Rosedale Rd, Yonkers
NY Adelman-Pinz Sales Co, 570 Yonkers Ave Yonkers 423-4747
Ohio H Miller Sls Co, 4087 Meadowbrook Blvd Cleveland 321-3900
Ore R Minthorne Co, 6565 SW Macadam Ave Portland AL 3-0010
Tex Bushnell Sales Co, Box 20714, Dallas FL 2-1845
Can W Cohen Ltd, 8900 Park Ave Montreal DU 8-9201
Can Electro Tec Marketers, 1624 W Third Ave Vancouver, B C RE 6-6377
For E D Magnus & Assoc, 5715 N Lincoln Ave Chicago, Ill 334-1503

ACOUSTRONICS INC, 156 OLIVE ST, HUNTINGTON
N Y, 11746 516 421-1331
M COPEL, EMP 5, ENG 3, UP TO $100M

ACRA ELECTRIC CORP, 3801 N 25TH AVE
SCHILLER PARK, ILL, 60176 312 678-8870
E JOHNSON, EMP 80, ENG 4

ACR ELECTRONICS CORP, 551 W 22ND ST, NEW YORK
N Y, 10011 212 OR 5-5520
N BATES

ACROMAG INC, 30765 WIXOM RD, WIXOM
MICH, 48096 313 624-1541
R HENNINGS, EMP 35, ENG 6, $500-$1,000M
Cal Fetty Schoenduve Inc, 253 Town & Country Vlg Palo Alto 415 321-7041
Cal Fetty/Schoenduve, Inc, 7407 Melrose Ave Los Angeles 213 651-4050
Fla Leroy E Rogers Co, 110 Sea Island La Boca Raton 395-7922
Ill Dave Hausten Co, 614 Arbor Ave Wheaton 668-7312
La Petro-Chem Equip Co, Box 358 Baton Rouge 504 348-0593
Mass Bordewieck Eng & Sales Co, 221 Grove St S Braintree 843-0845
Mich Hal C Heym & Assoc, 1688 Buckingham Rd Birmingham 644-9166
Minn Engineering Prods Assoc, 2119 Grand Ave St Paul 698-5531
Mo Russ D Sebright & Co, 7120 W Florissant Ave St Louis 261-0055
NY E C Smith & Assoc, 60 E 42 nd St New York 682-6890
NY Doolittle Electronics Corp, Box 97 Fayetteville 637-3222
NC W K Hile & Co, Inc, Box 325 Matthews 847-9125
Ohio Jerry Kilroy Corp, Box 365 Chagrin Falls 247-8997
Okla IBL Eng & Sales Inc, 5149 E 31st St Tulsa 936-6305
Pa B & A Assoc, 237 Lancaster Ave Devon 215 687-0535
Tex Gay Engrg & Sales, 5425 Blossom St Houston UN 9-3306
Tex Gay Engrg & Sales, Box 8414, Dallas EM 8-2325
Utah Specialty Sales Co, 328 W 2nd S Salt Lake City 801 322-5553
Wash Gordon McLaren & Assoc Inc, 2255 N Mercer Way Mercer Island 232-5164
Can Willer Engineering & Sales, 1800 Avenue Rd Toronto 783-3373
Fr Le Regulateur Francais, 12, Rue des Ardennes Paris 19 NOR 15-05
GB Ether Ltd, Caxton Way, Stevenage
Holl Radikor Electronics, VD Helstann 16, Hilversum
Ital Ether, Italiana, SpA, Via A, Magni, 2, Inverigo Como

ACROMARK CO, 650 MORRELL ST, ELIZABETH
N J, 07201 201 352-6500
W SCHMIDT, EMP 50, ENG 2, $500-$1,000M
Cal Decorative Engrg & Supply Inc 17000 S Western Ave, Gardena 321-6633
Cal Craft Industries, Box 11341A Palo Alto 415 328-3026
Conn Geo N Wilcox, 96 Westmont Dr Waterbury 203 755-8647
Ill Midwest Technical Service, Box 61 Downers Grove 968-4343
Ky J W Turner & Co, Box 7051, Louisville 896-0502
Mich Service Tectonics Inc, 11646 Whittier Ave Detroit 371-4131
Neb Fuchs Machy & Supply, Inc, 2401 N 11th St Omaha 341-7050
Pa C W Thomas Inc, 4540 Worth St Philadelphia 744-3100
Tex Harry Jarrett, Box 275, Dallas
Ger D J Keil KG 6101 Gross-Bieberau/ueber Darmstadt Bahnhofstr 21
Jap Marusho Industrial Co Ltd 1, 4-Chome Ginza Higashi, Chuo-Ku, Tokyo
Swed Maskinaktiebolaget Karlebo, Kungsgatan 33 Stockholm 23 1430

ACROSCOPE ENGINEERING INC, 12700 S MAIN ST
LOS ANGELES, CAL, 90061 213 757-1821
H ZINKOW, EMP 75, ENG 2, $500-$1,000M

ACTIONCRAFT PRODUCTS, 2 YENNICOCK AVE
PORT WASHINGTON, N Y, 11050 516 883-7444
H LAMKIN, EMP 35, ENG 1, $500-$1,000M

ACTION SYSTEMS CO DIV CONN CONSOLIDATED INDS
INC, 34 CAMBRIDGE ST, MERIDEN
CONN, 06450 203 237-8941
D BLAKESLEE, EMP 200, ENG 7, $1,000-$2,500M

ACTIVE ALLOYS INC, 1273 38TH ST, BROOKLYN
N Y, 11218 212 TR 14717
S ROBBINS, EMP 8, $250-$500M

ACTON LABORATORIES INC, 531 MAIN ST, ACTON
MASS, 01720 617 263-7756
J MAHONEY, EMP 117, ENG 43, $2,500-$5,000M
Ala NBS, Inc, Box 1343, Huntsville 881-3175
Ariz Gramer & Co, 110 W Camelback Rd Phoenix 279-1231
Cal CDH Assoc, 18075 Ventura Blvd Encino 345-1644
Cal Winco, Inc, Box 881, Mountain View 961-8510
Fla NBS, Inc, 2813 Primrose Ct, Orlando 423-4856
Fla Massey Assoc, Inc, Box 13577 St Petersburg 347-6183
Fla NBS, Inc, 4150 S W 23rd St Ft Lauderdale 584-0650
Ga NBS, Inc, 893 Church St, N W Marietta 422-6067
Ill M Q and Assoc, 6713 Oliphant Ave Chicago 774-8844
Md Doss Electronics, Inc, 6660 Security Blvd Baltimore 944-1900
Mass Lancer-Kneeland, Inc, 16 Adams St Burlington 272-6445
Minn H A Cullen & Assoc, 1595 Selby Ave St Paul 646-7371
Mo Technical Mktg Assoc, 2050 Woodson Rd St Louis 427-3600
NY R J C Assoc, 219 Oakridge Terr Liverpool 457-3220
NY R P Kennedy Co, Inc, Box 8417 Rochester 271-6322
NY R P Kennedy Co, Inc, Box 54 Fayetteville 637-9531
NY R P Kennedy Co, Inc, Greentree Dr N Hyde Park 229-2269
Ohio Frank J Campisano, 3985 Race Rd Cincinnati 662-1616
Tex Space Electronics, Inc, Irving Bank Tower Irving 631-0905
Wash Testco, Inc, Boeing Fld, Adm Bldg Seattle 762-8220
Can Bowmar Canada Ltc, Rideau River Rd Ottawa Ont 822-0463
GB Bowmar Instrument, Ltd, Drakes Way Swindon, Wilt SW 21351
Jap Toyo Trading Co, Ltd, Box 999, Central, Tokyo
Gr B Beis Co, Box 114, Athens T-8
Isrl R D T Electronics Engrg, Ltd, Box 21082 Tel-Aviv 229-293
Aust Kenelec Imports Pty, Ltd, 49 Essex Rd Mount Waverly, Victoria
Aust Kenelec Imports Pty, Ltd, 1 C Wellbank St Concord N S W Sydney

A C TRANSFORMER CORP, 89 MADISON ST, NEWARK
N J, 07105 .... 201 MI2-7574
A GREYSON, EMP 14, ENG 1, $250-$500M

ACUSHNET PROCESS CO, BELLEVILLE AVE
NEW BEDFORD, MASS, 02742 .... 617 997-2811
H DYER, EMP 2400, ENG 40, OVER $10,000M

ADAGE INC, 1079 COMMONWEALTH AVE, BOSTON
MASS, 02215 .... 617 783-1100
I SCHWARTZ, EMP 300, ENG 50, $2,500-$5,000M
Cal Adage Inc, 3518 W Cahuenga Blvd Los Angeles 466-7691
Cal Adage, Inc, 680 Beach St San Francisco 415 771-3577
Md Adage Inc, 818 Roeder Rd Silver Spring 589-1221
Mich Adage, Inc, 17500 Northfield Pk Ct Southfield 313 358-3393
Tex Adage Inc, Braniff Airways Bldg, Dallas .. 358-3161

ADALET MFG CO, DIV SCOTT & FETZER CO
4801 W 150TH ST, CLEVELAND
OHIO, 44135, TWX 98-5349 .... 216 267-9000
J LARSEN, EMP 85, ENG 5
Cal H R Benike Assoc, 1338 S Atlantic Blvd Los Angeles 263-7451
Cal Geo E Honn Co, Inc, 171 King St San Francisco 781-7352
Fla Southeastern Elec Sls Co, Box 921 RS Sta Miami 374-7618
Ga Booth-Hinson-Noack Inc, 300 W Peachtree St, NW Atlanta 525-4489
Ill W L Crossey Co, 5634 W Lawrence Ave Chicago .... AV 3-2370
Ind Bennett Electric Sales Co, 2051 E 46th St Indpls .... CL 3-2021
Md A D Wilson, 508 St Paul St Baltimore .... SA 7-1424
Mass C C Pierce Co Inc, 409 Dorchester Ave Boston .... AN 8-8816
Mich C J Fluharty, 660 Hamlet Rd Auburn Hts .... KE 7-5310
Mo George R Mitchell Co, 8992 Manchester Rd St Louis .... WO 8-1055
Mo E L Polsinelli Co, 1607 E 39th St Kansas City .... WA 1-2121
Neb E L Polsinelli Co, 33 Kiewit Plaza Omaha 344-4377
NM Ralph B Black Co Inc, 1025 Hermosa Dr SE Albuq 265-0144
NY Canavan-Scanlon Assoc, 564 Ellicott Square Buffalo .... TL 2-1122
NY W D Schofield Assoc, 5037 Broadway New York .... LO 9-1600
NY Canavan-Scanlon Assoc, 23 Eastern Ave Syracuse .... HO 3-9161
NY Canavan-Scanlon Assoc, Box 39 Fishers 924-3266
NC Hammond & Hasbrouck Co, 1109 N Alexander St Charlotte .... ED 2-7535
Ohio Charles J Leesman Sales Co, 252 Ludlow Ave Cincinnati 221-1572
Ore Pacific Electric Sls Co, 140 S E 28th Ave Portland 235-4137
Pa Peter Jacobson Assoc, 302 Cottman St Jenkintown .... TU 4-5524
Tex W H McAdams Co, 2720 W Mockingbird Dallas .... FL 2-1551
Wis A W Schwind Co, 121 N Broadway Milwaukee .... BR 3-6260
For F L Agresar & Assoc, Box 366 Hato Rey, P R 765-1310
For F L Agresar & Assoc, Box 366 Hato Rey 765-1310

ADAM SPENCE CORP, 3856 PARK AVE, EDISON
NJ, 08817 .... 201 494-1900
A SANFORD, EMP 18, ENG 1, $500-$1,000M

ADAMS RITE MFG CO, 540 W CHEVY CHASE DR
GLENDALE, CAL, 91204 .... 203 241-5121
J RANDALL, EMP 350, ENG 14, $2,500-$5,000M
Conn Magna Eng Sales Co, 400 Stillson Rd Fairfield 203 334-5538
Conn Magna Eng Sales Co, 24 Apple Orchard La Trumbull 203 375-8022
Fla Magna Eng Sales Co, Inc, 536 St Dunstan Way Winter Park 647-1375
Ga Magna Eng Sales Co, 933 Crestline Rd Atlanta 255-7382
Ill Clarkson Eng Co, 5518 W Lawrence Chicago 286-2314
Kan Magna Eng Sales Co, 924 W 30th St S Wichita 316 591-1136
Md Magna Eng Sales Co, 10522 Catterskill Ct Columbia 301 737-7280
Mass Magna Eng Sales Co, 166 Prescott St Reading 944-3145
Mich Reed Bearing & Equip Co, 21031 Mack Ave Grosse Pte Woods 884-1820
Minn E R Benson Co, 2645 University Ave St Paul 612 644-5197
NY Magna Eng Sales Co, Inc, 261 Battery Ave Brooklyn 836-0554
NY Magna Eng Sales Co, Inc, 15 Huckleberry La Liverpool 652-2270
Ohio Magna Eng Sales Co, Box 3482 Columbus 268-6588
Pa Magna Eng Sales Co, 59 Iron Hill Rd New Britain 345-1697
Tex Magna Eng Sales Co, 7232 Oakbluff Dr Dallas 239-2110
Wash James A Findlay Co, 10237 Main St Bellevue 454-5200
Can Railway & Power Eng Corp Ltd, 197 Eastern Ave Toronto, Ont 366-9691
Can Railway & Power Engrg Corp Ltd, Box 880 Montreal, Que 933-6741
Holl T Maarleveld, Box 102, Amstelveen

ADAMS & WESTLAKE CO, 1025 N MICHIGAN ST
ELKHART
IND, 46514, TWX 219-522-3102 .... 219 CO 4-1141
A JOHNSON, EMP 672, ENG 37, OVER $10,000M
Cal Pacific Coast Instrument Co, Inc, 1161 Folsom St San Francisco MA1-1753
Cal A W Nash Co, 8560 Roland St Buena Park 521-6192
Colo B E Russell Co, 8112 Grant St, Denver ... 288-2994
Conn White Sales Co Inc, Box 122, Berlin .... BA 4-0423
Fla W Ben Wimberly Co, 532 S Ft Harrison Clearwater 446-7072
Fla W Ben Wimberly Co, 500 S Osceola Orlando GA5-3083
Ill Adams & Westlake Co, 135 S LaSalle St Chicago .... FI 6-6232
Ill Century Engrg & Sales Ltd, 1256 W Jefferson St Joliet 725-3712
Mass White Sales Co Inc, 20 Chestnut St Needham 444-3676
Mich R H Jackson Co, 200 S Washington Ave Royal Oak 542-5059
Minn F B Hill Co, 6110 Excelsior Blvd Minneapolis 929-6727
Miss Wells-White Co, 1200 Whitney Rd Independence CL7-2091
Mo Wells-White Co, Inc, 7607 Page Blvd St Louis .... PA 6-2511
NJ Adams & Westlake Co, 744 Broad St Newark MA3-6532
NY M P Andrews, Inc, 319 Mott Rd Fayetteville .... NE 7-3144
Ohio Beedle Equipment Co, 6900 Silverton Ave Cincinnati 793-0140
Ohio Steve Vereb & Assoc, 4619 E 93rd St Cleveland .... BR 1-2066
Pa W H Cordray Sales Co, One Radnor Sta Radnor 687-1366
Pa R F Clark Co, 10517 Lindberg Ave Pittsburgh .... CH 2-9500
Tex Southland Engrg & Sales, Inc, 777 S Central Expwy Richardson .... AD 1-2373
Tex Southland Engrg & Sales, 5810 Schumacher La Houston 782-4575
Wash Eicher-Richards Co, 2727 NE Blakeley St Seattle .... LA 3-7888
Can Lisle Instrument Systems, Ltd, 70 Sheffield St Toronto 249-9151
For Mevag Engrg, Trad & Ind Corp, Box Istanbul 143 Istanbul, Turkey
Den Paul Lovhoj, Meinungsgade, Copenhagen
Fr Euromega, 7 Rue Pecquay, Paris 4
Ger Souriau Electric, GmbH, Rathausufer 16-17 4 Dusseldorf
GB B&R Relays, Ltd, Temple Fields, Harlow Essex
Holl Uni-Office N V, Box 1122, Rotterdam
Ital Giuseppe de Mico, 1-20121 Milano, Via Manzoni 31
Jap Sankyo Intl Corp, 4-1, 2-chome Nishi-Kanda Chiyoda-ku Tokyo
Nor Skandinavisk Elektronikk A/S, Ebbellsgt 1 PO 129 Oslo
Swed Aktiebolaget Bromanco, Eriksbergsgatan 32 Stockholm O
Ind United Engineering Enterprizes Sir Pherozeshah Mehta Rd, Bombay
Isrl Technical Development Co, Ltd, 8, Tayassim Rd Tel-Aviv
Mex Agustin Suarez Peredo, Av 5 DeMayo 43 Desp 306 Mexico
Aust Craftsman Glass Pty, Ltd, 460 Bexley Rd Bexley, N S W

ADAR ASSOCIATES INC, 73 UNION SQ, SOMERVILLE
MASS, 02143 .... 617 623-3131
H LYNDES, EMP 20, ENG 4, $500-$1,000M
Cal Mittonics, 201 Town & Cnty Vlg Palo Alto 415 326-9822
Cal Mitronics, 18039 Crenshaw Torrance 213 323-7934
Fla Beacon Electronics, Box 1278 Maitland 305 647-3498
Ill Feller Assoc, 3065 University Ave Highland Park 312 433-3646
Md Tek Rep, 1075 Rockville Pike Rockville 301 762-7777
Mass W E Weeton Co, Box 77, Needham .. 617 444-1012
NJ K & J Assoc, Wayne 201 694-3334
Wash Rush Drake Assoc, 6133 Maynard Ave S Seattle 206 763-2755

ADC ELECTRONICS, INC, 1227 W 254TH ST
HARBOR CITY
CAL, 90710, TWX 213 327-8576 .... 213 325-8686
N DOSSEY, EMP 30, ENG 2
Ala Holcombe Sales Agency, Box 1343, Huntsville
Ga Holcombe Sales Agency, 3098 Piedmont Rd NE Atlanta 233-1317
NY Pantronics, 500 5th Ave, New York

ADCOLA PRODUCTS LTD, GAUDEN RD, LONDON SW4
ENGLAND 01-622-0291
P LAMB, EMP 100, ENG 10
Can L J Lamb, Esq, 37 McManus Rd, Weston, Ont
Den Hans Buch & Co A/S, 6 Svanevej, Copenhagen NV
Fr Film et Radio S. A., 6 Rue Denis-Poisson, Paris 17
Holl Geo C F Kauderer N. V., Electronic House, Muiden
Ital Special-Ind, Via D Manin 33, Milan
Nor C T Fearnley, Jernbahnetorget 11, Oslo 1
SAfr Bowcliffe Ltd, 8-10 Simmonds St S Selby, Johannesburg
SAfr Bowcliffe (Natal) (Pty) Ltd, 101 Pine St Durban, Natal
Swed Skandinaviska Telekompaniet AB Valhallavagen 114, Stockholm No
Swit M Egli-Kaegi, Etzelstr 3, Thalwil/Zurich

ADCOLE CORP, 330 BEAR HILL RD, WALTHAM
MASS, 02154 .... 617 899-3450
H LOWELL, EMP 75, ENG 20, $1,000-$2,500M
Cal ADCOle Corp, 999 Commercial St Palo Alto 415-328-8611
Md J Bailey, 5841 Tanglewood Dr Bethesda 301 654-6272

ADCOR ELECTRONICS INC, 349 PEACHTREE HILLS AVE
ATLANTA, GA, 30305 .... 404 261-0245
T WRIGHT, EMP 14, ENG 2, $1,000-$2,500M

ADC PRODUCTS, 6405 CAMBRIDGE ST, MINNEAPOLIS
MINN, 55426, TWX 910 576-2832 ...... 612 929-7881
W HOLMBECK, EMP 525, ENG 12
Cal ADC, 99 E Magnolia Blvd, Burbank .. 213 849-5821
Colo Williams Assoc, 4971 Jackson St Denver 303 388-4391
Fla CES Assoc, Box 1152, Melbourne 305 254-2183
Ill Jay C Angel & Co, 2743 Peterson Ave W Chicago 312 878-0653
Mass V J Huntoon & Assoc Inc, 908 Belmont Ave Springfield 413 788-8516
Mass V J Huntoon & Assoc Inc, 272 Centre St Newton 617 244-2278
Minn R G Ragon Inc, 1136 W Larpenteur Ave St Paul 612 488-6634
Mo R R Burton Sales Co, 9915 E 63rd St Raytown 816 358-5370
Mo R R Burton Sales Co, 10414 Oak Ave St Louis 314 429-7327
NM Williams Assoc, 420 Washington St SE Albuquerque 505 255-9632
NY ERA Inc, 330 Great Neck Rd Great Neck 516 482-9320
NY T Ferguson Sales Inc, Box 3893 228 Winton Rd N Rochester 716 472-7757
NY J F Wulfetange Div, 4314 E Genesse St Box 293 DeWitt 315 446-3330
NC K O Brown & Co, 9231 Plaza Sta Greensboro 919 288-2651
Ohio C A Robinson Co Inc, 4225 Mayfield Rd Cleveland 216 381-9049
Ohio J W Murray & Assoc Inc, Box 11028 Cincinnati 513 662-1616
Okla T J Ray & Co, 8514 E 31st Pl Tulsa 918 627-1515
Pa Danco Corp, Quarry Hall Rd Box 245 Fairview Village 215 275-2600
Tex John A Green Co, 7118 Envoy Ct Dallas 214 631-7450
Tex John A Green Co, 3400 Montrose Ave Houston 713 526-2959
Utah Williams Assoc, 2461 S Main St Salt Lake City 801 466-8709
Wash Jon B Jolly, 413 Maritime Bldg Seattle 206 624-2152
Can Willer Eng & Sales Co, 1800 Avenue Rd Toronto 416 783-3373

A D DATA SYSTEMS INC, 830 LINDEN AVE
ROCHESTER, N Y, 14625 .... 716 381-2370
N WEBB, EMP 60, ENG 8, $1,000-$2,500M
Ala Technical Assoc, box 1443 Huntsville 205 881-8494
Cal W K Geist Co, Box 5004, Glendale 245-9501
Cal W K Geist Co, Box 746, Cupertino 968-1608
Conn Datech Assoc, 955 Dixwell Ave New Haven 865-1365
Fla Technical Assoc, 2319 South St E Orlando 305 424-5681
La Technical Assoc, Box 731, Slidell 504 288-7122
Md Eastronics, 2401 Blueridge Ave Wheaton 301 942-2363
Mass Datech Assoc, 815 Washington St Newtonville 527-5304
NY A & D Devices, Inc, Box 365 Lyons Falls 348-6631
NY A & D Devices, Inc, 830 Linden Ave Rochester 586-8033
NY Instrument Sales, 221 Hartsdale Ave Hartsdale 914 725-0800
Pa P W Krish, 212 Lauriston St Philadelphia 215 482-1866
SC Technical Assoc, Box 5583 Spartanburg 803 585-3864
Wash Peninsula Assoc, 215 112th St NE Bellevue .... 206 GL 4-8155
Can BRH Assoc Ltd, 184 Finch Ave Willodale, Ont 416 223-4008
Can BRH Assoc Ltd, 1300 Carling Ave Ottawa, Ont 613 728-0113
Can BRH Assoc Ltd, 6338 Victoria Ave Montreal 26, Que 514 783-5331
BC Canadian Dynamics, Ltd, 8264 St George St Vancouver 604 325-6014

ADDINGTON LABS INC, 157 SAN LAZARO
SUNNYVALE
CAL, 94086, TWX 910-339-9257 .... 408 738-0200
M JAGGARS, EMP 30, ENG 5, $500-$1,000M
Ala Roy Attaway Co, 900 Bob Wallace Ave SW Huntsville 534-2811

Ariz Electronic Enterprises, Box 116
La Cruces 524-0126
Cal Kipp Assoc, 90 Stadler Dr, Woodside 851-0123
Cal L & M Engrg, 9911 Inglewood Ave
Inglewood 678-5409
DC James R Eberly, 1207 Potomac St NW
Washington 338-2277
Fla Roy Attaway Co, 57 E Robinson St
Orlando 424-9983
Ill Midwest Microwave, 6416 W Belmont Ave
Chicago 283-1059
Md James R Eberly Co, 3618 Briarstone Rd
Randallstown 922-2092
Mass Micronic Assoc, Box 162, Cochituate 653-8229
NM Electronic Enterprises, 1900 Washington St NE
Albuquerque 256-1585
NY Gray & Reed Assoc, 9 Dunford St
Huntington Sta .... AR 1-6677
NY KLM Assoc, 8 Bear Hill Dr, Palmyra 797-9776
NY KLM Assoc, 9 Hollywood Dr
Whitesboro 736-2450
NY KLM Assoc, 201 S Main St
N Syracuse 458-6214
Pa Holdsworth & Co, Box 71, Lansdowne 626-8300
SC Roy Attaway Co, Nissen Bldg
Winston-Salem N C 722-9671

ADEC INC, 86 FRELINGHUYSEN AVE, NEWARK
N J, 07114 201-248-1330
D WIESEN, EMP 40, ENG 2, $500-$1,000M

ADEL DIV DE LAVAL TURBINE CALIF INC
10777 VANOWEN ST, BURBANK
CAL, 91502, TWX 910 499 2176 213-762-1131
S CRAIG, EMP 600, ENG 39, OVER $10,000M
Kan H Crandall, 2049 Brentwood Dr
Wichita 316-683-1290
NY R Capazzi, 425 Broad Hollow Rd
Melville 516-249-2095
Ohio T Podulka, 4223 Monticello Blvd
Cleveland 216-382-5500
Tex H M Austin, 4503 Bluffview Blvd
Dallas 214 352-7226
Wash P Froehlingsdorf, 535 First Ave
Seattle 206-282-4480
W Va G Shy, 1444 Washington Ave
Huntington 304-522-7345
Can De Laval Turbine Can, Ltd, 24 Brisbane Rd
Downsview, Ont 416-636-8502
Jap Jupiter Corp, Box 66557 Burien Br, Seattle, Wash
Swit De Laval Turbine, Inc, 8, Rue De La Madeleine
Geneva

ADHESIVE ENGINEERING CO, 1411 INDUSTRIAL RD
SAN CARLOS, CAL, 94070 .... 415 591-2686
J MACIEL, EMP 75, ENG 6

ADJUSTABLE BUSHING CORP, 11905 VOSE ST
NORTH HOLLYWOOD, CAL, 91605 .... 213 875-2316
J BAHR, EMP 25, ENG 3
Cal F M Sales Co, Box 224, Menlo Park .... DA 5-6258
Colo A E Werner & Assoc, 2348 S Broadway
Denver 303 722-1258
Conn B-Gray Inc, 31 De Forrest Rd
Wilton 203 227-3708
Fla Spartak Inc, Box 915, Winter Park 644-3023
Ga C M Sallee & Assoc, 2647 Tilson Rd
Decatur 241-4549
Ga C M Sallee & Assoc, Box 17959
Atlanta 241-4549
Ind Technical Sales Co, 2526 Ravenwood Ave
Dayton, Ohio 277-9572
Kan Ben Penn Co, 6631 E Kellog, Wichita .... MU 2-9433
Mich Tec-Netics, 724 N Rochester Rd
Clawson 588-0852
Minn R E Carlson Co, 2583 University Ave
St Paul .... 612 MI 4-5197
Mo Industrial Metal Working, Box 6236, Lambeat St
St Louis 426-4060
NJ B-Gray Inc, 2204 New Albany Rd
Riverton 829-5237
Ohio John O Olsen Co, 16201 Shaker Blvd
Cleveland 752-5444
Ohio Technical Sales Co, 2526 Ravenwood Ave
Dayton 277-9572
Pa John O Olsen Co, 104 Elatan Dr
Pittsburgh 279-2550
Tex Standard Parts & Equip Corp, 904 N Main
Fort Worth .... ED 6-2521
Wash Norwest Co, 1818 Westlake Ave N
Seattle .... AT 2-3707
Can Abercorn Aero, 2240 Beaconsfield
Montreal, Que .... HU 9-4978
Fr Jiveco, 64 Rue du Chateau, 92 Boulogne-Seine
Paris 605 73 91

ADJUSTO EQUIPMENT CO, 515 CONNEAUT ST
BOWLING GREEN, OHIO, 43402 .... 419 353-8555
H HURSH, EMP 70, $1,000-$2,500M

ADMIRAL CONTROLS INC, 4520 CUTTER ST
LOS ANGELES, CAL, 90039 .... 213 245-3711
V MURPHY, EMP 50, $500-$1,000M
Colo Electronic Mfg Consultants, 226 E Vermijo
Colorado Springs 633-4795
Minn Howard A Cullen & Assoc, 1595 Selby Ave
St Paul 321-0803
NY Electro Technic Assoc Inc, 39 W 23rd St
New York .... CH 2-1170
Ohio Mulligan & Mathias Co, 2011 Riverside Dr
Columbus 486-2267

ADMIRAL CORP, GOV ELECTRONICS DIV
3800 W CORTLAND ST, CHICAGO
ILL, 60647, TWX 25-4592 .... 312 292-2600
J YASHON, EMP 10000, ENG 300, OVER $10,000M
DC R England, Box 1831 Wheaton Sta
Silver Spring .... ST 3-4552
DC Aeromaritime Inc, 2008 Hillyer Pl NW
Washington .... HO 2-9100
NJ Raymond Gilbarte, 35 Maryland Ave
W Long Branch .... SH 7-2662
Ohio Paul Donovan, 1549 W Alex-Bellbrook Rd
Dayton 434-1996

ADRONICS INC, ELROB MFG CORP, 271 GROVE AVE
VERONA, N J, 07044 .... 201 746-6060
W ROBINSON, EMP 180, ENG 2, $2,500-$5,000M
Ill Rozner Sales Co, 4720 N Central Ave
Chicago .... AV 3-0022
NJ H G Richter Inc, 608 Sherwood Pkwy
Mountainside 201-AD3-4615

ADTROL ELECTRONICS INC, 116 N 7TH ST
PHILADELPHIA, PA, 19106 .... 215 922-4231
B ADAMS

ADVANCE CARBON PRODUCTS, INC
2505 MARIPOSA ST, SAN FRANCISCO
CAL, 94110 415-431-4034
D YOUNG, EMP 27, ENG 2
Ore Advance Carbon Prods, 8055 SE Bybee Blvd
Portland 771-1291

ADVANCED AUTOMATION CORP, 13724 PRAIRIE AVE
HAWTHORNE, CAL, 90250 .... 213 675-0331
A ALBERT, EMP 5, ENG 2
Ala Technical Assoc, Box 4088
Huntsville 205 881-8494
Cal IFM North, 2269 E Middlefield Rd
Mountain View 415 961-2828
Cal IFM - South, 3455 Cahuenga Blvd
Hollywood 213 469-1641
Colo Williams Assoc, 4971 Jackson St
Denver 303 388-4391
Conn J & J Assoc, 953 Dixwell Ave, Hamden
Fla Technical Assoc, 2319 E South St
Orlando 305 424-5681
Ill Loren F Green & Assoc, 5218 W Diversey Ave
Chicago 312 286-6824
Iowa Heimann Co Inc, 236 7th Ave N
Fort Dodge 515 576-2372
Md Lee Assoc, 12250 Wilkins Ave
Rockville 301 949-4800
Mass J & J Assoc, 225 Crescent St
Waltham 617 899-0160
Mich Micro Sales Corp, 650 Greenlawn
Ypsilanti 313 482-1229
Minn Heimann Co Inc, 5603 Lyndale Ave S
Minneapolis 612 827-5457
NJ Garten Assoc, 375 Passaic Ave
Fairfield 201 226-7800
NM Williams Assoc, 420 Washington SE
Albuquerque 505 255-1638
NY RJC Assoc, 219 Oakridge Terr
Liverpool 315 457-3220
Ohio Micro Sales Corp, 1250 W Dorothy La
Dayton 513 298-3033
Pa Garten Assoc, 947 Old York Rd
Abington .... 215 WA 7-1200
SC Technical Assoc, Box 5583
Spartanburg 803 585-3864
Utah Williams Assoc, 2461 S Main St
Salt Lake City 801 466-8709
For Frazar & Hansen Ltd, 150 California St
San Francisco, Cal 415 981-5262

ADVANCED COMMUNICATIONS INC SUB
CONDUCTRON CORP, 9257 INDEPENDENCE AVE
CHATSWORTH
CAL, 91311, TWX 910-494-1219 .... 805 341-3000
R LOTHERS, EMP 200, ENG 42, $2,500-$5,000M
DC Advanced Communications, 1145 19th St NW
Washington 333-0660

ADVANCED DEVELOPMENT CORP, 2014 W 139TH ST
GARDENA, CAL, 90249 .... 213 770-1143
K OLSON, EMP 25, ENG 4, $250-$500M

ADVANCED DEVICES LAB, 701 KINGS ROW
SAN JOSE, CAL, 95112 .... 408 287-2600
T DEUEL, EMP 10, ENG 3

ADVANCED DYNAMICS INC DIV ALCO STD CORP
17506 MILES AVE, CLEVELAND
OHIO, 44128 .... 216 752-8700
S SABOVIC, EMP 30, ENG 3, $250-$500M
Cal Hafstrom Assoc, 7460 Girard Ave
LaJolla .... GL 4-4271
Ill Primelines Co, 8047 Kilpatrick, Skokie 677-7770
Ind Law Instrument Co, Inc, Box 95, Angola 665-6016
Mass Moisan Assoc, Box 393, Lowell 452-5003
Mich H E Ardahl, Box 55, Kensington Sta
Detroit .... TU 5-6547
Mo Industrial Service Labs, 1474 S Vandeventer
St Louis .... JE 5-5761
NJ Alvin M Stock, Inc, 2801-03 Central Ave
Union City .... UN 4-2140
NY R P Smith Co, Inc, 6443 Ridings Rd
Syracuse 463-6641
NC A D Penn Co, 1043-C Providence Rd
Charlotte 332-8644

Pa Wistex, 1 Belmont Ave, Bala-Cynwyd .... TE 9-7086
Va Virginia Technical Assoc, Inc, 15 S Belmont Ave
Richmond 353-6411
Wis Process Measurement & Control Co, Box 7292
Milwaukee 774-3290
Can Budd Instruments, Ltd, 170 Donway West
Don Mills, Ont .... HI 7-5588
Can Northwest Industries Ltd, Industrial Airport
Edmonton, Alb

ADVANCED ELECTRONICS, INC
1765 SILAS DEANE HWY, ROCKY HILL
CONN, 06067 .... 203 529-6881
S FRIEDMAN, EMP 40, ENG 1

ADVANCED ENERGY CONVERSION
1918 MENALTO AVE, MENLO PARK
CAL, 94025 .... 415 325-9255
EMP 30, ENG 5

ADVANCED KINETICS, INC, 1231 VICTORIA ST
COSTA MESA, CAL, 92627 .... 714 646-7165
R GRADISHAR, EMP 35, ENG 17, $100-$250M

ADVANCED MEASUREMENT INSTRUMENTS, INC
109 DOVER ST, SOMERVILLE
MASS, 02144, TWX 710-348-0107 .... 617 623-2008
I KADESH, EMP 63, ENG 3, $250-$500M
Md Gary L Brown Assoc, 5801 Annapolis Rd
Bladensburg 779-1500
Can Technitron Assoc, 8 Glanlynn Rd
Pointe Claire, Que 695-2579

ADVANCED MICROWAVE LABS, 611 VAQUEROS AVE
SUNNYVALE
CAL, 94086, TWX 910-339-9219 .... 408 245-5770
J LAHEY, EMP 45, ENG 5
Ala Reynolds & Assoc, 904 Bob Wallace Ave
Huntsville 205 536-1941
Cal Thorson Co, 2114 N Broadway
Santa Ana 213 937-0790
Cal RF Assoc, 800 San Antonio Rd
Palo Alto 415 327-5531
Cal RF Assoc, 1621 Pontius Ave
Los Angeles 213 478-1586
Colo Kelley Enterprises, 336 E 4th St
Loveland 303 667-1376
Fla Reynolds & Assoc, Box 8877
Eau Gallie 305 424-3836
Kan Poly Onics, Inc, 4434 W 90th Terr
Leawood 913 648-4173
Md Doss Electronics Inc, 6660 Security Blvd
Baltimore 301 944-1900
Mich Micro Sales Corp, 650 Greenlawn
Ypsilanti 313 482-1229
Mo Poly Onics Inc, 47 Vlg Sq Shop Cen
Hazelwood 314 921-3848
NJ Maloy, Stagnitti & Co, 4 Horizon Rd
Fort Lee 201 224-6911
NY B D Hummel Co, 2224 Maynard Ave
Utica 315 736-7821
Ohio Micro Sales Corp, 1250 W Dorothy La
Dayton 513 298-3033
Ohio Micro Sales Corp, 2000 Lee Rd
Cleveland 216 371-0522
Pa Sonco, 107 Town Ctr Rd
King of Prussia 215 247-8266
Tex Vidal Electronics Inc, 3403 High Bluff Dr
Dallas 214 247-4522
Swed Thure F Forsberg AB, Forshagagatan 58 Box 79
Farsta
Belg Imesco, 124 Rue du Commerce, Brussels 24

ADVANCED PRODUCTS CO, 33 DEFCO PARK RD
NORTH HAVEN, CONN, 06473 .... 203 239-3341
A HOSTAGE, EMP 85, ENG 4
Cal Advanced Products Co, 8921 S Sepulveda Blvd
Los Angeles 776-3787
NY Hemmel Co, Box 267, Caldwell, N J 228-2220
Pa Control Instrument Sales Co
Tomlinson & Tracey Rds, Bethayres
Tex Assoc Aircraft Supply Inc, 5021 W Jefferson Blvd
Dallas 331-4381
Tex M Daggett, Jr & Assoc, 5934 Royal Lane
Dallas 357-1256
Va Tate Engineering Inc, 920 S Jefferson St
Roanoke 343-4033
Can Anthony Foster & Sons Ltd, 294 Church St
Toronto .... EM 6-3081
Den Gunnar Haagensen Ltd, Svanemoellevej 100
Hellerup .... EVA 9725
Fr Ste Nelle J F Shendon, 10, Rue Montcalm
Paris .... ORN 34-68
Ger Pampvs K/G, 4151 Schiefbahn Bei Dusseldorf
Postfach 80
GB R H Symonds Ltd, 47 Victoria St
London .... ABB 2771
Holl Eriks N V, Voormeer 33, Alkmaar
Ital Mercantile Condor SpA, 30 Via G B Pirelli
Milano 63 59 18
Jap Yashima Exp & Imp Co, 1 - 1 Akasada - Tamachi
Minato-Ku, Tokyo
Nor NORFAX, Jernbanetorvet 11, Oslo 42 72 71
SAfr Bowcliffe Ltd, Box 313, Johannesburg 838-3051
Swed Bergman A/B, Kungsholms Kyrkoplan 6
Stockholm K
Aust Basil V R Greatrex Pty Ltd, 9-13 Campbell St
Artarmon, N S W

ADVANCED PURIFICATION SYSTEM CO INC
260 NORTHERN BLVD, GREAT NECK
N Y, 11021 .... 516 487-5545
G GREENE, EMP 6, ENG 2, $100-$250M

ADVANCED SPACE AGE PRODUCTS INC
4308 WHEELER AVE, ALEXANDRIA
VA, 22304 703-751-3320
R BERGER, EMP 50, ENG 5, $500-$1,000M

ADVANCED TECHNOLOGY CORP
1495 LINCOLN WAY E, CHAMBERSBURG
PA, 17201 .... 717 264-2075
P RUTLEDGE, EMP 21, ENG 6, $100-$250M

ADVANCED TECHNOLOGY & SYSTEMS CORP
199 SOUND BEACH AVE, OLD GREENWICH
CONN, 06870, TWX 965979.......... 203 637-4337
M STERNLICHT, EMP 18, ENG 4, $500-$1,000M
Cal Advanced Technology & Syst, Box 96, Sierra Madre
Fla Triple R Sales, 2286 Allen Adale Rd, Eau Gallie
NY Electronic Equip Engineers, 3551 Park Ave
Oceanside
Ohio Tiby Co, 2245 Warrensville Ctr Rd, Cleveland
Va J Hopkins, 4520 Starr Jordan Dr, Annadale

ADVANCE GEAR & MACHINE CORP
5851 HOLMES AVE, LOS ANGELES
CAL, 90001 .... 213 587-8103
R SEITZ, EMP 130, ENG 6, $1,000-$2,500M

ADVANCE INDUSTRIES INC, 2002 FRENCH RD
APPLETON, WIS, 54911 414-739-6121
EMP 35, ENG 4, $500-$1,000M

ADVANCE INSTRUMENT CORP, 1707 F ST, BELMAR
N J, 07719 201-681-2700
S SABLOVE, EMP 15, ENG 4, $500-$1,000M

ADVANCE ROSS ELECTRONICS CORP, 135 S LASALLE
CHICAGO, ILL, 60603 .... 312 346-9126
H BUCKINGHAM, EMP 625, ENG 15, OVER $10,000M
Cal W S Harmon Co, 6118 Venice Blvd
Los Angeles.......... WE 7-1460
Ill Proctor Sales Co, 2538 Peterson Ave
Chicago 973-5300
NY G J Gay, Inc, 2 Main St, Brockport.......... NE 7-3776
NY R E Breuer Co Inc, 1 Barstow Rd
Great Neck.......... 466-3030
Tex G V Peck Co, 210 Casa Linda Plaza
Dallas.......... DA 8-3511

ADVANCE STAMPING CO, 12025 DIXIE AVE, DETROIT
MICH, 48239, TWX 313-538-4533 .... 313 KE7-3500
E NOLAN, EMP 260, ENG 2, $5,000-$10,000M
Ariz E J Foley & Assoc, 3840 N Jokake
Scottsdale .... WH 5-2666
Cal Nat Nesbitt Co, 730 N Euclid Ave
Anaheim.......... 535-2814
Ill Advance Stamping Co, 1673 S Mt Prospect Rd
Des Plaines
Mass L K Ingber Co, 842 Commonwealth Ave
Newton Centre .... DE 2-8574
Mo T J Fitzsimmons Co, 4808 Fairview Ave
St Louis .... WO 8-1286
Ohio Lee & Storrs, Box 115, Terrace Park.......... CH 1-1844
Pa H J Nugent, 547 Swede St, Norristown .. BR2-1955
Pa Commonwealth Sales, 5310 Perry Hwy, Pittsburgh

AD-YU ELECTRONICS INC, 249-259 TERHUNE AVE
PASSAIC, N J, 07055 .... 201 472-5622
T WINELAND, EMP 65, ENG 5, $1,000-$2,500M
Cal IFM North, 2269 E Middlefield Rd
Mountain View 415 916-2828
Cal Roland Olander & Co, 540 Hollywood Way
Burbank 213 843-5200
Conn E E Specialists, 281 Vera Rd
Bristol 203 584-0077
Ill Laub Engineering, Box 8, Northfield 446-4166
Md Eastern Components, 6200 Annapolis Rd
Landover Hills.......... 301 322-1412
Mass E E Specialists, Box 956, Acton 259-9200
Mich Micro Sales Corp, 650 Green Lawn Ave
Ypsilanti.......... 313 482-1229
Minn Engineering Products Assoc, 2119 Grand Ave
St Paul.......... 698-5531
Mo Gordon Fixman Eng Co, 8160 Stanford Ave
St Louis 314 725-5219
NJ Gray & Reed Assoc, Inc, 626 Hillcrest Ave
Westfield.......... 233-6116
NM Electronic Enterprises, 1900 Washington NE
Albuquerque.......... 256-1585
NM Electronic Enterprises, Box 116
Las Cruces 505 524-0126
NY Gray & Reed Assoc, 9 Dunford St
Huntington Sta 516 433-3333
NY Gray & Reed Assoc, 758 Brady Ave
New York.......... 212 597-7188
Ohio Micro Sales Corp, 1250 W Dorothy La
Dayton 298-3033
Ohio Micro Sales Corp, 2000 Lee Rd
Cleveland.......... 216 371-0522
Pa Eastern Components, 1349 W Cheltenham Ave
Phila.......... 215 927-6262
Utah Applied Engineering Prods Co
6375 Emigration Canyon
Salt Lake City.......... 364-4942
Wash Dewar & Assoc, 6361 1st Ave S
Seattle 8 763-2233

Can Electrodesign, 9124 St Lawrence Blvd
Montreal.......... 389-5914
Can Electrodesign Ltd, 83 Arthur St
Ottawa 4 Ont 613 233-8815
Can Electrodesign Ltd, 2799 Ville-Marie
Ste Foy P Q.......... 689-0921
Can Electrodesign Ltd, 3433 Bathurst
Toronto 19 Ont 416 787-0991
For Hwa Sheng Electronic Co, Ltd
21 Nanking West Rd, Taipei, Taiwan 46076
For Universal Elektronik Import, 1010 Wien 1
Makartgasse 3, Vienna.......... 57 93 71
For Forbes Forbes & Campbell Co Ltd, West Wharf Rd
Karachi Pak.......... 22-2616
Den A/S Danbridge, 47 Brigadevej, Copenhagen
Fr Radiophon, 148, Ave Malakoff, Paris 16 E
Ger Dr Ing Nusslein, Rissener Str 102
Hamburg .... WED 3842
GB B & K Instruments Ltd, 59 Union St
London SE 1 .... HOP 4567
Holl C N Rood NV, Box 4542, Rijswijk 98 51 53
Ital Mario Vianello, Via L Anelli 13, Milano
Jap Shoshin Shoji Kaisha Ltd, Box Nihonbashi 173
Tokyo 270-5921
Jap Shoshin Shoji Kaisha Ltd, 42-5-Chome
Kawarka-Machi Osaka
Nor Solberg & Andersen A/S, Hansteensgate 5
Oslo.......... 441985
SAfr Specialised Elctns, Box 15552 Siemend
Johannesburg.......... 724-5396
Swed Teleinstrument AB, Harjedalsgaten 138
Stockholm-Vallingby.......... 870-345
Swit Seyffer & Co Inc, Badenerstr 265
Zurich 051 25 54 11
Belg Belram Electronics, 83 Av Des Mimosas
Brussels.......... 35 29 5
Belg Regulation-Mesure, Bureaux: 22 Rue St Hubert
Bruxelles 15 .... 70 79 89
Gr Atomon, 4 Dragatsaniou St, Athens 230-383
Ind Electronic Enterprises, 46 Karani Bldg
New Charni Rd .... Bombay
Isrl Elina Ltd, 7 Harishonim St, Ramat-Gan .. 72-07-15
Spn Ibisa Ibero Imp-Exp SA, Avda J Antonio 657, 4, 2A
Barcelona.......... 226-0704
Fin Into O/Y, 11 Metitullinkatu, Helsinki 663909
Aust Jacoby Mitchell & Co, 469 Kent St
Sydney NSW 26-2651
Aust Jacoby Mitchell & Co Pty Ltd, 15 Abbotsford St
N Melbourne
Aust Jacoby Mitchell & Co Pty Ltd, 372 A South Rd
Glandore LA-5117

AEMCO DIV, MIDTEX INC, 32 STATE ST, MANKATO
MINN, 56001, TWX 910 565-2244 .... 507 388-6286
A PITZL, EMP 425, ENG 7, $5,000-$10,000M
Cal Spectrum Sales Co, 14106 Ventura Blvd
Sherman Oaks.......... 213 788-9911
Cal Technical Mktg Assoc, 1485 Bayshore Blvd
San Francisco 467-8700
Fla Beacon Electronics, Box 1278, Maitland .. 647-3498
Ill Century Sales Co, 720 61st St
Downers Grove 312 968-5608
Md David K Jones, 2026 Maryland Ave
Baltimore.......... 752-0577
Mass Frank R Costello, 37 Oakland Ave
Wollaston.......... 472-4234
Mich Villani-Pitcher Inc, 20233 Ann Arbor Tr
Dearborn 581-5600
Mo Dave Winslow, 1217 E Linwood
Kansas City 561-6565
NJ Thomas Assoc, 138 Haddon Ave
Haddonfield.......... 854-3011
NY Martin P Andrews, 319 Matt Rd
Fayetteville 637-3144
NY Magneco Industries Inc, 320 Cedar St
South Hempstead
NY D Hurley, Box 26, Pittsford 586-6159
Ohio Frank E Kahsar Sales, 5229 A Glenway Ave
Cincinnati.......... 471-9011
Tex Carter Assoc, Box 87, Garland.......... 276-7151

AEROCOM, 3090 S W 37TH AVE, MIAMI
FLA, 33133 .... 305 448-6503
F STACY, EMP 90, ENG 9, $1,000-$2,500M
Cal Aeronautical Elctns Sls Corp, 3101 Pico Blvd
Santa Monica 293-7610
DC A W Beideman, 3525 Napier St
Wheaton, Md.......... 946-8666

AERODYNE CONTROLS CORP, 90 GAZZA BLVD
FARMINGDALE, N Y, 11735.......... 516 694-3500
G JONES, EMP 40, ENG 6, $500-$1,000M
Ala Electro Pneumatic Control Co, 2361 Farley Terr
Birmingham.......... 822-5350
Md R A Cantwell, 9321 Fresno Rd
Bethesda .... OL 4-3698

AERO ELECTRONICS CORP, 1745 W 134TH ST
GARDENA, CAL, 90249.......... 213 321-3311
A BERGES, EMP 20, ENG 2, $100-$250M
Mass Neecco Co, 700 Main St, Acton

AEROFLEX LABS, INC, S SERVICE RD, PLAINVIEW
N Y, 11803, TWX 510-224-6417 .... 516 694-6700
R SANDERS, EMP 175, ENG 35, $2,500-$5,000M
Ariz Bennewitz Assoc, 532 N Brown Ave
Scottsdale 947-7379
Cal Aeroflex Western Div, 1661 Tulane Rd
Claremont 621-1019
Colo Bennewitz Assoc, 2801 E Colfax Ave
Denver 399-1132
Ill Aerol Assoc Inc, 466 Central Ave
Northfield.......... 446-6486

Kan Aerol Assoc, 6631 E Kellogg, Wichita 683-7421
Md Aerol Assoc, 2926 E Cold Spring La
Baltimore.......... 426-1665
Mass All Star Engrg Co, Box 58, Woburn.......... 935-3417
Minn Aerol Assoc, Rt 2, Anoka 336-4240
Minn Aerol Assoc Inc, 821 Second Ave N
Minneapolis.......... 377-32390
Mo PEM Sales Co, 9537 Lackland Rd
St Louis 427-7200
NJ Aerol Assoc Inc, 730 Clifton Ave
Clifton 779-6744
NJ Bonn Assoc, 266 Lake Ave, Metuchen 549-9573
NM Bennewitz Assoc, 8310 Cutler N E
Albuquerque.......... 299-8651
NY Aeroflex Laboratories, South Serv Rd
Plainview.......... 694-6700
NY Aerol Assoc, Box 8860, Rochester ... 716 235-7290
Ohio Aerol Assoc, Box 7, Centerville Branch
Dayton 434-6504
Pa Bonn Assoc, 7217 Rising Sun Ave
Philadelphia 215 725-2210
For Frathom Corp, 202 E 44th St
New York, NY .... MU 9-9390

AEROJET-GENERAL CORP ELECTRONICS DIV
1100 W HOLLYVALE ST, AZUSA
CAL, 91702, TWX 213 686-6706.......... 213 334-6211
R TOLIVER, EMP 3200, ENG 1500, OVER $10,000M
Ala P D Soracco, 3322 Memorial Pkwy SW
Huntsville 881-4700
Cal G E Dithridge, 43321 N Sierra Hwy
Lancaster.......... 948-4525
Cal R C McFarland, 634 N D St
San Bernardino 889-9551
Cal H J Rietveld, 5959 W Century Blvd
Los Angeles.......... 670-4630
DC J J Convy, 1120 Connecticut Ave NW
Washington 659-6540
Fla D O Pattison, Box 1445
Ft Walton Beach.......... 244-5167
NY F J Kiernan, 585 Stewart Ave
Garden City 747-2000
Ohio J B Brook, 333 W 1st St, Dayton 224-1241
Ohio W L Snapp, 20545 Center Ridge Rd
Cleveland.......... 333-3344
Tex H J Jennings, 1730 Nasa Blvd
Houston 488-3180
Utah R G Kiefner, 525 S State St, Clearfield ... 773-2733

AEROLITE ELECTRONICS CORP, 2207 SUMMIT AVE
UNION CITY, N J, 07087 .... 201 863-2955
V MATTO, EMP 80, ENG 3, $500-$1,000M
Ill Malovac Sales Co, 5906 W North Ave
Chicago .... ME 7-9090
Ind Menze Sales, 6010 Lower Huntington Dr
Ft Wayne 747-5616
Can Electrolabs, 2500 Bates Rd
Montreal, Que.......... 739-0191

AEROLUX LIGHT CO INC, 653 11TH AVE, NEW YORK
N Y, 10036 .... 212 246-5324
P KAYATT, EMP 25, ENG 2, $250-$500M

AEROMARINE ELECTRONICS, INC, 1237 SHAFTER ST
EMP 45, ENG 6, $500-$1,000M
Ala Space Engrg Sales, 4306 Governors Dr, Huntsville
Cal Westec Electronics, 504 Main St
El Segundo 213 322-1561
Cal Westec Electronics, 4117 El Camino Way
Palto Alto 415 327-5850
Fla Space Engrg Sales, Orlando
NC Space Engrg Sales, 2509 Lakeshore Dr, Greensboro
Wash Westec Electronics, Box 66521
Seattle 206 243-7070

AERO MAYFLOWER TRANSIT CO, INC, 863 MASS AVE
INDIANAPOLIS, IND, 46204 .... 317 639-2451
J SMITH, EMP 700, OVER $10,000M

AERO MECHANISM, INC, 7750 BURNET AVE
VAN NUYS
CAL, 91405, TWX 910 495-1730.......... 213 782-1952
L MERCATORIS, EMP 92, ENG 8, $1,000-$2,500M
Md East Coast Liaison Inc, Box 243
Lutherville 301 252-1288
NY Aero Mechanism Inc, 337 Clay Pitts Rd
E Northport 368-1561
Ohio Ashby Assoc, 4130 Linden Ave
Dayton 513 252-5627
Pa W Reeves Assoc, 2973 N Providence Rd
Media.......... 215 LO 6-6709
Tex C Butt, Box 18045, Houston .... 713 JA 6-3101
Wash D Lindsey, 410 S 96th St, Seattle 762-2332
Jap Ishimoto Trading Co, 3-23-6 Nishi Shinbashi
Minato-Ku Tokyo
Neth Aero Specialties, Box 102, Amstelveen

AEROMETRICS DIV AEROJET-GENERAL CORP
BOX 216, SAN RAMON, CAL, 94583.......... 415 837-5343
C EDMONDS, EMP 85, ENG 21, $2,500-$5,000M
Ala W A Brown Assoc, Inc, 1314 Buford St NW
Huntsville 539-6884
Ariz Brooks Feeger Assoc, 4710 N 16th St
Phoenix 264-6536
Cal Lewis & Assoc, 607 Market St
San Francisco 982-8777
Cal RDP Instruments, 1338 S Atlantic Blvd
Los Angeles.......... 213 263-9441
Cal ABCO Co, 555 W Ninth St
San Pedro 213 833-8333

Cal RDP Instruments, 999 Commercial St
Palo Alto 415 328-6666
Colo Brooks Feeger Assoc, 1309 S Inca
Denver 744-3301
Conn Vector Sales, Inc, 662 Bridgeport Ave
Milford 874-2112
Fla W A Brown Assoc, Inc, 3039 N E 32nd Ave
Fort Lauderdale 564-8000
Fla W A Brown Assoc, Inc, 222 Weber Ave
Orlando 425-5505
Fla W A Brown Assoc, Inc, 212 Bradley Dr, NE
Fort Walton Beach 243-6424
Ga W A Brown Assoc, Inc, 1590 Coolege Rd, NW
Tucker 939-1674
Haw Harkom Hawaii, Inc, 630 Piikoi St
Honolulu 587-178
Haw Thom Equipment Co, 463 Nimitz Hwy
Honolulu 502-827
Ill W J Mauer Co, 3308 Noyes St
Evanston 869-1644
Ill Scientific Sales Corp, 7132 N Harlem Ave
Chicago 775-7595
Ill R Edward Stemm, Inc, 17 W 480 Lake St
Addison 279-2440
Ind Scientific Sales Corp, 706 Sherwood Dr
Indianapolis 545-9950
Md S & S Assoc, Inc, 7720 Wisconsin Ave
Bethesda 654-2420
Mass Vector Sales, 774 Pleasant St, Belmont... 489-1400
Mich Wayne Sales Corp, 2211 Monroe Blvd
Dearborn 274-0890
Mich Twin Region Electronic Sales, Inc
2547 Monroe Blvd, Dearborn 274-4661
Minn Scientific Sales Corp, 6121 Excelsior Blvd
Minneapolis 929-6115
Minn R Edward Stemm, Inc, 2713 Lyndale Ave, S
Minneapolis 822-8404
Mo Scientific Sales Corp, 1760 S Brentwood Blvd
St Louis 314 968-1133
NM Brooks Feeger Assoc, 1238 Ortiz, SE
Albuquerque 268-4387
NY Aries Associated Products Corp, Box L
Centerport 261-4320
NY Bertram D Aaron & Co, 55 Northern Blvd
Greenvale 621-0630
NC W A Brown Assoc, Inc, 1108 Burke St
Winston-Salem 724-4284
Ohio P E Phillips Co, Box 2205, Kettering Br
Dayton 293-7940
Ohio Twin Region Electronic Sales, Inc
21010 Center Ridge Rd, Cleveland 331-7650
Pa S & S Assoc, Inc, Boro Line Rd
King of Prussia 265-3450
Tex Kemp Engineering Co, Inc, 2618 Manana Dr
Dallas 357-6663
Tex Kemp Engineering, 6001 Gulf Frwy
Houston 928-5426
Tex Kemp Engineering, 102 W Rector
San Antonio 344-1841
Va W A Brown Assoc, 325 First St
Alexandria 836-1800
Wash Avionics Liaison, Inc, 6770 Perimeter Rd, S
Seattle 76-3870
Can Electronic Marketing Co of Can, Ltd
3600 Barclay Ave, Montreal 26 739-3206
For Frazar & Hansen Ltd, 150 California St
San Francisco, Calif 981-5262
Fr Tranchant Electronique
19 Rue Madame de Sanzillon
Clichy (Seine), Paris 270-22-55

AERONAUTICAL ELECTRIC CO, 5656 NORTHWEST HWY
CHICAGO, ILL, 60646 .... 312 SP 4-5200
W YOUNGSTROM, EMP 40, ENG 1, $500-$1,000M
Cal Jerry Gartner Sales Co, 1312 Casiano Rd
Los Angeles .... DU 7-7175
Ind McNabb/Brase & Assoc, 4002 Meadows Dr
Indianapolis 317 545-8167
Minn Northern State Sales Co, 1109 W 78 1/2 St
Minneapolis 612 866-3468
NY Robt W Jackson Co, 4446 Main St, Buffalo
NY R E Breuer Co, 1 Barstow Rd
Great Neck 516 466-3030
Can A Deskin Sales Corp, 1565 Louvain St W
Montreal, Que 514 384-1420

AERO RESEARCH INSTRUMENT DEPT AMERICAN
STANDARD, 9000 KING ST, FRANKLIN PARK
ILL, 60131, TWX 910 227-0052 312-671-0511
M SCADRON, EMP 100, ENG 10, OVER $10,000M
Ala Col-Ins-Co, Box 4246, Huntsville 539-1771
Ariz BFA, 4710 N 16th St, Phoenix 264-6536
Cal Aero Research, 8949 Reseda Blvd
Northridge 349-4900
Colo BFA, 1309 S Inca St, Denver 744-3301
Conn Forsberg Sales, 22 Broadway
North Haven 239-5111
Fla Col-Ins Co Inc, Box 13189, Orlando 423-7615
Ill Branum Sales Co, Box 516, Lake Zurich .. 438-2356
Ind OEM Sales Co, Box 55232
Indianapolis .... LI 5-1267
Mass Forsberg Sales, 646 Summer St
Brockton 522-6300
Mich George Instrument Co, 1024 W 14 Mile Rd
Clawson 564-5481
Mo Maise Equipment Co, 10635 Clayton Rd
St Louis .... CH 1-4351
NM BFA, 1238 Ortiz SE, Albuqu 268-4387
NY L-Tron Corp, Box 147, Skaneateles 685-6172
NY L-Tron Corp, Box 114, Latham .... ST 5-5032
NC Col-Ins Co, Box 5597, Winston-Salem 765-3650
Ohio Jerry Kilroy Corp, 10 Main St
Chagrin Falls 247-8997
Ohio Whelan Corp, 2975 Far Hills Ave
Dayton 298-9997

Pa Stein Instrument Co, 413 Johnson St
Jenkintown 885-2370
Pa Bernard K Serfer Co, Box 7616
Philadelphia 236-6284
Tex Instrumatics Inc, 916 Boundary
Houston .... CA 5-6626
Va Gans-Fryling Inc, 2030 16th St
Arlington 527-3262
Wash Cane Jessup Co, 1433 130th NE
Bellevue .... GL 4-0691
Holl H Drijfhout & Zoon's, Post Bus 687, Amsterdam
Ital FAS Automazioni-Strumenti, Via F Koristka 8/10
Milan
Jap Okazaki Mfg Co, 3-1 Kaigandori 2-Chome Ikuta-Ku
Kobe
SAfr Microtherm (PTY) Ltd, 9 Lilian Rd
Fordsburg, Johannesburg

AEROSCIENCE ELECTRONICS INC, 3800 OAKCLIFF RD
ATLANTA, GA, 30040 .... 404 451-6145
R PARR, EMP 40, ENG 8, $500-$1,000M
Cal King Engineering Co, Inc, 15720 Ventura Blvd
Encino 981-0161
Fla Gentry Assoc Inc, 2517-B E Colonial Dr
Orlando 424-0730
Mass Electronic Sls of New England, Box 276
Attleboro 617 222-4078
Mo J C Mankus & Assoc, 400 Brookes La
Hazelwood 314 731-4334

AERO SERVICE CORP, 4219 VAN KIRK ST
PHILADELPHIA, PA, 19135 .... 215 JE 3-3900
O JONES, EMP 700, ENG 50, OVER $10,000M
Cal H Kieman, 1136 N Los Palmas
Los Angeles 466-7795
Can Douglass MacKay, 468 R R 5, Ottawa.... 822-0121

AEROSPACE AVIONICS INC, 1500 OCEAN AVE
BOHEMIA, NY, 11716 .... 516 LT 9-9200
R KITTEL, EMP 150, ENG 20, $1,000-$2,500M
Mo Jack Cregan & Co, 9216 Clayton Rd
St Louis .... WY 3-0251

AEROSPACE CONTROLS CORP, 215 W 131ST ST
LOS ANGELES, CAL, 90061 .... 213 532-6700
D MORRISON, EMP 50, ENG 15, $500-$1,000M
Ohio J J Walker, 50 W Gay St
Columbus 614 221-4247
Fr Robert C Walker, 44, Rue Paul Valery, Paris

AERO/SPACE DEVICES, INC, 6405 NW 36TH ST, MIAMI
FLA, 33148 .... 305 TU 8-1691
W VAN DER BUSCH, EMP 62, ENG 2, $500-$1,000M

AEROSPACE KNOB CO, 1710 POTRERO AVE
SOUTH EL MONTE, CAL, 91733 .... 213 283-7681
J DUPREE, EMP 20, ENG 2, $100-$250M
Cal Shannon Electronics, 1 First St
Los Altos 415 941-2217
Ill Royal A Stemm, 662 Iring Park Rd
Chicago 525-8333
Ind McDonald Sales Co, 227 S Cornell Cir
Ft Wayne 219 745-9214
Mass Gilway Sls Co, Box 584
Newburyport 617 465-7568
Mo Suor Sales Corp, 8115 Troost
Kansas City 816 444-2871
NY Harold B Heft, Box 623, Lynbrook .... LY 9-3351
Ore Arneson Assoc, 200 NE Canyon Rd
Beaverton 503 646-3416
Tex Scott Technical Sales, Box 30324
Dallas .... FL 2-7698
Wash Arneson Assoc, 59 S 6th Ave, S
Seattle 206 762-7664

AEROSPACE RESEARCH, INC, 130 LINCOLN ST
BOSTON, MASS, 02135 .... 617 254-7200
W YORK, EMP 89, ENG 22, $1,000-$2,500M
NY Gray & Reed Assoc, Inc, 9 Dunford St
Huntington Station 433-3333

AEROSPACE SYSTEMS A TELEDYNE CO
1007 E 10TH ST, FAIRMONT
MINN, 56031, TWX 910-565-2120 ...... 507 235-3355
D WELLCOME, EMP 60, ENG 2, $1,000-$2,500M
Conn Aerol Assoc Inc, Box 146, Essex..... 203 767-1647
Ill Aerol Assoc Inc, 466 Central Ave
Northfield 312 446-6486
Kan Aerol Assoc Inc, 6631 E Kellogg
Wichita 316 683-7421
Md Aerol Assoc Inc, 2926 E Cold Spring La
Baltimore 301 426-1665
Mo Aerol Assoc Inc, 34 N Brentwood Blvd
St Louis 314 725-5361
NJ Aerol Assoc Inc, 730 Clifton Ave
Clifton 201 779-6744
NY Aerol Assoc Inc, 170 Great Neck Rd
Great Neck 516 487-9650
NY Aerol Assoc Inc, Rochester
Ohio Aerol Assoc Inc, 6010 Far Hills Ave
Dayton 513 298-5024

AEROTRONIC ASSOCIATES, INC, BOX 367
CONTOOCOOK, N H, 03229 .... 603 746-3141
M LONGLEY, EMP 60, ENG 6, $500-$1,000M
Cal Mulvin & Co, 3842 E Colorado Blvd
Pasadena 213 681-4591
Fla Beacon Electronics, Inc, 540 S Maitland Ave
Maitland 647-3498

Md G L Brown Assoc, 6611 Newport Rd
Hyattsville 773-6161
Mo G Fixman Engrg Co, 8160 Stanford Ave
St Louis 725-5219
NM Electronic Enterprises, 1900 Washington St, NE
Albuquerque 256-1585

AERO VAC CORP, BOX 448, TROY
N Y, 12181 .... 518 274-5850
R JOHNSON, EMP 48, ENG 10, $1,000-$2,500M
Ala Roy Attaway Co, 900 Bob Wallace
Huntsville 534-2811
Cal Fieldtec, Inc, 3822 Campus Dr
Newport Beach 540-4000
Cal Fieldtec Inc, Box 11794, Palo Alto 321-7410
Fla Roy Attaway Co, 51 E Robinson St
Orlando 424-9983
Ill Clarkson Engineering Co, 5518 W Lawrence Ave
Chicago 286-2314
Mass Aero Vac Corp, 25 Grant St, Waltham 894-8399
Fr Riber Inc, 22 bis Blvd de L'Hopital Stell
Rueil-Malmaison
Ger Klaus Schaefer, Postfach 108, Frankfurt/M
Jap Overseas Tech Corp, Taito-Ku, Tokyo

AEROVOX CORP DISTR SALES, 740 BELLEVILLE AVE
NEW BEDFORD
MASS, 02741, TWX 710-344-6985 ...... 617 994-9661
M SIMON
Ala Stanley K Wallace Assoc, 13 Office Park Cir
Birmingham 871-5892
Cal F W Moulthrop & Assoc, 1530 E 12th St
Oakland 261-7676
Cal Rissi Sales Co, 1817 S San Gabriel Blvd
San Gabriel
Colo Connors Inc, 2241 Stacey Dr, Denver 428-1575
Conn Gerber Sales Co, Box 2917
New Haven .... SP 7-6279
Fla Stanley K Wallace Assoc, Box 67, Lutz ... 949-1817
Ga Stanley K Wallace Assoc, 715 Flamingo Dr Sw
Atlanta .... PL 3-8463
Ill Ellinger Sales Corp, 6580 Northwest Hwy
Chicago 763-1570
Ind Robert Milsk Co, 3231 N Meridian, Indianapolis
Iowa Ellinger Sales Corp, 309 4th Ave SE
Clarion 532-3218
Mass Gerber Sales Co, 176 Second Ave
Waltham .... BE 2-2425
Mich Robert Milsk Co, 19375 James Couzens Hwy
Detroit 342-6660
Minn Fred B Hill Co, 6110 Excelsior Blvd
Mnpls 929-6727
Mo Ellinger Sales Corp, 4969 Bancroft
St Louis .... FL 2-2027
NJ Simberkoff Sales Co, 71 Valley St
S Orange 763-7900
NJ Simberkoff Sales Co, 246 Davey St, Bloomfield
NY Simberkoff Sales Co, 14 Junior Ave
Buffalo 823-8399
NY Simberkoff Sales Co, 62-95 Saunders St, Rego Park
NY Simberkoff Sales Co, 37 Parkwood St
Albany 438-0437
NC Stanley K Wallace Assoc, Rt 1, Box 423
Matthews 847-9262
Ohio Chas H Dolfuss Jr & Co, 2108 Payne Ave
Cleveland .... PR 1-1270
Pa Simberkoff Sales Co, 1021 Levick St
Phila .... PI 3-2512
Pa Gene S Root & Co, 809 Wainwright Dr
Pittsburgh 561-4125
Tenn Stanley K Wallace Assoc, 5960 Brierdale Cove
Memphis 682-2281
Tex H Lieberman, Box 66216, Houston ...... JA 3-9545
Tex Ammon & Champion, Box 35263
Dallas 357-8441
Va Simberkoff Sales Co, 420 N Arlington Towers Apts
Arlington 525-5898
Wash Don Smith Sales Co, 2320 N 45th St
Seattle .... ME 3-3160
Wash Don Smith Sales Co, 2404 W Dalton
Spokane .... FA 5-4022
Can Aerovox Canada Ltd, 1551 Barton St E
Hamilton, Ont 545-5893
For Ad Auriema Inc, 85 Broad St
New York, NY .... BO 9-7750

AEROVOX CORP NEW BEDFORD DIV
740 BELLEVILLE AVE, NEW BEDFORD
MASS, 02741, TWX 710-344-6985 ...... 617 994-9661
T CARY, EMP 1400, ENG 100, OVER $10,000M
Ariz Hecht-Henschen & Assoc Inc, 3825 N 39th Ave
Phoenix 272-6677
Cal Aerovox Corp, 1100 Chestnut St
Burbank 849-5511
Cal Aerovox Corp, 560 San Antonio Rd, Palo Alto
Colo Hytronic Measurements Inc, 4940 E 39th Ave
Denver 388-4081
Conn Gerber Sales Corp, 29 W Halley Ave, New Haven
DC J N Barrett Assoc, 2000 L Street N W
Washington 293-1941
Ill W E Burgoyne Co, 7001 N Clark St
Chicago 405-2112
Ill Ellinger Sales Corp, 6580 N Northwest Hwy
Chicago 763-1570
Ill Eschner-Keranen Inc, 20 N Wacker Dr
Chicago 236-1533
Iowa Ellinger Sales Corp, 309 4th Ave SE
Clarion 532-3218
Mass Gerber Sales Corp, 176 Second Ave
Waltham 891-8040
Mich Carrier & Gable Inc, 15565 Northland Dr
Southfield 444-8980
Minn Fred B Hill Co, 6110 Excelsior Blvd
Minneapolis 929-7813
Mo J Beneke, 576 Arcade Bldg, St Louis .... CE 1-1677

Mo Ellinger Sales Corp, 4969 Bancroft St Louis .... FL 2-2027
NJ J N Barrett Assoc, 812 Federal St Camden 365-2680
NJ Simberkoff Sales Inc, 71 Valley St So Orange 763-7900
NY S H Baum, 70-15 Fleet, Forest Hills .... BO 3-8101
Ohio F J Campisano, 3985 Race Rd Cincinnati 662-1616
Ohio Chas H Dolfuss Jr & Co, 2108 Payne Ave Cleveland 771-1270
Ohio E Schmidt, 1419 Devereux Dr, Dayton 293-6652
Ohio F J Campisano, 3985 Race Rd, Cincinnati 662
Okla Ammon & Champion Co, Box 4682 Tulsa .... NA 7-7670
Pa Gene Root, 809 Wainwright Dr Pittsburgh 561-5707
Tex Ammon & Champion Co, 2746 Seelcco St Dallas .... FL 7-8441
Wash Western Technical Sales, 10843 NE 8th Bellevue .... GL 4-3906
For Ad Auriema Inc, 85 Broad St New York, NY .... BO 9-7750

AERTECH, 815 STEWART DR, SUNNYVALE
CAL, 94086, TWX 910-339-9207 .... 408 732-0880
H HARRISON, EMP 115, ENG 30, $2,500-$5,000M
Ala Brennan Assoc, 1602 Wilma Circle Huntsville 205 536-3715
Cal J Stone & Assoc, 140 Main St Los Altos 415 948-4563
Cal Allgood Assoc, 1621 Centinela Ave Inglewood 213 776-5820
Colo Kelley Enterprises, 336 E 4th St Loveland 303 667-1376
Fla Brennan Assoc, Box 5006 Clearwater 813 446-5006
Fla Brennen Assoc, Box 7773, Orlando 305 425-8161
Ill Communications Engineers, 7106 N Western Ave Chicago 312 761-0548
Md Doss Electronics, Inc, 6660 Security Blvd Baltimore 301 944-1900
Mass Reptron, Inc, 110 Great Rd Bedford 617 275-8585
Mich Micro-Saes, 650 Greenlawn Ypsilanti 313 482-1229
NJ Sonco, Crystal Brook Pro Bldg Eatontown 201 542-1441
NY B D Hummel, 2224 Maynard Ave Utica 315 736-7821
NY Gray & Reed Assoc, 9 Dunford St Huntington Sta 516 433-3333
Ohio Micro-Sales, 1250 W Dorothy La Dayton 513 298-3033
Ohio Micro-Sales, 2000 Lee Rd Cleveland 216 371-0522
Pa Sonco, Park Place Bldg, Camp Hill 717 761-0577
Pa Sonco, 107 Town Ctr Rd King of Prussia 215 265-3250
Pa Sonco, Crystal Brook Prof Bldg Eatontown 201 542-1441
Tex Airep Electronics, Inc, 4901 Richmond Ave Houston 713 621-0955
Tex Airep Electronics, Inc, 6300 N Central Expwy Dallas 214 363-5291
Tex Airep Electronics, Inc, 6936 San Pedro San Antonio 512 828-1488
Wash Harry Levinson Co, 1211 E Denny Way Seattle 206 323-5100
Can E G Lomas, Ld, 227 Laurier Ave W Ottawa, Ont 613 232-7106

AERVALCO CO, 4939 N EARLE ST, ROSEMEAD
CAL, 91770, TWX 67-7362 .... 213 283-7271
P KENT, EMP 70, ENG 13
Ala Cryo-Tec Inc, Holiday Off Ctr Huntsville 205 881-7902
Cal Oman-Mason Corp, 13918 Saticoy St Van Nuys 873-3771
Cal Aervalco Engrg Corp, 160 H St, Tustin 544-0795
Colo George Lovering Co, 980 Simms St Golden 237-1406
Fla Cryo-Tec Inc, 999 Woodcock Rd Orlando 305 841-4051
Ga Aervalco Engrg Corp, 174 W Wieuca Rd NE Atlanta 255-1634
Kan D & O Engineering Co, 830 N Main Wichita 264-7358
La Pneumatic & Hydraulics Co, 2500 North St Baton Rouge 343-6693
La Cryo-Tec Inc, Box 1005, Metairie
Mo M & J Assoc Inc, 1509 Sherbrook Rd Lutherville 828-6230
Ohio AerValco Co, 77 Maple Dr, Hudson
Pa Aervalco Co, 441 Germantown Pike Lafayette Hill 828-7173
Tex D & O Engineering Co, Box 8433 Dallas 368-3544
Tex Aervalco Co. 7007 Preston Rd, Dallas 528-2841
Utah C H Spencer & Co, 210 W 33rd St S Salt Lake City 486-1081
Wash D & D Sales Inc, 43 Logan Ave Renton .... 206 BA 6-4120
Wis Aervalco Co, 424 Wisconsin Ave Racine 637-1353

AETNA ELECTRONICS CORP, READINGTON RD
NORTH BRANCH, N J, 08876 .... 201 725-1000
H BUSER, EMP 10, ENG 3, $100-$250M
NY Henley & Co Inc, 202 E 44th St New York 212 986-5544
Ohio Custom Engineering Co, 2975 Far Hills Blvd Dayton .... 513 AX 8-5246

AETNA MFG CO, 245 PARK AVENUE, BENSENVILLE
ILL, 60106 .... 312 766-3810
L KRAFFT, EMP 55, ENG 2, $250-$500M

AFFILIATED MANUFACTURERS INC, BOX 248
WHITEHOUSE, N J, 08888 .... 201 534-2103
B AUSTIN, EMP 33, ENG 3, $500-$1,000M
Ala Newcomb Assoc, Box 3244, Huntsville 852-0304
Ariz Allen Assoc, Box 3091, Papago Sta Scottsdale 945-5781
Cal Scrantom Engineering Assoc, 2750 Bellflower Blvd Long Beach 421-8951
Cal R H Muenzer Co, Box 997 Redwood City 369-8283
Fla GPI Inst Inc, Box 536, Winter Park 647-5722
Ill Technical Sales Assoc, 1160 Kenton Rd Deerfield 286-2535
Minn D G Perry & Co, 5010 France Ave S Minneapolis 920-3212
Miss Newcomb Assoc, Box 1871 Hattiesburg 583-1804
Mo Harris-Hanson Co, 7916 Paseo St, Kansas City
Mo Harris-Hanson Co, 2814 S Brentwood Blvd St Louis 647-4350
NY Upstate Technical Equip Co, Box 202 Solvay 458-5573
NY Upstate Tech Equip Co, Box 312 Buffalo 634-2448
Ohio Feeder Automation Sales, 1463 W 29th St Cleveland 781-4391
Can Wm F B Armstrong, 16 Graywood Dr, Islington Ont

AGAC-DERRITRON INC, 1332 N HENRY ST
ALEXANDRIA, VA, 22314 .... 703 836-4641
C VINCENTZ, EMP 100, ENG 20, $250-$500M
Ala David H Wise, Box 225, Huntsville 539-0871
Ariz Allen Assoc, Box 3091, Papago Sta Scottsdale 945-5781
Cal Aero Elctn Corp, 1312 W Magnolia Blvd Burbank 845-9724
Cal Morse Assoc, 1721 Chestnut St San Francisco 567-6871
Colo Engineering Rsch Assoc, 231 Detroit St Denver 377-8306
Conn E E Specialists Inc, 281 Vera Rd Bristol 584-0077
Fla Roy Attaway Co, 57 E Robinson St Orlando 424-9983
Ga Roy Attaway Co, 900 Bob Wallace Ave Huntsville, Ala 534-2811
Ill Anger Assoc Inc, 731 Villa Ave Naperville 233-2214
Md Arnold Ratner Assoc Inc, 4928 St Elmo Ave Bethesda 657-2585
Mass E E Specialists Inc, Box 956, Acton 259-9200
Mich Anger Assoc Inc, 13126 Michigan Ave Dearborn 584-9853
Minn Ed Melius & Assoc, 3758 N Dunlap St St Paul 484-8541
NM Dyma Engineering, Rt 1, Box 51, Taos 758-2686
NY Trionics Assoc, Inc, 320 Northern Blvd Great Neck 466-2300
NY Martin D Andrews, Inc, 319 Mott Rd Fayetteville 637-3144
NC Roy Attaway Co, 614 Nissen Blvd Winston-Salem 722-9671
Ohio Anger Assoc Inc, 21139 Loraine Rd Cleveland 333-4180
Pa Arnold Ratner Assoc Inc, 301 York Rd Jenkintown .... TU 7-5250
Tex Merit Co, 10044 Monroe St, Dallas .... FL 2-8040
Utah Cannon Engrg & Sls Co, 2250 E 17th St S Salt Lake City 485-9253
Wash Western Electro-Dynamics, 584 Dexter Horton Blvd Seattle 682-8412
Can Fryston Assoc Co Ltd, 67 Ellesmere Rd Scarborough, Ont 449-3200
GB Derritron Ltd, 24 Upper Brook St, Mayfair London .... HYD 2291

AGA CORP, 550 COUNTY AVE, SECAUCUS
NJ, 07094, TWX 126469 .... 212 866-3344
D BEAU, EMP 35, ENG 9, $5,000-$10,000M
Cal AGA Corp, 1499 Bayshore Ave Burlingame 415 692-2045

AGARD ELECTRONICS CORP
40 NASSAU TERMINAL RD, NEW HYDE PARK
N Y, 11040 .... 516 328-1905
D EASTON, EMP 65, ENG 3, $1,000-$2,500M
NY Electro Rep, Inc, 380 Broadway, Hicksville 516
Pa Robert Graham, Box 326 Narberth .... 215 SU 9-2442

AGASTAT DIV, ELASTIC STOP NUT CORP
1027 NEWARK AVE, ELIZABETH
N J, 07207, TWX 710-741-4788 .... 201 EL 22900
W WARD, EMP 375, ENG 14, $5,000-$10,000M
Cal John C Henberger, 4032 Wabaska Dr San Diego 223-7114
Cal Agastat Div, 110 S Garfield Montebello 721-5115
Cal Agastat Div, 165 University Ave Palo Alto 325-4486
Colo Cliff Beabout Co, 666 Sherman St Denver 244-3151
Ga J E Cooper, 5367 N Peachtree Rd Atlanta 451-5176
Ill Newman-Krause Co, 5451 W Lawrence Ave Chicago 736-6800
Ind Law Instrument Co, Box 95, Angola 665-6016
Kan G H Pearson, Box 8132, Praire Village .. MI 9-8409
Md Aeron Assoc, 880 Bonifant St Silver Spring 588-4047
Mass Electrical Apparatus Co, Inc 1200 Soldiers Field Rd, Boston 782-7440
Mich Hilltronics Inc, 13720 Puritan Ave Detroit 342-3242
Minn Electrical Jobbers Equip Inc, 1120 Glenwood Ave Minneapolis 377-7904
Mo J Durbin Co, 10700 Manchester Rd St Louis 963-3003
Neb B Gurney & Assoc, Inc, 1014 Douglas St Omaha 342-8445
NY R F Lamb Co, Inc, 3407 Delaware Ave Buffalo 876-3757
NY Ray Fara Assoc, Box 81, Manhasset .... MA 7-1151
NY J F Wulfetange Div, Box 126, Syracuse 446-3330
NC J Rudisill Assoc Inc, 2009 N Tryon St Charlotte 377-6901
Ohio Jay Engineering Co, 4712 W 130th Cleveland .... CL 2-0486
Ohio Jay Engineering Co, 1721 E Third St Dayton 253-2151
Okla Harold Furtney Co, Box 7081, S Side Sta Tulsa .... RI 7-6490
Pa McDavitt Sales Corp, Box 8, Pilgrim Gdns Sta Drexel Hill .... KI 4-2588
Pa Foster-McClinton, Inc, 1675 Washington Rd Pittsburgh 561-4803
Tex Industrial Equip Co, 6831 Navigation Blvd Houston 928-3463
Tex P J Scanlon Co, Inc, 724C S Sherman St Richardson .... AD 1-4661
Wash Seatronics Inc, 5931 4th Ave S, Seattle 767-4330
W Va G H Zimmerman & Co, Box 1306 Charleston 342-2212
Can ESNA Ltd, Box 250, Agincourt, Ont 293-2431
Belg Intair, SA, Centre Intl Rogier, Brussels 17-23-46

AGILE DIV, NALGE CO, 75 PANORAMA CREEK DR, ROCHESTER
N Y, 14625 .... 716 586-8800
F OBSTFELD, EMP 25, ENG 5, OVER $10,000M
ADV PG 141, 381, 690
Cal Insulation Components Assoc, Olympic Blvd Montebello 213 685-4078
Colo Fluid Systems, Inc, 1550 S Pearl St Denver 303 744-1781
Ga W J Kelly, Box 9781, Atlanta 404 457-8828
Haw Woods Co, Box 846, Kailua 254-3655
Ill H W Foege, Box 188, Evanston 312 475-5708
Ind Campbell Industrial Sales, Box 40115 Indianapolis 317 846-2885
Iowa C F Raines, 4222 C Ave NE Cedar Rapids 319 363-7221
La Bailey Engineering Co, 126 Industrial Ave New Orleans 504 895-8659
Mass O'Connor Assoc, 60 Hickory Dr Waltham 617 899-1644
Mich Dale L Prentice Co, 16540 James Couzens Dr Detroit .... 313 DI 1-0040
Minn Applied Engineering Sales, 12401 Minnetonka Blvd Hopkins 612 935-3491
Mo Nagel & Nax, Inc, 10907 Manchester St Louis .... 314 YO 6-2747
NJ R L Faber Assoc, 460 Colfax Ave Clifton 201 773-8900
NY Korustone Assoc, 1271 E Ferry St Buffalo 716 892-3450
Ohio Dawson & Assoc, 21877 Euclid Ave Cleveland 216 531-3565
Pa W H Evans, 304 Woods Rd Glenside 215 885-3445
Pa American Ind Equip Co, 201 Penn Center Blvd Pittsburgh 412 823-8666
Tex Productive Equip Assoc, Box 880 Bellaire .... 713 MO 8-2533
Wash J B Meyer, Box 6664, Seattle 206 937-2722

AGNEW-HIGGINS INC, 7532 ANTHONY AVE
GARDEN GROVE, CAL, 92641 .... 714 893-1301
B AGNEW, EMP 21, ENG 2, $500-$1,000M
Ala W H Curtin & Co, 1210 S 20th St Birmingham .... 205 AL 1-9339
Cal Howard & Co, Box 506 S San Francisco .... 415 JU 9-3050
Cal United Desk Co, 1200 S Olive St Los Angeles .... 213 RI 9-6571
Conn Tom Crawford & Son, Box 264 Norwood, Mass 617 762-6878
Fla W H Curtin & Co, Box 606 Jacksonville .... 904 EL 5-5426
Fla W H Curtin & Co, 388 Minorca Ave Miami 305 445-2501
Ga W H Curtin & Co, Box 2122 Atlanta 404 355-6944
Iowa D C Regan Co, 517 Main St Davenport 319 322-7734
La W H Curtin & Co, Box 53387 New Orleans 504 524-0475
Md Paddock-Joslow Co, 721 Ellsworth Dr Silver Spring .... 301 JU 8-7866
Mass Tom Crawford & Son, Box 264 Norwood 617 762-6878
NJ W H Curtain & Co, 357 Hamburg Tpk Wayne 201 278-3300
NM W H Curtin & Co, 311A Washington St, SE Albuq 505 255-8210
NY J V Costello, 2030 Erie Blvd E Syracuse 315 472-0322
Ohio Rep/Corp, 2077 Embury Park Rd Dayton 513 278-5885
Okla W H Curtin & Co, Box 747, Tulsa .... 918 LU 5-5757
Pa John F Scanlan Inc, 1238 Belmont Ave Philadelphia .... 215 TR 8-4700
Tenn W H Curtin & Co, 826 1/2 Poplar Ave Memphis 901 526-2769

Tex W H Curtin & Co, Box 1546
Houston .... 713 WA 3-1661
Tex W H Curtin & Co, Box 5304
Dallas .... 214 RI 7-2503
Tex W H Curtin & Co, 719 S St Mary's St
San Antonio .... 512 CA 3-1836
Tex W H Curtin & Co, 519 S Water St
Corpus Christi .... 512 TU 4-5652
Wash Seatronics, Inc, 5931 4th Ave S
Seattle 206 767-4330
For Air Maintenance Intl, 818 Starco, Beirut, Leb
Swed Scan Agent, Alviksvagen 110
Bromma 15 .... 80 12 17
Mex Curtin de Mexico, S A de C V, Box 26265
Mexico 13

AIC INSTRUMENTS DIV AIC CORP, 6214 ROYALTON ST
HOUSTON, TEXAS, 77036 .... 713 MO 4-0353
T HOWELL

AIKOW SHOJI KAISHA LTD
KITAKU, 52, USHIMARU-CHO, OSAKA
JAPAN 371-0095
Y TSUJI

AIM ELECTRONICS LTD, 69 HISTON RD, CAMBRIDGE
U K .... CAM 6-2466
J PROSSER, EMP 40, ENG 20, $100-$250M
Cal Ling Electronics, 1515 S Manchester Ave, Anaheim
BC Rutherford Electronics Pty, Box 30, N Balwyn
Victoria

AINSLIE CORP, 531 POND ST, BRAINTREE
MASS, 02185 .... 617 848-0850
D CANTELLI, EMP 130, ENG 3, $1,000-$2,500M
Ala Theall Engrg Sales Co, Box 3122
Huntsville 205 852-1525
Cal R F Assoc, 162 Pontius Ave
Los Angeles 213 478-1586
Cal R F Assoc, 800 San Antonio Rd
Palo Alto 415 327-5531
Fla Theall Engrg Sales Co, Box 922
Maitland 305 647-4469
Md Engineering Assoc, 1406 Shoemaker Rd
Baltimore 301 825-2385
Can Ainslie Antenna Co, Ltd, 8490 Lafrenaie St
Montreal, Que

AIRBORNE INSTRUMENTS LAB, DIV CUTLER-HAMMER
INC, COMAC RD, DEER PARK
N Y, 11729 .... 516 595-3215
G MCCARTHY, EMP 4000, ENG 1600, OVER $10,000M
Ala Lee Assoc Inc, 5R Traylor Island
Huntsville 205 539-0761
Ariz Hytronic Msmts, Inc, 1017 N 3rd St
Phoenix 253-6104
Cal Wright Engineering, 180 E Calif Blvd
Pasadena 681-2651
Cal Wright Engineering, 126 25th Ave
San Mateo 345-5796
Colo Hytronic Msmts, Inc, 4940 E 39th Ave
Denver 388-4081
Conn George Gregory Assoc, 9 S Main St
Cheshire 272-5040
Fla Lee Assoc Inc, 200 E Marks St, Orlando .. 241-4445
Ill Loren F Green & Assoc, 5218 W Diversey Ave
Chicago 286-6824
Kan Simpson Enterprises, Box 18066, Southeast Sta
Wichita 943-0502
Md Lee Assoc Inc, 12250 Wilkins Ave
Rockville 949-4800
Mass George Gregory Assoc, 7 Erie Dr
Natick 655-1330
Mich Tiby Co, 380 Hilton Rd, Ferndale 313 542-3550
Minn Loren F Green & Assoc, 6225 University Ave N E
Minneapolis 781-1611
Mo Simpson Enterprises, Box 3873
Kirkwood 965-1115
NJ Louis A Garten & Assoc, 375 Passaic Ave
Caldwell 226-7800
NM Hytronic Msmts, Inc, 205 San Pablo SE
Albuquerque 268-3941
NY RJC Assoc, 219 Oakridge Terr
Liverpool 457-3220
NC Lee Assoc Inc, 825 Burke St
Winston-Salem 724-2406
Ohio Tiby Co, 1954 N Main St, Dayton 277-3822
Ohio Tiby Co, 2245 Warrensville Ctr Rd
Cleveland 371-5335
Okla John A Green Co, Box 3209, Tulsa 742-4657
Pa Louis A Garten & Assoc, 947 Old York Rd
Abington 927-1200
Tex John A Green Co, 7118 Envoy Ct
Dallas 631-7450
Tex John A Green Co, 3400 Montrose
Houston 526-2959
Utah Hytronic Msmts, Inc, 2022 S Main St
Salt Lake City 466-4924
Can B R H Assoc Ltd, 6338 Victoria Ave
Montreal 733-5331
Can B R H Assoc Ltd, 184 Finch Ave W
Willowdale 223-4008
Can B R H Assoc Ltd, 1300 Carling Ave
Ottawa 728-0113
For Intl Electronic Engrg Ltd, Huerfanos 521
Santiago, Chile
Den Tage Olsen A/S, Ronnegade 1, Copenhagen
Fr Fenwick, 15, Rue Fenelon, Paris X
Ger Omni Ray GmbH, Nymphenburger Str 164, Munich
GB Livingston Labs Ltd, Bushey Mill La, Watford, Herts
Holl I R C A, Paradysstr 92, Voorburg
Jap Nippon Automatic Control Co
36-4, 1-Chome, Chofu-Minemachi, Ohta-Ku, Tokyo
Nor C Grindvold A/S, 16 Tidemandsgat, Oslo
SAfr Amuron Investment Corp (Pty) Ltd, Box 15552
Johannesburg
Swed Teleinstrument AB, Harjedalsgatan 138
Stockholm-Vallingby
Swit Omni Ray AG, Dufourstr 56, Zurich 8
Arg Mafelco Intl S R L, Esmeralda 358, Piso 5
Buenos Aires
BWI J Dontopoulos, 16 University Ave, Athens
Ind Motwane Put Ltd, Box 1312, Bombay
Spn Ataio, Ingenieros, Enrique Larreta 12, Madrid 16
Fin Insinooritoimisto, Sahkotyo Oy, Hameenkatu 28
Tampere 3
Aust Electric Control & Engrg Ltd, Box 21
Camperdown, N S W

AIRBORN INC, 2618 MANANA DR, DALLAS
TEX, 75220 .... 214 357-0274
W CLARK, EMP 75, ENG 4, $500-$1,000M
Cal Melvin Sales Co, 113 Camino Real
Millbrae 697-6922
Cal R L Assoc, 14401 Gilmore St
Van Nuys 780-1666
Fla Scott & Assoc, Inc, 1010 Executive Ctr Dr
Orlando 841-4840
Md Be-Mar Assoc, 120 Derwood Cir
Rockville 762-8880
Mass Lancer-Kneeland Assoc, 16 Adams St
Burlington 862-7782
Minn Klass Co, 814 S Ninth, Minneapolis 338-8427
NJ GT Assoc Inc, Box 1233, Wayne 731-3449
NY Wilson H Zimmerman Co, 112 Dewitt St
Syracuse 474-4889
NY W H Zimmerman Co, 3100 Monroe
Rochester 586-4450
NY GT Assoc Inc, Box 283, Levittown 731-3449
Pa Be-Mar Assoc, 7217 Rising Sun Ave
Phila 728-6333
Wash Bill Waddell Co, 10211 NE 31st Pl
Bellevue 822-9629

AIRCOM INC, MAIN ST, UNION
N H, 03887 .... 603 473-2323
R RIVERS, EMP 15, ENG 2, $100-$250M

AIR CONTROL INC, 125 NOBLE ST, NORRISTOWN
PA, 19401 .... 215 279-0500
R BOND, EMP 76, ENG 5, $1,000-$2,500M

AIRCO SPEER ELECTRONIC COMPONENTS
FOSTER BROOK RD, BRADFORD
PA, 16701, TWX 510 695-5921 .... 814 362-5536
G WEHLER, EMP 750, ENG 16, OVER $10,000M
Ala Component Sales Corp, Box 3384
Huntsville 539-0876
Ariz Mercury Engr Sales, Box 3130
Scottsdale 945-1927
Cal Straube Assoc, 483 Willow Rd
Menlo Park 323-2476
Cal Penwarden Assoc, 14547 Titus St
Van Nuys 782-4920
Cal Straube Assoc, 98 W Jackson St
Hayward 783-6750
Colo William Byrne, Box 1649, Boulder 443-8600
Fla Components Sales Corp, Box 9545
St Petersburg 360-7460
Fla Components Sales Corp, Box 14523
Orlando 360-7460
Ill Greenslade Sales, 5875 Lincoln Ave
Chicago 561-0156
Ind J F Kilfoil Co, 5225 New Haven Ave
Ft Wayne 749-0113
Kan Impala, Inc, 6917 W 76th St
Overland Park 648-6901
Mich Jensen-Morrow Sales Co, 26711 Woodward Ave
Royal Oak
Minn Ed Melius & Assoc Inc, 3758 N Dunlap St
St Paul 488-7293
Mo Impala Inc, 47 LVLg Sq Shop Ctr
Hazelwood 522-1600
NJ Harold Gray Assoc, 20 Foster St
Bergenfield 279-3766
NY R W Jackson Co, 4446 Main St
Buffalo .... TF 9-0200
NY R H Jackson, Box 295, Fayetteville ..... NE 7-3851
NY L L Minthorne Co, 64-14 Woodside Ave
Woodside 269-6272
NC Component Sales Corp, Box 6401
Raleigh 832-1897
Ohio John F Kilfoil, 9415 Montgomery Rd
Cincinnati 791-6150
Ohio Robt G Siff & Assoc, 22 Oxford Ave
Dayton 278-4779
Pa R H Hilderbrand, Box 166
Fairview Vlg .... CH 7-6225
Tex John F Rasco, 2813-A Allen St, Dallas ... 747-0108

AIRCO SPEER ELECTRONIC COMPONENTS
HOOVER AVE, DUBOIS
PA, 15801, TWX 510-693-3096 .... 814 371-2100
H WADDELL, EMP 300, ENG 11, OVER $10,000M
Ariz Mercury Engrg Sales, Box 3130 Scotsdale, 945-1927
Cal Straube Assoc, 483 Willow Rd
Menlo Park 323-2476
Cal Penwarden Assoc, 14547 Titus St
Van Nuys 782-4920
Colo Straube Assoc, Box 1649, Boulder 443-8600
Fla Component Sales Corp, Box 9545
St Petersburg 360-7460
Ill Greenslade Sales, 5875 Lincoln Ave
Chicago 561-0156
Kan Impala Inc, 6917 W 76th St
Overland Park 648-6901
Mass Bahr Sales Co, 91 Woodsley Rd
Longmeadow 567-3488
Mich C B Jensen & Assoc, 26711 Woodward Ave
Royal Oak 399-0900
Minn Ed Melius & Assoc, 3758 N Dunlap St
St Paul 488-7293
NJ Harold Gray Assoc, 20 Foster St
Bergenfield 384-3643
NY R W Jackson Co, 4446 Main St
Buffalo .... TF 9-0200
NY C Tennant & Sons, 100 Park Ave, New York
Ohio J F Kilfoil, 9415 Montgomery Rd
Cincinnati 791-6150
Ohio R G Siff & Assoc Inc, 22 Oxford Ave
Dayton 278-4779
Pa R H Hilderbrand, Box 166
Fairview Village .... CH 7-6225
Tex John F Rasco, 2813-A Allen St, Dallas ... 747-0108
Wash H S Thorpe & Sons, Box 1117, Bellevue

AIRCO TEMESCAL, 2850 7TH ST, BERKELEY
CAL, 94710, TWX 910-366-7366
W OVERACKER, EMP 300, ENG 55, $5,000-$10,000M
Ariz E J Foley Assoc, 3840 N Jokake St
Scottsdale 945-2666
Conn Airco Temescal, Merwin Bldg, Wilton 762-8361
Fla LeRoy E Rogers Co, 110 Sea Island La
Boca Raton 395-7922
Ga G H Crossley & Assoc, 3390 Peachtree Rd NE
Atlanta 404 231-4278
Ill Airco Temescal, 2001 W 16th St
Broadview 312 681-8950
Tex True Technology Co, 12016 Fieldwood La
Dallas .... 214 AD 9-7741

AIRCRAFT COMPONENTS INC, 755 WOODLAND
BENTON HARBOR, MICH, 49022 .... 616 925-8861
C RAINES, EMP 35, ENG 2, $1,000-$2,500M

AIRCRAFT & ELECTRONIC SPECIALTIES, INC, BOX 126
PLAINFIELD, IND, 46168 .... 317 839-2551
N HIGBIE, EMP 97, ENG 2, $500-$1,000M
Ariz Shefler-Kahn Co, Box 1587, Phoenix

AIRCRAFT INSTRUMENTS CO, COMMERCE DR
MONTGOMERYVILLE, PA, 18936 .... 215 368-0175
J RYCHLAK, EMP 48, ENG 4, $500-$1,000M
Can Brian Eng Ltd, 2445 Duncan Rd
Montreal 735-1671
Den Technitron A/S, 24 Klosterstr
Copenhagen K .... PAL 2632
Fr Technitron SA, 55, Rue Pierre Charron
Paris .... ELY 30-58
Ger Technitron GmbH, Sonnenstr 14, Munich 557832
Holl Technitron (Holland), Rottumerstr 15
Amstelveen 31273

AIRCRAFT RADIO CORP, ROCKAWAY VALLEY RD
BOONTON
N J, 07005, TWX 710-987-8301 .... 201 334-1800
W MASON, EMP 831, ENG 75, OVER $10,000M

AIRECO, INC, 1660 NE 191ST ST
NORTH MIAMI BEACH, FLA, 33162 ..... 305 864-5963
H LEVINE, EMP 12, ENG 2, $500-$1,000M
NY R Mark, 1262 Lexington Ave
Schenectady .... FR 2-7606

AIRFLOW CO, MONTGOMERY COUNTY AIRPARK
GAITHERSBURG, MD, 20760 301-948-5000
W HANSEN, EMP 55, ENG 5, $1,000-$2,500M
Cal R A Strassner Co, 885 N San Antonio Rd
Los Altos 948-3334
Cal R A Strassner Co, Box 39601, Griffith Sta
Los Angeles 666-4040
Fla H R Gross & Co, Box 1427, Clearwater ... 446-6649
Mass Mardon Co, 440 Lexington St
Auburndale 332-9310
NJ Airflow Co, Box 128, Woodbury Heights .. 848-8125
Tex Applied Engineering Sales, 1st Bank & Trust Co
Richardson 231-1322

AIRFLYTE ELECTRONICS CO, 535-9 AVENUE A, BAYONNE
N J, 07002 .... 201 HE 62230
M FEINMAN, EMP 100, ENG 6, $1,000-$2,500M
ADV PG 841
Cal El Com Sales, 3600 Motor Ave
Los Angeles 870-4707
Cal Poltronics, Box 807, Mountainview 969-9200
Conn Kitchen & Kutchin, 22 Broadway
North Haven 239-0212
Fla Geartner Assoc, 239 Lincoln Rd
Miami Beach 538-8266
Fla Geartner Assoc, 2101 Mohawk Trail
Maitland 647-4000
Ill C Rossi Sales Co, 2711 N 77th Ave
Chicago .... GL 6-4710
Md R P Luce & Co Inc, 19 E 21st St
Baltimore 752-8200
Mass Kitchen & Kutchin, 17 Waltham St
Lexington .... VO 2-8230
Mich R C Merchant & Co, Inc, 18411 W McNichols Rd
Detroit 535-6000
Mich R C Merchant & Co, Inc, 98 Water St
Benton Harbor 925-0015
NY R P Luce & Co, Inc, 1300 Jericho Tpk
New Hyde Park 437-4550
NY Naylor Electric Co, Inc, 1718 Erie Blvd
Syracuse .... GR 2-9183

Pa R P Luce & Co, Inc, 8717 Patton Rd
Philadelphia 884-8365
Tex R Kimball & Assoc, 5531 Dyer St
Dallas .... EM 1-6067
Va R P Luce & Co, 229 S Jenkins St, Alexandria
Wash Seatronics Inc, 5931 4th Ave, S
Seattle .... PA 5-2700
Can Aero Sales Eng Co, 4 Racine Rd
Rexdale, Ont 249-9139
Can Aero Sales Engrg Co, 2695 Regina St
Ottawa 828-8560
GB Malcolm Cross Engrg Ltd, Cross St
Beeston, Nottingham

AIR FRANCE, 1350 AVENUE OF THE AMERICAS
NEW YORK, N Y, 10019 .... 212 765-3000

AIRGUIDE INSTRUMENT CO, 2210 WABANSIA AVE
CHICAGO, ILL, 60647 .... 312 486-3000
F ECKERT, EMP 150, ENG 5, $2,500-$5,000M

AIR INFLATABLE PRODUCTS CO, 240 DODGE AVENUE
EAST HAVEN, CONN, 06512 .... 203 467-6306
W FISCHER, EMP 65, ENG 7, $1,000-$2,500M
Ala Brennan Assoc, 2311 Poinciana St
Huntsville 536-7425
Cal William Wenzlau, 410 Solano Ave
Los Angeles .... CA 5-4109
Colo C E Lindberg, 2654 S Krameria, Denver ... 767-6489
Fla Brennan Assoc, 209 S Myrtle
Clearwater 446-5006
Ill Braun Marketing Assoc, 824 Forest Ave
Evanston 869-4518
Md J H Electronics, 1126 Gypsy La W
Towson 825-4491
Mass Wm Beaver Assoc, 41 Indian Ridge Rd
South Nattick 655-1529
Mo Aerotronics Inc, Box 6236, Lambert Fld
St louis .... HA 6-4060
NY Cain & Co, 369 White Plains Rd
Eastchester .... CE 7-3445
Ohio J J Raney Assoc, 554 N Galloway St
Xenia 372-8767
Tex Cain & Co, 435 Braniff Airways Bldg
Dallas .... FL 7-8645
Wash J B Jolly, 69 Marion St, Seattle .... Ma 3-7060
Tex IBL Eng & Sales, 6170 Sherry La, Dallas
Wyo C Edward Lindberg, 2654 S Krameria
Denver, Colo 767-6489
GB Ultra Electronics Ltd, Western Ave
London W3 .... ACO 3434

AIR-LOC PRODUCTS, FISHER ST, FRANKLIN
MASS, 02038

AIR-MAZE DIV, NORTH AMERICAN ROCKWELL CORP
25000 MILES RD, CLEVELAND
OHIO, 44128, TWX 216 292-6065 .... 216 292-6800
J CLEM, EMP 600, ENG 25, $5,000-$10,000M

AIRMEC-AEI LTD, HIGH WYCOMBE
BUCKINGHAMSHIRE
ENGLAND, TWX 83243 .... WYC 21201
J ROBB

AIRMEC INSTRUMENTS LTD, HIGH WYCOMBE
BUCKINGHAMSHIRE, ENGLAND .... WYC 21201
S BOREHAM, EMP 350

AIRPAX ELECTRONICS INC, CAMBRIDGE DIV
CAMBRIDGE
MD, 21613, TWX 710 865-9655 .... 301 228-4600
W KOUZOULAS, EMP 475, ENG 20, $5,000-$10,000M
Ariz Vinson Assoc, 44 E Indian School Rd
Scottsdale 947-7371
Ark Meredith Young Assoc, R 2 Box 705
Hot Springs 262-1365
Cal Airpax Electronics Inc, 14436 Sherman Way
Van Nuys 781-2821
Cal Airpax Electronics, 885 N San Antonio Rd
Los Altos 213 781-2821
Colo Vinson Assoc, 3600 S Lincoln
Englewood 789-2203
Conn Airpax Electronics, 6 Newberry Rd
Bloomfield 243-0775
Fla Airpax Electronics Inc, Box 8488
Fort Lauderdale 587-1100
Fla Reynolds & Assoc, Box 1043
Eau Gallie 727-3205
Fla Reynolds & Assoc, 161 SW 75th Ave
Fort Lauderdale 581-6611
Fla Reynolds & Assoc, Box 8877, Orlando 424-3836
Fla C B Metcalf Co, 3601 Swan La
Pensacola 476-7710
Ill Actronic Sales Engineering Inc
4750 N Milwaukee Ave, Chicago 286-1037
Ind A D Moore Co, 4020 W 80th St
Indianapolis 291-6550
Iowa Reid Assoc Inc, 526 Merch Natl Bk Bldg
Cedar Rapids 362-6302
Kan Palatine Engineering Sales Inc, 5614 Johnson Dr
Mission 262-5643
La E E Brown Instr Co, 3346 Greenway Dr
Baton Rouge 926-2923
La E E Brown Instr Co, 5100 Jewella Rd
Shreveport 635-7697
Md Aeron Assoc, 880 Bonifant St
Silver Spring 588-4047
Mass Airpax Electronics, 192 Worcester St
Wellesley Hills 237-2600
Mich L T Martensen Co, 46 Ridge Rd
Pleasant Ridge 543-3633
Minn Fred Peterson Co, Box 8409
Minneapolis 927-4453
Mo Palatine Engineering Sales Inc, 2050 Woodson Rd
St Louis 426-7055
NJ Jack McCoy, 300 Marlton Pike
Cherry Hill 428-3444
NM Vinson Assoc, 2329 F Wisconsin NE
Albuquerque 298-7442
NY John DiBlasi Assoc Inc, 14 Vanderventer Ave
Port Wash 767-0470
NY C Floring & H Murray Inc, 6585 Kinne Rd
Syracuse 446-5555
NC L G White Co, 1020 Brookstown Ave
Winston Salem 725-3612
Ohio Technical Assoc Inc, 19500 Center Ridge Rd
Rocky River 333-0035
Ohio Technical Assoc Inc, Box 388, Fairborn ... 878-2484
Ohio C P Haskell, Box 624, Far Hills Br
Dayton 298-3331
Okla T J Ray Co, Box 5417, Tulsa 627-1515
Pa Friday Engrg Sls, 666 Washington Rd
Pittsburgh 341-1444
Tex Stevens Sales, Box 34493, Dallas 241-3645
Tex Haltom Co, 5814 Schumacher, Houston ... 782-5625
Tex Barnco Co, 1507 W 2nd St, Odessa 332-0294
Wash John Plate, 584 Dexter Horton Bldg
Seattle 624-1673
Wis Airpax Electronics, 633 W Wisconsin Ave
Milwaukee 272-4398
Can Leonard Electric Ltd, 1008 Rangeview Rd
Port Credit 274-3454
Can Southwell Controls Ltd, 1332 Powell St
Vancouver 255-9141

AIRPAX ELECTRONICS INC SEMINOLE DIV, BOX 8488
FORT LAUDERDALE
FLA, 33310, TWX 510-955-9866 .... 305 587-1100
M ROGERS, EMP 475, ENG 25, $5,000-$10,000M
Ariz Vinson Assoc, 44 E Indian School Rd
Scottsdale 947-7371
Ark Meredith Young Assoc, Rt 2, Box 705
Hot Springs 262-1365
Cal Airpax Electronics Inc, 14436 Sherman Way
Van Nuys 781-2821
Cal Airpax Electronics, 885 N San Antonio Rd
Los Altos 213 781-2821
Colo Vinson Assoc, 3600 S Lincoln
Englewood 789-2203
Conn Airpax Electronics, 6 New Berry Rd
Bloomfield 243-0775
Fla Reynolds & Assoc, Box 1043
Eau Gallie 727-3205
Fla Reynolds & Assoc, 161 SW 75th Ave
Fort Lauderdale 581-6611
Fla Reynolds & Assoc, Box 8877, Orlando 424-3836
Fla C B Metcalf Co, 3601 Swan La
Pensacola 904 476-7710
Ill Actronic Sales Engineering Inc
4750 N Milwaukee Ave, Chicago 286-1037
Ind A D Moore Co, 4020 W 80th St
Indianapolis 291-6550
Iowa Reid Assoc Inc, 526 Merch Natl Bk Bldg
Cedar Rapids 362-6302
Kan Palatine Engineering Sales Inc, 5514 Johnson Dr
Mission 262-5643
La E E Brown Instr Co, 3346 Greenway Dr
Baton Rouge 926-2923
La E E Brown Instr, 5100 Jewella Rd
Shreveport 635-7697
Md Aeron Assoc, 880 Bonifant St
Silver Spring 588-4047
Mass Airpax Electronics, 192 Worcester St
Wellesley Hills 237-2600
Mich L T Martensen Co, 46 Ridge Rd
Pleasant Ridge 543-3633
Minn Fred Peterson Co, Box 8409
Minneapolis 927-4453
Mo Palatine Engineering Sales Inc, 2050 Woodson Rd
St Louis 426-7055
NJ Jack McCoy, 300 Marlton Pike
Cherry Hill 428-3444
NM Vinson Assoc, 2329 F Wisconsin NE
Albuquerque 298-7442
NY John DiBlasi Assoc Inc, 14 Vanderventer Ave
Port Wash 767-0470
NY C Floring & H Murray Inc, 6585 Kinne Rd
Syracuse 446-5555
NC L G White Co, 1020 Brookstown Ave
Winston Salem 725-3612
Ohio Technical Assoc Inc, 19500 Center Ridge Rd
Rocky River 333-0035
Ohio Technical Assoc Inc, Box 388, Fairborn ... 878-2484
Ohio C P Haskell, Box 624, Far Hills Br
Dayton 298-3331
Pa Friday Engrg Sls, 666 Washington Rd
Pittsburgh 341-1444
Tex Stevens Sales, Box 34493, Dallas 241-3645
Tex Haltom Co, 5814 Schumacher, Houston ... 782-5625
Tex Barnco Co, 1507 W 2nd St, Odessa 332-0294
Wash John Plate, 584 Dexter Horton Bldg
Seattle 624-1673
Wis Airpax Electronics, 633 W Wisconsin Ave
Milwaukee 272-4398
Can Leonard Electric Ltd, 1008 Rangeview Rd
Port Credit 274-3454
Can Southwell Controls Ltd, 1332 Powell St
Vancouver 255-9141

AIR PRODUCTS & CHEMICALS, INC, BOX 538
ALLENTOWN
PA, 18105, TWX 510-651-3686 .... 215 395-4911
J STEWART, EMP 7000, ENG 1700, OVER $10,000M
Ala APCI, Box 6387, Birmingham 853-6023
Ala APCI, Box 4066, Montgomery 264-6444
Ark APCI, 2600 E Roosevelt Rd, Little Rock .. 375-1256
Cal APCI, 465 Whisman Rd
Mountain View 961-4560
Cal APCI, 23320 S Alameda St
Long Beach 830-5200
Del APCI, Box 261, Delaware City 834-4504
Fla APCI, Box 6874, Jacksonville 388-3591
Fla APCI, Box 637, Miami 691-6141
Fla APCI, Box 5006, Tampa 247-2136
Ga APCI, Box 1268, Albany 432-0536
Ga APCI, 28 Bale St, Rome 234-5316
Ill APCI, 12745 S Wentworth Ave
Chicago 468-4100
Ill APCI, 2204 Monroe St, Granite City 452-5335
Ind APCI, Box 257, Chesterton 762-3555
Ind APCI, 6 E Taylor St, Shelbyville 392-1731
Ind APCI, 912 S Lafayette Blvd
South Bend 288-4641
Iowa APCI, 1915 E 4th St, Sioux City 5-7741
Iowa APCI, 1414 Maury St, E, Des Moines 243-8131
Ky APCI, Box 13233, Louisville 451-6340
La APCI, 14700 Intracoastal Dr
New Orleans 254-1590
Md APCI, Box 4061, Baltimore 477-2882
Md APCI, Box 972, Edgewood 2-1139
Mass APCI, 13 Mercer Rd, Natick 237-9840
Mich APCI, 24755 Five Mile Rd, Detroit 538-2044
Minn APCI, Box 176, Shakopee 332-8921
Miss APCI, Highway 49S, Clarksdale 624-2547
Miss APCI, 205 W Claiborne St, Greenwood ... 453-5421
Mo APCI, 1621 Cherry St, Kansas City 421-5495
Neb APCI, 1201-07 California St, Omaha 341-5500
NJ APCI, Oak Tree Rd, Iselin 548-4600
NC APCI, Box 3034, Greensboro 299-1361
NC APCI, Box 428, Raleigh 828-4462
Ohio APCI, 2820 Quigley Rd, Cleveland 781-2800
Ohio APCI, Box 556, Middletown 513 424-1281
Okla APCI, 1524 S May St, Oklahoma City 232-3456
Pa APCI, Rte 222, Trexlertown 395-4911
Pa Houdry Process & Chem Co, 1339 Chestnut St
Phila 568-6000
Pa APCI, 470 S Ogontz St, York 848-1407
SD APCI, Hwy 75 & St Anne St
Rapid City .... FI 2-4490
Tenn APCI, Box 7266, Nashville 255-0585
Tenn APCI, 611 Court Ave, Memphis 525-1483
Tex APCI, 1745 Levee St, Dallas 748-7451
Tex APCI, Tennessee Bldg, Houston .... CA 8-3431
Va APCI, Box 657, Hopewell 458-2024
Va APCI, Box 6037, Richmond 358-4913
Va APCI, Box 441, Roanoke 343-3683
W Va APCI, 518 Camden St, Parkersburg 485-7541
Wis APCI, 4846 W Fond Du Lac Ave
Milwaukee 871-5340
GB Air Products Ltd, Noel St, London W 1 ... GER 0616
Ital Air Products S p A, Via Verziere, Milano ... 702-920

AIR TECHNOLOGY CORP, 103 FOURTH AVE, WALTHAM
MASS, 02154 .... 617 894-1520
J GARVEY, EMP 15, ENG 6, $250-$500M
Va Columbia Scientific Corp, 4305 Wheeler Ave
Alexandria 683-1207

AIRTEC INC, 264 COLUMBUS AVE, ROSELLE
N J, 07203 .... 201 245-2990
R VANCE, EMP 30, ENG 3, $250-$500M

AIRTRON, DIV OF LITTON INDUSTRIES, INC
200 E HANOVER AVE, MORRIS PLAINS
N J, 07950, TWX 710-986-7473 .... 201 539-5500
V STEVENS, EMP 450, ENG 40
Cal Litton Natl Sls Org, 1001 W Maude Ave
Sunnyvale 738-2222
Cal Litton Natl Sales, 12444 Victory Blvd
North Hollywood 213 985-5454
Md Airtron, 501 York Rd, Towson 823-0923
Mass Wm Beaver, 41 Indian Ridge Rd
South Natick 655-1529
Ohio Talbe Co, 5899 Huberville Ave, Dayton ... 253-5351
Wash D Smith Sales Co, 2320 N 45th St
Seattle 633-3160
Can A Deskin, 1565 Louvain St
Montreal, Que 384-1420
Fr J R Boilevin, 120 Ave Des Champs Elysees
Paris .... BAL 38-65
Ger Litton Prec Prods Intl, Stolzingstr 6, 8 Munich 61
Ital Litton Prec Prods Intl, Foro Bonaparte 54
Milan 650-148
Swed Litton Prec Prods Intl, Weine Agren
103 85 Stockholm 7 .... Box 7277
Swit E Spiess, Gubelstr 28 Bauhof, 8050 Zurich
Belg Litton Prec Prods Intl, 16 Rue Du Musee
Brussels 11 63 14

AIR-VAC ENGINEERING CO, 100 GULF ST, MILFORD
CONN, 06460 .... 203 874-2541
C LASTO, EMP 14, ENG 3, $250-$500M
Cal Pat Dooley Co, 18826 Devonshire St
Northridge 360-2231
Cal J H S Assoc, 1911 Fairway Dr
San Leandro 415 483-9616
Colo Coast Tool Co, 5316 Wadsworth Blvd
Arvada 422-3413
Fla Ludlum Assoc Co, 4471 N W 36th St
Miami Springs 885-3611
Ga Electro-Rep Assoc, Inc, 2793-A Clairmont Rd, NE
Atlanta 633-7011
Ill Tipler Corp, 4614 Elm St
Downers Grove .... WO 9-4343
Ind Paul C Huber Co, Box 484, Goshen .... KE 3-1975
Iowa M J Burke Sales Co, 7301 Mission Rd
Prairie Village .... EN 2-4833
Ky McShane, 114 Trails End Dr, Medina 725-4283

Mass Tom Crawford & Son, Box 264 Norwood ... 762-6878
Mich Jerome E Zaiser, 21 Reading Ave Hillsdale ... HE 7-4589
Minn Air Engineering & Supply, 2719 E Franklin Minneapolis ... 335-4181
Mo M J Burke Sales Co, 7301 Mission Rd Prairie Village ... EN 2-4833
NJ J P Dearie Co, 60 Midvale Rd Mountain Lakes ... 334-4848
NM J F Quirk Assoc, 113 California St, NE Albuquerque ... 256-0084
NY Anthony Starr, 3980 White Plains Rd Bronx ... 231-7760
NY John V Costello, 2030 Erie Blvd Syracuse ... GR 2-0322
NC Electro-Rep Assoc, 128 W 30th St Charlotte ... 333-0451
Ohio McShane, 114 Trails End Dr, Medina ... 725-4283
Ore Dale G Weber Co, Weatherly Bldg Portland ... 234-0686
Tex PESO, Box 30393, Dallas ... EM 9-3181
Wis Don R Manecke Assoc, Box 7177 Wauwatosa ... GL 3-9393
Can Willer Engrg & Sales Co, 1800 Avenue Rd Toronto, Ont ... 783-3373
For Emec, Inc, 160 Terminal Drive Plainview, N Y ... WE 1-3700
Ger Klaus Becker KG, 7300 Esslingen/N, Postfach 442,

AJAX CONDENSER CO, INC, 932 W WRIGHTWOOD ST
CHICAGO, ILL, 60614 ... 312 477-0660
M POLAYES, EMP 60, ENG 1, $500-$1,000M
Cal Dorr Wagner Assoc, Box 485, Altadena 681-4060
Ill Lou Bacher Assoc, 9690 W Allen Ave Rosemont ... 625-2742

AJAX MAGNETHERMIC CORP
1745 OVERLAND AVE NE, WARREN
OHIO, 44482 ... 216 372-2529
J LOGAN, EMP 500, ENG 60, OVER $10,000M
Cal B J Campbell, 1504 W Commonwealth Fullerton ... LA 5-8914
Colo T C Jarrett, Box 15397, Denver ... BE 3-2333
Conn J Cook, 1187 Dixwell Ave New Haven ... MA 4-2375
Ill P A Hassell, 9950 W Lawrence Ave Schiller Park ... 312 678-6010
Mich N O Wilcox, 25255 Southfield Southfield ... 313 353-4350
NJ J R Coley, 286 Fifth Ave, New York
Ohio J H Anning, 822 Delta Ave, Cincinnati ... 871-2520
Ohio E Keller, 8924 Brecksville Rd Cleveland ... 526-3711
Pa J Gallagher, 9800 McKnight Rd Pittsburgh ... 931-3737
Tex Thermodyne Prods, 3939 Hartsdale Houston ... 781-3833
Tex Thermodyne Prods, 5523 Dyer Ave Dallas ... EM 3-9108
Can J D Strachan, 333 Slough Rd Ajax, Ont ... WH 2-4980

AKERS ELECTRONICS, HORTEN
NORWAY, TWX 6527 ... 42 651
O EVENSEN, EMP 60, ENG 25, $500-$1,000M
Den E V Johanssen AS, Scherfigsvej 1, Kobenhavn O
GB Jermyn Industries, Vestry Est Sevenoaks, Kent
Holl Arquatron N V, Willemstr, Breda
Swed TH s Elektronik, Brunnsgatan 6, Sundbyberg 1

AKG NORTH AMERICAN PHILIPS CO INC
100 E 42ND ST, NEW YORK
N Y, 10017 ... 212 697-3600
A BRAKHAN

AKRO-MILS, INC, BOX 989, AKRON
OHIO, 44309 ... 216 253-5592
C DENNY, EMP 125, ENG 2
Cal Pressteel Co, 9705 E Garvey Ave El Monte ... 283-1225
Cal Ben Riggio Co, 15333 Kennedy Rd, Los Gatos
Ill Tilkin-Cagen, 6818 N Wayne Ave Chicago ... 761-4417
Mo Clark-Weaver & Assoc, 6416 Kingsway Dr St Louis ... VE 2-4697
NJ T Watkins, 888 N 7th St, Newark ... 485-3763
Ohio F Fisher, Box 989, Akron ... 253-5593
Ohio M Epstein, 2835 Mayfield, Cleveland
Ore R M Minthorne, 6565 S W Macadam Ave Portland ... 246-4556
Tex J B Guenther, 4533 N Central Expwy, Dallas
Can ATR Armstrong, 700 Weston Rd, Toronto, Ont

ALADDIN CONTROLS DIV ALADDIN ELECTRONICS
703 MURFREESBORO RD, NASHVILLE
TENN, 37210, TWX 55-4466 ... 615 242-3411
J MARSHALL, EMP 250, ENG 15, $1,000-$2,500M
Cal Millard D Shriver Co, Inc, Box 517 Rosemead ... 283-7231
Colo E W Johnson & Co, 10130 W Asbury Ave Denver ... 985-4810
Del H E Beane & Assoc, Marlboro Rd R D 1 Kennett Sq, Pa ... 793-1334
Fla Vanguard Assoc, Inc, 1312 Palm Ave Melborne ... 723-3074
Ill AEC, Box 321, Mt Prospect ... 263-5935
Mass Applied Measurements Inc, Box 316 Acton ... 263-2766
Mich Webtrol Inc, 19951 James Couzens Hwy Detroit ... 342-3434

Minn F C Cogburn Sales Co, 1154 E Seventh St St Paul ... 774-9659
Mo Cox Value Specialties Co, 9567 Page Blvd St Louis ... 423-0700
NJ Francis J Gamble Co, 571 Fairview St Riverside ... HO 1-4068
NY Podeyn & Schmidt, 420 Northern Blvd Great Neck ... 438-2780
NY R P Kennedy Co, 39 Saginaw Dr Rochester ... 271-6322
Pa Research Appliance Co, Rte 8 at Craighead Rd Allison Park ... 961-0588
Tex Geo Weinreich & Assoc, 11554 E Northwest Hwy Dallas ... 321-2800
Wis AEC, 12740 N River Rd 43W, Mequon ... 242-1520
For Norcon Div Intrade Inc, Box B Thomaston, Conn ... 283-5563
GB Aladdin Components, Greenford, Middlesex

ALADDIN ELECTRONICS DIV ALADDIN INDUSTRIES
INC, 701 MURFREESBORO RD, NASHVILLE
TENN, 37210 ... 615 242-3411
F BASSLER, EMP 200, ENG 15, $1,000-$2,500M
Ala Young & Lawrence Assoc, 2907 Governors Dr SW Huntsville ... 539-6575
Ariz J C Agee Assoc, Box 7273, Phoenix ... 955-6383
Cal Aladdin Electronics/Skyborne, 9841 Alburtis Ave Santa Fe Springs ... 699-5321
Cal Ewing-Foley Inc, 900 N Antonio Rd Los Altos ... 415 941-4525
Colo E W Johnson, 10130 W Asbury Ave Denver ... 985-4810
Fla Young & Lawrence Assoc, Inc 601 N New York Ave, Winter Park ... 647-6929
Fla Young & Lawrence Assoc, Inc, 300 31st St N St Petersburg Beach ... 813 894-0026
Ill Electro-Comp Sales Inc, 5129 W Devon Ave Chicago ... 763-3636
Ind Schroeder & Loomis Inc, 714 E 65th St Indianapolis ... 251-4571
Ind Tri-State Mktg, Inc, 3320 Broadway Ft Wayne ... 456-3567
Ind Schroeder & Loomis Inc, 714 E 65th St Indianapolis ... 251-4571
Md Barnhill & Assoc, Inc, 1931 Greenspring Dr Timonium ... 252-5610
Mass DeVeer Sales Engineering Co, 1492 Highland Ave Needham ... 444-4200
Mich Villani-Pitcher, Inc, 20233 Ann Arbor Tr Dearborn ... 271-4600
Minn Fred B Hill Co, 6110 Excelsior Blvd Minneapolis ... 929-6727
Mo Automatic Gen Electronic Sls, 6550 E Troost Ave Kansas City ... 333-8206
NJ Podeyn-Schmidt, 207 Hackensack St Wood-Ridge ... 438-2780
NJ Barnhill & Assoc, Inc, Box 296 Collingswood ... 854-5858
NY Podeyn-Schmidt, 420 Northern Blvd Great Neck ... 487-1173
NY R P Kennedy Co, 39 Sagniaw Dr Rochester ... 271-6322
NY R P Kennedy Co, Box 54, Fayetteville ... 637-9531
NY R P Kennedy Co Inc, Green Tree Dr N Hyde Park ... 229-2269
Ohio Tri-State Mktg, Inc, 1717 Section Rd Cincinnati ... 631-5060
Ohio Tri-state Mktg, Inc, 25000 Euclid Ave Cleveland ... 731-9207
Tex George Weinreich & Assoc 11554 E Northwest Hwy, Dallas ... 321-2800
Va Barnhill & Assoc Inc, Box 1104 Lynchburg ... 384-2062
Wash H S Thorpe Co, Box 117, Bellevue ... 454-0667
Can Lake Engineering Co Ltd, 123 Manville Rd Scarborough ... 751-5980
For Norcon Div, Box B, Thomaston, Conn ... 283-5563

ALA INDUSTRIES INC, 99 CALVERT ST, HARRISON
NY, 10528 ... 914 835-0400
P MERLIN, EMP 60, ENG 3, $500-$1,000M
Mass Normell Assoc, 10 Day St, Newton ... 617 969-5478
NJ Howard Kagan Assoc, 18 Tilghman Dr Wayne ... 201 684-7682
NY Geo J Gay, Inc, Box 214 Brockport ... 716 637-3162
NY Howard Kagan Assoc, 150-08 87th Ave Jamaica ... 212 658-8881
Ohio Walter J Brauer Inc, Box 305 Wickliffe ... 216 943-0601
Pa Walter J Brauer Inc, Box 8466 Pittsburgh ... 412 921-3213

ALARMTRONICS ENGINEERING INC
154 CALIFORNIA ST, NEWTON
MASS, 02195 ... 617 969-9100
J AVERY, EMP 25, ENG 4, $500-$1,000M

ALBANO HONEYCOMB DIV, AEROSPACE TECHNOLOGY CORP
555 W 54TH ST, NEW YORK, N Y, 10019 ... 212 PL 7-5887
E ALBANO, EMP 100, ENG 2, $500-$1,000M
ADV PG 343

ALBEROX CORP, INDUSTRIAL PARK, NEW BEDFORD
MASS, 02745, TWX 92-9422 ... 617 995-1725
W COYKENDALL, JR, EMP 70, ENG 5, $500-$1,000M
Cal k lloyd, Box 546, Dana Point ... 213 383-3630
Ill Weldin Sales Co, 2948 Cullom Ave Chicago ... 267-4944
Ind J C Butler, 2070 E 54th St, Indianapolis
Mass J Goode Assoc, 44 Ledgewood Rd, Weston
Mo Larco Sales Co, Box 468, St Louis

NJ H P Woodit Assoc, Box 475 E Orange ... 201 673-7959
NY S F Foster Co, 2806 Hennaberry Rd Pompey ... 315 446-5904
NC Dula Assoc, Inc, 3389 Nottingham Rd Winston-Salem ... 723-4205

ALCATEL, 32 RUE DE LISBONNE, PARIS 8EME
FRANCE ... 522 17-09
R BESSEDE, EMP 5500, ENG 500, OVER $10,000M

ALCH INSTRUMENT CO, INC, 32 URBAN AVE
WESTBURY, N Y, 11590 ... 516 ED 4-7970
A CHITJIAN, EMP 20, ENG 3, $100-$250M

ALCO CONTROLS CORP, BOX 12700, ST LOUIS
MO, 63141 ... 314 HE 2-6300
V PARRILL
Ariz Pacific Scientific Co, 15 N 40th Pl Phoenix ... 602 273-7464
Cal Pacific Scientific Co, 6280 Chalet Dr City of Commerce ... 213 773-2020
Cal Pacific Scientific Co, 760 Harrison St San Francisco ... 415 362-0934
Cal Pacific Scientific Co, 3235 Hancock St San Diego ... 714 297-4533
Colo E & M Sales Inc, 2660 Walnut St Denver ... 303 244-4291
Conn Doonan-Miles Corp, Box 216 Wallingford ... 203 269-5973
Fla Ed Sandlin & Assoc, 1640 Orange Ave Winter Park ... 305 647-4496
Ill Fred I Tourtelot Co, 407 S Dearborn St Chicago ... 312 427-5464
Ind OEM Sales Co, 4165 Millersville Rd Indianapolis ... 317 545-1267
Iowa Volco Co, 214 Kahl Bldg Davenport ... 319 326-5233
Iowa Volco Co, 1004 Grand Ave Des Moines ... 515 283-1650
La Dykes Co Inc, 505 W 67th St Shreveport ... 318 865-0209
La Williams Equip Co, Box 35 Metairie ... 504 835-9417
La Williams Equip Co, Box 355 Baton Rouge ... 504 344-4162
Mich Steam Specialties Co, 25255 Southfield Southfield ... 313 444-4636
Minn Volco Co, 831 S Sixth St Minneapolis ... 612 336-6631
Mo Harris Hanson Co, 2814 S Brentwood Blvd St Louis ... 314 647-4350
Mo Harris Hanson Co, 7916 Paseo St Kansas City ... 816 444-9494
Neb Volco Co, 119 S 19th St, Omaha ... 402 346-2203
NY R P Smith Co Inc, 1510 Central Ave Albany ... 518 869-8515
NY R P Smith Co Inc, 6443 Ridings Rd Syracuse ... 315 463-6641
NY MWM Assoc, Box 412, Lynbrook ... 516 593-6190
NC W K Hile Co Inc, Box 1015 Matthews ... 704 847-9125
Ohio Arnold & Assoc Inc, 597 E Galbraith Rd Cincinnati ... 513 761-5566
Ore Pacific Scientific Co, 1208 SE 7th Ave Portland ... 503 233-6177
Pa E Smith Jr, Box 1843, Harrisburg ... 717 233-8732
Pa A-Tek Assoc, 9039 Convent Ave Philadelphia ... 215 464-1234
Pa Process Engrg Co, Box 10464 Pittsburgh ... 412 561-2242
Tenn Geo H Grant Co, 301 Masters Rd Hixson ... 615 877-8549
Tenn Janis Equipment Co, 4711 Poplar Ave Memphis ... 901 683-1511
Tex Electrical Agencies Co, 2813-A Allen Dallas ... 214 747-0108
Tex Gay Engrg & Sales Co, 5425 Blossom St Houston ... 713 869-3306
Wash Pacific Scientific Co, 8915-14th Ave Seattle ... 206 762-4260
Can Altemp Products Ltd, 55 Estate Dr Scarborough ... 416 293-8264

ALCO ELECTRONIC PRODUCTS, INC, 3 WOLCOTT AVE
LAWRENCE, MASS, 01843 ... 617 686-3889
R LAFFEY, EMP 20, ENG 2, $1,000-$2,500M
Cal R Del Bucchia & Assoc, 15 Southgate Daly City ... 756-8414
Cal D Ellis Co, 123 N Marengo Ave Pasadena ... 681-9108
Conn Gerber Sales Co, 29 Whalley Ave New Haven ... 777-6279
Fla J J Smith & Assocs Inc, Box 460 Winter Park ... 644-4316
Fla J J Smith & Assocs, Box 573 Biscaynne Anx Miami ... 374-6784
Ga Chalmers Inc, 349 Peachtree Hill Ave NE Atlanta ... 233-3208
Ill Rockford Controls, 21 W181 Hill Ave Glen Ellyn ... 469-6016
Kan Penzner Assocs Inc, Box 6264 Overland Park ... 381-0004
La S Ormsby Sales Co, 7121 Catina St New Orleans ... 282-2097
Mass Gerber Sales Co, 178 Second Ave Waltham ... 891-8040
Mass Gerber Sales Co, 24 Maple Ct E Longmeadow ... 525-3059
Mich Jefco Sales Co, 700 Maple E Birmingham ... 642-3830
Minn Countrymen, Wagner & Behnen Co 1955 University Ave, St Paul ... 645-9151

Mo Penzner Assoc, Box L9L2 Bechtold Sta
St Louis ... 351-1547
NJ Finlay Sales Co, 45 N Broad St
Ridgewood ... 652-0088
NY Leonard D Allen Inc, Box 205
N Syracuse ... 458-7470
Ohio Midwest Sales Co, 3219 W 117th St
Cleveland ... 941-2700
Ore Earl & Brown Co Inc, 2041 SW 58th Ave
Portland ... 226-4148
Pa Ralph M Davis Co, 814 Wrainwright Dr
Pittsburgh ... 341-6611
Tex T Spivey Co, 7547 Wilmerdean St
Houston ... 649-1221
Tex Lloyd Cole & Assocs, 123 W College
Denton ... 383-3913
Wash Earl & Brown Co Inc, 422 First Ave W
Seattle ... 284-1121
Can Electronic Components Intl, 95 Havenbrook Blvd
Willowdale Ont ... 447-3873
Can Electronic Components Intl, 5253 Decarie Blvd
Montreal 29 Que ... 489-0725
For Norcon, Box B, Thomaston, Conn ... 283-5563

ALCONOX INC, 215 PARK AVE S, NEW YORK
N Y, 10003 ... 212 GR 3-1300
E FENLON, EMP 10

A L CONTROLS CO, BOX 412, NEW HAVEN
CONN, 06502 ... 203 562-9164
D MAY, EMP 4, ENG 2, UP TO $100M
Colo Huffman Engrg Co, 15 Eastfield Dr
Rolling Hills ... 377-4741
Minn C F Vandervoort Co, 1279 Osage St
St Paul ... 489-5222
Ger Ernst Tesch K G, 124 Grafrather Str
Wuppertal ... 78 24 24

ALCOR AVIATION, INC, BOX 28299, SAN ANTONIO
TEXAS, 78228, TWX 76-7470 ... 512 684-0210
L HAMILTON, EMP 90, ENG 5, $1,000-$2,500M
Tex Hamilton & Assoc, 4807 NW Industrial Dr
San Antonio ... 512 684-2571
Tex Kemp Engineering Co, 2618 Manna Dr
Dallas ... 214 357-6663

ALDEN ELECTRONIC & IMPULSE RECORDING EQUIP
CO INC, BOX A, WESTBORO
MASS, 01581 ... 617 366-8851
L FARRINGTON, EMP 110, ENG 8, $2,500-$5,000M
Cal W P McKenna, 125 Lomita St
El Segundo ... 213 322-6881
Va G DeWees, 618 N Washington, Alexandria

ALDEN PRODUCTS CO, INC, 112 N MAIN ST, BROCKTON
MASS, 02403 ... 617 583-0160
R SIMMONS, EMP 220, ENG 15, $2,500-$5,000M
ADV PG 193

ALDEN SYSTEMS, INC, 251 N MAIN ST, BROCKTON
MASS, 02403 ... 617 583-0160
N DUHAMEL, EMP 200, ENG 4

ALESSI INDUSTRIES, 418 MAIN ST, EL SEGUNDO
CAL, 90245 ... 213 322-6690
V ALESSI, EMP 12, ENG 3, $100-$250M
Cal Alessi Assoc, 8710 Pershing Dr
Playa Del Rey ... 213 823-2255
Conn Impact Sales Co Inc, Box 448
West Hartford ... 203 521-1221
Mass Impact Sales Inc, 223 Crescent St
Waltham ... 617 893-2850
Tex Production Engrg Sales Organization, Box 30393
Dallas ... 214 EM 9-3181
For Harwit Intl Inc, 8549 Higuera St
Culver City, Cal ... 213 870-2256
Fr Techniques Modernes Intl, 18 Rue de La Pepiniere
Paris ... 522-77-00
Jap Industrial Imports Ltd, Box 1271 CPO
Tokyo ... 561-5383

ALEXANDER HAMILTON INSTITUTE, 235 E 42ND ST, DEPT 836
NEW YORK, N Y, 10017
ADV PG 273

ALFAX PAPER & ENGINEERING CO, BOX A
WESTBORO, MASS, 01581 ... 617 366-8227
D EAMAN, EMP 31, ENG 3
Can Alfax Paper & Eng Co Inc, Main St
Granby, PQ ... FR 2-7323

ALFORD MFG CO, 120 CROSS ST, WINCHESTER
MASS, 01890, TWX 710-348-1063 ... 617 729-8050
H LEACH, EMP 70, ENG 11, $1,000-$2,500M
Ala Gentry Assoc Inc, 2109 W Clinton Ave
Huntsville ... 534-9771
Cal RF Assoc Inc, 800 San Antonio Rd
Palo Alto ... 327-5531
Cal RF Assoc, Inc, 1621 Pontius Ave
Los Angeles ... 478-1586
Fla Gentry Assoc Inc, 550 N Bumby Ave
Orlando ... 841-7740
Fla Gentry Assoc Inc, 4152 49th Ave S
St Petersburg ... 867-7820
Ill Kenneth W Meyers Co, 7256 W Touhy Ave
Chicago ... 774-6440
Kan Simpson Enterprises, Box 3066, SE Sta
Wichita ... 943-0502
Md E-A Inc, 1406 Shoemaker Rd
Baltimore ... 825-2385
Mass Microwave Consultants Corp, 195 West St
Waltham ... 899-4400
Mo Simpson Enterprises, 514 Parkwood
Kirkwood ... 965-1115
NJ L & M Assoc, 511 Victor St
Saddle Brook ... 843-8700
NY Graydon-Sherman Inc, Davis Bldg
Fayetteville ... 637-9861
NC Gentry Assoc Inc, Box 197, Jamestown ... 454-1919
Pa L & M Assoc Inc, 965A Bristol Pike
Andalusia ... 639-3100
Tex Dannemiller-Smith Inc, 2720 W Mockingbird La
Dallas ... 357-8247
Tex Dannemiller-Smith Inc, 5760 Rice Ave
Houston ... MO 8-4461
Wash Paratech, Box 5427, Seattle ... 784-6447
Can Microwave Specialty Co, 8490 Lafrenaie St
Montreal ... 324-1780
Fr AD Auriema-France S A, 35 Rue Pergolese
Paris 16 ... PAS 82-01
GB Ad Auriema Ltd, 23-31 King St
London W3 ... 992-5308
Jap Rikei Trading Co, Ltd
18-14 Nichishimbashi, 1-Chome
Minato-Ku, Tokyo ... 591-5246

ALFRED ELECTRONICS, 3176 PORTER DR, PALO ALTO
CAL, 94304, TWX 910-373-1765 ... 415 326-6496
W BURTON, EMP 170, ENG 25, $5,000-$10,000M
Ala Gentry Assoc Inc, 2109 W Clinton St
Huntsville ... 534-9771
Ariz Moxon Electronics, 15 N 40th Pl
Phoenix ... 273-7363
Cal Moxon Electronics Corp, 2311 Pontius Ave
Los Angeles ... 272-9311
Cal Moxon Electronics, 15 41st Ave
San Mateo ... 345-7961
Cal Moxon Electronics, 2054 Garnet
San Diego ... 274-6525
Colo Bennewitz Assoc, 2801 E Colfax Ave
Denver ... 399-1132
Fla Gentry Assoc Inc, 550 N Bumby Ave
Orlando ... 841-7740
Ga Gentry Assoc Inc, Box 13513 Sta K
Atlanta ... 233-3816
Ill Carter Electronics Inc, 7203 S Western Ave
Chicago ... 776-1601
Ind Carter Electronics Inc, 6333 Hollister Dr
Indianapolis ... 293-0696
Kan Poly-Onics Inc, 4434 W 90th Ter
Leawood ... 648-4173
Md Electronic Marketing Assoc, 11501 Huff Ct
Kensington ... 946-0300
Mass Microwave Consultants Corp, 195 West St
Waltham ... 899-4400
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield ... 357-3700
Minn Carter Electronics, 2401 W 66th St
Minneapolis ... 869-3261
Mo S Sterling Co, 7849 Lindbergh Blvd
Hazelwood ... TE 7-1221
Mo Poly-Onics, Inc, 47 Village Sq Shop Ctr
Hazelwood ... 837-0597
NJ Central Assoc, 44 N Dean St
Englewood ... 568-0808
NM Bennewitz Assoc, 9720 Candelaria NE
Albuquerque ... 298-6775
NY J A Reagan Co, 419 Central Ave
Albany ... 436-9649
NY Central Assoc, 11 Commercial St
Plainview ... 433-0808
NC Gentry Assoc inc, Box 197, Jamestown ... 454-1919
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland ... 442-8080
Pa Electronic Mktg Assoc, 210 Goddard Blvd
King of Prussia ... 265-1600
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh ... 884-5515
Tex Carey Wolf Co, Box 12425, Ft Worth ... 738-1702
Wash Harry Levinson Co, 1211 E Denny Way
Seattle ... 323-5100
Can Electronetic Systems, Ltd, 62 Alness St
Downsview, Ont ... 636-3673
Den A F Pedersen, Finsensvej 39
Copenhagen K ... MI 641
Fr Salies, S A, 11 Rue Leon Morane
Paris 15 ... 842-52-56
Ger Wandel u Goltermann, 741 Reutlingen-Box 259
W Ger
GB Dale Electronics Ltd, 109 Jermyn St
London SW 1 ... 01-930-0725
Ital M Vianello, Via L Anelli 13
120122 Milano ... 553 081
Jap Midoriya Electric Co ltd, 3, 2-Chome, Kyobashi
Chuo-Ku, Tokyo ... 561-8851
Nor Norsk Elektro Co, Tollbugt 4, Oslo ... 42 27 42
SAfr A C Gowlett (Pty) Ltd, Box 1257, Johannesburgh
Swed Ajgers Elektronik AB, Postfack
Stockholm 32 ... 46 42 46
Swit Omni Ray AG, Zurich 8, Dufourstr 56 ... 34 44 30
Belg Regulation Mesure, 22 Rue Saint Hubert
Brusseles 15
Braz Plurimac Importers, Inc
Av Sao Luiz-258-11 S/1102, Sao Paulo, SP
Isrl Eastronics, Ltd, 75 Haifa Rd, Box 21029
Tel Aviv ... 446-060
Fin Nores & Co Oy, Fabianinkatu 32, Helsinki ... 13 360
Aust Jacoby, Mitchell & Co Pty, Ltd, 469-475 Kent St
Sydney NSW ... MA 8411

ALGO DIV, HAMILTON ELECTRONIC CORP
50 SCHRIEFFER ST, S HACKENSACK
N J, 07606 ... 201 487-4550
T BOUDREAU, EMP 40, ENG 3, $500-$1,000M
Cal Yarbrough Sales Co, 1608 Orange St
Alhambra ... 283-0668
Fla Buchanan & Abrams Assoc, 1512 E Concord Ave
Orlando
Ill Martin Weldin Assoc, 2948 Cullom Ave
Chicago ... CO 7-4944
Kan Inland Assoc, 6047 Howe Dr, Mission
Mass Tec Sales Corp, 52 N Washington St, N Attleboro
Minn Heimann Co, 5603 Lyndale Ave S, Minneapolis
NJ Sil Venturi, 24 Silver Spring Rd
Short Hills ... 379-7636
NY E Newland, 801 First Ave, Troy
Ohio Augey Natalino Assoc, 209 Harmony Hills
Akron ... 666-1447
Tex Texport Co, 2411 Farrington St, Dallas
Va Royelec Electronic Rep, Ninth St, Lynchburg
Wash Robert R Slater, Terminal Sales Bldg
Seattle ... MA 2-3860

ALKALINE BATTERIES CORP, 2271 MORA DR
MOUNTAIN VIEW, CAL, 94041 ... 415 961-1900
L MANNHEIM, EMP 6, ENG 2
Cal Howe-Stephens Co, 55 New Montgomery St
San Francisco ... YU 2-3593
Mass Alkaline Batteries Corp, 1 Ferry St
Easthampton ... 527-1200

ALLACO PRODUCTS, 130 WOOD RD, BRAINTREE
MASS, 02184 ... 617 843-7845
A ALEXANDER, EMP 9, ENG 2
Cal Claude Michael, 703 W Ivy St
Glendale ... 245-8401
Conn Philipps Bros, 680 Newfield St
Middletown ... 346-9603
Ill Robert J Kennedy Co, 6713 N Oliphant Ave
Chicago ... NE 1-8283
Md Wm I Duncan & Assoc, 206 W Washington Ave
Towson ... 823-2506
NJ Sil Venturi, 24 Silver Spring Rd
Short Hills ... 379-7636
Pa Wm I Duncan & Assoc, 5452 Charles St
Phila ... 744-6110

ALL AMERICAN ENG CO, COML PRODS DIV, BOX 1247
WILMINGTON, DEL, 19804 ... 302 EA 8-1531
P MADDEN, EMP 70, ENG 4, $1,000-$2,500M
Cal R J de Recat & Co, Inc, 1298 Shotwell St
San Francisco
Fla F Morris Love, Box 9029, Tampa
Mich P Wilkins & Assoc, Box 207, Sturgis
NJ Eastern Marketing Assoc, 306 E Buttonwood St
Wenonah ... 857-0889
Okla Kenny Magoon, 5424 S Marion, Tulsa

ALL AMERICAN TOOL & MFG CO INC
8027 LAWNDALE, SKOKIE
ILL, 60076 ... 312 673-7084
R HEIN, EMP 12, ENG 2
Cal Pacific Scientific Co, 6280 Chalet Dr
City of Commerce ... 213 SP 3-2020
Cal Pacific Scientific Co, 760 Harrison St
San Francisco ... 415 362-0934
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield ... 313 357-3700
Mo Pacific Scientific Co, 11771 Natural Bridge Rd
Bridgeton ... 314 291-2440
Mo S Sterling Co, 7849 N Lindbergh Blvd
Hazelwood ... TE 7-1221
NY Testing Machines Inc, 400 Bayview Ave
Amityville ... 516 598-1400
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland ... 216 HI 2-8080
Ohio S Sterling Co, 2673 Culver Ave
Dayton ... 513 298-7573
Ore Pacific Scientific Co, 1208 SE 7th Ave
Portland ... 503 233-6177
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh ... 412 TU 4-5515
Tex Pacific Scientific Co, 702-A E Abram St
Arlington ... 817 275-3236
Wash Pacific Scientific Co, 8915 14th Ave
Seattle ... 206 RO 2-4260
Can Electronics Controls Ltd, 853 Maplecrest Ave
Ottawa
Can Electronics Controls Ltd, 257 Coleman St
Belleville ... 613 962-3145
For Inter-Ocean Export Assoc, 2530 Crawford Ave
Evanston, Ill ... 312 BR 3-5314
GB Wessex Electronics Ltd, Baldwin St, Bristol 1

ALLARD INSTRUMENT CORP, 770 MAIN ST
WESTBURY, N Y, 11590 ... 516 ED 48742
J ACKERMAN, EMP 35, ENG 2, $250-$500M
Cal Westrep, 626 W Commonwealth Ave
Fullerton ... 879-4090
Cal Electro-Pacific, 2524 Franklin St
San Francisco ... 776-8582
Fla Tech-Rep Assoc, Box 2095, Melbourne ... 391-0008
Kan Penzner Assoc, Inc, Box 4362
Overland Park ... DU 1-0004
Mass Naton Assoc, 20 Strawberry Hill Rd
Natick ... 235-1966
NJ Grimm Siegel, 246 Clifton Ave
Clifton ... PR 3-5010
Wash Leo Steinhauer & Son, 2525 NE 105th Pl
Seattle ... 525-5533

ALLCO S A; 45 RUE DE LA DIV LECLERC, GENTILLY
FRANCE, 94 ... 655-2525
Y TOUITOU, EMP 60, ENG 6, $500-$1,000M

ALLEGHENY LUDLUM STEEL CORP
2020 OLIVER BLDG, PITTSBURGH
PA, 15222 ... 412 261-5300
B HILL, EMP 16,500, OVER $10,000M
Cal Allegheny Ludlum Steel, 221 Harris Ct
S San Francisco ... 583-9855
Cal Allegheny Ludlum Steel, 533 E Slauson Ave
Los Angeles ... 685-9550
Conn Allegheny Ludlum Steel, 200 Lamberton Rd
Windsor ... 688-5241
DC Allegheny Ludlum Steel, 1001 15th St NW
Washington ... 393-4232
Ga Allegheny Ludlum Steel, 3379 Peachtree Rd
Atlanta ... 261-8622
Ill Allegheny Ludlum Steel, 1801 E DeLoss St
Indianapolis ... 632-6521
Ill Allegheny Ludlum Steel, 300 S Hicks Rd
Palatine ... 359-2200
Iowa Allegheny Ludlum Steel, Kahl Bldg
Davenport ... 326-4244
Mass Allegheny Ludlum Steel, 65 William St
Wellesley ... 237-1572
Mich Allegheny Ludlum Steel, 1500 Jarvis Ave
Detroit ... 564-6900
Minn Allegheny Ludlum Steel, 5217 Wayzata Blvd
Minneapolis ... 544-3344
Mo Allegheny Ludlum Steel, 10720 Baur Blvd
St Louis ... 991-2900
NY Allegheny Ludlum Steel, 114 S Warren St
Syracuse ... 422-6113
NY Allegheny Ludlum Steel, 270 Park Ave
New York ... 682-0369
NY Allegheny Ludlum Steel, 2960 Main St
Buffalo ... 836-4335
Ohio Allegheny Ludlum Steel, 1270 McCook Ave
Dayton ... 461-3745
Ohio Allegheny Ludlum Steel, 1501 Madison Rd
Cincinnati ... 221-8000
Pa Allegheny Ludlum Steel, 555 E City Line Ave
Bala Cynwyd ... 839-7370
Tenn Allegheny Ludlum Steel, 1712 1st Natl Bank Bldg
Memphis ... 526-5141
Tex Allegheny Ludlum Steel, 2727 Allen Pkwy
Houston ... 529-2647
Wash Allegheny Ludlum Steel
3327 White Henry Stuart Bldg
Seattle ... 624-8776
Wis Allegheny Ludlum Steel, 3800 N 1st St
Milwaukee ... 964-3500

ALLEGRI-TECH INC, 141 RIVER RD, NUTLEY
N J, 07110, TWX FPP ... 201 661-2220
A LONGARZO, EMP 120, ENG 3, $1,000-$2,500M

ALLEN AIRCRAFT PRODUCTS
4879 NEWTON FALLS RD, RAVENNA
OHIO, 44266, TWX 810-437-2403 ... 216 296-9621
R EVANS, ENG 4, $1,000-$2,500M
Cal Rubly Engineering Co, 2140 Westwood Blvd
Los Angeles ... 213 474-2503
Ill Acid Products Co Inc, 600 W 21st St
Chicago ... 312 CL 4-5222
Ind Products Finishing Supplies Inc, 2130 Winter Ave
Indianapolis ... 317 925-1426
Md H A McCormick, Phoenix PO
Baltimore County ... 301 NO 6-2333
NJ Statistical Instruments, Box 1404
Plainfield ... 201 757-3995
Ohio J Staats, 3280 Porter Rd, Atwater ... 216 947-2922
Ohio W C Sneed Co, 19200 Villaview Rd
Cleveland ... 216 486-2435
Okla Fletcher Engineering Co, 3628 NW 71st St
Oklahoma City ... 405 VI 2-5135

ALLEN AVIONICS INC,DIV A K ALLEN CO INC, 255 E 2ND ST
MINEOLA, N Y, 11501 ... 516 747-5450
I JACOBSON
ADV PG 250, 251, 291
Ala Brennan Assoc, 2311 Poincianna
Huntsville ... 536-7425
Cal Adtek Assoc, 201 Town & Country Vlg
Palo Alto ... 323-5414
Cal E V Roberts & Assoc Inc, 9601 W Jefferson Blvd
Culver City ... 870-9561
Colo H C Hooker & Assoc, 7022 S Albion
Littleton ... 771-2802
Fla Brennan Assoc, Box 5006, Clearwater ... 446-5006
Ill M Q & Assoc, 6713 N Oliphant Ave
Chicago ... 774-8844
Ind McDonald Sales Co, 227 S Comell Cir
Fort Wayne ... 745-9214
Kan H C Heyde Co, 9221 Wenonga Rd
Leawood ... MI 9-8628
Md D K Jones & Assoc, 2026 Maryland Ave
Baltimore ... 752-0577
Minn White Sales Co, 6418 W Lake St
Minneapolis ... 929-4661
NH Buttolph Assoc, Inc, Warner Hill Rd
East Derry ... 432-2882
NY Huntley Assoc, 30 Arty Dr, Buffalo ... 632-0454
NY Sweeney & Co Inc, 5 Fox Meadow Ct
Woodbury ... 692-4222
Pa D K Jones & Assoc, 6520 Rising Sun Ave
Phila ... 342-3990
SC Brennan Assoc, Box 871, Aiken ... 649-7100
Tex Spacetronics Co, 4515 Prentice St
Dallas ... EM 8-1215
Can Aeromotive Eng Prods Ltd, 887 Montee de Liesse
Montreal ... 747-4781
GB AEP International Ltd, London Rd, Isleworth
Middlesex

ALLEN-BRADLEY CO, 1201 S SECOND ST, MILWAUKEE
WIS, 53204 ... 414 671-2000
H ROSENKRANZ
Ala Allen-Bradley Co, 825 S 22nd St
Birmingham ... 322-0491
Ariz W Bert Knight Co, Box 11394, Phoenix ... 264-3578
Ark Curtis H Stout Inc, 2207 Cantrell Rd
Little Rock ... 374-8201
Cal W Bert Knight Co, 112 Glasgow Ave
Inglewood ... 678-4711
Cal Hunter Assoc, 252 Fox Plaza
San Francisco ... 626-8576
Colo Allen-Bradley Co, 2600 W 2nd Ave
Denver ... 936-7303
Conn Allen-Bradley Co, 1720 Barnum Ave
Stratford ... 378-7364
Fla Van & Smith Co Inc, 2723 Park St
Jacksonville ... 384-2376
Fla Charles R Lee & Assoc, 3796 W Flagler St
Miami ... HI 4-7414
Fla Van & Smith Co Inc, 4921 Cypress St
Tampa ... 877-8393
Fla Van & Smith Co, Inc, 1215B N Orange Ave
Orlando ... 425-7026
Ga Roy E Wilson Co, 1058 Northside Dr, N W
Atlanta ... 876-8833
Ill Allen-Bradley Co, 838 S Desplaines St
Chicago ... 922-9302
Ill Allen Bradley Co, 1013 Broadway
Rockford ... 965-8795
Ind Allen-Bradley Co, 2212 S Calhoun St
Fort Wayne ... 745-7068
Ind Allen-Bradley Co, 1491 N Harding St
Indianapolis ... ME 8-1491
Iowa Deco Engineering Prods, 1112 Locust St
Des Moines ... 288-5721
Iowa Allen-Bradley Co, 1530 State St
Bettendorf ... 355-2831
Ky Rietze Co, 123 N Sherrin Ave
Louisville ... 839-2571
La Allen-Bradley Co, 3320 Hessmer Ave
New Orleans ... 888-2281
La Curtis H Stout Inc, 409 Fairfield Bldg
Shreveport ... 425-5485
Md Harry M Wood & Co Inc, 2117 Eastern Ave
Baltimore ... 276-1505
Mass Allen-Bradley Co, 24 Brighton Ave
Boston ... 782-0203
Mass Allen-Bradley Co, 121 Chestnut St
Springfield ... 732-3430
Mich Allen-Bradley Co, 6750 E Davison Ave
Detroit ... 365-5300
Mich Allen-Bradley Co, 3421 Corunna Rd
Flint ... CE 2-9341
Mich E B Dewey Co, 345 State St
Grand Rapids ... GL 4-1825
Mich E B Dewey Co, 2519 Lake St
Kalamazoo ... FI 4-6163
Minn Irvin I Aaron & Assoc, 614 E Grand St
Minneapolis ... FE 6-6659
Mo Allen-Bradley Co, 1818 Main St
Kansas City ... HA 1-4595
Mo Allen-Bradley Co, 3850 Washington Blvd
St Louis ... 535-1901
Neb Midwest Equipment Co, 1614 Izard St
Omaha ... 341-7600
NJ Allen-Bradley Co, 1293 Broad St
Bloomfield ... 338-4600
NM Walter Dolde Sales Co, 114 Morningside Dr NE
Albuq ... 256-0307
NY Allen-Bradley Co, 1654 Central Ave
Albany ... UN 9-5373
NY Allen-Bradley Co, 1589 Kenmore Ave
Buffalo ... 873-7617
NY Allen-Bradley Co, 630 Third Ave
New York ... MU 2-6070
NY Allen-Bradley Co, 1337 Main St, E
Rochester ... 482-0010
NY Allen-Bradley Co, 218 Boss Rd
Syracuse ... 463-4501
NC LeRoy P Spoon, 307 Lincoln St
Charlotte ... 372-3287
Ohio Allen-Bradley Co, 1334 Copley Rd
Akron ... 836-9731
Ohio Allen-Bradley Co, 2331 Reading Rd
Cincinnati ... 721-4482
Ohio Allen-Bradley Co, 3416 Prospect Ave
Cleveland ... EX 1-2855
Ohio Allen-Bradley Co, 3300 S Dixie Dr
Dayton ... 298-6121
Ohio Allen-Bradley Co, 4427 Talmadge Rd
Toledo ... 475-2700
Ohio K F Hoelzel, 680 E Market St, Akron ... 253-2905
Ohio Allen-Bradley Co, 5550 W Central Ave
Toledo ... 531-8311
Ohio Allen Bradley Co, 4355 N High St
Columbus ... 263-6881
Okla John W Elder Co, 1526 E Fourth St
Tulsa ... LU 3-9149
Ore J A Tudor & Assoc Inc, 1004 SE Belmont St
Portland ... 233-4421
Pa Allen-Bradley Co, 842 Hamilton St
Allentown ... 437-2401
Pa Allen-Bradley Co, 235 Fairfield Ave
Upper Darby ... JA 8-6943
Pa Allen-Bradley Co, 2721 W Liberty Ave
Pittsburgh ... 341-2822
Pa Allen-Bradley Co, 653 W Market St
York ... 848-2239
Pa Allen Bradley Co, 3732 W 12 St, Erie ... 838-2894
Tenn Allen-Bradley Co, 1211 Euclid Ave NW
Knoxville ... 525-9578
Tenn C H Stout of Tenn, Inc, 3506 Tehulahoma Rd
Memphis ... 362-1616
Tex Allen-Bradley Co, 165 Cole St, Dallas ... 748-6356
Tex Allen-Bradley Co, 2105 McKinney Ave
Houston ... CA 5-0747
Utah Stevens Sales Co, 1476 Major St
Salt Lake City ... 467-5489
Va Allen-Bradley Co, 2519 Grenoble Rd
Richmond ... 282-4285
Wash J A Tudor & Assoc, 2605 Western Ave
Seattle ... MU 2-7444
Wash J A Tudor & Assoc, Term Box 2624
Spokane ... FA 7-3328
W Va Henry E Payne, 1116-B Kanawha Blvd, E
Charleston ... DI 3-1393
Wis Allen-Bradley Co, 615 N Lynndale Dr
Appleton ... RE 4-6262
Wis Allen-Bradley Co, 224 W Greenfield Ave
Milwaukee ... 671-2000
Wis Irvin I Aaron & Assoc, 829 N Marshall St
Milwaukee ... 276-8515
Can Allen-Bradley Can Ltd, 135 Dundas St
Galt, Ont ... 623-1810
For Allen-Bradley Co, 630 Third Ave
New York, NY ... MU 2-6070
For Elecsa, S A, Wilson 905, Lima, Peru
For Guevara & Sons, 472 San Luis St, Manila, Phil
For M Gonzalez Del Rio, Cassilla De Correo 228
Montevideo, Uura
For Feliper Alberto Lopez, Bloque 1-D-63, Cotiza
Caracas, Vene
Fr Bureau de Liaison, 113 Rue de L'Universite
Paris 7e
Ger Elecktro-Steuerung
Eberhard Bunz, Graf-Adolf-Str, 43, Dusseldorf
Ger Amphenol Borg Electns GmbH, 8024 Deisenhofen
Bei Munchen
GB B & K Instr Ltd, 57/61 Union St, London SE 1
Holl Technische Handelmaatschappi
16 Nassau Dillenburgstr, The Hague
Ital Special-Ind Corp, Via D Manin 33, Milano
Jap Ace Co Ltd, 2-2 Nihonbashi-Tori, Chuo-Du, Tokyo
Swed Thure F Forsberg, Forshagagatan 58, Farsta 1
Swit Ernst M Egli, Witikonerstr 52, Zurich
Arg T R C Elctns, S A C I e I
Corrientes 4672, Buenos Aires
Belg Electro Mecano Automatic, 134-142 Rue Bara
Brussels
Braz Emile H Staub, Rep S A, Box 30.318, Sao Paulo
Isrl Eastronics, Ltd, 75 Haifa Rd, Tel-Aviv
Mex Industrias Comerciales S A, Medellin 184, Mexico
Fin INTO o/y, 11 Meritullinkatu, Helsinki
Aust Anodeon Sales Div, 443 Concord Rd, Rhodes, N S W

ALLEN BUSINESS MACHINES INC R C INSTR DIV
678 FRONT AVE NW, GRAND RAPIDS
MICH, 49501, TWX 616 949-3164 ... 616 456-8541
L VERDUIN, EMP 160, ENG 8, $1,000-$2,500M
Ala Kemp Instruments Inc, 4306 Governors Dr W
Huntsville ... 837-4304
Cal J B Rudy Co, 29050 Brant Ave
Long Beach ... 422-9830
Mo Kemp Engrg Co, 10702 Manchester Rd
St Louis ... WO 8-0300
Ohio Rixan Assoc, 5752 Wadsworth Rd
Dayton ... BA 2-0011
Tex Kemp Engrg Co, 2618 Manana Dr
Dallas ... FL 7-6663
Tex Kemp Engrg Co, 6001 Gulf Frwy
Houston ... 928-5426
Tex Kemp Engrg Co, 102 W Rector
San Antonio ... 344-1841

ALLEN ELECTRONICS DIV ALLEN ORGAN CO, MACUNGIE
PA, 18062 ... 215 965-9801
M NELSON
ADV PG 716

ALLEN-JONES ELECTRONICS CORP
17171 S WESTERN AVE, GARDENA
CAL, 90247 ... 213 DA 7-0710
W STEVENSON, EMP 100, ENG 10, $500-$1,000M
Ala Roy Attaway Co, 900 Bob Wallace Ave SW
Huntsville ... 534-2811
Cal Interconsal Assoc, 825 San Antonio Rd
Palo Alto ... 321-8113
Cal G E Woods & Assoc, 2415 S Manchester Ave
Anaheim ... 633-9370
Colo Allen-Williams Co, 4971 Jackson Rd, Denver
DC Riber Inc, 1071 Wisconsin Ave, Washington
Fla Roy Attaway Co, 57 E Robinson St
Orlando ... 424-9983
Ill Mesco Inc, 10436 S Western Ave
Chicago ... HI 5-7121
Mass Mechanical Mktg Engrs, 20 Congress Ave
Chelsea ... 617 889-2279
Mass Industrial Equip & Sales, 84 State St
Boston ... CA 7-0838
Mich Kurt Lesker Co, 5635 Horning Rd
Pittsburgh ... 412 892-2996
NY Electro Lab Equip Co, 12 Bromligh Rd
Garden City ... PR 5-5562
NY George O Milr Co, 607 Midtown Pl
Syracuse ... 478-3113
NC Roy Attaway Co, 519 Nissen Bldg
Winston-Salem ... 722-9671
Pa Tyler Griffin Co, 46 Darby Rd, Paoli ... 647-1550
Can Brock Electronics Ltd, 27 Perth St
Lyn, Ont ... 613 342-0152

ALLEN MFG CO, BOX 570, HARTFORD
CONN, 06101 ... 203 242-8511
G NEWTON, EMP 500, ENG 20

ALLEN/UTI, 2101 N PITCHER ST, KALAMAZOO
MICH, 49007 ... 616 345-8531
S PARNELL, EMP 300, ENG 10, $5,000-$10,000M
Ala C A Wright, 525 Larue St, Birmingham ... 836-6327

Alas L F Renton, 406 Summit E, Seattle ..... EA 4'4122
Ariz F B Butler, 8019 E Palm La, Scottsdale ... 945-9471
Cal J D Gist, 961 San Marcos Cir
Mountain View 968-8646
Colo W A Brown, 5975 S Milwaukee Way
Littleton 303 794-7604
Conn R L Vigurs, 7 Fairlee Rd, W Hartford 521-6354
DC L Harris, 420 Locust Ave
Waynesboro Va 703 942-6695
Fla M F Thomas, 1505 N Fern Creek Ave
Orlando ..... GA 4-7430
Idah G Carstensen, 6609 Ashland Dr, Boise ... 375-5793
Ill L J Goss, 9938 Zykan Ct
Overland Mo 314 428-8390
Ind Gene Etter, Box 8, Whitestown 317 769-6227
Iowa H C Pries, Box 761, Bremer 352-2598
Kan J J Hutchinson, 13200 E 5th Ave
Aurora Colo 303 366-8103
Ky O H Vaught, Box 541, Somerset 606 679-1111
La R A Watts, 5716 Flagler St, Metairie 887-1317
Me R J Murphy, 481 Court St, Auburn 782-6823
Mich V J Gruszynski, 43 N York Rd, Bay City ... 892-1795
Minn G Ubel, 1024 Wakefield, St Paul 774-2701
Mo L I Todd, 390 S Adams St, Lebanon ..... KE 2-5443
Neb J O Fox, 3369 S 79th St, Omaha 391-5045
NJ J0-Cal Sales Co, 2106 Tonnelle Ave
North Bergen 864-0345
NY D J Conners, Box 255, Rensselaer
NC G L Price, 458 Littleton Dr
Charlotte 704 364-0129
Ohio W M Clingman, 3660 Terrace Dr
Dayton 426-5473
Okla B W Cox, 230 S Main
Sand Springs 918 583-1833
Ore L K Goswellen, 13840 NW McLain Way
Portland 503 646-8418
Pa R W Morris, 2436 N Main Ave
Scranton 344-6369
Pa G Schley, 4826 N Hutchinson
Philadelphia ..... GL 5-0264
Tenn J F Pentrack, 3328 Fountain Park
Knoxville 523-1819
Tex J I Purdue, 11945 Hwy 75
N Houston 713 447-1039
Va J R Harvey, 182B S Main
Jonesboro Ga 404 478-7226
Wis B L McKoy, Rt 1 Hox 33
Antioch Ill 312 395-3110

ALLIANCE MFG CO INC, LAKE PARK BLVD, ALLIANCE
OHIO, 44601 ..... 216 821-5360
Cal J W Marsh Co, 4216 W Jefferson Blvd
Los Angeles ..... RE 2-1045
Cal Wm J Purdy, 312 7th St
San Francisco ..... UN 3-3300
Colo Hyde Electronics, 888 S Lipan St
Denver 936-3456
Conn Lew Carr, 103 Carmalt Rd, Hamden ..... AT 8-4269
Fla John Thompson, 322 Riverside Dr
Ormond Beach 677-2298
Ill T B Hunter, 5653 W Irving Park Rd
Chicago ..... SP 7-2500
Ill Matthews Midwest, 5439 W Lawrence Ave
Chicago 725-1500
Ill Geo Petitt Co, 349 N Ashland Ave
River Forest ..... CO 1-0342
Ind Alan J Bolenbough, Rt 4 River Rd
Columbus 372-3960
Kan Mathews & Co, 7703 W 99th Terr
Overland Park ..... NI 2-9063
Kan T L Dowell Co, 6007 W 94th Terr
Overland Park 649-6069
Mich John J Orr, Box 9075, Grand Rapids .... LE 4-4029
Minn HMR Inc, 9 E 22nd St, Minneapolis 335-7734
NJ Gerell Sales Co, Box 685, Elizabeth 354-5861
NY S A Shaw Co, 361 Central Park
Yonkers ..... YO 3-5700
NY Dynatherm Inc, 661 Pittsford Victor Rd
Pittsford 586-0080
Ohio Tom Shelby Co, 17 S Walnut St
New Bremen 629-6511
Ore J W Eckersley Co, 3150 SW Hamilton St
Portland 246-3183
Tenn John Cottrell, Box 1334, Nashville ..... CY 2-8997
Tex Hale Engineering Co, 8609 NW Plaza Dr
Dallas ..... EM 8-1695
Tex Lund & Co, 2215 N Olive St, Dallas .... RI 8-8839
Can Henry Daymond Sales Co Ltd, Box 486
Oakville Ont ..... VI 4-6721
Can Len Finkler Ltd, 2 Tycos Dr, Toronto Ont .. 781-5231
For Joseph Plasencia Inc, 521 Fifth Ave
New York N Y 867-8084

ALLIED CHEMICAL CORP PLASTICS DIV
40 RECTOR ST, NEW YORK
N Y, 10006 ..... 212 422-7300
OVER $10,000M
Cal M H Styles, 2801 Lynwood Rd
Lynwood ..... NE 6-2306
Cal F A Ratajczak, 235 Montgomery St
San Francisco 982-6840
Ga K E Walker, 1151 Chattahoochee Ave
Atlanta 355-9450
Ill W D Singleton, 2190 Oxford Rd
Des Plaines 824-3144
Mass J H Byarave, 160 Dascomb Rd
Andover 475-4190
Mich H W Cyphers, 7501 W Jefferson
Detroit 842-4200
NJ W Sporing, 225 Allwood Rd, Clifton 472-6000
Ohio E D Caldwell, 1 Public Square
Cleveland 241-7474
Pa H C Stumpe, 10 N Presidential Blvd
Bala Cynwyd 839-7810
Tex T W Capo, 3000 Richmond Ave
Houston 529-3271

ALLIED CONTROL CO INC, 2 EAST END AVE
NEW YORK
N Y, 10021, TWX 212-867-4594 ..... 212 288-7403
J KENNEDY, EMP 1080, ENG 46, OVER $10,000M
Ala Technical Mktg Inc, Box 1001
Huntsville 205 534-2487
Ariz J Berman Co Inc, 2101 W Shangri La Rd
Phoenix 602 944-3361
Cal William J Purdy Co, 312 7th St
San Francisco 415 863-3300
Cal J Berman Co Inc, 8295 S La Cienega Blvd
Inglewood 213 678-1281
Colo Electronic Sales, 2340 W Main St
Littleton 303 798-8575
Fla Geartner Assoc Inc, 350 Lincoln Rd
Miami Beach 305 531-0200
Fla Geartner Assoc Inc, 2101 Mohawk Tr
Maitland 305 647-4000
Ga Technical Mktg Inc, Box 1152
Marietta 404 435-0079
Ill D Dolin Sales Co, 3525 W Peterson Ave
Chicago 312 588-3738
Ind Technical Reps Co, 4000 Meadows Dr
Indianapolis 317 546-4967
Kan Thos L Dowell Inc, 6007 W 94th Terr
Overland Park 913 649-6069
Ky G W Thelen Co Inc, 5257 Taylor Mill Rd
Covington 606 431-0753
Md J R Daniel & Co Inc, Box 124
Lutherville 301 825-3330
Mass Anelco Inc, 430 Lexington St
Newton 617 332-4547
Mich L H Dickelman Co, 13331 Puritan Ave
Detroit 313 273-0806
Minn R G Ragon Inc, 1136 W Larpenteur Ave
St Paul 612 488-6634
Mo Richard Greene Co, 1716 S Hanley Rd
St Louis 314 644-2666
NY Leonard D Allen Inc, Box 205
North Syracuse 315 458-7470
NC Technical Mktg Inc, Box 6664
Greensboro 919 274-2570
Ohio Allen Nace Co Inc, Box 156
Brecksville 216 526-4323
Pa J R Daniel & Co Inc, Box 3
Glenside 215 887-0550
Pa Allen Nace Co Inc, Box 10630
Pittsburgh 412 241-3200
Tex Ammon & Champion Co, Box 35263
Dallas 214 357-8441
Wash Don Smith Sales Co, 2320 N 45th St
Seattle 206 633-3160
Can Siemens Canada Ltd, Box 7300
Pointe Claire P Q 514 695-7300

ALLIED ELECTRONICS CORP, 100 N WESTERN AVE, CHICAGO
ILL, 60680, TWX 910-221-5570 ..... 312 TA 9-9100
R PETERSON, EMP 2400, ENG 10, OVER $10,000M
ADV PG 261, 594
Cal Allied Electronics Corp, 960 N San Antonio Rd
Los Altos 415 941-0524
Cal Allied Radio of Calif, 128 E Wheeler Ave
Arcadia 213 684-0730
Colo Allied Electronics Corp, 5475 Leetsdale Dr
Denver 303 399-2250
DC Allied Electronics Corp, 4911 Niagara Rd
College Park Md 301 935-6400
Fla Allied Electronics Corp, 4605 J F Kennedy Blvd
Tampa 813 877-6791
Mich Allied Electronics Corp, 8140 Greenfield Rd
Detroit 313 846-7720
Minn Allied Electronics Corp, 4330 Hwy 7
Mnpls 612 920-5800
NY Allied Electronics Corp, 255 N Goodman St
Rochester 716 244-8750
Ohio Allied Electronics Corp, 3592 Lee Rd
Clevand 216 752-3290
Ohio Allied Electronics Corp, 2673 S Dixie Dr
Dayton 513 298-9831
Tex Allied Electronics Corp, 6162 E Mockingbird La
Dallas 214 826-5101
Wash Allied Electronics Corp, 4000 Aurora N
Seattle ..... 206 ME 2-5935
Wis Allied Electronics Corp, 3709 Fond de Lac
Milwaukee 414 444-2840

ALLIED ENGINEERING & PRODUCTION CORP
2421 BLANDING AVE, ALAMEDA
CAL, 94501, TWX 415-691-4361 ..... 415 522-1500
H MILLER, EMP 200, ENG 6, $2,500-$5,000M

ALLIED RESEARCH ASSOCIATES, INC, VIRGINIA RD
CONCORD, MASS, 01742 ..... 617 369-9000
M BLOSVEREN, EMP 750, ENG 250, OVER $10,000M

ALLIED RESEARCH & ENGINEERING CO
10300 GLASGOW, LOS ANGELES
CAL, 90045 ..... 213 670-6816
P HARPER, EMP 25, ENG 3, $250-$500M
Mich Michigan Chrome & Chem Co, 8615 Grinnell
Detroit ..... WA 1-3711

ALLIED RESEARCH PRODUCTS INC SUB RICHARDSON
CO, 4004 E MONUMENT ST, BALTIMORE
MD, 21205 ..... 301 732-9070
J CAIRNS, EMP 300, ENG 40, OVER $10,000M
Cal Arp Inc, 12105 B E Slauson
Santa Fe Springs 698-9995
Conn Allied Research Products, 305 Sniffen La
Stratford 333-4282
Fla Allied Research Products, Box 877
Port Orange 767-1859
Ill Allied Research Products, Spring Brook Rd
Rockford 877-5215
Ill Allied Research Products
2801 W Lake St Bldg 330-A
Melrose Park 344-9280
Ind Allied Research Products, 2051 E 46th St
Indianapolis 251-9111
Iowa Allied Research Products, 611 Bahl Bldg
Davenport 326-1733
Mass Allied Research Products, 166 Lynde St
Melrose 665-3362
Mich Allied Research Products, 400 Midland Ave
Detroit 883-0100
Minn Industrial Chemical & Equip, 2328 N 2nd St
Minneapolis 521-3581
Mo Sommers Bros Mfg Co, Box 5495 B Bremem Sta
St Louis ..... CH 1-7343
NJ Allied Research Products, 29 Porete Ave
N Arlington 991-8777
NY Allied Research Products, 109 Baker St
Syracuse 463-5634
NY Allied Research Products, 834 Orbit La
Uniondale 739-7880
NC Allied Research Products, 153 Clinton Ave
W Ashville 253-2403
Ohio Allied Research Products, 6851 Plainfield Rd
Cincinnati 791-1156
Ohio Allied Research Products, 2000 W 14th St
Cleveland 621-9300
Pa Allied Research Products
Western Savings Fund Bldg, Phila 546-0774
Pa Allied Research Products, 217 Craig St
New Brighton 471-1150
Wis Allied Research Products, 2450 W Wells St
Milwaukee
Can Allied Research Prod of Can Reg'd
74 Bruce Ave Westmont, Montreal ... WE 3-5677

ALLIED SYSTEMS CORP, 4 TRI PORT CT
GREENSBORO
N C, 27409, TWX 510-922-8333 ..... 919 299-2294
E SAUDE, EMP 20, ENG 2
Cal Cairns Engineering Sales, 6151 W Century Blvd
Los Angeles 213 670-1700
Fla Kirkwood Assoc, Box 52 Winter Park
Winter Park 305 645-2220
Ill Mirabella Data Supplies, 555 31st St
Chicago 312 225-1900
Mass Hobart Assoc, 750 Main St
Winchester 617 729-8885
Pa H J Heffernan Co, 7129 Camp Hill Rd
Ft Washington ..... 215 VE 6-4411
Tex Stoole-Hamilton Co, 1108 Meyer St
Seabrook ..... 713 GR 4-3155
Va H J Heffernan Co, 1123 N Irving St
Arlington ..... 703 JA 2-6666
Can Electrocraft of Canada, 132 Days Rd
Kingston Ont 613 389-3386

ALLIED VAN LINES INC, BOX 4403, CHICAGO
ILL, 60680 ..... FI 4-8700
C BRADLEY JR, EMP 500, OVER $10,000M
Cal Allied Van Lines Inc, 7241 Lankershim Blvd
N Hollywood 982-1100
Ga Allied Van Lines Inc, 5211 Peachtree Ind Blvd
Chamblee ..... GL 7-5281
Ill Allied Van Lines Inc, 25th Ave at Roosevelt Rd
Broadview ..... FI 4-8700
Md Allied Van Lines Inc, 8720 Georgia Ave
Silver Spring 587-1288
NJ Allied Van Lines Inc, 535 Secaucus Rd
Secaucus ..... UN 4-4000
Tex Allied Van Lines Inc, Pipeline Rd & Hwy 157
Euless ..... BU 3-1541
Wash Allied Van Lines Inc, 557 Roy St
Seattle ..... AT 4-5890

ALLIED WITAN CO, INC, 12500 BELLAIRE RD
CLEVELAND, OHIO, 44135 ..... 216 941-2800
G GIBEL, EMP 15, ENG 3, UP TO $100M

ALLIS-CHALMERS MFG CO, 935 S 70TH ST
MILWAUKEE, WIS, 53201 ..... 414 774-3600
J GRAHAM, EMP 36,000, ENG 2000, OVER $10,000M

ALLMETAL SCREW PRODUCTS CO INC
821 STEWART AVE, GARDEN CITY
N Y, 11530, TWX 510-222-8132 ..... 516 PI 1-1200
M EPSTEIN, EMP 180, ENG 3
Cal Allmetal Screw Prods, 1259 Birchwood Dr
Sunnyvale 738-1100
Cal Allmetal Screw Prods, 12819 S Main St
Los Angeles 321-8460
Ga Allmetal Screw Prods
1462 Chattahoochee Ave NW, Atlanta
Ill Allmetal Screw Prods, 1621 N 31st Ave
Melrose Park 345-6960
Mass Allmetal Screw Prods, 570 Hillside Ave
Needham Heights 449-1460
Tex Allmetal Screw Prods, 802 Great SW Pkwy
Arlington

ALL-O-MATIC MFG CORP, 2099 JERICHO TPK
NEW HYDE PARK, N Y, 11040 ..... 516 437-2200
G KAREL, EMP 300, ENG 9
Cal Frauman Assoc, Box 969
Menlo Park 415 322-8461
Cal Universal Components Co, 2330 Westwood Blvd
Los Angeles 213 474-1537
Ill R M Krueger Co Inc, 5755 W Irving Park Rd
Chicago 312 282-8444

NJ Bressler Assoc, 4808 Bergenline Ave
Union City 201 864-9577
Ohio Jay Engineering Co, 1721 E Third St
Dayton 513 253-2151
Ohio Jay Engineering Co, 4712 W 130th St
Cleveland 216 252-0486

ALLOYS UNLIMITED INC, 320 LI EXPWY S, MELVILLE
N Y, 11746 .... 516 694-7900
J BLAHO, EMP 1500
Ala Electro-Rep Assoc, 2220 Magnolia Ave S
Birmingham 205 324-4031
Ariz A U Sales Corp, Box 1086, Mesa 602 969-7281
Cal A U Sales Corp, Box 519
Santa Clara 408 241-8844
Cal Veritron West Inc, 20245 Sunburst St
Chatsworth 341-7770
Cal Universal Titanium, 1291 E 6th St
Los Angeles 625-1400
Cal Micro Science Assoc, 2274 Mora Way
Mountainview 968-7215
Cal A U Sales Corp, 16661 Ventura Blvd
Encino 213 783-8150
Cal Chemical Energy Co, 4951 Ruffin Rd
San Diego 714 279-3110
Conn Contacts Inc, 1100 Silas Dean Hwy
Wethersfield 529-3386
Fla Tech-Rep Assoc, Box 2095, Melbourne 723-9140
Fla Tech-Rep Assoc, Box 8218
Madeira Beach 391-0008
Ga Electro-Rep Assoc, 2793-A Clairmont Rd NE
Atlanta 404 633-7011
Ill Hill & Gray Inc, 821 W Garfield
Oak Park 312 378-7050
Ill NOrthern Metal Prdts Corp, 9595 W Grand Ave
Franklin Park .... 312 NA 5-8300
Mass A U Sales Corp, Box 156, Reading 944-6922
Mich Pickl Assoc, 2475 Adare Rd
Ann Arbor 313 761-7777
Minn D G Perry & Co, 5010 France Ave S
Minneapolis 612 920-3212
Mo A U Sales Corp, 34 NO Brentwood Blvd
St Louis 314 862-6535
NJ Frenchtown-CFI Inc, 8th & Harrison Sts
Frenchtown 996-2121
NJ Universal Titanium, 333 Hurst St
Linden 925-1602
NJ Montvale Customtool Co Inc, 20 Craig Rd
Montvale 391-6500
NY A U Sales Corp, 320 Long Island Expwy S
Melville 516 694-7900
NY A U Sales Corp, 201 S Main St, NO Syracuse
NY Automatic metal Products Corp, 323 Berry St
Brooklyn .... 212 EV 8-6057
NY A U Sales Corp, 320 Long Island Expwy S
Melville 516 694-7900
NC Electro-Rep Assoc, 309 Woodburn Rd
Raleigh 919 834-3398
NC Electro-Rep Assoc, 128 W 30th St
Charlotte 704 333-0451
Ohio A U Sales Corp, 2204 So Patterson Blvd, Kettering
Pa A U Sales Corp, 328 Maple Ave
Horsham 215 672-4916
Tex A U Sales Corp, Box 41, Richardson .... AD 5-1551
Wash R R Chase & Assoc, 12422-68th Ave NE
Kirkland 206 454-2514
Can Anbak Sales Canada Ltd, Box 101
Montreal Que 514 453-6375
Can Anbak Sales Can Ltd, 3208 Lenworth Dr
Cooksville Ont 625-1061
Ger Metallgesellschaft, Postfach 2609 Reuterweg
Frankfurt
GB Weil Intl Trading Ltd, 39-41 New Broad St
London EC2
Jap Sumitomo Shoji Ltd, 12 5-Chome Shimbashi
Minato-Ku Tokyo

ALL STAR PRODUCTS INC, SQUIRE AVE, DEFIANCE
OHIO, 43512 .... 419 782-1065
D INGLE, EMP 250, ENG 3
Ariz W Bert Knight Co, Box 11391, Phoenix 261-3578
Cal Hunter Assoc, 252 Fox Plaza
San Francisco 415 626-8576
Fla Components Sales Corp, Box 9545
St Petersburg 360-7460
Ill C J Saberson, Box 1108, Evanston 274-9668
Mich R C Merchant & Co, 18411 W McNichols Rd
Detroit 535-6000
NY Perry Saftler Assoc, 157 W 57th St
New York 247-3855
Va C P Skenes, Box 102, Montross 493-5611
Can Anbak Sls Canada Ltd, 3208 Lenworth Dr
Cooksville Ont 625-1061

ALLSTATE ELECTRONICS, INC, 88 N HIGHLAND AVE
OSSINING, N Y, 10562 .... 914 941-1830
M SHER, EMP 15, ENG 2, $100-$250M

ALL-STATE WELDING ALLOYS CO, INC, BOX 350
WHITE PLAINS
N Y, 10602, TWX MR RICHARD H M 914-592-5400
S MANDEL, EMP 150, ENG 3
Ala J C Kruckmeyer, 919 Shelton Rd
Birmingham .... VE 3-4574
Cal R O'Gar, 4140 Warner Blvd, Burbank 769-5549
Cal All-State Welding Alloys Co, 9550 Ann St
Santa Fe Springs 698-9883
Ga L J Harkins, 903 9th Ave, Albany 436-3764
Ill R Foster, 3131 W Palmer Sq, Chicago 278-7663
Mass Joseph E Horrigan, 10 Summer St
Holliston .... GA 9-2907
Minn W West, 2141 E Jessamine, St Paul 735-2606
Mo Marcel Stavig, 5548 Hunter Ave
Raytown .... FL 6-2800
NJ William H Roop, 581 Jobel Dr
Haddonfield 428-1679
NY D Coleman, North Salem 232-5761
Ohio Tulon Turnbow, 4194 Wright Part
Columbus .... BE 1-9036
Ore A Fick, 5087 Forestview Dr
San Jose Cal 252-2125
Tex Louis T Lane, 617 Truman Dr
Arlington .... CR 4-5857
Utah R Davis, 4344 W 3780 S
Salt Lake City 299-1623
Can All-State Welding Alloys of Can Ltd
104 Advance Rd, Toronto .... BE 1-6231
GB All-State Welding Alloys Co Inc, 16 Phoenix Rd
Wednesfield Wolverhampton Staff 732680
Swit C Van Der Lugt Melsert, 23 Chemin De Sous-Mont
Prilly 25 66 91
Belg N V All-State Welding Alloys Co of Belg S A
2 Europark, St Niklaas-Waas 03/76-50-76
Mex S Fernandez, Box 47070, Mexico 4 D F

ALLTRONICS-HOWARD CO, BOX 19, BOSTON
MASS, 02101 .... 617 742-0048
T HOWARD

ALL-TRONICS, INC, 45 BOND ST, WESTBURY
N Y, 11590, TWX 510-222-3655 .... 516 333-3090
H WESTMAN JR, $500-$1,000M
ADV PG 307, 366
Cal Ed Landa Co, 2288 Westwood Blvd
Los Angeles 272-9525
Cal Ed Landa Co, Box 639, Los Altos 948-0788
Conn Vista Assoc, 267 W Rutland Rd
Milford 203 878-8180
Fla Geartner Assoc, 350 Lincoln Rd
Miami Beach 305 531-0200
Ill MQ & Assoc, 6713 N Oliphant Ave
Chicago 312 774-8844
Kan Gordon Fixman Eng Co, 6631 S Kellogg
Wichita 316 682-9433
Mass Musello Assoc, Harvard Rd, Stow 617 369-5900
Mich Edmund C Frost & Co, 20274 Stout
Detroit 538-5704
Minn TEC Sales, 9906 Chicago Ave S
Minneapolis 612 884-1180
Mo Gordon Fixman Engineering Co, 8160 Stanford Ave
St Louis .... PA 5-5219
Ohio Edmund C Frost & Co, 30650 Pine Tree Rd
Cleveland 831-1442
Pa W Reeves Assoc, Inc, 2973 N Providence Rd
Media .... 215 LO 6-6709
Tex Francis Assoc, 2210 Montana Ave
El Paso 532-6761
Wash A C E Assoc, 1644 S 132nd St
Seattle .... CH 4-9391

ALMAC CRYOGENICS INC, 1108 26TH ST, OAKLAND
CAL, 94607 .... 415 832-1505
A HEDSTROM, EMP 9, $500-$1,000M

ALMA ENGINEERING INC, 7990 DAGGET ST
SAN DIEGO, CAL, 92111 .... 714 278-9330
R FRICK, EMP 27, ENG 5, $500-$1,000M
NY B McCollum, 7 Lisa Dr, Northport

ALMOR DEVELOPMENT CO INC, 724 W ANAHEIM ST
LONG BEACH, CAL, 90813 .... 213 HE 7-2781
C SCHULTE, EMP 36, ENG 1, $250-$500M

ALPHA COMPONENTS CORP, 4087 GLENCOE, VENICE
CAL, 90291 .... 213 398-2713
J CATALDO, EMP 10, ENG 3, $250-$500M
Cal R C Kruse Assoc, Box 1225
Canoga Park 341-3020
Cal W A Borden Co, Box 365, Alamo
Cal Osborne & Bidwell Co, 225 E Redondo
Gardena 213 770-0300
Haw Pacific Electronics, 1336-4 Dillingham, Honolulu
Ill L W Phinney, 1504 N Hoffman
Park Ridge 825-5296
Minn White Sales Co, 6418 Westlake St, Minneapolis
NY A R P Interprises, Inc, 36 Bay Dr E
Huntington .... HA 7-1585
NY W A Franklin Sales Co, 2 Standish Ter
Syracuse 446-2246
Ohio Coy Sales Co, Box 2078, Kettering
Dayton 385-7222
Ore Dale G Weber Co, Weathly Bldg
Portland 234-0686
Pa Samuel A Jeffries Inc, 105 Forrest Ave
Narberth 664-8500
Tex V J Sykes Assoc Inc, 13333 N Central Expwy
Dallas 503-5034
Va Royelec, Box 254, Lynchburg 846-7117
For Itonra Intl, 9470 Santa Monica Blvd
Beverly Hills, Cal 272-0011

ALPHA INDUSTRIES INC, 381 ELLIOT ST
NEWTON UPPER FALLS
MASS, 02164, TWX 710-335-1237 .... 617 969-6480
A KARIOTIS, EMP 165, ENG 15, $2,500-$5,000M
Cal Riner-Stillman, Inc, 3402 W Century Blvd
Inglewood 673-0800
Cal Riner-Stillman, Inc, 200 Third St
Los Altos 321-8867
Ill Rusz Sales Co, 7740 W Ardmore Ave
Chicago .... NE 1-7322
Md Callas Electronics Inc, 6409 Frederick Ave
Baltimore 744-7711
Mo Technical Mktg Assoc, 2050 Woodson Rd
St Louis 427-3600
NM A L S Electronics, 209 San Pablo
Albuquerque 298-2575
NY Naylor Electric Co Inc, 1718 Erie Blvd E
Syracuse 472-9183
NY Trionic Assoc Inc, 320 Northern Blvd
Great Neck 466-2300
Ohio Rixan Assoc Inc, 5752 Wadsworth Rd
Dayton 222-0011
Pa Danco Corp, Fairview Village 275-2600
Tex Howell Sales Co Inc, 820 Barca Way
Grand Prairie 262-5153
Wash Jon B Jolly, 413 Maritime Bldg
Seattle 624-2152
Can Canuck Electronics Co, 1150 Major Ave
Chomedey, Que 737-2744
For Soc Comercial Romar, LTd, Rua da Boavista 83-1D
Lisboa, Port
Den A/S Nordisk Elektronik, Danasves 2, Copenhagen 2
Fr Cerel Bureaux et Ateliers, 6, Impasse Lemiere, Paris
GB Walmore Electronics Ltd
11-15 Betterton St, Drury Ln, London
Holl I R C A, Paradysstr 92, Voorburg
Ital Milano Brothers, Piazza Velasca 5, Milan
Jap Japan Telestom Corp, 17-1, 1-chome Shimbashi
Minato-Ku, Tokyo
Swed A B Nordiska Elektronik, Postfack, Stockholm
Swit Werner Stolz Ing, 8967 Widen AG, Switz
Ind Modi Trading Co, Shradhhanand Rd, Ghatkopar

ALPHA METALS INC, 56 WATER ST, JERSEY CITY
NJ, 07304 .... 201 434-6778
M BOYLE, EMP 400
Ala Space Engrg Sales Inc, 4306 Governor Dr SW
Huntsville
Cal Alpha Metals Inc, 1916 Tubeway Ave
Los Angeles 723-9044
Fla H R Gross & Co, 314 S Missouri Ave
Clearwater 446-6649
Ill Alphaloy Corp, 4404 S Kildare Blvd
Chicago 376-5100
Ill Gene Clouse-EMF Co, 6135 W Belmont Ave
Chicago 282-9393
Kan Louis Bruns, 2210 N 50th Terr
Kansas City .... AT 9-5242
Mich J Zaiser, 157 S Budlong St, Millsdale
NJ Hunt Assoc, Box 98, Cherry Hill 428-6666
NY F Dunham, 14 Highland Dr, Schenectady
Tex P J Scanlon Co, 724 S Sherman St
Dallas 351-5391
Wash Bill Waddell Co, 10211 NE 31st Pl
Bellevue 822-9629
Wis R W Mead, Country Club Est Rte 1, Fontana
For San Juan Electronics Ltd, Pta Dtierra St
San Juan PR
Den Trafomo-Rodovreuej 155, Rodovreuej 155
Kobenhavn-Vanlose
Fr Ste Francais Du Diamant, 8 Rue Lafayette, Paris
Ger Fub Hans Kolbe & Co, 3371 Gittelde/Harz
W Germany
Ger E Durrwachter-Doduco-KG
7530 Pforzheim Postfach 480, W Germany
GB Alpha Metals Inc (UK) Ltd, High St, Hounslow Mdsx
Ital Amlico Prodotti Industriali, Via Palmanova 131
Milano
SAfr Adlam Tool & Supply Co, 10 Ronald Dr
Montreal W Que
Swed Ajgers Elektronik AB, Stockholm 32
Belg R Gassner, 177 Ave Louise, Brussels 5
Isrl Talviton, Box 3282, Tel-Aviv Israel

ALPHA RELAYS INC, 3244 KENNEDY BLVD
JERSEY CITY, N J, 07306 .... 201 656-8080
E ALLEN, EMP 6, ENG 1

ALPHA SCIENTIFIC LABS INC, 460 ROLAND WAY
OAKLAND, CAL, 94621 .... 415 635-2700
D KLEIN, EMP 4, ENG 5, $500-$1,000M
Cal Griot Assoc, 3002 Midvale Ave
Los Angeles 213 474-1587
Ga Physimetrics Inc, 3376 Peachtree Rd NE, Atlanta
Mich Anger Assoc, 13126 Michigan Ave, Dearborn
NY Scientific Sys Sales Corp, 376 Great Neck Rd
Great Neck
Can Technical Mktg Assoc, 6 Thorncliffe Sq, Toronto, Ont
Fr Bureau De Liaison, 113, Rue de L'Universite
Paris 7e

ALPHA WIRE, 711 LIDGERWOOD AVE, ELIZABETH
N J, 07207, TWX 710-742-7427 .... 201 925-8000
H SALTZMAN, EMP 400, ENG 5, $2,500-$5 000M
Ariz Shefler-Kahn Co, 2017 N 7th St
Phoenix 258-7893
Cal F W Moulthrop & Assoc, 1530 E 12th St
Oakland 261-7676
Cal Alpha Wire, 2815 Columbia St
Torrance 775-6871
Fla Millar-Hutto Assoc Inc, 501 Park Ave
Winter Park 647-7407
Ga Millar-Hutto Assoc Inc, 3110 Maple Dr
Atlanta 261-6160
Haw Bill Kolans Co, Box 2098, Honolulu 811-628
Ill Alpha Wire, 7800 N Merrimac Ave
Chicago 965-8300
Ill Russ Gawne & Assoc, 6134 W Toughy Ave
Chicago 775-5381

Ind	Thomas & Sukup Inc, 2060 E 54th St Indianapolis	251-4574
Kan	Florence & Meyer Inc, 2900 Woodland Ave Wichita	561-7282
Mass	Gerber Sales Co Inc, 26 Maple Ct E Longmeadow	525-3059
Mass	Gerber Sales Co Inc, 176 2nd Ave Waltham	891-8040
Mich	Shalco Inc, 23529 Woodward Ave Ferndale	547-4771
Mich	Shalco Inc, 5364 Kimball Ave, SE Grand Rapids	243-7607
Minn	Clark R Gibb Co, 1311 W 25th St, Minneapolis	
Mo	Florence & Meyer Inc, 406 W 34th St Kansas City	561-7282
NY	Marsey Sales, 206 Park Ave, Rochester	442-9700
NC	Millar-Hutto Assoc Inc, North Hills Off Mall Raleigh	787-9564
Ohio	Neal Bear Corp, 3435 Streetsboro Rd W Richfield	659-3331
Ohio	Neal Bear Corp, 2801 Far Hills Ave Dayton	299-3566
Pa	Nebco Assoc Inc, 1974 Gregory Ave Monroeville	824-2111
Pa	Beil & Whitaker Inc, 3623 Jacksonwald Ave Reading	779-2610
Tex	Texport Co, 2411 Farrington St, Dallas	631-6270
Tex	Texport Co, 8811 Gaylord, Houston	465-3031
Va	Don Miller & Assoc, 2252 Staples Mill Rd Richmond	353-5324
Wash	Dave Miller Sales Co Inc, 2323 N 45th St Seattle	632-7070
Wis	R Gawne Assoc, 4927 W Donna Dr Milwaukee	354-4889
Can	Frank Eakin Ltd, 9 Milvan Dr Weston, Ont	741-7485

ALPINE ELECTRONIC COMPONENTS INC
5 NUTMEG RD, WOLCOTT
CONN, 06720 ... 203 879-1449
R LIKLEY, EMP 105, ENG 1, $5,000-$10,000M

ALPINE GEOPHYSICAL ASSOC INC, OAK ST
NORWOOD
N J, 07648, TWX 710-991-9754 ... 201 768-8000
M LIPTON, EMP 300, ENG 50, $5,000-$10,000M

DC	S A Casale, Washington Bldg Washington	202 628-5536
Can	Decca Radar (Canada) Ltd, 23 Six Point Rd Toronto 18	239-1161
For	Ragel & Corbella SRL, Svipacha 705-2 OF 5 BS Aires, Arg	31-7485
Ger	R Stern, Kaiserstra 13, 6/Frankfurt/Main	29 11 28
Ital	Eurelettronica ICA S, F Giacomelli, 44 Rome	59 66 12
Jap	Nippon Gyomo Sengu Kaisha Ltd 652-5 Marunouchi Bldg, Chiyoda-Ku, Tokyo	
Isrl	J Zemler, Cholon, 86 Arlossorof	

ALTAIR RESEARCH & MFG CO, 1241 E STATE ST
ONTARIO, CAL, 91761 ... 714 983-2418
J ASKEW, EMP 6, ENG 2, UP TO $100M

ALTEC LANSING DIV LTV LING ALTEC INC
1515 S MANCHESTER AVE, ANAHEIM
CAL, 92803, TWX 910-591-1142 ... 714 774-2900
W JOHNSON, EMP 750, ENG 45, OVER $10,000M

Cal	R W Hall, 7939 Belton Dr Los Angeles	213 670-1555
Cal	J G Humble, 237 Elm St San Mateo	415 343-1477
Cal	R J Faust, 22211 Van Owen St Canoga Park	213 346-6285
Fla	M G Thomas, 2643 Derbyshire Rd Maitland	305 831-1656
Ga	N R Schneider, 3777 Montford Dr Chamblee	404 457-0426
Haw	Altec Lansing, 207 Keawe St Honolulu	808 507-228
Md	C L Range, Jr, 9131 Hollyoak Dr Bethesda	301 365-1699
Mich	C Standiford, 2928 Kenwick Cir Lansing	517 485-5190
Mo	T M Rooney, 5119 N Smalley Ave Kansas City	816 GL 3-1170
Neb	R Start, 8710 Weir St, Omaha	402 331-6732
NY	W V Watkins, 41 Keeler Ave Merrick	516 378-7099
NY	M Bender, 100 Pelham Rd New Rochelle	914 636-4515
Ohio	E W Stone, 2321 Western Ave Waukegan	312 662-6991

ALTHOR PRODUCTS, 2260 BENSON AVE, BROOKLYN
N Y, 11214 ... 212-ES3-7444
J KESSLER, EMP 7, ENG 1, UP TO $100M

ALTO SCIENTIFIC CO, INC, 4083 TRANSPORT ST
PALO ALTO
CAL, 94303, TWX 415-492-9273 ... 415 321-3434
D HANES, EMP 37, ENG 6, $1,000-$2,500M

Ala	E G Holmes & Assoc, 4862 Governors Dr W Huntsville	205 387-6900
Cal	Cain & Co, 15720 Ventura Blvd Encino	ST 3-4700
Cal	Cain & Co, 175 S San Antonio Rd Los Altos	948-6533
Colo	Kelley Enterprises, 336 E 4th St Loveland	303 667-1376
Conn	George Gregory Assoc, 9 S Main St Cheshire	272-5040
Fla	E G Holmes & Assoc, 316 1/2 S Bumby St Orlando	305 241-2128
Ga	E G Holmes & Assoc, 3667 Clairmont Rd Chamblee	404 451-6161
Ill	Cain & Co, 1203 Ironwood Dr Mt Prospect	253-3578
Md	Engineering Assoc Inc, 1406 Shoemaker Rd Baltimore	301 825-2385
Mass	George Gregory Assoc, 7 Erie Dr Natick	CE 5-9070
NY	KLM Assoc, 201 S Main St N Syracuse	315 458-6214
NY	KLM Assoc, 9 Hollywood Dr Whitesboro	315 736-2450
NY	KLM Assoc, 8 Bear Hill Dr Palmyra	315 797-9776
NY	CDB Enterprises, 675 W Jericho Tpk Huntington	516 692-5200
NC	E G Holmes & Assoc, 430 W Friendly Ave Greensboro	919 275-0897
Ohio	Cain & Co, 2485 Lipton Rd, Columbus	861-2119
Tex	Kelley Enterprises, 5432 Vancover St El Paso	915 751-3843
Tex	Cain & Co, 8609 Northwest Plaza Dr Dallas	369-2897
Wash	Paratech, 9210 28th NW, Seattle	SU 4-6447
Wash	Paratech, 9210 28th NW, Seattle	SU 4-6447
For	Rocke World Trade, 750 3rd Ave New York NY	212 986-2244

ALTRON ELECTRONICS CO, 1309 JEFFERSON AVE
WOODLYN, PA, 19094 ... 215-833-1224
A SYDNOR, EMP 12, ENG 2, UP TO $100M

ALTRONIC RESEARCH CORP, 13710 ASPINWALL AVE
CLEVELAND, OHIO, 44110 ... 216 851-3220
B FREDERICO, EMP 11, ENG 2, UP TO $100M

ALUMINUM CO OF AMERICA, 1501 ALCOA BLDG
PITTSBURGH
PA, 15219, TWX 412 642-2103 ... 412 553-4545
R WILLIAMSON, EMP 47000, OVER $10,000M

Ala	Alcoa, 10 Office Park, Birmingham	879-8641
Ariz	Alcoa, 5045 N 12th St, Phoenix	264-7941
Ark	Alcoa, 18th & Maple St, N Little Rock	FR 4-0377
Cal	Alcoa, 1001 46th St, Oakland	655-2553
Cal	Alcoa, 1145 Wilshire Blvd Los Angeles	HU 2-2680
Cal	Alcoa, 2962 5th Ave, San Diego	298-9326
Cal	Alcoa, 1840 Ogden Dr, Burlingame	697-7171
Colo	Alcoa, 1777 S Bellaire St, Denver	757-8477
Conn	Alcoa, 4695 Main St, Bridgeport	374-6141
Conn	Alcoa, 1049 Asylum Ave, Hartford	525-2191
Del	Alcoa, 825 Bank of Dela Bldg Wilmington	OL 6-6643
DC	Alcoa, 1200 Ring Bldg, Washington	FE 8-9400
Fla	Alcoa, 490 Hialeah Dr, Hialeah	885-2726
Fla	Alcoa, 4302 Henderson Blvd, Tampa	253-3391
Ga	Alcoa, 1615 Peachtree St NE, Atlanta	TR 5-7441
Idah	Alcoa, 1220 Vista Ave, Boise	342-8038
Ill	Alcoa, 401 N Michigan Ave, Chicago	645-8400
Ill	Alcoa, 614 Coml Nat'l Bank, Peoria	673-7445
Ind	Alcoa, 51591 US 31 N, South Bend	272-3333
Ind	Alcoa, 600 N Alabama St, Indianapolis	639-3464
Ind	Alcoa, 2924 S Calhoun St, Ft Wayne	744-3374
Iowa	Alcoa, 601 Brady St, Davenport	322-6243
Kan	Alcoa, 5309 E Central, Wichita	MU 4-0555
Ky	Alcoa, 448 Mall Off Bldg, Louisville	597-1536
La	Alcoa, 1309 Whitney Bank Bldg, New Orleans	
Md	Alcoa, Chesapeake Bldg, Baltimore	828-4800
Mass	Alcoa, Wellesley Office Pk Wellesley Hills	235-8800
Mass	Alcoa, 28 Pleasant St, Worcester	PL 4-4173
Mich	Alcoa, 610 New Center Bldg, Detroit	TR 1-8100
Mich	Alcoa, 904 Mott Foundation Bldg, Flint	232-3111
Mich	Alcoa, 812 Mich Natl Bank Grand Rapids	459-6163
Mich	Alcoa, 310 Natl Bank Bldg, Jackson	ST 4-8535
Minn	Alcoa, 4010 W 65th St, Minneapolis	WA 7-7051
Mo	Alcoa, 4601 Madison Ave Kansas City	WE 1-1800
Mo	Alcoa, 8301 Maryland Ave, St Louis	863-0300
Neb	Alcoa, 8401 W Dodge Rd, Omaha	393-7874
NJ	Alcoa, 100 Halsted St, E Orange	672-5135
NY	Alcoa, 40 Colvin Ave, Albany	489-3234
NY	Alcoa, 2427 Sheridan Dr, Tonawanda	836-1900
NY	Alcoa, 1001 Franklin Ave, Garden City	PI 7-5428
NY	Alcoa, 200 Park Ave, New York	972-6000
NY	Alcoa, 3700 East Ave, Rochester	LU 6-6696
NY	Alcoa, 731 James St, Syracuse	GR 4-4607
NC	Alcoa, 1200 E Morehead St, Charlotte	334-9751
Ohio	Alcoa, 2331 Victory Pkwy, Cincinnati	221-7000
Ohio	Alcoa, 156 Parsons Ave, Columbus	CA 4-7221
Ohio	Alcoa, 25 E Boardman St, Youngstown	744-8671
Ohio	Alcoa, 5800 Monroe St, Sylvania	882-2005
Ohio	Alcoa, 1 Erieview Plaza, Cleveland	522-1000
Ohio	Alcoa, 200 Parkview Plaza, Dayton	278-5781
Ohio	Alcoa, 759 W Market St, Akron	535-7137
Okla	Alcoa, 111 NW 23rd St Oklahoma City	JA 8-0537
Ore	Alcoa, 111 Lloyd Plaza, Portland	234-0911
Pa	Alcoa, 1800 2 Penn Ctr Plaza, Phila	LO 8-8100
Pa	Alcoa, 25 N Duke St, York	854-5521
Pa	Alcoa, 670 One Allegheny Sq Pittsburgh	553-4131
Pa	Alcoa, 1202 Washington St, Allentown	432-4321
Tenn	Alcoa, 4515 Poplar Ave, Memphis	682-2477
Tenn	Alcoa, 207 Bradford Bldg, Nashville	AM 9-4523
Tenn	Alcoa, Box 128, Alcoa	
Tenn	Alcoa, 1237 Volunteer Bldg Chattanooga	267-6585
Tex	Alcoa, 1900 Fidelity Union Twr, Dallas	RI 1-6291
Tex	Alcoa, 5050 Westheimer Rd, Houston	NA 2-6050
Tex	Alcoa, 203 Fields Bldg, Lubbock	SH 7-2831
Utah	Alcoa, 230 S 4th W St, Salt Lake City	359-9811
Va	Alcoa, 2123 W Laburnum Ave Richmond	353-5551
Wash	Alcoa, 1401 Madison St, Seattle	329-1111
Wash	Alcoa, 507 Fidelity Bldg, Spokane	RI 7-6124
W Va	Alcoa, 1018 Kanawha Blvd E Charleston	343-4591
Wis	Alcoa, 812 Doty St, Green Bay	414 437-7509
Wis	Alcoa, 2040 W Wisc Ave, Milwaukee	DI 2-7110
Can	Alcoa Intl Can Ltd, 2 Carlton St Toronto	363-2385
Can	Alcoa Intl Ltd, Box 516, Kingston	26 26 1
For	Alcoa Intl SA, Ave D'Ouchy 61 Lausanne	27-61-61
For	Alcoa Intl (Asia) Ltd, 31 Queen's Rd Central Hong Kong	22-80-77
For	Alcoa De Centro Amer S A, Box 404 San Salvador	1515
GB	Imperial Aluminum Co Ltd, Box 216 Witton Birmingham	DRO 3411
Jap	Furukawa Aluminum Co Ltd 8, 2-Chome Marunouchi, Chiyoda-ku Tokyo	211-0771
Nor	Mosal Aluminium A/S, Box 5430 Majorstua Oslo	46-68-70
Mex	Alcomex S A, Apartado 5-309 Mexico City	11-99-71
Mex	Alukon S A, Pino No 343, Mexico	47-42-54
Aust	Alcoa of Australia Pty Ltd, 155 Queen St Melbourne	67-65-85

ALUMINUM DESIGN CORP, 9300 W 47TH ST, BROOKFIELD
ILL, 60513 ... 312 485-6290
M WARREN, EMP 70, ENG 4, $500-$1,000M
ADV PG 72, 799

NY	Reed Electronics Inc, 2815 Monroe Ave Rochester	473-2767

ALUSUISSE METALS INC, 2460 LEMOINE AVE
FORT LEE, N J, 07024 ... 201 461-6660
T JOHNSON, EMP 8, $250-$500M

AMARK CORP, 31 COMMERCIAL ST, PLAINVIEW
N Y, 11803, TWX 510 221-1894 ... (516) 938-3322
M LESLIE, EMP 150, ENG 30, $2,500-$5,000M

AMATOM ELECTRONIC HARDWARE
81 ROCKDALE AVE, NEW ROCHELLE
N Y, 10802 ... 914 NE 6-5700
L ABELES, EMP 56, ENG 3

Cal	H J Lott Sales Co, 1149 Grand St Redwood City	415 368-5700
Cal	T W Yeakle, 171 Annandale Rd Pasadena	213 681-1455
Fla	Stanley wallace Assoc, Box 67 Lutz	813 949-1817
Ill	Arnold Leff Assoc, 1046 Wilson Ave Chicago	312 LO 1-6831
Mass	Near Inc, 99 Highland Ave Somerville	617 MI 3-0547
Mich	Grant Shaffer Co, 14241 Fenkell Ave Detroit	313 BR 3-5390
Minn	C E Bohlig Co, Box 8095 Minneapolis	612 922-7011
Mo	Compar Ozark Inc, 2600 Woodson Rd St Louis	314 423-7200
NY	Friedman-Smith Electronic Sales, 519 S 5th Ave Mt Vernon	914 MO 4-6110
NY	A & M Assoc Ltd, 1119 Grant Ave Bronx	212 538-2930
Ohio	John O Olsen Co, 16201 Shaker Blvd Cleveland	216 752-5444
Pa	Jadelectronic Assoc, Box 5735 Phila	215 GL 5-3355
Tex	Gordon V Peck Co, 210 Casa Linda Plaza Dallas	214 DA 7-1170
Wash	Allied Agencies, 1818 Westlake Dr Seattle	206 AT 4-4082
Wis	R A Rubinstein Sales, 3363 N Cramer Milwaukee	WO 4-5175
Can	Desser E-E Ltd, 262 Wilson Ave Montreal	514 487-2300

AMBCO ELECTRONICS, 1222 W WASHINGTON BLVD
LOS ANGELES, CAL, 90007 ... 213 747-5131
C MASON, EMP 15, ENG 2, $250-$500M

AMBROID CO, INC, 305 FRANKLIN ST, BOSTON
MASS, 02110 ... 617-426-9390
L ABBRUZZESE, EMP 50, ENG 3, $250-$500M

AMCO ENGINEERING CO, 7333 W AINSLIE ST, CHICAGO
ILL, 60656, TWX 910-221-5192 ... 312 867-8500
R KOMAREK, EMP 184, ENG 15, $2,500-$5,000M
ADV PG 276

Ala	Ridge Instrument Co, 7220 Governor's Dr W Huntsville	837-3211
Alas	Arva Inc, Box 759, Anchorage	272-5231
Ariz	Gramer & Co, 110 W Camelback Rd Phoenix	279-1231
Cal	Hunter Assoc, 252 Fox Plaza San Francisco	626-8576
Cal	Black & Strong, 444 Olive St San Diego	298-4711
Cal	Black & Strong, 1728 S LaCienega Rd Los Angeles	870-9191
Colo	Williams Assoc, 4971 Jackson St Denver	388-4391
Conn	Instrument Dynamics Inc, 345 N Main St West Hartford	233-5503
Fla	Willett & Ellis- Brown, 5531 Gross Court Orlando	647-2417

Fla Willett & Ellis-Brown, 1260A S Highland Ave
Clearwater 446-0075
Ga Ridge Instrument Co, 3094 McCully Dr NE
Atlanta 939-1554
Ind McDonald Sales, 227 S Cornell Cir
Ft Wayne 745-9214
Iowa Engineering Services Co, 1026 3rd Ave S E
Cedar Rapids 366-1591
Kan Engineering Services Co, 7924-A State Line
Prairie Village .... MI 9-4000
Md L G White & Co, 880 Bonifant St
Silver Spring 585-3141
Mass Instrument Dynamics Inc, Wakefield Ind Pk
Wakefield 245-5100
Mich Technitron Inc, 13657 Grand River Ave
Detroit 838-7324
Minn Bonament Heyda Co, 3830 Rustic Pl
St Paul 484-8531
Mo Engineering Services Co, 6717 Vernon Ave
St Louis 726-2233
NJ F & F Assoc, 58 Arcadia Rd
Woodcliff Lake .... PR 8-6767
NM Williams Assoc, 420 Washington SE
Albuquerque 255-1638
NY Naco Elctns Corp, 119 Luther Ave
Liverpool .... GR 4-7481
NY Naco Elctns Corp, 2631 Edgewood Rd
Utica NY .... RE 2-1801
NY Naco Elctns Corp, 74 Park Ave
Rochester .... CH 4-4720
NY Naco Elctns Corp, 14 Lori Street
Poughkeepsie 462-2730
NY F & F Assoc, 461 Old Country Rd
Westbury 334-1160
NC L G White & Co, Box 2356
Winston Salem .... PA 5-2612
Ohio Technitron Inc, 1250 W Dorothy La
Dayton 298-9964
Ohio Technitron Inc, 23203 Lorain Rd
North Olmsted 734-0960
Okla Don Shuhart Co, 310 Thompson Bldg
Tulsa .... LU 2-5520
Ore Arva Inc, 2035 S W 58th Ave, Portland 292-8762
Pa L G White & Co, 100 Essex Ave
Narberth .... MO 4-6505
Pa Technitron Inc, 114 Spring Grove Rd
Pittsburgh 371-1231
Tenn Ridge Instrument Co, 140 E Division Rd
Oak Ridge 483-1311
Tex Don Shuhart Co, 4509 Greenville Ave
Dallas .... EM 3-5436
Utah Williams Assoc, 2469 S Main St
Salt Lake City 466-8709
Wash Arva Inc, 1320 Prospect St, Seattle 622-0177
Wis E A Dickinson & Assoc, 2612 N Green Bay Ave
Milwaukee 264-1080
Can Elequipment Ltd, Box 174, Oakville Ont 844-9039
For Nopel Corp, 21 West St, New York N Y 944-5328
BC Arva Inc, 1624 W 3rd Ave, Vancouver 736-6377

AMC SEMICONDUCTOR CORP, 106 E 18TH ST
NEW YORK, N Y, 10003 .... 201 677-8410
S SUSSMAN, EMP 30, ENG 5

AMECO INC, BOX 13741, PHOENIX
ARIZ, 85002 .... 602 262-5500
C MAKI, EMP 600, ENG 20, OVER $10,000M
Ariz R Hannon, Box 13741, Phoenix 602 262-5500
Cal M Carlisle, 26 O'Farrell St
San Francisco 415 392-2394
Kan L Vosburg, 9520 Halsey St, Lenexa 913 432-7474
Ore W Lauritzen, 4434 Doyle St
Eugene 503 345-5012
Pa C Richard, Box 3343, Harrisburg 717 737-3792
Tenn Dean Scott, Box 5247, Kingsport 477-3231

AMECOM DIV LITTON INDUSTRIES
1140 EAST-WEST HWY, SILVER SPRING
MD, 20910 .... 301 588-7273
G BROWN, EMP 450, ENG 150, $5,000-$10,000M

AMELCO SEMICONDUCTOR, A TELEDYNE CO
1300 TERRA BELLA AVE, MOUNTAIN VIEW
CAL, 94040, TWX 910-379-6494 .... 415 968-9241
L SOLOMON, EMP 910
Ariz Southwest Engineering, 8341 N 7th St
Phoenix 602 944-1521
Cal Amelco Semiconductor, 910 S Brookhurst Ave
Anaheim 714 635-3171
Cal Black & Strong, 444 Olive St
San Diego .... CY 8-4711
Cal Recht & Assoc, 175 S San Antonio
Los Altos 941-0336
Cal Black & Strong, 1728 S LaCienega Blvd
Los Angeles 870-9191
Cal Amelco Semiconductor, 910 S Brookhurst Ave
Anaheim 714 635-3171
Colo Simpson & Assoc, 8000 S Kendall Blvd
Littleton 798-8439
Fla Amelco, 711 Magnolia Ave, Orlando 424-3512
Ill Amelco Semiconductor, 650 W Algonquin Rd
Des Plaines 439-3250
Iowa Howard Brown Sales, 3400 Indian Rd SE
Cedar Rapids 366-0635
Md Daniel & Co, 6 E Pennsylvania Ave
Towson 825-3330
Mass Amelco Semiconductor, 805 High St
Westwood 326-6600
Mich W R Hummon & Assoc, Box 501
Farmington 474-0661
Mo PEM Sales Co, 9537 Lackland Rd
St Louis 427-7200
NJ Amelco Semiconductor, 535 Bergen Blvd
Ridgefield 201 943-4700

NM Data Handling Co, 209 San Pablo SE
Albuquerque 268-0928
NY Comtronic Assoc, 1551 Franklin Ave
Mineola .... 516 PI 1-8966
NY R W Mitscher Co, 496 Ellicott Sw Bldg
Buffalo 716 854-2517
Ohio Electronic Marketing Corp, 814 W Third Ave
Columbus 299-4161
Pa Daniel & Co, 231 S Easton Rd
Glenside .... TU 7-0550
Tex Texport, 2411 Farrington, Dallas 631-6270
Wash Harry Levinson Co, 1211 E Denny Way
Seattle .... EA 3-5100
For Austronic Engrg Labs, 60-64 Queensberry St
Carlton Vict 34 4641
For Machine & Products, 52 Wall St
New York N Y 944
Den A/S Nordisk Elecktronik, Danasvej 2, Copenhagen
Fr Cite des Bruyeres, Rue Carle Vernet
92 Sevres 626-02-35
Ger Omni Ray GmbH, Postfach 75
D4051 Breyell 0 2153
GB Lectropon, Ltd, Wellington St
Slough, Buck .... SL 2-7629
Holl Uni-Office N V, Box 1122, Rotterdam 13 22 20
Ital Sisram, Corso Matteotti 55, Torino 54 78 04
Jap Hakuto Co, Ltd, 1 Shibakotohiracho, Minatoku, Tokyo
Swed AB Nordiska Elektronik, Stureplan 3
Stockholm 08/24 83 40
Isrl STG Intl Ltd, 52 Nahlat Benyamin St
Tel Aviv 53459

AMERAC, INC, DUNHAM RD, BEVERLY
MASS, 01915 617-922-8611
E HOGGARD, EMP 30, ENG 4

AMERICAN AEROSPACE CONTROLS INC, 129 VERDI ST
FARMINGDALE, N Y, 11735 .... 516 694-5100
G KIRIAZIDES, EMP 20, ENG 4, $250-$500M
Ariz Luscombe Engrg, 3130 N 3rd Ave
Phoenix 602 274-1542
Cal Luscombe Engrg, 220 E 3rd Ave
San Mateo 415 342-7057
Colo Luscombe Engrg, 610 S Arroyo Pky
Pasadena 13 684-2000
Fla D & E Assoc, 2031 Chippewa Trail
Maitland 305 644-3039
Mass Daner Assoc, 684 Commonwealth Ave
Newton Center 969-4650
NJ Marshbank-Monteiro Assoc
123 Clements Bridge Rd
Barrington 609 546-6555
NY HAF Spectrum, 35 Broadfield Rd
New Rochelle .... 914 NE 2-3800
Va Gans-Fryling Inc, 2030 16th St N
Arlington 703 527-3262
Fr Radio Television Francaise, 73 Ave de Neuilly
Neuilly-Sur-Seine
Ger Kontron GmbH, Nikolaistr 7, 8, Munich 23
Jap Seishin Trading Co
11 Shiba-Nishikubo Akefune-Cho, Minato-ku Tokyo
Nor Ole A Nordby, Huitfeldtsgt 9, Oslo
Swed Falico Ltd, Stadsgarden 18, Stockholm So
Swit Kontron AG, Hardstr 235, Zurich 5

AMERICAN ASTRIONICS INC, 3950 FABIAN WAY
PALO ALTO, CAL, 94303 .... 415 328-6800
J FRASCHILLA, EMP 25, ENG 9, $500-$1,000M
Cal R R Sedillo, 125 E Sunnyoaks
Campbell 408 264-4010

AMERICAN ATOMICS CORP, 425 S PLUMER AVE
TUCSON, ARIZ, 85719 .... 602 622-4881
C HANSON, EMP 15, ENG 3, UP TO $100M

AMERICANA X-RAY CO, 568 GRAND AVE, ENGLEWOOD
N J, 07631 .... 201 944-0010
UP TO $100M
ADV PG 710

AMERICAN BRAZING ALLOYS CORP, BOX 11, PELHAM
N Y, 10803 .... 914-BE5-5105
J ROBINSON, EMP 55, $2,500-$5,000M

AMERICAN CABLE ELECTRONIC SUPPLY INC
5257 WALNUT AVE, SACRAMENTO
CAL, 95841 .... 916 331-3150
J POLAK, EMP 10, ENG 4, $100-$250M

AMERICAN CIRCUIT-TRONICS CORP
723 E 10 MILE RD, ROYAL OAK
MICH, 48067 .... 313 398-6130
K MARSH, EMP 80, ENG 5, $1,000-$2,500M
Ind D C Flanagan, 2512 East Dr
Fort Wayne 219 484-5751
Mass Autarch Assoc, Box 169, Wakefield 617 245-9155
Mich R T Mathews, 20441 James Couzens Hwy
Detroit 313 835-5200
NY Verter Sales Co, 2352 E 66th, Brooklyn .... HI 4-3880

AMERICAN COMPONENTS, INC, 8TH AT HARRY
CONSHOHOCKEN
PA, 19428, TWX 510 660-9268 215-828-6240
D O'HALLORAN, EMP 202, ENG 11, $1,000-$2,500M
Cal M W Riedel & Co, 2215 W Valley Blvd
Alhambra 213 283-7694
Colo Vinson Assoc, 300 S Lincoln St
Englewood 303 789-2203
Conn A Hubert Assoc, Box 143, Brookline 262-0027

Fla Floyd Fausett Co, 685 Selkirk Dr
Winter Park 644-6672
Ga Floyd Fausett Co, 2264 Melinda Dr NE
Atlanta 633-3561
Ill Ed Schmeichel Co, 5968 W Chicago Ave
Chicago 378-2070
Mass Alexander Hubert Assoc, Box 143
Brookline 262-0027
Minn Electro-Serv Co, 1455 W Lake St
Minneapolis 827-2907
NM Vinson Assoc, Box 3295 Sta D
Albuquerque 505 298-7442
NY R W Mitscher Co, Inc, 496 Ellicott Sq Bldg
Buffalo 854-2517
NY Edward Glass Assoc, 205 W 57th St
New York 212 586-8440
Ohio Electro-Com, 8761 Snow Rd, Cleveland 886-2404
Ohio Electro-Com, Box F, Dayton 278-4797
Pa Beebe & Aikman, 237 Lancaster Ave
Devon 688-5173
SC Floyd Fausett Co, Stony Point Hwy
Greenwood 753-3104
Tex Delzell & Evans Assoc, Box 35093
Dallas .... FL 1-1839
Wash W J Stulgis Co, 608 W Crockett St
Seattle 282-7870
Can Canadian Microelectronics, 1390 Raven Ave
Ottawa 613 725-2332
For Madison Overseas inc, 433 Liberty St
Schenectady 372-5841

AMERICAN CYANAMID CO, 859 BERDAN AVE, WAYNE
N J, 07470 .... 201 831-1234
EMP 36000, OVER $10,000M
Ala American Cyanamid Co, 161 St-Michael St
Mobile 438-4646
Cal American Cyanamid Co, 2300 S Eastern Ave
Los Angeles 723-6411
Colo American Cyanamid Co, 1445 Kearney St
Denver 377-2773
DC American Cyanamid Co, 15th St & N Y Ave
Washington 737-4800
Fla American Cyanamid Co, 518 Tampa St
Tampa 229-1297
Ga American Cyanamid Co, 5180 Peachtree Blvd
Atlanta 451-0261
Ill American Cyanamid Co, 3505 N Kimball Ave
Chicago 267-6400
La American Cyanamid Co, 824 Dakin St
New Orleans 831-1301
Md American Cyanamid Co, Old Post Rd
Harve de Grace 939-1910
Mass American Cyanamid Co, 1055 Commonwealth Ave
Boston 782-6000
Mich American Cyanamid Co, 15552 W McNichols Rd
Detroit 272-1970
Minn American Cyanamid Co, 7630 Excelsior Blvd
Minneapolis 935-1721
Mo American Cyanamid Co, 6100 E 60th St
Kansas City 363-3305
NY American Cyanamid Co, 111 W 50th St
New York 956-3131
NC American Cyanamid Co, 333 Wilkinson Blvd
Charlotte 399-0441
Ohio American Cyanamid Co, 20545 Center Ridge Rd
Cleveland 333-3400
Okla American Cyanamid Co, 18th & Baltimore
Tulsa 585-1594
Ore American Cyanamid Co, 3145 NW Yeon Ave
Portland 222-9687
Pa American Cyanamid Co, 185 Commerce Dr
Ft Washington 646-7000
Tex American Cyanamid Co, 7611 Carpenter Frwy
Dallas 631-2130
Wash American Cyanamid Co, 4000 Aurora Ave N
Seattle 633-2061
W Va American Cyanamid Co, 135 Bradmann Bldg
Bluefield 325-9188
Can Cyanamid of Canada, Ltd, 635 Dorchester Blvd W
Montreal 2, Que 866-5611

AMERICAN ELECTRICAL HEATER CO, 6110 CASS AVE
DETROIT
MICH, 48202, TWX 810-221-5369 .... 313 875-2505
R KUHN, EMP 125, ENG 3, $1,000-$2,500M
Ariz Maddox Sales Co, 5709 N 19th Pl
Phoenix 602 274-3807
Cal Maddox Sales Co, 2945 E 12th St
Los Angeles 213 269-7291
Cal Maddox Sales Co, 420 Market St
San Francisco 415 362-3249
Colo R G Bowen Co Inc, 721 S Broadway
Denver 303 722-4641
Fla H R Gross & Co, 314 S Missouri Ave
Clearwater 813 446-6649
Ga Murphy & Cota, 586 Armour Cir NE
Atlanta 404 875-2525
Ill L F Brooks, 606 S Emerson St
Mt Prospect 312 253-6813
Iowa N W Kathrinus Co, 417 W 14th
Ottumwa 515 684-6110
Kan N W Kathrinus & Co, 2336 S Boeke
Kansas City 913 236-4108
La J F McKinney Sales Co, 2012 Condon Ave
Metairie 504 887-1723
Md Par-Nell Sales Co, 47 Main St
Reisterstown 301 833-6444
Mass Coburn Ellingwood, 38 Pequot Rd
Wayland 617 258-2883
Mich R C Oxley, 320 N Almer, Caro 517 673-3621
Mo N W Kathrinus & Co, 2427 Brentwood Blvd
St Louis 314 962-5627
NM C T Carlberg & Assoc, Box 3177 Sta D
Albuquerque 505 265-1579
NY Mills Talbot Co, 45 Saginaw Dr
Rochester 716 244-1311

NY Kaelber & Mack Inc, 75 Plandome Rd
Manhasset 516 627-6620
NC Murphy & Cota, 1106 Burke St
Winston-Salem 919 724-0750
NC Murphy & Cota, 2407 Running Brook Dr
Greensboro 919 288-1923
Okla J F McKinney Sales Co, Box 3958
Tulsa 918 622-2967
Ore James W Eckersley Co, 3150 SW Hamilton St
Portland 503 246-3183
Pa E Edwards, 505 Wellington Rd
Norristown 215 272-4818
Tex J F McKinney Sales Co, 1303 Chemical St
Dallas 214 631-9450
Tex Jack F McKinney Sales Co, 5458 Edith
Bellaire 713 655-3653
Utah R G Bowen Co Inc, 31 S 3rd St E
Salt Lake City 801 364-4632
Can Len Finkler Ltd, 2 Tycos Dr
Toronto 416 781-5231
For ITT Export Corp, 250 Broadway
New York N Y 212 797-3300

AMERICAN ELECTRIC CABLE CO, 181 APPLETON ST
HOLYOKE, MASS, 01040 .... 413 539-9893
P KESSELI, EMP 50, ENG 2, $1,000-$2,500M
Cal Shannon Electronics, 1 First St
Los Altos 415 941-2217
Fla D & E Assoc, 2031 Chippewa Tr
Maitland 305 644-3039
Ill Memac Sales Co, 4740 N Austin Ave
Chicago 312 545-1033
Kan Suor Sales Corp, 8115 Troost, Kansas City
Md Barnhill & Assoc, 415 York Rd, Baltimore
Mich E L Klewicki Co, Box 964, East Lansing .. 332-6364
Minn Intl Sales Co, 8703 Beard Rd
Minneapolis 612 881-6683
NM R E McClendon, 4400 Avenida del Sol, NE
Albuquerque
NY Andrews & Andrews, Inc, 140 E Main St, Huntington
Ohio R G Lanzit Assoc, 515 Laramie Tr
Cincinnati 513 761-2924
Ohio Milber Co, 24105 Duffield Rd, Cleveland
Tex Hugh Sloan, Box 16050, Ft Worth
Va Mr Glen White, Box 1104, Lynchburg
Wash Leo Steinhauer & Son, 8501 S E 72nd, Mercer Island

AMERICAN ELECTRIC & MACHINE CO INC
320-324 HWY 17, UPPER SADDLE RIVER
N J, 07458 201-327-7707
W HIMMELMAN, EMP 6, ENG 1, UP TO $100M

AMERICAN ELECTRONIC CONTROLS INC
54TH & WESTMINSTER AVE, PHILADELPHIA
PA, 19131 .... 215 SH 7-3150
E SCHEMPP, EMP 20, ENG 1, OVER $10,000M

AMERICAN ELECTRONIC LABS INC, BOX 552
LANSDALE
PA, 19446, TWX 510-661-4976 ...... 215 822-2929
I FAYE, EMP 1000, ENG 200, OVER $10,000M
Cal E Bell, 8939 S Sepulveda Blvd
Los Angeles 213 670-8755
Cal Waldman Assoc, 1094 W Evelyn Ave
Sunnyvale 245-2500
Colo Edw W Johnson Co, 10130 W Asbury Ave
Denver 303 985-4810
Fla NBS Inc, 2813 Primose Ct
Orlando 305 423-4856
Ga NBS Inc, 893 Church St N W
Marrietta 404 422-6067
Haw Harkom Hawaii Inc, 630 Piikoi St
Honolulu 587-178
Ill Midwest Microwave, 6414 W Belmont Ave
Chicago 312 823-1051
Kan Penzner Assoc, Box 6264
Overland Park 381-0004
Mass Addelco Corp, 56 Pickering St
Needham 444-4754
Mo Penzner Assoc, Box 1912 Bechtold Sta
St Louis 241-4385
NJ Bonn Assoc, 266 Lake St, Metuchen ...... LI 9-9573
NJ F Johnston, 15 Peters Pl, Red Bank 741-0947
NM Shefler-Khan Co, Box 8342
Albuquerque 505 265-7077
NY Lightstone Corp, E Molloy Rd, Syracuse ... 454-3200
Ohio Mulligan & Mathias, 2011 Riverside Dr
Columbus 486-2976
Pa American Electronic Labs Inc, Richardson Rd
Colmar 822-2929
Tex Geo Weinreich & Assoc, 11554 E Northwest Hwy
Dallas 321-2800
Wash cane-Jessup Co, Box 250, Bellevue 454-0691
Can Conway Elctn Enterprises, 88-90 Arrow Rd
Weston Ont 244-5655

AMERICAN ELECTRONICS, INC, 1600 E VALENCIA DR
FULLERTON
CAL, 92634, TWX 910 592-1256 ..... 714 871-3020
J WOLFE, EMP 353, ENG 30, $5,000-$10,000M
Cal Cardinal Assoc, 16024 Ventura Blvd
Encino 213 788-4540
Cal Hanley-Brenton & Assoc, 257 N Bayshore Blvd
San Mateo 415 347-1492
Cal M E McGeary Co, 6994 Carthage Ave
San Diego 714 582-7185
Ill KGA Engrg Co, Box 646, Elgin 312 742-7465
Md Chas O Emrich, Rolling Rd at Wilkens
Baltimore 747-8348
Mass E A Janse Assoc, 892 Worcester St
Wellesley 235-1623
Mo L R Harry & Assoc, Box 588
Grandview 816 763-3634
Mo L R Harry & Assoc, 7603 Forsyth
Clayton 314 727-6123
NJ Varrelman-Gorman Co, Box 206
Livingston 992-2505
NY B B Taylor Corp, 2270 Grand Ave
Baldwin 223-8000
NY Long Island Machy Sales Corp
568 W Hoffman Ave
Lindenhurst .... 516 TU 4-3070
Ohio Whelan Corp, 2975 Far Hills Ave
Dayton 298-9997
Ohio Whelan Corp, 8323 Cedar Rd
Chesterland 442-8340
Ohio Whelan Corp, 2975 Far Hills Ave
Dayton 298-9997
Okla Vertron, Box 160, Elgin 405 365-4401
Can Canadian Micro Elctns, Box 615, Sta J
Ottawa 613 725-2332
Jap Sunitomo Shoji Kaisha Ltd
1 Kandamitoshiro-cho Chiyoda-ku Box 1524
Tokyo 294-4111

AMERICAN FELDMUEHLE CORP, 15 CRESCENT ST
GLENBROOK, CONN, 06906 .... 203 325-1511
S PRUSIK, EMP 12, ENG 2, $1,000-$2,500M

AMERICAN GAS FURNACE CO, 130 SPRING ST
ELIZABETH, N J, 07201 .... 201 352-2120
F KORZEB, EMP 150, ENG 15, $2,500-$5,000M
Ala Ind Heating & Finishing Co, Hoover Hwy 31 S
Birmingham 822-4456
Conn Stanley P Rockwell Co, 296 Homestead Ave
Hartford .... CH 6-5623
Ill E L Milford, Box 242, Prospect Heights .. CL 3-3827
Ill O T Muehlemeyer Inc, 1500 Preston St
Rockford .... WO 4-7633
Mo Edward W Mooney Co, 7505 Delmar Blvd
Univ City .... PA 5-8875
NJ V C Bailey, 1307 S 10th St, Camden ... WO 4-8385
NJ W E Sturmer, 30 W Main St, Freehold 462-8440
NY Hornbruch Assoc, 31 Fulton Ave, Rye ... WO 7-3771
Ohio A R Griesbach Co, 19030 Lake Rd
Cleveland .... AC 1-5242
Can Canefco Ltd, 50 Milne Ave
Scarborough, Ont .... OX 1-2117

AMERICAN GELOSO ELECTRONICS INC
251 PARK AVE S, NEW YORK
N Y, 10010 .... 212 254-2282
B CAHN, EMP 25, ENG 5, $100-$250M
Cal Lewis Enterprises, 5560 Cahuenga Blvd
North Hollywood 213 877-0461
Cal H & K Sales Inc, 3695 Haven Ave
Menlo Park 415 369-4671
Colo A J Nelson Co, 1294 S Bannock St
Denver 303 733-5528
Fla G Fenton, Box 7387, Orlando 305 423-5720
Ga H K Dewees Co, 3133 Maple Dr NE
Atlanta 404 261-2561
Ga Paul Hayden Assoc, 1530 Nabell Ave
East Point 404 766-0261
Ind Joe Clancy & Co, Box 269, Angola ... 219 665-2561
Kan T H Ellis Sales Co, 7830 State Line
Prairie Village .... 913 AN 9-4522
Md J C Merican Co, 546 Anchor Dr
Rumsey Island 301 679-6969
Minn James Lee Co, 4241 Toledo Ave S
Minneapolis 612 920-1525
NM Park Beatty, Box 1884, Albuquerque
NC N R Boehmer, 2331 Overhill Rd
Charlotte 704 366-8708
Pa J H Podolny, 5912 Penn Ave
Pittsburgh 412 441-0800
RI W B Pray Sales, 8 Larchwood Rd
Cumberland 401 333-5440
Tex Bill Wylds Co, 1247 Caudle Dr
Houston 713 466-8411
Utah L Bush, Box 1871, Salt Lake City
Wash Fleehart & Sullivan, 3826 Woodland Park Ave N
Seattle 206 633-4979
Can Wm Cohen Corp, 8900 Park Ave
Montreal Que 418 382-2132
For Crusol Inc, Urbanizacian Hnas Davila Box 98
Bayamon P R 785-3531

AMERICAN HYDROMATH CO, 2020 JERICHO TPK
NEW HYDE PARK, N Y, 11040 .... 516 354-4233
R KRISTAL, EMP 10, ENG 3, $100-$250M

AMERICAN INSTRUMENT CO, INC, 8030 GEORGIA AVE
SILVER SPRING, MD, 20910 .... 301 589-1727
D FINN, EMP 280
Cal American Instrument Co, 3030 Bridgeway
Sau Salito 332-4726
Cal American Instrument Co, 1251 Auburn Dr
West Covina 339-0359
Colo R G Davis Co, Box 12004, Denver 422-6313
Fla American Instr Co, Box 1316
Winter Park 647-3743
Ill American Instrument Co, Box 477
Barrington 381-5120
Mass American Instrument Co, 30 Shawsheen Ave
Bedford .... CR 5-0014
NJ American Instrument Co, Box K
Collingswood 854-6633
NM Southwestern Eng & Equip Co
707 1st Natl Bank Bldg, Albuq 265-6775
NY American Instrument Co, Box 4421 Dewey Sta
Rochester .... CL 4-6537
NY American Instr Co, Box N, Babylon 353-3663
NC American Instrument Co, Box 804
Black Mountain 669-6100
Ohio American Instr Co, Box 39272
Cleveland 248-5400
Tex Southwestern Eng & Equip Co
6300 N Central Expy, Dallas .... EM 3-6501
Tex American Instr Co, 4242 Richmond Ave S
Houston 666-2313
Wash American Instrument Co, 14016 NE 72 Pl
Redmond .... GL 4-1353
Can American Instrument Co, Box 8
Pointe Claire, Que 626-0404
Den H Struers Chemiske Lab, Skindergade 38
Copenhagen
Fr Radiophon, 148 Ave Malakoff, Paris
Ger Colora Messtechnik GmbH, 7073 Lorch/Wurtt
Postfach 5
GB V A Howe & Co Ltd, 46 Pembridge Rd
London, W 11
Holl N V Beun-De Ronde-H V L 2, Henri Polakalaan
Amsterdam C
Ital S & Agostino Belotti, Piazza Trento N 8, Milano
Jap Nippon Automatic Cont Co
1-Chome, Chofu-Minemachi, Ohta-ku, Tokyo
Nor Anth B Nilsen & Co Ltd, Box 776-777, Oslo
SAfr Protea Phys & Nucl Instru Pty Ltd
38 Faraday St, Wemmer, Johannesburg
Swed Bergman & Beving, Karlavagen 76, Stockholm
Swit Kontron Ltd, Hardstr 235, Zurich

AMERICAN LAMOTITE CORP, 2914 E 81ST ST
CLEVELAND, OHIO, 44104 .... 216 271-1000
J POWERS, EMP 20

AMERICAN LATEX FIBRE CORP, 500 BROADWAY
LAWRENCE, MASS, 01841 .... 617 685-5172
J IPPOLITO, EMP 85, ENG 2
Cal Harvey Holden, Box 576, W Covina 753-5581
Md Delaware Valley Cushioning Corp
4600 E Fayette St, Baltimore 276-6900
NJ Lawrence Pkg Corp, 113 N 13th St
Newark .... WO 2-4394
RI Haig A Nahigian, 26 Beverly Cir
Providence .... CE 1-9329

AMERICAN LAVA CORP, MFRS RD & CHEROKEE BLVD
CHATTANOOGA
TENN, 37405, TWX 810 573-5216 .... 615 265-3411
W RENNICK
ADV PG 132
Cal W Thompson & J Sturtevant, 6023 S Garfield Ave
Los Angeles 685-9600
Cal H Elliott Bond, 320 Shaw Rd
S San Francisco 761-1155
Conn W F Kraekel, 214 Surrey Dr, Orange 795-3254
Ill J T Lusk, 165 Arlington Ave
Elmhurst 312 279-8055
Mass Kenneth M Simpson, 155 4th Ave
Needham Hgts 449-0300
Mo D H Dossett, 811 Chestnut St
Lee's Summit 271-2415
NJ J Nugent, 700 Grand Ave, Ridgefield 943-6700
NY A W Rees, Box 12A Star Rte
Phoenix 315 695-3335
Ohio P D Coates, 848 Jamestown Ave
Elyria 216 365-4731
Pa W S Tallman, 5698 Rising Sun Ave
Phila 742-0200
Tex W S Humphreys Jr, Box 164
Richardson 235-4985
Va Harry E Cressman, 1714 Brandon Ave SW
Roanoke 345-8710

AMERICAN LINCOLN CORP, ELEC MOTOR DIV
968 BRADLEY ST, WATERTOWN
NEW YORK, 13601, TWX 475 3775 ..... 315 782-2350
T BOVEY, EMP 225, ENG 4, $2,500-$5,000M

AMERICAN MACHINE & FOUNDRY CO ALEXANDRIA
DIV, 1025 N ROYAL ST, ALEXANDRIA
VA, 22314, TWX 703 931-4209 .... 703 548-7221
K CANNON, EMP 100, ENG 50
Cal Arthur L Bolton Co, 1174 Chestnut St
Menlo Park 322-6244
Conn Abbott-Allison Co, Box 467, Meriden 237-9232
NJ Grimm, Siegel Assoc, 246 Clifton Ave
Clifton 773-5010

AMERICAN METAL CLIMAX INC
1270 AVE OF THE AMERICAS, NEW YORK
N Y, 10020 .... 212 PL 7-9700
EMP 13750, OVER $10,000M

AMERICAN MICA INSULATION CO, 235 PARKER AVE
MANASQUAN, N J, 08736 .... 201 223-3100
B CATO, EMP 125, ENG 2, $1,000-$2,500M
NJ Budd Cato Assoc, Box 95, Brielle 223-3842

AMERICAN MICRO-SYSTEMS, INC
3800 HOMESTEAD RD, SANTA CLARA
CAL, 95051 .... 408 246-0330
G DUMAS, EMP 250, ENG 65, $5,000-$10,000M
Ala 20th Century Mktg, Inc, 902 Bob Wallace Ave SW
Huntsville 205 536-1596
Ariz Williams Assoc, 1110 E McDowell Rd
Phoenix 602 254-6085
Cal Black & Strong, Inc, 1728 S La Cienega Blvd
Los Angeles 213 870-9191
Colo Williams Assoc, 4971 Jackson St
Denver 303 388-4391
Fla Wm R Lehmann Co, 1010 Executive Center Dr
Orlando 305 841-4901

Ill Magnuson Assoc, 5639 W Fullerton
Chicago 312 622-6322
Md J A Dougherty Sls Co, 320 Hillen Rd
Towson 301 832-0431
Mass Circuit Sales Co, 591 North Ave
Wakefield 617 245-5320
Mich Lowry Dietrich Co, 600 Michigan Bldg
Detroit 313 961-4540
Minn Magnuson Assoc, 1246 W 7th St
St Paul 612 227-8495
NM Williams Assoc, 420 Washington St SE
Albuquerque 505 255-1638
NY Bowser & Sapecky Assoc, 4541 Main St
Buffalo 716 839-4170
NY Bowser & Sapecky Assoc, 4317 E Genesee St
Dewitt 315 446-5920
NY Bowser & Sapecky Assoc, Box 1684
Poughkeepsie 716 452-5130
NY Electro Rep Inc, 380 N Broadway
Jericho 516 938-0540
NC Byrd & Barbour Sls Inc, 619 A 3rd St
Smithfield 919 934-8136
Ohio Lowry Dietrich Co, 316 Marion Bldg
Cleveland 216 781-1855
Ohio Lowry Dietrich Co, 333 W 1st St
Dayton 513 223-6042
Pa Lowry Dietrich Co, 90 Clairton Blvd
Pittsburgh 412 892-2992
Pa Massey Assoc, 1325 W Chester Pike
Havertown 215 789-2320
Tex Arnold Barnes Co, 3230 Mercer St
Houston 713 622-3620
Tex Arnold Barnes Co, 740 S Sherman St
Richardson 214 235-4541
Tex Arnold Barnes Co, Petroleum Ctr
San Antonio 512 828-1323
Utah Williams Assoc, 2461 S Main St
Salt Lake City 801 466-8709
Wash Seatronics, 5931 4th Ave S
Seattle 206 725-4328

AMERICAN MONARCH DIV MPLS SCIENTIFIC
CONTROLS, 2801-37TH AVE NE, MINNEAPOLIS
MINN, 55421 .... 612 788-9161
D MANNING, EMP 90, $1,000-$2,500M
Cal R C Kruse Assoc, Box 1225
Canoga Park 213 341-3020
Ill Wasson-Gallagher, 1024 North Blvd
Oak Park 312 383-6572
Mass Rowan Controller Co, 789 Massachusetts Ave
E Lexington 617 862-3767
Minn Rowan Controller, 2801-37th Ave NE
Minneapolis 612 781-8231
NY Van Valkenburgh Assoc, 611 Broadway
New York 212 334-1416
Ohio Rowan Controller Co, 8905 Lake Ave
Cleveland 216 961-3939
Tex Brice Co, 1401 Dunlavy St
Houston 713 526-3197

AMERICAN OPTICAL CO INSTRUMENT DIV, BOX A
BUFFALO
N Y, 14207, TWX 710-522-1731 .... 716 895-4000
P PIRET, EMP 1400, ENG 50

AMERICAN OPTICAL CO SPACE DEFENSE DIV
14 MECHANIC ST, SOUTHBRIDGE
MASS, 01550 .... 617 764-3211
P KIENAST, EMP 10000, ENG 1000, OVER $10,000M
Cal Tech Marketing Assoc, 355 W Olive Ave
Sunnyvale 408 736-3687
Cal Best Electronics, 520 E 4th St
Tustin 714 544-4600
DC Sonco, 4720 Montgomery La
Washington 301 654-5226
NJ Sonco, Crystal Brook Prof Bldg
Eatontown 201 542-1441
NJ Friedman Assoc, 110 Halsted St
East Orange 201 673-2500
Pa Sonco, Park Pl Office Bldg
Camp Hill 717 671-0577
Pa Sonco, 107 Town Ctr Rd
King of Prussia 215 265-3250
Wash Sonco, 4720 Montgomery La
Washington 301 654-5226
Fr Salies Import, 11 Rue Leon Morane, Paris 15e
Ger Dr Selvogt & Co, Trifthofstr Schliessfach 59
812 Weilheim I OB
GB British Amer Optical Co Ltd, 39 Hatton Gdn
London E C I
GB British Amer Optical Co Ltd, Radlett Rd
Watford Herts
Isrl Landseas (Israel) Ltd, 29 Beazlel St, Tel-Aviv

AMERICAN PHOTOCOPY EQUIPMENT CO
2100 W DEMPSTER, EVANSTON
ILL, 60204 .... 312 BR 3-2100
L BURNS, EMP 2089, ENG 20, OVER $10,000M

AMERICAN POTASH & CHEMICAL CORP
3000 W 6TH ST, LOS ANGELES
CAL, 90005, TWX 910-3211-4050 .... 213 382-8231
B CAMPBELL, EMP 1900, ENG 200, OVER $10,000M

AMERICAN POTASH & CHEMICAL CORP RARE EARTH
DIV, 254 ANN ST, WEST CHICAGO
ILL, 60185 .... 312 231-0760
R CAVINS, EMP 2500, ENG 30, OVER $10,000M

AMERICAN PRECISION INDUSTRIES INC
77 OLEAN RD, EAST AURORA
NY, 14052, TWX 9-1293 .... 716 652-9000
J ARNOLD, EMP 50, ENG 6, $500-$1,000M
Cal L L Stoakes Inc, 4438 Ingraham St
San Diego .... BR 4-6281
Cal L-Tronix Assoc, 1617 W Colorado Blvd
Los Angeles 256-2224
Md J A Dougherty Sales Co, 320 Hillen Rd
Towson 823-0431
Mass P J Engrg Sales Co Inc, Box 267
Boston 783-0510
Minn Craighead & Assoc, 3822 E Lake St
Minneapolis 612 721-6529
Mo H C Heyde Co, 9221 Wenonga Rd
Leawood .... MI 9-8628
NJ Marchand-Border Co, Box 181, Cranford ... 272-5510
NJ Thomas Assoc, Inc, 138 Haddon Ave
Haddonfield 854-3011
Ohio Sheridan Assoc, Box 37646, Cincinnati ... 761-5432
Tex Scott Technical Sales, Box 30324
Dallas .... FL 2-7698

AMERICAN RADAR COMPONENTS, INC
415 E MAIN ST, DENVILLE
N J, 07834 .... 201 627-5530
J HUNDLEY, EMP 29, ENG 2, $500-$1,000M

AMERICAN RECTIFIER CORP, 116-15 15TH AVE
COLLEGE POINT, N Y, 11356 .... 212 353-2828
F KLAUS, EMP 80, ENG 5, $1,000-$2,500M
Ariz Central Station Equip Co, 2323 Aviation Highway
Tucson .... MA 3-2493
Cal I A Williams, 420 Market St
San Francisco .... EX 2-8296
Colo Petromotive Co, 9839 W 65th Pl
Arvada 422-0990
DC A H Baxter, 711 14th St NW
Washington .... RE 7-2121
La L C Reed, 501 N St Patrick St
New Orleans 482-3106
Mo Jeffrey Equipment Co, Box 4311
St Louis .... TW 2-2447
NC E T Green, Box 5034, Greensboro 299-8820
RI A E Murphy, 118 Kenyon Ave
Wakefield .... ST 3-7148
Tenn Engineered Equip Co, 1207 E 23rd St
Chattanooga 267-1804
W Va Kapcar Sales Assoc, 300 Mt Lebanon Blvd
Pittsburgh, Pa 343-5300

AMERICAN RESEARCH CORP
RT 6 & NEW BRITAIN AVE, FARMINGTON
CONN, 06032 .... 203 677-2693
J SHAMROTH, EMP 25, ENG 3, $500-$1,000M

AMERICAN SEMICONDUCTOR CORP, 4 N HICKORY ST
ARLINGTON HEIGHTS
ILL, 60004, TWX 910 687-2263 .... 312 392-8830
J YOST, EMP 40, ENG 4, $500-$1,000M
Cal Dorado Electronics, Inc, 13615 Victory Blvd
Van Nuys 213 873-4124
Conn New England Tech Sales, 3 Mott Ave
Norwalk 203 866-6382
Fla Technical Mktg, Inc, 1511 E Robinson
Orlando 305 424-8531
Kan Inland Assoc, 6047 Howe Dr
Mission 913 362-2366
Mass New England Tech Sales, 7 Cypress Dr, Burlington
Minn Carl-M Co, 1926 Wellesley Ave
St Paul 612 699-8004
NJ Peterson-Rudnick Assoc, Box 822
West Caldwell 212 789-9585
NY Leonard D Allen, Inc, WSOQ Bldg
N Syracuse 315 458-7470
Ohio Electro Com, 8761 Snow Rd, Cleveland ... 886-2404
Tex Delzell & Evans Assoc, Box 35093
Dallas 351-1839
Can Specialty Elctns Ltd, 660 St Urbain St
Montreal 514 274-8271

AMERICAN SILVER CO DIV, 36-07 PRINCE ST
FLUSHING, N Y, 11354 .... 212 FL 3-8012
M SHERMAN, EMP 40, ENG 3, $1,000-$2,500M

AMERICAN SMELTING & REFINING CO
120 BROADWAY, NEW YORK
N Y, 10005 .... 212 RE 29500

AMERICAN SOLDER & FLUX CO, 19TH & WILLARD STS
PHILADELPHIA, PA, 19140 .... 215 BA 6-1800
J MCBRIDE, EMP 13, ENG 1, $250-$500M

AMERICAN SOLENOID CO, INC, 245 E INMAN AVE
RAHWAY
N J, 07065, TWX 710 996-5871 .... 201 381-5100
V CORSARO, EMP 30, ENG 5, $1,000-$2,500M
Cal Control Switches Inc, 6241 W 89th St
Los Angeles .... SP 6-2766
Ill Electro-Kinectics, Inc, 7040 W Higgins Ave
Chicago .... RO 3-2200
Ill American Solenoid Co, Inc, 6338 W Gunnison St
Chicago 774-6588
Ky Fluid-Aire Co, 3714 Winchester
Louisville 582-1144
Mass American Solenoid Co, Inc, 318 Weston Rd
Wellesley 237-2244
Mich American Solenoid Co, Inc, 17000 W 8 Mile Rd
Southfield 358-0030
NJ Ward Leonard Electric Co, 234 Washington Ave
Belleville .... PL 9-4414
Ohio Midwest Equipment Co, 11315 Williamson Rd
Cincinnati .... VA 1-1687
Pa American Solenoid Co, R D 1 Box 101A
Eighty Four 412 941-785
Tex Carey & Assoc Inc, 3315 W 12th St
Houston 869-3623
Tex Carey & Assoc, Inc, 725 Preston Forest Shop Ctr
Dallas .... EM 1-6234
Can Kenny Consolidated Engrg Ind, 226 Toryork Dr
Weston, Ont 749-1310

AMERICAN-STANDARD CONTROLS DIV
5900 TRUMBULL, DETROIT, MICH, 48208
D MOSNER, OVER $10,000M

AMERICAN-STANDARD, MONROVIA INSTRUMENT
DEPT, 1401 S SHAMROCK AVE, MONROVIA
CAL, 91016 .... 213 359-9317
S LEINWAND, EMP 68, ENG 5
Colo Brooks-Feeger Assoc, 2186 S Holly St
Denver 757-3371
Kan Aero Hill Sales, Box 1312, Wichita
Mich George Instrument Co, 1440 Eastern N S E
Grand Rapids
Mich George Instrument Co, 1024 W 14 Mile Rd, Clawson
NM Brooks-Feeger Assoc, 1238 Ortiz S E
Albuquerque 268-438
NY Barker Co, 288 Old Country Rd, Mineola
Ohio Jerry Kilroy Corp, 15517 Dale Rd
Chagrin Falls 247-8997
Pa Garrettson Co, 9214 Maslend St, Phila
Tenn Grant-Moore Inc, 2220 Polymer Dr, Chattanooga
Tex Thorson Co, 7700 Carpenter Fwy, Dallas
Tex Thorson Co, 3312 Marquort, Houston
Va Gans-Fryling Inc, 2030 16th N, Arlington

AMERICAN SYSTEMS, INC, 13901 SATICOY ST
VAN NUYS, CAL, 91402 .... 213 781-7668
W HUGHES, EMP 37, ENG 4, $500-$1,000M
Cal Fred W Falck Co, Box 1733
La Jolla 714 233-3341
Colo P P Robbins & Assoc, 11940 Quay St
Broomfield 303 466-0776

AMERICAN TECHNICAL CERAMICS, NORDEN LA
HUNTINGTON STATION, N Y, 11746 .... 516 271-9600
V INSETTA
Cal Brooks & Day, 10700 Ventura Blvd
North Hollywood 877-3357
Cal Jack Logan & Assoc, 801 Mahler Rd
Burlingame .... 415 OX 7-6100
Fla J F Griffin, 536 Marlin Rd
N Palm Beach 305 671-6060
Mass John Q Neehan, Box 203, Sudbury 893-0914
Mo Technical Mktg Assoc, 2050 Woodson Rd
St Louis .... 314 HA 7-3600
NY Bob Dean Inc, 714 W Clinton St
Ithaca .... 607 AR 2-2187
Pa W F Satterthwaite, Box 191
Lansdowne .... 215 MA 3-5100

AMERICAN THERMO ELECTRIC CO
7269 SANTA MONICA BLVD, LOS ANGELES
CAL, 90046 .... 213 464-1632
J LEVY, EMP 12, ENG 2, $100-$250M

AMERICAN TIME PRODUCTS, ELCTNS DIV BULOVA WATCH CO
INC, 61-20 WOODSIDE AVE, WOODSIDE
N Y, 11377, TWX 710-582-2637 .... 212 335-6000
R ANSELL, EMP 700, ENG 42, OVER $10,000M
ADV PG 138, 310, 361, 448, 498, 626, 655, 710
Ariz Tech-Ser Inc, 1805 E Indian School Rd
Phoenix 602 265-3629
Cal E E Enterprises, 5901 Noble Ave
Van Nuys 213 787-5360
Cal Cardinal Assoc, 16024 Ventura Blvd
Encino 213 788-4540
Conn Samuel C Hooker, Inc, Box 369
West Hartford 203 233-8000
Fla Perrott Assoc, 1607 Forsyth Rd
Orlando 305 275-1132
Fla Perrott Assoc, Box 4532
Clearwater 813 531-5513
Fla Perrott Assoc, Box 6277
West Palm Beach 305 967-1770
Ga Emmett Rushin Co, Box 486
Roswell 404 993-6498
Ill Communications Eng, 7100 N Western Ave
Chicago .... 312 Ro 1-0548
Md Daniel & Co, Box 124, Lutherville ... 301 825-3330
Mass Samuel Hooker, Inc, Box 352
Winchester 617 729-5482
Minn Wenco Sales Inc, 7728 Morgan Ave S
Minneapolis 612 866-3639
Mo J C Mankus & Assoc, 400 Brooks La
Hazelwood .... 314 Pe 1-4334
NY H C Johnson Agencies Inc, 111 Mt Hope Ave
Rochester 716 232-2688
NY Cane Technical Sales, 555 E Boston Post Rd
Mamaroneck 914 698-4411
NY H C Johnson Agencies Inc, Box 86, Brandywine Sta
Schenectady 518 374-5901
NY H C Johnson Agencies Inc, Box 215
Fayettville 315 637-9595
NY H C Johnson Agencies Inc, 8 Los Robles St
Williamsville 716 632-7880
Pa Daniel & Co, Box 3, Glenside ...... 215 Tu 7-0550
Tex Applied Eng Sales, 1st Bank & Trust
Richardson .... 214 Ad 1-1322

Wash Jas J Backer Co. 221 W Galer St
Seattle .... 206 At 3-6470
Can Canadian Micro Electronics, 1390 Raven Ave
Ottawa 725-2332

AMERICAN TRANS-COIL CORP, 124-06 101ST AVE
RICHMOND HILL, NY, 11419 .... 212 441-5207
W CLANCY, EMP 75, ENG 5, $500-$1,000M

AMERICAN URETHANE DIV STAUFFER CHEM CO
SPACE 1246, MERCH MART, CHICAGO
ILL, 60654 .... 312 527-5800
G WAYSON, EMP 500, ENG 9, OVER $10,000M
NJ American Urethane Inc, Box A
Franklin .... 201 VA 7-7161

AMERICAN ZETTLER, INC, 897 RANDOLPH AVE, COSTA MESA
CAL, 92626 .... 714 540-4190
G RUEB, EMP 5, ENG 3
ADV PG 587
Ariz Hamilton Reps Inc, 9800 N Oracle Rd
Tucson 602 297-2279
Cal Rep Assoc, 1645 S LaCienega Blvd
Los Angeles 274-8485
Cal Gene C Woempner Co, 821 Malcolm Rd
Burlingame 697-5131
Cal Rep Assoc, 1744 W Lincoln Ave
Anaheim 714 635-2529
Colo J F Hurlbut Co, 2240 S Adams St
Denver 303 756-2046
Fla Barrett Assoc, Box 14205, Orlando 277-2857
Fla Barrett Assoc, 300 NW 123rd St
Miami 305 681-4957
Ill Century Eng & Sales, Ltd, 1256 W Jefferson St
Joliet 725-3712
Md Arnold Assoc, Box 9730 Eudowood Br
Baltimore 301 828-7666
Mass Brookdale/Richter Eng Inc, 348 Lake Ave
Boston 617 244-6969
Mich J M Thorpe Co, 640 Hidden La
Detroit 313 884-4360
Minn Hamilton, Grayden & Flemmer, Hamilton Rd
Hopkins 612 941-1120
NY MWM Assoc, Box 412, Lynbrook 593-6190
Ohio Mulligan & Mathias, 2011 Riverside Dr
Columbus 614 486-2976
Ore Van Voorhees Assoc, 4415 NE Sandy Blvd
Portland 503 287-6633
Pa Arnold Assoc, 528 Ryers Ave
Cheltenham 215 742-0600
Tex Engineers Intl Co, Box 35601
Dallas 214 352-2666
Wis DeVos Prinz Sales, 1819 E Kenilworth
Milwaukee 272-0356
For Tele Norma C. A., Aptdo del Este 5405
Caracas, Ven 71 55 11
Den Soren T Lyngso A/S, Ostmarken 4
Kopenhagen .... SO 0179-7700
Fr Zettler France S A R L, 41 rue Parmentier
Paris Asnieres .... Gre 2822
Ger Alois Zettler GmbH, 8 Munchen 5
Munich Holzstr 28 .... 26 01 81
Holl Zettler Nederland N V
Joh van Oldenbarneveltlaan,s
Gravenhage 16-37 005570-54
Ital Zettler Apparecchi, Elettrici S P A, Via Benaco, 1-3
Milanese S Guiliano
Nor Ingenior Arvid Dahm, Fr Nansens, 11-9
Oslo 1 .... 42 66 88
Swed O T Axlund, Friherregata 56, Stockholm 38 00 40
Swit Zettler-Elektro-Apparate A G, Technisches Buero
Bergheimstr 9 Zuerich 051-538355
Belg Zettler Belgique S. A., 50 rue le Titien
Bruxelles 4 .... 00222-35 57 78
Mex Galimex S A, Box 8483, Mexico City 23 6072
Mex Heuer & Boehme S. A., Balderas 96
Mexico 1 18-16-34
Aust Baeck & Co KG., Messberghof V
Hamburg 1 .... 0411-33 55 88

AMERICON CORP, 87 RUMFORD AVE, WALTHAM
MASS, 02154, TWX 710 325-1739 .... 617 891-5230
E DEVITA, EMP 50, ENG 6
Ala Powertronics Inc, Box 3384, Huntsville 852-6347
Cal J E Hachten Co, 1135 W Huntington Dr
Arcadia 681-2361
Cal J E Hachton Co, 800 Welch Rd
Palo Alto 326-1252
Colo Walter Powers Assoc, 880 Bonnie Brae Blvd
Denver 777-5585
Fla Theall Corp, Box 922, Maitland 647-4469
Ill Midwest Microwave, 6414 W Belmont Ave
Chicago 283-1051
Md Brimberg Assoc, 814 Thayer Ave
Silver Spring 588-7790
Mass Microwave Consultants Corp, 195 West St
Waltham 899-4400
Mich Sheridan Assoc Inc, Box 128
Lathrup Village 358-3333
Mo Technical Mktg Assoc, 2050 Woodson Rd
St Louis 887-3600
NY Salsbury Assoc, 331 W John St
Hicksville 938-1080
NY D & B Assoc, Box 14, DeWitt 446-0220
NC Powertronics Inc, Box 403, Thomasville 476-4257
Ohio Sheridan Assoc, Inc, Box 37646
Cincinnati 761-5432
Pa Holdsworth & Co, 8 Smedley La
Newtown Square 356-8550
Pa Sheridan Assoc, 201 Penn Center Blvd
Pittsburgh 243-6655
Tex Spacetronics Co, 4515 Prentice St
Dallas 368-1215
Utah Walter Powers Assoc, 2422 Camino Way
Salt Lake City 277-5174
Wash Ray Johnston Co, 1011 NE 69th St
Seattle 524-5170
Can Tech Assoc Inc, 1262 Don Mills Rd
Don Mills, Ont 445-7490
Den A Fredslund Pedersen, Finsensvej 39
Copenhagen F .... Godaab (0136) 9050
Fr Spetelec, 12 Rue le Chatelier, Paris 17 .... Gal 05-23
Ger Selectron GmbH, Pappenheimstr 7/V
Munich 2 59-65-38
GB G E Elctns (London) Ltd, 182/4 Campden Hill Rd
London W. 8 .... Park 0711
Holl Koning en Hartman N. V., Koperwerf 30
The Hague 67-8380
Ital R S T, Via Fontana 18, Milan 70-9303
Ital M T C, Via Aurora 39, Rome 48-1976
Jap Shashin Shoji Kaisha, Ltd, Box Nihonbashi 173
Tokyo 241-3661
Swed Ajgers Elektronik AB, Broddgrand 21
Stockholm 32 46-42-46
Belg Bur des Ing S. A. Koning & Hartman
53 Rue Gachard, Brussels 48-2655
Isrl S T G Intl Ltd, 52 Nachlat Benyamin St
Tel-Aviv 5-3459
Fin Nores & Co OY, Fabianinkatu 32, Helsinki 1-3360
Aust Cema (Australia) Pty Ltd, 33 Market St
Adelaide, S. A. 51-6263
Aust Cema (Australia) Pty Ltd
41 The Broadway Wahroonga, NSW
Sydney 48-5626

AMGLO CORP, 4333 N RAVENSWOOD AVE, CHICAGO
ILL, 60613 .... 312 477-9494
F SEERY, EMP 40, ENG 10, $500-$1,000M
NY B D Hummel Co, 2224 Maynard Ave
Utica 732-2370
Tex Spacetronics, 4515 Prentice St, Dallas 368-1215
For Magnus Inter-America Inc, 5715 Lincoln Ave
Chicago Ill 334-1503

AMICON CORP, 25 HARTWELL AVE, LEXINGTON
MASS, 02173 .... 617 861-9600
J BOLGER, EMP 125, ENG 30, $1,000-$2,500M

A & M INSTRUMENTS INC, COMMUNITY DR
GREAT NECK
N Y, 11022, TWX 510 223-9804 .... 516 487-0330
J EZECHEL, EMP 65, ENG 4, $1,000-$2,500M
Ala James P Stoddard, 904 Bob Wallace Ave
Huntsville 205 534-0653
Ariz Williams Assoc Inc, 1110 McDowell Dr
Phoenix 254-6085
Cal Held & Mollard Inc, 1494 Oddstad Dr
Redwood City 365-1700
Cal Technical Liaison Co, 1626 Centinela Ave
Inglewood 670-6971
Colo Williams Assoc Inc, 4971 Jackson St
Denver 388-4391
Fla CES Assoc, Box 1152, Melbourne 254-2183
Ill A & M Instruments Inc, 7800 N Merrimac Ave
Niles 966-8100
Kan Technical Reps Inc, 6814 Farmview La
Wichita 682-4140
Md Scientific Mktg Assoc, 8817 Hunting La
Laurel 776-5130
Mo Technical Reps Inc, 7049 Laupher La
Hazelwood 521-1000
NJ Bixon Assoc, Box 305, Fairlawn 797-5356
NM Williams Assoc Inc, 420 Washington SE
Albuquerque 255-1638
NY Merkel Assoc Inc, 7172 Transit Rd
Buffalo 634-3737
Ohio Brownie & Assoc, 3066 E 116 St
Cleveland 795-7472
Utah Williams Assoc Inc, 2469 S Main St
Salt Lake City 466-8709
Wash Eicher & Co, 2727 NE Blexeley Ave
Seattle .... LA 3-7888
Can Electronic Marketing of Can, 3600 Barclay Ave
Montreal, Que 739-3206
Can Electronic Marketing of Can, 160 Bay St
Toronto, Ont 364-1022
For Joseph Plasencia Inc, 521 5th Ave
New York 867-8084

AMIPRODUCTS CORP, 132-8 LIBERTY ST, NEW YORK
N Y, 10006 .... 212 227-1321
J WILSON, EMP 4, ENG 1, $100-$250M

AMK ELECTRONICS CO INC, BOX 2065, EDISON
N J, 08817 .... 201 636-2636
A ADERENTE, EMP 20, ENG 2, $100-$250M

AMLAB INC, 1701 ELIZABETH AVE, RAHWAY
NJ, 07065 .... 201 381-1551
S BROADWIN, EMP 7, ENG 3, $250-$500M

AMMON INSTRUMENTS INC, 345 KELLEY ST, MANCHESTER
N H, 03105 .... 603 669-1531
P AREL, EMP 125, ENG 5, $500-$1,000M
ADV PG 405
Ala Grady Duckett Sales Co, Box 537
Hazelgreen 828-3475
Ariz Fryco, Box 460, Scottsdale 945-3281
Cal W Bert Knight Co, 112 Glasgow Ave
Inglewood 678-4711
Cal McKnight Co, Box 36, Menlo Park 325-2844
Conn Kitchen & Kutchin Inc, 22 Broadway
North Haven 239-0212
Fla H R Gross & Co, 314 S Missouri Ave
Clearwater 446-6649
Ga Grady Duckett Sales Co, Box 29067
Atlanta 451-3529
Ill DJM Electronics Sales Inc, 5356 N Milwaukee Ave
Chicago 774-1212
Kan MESA Inc, 5460 Buena Vista Dr
Mission 262-6565
Md Ken Randall Co, Box 9736 Eudowood Fin Br
Towson 828-5310
Mass Kitchen & Kutchin Inc, 17 Waltham St
Lexington 862-8230
Mich Koechler-Pasmore, 25245 Five Mile Rd
Detroit 477-8790
Minn H M R Inc, 9 E 22nd St, Minneapolis 335-7734
NJ Ken Randall Co, 250 Haddon Ave
Collingswood 054-3323
NY The Robert Lamb Co Inc, 3407 Delaware Ave
Buffalo 876-3757
NY Robert Lamb Co Inc, Box 661 Uptown Sta
Kingston 338-8833
NY Robert Lamb Co Inc, Box 28, Syracuse 454-2469
NY R F Lamb Co Inc, 63 Norcrest Dr, Rochester
NY Pacent EngineeringCorp, 300 Northern Blvd
Great Neck 482-4678
NC Grady Duckett Sales Co, Box 22002
Greensboro 273-4617
Ohio R K Deunk & Assoc Inc, 7390 Chippewa Rd
Cleveland 526-4317
Ore Ron Merrit Co, 2035 SW 58th Ave
Portland 292-8762
Tex Unidyne Inc, 5700 Savoy La, Houston 666-2401
Wash Ron Merritt Co, 1320 Prospect St
Seattle 682-7337
Can Electrodesign Ltd, 9124 St Lawrence Blvd
Montreal 389-5912

AMPACET CORP, 250 S TERRACE AVE, MT VERNON
N Y, 10550 .... 914 699-9100
L SCHNEIDER, EMP 60, ENG 2, $2,500-$5,000M

AMPEREX ELECTRONIC CORP, COMPONENT DIV
35 HOFFMAN AVE, HAUPPAUGE
N Y, 11787, TWX 510 227-8552 .... 516 234-7000
A MERKEN, EMP 60, ENG 5
ADV PG 96, 98, 617
Ariz FCOA, 4747 N 16th St, Phoenix 602 265-1792
Cal Amperex Elect Corp, 801 E Charleston Rd
Palo Alto 415 327-0461
Cal Gene C Woempner Co, 821 Malcolm Rd
Burlingame 415 697-5131
Cal Shephard-Stern Co, 41-9 W Burbank Blvd
Burbank 213 849-6671
Colo Mel Pearson & Co, 1860 S Acoma St
Denver 303 777-7878
DC Mechtronic Sales, Inc, 7600 Georgia Ave NW
Washington 202 291-6004
Ill Amperex Elect Corp, 360 E North Ave
Northlake 312 261-7877
Ind Thomas & Sukup, Inc, 2060 E 54th St
Indianapolis 317 251-4574
Mass Vector Sales, Inc, 774 Pleasant St
Belmont 617 489-1400
Mich Jack M Thorpe Co, 640 Hidden La
Detroit 313 884-4360
Minn Clark R Gibb Co, 1311 W 25th St
Minneapolis 612 377-1200
Mo Dipro, Inc, 11657 Adie Rd
Maryland Heights 314 432-3444
NY Reed Electronics, 2815 Monroe Ave
Rochester .... 716 GR 3-2767
NY Kahgan Sales Corp, 1261 Broadway
New York 212 684-7772
NC A B Andrews, 333 Fayetteville St
Raleigh 919 833-5565
Ohio Mulligan & Mathias Co, 2011 Riverside Dr
Columbus 614 486-2976
Pa Beil & Whitaker, Inc, 3623 Jacksonwald Ave
Reading 215 779-2610
Pa Paragon Sales Co, 111 S 22nd St
Philadelphia 215 563-7060
Pa Mulligan & Mathias Co, 2011 Riverside Dr
Columbus, Ohio 614 486-2976
Tex Dunbar Assoc, 417 Meadows Blvd
Dallas 214 363-2536
Can Philips Electron Devices, 116 Vanderhoof Ave
Toronto 416 425-5161

AMPEREX ELECTRONIC CORP, ELECTRO OPTICAL DEVICES DIV
SLATERSVILLE, R I, 02876 .... 401 762-3800
R NELSON
ADV PG 747, 748, 749
For Sales Offices & Representatives see Amperex
Electronic Corp, Professional Tube Div Listings

AMPEREX ELECTRONIC CORP, ENTERTAINMENT TUBE DIV
SLATERSVILLE, R I, 02876 .... 401 762-9000
E MEAGHER
ADV PG 764, 765, 766
For Sales Offices & Representatives see Amperex
Electronic Corp, Professional Tube Div Listing

AMPEREX ELECTRONIC CORP SEMICONDUCTOR &
MICROCIRCUITS DIV, SLATERSVILLE
R I, 02876, TWX 710-387-1591 .... 401 762-9000
N NEUMAN, EMP 550, ENG 50
ADV PG 747, 748, 749
For Sales Offices & Representatives see Amperex
Electronic Corp, Professional Tube Div Listings

AMPEREX ELECTRONIC CORP, PROFESSIONAL TUBE DIV
230 DUFFY AVE, HICKSVILLE
NY, 11802, TWX 401-767-2499 ...... 516 WE 16200
J MESSERSCHMITT, EMP 650, ENG 40
ADV PG 764, 765, 766

Cal	W J Barron Co, 1406 S Grand Ave, Los Angeles	748-6191
Cal	Wm J Purdy, 312 7th St, San Francisco	UN 3-3300
Cal	Amperex Electronics Corp, 801 E Charleston Rd, Palo Alto	327-0461
Cal	R W Thompson Assoc, 4135 El Camino Way, Palo Alto	321-6383
Cal	Gene C Woempner Co, 821 Malcolm Rd, Burlingame	697-5131
Cal	Shephard-Stern Co, 4109 Burbank Blvd, Burbank	849-6671
Cal	Wm J Purdy, 4110 Stillmeadow Way, Sacramento	481-0971
Cal	R W Thompson Assoc, 5005 W Century Blvd, Inglewood	677-6104
Cal	Winters & Co, 11766 W Pico Blvd, Los Angeles	213 879-9045
Colo	Mel Pearson & Co, 1860 S Acoma St, Denver	SP 7-7878
Conn	Gerber Sales Co, 29 Whalley Ave, New Haven	SP 7-6279
Conn	Vector Sales, Judd Rd, Monrie	203 261-2212
DC	Mechtronics Sales, 7600 Georgia Ave, NW, Washington	291-6004
DC	Scientific Systems Sales Corp, 7705 Georgia Ave NW, Washington	726-4161
Fla	Millar-Hutto Assoc, 501 Park Ave N, Winter Park	MI 7-7407
Fla	A B Andrews & Co, 504 Ocean Ave, Melbourne Beach	723-8333
Ga	Millar-Hutto Assoc, 3110 Maple Dr NE, Atlanta	261-6160
Ill	Dwight Smith Assoc, 32 S River St, Aurora	TW 6-0828
Ill	Amperex Electronic Corp, 360 E North Ave, Northlake	261-7877
Ind	Thomas & Sukup Inc, 2060 E 54th St, Indianapolis	CL 1-4574
La	Cartwright & Bean of Tenn, 1812 Bullard Ave, Metairie	887-0482
Md	Brothers & Conneen Assoc, 6302 Lincoln Ave, Baltimore	764-7189
Mass	Gerber Sales Co, 24 Maple Ct, E Longmeadow	LA 5-3059
Mass	Gerber Sales Co, 176 Second Ave, Waltham	891-8040
Mass	Applied Technology, Inc, 7 Vine St, Manchester	CA 7-2700
Mass	Vector Sales, Inc, 774 Pleasant St, Belmont	617 489-1400
Mich	Amperex Electronic Corp, 809 Center St, Lansing	517 482-7140
Mich	Jack M Thorpe Co, 640 Hidden La, Detroit	TU 4-4360
Minn	Clark R Gibb Co, 1311 W 25th St, Minneapolis	FR 7-1200
Minn	Amperex Electronic Corp, 8053 Bloomington Fwy, Minneapolis	888-4681
Mo	R W Farris Co, 1715 Baltimore Ave, Kansas City	HA 1-1751
Mo	Dipro Inc, 11657 Adie Rd, Maryland Hgts	432-3444
NJ	Arthur M Rothman, 592 Colonial Rd, River Vale	391-5629
NJ	Brothers & Conneen Assoc, 3108 Pleasant Run Dr, Cinnaminson	HO 1-4581
NJ	J Bressler, Inc, 4808 Bergenline Ave, Union City	201 864-9577
NY	Kahgan Sales Corp, 1261 Broadway, New York	MU 4-7772
NY	R W Mitscher Co, 496 Ellicott Sq Bldg, Buffalo	TL 4-2517
NY	R W Mitscher Co, 51 Ely Dr, Fayetteville	446-4540
NY	R W Mitscher Co, 606 Forest Dr, N Syracuse	GL 8-1321
NY	Paston-Hunter Co, 2002 Teall Ave, Syracuse	437-2992
NY	Reed Electronics Inc, 2815 Monroe Ave, Rochester	GR 3-2767
NY	Scientific Systems Sales Corp, 376 Great Neck Rd, Great Neck	HN 6-0053
NY	R W Mitscher Co, Route 82-A, Salt Point	266-5975
NY	Reed Electronics, Vestal Pkwy E, Vestal	PI 8-7391
NY	Reed Electronics, 17 Larchmont Dr, New Hartford	SW 7-0437
NY	Amperex Electronic Corp, 323 Thompson Rd, Syracuse	315 463-1116
NY	Reed Electronics, 326 Fay Rd, Syracuse	315 468-5488
NC	A B Andrews & Co, 333 Fayetteville St, Raleigh	833-5565
NC	Millar-Hutto Assoc, North Hills Office Mall, Raleigh	919 787-9564
Ohio	C L Pugh Co, 2144 Riverside Dr, Columbus	486-9678
Ohio	Mulligan & Mathias Co, 2011 Riverside Dr, Columbus	486-2267
Ohio	Amperex Electronic Corp, 4130 Linden Ave, Dayton	253-3158
Pa	Beil & Whitaker Inc, 3623 Jacksonwald Ave, Reading	779-2610
Pa	Beil & Whitaker Inc, 1303 N Troxell St, Allentown	HE 4-5220
Pa	Brothers & Conneen Assoc, 131 Harned Rd, Springfield	KI 3-8641
Pa	Paragon Sales Co, 111 S 22nd St, Philadelphia	LO 3-7060
Pa	Beil & Whitaker, R D 2, Dover	292-1786
Pa	Beil-Whitaker, Inc, 5610 Akron Dr, Harrisburg	652-0184
Tenn	Cartwright & Bean of Tenn, 560 S Cooper St, Memphis	BR 6-4442
Tex	Dunbar Assoc, 417 Meadows Bldg, Dallas	EM 3-2536
Tex	Lund & Co, 2616 Manor Way, Dallas	214 358-4335
Tex	Lund & Co, Box 36256, Houston	523-6756

AMPERITE CO INC, 600 PALISADE AVE, UNION CITY
N J, 07087 ...... 201 UN 49503
S RUTTENBERG, PRES, EMP 75, ENG 3, $500-$1,000M
ADV PG 612

Can	Atlas Radio Corp Ltd, 50 Wingold Ave, Toronto	

AMPEX CORP, 401 BROADWAY, REDWOOD CITY
CAL, 94063, TWX 415-364-9034 ...... 415 367-2011
C DUBOIS, EMP 12,000, ENG 2,000, OVER $10,000M

Ala	Ampex Corp, 3322 S Memorial Pkwy, Huntsville	881-4271
Cal	Ampex Corp, 120 Independence Dr, Menlo Park	EM 7-3861
Cal	Ampex Corp, 500 Rodier Dr, Glendale	245-9373
Fla	Ampex Corp, 1980 N Atlantic Ave, Cocoa Beach	783-1811
Ga	Ampex Corp, 1680 Tully Circle, NE, Atlanta	633-0513
Ill	Ampex Corp, 10 King St, Elk Grove Village	439-4600
Mass	Ampex Corp, 34 Bear Hill Rd, Waltham	TW 9-2040
Minn	Ampex Corp, 5301 Edina Ind Blvd, Minneapolis	941-2430
NJ	Ampex Corp, 75 Commerce Way, Hackensack	489-7400
NM	Ampex Corp, Box 9064, Albuq	265-8507
Ohio	Ampex Corp, 4130 Linden Ave, Dayton	254-6101
Pa	Ampex Corp, 947 York Rd, Abington	TU 7-7650
Tex	Ampex Corp, 1615 Prudential Dr, Dallas	637-5100
Va	Ampex Corp, 3620 S 27th St, Arlington	671-4000

AMPHENOL CORP, OAKBROOK NORTH, OAK BROOK
ILL, 60521 ...... 312 261-2000
R HALL, EMP 4400
ADV PG 82, 85, 87, 90, 165, 168, 180, 181, 182, 184, 186 187, 192, 195, 260, 296, 334 398 483, 484, 485, 624 643 646 658, 665, 684, 720 757 758 800 810

Ala	Amphenol Sales Military Mktg, 3322 S Memorial Pkwy, Huntsville	881-7454
Ariz	Amphenol Sales, 77 Third Ave W, Scottsdale	947-2491
Cal	Amphenol Sales, 17000 Ventura Blvd, Encino	788-8560
Cal	Amphenol Sales, 14600 Roscoe Blvd, Panorama City	894-9166
Cal	Amphenol Sales, 421 Castro St, Mountain View	969-0630
Cal	Amphenol Sales Military Mktg, 14600 Roscoe Blvd, Panorama City	894-9208
Colo	Amphenol Sales, 709 W Littleton Blvd, Littleton	794-4269
DC	Amphenol Sales, 7600 Georgia Ave, NW, Washington	829-9000
DC	Amphenol Sales Military Mktg, 1511 K St, NW, Washington	EX 3-6223
Fla	Amphenol Sales, 601 N New York Ave, Winter Park	647-5504
Ga	Amphenol Sales, 175 W Wieuca Rd N E, Atlanta	255-0992
Haw	Earl Assoc, 1638 Kona St, Honolulu	996-953
Ill	Amphenol Sales, 2801 S 25th Ave, Broadview	261-2000
Ind	L M DeVoe Co, 6060 N College Ave, Indianapolis	283-1395
Mass	Richard Purinton Inc, 11 Muzzey St, Lexington	862-8300
Mich	Amphenol Sales, 950 E Maple Rd, Birmingham	646-1262
Minn	Amphenol Sales, 7701 Normandale Rd, Mnpls	927-6589
Mo	Amphenol Sales, 47 Village Sq, Hazelwood	TE 8-6996
NJ	Amphenol Sales, 6525 S Crescent Blvd, Pennsauken	665-2870
NJ	Amphenol Sales Military Mktg, 320 Broad St, Red Bank	842-0182
NY	Amphenol Sales, 310 Northern Blvd, Great Neck	HU 2-4700
NY	Amphenol Sales, 6443 Ridings Rd, Syracuse	437-2689
NY	Amphenol Sales, 2 La Grange Ave, Poughkeepsie	452-4220
NC	Amphenol Sales, 1500 E Club Blvd, Durham	688-6361
Ohio	Amphenol Sales, 20545 Center Ridge Rd, Cleveland	331-9100
Ohio	Amphenol Sales Military Mktg, 1250 W Dorothy La, Dayton	298-0754
Tex	Amphenol Sales, 777 S Central Expwy, Richardson	AD 5-8318
Wash	Amphenol Sales, 924 104th NE, Bellevue	455-2525

AMPHENOL CABLE DIV, 6235 S HARLEM AVE, CHICAGO
ILL, 60638, TWX 910 221-3106 ...... 312 586-3000
J AYLWARD, EMP 152, ENG 18
ADV PG 85, 87, 90, 810

AMPHENOL CADRE DIV, 20 VALLEY ST, ENDICOTT
N Y, 13761, TWX 510-252-0898 ...... 607 754-4444
C KOWAL, EMP 804, ENG 20, $5,000-$10,000M

AMPHENOL CONNECTOR DIV, 2801 S 25TH AVE, BROADVIEW
ILL, 60153 ...... 312 242-1000
N SPANGLER, EMP 2149, ENG 120, OVER $10,000M
ADV PG 186, 187, 192, 643

AMPHENOL CONTROLS DIV, 120 S MAIN ST, JANESVILLE
WISC, 53546, TWX 910-288-2924 ...... 608 754-2211
W KERCHO, EMP 531, ENG 18, $2,500-$5,000M
ADV PG 260, 483, 484, 485, 624

AMPHENOL DISTRIBUTOR DIV, 2875 S 25TH AVE
BROADVIEW
ILL, 60153, TWX 910-226-1961 ...... 312 261-2020
S KELLEHER, EMP 194, ENG 17

AMPHENOL INDUSTRIAL DIV, 1830 S 54TH AVE, CHICAGO
ILL, 60650, TWX 910-229-1541 312-242-1000
F MEINICKE, EMP 1303, ENG 51, OVER $10,000M
ADV PG 82, 181, 182, 184, 186, 187, 192, 195, 334

AMPHENOL RF DIV, 33 E FRANKLIN ST, DANBURY
CONN, 06810, TWX 203-744-0896 ...... 203 743-9272
D BOWMAN, EMP 665, ENG 35, OVER $10,000M
ADV PG 180, 187, 296, 658, 665, 684, 800

AMPHENOL SPACE & MISSILE SYSTEMS
9201 INDEPENDENCE AVE, CHATSWORTH
CAL, 91311, TWX 213-314-2531 ...... 213 341-0710
B BRACHMAN

AMPHICON SYSTEMS INC, 1 GRAPHIC PL
MOONACHIE, N J, 07074 ...... 201 487-3383
F NUNZIATA, EMP 8, ENG 5, $500-$1,000M

AMP INCORPORATED, EISENHOWER BLVD, HARRISBURG
PA, 17105 ...... 717 564-0101
F HOWELL, OVER $10,000M
ADV PG 69, 180, 183, 185, 186, 192, 385, 559, 697

Cal	AMP Inc, 4151 Middlefield Rd, Palo Alto	
Cal	AMP Inc, 3138 W El Segundo Blvd, Hawthorne	
DC	AMP Inc, 7826 Eastern Ave NW, Washington	202 829-3344
Ga	AMP Inc, 2970 Peachtree Rd NW, Atlanta	404 261-4151
Ill	Amp Inc, 1050 Morse Ave Center Industrial Pk, Elk Grove	312 439-5800
Mass	AMP Inc, 60 Hickory Dr, Waltham	617 893-4306
NJ	AMP Inc, 130 N Broadway, Camden	609 964-5055
Ohio	AMP Inc, 1890 Northwest Blvd, Columbus	614 486-0276
Tex	AMP Inc, Frito-Lay Tower, Exchange Park, Dallas	214 352-4852
Wash	AMP Inc, 940 104th St NE, Bellevue	206 454-3013
Can	AMP of Canada Ltd, 49 Gervais Dr, Don Mills, Ont	416 429-1311
Fr	Ste AMP de France, SA, Boite Postale 39, 95 Pontoise	30-00
Ger	Deutsche Amp GMBH, Amperestra 7-11 607 Langen BFFM	06103 7831-7835
GB	Aircraft-Marine Products (GB) Ltd, Terminal House, Stanmore, Mdsx	01 954-0091
Holl	AMP Holland, NV, Papierstr 2, 'S-Hertogenbosch	04100 25221
Ital	Amp Italia Spa, Via Fratelli Cervi 15 10093 Collegno, Torino	785-656
Jap	Amp (Japan) Ltd, 15-147 Chome Roppongi Minato-Ku, Tokyo	404-7171
Swed	Svenska AMP AB, Kross 32, Stockholm	08189 0420
Mex	AMP de Mexico, SA, San Andres Atoto 4, Naucalpan de Juarez, Edo de Mexico	27-28-95
Spn	Amp Espanola, S A, Apd 5294 Pedro Iv, 485, Barcelona 5	207.75.50
Aust	Aircraft Marine Prods (Aus) Pty Ltd, Box 78, Auburn, NSW	648-1724

AMP INC, CAPITRON DIV, 155 PARK ST, ELIZABETHTOWN
PA, 17022 ...... 717 367-1105
H TAYLOR
ADV PG 107, 372, 499

Cal	J Miller, G Birdsell, 3138 W El Segundo Blvd, Hawthorne	675-1186
Fla	J Hogaboom, 2203 Beatrice Dr, Orlando	295-3927
Ill	L M Reis, 8532 Trumbull Ave, Skokie	675-0313
Md	J G Greene, 3604 Marlbrough Way, College Park	935-5502
Md	J R Lambdin, Jr, 6220 Radecke Ave, Baltimore	866-4861
Mass	J B Sullivan, 101 Lexington Ave, Needham	444-4839
NY	J Cappels, 12 Geneva Pl, Greenlawn	271-3705
Pa	B Kulwin, 47 Marboro La, Willingboro	877-2358
Tex	R L Perrenot, 1st Bank & Trust Bldg, Richardson	AD 1-2118

AMPLIFIER CORP OF AMERICA, 75 FROST ST
WESTBURY, N Y, 11590 ...... 516 333-9100
A GILLETTE, EMP 50, ENG 6

AMPROBE INSTRUMENT DIV SOSS MFG CO
630 MERRICK RD, LYNBROOK
N Y, 11563 ...... 516 LY 35600
LEE VAN BLERKOM, $2,500-$5,000M

Ariz	Maddox Sales Co, 5709 N 19th Pl, Phoenix	274-3807
Cal	Maddox Sales Co, 2945 E 12th St, Los Angeles	269-7219
Cal	Maddox Sales Co, 420 Market St, San Francisco	DO 2-3249
Colo	E-O Sales, 610 S Lipan, Denver	744-7081
Conn	Mac Rae-Patton, Inc, 28 Gravel St, Meriden	238-1965
Fla	Millar-Hutto Assoc Inc, 210 Park Ave N, Winter Park	MI 7-7407
Ga	Millar-Hutto Assoc Inc, 3110 Maple Dr NE, Atlanta	261-6160
Ill	J Ingalls, 5854 N Kenmore Ave, Chicago	334-6790
Ind	R M Crandall & Assoc, 6220 E 56th St, Indianapolis	LI 6-8373
Iowa	Jim Bixler & Assoc, 2822 Ave A, Council Bluffs	328-1841
La	Glidden Eng & Eqpt Co, Box 4063, New Orleans	737-0642

Mass Jack Fay Inc, 389 Elliot St Newton Upper Falls 969-4660
Mich Young & Champagne, 91 E Milwaukee Ave Detroit ..... TR 1-0720
Minn Elstad Sales Co, 1405 Oakview La N Minneapolis 545-4000
Mo C L Arehart Co, 6621 Sterling Raytown ..... FL 6-3488
Mo Ray Martin Co, 136 W Adams Ave Kirkwood ..... YO 6-8659
NH MacRae-Charron, Inc, 453 Proctor Rd Manchester 624-4827
NJ Ted Kulchinsky, 213 Branch Brook Dr Belleville 759-2839
NY R W Mitscher Co, 496 Ellicott Square Bldg Buffalo ..... TL 4-2517
NY Larry Marcus, 58-35 263rd St Little Neck ..... HA 8-0756
NC Millar-Hutto Assoc Inc, N Hills Box 17173 Raleigh 787-9564
Ohio Gordon F Stofer & Bro, 20160 Center Ridge Rd Cleveland 333-0733
Okla Wayne Parker, 222 W B St, Jenks ..... CY 9-5449
Pa R A Johnson & Co, 2209 Mt Carmel Ave Glenside 884-1389
Tex Glidden Engrg & Eqpt Co, 3802 Winchester St Houston ..... CA 4-6471
Tex Glidden Engrg & Eqpt Co, 4924 Greenville Ave Dallas ..... EM 3-6539
Utah Darger Co, 211 S 2nd W Salt Lake City 355-2873
Va Arthur Hoey, 3364 Cedar Grove Rd Richmond 272-3449
Wash Northwestern Agencies Inc, 4130 1st Ave S Seattle ..... MA 3-8882
Can Atlas Radio Corp, 50 Wingold Ave, Toronto
GB Canadian Instr & Eltns Ltd, 35 Waverley St Nottingham
Holl J C Stuifmeel, V/H Ph J Schut, Box 1454 Amsterdam C
Ital Mario Vianello, Via L Anelli 13, Milan
Jap Kyoritsu Elec Instr Works Ltd 120, Nakane-Cho, Meguro-Ku, Tokyo
SAfr Balco Co (Pty) Ltd, Box 3797, Johannesburg
Swed Teleinstrument AB, Harjedalsgatan 138, Stockholm

AMSCO INDUSTRIAL CO DIV AMER STERILIZER CO
2424 W 23RD ST, ERIE, PA, 16512 ..... 814 456-2021
C HAGELSTEIN
Cal Amer Sterilizer Co, 4333 Lankershim Blvd N Hollywood
Cal Amer Sterilizer Co, 833 Mahler Rd, Burlingame
Colo Amer Sterilizer Co, 7835 W 16th Ave, Denver
Fla Amer Sterilizer Co, 4424 N Dale Mabry, Tampa
Ga Amer Sterilizer Co, 206 14th St NW, Atlanta
Ill Amer Sterilizer Co, 1418 W Roosevelt Rd Broadview
La Amer Sterilizer Co, 5534 Canal Blvd, New Orleans
Md Amer Sterilizer Co, 35 Wisconsin Cir, Chevy Chase
Mass Amer Sterilizer Co, 167 Corey Rd, Brookline
Mich Amer Sterilizer Co, 32580 Grand River Blvd Farmington
Minn Amer Sterilizer Co, 5574 Nicollet Ave S Minneapolis
Mo Amer Sterilizer Co, 6738 Chippewa St, St Louis
NY Amer Sterilizer Co, 410 E Jericho Tpk, Mineola
Ohio Amer Sterilizer Co, 11506 Reading Rd, Cincinnati
Pa Amer Sterilizer Co, 102 Greenwood Ave, Wyncote
Pa Amer Sterilizer Co, 1732 N Highland Rd, Pittsburgh
Tex Amer Sterilizer Co, 6620 Snider Plaza, Dallas
Va Amer Sterilizer Co, 3222 W Cary St, Richmond
Wash Amer Sterilizer Co, 420 NE Ravenna Blvd, Seattle
Can Amsco Canada, 255 Queen St E, Brampton, Ont
Belg Amsco International, 207 Rue Royale, Brussels
Mex Amsco De Mexico, Naucalpan De Juarez, Mexico

AMSTRO CORP, 113 CLINTON RD, FAIRFIELD
N J, 07006 ..... 201 228-3881
J FIORE, EMP 20, ENG 20

AMTRON INC, 14820 S KEDZIE AVE, MIDLOTHIAN
ILL, 60445 ..... 312 389-3955
J KASPER, EMP 90, ENG 15
Fla W M Jones Co Inc, 2317 E South St Orlando ..... GA 4-6298
Ga W M Jones Co Inc, 2666 Redding Rd NE Atlanta 404 237-4769
Ill G & F Sales & Engrg Co, 5555 W 109th St Oak Lawn ..... 312 GA 4-4170
Md W M Jones Co Inc, Box 5490 Towson 301 823-5721
Mo Richter Equip Co, 9567 Page Blvd St Louis ..... 314 HA 7-0990
NJ W M Jones Co, 332 S Forklanding Rd Maple Shade 609 662-0480
NY J Edeline, 75-29 141st Pl Kew Gardens Hills ..... 212 BA 5-7600
Ohio Del Steffen & Assoc, Box 3157 Cleveland 216 261-5055

AMUNEAL MFG CORP, 2042 W JEFFERSON ST
PHILADELPHIA, PA, 19121 ..... 215 236-6800
S KAMENS, EMP 15, ENG 2, $250-$500M
Cal King Assoc, Box 2067, Sunnyvale 408 738-2570
Cal Yarbrough Sales, 1608 Orange St Alhambra 283-0668
Fla Talbe Co, 2031 Chippewa Trail, Maitland
Ga K & E Assoc, Blue Springs Park Kennesaw 404 974-4264
Ill Maurice A Cope, 2417 Prospect Ave Evanston ..... DA 8-1934
Ill Talbe Co, 9506 Glenlake, Rosemont 823-1205
Ind Southern Sales Co, 6216 Carrollton Ave Indianapolis 253-3359
Ind Southern Sales Co, 105 Lakeshore Drive Angola 665-3961
Md A Wetterhahn Co, 107 York Rd, Towson 825-1335
Mass Wm Connors Co, 100 Everett St Westwood 617 769-2570
Mich Don Poulin Co, 17222 E Warren Ave Detroit 886-4990
Mo Kay Sales Co, 4049 Penna St Kansas City ..... 816 JE 1-2014
Mo Kay Sales Co, 4253 W Minister Pl St Louis ..... 314 OL 2-5366
NJ A Wetterhahn Co, 4420 Crescent Blvd Pennsauken 662-1611
NJ Hinck & Wolke Sales, 139 Union St Montclair 201 746-2625
NJ Talcomp Co, 19 Sylvan Ave Englewood Cliffs 947-5038
Ohio George L Herrick Co, 845 Canterbury Rd Westlake 871-8855
Tex Southern Engineering, Box 8393 Dallas ..... LA 1-3748

ANACONDA ALUMINUM CO, BOX 1654, LOUISVILLE
KY, 40201, TWX 204124 ..... 502 634-1511
F SEWELL, EMP 2000
Cal Anaconda Aluminum Co, 2737 Supply Ave L A 685-7801
Ga Anaconda Aluminum Co, 1776 Peachtree Rd NW Atlanta 875-9776
Ill Anaconda Aluminum Co, 9933 Lawler Ave Skokie 676-2920
Ky Anaconda Aluminum Co, 3415 Bardstown Rd Louisville 459-5770
Mass Anaconda Aluminum Co, 824 Boylston St Chestnut Hill 734-6923
Mich Anaconda Aluminum Co, 1287 S Woodward Birmingham 647-5022
Minn Anaconda Aluminum Co, 6950 France Ave S Minneapolis 612 920-3566
Mo Anaconda Aluminum Co, 10 S Brentwood Blvd St Louis 727-6255
NY Anaconda Aluminum Co, 680 Fifth Ave New York 247-2304
Ohio Anaconda Aluminum Co, 19129 Hilliard Rd Rocky River 331-5064
Pa Anaconda Aluminum Co, 2 Bryn Mawr Ave Bryn Mawr 215 525-8605
Tex Anaconda Aluminum Co, Expressway at Milton Dallas 368-6448

ANACONDA AMERICAN BRASS CO, 414 MEADOW ST
WATERBURY, CONN, 06720 ..... 203 757-2021
J MARVIN, EMP 10,000
Cal Anaconda Amer Brass Co, 14900 Garfield Ave Los Angeles
Cal Anaconda Amer Brass Co, 2150 Franklin St, Oakland
Colo Anaconda Amer Brass Co, 2393 S Delaware St Denver
Conn Anaconda Amer Brass Co, Box 1939, Waterbury
DC Anaconda Amer Brass Co, 1511 K St NW Washington
Fla Anaconda Amer Brass Co, 5605 S Westshore Blvd Tampa
Ga Anaconda Amer Brass Co, 3151 Maple Dr NE Atlanta
Ill Anaconda Amer Brass Co, 4501 W North Ave Chicago
Ind Anaconda Amer Brass Co, 4000 Meadows Dr Indianapolis
Iowa Anaconda Amer Brass Co, 208 1st Ave Bldg Cedar Rapids
Mass Anaconda Amer Brass Co, 824 Boylston St Chestnut Hill
Mich Anaconda Amer Brass Co, 174 S Clark Ave, Detroit
Minn Anaconda Amer Brass Co, 7415 Watzata Blvd Minneapolis
Miss Anaconda Amer Brass Co, 390 Commerce Park Dr Jackson
Mo Anaconda Amer Brass Co, 800 W 47th St Kansas City
Mo Anaconda Amer Brass Co, 9705 Hwy 66, St Louis
NJ Anaconda Amer Brass Co, 110 Halsted St, E Orange
NY Anaconda Amer Brass Co, 70 Sayre St, Buffalo
NY Anaconda Amer Brass Co, 99 Park Ave, New York
NY Anaconda Amer Brass Co, 11 State St, Pittsford
NY Anaconda Amer Brass Co, 800 State Tower Bldg Syracuse
NC Anaconda Amer Brass Co, 2309 Dunavant St Charlotte
Ohio Anaconda Amer Brass Co, 101 W 4th St, Cincinnati
Ohio Anaconda Amer Brass Co, 2200 W 117th St Cleveland
Ohio Anaconda Amer Brass Co, 395 E Broad St, Columbus
Pa Anaconda Amer Brass Co, Box 1965, Paoli
Pa Anaconda Amer Brass Co, 1310 Grant Bldg Pittsburgh
RI Anaconda Amer Brass Co, 200 Chestnut St Providence
Tex Anaconda Amer Brass Co, Box 12147, Preston Sta Dallas
Tex Anaconda Amer Brass Co, 3100 Richmond Ave Houston
Wis Anaconda Amer Brass Co, 1033 W Bruce St Milwaukee
Can Anaconda Amer Brass Ltd, 1010 St Catherine St W Montreal
Can Anaconda Amer Brass Ltd, C P 213 Sillery, Quebec
Can Anaconda Amer Brass Ltd, 1030 W Georgia St Vancouver
Can Anaconda Amer Brass, Ltd, Box 1109 Winnipeg, Manit
Can Anaconda Amer Brass, Ltd, Box 277, London, Ont

ANACONDA WIRE AND CABLE CO, 605 THIRD AVE
NEW YORK, N Y, 10016 ..... 212 TN 78000
W OLSEN
Ala Anaconda Wire & Cable Co, 1919 Morris Ave Birmingham 205 323-5217
Ariz Anaconda Wire & Cable Co, 100 W Clarendon Ave Phoenix 602 264-0581
Cal Anaconda Wire & Cable Co, 1900 S Tubeway Ave Los Angeles 213 722-6310
Cal Anaconda Wire & Cable Co, 863 Mitten Rd Burlingame 415 697-2750
Colo Anaconda Wire & Cable Co 706 Railway Exchange Bldg Denver 303 222-0616
Conn Anaconda Wire & Cable Co, 900 Chapel St New Haven 203 772-0120
DC Anaconda Wire & Cable Co, 1511 K St, NW Washington ..... 202 EX 3-5868
Fla Anaconda Wire & Cable Co, 514 Liberty Fed Bldg Tampa 813 872-7964
Ga Anaconda Wire & Cable Co, 5088 Pine Tree St Forest Park 404 366-9270
Ill Anaconda Wire & Cable Co, 20 N Wacker Dr Chicago 312 372-5200
Iowa Anaconda Wire & Cable Co, 817 Fleming Bldg Des Moines ..... 515 AT 8-8536
La Anaconda Wire & Cable Co, 1055 St Charles Ave New Orleans 504 522-2731
Mass Anaconda Wire & Cable Co, 824 Boylston St Chestnut Hill ..... 617 LO 6-4268
Mich Anaconda Wire & Cable Co, 621 New Center Bldg Detroit ..... 313 TR 2-2800
Minn Anaconda Wire & Cable Co, 4940 Viking Dr Minneapolis 612 920-6525
Mo Anaconda Wire & Cable Co, 106 W 14th St Kansas City ..... 816 VI 2-4444
Mo Anaconda Wire & Cable Co, ITT Aetna Bldg St Louis ..... 314 PA 6-6166
NJ Anaconda Wire & Cable Co, 10 Commerce Ct Newark ..... 201 MA 3-6054
NY Anaconda Wire & Cable Co, 100 Madison Tower Syracuse ..... 315 HA 2-0391
NC Anaconda Wire & Cable Co, 510 Ervin Bldg Charlotte 704 537-1982
Ohio Anaconda Wire & Cable Co, 75 Public Sq Cleveland 216 241-2827
Ohio Anaconda Wire & Cable Co, 326 Carew Tower Cincinnati 513 621-3216
Okla Anaconda Wire & Cable Co, 306 Philtower Bldg Tulsa ..... 918 LU 4-3666
Ore Anaconda Wire & Cable Co, 3919 N Ballast St Portland 503 285-9127
Pa Anaconda Wire & Cable Co, 1616 Walnut St Bldg Philadelphia ..... 215 PE 5-8118
Pa Anaconda Wire & Cable Co 311 Bldg 2 Gateway Ctr Pittsburgh ..... 412 AT 1-4260
Tenn Anaconda Wire & Cable Co, 5050 Poplar Ave Memphis 901 683-8231
Tex Anaconda Wire & Cable Co, 1121-108th St Arlington ..... 817 CR 4-8292
Tex Anaconda Wire & Cable Co 603 Central Natl Bank Bldg Houston ..... 713 CA 8-2375
Utah Anaconda Wire & Cable Co, 405 S Main St Salt Lake City 801 328-0616
Wash Anaconda Wire & Cable Co, 607 Lloyd Bldg Seattle 206 623-4686
W Va Anaconda Wire & Cable Co, 503 Peoples Bldg Charleston ..... 304 DI 3-5527
Wis Anaconda Wire & Cable Co 2040 W Wisconsin Ave Milwaukee 414 342-5095

ANADEX INSTRUMENTS, INC, 7833 HASKELL AVE
VAN NUYS
CAL, 91406, TWX 910 495-1762 ..... 213 782-9527
K MATHEWS, EMP 74, ENG 12, $1,000-$2,500M
Ala Currie Aerospace Assoc, Inc, Box 1424 Huntsville 536-5650
Ariz R A Mayes Co, 4747 N 16th St Phoenix 279-5243
Cal Jay Stone & Assoc, 140 Main St Los Altos 948-4563
Colo R A Mayes Co, Box 314, Broomfield 421-0706
Conn Applied Measurements Inc, Box 5181 Hamden 288-5288
Fla Currie Aerospace Assoc, Inc, Box 13229 Orlando 855-0843
Ill A S & H Assoc, 6272 W North Ave Chicago 237-2343
Kan Technical Reps, Inc, 6814 Farmview La Wichita 682-4140
Kan Technical Representatives, 809 Sheridan Cir Olathe 782-3775
Md K-G Sales, 11151 Viers Mill Rd Wheaton 946-4055
Mass Applied Measurements, Inc, Box 316 Acton 263-2766
Mich Carter, McCormic & Peirce Inc 16239 Wyoming Ave, Detroit 863-4600
Minn Engineering Prods Assoc, 2119 Grand Ave St Paul 698-5531
Mo Technical Reps, Inc, 7049 Laupher La Hazelwood 521-1000
NJ SBM Assoc Inc, 1519 Stuyvesant Ave Union 687-8737
NM R A Mayes Co, 8016 Zuni Rd SE Albuquerque 265-7989
NY SBM Assoc, Inc, 800 Linden Ave Rochester 381-8330
NY SBM Assoc, Ind, 28 Hobby St Pleasantville 769-1811
NY SBM Assoc, Inc, 5858 E Molloy Rd Syracuse 454-9377
NY SBM Assoc, Inc, 528 Old Country Rd Plainview 433-1421
Ohio Carter, McCormic & Peirce Inc, 3406 N Main St Dayton 278-5873
Ohio Carter, McCormic & Peirce Inc, 3691 Lee Rd Cleveland 921-1360
Okla BFA Inc, 3216 E 21st St, Tulsa 936-5295
Pa Holdsworth & Co, Box 298 Newtown Sqare ..... 215 EL 6-8550

Tex BFA Inc, Box 57888, Webster 482-7563
Tex BFA Inc, Box 429, Euless 264-3363
Tex BFA Inc, Box 16065 Lampham Sta
San Antonio 828-0164
Wash Dewar & Assoc, 6361 1st Ave S
Seattle 763-2233
Can Whittaker Electronics, Ltd, 1885 Wilson Ave
Weston, Ont 247-7454
Can Whittaker Elctns, Ltd, Box 216
Roxboro, Que 684-3000
Can Whittaker Electronics Ltd, 42 Howden Ave
Ottawa Ont 224-1221
BC Whittaker Elctns Ltd, 1144 Millstream Rd
W Vancouver 926-3411

ANADITE, INC, 10647 GARFIELD AVE, SOUTH GATE
CAL, 90280 .... 213 SP 3-4210
L BUMCROT, EMP 350, ENG 45, OVER $10,000M

Ariz Anadite Inc, 3832 37th St, Tucson 602 327-6851
Cal Anadite Inc, 1440 Norman Ave
Santa Clara 415 241-9761
Cal Anadite Inc, El Mirage Hwy at Sheep Creek Rd
El Mirage 388-4111
Ga Anadite Inc, 4330 Wendell Dr SW
Atlanta 404 344-8320
Ill Kropp Forge Div, 5301 W Roosevelt Rd
Chicago 312 652-6666
Mass Anadite Inc, 43 Forest St, Attleboro 617 222-4560
Ohio Anadite Inc, 4456 Industrial Pkwy
Willoughby 216 946-7337
SC Anadite Inc, Bldg 1042 Donaldson Ctr
Greenville 803 277-5294
Tex Texas Bronze Mfg Co, Box 15035
Fort Worth 817 272-9231
Tex Alloy Heat Treating & Testing Co, Box 15095
Fort Worth 817 923-7198
Tex Anadite Inc, Box 69, Fort Worth 818 923-4626
Tex Anadite Inc, Box 547, Hurst 817 282-2535
Tex Anadite Inc, Box 1470, Texarkana 214 838-7571
Wash Anadite Inc, Box 538, Renton 206 228-2680

ANALOG DEVICES INC, 221 FIFTH ST, CAMBRIDGE
MASS, 02142, TWX 710-320-0326 .... 617 492-6000
M SALLEN, EMP 200, ENG 20, UP TO $100M
ADV PG 36, 37
Ala Currie Aerospace Assoc, 910 Bob Wallace Ave
Huntsville 536-5650
Ariz Barnhill Assoc, 4900 E Indian School Rd
Phoenix 959-2115
Cal Synergen, 4868 Oak Park Ave, Encino 981-4150
Cal Synergen, 221 Town & Country Village
Palo Alto 328-3383
Colo Barnhill Assoc, 1170 S Sheridan Blvd
Denver 934-5505
Fla Currie Aerospace Assoc, 2907 McCoy Rd
Orlando 855-0843
Ill Systems Engineering Assoc, 6253 Milwaukee Ave
Chicago 252-5437
Ind Systems Engrg Assoc, 1010 E 86th
Indianapolis 846-2593
Kan Impala, Inc, 6917 W 76th St
Overland Park 648-6901
Md Repco, 2016 Coleridge Dr, Silver Spring
Mich Electro Sales Assoc, 10745 Morang Dr
Detroit 886-2280
Minn Systems Engrg Assoc, 8633 Harrison S
Minneapolis 881-6386
Mo Impala, Inc, 47 Village Sq Shop Ctr
Hazelwood .... JA 2-1600
NM Barnhill Assoc, 827 Penna Ave NE
Albuquerque 265-7766
NY Labtronics, Inc, E Molloy Rd, Syracuse 454-9314
NY Harwood-Sandler, 8243 Jericho Tpk
Woodbury 692-6100
NC Currie Aerospace Assoc, 519 Nissen Bldg
Winston Salem 725-1927
Ohio Electro Sales Assoc, 335 E 200th St
Cleveland 486-1140
Ohio Electro Sales Assoc, Box 3122, Overlook Br
Dayton 426-5551
Pa Electro Sales Assoc, 201 Penn Ctr Bldg
Pittsburgh 371-9449
Pa Wyncote Instr, 1616 Kenmare Dr
Dresher 643-2440
Tex Barnhill Assoc, 3810 Westheimer
Houston .... MO 6-4188
Tex Barnhill Assoc, 507 B Bishop St
Richardson .... AD 1-2573
Wash Avionics Liaison, Inc, 6770 Perimeter Rd
Seattle .... RO 7-3870
Wis Systems Engrg Assoc, Box 506
Waukesha 782-3388
Can Whittaker Electronics, Ltd, 42 Howden Ave
Ottawa 5 224-1221
Can Whittaker Electronics, Ltd, Box 216
Roxboro, Que 684-3000
Can Whittaker Electronics, Ltd, 1885 Wilson Ave
Weston, Ont 247-7454
Can International Engrg Service, Veitingergusse 159
1130 Vienna
Den K Kamuk, Prebens Vange 7, Lyngby
Fr Technique Et Produits, Rue Carle Vernet
Cite Des Bruyeres
Ger Industrial Electronics GmbH, 6000 Frankfurt/Main
Kluberstr 14

GB Analog Devices Ltd, 38-40 Fife Rd
Kingston-Upon-Thames, Surrey
Holl Elofysica, NV, Weteringschans 120, Amsterdam
Ital G De Mico, Via Manzoni 31, Milano 112
Jap Seki & Co Ltd
9 2-chome Nihonbashi-Koamicho Chuo-Ku, Tokyo
Nor Estronic, Tollbugt 4 14, Oslo
Swed Scantele AB, Tengdahlsgatan 24, Stockholm,
Swit Digitana AG, Gertrudstr 24, Zurich
BC Whittaker Electronics, Ltd, 1144 Millstream Rd
West Vancouver, B C 926-3411
Belg Betea, 15 Ave Geo Bernier, Brussels 5
Isrl Stg Intl, 52 Nachlat Benyamin St, Tel Aviv
Fin Into, Box 10153 11 Meritullonkatu, Helsinki 10

ANALOG GENERAL CORP, 7-11 MAIN ST
EAST ROCKAWAY, N Y, 11518 .... 212 599-1080
H ZARON, EMP 18, ENG 4

ANALOGIC CORP, 296 NEWTON ST, WALTHAM
MASS, 02154 .... 617 891-4708
M FERBER
Ala Mecko Assoc, 3322 Memorial Pkwy
Huntsville 205 881-3721
Ariz B F A, 4710 N 16th St, Phoenix 602 264-6536
Cal W K Geist Co, 1205 Airway
Glendale 213 245-9501
Cal W K Geist Co, Box 746, Cupertino 408 253-5433
Colo B F A, 1309 S Inca St, Denver 303 744-3301
Fla Mecko Assoc, 115 Fifth Ave
Indialantic 305 723-6924
Fla Mecko Assoc, 4010 Bobolink La
Orlando 305 841-2215
Ill Ridgway Assoc, 9420 Foster Ave
Chicago 312 992-2150
Ky Ridgway East, Inc, Box 5385
Lexington 606 299-1057
Mass R H Sturdy Co Inc, 204 Worcester St
Wellesley Hills 617 235-2330
Minn Ridgway Assoc, 4901 Garfield Ave
Minneapolis 612 824-9059
NJ Moxon Electronics Corp, 40 Coles Ave
Cherry Hill 609 665-5444
NJ Moxon Electronics Corp, 151 Hackensack Ave
Hackensack 201 343-9490
NM B F A, 1238 Ortiz SE, Albuquerque 505 268-4387
NC Mecko Assoc, 301 W Third St
Burlington 919 226-7177
Ohio Ridgway East Inc, 4654 Michael Ave
No Olmsted 216 777-6600
Ohio Ridgway East Inc, Box 68
Loveland 513 683-4350
Okla B F A Inc, 3216 E 21st St, Tulsa 919 936-5295
Tex B F A Inc, Box 57888, Webster 713 482-7563
Tex B F A Inc, Box 429, Euless 214 264-3363
Tex B F A Inc, Fort Worth 817 283-4684

ANALOG TECHNOLOGY CORP, 3410 E FOOTHILL BLVD
PASADENA
CAL, 91107, TWX 910 588-3776 .... 213 449-8440
D WEEKS, EMP 87, ENG 24, $2,500-$5,000M

ANALYTICAL MEASUREMENTS, INC, 31 WILLOW ST
CHATHAM, NJ, 07928 .... 201 273-7500
F PAULLY, EMP 20, ENG 3

ANAREN MICROWAVE INC, 478 E BRIGHTON AVE, SYRACUSE
N Y, 13210, TWX 710541-1507 .... 315 475-1621
C FULTON, EMP 75, ENG 25, $2,500-$5,000M
ADV PG 32, 234, 419, 658

ANCHOR ALLOYS INC, 968 MEEKER AVE, BROOKLYN
N Y, 11222
H DRAPKIN

ANCHOR METAL CO, INC DIV, 966 MEEKER AVE
BROOKLYN, N Y, 11222
H DRAPKIN

ANCHOR PLASTICS CO INC, 36-36 36TH ST
LONG ISLAND CITY, N Y, 11106 .... 212 RA 9-1494
J SHAPIRO, EMP 120, ENG 4
Cal W S Harmon Co, 6115 Venice Blvd
Los Angeles .... WE 7-1460
Ill Arnold Leff Sales, 1046 Wilson Ave
Chicago .... LO 1-6831
Mich J Frank, 18303 Muirland, Detroit .... UN 4-4797
NJ Mech-Elec Sales Co, 16 S Main St
Medford 254-8209
NY Wolcott-Park Inc, 1149 Ridge Rd E
Rochester .... FI 2-3120
NC Manufacturers Sales Co, Box 14/
Greensboro .... BR 4-1401
Ohio C B Miller, 7825 Tecumseh Tr
Cincinnati .... LO 1-7449

ANCHOR SPECIALTY MFG CO INC, 300 HOLLISTER RD
TETERBORO, N J, 07608 .... 201 288-1939
W ZABLOCKY, EMP 10, ENG 2, UP TO $100M

ANCRONA CORP, 65 E 55TH ST, NEW YORK
N Y, 10022, TWX 710-581-4513 .... 212 688-6286
H FREIWALD, EMP 5, ENG 2, $1,000-$2,500M
GB Rastra Elctns Ltd, 275 King St
Hammersmith-London
Swit Dimos AG, Badenerstr 701, Zurich 626140

ANDAR/ITI INC, 936 COMMERCIAL ST, PALO ALTO
CAL, 94303 .... 415 327-4907
G MITCHELL, EMP 15, ENG 5, $500-$1,000M
Ariz Portis & Assoc, 132 E Stetson
Scottsdale 945-4925
Cal Carl Herrmann Assoc, 1245 E Walnut Ave
Pasadena 681-5111
Colo Bouvette & Assoc, 2785 N Speer Blvd
Denver 433-0563
Conn Cosmo Torr Inc, Ridge Dr-Juniper Ridge
Danbury 744-4484
Ga G H Crossley Assoc, 3390 Peachtree Dr NE
Atlanta 231-4278
Ill Byron Ellis Assoc, 6242 N Kenmore
Chicago 202-2038
Mass Cosmo Torr Inc
NY Herbert Shprentz Co, 126 Deer Track La
Irvington .... LY 1-7970
NY Owens & Co, 24 Jordan St
Skaneateles 685-5771
Ohio R A Gray & Co Inc, 12429 Cedar Rd
Cleveland 462-2669
Pa Tyler Griffin Co, 46 Darby Rd, Paoli 647-1550
Wash Cane Jessup Co, Box 250, Bellevue .... GL 4-0691
Can Technical Marketing Assoc, 6 Thorncliff Sq
Toronto Ont 425-1975

ANDERSEN LABORATORIES, INC, 1280 BLUE HILLS AVE
BLOOMFIELD
CONN, 06002, TWX 710-425-2390 .... 203 242-0761
J FITZGERALD, EMP 325, ENG 45, $2,500-$5,000M
ADV PG 253
Ariz Ar/Tec, Box 727, Scottsdale 947-6304
Cal M W Riedel & Co, 2215 W Valley Blvd
Alhambra 213 283-7694
Fla W R Lehmann Co, Box 20275, Orlando 841-4901
Ill Malovac Sales Co, 1301 W 22 St
Oak Brook 654-4110
Mich H Heym Assoc, 1688 Buckingham Rd
Birmingham .... MI 4-9166
Mo Ridgewood Sales Co, 1225 Tahiti Dr
St Louis 961-0992
Tex Gillett Industries Co, 5635 Yale Blvd
Dallas 363-0107
Wash J K Dooley Co, Inc, 4110 Stone Way N
Seattle 632-1618
Can Whittaker Elctns Ltd, 42 Howden Ave
Ottawa, Ont 613 224-1221
Can Whittaker Elctns Ltd, Box 216
Roxboro, Que 684-3000
Can Whittaker Elctns Ltd, 1885 Wilson Ave
Weston Ont 416 247-7454
BC Whittaker Elctns Ltd, 1144 Millstream Rd
W Vancouver 604-926-3411

ANDERSON ELECTRONICS INC, 310 PENN ST
HOLLIDAYSBURG, PA, 16648 .... 814 695-4428
W ANDERSON, EMP 70, ENG 2, $500-$1,000M
Cal Logan Sales Co, 463 Brewster Ave
Redwood 369-6726
Ill Bauman & Bluzat, 2925 W Touhy Ave
Chicago 761-3630
Mich R C Nordstrom Co, 123 W Brown St
Birmingham 564-6128
Minn Scott Electronic Sales, 5209 W 60th St
Minneapolis 929-2985
NY Lloyd Hart Assoc, Box 8398, Rochester 244-3293
NY Samuel Bialek Assoc, 42-15 Crescent St
LIC 786-5562

ANDERSON-JACOBSON INC, 2235 MORA DR
MOUNTAIN VIEW, CAL, 94040 .... 415 968-2400
EMP 25, ENG 6, $1,000-$2,500M
Cal Mitronics Industries, 18039 Crenshaw Blvd
Torrance 213 323-7934
NJ Anderson-Jacobson Inc, 72 County Rd
Tenafly 201 567-5677
Tex Computer Marketing Corp, 2990 Richmond Ave
Houston .... 713 JA 4-4204

ANDERSON POWER PRODUCTS INC
289 A ST, DEPT. EBG-69, BOSTON
MASS, 02210, TWX 710 339-0536 .... 617 542-4310
C MYERS, EMP 255, ENG 6, OVER $10,000M
Ariz Cosmic Control Co, 5045 N 12th St
Phoenix 266-7661
Cal Control Switches, Inc, 6241 W 89th St
Los Angeles 776-2766
Cal Harold Wells Assoc, 819 A St
San Rafael 454-5730
Colo Mountain States Machy Co, 1526 Blake St
Denver 303 244-7421
Conn Electro-Products Sls Co, 150 S Broad St
Meriden 235-4040
DC Kalwey Assoc 1725 Eye St NW
Washington 338-4095
Fla John L Marsh & Assoc, 1900 S Ocean Dr
Fort Lauderdale 305 523-7445
Fla John L Marsh & Assoc, 341 W Indiantown Rd
Jupiter 746-4911
Fla John L Marsh & Assoc, 114 Carlyle Dr
Palm Harbor 813 784-3133
Ga Emmett Rushin Co, Box 486
Roswell 404 993-6498
Ill Harry J Kahn Elect Sales Co, 2101 W Walnut St
Chicago 666-5315
Ind H J Kahn Electric Sales Co, 1635 Gent Ave
Indianapolis 317 631-4154
Mass Electro-Products Sales Co, Box 121
Waltham 899-8387
Mich Charles H Armstrong Co, 570 Livernois Ave
Ferndale 566-2577
Minn Xylem Co, 322 S 4th St, Minneapolis 335-5205

Mo Zeppenfeld & Co, 14 Westwood Forest
Kirkwood ... 822-2333
NJ C H Ribble Co Inc, 31 DiCarolis Court
Hackensack ... 201 342-2602
NM Ralph B Black Co, Inc, 1025 Hermosa Dr SE
Albuquerque ... 265-0144
NY George E Bowker, Inc, 85 Great Arrow Ave
Buffalo ... 876-8387
NC Candor Co, Inc, Bethania ... 924-1480
Ohio A N Ulrich Co, 4348 River St
Willoughby ... 216 946-2033
Ohio Arthur N Ulrich Co, Box 6584
Columbus ... 237-3084
Ohio A N Ulrich Co, 479 Greenfield Cir Box 333
Tallmadge ... 216 633-8091
Ohio A N Ulrich Co, 3214 Sylvania Ave
Toledo ... 419 475-9722
Ohio A N Ulrich Co, Box 221
W Carrollton ... 513 859-5551
Pa Cross-Country Sls & Engrg Inc, Box 381
Wayne ... 687-1368
Pa Continental Sales & Engrg Co, 211 Nelbon Ave
Pittsburgh ... 241-5660
Tex J T Jones, 25 N Wynden Way
Houston ... 713 621-2383
Va Cross-Country Sls & Engrg, Inc, 3215 Lothian Rd
Fairfax ... 703 560-2435
Wash T A Bender Co, 1938 Fairview Ave E
Seattle ... 202 323-3600
Wis Harry J Kahn Elec Sales Co, Inc, 1348 N 37th St
Milwaukee ... 933-3898
Can Powerlite Devices Ltd, 3050 rue Sartelon
Montreal, Que ... 514 332-0814
Can Powerlite Devices Ltd, 54 Atomic Ave
Toronto 18 ... 259-8201
Can Powerlite Devices Ltd, 1002 11th Ave SW
Calgary Alb ... 403 245-5610
GB Colton E C Connectors Ltd, Aetna Wks Moor La
Cranham Upminster Essec ... UPM 4454
BC Powerlite Devices Ltd, 1104 Hornby St
Vancouver ... 604 683-5344

ANDO ELECTRIC CO LTD
7, 19, 4-CHOME, NAKA-KAMATA, OHTA-KU, TOKYO
JAPAN, TWX 246-6425 ... 733-1151
K OGATA, EMP 1000, ENG 350, $5,000-$10,000M
Cal Sumitomo Shoji N Y, Inc, 25 California St
San Francisco ... 392-7790
Cal Sumitomo Shoji N Y, Inc, 727 W 7th St
Los Angeles ... MA 7-4783
Ill Sumitomo Shoji Chicago, Inc, 208 S La Salle
Chicago ... CE 6-6648
NY Sumitomo Shoji N Y, Inc, 277 Park Ave
New York ... 922-2200
Ore Sumitomo Shoji Kaisha, Ltd, 333 SW Oak St
Portland ... 226-3271
Tex Sumitomo Shoji Texas, Inc, Cotton Exch Bldg
Dallas ... RI 2-8104
Can Sumitomo Shoji Canada, Ltd, 510 W Hastings St
Vancouver ... 682-2256
Can Sumitomo Shoji Canada, Ltd, 159 Bay St
Toronto ... 363-1404

ANDONIAN ASSOCIATES, INC, 26 THAYER RD
WALTHAM, MASS, 02154 ... 617 484-0500
M ANDONIAN, EMP 25, ENG 6

ANDOVER CORP, 318 N EARL AVE, LAFAYETTE
IND, 47904 ... 219 447-1157
V TOBIAS, EMP 140, ENG 5, $1,000-$2,500M

ANDREW CALIFORNIA CORP, 941 E MARYLIND AVE
CLAREMONT
CAL, 91718, TWX 670-426 ... 714 NA 6-3505
E TORKAR, EMP 30, ENG 4, $500-$1,000M
Cal Andrew Calif Corp, 701 Welch Rd
Palo Alto ... 232-3139
DC Andrew Calif Corp, Box 5897
Washington ... 654-2540
Ill Andrew Calif Corp, Box 807, Chicago ... 349-3300
Mass Andrew Calif Corp, Box 296, Westwood ... 326-6500
NJ Andrew Calif Corp, Box 416
Ridgewood ... 445-2500
Tex Andrew Calif Corp, Box 30506, Dallas ... 235-1279
Can Andrew Calif Corp, 6555 Cote des Neiges Rd
Montreal, Que ... 739-9476
Can Andrew Calif Corp, 606 Beech St
Whitby, Ont ... 364-4336
Can Andrew Calif Corp, 608 Gatenbury St, Coquitlam
New Westminster, B C ... 936-6421
GB Andrew Calif Corp, Lochgellr, Fife ... Loc 313
Aust Andrew Calif Corp, 437 St Kilda Rd
Melbourne, Victoria ... 26-2824

ANDREW CORP, 10500 W 153RD ST, ORLAND PARK
ILL, 60462, TWX 910-651-3340 ... 312 349-3300
R BICKEL, EMP 550, ENG 80, OVER $10,000M
Cal Andrew Calif Corp, 941 E Marylind Ave
Claremont ... 714 626-3505
Cal Andrew Calif Corp, 701 Welch Rd
Palo Alto ... 415 323-3139
Cal Andrew Calif Corp, 615 N Euclid Ave
Ontario ... 714 986-1121
Colo Andrew Corp, 451 E 58 Ave
Denver ... 303 222-1579
DC Andrew Corp, Box 30222
Washington ... 202 654-2540
Ga Andrew Corp, Box 80532, Atlanta ... 404 451-1331
NJ Andrew Corp, Box 416, Ridgewood ... 201 445-2500
Tex Andrew Corp, Box 30667, Dallas ... 214 235-1279
Wash Andrew Corp, 11520 Lake City Way N E
Seattle ... 206 362-5335

Can Andrew Antenna Co Ltd, 606 Beech St
Whitby, Ont ... 416 668-3348
Can Andrew Antenna Co Ltd, 323 Merton Ave
St Lambert ... 514 672-5833
For Electronics of Puerto Rico, Inc
Box 6412, Loiza Sta, San Juan ... 767-6380
For Andrew Antenna Systems
Lochgelly Fife G B ... Loc 561
Fr Salies, S A, 11, Rue Leon Morane
Paris 15e ... 842-52-56
BC Andrew Antenna Co Ltd, 422 6th St
New Westminster ... 604 526-4271
Belg E T I SA Div, 36 Rue Ravenstein
Brussels 1 ... 13-31-38
Gr A E Devletoglou, 20 Voukourestiou St
Athens 134 ... 623-426
Ind Motwane Private Ltd, 127 Mahatma Gandhi Rd
Bombay 1 ... 252337
Fin Oy Aseko AB, Vuorikatu 22, Helsinki ... 625 953
Aust Andrew Antennas Pty Ltd, 171 Henty St
Reservoir Vic ... 460-1544

ANDREW ENGINEERING CO, 5727 W 36TH ST
MINNEAPOLIS, MINN, 55416 ... 929-0391
K YOUNGBERG, EMP 14, ENG 5, $500-$1,000M

ANGELICA UNIFORM CO, 700 ROSEDALE AVE
ST LOUIS, MO, 63112 ... 314 863-0500
S ABELOV, EMP 3000, OVER $10,000M

ANGLO AMERICAN VULCANIZED FIBRE CO LTD
CAYTON WKS, BATH ST, LONDON EC 1
ENGLAND ... CLE 8484
E SINHO, EMP 600, ENG 30

ANGSTROHM PRECISION, INC, 7811 LEMONA AVE
VAN NUYS, CAL, 91405 ... 213 989-3061
H SCHUMER, EMP 150, ENG 8, $1,000-$2,500M
Ala Col-Ins-Co, Box 4296, Hunstsville
Ariz Jarko Assoc, 2032 N 27th Ave, Phoenix
Cal Transdynamics Inc, Box 3476, San Diego
Colo Transdynamics, Inc, 3401 S Bannock St
Englewood ... 761-0455
Conn Edcom, Inc, 965 Dixwell Ave
New Haven ... 624-7291
DC Jadelectronics, Washington ... 588-3084
Ill W G Brouillette & Assoc Inc, Box 67
Westchester ... 345-6500
Md Jadelectronics, Box 115, Greenbelt
Mass Edcom, Inc, 815 Washington St
Newtonville ... 969-9710
Mass Edcom Inc, 815 Washington St
Newtonville ... 969-0710
Minn Beta Engineering Co, 128 Jackson Ave N
Hopkins ... 938-2551
NJ Graydon-Sherman Inc, 230 Madison St
Morristown ... 538-9246
NY Graydon-Sherman, Inc, Davis Bldg
Fayetteville ... 637-9611
Ohio A C Wahl & Assoc, Box 15220, Cincinnati
Pa Jadelectronics, Box 5735, Philadelphia
Tex Chas Hoffman Assoc Inc, 777 S. Central Expwy
Richardson
Wash Premmco, N W, 2208 NW Market St
Seattle ... 783-3900
Can Aero-Space Tronics, 115 Westcliffe Ave
Pointe Claire P Q
For National Atlantic Corp, 50 E 42nd St
New York, N Y ... CI 7-2584

ANIDUS ENGINEERING, BOX 8, ARLINGTON
MASS, 02174 ... 617 646-2121
R WHARTON, EMP 7, ENG 5, UP TO $100M

ANN ARBOR COMPUTER CORP, 415 W HURON ST
ANN ARBOR, MICH, 48103 ... 313 761-2151
R BUITEN, EMP 35, ENG 10, $500-$1,000M
Ohio F Himebrook, 3641 Hermosa Dr
Dayton ... 513 278-1202

ANODYNE, INC, 1270 NW 165TH ST, N MIAMI BEACH
FLA, 33169 ... 305 NA 1-3641
E TURNEY JR, EMP 150, ENG 5
NY Anodyne, Inc, 215-45 Northern Blvd
Bayside ... 224-4000
NY S L Shafer, Box 8324, Roselawn Br
Rochester ... 442-1407

ANRITSU ELECTRIC CO LTD
12-20 MINAMIAZABU 4 CHOME, MINATO-KU, TOKYO
JAPAN, TWX 242-2353 ... (442)8171
T IIZUKA, EMP 2400, ENG 750, OVER $10,000M
ADV PG 218, 231, 238, 407, 610, 689

ANSLEY MFG CO, ARTHUR, NEW HOPE
PA, 18938 ... 215 297-5606
H FORRISTEL, JR, EMP 1500, ENG 3, OVER $10,000M
ADV PG 149, 674
Ill Hill Gray Associates, 821 Garfield St
Oak Park ... 312 383-0373
Kan H A Roes & Co, 2601 Cherry St
Kansas City ... 816 221-0866
Minn Lloyd F Murphy & Assoc, 730 Chicago Ave
Minneapolis ... 612 333-4511
NY Kescor, Box 358 B, Kingston ... 914 331-8812
NY Schomburg Co, 3100 Monroe Ave
Rochester ... 716 586-0725
NY H R C Assoc, 390 Plandome Rd, Manhasset

Ohio Scott Electronics Inc, 1836 Euclid Ave
Cleveland ... 216 861-2626

ANSONIA WIRE & CABLE CO, 111 MARTIN ST
ASHTON, R I, 02864 ... 401 724-6400
F CORCORAN, EMP 242, ENG 6, $5,000-$10,000M
Cal K W Lockwood Co, 15450 Cabrito Rd
Van Nuys ... 873-7766
Cal M C Jafferies, 155 Commercial St
Sunnyvale ... 408 738-2601
Fla John L Marsh & Assoc, 341 Indian Town Rd
Jupiter ... 746-4911
Ill D S Davis Co, 2919 N Paulina St
Chicago ... 312 327-4777
NJ Frank C Morris, 21 Colorado Ave
Beach Haven ... 492-2550
NY C A Schroeder & Co, Box 12, Flushing ... 353-9311
Tex John P Smith Co, Box 2077
San Angelo ... 655-9511
Tex S & H Sales Co, 6434 Maple Ave
Dallas ... 214 352-3338

ANSUL CO ELECTRO CONTROLS DIV
3839 VERDUGO RD, LOS ANGELES
CAL, 90065, TWX 910-321-2352 ... 213 255-1431
R DOLL, EMP 63, ENG 4, $1,000-$2,500M

ANTENNACRAFT CO INC, U S HWY 34W, BOX 1005
BURLINGTON, IOWA, 52601 ... 319 754-7575
J FEVQUAY, EMP 31, ENG 1, $500-$1,000M
Cal Moulthrop Polach & Bensinger Inc, 165 11th St
San Francisco ... 415 861-6958
Cal R Markman Co, 4142 Lankershim Blvd
North Hollywood ... TR 7-3368
Colo AES, Inc, 1559 Chester St, Aurora ... 366-0208
Fla John Thompson, 322 Riverside Dr
Ormond Beach ... 677-2298
Fla Stanley K Wallace & Assoc, Box 67
Lutz ... 949-1818
Ill Wm M Linz Assoc, 4001 W Devon Ave
Chicago ... 312 MU 5-6060
Ind Shamrock Elctn Sales, 5750 N Ewing St
Indianapolis ... 251-7669
Mass Keene Sales Co, 156 Broad St, Lynn ... 595-1001
Mo Collins Havercamp & Assoc, 6825 N Baltimore
Kansas City ... GL 3-3203
NY L Keller, 1542 Pea Pond Rd
N Bellmore ... 785-2826
NY Wm Taubler Co, 151 Fayette Blvd
Syracuse ... 315 446-7094
Ohio Shamrock Elec Sales, 805 Rockhill Ave
Dayton ... 298-3052
Ohio Shamrock Elctn Sales, 1755 W Market St
Akron ... 864-3090
Pa R Tanner, 486 Broadmoor Ave, Pittsburgh
Tex Lund & Co, 2215 N Olive St, Dallas ... RI 8-8839
Wash Fleehart & Sullivan, 3826 Woodlawn Park Ave N
Seattle ... 633-4979

ANTENNA PRODUCTS CO DIV ALL PRODUCTS CO
BOX 520, MINERAL WELLS
TEX, 76067 ... 817 FA 53301
G HAVENER, EMP 75, ENG 4, $500-$1,000M
Md W A Laukaitis, 618 Ellsworth Dr
Silver Spring ... FE 8-2277
NY M J Fein & Co, Harwood Bldg
Scarsdale ... 472-1100

ANTENNA SPECIALISTS CO, 12435 EUCLID AVE
CLEVELAND, OHIO, 44106 ... 216 791-7878
R BEEBE
Cal Bassett & Moore, 12045 Magnolia Blvd
N Hollywood ... 877-7129
Cal Logan Sales Co, 463 Brewster Ave
Redwood City ... 369-6726
Colo Koether-Cox Co, 1325 S Inca St
Denver ... PE 3-5561
Ga J E Joyner & Assoc Inc, 868 York Ave SW, Sta A
Atlanta ... 758-7496
Haw Earl Assoc, 1638 Kona St, Honolulu ... 815-649
Ill Klem-Steffen, Inc, 417 W Harrison St
Oak Park ... 921-1200
Ind Thomas & Sukup Inc, 2060 E 54th St
Indianapolis ... CL 1-4574
Kan Maury E Bettis Co, 423 N Fountain
Wichita ... 685-7441
Mass H A Chamberlin, Hanscom Field Air Term
Bedford ... 274-0044
Mich Butchart-Rathsburg & Assoc, 16637 E Warren Ave
Detriot ... 882-1717
Minn Nick J Laub Co, 3749 W Broadway
Robbinsdale ... JU 8-4663
Mo Maury E Bettis Co, 3706 Broadway
Kansas City ... LO 1-0772
NJ Jules J Bressler Inc, 4808 Bergenline Ave
Union City ... UN 4-9577
NY Leonard D Allen Inc, Box 205, Syracuse ... 458-7470
Ohio Neal Bear Corp, 3435 Streetsboro Rd
W Richfield ... 659-3331
Ore Earl & Brown Co Inc, 2041 S W 58th Ave
Portland ... 292-9145
Pa Nebco Assoc Inc, 1974 Gregory Ave
Monroeville ... 824-2111
Pa Stinson Assoc, 227 Haverford Ave
Narberth ... MO 4-5511
Tex Maynard Sales Co, 158 Express St
Dallas ... RI 2-2384
Wash Earl & Brown Co Inc, 422 First Ave W
Seattle ... 284-1121
Can Robert J Buckland Co, Box 367, Sta B
London, Ont ... 432-7731
For Minthorne Intl, 64-14 Woodside Ave
Woodside, N Y ... TW 9-8888

ANTEX LTD, GROSVENOR HOUSE, CROYDON, SURREY
ENGLAND 01-686-2774
R PYATT, EMP 35, ENG 1, $100-$250M
Mass M M Newman Corp, 79 Clifton Ave, Marblehead

ANTI-CORROSIVE METAL PRODUCTS CO, INC
BOX 1894, ALBANY, N Y, 12201 .... 518 732-7711
J MENGEL, EMP 100, ENG 5, $2,500-$5,000M
Ala Anti Corrosive Metal Prods, 912 1st Ave N
Birmingham 324-5678
Cal Anti Corrosive Metal Prods
1420 Monterey Pass Rd
Monterey Park .... AN 8-2545
Colo Regional Sls Co, 1719 Boulder Ave
Denver .... GE 3-1376
Fla Anti Corrosive Metal Prods, 1920 W 4th Ave
Hialeah 888-9551
Ga Anti Corrosive Metal Prods, 267 Foundry St NW
Atlanta 688-0900
Ill Anti Corrosive Metal Prods, 560 W Lake St
Chicago 346-6565
Ill Arthur Cramer Co, 120 E Ogden Ave
Hinsdale 325-3322
Md Anti Corrosive Metal Prods, 7307 Pulaski Hwy
Baltimore 686-2666
Mass Anti Corrosive Metal Prods, 665 Concord Ave
Cambridge 864-8455
Mich J R Warren, 1015 Pinecrest Ave SE
Grand Rapids 452-9541
Mo Smith-Moschner & Co, 6025 Chippewa at Hampton
St Louis .... FL 1-1177
NY Frank Benison, 74 Lynton Pl
White Plains .... RO 1-0007
NC Chapman Co, 347 Robin Rd
Mount Airy 786-4741
Ohio Anti Corrosive Metal Prods, 1837 Reading Rd
Cincinnati 821-1266
Ohio Anti Corrosive Metal Prods, 2444 Lakeside Ave
Cleveland 781-0755
Ohio H R Garner, 6533 brackenridge Ave
Cincinnati 631-8460
Pa Anti Corrosive Metal Prods
178 W Wingohocking St, Phila 324-2211
Pa Anti Corrosive Metal Prods, 6452 Penn Ave
Pittsburgh 441-5957
Tex Anti Corrosive Metal Prods, 8530 La Porte Freeway
Houston .... MI 9-5282
Tex Consolidated Sales Inc, P O Box 19523
Houston 468-5145
Wash Anti Corrosive Metal Prods, 3135 Western Ave
Seattle .... AT 3-7500

ANTLAB, INC, 6330 PROPRIETORS RD, WORTHINGTON
OHIO, 43085 .... 614 885-3406
G MONTER, EMP 75, ENG 6, $1,000-$2,500M

ANTRONIC CORP, 4942 W DIVISION ST, CHICAGO
ILL, 60651 .... 312 287-5110
L PRUSOW
Ariz B & G Sales Co, 305 E Indian School Rd
Phoenix 602 264-5761
Cal Wayne Dinsmore Co, 16033 Ventura Blvd
Encino 213 622-2849
Cal L H Harriss Sales Co, 204 E Hillsdale Blvd
San Mateo .... FI 1-2909
Colo Electronix Specialties Co, 7966 E Jefferson Pl
Denver 303 771-1459
Ill Markal Sales Corp, 5787 N Lincoln Ave
Chicago .... LO 1-7290
Ind Charles Scheffler, 1133 Navajo Trail
Indpls 317 253-6337
Md Brothers & Conneen, 6302 Lincoln Ave
Baltimore .... 301 RO 4-7189
Mass Keene Sales Co, 156 Broad St, Lynn 595-1001
NJ S Fisher Elect Sales, 161 Cedar La
Teaneck 201 836-6661
Ohio Robert Peters Co, 25000 Euclid Ave
Cleveland .... AN 1-2330
Pa Brothers & Conneen, 131 Hamed Rd
Springfield .... KI 3-8641
Tenn L Jones, 5401 Poplar Ave
Memphis 901 683-7616
Wash Dave Miller Sales Co, 2323 N 45th St
Seattle .... ME 2-7070
For Magnus-Inter-America Inc, 5715 Lincoln Ave
Chicago, Ill 334-1503

ANZAC ELECTRONICS, 39 GREEN ST, WALTHAM
MASS, 02154, TWX 710-324-0618 .... 617 899-3145
EMP 60, ENG 10
Ala Brennan Assoc, Box 1074, Huntsville 536-7425
Cal Wright Engineering, 180 E Calif Blvd
Pasadena 213 681-2651
Cal Wright Engineering, 126 25th Ave
San Mateo 415 345-5796
Colo Kelley Enterprises, 336 E 4th St
Loveland 303 667-1376
Conn Anzac Electronics Co, 121 Water St
Norwalk 203 853-9414
Fla Brennan Assoc, 804 Franklin St
Clearwater 813 446-5006
Ill Communications Engineers, 7100 N Western Ave
Chicago 312 761-0548
Kan Gordon Fixman Engineering Co, 6631 E Kellogg
Wichita
Mass Russell Engineering Sales, 7 Skyfields Dr
Groton 617 448-5822
Mo Gordon Fixman Engrg Co, 8160 Stanford Ave
St Louis 725-5219
NY DAL Tech Devices, 114 Old Country Rd
Mineola 516 747-0236
NY Lightstone Corp, 155 Pickard Bldg
Syracuse 315 454-3209
Ohio Gallagher Co, 15 Ritchie Ave
Cincinnati 513 761-1288
Pa C E Snow Co, 258 N Main St
Ambler 215 646-9451
Tex Stevens Sales, 106 Penquin Pl
Dallas 214 241-3645
Va John Hopkins Assoc, 4520 Starr Jordan Dr
Annandale 703 280-2086
Wash Paratech, Box 5427, Seattle 206 783-3900
Can Electrodesign Ltd, 9124 St Lawrence Blvd
Montreal 11 Que 514 389-5914
Fr Equipments Scientifiques, 35 Chemin des Roses
92 Suresnes 772 15 18
GB Wessex Electronics Ltd, Baldwin St
Bristol .... OBR 2 26-952

AO INSTRUMENTS CO ANALYTICAL INSTR DIV
200 S GARRARD BLVD, RICHMOND
CAL, 94804 .... 415 235-9110
C COLISTA, EMP 150, ENG 8

APAHOUSER CORP OF N E, 1312 BOYLSTON ST
BOSTON, MASS, 02215 .... 617 KE 6-1223
J GATELY, EMP 80, ENG 2, $1,000-$2,500M

A P CIRCUIT CORP, 865 WEST END AVE, NEW YORK
N Y, 10025 .... 212 222-0876
D ELLERN
Va Schibley Assoc, Inc, 10604 Warwick Ave
Fairfax 591-3008
BC Canadian Dynamics, 8264 St George St
Vancouver 325-6014

APEX ELECTRONICS, INC, 100 8TH ST, PASSAIC
N J, 07055 .... 201 773-1220
M DOROTA, EMP 50, ENG 1, $500-$1,000M

APEX MACHINE CO, 3000 NE 12TH TERR
FORT LAUDERDALE, FLA, 06150 .... 305 566-1572
A CONINGSBY, EMP 30, ENG 5
NY Apex Machine Co, 14-21 118th St
College Point .... FL 8-2010

APEX WIRE & CABLE CORP
380 VANDERBILT MOTOR PKWY, HAUPPAUGE
N Y, 11788 .... 516 273-3322
S FORTINO, EMP 40, ENG 3, $1,000-$2,500M
Ga Bam Price Co, 503 Amsterdam Ave NE
Atlanta 404 874-6301
Ill Pearson-Becker Co, 2420 W North Ave
Chicago 276-0677
Mass Shapiro Sales Co, 44 Lee Rd, Needham 449-0432
Mich Hoffman Bros, 2301 Clay Ave, Detroit .... TR 3-7550
Ohio A C Koenig, 3554 Akins Rd, Cleveland 237-5908
Pa David D Bleiman Co, 444 Fairmount Ave
Philadelphia 215 627-1800

API INSTRUMENTS CO, 7100 WILSON MILLS RD, CHESTERLAND
OHIO, 44026, TWX 810-427-9230 .... 216 729-1611
R PUGSLEY, EMP 650, $5,000-$10,000M
ADV PG 401
Cal Electronic Eng Assoc, 1293 Laurel
San Carlos 593-2189
Cal API Instruments Co, 5770 N Rosemead Blvd
Temple City 287-0941
Colo Bowden Eng & Sales Co, Denver 255-7144
Ill API Instruments Co, 207 S Emerson St
Mt Prospect 392-5770
Kan Thunderbird Eng Co, 7707 Osie St
Wichita 684-3941
Kan Thunderbird Eng Co, 4014-A W 95th St
Prairie Village 642-7220
Mass API Instruments Co, 14 Temple St
Framingham Centre 873-9741
Mich API Instruments, 15052 Fenkell Ave
Detroit 273-6078
Minn Robert W Marshall Co, 6106 Excelsior Blvd
Mnpls 929-0457
Mo Thunderbird Eng Co, 400 Brookes Dr
Hazelwood 731-4343
NJ API Instruments Co, 162 Rt 208
Oakland 337-6163
NM Bowden Eng & Sales Co, 2633 Texas NE
Albuquerque 299-0473
NY KLM Assoc, 9 Hollywood Dr
Whitesboro 315 736-2450
NY KLM Assoc, 201 S Main St
No Syracuse 458-6214
NY KLM Assoc, 8 Bear Hill Dr, Palmyra 597-9776
Ohio API Instruments Co, 175 West Wieuca Rd N E
Atlanta 252-2445
Pa API Instruments Co, 3545 Chester Pike
Newtown Square 353-0772
Tex Carey-Wolf Co, Box 60338, Houston 643-2114
Tex Carey-Wolf Co, Box 12425, Fort Worth 738-1702
Wash Comptronics, 3220 16th Ave W, Seattle 284-4842
Can Brian Engineering Ltd, 2445 Duncan Rd
Montreal 9 Que 735-1671
Can Brian Engineering Ltd, 45 Shaft Rd
Rexdale, Ont 248-0226

APM-HEXSEAL CORP, 44 HONECK ST, ENGLEWOOD
N J, 07631 .... 201 569-5700
C CZAPINSKI, EMP 50, ENG 2
Ariz Howe & Howe, 4109 N 18th St, Phoenix
Cal James S Heaton Co, 413 Lathrop St
Redwood City 369-4671
Cal Porter Co, 17000 Ventrua Blvd, Encino 788-2350
Colo Electronic Component Sales, Inc, 2340 W Main St
Littleton 798-8481
Conn Gerber Sales Co, Box 2917
New Haven .... SP 7-6279
Fla Buchanan & Abrams Assocs, 1512 E Concord Ave
Orlando 305 423-8995
Ill Hill & Gray Inc, 821 Garfield
Oak Park .... ES 8-7050
Ind Val Skol Sales Inc, 510 Ft Wayne Bank Bldg
Ft Wayne 742-9122
Kan Penzner Assoc, Inc, 6920 W 82nd St
Overland Park .... DU 1-0004
Md Nat Kronstadt Assoc, 817 Silver Spring Ave
Silver Spring 585-6141
Mass Gerber Sales Co, 176 Second Ave
Waltham 891-8040
Mich J Morrow Sales Inc, 22 Labelle Ave, Detroit
Minn Servco, 521 S 7th St, Minneapolis .... FE 9-8611
Mo Penzner Assoc, Inc, Box 1912, Bechtold Sta
St Louis .... CH 1-4385
NM Electronic Component Sales, Inc, Box 3087, Sta D
Albuquerque 344-8130
NY Friedman-Smith Elctn Sales, 519 S 5th Ave
Mt Vernon .... MO 4-4866
NY Rep Tech Inc, Box 98, Syracuse 454-0761
Ohio Val-Skol Sales Inc, 12417 Cedar Rd
Cleveland Hts .... FA 1-0266
Pa Tyler Griffin Co, 46 Darby Rd, Paoli 647-1550
Tex Robert P Votteler, 3508 Greenville Ave
Dallas .... TA 3-2320
Utah Electronic Component Sales, Inc, Box 2066
Salt Lake City 262-3700
Wash Farwest Agencies, 12410 S E 32nd St
Bellevue .... SH 7-1515
Can A Deskin Sales Corp, 1565 Louvain St W
Montreal, Que 384-1420
For Lindor Intl Corp, 10 E 40th St
New York, NY .... MU 5-6740

APPAREILLAGE ELECTRIQUE CEHESS
68 AVE DE CHOISY, PARIS, FRANCE 707-7509
M DOIQNON, EMP 300, ENG 4
For Soc Luso Electrica
Calcade Do Marques de Abrantes 11-13
Lisboa 2 .... PPC 668061 (5 Lignes)
For Ets P. Valere-Chochod, 16, rue de Briey
Casablanca 607-41/42
Ger Haacke & Sohne, Gr Reichenstra 27
Hamburg 11 .... 33 49 48
Ital Dell'Acqua, Via S Venerio 12, Milano 32 20 53
Swed Intronic, Hudiksvallsgatan 4, Stockholm 24 99 80
Belg Lacoppe, 15 Rue Gabrielle
Bruxelles 18 .... 44 76 82
Spn S A M E N Marquer del puerto 6,3, Aptdo 953
Bilbao

APPLACHIAN ELECTRONIC INSTRUMENTS INC
810 W MONROE AVE, RONCEVERTE
W VA, 24970 .... 304 647-5855
C NICKELL, EMP 55, ENG 3, $500-$1,000M
NY Toyomenka, Inc, 2 Broadway
New York .... DI 4-6130
GB Appalachian Meiners Devices Ltd, 25/35 City Rd
London .... MON 2272
Aust Sewmaco Pty Ltd, 116 Bouverie St
Carlton, N.3 .... 34 4045

APPLETON ELECTRIC CO, 1701 W WELLINGTON AVE
CHICAGO, ILL, 60657 .... 312 EA 7-7200
P DARBY, EMP 2000, ENG 50, OVER $10,000M
Ala J Cooley, 2305 Arlington, Birmingham .... AL 1-5400
Ariz C Evans, Box 1614, Scottsdale 947-5054
Cal T Strock, 6450 E Bandini Blvd
Los Angeles .... RA 3-9551
Cal D Ward, 1331 T St, Sacramento 442-5913
Cal H Buegel, 365 De Haro, San Francisco 626-7922
Colo R Glover, 842 Walnut St, Denver 244-4888
Conn F Allen, 24 Birchwood Rd, Seymour 888-9669
Fla D Adams, 1026 E Henry, Tampa 237-6241
Ga R McDaniel, 1316 Logan Cir NW
Atlanta 355-1580
Haw Bill Niven, 1168 Waimanu Ave
Honolulu 512-644
Ill J Norris, 1701 W Wellington, Chicago .... EA 7-7200
Ill W J Hayes, 1326 W Brentwood
Dunlap 674-2531
Ind C Davis, 4002 Meadows, Indianapolis 546-7890
Ky M Gornet, 4506 Illinois Ave, Louisville 459-5096
La B Slimmer, 100 Maumaus Ave
New Orleans .... FO 6-4007
Me J J Morris Co, Box 878 , Portland 773-9553
Md R Fairbanks, 511 N Charles St
Baltimore .... PL 2-2666
Mass G Jones, 555 High St, Westwood .... DA 6-5440
Mich M Vaughan, 18040 James Couzens
Detroit .... UN 3-7785
Mich T Chapman, 756 Huntington Rd
Grand Blanc 694-3972
Mich K Gelders, 3110 Baker Park Dr
Grand Rapids .... CH 1-2586
Minn J Burnham, 529 S 7th St, Minneapolis .... FE 5-5702
Mo G Mauritzen, 2727 Main St
Kansas City .... VI 2-8148
Mo E W Stohlmann Jr, 2305 Big Bend Blvd
St Louis .... MI 7-6622
Neb M D Patton, 33 Kiewit Plaza 3555 Farnam
Omaha 344-4588
NJ H Brennan, Jr, 829 Wyoming Ave
Elizabeth 289-8188
NY E A McNeill, 48-49 33rd St, LIC .... EX 2-8515
NY E MacFarlane, 4649 Whetstone Rd
Manlius .... OV 2-6268
NC Louis Lichtefeld, 4872 Hawkwood Tr
Winston-Salem 723-8017
Ohio B Fellows, 5744 Indianola Ave
Worthington 885-0545

Ohio P C Naegel, 2938 Grandin Rd Cincinnati 871-2808
Ohio C Fleming, 3134 Euclid Ave, Cleveland ... 881-3155
Okla R Simmons, 5316 S Rockford, Tulsa ... WE 9-4912
Ore Jim Anderson, 7635 SW 82nd Ave Portland .... CH 4-3908
Pa P Meisel, 11 Dell Dr, Irwin .... PO 1-8840
Pa J Floyd, 551 W Lancaster Ave Haverford 525-7890
Pa Herbert Ricords, 920 Drexel Hill Blvd New Cumberland 774-1131
Pa C Weber, 300 Seco Rd, Monroeville 271-7220
SC J Rodney Jordan, Box 10387 Federal Sta Greenville 233-0083
Tenn D Hester, 3329 Popular Ave, Memphis ... 327-7837
Tenn L Van Leigh, 1478 Market St Chattanooga 267-7219
Tex Malcolm Ogden, 4910 Top Line Dr Dallas .... ME 1-7486
Tex B McDaniel, 5050 Westheimer Houston 621-3970
Tex C Teal, 2113 C 51st St, Lubbock .... FE 7-1924
Wash L Kepler, 1033 Sixth Ave S, Seattle .... MA 2-5740
Wis R McGee, 2961 Humbolt Rd Green Bay .... HE 7-9181
Wis A Kolb, 4637 N Port Washington Milwaukee 332-6220
For Henry Stern & Co, 183 S Central, Hartsdale, N Y
For L Arsuaga, GPO 3246, San Juan
Mex Ing Electromecanica Ave Gen Pedro Antonio, De Los Santos 98Y104 Tacuaya

APPLIED CONTROL CO, 98 E LINDSLEY RD
CEDAR GROVE, NJ, 07009 .... 201 256-5655
W MEREL, EMP 11, ENG 3, $100-$250M

APPLIED CYBERNETICS SYSTEMS AMF
1025 N ROYAL ST, ALEXANDRIA
VA, 20910 .... 301 588-4873
J MORRIS, EMP 10, ENG 5, UP TO $100M
Fla NBS Inc, 2813 Primrose Ct Orlando 305 423-4856
Md L G White & Co, Inc, 880 Bonifant St Silver Spring 585-3141
Mass J & J Assoc, 225 Crescent St, Waltham .. 899-0160
Pa L G White & Co, Inc, 100 N Essex Ave Narberth .... MO 4-6505

APPLIED DEVICES CORP, 112-03 14TH AVE
COLLEGE POINT
N Y, 11356, TWX 710 582-2641 .... 212 HI 5-4200
V DOWER, EMP 900, ENG 80, OVER $10,000M
Ala W Johnson, 902 Bob Wallace SE Huntsville 536-7797
Cal G C Freshwater, 12962 Hickory Br Rd Santa Ana 544-0985
DC R B Swanson, 815 Conn Ave, NW Washington 298-9060
NH T Belden, 7 Juniper La, Nashua 882-6100
Ohio Karl Biales, 1719 Harvard Blvd Dayton .... CR 7-3081

APPLIED DYNAMICS, INC, 2275 PLATT RD
ANN ARBOR
MICH, 48106, TWX 810 223-6050 .... 313 791-4444
C MOORES, EMP 410, ENG 33, $5,000-$10,000M
Ala Applied Dynamics, Inc, 3322 S Memorial Hwy Huntsville 883-2710
Cal J D Kennedy Co, 770 Welch Road Palo Alto 327-0413
Md Ron Davies Assoc, Box R, Bethesda 652-6330
Mass Applied Measurements, Inc, 86 Hayward Rd Acton 263-2766
Mich Chandler Assoc, 32401 W 8 Mile Rd Livonia 476-5800
Minn Engineering Products Assoc, 2119 Grand Ave St Paul 698-5531
NY Travco Assoc, Inc, 142 Mineola Ave Roslyn Hgts 621-3223
Can B H McGregor, Box 156 - Sta H Toronto 13 .... OX 9-5521
Den Scaniameter, 11 Nytorv, Copenhagen
GB Van Rietschoten & Houwens', 22 Park St Croyden Surrey
Holl Van Rietschoten & Houwens', 2-6 Egmondstr Rotterdam
Jap Tokyo Aircraft Instr Co, Ltd 1600, Izumi, Komae-Machi, Kitatama-gun, Tokyo
Swed Salen & Wicander Fack Sundbyberg 3 Vretenvagen 4, Salna
Belg Konig & Hartman, 53 Rue Gachard, Brussels
Isrl J Pekelman Import Trading House Ltd, Box 1278 Tel-Aviv
Aust Philips Electrical Pty, Ltd, 69-79 Clarence St Sydney

APPLIED ELECTRO MECHANICS INC, 2350 DUKE ST
ALEXANDRIA, VA, 22314 .... 703 548-2166
H BROWN, EMP 100, ENG 7, $500-$1,000M

APPLIED ELECTRONICS CORP OF N J, BOX 43
METUCHEN
N J, 08840, TWX 710 998-0593 .... 201 549-9200
R HANSEN, EMP 65, ENG 12, $1,000-$2,500M
Md Advisory Assoc, E 25th St Baltimore 301 243-8400
Mo P & M Sales, 9537 Lackland Rd St Louis 314 427-7200
NJ Bonn Assoc, 57 New St, Metuchen ... 201 549-9573
NY Travco Assoc, Inc, 45 N Sta Plaza Great Neck 516 487-9666

Pa A & C Assoc, Box 67, Gladwyne 215 642-9222
Tex Southern Engrg & Sls Co, Box 10322 Dallas 214 748-5760
Fr Imex-France, 2, Rue Navoisseau Montreuil, Seine .... TOU 19-20
GB Applied Electronics, 7 Calpe Rd, Lyndhurst Hants .... LYN 2320

APPLIED ENGINEERING PRODS DIV SAMARIUS INC
26 E MAIN ST, ANSONIA
CONN, 06401, TWX 710 451-2495 .... 203 735-8686
A GUEST, EMP 16, ENG 2, $1,000-$2,500M
Mass Reptron, Inc., 110 Great Rd, Bedford 275-8585
NY J F Coughlin Assoc, 33 Harrison Ave Massapequa .... PY 9-7743
NY Midstate Research, Inc, 327 Wellesley Rd Syracuse 476-0541
Can J G Weiss Ltd, 5725 Monkland Ave Montreal 28, Que 489-6887

APPLIED MAGNETICS CORP, 75 ROBIN HILL RD
GOLETA
CAL, 93017, TWX 910 334-1195 .... 805 964-4881
W GRAHAM, EMP 600, ENG 50, $5,000-$10,000M
Ala Col-Ins-Co, Inc, Box 4246, Huntsville 539-1771
Ariz Thorson Co, 2505 E Thomas Rd Phoenix 264-5878
Colo Thorson Co, 300 E Hampden Ave 315, Englewood .... SU 9-1841
Fla Col-Ins-Co, Inc, Box 13189, Orlando 423-7615
Ga Col-Ins-Co, Inc, Box 14077, Atlanta 873-5118
Mass B & W Assoc, B St, Burlington 275-9177
NJ Graydon-Sherman Inc, 230 Madison Ave Morristown .... JE 8-9246
NY Graydon-Sherman Inc, Davis Bldg Fayetteville 637-9861
NC Col-Ins-Co, Inc, Box 5597 Winston-Salem 765-3650
Ohio Ashby Assoc Inc, 4130 Linden Ave Dayton 252-5627

APPLIED MAGNETICS CORP, COMPUTER MEMORIES
DIV, 75 ROBIN HILL RD, GOLETA
CAL, 93017, TWX 910 334-1195 .... 805 964-4881
P SHIPP, EMP 600, ENG 50, $5,000-$10,000M
Ala Col-Ins-Co, Inc, Box 4246, Huntsville 539-1771
Fla Col-Ins-Co, Inc, Box 13189, Orlando 423-7615
Ga Col-Ins-Co, Inc, Box 14077, Atlanta 873-5118
NC Col-Ins-Co, Inc, Box 5597 Winston-Salem 765-3650

APPLIED MAGNETICS CORP, FERRITE HEAD DIV
749 WARD DR, SANTA BARBARA
CAL, 93105, TWX 910-334-1195 .... 805 964-4881
D GILLUM, EMP 600, ENG 50, $5,000-$10,000M
Ala Col-Ins-Co Inc, Box 4246, Huntsville 539-1771
Colo Thorson Co, 300 E Hampden Englewood .... SU 9-1841
Fla Col-Ins-Co Inc, Box 13189, Orlando 423-7615
Ga Col-Ins-Co Inc, Box 14077, Atlanta 873-5118
Mass B & W Assoc, "B" St, Burlington 275-9177
NH Thorson Co, 2505 E Thomas Rd Phoenix 264-5878
NJ Graydon-Sherman Inc, 230 Madison Ave Morristown .... JE 8-9246
NY Graydon-Sherman Inc, Davis Bldg Fayetteville 637-9861
NC Col-Ins-Co Inc, Box 5597 Winston-Salem 765-3650
Ohio Ashby Assoc, 4130 Linden Ave, Dayton ... 252-5627

APPLIED MICROWAVE LAB, INC, ANDOVER ST
ANDOVER
MASS, 01810, TWX 617 475-8686 .... 617 475-8500
J RICHMOND, EMP 38, ENG 7, $500-$1,000M
Ala W A Brown & Assoc, 1314 Buford St NW Huntsville 539-6884
Cal Blair Assoc, 421 N Brookhurst St Anaheim 635-1350
Cal Jay Stone & Assoc, 140 Main St Los Altos 948-4563
Colo Walter-Powers Assoc, 880 Bonnie Brae Blvd Denver 303 777-5585
Conn Forsberg Sales, 22 Broadway North Haven 203 239-5111
Fla W A Brown & Assoc, 222 Weber Ave Orlando 425-5505
Fla W A Brown & Assoc, 3039 NE 32nd Ave Fort Lauderdale 565-3885
Ga W A Brown & Assoc, 1590 Cooledge Rd, NW Tucker 939-1647
Md Cain & Co, 7401 New Hampshire Ave Hyattsville 202 296-8265
Mass Forsberg Sales, 646 Summer St Brockton 617 522-6300
NJ Gawler-Knoop Co, 14 Beaufort Ave Roseland .... CA 6-4545
NY B D Hummel Co, 2224 Maynard Ave Utica 732-2370
NC W A Brown & Assoc, Winston-Salem 725-5384
Ohio Ridgway East Inc, 4654 Michael Ave North Olmstead 216 777-6600
Pa Gawler-Knoop Co, Box 414, Richboro ... WA 5-7550
Tex Spacetronics, 4515 Prentice St Dallas .... EM 8-1215
Utah Walter-Powers Assoc, 2422 Camino Way Salt Lake City 801 277-5174
Can Microwave Specialty Co, Ltd, 8490 LaFrenaie St Montreal, P Q 324-1780
For Emec, Inc, 55 E Old Country Rd Hicksville 516 931-3700

APPLIED RESEARCH AUSTIN INC, BOX 9406, AUSTIN
TEX, 78756 .... 512 465-9526
J FLYNN, EMP 5, ENG 1, UP TO $100M

APPLIED RESEARCH, INC, 76 S BAYLES AVE
PORT WASHINGTON, N Y, 11050 .... 516 883-5700
N POULOS, EMP 90, ENG 12, $1,000-$2,500M
Ala Currie Aerospace Assoc Inc, Box 1424 Huntsville 536-5650
Cal Kipp Assoc, 90 Stadler Dr, Woodside 851-0123
Cal 3 DBM Inc, 7424 Greenbush Ave N Hollywood 213 875-0876
Fla Currie Aerospace Assoc, Box 13229 Orlando 855-0843
Ill David Hausten Co, 614 Arbor Ave Wheaton 668-7312
Mass Techcom Assoc, Box 1, Alpha Ind Pk Chelmsford 617 256-3431
NM Electronic Enterprises, 1900 Washington St NE Albuq 256-1585
NM Electronic Enterprises, Box116 Las Cruces 524-0126
NY Salsbury Assoc Inc, 331 W John St Hicksville 938-1080
NY Lightstone Corp, E Molloy Rd, Syracuse ... 454-3200
Pa Holdsworth & Co, 8 Smedley La Newtown Square 215 356-8550
Tex Texas Avionics Co, 4515 Prentice St Dallas 214 368-3566
For EMEC Inc, 55 E Old Country Rd, Hicksville, NY

APPLIED RESEARCH LABS, 9545 WENTWORTH ST
SUNLAND, CAL, 91040 .... 213 352-6011
L EIKREM, EMP 344, ENG 14
Cal Applied Research Labs, Box 259 Walnut Creek 933-0620
Ga Applied Research Labs, 895 Northcliffe Dr Atlanta 404 351-2681
Ill Applied Research Labs, 905 W Hillgrove Ave La Grange 312 352-5990
Md Applied Research Labs, 4811 Leeds Ave Baltimore 301 247-2880
Mass Applied Research Labs, 235 Bear Hill Rd Waltham 617 899-3460
Mich Applied Research Labs, 20200 W Outer Dr Dearborn 565-6633
NJ Applied Research Labs, 2 Main St Chatham 201 277-2900
Ohio Applied Research Labs, 6722 Pioneer Trail Rd Hiram 569-7575
Pa Applied Research Labs, 107 Terrace Ct Dr Pittsburgh 881-1600
Tex Applied Research Labs, 1307 Comanche Richardson 214 213-1596
Can Applied Research Labs, 6 Royal York Rd Toronto, Ont. 416 252-3433
Fr FICA, Rt de Levis St-Nom Le Mesnil St Denis S & O 923-0881
Ger Applied Research Labs, Graf-Adolfstr 80 4 Dusseldorf 20031
GB Applied Research Labs, Wingate Rd Luton, Bedfordshire 53474
Swed Applied Research Laboratories, Inc Nordiska AB, Gardsvagen 4, Solna 82 56 50
Swit Applied Research Labs, Ave Montchoisi 9 1000 Lausanne 021/26 8383

APPROVED PLASTICS CO, OLD SUGAR MILL RD
PORT ORANGE, FLA, 32019 .... 904 767-0851
L LORDLY, EMP 5, ENG 1, UP TO $100M

A P W CO INC, 72 W MAIN ST, ROCKAWAY
N J, 07866 .... 201 627-0643
A PFEIL, EMP 15, $100-$250M
NY Abbott-Gordon Assoc, 3939 Wicks Ave Seaford .... 516 SU 1-5256
Pa W D Staats, 2766 Murray Ave Cornwells Heights .... 215 ME 9-5231

AQUADYNE INC, 414 MAIN ST, EAST FALMOUTH
MASS, 02536 .... 617 548-7777
K HENDERSON, EMP 5, ENG 2, UP TO $100M

AQUALITE CORP, 7455 GREENBUSH AVE
NORTH HOLLYWOOD, CAL, 91605 .... 213 875-0595
W HYATT, EMP 28, ENG 2, $250-$500M

ARCO ELECTRONICS, INC, COMMUNITY DR
GREAT NECK
N Y, 11021, TWX 510 223-0804 .... 516 HU 7-0500
R PACK, EMP 250, ENG 10
Cal Arco Pacific, Inc, 3945 Bohannon Dr Menlo Park 324-1356
Cal Arco Pacific Inc, 2725 Columbia St Torrance 213 775-7171
Ill Arco Electronics, Inc, 75 Gaylord St Elk Grove Village 439-8100
Tex Arco Electronics, Inc, 1610 Industrial Ct Arlington 277-2231

ARCO S P A, CORA SEMPIONE 73, MILANO
ITALY 389867
R JONA, EMP 600, ENG 20, $2,500-$5,000M

ARDEL CORP, 619 JUSTIN AVE, GLENDALE
CAL, 91201 .... 213 245-9255
E HARRINGTON, EMP 17, ENG 6, $250-$500M

AREMCO PRODUCTS INC, BOX 145
BRIARCLIFF MANOR, N Y, 10510 914 762-0685
H SCHWARTZ, EMP 15, ENG 2, $250-$500M
Ill J Cook, 303 Hazelwood Dr
Naperville 312 355-8448

ARENBERG ULTRASONIC LAB, INC, 94 GREEN ST
JAMAICA PLAIN, MASS, 02130 617 JA 28640
D ARENBERG, EMP 20, ENG 3, $100-$250M
Jap Hakuto Co Ltd, 1 Kotohira-Cho Shiba
Tokyo 501 3168

A R F PRODUCTS, INC, GARDNER RD, RATON
N M, 87740, TWX 910 984 0561 505-445-3665
A MACISZEWSKI, EMP 200, ENG 25, $2,500-$5,000M
Colo R & D Lab, 2559 75th St, Boulder 443-4844
Ill ARF Products Inc, Box 566
Glen Ellyn 312-858-2397
NM ARF Products Inc, Box 1757
University Park 524-0760

ARGONAUT ASSOCIATES, INC, BOX K, BEAVERTON
ORE, 97005 503 CY 2-3149
E MACPHERSON, EMP 17, ENG 4
Cal R C Kruse Assoc, Box 1225
Canoga Park 341-3020
Cal Mauldin Co, 441 California Ave
Palo Alto 415 326-5291
Colo D E Bond Assoc, 5670 E Evans Ave
Denver 756-1234
Conn American Dynamics Corp, Box Q, Guilford
DC Martin F Whitcomb, Washington TU 9-1245
Md Whitcomb Assoc, 730 Deepdene Rd
Baltimore RE 7-0763
Mass American Dynamics Corp, 17 Dunster
Cambridge 491-6800
NM D E Bond Assoc, Box 11331
Albuquerque 247-3442
NM D E Bond Assoc, Box 1485, Los Cruxes 524-0410
Can Megatronix Ltd, 1800 Avenue Rd
Toronto, Ont 783-3329
For Austronik GmbH, Mollardgasse 54, Wein x1 Aus
For H W Kessel SA, Apartado 552, Lima
Ger Omni Ray GmbH, Nymphenburgerstr 164
Munchen 19
Ital Silverstar Ltd, 21 via Delle Stelline, Milano
Jap Hakuto Co, Ltd, Box 25, Tokyo Central
Swit Omni Ray AG, Dufour Str 56, Zurich 8
Ind Electronic Enterprises Ltd, New Charni Rd, Bombay
Isrl Racom Electronics Co Ltd, 6 Rupin St, Tel-Aviv

ARGOS PRODUCTS CO, INC, 600 S SYCAMORE ST
GENOA, ILL, 60135 312 784-5118
A HOYNE, EMP 100
Ark Dick Bellew Sales Co, 1005 W 4th St
El Dorado UN 3-8325
Cal Wes Alderson Co, 8548 Washington Blvd
Culver City UP 0-1030
Cal Meyer, Ross & Fleming, 113 10th St
San Francisco HE 1-0652
Colo Koether-Cox Co, 1325 S Inca St
Denver PE 3-5561
Conn J Cormier, 6 Gaywood Dr, Waterbury 756-8766
Fla Murphy & Cota, 712 W Vassar Ave
Orlando 424-2167
Ga Murphy & Cota, 586 Armour Cir NE
Atlanta 875-2525
Haw Gene Piety Factors Inc, 160 Mokauea St
Honolulu 810-185
Ill G McL Cole Co, 6514 W Higgins Rd
Chicago SP 4-3535
Ill T Drury, 315 Home Ave, Itasca 773-9457
Ind Southern Sales Co, 105 Lakeshore Dr
Angola 665-3961
Ind Southern Sales Co, 6216 Carrollton Ave
Indpls CL 3-3359
Ky Southern Sales Co, 212 Republic Bldg
Louisville 583-6902
La Dick Bellew Sales, Inc, 3017-D 18th St
Metarie 833-6496
Mass Coakley, Boyd & Abbett, Inc, 1424 Highland Ave
Needham 444-5470
Mich Butchart-Rathsburg & Assoc, 16637 E Warren Ave
Detroit 882-1717
Minn William Engelbretson Co, 906 Ottawa Ave
St Paul CA 2-2338
Mo Clemenson-Larrabee Co, 3709-A Summit
Kansas City WE 1-0657
Mo Berk Fontaine, 2725 Beloit Dr
Bridgeton PE 9-6857
NJ Finlay Sales Co, Inc, 45 N Broad St
Ridgewood 652-0088
NY Bill Ferguson, 117 Fayette St, Manlius 682-9301
NY Callahan-Ferguson Co, 107 Greenhedge Dr
Camillus HU 8-5518
NC Murphy & Cota, Box 6365, Greensboro 273-6288
Ohio Neal Bear Corp, 3435 Streetsboro Rd
W Richfield OL 9-3331
Ohio Neal Bear Corp, 2801 Far Hills Ave
Dayton 299-3566
Ore B J Wallig, 3292 Sunnyview Ave NE
Salem 363-6445
Pa NEBCO Assoc Inc, 1974 Gregory Ave
Monroeville 824-2111
Tex W R Hays Co, Central Exchange Bldg
Richardson AD 1-1426
Wash M K Widdekind Co, 815 W Ewing
Seattle AT 4-8020
Wis G McL Cole Co, 150 S Marquette St
Madison 244-1623
For Roburn Agencies Inc, 431 Greenwich St
New York, NY WO 6-2130
BC Emerson Short, 1156 Beachwood Crescent
Vancouver YU 7-5565

ARIES INDUSTRIES INC, 534 W 182ND ST, GARDENA
CAL, 90247 213 321-3110
V ORTLOFF, EMP 12, ENG 2

ARISTO-CRAFT DISTINCTIVE MINIATURES
314 FIFTH AVE, NEW YORK
N Y, 10001 212 279-9036
M HUBERT, EMP 50, ENG 4

ARISTO GRID LAMP PRODUCTS INC, 65 HARBOR RD
PORT WASHINGTON, N Y, 11050 516 767-6577
EMP 12, ENG 1, $250-$500M
Mass Cordell Eng Inc, 210 Broadway
Everett 617 289-4200
NJ C Siskind, 501 Couse Rd, Neptune 201 775-7159

ARK ELECTRONICS, INC, 624 DAVISVILLE RD
WILLOW GROVE, PA, 19090 215 OL 9-4121
S ETKINS, EMP 25, ENG 5, $100-$250M
Fla Gra-Mar, Inc, 999 Woodcock Rd
Orlando 305 841-2330

ARK-LES SWITCH CORP, 51 WATER ST, WATERTOWN
MASS, 02172 617 924-2330
N MACNEIL, EMP 500, ENG 20, $5,000-$10,000M
Ala Applebee-Church Inc, 13 Office Park Cir
Mountain Brook 879-4417
Cal Hansen & Hartfield Co, 1663 Blake Ave
Los Angeles 225-8114
Cal Hansen & Hartfield, Box 328, Fremont 362-6000
Colo Electronic Sales, Inc, 995 S Clermont
Denver 756-4148
Fla J J Galleher Co, Box 1376, Clearwater CL 3-7706
Ga Applebee-Church Inc, Box 13485, Sta K
Atlanta 875-7244
Ill Stevens Engineering Co, 5306 W Lawrence Ave
Chicago PE 6-0432
Ind Neal Engineering Co, 3720 N College Ave
Indpls WA 5-2364
Iowa Charles Thomason, 904 American Bldg
Cedar Rapids EM 2-0619
La Ross & Pethel Inc, 3170 Florida Blvd
Baton Rouge 348-7206
Mass Representatives Corp, 10 High St
Boston HA 6-0541
Mich R C Dakin Co, 1520 N Woodward Ave
Bloomfield Hills 647-2262
Minn J B Wright & Assoc, 4817 Royal Oaks Dr
Hopkins 335-7833
Mo C B Fall Co, 317 N 11th St, St Louis CH 1-2433
Mo C B Fall Co, 11301 Bennington Rd
Kansas City 761-6545
NY Niagara Electric Sales Co, 505 Delaware Ave
Buffalo SUM 4000
NY Bardwell & Schoelles, 230 Winton Rd N
Rochester OL 4-9540
NY Niagara Electric Sales Co, 55 Canterbury Rd
Rochester HA 6-2070
NY Electrical Mfrs Services
3170 Veterans Memorial Hwy
Bohemia 455-4321
Ohio Neal Engineering Co, Box 3052, Dayton 426-3774
Ohio Norco Ind Sales Corp, 3439 W Brainard Rd
Cleveland 216 831-5191
Okla Don Shuhart Co, 310 Thompson Bldg
Tulsa LU 2-5520
Pa Shelmar Electronics Corp, Box 254
Glenside TU 7-2294
SC Applebee-Church Inc, 2817 Millwood Ave
Columbia 256-6057
Tex Don V Shuhart Co, 4509 Greenville Ave
Dallas EM 3-5436
Tex John F Gaumer Co, Box 10678
Houston WA 5-2364
Wis Gordon Hatch Co, 635 S 28th St
Milwaukee BR 1-3021
Can Smith & Stone Ltd, Georgetown, Ont
Alas Technical Sales Co, Box 3-297
Anchorage 272 4801
Cal C L Norton Co, 1394 Lowrie Ave
S San Francisco 589-8931
Haw Giles & Co, 1724 Kalauokalani Way
Honolulu 900-165
Ill Dahly Tool Co, 4939 W Fullerton Ave
Chicago ME 7 3221
Ind Southern Sales Co, 503 N Grant St
Bloomington ED 2-4287
Iowa Hodgkin Pipe & Supply, 5422 1st Ave
Moline, Ill 762-8613
Iowa Vern Ferguson, 1920 Evelyn St, Perry 465-4645
Kan Pensinger's, 1609 Oak St
Kansas City, Mo HA 1-1737
La Gregory Palmer, 6818 Louis XIV St
New Orleans 488-1119
Mass Philip A Gahm Co, 1568 Commonwealth Ave
Boston AS 7-4830
Mich Bernard Phillips, 3144 Woodstock Dr
Detroit 862-1290
Minn Ritchie Eng Co, 999 E 79th St
Minneapolis 866 3393
Mo Pensinger's, 1609 Oak St
Kansas City HA 1-1737
Mont Hugo Fuhs, Box 547, Chester
NY Terryberry Engrg Sales Co, Box 32, Buffalo
NY Custanite Corp, 1225 Utica Ave
Brooklyn NA 9-0555
NY Tower Sales Engrg Co, 550 Fifth Ave
New York 212 246-7611
Ohio Apex Bearings Sales Agency, 86 Owen Brown St
Hudson 653-6031
Ohio Louder Co, 3833 Thornton Dr, Cincinnati
Ore Herbst Sales Co, 2035 SW 58th Ave, Portland
Pa T M Dell, Jr, 411 Wynnewood Plaza
Wynnewood 642-3166
Tenn Wm Hargrave & Assoc, 4699 Leatherwood Rd
Memphis 682-4912
Tex Esch & Assoc Inc, 4623 Gulf Frwy
Houston WA 8 3357
Utah Brandon Co, 1400 S State St
Salt Lake City 487-2812
Can Frank T Ross & Sons Ltd, 4384 Ross Crescent
W Vancouver 922-6060
Can Frank T Ross & Sons Ltd, 18 Civic Rd
Scarborough, Ont PL 5-2448
For Marketing Masters, Box 4216, Beirut, Lebanon
Den Gottfred Petersen, Nytofte Brovej 86
Middelfart 09 41 1266
Ger Schneider & Co GmbH, N Bolzstr 7
Stuttgart 29 40 43
GB Constructional Prods (Chadderton) Ltd, James St
Chadderton
Holl Contivema N. V., G. W. Burgerplein 7, Rotterdam
Jap Tsugami Trading Corp
27-3, 5 chome, Shinbashi, Minato-Ku
Tokyo 433-5231
Nor Andersen & Odegaard, Fred Olsensgaten a, Oslo
SAfr J B Steele & J D Matson Pty Ltd, Knysna, Cape Prov
Swed Ahlberg AB, Kryssarvagen 16, Nasby Park
NZ H J Asmuss & Co, Ltd, 17-21 Graham St
Auckland, C 1

ARLIN MFG CO INC, 239 INDUSTRIAL AVE E, LOWELL
MASS, 01851 617 454-9165
J MITCHELL

ARMCO STEEL CORP, 703 CURTIS ST, MIDDLETOWN
OHIO, 45042 513 425-6541
EMP 38439, OVER $10,000M
Sales Offices Located in Principal Cities of US

ARMEC CORP, 195 W HILLS RD
HUNTINGTON STATION, N Y, 11746 516 HA 7-7787
W ALLISON, EMP 10, ENG 2, UP TO $100M

ARMEL ELECTRONICS, INC, 1601 75TH ST
NORTH BERGEN
N J, 07047, TWX 201 868-0069 201 869-4300
V PASQUALINO, EMP 85, ENG 2
Cal C B Rush & Assoc, 1830 W Olympic
Los Angeles DU 8-7111
Ill Potter-Mac Co, 6027 N Northwest
Chicago 775-6626
Md R A Wafer Assoc, 3809 Victoria Ave
Baltimore 301 655-1565
Mass Brookdale/Richter Engrg Inc, 348 Lake Ave
Newton Highlands
Ohio R M Kaiser Co, Box 57, Centerville

ARMITE LABORATORIES, 1845 RANDOLPH ST
LOS ANGELES, CAL, 90001 213 587-7744
H HILTABIDEL, EMP 36, ENG 4, $500-$1,000M

ARMSTRONG BROS TOOL CO, 5200 W ARMSTRONG
CHICAGO
ILL, 60646, TWX 910 221-0957 312 RO 3-3333
Cal Armstrong Bros Tool Co, 67 Eleventh St
San Francisco UN 1-5837
NY Armstrong Bros Tool Co, 177 Lafayette St
New York CA 6-5670

ARMSTRONG CORK CO, LANCASTER
PA, 17600, TWX 717 560-4405 717 397-0611
R COLLISTER, EMP 16000, OVER $10,000M

ARMSTRONG PRODUCTS CO, INC
ARGONNE RD, BOX 657-EB, WARSAW
IND, 46580, TWX 810 298-0790 219 267-3226
M ROTHSCHILD, EMP 40, ENG 3, $1,000-$2,500M
Kan Thro Industrial Sales Co, 2110 W 75th St
Prairie Village 362-2533
Mass Schaal Assoc, Inc, 4 A St, Burlington 272-3250
Minn D A Schultz Co, 801 SE 8th St
Minneapolis 339-7701
NY G A Treiber, 785 Hunt La, Manhasset 627-4866
Tex Texport Co, 2411 Farrington St, Dallas 631-6270
Tex Texport Co, 8811 Gaylord, Houston 464-2828

ARNO ADHESIVE TAPES, INC, BOX 301
MICHIGAN CITY, IND, 46360 219 874-3235
D BURKE, EMP 250, ENG 4, $500-$1,000M
Cal Arno Adhesive Tapes Inc, 4754 E 49th St
Los Angeles LU 3-1091
DC Arno Adhesive Tapes Inc, 3916 48th St NW
Washington EM 3-1270
Fla Arno Adhesive Tapes Inc, 3920 N W 37th Ave
Miami 633-3131
Ga Arno Adhesive Tapes Inc, 2415 Fairburn Rd SW
Atlanta 344-6070
Ind Arno Adhesive Tapes Inc, 925 S Webster
South Bend CE 3-8977
Mass Arno Adhesive Tapes Inc, 295 Forrest Ave
Cohasset 383-1107
Mich Arno Adhesive Tapes Inc, 21246 W 7 Mile Rd
Detroit 255-0360
Minn Richard Douglas Inc, 906 N 5th St
Minneapolis FE 5-3228
Mo Arno Adhesive Tapes Inc, Box 8391
Kansas City HA 1-0652
NY Arno Adhesive Tapes Inc, 231 Murray Hill Pkwy
E Rutherford, N J 279-0110
NC Arno Adhesive Tapes Inc, 237 Seneca Pl
Charlotte 523-2020

Ohio Arno Adhesive Tapes Inc, 13610 Puritas Cleveland WI 1-9145
Ore Vincent J Hall Co, 230 E Burnside St Portland 222-1903
Tex Arno Adhesive Tapes Inc, 2701 Cullen St Fort Worth ED 6-8101
Wash Arno Adhesive Tapes Inc, 8604 40th Ave NE Seattle LA 5-5573
Wis Arno Adhesive Tapes Inc, 3846 W Wisconsin Ave Milwaukee 933-2541
Can Scholl Mfg Co, Ltd, 174 Bartley Dr Toronto PL 7-2878
For United Export Corp, Box 147, South Bend, Ind

ARNOLD ENGINEERING CO, BOX G, MARENGO
ILL, 60152, TWX 910 642-2790 815 568-2000
C FRYLING, EMP 1100
Cal Arnold Engrg Co, 701 Welch Rd Palo Alto DA 6-9302
Cal Arnold Engrg Co, 1551 E Orangethorpe Fullerton TR 1-1560
DC Arnold Engrg Co, 1001 15th St NW Washington 393-0074
Ind Arnold Engrg Co, U B Bldg, Huntington 356-5224
Mass Arnold Engr Co, Box 309, Lexington VO 2-2804
Mich Arnold Engrg Co, 1304 W Michigan Ave Jackson ST 4-5663
Minn Arnold Engrg Co, 7601 Wayzata Blvd Minneapolis 545-1494
NJ Arnold Engrg Co, 610 E Palisade Ave Englewood Cliffs LO 7-4640
NY Brace-Mueller Huntley, 2000 Military Rd Buffalo TR 7-8700
NC Arnold Engrg Co, 204 N Person St Raleigh 828-3270
Ohio Arnold Engrg Co, 8905 Lake Ave Cleveland OL 1-1242
Tex Southwest Electronic Ind, 621 Meadows Bldg Dallas EM 3-1671
Wash Arnold Engrg Co, White-Henry Stuart Bldg Seattle 624-8776
Wis Arnold Engrg Co, 4604 N Wilson Dr Milwaukee WO 2-2942
Can El-Met-Parts Ltd, 55 Head St Dundas, Ont 828-6366
For Sylvan Ginsbury Ltd, 72 W 45th St New York, N Y 687-3213

ARNOLD ENGINEERING CO PACIFIC DIV
1551 E ORANGETHORPE AVE, FULLERTON
CAL, 92631 714 TR 1-1560
C FRYLING, EMP 75
Cal Arnold Engineering Co, 701 Welch Rd Palo Alto DA 6-9302

ARNOLD MAGNETICS CORP
6050 W JEFFERSON BLVD, LOS ANGELES
CAL, 90016, TWX 910 340-6757 213 870-7014
B MAY, EMP 100, ENG 5, $500-$1,000M
Cal Kanematsu Gosho Inc, 606 S Hill St Los Angeles 213 620-1640
Fla Wm M Jones Co, 2317 E South St Orlando 305 424-6298
Ga Wm M Jones Co, 2666 Redding Rd NE Atlanta 404 261-8275
Kan Aire-Borne Elctns, 7759 Loma Vista Dr Kansas City 816 761-9550
Md Wm M Jones Co, 1107 Echo Ct N Towson 301 823-5721
NH Engineering Assoc of N E, 319 Lincoln St Manchester 603 623-7294
NJ Wm M Jones Co, 332 S Forklanding Rd Maple Shade 609 662-0840
NY Natl Atlantic Corp, 50 E 42 St New York 212 697-2584
Ore J E Edstrom, 1220 SW Morrison St Portland 503 227-5311
Can Electrodesign, Ltd, 9124 St Lawrence Blvd Montreal 514 389-5914
Fr Tranchant Electronique 19,21 rue Madame de Sanzillon, Clichy, Seine
GB Roberts Elctns Ltd, 17 Hermitage Rd, Hitchin Herts
Swed Robt E O Olsson AB, Box 165, Motala

ARRA, INC, 15 EKORB CT, BAYSHORE
NY, 11706, TWX 510 227-6231 516 231-8400
P BLEIFER, EMP 60, ENG 4
Cal Thorson Co, 6824 Melrose Ave Los Angeles WE 7-0790
Cal Thorson Co, 444 Olive St, San Diego CY 8-8385
Cal Thorson Co, 2443 Ash St, Palo Alto DA 1-2414
Cal Thorson Co, 2114 N Broadway Santa Ana 547-6206
Colo Engineering Rsch Assoc, 231 Detroit St Denver 377-8306
Fla Theall Eng Sales Co, Box 922 Maitland 647-4469
Kan Impala Inc, 6917 W 76th St Overland Park NI 8-6902
La Texport Co, 100 Levee View New Orleans 737-2423
Md Doss Electronics Inc, 6660 Security Blvd Baltimore 944-1900
Mass Micronic Assoc, Box 162, Cochituate
Miss Texport Co, Box 1038, Picayune 798-1897
Mo Impala Inc, 47 Vlg Sq Shop Ctr Hazelwood Va 2-1600
NM Bowden Engr & Sales Co, 2633 Texas NE Albuq 299-0473
NY Tesco Assoc, 114 Miles Ave, Syracuse GR 4-3291
NY E A C Assoc, 53-11 90th St, Elmhurst DE 5-0606
Pa Holdsworth & Co, Box 71, Lansdowne MA 6-8300
Tenn Texport Co, 5104 Capen St, Memphis 682-4777
Tex Texport Co, 2411 Farrington St, Dallas ME 1-6270

Tex Texport Co, 8811 Gaylord, Houston HO 5-3031
Utah Engineering Rsch Assoc, Inc, 3961 S Lance St Salt Lake City 298-4951
Wash Thorson Co, 1767 15th Ave, Seattle EA 5-5000
For EMEC, 160 Terminal Dr Plainview, NY WE 1-3700
Jap Shoshin Shoji Koisha Ltd, Box Nihonbashi 173 Tokyo 241-2861

ARTISAN ELECTRONICS CORP, 5 EASTMANS RD
PARSIPPANY, N J, 07054 201 887-7100
R PARKER, EMP 165, ENG 12, $2,500-$5,000M
Ala Brennan Assoc, Box 1062, Huntsville 852-5295
Cal M-A Assoc, Box 428, Palo Alto 324-1339
Cal Mar-Land Entr, Box 101, Arcadia 681-9440
Conn Zaslow Sales Co, 526 Farnington Ave Hartford AD 6-3265
Fla Brennan Assoc, Box 907, Clearwater 446-5006
Fla Brennan Assoc, Box 8489 Fort Lauderdale 587-8077
Fla Brennan Assoc, Box 7773, Orlando 425-8161
Ill Production Sales Co, 1925 N Harlem Ave Chicago 237-8920
Kan Technical Reps Inc, 809 Sheridan Circle Olathe ST 2-3775
Md T H Closs Co, 21 W Pennsylvania Ave Towson 825-4445
Mass Zaslow Sales Co, Inc, 339 Middlesex St Lowell 458-8452
Mass Zaslow Sales Co, Inc, 371 Howard St Northboro 393-8150
Mich Skip Greiner Assoc, 15318 Mack Ave Detroit 882-7570
Minn Tec Sales, 9906 Chicago Ave S Minneapolis 884-1180
Mo Technical Reps, 7049 Lanpher La Hazelwood JA 1-1000
NJ Warren C French & Co, 36 Hampton Dr Berkeley FA 2-5350
NY Technical Liaison Corp, 3095 Lawson Blvd Oceanside 764-9003
NY J Semple Assoc, 21 Edgewater La Rochester 342-1413
NY Bassin Technical Sales Co, 52 Fayette Rd Scarsdale SC 3-3334
Ohio W J Brauer & Assoc, Box 3085, Dayton 426-1692
Ohio W J Brauer & Assoc, 29029 Euclid Ave Wickliffe 943-0601
Pa C J McGowan Co, 1863 Cleveland Ave, Abington
Pa W J Brauer & Assoc, Box 8466 Pittsburgh 921-3213
SC Brennan Assoc, Box 871, Aiken 649-7100
Tex Kine Electronics, 6950 Winchester Dallas 348-8474
Can J H Darcy, Ltd, 51 Abbott St Smith Falls, Ont 283-2465

ARTOS ENGINEERING CO, 15600 W LINCOLN AVE
NEW BERLIN, WIS, 53151 414 782-3300
H RANDAR, EMP 206, ENG 5, $2,500-$5,000M
Conn Artos Engineering Co, 65 Research Dr, Stamford
Fla MacGregor Assoc, 1817 Fox Circle, Clearwater
Ga MacGregor Assoc, 3473 Northlake Way, Doraville
Ill W Baird, 8659 Gregory La, Des Plaines
Can Barmac Supplies Ltd, 339 Olivewood Rd Toronto 239-7303
Fr Etabs Horstmann, 54 Rue St Maur Paris 11e 797-3389
Ger Gustav Bruckner, 863 Coburg-Neuses, Coburg
GB Lebret Engineering Ltd, 114 Hammersmith Rd London W 6 RIV 1289
Holl Fabritius Schutter, Postrekening 52144, Delden
Ital Novasider SpA, Via San Francesco dao Paulo 15/17 Turin
Jap Kyokuto Boeki Kaisha Ltd 4, 2-chome, Otemachi, Chiyoda-ku, Tokyo
Nor Andersen & Nord, Kirkeveien 30, Hovik, Oslo
Swit J H Briegel Inc, Thurgauerstr 60, Zurich
Aust Astonic Imports, 655 Nicholson St, N Fitzroy Victoria

ARTRONIC INSTRUMENT CO, 11232 TRIANGLE LN
SILVER SPRING, MD, 20902 301 949-1131
M PUGH

ARTTED CO, INC, 367 WORTHINGTON ST
SPRINGFIELD, MASS, 01103 413 734-7389
A DEMERS, EMP 115, ENG 4, $1,000-$2,500M
Ariz Dorton Enterprises, Box 1297, Scottsdale
Cal Dorr Wagner Assoc, Box 485, Altadena
Conn Hathaway Electronics, Box 797, Canaan
Ind Ralph J Hoffey Co, 4127 N Clinton, Ft Wayne
Md Habco Electronics, 603 Allegheny Ave, Towson
Mass Hathaway Electronics, 7 Mystic St, Arlington
NY Stuart Foster Co, 2806 Hennaberry Rd, Pompey
Pa R T Pearson, 1125 York Rd, Abington

ART WIRE & STAMPING CO, 227 HIGH ST, NEWARK
N J, 07102 201 621-7272
P STRAZZA, EMP 150, ENG 5
ADV PG 814
Ariz Jack Hagestad, Box 1469, Scottsdale 945-8415
Cal E C Miller Co, 3030 Bridgeway Sausalito 332-4760
Cal Corbett-Smith Co, 7340 E Florence Ave Downey 861-0985
Ind Hoster Assoc, 1627 W 75th Pl Indianapolis 317 251-2566
Tex P J Scanlon Co Inc, Box 70 Richardson AD 1-4661

ARVEE ENGINEERING CO, BOX 3759, TORRANCE
CAL, 90510 213 373 1324
R ALLEE, EMP 1, ENG 1, UP TO $100M
Cal J E Fenole Co, 12899 Mulholland Dr Beverly Hills 783 1582

ARVEY CORP, 3500 N KIMBALL AVE, CHICAGO
ILL, 60618, TWX 910 221-1322 312 463 1400
D WILLIAMS, EMP 2000, ENG 5
Cal Burleigh Co, 1709 W 8th St Los Angeles 213 483 0335
Cal Herb Waldeck Assoc, 12054 Brookmill Rd Los Altos 415 321 7410
La IBL Eng & Sales Inc, 1444 Calhoun St New Orleans 504 895 4793
NJ Arvey Corp, 300 Communipaw Ave Jersey City 201 333-5000
Okla IBL Eng & Sales Inc, 5149 E 31st St Tulsa 918 WE 6-6305
Tex IBL Eng & Sales Inc, 219 Preston Royal Ctr Dallas 214 EM 3-2921
GB Munzig Intl Inc, McGraw-Hill House Maidenhead, Berks MAI 20260
Jap Munzig Intl Japan, K K 15-1 Nishi Shimbashi, 1-chome Minato-ku, Tokyo 503-4751
Swed Tel Inter Aktiebolag, Filipstadsbacken 48 Stockholm-Farsta 1 08/64 18 00
Swit Munzig Intl, Inc, 6 Av de Frontenex 1207 Geneva 022 35 84 14

ARVIN FREQUENCY DEVICES, 2505 N SALISBURY
WEST LAFAYETTE, IND, 47906 317 743-9639
J COSTELLO, EMP 32, ENG 5
Cal R Tauber, 10606 W Pico Blvd Los Angeles 213 871-0055
Cal M Waldman, 1094 W Evelyn Sunnyvale 408 245-2500
Cal R R Slater, 420 Market St San Francisco 415 392-9154
Fla D Jaeger, 999 Woodcock Ave Orlando 305 841-1511
Ind R O Whitesell Assoc, Central Bldg Fort Wayne 219 743-4411
Kan Mesa Inc, 5460 Buena Vista Dr Mission 913 262-6565
Ky R O Whitesell Assoc, 3620 Lexington Rd Louisville 502 893-7303
Md K Geary, 8501 Glendale Rd Greenbelt 301 552-1200
Mass D Stewart, 216 Burroughs Rd Braintree 617 848 1477
Mich R O Whitesell Assoc, 25100 Evergreen Rd Southfield 313 358-2020
NJ J E Cuesta & Co, Valley Forge, Pa 215 265-5800
NY NLR Assoc, 11 Sleepy La Hicksville 201 239-4747
Ohio R O Whitesell Assoc, 4133 S Dixie Ave Dayton 513 298-9546
Pa R O Whitesell Assoc, 201 Penn Center Blvd Pittsburg 412 242-0100
For Arvin Intl Inc, 1531 N 13th St Columbus, Ind 812 372-7271

ARVIN SYSTEMS INC, 1771 SPRINGFIELD ST, DAYTON
OHIO, 45403 513 254-6177
R WATSON, EMP 50, ENG 10
Cal Western Technical, 8644 Wilshire Blvd Beverly Hills
Cal Russell Assoc, 3951 E Huntington Dr Pasadena 213 681-9374
Conn Astro Tek Assoc, 49 Leavenworth St Waterbury 753-4129
Fla Jaeger Assoc, Inc, 999 Woodcock Rd Orlando 841-1511
Mo Aerol Assoc, 34 N Brentwood St Louis 314 725-5361
NY Aerol Assoc, 170 Great Neck Rd Great Neck 516 487-9650
Ohio Tower Engineering, 2801 Far Hills Dayton 513 298-1491

ARWOOD CORP, ROCKLEIGH IND PARK, ROCKLEIGH
NJ, 07647, TWX 710 991-9756 201 767-0600
S BOHN, EMP 1800, ENG 70, OVER $10,000M
Cal Arwood Corp, 18383 Railroad St City of Industry 213 965-1581
Conn Arwood Corp, 415 Main St, E Hartford 568-1515
Ga Arwood Corp, 2898 Revere Ct E Point 404 762-1534
Ill Arwood Corp, 853 Dundee Ave, Elgin 695-3630
Md W R McDorman, Box 4592 Baltimore 301 539-6191
Mass Arwood Corp, Lakeside Off Park 7 Wakefield 245-5353
NJ Arwood Corp, 2000 Spruce St Trenton 609 883-5050
NY John Tighe, 365 S Main St, Geneva 789-1122
Ohio Arwood Corp, 21010 Center Ridge Rd Rocky River 216 331-8464
Tex Arwood Corp, El Patio E, 604 Ave H E Arlington 817 274-1012
Wash Houston Co, 1738 4th Ave S Seattle 206 622-0750

ASARCO INTERMETALLICS CORP, 120 BROADWAY
NEW YORK, N Y, 10005 212 RE 29500
W IOBST

ASHEVILLE-SCHOONMAKER MICA CO
900 JEFFERSON AVE, NEWPORT NEWS
VA, 23607 .... 703 244-7311
C BARRY, EMP 300, ENG 2, $1,000-$2,500M
Cal Marwood Ltd, 357 Ninth St San Francisco .... HE 1-7893
Cal Marwood Ltd, 320 East 3rd St, Los Angeles
Ill Asheville-Schoonmaker Mica Co 1608 N Meade Ave, Chicago .... BE 7-7373
NY Asheville-Schoonmaker Mica Co, 93 Worth St New York 966-4550
Ore Marwood Ltd, 209 SW First Ave, Portland
Tex Lawrence Sales Co, Box 13026, Dallas .. FL 2-7484
Wash Marwood Ltd, 1714 First Ave S, Seattle

ASHLAND ELECTRIC PRODUCTS, INC
32-02 QUEENS BLVD, LONG ISLAND CITY
N Y, 11101 .... 212 EX 2-4010
T BREACH, EMP 130, ENG 3, $1,000-$2,500M
Cal Wm J Purdy Co, 312 Seventh St San Francisco .... UN 3-3300
Cal Chas L Repp Co, 12121 Wilshire Blvd Los Angeles .... GR 7-4475
Conn H Lavin Assoc, Box 921, Meriden .... BE 7-5527
Fla J F Griffin & Co, 812 Lakeside Dr N Palm Beach 848-4617
Ill Samuel Sargis, 7125 N Laramie Ave Skokie .... OR 4-8606
Ill D Dolin Sales, 3525 W Peterson Ave Chicago .... JU 8-3738
Mass H Lavin Assoc, 52 Pickering St Needham .... HI 4-3446
Minn R G Ragon Inc, 1136 W Larpenteur Ave St Paul 488-6634
Mo J J Vondras & Co, Box 6121 Lambert Fld St Louis .... TE 7-0645
NY Ben H Tollefson & Assoc, 11 State St Pittsford .... DU 1-2500
NY Jos N Sweeney Co, 5 Fox Meadow Ct Woodbury 692-4222
Pa Danco Corp, Germantown Pike & Quarry Hall Rd Fairview Village .... BR 5-2600

ASSEMBLY ENGINEERS DIV RUCKER CO
3650 HOLDREGE AVE, LOS ANGELES
CAL, 90016 .... 213 870-9861
N DAVIS, EMP 150, ENG 10, $5,000-$10,000M
Cal G T Parker, 471 Acalanes, Sunnyvale 739-0640
La Renee Baus, 19 Richmond Pl New Orleans 866-7734
Ohio E V Swenson, 1112 Talbott Tower Dayton 223-4279
Tex C M McCulloh, 2525 Ridgemar Blvd Fort Worth .... PE 7-3262
GB Michael Ross, 15 Granville Ct, Jesmond Newcastle-on-Tyne

ASSOCIATED AMERICAN (AMACOIL) WINDING
MACHINERY INC, 111 PLAIN AVE, NEW ROCHELLE
N Y, 10801, TWX 1-37466 .... 914 235-5050
R COX, EMP 40, ENG 10
Cal Westec Electronics, 504 Main St El Segundo 213 322-1561
Colo Ward Electric Supply, 1909 Blake St Denver 222-3541
Fla C J Garrigan, 373 Iowa Ave Fort Lauderdale 305 525-6711
Ill Assoc Amer Winding Machy, 5935 W Grand Ave Chicago .... TU 9-0700
Mass D & P Engineering, 13 Shore Dr Peabody 531-1120
Minn D A Shultz Co, 801 SE 8th St Minneapolis .... FE 9-7701
Mo H & R Sales & Engrg Co, 3942 W Pine St St Louis .... FR 1-4777
NY H Zion, 125 E 72nd St, New York .... RH 4-3382
NY O G Lanzendorf, 513 Cumberland Ave Syracuse 315 472-4195
NC F G Speidel, Box 17661, Raleigh 919 787-9148
Ohio Orr Assoc, 6510 Farnsworth Dr, Parma .. TU 5-1324
Ore C E Riggs Inc, 422 NW 8th Ave Portland 226-3286
Pa Morris Sussman, Box 7191 Elkins Park 215 635-4895
Wis Wakefield Krauthoff Co, 5814 W Burleigh St Milwaukee 414 871-3381

ASSOCIATED ENGINEERING CORP, 65 KENT ST
BROOKLINE, MASS, 02146 .... 617 AS 74664
L R DEMARKLES, EMP 7, ENG 2, $100-$250M
Cal Scientific Sales, Box 5324, Pasadena ... SY 1-3378
Cal Scientific Sales, Box 1061 Mountain View 941-3322
Fla S K Wallace Assoc, 3761 E 8th Ave, Hialeah
Fla S K Wallace Assoc, Box 67, Lutz
Ga S K Wallace Assoc, 715 Flamingo Dr, Atlanta
Mass Brookdale Engr Co, 1108 Beacon St Newton .... BI 4-6969
NC S K Wallace Assoc, Rt 1 Box 423, Matthews
NC S K Wallace Assoc, Box 26, Kernersville
Tex F A Jordan Co, Drawer V, Stafford ...... GY 8-6033

ASSOCIATED ENGINEERING & MFG CORP
GLEN RIDGE, N J, 07028 .... 201 743-8899
F RHODES, EMP 65, ENG 5, $500-$1,000M

ASSOCIATED RESEARCH, INC, 3788 W BELMONT AVE, CHICAGO
ILL, 60618 .... 312 267-4040
R BARNARD, EMP 65, ENG 11, $1,000-$2,500M
ADV PG 702
Alas Alaskan Sales, 826 Whitney Rd Anchorage 272-6731
Ariz Allen Assoc, Box 3091, Papago Sta Scottsdale 945-5781
Cal Brenner-Fiedler & Assoc, 7563 Melrose Los Angeles 651-4300
Cal California Instrument Co, 351 Tenth St San Francisco 863-0350
Fla Ludlum Assoc Co, Box 48-1337, Miami ... 885-3611
Ind Law Instrument Co, Box 95, Angola 665-6016
Ind Law Instrument Co, Box 27062 Indianapolis 787-0009
Kan Cleaves-Bessmer Inc, 5618 Raytown Rd Kansas City 353-6011
Mass Electrical Apparatus Co, 1200 Soldiers Field Rd Boston 782-7440
Mich Electro-Mation Assoc, 1137 Cole St Birmingham 564-6517
Minn Klass Co Inc, 814 S Ninth St Minneapolis 338-8427
Mo Fitzgerald Sales Co, 4 N 8th St St Louis 241-4066
Neb F C Clatterbaugh Co, Box 6181, College View Sta Lincoln 489-5912
NJ Friedman Assoc, 110 Halsted St East Orange 673-2500
NY H J Rittenhouse Co, 291 Howland Ave Rochester 442-1380
NC Jake Rudisill Assoc, 2009 N Tryon St Charlotte 377-6901
Ohio F W Kirk Co, 15017 Detroit Ave Cleveland 226-1970
Pa Bollinger & Bradford, PO Box 8088 Pittsburgh 561-2340
Pa Linn O Morrow & Son, Schaff Building Philadelphia 567-6431
Tex J Y Schoonmaker Co Inc, 2995 Ladybird La Dallas 357-8481
Wash Eicher-Richards Co, 2727 N E Blakeley Seattle 523-7888
Wis Morris F Jacobs Co, 2218 N Third Milwaukee 562-5690
Can George M Fraser, Ltd, 1670 Bayview Ave Toronto 487-5436
Can Showalter Agencies, 1904 - 17th Ave NW Calgary, Albta 267-6411
Can W Hobson & Assoc, 1024 Notre Dame St (Lachine) Montreal, Que 637-1231
Ital M Vianello, Via L Anelli 13, Milano 553081
SAfr R T Urquhart & Co (Pty) Ltd, Box 584 Johannesburg 838-4511
BC Showalter Agencies Ltd, 8264 St George St Vancouver 327-0912
Belg S A Gentronias, 80 Chaussee de Charleroi Brussels 373130

ASSOCIATED SPECIALTIES CO, 1751 MAIN ST
OREFIELD, PA, 18069 .... 215 395-9172
V LAUDENSLAGER

ASSOCIATED TESTING LABS, INC, 107 RTE 46, WAYNE
N J, 07470, TWX 710-988-5712 .... 201 256-2800
R GOLDSMITH, EMP 225, ENG 40, $2,500-$5,000M
Ala Roy Attaway Co, 900 Bob Wallace Ave Huntsville 534-2811
Ariz Allen Assoc, Box 3091, Papago Sta Scottsdale 945-5781
Cal IFM - South, 3455 Cahuenga Blvd Hollywood 213 469-1641
Cal IFM - North, 2269 E Middle Field Rd MountainView 415 961-2828
Conn E E Specialists Inc, 281 Vera Rd Bristol 249-5654
Fla Roy Attaway Co, 51 Robinson St Orlando 424-9983
Ill Midwest Electronic Sales, 5707 W Division St Chicago 626-0030
Ind Midwest Electronic Sales, 5462 E 40th St Indianapolis
Iowa Midwest Electronic Sls, 2042 Franklin Ave, NE Cedar Rapids 362-4410
Kan Aero-Hill Sales, 1635 Garland Ave Wichita 316 267-7167
Md Arnold Ratner Assoc, Inc, 4928 St Elmo Ave Bethesda 657-2585
Mass E E Specialists Inc, 111 Massachusetts Ave Boxborough 259-9200
Mich Electro Enterprises, Inc, 15324 Mack Ave Detroit 886-2281
Minn Ed Melius & Assoc, Inc, 3758 N Dunlap St Paul 488-7293
NY R P Kennedy Co, Inc, 39 Saginaw Dr Rochester 271-6322
NY R P Kennedy Co, Inc, Box 54 Fayetteville 637-9531
NY R P Kennedy Co, Inc, 92 Academy St Poughkeepsie 471-4430
NY Trionic Assoc, Inc, 320 Northern Blvd Great Neck 466-2300
NC Roy Attaway Co, 614 Nissen Bldg, Winston Salem
Ohio Electro Enterprises, Inc, 355 E 200th St Cleveland 486-7040
Pa Arnold Ratner Assoc Inc, 301 York Rd Jenkintown .... TU 7-5250
Tex True Technology Co, 12016 Fieldwood La Dallas 214 239-7741
Utah Cannon Engrg & Sales Co, 2250 E 17th S Salt Lake City 485-9253
Wis Midwest Electronic Sales Inc, 1317 Garfield Ave Waukesha .... LI 2-5129
For Cherd Viriyah Bhanij, 320 Prasumane Rd Bangkok, Thai
For Jugolek, Knez Mihajlova 1-3, Box 216 Belgrade, Yugo
For Laboratorium Strauss GmbH, Neustiftgasse 36 Wien VII, Aus
Fr Radio Television Francaise, 73 Ave De Neuilly Neuilly-Sur-Seine
GB De La Rue Frigistor Ltd, Lower Cookham Rd Maidenhead, Berks 2-6233
Jap Japan Avia Electns Ind Ltd, 32, Nampeidai-Cho Shibuya-Ku, Tokyo
Braz Fornecedora De Material Med E Cientifico, S A, Rua Santa Luzia, 255-B Rio De Janeiro 1
Gr Nitrammon, Ltd, 11A Pindarou St, Athens 136
Ind Jafkay Engrg Corp, A C & R Div, 59 Forbes St Bombay
Isrl Racom Electronics Co, Ltd, 74, Nordau Blvd Tel-Aviv
Aust Carba Australia, Ltd, 679 Victoria St Abbotsford, N.9, Victoria

ASSOCIATED TESTING LABS INC, NEW ENGLAND DIV
NORTHWEST IND PARK, BURLINGTON
MASS, 01803 .... 617 BR 29050
J DOWN

ASTATIC CORP, BOX 120, CONNEAUT
OHIO, 44030 .... 216 599-6916
F LINTERN, EMP 500
Cal William J Purdy, 312 7th St San Francisco 863-3300
Cal Bassett & Moore, 12045 Magnolia Blvd N Hollywood 877-7129
Colo Connors Inc, 2241 Stacey Dr, Denver 428-1575
Ga Hollingsworth & Still Inc, 3098 Piedmont Rd NE Atlanta 875-8103
Haw Dougherty Enterprises, 1164 Waimanu St Honolulu 90-544
Ill Markel Sales Corp, 5787 N Lincoln Ave Chicago .... LO 1-7290
Ill Jerry Golten Co Inc, 2750 W North Ave Chicago .... EV 4-5959
Ind Edwin A Schulz Co, 721 Sherwood Dr Indianapolis .... CL 5-1993
Mass Anderson Sales Co, 177 State St Boston .... CA 7-2980
Mich Robert Milsk Co, 19375 James Couzens Hwy Detroit 342-6660
Minn Mel E Foster Co Inc, 228 S Cedar Lake Rd Mnpls 374-2612
Mo Maury E Bettis Co, 3706 Broadway Kansas City .... LO 1-0772
NY Perry Saftler Assoc Inc, 157 W 57th St New York .... CI 7-3855
NY Jerry Kirshbaum & Co, 1533 Peninsula Blvd Hewlett .... FR 4-0111
NY Paston-Hunter Co, 2002 Teall Ave Syracuse 437-2992
Ohio Mike Roth Sales Co, 678 S Green Rd Cleveland .... EV 2-9090
Ore Dale G Weber Co, Weatherly Bldg Portland .... BE 4-7671
Pa Lowery Assoc, 2801 W Chester Pike Broomall .... EI 6-5300
Tenn Cartwright & Bean, 560 S Cooper Memphis 276-4442
Tex J Y Schoonmaker Co Inc, 2295 Ladybird La Dallas 637-8481
Wis E A Dickinson & Assoc, 3612 N Green Bay Ave Milwaukee .... CO 4-1080
Can Canadian Astatic Ltd, 2271-73 Danforth Ave Toronto .... OX 1127
For Roburn Agencies Inc, 431 Greenwich New York N Y .... WO 6-2130

ASTRO CHEMICAL CO, 1205 GODFREY LA
SCHENECTADY, N Y, 12309 .... 518 393-2729
M BARD, EMP 10, ENG 2, $2,500-$5,000M
Ill J J Glenn & Co, 605 W Washington Blvd Chicago .... ST 2-9667
Ill Electrical Insul Specialties Co, 1847 Melrose St Chicago 312 248-9151
La Industrial Electronic Supply, 608 Papworth Ave Metairie 504 835-7281
NJ Electrical Insul Sales, Box 929 N Bergen .... HU 8-7766
NY Barco Sales Co, 1205 Godfrey La Schenectady 393-2729
NY L S Harris, 982 Avon Crest Blvd Schenectady 518 393-3016

ASTRO COMMUNICATION LAB DIV AIKEN INDUSTRIES
9125 GAITHER RD, GAITHERSBURG
MD, 20760, TWX 710-828-9706 .... 301 948-5210
C COSTOLO, EMP 180, ENG 25, $2,500-$5,000M
Ala Astro Communication Lab, 720 Woodbine Rd SE Huntsville 205 883-2301
Cal Astro Communication Lab, 1720 W LaPalma Anaheim 714 635-1080
Cal Astro Communication Lab, 374 Martin Ave Santa Clara 408 244-8852
Can Tele-Radio Systems Ltd, 1015 Finch Ave W Toronto Ont 416 635-5221
For Rocke International Corp, 13 E 40th St New York N Y .... MU 9-0200

ASTRODATA INC, 240 E PALAIS RD, ANAHEIM
CAL, 92803, TWX 714-776-3760 .... 714 772-1000
C COLE, EMP 1400, ENG 275, OVER $10,000M
Ala Lee Assoc, Box 1506, Huntsville 205 539-0761
Ariz Moxon Elctns Corp, 15 N 40th Pl Phoenix 602 273-7363
Cal Moxon Electronics Corp, 15 W 41st St San Mateo 415 345-7961
Cal Moxon Electronics Corp, 2054 Garnet San Diego 714 274-6525
Cal Moxon Electronics Corp, 2311 Pontius Los Angeles 213 272-9311

Colo Brooks Feeger Assoc, 1309 S Inca St
Denver 303 774-3301
Conn Instrument Assoc Inc, 234 Murphy Dr
Hartford 203 525-9367
Fla S S Lee Assoc Inc, 200 E Marks St
Orlando 305 241-4445
Ill Cozzens/Cudahy Inc, 9501 W Devon Ave
Rosemont 312 825-1144
Ind Cozzens/Cudahy Inc, 44 Kirk Dr
Indianapolis 317 244-2456
Md Lee Assoc, 12250 Wilkins Ave
Rockville 301 949-4800
Mass Instrument Assoc Inc, 30 Park Ave
Arlington 617 648-2922
Minn Cozzens/Cudahy Inc, 7710 Computer Ave
Minneapolis 612 920-1022
Mo Cozzens/Cudahy Inc, 10534 Natl Bridge Rd
Edmundson 314 423-1234
NJ Moxon Elctns Corp, 151 Hackensach Ave
Hackensack 201 243-9490
NJ Moxon Elctns Corp, 40 Coles Ave
Cherry Hill 609 665-5444
NY SBM Assoc Inc, 800 Linden Ave
Rochester 716 381-8330
NY SBM Assoc Inc, 5858 W Molloy Rd
Syracuse 315 454-9377
NY SBM Assoc Inc, 655 Commerce St
Thornwood 914 769-1811
NY SBM Assoc Inc, 800 Linden Ave
Rochester 716 381-8330
Tex Brooks Feeger & Puckett, 708 W Euless Blvd
Euless 817 283-4684
Tex Brooks Feeger & Puckett, Box 50
Friendswood 713 482-7563
Tex Brooks Feeger & Puckett, Box 16065 Lamphan Sta
San Antonio 512 828-0164
Wash Comptronics Inc, 3220 16th Ave W
Seattle 206 284-4842
Wis Cozzens/Cudahy Inc, 3712 W Elm St
Milwaukee 414 352-3640
Can BRH Assoc Ltd, 6338 Victoria Ave
Montreal 514 733-5331
Can BRH Assoc Ltd, 1300 Carling Ave
Ottawa 613 728-0113
Can BRH Assocs Ltd, 184 Finch Ave
Willowdale Ont 416 223-4008
Den J Arndt Jensen, Kongevejen, Allerod
Fr Astrodata-France S A, 6 Rue du Colonel Delorme
Montreuil Sous Bois Seine 287-34-17
Ger Omni Ray GmbH, Nymphenburger Str 164
8000 Munchen 19 51-32059
Ger Omni Ray GmbH, Box 75, D-4051 Breyell
GB Redifon-Astrodata Ltd, Brookside Ave
Rustington Littlehampton Sussex 4166
Ital D I S I Nuclear Corp, Viale Lunigiana 40, Milano
Ital D I S I Nuclear Corp, Viale Esperanto 75
Torre Miami Eur-Roma
Jap Marubun Ltd, 1,2-Chome OdenmachoNihonbashi
Chuo-Ku Tokyo
Jap Marubun Co Ltd, 38,1-Chome Utsubo-Honmachi
Nishiku Osaka 443-6941-3
Nor Ole A Nordby, Skovveien 811, Oslo 46 31 75
SAfr A C Gowlett (Pty) Ltd, Box 1257, Johannesburg
Swit Omni Ray AG, Dufourstr 56, Zurich 8
Isrl S T G Intl Ltd, 52 Nachlat Benyamin St, Tel-Aviv
Neth Koning En Hartman NV, Koperwerf 30
The Hague 685450
Aust Comtel Intl Pty Ltd, 7A Anzac Hwy
Keswich S 55 1437

ASTRODYNE INC, 207 CAMBRIDGE ST, BURLINGTON
MASS, 01803 .... 617 272-3850
A MOWATT, EMP 26, ENG 1, $500-$1,000M
ADV PG 342
Cal R A Strassner Co, 3112 Los Feliz Blvd
Los Angeles 666-4040
Cal C A Messenger Co, 1405 N Avon St
Burbank 849-6858
Colo Beta Technical Sales, 4732 S Broadway
Englewood 781-3271
Fla Massey Assoc, Box 13577
St Petersburg 347-6183
Ill Escor Assoc, 6582 NW Hwy, Chicago 763-4797
Md Leff Sales, 408 York Rd, Towson 823-0774
Mass Harman Assoc, 251 Harvard, Brookline 232-6687
Minn Beta Engineering Co, 128 Jackson Ave N
Hopkins 938-2551
NJ Leff Sales Assoc, 5900 Westfield Ave
Pennsauken 663-4025
NY Kenbar Industries, 14 E Main St
Somerville N J 725-9470
NC P J Nahser Co, Box 432
Burlington N C 226-8053
ND Tech-Mark Inc, Proffessional Bldg
Endicott 748-7473
Ohio Component Insulation Co, 14235 Detroit Ave
Cleveland 521-3570
Tex Gordon V Peck Co, 210 Casa Linda Plaza
Dallas 328-3511
Wash G M Gillett, Box 99035, Seattle 284-3344
W Va J W Kight, 4 Longfellow Rd
Pittsburgh Pa 781-8304
Can Tech Assoc Ltd, 1262 Don Mills Rd
Don Mills Ont 445-7490
For J P Intl Corp, 1989 Summer St
Stamford 348-2691

ASTRO ELECTRONICS, INC, 1160 E ASH AVE
FULLERTON, CAL, 92631 .... 714 526-5581
S SCHREIBER, EMP 35, ENG 3, $500-$1,000M

ASTRO INDUSTRIES, INC, 606 OLIVE ST
SANTA BARBARA, CAL, 93101 .... 805 963-3461
J WIESTER, EMP 13, ENG 3, $250-$500M

ASTRO LAB, 9371-D KRAMER AVE, WESTMINSTER
CAL, 92683 .... 714 839-0741
C FURGERSON, EMP 5, ENG 2, UP TO $100M

ASTROLAB INC, 4 MCCANDLESS ST, LINDEN
N J, 07036 .... 201 925-2252
J TOMA, EMP 26, ENG 6, $500-$1,000M
Ariz Jarko Assoc, 2032 N 27th Ave
Phoenix 703 280-2086
Cal Washburn Electronics, 11853 Wicks St
Sun Valley 213-767-0778
Cal Allgood Assoc, Mountain View
Cal Washburn Electronics, 11853 Wicks St
Sun Valley 213 767-0778
NY Young & Ziff Inc, 555 Winton Road N
Rochester 716-482-1555
NY Young & Ziff, RFD 2, Cazenovia 315 453-4777

ASTRO-METRIX CORP, 125 W PROVIDENCIA ST
BURBANK, CAL, 91502 .... 213 849-4759
J FLOYD, EMP 30, ENG 4, $500-$1,000M
Cal Mauldin Co, 441 California Ave, Palo Alto
Mass ITM Assoc, Box 385, Sudbury
NY Geo L Ziff Co, RFD 2, Cazenovia
NY Williams & Rotondi, 16 Fisher Ave, Tuckahoe
Wash Cane-Jessup Co Inc, Box 250, Bellevue

ASTRONAUTICS CORP OF AMERICA, 907 S FIRST ST
MILWAUKEE
WIS, 53204, TWX 910-262-3153 .... 414 671-5500
R SEINFELD, EMP 475, ENG 180, OVER $10,000M
NY S Meyers, 150 Broadway, New York 962-0856
Ohio J Simpkins, 319 Park Ave
Lebanon 513-932-6751

ASTRO SEAL INC, 1710 CHICO AVE, S EL MONTE
CAL, 91733 .... 213 686-0670
J WOOD, EMP 25, ENG 2, $500-$1,000M
Kan Thunderbird Engrg Sls & Services
4014-A W 95th St
Prairie Village 913 642-7220
Kan Thunderbird Engrg Sls & Services, 7707 E Osie
Wichita 316 684-3941
Ohio Frank J Campisano & Assoc, 3985 Race Rd
Cincinnati
Pa J M Fox Co, 110 Airview Dr, Irwin
Tex Thunderbird Engrg Sls & Services, 5526 Dyer
Dallas .... 214 EM 8-3064

ASTRO-SPACE LABS INC, 110 WYNN DR, HUNTSVILLE
ALA, 35806, TWX 810-726-2111 .... 205 837-5830
J COAN, EMP 120, ENG 15, $1,000-$2,500M

ASTROSYSTEMS INC, 6 NEVADA DR, NEW HYDE PARK
N Y, 11040 .... 516 328-1600
N WHEATCROFT, EMP 160, ENG 27, $5,000-$10,000M
Ala Col-Ins-Co Inc, Box 4246, Hunstville 539-1771
Ariz Luscombe Engrg Co, 222 W Osborn Rd
Phoenix 274-1542
Cal Luscombe Engrg Co, 610 S Arroyo Pkwy
Pasadena 684-2000
Colo D E Bond Assoc, 2149 S Clermont St
Denver 303 756-1234
Conn Kitchen & Kutchin Inc, 22 Broadway
North Haven 239-0212
Fla Col-Ins-Co Inc, Orlando 423-7615
Ga Col -Ins-Co Inc, 200 Carrington Way
Marietta 422-8327
Md S & S Assoc Inc, 7720 Wisconsin Ave
Bethesda 301 654-2420
Mass Kitchen & Kutchen Inc, 7 Waltham St
Lexington 862-8230
Minn Engineering Prods, 2119 Grand Ave
St Paul 698-5531
NM D E Bond Assoc, Box 11331
Albuquerque 247-3442
NY Decew Agency Inc, Box 73, Sodus .... HT 3-3261
NC Col-Ins-Co Inc, Box 5597
Winston-Salem 765-3650
Ohio Rep Corp, 2077 Embury Park Rd
Dayton 278-5885
Ore Showalter-Judd Inc, 1445 NE Arrington
Hillsboro 503 648-6372
Pa S & S Assoc Inc, Boro Line Rd
King of Prussia 265-3450
Tex D E Bond Assoc, Box 12293, El Paso 532-4048
Wash Showalter-Judd Inc, 1806 S Bush Pl
Seattle 206 324-7911
GB Litton Precision Prods Int Inc, 503 Uxbridge Rd
Hayes Mdsx

ATES COMPONENTI ELETTRONICI SPA
VIA TEMPESTA, 2, MILANO
ITALY, TWX 31481 4695651
E BARTOLOZZI, EMP 900, ENG 85, $5,000-$10,000M
For Lab Electronicos Industriales CA
Apar del Este 4446, Caracas Ven 330860
For Lansdale Transistor & Elctns Co, 1111 N Broad St
Lansdale, Penna 855-9002
Den Industrial Electronics, 23/25 Rosenvaengets Alle
Copenaghen .... (0176) TRIA 2100
Fr Soral, 4, Cite' Griset, Paris X1 0232426
Fr Tekimex, 99 Faubourg-du-Temple
Paris X 2053230
GB G E Elctns London Ltd, 182 Campden Hill Rd
Kensington, London .... PAR 0711/3
Holl Geo CF Kauderer, Electronic House
Muiden .... (02942) 1342
Ital Ates Componenti Elet S P A, Via Tempesta, 2
Milano 4695651

Nor Skandinavisk Elektronikk A/S, Ebbellsgt I P O 129
Oslo 425873
SAfr Mts Desselss, Pritchard & Nugget St
Johannesburg 237911/12
Spn Unitronics, Torre de Madrid Pl 12 of 9
Madrid 2411496
Fin Oy Hermas Ab, Arkadiankatu 18a
Helsinki 10 496314

ATHENA CONTROLS INC, 314 W RIDGE PIKE
CONSHOHOCKEN, PA, 19428 .... 215 828-2490
W HARCUM, EMP 12, ENG 5, $100-$250M
Ariz Montgomery Bros Inc, 4247 E Windsor
Phoenix 602 955-7825
Cal Montgomery Bros Inc, 1831 Bayshore Hwy
Burlingame 415 697-6500
Cal Montgomery Bros Inc, 4800 District Blvd
Los Angeles 213 589-6321
Cal Montgomery Bros Inc, 3530 Addison St
San Diego 714 224-4513
Colo Peterson Co, 4949 Colorado Blvd
Denver 303 388-6322
Fla Jack Barber Co, 1813 Brentwood Dr
Clearwater 813 442-8713
Ill Electric Thermal Sys Inc, 211 N Lincoln
Hinsdale 312 325-1960
Ind Electro Engrg & Sales Inc, 6909 E 32nd St
Indianapolis 317 547-5273
Kan Glenn F Beckett Co, 5801 Outlook
Mission 913 432-3520
Md Advanced Design Corp, Beaver Run La
Cockeysville 301 666-2000
Mass Chas T Morgan Co, 500 Maple St
Danvers 617 774-3215
Mich Wm C Fay Co, 1204 N Woodward
Royal Oak 313 543-9440
Mo Herdlein Instrument Supply Co, 14831 Phelps Dr
Bridgeton 314 865-2547
NJ PAR Assoc, 7-09 Dewey Pl
Fairlawn 201 797-3172
NY Carlen Reps, 206 E Genesee St
Syracuse 315 422-6155
NC Sloan Assoc, 1409 E Boulevard
Charlotte 704 372-4871
Ore Montgomery Bros Inc, 1632 NW Johnson St
Portland 503 223-4197
Pa Research Appliance Co, Rte 8 & Craighead Rd
Allison Park 412 961-0588
Tex John F Gaumer Co, 3701 Piney Wood Dr
Houston .... 713 OV 6-3483
Tex Don Shuhart Co, 4509 Greenville Ave
Dallas .... 214 EM 3-5436
Utah Montgomery Bros Inc, 2795 E 3220 S
Salt Lake City 801 485-3462
Va Sloan Assoc, 4828 Morrison Rd
Richmond 703 358-4115
Wash Montgomery Bros Inc, 911 Western Ave
Seattle 206 624-7297
Ital Digitron SRL
12 Via Friuli 20098 San Giuliano Milanese
Milan 9845764
Aust Nuclear Sys Aust Pty Ltd, 236 Victoria Ave
Chatswood NSW 612 41-7147

ATKINS & MERRILL INC REINFORCED PLASTIC DIV
HAYES MEMORIAL DR, MARLBORO
MASS, 01752, TWX 710-347-0389 .... 617 485-8000
R MAKIN, EMP 100, ENG 10, $250-$500M

ATKINS TECHNICAL, INC, 106 STENGEL & ARCHER RD
GAINESVILLE, FLA, 32603 .... 305 372-3518
R ATKINS, EMP 15, ENG 3

ATLANTIC INDIA RUBBER WORKS, INC'
571 W POLK ST, CHICAGO
ILL, 60607, TWX 910-221-0026 .... 312 427-8290
B WRIGHT, EMP 325, ENG 5, $2,500-$5,000M
Cal Littrell Western Sales, Box 23645
Los Angeles .... AN 1-0164
Colo J Ryan, 1770 S Williams, Denver 753-5556
Conn Pfannkuch & Co, 935 White Plains Rd
Trumbull 268-4950
Fla R E Koldhoff, Box 668, Clearwater 442-4297
Iowa J T Hersey, 2120 SE Greenwood Dr
Cedar Rapids .... EM 2-2031
Minn Wm Magnuson, 8053 Bloomington Frwy
Minneapolis 882-9292
Mo Smith-moschner & Co, 6025 Chippewa at Hampton
St Louis .... Fl 1-1177
NY S D Christie Assoc, 175 Fifth Ave
New York .... OR 4-9010
NY J Douglas Martin Co, 3100 Monroe St
Rochester .... LU 6-3200
Ohio Purchasing, Inc, 104 Wintergreen Hill
Painesville 357-5182
Ore A B Boyd Co, 1166 NE 31st Ave
Portland 233-5151
Pa C E Heyde, Box 378, Devon .... MU 8-8833
Tenn Perfection Sales, 6115 Robertson Rd
Nashville .... CY 1-2251
Tex Challenge Prods Corp, Box 22082
Houston .... NA 2-1491
Wis G K Tollaksen, 610 Main St, Racine .... ME 2-2345

ATLANTIC INSTRUMENTS & ELECTRONICS, INC
50 HUNT ST, WATERTOWN
MASS, 02172 .... 617 926-2400
M KATES, EMP 30, ENG 3, $500-$1,000M

ATLANTIC LAMINATES INC, 174 N MAIN ST, FRANKLIN
N H, 03235, TWX 603-934-5210 .... 603 934-5736
M ANALFITANO, EMP 18, ENG 3, $500-$1,000M

Fla Geartner Assoc, 350 Lincoln Rd
Miami Beach 305 531-0200
Ill Chas Shannon & Assoc, 328 Olmstead Rd
Riverside 447-4139
Ind D-M Assoc, Box 324, Noblesville 317 773-1766
Mass Circuit Lines Assoc, Box 261
Groton 617 448-5280
NJ Wetterhahm Co Inc, 4420 Crescent Blvd
Pennsauken 662-1611
NY New Co Assoc, 801 First Ave, Troy 235-0539
NY Bronnell Inc, 85 Tenth Ave
New York 212 924-6000

ATLANTIC OPTICAL MOULDING CO, 87 ELLIS ST
DUDLEY, MASS, 01571 .... 617 943-1746
J KRYSIAK, EMP 5, ENG 1, UP TO $100M

ATLANTIC SEMICONDUCTOR INC, 905 MATTISON AVE
ASBURY PARK, N J, 07712 .... 201 775-1827
C DEE, EMP 160, ENG 8, $1,000-$2,500M
Cal Long & Assoc, 505 Middlefield Rd, Redwood City
Cal Cutlass Electronics, 8631 Truxton St, Los Angeles
Fla Cain & Co, 2533 Chippewa Trail, Maitland
Fla Mack Electronic Sales, Box 291
North Miami 947-5080
Ill Berndt Assoc, 6414 W Belmont Ave
Chicago 283-0713
Kan Inland Assoc, 6047 Howe Dr, Mission
Mass Conti-younger Assoc, 181 W St, Waltham
Mich Norwood Scruggs Co, 2221 Arbor Hills Rd, Jackson
Minn Wenco Sales Inc, 7728 Morgan Ave S, Mnpls
Minn R J Sales, 7100 S France, Minneapolis ... 922-1425
NJ Mid-Eastern Assoc Inc, 1759 Country Club Dr
Cherry Hill
NJ Paul Sweeney Co, 750 Kensington Ave
Plainfield 757-4523
NY H V Sales, 1 W Terrace Rd, Great Neck
NY W A Franklin Sales, 2 Standish Terr, Syracuse
NC L & D Inc, Box 7243, Greensboro 292-3201
Ohio Walter J Brauer & Assoc, Box 305, Wickliffe
Pa Massey Assoc, 1325 W Chester Pike
Havertown 789-2320
Tex Southern Engr Co, Box 8393, Dallas 521-3748
Wash Al Smith Co, Pier 28, Seattle 622-2212

ATLANTIC TECHNOLOGY CORP
7TH & NEW HAMPSHIRE, SOMERS POINT
N J, 08244 .... 609 927-5501
J MUSIC, EMP 50, ENG 15, $500-$1,000M

ATLANTIC ULTRAVIOLET CORP, 24-10 40TH AVE
LONG ISLAND CITY, N Y, 11101 .... ST 4-6106
J MONE, EMP 7, ENG 2, $1,000-$2,500M

ATLAS CHEMICAL INDUSTRIES INC AEROSPACE COMPONENTS
DIV, VALLEY FORGE
PA, 19481, TWX 510-660-4788 .... 215 666-0700
J JONASSEN, EMP 385, ENG 35, OVER $10,000M
ADV PG 629
Cal J E Faloon, Box 808, Alhambra 213 282-8221
Fla H R Gross & Co, Box 4607
Clearwater 813 446-6649
Ill L J Osberg & Assoc, 1348 Rosita Dr
Palatine .... 312 FL 8-3849
Md David K Jones Co Inc, 2026 Maryland Ave
Baltimore 301-752-0577
Mass A & M lectronic Reps Inc, 16 Eaton Sq
Needham 617 444-8170
NJ R P Luce & Co Inc, 630 Morris & Essex Tpk
Short Hills 201-379-6600

ATLAS COIL CORP, 63 MAIN ST, ANSONIA
CONN, 06401 .... 203 735-4628
R KAYE, EMP 28, ENG 5, $250-$500M

ATLAS CONTROLS DIV ATLAS ENGRG CO INC
10 CHENEY ST, DORCHESTER
MASS, 02121 .... 617 445-0180
J O'TOOLE, EMP 125, ENG 5, $500-$1,000M
Cal J C Simon Co, 5478 Wilshire Blvd
Los Angeles .... WE 9-2366
Colo H P Daigle Co, 2785 N Speer Blvd
Denver 433-0026
Fla Perrott Assoc, 1607 Forsyth Rd
Orlando 305 275-1132
Mo Gordon Fixman Eng Co, 8160 Stanford Ave
St Louis 314 725-5219
NJ M D Industries, 240 Grand Ave, Leonia
NY Andrews & Andrews, 140 E Main St
Huntington .... MY 2-8686
Can Conway Elec Enterprises, 88-90 Arrow Rd
Weston, Ont 244-5655

ATLAS ENGINEERING CORP, 26 CUSTER ST
WEST HARTFORD, CONN, 06110 .... 203 246-5651
C SCHECTMAN, EMP 25, ENG 1, UP TO $100M

ATLAS SOUND DIV AMER TRADING & PROD CORP
10 POMEROY RD, PARSIPPANY
N J, 07054 .... 201 887-7800
J PALMIERI, EMP 175, ENG 7, $2,500-$5,000M
Cal F W Moulthrop & Assoc, 1530 E 12th St
Oakland 261-7676
Cal Bassett & Moore, 12045 Magnolia Blvd
N Hollywood 766-2117
Colo Gordon Moss Electronics Inc, Box J
Greeley 353-1452
Fla Cartwright & Bean, 779 John Anderson Dr
Ormond Beach .... OR 7-3480
Fla Cartwright & Bean, 609 Colonial Dr
Orlando .... GA 5-8284
Fla Cartwright & Bean, 20100 NE 25th Ct
N Miami Beach 945-2962
Ga Cartwright & Bean, 3223 Cain's Hill Pl NW
Atlanta 237-2273
Ill Bruce Cumming & Assoc Inc, 6029 W Belmont Ave
Chicago .... ME 7-3770
Ind Thomas & Sukup Inc, 2060 E 54th St
Indianapolis .... CL 1-4574
Kan Koenig-Myers Assoc, Box 374
Shawnee Mission .... HE 2-8300
La Cartwright & Bean, 1812 Bullard Ave
Metairie 887-0482
Md Lowery Assoc, 6200 Annapolis Rd
Hyattsville 773-4977
Mass Jum Piper Assoc, 10 Haven St, Dover 449-1144
Mass Jim Piper Assoc, Box 21
South Duxbury .... WE 4-2498
Mich Robert Milsk Co, 19375 James Couzens Hghwy
Detroit 342-6660
Minn Clark R Gibb Co, 1311 W 25th St
Minneapolis .... FR 7-1200
Mo Koenig-Myers Assoc, 2721 Beloit Dr, Bridgeton
NY Paston-Hunter Corp, 200 Teall Ave
Syracuse 437-2992
NY Irv Brown Co, 401 Kingston Ave
Brooklyn .... HY 3-1379
NC Cartwright & Bean, 625 Harwyn Dr
Charlotte 537-7965
Ohio F A Daugherty Co, 6025 Mayfield Rd
Cleveland 449-1122
Ore Northwestern Agencies, 3950 S Elmran Dr
Lake Oswego 636-5779
Pa Cooper-Daugherty Sales Co, 112 Oakwood Rd
McMurray 941-6473
Pa Lowery Assoc, 2801 W Chester Pike
Broomall .... EL 6-5300
Pa Lowery Assoc, 1501 Allison St
Harrisburg 233-0917
Tenn Cartwright & Bean, 560 S Cooper St
Memphis .... BR 6-4442
Tex J Y Schoonmaker Co, 2995 Ladybird Lane
Dallas 357-8481
Tex J Y Schoonmaker Co, 107 Winnetka
San Antonio .... DI 2-0251
Wash Northwestern Agencies, 4130 First Ave S
Seattle .... MA 3-8882
Wis Bruce Cumming & Assoc Inc, 5537 N Argyle Ave
Milwaukee 372-7650

ATLEE CORP, 2 LOWELL AVE, WINCHESTER
MASS, 01890 .... 617 729-5800
E BRUCE, EMP 50, ENG 4, $500-$1,000M
Colo Cobbs Sales Co, 1311 E Bates Pkwy
Englewood 303 733-7336
Fla Floyd Fausett & Co Inc, 685 Selkirk Dr
Winter Park 644-6672
Ga Floyd Fausett & Co Inc, 2264 Melinda Dr NE
Atlanta 633-3561
Ill Ellinger Sales Corp, 6580 N Northwest Hwy
Chicago 763-1570
Iowa Ellinger Sales Corp, 309 Fourth Ave
Clarion 532-3218
Md Callas Electronics, 6409 Frederick Ave
Baltimore 744-7711
Minn Ed Melius & Assoc, 3758 N Dunlap St
St Paul 488-7293
Mo Ellinger Sales Corp, 4969 Bancroft
St Louis .... FL 2-2027
NJ A L Livera & Assoc, 2 Green Village Rd
Madison 201 377-3220
NJ Quality Components Co, Box 586
Cherry Hill 428-6266
NY A L Livera & Assoc, 275 Warner Ave
Roslyn Heights 516 484-2374
Ohio Deo Volente & Assoc, 4240 Eaglehurst Rd
Toledo 882-2830
SC Floyd Fausett & Co Inc, Stony Point
Greenwood 451-7847
Tex Lee Sales Co, 747 Sherman St
Richardson 214 231-6149
Can Kaytronics Engrg, 5800 Monkland Ave
Montreal 28 Que 514-489-9335
Can Kaytronics Engrg, 1806 Avenue Rd
Toronto 12 Ont 416 789-1991
Holl Acowi, 4 Nassau Odijckstr, Hague 245685
Ital Gimas, Via Marco Greppi, Milan 57-8471

ATMAR ENGRAVING CO INC, 91-31 121ST ST
RICHMOND HILL, N Y, 11418 .... 212 846-2700
M WITTMAN, EMP 35, ENG 2, $250-$500M
Fla P E Slothower, 2317 E South St
Orlando 424-6298
Ga W M Callaway, 2666 Redding Rd NE
Atlanta 261-8275
Md Wm M Jones Co Inc, 1107 Echo Ct N
Towson 823-5721
Mass Tech-Line Co, Box 34, Needham
NJ H T Wert, 330 S Forklanding Rd
Maple Shade 662-0480
NY J H Edeline, 75-29 141 Pl, N Y 801-6387
NY Hill Assoc, 410 Capri Rd, West Islip

ATMOSPHERE CONTROL CO, INC, 5315 CHESTER AVE
PHILADELPHIA, PA, 19143 .... 215 SA 9-1388
W CORNEY, EMP 19, ENG 3

ATMOSPHERICS INC, 4981 E DAKOTA, FRESNO
CAL, 93727 .... 209 291-4161
T HENDERSON, EMP 10, ENG 2, UP TO $100M

ATOHM ELECTRONICS MILITARY & COMMERCIAL
PRODS DIV, 3020 EMPIRE AVE, BURBANK
CAL, 91504, TWX 910 498-2204 .... 213 842-4811
J GRAHAM, EMP 180, ENG 8, $2,500-$5,000M
Ala Young & Lawrence Assoc, 2901 Governors Dr SW
Huntsville 539-6575
Ariz Jack Berman Co Inc, 2101 W Shangri-La Rd
Phoenix 944-3361
Cal F W Moulthrop & Assoc, 1530 E 12th St
Oakland 261-7676
Cal Jack Berman Co Inc, 8295 S La Cienega Blvd
Inglewood 678-1281
Cal Technical Industries, 1751 La Cienega Blvd
Los Angeles 213 837-9121
Colo Gossard & Assoc, 12159 W Dakota Dr
Denver 985-0602
Conn Todino Eng Sales Inc, 132 New Haven Ave
Milford .... TR 4-6643
Fla Electro Sales Engrg, Box 668, Oviedo 365-3283
Ga Technical Industries, 3456 Hardy Ave
Atlanta 404 451-3177
Ill Repwood Inc, 260 Sunset Ave
Glen Ellyn 469-2344
Ind Tri-State Mktg Inc, 3220 Broadway
Fort Wayne 422-0821
Iowa Howard R Brown Sales Co, 3400 Indian Rd SE
Cedar Rapids 366-0635
Md Daniel & Co, 6 E Pennsylvania Ave
Towson 825-3330
Mass Todino Eng Sales Inc, 50 Kearney Rd
Needham Hgts 444-7925
Mich Skip Greiner Assoc, 15318 Mack Ave
Detroit 882-7570
Mo J Durbin Co, 10702 Manchester Rd
St Louis 966-3003
NJ Harold Gray Assoc, 20 Foster St
Bergenfield 384-3643
NY S F Foster Co, 2806 Hennaberry Rd
Pompey 677-3333
NY S F Foster Co, 386 Culver Pkwy
Rochester 288-9912
Ohio Tri-State Mktg, Inc, 1717 Section Rd
Cincinnati 631-5060
Ohio Tri-State Mktg, 25000 Euclid Ave
Cleveland 731-9207
Pa Daniel & Co, 231 S Easton Rd
Glenside .... TU 7-0550
Tex Texport Co, 2411 Farrington St, Dallas ... ME 1-6270
Tex Texport Co, 8811 Gaylord, Houston
Wash Hamilton Electro Corp, 2320 6th Ave
Seattle 624-5930
Wis Repwood Inc, 8019 N 50th St
Milwaukee 354-5161
Can Dser E-E Ltd, 262 Wilson Ave
Downsview Ont 630-3110

ATOMERGIC CHEMETALS CO DIV
GALLARD-SCHLESINGER CHEMICAL MFG CORP
584 MINEOLA AVE, CARLE PLACE
N Y, 11514 .... 516 ED 35600
M BLUM, EMP 25, ENG 5, $2,500-$5,000M
Cal Ron Geller, 10767 Rose Ave No 43
Los Angeles 213 839-2725
Ill Wm E Phillips, Inc, 435 N Michigan Ave
Chicago 644-9611
Ohio Aertronic Assoc Inc, 5899 Huberville Ave
Dayton 253-8144
Wash Blair Hirsh Co, 4013 Leary Way N W
Seattle 783-3423
Can Aldert Chemicals Ltd, 110 DuPont St
Toronto 922-0823

ATOMIC LABS, DIV CENCO INSTR CORP
2600 S KOSTNER, CHICAGO
ILL, 60623 .... 312 277-8300
L MILLER, EMP 10, ENG 1, $500-$1,000M

ATOMITE ELECTRONICS CORP, 119 PLEASANT AVE
ROOSEVELT, N Y, 11575 .... 516 MA 3-3100
R THAW, EMP 20, ENG 1, $250-$500M

ATR ELECTRONICS, INC, 300 E 4TH ST, ST PAUL
MINN, 55101 .... 612 222-3791
A GOFFSTEIN

ATTLEBORO REFINING CO, INC, 152 UNION ST
ATTLEBORO, MASS, 02703 .... 617 222-3705
J QUEBMAN, EMP 40, ENG 4, $2,500-$5,000M

AUBURN MFG CO, PEASE AVE & STACK ST
MIDDLETOWN, CONN, 06457 .... 203 346-6631
M WEINER, EMP 75, ENG 1, $1,000-$2,500M
Cal Pritchard & Haney Co, Box 102
Los Altos 941-2240
Fla Wm F Newman, 1391 21st St SW, Largo
Ind Bob Carpenter & Assoc, 4328 Dodge Ave
Ft Wayne 748-7813
Mich Alfred R Dixon & Assoc, 4346 Woodward Ave
Royal Oak .... JO 6-3160
Mo A O Woerner & Sons, 4030 Chouteau Ave
St Louis .... FR 1-2780
NY Stephen Lamb Assoc, 60 E 42nd St
New York .... MU 7-6854
NY Jos C Newman, Jr, Box 3975
Rochester .... DU 1-1400
Ohio Ralph M Nelson & Co, 801 Marshall Bldg
Cleveland .... CH 1-4581
Pa R C Franklin, 1139 E Mt Airy Ave, Philadelphia
Va Chas Legg, Box 36, Roanoke .... DI 3-4229
Wis Die Formed Products Inc, 3612 N Green Bay Ave
Milwaukee .... CO 4-3660

AUBURN PLASTICS, INC, MCMASTER ST, AUBURN
N Y, 13022 .... 315 253-5325
C FLEMING, EMP 265, ENG 7

AUBURN SPARK PLUG CO, INC, 89 YORK ST
AUBURN, N Y, 13022 .... 315 252-9501
J SMITH, EMP 130, ENG 10, $1,000-$2,500M

AUDICHRON CO, 721 MIAMI CIRCLE NE, ATLANTA
GA, 30324 .... 404 261-3460
W SAGER, EMP 60, ENG 17, $1,000-$2,500M

AUDIO ACCESSORIES, INC, GILSUM
N H, 03448 .... 603 352-2320
R BERNIER, EMP 10, ENG 1, UP TO $100M
Cal Koessler Sales Co, 818 N Fairfax Ave
Los Angeles 653-1605
Cal Koessler Sales Co, 1485 Bayshore
San Francisco 584-0818
NY S Glassman Assoc Inc, 28 Prestwick Terr
Glen Cove 676-1039
For M Simons & Son, 150 Broadway
New York, N Y 227-5513

AUDIO DEVICES INC SUB CAPITOL INDUS
235 E 42ND ST, NEW YORK
N Y, 10017, TWX 710-581-2895 ...... 212 MU 7-0800
R VAUGHAN, EMP 500, OVER $10,000M
Cal Audio Devices Inc, 1426 Flower St
Glendale 245-6587
Cal Meyer, Ross & Fleming, 113 10th St
San Francisco 431-0652
Cal Koessler Sales Co, 818 N Fairfax Ave
Los Angeles 653-1605
Cal Dan Austin, Box 1165, Sunnyvale 245-6802
Colo R G Bowen Co, 721 S Broadway
Denver 722-4641
Fla Hollingsworth & Still, 1010 Executive Ctr Dr
Orlando 241-5401
Ga Hollingsworth & Still, 3098 Piedmont Rd
Atlanta 261-5838
Haw EDP Products, 2060 Amanu St, Pearl City
Ill Audio Devices Inc, 7321 N Hamlin Ave
Skokie 583-4161
Ill Fitzsimmons Assoc Inc, 6774 Northwest Hwy
Chicago 775-6990
Ill J D Boswell Assoc, 700 N 20th St, East St Louis
La Cartwright & Bean Inc of Tenn, 1812 Bullard Ave
Metaire 834-8312
Md Audio Devices Inc, 8605 Cameron St
Silver Spring 585-4845
Mass G Meyer, Box 427, Kenmore Sta
Boston 617 449-0724
Mich Burcaw-Cowan & Co, 18236 W McNichols Rd
Detroit 533-7700
Minn Heimann Co, 5603 Lyndale Ave, S
Minneapolis 827-5457
NM C T Carlberg & Assoc, 2611 Quincy St NE
Albuquerque 265-1579
NY Audio Devices Inc, 235 E 42nd St
New York 687-0800
NY Waxman Currant Sales Inc, 990 Kenmore Ave
Buffalo 878-0442
NY Carduner Sales, Jericho Tpk, Westbury
NC Hollingsworth & Still, 6717 Woodstock Dr
Charlotte 523-3327
Ohio Neal Bear Corp, 3435 Streetsboro Rd
W Richfield 659-3331
Pa A S Burke & Co, Box 576, Donora
Tenn Cartwright & Bean, 560 S Cooper St
Memphis 276-4442
Tex John Fitzgerald, 8282 Park Pl Blvd
Houston 649-7182
Utah R G Bowen Co, 31 S 3rd St E
Salt Lake City 467-5128
Wash Ron Merritt Co, 1320 Prospect St
Seattle 682-7337
Can Alex L Clark Ltd, 3751 Bloor St W
Islington, Ont 231-330
For Rocke International, 13 E 40th St
New York, NY 689-0200
For Melco International, 74 Fifth Ave, New York
Fr Audev S. A. R. L., Vetraz-Montoux B. P. 206
(74) Annemasse, France
Swit Audio Devices Inc, 34, Rue de Athenee
1206 Geneve
BC Electro-Tec Marketers Inc, 1624 W 3rd St
Vancouver 736-6377

AUDIO DYNAMICS CORP, PICKETT DISTRICT RD
NEW MILFORD, CONN, 06776 .... 203 354-3911
J MENDUKE, $1,000-$2,500M
Ala J F Russell Sales Co, Box 20092
Birmingham 822-2196
Cal Meyer Ross & Fleming, 113 10th St
San Francisco 431-0652
Cal Art Herman Assoc, 6770 Gage Ave
Bell Gardens 927-2658
Colo Electronix Specialties, 9766 E Jefferson Pl
Denver 771-1459
Fla Fine Sales Corp, 1051 E 14th St
Hialeah 885-3419
Ill Heinz Thiele Co, 6611 N Clark St
Chicago 465-2622
Ind C Scheffler Co, 1133 Navajo Tr
Indianapolis 253-6337
Kan Zimmer Sales Co, Box 329
Shawnee Mission 432-8900
Md Charles Lienau Co, 11411 Amherst Ave
Wheaton 949-6464
Mass Jim Piper Assoc, 10 Haven St, Dover 449-1144
Mich Dan Neumaier Assoc, 27610 Schoolcraft
Livonia 425-8686
Minn Ray Ripley & Assoc, 6838 Pillsbury Ave S
Mnpls 866-8682
NY Wm Tauber Co, 151 Fayette, Syracuse 446-7094
NY Metropolitan Sales Co, 95-13 218th St
Queens Village 464-4477
NY Singer Products Co, 95 Broad St, New York
Pa James H Podolny Co, 5912 Penn Ave
Pittsburgh 441-0800
Pa Brendan O'Hara, 4952 Wynefield
Philadelphia 473-3654
SC Hal C Norman Sales Co, Box 5185 Sta B
Greenville 244-6254
Tex Leboeuf Nelson Sales Co, 2920 Weslayan
Houston 621-1421
Tex Leboeuf Nelson Sales Co, 716 Nuttingham
Richardson 231-3190
Wash Fleehart & Sullivan, 3826 Woodland Pk Ave N
Seattle 633-4979
Can Smyth Electronic Components Ltd
1877 St Antoine St, Montreal
For Audio Hauss, Lothringerstr Konzerthaus, Wein III
Vienna
For Universal Trading, Des Voex Rd C, Hong Kong
Fr Audio Electronics Intl, 14 Rue de St Marceaux, Paris
GB KEF Electronics, Tovil Maidstone, Kent
Ital Audio, via Goffredo Casalis, Turin
Ital G Baumberger, via Privata Perugia 8, Milano
Jap Imai & Co Ltd, 6 Ichigaya Tomihisacho
Shinjuku, Tokyo
Swed Harry Thellmod, Hornsgatan 89, Stockholm
Swit Egli Fisher & Co, Gott Hardstr 6, Claridenhof, Zurich
Belg Televic Electronics, 80 Izegemstr
Kachtem (WVI) Roulers
Neth Transtec, Molenlaan 218, Rotterdam
Aust J H Reproducers, 199 Waverly, East Malvern, Vic

AUDIO EQUIPMENT CO DIV WALTER KIDDE & CO INC
75 HARBOR RD, PORT WASHINGTON
NY, 11050 516-883-5111
E ACUNTO, EMP 80, ENG 4, $500-$1,000M

AUDIO INSTRUMENT CO INC, 311 MOUNTAIN RD
UNION CITY, N J, 07087 .... 201 864-4542
A ADAMS, EMP 12, ENG 4, UP TO $100M
Ill Loren F Green & Assoc, 5218 W Diversey Ave
612 781-1611
Wash M K Widdekind Co, 815 W Ewing St
Seattle 206 284-8020
Can Alex L Clark Ltd, 3751 Bloor St W
Toronto .... BE 1-3303
For Rocke Intl Corp, 13 E 40th St
New York, NY .... MU 9-0200

AUDIO MAGNETICS CORP, 14600 S BROADWAY
GARDENA, CAL, 90247, TWX 67-4311 .. 213 321-6841
I KATZ, EMP 135, ENG 6, $2,500-$5,000M
Alas W P Watson, 307 1/2 Glacier Ave W, Fairbanks
Ariz Southwest Mktg Co, 133 E McLellan Blvd
Phoenix 266-5361
Cal Hermalko, 11040 W Santa Monica Blvd
Los Angeles 272-2197
Cal Nickerson-Gray & Assoc, 2434 Park Blvd
Palo Alto 326-0152
Cal Herbert Krauss Co, 4565 Sherman Oaks
Sherman Oaks 783-8441
Cal Hal B Grubbs & Co, 646 W Pacific Coast Hwy
Long Beach .... HE 6-9656
Fla Henry Fine, 1051 E 14th St, Hialeah 885-3419
Ill Weber-Colovos, 25 E Chestnut St
Chicago 943-5051
Ill Sol Mintz Assoc, 3306 West Peterson
Chicago 312 478-2505
Kan Howard O Roach & Assoc, 7711 Canterbury
Prairie Village 648-4328
La S K Bernheim, 30 Kathy La, Monroe 322-8672
Mass D R Small & Son, 229 Harvard St, Brookline
Minn G & C Assoc, 7505 Hwy 7
Minneapolis 935-7878
NJ A Trachtenberg, 133 Dumas Rd
Cherry Hill 609 428-3306
NY Herbert Schiller Assoc, 142 Hillturn La
Roslyn Heights
Ohio Kranitz & Blitzer, 3825 Stormont Rd
Dayton 513 837-8684
Pa Fred Fleischmann Assoc, 2627 Murray Ave
Pittsburgh 412 521-3230
Tex S & P Assoc, 2100 Stemmons Frwy
Dallas .... RI 7-1417
Utah H P Souvall Co, 2630 Cecil Dr, Salt Lake City
Wash P & G Assoc, 521 First Ave N, Seattle .. AT 3-8390

AUDIOSEARS CORP, SOUTH ST, STAMFORD
N Y, 12167 .... 518 652-7305
G MAHLER, EMP 100, ENG 2, $1,000-$2,500M
NJ Mech-Elec Sales Co, 16 S Main St
Medford 654-8209
NY Edward Newland, 801 1st Ave, Troy 235-0539

AUDIOTRONICS CORP, 7428 BELLAIRE AVE BOX 151
NORTH HOLLYWOOD, CAL, 91603 ...... 213 877-1308
C MUSSON, EMP 175, ENG 5, $5,000-$10,000M
Cal Western A V Reps, 2141 W La Palma
Anaheim 714 635-5252
Ill Vern Schultz & Assoc, Box 4
Crystal Lake 459-2333
NJ Audio Visuals Corp, 6 Pompton Ave
Cedar Grove 239-5777
Tex Branum Co, A V Div, Box J
Richardson .... AD 1-6148

AUDIO VOX INTERCOM INC, 9720 WAVERLY ST
MONTREAL 12, QUE 381-2741
EMP 16, ENG 2

AUDN CORP, 323 UNION ST, HAMBURG
N Y, 14075 .... 716 649-0703
J SIPPRELL, EMP 25, ENG 5, $250-$500M

AUGAT, INC, 33 PERRY AVE, ATTLEBORO
MASS, 02703, TWX 710-391-0644 .... 617 222-2202
E REDGATE, EMP 250, ENG 6, $2,500-$5,000M
ADV PG 644
Cal Paul F Wiley Co, 1632 Silverlake Blvd
Los Angeles 663-8028
Cal David Ross Co, 534 El Camino Real
San Carlos 591-4411
Colo Gordon Moss Electronics Inc, Box J
Greeley 353-1452
Fla H R Gross & Co, Box 4607, Clearwater 446-6649
Ga Craft Assoc Co, Box 11716, Atlanta 237-2282
Ill R M Krueger Co, Inc, 5755 W Irving Park Rd
Chicago 282-8444
Ind R O Whitesell & Assoc Inc, 6620 E Washington
Indnpls 359-5374
Kan Thos L Dowell Co Inc, 6007 W 94th Terr
Overland Park 913 649-6069
Md Daniel & Co, Box 124, Lutherville 825-3330
Mass Stan Pierce Inc, 24 Linden St, Norwood 762-3165
Mich Hilltronics Inc, 13720 Puritan Ave
Detroit 342-3242
Minn Mel Foster Co Inc, 228 S Cedar Lake Rd
Mnpls 374-2612
NY Midstate Rsch Sales Inc, 327 Wellesley Rd
Syracuse 478-8314
NY D Sonkin Assoc, 10 Fiske Pl
Mt Vernon 668-9809
NC Powertronic Inc, Box 403, Thomasville 476-4257
Ohio Allen Nace Co Inc, Box 156
Brecksville 526-4323
Ore C K Shanks & Assoc, Box 25375
Portland 292-5656
Tex John B Guenther Inc, 4533 N Central Expwy
Dallas 214 528-6286
Can Whittaker Electronics Ltd, 42 Howden Ave, Ottawa 5

AUL INSTRUMENTS INC, 24-13 BRIDGE PLAZA N
LONG ISLAND CITY, NY, 11101 .... 212 729-6565
E SAUL, EMP 40, ENG 6, $250-$500M
Cal Crown Electronics, Box 2573, Van Nuys 873-1266
Conn E E Specialists, Inc, 281 Vera Rd
Bristol 249-3336
Mass E E Specialists, Inc, Box 956, Acton 259-9200
NY Tesco Assoc, 2002 Teall Ave, Syracuse 463-4566
Ohio McShane, 114 Trails End Dr, Medina 725-4283

AULT, INC, 3501 48TH AVE N, MINNEAPOLIS
MINN, 55429, TWX 029-693 .... 612 588-0556
L PRINCE, EMP 175, ENG 7, $2,500-$5,000M

AURICORD CORP, 35-41 29TH ST, LONG ISLAND CITY
N Y, 11106 .... 212 361-7400
L WERNER, EMP 35, ENG 2, $500-$1,000M
Cal Bassett & Moore, 12045 Magnolia Blvd
N Hollywood 213 877-7129
Ind Robt Milsk Co, 3231 N Meridian, Indianapolis
Mich Robt Milsk Co, 19375 James Couzens Hwy
Detroit 313 342-6660
NY J Lind, 17 Red Barn Cir, Pittsford ... 716 DU 1-3838

AUSTIN-CRAFT CO, 2616 SUPERBA AVE, KINGMAN
ARIZ, 86401 .... 602 753-2988
V AUSTIN, EMP 3, ENG 1
Cal Lebell-Warren Assoc, 601 County Rd
San Carlos 415 593-7688
Cal Al J Rissi Assoc, 1817 S San Gabriel Blvd
San Gabriel 213 288-3883
Ill Royal A Stemm, 662-Irving Park Rd
Chicago 312 525-8333
Minn Hasse Assoc, 3825 York Ave N
Minneapolis 612 588-0551
NJ Edward Braddock, Box 305
Haddonfield 609 429-0087
NY Adelman-Pinz Sales Corp, 15 Elmwood Rd
White Plains 914 948-7577
Ohio ROY M Howard, 3219 W 117th St
Cleveland 216 941-2700

AUSTRON, INC, 10214 N INTERREGIONAL HWY
AUSTIN
TEX, 78753, TWX 910-874-1351 .... 512 454-2581
J TOMS, EMP 80, ENG 10, $1,000-$2,500M
Cal Paul Nurches Co, 999 Commercial St
Palo Alto 326-7842
Fla Lee Assoc, 200 E Marks St, Orlando 241-4445
Mass Technical Enterprises, 195 West St
Waltham 891-5300
Minn Burt Anderson & Assoc, 4725 Excelsior Blvd
Minneapolis 922-7400
NJ E-Tech, 5 Coolidge Dr
Berkeley Heights 464-5100
NY EAC Assoc, 53-11 90th St, Elmhurst .... DE 5-0606
Va E-Tech, 6556 Backlick Rd, Springfield 451-6500
Wash Blair Hirsh Co, 4013 Leary Way NW
Seattle 783-3423
Can BRH Assoc, 6338 Victoria Ave
Montreal, Que 733-5331

AU-TENNA SYSTEM CO, 10 PINE ST, NEW CANAAN
CONN, 06840 .... 203 966-4489
J GRAY, UP TO $100M

AUTH ELECTRIC CO, INC, 34-20 45TH ST
LONG ISLAND CITY, N Y, 11101 .... 201 278-7000
R RAYMOND, EMP 275, ENG 3, $2,500-$5,000M
Ala C E Parker Co, Box 3582 Birmingham 205 785-2331
Ariz Thomas Geis, 4820 E Weldon Phoenix 602 959-3582
Ark C B Young Co, 414 Pulaski St Little Rock 501 374-9311
Cal Calhoun & Poxon Co, 5330 Alhambra Ave Los Angeles 213 225-2328
Cal Communications System Inc, 2241 Quesada Ave San Francisco 415 648-5485
Colo Jim Dawson Co, 2970 W Short Pl Denver 303 255-7194
Conn A W Seiffert Co, 20 Beech Tree Dr Wethersfield 203 529-1710
Fla Fred Gross Sr, Box 996 Coral Gables 305 666-8769
Ga Secom Systems, 3088 Piedmont Rd NE Atlanta 404 351-6453
Haw J J Harding Co, 2825 Valena St Honolulu 561-771
Ill Custom Electrical Systems, Box 593 Skokie 312 679-1425
Ind Electrical Equip Co, 1617 Montcalm St Indianapolis 317 632-4376
Iowa Midwest Equip Co of Iowa, 1163 24th St Des Moines 515 255-3116
Ky Fron-Paran Assoc, 1941 Bishop La Louisville 502 451-6769
La Jim Laubersheimer Assoc, Box 51323 New Orleans 504 282-4696
Mass D & F-Sales Co Inc, N Postal Dist, Box 203 Boston 617 547-4451
Mich A J Riopelle Co, 15631 Riverside Dr Livonia 313 427-9114
Minn Dan D Heimer Agency, 12864 Fillmore NE Anoka 612 757-3700
Mo Merten Co, 6881 Sni-A-Bar Rd Kansas City 816 921-3979
Mo Kattlemann & Co, 9715 Page Blvd St Louis 314 427-5513
Neb Electrical Specialties Co Box 14042, W Omaha Sta Omaha 402 393-5535
NY Hunter & Bell, 858 Main St Buffalo 716 882-2210
Ohio Verne La Salle Co, 2630 St Clair Ave Cleveland 216 241-3788
Ohio Wm J Davis Co, 5725 Dragon Way Cincinnati 513 272-0579
Okla Marshall Joy, 1712 Coventry La Oklahoma City 405 843-7396
Ore Erskine Electric Sales, 1592 S W Dellwood Ct Portland 503 644-9014
Pa Stewart Assoc Inc, 1008 Washington Blvd Pittsburgh 412 441-5252
Tex Texas Sales Reps, 3311 Montrose Blvd Houston 713 523-1675
Tex Wynne Snoots Co, 2515 Clarence St Dallas 214 428-5108
Tex Texas Sales Reps, 3311 Montrose Blvd 713 523-1675
Wis John La Tona Co, 6110 W Lincoln Ave Milwaukee 414 321-5010
For G M Alegria, 278 Cesar Gonzalez St, Hato Rey, PR

AUTOCON INDUSTRIES, INC, 995 UNIVERSITY AVE
ST PAUL, MINN, 55104 .... 612 645-0721
G TESTIN, EMP 240, ENG 17
Ark McCallister Equip Co, 1414 W Fourth St Little Rock 375-4474
Cal James O Gierlich Co, 1052 W 6th St Los Angeles 481-7333
Cal Ambrosini & Chalmers Co, 2041 Pioneer Ct San Mateo 341-7415
Fla J W Marcheret & Assocs, 2451 Brickell Ave Miami 371-8084
Ga A A Wickliffe Co, 1677 Tullie Cir NE Atlanta 874-3631
Ill McGuire & Assoc, Inc, 615 Milwaukee Ave Des Plaines 729-2338
Ind M C Wetterlin Co, 1903 E 64th St Indianapolis .... CL 5-3194
Iowa Automatic Systems Co, 1531 Harding Ave Ames 232-4770
La Parson & Sanderson Co, 1700 Lake Ave Metairie 834-1330
Md Durling Electric Co, 301 E 25th St Baltimore .... HO 7-5560
Mass EACO, 1200 Soldiers Field Rd, Boston ... 782-7440
Mich H V Burton Co, 24865 Grand River Detroit 535-3740
Minn Prest Co, 706 Cleveland Ave S, St Paul ... 690-1537
Miss Hugh K Hart, 5740 Beechwood Dr Jackson 362-5957
Mo Midwestern Power Equip Co, 1214 W 47th St Kansas City .... JE 11077
Mo Almer Equipment Co, 214 S Kirkwood Rd St Louis .... YO 5-4653
NJ R F Goodwin Assoc, 51 Upper Montclair Plaza Upper Montclair 744-8121
NM Applied Products Co, Box 11385-Sta "E" Albuquerque 298-8611
NC Interstate Utility Sales Inc, 611 Templeton Ave Charlotte 377-2636
Ohio J P Bergren Co, 2574 Kenilworth Cleveland 932-9445
Ohio H P Thompson Co, 4866 Cooper Rd Cincinnati .... TW 1-4414
Okla W L Sumpter & Assoc, 1904 N Norwood Tulsa .... TE 6-2417
Ore David Fry Co, 7340 S W 63rd Ave Portland .... CA 6-3903
Pa Mickle-Milnor Equip Co, 3616 Chapel Rd Newtown Square 353-2200
Pa Electrical Engrd Prods Inc 501 Castle Shannon Blvd, Pittsburgh 561-7667
Tenn Dickey Engineering Co, 622 King St Knoxville 524-8641
Tex Industrial Equip Co, 6831 Navigation Blvd Houston .... WA 8-3463
Tex Powell & Roberts, Inc, 1121 Fresno San Antonio .... PE 5-9123
Tex Engineered Products Co, 4203 52nd St Lubbock .... SW 5025
Utah Nickerson Pump & Mach Co, Inc 158 W 4th South St, Salt Lake City 364-1939
Wash Clair Stebbins Co, Box 66417, Burien 246-1170
Wis Allan Engineering Co, 4031 W Kiehnau Ave Milwaukee 353-5070
Can Telcon Controls Ltd, 12 Lockport Ave Toronto .... BE 9-3167
For Y Chen & Co, Ltd, Box 1313, Taipei, Taiwan
For Especialidades Hidraulicas E Ind, C A Apartado 5832 Del Este, Caracas, Vene
For United Equip Corp, Box 784, Hato Rey, PR
Mex I M I, S A, Campeche No 367, Mexico DF
NZ Forgan Jones Ltd CA, Box 9197 New Market Auckland

AUTO-CONTROL LABS DIV RUCKER CO
5251 W IMPERIAL HWY, LOS ANGELES
CAL, 90045 .... 213 678-4934
E RAVIN, EMP 100, ENG 20

AUTOMATED BUSINESS SYS DIV LITTON INDUSTRIES
600 WASHINGTON AVE, CARLSTADT
N J, 07072 .... 201 935-2200
J DOWLING
Ohio Automated Bus Sys Ref Lib, 58 N Court St, Athens

AUTOMATED MEASUREMENTS CORP
638 UNIVERSITY AVE, LOS GATOS
CAL, 95030 .... 408 354-6491
S MCCUTCHEON, EMP 35, ENG 7, UP TO $100M
Ala Gentry Assoc Inc, 2109 W Clinton Ave Huntsville 534-9771
Fla Gentry Assoc Inc, 2517B E Colonial Dr Orlando 424-0730
Ga Gentry Assoc Inc, 960 Somerset Dr NW Atlanta 233-3816
Ill Cozzens & Cudahy Inc, 9501 W Devon Ave Rosemont 312 825-1144
Mass Instrument Assoc Inc, 30 Park Ave Arlington 648-2922
Minn Cozzens & Cudahy Inc, 7710 Computer Minneapolis 910 576-2740
Mo Cozzen & Cudahy Inc, 10534 Natural Bridges Rd Edmundson 314 423-1234
NC Gentry Assoc Inc, 2714 Eldermont St Burlington 227-7916
Va Gans-Fryling Inc, 2030 16th St N Arlington 703 527-3262
Can Whittaker Electronics Ltd, 42 Howden Ave Ottawa, Ont 224-1221
For Litton Precision Prods Int'l, Box 125 1110 Morges, Switz 021/71 41 12

AUTOMATED SPECIALTIES A TELEDYNE CO, BOX 888
CHARLOTTESVILLE, VA, 22902 .... 703 973-3311
D LANGE, EMP 310, ENG 33, $2,500-$5,000M
Cal Miner & Assoc Inc, 2500 W Compton Blvd Redondo Beach 772-6311
Cal Testco, 941 Charleston Rd, Palo Alto .... DA 6-5320
Wash Testco, Boeing Field, Seattle 762-8220

AUTOMATIC CLERICAL SYSTEMS INC.
389 N FAIR OAKS AVE, PASADENA
CAL, 91103 .... 213 SY 5-7205
E PETRE, EMP 24, ENG 3, $100-$250M
For Royal Sound Co, 409 N Main Freeport, N Y 868-2880
Mex Horace M Whittlesey, Articulo 123, No 127-5 Mexico DF

AUTOMATIC COIL CO DIV DESIGNATRONICS, INC
76 E 2ND ST, MINEOLA
N Y, 11501, TWX 510-222-5889 .... 516 741-7070
J RUBENFELD, EMP 80, ENG 5, $500-$1,000M

AUTOMATIC ELECTRIC CO, 400 N WOLF RD
NORTHLAKE
ILL, 60164, TWX 910-226-1975 .... 312 562-7100
R LIEPOLD, EMP 14000, OVER $10,000M
Ariz Dorton Ent Inc, Box 1297, Scottsdale 946-6213
Cal Automatic Electric Co, 1811 Adrian Rd Burlingame 697-6400
Cal Automatic Elec Co, 4741 Laurel Canyon Blvd No Hollywood 766-5203
DC Automatic Elec Co, 1120 Conn Ave NW Washington 296-8466
Fla Willett-Burnside Co, 1260A S Highland Clearwater 446-0075
Mass Automatic Electric Co, 1644 Massachusetts Ave Lexington 862-6464
Mich Automatic Electric Co, 18505 W 8 Mile Rd Detroit 538-6040
Minn Automatic Electric Co, 7600 Hwy 7 Minneapolis .... WE 5-3481
Mo Automatic Electric Co, 7581 Manchester Trafficway Kansas City .... EM 3-7030
Mo Automatic Electric Co, 2510 S Brentwood Blvd St Louis .... WO 1-1147
NY Automatic Electric Co, 845 Third Ave New York .... EL 5-1500
NY Automatic Electric Co, 1039 Monroe Ave Rochester .... GR 3-1823
Ohio Automatic Electric Co, 4848 W 130th St Cleveland 267-6288
Ohio Automatic Electric Co, 2801 Far Hills Ave Dayton .... AX 9-6481
Pa Automatic Electric Co, 551 W Lancaster Ave Haverford 525-7575
Tex Automatic Electric Co, 8920 Premier Row Dallas .... ME 1-3105
Wash C B Parsons & Co, 5319 4th Ave S Seattle .... PA 5-7900

AUTOMATIC EQUIPMENT CORP, 1653 CENTRAL PKWY
CINCINNATI, OHIO, 45214 .... 513 241-3233
R DILITZ, EMP 21, ENG 2
Fla J Stonhouse, 1221 Mardon Ave Sarasota 355-1455
Mich John Bishop, 24801 Five Mile Rd Detroit .... KE 8-0595
Minn Barker-Hammer Assoc, 4944 Xerxes S Minneapolis 926-7117
NJ Sensory Inc, 7 Maple St, Morristown .... JE 8-7661
Ohio Stuart Shiffer, 9900 Royalton Cleveland 237-5655
Tenn F L Nelms, Box 6116, Nashville 291-1789
Tex Elmer Garnsey, 1023 Fidelity Bldg Dallas 747-7846
Can Electro Design Ltd, 9124 St Lawrence Montreal 389-5914
GB H G Aquino, 22-24 Ritherdon, London S W

AUTOMATIC LOCKING DEVICES, 1520 STATE ST
BRIDGEPORT, CONN, 06605 .... 203 334-2425
J HOLLAND, EMP 25, ENG 2
Cal Yarbrough Sales Co, 1608 Orange St, Alhambra
Conn Hal Belanger Assoc, 38 Woolsley Dr, Trumbull
NJ Smith Co, 111 S Orange Ave, South Orange
Tex Astro-Tek, Box 34063, Dallas

AUTOMATIC METAL PRODUCTS CORP
315-323 BERRY ST, BROOKLYN
N Y, 11211 .... 212 EV 8-6057
D LAX, EMP 450, ENG 31
Ariz Mercury Engry Sales, Box 3130 Scottsdale 945-1927
Cal Bell Elctns Corp, 1070 O'Brien Dr Menlo Park 323-9431
Cal Winters & Co, 11766 W Pico Blvd Los Angeles 879-9045
Fla Kirkwood Assoc, 1701 Pinellas Pt Dr St Petersburg 391-8452
Ill PGM Component Sales, 5642 W Diversey Chicago 622-8183
Ill S A R G E Inc, 1915 N Harlem Ave Chicago 237-9525
Kan Inland Assoc, 6047 Howe Dr, Mission ... EN 2-2366
Mass B & W Assoc, 189 B St, Burlington 275-9177
Mich R C Nordstrom & Co, Box 32 Lathrup Village 353-0210
NJ J Onore, 555 Winchester Ave, Union .... EL 5-0474
NJ Thomas Assoc, 138 Haddon Ave Haddonfield 854-3011
NY Bowser & Sapecky, 4317 E Genessee St Dewitt 446-5920
NY Paul D Aaron Assoc, Box 511 Port Washington 767-8480
NC Murphy & Cota, 1106 Burke St Winston-Salem 724-0750
Ohio Frank J Campisano, 3985 Race Rd Cincinnati .... MO 2-1616
Tex P D Hale, 815 N Mont Clair Ave Dallas 946-7676
Utah Arrowhead Sales Corp, 1966 West 6255 S Salt Lake City 298-2751
Wash Jas J Backer Co, 221 W Galer, Seattle ... 283-6470
Can Ben Manis Assoc, 6600 St Urban St Montreal 274-8271

AUTOMATIC RADIO SALES INC, 2 MAIN ST, MELROSE
MASS, 02176 .... 617 321-2300
E HOUSMAN, EMP 500, ENG 12, OVER $10,000M

AUTOMATIC SIGNAL DIV LAB FOR ELECTRONICS, INC
REGENT ST, NORWALK
CONN, 06856 .... 203 838-4791
E MOGREN, EMP 350, ENG 50, $5,000-$10,000M
Cal Automatic Signal Div, 5618 Geary Blvd San Francisco 415 387-5080
Cal Automatic Signal Div, 3011 W Lomita Blvd Torrance .... 213 DA 5-1820
Cal Automatic Signal Div, 3112 O St Sacramento 916 452-1401
Fla Automatic Signal Div, 1407 Fairway Dr Tallahassee 904 224-0521
Ga Automatic Signal Div, 3420 Whipple Ave Box 45185 .... Atlanta
Ill Automatic Signal Div, 142 N Austin Blvd Box 382 .... Oak Park
Tex Automatic Signal Div, 2516 Jacksboro Hwy Forth Worth 817 626-3078
Can LFE-Automatic Signal, Ltd, 120 Adam St, Box 633 Belleville, Ont

AUTOMATIC SWITCH CO, 50-56 HANOVER RD
FLORHAM PARK
N J, 07932, TWX 710-986-8528 .... 201 966-2000
R TAYLOR, OVER $10,000M
Ala Automatic Switch Co, 25 W Oxmoor Rd Birmingham 879-1656
Ariz Portis & Assoc, Inc, 132 E Stetson Dr 5, Scottsdale 945-4925

Ariz Barney H Hartley, Box 4381, Phoenix ... AL 8-2552
Cal Automatic Switch Co, 5945 E Washington Blvd L A ... OV 5-7551
Cal Paul S Everley Co, Inc, 335 S Van Ness Ave San Francisco ... HE 1-2295
Colo Clyde P Elliott Co, 661 Delaware St Denver ... 255-2844
DC Automatic Switch Co, Natl Press Bldg Washington ... NA 8-6561
Fla Industrial Specialties Sales, 3021 Azeele Tampa ... 876-1480
Ga Automatic Switch Co, 174 W Wieuca Rd, NE Atlanta ... 255-8122
Haw Honolulu Iron Works Co, Box 3140 Honolulu ... 512011
Ill Automatic Switch Co, 1800 Third Ave Rock Island ... 786-9664
Ill Automatic Switch Co, 2450 S Wolf Rd Des Plaines ... 827-5594
Ind C M Buck & Assoc, 1802 E 46th St Indianapolis ... CL 1-1281
La Glidden Engrg & Equip Co, 319 Citrus Rd New Orleans ... 737-0642
Md Sid Dubinsky, 302 E Federal St Baltimore ... 837-1199
Mass Automatic Switch Co, 19 Fox Rd Waltham ... 899-0220
Mich Carman Adams Inc, 17360 W 8 Mile Rd Southfield ... 444-1070
Minn Pierre Lenmark Co, 6504 Walker St Minneapolis ... 929-2631
Mo C O Leaver Co, 2800 S Brentwood Blvd St Louis ... WO 8-1500
Mo Duncan Sales & Engrg Inc, 6225 Brookside Blvd Kansas City ... JA 3-2908
Neb C R Bangh, 524 W O W Bldg, Omaha ... 341-4232
NJ Automatic Switch Co, 1500 Kings Hwy Cherry Hill ... HA 9-0300
NM Ralph B Black Co, 1025 Hermosa Dr SE Albuquerque ... 265-0144
NY John C Cox Co, 4548 Main St, Buffalo ... TF 9-3432
NC Purser, London & Edwards, Inc, 1317 E 4th St Charlotte ... ED 3-7549
Ohio McNay Equip Co Inc, 4850 Cooper Road Cincinnati ... 891-7122
Ohio Anderson-Bolds, Inc, 10001 Carnegie Ave Cleveland ... 229-4700
Okla Aljo Sales Inc, 305 Shell Bldg, Tulsa ... LU 5-5705
Pa Continental Sales & Engrg Co, 211 Nelbon Ave Pittsburgh ... 241-5660
Tex Glidden Engrg & Equip Co, 3802 Winchester St Houston ... CA 4-6471
Tex Glidden Engrg & Equip Co, 4924 Greenville Ave Dallas ... EM 3-6539
Tex Stepco, Inc, 1035 East Side Rd El Paso ... 772-5274
Utah Control Equipment Co, 2255 S 2nd W Salt Lake City ... HU 7-7741
Wash Automatic Switch Co, 400 108th Ave NE Bellevue ... GL 4-6157
Wis G E Beverly Co Inc, 5856 N Port Washington Rd Milwaukee ... WO 2-2294

AUTOMATION COMPONENTS, INC
SHORT & CEMETERY STS, PECKVILLE
PA, 18452 ... 717 489-7508
R BOVARD, EMP 175, ENG 3, $1,000-$2,500M
Fla Tech-Rep Assoc, Box 2095 Melbourne ... 305 723-9140
Ill William Swinke, 3014 Colfax St Evanston ... 248-4343
Ind Southern Sales Co, 105 Lakeshore Dr Angola ... 219 665-3961
Mass New England Elctn, 590 Washington St Canton ... 617 828-4835
NJ A Wetterhahn Co, 4420 Crescent Blvd Pennsauken ... 662-1611
NJ A Morin Assoc, 472 Eleventh St Palisades Park ... WI 4-4608
NY Robt J Hummel, 2224 Maynard Ave Utica ... 315 732-2370

AUTOMATION DEVELOPMENT CO, 9905 W JEFFERSON BLVD
CULVER CITY, CAL 90230 ... 213 838-7346
G GRAUEL, EMP 25, ENG 4, $250-$500M
ADV PG 439
Cal Davidson Assoc, 2920 Nebraska Ave Santa Monica ... 213 451-5761
Cal Tech-Marketing Assoc, 355 W Olive Ave Sunnyvale ... 408 736-3687
Ga J E Joyner, Box 10821, Atlanta ... 404 758-7496
Ill Perhats Assoc, 1280 Burr Oak La Barrington ... 312 381-6360
Ind Richard Scales Assoc, 550 Sommers Ave Wabash ... 219 563-4886
Mass East Coast Engrg Sales Co, 10 Argyle Street Andover ... 617 475-4461
Mo East Coast Engrg Sales Co, 7108 Woodrow Ave St Louis ... 314 385-1700
NY East Coast Engrg Sales Co, 1405 Northern Blvd Roslyn ... 516 621-7500
Okla T J Ray Co, Box 5417, Tulsa ... 918 627-1515
Wash J K Dooley Co Inc, 4110 Stone Way N Seattle ... 206 632-1618

AUTOMATION DEVICES, INC, AUTOMATION PARK
FAIRVIEW, PA, 16415 ... 814 474-5561
F MOHNEY, EMP 50, ENG 5, OVER $10,000M
Ariz L C Brandt, 5234 N 44th St Phoenix ... 602 959-3837
Cal John Ellsworth, 11781 E Slauson Ave Santa Fe Springs ... 213 698-2066
Colo Paul F Struble, Box 16591, Denver ... 303 237-3525
Conn Roland Smith, Box 501, Southport ... 203 CL 9-5646

Fla Geo J Gardner, 6391 49th St N Pinellas Park ... 813 527-2116
Ill Ray Brown, Box 1827, Rockford ... 815 WO 4-9876
Ill R O Nerhaus & C Schanstra, 5143 Diversey Ave Chicago ... 312 622-1153
Ind Frank W Gill, 5420 N College Ave Indnpls ... 317 CL 1-4115
Md E L Miles, Jr, Box 188, Riderwood ... 301 823-1434
Mass Don Woody, Lakeside Office Park Wakefield ... 617 245-8210
Mich Bishop & Strek, 24801 Five Mile Rd Detroit ... 313 KE 8-0595
Minn G C Peterson Machine Co Inc 117 Washington Ave N, Mnpls ... 612 FE 2-8211
Mo E H Benninger, 1584 Lucas & Hunt Rd St Louis ... EV 1-1300
NY T A Herald, 216 Jamaica Rd Tonawanda ... 716 TF 3-4482
NY Victor Garsch, 187 Capt Kidd Dr Mattituck ... 516 298-8194
NY L E Potter, 2900 Erie Blvd E Syracuse ... 315 446-4810
NC William Price, Box 338, Monroe ... 704 AT 3-4788
Ohio C Driscoll, 19615 Lake Rd Cleveland ... 216 333-4520
Ohio R M Klaus, 1653 Central Pkwy Cincinnati ... 513 241-3233
Ohio Kerm Lytle, 408 E Indiana Ave Perrysburg ... 419 475-4305
Pa E P McDanniels, 3803 E Lake Rd Erie ... 814 899-4580
Pa Don G Leslie, Box 326, Wayne ... 215 MU 8-3311
Pa D O Christenson, 3486 Wm Penn Hwy Pittsburgh ... 412 351-0561
Tenn F L Nelms, Box 6116, Nashville ... 615 291-1789
Tex K H Carr, Box 6770, Fort Worth ... 817 WA 3-4476
Tex W Lomax, 6338 Prestonshire La Dallas ... 214 EM 1-1134
Wash Dudley Cornwell, Rt 3, Box 767 Spokane ... 509 534-9056
Can Wainbee Ltd, 121 City View Dr Rexdale, Ont ... 416 248-5621
Can Wainbee Ltd, 675 Orly Ave Dorval, Que ... 514 636-4870
GB Aylesbury Automation Ltd, Mandeville Rd Aylesbury, Bucks ... 3411

AUTOMATION DYNAMICS CORP
35 INDUSTRIAL PKWY, NORTHVALE
N J, 07647 ... 201 768-9200
EMP 35, ENG 8
Cal Gordon-Elliot, Inc, 13615 Victory Blvd Van Nuys ... 213 873-6862
Md Arnold Ratner Assoc, 4928 St Elmo Ave Bethesda ... 657-2585
NY Cane Technical Sales, 555 E Boston Post Rd Mamaroneck
Pa Arnold Ratner Assoc, 301 York Rd, Jenkintown
Tex IBL Engrg & Sales Inc, 219 Preston Royal Center Dallas ... EM 3-2921

AUTOMATION INDUSTRIES INC, NONDESTRUCTIVE
TESTING DIV, SHELTER ROCK RD, DANBURY
CONN, 06810 ... 203 748-3581
R NEILEY, EMP 200
Cal Automation Ind Inc, 9822 Everest St Downey ... 213 773-6133
Cal Automation Ind Inc, 2995 Corvin Dr Santa Clara ... 408 245-5994
Cal Automatin Ind Inc, 660 S 31st St Richmond ... 415 233-9668
Colo Automation Ind Inc, Box 950, Ind Pk Boulder ... 303 443-6011
Conn Automation Ind Inc, Box 8 R 12 Gales Ferry ... 203 464-7912
Ga J W Jackson, 2210 Fisher Tr, Atlanta ... 636-0155
Ill Automation Ind Inc, 5381 Otto Ave Rosemont ... 312 671-1670
Mich Automation-Forster Facility, 2555 S State Rd Ann Arbor ... 313 665-4407
Mich Automation Ind Inc, 24511 Gibson Dr Warren ... 313 756-5940
Ohio Automation Ind Inc, 5530 Pearl Rd Parma ... 216 884-3550
Ohio Automation Ind Inc, Box 1433 Northridge Sta Dayton ... 513 274-0892
Ohio Automation Ind Inc, 4000 Lockbourne Rd Columbus ... 614 491-3000
Pa Automation Ind Inc, 7405 Penn Ave Pittsburgh ... 412 371-3335
Pa Automation Ind Inc, 609 Chester Pike Prospect Park ... 215 532-4644
Tex Automation Ind Inc, 6617 Snider Plaza Dallas ... 214 EM 9-2631
Tex Automation Ind Inc, 6106 Rookin St Houston ... 713 774-9657
Wash Automation Ind Inc, 6561 6th Ave S Seattle ... 206 767-3370
Can L E Baxter, 1229 Queensway Toronto ... 416 259-9981
Can L E Baxter Ltd, 6077 St James St W Montreal ... 514 489-5751

AUTOMATION MANAGEMENT, INC, 25 BRIGHAM ST
WESTBORO, MASS, 01581 ... 617 366-4423
W ALDEN, EMP 5, ENG 1, UP TO $100M

AUTOMATION PRODUCTS, INC, 3030 MAX ROY ST
HOUSTON, TEX, 77008 ... 713 UN 9-1485
Q BAKER

AUTOMATION PRODUCTS MFG INC
2600 N W 1ST AVE, BOCA RATON
FLA, 33432 ... 305 391-1881
F FEIRN, EMP 12, ENG 2, $250-$500M

AUTOMATION SERVICES INC
LEWIS ST & NEBRASKA AVE, ENDICOTT
N Y, 13760, TWX (510) 252-089 ... 607 748-7491
L RIESTERER, EMP 240, ENG 6, $2,500-$5,000M

AUTOMECH ASSOCIATES, INC, 159 WASHINGTON AVE
NORTH HAVEN, CONN, 06473 ... 203 239-2233
J MOFFITT, EMP 6, ENG 1, $100-$250M

AUTO-SWAGE PRODUCTS, INC, 751 RIVER RD
SHELTON, CONN, 06484 ... 203 929-1401
D BRENTON, EMP 110, ENG 5, $1,000-$2,500M
Ariz E E Black, Box 939, Scottsdale ... 602 947-2007
Cal Hansen & Hartfield Inc, 1663 Blake Ave Los Angeles ... 213 225-8114
Cal Bruce Enterprises - Foss Co, 235 S Columbus Ave Glendale ... 213 245-6538
Cal Hansen & Hartfield Inc, Box 328 Freemont ... 415 853-2200
Colo Harry P Daigle Co, 2785 N Speer Blvd Denver ... 303 433-0226
Conn Andrew Peasco, Box J, Marion ... 203 628-4694
Fla R F Carlson Co, 3900 S Lockwood Ridge Dr Sarasota ... 813 922-2462
Ill Stevens Engineering, 5306 W Lawrence Ave Chicago ... 312 736-0432
Ind Neal Engineering Co, 3720 N College Ave Indianapolis ... 319 925-2364
Ind Neal Engineering Co, 2211 S Calhoun St Fort Wayne ... 219 744-0976
Ky Neal Engineering Co, 2305 Taylorsville Rd Louisville ... 502 459-7330
Md Dyneers, 108W 39th St, Baltimore
Mich C B Jensen & Assoc, 26711 Woodward Ave Royal Oak ... 313 544-3700
Minn Charles Vander Voort Inc, 1279 Osage St St Paul ... 218 489-5222
Mo R F Carlson Co, 8721 Manchester Rd St Louis ... 314 961-4485
Mo R F Carlson Co, 9401 Richmond Ave Kansas City ... 816 761-4569
NJ A Brown, Box 218, Long Beach Br Beach Haven ... 492-2869
NY Philip L Kirsh Assoc, 223 Windemere Rd Rochester ... 288-0705
NY Arthur C Preuss Co, Box 93 Oradell N J ... 201 261-3001
NC K O Brown Co, Box 9231 Greensboro ... 919 288-2651
Ohio D C Prior & Assoc, Box 295 Chagrin Falls ... 216 247-7999
Ohio Neal Engineering, Box 3052 Dayton ... 513 253-6971
Tex K O Brown Co, Box 20845, Dallas ... 214 357-3996
Va Dyneers, 113 Northpoint Dr Williamsburg ... 703 229-3612
For Lang & Zysk, 20 Vesey St New York, N Y ... 227-1743

AUTO-TROL CORP, 6621 W 56TH AVE, ARVADA
COLO, 80002 ... 303 421-5670
T BARNES, EMP 75, ENG 12, $1,000-$2,500M
Mex Casa Struck, Av Obrero Mundial 338 Mexico City ... 43-99-90

AUTOTRONICS INC, 2700 DAVIS BLVD, JOPLIN
MO, 64801, TWX 910 774-4510 ... 417 SU 1-1812
F WHITE, EMP 130, ENG 9, $1,000-$2,500M
Ariz Southwest Engineering Co, 8341 N 7th St Phoenix ... 944-1521
Cal Enright Engineering Co, 12408 Santa Monica Blvd Los Angeles ... 272-5441
Cal Harold Wells Assoc, 819 A St San Rafael ... 454-5730
Conn Zaslow Sales Co, 6 Newberry Rd Bloomfield ... 242-7781
Conn Zaslow Sales Co, 49 Clark St, Milford ... 878-1094
Ill Carlson Electronic Sales Co, 7448 N Harlem Ave Chicago ... 774-4813
Md R P Luce & Co Inc, 19 E 21st St Baltimore ... 301 752-8200
Mass Zaslow Sales Co, 371 Howard St Northboro ... 393-8150
Mass Zaslow Sales Co, 339 Middlesex St Lowell ... 458-8452
Mich Villani-Pitcher, Inc, 20233 Ann Arbor Trail Dearborn ... 271-4600
Minn Carlson Electronic Sales Co, 2500 39th Ave NE Minneapolis ... 788-5441
NJ R P Luce & Co Inc, 630 Morris & Essex Tpk Short Hills ... 379-6600
NY R P Luce & Co Inc, 1300 Jericho Tpk New Hyde Park ... 437-4550
Pa R P Luce & Co Inc, 8717 Patton Rd Philadelphia ... 884-8365
Tex Engineers Intl Co, Box 35601, Dallas ... 352-2666
For Madison Overseas Inc, 433 Liberty St Schenectady, N Y ... 372-5841

AUTOTRON, INC, 3629 N VERMILION ST, DANVILLE
ILL, 61832, TWX 910-244-1455 ... 217 446-0650
W GIESECKE, EMP 30, ENG 3, $1,000-$2,500M
Ariz J T Aldrich Co, Box 1299, Scottsdale ... 945-8598
Cal J M Krotozyner, 420 Market St San Francisco ... 982-4636
Cal Electro Components Dist Co, 2122 W Temple Ave Los Angeles ... 386-1611

Colo Ryall Electric Supply Co, 2627 W 6th Ave Denver ... 222-7723
Conn White Sales Co Inc, Box 122, Berlin ... 224-0423
Fla J Sprock Sales Co, 3521 W Broward Blvd Ft Lauderdale ... 587-3792
Ill R Edward Stemm Inc, 17 W 480 Lake St Addison ... 279-2440
Mass White Sales Co Inc, 20 Chestnut St Needham ... 444-3676
Mich Basic Service Corp, 16544 Plymouth Rd Detroit ... 837-8820
Minn R Edward Stemm Inc, 2713 Lyndale Ave Mnpls ... 822-8404
Mo Kornfeld-Thorp Electric Co, 2700 McGee Trafficway Kansas City ... BA 1-400
Mo Richard Greene Co, 1716 S Hanley Rd St Louis ... 644-2666
Neb Agric & Indust Supply Inc, 10820 Frances St Omaha ... 391-9651
NY T Ferguson Sales Co, Box 3893 Rochester ... HU 2-7757
NY Ferguson-Wulfetange Sales Co, 129 Fiordon Rd Dewitt ... GI 6-3330
NY Crane & Egert Corp, 146 Meacham Ave Elmont ... 488-2100
NC Electro-Rep Assoc Inc, 128 W 30th St Charlotte ... 333-0451
Ohio James Murray & Assoc, 3985 Race Rd Cincinnati ... 662-1616
Ohio C A Robinson Co Inc, 4225 Mayfield Rd Cleveland ... 379-2700
Pa Tyler Griffin Co, 46 Darby Road, Paoli ... 647-1550
Tex Southland Engry & Sales, 5810 Schumacher La 782-4575
Utah Don W Stuart, 2999 S 2nd St Salt Lake City ... IN 6-3605
Wash C B Parsons & Co, 6319 4th Ave S Seattle ... 762-7373
Wis Bruce Equip Co, 2609 W Mineral St Milwaukee ... 671-0420
Can Higginson Equip Sales, 1131 Pettit Rd Burlington, Ont ... 634-1888
For C H Stone, 205 W Wacker Dr Chicago, Ill ... 726-7725

AUTO-VOX INC, 160 CARILLON, QUEBEC CITY
QUE ... 529-9271
R SIMARO, EMP 40, ENG 2

AUTRONICS CORP, 180 N VINEDO AVE, PASADENA
CAL, 91107, TWX 213-449-2854 ... 213 681-3545
T HENDERSON, EMP 35, ENG 4, $500-$1,000M
Ariz Thorson Co, 2505 E Thomas Rd Phoenix ... 602 956-5300
Cal Thorson Co, 2443 Ash St, Palo Alto ... 321-2414
Cal Thorson Co, 6824 Melrose Ave Los Angeles ... 937-0790
Cal Thorson Co, 444 Olive St, San Diego ... 298-8385
Cal Thorson Co, 2114 N Broadway Santa Ana ... 547-6206
Colo Thorson Co, 300 E Hampden Ave Englewood ... 789-1841
Md R P Luce & Co Inc, 19 E 21st St Baltimore ... 752-8200
NJ R P Luce & Co Inc, 630 Morris & Essex Tpkes Short Hills ... 379-6600
NY R P Luce & Co Inc, 1300 Jericho Tpke New Hyde Park ... 437-4550
Pa R P Luce & Co Inc, 8717 Patton Rd Philadelphia ... 884-8365
Tex Thorson Co, 7700 Carpenter Frwy Dallas ... 631-5440
Tex Thorson Co, 7007 Gulf Frwy, Houston ... MI 4-2218
Wash Thorson Co, 1767 15th Ave S, Seattle ... 325-5000

AVA ELECTRONICS & MACHINE CORP, 416 LONG LA
UPPER DARBY, PA, 19082 ... 215 MA 6-9100
B VANELLA, EMP 20, ENG 2
Cal L Grant Snyder Co Mfg, 1418 N Highland Ave Hollywood ... 213 469-6278
Cal W Levin, 1999 Pacific San Francisco ... 415 775-0962
Fla Geartner Assoc, 350 Lincoln Rd Miami Beach ... 305 531-0200
Fla H Geartner, 2101 Mohawk Trail Maitland ... 305 647-4000
Ga Sam Little Co, 3296 Connally Dr East Point ... 761-5353
Ill Gettleman & Litteken Co, 3736 Dempster St, Skokie
Md Dipro Inc, Box 1427, 11657 Adie Rd Maryland Height ... 314 432-3444
Mass Dan Greene Organization, Box 290 Bedford 617 275-6400
Mich ABM Sales Inc, 10116 Puritan Ave Detroit ... UN 2-1300
Minn J E M Anderson Co, 5231 Humboldt Ave S Minneapolis ... 612 823-6459
Mo R W Farris CO, 1815 Baltimore Ave Kansas City ... 816 HA 1-1751
NJ Bixon Assoc, Box 305, Fair Lawn ... 201 797-5356
NJ TMC Sales Corp, 2465 Lemoine Ave Fort Lee ... 201 944-8340
NY Electronic Sales Rep, 207 Rosedale Rd Yonkers ... 914 SP 9-7330
Pa Mustico, 312 Bewley Rd, Havertown ... HI 6-1961
Pa Tanner Co, 486 Broadmoor Ave Pittsburgh ... 412 561-4687
Tex Packard Assoc, Box 20825, Dallas
Wash Wm Lanphear, 4031 Stoneqay N Seattle ... ME 3-4900
For Southern Intl Sales, Box 1896, San Juan
BC Emerson Sales Ltd, 1859 W 4th Ave Vancouver ... 733 3525

AVANTEK INC, 2981 COOPER RD, SANTA CLARA
CAL, 95051, TWX FAX FFT ... 408 739-6170
L THIELEN, EMP 40, ENG 6, $1,000-$2,500M
Ala Reynolds & Assoc, 904 Bob Wallace Ave Huntsville ... 536-1941
Cal Thorson Co, 6824 Melrose Ave Los Angeles ... 937-0790
Cal Thorson Co, 2114 N Broadway Santa Ana ... 547-6206
Cal Thorson Co, 444 Olive St, San Diego ... 298-8385
Fla Reynolds & Assoc, 325 5th St Indialantic ... 727-3205
Fla Reynolds & Assoc, 161 S W 75th Ave Ft Lauderdale ... 581-6611
Ga Reynolds & Assoc, 418 Armour Cir NE Atlanta ... 876-0652
Kan Poly-Onics Inc, 4434 W 90th Ter Leawood ... 648-4173
Md E-A Inc, 1406 Shoemaker Rd Baltimore ... 825-2385
Mass Tritek Co, 165A Bedford St, Burlington ... 272-4550
Mo Poly-Onics Inc, 47 Vlg Sq Shopping Ctr Hazelwood ... 837-0597
NJ Maloy-Stagnitti, 4 Horizon Rd Fort Lee ... 201 224-6911
NY Ossmann Component Sls Corp, 39 Saginaw Dr Rochester ... 442-3290
NY Ossmann Component Sls Corp, 132 Pickard Bldg Syracuse ... 454-4477
NY Ossmann Component Sls Corp, 1901 Vestal Pkwy E Vestal ... 785-9949
NY Ossmann Component Sls Corp 17 Round Lake Pk Rd, Monroe ... 297-7773
Ohio Rep/Corp, 2077 Embury Park Rd Dayton ... 278-5885
Tex Thorson Co, 7700 Carpenter Frwy Dallas ... 631-5440
Tex Bowden Engrg Sales Inc, 2635 Texas NE Albuquerque ... 299-0473
Wash Thorson Co, 1767 15th Ave S, Seattle ... 325-5000

AVCO AEROSTRUCTURES DIV, BOX 210, NASHVILLE
TENN, 37202, TWX 810-371-1635 ... 615 254-9551
H RITTER, EMP 4100, ENG 150
Cal R J Bowman, 8939 S Sepulveda Blvd Los Angeles ... 213 776-4170
DC T A Duncan, 1701 K St NW Washington ... 202 783-2770
Ohio R B Uhle, 379 W First St, Dayton ... 513 223-5129
Tex V A Lipovsky, 1730 Farm Rd 528 Houston ... 713 488-2293

AVCO BAY STATE ABRASIVES DIV, 12 UNION ST
WESTBORO
MASS, 01581, TWX 710-392-1193 ... 617 366-4431
E AUKER, EMP 750, ENG 50, OVER $10,000M
Cal Avco Bay State Abrasives, 4405 E Olympic Blvd Los Angeles ... 213 264-0105
Conn Avco Bay State Abrasives, 7 New City St Essex ... 203 767-1139
Ga Avco Bay State Abrasives, Box 9905 Atlanta ... 404 233-4017
Ill Avco Bay State Abrasives, 3701 W 49th St Chicago ... 312 FR 6-6677
Mich Avco Bay State Abrasives, 25600 Princeton Ave Dearborn Hghts ... 313 LO 5-8870
Ohio Avco Bay State Abrasives, 9550 Granger Rd Cleveland ... 216 LU 7-1484
Pa Avco Bay State Abrasives, 1691 Washington Rd Pittsburgh ... 412 LO 3-1144
Pa Avco Bay State Abrasives, 1614 Sweet Briar Rd Gladwyne ... 215 642-3407
Tex Avco Bay State Abrasives, 6830 Wynnwood La Houston ... 713 864-7746

AVCO BAY STATE ABRASIVES DIV INDUS PRODS SUB
DIV, 12 UNION ST, WESTBORO
MASS, 01581, TWX 617 366-7874 ... 617 366-4431
R PELLETIER, EMP 20, ENG 5

AVCO CORP ELECTRONICS DIV
2630 GLENDALE-MILFORD RD, CINCINNATI
OHIO, 45241, TWX 513 482-9129 ... 513 563-6000
F SHADLEY, EMP 2286, ENG 300, OVER $10,000M

AVCO-EVERETT RESCH LAB DIV AVCO CORP
2385 REVERE BEACH PKWY, EVERETT
MASS, 02149 ... 617 389-3000
L RITTENBERG, EMP 775, ENG 222

A V ELECTRONICS, INC, 240 S TEILMAN AVE, FRESNO
CAL, 93706, TWX 355-448 ... 209 233-5861
B EVERSON, EMP 130, ENG 10, $5,000-$10,000M
Ariz L Price, Box 876, Eloy ... 466-7464
Cal A V Electronics Inc, 56 N Hill St Pasadena ... 449-1941
Cal A V Electronics Inc, 25366 Cypress Ave Hayward ... 783-3611
Mass A V Electronics Inc, 78 Main St Northampton ... 413 584-6764
Nev A Gerber, Box 627, Carson City ... 472-1093

AVIATION ELECTRIC LTD, 200 LAURENTIEN BLVD
ST LAURENT, MONTREAL
EMP 1000, ENG 100
BC Aviation Electric Pacific Ltd, Intl Airport, Vancouver

AVIATION INSTRUMENT MFG CORP
9033 MONROE RD, HOUSTON
TEX, 77034 ... 713 HU 4-2896
C HOLT, EMP 120, ENG 4, $2,500-$5,000M

AVIEL ELECTRONICS, INC, 7646 DENSMORE AVE
VAN NUYS, CAL, 91406 ... 213 787-4631
E ULMAN, EMP 15, ENG 2, $250-$500M

AVIEN, INC, 58-15 NORTHERN BLVD, WOODSIDE
N Y, 11377, TWX 710-582-2640 ... 212 932-4600
S BENEROFE, EMP 95, ENG 11, $1,000-$2,500M
NY Electro Rep Inc, 380 N Broadway Jericho ... 516 938-0540
Ohio E V Swenson, 1112 Talbott Tower Dayton ... 223-4279

AVION ELECTRONICS INC, UNIT GEN SIGNAL CORP
11 PARK PL, PARAMUS
NJ, 07652, TWX 710-990-6647 ... 201 261-4100
W PORTUGAL, EMP 400, ENG 150, $5,000-$10,000M
Cal Avion Electronics Inc, 1650 Pacific Coast Hwy Redondo Beach ... 772-1318

AVIONICS, INC, 1915 BENDIX DR, SOUTH BEND
IND, 46628 ... 219 232-7988
O BERGERON, EMP 140, ENG 4, $1,000-$2,500M

AVIONICS LTD, BOX 200, NIAGARA-ON-THE-LAKE
ONT ... 416 468-3632
J MITCHELL, EMP 15, ENG 2

AVISUN CORP, 21 S 12TH ST, PHILADELPHIA
PA, 19107, TWX 215 569-9873 ... 215 LO 8-5520
W MOELLER, EMP 1000, ENG 30, OVER $10,000M
Conn I W Simmons, Box 71, E Hartford ... 289-0291
Ill Neil Bricker, 3601 W Devon Ave Chicago ... 539-2121
Ky R Smith, 4211 Norbourne Blvd, Louisville
Mich W Hiddemen, 15565 Northland Dr Southfield ... 356-7600
Minn P Becker, 820 E Lake St, Wayzata ... 473-2777
NY M Lynch, 301 W Hiawatha Blvd Syracuse ... 422-4251
NC R Serfass, 1300 Baxter St, Charlotte ... 372-3020
Ohio Cliff Smith, 5865 Crab Orchard Ave Dayton ... 426-3432
Pa P Jardine, 21 S 12th St, Philadelphia ... LO 8-5520
Can Avisun Western Ltd, 85 Bloor St E Toronto, Ont ... 924-9221

AVNET ELECTRONICS, 70 STATE ST, WESTBURY
N Y, 11590 ... 516 ED 3-5800
G COONEY
Cal Avnet Corp, 7969 Engineer Rd San Diego ... 279-1550
Cal Avnet Corp, 10916 Washington Blvd Culver City ... UP 0-6141
Cal Avnet Corp, 344 Middlefield Rd Mountain View ... 961-7700
Ill Pace Avnet, 3901 Pace Ct Schiller Park ... 678-6310
Mass Avnet Electronics, 207 Cambridge St Burlington ... BR 2-3060
Wash Avnet Corp, 2318 6th Ave, Seattle ... 623-8824

AVTEL CORP, 1130 E CYPRESS ST, COVINA
CAL, 91722, TWX 910-584-1311 ... 213 331-0661
T PIERCE, EMP 85, ENG 11, $2,500-$5,000M
Cal Richards Assoc, 900 N San Antonio Rd Palo Alto ... 415 941-3226
Colo PLS Assoc, 7895 E Prentice Englewood ... 303 771-0140
Mass Garrettson Co Inc, 10 Kearney Rd Needham ... 617 449-2640
NM PLS Assoc, 4200 B Silver Ave SE Albuquerque ... 505 255-0120
NY Garrettson Co Inc, 99 Hillside Ave Williston Park ... 516 747-6610
Pa Garrettson Co Inc, 9214 Masland St Philadelphia ... 215 464-2275
Wash Al Smith Co, 405 166 SE Bellevue ... 206 747-6770

AVTRON MFG, INC, 10409 MEECH AVE, CLEVELAND
OHIO, 44105 ... 216 641-8310
EMP 110, ENG 15, $1,000-$2,500M
Ala Craft Assoc Co, Box 1053, Huntsville ... 539-0941
Ga Craft Assoc Co, Box 11716, Northside Sta Atlanta ... 237-2282
Kan Assoc Air Service, Box 3951, Midland Sta Wichita ... 524-3094
NJ Wolock & Lott, 200 Market St Kenilworth ... 241-4333
Wash James Findlay Co, 10237 Main St Bellevue ... 454-5200
Wis L Luke, Box 795, Appleton ... 739-3238
Can Aircraft Appl & Equip Ltd, 585 Dixon Rd Rexdale, Ont ... 244-5506

AXEL ELECTRONICS, INC, 134-20 JAMAICA AVE, JAMAICA
N Y, 11418, TWX 710 582-2618 ... 212 AX 1-3900
J O'DONNELL, EMP 200, ENG 21, $1,000-$2,500M
ADV PG 105, 305
Ariz Mercury Engrg Sales, Box 3130 Scottsdale ... 602 945-1927
Cal Universal Components Co, 2330 Westwood Blvd Los Angeles ... 213 474-1537

Cal Winco Sales, Box 881
Mountain View 415 961-8510
Fla J F Griffin & Co, 536 Marlin Rd
N Palm Beach.......................... 848-4617
Ga J E Joyner & Assoc, Box 10678 Sta A
Atlantic 404 758-4496
Mass Westwood Assoc, Box 168
Weston.......................... 617 891-7810
Mich R T Matthews & Co, 20441 James Couzens Hwy
Detroit 313 835-3434
NY M J Del Grosso, 2328 Seymour Ave
Bronx .... OL 4-3947
NY Tech-Mark, Inc, 101 Jefferson Ave
Endicott 748-7473
Ohio Whelan Corp, 2975 Far Hills Ave
Dayton 298-9997
Ohio L D Bruno, Kettering Br, Box 2044
Dayton 434-1847
Pa Griffin, Campbell, Inc, 25 Skippack Pike
Ambler .... MI 6-7535
Tex Texport Co, 2411 Farrington St
Dallas.......................... 214 631-6270

AXION CORP, 6 COMMERCE PARK, DANBURY
CONN, 06810, TWX 710-456-0469...... 203 743-9281
C LOGAN, EMP 35, ENG 5, $1,000-$2,500M
Ariz Allen Assoc, Box 3091 Papago St
Scottsdale 945-5781
Cal Scrantom Engrg Assoc, 2750 Bellflower Blvd
Long Beach 421-8951
Cal F J Toffey Assoc, 2227 Mora Dr
Mt View............................ 968-0200
Conn Evans Equipment Co, Rte 7, Brookfield ... 775-2800
Fla g p i instruments, Box 536, Winter Park .. 647-5722
Ill Solid State Elctns, 1921 N Harlem Ave
Chicago 889-8033
Mass Evans Equipment Co, Box 127
Wellesley............................ 235-2275
NY J Lazor Assoc, 39 Saginaw Dr
Rochester............................ 473-8337
Pa Evans Equip Co, 1246 Irma Rd
Warminster 672-2560
Tex Crockett Engrg, Box 47287, Dallas 637-6120
Den E Friis-Mikkelsen A/S, 51 Krogshojvej, Bagsvaerd
Fr Technique et Produits
Cite des Bruyeres Rue Carle-Vernet, 92 Sevres
Ger Karl Suss K. G., Christophstr 1, 8 Munich 22
GB E P A K Assoc, 73 Cherry Orchard Rd, Croydon
Ital Hulss & Capelli, Via G Lazzaroni, 4, Milan
Jap Kanematsu-Gosho (USA) Inc, 1 Whitehall St
New York, N Y
Swed AB Salwensonic, Kungsgaten 1, Halmsted
Belg R J Gassner & Co, 177, Ave Louise, Brussels

AZIMUTH ELECTRONICS, RTE 10, BOX 463, DENVILLE
N J, 07834 .... 201 361-0085
K JOHNSEN, EMP 16, ENG 4, $100-$250M
Ariz E J Foley Assoc, 3840 N Jokake Dr
Scottsdale 945-2666
Mass A & M Electronic Reps Inc, 16 Eaton Sq
Needham 444-6170
NJ Sil Venturi Assoc, 24 Silver Spring Rd
Short Hills.......................... 379-7636
Can Railway & Power Eng Corp Ltd, 3745 St James W
Montreal, Que........................ 933-6241
For Machine & Products Co, 52 Wall St
New York, N Y .... WH 4-4370
Fr Mesure Et Controle Electroniques
84 Rue Aes-Entrepreneurs, Paris 15
Jap Taiyo Shoji Co Inc, 9-2, 5-Chome Shimbashi
Minato-Ku, Tokyo

BABCOCK ELECTRONIC CORP, 3501 HARBOR BLVD
COSTA MESA
CAL, 92626, TWX 910-595-1517........ 714 540-1234
D BAGLEY, EMP 1000, ENG 85, OVER $10,000M
Ala Babcock Electronics Corp, Sahara Office Pk
Huntsville 881-3780
DC Babcock Electronics Corp, 1700 Penna Ave nw
Washington 223-1596

BABCOCK ELECTRONICS, RELAY DIV, 3501 HARBOR BLVD
COSTA MESA, CAL, 92626 .... 714 540-1234
P MORRIS, $5,000-$10,000M
ADV PG 590, 593, 595, 606, 609
Ariz Southwest e/m Engrg Inc, 8341 N 7th St
Phoenix 602 944-1521
Cal Ed Landa Co, 2288 Westwood Blvd
Los Angeles...................... 213 879-0770
Cal Ed Landa Co, One First St
Los Altos 415 948-0788
Colo Simpson Assoc, 8000 S Kendall Blvd
Littleton 303 798-8439
Fla Orbe Inc, 300-31st St N
St Petersburg...................... 813 894-0687
Ill Carlson Electronic Sales, 7448 N Harlem Ave
Chicago 312 774-4812
Ind G & H Sales Co, Box 2268
Ft Wayne 219 744-3072
Kan Palatine Engrg Sales Inc, 5514 Johnson Dr
Mission 913 262-5643
Md Biechler Assoc, 7353 Yorktowne Dr
Baltimore........................ 301 825-8222
Mass Kitchen & Kutchin, 17 Waltham St
Lexington 617 862-8230
Mich G & H Sales Co, 24001 Southfield Rd
Southfield 313 358-1910
Minn Carlson Electronic Sales, 2500 39th Ave NE
Minneapolis...................... 612 788-4111
Mo Palatine Engrg Sales Inc, 2050 Woodson Rd
St Louis 314 426-7055
NJ Hy-Rel Electronic Sales, 753 Bergen Blvd
Ridgefield 201 945-7511

NM Data Handling Co, 209 San Pablo SE
Albuquerque...................... 505 268-0928
NY T Ferguson Sales, 228 Winton Rd
Rochester........................ 716 482-7757
Ohio G & H Sales Co, 7215 Market Pl
Cincinnati........................ 513 761-6185
Ore Arneson Assoc, 200 NE Canyon Rd
Beaverton........................ 503 646-3416
Pa Biechler Assoc, Box 414, Narberth ... 215 667-1827
Tex Aymond Co, 4340 N Central Expwy
Dallas.......................... 214 827-8043
Wash Arneson Assoc, 5950 Sixth Ave S
Seattle 206 762-7664
Can Samuel C Hooker Ltd, 144 Ronald Dr
Montreal, Que...................... 514 488-9114
Fr AEMGP, 115 Ave J B Clement
Boulogne s/Seine 825-96-20
Ger Bodamer GmbH, 8022 Grunwald, Bei Munchen
Keltenstr 2a............................ 471862
GB Laurentide Elctns Ltd, 52 Morley Rd
Basingstoke Hants .... Bas 5330
Jap Shoshin Shoji Kaisha Ltd, Box Nihonbashi 173
Tokyo 2223423
Swed Swedish Elektbolink AB, Store Nygatan 39
Stockholm C 114595

BABCOCK & WILCOX CO REFRACTORIES DIV
OLD SAVANNAH RD, AUGUSTA
GA, 30903, TWX 810 855-4022 .... 404 798-8000
W CRESON, EMP 1200, ENG 150, OVER $10,000M
Cal Babcock & Wilcox Co, 450 Mission St
San Francisco 415 421-3484
Cal Babcock & Wilcox Co, 813 S Fremont
Alhambra 213 283-6625
Ga Babcock & Wilcox Co, 1315 Candler Bldg
Atlanta 404 522-5387
Ga Babcock & Wilcox Co, 1252 Merry St
Augusta 404 738-4573
Haw Hawaiian Equip Co, Box 3677, Honolulu ... 893-511
Ill Babcock & Wilcox Co, 29 S LaSalle St
Chicago 312 236-6546
Ky N C Updegraff, Box 21155
Louisville........................ 502 363-2657
La Babcock & Wilcox Co, 1048 S Clark St
New Orleans...................... 504 486-1389
Mass Babcock & Wilcox Co, 140 Federal St
Boston 617 542-6823
Mich Babcock & Wilcox Co, Northland Towers E
Southfield 313 353-6440
NY Babcock & Wilcox Co, 625 Delaware Ave
Buffalo.......................... 716 883-4800
NY Babcock & Wilcox Co, 161 E 42nd St
New York........................ 212 687-6700
Ohio J K Taylor, Box 8036, Sta O
Cincinnati........................ 513 621-7350
Ohio Babcock & Wilcox Co, 1367 Illuminating Bldg
Cleveland........................ 216 781-4381
Pa Babcock & Wilcox Co, 3 Penn Center Plaza
Phila.......................... 215 LO 4-6376
Pa Babcock & Wilcox Co, 7805 McKnight Rd
Pittsburgh........................ 412 931-4490
Tex Babcock & Wilcox Co, 6434 Maple Ave
Dallas.......................... 214 FL 7-9106
Tex Babcock & Wilcox Co, 2990 Richmond Ave
Houston .... 713 JA 8-2895
Wash Babcock & Wilcox Co, 305 Norton Bldg
Seattle 206 622-1496
Can Standard Refractories Ltd, 1185 Walkers Line
Burlington, Ont 416 637-2333
Can C A Turpin, 795 Avoca St
Dorval Que 514 631-4697

BACHARACH INSTRUMENT CO, 625 ALPHA DR
PITTSBURGH
PA, 15238, TWX 710-664-2085......... 412 782-3500
R WALSH

BACON INDUSTRIES, INC, 192 PLEASANT ST
WATERTOWN, MASS, 02172............ 617 926-2550
R CASS, EMP 14, ENG 3, $250-$500M
Cal McDonald Assoc Inc, Box 1312
Torrance 213 378-8322
Wis Great Lakes Rubber & Supply Inc
3118 N Teutonia Ave
Milwaukee........................ 414 374-4300
For Terminal Radio Intl, Ltd, 3 W 61st St
New York........................ 212 246-2133

BAER CO, N S, 11 MONTGOMERY ST, HILLSIDE
N J, 07205 .... 201 688-2250
S NETTE

BAILEY CO, 5919 MASSACHUSETTS AVE
WASHINGTON, D C, 20016 .... 301 656-2625
M RICKARD, EMP 5, ENG 2, $100-$250M
Cal AF Sales Engrg Inc, 94 S Los Robles Ave
Pasadena 213 681-5631
Kan Leemark Engineers Inc, Box 6175
Leawood.......................... NI 8-0124
Md Whitcomb Assoc, 730 Deepdene Rd
Baltimore........................ 301 889-1245
Mass Bilowich Enterprises, 109 Warren St
Watertown 617 926-0490
Mo Leemark Engineers Inc, 2001 Big Bend Blvd
St Louis .... MI 7-4545
NY Barnett Assoc, 40 Aberdeen Rd
Hauppauge........................ 516 724-0202

BAILEY METER CO, WICKLIFFE
OHIO, 44092 .... 216 943-5500
L RICHARDSON, EMP 2100, ENG 350, OVER
$10,000M

Cal Bailey Meter Co, 504 Monterey Pass Rd
Monterey Park 283-1187
Cal Bailey Meter Co, 503 Market St
San Francisco 989-6140
Colo Bailey Meter Co, 1777 S Bellaire St
Denver 757-5408
Conn Bailey Meter Co, 2 Linsley St
North Haven 239-1676
Fla Bailey Meter Co, 4124 Blvd Center Dr
Jacksonville............................ 398-4522
Ga Bailey Meter Co, 313 W Ponce De Leon Ave
Decatur................................ 378-4348
Ill Bailey Meter Co, 53 W Jackson Blvd
Chicago .... HA 7-7324
Ind Bailey Meter Co, 4537 N Edmondson Ave
Indianapolis............................ 545-0931
Kan Bailey Meter Co, 3500 W 75th St
Prairie Village.......................... 362-6093
Ky Bailey Meter Co, 427 Deerfield La
Louisville.............................. 897-1381
La Bailey Meter Co, 303 N Causeway Blvd
Metaire................................ 488-0841
Me Bailey Meter Co, 83 Western Ave
Augusta 622-5177
Md Bailey Meter Co, 4200 Edmondson Ave,
Baltimore.............................. 945-2730
Mass Bailey Meter Co, 38 Chauncey St
Boston 426-0465
Mich Bailey Meter Co, 17330 Northland Park Ct
Southfield 357-0440
Mich Bailey Meter Co, 5781 E Comstock Ave
Kalamazoo.............................. 344-3300
Minn Bailey Meter Co, 2395 University Ave
St Paul .... MI 5-7752
Minn Bailey Meter Co, 121 E Artavia St
Duluth 724-5434
Mo Bailey Meter Co, 2800 S Brentwood Blvd
St Louis .... WO 2-5532
NJ Bailey Meter Co, 110 Halsted St
East Orange............................ OR 4-6830
NY Bailey Meter Co, 4498 Main St, Buffalo .. 839-3662
NY Bailey Meter Co, 150 E 43rd St
New York.............................. YU 6-8770
NY Bailey Meter Co, 1019 Keyes Ave
Schenectady............................ FR 4-7991
NY Bailey Meter Co, 130 Downing Rd
Syracuse................................ 446-5405
NC Bailey Meter Co, 1416 E Morehead St
Charlotte 372-6622
Ohio Bailey Meter Co, 2200 Victory Pkwy
Cincinnati.............................. 281-0132
Ohio Bailey Meter Co, 1050 Ivanhoe Rd
Cleveland.............................. UL 1-8600
Ohio Bailey Meter Co
c/o Babcock & Wilcox Co 20 Van Buren Ave
Barberton 753-5411
Pa Bailey Meter Co, 29 Bala Ave
Bala-Cynwyd 664-3282
Pa Bailey Meter Co, 875 Greentree Rd
Pittsburgh.............................. 921-6356
Tex Bailey Meter Co, 1050 Brock Dr
Corpus Christi .... UL 3-7471
Tex Bailey Meter Co, 6440 Hillcroft St
Houston 744-9605
Tex Bailey Meter Co, 777 S Central Expwy
Richardson.............................. 231-4883
Va Bailey Meter Co, 1812 E Belt Blvd
Richmond................................ 233-3039
Va Bailey Meter Co, Box 1260, Lynchburg.... 846-7371
Wash Bailey Meter Co, 1120 E Terrace St
Seattle 324-9300
Wis Bailey Meter Co, 9137A W Lisbon Ave
Milwaukee.............................. HO 1-1310
Wis Bailey Meter Co, 112 W Glendale Ave
Appleton................................ 733-1361

BAIRD-ATOMIC, INC, 33 UNIVERSITY RD, CAMBRIDGE
MASS, 02138 .... 617 864-7420
S FUTRAN, EMP 650, ENG 200
Ariz Williams & Assoc, 1110 E McDowell Rd
Phoenix 254-6085
Cal Instruments for Measurements
3455 Cahuenga Blvd, Hollywood ...... HO 9-7294
Cal Instruments for Msmts, 2269 Middlefield Rd
Mountain View 961-2828
Colo Williams & Assoc, 4971 Jackson St
Denver 388-4391
Fla Roy Attaway Co, 51 E Robinson St
Orlando 424-9983
Ill Solid State Electronics, 1921 N Harlem Ave
Chicago 889-8033
Md Whitcomb Assoc, 730 Deepdene Rd
Baltimore.............................. TU 9-1245
Mass Electronic Components & Serv, 611 Trapelo Rd
Waltham 894-6921
Mich Aironic Accessory Co, 24634 5 Mile Rd
Detroit .... KE 2-5770
Mo Boweng, 10414 Oak Ave, St Louis 429-7327
NJ L & M Assoc Engrs, Inc, Box 641
Fair Lawn.............................. 843-8700
NJ L & M Assoc, 511 Victor St
Saddle Brook............................ 843-8700
NM Williams & Assoc, 420 Washington SE
Albuquerque............................ 255-1638
NY Aironic Accessory Co, 6789 Main St
Buffalo 634-3377
Ohio Research Process Instr Inc, 21565 Hilliard Blvd
Rocky River 333-3441
Pa L & M Assoc, 965A Bristol Pike
Andalusia.............................. 639-3100
Utah Williams & Assoc, 2461 S Main St
Salt Lake City 328-3101
Wash Dewar & Assoc, 6361 1st Ave, S
Seattle 763-2233
GB Baird-Atomic Ltd, 42 Station La, Hornchurch, Essex
Holl Baird-Atomic (Holl) NV, 26-27 Veenkade
The Hague 639734

BAKER CASTOR OIL CO, BAYONNE
N J, 07002 .... 201 436-8800
J HAYES, EMP 306, OVER $10,000M
Ariz Special Elec Co, 38 W Prince Rd Tucson 602 887-6468
Cal Baker Castor Oil Co, 5585 E 61st St Los Angeles .... 213 RA 3-1318
Ill Special Elec Co, 1009 Kings La Glenview 312 729-3229
Ill Special Elec Co, 1440 Linden Ave Highland Park 312 432-6295
Ind Special Elec Co, 3420 Pennwood Dr New Albany 812 944-2119
Iowa Special Elec Co, 313 E 7th St Des Moines 515 288-0958
Md Baker Castor Oil Co, 1602 Mercantile Trust Bldg Baltimore 301 685-4365
Mass Borden & Remington Co, 115 Anawan St Fall River .... 617 OS 9-6433
Mich Special Elec Co, 15265 Rudland Roseville 313 824-5533
Minn Thompson-Hayward Chemical Co, 909 2nd St S Minneapolis 612 332-5394
NC Special Elec Co, 619A S 3rd St Smithfield 919 934-7592
Ohio Special Elec Co, 4726 Superior Ave Cleveland 216 432-0061
Ore Benson Chem Corp, 2728 NW Nela St Portland 503 222-1301
Pa E W Kaufmann Co, Box 27 Flourtown .... 215 TU 7-6161
Tex Thompson-Hayward Chem Co, 2627 Weir St Dallas .... 214 FE 1-6521
Tex Thompson-Hayward Chem Co, 1701 Oliver St Houston .... 713 UN 9-5801
Wash Benson Chem Corp, 2250 1st Ave S Seattle .... 206 MU 2-4425
Wis Special Elec Co, 3628 W Pierce St Milwaukee 414 383-6370
Can Frank E Dempsey & Sons Ltd, 407 McGill St Montreal, Que .... 514 VI 5-8613
Can Frank E Dempsey & Sons Ltd, 47 Davies Ave Toronto, Ont .... 416 HO 1-9231
BC Emchem Sales Ltd, 1515 Pemberton Ave N Vancouver 604 987-5274

BAKER CHEMICAL CO, J T, 222 RED SCHOOL LA
PHILLIPSBURG, N J, 08865 .... 201 859-2151
L ROSS
Cal William D Leavitt, 1719 Rose Villa St Pasadena 795-6682
Cal J T Baker Chemical Co, 995 Zephyr Ave Hayward 471-6225
Cal C A Hile, 8404 Kirkwood Dr, Los Angeles
Cal C L Dimmler, 319 Aragon Blvd San Mateo 415 344-3570
Ga J T Baker Chemical Co, 2970 Peachtree NW Atlanta 261-2174
Ill J T Baker Chemical Co, 435 N Michigan Ave Chicago 644-9490
La J C Ellis, 6215 Ackel St, Metairie ... 504 888-2637
Md Warren K Kingsley, 303 Silver Rock Rd Rockville 762-0899
Mass A F Sullivan, Jr, 14 N Gateway Winchester 729-8189
Mich L Praenkel, 1524 Poplar Dr Royal Oak 313 585-6709
NJ Stewart Cowell, E Main St, Mendham ... LI 3-4076
NJ B F Clarke, 542 McMicheal Pl, Hillside ... 926-0402
NY S Fisher Gaffin, 274 Mayflower Ave New Rochelle .... NE 2-9713
NY J T Baker Chemical Co, 122 E 42nd St New York .... OX 7-1640
NY I A Sonn, 262 W 22nd St, New York ... 989-6186
NY J A Simonds, 32 Knollbrook Rd, Rochester
NC F C Hughes, 4511 Rockford Ct Charlotte 523-4119
Ohio J R Winchester, 7647 Fern Dr Mentor-on-the-Lake 257-2805
Ohio G A Katz, 7264 Swirlwood La Cincinnati 522-1136
Pa Thomas W Mohr, 426 S 21st St, Easton .. 258-7728
Pa Gerard P Nelson, 4507 Cedar La Drexel Hill .... HI 9-0999
Pa R R Reesh, 618 Mountain View Dr Murrysville 327-0465
Tex H Schulle, 4543 Cedar Springs Rd Dallas 214 522-3527

BAKER CO, INC, 106 GRANITE ST, BIDDEFORD
ME, 04005 .... 207 284-5951
J EAGLESON JR, EMP 50, ENG 6
Ala Day Enterprises, 1002 Community St Huntsville 539-3677
Ariz Baker Instr Inc, Box 597, Chandler 963-4551
Fla MacGregor Assoc, Box 1711 Clearwater 446-7310
Ill Motordor, Inc, 39B W St Charles Rd Villa Park 833-2700
Mich Walt Mullins & Assoc, Box 5006 Dearborn 563-3340
Minn Arthur Bussell, 4950 Knox Ave S Mnpls 922-9182
NJ Zacon, Inc, 132 Main St, Chatham 277-1062
NY Dalc Gear & Bearing Supply Corp, 114 Atlantic Ave Richmond Hill 846-4200
Ohio C & D Assoc, 47 W Whipp Rd, Dayton ... 434-3030
Can Lyman Tube & Supply Co, Ltd, 5420 Pare St Montreal .... RE 1-7661

BALCO CAPACITORS, 307 WASHINGTON ST, ORANGE
NJ, 07050 .... 201 677-1200
R NOBEL, EMP 80, ENG 5, $500-$1,000M
Ariz Vinson Assoc, 44 E Indian School Rd Scottsdale 947-7371
Cal Richards Assoc, 900 N San Antonio Rd Los Altos 415 941-3226
Colo Vinson Assoc, Inc, 3600 S Lincoln Englewood 789-2203
Conn Abbott-Allison Co Inc, Box 467 Meriden .... BE 7-9232
Fla Spartak Inc, 410 Phelps Ave S Winter Park 644-3023
Ill Zak & Assoc Inc, 2645 W Peterson Ave Chicago 784-1711
Md Stemler Assoc, 6707 Whitestone Rd Baltimore 301 944-8262
Minn Technical Assoc, 6121 Excelsior Blvd Minneapolis 612 929-6115
Mo Zak Assoc, 230 S Bemiston Ave St Louis .... PA 7-8559
NJ Stemler Assoc Inc, Box 287 Cherry Hill 201 966-4070
NM Vinson Assoc, Inc, Box 3295 Albuquerque 298-7442
NY Kahgan Sales, 1261 Broadway New York 212 684-7772
Tex Texport Co, 2411 Farrington St Dallas 214 631-6270
Utah Vinson Assoc, Salt Lake City .... Zenith 900
Wash Jon B Jolly, 413 Maritime Bldg Seattle 206 624-2152
Can Electrodesign Ltd, 9124 St Lawrence Blvd, Montreal

BAL CORP, WILLIAM, 947 NEWARK AVE, ELIZABETH
N J, 07208 .... 201 354-9625
L PERNA, EMP 100, ENG 4, $1,000-$2,500M

BALDOR ELECTRIC CO, BOX 6238, FORT SMITH
ARK, 72901 .... 501 MI 6-1621
R BOREHAM, JR, EMP 500
Cal R S Boreham Co, 1723 Maple Ave Los Angeles .... RI 9-9251
Cal John H Gilmour Co, 600 16th St Oakland 451-3001
Colo Hardy Sales Co, 1033 S Beach Dr Denver 985-5252
Conn Kirkpatrick's Inc, 111 East Ave Norwalk 866-5373
DC Wm E MacDonald, 1917 Eye St Washington 333-8385
Fla Ray R Spaulding, 4614 Third Ave N St Petersburg 342-5001
Ga R F Wolters Co, Box 28443, Atlanta 255-2713
Ill Baldor Elec Co, 4836 Main St, Skokie ... OR 6-1740
Ind V Havens, 6114 Orchard Hill La Indianapolis 253-8254
Iowa W H Petty, 301 W 59th St Des Moines .... CR 9-2420
Mich H F Caspers, 7430 Second Blvd, Detroit .. 585-1975
Minn W S Cowan, 235 Sexton Bldg Minneapolis .... FE 5-5625
Mo H H Shour, 1840 Vernon St N Kansas City 471-2919
Mo O A Baumann Co, Box 3736, St Louis ... 644-1122
NJ H M Bailey, 56 Coopers Run Dr Cherry Hill 609 424-1188
NY J G Rubino, 20 Vesey St New York .... 212 CO 7-1323
NY J G Rubino, State Tower Bldg Syracuse 471-5179
Ohio Baldor Electric Co, Box 7286 Cleveland 884-5992
Ohio G Touschard, 53 Park Ave, Dayton ... AX 8-6901
Ore G Tillinghast, 1005 S W Delmont Portland 644-9001
Pa H C C Shute, 61 Steeplechase Rd Devon .... 215 MU 8-2732
Tenn C B Trotter, Box 16181, Memphis 396-1553
Tex C L Griffin, Box 24643, Dallas .... ME 1-1466
Tex J W Baugher Co, Box 22517, Houston ... NA 2-4515
Wis R H Jackson, 5594 N Hollywood Ave Milwaukee .... ED 2-1067

BALDWIN ELECTRONICS INC, BOX 3838, LITTLE ROCK
ARK, 72203, TWX 53-6433 .... 501 375-7351
L TAYLOR, EMP 250, ENG 45, $5,000-$10,000M
Cal Raymond K McClintock, 641 N California Palo Alto 321-7840
Cal F Blaisdell, 10314 Starca Ave, Whittier ... 692-4815
Colo J Talbot, 5475 Bow Mar Dr, Littleton ... 794-3458
DC Herbert R Dyer, 1523 L St NW Washington 638-0575
Fla Wm J Daly, 1111 Ensenda Dr, Box 20175 Orlando 275-1410
Mass Marvin C Lewis, 228 Pleasant St Newton Centre 969-9378
Mich S Sterling Co, 21250 10 1/2 Mile Rd, Southfield
Ohio C Farrell Winder, 6686 Hitching Post La Cincinnati 231-1786
Wash Farwest Agencies, 12410 S E 32nd St, Bellevue
Can D Willer, 1800 Ave Rd Toronto 12, Ont 416 783-3373

BALDWIN KONGSBERG CO, 11750 CHESTERDALE RD
CINCINNATI
OHIO, 45246, TWX 810-464-8140 .... 513 771-7023
H AHLGREN, EMP 8, ENG 2, $500-$1,000M
Cal J F Dugan, 264 San Antonio Way Walnut Creek 415 933-4774
Cal Dimensional Control Corp, 760 Industrial Rd San Carlos 415 591-0365
Ill R Edw Stemm, 17W480 Lake St, Addison
Md Eastronics, 2401 Blueridge Ave Wheaton 301 942-2363
Mass Applied Measurements, Inc, 86 Hayward Rd Acton 617 263-2766
NJ J Woodfill, Montrose Rd Colts Neck 201 431-1443
Nor Kongsberg Vapenfabrikk, Kongsberg 37

BALLANTINE LABORATORIES, INC, FANNY RD BOX 97
BOONTON
N J, 07005, TWX 710 987-8361 .... 201 334-1432
R DORRIS, EMP 97, ENG 6
Ala Gentry Assoc Inc, 2109 W Clinton Ave Huntsville 205 534-9771
Alas Arva, Inc, Box 759, Anchorage 907 272-5231
Ariz T Louis Snitzer Co, 15 N 40th Pl Phoenix 602 273-1673
Cal T Louis Snitzer Co, 9005 Exposition Blvd Los Angeles 213 836-6070
Cal T Louis Snitzer Co, 1020 Corporation Way Palo Alto 415 968-8304
Cal T Louis Snitzer Co, 1150 Camino Del Mar Del Mar 714 454-2191
Conn Howard J Schuft Co Inc, 965 Dixwell Ave New Haven 203 865-1365
Fla Gentry Assoc Inc, 550 N Bumby Ave Orlando 305 841-7740
Fla Gentry Assoc Inc, 4152 49th Ave S St Petersburg 813 867-7820
Fla Gentry Assoc, Inc, 201 Nelson St Eau Gallie 305 773-3411
Ga Gentry Assoc Inc, Box 13513 Sta K Atlanta 404 233-3816
Ill Pivan Engrg Co, 3535 W Peterson Ave Chicago 312 539-4838
Ind Pivan Engrg Co, 8545 Northcrest Ct Indianapolis 317 253-1681
Iowa Pivan Engrg Co, 4403 1st Ave S E Cedar Rapids 319 365-6635
Md Gawler-Knoop Co, 1751 Rockville Pike Rockville 301 427-3950
Md Gawler-Knoop Co, 807 E Seminary Ave Towson 301 825-3151
Mass Howard J Schuft Co, 815 Washington St Newtonville 617 527-5304
Minn Pivan Engrg Co, 3203 N Hwy 100 Minneapolis Hwy 612 537-4501
Mo Pivan Engrg Co, 400 Brookes Dr Hazelwood 314 731-3000
NJ Gawler-Knoop Co, 14 Beaufort Ave Roseland 201 226-4545
NY Naco Electronics Corp, 119 Luther Ave Liverpool 315 474-7481
NY Naco Electronics Corp, 2631 Edgewood Rd Utica 315 732-1801
NY Naco Electronics Corp, 14 Lori St Poughkeepsie 914 462-2730
NY Naco Electronics Corp, 74 Park Ave Rochester 716 244-4720
NC Gentry Assoc, Inc, Box 197 Jamestown 919 454-1919
Ohio Ohio Instrument Co, 505 Whitney Ave Worthington 614 885-0743
Ore Arva, Inc, 2035 SW 58th Ave Portland 503 292-8762
Pa Gawler-Knoop Co, Box 414 Richboro 215 925-7550
Tex Mitchell Speairs Co, 4944 James Ave Fort Worth 817 923-4657
Wash Arva, Inc, 1320 Prospect St Seattle 206 622-0177
Wis Pivan Engrg Co, Box 437 Waukesha 414 547-5131
Can Atlas Instrument Corp, 50 Wingold Ave Toronto, Ont 416 781-6174
Can Atlas Instrument Corp, 3333 Cavendish Blvd Montreal, Que 514 489-8495
Can Atlas Instrument Corp, 342-1/2 Elgin St Ottawa, Ont 613 233-9471
Can Atlas Instrument Corp, 10204 88th St Edmonton, Alb 403 424-9065
For Sylvan Ginsbury Ltd, 72 W 45th St New York, NY 212 687-3213
For Overseas Distributing Co, Box 7342, Karachi 3, Pak
For Guevara & Sons Inc, Box 3130, Manila, Phil
For Electrotecnicos Reunidos Lda Av Duque D'Avila, 66-3, Lisboa, Port
For Sodiprel Ltda, Casilla 13863, Santiago, Chile
For J B Daguerre, Bage 3789, Montevideo, Ura
Den J Arndt Jensen, Gl Strandvej 302 Humlebaek 03/241/1113
Fr Radio Television Francaise, 73 Ave de Neuilly 92 Neuilly-Sur-Seine .... SAB 70-40
Ger Ginsbury Electronic, Zaenglweg 20 8 Munchen 56 40-86-75
GB Wessex Elctns Ltd, Baldwin St, Bristol
Holl Ingenieursbureau Heijnen, Postbus 10 Gennep 08851
Ital Gigi Gallo Gorgatti, Via Borromei 5 20123 Milan 870 725
Jap Hakuto Co Ltd, 1 Shibakotohiracho Minatoku, Tokyo 3166-9, 5301-9
Nor Hugo Risoe, Box 8 Taasen, Oslo 8 .... 69 34 30
SAfr A C Gowlett (Pty.)Ltd., Box 1257, Johannesburg
Swed Robert E O Olsson, Tradgardsgatan 7 Motala 122 29
Swit Metravel S A, Chemin de la Dode, Onex, Geneva
Belg Heijnen N V, Gaerveldstr, 40, Hasselt
Braz H Merenholz, Rua Mexico, 70 - 803, Rio de Janeiro
Gr B Beis Co, Box T8.114, 113 Batission, Athens
Ind Forbes, Forbes, Campbell, Box 79, Bombay 1
Isrl Racom Electronics Co Ltd, 74 Nordau Blvd, Telaviv
Mex Narciso Garcia G, Apto 10627, Mexico 7, D F
Spn Instrumentos Elctn del Olmo, S A, La Gleva, 3 Barcelona 6 247-7203
Fin Havulinna Oy, Box 468, Helsinki
Aust Warburton Franki Ltd, 307 Kent St Sydney .... BX 1111
Aust W & K McLean Ltd, Box 3097, Auckland ... 586-000
Aust Warburton Franki Pty Ltd, 204 Flinders St Adelaide 8-1711
Aust Warburton Franki Pty Ltd, Fortitude Valley Queensland

Aust Warburton Franki Pty Ltd, 220 Park St
S Melbourne, S C 5 690151

BALLASTRAN CORP, EXECUTIVE BLVD, FORT WAYNE
IND, 46808, TWX 219 241-3464 .... 219 484-4123
G BRENTON, EMP 500, ENG 12, $5,000-$10,000M
Cal Adtek Assoc, 201 Town & Cty Vlg
Palo Alto 415 323-5414
Conn J E Boeing Co, Box 151, Branford 203 488-8301
Ind R O Whitesell & Assoc, 6620 E Washington St
Indianapolis 317 359-5374
Ind R O Whitesell & Assoc, Central Bldg
Fort Wayne 219 743-4411
Ky R O Whitesell & Assoc, 3620 Lexington Rd
Louisville 502 893-7303
Md Milan Assoc, Inc, 7215 York Rd
Baltimore 301 825-1120
Mass J E Boeing Co, Box 5, Lexington 617 862-2500
Mich R O Whitesell & Assoc, 25100 Evergreen Rd
Southfield 313 358-2020
Mich R O Whitesell & Assoc, 303 Fidelity Bldg
Benton Harbor 616 927-2041
Minn Arthur Engrg Sales Co, 821 University Ave
St Paul .... IV 4-3277
Mo L R Harry Assoc, Box 588
Grandview 816 763-3634
Mo L R Harry, 7603 Forsyth, Clayton 314 727-6123
NY Pacent Engrg Corp, 300 Northern Blvd
Great Neck 516 482-4678
NY M P Andrews, Inc, 319 Mott Rd
Fayetteville 315 637-6405
Ohio J U Hudnall Co, Box 304
Terrace Park 513 831-4613
Ohio R O Whitesell & Assoc, 4133 S Dixie
Dayton 513 298-9546
Ohio R O Whitesell & Assoc, 1172 W Galbraith
Cincinnati 513 521-2290
Ohio R O Whitesell & Assoc, 21139 Lorain Ave
Cleveland 216 333-2585
Pa R O Whitesell & Assoc, 201 Penn Ctr Blvd
Pittsburgh 412 242-0100
Tex A E Petsche Co, 1325 E Abram
Arlington 214 948-6626
Wis Arthur Engrg Sales Co, 10720 W Scharles Ave
Hales Corners 414 525-5919

BALL BROTHERS RESEARCH CORP
BOULDER IND PK, BOX 1062, BOULDER
COLO, 80302, TWX 910-940-3241 .... 303 444-5300
R STRIEBY, EMP 1200, ENG 400, OVER $10,000M
DC Ball Bros Rsch Corp, 1000 16th St NW
Washington 202 783-4093

BALLONOFF METAL PRODUCTS CO, 14055 CEDAR RD
CLEVELAND
OHIO, 44118, TWX 810 421-8345 .... 216 932-3100
I BALLONOFF, EMP 200, ENG 2, $2,500-$5,000M

BAL SEAL ENGINEERING CO, 9929 S GREENLEAF AVE
SANTA FE SPRINGS, CAL, 90670 .... 213 691-2475
P BALSELLS, EMP 22, ENG 6
Cal Ray F Gratiot Co, 105 S Kenwood, Glendale
Colo Larry R Barland Co, 2701 Alcott St
Denver 433-8597
Conn Shicks Selling Service, 766 Main St
Newington .... MO 6-4233
Fla Spartak Inc, 410 Phelps Ave
Winter Park 644-3023
Ill Packing Seals & Engr, 3942 W Irving Park Rd
Chicago
Ind OEM Sales, Box 55232, Indpls .... LI 5-1267
Minn E S Dygert Co, 990 NW Bank Bldg
Mnpls .... FE 3-0600
Mo Strother & Assoc, 6050 Brown Rd
St Louis .... JA 1-5100
NJ McDaniel Co, Box 224
Haddonfield 609 428-5531
NY Robt Emmett Assoc, 66 Elder Dr
Commack 516 543-9308
NY Ray Mercier Assoc, 4350 Ridge Rd W
Rochester 716 225-8550
Ohio Atlas Fluid Components Inc, Box 1013
Cuyahuga Falls
Ohio Roc Assoc, Box 241, Worthington 614 885-1057
Tex Andy & Assoc, 2716 W Mockingbird
Dallas .... 214 FL 7-3978
Wash George W Narden Co, 1305 Dexter Ave
Seattle .... AT 3-1441
Can Scott Fittings, 159 Bay St, Toronto, Ont

BALTEAU ELECTRIC CORP, 10-14 MEADOW ST
STAMFORD, CONN, 06902 .... 203 324-6118
F GUISE, EMP 16, ENG 3
Ill N H Sonderman, 410 S Hager St
Barrington 381-4345

BALTIC METAL PRODUCTS CO, 126 SUTTON ST
BROOKLYN, N Y, 11222 .... 212 EV 42300
S SCHLANGER, EMP 70, ENG 4, $500-$1,000M

BARBER-COLMAN CO, EMP DIV, 1300 ROCK ST
ROCKFORD
ILL, 61101, TWX 815 398-0341 .... 815 968-6833
M KELLEY, EMP 500, ENG 50
Cal R Meussdorffer & Assoc, 13441 Ventura Blvd
Sherman Oaks 788-0771
Cal Barber-Colman Co, 750 Monterey Pass Rd
Monterey Park 268-9251
Cal Long & Assoc, 505 Middlefield Rd
Redwood City 369-3324
Colo SL Assoc, Box 15096, Denver 238-1807
Conn White Sales Co, Box 122, Berlin 224-0423
Ga Barber-Colman Co, 1521 Northeast Exp NE
Atlanta 633-2561
Ill Newman-Krause Co, 5451 W Lawrence Ave
Chicago 736-6800
Ill Barber-Colman Co, 1400 Rock St
Rockford 968-6833
Ind Menze Sales, 6010 Lwr Huntington Rd
Fort Wayne 747-5616
Md Machinery & Equip Sales Inc, 3303 Chestnut Ave
Baltimore 889-2070
Mass White Sales Co, 20 Chestnut St
Needham 444-3676
Minn Northport Engineering Inc, 2027 Grand Ave
St Paul 698-3841
NJ P H Werner, 359 Clinton Pl, Newark 923-9232
NJ Barber-Colman Co, 112 S Washington Ave
Bergenfield 384-9383
NY Harries & Kershaw, 15 Canterbury La
E Aurora 625-1221
NY Harries & Kershaw, 216 Shorewood Dr
Webster 671-6365
NY Harries & Kershaw, 110 Fayette Circle
Fayetteville 637-9871
NC Candor Co, Bethania 924-1480
Ohio R K Deunk & Assoc Inc, 7390 Chippewa Rd
Cleveland 526-4317
Pa C N McDavitt, Box 8, Pilgrim Gdn Sta
Drexel Hill 544-2588
Pa Barber-Colman Co, 5050-B State Rd
Drexel Hill 626-0630
Tex Barber-Colman Co, 3325 West Frwy
Fort Worth 732-2818
Wash Seatronics Inc, 5931 4th Ave S, Seattle 725-4328
Wis Barber-Colman Co, 3952 N 76th St
Milwaukee 464-5900
Can John Herring & Co Ltd, 3468 Dunas St W
Toronto, Ont 762-7545
Can Godfrey Engrg Co Ltd, 480 Montr-Toron Blvd
Lachine, Que 637-1122

BARCO CHEMICAL PRODUCTS CO, 701-3 S LASALLE
CHICAGO, ILL, 60605 .... 312 427-2916
N KHARASCH, EMP 12, ENG 2, $100-$250M

BARCO, INC, BOX 1222, MILWAUKEE
WISC, 53201, TWX 414 322-8396 .... 414 276-8515
I AARON, EMP 10, ENG 3, $100-$250M
Cal Mann & Smith, 8949 Reseda Blvd
Northridge .... DI 9-2073
Cal Nickerson-Gray & Assoc, Box 11295
Palo Alto 415 326-0152
Colo Norris & Co, 915 Cheyenne Blvd
Colorado Springs 635-9319
Minn Irvn I Aaron Assoc Inc, 614 E Grant St
Mnpls .... FE 6-6659
NJ Braddock Assoc, Box 305, Haddonfield 429-0087
Va Braddock Assoc, Box 556, Falls Church 534-9177

BARDEN CO, 675 VALLEY DR, HERMOSA BEACH
CAL, 90254 .... 213 376-8841
G DENNIS, EMP 12
Cal Tech-Rep, 10606 W Pico Blvd
Los Angeles 213 871-0055
Minn Beta Engineering Co, 128 Jackson Ave N
Hopkins 612 938-2551
NY W H Goudy Assoc, Box 70
Centerport 516 271-8830
Tex Delzell & Evans Assoc, Box 35093
Dallas .... 214 FL 1-1839

BARDEN CORP, 200 PARK AVE, DANBURY
CONN, 06810 .... 203 744-2211
G HOPKINS, EMP 1580, ENG 55, OVER $10,000M
Cal Barden Corp, 3850 Wilshire Blvd
Los Angeles 385-0034
Can Philip French Sales Ltd, 785 Plymouth Ave
Montreal 731-7513
Can Philip French Sales Ltd, 8 Taber Rd
Rexdale, Ont 244-4281
Fr C P I Aeronautique, 57 Ave d'Iena
Paris .... KLE 76-17
Ger Aerotechnik-Kirchfeld KG, 4 Dusseldorf
Trinkaus-Str I 10545
GB Barden Corp (UK) Ltd, Western Rd
Bracknell, Berks 24511
Swit Merag, 7 Clos De Bulle
1000 Lausanne 021-22-40-94

BARIUM AND CHEMICALS, INC, BOX 218
STEUBENVILLE, OHIO, 43952 .... 614 AT 2-9776
A PAVLIK JR, EMP 55, ENG 6

BARKER PRODUCTS CO, 344 CENTRAL ST, SAUGUS
MASS, 01906 .... 617 233-6676
R BARKER, EMP 75, $1,000-$2,500M
Ala Maitland K Smith Co, 3258 Cahaba Heights Rd
Birmingham 967-3080
Cal Henry Feldman Co, Box 66367
Los Angeles .... RI 9-8803
Cal Evans Marketing Co, 2803 Geneva Ave
Daly City .... JU 4-0818
Colo Vines & Co, Box 1025, Denver .... TA 5-4471
Fla Maitland K Smith Inc, 897 Penna Ave
Fort Lauderdale 587-7378
Ga Maitland K Smith Inc, 31 16th St, NW
Atlanta .... TR 5-8031
Ill Loren F Green & Assoc, 5218 W Diversey Ave
Chicago .... AV 6-6824
Md Stinson Assoc, 12404 Starlight La
Bowie 262-1416
Mass Marketing Elctns, Inc, 339 Auburn St
Auburndale .... LA 7-7753
Mich Riley & Petchell Electronic Sales, 13209 Fenkell
Detroit .... VE 8-9100
Minn John E M Anderson Co, 5231 Humboldt Ave S
Minneapolis .... TA 3-6459
NJ Component Marketrs Inc, 109 Valley Rd
Montclair .... PI 6-6717
NC Maitland K Smith Inc, 1605 Chatham Ave
Charlotte .... FR 6-5951
Ohio Fred Ohman, Box 363, Twinsburg 425-7445
Pa Stinson Assoc, 227 Haverford Ave
Narberth .... MO 4-5511
Tex Charles Lucas Sales Co, Box 13632
Dallas .... WH 2-5958
Wash Dave Champlin Co, 12347 Bothell Way NE
Seattle .... EM 2-0401
Can Alex L Clark Ltd, 3751 Bloor St W
Islington .... BE 1-3303

BARKER SALES CO, 339 BROAD AVE, RIDGEFIELD
NJ, 07657 .... 201 943-2477
T ROBINSON-COX, EMP 17, $1,000-$2,500M

BARKLING INDUSTRIAL FURNACE CORP
16850 S STATE ST, SOUTH HOLLAND
ILL, 60473 .... 312 339-2020
M PATTERSON, EMP 55, ENG 2
For Sales Offices/Reps see Huppert Co, K H Listings

BARNES CORP, 24 N LANSDOWNE AVE, LANSDOWNE
PA, 19050, TWX 510 669-9977 .... 215 622-1525
K HOOK, EMP 135, ENG 6, $2,500-$5,000M
ADV PG 645
Cal Dyna Sales Co, Box 6757, Los Angeles 268-1175
Cal R A Banks Sales Corp, 1029 Corporation Way
Palo Alto 415 964-4464
Conn Hale-Forden Assoc, 1245 Farmington Ave
W Hartford 521-5620
Fla Beacon Electronic Assoc, 540 S Maitland
Maitland 647-3498
Fla Beacon Electronic Assoc, 417 N W 28th St
FtL Lauderdale 305-564-4298
Ga Beacon Electronic Assoc, 2285 Peachtree Rd NE
Atlanta 404-351-3654
Ill Robt J Kennedy Co, 6713 N Oliphant Ave
Chicago 631-8283
Kan Penzner Assoc, 5600 W 95th St
Overland Park 381-0004
Md Paddock Joslow Co, 721 Ellsworth Dr
Silver Spring 588-7866
Mass Hale Forden Assoc, 472 Pleasant St
Melrose 617 266-3333
Minn Bonament Heyda Co, 3830 Rustic Place
St Paul 484-8531
Mo Penzner Assoc, 5540 Idaho Ave
St Louis 314-351-1547
NJ J P Dearie Co, 60 Midvale Rd
Mountain Lakes 201 334-4848
NM Electronic Enterprises, 1900 Washington St
Albuquerque 256-1585
NM Electronic Enterprises, 2605 Calle de Rosa
Las Cruces 505-524-0126
NY Martin P Andrews Inc, 319 Mott Rd
Fayetteville 637-6405
NY M P Andrews, Kirkland Hotel
Kingston 914-338-4247
NC Beacon Electronic Assoc, 305 Greenway St
Jamestown 919-454-1010
Ohio McShane, 3633 Trails End Dr, Medina 725-4283
Okla T J Ray Co, Box 45191, Tulsa 918-627-1515
Pa B & A Assocs, 237 Lancaster Ave
Devon 688-5173
Tex Gillett Industries Co, 5635 Yale Blvd
Dallas 363-0107
Wash James J Backer Co, 221 W Galer St
Seattle 283-6470
Can Computing Devices of Can, Box 508
Ottawa 613-829-1800
Can Computing Devices of Can, Box 188 Sta K
Toronto 416-483-3600
For Dage Corp, 757 Main St, Stamford 324-3123

BARNES ENGINEERING CO, 3012 S HALLADAY ST
SANTA ANA, CAL, 92705 .... 714 545-5561
G BARNES, EMP 15, ENG 2, $100-$250M
Cal Vico Sales Co, Box 372, Santa Clara 244-5934
Ger Hans Hurnaus
Neubeuren Am Inn, Bavaria .... RAU 304

BARNES ENGINEERING CO DEF & SPACE DIV
30 COMMERCE RD, STAMFORD
CONN, 06902, TWX 203 327-0840 348-5381
S HAFFNER, EMP 450, ENG 250, OVER $10,000M
Ala E G Holmes & Assoc, 4862 Governors Dr W
Huntsville 205 837-6900
Cal Barnes Engineering Co, 1400 Coleman Ave
Santa Clara 248-4221
Cal Barnes Engineering Co, 1100 Glendon Ave
Los Angeles 477-3593
Conn Northeast Assoc, 516 Pepper Ridge Rd
Stamford 203 329-0012
DC Barnes Engrg Co, Box 31, McClean Va 759-2161
Fla E G Holmes & Assoc, 316 1/2 S Bumby St
Orlando .... 305 CH 1-2128
Ga E G Holmes & Assoc, 3667 Clairmont Rd
Chamblee 404 451-6161
Ill Brooks Engineering Co, 227 E Walton Pl
Chicago 944-1227
Md C E Snow Co, 10442 Baltimore Ave
Beltsville 301 345-2211
Mass Northeast Assoc, Box 31
Marblehead 617 595-1000

NY Martin P Andrews, Inc, 319 Mott Rd
Fayetteville .... NE 7-3144
NY Barnett Assoc, 40 Aberdeen Rd
Hauppauge 516 724-0202
NC E G Holmes & Assoc, 430 W Gaston St
Greensboro .... 919 BR 2-0855
Ohio Rixan Assoc Inc, 5752 Wadsworth Rd
Dayton 222-0011
Pa C E Snow Co, 258 N Main St
Ambler .... 215 MI 6-9451
Tex W C Culver & Assoc, 1840 NASA Blvd
Houston 713 591-2955
Tex Arnold Barnes Co, 740 S Sherman
Richardson .... 214 AD 5-4541
Tex Arnold Barnes Co, 3230 Mercer St
Houston .... 713 NA 2-3620
Tex Arnold Barnes Co, E 106 Petroleum Ctr
San Antonio .... 512 TA 8-1323
Can Technical Mktg Assoc, Six Thorncliffe Sq
Toronto, Ont
Ger H Dauber Assoc Inc, Ainmellerstr 1, 8 Munich
GB B & K Instr Ltd, 59 Union St, London SE 1
Jap Marubeni-Iida Inc, 4, 1-Chome Ohtemachi
Chiyodaku, Tokyo
Isrl Eastronics, Ltd, 75 Haifa Rd, Box 21029, Tel Aviv

BARNSTEAD CO DIV RITTER PFAUDLER CORP
225 RIVERMOUR ST, BOSTON
MASS, 02132, TWX 094-556 617-327-1600
F SIRAGUSA, EMP 250, ENG 20
ADV PG 382
Cal Barnstead Co, Box 39723, Los Angeles ... 622-8248
Cal Barnstead Co, Oakland 832-1769
DC Barnstead Co, Washington .... DI 7-1142
Ga Barnstead Co, Atlanta 634-8625
Ill Barnstead Co, Box 556
Hoffman Estates 894-9220
Mich Barnstead Co, Detroit .... ENT 7422
Mo Barnstead Co, Box 12587, St Louis 968-3616
NY Barnstead Co, 1 Wolf's La, Pelham ..... KI 8-1557
NC Barnstead Co, Box 17672 North Hills Sta
Raleigh 787-7773
Ohio Barnstead Co, Box 2625, Cleveland ..... AC 6-6622
Ohio Barnstead Co, Box 315, Lima 271-2138
Pa Barnstead Co, Box 103, Wayne .... MU 8-2918
Tex Barnstead Co, Box 55186, Houston 465-0235
Can Barnstead Co, Box 6, Sta D
Toronto, Ont 445-4002

BARRETT CO, LEON J, 1776 GRAFTON RD
WORCESTER, MASS, 01601 .... 617 755-4306
R AYRES, EMP 25, ENG 2, $500-$1,000M
Cal Engineered Prods Service, 8008 State St
Huntington Park 582-7755
Cal J Fenstermacher, 681 Market St
San Francisco 362-4930
Fla G F A MacKay, Box 174, Coral Gables ... 665-1965
Ga Smith Industrial Sales, Box 19831, Sta N
Atlanta 355-4118
Ill Federal-Bryant Machinery Co
4639 Washington Blvd, Chicago 378-3307
Mich Lor-Mac Assoc, 803 W 11 Mile Rd
Royal Oak 547-3255
Minn 4 Reasons Co, 2680 Regent Ave N
Minneapolis 588-4091
Mo Shea-Brownell Co, Box 3147, St Louis ... 725-1522
NJ D W Samele, 11 Wisteria Dr, Fords 494-0477
NY George H Britton Co, 33 Lois St
Rochester 254-6026
Ohio Aldrich Co, Box 3623, Cleveland 481-4100
Ohio Jennelles, 47 E North St Reading,
Cincinnati 733-3838
Pa R P Hoppe Co, 300 Cedar Blvd
Pittsburgh 314-8400
Pa Day Engrg Co Inc, 1032 Park Ave
Audubon 666-7700
Tex Kobs Engineering Co, Box 3366
Houston 225-1139
Wash John Bristow, 442 Central Bldg, Seattle .. 624-7540
Wis E L Schultz, 3239 N 79th St
Milwaukee 444-7001
Can Williams & Wilson Ltd, Box 6117
Montreal 866-2851
Can Williams & Wilson Ltd, 71 Front St E
Toronto 363-8731

BARRETT ELECTRONICS CORP, 630 DUNDEE RD
NORTHBROOK
ILL, 60062, TWX 910-686-0007 .... 312 272-2300
R RENNAKER, EMP 250, ENG 25, OVER $10,000M
Cal Barrett Electronics Corp, 897 Commercial St
Palo Alto .... DA 6-7095
Cal Barrett Electronics Corp, 4647 Willis Ave
Shermam Oaks 213 784-4928
NY Barrett Electronics Corp, Lawrence Park Apts
Piermont 359-4845

BARRETT VARNISH CO, 1532 S 50 COURT, CICERO
ILL, 60650 .... 312 BI 22462
H HOLLATZ, EMP 65, $1,000-$2,500M

BARRINGER RESEARCH LTD, 304 CARLINGVIEW DR
REXDALE, ONTARIO 416 677-2491
W SEELEY, EMP 100, ENG 20, $2,500-$5,000M

BARRY CONTROLS DIV BARRY WRIGHT CORP
700 PLEASANT ST, WATERTOWN
MASS, 02172 .... 617 923-1150
J QUINN, EMP 250, ENG 40, $2,500-$5,000M
Cal Barry Controls Div, 2323 Valley St
Burbank 213 843-1000
Ga Black Engrg Sales Co, Box 28737
Atlanta 252-2523
Ill Barry Controls Div, 122 W St Charles Rd
Villa Park 312 834-2502
Md Barry Controls Div, 5132 Baltimore Ave
Hyattsville 301 277-8622
Mass Schaal Assoc Inc, 4 A St, Burlington .... BR 2-3250
Mich Barry Controls, 28165 Greenfield Rd
Southfield 313 358-3871
Mo Barry Controls, 47 Village Sq
Hazelwood 839-0470
NJ Barry Controls Div, 5900 Westfield Ave
Pennsauken 662-5010
NY ERA Inc, 330 Great Neck Rd
Great Neck .... HU 2-9320
NY T Ferguson Sales Co, Box 3893
Rochester .... HU 2-7757
Ohio Barry Controls, 1825 Webster St
Dayton 222-8931
Tex Blair Engrg Sales Co, 10034 Monroe St
Dallas 352-2556
Can J G Weiss Co Ltd, 5725 Monkland Ave
Montreal 28 .... 514 489-6887
Ger EFFBE-Membranenwerk, Hermannstr 7-11
6096 Raunheim Hess
GB Cementation (Muffelite) Ltd
Hersham, Walton-On-Thames, Surrey
Jap Showa Elec Wire & Cable Co Ltd
Tokyo Toranomin Bldg N 10 Shiba-Toranomin
Minato-ku Tokyo

BARTH CORP, 12650 BROOKPARK RD, CLEVELAND
OHIO, 44130 .... 216 267-1950
EMP 475, ENG 25, OVER $10,000M

BARTH ELECTRONICS, INC, 4832 RIDGE RD
CLEVELAND, OHIO, 44144 .... 216 661-0690
J BARTH, PRES, EMP 6, ENG 1, UP TO $100M

BARTLETT-EMERY INSTRUMENT CO, BOX 445
FORT MADISON, IOWA, 52627
P BARTLETT, EMP 33, ENG 2, UP TO $100M
Cal Walter Corman, 7432 W 80th St
Los Angeles 670-2520
Ill Edward Schmeichel Co, 5968 W Chicago Ave
Chicago 378-2070
NY John DiBlasi Assoc, 14 Vanderventer Ave
Port Washington .... PO 7-0470
Pa W E Girard, 715 Fairfield Rd, Glenside ... 887-4411

BARTLETT MFG CO, 70 N KING ST
ELK GROVE VILLAGE, ILL, 60007 .... 312 439-7200
R BENZIGER, ENG 4, UP TO $100M
Ind Needler Sales Co, Sta C, Box 2407, Fort Wayne
Mich R E Merchant & Co, 98 Water St
Benton Harbor 616 925-0015
Mich C B Jensen & Assoc, 26711 Woodward Ave
Royal Oak 313 399-0900
NJ Peterson-Rudnick Assoc, Box 822
West Caldwell .... CA 6-4363
NJ D & R Assoc, 248 Lorraine Ave
Upper Montclair 201 744-8378
NY Peterson-Rudnick Assoc, 364 Lincoln Pl
Brooklyn .... SF 9-9585
Ohio Mulligan & Mathias Co, 2011 Riverside Dr
Columbus
Pa H Goodman, 401 Mt Airy Ave
Philadelphia .... 215 CH 7-7116
Wis Manufacturer's Technical Sls
10031 W Grantosa Dr, Milwaukee

BART MICROWAVE DIV BART MFG CORP
135 MANCHESTER PL, NEWARK
N J, 07104 .... 201 759-0200
J LEWIS, EMP 80, ENG 8, $2,500-$5,000M

BARTON MINES CORP, NORTH CREEK
N Y, 12853 2296
J BURNS, EMP 125, ENG 3

BARWOOD ELECTRONICS, INC, 120 S MARYLAND AVE
GLENDALE, CAL, 91205 .... 213 245-4063
S HUGHES, EMP 15, ENG 2, $100-$250M

BASIC CERAMICS INC SUB BASIC INC
212 SEVENTH AVE, HAWTHORNE
NJ, 07507, TWX 710 988-4133 .... 201 427-4211
S EELLS JR, EMP 73, ENG 7, $500-$1,000M
Ala Southern Dynamics, Box 5983, Homewood Br
Birmingham 879-8764
Ariz Tech-Ser Inc, 1805 E Indian School Rd
Phoenix 265-3629
Cal Tech-Ser Inc, 2435 N Naomi St
Burbank 846-9631
Cal Tech-Ser Inc, Box 10544, San Diego 222-1121
Cal Tech-Ser Inc, 477 Castro St
Mountain View 969-9020
Fla Southern Dynamics, Box 13317
Orlando 855-5112
Ill R F McKinley, 1311 S 1st Ave
Maywood 312 345-2256
Iowa R W Farris Co, 517 5th Ave
Des Moines 515 244-8234
Mich Gitre Co, 12909 W Eight Mile Rd
Detroit .... DI 1-9270
Mich Gitre Co, 700 Dickensen SE
Grand Rapids 245-1729
Minn Stack-Johnson, Inc, 2907 Portland Ave S
Minneapolis 827-3841
Mo Dipro Inc, 11657 Adie Rd
Maryland Heights 432-3444
Mo R W Farris Co, 1715 Baltimore Ave
Kansas City 421-1751
Ohio Harry W Ruge Co, 1720 Section Rd
Cincinnati 351-5091
Ohio Harry W Ruge Co, 349 W First St, Dayton
Pa Industrial Specialties Inc, 300 Mt Lebanon Blvd
Pittsburgh 341-4000
RI Euro/Tech Inc, Box 269, Warwick 884-5671
Tex Tech-Ser Inc, 10210 Monroe Dr, Dallas ... 358-2504
Can Inca Assoc, Box 143, Sta B, Hamilton Ont

BASLER ELECTRIC CO, RTE 143, BOX 269, HIGHLAND
ILL, 62249, TWX 618-654-9301 .... 618 654-2341
J BELLINGER, EMP 480, ENG 15
Cal E V Roberts & Assoc, 9601 W Jefferson Blvd
Culver City 213 870-9561
Cal R E Abbott, 2600 El Camino Real
Palo Alto 415 327-0830
Cal R T Puelicher, 901 Laguna Rd
Pasadena 213 682-3050
Ill Sam Tollaksen, 304 S Halstead St
Chicago .... 312 CE 6-2964
Md Faion Lott & Co, Box 534
Glen Burnie 301 744-4611
Mass Electrical Apparatus Co, 1200 Soldiers Field Rd
Boston 617 782-7440
Mich Grant Shaffer Co, 14241 Fenkell Ave
Detroit .... 313 BR 3-5390
Minn White Sales Co, Box 4530, Mnpls ... 612 929-4661
Mo Harlan J Weisler & Assoc, 2050 Woodson Rd
St Louis .... 314 HA 8-3934
NJ L H Walke Co, 22 Harreton Rd
Allendale 215 642-4140
NY Seidel Assoc, 113 Ursula Dr
Roslyn .... 516 MA 1-1117
NY Aero Sales Co, 600 Oswego St
Liverpool 315-457-6378
Ohio Sea Wood Sales Inc, Box 42071
Montgomery 513 793-6702
Ohio Arthur H Baier Co & Assoc, 4399 Industrial Pkwy
Willoughby 216 946-6080
Ohio H Baier Co & Asso, 3300 S Dixie Dr
Dayton 513-298-9897
Pa Robinson-Kopp Co, Box 8358
Pittsburgh 412 271-1000
Wis Star Engineering Sales Co, 7328 W Burdick Ave
Milwaukee .... 414 LI 3-3469
Can Aero Sales Eng Co, 4 Racine Rd
Rexdale, Ont 416 249-9139
Can Aero Sales Engr Co, 2695 Regina St
Ottawa Ont 613-828-8560

BAUER BROADCAST DIV GRANGER ASSOC
1601 CALIFORNIA AVE, PALO ALTO
CAL, 94304 .... 415 321-4175
P GREGG
Ala Jess Swicegood, Box 1828
Dothan 205 792-2161
Cal T Aye, 796 The Dalles, Sunnyvale ... 408 738-1406
Colo H Broughall, 600 Marble St
Broomfield 303 466-3851
DC R Halvorson, 818 18th St NW
Washington 202 298-7125
DC H K Moore, 818 18th St
Washington 202 298-7125
Haw Robert H Pearson, 99-117 Chester Way, Aiea
Ill G E Webster, 1136 Gail La Sleepy Hollow
Dundee 312 428-5173
Ind Herbert L Arms, Box 327, Corydon 738-5752
Iowa V Blacketer, 8101 University Ave
Des Moines 515 274-2551
Ky Wilfred Fisher, Vancleve, Ky 666-5006
Miss Aubrey J Felder, Box 546, Brookhaven
NH J Keyworth, 2 High St, Plymouth 603 536-2500
NJ D Munnery, 116 Hudson, Waldwick .. 201 445-0325
Ore L J Denes, Rte 2 Box 584A
Boring 503 658-2684
SC Dixie Radio Supply Co, 500 Pendleton St
Greenville .... 803 CE 2-5357
Tex Wm W Wylds, 1247 Caudle Dr, Houston
Utah G K Shaw, 476 S 800 West, Orem
For J Calderon, AH-13 Villa Rica, Bayamon, P R

BAUSCH & LOMB, INC, 61469 BAUSCH ST
ROCHESTER
N Y, 14602, TWX 510-253-6189 .... 716 232-6000
A BLUM, EMP 6000, OVER $10,000M
Ala Bausch & Lomb, 512 N 18th St, Birmingham
Cal Bausch & Lomb, 275 Valencia St
San Francisco 415 863-1580
Cal Bausch & Lomb, 1434 W 11th St
Los Angeles 213 749-7721
Conn Bausch & Lomb, 66 Whitney Ave
New Haven 203 562-9851
Ga Bausch & Lomb, 121 Linden Ave N E
Atlanta 404 873-2023
Ill Bausch & Lomb, 740 W Washington Blvd
Chicago 312 782-9232
Ill Bausch & Lomb, 899 Skokie Blvd
North Brook 312 498-0400
Md Bausch & Lomb, 7100 Baltimore Ave
College Park 301 779-2300
Mass Bausch & Lomb, 565 Commonwealth Ave
Boston 617 262-6100
Mich Bausch & Lomb, 8107 Montlieu St, Detroit
Minn Bausch & Lomb, 817 Portland Ave
Minneapolis 612 335-8337
Mo Bausch & Lomb, 607 N Grand Ave
St Louis 314 652-8103
NJ Bausch & Lomb, 100 Menlo Pk, Edison
NY Bausch & Lomb, 136 W 52nd St
New York 212 247-5400

NY Bausch & Lomb, Depot Rd RD 6
Auburn 315 253-2439
Ohio Bausch & Lomb, 6500 Pearl Rd
Cleveland 216 888-5777
Ohio Bausch & Lomb, 7126 Ohio Ave
Deer Park 513 891-1652
Pa Bausch & Lomb, 349 Lancaster Ave
Haverford 215 649-3933
Pa Bausch & Lomb, 8600 Perry Hwy
Pittsburgh 412 364-0300
Tex Bausch & Lomb, 6455 Anita St, Dallas .. Ta 6-5535

BAY ENGINEERING CO, 630-36 GOUGH ST
SAN FRANCISCO, CAL, 94102 .... 415 931-2462
K BENFORD, EMP 6, ENG 2, UP TO $100M

BAY LABORATORIES, INC, 20160 CENTER RIDGE RD
ROCKY RIVER, OHIO, 44116 .... 216 333-3898
G PRUSHA, EMP 20, ENG 2, $250-$500M
Mich Tiby Co, 8701 Fenkell Ave, Detroit 834-9211
Mo Palatine Engrg, 2050 Woodson Rd
St Louis 314 426-7055
Ohio Tiby Co, 2245 Warrensville Ctr
Cleveland 371-5335
Ohio Tiby Co, 1954 N Main, Dayton 277-3822
Utah Applied Engrg Prods, 6375 Emigration Canyon
Salt Lake City 364-4942
Va W A Brown & Assoc, 325 First St
Alexandria 703 836-1800
Va W A Brown & Assoc, 82 Huxley Pl
Newport News 703 245-8272
Can Electrodesign Ltd, 9124 St Lawrence Blvd
Montreal 389-5914

BAYLEY INSTRUMENT CO, BOX 605, DANVILLE
CAL, 94526 .... 415 837-4649
L BAYLEY, EMP 10, ENG 2

BAYLY ENGINEERING LTD, HUNT ST, AJAX
ONTARIO, TWX 02-2831 925-2126
D MCPHERSON, EMP 120, ENG 8, $1,000-$2,500M

BAY PRODUCTS, SOMERSET & GURNEY STS
PHILADELPHIA, PA, 19134 .... 215 GA 66050
J JACOBS, EMP 120, ENG 2, $2,500-$5,000M

BAYSIDE TIMERS, INC, 43-69 162ND ST, FLUSHING
N Y, 11358 .... 212 463-8935
G DOROTHEA, EMP 8, ENG 2, $100-$250M
Wis O'Meara Co, 800 N Marshall St
Milwaukee 273-8467
Wis O'Meara Co, 800 N Marshall St
Milwaukee 273-8467

B & B ELECTRONICS CORP, 17360 GRAMMERCY PL
GARDENA, CAL, 90247 .... 213 FA 1-1956
D SMITH, EMP 60, ENG 5, $1,000-$2,500M
Ala Young & Lawrence Assoc, 2907 Governors Dr S W
Huntsville 205 539-6575
Ariz J Osborn Assoc, 5912 Foothill Dr N, Scottsdale
Cal Wm A Gibson Co, 1304 Alexandria Dr, San Diego
Cal Storm Prod Co Inc, 4039 Transport St, Palo Alto
Colo Storm Products, Box 225
Broomfield 303 466-7323
Fla Young & Lawrence, 601 N New York Ave
Winter Park 305 647-6929
Ill C Booth & Assoc, 1921 N Harlem Ave
Chicago 312 237-7910
Ind Tri-State Electronics Inc, 608 Ft Wayne Bank Bldg
Ft Wayne
Kan Palatine Engrg Sls, 5514 Johnson Dr
Mission 913 262-5643
Md S W Goodman Co, 5 W Biddle St
Baltimore 301 727-6116
Minn C Macnamara, 5227 Bartlett Blvd
Mound 612 472-4919
Mo Palatine Engrg Sales, 2050 Woodson Rd
St Louis 314 426-7055
NJ MRI, 215 Diamond Springs Rd, Denville
NY M R I, 55 Central Ave, Farmingdale
Ohio Tri-State Electronics Inc, 1717 Section Rd, Cincinnati
Ohio Tri-State Electronics Inc, 35 N Main St
Chagrin Falls
Ohio Tri-State Mktg, 25000 Euclid Ave
Cleveland 216 731-9207
Pa MRI, 2326 Rhawn St, Philadelphia
Tex Southern Engrg Co, Box 8393
Dallas .... 214 LA 1-3748

B & B MAGNETICS CO, 331 E 4TH AVE, LA HABRA
CAL, 90631 .... 213 697-8712
R BERRY, EMP 8, ENG 1, $100-$250M

B & B MOTOR & CONTROL CORP, 96 SPRING ST
NEW YORK, N Y, 10012 .... 212 966-5777
P BERSON, EMP 21, ENG 2, $1,000-$2,500M

B & C INSULATION PRODUCTS, INC
490 LINCOLN HWY, ISELIN
N J, 08030 .... 201 283-2315
J BALDINI JR, EMP 10, ENG 1, $100-$250M

BEACH-RUSS CO, 420 LEXINGTON AVE, NEW YORK
N Y, 10017 .... 212 OR 97636
A BEACH II, EMP 100, ENG 10, $2,500-$5,000M
Cal Loren Patrick Assoc, Box 695 M
Altadena 797-4511
Cal Loren Patrick Assoc, 201 Town & Country Village
Palo Alto 213 321-6065
Ga G Crossley, 3390 Peachtree Rd NE
Atlanta 404 261-4278
Ill Wm C Sedgwick, 1750 George Ct
Glenview 312 724-5170
Mass Hayes Pump & Machinery Co, 100 Properzi Way
Somerville 617 666-3880
Minn T O Berreau Co, 4505 Oak Dr
Minneapolis 612 926-1424
Mo Jim Rogers, 8002 Florissant Rd
St Louis 314 521-7929
NY LeValley McLeod Inc, 140 VanGuysling Ave
Schenectady 518 374-3101
Ohio R A Grey & Co Inc, 12429 Cedar Rd
Cleveland 216 462-2669
Pa J Guy Griffith Co, 1251 Union Trust Bldg
Pittsburgh 412 281-3854
Pa Wm Chester, Box 392, Haddonfield .. 609 547-0831
Can G F Seeley & Son, 108 Skyway Ave Rexdale
Ont 416 677-1481

BEAD CHAIN MFG CO, 110 MOUNTAIN GROVE ST
BRIDGEPORT, CONN, 06605 .... 203 334-4124
J KAESER, EMP 175, ENG 4, $1,000-$2,500M
Cal Yarbrough Sales Co, 1608 Orange St
Alhambra 213 283-0668
Ill Gene F Sales Co, 4750 N Milwaukee Ave
Chicago .... KI 5-5562
Ind Hoster Assoc Inc, 1627 W 75th Pl, Indianapolis
Mich J H Fox, 3404 Elder Rd, Orchard Lake
Minn Ed Melius & Assoc, 3758 N Dunlap St, St Paul
NJ Keefe Elctn Sales Co, 15 S Haddon Ave
Haddonfield
NY Pat Wright, 550 5th Ave, New York ..... PL 7-3638
NY C F Ahlheim, 220 Delaware Ave
Buffalo 716 854-0134
Okla Tom Burton Sales Co, 4624 E 25th St, Tulsa
For Alton Co Inc, 3214 Bergenline Ave
Union City, NJ .... UN 5-4080

BEAMA ENGINEERING LTD, 76 DENSLEY AVE
TORONTO 15, ONT 244-5349
J WALKER, EMP 32, $250-$500M

BEAM TUBE CORP, 11 BEACH ST, MILFORD
MASS, 01757 .... 617 473-0660
J WALSH, EMP 40, ENG 3, $250-$500M
Cal Windsor Dynamics, Box 5500
Sherman Oaks 789-2421
Conn J P International, 1989 Summer St
Stamford 203 348-2691
NY Transitube Inc, 47 E 22nd St, New York ... 533-5580
Ohio Aertronic Assoc Inc, 5899 Huberville Ave
Dayton 253-8144

BEAN & CO, MORRIS, HYDE RD, YELLOW SPRINGS
OHIO, 45387 .... 513 767-7301
D SCOTT, EMP 540, ENG 15, $5,000-$10,000M
Cal Pacific Component Sales, 2500 W 6th St
Los Angeles 384-1193
Mass R P Mahan Co, 572 Washington St
Wellesley 617 237-1040
NJ Talbot & Assoc, 1865 Morris Ave
Union 686-0833
NY Talbot & Assoc, 122 E 42nd St
New York 697-3862
Wash Houston Co, 1738 Fourth Ave S, Seattle .. 622-0750

BEARING INSPECTION, INC, 10041 SHOEMAKER AVE
SANTA FE SPRINGS, CAL, 90670 .... 213 944-6251
F AMES, EMP 15, ENG 1, $250-$500M
For Intercontinental Aviation Services Inc, Box 1705
Beverly Hills, Cal 272-5054

BEAUCHAINE & SONS INC, 117 UNION AVE, LACONIA
NH, 03246 .... 603 524-5518
C FERNALD, EMP 85, ENG 2, $500-$1,000M
Ala Stanley K Wallace Assoc, Inc, 1407 Ardsley Pl
Birmingham 871-5892
Cal R A Strassner Co, 3112 Los Feliz Blvd
Los Angeles 213 666-4040
Cal R A Strassner Co, 885 N San Antonio Rd
Los Altos 405 948-3334
Cal Feldman Roberts & Assoc, 9724 Washington Blvd
Culver City 213 870-5973
Colo Gossard & Assoc, 12159 W Dakota Dr
Denver 985-0602
Conn Ray Perron & Co, 36 Louis St, Trumbull ... 268-9631
Conn Ray Perron & Co, Inc, 10 Briarwood Rd
Farmington 673-4825
Fla Stanley K Wallace Assoc, Inc, Box 67
Lutz 949-1817
Fla Stanley K Wallace Assoc, Inc, 3115 NW 81st Terr
Miami 691-1654
Ga Stanley K Wallace Assoc, Inc, 715 Flamingo Dr
Atlanta 935-5817
Ill Wasson-Gallagher, 1024 North Blvd
Oak Park 383-6572
Ind Scott Electronics, Inc, 418 E Berry St
Fort Wayne 743-1586
Ind Scott Electronics, Inc, 911 N Penna Ave
Indianapolis 635-8951
Ky Scott Electronics, Inc, 366 Francis Bldg
Louisville 583-3220
Md Geo B Pearlman Assoc, 2815 Shanondale Dr
Silver Spring 301 572-4477
Mass Ray Perron & Co, 1870 Centre St
Boston 323-1008
Minn Heimann Co, 5603 Lyndale Ave S
Minneapolis 827-5457
Mo K & M Sales Co, 1627 Main St
Kansas City .... GR 1-1355
NH Ray Perron & Co, 1 Elm St, Dover ... 603 742-1254
NJ Murray Co, 25 W Northfield Rd
Livingston 992-0520
NJ E S Component Sales, 314 Columbia Blvd
Cherry Hill 609 667-5241
NY Cliff Landis Sales Co, 76-11 37th Ave
Jackson Heights 458-7900
NY B H Tollefson Assoc, 11 State St
Pittsford 716 381-2500
NC Stanley K Wallace Assoc, Inc, Box 215
Matthews 704 847-9262
NC Stanley K Wallace Assoc, Inc, Box 26
Kernersville 919 993-3993
Ohio Scott Electronics, Inc, 517 Hulman Bldg
Dayton 513 223-2652
Ohio Scott Electronics, Inc, 9505 Montgomery Rd
Cincinnati 513 791-2513
Ohio Scott Electronics Inc, 1836 Euclid Ave
Cleveland 216 861-2626
Ohio Scott Electronics, Inc, 79 E State St
Columbus 614 228-2313
Pa Scott Electronics, Inc, 313 Empire Bldg
Pittsburgh 412 471-5233
Tenn Stanley K Wallace Assoc, Inc, 5960 Brierdale Cove
Memphis 682-2281
Tex Bill Grogan Sales Co, 7508 Richland Rd
Fort Worth 817 284-7087
Wash Dave Miller Sales Co, 2323 N 45th
Seattle 632-7070

BEAU MOTOR DIV UMC ELECTRONICS CO
460 SACKETT POINT RD, NORTH HAVEN
CONN, 06473 .... 203 288-7731
V STANCLIFF, EMP 30, ENG 3, $500-$1,000M
Cal G M Burkhardt, 3232 Midvale
W Los Angeles 213 474-1425

BEAVER GEAR WORKS INC, 5459 11TH ST
ROCKFORD, ILL, 61105 .... 815 874-2471
J BRANSFIELD, EMP 100, ENG 5, $2,500-$5,000M

BEAVER LABS, INC, 160 TERMINAL DR, PLAINVIEW
NY, 11803 .... 516 822-3855

BEC INC, 1319 UTICA AVE, BROOKLYN
NY, 11203 .... 212 629-1636
I RUBIN, EMP 127, ENG 14, $500-$1,000M

BECKER ELECTRONICS MFG CORP
1091 ROCKAWAY AVE, VALLEY STREAM
N Y, 11581 .... 516 LO 12510
M MINTZER, EMP 150, ENG 3, $1,000-$2,500M

BECKER FLUGFUNKWERK GMBH, FLUGPLATZ
757 BADEN-BADEN-OOS
GERMANY, TWX 0784371 61008
E HEINECKE, EMP 130, ENG 11, $1,000-$2,500M

BECKMAN INSTRUMENTS INC, 2500 HARBOR BLVD
FULLERTON,
CAL, 92634, TWX 910 592-1260 .... 714 871-4848
EMP 8150, ENG 303, OVER $10,000M
Ala Beckman Instr, Inc, 645 Winwood Ave
Birmingham 822-7810
Ala Beckman Instr Inc, 4306 Governor Dr S W
Huntsville 881-2383
Cal Beckman Instr, Inc, 2500 Harbor Blvd
Fullerton 871-4848
Cal Beckman Instr, Inc, 2400 Wright Ave
Richmond 526-7730
Cal Beckman Instr Inc, 1117 California Ave
Palo Alto 326-1970
Cal Beckman Instr Inc, 2200 Wright Ave
Richmond 526-7730
Colo Beckman Instr, Inc, 3835 Elm St
Denver 399-2616
Colo Price-Parrish Elctns, 2130 S Albion
Denver 756-9455
Conn Beckman Instr Inc, 259 New Britain Rd
Kensington 223-2038
Fla Beckman Instr, Inc, 3113 Lawton Rd
Orlando 841-1372
Ga Beckman Instr, Inc, 5765 Peachtree Ind Blvd
Chamblee 451-3574
Haw Beckman Instr, Inc, Box 8625, Honolulu ... 503-723
Ill Beckman Instr, Inc, 7360 N Lincoln Ave
Lincolnwood 583-1020
Ill Beckman Instr Inc, Box 362, Champaign .. 356-5713
Ill Beckman Instr Inc, 2240 Diversey Pkwy
Chicago 278-6000
Ill Beckman Instr Inc, 3900 River Rd
Schiller Park 678-0050
Ind Beckman Instr, Inc, Box 40286
Indianapolis 255-5821
Iowa Beckman Instr, Inc, Box 599
Des Moines 244-2228
Iowa Beckman Instr Inc, Coralville Box 6306
Iowa City 338-5435
Kan Impala Inc, 6917 W 76th St
Overland Park 648-6901
La Beckman Instr, Inc, 2121 Wooddale Blvd
Baton Rouge 926-5085
Md Beckman Instr, Inc, 12050 Tech Rd
Silver Spring 622-2500
Md Beckman Instr Inc, 1830 York Rd
Timonium 252-4810
Mass Beckman Instr, Inc, 591 N Ave
Wakefield 245-6800

Mich Beckman Instr Inc, 25511 Southfield Rd
Southfield 353-7900
Mich Beckman Instr Inc, Box 447
East Lansing 489-0608
Minn Beckman Instr, Inc, 4900 Viking Dr
Minneapolis 920-3232
Mo Beckman Instr, Inc, 4901 Main St
Kansas City 931-4223
Mo Beckman Instr, Inc, 5461 Highland Park Dr
St Louis 371-5900
Mo Impala Inc, 47 Village Sq, Hazelwood 831-5454
NJ Beckman Instruments Inc
US Hwy 22 at Summit Rd
Mountainside 232-7600
NJ Beckman Instr Inc, 89 Commerce Rd
Cedar Grove 239-6200
NM Beckman Instr, Inc, 4200-D Silver Ave, SE
Albuquerque 265-8511
NM Price-Parrish Elctns, 507 Wyoming Blvd
Albuquerque 268-6791
NY Beckman Instr, Inc, 2451 Wehrle Dr
Buffalo 634-3777
NY Brogan Assoc, 474 Thurston Rd
Rochester 328-2350
NY Brogan Assoc, 202 Arterial Rd
Syracuse 437-2988
NC Beckman Instr, Inc, 111 Corcoran St
Durham 682-5747
ND Beckman Instr, Inc, Box 46, Fargo........ 235-6322
Ohio Beckman Instr, Inc, 10 Knollcrest Dr
Cincinnati 761-9560
Ohio Beckman Instr, Inc, 6500 Pearl Rd
Cleveland 886-3020
Ohio Beckman Instr Inc, Box 9736, Columbus .. 224-6804
Okla Beckman Instr, Inc, 3726 S Peoria
Tulsa 743-4001
Okla Beckman Instr Inc, United Founders Life Tower
Oklahoma City 838-2841
Pa Beckman Instruments Inc, 1 Bala Ave
Bala Cynwyd 839-3844
Pa Beckman Instr, Inc, 950 Greentree Rd
Pittsburgh 921-1530
Tenn Beckman Instr, Inc, 8114 Chesterfield Rd
Knoxville 546-5331
Tex Beckman Instr, Inc, 2600 Stemmons Frwy
Dallas 637-1640
Tex Beckman Instr, Inc, 5810 Hillcroft Ave
Houston 781-0810
Tex Beckman Instr Inc, 1422 Westmoor
Austin 454-4465
Utah Beckman Instr, Inc, 63 E Stratford Ave
Salt Lake City 467-5471
Utah Price-Parrish Elctns, 16 E Stratford Ave
Salt Lake City 487-7847
Wash Beckman Instr, Inc, 225 108th Ave, NE
Bellevue 454-9528
Wis Beckman Instr, Inc, Box 4127
Milwaukee 271-7060
Can Beckman Instr, Inc, 901 Oxford St
Toronto 18 Ont 251-5251
Can Beckman Instr, Inc, 10538 124th St
Edmonton, Alb 482-3447
Can Beckman Instr, Inc, 2626 Bates Rd
Montreal 26 Que 735-1376
Can Canadian Marconi Co Ltd, 2442 Trenton Ave
Montreal 16 Que 738-9441
For Equipamentos Tecnicos Lda, Rua Serpa Pinto 39
Luanda Angola 6917
For Inula, Box 73, A-1082 Vienna Aus 42-62-35
For Commercial Grebe y Co, Calle Ayacucho 331
La Paz 12324
For Photo-Cinex Ltd, Galle Face Court 2
Colombo 3 Cey 2577
For Coasin Chile Ltda, Matias Cousino 82
Santiago Chile 87653
For Trujillo Venegas e Hijo Ltda, Calle 54 No 9-33
Bogota 2 D E Col 48-57-72
For Desco S P C R L, B P 2322
Lubumbashi Rep of the Congo
For Costa Rica Dental & Med Supply Co, Box 434
San Jose 21-22-24
For Pan Vouros, 192 Ledra, Nicosia Cyprus 50-2
For Leonte Rene Baez, Libertador 36
Santo Domingo R D 2-4580
For Textile Consultants, Box 5, Quito Ecu
For Fausto Amador Ycaza, Ca[illegible] V M Rendon 426
Guayaquil Ecu 14589-23959
For Comercial Salvadorena S A
Edificio Julia L de Duke
San Salvador El Salv 21-3534
For Moenco Ethiopia Ltd, Box 1767
Addis Ababa Ethiopia 46440
For Atlas Co Ltd, Box 1225, Accra Ghana 66021
For H Hermanos & Cia Lda, 9a Calle 6-18 Zona 1
Guatemala City Guat 23828
For R L Rodriguez, Apt No 4
Tegucigalpa D C Hond 2-2871
For Universal Mercantile Co Ltd, 18 Queens Rd Central
Hong Kong Vic 222502
For Elm-Now Co Ltd
Ave Takht Djamschid Rue Bandar Pahlavi No 23
Teheran Iran 69298
For T H Mason & Sons Ltd, Crane La
Dublin 2 Ire 52191
For Antilles Trad Co Ltd, 2 Ashenheim Rd
Kingston Jam 3-9111
For Jordan Drugstore, Al Imam Ali St
Amman Jor 23142
For Asia Science & Co, 23-15, 1-KA Choongmoo-Ro
Choong-ku, Seoul, Kor 2-1860
For F Makhlouf & Co, 144, Damascus Ave
Beirut, Leb 26221-42662
For Pharmoclinic, Box 557, Tripoli, Libya 35216
For Ets Hanff Freres Luxembourg, Rue de La Vallee, 60
Luxembourg 295-96
For Gen Scientific Co, Ltd, 7, Jalan 222, Sec 20A
Petaling Jaya, Selangor, Malay 80978

For Hoffmann-Pinther & Bosworth SA, Box 101-Bis
Mexico 1, D F 27-82-05
For Equipamentos Tecnicos, Lda, Av 24 de Julho, 1847
Lourenco Marques Mozambique P E A 2601
For R Teran G, Edificio Teran
Managus, D N, Nicar 34-51
For Atlas Nigeria, Ltd, 6, Labinjo La
Lagos, Nig 25917
For Electronica Balboa S A, Box 4929
Panama City 5 Pan 3-0833
For H W Kessel, S A, Av Corpac Nr 312, San Isidro
Lima, Peru 23900
For Boie, Inc, 6774 Ayala Ave, Makati, Rizal, Phil
For Casa Serras E Dias Serras, Lda, Rua Augusta 288
Lisbon 2, Port 32-01-33
For Concessus, Rua Dom Francisco Manuel de Melo 9
Lisbon 1, Port 652406
For P R Hospital & Medical Supply Co
Ponce de Leon Ave, 1913
Santurce, P R 724-3491
For West Indies Engrg Corp, Loiza Sta
San Juan, P R 724-1367
For Mech & Combustion Engrg Co, Ltd, 9 Jalan Kilang
Singapore 3 642361
For Medical Supplier, El Barbary Bldg
Khartoum, Sudan 76312
For J Awad & Fils, Rue Tarek Ben Ziad
Damascus, Syr 18986
For Prof Shih-Chen Tao
4 Alley 5 La 147 Sin Yi Rd, Sec 3, Taipei, Tai
For Chem Equip Supply Co, 112-114, Chakrapetch Rd
Bangkok, Thai 20023
For Raymond & Co, 21 Mathura St
St James, Pt-of-Sp .... Trinidad, W I
For D Akgonul, Necatibey Caddesi 176
Istanbul, Turk 449525-446068
For Coasin Uruguaya S A, Cerrito 617
Montevideo, Uru 97978
For Coasin C A, A P 10386 Sabana Grande
Caracas, Venez 729637
For NAAFCO Viet, 14, rue Ton-That-Dam
Saigon, Viet 91-601
For Jugomontana, Obilicev Venac 4/IV
Belgrade, Yugo 629-922
Den Hans Buch & Co A/S, 6 Svanevej
Copenhagen NV .... TAGA 5170
Den LKB Instr A/B, Ronnegade 1
2100 Copenhagen 29-50-44
Den H Struers Chem Lab, 38 Skindergade
Copenhagen K 01 14-14-02
Fr Beckman Instr France, 17 Rue Marx Dormoy
Paris 18eme 205-7339
Ger Beckman Instr GMBH, Frankfurter Ring 115
8 Munich 45 .... 38 871
GB Beckman Instruments Ltd, Queensway, Glenrothes
Fife, Scot 3811
Holl Blessing Etra, Gronendaal 219-221
Rotterdam 1 113455
Ital Gigi Gallo Gorgatti, Via Borromei 5
Milano 870-725
Ital A Rastelli e C, Via San Martino della Battaglia 31
Rome 490257
Jap Beckman-Toshiba Ltd, 33-7, Shiba 5-Chome
Minato-ku, Tokyo 781-4398
Jap Hakuto Co Ltd, Box 25, Tokyo Central 501-3711
Nor C Grindvold A/S, Frognerveien 22, Oslo 2 ... 563590
SAfr Beckman Instr Pty Ltd, 59-61 Buitenkant St
Cape Town 41-0616
Swed Bergman & Beving AB, Karlavagen 76
Stockholm 08/246040
Swed LKB Instru AB, Box 76
Stockholm-Bromma 1 .... 08/980040
Swed Ing Firma Hugo Tillquist, Sodra Langgatan 21
Solna 3 08-830100
Swit Beckman Instr Intl SA
Rue Des Pierres-Du-Niton 17, Geneva
Swit Kontron A G, Hardstra 235
8031 Zurich 051 445690
Swit Megex Zurich GmbH, Badenerstr 582
8048 Zurich 051 527800
Arg Coasin S A, Virrey del Pino 4071
Buenos Aires 52-3185
Belg Analis, 14-37 rue Dewez, Namur 081-25085
Belg N V O I P, 108 Meersstr, Gent 225871
Belg Regulation-Mesure, 22 Rue St-Hubert
Brussels 15 .... 71 20 20
Braz Ambriex S A, Av Grace Aranha 226-6
Rio de Janeiro 42-7990
Gr M Dalleggio Rep, 2 Alopekis St
Athens 139 710669
Ind Air Conditioning Corp Ltd, Ballard Est Ft
Bombay 26-2844
Ind Electronic Enterprises, New Charni Rd
Bombay 4 75376
Ind Escorts Ltd, Connaught Circus, New Delhi 40145
Ind Toshniwal Bros Private Ltd
198 Jamshedji Tata Rd Ft, Bombay 1 246131
Isrl Eastronics Ltd, 75 Haifa Rd, Tel Aviv 446060
Mex Beckman Instr de Mex S A de C V
Parque Rio Frio 2 Naucalpan Edo de Mex
Mexico City 10, D F 27-57-23
Mex Curtin de Mexico, S A de C V
Antonio Maura 29 Col Moderna
Mexico 13 DF 30-31-60
Neth Ingenieursbureau Kempff
Laan van Meerdervoort 762
The Hague 070/685656
Neth N V Vereenigde Instr, Keizersgracht 642-644
Amsterdam C, ... 20 221944
NZ Elekon Overseas Ltd, 174, Great North Rd
Auckland 2 16188
NZ Watson Victor, Ltd, 4 Adelaide Rd
Wellington 80-069
Spn Pacisa, Gral P Rivera 35, Madrid 5 2308300
Fin Oy Control AB, Hitsaajankatu 5
Helsinki 81 780311
Fin Oy G W Berg & Co AB, Fabianinkatu 14
Helsinki 13 11541

Aust H B Selby & Co Pty Ltd, 35 York St
Sydney N S W 29-7711

BECKMAN INSTRUMENTS INC, HELIPOT DIV
2500 HARBOR BLVD, FULLERTON
CAL, 92634, TWX 910 592-1260 .... 714 871-4848
H CROUT, ENG 97
ADV PG 40, 145, 208, 217, 259, 260, 313, 415, 482, 484
485, 553, 586, 616, 622, 632,633
Ala Murphy & Cota, 904 Bob Wallace Ave
Huntsville 536-9121
Ariz Barnhill Assoc, 4900 E Indian School Rd
Phoenix 959-2115
Cal Beckman Instruments Inc, 1117 California Ave
Palo Alto 326-1970
Colo Barnhill Assoc, 1170 S Sheridan Blvd
Denver 934-5505
Conn Compar New England, 2357 Whitney Ave
Hamden 288-9276
Fla Lynch-Gentry Assoc Inc, 6731 1st Ave S
St Petersburg 347-5131
Ga Murphy & Cota, 586 Armour Cir N E
Atlanta 875-2525
Ill Magnuson Assoc, 5639 W Fullerton Ave
Chicago 622-6322
Md Beckman Instruments, Inc
Montgomery Industrial Park
Silver Spring 622-2500
Mass Compar New England, 88 Needham St
Newton Highland 969-7140
Mich Sheridan Assoc Inc, 25511 Southfield Rd
Southfield 358-3333
Minn Magnuson Assoc, 1246 W 7th St
St Paul 227-8495
Mo Sheridan Assoc, Inc, 10137 W Florissant Ave
St Louis 524-4800
NJ Beckman Instruments Inc
US Hwy 22 at Summit Rd
Mountainside 232-7600
NJ Beckman Instr Inc, Pleasant Valley Ave
Moorestown 235-3314
NM Barnhill Assoc, 827 Pennsylvania, N E
Albuq 265-7766
NY Ossmann Component Sales Corp, 39 Saginaw Dr
Rochester 442-3290
NY Ossmann Component Sales Corp
5858 E Molloy Rd, Syracuse 454-4477
NY Ossmann Component Sls Corp
1901 Vestal Pkwy, E, Vestal 785-9949
NY Ossmann Component Sls Corp
17 Round Lake Pk Rd, Monroe 297-7773
NC Murphy & Cota, 1106 Burke St
Winston Salem 724-0750
Ohio Sheridan Assoc Inc, 10 Knollcrest Dr
Reading 761-5432
Ohio Sheridan Assoc, Inc, 7029 Royalton Rd
Cleveland 237-9145
Ohio Sheridan Assoc, Inc, 26 W Nottingham Rd
Dayton 277-8911
Ore Almac/Stroum Electronics, 8888 S W Canyon Rd
Portland 292-3534
Pa Sheridan Assoc Inc, 201 Penn Center Blvd
Pittsburgh 243-6655
Tex Norvell Assoc Inc, 6440 Hillcroft Ave
Houston 774-2568
Tex Norvell Assoc Inc, 10210 Monroe Dr
Dallas 357-6451
Wash Almac/Stroum Electronics, 5811 Sixth Ave S
Seattle 763-2300
Can Beckman Instruments Inc, 901 Oxford St
Toronto 18, Ont 251-5251
For Equipamentos Technicos, Lda, Caixa Postal 6319
Luanda Angola 6917
For Inula, Postfach 73, A-1082 Vienna, Aus .. 42-62-35
For Comercial Grebe y Co
Casilla de Correo 276 Calle Ayacucho No 331
La Paz, Bol 12324
For Photo-Cinex, Ltd, Galle Face Ct 2
Colombo 3 Cey 2577
For Coasin Chile Ltda, Matias Cousino 82
Santiago, Chile 87653
For M Trujillo Venegas e Hijo Ltda
Calle 54 9-33 Apto 102
Bogoto 2, D E, Col, S A 48-57-72
For Desco S P C R L, B P 2322
Lubumbashi, Rep Congo
For Costa Rica Dental & Medical Supply Co, Box 434
San Jose 21-22-24
For Pan Vouros, 192, Ledra St, Nicosia, Cyp 50-2
For Leonte Rene Baez, Libertador No 36
Santo Domingo, R D Dom Rep 2-4580
For Textile Consultants, Box 25, Quito, Ecua
For Fausto Amador Ycaza, Calle V M Rendon 426
Guayaquil, Ecua 14589-23959
For Comercial Salvadorena, S A
Edificio Julia L de Duke
San Salvador, El Sal 21-3534
For Moenco Ethiopia Ltd, Box 1767
Addis Ababa, Ethi 46440
For Atlas Co Ltd, Box 1225, Accra, Ghana 66021
For H Hermanos & Cia, Lda, 9a Calle 6-18, Zona 1
Guatemala City, Guat 23828
For R L Rodriguez, Apt 4
Tegucigalpa, D C, Hond 2-2871
For Universal Mercantile Co, Ltd
18 Queens Rd, Central, Hong Kong Vic ... 222502
For Elm-Now Co Ltd
Ave, Takht Djamschid Rue Bandar Pahlavi No 23
Teheran, Iran 69298
For T H Mason & Sons, Ltd, Crane Lane
Dublin 2, Ire 52191
For Antilles Trading Co, Ltd, 2, Ashenheim Rd
Kingston, Jamaica 3-9111
For Jordan Drugstore, Al Imam Ali St
Amman, Jord 23142
For Asia Science & Co, 23-15, 1-KA Choongmoo-Ro
Choong-ku, Seoul, Kor 2-1860

For F Makhlouf & Co, 144, Damascus Ave
Beirut, Leb ... 26221-42662
For Pharmoclinic, Box 557, Tripoli Libya ... 35216
For Ets Hanff Freres Luxem, Rue de La Vallee, 60
Luxembourg ... 295-96
For Gen Scientific Co, Ltd, 7, Jalan 222 Sec 20A
Petaling Jaya, Selangor Malaysia ... 80978
For Equipamentos Tecnicos, Lda, Av 24 de Julho, 1847
Mozambique P E A ... 2601
For R Teran G, Edificio Teran
Managus, D N, Nicar ... 34-51
For Atlas Nigeria, Ltd, 6, Labinjo La
Lagos, Niger ... 25917
For Electronica Balboa S A, Box 4929
Panama City 5, Pan ... 3-0833
For H W Kessel, S A, Av Corpac Nr 312, San Isidro
Lima Peru ... 23900
For Boie, Inc, 6774 Ayala Ave, Makati, Rizal, Phil
For Concessus, Rua Dom Francisco Manuel de Melo 9
Lisbon 1, Port ... 652406
For P R Hospital & Medical Supply Co
Ponce de Leon Ave, 1913
Santurce, P R ... 724-3491
For Mechanical & Combustion Engrg Co, Ltd
9, Jalan Kilang, Singapore 3 ... 642361
For J Awad & Fils, Rue Tarek Ben Ziad
Damascus, Syria ... 18986
For Prof Shih-Chen Tao
4 Alley 5 La 147 Sin Yi Road, Sec 3, Taipei, Tai
For Chem Equip Supply Co R O P
112-114, Chakrapetch Rd, Bangkok, Thai ... 20023
For Raymond & Co, 21 Mathura St
St James Pt-of-Spain Trinidad, W I ... 21660
For D Akgonul, Necatibey Caddesi 176
Istanbul, Turk ... 449525-446068
For Beckman Instruments, Ltd, Queensway
Glenrothes Fife, Scot ... 3811
For Coasin Uruguaya S A, Cerrito 617
Montevideo, Uru ... 97978
For Coasin C A, Apt P 10386 Sabana Grande
Caracas, Venez ... 729637
For NAAFCO Viet, 14, rue Ton-That-Dam
Saigon, Viet ... 91-601
For Jugomontana, Obilicev Venac 4/IV
Belgrade, Yugo ... 629-922
Den H Struers Chemiske Lab, 38 Skindergade
Copenhagen K ... 14-14-02
Fr Ets Megex S A, 105, Quai Branly
75 - Paris Xveme ... 566-97-08
Ger Beckman Instr GmbH, Frankfurter Ring 115
8 Munich 45 ... 38-871
Ital Ing A Rastelli e C
Via San Martino della Battaglia 31
Rome ... 490257
Jap Beckman-Toshiba Ltd, 33-7, Shiba 5-Chome
Minato-ku, Tokyo
Jap Hakuto Co, Ltd, Box 25, Tokyo Central ... 501-3711
Nor Hefro Teknisk A/S, Trondheimsveien, 80
Oslo 5 ... 380286
SAfr Beckman Instr Pty Ltd, 59-61 Buitenkant St
Cape Town ... 41-0616
Swed AB Nordqvist & Berg, Snoilskyvagen 8
Stockholm K ... VX 08/520050
Swit Megex Zurich GmbH, Badenerstr 582
8048 Zurich ... 051-527800
Arg Coasin S A, Virrey del Pino 4071
Buenos Aires ... 52-3185
Belg Regulation-Mesure, 22, Rue Saint-Hubert
Brussels 15 ... 71 20 20
Braz Ambriex S A, Av Graca Aranha 226-6
Rio De Janeiro ... 42-7990
Gr M Dalleggio Rep, 2 Alopekis St
Athens 139 ... 710669
Ind Electronic Enterprises, New Charni Rd
Bombay 4 ... 75376
Isrl Eastronics, Ltd, 75, Haifa Rd, Tel Aviv ... 446060
Mex Beckman Instru de Mex, S A de C V
Parque Rio Frio 2
23
Neth I R C A, 92, Paradysstr, Voorburg ... 070 987351
NZ Elekon Overseas Ltd, 174, Great North Rd
Auckland 2 ... 16188
Spn Pacisa, Gral P Rivera, 35, Madrid 5 ... 230 8300
Fin Oy Control AB, Hitsaajankatu 5
Helsinki 81 ... 78-0311
Aust Sample Electronics Pty Ltd, 9-11 Cremorne St
Richmond, 3121, Vic ... 424757

BECKMAN INSTRUMENTS INTL SA
RUE DES PIERRES-DU-NITON 17, 1207 GENEVA
SWITZERLAND
EMP 80, ENG 25, OVER $10,000M
For Beckman Middle E Tech Off, Box 5910
Beirut ... 24 44 23
For Casa Serras, E Dias Serras, Lda Rua Augusta 288
Lisbon, Port ... 320133
For Inula, Box 73, a-1082 Vienna ... 426235
Den Struers Chemiske Lab, 38, Skindergrade
Copenhagen ... Cen 1402
Fr Beckman France, 71, rue Marx-Dormoy
Paris 18 ... BO 1-7339
Ger Beckman Instruments GmbH, Frankfurter Ring 115
Munich 45 ... 332585
GB Beckman Instruments Ltd, Queensway, Glenrothes
Holl I R C A, Paradysstr 92, The Hague ... 987351
Ital Rastelli e C, Via San Martino Dalla Bataglia
Rome ... 490058
Jap Beckman-Toshiba, 33-7, Shiba 5-Chome Minato-ku
Tokyo
Nor C Grindvold, Frognerveien 22, Oslo 2 ... 563590
Nor Hefro Teknisk A/S, Trondheimsveien 80
Oslo 5 ... 601090
SAfr Beckman Instruments Pty, Ltd, 59 Buitenkant St
Cape Town
Swed Nordquist & Berg, Snoilskyvagen 8
Stockholm K ... 535500
Swed Tillquist, Sodra Langgatan 21, Solna 2

Swit Megex GmbH, Badener Str 582
8048 Zurich ... 527800
Belg Regulation-Mesure, 22 Rue St-Hubert
Brussels 15 ... 712020
Gr Marios Dalleggio Rep, 2 Alopekis St
Athens 139 ... 710669 & 723277
Isrl Eastronics, Ltd, 75 Haifa Rd, Tel Aviv ... 446060
Spn Pacisa, Gral P Rivera, 35 Aptdo 7023
Madrid ... 2308300
Fin Oy Honeywell AB, Hitsaajankatu 5
Helsinki 81 ... 780311

BECKWITH ELECTRIC CO INC, 1002 GREENFIELD LA
MT PROSPECT, ILL, 60056 ... 312 392-0348
R BECKWITH, EMP 2, ENG 1, UP TO $100M
Cal Industrial Eng & Equip Corp, 2975 Wilshire Blvd
Los Angeles ... 213 DU 1-1281
Colo Hamilton Assoc, 1233 Elati St, Denver
Ill Snyder Sales Co, 102 N Washington St, Hinsdale
Mass G W Danek, 69 Hickory Dr
Waltham ... 617 899-0151
Ohio Robt R Stone Assoc, Box 47, Mentor
Okla C B Anderson Electric Co, Box 676, Tulsa
Tenn J Donelson, Rte 1, Hermitage
Tex Pruitt Supply Co, Box 7426, Amarillo
Tex Len T Deloney, Box 36204
Houston ... 713 MO 5-1433
For Carrington Stone, 205 W Wacker Dr, Chicago

BEEBE ELECTRONICS CO, BOX 137, WHITE PLAINS
N Y, 10603
R BEEBE

BEEDE ELECTRICAL INSTRUMENT CO, INC, S MAIN ST
PENACOOK, N H, 03301 ... 603 753-6362
J MADSEN, EMP 300, ENG 8, $2,500-$5,000M
Ala Components Sales Corp, Box 3384
Huntsville ... 205 539-0876
Cal Lebell-Warren Assoc, 601-603 Old County Rd
San Carlos ... 415 LY 3-7688
Cal Penwarden Assoc Inc, 14547 Titus St
Van Nuys ... 213 781-3227
Colo Electronic Components Sales Inc, 2340 W Main St
Littleton ... 303 798-8481
Conn Ray Perron & Co Inc, 10 Briarwood Rd
Farmington ... 203 677-9025
Conn Ray Perron & Co Inc, 36 Louis St
Trumbull ... 203 AM 8-9631
Fla Components Sales Corp, Box 9545
St Petersburg ... 813 360-7460
Fla Component Sales Corp, Box 14523
Orlando ... 305 277-1510
Ill Saffro & Assoc, 3736 Dempster St
Skokie ... 312 JU 8-0905
Iowa Thomas-Modrcin Assoc, Inc, 890 17th Ave
Marion ... 319 377-6261
Kan Thomas-Modrcin Assoc Inc, 5450 Buena Vista Dr
Shawnee Mission ... 913 HE 2-2131
Mass Ray Perron & Co Inc, 1870 Centre St
Boston ... 617 323-1008
Mich Burcaw-Cowan & Co, 18236 W McNichols Rd
Detroit ... 313 533-7700
Minn Wenco Sales, 7728 Morgan Ave S
Minneapolis ... 612 866-3639
Mo Thomas Modrcin Assoc Inc, 47 Village Sq
Hazelwood ... 314 838-6446
NH Ray Perron & Co Inc, Caron Rd, Bedford RFD 2
Manchester ... 603 472-3030
NM Electronic Components Sales Inc
601 San Pedro NE, Albuquerque ... 505 256-3663
NY Ossman Components Sales Corp, 39 Saginaw Dr
Rochester ... 716 442-3290
NY Leo Freed & Co, 22 Boston Post Rd
Larchmont ... 914 834-6510
NY Ossman Comps Sales Corp, 132 Pickard Bldg
Syracuse ... 315 454-4477
NY Ossman Components Sales Corp
1901 Vestal Pkwy E, Vestal ... 607 785-9949
NY Ossmann Component Sales Corp
17 Round Lake Park Rd, Monroe ... 914 297-7773
NC Components Sales Corp, Box 6401
Raleigh ... 919 832-1897
Ohio Walter J Brauer & Assoc, Box 3085, Overlook Br
Dayton ... 513 426-1692
Ohio Walter J Brauer & Assoc Inc, 29029 Euclid Ave
Wickliffe ... 216 943-0601
Pa Beebe & Aikman, 237 Lancaster Ave
Devon ... 215 MU 8-5173
Pa Walter J Brauer & Assoc, Box 8466
Pittsburgh ... 412 921-3213
Tex Packard Assoc, Box 20825, Dallas ... 214 FL 7-5713
Utah Electronic Components Sales Inc, Box 2066
Salt Lake City ... 801 262-3700
Wash Fred Haight Co, 3212 Eastlake Ave
Seattle ... 322-1818
Can Aeromotive Eng Prod Ltd, 887 Montee DeLiesse
Montreal ... 514 747-4781
Can Aeromotive Eng Prod Ltd, 1912 Avenue Rd
Toronto, Ont ... 416 783-4288

BEEMER ENGINEERING CO, INDUSTRIAL PK
FORT WASHINGTON, PA, 19034 ... 215 646-8440
H MYER, EMP 45, ENG 3
Md Beemer Eng Co, Box 916, Severna Park ... 647-1840
NJ Beemer Eng Co, 1865 Morris Ave
Union ... MU 6-0834
NY Beemer Eng Co, 122 E 42nd St
New York ... OX 7-3860
NY Beemer Eng Co, 67 Oak Grove Dr
Buffalo ... NF 2-4363
NY Beemer Eng Co, 108 Dawley Rd
Fayetteville ... 446-5197
NC Beemer Engrg Co, 4307 Emory La
Charlotte ... 364-0975

BEKINS VAN LINES, 1335 S FIGUEROA ST
LOS ANGELES 15, CAL, 90015 ... 213 749-4141

BELAR ELECTRONICS LAB INC
DELAWARE & MONTROSE AVES, UPPER DARBY
PA, 19084 ... 215 789-0550
A MEYER, EMP 25, ENG 4, $500-$1,000M

BELDEN MFG CO, 415 S KILPATRICK AVE, CHICAGO
ILL, 60644 ... 312 378-1000

BELFAB A UNIT OF BAILEY METER CO, BOX 1881
DAYTONA BEACH, FLA, 32015 ... 904 253-0628
D FORD, EMP 100, $1,000-$2,500M

BELFORT INSTRUMENT CO, 4 N CENTRAL AVE
BALTIMORE, MD, 21202 ... 301 DI 2-2626
P CLAUS, EMP 90, ENG 4, $1,000-$2,500M

BELL AEROSYSTEMS CO, BOX 1, BUFFALO
N Y, 14240, TWX 710-524-1662 ... 716 297-1000
W HOWELLS JR, EMP 7000, ENG 4000, OVER
$10,000M
Ala Roy B Southworth, Holiday Office Ctr
Huntsville ... 881-3631
Cal John M Schweizer, 8939 S Sepulveda Blvd
Los Angeles ... 645-6503
DC Edward W Virgin, 1000 Conn Ave NW
Washington ... 296-5240
Mass Sanford B Neister, Box 25, Lynnfield ... 245-9084
NJ Franklin A Smith, Hwy 35, Eatontown ... 542-9222
Ohio Harold A Dow, 131 N Ludlow St
Dayton ... 224-0886
Tex William Swenson, 1730 Nasa Blvd
Houston ... 591-3100

BELLAIRE ELECTRONICS, INC, 62 WHITE ST
RED BANK, N J, 07701 ... 201 741-8383
S LIPMAN, EMP 35, ENG 1, $100-$250M

BELL, INC F W, 1356 NORTON AVE, COLUMBUS
OHIO, 43212 ... 614 294-4906
H MACKESSY
ADV PG 318, 387, 443, 798
Ala Physimetrics, 2105 Dogwood La
Huntsville ... 539-3274
Cal Paul Nurches Co, 2396 E Foothill Blvd
Pasadena ... 796-5844
Cal Straube Assoc, 483 Willow Rd
Menlo Park ... 323-2476
Colo Gordon Moss Electronics Inc, 1530 13th Ave
Greeley ... 353-1452
Fla Physimetrics, 999 Woodcock Rd
Orlando ... 841-4956
Ga Physimetrics, 3376 Peachtree Rd, NE
Atlanta ... 237-8278
Ill R Edward Stemm, Inc, 17W480 Lake St
Addison ... 379-2700
Mass Electronic Components & Services, 611 Trapelo Rd
Waltham ... 894-6921
Mich WKM Assoc Inc, 1474 E Outer Dr
Detroit ... 892-2500
Minn R Edward Stemm Inc, 2713 Lyndale Ave S
Minneapolis ... 822-8404
NY Cane Technical Sales Inc, 555 E Boston Post Rd
Mamaroneck ... 698-4411
NY Labtronics, Inc, 161 Pickard Bldg
Syracuse ... 454-9314
Ohio WKM Assoc Inc, 6741 Ridge Rd
Cleveland ... 885-5616
Ohio WKM Assoc Inc, 6085 Far Hills Ave
Dayton ... 298-7203
Ore Dale G Weber Co, Weatherly Bldg
Portland ... 234-7671
Pa WKM Assoc Inc, 90 Clairton Blvd
Pittsburgh ... 892-2953
Pa Tyler Griffin Co, 46 Darby Rd, Paoli ... 647-1550
Tex Carey-Wolf Co, 3327 Winthrop Ave
Fort Worth ... 738-1702
Tex Carey-Wolf Co, 4031 Broadway
Houston ... 643-2114
Utah Gordon Moss Electronics Inc, 1502 Preston St
Salt Lake City ... 485-2870
Can Megatronix Ltd, 1800 Avenue Rd
Toronto, Ont ... 783-3329

BELL-MARK CORP, 37 WEST ST, BLOOMFIELD
N J, 07003 ... 201 743-6393
F SCRUDATO, EMP 25, ENG 3
Cal Phillips Assoc, 6003 Market St
Oakland ... 658-3494
Cal Cal-State Dist, 2620 S Malt Ave
Los Angeles ... 685-6591
Cal Cal-State Dist of N Calif, 1828 E 14th St
Oakland ... 415 534-0873
Colo Hurley Co, 4700 Holly St, Denver ... 303 399-1013
Conn Aetna Stamp & Engraving, 1761 Silas Dean Hwy
Rocky Hill ... 529-2553
Fla Pack-Fast, Inc, Box 196, Miami ... 888-2463
Ga C Taylor, 3538 ColdSprings La
Chamblee ... 457-9601
Ga Pack-Fast, Inc, Box 9781, Atlanta ... 404 CE 7-6386
Ill Fredricks Marking Prod, 3235 N Kedzie Ave
Chicago ... 463-5275
Ill Lee Package Machine Co, 109 Green Bay Rd
Willmette ... 251-1018
Iowa American Rubber Stamp, 419 11th St
Des Moines ... 282-0495
La Pack-It-Right Machy, Inc, 536 S Peters St
New Orleans ... 504 524-8268

Mass Federal Marking Prods Corp, 19 HIGH St
Boston ... 542-1336
Mich Columbia Marking Tools, 17655 Filer Ave
Detroit ... 366-8180
Mich Volk Stamp & Stencil, 140 Randolph St
Detroit ... 313 965-1234
Miss H W Clowe Co, 128 Duncan Ave
Jackson ... 601 354-3547
Mo Duhart Packaging Equip, 2012 Olive St
St Louis ... 241-1930
Neb S Riekes & Sons, 1402 Webster St, Omaha
NC Modern Material Handlers, 115 Wedgedale Dr
Greensboro ... 299-8048
Ohio H Rogers Assoc, 3740 Lowell Rd
Cleveland Hgts ... 381-2237
Ohio H Rogers Assoc, 13309 Cedar Acres Dr
Chesterland ... 729-9266
Ore Narver Machinery & Equip, 231 SW Ankeny St
Portland ... 223-1422
Pa Glenroy, Inc, 448 Phila Bourse Bldg
Philadelphia ... 215 627-2060
RI Technics Packaging, 19 Coulter Rd
Clifton Springs ... 462-6241
Tenn Bigelow & Assoc, 114 17th St
Knoxville ... 523-6248
Tex Jordan Equip, Drawer V, Stafford ... 498-6212
Wash Inter-State Supply Inc, 2230 First Ave
Seattle ... 206 MU 2-4870
Wis A J Powers, 408 Congress St
Neenah ... 414 725-6927
Can Sterling Marking Prod, Box 2244, Term A
London, Ont ... 434-5787
Can Canada Stamp & Stencil, Ltd, 4 Wm Morgan Dr
Toronto 17, Ont ... 416 425-4140

BELL P/A PRODUCTS CORP, 1209 N 5TH ST
COLUMBUS, OHIO, 43201 ... 614 299-1487
P CARTMILLE, EMP 30, ENG 4, $500-$1,000M
Cal L H Harriss Co, 204 E Hillsdale Blvd
San Mateo ... 341-2909
Cal Feldman-Roberts Assoc, 9724 Washington Blvd
Culver City ... 213 870-5973
Colo Gordon Moss Electronics Inc, Box J
Greeley ... 353-1452
Fla Sproch Sales Co, 3521 W Broward Blvd
Ft Lauderdale ... 587-3792
Haw B Kolans Co, Box 2098, Honolulu
Ill Fitzsimmons Assoc, 6774 Northwest Hwy
Chicago ... 775-6990
Ind F J McSweeney & Assoc, 4123 N Keystone Dr
Indianapolis ... 547-2112
Mass Willson Sales Co, 6 Mohawk Rd
Marblehead ... 631-4016
Mich J Malcolm Flora, 165 W Liberty St
Plymouth ... 453-4296
Mo R J Throckmorton Sales Co, 1042 N Clay
St Louis ... 964-4555
NJ TMC Sales, 2465 Lemoine Ave
Fort Lee ... 944-8340
NY Callahan & Ferguson, 107 Greenhedge Dr, Camillus
NC Electro-Rep Assoc, 128 W 30th St
Charlotte ... 333-0451
Ohio T Shelby Co, 17 S Walnut St
New Bremen ... 629-6511
Okla Pres Clancey & Assoc, 4840 NW 62nd Terr
Oklahoma City
Pa H Kellar, 653 Ferne Blvd, Drexel Hill ... 259-6758
Wash D Miller Sales, 2323 N 45th St
Seattle ... 632-7070
Can R C Kahnert Sls Ltd, 359 Enford Rd
Richmond Hill Ont
For International Radio Corp, 431 Greenwich St
New York, N Y ... 966-2130

BELMONT SMELTING & REFNG WKS INC SALES ENG
CTR, 200 EXPRESSWAY S, ROSLYN HEIGHTS
NY, 11577
G HENNING, EMP 100, ENG 6, $250-$500M

BEL-RAY CO, INC, BOX 526, FARMINGDALE
N J, 07727 ... 201 938-2421
H BEDELL, EMP 25, ENG 4, $1,000-$2,500M
Conn J Moniz, Jr, 5 Valley View Dr
Middlefield ... 349-9746
Fla E Schnieder, Box 14224, Orlando ... 305 277-1016
Iowa Bel-Ray Co Inc, 612 Kahl Bldg
Davenport ... 326-5653
Md D Pitts, 19 E 21 St, Baltimore ... 301 837-6954
Mich Chas Cameron, 3049 E Grand Blvd
Detroit ... 313 TR 2-8000
NJ T V Wightman, 57 Forrest Ave
Fair Haven ... 842-4428
NJ L Machavern, 98 Florence Ave
Irvington ... 201 375-2206
NY D Lerner, 924 Meehan Ave
Far Rockaway ... 212 327-5187
NY R Mercier, 4350 Ridge Rd W
Rochester ... 716 225-8550
Pa J Woodwell, 6808 Reynolds St
Pittsburgh ... 412 361-6659

BELTONE ELECTRONICS CORP, 4201 W VICTORIA ST
CHICAGO, ILL, 60646 ... 312 583-3600
E SHAW, EMP 365, ENG 25

BEL-TRONICS CORP, 344 INTERSTATE RD, ADDISON
ILL, 60101 ... 312 543-7777
T WRIGHT, EMP 200, ENG 6, $1,000-$2,500M
Cal M Cozzi, 6245 Zelzah Ave, Reseda .. 213 DI 2-7383
Ill Edw Schmeichel, 5968 W Chicago Ave
Chicago ... 378-6677
Pa Jos G Oberlies, Box 517, Hatboro ... 672-6633

BEMAN MFG, INC, BOX 370, NEW CUMBERLAND
PA, 17070 ... 717 774-0210
W KEEN, EMP 126, ENG 2, $2,500-$5,000M
Cal Peters-de-laet Inc, 1606 Rollins Rd
Burlingame ... 415 697-1800
Conn Fly Assoc, Box 304, Fairfield ... 259-0772
Fla Wolcott Assoc, Box 1523
Winter Park ... 305 647-6505
Ill Matthews-Midwest Co, 5306 W Lawrence Ave
Chicago ... 312 725-1500
Mich T E Fiddler Assoc, 1821 W Maple Rd
Birmingham ... 313 646-5707
Mich T Cusack, 17901 E Warren, Detroit ... 313 646-5707
NY Bardwell & Schoelles Assoc, 230 Winton Rd N
Rochester ... 654-9540
Ohio R E Meckling, 1575 Marion Ave
Mansfield ... 529-3225
Pa Walch Co, Box 261, Newton ... 215 968-3989
Tex M loss Co, 7919 Royal La, Dallas ... 214 368-2758

BEMIS CO, INC, 800 NORTHSTAR CTR BOX 70
MINNEAPOLIS, MINN, 55402 ... 612 332-7151
S SPENCER, EMP 11337, ENG 145, OVER $10,000M
Ariz Bemis Co, Inc, 2202 W McDowell Rd
Phoenix ... 252-2222
Cal Bemis Co, Inc, 1255 Post St
San Francisco ... 474-3393
Cal Bemis Co, Inc, 920 E Pacific Coast Hwy
Wilmington ... 835-3111
Colo Bemis Co, Inc, 409 Guaranty Bank Bldg
Denver ... 825-6348
Idah Bemis Co, Inc, 2400 S Gallatin Ave
Idaho Falls ... 523-0546
Ill Bemis Co, Inc, 20 N Wacker Dr
Chicago ... 346-6633
Ind Bemis Co, Inc, 1940 Barth Ave, Indnpls .. 784-2411
Kan Bemis Co, Inc, 13th & Wabash, Wichita .. 264-4321
La Bemis Co, Inc, 330 Notre Dame St
New Orleans ... 524-8361
Md Bemis Co, Inc, 312-A Wyndhurst Ave
Baltimore ... 435-3900
Mich Bemis Co Inc, 26011 Evergreen Rd
Southfield ... 353-4636
Minn Bemis Co, Inc, 4701 Humboldt Ave N
Mnpls ... 529-9671
Mo Bemis Co, Inc, 4900 Oak St
Kansas City ... 753-4088
Mo Bemis Co, Inc, 1295 N Highway Dr
Valley Park ... 966-2670
Neb Bemis Co, Inc, 614 S 11th St, Omaha ... 341-2711
NY Bemis Co, Inc, 90 Park Ave, New York ... 687-8840
NY Bemis Co, Inc, 711 Northland Ave
Buffalo ... 893-3500
Ohio Bemis Co, Inc, 900 United Office Bldg
Cleveland ... 861-0917
Okla Bemis Co, Inc, 502 Commerce Exchange Bldg
Okla City ... 232-1348
Tenn Bemis Co, Inc, 1975 Latham St
Memphis ... 948-5591
Tex Bemis Co, Inc, 2601 Spenwick Dr
Houston ... 686-8411
Utah Bemis Co, Inc, 1101 Walker Bank Bldg
Salt Lake City ... 322-5591
Va Bemis Co, Inc, 1037 W 26th St
Norfolk ... 622-6645
Wash Bemis Co, Inc, 55 S Atlantic St
Seattle ... 623-0660
Wash Bemis Co, Inc, 1401 W 4th Plain Blvd
Vancouver ... 695-1251

BEMOL CO, BOX 11, NEWTON
MASS, 02164 ... 617 969-9210
P MAGIE, EMP 8, ENG 4, $100-$250M
Ala Ford Tool & Carbide Co, 3404 10th Ave N
Birmingham ... 252-9991
Cal Batco, 1440 E 17th St, Los Angeles ... RI 9-9266
Md United Oil Co, Baltimore & Kresson Sts
Baltimore ... 342-1200
NJ Hildreth Research Co, Box 99
Rancocas ... TR 7-2015
NY Meta-Therm Inc, 883 3rd Ave
New York ... PL 2-2940
NC Gamisco Inc, Box 818, Gastonia ... TA 5-2762
Tex Sutton Tool Sales Inc, Box 11211
Dallas ... TA 1-0590
Can Forsythe Lubrication Assoc Ltd, 203 MacNab St S
Hamilton
Fr R Coilin et Cie, 8 Rue Pouchet, 76 Rouer
GB Anglo-Bell Co Ltd, 1 Cranley Gardens, London
Ital Eigenmann & Veronelli SpA, St Marie Bellrode
Milano
Jap Daiei Bussan Co, Yoshizuma Bldg, Tokyo
Belg R Coilin et Cie, 25 Ave Van Goolen, Brussels
Isrl Technokol Ltd, Box 8021, Haifa
Aust Applied Chemicals Pty, Ltd, 136 Bridge Rd, Victoria

BENCO TELEVISION ASSOC DIV REDIFON CAN LTD
27 TABER RD, REXDALE, ONT ... 416 244-4296
M TOWNSEND, EMP 80, ENG 6, $1,000-$2,500M
Fla Benco Television Corp, Box 10068
Jacksonville ... 398-6907

BENDIX CORP, AUTOMOTIVE ELECTRONICS DIV
E JOPPA RD, BALTIMORE
MD, 21204 ... 301 823-2200
L JONES, EMP 1600, ENG 60, OVER $10,000M
Cal D L Kesselhuth, 16509 Saticoy St
Van Nuys ... 989-4600
Mich S R Scheiner, 24820 Michigan Ave
Dearborn ... CR 8 -5050

BENDIX CORP AVIONICS DIV, 2100 NW 62ND ST
FORT LAUDERDALE
FLA, 33310, TWX 510 955-9884 ... 305 563-1331
C MEATEE, EMP 4000, ENG 400
Cal J J Ahmann, 16509 Saticoy St
Van Nuys ... 213 989-4600
DC Henry L Woodson, 1730 K St NW
Washington ... 233-8200
Fla E Jones, 4471 NW 36th St
Miami Springs ... 305 887-5521
Fla J Nickens, 24 NE 24th Ave
Pompano Beach ... 305 943-8770
Kan A J Rogers, 3303 E Harry St
Wichita ... 316 684-0177
NJ R C Douglas, 121 Monmouth Pky
West Long Branch ... 747-0437
NJ D Ryocco, 150 Riser Rd, Teterboro ... 201 288-4880
NY R W Thwing, 605 3rd Ave
New York ... 212 973-4802
Ohio G F Wientjes Jr, 1900 Hulman Bldg
Dayton ... 224-9211
Tex Michael E Donnelly, 1730 NASA Blvd
Houston ... 488-1090
Tex D A Taylor, 14415 Southern Pines Ct
Dallas ... 214 241-2953
Wash D Howe, Box 628, Renton ... 206 255-8724

BENDIX CORP, COMMUNICATIONS DIV, E JOPPA RD
TOWSON, MD, 21204 ... 823-2200
J PEARCE, EMP 2900, ENG 430, OVER $10,000M
Ala W A Uline, 3322 Memorial Pkwy, S
Huntsville ... 881-1911
Cal J P Buckley, 6151 W Century Blvd
Los Angeles ... 776-4100
DC H L Woodson, 1730 K St, NW
Washington ... 333-8200
Fla K L Dowling, 1325 N Atlantic Ave
Cocoa Beach ... 784-0042
Fla H T Funkhouser, 14 S Eglin Pkwy
Ft Walton Beach ... 904 243-6312
Mass A Bikis, Adams Bldg, Lexington ... 862-7650
NJ J H Newman, 121 Monmouth Pkwy
W Long Branch ... 201 229-6500
Ohio M Balis, 1900 Hulman Bldg
Dayton ... 513 224-9211
Tex M E Donnelly, 1730 FM 528, Houston ... 488-1090
Fr Air Equipment, 18 Rue Basley, Asnieres Seine
GB Elliott-Automation Radar Sys, Ltd
Elstree Way, Borehamwood, Herts
Ital Fabbrica Ital Appar Radio (FIAR)
Via G B Grassi, 93, Milano
Jap Tokyo Keiki Seizosho (TKS)
16 Minami-Kamata, 2-Chome, Ohta-Ku,, Tokyo

BENDIX CORP ELECTRICAL COMPONENTS DIV, SIDNEY
N Y, 13838, TWX 607 563-2121 ... 607 563-9511
J YOUMANS, JR, EMP 4500, ENG 450
Ala Electrical Comp Div, 3322 Memorial Pkwy S
Huntsville ... 881-9700
Cal Electrical Comp Div, 800 SanAntonio Rd
Palo Alto ... 327-4511
DC Electrical Comp Div, 1730 K St, N W
Washington ... 333-8200
Fla Electrical Comp Div, 2122 E Colonial Dr
Orlando ... 241-6559
Ill Electrical Comp Div, 3150 Des Plaines Ave
Des Plaines ... 296-7791
Mass Electrical Comp Div, 9 Meriam St
Lexington ... 861-8900
NJ Electrical Comp Div, 215 Union St
Hackensack ... 343-8982
Ohio Electrical Comp Div, 1900 Hulman Bldg
Dayton ... 224-9211
Tex Electrical Comp Div, 2608 Inwood Rd
Dallas ... 357-5697
Tex Electrical Comp Div, 1001 S Grand Ave
Santa Ana ... 547-6454
Wash Electrical Comp Div, 8425 1st Ave, S
Seattle ... 763-2420

BENDIX CORP ELECTRIC POWER DIV, HWY 35
EATONTOWN
NJ, 07724, TWX 710-722-6686 ... 201 542-2000
N BARNY, EMP 1000, ENG 89, OVER $10,000M
Cal Bendix Elec Power Div, 6151 W Century Blvd
Los Angeles ... 776-4100
DC Bendix Elec Power Div, 1730 K St
Washington ... FE 3-8200
Ohio Bendix Elec Power Div, 1900 Hulman Bldg
Dayton ... 223-7111
Tex Bendix Elec Power Div, 607 E Abram St
Arlington ... 275-2824

BENDIX CORP ELECTRODYNAMICS DIV
11600 SHERMAN WAY, NORTH HOLLYWOOD
CAL, 91605 ... 213 877-2881
J RICE, EMP 3200, ENG 400, OVER $10,000M
Ala Bendix Corp, 3322 Memorial Pkwy S
Huntsville ... 881-1911
Colo Bendix Corp, 1325 N Atlantic Ave
Cocoa Beach ... 784-0042
DC Bendix Corp, 1730 K St NW
Washington ... FE 3-8200
Mass Bendix Corp, 114 Waltham St
Lexington ... VO 2-7650
Ohio Bendix Corp, 1900 Hulman Bldg
Dayton ... 461-3750
Tex Bendix Corp, 1730 FM 528, Houston ... HU 8-1090

BENDIX CORP ELECTRO OPTICS DIV, 1975 GREEN RD
ANN ARBOR, MICH, 48107 ... 313 663-3311
E ECKLUND

BENDIX CORP ENVIRONMENTAL SCIENCE DIV
1400 TAYLOR AVE, BALTIMORE
MD, 21204, TWX 301-828-7074 .... 301 825-5200
H JANSSEN, EMP 800, ENG 100, OVER $10,000M
NM L H Ladd, 1814 Lafayette Dr NE Albuquerque 255-5751

BENDIX CORP, FLIGHT & ENGINE INSTR DIV
SOUTH MONTROSE, PA, 18843 .... 717 278-1161
Cal Bendix Corp, 6151 W Century Blvd Los Angeles 746-4100
Mass Bendix Corp, 114 Waltham St Lexington 862-7650
NJ Bendix Corp, Dept 3773, Teterboro 288-0440

BENDIX CORP FLUID POWER DIV, 211 SEWARD AVE
UTICA
N Y, 13503, TWX 510-242-0284 ...... 315 SW 7-2500
H SCHMIDER, EMP 1750, ENG 50, OVER $10,000M
Cal Maltby Co, 8468 Warner Dr, Culver City ... 870-0491
Ga Dixie Bearings Inc, 276 Memorial Dr SW, Atlanta
Ill Norman Engrg Co, 7659 S Western Ave Chicago 434-2300
Ind Bearings Inc, 432 Pearl St, Ft Wayne
Ind Bearings Inc, 930 N Illinois St Indianapolis 634-4393
Iowa Norman Engineering, Box 694 Bettendorf 355-5305
Iowa Norman Engineering, Green Castle Rd Newton 792-3777
Kan Benson Engineering, 4915 W 81st St Prairie Vlg 648-7259
Kan Benson Engineering, 519 S Broadway Wichita 262-6971
Mass Lindco Inc, 765 W Boylston St Worchester 835-2882
Mich Disco Engineering Inc, 20017 James Couzens Hwy Detroit 342-3233
Minn Norman Engineering Co, 2726 E 50th St Minneapolis 729-4823
NJ R P Luce & Co Inc, 630 Morris & Essex Tpke Short Hills 379-6600
NY Syracuse Bearings, Ridings Rd & Rt 298 Syracuse 437-2771
NY Syracuse Bearings, 2275 Fillmore Ave, Buffalo
NY Syracuse Bearings, 159 Comfort St Rochester 546-1954
NY R P Luce & Co Inc, 1300 Jericho Tpk New Hyde Park 437-4550
Ohio Bearings Inc, 1417 Central Parkway Cincinnati 721-8134
Ohio Bearings Inc, Box 6925, Cleveland 881-2828
Okla Bearings Inc, 1700 Broadway, Dayton 222-3731
Okla Bearings Inc, 1302 Washington St Toledo 248-5311
Pa R P Luce & Co Inc, 8717 Patton Rd Philadelphia 884-8365
SC Dixie Bearings Inc, 405 Pendelton St, Greenville
Tenn Dixie Bearings Inc, 2423 S Broad St, Chattanooga
Tenn Dixie Bearings Inc, 411 Dal Ave, Knoxville
Tex Benson Engineering Co, 9884 Monroe St Dallas 352-7541
W Va Bearings Inc, 1516 Kanawha Blvd W Charleston 346-0641
W Va Bearings Inc, 2761 5th Ave, Huntington ... 523-6446
Wis Norman Engineering, 9730 W Bluemond Rd Milwaukee 771-3100

BENDIX CORP INDUSTRIAL METROLOGY DIV
3621 S STATE RD, ANN ARBOR
MICH, 48106 .... 313 662-5626
L NELSON, EMP 170, ENG 12
Ariz Roy J Heyne Machine Co, 707 W Buchanan Phoenix 252-4847
Cal Brennan Hamilton Corp, 187 Utah Ave San Francisco 589-2700
Cal Quality Control Co, 3301 Beverly Blvd Los Angeles 381-7921
Colo Iver J Esbenson Co, 666 Bryant St Denver 222-3808
Fla J R Carlson Machinery Co, 929 N Mills Ave Orlando 241-3041
Ga J R Carlson Machinery Co, 2348 John Glenn Dr NE Atlanta 451-9301
Ill F C Bass Co, 6027 N Northwest Hwy Chicago 774-1141
Ill Janco Industrial, 104 W State St Rockford 968-2814
Ill Mechanical Rubber & Supply Co, 100 Walnut St Peoria 673-5118
Ind R L Guimont Co, 2037 E 46th St Indianapolis 251-9261
Iowa McNeal Tool & Supply Corp, 5501 N Towne Pl NE Cedar Rapids 365-4673
La Cutting Tools Inc, 1100 S Liberty St New Orleans 525-3369
Mass Sterling Sales Inc, 770 Grafton St Shrewsbury 757-0800
Mich George Haber Co, 22901 Timberline Rd Southfield 353-2255
Mich A D Schneider & Co, 408 E Grand River Ave Lansing 484-4910
Minn Wm K Nelson Co, 807 13th Ave S Minneapolis 333-7203
Mo Haman Machy & Supply Inc, 422 W 8th St Kansas City 842-3558
Mo Hartwig Inc, 1452 Warson Rd, St Louis ... 426-5300
NJ Clarkson & Foreman, Inc, 664 E 6th St Plainfield 753-4887
NY Brook-Anco Corp, 75 College Ave Rochester 271-4100
Ohio Jones Industrial Sales, 4726 Dorr St Toledo 536-1103
Ohio S E Sherry Co, 6493 Tanglewood La Seven Hills 524-3443

Ohio Woodall Sales & Service Co, 3070 Far Hills Ave Dayton 299-5534
Ohio Cleveland Instr Plant, 6220 E Schaaf Rd Cleveland .... LA 4-4821
Okla Marshall Supply & Equip Co, Drawer 1320 Tulsa 584-5271
Ore Murphy Industrial Supply Co, 2186 NW Wilson St Portland 226-6081
Pa Holco Inc, 3621 Chapel Rd Newtown Square 528-5115
Pa R W Whittenberger Co, Box 10560 Pittsburgh 241-5200
Tex Southwestern Precision Sales Inc 2712 Southwest Hwy, Houston .... JA 3-4606
Tex Southwestern Precision Sales Inc, 5819 Denton Dr Dallas 357-0837
Va Smith-Courtney Co, Box 1378 Richmond 232-4581
Wash H F Soderling Co, 1214 Poplar Pl S Seattle .... EA 2-3593
Wis Larry Hammond Co, 1551 N 35th St Milwaukee 342-6822
Can Alexander Tools Ltd, Box 1088 Brantford, Ont 753-3181
Can Alexander Tools Ltd Box 188, Montreal Int'l Airport Dorval, Que 631-5533
Can Alexander Tools Ltd, Box 323 St Catherines, Ont 685-7368
Can Alexander Tools Ltd, Box 336 Windsor, Ont 254-9676
For Bendix Intl Operations Div, 605 3rd Ave New York 973-2121
BC B C Equipment Co, 551 Howe St Vancouver, BC 683-2511

BENDIX CORP, MICROWAVE DEVICES DIV
HURRICANE RD, FRANKLIN
IND, 46131, TWX 810 260-2600 .... 317 736-6136
D COE
Can Aviation Electric Ltd, Box 2140 St Laurent Montreal, Que .... RI 4-2811
For Bendix International, 605 3rd Ave New York 973-2121

BENDIX CORP, MOSAIC FABRICATIONS DIV
GALILEO PARK, STURBRIDGE
MASS, 01566, TWX 710 347-1190 ...... 617 347-9191
A FIDDES, EMP 500, ENG 25, $2,500-$5,000M

BENDIX CORP NAVIGATION & CONTROL DIV
TETERBORO,
N J, 07608, TWX 201-288-4550 .... 201 288-2000
E METZLER, EMP 10000, ENG 1200, OVER $10,000M
Ala Navigation & Cont Div, 3322 Memorial Hwy S Huntsville 205 881-1912
Cal Navigation & Cont Div, 6151 W Century Blvd Los Angeles 213 776-4100
Cal Navigation & Cont Div, 808 E Mill St San Bernardino 213 889-0016
DC Navigation & Cont Div, 1730 K st NW Washington .... 202 FE 3-8200
Ohio Navigation & Cont Div, 1900 Hulman Bldg Dayton 513 224-1411
Tex Navigation & Cont Div, 1730 Nasa Blvd Houston .... 713 HU 8-1090
Wash Navigation & Cont Div, 8425 Ave S Seattle .... 206 PA 5-9100
Can Aviation Electric Ltd, Box 2140 Montreal, Que .... 514 RI 4-2811
For Bendix Intl Oper, 605 3rd Ave New York, NY 212 973-2121

BENDIX CORP RUBBER PRODS PLANT, BOX 317
TOLEDO, OHIO, 43601 .... 419 693-4451
R ROBERTS, SR, EMP 200, ENG 7

BENDIX CORP SEMICONDUCTOR DIV, SOUTH ST
HOLMDEL
N J, 07733, TWX 510-239-4990 .... 201 946-9400
J HARRISON, EMP 650, OVER $10,000M
Cal Bendix Semiconductor Div, 6151 W Century Blvd Los Angeles 776-4100
Conn Bendix Semiconductor Div, 29 Hettiefred Rd Greenwich 869-7797
Fla Bendix Semiconductor Div, 2122A E Colonial Dr Orlando 241-6559
Ill Bendix Semiconductor Div, 1915 N Harlem Ave Chicago 637-6929
Mass Bendix Semiconductor Div, 9 Merian St Lexington 861-8350
Mich Bendix Semiconductor Div, 12950 W 8 Mile Rd Oak Park 548-2120
Minn Bendix Semiconductor Div, 7710 Computer Ave Minneapolis 926-4633
NJ Bendix Semiconductor Div, 515 N Black Horse Pike Runnemede 933-2550
NY H V Sales Co, 1 W Terrace Rd Great Neck .... HU 7-1142
Tex Bendix Semiconductor Div, 2626 W Mockingbird La Dallas 357-1972
Wash Ray Johnston Co, 1011 E 69th St Seattle .... LA 4-5170
Can Computing Devices of Canada, Box 508, Ottawa
Can Computing Devices of Can, 59 Richmond St, Toronto
For Bendix International, 605 Third Ave New York, N Y 973-2121
For Southern Intl Sls Corp, Box 1896 San Juan 723-3879

BENDIX VACUUM DIV, 1775 MT READ BLVD
ROCHESTER
N Y, 14603, TWX 510-253-3183 .... 716 458-2550
A CHAMBERS
Cal Bendix Vacuum Div, 4015 Fabian Way Palo Alto .... 415 DA 1-3151
Cal Bendix Vacuum Div, 5430 Van Nuys Blvd Van Nuys 213 872-2740
Ga Bendix Vacuum Div, 3272 Peachtree Rd NE Atlanta 404 233-1171
Ill Bendix Vacuum Div, 3150 Des Plaines Ave Des Plaines 312 299-7757
Mass Bendix Vacuum Div, 45 Fourth Ave Needham Heights 617 444-4080
NJ Bendix Vacuum Div, 26 Linden Ave Springfield .... 201 DR 6-4900
NM Bendix Vacuum Div, 141 Wyoming NE Albuquerque 505 268-9333
Ohio Bendix Vacuum Div, 1350 W Fifth Ave Columbus 614 488-1187
Pa Bendix Vcuum Div, 2010 Oregon Ave Philadelphia .... 215 HO 5-3773
Tex Bendix Vacuum Div, 433 Regal Row Dallas .... 214 ME 1-3700

BENDIX CORP, VACUUM DIV, 1645 ST PAUL ST
ROCHESTER, N Y, 14621 .... 716 FI 2-0400
C HOLDERBAUM, EMP 70, ENG 21, $100-$250M
Cal Bendix, Vacuum Div, 810 S Grand Ave Santa Ana 542-8873
Ga Bendix, Vacuum Div, Box 967, Marietta .. 428-6106
Ill Bendix, Vacuum Div, 5453 W North Ave Chicago 889-1170

BENNETT LABORATORIES, INC, 5800 CHRISTIE ST
EMERYVILLE, CAL, 94608 .... 415 655-9698
R BRUSH, EMP 35, ENG 2
Mass Jim Piper Assoc, 10 Haven St, Dover 449-1144
Mass R Flanagan, Box 21, S Duxbury 617 934-2498
NJ Robert Finlay Sales Co, 45 N Broad St Ridgewood 652-0088
Ohio John O Olsen Co, 16201 Shaker Blvd, Cleveland
Ohio John O Olsen Co, 116 W Franklin Centerville 513 885-3722
Pa John O Olsen Co, 1843 Maydell St Pittsburg 341-8391
Tex Techno Assoc, Box 20544, Dallas .... FL 7-9213
Wash Ron Merritt Co, 1320 Prospect St Seattle 206 682-7337

BENNETT MFG CO, INC, RAILROAD ST, ALDEN
N Y, 14004 .... 716 937-9161
F PIPOLO, EMP 120, ENG 2, $2,500-$5,000M
NY Gerald Sullivan, 37 Carroll St Binghamton .... RA 2-7815
NY Charles Weller, 151 Fenimore Rd Mamaroneck .... OW 8-4205
NY Omar H Nichols, 206 LaSalle Ave Kenmore 873-6275
NY R McGrath, 6013 Hamilton Rd Syracuse 315 458-3047

BENRUS-TECHNICAL PRODUCTS DIV, RIDGEFIELD
CONN, 06877, TWX 710 450-3631 ...... 203 756-4621
J BERRY, EMP 1213, ENG 32, OVER $10,000M
Ala Technical Asso, Box 1443, Huntsville 881-8494
Cal Luscombe Engineering Co, 610 S Arroyo Pkwy Pasadena 684-2000
Conn Abbott-Allison Inc, 1127 E Main Meriden 237-9232
Fla Technical Assoc, 2319 E South St Orlando 424-5681
Ill Bard Assoc, La Grange Industrial Pk La Grange 354-0660
Ind Bard Assoc, 4002 Meadows Dr Indianapolis 849-2723
Mass Abbott-Allison Inc, Box 96 North Andover 245-0250
Minn Bard Assoc, 7700 Morgan Ave S Minneapolis 866-1700
NJ Instrumentation Sales Co, Box 403 Ridgewood 445-5210
NM Aztec Enterprises, 5206-B Constitution Ave NE Albuq 268-6421
NM Aztec Enterprises, 3202 Candelaria Rd NE Albuquerque
NY J D Ryerson Assoc, 425 Manor Dr E Syracuse 656-7419
NC Technical Assoc, 3809 Weona Ave Charlotte 523-9121
Pa Kastle Assoc, Rte 1, Chalfont 348-4466
Tex Noakes Engrg, 2338 MacArthur Blvd Irving .... BL 5-0441
Va Jay Company, 2914 Anandale Rd Falls Church 534-7800
Wash Associated Industries, 3711 S Hudson St Seattle .... PA 3-5600
Can BRH Assoc Ltd, 6338 Victoria Ave Montreal, Que 733-5331
For Frathom Co Inc, 202 E 44th St New York, NY 687-9390
Den Intelec, Jaegersborgvej 70, Copenhagen
Fr Le Groupe Scientifique, 114 Ave Du Pres Wilson Denis, Seine
Ger Schneider-Henley, Gross-Nobas Str 11, Munchen
GB B & K Labs, 4 Tilney St, London
Holl Instrumentenhandel Utrecht, Alb Perstraat, Hilversum
Ital Gigi Gallo Gorgatti, Via Barromei 5, Milan
Jap Marubun Co, Ltd, 1-2 Chome, Odenmacho Nichonbashi
Nor Datamolik A/S, Gronlandsteiret 31, Oslo
SAfr G H Langler & Co, 249 Main St, Johannesburg
Swed Telare, AB, Industrigatan 4, Stockholm
Swit Traco Trading Co, Ltd, Post Fach, Zurich 27

BENSON MFG DIV E C I INC, 1811 AGNES
KANSAS CITY
MO, 64127, TWX 910-771-3104 .... 816 231-8300
P SCHOOLING, EMP 500, ENG 20, OVER $10,000M
Conn R L Brewer, 16 Huckelberry Hill Rd Avon 693-2205
Mo N Ewing, 939 S Main St Independence .... CL 4-2069

BENTHOS INC, MAIN ST, NORTH FALMOUTH
MASS, 02556
S RAYMOND, $100-$250M
Fla M Brainard, 5048 Higel Ave, Sarasota
Va Gans-Fryling Inc, 2030 N 16th St, Arlington
Wash Ocean Research Inst, 501 N W 65th, Seattle
GB John Mills, Lyne Nr Chertsey, Surrey

BENTLEY-HARRIS MFG CO, 1050 COLWELL LN
CONSHOHOCKEN
PA, 19428, TWX 510-660-8829 .... 215 828-7600
M NAKONECHNY, EMP 150, ENG 8, $2,500-$5,000M
Cal Wally Moore, 1410 W Olympic Blvd Los Angeles 387-5201
Cal George LaMoree, 2433 Birkdale St Los Angeles 225-5666
Cal Bill Price, 2221 4th St, Berkeley 841-0601
Cal C Henningsen, 1590 Rollins Rd Burlingame 692-2010
Conn Stockwell Technical Sales, Overbrook Dr RFD 3 Vernon 875-5414
Fla M Katzin, 307 27th St, Orlando 424-5634
Fla W Dickson, 2701 Adamo Dr, Tampa 245-6821
Ga Bill Brown, 3026 Commerce Way Hapeville 767-9301
Ga H Winters, 3316 Hamilton Blvd SW Atlanta 762-8461
Haw D Forbes, 645 Halekauwila St, Honolulu 571906
Ill Tom Keegan, 549 W Randolph St Chicago 236-7703
Ill H G Pretat Inc, 7716 W North Ave Elmwood Pk 453-3380
Ill R Ellerbush, 3501 W Addison, Chicago 583-3930
Ind James Green, 3001 S Fairfield Ave Ft Wayne 745-1251
Ind D Rabaduex, 1510 Wall St, Fort Wayne 742-7441
Md J Duffy, 2610 Georgetown Rd Baltimore 644-0140
Mass R Tynan, 271 Vassar St, Cambridge 864-7500
Mich Ralph Arber, 15605 Woodrow Wilson Detroit 883-0660
Mich R Kight, 6233 Concord Ave, Detroit 921-6000
Minn C R Bergquist Co, 3529 Webster Ave Minneapolis 929-6761
Mo Dick White, 4343 Duncan Ave, St Louis 371-2616
NJ Smith Co, 111 S Orange Ave, S Orange 763-1770
NJ G Wanner, 199 Lee Pl, Hackensack 487-9222
NY Schmitz Bros Inc, 82 St Paul St Rochester 546-7628
NY Leo Brown, 85 Tenth Ave, New York 924-6000
NC Bill Bollinger, 5141 Belhaven Blvd Charlotte 399-9791
Ohio B Gates, 410 Lakeside Ave NW Cleveland 621-1584
Ohio Mike Gallagher, 15 Ritchie Ave Cincinnati 761-1288
Ohio J McSorley, 4500 Willow Pkwy Cleveland 441-0070
Ohio R A Staff Co, 19680 Center Ridge Rd Rocky River 331-5100
Okla Clint Seawright, 12151 E Skelly Dr Tulsa 583-8121
Pa Harry Rezer, 915-17 N Broad St, Phila 236-7100
Pa Joe Scully, 5006 Penn Ave, Pittsburgh 661-1140
Pa Bill Roschetz, 10980 Dutton & Comly Rd Phila 632-3030
Tenn E C Locke, 217 Cumberland St Memphis 323-7693
Tex Sid Nachlas, Box 52230, Houston 224-0621
Tex Byford Fleming, 4320 Main St, Dallas 827-8891
Tex Max Jordan, 1339 Plowman Ave Dallas 942-8486
Tex G Thornton, 2801 Pierce, Dallas 339-8346
Tex M Cole, 2222 Leeland Ave, Houston 227-6358
Tex D Bean, 4101 San Jacinto, Houston .... JA 9-3797
Wash J Rothweiler, 2915 First Ave S, Seattle 624-7250
W Va C L Johnson, 312 McCorkle Ave, SE Charleston 346-0321
Wis Rollie Wittenburg, 1338 W Atkinson Ave Milwaukee 372-2400
Can Peter Paisley, 40 Upton Rd Scarborough, Ont 755-2216
Can G Clement, 1253 McGill College Ave Montreal, Que 861-0562
Can P Crompton, 1710 Midland Ave Scarborough, Ont 751-7911
Can A I McKay, 341 Gurzon Ave St Lambert, Que 489-8488
Ger Dr Herkenberg KG, 56 Wuppertal-Wichlenghausen Tutersburg 31
Holl H Cuylits, Wetering Kade 47, The Hague
Swed Aktiebolget Bromanco, Sveavagen 25-27 Stockholm C

BENTLY NEVADA CORP, BOX 157, ONE AIRPORT RD
MINDEN, NEV, 89423, TWX 354437 .... 702 782-2255
J FLINT, EMP 52, ENG 4, $500-$1,000M
NY James W Simpson Co Inc, 5459 Main St Buffalo 634-3995
Tex Bently Nevada Corp, 3915 Dacoma Rd Houston .... MO 7-6835

BERG ELECTRONICS, INC, YORK EXPWY
NEW CUMBERLAND
PA, 17070, TWX 510-650-3538 .... 717 938-6711
J ZWYNENBURG, EMP 400, ENG 50, OVER $10,000M
Cal William Corns, Box 26, Ross 415 454-7286
Ill Berg Electronics Inc, 603 N York St Elmhurst 312 832-2050

BERGEN LAB, INC, 60 SPRUCE ST, PATERSON
N J, 07501 .... 201 278-3020
H LEWIS, EMP 75, ENG 12, $1,000-$2,500M
NJ Engineered Prods Corp, 28 Essex St Lodi .... GR 4-5310
NY H Lewis, 825 Prescott St Valley Stream .... LO 1-7672

BERG GIBSON MFG CO, 819 E 17TH ST, KANSAS CITY
MO, 64108 .... 816 842-1524
J CARTER, EMP 70, ENG 4, $1,000-$2,500M
Cal John G Pertry, Box 2094 South San Francisco 415 761-4660
Mass Russell Sherrill, Farm Rd, Sherbourne .... OL 3-5867
NJ T & K Equip Co, 62 W 2nd St, Bayonne 436-4114
Ohio T E Schira, 3875 W 130th St Cleveland 216 671-4030

BERKELEY/DYNAMICS, 934 BAILEZANA RD
HILLSBORO, CAL, 94010 .... 415 342-3848
J BULLOCK, EMP 12, ENG 3

BERKELEY NUCLEONICS CORP, 1198 TENTH ST
BERKELEY, CAL, 94710 .... 415 527-1121
M BROWN, EMP 10, ENG 2
Cal R W Thompson Assoc, 4135 El Camino Way Palo Alto 321-6383
Cal R W Thompson Assoc, 5005 W Century Blvd Inglewood 677-6104
DC Scientific Sys Sales Corp, 7705 Georgia Ave, N W Washington 726-4161
Ill E H Corlett, 15 S Austin Blvd Chicago 312 626-6726
Md King Assoc, 10027 Clue Dr, Bethesda 469-7610
Mass Howard J Schuft Co, Inc, 815 Washington St Newtonville 527-5304
NM Scientific Engrg, 209 San Pablo, S E Albuquerque 265-8526
NY Scientific Systems Sales Corp, 376 Great Neck Rd Great Neck 466-0053
Tenn Pulcir Inc, 2711 Kingston Pike Knoxville 615 524-5981
Can BRH Assoc, Ltd, 6338 Victoria Ave Montreal 26, Que 733-5331
For International Engineering Service Veitingergasse 159, Vienna 13, Aust 824-6732
Fr Tranchant Electronique SA 19-21 Rue Madame de Sanzillon Clichy, Seine 270-22-55
Ger Wenzel Elektronik, Lamontstra 32 Munich 0811-48-65-58
GB Nuclear Measurements, Dalroad Ind Est, Dallow Rd Luton, Bedfordshire .... LU 27557
Swed Isotronic AB, Box 56, Nasbypark .... (08) 756-01-55
Isrl Landseas Ltd, Box 16166, Tel Aviv 244311-2
Neth Line-A-Data, Bldg 112A Schipol Arprt Amersterdam 020-15-16-02

BERKEY TECHNICAL DIV BERKEY PHOTO INC
25-15 50TH ST, WOODSIDE
N Y, 11377, TWX 1-2472 .... 212 932-4040
H HOLLANDER, EMP 475, ENG 16, $2,500-$5,000M
Cal Berkey Technical, 1015 Chestnut St Burbank 213 843-1200
Fla Ascor Electronics Corp, 1190 NW 159th Dr Miami 305 621-0585
Can Berkey Photo (Can) Ltd, 3220 Elmbank Rd Malton, Ont 416 677-3381
Den Berkey Tech AS-DEN, 160 Vangedvej Copenhagen Soborg 01-696111
Ger Berkey Tech Ger GmbH, AM Tiergarten 14 6 Frankfurt/Main 0611-494486
Ger Berkey-Theimer GmbH & Co-KG Ziegelhuttenweg 19-21 Frankfurt/Main 0611-688815
GB Berkey Technical(UK) Ltd 6 Studland St Hammersmith London W 6 01-748-6012
Jap Berkey-RDS Co Ltd, No 21-12 4-chome, Shimbashi Minato-Ku, Tokyo 431-7351

BERKSHIRE TRANSFORMER CORP, RTE 341, KENT
CONN, 06757 .... 203 927-3541
B HORDESKI, EMP 150, ENG 2, $1,000-$2,500M
Conn Glenn M Hathaway Elctns, Inc, Canaan
Mass Glenn M Hathaway Elctns, Inc, 7-11 Mystic St Arlington
NJ Winter Assoc, Box 104, Boonton
Ohio Jay Engineering Co, 1721 E Third St, Dayton

BERYLLIUM CORP, BOX 1462, READING
PA, 19603 .... 717 929-0781
D RICHARDS, OVER $10,000M
Cal Beryllium Corp, 800 Welch Rd Palo Alto 323-9625
Cal Beryllium Corp, 5175 E Pacific Coast Hwy Long Beach 213 597-3631
Ill Beryllium Corp, 3158 Des Plaines Ave Des Plaines 824-6133
Mass Beryllium Corp, 235 Bear Hill Rd Waltham 899-8266
Mich Beryllium Corp, 5649 Van Born Ct Dearborn 278-9300
Minn Eiler Co, 1107 S 2nd St, Minneapolis 339-9226
Mo Jos A Crowe & Co, 12542 Weber Hill Rd St Louis 842-1353
NY Beryllium Corp, 14 Hayes St, Elmsford 948-4808
NC W K Hile Co Inc, Box 325, Matthews 847-9125
Ohio Beryllium Corp, 3540 Ridge Rd Cleveland 631-9494
Ohio Beryllium Corp, 3300 S Dixie Ave Dayton 298-1433
Pa Beryllium Corp, 1617 J F Kennedy Blvd Phila 568-2071
For Baustoff & Metall, Singerstr 8, Vienna 1
For Equipamentos de Lab Lda, Apartado 1100 Lisbon, Port
Den V M Christensen A/S, 20, Bulowsvej, Copenhagen
Fr Mapren, 8, Rue Bellini, Paris 16
Ger Deutsche Beryllium GmbH, Postfach 450 637 Oberursel
GB Consolidated Beryllium Ltd St Andrew's Rd, Avonmouth, Bristol, Glos
Holl R S Stokvis & Zonen N V, Postbus 426, Rotterdam
Ital Tecnicom, Via Fontana 18, Milano 60
Jap Industrial Suppliers Co Ltd SA, CPO Box 86, Tokyo
Nor Nomajern A/S, Box 713, Bergen
SAfr C L Konings, Box 5398, Johannesburg
Swed Edstrom Trading Co AB, Kungsgatan 33, Stockholm C
Swit Otto Kofmehl, Solothurn
Belg Produits Ind Chas Monseur SPRL 5, Quai Du Condroz, Leige
Isrl Aravah A T I Ltd, Box 14501, Tel Aviv
NZ Wm Scollay & Co Ltd, Box 2377, Wellington C I
Spn Enrique Borrellas, Paseo de Gracia 89 7 8 Barcelona
Aust Australia Bronze Co Pty Ltd, 7015 G P O Sydney, N S W

BEST ELECTRIC DIV HARRY LEVINSON CO
1211 E DENNY, SEATTLE
WASH, 98122, TWX 910-444-2154 .... 206 323-5100
H LEVINSON
Cal Straube Assoc, Inc, 483 Willow Rd Menlo Park 323-2476
Cal Corcoran Assoc, Box 45897 Los Angeles 213 823-2425
Colo Straube Assoc, Inc, Box 1649, Boulder 443-8600

BEST MFG CO, 3214 TROOST AVE, KANSAS CITY
MO, 64109 .... 816 531-6611
D LIERZ, EMP 40, ENG 2, $250-$500M

BETA CORP, 2639 MANANA BOX 20427, DALLAS
TEX, 75220 .... 214 357-6571
R BENISON, EMP 53, ENG 5, $500-$1,000M
Ala Control Equip Co, Inc, Box 6044 Birmingham 205 879-8211
Cal Koppers Co Inc, 3440 Wilshire Blvd Los Angeles 213 383-4111
Cal Koppers Co Inc, 55 New Montgomery St San Francisco 986-2660
Cal Geo E Honn Co, 171 King St San Francisco 781-7351
Cal McCamey & Assoc, 1260 S Atlantic Blvd Los Angeles 213 263-9812
Colo Peterson Co, 4949 Colorado Blvd Denver 388-6322
Conn Geo H Birchall & Assoc, Box 823 Danbury 203 743-2271
Fla Control Equipment Co, Inc, Box 15106 W Palm Beach 965-3465
Ga Control Equipment Co, Inc, 3166 Maple Dr, NE Atlanta 237-1688
Ill Koppers Co Inc, 122 S Michigan Ave Chicago 939-2405
Ill Memeco, Inc, 7760 W Devon Ave Chicago 775-1688
La Lynn McGuffy Co Inc, 4523 N Blvd Baton Rouge 921-2362
La Lynn McGuffy Co Inc, 322 Texas Eastern Bldg Shreveport 425-3466
La Lynn McGuffy Co, Box 7646, Metairie 833-9914
Md Koppers Co Inc, Box 298, Baltimore 727-2500
Mass Koppers Co Inc, 245 Elm St, Boston 329-1700
Mass Cambridge Controls Corp, 76 Cambridge St Burlington 272-2700
Mich Koppers Co Inc, 301 W Eight Mile Rd Detroit 366-5200
Mich D T Randall & Co, 530 Livernois Ave Detroit 566-4764
Mo Andrew Zahner, 207 Westport Rd Kansas City 816 561-1110/1
NJ George H Birchall Co, Box 84 Westfield 232-3600
NY Koppers Co Inc, 430 Park Ave New York 755-2810
NY Koppers Co Inc, 2451 Wehrle Dr Buffalo 634-3225
NY George H Birchall Co, Box 5246 Albany 785-1771
NY Tek-Sales Inc, 1157 Fairport Rd Fairport 716 381-8110
NY Tek Sales Inc, Box 44 West Seneca 716 675-1212
NC B W Allen Co, 121 Greenwich Rd Charlotte 366-0031
Ohio Koppers Co Inc, 1900 Euclid Ave Cleveland 621-2034
Ohio Koppers Co Inc, 8010 Montgomery Rd Cincinnati 791-3633
Ohio Franklyn W Kirk Co, 15017 Detroit Ave Cleveland 226-1970
Okla Delcon, Inc, Box 4504, Tulsa 743-6656
Ore J A Tudor & Assoc, 1004 S E Belmont St, Portland
Pa Koppers Co Inc, 2317 Koppers Bldg Pittsburgh 391-3300

Pa Koppers Co Inc, 355 Lancaster Ave
Haverford 642-3170
Pa Penn-Del Instr Sales, Inc, Box 4361
Phila .... CH 7-7389
Pa Sepco Corp, 1101 Manor Bldg
Pittsburgh 261-1823
Tex Lynn McGuffy Co Inc, 1230 Lumpkin Rd
Houston 571-3083
Tex Lynn McGuffy Co, 4810 River View Trail
Corpus Christi 945-7287
Tex Koppers Co, Inc, 6440 Hillcroft
Houston 774-3541
Tex Gay Sales Co, Box 8414, Dallas 214 368-2325
Utah Peterson Co, Box 16046, Salt Lake City ... 355-7464
Wash J A Tudor & Assoc, 2605 Western Ave
Seattle 206 682-7444
Wash J A Tudor & Assoc, Terminal Box 2624
Spokane 509 327-3328
Can Conval Equip Ltd, 999 Finch Ave W
Downsview Ont 416 636-9641
BC Paulsen Industries Ltd, 1572 W 4th Ave
Vancouver 9 .... 604 736-7301

BETA INSTRUMENT CORP, 377 ELLIOT ST
NEWTON UPPER FALLS
MASS, 02164 .... 617 969-6510
M GALLANT, EMP 25, ENG 5, $250-$500M
Cal A-F Sales Engrg Inc, 94 S Los Robles Ave
Pasadena .... MU 1-5631
NJ J C Wolke Sales Assoc, 139 Union St
Montclair 746-2625
NJ Budd-Tronics Inc, 139 Greenwich St
Bergenfield 385-5295
Ohio Ashby Assoc, Inc, 4130 Linden Ave, Dayton
Tex Manufacturers Mktg Service, 10202 Brockbank Dr
Dallas 357-6893

BETHLEHEM CORP, 225 W 2ND ST, BETHLEHEM
PA, 18016 .... 215 867-4605
J TIESLINK, EMP 355, ENG 30, $5,000-$10,000M
Ala W A Brown & Assoc Inc, 1314 Budford St, NW
Huntsville 536-8393
Fla W A Brown & Assoc Inc, 222 Weber Ave
Orlando 425-5505
Md W A Brown & Assoc Inc, 325 1st St
Alexandria 836-1800
Mich Anger Assoc Inc, 13126 Michigan Ave
Dearborn .... LU 4-9853
NC W A Brown & Assoc Inc, 1108 Burke St
Winston-Salem 725-5384
Ohio Anger Assoc Inc, 21139 Lorain Rd
Cleveland 333-4180
Ohio Anger Assoc Inc, 3605 N Dixie Dr
Dayton 278-8311
Tex IBL Eng & Sales Inc, 219 Preston Royal Ctr
Dallas .... EM 3-2921
Tex IBL Eng & Sales Inc, 3403 Audubon
Houston .... JA 3-8360
Can Upton Bradeen & James Ltd, 8760 Verville St
Montreal .... DU 9-8231
Can Upton Bradeen & James Ltd, 215 W 2nd St
Vancouver 876-4191
Can Upton Bradeen & James Ltd, 30 Railside Rd
Don Mills, Ont 445-7660

BETRON-IRE-SPA, VIA MONTEBELLO N 21, LIVORNO
ITALY 33133
A BEDARIDA, EMP 30, ENG 5, $100-$250M

BETTER COIL & TRANSFORMER CORP
UNION & JAMES, GOODLAND
IND, 47948 .... 219 279-3111
E BEVILL, EMP 300, ENG 3, $2,500-$5,000M
Cal Shephard-Winters-Stern, 4109 Burbank Blvd
Burbank 849-6671
Ill Rozner Sales Co Inc, 4720 N Central Ave
Chicago .... AV 3-0022
Ind Morris, Cunningham & Assoc, 6208 N College Ave
Indpls .... CL 5-2458
Kan Thunderbird Engr Sales & Serv, 4014-a W 95th St
Prairie Village 913 642-7220
Kan Thunderbird Engr Sales & Serv, 7707 E Osie
Wichita 316 684-3941
Mich J L Montgomery, Inc, 24001 Southfield Rd
Southfield 313 358-2616
Minn Dale Merrick Co, 3712 E Lake St
Minneapolis 612 721-5331
Mo Thunderbird Engr Sales & Serv, 400 Brooks Dr
Hazelwood 314 731-4343
NY Milton Ross Assoc Inc, 38 E Main St
Elmsford .... LY 2-7940
NY W A Franklin Sales Corp, 2 Standish Terr
Syracuse 315 446-1120
Ohio Mulligan & Mathias Co, 2011 Riverside Dr
Columbus 486-2267
Tex Thunderbird Engr Sales & Serv, 5526 Dyer
Dallas .... 214 EM 8-3064

BETTS & BETTS CORP, POMPERAUG RD, WOODBURY
CONN, 06798 .... 203 263-2191
J POST, EMP 73, ENG 1, $1,000-$2,500M

BEUKERS LABS INC, JOHN M
3205 HORSE BLOCK RD, MEDFORD
NY, 11763 .... 516 289-0066
C WILLIAMS, EMP 10, ENG 2, $100-$250M

BEUTRONICS LABS INC, JEFFERSON AVE & 26TH ST
KENILWORTH, N J, 07033 .... 201 687-4824
W BEUTE, EMP 8, ENG 1

B F ELECTRONICS, 415 S NARDO AVE
SOLANA BEACH, CAL, 92075 .... 714 755-1881
W BLAIR, EMP 7, ENG 3, UP TO $100M
Cal Southwest Avionics, 2522 Conley Way, San Diego

B & F INSTRUMENTS, INC, CORNWELLS HEIGHTS
PA, 19020, TWX 510 667-1516 .... 215 ME 9-7100
B POGACH, $2,500-$5,000M
Ala Kemp Instruments, Inc, 4306 Governor's Dr, W
Huntsville 837-4304
Cal B J Wolfe Enterprises, 10760 Burbank Blvd
N Hollywood 877-5518
Cal B J Wolfe Enterprises, Box 718
Cupertino 252-5010
Fla Truex Assoc, 3165 McCrory Pl
Orlando 305 841-8931
Ill Bard Assoc Inc, La Grange Ind Park
La Grange 354-0660
Ind Systems Engineering Assoc, 1010 E 86th St
Indianapolis 846-2593
Ind Bard Assoc, 4002 Meadows Dr
Indianapolis 317 849-2723
Mass Andruss-Peskin Corp, Box 268, Natick 653-3919
Mich Elias Elctns, 26817 W Seven Mile Rd
Detroit 255-2111
Minn Band Assoc, 7710 Morgan Ave S
Minneapolis 866-1700
NJ Friedman Assoc, Inc, 110 Halsted St
East Orange 673-2500
NY Alpha Co, Box 282, Buffalo 854-4121
NC Systems Service Corp, Box 17525
Charlotte 377-3407
Ohio Bobco Co, 3555 Sutherland, Cleveland 921-0100
Pa PDC Corp, The Benson E, Jenkintown .... TU 7-9610
Tex Kemp Engineering Co, 6001 Gulf Frwy
Houston 928-5426
Tex Kemp Engineering Co, 2618 Manana Dr SE
Dallas .... FL 7-6663
Tex Kemp Engrg Co, 102 W Rector
San Antonio 344-1841
Utah Applied Engrg Prods Co, 6375 Emigration Canyon
Salt Lake City 364-4942
Wash Western Electro-Dynamics Co
584 Dexter Horton Bldg, Seattle 682-8412
Can B H McGregor, Box 156, Sta H, Toronto 13, Ont
Fr Cite de Bruyeres, Rue Carle-Vernet, 92 Sevres France
Ger Ernst Fey, 8000 Munchen 2, Horemansstr 28
GB SESLAB Electronics Ltd, Brockhampton La
Havant, Hants
Swed Robt E O Olsson AB, Americanska Teleprodukter
Tradgardsgatan 7, Motala

BICRON ELECTRONICS CO, BARLOW ST, CANAAN
CONN, 06018 .... 203 824-5125
F KENT, EMP 50, ENG 3, $2,500-$5,000M
Conn Bicron Electronics Co, 50 Jerome Ave
Bloomfield 203 242-5863

BIDDLE CO, JAMES G, TWP LINE & JOLLY RDS
PLYMOUTH MEETING, PA, 19462 .... 215 646-9200
R KENNEDY, EMP 180, ENG 15, $2,500-$5,000M
Ala Col-Ins-Co, Inc, Box 4246, Huntsville 539-1771
Ariz Tech-Ser Inc, 1805 E Indian School Rd
Phoenix 602 265-3629
Cal Tech-Ser Inc, 2435 N Naomi St
Burbank 213 846-9631
Cal Tech-Ser Inc, 477 Castro St
Mountain View 415 969-9020
Colo D E Bond Assoc, 2149 S Clermont St
Denver 756-1234
DC Col-Ins-Co, Inc, Box 14077, Atlanta 873-5118
Fla Col-Ins-Co, Inc, 1313 44th St, Orlando ... 423-7615
Ga O V Scott Jr & Assoc, 305 Techwood Dr NW
Atlanta 404 523-0927
Ill James G Biddle Co, Box 408, Geneva 232-8485
Ill K W Meyers Co, 7256 W Touhy Ave
Chicago 312 774-6440
La Butler & Land Inc, 1067 Magazine St
New Orleans 524-0688
Md Paddock-Joslow Co, 721 Ellsworth Dr
Silver Spring 301 588-7866
Mass Cowperthwait & Brodhead, 570 Hillside Ave
Needham Hts 444-9410
Mich Satullo Co, 4514 N Woodward Ave
Royal Oak 549-3910
Minn K W Meyers Co, 4725 Excelsior Blvd
Minneapolis 612 920-7080
Mo C B Fall Co, 11301 Bennington St
Kansas City 761-6545
Mo C B Fall Co, 317 N 11th St, St Louis 241-2433
NJ James g Biddle Co, 15 Alden St
Cranford 276-8833
NJ L & M Assoc, 511 Victor St
Saddle Brook 201 843-8700
NM D E Bond Assoc, Box 11331
Albuquerque 247-3442
NY Savage Sales Co, Box 8425, Rochester ... 473-4205
NC Ranson, Wallace & Co Inc, 116 1/2 E 4th St
Charlotte 334-4244
NC Col-Ins-Co, Inc, Box 5597
Winston-Salem 765-3650
Ohio Peter E Lax Co, 13945 Lake Ave
Cleveland 226-8815
Ore Instrument Lab Inc, 1316 SE 7th Ave
Portland 234-6683
Pa L & M Assoc, 965-A Bristol Pike
Andalusia 215 639-3100
Tenn Butler & Land, Inc, 3181 Poplar Ave
Memphis 452-0039
Tex Butler & Land Inc, 9186 Katy Frwy
Houston 464-3838
Tex Butler & Land Inc, 4009 Ave R
Lubbock 744-8449
Tex Butler & Land Inc, Box 8085, Dallas 361-6631
Tex D E Bond Assoc, Box 12293, El Paso 532-4048

Va Virginia Technical Assoc Inc, 15 S Belmont Ave
Richmond 353-6411
Wash Instrument Lab Inc, 934 Elliott Ave W
Seattle 283-5850

B I F UNIT GENERAL SIGNAL CORP, 345 HARRIS AVE
PROVIDENCE
R I, 02901, TWX 401-831-1613 .... 401 421-4302
R FLYNN, EMP 900, ENG 100, OVER $10,000M
Cal BIF Div, 5430 Jillson St
Los Angeles 213 723-1235
Cal BIF Div, 2770 Camino Diablo
Walnut Creek 415 935-6350
Md BIF Div, 9525 Georgia Ave
Silver Spring 301 587-2151
Mass BIF Div, 9 School St, Islington 617 326-5690
NY BIF Div, 50 E 42nd St, New York 212 986-3030
Pa BIF Div, One Bala Ave Bldg
Bala Cynwyd .... 215 TE 9-3551
Pa BIF Div, 225 Commercial Ave
Pittsburgh 412 781-6523
Tex BIF Div, 4519 N Central Expwy
Dallas 214 526-8631

BIGELOW COMPONENTS CO, 40 E BIGELOW ST
NEWARK, N J, 07114 .... 201 248-1000
W MAURER, EMP 12, ENG 2, $500-$1,000M
Ill J Shannon, Box 115, Arlington Heights ... 253-3188
Ohio C E Starling, 2206 21st St
Cuyahoga Falls 928-7211

BIGGS CO, 1547 14TH ST, SANTA MONICA
CAL, 90404 .... 213 478-0461
G WHITBREAD, EMP 20, ENG 4, $250-$500M
Minn Servco, Inc, 521 S 7th St, Minneapolis ... 339-8611

BINARY ELECTRONICS OF CAL DIV AVIONIC
STRUCTURES INC, 1429 N STATE COLLEGE BLVD
ANAHEIM, CAL, 92806 .... 714 772-3070
E FRINK, EMP 55, ENG 4, $250-$500M

BIN DICATOR CO, 17190-11 DENVER, DETROIT
MICH, 48224 .... 313 882-3000
H DOWNER, EMP 46, ENG 4, $1,000-$2,500M

BIOCOM, INC, 5883 BLACKWELDER ST, CULVER CITY
CAL, 90230 .... 213 VE 9-2581
H HANISH, EMP 8, ENG 2
Cal Schwarzschild Assoc, Box 14166
San Francisco 861-8686
Cal West Coast Scientific Sls & Serv
Box 2947 Rockridge Sta
Oakland 415 654-2665
Fla Blair Instruments, 1065 97th St
Miami Beach .... UN 5-3970
NY Instrumentation Assoc, Inc, 17 W 60th St
New York .... CI 5-0840
Fr F L B B , 18 Rue de la Pepiniere, Paris 8e
Ger W List, 6 Frankfurt/Main-W 13
Franz-Rucker-Allee 42
Holl C N Rood, NV, Box 4542, Rijswijk 98 51 53
Swit Kontron Technik Ltd, Hardstr 235, 8031 Zurich
Braz Froyas Comercio Imp Exp, 81 Ave Rio Branco
Rio De Janeiro
Isrl S T G Intl Ltd, Box 1276, Tel-Aviv
Aust Sample Elctns Aust Pty Ltd, 9-11 Cremorne St
Richmond Vic 3121

BIOELECTRIC INSTRUMENTS INC, BOX 204
HASTINGS-ON-HUDSON
N Y, 10706 .... 914 GR 6-1234
S AMATNIEK, EMP 15, ENG 3, $100-$250M

BIONIC INSTRUMENTS INC, 221 ROCK HILL RD
BALA CYNWYD, PA, 19004 .... 215 TE 9-3250
EMP 16, ENG 3, $100-$250M

BIO-PHYSICAL RESEARCH INSTRUMENTS INC
5525 PINE ST, HOUSTON
TEX, 77036 .... 713 664-9444
H CHILDERS, EMP 14, ENG 12, $2,500-$5,000M

BIO-RAD LABORATORIES, 1259 S 32ND ST
RICHMOND, CAL, 94804 .... 415 234-4130
P PROOM, EMP 75, ENG 4, $1,000-$2,500M
NY Bio-Rad Labs, 22 Jones St, New York .. WA 9-4823

BIRDAIR STRUCTURES INC, 1800 BROADWAY
BUFFALO, N Y, 14212, TWX 091-353 ... 716 896-5100
A SMITH, EMP 130, ENG 8, $1,000-$2,500M
Cal John Jones Co Inc, 445 N Garey Ave
Pomona 623-1588
For Rocke Intl Corp, 13 E 40th St
New York, NY 689-0200

BIRD CO INC, RICHARD H, 1 SPRUCE ST, WALTHAM
MASS, 02154 .... 617 894-0160
R CAMERON, EMP 125, $1,000-$2,500M

BIRD ELECTRONIC CORP, 30303 AURORA RD
CLEVELAND (SOLON)
OHIO, 44139, TWX 216 248-6458 .... 216 248-1200
M RICKMAN, EMP 200, ENG 20, $2,500-$5,000M
ADV PG 408, 409

Cal Riner-Stillman, Inc, 200 Third St
Los Altos 415 321-8867
Cal Allgood Assoc, 1621 Centinela Ave
Inglewood 213 776-5820
Mass Bird Electronic Corp, 235 Bear Hill Rd
Waltham 617 899-4162
Den Hans Buch & Co A/S, Svanevej 6 Box 975
Copenhagen NW
Fr Technique et Produits, Cite des Bruyeres
Rue Carle Vernet Sevres S & O
Ger Wacker GmbH, Stettenstr 9, 6 Frankfurt am Main
Ital Mario Vianello, Via L Anelli, 13, Milan
Ital Mario Vianello, Via S Croce In
Gerusalemme 97 .... Rome
Nor Morgenstierne & Co A/S, Wessels Gate 6, Oslo
SAfr Hurbarn Elctns (Pty) Ltd, Box 3236, Johannesburg
Swed Erik Ferner AB, Box 56, Bromma
Swit MEGEX-Zurich GmbH, Badenerstr 582, 8048 Zurich
Neth Peekel, Lab voor Electronica N V
Alblasstr 1 Rotterdam
Spn Ataio Ingenieros, Enrique Larreta 12, Madrid 16
Spn Ataio Ingenieros, Urgel 259, Barcelona 11
Fin Oy Aseko AB, Vuorikatu 22, Helsinki 10
Aust Warburton Franki Ltd, Box 182, Chatswood NSW

BIRNBACH CO INC, 177 HANSE AVE, FREEPORT
N Y, 11520, TWX 710 581-2744 .... 516 223-8400
G ORTIZ, EMP 40, ENG 2, $1,000-$2,500M
ADV PG 333, 812
Cal Birnbach Co Inc, 427 S Hindry St
Inglewood 213 673-2900
Fla R A Chalmers & Co, Box 19218, Tampa
Ga R A Chalmers & Co, 349 Peachtree Hills Ave NE
Atlanta
Ind Delta Sales Inc, 1407 N Illinois St, Indianapolis
Mass Q R C Co, Inc, 134 Upland Rd
Waban 617 332-9600
Mo Swor Sales Corp, 8115 Troost
Kansas City .... 816 HI 4-2871
NJ Jules Bressler Co, 4808 Bergenline Ave, Union City
Ohio Thomas Shelby & Co, 17 S Walnut St, New Bremen
Pa Thomas Shelby & Co, 720 Gypsy La, Pittsburgh

BIRTCHER CORP, INDUSTRIAL DIV
745 MONTEREY PASS RD, MONTEREY PARK
CAL, 91754, TWX 910 321-3076 .... 213 268-8584
W JACOBS, EMP 85, ENG 3, $1,000-$2,500M
Ala Cartwright & Bean, 2506 Aspen Ave, Huntsville
Cal Lebell-Warren Assoc, 605 Old County Rd
San Carlos 593-7688
Colo Electronic Components Sales, 2340 W Main St
Littleton 798-8481
Fla Cartwright & Bean, 609 Colonial Dr
Orlando 425-8284
Fla Cartwright & Bean, 20100 NE 25th Ct
North Miami Beach
Fla Cartwright & Bean, 779 John Anderson Dr
Ormond Beach 677-3480
Ga Cartwright & Bean, 3223 Cain's Hill Pl
Atlanta 237-2273
Ill Harry Halinton Eng Assoc, 6418 N Central Ave
Chicago 763-2131
Iowa Heimann Co, 236 7th Ave N
Fort Dodge 576-2374
Kan Alvin/Thomas Co, 9500 Mission Rd
Overland Park 649-8050
Md L G White & Co, 880 Bonifant St
Silver Spring 585-3141
Mass Dan Greene Organization, Box 290
Bedford 275-6400
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield 442-5656
Minn Heimann Co, 5603 Lyndale Ave, S
Minneapolis 827-5457
NJ R P Luce & Co, 630 Morris & Essex Tpk
Short Hills 379-6600
NM Electronic Components Sales, Box 3087, Sta D
Albuquerque 256-3663
NY I A Hotze Co, 112 DeWitt St, Syracuse ... 479-6641
NY R P Luce & Co, 1300 Jericho Tpk
New Hyde Pk 437-4550
NC L G White & Co, Box 2356
Winston-Salem 725-3612
Ohio R K Deunk & Assoc, 7390 Chippewa Rd
Cleveland 526-4317
Pa L G White & Co, 100 N Essex Ave
Narberth 664-6505
Tenn Cartwright & Bean, 560 S Cooper St
Memphis 276-4442
Tex Parvin Sales Co, Box 307, Addison 239-8886
Utah Electronic Components Sales, Inc, Box 2066
Salt Lake City 262-3700
Wash Vince E Johnson Co, 2614 E 86th St
Seattle 524-4595
Can Lake Engineering Co Ltd, 123 Manville Rd
Scarborough 751-5980
For Frazar & Hansen Ltd, 150 Calif St
San Francisco, Cal 981-5262

BIRTCHER CORP INSTRUMENT DIV
1200 MONTEREY PASS RD, MONTEREY PARK
CAL, 91754, TWX 910 321-4497 .... 213 264-6610
R MACK, EMP 25, ENG 5, $500-$1,000M
Ala W A Brown & Assoc Inc, 1314 Buford St NW
Huntsville 205 539-6884
Alas Arva, Inc, Box 759, Anchorage 907 272-5231
Ariz Brooks Feeger Assoc, Inc, 4710 N 16th St
Phoenix 602 264-6536
Cal Moxon Electronics Corp, 2311 Pontius St
Los Angeles 213 272-9311
Cal Moxon Electronics Corp, 15 W 41st Ave
San Mateo 415 345-7961
Cal Moxon Electronics Corp, 2054 Garnet St
San Diego 714 274-6525

Colo Brooks-Feeger Assoc Inc, 1309 S Inca St
Denver 303 744-3301
Fla W A Brown & Assoc, Inc, 222 Weber Ave
Orlando 305 425-5505
Fla W A Brown & Assoc, 3039 N E 32nd Ave
Fort Lauderdale 305 564-8000
Fla W A Brown & Assoc, 212 Bradley Dr N E
Ft Walton Beach 904 243-6424
Ga W A Brown & Assoc Inc, 1590 Cooledge Rd NW
Tucker 404 939-1674
Ill Carter Electronics, Inc, 7203 S Western Ave
Chicago 312 776-1601
Ind Carter Electronics, Inc, 6333 Hollister Dr
Indianapolis 317 293-0696
Mass W M Hague Co, 10 Muzzey St
Lexington 617 862-5700
Mich WKM Assoc, 1474 E Outer Dr
Detroit 313 892-2500
Minn Carter Electronics Inc, 2401 W 66th St
Minneapolis 612 869-3261
NJ Moxon Electronics Corp, 151 Hackensack Ave
Hackensack 201 343-9490
NJ Moxon Electronics, 40 Coles Ave
Cherry Hill 609 665-5444
NM Brooks-Feeger Assoc, 1238 Ortiz S E
Albuquerque 505 268-4387
NY I A Hotze Co Inc, 112 Dewitt St
Syracuse 315 479-6641
NC W A Brown & Assoc, 1108 Burke St
Winston-Salem 919 725-5384
Ohio WKM Assoc, 6741 Ridge Rd
Cleveland 216 885-5616
Ohio WKM Assoc, 5335 Far Hills Ave
Dayton 513 434-7500
Okla Brooks, Feeger & Puckett, 3216 E 21st St
Tulsa 918 936-5295
Ore Arva Inc, 2035 SW 58th Ave
Portland 503 292-8762
Pa WKM Assoc, 90 Clairton Blvd
Pittsburgh 412 892-2953
Tex Brooks, Feeger & Puckett, 409 Friendwood Dr
Friendswood .... 713 HU 2-7137
Tex Brooks, Feeger & Puckett, 708 W Euless
Euless 214 264-3363
Tex Brooks, Feeger & Puckett
Box 16065 Lampham Sta
San Antonio 512 828-0164
Va W A Brown & Assoc Inc, 325 First St
Alexandria 836-1800
Va W A Brown & Assoc, 82 Huxley Pl
Newport News 703 245-8272
Wash Arva Inc, 1320 Prospect St, Seattle .. 206 622-1077
Can East-Electrodesign Ltd, 9124 St Lawrence Blvd
Montreal, Que 514 389-5914
Can Electrodesign Ltd, 83 Arthur St
Ottawa 4 Ont 613 233-8815
Can Electrodesign Ltd, 3433 Bathurst St
Toronto 19 Ont 416 787-0991
For Frazar & Hansen Ltd, 150 California St
San Francisco, Cal 415 981-5262
BC West-Arva Inc, 1642 W 3rd St
Vancouver 604 736-6377

BIRTCHER CORP MEDICAL DIV, 4371 VALLEY BLVD
LOS ANGELES, CAL, 90032 .... 213 222-9101
A NEWMAN, EMP 225, ENG 10, $2,500-$5,000M
Ala R D Warner, Box 1130, Birmingham 252-2327
Cal Birtcher Corp, 4371 Valley Blvd
Los Angeles 222-9101
Cal Jackson Mosher, 333 Florence Ave
Oakland 536-9141
Fla R Thayer, 3190 55th St N
St Petersburg 896-4141
Ga L King, 4020 Maxey Hill Dr
Stone Mountain 443-5894
Ill J Knight, Box 364, Glenview 332-1465
Mass Birtcher Corp, 25 Huntington Ave
Boston 266-1240
Minn F Semone, 1701 W 75th St
Minneapolis 866-1387
NM C Cardell, Box 8243, Albuquerque 268-2497
Okla G Perkins, 5809 Braniff Dr
Oklahoma City .... VI 8-2500
Ore T Fitzgerald, 10711 NE Weidler
Portland 227-0506
Pa J Verderber, 138 Penn St, Washington 225-8162
Va F Van Den Berg, 10901 Haislip, Lorton ... 339-5398

BISHOP INDUSTRIES CORP, 11728 VOSE ST
NORTH HOLLYWOOD
CAL, 91605, TWX MR MARTIN J S 213 875-1800
M SALVIN
Mass R Summers, 10 Arbor Rd
West Newton 617 332-1921
Can Ampel Electronics Sales Ltd, 489 Champagne Dr
Downsview, Ont 635-8783
Fr Olibol Organization, 19 Rue De La Micholdiere
Paris
Fr TEMI, 18 Rue De La Pepiniere, Paris
Swed Empiro A. B., Orsavagen 18 Bromma,
Swit Electronic Specialties, Box 131, Fluntern

BISHOP INSTRUMENT, 440 FOREST AVE, PORTLAND
MAINE, 04101 .... 207 774-8311
P BISHOP, EMP 3, ENG 1, UP TO $100M
Va John Hopkins Assoc, 4520 Starr Jordan Dr
Annandale 703 280-2086

Fr S P I A, 11, Rue de Provence
Paris IX-E 770-75-46
GB Claude Lyons Ltd, Valley Works
Hoddesdon, Herts 67161
GB Claude Lyons Ltd, 76 Old Mall St
Liverpool 3 .... MAR 1761
Ital I N E A, Via Porri 10, Torino 895-770
SAfr Specialized Electronics, Box 15552
Siemend Johannesburg 724-5396

BISHOP MFG CORP, 10 CANFIELD RD, CEDAR GROVE
N J, 07009 .... 201 239-2400
F MCCORMACK, EMP 100, ENG 6

BISSETT-BERMAN CORP, 2941 NEBRASKA AVE
SANTA MONICA
CAL, 90404, TWX 910 342-6880 .... 213 394-3270
EMP 500, ENG 75
Ariz Compar Rocky Mt, Box 1607
Scottsdale 602 947-4336
Cal Bissett-Berman Corp, G St Pier
San Diego .... BE 4-6755
Cal Bissett Berman Corp, 3860 Centinela
Los Angeles 213 390-3585
Cal Leddy Assoc, 1319 Howard Ave
Burlingame 415 347-5247
Cal Compar Los Angeles, Box 1923
Glendale 213 245-1172
Fla Compar Florida, Box 1310, Orlando .. 305 855-3964
Md J R Daniel & Co Inc, Box 124
Lutherville 301 825-3330
Mass Research Instruments, 87 Terrace Hall Ave
Burlington 617 272-1800
Mich Compar Midwest, 21250 10 1/2 Mile Rd
Southfield 313 442-5656
NY HRC Assoc, 390 Plandome Rd
Manhasset 516 627-4644
NY Compar Albany, 419 Central Ave
Albany 518 436-8536
Ohio Gibson Electronics Mktg, 2801 Far Hills Ave
Dayton 513 298-7683
Tex Compar S W, 8609 N W Plaza Dr
Dallas 214 363-1526

BITRONICS INC, 732 E GEOPP ST, BETHLEHEM
PA, 18018 .... 215 866-0777
J GROMAN, EMP 50, ENG 3, $250-$500M

BIVAR CO INC, 725 LOMA VERDE AVE, PALO ALTO
CAL, 94303 .... 415 327-1202
R VIELICKA, EMP 5, ENG 2
Cal Bivar Co Inc, 5481 Santa Monica Blvd
Los Angeles 213 461-9381
NY Van Vaulkenburgh Assoc, 611 Broadway
New York .... CH 4-1416
Pa Martronics, Box 293, Fairview Village
Utah S & H Terminals, 323 W 1410 S
Salt Lake City 484-7649
Can Lake Engr Co. Ltd, 123 Manville Rd, Scarborough

BIWAX CORP, 45 E BRADROCK DR, DES PLAINES
ILL, 60016 .... 312 824-0137
H BYSTRICKY, EMP 21, ENG 2
Jap Japan Chemical Trading
18,2-Chome,Marunouchi,Chiyoda-ku, Tokyo

B & K INSTRUMENTS INC OF BRUEL & KJAER
5111 W 164 ST, CLEVELAND
OHIO, 44142, TWX 810 421-8266 .... 216 267-4800
J SMILEY, EMP 67, ENG 7, $2,500-$5,000M
Ala Lee Assoc, Inc, Box 1506, Huntsville 539-0761
Ariz Barnhill Assoc, 4900 E Indian School Rd
Phoenix 959-2115
Cal B & K Instruments Inc, 3787 Cahuenga Blvd
N Hollywood 877-0961
Cal B & K Instruments Inc, 1 First St
Los Altos 948-9519
Colo Barnhill Assoc, 1170 S Sheridan
Denver 934-5505
Conn Instrument Consultants, Inc, 2381 Whitney Ave
Hamden 248-4174
Fla Lee Assoc Inc, 200E Marks St, Orlando ... 241-4445
Ill Bard Assoc Inc, LaGrange Ind Park
LaGrange 354-0660
Ind Bard Assoc, 4002 Meadows Dr
Indianapolis 849-2723
Kan Leemark Assoc, Box 6175, Leawood 648-0124
Md Lee Assoc, Inc, 12250 Wilkens Ave
Rockville 949-4800
Mass Instrument Consultants, Inc, Box 25
Waban 969-9881
Mich Electro Sales Assoc, 10745 Morang Dr
Detroit 886-2280
Minn Bard Assoc, 7700 Morgan Ave S
Minneapolis 866-1700
Mo Leemark Assoc Inc, 9623 St Charles Rock Rd
St Louis 423-8700
NJ N L R Assoc, 617 Bloomfield Ave
Verona 237-4747
NM Barnhill Assoc, 827 Penna N E
Albuquerque 265-7766
NY DB Assoc, 22 Biscayne Dr, Lancaster 835-6186
NY DB Assoc, 3307 Erie Blvd E, DeWitt 446-0220
NC Lee Assoc Inc, 825 Burke St
Winston-Salem 724-2406
Ohio Electro Sales Assoc, Overlook Br Box 3122
Dayton 426-5551
Ohio Electro Sales Assoc, 335 E 200th St
Cleveland 486-1140
Pa NLR Assoc, 529 Shoemaker Rd, Phila 224-1663
Pa Electro Sales Assoc, 201 Penn Center Blvd
Pittsburgh 371-9449

Tex Barnhill Assoc, 507B Bishop St Richardson 231-2573
Tex Barnhill Assoc, 3810 Westheimer Houston 621-0040
Wash Harry Levinson Co, 1211 E Denny Way Seattle 323-5100

B & K MFG CO DIV DYNASCAN CORP
1801 W BELLE PLAINE AVE, CHICAGO
ILL, 60613 .... 312 327-7270
R DUNN, SLS MGR, EMP 250, ENG 25
Ala Maitland K Smith Inc, 3258 Cahaba Hts Rd Birmingham 967-3080
Ariz Hyde Electronics, 4710 N 16th St Phoenix 264-5609
Cal D Brennan, 715 Ave Columbo San Clemente 492-0295
Cal Sinai-Johnson Inc, 817 Douglas St Redwood City 365-6263
Colo Hyde Electronics Co, 888 S Lipan St Denver 936-3456
Fla Maitland K Smith Inc, 897 Penna Ave Ft Lauderdale 587-7378
Ga Maitland K Smith Inc, 2701 Pineland Ave Atlanta 457-1931
Ill R Brainard, 1801 W Belle Plaine Chicago 327-7270
Ind Roy Haught & Assoc, 6819 Fairwood Ct E Dr Indianapolis 545-1376
La Texport Co, 411 S Murat, New Orleans ... 486-6810
Mass Budente Sales Co, 64 Mandalay Rd Newton Center 244-4842
Mich Burcaw-Cowan & Co, 18236 W McNichols Rd Detroit 533-7700
Minn Clark R Gibb Co, 1311 W 25th St Mnpls 377-1200
Miss Texport Co, 5118 Park Ave, Memphis 683-0880
Mo Larrabee-Fontaine Co, 3709 A Summit Kansas City 931-0657
NJ Jules Bressler Inc, 4808 Bergenline Ave Union City 864-9577
NM Hyde Electronics Co, 5206 Constitution Ave Albuq 265-8895
NY Maury Farber Assoc, 220 Delaware Ave Buffalo 856-3543
NC Maitland K Smith Inc, 1605 Chatham Ave Charlotte 376-5951
Ohio Mike Roth Sales Co, 678 S Green Rd Cleveland 382-9090
Pa J Spangler, 547 Baeder Rd Jenkintown .... TU 4-2787
Tex Texport Co, 2411 Farrington, Dallas 631-6270
Tex Texport Co, 8811 Gaylord, Houston 464-2828
Wash Fleehart & Sullivan, 3826 Woodland Park Ave Seattle 633-4979
Can Atlas Radio Corp Ltd, 50 Wingold Ave Toronto 781-6174
For Empire Exporters, 123 Grand St New York, NY 925-1259

BLACKBURN INC, P W, 68 MAIN ST, DOBBS FERRY
N Y, 10522 .... 914 693-2620
ADV PG 318

BLACKHAWK NETWORKS CORP, 14 N PARKER DR
JANESVILLE
R BRANDT, EMP 10, ENG 2

BLACK LIGHT CORP OF AMERICA
5114 N WALNUT GROVE AVE, SAN GABRIEL
CAL, 91778 .... 213 283-3193
P WARREN, EMP 40, ENG 3, $1,000-$2,500M

BLACK LIGHT EASTERN DIV SPECTRONICS CORP
24 KINKEL ST, WESTBURY
N Y, 11590 .... 516 ED 3-4840
N SHAW, EMP 80, ENG 3, $1,000-$2,500M

BLACK LIGHT PRODUCTS, BOX 45-278, CHICAGO
ILL, 60645 .... 312 561-4046
J RICHARDSON

BLACKSTONE ULTRASONICS INC, CENTER & HORTON STS
SHEFFIELD, PA, 16347 .... 814 968-3221
T KORN, EMP 38, ENG 8, $1,000-$2,500M
ADV PG 782
Cal Bearings, Seals, & Gears, Inc, 20122 Camden St Glendora 963-1404
Cal Bearings, Seals, & Gears, Inc, Box 4200 Torrance 375-8333
Cal Bearings, Seals, & Gears, Inc, 1650 Broadway St Redwood City 365-5444
Fla Beacon Elctn Assoc, Inc, Box 1278 Maitland 647-3498
Fla Beacon Electronic Assoc, Inc, Box 10212 Ft Lauderdale 564-4298
Ga Beacon Elctn Assoc, Inc, 2235 Plaster Rd NE Atlanta 636-7526
Mass Technical Instruments, 122 West St Wilmington 944-3930
Mich Measurement Instr Inc, 2547 Monroe Blvd Dearborn 278-4744
Minn William C Forcey, 445 Endicott Bldg St Paul 222-1600
NY D Montanino, 4200 Gunnville Rd Clarence 759-8000
NC Crotts & Saunders Engrg Inc, 235 N Main St Winston-Salem 723-3643
NC Beacon Elctn Assoc, Inc, Box 17584, Charlotte
Ohio Measurement Instr, Inc, 24524 Lake Rd Bay Village 488-9753
Ohio Measurement Instr Inc, 2074 Arlington Ave Columbus 488-9753
Ohio Measurement Instr Inc, 19115 Detroit Rd Cleveland 333-6611
Ohio Measurement Instr Inc, 1717 Section Rd Cincinnati 531-2729
Tex Teamwork, Inc, Box 34465, Dallas ...... FL 2-7747
Va Crotts & Saunders Engrg, Inc, Box 4206 Virginia Beach 428-8081
Wash Bearings, Seals, & Gears, Inc, 6867 84th Ave SE Mercer Island 232-6070

BLACK & WEBSTER INC, 281 WINTER ST, WALTHAM
MASS, 02154 .... 617 891-8100
J BARBER, EMP 35, ENG 1
Cal C W Blair, 1406 S Grand Ave, Los Angeles
Cal Dean Lewis Assoc, 4444 Piedmont Ave Oakland 415 654-0613
Conn George M Chambers Co, 175 White Rock Dr Windsor
Fla Wm M Jones Co Inc, Box 6004B, Orlando
Ga Wm M Jones Co Inc, 2666 Redding Rd NE, Atlanta
Ill W H Brooke Machine Tools Inc 5740 W Chicago Ave, Chicago
Ind Henry M Wood Co, Buck Creek
Ky Henry M Wood Co, Box 5167, Louisville
Md Wm M Jones Co Inc, Box 6880, Towson
Mass A W Chester, Box 44, Lexington
Mich W T Peterson Co, 11568 Thirteen Mile Rd, Warren
Minn R E Kenney Co, 6301 W Lake St Minn 612 929-6222
Mo Representative Sales & Service Inc 6110 Willow (Raytown), Kansas City
Mo J E Rush Machinery Co, 34 N Brentwood Blvd St Louis
NJ Affiliated Sales, Inc, 400 Delancy St, Newark
NY BMH Equip, Inc, 16 Saratoga Ave, Rochester
Ohio Henry M Wood Co, 920 E McMillan St, Cincinnati
Ohio Henry M Wood Co, Box 248, Worthington
Ohio Henry M Wood Co, Box 2235, Dayton
Ohio Carl H Reineck & Sons, 17138 Lorain Ave Cleveland 216 251-8535
Pa Riley & Aleshire Inc, 306 Leedom St, Jenkintown
Pa E C Oliver & Assoc, Box 11165, Pittsburgh
Tex Lomax Engrg,Inc, 6338 Prestonshire La, Dallas
Wash National Co, 69 Marion St, Seattle ... 206 623-7060
Wis C L Thompson Co Inc, 7001 W North Ave Milwaukee
Can J H Ryder Machinery Ltd, 360 Evans Ave, Toronto
GB Birmingham Tool & Gauge Co Ltd Soho Hill, Handsworth, Birmingham
Ital Kinomat, Via Monte Bernina 8, Bollate, Milano
Ind Ind & Agricultural Engr Co (Mysore) Private L Bombay
Fin Ingenieria e Industrializacion, Laforja 80, Barcelona

BLASS ANTENNA ELECTRONICS CORP
1 WESTERN BLVD, LEONIA
N J, 07605 .... 201 947-9000
N ZELVIN, EMP 85, ENG 18, $1,000-$2,500M

BLAW-KNOX CO, BLAW-KNOX EQUIP DIV, BOX 1198
PITTSBURGH, PA, 15230 .... 412 781-2700
E MILLER, OVER $10,000M

BLH ELECTRONICS INC SUB
BALDWIN-LIMA-HAMILTON, 42 FOURTH AVE
WALTHAM, MASS, 02154 .... 617 894-6700
H RUSTON, EMP 500, ENG 25
Ala BCS Assoc Inc, 2317 Bob Wallace Ave Huntsville 534-1648
Ariz Barnhill Assoc, 4900 E Indian School Rd Phoenix 602 959-2115
Cal BLH Electronics, 3490 E Foothill Blvd Pasadena 795-0641
Cal BLH Electronics, 1485 Bayshore Blvd San Francisco 415 467-1700
Colo Barnhill Assoc, Inc, 1170 S Sheridan St Denver 934-5505
Conn Applied Measurements Inc, 2531 Whitney Ave Hamden 288-5288
Fla BCS Assoc Inc, 940 Fern Creek Ave Orlando 425-2764
Ill Pivan Engineering Co, 3535 W Peterson Ave Chicago .... KE 9-4838
Ind Pivan Engineering Co, 8545 Northcrest Ct Indianapolis .... VI 6-5805
Iowa Pivan Engrg Co, 4403 1st Ave S E Cedar Rapids 319 365-6635
La BCS Assoc, 3414 Hessmer Ave Metairie 504 888-2266
Md Bartlett Assoc Inc, 7979 Old Georgetown Rd Bethesda 656-3061
Mass Applied Measurements Inc, 86 Hayward St Acton .... CO 3-2766
Mich S Sterling Co, 21250 10 1/2 Mile Rd Southfield 357-3700
Minn Pivan Engrg Co, 3203 North Hwy 100 Minneapolis 612 537-4501
Mo Harris-Hanson Co, 2814 S Brentwood Blvd St Louis .... MI 7-4350
Mo Harris-Hanson Co, 7916 Paseo St Kansas City 816 444-9494
NJ SONCO, Crystal Brook Prof Bldg Eatontown 524-1441
NM Barnhill Assoc, 827 Penna Ave Albuquerque 505 265-7766
NY Ossmann Instruments Inc, 101 Pickard Dr Syracuse .... GL 4-2461
NY BLH Electronics, 60 E 42nd St New York 212 867-0360
NY Ossmann Instr Inc, 3100 Monroe Ave Rochester 716 586-0380
NY Ossmann Instr Inc, Vestal Pkwy E Vestal 607 785-9947
NY Ossmann Instr Inc, Box 207 Wappinger Falls 914 297-7777
NC BCS Assoc, 1039 Wendover Ave Greensboro 273-1918
Ohio S Sterling Co, 5827 Mayfield Rd Cleveland .... HI 2-8080
Ore Seatronics, 6415 S W Canyon Ct Portland 503 292-8887
Pa S Sterling Co, 4232 Brownsville Rd Pittsburgh .... TU 4-5515
Pa Letronix, 251 W Dekalb Pike King of Prussia 215 265-1020
Tex Barnhill Assoc Inc, 3810 Westheimer Houston 621-0040
Tex Barnhill Assoc, Inc, 507B Bishop St Richardson .... AD 1-2573
Wash Seatronics, 5931 4th Ave S Seattle 206 767-4330
Can ROR Assoc Ltd, 1470 Don Mills Rd Don Mills, Ont 444-4403
Can R-O-R Assoc Ltd, 3330 Cavendish Blvd Montreal, Que 514 482-8430
Can R-O-R Assoc Ltd, 1320 Carling Ave Ottawa 3 Ont 613 722-6531
Can R-O-R Assoc Ltd, 805 5th St Calgary S W, Alb 403 265-6470
Ger Hottinger Baldwin Mess GmbH Pallaswiesenstr 172, 61 Darmstadt
Jap Toyo Measuring Instr Co Ltd 104 1-Chome, Chofuminemachi, Ota-Ku, Tokyo

BLILEY ELECTRIC CO, 2545 W GRANDVIEW BLVD, ERIE
PA, 16512, TWX 510 696-6886 .... 814 838-3571
H YOCUM, EMP 275, ENG 15
Cal Elsner-Rambo Co, 2526 Hyperion Ave Los Angeles 213 664-2928
Ill Hill-Gray Assoc, Inc, 821 Garfield St Oak Park 312 383-0373
Iowa Jerry Vrbik Co, 2818 A Ave NE Cedar Rapids 319 365-0461
Mich Grant Shaffer Co, 14241 Fenkell Ave Detroit 313 273-5390
Mo Maury E Bettis Co Inc, 3706 Broadway Kansas City 816 561-0772
NY R W Mitscher Co Inc, 496 Ellicott Sq Bldg Buffalo 716 854-2517
NY F Edwin Schmitt Co Inc, 311 Meacham Ave Elmont 516 437-8150
Ohio McFadden Sales Co, 150 E Broad St Columbus 614 221-3363
Ore C K Shanks & Assoc, 3176 SW 87th Ave Portland 503 292-5656
Pa Robert E Tanner Co, 486 Broadmoor Ave Pittsburgh 412 561-4687
Tex Howell Sales Inc, 1217 N W 14th St Grand Prairie 214 262-5153
Can C M Robinson Agencies Ltd, 1550 Erin St Winnipeg 3, Man 204 SP4-1855
For Telesco Intl Corp, 171 Madison Ave New York, N Y 212 683-9420

BLINN CO INC, DELBERT, BOX 2007, POMONA
CAL, 91766 .... 714 623-1257
H MANNING, EMP 10, ENG 2, $250-$500M
Ariz Dorton Enterprises Inc, Box 1297 Scottsdale 946-6213
Cal Baytronics Inc, Box 356, San Bruno 588-0958
NY Lloyd Hart Assoc, Box 8398 Rochester .... CH 4-3253
NY Kaelber & Mack Inc, Box 796 Manhasset .... MA 7-6620
Wash W J Stulgis Co Inc, 608 W Crockett St Seattle .... AT 2-7870

BLISS-GAMEWELL, DIV E W BLISS CO, 1238 CHESTNUT ST
NEWTON UPPER FALLS
MASS, 02164, TWX 710-386-0391 .... 617 244-1240
C MANNING, EMP 75, ENG 8, OVER $10,000M
ADV PG 411
Cal O'Donnell Assoc, 18053 Crenshaw Blvd Torrance 213 321-6541
Cal O'Donnell Assoc, 1955B El Camino Real Palo Alto 415 327-9260
Ill Engineered Sales Co, 4738 N Harlem Ave Chicago 312 867-8434
Ind G & H Sales Co, Box 2268 Fort Wayne 219 744-3072
Ind G & H Sales Co, 325 Bankers Trust Bldg Indianapolis 317 637-5048
Mass Garrettson Co Inc, 10 Kearney Rd Needham 617 449-2640
Mich G & H Sales Co, 16815 James Couzens Hwy Detroit 342-4747
Mich G & H Sales, 24001 Southfield Rd Southfield 313 358-1919
Mo Robert B Stahlhut, 12760 Post Oak Rd St Louis 725-7793
NJ Garrettson Co, 56 Hickory St, Dumont 384-0056
NJ D B Gilbreth & Co, 248 Lorraine Ave Upper Montclair 201 744-2600
NY Garrettson Co, 99 Hillside Ave Williston Park 516 747-6610
NC A B Andrews & Co, Box 2627 Raleigh 919 833-5567
Ohio J J Tisdall, 359 Fawnwood Rd, Dayton ... 299-4392
Ohio G & H Sales Co, Box 37416 Cincinnati 513 761-6185
Ohio G & H Sales Co, 13690 Fox Hill Dr Novelty 216 338-1122
Ohio G & H Sales Co, 137 Lakeview Ave, Dayton
Pa Garrettson Co Inc, 92-14 Masland St Philadelphia 215 464-2275
Tex Howell Sales Inc, Box 747 Grand Prairie 214 262-5153

Wash F W Aurich & Co, 3601 Gilman Ave W
Seattle 206 284-5561
For Emec, 160 Terminal Dr
Plainview, N Y .... WE 1-3700
For D B Gilbreth & Co, 248 Lorraine Ave
Upper Montclair nj 201 744-2600

BLOCK ENGINEERING INC, 19 BLACKSTONE ST
CAMBRIDGE, MASS, 02139.......... 617 868-6050
W HEINECKE, EMP 170, ENG 56, $2,500-$5,000M
DC Dunn Assoc Inc, 910 Laredo Rd
Silver Spring, Md 593-3207

BLONDER-TONGUE LABS INC, 9 ALLING ST, NEWARK
N J, 07102 .... 201 622-8151
S STONE, EMP 600, $5,000-$10,000M
Cal Mike Stobin Co, 14663 Arminta St
Van Nuys 213 782-9421
Cal Sinai-Johnson Inc, 817 Douglas St
Redwood City 415 365-6263
Colo Ron Bowen Assoc, 1440 S Santa Fe
Denver 303 744-2501
Fla W F Hemminger Co, 610 S Tamiami Dr
Port Charlotte 813 625-6050
Ill George Petitt Co, 349 N Ashland Ave
River Forest 312 261-0342
Ind Hoemig Sales Co, 3405 Butler Ct
Fort Wayne 219 483-6913
Kan Forristal-Young Sls, 5500 Buena Vista
Mission 913 432-1420
Mass W A Hendrickson Co, 766 Country Way
N Scituate 617 545-0652
Mich J Malcolm Flora Inc, 165 W Liberty
Plymouth 313 453-4296
Minn Mel Foster Co, 228 S Cedar Lake Rd
Minneapolis.......... 612 374-2612
NM Lee Davis Co, 1415 Richmond Dr N E
Albuquerque.......... 505 256-1749
NY LCA Sales, Inc, 76 Main St
Tuckahoe 914 961-4700
NY LSM Assoc, Orchard Park, Phelps 315 548-4891
NC Adams & Assoc, Box 9085
Greensboro.......... 919 272-6838
Ohio Weller Electronic Sls Inc, 696 N High St
Worthington.......... 614 885-7819
Tex J F McKinney Sales Co, 1303 Chemical St
Dallas.......... 214 631-9450
Wash M K Widdekind Co, 815 W Ewing St
Seattle 206 284-8020
Can R J Buckland Co, Box 367 Sta B, London Ont
For Auriema Ad Inc, 85 Broad St, New York

BLOOMINGDALE INSTRUMENTS INC DIV
METATRONICS MFG CORP, 111 BLOOMINGDALE RD
HICKSVILLE
N Y, 11801, TWX 510 221-1857 .... 516 935-9400
M PRESNICK, EMP 21, ENG 5, $500-$1,000M

BLUE M ENGINEERING CO, 138 & CHATHAM STS, BLUE ISLAND
ILL, 60406 .... 312 385-9000
A LAZZARA, EMP 150, ENG 5, $2,500-$5,000M
ADV PG 135
Ariz Blue M Engrg Co, 44 E Indian School Rd
Scottsdale 947-7026
Cal Blue M Engrg Co, 9650 Telstar Ave
El Monte 442-6672
Cal Blue M Engrg Co, 327 N San Mateo Dr
San Mateo 342-3983
Conn Blue M Engrg Co, 1340 Boston Post Rd
Milford 878-5937
Ga Blue M Engrg Co, 2089 N Fulton Dr N E
Atlanta 404 237-7644
Mass Blue M Engrg Co, 15 Strathmore Rd
Natick.......... 235-8320
NY Blue M Engrg Co, 271 North Ave
New Rochelle 632-1465
Pa Blue M Engrg Co, 219 E Lancaster Ave
Ardmore 649-1448
Wash Blue M Engrg Co, 1836 Westlake Ave N
Seattle 282-0606

BLU-RAY, INC, WESTBROOK RD, ESSEX
CONN, 06426 .... 203 767-0141
W BOSSEMEYER, EMP 60, ENG 2

BODINE ELECTRIC CO, 2500 W BRADLEY PL, CHICAGO
ILL, 60618 .... 312 IR 8-3515
W YOGERST, EMP 875, ENG 24, OVER $10,000M
ADV PG 430
Cal C E Mello, 406 S Main St
Los Angeles.......... MA 6-9159
Cal J F Cady, 1485 Bayshore Blvd
S Francisco 467-8656
Mass Fred L Olson & Son, 30 Shawsheen Ave
Bedford.......... 275-7644
Mich Miller & Miller, Box 36, Grosse Ile ..... DU 6-0900
Minn E R Kaye, 730 E 38th St, Minneapolis.... 822-5488
NY Shea & Cardoza, 4548 Main St
Buffalo .... TF 9-2243
NY G Fluxmon, 21 West St, ... BO 9-0898
NY D V Mayorga, 55 W 42nd St
New York.......... LO 5-2841
NY Zissler & Serr, 3700 East Ave
Rochester.......... LU 6-6226
NY R H Nichols, 1719 Teall Ave, Syracuse ... 437-2813
Ohio W R Uffelman, 4500 Euclid Ave
Cleveland.......... HE 1-7715
Ore Don E Johnson, Box 19013, Portland .... CH 6-3131
Tex General Power Equip Co, 6770 Twin Hills
Dallas.......... EM 8-4655
Tex General Power Equip Co, 4507 San Jacinto
Houston .... JA 4-7133

Can Renold Chains Canada Ltd, Montreal

BODNAR PRODUCTS CORP, 30 GROVE AVE
NEW ROCHELLE, N Y, 10801.......... 914 NE 6-4664
J HEBRON, EMP 55, ENG 3, $500-$1,000M
Fla Belmar Sls & Engrg Corp, Box 12729
St Petersburg.......... 813 345-0105
Ind McDonald Sales Co, 227 S Cornell Circle
Ft Wayne 745-9214
Kan Aviation Tech Reps Inc, 227 Ida St
Wichita.......... 316 AM 5-4633
NY Electro Rep Inc, 380 N Broadway
Jericho 516 938-0540
For Aviation Sales Corp, 125-12 84th Rd
Kew Gardens.......... 441-3100

BOGEN COMMUNICATIONS DIV LEAR SIEGLER INC
RT 4 & FOREST AVE, PARAMUS
N J, 07652, TWX 201 488-8109 .... 201 343-5700
M SUMBERG, EMP 500, ENG 30
Cal Marshank Sales Co, 7422 Melrose Ave
Los Angeles.......... WE 8-2591
Cal Electronic Mktg Assoc, 3327 Caxton Ct
San Mateo 415 341-6666
Colo Ron Bowen & Assoc, 1440 S Santa Fe
Denver .... SH 4-2501
Fla Hollingsworth & Still, 1010 Executive Ctr Dr
Orlando 841-1623
Ga Hollingsworth & Still, 3098 Piedmont NE
Atlanta 261-5838
Haw Gene Piety Factors, Inc, 160 Mokauea St
Honolulu 810-185
Ill Ray R Hutmacher Assoc Inc, 6668 Northwest Hwy
Chicago .... NE 1-3248
Ind Morris-Cunningham & Assoc, 720 E 65th St
Indnpls .... CL 5-2458
Kan Forristal-Young Sales Co, 5500 Buena Vista
Mission 432-1420
Md Brothers & Conneen Assoc, 6302 Lincoln Ave
Baltimore.......... RO 4-7189
Mass M Scott Co, 336 Washington St
Wellesley Hills.......... CE 5-0102
Mich Riley & Petchell Electronics Sales
16515 Schoolcraft Ave, Detroit .... VE 8-9100
Minn Fisher Sales, Inc, 4820 W 77th St
Minneapolis.......... 920-6577
Mo Forristal-Young Sales Co, 7110 Oakland Ave
St Louis .... MO 5-2360
NM C T Carlberg & Assoc, 2611 Quincy N E
Albuquerque.......... 265-1579
NY Waxman-Currant Sales Inc, 990 Kenmore Ave
Buffalo 873-0442
NY Stang Sales Co, 271 Columbus Ave
Tuckahoe .... SP 9-6868
NC Hollingsworth & Still, 6717 Woodstock Dr
Charlotte 523-3327
Ohio McFadden Sales Co, 150 E Broad St
Columbus.......... CA 1-3363
Pa Martin Weinberg Assoc, 1122 E Cliveden St
Phila.......... LI 9-1122
Pa F P Yarussi Co, 312 Rockfield Rd
Pittsburgh.......... CA 1-4676
Tenn Texport Co, 5104 Capen St, Memphis..... 682-4777
Tex TexportCO, 8811 Gaylord, Houston ...... HO 5-3031
Tex Texport Co, 2411 Farrington St, Dallas... ME 1-6270
Utah R Bowen & Assoc, 31 S 3rd E
Salt Lake City 364-4632
Wash Northwestern Agencies, Inc, 4130 1st Ave S
Seattle .... MA 3-8883
Can Chas L Thompson Ltd, 1440 Erin St
Winnipeg .... SU 3-0848
Can John R Tilton Ltd, 51 Mccormack St
Toronto, Ont.......... RO 2-7571
For M Hoffenberg, 1270 Broadway
New York, N Y .... LA 4-2557
BC C L Thompson Ltd, 3115 Lonsdale av
N Vancouver .... YU 7-9388

BOGUE ELECTRIC MFG CO, 100 PENNA AVE
PATERSON, N J, 07509 .... 201 525-2200
T SPENCER, EMP 625, ENG 37, OVER $10,000M
Cal A Nadean, Box 8093, San Francisco
DC MacDonald Goodwin Inc, 1000 16th St N W
Washington 296-3795
Pa Automated Equip & Eng Inc, 648 Center Ave
Pittsburgh.......... 412 931-7617

BOJI ELECTRONICS INC, 211 ANN ST, MCGREGOR
IOWA, 52157 .... 319 873-3482
B BOJI, EMP 40, ENG 2, $250-$500M

BOLT BERANEK & NEWMAN, DATA EQUIP DIV
2126 S LYON ST, SANTA ANA
CAL, 92705 .... 714 546-5300
S ZUCK, EMP 35, ENG 5
Ala W A Brown & Assoc, 1314 Buford St
Huntsville 205 539-6884
Alas ARVA Inc, Box 759, Anchorage 901 272-5231
Ariz Moxon Elctns Corp, 15 N 40th Pl
Phoenix 602 273-7363
Cal Moxon Electronics Corp, 2054 Garnet St
San Diego 714 274-6525
Cal Moxon Electronics Corp, 2311 Pontius Ave
Los Angeles.......... 213 272 9311
Cal Moxon Electronics Corp, 15 41st Ave
San Mateo 415 345-7961
Colo Brook Feeger Assoc, 1309 S Inca St
Denver 303 744-3301
Conn Instrument Assoc Inc, 234 Murphy Dr
Hartford 203 525-9367
Fla W A Brown & Assoc, 3039 NW 32nd Ave
Fort Lauderdale 305 565-3885
Fla W A Brown & Assoc, 222 Weber Ave
Orlando 305 425-5505
Ga W A Brown & Assoc, 1590 Cooledge Rd NW
Tucker.......... 404 939-1674
Ill Carter Electronics, Inc, 7203 S Western Ave
Chicago 312 776-1601
Ind Carter Electronics, Inc, 6333 Hollister Dr
Indianapolis.......... 317 293-0696
Md Gawler-Knoop Co, 807 E Seminary Ave
Towson.......... 301 825-3151
Md Gawler-Knoop Co, 1751 Rockville Pike
Rockville 301 427-3950
Mass Instrument Assoc Inc, 30 Park Ave
Arlington 617 648-2922
Mich Technitron Instr Inc, 13657 Grand River Ave
Detroit 313 838-7324
Minn Carter Electronics, Inc, 2401 W 66th St
Minneapolis.......... 612 869-3261
Mo Harris-Hanson Co, 7916 Paseo Blvd
Kansas City 816 444-9494
Mo Harris-Hanson Co, 2814 S Brentwood Blvd
St Louis 314 647-4350
NJ Gawler-Knoop Co, 14 Beaufort Ave
Roseland 201 226-4545
NM Brook Feeger Assoc, 1238 Ortiz SE
Albuquerque.......... 505 268-4387
NY J A Reagan Co, Inc, 6 Highland Ave
Albany 518 436-9649
NY J A Reagan Co, Inc, 528 Crestmont Rd
Binghamton 607 723-9660
NY J A Reagan Co, Inc, 327 Westmoreland Rd
Buffalo 716 632-3775
NY J A Reagan Co, Inc, 41 Woodbery Rd
New Hartford.......... 315 471-7274
NY J A Reagan Co Inc, RD 3 Meadow Hill Rd
Newburgh.......... 914 561-4510
NY J A Reagan Co Inc, 891 Monroe Ave
Rochester.......... 716 473-2115
NC W A Brown Assoc, 1108 Burke St
Winstom.......... 919 725-5384
Ohio Technitron Instr, 23203 Lorain Rd
N Olmstead 216 734-0960
Ohio Technitron Instr, 1250 W Dorothy La
Dayton 513 298-9964
Okla Brooks Feeger & Puckett Inc, 3216 E 21st St
Tulsa.......... 918 936-5295
Ore ARVA Inc, 2035 SW 58th Ave
Portland 503 292-8762
Pa Gawler-Knoop Co, Box 414
Richboro.......... 215 925-7550
Pa Technitron Instr Inc, 114 Spring Grove Rd
Pittsburgh.......... 413 371-1231
Tex Brooks Feeger & Puckett Inc, Box 50
Friendswood 713 482-7563
Tex Brooks Feeger & Puckett Inc
Box 16065 Lampham Sta
San Antonio.......... 512 828-0164
Tex Brooks Feeger & Puckett Inc, Box 429
Euless.......... 817 283-4684
Wash ARVA Inc, 1320 Prospect St
Seattle 206 622-0177
Can ARVA Inc, 1767 N Main St
Winnipeg, Man 338-2884
BC ARVA Inc, 1624 W 3rd Ave
Vancouver 9, B C 736-6377

BOMAC DIV VARIAN ASSOCIATES, SALEM RD
BEVERLY, MASS, 01915.......... 617 922-6000
H KATHERMAN, EMP 610, ENG 113, OVER $10,000M
Ariz Bomac Div, 77 Third Ave W, Scottsdale .. 947-5461
Cal Bomac Div, 2901 Wilshire Blvd
Santa Monica 451-5877
Cal Bomac Div, 7760 Fay Ave, La Jolla 454-2567
Cal Bomac Div, 4940 El Camino Real
Los Altos 968-7630
Fla Bomac Div, 314 S Missouri, Clearwater .. 446-8513
Ga Bomac Div, 3110 Maple Dr, NE
Atlanta 261-4572
Ill Bomac Div, 205 W Tougy Ave
Park Ridge.......... 825-6686
Mass Bomac Div, 400 Wyman St, Waltham 891-4560
NJ Bomac Div, 1500 Kings Hwy, Cherry Hill 428-6800
NM Bomac Div, 9000 Menaul Blvd, NE
Albuquerque.......... 296-1248
NY Bomac Div, 2005 Rte 22, Union 688-8800
NY Bomac Div, 714 Church St, Alexandria.... 549-8205
Ohio Bomac Div, 10 Southmoor Cir, Dayton 298-7318
Tex Bomac Div, Box 689, Richardson 235-2385
Can Varian Assoc of Can, Ltd, 45 River Rd
Georgetown, Ont.......... 877-6901
Fr Thomson-Varian SA, 6 rue Mario Nikis
75 Paris 15e 783 91 00
Fr Varian SA, 85 rue Foundary
75 Paris 15e 306 98 11
Ger Varian GmbH, Breitwiesenstr 9
7 Stuttgart-Vaihingen 78 33 51
GB Varian Assoc, Ltd, Molesey Rd
Walton-on-Thames, Surrey.......... WAL 2 87 66
Holl Varian Assoc NV, Atoomgebouw 112, Kamer 186
Amsterdam-Schiphol 15 94 10
Ital Varian Sp, a, via C Battisti 2.......... Torino
Swed Varian AB, Skytteholmsvagen 7d
Solna (Stockholm).......... 82 00 30
Swit Varian AG, Baarestr 77, 6300 Zug 042 4 45 55
Aust Varian Pty Ltd, 38 Oxley St, Crows Nest
Sydney 430-673
Aust Varian Pty Ltd, 541 St Kilda Rd
Melbourne 511-361

BOONTON ELECTRONICS CORP, RT 287 AT SMITH RD
PARSIPPANY
N J, 07054, TWX 710 986-8241 .... 201 887-5110
J GARTHWAITE, EMP 120, ENG 12, $2,500-$5,000M
Ala James L Highsmith & Co, 3322 S Memorial Pkwy
Huntsville 881-3294

Cal O'Halloran Assoc, 10700 Ventura Blvd N Hollywood ... 877-0173
Cal O'Halloran Assoc, 3921 E Bayshore Palo Alto ... 326-1493
Colo J F Hurlbut Co, 2240 S Adams St Denver ... 756-2046
Conn George Gregory Assoc, 9 S Main St Cheshire ... 272-5040
Fla James L Highsmith & Co, 2543 Industrial Blvd Orlando ... 293-5202
Ill Ken Meyers Co, 7256 W Touhy Ave Chicago ... 774-6440
Kan Engineering Serv Co, 7924-A State Line Prairie Village ... 649-4000
Md Paddock-Joslow Co, 721 Ellsworth Dr Silver Spring ... 589-6554
Mass George Gregory Assoc, 7 Erie Dr Natick ... 655-1330
Mich Micro Sales Corp, 650 Greenlawn Ave Ypsilanti ... 482-1229
Minn Ken Meyers Co, 4725 Excelsior Blvd Minneapolis ... 920-7080
Mo Engineering Services Co, 6717 Vernon Ave St Louis ... 726-2233
NJ NLR Assoc, 617 Bloomfield Ave Verona ... 239-4747
NM C Schmidt Sales, 9611 Acoma Rd S E Albuquerque ... 298-2415
NY SBM Assoc, 800 Linden Ave, Rochester ... 253-6145
NY SBM Assoc, 5858 E Molloy Rd Syracuse ... 454-9377
NC James L Highsmith & Co, 3733 Monroe Rd Charlotte ... 333-7743
Ohio Micro Sales Corp, 1250 W Dorothy La Dayton ... 298-3033
Ohio Micro Sales Corp, 2000 Lee Rd Cleveland ... 371-0522
Pa NLR Assoc, 529 Shoemaker Rd, Phila ... 224-1663
Tex Airep Electronics Inc, 6300 N Central Expwy Dallas ... 363-5291
Tex Airep Electronics, Inc, 4901 Richmond Ave Houston ... 621-0955
Tex Airep Electronics, Inc, 6936 San Pedro San Antonio ... 828-1488
Va James L Highsmith & Co, 5003 Brook Rd Richmond ... 266-2060
Wash Harry Levinson Co, 1211 E Denny Way Seattle ... 323-5100
Can Canadian-Marconi Co, Instr Div, 2442 Trenton Ave Montreal 16, Que ... 738-9441
For Asia Electric Co, 4 Chung Shan N Rd Sec 2 Taipei, Taiwan ... 44649
For Industrial Devel Suppliers Corp Ltd, Box 3138 Karachi, 29, Pak
For G A Viloria, Box 1324, Panama ... 2-3813
For Philippine Procurement Agencies, Plaza Goiti Manila ... 4-26-07
For Coasin Uruguaya S A, Cerrito 617 Montevideo ... 9 79 78
Fr Seurelec, 39-41 Rue de L'Est Boulogne-Billancourt Seine ... 408-38-60
Ger Knott Electronik, Benediktstr 7 54
GB AVO Int'l, Cordent House Torrington Pk, London N12
Holl Uni-Office, N V, Box 1122, Rotterdam ... 13 22 20
Jap Matsushita Electric Trading Co Ltd, Box 264 Tokyo ... 433-7211
Jap Matsushita Electric Trading Co Ltd, Box 288 Osaka ... 202-1221
Nor Morgenstierne & Co A/S, Wesselsgt 6 Oslo ... 20 16 35
SAfr Specialised Electronics Div, Box 15552 Johannesburg ... 724-5061
Swed Teleinstrument AB, Harjedalsgatan 138 Stockholm Vallingby ... 87 03 45
Swit Tronicair SA, 3 Rampe de la Treille Geneve ... (022)26 37 57
Belg Daniel Delgay, Boite Postale 919 Brussels ... 37 70 90
Gr Thanos Houdzoumis, 15 Voulis St Athens 126 ... 238 536
Ind Neotronics Corp, Dadasaheb Phalke Rd Bombay-14 ... 325-513
Isrl Telsys Ltd Engineering Co, Box 10034 Tel-Aviv ... 223-756
Mex Raytel S A, J M Marroqui 7-B Mexico 1, D C ... 12 30 56
NZ Electrical Specialties Ltd, 54 Carr Rd, Mt Roskill Auckland, S 3 ... 556 019
Spn Ataio Ingenieros, Enrique Laretta, 12 Madrid 16 ... 235 35 43
Aust Neutronics Pty, Ltd, 82 Alexander St Crows Nest, NSW ... 40-0251

BOONTON MOLDING CO INC, 300 MYRTLE AVE BOONTON
N J, 07005, TWX 201 334-6366 ... 201 334-4400
K BROO, EMP 437, ENG 9, $5,000-$10,000M
Conn R M Whelan Co, Box 1131, Darien ... 203 655-3515
Fla Flostan Corp, Box 5038 Lighthouse Pt Pompano Beach ... 305 941-4384
Mass R M Whelan Co, 5 Moulton Rd Southboro ... 617 832-6058
NJ S H Goldman, 92 Berkley Ct Wayne ... 212 267-0003
NJ R E Tallman, 300 Myrtle Ave Boonton ... 201 334-4400
NY C & M Assoc, 6 Joan La, Monsey ... 914 352-0787
NY Hoff Bros Sales Co, 1 Merton St Rochester ... 712 482-0720
NY B M Lahey, Box 54, Seaford ... 516 785-6357
NC Dula Assoc, Box 5316 Winston-Salem ... 919 723-4205
Ohio Stork & Assoc, 613 Daniel St Dayton ... 513 222-3232
Pa Wm W Stevenson, 27 Heron Dr Holland ... 215 357-6291

BOOTH CO, ARTHUR E, 265 S ALEXANDRIA AVE
LOS ANGELES, CAL, 90004 ... 213 381-2161
A BOOTH, SLS MGR, EMP 11, ENG 4, UP TO $100M

BOOTS AIRCRAFT NUT DIV TOWNSEND CO NEWTOWN AVE, NORWALK
CONN, 06851, TWX 710 468-0087 ... 203 847-2446
B LAMBE, EMP 110, ENG 7, $2,500-$5,000M
Cal W W Curtis, 801 N Bush, Santa Ana ... 835-6067
Colo Charles G Miller, 2717 Chelton Rd, Colo Springs
Fla A-Gen-Teers Enterprises, Box 7305, Orlando
Ga K Dane, Box 28175, Atlanta ... 427-3488
Ill Townsend Co, 120 E Burlington Ave, La Grange
Ind Wellman Engineering, 4618 Winthrop Ave Indianapolis
Ind G & H Sales Co, Box 2268, Fort Wayne
Kan Skyline Midwestern, Inc, 632 S West St Wichita ... WH 3-0239
Mass American Industrial Prods, 90 Bridge St Newton ... 244-4094
Mich G & H Sales, 24001 Southfield Rd, Southfield
Minn P L Coppini, 2907 E Franklin Ave, Mnpls
Mo John Perz & Assoc, 215 Glen Cove Dr, Chesterfield
NY Reed Electronic Sales Inc, 3815 Monroe Ave Rochester
Ohio G & H Sales Co, 7215 Market Pl, Cincinnati
Ohio G & H Sales Co, 7215 Market Pl, Cincinnati
Tex Skyline Industries, Box 6010 Fort Worth ... WA 7-5337
Tex Hale Engrg, Inc, 8609 NW Plaza Dr, Dallas
Wash J H Betcone, Box 616, Bellevue
Can Parmenter & Bulloch Mfg Co Ltd, Gananoque, Ont

BORDEN CHEMICAL CO, 350 MADISON AVE
NEW YORK, N Y, 10017 ... 212 573-4000
EMP 8000, OVER $10,000M

BORDERS ELECTRONICS CO INC, RTE 130 BETHEL AVE PENNSAUKEN
N J, 08110, TWX 510 683-6293 ... 609 665-0226
H SMITH, EMP 180, ENG 60, $2,500-$5,000M
Ala R H Borders, jr, 504-A Chateau Dr Huntsville ... 883-0970
Ala Coleman Inds, 4306 Governors Dr W Huntsville ... 205 837-3560
NJ Kessler Assoc, 30 Knollwood Dr Cherry Hill ... 609 667-2715

BORG-WARNER CONTROLS DIV BORG-WARNER CORP
3300 S HALLADAY, SANTA ANA
CAL, 92702, TWX 67-8460 ... 714 545-5585
EMP 500, ENG 85
Ala Kemp Instru Inc, 4306 Governors Dr W Huntsville ... 205 837-4304
Ariz Brooks Feeger Assn, 4710 N 16th St Phoenix ... 602 264-6535
Cal Tech Marketing Assoc, 355 W Olive Ave Sunnyvale ... 408 736-3687
Cal Best Electronics, 520 E 4th St Tustin ... 714 544-4600
Cal Halbar Assoc, 1805 W 3rd St Los Angeles ... 213 387-8283
Cal Halbar Assoc, 188A W 36th Ave San Mateo ... 415 349-4700
Colo Brooks Feeger Assoc, 1309 S Inca St Denver ... 303 744-3301
Del A R Dervaes Co, Box 2600 Wilmington ... 302 328-1307
Fla Trio Electric Supply Co, Inc, Box 1746 Pensacola ... 305 476-5580
Fla Beacon Electronics, 540 Maitland Ave Maitland ... 305 647-3498
Fla Beacon Electronics, 417 N W 28th St Ft Lauderdale ... 305 564-4298
Ga Beacon Electronics, 2285 Peachtree Rd N E Atlanta ... 404 351-3654
Ill Borg-Warner Controls, 2720 Des Plaines Ave Des Plaines ... 312 825-0640
Md Borg-Warner Controls, Box 300 Seabrook ... 301 577-1108
Mass Brogan Assoc, 69 Hickory Dr Waltham ... 617 894-3250
Mich Elias Electronics, 26817 W Seven Mile Rd Detroit ... 313 255-2111
Mo Zak and Assoc, Inc, 230 S Bemiston Ave St Louis ... 314 727-8559
Mo Kemp Engrg Co Inc, 9322 Manchester Rd St Louis ... 314 968-0300
NJ Power Convers & Control, 650 Palisade Ave Englewood Cliffs ... 201 569-0015
NJ Brogan Assoc, 780 N River View Dr Totowa ... 201 256-0174
NM Brooks Feeger Assn, 1238 Ortiz S E Albuquerque ... 505 268-4387
NY Brogan Assoc, Inc, 80 Urban Ave Westbury ... 516 333-6683
NY Brogan Assocs, 474 Thurston Rd Rochester ... 716 328-2350
NY Brogan Assocs, 202 Arterial Rd Syracuse ... 315 437-2988
NY Rep Tech Inc, 5858 E Molloy Rd Syracuse ... 315 454-2445
NC Borg-Warner Controls, 1127 E Morehead Charlotte ... 704 375-4474
NC Beacon Electronics, 305 Greenway St Jamestown ... 919 454-1010
Ohio Rixan Assoc Inc, 5752 Wadsworth Rd Dayton ... 513 278-4216
Pa Brogan Assocs, 107 W Ridge Pike Conshohocken ... 215 825-0510
Pa Foster-McClinton, 1675 Washington Rd Pittsburgh ... 412 561-4803
Tenn Borg-Warner Controls, 5700 Brainerd Rd Chattanooga ... 615 624-6691
Tex Kemp Engrg Co, Inc, 2618 Manana Dr Dallas ... 214 FL 7-6663
Tex Butler & Land Inc, 5538 Dyer St Dallas ... 214 361-6631
Tex Kemp Engrg Co Inc, 6001 Gulf Frwy Houston ... 713 928-5426
Tex Kemp Engrg Co Inc, 102 W Rector San Antonio ... 512 344-1841
Va Negley Assoc Inc, 7315 Venice St Falls Church ... 703 560-7920
Wash Avionics Liaison Inc, 6770 Perimeter Rd S Seattle ... 206 767-3870
Wis James K Luke Co, Box 795 Appleton ... 414 739-3228
Wis Arthur Eng Sales Co, 10720 W Scharles Ave Hales Corners ... 414 425-5910

BORG-WARNER CORP, INGERSOLL PRODUCTS DIV
1000 W 120TH ST, CHICAGO, ILL, 60643 ... CO 4-7800
H BOWEN JR, EMP 1000
ADV PG 78
Ala W A Brown & Assoc Inc, 1314 Buford St NW Huntsville ... 536-8393
Ariz T Louis Snitzer Co, 15 N 40th Pl Phoenix ... 273-1673
Cal T Louis Snitzer Co, 1150 Camino Del Mar Del Mar ... 454-2191
Cal T Louis Snitzer Co, 9005 Exposition Blvd Los Angeles ... 836-6170
Cal T Louis Snitzer Co, 1020 Corporation Way Palo Alto ... 968-8304
Colo Barnhill Assoc, 1170 S Sheridan Blvd Denver ... 934-5505
Conn Technical Instruments Inc, 575 Broad St Bridgeport ... 368-4582
Fla W A Brown & Assoc Inc, 3039 NE 32nd Ave Ft Lauderdale ... 564-8000
Fla W A Brown & Assoc Inc, 22 Weber Ave Orlando ... 425-5505
Fla W A Brown & Assoc Inc, 212 Bradley Dr, NE Fort Walton Beach ... 243-6424
Ga W Brown & Assoc Inc, 1590 Cooledge Rd, N W Tucker ... 939-1674
Ill Marsland Assoc Inc, 6699 Lincoln Ave Chicago ... 676-1100
Ind Marsland Assoc Inc, 3734 Carrolton Ave Indianapolis ... 924-3568
Md W A Brown & Assoc, Baltimore ... 727-1999
Mass Technical Instruments Inc, 122 West St Wilmington ... 944-3930
Mich S Sterling Co, 21250 10 1/2 Mile Rd Southfield ... 357-3700
Minn Marsland Assoc, 231 N Edgewood Ave Minneapolis ... 545-4481
Mo Harris-Hanson Co, 7916 Paseo St Kansas City ... 444-9494
Mo Harris-Hanson Co, 2814 S Brentwood Blvd St Louis ... 647-4350
NJ K E Hughes Co, 2175 Lemoine Ave Fort Lee ... 944-1600
NM Barnhill Assoc, 827 Penna NE Albuquerque ... 265-7766
NY J A Reagan Co, 52B Crestmont Rd Binghamton ... 723-9661
NY J A Reagan Co, 6 Highland Ave Albany ... 489-4777
NY J A Reagan Co, 41 Woodberry Rd New Hartford ... 732-3775
NY K E Hughes Co Inc, New York ... 695-0082
NY J A Reagan Co, 891 Monroe Ave Rochester ... 473-2115
NY J A Reagan Co, Buffalo ... 632-2727
NY J A Reagan, Syracuse ... 471-7274
NC W A Brown & Assoc, 1108 Burke St Winston-Salem ... 725-5384
Ohio S Sterling Co, 5827 Mayfield Rd Cleveland ... 442-8080
Ohio S Sterling Co, 2673 Culver Ave, Dayton ... 298-7573
Okla J A Green Co, 2714 S Lewis, Tulsa ... 742-4657
Pa S Sterling Co, 4232 Brownsville Pittsburgh ... 884-5515
Pa J E Cuesta Co, Valley Forge ... 265-5800
Pa J E Cuesta Co, Philadelphia ... 242-0150
Tex J A Green Co, 7118 Envoy Ct, Dallas ... 631-7450
Tex J A Green Co, 63400 Montrose Houston ... 526-2959
Va W A Brown & Assoc, 325 First St Alexandria ... 836-1800
Va W A Brown & Assoc, 82 Huxley Pl Newport News ... 245-8272
Wash N R Schultz Co, 305 112th Ave NE Bellevue ... 454-5224
Can Whittaker Elctns Ltd, 42 Howden Ave Ottawa 5, Ont ... 224-1221
Can Whittaker Elctns Ltd, Box 216 Roxboro, Que ... 683-3621
Can Whittaker Elctns Ltd, 1885 Wilson Ave Weston, Ont ... 247-7454
BC Whittaker Elctns Ltd, 1144 Millstream Rd West Vancouver, BC ... 926-3411

BORG-WARNER, THERMOELECTRIC DIV
WOLF & ALGONQUIN RDS, DES PLAINES
ILL, 60018 ... 312 827-3131
C PHETTEPLACE, EMP 20, ENG 2
Cal Weightman & Assoc, 120 Santa Margarita Menlo Park ... 325-2885
Cal Weightman & Assoc, 1226 W Olive Ave Burbank ... 849-7711
Colo Waugaman & Assoc, 2785 Speer Blvd Denver ... 255-5000
Ill Olson Engineering & Sales Corp 1921 N Harlem Ave, Chicago ... 312 622-9777
Md Leff Sales Assoc, 408 York Rd, Towson ... 823-0774
Mass R P Mahan Co, 572 Washington St Wellesly ... 617 237-1040

Minn Olson Engrg & Sales Corp, 5533 Warden Ave
Minneapolis 929-7979
Mo Harris-Hanson Co, 2814 S Brentwood Blvd
St Louis 647-4350
Mo Harris-Hanson Co, 7916 Paseo St
Kansas City 444-9494
NJ Leff Sales Assoc, 5900 Westfield Ave
Pennsauken 663-4025
NJ Kenbar Industries, 14 E Main St
Somerville 725-9470
Ohio T H Orndoff, Talbott Tower, Dayton 222-7284
Okla John A Green Co, Box 911, Tulsa 742-4657
Tex John A Green Co, 7118 Envoy Ct
Dallas 631-7450
Tex John A Green Co, 3400 Montrose
Houston 526-2959
Wash G M Gillett & Assoc, Box 4035
Seattle 623-5755
For Borg-Warner Intl Corp, 36 S Wabash Ave
Chicago, Ill 663-2111

BORROWDALE CO INC, RW, 250 W 83RD ST
CHICAGO, ILL, 60620 .... 312 723-7100
EMP 30, ENG 5, $500-$1,000M
Cal M Piel, 2300 Buchanan St
San Francisco 431-3366

BOSSERT MFG CO, 1045 OSWEGO ST, UTICA
NY, 13502

BOSTITCH DIV TEXTRON INC, BRIGGS DR
EAST GREENWICH, R I, 02818 .... 401 TU 4-2500
C PENDER, EMP 1100, ENG 40, OVER $10,000M

BOSTON DIGITAL CORP, MAIN ST, ASHLAND
MASS, 01721 .... 617 881-1600
A AYKANIAN
Cal Davidson Assoc, 2920 Nebraska Ave
Santa Monica 213 451-5761
Ill Scientific Sales Corp, 7132 N Harlem Ave
Chicago 312 775-7595
Ind Scientific Sales Corp, 3720 N Colorado Ave
Indianapolis 317 545-9950
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield 313 357-3700
Minn Scientific Sales Corp, 6121 Excelsior Blvd
Minneapolis 612 929-6115
Mo S Sterling Co, 11734 Lackland Indus Dr
St Louis 314 542-3636
Mo S Sterling Co, Kansas City
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland 216 442-8080
Ohio S Sterling Co, 2673 Culver Ave
Dayton 513 298-7573
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh 412 884-5515

BOSTON PRECISION PARTS CO INC, 46 SPRAGUE ST
HYDE PARK, MASS, 02136 .... 617 EM 1-1000
A CICERONE, SALES MGR, EMP 85, ENG 6
$1,000-$2,500M

BOURNS INC INSTRUMENT DIV, 6135 MAGNOLIA AVE
RIVERSIDE
CAL, 92506, TWX 910-332-6103 .... 714 684-1700
L HART, EMP 4100, ENG 42, OVER $10,000M
Ala Space Engineering Sales, 4306 Governors Dr SW
Huntsville 837-6060
Ariz Brooks Feeger Assoc, 4710 N 16th St
Phoenix 264-6536
Cal Gado Instrument Sales, 80 El Camino Real
Mountain View 961-2222
Cal Bourns, Inc, 708 E Manchester Blvd
Inglewood 678-2261
Colo Brooks Feeger Assoc, 1309 S Inca St
Denver 744-3301
Conn A J Aldi Assoc, Box 741, Cheshire 272-6778
Fla Space Engineering Sales, 999 Woodcock Rd
Orlando 841-2271
Ill Scientific Sales Co, 7132 N Harlem Ave
Chicago 775-7595
Ind Scientific Sales Co, 706 Sherwood Dr
Indianapolis 545-9950
Kan Technical Reps Inc, 6814 Farmview La
Wichita 682-4140
Kan Technical Reps Inc, 809 Sheridan Circle
Olathe 782-3775
Md Tek Rep, Inc, 1075 Rockville Pike
Rockville 762-7777
Mich Carter, McCormic & Peirce, 16239 Wyoming Ave
Detroit 862-0017
Minn Scientific Sales Co, 6121 Excelsior
Minneapolis 929-6115
Mo Bourns, Inc, 500 Northwest Plaza
St Ann 291-2828
NJ Bourns Regional Sls, 911 Kings Hwy
Cherry Hill 667-2026
NM Brooks Feeger Assoc, 1238 Ortiz SE
Albuquerque 268-4387
NY H C Johnson Agencies, Box 215
Fayetteville 637-9383
NY H C Johnson Agencies, 111 Mt Hope Ave
Rochester 232-2688
NY H C Johnson Agencies, Box 86 Brandywine Sta
Schenectady 374-5901
NY H C Johnson Agencies, 8 Los Robles St
Williamsville 632-7880
NY Cane Tech Sales Inc, 555 E Boston Post Rd
Mamaroneck 698-4411
NC Space Engrg Sales Inc, 2509 Lake Shore Dr
Greensboro 299-0987
Ohio Carter, McCormic & Peirce, 3691 Lee Rd
Cleveland 921-1360
Ohio Carter, McCormic & Peirce, 3406 N Main St
Dayton 278-5873
Tex Bourns, Inc, 2720 Stemmons Frwy
Dallas 631-2015
Can Bourns (Canada) Ltd, 36 Cranfield Rd
Toronto, Ont 751-3880

BOURNS INC TRIMPOT DIV, 1200 COLUMBIA AVE
RIVERSIDE
CAL, 92507, TWX 910-332-1252 .... 714 684-1700
R MCCOLLOCH, EMP 2600, ENG 130
Ala Technical Marketing Inc, 317 Longwood Dr
Huntsville 534-2487
Ariz Bourns Inc, 3300 N Central, Phoenix 266-1763
Cal Bourns, Inc, 745 Distel Dr, Los Altos 961-7687
Cal Bourns, Inc, 708 E Manchester Blvd
Inglewood 678-7811
Colo Electro-Rep Inc, 1051 S Platte River Dr
Denver 744-2821
Fla Bourns Inc, 1325 W Colonial Dr
Orlando 241-9525
Ill Bourns Inc, 550 W Northwest Hwy
Barrington 381-6490
Kan Florence & Meyer, Inc, 2900 Woodland
Wichita 838-7226
Md Bourns Inc, 6200 Annapolis Rd
Landover Hills 772-3223
Mass Bourns, Inc, 10 Ind Park Rd, Hingham 749-5800
Mich Villani-Pitcher Inc, 17977 Mohawk Dr
Spring Lake 842-4380
Mich Villani-Pitcher Inc, 20233 Ann Arbor Trail
Dearborn 271-4600
Minn Mel Foster Co Inc, 228 S Cedar Lake Rd
Minneapolis 374-2612
Mo Florence & Meyer, Inc, 406 W 34th St
Kansas City 561-7282
Mo Florence & Meyer Inc, 6050 Brown Rd
Berkley 521-6800
NJ Bourns, Inc, 911 North Kings Hwy
Cherry Hill 667-1510
NJ Bourns Inc, 2414 Morris Ave, Union 688-5200
NM Electro-Rep Inc, 1415 Richmond Dr NE
Albuquerque 256-1749
NY Bourns Inc, 5100 W Genessee St
Camilus 488-3286
Ohio Neal Bear Corp, 3435 Streetsboro Rd
W Richfield 659-3331
Ohio Neal Bear Corp, 2801 Far Hills Ave
Dayton 299-3566
Pa Nebco Assoc, 1974 Gregory Ave
Monroeville 824-2111
Tex Allied Components Inc, Box 18146
Dallas 348-6660
Tex Allied Components Inc, 4234 Richmond Ave
Houston 664-4203
Wash Jas J Backer Co, 221 W Galer St
Seattle 283-6470
Can Bourns (Canada) Ltd, 36 Cranfield Rd
Toronto, Ont 751-3880

BOWMAR INSTRUMENT CORP, 8000 BLUFFTON RD
FORT WAYNE, IND, 46809, TWX 810-332-1510 .. 219 747-3121
C JACKSON, EMP 480, ENG 78, OVER $10,000M
ADV PG 230, 268, 436
Ala Massey Assoc Inc, Box 3361
Huntsville 205 852-0991
Ariz Gramer & Co, 110 W Camelback Rd
Phoenix 602 279-1231
Cal Winco Sales Inc, 1901 Middlefield Rd
Mountain View 415 961-8510
Cal Bowmar Instr Corp, 3407 W Olive St
Burbank 213 843-4545
Fla Massey Assoc Inc, Box 13577
St Petersburg 813 347-6183
Fla Massey Assoc Inc, Box 1201
Winter Park 305 855-4510
Ill MQ & Assoc, Inc, 6713 N Oliphant Ave
Chicago 312 774-8844
Ind Frank J Campisano & Assoc, 3453 Nolen Dr
Indianapolis 317 291-4066
Mass Lancer-Kneeland Assoc, 16 Adams St
Burlington 617 272-6445
Minn Howard A Cullen & Assoc, 1595 Selby Ave
St Paul 612 646-7371
Mo PEM Sales Co, 9537 Lackland Rd
St Louis .... HA 7-7200
NJ Bowmar Instrument Corp, 40 Grove St
Somerville 201 526-0400
NY R P Kennedy Co Inc, 39 Saginaw Dr
Rochester 716 271-6322
NY R P Kennedy Co Inc, Box 56
Fayetteville 315 637-9531
NY Geo F McCarthy Corp, 75 Plandome Rd
Manhasset .... 516 MA 7-8790
Ohio Frank J Campisano & Assoc, 3985 Race Rd
Cincinnatti 513 662-1616
Tex Bowmar Instr Corp, Box 1542
Arlington 817 277-6911
Wash Testco Inc, Boeing Fld Adm Bldg
Seattle 206 762-8220
Can Bowmar Canada Ltd, Box 4076 Sta E
Ottawa Ont 613 822-0463
GB Bowmar Instrument Ltd, Drakes Way
Swindon, Wilt 21351

BOW SOLDER PRODUCTS CO INC, 25 AMSTERDAM ST
NEWARK, N J, 07105 .... 201 621-6996
S TURKUS JR, EMP 25, ENG 3, $1,000-$2,500M
Cal Claude Michael, Inc, 703 W Ivy St
Glendale 245-8401
Minn Glen Scott, 5209 W 60th St, Minneapolis
NJ Simberkoff Sales, 71 Valley St
South Orange 201 621-6996

BRADFORD COMPONENTS INC, 65 SOUTH AVE
SALAMANCA, N Y, 14779 .... 716 945-2340
M TINGWALL, EMP 45, ENG 1, $100-$250M
Cal Mossman-Pacific Inc, Box 1105, Covina .. 331-2223
Mass H Mandell Co, Box 24, Revere 289-3787
NJ LBS Assoc, 615 John St
River Vale 201 391-9400
NY Niagara Elec Sales Co, 505 Delaware Ave
Buffalo 716 886-4000
NY Niagara Elec Sales Co, 55 Canterbury Rd
Rochester 716 271-1223
Pa Paragon Sales Co, 111 S 22nd St
Philadelphia 563-7060
Tex Scott Technical Sales, Box 30324
Dallas 352-7698
Va Royalec Electronic Reps, Box 254
Lynchburg 846-7117

BRADLEY INDUSTRIES DIV RICHARDSON-MERRELL
INC, 11040 KING ST, FRANKLIN PARK, ILL, 60131
H HULSEBERG

BRADLEY LTD G & E, NEASDEN LA, LONDON NW 10
ENGLAND, TWX 25583 .... 01-450 7811
E CUTTER, EMP 450, ENG 50, $2,500-$5,000M
Md Edwin Industries Corp, 11933 Tech Rd
Silver Spring 301 622-0700
NY Edwin Industries Corp, 5858 E Molloy Rd
Syracuse 454-4407
Can Instronics Techno Prods Ltd, Box 100
Stittsville, Ont 836-4411
For Pirin, 10 Graf Ignatler Str, Sofia 8 15 73
For DEKSA, Box 1897, Nicosia 77 451
For C O Donovan, 29 Richmond Ave, Fairview Dublin
For International Aeradio (Pakistan) Ltd, Box 4681
Karachi 2 220083
For Eural, Caixa Postal 2 466, Lisbon 2 537265
For P N Elctns Ltd, 29 Duku Rd
Singapore 15 .... 97802 46490
For S Cerid, Instanbul-Mecidlyakoy, Ortaklar .. Cad 52/1
For Phisis Ltd, El Corde Aptdo 13355 NVA GRDA
Caracas
Den A Classen Smith As, Herlev Hovegade 201C
Copenhagen 0191 30 66
Fr Young Electronic, 9/11 Rue Roquepine
Paris 8e 265 85 00
Ger Magnetic A B GMBH, Schussenriederstr 26
8 Munchen 60 .... 08 11 87 64 39
Ger E Schulze, 1 Berlin 1Herbartstr 28, 0311 302 74 84
GB M D Ewart, Riverbank, Upper Thames St
London, E C I 01-248 5711
Holl Intechmij N V, Hoogkarspelst 68
Den Haag 36 37 00
Ital Electronucleonica s p a, 7, Pizza De Angeli
20146 Milano 463 520/286
Nor J N Feiring As, Langhrgrenda 1, Oslo 8
SAfr Racal Smd Electronics, Box 1463, Pretoria .. 2-1071
Swed Ajgers Elektronik Ab, Postfach
Stockholm 32 .... 08 464246
Swit Omni Ray Ag, Dufourstr 56, Zurich 8 .. 051 47 8200
Arg S A E N srl, Altolaguirre 1778
Buenox Aires 52-9701
Belg Koning & Hartman, Rue Gachard 53
Ixelles, Bruxelles 482655
Gr Gimet Electrotechnical, 3 Meandrou St
Athens 612 .... 720 291
Ind Forbes Forbes Campbell & Co Ltd, Box 79
Bombay 1 268081
Isrl Racom Elctns Co Ltd, 74 Nordau Blvd
Tel Aviv 443244
NZ Elekon (Overseas) Ltd, 174 Gt North Rd
Auckland W 2 16-188
Spn cuarzo Radioelectric Espanol S A, Calle Corcega 58
Barcelona 15 .... 230 57 07
Fin Nores & Co OY, Fabianinkatu 32, Helsinki ... 13360
Aust Ronald J T Payne Pty Ltd, 385 Bridge Rd
Richmond, Vic 42 1416

BRADLEY SEMICONDUCTOR CORP, 275 WELTON ST
NEW HAVEN, CONN, 06506 .... 203 787-7181
C BRADLEY, EMP 75, ENG 8, $1,000-$2,500M
Cal R Homer & Assoc, 14436 Sherman Way
Van Nuys 213 781-1236
Ill Technical Devices Inc, 6416 N Central Ave
Chicago 312 774-8252
Md Jade Electronics, Box 115, Greenbelt 474-8161
Mass Bahr Sales Co, 91 Woodsley Rd
Longmeadow 567-3488
NJ Unicomp Inc, 18 Sunny Ridge Rd
Wayne 696-2888
NY H C Johnson Agencies Inc, 111 Mt Hope Ave
Rochester 232-2688
Ohio Del Steffen Assoc, 904 E 222nd St
Cleveland 216 261-5055
Pa Jade Electronics, Box 5735
Philadelphia 455-3355

BRAD THOMPSON INDUSTRIES INC
83-810 TAMARISK ST, INDIO
CAL, 92201 .... 714 DI 70637
G PALMER, EMP 40, ENG 5, $500-$1,000M
Mich Anderson & Ellsworth, 2608 N Woodward
Royal Oak .... 313 JO 6-7171
NC Lee Tld, Bethania 924-8245
GB Torvac Ltd, Histon, Cambridge .... HIS 646
Swit Fratelli-Kraus, Box 31, Lugano-Cassarate

BRADY CO, W H, 727 W GLENDALE AVE, MILWAUKEE
WIS, 53209 .... 414 332-8100
P VIENOT, ENG 11
Cal W H Brady Co, 422 E Warren La
Inglewood 213 678-4181

Cal W H Brady Co, 1991 Junipero Serra Blvd
Daly City 415 992-9600
Colo W H Brady Co, 2785 N Speer Blvd
Denver 455-6232
Conn W H Brady Co, 119 Ann St
Hartford 203 247-1283
Fla W H Brady Co, 32A Western Union Bldg
Tampa 813 229-8830
Ga W H Brady Co, 2793A Clairmont Rd
Atlanta 404 636-5581
Ill W H Brady Co, 3158 Des Plaines Ave
Des Plaines 312 622-2731
Ind W H Brady Co, 4091 Millersville Rd
Indianapolis .... 317 LI 5-5500
Mass W H Brady Co, 375 Moody St
Waltham .... TW 3-8390
Mich W H Brady Co, 28228 Mound Rd
Warren 313 759-4440
Minn W H Brady Co, 3881 Highway 100
Minneapolis 612 926-4666
Mo W H Brady Co, 2024 Main St
Kansas City 816 471-4438
Mo W H Brady Co, 9313 Manchester St
St Louis .... 314 WO 8-0777
NJ W H Brady Co, 605 Broad St
Newark 201 621-7330
NY W H Brady Co, 7172 Transit Rd
Buffalo 716 632-6444
NY W H Brady Co, 3001 James St
Syracuse .... 315 HA 2-1956
NC W H Brady Co, 2201 Park Rd
Charlotte 744 333-0928
Ohio W H Brady Co, 2111 S Green Rd
Cleveland 216 382-5090
Ohio W H Brady Co, 4143 N High St
Columbus 614 263-8211
Ohio W H Brady Co, 1717 Section Rd
Cincinnati 513 631-8552
Pa W H Brady Co, 7308 Church Ave
Pittsburgh .... 412 PO 6-0555
Pa W H Brady Co, 523 Bethlehem Pike
Phila .... 215 CH 2-0616
Tenn W H Brady Co, 3294 Poplar Ave
Memphis 901 452-2640
Tex W H Brady Co, 5526 Dyer St
Dallas .... 214 EM 3-3710
Tex W H Brady Co, 6330 Alder St
Houston 713 666-5001
Va W H Brady Co, 2523 Wilson Blvd
Arlington .... 703 JA 4-4868
Wash W H Brady Co, 11520 Bothall Way NE
Seattle 206 364-8740

BRAININ CORP, C S, 320 WASHINGTON ST
MT VERNON, N Y, 10553 .... 914 668-5500
G SPRIGGS, EMP 125, ENG 4, $5,000-$10,000M

BRAMCO CONTROLS DIV LEDEX INC, 540 COLLEGE ST
PIQUA, OHIO, 45356 .... 513 773-8271
D HAYNES, EMP 63, ENG 5, $500-$1,000M
Cal O'Donnell Assoc, 18053 Crenshaw Blvd
Torrance 323-9243
Cal O'Donnell Assoc, 1955B El Camino Real
Palo Alto 327-9260
Fla W Ben Wimberly Co, 500 S Osceola St
Orlando 425-3083
Fla W Ben Wimberly Co, 532 S Fort Harrison Ave
Clearwater 446-7072
Ill Bierhaus Sales, Inc, 1013 E 31st St
LaGrange 354-5100
Mass K C Stevens & Co, Box 24, Lexington 862-1812
Mich R C Nordstrom & Co, Box 32
Lathrup Village 444-4417
Minn Component Sales, Inc, Box 247
Excelsior 474-9100
Mo Automatic Gen Elect Sales Inc, 6550-E Troost Ave
Kansas City 333-8206
Mo Automatic Gen Elect Sales Inc, 2050 Woodson Rd
St Louis 428-3934
NY L P Garner & Assoc, Box 56, Liverpool 652-7911
NY Bittan Assoc, Inc, 381 Sunrise Hwy
Lynbrook 593-3833
NC A B Andrews Co, Box 2627, Raleigh 833-5565
Ohio Dynel Co, Box 7, Centerville Br, Dayton 434-6467
Pa Russell F Clark Co, 10517 Lindberg Ave
Pittsburgh 242-9500
Pa Victor S Malta, Box 4007, Philadelphia 836-5122
Tex Automatic Gen Elect Sales, Inc, Box 1006
Richardson 235-3577

BRAM METALLURGICAL CHEMICAL CO
245 W CHELTEN AVE, PHILADELPHIA
PA, 19144 .... 215 GE 8-4900
H BRAM, EMP 24, ENG 2, $100-$250M
Mo J C Culver Co, 39th & Main St
Kansas City .... WE 1-2288

BRANDENBURG LTD, 139 SANDERSTEAD RD
SOUTH CROYDON, SURREY U K 01-654-0225/7
A WILKINSON, EMP 80, ENG 8, $500-$1,000M

BRAND-REX DIV AMER ENKA CORP, BOX 498
WILLIMANTIC
CONN, 06226, TWX 710-440-2247 .... 203 423-7771
M WALKER, EMP 1100, ENG 20, OVER $10,000M
Ariz Bruce Kinkner Assoc, 2746 W Palm La
Phoenix 272-7141
Cal Brand-Rex Div, 355 W Olive Ave
Sunnyvale 245-3564
Cal Brand-Rex Div, Box 368, Montebello 723-8481
Cal L & M Engrg, 2620 The Alameda
Santa Clara 243-6661
Cal Allgood Assoc, 1621 Centinela Ave
Inglewood 776-5820
Colo Robert Maich Co, 300 E Hampden Ave
Englewood 781-7909
Conn R H Robinson Co, Box 368
South Coventry .... PI 2-7323
Fla Repco Sales Co, Box 38-1164, Miami .... PL 7-2911
Ga Emmett Rushin Co, Box 486, Roswell 993-6498
Ill Brand-Rex Div, 1545 Wauregan Rd
Glenview 729-5600
La J F McKinney Sales Co, 2012 Condon Ave
Metairie 887-1723
La Plastic Glass Prods Co, Box 10004
New Orleans 866-7549
Md J A Maguire & Co, 5716 York Rd
Baltimore .... ID 3-2613
Mass R H Robinson Co, Hanger 4, Hanscom Field
Bedford 274-7933
Mass Brand-Rex Div, 88 Orange St, Clinton 365-4093
Mich Nelson J Clark, Box 8569 Kensington Sta
Detroit .... TU 5-1723
Minn Hamilton, Grayden & Flemmer, Hamilton Rd
Hopkins 941-1120
Minn Brand-Rex Div, 618 4th Ave SW
Hutchinson 897-7733
Mo Arthur Williams Co, 9216 Clayton Rd
St Louis .... WY 3-2578
NJ Murray Co, 25 W Northfield Rd
Livingston 962-0750
NJ J A Maguire & Co, 726 Cooper St
Camden .... WO 6-3118
NJ Landfear Enterprises, Box 68, Nutley 667-2900
NJ J A Maguire & Co, 705 Park Ave
Plainfield 754-6400
NY Taylor-Marden Assoc, Box 190, Dewitt 446-9280
NY Brand-Rex Div, 23 E Market St
Red Hook 758-8060
NY Brand-Rex Div, 101 Clinton Ave
Mineola 248-5173
NC Brand-Rex Div, 1834 Banking St
Greensboro 275-0114
NC Brand-Rex Div, 3312 Fairhill Dr
Raleigh 787-2301
Ohio Clark Sales Co, 3570 Warrensville Center Rd
Cleveland 991-2000
Ohio Brand-Rex Div, Box 2346, Kettering Br
Dayton 434-4334
Okla Brand-Rex Div, 2525 East 21 St, Tulsa 742-9947
Ore Brand-Rex Div, 14025 SW Farmington Rd
Beaverton 644-3286
Pa Brand-Rex Div, 345 Mt Lebanon Blvd
Pittsburgh 531-1466
Pa Pittsburgh Insulating Co, 1942 Forbes Ave
Pittsburgh 471-1310
Tenn Brand-Rex Div, 2908 Walker Ave
Memphis 452-9596
Tex Brand-Rex Div, 6434 Maple Ave
Dallas 358-4691
Wash Brand-Rex Div, 5950 6th Ave, S
Seattle 763-1360
Wis Brand-Rex Div, Box 266, North Prairie 392-2311
Can Samuel C Hooker (Can) Ltd, 144 Ronald Dr
Montreal, Que .... HU 8-9114
Can Samuel C Hooker (Can) Ltd, 2602 St Clair Ave, W
Toronto, Ont 767-7725
For Brand-Rex Div, 1010 Schaff Bldg
Phila, Pa 564-4020
For L T Gandia, Box 3688 GPO
San Juan PR 725-3473

BRANSON CORP, VANDERHOOF AVE, DENVILLE
EMP 120, ENG 8, $1,000-$2,500M
Cal Elsner-Rambo Co, 2526 Hypersion Ave
Los Angeles .... NO 4-2928
Cal G R McKnight Co Inc, 115 Spruce Ave
Menlo Park 415 325-2844
Conn Charles K Barton Assoc, 343 New London Tpk
Glastonbury 633-9417
Fla Perrott Assoc, 1607 Forsyth Rd
Orlando 275-1132
Fla Perrott Assoc, Box 532, Clearwater 446-2535
Fla Perrott Assoc, Box 6277
West Palm Beach 585-7761
Kan Penzner Assoc Inc, Box 4362
Overland Park .... DU 1-0004
Mass C K Barton Assoc, 345 Auburn St
Auburndale .... DE 2-2021
Minn Scott Electronic Sales, 5209 W 60th St
Minneapolis .... WA 9-2985
Mo Penzner Assoc Inc, Box 1912, Bechtold Sta
St Louis .... CH 1-4385
NY Kahgan Sales Corp, 1261 Broadway
New York .... MU 4-7772
Ohio Mulligan & Mathias Co, 2011 Riverside Dr
Columbus 486-2267
Pa Danco Corp, Fairview Village, ... BR 5-2600
Tex Braden Engineering Co, 2646 Andjon Dr
Dallas .... FL 2-4626
Can Bayley-Milley, Ltd, 8 Taber Rd
Rexdale, Ont 244-5511

BRANSON EQUIPMENT DIV, 51 TERMINAL AVE
CLARK, N J, 07066 .... 201 388-8600
R HARVEY, EMP 36, ENG 2, $2,500-$5,000M
Ariz H C Torrey Assoc, 811 W Linger Lane
Phoenix 944-0352
Cal Branson Instru, Inc, 5925 Noble Ave
Van Nuys 785-8655
Cal Branson Instru, Inc, 4109 El Camino Way
Palo Alto 328-2030
Colo Crump Co, 2785 N Speer Blvd, Denver 433-6485
Conn Branson Instru, Inc, 378 Boston Post Rd
Orange 795-5075
Fla MacGregor Assoc, 1817 Fox Circle
Clearwater 446-7310
Ga MacGregor Assoc, 3473 Northlake Way
Doraville 938-0681
Haw Thom Equipment Co, 463 Nimitz Hwy
Honolulu 59136
Ill Branson Instru, Inc, 2510 Dempster St
Des Plaines 824-7175
Ky Grover Equip Co, 4411 Louisville Ave
Louisville 363-5032
Md Branson Instr Inc, 7880 Coolridge Dr
Camp Springs 449-7300
Mass Branson Instruments, Inc, Box 164
Hathorne 774-3215
Mich Branson Instruments, Inc, 177 W Big Beaver
Troy 689-0070
Mich P B Gast & Sons Co, 1515 Madison Ave SE
Grand Rapids 245-0574
Minn McGee Engineering, 2016 N Herschel
St Paul 644-2767
Mo Branson Instruments, Inc, 1339 Brenthaven La
Florissant 831-0030
Neb Midwest Micronics, 933 Meadow Rd
Omaha 342-1616
NJ Branson Instruments, Inc, 19 Main Ave
Clifton 667-7400
NJ George A Doerffel Co, 1603 Columbia Ave
Cinnaminson 662-8144
NY Branson Instruments, Inc, East Molloy Road
Syracuse 454-9523
NC Branson Instruments, Inc, 1173 Commercial Ave
Charlotte 332-7904
Ohio R L Holliday Co, 1641 Lee Rd
Cleveland 932-3131
Ohio Branson Instr Inc, 4726 S Dixie Dr
Dayton 298-0129
Pa R L Holliday Co, 525 McNeilly Rd
Pittsburgh 561-7620
Tex Stroud Sales Co, 4101 San Jacinto St
Houston 522-0001
Tex Production Engrg Sales Org, 8220 Westchester
Dallas 369-3181
Wis Jack Gidley & Assoc, 4893 N Green Bay Ave
Milwaukee 374-7020
Can Branson Instruments, Inc, 139 Bond Ave
Don Mills 444-4512
Holl Branson-Europa, Industrieweg 14A, Loosdrecht

BRANSON INSTRUMENTS CO, PROGRESS DR
STAMFORD
CONN, 06904, TWX 710 474-0893 .... 203 324-6721
K HAYES, EMP 500, ENG 25, OVER $10,000M
Cal Branson Los Angeles, 5925 Nobel Ave
Van Nuys 213 785-8655
Cal Branson San Francisco, 4109 El Camino Way
Palo Alto 415 328-2030
Conn Branson Connecticut, 378 Boston Post Rd
Orange 203 795-5075
Ill Branson Chicago, 2510 Dempster St
Des Plaines 312 824-7175
Md Branson Washington, 7880 Coolriage Dr
Camp Springs 301 449-7300
Mass Branson-New England, 500 Maple St
Hathorne 617 774-3215
Mich Branson Detroit, 177 W Big Beaver
Troy 313 689-0070
Mo Branson-St Louis, 1339 Brenthaven La
Florissant 314 831-0030
NJ Branson Metropolitan, 19 Main Ave
Clifton 201 667-7400
NY Branson New York State, E Molloy Rd
Syracuse 315 454-9523
NC Branson-Carolinas, 1149 Commercial Ave
Charlotte 704 332-7904
NC Branson-Carolinas, 3011 Mornstar Pl
Greensboro 918 292-5907
Ohio Branson-Dayton, 4726 Dixie Dr
Dayton 513 298-0129
Can Branson Canada, 139 Bond Ave
Don Mills 416 444-4512
Neth Branson Europa, Box 9, Soest

BRANSON SONIC POWER CO, MIRY BROOK RD
DANBURY
CONN, 06810, TWX 710-456-0452 .... 203 744-0760
D KOLB, EMP 112, ENG 12
Cal Branson Sonic Power, 1119 S Central Ave
Glendale 213 247-1520
Colo Crump Co, 2785 N Speer Blvd
Denver 303 433-6485
Conn Branson Sonic Power, 9 Oak Ledge La
Wilton 203 762-8492
Fla MacGregor Assoc, Box 1711
Clearwater 813 446-7310
Fla MacGregor Assoc, Box 2093
Orlando 305 831-0445
Ga MacGregor Assoc, 3473 Northlake Way
Doraville 404 938-0681
Ill Branson Sonic Power, 2510 Dempster St
Des Plaines 312 296-6141
Ky Grover Equipment Co, Box 21101 Standiford Sta
Louisville 502 363-5032
Mass Branson Sonic Power, Elliot St
Beverly 617 927-3466
Mich Branson Sonic Power, 177 West Big Beaver
Troy 313 689-4360
Minn McGee Engineering Co, 2016 N Herschel
St Paul 612 644-2767
Neb Midwest Micronics, 933 Meadow Rd
Omaha 402 342-1616
NJ Branson Sonic Power, 530 Main St
Fort Lee 201 947-5702
NJ Geo A Doerffel, 1603 Columbia Ave
Cinnaminson 609 662-8144
NY Douglas Export-Import Corp, 17 Battery Pl
New York 212 269-2666
NY Branson Sonic Power, East Lake Rd RD 3
Skaneateles 315 685-6045

NC MacGregor Assoc, 2501 Starbrook Dr
Charlotte 704 366-9440
Ohio Industrial Equip Co, Box 15311
Cincinnati 513 821-4600
Ohio R L Holliday Co, 1641 Lee Rd
Cleveland 216 932-3131
Ohio Industrial Equip Co, 965 E Broad St
Columbus 614 252-9600
Ore Muro Co, 7538 NE Glisan St
Portland 503 775-3535
Pa R L Holliday Co, 525 McNeilly Rd
Pittsburgh 412 561-7620
Tex I P Newby & Assoc, 6211 Denton Dr
Dallas 214 357-8354
Wash Muro Co, 11726 Aurora Ave
Seattle 206 363-3100
Wis Jack Gidley & Assoc, 4893 N Green Bay Ave
Milwaukee 414 374-7020
Can Branson Sonic Power, 2220 Midland Ave
Scarborough Ont 416 291-5731
For Monitor Mill Supply, 404 Ponce De Leon
San Juan PR
GB Dawe Instruments, Ltd, Concord Rd
Acton W-3 London
Swit Branson Instr S A
14 Ave Industrielle 1227 Carouge, Geneva
Mex Polimeros Plasticos SA, Ave Ejercito Natl
Despacho 105 Mexico City 45-80-20
Aust A A Guthrie, 16-18 Meeks Rd
Marrickville New South Wales

BRAUN TOOL & INSTRUMENT CO INC, H
140 FIFTH AVE, HAWTHORNE
N J, 07507, TWX 710-988-4136 .... 201 427-1773
R BODERCK, EMP 65, ENG 4, $500-$1,000M
Mo A Doran, 200 N Meramec, Clayton .... PA 5-3377

BREEZE CORPS INC, 700 LIBERTY AVE, UNION
N J, 07083, TWX 1-25558 .... 201 MU 6-4000
A CROSSEN, EMP 350, ENG 40, $5,000-$10,000M
Cal Components Corp, 3492 Pickett St, San Diego
Cal Components Corp, 232 N Lake Ave
Pasadena .... MU 1-7448
Cal Components Corp, 4631 Corona Dr
San Jose 253-2181
NC W K Hile Co Inc, Box 325, Matthews
Ohio E A Sprigg, 454 Highland Ave
Wadsworth .... FE 5-4932
Ohio A D Dircksen, Box 22 Dabel Sta
Dayton 848-2601
Tex C P Waggoner Co, 233 SE 14th St
Grand Prairie .... AN 4-1601
Wash Martin Poggi Co, 845 106th St NE
Bellevue .... GL 4-2026
Can Aviquipo of Canada Ltd, Montreal Int'l Arpt
Dorval, Que 631-3504

BRELONIX INC, 106 N 36TH ST, SEATTLE
WASH, 98103 .... 206 ME 3-1964
H BLAKE, EMP 14, ENG 3, UP TO $100M

BREON LABORATORIES, 1520 EVERGREEN RD
WILLIAMSPORT, PA, 17701 .... 717 323-7426
W JACOBS, EMP 20, ENG 5, $100-$250M

BREW & CO INC, RICHARD D, 90 AIRPORT RD
CONCORD, N H, 03301 .... 603 225-6605
R FICKETT, EMP 75, ENG 12, $500-$1,000M
Cal Hasco, 1843 Lincoln Blvd
Santa Monica 394-1128
Cal Long & Assoc, Inc, 505 Middlefield Rd
Redwood City 369-3324
NY Ad Auriema Inc, 85 Broad St, New York .. 269-7750
NY George O Miller Co, 607 Midtown Plaza
Syracuse 478-3113
Pa Kurt J Lesker Co, 5635 Horning Rd
Pittsburgh 892-2996
Wash Eustis Co Inc, 69 Marion St, Seattle 623-7060

BRIDGEPORT INSULATED WIRE CO
51 BROOKFIELD AVE, BRIDGEPORT
CONN, 06610 .... 203 333-3191
R PELLETIER, EMP 70, ENG 1, $1,000-$2,500M
Cal R Moye, 244 Milton Dr, San Gabriel 282-7117
Cal Advance Electrical Sales, 850 Montgomery La
San Carlos 591-9651
Conn C O Pfannkuch, 935 White Plaines Rd
Trumbull 268-4950
Mich Plus Sales Co, box 9696, Bay Village
NJ Ned Krouse, Box 34, Cherry Hill 667-0164
NY Wm Franklin Sales, 2 Standish Terr
Syracuse 446-2246
W Va Andrews & Andrews Sales, 140 E Main St
Huntington 427-1313

BRIGHT STAR INDUSTRIES INC, 600 GETTY AVE
CLIFTON, N J, 07015 .... 201 772-3200
P BARNTHOUSE, EMP 450, ENG 20, $5,000-$10,000M
Cal Bright Star Industries, 1355 Market St
San Francisco .... MA 1-3956
Cal Bright Star Industries, Inc, 1807 E Olympic Blvd
Los Angeles .... MA 7-1146
Ga Bright Star Industries, 171 Simpson St NW
Atlanta 688-3191
Ill Bright Star Industries, 445 N Lakeshore Dr
Chicago 321-0148
Tex Bright Star Industries, 106 Express St
Dallas 748-6145

BRILMAYER LABS INC, E W, 330 FIFTH AVE, PELHAM
N Y, 10803 .... 914 PE 85115
J BRILMAYER, EMP 4, ENG 2, $100-$250M

BRINKMANN INSTRUMENTS INC, CANTIAGUE RD
WESTBURY, N Y, 11590 .... 516 334-7500
K BRINKMANN, EMP 100, ENG 10, $5,000-$10,000M
Cal Brinkmann Instr, Inc, 841 Hinckley Rd
Burlingame 697-9215
Ill Brinkmann Instr, Inc, 110 S River Rd
Des Plaines 824-8161
Md Brinkmann Instr Inc, Summit Hill Bldg
Silver Spring 587-1588
Mo Brinkmann Instr Inc, 34 N Brentwood Blvd
St Louis .... PA 1-3400
Tex Brinkmann Instr Inc, 1700 E Holcomb Blvd
Houston .... RI 8-1118

BRISTOL BRASS CO, 580 BROAD ST, BRISTOL
CONN, 06010 .... 203 582-3161
P COLEMAN, EMP 600

BRISTOL DIV, AMERICAN CHAIN & CABLE CO
BOX 1790 EBG, WATERBURY
CONN, 06720 .... 203 756-4451
H MENGEL, EMP 1800
Ala Bristol Co, Box 7663, Birmingham 871-6111
Cal Bristol Co, 6800 E Acco St
Los Angeles 723-9751
Colo Bristol Co, 4555 E 46th Ave, Denver 388-1661
Conn Bristol Co, 1 Park Dr, Farmington 677-2839
Del Bristol Co, 2008 1/2 Penn Ave
Wilmington 658-3166
Fla Bristol Co, 945 Central Ave
St Petersburg 862-7591
Ga Bristol Co, 4579 Lewis Rd
Stone Mountain 939-2227
Ill Bristol Co, 2040 N Hawthorne Ave
Melrose Park 378-8931
Ind Bristol Co, 4002 Meadows Dr
Indianapolis 547-2022
La Bristol Co, 3414 Hessmer Ave
Metairie 888-2041
Md Bristol Co, 320 Hillen Rd, Baltimore 825-6466
Mass Bristol Co, 137 California St, Newton 244-6281
Mich Bristol Co, 15769 Wyoming, Detroit 864-4284
Minn Bristol Co, 7100 France Ave, Mnpls 920-3222
Mo Bristol Co, 1828 Walnut St
Kansas City .... HA 1-7301
Mo Bristol Co, 1750 Brentwood Blvd
St Louis 961-1113
NJ Bristol Co, 420 Morris Ave
Springfield .... DR 6-3810
NY Bristol Co, 4446 Main St, Buffalo 839-1483
NY Bristol Co, 230 Park Ave, New York 686-8800
NC Bristol Co, 1143D Commercial Ave
Charlotte 375-7658
Ohio Bristol Co, 20800 Center Ridge Rd
Cleveland 333-3915
Ohio Bristol Co, Box 3511, Columbus .... CA 1-6133
Ohio Bristol Co, Box 30039, Cincinnati .... EL 1-0328
Okla Bristol Co, 5553 E Shelly Dr, Tulsa 627-5695
Pa Bristol Co, 2250 Nobletown Rd
Pittsburgh 922-1515
Pa Bristol Co, 551 W Lancaster Ave
Haverford 527-0301
Tenn Bristol Co, Box 10555, Knoxville 588-3326
Tex Bristol Co, 8383 Stemmons Frwy
Dallas 637-4510
Tex Bristol Co, 3920 Hartsdale Dr, Houston ... 782-2727
Wash Bristol Co, 101 Jones Bldg, Seattle .... MA 3-3361
Wis Bristol Co, 5594 N Hollywood Ave
Milwaukee 962-4710

BRISTOL MOTORS-TIMER DIV VOCALINE CORP OF
AMER INC, COULTER ST, OLD SAYBROOK
CONN, 06475 .... 203 388-3414
G WILLIS, EMP 100, ENG 10
Cal C E Mello, 406 S Main St
Los Angeles .... MA 6-9159
Cal W I Carson & Assoc, 124 El Camino Real
San Carlos 593-4262
Conn Sales Engineering Co, Taunton Hill Rd
Newtown 247-4015
Fla Steele Technical Sales, 2106 Woodcrest Dr
Winter Park .... MI 7-1304
Ill Jerry Golten Co, 2750 W North Ave
Chicago .... EV 4-5959
Md Kaufholz Assoc, Box 6232, Baltimore 488-6561
Mass Sales Engineering Co, Baker Ave, Box 7
W Concord .... EM 9-3943
Minn Jos-Co, 6621 Southcrest Dr
Minneapolis 869-2325
Mo Wells-White, 7607 Page Blvd
St Louis .... PA 6-2511
Mo Wells White, 1200 Whitney Rd
Independence .... CL 7-2091
NY Willgold Electronic Sales Corp, 100 N Village Ave
Rockville Centre 764-4022
NC Robert W Chapman & Co, Box 4430
Charlotte 375-4495
Ohio Technical Assoc Inc, 19500 Center Ridge Rd
Rocky River 333-0035
Ohio Technical Assoc Inc, Box 388, Fairborn ... 878-2484
Pa Kaufholz Assoc, Box 227
Newtown Square 356-5000
Tex Koch Engineering & Sales, 309 Meadows Bldg
Dallas .... EM 1-1765
Can Burlec Sales Ltd, 1179 Decarie Blvd
Montreal 9, Que 744-0165
Can Burlec Sales Ltd, 125 Nantucket Blvd
Scarborough, Ont 755-3377
For R I Mendels Co, 21 Gray Oaks Ave
Yonkers 965-4210

GB Appliance Conponents Ltd
Martin Rd, Cordwallis Ind Est, Maidenhead, Berk

BRITISH RADIO ELECTRONICS (BREL)
1742 WISCONSIN AVE N W, WASHINGTON
D C, 20007 .... 202 338-1520
R KINER, EMP 6, ENG 1, $100-$250M
Cal Southwest Scientific Co, 15452 Cabrito Rd
Van Nuys 213 989-3654
Kan Midland Engrg Sales Assoc, 5460 Buena Vista Dr
Mission 913 262-6565

BROADCAST ELECTRONICS INC, 8810 BROOKVILLE RD
SILVER SPRING, MD, 20910 .... 301 588-4983
J NEFF, EMP 23, ENG 3, $500-$1,000M

BRONSON CORP, SUB KURZ & ROOT CO
232 E N ISLAND ST, APPLETON
WISC, 54911 .... 414 RE 3-6641
J DUNN, EMP 60, ENG 4, $100-$250M

BRONWILL SCIENTIFIC, 277 N GOODMAN ST
ROCHESTER, N Y, 14607 .... 716 GR 3-2604
F AINSWORTH, EMP 190, ENG 10

BROOKDEAL OF AMERICA INC, MAIN ST
NORTH FALMOUTH, MASS, 02556 .... 617 563-3225
R STRATTON, EMP 1, ENG 1, UP TO $100M
Cal W K Geist Co, 1205 Airway
Glendale 212 245-9501
Cal W K Geist Co, 7267 Bark La
San Jose 408 253-5433
Conn Waitt Electronic Assoc, 7 West St
Danbury 203 743-2151
Ill R Edw Stemm Inc, 17W480 Lake St
Addison 312 279-2440
Minn R Edw Stemm Inc, 2713 Lyndale Ave S
Minneapolis 612 822-8404
NY Brewster Scientific, Box 4, Brewster
Ohio Tiby Co, 2245 Warrensville Ctr Rd, Cleveland
For Wilhelm Thilo, Viktringer Ring 13
Agozoklagenfurt .... (04222) 70549
Fr Sedeme, 9 bis et 11 rue Simonet
Paris 13 707-72-00
Ger Mauler-Nukleonik GmbH, 565 Solinger 1
Postfach 101288 .... (02122) 25682
GB Brookdeal Electronics Ltd, Myron PL Lewisham
London SE 13 .... Lee Green 7433
Holl Intechmij N. V., Hoogkarspelstr 68
The Hague 363700
Nor Norsk Marconikompanie A/S
Ryensvingen 5 Box 50 Manglerud
Oslo 6 670486

BROOKFIELD ENGINEERING LABS INC
240 CUSHING ST, STOUGHTON
MASS, 02072 .... 617 344-4310
L DI CORPO, EMP 100, ENG 7

BROOKFIELD WIRE CO INC, BOX 248, BROOKFIELD
MASS, 01506, TWX 617 867-6534 .... 617 867-6474
J HARRINGTON, EMP 100, ENG 1, $2,500-$5,000M

BROOKS INSTRUMENT DIV, 407 W VINE ST, HATFIELD
PA, 19440, TWX 83-4211 .... 215 855-5174
H WEBSTER, EMP 459, ENG 22, $250-$500M
Ala Frank A Thomas Co, Box 6415, Mobile ... 471-1593
Ariz J T Aldrich Co, Box 1299, Scottsdale 945-8598
Cal Brooks Instr Div, 3106 W Beverly Blvd
Montebello 685-5980
Cal Stevenson-Angus, Inc, 1485 Bayshore Blvd
San Francisco 467-9750
Colo James B Drummond, 3021 S Broadway
Englewood 789-2281
Del Brooks Instr Div, 1501-C N Broom St
Wilmington .... OL 5-2382
Fla Le Roy Rogers Co, 110 Sea Island La
Boca Raton 395-7922
Ga Stallings, Inc, 3098 Piedmont Rd NE
Atlanta 261-2540
Haw Berkley Eng & Equip Co, Box 3856
Honolulu 581-921
Ill Brooks Instrument Div, 2510 Dempster St
Des Plaines 824-0105
Ind Booth/Spearing Corp, 5335 W Raymond St
Indianapolis 244-7819
Iowa Miller & Morse Co Inc, 1479 Keo Way
Des Moines 243-4287
Ky Allan K Cook Co, 1244 4th St
Louisville 635-6316
La Petro Chem Equipment, Box 358
Baton Rouge 348-7593
La Petro Chem Equip, 8736 Crawford St
Metairie 729-8373
Md Brooks Instr Div, 19 E 21st St
Baltimore 685-3277
Mass King Gage Engineering Corp, 33 Trowbridge St
Newton Ctr .... BI 4-7200
Mich Smith Instr & Equip Co, 900 Monroe NW
Grand Rapids 451-2931
Mich Smith Instr & Equip Co, 24487 Gibson Dr
Warren 757-2550
Minn G R Mellema Co, 3430 Nicollet Ave
Minneapolis 827-2616
Mo Brooks Instr Div, 10135 Manchester Rd
St Louis 966-6366
NY O R Lawrence Co, 7 Norman Ave
Albany .... HE 8-6071
NY O R Lawrence Co, 4446 Main St
Buffalo .... TF 9-4422

NY Brooks Instrument Div, 301 E 47th St New York ... PL 3-4628
NY O R Lawrence Co, 101 Pickard Dr Syracuse ... 455-5587
NC Robert S Hudgins Co, Box 17217 Charlotte ... 366-4887
NC Robert S Hudgins Co, Box 10205 Greensboro ... 299-7982
Ohio Process Valve & Equip Co, 4515 Brookpark Rd Cleveland ... SH 9-0040
Ohio Process Inst & Equip Co Inc, Box 175 Marietta ... FR 4-6767
Ohio Brooks Instrument Div, 1172 W Galbraith Rd Cincinnati ... 522-8610
Okla Ernie Graves Co, 201 S Houston, Tulsa ... LU 4-4708
Ore Branom Inst Co, 6019 NE Union Ave Portland ... BU 5-5205
Pa John F Kraus & Co, 345 Mt Lebanon Blvd Pittsburgh ... 531-1200
SC Robert S Hudgins Co, Box 8254 Greenville ... CE 2-7025
Tenn Janis Equipment Co, 4711 Poplar Ave Memphis ... MU 3-1511
Tex Gay Eng & Sales Co, Box 8414 Dallas ... EM 8-2325
Tex Gay Engineering & Sales Co, Box 8414 Houston ... UN 9-3306
Tex Gay Engrg & Sales Co, Box 5164 Beaumont ... 892-5711
Va Dynamation Inc, Box 9067, Richmond ... 272-5001
Wash Branom Inst Co, 2137 Second Ave Seattle ... MA 2-7320
W Va Process Inst & Equip Co Inc, Box 2428 Charleston ... DI 2-2151
W Va Process Inst & Equip Co Inc, Box 2035 Huntington ... 523-9658
Wis Chipley & Jensen Inc, 3500 N Sherman Blvd Milwaukee ... HI 2-8170
Can Industrial Suppliers Ltd, 13 Waddell St Dartmouth, NS ... 466-2461
Can Mechanical Valve & Eng Spec Ltd, 184 Henry Ave Winnipeg ... WH 2-1912
Can Brooks Instrument Div, 3300 Cavendish Blvd Montreal ... 482-9121
Can Brooks Instrument Div, Box 150 Markham ... 297-1030
For M R Franceschini, Box 9393 Santurce, P R ... 3-4511
BC Proval Equipment Ltd, 550 Beatty St Vancouver ... 684-7571
Mex Servo-Mex SA, Aptdo 6-873 Mexico City ... 25-50-10

BROOKS & PERKINS INC, 1950 W FORT ST, DETROIT
MICH, 48216, TWX 313 222-5669 ... 313 825-5900
M HUFFMAN, EMP 472, ENG 30, OVER $10,000M
Cal T H Foraker, Box 1356, Torrance ... 213 375-5081
Conn H P Dunne, 134 Main St New Canaan ... 203 966-0070
Wis Brooks & Perkins Inc, 21400 Birdseye La Waukesha ... LI 2-1523

BROOMER RESEARCH CORP, 23 SHEER PLAZA
PLAINVIEW, N Y, 11803 ... 516 249-1544
M BROOMER, EMP 14, ENG 10, $250-$500M

BROSSEAU CO, JOSEPH E, 9238 W PARK AVE
FRANKLIN PARK, ILL, 60131 ... 312 455-4662
J BROSSEAU, EMP 24, ENG 2

BROWER LABS INC, TURNPIKE RD, RT 9, WESTBORO
MASS, 01581 ... 617 366-7431
W ERAMO, EMP 24, ENG 3

BROWN & WILEY INC, BOX 55, LANGHORNE
PA, 19047 ... 215 757-4153
J WILEY, EMP 5, ENG 2

BROWN-BRIDGE MILLS INC, E WATER ST, TROY
OHIO, 45373, TWX 810-456-2902 ... 513 332-1266
J WILT, EMP 180, ENG 2, $5,000-$10,000M
Cal Brown-Bridge Mills Inc, 420 Market St San Francisco ... YU 2-2665
Ill Brown-Bridge Mills Inc, 175 W Jackson Blvd Chicago ... WA 2-6759
Mo Brown-Bridge Mills Inc, 4378 Lindell Blvd St Louis ... FR 1-4942
NY Brown-Bridge Mills Inc, 6 E 45th St New York ... MU 7-0320
Pa Brown-Bridge Mills Inc, 215 Ford Rd Bala Cynwyd ... GR 7-8855

BROWN ENGINEERING-A TELEDYNE CO
300 SPARKMAN DR, MS 31, HUNTSVILLE
ALA, 35807, TWX 810 726-2103 ... 205 539-9643
D BODEKER, EMP 3600, ENG 1100, OVER $10,000M
Cal M A Stolaraff Co, 4622 W Slauson Ave Los Angeles ... 213 295-7781
Fla Gra-Mar, Inc, 3113 Lawton Rd Orlando ... 305 423-2159
Ill Dwight Smith & Assoc, Inc, 32 S River St Aurora ... 896-0828
Mass Conti Younger, 181 West St Waltham ... 617 891-4582
NY L-Tron Corp, Box 114, Latham ... ST 5-5032
NY L-Tron Corp, Box 147, Skaneateles ... 685-6172
NY L-tron Corp, 74 Thornton Rd, Rochester ... 436-4410
NY Mars Sales-Tronics, 220 Jericho Tpke Mineola ... 516 741-1270
Ohio Universal Technology, 1388 Research Pk Dr Dayton ... 513 426-8530

Pa H Goodman, 401 W Mt Airy Rd Philadelphia ... 215 CH 7-7116

BROWNING LABORATORIES INC, 1269 UNION AVE
LACONIA, N H, 03246 ... 603 524-5454
G GREENE, JR, EMP 60, ENG 3

BROWN MFG CO, 2000 DEMPSTER ST, EVANSTON
ILL, 60204 ... 312 869-8800
P BARR, EMP 200, ENG 20
Cal Brown Mfg Co, 3865 Grandview Blvd Los Angeles ... 213 870-5420
DC Brown Mfg Co, 4380 MacArthur Blvd Washington ... 202 337-5557
NJ Brown Mfg Co, 264 US Hwy 46 Fairfield ... 201 227-2188

BRUCE DIAMOND CORP, LOWER COUNTY ST
ATTLEBORO, MASS, 02703 ... 617 222-3755
R PULESTON, EMP 100, ENG 3, $1,000-$2,500M
Neth A Pelger, Boskampsbrugweg, Havolte

BRUCE INDUSTRIES INC, 1528 W 178TH ST
GARDENA, CAL, 90247 ... 213 321-2677
O HUFFMAN, EMP 52, ENG 3, $500-$1,000M
Ariz Henry Sales, 15 N 40th Pl, Phoenix ... 275-5411
NY Podeyn-Schmidt, 420 Northern Blvd Great Neck ... HU 7-1173
Pa Gray-Williams Assoc, 18 Washington Ave Haddonfield ... 429-5300
Tex Geo Weinreich & Assoc, 11554 E Northwest Hwy Dallas ... 321-2800
Wash James Findlay Co, 10237 Main St Bellevue ... 454-5200

BRUKER SCIENTIFIC INC, BOX 23
IRVINGTON-ON-HUDSON, N Y, 10533 ... 914 LY 18822
W AUERBACHER

BRULIN & CO INC, 2920 MARTINDALE AVE
INDIANAPOLIS, IND, 46205 ... 317 923-3211
F MONTOVANI, EMP 65, ENG 3

BRUNO-NEW YORK INDUSTRIES CORP
636 ELEVENTH AVE, NEW YORK
N Y, 10036 ... 212 582-4210
S GARTMAN, EMP 100, ENG 6, $1,000-$2,500M

BRUNSWICK INSTRUMENTS, BOX 813
NEW BRUNSWICK, N J, 08904 ... 201 CH 7-5919
E HORODNER, EMP 2, ENG 1, UP TO $100M

BRUSH BERYLLIUM CO, 17876 ST CLAIR AVE
CLEVELAND
OHIO, 44110, TWX 810 421-8826 ... 216 486-4200
H PIPER, EMP 1043, OVER $10,000M
Cal Brush Beryllium Co, 9911 Inglewood Inglewood ... 674-3350
Cal Brush Beryllium Co, 24353 Clawiter Rd Hayward ... 782-9600
Conn Brush Beryllium Co, 357 E Center St Manchester ... 643-0600
Ill Penn Precision Prods Inc, 1001 Rohlwing Rd Rolling Meadows ... 392-8880
Mich Brush Beryllium Co, 3516 Cadieux Rd Detroit ... 886-0900
NJ Brush Beryllium Co, 5 Just Rd Fairfield ... 212 267-0339
Ohio Brush Beryllium Co, Elmore Plant Elmore ... 862-2745
Ohio Brush Beryllium Co, Talbott Tower Dayton ... 228-6021
Pa Brush Beryllium Co, 201 Penns Center Blvd Pittsburgh ... 271-6669
Pa Brush Beryllium Co, Box 973, Reading ... 562-2211
Pa Brush Beryllium Co, 301 W Lancaster Ave Devon ... 687-2477
Tex Max Daggett Jr & Assoc, Box 30152 Dallas ... 357-1256
Tex Max Daggett Jr & Assoc, 4007 Bellaire Blvd Houston ... 668-1712
GB Brush Beryllium Ltd, Reading, England

BRYANT COMPUTER PRODUCTS, 850 LADD RD
WALLED LAKE
MICH, 48088, TWX 810 232-1550 ... 313 624-4571
K COOK, EMP 600, ENG 68
Ala Mekco Assoc, 3322 Memorial Pkwy S Huntsville ... 881-3721
Ariz Hytronic Measurements, 1017 N 3rd St Phoenix ... 253-6104
Cal F Wolcott, 1611 S Pacific Coast Hwy Redondo Beach 90277 ... 378-8417
Cal H S Bray Jr, 1310 Bayshore Hwy Burlingame ... 347-7095
Colo Hytronic Measurements, 4940 E 39th Ave Denver ... 388-4081
Fla Mekco, 3165 McCrory Rd, Orlando ... 841-2215
Mass R A DeMattio, 21 A Muzzey, Lexington ... 862-1221
NM Hytronic Measurements, 205 San Pablo SE Albuquerque ... 268-3941
NC Mekco Assoc, 1000 B Lindsey Burlington ... 266-7177
Pa John G Rohr, 510 Penna Ave Fort Washington ... 646-7416
Tex Carey-Wolf, Box 12425, Fort Worth ... PE 8-1702
Tex Carey-Wolf, 4031 Broadway, Houston ... 643-2114
Tex J B Anderson, 2115 Farrington, Dallas ... 748-8057

Utah Hytronic Measurements, 2022 S Main Salt Lake City ... 466-4924
Va Gans Fryling Inc, 2030 16th St N Arlington ... 527-3262
Wash Thorson Co, 1767 15th Ave S, Seattle ... EA 5-5000
Can Communication Systems Inc, 335 Catherine St Ottawa ... 235-8700
Fr BFI, 52 Ave de New York, Paris 16E ... KLE 6969
Ger G Warta, Darmstadterst Reinheim ODW 6101 ... 0162-220
GB Munzig Intl Inc, McGraw-Hill House Maidenhead Berks ... MAI 20260
Holl Ex-Cell-O Corp, 138/139 Schiphol Airpt Amsterdam ... 73-79-12
Jap Munzig Intl Japan Inc 15-1 1-Chome Nishi-Shimbashi Minato-ku Tokyo ... 503-4751
Isrl Stg Intl Ltd, 52 Nachlat Benyamin St, Box 1276 Tel Aviv

BRYS INSTRUMENT CORP, 7026 SIXTH AVE
BROOKLYN, N Y, 11209 ... 212 BE 80305
A THOMPSON, EMP 8, ENG 2, $100-$250M

B & T SYSTEMS DIV, 18-36 GRANITE ST, HAVERHILL
MASS, 01830, TWX 710-348-6561 ... 617 373-0031
H O'DONOGHUE
Cal B & T Systems, 1230 W Collins Orange ... 714 633-7442
Conn Evans Equipment Co, Sunset Hill Rd Brookfield Center ... 203 775-2800
Mass Evans Equipment Co, Box 127 Wellesley ... 617 235-2275
NY B & T Systems, 2749 Patricia La Bellmore ... 516 826-3617

BTU ENGINEERING CORP, BEAR HILL RD, WALTHAM
MASS, 02154 ... 617 894-6050
D BARRY, EMP 110, ENG 10, $2,500-$5,000M
Cal Weightman & Assoc, 120 Santa Margarita Menlo Park ... 325-2885
Cal Weightman & Assoc, 1226 W Olive Ave Burbank ... 849-7711
Fla GRA-MAR Inc, 3113 Lawton Rd Orlando ... 305 841-2330
Ill BTU Engrg Corp, 5453 W North Ave Chicago ... 312 622-9676
NJ BTU Engrg Corp, 46 Tremont Pl, Montclair
NY Watmet Inc, 290 Larkin St, Buffalo ... 716 852-3057
Tex Teamwork Inc, 2646 Andjon Dallas ... 214 352-7747
Wis Industrial Heating & Controls, 8926 N 91st St Milwaukee ... 414 354-8335
GB BTU Engineering Corp, 53 Victoria Rd Aldershot, Hants ... 25191
Jap Hakuto & Co Ltd, Box 25, Tokyo ... 501-3160

BUCHANAN ELECTRICAL PRODUCTS CORP
1065 FLORAL AVE, UNION
NJ, 07083 ... 201 289-8200
P VANCE, EMP 200, ENG 18, $5,000-$10,000M
Ala James E Heusser, 620 Sundale Dr Birmingham ... 836-3896
Ariz Norman F Ross, 4227 N 68th St Scottsdale ... WH 5-7262
Cal Peter Jasin, 3506 Skylark Dr, Concord ... 686-0905
Cal H C Van Ysselkyk, 412 Seaton St Los Angeles ... MA 9-3855
Cal Bill Green, 4533 F W Imperial Hwy Inglewood ... 678-2446
Colo Kenneth B Schumann Co, 1073 Galapago St Denver ... 222-8913
Fla Belcher & Assoc Inc, 8751 Atlantic Blvd Jacksonville ... RA 4-7811
Fla Belcher & Assoc Inc, Box 7567-Lublam Br Miami ... FR 1-1700
Fla Belcher & Assoc Inc, 1900 1st Ave N St Petersburg ... 862-7575
Ga Jack H Awtry, 34 Peachtree St NW Atlanta ... 525-4221
Haw William E Niven, 1168 Waimanu St Honolulu ... 512644
Ill Donald E Andersen, 600 W Jackson Blvd Chicago ... AN 3-7020
Ill Harry Dale, 600 W Jackson Blvd Chicago ... 332-0080
Ind William E Jobes, 1010 E 86th St Indpls ... 846-0390
Ky Ray Martin Co, 710 N 25th St, Paducah ... 442-2955
La Strickland Assoc, Box 19622 New Orleans ... 729-6586
Md A D Wilson, 508 St Paul St Baltimore ... SA 7-1424
Mass Harold Standish, 3 Wilson Dr Framingham ... 879-1220
Mich Lincoln M Horton, W Five Mile Rd Detroit ... 534-2070
Minn McCulloch-Lee Co, 531 S 7th St Minneapolis ... FE 2-3644
Miss William L Strickland, 152 Chippewa Circle Jackson ... EM 6-6195
Mo Ray Martin Co, 136 W Adams St Kirkwood ... YO 6-8659
Mo Charles L Arehart, 6621 Sterling Raytown ... FL 6-3488
Neb Ed Taber & Sons, 3240 S 31st St Lincoln ... 423-4420
NJ William J Waldron, 15 Pond Hill Rd Morristown ... 538-5607
NM Tom Deskin, Box 808, Albuquerque ... CH 2-3581
NY A C Schultz, 2095 Kensington Ave Buffalo ... 839-1010
NY Donald Offhaus, 7240 Rosewood Circle N Syracuse ... 458-6927

NY Mark Sales Agency, 2947 Bayview Ave
Wantagh ... PL 7-6454
NY K Todd, 949 Palmer Rd, Bronxville ... FA 4-5466
NC C C Niedringhaus, Box 424, Rte 1
Matthews ... 847-9288
Ohio Pogue C Sherrill, 1117 Lanette Dr
Cincinnati ... 231-9794
Ohio Vaughn O'Neill, 1090 Hameland Dr
Cleveland ... 331-4273
Okla J E Morton & Assoc, Box 165, Moore .. SW 4-2157
Ore Martin Gerrard, 523 NW Everett St
Portland ... CA 7-0593
Pa William Cusick, 1240 Penna Ave
Oreland ... 885-3633
Pa Myles F Smith Assoc, 761 Lindsay Rd
Carnegie ... 276-5363
Tenn Hal Beard, 2160 York Ave, Memphis ... 274-1744
Tex McIver & Slavin, 3200 Audley St
Houston ... JA 4-1155
Tex J E Morton, 10015 Vistadale Dr, Dallas .. 341-1414
Utah Kenneth B Schumann Co, 328 W 2nd St
Salt Lake City ... 363-3838
Wash Tal Agencies Inc, 1043 6th Ave
Seattle ... MA 4-3355
Wis Andersen Elec Sales, 8526 W Villard
Milwaukee ... 463-2072
Can Esna Ltd, Box 250, Agincourt Ont ... 293-2431

BUCHLER INSTRUMENTS INC, 1327 16TH ST
FORT LEE, N J, 07024 ... 201-945-1188
D GELFAND, EMP 70, ENG 3, $1,000-$2,500M

BUCKBEE MEARS CO, 245 E 6TH ST, ST PAUL
MINN, 55101 ... 612 227-6371
L BARTON, EMP 600, OVER $10,000M
ADV PG 280
Ariz V K Hagglund, 314 E Echo La, Phoenix ... 944-1305
Cal C Michael Lund, Box 600, Cupertino ... 286-0163

BUCKEYE BOBBIN & MFG DIV PREC PAPER TUBE CO
761 SHARON DR, WESTLAKE
OHIO, 44145 ... 216 871-9020
G YOUNG, EMP 60, ENG 2

BUCKEYE STAMPING CO, 555 MARION RD
COLUMBUS, OHIO, 43207 ... 614 443-9458
R OSBORNE, EMP 50, ENG 2, $500-$1,000M
Ala Orbe Inc, Box 4164, Huntsville ... 205 881-8230
Cal Paul Nurches & Co, 2396 E Foothill Blvd
Pasadena ... MU 1-8957
Cal Paul Nurches Co, 999 Commercial St
Palo Alto ... 326-7842
Colo Gordon Moss Elctns Inc, Box j, Greeley ... 353-1452
Fla Orbe Inc, 300 31st St
St Petersburg ... 813 894-0687
Fla Orbe Inc, Box 7777, Orlando ... 305 424-0978
Ill Wm J Doyle Co, 7426 N Western Ave
Chicago ... BR 4-6685
Mass Electronic Components & Serv, 611 Trapelo Rd
Waltham ... 894-6921
Mich Grant Shaffer Co, 14241 Fenkell Ave
Detroit ... BR 3-5390
Minn A J Warner Co, 4927 34th Ave, S
Minneapolis ... 729-7371
Minn A J Warner Co, 4927 34th Ave
Minn ... 612 729-7371
Mo Maury E Bettis Co, 3706 Broadway
Kansas City ... LO 1-0772
NY P Saftler Assoc, 157 W 57th St
New York ... CI 7-3855
Ohio H H Seay Co, 3850 Fairlington Dr
Columbus ... 451-6611
Ohio Martech Sales, Inc, 814 W Third Ave
Columbus ... 299-4161
Pa Tyler Griffin Co, 46 Darby Rd, Paoli ... 647-1550
Tex Packard Assoc, Inc, Box 20825, Dallas ... 357-5713

BUDD CO POLYCHEM DIV, 70 S CHAPEL ST, NEWARK
DEL, 19711, TWX 302-737-1057 ... 302 368-0671
D HUTTON, EMP 1200, ENG 10, OVER $10,000M
Ariz Shefler-Kahn Co, Box 1587, Phoenix ... AL 8-7893
Cal Budd Co, 3050 E 11th St
Los Angeles ... AN 8-4115
Cal Marwood Ltd, 357 9th St
San Francisco ... HE 1-7893
Conn Budd Co, 119 Ann St, Hartford ... CH 7-1000
Ga Budd Co, 3182 Clifton Church Rd SE
Atlanta ... 524-1153
Ill Budd Co, 1515 N Harlem Ave
Oak Park ... EU 3-5270
Ind Budd Co, 925 E 38th St, Indianapolis ... WA 5-9803
Md Budd Co, 2135 Fountain Hill Dr
Timonium ... VA 5-1457
Mass Buddo Co, 46 Park St, Mansfield ... GR 2-2150
Mass Budd Co, 51 Cleveland Rd, Wellesley ... GR 2-2150
Mich Budd Co, 11000 W McNichols Rd
Detroit ... 861-1990
Minn Budd Co, 4522 Excelsior Blvd
Minneapolis ... 927-9611
Mo Budd Co, 1246 Hampton Ave, St Louis .. MI 5-2253
NY Budd Co, 1965 Sheridan Dr, Buffalo ... 875-9866
NY Budd Co, 41 E 42nd St, New York ... OX 7-9617
Ohio Budd Co, 1717 Section Rd, Cincinnati ... 531-4110
Ohio Budd Co, 836 Euclid Ave, Cleveland ... 241-5220
Ore Marwood Ltd, 209 SW First Ave
Portland ... CA 3-5123
Pa Budd Co, 1725 Washington Rd
Pittsburgh ... 563-1911
Pa Budd Co, Front & Ford Sts, Bridgeport ... 275-0800
SC Budd Co, Box 291, Spartanburg ... 582-5286
Tex Earl T Summers, 510 Good-Latimer Expwy
Dallas ... RI 8-6533

Wash Marwood Ltd, 1714 First Ave S
Seattle ... MA 3-4747
Can Arborite Co, 46 Hollinger Rd
Toronto 16 ... 755-5211
For Budd Co Intl Div, Bridgeport, Pa ... 275-0800

BUD RADIO INC, 4605 E 355TH ST, WILLOUGHBY
OHIO, 44094, TWX 310-427-2604 ... 216 946-3200
A HAAS, EMP 150, ENG 3

BUDWIG MFG CO, BOX 97, RAMONA
CAL, 92065 ... 714 789-0900
EMP 50, ENG 2, UP TO $100M

BUHL OPTICAL CO, 1009 BEECH AVE, PITTSBURGH
PA, 15233 ... 412 321-0076
I STAPSY, EMP 125, ENG 5, $1,000-$2,500M

BULLOCK MAGNETICS CORP
2818-A METROPOLITAN PL, POMONA
CAL, 91767 ... 714 953-3561
W BULLOCK, EMP 15, ENG 2, $100-$250M

BULOVA WATCH CO INC ELCTNS DIV FREQUENCY CONTROL
PRODS, 61-20 WOODSIDE AVE, WOODSIDE
N Y, 11377, TWX 710-582-2637 ... 212 335-6000
J FLOYD, EMP 700, ENG 42, OVER $10,000M
ADV PG 236, 238, 241, 248, 289, 291, 296, 297, 300, 301
304, 305, 352, 451, 453, 456 459 466 729 742
Ariz Tech-Ser Inc, 1805 E Indian School Rd
Phoenix ... 602 265-3629
Cal W J Carnes & Co, 420 South D St
Tustin ... 838-0575
Cal Straube Assocs, 483 Willow Rd
Menlo Park ... 323-2476
Conn Samuel C Hooker Inc, Box 359
W Hartford ... 233-8000
Fla Perrott Assoc, 1607 Forsyth Rd
Orlando ... 305 275-1132
Fla Perrott Assoc, Box 4532
Clearwater ... 813 531-5513
Fla Perrott Assoc, Box 6277
West Palm Beach ... 305 967-1770
Ill J R Sales Engineering, 7132 N Harlem Ave
Chicago ... 774-8550
Ind Hoemig Sales Co, 3405 Butler Ct
Fort Wayne ... 483-6913
Iowa J R Sales Engineering, 3350 Cottage Grove Ave SE
Cedar Rapids ... 319 365-5259
Md Callas Electronics, 6409 Frederick Ave
Baltimore ... 301 744-7711
Mass Samuel C Hooker Inc, Box 352
Winchester ... 617 729-5482
Minn Wenco Sales, Inc, 7728 Morgan Ave S
Minneapolis ... 612 866-3639
Mo J C Mankus & Assoc, 400 Brooks La
Hazelwood ... 314 PE 1-4334
NY H C Johnson Agencies Inc, 111 Mt Hope Ave
Rochester ... 716 232-2688
NY Comtronic Assoc, 1551 Franklin Ave
Mineola ... 516 PI 1-8966
NY H C Johnson Agencies, Inc, Box 86 Brandywine Sta
Schenectady ... 518 374-5901
NY H C Johnson Agencies, Inc
Box 215, 404 E Genessee St
Fayetteville ... 315 637-9383
NY H C Johnson Agencies, Inc, 8 Los Robles St
Williamsville ... 716 632-7880
NY Kahgan Sales Corp, 1261 Broadway
New York ... MU 4-7772
Ohio Augey Natalino Assoc, 209 Harmony Hills
Akron ... 666-1447
Pa C H Newson & Assoc Inc, 627 Bethlehem Pike
Phila ... 215 248-3377
Tex Tech-Ser Inc, 10210 Monroe Dr
Dallas ... 214 358-2504
Wash Jas J Backer Co, 221 W Galer St
Seattle ... 206 AT 3-6470
Can Canadian Micro Electronics
Box 6157 Sta J, 1390 Raven Ave
Ottawa ... 725-2332

BULOVA WATCH CO INC ELCTNS DIV SERVO PRODUCTS
61-20 WOODSIDE AVE, WOODSIDE
NY, 11377, TWX 710-582-2637 ... 212 335-6000
N SAKELLARIOS, EMP 700, ENG 42, OVER $10,000M
ADV PG 20, 28, 40, 43, 143, 209, 421, 630
Ariz Tech-Ser Inc, 1805 E Indian School Rd
Phoenix ... 602 265-3629
Cal El Com Sales Co, 3600 Motor Ave
Los Angeles ... 213 870-4707
Conn Garrettson Co Inc, 99 Hillside Ave
Williston Park, NY ... 516 747-6610
Fla Perrott Assoc, 1607 Forsyth Rd
Orlando ... 305 275-1132
Fla Perrott Assoc, Box 4532
Clearwater ... 813 531-5513
Fla Perrott Assoc, Box 6277
West Palm Beach ... 305 967-1770
Ga Aero Reps Inc, Box V, Perry ... 891-4850
Ill Communications Eng, 7100 N Western Ave
Chicago ... 312 RO 1-0548
Md Callas Electronics Inc, 6409 Frederick Ave
Baltimore ... 301 744-7711
Mass Aborn Labs Inc, 223 Crescent St
Waltham ... 891-4850
Minn Wenco Sales Inc, 7728 Morgan Ave S
Minneapolis ... 612 866-3639
Mo J C Mankus & Assoc, 400 Brooks La
Hazelwood ... 314 PE 1-4334
NY Comtronic Assoc, 1551 Franklin Ave
Mineola ... 516 PI 1-8966

NY L-Tron Corp, 2-4 Fennell St
Skaneateles ... 685-6172
Ohio J C Hofstetter Co, 742 Kenbridge Dr
Cleveland ... 216 449-0944
Pa Garrettson Co Inc, 92-14 Masland St
Philadelphia ... HO 4-2275
Tex Tech-Ser Inc, 10210 Monroe Dr
Dallas ... 214 358-2504
Wash Tech-Ser Inc, 477 Castro St
Mountainview, Cal ... 415 969-9020
Can Canadian Micro Elctns, 1390 Raven Ave
Ottawa Ont ... 725-2332

BULOVA WATCH CO INC, TIMER LAB, BULOVA PARK
FLUSHING, N Y, 11370 ... 212 335-6000
H GITTER
GB Bulova U K Ltd, 3 Charles St
Berkeley Sq, London W 1
Ital Bulova Watch Co S p a, Via Paolo da Cannobio 8
Milan
SAfr Welking (Pty) Ltd, Box 23616, Joubert Park
Johannesburg
Swit Bulova Watch Co, 1, Rue du Musee, 2500 Bienne

BULOVA WATCH CO INC, WATCHMASTER PRODUCTS
DIV, 75-20 ASTORIA BLVD, JACKSON HEIGHTS
N Y, 11370 ... 212 335-6000
D SCOTT, EMP 50, ENG 3, $1,000-$2,500M
Cal Ray H Murphy, 1736 Golden Rain Rd
Walnut Creek ... 939-7120
Cal E A Carlston, 2621 W Olympic Blvd
Los Angeles ... 213 387-5211
Colo W Seielstad, 1444 Ivanhoe St, Denver ... DE 3-1851
Fla Francis E Hatchell, 2913 San Nicholas
Tampa ... 256-2763
Haw Edw D Sultan Co Ltd, 939 Kapiolani Blvd
Honolulu ... 515-211
Ill Wm Pillath Jr, 10607 W Cermak
Westchester ... 562-6661
Mass Mahar & Engstrom Co, 373 Washington St
Boston ... LI 2-5280
Minn C R Leeds Co, 627 First Ave N
Minneapolis ... FE 3-2317
Mo Glenn Averill, 108 E 68th Terr
Kansas City ... JA 3-2118
NY Robert A Hunt, 40 Indian Path
Setauket ... 941-4780
Ohio R A Meier, 3411 Banning Rd
Cincinnati ... 513 522-3135
Pa Peter A DeMaria, 544 Twickenham Rd
Glenside ... TU 4-2344
Tex Sy Kessler, 12660 Coventry Rd
Dallas ... AD 9-1418
Tex Kurtz Inc, 1212 Main St, Houston ... CA 7-0193
Wash L A Clark Co, 1417 Fourth Ave
Seattle ... MA 3-7861
For Bulova Watch Co Inc, 75-20 Astoria Blvd
Flushing, N Y ... 335-6000

BUNDY ELECTRONICS CORP, 44 FADEM RD
SPRINGFIELD, N J, 07081 ... 201 376-8150
J KLEIN, EMP 150, ENG 8, $1,000-$2,500M
Cal J C Simon Assoc, 5478 Wilshire Blvd
Los Angeles ... WE 9-2366
Fla Geartner Assoc, 235 Lincoln Rd
Miami Beach ... 531-0200
Fla Geartner Assoc, 2101 Mohawk Tr
Maitland ... 305 531-0200
Ill Nero Assoc, 3516 Elmwood Ave
Wilmette ... AL 6-1045
NJ A L Levera, 2 Green Village Rd
Madison ... FR 7-3220
NY A L Livera, 15-51 Franklin Ave
Mineola ... PI 1-7044
NC P J Nahser Inc, 2709 Amherst Ave, Burlington
Ohio Component/Insulation, 14235 Detroit Ave
Cleveland ... 521-3570

BUNKER-RAMO CORP DEFENSE SYSTEMS DIV
8433 FALLBROOK AVE, CANOGA PARK
CAL, 91340 ... 213 346-6000
F CUNNINGHAM, EMP 3600, ENG 1800, OVER
$10,000M
Md Eastern Technical Ctr, 2121 Industrial Pkwy
Silver Spring ... 301 622-3100
Mass Bunker-Ramo Corp, 275 Wyman St
Waltham ... 617 891-5310
NJ Bunker-Ramo Corp, Monmouth Park Hwy
West Long Branch ... 201 222-8282
NY Bunker-Ramo Corp, Box 910
Rome ... 315 337-6100
Ohio Bunker-Ramo Corp, 210 Talbott Tower
Dayton ... 513 223-8531
Fr Bunker-Ramo Corp, 2001 Wisconsin Ave, NW
Washington ... 202 337-1500

BUREAU OF ENGRAVING INC, INDUSTRIAL DIV
500 S 4TH ST, MINNEAPOLIS
MINN, 55415, TWX 910-576-2733 ... 612 339-8001
M LARSON, EMP 465, ENG 8, $5,000-$10,000M
Cal Colbuk Inc, 9232 Independence Ave
Chatsworth ... 341-4000
Fla H R Gross & Co, 314 S Missouri Ave
Clearwater ... 446-6649
Ill G McL Cole Co, 6514 W Higgins Rd
Chicago ... 774-3535
Mass Manreps, 60 Washington St, Salem ... 592-9000

BURGESS & ASSOCIATES INC, 13000 ATHENS AVE
CLEVELAND, OHIO, 44107 ... 216 221-2720
D BURT, EMP 35, ENG 4, $500-$1,000M

Cal B C Klingensmith, 4619 E Alondra Blvd Compton 638-5224

BURGESS BATTERY DIV CLEVITE CORP, FREEPORT ILL, 61032 .... 815 232-2161
W RIDDELL, EMP 1500, ENG 25, OVER $10,000M
Cal Burgess Battery Div, 916 Tubeway Ave Los Angeles 213 728-0156
Ill Burgess Battery Div, 6272 W North Ave Chicago 312 889-1131
NY Burgess Battery Div, 76 Ninth Ave New York .... 212 CH 2-2270

BURKE & JAMES INC, 333 W LAKE ST, CHICAGO ILL, 60606 .... 312 372-5422
J MITCHELL, EMP 85, ENG 1

BURKLYN CO, 3429 GLENDALE BLVD, LOS ANGELES CAL, 90039 .... 213 662-3111
A KISSLER, EMP 20, ENG 3
Ala Ford Tool & Carbide Co, 3404 N 10th Ave Birmingham 205 252-9991
Cal Elect Air Tool Co, 310 W Verdugo Ave Burbank .... 213 VI 9-6201
Cal The E Wachtel Co, Box 11190 Palo Alto 415 321-2430
Cal R A Machine & Tool, 1032 Industrial St Pomona 714 629-3051
Colo Robert M Moore, 1010 Yuma St Denver 303 222-4858
Fla Cameron & Barkley Co, Box 1870 Orlando .... 305 GA 4-9557
Ill Frank Tye Sales Co, 4645 B Elston Ave Chicago 312 283-1227
Ind F W Williams Jr, 9103 E Washington Indianapolis 317 898-4664
Md L A Benson Co, 3707 E Monument St Baltimore 301 342-9225
Mass C Ellingwood, 38 Pequot Rd Wayland 617 265-6400
Mich Manufacturers Sales Co, 990 Waltham Ave, SE Grand Rapids 616 949-0720
Mich Wilson Equip Co, 2319 Winters Dr Kalamazoo 616 2-0138
Mich Tupes of Saginaw, 3400 Bay Rd Saginaw 517 799-1550
Mich W G Robert Maw, 3351 Wiscasset Rd Dearborn .... 313 LU 2-2357
Minn Allied Industrial Equip, 5825 W 25 1/2 St St Louis Park 612 929-1131
Miss Airequip-Hydraquip, 1003 Bailey at Fortification Jackson 601 948-7232
Mo R C Shaw Enterprises, 1110 Brentwood Blvd St Louis 314 863-4115
Neb Fuchs Mach & Supply, Inc, 2401 N 11th St Omaha 402 341-7050
NM Crist Machinery Co, Box 563 Albuquerque 505 247-3701
NY Paul Hardman Co, 510 Franklin Ave Mt Vernon 914 664-6220
NY J D Birchard, Box 736, Syracuse 315 469-4689
NC C Cook, Box 12416, Charlotte 704 537-6919
Ohio A G Jones Tool Co, Mariemont Center Bldg Cincinnati 513 271-9577
Ohio C P Enston Co, 2237 St Clair Ave Cleveland 216 621-7151
Ore Oregon Air Tool Inc, 633 S E Clay Portland 503 234-0761
Pa John C Graf Co, 501 Central Ave Cheltenham .... 215 ES 9-8319
SC Service Repair Co, Box 751 Greenville 803 239-9291
Tenn F L Nelms & Assoc, Box 6116 Nashville 615 291-1789
Tex P-M-E Equip Co, Box 18245 Houston 713 928-5021
Tex Berry Co, Box 20461, Dallas 214 528-0461
Wis E L Simeth Co, 403 S Hawley Rd Milwaukee 414 771-9270
Can Chinook Industrial Supplies, 4015 4th St S E Calgary, Alb 403 243-2925
For Fenning Engrg Inc., 828 Jose De Diego Ave Caparra Terrace P R

BURLING INSTRUMENT CO, 23 RIVER RD, CHATHAM N J, 07928 .... 201 635-9481
H BURLING JR, EMP 18, ENG 3, $250-$500M
Ala Electro-Pneumatic Control Co, 416 Shenandoah Dr Birmingham 822-5350
Cal Charles Meriam Co, 5017 Telegraph Rd Los Angeles .... AN 9-8271
Cal Claypool Controls Co, Box 1167 Los Altos 968-7488
Colo Toncray Equipment Co, 1711 Blake St Denver .... CH 4-1102
Conn M A Selmon Co, 98 Suzanne Circle Trumbull 268-0010
Fla Maurice M Henning, Box 69-H, Miami .... NA 4-5832
Ga Estes Assoc Inc, 533 Decatur Fed Bldg Decatur 373-8266
Ill Kelburn Engineering Co, 6545 N Olmsted Ave Chicago 775-5722
Ind Kelburn Engrg Co, Box 40251 Indianapolis 846-5574
La Gilbert & Assoc, Box 4376 New Orleans .... UN 6-7444
La Pan-Tech Engrg Co, Box 1783 Baton Rouge 344-2791
Md George Goodman Co, 1800 N Charles St Baltimore 837-3210
Mass H Wood Bacon Co, 235 Bear Hill Rd Waltham 899-0530
Mich H C Engelman Co, 24405 Gratiot Ave E Detroit 777-0750
Minn Industra Co, 6504 Walker St Minneapolis 929-6224
Mo H & R Sales & Eng Co, 3942 W Pine St Louis .... OL 2-5540
Neb H G Klug Co Inc, Box 4006, Benson Sta Omaha .... GL 1377
NJ Lawrence E Roher, 39 Delaware Ave Bloomfield .... PI 3-9384
NJ Mechanical Specialties Co, Box 441 Westfield 233-9188
NY H C Johnson Agencies Inc, 111 Mt Hope Ave Rochester 232-2688
NC Brown & Morrison, Box 4307 Charlotte .... ED 3-0774
Ohio BC Engineering Co, Box 34, Cincinnati .... TW 1-6123
Ohio Clarke H Joy Co, Box 9695 Bay Village .... TR 1-5900
Ohio Industrial Electronic Lab Inc, Box 351, M O Toledo .... CH 4-5827
Okla Quigg Process Equipment Co, 303 Center Bldg Tulsa .... LU 7-0166
Pa John C Whiddett Co, 7714 W Chester Pike Upper Darby .... JA 8-6400
Pa Walter N Laska, 7929 Perry Hwy Pittsburgh 931-3933
Tenn George H Giesler Co Inc, Box 10345 Knoxville 588-9321
Tenn Gilbert & Assoc, Box 28522, Memphis 388-0571
Tex Pan-Tech Engineering Co, Box 22491 Houston .... MO 6-0248
Tex Hatfield & Co, Box 7072, Dallas .... FL 8-5531
Utah Toncray Equip Co, 566 W 7th S Salt Lake City 363-9822
Va George Goodman Co, 220 E Belt Blvd Richmond 232-7402
Wash Instrumentation Eng Sales & Serv Co 1331 3rd Ave, Seattle .... MU 2-1123
Can Baker Instruments Ltd, 185 Davenport Rd Toronto 924-9708
For Masten-Wright Corp, Box 1896 New Haven, Conn .... AT 8-1638
BC John Sherman, 855 E Hastings St Vancouver .... MU 4-9019

BURNDY CORP, RICHARDS AVE, NORWALK CONN, 06852, TWX 250 .... 203 838-4444
A AUNE, EMP 3500, OVER $10,000M
ADV PG 183, 186, 187, 194, 694, 697
Ariz Burndy of Calif Inc, 3918 N 30th Ave Phoenix 264-2701
Ark C H Stout Inc, 2207 Cantrell Rd Little Rock .... FR 4-8201
Cal Burndy of Calif Inc, 1111 E El Segundo Blvd El Segundo 772-5401
Cal Burndy of Cal, 3975 E Bayshore Rd Palo Alto 961-9110
Colo Burndy of Colo Inc, 4049 St Paul St Denver 377-8891
DC Bradley Electro Sales Corp, 7981 Eastern Ave Silver Spring, Md 587-1866
Fla Burndy Southeast Inc, 725 W Smith Ave Orlando .... CH 1-1576
Fla Burndy Southeast Inc, 4100 W Flagler St Miami 443-4294
Ga Burndy Southeast Inc, 4005 Indian Lake Cir Stone Mountain 289-5469
Haw Honolulu Elect Prods Co Ltd, Box 459 Honolulu 581-111
Ill Burndy Midwest Inc, 9420 W River Rd Schiller Park 678-5211
Ind Bundy of Ohio Inc, 2511 E 46th St Indianapolis 545-2224
Iowa Burndy Corp, 2731 Douglas Ave Des Moines 274-3804
La C H Stout Inc, 409 Fairfield Bldg Shreveport 425-5485
La C H Stout of La Inc, 3901 Ulloa St New Orleans 486-3707
Md Bradley Electro Sales Corp, 6901 Bel Air Rd Baltimore 665-5020
Mass Burndy of N E Inc, 31 Washington St Wellesley Hills 235-8686
Mich Burndy of Mich Inc, 28630 Southfield Rd Lathrup Village 444-1424
Minn Bundy of Minn Inc, 1821 University Ave, St Paul
Miss C H Stout of Miss Inc, 618 Electrical Bldg Jackson 354-4326
Mo Penzner Assoc Inc, 5600 W 95th St Overland Park .... DU 1-0004
Mo Burndy of Mo Inc, 8 Progress Pkwy Maryland Heights 524-3466
NY Canavan-Scanlon Assoc, 23 Eastern Ave Eastwood Station .... HO 3-9161
NY Burndy Corp, 2 Penn Pl, Pelham .... PE 8-3200
NY Canavan-Scanlon Assoc, 564 Ellicott Square Bldg Buffalo .... TL 2-1122
NY Canavan-Scanlon Assoc, Box 39, Fishers
NC Glenn & Larson of Carolina, 1321 E Morehead St Charlotte .... ED 4-3994
Ohio Burndy of Ohio Inc, 5710 Wooster Pike Cincinnati 272-0255
Ohio Burndy of Ohio Inc, 3435 Brookpark Rd Cleveland 749-5607
Pa Muller, Harper & Assoc Inc, 7805 McKnight Rd Pittsburgh 931-6460
Pa Burndy of Pa Inc, 251 West DeKalb Pike King of Prussia 265-1615
Tenn C H Stout of Tenn Inc, 3506 Tchulahoma Rd Memphis 362-1616
Tex E B Robertson Inc, 4101 San Jacinto Houston .... JA 9-3797
Tex E B Robertson Inc, 1339 Plowman St Dallas .... WH 2-8486
Va Bradley Electro Sales, 627 E Main St Richmond 649-8787
Wash Burndy Northwest Inc, 4724 Rainer Ave S Seattle .... PA 5-8100
W Va Skaff Engineering Co, 3418 Staunton Ave SE Charleston 342-0131

BURNETT ELECTRONICS LAB INC, BOX 23015 SAN DIEGO, CAL, 92123 714-278-6370
D BURNETT, EMP 50, ENG 12, $500-$1,000M

BURNLEY BATTERY & MFG CO, BOX 511, NORTH EAST PA, 16428 .... 814 725-3595
J MILLER, EMP 6, ENG 1, UP TO $100M

BURNS ENGINEERING INC, 5301 EDINA INDL BLVD MINNEAPOLIS, MINN, 55435 .... 612 941-2882
J BURNS

BURNS & TOWNE, INC, 662 CROSS ST, MALDEN MASS, 02148 .... 617 321-0590
D CUTTER, PRES, EMP 150, ENG 5, $1,000-$2,500M
Ala Space Engrg Sales, 4306 Governors Dr SW Huntsville 205 533-2702
Ill Rinaldi Sales Inc, 6319 N Central Ave Chicago 312 763-4848
Md Bemar Assoc, 120 Derwood Cir Rockville 301 762-8880
Mass Conti-Younger Assoc, 195 West St Waltham 891-4582
Mass Component Prods Inc, 1230 W Collins Ave Orange 714 633-7442
Mich Sterling Sales, 21250 10 1/2 Mile Rd Southfield 313 442-5656
NJ BeMar Assoc, 1016 Abington Rd Cherry Hill 428-6390
NY Burns & Towne, 2749 Patricia La Bellmure 826-3617
NY H-V Sales Inc, 1 W Terrace Rd Great Neck 516 HU7-1142
Ohio Brower Sales Inc, Box 315 Wickliffe 216 943-0601
Tex P Kreager Sales, 9230 Cliffmere Dr Dallas 214 348-3521
Can Aero Sales Engrg, 4 Racine Rd Rexdale, Ont 249-9139

BURNWORTH TESTER CO, 815 POMONA AVE EL CERRITO, CAL, 94530 .... 415 525 7599
L KEIRLE, EMP 10, ENG 1, UP TO $100M
Cal H Justice, 4160 Rincon Circle Palo Alto 415 322-1768
Cal L Nemrow, 3126 N Frederic Burbank .... 213 767 -0218
Fla P Seligman, 4505 SW 89th St, Miami
NY A Leigh, 77-15 113th St, Forest Hills
Ohio R S Jones, 2743 Horseshoe Blvd, Westlake

BURR-BROWN RESEARCH CORP, INTL AIRPORT IND PARK TUCSON, ARIZ, 85706 .... 602 294-1431
T FERN, EMP 200, ENG 20
ADV PG 33, 288, 423
Ala BCS Assoc, Inc, 2317 Bob Wallace Ave, S W Huntsville 534-1648
Ariz Williams Assoc Inc, 1110 E McDowell Phoenix 254-6085
Cal Instrument Specialists Inc, 2870 Los Feliz Place Los Angeles 665-5181
Cal Instrument Specialists Inc, 2359 De La Cruz Santa Clara 244-1505
Cal Instrument Specialists Inc, 1909 State St San Diego 232-2017
Colo Williams Assoc Inc, 4971 Jackson St Denver 388-4391
Conn Measurement Equip Co, Box 8192 E Hartford 874-9222
Fla BCS Assoc, Inc, 940 Fern Creek Ave Orlando 425-2764
Ill Loren F Green & Assoc, 5218 W Diversey Ave Chicago .... AV 6-6824
La BCS Assoc, Inc, 3414 Hessmer Ave Metairie 888-2266
Md QED Electronics Inc, 880 Bonifant St Silver Spring .... JU 8-8134
Mass Measurement Equip Co Inc, 591 North Ave Wakefield 245-4870
Mich Sheridan Assoc Inc, Box 128 Lathrup Village 358-3333
Minn Loren F Green & Assoc, 6225 University Ave N E Minneapolis 781-1611
Mo Sheridan Assoc Inc, Box 3997, Jennings Sta St Louis .... JA 4-4800
NJ QED Electronics Inc, 2916 Federal St Camden 365-2450
NM Williams Assoc Inc, 420 Washington S E Albuquerque 255-1638
NY J A Reagan Co Inc, 419 Central Ave Albany 436-9649
NY Qed Electronics Inc, 500 Nuber Ave Mt Vernon .... YO 8-2200
NY J A Reagan Co Inc, 528 Crestmont Rd Binghamton 723-9661
NY J A Reagan Co Inc, 41 Woodberry Rd New Hartford 732-3775
NY J A Reagan Co, 891 Monroe, Rochester 473-2115
NC BCS Assoc, Inc, 1039 E Wendover Ave Greensboro 273-1918
Ohio Sheridan Assoc Inc, Box 37646 Cincinnati 761-5432
Ohio Sheridan Assoc Inc, Box 37, Dayton 277-8911
Ohio Sheridan Assoc, 7029 Royalton Rd Cleveland 237-9145
Pa Sheridan Assoc Inc, 201 Penn Ctr Blvd Pittsburgh 243-6655
Tex Norvell Assoc, 10210 Monroe, Dallas 357-6451
Tex Norvell Assoc, 6440 Hillcroft, Houston 774-2568

Utah Williams Assoc, 2461 S Main St
Salt Lake City 466-8709
Wash Instrument Specialists Inc, 5950 - 6th Ave S
Seattle 767-4260
Can Allan Crawford Assoc, 65 Martin Ross Ave
Downsview Ont 636-4910
Can Allan Crawford Assoc, 376 Churchill Ave
Ottawa Ont 725-1288
Can Allan Crawford Assoc, 6999 Cote des Nerges
Montreal Que 739-6776
For P Marchetti, A-1060 Wien
Capistrangasse Vienna 57-82-30
For H A Langebaek & Cia ltda, carrera 7 No 48-59
Bogota 1 D E Col 45-78-06
For Suministros Tecnicos Ltda, Box 259-4492
Guayaquil .... Calle Rumichaca 825-27
For I & S Corp, Bunder Rd, Karachi-2 Pak 223322
For Telectra, Rua Rodrigo Da Fonseca 103
Lisbon 1 Port 686072
For Telekom Engineering Bureau, Box 376
Karakoy Tur 49-40-40
Den V H Prins, 129 Sydvestvej
2600 Glostrup 01 96-88-44
Fr Soc S E P T A, 13 rue de Tiquetonne
75 - Paris 2e - 236-37-45
Ger Ernst Fey, 8 Munchen 2
Horemansstr 28 Munich 0811/5169566
GB Gen Test Instr Ltd, Gloucester Trad Est
Hucclecote Gloucester .... GI 67154
Holl Air-Parts Intl n v, 149
Haagweg Ryswyk Z H 070 989392
Ital Strumentazione Ind Regolazioni
Via Baldinucci N 60, 20158 Milano ... 376-198-2
Jap Kyokuto Boeki Kaisha Ltd
4 2-Chome Otemachi Chiyoda-Ku
Tokyo 270 7711
Nor Hugo Riso A/S Carl Grandahls Vei 1, Box 8 Taasen
Oslo 8 23-25-80
SAfr David Pollock Pty Ltd, 17 Melle St
Johannesburg 724-8274
Swed Amerikanska Teleprodukter AB, Nybohovsgrand 56
Stockholm 43 .... 18-29-30 18-29-39
Swit Telemeter Electronic AG, Gerechtigkeitsg 25
8027 Zurich 051-257872
Arg B Garfunkel E Himos S A, Bartolome Mitre 1824
Buenos Aires 45-5821
BC Allan Crawford Assoc
5901 E Broadway Vancouver B C, 291-7161
Belg Delta Equip S A, 28 rue du Tabellion
Bruxelles 02/38 40 76
Gr Greek Electronics Co Ltd, 6 Kriezotou St
Athens 134 .... 625.469
Ind Vibronics Private Ltd, 4 Kurla Ind Est
Ghatkopar Bombay-77 551501
Isrl Racom Electronics Co Ltd, 74 Nordau Blvd
Tel-Aviv 44-32-44 25-07-52
Mex Electro Promociones Intl S A, Lucerna Num 58
Mexico 6 D F 35-41-02
NZ W & K McLean Ltd, 103 Felton Mathew Ave
Auckland 586-000
Spn Distesa, Viriato 52, Madrid-10 223-50-73
Fin Nores & CO OY, Fabianinkatu 32
Helsinki 10 13360
Aust Kenelec Imports Pty Ltd, 49 Essex Rd
Mt Waverley Vic 277-2818

BURROUGHS CORP COMPONENT SALES DEPT
1649 WILSHIRE BLVD, LOS ANGELES
CAL, 90017, TWX 910-321-2494 .... 213 483-4520
D SMITH, EMP 30000, ENG 3000, OVER $10,000M

BURROUGHS CORP, DEFENSE, SPACE & SPEC SYS
GROUP, PAOLI, PA, 19301 .... 215 644-4700
H ROTTIERS, EMP 42000, ENG 5700, OVER $10,000M
Ala E Quinn, 2315 SW Bob Wallace Ave
Huntsville 539-4433
Cal L Hosford, 8939 S Sepulveda Blvd
Los Angeles 776-6950
Colo C V Gordon, 101 Barnes St
Colo Springs 632-4689
DC P Scally, B Hill, J Murray, 1 Farragut Sq S
Washington 393-3760
Fla E Duklewski, 1325 N Atlantic Ave
Cocoa Beach 783-7101
Haw C P Zivalich, 1687 Kapioiani Blvd
Honolulu 99-4177
Mass Andrew P Diamond, 92 Hayden Ave
Lexington 862-6337

BURROUGHS CORP ELECTRONIC COMPONENTS DIV, BOX 1226
PLAINFIELD, N J, 07061 .... 201 757-5000
J BETHKE, EMP 1000, ENG 175
ADV PG 268, 347, 391
Ariz Brooks, Feeger Assoc, 4710 N 16th St
Phoenix 264-6536
Cal Burroughs Corp ECD, 8939 S Sepulveda Blvd
Los Angeles 645-5922
Colo Brooks, Feeger Assoc, 1309 S Inca St
Denver 744-3301
Conn Instr Dynamics Inc of Conn, 345 N Main St
West Hartford 233-5503
Fla Reynolds & Assoc, Inc, Box 1043
Eau Gallie 727-3205
Ill Lang, Claeson & Assoc, 6733 N Olmsted Ave
Chicago 774-3610
Ind R O Whitesell & Assoc, 6620 E Washington St
Indnpls 359-5374
Iowa Engineering Services Co, 1026 3rd Ave SE
Cedar Rapids 366-1591
Ky R O Whitesell & Assoc, 3620 Lexington Rd
Louisville 893-7303
Md L G White & Co Inc, 880 Bonifant St
Silver Spring 585-3141
Mass Instrument Dynamics Inc, Wakefield Industrial Park
Wakefield 245-5100
Mich Hilltronics Inc, 13720 Puritan Ave
Detroit 342-3242
Minn Merrill Franklin Co, 730 E 38th St
Minneapolis 827-5348
NM Brooks, Feeger Assoc, 1238 Ortiz SE
Albuquerque 268-4387
NY J A Reagan Co Inc, 419 Central Ave
Albany 436-9649
NC L G White & Co Inc, 1014 Brookstown Ave
Winston-Salem .... PA 5-3612
Ohio R O Whitesell & Assoc, 1172 W Galbraith
Cincinnati 521-2290
Pa Eastern Instrumentation Inc, 613 Cheltenham Rd
Phila .... WA 7-6269
Pa Herbach & Rademan, Inc, 1204 Arch St
Philadelphia .... LO 7-4309
Tex Arnold Barnes Co, 740 S Sherman St
Richardson .... AD 5-4541
Wash Stanley Enterprises, 5616 4th Ave S
Seattle .... PA 3-3320
Can R-O-R Assoc Ltd, 1470 Don Mills Rd
Don Mills 444-4403
Fr Tranchant Electronique SA
19-21 Rue Madame De Sanzillon
Clichy, Seine 270-2255
Ger Omni Ray, GmbH, Nymphenburger Str 164
Munich 513-2059
GB Walmore Electronics Ltd
11-15 Betterton St, Drury La
London Tem-0201-5
Holl Inelco-Holland, A J Emstst 801
Amsterdam -Z2 42-1722
Ital dott Gigi Gallo Gorgatli, Via Borromei 5
Milano 870 725
Nor Morgenstierne & Co
Wessels Gate 6, PB St H 2613, Oslo 201635
Swed Firma John C Lagercrantz, Gaardsvaegan 10B
Solna 830790
Swit Omni Ray, AG, Dufourstr 56, Zurich .. 051-47 82 00
Belg Inelco, SA, 20-24 Ave de L'Hopital
Brussels 11-22-20
Ind Electronic Enterprises, New Charni Rd
Bombay 375376
Isrl Eastronics Ltd, 75, Haifa Rd, Tel-Aviv 446060
Spn Ataio - Ingenieros, Enrique Larreta, 12
Madrid 235-35-43

BURTEK INC, 7041 E 15TH ST, TULSA
OKLA, 74101 .... 918 836-4621
J WESSEL, EMP 100, ENG 25, $1,000-$2,500M

BURTON RESEARCH LABS, 11240 PLAYA CT
CULVER CITY, CAL, 90230 .... 213 391-6325
E COOPER, EMP 30, ENG 2, $100-$250M
Ariz John Anthony, 2455 N Sonoita Pl
Tucson 298-2875
Cal Barton Org, 6341 Arizona Cir
Los Angeles .... GR 2-6026
Conn S Rosenberg, 11 Debra La, Westport 259-3792
Ill Ray Anthony, 1304 Lincoln S
Highland Park .... ID 2-9189

BURTON SILVERPLATING CO, 6341 ARIZONA CIRCLE
LOS ANGELES, CAL, 90045 .... 213 EX 1-6743
E COOPER, EMP 60, ENG 4, $2,500-$5,000M
Conn S Rosenberg, 11 Debra La
Westport 203 259-3792
Ill Ray Anthony, 1304 Lincoln S
Highland Park .... ID 2-9189

BUSH TRANSFORMER DIV, GLADDING-KEYSTONE
CORP, 179 RIVER ST, ONEONTA
NY, 13820, TWX 510-241-8294 607-432-5600
P KOMAR, EMP 170, ENG 4, $2,500-$5,000M
Cal J J Components Co, 8820 Sunset Blvd
Los Angeles 652-4571
Fla D Kirkwood, Box 13248, St Petersburg ... 347-5131
Ill Olsen Engineering, 1921 N Harlem Ave, Chicago
Ill NC Nabb-Brase Assoc, Rte 1, La Otto 897-4581
Mass Garrettson Co, Kearney St
Needham Hgts 449-2640
NY Garrettson Co Inc, 99 Hillside Ave
Williston Park 747-6610
NY N Thomas, Box 366, N Syracuse 455-5501
NC A Over, 3723 Country Ridge Rd
Charlotte 366-8601
Va John Hopkins Assoc, 4520 Starr Jordan Dr
Annandale 280-2086

BUSINESS INFORMATION TECHNOLOGY INC
3 ERIE DR, NATICK
MASS, 01760, TWX 710-386-6494 ...... 617 235-6842
R NOREN, EMP 55, ENG 7
Ala J L Highsmith & Co, 3322 S Memorial Dr
Huntsville 205 881-3294
Ariz T Louis Snitzer Co, 15 N 40th Pl
Phoenix 602 273-1673
Cal T Louis Snitzer Co, 9005 Exposition Blvd
Los Angeles 213 836-6170
Cal T Louis Snitzer Co, 1150 Camino del Mar
Del Mar 714 454-2191
Cal T Louis Snitzer Co, 1020 Corporation Way
Palo Alto 415 968-8304
Cal J D Kennedy Co, 770 Welch Rd
Palo Alto 415 327-0143
Cal J D Kennedy Co, 4170 Admiralty Way
Marina Del Rey 213 823-4543
Conn Instrument Dynamics, Inc, 345 N Main St
W Hartford 233-5503
Fla J L Highsmith & Co, 2543 Industrial Blvd
Orlando 305 293-5202
Ill R Edw Stemm Inc, 17W480 Lake St
Addison 312 279-2440
Mass Instrument Dynamics, Inc, Wakefield Ind Pk
Wakefield 245-5100
Mich Anderson Elctns Inc, 19471 James Couzens Hwy
Detroit .... 313 DI 2-7133
Minn R Edw Stemm Inc, 2713 Lyndale Ave So
Minneapolis 612 922-8404
NC J L Highsmith & Co, 3733 Monroe Rd
Charlotte 704 333-7743
Ohio Data-Tron, 7016 Euclid Ave
Cleveland .... 216 EX 1-8421
Tex Arnold Barnes Co, 740 S Sherman St
Richardson 235-4541
Tex Arnold Barnes Co, 3230 Mercer St
Houston 922-3620
Tex Arnold Barnes Co, Petroleum Ctr
San Antonio 828-1323
Va J L Highsmith & Co, 5003 Brook Rd
Richmond 703 266-2060
Wash J D Kennedy Co, 2124 S W 170th
Seattle 206 242-8024

BUSSMANN MFG DIV MCGRAW-EDISON CO
UNIVERSITY & JEFFERSON, ST LOUIS
MO, 63107, TWX 044-841 .... 314 421-1740
N SCHMITZ, OVER $10,000M
ADV PG 314, 315, 1059
Cal Bussmann Mfg Div, 1004 E 4th St
Los Angeles 213 625-5046
Cal Bussmann Mfg Div, 2166 Market St
San Francisco .... 415 UN 3-2600
Colo H L Davin, 1650 Kearney St
Denver 303 377-1357
Colo Wm R Morris, 3379 W Wagon Trail Dr
Englewood 303 794-5361
Conn J R Miller, 43 Long View Dr
Simsbury 203 658-7524
Fla W K Penhallegon, 1863 Oakdale La S
Clearwater 813 531-5112
Ga L J Acker, 3615 Fortingale Rd
Chamblee 404 457-1356
Haw Dougherty Enterprises, 1164 Waimanu St
Honolulu 504-987
Ill Bussmann Mfg Div, 9 S Clinton St
Chicago .... 312 DE 2-1893
Ill J Upham, 6803 S Rte 31, Crystal Lake
Ind R Mullin, 3502 Kenilworth Dr
Indianapolis 317 293-3415
Iowa T Bates Jr, 202 Forrest Rd
Davenport 319 355-5400
Kan D O Smith, 6500 Overbrook Rd
Mission Hills .... 913 EN 2-5867
Ky M F Dickson, 3605 Glencreek La
Louisville 502 451-7652
La H J Duke, 4208 Cleveland St
Metairie 504 887-1405
Md J D Rambo, 6308 Mossway
Baltimore .... 301 CH 3-1717
Mass C J Dane, 19 Prince Ave
Winchester .... 617 PA 9-3376
Mich J J Holley, 4029 Cornwall, Berkley .. 313 LI 6-2824
Mich M B Schiller, 32300 Bonnet Hill Rd
Farmington .... 313 WO 1-9704
Minn A E Myers, 5615 Concord Ave
Minneapolis 612 926-3988
Minn F C Hyck, Rt 2, Osseo 612 425-4625
Neb B G Shriver, 7648 Wright St
Omaha 402 391-1016
NJ E F Revell, 97 Hamiltonian Dr
Red Bank 201 671-9283
NY Bussmann Mfg Div, 169 Highland Ave
Newark N J 201 484-3500
NY G L Goyette, 202 Jane Dr
Syracuse 315 468-0927
NY E E Schelper, 701 N Orchard Rd
Syracuse .... 315 HO 8-1352
NC K L Williams, 707 Pebble Dr
Greensboro 919 299-3348
Ohio A W Kovacs, 7678 Oak Hill Dr
Chesterland .... 216 PA 9-4663
Ohio G F Kehne, 18730 Van Aken Blvd
Shaker Heights .... 216 LO 1-4875
Ohio J A Wulfmeyer, 7445 Fourwinds Dr
Cincinnati 513 241-1740
Ohio J C Atkins, 3871 Indian Rd
Toledo .... 419 JE 1-1815
Ohio J L Wise, 3711 Mayfair Dr
Grove City 614 237-9810
Okla H L Gossage, 3001 Center St
Oklahoma City .... 405 SK 1-4996
Okla L Welborn, 2532 S Owasso, Tulsa .. 918 RI 2-5914
Pa P C Stock, 2500 Creekedge Dr
Pittsburgh 412 371-3956
Pa H E Slack Jr, Box 211 Rt 1
Wexford .... 412 WE 5-1695
Pa A L Branning, 578 Cricket La
Radnor .... 215 MU 8-3417
Pa H E Thompson, Box 147
St David .... 215 MU 8-0811
Tenn D L Hicks, 800 Rosebanks Rd
Memphis 901 398-8972
Tex H A Cardwell, 3734 High Vista Dr
Dallas CH-4735
Tex E R O'Connor, 2103 Milford
Houston .... 713 JA 4-3487
Va W H Kirkland, 3429 Warner Rd
Richmond 703 272-2915
Wash R H Shipek, 11539 6th Pl N E
Seattle .... 206 MA 2-0737
Wis W P Burbach, 4857 N Woodburn St
Milwaukee 414 964-3185

BUTLER ELECTRONICS CO, 1612 VALLEY BLVD
ESCONDIDO, CAL, 92025 .... 714 745-1620
H BEACH, EMP 3, ENG 1, $500-$1,000M

To fit the needs of every user
There's a Safe and Dependable BUSS or TRON Family FUSE and FUSEHOLDER

Shown here is only a representative listing. The complete line of BUSS QUALITY fuses includes thousands of different types and sizes . . . plus a companion line of fuse clips, blocks and holders.

For every electrical protection need,—turn to BUSS. You'll save time and you'll be sure of the safest, most trouble-free protection available.

FUSETRON MDL dual-element Fuses
"Slow-blowing" type.
¼ x 1¼ inch,
1/100 to 30 amp.

BUSS SUB-MINIATURE GMW Fuse and HWA Fuseholder
Fuse size only .270 x .250 inches. Fuse has window for visual inspection of element. Fuse may be used with or without holder. Fuses and holders available to meet military specifications.

BUSS HLF SPACE SAVER Fuseholder
Only 1⅝ inches long . . . extends just 29/32 inch behind front of panel. Takes ¼ to 1¼ fuses. Holder rated at 15 ampere for any voltage up to 250. Military type fuseholder available which meets all MIL-F-19207A requirements.

FUSETRON TYPE N Fuses and Fuseholders
"Slow-blowing" type. Especially suitable for protection of TV. Ears on fuses match slots in holder to safeguard against use of wrong size and type of fuse.
¼ x 1¼ inch, 0 to 1¼ amps. . . and ¼ x 1 3/16 inch, 1-3/10 to 7 amp.

BUSS FUSE BLOCKS
Many types available. Single pole, multiple pole, small base, full base, laminated base, porcelain base for fuses from ¼ x ⅝ inches up. Also signal fuse blocks and special blocks of all types.

Insist On BUSS QUALITY Fuses & Fuseholders
Write for BUSS Bulletin SFB.

BUSSMANN MFG. DIVISION, McGraw-Edison Co., St. Louis, Mo. 63107

B/W CONTROLLER CORP, 2200 E MAPLE
BIRMINGHAM, MICH, 48012 .... 313 644-5940
J ALLINGHAM, EMP 58, ENG 5, $1,000-$2,500M
Cal D B Sharman Co, Box 31, Orinda 254-4616
Cal G D Pribble Co, 3104 W Beverly Blvd
Montebello 723-8881
Conn Doonan-Miles Corp, 37 N Main St
Wallingford .... CO 9-5973
Fla Control Center Inc, Box 6268, Orlando 841-3781
Ill Linden Equipment Co, 5912 W Higgins Rd
Chicago 545-4600
La Johnson Equip Co, 550 Landwood Dr
Baton Rouge 924-4104
Mass Mil-Mar Assoc, 9 A St, Burlington 272-5320
Minn Irvin I Aaron & Assoc Inc, 614 E Grant St
Minneapolis .... FE 6-6659
Mo Power Specialties, 1214 W 47th St
Kansas City .... JE 1-6550
Mo Golom Equip Co, 4718 Stanhope Dr
St Louis 892-8030
NY E W Rowland Assoc, 90 West St
New York .... WO 4-7188
NY Nickles Engineering Co, 830 Linden Ave
Rochester .... LU 6-4988
NC B W Allen Co, 121 Greenwich Rd
Charlotte 366-0031
Ohio Stephen J Vereb & Assoc, 4619 E 93rd St
Cleveland .... BR 1-2066
Ohio B C Engineering Co, 6900 Silverton
Cincinnati 891-6122
Okla Paul King Co, 840 N Fulton, Tulsa 836-2501
Ore E S Constant Co, 2643 N Albina
Portland 288-6543
Pa Wistex Corp, 1 Belmont Ave
Bala-Cynwyd .... TE 9-7086
Pa Friday Eng Sales Co, 666 Washington Rd
Pittsburgh 341-1444
Tenn A M Robinson Co, 3294 Poplar Ave
Memphis 327-5535
Tenn Tenn Instrumentation Co, Box 627
Kingsport 246-8581
Tex Hatfield & Co, Box 19147, Houston ..... HO 8-1138
Tex Kreiner Sales Co, Box 30042, Dallas .... FL 1-3886
Wash Electro-Power Corp, N 104 Madelia
Spokane 535-2931
Wis Irvin I Aaron & Assoc, Inc, 829 N Marshall
Milwaukee .... BR 6-8515
Holl N V Zoetmulder & Van Winkel
Laan Van Meerdervoort 756
The Hague 070-39 34 18
SAfr Cutler Hammer Igranic Ltd, Box 89
Wadeville 34-4381/7

B & W ELECTRONIC RESEARCH LABS
10807 ROYAL PARK, DALLAS
TEX, 75230 .... 214 EM 3-4619
N BROWN, EMP 18, ENG 8

BY-BUK CO, 4326 W PICO BLVD, LOS ANGELES
CAL, 90019 .... 213 937-3511
EMP 25, ENG 2, $500-$1,000M

BYTREX INC, 223 CRESCENT ST, WALTHAM
MASS, 02154, TWX 710 324-6988 ...... 617 899-5600
M GREEN, EMP 80, ENG 12, $1,000-$2,500M
Ala Physimetrics Inc, Box 4108 Farley Sta
Huntsville 881-4965
Cal H A Nielsen, 2540 Page Dr
Altadena 213 681-2000
Colo Aztec Enterprises Inc, 3385 S Bannock
Englewood 761-0101
Fla Physimetrics Inc, 999 Woodcock Rd
Orlando 841-4956
Ga Physimetrics Inc, 3376 Peachtree Rd NE
Atlanta 237-8278
Md Brimberg Assoc, 814 Thayer Ave
Silver Spring 588-7790
Mass Andruss-Peskin Corp, Box 268, Natick 653-3919
Mich Anderson Electronics, 19471 James Couzens Hwy
Detroit 342-7133
Mo Kemp Engineering, 9322 Manchester Rd
St Louis 968-0300
NJ Bonn Assoc, 266 Lake St, Metuchen 549-9573
NM Aztec Enterprises Inc, 52068 Constitution NE
Albuq 268-6421
NY Alpha Co, Box 282, Buffalo 854-4121
NY Bonn Assoc Inc, 9 Ridge Dr
Huntington Station 516 427-4328
Ohio Measurement Instr Inc, 2074 Arlington Ave
Columbus 488-9753
Ohio Measurement Instr Inc, Cleveland 333-6611
Pa Measurement Instr Inc, Pittsburgh 793-0202
Tex Kemp Engrg Co, 2618 Manana Dr
Dallas 357-6663
Tex Kemp Engrg Co, 6001 Gulf Frwy
Houston 928-5426
Tex Kemp Engrg Co, 102 W Rector Rm 207
San Antonio 344-1841
Can Douglas Randall Ltd, 126 Manville Rd
Scarborough Ont 751-7911
Can Douglas Randall Can Ltd, 1253 McGill College Ave
Montreal 2 P Q 861-0562
Fr J P B, 11 Rue Marious Franay
92 Saint Cloud 825-95-58
GB Electro Mechanisms Ltd, 218 Bedford Ave
Slough .... Slough 27242-9

CABLE ELECTRIC PRODUCTS INC, 234 DABOLL ST
PROVIDENCE
R I, 02907, TWX 92-7766 .... 401 781-5400
F SCHWARTZ, EMP 380, ENG 10, $5,000-$10,000M
Cal Stan Tickle Co, 668 S Santa Fe Ave
Los Angeles .... MA 4-7663
Cal Drath Jacobs Co, 1775 Folsom St
San Francisco 415 431-5792
Colo Allen B Carpenter Co, 67 Wazee Market
Denver .... KE 4-0283
Fla S C Steinharter, 340 1/2 47th St N, St Petersburgh
La Al Levin & Assoc Inc, Box 52075
New Orleans 524-8489
Mass Associated Agencies, 330 Congress St
Boston 426-8651
Minn Heimann Co, 5603 Lyndale Ave S
Minneapolis .... FE 2-5457
Mo Al Mayer & Co, 6376 Clayton Rd
St Louis .... MI 5-7618
NY Ted Marks, 15-20 202nd St
Bayside, Queens .... BA 5-1145
NY Sol L Prager, 333 Council Rock Ave
Rochester .... CH 4-8526
Ohio Tri-State, 3877 Bethany Rd, Cleveland ... YE 2-0728
Ore Reid Pacific Co, 1104 NW 15 Ave
Portland 503 228-6255
Pa E A Moraux, 4051 N Warner Rd
Lafayette Hill .... TA 8-7597
Pa S Fineberg, 2421 Smallman St
Pittsburg 412 362-3742
Tenn C C Apffel, 4433 E Brookfield Dr
Nashville .... CY 2-9895
Tex W H McAdams Co, 2720 W Mockingbird
Dallas .... FL 2-1551
For Harry Hyman & Son, 254 W 54th St
New York .... CI 7-1726

CABLE ELECTRONICS, 601 NEW PARK AVE
WEST HARTFORD, CONN, 06110 .... 203 232-8893
E FARRAH, EMP 2, ENG 1, UP TO $100M

CABLEMASTER DIV ACCURATE ELCTNS CORP
13215 LEADWELL ST, NORTH HOLLYWOOD
CAL, 91605 .... 213 875-0500
R MULLEN, EMP 75, ENG 5, $1,000-$2,500M
Ala Roy Attaway Co, 900 Bob Wallace Ave SW
Huntsville 534-2811
Cal Cablemaster Sales, 2366 E Foothill Blvd
Pasadena .... MU 1-4511
Cal H F Dougherty Assoc, 4631 Corona Dr
San Jose 253-2181
Fla Roy Attaway Co, 57 E Robinson St
Orlando 424-9983
Fla Roy Attaway Co, 1325 N Atlantic Ave
Cocoa Beach 783-5654
Iowa Engineering Services Co, 1026 Third Ave SE
Cedar Rapids 366-1591
Kan Engineering Services Co, 7924-A Stateline
Prairie Village 649-4000
Md Naudain Assoc, Box 1, Lutherville 252-5378
Mich Electro Enterprises Inc, 10745 Morang Dr
Detroit 886-2280
Mo Engineering Services Co, 6717 Vernon Ave
St Louis 726-2233
NJ Hansen Assoc, Box 339, Ridgewood 652-7055
NC Roy Attaway Co, 614 Nissen Bldg
Winston-Salem 722-9671
Ohio Electro Enterprises Inc, 335 E 200th St
Cleveland 486-7040
Ohio Electro Enterprises Inc, 2621 Mardon Dr
Dayton 426-6071
Pa Naudain Assoc, 1032 Suburban Sta Bldg
Philadelphia 564-3194
Pa Electro Enterprises Inc, 201 Penn Ctr Blvd
Pittsburgh 371-8497
Tex Brice Co, Box 13150, Houston 526-3197
Va Naudain Assoc, Box 254, Lynchburg 846-8044
Wash Paratech, Box 5427, Seattle 783-3900

CABLERIE CHARBONNET
28 RUE DENFERT-ROCHEREAU, LYON 4
FRANCE 29-84-79
J PIOLAT, EMP 45, ENG 1, UP TO $100M

CABTRON CORP, 1057 W GRAND AVE, CHICAGO
ILL, 60622 .... 312 829-4282
D FURY, EMP 100, ENG 3, $100-$250M
Ala NBS Inc, Box 1343, Huntsville 205 881-3175
Ariz Brooks Feeger Assoc, 4710 N 16th St
Phoenix 602 624-6536
Cal Wieler & Co, 10842 S Paramount Blvd
Downey 861-9223
Cal Scott Davis Co, 1 First St
Los Altos 415 948-7472
Colo Brooks Feeger Assoc, 1309 S Inca St
Denver 303 744-3301
Conn E E Specialists, Inc, 281 Vera Rd
Bristol 249-3336
Fla NBS Inc, 2813 Primrose Ct
Orlando 305 423-4856
Haw Dougherty Enterprises, 1164 Waimanu St
Honolulu 504-987
Ill Cabtron Corp, 1057 W Grand
Chicago 312 829-4282
Md Ansell Engineering, 816 Thayer Ave
Silver Spring 588-4222
Mass E E Specialists, Inc, Box 956
West Acton 259-9200
Minn Engineering Prods Assoc, 2110 Grand Ave
St Paul 612 698-5531
NJ Sonco, Crystal Brook Prof Bldg
Eatontown 542-1441
NM Brooks Feeger Assoc, 1238 Ortiz SE
Albuquerque 505 268-4387
NY Harvey J Krasner Assoc, Inc, 33 Great Neck Rd
Great Neck .... HU 7-0690
NY R P Kennedy Co Inc, 30 Saginaw Dr
Rochester 716 271-6322
Pa Sonco, 107 Town Ctr Rd
King of Prussia 265-3250

Pa Sonco, Park Pl Office Bldg, Camp Hill 761-0577
Tex Dannemiller-Smith Inc, 2720 W Mockingbird Dallas 214 357-8247
Tex Dannemiller-Smith Inc, 5760 Rice Ave Houston 713 668-4461
Wash Associated Industries, 3711 S Hudson Ave Seattle .... PA 3-5600

CADDELL BURNS MFG CO INC, 40 E 2ND ST, MINEOLA
N Y, 11501 .... 516 PI 62310
R CADDELL, EMP 30, ENG 3, $250-$500M
ADV PG 162, 163
NY Lloyd Hart Assoc Inc, Box 8398 Rochester .... CH 4-3253

CADDOCK ELECTRONICS INC, 3127 CHICAGO AVE
RIVERSIDE, CAL, 92507 .... 714 683-5361
R CADDOCK, EMP 55, ENG 2, $250-$500M
Ariz Toward Engrg Assoc, 4240 E Clarendon Phoenix 955-3193
Cal Richard Cappell Co, 18376 1/2 Ventura Blvd Tarzana 987-2233
Mass Samuel C Hooker, Inc, 2 Winchester Pl Winchester 729-5482
Minn Fred B Hill Co, 6110 Excelsior Blvd Mnpls 929-6727
NY Rywel Sales Co Inc, 100 N Village Ave Rockville Ctr .... RO 4-2666
Tex Southwest Electronics, 3903 Richmond Ave Houston .... MO 6-2401
Tex Unidyne Inc, 5700 Savoy La Houston 713 542-3060
For Madison Overseas Inc, 433 Liberty St Schenectady, N Y 372-5841

CADILLAC GAGE CO, 25760 GROESBECK HWY
WARREN, MICH, 48089 .... 313 777-7100
J PENNELL, EMP 500, ENG 25, OVER $10,000M
Cal Cadillac Gage Co, 1866 Whittier Costa Mesa .... MI 6-2491
NJ Harold Burkart, 40 Highland Dr West Caldwell .... CA 6-1730

CADILLAC PLASTIC & CHEMICAL CO
15111 SECOND AVE, DETROIT
MICH, 48203 .... 313 869-9500
W BENKELMAN, EMP 1000, ENG 28, OVER $10,000M
Ariz Cadillac Plas & Chem Co, 1152 E Indian School Rd Phoenix 264-5201
Cal Cadillac Plas & Chem Co, 2305 W Beverly Blvd Los Angeles .... DU 5-3001
Cal Cadillac Plas & Chem Co, 313 Corey Way S San Francisco 761-0740
Cal Cadillac Plas & Chem Co, 949 E 11th St Oakland .... TE 6-0474
Cal Cadillac Plas & Chem Co, 1721 S Raymond Anaheim .... TR 1-6400
Cal R C Johnson, 318 16th St San Diego 714 239-9376
Ga Cadillac Plas & Chem Co, 1500 Caroll Dr, NW Atlanta 355-0950
Ill Cadillac Plas & Chem Co, 727 W Lake St Chicago .... FI 6-7900
Ill Cadillac Plas & Chem Co, 104 W State St Rockford 963-9977
Ill Cadillac Plas & Chem Co, 3322 N Alta St Franklin Park 312 455-7100
Ind Cadillac Plas & Chem Co, 825 S Meridian Indianapolis .... ME 9-5343
La Martin Light, 2605 Ridgelake Dr New Orleans 504 834-6222
Md Cadillac Plas & Chem Co, 4300 E Monument Baltimore .... EA 7-4200
Mass Cadillac Plas & Chem Co, 269 McGrath Hwy Boston 666-8840
Mich Cadillac Plas & Chem Co, 3015 S Division Grand Rapids .... GL 2-6926
Mich J DeMaria, 2501 S Dort Hwy, Flint .... CE 8-0411
Minn Cadillac Plas & Chem Co, 1607 S Hennepin Minneapolis .... FE 9-9741
Mo Cadillac Plas & Chem Co, 8680 Olive St St Louis .... WY 1-1790
Mo Cadillac Plas & Chem Co, 1517 Grand Ave Kansas City .... GR 1-0500
NJ Cadillac Plas & Chem Co, 1761 Edgar Rd Linden 925-8900
NJ M Kosowsky Jr, W Grove Industrial Pk Camden 609 456-8001
NY Cadillac Plas & Chem Co, 295 Buell Rd Rochester .... BE 5-2260
NY Cadillac Plas & Chem Co, 126 S Elmwood Buffalo 852-4777
NY Cadillac Plas & Chem Co, 3521 Vernon Blvd Long Island City .... RA 1-8484
NC Cadillac Plas & Chem Co, 3100 South Blvd Charlotte 523-7880
Ohio Cadillac Plas & Chem Co, 3918 Red Bank Rd Cincinnati .... BR 1-2780
Ohio Cadillac Plas & Chem Co, 1502 Monroe Toledo 244-6757
Ohio Cadillac Plas & Chem Co, 4533 Willow Pkwy Cleveland 441-2200
Ohio Cadillac Plas & Chem Co, 30 N Summit Akron .... FR 6-8121
Ohio Cadillac Plas & Chem Co, 737 W Federal Youngstown 746-6577
Ohio Cadillac Plas & Chem Co, 374 W Spring St Columbus 228-6991
Okla Cadillac Plas & Chem Co, 810 S Sheridan Tulsa .... TE 5-9926
Tex Cadillac Plas & Chem Co, 2546 Irving Blvd Dallas .... ME 1-4460
Tex Cadillac Plas & Chem Co, 1400 Henderson Ft Worth .... ED 2-4421
Tex Cadillac Plas & Chem Co, 5031 Gulf Frwy Houston .... WA 3-2761
Wash Cadillac Plas & Chem Co, 2427 6th Ave S Seattle .... MU 2-7252
Wis Cadillac Plas & Chem Co, 517 N Broadway Milwaukee 276-9700
Can Cadillac Plas & Chem Co, 15 Mobile Dr Toronto 16, Ont 751-4212
Can R BERTRAND, 736 Renaud Ave Montreal Que 514 636-4876

CAE INDUSTRIES LTD, MBOX 6166, MONTREAL 3
QUE 631-6781
R KEMERER
NY Oneida Electronics Inc, 805 Court St Utica 736-5247
Ger CAE Electronics GMBH, 519 Stoberg/RHLD Schudstrasie .... Sto 3033

CAELUS MEMORIES INC, 967 MABURY RD, SAN JOSE
CAL, 95133 .... 408 298-7080
T SCHOLTEN, EMP 150, ENG 16, $5,000-$10,000M
Cal B E Colegrove, 1290 Bayshore Hwy Burlingame 415 347-2531
Cal G Toor, 2736 W Orangethorpe Fullerton 714 525-5317
Ga D P Jones, 3390 Peachtree Rd NW Atlanta 404 233-2244
Ill F G Becker II, 21 N Skokie Hwy Lake Bluff 312 234-9050
Md W J Lally, 4400 East West Hwy Bethesda 301 654-0883
NY R L Rosato, 350 Broadway, N Y 212 925-4940
Belg Conrad C Kohlheyer, 19 av Yvan Lutens, Brussels 15

CAIG LABS INC, 155 SULLIVAN LANE, WESTBURY
N Y, 11590 .... 516 742-0278
O LOHKEMPER, EMP 16, ENG 2, $100-$250M
ADV PG 151
Cal P Dooley Co, 18826 Devonshire St Northridge 360-2231
Fla J V Demarest, Box 787, Deland 734-0883
Ill J Clark, 501 W Hellen Rd, Palatine 358-5095
Mass L J Maroni Assoc, 15 Arbetter Dr Framingham 617 785-5414
Mich Stoner Tech Sales, 19896 Kelly Rd Harper Woods 371-6000
Pa Reese Engrg Sales, Box 600, Paoli 215 644-8717
Wash United Power & Control Sys Inc, 431 N 34 St Seattle .... 206 ME 2-8425

CALABRO PLASTICS INC, 8738 WEST CHESTER PIKE
UPPER DARBY, PA, 19082 .... 215 789-3820
A CALABRO, EMP 15, ENG 2
ADV PG 330, 555

CALBEST ELECTRONICS, 4801 EXPOSITION BLVD
LOS ANGELES, CAL, 90016 .... 213 731-7291
I DUBIN, EMP 100, ENG 6

CALCON MFG CORP, 100 OAKLAND AVE
WASHINGTON, PA, 15301 .... 412 222-8190
D HASTINGS
Ark Dick Bellew Sales, Inc., Box 1835 El Dorado .... 501 UN 3-8325
Cal Marshank Sales Co, 7422 Melrose Ave Los Angeles 938-2591
Cal Logan & Logan Co, 703 Woodside Rd Redwood City 365-1303
Colo McLoud & Raymond Co, 2151 S Grape St Denver 756-1589
Fla John F Thompson Co, 322 Riverside Dr Ormond Beach .... 904 OR 7-2298
Fla John F Thompson Co, N Indian River Dr Jensen Beach 305 287-0198
Ga Dixie Electronic Sales, Box 107 Alpharetta 404 475-7833
Ill Mike Bermann Sales, 8631 E Prairie Rd Skokie .... 312 OR 5-3740
Ill Knaggs, Collins, Havercamp, Hempe, 3 Bank Sq East St Louis 816 453-3203
Ind Shamrock Electronic Sales, 2511 E 46th St Indianapolis 317 251-7669
La Dick Bellew Sales, 3017 D 18th St Metairie 833-6496
Md Brothers & Conneen Assoc, 6302 Lincoln Ave Baltimore 301 754-7189
Mass W A Hendrickson Co, 766 Country Way North Scituate 545-0652
Mich Central Electronic Sales, 19217 Fairport Detroit .... LA 6-5841
Minn Stan Olsen & Assoc, 6121 Excelsior Blvd Minneapolis 929-6121
NY Paston-Hunter Co, 2002 Teall Ave Syracuse 315 437-2992
NY Marty Bettan Sales, 77-15 164th St Flushing .... 212 OL 7-6659
Ohio Shamrock Electronic Sales, 1755 W Market St Akron 216 864-3090
Pa R Tanner Co, 486 Broadmoor Ave Pittsburgh 561-4687
Pa Brothers & Conneen Assoc, 131 Harned Rd Springfield 215 543-8641
Tenn Dixie Electronic Sales, 109 Webster St Madison 615 895-5666
Tex Hays Company, 777 S Central Expwy Richardson .... AD 1-1426
Wash Ron Merritt Company, 1320 Prospect St Seattle 682-7337
Can Allwyn Sales Co, Ltd, 27 Claremont Ave Winnipeg Mani
For E D Magnus & Assoc, 5715 N Lincoln Ave Chicago, Ill 334-1503

CALCOR SPACE FACILITY INC, 1010 W PHILADELPHIA
WHITTIER, CAL, 90601 .... 213 RA 3-0211
J LONGCRIER, EMP 250, ENG 10, $2,500-$5,000M

CALCULAGRAPH CO, 272 RIDGEDALE AVE, HANOVER
N J, 07936 .... 201 TU 7-5000
H SMITH, EMP 100, ENG 10

CALEDONIA ELECTRONICS & TRANSFORMER DIV
MAPLE ST, CALEDONIA
N Y, 14423, TWX 510 254-0422 .... 716 538-4423
W HARRINGTON, EMP 250, ENG 12, $2,500-$5,000M
NY Sweeney Engineering Sales, 149 Morris Dr East Meadow

CALFONEX INC, 166 COOLIDGE AVE, ENGLEWOOD
N J, 07631, TWX FBM 201 567-5190
EMP 25, $250-$500M
ADV PG 141
Cal Western Port Sales, Box 77121 San Francisco 415 626-7103
Cal N Roberts, 343A Hill St San Francisco 415 648-2500
Fla J Williams, Box 1204, Coral Gables
Haw B Nakayama-Materials Scientific 1238 Kaumualli St, Honolulu
Ill C W Hamm, Box 97, Roselle 312 529-5027
Kan B Holland, 9101 El Monte St, Prairie Village
Mass William Nussbum, 8 Warren Pl Framingham 617 272-3411
Mass Hornsby & Thorndyke Assoc 323 Turnpike St Rte 138, Canton 617 522-3271
Minn J Polski, 602 Morgan Ave S Minneapolis 612 374-1888
NJ H Black, 1011 E Cherry Hill Apts Cherry Hill 609 662-9494
NJ A Emery, 56 Hillcrest La, Willingboro
Pa Ralph Wilcox, RD 6, Butler 412 586-7224
Tex William Lindsey, 1228 Ridgley Dr, Houston
Tex Industrial Specialties Corp, 3132 Bryan Ave Forth Worth .... 817 WA 6-2651
Can Edward J Hates Co Ltd, 77 Metcalfe St Ottawa 4 Ont 613 232-8413
For Pablo Torres Gregori, Box 450, Hato Rey, PR
Fr ATMOS, 84 Rue Michel Carre 95 Argenteuil .... S et O
Ger C Bosenberg, Hamburg Blankenese, Wittland 44F

CALIFORNIA CHASSIS CO, 5445 E CENTURY BLVD
LYNWOOD, CAL, 90262 .... 213 636-9931
F GONZALES, EMP 65, $500-$1,000M
Cal Wes Alderson Co, 8548 Washington Blvd Culver City .... UP 0-1030
Cal Logan Sales Co, 463 Brewster St Redwood City 369-6726
Colo Nelson Co, 1294 S Bannock, Denver 733-5528
Fla W F Hemminger, Box 2506 Port Charlotte 813 625-6050
NJ Steve Fisher Sales, 121 Cedar La Teaneck 836-6661
NM Nelson Co, Box 938, Albuquerque
Tenn Dixie Elctns Assoc Inc, 102 Webster St Madison .... TW 5-5666
Tex Branum Co, 747 Sherman St Richardson .... 214 AD 1-6148
Utah Nelson Co, Box 1871, Salt Lake City

CALIFORNIA COMPUTER PRODUCTS INC
305 MULLER AVE, ANAHEIM
CAL, 92803, TWX 910 591-1154 .... 714 774-9141
R MARK, EMP 700, ENG 66, OVER $10,000M
Ala Calif Computer Prods, 2407 S Memorial Pkwy Huntsville 536-6677
Cal Calif Computer Prods, Inc, 455 Mathew St Santa Clara
Fla Calif Computer Prods, Inc, 4454 Central Ave St Petersburg
Ill Calif Computer Prods, Inc, 9501 Devon Ave, Chicago
Md Calif Computer Prods, Inc, 12345 Parklawn Dr Rockville
Mich Calif Computer Prods, Inc, 17000 WEight Mile Rd Detroit
NM Data Handling Co, 209 San Pablo, SE, Albuquerque
Ohio Calif Computer Prods, Inc, 6403 Longford Rd, Dayton
Ohio Calif Computer Prods, Inc, 21010 Center Ridge Rd Cleveland
Wash Calif Computer Prods, Inc, Joseph Vance Bldg Seattle
Can Computrex, 2000 Elreden House Calgary, Albe .... AM 3-1190
Fr Tranchant Electronique S A 19, rue Madame de Sanzillon, Clichy Seine
Ger Dipl-in Ernst Klevers, Lerchenstr 29 4 Dusseldorf-Oberkassel
Holl Algemeene Nederlandsche Radio Unie N V Wijnhaven 36, Rotterdam
Holl Algemeene Nederlandsche Radio Unie N V Wijnhaven 36, Rotterdam
Ital Fab Elettrotecniche Riunite Sezione misure e regolazioni viale Monza 270 Milan
Swed Tel Inter AB, Filipstadsbacken 48, Farsta 1
Isrl Eastronics Ltd, 75, Haifa Rd, Tel Aviv
Neth Callomp N V, Nieuwe Herengracht 91, Amsterdam
Aust R J T Payne Pty Ltd, 385 Bridge Rd, Richmond, Vic

CALIFORNIA ELECTRONIC MFG CO INC, BOX 555
ALAMO, CAL, 94507 .... 415 932-3911
S CUFF, EMP 15, ENG 4
Ala Currie Aerospace Assoc, Box 1424
Huntsville 536-5650
Fla Currie Aerospace Assoc, Box 13229
Orlando 855-0843
NY Donegan-Ross Co, Box 124, Chappaqua ... 238-8619
NY Donegan-Ross Co, 120 W John St
Hicksville 433-1940
Ohio L D Bruno Co, Box 2044 Kettering Br, Dayton
Tex Applied Engineering Sales, 1st Bank & Trust Bldg
Richardson 231-1322
Wash James D Sparks, 1716 NE 65th
Seattle 522-8183
Den K S Kaalund, Bueager 4, Trorod

CALIFORNIA ELECTRO-SCIENTIFIC CORP
2203 S GRAND AVE, SANTA ANA
CAL, 92705 714-546-9550
A BARANOFF, EMP 17, ENG 7, $500-$1,000M
Ala Lee Assoc, Inc, 5R Traylor Is
Huntsville 539-0761
Cal Control Devices Pacific, Inc, 1485 Bayshore Dr
San Francisco 467-2270
Fla Lee Assoc Inc, 200 E Marks St, Orlando .. 241-4445
Md Lee Assoc Inc, 12250 Wilkins Ave
Rockville 949-4800
Mass K C Stevens & Co, 442 Marret Rd
Lexington 862-1812
NY Travco Assoc Inc, 142 Mineola Ave
Roslyn Hts 487-9666
NY Good Counting Instr Co, 17 High Park Blvd
Buffalo 834-3333
NC Lee Assoc Inc, 829 Burke St
Winston-Salem 724-2406
Can Whittaker Elctns Ltd, 42 Howden Ave
Ottawa, Ont 224-1221
Can Whittaker Elctns Ltd, 1885 Wilson Ave
Weston, Ont 247-7454
Can Whittaker Elctns Ltd, Box 216
Roxboro, Que 684-3000
BC Whittaker Elctns Ltd, 1144 Millstream Rd
W Vancouver, B C 926-3411

CALIFORNIA FINE WIRE CO, 390 MANHATTAN
GROVER CITY, CAL, 93433 .... 805 489-5144
M GREENELSH, EMP 10, ENG 1, UP TO $100M
Cal Mar-Land Enterprises, Box 101, Arcadia ... 681-9440

CALIFORNIA INSTRUMENTS CORP, 3511 MIDWAY DR
SAN DIEGO, CAL, 92110 .... 714 224-3241
R APPLIN, EMP 35, ENG 3, $500-$1,000M
Ala Technical Assoc, Inc, Box 4088
Huntsville 881-8494
Ariz Bishop Enterprises, Box 5378
McDowell Station .... Phoenix
Cal Dale-Dahl RDP Instr, 999 Commercial St
Palo Alto 415 328-6666
Cal Dale-Dahl/RDP Instr, Box 2145
Fair Oaks 916 967-8284
Cal Dale-Dahl/RDP Instr, 1338 S Atlantic Ave
Los Angeles 213 263-9441
Cal Dale-Dahl/RDP Instr, 16000 Ventura Blvd
Encino 213 788-7963
Cal Dale-Dahl/RDP Instr, Box 10449
San Diego 714 224-3521
Colo Bishop Enterprises, 493 Jamaica
Aurora 364-7361
Conn Instrument Consultants, Inc, 2381 Whitney Ave
Hamden 248-4174
Fla Technical Assoc, Inc, 2319 E South St
Orlando 424-5681
Ill Systems Engrg Assoc, 6253 Milwaukee Ave
Chicago 312 774-1452
Ind Systems Engrg Assoc, 1010 E 86th St
Indianapolis 846-2593
La Technical Assoc, Box 731, Slidell 504 288-7122
Md S & S Assoc, 7720 Wisconsin Ave
Bethesda 301 654-2420
Mass Instrument Consultants, Inc, Box 25
Waban 969-9881
Mich Elias Electronics, 26817 W 7 Mile Rd
Detroit 313 255-2111
Minn Systems Engrg Assoc, 3040 Snelling Ave
Minneapolis 612 881-6386
Mo Harris-Hanson Co, 2814 S Brentwood Blvd
St Louis 647-4350
Mo Harris-Hanson Co, 7916 Paseo Blvd
Kansas City 816 444-9494
NJ Data-Rep Assoc, Inc, Box 645
Ridgewood 447-0660
NJ Tak Instrument Assoc, Box 226
Palisades Park 201 944-3337
NM Bishop Enterprises, 601 San Pedro, NE
Albuquerque 255-9042
NY Labronics, Inc, 130 Pickard Bldg
Syracuse 454-9314
NY Data-Rep Assoc, Inc, Box 164
Huntington Sta, L I 423-7677
Ohio Instrumentations Systems, Inc, 3481 Office Park Dr
Dayton 216 442-4470
Pa Data-Rep Assoc, Inc, Box 349
Norristown 279-8210
Pa Essay Sales Assoc, 201 Penn Center Blvd
Pittsburgh 412 242-5151
SC Technical Assoc, Box 5583
Spartanburg 803 585-3864
Tex Noakes Engrg, Box 968, Irving 214 255-0441
Tex Noakes Engrg, Box 36258, Houston .. 713 529-6213
Va Nine Assoc, Box 328, Annandale 703 256-9105
Wash ARVA, Inc, 1320 Prospect St, Seattle 622-0177
Wis Systems Engrg Assoc, Box 526
Waukesha 414 782-3388

Can Electromechanical Products, Markham Rd
Agincourt, Ont .... AX 3-7011
For B Freudenberg Inc, 50 Rockefeller Plaza
New Yor, N Y .... PL 7-9130

CALIFORNIA MICROWAVE, 1188 ELKO DR
SUNNYVALE, CAL, 94086 .... 408 734-3000
A KENRICK, EMP 19, ENG 8, $250-$500M
Cal Smith & Assoc, Union Bank Sq
Orange 714 541-2629
Md Brimberg Assoc, 814 Thayer Ave
Silver Spring 301 588-7790
Tex Norvell Assoc, 10210 Monroe Ave
Dallas 214 357-6451

CALIFORNIA SYSTEMS COMPONENTS, INC
9176 INDEPENDENCE AVE, CHATSWORTH
CAL, 91311 .... 213 341-1050
G BECK, EMP 21, ENG 6, $1,000-$2,500M
Cal M L Rogers, 10612 Ridgeway D
Santa Ana 714 838-8220
Tex IBL Engrg & Sales Inc, 219 Preston Royal Ctr
Dallas .... EM 3-2921
Va G N Beck, 5623 Southampton Dr
Springfield 461-7086

CALLINS INDUSTRIES INC, BOX C, GREENFIELD
TENN, 38230, TWX 810 590-3779 ...... 901 235-2234
E ESLICK, EMP 824, ENG 5

CALOWA ELECTRONICS, 295 EDGEWOOD DR
PACIFICA, CAL, 94044 .... 415 756-1191
D MCCORMICK, EMP 2, ENG 2, UP TO $100M

CALMA CO, 346 MATHEW ST, SANTA CLARA
CAL, 95050 .... 408 244-0960
R SMITH, EMP 45, ENG 10, $1,000-$2,500M
Ala Lee Assoc, 5R Taylor Island
Huntsville 205 539-0761
Cal Dynamic Assoc, 1011 Cadillac Way
Burlingame 415 344-2521
Cal Dynamic Assoc, 5190 W Washington Blvd
Los Angeles 213 933-5833
Conn CALMA, 132 Broadway, Norwich 203 889-1329
Fla Lee Assoc, 200 E Marks St
Orlando 305 241-4445
Ill Cain & Co, 1203 Ironwood Dr
Mt Prospect 321 253-3578
Kan Kemco, Inc, 6115 E 13th St
Wichita .... 316 MU 4-8224
Mass W E Weeton Assoc, Box 77
Needham .... 617 HI 4-1012
Mich Anderson Electronics, 19471 James Couzens Hwy
Detroit 313 342-7133
NY Cain & Co, 324 First St, Liverpool ... 315 437-2933
NC Lee Assoc, 825 Burke St
Winston-Salem 919 724-2406
Ohio Cain & Co, 2485 Lipton Rd
Columbus 614 861-2119
Pa H J Heffernan Co, Box 395
Fort Washington .... 215 VE 6-4411
Tex Kemco, Inc, 6440 Hillcroft Blvd
Houston 713 771-1291
Tex Kemco, Inc, 2520 Irving Blvd
Irving .... 214 ME 7-0163
Utah Arrowhead Sales Corp, 1966 W 6255 S
Salt Lake City 801 298-2751
Va H J Heffernan Co, 1123 N Irving St
Arlington .... 703 JA 2-6666
Wash Data Rep Assoc, 8611 N E 133rd St
Kirkland .... 206 VA 2-4688
Wis Arthur Engrg Sales Co, 10720 W Scharles Ave
Hales Corners 414 425-5919

CALMONT WIRE & CABLE INC, 420 E ALTON ST
SANTA ANA, CAL, 92707 .... 213 625-1835
W SLIFF, EMP 30, ENG 4, $1,000-$2,500M
Cal John J Colbert Co, 2501 Via Vista, La Jolla
Cal Special Products Inc, 808 San Antonio Rd, Palo Alto

CAL-POWER CORP, 140 KANSAS ST, EL SEGUNDO
CAL, 90245, TWX 910 348-6678 .... 213 322-5320
D HARNEY, EMP 110, ENG 7, $1,000-$2,500M
Ala Currie Aerospace Assoc, Box 1424
Huntsville 536-5650
Fla Currie Aerospace Assoc, Box 13229
Orlando 855-0843

CALTRON INDUSTRIES, 2015 SECOND ST, BERKELEY
CAL, 94710 .... 415 548-1966
R WERSEN, EMP 7, ENG 1, UP TO $100M

CALTRON PRODUCTS CO, 3518 W PICO BLVD
LOS ANGELES, CAL, 90019 .... 213 734-2420
T PEDERSON, EMP 6, ENG 2, UP TO $100M

CAMBRIDGE FILTER CORP, 7645 SEVENTH NORTH RD
CAMBRIDGE PLATING CO INC, 39 HITTENGER ST
BELMONT, MASS, 02178 .... 617 489-2750
S LOWELL, EMP 50, ENG 3, $500-$1,000M

CAMBRIDGE SCIENTIFIC INDUSTRIES INC
527 POPLAR ST, CAMBRIDGE
MD, 21613 .... 301 228-5111
E BRADLEY, EMP 35, ENG 4, $500-$1,000M
Ariz Carter Assoc Inc, Box 94, Scottsdale 949-0123

Cal C B Rush Assoc, 1830 W Olympic Blvd
Los Angeles 388-7111
Colo Franklin Sales Co, 2149 S Clermont St
Denver 757-1371
Ill Dave Hausten Co, 614 Arbor Ave
Wheaton 668-7312
Mass John J Goode Assoc, 44 Ledgewood
Weston 235-3900
NY B H Tollefson Assoc, 11 State St
Pittsford 381-2500
NY Everett Sales Engineering Co, 160 Plandome Rd
Manhasset 627-7750
NY B Freudenberg, Inc, 50 Rockefeller Plaza
New York 757-9130
Tex Carter Assoc, 514 S Garland Ave
Garland 276-7151
Utah Franklin Sales Co, 1415 S Main St
Salt Lake City 486-7251
Wash Harry Levinson Co, 1211 E Denny Way
Seattle 323-5100
Can E G Lomas Ltd, 227 Laurier Ave W
Ottawa, Ont 232-7106

CAMBRIDGE SYSTEMS INC, 50 HUNT ST, NEWTON
MASS, 02158 .... 617 969-6400
V CORTINA, EMP 50, ENG 15, $500-$1,000M
Ala Craft Assoc Co, Box 1053, Huntsville 837-0221
Ariz Pacific Scientific Co, 15 N 40th Pl
Phoenix 273-7464
Cal Pacific Scientific Co, 6280 Chalet Dr
City of Commerce 773-2020
Cal Pacific Scientific Co, 3235 Hancock St
San Diego 297-4533
Cal Pacific Scientific Co, 760 Harrison St
San Francisco 362-0934
Fla Craft Assoc Co, Box 6664, Orlando 425-4284
Ga Craft Assoc Co, Box 11716, Atlanta 237-2282
Kan Pacific Scientific Co, 8020 Santa Fe Dr
Overland Park 913 381-2600
Mo Pacific Scientific Co, 11771 Natural Bridge Rd
Bridgeton 314 291-2440
NJ E C Smith & Assoc, 797 Springfield Ave
Summit 273-8881
NM Pacific Scientific Co, 209 San Pablo, SE
Albuquerque 265-6638
NY E C Smith and Assoc, 60 E 42nd St
New York 682-6890
NY E C Smith & Assoc, 941 Granite Bldg
Rochester 546-5090
Ohio Space Assoc, 1717 Section Rd
Cincinnati 631-0402
Ore Pacific Scientific Co, 1218 SE 7th Ave
Portland 234-9747
Pa Roberts Engrg Sales Co, Box 9, Radnor ... 688-6525
Tex Merit Co, 10110 Monroe, Dallas 352-8040
Wash Pacific Scientific Co, 8915 14th Ave, S
Seattle 624-3490
Wis Process Msmt & Control Co, Box 7292
Milwaukee 774-3290
Can Willer Engrg & Sales Co, 1800 Avenue Rd
Toronto, Ont 783-3373
For Ad Auriema, Inc, 85 Broad St
New York, N Y 269-7750

CAMBRIDGE THERMIONIC CORP, 445 CONCORD AVE
CAMBRIDGE
MASS, 02138, TWX 617 449-9162 ...... 617 491-5400
W NOWLIN, EMP 495, ENG 10
Ariz Barnhill Assoc, 4900 E Indian School Rd
Phoenix 959-2115
Cal Melvin Sales Co, 113 El Camino Real
Millbrae 697-6922
Cal Cambridge Thermionic Corp, 8703 La Tijera Blvd
Los Angeles 776-0472
Colo Barnhill Assoc, 1170 S Sheridan
Denver 934-5505
Fla G F Bohman Assoc, 7040 Lake Ellenor Dr
Orlando 855-0274
Ill Jay C Angel & Co, 2743 Peterson Ave
Chicago 878-0653
Iowa Thomas & Modrcin Assoc, 890 17th Ave
Marion 377-6261
Kan Thomas & Modrcin Assoc, Box 189
Shawnee Mission 432-2131
Mich Arthur H Baier Co & Assoc, 76 Klinger Lake Rd
Sturgis 651-7064
Minn Fred B Hill Co, 6110 Excelsior Blvd
Mnpls 929-6727
Mo Thomas & Modrcin Assoc, 47 Village Sq
Hazelwood 838-6446
NM Barnhill Assoc, 827 Pennsylvania NE
Albuquerque 505 265-7766
NY ERA Inc, 330 Great Neck Rd
Great Neck 482-9320
NY Floring & Murray, Box 66, Webster 244-1100
NY Floring & Murray, Inc, 6585 Kinne Rd
Syracuse 446-5555
NC Candor Co, Bethania 924-1480
Ohio Arthur H Baier Co & Assoc, 3300 S Dixie Dr
Dayton 298-9897
Ohio Arthur H Baier Co & Assoc, 4399 Industrial Pkwy
Willoughby 946-6080
Pa Kenneth B Erdman Co, 7906 Montgomery Ave
Phila 215 224-1833
Pa Covert & Newman Co, 300 Mt Lebanon Blvd
Pittsburgh 563-0303
Tex R F Kimball Co, 5531 Dyer St
Dallas 214 363-5431
Wash Bill Waddell Co, 10211 NE 31st Pl
Bellevue 206 822-0211
Can Samuel C Hooker (Can) Ltd, 2602 St Clair Ave W
Toronto, Ont 767-7725
Can Samuel C Hooker (Can) Ltd, 144 Ronald Dr
Montreal, Que 488-9114
Den Scandinavian Semiconductor Supply AS
59 Thorsgade, Copenhagen

Fr Techmation, 113, Rue Lamarck, Paris.... BAT 14-02
Ger Techmation GbmH, Bilker Str 12, 4 Dusseldorf
GB Cambion Electronic Prods Ltd
Castleton nr Sheffield.......... HOPE 406
Holl Techmation, NV, Keizersgracht 522, Amsterdam C
Ital Centro Ital Comp Elettronici, Via E Ximenes 3
Rome 803 800
Nor J M Feiring, A/S, Box 4376, Torshov
Oslo 4 .... 21 82 12
Swed AB Rectronic Inc, Margretelundsvagen 17
Stockholm 24-61-60
Swit W Blum Electronics, Honggerstr 115
Zurich .... CH -8037
Belg Techmation, 189-191 rue de la Victoire, Bruxelles
Ind Forbes Campbell & Co Ltd, Home St
Bombay 268081
Mex Distrimex, SA, Box 60-506, Mexico 18, DF
Spn S A C H I, Fuentes 13, Madrid
Aust General Eletn Services Pty Ptd, 5 Ridge St
N Sydney, NSW

CAMBRIDGE WIRE CLOTH CO, CAMBRIDGE
MD, 21613, TWX 510 642-2311 .... 301 228-3000
J HANSON, EMP 300, ENG 5, $5,000-$10,000M
Cal J Yarber, 2072 W Manchester Ave
Los Angeles.......... 750-6717
Cal Leslie Moody, 420 Market St
San Francisco 986-4503
Ga Wm P Edmondson, 174 W Wieuca Rd NE
Atlanta 252-1332
Ill H Claycombe & A C Dolce, 425 E 164th St
South Holland 333-1343
Kan Andrew J Lutz, 7009 W 81st St
Overland Park .... NI 2-4677
Md J Ben Coster, 506 Washington Ave
Towson.......... 823-9211
Mass Jim Shuttleworth, 230 Main St
Stoneham.......... 438-1616
Mich Richard C Carmean, 2338 Dime Bldg
Detroit 961-4134
NJ K Patchett, 1156 E Ridgewood Ave
Ridgewood.......... 652-4747
NY J C Peters, 429 White Plains Rd
Eastchester .... WO 1-3300
Ohio R D Reinersman, 8613 Winton Rd
Cincinnati.......... 729-1787
Pa Robert J Adams, 3450 Babcock Blvd
Pittsburgh.......... 931-0515
Pa J L McCandless, 5205 Webb St
Aliquippa .... ES 5-6229
Pa C Weaver, Box 137, Souderton 723-9515
Tex N R Bumpers, 7009 Long Dr, Houston ... MI 4-4364
Va G Stephenson, 1004 Lakewater Dr
Richmond 282-7372
Can R D Travers, 1 Duke St, Hamilton, Ont .. JA 2-3823

CAMCAR SCREW & MFG, A TEXTRON DIV
600 18TH AVE, ROCKFORD
ILL, 61101, TWX 910 631-3424.......... 815 965-9451
R PEARSON, EMP 500, ENG 10
Cal E Wachtel Co, Box 11199, Palo Alto 321-2430
Cal Camcar Screw & Mfg, 5300 Pacific Blvd
Huntington Park 213 581-2510
Colo C G Miller, 6418 Wicklow Cir, E
Colorado Springs.......... 633-9765
Conn John Gregory, 159 Country Club Rd
Avon 673-3696
Ill R H Dyslin, 9016 Marmora
Morton Grove.......... 966-7536
Ill C W Anderson, 2016 Colorado
Rockford 399-4249
Ky Camcar Screw & Mfg Co
2003 Old Shepherdsville Rd
Louisville 458-5367
Mich Camcar Screw & Mfg Co, 17700 Northland Pk Ct
Southfield 836-5045
Mo Frank E Talleur, 6514 January Ave
Berkeley 521-6205
NY Paul R Flemming, 1883 Mendon-Ionia Rd
Ionia 657-7602
NY C F Russell Co, 50 Park Ave
Bay Shore 665-2623
Ohio F B Reynolds, 290 Hickory Hill
Chargrin Falls 247-4221
Pa P Wm Huster, 2607 Franklin Ave
Broomall 356-9547
Tenn Melloy Sales Inc, 4711 Old Kingston Pike
Knoxville 584-4124
Tex Standard Parts & Equip, Box 4600
Fort Worth 336-2521
Wis Joe A Elwood, 238 Roger St
Port Washington 284-4297

CAMIE CO INC, 9225 WATSON IND PARK, ST LOUIS
MO, 63126 .... 314 962-7901
J SHELBY, EMP 35, ENG 1, $1,000-$2,500M

CAMLOC DIV REX CHAINBELT INC
22 SPRING VALLEY RD, PARAMUS
N J, 07652, TWX 710 990-5142 .... 201 845-6900
J ENGLISH, EMP 330, ENG 16, $5,000-$10,000M
Tex Camloc Div, 723 N Collins Ave
Arlington 817 274-3711
Can Keith MacMillan, 24 Ronson Dr
Rexdale, Ont 241-4700
Fr Camloc-France Sarl, 17 Blvd Dulac
95 Enghien-les-Bains, Paris 964-9032
Ger Camloc Fastener GmbH, Frankfurter Str 36
West Germany.......... 06195-3288
GB Camloc Ind Fixings U K Ltd, 12 Hampton Ct Par
E Molesey, Surrey.......... 7363
Holl VIBA NV, Koningin Emmakade 199
Den Haag.......... 394905

Ital F A S Tec, Corso Ferrucci, 58
I-10138 Turin 339073
Swed G A Lindberg & Co, Sturegatan 46 Box 5146
Stockholm 5 631630
Swit Koenig A G, Lagerstr 10
CH-8953 Dietikon.......... 882661
Spn V E Pavillard, Ave Del Manzandares, 36
Madrid-11 .... 247.11.24

CAMPBELL/TAYLOR INC, BOX 289, SALEM
MASS, 01970 .... 617 745-3370
J TAYLOR, EMP 20, ENG 3
Cal Dennis Don & Assoc, 2833 Leonis Blvd
Vernon 213 581-8237
Cal Dennis Don & Assoc, Box 1313, Burlingame
Fla H G Wilson & Assoc, 2903 Salzedo St
Coral Gables 446-0014
Ga C S Roach & Assoc, 713 Healey Bldg
Atlanta 525-2959
Haw Dennis Don & Assoc, 1441 Kapiolani Blvd
Honolulu 808 966-737
Wash Dennis Don & Assoc, 535 Warren Ave
Seattle .... 206 AT 4-3588
For F L Agresar & Assoc Inc, Box 366, Hato Rey, P R

CAMWIL INC, 835 KEEAUMOKU, HONOLULU
HAWAII 946-1110
EMP 14

CANADIAN MARCONI CO, 2442 TRENTON AVE
MONTREAL 16
QUEBEC, TWX 610 421-3564 .... 514 738-9441
O CORNETT, EMP 4300, OVER $10,000M
Cal Kaar Electronics Corp, 2250 Charleston Rd
Mountain View 415 961-8220
La Kaar Electronics Corp, 1127 S Rampart St
New Orleans 504 522-5113
Mass Kaar Elctns Corp, 97A Cambridge St
Burlington 617 272-6264
Mo Kaar Electronics Corp, 3136 Wyoming Ave
St Louis 314 773-1703
NJ Kaar Electronics Corp, 232 Wescott Dr
Rahway 201 925-9150
NJ Kaar Electronics Corp, 1203 W St Georges Ave
Linden 201 486-8221

CANADIAN MOTOROLA ELECTRONICS CO
3125 STEELES AVE, AGINCOURT, ONT...... 293-8141
J HOOPER
Can P Bullock, 530 Berry St
Winnipeg, Man 775-0351
Can H W Seibel, 155 Graveline St
Montreal 9, P Q 636-1230
Can W Galpin, 10544 110th St
Edmonton, Alta 422-8111
Can D Carle, 903 42nd Ave SE
Calgary, Alta 287-2111
Can G W Landstrom, 3125 Steeles Ave E
Willowdale Ont.......... 293-8141
BC D Hollingshead, 1395 Pemberton Ave
N Vancouver 985-3141

CANADIAN PORCELAIN CO LTD, BOX 428, HAMILTON
ONT, TWX 021-633 .... 416 522-4648
E LADESICH, EMP 200, ENG 4, $2,500-$5,000M

CANADIAN RESEARCH INSTITUTE, 85 CURLEW DR
DON MILLS, ONT.......... 416 445-6363
S VASQUEZ, EMP 29, ENG 5, $500-$1,000M

CANBERRA INDUSTRIES, 50 SILVER ST, MIDDLETOWN
CONN, 06457 .... 203 347-6995
G EMBRY, EMP 140, ENG 14, $2,500-$5,000M
Cal Canberra Industries, Box 611
Cupertino 408 253-3774
Ga S Knoll, Box 33086, Decatur.......... 404 636-5039
Ill Contemporary Science Inc, Box 205
Mt Prospect.......... CL 5-3793
Md King Assoc, 10027 Clue Dr
Bethesda 301 469-7610
Mo Contemporary Science, Box 4384
Affton 314 647-8481
NY T Moir, 25 Victory Blvd
Staten Island.......... 212 981-8284
Ohio Contemporary Science Inc, Box 797
Shaker Heights 216 292-7533
Can Applied Technology Co, Box 272
Don Mills, Ont 444-1264
Jap Nichimen Ltd, Inc, Box Central No 1136, Tokyo
SAfr Ash Brothers Pty Ltd, Box 6061, Johannesburg
Swed A B Chemetal, S:t Eriksgatan 5 - Stockholm K,
Belg H V L, 1026-1048, Chaussee de Louvain, Bruxelles
Aust Australian Electrical Indus, Box 110, Crows Nest
NSW

CANNON CO, C F, SPRINGWATER
N Y, 14560 .... 716 669-2550
A SHRINER, EMP 45, $250-$500M

CANOGA ELECTRONICS CORP, 8966 COMANCHE AVE
CHATSWORTH
CAL, 91311, TWX 910-494-1214.......... 213 341-3010
O KNOWLTON, EMP 350, OVER $10,000M
Ala P T Miller Assoc, Box 1334
Huntsville 205 534-2652
Ala Kemp Instruments Inc, 4306 Governors Dr W
Huntsville
Cal Electronic Lab Assoc, 1911 Fifth Ave
San Diego 714 232-7195
Cal Moxon Elctns, 2311 Pontius Ave
Los Angeles.......... 213 272-9311
Cal Jay Stone & Assoc, 140 Main St
Los Altos 415 948-4563
Cal Trans-World Trade, 11973 San Vicente Blvd
Los Angeles.......... 213 472-0444
Cal V T Rupp Co, 307 Parkman Ave, Los Angeles
Cal V T Rupp Co, 1182 Los Altos Ave, Los Altos
Fla Jaeger Assoc, 999 Woodcock Rd
Orlando 305 841-1511
Kan E Winsor, 6115 E 13th St, Wichita... 316 684-8224
Md Bartlett Assoc, 7979 Old Georgetown Rd
Bethesda 301 656-3061
Mass T Longtine, 12 Concord St, Natick.... 616 655-3117
Mich Micro Sales Corp, 19341 Trinity, Detroit
Minn Systems Engr Assoc, 8633 Harrison So
Minneapolis.......... 612 881-6386
Mo L E Pike, 6050 Brown Rd, St Louis .. 314 524-1820
Mo Kemp Engrg Co, 9322 Manchester Rd, St Louis
NH Engineering Assoc of N E, 319 Lincoln St
Manchester
NJ Dynamic Sales Co, 39 E Front St
Red Bank 201 747-5353
NJ Friedman Assoc, 110 Halsted St, E Orange
NM Bowden Engrg Sales Co, 2633 Texas NE
Albuquerque.......... 299-0473
Ohio Micro Sales Corp, 1250 W Dorothy La, Dayton
Ohio Micro Sales Corp, 2000 Lee Rd, Cleveland
Pa Bartlett Assoc, 130 W Lancaster Av
Wayne 215 688-7325
Tex Kemco Inc, Box 998, Irving 214 637-0163
Tex J M McDonald, 6440 Hillcroft Blvd
Houston 713 771-1291
Tex Kemp Engrg Co, 2618 Manana, Dallas
Tex Kemp Engrg Co, 6001 Gulf Fwy, Houston
Wash Paratech, 2208 NW Market St
Seattle 206 783-3900
Ger Elektro-Metall Export GMBH, Jagerhofstr 39
4000 Dusseldorg.......... 48-30-41

CANRAD PRECISION INDUSTRIES INC, 630 FIFTH AVE
NEW YORK, N Y, 10020 .... 212 CI 60460
D GILLERT, EMP 125, ENG 10
Ill Diverse Products, 1255 Diversey Ave, Chicago
Iowa Iowa-Midland Supply Inc, 823 Rockford Rd SW
Cedar Rapids
Mass William Beaver Assoc, 41 Indian Ridge Rd
South Natick
Mich Reichold Assoc, 1655 House St, Belmont
Pa Sencor & Co, 2222 Glendale St, Philadelphia

CAPCO INC, 585 JASON ST, DENVER
COLO, 80223, TWX 910 931-2612 ...... 303 744-3481
J KING, EMP 40, ENG 3, $500-$1,000M
Cal E B Schwerin, 4922 LaGama Way
Santa Barbara 805 967-7317
Conn Impact Sales, Box 448
West Hartford 203 521-1221
Fla Fausett & Co, 711 N Magnolia Ave
Orlando 305 424-0701
Ga Fausett & Co, 2264 Melinda Dr NE
Atlanta 404 633-3561
Ill Repwood & Assoc, 260 Sunset
Glen Ellyn 312 469-2344
Md Jadelectronics, Box 115, Greenbelt... 301 474-8161
Mass Impact Sales Co, 223 Crescent St
Waltham 617 893-2850
Minn Countryman, Wagner & Behnen Co
1955 University Ave, St Paul 612 645-9151
Mo Airborne Elctns, 7759 Loma Vista Dr
Kansas City 816 221-0312
NY O F Masin & Co, 140 Boston Post Rd
Larchmont 914 834-7500
Ohio Coy & Co, Box 2078 Kettering Sta
Dayton 513 885-7222
Pa JADElectronics, Box 5735
Philadelphia .... 215 GL 5-3355

CAPCON INC, 61 STANTON ST, NEW YORK
N Y, 10002 .... 212 GR 5-0080
R HENRY, EMP 132, ENG 12, $500-$1,000M

CAPITOL MACHINE & SWITCH CO, 87 NEWTOWN RD, DANBURY
CONN, 06810, TWX 710 456-0365 .... 203 744-3300
A WILSON, EMP 100, ENG 4
ADV PG 662
Cal Frauman Assoc, 1010 Doyle St
Menlo Park 322-8461
Cal Tech Rep, 10606 W Pico Blvd
Los Angeles.......... 836-6806
Conn Comp Rep Assoc, 14 Bowling Green Ave
North Haven 239-9762
Fla Floyd Fausett & Co, 685 Selkirk Dr
Winter Park 644-6672
Ga Floyd Fausett & Co, 2264 Melinda Dr NE
Atlanta 633-3561
Ill George Petitt Co Inc, 349 N Ashland Ave
River Forest 261-0342
Kan Lowell, Kangas & Assoc, Box 4116
Overland Park 381-0004
Mass Comp Rep Assoc Inc, 1116 Great Plain Ave
Needham 444-2484
Mich Heick & Ralph Assoc, 26847 Grand River Ave
Detroit 538-3350
Mo Lowell, Kangas & Assoc, Inc
Box 26, Creve Coeur Sta, St Louis...... 647-1111
NJ Varrelman-Gorman Co, Box 206
Livingston 992-2505
Ohio Edmund C Frost & Co, 30650 Pine Tree Rd
Cleveland.......... 831-1442
Pa John Biernbaum, Box 7142, Phila.......... 635-1030
SC Floyd Fausett & Co, Stony Point
Greenwood.......... 451-7847
Tex Blackburn Assoc, Box 20073, Dallas 351-9991

Wash Electronic Sales Corp, 5600 California Ave SW Seattle 932-0330
Can Hans W Brieger Sales Co, 5253 Decarie Blvd Montreal 489-0725
Can John R Tilton Ltd, 51 McCormick St Toronto 762-7571

CAPTOR CORP, 5040 DIXIE HWY, TIPP CITY
OHIO, 45371 .... 513 667-8484
O BRUNS, EMP 50, ENG 5, $1,000-$2,500M
ADV PG 306
Cal Andrews & Assoc, Box 251 Northridge 213 349-0586
Cal Pritchard & Haney, Box 102 Los Altos 415 961-8218
Fla Tech Rep Assoc, Box 2095 Melbourne 305 723-9140
Fla Tech Rep Assoc, Box 8218 Madeira Beach 813 391-0008
Ga Tech Rep Assoc, 2793 Claremont Rd NE Atlanta 404 633-5897
Ill Croydon Elctns Inc, 1915 N Harlem Ave Chicago 312 237-4343
Kan Avionics Sales Engineering, 230 Ida Wichita 316 264-6201
Ky R O Whitesell & Assoc, 3620 Lexington Rd Louisville 502 893-7303
Mass L Roffer, 12 Nancy La Framingham 617 877-4900
Mich R O Whitesell & Assoc, 303 Fidelity Bldg Benton Harbor 616 927-2041
Mich R O Whitesell & Assoc, Southfield Ctr Bldg Southfield 313 358-2020
NY Gemini Electronics, 1295 Northern Blvd Manhasset 516 627-1162
NY R W Mitscher Co, 496 Ellicott Sq Bldg Buffalo 716 854-2517
NC J O Nagle, Box 10541, Raleigh 919 828-0575
Ohio R O Whitesell & Assoc, Magek Bldg Cleveland 216 333-2585
Ohio R O Whitesell & Assoc, 1172 W Galbraith Cincinnati 513 521-2290
Ohio R O Whitesell & Assoc, 4133 S Dixie Dr Dayton 513 298-9546
Pa B & A Assoc, 237 Lancaster Devon 717 688-5173
Tex Dyna-Reps, Box 5154, Ft Worth 817 732-6621
Can David R Beattie Ltd, 1260 Lake Shore Rd E Port Credit Ont 416 274-3445

CARBOLINE CO, 328 HANLEY INDUSTRIAL CT
ST LOUIS, MO, 63144 .... 314 MI 4-1000
R ROSENTHAL JR, EMP 100, ENG 40
$5,000-$10,000M
Ala Applied Eng Sales Co, Box 7392 Mobile 471-4458
Cal Margar Co, 1047 Duncan Ave Manhattan Beach 772-1060
Cal T G Cullen, 3710 Grand Ave, Oakland 452-3982
Colo Alldredge & McCabe, 1550 S Pearl St Denver 744-6351
Fla J J Parkinson, Box 10665 St Petersburg 894-7708
Haw V Morrison, Box 857, Honolulu 52-892
Ill Stoltenberg & Co, 6776A Northwest Hwy Chicago 312 775-6138
La Carboline of LA, 3007 22nd St Metairie 833-8563
Mass O'Connor Assoc, 60 Hickory Dr Waltham 899-1644
Mich Absolute Equip Co, 470 N Woodward Ave Birmingham 642-6240
NJ Stanley Drexler, 429 Cherry Hill Blvd Cherry Hill 663-4491
NY S J Fiebach, Box 186 Nanuet, Nanuet .... NA 3-3914
NY E A Smith, 4964 Carnarvon Rd Syracuse 492-2929
NC L E Parks, 200 Industrial Dr, Matthews 847-9828
Ohio J P Ashburn, 3914 Miami Rd Cincinnati 271-9040
Okla Haynes Co, 11 E 12th St, Tulsa .... LU 4-8748
Pa Corrosion Equip Sales Co, Box 274 Chester .... TR 2-2597
Tex Carboline of Texas, 813 Rosine Houston .... JA 6-4753
Utah Reeves & Co, 334 W 17th S St Salt Lake City 485-9864
Va Atlas-Misrock, 2405 Westwood Ave Richmond .... EL 8-4501
Wash Chemical Proof Corp, 625 S Alaska St Seattle .... MA 2-5805
Wis R G Anderson, 402 E Pacific St Appleton .... RE 3-1251
Can Corrosion Service Co Ltd, 50 Maitland St Toronto 5, Ont 925-5901
For Carboline Dex, Austr Pty Ltd, 55 Vore St Lidcombe N S W
Fr Navy Plastic France, Carboline Dept 8 Square Chanton, Neuilly s/Seine
GB Tretol Coatings Ltd, The Hyde, Tretol House London NW 9
Holl Bureau R De Vries, 2 Terwee Park, Box 187, Leiden
Jap Sumitomo Shoji Kaisha, Box Osaka-Higashi 481 Osaka 203-1221
Swed AB Zinkoplast, Mariesholmsgaten 66, Goteborg N
Mex Carboline Mexico, Ave Juarez 157-304 Mexico 1, DF 46-08-62

CARBONARA INSTRUMENT ENGRG LABS, VICTOR E
90 HARBOR RD, PORT WASHINGTON
N Y, 11050 .... 516 767-4680
V CARBONARA, EMP 12, ENG 3, $250-$500M

CARBONE CORP, 400 MYRTLE AVE, BOONTON
N J, 07005 .... 201 334-0700
R WYCKOFF, EMP 285, ENG 32, $5,000-$10,000M
Cal Advance Carbon Prods Inc, 2505 Mariposa St San Francisco .... HE 1-4034
Cal Industrial Engrg & Equip Co, 2975 Wilshire Blvd Los Angeles 213 381-1281
Cal John H Ormond Co, 3718 Grand Ave Oakland 415 893-3235
Conn Shick's Selling Service, 766 Main St Newington 666-4233
Fla Joseph Krupinski, 1344 SW 12th Ave Boca Raton 305 395-5970
Ga Dixie Bearings Inc & Assoc, 276 Memorial Dr SW Atlanta 524-5601
Ill Carbone Corp, 18154 Harwood Ave Homewood .... SY 8-7400
Ill Rick R Rozner Sales Co, 4708 N Central Ave Chicago
Ind H A Smolen Co, 2647 Highway Ave Highland 838-2700
Mich R C Dakin, 1520 N Woodward Ave Bloomfield Hills .... MI 7-2262
NJ David A Rugg Co, 2 Dove Ct Middletown 201 671-0662
NJ H Reid Assoc, 530 Main St Fort Lee 201 944-9323
NY J Pitcher, 16 Oakwood La, Fairport 716 586-9125
NC Powertronics Assoc Inc, 2454 Medway Dr Raleigh 834-6947
Ohio Norco Indus Sales Corp, 3439 Brainard Rd Cleveland 216 831-5191
Pa Bowman Co, 56 Oakhurst Cir Pittsburgh 412 781-5949
Pa Patterson Electric Corp, 1844 Ardmore Blvd Pittsburgh 412 244-1818
Wis F C DuBois & Assoc, 2364 N 117th St Milwaukee 414 774-3100
Can R & M Bearings Canada Ltd, 5385 Pare St Montreal, Que 342-1490

CARBONNEAU INDUSTRIES INC
100 LEXINGTON AVE SW, GRAND RAPIDS
MICH, 49504 .... 616 GL 6-9528
J CARBONNEAU, EMP 200, ENG 3
Cal Mann & Smith, Box 852, Northridge
La Gordon V Peck Co, 4771 Spain St New Orleans 282-1553
Mich Lamb & Smith Assoc, 20111 James Couzens Detroit 25 342-3050
NY S A Shaw Co, 361 Central Park Ave Yonkers .... YO 3-5700
Okla Gordon V Peck Co, Box 15671, Tulsa .... WE 9-3047
Tex Gordon V Peck Co, 210 Casa Linda Plaza Dallas .... DA 8-3511
Tex Gordon V Peck Co, 5757 Bellaire Blvd Houston .... MO 4-1435

CARBORUNDUM CO ELECTRICAL & ELCTNS BR
BOX 337, NIAGARA FALLS
NY, 14302, TWX 710-524-1657U 716 278-2546
R FLYNN, EMP 550, ENG 100, $5,000-$10,000M
Cal Carborundum Co, 2240 S Yates Ave Los Angeles 213 723-4866
Cal Carborundum Co, 505 Evelyn Ave Mountain View 415 967-5571
Cal O'Donnell Assoc, 18053 Crenshaw Blvd Torrance 213 323-9243
Ga Carborundum Co, 3785 Peachtree Industrial Blvd Chamblee 457-5531
Ill Carborundum Co, 5240 St Charles Rd Berkeley 312 547-8800
Mass Westwood Assoc, 181 West St Waltham 617 891-7810
NY Samuel S Egert Co, 146 Meacham Ave Elmont 516 488-2255
NY J Lazor Assoc, 39 Saginaw Dr Rochester 716 473-8337
Ohio Carborundum Co, 24800 Lakeland Blvd Cleveland .... RE 1-8600
Pa Arnold Assoc Inc, 528 Ryers Ave Cheltenham 215 742-0600
Tex Wm Reese Assoc, 3130 Springwood Dallas 214 339-4280
Can Lazor Sales Corp, 39 Saginaw Dr RochesteP 716 473-8337
For Southern Intl Sales Co, Box 1896, San Juan, PR

CARCO ELECTRONICS, 1180 O'BRIEN DR
MENLO PARK, CAL, 94025 .... 415 321-8174
W SPONT, EMP 50, ENG 24, $1,000-$2,500M
Cal Russell Assoc Inc, 3951 E Huntington Dr Pasadena 795-9521
Ill Aironic Accessory Co Inc, 3618 W Elm St McHenry 385-4220
Md Aironic Accessory Co Inc, Washington Ave Baltimore .... VA 3-3350
Mass Aironic Accessory Co, Inc, 235 Bear Hill Rd Waltham 891-5640
NJ Aironic Accessary Co, Inc, 47 E Blackwell St Dover 366-7377
NM Electronic Enterprises, 1900 Washington St NE Albuquerque 256-1585
NM Electronic Enterprises, Box 116 Las Cruces 524-0126
NY Aironic Accessory Co Inc, 161 Orinoco Dr Brightwaters .... MO 6-6500
NY Aironic Accessory Co, Inc, 6789 Main St Buffalo 643-3377
Den O Breiner Jensen, 13 Lyngen Kgs Lyngby 88 11 34
Fr Comptoirs Imex France, 2 rue Navoiseau Montreuil .... TOU 19-20
Ger Telco GMBH, Franz-Pruller-Str 15 8 Munchen 8 443424

GB E T S Ltd, Prudential House Croydon, Surrey MUN-3232
Swed Special-Metall, Surbrunnsgatan 6 Stockholm 31 20 60

CARDINAL CONTROL CO INC, KENSINGTON RD
KENSINGTON, CONN, 06037 .... 203 828-6379
L BEATMAN, EMP 55, ENG 4, $500-$1,000M

CARDION COMMUNICATIONS, LONG ISLAND EXPWY
WOODBURY
N Y, 11797, TWX 510-221-2179 .... 516 921-7300
R FEISTEL, EMP 250, ENG 90, $1,000-$2,500M
Cal Cain & Co, 15700 Ventura Blvd, Encino 783-4700
Conn New England Telecommunications 19 Silver Beech Rd, Riverside .... NE 7-9609
ND Dakota Electric Supply Co, Box 871 Fargo 230-3301
Ohio Buckeye Tel & Supply Co, 1250 Kinnear Rd Columbus .... HO 8-0655
Ore Tarbell Commumications Sales 312 Standard Plaza, Portland 228-4111
Tex Nelson Electric Supply Co, 1123 Slocum St Dallas .... RI 1-6341

CARDION ELECTRONICS DIV GEN SIGNAL CORP
LONG ISLAND EXPWY, WOODBURY
N Y, 11797, TWX 510-221-2179 .... 516 921-7300
J RILEY, EMP 250, ENG 90, $5,000-$10,000M

CARDWELL CONDENSER CORP, 80 E MONTAUK HWY
LINDENHURST, N Y, 11757 .... 516 TU 44300
R HERMAN, EMP 70, ENG 2, $500-$1,000M

CAREY ELECTRONIC ENGINEERING CO
1880 CLIFTON AVE, SPRINGFIELD
OHIO, 45505 .... 513 323-6300
R CAREY, JR, EMP 20, ENG 3, $250-$500M
Cal Sanford Mech Equip Co Inc Bayshore Annex, Box 4675, Oakland
Cal Yates Products, 711 W Ivy St, Glendale 245-6951
Colo W H Strickland, 1378 Jasmine St, Denver
Haw Aluminum Prods Hawaii Ltd, 669 Sheridan St Honolulu
Mich Carl J Bush Co, 27320 Southfield Rd Lathrup Village
Minn Minneapolis Theatre Supply, 51 Glenwood Ave Minneapolis
NY North Star Supply Co, 255 Pratt St, Buffalo
NY Bailey Distributors, Inc, 73 Sullivan St, Brooklyn
NY R P Coleman Co Inc, 724 Ridge Rd, Lackawanna
Ohio George Oberklein Assoc, 1758 Elmore St, Cincinnati
Pa Leon Wolkov, 73 Greenhill Rd, Media
Tex Kleen-Air Service of Texas, Box 5004 BH San Antonio
Wash J O Ross Eng Co, 2909 Third Ave, Seattle
Fr Jex
Ital European-Amer Trade Develop Corp, 757 Third Ave New York, N Y
Mex Electro Constructora, S A, Leibnitz 34-60, Piso Mexico 5, D F

CARGOCAIRE ENGINEERING CORP, 8-10 CHESTNUT ST
AMESBURY, MASS, 01913 .... 617 388-3131
T MCCRAINE, EMP 100, ENG 14, $5,000-$10,000M

CARLER PRODUCTS CORP, 6200 E MOLLOY RD
E SYRACUSE, N Y , 13056 315-437-2608
G LAMKIN, EMP 33, ENG 2
Cal Wadsworth-Pacific Mfg Assoc, 16801 Bollinger Dr Pacific Palisades 454-4313
Cal Wadsworth-Pacific Mfg Assoc, 71 Packer Ave Atherton 365-1956
Ill Wadsworth-Midland Mfg Assoc 6240 N Winthrop St, Chicago 274-0601
NY Wadsworth Mfg Assoc, 183 Buckley Rd Liverpool 652-2865
NY Wadsworth Mfg Assoc, 5 Willow Brook La Troy 272-5097
NY Wadsworth Mfg Assoc Inc, 6 Sylvia La Plainview 433-3559
NY Wadsworth Mfg Assoc, 37 Arty Dr Williamsville 634-8650
Tex Wadsworth Midland Mfg Assoc, 201 S Dorothy Dr Dallas 231-1805

CARLETON CONTROLS CORP, JAMISON RD
EAST AURORA
N Y, 14052, TWX 710 264-1446 .... NL 2-4838
J GOODELL, EMP 90, ENG 6, $1,000-$2,500M
Cal L Peters, 3235 Kifer Rd, Santa Clara .... PA 3-7602
Cal Ensa Corp, 5919 W 3rd St, Los Angeles 934-1144
Pa D A Rae Co, Inc, 206 Twp Line Rd Jenkintown .... TU 7-3669
Tex L Brown, 7407 Midbury Dr, Dallas .... EM 1-0941
Wash E Darlington, 6770 Parimeter Rd S Seattle .... PA 3-7602

CARLING ELECTRIC INC, 505 NEW PARK AVE
WEST HARTFORD, CONN, 06110 .... 203 233-5551
R COUGHLIN, EMP 250, ENG 3
Cal Pacific Switch Controls, Inc, 14048 Burbank Blvd Van Nuys 873-4802
Ill Carling Electric, 201 N Gables Blvd Wheaton 653-1130
For Joseph Gross Co, 41 Union Sq New York, NY .... CO 7-0280

CAROL CABLE CO, 249 ROOSEVELT AVE, PAWTUCKET
R I, 02862, TWX 92-7750 .... 401 722-3100
L BONOFF, EMP 1500, ENG 15, OVER $10,000M

Ala Maxwell & Scivley, 1904 Greenvale Rd Birmingham 822-1336
Cal F M Nicholas Co, 72 Townsend San Francisco 982-1964
Cal Carol Cable Co West, 1950 Naomi Ave Los Angeles 747-9655
Colo L D Hood Co, 87 S Kalamath, Denver 222-8001
Conn Senese Sales Co, 22 Lee Rd, Prospect 756-6052
Fla Cary Chapman & Co, 301 E Tenth Ave Hialeah 885-4681
Ga Maxwell & Scivley Inc, 600 Trusco Way SW Atlanta 758-4506
Ill J L Rowe & Sons, 3005 W Franklin Blvd Chicago 722-0330
Ind A Lee Clifford & Co, 1801 W 18th St Indianapolis 639-5248
Iowa Jim Bixler & Assoc, 2822 Ave A Council Bluffs 328-1841
La Zeller & Constantine Inc, Box 746 Metairie 834-6830
Mass Rudolph & Co, 225 W 2nd St, S Boston 268-2420
Mich Young & Champagne, 91 E Milwaukee Ave Detroit 871-0720
Minn M J Pelletier Co, 403 Napco Ave N Minneapolis 332-4369
Mo Ajax Electrical Sales Co, 4006 Papin St St Louis 533-3288
Mo Walker-Loudermilk Co, 205 E 13th Ave N Kansas City 842-0909
NY Sullivan-Swanberg, 940 S Salina St Syracuse 476-1681
NY Harry Kaufman Co Inc, 104-70 Queens Blvd Forest Hills 896-8006
NC Pete Oldham & Assoc, Box 4257 Greensboro 273-9473
Ohio Block & Fields, 1050 Meta Dr Cincinnati 242-2196
Okla The Hodges Co, Box 7331, Tulsa 742-0917
Ore Bruce-Emmett Co, 830 SE Alder St Portland 232-8117
Pa Wm B Bleiman & Sons, 252 N Third St Phila 627-0152
Pa Max Stoff, 15 Terminal Way, Pittsburgh 481-6300
Tenn Maxwell & Scivley Inc, 712 Fogg St Nashville 244-2109
Tex Hodges Co, 1336 Crampton St, Dallas 631-8460
Utah Bruce-Emmett Co, 49 N 2nd W Salt Lake City 328-3902
Wash Bruce-Emmett Co, 270 S Hanford St Seattle 623-6840
Wis Jack L Rowe & Sons Inc, 1348 N 37th St Milwaukee 342-1886

CAROL ELECTRONICS DIV WEECO INC
315 W STEPHEN ST, MARTINSBURG
W VA, 25401 .... 304 267-8911
J CARPER, JR, EMP 60, ENG 5, $500-$1,000M

Va Watson Elctns & Engrg Co, 2603 S Oxford St Arlington 671-6233

CARPENTER MFG CO INC, FAIRGROUNDS DR
MANLIUS, NY, 13104 .... 315 682-9176
C NORTHRUP, EMP 20, ENG 2, $250-$500M

Cal Macdonald & Co, 213 S Brand Blvd Glendale 245-5253
Colo Claude Michael Inc, 1630 Platte St Denver 303 455-1352
Fla H R Gross & Co, 314 S Missouri Ave Clearwater 446-6649
Ill A Rich, Box 499, Arlington Heights 312 392-2950
Ind Blind & Assoc, 1635 N Gent Ave Indianapolis 635-6291
Md Jones & Assoc, 2026 Maryland Ave Baltimore 752-0577
Mass E P E Corp, 345 Higland St, Weston 899-0678
Mich C A Geer Co, 221 Graceland NE Grand Rapids 361-9252
Minn D A Schultz Co, 801 Southeast Eight St Mpls 339-7701
NJ Mills Equipment Co, 13 Tanner St Haddonfield 609 429-1005
NY Jerry Maloney, 115 Sunnybrook Dr Syracuse 488-3440
NY Salit Assoc, 254 Hempstead Rd Spring Valley 352-4443
NC Powertronics, Inc, Box 403 Thomasville 476-4257
Ohio Perry Lohse & Co, 537 Richmond Rd Cleveland 381-7788
Pa Mills Equipment Co, 13 Tanner St Haddonfield, NJ 429-1005
Tex Sivright Co, 10028 Monroe Ave, Dallas 357-6681
Wash Tri-State Supply Corp, 325 Westlake Ave N Seattle 622-4161
Can Willer Engrg Sls, 1800 Avenue Rd Toronto, Ont 783-3373
Can Witler Engrg Sls, 1179 Decarie Blvd Montreal 9, Que
For L P Dodero, 145 W 55th St New York, NY 246-0193
Den P H Aisinger, Jer Nbame Alle 71 Copenhagen-Van Lose
Ger E Henkel, 6083 Walldorf VB, Reviolstr 34
GB Frank Whitelegg Ltd, 304 High St, Sutton, Surrey
Ital Sogema Soc Gen, Via LeoPardi 27, Milan
Swed Hugo Tillquist, Sodra Langgatan 21, Solna
Swit Jacques Baerlocher Corp, Box 8021, Zurich
Aust Rutherford Elctns Pty Ltd, Box 3104, N Balwyn Victoria

CARPENTER STEEL CO, 101 W BERN ST, BOX 662
READING, PA, 19603 .... 215 372-4511
W KUNKELMAN, EMP 3100, ENG 2, OVER $10,000M

Cal Carpenter Steel Co, 1530 Industrial Way Belmont 593-8461
Cal Carpenter Steel Co, 4423 E District Blvd Los Angeles 587-9131
Conn Carpenter Steel Co, 116 Front St Bridgeport 336-1105
Conn Carpenter Steel Co, 277 New Park Ave Hartford 233-7581
Fla Carpenter Steel Co, 4326 E Tenth La Hialeah 681-7423
Ga Carpenter Steel Co, Murphy & Bluff Sts SW Atlanta 525-8616
Ill Carpenter Steel Co, 4501 James Pl Melrose Park 681-3500
Ind Carpenter Steel Co, 1618 W Washington St Indianapolis 632-5401
Mass Carpenter Steel Co, 1616 Hyde Park Ave Boston 361-3400
Mich Carpenter Steel Co, 7170 E McNichols Rd Detroit 365-7600
Minn Carpenter Steel Co, 2809 Winter St, NE Minneapolis 331-8440
Mo Carpenter Steel Co, 1409 E 9th St Kansas City 842-9770
Mo Carpenter Steel Co, 3942 Laclede Ave St Louis 652-6700
NJ Carpenter Steel Co, 1110 Globe Ave Mountainside 232-8600
NY Carpenter Steel Co, 3810 Union Rd Buffalo 684-3000
NY Carpenter Steel Co, 27-07 Brooklyn-Queens Exp Woodside 721-9210
Ohio Carpenter Steel Co, 229 Leo St, Dayton 224-7456
Ohio Carpenter Steel Co, 680 Redna Terr Cincinnati 771-0250
Ohio Carpenter Steel Co, 4901 W 150th St Cleveland 267-6700
Ohio Carpenter Steel Co, 1034 Laskey Rd Toledo 474-0594
Okla Carpenter Steel Co, 2703 Dawson Rd Tulsa 582-9908
Ore Carpenter Steel Co, 720 SW Washington St Portland 223-8186
Pa Carpenter Steel Co, Ft Wash Ind Park Ft Washington 248-2500
Pa Carpenter Steel Co, Parkway Office Ctr Pittsburgh 921-7755
RI Carpenter Steel Co, 66 Dudley St Providence 331-5769
Tex Carpenter Steel Co, 2605 Freewood Dr Dallas 352-1771
Tex Carpenter Steel Co, 2502 Broad St Houston 644-1541
Wis Carpenter Steel Co, 4152 N 35th St Milwaukee 873-0530
Can Carpenter Steel of Canada Ltd 100 Sheppard Ave W Willowdale, Ont 223-6500

CARR FASTENER CO DIV UNITED-CARR INC, 31 AMES ST
CAMBRIDGE
MASS, 02142, TWX 710 320-0827 .... 617 547-4900
R MALONEY, EMP 1500, ENG 30
ADV PG 284, 285

Cal Carr Fastener, 1433 Venice Blvd Los Angeles 213 387-4322
Ga Carr Fastener, 1776 Peachtree St NW Atlanta 404 875-9436
Ill Carr Fastener, 10544 Lunt Ave Rosemont 312 296-7192
Ky Carr Fastener, 190 Colony Way Louisville 502 895-1064
Mass Carr Fastener, 459 Watertown St Newtonville 617 244-7313
Mich Carr Fastener, 2832 E Grand Blvd Detroit 313 873-9500
NY Carr Fastener, 24 W 40th St New York 212 594-5650
NY Carr Fastener, E Molloy Rd Syracuse 315 454-9268
Ohio Carr Fastener, 2829 Euclid Ave Cleveland 216 861-7557
Tex Carr Fastener, 1066 W Mockingbird La Dallas .... 214 ME 1-0410

CARSON MFG CO INC, 2426 E 55TH ST
INDIANAPOLIS, IND, 46220 .... 317 251-9591
G LOCKWOOD, EMP 125, ENG 5, $1,000-$2,500M

CARSTEDT RESEARCH INC, 2501 E 68TH ST
LONG BEACH
CAL, 90805, TWX 213 634-4318 .... 213 ME 0-5821
B SMITH, EMP 78, ENG 4, $1,000-$2,500M

Ariz Dorton Enterprises, Inc, Box 1297 Scottsdale 946-6213
Cal King & Assoc, 663 Princeton Dr Sunnyvale 738-2570
Ill Robt Bernstein Sales Co, 9009 Golf Rd Desplaines 824-7526
Mass Denning & Assoc, 30 Waldren Rd Wakefield 245-4986
Ore L A Lawson, 630 SE Belmont Portland .... BE 2-0161
Tex Finis Roberts, Box 1118, Richardson 239-8991

CARTER CO, J C, ELECTRONICS DIV, 671 W 17TH ST
COSTA MESA
CAL, 92627, TWX 714 642 1336 .... 714 548-3421
C JOBBINS, EMP 200, ENG 20, $5,000-$10,000M

CARTER MFG CORP, 23 WASHINGTON ST, HUDSON
MASS, 01749 .... 617 562-6987
L BURGESS, EMP 45, ENG 6, $500-$1,000M

Conn Chas K Barton Assoc Inc, 343 New London Tpke Glastonbury 633-9417
Mass Chas K Barton Assoc Inc, 345 Auburn St Auburndale 332-2021
NJ Podeyn & Schmidt, 207 Hackensack St Wood-Ridge 201 438-2780
NY Podeyn & Schmidt, 420 Northern Blvd Great Neck 516 487-1173
Ohio Bek Assoc, Inc, 330 Salem Ave Dayton 513 278-1343
Tex Southern Engrg & Sales Co, 1823 Levee St Dallas .... 214 RI 8-5760
Wis Gentron Co, 744 N 4 St Milwaukee 414 271-2110

CARTER MOTOR CO, 2746 W GEORGE ST, CHICAGO
ILL, 60618 .... 312 JU 8-7700
E MITCHELL, EMP 100, ENG 4

Cal R S Hopkins Co, 15016 Ventura Blvd Sherman Oaks .... ST 8-5501
Cal Ewing Foley Inc, 900 N San Antonio Rd Los Altos 941-4525
Conn AID Eng Sales Co, Box 247, Rocky Hill 673-3692
Fla Floyd Fausett & Co, 711 N Magnolia Ave Orlando 305 424-0701
Ga Fausett & Co, 2264 Melinda Dr NE Atlanta 633-3561
Ill Carter Industrial Sales, 2711 W George St Chicago 463-5535
Ill A G Erickson Assoc, 571 Hill Ave Glen Ellyn .... HO 9-1198
Md Clisby & Assoc, 231 E 25th St Baltimore .... BE 5-3726
Mass Aid Engineering Sales, 147 Concord St Framingham 873-3011
Mich Robert Reed, Box 27, Marshall .... ST 1-7287
Minn A J Warner Co, 4927 34th Ave, S Minneapolis 729-7271
Mo Ray Deane, 10825 McGee St Kansas City .... WI 2-0130
NY R W Mitscher Co, 496 Ellicott Sq Bldg Buffalo .... TL 4-2517
NY Cushing Electro Sales, 249-06 Jericho Tpk Bellerose 775-7170
NY L B Townsend, Rte 82A, Salt Point 266-5975
NC H B Owsley & Son, Inc, Pineville Rd Charlotte .... JA 3-3141
Ohio Electro-Com Inc, 8761 Snow Rd Cleveland .... TU 6-2404
Ohio Electro Com, Inc, Box F, Dayton 278-4797
Okla R D Jay, 1554 N Marion, Tulsa .... WE 9-5956
Ore Northwestern Agencies, 3750 SW Elmran St Oswego .... NE 6-5777
Pa Clisby & Assoc, 1817 N 5th St Philadelphia .... GA 5-7724
Pa Electro Com, 201 Penn Ctr Blvd Pittsburgh 241-5717
Tenn Floyd Fausett & Co, Box 12091, Memphis
Tex M F Klicpera Co, Box 2668, Houston .... RI 7-3868
Tex E W Haley, Box 4117 Sta A, Dallas .... RI 2-2515
Wash Northwestern Agencies, 4130 First Ave S Seattle .... MA 3-8882
Can Charles W Pointon Ltd, 66 Racine Rd Rexdale, Ont .... CH 7-8777
For Carrington H Stone, 205 W Wacker Dr Chicago, Ill .... RA 6-7725

CARTER PRECISION ELECTRIC CO, 3401 MADISON ST
SKOKIE
ILL, 60076, TWX 910-223-3674 .... 312 OR 4-0340
G YOUNG, EMP 350, ENG 17, $2,500-$5,000M

Ala Fred Wamble Sales Co, 3745 Marie Cook Dr Montgomery
Cal W S Harmon Co, 6118 Venice Blvd, Los Angeles
Cal Components Unltd, 499 Hamilton Ave, Palo Alto
Fla Fred Wamble Sales Co, 1816 Maywood Rd Winter Park
Md Mount & Co, 7735 Old Georgetown Rd, Bethesda
Minn Heiman Co, 5603 Lyndale Ave Minneapolis 827-5457
NJ Joseph Norton, 60 Midvale Rd, Mountain Lakes
NY Martin P Andrews, Fayetteville
Ohio J C Hofstetter Co, 742 Kenbridge Dr, Cleveland
Pa W Henry Cordray Sales Co, 1 Radnor Sta, Radnor

CARY INSTRUMENTS A VARIAN SUB, 2724 S PECK RD
MONROVIA
CAL, 91016, TWX 910 582-1613 .... 213 446-7181
W WRIGHT, EMP 520, ENG 70, $5,000-$10,000M

Cal Cary Instruments, 23 Orinda Way Orinda 415 254-3075
Colo Cary Instruments, 3500 E 17th Ave Denver 303 364-1398
Ga Cary Instruments, 3110 Maple Dr, NE Atlanta 404 261-8020
Ill Cary Instruments, 205 W Touhy Ave Chicago 312 825-7781
Md Cary Instruments, 4720 Montgomery La Bethesda 656-8177
Mass Cary Instruments, 400 Wyman St Waltham 617 891-5079
NJ Cary Instruments, 389 Passaic Ave Fairfield 201 226-8080
Ohio Cary Instruments, 5912 Hamilton Ave Cincinnati 513 542-0606
Tex Cary Instruments, 3939 Hillcroft Houston 713 781-0192
Swit M Brandes, Varian AG, Baarerstr 77,, 6300 Zug

CASCO MUSIC SYSTEMS INC, 56 GLENWOOD AVE
HYDE PARK, MASS, 02136 ... 617 361-5733
S LEONDAR, EMP 10, ENG 3

CASTALL RESEARCH LAB INC, 46 N MANCHESTER ST
BROCKTON, MASS, 02402 ... 617 587-3500
R LOTHROP, EMP 25, ENG 5, $100-$250M

CATALYST RESEARCH CORP, 6101 FALLS RD
BALTIMORE, MD, 21209 ... 301 DR 77100
A MCDEARMON, EMP 200, $1,000-$2,500M

CATHEY ENTERPRISES, 2235A E MIDDLEFIELD RD
MOUNTAIN VIEW, CAL, 94040 ... 415 967-1555
J CATHEY, EMP 6, ENG 1

CATHODEON CRYSTALS LTD, LINTON, CAMBRIDGE
ENG ... LIN 501
S BAINBRIDGE, EMP 300, ENG 16, $100-$250M

CATON INDUSTRIES INC, 648 W 1ST AVE, ROSELLE
N J, 07203 ... 201 241-1330
V TAMBURR, EMP 20, ENG 2, $250-$500M
Cal Fred Huddleston Assoc, 408 S Rosemead Blvd
Pasadena ... 681-3751
Ill Hill Gray, Inc, 821 Garfield, Oak Park ... 383-0373
Mass A & W Assoc, 50 Brook Road
Needham Heights ... 444-3384
NY Frank Tylinski Co, 338 Northern Blvd
Great Neck ... 466-9070
NC K O Brown Co, Box 21791, Greensboro ... 273-5973
Ohio Electro-Com, 8761 Snow Rd
Cleveland ... TU 6-2404

CAVITRON ELECTRONICS, INC, BOX 1156
COSTA MESA, CAL, 92626 ... 714 540-2695
B CHAPPELLE, ENG 3, UP TO $100M
Cal Woodwelding Inc, Newport Frwy
Costa Mesa ... 545-8091
Wash Star Machinery Co, 241 Lander St S
Seattle ... MA 3-0760

CAVITRON ULTRASONICS DIV CAVITRON CORP
11-70 BORDEN AVE, LONG ISLAND CITY
N Y, 11101 ... 212 EM 1-2060
M FROST, EMP 89, ENG 12, $2,500-$5,000M

CBC INDUSTRIES INC, 2601 N HOWARD ST
PHILADELPHIA, PA, 19133 ... 215 GA 32797
H GOODMAN, EMP 35, ENG 3, $100-$250M
Cal Charles Hansen, 1406 S Grand Ave, Los Angeles
Cal Fred Carelli Sales, 801 Mahler Rd, Burlingame
Ga Grady Duckett Sls Co, Box 11529
Atlanta ... 237-5531
Haw Bill Cameron Sales, 810 A 15th Ave
Honolulu ... 772-382
Ill R Gawne & Assoc, 6139 W Touhy Ave
Chicago ... 775-5381
Ind Shamrock Electronic Sales, Box 918, Angola
Mass E L Montague Assoc, 404 Jerusalem Rd
Cohasset ... 616 383-0634
Mo C W Dreese, 3710 Canterbury Pl
Independence ... IN 1-7294
NY Al Friedman Assoc, 189-19 Jamaica Ave
Jamaica ... 776-4800
Ohio Shamrock Electronic Sales, 789 Orlando Ave, Akron
Pa Henry Goodman, 401 W Mt Airy Ave
Phila ... CH 7-7116
Wash Don Smith Sales, 2320 N 45th St
Seattle ... ME 3-3160
Can William Cohen Ltd, 8900 Park Ave, Montreal

C B S LABS DIV COLUMBIA BDCSTG SYS INC
227 HIGH RIDGE RD, STAMFORD
CONN, 06905 ... 203 327-2000
EMP 500, ENG 200

C C A ELECTRONICS CORP, 716 JERSEY AVE
GLOUCESTER, NJ, 08030 ... 609 456-1716
B WISE, EMP 40, ENG 6, $1,000-$2,500M
Cal M Day, 10700 Ventura Blvd
N Hollywood ... 213 877-3357
Fla R Sidwell, Box 40, Port St Joe ... 904 229-3866
Ill G DuVall, 6838 N Ottawa
Chicago ... 312 RO 3-6785
Mass J Ring, Farm St, Dover ... 617 785-0620
Neb T & M Gleason, KAWL Bldg, York ... 402 362-4433
NY C G Cunningham, Rte 1, Box 51
Taos ... 505 758-2686
Ohio G Waslo, 10860 Goslin Rd
Cincinnati ... 513 931-1801
Okla C Hill, 2815 4th Nat'l Bank Bldg
Tulsa ... 918 LU 3-1061
Pa F Chassey, Box 17, Lafayette Hills ... 215 828-5847
Tenn W O Barry, Box 609, Lebanon ... 615 444-0305
Va V H Steed, Box 4742, Richmond ... 703 288-3877
Wash J McClamrock, 143 SW 153rd St
Seattle ... 206 CH 4-9391
Can Caldwell A/V Equip Co Ltd, 135 Midwest Rd
Scarborough, Ont ... 416 751-0881
For Telesco Intl Corp, 171 Madison Ave
New York ... 212 MU 3-9420

C-COR ELECTRONICS INC, 60 DECIBEL RD
STATE COLLEGE, PA, 16801 ... 814 238-2461
R ARBOGAST, EMP 110, ENG 5, $1,000-$2,500M
Ariz R A Mayes Co, 4747 N 16th St
Phoenix ... 279-5243
Cal Astroel Inc, 349 First St, Los Altos ... 948-3636
Cal RF Assoc, Inc, 1621 Pontius Ave
Los Angeles ... 478-1586
Colo R A Mayes Co, Box 314, Broomfield ... 421-0706
DC Eastern Instru Inc, 2600 Virginia Ave N W
Washington ... 333-8880
Fla Gra-Mar Inc, 3113 Lawton Rd, Orlando ... 841-2330
Ill Communications Engineers, 7100 N Western Ave
Chicago ... 761-0548
Md Eastern Instrumentation Inc, 1002 Ingleside Ave
Baltimore ... 744-3675
Mass Addelco Corp, 56 Pickering St
Needham ... 444-4754
NJ F & F Assoc, 58 Arcadia Rd
Woodcliff Lake ... 778-6767
NM R A Mayes Co, 8016 Zuni Rd SE
Albuquerque ... 265-7989
NY Tesco Assoc, 2002 Teall Ave, Syracuse ... 463-4566
NY F & F Assoc, 461 Old Country Rd
Westbury ... 334-1160
NC P J Nahser Co, 2709 Amherst Ave
Burlington ... 226-8053
Ohio Rep/Corp, 2077 Embury Park Rd
Dayton ... 278-5885
Pa Eastern Instrumentation Inc, 613 Cheltenham Ave
Philadelphia ... 927-6269
Tex Vidal Electronics Co, 3403 High Bluff Dr
Dallas ... 241-4491
Va Eastern Instrumentation Inc, Ross Bldg
Richmond ... 644-6620
Wash Paratech, Box 5427, Seattle ... 784-6447
Can Electronetic Systems Ltd, 62 Alness St
Downsview ... 636-3673
Can Electronetic Systems Ltd, 6420 Victoria Ave
Montreal ... 737-2744
For Sylvan Ginsbury, Ltd, 72 W 45th St
New York, N Y ... 687-3213

C & D BATTERIES DIV ELTRA CORP
WASHINGTON & CHERRY STS, CONSHOHOCKEN
PA, 19428, TWX 510-660-8346 ... 215 828-9000
H JENSEN, EMP 675, ENG 25, OVER $10,000M
Ala Swift Industrial Power, 2423 29th Ave N
Birmingham ... 595-4050
Ark Gregory-Salisbury & Co Inc, 500 E Markham St
Little Rock ... FR 5-1383
Cal Fred Pelletier Co, 3436 San Fernando Rd
Los Angeles ... 254-2544
Cal McCormick-Morgan Inc, 1745 Evans Ave
San Francisco ... 826-9559
Colo Toncray Equipment Co, 1711 Blake St
Denver ... 244-1102
Conn Packaged Ind Power Inc, 29 Whalley Ave
New Haven ... 624-8876
DC C & D Batteries Div, 1735 K St NW
Washington ... 296-6491
Fla C E Singleton Co, 551 N Ellis Rd
Jacksonville ... 384-3401
Fla Chas E Singleton Co, 11112 19th St
Tampa ... 935-4808
Ga Mark C Pope Assoc, 240 Walker St SW
Atlanta ... 523-3292
Haw Intelect Inc, 30 N School St, Honolulu ... 566-366
Ill Hubill Inc, 121 E Lake St, Peoria ... 688-2449
Ill Agair Equipment Inc, 4053 May St
Hillside ... ES 8-7070
Ind Macco Industrial Power Inc, 652 E Bridge St
Mooresville ... 831-0933
Iowa Hubill Inc, 1025 W 2nd St, Davenport ... 323-8031
Kan R M Ash & Assoc, 5400 Buena Vista
Shawnee Mission ... RA 2-3191
La Southern Mfrs Reps Inc, 1764 Dallas Dr
Baton Rouge ... 926-9417
La Southern Mfgr Reps Inc, 4500 Melpomene St
New Orleans ... 866-1846
Md C F Gross Assoc, 19 E 21st St
Baltimore ... 539-1007
Mass John J Shaunessy Assoc Inc, 12 A Green St
Woburn ... 935-3730
Mich C & D Batteries Div, 25120 Grand River Ave
Detroit ... 255-1170
Minn C & D Batteries Div, 2119 Grand Ave
St Paul ... 690-1244
Miss Gregory-Salisbury & Co Inc, 350 N Mart Plaza
Jackson ... 362-1671
Mo Elmer H Boyer & Assoc Inc, 5460 Highland Park Dr
St Louis ... JE 1-2115
Neb Western States Supply Co, 1517 Harney ST
Omaha ... 342-4828
NJ Packaged Industrial Power Inc, 240 Fairmont Ave
Jersey City ... 434-0671
NY Jos F Kolenberg Assoc, 5 Herbert Dr
Latham ... 785-7278
NY Roy Staff Assoc Inc, 45 Scoville Ave
Buffalo ... 825-8050
NY Roy Staff Assoc Inc, 3100 Monroe Ave
Rochester ... 586-9300
NY J & M Schaefer Inc, 3418 Burnet Ave
Syracuse ... 463-5223
NC William G Baynard, Box 11423
Charlotte ... 333-3860
Ohio Robt H Welf & Assoc Inc, 20850 Sheldon Rd
Brookpark ... 243-1900
Ohio Power Operated Products, 5912 Hamilton Ave
Cincinnati ... 541-1399
Ohio C & D Batteries Div, 782 McNaughton Rd
Columbus ... 237-5565
Okla Southwestern Battery Supply Co
3540 S Wheeling Ave, Tulsa ... RI 7-4863
Ore C & D Batteries, 218 Oregon Pioneer Bldg
Portland ... 228-4280
Pa Charles F Gross Assoc, 8004 Traymore Ave
Philadelphia ... 247-2408
Pa A C Moore, 727 Penn Ave, Pittsburgh ... 241-9051
Tenn Swift Industrial Power, 4315 Papermill Rd
Knoxville ... 584-2921
Tenn Gregory-Salisbury & Co, 240 South Pkwy E
Memphis ... 948-0496
Tex Southwestern Battery Supply Co, Box 1209
Garland ... BR 6-9475
Tex C & D Batteries Div, 3310 Richmond Ave
Houston ... JA 2-0620
Utah Toncray Equipment Co, 566 W 7th S St
Salt Lake City ... 363-9822
Va John J Wilson Assoc, Box 9533
Richmond ... 266-0761
Wash C & D Batteries Div, 5201 1st Ave S
Seattle ... 762-9460
Wash Joseph C Platt Co Inc, 111 Bell St
Seattle ... MA 3-6141
Wash B Wilkening Co, 125 Mission Ave E
Spokane ... FA 7-7722
Wis Battree CO, 8828 N Port Washington Rd
Milwaukee ... 352-652

CEA DIV BERKLEONICS INC, 1221 S SHAMROCK AVE
MONROVIA, CAL, 91016 ... 213-359-9261
J ROSS, EMP 55, ENG 6, $500-$1,000M
Ala Mekco Assoc, Holiday Off Ctr
Huntsville ... 881-3721
Ariz Jeffords Ind Inc, 15 N 40th Pl
Phoenix ... 602 273-1251
Cal Long & Assoc Inc, 505 Middlefield Rd
Redwood City ... 369-3324
Colo Vinson Assoc Inc, 3600 South Lincoln
Englewood ... 789-2203
Fla Mekco Assoc, 3165 McCrory Rd
Orlando ... 841-2215
Md S & S Assoc Inc, 7720 Wisconsin Ave
Bethesda ... 654-2420
Mich Carter McCormic & Peirce Inc, 16239 Wyoming
Detroit ... 313 863-4600
Minn Systems Engineering Assoc, 8633 Harrison S
Minneapolis ... 881-6386
NH Engineering Assoc of N Eng Inc, 319 Lincoln St
Manchester ... 623-7294
NJ F & F Assoc, 58 Arcadia Rd, Woodcliff Lake
NM Vinson Assoc Inc, 2329 Wisconsin N E
Albuquerque ... 298-7442
NY F & F Assoc, 461 Old Country Rd
Westbury ... 516 334-1160
NC Mekco Assoc, 100-B Lindsey
Burlington ... 226-7177
Ohio Carter McCormic & Peirce Inc, 3691 Lee Rd
Cleveland ... 216 921-1360
Ohio Carter McCormic & Peirce Inc, 3406 N Main
Dayton ... 513 278-58
Pa S & S Assoc Inc, Boro Line Rd
King of Prussia ... 215 265-3450
Tex Lear Assoc, 1222 Comanche Dr
Richardson ... 214 AD 1-1777
Wash Dewar Assoc, 6361 1st Ave S, Seattle ... 763-2233
For Trans-World Trade, 11973 San Vicente Blvd
Los Angeles Cal ... 472-0444

CEC-BENMAR, 3000 W WARNER AVE, SANTA ANA
CAL, 92704 ... 714-540-5120
J MASUCCI, EMP 112, ENG 5, $2,500-$5,000M
Cal N Mitchell, 3000 W Warner Ave
Santa Ana ... 540-5120
Fla G A Jeffers, Box 8173, Jacksonville ... 353-4624
La J Sanders, 9609 Justin Pl
New Orleans ... 737-3811
NY C B McManus Jr, Box 674
New Rochelle ... NE 2-9200
Ohio L L Weidman, 1007 E Broadway
Toledo ... 691-8302
Wash B Bettcher, 2814 129th SE
Bellevue ... 206 746-7707

CEDAR ENGINEERING DIV CONTROL DATA CORP
5806 W 36TH ST, MINNEAPOLIS
MINN, 55416, TWX 910-576-3434 ... 612-929-1681
D HENDRICKSON, EMP 450, ENG 40
$5,000-$10,000M
Cal Jack Pyle Co, 1611 Borel Pl
San Mateo ... 415 349-1266
Cal E E Enterprises, Inc, 5901 Noble Ave
Van Nuys ... 213 787-5360
Fla Buchanan & Abrams Assoc Inc, Box 6026
Orlando ... 305 GA 3-8995
Md R P Luce & Co, 19 E 21st St
Baltimore ... 301 752-8200
Mass Underwood Sales Corp, 32 Shawsheen Plaza
Bedford ... 617 275-0780
NJ R P Luce & Co Inc, 630 Morris & Essex Tpk
Short Hills ... 201 379-6600
NM A L S Electronics, Box 11626
Abuquerque ... 505 298-2575
NY R P Luce & Co Inc, 1300 Jericho Tpk
New Hyde Park ... 516 437-4550
Ohio Research Devel Prod Assoc, Box 3145
Dayton ... 513 253-6175
Ohio Research Devel Prod Assoc, Box 205
Cleveland ... 216 526-5260
Pa R P Luce & Co, 8717 Patton Rd
Philadelphia ... 215 884-8365
Wash Avionics Liaison Inc, 6770 Perimeter Rd S
Seattle ... 206 RO 7-3870
Can Aero Sales Engrg Co, 4 Racine Rd
Rexdale, Ont ... 416 249-9139
Can Aero Sales Engrg Co, 2695 Regina St
Ottawa, Ont ... 613 828-8560

C-E ELECTRONICS INC, 363 W GLENSIDE AVE
GLENSIDE, PA, 19038 ... 215 887-8900
F DAVELER, EMP 36, ENG 8, $500-$1,000M

Cal John Jones Co. Inc. 1326 Washington Ave
San Leandro.......................... 351-5808
Cal John Jones Co. Inc. 445 N Garey Ave
Pomona.......................... 623-1588
Colo Simpson Assoc. 8000 S Kendall Blvd
Littleton.......................... 798-8439
Conn Paul R Sturgeon Co. Box 170. Milford ... TR 4-6080
Fla H J Oursler. Jr & Assoc. 13787 Oakhurst Rd
Largo.......................... 595-2391
Mass Paul R Sturgeon Co. 1330 Boylston St
Chestnut Hill.......................... 734-7710
Mich Elias Electronics. Box 128 NE Sta
Livonia.......................... 476-1520
Tex Martin Assoc. Box 1002. Bellaire...... MO 8-3877

CELANESE PLASTICS CO. 550 BROAD ST. NEWARK
NJ. 07102.......................... 201 877-2300
G GIORDANO
Cal Celanese Plastics Co. 5721 E Sheila St
Los Angeles.......................... 685-4260
DC Celanese Plastics Co. 1026 17th St NW
Washington.......................... 393-6262
Ga Celanese Plastics Co. 3130 Maple Dr NE
Atlanta.......................... 261-7850
Ill Celanese Plastics Co. 6050 W Touhy Ave
Chicago.......................... NE 1-8600
Mass Celanese Plastics Co. 824 Boylston St
Brookline-Chestnut Hill.......................... 734-9420
Mich Celanese Plastics Co. 702 Northland Towers E
Southfield.......................... 444-1150
Mo Celanese Plastics Co. 200 S Bemiston Ave
St Louis.......................... 393-6262
NJ Celanese Plastics Co. 160 Terminal Ave
Clark Twp.......................... FU 1-4400
NY Celanese Plastics Co. 522 Fifth Ave
New York.......................... TN 7-2000
Ohio Celanese Plastics Co. 1422 Euclid Ave
Cleveland.......................... CH 1-0900
Ohio Celanese Plastics Co. 8630 Winton Rd
Cincinnati.......................... 521-0214
Can Canadian Chemical Co Ltd
1155 Dorchester Blvd W. Montreal..... 866-6311
For Amcel Co Inc. 522 Fifth Ave
New York. NY.......................... TN 7-2000

CELCO. 70 CONSTANTINE DR. MAHWAH
N J. 07430.......................... 201 327-1123
E RYDER. EMP 125. ENG 24
Cal CELCO. 1150 E 8th St. Upland.......... 982-0215
Fla CELCO. 311 NE 78th St. Miami.......... 751-1132

CELESTRON ASSOCIATES INC. 844 COMMERCE ST
THORNWOOD. N Y. 10594.............914 RO 9-3458
P COLGAN. EMP 17. ENG 13. $250-$500M
NY Celestron Assoc. 200 Park Ave. NY

CELTIC INDUSTRIES INC. 14743 OXNARD ST
VAN NUYS. CAL. 91401.......................... 213 787-3615
C WHITE. EMP 10. ENG 2. UP TO $100M
Cal Dale-Dahl Assoc. 16000 Ventura Blvd
Encino.......................... 788-7963
Cal Dale-Dahl Assoc. Box 97. Alamo.......... 939-3597
Minn R W Pinkney Assoc. 1925 Nicollet Ave
Minneapolis.......................... FE 8-0523
Jap Sunny Ltd. Box 207. Tokyo

C E M CO. INC. 24 SCHOOL ST. DANIELSON
CONN. 06239.......................... 203 774-8571
R HARRINGTON. EMP 80. ENG 3. $1,000-$2,500M
Cal Southwestern Agencies. 907 E Market St
Long Bch.......................... 428-1257
Ga J O King. Inc. 711 Trabert St. NW
Atlanta.......................... TR 5-7974
Ill W C Hotchkiss. 331 Sandra La
Chicago.......................... SK 6-2040
Ind Carlen Assoc. 3969 Meadows Dr
Indianapolis.......................... 317 547-7771
Kan John Fahrlander. 6900 W 80th St
Shawnee.......................... 362-2843
Kan Don Bruner. 519 S Broadway. Wichita.... 262-6971
Mass Samuel E Johnson. 214 Elmwood St
N Attleboro.......................... 699-8070
Mich R Balbach. Box 206. Royal Oak.......... 544-4681
Mich F E Harris III. 21720 Moross
Detroit.......................... 313 886-3869
Minn C F Vandervoort. 1279 Osage St
St Paul.......................... 489-5222
Mo R F Decker Co. 909 N Kirkwood Rd
Kirkwood.......................... CH 1-4351
NY Davis-McCormick Co. 519 S 5th Ave
Mt Vernon.......................... 699-9500
NY Thomas G Koltes. Box 57. Manlius...... OV 2-5071
Ohio Robert S Broestl. 14237 Detroit Ave
Lakewood.......................... AC 1-2010
Pa Kenneth B Erdman Co. 7906 Montgomery Ave
Phila.......................... CA 4-1833
Tex Benson Engrg Co. 2516 W Mockingbird La
Dallas.......................... FL 2-7541
Wis Strehlow Co. 6227 W Greenfield Ave
Milwaukee.......................... GR 6-4004
Can C E M Co. Inc. Box 654. Windsor. Ont.... 252-5701
Can J R Fraser & Assoc. 3010 Longfellow Rd
Windsor. Ont.......................... 969-1842

CENTRALAB. DIV GLOBE-UNION INC. 5757 N GREEN BAY AVE
MILWAUKEE. WIS. 53201. TWX 910-262-3084 ... 414 228-1200
E CLEMICK. EMP 2700. OVER $10,000M
ADV PG 411
Ariz Toward Engrg Assoc. 4240 E Clarendon
Phoenix.......................... 602 955-3193
Cal Logan Sales Co. 463 Brewster 5
Redwood City.......................... 415 369-6726
Cal Centralab. 654 N Sepulveda Blvd
Los Angeles.......................... 213 476-1272
Colo Electro-Rep Inc. 1051 S Platte River Dr
Denver.......................... 303 744-2821
Fla Cartwright & Bean. 609 E Colonial Dr
Orlando.......................... 305 425-8284
Ga Cartwright & Bean. 3223 Cain's Hill Pl NW
Atlanta.......................... 404 237-2273
Ill Centralab. 7418 W Belmont Ave
Chicago.......................... 312 889-2900
Ind Les M DeVoe Co. 4010 Washington Blvd
Indnpls.......................... 317 283-1395
Iowa Jerry Vrbik Co. 2818 A Ave NE
Cedar Rapids.......................... 319 365-0461
Kan Lowell. Kangas & Assoc Inc. Box 4116
Overland Park.......................... 913 888-3200
La Cartwright & Bean. 1812 Bullard Ave
Metairie.......................... 504 887-0482
Md Jerry Bresson Assoc. 511 N Charles St
Baltimore.......................... 301 685-0100
Mass Centralab. 60 Dedham Ave
Needham.......................... 617 444-4847
Mich R C Merchant & Co Inc. 18411 W McNichols Rd
Detroit.......................... 313 535-6000
Mich R C Merchant & Co Inc. Box 591
Benton Harbor.......................... 616 925-4211
Minn Centralab. 4901 W 77th St
Minneapolis.......................... 612 920-4130
Mo Lowell. Kangas & Assoc Inc
Box 26 Creve Coeur Sta. St Louis.. 314 647-1111
NJ Centralab. 136 Lakeview Ave
Clifton.......................... 201 478-5300
NM Electro-Rep Inc. 1415 Richmond NE
Albuquerque.......................... 505 256-1749
NY W H Zimmerman. 112 Dewitt St
Syracuse.......................... 315 474-4889
NY W H Zimmerman. 3100 Monroe Ave
Rochester.......................... 716 586-4450
NY Centralab. New York.......................... 212 564-7540
NC Cartwright & Bean. 625 Harwyn Dr
Charlotte.......................... 704 537-7965
Ohio Mike Roth Sales Co. 678 S Green Rd
Cleveland.......................... 216 382-9090
Ohio Robert G Siff & Assoc. Box 7035. Sta B
Dayton.......................... 513 278-4779
Pa Jerry Bresson Assoc. 107 Forrest Ave
Narberth.......................... 215 839-6770
Tenn Cartwright & Bean. 560 S Cooper St
Memphis.......................... 901 276-4442
Tex Robert E Nesbitt Co. 4810 Hazard
Houston.......................... 713 528-3811
Tex Robert E Nesbitt Co. 2930 Merrell Rd
Dallas.......................... 214 357-4601
Wash Jas J Backer Co. 221 W Galer St
Seattle.......................... 206 283-6470
Wis E A Dickinson & Assoc Inc. 3612 N Green Bay Ave
Milwaukee.......................... 414 264-1080
Can Centralab Canada Ltd. 106 McMaster Ave
Ajax. Ont.......................... 416 942-1541
For Globe-Union Intl Div. 5757 N Green Bay Ave
Milwaukee. Wis.......................... 414 228-2801

CENTRALAB SEMICONDUCTOR PRODS. ELCTN DIV
GLOBE-UNION INC. 4501 N ARDEN DR. EL MONTE
CAL. 91734. TWX 910-587-3429........ 213 686-0567
F ANGIER. EMP 456. ENG 30
Ariz Toward Engrg Assoc. 4240 E Clarendon
Phoenix.......................... 602 955-3193
Cal Logan Sales Co. 463 Brewster 5
Redwood City.......................... 415 369-6726
Cal Centralab. 654 N Sepulveda Blvd
Los Angeles.......................... 213 476-1272
Colo Electro-Rep Inc. 1051 S Platte River Dr
Denver.......................... 303 744-2821
Fla Cartwright & Bean. 609 E Colonial Dr
Orlando.......................... 305 425-8284
Ga Cartwright & Bean. 3223 Cain's Hill Pl NW
Atlanta.......................... 404 237-2273
Ill Centralab. 7418 W Belmont Ave
Chicago.......................... 312 889-2900
Ind Les M DeVoe Co. 4010 Washington Blvd
Indianapolis.......................... 317 283-1395
Iowa Jerry Vrbik Co. 2818 A Ave NE
Cedar Rapids.......................... 319 365-0461
Kan Lowell. Kangas & Assoc. Box 4116
Overland Park.......................... 913 888-3200
La Cartwright & Bean. 1812 Bullard Ave
Metairie.......................... 504 887-0482
Md Mount & Co. 4853 Cordell Ave
Bethesda.......................... 301 652-4845
Mass Centralab. 60 Dedham Ave
Needham.......................... 617 444-4847
Mich R C Merchant & Co. 18411 W McNichols Rd
Detroit.......................... 313 535-6000
Mich R C Merchant & Co. Box 591
Benton Harbor.......................... 616 925-4211
Minn Centralab. 4901 W 77th St
Minneapolis.......................... 612 920-4130
Mo Lowell. Kangas & Assoc. Box 26. Creve Coeur Sta
St Louis.......................... 314 647-1111
NJ D & G Sales Corp. 811 Market St
Gloucester.......................... 609 456-1677
NJ Centralab. 136 Lakeview Ave
Clifton.......................... 201 478-5300
NM Electro-Rep Inc. 1415 Richmond NE
Albuquerque.......................... 505 256-1749
NY Centralab. New York.......................... 212 564-7540
NY W H Zimmerman. 112 Dewitt St
Syracuse.......................... 315 474-4889
NY W H Zimmerman. 3100 Monroe Ave
Rochester.......................... 716 586-4450
NC Cartwright & Bean. 625 Harwyn Dr
Charlotte.......................... 704 537-7965
Ohio Mike Roth Sales Co. 678 S Green Rd
Cleveland.......................... 216 382-9090
Ohio Robert G Siff & Assoc. Box 7035. Sta B
Dayton.......................... 513 278-4779
Tenn Cartwright & Bean. 560 S Cooper St
Memphis.......................... 901 276-4442
Tex Robert E Nesbitt Co. 2930 Merrell Rd
Dallas.......................... 214 357-4601
Tex Robert E Nesbitt Co. 4810 Hazard
Houston.......................... 713 528-3811
Wash Jas J Backer Co. 221 W Galer St
Seattle.......................... 206 283-6470
Wis E A Dickinson & Assoc. 3612 N Green Bay Ave
Milwaukee.......................... 414 264-1080
Can Centralab Canada Ltd. 106 McMaster Ave
Ajax. Ont.......................... 416 942-1541
For Globe-Union Intl Div. 5757 N Green Bay Ave
Milwaukee.......................... 414 228-2801

CENTRAL COIL CO INC. 110 W MORGAN ST
MARTINSVILLE. IND. 46151.......... 317 DI 2-3361
J KEITH. EMP 225. ENG 3. $1,000-$2,500M

CENTRAL DYNAMICS LTD. 147 HYMUS BLVD
PTE CLAIRE. QUE. TWX 610-422-3906 .. 514 697-0811
P WHEATLEY. EMP 350. ENG 39. $2,500-$5,000M
Mass Central Dynamics Corp. 903 Main St
Cambridge.......................... 617 547-1600

CENTRAL SCIENTIFIC CO. 2600 S KOSTNER AVE
CHICAGO. ILL. 60623.......................... 312 277-8300
L MILLER
Ala Central Scientific Co. 2128 7th Ave S
Birmingham.......................... FA 4-2433
Ariz Central Scientific Co. 15 N 40th Pl
Phoenix.......................... 273-1431
Cal Central Scientific Co. 1040 Martin Ave
Santa Clara.......................... CH 8-1600
Cal Central Scientific Co. 6446 Telegraph Rd
Los Angeles.......................... RA 3-6141
Mass Central Scientific Co. 160 Washington St
Somerville.......................... PR 6-1800
NJ Central Scientific Co. 237 Sheffield St
Mountainside.......................... AD 3-2000
Okla Central Scientific Co. 6910 E 12th St
Tulsa.......................... TE 6-4681
Tex Central Scientific Co. 6610 Stillwell St
Houston.......................... MI 4-1401
Can Central Scientific Co. 14920 Stony Plain Rd
Edmonton. P A.......................... 489-0404
Can Central Scientific Co. 104 Gun St
Pte Claire. Que.......................... 695-2610
Can Central Scientific Co. 376 Churchill Ave
Ottawa.......................... 613-2-1601
Can Central Scientific Co. 2200 S Sheridan Way
Clarkson Ont.......................... 923-2421
Holl Cenco Instru MIJ NV. Box 336
Konijnenberg 40. Breda.......... 01600-22477
BC Central Scientific Co. 1206 Homer St
Vancouver.......................... 684-5384

CENTRAL SCREW CO. 2530 CRESCENT DR
BROADVIEW. ILL. 60153.......................... 312 344-7722
R MUNSON. EMP 400. ENG 3. $5,000-$10,000M
Cal Central Screw Co. 2901 S Tanager
Los Angeles.......................... 723-9666
Iowa W Clason. 4612 40th St. Des Moines
Ky Central Screw Co. Steadmantown La
Frankfort.......................... 223-2121
Mich Johnston Cutting Inc. 22100 Coolidge Hwy
Oak Park.......................... JO 4-5641
Mo Leander & Co. 12025 Manchester Rd
St Louis.......................... 966-0410
Neb J A & R J Clancey Co. 3527 Broadway
Kansas City. Mo.......................... 931-3090
NH Central Screw Co. 149 Emerald. Keene .. EL 2-5121
NM Tom Deskin. 116 Lomas Blvd NE
Albuquerque.......................... CH 2-3581
Tex Berry Co. 2710 Oaklawn Ave. Dallas..... 528-0461
Va Allie B Kreger. Box 1971. Roanoke...... 345-7011

CENTRAL TRANSFORMER CO. 850 W JACKSON BLVD
CHICAGO. ILL. 60607.......................... 312 TA 9-1936
E MUNSON. EMP 85. ENG 5. $1,000-$2,500M
Fla H D Sarkis. 671 Dommerich Dr
Maitland.......................... 305 647-3671
Md Ansell Eng Co. 816 Thayer Ave
Silver Spring.......................... JU 8-4222
Mass Bordewieck Eng Sales Co. 221 Grove St
Braintree.......................... VI 3-0845
Mich Hilltronics. Inc. 13720 Puritan Ave
Detroit.......................... 342-3242
NY Ray Fara Assoc. Box 81. Manhasset.... MA 7-1151
NY J A Gehrs Assoc. Inc. 410 N Goodman St
Rochester.......................... 473-2230
Ohio Augey Natalino Assoc. 209 Harmony Hill
Akron.......................... MO 6-1447
Tex Bauer Co. 1017 Norwood St. Box 9007
Fort Worth.......................... ED 6-4884

CENTROID INC. 50 WASHINGTON AVE
GARDEN CITY PARK. N Y. 11044....... 516 PI 77250
G STARR. EMP 25. ENG 2. $1,000-$2,500M

CENTURION PRODUCTS DIV. 7607 PAGE AVE
ST LOUIS. MO. 63133.......................... 314 PA 6-2511
J WHITE. EMP 20. ENG 2. $100-$250M
Wash M K Widdekind Co. 815 W Ewing St
Seattle.......................... AT 4-8020

CENTURY ELECTRIC CO. 1806 PINE ST. ST LOUIS
MO. 63166.......................... 314 CE 1-4920
J BOLTON. EMP 1800. ENG 65. OVER $10,000M

Cal F R Hattfield, 1485 Bayshore Blvd
San Francisco .... JU 4-0602
Colo M G Mueller, 1644 Blake St, Denver 222-3515
Fla R L Jethro, 5445 Mariner St, Tampa 872-8549
Ga D J Pesall, 5105 Peachtree Ind Blvd
Chamblee 457-6391
Ill R E Emo, 6835 W Higgins Rd
Chicago .... SP 4-6969
Ind H C Roberts, 6919 E 10th St
Indianapolis 357-8734
Iowa L T Kelly, 1821 State St, Bettendorf 355-4775
La C Espy Reed, 501 N St Patrick St
New Orleans .... HU 2-3106
Md R P Kraus, 6800 Loch Raven Blvd
Baltimore 828-8888
Mass S Barbas, 235 Bear Hill Rd, Waltham 899-4151
Mich G M Smith Jr, 900 Monroe Ave
Grand Rapids .... GL 9-3414
Mich D E Shaw, 23255 Woodward Ave
Ferndale 545-6166
Minn M W Tollefson, 711 W Lake St
Minneapolis .... TA 7-2575
Mo J K Peterson, 1609 W 92nd St
Kansas City .... HI 4-4770
Neb H B Hamel, 2750 N 63rd St, Omaha 551-1477
NY T J McGough, 647 S Warren St
Syracuse .... HA 2-0473
NY D Doerr, 439 Fairview Ave
Fairview, NJ .... WH 3-4900
NC H B Sandberg, 4037 E Independence Blvd
Charlotte 537-0033
Ohio P F Williams, Pkwy & Walnut
Cincinnati 721-4220
Ohio D D Penrod, 5558 Pearl Rd, Cleveland ... 888-2900
Okla F Murphy, 3545 E 51st St, Tulsa .... RI 2-2158
Ore L C Meyers, 2538 NW 22nd Pl
Portland 226-6251
Pa W C Wetlaufer, 1 Bala Ave at City Line
Bala Cynwyd .... MO 4-6262
Pa N J Bockovich, 3105 Banksville Rd
Pittsburgh 561-3127
Tenn J B Heil, 1254 Lamar Ave, Memphis 274-5366
Tex B G Biggs, 7600 Carpenter Frwy
Dallas .... RI 8-4477
Tex K D Bernhagen, 1964 W Gray
Houston .... JA 6-1485
Utah J W Lowder, 1476 Major St
Salt Lake City .... IN 7-5489
Wash B J Gill, N 104 Madelia, Spokane ...... KE 5-2931
Wis J E Baranski, 6833 W Fond du Lac Ave
Milwaukee 461-6220

CENTURY ELECTRONICS & INSTRUMENTS INC
6540 E APACHE, TULSA
OKLA, 74115 918-835-9951
D WEICHERT, EMP 273, ENG 35, $2,500-$5,000M
Ala Mekco Assoc, 3322 Memorial Pkwy S
Huntsville 881-3721
Alas Arva Inc, Box 759, Anchorage
Ariz T Louis Snitzer Co, 15 North 40th Pl
Phoenix 273-1673
Cal T Louis Snitzer Co, 9005 Exposition Blvd
Los Angeles 836-6170
Cal T Louis Snitzer Co, 1020 Corp Way
Palo Alto 968-8304
Cal T Louis Snitzer Co, 1150 Camino Del Mar
Del Mar 454-2191
Colo Space Sys Sales & Engr Inc, 280 Combine St
Denver 388-9225
Conn Datech Assoc, Inc, 965 Dixwell Ave
New Haven 865-1365
DC Bill G Combs, 1625 Eye St NW
Washington 393-6246
Fla Mekco Assoc, 115 Fifth Ave, Indialantic .. 723-6924
Fla Mekco Assoc, 3165 McCrory Rd
Orlando 841-2215
Ill Loren F Green & Assoc, 5218 W Diversey Ave
Chicago .... AV 6-6824
Kan S Sterling Co, 6045 Mart Way, Shawnee Mission
Md Gawler-Knoop Co, 1751 Rockville Pike
Rockville 427-3950
Mass Datech Assoc, Inc, 815 Washington St
Newtonville 527-5394
Mich S Sterling Co, 21250 10 1/2 Mile rd
Southfield 442-5656
Minn Loren F Green & Assoc, 6225 University Ave NE
Minneapolis 781-1611
Mo S Sterling Co, 11734 Lackland Ind Dr
St Louis 542-3636
NJ Gawler-Knoop Co, 14 Beaufort Ave
Roseland .... CA 6-4545
NM Space Sys Sales & Engrg Inc, 1401 Valencia SE
Albuquerque 255-7058
NC Mekco Assoc, 100-B Lindsey St
Burlington 226-7177
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland .... HI 2-8080
Ohio S Sterling Co, 2763 Culver Ave, Dayton ... 298-7573
Okla Applied Science Assoc, 7966 E 41st St
Tulsa 627-6199
Ore Arva Inc, 2035 SW 58th Ave, Portland 292-8762
Pa Gawler-Knoop Co, Box 414, Richboro 925-7550
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh .... TU 4-5515
Tex Applied Science Assoc, 3707 Rawlins St
Dallas 526-8316
Tex Applied Science Assoc, 6218 Westheimer
Houston 781-1441
Utah Space Sys Sales ,
Utah Space Sys Sales & Engr Inc, Box 89
Bountiful 295-6464
Wash Arva Inc, 1320 Prospect St, Seattle 622-0177
Can Smalley's Radio Ltd, 1105 7th Ave SW
Calgary, Alb 263-5820
Can Computing Devices of Can Ltd, Box 508
Ottawa 829-1800
Can Computing Devices of Can Ltd, 59 Richmond St E
Toronto Ont
Can Computing Devices of Can Ltd, 415 Bourke Ave
Dorval P Q 636-1432
Can Computing Devices of Can Ltd, Box 763
Dartmouth NS
Can Sounder Sales & Service, 683 E Hastings St
Vancouver 4 BC
Can Sounder Sales & Service, 683 E Hastings St
Vancouver 4 B C
Cal V t Rupp o, 3445 5th Ave, San Diego ... CY 8-9835

CERAC INC, BOX 597,, BUTLER
WIS, 53007 .... 414 781-5525
J JENKINS, EMP 10, ENG 1, $100-$250M
Cal E F Whitmore Co, Box 8262
San Marino 283-0711
Fr Societe Nouvelle De Metallisation, 26, Rue Clisson
Paris
Holl Interlas, Box 10, Soesterberg
Jap New Metals & Chemicals Corp Ltd
Box Central 565, Tokyo

CERAM CORP, 5345 TIMKEN SQUARE, LA MESA
CAL, 92041 .... 714 463-9211
EMP 9, UP TO $100M
Cal Lo Dan, Inc, 1710 Industrial Rd
San Carlos 415 592-4600
Cal Yarbrough Sales Co, 1608 Orange St
Alhambra 213 283-0668
Conn FLY Assoc, Box 304, Fairfield 259-0772
Ill Electro-Comp Sales, Inc, 5129 W Devon Ave
Chicago .... RO 3-3636
Md David K Jones & Assoc, 2026 Maryland Ave
Baltimore 752-0577
NJ F F Sylvester Assoc, 649 Morris Ave
Springfield 376-3324
NY Jones & Sudders, Inc, 309 Colony Park Dr
Liverpool 457-1180

CERAMASEAL INC, SUB LAPP INSULATOR CO INC
BOX 25, NEW LEBANON CENTER
N Y, 12126, TWX 14-5442 .... 518 933-6101
G SAWIN, EMP 50, ENG 4
Ala Belcher & Assoc Inc, 512 N 18th St
Birmingham 322-1733
Cal Wadsworth-Pacific Mfg Assoc Inc, 71 Parker Ave
Atherton 321-3619
Cal C W Saxon Assoc, Inc, Box 517 El Segundo
EA 2-2111
DC Rumsey Electric Co, 1425 H St NW
Washington .... RE 7-8117
Fla Belcher & Assoc Inc, 8751 Atlantic Blvd
Jacksonville 724-7811
Fla Belcher & Assoc Inc, Box 7567, Ludlam Br
Miami .... FR 1-7000
Fla Belcher & Assoc Inc, 1900 1st Ave N
St Petersburg 862-7575
Ga Belcher & Assoc Inc, 34 Peachtree St NW
Atlanta 525-4221
Ill JSG Electric Co, 9420 W River St
Schiller Park 678-5990
La Curtis H Stout Inc, Box 13291
New Orleans 482-3183
La Curis H Stout Inc, 409 Fairfield Bldg
Shreveport 425-5485
Mass P J Engrg Sales Co Inc, 372 N Beacon
Boston 783-0510
Mich Geo R Home & Co, 1140 N Telegraph Rd
Dearborn .... LO 1-1360
Miss Curtis H Stout Inc, Box 967, Jackson .... FL 4-4326
Mo C B Fall Co, 317 N 11th St, St Louis .... CH 1-2433
NY Canavan-Scanlon Assoc, 564 Ellicott Sq
Buffalo .... TL 2-1122
NY Canavan-Scanlon Assoc, Box 142, Eastwood Sta
Syracuse .... HO 3-9161
NC Jake Rudisill Assoc, 2009 N Tryon St
Charlotte 377-6901
Ohio Bray Assoc, Box 182, Chagrin Falls 247-4474
Pa Muller, Harper & Assoc Inc, Box 11147
Pittsburgh 931-6460
Pa Rumsey Electric Co, Box 4480
Philadelphia .... GL 5-9900
Pa Rumsey Electric Co, Box 324
Allentown .... HE 5-9864
Pa Rumsey Electric Co, 2708 3rd St
Altoona .... WI 2-9205
Tenn Claude E Fox, Box 95, Knoxville 522-4404
Tenn Curtis H Stout Inc, 718 M & M Bldg
Memphis .... JA 6-7601
Tex Elgin B Robertson Inc, 1339 Plowman
Dallas 942-8486
Tex Elgin B Robertson Inc, 4101 San Jacinto St
Houston .... JA 9-3797
Wash Jon B Jolly, 413 Maritime Bldg
Seattle 624-2152
Can D T Shaw Co Ltd, 1966 Graham Blvd
Montreal, Que 735-1541
Can D T Shaw Co Ltd, 5150 Dundas St W
Islington 231-2706
Ger K Schaefer Gesellschaft
Main-Niederrad, Hahnstr 48
Frankfurt .... (0611) 673340
SAfr Robert E O Olsson, Box 165, Motala ... 0141/12229
Aust Charles M Terry Pty Ltd, 115 Pitt St
Sydney 28-8128

CERAMIC MAGNETICS INC, 87 FAIRFIELD RD
FAIRFIELD, N J, 07006 .... 201 227-4222
J MECCA, EMP 18, ENG 6
Cal Wads Mfg Assoc, 10801 Bollinger Dr
Pacific Palisades 213 454-4313
Cal Wads Mfg Assoc, 71 Parker Ave
Atherton 415 321-3619
Conn Wads Mfg Assoc, 35 Stauber Dr
Plainview NY 516 433-3559
Fla Tech Rep Assoc, Box 2095
Melbourne 305 723-9140
Ill Wads Mfg Assoc, 1229 Jarvis St
Chicago 312 274-0601
Md J-H Electronic Sales Co, Box 6844
Towson 301 825-4440
Minn R G Ragon, 1136 W Larpenteur Ave
St Paul 612 488-6634
NH O D Buttolph, Warner Hill Rd
East Derry 603 432-2882
NJ A L Livera & Assoc, 2 Green Village Rd
Madison 201 377-3220
NY J Buttolph, 59 Pinecliff Rd
Chappaqua 914 238-8331
Ohio J C Hofstetter Co, 742 Kenbridge Dr
Cleveland 216 449-0944
Tex Wads Mfg Assoc, 210 S Dorothy
Richardson 214 231-1805
Wash Jon Jolly, 413 Maritime Bldg
Seattle 206 624-2152
For Rocke World Trade Co, 750 3rd Ave
New York, NY 212 986-2244

CERAMICS INTERNATIONAL CORP, 39 SIDING PL
MAHWAH, NJ, 07430 .... 201 529-2800
R SUGGS, EMP 75, ENG 5, $1,000-$2,500M
Cal Stan Hirsch Assoc, 11818 Wilshire Blvd
Los Angeles 213-478-7221
Conn R S Pettigrew & Co, Inc, 10 N Main St
West Hartford 233-8533
Ill Escor Assoc, 6582 Northwest Hwy
Chicago 763-1570
Ind Walter W Bieberich, 2817 Plaza Dr
Ft Wayne 745-2928
Mass R S Pettigrew & Co Inc, 950 Watertown St
West Newton 696-5770
NY Jones-Sudders, Box 366, Middletown 342-0109
For Phillip Baksh, Regent St W 1, London ... CUN 4225
Fr Precimeca, 18 Rue D'Arras
Nanterre, Seine 782 56.80
GB Philip Baksh, Regent St W1, London ..... Cun 4225

CERRO COPPER & BRASS CO DIV CERRO CORP ALLOYS DEPT
ROLLING PLACE, SPRINGDALE, CONN, 06879 .... 203 327-0550
R DARNELL
ADV PG 14, 648

CERRO COPPER & BRASS CO, STAMFORD WKS
ROLLING PL, STAMFORD,
CONN, 06904 .... 203 327-0550
R DARNELL, EMP 500, $500-$1,000M

CERRO CORP, 300 PARK AVE, NEW YORK
NY, 10022, TWX 212 867-5894 .... 212 688-8822
J GALLO, EMP 20,380, ENG 400, OVER $10,000M
Cal H G Jones, 5123 Stansbury Ave, Sherman Oaks
Cal R G Maxwell, 20235 Sherman Way, Canoga Park
Cal A A Shattuck, 26 Ravenhill La, Moraga
Conn G C Davies, 220 Goodale Dr, Newington
Fla E J Parker, 13 Westchester Dr, Kissimmee
Ill R L Slatterly, 3930 Gilbert Ave, Western Springs
Ill J H McKee, 1430 Walnut St, Western Springs
Ill J H McKee, 1430 Walnut St, Western Springs
Mich G E Merritt, 3650 Bradford Dr, Birmingham
Mo L T Harper, 1575 Golden Gate, Florissant
NJ A E Collier, 1199 Woodside Rd, Scotch Plains
Ohio R G Boudon, 1443 W Clifton Blvd, Lakewood
Ohio A F Blaine, 4377 Northfield Rd, Warrensville Hts
Pa C G Falkenstein, 306 Tassel La, Pittsburgh
Pa T A Henderson, Devon-Strafford Apts, Devon
Pa R M Keay, 109 Lamar Rd, Pittsburgh
RI R H Dubuc, 21 Edgewood Dr, Barrington
Tex W S Jones, 5526 Hummingbird Dr, Houston

CERRO SALES CORP, 300 PARK AVE, NEW YORK
NY, 10022, TWX 212 867-5894 .... 212 688-8822
J GALLO

CERRO WIRE & CABLE DIV CERRO CORP
NICOLL & CANNER STS, NEW HAVEN,
CONN, 06504, TWX 710-465-2149 .... 203 772-2250
E REED, EMP 480, ENG 15, OVER $10,000M
ADV PG 55
Cal A A Shattuck, 3705 Mt Diablo Blvd
Lafayette 415 283-8101
Cal R G Maxwell, 17941 Ventura Blvd
Encino 213 345-6606
Fla E J Parker, 7040 Lake Ellenor Dr
Orlando 305 855-7270
Ill J McKee & R Slatterly, 2615 Grant Ave
Bellwood 312 379-2265
Md B T Doane, 4215 Oakridge La
Chevy Chase 301 656-6459
Mich G E Merritt, 28660 Southfield Rd
Lathrup Village 313 442-5833
Mo L T Harper, 200 S Bemiston Ave
Clayton 314 721-2498
NJ A E Collier, 4 Cragwood Rd
Avenel 201 381-2170
Ohio R Boudon & A Blaine, 16601 St Clair Ave
Cleveland 216 481-3770
Pa T A Henderson, 1445 City Line Ave
Overbrook Hills 215 477-2443
Pa R Keay, C Falkenstein, Box 490 Carnegie
Carnegie 412 923-2644
Tex W S Jones, 3407 Montrose Blvd
Houston 713 523-6843

CETRON ELECTRONIC CORP, 715 HAMILTON ST
GENEVA, ILL, 60134 ... 312 232-4140
A TOHT, EMP 130, ENG 3, $1,000-$2,500M

C-F ELECTRONICS INC, 14707 KESWICK ST, VAN NUYS
CAL, 91405 ... 213 781-3849
B BARTON, EMP 30, ENG 2, UP TO $100M
Ohio Electro Com, 8761 Snow Rd, Cleveland ... 886-2404
Ohio Electro Com, Box F, Dayton ... CR 8-4797

C-F NETWORKS INC, 3102 N 29TH AVE, PHOENIX
ARIZ, 85017 ... 602 253-5145
H FULK, EMP 85, ENG 4
Cal Collins & Hyde Co, 1020 Corporation Way
Palo Alto ... 968-7234
Ind J E Goode, 325 W Huron St
Chicago, Ill ... MI 2-2022
Minn Stan Clothier Co, 10 W 58th St
Minneapolis ... TA 5-1234
NY Kahgan Sales Co, 1261 Broadway
New York ... 212 MU 4-7772

C G E, RTE DE NOZAY, 91 MARCOUSSIS
FRANCE, TWX 26877 CRCGE MARCO ... (1) 920-82-50
M CHATELAIN

CGS UNITS INC, 72 SAGINAW DR, ROCHESTER
N Y, 14623 ... 716 244-2080
D SAHBA, EMP 8, ENG 4, UP TO $100M
ADV PG 137, 245

CHADWICK HELMUTH CO INC, 111 E RAILROAD AVE
MONROVIA
CAL, 91016, TWX 213-571-3024 ... 213 358-4567
EMP 20, ENG 4, $2,500-$5,000M
Ala Lee Assoc Inc, 5R Traylor Isl
Huntsville ... 859-2387
Cal Howard & Co, 294 Lawrence Ave
S San Francisco ... 589-3050
Cal Tucul Engineering, 6402 Crenshaw Blvd
Los Angeles ... 7500338
Conn Equipment Sls Co, 3013 Dixwell Ave
Hamden ... 248-5581
Fla Lee Assoc Inc, 200 E Marks, Orlando ... 241-4445
Kan Areo-Hill Sales, 1635 Garland Ave
Wichita ... 267-7167
Md Lee Assoc Inc, 12250 Wilkins Ave
Rockville ... 949-4800
Mich Satullo Co, 4514 N Woodward Ave
Royal Oak ... 549-3910
NJ Tek-Sel-Inc, 440 N Midland Ave
Saddle Brook ... 791-5545
NC Lee Assoc Inc, 829 Burke St
Winston-Salem ... 724-2406
Ohio Lowry-Dietrich Co, 1276 W 3rd St
Cleveland ... 781-1855
Ohio Lowry-Dietrich Co, 439 Deerfield Rd
Columbus ... 223-6042
Pa Acromatix Assoc Inc, 3118 Germantown Pike
Fairview Vlg Mtgry Cnty ... 279-0377
Pa Lowry-Dietrich Co, 90 Clairton Blvd
Pittsburgh ... 892-2992
Tex Blair Engrg Sls, 10034 Monroe St
Dallas ... 352-2556
Wash Cane-Jessup Co, 1433 A 130th N E
Bellevue ... 454-0691

CHA INDUSTRIES, DIV CARL HERRMANN ASSOC
1215 CHRYSLER DR, MENLO PARK
CAL, 94025 ... 415 322-4561
D COGLIANESE, EMP 40, ENG 6, $500-$1,000M
Cal Carl Herrmann Assoc, 1245 E Walnut St
Pasadena ... 681-5111
Cal Carl Herrmann Assoc, 1215 Chrysler Dr
Menlo Park ... 415 322-4561
Ill Mesco Inc, 10436 S Western Ave
Chicago ... 445-7121
Mass R A Brosman, Box 73
Needham Heights ... 617 449-1539
NY Electrolab Equip Co, 12 Bromfield Rd
Garden City ... PR 5-5562
Pa Tyler Griffin Co, 46 Darby Rd, Paoli ... 647-1550
Pa Kurt J Lesker Co, 5635 Horning Rd
Pittsburgh ... 892-2996
Wash Walsh-Ehlers, Inc, 1138 Poplar Pl, Seattle

CHALCO ENGINEERING CORP, 15126 S BROADWAY
GARDENA
CAL, 90247, TWX 213-327-0167 ... FA 1-0121
J COX, EMP 120, ENG 19, $1,000-$2,500M
Ala Roy Steckmesser Assoc, 816 Esslinger Rd
Huntsville ... 881-1750
Fla Roy Steckmesser Assoc, 3039 Saratoga Dr
Orlando ... 305 425-0788
Ill Pat Lind Electronics Co, 5483 N Northwest Hwy
Chicago ... 774-1246
Iowa Halgin Sales, 4403 First Ave SE
Cedar Rapids ... 363-5119
Kan Halgin Sales, Box 1245, Mission ... 722-3323
Ky Ridgway East Inc, Box 5385
Lexington ... 606 299-1057
Mass W E Weeton Co, Box 77, Needham ... 444-6751
Minn Pat Lind Electronics Co, 10104 Sunset Rd
Circle Pines ... 612 786-5770
Mo Halgin Sales, 201 S Central Ave
Clayton 5 ... 721-4415
NJ K & J Sales, Box 1152, Wayne ... 694-3334
NJ K & J Assoc, 18 Penwood Rd
Basking Ridge ... 201 647-2400
NY Controls & Instr Overseas, 15 E 40th St
New York ... 685-5178
Ohio Ridgway East Inc, Box 68, Loveland
Ohio Ridgway East Inc, 4654 Michael Ave
North Olmsted ... 216 777-6600
Tex R Braden, 2646 Andjou Dr, Dallas ... 214 352-4626
Va Gans-Fryling, Inc, 2030 16th St N
Arlington ... 527-3262

CHAMPION CO, 400 HARRISON ST, SPRINGFIELD
OHIO, 45501 ... 513 324-5681
N DICKEY, EMP 300, ENG 10

CHANNEL INDUSTRIES INC, BOX 3680
SANTA BARBARA, CAL, 93105 ... 805 967-0171
R CARLSON, EMP 55, ENG 4

CHANNELLOCK INC, S MAIN ST, MEADVILLE
PA, 16335 ... 814 336-1175
W DEARMENT, EMP 350, ENG 3, $2,500-$5,000M
Cal J J Brown Co, 1485 Bayshore Blvd
San Francisco ... 415 467-2255
Cal J J Brown Co, 257 S Spring St
Los Angeles ... 213 MA2-3263
Colo Western Ind Sales & Serv Co, 2496 W 2nd Ave
Denver ... 934-1251
Fla George Palmer, 1137 NE 7th Ave, Box 4631
Ft Lauderdale ... 525-3892
Ga Jack C Lyle & Assoc, 408 Glenn Bldg
Atlanta ... 688-5544
Ill Muzzy & Peters, 5868 W Lake St
Chicago ... 287-1360
Mass Tom Sawyer Sales Co, 19 Rutgers Rd
Wellesley ... CE 5-2667
Mich Wixson-Nehls, 1015 Fisher Bldg
Detroit ... 871-8815
Minn R L Perrin & Assoc, Inc, 6518 Walker St
Minneapolis ... 929-0426
Mo Dan Schmelzinger, 11412 Summit St
Kansas City ... WI 2-5562
NY A P Henricks Co Inc, 78 Reade St
New York ... 212 732-9630
Ohio Howard W Murray & Co, 19407 Frazier Dr
Cleveland ... 331-3712
Pa Edward D McGinley, Box 10336
Pittsburgh ... 561-7979
Tex Lynn & Hemphill Inc, 2116 N Pearl St
Dallas ... RI 7-4745
Va Don Miller, 2252 Staples Mill Rd
Richmond ... 353-5324
Wash Robert Sullivan Co, Box 200 Rt 6
Port Orchard ... TR 1-0872
Can Seco Tool Co Ltd, 90 Sherbourne St
Toronto, Ont ... 363-1534
For United Export Corp, Box 147
South Bend, Ind ... AT 2-2375

CHANNEL MASTER CORP, ELLENVILLE
N Y, 12428 ... 914 647-5000
P DECKER, EMP 900, ENG 18, OVER $10,000M

CHARTER LABS INC, 65 BRIGHTSIDE AVE
EAST NORTHPORT, NY, 11731 ... 516 757-7220
H MCCANN, EMP 10, ENG 3, $100-$250M

CHARTPAK ROTEX DIV AVERY PRODS CORP
1 RIVER RD, LEEDS, MASS, 01053 ... 413 584-5446
R ERDMANN, EMP 200, ENG 3

CHASE BRASS & COPPER CO, 20600 CHAGRIN BLVD
CLEVELAND, OHIO, 44122 ... 216 283-3900
J STEVENSON, EMP 3847
Cal Chase Brass & Copper Co, 6279 E Slauson Ave
Los Angeles ... 685-7621
Cal Chase Brass & Copper Co, 1499 Bayshore Hwy
Burlingame ... 871-7127
Colo Chase Brass & Copper Co, 5101 Colorado Blvd
Denver ... 388-2441
Conn Chase Brass & Copper Co, Thomaston Ave
Waterbury ... 756-9444
Ga Chase Brass & Copper Co, 695 Stewart Ave SW
Atlanta ... 755-1611
Ill Chase Brass & Copper Co, 5401 W Grand Ave
Chicago ... 889-4000
Ind Chase Brass & Copper Co, 1609 Oliver Ave
Indianapolis ... 637-1543
La Chase Brass & Copper Co
1000 S Jefferson Davis Pkwy
New Orleans ... 486-5441
Md Chase Brass & Copper Co, 1315 Key Hwy
Baltimore ... PL 2-2565
Mass Chase Brass & Copper Co, 852 Providence Hwy
Dedham ... 329-2835
Mich Chase Brass & Copper Co, 29333 Stephenson Hwy
Madison Heights ... 548-1610
Minn Chase Brass & Copper Co, 537 7th Ave N
Minneapolis ... 336-9318
Mo Chase Brass & Copper Co, 15th & Vernon Sts
N Kansas City ... VI 2-9388
Mo Chase Brass & Copper Co, 4641 McRee Ave
St Louis ... 776-1180
NY Chase Brass & Copper Co, 321 Midtown Tower
Rochester ... 325-4626
NY Chase Brass & Copper Co, 55-60 58th St
Maspeth, LI ... TW 4-2770
NC Chase Brass & Copper Co, 2300 Distribution St
Charlotte ... 332-4152
Ohio Chase Brass & Copper Co, 11180 Southland Rd
Cincinnati ... 825-3600
Ohio Chase Brass & Copper Co, 1811 E 40th St
Cleveland ... 881-1700
Pa Chase Brass & Copper Co, 1001 Brighton Rd
Pittsburgh ... 231-2304
Pa Chase Brass & Copper Co, 4250 Wissahickon Ave
Phila ... 223-9611
RI Chase Brass & Copper Co, 14 Powder Hill Dr
Lincoln ... 724-6750
Tex Chase Brass & Copper Co, 5052 Sharp St
Dallas ... 631-8050
Tex Chase Brass & Copper Co, 16 Drennan St
Houston ... CA 2-7266
Wash Chase Brass & Copper Co, 971 Thomas St
Seattle ... MA 4-1862
Wis Chase Brass & Copper Co, 1741 W St Paul Ave
Milwaukee ... 342-7630

CHASE ELECTRONICS MOTOR DIV INC
82-31 51ST AVE, ELMHURST
N Y, 11373 ... 516 OL 1-0330
V FORRAS, EMP 35, ENG 3, $250-$500M

CHASE METALS SERVICE DIV CHASE BRASS & COPPER
CO, 20600 CHAGRIN BLVD, CLEVELAND
OHIO, 44122 ... 216 283-3900
C KELLEY, EMP 425
Cal Chase Metals Service, 6500 E Washington Blvd
Los Angeles ... 723-5351
Cal Chase Metals Service, 1499 Bayshore Hwy
Burlingame ... 871-9720
Colo Chase Metals Service, 4250 E 52nd Ave
Denver ... 399-1190
Conn Chase Metals Service, 40 E Farm St
Waterbury ... 756-8001
Ga Chase Metals Service, 695 Stewart Ave SW
Atlanta ... 755-5731
Ill Chase Metals Service, 5401 W Grand Ave
Chicago ... 889-4000
Ind Chase Metals Service, 1609 Oliver Ave
Indianapolis ... 637-1543
La Chase Metals Service
1000 S Jefferson Davis Pkwy
New Orleans ... 486-5441
Mich Chase Metals Service, 29333 Stephenson Hwy
Madison Heights ... 548-1610
Minn Chase Metals Service, 537 7th Ave N
Minneapolis ... 336-4661
Mo Chase Metals Service, 4641 McRee Ave
St Louis ... PR 6-3111
Mo Chase Metals Service, 1444 Vernon St
N Kansas City ... VI 2-7475
NY Chase Metals Service, 55-60 58th St
Maspeth, LI ... TW 4-0500
Ohio Chase Metals Service, 11180 Southland Rd
Cincinnati ... 825-3030
Pa Chase Metals Service, 4250 Wissahickon Ave
Phila ... BA 3-5800
Pa Chase Metals Service, 1001 Brighton Rd
Pittsburgh ... 231-7900
RI Chase Metals Service, 14 Powder Hill Dr
Lincoln ... 724-7300
Tex Chase Metals Service, 5052 Sharp St
Dallas ... 631-4380
Tex Chase Metals Service, 16 Drennan St
Houston ... CA 8-9031
Wis Chase Metals Service, 6030 N 60th St
Milwaukee ... 466-7900

CHASE & SONS INC, 19 HIGHLAND AVE, RANDOLPH
MASS, 02368 ... 617 963-2600
F CHASE, EMP 100, ENG 3, $2,500-$5,000M
Conn Hildreth Assoc, Box 442, Old Saybrook ... 388-3296
Ill Miller Sls Co, 5932 W Gunnison St
Chicago ... 736-1332
Ill Plastic & Equip Sls Co, 7456 N Harlem Ave
Chicago ... 775-7323
La Reilly-Benton Co Inc, 1645 Tchoupitoulas
New Orleans
Minn M J Pelletier Co, 403 Napco Ave N
Minneapolis ... 332-4369
NJ Anthony J Tosti, 2461 E Memphis St
Philadelphia ... NE 4-6191
NY John S Baker, 609 3rd Ave, Troy
NY Berry-Rochi, Inc, 29-28 41st Ave, LI City
Ohio Harry Lewis, Box 265, Tiffin
Ohio E B Beach Co of Ohio, 5618 Hamlet Ave
Cleveland ... 341-4300
Tex Jos Spermetti, Triola La, Houston ... 713 774-9420
Wash D R Shannon Co, 1510 Rainier Ave, Seattle

CHASSIS-TRAK INC, 525 S WEBSTER ST, INDIANAPOLIS
IND, 46219 ... 317 359-5407
L VAUGHN, EMP 88, ENG 2
ADV PG 840
Cal Dynamic Assoc, 1011 Cadillac Way
Burlingame ... 344-2521
Cal Dynamic Assoc, 5190 W Washington Blvd
Los Angeles ... 933-5833
Conn Coakley, Boyd & Abbet, Inc, 6 Gaywood Dr
Waterbury ... 756-8766
Fla Young & Lawrence Assoc, 601 N New York Ave
Winter Park ... 647-6929
Ill Ringland M Krueger Co, 5755 W Irving Park Rd
Chicago ... 282-8444
Ind Thomas & Sukup Co, 2060 E 54 St
Indianapolis ... 251-4574
Kan Lowell, Kangas & Assoc, Box 4116
Overland Park ... 888-3200
Md Gene Rosen & Assoc, 9501 Wadsworth Dr
Bethesda ... 365-5113
Mass Coakley, Boyd & Abbett, 1424 Highland Ave
Needham ... 444-5470
Mich Martin Vogt, 2817 Bamlet Rd
Royal Oak ... 549-3355
Minn Hasse & Assoc, 3825 York Ave N
Mnpls ... 588-0551
NJ Robert L Ringer Co, Box 114
Glen Rock ... 444-1434

NM R A Mayes Co, 8016 Zuni Rd SE Albuquerque 265-8457
NC Missiletronics, 1321 E Morehead St Charlotte 377-1922
Ohio Components Inc, 7461 N Linden La Cleveland 842-2737
Okla T J Ray Co, 8514 E 31st Pl, Tulsa 627-1515
Tex Rodger Martin Assoc, Box 1002 Bellaire 668-3877
Wash Electronic Sales Corp, 5600 Calif Ave SW Seattle 932-0330
Can Electronic Mktg Co Ltd, 3600 Barclay Ave Montreal, Que 739-8052

CHATHAM CONTROLS CORP, 33 RIVER RD, CHATHAM
N J, 07928 .... 201 635-8892
D PERST, EMP 10, ENG 1, $100-$250M
Ariz E J Foley & Assoc, 3840 N Jokake Dr Scottsdale 945-2666
Cal Components Corp, 232 N Lake Ave Pasadena 681-7448
Cal Components Corp, 4631 Corona Dr San Jose 253-2181
Cal Components Corp, Box 10 Rancho Santa Fe 714 222-2550
Ill D P Corrigan & Assoc, 5306 W Lawrence Ave Chicago 312 725-2500

CHATILLON & SONS, JOHN, 83-30 KEW GARDENS RD
KEW GARDENS, N Y, 11415 .... 212 847-5000
N LAVENDA, EMP 150, ENG 5, $1,000-$2,500M
Ala Alabama Scale Works, 3813 1st Ave N Birmingham 595-3461
Ariz Southwestern Scale Co, 1447 S 26th St Phoenix .... BR 5-5413
Cal Empire Scale Co, 301-3 S Los Angeles St L A .... MA 9-3311
Cal Acme Scale Co, 5303 Adeline St Oakland .... OL 4-1672
Cal Abbott Inst & Engr Co, 1736 Westwood Blvd Los Angeles 272-7166
Colo Murphy Scale & Equip Co, 1800 W Colfax Ave Denver 222-5651
Conn Industrial Scale & Equip Co, 335 Charles St Bridgeport 334-5185
Conn American Scale Service, 336 Putnam Ave Hamden .... LO 2-6866
Conn Wayne Equipment Co, 160 Main St Southington .... MA 8-6769
DC Byron Miller & Assoc, 7712 Georgia Ave NW Washington 829-3903
Fla Brown's Scale Co Inc, 8850 N W 22nd Ave Miami 691-2561
Ga Wiggins Scale Co, 1005 Hemphill Ave NW Atlanta .... TR 2-4994
Haw B F Schoen, Box 3464, Honolulu
Idah Delbert Dove, 3011 State St, Boise 342-0382
Ill Master Gauge Co, 1150 W Grand Ave Chicago .... MO 6-2705
Ind J B Dee Co Inc, 1722 W 16th St Indianapolis .... ME 5-5548
La G T Michelli Co, 526 Metairie Rd Metairie 835-8405
Md S W Betz Co, 2229 Kirk Ave, Baltimore 366-1030
Mass Worcester Scale Co, 135 Summer St Worcester .... PL 2-7478
Mass American Scale & Conveyor, Inc 369 Neponset Ave, Dorchester .... AV 2-7035
Mass Commercial Scale Co, Inc, 140 Michon St Indian Orchard 543-2290
Mich Nels Jorgenson & Co, 420 New Center Bldg Detroit .... TR 1-5600
Minn Scale Service Co, 2117 Minnehaha Ave Minneapolis .... FE 5-1701
Mo Dolph Boettler Co, 569 Melville Ave St Louis .... PA 1-4607
Nev Dependable Scale Co, 1925 Western Ave Las Vegas .... DU 4-4872
NJ Johnson Scale Co, 235 Fairfield Ave W Caldwell .... CA 6-2100
NM Allied Scale & Equip Co 2007 1/2 Ridgecrest Dr SE Albuquerque 265-0105
NY Precision Scale Co, 25-28 Jackson Ave L I C .... ST 6-6881
NY R Schwarz & Sons, 75 College Ave Rochester .... BR 1-4696
NY W & S Scale Co, 118 Pickard Dr Syracuse 455-5551
NY Buffalo Scale Sales, 780 Bird Ave Buffalo 856-5882
NY Rochester Scale Co, 928 N Clinton Ave Rochester .... BA 5-0454
NC J A King Co, 2620 High Point Rd Greensboro 292-0511
Ohio Ohio Counting Scale Co, 3500 St Clair Ave Cleveland .... CH 1-8277
Ore Morris Scale Co, 1537 SE Morrison St Portland .... BE 2-5339
Pa J J McIntyre & Sons, 514 Knorr St Phila .... PI 5-3304
Pa Acme Scale & Supply Co, 5427 Butler St Pittsburgh .... ST 2-1808
RI Central Scale Co, 700 N Main St Providence .... JA 1-9190
Tex Nicol Scales Inc, 1315 S Akard St Dallas .... RI 7-8181
Utah T E Sweet Co, 852 E 9th S Salt Lake City .... CY 8-7661
Wash Phillips Scale Co, 3130 Elliott Ave Seattle .... EM 4-7870
Wis S A Meier Co, 6912 W North Ave Milwaukee .... BL 8-2385
Can Eastern Scale Works, 30 Camforth Rd Toronto, Ont 757-6263
Can Exact Weight Scale Co Ltd, 1504 Notre Dame St W Montreal .... WE 2-7070
Fr Ets Radiophon, 148 Ave Malakoff, Paris
Ital S A Belotti, Piazza Trento No 8, Milano

CHEMALLOY ELECTRONICS CORP
7947 JOHN TOWERS AVE, SANTEE
CAL, 92071 .... 714 448-5715
S FREEDMAN, EMP 9, ENG 2, $100-$250M
Tex E G Miller Co, Box 929, Henderson
Can Beechey Enterprises, 3218 Weston Dr Weston .... Cherry 48051
Fr Technique & Produits, Boulogne-et-Seine, Paris
Jap Industrial Imports, Box 1271, Tokyo
Swed Jaca, Box 16026, Gothenburg

CHEMCLEAN CORP, 128-07 18TH AVE
COLLEGE POINT, N Y, 11356 .... 212 445-2330
H LIVINGSTON, EMP 12, ENG 5, $250-$500M
Mass Chemclean Corp, 32 Claudette Cir Framingham 877-4020

CHEMCUT CORP, 500 SCIENCE PARK RD
STATE COLLEGE
PA, 16801, TWX 510-691-2360 .... 814 238-0514
W SPROUT, EMP 145, ENG 17, $2,500-$5,000M
Cal Ramyr Mfg Co, 1779 N Main St Los Angeles 223-1071
Cal Ramyr Mfg Co, 175 S San Antonia Rd Los Alto 948-3628
Colo Chemical Sales Co, 1125 7th St Denver 534-8148
Conn Robert E Morris Co, Box 41, W Hartford 233-3663
DC Reading Printed Circuit Equip 4680 Nickels Ave SW, Washington 562-6400
Fla Jos A Adams & Assoc, 2955 Dorchester Ave Melbourne 773-1946
Ga D & G Machinery & Gage Co, Box 13135 Atlanta 636-5511
Ill Zimmerman & Gaumond, 1781 Oakton Ave Des Plaines 827-2191
Ind E L Humston Co, Inc, 1606 N Illinois St Indianapolis 925-9691
Mass Robert E Morris Co, Box 68, Newton 332-7907
Minn T K Gray Inc, 1812 S 6th St Minneapolis 332-0536
Mo Davies Supply & Mfg Co, 814 W 17th St Kansas City 221-2128
Mo Davies Supply & Mfg Co, 4160 Meramee St St Louis 664-9332
NY Spar-Kleen Products Inc, Box 2 Skaneateles 685-5942
NC Crotts & Saunders Eng Inc, 235 N Main St Winston-Salem 723-3643
Ohio H E Hofferberth Machy Co, 2753 Dawm Dr Dayton 298-0269
Ohio L W Hodson, 9400 Midwest Ave Cleveland 587-4500
Okla Davies Supply & Mfg Co, 5345 S 71st E Ave Tulsa 627-0782
Pa Buerger Co, Inc, 33 Limekiln Pike Glenside 887-5030
Tenn Davies Supply & Mfg Co, 1455 Rosemary La Memphis 276-8141
Tex Davies Supply & Mfg Co, 2547 Farrington St Dallas 631-5520
Tex Davies Supply & Mfg Co, 7368 Brace St Houston 645-5997
Wash Paramount Technical Agency, 9210 28th Ave NW Seattle 784-6447

CHEMELEC PRODUCTS, INC, 8 FELLOWSHIP RD
CHERRY HILL, N J, 08034 .... 609 424-1470
J STEWART, EMP 13, ENG 2
Ariz Carl Hower Co, 431 Winfield Scott Plaza Scottsdale 947-4204
Cal Straube Assoc, 483 Willow Rd Menlo Park 968-6523
Cal F Huddleston Assoc, 408 S Rosemead Blvd Pasadena
Colo Straube Assoc, Box 1649, Boulder 443-8600
Fla Massey Assoc Inc, Box 13577 St Petersburg 347-6183
Ill Hill & Gray Inc, 821 Garfield, Oak Park 383-0373
Ind Scott Electronics, Inc, 915 N Penna Ave Indianapolis 635-8951
Mass D H Stewart Inc, 216 Burroughs Rd, Braintree
Mich Grant Shaffer Co, 14241 Fenkell Ave Detroit 273-5390
Minn Marks Sales Co, 3100 Humbolt Ave S, Mpls
Mo H A Roes & Co, 2601 Cherry St Kansas City 221-0866
NJ Robert Horne Assoc, Box 31 Pompton Lakes 835-7400
Ohio Scott Electronics, Inc, 1836 Euclid Ave Cleveland 861-2626
Pa Naudain Assoc, 1032 Suburban Sta Bldg Phila 564-3194
Tex J Y Schoonmaker Co Inc, 2995 Ladybird La Dallas 637-8481
For Jos F Rizzo, Empire State Bldg, New York

CHEMICAL & AEROSPACE PRODUCTS INC
231 E LOMITA, WILMINGTON
CAL, 90744 .... 213 775-2581
EMP 42, ENG 5, $500-$1,000M

CHEMICAL MICRO MILLING CO, 1600 HYLTON RD
PENNSAUKEN
N J, 08110, TWX 710-892-0731 .... 609 964-2030
W STRAUSS, EMP 60, ENG 5, $500-$1,000M
Cal Magnetic Metals Co, 853 Production Pl Newport Beach 714 545-9413
Colo Electronic Components, 2340 W Main St Littleton 303 798-8481
Fla Buchanan & Abrams Assoc, 1512 E Concord Ave Orlando 422-8030
Ill Jay C Angel & Co, 2743 W Peterson Ave Chicago 878-0653
Ill Chemical Micro Milling Chi, 990 Criss Cir Elk Grove 439-5830
Minn D G Perry & Co, 5010 France Ave S Minneapolis 612 920-3212
NH William H Shuman Co, 15 Summer St Milford 673-1318
NM Electronic Components, Box 3087 Albuquerque 344-8130
NY Phillip Eyre, 67 Oak Grove Dr, Buffalo 632-4363
NY Lawrence L Malis, 160 E 84th St New York .... RH 4-3771
Tex Allied Components Inc, 10468 E Northwest Hwy Dallas 348-6660
Utah Electronic Components, 4480 Camille Dr Salt Lake City 801 298-2751
Va Theodore C Felger, Box 1061 Charlottesville 293-4812
Wash Image Control Systems, 1209 Poplar Pl S Seattle 323-8332

CHEMICAL PLATING, 120 BRUCE AVE, STRATFORD
CONN, 06497 .... 203 268-2146
J GANIM, EMP 60, ENG 2, $500-$1,000M
Ariz E J Foley & Assoc, 3840 N Jokake Dr Scottsdale .... WH 5-4290
Cal Clancy Sebesta, 381 S Burnside Los Angeles .... WE 3-6552
Mo Vincent Hughes, 7909 Beverly Dr Kansas City .... NI 8-2093
NY Tower Sales, 550 Fifth Ave, New York .... PL 7-6454
Pa E J Creamer, 384 Warren Dr, Wayne .... MU 8-0670
SC George E Youniger, 249 Lancewood Rd Columbia 256-1358

CHEMICAL PRODUCTS CORP, KING PHILIP RD
E PROVIDENCE, R I, 02914 .... 401 434-1770
H ALLISON, EMP 130, ENG 4, $5,000-$10,000M

CHEMPLAST INC, 817-150 DEY RD, WAYNE
N J, 07470, TWX 710 988-5834 .... 201 696-4700
M POWELL, JR, EMP 175, ENG 15, $5,000-$10,000M
Cal Sherman B Margoles, Box 5875 Sherman Oaks .... ST 3-0038
Colo R-C Sales Co, 3985 S Kalamath St Englewood .... SU 9-0565
Fla Patrick Ryan Assoc, 5338 Bayshore Ave Cape Coral 542-2298
Md A C Pittman, 13819 Briarwood Dr Laurel 792-8649
Mass C S Christie, 30 Sherwood Rd, Natick 653-5198
Mich E H Cox Agency, 939 Rivenoak Birmingham .... MI 6-8792
Minn Service Tool & Engrg Co, 521 S 7th St Mnpls .... FE 9-8611
Mo Regal Plastics Supply Co, 1727 Main St Kansas City .... GR 1-6390
NJ J Thomas Anderson, 130 Front St Mt Holly .... AM 7-6433
NJ M A Harris, 84 Franklin St, Bloomfield 743-9477
NY John J Hagmaier, 11 Stoothoff Dr New Hyde Park .... PI 2-0524
NY J Lazor Assoc Inc, 39 Saginaw Dr Rochester .... GR 3-8337
Ohio Rohlfs & Craver Co, Box 37556 Cincinnati 731-7312
SC Geo E Younginer, 249 Lancewood Rd Columbia 256-1358
Tex K & L Distributing Co, 5513 Maple Dallas .... ME 8-5643
Tex P & W Sales Co, PO Drw 10815 Houston .... WA 8-5643
Vt Ralph R Bennett, Box 15, Bennington 447-7229
For Eugene R Fischer, 396 Pine Brook Rd Lincoln Park 694-4763

CHEMTREE CORP, CHEMTREE PARK, CENTRAL VALLEY
N Y, 10917 .... 914 928-2293
W HALL, EMP 10, ENG 3, $100-$250M
ADV PG 636
For Hon Alvis G Englander, 28 Grabon Stra Vienna 52 89 00
For Long Industrial Equipment Pty Ltd, 4 Foster St Sidney, NSW 211-293
Den Chemtree, H C Anderson Blvd 17 Copenhagen .... (01) 12 12 80
Fr Seurolec, 39-41 Rue de L'Est Bologne Billancourt (Seine) VAL-62-83
Ger R Stem, Kaiserstr 13, Frankfurt A/M 28/87/49
GB High Voltage Serv Co Ltd, 60 Carpenters Wood Dr Chorley Wood Herts .... Fieldend 7431
Holl Vemi Sprl, Rue Jules Franqui 22 Brussels 6 .... (02) 37 99 17
Ital TSR, Via Emilia Ponente, Castelbocogneie
Jap Giken Kogyo Co, 3 Kioicho Chiyopa-ku, Tokyo
Nor Herman Lund SA, Bogstadvein 20, Oslo 605 394
Swed Guitar Thomee, Postfack 60 60 Malmo 6 .... Vaxel 040 711 25
Swit H W Tschappeler AG, Muhlebachstr 28 Zurich 8008 .... (051) 34 07 07
Isrl Aveeram Ltd, 20 Esser Tachanot St Tel-Aviv 720161

CHEMTRONICS INC, 1260 RALPH AVE, BROOKLYN
NY, 11236 .... 212 629-1300
J EBERT, EMP 12, ENG 2

Cal	Technical Sales Assoc, 1485 Bay Shore Blvd San Francisco	334-3161
Ill	Markal Sales, 5787 N Lincoln Ave Chicago	312 LO 1-7290
Ind	B Homsher, 4320 Dodge Ave, Ft Wayne	
Mass	Lawrence B Cole & Co, 318 Weston Rd Wellesley Hills	
Mo	Penzner Assoc, Box 4362 Overland Park, Kan	DU 1-0004
Tex	Antle-Smith Sales, 2721 Brookfield Ave, Dallas	
For	Roburn Agencies, 431 Greenwich St, New York, NY	

CHERRY ELECTRICAL PRODUCTS CORP, 1650 DEERFIELD RD
HIGHLAND PARK, ILL, 60035 .... 312 831-2100
D GRADY, EMP 300, ENG 10, $5,000-$10,000M
ADV PG 679

Ala	Powertronics, Inc, Box 3384 Huntsville	205 852-6347
Cal	John Rietz Co, 20700 Dearborn Chadworth	213 882-3000
Cal	Abbott Engrg Co, 2600 El Camino Real Palo Alto	415 327-0830
Conn	Electro-Products Sales Co, 150 S Broad St Meriden	235-4040
Fla	Powertronics Inc, 16460 Redington Dr Redington	831 391-7544
Ind	Menze Sales, 6010 Lower Huntington Rd Fort Wayne	747-5616
Mich	W S McPhail, 1100 S Woodward Birmingham	313 646-9976
Minn	Northport Engineering Inc, 2027 Grand Ave St Paul	698-3841
Mo	Thro Industrial Sales Co, Box 7241 Kansas City	EN 2-2533
Mo	Wells-White Co, 7607 Page Blvd St Louis	PA 6-2511
NJ	Colrud Co, 601 Ardmore Ave Pitman	609 589-5866
NY	Sydney Justin Assoc, 544 W 27th St New York	BR 9-8180
NY	Jerry Andres Sales Inc, 39 Saginaw Dr Rochester	BR 1-2200
NC	Powertronics Inc, Box 403 Thomasville	919 476-4257
Tex	Corwin Assoc, Box 18112, Dallas	DI 8-4623
Wis	Don Herrick Co, 4447 N Oakland Ave Milwaukee	WO 2-4737
Can	Henry Daymond Sales Ltd, 1064 S Service Rd Oakville, Ont	416 VI 4-6721
Ger	Cherry Mikroschalter GmbH 8580 Bayreuth Reidinger Str 12, Bavaria	
GB	D H Bonnella & Son Ltd, West Hill, Hoddesdon Herts	
Aust	G W Engineering Pty Ltd 1-15 Blackfriars St, Chippendale, Sydney	

CHESAPEAKE INSTRUMENT CORP, SHADYSIDE
MD, 20867 .... 301 867-2151
T WINSHIP, EMP 175, ENG 35, $2,500-$5,000M

CHESTER CABLE CO DIV TENNESSEE CORP, HILL ST, CHESTER
N Y, 10918, TWX 914- 469-9801 .... 914 469-2141
H COFFEY, EMP 260, ENG 5, $5,000-$10,000M
ADV PG 84, 85

Cal	Tel-Co Wire & Cable, 774 E Pico Blvd, Los Angeles	
Conn	Forsberg Sales Co, 22 Broadway North Haven	239-5111
Fla	E C A Assoc, 711 N Magnolia Ave Orlando	305 424-0701
Ill	Knoblock & Assoc, Inc, 4902 Tollview Dr Rolling Meadows	392-8586
Ind	Warner, Kesler & Assoc, Box 338 S Whitley	723-5353
Iowa	Jerry Vrbik Co, 2818 A Ave NE Cedar Rapids	365-0461
Ky	G W Thelen Co Inc, 5257 Taylormill Rd Covington	431-0753
Mass	Forsberg Sales, 125 Perkins Ave Brockton	522-6300
Mich	Warner, Kesler & Assoc, Box 126 Sturgis	OL 1-6827
Minn	Edward Hoffman Co, Selby at Snelling St Paul	645-4662
NJ	Cooper Simon Co Inc, 56 Melville Rd Hillsdale	NO 4-2876
NJ	Keefe Electronic Sales Co, 15 S Haddon Ave Haddonfield	429-4650
NM	Bennewitz Assoc, 8310 Cutler NE, Alberquerque	
NY	Cooper Simon Co Inc, 7 W Broad St Mt Vernon	OW 9-5400
NC	Bill Henry Assoc, 1043 Providence Rd Charlotte	704 375-8958
Ohio	R G Sidnell & Co, 14701 Detroit Ave Cleveland	AC 1-1313
Pa	Keefe Electronic Sls Inc, Philadelphia	MA 7-3454
Tex	Robt E Nesbitt Co, 4810 Hazard Houston	JA 8-3811
Tex	R E Nesbitt Co, 2930 Merrel Rd, Dallas	357-4601
For	C H Stone, 205 W Wacker Dr Chicago	RA 6-7725

CHET ENGINEERING CO, 16772 SCHOENBORN ST
SEPULVEDA, CAL, 91343 .... 213 786-7226
C WANTINK, EMP 20, ENG 2, $250-$500M

CHEVRON CHEMICAL CO ORONITE ADDITIVES DIV
200 BUSH ST, SAN FRANCISCO
CAL, 94120 .... 415 434-3530
T SHEA, EMP 2700, ENG 200, OVER $10,000M

Cal	Chevron Chem Co, 1230 N Olive St Anaheim	213 627-1287
Ill	Chevron Chem Co, 1100 Executive Way Des Plaines	312 827-3111
NY	Chevron Chem Co, 1 Rockefeller Plaza New York	212 PL 7-3260
GB	O H Wiles, 14 Malpas Dr, Pinner Middlesex	

CHICAGO AERIAL INDUSTRIES INC
550 W NORTHWEST HWY, BARRINGTON
ILL, 60010, TWX 910 651-1904 .... 312 381-2400
G LOHUIS, EMP 1000, ENG 225, OVER $10,000M

Cal	Chicago Aerial Ind, 207 S Hindry Ave Inglewood	213 678-3271
DC	Chicago Aerial Ind, 1625 Eye St NW Washington	202 347-1456
Ohio	Chicago Aerial Ind, 349 W First St Dayton	513 228-4446
GB	Bourns (Trimpot) Ltd, Hodford House, London	
Jap	Nissho Co Ltd, 2, 1-Chome, Otemachi, Chiyoda-Ku Tokyo	
Swit	Bourns, AG, Alpenstra 1, 6301, Zug	
NZ	John Gamble Ltd, 161-3 Thorndon Qua, Wellington	
Aust	Sixteen Millimetre Aust Pty Ltd, GPO Box 4778 Sydney	

CHICAGO CONDENSER CORP, 3255 W ARMITAGE
CHICAGO, ILL, 60647 .... 312 CA 7-7070
P PHILLIPS, EMP 45, ENG 2, $500-$1,000M

Cal	Lebell-Warren Assoc, 601 County Rd San Carlos	LY 3-7688
Mass	Lincoln Assoc, 13 Eaton Ct Wellesley Hills	235-8770
Minn	White Sales Co, Box 4530 Minneapolis	929-4661
NY	LRC Assoc, Box 114, Valley Cottage	298-8964
Ohio	H H Seay Co, 3850 Fairlington Dr Columbus	488-9994

CHICAGO DIAL INDICATOR CO, 1372 REDEKER RD
DES PLAINES, ILL, 60016 .... 312 827-7186
P FLAUTER, EMP 16, ENG 1, $250-$500M

CHICAGO DYNAMIC INDUSTRIES INC, PRECISION PRODS DIV
1725 DIVERSEY BLVD, CHICAGO, ILL, 60614 .... 312 935-4600
J EARLY, EMP 350, ENG 6, $500-$1,000M
ADV PG [illegible]

Cal	Weightman & Assoc, 1226 W Olive Ave Burbank	849-771
Cal	Weightman & Assoc, 120 Santa Margarita Menlo Park	325-2885
Colo	Franklin Sales Co, 2149 S Clermont Denver	757-0734
Conn	Coakley, Boyd & Abbett, 6 Gaywood Dr Waterbury	756-8766
Fla	W R Lehmann & Co, Box 20275 Orlando	841-4901
Ill	Burt Anderson Assoc Inc, 5969 N Elston Ave Chicago	774-8989
Ind	Burt Anderson & assoc, 114 E Sycamore St Van Wert	232-7626
Md	Billis Sales Co, 110 Gorsuch Rd Timonium	CL 2-0779
Mass	Coakley, Boyd & Abbett, 1424 Highland Ave Needham	444-5470
Mich	S Sterling Co, 21250 10 1/2 Mile Rd Southfield	347-3700
Minn	Mel Foster Co Inc, 228 S Cedar Lake Rd Minneapolis	374-2612
Mo	Harris-Hanson Co, 2814 S Brentwood Blvd St Louis	MI 7-4350
Mo	Harris-Hanson Co, 7916 Paseo St Kansas City	HI 4-9494
NJ	Billis Sales Co, 14 Galway La Cherry Hill	HA 8-3651
NJ	S A M Assoc, 18 Tilghman Dr, Wayne	684-7682
NY	S A M Assoc, 150-08 87th Ave Jamaica	OL 8-8881
NY	Reagan Electronics Inc, 419 Central Ave Albany	HE 6-9649
Ohio	S Sterling Co, 5827 Mayfield Rd Cleveland	HI 2-8080
Ohio	S Sterling Co, 2673 Culver Ave, Dayton	298-7572
Ohio	L & D Inc, Box 7243, Greensboro	919 292-3201
Pa	S Sterling Co, 4232 Brownsville Rd Pittsburgh	TU 4-5515
Tex	Glidden Engr & Equip Co, 3802 Winchester Houston	713 CA 4-6471
Tex	Glidden Engr & Equip Co, 4924 Greenville Ave Dallas	214 EM 3-6539
Wash	Ron Merritt Co, 1320 Prospect St, Seattle	
Can	ElectroDesign, 9124 St Lawrence Blvd Montreal 11, Que	514 389-5914
Can	Electrodesign Ltd, 83 Arthur St Ottawa, Int	613 729-1231
Can	Electrodesign Ltd, 3433 Bathurst St Toronto 19, Ont	416 787-0991
For	Minthorne Intl Co Inc, 64-14 Woodside Ave Woodside, NY	TW 9-9999

CHICAGO ETCHING CORP, 1555 N SHEFFIELD AVE
CHICAGO, ILL, 60622, TWX CNQX 312 642-1630
W SCHOMBURG, SLS MGR, EMP 231, ENG 1
$1,000-$2,500M

Ala	American Design Inc, 3716 3rd Ave So Birmingham	592-1893
Ariz	J E Flook, 131 E 6th Ave, Scottsdale	946-6648
Cal	R M C Sales Co, 251 Granada La Habra	691-4960
Cal	Paul D Jacobs, 1755 Folsom St San Francisco	431-5792
Colo	Electronics Sales, 2340 W Main St Littleton	798-8575
Ind	William E Sherwood, 3421 Stringtown Rd Evansville	HA 2-2154
Ind	Elder Co, Box 294, Michigan City	879-7227
Iowa	Francis A Noll, 1200 20th St SW Cedar Rapids	EM 4-3271
Mass	Johnson Assoc, 81 Merrimack St Lowell	452-0413
Mich	J H Smith Jr & Sr, Box 5192 Grosse Pointe	TU 5-5220
Minn	Paul L Coppini, 2907 E Franklin Ave Minneapolis	339-9141
Mo	Meiners Sales Co, 7500 Natural Bridge Rd St Louis	EV 3-4833
NY	Wm Weber, 225 Lafayette St New York	CA 6-5090
NY	Wm F Devitt, 35 Maricrest Dr Rochester	UN 5-5098
Ohio	W H Broxterman, 2430 Central Pkwy Cincinnati	CH 1-1623
Ohio	Wm Olsen & Assoc, 21055 Lorain Rd Fairview Park	ED 1-0697
Okla	Southwestern Engraving Co, 518 NW 3rd St Oklahoma City	CE 2-9917
Pa	W F Satterthwaite, Box 191 Lansdowne	MA 3-5100
Pa	E H Egan, 4 Oakville Dr, Pittsburgh	921-7297
Tex	Robert E Nesbitt Co, 2930 Merrell Rd Dallas	FL 7-4601
Wash	Stephen Thurlow Co, 116 W Harrison St Seattle	284-7575
Wis	R L Johnson, 2533 W National Ave Milwaukee	EV 4-4400

CHICAGO LOCK CO, 4311 W BELMONT AVE, CHICAGO
ILL, 60641, TWX JKQ 312-282-7177
E LOVELACE, EMP 450, ENG 4

CHICAGO MINIATURE LAMP WORKS
4433 N RAVENSWOOD AVE, CHICAGO
ILL, 60606, TWX 910-221-5445 312-784-1020
K LUSKIN, EMP 413, ENG 25

Ariz	Howe & Howe Sales Inc, 4109 N 18th St Phoenix	602 264-7971
Cal	CMLC, 115 New Montgomery St San Francisco	415 391-1098
Cal	CMLC, 10213 Riverside Dr North Hollywood	213 877-0158
Colo	Nelson Co Inc, 1294 S Bannock St Denver	303 733-5528
Conn	Gerber Sales Co Inc, Box 2917 New Haven	203 777-6279
Fla	Cartwright & Bean, 20100 NE 25th Ct N Miami Beach	305 945-2962
Ga	Cartwright & Bean, 3223 Cain's Hill Pl NW Atlanta	404 237-2273
Ill	T Simon/G Anderson, 4433 N Ravenswood Chicago	312 784-1020
Ind	Burton F Homsher Co, 418 E Berry Fort Wayne	219 432-1164
Kan	Koenig-Myers Assoc, 5500 Buena Vista Dr Shawnee Mission	913 432-8300
La	Cartwright & Bean, 1812 Bullard Ave Metarie	504 887-0482
Md	Kaufholz Assoc, Box 6232 Baltimore	301 488-6561
Md	Geo B Pearlman & Assoc, 2815 Shannandale Dr Silver Springs	301 572-4477
Mass	Gerber Sales Co Inc, 176 2nd Ave Waltham	617 891-8040
Mich	Villani-Pitcher, Inc, 20233 Ann Arbor Tr Dearborn	313 271-4600
Minn	Wenco Sales Inc, 7728 Morgan Ave Minneapolis	612 866-3639
Mo	Koenig-Myers Assoc, 2721 Beloit Dr Bridgeton	314 739-1655
NJ	F F Sylvester Assoc, 649 Morris Ave Springfield	201 376-3324
NM	Nelson Co Inc, Box 1884 Albuquerque	505 299-0433
NY	F W Taylor Co Inc, 4455 E Genessee St DeWitt	315 446-0422
NY	Callahan-Ferguson Co, 107 Greenhedge Dr Camillus	315 488-5518
NY	F F Sylvester Assoc, 260 Northern Blvd Great Neck	516 487-6447
NC	Cartwright & Bean, 625 Harwyn Dr Charlotte	704 537-7965
Ohio	Thomas Shelby & Co, 17 S Walnut St New Bremen	419 629-6511
Pa	Kaufholz Assoc, Box 227 Newtown Square	215 356-5000
Pa	Thomas Shelby & Co, 720 Gypsy La Pittsburgh	341-5263
Pa	Geo B Pearlman & Assoc, 210 Red Barn Rd Willow Grove	212 659-0704
Tenn	Cartwright & Bean, 560 S Cooper St Memphis	901 276-4442
Tex	Techno Assoc, 2324 Shore Crest Dr Dallas	214 357-9213
Tex	Techno Assoc, Box 20544, Dallas	214 357-9213
Utah	Nelson Co, Box 1871 Salt Lake City	801 484-4504
Wash	James J Backer Co, 221 W Galer St Seattle	206 283-6470
Can	Lake Engineering Co Ltd, 123 Manville Rd Scarborough, Ont	416 751-5980
For	E D Magnus & Assoc Inc, 5715 N Lincoln Ave Chicago, Ill	312 334-1503

CHICAGO MOLDED PRODUCTS CORP
1020 N KOLMAR AVE, CHICAGO
ILL, 60651, TWX 312-222-0227 .... 312 342-9000
J JOHNSTON, EMP 500, ENG 15, $5,000-$10,000M

Ind	D-M Assoc, Box 324, Noblesville	773-1766
Mich	W W Weber, Box 2013, Dearborn	565-7788
Wis	Robert F Kornacki, 2325 W Wells St Milwaukee	DI 4-3620

CHICAGO RIVET & MACHINE CO, 950 S 25TH AVE
BELLWOOD, ILL, 60104 312 LI 4-5100
W SHINEFLUG, EMP 700, ENG 6, OVER $10,000M
Cal C W Blair, 1406 S Grand Ave
Los Angeles RI 8-6191
Cal Dean Lewis & Assoc, 4444 Piedmont Ave
Oakland 654-0613
Colo E C Swan, 1634 S Elm St, Denver EA 2-4718
Conn Joseph M Murphy, Box 627
Manchester 649-2129
Ind Dan Cashman, Box 2091 St A
Ft Wayne 484-2163
Ind Herbert Hoover, Rt 6, Columbus 342-3919
Mich M F McManus, 18450 Livernois
Detroit UN 4-7267
Mich John Sinclair, 832 Gladstone
E Grd Rpds 241-1942
Mo J A Clancey, 3527 Broadway
Kansas City WE 1-3090
NY S D Christie & Assoc, 175 Fifth Ave
New York OR 4-9010
NY Donald Rineck, 4515 Main St, Buffalo CI 3366
NY W A Calhoun & Assoc, 175 Fifth Ave
New York SP 7-4190
Ohio Carl H Reineck, 17138 Lorain Ave
Cleveland CL 1-8535
Ohio E F O'Malley, Box 82, Brookville 434-3668
Pa R T Brosius, 1617 J F Kennedy Blvd
Phila LO 3-6784
Pa R A Kluck-Reinreck Assoc 345 Mt Lebanon Blvd
Pittsburgh 561-9226
Tenn T Kavanagh, 4900 Poplar Ave
Memphis 685-7641
Tex Consolidated Sales Inc, Box 19523
Houston SU 1-3253
Wash Robert A Hunter, 217 34th Ave
Seattle EA 4-0874
Wis A J Dunsmore, 924 E Juneau Ave
Milwaukee BR 2-0500
For R Dormitzer, 201 N Wells St
Chicago, Ill CE 6-7126

CHICAGO SWITCH F & F, 2045 WABANSIA AVE, CHICAGO
ILL, 60647 312 489-5500
M GABER, EMP 250, ENG 6, $2,500-$5,000M
ADV PG 667, 669, 680
Ariz Electronic Sls Corp, 2314 N Stone Ave
Tuscon 325-3782
Cal Ruby Sales Corp, Box 487, Santa Clara 243-1694
Cal Coplan Assoc, 4206A Glencoe Ave
Venice 213 397-2166
Ill Wasson & Gallagher, 1024 N Boulevard
Oak Park EV 3-6572
Ind Technical Reps Co, 4000 Meadows Dr
Indianapolis LI 6-5996
Kan Impala, Inc, 6917 W 76th St, Overland Park
Mass Henry P Segel Co, Box 1300, Brookline 232-7525
Mich J L Montgomery, Inc, 770 S Adams
Birmingham 642-8060
Minn Wenco Sales, Inc, 7728 Morgan Ave S
Minneapolis 612 866-3639
Mo Impala, Inc, 47 Vlg Sq Shop Ctr, Hazelwood
NJ Given Assoc, Box 183, Riverton 609 829-7249
NY P Saftler Assoc, 157 W 57th St
New York 212 247-3855
NY W A Franklin Sls Corp, 2 Standish Terr
Syracuse 446-1120
NC Murphy & Cota, 1106 Burke St
Winston-Salem 724-0750
Ohio Tri-State Marketing Inc, 1717 Section Rd
Cincinnati 513 631-5060
Tex M Loss Co, 7919 Royal La, Dallas 214 368-2758
Can Douglas Randall Ltd, 1710 Midland Ave
Scarborough, Ont 751-7911

CHISSO CORP SILICON DIV
3-2 MARUNOUCHI, 2 CHOME, CHIYODA-KU, TOKYO
JAPAN, TWX TK 2554 231 4571
T SASAKI, EMP 500

CHIYODA ELECTRONIC CO LTD
9-3-3 SOTOKANDA, CHIYODA-KU, TOKYO
JAPAN 253-3573
Y KOMIYAMA, EMP 120, ENG 12, $250-$500M
Cal Monarch Elctns Intl Inc, North Hollywood
For Hock Chong & Co, Ltd, 95 Tras St, Singapore
For Central Trading Co, Ltd, 677-661 Chakrapetr Rd
Wang Bura pha, Bang Kok
For Sin Gen Trading Co
154 Connaught Rd, CPO Box 122, Hong Kong
For Clavecilla Radio System, 415 Nueva St
Manilla, Phil
For Orient Trading, Box 202, Koza, Okinawa
For R Hassaram, Calle Lanaval 93
Las Palmas, Canary Is
Fr Pia Electronic Co, 115 Rue Cai, Paris-Xe
Fr ETS Bisset, 11 Rue de la Neva, Paris 8e
SAfr Stern & Marshall (PTY) Ltd, Box 7447, Johannesburg
Isrl Klikol Trading Co, Ltd, Box 5170, Haifa
Aust Encel Electronics Pty Ltd, 431 Bridge Rd
Richmond Melbourne

CHOMERICS, INC, 85 MYSTIC ST, ARLINGTON
MASS, 02174, TWX 710-348-0446 617 648-8650
C KIRK, JR, EMP 50, ENG 10, $1,000-$2,500M
Ala Young & Lawrence, 2907 Governors Dr SW
Huntsville 205 539-6575
Cal Kowal Assoc, Box 1048
Sun Valley 213 768-0378
Cal Lodan Inc, 1710 Industrial Rd
San Carlos 415 592-4600
Fla Young & Lawrence, 601 N New York Ave
Winter Park 305 647-6929
Fla Young & Lawrence, 300 31st St N
St Petersburg 813 894-0026
Ill H Halinton Eng Assoc, 6418 N Central Ave
Chicago 312 763-2131
Iowa J Vrbik Co, 2818 A Ave NE
Cedar Rapids 319 365-0461
Md Andco Electronic Sales, 4700 Davidson Dr
Chevy Chase 301 654-6065
NY Smith Rubber Co, Inc, Box 1002
Rochester 716 342-6610
NY Willgold Elec Sales, 100 N Village Ave
Rockville Center 516 764-4022
NC Candor Co, Bethania 919 924-1480
NC Candor Co, 413 Burwick Ct
Charlottesville 703 973-3789
Ohio Luebbe Sales, 2659 Erie Ave
Cincinnati 513 871-4211
Ohio Luebbe Sales, 1010 Euclid Ave
Cleveland 216 771-7100
Ohio Luebbe Sales, Box 224 Dabel Sta
Dayton 513 252-2200
Pa Andco Sls Engrg, Inc, 10 E School House La
Philadelphia VI 4-9100
Tenn Candor Co, Box 3204, Bristol 615 764-6215
Tex V J Sykes Assoc, 13333 N Central
Dallas AD 5-5289
Wash Paratech Tech Agencies, Box 5427
Seattle 206 784-6447
Fr Ets G Dusailly, 179, Av Marguerite-Renaudin
92 Clamart 642-55-24
Ger Wacker GmbH, Stettenstr 9, 6 Frankfurt Am Main
GB T J Sas & Son Ltd, Vernon Pl, London-WC, 1
Jap Japan Telescomm Corp
17-1, 1 Chome, Shinbashi, Minato-ku
Tokyo 591-4313
Swed American Electronics AB, Norrlandsgatan 15B
Stockholm

CHRISTIANA INDUSTRIES CORP, 6508 N CLARK ST
CHICAGO,, ILL, 60626 312 HO 5-6332
R FERRIS, EMP 50, ENG 1, $500-$1,000M

CHRISTIE ELECTRIC CORP, 3410 W 67TH ST
LOS ANGELES
CAL, 90043, TWX 910-321-3867 213 750-1151
F BENJAMIN, EMP 115, ENG 13, $1,000-$2,500M
Ala Ridge Instrument Co, 7220 Governors Dr, W
Huntsville 837-1761
Ariz R A Mayes Co, 4747 N 16th St
Phoenix 279-5243
Cal Dynamic Assoc, 1011 Cadillac Way
Burlingame 344-2521
Cal Halbar Assoc, 1805 W 3rd St
Los Angeles 387-8283
Colo R A Mayes Co, Box 314, Broomfield 421-0706
Fla Ridge Instrument Co, 2227 Seely Dr
Orlando 293-4711
Ga Ridge Instrument Co, 3094 McCully Dr, NE
Atlanta 939-1554
Haw Victor Kim Electronics, 623-25 South St
Honolulu 507-132
Ill Kenneth W Meyers Co, 7256 W Touhy Ave
Chicago SP 4-6440
Kan Engineering Services Co, 7924-A State Line
Prairie Village 649-4000
Md L G White Co, Inc, 880 Bonifant St
Silver Spring 585-3141
Mass W M Hague Co, 10 Muzzey St
Lexington 862-5700
Mich Carter, McCormic & Peirce, Inc, 16239 Wyoming St
Detroit 863-4600
Mo Engineering Services Co, 6717 Vernon Ave
St Louis 726-2233
NJ Instrumentation Sales Co, Box 403
Ridgewood 455-5210
NM R A Mayes Co, 8016 Zuni Rd SE
Albuquerque 265-7989
NY Rep Tech Inc, Box 98, Pickard Bldg
Syracuse 454-0761
NY Rep Tech Inc, Box 156, Clarence 684-6250
NY Rep Tech, Inc, 1905 Vestal Rd, Vestal 785-5979
NC L G White & Co, Inc, Box 2356
Winston-Salem 725-3612
Ohio Carter, McCormic - Peirce, Inc, 3691 Lee Rd
Cleveland 921-1360
Ohio Carter, McCormic - Peirce, Inc, 3406 N Main St
Dayton 278-5873
Pa L G White Co, Inc, 100 Essex St
Narbeth 664-6505
Tenn Ridge Instrument Co, 140 E Division Rd
Oak Ridge 483-1311
Tex Applied Engineering Sales, First Bank & Trust Bldg
Richardson AD 1-1322
Wash Al Smith Co, 405 166 SE, Bellevue 746-6770
For Export Co, 12198 1/2 Ventura Blvd
Studio City 877-0128

CHRONETICS INC, 500 NUBER AVE, MOUNT VERNON
N Y, 10550, TWX 710 560-0014 914 699-4400
S GORDON, EMP 100, $2,500-$5,000M
Ala W A Brown & Assoc, 1314 Buford St NW
Huntsville 205 536-8393
Ariz T Louis Snitzer Co, 15 N 40th Pl
Phoenix 602 273-1673
Cal T Louis Snitzer Co, 1150 Camino Del Mar
Del Mar 714 454-2191
Cal T Louis Snitzer Co, 9005 Exposition Blvd
Los Angeles 213 836-6170
Cal T Louis Snitzer Co, 1020 Corporation Way
Palo Alto 415 968-8304
Fla W A Brown & Assoc, 222 Weber Ave
Orlando 305 425-5505
Fla W A Brown & Assoc, 212 Bradley Dr NE
Ft Walton 305 243-6424
Fla W A Brown & Assoc, 3039 NE 32nd Ave
Ft Lauderdale 305 243-6424
Ga W A Brown & Assoc, 1590 Cooledge Rd NW
Tucker 404 939-1674
Ill Contemporary Science Inc, Box 205
Mt Prospect CL 5-3793
Md QED Electronics Inc, 880 Bonifant St
Silver Spring JU 8-8134
Mass J & J Assoc, 225 Cresent St
Waltham 617 899-0160
Mo Harris-Hanson Co, 2814 S Brentwood Blvd
St Louis MI 7-4350
Mo Harris-Hanson Co, 7916 Paseo St
Kansas City 444-9494
NJ QED Electronics Inc, 2916 Federal St
Camden WA 5-8711
NY QED Electronics Inc, 965 Nepperhan Ave
Yonkers YO 8-2200
NY DB Assoc, 3307 Erie Blvd E
DeWitt 315 GI 6-0220
NC W A Brown & Assoc, 1108 Burke St
Winston-Salem 919 725-5384
Ohio Contemporary Science Inc, 4305 Groveland Rd
University Heights
Can Applied Technology, Box 272
Don Mills, Ont 444-1264
Den Hans Christiansen, Kobenhavn Vanlose
HvidTjornevei, 36
Ger Wenzel Elektronik, 8 Mumchen 27, Lamonstr 32,
GB Claud E Lyons, Ware Rd, Herts
Ital I N E A Elettronica Nucleare, Via Porri 10, Torino
Jap Nichimen Co Ltd, Box 1136, Tokyo
Nor H Meltzer & Co, Radhusgaten 17, Oslo 1
Swed Bo Philip Instrumentation, Hallebergsvagen 18
Bromma
Swit Chronetics, Inc, 39, rue Rothschild, Geneva

CHRONO-LOG CORP, 2583 W CHESTER PIKE
BROOMALL, PA, 19008 215 EL 6-6771
A FREILICH, EMP 25, ENG 2, $500-$1,000M
Ala Reynolds & Assoc, 904 Bob Wallace Ave S W
Huntsville 536-1941
Ariz R A Mayes Co, 4747 N 16th St
Phoenix 279-5243
Cal Thorson Co, 6824 Melrose Ave
Los Angeles WE 7-0790
Cal Thorson Co, 2443 Ash St, Palo Alto DA 1-2414
Cal Thorson Co, 2114 N Broadway
Santa Ana 547-6206
Cal Thorson Co, 444 Olive St, San Diego CY 8-8385
Colo R A Mayes Co, Box 314, Broomfield 421-0706
Fla Reynolds & Assoc, Box 1043
Eau Gallie 254-0520
Fla Reynolds & Assoc, 161 SW 75th Ave
Ft Lauderdale 581-6611
Fla Reynolds & Assoc, Box 8877, Orlando 424-3836
Ga Reynolds & Assoc, 175 W Wieuca Rd NE
Atlanta 252-5360
Ill Scientific Sales Corp, 7132 N Harlem Ave
Chicago 775-7595
Ind Scientific Sales Corp, 706 Sherwood Dr, Indianapolis
Kan Leemark Engineers, Box 6175
Leawood NI 8-0124
Mass Wild & Assoc, 570 Hillside Ave
Needham HI 4-2366
Mich Ohio Instru Co, 339 Municipal Ct Bldg
Ann Arbor 769-1177
Minn Engineering Products Assoc, 2119 Grand Ave
St Paul MI 8-5531
NJ Wild & Assoc Inc, Box 300, Ramsey 327-4244
NM R A Mayes Co, 8016 Zuni Rd SE
Albuquerque 265-7989
NY Wild & Assoc, 200 Michael Drive
Syosset WA 1-7100
NY Wild & Assoc, Box 266
Hastings on Hudson 963-3803
Ohio Ohio Instrument Co, 505 Whitney Ave
Worthington 885-0743
Pa Wild & Assoc Inc, 80 Second St Pike
Southampton EL 7-6645
Tex R A Mayes Co, 324 N Central Exp
Richardson AD 5-3043
Va H J Heffernan Co, 1123 N Irving St
Arlington JA 2-6666
Wash Thorson Co, 1767 15th Ave S, Seattle EA 5-5000
Can York Instruments, 1262 Don Mills Rd
Don Mills, Ont 445-1255
For Scientific Furnishings Ltd, Terminus Rd
Chichester, Sussex, Eng CH 8-6641
Aust H Rowe & Co Pty Ltd, 7 Flinders Ct, Melbourne

CHRYSLER CORP, MISSILE DIV, BOX 2628, DETROIT
MICH, 48231 313 539-2000
J KEEGAN, EMP 1000, ENG 400, OVER $10,000M
Ala Chrysler Corp, 1312 Meridan St
Huntsville 536-5581
Cal Leo Van Rossen, 19298 Espinosa
Tarzana 881-1320
DC Chrsler Corp, 1700 K St NW
Washington 296-3500
Fla Chrysler Corp, 8880 Astronaut Blvd
Cape Canaveral 784-6400
La Chrysler Corp, Box 26018, New Orleans 525-4167
Tex Chrysler Corp, Box 57845, Webster HU 8-2344

CHRYSLER CORP, SPACE DIV, HUNTSVILLE OPER
1312 N MERIDAN ST, HUNTSVILLE
ALA, 35807 205 842-4835
G CARLSON, EMP 1200, ENG 500, OVER $10,000M

CHU ASSOCIATES INC, BOX 387, LITTLETON
MASS, 01460 617 456-3282
I FAIGEN, EMP 125, ENG 20, $2,500-$5,000M

DC ITP Washington Inc, 1250 Connecticut Ave
Washington 202 223-5520

CHURCHILL CORP, 344 FRANKLIN ST, MELROSE
MASS, 02176 .... 617 665-4700
W SCHERMERHORN, EMP 30, ENG 2, $250-$500M
Ariz E V Roberts & Assoc, 77 Third Ave W
Scottsdale 947-7695
Cal E V Roberts & Assoc, 9601 W Jefferson Blvd
Culver City 870-9561
Cal E V Roberts & Assoc, 800 San Antonio Rd
Palo Alto 324-1671
Cal E V Roberts & Assoc, 4379 30th St
San Diego 298-5755
Colo Vinson Assoc, 3600 S Lincoln St
Englewood 789-2203
DC E R Hitchcock, 1629 K St NW
Washington 296-6899
Ga Black Eng Sales Co, 500 River Valley Rd
Atlanta 252-2523
Ill Bauman & Bluzat Co, 2925 W Touhy Ave
Chicago 761-3630
Md Ken Randall Co, 821 Scarlett Dr
Towson 828-5310
Minn Fred B Hill Co, 6110 Excelsior Blvd
Mnpls 929-6727
NJ Ken Randall Co, 250 Haddon Ave
Collingswood 854-3323
NY E R A Inc, 330 Great Neck Rd
Great Neck .... HU 2-9320
NY Ferguson Sales Inc, 228 Winton Rd
N Rochester 482-7757
Ohio Jay Engineering Co, 4712 W 130th St
Cleveland 252-0486
Ohio Jay Engineering Co, 1721 E 3rd St
Dayton 253-2151
Tex Blair Eng Sales Co, 10034 Monroe St
Dallas .... FL 2-2556
Tex Blair Eng Sales Co, 2400 W Loop S
Houston .... NA 1-0808

CIBA PRODUCTS CO, 556 MORRIS AVE, SUMMIT
N J, 07901 .... 201 273-3500
E DORMAN, EMP 100, ENG 15, OVER $10,000M
Cal Dorsett & Jackson, Inc, 3800 Noakes St
Los Angeles 268-1815
Cal Ciba Products Co, 6055 E Washington Blvd
Los Angeles 685-6010
Fla Burks Inc, 5615 E Powhattan Ave
Tampa 626-6197
Ga Charles L Burks & Co Inc, Box 43115
Atlanta 344-7640
Ill Ciba Prods Co, 7535 Lincoln Ave
Skokie 677-0120
Ill Jensen-Souders Assoc, Inc, 510 North Dearborn St
Chicago 644-3809
Ind Indiana Naval Stores Co, Inc, Box 22025
Indianapolis 632-9343
Ky C L McGuire & Co, 137 St Matthews Ave
Louisville 896-8743
Mass D H Litter Co, Inc, Box 247
Ballardvale 475-5315
Mo Harry A Baumstark & Co, 7710 Polk St
St Louis 832-7400
Mo Harry A Baumstark & Co, 204 W 3rd St
Kansas City 221-3808
Mo Ciba Products Co, 135 Progress Pkwy
Hazelwood 542-3525
NY D H Litter Co, Inc, 116 E 16th St
New York 777-4410
NY Commercial Chemicals, Inc, 211 Hertel Ave
Buffalo 873-3000
NY Commercial Chemicals, Inc, 230 Winton Rd, N
Rochester 654-9390
NY Charles L Burks & Co Inc, Box 1666
High Point 882-1551
Ohio Ciba Products Co, 6114 Broadway Ave
Cleveland 271-5353
Pa Ciba Products Co, 4241 N 2nd St
Philadelphia .... GL 5-5507
Tex Ciba Products Co, 2260 Tennessee Bldg
Houston 224-1861
Can Ciba Co Ltd, 205 Bouchard Blvd
Dorval Que .... ME 1-4211
Can Ciba Co Ltd, 858 York Mills Rd
Don Mills, Ont 444-4494
Swit Ciba, Ltd, Basle 061-325011

CICO CORP, 11628 SHELDON ST, SUN VALLEY
CAL, 91352 .... 213 TR 7-0575
D HAITH, EMP 6, ENG 2, $100-$250M

CICOIL CORP, 9324 TOPANGA CANYON BLVD
CHATSWORTH
CAL, 91311, TWX 910-494-1921 .... 213 882-2021
W KISH, EMP 250, ENG 6
Ala Grady-Duckett Sales Co, Box 537
Hazel Green 205 828-3475
Ariz Fred Schoeffler Assoc, 6912 E Horseshoe Rd
Scottsdale 948-3470
Cal Straube Assoc, 483 Willow Rd
Menlo Park 415 323-2476
Colo Straube Assoc, 1123 Spruce St
Boulder 303 443-8600
Conn R H Whitehead Assoc, Box 345
Guilford 453-3762
Fla Grady-Duckett Sales Co, Box 15215
Tampa 813 876-5295
Fla Grady-Duckett Sales Co, Box 310, Uleta Branch
Miami 305 947-3974
Ga Grady-Duckett Sales Co, Box 29067
Atlanta 404 451-3529
Ill Berndt Assoc, 6414 W Belmont Ave
Chicago 312 283-0713
Ind Del Steffen & Assoc, 737 N LaFontaine St
Huntington 219 356-5124
Mass R H Whitehead Assoc, Statler Office Bldg
Boston 542-7676
Mich Elko Sales Co, 3119 Midland Dr SE
Grand Rapids 616 949-1451
Mich Elko Sales Co, 80-970 N Oxford Rd
Grosse Point Woods 313 884-7893
NJ Henry G Richter Inc, 608 Sherwood Pkwy
Mountainside 201 233-4615
NY Henry G Richter Inc, 50 Foxcroft
Fayettville 315 637-6713
NY Henry G Richter Inc, Box 194
Huntington Bay .... 516 HA 1-1393
NC Grady-Duckett Sales Co, Box 22002
Greensboro 919 273-4617
Ohio Del Steffen & Assoc, 904 E 222nd St
Cleveland 216 261-5055
Ohio Del Steffen & Assoc, Box 2341
Dayton 513 293-3145
Ore M K Widdekind Co, 3292 Sunnyview Ave NE
Salem 503 363-6445
Wash M K Widdekind Co, 815 W Ewing St
Seattle 206 284-8020

CIE DE SIGNAUX ET D'ENTREPRISES ELECTRIQUES
2 A 8, RUE CAROLINE, PARIS 17EME
FRANCE 387-39-29
M MALISSARD, EMP 2880, ENG 650, OVER $10,000M

CIE INTERNATIONALE POUR L'INFORMATIQUE
68 RTE DE VERSAILLES, 78 LOUVECIENNES
FRANCE, TWX INFITEC 60030 F 951 86 00
E KALLMANN, EMP 3500, ENG 1000, OVER $10,000M
Ger Cae GmbH, Ginnheimer Landstr 140
Frankfurt-Main 52 04 44
Holl CGE NV, Koninginnegracht 64
Den Haag 60 88 18
Ital Cae Italiana, 9, Via Dei Cignoli
Milano 308 38 19
Swit CAE, 77 rue d'Italie, Geneve 25 13 87
Belg Sait, 66, Chaussee de Ruisbroek
Bruxelles 19 .... 76 20 30
Spn Proco S A, Serrano 92, Madrid 225 24 77

CIMCO WIRE & CABLE CO, 250 W CRESCENT AVE
ALLENDALE, N J, 07401 .... 201 327-2522
J MONAGHAN, EMP 50, ENG 3, $1,000-$2,500M
Cal Falmat, Inc, 13666 Hawthorne Blvd, Hawthorne
Cal Electrical Specialty Co, 213 E Harris Ave
So San Francisco
Ill R J Kennedy Co, 6713 N Oliphant Ave, Chicago
Mass F C Talbot, Box 366, Weston 617 893-6877
Minn Edward Hoffman Co, 180 N Snelling Ave, St Paul
Mo Suor Sales Corp, 8115 Troost, Kansas City
NJ E B Hinck, 139 Union St, Montclair
NJ Keefe Electronic Sales Co, 15 S Haddon Ave
Haddonfield
NY Telesco-Messina Inc, 3254 Winton Rd S
Rochester 716 275-9200
Ohio Component/Insulation Corp, 14235 Detroit Ave
Cleveland
Pa J W Kight Co, 4 Longfellow Rd, Pittsburgh
Tex R E Nesbitt Co, 2930 Merrell Rd, Dallas
Can Intl Elctn Components, 2055 Mountain St
Montreal, Que

CIMRON DIV LSI, 3801 HICOCK ST, SAN DIEGO
CAL, 92110, TWX 910-335-1196 .... 714 297-4647
G HATFIELD, EMP 50, ENG 3, $500-$1,000M

CINCH-GRAPHIK DIV UNITED-CARR INC
200 S TURNBULL CANYON RD, CITY OF INDUSTRY
CAL, 91744 .... 213 333-1201
A PUHLMAN, EMP 675, ENG 15, OVER $10,000M
Cal United-Carr Inc, 2680 Bayshore Frontage Rd
Mountain View 969-2252
Colo United-Carr Inc, 1271 W Littleton Blvd
Littleton 303 798-2042
Fla United-Carr Inc, 1260 Winston Rd
Maitland 838-3421
Ga United-Carr Inc, 1776 Peachtree St NW
Atlanta 876-0820
Ill United-Carr Inc, 1982 Lunt Ave
Elk Grove 437-5110
Ind United-Carr Inc, 2511 E 46th St
Indianapolis 547-2300
Md United-Carr Inc, 10201 Grosvenor Place
Rockville 493-6259
Mass United-Carr Inc, 100 Main St, Reading 944-3020
Mich United-Carr Inc, 2832 E Grand Blvd
Detroit 873-9500
Minn United-Carr Inc, 7615 Metro Blvd
Minneapolis 941-4353
Mo United-Carr Inc, 6 East 11th St
Kansas City .... VI 2-2080
Mo United-Carr Inc, 8000 Bonhomme
St Louis .... PA 7-7370
NJ United-Carr Inc, 530 Main St, Fort Lee 947-7600
NY United-Carr Inc, E Molloy Rd, Syracuse 454-9268
NY United-Carr Inc, Box 425, Millbrook 677-3488
Ohio United-Carr Inc, 2829 Euclid Ave
Cleveland 861-7557
Ohio United-Carr Inc, 3300 S Dixie Ave
Dayton 299-1972
Pa United-Carr iNC, 1601 Church Rd
Glenside 887-7520
Tex United-Carr Inc, 1066 W Mockingbird La
Dallas .... ME 1-0410
Tex United-Carr Inc, 1405 S Post Oak Rd
Houston .... NA 2-3723
Can United-Carr Inc, 4198 Dundas St W
Toronto 233-5564
Can United-Carr Canada Ltd, 714 Shell Tower Bldg
Montreal .... UN 6-7465

CINCH MFG CO, 1501 MORSE AVE, ELK GROVE VILLAGE
ILL, 60007, TWX 910-222-1798 .... 312 439-8800
A OLSEN, OVER $10,000M
ADV PG 188, 189
Ariz Cinch Elctns Group, 77 Third Ave
Scottsdale 602 646-3421
Cal Cinch Elctns Group, 2680 Bayshore Frontage Rd
Mountain View 415 969-2252
Cal Cinch Elctns Group, 887 S Atlantic Blvd
Monterey Park 213 282-8416
Cal Cinch Elctns Group, 325 W 4th St
Tustin 714 838-4392
Colo Cinch Elctns Group, 1271 W Littleton Blvd
Littleton 303 798-2042
Fla Cinch Elctns Group, 5360 Diplomat Cir
Orlando 305 645-2503
Ga Cinch Elctns Group, 1776 Peachtree St, NW
Atlanta 876-0820
Ill Cinch Elctns Group, 1982 Lunt Ave
Elk Grove Village 312 569-2130
Ind Cinch Elctns Group, 2511 E 46th St
Indpls .... LI 7-2300
Md Cinch Elctns Group, 10201 Grosvenor Pl
Rockville 301 493-6259
Mass Cinch Elctns Group, 100 Main St
Reading 617 944-3020
Mich Cinch Elctns Group, 2832 E Grand Blvd
Detroit .... TR 3-9500
Minn Cinch Elctns Group, 7615 Metro Blvd
Minneapolis 612 941-4353
Mo Cinch Elctns Group, 8000 Bonhomme
St Louis .... PA 7-7370
Mo Cinch Elctns Group, 809 W 39th St
Kansas City 816 531-6650
NJ Cinch Elctns Group, 530 Main St
Ft Lee 947-7600
NY Cinch Elctns Group, E Molloy Rd
Syracuse 454-9268
NY Cinch Elctns Group, Box 425, Millbrook 677-3488
Ohio Cinch Elctns Group, 3300 S Dixie Ave
Dayton 299-1972
Pa Cinch Elctns Group, 1601 Church Rd
Glenside 887-7520
Tex Cinch Elctns Group, 1066 W Mockingbird La
Dallas .... ME 1-0410
Tex Cinch Elctns Group, 1405 S Post Oak Rd
Houston .... NA 2-3723
Wash Don Smith Sls Co, 2320 N 45th St
Seattle .... ME 3-3160
Can United-Carr Canada Ltd, Gage Ave & Beach Rd
Hamilton .... LI 4-5791
Can United-Carr Canada Ltd, 93 Yorkville Ave
Toronto .... WA 4-2157
Can United-Carr Canada Ltd, Shell Tower Bldg
Montreal .... UN 6-7465

CINCH-MONADNOCK, 18300 E VALLEY BLVD
CITY OF INDUSTRY
CAL, 91747, TWX 910-584-1303 .... 213 964-6581
R BERGER, EMP 260, ENG 8

CINCH-NULINE DIV UNITED-CARR, 1015 S SIXTH ST
MINNEAPOLIS, MINN, 55415 .... 612 339-8301
E SCHMIDT, EMP 300, ENG 16
Cal United Carr Inc, 1709 W 8th St
Los Angeles .... HU 3-6810
Ga United Carr Inc, 1776 Peachtree St NW
Atlanta 875-9436
Ill United Carr Inc, 4258 N Cicero Ave
Chicago 777-1700
Ind United Carr Inc, 2511 E 46th St
Indianapolis 549-2300
Ky United Carr Inc, 190 Colony Way
Louisville 895-1064
Md United Carr Inc, 10201 Grosvenor Pl
Rockville 933-0827
Mass United Carr Inc, 6 Laurel Ave
Wellesley Hills 235-6758
Mich United Carr Inc, 2832 E Grand Blvd
Detroit 873-9500
Mo United Carr Inc, 8000 Bonhomme
St Louis .... PA 7370
NY United Carr Inc, 605 Third Ave
New York 661-2121
NY United Carr Inc, Pickard Bldg, Syracuse 454-9268
Ohio United Carr Inc, 2829 Euclid Ave
Cleveland 861-7557
Pa United Carr Inc, 1601 Church Rd
Glenside 887-7520
Tex United Carr Inc, 1066 W Mockingbird La
Dallas .... ME 1-0410

CINCINNATI DEVELOPMENT & MFG CO
6514 WOOSTER PIKE, CINCINNATI
OHIO, 45227 .... 513 271-7280
W MOONEY, EMP 50, ENG 3
Cal L M Alchimisti, Box 516
San Carlos 415 591-9651
Ill C Shannon, 328 Olmstead Rd
Riverside 312 447-4139
Mass H P Chase, Box 47, Holyoke 413 533-0168
Mich N T Sullivan, Box 202
Birmingham 313 647-3444
Minn C R Berquist, 3529 Webster Ave S
Minneapolis 612 929-6082
NJ J T Elliott, Box 829, North Bergen 201 864-2376
NY E P Newland, 801 First Ave, Troy 518 235-0539
Ohio C J Voneman, 18522 Detroit Ave
Cleveland 216 221-2800
Ohio T R Paul, Box 8233, Pittsburgh 212 462-6300

Wis W R Belles, 8828 N Port Washington Rd Milwaukee ... 414 352-1590

CINCINNATI MILLING MACHINE CO CIMASTRA DIV
4753 MARBURG AVE, CINCINNATI
OHIO, 45209 ... 513 475-8444
J FULMER
Cal Straube Assoc, 483 Willow Rd Menlo Park ... 323-2476
Cal R L Assoc, Box 2615, Sepulveda ... 782-7826
Fla Component Sales, Inc, Box 9545 St Petersburg ... 360-7460
Ill Electro-Comp Sales, 5129 W Devon Ave Chicago ... 763-3636
Ind John Kilfoil Co, 1721 S Calhoun St Ft Wayne ... 456-2008
Mich Hilltronics, 13720 Puritan Ave, Detroit ... 272-4320
Minn Precision Punch & Plastic Co 1019 Washington Ave, N, Minneapolis
NJ Robt W Voyles, Essex St, Maywood ... 489-8840
Ohio John Kilfoil Co, 9415 Montgomery Rd Cincinnati ... 791-6150
Pa R H Hilderbrand, Box 166 Fairview Village ... 247-6225
Tex J B Guenther Co, 4533 N Central Expwy Dallas ... 528-6286

CINCINNATI SUB-ZERO PRODUCTS INC
2612 GILBERT AVE, DEPT EBG, CINCINNATI
OHIO, 45206 ... 513 751-8810
L DOHERTY, EMP 47, ENG 5, $250-$500M
Cal ABCO Co, 555 W 9th St San Pedro ... 213 833-8333
Conn Fulton, Dewyk Inc, 89 Main St, Ansonia ... 734-5681
DC J R Enright, 4618 Leland St Washington ... 654-0600
Fla D A Thomas Jr, Box 4368 Clearwater ... 813 531-4255
Ga Dilcher Engrg Co, 3376 Peachtree Rd NE Atlanta ... 231-1678
Ill Ben Grant Co, 2412 S 9th Ave No Riverside ... 242-4747
Md Precision Sales Co, 104 Joppa Rd Baltimore ... 828-4897
Mich Carter McCormic & Peirce Inc 16239 Wyoming Ave, Detroit ... 862-0017
NJ Richards Assoc, Box 733, Wayne ... 201 684-8701
NY J F Owens Machinery Corp, 1804 E Erie Blvd Syracuse ... 472-3326
NY Keller Machinery Co, 210 Highland at Colvin Buffalo ... 876-5678
Ohio Stanley E Wallar, 3521 Harvard Blvd Dayton ... 275-4151
Pa Munhall Indl Sales, 550 Butler St Pittsburgh ... 781-8855
Tex Kobs Engrg Co, Box 3366, Houston ... 225-1139
Tex Lane Engrg & Sales Co, Box 844 Arlington ... 277-3214
Wis W E Swanson & Assoc Inc, 2336 N 124 St Milwaukee ... 771-5820
Can Electrodesign Ltd, 9124 St Lawrence Blvd Montreal ... 389-5914

CIRCON COMPONENT CORP, SANTA BARBARA AIRPORT
GOLETA, CAL, 93017 ... 805 967-1113
C SPAFFORD, EMP 20, ENG 4, $250-$500M
ADV PG 332
Ariz R V Weatherford Co, 1917 N 25th Dr Phoenix ... 272-7144
Cal R V Weatherford Co, 1651 State College Blvd Anaheim ... 532-6741
Cal R V Weatherford Co, 6921 San Fernando Rd Glendale ... 849-3451
Cal R V Weatherford Co, 3240 Hillview Ave Palo Alto ... 321-5373
Cal R V Weatherford Co, 1095 E Third St Pomona ... 623-1261
Cal R V Weatherford Co, 7903 S Balboa Ave San Diego ... 278-7400
NY Davis Electronics Corp, 204 Main St Hempstead ... 183-9200
NY Stack Ind Electronics Inc, 45 Washington St Binghamton ... 3-6326
NY Terminal-Hudson Electronics Inc, 236 W 17th St New York ... 243-5200

CIRCUITRON INC, BOX 197, BALDWIN
WISC, 54002 ... 715 684-3381
G ACKLAND, EMP 116, ENG 5, $500-$1,000M
Cal Ebert Enterprises, 6749 Julie La Canoga Park ... 213 887-7578
Colo A-G Electronics, 5417 S Oneida St Englewood ... 303 771-1473
Fla Hanson Assoc, Box 26, Melbourne ... 305 727-7474
Ill Carlson Electronic Sales Co, 7448 N Harlem Ave Chicago ... 312 774-0277
La Jack McKinney Sales Co, 2012 Condon Ave Metairie ... 504 887-1723
Mass Selmark Assoc, 181 West St Waltham ... 617 899-8110
Mich Jefco Sales, Inc, 222 Maple E Birmingham ... 313 642-3830
Minn Robt J Siedare Assoc, 4724 42nd Ave N Minneapolis ... 612 533-2294
Mo Aerotronics, Inc Box 6236 Lambert-St Louis Mun Arprt St Louis ... 314 426-4060
NY Marchese-Davis Assoc, 97 Park Ave Rochester ... 716 442-9120
NY EAC Assoc, 53-11 90th St Elmhurst ... 212 335-0606
NC Candor Co Inc, Bethania ... 919 723-2697
Okla Jack McKinney Sales Co, Box 3958, Tulsa
Pa C H Newson & Assoc, 627 Bethlehem Pike Philadelphia ... 215 248-3377
Tex Jack McKinney Sales Co, 1303 Chemical St Dallas ... 214 631-9450
Tex Jack McKinney Sales Co, 5458 Edith Houston ... 713 665-3653
Tex Jack McKinney Sales Co, Box 1026, Bellaire

CIRCUITS, INC, 59 DEMING RD, BERLIN
CONN, 06037 ... 203 828-3526
J ADAMS, EMP 60, ENG 4, $1,000-$2,500M
Fla ASTRO-TEC, Cape Royal Off Bldg Cocoa Beach ... 305 783-6581
Md Robt L Wilkinson, Inc, 707 Stevenson La Baltimore ... 377-7800
Minn International Sales Co, 8703 Beard Rd Minneapolis ... 881-6683
NY Ossmann Component Sales Corp, 39 Saginaw Dr Rochester ... 442-3290
NY Andrews & Andrews, 140 E Main St Huntington ... 516 692-8686
Tex P Kreager Co, 9230 Cliffmere Dr Dallas ... 348-3521
Va Robt L Wilkinson, Inc, Box 218 Falls Church ... 532-6076

CIRCUIT STRUCTURES LAB
3200 N SAN FERNANDO BLVD, BURBANK
CAL, 91504 ... 213 849-6341
F CRISWELL, EMP 12, ENG 2
Ala Fred Wamble Sales Co, 3745 Marie Cook Dr Montgomery ... 272-4600
Ariz AR/TEC, Box 727, Scottsdale ... 947-6304
Cal J E Striker Co, 1319 Howard Ave Burlingame ... 342-1425
Cal P J Hilderbran, 6132 Tarragona Dr San Diego ... 582-4677
Colo Electronic Component Sales, 2340 W Main St Littleton ... 798-8481
Fla Engstrom Assoc, 1816 Maywood Rd Winter Park ... 671-8944
Ill Russ Gawne & Assoc, 6139 W Touhy Ave Chicago ... 775-5381
Kan Midland Engrg Sales Assoc, 5460 Buena Vista Dr Mission ... CO 2-6565
Md Be-Mar Assoc, 120 Derwood Cir Rockville ... 762-8880
Mass Entis Assoc, 11 Babcock St, Brookline ... CO 7-2322
NM Electronic Component Sales, Box 3087 Sta D Albuq ... 344-3987
NY Andrews & Andrews, 140 E Main St Huntington ... 692-8686
NY Midstate Research Sales, 327 Wellesley Rd Syracuse ... 478-8314
Ohio Midwest Sales Co, 3219 W 117th St Cleveland ... WI 1-2700
Okla T J Ray Co, Box 45191, Tulsa ... NA 7-1515
Ore Van Voorhees Assoc, Box 4383 Portland ... 287-6633
Pa Be-Mar Assoc, 7217 Rising Sun Ave Philadelphia ... 728-6333
Tex Stevens Sales, Box 34493, Dallas ... CH 1-3645
Utah Elcom, Box 2066, Salt Lake City ... 278-6044
Can Nortech Electronics Ltd, 1335 Lawrence Ave, E Don Mills, Ont ... 447-6471

CIRCUIT TECHNOLOGY INC, 1001 WASHINGTON ST
SAN CARLOS, CAL, 94070 ... 415-593-1495
EMP 30, ENG 1, $500-$1,000M

CIRCUIT-WISE INC, 370 STATE ST, NORTH HAVEN
CONN, 06473 ... 203 248-4404
R METTLER JR, EMP 36, ENG 2, $500-$1,000M
Cal Pacific Scientific Co, 760 Harrison St San Francisco ... 362-0934
Conn J H Cosmar Co, Box 7, Cheshire ... 272-7325
Mo Pacific Scientific Co, 2826 Main St Kansas City ... 931-5863
NY Sweeney Engineering, 149 Morris Dr East Meadow ... 735-1918
NY Young Assoc, 555 Winton Rd N Rochester ... 271-2106
Pa Hilliard Assoc, Old York Rd Jenkintown ... 215 884-6100
Tex Pacific Scientific Co, 702-A E Abram St Arlington ... 275-3236

C I T E, VIA DOGALI 54, SANTA MARGHERITA LIGURE
ITALY ... 86143
G MANNINO, EMP 130, ENG 4

CITY CHEMICAL CORP, 132 W 22ND ST, NEW YORK
N Y, 10011 ... 212 WA 9-2723
E COLLE, EMP 65, ENG 5

C & K COMPONENTS INC, 103 MORSE ST
WATERTOWN, MASS, 02172 ... 617 926-0800
M KINCAID
Ala N B S Inc, 201 Homewood Dr Huntsville ... 881-3175
Ariz Allen Assoc, Box 3091 Papago Sta Scottsdale ... 945-5781
Cal Universal Components, 2330 Westwood Blvd Los Angeles ... 474-1537
Cal Ewing-Foley Inc, 900 N San Antonio Rd Los Altos ... 941-4525
Conn A & M Electronic Reps, Box 1010 Manchester ... 643-4233
Fla N B S Inc, 4150 S W 23rd St Ft Lauderdale ... 584-0650
Fla N B S Inc, 2813 Primrose Ct, Orlando ... 423-4856
Ga N B S Inc, 893 Church St NW, Marietta ... 442-6067
Ill Ellinger Sales Corp, 6580 N Northwest Hwy Chicago ... 763-1570
Ind Ellinger Sales Corp, 5214 Forest Ave Ft Wayne ... 749-9955
Iowa Ellinger Sales Corp, 309 4th Ave SE Clarion ... 532-3218
Md Quality Components, Inc, 13403 Grenoble Dr Rockville ... 933-1623
Mass A & M Electronic Reps, 1492 Highland Ave Needham ... 444-8170
Mich Robt H Jackson Co, 10534 Ludlow Ave Huntington Woods ... 542-5059
Minn Beta Engineering Co, 128 Jackson Ave W Hopkins ... 938-2551
Mo Ellinger Sales Corp, 4969 Bancroft St, St Louis
NJ Quality Components Co of N J 220 N Woodstock Dr, Cherry Hill ... 428-6266
NY L-Tron Corp, 24 Duncan Dr, Latham ... 785-5032
NY David Sonkin Assoc, 10 Fiske Pl Mt Vernon ... 668-9809
NY L-Tron Corp, 74 Thornton Rd, Rochester ... 436-4410
NY L-Tron Corp, 2-4 Fennell St Skaneateles ... 685-6172
Ohio Gibson Electronics Mktg Co, 2801 Far Hills Ave Dayton ... 298-7683
Ohio Gibson Electronics Mktg Co, 2643 Streetsboro Rd Hudson
Tex R F Kimball Co, 5531 Dyer St, Dallas ... 361-6067
Wash Jon B Jolly, 413 Maritime Bldg Seattle ... 624-2152

CLAIREX ELECTRONICS INC, 1239 BROADWAY, NEW YORK
N Y, 10001, TWX 12-5622 ... 212 MU 4-5512
R FARRALL, EMP 72, ENG 10, $1,000-$2,500M
ADV PG 127
Ala Component Sales Corp, Box 899, Huntsville
Cal E V Roberts & Assoc Inc, 9601 W Jefferson Blvd Culver City ... 213 870-9561
Fla Component Sales Corp, Box 9545 St Petersburg ... 813 360-7460
Fla Component Ses Corp, Box 14523, Orlando
Ill Clairex Corp, 22 Washington St Park Ridge ... 312 825-0550
Mass Bordewieck Eng Sales Co, 221 Grove St Braintree ... 617 VI 3-0845
Mich Daniel Clifford, Fisher Bldg Detroit ... 313 TR 5-3544
Minn Heiman Co, 5603 Lyndale Ave S Minneapolis ... 612 827-5457
NC Component Sales Corp, Box 6401, Raleigh
Ohio Scott Electronics Inc, 1836 Euclid Ave Cleveland ... 216 861-2626
Pa Robin Products Co, Box 66 Merion Station ... 215 664-1889
Pa Scott Electronics Inc, 313 Empire Bldg, Pittsburgh
Pa Charles Babcock & Co, 130 W Lancaster Ave Wayne ... 215 MU 8-8288
Tex Carey & Assoc, 3315 W 12th St Houston ... 713 869-3623
Wash Western Technical Sales, Box 902 Bellevue ... 206 GL 4-3906
For Sylvan Ginsbury Ltd, 72 W 45th St New York N Y ... 212 MU 7-3213

CLARE-ELECTROSEAL CORP, 946 NORTH AVE
DES PLAINES
ILL, 60016 ... 312 RO 3-0047 & 312 824-6173
W KRIBBLE, EMP 07824-6173, ENG 15
$1,000-$2,500M
Ariz C P Clare & Co, 100 W Camelback Phoenix ... 602 264-0645
Cal C P Clare & Co, 16200 Ventura Blvd Encino ... 213 981-3323
Cal C P Clare & Co, 839 Mitten Rd Burlingame ... 415 697-8033
Fla C P Clare & Co, 601 N Fern Creek Ave Orlando ... 305 424-9508
Ill C P Clare & Co, 2590 Devon Ave Des Plaines ... 312 827-0151
Md C P Clare & Co, 6229 N Charles St Baltimore ... 301 377-8010
Mass DeVeer Sales Engrg Co, 1492 Highland Ave Needham ... 617 444-4200
Minn C P Clare & Co, 4725 Excelsior Blvd Minneapolis ... 612 920-3125
Mo C P Clare & Co, 10414 Oak St Louis ... 314 429-7372
NY C P Clare & Co, 499 S Warren St Syracuse ... 315 422-0347
NY C P Clare & Co, 525 Northern Blvd Great Neck ... 516 466-2100
Ohio Baehr Greenleaf & Assoc, 14700 Detroit Ave Cleveland ... 216 221-9030
Ohio Baehr Greenleaf & Assoc, 9505 Montgomery Rd Cincinnati ... 513 891-3827
Ohio Baehr Greenleaf & Assoc Box 5722 Upper Arlington Columbus ... 614 486-4046
Ohio Baehr Greenleaf & Assoc, 3350 Maplewood Dr Xenia ... 513 426-5485
Pa C P Clare & Co, 101 N 33rd St Philadelphia ... 215 386-3385
Tex George Weinreich & Assoc 11554 E Northwest Hwy, Dallas ... 214 321-2800
Wash C P Clare & Co, 400 108th St Bellevue ... GL 5-2410

CLARE-PENDAR CO, BOX 785, POST FALLS
IDAHO, 83854, TWX 208-999-9613 ... 208 773-4541
J MCELWAIN, EMP 200, ENG 10, $1,000-$2,500M
Ariz C P Clare & Co, 100 W Camelback Phoenix ... 602 264-0645
Cal C P Clare & Co, 839 Mitten Rd Burlingame ... 697-8033

Cal	C P Clare & Co, 16200 Ventura Blvd Encino	981-3323
Fla	C P Clare & Co, 601 N Fern Creek Ave Orlando	424-9508
Ill	C P Clare & Co, 2590 Devon Ave Des Plaines	312 827-0151
Kan	Halgin Sales, 5460 Bueno Vista Mission	722-2441
Md	C P Clare & Co, 6229 N Charles St Baltimore	377-8010
Md	Byrne Assoc, 11161 New Hampshire Ave Silver Spring	593-0667
Mass	DeVeer Sales Engrg Co, 1492 Highland Ave Needham	444-4200
Minn	C P Clare & Co, 4725 Excelsior Blvd Minneapolis	920-3125
Mo	C P Clare & Co, 10414 Oak Overland	314 429-7372
NY	C P Clare & Co, 525 Northern Blvd Great Neck	466-2100
NY	C P Clare & Co, 499 Warren St Syracuse	422-0347
Ohio	Baehr Greenleaf & Assoc, 14700 Detroit Ave Cleveland	221-9030
Ohio	Baehr Greenleaf & Assoc, 3350 Maplewood Dr Xenia	426-5485
Ohio	Baehr Greenleaf & Assoc, 9505 Montgomery Rd Cincinnati	891-3827
Ohio	Baehr Greenleaf & Assoc Box 5722, Upper Arlington, Columbus	486-4046
Pa	C P Clare & Co, 101 N 33rd St Philadelphia	386-3385
Tex	Robt E Nesbitt Co, 2930 Merrell Rd Dallas	357-4601
Tex	Robt E Nesbitt Co, 4810 Hazard Houston	528-3811
Wash	C P Clare & Co, 400-108th St NE Bellevue	206 GL 5-2410
Can	C P Clare Canada, 61 Industry St Toronto	762-8154
Can	C P Clare Canada, 4946 Bourg St Villa St Laurent, Mont	631-8541
Ger	C P Clare Elektronik, Oberanger 6/IIII 8000 Munchen	262187
GB	C P Clare Elektronik, 43 Clarendon Rd Watford, Herts	WAT 42277
Ital	C P Clare Elettronics SRL, Corso d'Independenza 24 Milano	
Belg	C P Clare Intl, 6 Momberstr Tongeren, Limbourg	32984-3

CLARE & CO, C P, 3101 PRATT BLVD, CHICAGO
ILL, 60645 312 AM 2-7700
R SMITH, EMP 1500, OVER $10,000M

Ariz	C P Clare & Co, 100 W Camelback Phoenix	264-0645
Cal	C P Clare & Co, 839 Mitten Rd Burlingame	697-8033
Cal	C P Clare & Co, 16200 Ventura Blvd Encino	981-3323
Fla	C P Clare & Co, 601 N Fern Creek Ave Orlando	424-9508
Ill	C P Clare & Co, 2590 Devon Ave Des Plaines	827-0151
Kan	Halgin Sales, 5460 Buena Vista Mission	722-2441
Md	C P Clare & Co, 6229 N Charles St Baltimore	377-8010
Mass	DeVeer Sales Engineering Co, 1492 Highland Ave Needham	444-4200
Minn	C P Clare & Co; 4725 Excelsior Blvd Minneapolis	920-3125
Mo	C P Clare & Co, 10414 Oak, Overland	429-7372
NY	C P Clare & Co, 525 Northern Blvd Great Neck	466-2100
NY	C P Clare & Co, 499 S Warren St Syracuse	422-0347
Ohio	Baehr, Greenleaf & Assoc Inc, 14700 Detroit Ave Cleveland	221-9030
Ohio	Baehr, Greenleaf & Assoc Inc, 3350 Maplewood Dr Xenia	426-5485
Ohio	Baehr, Greenleaf & Assoc Inc 9505 Montgomery Rd, Cincinnati	891-3827
Ohio	Baehr, Greenleaf & Assoc, Inc, Box 5722 Columbus	486-4046
Pa	C P Clare & Co, 101 N 33rd St Philadelphia	386-3385
Tex	Robert E Nesbitt Co, 2930 Merrell Rd Dallas	357-4601
Tex	Robert E Nesbitt Co, 4810 Hazard Houston	528-3811
Wash	C P Clare & Co, 400 108th St N E Bellevue	GL 5-2410
Can	C P Clare Can Ltd, 61 Industry St Toronto	762-8154
GB	C P Clare Ltd, Clarendon Rd 43 Watford Herts	42277
Jap	Westrex Co Orient, CPO Box 760, Tokyo	
Belg	C P Clare Intl NV, 6 Momberstr, Tongeren, Limbourg	

CLARK CONTROL DIV, A O SMITH CORP
1146 E 152ND ST, CLEVELAND
OHIO, 44110, TWX 810-421-8570 216 851-2000
G DEUTSCH, EMP 1200, ENG 141, OVER $10,000M

Ala	Clark Control Div, 1747 Reese St Birmingham	205 879-3457
Ariz	Roy E Coulson Co, 326 W Northern Ave Phoenix	602 943-3411
Cal	Clark Control Div, 2253 S Saybrook Ave Los Angeles	213 685-6770
Cal	Clark Control Div, 1770 Yosemite Ave San Francisco	415 822-5120
Colo	Electrical Agencies Co, 1689 Eliot St Denver	303 623-8246
Fla	Ward Engrg Co Inc, 1718 NE 28 Dr Fort Lauderdale	305 564-4883
Fla	Ward Engrg Co Inc, 2727 Phyllis St Jacksonville	904 388-7656
Fla	Ward Engrg Co Inc, 7040 Lake Ellenor Dr Orlando	305 851-0725
Ga	Clark Control Div, 660 Miami Cir NE Atlanta	404 261-5970
Ill	Clark Control Div, 7250 S Cicero Ave Chicago	312 594-1414
Ind	Clark Control Div, 4444 Broadway Gary	219 887-5645
Kan	Geo H Pearson, 7737 Howe Dr Prairie Village	913 649-8409
La	Butler & Land, Inc, 1067 Magazine St New Orleans	504 524-0688
Md	Clark Control Div, 1 Investment Pl Baltimore	301 825-1020
Mass	Clark Control Div, 49 Winchester St Newton Hghlnd	617 244-4008
Mich	Clark Control Div, 25225 W 7 Mile Rd Detroit	313 255-0660
Mich	Clark Control Div, 2828 Leelanau Dr NE Grand Rapids	616 363-7775
Mich	Clark Control Div, 6635 Booth Rd North Branch	313 688-2270
Minn	Clark Control Div, 5300 Lyndale Ave, S Minneapolis	612 827-2655
Mo	Clark Control Div, 7 N Brentwood Blvd St Louis	314 727-7278
NJ	Clark Control Div, 825 Lehigh Ave Union	201 686-9000
NY	Clark Control Div, 4511 Harlem Rd at Main Buffalo	716 839-3801
NY	Clark Control Div, 605 3rd Ave New York	212 986-7400
NY	Clark Control Div, Townline Rd Syracuse	315 454-9307
NC	Wm J Suk Assoc, 1409 East Blvd Charlotte	704 332-6191
Ohio	Clark Control Div, 21 N Arlington St Akron	216 434-3129
Ohio	Clark Control Div, A O Smith Corp 5505 Fairlane Dr, Cincinnati	513 272-0633
Ohio	Clark Control Div, 124 S Main St Poland	216 757-1516
Ohio	Clark Control Div, 2011 Riverside Dr Columbus	614 488-0757
Ohio	Clark Control Div, 24800 Chagrin Blvd Cleveland	216 464-1600
Okla	Butler & Land Inc, 1560 E 21st St Tulsa	918 743-8921
Ore	A L Polich, Inc, 5940 SW Hood Ave Portland	503 246-5451
Pa	Clark Control Div, 2310 Haverford Rd Ardmore	215 649-6511
Pa	Clark Control Div, 3571 Valley Dr Pittsburgh	412 341-5777
Tenn	Butler & Land, Inc, 3181 Poplar St Memphis	901 452-0039
Tex	Butler & Land, Inc, 4009 Ave R Lubbock	806 744-8449
Tex	Clark Control Div, 4001 San Jacinto Houston	713 526-4370
Tex	Associated Engineers, 4801 Graham Ct El Paso	915 566-9383
Tex	Butler & Land, Inc, 5538 Dyer St Dallas	214 361-6631
Utah	Clarence W Silver Co, 550 W 7th S St Salt Lake City	801 355-5377
Wash	H M Denny Co, 3410 16th Ave W Seattle	206 282-7200
W Va	Ensign Electric & Mfg Co, 914 Adams Ave Huntington	304 522-8343
Wis	Clark Control Div, 3533 N 27th St Milwaukee	414 873-3000
Can	Canadian Controllers, Ltd, 1550 Birchmount Rd Scarborough, Ont	416 757-5111
Mex	Panamer Electro-Ind SA, G C Gottfried, Lucerna 78 Mexico 6, DF	46-63-96
Aust	Johnson & Phillips (Aust) Pty Ltd Epsom Rd, Liverpool, Sydney NSW	
Aust	Johnson & Phillips (Aust) Pty Ltd, 415 Lonsdale St Melbourne, C I	

CLARK CRYSTAL CORP, 344 BOSTON POST RD
MARLBORO, MASS, 01752 617 481-0821
F NOBLES, EMP 20, ENG 2, $100-$250M

Cal	John E Striker Co, 1319 Howard Ave Burlingame	342-1425
Conn	Keyco Assoc, Box 357, Farmington	677-1771
Fla	Beacon Electronic Assoc, Box 1278 Maitland	647-3498
Fla	Beacon Elctn Assoc, Box 10212 Fort Lauderdale	564-4298
Ga	Beacon Elctn Assoc Box 29201 2285 Peachtree Rd NE Atlanta	351-3654
Ill	Branum Sales Co, Box 516, Lake Zurich	438-2356
Md	Tyler Griffin Co, 13004 Pacific Ave Rockville	933-5021
Mass	Keyco Assoc, 551 Broadway, Malden	321-2323
NY	Andrews & Andrews, Inc, 140 E Main St Huntington	692-8686
NY	Lloyd A Hart Assoc, Box 8398 Rochester	244-3253
NC	Beacon Elctn Assoc, 305 Greenway St Jamestown	454-1010
Ohio	McShane, 3633 Trails End Dr, Medina	725-4283
Pa	Tyler Griffin Co, 46 Derby Rd, Paoli	647-1550
Tex	John A Green Co, 7118 Envoy Ct Dallas	631-7450
Tex	John A Green Co, 3400 Montrose Houston	526-2959
Can	Frank Eakin Ltd, 9 Milvan Dr Weston, Ont	741-7485

CLARK ELECTRONICS, 1365 E EDINGER AVE
SANTA ANA, CAL, 92705 714 836-4269
B PESKIN, EMP 4, ENG 1, UP TO $100M

CLARKSON LABS INC, 1450 FERRY AVE, CAMDEN
NJ, 08104 609 WO 6-5200
P ROSE, EMP 65, ENG 3, $2,500-$5,000M

Ala	T Ed Kinard, 2160 Ivy La, Birmingham	BI 7-7912
Cal	Clarkson Labs Inc, 2655 Ingalls St San Francisco	VA 4-4978
Fla	H E Begle, 2040 N Federal Hwy, Stuart	309-7871
Ill	Carl Brockman, 6337 N Oakley Ave Chicago	AM 2-2863
Mass	G B Mentzer, 10 Royce Rd Newton Centre	LA 7-4617
Mich	L Dupraw, 14120 Shadywood La Plymouth	453-2685
Okla	W E Bohl, 4817 E 34th St, Tulsa	742-8279
Wash	C H Topp, 1433 130th Ave NE Bellevue	GL 4-0691
Can	Clarkson Labs Ltd, 51 Clarkson Ave Toronto 10	RU 3-3338

CLAROSTAT MFG CO INC, WASHINGTON ST, DOVER
N H, 03820 603 742-1120
J SMITH, EMP 1000, ENG 75, $5,000-$10,000M

Ariz	Jack Berman Co Inc, 2101 W Shangrila Rd Phoenix	264-6578
Cal	Straube Assoc, 483 Willow Rd Menlo Park	DA 3-2476
Cal	Jack Berman Co Inc, Box 453, La Mesa	583-6457
Cal	Straube Assoc, 98 W Jackson St Hayward	783-6750
Cal	Jack Berman Co, 8295 S La Cienega Blvd Englewood	328-6184
Colo	Straube Assoc, Box 1649, Boulder	443-8600
Fla	Millar-Hutto Assoc Inc, 501 Park Ave N Winter Park	647-7407
Ga	Millar-Hutto Assoc Inc, 3110 Maple Dr NE Atlanta	261-6160
Ill	Clarostat Chicago, 5811 W Montrose Chicago	725-3441
Ind	Needler Sales Co, Sta C Box 2407 Fort Wayne	744-5226
Ind	Burton F Homsher Co, 418 E Berry St Fort Wayne	483-1348
Kan	T L Dowell Co, Inc, 6007 W 94th Ter Overland Park	649-6069
Mass	Adrian Whitten, Colonade Bldg, 49 Main St Concord	369-7933
Mich	C B Jensen & Assoc, 26711 Woodward Ave Royal Oak	399-0900
Minn	A J Warner Co, 4927 34th Ave S Minneapolis	729-7371
Mo	T L Dowell Co, Inc, 9176 Villerage, St Louis	
NY	Leonard D Allen Inc, Box 205 North Syracuse	458-7470
NY	Lowell M Comee, 550 Old Country Rd Hicksville	935-5879
NY	Leonard D Allen Inc, 232 De Kall St Tonawanda	694-2130
NC	Millar-Hutto Assoc Inc, Box 17566 Charlotte	EM 6-2061
Ohio	John O Olsen Co, 5539 Stokeswood Ct Cincinnati	922-2176
Ohio	John O Olsen Co, 16201 Shaker Blvd Cleveland	752-5444
Ohio	John O Olsen Co, 116 W Franklin Centerville	885-3722
Ore	Almac/Stroum, Box 25444, Portland	292-3534
Pa	John O Olsen Co, 1843 Maydell St Pittsburgh	341-8391
Pa	John O Olsen Co, 104 Elaton Dr Pittsburgh	279-2550
Pa	Clarence W Henderson, 400 Gilpine Rd Narberth	664-9588
Pa	Beil & Whitaker Inc, 1303 N Troxell St Allentown	434-5220
Pa	Beil & Whitaker Inc, 1850 Church St Dover	292-1786
Pa	Beil & Whitaker Inc, 5610 Akron Dr Harrisburg	652-0184
Pa	Clarence W Henderson Co, 2813 Turner Ave Roslyn	387-8059
Pa	Beil & Whitaker Inc, 3623 Jacksonwald Ave Reading	375-6837
Tex	J Y Schoonmaker Co Inc, 2995 Ladybird La Dallas	631-8962
Tex	J Y Schoonmaker Co Inc, 107 Winnetka Rd San Antonio	342-0251
Tex	J Y Schoonmaker Co, Inc, 6001 Gulf Frwy Houston	926-9516
Wash	Almac/Stroum Co, 5811 6th Ave S Seattle	723-7310
Can	Tri-Tel Assoc Ltd, 55 Brisbane Rd Downsview, Ont	633-4325
For	M Simons & Son Co Inc, 150 Broadway New York, NY	227-5513

CLARY CORP, 320 W CLARY AVE, SAN GABRIEL
CAL, 91776, TWX 74604 213 287-6111
E BECK, EMP 460, ENG 20, OVER $10,000M

Ala	Technical Assoc, Inc, Box 1443 Huntsville	881-8494
Ariz	Hyde Electronics, 4710 N 16th St Phoenix	264-5609
Colo	Hyde Electronics Co, 888 S Lipan St Denver	936-3456
Conn	Broger Instrument Sales, Inc, 29 Whalley Ave New Haven	624-7009
Fla	Technical Assoc, Inc, 2319 E South St Orlando	424-5681
Ill	Pivan Engineering Co, 3535 W Peterson Ave Chicago	539-4838

Ind Pivan Engineering Co, 8545 Northcrest Ct
Indianapolis 846-5805
Iowa Pivan Engineering, Box 1274
Cedar Rapids 365-6035
Kan Engineering Services Co, 7924 A State Line
Prairie Village 649-4000
La IBL Engrg & Sales, Inc, 1444 Calhoun St
New Orleans 895-4793
Md L G White & Co, 880 Bonifant St
Silver Spring 585-3141
Mass Broger Instrument Sales, Inc, 223 Crescent
Waltham .... TW 1-8045
Mich Tower Engineering, Inc, 19471 James Couzens Hwy
Detroit .... DI 1-2332
Minn Pivan Engineering Co, 3203 N Hwy 100
Minnneapolis 537-4501
Mo Engineering Services Co, 6717 Vernon
St Louis 726-2233
NM Hyde Electronics Inc, 5206 Constitution NE
Albuqu 265-8895
NY Travco Assoc, 142 Mineola Ave
Roslyn Heights 621-3223
NC L G White & Co, Box 2356
Winston-Salem .... PA 5-3612
Ohio Tower Engineering, Inc, 2801 Far Hills Ave
Dayton 298-1491
Ohio Tower Engineering, Inc, 7016 Euclid Ave
Cleveland 881-3511
Okla IBL Engrg & Sales, Inc, 5149 E 31st St
Tulsa .... WE 6-6305
Pa L G White & Co, 100 Essex Ave
Narbeth .... MO 4-6505
Tex IBL Engrg & Sales, Inc, 219 Preston Royal Center
Dallas .... EM 3-2921
Tex IBL Engrg & Sales, Inc, 1903 W 34th St
Austin .... GL 2-2064
Tex IBL Engrg & Sales, Inc, 3403 Audubon 5
Houston .... JA 3-8360
Wis Pivan Engineering Co, Box 437
Waukesha 539-4838
Can Datagraphics, 2239 Prescott Hwy
Ottawa 825-3045

CLAUSS CUTLERY CO DIV ALCO STANDARD CORP
223 N PROSPECT ST, FREMONT
OHIO, 43420 .... 419 332-7344
JACK HART JR, EMP 300, ENG 3
Cal Dillon Stevens & Co, 1610 S Bonnie Brae
Los Angeles 747-9221
Colo Brandline Sales Co, 2186 S Holly St
Denver 756-1804
Conn H D Q & H V Neff, Rural Route 2
Woodstock 928-4249
Ga C M Allen Co, 2989 N Fulton Dr NE
Atlanta 231-1616
Ill W H Paradise & Assoc, 5845 W North Ave
Chicago .... BE 7-8034
Mich Marvin L Partridge, 54443 W 8 Mile Rd
Northville .... FI 9-0059
Mo Maury E Bettis Co, 3706 Broadway
Kansas City .... 816 LO 1-0772
NY Dunn & Bryan, 28 Warren St
New York .... WO 4-8091
NY Chas Lawton, 10 Amherston Dr
Williamsville 716 632-2008
Tex A A Emerson Co, 4334 Normandy Ave
Dallas .... LA 1-3482
Wash Warner & Gehring, 84 S Holgate
Seattle 682-2450
Can Adlam Tool & Supply Co Ltd, 10 Ronald Dr
Montreal, Que 482-2548
For L D Seymour & Co, 1229 Broadway
Hewlett 374-9640

CLAVIER CORP, 87-46 123RD ST, RICHMOND HILL
NY, 11418 .... 212 HI 14400
C KAMPSON, EMP 300, ENG 85, $2,500-$5,000M

CLAYBORN LABS INC, 2243 S GRAND AVE
SANTA ANA, CAL, 92705 .... 714 546-8690
V PFANKU, EMP 8, ENG 2, $100-$250M
Jap Sunny Ltd, CPO Box 207, Tokyo

CLEAN ROOM PRODUCTS INC, 55 E CENTRAL AVE
FARMINGDALE, N Y, 11735 .... 516 293-8555
W DUNCAN, EMP 40, ENG 5, $500-$1,000M
Cal Tanner Supay Co, Box 21262
Los Angeles 213 624-3505
Cal Morse Assoc, 1721 Chestnut St
San Francisco 415 567-6871
Colo Crump Co, 2785 N Speer Blvd
Denver 303 433-6485
DC Eastman Kodak Stores, 411 4th St
Washington 202 737-3200
Fla Military Packaging Co of Fla
401 Eastoak Ridge Rd, Orlando 305 855-7860
Ga Eastman Kodak Stores, 150 14th St NW
Atlanta 404 875-9205
Ill Eastman Kodak Stores, 4540 W Washington Blvd
Chicago 312 626-6200
Iowa Eastman Kodak Stores, 2205 Ingersoll Ave
Des Moines 515 283-2717
Iowa Eastman Kodak Stores, 2910 N Brady St
Davenport 319 322-6223
Md Eastman Kodak Stores, 2116-24 Aisquith St
Baltimore 301 243-9880
Mass Eastman Kodak Stores, 21 Needham St
Newton Heights 617 969-8722
Mich Eastman Kodak Stores, 3140 Grand River Ave
Detroit 313 833-7800
Minn Eastman Kodak Stores, 1124 Station Blvd
Minneapolis 612 331-4850
Neb Eastman Kodak Stores, 2030 S 27th St
Lincoln 402 423-8535
NJ Richards Assoc, Box 733, Wayne 201 696-4100
Ohio Eastman Kodak Stores, 3035 Reading Rd
Cincinnati 513 961-7223
Okla Eastman Kodak Stores, 912 Classen Blvd
Oklahoma City 405 232-1155
Ore Eastman Kodak Stores, 1919 SE Belmont St
Portland 503 234-9272
Pa Eastman Kodak Stores, SW Corner 32nd & Race
Philadelphia .... 215 EV 6-1900
Pa Eastman Kodak Stores, 1531 Saw Mill Run Blvd
Pittsburgh 412 884-1531
Tex Eastman Kodak Stores, 1607 W Mockingbird La
Dallas .... 214 ME 1-0261
Utah Eastman Kodak Stores, 2220 S Main St
Salt Lake City 801 484-6131
Wash Eastman Kodak Stores, 2619 2nd Ave at Cedar St
Seattle .... 206 MA 2-9072
Wis Eastman Kodak Stores, 1661 N Farewell Ave
Milwaukee 414 271-1478
Can Eastman Photographic Matls, Ltd, 1102 5th St SW
Calgary, Alb 403 266-4442
Can Eastman Photographic Matls, Ltd, 5150 Arnoldi St
Montreal, Que 514 733-6258
Can Eastman Photographic Matls, Ltd, 20 Ampex Rd
Toronto, Ont 416 789-4586
Can Eastman Photographic Matls, Ltd, 1810 Ellice Ave
Winnipeg, Man 204 772-9488
BC Eastman Photographic Matls, Ltd, 105 W 2nd Ave
Vancouver, BC 604 872-7146

CLEAR BEAM ANTENNA, 13001 BRADLEY AVE
SYLMAR, CAL, 91342 .... 213 367-1811
J UPDYKE, EMP 100, ENG 4, $1,000-$2,500M
Ariz Jack Rowe Assoc, 3332 W Belmont
Phoenix 393-4772
Ga Chalmers, Inc, 349 Peachtree Hills, NE, Atlanta
Haw Gene Piety Factors, Inc, 160 Mokauea St
Honolulu 83 7185
Ill Loren Green & Assoc, 5218 W Diversey Ave
Chicago .... AV 6-6824
Mich Si Way Assoc, 13709 W 8 Mile Rd
Detroit 341-7795
Ohio Robert W Peters Co, 25000 Euclid Ave
Cleveland 261-2330
Ore Richard Legg Co, 4475 SW Scholls Ferry
Portland 292-8824
Pa Herman Lewis Co, 1810 J F Kennedy Blvd
Phila .... LO 7-2068

CLEARPRINT PAPER CO, 1482 67TH ST, EMERYVILLE
CAL, 94608 .... 415 652-4762

CLEMENS MFG CO, 630 S BERRY RD, ST LOUIS
MO, 63122 .... 314 WO 17228
J CLEMENS, EMP 4, ENG 1, UP TO $100M

CLEVELAND CONTAINER CORP, 375 PARK AVE
NEW YORK, N Y, 10022 .... 212 688-2000
J WHITNEY, EMP 1000, ENG 4, OVER $10,000M
Cal Cleveland Container Corp, 14022 Nelson Ave
Los Angeles 213 330-6803
Conn R S Pettigrew & Co, 10 N Main St
West Hartford 233-8533
Ill Cleveland Container Corp, 1701 W 87 St
Chicago 312 233-7285
NJ Murray Sales Co, 25 W Northfield Rd
Livingston 992-0520
NJ Walter A Murray & Co, 100 Hepburn Rd
Clifton .... GR 2-1566
NJ Cleveland Container Corp, Applegarth Rd
Cranbury 609 655-2800
NC Winco Sales Assoc, 5322 Fayetteville Rd
Raleigh 772-4269
Ohio Cleveland Container Corp, 6201 Barberton Ave
Cleveland 216 651-4500
Tenn Cleveland Container Corp, 3980 Premier Ave
Memphis 901 363-0692
Tex Techno Assoc, Box 20544, Dallas .... FL 7-9213
Wis Cleveland Container Corp
4129 N Port Washington Rd
Milwaukee 414 332-8353
Can Paisley Products Co Ltd, 36 Upton Rd
Scarborough, Ont

CLEVELAND ELECTRONICS INC DEFLECTION
COMPONENTS DIV, 2000 HIGHLAND RD
TWINSBURG
OHIO, 44087, TWX 098-5477 .... 216 425-7841
R TANCZOS, EMP 30, ENG 13
Ala V Avis McCorvey Co, 2248 3rd St NW
Birmingham 853-3181
Cal Corcoran Assoc, Box 45897
Los Angeles 398-2675
Cal Logan Sales Co, Box 1112
Redwood City 369-1023
Colo Walter-Powers Assoc, 880 Bonnie Brae Blvd
Denver 777-5585
DC Massey Assoc, 1 Thomas Circle NW
Washington 628-1023
Ga V Avis McCorvey, 2187 Briarcliff Rd NE
Atlanta 636-2502
Ill W G Brouillette & Assoc, 9855 Roosevelt Rd
Westchester 345-6500
Ind R O Whitesell & Assoc, 6620 E Washington St
Indnpls 355-5374
Ky R O Whitesell & Assoc, 1172 W Galbraith
Louisville 521-2290
Mass Eugene Delfino Inc, 75 Reed St
Lexington 862-1118
Mo Kay Sales Co, 4010 Washington St
Kansas City 531-2014
NY Irv Brown Co, 1500 Carroll St, Brooklyn 493-1379
Ohio R O Whitesell & Assoc, 4129 S Dixie
Dayton 298-9546
Ohio R O Whitesell & Assoc, 21139 Lorain
Cleveland 333-2585
Tex J Earl Smith Co, 1353 Chemical St
Dallas 631-1727
Wash Ace Assoc, 143 SW 153rd St, Seattle .... CH 4-9391
Fr Tranchant Electronique S A
19-21 Rue Madame Sanzillion, Clichy Seine
Ger A N Enatechnik, 14 Shillerstr
2085 Quickborn-Hamburg
Holl Inelco N V, Arent Janszoon Ernststr 801
Amsterdam-Z. 11
Ital Silverstar Ltd, 20 Via Dei Gracchi, Milano

CLEVELAND ELECTRONICS INC SPEAKER DIV
1974 E 61ST ST, CLEVELAND
OHIO, 44103, TWX 098-442 .... 216 EX 13834
D MARTIN, EMP 600, ENG 20, $5,000-$10,000M
Ala V Avis McCorvey Co, 2248 3rd St NW
Birmingham 15 853-3181
Cal Corcoran & Assoc, Box 45897
Los Angeles 398-2675
Cal Logan Sales Co, Box 1219
Redwood City 369-6726
Colo Walter-Powers Assoc, 880 Bonnie Brae Blvd
Denver 777-5585
DC Massey & Assoc, 1 Thomas Circle
Washington 628-1023
Ga V Avis McCorvey Co, 2187 Briar Cliff Rd NE
Atlanta 636-2502
Ill W G Brouillette & Assoc, 9855 Roosevelt Blvd
Westchester .... FI 5-6500
Ind R O Whitesell & Assoc, 6620 E Washington St
Indnpls .... EL 9-5374
Ind R O Whitesell & Assoc, Central Bldg
Fort Wayne 743-4411
Iowa Ralph R Sharpe Co, 2702 41st Pl
Des Moines 255-4584
Ky R O Whitesell & Assoc, 3620 Lexington Rd
Louisville 893-7303
Mass Near Inc, 99 Highland Ave, Somerville .... PR 6-2262
Mich C Kramer, 21990 Greenfield, Detroit
Mich R O Whitesell & Assoc, 303 Fidelity Bldg
Benton Harbor 927-2041
Mich R O Whitesell & Assoc, 25100 Evergreen Rd
Southfield 358-2020
NY George J Gay, Inc, Box 214, Brockport .... NE 7-3776
NY Irv Brown Co, 401 Kingston, Brooklyn .... HY 3-1379
Ohio R O Whitesell & Assoc, 4133 S Dixie
Dayton 298-9546
Ohio R O Whitesell & Assoc, 1172 W Galbraith
Cincinnati 521-2290
Ohio R O Whitesell & Assoc, 21139 Lorain Ave
Cleveland 333-2585
Pa D S Hevner Co, 1528 Spring Mill Rd
Gladwyne .... LA 5-9727
Pa R O Whitesell & Assoc, 201 Penn Center Blvd
Pittsburgh 242-0100
Tex J Earl Smith Co, 1353 Chemical St
Dallas .... ME 1-1727
Utah Walte-Powers Assoc, 2422 Camino Way
Salt Lake City 277-5174
Wash A C E Assoc, 143 SW 153rd St
Seattle .... CH 4-9391

CLEVELAND METAL SPECIALTIES CO
15516 INDUSTRIAL PKWY, CLEVELAND
OHIO, 44135 .... 216 267-9020
R MIDDLEKAUFF, EMP 25, ENG 3, $250-$500M

CLEVELAND MICA CO, 1360 HIRD AVE, LAKEWOOD
OHIO, 44107 .... 216 226-1360
W BURTON, EMP 75, ENG 2, $1,000-$2,500M
Ill Special Electric Co, 1009 Kings La
Glenview 729-3229
Mo Meiners Sales Co Inc, 7500 Natural Bridge Ave
St Louis 383-4833
NY A W Schmitz Co, 82 St Paul St
Rochester 426-3090
NY United Mineral & Chem Co, 16 Hudson St
New York 233-8870
Ohio C J Voneman Co, 18522 Detroit Ave
Lakewood 221-2800
Wis Special Electric Co, 3628 W Pierce St
Milwaukee 383-6370

CLEVELAND PROCESS CORP, 1773 E 21ST ST
CLEVELAND, OHIO, 44114 .... 216 621-2190
J KECK, EMP 40, ENG 3, $500-$1,000M

CLEVELAND REFRACTORY METALS, DIV CHASE BRASS
COPPER CO, 28850 AURORA RD, SOLON
OHIO, 44139, TWX 098-5460 .... 216 248-0300
J SPELMAN, EMP 106, ENG 10
Cal Interconsal Assoc Inc, 825 San Antonio Rd
Palo Alto 321-8113
Ill Arthur Capp Co, Box 234, Zion 312 746-1940
NJ Harold M Lusk, 684 Lotus St, Oradell 261-5339
Ohio George P Bray, 23 N Franklin St
Chagrin Falls 247-4474

CLEVERLY ELECTRICAL WORKS INC
5312 WESTMINSTER AVE, PHILADELPHIA
PA, 19131 .... 215 SH 8-1620
J GRAUCH III, EMP 15, ENG 1, $100-$250M

CLEVITE CORP, BRUSH INSTRUMENTS DIV, 37TH & PERKINS
CLEVELAND, OHIO, 44114, TWX 810-421-8580 .... 216 361-3315
D PIERCE, EMP 700, ENG 200
ADV PG 336, 570, 571

Ala	W A Brown & Assoc Inc, 1314 Buford St NW Huntsville	205 539-6884
Cal	Brush Instruments, 61 Renato Ct Redwood City	415 369-5581
Cal	Brush Instruments, 1801 Ave of the Stars Los Angeles	213 879-1300
Colo	Brush Instruments, 300 E Speer Blvd Denver	303 744-2371
Fla	W A Brown & Assoc Inc, 3039 NE 32nd Ave Ft Lauderdale	305 564-8000
Fla	W A Brown & Assoc Inc, 222 Weber Ave Orlando	305 425-5505
Fla	W A Brown & Assoc, Inc, 212 Bradley Dr NE Fort Walton Beach	904 243-6424
Ga	W A Brown & Assoc, 1590 Cooledge Rd NW Tucker	404 939-1674
Haw	Brush Instruments, 2933 Kaopeka St Honolulu	815-617
Ill	Brush Instruments, 2000 Spring Rd Oak Brook	312 654-1430
Md	Brush Instruments, 6715 Kenilworth Ave Riverdale	301 864-0057
Mass	Brush Instruments, Northwest Ind Pk Burlington	617 272-0750
Mich	Brush Instruments, 600 Northland Tower E Southfield	313 356-6600
Minn	Torkelson Assoc, 4820 W 77th St Minneapolis	612 920-1046
Mo	Brush Instruments, 11722 Studt Lane St Louis	314 432-8055
NJ	Brush Instruments, 25 E Salem St Hackensack	342-6161
NC	W A Brown & Assoc Inc, 1180 Burke St Winston-Salem	919 725-5384
Ohio	Brush Instruments, 1700 Needmore Rd Dayton	513 278-9900
Ohio	Brush Instruments, 37th & Perkins Cleveland	216 361-3315
Pa	Brush Instruments, Belmont & City Line Ave Bala Cynwyd	215 839-7066
Pa	Brush Instruments, 3450 Babcock Blvd Pittsburgh	412 931-3660
Tex	Brush Instruments, 7007 Gulf Frwy Houston	713 644-3671
Tex	Brush Instruments, Box 12374 Dallas	214 348-8610
Wash	Brush Instruments, 5950 6th Ave S Seattle	206 762-2140
Can	Allan Crawford Assoc Ltd, 376 Churchill Ave Ottawa	PA 5-1288
Can	Allan Crawford Assoc Ltd, 6999 Cote Des Neiges Montreal	RE 9-6776
For	Equip De Lab LDA, Apartado 1 100 Lisbon, Port	73343677
For	Ad Auriema Inc, 85 Broad St New York N Y	212 269-7750
Den	Semler & Matthiassen, 1 Aebelogade Copenhagen	(01)290311
Fr	Bureau De Liaison SA, 113 Rue De L'Universite Paris VIIE	468-9920
Ger	Electronic Assoc GmbH, Bergdriesch 37 Aachen 51	0241 26041
GB	B & K Instruments Ltd, 59 Union St London SE 1	Hop 4567
Ital	Silverstar Ltd, 20 Via Dei Gracchi Milan	46 96 551
Jap	Hakuto Co Ltd, 1 Kotohira-Cho Shiba Minato-Ku Tokyo	503 3711-9
Nor	MetronicA/S, Tollbodgaten 4, Oslo	42 74 85
Swed	M Stenhardt AB, Grimstagatan 89 Stockholm-Vallingby	87 02 40
Swit	Megex Zurich Co Ltd, Badenerstr 582 8048 Zurich	(051)527800
Belg	Ets Van Der Heyden SA, 49 Rue Du Marais Brussels	171715
Gr	M Dalleggio Reps, 2 Alopekis St Athens	710 669&71
Ind	Motwane Private Ltd, 127 Mahatma Gandi Rd Bombay	252337
Isrl	Landseas (Israel) Ltd, 29 Bezalel St Tel Aviv	244311
Neth	Peekel, Lab Voor Electronica, Alblasstr 1 Rotterdam	(010)152722
Spn	Montreal SA, Ferraz 12, Madrid	247 65 73
Fin	Into, 11 Meritullinkatu, Helsinki	61 133
Aust	Electronic Assoc Pty Ltd, 26 Albany St St Leonards, N S W	43-1557

CLEVITE CORP PIEZOELECTRIC DIV, 232 FORBES RD, BEDFORD
OHIO, 44146, TWX 810-427-2274 . . . . 216 232-8600
D CURRAN, EMP 250, ENG 21, $5,000-$10,000M
ADV PG 294

Ala	J L Highsmith & Co, 3322 S Memorial Pkwy Huntsville	881-3294
Cal	Clevite Corp, 1801 Ave of the Stars Los Angeles	879-1300
Cal	Lebell-Warren Assoc, 601 County Rd San Carlos	LY 3-7688
Cal	Fetty/Schoenduve, Inc, 7407 Melrose Ave Los Angeles	651-4050
Cal	Fetty/Schoenduve, Inc, 253 Town & Country Village Palo Alto	DA 1-7041
Cal	Carter & Rossney Assoc, 2600 W Olive Ave Burbank	WE 6-8201
Colo	Waugaman Assoc Inc, 2785 N Speer Blvd Denver	255-5000
Colo	Norcon Ltd, 2241 Stacey, Denver	303 428-1575
Fla	J L Highsmith & Co, 2543 Industrial Blvd Orlando	293-5202
Ga	Maitland K Smith Co, 31 - 16th St N W Atlanta	875-8031
Ill	Semiconductor Specialists, Box 66125 Chicago	279-1000
Ill	J D Boswell & Assoc, 700 N 20th St East St Louis	618 274-0560
Ind	Fishman Assoc, 2060 E 54th St Indianapolis	CL 1-2401
Iowa	H R Brown Sales Co, 3400 Indian Rd SE Cedar Rapids	366-0635
Kan	Forristal Young Sales, 5500 Buena Vista Mission	432-1420
Md	Mount & Co, 4835 Cordell Ave Bethesda	652-5612
Mass	L B Cole & Co, 318 Weston Rd Wellesley	237-1260
Mass	Wm Beaver Assoc, Inc, 41 Indian Ridge Rd S Natick	655-1529
Mich	Semiconductor Specialists, 25127 W 6 Mile Rd Detroit	255-0300
Mich	Grant Shaffer Co, 14241 Fenkell Ave Detroit	313 273-5390
Mo	Forristal Young Sales, 7110 Oakland Ave St Louis	MI 5-2360
NJ	Component Marketers Inc, 109 Valley Rd Montclair	746-6717
NY	Clevite Corp, 1 Rockefeller Plaza New York	PL 7-6680
NY	Ellis-Haber Corp, 2315 Broadway New York	799-4040
NY	Martin P Andrews Inc, 319 Mott Rd Fayetteville	315 637-3144
NC	J L Highsmith & Co, 3733 Monroe Rd Charlotte	333-7743
Ohio	Semiconductor Specialists, 5858 N Main Dayton	278-9455
Pa	Chatham Assoc, 227 Haverford Rd Narberth	MO 4-5511
Pa	Semiconductor Specialists, 2011 Waverly St Pittsburgh	351-3611
Pa	Phono Sales Co, 5912 Penn Ave Pittsburgh	412 441-1833
Tex	Hays Co, 777 S Central Expwy Richardson	AD 1-1426
Wash	R Johnston Co Inc, 1011 NE 69 St Seattle	LA 4-5170
Wash	M K Widdekind, 815 W Ewing St Seattle	AT 4-8020
Can	D I Snell Ltd, 700 Weston Rd, Toronto	767-9876

CLIFTON DIV LITTON INDUSTRIES LITTON PREC PRODS INC
5050 STATE RD, DREXEL HILL,
PA, 19026, TWX 510-669-8217 . . . . 215 622-1000
J JAENISCH, EMP 2500, ENG 100, OVER $10,000M
ADV PG 437, 631, 686

Ariz	Clifton Div, 101 N Brown Ave Scottsdale	946-3446
Cal	Clifton Div, 7340 E Florence Ave Downey	927-3335
Colo	Clifton Div, 425 E Fillmore St Colorado Springs	632-2691
Fla	Clifton Div, Box 508 Altamonte Springs	831-1441
Mass	Darbury Corp, 437 Cherry St, W Newton	244-2053
Mo	Clifton Div, 8 Progress Pkwy Maryland Hts	432-4400
NY	H W Brede Co, 689 Glen Cove Rd Glen Head	676-4900
Ohio	Clifton Div, 1700 Needmore Rd, Dayton	276-4137
Okla	Ammon & Champion, Box 4682 Tulsa 14	627-7670
Pa	Clifton Div, 5050 State Rd, Drexel Hill	622-1000
Tex	Ammon & Champion, 3300 W Mockingbird La Dallas	357-8441
Tex	Ammon & Champion Co, Box 35552 Houston	PA 9-1233
Swit	Litton Prec Prods Intl Inc, Schwamendingerstr 5 Zurich	483544

CLIMCO INC, 400 OAKWOOD, MORRISON
ILL, 61270 . . . . 815 772-2107
R COLLINS, EMP 70, $500-$1,000M

CLINTON INSTRUMENT CO, BOSTON POST RD
CLINTON, CONN, 06413 . . . . 203 669-7548
C STRONG, EMP 12, ENG 1, UP TO $100M

CLIPPARD INSTRUMENT INC, BOX 68, CINCINNATI
OHIO, 45201 . . . . 513 521-4261
R SMITH, EMP 300, ENG 5, $2,500-$5,000M

CLOUGH-BRENGLE CO, 6014 BROADWAY, CHICAGO
ILL, 60626 . . . . 312 AM 2-2200
G FONTE, EMP 20, ENG 3, UP TO $100M

DC	Houser Assoc, 734 15th St NW Washington	638-0084
NJ	Houser Assoc, 188 Water St Perth Amboy	422-3159

CLOVER CO INC F G, 160 FRANKLIN AVE, ROCKAWAY
N J, 07866 . . . . 201 627-1160
C GROEPLER, EMP 21, ENG 2, $100-$250M

CLY-DEL MFG CO, 42 SHARON RD, WATERBURY
CONN, 06705 . . . . 203 756-7264
W MOORE, EMP 100, ENG 3, $2,500-$5,000M

Ill	Ray Armstrong, 920 Huckleberry La, Northbrook	

CMC/RUTHERFORD, 12970 BRADLEY AVE
SAN FERNANDO
CAL, 91342, TWX 910-496-1487 . . . . 213 367-2161
E HILL, EMP 415, ENG 17

Ariz	Barnhill Assoc Inc, 4900 E Indian School Rd Phoenix	602 959-2115
Cal	J Falstad, 10200 Wolfe Rd Cupertino	408 253-5529
Colo	Barnhill Assoc Inc, 1170 S Sheridan Denver	303 934-5505
Fla	Beacon Electronic Assoc, 540 S Maitland Ave Maitland	305 647-3498
Fla	Beacon Electronic Assoc, 417 NW 28th St Ft Lauderdale	305 564-4298
Ga	Beacon Electronics Assoc, 2285 Peachtree Rd NE Atlanta	404 351-3654
Ill	Pivan Engineering Co, 3535 W Peterson Ave Chicago	312 539-4838
Ind	Pivan Engineering Co, 8545 Northwest Ct Indianapolis	317 253-1681
Iowa	Pivan Engineering Co, 4403 1st Ave SE Cedar Rapids	319 365-6635
Kan	Pivan Engineering Co, 5920 Nall Ave, Mission	
Md	Electronic Mktg Assoc, 11501 Huff Ct Kensington	301 946-0300
Mass	R Ollweiler, 10 Kearney Rd Needham	617 449-2610
Mich	WKM Assoc, 1474 E Outer Dr Detroit	313 892-2500
Minn	Pivan Engineering Co, 3203 N Hwy 100 Minneapolis	612 537-4501
Mo	Pivan Engineering Co, 400 Brookes Dr Hazelwood	314 731-3000
NJ	Central Assoc, 44 N Dean St Englewood	201 568-0808
NM	Barnhill Assoc Inc, 827 Penna NE Albuquerque	505 265-7766
NY	NACO Electronics, 119 Luther Ave Liverpool	315 474-7481
NY	Central Assoc, 11 Commercial Dr Plainview	516 433-0808
NC	Beacon Electronic Assoc, 305 Greenway St Jamestown	919 454-1919
Ohio	WKM Assoc, 6741 Ridge Rd Cleveland	216 885-5616
Ohio	WKM Assoc, 5335 Far Hills Ave Dayton	513 434-7500
Pa	Electronic Mktg Assoc, 210 Goddard Blvd King of Prussia	215 248-5050
Pa	WKM Assoc, 90 Clairton Blvd Pittsburgh	412 892-2953
Tex	Barnhill Assoc Inc, 507B Bishop St Richardson	214 231-2573
Tex	Barnhill Assoc, 3810 Westheimer Houston	713 621-0040
Wash	Showalter-Judd Inc, 1806 S Bush Pl Seattle	206 324-7911
Wis	Pivan Engineering Co, Box 437 Waukesha	414 547-5131
For	Gibbs y Cia S A C Agustinas 1161 2 Piso Casilla 67-D Santiago	82701-09
For	E Pinto Basto & Ca Lda 1 Ave 24 de Julho Aptdo 2200, Lisbon	
For	W L Kerr (Pvt) Ltd, 50 Stanley Ave Salisbury C 1	23422
For	Fenmen Ltd, 19 Karanfil Sokak, Ankara	122915
Den	Sophus Berendsen A/S, 10 Amaliegade Copenhagen K	01-14-85-00
Ger	Ernst Fey, Horemansstr 28, 8 Munchen 2	60459
Holl	Koning en Hartman NV, Koperwerf 30 The Hague	070-678380
Jap	Cornes & Co Ltd, Box 158, Tokyo	272-5771
Nor	Norsk Marconikompani A S, Box 50 Manglerud Oslo	67-04-86
Swed	Svenska Radioaktiebolaget, Alstromergatan 14 Stockholm	22-31-40
Swit	Kontron Ltd, Hardstra 235 8031 Zurich	051-44-5690
Arg	English Elec Marconi Arg S R L Casilla de Correo 4476 Correo Central Buenos Aires	42-1772
Belg	Sait Elctns, 66 Chaussee de Ruisbroek Brussels 19	45-18-50
Isrl	Racom Electronics Co Ltd, 74 Nordou Blvd Tel-Aviv	44-32-44
Mex	Agencias Canadenses y Occidentales S A Vallarta I Aptdo Postal 8600, Mexico I D F	
NZ	Amalgamated Wireless (Australasia)(N Z) Ltd 126 Wakefield St, Wellington C 1	43-191
Fin	O Y Mercantile A B, Box 10029 Helsinki 10	64 42 11
Aust	Kenelec Imports Pty Ltd, 49 Essex Rd Mt Waverley Victoria 3149	277-2818

CM LABORATORIES, 327 CONNECTICUT AVE
NORWALK, CONN, 06854 . . . . 203 853-2345
S GROSSMAN, EMP 20, ENG 2, $250-$500M

Cal	D'Argos Sales, 7168 Birdview Malibu	213 457-7118
Cal	R Marco, Box 31332 San Francisco	415 562-1843
Conn	John B Anthony Co, 1098 Post Rd Darien	203 655-8811
Ill	Loren F Green Assoc, 5218 W Diversey Ave Chicago	312 286-6824
Mass	J Piper Assoc, 10 Haven St, Dover	617 449-1144
Mo	Robert Shaw Co, 7800 Kenridge La St Louis	303 429-4595
NC	C & G Assoc, Inc, Box 12342 Charlotte	704 537-9563
Ohio	Fred Ohman Co, Box 363 Twinsburg	216 425-7445
Tex	Art Palmer Co, 4943 N Hall St Dallas	214 521-0952
Wash	Wm K Wood Co, 5908 Calif Ave Seattle	206 WE 5-9400
For	Royal Sound Co, 409 N Main St Freeport, N Y	516 868-2880

C M L INC, 350 LELAND AVE, PLAINFIELD
N J, 07062, TWX 710 997-9529 . . . . 201 754-5502
E LAVINE, EMP 70, ENG 8, $1,000-$2,500M
ADV PG 496, 497

Ala	Roy Attaway Co, 900 Bob Wallace Ave Huntsville	534-2811

Cal IFM - South, 3455 Cahuenga Blvd
Hollywood 469-1641
Cal IFM - North, 2269 E Middlefield Rd
Mountain View 961-2828
Fla Roy Attaway, 51-53 E Robinson St
Orlando 424-9983
Iowa Engineering Services Co, 1026 3rd Ave, S E
Cedar Rapids 366-1591
Kan Engineering Services Co, 7924-A State Line
Prairie Village 649-4000
Mass Electronic Sales of NE, Box 276
Attleboro 617 222-4078
Mich Hal C Heym Assoc, 1688 Buckingham Rd
Birmingham 644-9166
Mo Engineering Services Co, 6717 Vernon Ave
St Louis 726-2233
NM Dyma Engineering, Inc, Rte 1, Box 51
Taos 758-2686
NY Sweeney & Co Inc, 5 Fox Meadow Ct
Woodbury 516 692-4222
NC Roy Attaway Co, 614 Nissen Bldg
Winston Salem 722-9671
Ohio Fred R Sharp Co Inc, 12417 Cedar Rd
Cleveland 462-2770
Okla James E Dyer Co Inc, Box 1226, Tulsa ... 742-8832
Ore N R Schultz, Box 156, Beaverton
Tex True Technology Co, 12016 Fieldwood La
Dallas .... 214 AD 9-7741
Va Gans-Fryling Inc, 2030 16th St N
Arlington 703 527-3262
Wash N R Schultz Co, 305 112th Ave, N E
Bellevue 454-5224
Can Mel Sales Ltd, Box 34 Sta D
Scarborough 755-9235
Can Mel Sales, Ltd, Box 850, Arnprior, Ont ... 623-4217
Den A S Danbridge, 47 Brigadevej
Copenhagen .... ASTA 1575
Fr Seremat, 24 Rue Maurice Barthelemy
Fontenay Sous Bois Seine 873-31-72
Fr Serelec-Ste'd Etudesde Recherches Elect
3 Rue D'Edimbourg, Paris 387-90-56
Ger Elektronische Test Gerate, 3387 Vienenburg
W Germany 872
GB Robert Elctns, 17 Hermitage Rd
Hitchin Hert .... Hitchin 50005 1/2
Ital Stelit, Via Orlando 24, Geneva 39145
Ital L Gambardella, Via Veneto 96, Roma
Jap Seki & Co
92 Chome Nihonbashi Koamicho Chuo-ku, Tokyo
Swed Lagercrantz, Box 314, Solna 3 830790
Swit Nucletron AG, Spitaligasse 30, Bern 031-37451
Ind Escorts Ltd, Box 187, New Delhi 40145
Isrl STG Intl Ltd, 52 Nachlat Benyamin St
Tel-Aviv 53459
Aust Ronald J T Payne Pty Ltd, 385-387 Bridge Rd
Richmond 42-1416

C M MFG CO, 103 DEWEY ST, BLOOMFIELD
N J, 07003 201-338-6500
D DONOVAN, EMP 50, ENG 8, $500-$1,000M

C & N ELECTRICAL LTD, THE GREEN, GOSPORT
HANTS, ENGLAND .... GOS 82391
G SPENCER, EMP 1000, ENG 30, $2,500-$5,000M
GB C & N - Electrical Ltd, Hambridge Rd
Newbury 3964

COASTAL DYNAMICS CORP, 219 ROSE, VENICE
CAL, 90291 .... 213 392-3001
L CARSON, EMP 111, ENG 4, $1,000-$2,500M
Cal R H Jensen Co, 1323 Lincoln Blvd
Santa Monica 213 393-7278
Fr Vibrachoc, 39 Rue des Mathurins, Paris VIII

COAST COIL CO ATLANTIC RESEARCH CORP
5333 W WASHINGTON BLVD, LOS ANGELES
CAL, 90016 .... 213 936-6188
W FITCH, EMP 38, ENG 3, $500-$1,000M
Cal Mauldin Co, 441 Calif Ave, Palo Alto 326-5291
Mo Airborne Electronics, 7759 Loma Vista Dr
Kansas City 221-0312
NC Byrd & Barbour Sales Inc, 619-A S Third St
Smithfield 919 934-8136

COAST ELECTRONICS INC, 1305 FIFTH ST
MANHATTAN BEACH, CAL, 90266 ...... 213 376-6328
G HAMMEL, EMP 25, ENG 17, UP TO $100M
Cal Coast Mktg Group, 613 Wilshire Blvd
Santa Monica 213 393-0706

COAXCO INC, 6611 SW MULTNOMAH BLVD
PORTLAND, ORE, 97223 .... 503 244-3215
P TERRY, EMP 4, ENG 2, UP TO $100M
Ariz Gramer & Co, 110 W Camelback Rd
Phoenix 279-1231
Cal Pritchard & Haney Co, Box 102
Los Altos 415 961-8218
DC J R Eberly Co, 1207 Potomac St NW
Washington 338-2277
NJ L C Freeman & Assoc, 484 Bloomfield Ave
Montclair 201 746-5200
Tex Test Equip Co, Box 4427, El Paso 755-9192
Wash Paratech, 9210 28th Ave NW, Seattle ... SU 4-6447

COAX DEVICES, BOX 234EB, CHELSEA
MASS, 02150 .... 617 884-6983
S ROSEN, EMP 6, ENG 2, UP TO $100M

CO-AX INC, BOX 247, ROSLYN
N Y, 11576 .... 516 484-0454
A SCHACHT
GB Transradio Ltd, 183 Park Ave
London nw 10 965-6281

COBEHN INC, 226 PASSIAC AVE, FAIRFIELD
N J, 07007 .... 201 226-6675
D COOK, EMP 6, ENG 2, $250-$500M
Cal Grif R Jones, 840 E 60th St
Los Angeles 231-0029
Ill Marsland Distributing Corp, 6699 Lincoln Ave
Chicago 676-1105
Ind Marsland Dist Co, 3734 Carrollton Ave
Indianapolis 317 924-3568
Mass R E Bailey Jr, 10 High St, Boston 426-0846
Minn Marsland Distributing Corp, 231 N Edgewood Ave
Mnpls 545-4481
Mo Marsland Distributing Corp, Box 567
Florissant 831-0015
NY Rochester Industrial Supply, 109 University Ave
Rochester 716 325-2386
Pa Chem-Tronic Inc, RFD 3, Reading 779-3910
Tex Test Equip Co, 5319 Harlan Dr
El Paso 915 755-9192
Utah Bert Randall & Assoc , 760 S 700 E
Centerville 801 295-8928
Va Fred Whiteside, 10 Main St, Scottsville ... 286-2761
Can Philip French Sales, 8 Taber Rd
Rexdale, Ont 244-4281
For Ameresco Inc, 203 Bellevue Ave
Upper Montclair, NJ 746-5300

COBER ELECTRONICS INC, 7 GLEASON AVE
STAMFORD, CONN, 06902 .... 203 327-0003
B ZARKOWER, EMP 41, ENG 9, $1,000-$2,500M
Ala Gentry Assoc Inc, 2109 W Clinton St
Huntsville 534-9771
Colo Hyer Assoc, 7895 E Prentice Ave
Englewood 771-5285
Colo Hyer Assoc, 301 W Indian School Rd
Phoenix 264-9291
DC Eastern Instrumentation, Inc
2600 Virginia Ave N W, Washington 333-8880
Fla Gentry Assoc Inc, 550 N Bumby Ave
Orlando 305 841-7740
Ga Gentry Assoc Inc, Box 13513, Sta K
Atlanta 233-3816
Ill Midwest Electronic Sales, 5707 W Division St
Chicago 626-0030
Ind Midwest Electronic Sales, 5462 E 40th St
Indianapolis .... LI 7-3259
Iowa Midwest Electronic Sales, 2042 Franklin Ave N E
Cedar Rapids 362-4410
Md Eastern Instrumentation, Inc, 1002 Ingleside Ave
Baltimore 744-3675
Mass Microwave Consultants Corp, 195 West St
Waltham 617 899-4400
Mich Micro Sales Corp, 650 Greenlawn
Ypsilanti 313 483-1229
NJ Eastern Instrumentation, Inc, 518 Franklin Ave
Nutley 661-2000
NM Hyer Assoc, 210 LaVeta Dr NE
Albuquerque 265-5767
NY DB Assoc Inc, Box 14, DeWitt 446-0220
NY Eastern Instrumentation, Inc, 350 Northern Blvd
Great Neck 466-9505
NC Gentry Assoc, Box 197
Jamestown 919 454-1919
Ohio Micro Sales Corp, 2000 Lee Rd
Cleveland 216 371-0522
Ohio Micro Sales Corp, 1250 W Dorothy La
Dayton 513 298-3033
Pa Eastern Instrumentation, Inc, 613 Cheltenham Ave
Phila 927-6269
Tex AIREP Elctns Inc, 6300 N Central Expwy
Dallas 214 363-5291
Utah Hyer Assoc, 445 E Second S
Salt Lake City 801 363-6773
Va Eastern Instrumentation Inc, Ross Bldg
Richmond 703 644-6622
Wis Midwest Electronic Sales, 1317 Garfield Ave
Waukesha 542-5129
Jap Industrial Imports Ltd, Box 1271-CPO, Tokyo

CODAMITE DIV PACIFIC ORDNANCE & ELCTNS CO
1747K1 W LINCOLN AVE, ANAHEIM
CAL, 92801 .... 714 776-5432
R JOHNSON, EMP 30, ENG 10, $100-$250M
Cal Allgood Assoc, 3388 W 8th St
Los Angeles 213 381-5649
Cal Allgood Assoc, 1621 Centinela Ave
Inglewood 213 776-5820
DC Ten Eyck-Jahnel Inc, 910 17th St NW
Washington 202 296-7398
Fla Reynolds & Assoc, Inc, Box 1043
Eau Gallie 305 727-3205
Haw Harkom Hawaii Inc, 630 Piikoi St
Honolulu 587-178
Ohio Mobile Elctns Inc, 269 N State St
Westerville 614 882-3095
Tex P E I Corp, Box 2625, Amarillo 806 373-1783
Wash B J Hudson Co, 7615 NE 123rd St, Kirkland
Can Tele-Radio Systems Ltd, 1015 Finch Ave W
Toronto Ont 416 635-5221
For Communications & Ind Elctns Co, Box 2526 GPO
San Juan P R 789-4375
Fr Genetec Gen Detechnologie
11 Rue Des Petites Ecuries
75 Paris X 770 89 19

COGGINS CO, GEORGE F, 117 SW FRONT AVE
PORTLAND, ORE, 97204 .... 503 CA7-2921
G COGGINS, ENG 1

C O G I E, 3-5 BLVD ANATOLE FRANCE
AUBERVILLIERS 93, FRANCE 833-2991
M COHEN, EMP 37, ENG 3, $500-$1,000M

COGNITRONICS CORP, 333 BEDFORD RD
MOUNT KISCO, NY, 10549 .... 914 666-2941
J PROCTOR JR, EMP 68, ENG 17, $1,000-$2,500M

COHAN-EPNER CO INC, 142 W 14TH ST, NEW YORK
N Y, 10011 .... 212 CH 3-3411
D EPNER, EMP 100, ENG 3, $500-$1,000M

COHERENT RADIATION LABS, 932 E MEADOW DR
PALO ALTO, CAL, 94303 .... 415 328-1840
G STEPHAN, EMP 30, ENG 8, $500-$1,000M
Cal A-F Sales Engrg Inc, 94 S Los Robles Ave
Pasadena .... 213 MU 1-5631
Conn Applied Measurements Inc
Hamden 203 288-5288
Md Ron Davies Assoc, Bethesda 652-6330
Mass Applied Measurements, Inc, Acton 263-2766
Tex Crockett Engrg, Dallas 214 637-6120

COHN CORP, SIGMUND, 121 S COLUMBUS AVE
MT VERNON, N Y, 10553 .... 914 664-5300
J COHN, EMP 210, ENG 8
Cal Sigmund Cohn Corp of Cal, 826 Walnut Ave
Burbank .... VI 9-6777
Tex Sigmund Cohn-Pyrofuze Inc, 5721 Brookstown Dr
Dallas .... AD 9-3901
Fr Ste Francaise du Diamant, 8, Rue Lafayette
Paris .... PRO 31-29
GB Temple Electrical Co Ltd, 291 High St
Warford, Herts .... WAT 26626
GB Alpha Metals Inc UK Ltd, 75 New Bond St
London W 1 .... HYD 9081
Ital SFD Italiana, c/o Kimates S p A, Via Turati, 28
Milano 653-221
Jap Sumitomo Shoji Kaisha, Ltd, 1, Kandamitoshiro-cho
Chiyoda-ku, Tokyo 294-4111

COHU ELECTRONICS INC, BOX 623, SAN DIEGO
CAL, 92112, TWX 910-335-1244 .... 714 277-6700
E CLARE, EMP 225, ENG 50, $5,000-$10,000M
Ala BCS Assoc Inc, 2317 Bob Wallace Ave SW
Huntsville 534-1648
Cal Cohu Electronics Inc, 292 S La Cienega Blvd
Beverly Hills 655-5200
Cal Cohu Electronics, Inc, 1901 E Middlefield Rd
Mountain View 961-9293
Colo Williams Assoc, 4971 Jackson St
Denver 388-4391
Fla BCS Assoc Inc, 940 N Fern Creek Ave
Orlando 425-2764
Ill Hugh Marsland & Co, 6699 Lincoln Ave
Chicago 676-1100
Ind Hugh Marsland & Co, 3734 Carrollton Ave
Indianapolis 924-3568
Md Bartlett Assoc Inc, 7979 Old Georgetown Rd
Bethesda 656-3061
Mass Addelco Corp, 56 Pickering St
Needham 444-4754
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield 357-3700
Minn Hugh Marsland & Co, 231 N Edgewood Ave
Minneapolis 545-4481
Mo S Sterling Co, 11734 Lachland Indus Dr
St Louis 542-3636
NJ Friedman Assoc, Inc, 110 Halsted St
Orange 673-2500
NM Williams Assoc, 420 Washington St SE
Albuquerque 255-1638
NY J A Reagan Co, Inc, 6 Highland Ave
Albany 489-4777
NC BCS Assoc Inc, 1039 E Wendover Ave
Greensboro 273-1918
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland 442-8080
Ohio S Sterling Co, 2673 Culver Ave, Dayton ... 298-7573
Ore Arva, Inc, 2035 S W 58th Ave, Portland .. 292-8762
Pa Bartlett Assoc Inc, 130 W Lancaster Ave
Wayne 688-7325
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh 884-5515
Tex Arnold Barnes Co, 3230 Mercer St
Houston 622-3620
Tex Arnold Barnes Co, 740 S Sherman St
Richardson 235-4541
Tex Arnold Barnes Co, E-106 Petroleum Ctr
San Antonio 828-1323
Wash Arva, Inc, 1320 Prospect St, Seattle 622-0177
Can Whittaker Electronics Ltd, 42 Howden Ave
Ottawa 5, Ont 224-1221
Fr Tranchant Electronique
19-21 Rue Madame de Sanzillon
Clichy, Seine 22-55
GB Litton Precision Prod, 503 Uxbridge Rd
Hayes Mdsx 01-573-8232
Jap Kanematsu-Gosho (USA) Inc, 606 S Hill St
Los Angeles, Cal 620-1640

COIL CO OF AMERICA INC, 220 WASHINGTON ST
NORTHVALE, N J, 07647 .... 201 768-3434
H GAY, EMP 25, ENG 3, $250-$500M

COILCRAFT INC, SILVER LAKE RD, CARY
ILL, 60013, TWX 910-651-2251 .... 312 639-2361
R ADAMS, EMP 1000, ENG 8, $5,000-$10,000M
Pa Robt Hilderbrand, Box 166
Fairview Village .... CH 7-6225

COIL-O-MATIC CO, 61 DIVISION ST, PAWTUCKET
R I, 02860 .... 401 725-7363
C LEARY, EMP 35, ENG 2, $100-$250M

COILTRONICS INC, 6550 CABALLERO BLVD
BUENA PARK, CAL, 90620 .... 213 521-9800
E WILLIAMS, EMP 15, ENG 3, $100-$250M

COIL WINDING EQUIPMENT CO, RAILROAD PLAZA, OYSTER BAY
N Y, 11771 .... 516 WA 2-5660
B GEORGE, EMP 35, ENG 3, $500-$1,000M
ADV PG 378
Cal Phillip H DuBois, 15605 Calverton Dr
La Mirada 521-1481
NY Barco Sales Co, 1205 Godfrey La
Schenectady 518 393-2729
GB Kolectric Ltd, Hayes Rd, Southall, Mdsx
Jap Iwai Takachiho Trading Co, 6-7, 1-Chome, Yushima
Bunkyo-Ku, Tokyo

COLBER CORP, 26 BUFFINGTON ST, IRVINGTON
N J, 07111 .... 201 375-3004
A COLLETT, EMP 50, ENG 1, $1,000-$2,500M
Mich E F Walter, Detroit .... TU 2-3746

COLBERT DIE CAST CO INC, 10107 ADELLA AVE
SOUTH GATE
CAL, 90280, TWX COLBIND 213 569-8108
D HILL, EMP 18, ENG 2, $100-$250M

COLDSPRING INSTRUMENT CORP
800 W JERICHO TPKE, HUNTINGTON
N Y, 11743, TWX 510-226-2770 .... 516 692-5090
S RASANEN, EMP 10, ENG 2
Md Lewis Assoc, 4925 Fairmont Ave
Bethesda 301 657-3844
NY Bertram D Aaron, 55 Northern Blvd
Greenvale 516 621-0630

COLE ELECTRIC CO, 8439 STELLAR DR, CULVER CITY
CAL, 90230 .... 213 870-4701
B WINESTOCK, EMP 70, ENG 4

COLE-HERSEE CO, 20 OLD COLONY AVE, S BOSTON
MASS, 02127 .... 617 268-2190
R MAYER

COLEMAN ENGINEERING CO INC
3121 W CENTRAL AVE, SANTA ANA
CAL, 92702 .... 714 546-1600
D CRAIG, EMP 145, ENG 8, $1,000-$2,500M

COLIGHT INC, 123 N THIRD ST, MINNEAPOLIS
MINN, 55401 .... 612 333-8201
C HOY, EMP 52, ENG 5
NJ Colight Inc, 20 Demond
Somerville 212 737-6012
Ohio Colight Inc, 2 N Ridge, Troy 513 332-2165

COLLECTRON CORP, 304 E 45TH ST, NEW YORK
N Y, 10017 .... 212 689-7120
R COOMBS, EMP 170, ENG 10, $1,000-$2,500M
Cal Costello Little & Co, 8737 Venice Blvd
Los Angeles 213 870 5951
Cal Costello Little & Co, 575 Middlefield Rd
Palo Alto 415 321-3745
Fla Varrelman & Gorman Co, Box 23241
Ft Lauderdale 305 563-3982
Mass Robert J Hoey Co, 17 Orchard Dr
W Acton 263-7565
Mich Thies & Assoc, 1450 Rossman Ave SE
Grand Rapids 245-0319
NJ Varrelman-Gorman Co, box 206
Livingston 992-2505
Ohio J Tisdall, 359 Fawnwood Rd
Dayton .... 513 AX 9-4392
Tex Costello Little & Co, 5635 Yale Blvd
Dallas 214 363-9031

COLLINS & ASSOC DON L, 418 N GLENDALE AVE
GLENDALE, CAL, 91206 .... 213 245-2711
EMP 4, ENG 2, UP TO $100M

COLLINS CORP, G L, 5875 OBISPO AVE, LONG BEACH
CAL, 90805, TWX 910-346-6707 .... 213 636-8141
G HOLLETT, EMP 100, ENG 15, $1,000-$2,500M

COLLINS RADIO CO, DALLAS
TEX, 75207 .... 214 AD 5-9511
J BOYLE, EMP 22000, ENG 5000, OVER $10,000M
Cal Collins Radio Co, 5959 W Century Blvd
Los Angeles 213 670-2970
Cal Collins Radio Co, 307 S B St
San Mateo 415 342-1167
Fla Collins Radio Co, 5575 NW 36th St
Miami 305 888-0611
Ga Collins Radio Co, Intl Office Park
Atlanta 404 761-0607
Ill Collins Radio Co, 3154 Cherry La
Northbrook 312 272-6940
Iowa Collins Radio Co, 5225 C Ave NE
Cedar Rapids 319 365-8411
Mass Collins Radio Co, 594 Marrett Rd
Lexington 617 861-1240
Minn Collins Radio Co, 7710 Computer Ave
Minneapolis 612 926-5208
NY Collins Radio Co, 245 Park Ave
New York 212 661-6530
NY Collins Radio Co, 310 E Chestnut St
Rome 315 336-1300
Va Collins Radio Co, 1611 N Kent St
Arlington 703 524-9503
Wash Collins Radio Co, 3723 Alaska St
Seattle 206 725-1000
Can Collins Radio Co of Can Ltd, 150 Bartley Dr
Toronto, Ont 416 757-1101
Fr Collins Radio France S A
80 Rte de St-Cloud 92 Rueil Malmaison
Paris 967-7560
GB Collins Radio of Eng Ltd, Bath Rd
Cranford Hounslow Mdsx 01-759-9911
Ital Collins Italiana Spa, Viale Liegi 41 Int 12
00198 Rome 8 62415

COLLINS RADIO CO, ELECTRONIC COMPONENTS
19700 JAMBOREE RD, NEWPORT BEACH
CAL, 92663 .... 714 833-0600
T MILLER, EMP 2000, ENG 500, OVER $10,000M
Cal Jack Pyle Co, 1611 Borel Pl
San Mateo 349-1266
Cal West Inc, 3825 Birch St
Newport Beach 714 540-9040
Colo Lindberg Co, 2654 S Krameria, Denver ... 757-6489
Fla Wm R Lehamnn Co, 1010 Executive Ctr Dr
Orlando 841-4901
Ill Edw Schmeichel Co, 5968 W Chicago Ave
Chicago 378-2070
Kan Midland Engr Sales Assoc, 5460 Buena Vista Dr
Mission 262-6565
Md Daniel & Co, 6 E Penna Ave, Towson 825-3330
Mass R H Sturdy Co, 204 Worcester St, Wellesley Hills
Minn Merrill Franklin Co, 730 E 38th St
Minneapolis 827-5348
NJ Harold Gray Assoc, Inc, 20 Foster St
Bergenfield 384-3643
NY Naylor Electric Co, Inc, 1718 E Erie Blvd
Syracuse 472-9183
Ohio Electronics Marketing Corp, 814 W 3rd Ave
Columbus 299-4161
Pa Daniel & Co, Box 3, Glenside 887-0551
Tex Dunbar Assoc Inc, 417 Meadows Bldg
Dallas 363-2536
For Casa Serras, Rua Augusta, 228
Lisbon, Port 32-01-33
For Masinokomerc, Knez Mihailova 13
Beograd 28-643
For Leopold Zettel, Zollergasse 35
Wein VII Austria 93-26-81
Den Tage Olsen A/S, 1 Ronnegade
Copenhagen .... (01) 29 48 00
Fr Technique et Products, 92 Sevres Rue Carle-Vernet
Cites Des Bruyeres 626-02-35
Ger Ingenieurburo W Bachmann, 85 Nurnberg
Lindenaststr 0911/55-49-10
GB G A Stanley Palmer, Ltd, Island Farm Ave
Surrey .... Molesey 7254
Holl Schreiner & Co, NV, 99 Parkstr
The Hague 070-601-930
Nor Luftmateriell A/S, Prinsensgt, 2C, Oslo ... 33-32-03
Swed John C Lagercrantz, Box 314, Solna 3 83-07-90
Swit Telion, Ltd AG, Albisriederstr 232
Zurich .... (051) 54-99-11
Belg Daniel H F Delgay, 70 Chaussee de Charleroi
Bruxelles .... (02) 37-56-60
Spn H & O Wilmer, Peligros 2-4, Madrid 14 .. 231-8301
Fin K L Nyman, 11 Maritullinkatu, Helsinki 21425

COLONIAL PRINTING INK CO, 180 E UNION AVE
EAST RUTHERFORD, NJ, 07003 .... 201 933-6100
P TERRY, $1,000-$2,500M

COLORADO INSTRUMENTS INC, ONE PARK ST
BROOMFIELD, COLO, 80020 .... 303 466-7333
J HANNAH, EMP 75, ENG 6, $500-$1,000M
Mass Brogan Assoc, 69 Hickory Dr
Waltham 617 894-3250
NY Brogan Assoc, 80 Urban Ave
Westbury 516 333-6683
NY Brogan Assoc, 202 Arterial Rd
Syracuse 315 437-2988
NY Brogan Assoc, 474 Thurston Rd
Rochester 716 328-2350
Pa Brogan Assoc, 107 W Ridge Pike
Conshohocken 215 825-5010
Tex Computer Marketing Corp, Box E
Richardson 231-1426
Tex Computer Marketing Corp, 2990 Richmond, Houston

COLORADO VIDEO INC, 250 PEARL ST, BOULDER
COLO, 80302 .... 303 444-3972
G SOUTHWORTH, EMP 5, ENG 2, UP TO $100M
Ariz Hyer Assoc, 301 W Indian School Rd
Phoenix 264-0291
Cal Educational Elctns of Cal, Inc, 936 W Florence Ave
Inglewood 674-5595
Colo Hyer Assoc, 7895 E Prentice Ave
Englewood 771-5354
Md Zenatronix Assoc, 8121 Georgia Ave
Silver Spring 588-5677
Mass New England Marketing, 55 Salem St
Lynnfield 245-9530
NM Hyer Assoc, 210 LaVeta NE
Albuquerque 265-5767
NY Tele-Projects Inc, 30 E 42nd St
New York 687-1255
Pa Acromatix Assoc, 3118 Germantown Pike
Fairview Village 279-0377
Utah Hyer Assoc, 445 E 2nd S
Salt Lake City 363-6773

COLTRON INDUSTRIES, INC, BOX 17787, CHARLOTTE
N C, 28211 .... 704 847-9881
F LEITNER, EMP 95, ENG 9, $1,000-$2,500M
Ga James Bennett, Box 618, Monroe 267-5845
Pa Butterworth Assoc, 510 Twickenham Rd
Glenside 884-3413
Can W J Westaway Co, 8415 Mountain Sights Ave
Montreal 739-3101
For Lenot & Co Inc, 535 5th Ave
New York, N Y 647-5671

COLUMBIA ELECTRIC MFG CO, 4519 HAMILTON AVE
CLEVELAND, OHIO, 44114 .... 216 361-8060
H SUSSMAN, EMP 85, ENG 8, $500-$1,000M
Cal Brenner-Fiedler & Assoc Inc, 7563 Melrose Ave
Los Angeles .... OL 1-4300
Cal Belilove Co, 960 Arlington St, Oakland ... 658-9011
Colo Mountain States Machy Co, Inc, 1526 Blake St
Denver 244-7421
Ill Murphy & Dickey, 537 S Dearborn St
Chicago .... HA 7-7953
Ind C D Arnold, 4165 Millersville Rd
Indianapolis .... LI 6-4053
Md Durling Electric Co, 301 E 25th St
Baltimore .... HO 7-5560
Mo Gordon Fixman Engineering Co, 8160 Stanford Ave
St Louis .... PA 5-5219
NY Herman H Sticht Co, 27 Park Pl
New York .... RE 2-8163
NY George O Miller Co, 607 Midtown Plaza
Syracuse 478-3113
Ore J L Kearns Co Inc, 6055 NE Glisan St
Portland 236-1165
Wis M F Jacobs Co, 2218 N Third Ave
Milwaukee .... LO 2-5690

COLUMBIAN CARBON CO, 380 MADISON AVE
NEW YORK, N Y, 10017 .... 212 687-2300
P TUDDER, EMP 3400, ENG 175, OVER $10,000M

COLUMBIA RESEARCH CORP, BOX 485
GAITHERSBURG, MD, 20760 .... 301 654-9205
D GIGNOUX, EMP 19, ENG 6, $100-$250M
Fr R I B E R SA, 22 bis Blvd de L'Hopital Stell
Rueil-Malmaison 92 967-74-40

COLUMBIA RESEARCH LABS INC
MACDADE BLVD & BULLENS LN, WOODLYN
PA, 19094 .... 215 LE 2-9464
J SARTY, EMP 60, ENG 10
Ala Kemp Instr, 4306 Governors Dr W, Huntsville
Ariz R A Mayes Co, Box 125, Arvada 421-0706
Colo R A Mayes Co, Box 314, Broomfield
Md J E Cuesta & Co Inc, 8501 Glendale Rd
Greenbelt 552-1200
Mass Andruss-Peskin Corp, Box 268, Natick
Mich Electro Sales Assoc, 15324 Mack Ave
Detroit 886-2280
NM R A Mayes Co, 8016 Zuni Rd, S E
Albuquerque 265-7989
NY Cane Technical Sales Inc, 555 E Boston Post Rd
Mamaroneck 698-4411
Ohio Electro Sales Assoc, 335 E 200th St
Cleveland 732-7444
Ohio Electro Sales Assoc, Dabel Sta, Dayton ... 426-5551
Pa J E Cuesta & Co Inc, Rt 202 Allendale Rd
King of Prussia 265-5800
Pa Electro Sales Assoc, 201 Penn Ctr Blvd
Pittsburgh 371-9449
Wash Cane-Jessup Co Inc, 146 107th Ave NE
Bellevue .... GL 4-0691
Fr Jiveco Electronics, 21 Ave Victor Hugo, Paris
Jap A R Brown, McFarlane & Co
3, Ginza 2-Chome, Chuo-Ku, Tokyo
Belg Equipement Electronique
184, Chaussee de Vierrgat, Brussels
Ind Electronic Enterprises, New Charni Rd, Bombay, 4
Aust National Instrument Co
Melbourne Airport Essendon, W 6 Victoria

COLUMBIA TECHNICAL CORP
26-60 BKLYN-QNS EXPW, WOODSIDE
N Y, 11377 .... 212 YE 2-0800
V LEIBMANN, EMP 80, ENG 3, $1,000-$2,500M
Cal M W Riedel & Co, 2215 W Valley Blvd
Alhambra 213 283-7694
Ga NBS Inc, 839 Church St NW
Marietta 404 422-6067
Ill Malovac Sales Co, 1726 N 76th Ct
Elmwood Park 312 654-4110
Ind Shroeder & Loomis Inc, 714 E 65th St
Indianapolis 317 251-4571
Kan Impala, Inc, 6917 W 76th St
Overland Park 913 648-6901
Md Barnhill & Assoc, 1931 Greenspring Dr
Timonium 301 252-5610
Mo Impala, Inc, 47 Village Sq Shop Ctr
Hazelwood 522-1600
NJ Harry Thaw Sales Co, 46 Springbrook Rd
Livingston 201 992-2711
NY Gislason Sales, 617 Case Bldg
Rochester 716 454-4741
Ohio Arthur H Baier Co, 4399 Industrial Pkwy
Willoughby 216 946-6080
RI Milton Paisner Assoc, 296 Oaklawn Ave
Cranston 401 521-3522
Tex Koch Engrg & Sales Co, 309 Meadows Bldg
Dallas 214 361-1765

Wash R R Chase & Assoc, 12422 68th Ave, N E
Kirkland 206 454-2514

COLUMBIA WIRE PRODUCTS CO
4045 N ROCKWELL AVE, CHICAGO
ILL, 60618, TWX 25-4265 .... 312 CO 7-3160
F FLORSHEIM, EMP 225, ENG 4, $2,500-$5,000M

COLUMBUS ELECTRIC MFG CO, 621 N HAMILTON RD
COLUMBUS, OHIO, 43219 .... 614 237-8441
F MCCLOSKEY, EMP 150, ENG 10, $1,000-$2,500M
Cal Fred Alleman, 1625 Blake Ave
Los Angeles .... CA 2-8128
Conn Chas K Barton Assoc, 343 New London Tpk
Glastonbury 633-9417
Ill Ryan & Assoc, 204 Lafayette Lane, Hoffman Estates
NJ The Murray Co, 25 W Northfield Rd
Livingston .... WY 2-0520
Tex J Earl Smith, 1353 Chemical St
Dallas .... NE 1-1727

COMAR ELECTRIC CO, 3349 W ADDISON, CHICAGO
ILL, 60618, TWX 910-221-5198 .... 312 JU 8-2410
F NASIADKA, EMP 380, ENG 6
Ariz Coronado Electronics Assoc, Box 3176
Scottsdale 947-9060
Cal El-Com Sales Co, 3600 Motor Ave
Los Angeles 870-4707
Cal David H Ross Co, 534 El Camino Real
San Carlos 591-4411
Conn Walworth Controls Co, Inc, 472 Old Main St
Rocky Hill 529-6806
Ill Nero Electronic Sales Corp, 3516 Elmwood Ave
Wilmette .... AL 6-1045
Ind Ralph J Haffey Co, 4127 N Clinton
Fort Wayne 748-1159
Mich R C Nordstrom & Co, Box 32
Lathrup Village 444-4417
Minn Dale Merrick Co, 3712 E Lake St
Minneapolis 721-5331
Mo Edw J Hill & Co, 915 Buder Bldg
St Louis 621-1818
NY R W Mitscher Co, Inc, 496 Ellicott Sq Bldg
Buffalo 854-2517
NY Willgold Electronics Sales Corp, 100 N Village Ave
Rockville Centre 764-4022
NC A B Andrews & Co, Box 2627, Raleigh ... 833-5565
Ohio Hiltebrant-Greenleaf Co, 20412 Center Ridge Rd
Cleveland 333-5480
Ohio R M Kaiser Co, 1435 DeLynn Dr
Dayton 885-2238
Pa Victor S Malta Co, Box 4007
Philadelphia 836-5122
Tex W Pat Fralia Co, 6100 Camp Bowie Blvd
Fort Worth 738-2394
Wash Electronic Sales Corp, 5600 Calif Ave S W
Seattle 932-0330

COMCO PLASTICS INC, 98-42 JAMAICA AVE
RICHMOND HILL, N Y, 11421 .... 212 VI 9-9000
J STEELE, EMP 125, ENG 4
Conn Commercial Plastics Inc, 29 Fitch St
New Haven 203 389-2181
Fla Commercial Plastics Inc, 3801 NW Second Ave
Miami 305 757-2477
Ga Commercial Plastics Inc, 554 North Ave NW
Atlanta 404 577-2600
Md Commercial Plastics Inc, 5223 Monroe Pl
Hyattsville 301 864-6226
Mass Commercial Plastics Inc, 67 Rogers St
Cambridge 617 868-4500
Mich Commercial Plas & Supply Corp
3515 E 10 Mile Rd, Warren 313 536-0362
NJ Commercial Plas & Supply Corp
127 Frelinghuysen Ave, Newark 201 824-5400
NJ Commercial Plas & Supply Corp, 342 4th St
Trenton 609 883-5100
NY Commercial Plastics Inc, 55 Marine St
Farmingdale 516 293-9090
NY Commercial Plas & Supply Corp, 630 Broadway
New York 212 477-5000
NC Commercial Plastics Inc, 731 W Hargett St
Raleigh 919 834-2511
Pa Commercial Plastics Inc, 2022 Chateau St
Pittsburgh 412 231-2212
Pa Commercial Plastics Inc, 2001 W Clearfield St
Phila 215 223-8600
Tex A & A Supply Co, 1405 Wycliff Ave
Dallas 214 631-8170
Can Commercial Plastics Inc, 300 Bridgeland Ave
Toronto 416 787-4215
Can Commercial Plastics Inc
5655 Maisonneuve Blvd W
Montreal 514 489-9738

COMDEL INC, BEVERLY AIRPORT, BEVERLY
MASS, 01915 .... 617 927-3144
T JOHNSON, JR, EMP 8, ENG 2, $100-$250M

COMET CO, 72 WALDEGGSTR, LIEBEFELD, BERNE
SWITZ, 3097 031-630583
H HELFER, EMP 70, ENG 10, $1,000-$2,500M
Ger Comet GmbH, Morsestr 17, Dusseldorf ... 34-44-26

COMINCO AMERICAN INC ELECTRONIC MATLS DIV
818 W RIVERSIDE AVE, SPOKANE
WASH, 99201, TWX 509-328-1464 ..... 509 747-6111
C WHITE
Can Cominco Ltd, 630 Dorchester Blvd W
Montreal 861-9851

COMMANDER LABS INC, 1177 SANTA FE AVE
ESCONDIDO, CAL, 92025 .... 714 746-7400
E FRANZEN, EMP 15, ENG 3, $100-$250M
Tex George Weinreich & Assoc
11554 E Northwest Hwy, Dallas ...... DA 1-2800

COMMERCIAL PLASTICS CO, 800 ALLANSON RD
MUNDELEIN, ILL, 60060 .... 312 477-8220
G HOCKAMIER, EMP 70, ENG 2, $1,000-$2,500M
Cal C B Rush & Assoc, 1830 W Olympic Blvd
Los Angeles 213 388-7111
NY Electrical Mfg Ser, 3170 Veterans Meml Hwy
Bohemia 516 585-3100
Pa J Podolny Co, 5912 Penn Ave
Pittsburgh 412 441-0800

COMMUNICATION ASSOCIATES INC, 1208 3RD AVE
NEW HYDE PARK, N Y, 11040 .... 516 HU 8-2323
G GUTMAN, EMP 125, ENG 40, $2,500-$5,000M

COMMUNICATION DYNAMICS CORP
289 NEPPERHAN AVE, YONKERS
N Y, 10701 .... 914 965-3006
J ZINAMAN, EMP 18, ENG 3
Tex Elcom, 2616 W Mockingbird La, Dallas ... 352-5006

COMMUNICATION ELECTRONICS INC
6006 EXECUTIVE BLVD, ROCKVILLE
MD, 20852, TWX 710-824-9603 .... 301 881-3300
R MAY, EMP 360, ENG 26, $5,000-$10,000M
Fla Reynolds & Assoc, Inc, Box 1043
Eau Gallie 305 727-3205
Mass Lancer Assoc, 16 Adams St, Burlington
NJ Bonn Assoc, 266 Lake Ave
Metuchen 201 549-9573
NY Ossmann Instr Inc, 101 Pickard Dr
Syracuse 315 454-2461
Tex J W Casey, III, Rte 10, Box 189, San Antonio

COMMUNICATIONS CO, 300 GRECO AVE
CORAL GABLES
FLA, 33134, TWX G N W 305 445-2671
F MACKLIN, EMP 250, ENG 20, $1,000-$2,500M

COMMUNICATION STRUCTURES INC
OLD POWDER MILL ROAD, WEST CONCORD
MASS, 01781, TWX 710-347-1054 ...... 617 369-7203
C CREASER JR, EMP 25, ENG 5, $250-$500M

COMMUNITYPE CORP, 767 FIFTH AVE, NEW YORK
N Y, 10022 .... 212 758-4230
R KING, EMP 25, ENG 6, $1,000-$2,500M
DC Communitype Corp, 4706 Bethesda Ave
Washington 301 652-1339
Ill Robt V Thoren Co, 11700 S Western Ave
Chicago 312 779-4272

COMPAC ENGINEERING INC, 810 EAST ST, HOLLISTER
CAL, 95023 .... 408 637-7496
J JONES, EMP 18, ENG 2, $250-$500M
Cal Jack Logan & Assoc, 801 Mahler Rd
Burlingame .... OX 7-6100
Cal Gerry Sales Co, Box 1901, Glendale 246-2517
Cal John J Colbert Co, 2501 Via Viesta
La Jolla 278-2630
Fla S K Wallace, 11010 Carrollwood Dr
Tampa 949-1817
Ill Gassner & Clark Co, 6644 N Western Ave
Chicago 764-6121
NY Bassin Tech Sales Co, 52 Fayette Rd
Scarsdale 723-3334
Ohio Emish Electronics Sales, 3300 S Dixie Dr
Dayton 299-5505
Pa C J McGowan Co, Inc, 1863 Cleveland Ave
Abington 659-1788
Tex G V Peck Co, 210 Casa Linda Pl
Dallas 328-3511
Tex Tec-Rep Co, 169 Twelfth Ave, Seattle 623-0650
Can A Deskin Sales Corp, 1565 Louvain St W
Montreal Que 384-1420
Fr Herald S A, 8 Rue De La Michodiere, Paris
Swit Blum Electronics, Honggerstr 115
Zurich .... CH 8-037

COMPAGNIE GENERALE DE METROLOGIE
POB 30 ANNECY, HAUTE SAVOIE
FRANCE 45 46-00
C DEBAECKER, EMP 620, ENG 30

COMPLEX INSTRUMENT CO INC, 11 CYPRESS DR
BURLINGTON, MASS, 01803 .... 617 272-3262
P BOURGEOUIS, EMP 2, ENG 2
Mass Photo-Electro Instrumentation Co, 210 Broadway, E
Everett 617 289-4200
NY Photo-Electro Instrumentation Co
125-10 Queens Blvd
Kew Gardens 212 544-9038

COMPO INDUSTRIES INC, 125 ROBERTS RD
WALTHAM, MASS, 02154 .... 617 894-3650

COMPONENT RESEARCH CO INC, 1717 19TH ST
SANTA MONICA
CAL, 90404, TWX 910-343-6864 .... 213 393-3755
D KELLERMAN, EMP 70, ENG 2, $500-$1,000M
ADV PG 108

COMPONENTS CORP, 106 MAIN ST, DENVILLE
NJ, 07834 .... 201 627-0290
J MINTER, EMP 10, ENG 5
Cal Ellard E Strassner Co, 3121 Los Feliz Blvd
Los Angeles 666-1511
Ill Jorgensen Engineering Co, 2304 Henley St
Glenview .... PA 4-2637
Mass Henik Assoc, 54-60 Lexington St
West Newton 969-6249
NJ R L Ringer Co, Box 114, Glen Rock 444-1434
Ohio Components Engrg Co, 7461 N Linden La
Cleveland 216 842-2737
Pa WF Assoc, Broad & Chestnut Sts, Phila ... KI 6-4121
Can R S Griffith Regsd, 455 Mt Stephen Ave
Montreal Que 514 WE7-1167

COMPONENTS INC ARIZONA DIV
3536 W OSBORN RD, PHOENIX
ARIZ, 85019, TWX 910-951-1381 .... 602 272-1341
J COKER, EMP 242, ENG 4, $2,500-$5,000M
Ariz Southwest Engineering, 8341 N 7th St
Phoenix 944-1521
Cal Jack Berman Co, 1751 S Lacienega Blvd
Los Angeles .... UP 0-4711
Cal Jack Berman Co, Box 453, Lamesa
Cal Logan Sales Co, 463 Brewster Ave
Redwood City 369-6726
Colo Simpson Assoc, 8000 S Kendall
Littleton 303 798-8439
Conn A & M Electronic Reps, Box 174
Rocky Hill 563-0866
Fla Orbe Inc, 300 31st St N, St Petersburg ... 894-0687
Fla Orbe Inc, 1020 Gregory Dr, Maitland 424-0978
Ill David R Hausten, 615 Arbor Ave
Wheaton .... MO 8-7312
Kan H C Heyde, 9221 Wenonga Rd
Leawood 913 649-8628
Md Be-Mar Assoc, 120 Derwood Cir, Rockville
Mass A & M Electronic Reps, 16A Eaton Sq
Needham 444-8172
Mich W R Hummon & Assoc, 20274 Stout
Detroit 538-5704
Minn Technical Assoc, 6121 Excelsior Blvd
Minneapolis 929-6115
NJ Sunday-O'Brien, 15 Potter St
Haddonfield .... HA 9-4013
NY Comtronic Assoc, 1551 Franklin Ave
Mineola .... PI 1-8966
NY Bob Dean Inc, 714 W Clinton St
Ithaca 607 272-2817
Ohio McFadden Sales Co, 150 E Broad St
Columbus .... CA 1-3363
Tex R R Thomas, 8616 NW Plaza Dr
Dallas 214 363-8591
Wash James J Backer Co, 221 W Galer St
Seattle .... AT 3-6470
Can A Deskin Sales, 1565 Louvain St W
Montreal 11 Que
For Jack Churchin, 64-14 Woodside Ave
Woodside N Y .... 212 TW 9-8888

COMPONENTS INC CAPACITOR PRODS, BIDDEFORD
ME, 04005, TWX 710-229-1559 .... 207 284-5956
K KELLER, EMP 500, ENG 25, $5,000-$10,000M
Ariz Southwest Engineering, 8341 N 7th St
Phoenix 602 944-1521
Cal Logan Sales Co, 463 Brewster Ave
Redwood City 415 369-6726
Cal Jack Berman Co, Inc, Box 453
La Mesa 714 583-6457
Cal Jack Berman Co Inc, 8295 S La Cienega Blvd
Inglewood 213 678-1281
Colo Simpson Assoc, 8000 S Kendall Blvd
Littleton 303 798-8439
Conn A & M Elctn Reps, Ailene Dr
Madison 203 245-1031
Fla Orbe, Inc, 300-31st St
St Petersburg 813 894-0687
Fla Orbe, Inc, Box 7777, Orlando 305 424-0978
Ill Memac Sales Co, 4740 N Austin Ave
Chicago 312 545-1033
Kan H C Heyde Co, 9221 Wenonga
Leawood 913 649-8628
Md Be-Mar Assoc, 120 Derwood Circle
Rockville 301 762-8880
Mass A & M Electronic Reps Inc, 1492 Highland Ave
Needham 617 444-8170
Mich W R Hummon & Assoc, Box 501
Farmington 313 474-0661
Mich W R Hummon & Assoc, 1125 Pinecrest Ave
E Grand Rapids 616 243-8576
Minn Technical Assoc, Inc, 6121 Excelsior Blvd
Minneapolis 612 929-6721
NJ Sunday & O'Brien, 15 Potter St
Haddonfield 609 429-4013
NY Bob Dean Inc, 714 W Clinton St
Ithaca 607 272-2187
NY Comtronic Assoc, 1551 Franklin Ave
Mineola 516 741-8966
Ohio McFadden Sales Co, 150 E Broad St
Columbus 614 221-3363
Pa Covert & Newman Co, 300 Mount Lebanon Blvd
Pittsburgh 412 563-0303
Tex R R Thomas Co, 8616 Northwest Plaza Dr
Dallas 214 363-8591
Wash James J Backer Co, 221 W Galer St
Seattle 206 283-6470
Can A Deskin Sales Corp, 1565 Louvain St W
Montreal Que 514 384-1420
Can A Deskin Sales Corp, 110 Westhumber Blvd
Rexdale Ont 416 241-0324
For Lipschitz & Co, Biberstr 22, Vienna Aus 528773
Fr Technique et Produits, Rue Carle-Vernes
Paris 408-14-00
Ger Mr Wolfgang Buhler, 6780 Pirmasens
Hirtengasse 06331-2593

Ger Dr Dohrenberg, Gneisenaustr 41
1 Berlin 61 663363-64
GB Waycom Ltd, Wokingham Rd
Bracknell, Berks 24571
Holl. Audi-Trade, Amsterdam-C. 245-612
Ital Milano Bros, 250 W 57th St
New York 212 246-0375
Swed A/B Rifa, Ulvsunda, Stockholm 26-2610
Swit Bommer A G, Langgrutstr 112, Zurich... 051-549830
BC A Deskin Sales Corp, 1641 Venables St
Vancouver 604 253-6396

COMPONENTS INC SEMCOR DIV, 3540 W OSBORN RD
PHOENIX
ARIZ, 85019, TWX 910-951-1381 .... 602 272-7671
R GOULDSBERRY, EMP 200, ENG 10, $1,000-$2,500M
Ala Orbe Inc, Box 4164, Huntsville 205 881-8230
Ariz Southwest Engineering, 8341 N 7th St
Phoenix 602 944-1521
Cal Jack Berman Co Inc, 1751 S La Cienega Blvd
Los Angeles 213 870-4711
Cal Winco Sales Inc, 208 Stierlin Rd
Mountain View 415 961-8510
Colo Simpson Assoc, 8000 S Kendal Blvd
Littleton 303 798-8439
Fla Orbe Inc, 300 31st St
St Petersburg 813 894-0687
Fla Orbe Inc, Box 7777, Orlando
Ill Gassner & Clark Co, 6644 N Western Ave
Chicago 312 764-6121
Ind McFadden Sales Co, 11059 N Park Ave
Indianapolis 317 846-0790
Kan Ridgewood Sales Co, Box 466
Shawnee Mission 913 262-1374
Md Thomas H Closs Co, 21 W Penna Ave
Towson 301 825-4445
Mass A & M Electronic Reps, 1492 Highland Ave
Needham 614 444-8170
Mich W R Hummon & Assoc, Box 501
Farmington 313 474-0661
Minn Technical Assoc, 6121 Excelsior Blvd
Minneapolis 612 929-6721
Mo Ridgewood Sales Co, 8754 Big Bend Blvd
St Louis 314 961-0992
NJ Sunday-O'Brien, 15 Potter St
Haddonfield 609 429-4013
NY Comptronic Assoc, 1551 Franklin Ave
Mineola 516 741-8966
NY R Dean, 714 W Clinton St, Ithaca 607 272-2187
Ohio McFadden Sales Co, 150 E Broad St
Columbus 614 221-3363
Ohio McFadden Sales Co, 2600 Far Hills Ave
Dayton 513 298-3331
Tex Robt R Thomas Co, 8616 NW Plaza Dr
Dallas 214 363-8591
Utah Robt R Thomas Co, 4031 Broadway
Houston 713 644-2369
Wash James J Backer Co, 221 W Galer St
Seattle 206 283-6470
Can A Deskin Sales Corp, 1565 Louvain St W
Montreal, Que 514 384-1420
Can A Deskin Sales Corp, 110 Westhumber Blvd
Rexdale, Ont 416 241-0324
For Minthorne Intl Co Inc, 64-14 Woodside Ave
New York, N Y 212 899-8888
For Lipschitz & Co, Biberstr 22
Vienna 1 .... (0222) 528773
Fr Technique Et Produits
Cite des Brugers/Rue Carle Vernet/92 Sevres
Paris 408-14-00
Fr Machine & Products, 52 Wall St
New York, N Y 212 944-4370
Ger Dr Dohrenberg, Gneisenaustr 41
1 Berlin 61 663363-64
Ger Industrie-Elektronik GmBH, Fabrikstr 5
Germany, ... Pirmasens 3008
GB Waycom, Ltd, Wolingham Rd
Bracknell, Bershire .... (Std OEH4) 24571
Ital Milano Bros, 250 W 57th St
New York, N Y 212 246-0375
Swed AB Nordiska Elektronik, John Ericssonsgatan 12-14
Stockholm 08/24 83 40
Swed A/B Rifa, Fack Bromma 11
Stockholm 3500 26-2610
Swit Bommer, Langgrutstr 112, Zurich.... (051) 549830
BC A Deskin Sales Corp, 1641 Venables St
Vancouver 604 253-6396
Neth Audi-Trade N.V., Keizergracht 577-581/Singel
168/Amsterdam-C 245612

COMPONENT SPECIALTIES CORP, 4931 ENCINITA AVE
TEMPLE CITY, CAL, 91780 .... 213-AT 7-3221
D HEINS, EMP 30, ENG 3, $250-$500M

COMPONENTS SPECIALTIES INC, 101 BUFFALO AVE
FREEPORT, N Y, 11520 .... 516 TN 8-9100
J SILVER, $500-$1,000M
Cal Rissi Sales, 1817 San Gabriel Blvd
San Gabriel 213 288-3883
Cal Belchamber & French, 308 Playa Blvd
LaSelva Beach 408 688-3281
Colo Electronix Specialties, 7966 E Jefferson Blvd
Denver 771-1459
Fla Dixie Electronic Assoc, Box 2204
Lakeland 682-6624
Ga Dixie Electronic Assoc, Box 107
Alpharetta 404 475-7833
Ill Mort Fields Co, 8330 N Springfield Ave
Skokie .... OR 4-3018
Ind Howell-Moore Sales, 5425 N College Ave
Indianapolis 317 255-8566
La Dixie Electronic Assoc, 8824 Fulton St
Metarie 504 729-8528
Mass Johnson Assoc, 471 Washington St
Wellesley Hills 235-3977

Mich L F Zaffina Co, 18806 Hayes, Detroit 372-3030
Minn Ray Ripley Assoc, 6838 Pillsbury Ave
Minneapolis .... UN 6-8682
Miss Dixie Electronics Assoc, Box 200
Madison 895-5666
Mo K & M Sales Co, 1627 Main St
Kansas City 816 471-1355
NM Lee Davis Co, 1415 Richmond Dr NE
Albuquerque 505 256-1749
NY L Keller, 1542 Pea Pond Rd
N Bellmore, N Y 235-3977
NY L Hoffmann, 101 Buffalo Ave, Freeport .. TN 8-9102
NY R W Mitscher Co, 496 Ellicott Sq Bldg
Buffalo 716 854-2517
NC G F Schiffer Co, Box 6365, Greensboro ... 288-1655
Ohio J W Lehner Co, 367 Brynhild Rd
Columbus .... AM 8-5260
Tenn Dixie Electronic Assoc, 109 Webster St
Madison 615 895-5666
Tex Hank Lieberman Assoc, 217 Fairview
Houston 713 523-9545
Va J F Anderson Co, 8304 Harland Dr
Springfield 703 451-7336
Wash Fleehart & Sullivan, 3826 Woodland Pk Ave N
Seattle 206 633-4979

COMPONENT TECHNOLOGY CORP, 432 TOYAMA DR
SUNNYVALE, CAL, 94086 .... 408 342-3161
B WOODWARD, EMP 28, ENG 5, $250-$500M
Cal Westec, Box 875, Garden Grove
Cal G B H Assoc, Box 1150, Mt View

COMPTON INDUSTRIES, INC
BOX 351, 413 COMMERCE RD, VESTAL
N Y, 13850 .... 607 729-9221
L HARRISON, EMP 47, ENG 2, $250-$500M

COMPUDYNE CORP, BOX 247, HATBORO
PA, 19040 .... 215 OS 5-4100
R LODGE, EMP 130, ENG 21, $2,500-$5,000M

COMPUTER COMPONENTS INC
88-06 VAN WYCK EXPWY, JAMAICA
N Y, 11418 .... 212 AX 13500
H WEINBERG, EMP 35, ENG 2, $250-$500M
Ala F C Nickerson Co, Box 1463, Huntsville .. 534-8900
Ariz Mercury Sales Co, Box 3130, Scotsdale... 945-1927
Cal Engineering Liaison Ass, 3360 Barham Blvd
Hollywood 469-2283
Colo Electronic Sales Co, 995 S Clermont 302
Denver 756-4148
Fla F C Nickerson Co, Box 13126, Tampa 833-4321
Ga F C Nickerson Co, 1244 Clairmont Ave
Decatur 377-1575
Ill Brock & Cushman, 6261 W Grand Ave
Chicago 622-4110
Iowa Technical Marketing Assoc, 850 Lindale Dr
Marion 377-4555
Kan Technical Mktg Assoc, 5827 Outlook
Mission 913 831-2888
Md W F Satterthwaite, Box 10321
Oxon Hill 894-4449
Mass D H Stewart Inc, 216 Burroughs Rd
Braintree 617 848-1477
Minn Heimann Co, 5603 Lyndale Ave S
Mnpls 827-5457
NY Floring & Murray, Inc, 6585 Kinne Rd
De Witt 446-5555
NY O F Masin Co, 140 Boston Post Rd
Larchmont 834-7500
NC F C Nickerson Co, 4332 University Dr
Charlotte 525-2682
Ohio R P Calhoun Assoc, 40 Southmoor Cir
Dayton 299-4144
Pa W F Satterthwaite, Box 191
Lansdowne 623-5100
Utah Electronic Sales Co, 284 N Main
Salt Lake City 328-3861
Wash W C Plate Co, 584 Dexter Horton Bldg
Seattle 624-1673
For Minthorne Intl Co Inc, 64-14 Woodside Ave
Woodside N Y 212 899-8888
NY INTORNEIntl Co Inc, 64-14 Woodside Ave
Woodside, NY 899-8888

COMPUTER DEVICES CORP, 63 AUSTIN BLVD
COMMACK, N Y, 11725 .... 516 543-4220
E WENDOLKOWSKI, EMP 50, ENG 4, $250-$500M
Cal Mar-Land Enterprises, Box 101, Arcadia... 681-9440
Colo Kelley Enterprises, 336 E 4th St
Loveland 667-1376
Fla Tech-Rep Assoc, Box 2095, Melbourne ... 723-9140
Ill Berndt Assoc, 6416 W Belmont Ave
Chicago 283-0713
La IBL Eng & Sales, 1444 Calhoun St
New Orleans 895-4793
Mass Garrettson Co Inc, 135 South Rd
Bedford 275-0558
NJ Garrettson Co, 56 Hickory St, Dumont 489-8968
NY Garrettson Co, 99 Hillside Ave
Williston Park .... PI 7-6610
NY B D Hummel Co, 2224 Maynard Ave
Utica 736-7821
NC Tech-Rep, Assoc, Box 8218
Madiera Beach 391-0008
Pa Garrettson Co, Inc, 92-14 Masland St
Philadelphia .... HO 4-2275
Tex IBL Eng & Sales, 219 Preston Royal Ctr
Dallas .... EM 3-2921
Va Gans-Fryling, Inc, 2030 16th St N
Arlington 527-3262
Wash ACE Assoc, 143 SW 153rd St, Seattle... CH 4-9391

Can Aero Sales Eng Co, 4 Racine Rd
Rexdale, Ont 249-9139
For Total Electronics Intl Inc, 301 Mill Rd
Hewlett, NY 374-9620

COMPUTER DIODE CORP, POLLITT DR S, FAIRLAWN
NJ, 07410, TWX 201 796-0660 .... 201 797-3900
J LABRUNA, EMP 125, ENG 8, $1,000-$2,500M
Cal Mechchior Assoc, 820 B Cherry St
San Carlos 591-7383
Colo Action Sales, 6367 S Gallup St
Littleton 303 794-0447
Fla Tech Rep Assoc Inc, Box 8218, Madeira Beach
St Petersburg 391-0008
Fla Tech Rep Assoc Inc, Box 2095
Melbourne 723-9140
Ill J R Sales, 6446 W Bloomingdale Ave
Chicago 889-6662
Iowa J R Sales, 3316 Rosewood Ct
Cedar Rapids .... EM 5-2864
Md Eastern Components, 1002 Ingleside Ave
Baltimore .... RI 4-4900
Mass First Natl Electns Inc, Lakeside Pk N Ave
Wakefield 617 245-6240
Mich Skip Greiner Assoc, 15318 Mack Ave
Detroit 882-7570
NY Kahgan Sales Corp, 1261 Broadway
New York .... MU 4-7772
NY C Tennants Sons & Co, 100 Park Ave
New York .... OR 9-1300
NY James M Glass Assoc, 220 Delaware Ave
Buffalo 716 885-9272
Pa Eastern Components, 613 Cheltenham Ave
Philadelphia 927-6262

COMPUTER DYNAMICS INC, 179 WATER ST
TORRINGTON, CONN, 06791 .... 203 482-7621
S ALTSCHULER, EMP 20, ENG 5, $100-$250M
Colo Norad, Inc, 1700 Broadway, Denver 222-9558
Conn Kitchen & Kutchin Inc, 22 Broadway
North Haven 239-0212
Mass Kitchen & Kutchin Inc, 17 Waltham St
Lexington 862-8230
Mich Chandler Assoc, 32401 W Eight Mile Rd
Livonia 476-5800
Minn Marvin H Kirkeby Co, 821 2nd Ave N
Mnpls 377-3239
NJ Ryan Assoc, Box 222, Port Washington ... 767-7958
NJ Ebert Assoc, 50 Messenger La
Willingboro 877-8250
NY Ryan Assoc, 60 Roger Dr
Port Washington 767-7958
Tex Noakes Engineering, 2338 MacArthur Blvd
Irving 255-0441
Tex Noakes Engineering, 2128 W Alabama
Houston 523-6756
Can Sam C Hooker, Ltd, 144 Ronald Dr
Montreal W, Que 488-9114
Can Sam C Hooker, Ltd, 2602 St Clair Ave W
Toronto 9, Ont 767-7725

COMPUTER EQUIPMENT CORP, 3810 WESTHEIMER
HOUSTON, TEX, 77027 .... 713 621-2294
J SCHRADER, EMP 50, ENG 3, UP TO $100M

COMPUTER INSTRUMENTS CORP, 92 MADISON AVE
HEMPSTEAD, N Y, 11550, TWX 510-2224-189 ... 516 483-8200
M BUTENSKY, EMP 415, ENG 27, $5,000-$10,000M
ADV PG 488-490
Ala Intl Scientific Instr, Box 2091
Huntsville 404 893-4361
Cal Components Sales Corp, 4626 Van Nuys Blvd
Sherman Oaks 788-4550
Cal Bill Coe & Assoc, Box 1383
San Carlos 593-6057
Colo Engineering Research Assoc, 231 Detroit St
Denver 377-8306
Conn Nelson & Schoonmaker, 105 Main St
Thomaston 283-5959
Fla Aerodyne Engineering, Box 17057
Orlando 295-4440
Ill Sumer, Inc, 1032 E Northwest Hwy
Mt Prospect 392-7370
Ind Sumer, Inc, 2211 S Calhoun St
Fort Wayne 744-1692
Kan Impala, Inc, 6917 W 76th St
Overland Park .... NI 8-6901
La Pan Tech Engrg Co, Box 1783
Baton Rouge 344-2791
Md T H Closs Co, 21 W Penna Ave
Towson .... VA 5-4445
Md T H Closs Co, 9100 49th Ave
College Park 474-8800
Mass Selmark Assoc, Inc, 181 West St
Waltham 899-8110
Minn R J Sales & Engrg, 7100 S France Ave
Minneapolis 922-1425
NJ Engineering Sales Corp, 263 Central Ave
East Orange 674-6505
NJ Marshbank Monteiro, 123 Clements Bridge Rd
Barrington 609 546-6555
NM Crown Engineering, 2125 San Mateo, NE
Albuquerque 256-6124
NY A & D Devices, Inc, 830 Linden Ave
Rochester .... LU 6-8033
NY A & D Devices, Inc, Box 365
Lyon Falls 348-8532
NY Physiotronic Sales Co, 1154 E 9th St
Brooklyn 332-4343
NC R G Sidnell & Co Inc, 3723 County Ridge Rd
Charlotte 704 366-8601
Ohio J C Hofstetter Co, 742 Kenbridge Dr
Cleveland 449-0944

Ohio J C Hofstetter Co, 3300 S Dixie Dr
Dayton 298-0662
Tex Pan-Tech Engrg Co, Box 22491
Houston .... MO 6-0248
Tex Servo Electronics Prods Co, Box 20371
Dallas .... ME 7-3440
Utah Cannon Engrg & Sales Co, 2250 E 17th St S
Salt Lake City 485-9253
Wash G M Gillett Co, Box 99035, Seattle 284-3344

COMPUTER LABS, 1109 VALLEY PARK DR, GREENSBORO
N C, 27403 .... 919 292-6427
D BROCKMAN, EMP 15, ENG 6, $1,000-$2,500M
ADV PG 40, 215, 217

COMPUTER LOGIC CORP, 1528 20TH ST
SANTA MONICA, CAL, 90404 .... 213 451-9754
R BURTNER, EMP 15, ENG 3, $250-$500M
Ala Lee Assoc, 5R Traylor Island
Huntsville 205 539-0761
Ariz Tech-Ser Inc, 1805 E Indian School Rd
Phoenix 602 265-3629
Cal Tech-Ser Inc, 2435 N Naomi St
Burbank 213 846-9631
Cal Tech-Ser Inc, 477 Castro St
Mountain View 415 969-9020
Cal Tech-Ser Inc, Box 10544
San Diego 714 222-1121
Colo J F Hurlbut Co, 2240 S Adams St
Denver 303 756-2046
Conn Impact Sales Co Inc, Box 448
West Hartford 203 521-1221
Fla Lee Assoc, 200 E Marks St
Orlando 305 241-4445
Ill Marsland Assoc, 6699 Lincoln Ave
Chicago 312 676-1100
Ind Marsland Assoc, 3734 Carrollton Ave
Indianapolis 317 924-3568
Md Lee Assoc, 12250 Wilkins Ave
Rockville 301 949-4800
Mass Impact Sales Co Inc, 223 Crescent St
Waltham 617 893-2850
Minn Marsland Assoc, 213 N Edgewood Ave
Minneapolis 612 545-4481
Mo Marsland Assoc, Box 567
Florissant 314 831-0015
NY Crane & Egert Corp, 146 Meachum Ave
Elmont 516 488-2100
NY RJC Assoc, 219 Oakridge Terr
Liverpool 315 457-3220
NY RJC Assoc, Utica 315 724-6111
NC Lee Assoc, 825 Burke St
Winston-Salem 919 724-2406
Ohio Whelan Corp, 2975 Far Hills Ave
Dayton 513 298-9997
Ohio Whelan Corp, 8323 Cedar Rd
Chesterland 216 442-8340
Pa Crane & Egert Corp, 109 W Ridge Pike
Conshohocken 215 277-0559
Pa Whelan Corp, Box 231
(Erie) Waterford 814 454-3346
Wash Comptronics, 3220 16th Ave W
Seattle 206 284-4842

COMPUTER MECHANISMS CORPORATION, 290 HUYLER ST
SOUTH HACKENSACK, N J, 07606 .... 201 487-1970
J DRILLICK
ADV PG 560

COMPUTER PRODUCTS INC, 2801 E OAKLAND PARK DR
FORT LAUDERDALE, FLA, 33306 .... 305 565-9565
EMP 25, ENG 5, $500-$1,000M
ADV PG 541

COMPUTER TEST CORP, 3 COMPUTER DR
CHERRY HILL
N J, 08034, TWX 845120 .... 609 424-2400
N INTO, EMP 300, ENG 25, $5,000-$10,000M
Cal King Engrg Co, 15720 Ventura Blvd
Encino 981-0161
Fla Lee Assoc, Inc, 200 E Marks St
Orlando 241-4445
Minn Engineering Products Assoc, 2119 Grand Ave
St Paul 698-5531
Ohio Twin Region Elctn Sales Inc
20545 Center Ridge Rd, Cleveland 331-7650
Can BRH Assoc Ltd, 6338 Victoria Ave
Montreal 26, Queb 733-5331
Fr Sfere, 62, rue de Miromesnil, Paris 8 522-24-14
Ger Praezisionstechnik Vertriebs GmbH
Am Hof 6, Postfach 1386, 5 Koln 1, ... 234961
GB Scientific Furnishings Ltd, Terminus Rd
Chichester, Sussex 86641
Ital Mario Vianello, Via L Anelli 13, Milano
Jap F Kanematsu & Co Ltd
New Kaijo Bldg, Marunouchi, Tokyo 216-3111
Swed Erik Ferner, A B, Snormakarvagen 35
Bromma 25-28-70

COMPUTING DEVICES OF CANADA LTD, BOX 508
OTTAWA, ONT, TWX 610-563-1632 .... 613 829-1800
D UNDERWOOD, EMP 1400, ENG 250, OVER
$10,000M
Can Computing Devices of Can, 55 Richmond St E
Toronto 416 364-6078
Can Computing Devices of Can, 445 Craig St, Montreal
Can Computing Devices of Can, 20 Prince St
Halifax 902 466-7461
GB Computing Devices Co Ltd, 126-128 Cromwell Rd
London SW 7
BC Soinder Sales & Service, 683 E Hastings St
Vancouver 604 255-7366

COMPUTRON INC, CROSBY DR, BEDFORD
MASS, 01730 .... 617 271-4000
R VALLE, EMP 250, ENG 25
Cal Computron Inc, 1313 W 8th St
Los Angeles 483-8453
Cal Computron Inc, 231 E Millbrae Ave
Millbrae 692-0504
Conn Computron Inc, 231 Salmon Brook St
Granby 233-9710
Ga Computron Inc, 67 Peachtree Pk Dr NE
Atlanta 355-3479
Haw Dougherty Enterprises, 1164 Waimanu St
Honolulu 510-281
Ill Computron Inc, 6657 N Avondale Ave
Chicago 631-6630
Md Computron Inc, 7735 Old Georgetown Rd
Bethesda 652-4214
Mass Computron Inc, Back Bay Anx Box 389
Boston 523-3817
Miss Office Supply Co, 616 South W St
Jackson 948-2521
Mo Gray Business Systems, 1024 Locust St
Kansas City 421-1945
NJ Computron Inc, 744 Broad St, Newark 623-2587
NY W G Heberly, 900 Delaware Ave
Buffalo 885-2456
NY Computron Inc, 866 3rd Ave, New York 688-2540
Ohio Paul W Harper Co, 20950 Ctr Ridge Rd
Cleveland 331-1172
Ohio Computron Inc, 6851 Plainfield Rd
Cincinnati 791-1242
Pa Delva Assoc, 2274 Jenkintown Rd
Glenside 927-4348
Tex Gage Van Horn & Assoc, Box 2947
Odessa 366-7694
Tex C E Ferguson, Box 3057, Lubbock 795-2453
Tex Computron Inc, 2730 Stemmons Fwy
Dallas 637-5242
Utah Tab Products of Utah, 2384 E 3700 S
Salt Lake City 484-7688
Va Computron Inc, 5622 Columbia Pike
Bailey's Cross Roads 481-7424
Jap Nissho American Corp, 110 Wall St, New York, NY

COMREX CORP, BOX 51, W CONCORD
MASS, 01781 .... 617 369-6685
EMP 6, ENG 2

COMTEK MICROWAVE DEPT ALLIED RSCH ASSOC INC
135 MAIN ST, WOBURN
MASS, 01801 .... 617 369-9000
R PHANEUF, EMP 100, ENG 50, $500-$1,000M
Cal Kittleson Co, 416 N LaBrea Ave
Los Angeles 933-7371
Md Eastern Components Inc, 1002 Ingelside Ave
Baltimore 744-4900
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield 357-3700
Mo S Sterling Co, 7849 N Lindbergh Blvd
Hazelwood 837-1221
NY Lightstone Corp, E Mulloy Rd, Syracuse 454-3209
Ohio S Sterling Co, 3300 S Dixie Dr, Dayton 298-7573
Pa Pamco, 613 Cheltenham Ave, Philadelphia
Va Eastern Components inc, 8616 Georgia Ave
Silver Spring, Md 589-0100
Swit Nucletron AG, Spitalgasse 30, Bern
Can Tech Assoc, 126A Bloor St W
Toronto, Ont 923-8466
For Henley & Co Inc, 202 E 44th St
New York, NY 986-5544
Fr Firmel, 22 Rue Madiraa, Courbevoie Seine
GB Hirst (Microwave Heating) Ltd, Gatwick Rd
Crawley, Sussex
Jap Hakuto Co Ltd, Box 25, Tokyo Central
SAfr Electronic Htg Corp (Pty) Ltd, 196 Main St
Rosettenville
Swed Telare AB, Box 49025, Stockholm
Swit Nucletron AG, Spitalgasse 30, Bern

CONAM INSPECTION INC, BOX 188, RAHWAY
N J, 07065 .... 201 381-0050
J BALLARD, EMP 50, $250-$500M
Ark Conam Inspection Inc, 200 Mound City Rd
West Memphis .... RE 5-7419

CONANT LABS, 6500 O ST, LINCOLN
NEB, 68510 .... 402 488-0432
H CONANT, EMP 4, $100-$250M
Cal Wallace & Wallace, 1206 Maple Ave
Los Angeles 747-0401
Ill DJM Electronic Sales, 5356 N Milwaukee Ave
Chicago 774-1212
La Scott Ormsby Sales, 7121 Catina
New Orleans 282-2097
Mass Anderson Sales Co, 177 State St
Boston 227-2980
Mo H A Roes & Co, 2601 Cherry St
Kansas City 221-0866
NY Kaelber & Mack, 75 Plandome Rd
Manhasset 627-6620
Ohio Scott Electronics, Inc, 1836 Euclid Ave
Cleveland 861-2626
Pa Lowery Assoc Co, 2801 West Chester Pike
Broomall 472-8674
Tex Ernest L Wilks Co, 1821 N Broadway
Carrollton 242-5321

CONAP INC, 184 E UNION ST, ALLEGANY
N Y, 14706 .... 716 372-9650
D WILLIAMSON, EMP 63, ENG 9, $1,000-$2,500M
Cal Conap, Inc, 4001 Birch St
Newport Beach 546-5294

Cal E V Roberts & Assoc, Inc, 9601 Jefferson Blvd
Culver City 870-9561
Ind Carlen & Assoc, 3969 Meadows Dr
Indianapolis 317 547-7771
Md S W Goodman Co, 5 W Biddle St
Baltimore .... SA 7-6116
Mass Leonard Smith Co, 206 Burgess Ave
Westwood 762-4539
Mo Engineering Services Co, 6717 Vernon Ave
St Louis 314 726-2233
NY Davis & Co, 3812-213th St, Bayside .... BA 9-7987
NY ABW Agents, Inc, Sibley Tower Bldg
Rochester 546-8061
NC P J Nahser Co Inc, 2709 Amherst Ave
Burlington 919 584-8077
Pa B E Gibson Co, 201 Penn Center Bldg
Pittsburgh 823-8310
Tex Stasco, 13310 Spring Grove Ave
Dallas 239-5054
Wis Wm A Klinger & Son, 826 E Sylvan Ave
Milwaukee 414 332-6898

CONAX CORP, 2300 WALDEN AVE, BUFFALO
N Y, 14225, TWX 091-275 .... 716 684-4500
W JONES, EMP 176, ENG 12
Ala Control Equipment Co, Box 6044
Birmingham 879-8211
Cal Instrument Lab, 1323 W 130th St
Gardena 770-0650
Cal Instrument Lab, 644 Emerson St
Palo Alto 328-1040
Colo McCoy Sales Corp, 845 Wyandot St
Denver 266-3067
DC Soraghan Assoc, Inc, 20 E St NW
Washington 783-3612
Fla Control Equipment Co, Box 15106
W Palm Beach 965-3465
Ga Control Equipment Co, Box 11795
Atlanta 237-1688
Ill A E C, 6645 N Oliphant Ave, Chicago 631-9673
La LuMac Inc, 3608 Seneca St
Baton Rouge 357-0655
La LuMac Inc, Box 23118, New Orleans 737-9596
Mass Charles T Morgan Co, Box 164
Hathorne 774-3215
Mich Robert B Turpin Co, 14220 Robson Ave
Detroit 272-0746
Mich Robert B Turpin Co, 124 Fulton E
Grand Rapids 949-4366
Mo Edward W Mooney Co Inc, 7505 Delmar Blvd
University City 725-8875
NJ Norman Bragar Co, 1060 Broad St
Newark 622-4300
NY Niagara Electric Sales Co, 505 Delaware Ave
Buffalo 886-4000
NY Niagara Electric Sales Co, 55 Canterbury Rd
Rochester 271-1223
Ohio Myers & Henley, 226 Ludlow Ave
Cincinnati 861-0038
Ohio Carll & Swift Co, 3537 Lee Rd
Cleveland 561-5225
Okla Barnard Equipment Co, Box 7002, Tulsa 742-2652
Pa M S Jacobs & Assoc, 810 Noblestown Rd
Pittsburgh 923-2090
Pa Flow Engineering Inc, 8 E Mill Rd
Flourtown 248-1355
Tex Hatfield & Co, Box 7072, Dallas .... FL 8-5531
Tex Pan-Tech Engineering Co, 3815 Richmond Ave
Houston 666-0248
Utah McCoy Sales Corp, 1839 S 8th W
Salt Lake City 486-7509
Wash Instrument Lab Inc, 934 Elliott Ave W
Seattle 283-5850
W Va M S Jacobs & Assoc, Box 523
Charleston 343-8906
Wis Automation Engrg Co Inc, 12740 N River Rd, 43W
Mequon 242-1520
Can Davis Controls Ltd, 4251 Dundas St W
Toronto Ont 233-3211
Fr Auxitrol, 189, bd, St Denis, Courbevoie Seine
Ger Gebr, Ruhstrat, 3401 Lenglern Uber, Gottingen
GB West Instrument Div
The Hyde Lower Bevendean Brighton 7, Sussex
Holl Auxitrol Nederland N V, Bankastraat 110, The Hague
Ital F Pirrone s r l, Via Soperga, 45, 20127 Milan
Belg Procontrol, 13, rue Gachard, Bruxelles
Spn Auxitrol Iberico, Maricio Legendre 31, Madrid
Aust Impactor Pty Ltd, 68 Alexander St, Crows Nest, NSW

CONCOA CORP, 5137 N ELTON ST, BALDWIN PARK
CAL, 91706 .... 213 962-4461
J SCOTT, EMP 50, ENG 3, $500-$1,000M

CONCORD CONTROL INC, 1282 SOLDIERS FIELD RD
BOSTON, MASS, 02135 .... 617 254-5106
J FADIMAN, EMP 42, ENG 14, $1,000-$2,500M
Cal Costello Little & Co, 8737 Venice Blvd
Los Angeles 213 870-5951
Cal Costello Little & Co, 575 Middlefield Rd, Palo Alto
NY Wild & Assoc, 200 Michael Dr
Syosset 516 921-7100
Tex Costello Little & Co, 5635 Yale Blvd
Dallas 214 363-9031
Va M E Whitney Assoc, 1400 N Uhle St
Arlington 703 524-5642
For Intl Tech Prod Corp, 1250 Connecticut Ave NW
Washington DC 202 223-5520
Jap Rikei Trading Co, 14-14 Nishi-Shimbashi
1-Chome Minatoku Tokyo

CONCORD ELECTRONICS CORP, 1935 ARMACOST AVE
LOS ANGELES
CAL, 90025, TWX 910-342-6995 .... 213 478-2541
W BYRON, EMP 100, ENG 10, OVER $10,000M

Conn Concord Elctns Corp, 279 Mountain Rd
Cheshire 203 934-9211
Md Thomas J Cunningham, 12500 Blake Rd
Silver Spring 933-2550
NJ Concord Electronics Corp, 325 Cantor Ave
Linden 925-7454
Tex Concord Electronics Corp, 3810 Westheimer
Houston 621-3585

CONCORD ELECTRONICS CORP, 37 GREAT JONES ST
NEW YORK, N Y, 10012 .... 212 SP 76571
J GARDNER, EMP 90, ENG 2, $1,000-$2,500M

CONDENSATEURS F A C O N
40 BLVD DE LA BASTILLE, PARIS 12E
FRANCE 343 09 43
F LELEU
For F A C O N, Rue Washington
Bruxelles, Belg 49 09 05
Ger F A C O N, Postfach 161, Hannover 52 05 94
Holl F A C O N, Stadhoudersplein II
Wassenar 01751 4642
Swit F A C O N, Avenue J J Mercier 13
Lausanne 021 227672

CONDENSER PRODUCTS CORP, BOX 997
BROOKSVILLE, FLA, 33512 .... 904 796-3562
G RANDOLPH, EMP 40, ENG 3, $250-$500M
Cal Interstate Marketing Assoc, 16400 Ventura Blvd
Encino 981-5533
NY Condenser Products Corp, 225 W 57th St
New York 212 245-3866

CONDOR INDUSTRIAL CORP, BOX 283
WEST CHICAGO, ILL, 60185 .... 312 231-6200
R NEFF, EMP 40, ENG 4, $500-$1,000M
Cal Space Engineering, 491 Los Robles Ave
Pasadena 681-4421
Ill Repwood Inc, 260 Sunset, Glen Ellyn..... 469-2344
Mo Pem Sales Company, 9537 Lackland Rd
St Louis 427-7200
Wis Repwood Inc, 8019 N 50th St
Milwaukee 354-5161

CONDUCTORLAB INC, 5210 MAIN ST, GROTON
MASS, 01450 .... 617 448-5922
R NORTH, EMP 125, ENG 4, $1,000-$2,500M
Fla Geartner Assoc, Inc, 350 Lincoln Rd
Miami Beach 531-0200
Mass R P Mahan Co Inc, 572 Washington St
Wellesley 617 237-1040

CONDUCTRON CORP, 3475 PLYMOUTH RD, BOX 614
ANN ARBOR
MICH, 48107, TWX 810 223-6051 ...... 313 665-9741
S WAGLER, EMP 4000, ENG 1310, OVER $10,000M
Cal R Van Stee, 8921 Sepulveda Blvd
Los Angeles 213 670-5270
DC E G Riley, 1145 19th St, N W
Washington 202 333-0660
Mass Conductron Corp, 49 Main St, Concord
NJ W Heyniger, Box 256, Manasquan ... 201 223-1311
NY R McInerney, 310 E Chestnut St
Rome 315 337-5970
Ohio W Fensler, 4130 Linden, Dayton 513 254-6161
Tex E S Turner, 500 Jefferson Bldg
Houston 713 224-5921

CONDUCTRON CORP WESTERN DEVELOPMENT CTR
BOX 844, NORTHRIDGE, CAL, 91326
H DAVIS

CONDUCTRON-MISSOURI, 2600 N THIRD ST
ST CHARLES
MO, 63301, TWX 910-760-1723 .... 314 RA 3-1515
J MOLONY

CONFORMING MATRIX CORP, 830 NEW YORK AVE
TOLEDO, OHIO, 43611 .... 419 729-3777
R SMITH, EMP 60, ENG 3, $500-$1,000M

CONIC CORP, 9020 BALBOA AVE, SAN DIEGO
CAL, 92123, TWX 910-335-1183 .... 714 279-0411
R JEANS, EMP 250, ENG 35, $5,000-$10,000M
Ariz Thorson Co, 2505 E Thomas Rd
Phoenix 602 264-5878
Cal Thorson Co, 444 Olive St
San Diego 714 298-8385
Colo Thorson Co, 300 E Hampton
Englewood 303 789-1841
Fla Reynolds & Assoc, Box 1043
Eau Gallie 305 727-3205
Md J E Cuesta & Co Inc, 8501 Glendale Rd
Greenbelt 301 552-1200
Mass Reptron, Inc, 110 Great Rd
Bedford 617 275-8585
NJ Tek-Sel Inc, 440 N Midland Ave
Saddle Brook 201 791-5545
NM Premmco Inc, 401 San Pedro NE
Albuquerque 505 265-0115
Pa J E Cuesta & Co Inc, 202 Allendale Rd
King of Prussia 215 265-5800
Tex Thorson Co, 7700 Carpenter Frwy
Dallas 214 631-5440
Wash Thorson Co, 1767 Fifteenth Ave S
Seattle 206 325-5000

CONKLIN INSTRUMENT CORP, PLEASANT VALLEY
N Y, 12569 .... 914 635-2136
C CONKLIN, EMP 32, ENG 4, $250-$500M
Ala J L Highsmith Co, 3322 S Memorial Pkwy
Huntsville 881-3294
Cal B J Wolfe Enterprises, 10760 Burbank Blvd
No Hollywood 877-5518
Cal B J Wolfe Enterprises, Box 718
Cupertino 252-5010
Fla J L Highsmith Co, 2543 Industrial Blvd
Orlando 293-5202
Ill Loren Green Assoc, 5218 W Diversey Ave
Chicago 286-6824
Mass New England Mktg Assoc, 55 Salem St
Lynnfield 245-9530
Minn Loren F Green Assoc, 3037 Central Ave, N E
Minneapolis 781-1611
Mo Harris-Hanson & Co, 2814 S Brentwood Blvd
St Louis 647-435
Mo Harris-Hanson & Co, 7916 Pasco St
Kansas City 444-9494
NY Ossmann Instruments Inc, 101 Pickard Dr
Syracuse 454-2461
NY Ossmann Instruments Inc, Vestal Parkway E
Vestal 785-9947
NY Ossmann Instruments Inc, 3100 Monroe Ave
Rochester 586-0380
NC J L Highsmith Co, 3733 Monroe Rd
Charlotte 333-7743
Tex Holland Engrg Co, Box 22092
Houston .... NA 1-1481
Tex Holland Engrg Co, Box 28655, Dallas 271-1527
Va J L Highsmith Co, 5003 Brook Rd
Richmond 266-2060
Can Willer Engrg Co, 1800 Avenue Rd
Toronto 12 Ontario
For Sylvan Ginsbury Ltd, 72 W 45th St
New York N Y 212 687-3213

CONN CORP, 1101 E BEARDSLEY AVE, ELKHART
IND, 46514, TWX 810-294-2243 .... 219 CO 4-7511
C GABLEMAN, EMP 960, ENG 32, OVER $10,000M

CONNECTICUT HARD RUBBER CO, 407 EAST ST
NEW HAVEN, CONN, 06509 .... 203 777-3631
V SANTACQUA, EMP 80, ENG 5, $2,500-$5,000M

CONNECTICUT TECHNICAL CORP, 3000 MAIN ST
HARTFORD, CONN, 06120 .... 203 522-6167
H KNELLER, EMP 25, ENG 8, $250-$500M
Cal Persons Assoc, Box 370, Lafayette 283-3760
Cal Winters & Co, 11766 W Pico Blvd
Los Angeles 213 879-9045
NJ Kenneth E Hughes Co, 2175 Lemoine Ave
Fort Lee 944-1600
Pa Rivco, Box 52, Bala Cynwyd .... MO 7-5110
Can Electronetic Systems Inc, 2171 Avenue Rd
Toronto, Ont 487-1523
Can Electronetic Systems Inc, 6420 Victoria Ave
Montreal, Que

CONNECTOR ACCESSORIES CORP
17360 GRAMMERCY PL, GARDENA
CAL, 90247 .... 213 FA 1-1956
D SMITH, EMP 60, ENG 5, UP TO $100M
Ala Young & Lawrence Assoc, 2907 Governors Dr SW
Huntsville
Ariz Jack Osborn Assoc, 5912 Foothill Dr N, Scottsdale
Cal Wm A Gibson Co, 1304 Alexandria Dr, San Diego
Cal Storm Products Inc, 4039 Transport St, Palo Alto
Colo Storm Products, Box 225, Broomfield
Fla Young & Lawrence Assoc, Inc
601 N New York Ave, Winter Park
Ill Claude Booth & Assoc, 1921 N Harlem Ave, Chicago
Ind Tri-State Electronics Inc, 608 Ft Wayne Bank Bldg
Ft Wayne
Kan Palatine Engrg Sales, 5514 Johnson Dr
Mission 913 262-5643
Md S W Goodman Co, 5 W Biddle St, Baltimore
Minn Chas Macnamara, 5227 Bartlett Blvd
Mound 612 472-4919
Mo Palatine Engrg Sales, 2050 Woodson Rd
St Louis 314 426-7055
NJ Manufacturers Rep, Inc, 215 Diamond Springs Rd
Denville
NY M R I, 55 Central Ave, Farmingdale
Ohio Tri-State Electronics Inc, 1717 Section Rd, Cincinnati
Ohio Tri-State Electronics Inc, 35 N Main St
Chagrin Falls
Ohio Tri-State Marketing, 25000 Euclid Ave, Cleveland
Pa Geo Needs, c/o MRI, 2326 Rhawn St, Philadelphia
Tex Southern Engineering Co, Box 8393, Dallas
Wash Rowe/Northwest, 1123 38th Ave, Seattle

CONNOLLY & CO INC, 914 RENGSTORFF AVE
MOUNTAIN VIEW, CAL, 94040 .... 415 967-6988
W CONNOLLY, EMP 7, ENG 3, $1,000-$2,500M
Alas Juneau Electronics, 241 S Franklin St
Juneau 586-2260
Cal King Assoc, Box 2067, Sunnyvale 738-2570
Cal A-F Sales Engrg Inc, 94 S Los Robles Ave
Pasadena .... MU 1-5631
Cal White & Co, 777 First Ave, San Jose 292-8229
Fla Mark Electronic Sales Co, Box 291
N Miami .... WI 7-5080
Ill Robt Bernstein & Assoc, 9009 Golf Rd
Desplaines 824-7526
Md D K Jones & Assoc, 2026 Maryland Ave
Baltimore 752-0577
Mo Gordon Fixman Eng Co, 8160 Stanford Ave
St Louis .... PA 5-5219
NY Frank UnBehaun Assoc, 75 College Ave
Rochester 244-2450
Pa D K Jones & Assoc, 6520 Rising Sun Ave
Phila 342-3990
Tex Packard Assoc, Box 35625, Dallas ...... FL 7-5713

CONNOR SPRING MFG CO DIV SLOSS & BRITAIN
75 14TH ST, SAN FRANCISCO
CAL, 94103 .... 415 863-4480
R LIND, EMP 55, ENG 5, $500-$1,000M
Ariz Connor Spring & Mfg Co, 1231 S 26th Pl
Phoenix 273-1281
Cal Connor Spring & Mfg Co, 1101 Monterey Pass Rd
Monterey Pk 264-1281
Cal Connor Spring & Mfg Co, 1147 N 10th St
San Jose 297-4685
Ore Connor Spring & Mfg Co, 1426 SE 6th St
Portland 232-8156

CONNOR-WINFIELD CORP, WINFIELD
ILL, 60190 .... 312 231-5270
J RAISCH, $100-$250M
Cal Frauman Assoc, Box 969
Menlo Park 415 322-8461
Cal Tech Rep, Box 64212, Los Angeles .. 213 836-6806
NJ ISC Components Corp, 170 E Ridgewood Ave
Ridgewood 445-5210

CONRAC CORP, 330 MADISON AVE, NEW YORK
N Y, 10017, TWX 710-581-3065 .... 212 687-3330
T HARRIMAN, EMP 2300, ENG 900, OVER $10,000M
Ala Conrac Corp, 2109 W Clinton Ave
Huntsville 539-9396
Cal Conrac Corp, 9550 Flair Dr, El Monte 686-0985
Cal Conrac Corp, 361 Lytton Ave, Palo Alto ... 322-4585
DC Conrac Corp, 4435 Wisc Ave NW
Washington 244-8700
Ill Conrac Corp, 3150 S Des Plaines Ave
Des Plaines 827-8141
Ohio Conrac Corp, 4130 Linden Ave, Dayton ... 253-1104
Tex Conrac Corp, 6170 Sherry La, Dallas 363-6417
GB Conrac Ltd, London Wall, London EC2

CONRAD CO, 141 JEFFERSON ST, HOLLAND
MICH, 49423 .... 616 392-3161
D BENCH, EMP 75, ENG 9, $500-$1,000M
ADV PG 134
Ala David Wise, Box 225, Huntsville 539-0871
Cal Roland Olander & Co, Box 1304 Magnolia Pk
Burbank 213 843-5200
Conn H J Schuft Co, Inc, 965 Dixwell Ave
New Haven 865-1365
Fla W Ben Wimberly Co, 532 S Fort Harrison Ave
Clearwater 446-7072
Fla W Ben Wimberly Co, 500 S Osceola St
Orlando 425-3083
Ill Maher Engineering Co, 13 Broadway
Des Plaines 824-2124
La d,
Mass H J Schuft Co Inc, 815 Washington St
Newtonville 527-5304
Mich Satullo Co, 4514 N Woodward Ave
Royal Oak 549-3910
Mo Warren W Hull, 828 Thornberry
Kirkwood 822-2241
NJ Bonn Assoc, 266 Lake Ave
Metuchen 201 549-9573
NM Conrad Co, Box Sta E, Albuquerque 298-7993
Ohio Satullo Co, 16801 Euclid Ave
Cleveland 486-2800
Pa Letronix, 251 W DeKalb Pike
King of Prussia 215 265-1020
Tex Technical Products, 10219 Hedgeway Dr, Dallas
Va Naeco Assoc, Inc, 1925 N Lynn
Arlington 524-4551
Wash Cane-Jessup Co Inc, Box 250
Bellevue .... GL 4-0691
Can David R Beattie, Ltd, 1260 Lakeshore Rd, E
Port Credit,Ont 274-3445
Fr Jiveco Electronics, 21 Ave Victor-Hugo, Paris 16e
GB B & K Labs, Ltd, 4 Tilney St Park La, London, W I
Belg Equip Electronique, 184 Chaussee de Vleurgat
Brussels
Isrl Eastronics, Ltd, Maze St, Tel Aviv
Aust National Instrument Co, Ltd, 390 Flinders St
Melbourne,Vic

CONSOLIDATED AIRBORNE SYSTEMS
115 OLD COUNTRY RD, CARLE PLACE
N Y, 11514 .... 516 741-1511
J CUSHMAN, EMP 230, ENG 30, $2,500-$5,000M
Ala Craft Assoc Co, Box 1053, Huntsville 837-0221
Ariz W E Sanderson, 5045 N 12th St
Phoenix 277-0077
Cal Sedillo Co, 125 E Sunny Oaks Ave
Campbell 264-4010
Cal George W Ledbetter Assoc, Box 528
Encino 789-8115
Fla Craft Assoc, 23 S Magnolia, Orlando 425-4284
Ga Craft Assoc, Box 11716, Atlanta 237-2282
Md East Coast Liaison, Box 243, Lutherville .. 252-1288
Tex McClung & Co, Box 34447, Dallas ...... CH 1-3655
Wash William McNabb, Box 931, Bellevue 454-0577
Can Century Air-Ground Services Ltd, 3160 sartelon St
Montreal 747-1185
Den Technitron, 24 Klosterstr, Copenhagen
Fr Technitron, 55 Rue Pierre Charron, Paris
Ger Technitron, Sonnenstr 14, Munich
GB Technitron, Walmgate Rd, Perivale, Greenford
Middlesex
Holl Technitron N V, Schiphol Airport, Amsterdam
Ital Technitron SRI, Viale Bruno Buozzi 68, Rome
Jap Marubun Co Ltd
1, 2-Chome, Odenmacho, Nihonbashi, Chuo-ku
Tokyo

CONSOLIDATED CERAMICS & METALIZING CORP
BOX 352, FLEMINGTON
N J, 08822, TWX 510-235-3309 .... 201 735-7121
K BELTZ, EMP 19, ENG 3, $250-$500M
Cal Consolidated Ceramics, 24353 Clawiter Rd Hayward 782-9600
Mich Consolidated Ceramics, 3516 Cadieux Rd Detroit 886-0900
Pa Consolidated Ceramics, 301 W Lancaster Ave Devon 687-2477

CONSOLIDATED CONTROLS CORP, 2338 ALASKA AVE
EL SEGUNDO, CAL, 90245 .... 213 772-5301
J GHIGLIA, EMP 165, ENG 22, $5,000-$10,000M
Conn Consolidated Controls Corp, 15 Durant Ave Bethel 743-6721
Kan Thunderbird Sales & Engr, 6405 E Kellogg Wichita .... MU 4-3941
Mo Thunderbird Sales & Engr, 400 Brookes Dr Hazelwood .... PE 1-4343
Tex Thunderbird Sales & Engr, 5526 Dyer St Dallas 368-3064
Wash Martin Poggi Co, 845 106th St Bellevue .... GL 4-2026
For Columbia Commerce Corp, 41 W 57th St New York, N Y

CONSOLIDATED CONTROLS CORP, 6 DURANT AVE
BETHEL
CONN, 06801, TWX 710-456-3049 .... 203 743-6721
J ENGELBERGER, EMP 400, ENG 50
$5,000-$10,000M
Cal Consolidated Controls Corp, 2338 Alaska Ave El Segundo 772-5301
Colo A-G Electronics, 5417 S Oneida St Englewood 303 771-1473
DC Consolidated Diesel Elec Corp, 1100 17th St Washington 393-1523
Kan Thunderbird Eng Sales & Serv, 3802 D 95th St Leawood .... NI 2-7220
La Petro-Chem Equip Co, Box 358 Baton Rouge 504 348-7593
Mich Robt McBride Co Inc, 20830 Rutland Southfield 313 356-5724
Mo Boweng Reps Inc, 10404 Oak Ave St Louis 314 429-7327
Ohio Technical Assoc, Box 388, Fairborn .. 513 878-2484
Tex Servo Electronics Prods, Inc, Box 20371 Dallas 637-3440
Wash Martin Poggi Co, 845 106th St Bellevue .... GL 4-2026
Can Power Service Prods, Box 184 Islington (Toronto) Ont 416 239-2977
Den Technitron A/S, 24 Klosterstr Copenhagen .... PA 2632
Fr Technitron, S A, 55 rue Pierre Charron Paris, France .... EL 30-58
Ger Technitron GmbH, Sonnenstr 14, Munich 557832
GB Technitron, Ltd, Walmgate Rd, Perivale Greenford Mdsx
Holl Technitron N V, Keizersgracht 478 Amsterdam 231073
Ital Technitron, SaL, Viale Bruno Buozzi 68, Rome
Jap Moritani & Co, Ltd, 3 Hichome Yaesu Chuo Ku Tokyo
Aust Cema (Australia) Pty, Ltd, 213 Angus St, Adelaide

CONSOLIDATED ELECTRIC CORP, 3201 FIRST AVE S
SEATTLE, WASH, 98134 .... 206 623-6561
C OSTROM, EMP 35, ENG 3, $1,000-$2,500M

CONSOLIDATED ELECTRODYNAMICS CORP SUB BELL & HOWELL CO, 360 SIERRA MADRE VILLA
PASADENA, CAL, 91109 .... 213 796-9381
EMP 2950, ENG 740, OVER $10,000M
Ala Consol Electrodynamics, 3322 S Memorial Pkwy Huntsville 205 881-2231
Cal Consol Electrodynamics, 5430 Van Nuys Blvd Van Nuys 213 872-2960
Cal Consol Electrodynamics, 175 S San Antonio Rd Los Altos 415 948-8294
Cal Consol Electrodynamics, 9530 Telstar Ave El Monte 213 443-0161
Cal Consol Electrodynamics, 4015 Fabian Way Palo Alto 415 328-7777
Cal Consol Electrodynamics, 3820 E Colorado Blvd Pasadena 213 795-3258
Cal Consol Electrodynamics, 1360 S Los Angeles St Anaheim 714 635-1600
Colo Consol Electrodynamics, 470 S Colorado Blvd Denver 303 399-6250
Fla Consol Electrodynamics, 501 Park Ave N Winter Park 305 647-0101
Ga Consol Electrodynamics, 3272 Peachtree Rd NE Atlanta 404 233-4467
Ill Consol Electrodynamics, 3150 Des Plaines Ave Des Plaines 312 299-7751
Mass Consol Electrodynamics, 45 Fourth Ave Needham Heights 617 444-8010
Mo Consol Electrodynamics, 10449 St Charles Rock Rd St Ann 314 429-3222
NJ Consol Electrodynamics, 345 Boulevard Hassbrouk Heights 201 288-2055
NJ Consol Electrodynamics, 26 Linden Ave Springfield 201 376-4900
NM Consol Electrodynamics, 141 Wyoming NE Albuquerque 505 255-8671
NY Consol Electrodynamics, E Molloy Rd Syracuse 454-9292
Ohio Consol Electrodynamics, 21010 Center Ridge Rd Cleveland 216 333-5600
Pa Consol Electrodynamics, 2010 Oregon Ave Philadelphia 215 464-3773
Tex Consol Electrodynamics, 433 Regal Row Dallas 214 631-3700
Tex Consol Electrodynamics, 6001 Gulf Frwy Houston 713 928-3977
Utah Consol Electrodynamics, 48 E Robert Ave Salt Lake City 801 486-9297
Va Consol Electrodynamics, 2009 14th St Arlington 703 524-3151
Va Consol Electrodynamics, 1120 W Mercury Blvd Hampton 703 838-2455
Wash Consol Electrodynamics, 302 Second Ave W Seattle 206 284-5370
Fr Bell & Howell Instr SARL, 37 Rue Des Morillons Paris 15e 828-25-51
Ger Bell & Howell GmbH, Frankfurter Str 636 Friedberg Hessen .... (06031)3441
GB Bell & Howell Ltd, Lennox Rd Basingstoke Hants 3681

CONSOLIDATED MOLDED PRODS DIV REPUBLIC CORP
WARNER & GREENWOOD AVE, SCRANTON
PA, 18501 .... 717 346-6521
J PILLINGER, EMP 800, ENG 25, OVER $10,000M

CONSOLIDATED OHMIC DEVICES INC
115 OLD COUNTRY RD, CARLE PLACE
N Y, 11514, TWX 510-222-3789 .... 516 741-1500
S YOUNG, EMP 200, ENG 25, $2,500-$5,000M
Cal Sedillo Co, 125 E Sunnyoaks Ave Campbell 264-4010
Cal Abco Co, 555 W 9th St, San Pedro ... 213 833-8333
Colo Compar Rocky Mountain, 300 E Hampden Englewood 781-0912
Ill Branum Sales Co, Box 516, Lake Zurich .. 438-2356
Md East Coast Liaison, Inc, Box 243 Lutherville 252-1288
Mass Daner Assoc, 684 Commonwealth Ave Newton 617 969-4650
Mich S Sterling Co, 21250 10 1/2 Mile Rd Southfield 357-3700
Ohio S Sterling Co, 5827 Mayfield Rd Cleveland .... HI 2-8080
Pa Control Instrument Sales Co, 2727 Philmont Ave Bethayres 676-1808
Tex Instrumatics, Box 8762, Houston 713 225-6626
Wash William McNabb Co, Box 931 Bellevue 206 454-0577
Wis Branum Sales Co, Box 516, Lake Zurich .. 438-2356
Can Century Air-Ground Serv Ltd, 3160 Sartelon St Montreal 747-1185
For Technitron, Inc, 41 W 57th St New York, NY 758-2790
Den Technitron, 24 Klosterstr, Copenhagen .... PAL 2632
Fr Technitron, 55 Rue Pierre Charron Paris 8 359-3058
Ger Technitron, Sonnenstr 14, Munchen 55-78-32
GB Technitron Ltd, Walmgate Rd, Perivale Greenford .... PER 9949
Holl Technitron, N V, Box 7542, Schniphol Arpt Amsterdam 727823
Ital Technitron S R I, Viale Bruno Buozzi 68 Rome 800-235
Jap Marubun Co Ltd 1, 2-Chome, Odenmacho, Nihonbashi Chuo-ku, Tokyo 860-8151

CONSOLIDATED PRODUCTS CORP
17360 S GRAMMERCY PL, GARDENA
CAL, 90247 .... 213 321-1956
D SMITH, EMP 70, ENG 1, $1,000-$2,500M
Ala Young & Lawrence, 2907 Governors Dr SW Huntsville 205 539-6575
Ariz Jack Osborne Assoc, Box 968 Scottsdale 602 948-0501
Cal Storm Products, 4049 Transport Palo Alto 415 326-2913
Colo Storm Products, Box 225 Broomfield 303 466-7323
Fla Young & Lawrence, 601 N New York Ave Winter Park 305 647-6929
Ill Calude Booth & Assoc, 1921 N Harlem Ave Chicago 312 237-7910
Ind Tri State Marketing, 3220 Broadway Ft Wayne 219 456-3567
Kan Paltine Engineering, 2050 Woodson Rd Mission 913 262-5643
Md S W Goodman Co, 5 W Biddle St Baltimore 301 727-6116
Minn C Macnamara, 5227 Bartlett Blvd Mound 612 472-4919
Mo Palatine Engineering, 2050 Woodson Rd St Louis 314 426-7055
NJ Manufacturers Rep, 215 Diamond Springs Rd Denville
NY Manufacturers Rep, 55 Central Ave Farmingdale 516 293-9696
Ohio Tri-State Marketing, 1717 Section Rd Cincinnati 513 631-5060
Tex Southern Engineering, Box 8393 Dallas .... 214 LA 1-3748
Wash Rowe Northwest, 1123 38th Ave Seattle 206 325-2792

CONSOLIDATED REACTIVE METALS INC, 114 HOYT AVE
MAMARONECK
N Y, 10543, TWX 914-835-3380 .... 914 698-2300
H HANAU
ADV PG 545, 804
Tex C D Price Co, 1306 Glen Cove Richardson .... AD 1-4321

CONSOLIDATED RESISTANCE SPECIALTIES INC
46 PROSPECT ST, YONKERS
N Y, 10701 .... 914 YO 3-5900
J WILENTCHIK, EMP 20, UP TO $100M

CONSOLIDATED VACUUM CORP, 1775 MT READ BLVD
ROCHESTER, N Y, 14603 .... 716 458-2550
A CHAMBERS, EMP 400, ENG 40
Cal Consolidated Vacuum Corp, 4015 Fabian Way Palo Alto .... DA 1-3151
Cal Consolidated Vacuum Corp, 5430 Van Nuys Blvd Van Nuys 788-7300
Ga Consolidated Vacuum Corp, 3272 Peachtree Rd, NE Atlanta .... CE 3-1171
Ill Consolidated Vacuum Corp, 3150 Des Plaines Ave Des Plaines 299-7757
Mass Consolidated Vacuum Corp, 45 Fourth Ave Needham Hts 444-4080
NJ Consolidated Vacuum Corp, 26 Linden Ave Springfield .... DR 6-4900
NM Consolidated Vacuum Corp, 141 Wyoming NE Albuquerque .... AM 8-9333
Ohio Consolidated Vacuum Corp, 1350 West 5th Ave Columbus 488-1187
Pa Consolidated Vacuum Corp, 2010 Oregon Ave Phila .... HO 5-3773
Tex Consolidated Vacuum Corp, 433 Regal Row Dallas .... ME 1-3700

CONSOLIDATED WIRE & ASSOCIATED CORPS
1635 S CLINTON ST, CHICAGO, ILL, 60616 .... 312 HA 1-4441
J MANN, EMP 30, ENG 1
ADV PG [illegible]
Cal David Muir, 2909 N Lake Ave, Altadena
Cal Sinai-Johnson Inc, 817 Douglas St Redwood City 365-6263
Colo A-E-S, Inc, 1559 Chester St, Aurora 366-0208
Fla Stanley K Wallace Assoc Inc, Box 165, Lutz
Ga H J Odom, 715 Flamingo Dr SW Atlanta .... PL 3-8463
Ill Markal Sales Corporation, 5787 N Lincoln Ave Chicago .... LO 1-7290
Ind Harrison J Blind & Assoc, Box 24191 Indianapolis .... CH 4-0191
Kan Lowell, Kangas & Assoc, 9107 Larsen Dr Overland Park .... TU 8-3200
Mass Near Inc, 99 Highland Ave, Somerville .. PR 6-2262
Mo Theodore B Lowell, Box Creve Coeur Br St Louis .... MI 7-1111
NY Jerry Kirshbaum Co, 1533 Peninsula Blvd Hewlett .... FR 4-1509
NY William Tauber Co, 151 Fayette Blvd Syracuse 446-7094
NC M F Hager, Rt 1, Box 423, Matthews..... 847-9262
Ohio John O Olsen Co, 16201 Shaker Blvd Cleveland 752-5444
Pa Herman Lewis Co, 1801 Penn Blvd Philadelphia .... LO 7-2068
Tex John B Guenther Co, 4533 N Central Expwy Dallas .... LA 8-6286
Wash Tec-Rep Co, 169 Twelfth Ave, Seattle .. MA 3-0651
Can Atlas Radio Corp Ltd, 50 Wingold Ave Toronto, Ont .... RU 1-6174
For O O Mallegg Co, 400 W Madison St Chicago, Ill .... FR 2-4868

CONSTANTA CO OF CANADA LTD, 280 REGINA AVE
MONTREAL, QUEBEC 766-8569
J WONG, EMP 20, ENG 2, UP TO $100M
Cal Western Electronic Components, 4301 Birch St Newport Beach 540-1963
Fla Wm M Jones Co Inc, 2317 E South Orlando 424-6298
Ga Wm M Jones Co Inc, 2666 Redding Rd NE Atlanta 261-8275
Md Wm M Jones Co Inc, 1107 Echo Ct N Towson 823-5721
Mass Brookdale/Richter Engrg, 348 Lake Ave Newton Highlands 244-6969
NY Jack Miller & Co, 1 Continental Ave Forest Hills 263-4446
NY James M Glass Jr, 284 Delaware Ave Buffalo 856-9272
Ohio REP/CORP, 2077 Embury Park Rd Dayton 278-5885
Can D I Snell Ltd, 700 Weston Rd Toronto, Ont 767-9876
Fr Bureau De Liaison, 113 Rue De L'universite Paris .... INV 99-20

CONTACT, INC, BOX 6, HUDSON
N H, 03051 .... 603 883-7708
R REID, EMP 100, ENG 10, $100-$250M
Cal Claude Michael, Inc, 703 W Ivy St Glendale .... 213 CH 5-8401
Fla Embac Inc, 621 N Clearwater Largo Rd Largo 813 581-2437
Fla Assembly Materials & Equip Sys 962 Victor Herbert Dr, Largo 609 429-1005
Ill Russ Gawne & Assoc, 6139 W Touhy Ave Chicago 312 775-5381
Md David K Jones Co, Inc, 2026 Maryland Ave Baltimore 301 752-0577
Mass EPE Corp, 345 Highland St Weston .... 617 TW 9-0678
Minn Walt Schmitt Assoc, 3881 Hwy 100 Mnpls 612 920-3883
NJ Aero Sales Co, Box 53, Caldwell ... 201 CA 6-2642
NY R&S Electronics Corp, Box 217 Hempstead .... 516 IV 5-1040
Ohio Perry Lohse & Co, 529 Richmond Rd Cleveland 216 381-7788
Tex Sivright Co, 6115 Denton Dr, Dallas .... FL 1-4416

Wash Don Smith Sales Co, 2320 N 45th St
Seattle ....206 ME 3-3160
Can Willer Engineering Sales, 1800 Avenue Rd
Toronto, Ont........................ 783-3373

CONTELEC S A, PORTSTR 38., 2500 BIEL-BIENNE
SWITZ, TWX 34397 .... 032 3 10 31
N HUBER, EMP 100, ENG 8
Den IE Industrial Electronic, 23-25 Rosenvaengets
Copenhagen
Fr Inter Composants, 96, rue Championnet, Paris 18e
Ger Omni Ray GmbH, Nymphenburgerstr 164
8 Munchen 19
GB W Greenwood (London) Ltd, 21 Germain St
Chesham, Bucks
Holl Nijkerk's Handelsonderneming, Drentestr 7
Amsterdam 6
Nor Rieck & Co A/S, Industrihuset A 7, Bergen
Swed Bo Palmblad AB, Hornsgatan 58, Stockholm
Swit Omni Ray A G, Dufourstr 56, Zurich 8
Isrl Messrs Talviton, Ben Yeyuda Rd 43, Tel Aviv

CONTEMPORARY ELECTRONICS INC, 4838 W 35TH ST
MINNEAPOLIS, MINN, 55416................ 612 920-6444
R VEGEMAST, EMP 154, ENG 9, $2,500-$5,000M
ADV PG 534, 740
Cal Pritchard & Haney Co, Box 102
Los Altos 961-8218
Md Eastern Components, 6200 Annapolis Rd
Landover Hills........................ 322-1412
Mass Hatch Assoc, 19 Kearney Rd
Needham Heights..................... 444-3310
NJ A & B Electronics Co, Box 305
Fair Lawn........................... 797-5356
NY A & B Electronics Co, 891 Fulton St
Valley Stream 825-8955
Pa Eastern Components, 1349 Cheltenham Ave
Philadelphia 927-6262
Can Gerry McKee Enterprises, Ltd, 3300 Cavendish Blvd
Montreal........................... 482-1810
Isrl Elina Ltd, 7 Harishonim St B 1020, Tel Aviv

CONTINENTAL CONNECTOR CORP, 34-63 56TH ST
WOODSIDE
N Y, 11377, TWX 212 672-3709 ....212 TW 9-4422
A FITZELLE, EMP 600, ENG 10, OVER $10,000M
Cal Continental Connector Corp, 4054 W Beverly Blvd
Los Angeles......................... 381-2285
Cal Continental Connector Corp, Box R
Los Altos 948-0211
Fla Conley-May Assoc, Box 668
Oviedo 305 365-3283
Ill Douglas Lange, 9420 W Foster Ave, Chicago
Ind Chet Given, 921 E 3rd St, Mishawaka ... BL 5-1614
Mass Murray M Ross, 678 VFW Pkwy
Roxbury 469-0674
NY K R MacDonald, 3001 James St
Syracuse....................... 315 437-4616
Pa H Norris, 109 Jenkins Ave
Lansdale....................... 215 855-3400
Wis W Thompson, 2040 W Wisconsin Ave
Milwaukee .... DI 4-2727

CONTINENTAL DEVICE CORP, 12515 CHADRON AVE
HAWTHORNE
CAL, 90250, TWX 910 325-6217........213 772-4551
B MCCARTHY, SLS MGR, EMP 1000, ENG 150, OVER
$10,000M
Alas Young & Lawrence Assoc, 2907 Governors Dr SW
Huntsville 539-6575
Ariz Dorton Enterprises, 132 East Stetson Dr
Scottsdale 946-6213
Ariz Dubblar Assoc, 1822 E Windsor Ave
Phoenix 277-9739
Cal Continental Device Corp, 800 San Antonio Rd
Palo Alto 321-4681
Cal QPL Inc, 1015 Fremont Ave
S Pasadena 682-3705
Colo CFL Co, 1391 S Inca St, Denver 777-4381
Fla Continental Device Corp, 124 East Morse Blvd
Winter Park 647-7813
Fla Young & Lawrence Assoc, 601 N New York Ave
Winter Park 647-6929
Fla Young & Lawrence Assoc, 300 31st St N
St Petersburg........................ 894-0026
Ill D Dolin Sales, 3525 W Peterson
Chicago 588-3738
Ill Continental Device Corp, 6600 N Mannheim Rd
Des Plaines......................... 299-6196
Kan Thunderbird Sales, 7707 E Osie
Wichita............................ 684-3941
Kan Thunderbird Sales, 4014-A W95th St
Prairie Village....................... 642-7220
La J F McKinney Sales, 2012 Condon Ave
Metairie 887-1723
Md Burgin-Kreh, 1600 White Oak Ave
Baltimore.......................... 661-1120
Md Continental Device Corp, 1524 York Rd
Lutherville 825-1920
Md Tek Rep Inc, Box 773, Adelphi 434-4724
Md Tek Rep Inc, 1075 Rockville Pike
Rockville 762-7777
Md Tek Rep Inc, 603 Bridgeman Ter
Towson............................ 828-0394
Mass Continental Device Corp, 31 Sudbury St
Concord 369-7233
Mass Vector Sales Inc, 774 Pleasant St
Belmont 489-1400
Mich Elko Sales, 3119 Midland Dr, S E
Grand Rapids........................ 949-1451
Minn R J Sales, Box 6172, Minneapolis 922-1425
Mo Thunderbird Sales, 400 Brooks Dr
Hazelwood.......................... 731-4343
NJ Continental Device Corp, 115 Bloomfield Ave
Caldwell........................... 228-3422
NJ L&M Assoc, 511 Victor St
Saddle Brook........................ 843-8700
NY Bowser & Sapecky, 4317 E Genesee St
Dewitt 446-5920
NY Trionics, 320 Northern Blvd
Great Neck........................ HN 6-2300
NY Bowser & Sapecky, 4541 Main St
Snyder 839-4170
NY Continental Device Corp, 806 Main St
Poughkeepsie 454-8133
NY L&M Assoc, 7 Mayflower Ct
Brentwood 231-8363
NY Neal T O'Rourke Assoc, 1441 Hertel Ave
Buffalo 838-2441
Ohio Del Steffen & Assoc, Box 3157
Cleveland.......................... 261-5055
Ohio Del Steffen & Assoc, 3120 Far Hills Ave
Dayton 293-3145
Ohio Continental Device Corp, 3481 Office Park Dr
Dayton 298-7207
Ohio RDP Assoc, 5877 Huberville Ave
Dayton 253-6175
Ohio RDP Assoc, Box 205, Cleveland 526-5260
Okla J F McKinney Sales, Box 3958, Tulsa 742-4595
Pa Danco Corp, Fairview Village............ 275-2600
Pa L&M Assoc, 965A Bristol Pike
Andalusia.......................... 639-3100
Tex J F McKinney Sales, 1303 Chemical St
Dallas............................ 631-9450
Tex Continental Device Corp, 6115 Denton Dr
Dallas............................ 357-0259
Tex J F McKinney Sales Co, Box 1026
Bellaire 665-3653
Tex Blacketer Co, 777 S Central Expwy
Richardson......................... 231-1718
Va Bugin-Kreh, 2600 Memorial Ave
Lynchburg.......................... 845-5600
Wash Western Technical Sales, 10843 NE 8th St
Bellevue........................... 454-3906
Can Samuel C Hooker (Can) Ltd, 144 Ronald Dr
Montreal W Que
For Flan Assoc, 6 Gertrudis St
Santurce, P R 725-0759

CONTINENTAL ELECTRONICS CORP
302 MCGUINNESS BLVD, BROOKLYN
N Y, 11222 .... 212 383-3331
A SYLVANE, EMP 15, ENG 3

CONTINENTAL ELECTRONICS MFG CO SUB LTV
ELECTROSYSTEMS INC, BOX 17040, DALLAS
TEX, 75217, TWX 214-899-8694 .... 214 381-7161
T MOSELEY, EMP 700, ENG 175, OVER $10,000M
DC F Strailman, 1155 15th St NW
Washington 202 659-2020
NY Arthur Rocke, 750 Third Ave
New York....................... 212 986-2244
For Milton L Hinshaw, Corniche Chouran
Beirut 252-030
Fr Robert A Fissette, 15 Rue De Remusat
Paris.......................... AUT 90-95
Ital Giuseppe Moneti, Via Porta Pinciana 34
Rome 483-505

CONTINENTAL INSTRUMENTS CORP
110 ATLANTIC AVE, LYNBROOK
NY, 11563 .... 516 593-2266
J WEINRICH
Cal Sargent & Greenleaf, 810 E 18th St
Los Angeles........................ 750-1088
DC Sargent & Greenleaf, 1800 Nichols Ave SE
Wash 333-7611
NY Sargent & Greenleaf, 24 Seneca Ave
Rochester.......................... 467-3200
Can Automatic Sprinkler Co Ltd, 7000 Jeanne Mance St
Montreal.......................... 276-3641

CONTINENTAL LEASING CO INC, 30 PARK AVE
ARLINGTON, MASS, 02175 .... 617 648-8620
D FLETCHER, EMP 45, ENG 5, $2,500-$5,000M
Ala Technical Assoc Inc, Box 4088
Huntsville 205 881-8494
Cal Continental Rentals, 1621 Centinela Ave
Inglewood 213 670-0181
Conn Instrument Assoc, 234 Murphy Rd
Hartford 203 525-9367
Fla Technical Assoc, 2319 E South St
Orlando 305 424-5681
Ill Continental Leasing Co, 517 Talcott Rd
Park Ridge...................... 312 825-3105
La Technical Assoc, Box 731, Slidell.... 504 288-7122
Md Continental Leasing Co, 12316B Wilkins Ave
Rockville 301 933-0111
Mich WKM Assoc, 1474 E Outer Dr
Detroit 313 892-2500
NJ Continental Leasing Co, 530 South Ave E
Cranford 201 276-0600
Ohio WKM Assoc, 6741 Ridge Rd
Cleveland....................... 216 885-5616
Ohio WKM Assoc, 5335 Far Hills Ave
Dayton 513 434-7500
Pa WKM Assoc, 90 Clairton Blvd
Pittsburgh...................... 412 892-2953
SC Technical Assoc, Box 5583
Spartanburg 803 585-3864

CONTINENTAL SCREW CO
459 MT PLEASANT ST, DEPT JA, NEW BEDFORD
MASS, 02742, TWX 710-334-0556...... 617 993-2621
J BOWERS, EMP 650, ENG 15, $5,000-$10,000M
Cal John Clark, 1825 Salem Court
Claremont 714 624-7057
Cal Earl C Miller & Co, 3030 Bridgeway
Sausalito 415 332-4760
Colo Larry Whetstone, 1036 S Monroe St
Denver 757-0458
Ill C W Hynes, 8210 S Dante Ave
Chicago 312 375-4872
Ind Wm J Felts, 1126 E Bradbury St
Indianapolis....................... 786-3830
Iowa Rollie L Johnson Co, 4001 39th Pl
Des Moines 515 279-6433
Mich Continental Screw Co, 23875 Northwestern Hwy
Southfield
Minn J L Callahan, 1542 Birmingham St
St Paul............................ 774-0453
Mo R G Schroeder, 11842 Branbridge Rd
Florissant...................... 314 652-3063
NJ Joseph Flynn, 2657 Finlaw Ave
Pennsauken 609 662-8735
NY M A Drewett, 3600 E Genesee St
Syracuse........................... 446-6894
Ohio Thomas G McMillan, 1030 W Garbry Rd, Piqua
RI Joseph McIntyre, 36 Pequot Trail
E Greenwich 401 884-9539
Tenn J R Richards Co, Box 8335
Chattanooga..................... 615 892-8405
Wash Jim Owen, Box FB22, Bainbridge Island
Wash T Blunden, Box 518, Bellevue 206 454-4460

CONTINENTAL SENSING INC, 1960 N RUBY ST
MELROSE PARK
ILL, 60160, TWX 910-226-0713....... 312 MU 1-5050
B DAVIS, EMP 35, ENG 3, $1,000-$2,500M
Cal Engineered Sales Applications, 13440 Ventura Blvd
Sherman Oaks....................... 789-0395
Ill Systems Engineering Assoc, 6253 Milwaukee Ave
Chicago 312 774-1452
Mass Andruss-Peskin Corp, Box 268, Natick ... OL 3-3919
Fr Aeromaritime Electronique, 57, Ave D'Iena, Paris
Ital H Coe & Clerici, SpA
Via Marco Antonio Colonna 12, Milano

CONTINENTAL TESTING LABS, 755 U S HWY 17-92
FERN PARK, FLA, 32730 .... 305 838-3919
J BRODERICK, EMP 70, ENG 13, $500-$1,000M

CONTINENTAL WIRE & CABLE, BOX 1863, YORK
PA, 17405 .... 717 792-2644
H GOODWIN, EMP 168, ENG 5, $5,000-$10,000M
Cal Irwin & Co, 11845 Teale St, Culver City .. 870-7233
Cal Walter Goepp Co, 15 Tubbs St
San Francisco 285-5200
Conn Russel V Meyer, Box 4212, Hamden 288-9081
Ga Roach & Petrolina, 713 Healey Bldg
Atlanta 404 525-2959
Ill Snyder Sales Co, 102 S Washington St
Hinsdale........................... 323-9191
Ind Klye Herder & Son, Box 20052
Indianapolis....................... 255-2523
La Al Levin & Assoc, Box 52075
New Orleans 524-8489
Md J Donald Amelia, Box 6759, Towson 823-1044
Mich Robt M Gardner Co, 26940 Lyndon St
Detroit 531-1658
Minn D Schwab, 6519 Nicollet Ave, Mnpls..... 866-4888
Mo H & R Sales & Engr Co, 3942 West Pine
St Louis 652-5540
NJ Barclay More, 8 Hancock Dr
Florham Park....................... 377-3228
NY Mills, Talbot & Co, Box 9833
Rochester.......................... 244-1311
NY Dana-Beach Co, 101 Park Ave
New York.......................... 685-1776
NC C R Taylor Co, Box 2196, Greensboro 299-9021
Ohio Stanley E Wallar, 3521 Harvard Blvd
Dayton 275-4151
Ohio Robert R Stone & Assoc, Box 47
Mentor 946-6766
Ore Pacific Electric Sales, 140 SE 28th Ave
Portland 235-4137
Pa Chapman Co, 819 Vine St, Phila....... MA 7-5295
Pa H E Ransford Co, 5400 Clairton Blvd
Pittsburgh......................... 884-3425
Pa Chapman Sales Co, 14 E Rambler Dr
Holland 215 357-8207
Tenn C E Pitner, Box 693, Knoxville 577-7718
Tex Brenner Elect Sales, 305 Velasco St
Houston .... CA 5-0776
W Va H E Ransford Co, 1872 Louden Hts Rd
Charleston 342-3203
Wis Fritz Meyer Co, 724 E Mason St
Milwaukee......................... 272-3422

CONTINENTAL-WIRT ELECTRONICS CORP
26 W QUEEN LN, PHILADELPHIA
PA, 19144, TWX 710-670-1230.........215 VI 8-7700
H COHEN, EMP 500, ENG 15
Cal Shephard-Stern, 4109 Burbank Blvd
Burbank 849-6671
Cal Peters Delaet, 1606 Rollins Rd
Burlingame 697-1800
Colo Gordon Moss Electronics, Box J
Greeley........................... 353-1452
Colo Leroy Moss, Box 26172, Denver 936-4027
Conn D Haskell AM, Arlene Dr, Madison....... 245-1031
Fla Geartner Assocs Inc, 350 Lincoln Road
Miami Beach........................ 531-0200
Ill G McL Cole Co, 6514 W Higgins Rd
Chicago 774-3535
Ind Southern Sales Co, 105 Lakeshore Dr
Angola 665-2109
Ind Charles S Southern, Box 20207
Indianapolis....................... 253-3359

Ky	Southern Sales Co, 212 Republic Bldg Louisville	583-6902
Mass	A & M Electronic Reps Inc, 1492 Highland Ave Needham	444-8170
Mich	Don Poulin Co, 17222 E Warren Detroit	886-4990
Minn	Ed Melius & Assoc, 3758 N Dunlap St St Paul	488-7293
Mo	Kay Electronics, 2600 Grand Ave Kansas City	221-6733
NJ	A Wetterhahn Co, 4420 Crescent Blvd Pennsauken	662-1611
NM	Lee Davis Co, 1415 Richmond Dr, NE Albuquerque	256-1749
NY	F Edwin Schmitt Co, 311 Meacham Ave Elmont	437-8150
NY	Franklin & Andrews Sales Corp, 2 Standish Terr Syracuse	446-1120
NY	Samuel S Egert Co, 146 Meacham Ave Elmont	488-2255
Ohio	George L Herrick Co, 845 Canterbury Rd Westlake	871-8855
Ohio	McDaniel Assoc, 3020 California Ave Dayton	293-2522
Ohio	George L Herrick Co, 2209 Losantiville Rd Cincinnati	891-6185
Ore	Van Voorhees Assoc, Box 4383 Portland	287-6633
Pa	B E Gibson Co, 210 Penn Center Blvd Pittsburgh	823-8310
Tex	Stasco, 13310 Spring Grove Ave Dallas	239-5054
Va	F B D Sales Corp, 1806 Leslie Dr Chesapeake	484-3162
Can	Gen Instr of Can Ltd, Box 9 Waterloo, Ont	744-8101
For	Roburn Agencies, 431 Greenwich St New York, NY	966-2130

CONTINENTAL X-RAY CORP, 1536 N CLYBOURN
CHICAGO, ILL, 60610 312 642-3711
D WORDEN, EMP 75, ENG 10, $2,500-$5,000M

CONTROL CIRCUITS INC, 66 TUTTLE ST, MIDDLETOWN
CONN, 06457 203 347-7223
B MACK, EMP 40, ENG 7, $500-$1,000M

Ariz	Hyde Electronics, Inc, 4710 N 17th St Phoenix	264-5609
Cal	Cain & Co, 15720 Ventura Blvd Encino	213 783-4700
Cal	Cain & Co, 175 S San Antonio Rd Los Altos	415 948-6533
Colo	Hyde Electronics Co, 888 S Lipan St, Denver	
Fla	Cain & Co, 2523 Chippewa Trail Maitland	305 422-3460
Md	Cain & Co, 7401 New Hampshire Ave Hyattsville	202 296-8265
Mass	Cain & Co, 45 Essex St, Melrose	617 665-8600
NM	Hyde Electronics, Inc, 5206 Constitution N E Albuquerque	265-8895
NY	Charles B Hopkins Co, Box 192, Massapequa	
NY	Alto Assoc, Box 211, Midwood Sta	Brooklyn
NY	Cain & Co, 324 First St, Liverpool	315 652-7153
Pa	Cain & Co, 1 Bala Ave Bldg Bala-Cynwyd	215 296-8265
Pa	Automated Equip & Engrg Inc, 648 Center Ave Pittsburgh	412 931-7616
Tex	Paul Kreager Co, 9230 Cliffmere Ave Dallas	348-3521
Utah	Hyde Electronics, Inc, 3081 Delsa Dr Salt Lake City	278-4465

CONTROL DATA CORP, 8100 34TH AVE S
MINNEAPOLIS, MINN, 55440 612 888-5555
R SCHMIDT, EMP 18,000, ENG 4,000, OVER $10,000M

Ariz	Control Data Corp, 2200 N Central Phoenix	254-6297
Cal	Control Data Corp, 5630 Arbor Vitae Los Angeles	776-2225
Cal	Control Data Corp, 3260 Hillview Dr San Francisco	321-8920
Colo	Control Data Corp, 7895 E Prentice Ave Denver	771-5770
Conn	Control Data Corp, 1456 Wilbur Cross Hwy Berlin	828-6387
Fla	Control Data Corp, 1980 N Atlantic Ave Cocoa Beach	783-7663
Ga	Control Data Corp, 1455 Tully Rd, N E Atlanta	634-4273
Haw	Control Data Corp, Honolulu	566-624
Ill	Control Data Corp, 120 E Ogden Ave Hinsdale	242-4900
Kan	Control Data Corp, 2210 W 75th St Prairie Village	362-2828
La	Control Data Corp, 1st Natl Life Ins Bldg New Orleans	529-2387
Md	Control Data Corp, 11428 Rockville Pike Rockville	949-8800
Mass	Control Data Corp, N W Ind Park, 3rd Ave Burlington	272-3700
Mich	Control Data Corp, 15660 W Ten Mile Rd Southfield	353-3600
Minn	Control Data Corp, 4901 W 77th St Edina	920-3780
Mo	Control Data Corp, 222 S Bemiston Ave Clayton	862-3800
Neb	Control Data Corp, 6901 W Dodge Omaha	556-4799
Nev	Control Data Corp, 120 E Flamingo Rd Las Vegas	734-1555
NJ	Control Data Corp, 1945 U S Hwy Rt 22 Newark	687-5600
NM	Control Data Corp, 5905 Marble Ave NE Albuquerque	265-7941
NY	Control Data Corp, 730 Third Ave New York	661-0220
NC	Control Data Corp, 338 N Elm St Greensboro	273-1751
Ohio	Control Data Corp, 3121 Euclid Ave Cleveland	391-7400
Okla	Control Data Corp, 5515 E Skelly Dr Tulsa	627-8545
Pa	Control Data Corp, 4 Penn Ctr Plaza Philadelphia	569-1240
Pa	Control Data Corp, 875 Greentree Rd Pittsburgh	922-5633
Tenn	Control Data Corp, 2109 W Clinton Bldg Huntsville	539-9471
Tex	Control Data Corp, 3336 Richmond Ave Houston	526-3531
Utah	Control Data Corp, 444 S State St Salt Lake City	364-3621
Va	Control Data Corp, 888 17th NW Washington, D C	298-8640
Wash	Control Data Corp, 5950 6th Ave S Seattle	763-1440
Can	Control Data Canada Ltd, 880 Lady Ellen Pl Ottawa, Ont	725-1111
Den	Control Data, Skelbaekgade 2, Copenhagen V	
Fr	Control Data France S A Ave de la Grande Armee N 80 Paris 17	380-1769
Ger	Control Data GmbH, Dist Sued, Bopserwald Str 54 Stuttgart - S	24-66-79
GB	Control Data England Ltd, 26-32 Caxton St London SW	SU 37-01
Holl	Control Data Holland N V, Maassluisstr 256 Amsterdam	15 55 52
Ital	Samauighi & S S p A, Tungatevere degli Artigiani Rome	509-609
Jap	Control Data Far East, Inc, 5, 15-23, 4-Chome Nishi-Azabu, Minato-Ku, Tokyo	
SAfr	Control Data Pty Ltd, 88 Marshall St Johannesburg	834-2280
Swed	Control Data AB, Vastmannagatan 40 Stockholm Va	23-25-90
Swit	Control Data AG, Bleicherweg 33 8002 Zurich	27-55-33
Mex	Control Data de Mexico, Rio Panuco 38 Mexico 5, D F	35-21-83

CONTROL DATA CORP, LAJOLLA DIV
775 COLORADO AVE S, MINNEAPOLIS, MINN, 55416
W NEES, EMP 400, ENG 40, OVER $10,000M

Ala	James Spader Co, Box 6074 Birmingham	879-1366
Cal	Held & Mollard Inc, 1494 Oddstad Dr Redwood City	369-4871
Cal	Davidson Assoc, Inc, 2920 Nebraska Ave Santa Monica	451-5761
Cal	IFM-South, 3455 Cahuenga Blvd Hollywood	469-1641
Colo	Simpson Assoc, 8000 S Kendall Blvd Littleton	798-8439
Conn	Alvin S Mancib Co, Randolph & Coe Rds Middletown	347-5629
Conn	Applied Measurements, 2531 Whitney Ave Hamden	288-5288
Fla	Electro-Tech Inc, 307 27th St, Orlando	423-5589
Fla	Scott & Assoc, Inc, 1010 Executive Ctr Dr Orlando	841-4840
Ga	Electro-Tech Inc, 3020 Commerce Way Hapeville	767-8761
Ill	Berndt Assoc, Inc, 6414 W Belmont Ave Chicago	283-0713
Ill	Laub Engineering, 466 Central St Northfield	446-4166
Kan	Impala Inc, 6917 W 76th St Overland Park	648-6901
Md	Thomas H Closs Co, 21 W Penna Ave Towson	825-4445
Md	Ron Davies Assoc, Box R, Bethesda	652-6330
Mass	Applied Measurements, 86 Hayward Rd Acton	263-2766
Mass	Alvin S Mancib Co, Middlesex Tpk & A St Burlington	272-9450
Mich	The Satullo Co, 4514 N Woodward Royal Oak	566-2375
Mich	Chandler Assoc, Inc, 32401 W Eight Mile Rd Livonia	476-5800
Minn	Pinkney & Assoc Inc, 1925 Nicollet Ave Mnpls	338-0523
Mo	Impala Inc, 47 Village Sq Shop Cen Hazelwood	522-1600
NM	Electronic Enterprises, 1900 Washington St NE Albuqu	256-1585
NM	Electronic Enterprises, Box 116 Las Cruces	524-0126
NM	Bowden Engineering Sales, 2631 Texas, N E Albuquerque	299-0473
NY	Ossmann Component Sales, 39 Saginaw Dr Rochester	442-3290
NY	Ossmann Component Sales, 5858 Molloy Rd E Syracuse	454-4477
NY	Ossmann Component Sales, 1901 Vestal Pkwy E Vestal	785-9949
NY	Cane Technical Sales, Inc, 555 E Boston Post Rd Mamaroneck	698-4411
NY	Ossmann Component Sales Corp 17 Round Lake Pk Rd, Monroe	297-7773
NY	Travco Assoc, 142 Mineola Ave Roslyn Heights	487-9666
NC	Electro-Tech Inc, 3107 Cullman Ave Charlotte	333-0326
Ohio	Pioneer-Standard Electronics, 5403 Prospect Ave Cleveland	432-0010
Ohio	Srepco Electronics, 314 Leo St, Dayton	224-0871
Ohio	Satullo Co, 2801 Far Hills Ave, Dayton	293-7061
Pa	Acromatix Assoc, Inc, 3118 Germantown Pike Fairview Village	279-0377
Tex	P Kreager Co, 9230 Cliffmere Dr Dallas	348-3521
Tex	Ev Smith Sales Co, 7007 Gulf Frwy Houston	649-5756
Wash	Eicher-Richards Co, 2727 N E Blakeley St Seattle	523-7888
Wis	Taylor Electric Co, 4080 N Pt Washington Rd Milwaukee	964-4321
Can	Electronic Marketing Co, 3600 Barclay Ave Montreal 26, P Q	739-3206

CONTROL DATA CORP, ROCHESTER DIV
1480 N ROCHESTER RD, ROCHESTER
MICH, 48063 313 651-8811
J WALBERER

Cal	R J Beese, 5630 Arbor Vitae St Los Angeles	776-2220
Md	J W Johnson, 1945 U S Hwy Rte 22 Newark	687-5600
Minn	D J Ekberg, 7801 Computer Ave Minneapolis	927-5411

CONTROL ELECTRONICS CO INC, 153 FLORIDA ST
FARMINGDALE, N Y, 11735 516 694-0125
H GOLDSTEIN, EMP 35, ENG 5, $500-$1,000M

Cal	R T Assoc, 155-43 Royal Ridge Rd Sherman Oaks	213 535-2363
Ill	PGM Component Sales, Inc, 5642 W Diversey Ave Chicago	622-8183
Md	VPI, 561 Dorsey Rd, Glen Burnie	301 768-0550
Mass	J Gallagher, Box 343 West Medway	617 533-7292
Mass	Micronic Assoc, 46 Lake Rd, Cochituate	
NJ	Vince Pirro, 44 Fresh Pond Rd E Brunswick	821-8977
NY	Nycom Inc, 2002 Teall Ave Syracuse	315 437-8343
Tex	Texas Avionics Co, 4515 Prentice St Dallas	EM 8-3566
Wash	J J Backer Co, 221 W Galer St Seattle	AT 3-6470
Can	Cantronics Ltd, Box 296 Downsview, Ont	636-8331
For	EMEC Inc, 55 E Country Rd Hicksville N Y	516 WE 1-3700

CONTROL ENGINEERING DIV J B WEBB CO
9000 ALPINE AVE, DETROIT
MICH, 48204 313 933-8010
M BLEMLY, EMP 500, ENG 100, OVER $10,000M

Cal	J B Webb Co of Cal, 9301 Rayo Ave S Gate	LO 4-1821
Cal	J B Webb Co of Cal, 2020 Pioneer Ct San Mateo	Fl 5-6866
Ga	J B Webb Co of Ga, Box 2866, Sta D Atlanta	TR 5-8606
Ill	J B Webb Co, 5642 W Lake, Chicago	CO 1-7614
Md	J B Webb Co, 107 York Rd, Towson	825-4063
Mass	J B Webb Co, Box 638 Newton Lwr Falls	471-3737
Mich	J B Webb Co, 11528 S Saginaw Rd Grand Blanc	OW 4-4173
Minn	J B Webb Co, 14703 Richards Dr Hopkins	WE 5-5874
NJ	J B Webb Co, 2165 Morris Ave, Union	686-2700
NY	J B Webb Co, 1660 Kenmore, Buffalo	875-7900
NY	J B Webb Co, 101 Park Ave, New York	683-6452
NC	J B Webb Co, Box 3152, Charlotte	377-1609
Ohio	Seiter & Roland, 2350 Victory Pkwy Cincinnati	221-2227
Ohio	J B Webb Co, 23203 Lorain Rd N Olmstead	734-3970
Pa	J B Webb Co, 10 Baltimore Lansdowne	623-7789
Pa	J B Webb Co, 1432 Potomac Ave Pittsburgh	563-0800
Tenn	J B Webb Co, Box 17404, Memphis	683-9409
Can	Control Engineering Div, 4470 S Service Rt Burlington, Ont	637-5695

CONTROL EQUIPMENT CORP, 19 KEARNEY RD
NEEDHAM HEIGHTS, MASS, 02194 617 444-7550
H ADAMS, EMP 20, ENG 5

Ala	J L Highsmith & Co, 3322 S Memorial Pkwy Huntsville	881-3294
Cal	Westec Co, Box 875, Garden Grove	636-2930
Colo	Applied Engrg Products Co, Box 88 Golden	279-4608
Fla	J L Highsmith & Co, 2543 Industrial Blvd Orlando	293-5202
Ill	Scientific Sales Corp, 7132 N Harlem Ave Chicago	775-7594
Ind	Scientific Sales Corp, 706 Sherwood Dr Indianapolis	545-9950
Kan	Impala, Inc, 6917 W 76th St Overland Park	648-6901
Md	Tek Rep, Inc, 1075 Rockville Pike Rockville	762-7777
Minn	Scientific Sales Corp, 6121 Excelsior Blvd Minneapolis	929-6115
Mo	Impala, Inc, 47 Vlg Sq Shop Ctr Hazelwood	831-5454
NY	Salsbury Assoc, 331 W John St Hicksville	938-1080
NC	J L Highsmith & Co, 3733 Monroe Rd Charlotte	333-7743
Ohio	Data-Tron, 7016 Euclid Ave, Cleveland	391-8421
Pa	Rivco, 3701 Conshohocken Ave Philadelphia	667-5110
Tex	Servo Elctns Products Co, 3131 Stemmons Fwy Dallas	637-3440
Utah	Applied Eng Prods Co, 6375 Imigration Canyon Salt Lake City	364-4942

Va J L Highsmith & Co, 5003 Brook Rd
Richmond 266-2060
GB Litton Precision Prods, 503 Uxbridge Rd
Hayes, Mdsx 01-573-8232

CONTROL KNOBS INC, 180-08 LIBERTY AVE, JAMAICA
N Y, 11433 .... 212 JA 6-0551
J FELDMAN, EMP 37, ENG 2, $500-$1,000M
ADV PG 365
Ariz Richard A Strassner Co, 3112 Los Feliz Blvd
Los Angeles 666-4040
Colo Action Sales, 6367 S Gallup
Littleton 303 794-0447
Fla Geartner Assoc, 350 Lincoln Rd
Miami Beach 305 531-0200
Ill Sam Tollaksen, 304 S Halstead St
Chicago .... CE 6-2964
Iowa Herbert B Kirkland & Assoc, 210 Fifth St, SE
Cedar Rapids 363-6425
NY John Diblasi Assoc, 14 Vanderventer Ave
Port Washington 516 767-0470
NC Jake Rudisill Assoc, 2009 N Tryon St
Charlotte 704 377-6901
Pa Anthony Iocono, 6640 Roosevelt Blvd
Phila .... MA 4-1843
Tex Gordon V Peck Co, 210 Casa Linda Plaza
Dallas .... DA 8-3511
Can A Deskin Sales Corp, 1565 Louvain St
Montreal 384-1420

CONTROLLED ENVIRONMENT EQUIPMENT CORP
160 PLEASANT ST, BROCKTON
MASS, 02401 617-558-6177
R PECK, EMP 20, ENG 2, $500-$1,000M
Ala Ridge Instrument Co, 7220 Governors Dr, W
Huntsville 837-3211
Cal Westec Electronics, Inc, Box 781
El Segundo 322-1561
Cal Westec Elctns Inc, 110 First St
Los Altos 415 327-5850
Colo Vinson Assoc, 3600 S Lincoln
Englewood 303 789-2203
Conn Stan Pierce, Inc, 115 Bald Hill Rd
New Canaan 966-4630
Fla Ridge Instrument Co, 2227 Selly Dr
orlando 305 293-4711
Ga Ridge Instrument Co, 3094 McCully Dr, N E
Atlanta 939-1554
Ill R M Krueger Co Inc, 5755 W Irving Park Rd
Chicago 312 282-8444
Mass Stan Pierce, Inc, 24 Linden St
Norwood 762-3164
Minn Ed Melius & Assoc, 3758 N Dunlap St
St Paul 612 488-7293
NJ Bressler Assoc, Inc, 4808 Bergenline Ave
Union City 864-9577
NM Vinson Assoc, 12329L Wisconsin NE
Albuquerque 505 298-7442
NY Mister Filters, Inc, 295 Mt Read Blvd
Rochester 436-5800
Pa Victor S Malta Co, Box 4007
Philadelphia 215 836-5122
Tenn Ridge Instrument Co, 140 E Division Rd
Oak Ridge 483-1311
Va Danch Assoc, Box 310, McLean 893-5800
Wash R R Chase & Assoc, Box 548
Kirkland 206 454-2514
Can Ralph E Benner, Ltd, 844 Caledonia Rd
Toronto 781-2207

CONTROL LOGIC INC, 3 STRATHMORE RD, NATICK
MASS, 01760, TWX 710-386-6677 .... 617 655-1170
P NATHAN, EMP 60, ENG 12
Ala Roy Attaway Co, 900 Bob Wallace Ave
Huntsville 534-2811
Cal Wieler & Co, 10842 S Paramount Blvd
Downey 861-9223
Cal Compar San Francisco, 1817 Bayshore Hwy
Burlingame 415 697-6244
Colo Williams Assoc, 4971 Jackson St
Denver 388-4391
DC Sonco, 4720 Montgomery La
Washington 654-5226
Fla Roy Attaway Co, 57 E Robinson St
Orlando 424-9983
Ill Brisky Assoc, 11734 S Western Ave
Chicago 233-1339
Iowa Engineering Services Co, 1026 3rd Ave S E
Cedar Rapids 319 366-1591
Kan Engineering Services Co, 7924-A State Line
Prairie Village 913 649-4000
Mass Instrument Reps Inc, 1046 Massachusetts Ave
Arlington 617 646-1034
Mich A H Baier Co & Assoc, 76 Klinger Lake Rd, Sturgis
Minn Engineering Product Assoc, 2119 Grand Ave
St Paul 612 698-5531
Mo Engineering Services Co, 6717 Vernon Ave
St Louis 314 726-2233
NJ Sonco, Crystal Brook Prof Bldg
Eatontown 542-1441
NM Williams Assoc, 420 Washington St S E
Albuquerque 255-1638
NY HAF Assoc, 35 Broadfield Rd
New Rochelle 632-3800
NY HAF Spectrum Assoc, 16 Lewis Ave
Jericho 433-4615
NY Bob Dean Inc, 714 W Clinton St
Ithaca 607 272-2187
Ohio A H Baier Assoc, 3300 S Dixie Dr
Dayton 298-9897
Ohio A H Baier Co, 4399 Industrial Pkwy
Willoughby 946-6080
Pa Sonco, 107 Town Ctr Rd
King of Prussia 265-3250
Pa Sonco, Park Pl Office Bldg, Camp Hill 766-0577
SC Roy Attaway Co, 614 Nissen Bldg
Winston Salem 722-9671
Tex Arnold Barnes Co, 740 S Sherman St
Houston 214 235-4541
Tex Arnold Barnes Co, 3230 Mercer St
Houston 713 622-3620
Tex Arnold Barnes Co, Petroleum Center
San Antonio 512 828-1323
Utah Williams Assoc, 2461 S Main St
Salt Lake City 466-8709

CONTROLOMAG LABS, 2459 SUSQUEHANNA, ROSLYN
PA, 19001 .... 215 884-8098
R PATTERSON, EMP 18, ENG 2, UP TO $100M

CONTROLOTRON CORP, 35 CENTRAL AVE
FARMINGDALE, N Y, 11735 .... 516 CH 9-4400
J SEGALL, EMP 45, ENG 7, $500-$1,000M
Cal D Dufford, 12230 Viewcrest La
Studio City .... 213 PO 6-4890
DC Continental Assoc, 1700 Penna Ave N W
Washington 202 233-5606
NJ E C Smith & Assoc, 797 Springfield Ave, Summit
Ohio Rep/Corp, 2077 Embury Park Rd
Dayton 513 278-5885
Tex ELCOM, 2616 W Mockingbird La
Dallas 214 352-5006
Wash Jon B Jolly, 413 Maritime Bldg
Seattle 206 624-2152

CONTROL PANEL CORP, 4431 W DIVISION ST
CHICAGO, ILL, 60651 .... 312 BE 5-1131
M SLATER, EMP 50, ENG 6, $1,000-$2,500M
Ala Roy Steckmesser Assoc, 816 Esslinger Rd
Huntsville 205 881-1750
Cal Paul Potter Co, Box 696 39215 15th St E
Altadena 213 281-5189
Conn E E Specialists Inc, 281 Vera Rd
Bristol 203 249-3336
Fla Roy Steckmasser Assoc, 3039 Saratoga Dr
Orlando 305 425-4788
Ill Olson Engrg & Sales, 1921 N Harlem Ave
Chicago 622-9777
Ind Delta Sales Inc, 1407 N Illinois St
Indianapolis 317 631-4136
Mass E E Specialists Inc, 111 Massachusetts Ave
Boxoborough 259-9200
Ohio Van-Hala Industrial Co, 14812 Detroit Ave
Cleveland 216 521-6283
Pa Bidler Energies Inc, 600 Market St
McKeesport 412 678-6194

CONTROL PRODUCTS INC, 280 RIDGEDALE AVE
EAST HANOVER, N J, 07936 .... 201 887-9400
J NILE, EMP 30, ENG 5, $500-$1,000M
Cal A-F Sales Engrg Inc, 94 S Los Robles Ave
Pasadena 681-5631
Cal Recht Associates, 175 S San Antonio Rd
Los Altos 415 941-0336
Ill Bruce Cumming & Assoc, 6029 W Belmont Ave
Chicago .... ME 7-3770
Mass Naton Assoc, 20 Strawberry Hill Rd
Natick 235-1966
Mich J L Montgomery Co, 770 S Adams Rd
Birmingham .... MI 6-6894
Minn Wenco Sales Inc, 7728 Morgan Ave S
Minneapolis 866-3639
NJ Edwin B Hinck, 139 Union St
Upper Montclair .... PI 6-2625
NJ Keefe Elec Sales Co, 228 E Kings Hwy
Haddonfield .... HA 9-4650
Ohio R F Hardy, 1501 Hulman Bldg, Dayton .... BA 2-1265
Ohio Ed Bock, 18838 Canyon Rd, Cleveland .... ED 1-5212
Tex Hillman Enterprises, 3505 Turtle Creek Blvd
Dallas 521-9907
Wash Thorson Company, 1767 15th Ave S
Seattle 206 325-5000
Wis Bruce Cumming & Assoc, 5537 N Argyle Ave
Milwaukee 372-7650
Can Thermo Electric (Canada) Ltd, Box 10
Brampton, Ont 351-0813
Can Thermo Electric (Canada) Ltd, 300 DeCarie Blvd
St Laurent, Mon, Que 747-7511

CONTROL SCIENCE CORP, 4810 BEAUREGARD ST
ALEXANDRIA, VA, 22312 .... 703 354-1500
EMP 80, ENG 20, $1,000-$2,500M

CONTROL SWITCH DIV CONTROLS CO OF AMERICA
1420 DELMAR DR, FOLCROFT
PA, 19032 .... 215 LU 67500
G BALLEE, EMP 500, ENG 42, $5,000-$10,000M
Ariz Vinson Assoc, 44 E Indian School Rd
Scottsdale 947-7371
Cal R L Assoc, 14547 Titus St
Panorama City 782-7826
Cal Jack Logan & Assoc, 801-D Mahler Rd
Burlingame 697-6100
Colo Vinson Assoc, 3600 S Lincoln
Englewood 789-2203
Fla Buchanan & Abrams Assoc, 1512 E Concord Ave
Orlando .... GA 3-8995
Ga Buchanan & Abrams Assoc
254 E Paces Ferry Rd NE, Atlanta 874-6854
Ill Carlson Electronic Sales Co, 7448 N Harlem Ave
Chicago .... SP 4-0277
Kan Thunderbird Eng Sales & Serv, 4014A W 95th St
Prairie Village .... NI 2-7220
Kan Thunderbird Eng Sales & Serv, 7707 E Osie
Wichita 684-3941
Md Arnold Assoc Inc, 4633 Harcourt Rd
Baltimore 828-7666
Mass Wm Watson, 150 Eaton Rd
Framingham 872-3600
Mich A K Davis Co, 37500 Carson Rd
Farmington 474-8300
Minn Bonament Heyda, 6101 Auto Club Rd
Minneapolis .... TU 1-9166
Mo Thunderbird Eng Sales & Serv
47 Village Sq Shop Ctr, Hazelwood .... TE 8-6688
NM Vinson Assoc, Box 3295, Sta D
Albuquerque 298-7442
NY I A Hotze Co, 112 Dewitt St, Syracuse .... GR 9-6641
NY K C Brin Assoc, Box 122, Plainview 822-1661
NC Electro-Rep Assoc Inc, 128 W 30th St
Charlotte 333-0451
Ohio Jay Engineering Co, 1721 E 3rd St
Dayton 253-2151
Ohio Jay Engineering Co, 4712 W 130th St
Cleveland 252-0486
Ohio Augey Natalino Assoc, 209 Harmony Hills
Akron .... MO 6-1447
Pa Arnold Assoc Inc, 528 Ryers Ave
Cheltenham .... PI 2-0600
Tenn Buchanan & Abrams Assoc Inc
254 E Paces Ferry Rd, Atlanta, Ga 874-6854
Tex Thunderbird Eng Sales & Serv, 5526 Dyer St
Dallas .... EM 8-3064
Utah Vinson Assoc, Box 865, Salt Lake City .... EL 5-4164
Wash Fred Macdonald, 1622 100th Ave NE
Bellevue .... GL 4-4823
Can Brian Engineering Ltd, 2445 Duncan Rd
Montreal, Que 735-1671
Can Brian Engineering Ltd, 2773 Dufferin St
Toronto, Ont .... RU 7-5441
Swit Controls AG, Postfach 48, Zug 44455

CONTROL TECHNOLOGY CO INC, 41-16 29TH ST
LONG ISLAND CITY, N Y, 11101 .... 212 EM 12133
H COOPER, EMP 38, ENG 5, $500-$1,000M
Ariz Mercury Engineering Sales, Box 3130
Scottsdale 945-1927
Cal Blaine Line Corp, 14547 Titus St
Van Nuys .... ST 2-6303
Minn Beta Engineering, 128 Jackson Ave N
Hopkins 938-2551
NY Ellis-Haber Corp, 2315 Broadway
New York 799-4040

CONTROLS CO OF AMERICA, 9655 SORENG AVE
SCHILLER PARK, ILL, 60176 .... 312 678-4150
EMP 1500, ENG 60
Cal Cummings & Assoc, Box 471
Woodland Hills 213 340-6035
Cal Win W Tompkins & Co, 3825 Middlefield Rd
Palo Alto 415 326-7940
Conn Nelson & Schoonmaker, Box 179
Thomaston 203 283-5959
Fla Cartwright & Bean, 20100 NE 25th Ct
N Miami Beach 305 945-2962
Fla Cartwright & Bean, 609 E Colonial Dr
Orlando 305 425-8284
Fla Cartwright & Bean, 779 John Anderson Dr
Ormond Beach 904 677-3480
Ga Cartwright & Bean, 3223 Cain's Hill Pl NW
Atlanta 404 237-2273
Ill John G Twist Co, 5222 W Diversey Pkwy
Chicago 312 777-2250
Ind R O Whitesell & Assoc, 6620 E Washington St
Indianapolis 317 359-5374
Ind R O Whitesell & Assoc, Central Bldg
Ft Wayne 219 743-4411
Kan D D Darnell & Co Inc, Box 1354
Mission .... 913 RA 2-1736
Ky R O Whitesell & Assoc, 3620 Lexington Rd
Louisville 502 893-7303
La Cartwright & Bean, 1812 Bullard Ave
Metairie 504 887-0482
Md John C Whiddett Co, 320 Hillen Rd
Baltimore 301 825-7922
Mass Nelson & Schoonmaker Inc, 71 Grove St
Arlington 617 643-5454
Mich R O Whitesell Assoc, 16801 Wyoming
Detroit 862-2225
Mich R O Whitsell & Assoc, 303 Fidelity Bldg
Benton Harbor 616 927-2041
Minn Grant Sales Co, 1415 S 2nd St
Mnpls 612 332-6955
NY Carl F Ahlheim, 220 Delaware Ave
Buffalo 716 854-0134
NY Bomac, Inc, 407 Brown Ave
Syracuse 315 454-4471
NC Cartwright & Bean, 625 Harwyn Dr
Charlotte 704 537-7965
Ohio R O Whitesell & Assoc, 1172 W Galbraith
Cincinnati 513 521-2290
Ohio R O Whitesell & Assoc, 4133 S Dixie
Dayton 513 298-9546
Ohio R O Whitesell & Assoc, 21139 Lorain Ave
Cleveland 216 333-2585
Pa John C Whiddett Co, 7714 W Chester Pike
Upper Darby .... 215 JA 8-6400
Tenn Cartwright & Bean, 560 S Cooper
Memphis 901 276-4442
Tex Thunderbird Engineering, 5526 Dyer St
Dallas .... 214 EM 8-3064
Va John C Whiddett Co, 3407 W Leigh St
Richmond 703 358-9158
Wash McDougall Control Co, 416 Bell St
Seattle .... 206 MU 2-2866

CONVERSION CHEMICAL CORP, 210 E MAIN ST
ROCKVILLE
CONN, 06066, TWX 710-435-2336 .... 203 872-0541
C ALDERUCCIO, EMP 42, ENG 6, $1,000-$2,500M
Ala Research Prods Inc, 408 S Royal St
Mobile 205 432-3413

Ariz	W Ehrlinger, 11825 Balboa Dr Sun City	602 933-4315
Cal	R S DeSimone, 2030 E 15th St Los Angeles	213 747-8595
Conn	A Morey, 41 Barton St, W Hartford	203 232-6726
Conn	W Lindsay, Box 613, Orange	203 799-2740
Fla	J V Demarest, 516 W Penna Ave Deland	904 734-0883
Haw	E Purdy, 3300 W Cermak Rd Chicago	312 726-3641
Ill	W C Blatherwick, 35 W Harding Rd Lombard	312 627-3180
Ind	J Anoskey, 100 Patterson St Franklin	317 736-5968
Mich	L Calicotte, 1020 Burr Oak St Albion	517 629-3502
Mo	r blanchard, 615 Charvel Dr Florissant	314 839-1385
NC	B G Deal, Kenmore Ave, Rte 8 Statesville	704 872-3256
Ohio	E P Agnew, 302 S Byrne Rd Toledo	419 531-3703
Ohio	G Reuter, 534 Janet Dr, Canfield	216 533-4690
Can	M Eminger, 3092 Don Mills Rd Willowdale, Ont	416 751-5275
Can	R W Niggemann, 999 College St Montreal, Que	514 937-4637
Ger	M Schloetter, 734 Geislingen/Steige Am Talgraben 30	Fernruf 0 7331/5371
GB	Silvercrown Ltd, 660 Ajax Ave, Trading Est Slough, Bucks	Slough 28282
Swed	Aktiebolaget Kafab, Kungsholmsgatan 159 Stockholm 30	52-01-70

COOKE ENGINEERING CO, 735 N ST ASAPH ST
ALEXANDRIA, VA, 22314 202-548-3889
R DECKER, EMP 106, ENG 47, $1,000-$2,500M

COOKE VACUUM PRODUCTS INC, 13 MERRITT ST
SOUTH NORWALK, CONN, 06854 .... 203 838-1216
F COOKE, EMP 20, ENG 4, $500-$1,000M

Cal	Fieldtec, Inc, 3822 Campus Dr Newport Beach	860-4000
Conn	F Gallagher, Vera Rd, Bristol	249-5654
Ill	Mesco, 10436 S Western Ave, Chicago	445-7121
Mass	E E Specialists, 111 Massachusetts Ave Boxborough	259-9200
NY	Scientific System Sales, 376 Great Neck Rd Great Neck	HN 6-0053
Ohio	D Spicer, 23651 Delmere Dr N Olmsted	777-1855
Pa	B Dugger, 412 E Spring Ave, Ardmore	MI 9-0889
Wash	Eustis Co, 69 Marion St, Seattle	623-7060
Wash	Scientific Systems Sales, 7705 Georgia Ave, NW Washington	726-4161

COOK ELECTRIC CO AUTOMATIC CONTROLS DIV
200 E DANIELS RD, PALATINE
ILL, 60067 312-359-2100
T RIEGER, EMP 120, ENG 5, $2,500-$5,000M

Ala	Ridge Instru Co Inc, 7220 Governors Dr W Huntsville	205 837-3211
Ariz	Robbins & Assoc, 1724 W Tonto La Phoenix	602 942-2083
Cal	Frauman Assoc, Box 357, Menlo Park	322-8461
Cal	Don Weaver & Assoc, 13218 Crenshaw Blvd Gardena	213 321-8962
Colo	Robbins & Assoc, 11940 Quay St Broomfield	303 406-0776
Fla	Ridge Instru Co, 2227 N Seely Dr Orlando	305 293-4711
Ga	Ridge Instru Co, 3094 McCulley Dr NE Atlanta	404 939-1554
Ill	Quadtron Assoc, Box 306, Lombard	312 627-6800
Ind	Kirsch Sales Co, LaFontaine	981-2801
Iowa	Engineering Services Co, 1026 3rd Ave SE Cedar Rapids	319 366-1591
Kan	Engineering Services Co, 7924A State Line Prairie Village	913 649-4000
La	Ross & Pethtel Inc, 3170 Florida Blvd Baton Rouge	504 348-7206
Md	Milan Assoc, Inc, 7215 York Rd Baltimore	825-1120
Mass	Bordewieck Engineering Sls Co, 221 Grove St Brintree	843-0845
Mich	Electro-Mation Assoc, 1137 Cole St Birmingham	647-2480
Minn	Jos-Co Sales Engrg, 6621 Southcrest Dr Minneapolis	612 927-5858
Miss	Ross & Pethtel Inc, Box 10977, Jackson	
Mo	Engineering Services Co, 6717 Vernon Ave St Louis	314 726-2233
NY	H C Johnson Agencies, Inc, 111 Mount Hope Ave Rochester	232-2688
NY	H C Johnson Agencies, Inc, Box 315 Williamsville	632-7880
NY	H C Johnson Agencies, Inc, Box 215 Fayetteville	637-9383
NY	H C Johnson Agencies, Inc, Box 86 Schenectady	374-5901
Ohio	Van Valkenburgh Assoc, 611 Broadway New York	254-3722
Ohio	Rockford Controls Ohio Inc, 2077 Embury Park Rd Dayton	513 274-1911
Ohio	Rockford Controls Ohio Inc, 19001 Villaview Rd Cleveland	216 531-4841
Pa	Process Engineering Co, Box 10464 Pittsburgh	412 561-8888
Tenn	Ridge Instru Co, 140 E Division Rd Oak Ridge	615 483-1311
Tex	T M Curtis Co, 5635 Yale Blvd, Dallas	361-1666
Can	Rousseau Controls Ltd, 271 LaBrosse Ave Pointe Claire Que	
Can	Rousseau Controls Ltd, 1040 Martingrove Rd Toronto Ont	

COOK CO, KEN, 9929 W SILVER SPRING RD
MILWAUKEE
WIS, 53225, TWX 266-825 .... 414 466-6060
D DOUBEK, EMP 175, ENG 2, $2,500-$5,000M

Cal	O P Yelton, 2146 32nd Ave San Francisco	415 664-6813
Cal	K P Jenson Elctns, 6907 Orion Ave Van Nuys	213 782-6969
Fla	H K DeWees Co Inc, 724 Clayton St, Orlando	
Fla	Technical Prods Corp Inc, 205 E Jackson St 9 Orlando	305 424-2306
Ga	H K DeWees Co Inc, 3133 Maple Dr NE, Atlanta	
Ill	Wm Nagel & Assoc, 1546 N Mason Ave Chicago	312 637-5118
Md	B J Hoover, 2013 Winford Rd Baltimore	301 435-5872
Mo	Kay Sales, 4049 Penna St, Kansas City	
Pa	Control Assembly Co, 7308 Church Ave Pittsburgh	412 279-2264
Pa	Martin Friedman Assoc, 7 Heather Rd Bala-Cynwyd	215 839-3450
Tex	R L Stocklos, 908 Warfield Way Richardson	816 531-2014
Wash	Don Smith Sales Co, 2320 N 45th St Seattle	206 633-3160

CO-OPERATIVE INDUSTRIES INC, 100 OAKDALE RD
CHESTER, N J, 07930 .... 201 879-5151
V BONARDEL, EMP 275, ENG 12, $2,500-$5,000M

CO-ORD DIV LVC INDUSTRIES INC, 102-48 43RD AVE
CORONA, NY, 11368 212-899-5588
L CARTELLI, EMP 15, ENG 2, $100-$250M

Ala	Young & Lawrence Assoc, 2901 Governors Dr Huntsville	539-6575
Cal	Dyna-Sales Co, 962 1/2 S Atlantic Blvd Los Angeles	268-1175
Conn	A & M Electronic Reps, Box 1010 Manchester	643-4233
Fla	Young & Lawrence Assoc, 601 N New York Ave Winter Park	647-6929
Mass	A & M Electronic Rep, Inc, 1492 Highland Ave Needham	444-8170
NY	Harvey J Krasner Assoc, 33 Great Neck Rd Great Neck	487-0690
NY	Martin P Andrews Inc, 319 Mott Rd Fayetteville	637-3144
Pa	Victor S Malta Co, Box 4007 Philadelphia	836-5122
Tex	Carey & Assoc, Inc, 725 Preston Forest Ctr Dallas	EM 1-6234
Tex	Carey & Assoc, Inc, 3315 W 12th St Houston	869-3623

COORS CO INC, H F, 8729 AVIATION BLVD
INGLEWOOD, CAL, 90306 .... 213 OR 8-7839
R COORS, EMP 70, ENG 2, $2,500-$5,000M

COORS PORCELAIN CO, 600 NINTH ST, GOLDEN
COLO, 80401 .... 303 279-6565
F WATERMAN, EMP 1450, ENG 168, OVER $10,000M

Cal	W Everitt, Half Moon Bay	408 245-2595
Cal	R Seager, Newport Beach	714 6423796
Ill	Tom Daly, Crystal Lake	312 529-2510
Ind	G Grimes, South Bend	219 272-1636
Mass	Warren McDonald, Foxboro	617 222-9520
NY	Robert F Doran, Huntington	516 427-9506
NY	B Dean Inc, 714 W Clinton St Ithaca	607 AR 2-2187
Ohio	Donald Lewis, North Olmsted	216 228-1000
Pa	Herb Larisch, Wayne	215 563-4487
Tex	Bill Ramsey, Bellaire	712 864-6369
Tex	John West, Richardson	214 AD 1-4661
Can	Cantronics Ltd, 17 Dellbank Rd Downsview, Ont	636-8311
Can	Cantronics Quebec, 4252 Braille Ave Montreal, Que	514 733-0749

COPPERWELD STEEL CO FLEXO WIRE DIV
70 W FIRST ST, OSWEGO
N Y, 13126 .... 607 343-0524
C ALLEN, EMP 150, ENG 3

Cal	E Jordan Brookes Co, 6601 Telegraph Rd Los Angeles	213 RA 3-8431
Cal	E Jordan Brookes Co, 1440 Minnesota St San Francisco	415 VA 6-2305
Ill	WFE Bomke Sales Co, 6966 W North Ave Chicago	312 ME 7-8433
Mass	Hathaway Electronics Inc, 7-11 Mystic St Arlington	617 646-1380
Mich	Benfield Assoc, 2920 E Jefferson St Detroit	313 567-1211
NY	W R Punt Co, 66 S Tyson Ave Floral Park	516 FL 2-1742
Tenn	J R Richards & Co, 3756 Ringgold Rd Chattanooga	615 892-8405

CORCO CHEMICAL CORP, TYBURN RD & CEDAR LA
FAIRLESS HILLS, PA, 19030
E MEENAN, $250-$500M

CORDEX, INC, BOX 277, MOUNT EATON
OHIO, 44659 .... 216 857-3671
T WHALEN, EMP 23, ENG 1, $250-$500M

CORE-TRONICS, INC, 241 N DAY ST, ORANGE
N J, 07050 .... 201 673-7660
H DELANEY, EMP 15, ENG 2

Cal	Pritchard & Haney Co, Box 102 Los Altos	941-2240
Cal	Biztek Co, 10639 Riverside Dr, N Hollywood	
Fla	R P Bennett, Rt 5, Box 124, Orlando	
Ill	Scientific Engrg Consultants Lake Shore Dr & 50th St, Chicago	493-6100
Ind	F J Campisano & Assoc, 3453 Nolen Dr Indianapolis	317 291-4066
NJ	Horace R Delaney, 5 Edgewood Pl Maplewood	762-6117
NC	A B Andrews Co, Box 2627, Raleigh	833-5565

CORNELL-DUBILIER ELECTRONICS DIV FEDERAL PACIFIC ELECTRIC CO, 50 PARIS ST, NEWARK
N J, 07101, TWX 710 995-4566 .... 201 MA 4-7500
J GLYNN, EMP 3000, ENG 300, OVER $10,000M

Ark	Dick Bellew Sales, Inc, 1005 W 4th St El Dorado	501 863-8352
Cal	Cornell-Dubilier Electronics, 4144 Glencoe Ave Venice	213 390-3351
Cal	Cornell-Dubilier Electronics, 199 First St Los Altos	415 941-3399
Cal	Herb Becker Co, 1140 Crenshaw Blvd Los Angeles	213 931-1257
Cal	Moulthrop Polach & Bensinger, 165 11th St San Francisco	415 863-7880
Colo	R G Bowen Co, 721 S Broadway Denver	303 722-4641
Fla	Millar-Huto Assoc, 501 Park Ave N Winter Park	305 647-7407
Fla	Cornell-BDubilier Electronics 1920 E Hillsborough Ave, Tampa	813 236-5761
Ga	Millar-Hutto Assoc, 3110 Maple Dr Atlanta	404 261-6160
Ill	Cornell-Dubilier Electronics, 2070 Maple St Des Plaines	312 299-8171
Ill	Knaggs Collins Havercamp Hempe Inc, Box 815 East St Louis	618 397-2398
Ill	Markal Sales Corp, 5787 Lincoln Ave Chicago	312 561-7920
Ind	Shamrock Electronic Sales, 2511 E 46th St Indianapolis	317 546-8228
Ind	Cornell-Dubilier Electronics, 5330 E 38th St Indianapolis	317 545-6247
La	Dick Bellew Sales, Inc, 3017D 18th St Metairie	504-833-6496
Md	Cornell-Dubilier Electronics, 1802 Markley St Norristown Pa	215 272-0118
Mass	Cornell-Dubilier Electronics, 921 Providence Hwy Norwood	617 762-5333
Mass	W A Hendrickson Co, 766 Country Way N Scituate	617 545-0652
Mich	Butchart & Rathsburg Assoc, 16637 E Warren Ave Detroit	313 882-1717
Minn	Stan Olsen & Assoc, 6121 Excelsior Blvd Minneapolis	612 929-6120
Minn	Cornell-Dubilier Electronics, 1601 W 72nd St Minneapolis	612 644-5852
Mo	Cornell-Dubilier Electronics, 100 St Francois Florissant	314 831-1155
Mo	Knaggs Collins Havercamp Hempe Inc 5818 N Oak Trafficway Kansas City	816 453-3202
NM	TCI Mfrs Reps, 2318 Wisconsin NE Albuquerque	505 298-2628
NY	Cornell-Dubilier Electronics, 99 Park Ave Rochester	716-442-7220
NY	Callahan & Ferguson Co, 107 Greenhedge Dr Camillus	315 488-5518
NC	Millar-Hutto Assoc, Box 17173 North Hills Off Raleigh	919 787-9564
Ohio	Cornell-Dubilier Electronics, Box 2132, Kettering Br Dayton	513 298-7224
Pa	Stinson Assoc, 227 Haverford Ave Narberth	215 664-5511
Tex	Cornell-Dubilier Electronics, 901 Regal Row Dallas	214 631-4020
Tex	J Y Schoonmaker Co, 2995 Ladybird La Dallas	214 357-8481
Utah	R G Bowen Co, 31 S 3rd St E Salt Lake City	801 364-4632
Wash	Northwestern Agencies, 4130 1st Ave S Seattle	206 623-8882
W Va	Covert-Newman, 300 Mt Lebanon Blvd Pittsburgh Pa	412 563-0303
Can	Rutherford Agencies, Box 1013 St Laurent P Q	514 731-7696
BC	Electro Tec Marketiers, Ltd, 1624 W 3rd Ave Vancouver	604 736-6377

CORNING GLASS WORKS, HOUGHTON PARK
CORNING
N Y, 14830, TWX 510-252-1384 .... 607 962-4444
R RAHILL, EMP 19,000, $250-$500M

Cal	Corning Glass Works, 500 S Main St Orange	541-5275
Fla	Corning Glass Works, 2351 Hunter Field St Maitland	838-7125
Ill	Corning Glass Works, 1470 Merchandise Mart Chicago	337-6600
Md	Lowery Assoc, 4508 Annapolis Rd Bladensburg	864-4722
NY	Corning Glass Works, 717 Fifth Ave New York	PL 2-1100
Pa	L D Lowery Assoc, 2801 West Chester Pike Broomall	EL 6-5300
Wash	James J Backer Co, 221 W Galer St, Seattle	
Can	Corning Glass Works, Leaside Ont	421-1000
Fr	Sovcor Electronique, 11 Chemin De Ronde Le Vesinet S & D	966-5100
GB	Electrosil Ltd, Pallion Sunderland Co Durahm	SU 7-1557
Holl	Nijkerk's Handel NV, Warmoesstr 94 Amsterdam	02067729
Jap	Asahi Glass Co, 14 2-Chome Marunouchi Chiyoda-ku Tokyo	0411
Swed	M Stenhardt AB, Bjornsonsgatan 197 Stockholm	87 02 40

Swit Corning Glass Intl SA, 33 Bleicherweg
Zurich 271130

CORRUGATED PAPER PRODUCTS INC
300 BABYLON TPK, ROOSEVELT
N Y, 11575 .... 516 379-8200
L WAGNER

CORRY JAMESTOWN CORP, E COLUMBUS AVE
CORRY, PA, 16407 .... 814 668-5281
L FULLER, EMP 700, ENG 40, OVER $10,000M
Cal W H Jenkins, 1080 23rd Ave
Oakland .... 415 KE 3-0477
Colo J Lounsbury, 2785 N Speer Blvd
Denver 303 477-4583
Ill R Briscoe, 1126 Merchandise Mart
Chicago .... 312 MI 2-7313
Mass R D Firth, 64 Donna Rd, Framingham 879-2134
Mich K Wright, 908 Elmsford, Clawson 313 585-4795
Mo W Sprout, 210 W Fifth St
Kansas City .... 816 GR 1-6200
NJ H Sumner, 1166 Lenape Way
Scotch Plains 201 756-8557
NY G Ferguson Jr, 400 Park Ave
New York 412 421-7280
Pa W Bruce Ellsworth, 1053 Beverly Rd
Jenkintown .... 215 TU 7-1228
Tex R Salie, Box 10735, Dallas 214 631-2804
Va W J Hirsch, 5228 Cherokee Ave
Alexandria 703 354-1576
Wash G Timmerman, 5500 4th Ave, S
Seattle .... RO 2-7990

CORSON ELECTRIC MFG CORP, WATROUS ST
EAST HAMPTON, CONN, 06424 .... 203 267-2547
D CORSON, EMP 20, ENG 1, $250-$500M

CORTRAN MFG CO, 100 W 10TH, WASHINGTON
MO, 63090 .... 314 BE 9-6783
C DUENKE, EMP 105, ENG 2, $2,500-$5,000M
Cal Krefeld Assoc, 1434 Mitchell Way
Redwood City 415 369-3111
Conn C M Billard & Co, 9 Ridge Rd
Simsbury 658-7200
DC W D Johnson, 6224 Wiscasset Rd
Washington 301 656-8093
Fla Arnold-Bryant Inc, 6400 SW 106th St
Miami 305 661-7916
Fla Bam Price Co, Box 8395 Sta F
Atlanta 404 874-6301
Ill Ivan Mansfield, Muirhead Rd
Plato Center 464-5535
Iowa Midwest Supply Co, 3209 Ingersoll Ave
Des Moines 515 255-9010
Minn Lanick & Liljegren Co, 5009 Excelsior Blvd
Minneapolis 612 929-9544
Mo O'Brien & Reynolds, Inc, 8113 Rosalie Ave
St Louis .... MI 5-3665
Ohio G H Varney, 29234 Detroit Rd
Cleveland 216 331-3933
Okla C R Downing, 5214 S Oswego
Tulsa 918 747-7239
Tenn J R Raines, 4982 Edenshire Ave
Memphis .... Mu 5-8415
Tex Westmoreland Eng Sales, Box 66425
Houston 713 522-6334
Wash Horning & Arnett Sales, Ford Bldg
Vancouver 206 694-4741
Wis Mfg Specialties Co, 1717 N Water
Milwaukee .... BR 6-6250
Can J H Robinson, 5 Stone Rd E, Guelph Ont
For Brauner Export Co, 6605 Delmar
St Louis Mo .... PA 6-2204

COSA CORP, 405 LEXINGTON AVE, NEW YORK
N Y, 10017 .... 212 YU 6-9696
W ANDERSON

COSMICAR OPTICAL CO LTD
568, 2-CHOME, SHIMOOCHIAI, SHINJUKU-KU, TOKYO
JAPAN 953-1284
N AMANO, EMP 70, ENG 8, $1,000-$2,500M
ADV PG 374

COSMIC RADIO CORP, 853 WHITTIER ST, NEW YORK
N Y, 10474 .... 212 LU 9-3360
I ROSENWASSER, ENG 1

COSMODYNE CORP, 2920 COLUMBIA ST, TORRANCE
CAL, 90509, TWX 910 349-6651 .... 213 775-6881
L TARLTON JR, EMP 1000, ENG 79, OVER $10,000M
Fla Cosmodyne Corp, 685 Gladiola St, Merritt Island
Ky Cosmodyne Corp, 4800 Allmond Ave
Louisville 361-2356
NJ Cosmodyne Corp, Springfield 379-2526
Ohio Cosmodyne Corp, 888 E 70th St
Cleveland 881-6878
Ohio Cosmodyne Corp, 3040 Revlon Dr
Dayton 299-8146
Wash Antec Corp, 10335 Main St, Bellevue 454-2442
Can Eastern Steel Products Co, 777 Laurel St
Preston, Ont
For Industrias Metalurgicas Van Dam C A
Ave Los Bucares, Apartado 1169, Caracas, Vene
For Adil Bros Ltd, Bait-ul-hamd, 140 Bunder Rd
Karachi, Pak
Fr Soc Francaise des Techniques, Butterfield
42 Firminy
GB W P Butterfield (Engrs) Ltd, Box 38, Shipley, Yorks
Holl Avio-Diepen, N Y, Ypenburg Airport
The Hague 070906640
Jap Daiho Sangyo Co Ltd
4-2, 3-chome Nishi-Shimbashi, Minato-ku, Tokyo
Braz Nordon Industrias Metalurgicas SA
Rua Dr Falcao, 56-12 Andar
Caixa Postal 391, Sao Paulo
Aust Pioneer Welding Co Pty Ltd, 154 Hume Hwy
Cabramatta, N S W
Aust Toledo Engrg Pty Ltd, 92 Wetherill St
Lidcombe, N S W

COSMO PLASTICS CO, 3239 W 14TH ST, CLEVELAND
EMP 150, ENG 4, $1,000-$2,500M
Ariz Electrical Specialty Co, 120 S 29th St
Phoenix 275-5739
Cal Electrical Specialty Co, 2820 E 12th St
Los Angeles .... AN 9-9511
Cal Electrical Specialty Co, 158 11th St
San Francisco .... HE 1-8450
Colo Electrical Specialty Co, 2026 Arapahoe St
Denver .... CH 4-4588
Conn R H Whitehead Jr Assoc, 57 Whitfield St
Guilford .... GL 3-3762
Ill A J Ellis Co, 1607 Howard St
Chicago .... AM 2-2708
Mass R H Whitehead Jr Assoc, 2 Brimmer St
Boston .... CA 7-2590
Minn D A Schultz Co, 801 SE 8th Ave
Mnpls .... FE 9-7701
Mo Hippler Sales Co, 1135 Cheshire La
Webster Grvs .... WO 1-8499
NJ Andrews & Andrews, Inc, 140 E Main
Huntington 692-8686
NY Jerry Andres Sales Inc, Box 3803, Brighton Sta
Rochester .... BR 1-2200
Ore Electrical Specialty Co, 2360 NW Quimby St
Portland .... CA 7-3601
Pa Robin Products Co, Box 66
Merion Station 215 642-3082
Tenn T S Stone Co, Box 417, Knoxville 588-1969
Tex Corwin Assoc, Box 18112, Dallas .... DI 8-4623
Va A B Kreger Jr, Box 1971, Roanoke .... DI 5-7011
Wash Electrical Specialty Co, 2442 1st Ave S
Seattle .... MU 2-3434

COSMOS INDUSTRIES INC, 45 WASHINGTON ST
BROOKLYN, N Y, 11201 .... 212 MA 5-7400
N JACOBSON, EMP 200, ENG 15, $2,500-$5,000M

COSTELOW CO INC, 121 KANSAS AVE, TOPEKA
KANS, 66603 .... 913 CE 36598
J COSTELOW

COTO-COIL CO INC, 65 PAVILION AVE, PROVIDENCE
R I, 02905 .... 401 941-3355
L BELLEM JR, EMP 75, ENG 3, $500-$1,000M
Cal Paul Nurches Co, 941 Charleston Rd
Palo Alto .... DA 6-7842
Cal Paul Nurches Co, 2396 E Foothill Blvd
Pasadena .... MU 1-8957
Colo William L Davis, 2229 Oneida St
Denver 333-7291
Ill Ryan Assoc, 7132 N Harlem Ave
Chicago 775-5717
NY J Hammond, 34 Lincoln Ave
Greenwich, Conn 661-9410
NY NYcom Inc, 2002 Teall Ave
Syracuse 315 437-8343
Ohio John Olsen Co, 16201 Shaker Blvd
Cleveland 752-5444
Ohio John Olsen Co, 5539 Stockswood Ct
Cincinnati 922-2176
Pa John Olsen Co, 104 Elatan Dr
Pittsburgh 279-2550
RI Milton Paisner, 296 Oaklawn Ave
Cranston 521-3522
Wash Harry Levinson Co, 1211 E Denny Way
Seattle 323-5100

COTTRELL PAPER CO INC, 10 PURCHASE ST
FALL RIVER, MASS, 02722 .... 518 885-7510
J COTTRELL JR, EMP 68, ENG 2, $2,500-$5,000M
Ala Electric Motor Materials Inc, 63 Sidney Phillips Dr
Mobile 471-2541
Ariz Special Electric Co, 38 W Prince Rd
Tuscon 602 887-9965
Ariz Electrical Specialty Co, 120 S 29th St, Phoenix
Cal Essex Wire/IWI, 544 S San Pedro St
Los Angeles .... MA 8-2354
Cal Essex/IWI, 554 Bryant St
San Francisco .... EX 2-8890
Cal Electrical Specialty Co, 213 E Harris Ave
S San Francisco 589-9611
Cal Arrowhead Electric Corp, 3675 E Olympic
Los Angeles 752-3739
Cal Electrical Insulation Supplier, Inc
1905 Premier Row, Orlando 855-7100
Cal Advance Elec Sales Inc, 850 Montgomery La
San Carlos 415 591-9651
Cal Electrical Specialty Co, 2820 E 12th St
Los Angeles 213 269-9511
Colo Ward Electric Supply Co, 1909 Blake St
Denver 222-3541
Colo Electrical Specialty Co, 2026 Arapahoe St, Denver
Conn John A Jones, 100 Boxwood Dr
Stamford 348-4512
Fla Brownell Inc, 307 27th St, Orlando 424-5634
Fla R A Gravett Co, Box 2501, Ft Lauderdale
Ga Electrical Insul Suppliers, 1255 Collier Rd NW
Atlanta 355-1651
Ga Brownell Inc, 3026 Commerce Way
Hapeville 767-9301
Ill Federal Insulation Co, 549 W Randolph St
Chicago .... CE 6-7704
Ill Insulation Mfrs Corp, 7550 Oak Park Ave
Niles 647-0044
Iowa Special Electric Co, 313 E 7th St
Des Moines 515 288-0958
Ky E & H Electric Supply, Box 1022
Louisville 587-0991
Md Electric Motor Supply Co, 356 N Gay St
Baltimore 685-4523
Md Electrical Maint/IWI, 104 E Pratt St, Baltimore
Mass Brownell Inc of NE, 271 Vassar St
Cambridge .... UN 4-7500
Mass Insul Fabricators of NE, 69 Grove St
Watertown .... WA 3-9800
Mass Huse Liberty/IWI, Lynnfield St
Peabody .... JE 1-7100
Mich Insulation Mfrs Corp, 7430 Second Blvd
Detroit .... 313 TR 5-3103
Minn D A Schultz Co, 801 SE Eighth, Mnpls .... FE 9-7701
Mo White Supply - IWI, 4343 Duncan Ave
St Louis .... FR 1-2616
Mo Insulation Mfrs Corp, 202 Arterial Rd
Syracuse 315 437-3102
Mo Insulation Mfrs Corp, 2394 Centerline Ind Dr
St Louis 314 432-3470
NJ Electric Motors & Parts Corp, 392 Clinton Ave
Newark .... BI 3-3918
NJ Chalker Insulation Co, Box 944
New Brunswick .... CH 7-0654
NJ Insulating Fabricators Inc, 150 Union Ave
E Rutherford .... WE 9-7392
NY Schmitz Bros Inc, 84 St Paul St
Rochester 546-7628
NY Brownell Inc, 85 Tenth Ave
New York .... WA 4-6000
NY Robert McKeown Co, 99 Dorsa Ave
Livingston 992-0700
NY Insulation Mfrs Corp, 202 Arterial Rd
Syracuse 315 437-3102
NC Brownell Inc, 5141 Belhaven Blvd
Charlotte 399-9791
NC Electrical Insul Suppliers, 917 Berryhill Rd
Charlotte 392-2306
NC Special Electric Co, 619 A S 3rd St
Smithfield 919 934-7592
Ohio C J Voneman Co, 18522 Detroit Ave
Cleveland .... AC 1-2800
Ohio Insulation Mfrs Corp, 1231 E 26th St
Cleveland 781-2310
Ohio C J Voneman Co, 2801 Far Hills Ave
Dayton 299-5161
Ohio Insulation Mfrs Corp, 120 W Second St
Dayton 513 223-3931
Okla Butts/IWI, 420 N Pennsylvania
Oklahoma City .... CE 6-5411
Okla John H Cole Co, 1811 NW First
Oklahoma City .... CE 2-3171
Ore C E Riggs Inc, 422 NW 8th Ave
Portland 226-3286
Ore Essex Wire/IWI, 1900 N E 181st Ave, Portland
Ore Electrical Specialty Co, 2360 N W Quimby St
Portland
Pa Electrical Maint/IWI, 917 N Broad St
Phila .... CE 6-7100
Pa Pittsburgh Insulating Co, 1310 William Flinn Hwy
Glenshaw 961-0375
Pa Brownell Inc, 10980 Dutton & Comly Rd
Phila 215 632-3030
Pa Insulation Mfrs Corp, 3550 Laketon Rd
Pittsburgh 412 244-1145
SC Insulating Fabricators Inc, 834 Hayne St
Spartanburg 582-7507
Tenn Brownell Inc, 217 Cumberland St
Memphis 323-7693
Tenn Richter & Assoc, 1615 Williams St
Chattanooga 267-4260
Tenn Electrical Insul Suppliers Inc, 317 Belz Blvd
Memphis 901 947-4176
Tex Electrical Supply Corp, 2201 Laws St
Dallas 741-1651
Tex Houston Industrial Supply, 1815 Dallas
Houston .... CA 8-6663
Tex Southern Electric Sales, 4320 Main St
Dallas .... TA 7-8891
Tex Cline Supply Co, 3215 Ave E East
Arlington 274-7371
Utah Electric Parts & Insulation, 246 W 13th S
Salt Lake City 486-0773
Wash Essex Wire/IWI, 325 Westlake Ave N
Seattle .... MA 2-4161
Wash C E Riggs, Inc, 710 Hutton Bldg
Spokane 624-7554
Wash C E Riggs Inc, 314 2nd Ave
Seattle 206 623-5707
Wash Electrical Specialty Co, 2442 1st Ave S, Seattle
W Va Charleston Electrical Supply Co
312 McCorkle Ave SE, Charleston 346-0321
Wis Special Electric Co, 3628 W Pierce St
Milwaukee 383-6370
Wis Insulation Mfrs Corp, 2040 W Wisconsin Ave
Milwaukee .... 414 DI 2-3927
Can Electric Insulation & Fibre, 24 Mendota Rd
Toronto .... CL 1-1174
Can Andrew Gilchrist Ltd, 5645 Pare St
Montreal 735-3603
Can Arborite Co, 46 Hollinger Rd
Toronto, Ont 755-5211
Can Andrew Gilchrist Ltd, 124 Skyway Ave
Toronto 18 Ont
Can Paisley Prods of Can Ltd, 36 Upton Rd
Scarborough Ont 416 755-2216
For Masten Wright Corp, 282 State St
N Haven, Conn 288-1638
For Danica Co, Box 6483-Loiza Sta, Santurce, P R

COUCH ORDNANCE INC, 3 ARLINGTON ST, NORTH QUINCY
MASS, 02171 .... 617 298-4147
B GRAY, EMP 100, ENG 5, $1,000-$2,500M
ADV PG 609
Ala Roy Attaway Co, 900 Bob Wallace Ave SW
Huntsville 205 534-2811
Cal R J Homer & Assoc, 14436 Sherman Way
Van Nuys 213-781-1236
Cal Townsend Technical Sls, Box 265
Saratoga 408 252-3478
Conn Connecticut Valley Enterprises, Box 188
Essex 203 767-1128
Fla Roy Attaway Co, 51-53 E Robinson St
Orlando 305 424-9983
Ill H Grubb & Co, 8039 N Lawndale Ave
Skokie 312 677-0080
Minn International Sales Co, 8703 Beard Rd
Minneapolis 612 881-6683
Mo Pem Sales Co, 9537 Lackland Rd
St Louis 314 427-7200
NJ Electrical Mfrs Services, Box 102
Ridgewood 201 471-6900
NY C W Floring & H R Murray, Inc, 6585 Kinne Rd
Syracuse 315 446-5555
NY Electrical Mfrs Services, 3170 Vets Mem Hwy
Bohemia 516 585-3100
NC Roy Attaway Co, 614 Nissen Bldg
Winston-Salem 919 722-9671
Ohio Robert R Stone & Assoc, Box 47
Mentor 216 946-6766
Ore J W Eckersley Co, 3150 SW Hamilton St
Portland 503 246-3183
Pa Technicraft Co, 7028 Ridge Ave
Philadelphia 215 483-4700
Tex Hillman Enterprises, 3505 Turtle Creek Blvd
Dallas 214 521-9907
Can Leonard Electric Ltd, 1008 Range View Rd
Port Credit, Ont 416 274-3454
Swed Bo Palmblad Aktiebolag, Hornsgatan 58, Stockholm

COULTER ELECTRONICS INC, 590 W 20TH ST
HIALEAH, FLA, 33010 .... 305 887-8131
F HENDERSON, EMP 100, ENG 15

COUNTING INSTRUMENTS LTD
5 ELSTREE WAY, BOREHAM WOOD
HERTFORDSHIRE, ENGLAND 01-953-4151
P WERNER, EMP 380
Conn Zaslow Sales Co Inc, 526 Farmington Ave, Hartford

COUNTIS INDUSTRIES, BOX 1444, SAN LUIS OBISPO
CAL, 93401 .... 805 544-1770
T COUNTIS, EMP 6, ENG 2, UP TO $100M

COURIER COMMUNICATIONS INC SUB WHITTAKER
CORP, 439 FRELINGHUYEN AVE, NEWARK
N J, 07114, TWX 137-319 .... 201 242-3000
S KAPPEL, EMP 200, ENG 5, $2,500-$5,000M

COX INSTRUMENTS DIV LYNCH CORP
15300 FULLERTON AVE, DETROIT
MICH, 48227 .... 313 838-5780
E DAHN, EMP 230, ENG 45
Ala Vaughn Electrosources, Sahara Office Park
Huntsville
Cal Research Data Corp, 110 S Euclid
Pasadena .... MU 1-3451
Colo Fluid Systems Inc, 1550 S Pearl St
Denver 744-1781
Conn Northeast Engineering Inc, 3013 Dixwell Ave
Hamden 248-4481
Kan Aero-Hill Sales, Box 1312, Wichita .... AM 7-7167
Md Ansell Engineering Co, 816 Thayer Ave
Silver Spring 588-4222
Minn Automation Service Corp, 4815 W 77th St
Minneapolis 922-7587
Mo Carl F Gast Co, 6110 Garesche Ave
St Louis .... EV 3-0750
NY John Meyer, Box C, Kenmore Br
Kenmore 873-5444
Okla James E Dyer Co, Box 1226, Tulsa .... RI 2-8832
Ore Fryer & Co Inc, 2035 SW 58th Ave
Portland .... CA 6-3733
Pa Test Equipment Sales Co, 4447 N Bodine St
Phila .... DA 9-1822
Tex Haltom Co, 6201 Washington
Houston .... UN 9-7501
Tex R C Lamb Co, 2646 Andjon Dr, Dallas .... FL 7-9806
Tex Linco-Electromatic, Box 5505, Midland 694-9644
Can Aeromotive Engrg Products Ltd
887 Montee de Liesse, St Laurent 747-4781
For American Avitron Inc, Box 567
Rye, NY 937-5300
Jap C Itoh & Co (America) Inc, 245 Park Ave
New York N Y

COX MFG CO, 8934 BROADWAY, SAN ANTONIO
TEX, 78217 .... 512-TA 4-5711
W COX, EMP 27, ENG 4, $250-$500M

C/P CORP, RFD 3, COLUMBIA
S C, 29205 .... 803 787-8710
D KING, EMP 200, ENG 8, $1,000-$2,500M
Cal Wallace & Wallace, 1206 Maple Ave
Los Angeles .... RI 7-0401
Colo United Communications, 1019 S Rautan
Denver 935-2282
Fla J R Sproch Sales Co, 125000 NW 1st Ave
N Miami 754-2212
Ga Lichtenstein Sales Co, 1226 Franklin Circle NE
Atlanta 634-0798
Ill Markal Sales Corp, 5787 Lincoln Ave
Chicago 561-7290
Ind Capital Marketing, 329 Benton Dr
Indianapolis 881-0696
Mass Johnson Assoc, Inc, 471 Washington St
Wellesley 235-3977
Neb Marketing Assoc, Box 53938, Lincoln
NY Chester Drexler, 3 Lee Dr
Farmingdale .... CH 9-8206
Ohio J W Lehner Co, 367 Brynhild Rd
Columbus 268-5260
Tex Bill Wylds Co, 1247 Caudle, Houston 468-8411
Va L H Arnold, Gwynn 725-3255
Can A C Simmonds & Sons Ltd, 100 Merton St
Toronto 485-9111

CP ELECTRONICS INC, 2851 SOUTHEASTERN AVE
COLUMBUS
IND, 47201, TWX 810 352-1281 .... 812 372-4471
J WEAVER, EMP 687, ENG 4, $5,000-$10,000M
Ind Del Steffen & Assoc, 737 N LaFontaine St
Huntington 219 356-5124
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield 357-3700
Mo Gordon Fixman, 8160 Stanford Ave
St Louis 725-5219
NY S F Foster Co, 2806 Hennaberry Rd
Pompey 677-9924
Ohio S Sterling Co, 2673 Culver Ave, Dayton 298-7573
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland 442-8080
Pa Joseph G Oberlies, Box 517, Hatboro 672-6633
Tex Geo Weinreich & Assoc, 11554 E Northwest Hwy
Dallas 321-2800
Va Allie B Kreger Jr, Box 1971, Roanoke 345-7011

CRAIG SYSTEMS CORP, 360 MERRIMACK ST
LAWRENCE
MASS, 01842, TWX 710 342-0765 .... 617 MU 8-6961
P NIES, EMP 300, ENG 27, $5,000-$10,000M
Cal R D Noebel, 8820 Sepulveda Blvd
Los Angeles 670-1256
DC S D Conley, Jr, 2217 M St NW
Washington 965-2606
Minn Engineering Products Assoc, 2119 Grand Ave
St Paul 822-4265
Tex Walter Bigger, Meadows Bldg, Dallas .... EM 1-5522

CRAMCO SOLDER ALLOYS, 80 SINNOTT RD
SCARBOROUGH, ONT 416 757-2876
E WALTON, EMP 28, ENG 3, $500-$1,000M
Colo Electronic Mfg Consultants Inc, 1619 N Royer
Colorado Springs 636-5131
Conn Keyline Enterprise, Box 399
Farmington 677-0084
NJ D & R Assoc, 248 Lorraine Ave
Upper Montclair 586-6247
Ital Argon Service Ltd, Milan

CRAMER DIV CONRAC CORP, MILL ROCK RD
OLD SAYBROOK
CONN, 06475, TWX 966453 .... 203 388-3574
R RAMOS, EMP 350, OVER $10,000M
Ala Electro-Tech, Inc, 106 Jordan La, NW
Huntsville 205 539-3718
Ariz Williams Assoc, Inc, 1110 E McDowell Rd
Phoenix 602 254-6085
Cal Cramer Div, 222 E Glenarm St
Pasadena 213 682-3601
Colo Williams Assoc, 4971 Jackson St
Denver 303 388-4391
Fla Electro-Tech, Inc, 307 27th St
Orlando 305 423-5589
Ga Electro-Tech, Inc, 3020 Commerce Way
Hapeville 404 767-8761
Ill Cramer Div, 3150 S Des Plaines Ave
Des Plaines 312 827-7134
Ind Delta Sales, Inc, 1407 N Illinois St
Indianapolis 317 631-4136
Iowa Elec Sales Co, Inc, 1310 Hertz Dr, SE
Cedar Rapids 319 364-4342
La Ross & Pethtel, Inc, 3170 Florida Blvd
Baton Rouge 504 348-7206
Md George A Ward Co, 5604 Daywalt Ave
Baltimore 301 488-5314
Mass Cramer Div, 235 Bear Hill Rd
Waltham 617 893-8181
Mich Webco, Inc, 16542 Wyoming St
Detroit 313 862-4673
Minn Robt W Marshall Co, 6106 Excelsior Blvd
Minneapolis 612 929-0457
Mo Kornfeld-Thorp Electric Co, 2700 McGee Trafficway
Kansas City 816 221-4000
Mo Kurt Mueller & Assoc, 4253 Westminster Pl
St Louis 314 652-5366
NM Williams Assoc, Inc, 420 Washington St SE
Albuquerque 505 255-1638
NY Alan E DeCew Agency, Box 56
Sodus 315 483-3261
NY Cramer Div, 122 E Main St
Elmsford 914 592-5500
NC Electro-Tech, Inc, 5141 Belhaven Blvd
Charlotte 704 392-7451
Ohio McNay Equipment Co, 4850 Cooper Rd
Cincinnati 513 891-7122
Ohio Cramer Div, 2500 Euclid Ave
Cleveland 216 261-0626
Okla Components Inc, 1526 E 4th St
Tulsa 918 583-9149
Pa John C Whiddett Co, 7716 West Chester Pike
Upper Darby 215 528-6400
Tex Robert E Nesbitt Co, 2930 Merrell Rd
Dallas 214 357-4601
Tex Robert E Nesbitt Co, Box 66831
Houston 713 528-3811
Utah Williams Assoc, Inc, 2469 S Main
Salt Lake City 801 466-8709
Va Air Conditioning Suppliers, 3100 W Clay St
Richmond 703 359-2468
Wash Eicher-Richards Co, 2727 N E Blakeley
Seattle 206 523-7888
Can Motion Control Engrg, Box 374
Burlington, Ont 416 637-9369
For Masten-Wright Corp, Box 1896
New Haven Conn 203 288-1638
GB Conrac Corp, 31 Pembroke Gardens
London W8 .... WES 9493
GB Perfection Parts Ltd, 59 Union St, London SE 1
Ital S M E R I di Ing F Pirrone s r l, Via Soperga 45
20127 Milan
Jap Marabun Co,Ltd, 1,2 Chome,Odenmacho
Nibonbashi,Chuo-Ku Tokyo
BC Pacific Controls Ltd, 2015 Columbia St
Vancouver 604 879-6711
Aust Boustead-Wood Pty,Ltd, 608 Harris St Ultimo NSW
Sidney

CRAMER INDUSTRIES INC, 625 ADAMS ST
KANSAS CITY, KANSAS, 66105 .... 913 MA 1-6700
R WEHNER, EMP 210, ENG 6

CRANE ELECTRONICS CORP, 759 WARD DR
SANTA BARBARA, CAL, 93105 .... 805 967-1193
J KIEHLBAUCH, EMP 25, ENG 4
Cal Don Weaver Assoc, 13218 Crenshaw Blvd
Gardena .... DA 9-7501
Cal Avionics Liason, Inc, 3235 Kifier Rd
Santa Clara 739-1991
Ill Technical Devices Inc, 6416 N Central Ave
Chicago 312 774-8252
Mass B & W Assoc, B St, Burlington 275-9177
NJ Graydon-Sherman Inc, 22 Fairfield Dr
Morristown 538-9246
NY Graydon Sherman Inc, Davis Bldg
Fayetteville 637-9611
Ohio Sales Engrg Assoc, 205 Crestwood Dr
Avon Lake 933-3327
Can Ryco Electronics Co, 26 Sunnyside Ave
Pointe Claire, Que 695-6236

CRANE PACKING CO, 6400 W OAKTON ST
MORTON GROVE, ILL, 60053 .... 312 YO 6-6400
R STARK, EMP 1400, ENG 60, $1,000-$2,500M
Cal Crane Packing Co, Box 3066
N Hollywood 787-1682
Cal Crane Packing Co, 145 Utah Ave
S San Francisco 761-3077
Colo Crane Packing Co, Box 22314, Denver 756-4949
Ill Crane Packing Co, 6400 Oakton St
Morton Grove .... YO 6-6400
Ill Crane Packing Co, 234 NE Madison St
Peoria 676-0789
Ind Crane Packing Co, 4161 Millersville Rd
Indpls .... LI 5-2772
Ky Crane Packing Co, 116 Bauer Ave
Louisville 895-8606
La Crane Packing Co, 4122 Scenic Hwy
Baton Rouge 356-3523
Mass Crane Packing Co, 60 Dedham Ave
Needham .... HI 4-7408
Mich Crane Packing Co, 27224 Southfield Rd
Lathrup Village 357-0963
Minn Crane Packing Co, 32 10th Ave So
Hopkins .... WE 5-2432
Mo Crane Packing Co, 9322 Manchester Rd
St Louis .... WO 2-1984
NJ Crane Packing Co, Box 2007
S Hackensack .... HU 7-3212
NY Crane Packing Co, 1807 Elmwood Ave
Buffalo .... TR 6-4122
NY Crane Packing Co, 1039 Monroe Ave
Rochester .... CH 4-3020
Ohio Crane Packing Co, 24700 Chagrin Blvd
Cleveland 464-8844
Ohio Crane Packing Co, 1720 Section Rd
Cincinnati 351-3480
Okla Crane Packing Co, Box 2333, Tulsa .... LU 2-6340
Pa Crane Packing Co, 4135 Brownsville Rd
Pittsburgh .... TU 4-0131
Pa Crane Packing Co, 2200 W Chester Ave
Broomall .... EL 6-6800
Tenn Crane Packing Co, 936 Minnehaha
Memphis .... FL 5-4072
Tex Crane Packing Co, 6633 Polk Ave
Houston .... WA 8-5351
Tex Crane Packing Co, 2024 Grantway
Odessa .... FE 7-8542
Wash Crane Packing Co, 1402 3rd Ave
Seattle .... MA 2-3661
Wis Crane Packing Co, 4447 N Oakland Ave
Milwaukee .... WO 4-0660
Wis Crane Packing Co, 145 W Wisconsin Ave
Neenah 722-0422
Can Crane Packing Co Ltd, 617 Parkdale Ave N
Hamilton Ont .... LI 4-3358
GB Payne Prods Int'l Ltd, Buckingham A Trading Est
Slough Bucks .... SL 26741-4
Mex Ind John Crane de Mex, SA
Poniente 152--679 Ind Vallejo
Mexico 16, DF 67-24-79

CRC CHEMICALS, LIMEKILN PIKE, DRESHER
PA, 19025, TWX ACG 84-6449 .... 215 646-3800
H LOVELL, EMP 32, ENG 4, $2,500-$5,000M
Ala J Heusser, 620 Sundale Dr
Birmingham 205 836-3896

Ariz Norman S Wright & Co, 2641 E Adams St
Phoenix 602 275-4469
Cal Norman S Wright & Co, 625 N Alvarado St
Los Angeles 213 386-4515
Cal Norman S Wright & Co, 1015 Folsem St
San Francisco ....415 UN 3-3321
Colo Strong & Assoc, 635 Canoga Ct
Denver 303 292-6900
Fla Jack's Co, 12199 NW 7th Ave
Miami 305 685-3591
Ga Tech Sales, 3874 Green Ind Way
Atlanta 404 451-2633
Ill Lee Butter Assoc, 570 Northwest Hwy
Des Plaines 312 824-6179
Kan Don Hatfield Sales Co, 2823 Greeley Ave
Kansas City .... 913 AT 1-0533
La Shell Ranwa Co, 1922 Lafayette St
New Orleans 504 525-7000
Mass Conti Younger Assoc, 195 West St
Waltham 617 891-4582
Mich Hoofnagle Bros, 28165 Greenfield Rd
Southfield 313 357-5640
Minn J R Petersen, 135 E Stanley St
St Paul 612 224-2765
Mo James E Williams Sales Co, 8 Leicester La
St Louis 315 522-3747
NM J C Slavin Co, 325 Glorietta NE
Albuquerque 505 298-4179
NY Bill Schofield Assoc, 5037 Broadway
New York 212 569-1600
NY Frank Sweeny, 225 Twin Hills Dr
Syracuse 315 475-0662
Ohio Goldschmidt Elect Sales Co, 4508 Greenlee Ave
Cincinnati 513 861-6708
Ohio W T Kendall Co Inc, 2240 W Broad Blvd
Cuyahoga Falls 216 928-3636
Okla A Greenlee, 200 S Classen, Moore
Pa Peter Jacobson Assoc, 302 Cottman St
Jenkintown .... 215 TU 4-5524
Pa W Schmitt, Plummer School Rd
West Newton 412 872-5007
Tenn Associated Prods, 255 E Georgia Ave
Memphis 901 525-0645
Tex McIver Slavin Co, 3200 Audley St
Houston 713 524-1155
Tex J E Morton Co, 10015 Vista Dale Dr
Dallas 214 341-1414
Va James H Thrower, 10155 Merrimac Rd
Bowair 703 272-3660
Wash Neeman S Wright & Co, 1055 N 38th St
Seattle 206 633-1366
Can H Roy Gray Ltd, 14 Laidlaw Blvd
Markham, Ont 416 297-1476
Den Lindemann A/S, Baunegardsvej 9
Gentofte .... (01-33) GE9311
Fr Overseas France, 19 Rue de Paris
Clichy (Seine) 737 42.95
Ger Paul Hellermann GmbH, Siemensstr 5
Pinneberg 2002/3
GB Corrosion Abolition Ltd, Horton Rd
West Drayton .... West Drayton 4040
Holl Isolectra N.V., Dovenetelstr 25
Rotterdam 119370
Ital O Bitossi, Via Rossini 2, Livorno 22158
Jap Kure Engineering, Togin Bldg
Marunduchi, Tokyo 211-2641/3
Nor Nor-Marine, Bygdo Alle 98, Oslo 2 .... 33 40 66
SAfr Keen's Electrical Dist (Pty) Ltd, Box 2656
Johannesburg 23-3981
Swed CRC Laeo AB, Chalmersgaten 31
Gothenburg 031/1680 68
Swit H Hurlimann, Sihlquai 75, Zurich 42 54 41

CREARE INC, BOX 71, HANOVER
N H, 03755 .... 603 643-3800
R COUCH JR, EMP 18, ENG 7, $250-$500M

CREATIVE ELECTRIC INC, 20 HULBERT ST, AUBURN
N Y, 13021 .... 315 253-9759
L SPRINGER, EMP 12, ENG 3, $100-$250M
Cal Universal Components, Inc, Box 4352
Panorama City 781-2090
Md Faion Lott & Co, Box 534, Glen Burnie 744-4611
Mass R H Sturdy Co, Inc, 603 Worcester Rd
Natick 235-2330
NJ Unicomp Inc, 18 Sunny Ridge Rd
Wayne 696-2888

CRESCENT TECHNOLOGY CORP, 2222 MICHELSON DR
NEWPORT BEACH
CAL, 92664, TWX 910-596-1362 .... 714 833-2000
R VITTETOE, EMP 85, ENG 12, $1,000-$2,500M
Ala Astro-Tec, Holiday Office Ctr
Huntsville 881-1861
Mo Technical Mktg Assoc, 2050 Woodson Rd
St Louis 427-3600
Mo Technical Mktg Assoc, 7546 Troost Ave, Kansas City
Wash Brett Engineering Assoc, 2610 38th St SW
Seattle 935-1062

CRESCENT TOOL CO DIV CRESCENT NIAGARA CORP
70 NIAGARA ST, BUFFALO
N Y, 14202, TWX 9-1582 .... 716 853-5100
R DALY, EMP 600, ENG 3, OVER $10,000M
ADV PG 714
Fla Paul Bennett, 731 Humber La, Orlando 277-1100
Mass Howard Edick, 45 Priest St, Hudson 562-9337
Mich Norman Reganall, 477 Carey St
Deerfield 447-3315
NY Percy Heslink, 94 Lakin Ave
Jamestown 483-1443
NY Jerry Miller, 223-16 59th Ave
Bay Side 631-4174
Pa Ralph Watt, 3271 Byrd Ave, Allentown 435-6578

Tenn Thomas Williams, 1595 Westlawn Dr
Memphis 743-0704
Va Walter Umbreit, 420 W Cecil St
Winchester 662-7430

CREST MFG CO, 401 BERLIN ST, EAST BERLIN
CONN, 06023 .... 203 828-6066
S WASEL, JR, EMP 35, ENG 2

CRESTRONICS, BOX S, 744 ROCKY LOOP DR
CRESTLINE, CAL, 92325 .... 714 338-1722
R TORELL, EMP 12, ENG 2, $100-$250M
Cal R C Kruse Assoc, Box 1225
Canoga Park 213 341-3020

CREST ULTRASONICS CORP
DEPT EBG, MERCER COUNTY ARPT, TRENTON
N J, 08628 .... 609 883-4000
J NEIDHART, EMP 17, ENG 5, $500-$1,000M

CROSS CO, H, 363 PARK AVE, WEEHAWKEN
N J, 07087 .... 201 863-1134
G MCCLARY, EMP 500, $250-$500M

CROUSE-HINDS CO, SYRACUSE
N Y, 13201 .... 315 477-7000
F OBERLE, OVER $10,000M
Sales Offices in principal cities throughout the United States

CROVEN LTD, 500 BEECH ST, WHITBY
ONT, TWX 610-384-2750 668-3324
R DIX, EMP 325, ENG 10, $1,000-$2,500M
Cal Melvin Sales Co, 113 El Camino Real
Millbrae 697-6922
Cal R L Assoc, 14401 Gilmore St
Van Nuys 782-7826
Fla J J Smith & Assoc, 935 Orange Ave
Winter Park 644-4316
Ill Thos B Hunter Assoc, 5653 W Irving Park Rd
Chicago .... SP 7-2500
Md Charles Emrich, Rolling Rd & Wilkens Ave
Baltimore 747-2746
Mass G Rosen Co Inc, 563 Worcester Rd, Natick
Mo Kelly-Schmitz-Winkeler Assoc, 7546 Troost Ave
Kansas City .... EM 3-5651
NY Bowser & Sapecky Assoc, 4541 Main St
Buffalo 839-2044
NY Gemini Elctns, 1295 Northern Blvd
Manhasset 627-1162
NC L & D Inc, Box 7243, Greensboro
Ohio G & H Sales Co, Box 37416, Cincinnati 761-6185
Pa Arnold Assoc Inc, 528 Ryers Ave, Cheltenham
Tex Steven Sales, Box 34493, Dallas .... CH 1-3645
Va Electronic Research & Sales Co, 706 Forrest St
Charlottesville
Can Ben Manis & Assoc, 6600 St Urbain
Montreal 10 274-8271
For A E P Intl Ltd, 887 Montee de Liesse, St Laurent
Den A/S Dantronik Ltd, Buddingevej 312
Copenhagen Sobourg
GB A E P Intl Ltd, London Rd, Isleworth Mdsx

CROWN ENGINEERING & SALES CO, 421 HILL ST
HARRISON, N J, 07029 .... 201 485-4848
S IANNELLI, EMP 12, ENG 2, $100-$250M

CROWN INT'L RADIO & ELECTRONICS CORP
1718 W MISHAWAKA RD, ELKHART
IND, 46514 .... 219 523-4919
C MOORE, EMP 65, ENG 6, $500-$1,000M
ADV PG 19, 20, 575
Cal Dobbs/Stanford, Box 266, San Carlos 591-0339
Cal Marshank Sales Co, 7422 Melrose Ave
Los Angeles 938-2591
Ga Chalmers Inc, 349 Peachtree Hills Ave
Atlanta 233-3208
Ill John Gill, 1043 E 95th St, Chicago 731-4405
Ind Central Electronics, Box 265, Tipton 675-4821
Mass Bud Ente Sales Co, 64 Mandalay Rd
Newton Centre 244-4842
Mich Elias Electronics, 26817 W 7 Mile Rd
Detroit 255-2111
Mo Robert Shaw, 2831 Hampton Ave
St Louis 647-8866
NJ Metrorep, Box 782, Freehold 462-1221
NJ Eldiserco, 52 Meadowbrook Dr
S Somerville 359-6492
Ohio Robert White, Box 9408, Solon .... CH 8-1317
Ore A C McMillan, 16679 NW Maple Cir
Lake Oswego 636-6257
Tex D Mull, Box 6795, San Antonio 822-1616
Can Caldwell A/V Equip Co, 135 Midwest Rd
Scarborough 751-0881
For Niles Christensen, 382 Springfield Ave
Summit, NJ .... CR 3-3833
For Telesco Intl, 171 Madison Ave
New York N Y 683-9420

CROWN METAL PRODUCTS, BOX 38, WYANO
PA, 15695 .... 412 872-8720
K WILLIAMS, EMP 12, $100-$250M
Cal J A Butler Assoc, Box 1065
Pacifica 415 359-3215
Ga Murphy & Cota, 586 Armour Circle NE
Atlanta 875-2525
Ill Markal Sales Corp, 5787 N Lincoln Ave, Chicago
Mo Maury E Bettis Co, 3706 Broadway, Kansas City

NJ Sunday-O'Brien, 15 Potter St
Haddonfield .... HA 9-4013
NY Copperweld Steel Intl, 225 Broadway, New York
Wash Jas J Backer Co, 221 W Galer St, Seattle

CRUCIBLE STEEL CO, BOX 88, PITTSBURGH
PA, 15230 .... 412 227-7000
W SCHARNBERGER, EMP 12000, OVER $10,000M
Cal Crucible Steel Co, 6033 E Bandini Blvd
Los Angeles 723-4821
Cal John Blaich, 851 Burlway Road
Burlingame 347-6691
Colo Crucible Steel Co, 222 Milwaukee St
Denver 388-6371
Conn Crucible Steel Co, 285 State St
North Haven 288-2581
Ill Crucible Steel Co, 4501-4531 W Cortland St
Chicago 772-0300
Ind Crucible Steel Co, Box 11138, Indnpls 638-4501
Mass Crucible Steel Co, 45 First Ave
Waltham 894-6100
Mass Crucible Steel Co, 53 Second Ave
Chicopee 592-7701
Mich Crucible Steel Co, 4920 E Nevada Ave
Detroit 366-4400
Minn Crucible Steel Co, 2911 Como Ave SE
Minneapolis 331-6320
Mo Crucible Steel Co, 4389 Duncan Ave
St Louis 534-3360
NJ Crucible Steel Co, Box 556
West Caldwell 226-9300
NY Crucible Steel Co, Box 9, Plainview 694-7020
NY Crucible Steel Co, 2051 Elmwood Ave
Buffalo 875-9600
NY Crucible Steel Co, Box 1391, Syracuse 468-6261
NC Crucible Steel Co, Box 21128, Charlotte 372-3073
Ohio Crucible Steel Co, Box 39099, Solon 248-9400
Ohio Crucible Steel Co, 10555 Taconic Terr
Cincinnati 771-1310
Ore Crucible Steel Co, 1730 Skyline Blvd
Portland 292-0144
Pa Crucible Steel Co, 408 S Oak Ave
Primos 748-6600
Pa Crucible Steel Co, Box 226, Midland 391-5342
Tex Crucible Steel Co, Box 1148, Arlington 943-7307
Tex Crucible Steel Co, 5050 Westheimer
Houston 621-3550
Wis Crucible Steel Co, Box 6007
Milwaukee 461-2900
Can Crucible Steel of Canada Ltd, Sorel, Quebec
GB Crusteel Ltd, Club Mill Rd, Sheffield 6, Yorks

CRUCIBLE STEEL CO MAGNET DIV, BOX 88
ELIZABETHTOWN, KY, 42701 .... 502 769-1333
W SCHARNBERGER

CRYOGENIC ENGINEERING CO, 4955 BANNOCK ST
DENVER, COLO, 80216, TWX 45-770 .... 303 244-8691
G COVINGTON, EMP 125, ENG 15, $1,000-$2,500M

CRYOGENIC RESEARCH CO INC, BOX 881, BOULDER
COLO, 80302 .... 303 443-4992
B HUNTER, EMP 11, ENG 5, $250-$500M
Cal Ra Tron, Inc, Box 282, Northridge 873-4885
Colo Ra Tron, Inc, 2785 N Speer Blvd
Denver 433-0563
Ill Anger Assoc, Inc, 10738 S Western Ave
Chicago 233-2214
Mich Anger Assoc Inc, 13126 Mich Ave
Dearborn 584-9853
NJ R N Juntwiat & Co, Box 295
Ridgewood 652-9191
Ohio Anger Assoc Inc, 20800 Westgate Plaza
Cleveland 333-4180
Wash Ra Tron, Inc, 10237 Main St, Bellevue 454-5200

CRYOLAB DIV, STATICS-DYNAMICS INC
1155 SUNSET BLVD, LOS OSOS
CAL, 93401 .... 805 528-1598
W WOOD, EMP 8, ENG 2, $100-$250M
Ala A & S Industries, Inc, Box 1474
Huntsville 205 539-2337
Cal Fieldtec Inc, Box 11794, Palo Alto 415 321-7410
Cal Fieldtec Inc, 3822 Campus Dr
Newport Beach 213 860-4000
Colo Continental Divide Prods, Box 127
Rollinsville 303 443-8320
Ill Mesco, Inc, 10436 S Western Ave
Chicago 312 445-7121
Mass Technall Assoc, Box 146, Brockton 617 586-9620
Pa Kohl Equip Co, Box 107, Wayne 215 688-9550
Tex Maveric Co, Box 36327, Houston 713 782-3894
GB R Cupitt, Ltd, Exchange St
Aylesbury, Buckinghamshire 5786/7
Holl Instrumentenhandle 'Utrecht', Perkstr 6
Hilvesum .... (02950) 16

CRYO-THERM INC, FOGELSVILLE
PA, 18051 .... 215 285-4811
J WELLER, EMP 50, ENG 2, $1,000-$2,500M

CRYPLEX INDUSTRIES INC
2800 COLLEGE POINT CAUSEWAY, FLUSHING
N Y, 11354 .... 212 539-8500
M EISENBERG, EMP 40, ENG 10, $500-$1,000M

CRYSTALAB PRODUCTS CORP, 19 LEGION PL
ROCHELLE PARK, N J, 07662 .... 201 843-5780
R GOLDSTEIN, EMP 10, ENG 6

Cal	Griot Assoc, 3002 Midvale Ave Los Angeles	213 474-1587
Colo	Griot Assoc, Lakewood	303 237-2112
Ill	Brooks Eng Co, 227 E Walton Pl Chicago	312 944-1227
NM	Griot Assoc, Albuquerque	505 268-7422
NY	E C Smith & Assoc, 60 E 42nd St New York	212 MU 2-6890
Pa	E C Smith & Assoc, Summit, N J	201 273-8881
Wash	Griot Assoc, Bellevue	206 GL 4-8592

CRYSTAL COMPONENTS PLANT, GTI CORP
2715 PENNA AVE, WARREN
PA, 16365 .... 814 723-2510
E WILKINSON, EMP 125, ENG 8

Ariz	Crystal Components Plant 3920 E Indian School Rd, Phoenix	
Cal	Crystal Components Plant, 1275 Piedmont Rd San Jose	
Cal	Crystal Components Plant, 21044 Ventura Blvd Woodland Hills	
Mass	Crystal Components Plant, 99 Cambridge St Burlington	
NY	Crystal Components Plant, 122 E Main St Wappingers Falls	
Pa	Crystal Components Plant, 1790 Swede Rd Norristown	
Pa	Crystal Components Plant, 310 Chestnut St Meadville	
Tex	Crystal Components Plant, 3300 W Mockingbird La Dallas	

CRYSTAL COMPONENTS SAEGERTOWN DIV GTI CORP
BOX 418, WARREN
PA, 16365, TWX 091-4457 .... 814 723-2510
D GUSTAFSON, EMP 50, ENG 5

CRYSTALONICS A TELEDYNE CO, 147 SHERMAN ST
CAMBRIDGE
MASS, 02140, TWX 710-320-1196 .... 617 491-1670
T PARADISE, EMP 160, ENG 25, $2,500-$5,000M

Ariz	Dubblar Assoc, 1822 E Windsor Ave Phoenix	277-9739
Cal	G C Woempner, 821 Malcolm Rd Burlingame	697-5131
Cal	Westaironics Inc, 1800 N Highland Ave Hollywood	466-6201
Fla	Geartner Assoc, 2101 Mohawk Trail Maitland	647-4000
Fla	Geartner Assoc, 350 Lincoln Rd, Miami	531-0200
Ill	Fiat Engineering, 5133 St Charles Rd Bellwood	547-6200
Iowa	Herbert B Kirkland & Assoc, 210 Fifth St, S E Cedar Rapids	363-6425
Md	Daniel & Co, Box 124, Lutherville	825-3330
Mass	Conti-Younger Assoc, 181 West St Waltham	891-4582
Mich	W R Hummon & Assoc, Box 501 Detroit	538-5704
Minn	R G Ragon, Inc, 1136 W Larpenteur Ave St Paul	488-6634
NJ	Comp-Tech Sales, Box 50, Riverdale	835-0332
NM	Data Handling Co, 209 San Pablo S E Albuquerque	268-0928
NY	Nycom, Inc, 2002 Teall Ave, Syracuse	437-8343
NY	Comp-Tech Sales, 23 Curtis Place Lynbrook	593-2628
NC	P J Nahser Co, Inc, 2709 Amherst Ave Burlington	584-8077
Ohio	Richard D Calhoun & Assoc, 40 Southmoor Cir Dayton	299-4144
Pa	E J Murphy G Sherman, 835 Connell Ave Yeadon	664-7316
Tex	Roberts Sales Co, 9704 Lanward Dr Dallas	348-4283
Wash	Harry Levinson Co, 1211 E Denny Way Seattle	323-5100
Can	Lake Engineering Co, Ltd, 123 Manville Rd Scarborough, Ont	751-5980
Fr	Spetelec, 12 rue Le Chatelier, Paris	GAL 05-23
Ger	Selectron GMBH, Pappenheimstr 7/5 Munchen 2	59 65 38
GB	G E Electroncs (London) Ltd 182/4 Campden Hill Rd London, W 8	Park 0711
Holl	Koning en Hartman N V, Haagweg Lsd 42 The Hague	685450
Ital	R S T, via Fontana 18, Milan	709303
Swit	Egli, Fischer & Co A G, Gotthardstr 6 Zurich	051/25 02 34
Belg	Koning & Hartman, 53 Rue Gachard Brussels	482655

CRYSTAL RESEARCH INC, 42 CONCORD LANE
CAMBRIDGE, MASS, 02138 .... 617 547-4001
W DRAISIN, EMP 6, ENG 3, UP TO $100M

CRYSTAL-X CORP, 2ND & PINE STS, DARBY
PA, 19023 .... 215 LU 6-3200
R GEROW, EMP 200, ENG 3, $2,500-$5,000M

Ill	S J Butkevich, 861 St Johns St Highland Park	312 432-9472
Tex	K S E, Box 35184, Dallas	214 FL 2-8431

C S F-CIE GEN DE TELEGRAPHIE SANS FIL
BOITE POSTALE 2000, 78 VERSAILLES
FRANCE 950 92-00

Ill	Warnecke Electron Tubes Inc, 175 W Oakton St Des Plaines	299-4436
NY	American Radio Co, 445 Park Ave New York	PL 3-5046

CTS CORP, 1142 W BEARDSLEY AVE, ELKHART
IND, 46514, TWX 810 294-2256 .... 219 293-7511
R STACKHOUSE, EMP 7500, ENG 129, OVER $10,000M
ADV PG 146, 623, 677

Ariz	Hecht Henschen & Assoc, 3825 N 39th Ave Phoenix	602 272-6677
Cal	CTS Electronics, 1010 Sycamore Ave S Pasadena	254-9141
Cal	Jack Logan & Assoc, 801 Mahler Rd Burlingame	OX 7-6100
Colo	Electronic Components Sales, 2340 W Main St Littleton	
Conn	CompRep Assoc Inc, 14 Samoset Ave N Haven	239-9762
Fla	NBS, Inc, 2813 Primrose Ct, Orlando	423-4856
Fla	NBS Inc, 4150 SW 23rd St Fort Lauderdale	305 584-0650
Ga	NBS Inc, 893 Church St NW Marietta	404 422-6067
Ind	CTS of Berne Inc, 406 Parr Rd, Berne	589-3111
Ind	CTS Research Inc, Box 1278 W Lafayette	743-9602
Ind	CTS Corp, 901 S West Blvd, Elkhart	293-7511
Kan	Poly-Onics Inc, 4434 W 90th Terr Leawood	NI 8-4173
Ky	CTS of Paducah Inc, 1500 N 8th St Paducah	442-1641
Mass	CompRep Assoc Inc, 1116 Great Plain Ave Needham	444-2484
Mich	J L Montgomery Co, 770 S Adams Rd Birmingham	MI 6-6894
Minn	Robert W Marshall Co, 6106 Excelsior Blvd Mnpls	929-0457
Mo	Poly-Onics Inc, 47 Village Square Shop Hazelwood	TE 7-0597
NJ	CTS Corp, Box 322, Cherry Hill	424-1207
NM	Electronic Components Sales, Box 3087 Albuq	243-8378
NY	S-J Sales Assoc Inc, 148-05 Archer Ave Jamaica	AX 1-3232
NY	Nycom Inc, 2002 Teall Ave, Syracuse	437-8343
NC	CTS of Asheville Inc, Mill Gap Rd Skyland	684-6451
Ohio	Baehr, Greenleaf & Assoc, 14700 Detroit Ave Cleveland	AC 1-9030
Ohio	Baehr, Greenleaf & Assoc, 3350 Maplewood Dr Xenia	426-5485
Ohio	Baehr, Greenleaf & Assoc, Box 5722 Columbus	486-4046
Ore	Richard Legg Co, 2035 SW 58th Ave Portland	222-1353
Pa	Covert & Newman Co, 300 Mt Lebanon Rd Pittsburgh	563-0303
Tex	Parvin Sales Co, 307 Addison Road Dallas	EM 3-8596
Utah	Electronic Components Sales, Box 2066 Salt Lake City	298-2751
Can	CTS of Canada Ltd, 80 Thomas St Streetsville	826-1141
For	Indelec S A, Apartado 2018, Caracas, Ven	
Den	Vitrohm Elctns Industr, Linde Alle 51-53 Copenhagen-Vanlose	74 42 00
Fr	Manndax-France S A R L, 3 Ave Jos Beidier Paris 13E	
Ger	CTS Deutschland GmbH, Wuppermanstr 1 Pinneberg/Holstein	
GB	AB Metal Products Ltd, Abercynon Works Glamorgan	EUS 9226
Ital	Infin, SAS, Via Avellino, 6, Torino	48 22 22
Jap	Overseas Technical Corp, Central Box 2137, Tokyo	
Arg	J Luis Pontet, S A, Avda Cordoba 1432 Buenos Aires	
Belg	Manndax S A R L, 108/110 rue Stephenson Brussels 3	
Mex	CO. Y PO. S A, Velazquez, Mexico	
Mex	Carlos Brena, S A, Apdo Postal 29-320 Mexico 1, D F	
Aust	Intl Resistance Co (Aust) Pty Ltd, Kingsgrove Sydney, NSW	

CTS ELECTRONICS INC, 1010 SYCAMORE AVE
SOUTH PASADENA
CAL, 91030, TWX 910-321-4060 .... 213 254-9141
R HARDIN, EMP 400, ENG 15

Ala	NBS Inc, 902 Bob Wallace Ave SW Huntsville	536-7786
Ariz	Hecht Henschen & Assoc, 3825 North 39th Ave Phoenix	
Cal	Jack Logan & Assoc, 801 Mahler Rd Burlingame	OX 7-6100
Colo	Industrial Elctn Sales Co, 2340 W Main St Littleton	303 798-8481
Conn	Comp Rep Assoc, 14 Bowling Green Ave North Haven	203 239-9762
Fla	NBS Inc, 2813 Primrose Ct, Orlando	423-4856
Fla	NBS Inc, 4150 S W 23rd St Ft Lauderdale	524-6403
Ga	NBS Inc, 893 Church St N W Marietta	404 422-6067
Ill	CTS Knights Inc, 101 E Church St Sandwich	815 786-2141
Ind	CTS Corp, 1142 W Beardsley Ave Elkhart	JA 3-0210
Ind	CTS Research Inc, Box 1278, Lafayette	RI 3-9602
Kan	Poly-onics Inc, 4434 W 90th Terr Leawood	NI 8-4173
Ky	CTS of Paducah Inc, 1500 N 8th St Paducah	442-1641
Mass	Comprep Assoc Inc, 1116 Great Plain Ave Needham	444-2484
Mich	J L Montgomery Co, 24001 Southfield Southfield	313 358-2616
Minn	Robert W Marshall Co, 6106 Excelsior Blvd Mnpls	929-0457
Mo	Poly-Onics Inc, 47 Vlg Sq Shop Ctr Hazelwood	314 TE 7-0597
NM	Industrial Elctn Sales Co, 209 San Pablo S E Albuquerque	505 344-3987
NY	S-J Sales Assoc Inc, 148-05 Archer Ave Jamaica	AX 1-3232
NY	NYCOM Inc, 2002 Teall Ave, Syracuse	437-8343
NC	CTS of Asheville Inc, Mill Gap Rd Skyland	341-0785
Ohio	Baehr Greenleaf & Assoc, 14700 Detroit Ave Cleveland	AC 1-9030
Ore	Richard Legg Co, Box 25327, Portland	798-8481
Pa	Covert & Newman Co, 300 Mt Lebanon Blvd Pittsburgh	563-0303
Tex	Parvin Sales Co, Box 307, Addison	214 239-9148
Utah	Industrial Elctn Sales Co, 4480 Camille Dr Salt Lake City	801 262-3700
Can	CTS of Canada Ltd, 80 Thomas St Streetsville Ont	826-1141

CTS KNIGHTS INC, 101 E CHURCH ST, SANDWICH
ILL, 60548, TWX 910-642-0860 .... 815 786-2141
G MUNRO, EMP 850, ENG 25, $5,000-$10,000M
ADV PG 233

Ala	NBS, Inc, Box 1343, Huntsville	205 881-3175
Ariz	Hecht Henschen & Assoc, 3825 N 39th Ave Phoenix	602 272-6677
Cal	Jack Logan & Assoc, 801 Mahler Rd Burlingame	OX 7-6100
Cal	CTS Electronics Inc, 1010 Sycamore Ave S Pasadena	213 255-7186
Colo	Electronic Component Sales Inc, 2340 W Main St Littleton	303 798-8481
Conn	Charles K Barton Assoc, 343 New London Tpk Glastonbury	633-9417
Fla	NBS Inc, 2813 Primrose Ct Orlando	305 423-4856
Fla	NBS, Inc, 4150 S W 23rd St Fort Lauderdale	305 584-0650
Ind	CTS Corp, Elkhart	JA 3-0210
Md	CTS Corp, Box 322, Cherry Hill	609 424-1207
Mass	Comp Rep Assoc Inc, 1116 Great Plain Ave Needham	444-2484
Mich	J L Montgomery Inc, 24001 Southfield Rd Southfield	313 358-2616
Minn	James Lee Co, 4241 Toledo Ave S Mnpls	920-1525
Mo	R R Burton Sales Co, 10414 Oak Ave St Louis	314 429-7327
Mo	R R Burton Sales, 9915 E 63rd St Raytown	816 358-5370
NJ	F F Sylvester Assoc, 649 Morris Ave Springfield	DR 6-3324
NY	E W Stone Co, Pickard Bldg, Syracuse	455-6664
NY	F F Sylvester Assoc, 260 Northern Blvd Great Neck	539-6011
Ohio	Sheridan Assoc, Box 37646 Cincinnati	513 761-5432
Ohio	Sheridan Assoc, Box 37, Riverdale Sta Dayton	277-8911
Ohio	Sheridan Assoc, Box 8226 Cleveland	216 237-9145
Ore	Richard Legg Co, Box 25327 Portland	502 292-8824
Tex	Parvin Sales, Addison Rd, Addison	214 239-9148

CTS MICROELECTRONICS INC, BOX 1278, LAFAYETTE
IND, 47902, TWX 810-342-1882 .... 317 743-9602
J COLGLAZIER, EMP 84, ENG 12

Ala	NBS Inc, 902 Bob Wallace Ave S W Huntsville	205 536-7786
Cal	Jack Logan & Assoc, 801 Mahler Rd Burlingame	OX 7-6100
Cal	CTS Electronics Inc, 1010 Sycamore Ave South Pasadena	CL 5-7186
Colo	Electronic Components Sales Inc, 2340 W Main St Littleton	798-8481
Conn	Comprep Assoc Inc, 14 Bowling Green Ave North Haven	239-9762
Fla	NBS Inc, 3524 Devonswood Dr Orlando	423-4856
Fla	NBS Inc, 3931 SW fifth Terr, Miami	
Ga	NBS Inc, 4500 Bellsferry Rd Kennesaw	926-6324
Kan	Poly-Onics Inc, 4434 W 90th Terr Leawood	NI 8-4173
Mass	Comprep Assoc Inc, 1116 Great Plain Ave Needham	444-2485
Mich	J L Montgomery Inc, 24001 Southfield Rd Southfield	MI 6-6894
Minn	Robt W Marshall Co, 6106 Excelsior Blvd Minneapolis	929-0457
Mo	Poly-Onics Inc, 47 Vlg Sq Shop Ctr Hazelwood	TE 7-0597
NJ	CTS Corp, Box 322, Cherry Hill	424-1207
NM	Electronic Components Sales Inc, Box 3087 Albuquerque	344-8130
NY	S-J Sales Assoc Inc, 148-05 Archer Ave Jamaica	AX 1-3232
NY	Nycom Inc, 2002 Teall Ave, Syracuse	437-8343
NC	CTS of Asheville Inc, Mills Gap Rd Skyland	684-6451
Ohio	Baehr, Greenleaf & Assoc, 14700 Detroit Ave Cleveland	AC 1-9030
Ohio	Baehr, Greenleaf & Assoc, Box 5722 Columbus	486-4046
Ohio	Baehr, Greenleaf & Assoc, 9505 Montgomery Rd Cincinnati	891-3827
Ohio	Baehr, Greenleaf & Assoc, 3350 Maplewood Dr Xenia	426-5485
Ore	Richard Legg Co, 2035 SW 58th Ave Portland	222-1353
Pa	Covert & Newman Co, 300 Mt Lebanon Blvd Pittsburgh	563-0303
Tex	Parvin Sales Co, Addison Rd, Addison	
Utah	Electronic Components Sales, Box 2066 Salt Lake City	262-3700

CTS OF PADUCAH INC, 1565 N 8TH ST, PADUCAH
KY, 42001 ... 502 442-1641
A COPELAND, EMP 800, ENG 25, OVER $10,000M
Cal Jack Logan & Assoc, 801 Mahler Rd
Burlingame ... OX 7-6100
Cal Chicago Tel of Cal Inc, 1010 Sycamore Ave
S Pasadena ... CL 5-7186
Colo Electronic Components Sales, 2340 W Main St
Littleton ... 798-8481
Conn Comp Rep Assoc Inc, 14 Samoset Ave
N Haven ... 239-9762
Fla NBS, Inc, 3931 SW 5th Terr, Miami ... 444-1118
Fla NBS, Inc, 3524 Devonswood Dr
Orlando ... 423-4856
Ind CTS Corp, 1142 W Beardsley Ave
Elkhart ... 523-0210
Kan Poly-Onics Inc, 4434 W 90th Terr
Leawood ... NI 8-4173
Mass Comp Rep Assoc Inc, 1116 Great Plain Ave
Needham ... 444-2484
Mich J L Montgomery Co, 770 S Adams Rd
Birmingham ... MI 6-6894
Minn Robert W Marshall Co, 6106 Excelsior Blvd
Mnpls ... 929-0457
Mo Poly-Onics Inc, 47 Village Sq Shopping Ctr
Hazelwood ... TE 7-0597
NJ CTS Corp, Cherry Hill ... 424-1207
NJ B G Beck, 375 Plainfield Rd, Metuchen ... LI 8-0610
NM Electronic Components Sales, 3119 Graceland NE
Albuq ... 344-8130
NY S-J Sales Assoc Inc, 148-05 Archer Ave
Jamaica ... AX 1-3232
NC CTS of Asheville Inc, Mills Gap Rd
Skyland ... MU 4-6451
Ohio Baehr, Greenleaf & Assoc, 14700 Detroit Ave
Cleveland ... AC 1-9030
Ohio Baehr, Greenleaf & Assoc, 9505 Montgomery Rd
Cincinnati ... 891-3827
Ohio Baehr, Greenleaf & Assoc, 3350 Maplewood Dr
Xenia ... 426-5485
Ore Richard Legg Co, 2035 SW 58th Ave
Portland ... 222-1353
Pa Covert & Newman Co, 300 Mt Lebanon Blvd
Pittsburgh ... 563-0303
Tex Parvin Sales Co, Addison Rd, Addison ... EM 3-8596
Utah Electronic Components Sales, Box 2066
Salt Lake City ... 262-3700
Can CTS of Canada Ltd, Streetsville, Ont ... 826-1141

CTS RESEARCH INC, 1201 CUMBERLAND AVE
WEST LAFAYETTE
IND, 47906, TWX 810-342-1882 ... 317 743-9602
J COLGLAZIER, EMP 210, ENG 15
Ala NBS, Inc, 902 Bob Wallace Ave
Huntsville ... 205 536-7786
Ariz AR/Tec, Inc, 14 E Stetson, Scottsdale ... 967-6304
Cal Jack Logan & Assoc, 801 Mahler Rd, Burlingame
Cal CTS Electronics Inc, 1010 Sycamore Ave
S Pasadena ... 255-7186
Colo Electronic Components Sls, Inc, 2340 W Main St
Littleton
Conn Comprep Assoc, 14 Bowling Green Ave, North Haven
Fla NBS, Inc, 3524 Devonswood Dr, Orlando
Fla NBS, Inc, 3931 SW Fifth Ter, Miami
Ind CTS Corp, 1142 W Beardsley Ave, Elkhart
Kan Poly-Onics, 4434 W 90th Ter, Leawood
Ky CTS of Paducah, 1500 N 8th St, Paducah
Mass Comprep Assoc, 1116 Great Plains Ave, Needham
Mich J L Montgomery, Inc, 24001 Southfield Rd
Southfield
Minn R W Marshall, 6106 Excelsior Blvd, Minneapolis
Mo Poly-Onics, Inc, 47 Vlg Sq Shop Ctr, Hazelwood
NJ Larry Shaum, Box 322, Cherry Hill
NY S-J Sales Assoc, 148-05 Archer Ave, Jamaica
NY Nycom, 2002 Teall Ave, Syracuse
NY John Moore, Box 386, Rhinebeck
NC CTS of Asheville, Mills Gap Rd, Skyland
Ohio Baehr, Greenleaf & Assoc, 14700 Detroit Ave
Cleveland
Pa Covert & Newman, 300 Mt Lebanon Blvd, Pittsburgh
Tex Parvin Sales, Box 307, Addison

CUBEX CO, 373 PARKMAN, ALTADENA
CAL, 91001 ... 213 798-8106
M CARLTON, EMP 2, ENG 2, UP TO $100M

CULBERTSON PRODUCTS INC, 4 CLAREMONT RD
BERNARDSVILLE, N J, 07924 ... 201-766 0913
J CULBERTSON, EMP 20, ENG 1, $250-$500M
Ariz Electrical Specialty Co, 916 W Adams St
Phoenix ... AL 2-2107
Cal Electrical Specialty Co, 2820 E 12th St
Los Angeles ... AN 9-9511
Cal Electrical Specialty Co, 213 E Harris Ave
S San Francisco ... HE 1-8450
Colo Electrical Specialty Co, 2026 Arapahoe St
Denver ... CH 4-4588
Ill Knoblock & Assoc, 4902 Tollview Dr
Rolling Meadows ... 392-8586
Mass Richard Gale, Box 6, Reading ... RE 2-1829
NY Tollefson Assoc, 71 State St, Pittsford
Ore Electrical Specialty Co, 1822 NW 25th Ave
Portland ... CA 7-3601
Wash Electrical Specialty Co, 2406 First Ave S
Seattle ... MA 3-8061

CULLIGAN INC, 1657 SCHERMER RD, NORTHBROOK
ILL, 60062 ... 312 272-1000
ADV PG 255

CUNNINGHAM INDUSTRIES INC, 56 HUBBARD AVE
STAMFORD, CONN, 06905 ... 203 324-2942
F CUNNINGHAM, EMP 3, ENG 2, UP TO $100M

CUNNINGHAM SON & CO INC, JAMES
10 CARRIAGE ST, HONEOYE FALLS
N Y, 14472, TWX 510-254-4202 ... 716 624-2000
V FRANCESCA, EMP 100, ENG 5, $1,000-$2,500M
Ala Gentry Assoc, 2109 W Clinton St
Huntsville ... 534-9771
Ariz Luscombe Engineering, 222 W Osborn Rd
Phoenix ... 274-1542
Cal Luscombe Engineering, 610 S Arroyo Pkwy
Pasadena ... 684-2000
Cal Luscombe Engineering, 220 E Third Ave
San Mateo ... 342-7057
Conn Instrument Consultants, Inc, 2381 Whitney Ave
Hamden ... 248-4174
Fla Gentry Assoc, 550 N Bumby Ave
Orlando ... 841-7740
Ga Gentry Assoc, Box 13513, Sta K
Atlanta ... 233-3816
Ill Scientific Sales Corp, 7132 N Harlem Ave
Chicago ... 775-7594
Ind Scientific Sales Corp, 706 Sherwood Dr
Indianapolis ... 317 253-5838
Md Bartlett Assoc, 7979 Old Georgetown Rd
Bethesda ... 656-3061
Mass Instrument Consultants Inc, Box 25
Waban ... 969-9881
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield ... 313 357-3700
Minn Scientific Sales Corp, 6121 Excelsior Blvd
Minneapolis ... 612 929-6115
Mo Harris Hanson Co, 2814 S Brentwood Blvd
St Louis ... 314 647-4350
Mo Harris Hanson Co, 7916 Paseo St
Kansas City ... 816 444-9494
NY KLM Assoc, 8 Bear Hill Dr
Palmyra ... 315 797-9776
NY KLM Assoc, 201 S Main St
North Syracuse ... 315 458-6214
NY KLM Assoc, 9 Hollywood Dr
Whitesboro ... 315 736-2450
NY Bartlett Assoc, 470 Mamaroneck Ave
White Plains ... 643-7751
NC Gentry Assoc, Box 197
Jamestown ... 919 454-1919
Ohio S Sterling Co, 2673 Culver Ave, Dayton ... 298-7573
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland ... 442-8080
Pa Bartlett Assoc, Inc, 130 W Lancaster Ave
Wayne ... TR 7-7071
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh ... 412 884-5515
Tex Scientific Sales Co, 2337 Bissonet St
Houston ... 713 JA 8-6904
Tex Scientific Sales Co, 777 S Central Expwy
Richardson ... AD 1-6541
Wash Paratech, 2208 NW Market St, Seattle ... SU 4-6447
Can X-Tronix Engrg, Box 190 Sta H
Toronto Ont ... 425-6118
Can X-Tronix Engrg, Box 875
St Laurent Que ... 688-2560
Fr IMEX-FRANCE B P 93
2 Rue Naboiseau Montreuil-Sous-Bois
Seine ... 808-1920
Holl Schreiner & Co N V, Parkstr 99
The Hague ... 070-601930
Jap Takeda Riken Industry Co Ltd
285 Asahi-cho Nerima-ku, Tokyo ... 930-4111
Isrl G E T S Ltd, 44 Petach Tiqva Rd, Tel-Aviv ... 32089

CURRY ARTS MOLDING & LAMINATING CO
522 GREEN RIDGE ST, SCRANTON
PA, 18509 ... 717 342-3719
K ADLER, EMP 8, ENG 1, UP TO $100M

CURRY ENGINEERING CO, 5655 CAHUENGA BLVD
N HOLLYWOOD, CAL, 91601 ... 213 877-1786
R CURRY, EMP 20, ENG 5, $250-$500M

CURRY, MCLAUGHLIN & LEN, INC SEE MICROWAVE/SYSTEMS INC,
(FORMERLY CURRY, MCLAUGHLIN & LEN INC) 1 ADLER DR,
EAST SYRACUSE, N Y 13057 ... 315 437-9951
ADV PG 653

CURTIS DEVELOPMENT & MFG CO, 3226 N 33RD ST
MILWAUKEE
WIS, 53216, TWX 910-262-3125 ... 414 445-1817
R LARSEN, EMP 135, ENG 10
Ariz Nelson Co, Box 13546, Phoenix ... 272-2065
Cal J F Cady Co, 1485 Bayshore Blvd, San Francisco
Colo Nelson Co, 1294 S Bannock, Denver ... 733-5528
Conn G M Hathaway Electronics, Ducillo Bldg
Canaan ... 824-7215
Fla Buchanan & Abrams Assoc, 1512 E Concord Ave
Orlando ... 423-8995
Haw Dougherty Enterprises, 1164 Waimanu St, Honolulu
Ill Rockford Controls Co, 21W181 Hill Ave
Glen Ellyn ... 312 469-6016
Ind Val-Skol Sales Inc, 510 Ft Wayne Bank Bldg
Fort Wayne ... 742-9122
Mass G M Hathaway Electronics, 7-11 Mystic St
Arlington ... 646-1380
Mich Hilltronics, Inc, 13720 Puritan Ave
Detroit ... 342-3242
Minn The Heimann Co, 5603 Lyndale Ave So
Mnpls ... 827-5457
Mo Automatic Gen Electronic Sales, 6550-E Troost Ave
Kansas City ... 816 333-8206
NY Cooper-Simon & Co Inc, 7 W Broad St
Mt Vernon ... 699-5400
NY Ossmann Component Sls Corp, 39 Saginaw Dr
Rochester ... 442-3290
Ohio Val-Skol Sales Inc, 12417 Cedar Rd
Cleveland Hts ... 321-0266
Pa The Love-Haile Co, 1280 Ridge Ave
Pittsburgh ... 322-3124
Pa Naudain Assoc, 1032 Suburban Sta Bldg
Philadelphia ... 654-3194
Tex R F Kimball Co, 5531 Dyer St, Dallas ... 361-6067
Wash C B Parsons & Co, 5319 Fourth Ave S
Seattle ... 872-7373
Can A C Simmonds & Sons, Ltd, 285 Yorkland Blvd
Agincourt, Ont ... 445-9111
For Conductores & Accessorios, SA, Lerma 345-102
Mexico 5, DF ... 11-57-81
Fr Martindale Electrique, S A
147, Rue D'Aguesseau Boulogne, Sur-Seine, Paris
GB Martindale Elec Co Ltd, Neasden La, London NW 10

CURTIS INSTRUMENTS INC, 200 KISCO AVE, MT KISCO
N Y, 10549, TWX 710-571-2163 ... 914 MO 6-2971
E MARWELL, EMP 27, ENG 4
ADV PG 347
Cal Cairns Engrg Sales Co, 6151 W Century Blvd
Los Angeles ... 670-1700
Cal Cairns Engrg Sales Co, 900 N San Antonio Rd
Los Altos ... 941-3226
Colo Aztec Enterprises Inc, 3385 S Bannock
Englewood ... SU 9-9592
Ill Midwest Electronic Sales, 5707 W Division
Chicago ... 626-0030
Ind Midwest Electronic Sales, 6311 Maywood Circle
Ft Wayne ... 747-2797
Ind McDonald Sales Co, 227 S Cornell Cir
Fort Wayne ... 745-9214
Md Aeron Assoc, 880 Bonifant St
Silver Spring ... 588-4047
Mass Harmon Assoc, 201 Harvard St
Brookline ... 232-2142
Minn E C Electronic Sales, 10108 Abbott Ave S
Minneapolis ... 888-0102
Mo Kay Sales Co, 4149 Penna
Kansas City ... JE 1-2014
NM Aztec Enterprises Inc, 3202 Caldelaria Rd
Albuquerque ... 345-3441
NY B D Aaron & Co, 55 Northern Blvd
Greenvale ... MA 1-0630
NY Rep Tech, Inc, Box 98 Pickard Bldg
Syracuse ... 454-0761
Pa W Reeves Assoc, 2973 N Providence Rd
Media ... LO 6-6709
Wash J J Backer Co, 221 W Galer, Seattle ... AT 3-6470
Wis Midwest Electronic Sales, 1317 Garfield Ave
Waukesha ... LI 2-5129
Can Brian Engineering Ltd, 2445 Duncan Rd
Montreal ... 735-1671
Fr. Technique et Produits, 63 Bis, Rue d'Aguesseau
Paris
GB Miniature Electronics, Ltd, Copse Rd, St Johns
Woking, Surrey
Jap Marubun Co Ltd, 1-2 Chome, Odenmacho, Tokyo

CURTISS-WRIGHT CORP ELECTRONICS DIV
35 MARKET ST, E PATERSON
N J, 07407 ... 201 777-2900
J BAUGHAN

CURTIS UNIVERSAL JOINT CO, 19 BIRNIE AVE
SPRINGFIELD, MASS, 01107 ... 413 737-0281
T CAVANAUGH, EMP 35

CUSH CRAFT, 621 HAYWARD ST, MANCHESTER
N H, 03103 ... 603-627-7877
R CUSHMAN, EMP 25, ENG 2, $250-$500M
Ala Stanley K Wallace Assoc, 1871 Grove Hill La
Montgomery
Cal Wallace & Wallace, 1206 Maple Ave
Los Angeles ... RI 7-0401
Cal Elvey-Proctor Co, 1650 Laurel Ave
San Carlos ... 593-1121
Fla Jack Sproch Sales Co, 3520 W Broward Blvd
Ft Lauderdale ... 587-3792
Ga Stanley K Wallace Assoc, 715 Flamingo Dr, Atlanta
Kan Lowell, Kangas & Assoc, Inc, Box 4116
Overland Park ... 888-3200
Mo Lowell, Kangas & Assoc, Box 26 Creve Coeur Sta
St Louis ... 647-1111
NJ Braddock Assoc, Box 305, Haddonfield ... 429-0087
NY Chester Drexler Co, 3 Lee Dr
Farmingdale ... CH 9-8206
NC Stanley K Wallace Assoc, Box 26, Kernersville
Ohio Ohio Assoc, Box 283-A, N Jackson
SC Stanley K Wallace Assoc, Box 215, Mathews
Tenn Stanley K Wallace Assoc, 5960 Brierdale Cove
Memphis
Tex R L Wright & Assoc, Box 17447
Dallas ... 285-8701
Wash R K Fotheringham Co, 9629 Waverly Dr SW, Tacoma
For Emec, Inc, 160 Terminal Dr
Plainview, N Y ... WE 1-3700

CUSHMAN ELECTRONICS INC, 166 SAN LAZARO AVE
SUNNYVALE, CAL, 94086 ... 408 739-6760
H ANDERSON, EMP 55, ENG 5, $1,000-$2,500M
Cal Kennedy Engrg Co, 12631 E Imperial Hwy
Santa Fe Springs ... 213 868-9965
Colo Lindberg Co, 2654 S Krameria
Denver ... 303 757-6489
Fla Elmore Electronics, Inc, 5310 Diplomat Cir
Orlando ... 305 647-1900
Haw Intelect, Inc, 30 N School St, Honolulu ... 566-366
Ill W L Cunningham & Assoc, 435 Addison Ave
Elmhurst ... 312 832-0905
Md Tessco, Inc, 1931 Greenspring Dr
Timonium ... 301 252-5610
Md Tessco Inc, 1720 Merrimack Dr
Adelphi ... 301 434-8801
Mass NAECO Assoc, 30 Bullard St
Sharon ... 617 784-6251
Neb Comm Systems Assoc, 203 Chevro La
Bellevue ... 402 291-4309
NM A L S Electronics, Box 11626
Albuquerque ... 505 298-2575

NY Puleo Assoc, 250 Park Ave New York 212 682-3151
Ohio Peter E Lax Co, 13945 Lake Ave Cleveland 216 226-8815
Pa Peter E Lax, 1725 Washington Rd Pittsburgh 412 833-5477
Tex Diversity Communications Co, 6434 Maple Bldg Dallas 214 351-1611
Va Tessco Inc, 2713 Greenhill La Lynchburg 703 384-2062
Wash B J Hudson Co, 7615 NE 123rd St Kirkland 206 822-1810
Can Tele-Radio Systems Ltd, 1015 Finch Ave W Toronto, Ont 635-5221
Can Tele-Radio Systems, 281 Palace St Eastview Ottawa Ont
BC Tele-Radio Systems Ltd, 1518 W Third Ave Vancouver .... RE 11321

CUSTOM COATING & LAMINATING CORP
717 PLANTATION ST, WORCESTER
MASS, 01605 .... 617 752-3631
E HADDAD, EMP 6, ENG 1, $500-$1,000M

CUSTOM COIL CO, 640 LEE ST, ZANESVILLE
OHIO, 43701 .... 614 452-6973
D YOUNG, EMP 84, ENG 3, $500-$1,000M

CUSTOM COMPONENTS INC, BOX 248, CALDWELL
N J, 07006 .... 201 226-3403
R OLERUD, EMP 40, ENG 3, $500-$1,000M
Cal Yarbrough Sales, 1608 Orange St Alhambra 283-0668
Colo F Y Gates Co, 3401 S Bannock Englewood 781-8566
Fla Wm Jones Co, 2317 E South St Orlando 424-6298
Ga Wm Jones Co, 2666 Redding Rd NW Atlanta 261-8275
Ill Rozner Sls Corp, 4720 N Central Ave Chicago .... AV 3-0022
Md Wm Jones Co, 1107 Echo Ct N Towson 823-5721
Mass Denning Assoc, Box 491, Wakefield 245-4986
Mich R S Lohman Co, 21501 W 7 Mile Rd Detroit 535-6144
NJ Wm Jones Co, 332 S Landing Rd Maple Shade 662-0480
NM F Y Gates Co, 2631 Texas NE Albuquerque 298-1875
NY Stuart F Foster Co, 2806 Hennaberry Rd Pompey 677-3333
Ohio Leo Liakos, 1479 Devonhurst Dr Columbus 614 866-6701
Okla Gordon V Peck Co, Box 15671, Tulsa 939-3047
Tex Gordon V Peck Co, 210 Casa Linda Plaza Dallas 328-3511
Utah F Y Gates Co, 455 E 4th St Salt Lake City 359-1101
Can Lake Engineering Co, 123 Manville Rd Scarborough, Ont 757-3253

CUSTOM COMPONENT SWITCHES INC
21111 PLUMMER ST, CHATSWORTH
CAL, 91311, TWX 213 341-3377 .... 213 341-4610
C CASEY, EMP 300, ENG 35, $5,000-$10,000M
Ala Air & Hydraulics Eng Inc, 124 W Oxmoor Rd Birmingham .... AL 2-6101
Ala Craft Assoc, Box 1053, Huntsville 837-0221
Ariz Haskel Engrg & Supply, 3518 N 24th St Phoenix 625-5151
Ariz Davidson Assoc, 4744 N Central Ave Phoenix 279-0078
Cal Haskel Engineering & Supply, 100 E Graham Pl Burbank 843-4000
Cal Haskel Engrg & Supply, 2145 San Diego Ave San Diego .... CY 7-4384
Cal Haskel Engrg & Supply, 1228 Folsom St San Francisco .... UN 3-1489
Cal Nickerson-Gray & Assoc, 2434 Park Blvd Palo Alto 326-0152
Colo Haskel Engrg & Supply, 2262 S Broadway Denver 744-6456
Conn O E Pfannkuch, 935 White Plain Rd Trumbull .... AM 8-4950
Fla Air & Hydraulics Eng, Inc, Box 96 Winter Park 647-8290
Fla Craft Assoc, Box 986, Maitland 645-2242
Ga Air & Hydraulics Eng Inc, 3131 Maple Dr, NE Atlanta 233-9511
Ga Craft Assoc, 3151 Maple Dr, Atlanta .... CE 7-2282
Ga Air & Hydraulics Engrg, 3201B Cains Hill Pl NW Atlanta 261-8451
Ill Fluid-Scope, 15 S Wolf Rd, Northlake .. MU 1-1050
Ind Fluid-Scope, 5257 N Tacoma Indianapolis 251-9411
Ind W J Purcell Co, 410 E Maple St, Jeffersonville
Kan M L Garrison, 820 S Lightner Wichita .... MU 2-1312
Kan Sturgis Equip Co, 1012 N Crestway Wichita .... MU 4-4440
La Hildebrandt Engrg Co, 3624 Roman St Metairie 729-2692
Md Thomas H Closs Co, 21 W Penna Ave Towson .... VA 5-4445
Md Dees Hydraulics, 2731 Greenmount Ave Baltimore 243-1407
Mass Lindco Inc, 765 W Boylston St Worcester 853-2882
Mich J H Bennett & Co, 12605 Arnold Ave Detroit .... KE 7-0577
Mich J H Bennett & Co, 8425 Tumbleweed Kalamazoo .... DA 7-9956
Mich J H Bennett & Co, 1425 Bluewater Dr Fenton 629-5862
Mich J H Bennett & Co, 2015 Shadford Ann Arbor .... NO 8-7597
Minn William M Ruva Co, 3553 46th Ave S Mnpls 724-1744
Mo Sturgis Equip Co, 601 S Taylor Ave St Louis .... OL 2-5380
Mo Sturgis Equipment Co, 631 W 39th St Kansas City .... WE 1-1147
NJ R N Juntwait Co, 9 Prospect St Ridgewood 652-9191
NJ George M Pearse & Co, 907 E Hazelwood Ave Rahway .... MI 2-0267
NJ Fluid Controls Corp, 75 N Maple Ave, Ridgewood
NY Automation Sales Engrg Co, 426 Liberty St Schenectady 393-1747
NY Keller Ind Products, 70 Mt Hope Ave Rochester 546-4313
NC Fluid Flow Products, 5950 Fairview Rd Charlotte 366-5302
Ohio L J Sculley & Assoc, 2600 Far Hills Bldg Dayton 298-9575
Ohio S G Morris, 1771 Ivanhoe Rd Cleveland 481-3700
Ohio S G Morris, 7805 Spring Lake La Canfield R3 .... LE 3-3411
Ohio S G Morris, 5800 Monroe St, Sylvania ... TU 2-3177
Ohio W J Purcell Co, 4315 Myrtle Ave Cincinnati .... SY 1-1131
Okla Fluid Components Co, 1038 N Sheridan Rd Tulsa 962-7053
Ore Haskel Engineering & Supply, 2828 N E Stanton St Portland 288-5716
Pa Winco Fluid Power, 1869 Horace Ave Abington 657-0616
Pa S G Morris, 3283 Babcock Blvd Pittsburgh 931-7077
Tenn Air & Hydraulics Engrg, 107 Jubilee Rd Chattanooga 892-3985
Tex Phil D'Ambrogi, Box 35071, Dallas .... FL 1-5524
Tex Linco Inc, 4580 W Hwy 80, Midland 694-9644
Tex Hildebrandt Engrg Co, 7707 Pinemost St Houston 462-5341
Va Fluid Flow Products, Box 3275 Richmond 272-7501
Wash W J McNabb Co, 12642 NE 5th St Bellevue .... GL 4-0577
Wash Haskell Engineering & Supply, 202 S Brandon Seattle 762-7222
W Va S G Morris, 222 South St South Charleston 744-0294
Wis D E Riley Corp, 7832 W Burleigh St Milwaukee 871-4040
Can Tridel Equip Ltd, 1599 W 4th Ave, Vancouver
Can Pneumatic Ind Equip Co, 2432 Kingston Rd, Toronto
Can Racine Hydraulics Ltd, 2424 Finch Ave W Weston, Ont 741-8833
Can Racine Hydraulics Ltd, 110 Cremazie Blvd W Montreal Que 384-6200
Fr Intertechnique, 78 Plaisir, Plaisir Le
Ger Amphenol-Tuchel Elctns GmbH, 8024 Deisenhofen Bei Munich
GB Arca Controls Ltd, Sisson Rd, Gloucester
GB Waycom Ltd, Workingham Rd, Bracknell, Berks
Holl DeGidts & Feldman, 8, Haringvlietstr Amsterdam - Z
Holl Avio-Dieper NV, Vliegveld Ypenburg, Rijsuijk (Z-H)
Ital FAS Automozioni Strumenti, Via F Koristka 8 Milano
Jap Fuji Industries Co Ltd, Box 1511, Tokyo
Swed Hymo-AB Hydraulmekono, Box 75, Norrkoping
Belg Broomwade-Belge S A, Nijverheidslaan I Diegem-Lex-Bruxelles
Mex Misco, S A, 33 Dr Jimenez, Mexico 7, D F

CUSTOM CONTROL MFG INC, 5601 MERRIAM DR
MERRIAM, KAN, 66203 .... 913 RA 2-0343
M HUCKABY, EMP 19, ENG 2, $100-$250M

CUSTOM MATERIALS INC, ALPHA INDL PARK
CHELMSFORD
MASS, 01824, TWX 710-343-6929 617-256-3911
J LEARD, EMP 50, ENG 10, $500-$1,000M
Ariz Fryco, 403 N Old Scottsdale Rd Scottsdale .... WH 5-3281
Cal Jay Stone & Assoc, 140 Main St Los Altos 948-4563
Cal C W Swift & Assoc, Box 316, Encino 989-1133
Fla Brennan Assoc, Box 5006 Clearwater 813-446-5006
Ga Brennan Assoc, Box 372, Tucker 404-469-8324
Ill Communications Engineers, 7106 N Western Ave Chicago .... RO 1-0548
Kan Simpson Enterprises, Box 18066 SE Sta Wichita .... WH 3-0502
Minn T W Macomber Assoc, 3851 Winnetka Ave N Minneapolis 545-7613
NJ Unicomp, Inc, 18 Sunny Ridge Rd Wayne 696-2888
NJ Schibley Assoc, 1 Fellowship Rd Cherry Hill 609-424-1894
NY Naylor Electronic Co, 1718 Erie Blvd E Syracuse 315-472-9183
Ohio Clifford Elctn Sales, 5152 Cherrington Rd Toledo 419-882-4000
Ohio Clifford Elctn Sales, 5305 Stone Barn Rd Cincinnati 513-561-4084
Tex Thorson Co, 7700 Carpenter Frwy Dallas .... ME 1-5440
Tex Thorson Co, 7007 Gulf Frwy, Houston ... MI 4-2218
Va Schibley Assoc, 10604 Warwick Ave Fairfax 591-3008
Wash Electronic Sales Corp, 5600 Calif Ave S W Seattle 206-932-0330
Can J Herring & Co Ltd, 3468 Dundas St W Toronto, Ont 762-7545
GB Microwave Inst Ltd, Park La Shiremoor Northumberland
Ital Eelctronic & Microwave Agency Via Aristide Busi 9, Rome

CUSTOM METAL PRODUCTS DIV TYCO LABS INC
200 BROADWAY, GARDEN CITY PARK
N Y, 11040 .... 516 741-1100
P STANGER, EMP 100, ENG 4, $1,000-$2,500M
Mass L Roffer Co, 12 Nancy La Framingham 617 877-4900

CUSTOM SCIENTIFIC INSTRUMENTS INC
BOX A, 13 WING DR, WHIPPANY
N J, 07981 .... 201 538-8500
H BULTMAN JR, EMP 24, ENG 3, $500-$1,000M
NC S McIntosh, 2815 Edsel Pl, Charlotte 537-9043

CUTLER-HAMMER INC, 4201 N 27TH ST, MILWAUKEE
WISC, 53216, TWX 910-262-3089 .... 414 442-7800
J COOK, EMP 4500, ENG 600, OVER $10,000M
Ariz Cutler-Hammer Inc, 1741 E Thomas Rd Phoenix 264-1184
Cal Cutler-Hammer Inc, 6431 Bandini Blvd Los Angeles 723-8391
Cal Cutler-Hammer Inc, 3780 5th Ave San Diego 298-5432
Cal Cutler-Hammer Inc, 1244 N Mariposa St Fresno 268-3301
Cal Cutler-Hammer Inc, 1331 "T" St Sacramento 446-4827
Cal Cutler-Hammer Inc, 3014 Lakeshore Ave Oakland 451-9600
Cal Cutler-Hammer Inc, 490 El Camino Real Belmont 591-7361
Colo Cutler-Hammer Inc, 2650 W 2nd Ave 4 Denver 934-5408
Conn Cutler-Hammer Inc, 1700 Post Rd Fairfield 255-1561
DC Cutler-Hammer Inc, 12216 Parkland Dr Rockville 946-1450
Fla Cutler-Hammer Inc, 6957 Lillian Rd Jacksonville 725-2845
Fla Cutler-Hammer Inc, 2909 Bay to Bay Blvd Tampa 839-5493
Fla Cutler-Hammer Inc, 1433 N E 26th St Ft Lauderdale 565-3866
Ga Cutler-Hammer Inc, 3001 McCall Dr Doraville 451-2331
Ill Cutler-Hammer Inc, 2508 N Sheridan Rd Peoria 685-4031
Ill Cutler-Hammer Inc, 4040 Charles St Rockford 398-6585
Ill Cutler-Hammer Inc, 3201 Old Glenview Rd Wilmette 273-4150
Ind Cutler-Hammer Inc, 2511 E 46th St Indianapolis 546-4096
Ind Cutler-Hammer Inc, 435 S Ironwood Dr S Bend 288-0601
Ind Cutler-Hammer Inc, 8204 Calumet Ave Munster 836-1150
Iowa Cutler-Hammer Inc, 519 Merle Hay Tower Des Moines 276-0665
Kan Cutler-Hammer Inc, 5845 Horton Mission 236-6313
La Cutler-Hammer Inc, 4860 General Meyer Ave New Orleans 366-1616
La Cutler-Hammer Inc, 2210 Line Ave Shreveport 425-1505
La Cutler-Hammer Inc, c/o 4860 Gen Meyer Ave New Orleans 432-8910
Md Cutler-Hammer Inc, 320 Hillen Rd Towson 825-6041
Mass Cutler-Hammer Inc, 415 Western Ave Brighton 254-6210
Mich Cutler-Hammer Inc, 733 Alger St SE Grand Rapids 243-0152
Mich Cutler-Hammer Inc, 24315 Northwestern Hwy Southfield 444-8700
Mich Cutler-Hammer Inc, 6215 Dixie Hwy Bridgeport 393-5424
Minn Cutler-Hammer Inc, 4439 Hiawatha Ave Mnpls 721-4453
Mo Cutler-Hammer Inc, 8118 Page Blvd St Louis 429-7711
Mo Cutler-Hammer Inc, 5845 Horton Mission Kan 623-6007
Neb Cutler-Hammer Inc, 6936 Maple St Omaha 553-6553
NH Cutler-Hammer Inc, 4 Tanglewood Dr Dover 742-1687
NJ Cutler-Hammer Inc, 2 Radnor Bldg Radnor Pa 695-6763
NM Cutler-Hammer Inc, 1405 "D" San Mateo Blvd NE Albuquerque 268-7190
NY Cutler-Hammer Inc, 733 Third Ave New York 687-0707
NY Cutler-Hammer Inc, 3385 Harlem Rd Buffalo 836-4444
NY Cutler-Hammer Inc, Northern Lights Office Pk No Syracuse 455-6631
NY Cutler-Hammer Inc, 678 Troy-Schenectady Rd Latham 785-6144
NY Cutler-Hammer Inc, Walt Whitman Rd Melville 692-7499
NY Cutler-Hammer Inc, 39 Saginaw Dr Rochester 271-5460
NC Cutler-Hammer Inc, 4200 Park Rd Charlotte 523-3056
NC Cutler-Hammer Inc, 1902 Lindew St Greensboro 272-4567
Ohio Cutler-Hammer Inc, 11322 Southland Rd Forest Park 825-5252

Ohio	Cutler-Hammer Inc, 1461 W 117th St Cleveland	221-0100
Ohio	Cutler-Hammer Inc, 5609 Market St Youngstown	788-8751
Ohio	Cutler-Hammer Inc, 2800 W Market St Akron	836-9711
Ohio	Cutler-Hammer Inc, 1580 King Ave Columbus	486-2935
Ohio	Cutler-Hammer Inc, 3110 S Kettering Blvd Dayton	293-2117
Okla	Cutler-Hammer Inc, 8102 E 46th St Tulsa	627-3312
Okla	Cutler-Hammer Inc, 2241 NW 40th St Oklahoma City	528-3221
Ore	Cutler-Hammer Inc, 936 SE Ankeny Portland	234-6488
Pa	Cutler-Hammer Inc, 2240 Noblestown Rd Pittsburgh	922-2707
Pa	Cutler-Hammer Inc, 2 Radnor Sta Bldg Radnor	878-0820
Pa	Cutler-Hammer Inc, 133 E Philadelphia St York	854-9515
Pa	Cutler-Hammer Inc 2225 Ave A, Lehigh Valley Indl Pk Bethlehem	866-8085
RI	Cutler-Hammer Inc, 152 Warren Ave E Providence	434-8555
SC	Cutler-Hammer Inc, 209 E Stone Ave Greenville	232-4639
SC	Cutler-Hammer Inc, 532 Knox Abbott Dr Cayce	765-1785
Tenn	Cutler-Hammer Inc, 1301 Hannah Ave NW Knoxville	546-1480
Tenn	Cutler-Hammer Inc, 3340 Poplar Ave Memphis	458-2631
Tenn	Cutler-Hammer Inc, 2508-B Franklin Rd Nashville	297-6589
Tex	Cutler-Hammer Inc, 9209 Chancellor Row Dallas	631-3460
Tex	Cutler-Hammer Inc, 3303 Montrose Blvd Houston	526-1205
Tex	Cutler-Hammer Inc, 1926 34th St Lubbock	744-4159
Utah	Cutler-Hammer Inc, 3068 Highland Dr Salt Lake City	487-1338
Va	Cutler-Hammer Inc, 4906 Fitzhugh Ave Richmond	353-4413
Va	Cutler-Hammer Inc, 1309 Granby St Norfolk	622-0462
Wash	Cutler-Hammer Inc, 615 8th Ave S Seattle	624-5735
Wash	Cutler-Hammer Inc, W 222 Mission Ave Spokane	326-1610
W Va	Cutler-Hammer Inc, 1018 Kanawha Blvd E Charleston	343-4141
Wis	Cutler-Hammer Inc, 526 W Wisc Ave Appleton	734-5651
Wis	Cutler-Hammer Inc, 7701 N Teutonia Ave Milwaukee	354-6050

CUTLER METAL PRODUCTS CO, 1025 LINE ST
CAMDEN, N J, 08103 .... 609 WO 3-1060
H CUTLER, EMP 300, $2,500-$5,000M

CVI CORP, 930 KINNEAR RD, COLUMBUS
OHIO, 43212, TWX 614 759-0367 ...... 614 486-9535
G KANNAPEL, EMP 150, ENG 50, $5,000-$10,000M

Ala	Vaughn Electroswitch Co, Box 1369 Huntsville	881-8830
Cal	RaTron, Inc, Box 282, Northridge	873-4885
Cal	CVI Corp, 14937 Ventura Blvd Sherman Oaks	783-3170
Ill	Byron Ellis Assoc, 6242 N Kenmore Chicago	312 262-2038
NY	Flowmaster Controls, 211 E 43rd St New York	687-1422
Ohio	Clark Goodman Supply Co, 1611 Brookpark Rd Cleveland	749-1100
Pa	Davis Controls Corp, 1910 Cochran Rd Pittsburgh	412 563-2412
Tex	CVI Corp, 1115 Gemini Ave, Houston	488-1111
Tex	Gas Equipment Co, 11616 Harry Hines Blvd Dallas	241-2161
Utah	F Y Gates Co, 455 E Fourth S Salt Lake City	801 359-1101
Can	Stork Werkspoor Can Ltd, 1600 Norman St Lachine Montreal	514 637-4681

CYBETRONICS INC, 132 CALVARY ST, WALTHAM
MASS, 02154 .... 617 899-0012
E BRANDEIS, EMP 70, ENG 12, $1,000-$2,500M

Ala	Col-Ins-Co Inc, Box 4246, Huntsville	539-1771
Ala	Dixie Data Processing Supplies, 205 S 32nd St Birmingham	263-3406
Ariz	Woehrmyer Printing Co, 909 N 3rd St Phoenix	252-9325
Cal	Jackson Edwards, 4101 Lankershim Blvd N Hollywood	877-9603
Cal	Data Assoc, 10601 S 85, Copertino	252-8711
Colo	Woehrmyer Printing Co, 3901 York St Denver	255-0341
Conn	R A Phaneuf Co, 530 Woodtick Rd Wolcott	879-9151
DC	Cybetronics Inc, 1028 Conn Ave NW Washington	233-3252
Fla	Col-Ins-Co Inc, 1313 44th St, Orlando	423-7615
Fla	J P LeMaster, 1919 Beachway Rd, Jacksonville	
Ga	Col-Ins-Co Inc, 200 Carrington Way Marietta	422-8327
Ga	Tab Sales Corp, 414 Armour Cir NE, Atlanta	
Haw	EDP Products Co, Box 3049, Honolulu	453-852
Idah	Office Service Center Inc, 1009 Vista Ave Boise	342-4651
Ill	Information Supplies Corp, 513 E Locust St Bloomington	823-7700
Ill	Information Supplies Corp, 3665 Lunt Ave Chicago	676-9300
Ill	Information Supplies Corp, 899 Skokie Blvd Northbrook	272-4850
Ind	Data Processing Supplies, Inc, 2060 E 54th St Indianapolis	251-6471
Ind	Data Processing Supplies, Inc 608 Ft Wayne Bank Bldg, Fort Wayne	422-8919
Iowa	Automation Prod Co, Box 1965 Cedar Rapids	365-2966
Ky	Data Processing Supplies Inc 225 Commonwealth Bldg, Louisville	583-3572
Ky	Data Processing Supplies Inc, 2220 Young Dr Lexington	266-1030
Mass	Cybetronics Inc, 132 Calvary St Waltham	899-0012
Mich	Tape Certifiers, Inc, 18075 James Couzens Detroit	345-6738
Minn	Tape Certifiers, Inc, 7615 Metro Blvd Minneapolis	941-3733
Miss	Col-Ins-Co, Inc, Box 1292, Bay St Louis	833-1116
Mo	Computer Accessory Prod, 130 S Bemiston Clayton	727-5566
Mo	Computer Facilities Inc, 3316 Broadway Kansas City	753-3151
NH	The Morley Co, 909 Islington St Portsmouth	436-5430
NJ	Jersey Tab Card Corp, 649 Rahway Ave Union	688-1700
NM	Woehrmyer Printing Co, 1313 San Pedro NE Albuquerque	255-5000
NY	Cybetronics Inc, 114 E 32nd St New York	686-7654
NY	Woodward Assoc, Box 22, Fayetteville	637-6061
NY	Denham Assoc, Box 6080, Albany	489-2519
NY	Modern Business Forms, 698 Delaware Ave Buffalo	886-0700
NC	Col-Ins-Co Inc, 3925 Guinevere La Winston-Salem	765-3650
NC	H B Smith, 216 Meadow wood Rd, Greensboro	
Ohio	Data Processing Supplies, Inc, 1216 E McMillan St Cincinnati	961-0776
Ohio	Data Processing Supplies, Inc, 6406 Stumps Cleveland	886-2090
Ohio	Data Processing Supplies, Inc, 41 S High St Columbus	224-4081
Ohio	Data Processing Supplies, Inc, Box 53 Vandalia	275-6781
Ohio	Data Processing Supplies, Inc, 311 E Market St Lima	224-2891
Ohio	Data Processing Supplies Inc, 3605 N Dixie Dr Dayton	275-7429
Ohio	Data Processing Supplies Inc, 1513 Jefferson Ave Toledo	241-2483
Ore	Computer Prod Inc, 510 SW 5th Ave Portland	227-4151
Pa	Delva Assoc, 2274 Jenkintown Rd Glenside	886-5233
Pa	Data Processing Supplies Inc, 50 E Crafton Ave Pittsburgh	922-6219
Tex	Computer Marketing Corp, 777 S Central Expwy Richardson	231-3396
Tex	Computer Marketing Corp, 2990 Richmond Houston	524-4204
Wash	Computer Products Inc, 2716 Second Ave Seattle	682-7394
W Va	Data Processing Supplies Inc, 400 Beauregard E Charleston	246-6772
W Va	Data Processing Supplies Inc, 925 6th Ave Huntington	522-2982
Wis	Information Supplies Corp, 11721 W Dixon West Allis	771-8840
Can	Computrex Computer Ctr Ltd, 2 Cote Ave Quebec	653-3232
Can	Computrex Computer Ctr Ltd, 2000 Elveden House Calgary	263-1190
Can	Computrex Computer Ctr Ltd, 801 York Mills Rd Don Mills, Ont	445-7174
For	Reps Osterlund, C A, Apartado 12970 Altamira Caracas, Ven	
For	Verlag Carl Ueberreuter, Alserstr 24, Vienna IX	
Den	W J Christensen A/S, Praestetaelledvei 16, Kastrup	
Fr	Sermatic, 90, Bol de la Villette, Paris 19e	
Ger	Algamatic GmbH, Hofstr 130 Monchengladbach	405
Ital	Sigmaschede S P A, Via F Desanctis, 9, Rome	
Swed	AB Data Business, Rasundavagen 102, Solna	
Swit	Intronic SA, Box 8952, Schlieven	
Neth	ANRU, N V, Winjnhaven 80, Rotterdam	
Fin	Auraprint OY, Aurakatu 14, Turku	
Aust	Bendix Corp Aust Pty Ltd, 415-425 W Botany St Rockdale	

CYCLE-DYNE, INC, 134-20 JAMAICA AVE DEPT CD
JAMAICA
N Y, 11418, TWX 710-582-2618 .... 212 291-3907
G MCCOOK, $1,000-$2,500M

Ariz	Montgomery Bros, 4247 E Windsor Ave Phoenix	955-7825
Cal	Montgomery Bros, 3530 Addison St San Diego	224-4513
Cal	Montgomery Bros, 4000 District Blvd Los Angeles	589-6321
Cal	Montgomery Bros, 1831 Bayshore Hwy Burlingame	697-6500
Colo	E & M Sales Co, Inc, 2660 Walnut St Denver	244-4291
DC	Precision Sales Co, 9301 Georgia Ave Silver Spring Md	301 589-7690
Fla	H R Gross & Co, Box 4607, Clearwater	446-6649
Ga	Applebee-Church, Inc, 1958 A Monroe Dr, NE Atlanta	875-7244
Ill	Robert J Songer Eng Co, Box 801 Lake Forest	CE 4-5886
Md	Precision Sales Co, 104 W Joppa Rd Baltimore	828-4897
Mass	Thermo Technology Assoc, 27 Tanglewood Rd Wellesley	469-0351
Minn	Volco Co, 831 S Sixth St, Minneapolis	336-6631
Mo	Engineered Sales Assoc, 6512 Chippewa St Louis	VE 2-7744
NJ	Ferrotherm, 23-35 Bell Blvd Bayside	212 229-5638
NY	Ferrotherm, 23-35 Bell Blvd, Bayside	229-5638
NC	Carolina Technical Reps, 211 Greenwich Rd Charlotte	364-0163
Ohio	Hawkins & Hawkins, 3009 Birdwood Rd Dayton	293-2628
Ohio	Production Heat Equip Co, Bo 342 Berea	234-2151
Ore	Montgomery Bros, 1632 NW Johnson St Portland	223-4197
Pa	J V Calhoun Co, 349 Montgomery Ave Bala-Cynwyd	839-3000
SC	Applebee-Church, Inc, 1599 Broad River Rd Columbia	772-3142
Tex	Kencar Co, Box 6770, Ft Worth	WA 3-4476
Utah	Montgomery Bros, 1843 S 11th St E Salt Lake City	484-8871
Wash	Montgomery Bros, Inc, 911 Western Ave Seattle	MA 4-7297
Wis	Gordon Hatch Co, Inc, 635 S 28th St Milwaukee	671-6550
For	Kerby Intl Inc, 14 Maiden La New York, N Y	CO 7-5890

CYCLE EQUIPMENT CO, BOX 307, LOS GATOS
CAL, 95030 .... 408 378-4220
H ALLEN, EMP 7, ENG 1, UP TO $100M

Ala	Data Processors Supply Co, Box 3263 Huntsville	205 534-2198
Cal	O H Davison Co, 760 Bryant St San Francisco	415 421-3688
Cal	Weber Office Specialty Co, 458 Burchett St Glendale	213 245-3049
DC	Rex Peake Assoc, Inc, 1346 Connecticut Ave, N W Washington	202 223-4737
Fla	MacDonald Computer Supplies Co, Box 68-501 Miami	305 757-1091
Ill	Edw R Stemm, Inc, 17W480 Lake St Addison	312 279-2440
Minn	R Edward Stemm Inc, 2713 Lundale Ave So Minneapolis	612 822-8404
NM	E D Flournoy & Assoc, 923 Monroe St N E Albuquerque	505 268-4589
Ohio	Geo H Drysdale & Assoc, 4512 Forest Trail Cincinnati	513 752-2069
Tex	Acratod Co, 2708 Bagby, Houston	713 JA 4-3111
Tex	Acratod Co, box 13057 San Antonio	512 224-5022
Tex	Whitfield Co, 14028 Brookcrest Dr Dallas	214 235-2776
Wash	Computer Products Co, 2716 Second Ave Seattle	206 MU 2-7394
Can	York Instruments, 1262 Don Mills Rd Don Mills Ont	445-1255

CYCLE PRODUCTS CO INC, 18 BRENNER ST, NEWARK
N J, 07108 .... 201 242-6826
J SYCLE, EMP 20, ENG 5, UP TO $100M

CYCLE TRANSFORMER CORP, 177 MAIN ST
WEST ORANGE, N J, 07052 .... 201 674-0731
P BRUBAKER, EMP 50, ENG 3, $500-$1,000M

CYCLO-TRONICS, INC, 3858 N CICERO AVE, CHICAGO
ILL, 60641 .... 312 282-6141
D GOLDWARE, EMP 10, ENG 1, $100-$250M

Cal	Eastman Kodak Stores, 2021 S Flower St Los Angeles	213 748-7351
Cal	Eastman Kodak Stores, 2136 Palou Ave San Francisco	
Ga	Secom Systems Inc, 1526 Howell Mill Rd NW Atlanta	404 351-6453
Mass	Circuit Lines Assoc, Box 261 Groton	617 448-5280
NY	Eastman Kodak Stores, 1 W 39th St New York	212 LO 4-6240
Ohio	Goory Sales Co, 19555 Henry Rd Cleveland	216 331-2055
Tex	Gillett Industries Co, 5635 Yale Blvd Dallas	EM 8-7567
For	B Freudenberg, Inc, 50 Rockefeller Plaza New York, N Y	PI 7-9130

DABURN ELECTRONICS & CABLE CORP, 2360 HOFFMAN ST
BRONX, N Y, 10458 .... 212 295-0050
B SCHAEFFER
ADV PG 777, 809

Ala	Frank C Nickerson Co, Box 1463 Huntsville	704 525-2683
Cal	Rissi Sales Co, 1817 S San Gabriel Blvd San Gabriel	283-7614
Cal	Electronics Mktg Assoc, 3327 Caxton Ct San Mateo	415 341-6666
Colo	AES Inc, 1549 Chester St, Aurora	303 366-0208
Fla	Frank C Nickerson Co, Box 13126 Tampa	813 833-4321
Ga	Frank C Nickerson Co, 1244 Claimont Ave Decatur	404 337-1575
Ind	Robert Milsk Co, 3231 N Meridian Indianapolis	923-1545
Kan	Maurey E Bettis Co, 3706 Broadway Wichita	316 MU 5-7441
Ky	Robert Milsk Co, 6908 Bedford La Louisville	502 425-6984
Md	Charles Lienau Co, 11411 Amherst Ave Wheaton	949-6464

Mich Robert Milsk Co, 19375 James Couzens Hwy
Detroit 342-6660
Mich Robert Milsk Co, 200 N Division
Grand Rapids 616 451-0615
Minn A J Warner Co, 4927 34th Ave S
Minneapolis 729-7371
Mo Maurey E Bettis Co, 9103 Bessemer St
St Louis .... 314 HA 9-2099
Mo Maurey E Bettis Co, 3706 Bway
Kansas City .... 816 LO 1-0772
NY Maury Farber Assoc, 220 Delaware Ave
Buffalo 856-3543
NC Frank C Nickerson Co, 4332 University Dr
Charlotte 704 525-2683
Ohio Chas H Dolfuss Jr Co, E 21st & Payne Ave
Cleveland .... 216 PR 1-1270
Ohio Chas H Dolfuss Jr & Co, 1052 Wollenhaupt Dr
Vandalia
Pa Gene S Root & Co, 809 Wainwright Dr
Pittsburgh 561-4125
Tex J Carl Smith Co, 1353 Chemical St
Dallas .... 214 ME 1-1727
Tex J Carl Smith Co, 9623 Winsome La
Houston .... 713 SU 2-5720
Va Charles Lienau Co, 1094 Bonnie View Dr
Great Falls 703 759-3128
Wash Electronic Sales Corp, 5600 Calif Ave SW
Seattle 932-0330
Wis Mueller Elctn Sales, 10721 W Capitol Dr
Milwaukee 414 464-4210
Can H W Breiger Sales Co, 5253 Decarie Blvd
Montreal 514 482-0722
Can Abbey Electronics Ltd, 1 Daybar Ave
Rexdale, Ont 249-8431
Can Bruce Lord & Assoc, 6116 Lloyd Crescent
Calgary Alb 249-0420
For Roburn Agencies Inc, 431 Greenwich St
New York N Y 966-2130

DACO INSTRUMENT CO INC, MERRITT BLVD
TRUMBULL, CONN, 06611 .... 203 375-5871
N HERMAN, EMP 125, ENG 4, $1,000-$2,500M
GB Bowmar Instr Ltd, Drakes Way
Swindon, Wiltshire .... Swindon 21351

DAEDALUS SALES CO, 1338 S ATLANTIC BLVD
LOS ANGELES, CAL, 90022 .... 213 263-7451
H BENIKE, EMP 3, ENG 1, UP TO $100M

DAGE ELECTRIC CO INC, HURRICANE RD, FRANKLIN
IND, 46131 .... 317 736-6136
W WHALLON, EMP 200, ENG 5
Ala Bendix, 3322 Memorial Pkwy S
Huntsville 881-9700
Ariz Jewett Co, Box 172, Scottsdale 945-9711
Cal Jewett Co, 13111 Ventura Blvd
North Hollywood 789-8103
Cal Bendix, 800 San Antonio Rd, Palo Alto ... 327-4511
Cal Bendix, 1001 S Grand Ave, Santa Ana 547-6454
DC Bendix, 1730 K St NW, Washington 333-8200
Fla Bendix, 2122A E Colonial Dr, Orlando 241-6559
Ill Wasson-Gallagher, 1024 N Blvd
Oak Park 383-6572
Ind E H Jordan, 6811 Grosvenor Pl
Indianapolis 632-3321
Mass Bendix, 9 Meriam St, Lexington 861-8900
Mich E H Jordan, 2024 Glen Dr, Jackson 782-0694
Minn Fred B Hill Co, 6110 Excelsior Blvd
Mnpls 939-6727
Mo Bendix, 3026 Aberdeen Pl, Florissant 647-1111
NJ Bendix, 215 Union St, Hackensack 343-8982
NY Harries & Kershaw, 15 Canterbury La
E Aurora 652-1221
Ore C K Shanks & Assoc, 3104 SW 87th Ave
Portland 292-5656
Pa Bendix, 128 Linden Ave
Woodbury Heights N J 455-6868
Pa Bendix ECD, Delaware Ave, Sidney N Y .. 563-9511
Tex Jack McKinney Sales Co, 1303 Chemical St
Dallas 631-9450
Tex Jack McKinney Sales Co, Box 1026
Bellaire 665-3653
Can Simmonds Aerocessories of Can Ltd
637 Parkdale Ave N, Hamilton Ont 547-1248

DAHLBERG ELECTRONICS INC, 7731 6TH AVE N
MINNEAPOLIS, MINN, 55427 .... 612 545-3721
P SPAULDING, EMP 270, ENG 8, $5,000-$10,000M

DAHLSTROM MFG CORP, 443 BUFFALO ST
JAMESTOWN, N Y, 14701 .... 716 487-0111
W BJORKHOLM, EMP 750, ENG 20, OVER $10,000M
Cal John MacLellan, 11224 Long Beach Blvd
Lynwood 213 774-0114
Colo Dahlstrom Mfg Co, 11155 E 45th Ave
Denver 303 366-3503
Mass Schutter Young Corp, 22 Franklin Pl
Beverly 617 922-6121
Mich Malcolm V Otis, Creson Bldg
Birmingham 313 646-4412
Minn Crum Co, 1455 W Lake St
Minneapolis 612 824-5394
NJ Dahlstrom Mfg Corp, 60 Glen Ave
Glen Rock 201 447-2800
Ohio F D Borchelt Corp, 8321 Winton Rd
Cincinnati 513 521-9160
Ohio Davis Assoc, 3725 Lee Rd
Shaker Heights 216 751-7400
Pa J A Schultz Co, 530 Sixth Ave
Pittsburgh 412 281-0511
Va Royall B Ferguson, Box 254
Lynchburg 703 846-7117

DAICO INDUSTRIES INC, 1711 W 135TH ST, GARDENA
CAL, 90249 .... 213 532-7621
P NOOTEBOOM, EMP 10, ENG 3
Cal Wright Engineering, 180 E Calif Ave
Pasadena 213 681-2651
Cal Wright Engineering, 126 25th St
San Mateo 415 345-5796
Md James R Eberly Co, 3618 Briarstone Rd
Randallstown 922-2092
Mass Micronics Assoc, Box 162
Cochituate 617 653-8229
NJ Williams & Rotondi, Box 264-A
Califon 212 691-2530
NY Williams & Rotondi, 16 Fisher Ave
Tuckahoe 914 961-4338
Tex Spacetronics Co, 4515 Prentice St
Dallas 212 691-2530
Wash D & D Sales, 43 Logan Ave S
Renton .... 206 BA 6-4120

DAINICHI-NIPPON CABLES, LTD
3-4, MARUNOUCHI, CHIYODA-KU, TOKYO
JAPAN, TWX 222-3146 216-1551
K KURIMOTO, EMP 4500, ENG 600, OVER $10,000M
ADV PG 719
Cal Mitsubishi Intl Corp, 606 S Hill St
Los Angeles 627-1491
Cal Mitsubishi Intl Corp, 601 Calif St
San Francisco 981-1910
Ill Mitsubishi Intl Corp, 130 East, Randolph Dr
Chicago 467-1111
NY Mitsubishi Intl Corp, 277 Park Ave
New York 212 922-3700
Ore Mitsubishi Intl Corp, 562 N Broadway
Coos Bay 503 267-3066
Tex Mitsubishi Intl Corp, 1021 Main St
Houston 228-7423
Wash Mitsubishi Intl Corp, 810 Third Ave
Seattle 682-0744
Can Mitsubishi Canada Ltd, 900 W Hastings St
Vancouver 682-2316
Fr Mitsubishi France (SA), 25, Rue de Berri
Paris 359-0927
Ger Deutsche Mitsubishi
1 Ludwig-Zimmermannstr 4000
Dusseldorf 8691
Ger Deutsche Mitsubishi
2000 Hamburg 36, Neuer Wall 54
Hamburg 363091
GB Mitsubishi Shoji Kaisha, Ltd, Bread St
London EC 4 .... City 3292
Ital Mitsubishi Italia S p A, Via Fabio Filzi 27
Milano 653062
Ital Mitsubishi Italia SpA, Via Fabio Filzi 27
Milano 653062
Jap Mitubishi Shoji Kaisha, Ltd
2-20, Marunouchi, Chiyoda-ku, Tokyo ... 211-0211
SAfr Mitsubishi Shoji Kaisha, Ltd, 23, Rue Kasr EL Ni1
Cairo 40461

DALE ELECTRONICS INC, BOX 609, COLUMBUS
NEB, 68601 .... 402 564-3131
I GATES, EMP 1750, ENG 80, OVER $10,000M
ADV PG 486, 487, 618, 619
Ariz Williams Assoc, 1110 E McDowell Rd
Phoenix 602 254-6085
Cal J S Heaton Co, 3695 Haven Ave
Menlo Park 369-4671
Cal Dale Electronics, 220 N Glendale Ave
Glendale 245-9416
Colo Williams Assoc, 4971 Jackson St
Denver 303 388-4391
Fla W J Reasor & Assoc, 2605 Morrison Ave
Tampa 813 251-3825
Fla W J Reasor & Assoc, Box 12601
West Palm Beach Gardens 848-0203
Ill D J M Electronic Sales, Inc
5356 N Milwaukee Ave, Chicago 774-1212
Ind Scott Electronics Inc, 911 N Penna Ave
Indianapolis 635-8951
Ind Scott Electronics Inc, 418 E Berry St
Fort Wayne 743-1586
Md R L Wilkinson Inc, 707 Stevenson La
Baltimore 377-7800
Mass Howard C Jappe, 37 Hillcrest Rd
Wakefield 245-9359
Mich Burcaw Co & Assoc, 18236 W McNichols Rd
Detroit 533-7700
Minn Merrill Franklin Co, 730 E 38th St
Minneapolis 827-5348
Mo Ray Deane, 10825 McGee St
Kansas City 942-0130
NJ Daniel Miller, 9-09 Walsh Pl
Fair Lawn 797-7782
NM Williams Assoc, 3221 Silver Ave SE
Albuquerque 505 255-1638
NY Kaelber & Mack, Inc, 75 Plandome Rd
Manhasset 627-6620
NY Maury Farber Assoc, 220 Delaware Ave
Buffalo 856-5526
NC Jake Rudisill Assoc, 2009 N Tryon St
Charlotte 704-377-6901
Ohio Scott Electronics Inc, 1836 Euclid Ave
Cleveland 861-2626
Ohio Scott Electronics Inc, 120 W 2nd St
Dayton 223-2652
Ohio Scott Electronics Inc, 9505 Montgomery Rd
Cincinnati 791-2513
Ohio Scott Electronics Inc, 79 E State St
Columbus 228-2313
Ore Arneson Assoc, 200 Northeast Canyon Rd
Beaverton 646-3416
Pa R L Wilkinson Inc, Box 215, Glenside 424-8400
Pa Scott Electronics Inc, 313 Empire Bldg
Pittsburgh 471-5233
Tex Aymond Co, Inc, Box 35023, Houston 666-1804
Tex Aymond Co, Inc, 4340 N Central Expwy
Dallas 827-8043
Utah Williams Assoc, 2464 S Main St
Salt Lake City 801 466-8799
Va R L Wilkinson, Inc, Box 218
Falls Church 532-6076
Wash Arneson Assoc, 5950-6th Ave S
Seattle 762-7664
Can Dale Electronics Canada, Ltd, 18 Howden Rd
Scarboro Ont 759-5631

DALE ELECTRONICS INC, SIOUX DIV, E HWY 50, YANKTON
S DAK, 57078 .... 605 665-9301
K MOOIBROCK, EMP 400, ENG 10, $5,000-$10,000M
ADV PG 160
Ariz Williams & Assoc, 1110 E McDowell Rd
Phoenix 602 254-6085
Cal Heaton Co, 3695 Javen Ave
Menlo Park 415 369-4671
Cal Dale Electronics Inc, 220 N Glendale Ave
Glendale 213 245-9416
Colo Williams & Assoc, 4971 Jackson St
Denver 303 388-4391
Fla Wm J Reasor & Assoc, 2605 Morrison Ave
Tampa 813 251-3825
Fla Wm J Reasor & Assoc, Box 12601
Palm Beach Gardens 305 848-0203
Ill D J M Electronic Sales Inc
5356 N Milwaukee Ave, Chicago ... 312 774-1212
Ill Matthews-Midwest Co, 5306 W Lawrence Ave
Chicago 312 725-1500
Ind Scott Electronics Inc, 911 N Penna Ave
Indianapolis 317 635-8951
Ind Scott Electronics Inc, 418 E Berry St
Fort Wayne 219 743-1586
Ky Scott Electronics Inc, 366 Francis Bldg
Louisville 502 583-32 0
Md Robt L Wilkinson Inc, 707 Stevenson La
Baltimore 301 377-7800
Mass Kaelber & Mack Inc, 37 Hillcrest Rd
Wakefield 617 245-9359
Mich Burcaw Co & Assoc, 18236 W Mc Nichols Rd
Detroit 313 533-7700
Minn Merrill Franklin Co, 730 E 38th St
Minneapolis 612 827-5348
Mo Ray Deane, 10825 MCGee St
Kansas City 816 942-0130
NJ Kaelber & Mack Inc, 9- 09 Walsh Pl
Fair Lawn 201 797-7782
NM Williams & Assoc, 3221 Silver Ave SE
Albuquerque 505 255-1638
NY Maury Farber Assoc, 220 Delaware Ave
Buffalo 716 856-5526
NY Kaelber & Mack Inc, 75 Plandome Rd
Manhasset 516 627-6620
NC Jake Rudisill Assoc, 2009 N Tryon St
Charlotte 704 377-6901
Ohio Scott Electronics Inc, 1836 Euclid Ave
Cleveland 216 861-2626
Ohio Scott Electronics Inc, 120 W 2nd St
Dayton 513 223-2652
Ohio Scott Electronics Inc, 9505 Montgomery Rd
Cincinnati 513 791-2513
Ore Arneson Assoc, 200 NE Canyon Rd
Beaverton 503 646-3416
Pa Robt L Wilkinson Inc, Box 215
Glenside 215 424-8400
Pa Scott Electronics Inc, 313 Empire Bldg
Pittsburgh 412 471-5233
Tex Aymond Co Inc, 4340 N Central Expwy
Dallas 214 827-8043
Tex Aymond Co Inc, Box 35023
Houston 713 666-1804
Utah Williams & Assoc, 2469 S Main St
Salt Lake City 801 466-8799
Va Robt L Wilkinson Inc, Box 218
Falls Church 703 532-6076
Wash Arneson Assoc, 5950 6th Ave
Seattle 206 762-7664
Can Dale Electronics Canada Ltd, 18 Howden Rd
Scarborough 416 759-5631

DALES CO, FRANKLIN, 180-83 E MILL ST, AKRON
OHIO, 44308 .... 216 762-7236
G MEIDLINGER, EMP 100, ENG 3, $1,000-$2,500M

DALMO VICTOR, A TEXTRON DIV
1515 INDUSTRIAL WAY, BELMONT
CAL, 94002, TWX 910-376-4400 .... 415 591-1414
J SMITH, EMP 1700, ENG 325, OVER $10,000M
Ala Murphy & Cota, 904 Bob Wallace Ave
Huntsville 205 536-9121
Cal Wieler & Co, Inc, 10842 S Paramount Blvd
Downey 213 861-9223
Cal Scott P Davis & Co, 1 1st St
Los Altos 415 948-7472
Conn Equipment Sales Co Inc, Box 5396
Hamden 203 248-5581
DC Whitcomb Assoc, Wash DC 202 737-0763
DC J Wynne & K Sladky, 1000 Conn Ave NW
Wash 202 296-4580
Fla M E Dempsey, 78 Meigs Dr
Shalimar 904 651-3141
Fla Murphy & Cota, 712 W Vassar St
Orlando 305 424-2167
Ga Murphy & Cota, 286 Armour Cir
Atlanta 404 875-2525
Ill Hugh Marsland & Co, 6699 Lincoln Ave
Chicago 312 676-1100
Md Whitcomb Assoc, 730 Deepdene Rd
Baltimore 301 889-2145
Mass Equipment Sales Co, 30 Shawsheen Ave
Bedford 617 275-7730
Minn Hugh Marsland & Co, 231 N Edgewood Ave
Minneapolis 612 545-4481

Mo H Marsland & Co, Box 567
Florissant 314 831-0015
NY Daniel Hoffman, 50 Rockland Dr
Jericho .... 516 WE 5-9473
NY Equipment Sales Co, Cooperstown ... 607 457-8968
Ohio C H Meuche, 1448 Third National Bldg
Dayton 513 223-5196
Ohio Mark Assoc, Inc, 77-79 Vine St, Dayton .. 461-4784
Tex Arnold Barnes Co, 740 S Sherman St
Richardson 214 235-4541
Tex Arnold Barnes Co, 3230 Mercer St
Houston 713 622-3620
Tex Arnold Barnes Co, E106 Petroleum Cr, San Antonio
Va Alan-Donaldson, 11023 Del Mar Ct
Fairfax 703 273-5569
Va Nine Assoc, Box 328, Annandale 703 256-8784
Wash Dewar & Assoc, 6361 1st Ave S
Seattle 206 763-2233

DALTO ELECTRONICS CORP, 38 OAK ST, NORWOOD
N J, 07648, TWX FGL 201 768-6200
R FRIEDMAN, EMP 128, ENG 32, $2,500-$5,000M

DALTRONICS INC, 100 MANTON AVE, PROVIDENCE
R I, 02909 .... 401 351-3525
D MENDELSOHN, EMP 60, ENG 6, $1,000-$2,500M

DAMON ENGINEERING INC, 115 4TH AVE
NEEDHAM HEIGHTS
MASS, 02194, TWX 710-325-6916 ...... 617 449-0800
N ROY, EMP 197, ENG 20, $2,500-$5,000M
Cal Jewett Co, 13111 Ventura Blvd
N Hollywood .... ST 9-8103
Cal Cain & Co, 175 S San Antonia Rd
Los Altos 948-6533
Fla Kirkwood Assoc, Box 52
Winter Park 305 645-2220
Ill Carlson Electronic Sales, 7448 N Harlem Ave
Chicago .... SP 4-0277
Mass Vector Sales, 774 Pleasant St, Belmont ... 489-1400
NM A L S Electronics, Box 11626
Albuquerque 298-2575
NY Kahgan Sales Corp, 1261 Broadway
New York .... MU 4-7772
NY Cain & Co, 324 First Ave 5, Liverpool 437-2933
Pa E-Tech, Box 52, Bala Cynwyd 667-5110
Tex Stasco, 13310 Spring Grove Ave
Dallas .... AD 9-5054
Va E-Tech, 6615 Backlick Rd, Springfield 451-6500

DANA LABORATORIES INC, 2401 CAMPUS DR, IRVINE
CAL, 92664, TWX 910-595-1136 .... 714 833-1234
M HOWLETT, EMP 150, ENG 30, $5,000-$10,000M
Ala Mekco Assoc Inc, Holiday Office Ctr
Huntsville 881-3721
Ariz Barnhill Assoc, 4900 E Indian School Rd
Phoenix 959-2115
Cal Ward-Davis Assoc, 3921 E Bayshore
Palo Alto 968-7116
Cal Ward-Davis Assoc, 770 S Arroyo Pkwy
Pasadena 684-2840
Cal Ward-Davis Assoc, 3442 Hancock St
San Diego 297-4619
Colo Barnhill Assoc, 1170 S Sheridan Blvd
Denver 934-5505
Conn Instrument Assoc Inc, 234 Murphy Rd
Hartford 525-9367
Fla Mekco Assoc Inc, 3165 McCrory Rd
Orlando 841-2215
Ill Pivan Engineering, 3535 W Peterson Ave
Chicago .... KE 9-4838
Ind Pivan Engineering, 8545 Northcrest Crt
Indianapolis 253-1681
Iowa Pivan Engineering, 4403 1st Ave SE
Cedar Rapids 365-6635
Kan Pivan Engineering, 5420 Nall Ave
Mission 722-1030
Md Electronic Marketing Assoc, 11501 Huff Ct
Kensington 946-0300
Mass Instrument Assoc Inc, 30 Park Ave
Arlington .... MI 8-2922
Mich WKM Assoc Inc, 1474 E Outer Dr
Detroit 892-2500
Minn Pivan Engineering, 3203 N Hwy 100
Minneapolis 537-4501
Mo Pivan Engineering Co, 400 Brooks Dr
Hazelwood 731-3000
NJ SBM Assoc, 1519 Stuyvesant Ave
Union 687-8737
NJ SBM Assoc, 1519 Stuyvesant Ave
Union 687-8737
NM Barnhill Assoc, 827 Penna NE
Albuquerque 265-7766
NY SBM Assoc Inc, 800 Linden Ave
Rochester 381-8330
NY SBM Assoc Inc, 5858 E Molloy Rd
Syracuse 454-9377
NY SBM Assoc Inc, 28 Hobby St
Pleasantville 769-1811
NY SBM Assoc Inc, 528 Old Country Rd
Plainview 433-1421
Ohio WKM Assoc Inc, 5335 Far Hills Ave
Dayton 434-7500
Ohio WKM Assoc Inc, 6741 Ridge Rd
Cleveland 885-5616
Pa WKM Assoc Inc, 90 Clairton Blvd
Pittsburgh 892-2953
Pa Electronic Mktg Assoc, 210 Goddard Blvd
King of Prussia 265-1600
Tex Barnhill Assoc, 507B Bishop St
Richardson .... AD 1-2573
Tex Barnhill Assoc, 3810 Westheimer
Houston .... NA 1-0040

Wash Rush S Drake Assoc, Inc, 6133 Maynard Ave S
Seattle 763-2755
Wis Pivan Engineering, Box 437, Waukesha ... 547-5131
Can Allan Crawford Assoc Ltd, 65 Martin Ross Ave
Downsview, Ont 636-4910
Can Allan Crawford Assoc Ltd
6999 Cote Des Neiges Rd
Montreal, Que 739-6776
Can Allan Crawford Assoc Ltd, 376 Churchill Ave
Ottawa, Ont 725-1288
BC Allan Crawford Assoc Ltd, 5901 E Broaway
North Burnaby 291-7161

DANEX CORP, 972 NEW DURHAM RD, EDISON
N J, 08817, TWX 710-998-0578 .... 201 287-0808
W STAATS, EMP 10, ENG 2, $500-$1,000M
Ala Massey Assoc, 4306 Governors Dr SW
Huntsville 205 837-4542
Cal Universal Components, 2330 Westwood Blvd
Los Angeles 474-1537
Cal Frauman Assoc, Box 969
Menlo Park 415 322-8461
Colo E O Sales, 610 S Lipan St, Denver ... 303 744-7081
Fla Massey Assoc, Box 13577
St Petersburg 813 347-6183
Haw Victor Kim Electronics, 625 South St
Honolulu 507-132
Ill Ringland M Krueger Co, 5755 W Irving Park Rd
Chicago 312 282-8444
Iowa Thomas & Modrcin Assoc, 890 17th Ave
Marion 319 377-6261
Kan Thomas & Modrcin Assoc, 5450 Buena Vista Dr
Shawnee Mission 432-2131
Mass Wm Connors Co, 100 Everett St
Westwood 769-2570
Minn Ed Melius & Assoc, 3758 N Dunlap St
St Paul 488-7293
Mo Thomas & Modrcin Assoc, 47 Village Sq
Hazelwood 314 838-6446
NJ Bressler Assoc, 4808 Bergenline Ave
Union City 201 864-9577
NC DGW, Inc, 3389 Nottingham Rd
Winston-Salem 723-4205
Ohio Jay Engineering, Box 175 Sta A
Dayton 253-2151
Ohio Walter J Brauer & Assoc, Box 3085 Overlook Br
Dayton 426-1692
Ohio Deo Volente & Assoc, 4240 Eaglehurst Rd
Toledo .... 419 TU 2-2830
Pa Massey Assoc, 1325 W Chester Pike
Havertown 215 789-2320
Pa Walter J Brauer & Assoc, Box 8466
Pittsburgh 921-3213
SC D G W Inc, Box 6096
Charlotte N C .... 704 ED 4-7090
Tex P J Scanlon Co, 724 S Sherman St
Richardson 214 231-4661
Wash Jon B Jolly, 413 Maritime Bldg
Seattle 206 624-2152
Can Specialty Electronics, 6600 St Urbain St
Montreal 10, Que 274-8271

DANIEL INDUSTRIES, INC, 9720 KATY RD, HOUSTON
TEX, 77024 .... 713 HO 5-3451
R CLEMONS JR, EMP 300, ENG 20, $5,000-$10,000M
Cal Daniel Industries, Inc, 3352 Union Pacific Ave
Los Angeles .... AN 9-9206
Cal Daniel Industries, Inc, 1924 Broadway
Oakland 893-4156
Colo Davis & Davis, 1095 W Arizona Ave
Denver 744-1316
Ga Daniel Industries, Suite 2503 Nat Bank of Ga
Atlanta 404 577-1978
Haw Berkley Eng & Equip Co, 564 South St
Honolulu 581-921
Ill Frabimor Equip & Controls, 5300 McDermott Dr
Berkeley 261-4225
La Daniel Industries, Inc, Bldg 10 OCS
Lafayette 232-8949
La Daniel Industries, Inc, 503 Peters Rd
Harvey 367-7544
Md Dynamation, Inc, 1605 Court Sq Bldg
Baltimore .... PL 2-5035
Mass New England Controls, 19 Fox Rd
Waltham 899-0230
Mich Power-Process Engrg Co, Box 6692
Detroit 538-3376
Minn A-Tu-Zee, 1879 University Ave, St Paul ... 646-6383
Mo Raydic Equip Co, 150 Hanley Ind Ct
St Louis .... MI 7-2838
Mont Contintental Laboratories Inc, 1402 Central Ave
Billings 252-8425
NY Thomas S Robinson Assoc, 9 E Genesee
Skaneateles 685-3300
NY David S Reynolds Co, 5695 Main St
Buffalo 634-5550
NY Blake Equip Corp, 75 Grand Ave
Englewood .... LO 7-4252
Ohio Hitt Equipment Co, Box 15385
Cincinnati 761-1714
Ohio A E Ehrke & Co, Box 24028, Cleveland .. HI 2-8040
Okla Daniel Industries, Inc, 213 Silvey Co Bldg
Tulsa .... LU 7-7159
Pa Daniel Industries, Inc, 2806 Koppers Bldg
Pittsburgh 261-5878
Pa Clifford B Ives & Co, 114 Forrest Ave
Narberth .... TE 9-6850
Tex Daniel Industries, Inc, 828 Fidelity Union Life Bldg
Dallas .... RI 7-8664
Tex Daniel Industries, Inc, 2400 E 8th St
Odessa .... Fe 2-6473
Tex Daniel Industries, Inc, 820 Petroleum Tower
Corpus Christi .... TU 2-7112
Va Dynamation, Inc, Box 9067, Bon Air 272-5001
Wash Antec Corp, Box 307, Bellevue .... GL 4-2442

Wis Chipley & Jensen Inc, 3500 N Sherman
Milwaukee .... HI 2-8170

DANIELS INC, C R, DANIELS
MD, 21033, TWX 710-862-1884 .... 301 465-1200
C SILVERNAIL, EMP 450, ENG 15, $5,000-$10,000M

DAN-L INC, 20 RAILROAD AVE, E NORTHPORT
N Y, 11731 .... 516 757-8000
D ELTERMANN, EMP 12, ENG 2, $250-$500M

DANO ELECTRIC CO, 97 MAIN ST, WINSTED
CONN, 06098 .... 203 379-3302
H SISSON, EMP 190, ENG 1, $1,000-$2,500M

DANTE ELECTRIC MFG CO, BOX 6, BANTAM
CONN, 06750 .... 203 JO 7-5307
J DANTE, EMP 12, ENG 1, UP TO $100M
Conn Larry Whelan Co, Box 752, Hartford ..... CH 9-4005
Ill C W Lint & Assoc, 2323 W 18th St
Chicago .... TA 9-1142
NJ Levy Elec Sales Co, 311 Reynolds Terr
Orange 677-2312

DA/PRO RUBBER INC, 8044 WOODLEY AVE
VAN NUYS, CAL, 91406 .... 213 989-4400
C DAUBENBERGER, EMP 70, ENG 1, $1,000-$2,500M
Ariz E G R Co, 4420 E Osborn Rd, Phoenix
Cal Da/Pro Rubber Inc, 8044 Woodley
Van Nuys 989-4400
Ga Erickson Prods Inc, Box 507
Avondale Estates 409 289-9413
Mich Lor-Mac Assoc, 803 W 11 Mile, Royal Oak
Minn G E Arneson & Co, 4900 Viking Dr, Minneapolis
Mo J Brazze & Co, 157 W Argonne, St Louis
Tex Dynamic Component Sales Inc, 6330 Alder St
Houston
Utah J C Rowley & Co, 955 Folsom Ave, Salt Lake City
For International Mgmt Consultants, 3355 Via Lido
Newport Beach, R I

DARCY INDUSTRIES INC, BEHLMAN DIV
1723 CLOVERFIELD BLVD, SANTA MONICA
CAL, 90404 .... 213 393-9611
A WROOBEL, EMP 150, ENG 15
Ala Currie Aerospace, 2603 Artie St SW
Huntsville 205 536-5650
Ariz Nytronics, 1017 N 3rd St, Phoenix ... 602 253-6104
Cal Instrument Specialists Inc, 2870 Los Feliz Pl
Los Angeles 213 665-5181
Cal Instrument Specialists Inc, 2359 De La Cruz Blvd
Santa Clara 408 244-1505
Colo Nytronics, 4940 39th Ave, Denver 303 388-4081
Colo Nytronics, 2005 Yarrow St
Lakewood 303 236-3891
Colo Nytronics, 8761 Baseline Rd
Lafayette 303 444-1677
Colo Nytronics, 3819 Chenango Ave
Littleton 303 794-4546
Colo Nytronics, 6150 Brooks Dr, Arvada ... 303 422-0894
Conn Applied Measurements, 2531 Whitney Ave
Hamden 203 288-5288
Fla Currie Aerospace, 2907 McCoy Rd
Orlando 305 855-0843
Ill Cozzens & Cudahy, 9501 W Devon
Chicago 312 825-1114
Ind Cozzens & Cudahy, 44 Kirk Dr
Indianapolis 317 244-2456
Md Ron Davies Assoc, 11215 Oak Leaf Dr
Silver Spring 301 652-6330
Mass Applied Measurments, 186 Maynard Dr
Acton 617 263-2766
Minn Cozzens & Cudahy, 7710 Computer Ave
Minneapolis 910-576-2740
Mo Cozzens & Cudahy, 10534 Natl Bridge Rd
St Louis 314 423-1234
NJ Engel & Assoc, 210 S Broad
Englewood 201 444-1400
NJ Engel & Assoc, Liberty Corner 201 647-5020
NM Nytronics, 205 S San Pablo SE
Albuquerque 505 268-3941
NY Ryerson Assoc, 425 Manor Dr
East Syracuse 315 656-3632
NY Engel & Assoc, New York 212 732-0001
NY Engel &ssoc, Mineola 516 741-4621
NY Engel & Assoc, Plainview 516 822-3787
NC Currie Aerospace, 614 Nissen Bldg
Winston-Salem 919 725-1927
Ohio Cozzens & Cudahy, 735 S Court St
Cleveland 216 725-5660
Pa Engel & Assoc, Hatboro 215 922-3270
Tex Scientific Sales Co, 777 S Central Expwy
Dallas .... 214 LA 8-0553
Tex Scientific Sales Co, 2337 Bissonnett
Houston .... 713 JA 8-6904
Wash Instrument Specialists Inc, 5950 6th Ave S
Seattle 206 767-4260
Wis Cozzens & Cudahy, 3712 W Elm St
Milwaukee 414 352-3640

DARCY INDUSTRIES INC, DVM DIV
1723 CLOVERFIELD BLVD, SANTA MONICA
CAL, 90404 .... 213 393-9611
A WROOBEL, EMP 150, ENG 15
Ala Currie Aerospace, 2603 Artie St SW
Huntsville 205 536-5650
Ariz Nytronics, 1017 N 3rd St, Phoenix .. 602 253- 6104
Cal Instrument Specialists Inc, 2870 Los Feliz Pl
Los Angeles 213 665-5181
Cal Instrument Specialists Inc, 2359 De La Cruz Blvd
Santa Clara 408 244-1505

Colo Nytronics, 4940 39th Ave, Denver ... 303 388-4081
Colo Nytronics, 2005 Yarrow St Lakewood ... 303 236-3891
Colo Nytronics, 8761 Baseline Rd Lafayette ... 303 444-1677
Colo Nytronics, 3819 Chenango Ave Littleton ... 303 794-4546
Colo Nytronics, 6150 Brooks Dr, Arvada ... 303 422-0894
Conn Applied Measurements, 2531 Whitney Ave Hamden ... 203 288-5288
Fla Currie Aerospace, 2907 McCoy Rd Orlando ... 305 855-0843
Ill Cozzens & Cudahy, 9501 W Devon Chicago ... 312 825-1114
Ind Cozzens & Cudahy, 44 Kirk Dr Indianapolis ... 317 244-2456
Mass Applied Measurements, 186 Maynard Dr Acton ... 617 263-2766
Minn Cozzens & Cudahy, 7710 Computer Ave Minneapolis ... 910 576-2740
Mo Cozzens & Cudahy, 10534 Natl Bridge Rd St Louis ... 314 423-1234
NJ Engel & Assoc, 210 S Broad Englewood ... 201 444-1400
NJ Engel & Assoc, Liberty Corner ... 201 647-5020
NM Nytronics, 205 S San Pablo SE Albuquerque ... 505 268-3941
NY Engel & Assoc, New York ... 212 732-0001
NY Engel & Assoc, 580 Old Country Rd Plainview ... 516 822-3787
NY Engel & Assoc, Mineola ... 516 741-4621
NC Currie Aerospace, 614 Nissen Bldg Winston-Salem ... 919 725-1927
Ohio Cozzens & Cudahy, 735 S Court St Cleveland ... 216 725-5660
Pa Engel & Assoc, Hatboro ... 215 922-3270
Tex Scientific Sales Co, 777 S Central Expwy Dallas ... 214 LA8-0553
Tex Scientific Sales Co, 2337 Bissonnett Houston ... 713 JA8-6904
Wash Instrument Specialists Inc, 5950 6th Ave S Seattle ... 206 767-4260
Wis Cozzens & Cudahy, 3712 W Elm St Milwaukee ... 414 352-3640

DARCY INDUSTRIES INC, TSI DIV
1723 CLOVERFIELD BLVD, SANTA MONICA
CAL, 90404 ... 213 393-9611
A WROOBEL, EMP 150, ENG 15
Ariz Nytronics, 1017 N 3rd St, Phoenix ... 602 253-6104
Cal Instrument Specialists Inc, 2870 Los Feliz Pl Los Angeles ... 213 665-5181
Cal Instrument Specialists Inc, 2359 De La Cruz Blvd Santa Clara ... 408 244-1505
Colo Nybronics, 4940 39th Ave, Denver ... 303 388-4081
Colo Nytronics, 2005 Yarrow St Lakewood ... 303 236-3891
Colo Nytronics, 8761 Baseline Rd Lafayette ... 303 444-1677
Colo Nytronics, 3819 Chenango Ave Littleton ... 303 422-0894
Colo Nytronics, 6150 Brooks Dr, Arvada ... 303 422-0894
Conn H Schuft Co, 965 Dixwell Ave New Haven ... 203 UN 5-1365
Ill Cozzens & Cudahy, 9501 W Devon Chicago ... 312 825-1114
Ind Cozzens & Cudahy, 44 Kirk Dr Indianapolis ... 317 244-2455
Md Ron Davies Assoc, 11215 Oak Leaf Dr Silver Spring ... 301 652-6330
Mass H Schuft Co, 815 Washington St Newtonville ... 617 527-5304
Minn Cozzens & Cudahy, 7710 Computer Ave Minneapolis ... 910 576-2740
Mo Cozzens & Cudahy, 10534 Natl Bridge Rd St Louis ... 314 423-1234
NJ Engel & Assoc, 210 S Broad Englewood ... 301 444-1400
NJ Engel & Assoc, Liberty Corner ... 201 647-5020
NM Nytronics, 205 S San Pablo SE Albuquerque ... 505 268-3941
NY Engel & Assoc, New York ... 212 732-0001
NY Engel & Assoc, Mineola ... 516 741-4621
NY Engel & Assoc, Plainview ... 516 822-3787
NY Ossman Inst, 101 Pickard Dr Syracuse ... 315 454-2461
NY Ossman Inst, 3100 Monroe Ave Rochester ... 716 586-0380
NY Ossman Inst, Vestal Pkwy E Vestal ... 607 785-9947
NY Ossman Inst, 122 E Main St Nappinger Falls ... 914 297-7777
NC J L Highsmith Co, 3733 Monroe Ave Charlotte ... 704 333-7743
Ohio Cozzens & Cudahy, 735 S Court St Cleveland ... 216 725-5660
Pa Sonco, 107 Town Ctr Rd King of Prussia ... 215 265-3250
Tex Scientific Sales Co, 777 S Central Expwy Dallas ... 214 LA8-0553
Tex Scientific Sales Co, 2337 Bissonnett Houston ... 713 JA8-6904
Utah Nytronics, Salt Lake City ... 801 466-4924
Wash Instrument Specialists Inc, 5950 6th Ave S Seattle ... 206 767-4260
Wis Cozzens & Cudahy, 3712 W Elm St Milwaukee ... 414 352-3640
Can Radionics Ltd, 195 Graveline St Montreal ... 514 739-5517
Can Radionics Ltd, 4938 Yonge St Ottawa ... 613 728-4624
Can Radionics Ltd, 376 Churchill Ave Toronto ... 416 222-3261

DARRAH ELECTRIC CO INC, 5914 MERRILL AVE
CLEVELAND, OHIO, 44102 ... 216 631-0912
R DARRAH, PRES, EMP 21, ENG 2, $250-$500M

DASA CORP, 15 STEVENS ST, ANDOVER
MASS, 01810 ... 617 475-4940
L BABEU, EMP 350, ENG 20, $5,000-$10,000M
NY Dasa Corp, 201 E 42nd St, New York ... 687-0177

DATA AUTOMATION INC, 73 BRAEMAR ST
ELK GROVE, ILL, 60007 ... 312 439-8297
K POTTER, EMP 6, ENG 4, UP TO $100M

DATA CARTRIDGE INC, 616 NATIONAL AVE
MOUNTAIN VIEW, CAL, 94040 ... 415 961-4966
EMP 15, ENG 4, $500-$1,000M
Ala Reynolds & Assoc, 904 Bob Wallace Ave, SW Huntsville
Ariz Ramco, Inc, 2229 E Indian School Rd Phoenix ... 279-5243
Cal Sangamo Electric Co, 1020 Corp Way Palo Alto ... 967-1653
Cal Sangamo Electric Co, 1313 W 8th St Los Angeles ... 483-3701
Colo Mountain States Machy Co, 1526 Blake St Denver ... 244-7421
DC Sangamo Electric Co, 1425 H St NW Washington ... 737-2234
Fla Reynolds & Assoc, Box 1043 Eau Gallie ... 254-0520
Fla Reynolds & Assoc, Box 13088 St Petersburg ... 345-2128
Ga Reynolds & Assoc, Box 13173, Atlanta ... 876-0652
Haw Hawaiian Lighting & Supply Corp 4066 Black Point Rd, Honolulu ... 78-676
Ill Sangamo Electric Co, 11th & Converse, Springfield
Ill Systems Engineering Assoc, Box 164 Arlington Heights ... 774-2035
Ind Systems Engineering Assoc, 1010 E 86th St Indianapolis ... 846-2593
Iowa Engineering Services Co., 1026 3rd Ave SE Cedar Rapids ... 366-1591
Kan Poly-Onics, Inc, 4434 W 90th Terr Leawood ... 648-4173
Mich WKM Assoc, Inc, 1474 E Outer Dr Detroit ... 892-2500
Minn Systems Engineering Assoc, 3040 Snelling Ave, S Minneapolis ... 729-6161
Mo Poly-Onics, Inc, 47 Vlg Sq Shop Ctr Hazelwood ... 837-0597
NM Ramco, Inc, 8016 Zuni Rd SE Albuquerque ... 265-7989
NY Sangamo Electric Co, 84 Bellwood Ave Dobbs Ferry ... 693-3689
NY Brogan Assoc, Inc, 474 Thurston Rd Rochester ... 328-2350
Ohio WKM Assoc, Inc, 6085 Far Hills Ave Dayton ... 298-7203
Ore Sangamo Electric Co, 1020 Corp Way Palo Alto ... 325-7585
Ore Sangamo Electric Co1020 Corp Way, Palo Alto 325-7585
Pa WKM Assoc, Inc, 90 Clairton Blvd Pittsburgh ... 892-2953
Pa J E Cuesta & Co, Rte 202 & Allendale Rd King of Prussia ... 265-5800
Tex Sangamo Electric Co, 9703 EBB Houston ... 484-5872
Wash Rush S Drake Assoc, Inc, 6133 Maynard Ave S Seattle ... 725-2700
For Sangamo Electric Co, Great Cambridge Rd, Enfield Mdsx, England

DATA-CONTROL SYSTEMS INC, E LIBERTY ST
DANBURY
CONN, 06810, TWX 714-456-2596 ... 203 743-9241
R MEI, EMP 500, ENG 75
Ala DCS, 2109 W Clinton Ave, Huntsville ... 536-4907
Cal DCS, 2750 Bellflower Blvd Long Beach ... 425-1265
Cal Tech Marketing Assoc, 355 W Olive Ave Sunnyvale ... 408 736-3687
Conn Lindgren Assoc, Box 61, Wilton ... 203 762-8114
Fla H W Collison, 550 Via Lugano Winter Park ... 305 647-0800
Ill Marsland Assoc, 6699 Lincoln Ave Chicago ... 312 676-1100
Md K-G Sales, 11151 Viers Mills Rd Wheaton ... 301 946-4055
NJ G Curtis Engel & Assoc, 210 S Broad St Ridgewood ... 201 444-1400
NM Space Systems Sls Engrg, 1401 Valencia S E Albuquerque ... 505 255-7058
NY Ossmann Instruments, 101 Pickard Dr Syracuse ... 315 454-2461
NC Mekco Assoc, 100-B Lindsey Brulington ... 919 226-7177
Ohio Electro Sales Assoc, 335 East 200th St Cleveland ... 216 486-1140
Wash Rush S Drake, 6133 Maynard Ave Seattle ... 206 763-2755

DATACRAFT CORP, 776 NE 40TH CT
FORT LAUDERDALE, FLA, 33307 ... 305 565-9441
J MOMBERGER, EMP 75, ENG 12, $2,500-$5,000M
Ala eynolds & Assoc, 904 Bob Wallace Ave Huntsville ... 205 536-1941
Cal Wright Engineering Co, 180 E Calif Blvd Pasadena ... 213 681-2651
Cal Wright Engineering Co, 126 25th Ave San Mateo ... 405 345-5796
Del Electronic Sales Assoc, 2 Fordham Ave New Castle ... 302 322-1222
Fla Reynolds & Assoc, Box 1043 Eau Gallie ... 305 727-3222
Ga Reynolds & Assoc, 175 W Wienca Rd NE Atlanta ... 404 252-5360
Ill Scientific Sales Corp, 7132 N Harlem Ave Chicago ... 312 775-7594
Md Electronic Sales Assoc, 12050 Tech Rd Silver Spring ... 301 622-2246
Mass Electronic Sales Assoc, 594 Marrett Rd Lexington ... 617 899-1430
NJ Electronic Sales Assoc, 3 Center St Denville ... 201 625-2525
NY Electronic Sales Assoc, 525 Northern Blvd Great Neck ... 516 566-5577
Ohio Ridgway East, Inc, 5654 Michale Ave No Olmsted ... 216 777-6600
Ohio Ridgway East, Inc, Box 68 Loveland ... 513 683-4350
Tex Carey Wolf Co, Box 12425 Ft Worth ... 817 738-1702
Tex Carey Wolf Co, Box 60338 Houston ... 817 713-2114
Wash Data Rep, 8611 NE 133rd St Kirkland ... 206 822-4688

DATA DELAY DEVICES, 253 CROOKS AVE, CLIFTON
N J, 07013 ... 201 772-1106
A LUPI, EMP 5, ENG 2, $100-$250M

DATA DEVICE CORP, 100 TEC ST, HICKSVILLE
N Y, 11801, TWX 510 221-1874 ... 516 433-5330
G HELLER, EMP 100, ENG 15
Ala Inter Sci Instru, Box 2091, Huntsville ... 536-9686
Ariz Luscombe Engineering Co, 222 W Osborn Rd Phoenix ... 274-1542
Cal Luscombe Engineering Co, 610 S Arroyo Pkwy Pasadena ... 684-2000
Cal Luscombe Engineering Co, 220 E 3rd Ave San Mateo ... 342-7057
Colo D E Bond Assoc, 2149 S Clermont St Denver ... 756-1234
Conn Instrument Assoc, 234 Murphy Rd Hartford ... 525-9367
Fla Griggs Assoc, Box 13542, Orlando ... 855-4871
Mass Instrument Assoc, 30 Park Ave Arlington ... 648-2922
Mich Anderson Electronics, 19471 James Couzens Hwy Detroit ... DI 2-7133
Mo PEM Sales Co, 9537 Lackland Rd St. Louis ... 427-7200
NJ Marshbank-Monteiro Assoc, 95 W Gates Dr Cherry Hill ... 609 428-5551
NM D E Bond Assoc, Box 11331 Albuquerque ... 247-3442
NY DDC Assoc, 100 Tec St, Hicksville ... 516 433-5330
NY Nycom Inc, 2002 Teall Ave Syracuse ... 315 437-8343
NC Inter Sci Instru, Box 2356 Winston-Salem ... 725-3612
Ohio McShane, 3633 Trails End Dr, Medina ... 725-4283
Pa Automated Equip & Engrg Inc, 648 Center Ave Pittsburgh ... 931-7616
Tex Scientific Sales Co, 777 S Central Expwy Richardson ... 231-6541
Tex Scientific Sales Co, 6400 Westpark Dr Houston ... 781-2711
Va L G White & Co, 880 Bonifant St Silver Spring, Md ... 301 585-3141
Wash Stanley Enterprises, 5616 4th Ave S Seattle ... 767-3320
Can Electronetic Systems Ltd, 62 Alness St Downsview ... 636-3673
Can Electronetic Systems Ltd, 6420 Victoria Ave Montreal ... 737-2744

DATA DISC INC DISC DIV, 1275 CALIFORNIA AVE
PALO ALTO, CAL, 94304 ... 415 326-7602
D JOHNSTON, EMP 80, ENG 12, $500-$1,000M
Ala Lee Components Corp, 5 Traylor Island Huntsville ... 205 539-0761
Cal Mitronics Industries, 18039 Crenshaw Blvd Los Angeles ... 213 323-7934
Cal Mitronics Industries, 201 Town & Cty Vlg Palo Alto ... 415 326-9822
Conn Instrument Dynamics, Inc, 345 N Main St W Hartford ... 203 233-5503
Fla Lee Components Corp, 200 E Marks St Orlando ... 305 241-4445
Ill Systems Engineering Assoc, 6253 Milwaukee Ave Chicago ... 312 744-1452
Ind Systems Engineering Assoc, 1010 E 86th St Indianapolis ... 317 846-2593
Md Bartlett Assoc, Inc, 7979 Old Georgetown Rd Bethesda ... 914 656-3061
Mass Instrument Dynamics, Inc, Wakefield Ind Pk Wakefield ... 617 245-5100
Mich S Sterling Co, 21250 10 1/2 Mile Rd Southfield ... 313 357-3700
Minn Systems Engieneering Assoc, 8633 Harrison S Minneapolis ... 612 881-6386
Mo S Sterling Co, 11734 Lackland Ind Dr St Louis ... 314 542-3636
NM Data Handling Co, 209 San Pablo, SE Albuquerque ... 505 268-0928
NY Bartlett Assoc, Inc, 470 Mamaroneck Ave White Plains ... 914 949-6476
NC Lee Components Corp, Box 906 Winston-Salem ... 919 724-2406
Ohio S Sterling Co, 2673 Culver Ave Dayton ... 513 298-7573
Ohio S Sterling Co, 5827 Mayfield Rd Cleveland ... 216 442-8080
Pa Bartlett Assoc, Inc, Box 72, Wayne ... 215 688-7325
Pa S Sterling Co, 4232 Brownsville Rd Pittsburgh ... 412 884-5515

Tex Arnold Barnes Co, 3230 Mercer St
Houston 713 622-3620
Tex Arnold Barnes Co, 740 S Sherman St
Richardson 214 235-4541
Tex Arnold Barnes Co, Petroleum Ctr, Box 13069
San Antonio 512 828-1323
Wash Rush Drake Assoc, 6133 Maynard Ave, S
Seattle 206 763-2755
Wis Systems Engineering Assoc
420 W Ravenswood Hills Cir
Waukesha 414 782-3388
GB Elliott-Automation Access, Ltd
Elstree Way, Borehamwood, Hert .... ELS 2040
Jap Nissei Sangyo Co Ltd, Central Box 1316
Tokyo 503-2311

DATA DISC INC, DISPLAY DIV, 1275 CALIFORNIA AVE
PALO ALTO, CAL, 94304 .... 415 326-7602
W STEVENS, EMP 14, ENG 5, $250-$500M
Ala Lee Components Corp, 5R Traylor Island
Huntsville 205 539-0761
Cal Mitronics Industries, 18039 Crenshaw Blvd
Torrance 213 323-7934
Cal Mitronics Industries, 5716 W Manchester Blvd
Los Angeles 671-3350
Fla Lee Components Corp, 200 E Marks St
Orlando 305 241-4445
Md Bartlett Assoc Inc, 7979 Old Georgetown Rd
Bethesda 914 656-3061
Mass Lake Systems Corp, 55 Chapel St
Newton 617 244-6881
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield 313 357-3700
Mo S Sterling Co, 7849 N Lindbergh Blvd
Hazelwood 314 837-1221
NM Data Handling Co, 209 San Pablo, SE
Albuquerque 505 268-0928
NY Bartlett Assoc Inc, 470 Mamaroneck Ave
White Plains 914 949-6475
NC Lee Components Corp, 829 Burke St
Winston-Salem 919 724-2406
Ohio S Sterling Co, 2673 Culver Ave
Dayton 513 298-7573
Pa Bartlett Assoc Inc, 130 W Lancaster Ave
Wayne 215 688-7325
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh 412 884-5515
Tex Arnold Barnes Co, 3230 Mercer St
Houston 713 622-3620
Wash Rush Drake Assoc, 6133 Maynard Ave, S
Seattle 206 763-2755

DATA INSTRUMENT DIV, 7300 CRESCENT BLVD
PENNSAUKEN, N J, 08110 .... 609 662-3031
H LANGEFELD, EMP 80, ENG 7, $1,000-$2,500M
Cal W K Geist Co, 1205 Airway Ave
Glendale 213 245-9501
Ill R Edw Stemm Inc, 17 W 480 Lake St
Addison 312 279-2440
Minn James Lee Co, 4241 Toledo Ave
Minneapolis 612 920-1525
NJ Electro-Mechanical Sales, 7300 Crescent Blvd
Pennsauken
Ohio Harvey Teplitz & Co Inc, 3945 Meadowbrook Blvd
Cleveland 216 371-2044
Pa M Friedman Assoc, 7 Heather Rd
Bala-Cynwyd .... 215 TE 9-3450
Pa Weiss Instruments, 6 Barton Dr
Pittsburgh 412 371-3020

DATA MARK INC, CANTIAGUE RD, WESTBURY
N Y, 11590 .... 516 333-8910
C WASSERMAN, EMP 36, ENG 12, $500-$1,000M

DATAMETRICS CORP, 7632 GLORIA AVE, VAN NUYS
CAL, 91406 .... 213 989-3840
G MCCREADY, EMP 22, ENG 8

DATAMETRICS INC, 87 BEAVER ST, WALTHAM
MASS, 02154 .... 617 899-0090
H GRAY JR
Ala Roy Attaway Co, 900 Bob Wallace Ave
Huntsville 205 534-2811
Cal R W Thompson Assoc, 4135 El Camino Way
Palo Alto 321-6383
Cal R W Thompson Assoc, 5005 W Century Blvd
Inglewood 677-6104
Fla Roy Attaway Co, 57 E Robinson St
Orlando 424-9983
Md East Coast Liaison Inc, Box 243
Lutherville 252-1288
Mass Andruss-Peskin Corp, 5 Main St, Natick 653-3919
NC Roy Attaway Co, 614 Nissen Bldg
Winston-Salem 722-9671

DATA PRODUCTS CORP, 8535 WARNER DR
CULVER CITY
CAL, 90230, TWX 13211 .... 213 837-4491
J OGG, EMP 475, ENG 75, $5,000-$10,000M
Cal Electronic Lab Assoc, 1911 5th Ave
San Diego 232-7195
Cal Data Products Corp, 7172 Calais Pl
Newark 797-1576
Cal Data Products Corp, 9 Palfrey La
Willingboro 877-8965
Fla Col-Ins-Co, Inc, 1313 44th St, Orlando 423-7615
Md L G White & Co Inc, 880 Bonifant St
Silver Spring .... JU 5-3141
Mass Data Products Corp, 171 Wallis Rd
Chestnut Hill 469-0123
Minn Data Products Corp, 1015 S 6th St
Minneapolis 338-4717
NY Data Products Corp, 150 W 52nd St
New York 757-8955
NC L G White & Co Inc, 1020 Brookstown Ave
Winston Salem .... PA 5-3612
Tex Kemco, Inc, Box 998, Irving 637-0163
Tex Kemco, Inc, Box 998, Irving 637-0163

DATAPULSE INC SUB SYSTRON-DONNER CORP
10150 W JEFFERSON BLVD, CULVER CITY
CAL, 90230, TWX 910-340-6766 .... 213 871-0410
M COX JR, EMP 145, ENG 10, $1,000-$2,500M
ADV PG 324
Ala BCS Assoc Inc, 2317 Bob Wallace Ave SW
Huntsville 534-1648
Ariz Hytronic Measurements Inc, 1017 N 3rd St
Phoenix 253-7452
Cal Ward/Daivs Assoc, 770 S Arroyo Pky
Pasadena 213 684-2840
Cal Ward/Davis Assoc, 3442 Hancock St
San Diego 714 297-4619
Cal Ward/Davis Assoc, 3921 Bayshore Blvd
Palo Alto 415 968-7116
Colo Hytronic Measurements Inc, 4940 E 39th Ave
Denver 388-4081
Conn Instruments Consultants Inc, 2381 Whitney Ave
Hamden 248-4174
Fla BCS Assoc Inc, 940 N Fern Creek Ave
Orlando 425-2764
Ill Carter Electronics Inc, 7203 Western Ave
Chicago 776-1601
Kan Leemark Engineers Inc, 4518 W 89th St
Prairie village 648-0149
La BCS Assoc, Inc, 3414 Hessmer Ave
Metairie 888-2266
Md Brimberg Assoc, Inc, 814 Thayer Ave
Silver Spring 588-7790
Mass Instruments Consultants Inc, Box 25
Waltham 969-9881
Minn Carter Electronics, 2401 W 66th St
Minneapolis 869-2361
Mo Leemark Engineers, 9623 St Charles Rock
St Louis 423-8700
NJ G C Engel & Assoc Inc, 210 S Broad St
Ridgewood .... GI 4-1400
NM Hytronic Measurements Inc, 205 San Pablo SE
Albuqu 268-3941
NY J D Ryerson Assoc Inc, Box 8369
Rochester 442-1900
NY J D Ryerson Assoc, Box 1400
Syracuse 656-7419
NC BCS Assoc Inc, 1039 E Wendover Ave
Greensboro 273-1918
Ohio Ridgway East Inc, Box 68, Loveland 583-4350
Ohio Ridgway East Inc, 4654 Michael Ave
North Olmsted 777-6600
Tex Airep Engineering Co, 4901 Richmond Ave
Houston 621-0955
Tex Airep Electronics Inc, 6300 N Central Expwy
Dallas 363-5291
Utah Hytronic Measurements Inc, 2022 S Main St
Salt Lake City .... IN 6-4924
Wash H Levinson Co, 1211 E Denny Way
Seattle .... EA 3-5100
Can Atlas Instrument Corp, 50 Wingold Ave
Toronto, Ont 781-6147
Can Atlas Instrument Corp, 342 1/2 Elgin St
Ottawa, Ont .... CE 3-9471
Can Atlas Instrument Corp, 3333 Cavendish Blvd
Montreal, Que .... HU 9-8495
For Elektronik Import, Makartgasse 3, Wien 1 Austria
For Chatham Industries Ltd, 71-77 Peking Rd
Kowloon, HK
For Heighten Scientific Co Ltd, 49 Yen Ping South Rd
Taipei Tai 38754
Den Tage Olsen A/S, 1 Ronnegade
Copenhagen 01 29.48.00
Fr Antares S A, 9 rue Ernest Cognacq
92 Levallois-Perret 8/737.54.82
Ger Neumuller & Co GMBH, Kerlsr 55
8 Munich 2 .... 59.24.21
GB Aveley Electric, Ltd, Arisdale Ave
S Ockendon Essex .... S Och 3444
Holl C N Rood N V, 13 Cort van der Lindenstr
Rijswijk 98.51.53
Ital Electronucleonics S P A, Piazza de angeli 7
20146 Milano 463.520/286
Jap Taiyo Shoji Co Inc, 16, 5 Chome Shiba-Shimbashi
Minato-ku, Tokyo 431-5634
Nor Morgenstierne & Co. A/S, Wessels Gate 6
Oslo 1 .... 20.16.35
SAfr A C Gowlett (Pty) Ltd, Box 1257, Johannesburg
Swed Scan Tele AB, Tengdahlsgatan 24
Stockholm 24.58.25
Swit Baerlocher AG, Foerrlibuckstr 110
Zurich 91/41-51
BC Atlas Instrument Corp, 10204 88th St
Edmonton 424-9065
Belg Belram Electronics, 83, Avenue des Mimosas
Brussels 35 39-58
Gr Marios Dalleggio Reps, 2 Alopekis St
Athens 139 710-669
Ind Toshniwal Bros Prv Ltd, 198 Jamshedji Tata Rd
Bombay
Isrl Eastronics Ltd, 75 Haifa Rd Box 21029
Tel Aviv 44.60.60
NZ Sample Elctns (NZ) Pty Ltd, 8 Matipo St
Onehunga, Auck 667-356
Spn Rema Leo Haag S A, General Sanjuro 18
Madrid 3 .... 2 53.40.03
Fin Oy Findip, Mannerheimintie 29C
Helsinki 90-41/93.58
Aust Sample Elctns (Vic) Pty Ltd, 9/11 Cremorne St
Richmond, Vic 42-4757
Aust Sample Elctn (NSW) Pty Ltd, 82 Alexander St
Crows Nest NSW 439-1441

DATA-RAM CORP, RTE 206, PRINCETON
N J, 08540 .... 609 924-3331
E PODSIADLO, EMP 50, ENG 5, $500-$1,000M
Ala Mekco Assoc, Holiday Off Ctr
Huntsville 205 881-3721
Cal Williams, Hedge & Martin Inc, 2956 Randolph St
Costa Mesa 714 540-3244
Fla Mekco Assoc, 3165 McCrory Rd
Orlando 305 841-2215
Mass W E Weeton Co, Box 77, Needham 617 444-1012
NY A & D Devices, Inc, Box 365
Lyons Falls 315 348-8532
NY H J Heffernan Co, 40 Beatrice La
Old Bethpage 516 249-5202
NC Mekco Assoc, 100-B Lindsey St
Burlington 919 226-7177
Ohio Data-Tron, 7016 Euclid Ave
Cleveland 216 391-8421
Okla Southwest Electronic Ind, 2015-C S Lakewood
Tulsa 918 835-2481
Pa H J Heffernan Co, Box 395
Fort Washington 215 836-4411
Tex Southwest Electronic Ind, 1405 S Post Oak Rd
Houston 713 621-3760
Tex Southwest Electronic Ind, 621 Meadows Bldg
Dallas 214 363-1671
Va H J Heffernan Co, 1123 N Irving St
Arlington 703 522-6666

DATA ROYAL CORP, 8014 ARMOUR ST, SAN DIEGO
CAL, 92111 .... 714 279-4020
W KRAUS, EMP 25, ENG 4, $500-$1,000M
Ala E G Holmes & Assoc, 4862 Governors' Dr
Huntsville 205 837-6900
Alas Arva Inc, Box 759, Anchorage 907 272-5231
Cal Instrument Specialists, Inc, 2870 Los Feliz Pl
Los Angeles 213 665-5181
Cal Instrument Specialists, Inc, 2359 De La Cruz Blvd
Santa Clara 408 244-1505
Cal Instrument Specialists, Inc, 1909 State St
San Diego 714 232-2017
Fla E G Holmes & Assoc, 316 1/2 S Bumby St
Orlando 305 241-2128
Ga E G Holmes & Assoc, 3667 Clairmont Rd
Chamblee 404 451-6161
Ill Cozzens & Cudahy, 9501 W Devon Ave
Rosemont 312 825-1144
Ind Cozzens & Cudahy, 44 Kirk Dr
Indianapolis 317 244-2456
Md Burlingame Assoc, 1749 Rockville Pike
Rockville 301 427-1255
Mass Burlingame Assoc, 7 Wellington St
Waltham 617 894-1955
Mich Cozzens & Cudahy, 127 Edmund St
Royal Oaks 313 585-5159
Minn Cozzens & Cudahy, 7710 Computer Ave
Minneapolis 612 920-1022
Mo Cozzens & Cudahy, 10534 Natl Bridge Rd
Edmundson 314 423-1234
NY Burlingame Assoc, 510 S Fulton Ave
Mount Vernon 914 664-7530
NY Burlingame Assoc, E Molloy Rd
Syracuse 315 454-2408
NC E G Holmes & Assoc, 430 W Friendly St
Greensboro 919 275-0897
Ohio Cozzens & Cudahy, 735 S Court St
Medina 216 725-5660
Ore Arva, Inc, 2035 SW 58th Ave
Portland 503 292-8762
Pa Burlingame Assoc, 1 Belmont Ave
Bala Cynwyd 215 835-2080
Tex Arnold Barnes Co, 740 S Sherman
Richardson 214 235-4541
Tex Arnold Barnes Co, 3230 Mercer
Houston 713 622-3620
Tex Arnold Barnes Co, E106 Petroleum Ctr
San Antonio 512 838-1323
Wash Arva Inc, 1320 Prospect Ave
Seattle 206 622-0177
Can Electronetic Systems Ltd, 62 Alness St
Downsview, Ont 416 636-3673
Can Electronetic Systems Ltd, 6420 Victoria Ave
Montreal, Que 514 737-2744
BC Arva, Inc, 1624 W Third Ave
Vancouver 604 736-6377

DATASCAN INC, 1111 PAULISON AVE, CLIFTON
N J, 07013 .... 201 478-2800
J MALOY, EMP 110, ENG 8, $1,000-$2,500M
Cal W K Geist Co, 1205 Airway
Glendale 213 245-9501
Fla W A Brown & Assoc Inc, 222 Weber Ave
Orlando 425-5505
Ill R Edward Stemm Inc, 17 W 480 Lake St
Addison 279-2440
Kan Impala Inc, 6917 W 76th St
Overland Park 648-6901
NJ Maloy & Co, 7 Abbott Rd, Wayne 696-3747
NY Labtronics, Inc, 161 Pickard Bldg
Syracuse 454-9314
Ohio A C Wahl & Assoc Inc, Box 15220
Cincinnati 821-3270
Pa Russell F Clark Co, 10517 Lindberg Ave
Pittsburgh 242-9500
Pa Ebert Assoc, 50 Messenger La
Willingboro 877-8250
Tex Southwest Elctn Ind, Inc, 621 Meadows Bldg
Dallas .... EM 3-1671

DATA SCIENCE CORP, 3740 HOUSTON ST, SAN DIEGO
CAL, 92110 .... 714 291-2820
R MONSEES, EMP 80, ENG 10
Cal V T Rupp Co, 307 Parkman Ave
Los Angeles 387-8224

Colo Space Systems Sls & Engrg, 101 University Blvd Denver ... 388-9225
Mass Hobart Assoc, 750 Main St Winchester ... 617 729-8884
NM Space Systems Sales & Eng, 1401 Valencia SE Albuquerque ... 255-7058
Tex Space Systems Sls & Engrg 810 Stemmons Tower S, Dallas ... 631-1740
Utah Space Systems Sls & Engrg, Box 89 Bountiful ... 295-6464

DATASCOPE CORP, 520 VICTOR ST, SADDLE BROOK
NJ, 07662 ... 201 845-7650
G HELLER, EMP 40, ENG 3, $250-$500M

DATA SENSORS INC, 318 INTERSTATE RD, ADDISON
ILL, 60101 ... 312 543-3100
B BADGER, EMP 10, ENG 2, $100-$250M

DATA TECHNOLOGY CORP, 2370 CHARLESTON RD
MOUNTAIN VIEW
CAL, 94040, TWX 910-379-6476 ... 415 964-2600
T BAKEY, EMP 210, ENG 27, $2,500-$5,000M
Ala Gentry Assoc, 2109 W Clinton Ave Huntsville ... 534-9771
Ariz T Louis Snitzer Co, 15 N 40th Pl Phoenix ... 273-1678
Cal T Louis Snitzer Co, 9005 Exposition Blvd Los Angeles ... 836-6170
Cal T Louis Snitzer Co, 1150 Camino Del Mar Del Mar ... 454-2191
Cal T Louis Snitzer Co, 1020 Corp Way Palo Alto ... 968-8304
Colo D E Bond Assoc, 2149 S Clermont St, Denver
Colo Aztec Enterprises, 3385 S Bannock Englewood ... 761-0101
Conn Howard J Schuft Co, Inc, 965 Dixwell Ave New Haven ... 865-1365
Fla Gentry Assoc, 550 N Bumby Ave Orlando ... 841-7740
Fla Gentry Assoc, 4152 49th Ave S St Petersburg ... 867-7820
Ga Gentry Assoc, Box 13513, Sta K Atlanta ... 233-3816
Ill Bard Assoc, Inc, LaGrange Ind Park LaGrange ... 354-0660
Ill Loren F Green Assoc, 5218 W Diversey Ave Chicago ... 286-6824
Ill H H Sales, 1255 Sandburg Chicago ... 312 642-4464
Kan Technical Representative, Inc, 6814 Farmview La Wichita ... 682-4140
Kan TRI, 809 Sheridan Cir, Olathe ... 913 782-3775
Md Electronic Marketing Assoc, 11411 Amherst Ave Wheaton ... 946-0300
Md QED, 880 Bonifant St Silver Spring ... 301 588-8134
Md Electronic Mktg Assoc, 11501 Huff Ct Kensington ... 301 946-0300
Mass Howard J Schuft Co, Inc, 815 Washington Ave Newtonville ... 527-5304
Mich Carter, McCormic & Peirce Inc, 16239 Wyoming Detroit ... 313 863-4600
Mich Technitron Inc, 13657 Grand River Ave Detroit ... 313 838-7324
Minn Bard Assoc, Inc, 7700 Morgan Ave S Minneapolis ... 866-1700
Minn Loren F Green & Assoc, 6225 University Ave NE Minneapolis ... 781-1611
Mo Technical Representative, Inc, 7049 Laupher La Hazelwood ... 521-1000
NJ Louis A Garten & Assoc, 375 Passaic Ave Caldwell ... 226-7800
NJ QED, 2916 Federal St, Camden ... 925-8711
NY QED, 500 Nuber Ave, Mt Vernon ... 914 968-2200
NY KLM Assoc, 9 Hollywood Dr Whitesboro ... 315 736-2450
NY KLM Assoc, 201 S Main St N Syracuse ... 315 458-6214
NY KLM Assoc, 8 Bear Hill Dr Palmyra ... 315 597-9776
NY H J Krasner Assoc, 33 Great Neck Rd Great Neck ... 516 487-0690
NC Gentry Assoc, Box 197, Jamestown ... 454-1919
Ohio Carter, McCormic & Peirce Inc, 3406 N Main St Dayton ... 513 278-5873
Ohio Carter, McCormic & Peirce Inc, 3691 Lee Rd Cleveland ... 216 921-1360
Ohio Technitron Inc, 23203 Lorain Rd N Olmsted ... 216 734-0960
Ohio Technitron Inc, 1250 W Dorothy La Dayton ... 513 298-9964
Pa Electronic Mktg Assoc, 210 Goddard Blvd King of Prussia ... 215 265-1600
Pa Technitron Inc, 114 Spring Grove Rd Pittsburgh ... 412 371-1231
Tex Southwest Electronic Ind, Inc, 183 Meadows Bldg Dallas ... 363-1671
Tex Southwest Electronic Ind, Inc, 6001 Gulf Frwy Houston ... 928-5251
Tex Noakes Engrg, Box 968, Irving ... 255-0441
Tex Noakes Engrg, Box 36258, Houston ... 529-6213
Wash Harry Levinson Co, 1211 E Denny Way Seattle ... 323-5100
Fr Tek Elec, Cite des Bruyeres, Rue Carle Vernet Sevres Seine et Oise ... 626-02-35

DATA TECHNOLOGY, INC, 65 GROVE ST, WATERTOWN
MASS, 02172, TWX 710 329-0607 ... 617 924-1773
M SCHIFFMAN, EMP 60, ENG 7, $1,000-$2,500M
ADV PG 278
Ariz Thorson Co, 2505 E Thomas Rd Phoenix ... 264-5878
Cal Thorson Co, 6824 Melrose Ave Los Angeles ... WE 7-0790
Cal Thorson Co, 2443 Ash St, Palo Alto ... DA 1-2414
Cal Thorson Co, 444 Olive St, San Diego ... CY 8-8385
Cal Thorson Co, 2114 N Broadway Santa Ana ... 547-6206
Colo Thorson Co, 300 E Harden Ave Englewood ... SU 9-1841
NY N W Alexander & Assoc Box 2561, Upper Union Br Schenectady ... 377-0581
Tex Thorson Co, 7700 Carpenter Frwy Dallas ... ME 1-5440
Tex Thorson Co, 7007 Gulf Fwy, Houston ... 644-2218
Wash Thorson Co, 1767 15th Ave S, Seattle ... EA 5-5000

DATATOTAL INC, RTE 3, BOX 291 AA, ARLINGTON
TEX, 76010 ... 817 CR 5-3911
P FEEGER, EMP 25, ENG 4, $500-$1,000M
Ala Reynolds & Assoc, Inc, 904 Bob Wallace Ave Huntsville ... 536-1941
Ariz BFA Inc, 4710 N 16th St, Phoenix ... 264-6536
Cal Moxon Electns Corp, 2311 Pontius Los Angeles ... 213 272-9311
Cal Moxon Elctns Corp, 15 41st Ave San Mateo ... 415 345-7961
Colo BFA Inc, 1309 S Inca, Denver ... 744-3301
Fla Reynolds & Assoc Inc, Box 8877 Orlando ... 424-3836
Fla Reynolds & Assoc ,Inc, Box 1043 Eau Galle ... 305 727-3205
Ga Reynolds & Assoc Inc, Box 13173 Atlanta ... 876-0652
Ill Megatek Inc, 1915 N Harlem Ave Chicago ... 889-1277
Mich Megatek, Inc, 26847 Grand River Ave Detroit ... 531-1403
Mo Harris-Hanson Co, 2814 S Brentwood Blvd St Louis ... 314-647-4350
Mo Harris-Hanson Co, 7916 Paseo Blvd Kansas City ... 816 444-9494
NJ Moxon Elctns Corp, 151 Hackensack Ave Hackensack ... 201 343-9490
NJ Moxon Elctns Corp, 40 Coles Ave Cherry Hill ... 609 665-5444
NM BFA Inc, 1238 Ortiz Dr, SE Albuquerque ... 268-4387
NY Labtronics, 161 Pickard Bldg, Syracuse ... 454-9314
Ohio Megatek, Inc, 2533 Far Hills Ave Dayton ... 298-8638
Ohio Megatek Inc, 23203 Lorain Ave Cleveland ... 216 734-4433
Okla BFA Inc, Box 15656, Tulsa ... 918 936-5295
Tex BFA Inc, Box 429, Euless ... 264-3363
Tex BFA Inc, Box 16065 Lamphan Sta San Antonio ... 512 828-0164
Tex BFA Inc, Box 50, Friendswood ... 713 482-7563
Wash Stanley Enterprises, 5616 4th Aves, Seattle

DATA TRENDS INC, 1259 ROUTE 46, PARSIPPANY
N J, 07054 ... 201 334-1515
J FASSAK JR, EMP 60, ENG 16, $1,000-$2,500M

DATATRON INC, 1636 E EDINGER AVE, SANTA ANA
CAL, 92705, TWX 910 595-1589 ... 714 835-2121
C DAVIS, EMP 35, ENG 15, $1,000-$2,500M
Ariz Vinson Assoc, 443 E Indian School Rd Scottsdale ... 602 947-7371
Cal Dynamic Assoc, 1011 Cadillac Way Burlingame ... 415 344-2521
Cal Dynamic Assoc, 5190 W Washington Blvd Los Angeles ... 213 933-5833
Colo Vinson Assoc, 3600 S Lincoln Englewood ... 303 789-2203
Del Electronic Sales Assoc, 2 Fordham Ave Delaware ... 302 322-1222
Md Electronic Sales Assoc, 12050 Tech Rd Silver Spring ... 301 622-2246
Mass Electronic Sales Assoc, 594 Marrett Rd Lexington ... 617 899-1430
NJ Electronic Sales Assoc, 3 Center St Denville ... 201 625-2525
NM Vinson Assoc, Box 3295 Albuquerque ... 505 298-7442
NY Electronic Sales Assoc, 525 Northern Blvd Great Neck ... 516 466-5577

DATA-VOX CORP, 2010 PINE TERR, SARASOTA
FLA, 33581 ... 813 922-3535
S BOOTH, EMP 10, ENG 3, $100-$250M

DATCON ELECTRONICS CORP, 61-24 213TH ST
BAYSIDE, NY, 11364 ... 212 428-5686
EMP 8, ENG 2, UP TO $100M

DATUM INC, 170 E LIBERTY AVE, ANAHEIM
CAL, 92801 ... 714 879-3070
N DAWIRS, EMP 10, ENG 6, UP TO $100M
Ala Gentry Assoc, 2109 W Clinton Huntsville ... 205 534-9771
Cal Instrument Specialtists Inc, 2870 Los Feliz Pl Los Angeles ... 213 665-5181
Cal Instrument Specialists Inc, 1909 State St San Diego ... 714 232-2017
Cal Instrument Specialists Inc, 2359 De La Cruz Blvd Santa Clara ... 408 244-1505
Fla Gentry Assoc, 4152 49th Ave S St Petersburg ... 813 867-7820
Fla Gentry Assoc, 201 Nelson St Eau Gallie ... 305 773-3411
Fla Gentry Assoc, 2517B E Colonial Dr Orlando ... 305 424-4949
Ga Gentry Assoc, Box 13513, Sta K Atlanta ... 404 233-3816
Md Ron Davies Assoc, 11215 Oak Leaf Dr Silver Spring ... 301 593-4900
Mass Brogan Assoc, 69 Hickory Dr Waltham ... 617 894-3250
NJ Brogan Assoc, 780 N River Dr Totowa ... 201 256-0174
NY Brogan Assoc, 80 Urban Ave Westbury ... 516 333-6683
NY Brogan Assoc, 202 Arterial Rd Syracuse ... 315 437-2988
NY Brogan Assoc, 474 Thurston Rd Rochester ... 716 328-2350
NC Gentry Assoc, Box 197 Jamestown ... 919 883-4521
Pa Brogan Assoc, 107 W Ridge Pike Conshohocken ... 215 825-0510
Wash Instrument Specialists Inc, 5950 6th Ave S Seattle ... 206 767-4260

DAUBERT CHEMICAL CO, 2000 SPRING RD
OAK BROOK, ILL, 60521 ... 312 LU 2-1000
W SPENCER, EMP 270, OVER $10,000M

DAVEN DIV MCGRAW-EDISON CO
GRENIER FIELD, MUNICIPAL AIRP, MANCHESTER
N H, 03103, TWX 710-220-1747 ... 603 669-0940
S JACKSON, EMP 700, ENG 40, $5,000-$10,000M
ADV PG 56, 60, 247, 390, 621, 675
Ariz Howe & Howe Sales Inc, Box 10497 Phoenix ... 602 264-7971
Cal Straube Assoc, 483 Willow Rd Menlo Park ... 323-2476
Cal Penwarden Dailey Assoc, 14547 Titus St Van Nuys ... 782-4920
Colo Straube Assoc, Box 1649, Boulder ... 443-8600
Fla Kirkwood Assoc, Box 52 Winter Park ... 305 645-2220
Ill John G Twist Co, 5222 W Diversey Ave Chicago ... 312 777-2250
Ind M Cunningham & Assoc, 720 E 65th St Indianapolis ... CL 5-2458
Iowa Jerry Vrbik Co, 2818 A Ave NE Cedar Rapids ... EM 5-0461
Md Holden Eng Sales, 1133 Gypsy La W Towson ... VA 3-3763
Mass Stan Pierce Inc, 24 Linden St, Norwood ... 762-3164
Mich G Kent Rosenquist, 332 Northwood Ave Rochester ... 651-1890
Minn R J Sales & Eng Co, 7100 S France Minneapolis ... 992-1425
Mo R R Burton Sales, 9915 E 63rd St, Raytown
NY Tech-Mark, Inc, 101 Jefferson Ave Endicott ... 748-7473
NY H R C Assoc, 390 Plandome Rd Manhasset ... 516 627-4644
NY Thomson Electric Co, New York ... 212 245-3900
NC P J Nahser Co, 2709 Amherst Ave Burlington ... 919 226-8053
Ohio Allen Nace Co Inc, Box 156 Brecksville ... 216 526-4255
Pa Victor S Malta, 801 Preston Rd, Phila ... VE 6-5122
Pa Allen Nace Co, Inc, Box 10630 Pittsburgh ... 241-3200
Tex Robt E Nesbitt Co, 2930 Merrell Rd Dallas ... 214 357-4601
Tex Robt E Nesbitt Co, Box 66831 Houston ... 712 528-3811
Wash N R Schultz Co, 305 112th Ave NE Bellevue ... 206 454-5224
Can Abbey Electronics Ltd, 1 Daybar Ave Rexdale, Ont ... 416 249-8431
Fr Thompson Electric Co, 50 Rockefeller Plaza NY, NY ... 212 245-3900
GB Ultra Electronics Ltd, 419 Bridgeport Rd Greenford, Mdsx

DAVEY PRODUCTS, BOX 567, FAIRFIELD
CONN, 06430 ... 203 255-2304
T DAVEY, EMP 6, UP TO $100M

DAVIDSON ELECTRONIC DEVELOPMENT CO
2211 PENINSULA DR, ERIE
PA, 16506 ... 814 833-9818
A DAVIDSON, EMP 15, ENG 2, $250-$500M
Mich Technitron, Inc, 13657 Grand River Ave Detroit ... 838-7324
Ohio Technitron Inc, 23203 Lorain Rd Cleveland ... 734-0960
Ohio Technitron, Inc, 1250 W Dorothy La Dayton ... 298-9964
Pa Technitron Inc, 114 Spring Grove Rd Pittsburgh ... 371-1231

DAVIDSON OPTRONICS INC, 2223 RAMONA BLVD
WEST COVINA, CAL, 91790 ... 213 962-5181
R LOVELL, EMP 170, ENG 4, $2,500-$5,000M
NJ S Bailey, 441 William St Bound Brook ... 201 469-4433
Pa J Noll, 404 Anawande Ave Pittsburgh ... 412 531-8071

DAVIES MOLDING CO, HARRY
4920 W BLOOMINGDALE AVE, CHICAGO
ILL, 60639 ... 312 622-8966
R APPLEBY, EMP 160, ENG 3, $1,000-$2,500M
Cal Littrell Western Sales, 2121 E 12th St Los Angeles ... AN 1-0164
Colo Fred A Pease & Co, Box 646, Aurora ... 364-9391
Conn Paul R Sturgeon Co Inc, 189 Broad St Milford ... TR 4-6080

Fla W Chester Smith, 2000 NE 26th Dr
Ft Lauderdale........ LO 4-1477
Ill D M Maytnier Corp, 2510 Gross Point Rd
Evanston........ GR 5-4334
Ind L T Clower Co, 3526 W Morris St
Indianapolis........ 244-6197
Iowa Clancey Co, 4612 40th St
Des Moines........ CR 9-9102
Mass P R Sturgeon Co Inc, 1330 Boylston St
Chestnut Hill........ 734-7710
Mich Gitre Co Inc, 12909 W 8 Mile Rd
Detroit........ DI 1-9270
Mo Clancey Co, 3527 Broadway
Kansas City........ WE 1-3090
NY Rywel Sales Inc, 100 N Village Ave
Rockville Centre........ RO 4-2666
Ohio Foley & Beilstein Co, 26612 Center Ridge Rd
Westlake........ TR 1-8830
Pa W G Walker, Box 935, Paoli........ MA 7-8146
Tenn C E Hall & Assoc, Box 22335
Memphis........ EV 6-0198
Tex A & A Supply, Wycliff & Vantage
Dallas........ ME 1-8170
Wash Northwest Plastics Ind, 1220 E Cherry
Seattle........ PA 3-0441
Wis Clague Sales Corp, 759 N Milwaukee St
Milwaukee........ BR 2-1951
Can Atlas Radio Corp Ltd, 50 Wingold
Toronto........ RU 1-6174

DAVIS ELECTRIC CO, 230 N SPRING
CAPE GIRARDEAU, MO, 63701........ 314 ED 5-5547
B DAVIS, EMP 101, ENG 2, $500-$1,000M
Cal E B Schwerin, 4922 La Gama Way
Santa Barbara........ 967-7317
Cal E B Schwerin, Los Angeles........ 393-4023
Fla W J Reasor & Assoc, Box 12601
Palm Beach Gardens........ 848-0203
Fla W J Reasor & Assoc, Box 10135
Tampa........ 251-3825
Ill Gianaras Sales Co, 7051 W Wilson Ave
Norridge........ SP 4-4600
Mass NEAR Inc, 99 Highland Ave
Somerville........ PR 6-2262
Miss Herron Assoc, Box 3008, Meridian........ 482-1878
Mo Automatic Gen Electn Sales Inc, 6550-E troost Ave
Kansas City........ DE 3-8206
Mo H J Weisler & Assoc, Inc, 2050 Woodson Rd
St Louis........ HA 8-3934
NY Lloyd Hart Assoc, 796 Hillside Ave
Rochester........ CH 4-3253
Ohio Components Inc, 7461 N Linden La
Cleveland........ VI 2-2737
Ohio Components Inc, 11820 Knollsprings
Cincinnati........ 721-2997
Pa W H Cordray Sales Co, 1 Radnor Sta
Radnor........ TR 8-3737
Tenn Herron Assoc, Box 1521, Chattanooga
Tex R F Kimball Co, 5531 Dyer St, Dallas... EM 3-5431
Wash Fred H Haight Co, 3212 Eastlake Ave E
Seattle........ EA 2-1818

DAVIS & HEMPHILL INC, 2000 FURNACE AVE
ELKRIDGE, MD, 21227........ 301 796-2290
M DAVIS, JR, ENG 5
Md J A Maguire & Co, 5716 York Rd
Baltimore........ ID 3-2613
NJ J A Maguire & Co, 726 Cooper St
Camden........ WO 6-3118
NY K George Keenan & Co, 1 Broadway
New York........ DI 4-2566

DAWE INSTRUMENTS LTD, CONCORD RD ACTON
LONDON W3, ENGLAND........ 01 992-6751
B PEACH, EMP 300

DAYLEN CO, BOX 527, SOUTH GATE
CAL, 90280........ 213 589-1310
J LAWRENCE, EMP 17, ENG 10, $250-$500M

DAYMARC CORP, 42 BEAR HILL, WALTHAM
MASS, 02154........ 617 894-2105
N CEDRONE, EMP 50, ENG 5, $500-$1,000M
Ariz E J Foley & Assoc, 3840 N Jokake Dr
Scottsdale........ WH 5-2666
Cal Instrument Specialists, Inc, 2870 Los Feliz Pl
Los Angeles........ 665-5181
Cal Instrument Specialists, 2359 De La Cruz Blvd
Santa Clara........ 408 244-1505
Cal Instrument Specialists, 1909 State St
San Diego........ 714 232-2017
DC Sonco, 4720 Montgomery La
Washington........ 654-5226
Ill Cozzens & Cudahy, Inc, 9501 W Devon Ave
Rosemont........ 825-1144
Ind Cozzens & Cudahy, Inc, 44 Kirk Dr
Indianapolis........ 244-2456
Mich Cozzens & Cudahy, 127 Edmund St
Royal Oak........ 313 585-5179
Minn Cozzens & Cudahy, Inc, 7710 Computer Ave
Minneapolis........ 920-1022
Mo Cozzens & Cudahy, 10534 Natl Bridge Rd
Edmundson........ 314 423-1234
NJ Sonco, Crystal Brook Prof Bldg
Eatontown........ 542-1441
NY Ossmann Instruments Inc, 101 Pickard Dr
Syracuse........ GL 4-2461
NY Ossmann Instruments Inc, 3100 Monroe Ave
Rochester........ 586-0380
NY Ossmann Instruments Inc, Vestal Pkwy E
Vestal........ 785-9947
NY Crane & Egert Corp, 146 Meacham St
Elmont........ 516 488-2100
Ohio Cozzens & Cudahy, 735 S Court St
Medina........ 216 725-5660
Pa Sonco, 107 Town Ctr Rd
King of Prussia........ 215 265-3250
Pa Sonco, Park Pl Office Bldg, Camp Hill.... 761-0577
Tex Blackter Co, 777 S Central Expwy
Richardson........ 214 231-1718
Wash Instrument Specialists, 5950 6th Ave S
Seattle........ 206 767-4260
Fr Abraham Bluestone, 74, rue Pierre Demours
Paris........ 622-2792
Ger Kulicke & Soffa Sales AG, Rhiengutstr 7
775 Konstanz........ 07531-2666
GB D Newth, 12 Swallow St
London W 1........ 01 437-0737
Holl Groenpol Industrial Sales CO, 13-15 Prinsengracht
Amsterdam........ 64474
Ital La Commissionaria Mercantile, 1, via U Foscolo
Milano........ 808297
Swed Erik Ferner AB, Box 56
Bromma........ 252870 Stockholm
Swit Kulicke & Soffa Sales AG, Gubelstr 19
Zug........ 48033
Belg Multitechnic SA, 30 place Saintctellette
Brussels........ 25.16.36

DAYTON AIRCRAFT PRODUCTS INC, 812 NW 1ST ST
FORT LAUDERDALE, FLA, 33310........ 305 523-5451
M MCCAUGHEY, EMP 75, ENG 5

DAYTON ELECTRONICS PRODUCTS CO
117 E HELENA ST, DAYTON
OHIO, 45404........ 513 461-4951
G BURDICK, EMP 125, ENG 21

DAYTRONIC CORP, 2875 CULVER AVE, DAYTON
OHIO, 45429........ 513 298-7542
M MOORHEAD JR, EMP 28, ENG 4, $500-$1,000M
Ala ARVA Inc, 826 Whitney Rd, Anchorage... 272-6731
Ala Vesco, Sahara Office Pk, Huntsville........ 881-8830
Cal Research Data Corp, 110 S Euclid Ave
Pasadena........ 681-3451
Cal Research Data Corp, 405 S Sunnyvale Ave
Sunnyvale........ 739-2205
Fla Vesco, 106 Dixie La, Cocoa Beach
Mass Addelco Corp, 56 Pickering St
Needham........ 444-4754
Mich S Sterling Co, 21250 W 10 1/2 Mile Rd
Southfield........ 357-3700
Mo Harris-Hanson Co, 2814 S Brentwood Blvd
St Louis........ 647-4350
Mo Harris-Hanson Co, 7916 Paseo
Kansas City........ 444-9494
NJ Tek-Sel Inc, 440 N Midland Ave
Saddle Brook........ 791-5545
NY J D Ryerson & Assoc, 111 Kinne Rd
Syracuse........ 446-1771
Ohio S Sterling Co, 5827 Mayfield
Cleveland........ 442-8080
Ohio S Sterling Co, 2673 Culver Ave, Dayton... 298-7573
Ore Arva Inc, 2035 SW 58th Ave, Portland.... 222-7339
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh........ 884-5515
Wash Arva Inc, 1320 Prospect, Seattle........ 998-0733
Can B H McGregor, Box 156, Sta H, Toronto.. 699-5521

DAYTRON INC, 634 NATIONAL AVE, MOUNTAIN VIEW
CAL, 94041........ 415 961-1241
J GLORIA, EMP 20, ENG 3, $100-$250M

DAZOR MFG CORP, 4455-99 DUNCAN AVE, ST LOUIS
MO, 63110........ 314 OL 2-2400
P READ, $2,500-$5,000M
Ark Wm F Byrd, 305 N Plaza Dr
Little Rock........ 501 663-9256
Colo J Ellertson, 6388 Clearview Rd
Boulder........ 303 443-9489
Ga James C Hearn Assoc, 1131 Logan Cir NW
Atlanta........ 404 355-3751
Ill Wm Johnson, 309 S Bennett La
Des Plaines........ 312 437-3838
Ill Irving Treusch, 326 Alexis Ct
Glenview........ 312 724-0358
Mass M Bardin, 45 Cottage St, Brookline.. 617 731-2626
Mich Wm E Hawkins, 20731 Lee Ct
Grosse Pointe Woods........ 313 885-5500
Mo Norman W Kathrinus, 2427 Brentwood Blvd
St Louis........ 314 962-5627
NY T Thorsen, 52 Whippoorwill Rd
Armonk........ 914 273-8545
Pa D A Hirsh, 188 Windmill Rd
Willow Grove........ 215 659-4349
Tex Tom Harrison Co, Box 9
Richardson........ 214 363-4535
For Roldan Products Corp, 111 S Bemiston Ave
Clayton, Mo........ 314 726-6911

DBM RESEARCH CORP, BOX 521, COCOA BEACH
FLA, 32931........ 305 783-2438
C MATTOX, EMP 8, ENG 4, $100-$250M
Fla Dbm Research Corp, 14-16 N Atlantic Ave
Cocoa Beach........ 783-2438

DB PRODUCTS INC, 253 N VINEDO AVE, PASADENA
CAL, 91107........ 213 449-3790
D BOYKO, EMP 30, ENG 2, $250-$500M

D-CEMCO INC, 3200 N SAN FERNANDO BLVD
BURBANK, CAL, 91504........ 213 849-6341
F CRISWELL, EMP 12, ENG 2
Ala Fred Wamble Sales Co, 3745 Marie Cook Dr
Montgomery........ 272-4600
Ariz Ar/Tec Inc, Box 727, Scottsdale........ 947-6304
Cal John E Striker Co, 1319 Howard Ave
Burlingame........ 342-1426
Cal P J Hilderbrand, 6132 Tarragona Dr
San Diego........ 582-4677
Colo Electronic Component Sales, 2340 W Main St
Littleton........ 798-8481
Fla Engstrom Assoc, 1816 Maywood Rd
Winter Park........ 671-8944
Ill Russ Gawne & Assoc, 6139 W Touhy Ave
chicago........ 775-5381
Kan Midland Engrg Sales Assoc, 5460 Buena Vista Dr
Mission........ CO 2-6565
Md Be-Mar Assoc, 120 Derwood Cir
Rockville........ 762-8880
Mass Entis Assoc, 11 Babcock St, Brookline... CO 7-2322
NJ Be-Mar Assoc, 7217 Rising Sun Ave
Philadelphia........ 728-6333
NM Electronic Component Sales, Box 3087
Albuquerque........ 344-3987
NY Andrews & Andrews, 140 E Main St
Huntington........ 692-8686
NY Midstate Research Sales, 327 Wellesley Rd
Syracuse........ 478-8314
Ohio Midwest Sales Co, 3219 W 117th St
Cleveland........ WI 1-2700
Okla T J Ray, Box 45191, Tulsa........ NA 7-1515
Ore Van Voorhees Assoc, Box 4383
Portland........ 287-6633
Pa Be-Mar Assoc, 7217 Rising Sun Ave
Philadelphia........ 728-6333
Tex Stevens Sales, Box 34493, Dallas........ CH 1-3645
Utah Elcom, Box 2066, Salt Lake........ 278-6044
Can Nortech Electronics Ltd, 1335 Lawrence Ave, E
Don Mills, Ont........ 447-6471

DCMT MACHINERY DIV AVNET INC
91 COMMERCIAL ST, PLAINVIEW
N Y, 11803........ 516 WE 5-8780
S LEVINE, EMP 10, ENG 3
Cal Metalworking Mach, 2026 S Sante Fe Ave
Los Angeles........ LU 3-1627
Colo Mine & Smelter Supply Co, 3800 Race St
Denver........ 244-4353
Ind E L Humston Co, 1606 N Illinois St
Indianapolis........ WA 5-9691
Mich Thos J O'Brien Co, 14111 St Mary's Ave
Detroit........ VE 6-4618
Minn Chas W Stone Co, 1914 LaSalle Ave
Minneapolis........ 339-0611
Ohio Richard D Imbry Assoc, 4818 Gleeten Rd
Cleveland........ 382-2282
RI H Leach Machinery Co, 45-75 Corliss St
Providence........ 331-0695
Can A C Hamilton & Co, 3216 Lenworth Dr
Cooksville Ont........ 416 625-2965

DEANS CO, W S, 8512 E GARDENDALE, DOWNEY
CAL, 90242........ 213 TO 2-8345
W DEANS, EMP 4, ENG 1, UP TO $100M

DEARBORN ELECTRONICS INC SUB SPRAGUE ELEC
CO, BOX 530, ORLANDO
FLA, 32802, TWX 56-4456........ 305 838-3011
C LITTLE, EMP 240, ENG 7, $1,000-$2,500M
Ariz Sprague Electric Co, 3550 N Central Ave
Phoenix........ 279-5435
Cal Sprague Electric Co, 12870 Panama St
Los Angeles........ 870-0161
Cal Willim J Purdy of Cal, 312 7th St
San Francisco........ 863-3300
Colo Sprague Electric Co, 5670 E Evans Ave
Denver........ 756-3611
DC Sprague Electric Co, 3900 Wisconsin Ave N W
Washington........ 244-6006
Fla W Ben Wimberly Co, 532 S Fort Harrison
Clearwater........ 446-7072
Fla W Ben Wimberly Co, 500 S Osceola St
Orlando........ 425-3083
Ill sprague Electric Co, 5942 W Montrose Ave
Chicago........ 685-6400
Ind Sprague electric Co, 2511 E 46th St
Indianapolis........ 546-4911
Md Rothenheber & Co Inc, 14211 Chesterfield Rd
Rockville........ 929-3388
Mass Tom Crawford & Son, Box 264
Norwood........ 762-6878
Mich Sprague Electric Co, 259 Collingwood
Ann Arbor........ 761-4080
Minn HMR, Inc, 9 E 22nd St, Minneapolis........ 335-7734
Mo Sprague Electric Co, 500 Northwest Plaza
St Ann........ 291-2500
NJ Clarfield-Stollmack Assoc, 175 Westwood Ave
Westwood........ 666-8989
NM C T Carlberg & Assoc, Box 3177, Sta D
Albuquerque........ 265-1579
NC Sprague Electric Co, 928 Burke St
Winston-Salem........ 722-5151
Ohio R G Siff & Assoc Inc, Box 7035
Dayton........ 278-4779
Ohio Sprague Electric Co, 24 N Main St
Chagrin Falls........ 247-6488
Ohio Sprague Electric Co, 224 Leo St
Dayton........ 223-9187
Pa Rothenheber & Co Inc, 53 Cricket Ave
Ardmore........ 642-6911
Tex Delzell & Evans Assoc, Box 35093
Dallas........ 351-1839
Wash Sprague Electric Co, 4601 Aurora Ave N
Seattle........ 632-7761
Can A Deskin Sales Corp, 1565 Louvain St W
Montreal........ 384-1420

Can A Deskin Sales Corp, 27 Claremont Ave Winnipeg 453-1877
Can A Deskin Sales Corp, 110 Westhumber Blvd Rexdale Ont 742-6871
For J F Rizzo Co, Empire State Bldg Rm 5710 New York 736-0398
BC A Deskin Sales Corp, 1641 Venables St Vancouver 253-6396

DEARBORN WIRE & CABLE CO, 3333 W OHIO ST CHICAGO, ILL, 60624 .... 312 638-6711
B GREENE, EMP 50, ENG 4, $5,000-$10,000M
Ohio Keiter Electrical Insulation Co 21330 Center Ridge Rd, Rocky River

DECADE COMPUTER CORP, 7457 LORGE CIRCLE HUNTINGTON BEACH, CAL, 92647 ..... 714 842-2535
J DICKERSON, EMP 72, ENG 9, $2,500-$5,000M
Ill Decade Computer Corp, Chicago
NY Decade Computer Corp, New York

DECATUR ELECTRONICS INC, 989 W KING ST DECATUR, ILL, 62522 217-428-4315
M FLEMING, EMP 45, UP TO $100M

DECCA RADAR, INC, 386 PARK AVE S, NEW YORK N Y, 10016, TWX 710 581-4041 685-5157
D DICKENSON, $2,500-$5,000M
Ala Marine Electronics, Inc, 2805B Pleasant Valley Rd Mobile 458-8497
Alas Radar Electric Co, Box 2456, Kodiak 486-2892
Alas Alaska Radio Supply, 100 Harborway, Juneau
Alas Anchorage Radio & TV, 716 Fifth Ave Anchorage 907 272-2588
Alas Service Elec Co, 744 Water St Ketchikan 907 255-2168
Cal Electronic Marine Prod, Pier 42 San Francisco 379-3243
Cal Bartell Corp, 1577 Monrovia Ave Newport Beach 714 642-1634
Cal Commercial Radio & Elctns Co, 317 W 7th St Eureka 707 442-4179
Cal Crescent City Radio & TV, 858 3rd St Crescent City 707 464-4186
Cal E L Kyzer Marine Elctns, 201 S Main St Morro Bay 805 772-8027
Cal Marine Radio Service, Berth 73 San Pedro 213 831-1213
Cal Maritime Elctns Co, 877 E Hamilton Ave Campbell 408 371-2900
Cal Tanner Marine Elect Inc, 2525 Shelter Island Dr San Diego 714 224-2764
Cal Maritime Communications, 4210 Lincoln Blvd Marina Del Rey 805 397-7705
Conn Conn Marine Instrument Co, Grand View Terr Essex 767-8960
Conn Norwalk Cove Marina, Beach Rd Norwalk 203 838-2326
Conn Zaslow Sales Co, 6 Newberry Rd, Bloomfield
Del Chas W Rogers, Inc, Rt 14, Box 35 Lewes 645-6225
Fla Jackson Electronics Corp, 1515 SE 16th St Ft Lauderdale 523-2288
Fla Jacksonville Marine Radio, 2256 Atlantic Blvd Jacksonville 904 359-4152
Fla L B Harvey Marine Instr, 252 SW 6th St Miami 305 371-1583
Fla Mar-Tronics, 917 Ave E W Palm Beach 305 848-0568
Fla Rich Elctns Inc, 1400 NW 17th Miami 305 636-1351
Fla Tampa Marine Elctns, 102 S 22nd St Tampa 813 244-7411
Fla Felix Marine Elctns, 817 San Carlos Blvd Fort Myers .... MO 4-9540
Fla Key West Elctns, 900 Caroline St, Key West
Ga Marine Indl Electronics, Inc, 69 Ross Rd Savannah 232-3489
Haw C-E Electronics Inc, 1651 Ala Mona Blvd Honolulu 996-177
Ill Allied Automation Sales Co, 4023 N Elston Ave Chicago
Ind Lorain Electronics Corp, 845 W Larkspur Dr Jeffersonville 282-7410
Ky Lorain Electronics Corp, Box 729 Paducah 442-0925
La F & L Indl Electronics Ser, 3905 Magazine St New Orleans 891-7648
La Bibbins & Rice Inc, 1008 Clothilde St, Morgan City
La Electronics Unltd, 2014 Enterprise Blvd Lake Charles
Me Whitcomb Radio, Box 446 Boothbay Harbor 633-4863
Me A M Wheelden Inc, Box 27 Stonington 207 367-2307
Md Smith Communications, Inc, 1907 N Chester St Baltimore 675-8633
Md Fry Elctns, Foot of 2nd St Eastport-Annapolis 301 263-4259
Mass Layton Industries, 542 E Squantum St North Quincy 617 773-9791
Mass Cape Cod Marine Service Inc, Box Drawer K Falmouth 617 548-3147
Mass Chris Elctns, 71 Bellevue St New Bedford 617 994-8257
Mass Crawford Marine Elctns, 9 Wharf St Gloucester 617 283-7200
Mass Radiotelephone Serv Inc, Namskaket Rd Orleans 617 255-0640
Mich Lorain Electronics Corp, 1603 Superior St Sault St Marie 632-7261
Miss Specialized Electronics Co, 620 Norris Ave Greenville 332-0213
Miss Southeastern Elctns, 1542 Andrew Ely St Pascagoula 601 762-1069
Mo Kansas City Radio Marine Serv, 2005 E 55th Terr Kansas City 453-2794
NJ Larry Smith Electronics, Box 276A Pitney Rd Absecon 641-6395
NJ Chas W Rogers & Son, Curtis & Union Ave Manasquan 201 223-1949
NY Geils & Forest Marine Elec Co, 197 City Is Ave City Island 885-1726
NY Griffith Marine Elctns, 79 4th St New Rochelle 914 636-4340
NY Sommer Marine Elctns, 334 Main St Port Washington 516 767-2050
NY Hudson Valley Marine Elctns, 72 VanWyck Rd Blauvelt 914 359-0406
NY South Shore Marine Radio, 29 Degnon Blvd Bayshore 516 665-2695
NY Rad-Com Inc, 122 Library La Mamaroneck .... 914 OW 8-6500
NC Ensley's Radio Co, Box 1114 New Bern .... SH 5-2351
Ohio Lorain Electronics Corp, 2307 Leavitt Rd Lorain 282-6116
Ohio Machine Tool Dev Co, 5465 Lake Court Ave Cleveland
Ore Coos Electronics-G, Box 675, North Bend
Ore Progress Elctns, 5652 N Lagoon Ave Swan Island Portland 503 285-8388
Pa Maritime Electronics Co, 40 Chester Pike Sharon Hill 532-9236
RI Merriam Marine Radio, Tillinghast Rd E Greenwich 787-7335
Tenn Warner Radio Service, Inc, Box 166 Memphis 526-0644
Tex Gulf Radiotelephone, 2524 Sutherland Houston 923-7711
Tex Texas Elctns, 2136 7th St Port Arthur 713 982-9401
Tex Industrial Elctn Service, 3321 Troy Dr Corpus Christi 512 882-8151
Va Priest Electronics, 6431 Tidewater Dr Norfolk 855-3017
Va Robinson Marine Elctns, 121 Randolph St Norfolk 703 622-6775
Wash Radar Electric Co, 168 Western Ave W Seattle 282-2511
W Va Marine Elctn Service, 6320 Aracoma Dr, Huntington
Wis Double A Enterprises, Rt 1 Box 87, Jackson
Can Decca Radar (Can) Ltd, 23 Six Point Rd Toronto, Ont
For York Communications, Box 495 San Juan 725-2965
For Pitts' Bay Boat Co, Box 762, Pembroke
Den Decca Radar Aktieselskab, Kalvebod Brygge Copenhagen V .... Byen 8310
Fr Compagnie Radio - Maritime, 8 Rue Lavoisier Paris 8e .... Anjou 78-81
Ger Debeg, Hamburg 11, Katharinenstr 23 .... 36 24 11
GB Decca Radar Ltd, 9 Albert Embankment, London SE 1
Holl Internationale Navigatie, Apparaten N V Wijnhaven 42 115990
Ital Fab Appar per-Comun Elec-Std, Via Luigi Bodio Milano
Jap Swire & Maclaine Ltd, 1-Chome Marunouchi Chiyoda-Ku, Tokyo 211-1773
Nor Decca Radar og Navigator A/S, Industrihuset Bergen 16735
SAfr Instrument Mfg Corp of S A Ltd Plumstead, Cape Box 23, Plumstead 2-5496
Swed Decca Navigator och Radar AB Karlavagen 121, Box 27105 Stockholm 27 .... 67 00 80
Swit Decca Radar S A, Zwingerstr 26, Basel .. 35 56 11

DECIBEL PRODUCTS INC, 3184 QUEBEC ST, DALLAS TEX, 75247 .... 214 631-0311
K PARSONS, EMP 40, ENG 4
BC Westronic Engrg Sales Ltd, 1641 W 2nd Ave Vancouver 9

DECITRON ELECTRONICS CORP, 841 ESSEX ST BROOKLYN, N Y, 11208 .... 212 NI 98110
H STARKAND, EMP 215, ENG 20, $5,000-$10,000M

DECKER CORP, 45 MONUMENT RD, BALA CYNWYD PA, 19004 .... 215 MO 46700
R MOYER, EMP 35, ENG 4, $1,000-$2,500M
Ala Vaughn Electrosources Co, Box 1369 Huntsville 881-8830
Cal Premmco-Welco, 1502 W 166th St Gardena 532-6010
Colo Electro-Rep, Inc, 1051 So Platte River Dr Denver 744-2811
Ill Engineering Products Assoc, 1343 Western Ave Northbrook 272-2730
Mass Carroll Eng & Sales Co, Box 67 Boston .... FA 5-4069
Mich Carter, McCormic & Peirce, 16239 Wyoming Ave Detroit 863-4600
Minn Engineering Prods Assoc, 2119 Grand Ave St Paul 698-5531
NM Electronic Enterprises, 1900 Washington ne Albuqu 256-1585
NY Martin P Andrews Inc, 319 Mott Rd Fayetteville 637-3144
Ohio Carter, McCormic & Peirce, 3406 N Main St Dayton 278-5873
Ohio Carter, McCormic & Peirce, 3691 Lee Rd Cleveland 921-1360
Pa Wm Dugger Co, 412 E Spring Ave Ardmore .... MI 9-0889
Tex E G Miller Co, Box 929, Henderson 5049

DECOURSEY ENGINEERING LAB, 11828 W JEFFERSON BLVD CULVER CITY, CAL, 90230 .... 213 EX 79668
W DECOURSEY, EMP 12, ENG 2
ADV PG 293

DEE ELECTRIC CO, 2505 N WAYNE AVE, CHICAGO ILL, 60614 .... 312 477-5500
C SCHULTZ, EMP 65, ENG 4, $500-$1,000M
Ala W A Brown & Assoc, 1314 Bulford St, N W Huntsville 536-8393
Ariz Claude Michael, Inc, 15 N 40th Pl Phoenix 273-7376
Cal Claude Michael, Inc, 703 W Ivy St Glendale .... CH 5-8401
Cal Claude Michael, Inc, 2634 Frontage Rd Mt View 326-6884
Colo Claude Michael, Inc, 1639 Platte St Denver 455-1352
Fla W A Brown & Assoc, 3039 N E 32nd St Ft Lauderdale 564-8000
Fla W A Brown & Assoc, 222 Weber Ave Orlando 425-5505
Fla W A Brown & Assoc, 608 Oleander Dr Ft Walton Beach 243-6424
Ga W A Brown & Assoc, 1590 Cooledge Rd, N W Tucker 939-1674
Mass Contact E Inc, 7 Cypress Dr Burlington 617 272-5051
NJ Louis A Garten & Assoc, 375 Passaic Ave Caldwell 226-7800
NC W A Brown & Assoc, 440 W End Blvd Winston-Salem 225-5384
Pa Louis A Garten & Assoc, 947 Old York Rd Abington 927-1200
Va W A Brown & Assoc, 325 1st St Alexandria 703 836-1800

DEFENSE ELECTRONICS INC, ROCKVILLE MD, 20854 .... 301 762-5700
G EXTEN, EMP 425, ENG 60, $5,000-$10,000M
Cal Defense Elctns Inc, 6151 W Century Blvd Los Angeles 213 670-4815

DEFIANCE CIRCUIT CORP, 12 SHEPARD ST LAWRENCE MASS, 01842, TWX 710-342-1246 ...... 617 686-2901
B TUPPER, EMP 175, ENG 3, $1,000-$2,500M
Cal Black & Strong, 1728 S LaCienega Blvd Los Angeles 213 870-9191
Cal Winco Sales Inc, Box 881 Mountain View 415 961-8510
Colo Waugaman Assoc, 2785 N Speer Denver 303 255-5000
Fla Components Sales Corp, Box 9545 St Petersburg 813 360-7460
Ga K & E Assoc, Rts 7A&2 Gennesaw 404 974-4264
Ill Rozner Sales Inc, 4720 N Central St Chicago 283-0022
Kan Palatine Engr Sales, 7520 W 63rd St Overland Park 913 262-5643
Mass J E Boeing Co, Box 5, Lexington 617 862-2500
Mich Carl H Schmidt Co, 16405 W 8 Mile Rd Detroit 313 273-8500
Minn G E Arneson & Co, 4900 Viking Dr Minneapolis 612 920-2086
Mo Palatine Engr Sales, 2050 Woodson Rd St Louis 314 426-7055
NY Elcom Sales Inc, Box 9112, Rochester 244-1960
NY H A F Spectrum, 35 Broadfield Rd New Rochelle 914 632-3800
Ohio Components Inc, 7461 N Linden La Cleveland 216 842-2737
Pa Elcom, Inc, 130 S Easton Rd, Glenside ... 885-1325
Tex Blackburn Assoc, Box 20073 Dallas 214 351-9991
Wash Allied Agencies, 1818 Westlake N Seattle 206 284-4082
Can Anbak Sales Canada Ltd, 3208 Lenworth Dr Cooksville Ont 416 625-1061

DEGUSSA ZWEIGNIEDERLASSUNG HANAU LEIPZIGER STR 10, D-6450 HANAU FED REP GER 06181-8691
EMP 1282, OVER $10,000M
NY Degussa Inc, 605 Third Ave New York .... 212 YU 6-2325
Can Philipp Bros (Canada) Ltd, 1245 Sherbrook St W Montreal 25, Que 845-4294
Den Frode Pedersen & Co As, Osterbrogade 84 Kopenhagen 0 .... Obro 7551756
Den Handelsaktieselskabet C C Hermann 54, Ryvangs Alle Kopenhagen-Helerup 0413-9822
Fr Degussa-France S A R L, 99, Ave du Roule Neuilly Sur Seine .... Paris 624-94-02
GB Bush Beach & Segner Bayley Ltd, Lloyd's Ave London E C 3 .... Royal 9601
Holl Schone's Essaieer-Inrichting En Handel in Edele Metalen N V, Rokin 81-83 Amsterdam C 242396
Jap C Correns & Co Ltd 1-1, 2-Chome Uchisaiwai-Cho, Chiyoda-Ku Tokyo .... 501-2361(9)
Nor Syberg & Syberg A/S, Keysersgatan 8 Oslo 1 .... 20 90 70
SAfr A Klifer (Pty) Ltd, 38 Stiemens St Braamfontein/Johannesburg 724-0384
Swed A B Pegol, Djurgaardsgatan 9 Goteborg 4 .... 14 07 51
Swit W Baader, Ramistr 2 Bellevuerlatz CH 8021 Zurich .... (051) 34 13 12
Swit A Klotz, Fluelahof Badenerstr 565 CH 8048 Zurich .... (051) 54 14 40

DC L C Stansel, 1629 K St NW
Washington 223-4484

DEK INC, 117 W ST CHARLES RD, LOMBARD
ILL, 60148 .... 312 629-5580
K SANTUCCI, EMP 10, ENG 3, UP TO $100M

DELAVAN MFG CO, 811 4TH ST, WEST DES MOINES
IOWA, 50265 .... 515 274-1561
D MILLER, EMP 750, ENG 35, OVER $10,000M

DELAY DEVICES CORP, 103 MORSE ST, WATERTOWN
MASS, 02172 .... 617 926-0800
W HOLCOMB, EMP 10, ENG 1, $100-$250M
Cal Universal Components Co, 2330 Westwood Blvd
Los Angeles 213 474-1537
Md Tomco Sales Co, 4233 58th Ave
Bladensburg 277-1610
Mo F B Sales, 6809 W Florissant, Jennings .. 383-2432
NY Syracuse Technical Reps, Box 47
Syracuse 315 488-0222

DELCO RADIO DIV GENERAL MOTORS CORP
700 E FIRMIN ST, KOKOMO
IND, 46901 .... 317 457-8461
D SANDBERG, EMP 8500, ENG 300, OVER $10,000M
Cal Delco Radio Div GMC, 726 Santa Monica Blvd
Santa Monica 393-1465
Ill Delco Radio Div GMC, 5151 N Harlem Ave
Chicago 775-5411
NJ Delco Radio Div GMC, Box 1018 Chestnut Sta
Union 687-3770
NY Delco Radio Div GMC, 1054 James St
Syracuse 472-2668

DEL ELECTRONICS CORP, 250 E SANDFORD BLVD
MT VERNON
N Y, 10550, TWX 710 562-0130 .... 914 699-2000
W YOUNG, EMP 145, ENG 20, $1,000-$2,500M
Ala Grady Duckett Sls Co, Box 537
Hazelgreen 828-3475
Cal Compar-San Francisco, 1817 Bayshore Hwy
Burlingame 415 697-6244
Cal King-Way & Assoc, 11168 Santa Monica Blvd
Los Angeles 213 473-8000
Colo D E Bond Assoc, 2149 S Clermont St
Denver 756-1234
Conn William Couch, 115 Bald Hill Rd
New Canaan 966-4630
Fla Grady Duckett Sls Co, Box 310, Uleta Br
Miami 947-3974
Fla Grady Duckett Sls Co, Box 15215
Tampa 855-3222
Fla Buchanan & Abrams Assoc, Box 6026
Orlando 305 423-8995
Ga Grady Duckett Sales Co, Box 29067
Atlanta 451-3529
Ill Berndt Assoc Inc, 6414 W Belmont Ave
Chicago 283-0713
Md Zenatronix Assoc, 8121 Georgia Ave
Silver Spring 588-5677
Mass Tri Tek Inc, 165 A Bedford St
Burlington 272-4550
Mass Stan Pierce Co, 24 Linden St
Norwood 617 762-3164
Mich Don Poulin Co, 17222 E Warren Ave
Detroit 886-4990
Mo Russ D. Sebright & Co, 7120 W Florissant Ave
St Louis 314 261-0055
NJ S Glassman Assoc, 326 Hillside Ave
Nutley 667-0653
NJ Unicomp, 18 Sunny Ridge Rd
Wayne 201 696-2888
NM D E Bond & Assoc, Box 11331
Albuquerque 247-3442
NY S Glassman Assoc, 28 Prestwick Terr
Glen Cove 676-1039
NY J A Reagan Co Inc, 419 Central Ave
Albany 436-9649
NC Grady Duckett Sales Co, Box 22002
Greensboro 919 273-4617
Ohio Frank J Campisano & Assoc, Box 11043
Cincinnati 513 662-1616
Ohio McFadden Sales Inc., 150 E Broad St
Columbus 614 221-3363
Pa Angus McArn Co, Box 11127
Pittsburgh 366-1533
Pa Martin Electric Co, 6741 N 13th St
Philadelphia 927-5858
Tex Athans Sales Co, Box 134
Richardson 214 231-3481
Wash Al Smith Co, 405 166 S E
Bellevue 206 746-6770
Can R Beattie, Ltd, 1260 Lakeshore Rd, E
Port Credit, Ont 274-3445
For Joseph Plasencia, Inc, 521 5th Ave
New York, N Y 867-8084

DELEVAN ELECTRONICS DIV AMER PREC INDUS INC
270 QUAKER RD, EAST AURORA
N Y, 14052 .... 716 652-3600
S MEDWID, EMP 450, ENG 8, $2,500-$5,000M
Cal L-TRONIX, 1617 W Colorado Blvd
Los Angeles .... CL 6-2224
Cal Long & Assoc, 505 Middlefield Rd
Redwood City .... EM 9-3324
Colo Walter-Powers Assoc, 880 Bonnie Brae Blvd
Denver 777-5585
Fla Perrott Assoc Inc, Box 532, Clearwater ... 446-2535
Fla Perrott Assoc, 1607 Forsyth Rd
Orlando 275-1132
Ill D Dolin Sales Co, 3525 W Peterson Ave
Chicago 588-3738
Ind W W Bieberich Inc, 801 Leesburg Rd
Fort Wayne 742-8468
Iowa W F Lorenz, 320 30th St SE
Cedar Rapids 366-0774
Kan H C Heyde Co, 9221 Wenonga Rd
Leawood .... MI 9-8628
Md J A Dougherty Sales Co, 320 Hillen Rd
Towson 823-0431
Mass P J Engineering Sales Co, Box 267
Boston 924-5950
NJ Thomas Assoc, Inc, 138 Haddon Ave
Haddonfield 854-3011
NJ Marchand-Border Co, 120 Oak St
Tenafly 568-2354
NY Marchand-Border Co, Box 181
Cranford, NJ 272-5510
NY Tech-Mark, 101 Jefferson Ave, Endicott ... 748-7473
NY Tech-Mark Inc, Box 296, New Hartford 732-1602
NY Tech-Mark, Inc, 19 Valley Brook Dr
Fairport 377-5531
Ohio C A Robinson Co Inc, 4425 Mayfield Rd
Cleveland 381-9049
Ohio C A Robinson Co Inc, 11 W Monument Bldg
Dayton 222-0832
Ore Dale G Weber Co, Weatherly Bldg
Portland .... BE 4-7671
Tex P J Scanlon Co Inc, 724C S Sherman St
Richardson .... AD 1-4661
Wash Dale G Weber Co, 325 Maritime Bldg
Seattle .... MA 3-5990
Can A Deskin Sales Corp, 1565 Louvain St W
Montreal, Que 384-1420
Can A Deskin Sales, 110 W Humber
Rexdale 241-0324
Fr Tranchant Electronique
19 rue Madame de Sanzillon
Clichy Seine 270-2255
Ger Amphenol-Tuchel Elctns GMBH, 8024 Deisenhofen
Bei Munchen 42 70 71
GB Amphenol Ltd, Thanet Way
Whitstable, Kent OCA72-4345
Ital Special-Ind, Via D Manin, 33, Milano 632435
SAfr Impectron (PTY) Ltd, Box 10262
Johnnesburg 22-1386
Swed AB Elektroutensilier, Akers, Runo
Stockholm 0764-20110
Swit Werner Stolz Ingenieurbureau, Dorngasse 311
8967 Widen 057 7 7440
BC A Deskin Sales, 840 Cambie Rd
Richmond, BC 278-8510
Belg Elemby Elctns, Rik Sauterstr 18
Borgerhout Antwerp 30 76 19
Isrl Telsys Ltd Engineering Co, Box 10034
Tel-aviv 222839
Spn Unitronics, Torre De Madrid
Princesa Madrid 241 14 96

DELONICS CORP, 32 UNION SQ E, NEW YORK
N Y, 10003 .... 212 533-4400
F WEBER, EMP 12, ENG 4, $100-$250M
Ala DeLonics Corp, 2221 8th Ave N
Bessemer 205 425-8711

DELSEN CORP, 719 W BROADWAY, GLENDALE
CAL, 91204 .... 213 245-8517
W WHYTE, EMP 6, ENG 1

DELTA COILS, 4312 MAIN ST, PHILADELPHIA
PA, 19127 .... 215 482-9350
D ESTES, EMP 70, ENG 6, $500-$1,000M
Fla Mark Electronic Sales Co, Box 291
N Miami .... WI 7-5080
Md Harry J White Co Inc, 320 Hillen Rd
Towson .... VA 8-6376
Md Harry J White Co Inc, 320 Hillen Rd
Towson .... VA 8-6376
Md H J White Co Inc, 801 W Marlton Pike
Cherry Hill .... HA 8-2304
Mass QRC Co, 134 Upland Rd, Newton
NJ Cooper-Simon Co, 7 W Broad St
Mt Vernon, N Y .... OW 9-5400
NJ H J White Co Inc, 801 W Marlton Pike, Cherry Hill
NJ Cooper-Simon Co, 7 W Broad St
Mt Vernon .... OW 9-5400
NJ H J White Co Inc, 801 W Marlton Pike
Cherry Hill .... HA 8-2304
Ohio Walter J Brauer & Assoc, 29029 Euclid Ave
Wickliffe 943-0601
Tex John F Rasco, 2813-A Allen St, Dallas .. RI 7-0108
Can H W Breiger Sales Co, 5253 Decarie Blvd
Montreal 489-0725

DELTA DESIGN INC, 8000 FLETCHER PKWY, LA MESA
CAL, 92041, TWX 910-322-1343 .... 714 465-4141
E KERSTING, EMP 127, ENG 8, $1,000-$2,500M
Ala W A Brown & Assoc, 1314 Buford St N W
Huntsville 205 539-6884
Ariz Kelly Scientific Sales, 412 N Marshall Way
Scottsdale 602 947-6304
Cal QPL, Inc, 1015 Fremont Ave
S Pasadena 213 682-3705
Cal Bert Oppenheim, Inc, 2179 Park Blvd
Palo Alto 415 321-7323
Colo Price-Parrish Electronic Sales, 2130 S Albion St
Denver 303 756-9455
Fla W A Brown Assoc, 222 Weber Ave
Orlando 305 425-5505
Fla W A Brown & Assoc, 3039 N E 32nd Ave
Ft Lauderdale 305 564-8000
Fla W A Brown & Assoc, 212 Bradley Dr N E
Ft Walton Beach 904 243-6424
Ga W A Brown & Assoc, 1590 Cooledge RD N W
Tucker 404 939-1674
Ill Torkelson Assoc, 465 Central Ave
Northfield 312 446-8450
Ind Torkelson Assoc, 3512 Rockville Rd
Indianapolis 317 241-0725
Kan Palatine Eng Sales, 5514 Johnson Dr
Mission 913 262-5643
Md Electronic Sales Assoc, 12050 Tech Raod
Silver Spring 301 622-2246
Mass Electronic Sales Assoc, 594 Marrett Rd
Lexington 617 899-1430
Mich Sy Sterling Company, 21250 10 1/2 Mile Rd
Southfield 313 357-3700
Minn Torkelson Assoc, 4820 W 77th St
Minneapois 616 920-1046
Mo Palatine Eng Sales, 2050 Woodson Dr
St Louis 314 426-7055
NJ M G Assoc, 1500 Kings Hwy
Cherry Hill 609 428-1663
NJ KLS Assoc Inc, 387 Passaic Ave
Fairfield 201 228-2525
NM Kelly Scientific Sales, 2800 Cardenas NE
Albuquerque 505 268-3324
NY F T Battista Co, 223-46 Hempstead Ave
Queens Village 212 479-3550
NY Electronic Sales Assoc, 525 Northern Blvd
Great Neck 516 466-5577
NY Robert F Lamb Co Inc, 1865 Kenmore St
Buffalo 716 874-4900
NY Robert F Lamb Co Inc, E Molley Rd
Syracuse 315 454-2469
NY Robert F Lamb Co Inc, 63 Norcrest Dr
Rochester 716 544-5580
NY Robert F Lamb Co Inc, Box 661 Uptown Sta
Kingston 914 338-8895
ND W A Brown & Assoc, 1108 Burke St
Winston-Salem 919 725-5384
Ohio sy Sterling Co, 2673 Culver Ave
Dayton 513 298-7573
Ohio Sy Sterling Co, 5827 Mayfield Rd
Cleveland 216 442-8080
Pa Sy Sterling Co, 4232 Brownsville Rd
Pittsburgh 412 884-5515
Tex Arnold Barnes Co, 740 S Sherman St
Richardson 214 235-4541
Tex Arnold Barnes Co, 3230 Mercer St
Houston 713 622-3620
Tex Arnold Barnes Co, E 106 Petroleum
San Antonio 512 828-1323
Wash Gordon McLaren & Assoc, 7419 S E 24th St
Mercer Island 206 232-5164
Can Electronetic Systems Ltd, 62 Alness St
Downsview Ont 416 636-3673
Can Electronetic Systems Ltd, 6420 Victoria Ave
Montreal Que 514 737-2744
For Brooks Delektro Inc, 41 E 42nd St
New York 212 687-4940
For Microwave Intl Corp, 111 High Ridge Rd
Stamford, Conn 203 348-7704
Jap Rikei Trading Co Ltd
1 Chome 18-14 Nishi Shimbashi
Minato-Ku Tokyo 591-5246

DELTA ELECTRONICS INC, 4206 WHEELER AVE
ALEXANDRIA, VA, 22304 .... 703 751-3133
R FOLEY, EMP 50, ENG 8, $500-$1,000M
For Rocke Intl Corp, 13 E 40th St
New York, NY 212 689-0200

DELTA PRODUCTS INC, BOX 1147, GRAND JUNCTION
COLO, 81501 .... 303 242-9000
R DUFF, EMP 80, ENG 5, $500-$1,000M

DELTA SEMICONDUCTORS DIV NATL INSTR CORP
225 PAULARINO AVE, COSTA MESA
CAL, 92626, TWX 910-595-1572 .... 714 540-4160
G PANTAZE, EMP 40, ENG 4, $500-$1,000M
Cal LJG Industries, 1720 Pontius
Los Angeles 213 472-8902
Cal Parsons Co, 1 First St, Los Altos 415 941-4745
Conn K Pfeiffer, 194 Plymouth St
Stratford 203 375-5456
Fla CES Assoc, Box 1152, Melbourne 305 254-2183
Ill Atronic Corp, 6400 N Leoti
Chicago 312 774-8252
Mass Gerald Rosen Co, 563 Worcester Rd
Natick 617 655-2211
Minn T Ayre, Box 247, Excelsior 612 474-9100
Pa Robin Products Co, Box 66
Merion Sta 215 664-1889
For Far West Intl, 2815 S La Cienega Ave
Los Angeles, Cal 213 836-6288

DELTA SONICS INC, 12918 CERISE AVE, HAWTHORNE
CAL, 90250 .... 213 772-1409
J HALBERT, EMP 35, ENG 3, $250-$500M
Ariz Dyna Clean Labs, 458 W Flower St
Phoenix 274-8964
Ark Instrumark, Inc, 509 N 15th St
Fort Smith 785-1832
Cal Interconsal Assoc, 825 San Antonio Rd
Palo Alto 321-8113
Ga Surface Engineering South Inc, Box 80097
Chamblee 404 451-5331
Ill Joe Popp Sales Co, 5719 W Chicago Ave
Chicago 261-7423
Md Delta Sonics Inc, 14102 Arctic Ave
Rockville 301 946-8208
Mass Production Devices Corp, 489 Main St
Stoneham 617 438-2772
Minn Eagle Engineering Co, 2519 E 25th St
Minneapolis 612 721-3393
NJ ZMF Assoc, Box 291, Caldwell 201 226-6672

Ohio Interstate Ultrasonics, Inc, 2801 S Main -H2 Findlay ... 561-6688
Tex Alpha-Monarch Corp, 10044 Monroe St Dallas ... FL 2-8040
Va G C Danch & Assoc Inc, Box 310 McLean ... 703 893-5800
BC Pacific Ultrsonic Equip, Ltd, 4533 Dunbar St Vancouver ... 604 224-6636

DELTIME INC, 225 HOYT ST, MAMARONECK
N Y, 10543, TWX 710 566-1110 ... 914 OW 85600
M ROBICH, EMP 600, ENG 15, $5,000-$10,000M
Cal J C Simon Co, 5478 Wilshire Blvd Los Angeles ... 939-2366
Colo Regan & Assoc, 1188 E Eastercourt Littleton ... 303 794-6477
Fla Steele Technical Sales Co, 2106 Woodcrest Dr Winter Park ... MI 7-1304
Haw Paul Hanson Co Inc, Box 2173 Honolulu ... 808 510-484
Mich Carter, McCormic & Peirce, 16239 Wyoming Detroit ... 862-0017
Minn Hasse & Assoc Inc, Box 7707 Minneapolis ... 588-0551
Mo R W Farris Co, Inc, 1715 Baltimore Ave Kansas City ... HA 1-1751
Mo Dipro Inc, Box 1427, Maryland Hts ... 432-3444
NJ Engineered Prods Inc, 28 Essex St Co 3 Lodi ... 342-4119
NY I A Hotze Co, 112 DeWitt St Syracuse ... GR 9-6641
Ohio McFadden Sales Co, 150 E Broad St Columbus ... CA 1-3363
Ohio McFadden Sales Co, Box 624 Far Hills Br, Dayton
Pa S A Jeffries, 105 Forrest Ave Narberth ... MO 4-8500
Tex Gordon V Peck Co, 210 Casa Linda Plaza Dallas ... DA 8-3511
Wash Allied Agencies, 1818 Westlake N Seattle ... AT 4-4082
Can White Radio Ltd, 392 Wilson St Hamilton, Ontario ... 522-1364
GB Sealectro Ltd, Walton Rd, Farlington Portsmouth, Hants

DELTRON, INC, WISSAHICKON AVE, NORTH WALES
PA, 19454, TWX 510-661-8061 ... 215 699-9261
R LEWIS, EMP 125, ENG 12, $1,000-$2,500M
Ala International Scientific Instru, Box 2091 Huntsville ... 536-9686
Ariz R A Mayes Co, 4747 N 16 th St Phoenix ... 279-5243
Cal L & M Engineering, 2620 The Alameda Santa Clara ... 243-6661
Cal L & M Engineering, 9911 Inglewood Ave Inglewood ... 678-5409
Colo R A Mayes Co, Box 314, Broomfield ... 421-0706
Fla Truex Assoc, 3165 McCrory Pl, Orlando ... 841-8931
Ill Pat Lind Electronics, 5483 N Northwest Hwy Chicago ... 774-1246
Mass E A Janse Associates, 892 Worcester St Wellesley Hills ... CE 5-1623
Mich W K M Associates, 1474 E Outer Dr Detroit 34 ... 892-2500
Minn Pat Lind Electronics, 10104 Sunset Rd Circle Pines ... 786-5770
Mo Alfred F Gliedt, 10869 Spring Garden Dr St Louis ... UN 7-5780
NM R A Mayes Co, 8016 Zuni Rd, SE Albuquerque ... 265-7989
NY Rep Tech Inc, 5858 E Molloy Rd Syracuse ... 454-0761
NY Rep Tech Inc, 1905 Vestal Rd, Vestal ... 785-5979
NY Rep Tech Inc, Box 156, Clarence ... 684-6250
NY Crane & Egert Corp, 146 Meacham Ave Elmont ... 488-2100
NC Lee Ltd, Bethania ... 924-8245
Ohio W K M Associates, 5335 Far Hills Ave Dayton ... 434-7500
Ohio W K M Associates, 6741 Ridge Rd Cleveland ... 885-5616
Okla Ammon & Champion, May-Ex Bldg Oklahoma City ... WI 2-8222
Okla Ammon & Champion, 5555 E Skelly Dr Tulsa ... 627-7670
Pa W K M Associates, 90 Clairton Blvd Pittsburgh ... 892-2953
Pa Crane & Egert Corp, 107 W Ridge Pike Conshohocken ... 277-0559
Tex Ammon & Champion, 3300 W Mocking Bird Dallas ... 357-8441
Tex Ammon & Champion, 11514 Burdine Houston ... 729-1233
Va W A Brown & Assoc, 325 First St Alexandria ... 836-1800
Va W A Brown & Assoc, 82 Huxley Pl Newport News ... 596-2358
Can Electronetics Systems Ltd, 6420 Victoria Ave Montreal, Que ... 737-2744
Can Electronitics Systems Ltd, 62 Alness St Downsview, Ont ... 636-3673
For Lindor International Corp, 10 E 40th St New York, NY ... MU 5-6740

DEMORNAY-BONARDI DIV DATAPULSE INC
1313 N LINCOLN AVE, PASADENA
CAL, 91103, TWX 910 588-3282 ... 213 681-7416
P LIST, EMP 43, ENG 5, $500-$1,000M
Ala W A Brown & Assoc Inc, 1314 Buford St, NW Huntsville ... 533-1026
Cal RF Assoc, Inc, 800 San Antonio Rd Palo Alto ... 327-5531
Cal RF Assoc, Inc, 1621 Pontius Ave Los Angeles ... 478-1586
Colo Kelley Enterprises, 336 E Fourth St Loveland ... 667-1376
Fla W A Brown & Assoc, Inc, 222 Weber Ave Orlando ... 425-5505
Fla W A Brown & Assoc, Inc, 3039 NE 32nd Ave Ft Lauderdale ... 983-1181
Ill Berndt Assoc, 6414 W Belmont Ave Chicago ... 283-0713
Kan Penzner Assoc, Inc, 5600 W 95th St Overland Park ... DU 1-0004
Mass Connaughton & Co, 18 Bothwell Rd Brighten ... 782-2244
Mo Penzner Assoc, Inc, Box 1912, Bechtold Sta St Louis ... 351-1547
NY Central Assoc, Inc, 11 Commercial St Plainview ... GE 3-0808
NY J D Ryerson Assoc, Inc, Box 8369 Rochester ... 442-1900
NC W A Brown & Assoc Inc, 1108 Burke St Winston-Salem ... 725-5384
Ohio Ridgway East Inc, Box 68, Loveland ... 583-4350
Ohio Ridgway East Inc, 4654 Michael Ave N Olmsted ... 777-6600
Pa Holdsworth & Co, 8 Smedley La Newton Square ... 356-8550
Tex Mitchell Speairs Co, 4944 James Ave Ft Worth ... 923-4657
Va W A Brown & Assoc Inc, 325 First Ave Alexandria ... 836-1800
Wash Ray Johnston Co Inc, 1011 NE 69th St Seattle ... 524-5170
Can BRH Assoc Ltd, 12A Finch Ave W Toronto, Ont ... 233-4008
Can BRH Assoc Ltd, 6338 Victoria Ave Montreal 26, Que ... 733-5331
Fr Megex, 105 Quai Branley, Paris ... SEG 36 93
Ger Telco, Franz-Prueltertr 15, Munich
GB C T (London) Ltd, 27 Ashley Pl, Westminster London SW 1
Ital Special-Ind, Via Manin 33, Milan ... 632-435
Jap Shoshen Shoji Kaishal Td, Box Nihonbashi 173 Tokyo ... 270-5921
Swed Teleinstrument AB, Box 14, Vallingby ... 870-345
Swit Megex-Zurich Co Ltd, Badenerstr 588 Zurich ... 051-52-3116
Belg Daniel Delgay, 36 Rue Ravenstein Brussels ... 37 70 90
Ind Toshniwal Bros Private Ltd, 198 Jamshedji Tata Rd Ft Bombay-1 ... 246131
Isrl M Kochn, 12 Shamai St, Jerusalem ... 22862
Aust B W Coulter & Co, Box 4138, G P O Sydney ... 28-2343

DENES CO INC, 3311 WINONA AVE, BURBANK
CAL, 91502 ... 213 846-3603
P KETELSEN, EMP 30, ENG 5, $250-$500M
Ariz Compar Rocky Mtn, 84 W 1st St Scottsdale ... 602 947-4336
Cal Compar San Francisco, 1817 Bayshore Hwy Burlingame ... 415 697-6244
Cal Compar Los Angeles, Box 1923 Glendale ... 213 245-1172
Fla Compar Florida, 1665 Magnolia Clearwater ... 813 446-2991
Ill Compar Midwest, 2 Talcott Rd Park Ridge ... 312 775-7883
Md Compar Chesapeake, 7 Church La Baltimore ... 301 484-5400
Mass Compar New England, 88 Needham St Newton Highlands ... 617 969-7140
Mich Compar Midwest, 21250 10 1/2 Mile Rd Southfield ... 313 357-5369
Minn Compar Twin Cities, Box 8095 Minneapolis ... 612 922-7011
Mo Compar Midwest, 11734 Lackland Ind Dr St Louis ... 314 542-3399
NJ Compar Philadelphia, 15 Potter St Haddonfield ... 609 429-1526
NY Compar New York, 355 Crossways Park Dr Woodbury ... 516 921-9393
NY Compar Albany, 6 Highland Ave Albany ... 518 436-8536
NC Compar Southern, 1106 Burke St Winston-Salem ... 919 724-0750
Ohio Compar Ohio, Box 4791 Fairview Park ... 216 333-4120
Tex Compar Southwest, 8609 NW Plaza Dr Dallas ... 214 363-1526
Wash Compar Northwest, 6133 Maynard Ave S Seattle ... 206 763-1711

DENISON INC, R B, 103 BROADWAY, BEDFORD
OHIO, 44146 ... 216 232-8200
W HOUGHTON, EMP 25
Cal •R B Clapp Co, 5404 Alhambra Ave Los Angeles ... 225-2395
Cal Artwel Electric Co, 1485 Bayshore Blvd San Francisco ... 467-1880
Conn A W Seiffert Co, 20 Beech Tree Dr Wethersfield ... 529-3364
Ga Cook-Card & Assoc, 2779 H Clairmont Rd NE Atlanta ... 634-5123
Ill George Anderson, 5865 Lincoln Ave N Chicago ... 728-3927
Ind L W Loyen Co, 4000 E 16th St Indianapolis ... 317 359-0311
Mass R P Hyland Co, 1420 Providence Hwy Norwood ... 762-0345
Mich Robert McBride Co, 20380 Rutland Southfield ... 356-5724
Minn J H Cox Co, 1400 12th Ave NE, Mnpls ... 789-2535
Mo Williams Equipment Co, Box 8327 St Louis ... 997-1030
NJ Miller & Dietz Co, 2122 Meeting House Rd Cinnaminson ... 829-9291
NY Ronald R Overs, 2671 Main St, York ... 599-3643
NC Cook-Card & Assoc, Box 3792 Charlotte ... 525-3384
Ohio J L Finnicum & Assoc, 1495 Warren Rd Cleveland ... 226-7076
Pa Russell F Clark Co, 10517 Lindberg Dr Pittsburgh ... 242-9500
Tex Texas Instrument Supply Co, 6000 Denton Dr Dallas ... 357-6121
Tex Jim Lunsford Co, 1527 N Post Oak Rd Houston ... 686-4336
Wash H D Campbell Co, 3827 Stone Way N Seattle ... 634-1200
Can National Time & Controls Ltd, 175 Wicksteed Rd Toronto ... 421-0616
GB MTE Control Gear Ltd, Progress Rd, Leigh-On-Sea Essex
Holl N V Machinefabriek Breda Electron, Box 260, Breda
Ital BELT SpA, Via Pergolesi 6, Milano

DENKI KOGYO CO LTD
3-2 MARUNOUCHI, CHIYODA-KU, TOKYO
JAPAN ... 03-216-1671
I MAEHARA, EMP 654, ENG 454, $250-$500M

DENNIS CHEMICAL CO, 2701 PAPIN ST, ST LOUIS
MO, 63103 ... 314 776-1868
D EDWARDS, EMP 85, ENG 5, $2,500-$5,000M

DENNISON MFG CO, 300 HOWARD ST, FRAMINGHAM
MASS, 01701 ... 617 879-0511
D THOMAS, EMP 4000; OVER $10,000M
Sales Offices in all Principal Cities

DENTON VACUUM INC, CHERRY HILL IND CTR
CHERRY HILL, N J, 08034 ... 609 424-1012
D BAUM, EMP 33, ENG 4, $500-$1,000M
Ga Scientific Instr & Sales Co, 2 Collier Rd NW Atlanta ... 351-6726
Mass J M Devine Co, 348 Lake Ave Newton Highlands ... 244-1132
NJ R N Juntwait & Co, Box 295 Ridgewood ... 652-9191
NM Scientific Engrg Inc, 209 San Pablo S E Albuquerque ... 265-8526
Ohio R A Gray & Co Inc, 12429 Cedar Rd Cleveland ... 462-2669
Tex Scientific Engrg Co, 910 Justin La Austin ... 454-3639
Fr Seurolec, 39-41 Rue De L'Est, Boulogne-Billancourt

DENTRONICS, INC, 60 OAK ST, HACKENSACK
N J, 07601, TWX 701-990-5069 ... 201 343-9405
I DENYSSEN, EMP 50, ENG 3
Ala Rep Inc, 8100 S Memorial Pkwy Huntsville ... 881-9270
Ariz Research Data Corp, 6660 N 23rd St, Phoenix
Cal Research Data Corp, 110 S Euclid Ave Pasadena ... 681-3451
Cal Research Data Corp, 405 S Sunnyvale Sunnyvale ... 739-2205
Fla CES Assoc, Box 1152, Melbourne ... 254-2183
Ga REP, Inc, 1483 Monroe Dr, NE, Atlanta ... 876-1591
Ill Marsten Sales Co, 6677 Northwest Hwy Chicgo ... 775-6611
Mass Daner Assoc Inc, 684 Commonwealth Ave Newton ... 969-4650
Mich Elias Electronics, 26817 W 7 Mile Rd Detroit ... 255-2111
Mo Gordon Fixman Engrg Co, 8160 Stanford Ave St Louis ... 725-5219
NJ R Freund, 273 Lawton Ave Cliffside Park ... WH 5-8472
Pa Stein Instrumentation Corp, 413 Johnson St Jenkintown ... 855-2370
Tex Servo electronics Prod Co, Box 20371 Dallas ... 637-3440
Utah Peirce Bowthorpe Agency, 143 S 4th E Salt Lake City ... 328-8173
Wash Westec Electronics, box 66521 Burien Br Seattle ... 243-7070
Can B H McGregor, Box 156 Sta H Toronto, Ont ... OX 9-5521
Den Engel Galtung, Rosengt 12B TR, Sundyberg
Fr J P B Sarl, 11 Rue Marius Franay 92 Saint-Cloud ... 825-95-58
GB Coutant Electronics Ltd, 3 Trafford Rd, Reading Berks

DERINGER METALLURGICAL CORP
1250 TOWN LINE RD, MUNDELEIN
ILL, 60060, TWX 910-685-4321 ... 312 566-4100
P LOEFFLER, EMP 165, ENG 7, $5,000-$10,000M
Cal Nat Nesbitt, 602 S Euclid Ave Anaheim ... 535-2814
NY Robert Fowler, 3700 East Ave Rochester ... LU 6-0468

DERIVATION & TABULATION ASSOCS INC
32 LINCOLN AVE, ORANGE
N J, 07050, TWX 710-994-5839 ... 201 673-8030
R GOTTBERG, EMP 45, ENG 12, $500-$1,000M
Fr Radio Television Francaise, 73 Ave de Neuilly 92 Neuilly-Sur-Seine

DESCO MFG CO, 1530 FLOWER ST, GLENDALE
CAL, 91201 ... 213 241-9560
K MACDONALD, EMP 6, ENG 1, UP TO $100M

DESIGN AUTOMATION INC, 809 MASSACHUSETTS AVE
LEXINGTON, MASS, 02173 ... 617 862-8998
N SOKAL, EMP 6, ENG 4, $100-$250M

DESIGN PRODUCTS CORP, TROY
MICH, 48084 ... 313 647-1770
R JOSS, EMP 10, ENG 3, $100-$250M
Ill Electrol Specialties Co, 441 Clark
South Beloit ... 815 389-2291
NY Swedelco Inc, 65 Court St
White Plains ... 914 946-1122
Ohio E-C-P Corp, 4725 Superior Ave
Cleveland ... 216 391-0444
Ohio S & S Control Co, 3300 Bishop St
Toledo ... 419 244-9506
Pa C A Briggs Co, 110 Keswick
Glenside ... 215 885-2244

DESOTO ELECTRICAL PRODUCTS, BOX 239, DESOTO
MO, 63020 ... 314 586-3381
G SOLOMON, EMP 2, ENG 1, UP TO $100M

DESPATCH OVEN CO, BOX 1320, MINNEAPOLIS
MINN, 55440, TWX 029-688 ... 612 331-1873
C HANSON, EMP 300, ENG 50
Ala Naughton Equip Co, 100 Crestwood Dr
Birmingham ... 205 328-1618
Cal Matheson-Doherty Co, 181 Beacon St
San Francisco ... 415 761-2904
Cal Egloff & Graper, Inc, 1798 Industrial Way
Los Angeles ... 213 269-7363
Colo T C Jarrett Co, 15 Hillside Dr
Denver ... 303 233-2333
Conn Etter Engineering Co, Box 5126
Hamden ... 203 288-3575
DC J R Graves & Assoc, 554 Washington Bldg
Washington ... ST 3-8393
Fla D A Thomas, 1342 Yulee Dr
Clearwater ... 813 531-4255
Ga Dilcher Engineering Co, 3376 Peachtree Rd, N E
Atlanta ... 404 261-1678
Ill W E Swanson & Assoc, 6135 N Elston Ave
Chicago ... 312 774-8575
Ind Wright Engineering Co, 414 Stanley Ave
Evansville ... 812 425-7069
La Davies Assoc, 806 Perdido St
New Orleans ... 504 522-9026
Mass Etter Engineering Co Inc, Box 47
Waltham ... 617 893-8658
Mich Hartmann-Schaffer Engrg Co, 9125 Livernois Ave
Detroit ... 313-933-8866
Minn Whirl-Air-Flow Equip & Supply, 650 25th Ave SE
Minneapolis ... 612-331-8400
Mo Beaco Equipment Co, 1304 Christine Ave
St Louis ... 314 965-8600
Mo Boschert & Fitzwater Inc, 207 Westport Rd
Kansas City ... 816 561-1880
Neb Abart Sales Agency, 7062 Maple
Omaha ... 402 558-2881
NJ Gerald B Duff & Co, 2165 Morris Ave
Union ... 201 686-1747
NY Nickles Engineering Co, 830 Linden Ave
Rochester ... 716 586-4988
NY Nickles Engineering Co, Box 232
Williamsville ... 716 632-5579
Ohio Corporate Equipment Co, 1216 E McMillan St
Cincinnati ... 513 961-3130
Ohio Wagner-Green Co, 12808 Drexmore Rd
Cleveland ... 216 561-4670
Ohio A L Kershaw, 1118 Madison Ave
Toledo ... 419 241-1338
Ohio Consolidated Equipment Co, 2211 S Dixie Dr
Dayton ... 513 293-6954
Okla Bishop Engineering Co, Box 7031
Tulsa ... 918 742-2471
Pa Leonard R Nourie Inc, 2414 W Liberty Ave
Pittsburgh ... 412-561-1628
Pa Day Engineering Co, 1032 S Park Ave
Audubon ... 215 666-7700
Tenn Combustion & Controls Co, 824 E Crump Blvd
Memphis ... 901 525-7402
Tex Haylett O'Neill & Son, 3410 Mercer St
Houston ... 713 622-4938
Tex Barnco Co, Box 2906, Odessa ... 915-332-0294
Tex Production Engineering Sls Co, 8220 Westchester
Dallas ... 214 369-3181
Va A C Cavedo, 35 Malvern Ave
Richmond ... 703-358-3174
Wash H E Hartley Co, 223 Terminal Bldg Boeing Fld
Seattle ... 206 767-3600
Wis W E Swanson & Assoc, 2336 N 124th St
Milwaukee ... 414 771-5820
Can Kipp Kelly Ltd, 68 Higgins Ave
Winnipeg, Man ... 204 942-0851
Can Letchford Industries Ltd, 875 Notre Dame Ave
Winnipeg, Man ... 204 786-5491
Can Scarborough & Grant, 12 Le Page Ct
Downsview, Ont ... 416 633-4130
Can Industrial Combustion & Equip Ltd
123 Labrosse Ave
Pte Claire Que ... 514 697-7710
BC Thos W Mackay & Son Ltd, 1807 Fir St
Vancouver ... 604 731-6561

DE-STA-CO DIV DOVER CORP, 350 MIDLAND AVE
DETROIT
MICH, 48203, TWX 810 243 6440 ... 313 868-5080
R RILLSTON, EMP 200, ENG 8

DESTRON CO, 25914 CHALMETTE LN
ROLLING HILLS ESTATE, CAL, 90274 .. 213 FR 8-3450
EMP 1, ENG 1, UP TO $100M

DE-TEC-TRONIC CORP, 2512 N HALSTED ST, CHICAGO
ILL, 60614 ... 312 327-3962
E MANDERSON, EMP 17, ENG 4, $250-$500M
Cal Hickman Equipment Co, Box 361
San Lorenzo ... 351-4292
Ind Electro Engr & Sales Inc, 6909 E 32nd St
Indianapolis ... 317 547-5273
Mass Associated Electronics Inc, 45 Kirk St
Lowell ... 617 454-4206
Mass Moore Bros Electric Co, 2602 Leith St
Flint ... 313 232-2148
NY Madison Overseas Inc, 433 Liberty St
Schenectady ... 518 372 5841
NY Tower Sales Engr Co, 550 Fifth Ave
New York ... 212 246-7611
Ore Ramic Corp, Box 1389, Medford ... 503 772-6189
Pa Technicraft Co, 7028 Ridge Ave
Philadephia ... 215 483-4700
Tex Robt F Clarke Co, 2323 Allen Pkwy
Houston ... 713 526-4908
Can Ryco Electronics Co, 26 Sunnyside Ave
Pte Claire Que ... 514 695-6236

DETORONICS CORP, 10660 E RUSH ST, S EL MONTE
CAL, 91733, TWX 213-442-5636 ... 213 443-3014
C BURTZ, EMP 50, ENG 3, $500-$1,000M
Ariz Fryco, 403 N Old Scottsdale Rd
Scottsdale ... WH 5-3281
Ind Del Steffen & Assoc, 737 N La Fontaine St
Huntington
Ohio Del Steffen & Assoc, 904 E 222 St
Cleveland ... 216 261-5055
Ohio Del Steffen & Assoc, 1201 Hempstead Rd
Dayton ... 513 293-3145

DEUTSCH CO, ELECTRONIC COMPONENTS DIV
MUNICIPAL AIRPORT, BANNING
CAL, 92220 ... 714 849-6701
H COMEAU, EMP 1500, ENG 75, OVER $10,000M
Ala Deutsch, Box 1066, Huntsville ... 205 536-0109
Ariz Deutsch Co, 901 W McDowell Rd
Phoenix ... 253-0714
Cal Deutsch Co, Box 580, Cupertino ... CY 3-4050
Cal Deutsch Co, 7001 W Imperial Hwy
Los Angeles ... 673-5080
Cal Deutsch, San Diego ... 714 232-2213
Colo Deutsch, 70 W 6th Ave, Denver ... 303 255-6860
Conn Deutsch Co, 75 Jackson Ave, E Hartford .. 289-5653
DC Deutsch Co, 1629 K St, NW
Washington ... 296-8242
Fla Deutsch Co, 2308 E Robinson Ave
Orlando ... 305 841-2293
Ill Deutsch, 9420 W Foster St
Chicago ... 312 992-0836
Mass Deutsch, 93 Winfield St, Norwood ... 617 762-6464
Mo Deutsch, 6108 Madison Ave
St Louis ... 314 524-0655
NJ Deutsch, 15 Potter Ave
Haddonfield ... 609 428-2678
NY Deutsch Co, Fulton St, Farmingdale ... 694-4640
NY Deutsch, 891 Monroe Ave
Rochester ... 716 271-4480
Ohio Deutsch Co, 3605 N Dixie Dr, Dayton ... 228-6731
Tex Deutsch Co, 414 Irving Bank Tower
Irving ... BL 3-7846
Tex Deutsch Co, Box 2863, Houston ... CA 7-8880
Wash Deutsch Co, 208 Carlson Bldg
Bellevue ... GL 4-3747
Can Deutsch, 76B Marlee Pl
Toronto Ont ... 416 781-5111
For Hellermann Deutsch, E Grinstead, Sussex, England
Fr Cie Deutsch, 8 Rue Henri Regnault, St Cloud

DEUTSCH FILTORS RELAY DIV, 65 DALY RD
EAST NORTHPORT
N Y, 11731, TWX 11731 ... 516 AN 6-1600
P MULLAHY, EMP 500, ENG 60, OVER $10,000M
Ala M Robinson, 303 Madison St
Huntsville ... 539-3691
Ariz Deutsch Filtors Relay Div, 901 W McDowell
Phoenix ... 747-2712
Cal Deutsch Filtors Relay Div, 1751 Saratoga Ave
San Jose ... 252-7204
Cal Deutsch Filtors Relay Div, 7001 W Imperial Hwy
Los Angeles ... 673-5080
Fla W Bower, 1000 Woodcock Rd
Orlando ... 305 424-6222
Fla Deutsch Filtors Relay Div, 1000 Woodcock Rd
Orlando ... 424-6222
Ill Deutsch Filtors Relay Div, 306 Busse Hwy
Park Ridge ... 825-4200
Mass Deutsch Filtors Relay Div, 16 Rockvale Cir
Jamaica Plains ... 524-0258
Mo Deutsch Filtors Relay Div, 6108 Madison St
St Louis ... 524-0655
NM Deutsch Filtors Relay Div, 5301 Central NE
Albuquerque ... 265-0188
Ohio D Desantis, 3605 N Dixie Dr, Dayton ... 278-0181
Wash Deutsch Filtors Relay Div, 535 Warren Ave N
Seattle ... 283-9894
Can Deutsch Filtors Relay Div, 4190 Bathurst 707
Downview, Ont ... 633-2344
Fr Compagnie Diutsch, 8 Rue Henri Regnault
Saint Cloud S & O ... 408-64-76
GB Hellermann Deutsch Ltd, East Grinstead
Sussex ... 21231

DEUTSCHE VITROHM GMBH & CO KG
SIEMENSSTR 7-9, 208 PINNEBERG
GERMANY, 208, TWX 02 189-130 ... 04101/6131
W SIEMSEN, EMP 400, ENG 10, $2,500-$5,000M
Den Vitrohm A/S, Linde Allee 40-42
Copenhagen-Vanlse ... 744511
Fr Sonel - Rohe, Rue de l'Eglise 56
Paris 15 ... 53229-99
Fr J M Frankel S A, 245 Av Georges Clemenceau
92-Nanterre
Holl Amroh-Kauderer NV, Muiden ... 1341
Ital Infin Prodotti Neohm, Via Avellino 6
Torino ... 482-222
Belg L de Greef S R R L, Ave Everard 53
Bruxelles 19 ... 441933

DEVCO ENGINEERING INC, PIER LANE WEST
FAIRFIELD (CALDWELL), N J, 07006 ... 201 CA 8-0321
R WEST, EMP 56, ENG 8, $2,500-$5,000M

DEVCON CORP, ENDICOTT ST, DANVERS
MASS, 01923 ... 617 774-1990

DEVELCO, INC, 8 VAN TASSELL CT, NORWALK
CONN, 06851 ... 203 847-7720
R SEIDMAN, EMP 8, ENG 1, OVER $10,000M

DEVELOPMENT ASSOCIATES CONTROLS
725 REDDICK AVE, SANTA BARBARA
CAL, 93103 ... 805 963-3708
E VERNON, EMP 7, ENG 2, $100-$250M
Cal Daniels-Padgett Assoc, 2620 Bayshore Frontage Rd
Mt View ... 969-1700
Fla H R Gross & Co, 314 S Missouri Ave
Clearwater ... 446-6649
Ill Solid State Elctns of Ill, Inc, 1925 N Harlem Ave
Chicago ... 889-8033
Md Berkley Fuller Co, 11657 Lockwood Dr
Silver Spring ... 593-6986
Mass EPE Corp, 345 Highland St
Weston ... 617 899-0678
Mo W J White Co, 514 Parkwood Ave
Kirkwood ... 965-1115
NM Crown Engineering, 2125 San Mateo, NE
Albuquerque ... 265-1020
NY Herbert Shprentz Co, 126 Deertrack La
Irvington ... 591-7970
NY Martin Andrews Co, Fayetteville ... 315 637-3144
Tex Sivright Co, 6434 Maple Ave, Dallas ... 357-6681
Can Robert Neill Co, 5200 A Yonge St
Willowdale ... 225-5200
For B Freudenberg, Inc, 50 Rockefeller Plaza
N Y, N Y ... 757-9130
Jap Rikei Trading Co, Ltd, 18-14 Nishi-Shimbashi
Minatoku, Tokyo

DEVICE DEVELOPMENT CORP, 241 CRESENT ST
WALTHAM, MASS, 02154 ... 617 893-0330
H CHARLES JR, EMP 40, ENG 5, $100-$250M

DEVICE SEALS INC, 11684 TUXFORD ST, SUN VALLEY
CAL, 91352 ... 213 877-0751
G FOLEY, EMP 88, ENG 6, $1,000-$2,500M

DE VILBISS CO, 300 PHILLIPS AVE, BOX 913, TOLEDO
OHIO, 43601 ... 419 474-5411
D BOHON, EMP 1900, ENG 70, OVER $10,000M
Ala Charles A Walker, 2717 Millbrook Rd
Birmingham ... 252-5151
Ark J R Herring, 3524 Loch La
N Little Rock ... 753-1611
Cal DeVilbiss Co, 6811 E Slauson Ave
Los Angeles ... 723-6307
Cal DeVilbiss Co, 1335 N 10th St
San Jose ... 297-1820
Colo Lewis C Weaver Jr, 1367 S Chase St
Denver ... 255-3889
Conn A C George, Box 167, Tolland ... 875-2187
Fla B J Banning, 551 25th Ave SE
St Petersburg ... 898-0980
Fla E W Gribbins, 2361 N E 135th Terr, N Miami Beach
Ga DeVilbiss Co, 1100 Northside Dr
Atlanta ... 875-0554
Ill DeVilbiss Co, 1280 W Washington Blvd
Chicago ... 226-6847
Ill W R Devore, 529 S 7th St, DeKalb ... 756-6928
Ind DeVilbiss Co, 3969 Meadows Dr
Indianapolis ... 545-8963
Ind DeVilbiss Co, 3501 Fairfield Ave
Fort Wayne ... 744-8060
Iowa W L Maher, 4 Rodeo Ct, Davenport ... 391-5690
Kan G M Hunt, 1290 Wood, Wichita ... 265-8355
La O J Charbonnet, 9533 W Coronado
Baton Rouge ... 523-6829
Md DeVilbiss Co, 9301 Georgia Ave
Silver Spring ... 587-6808
Md R L Kaufman, 310 Newburg Ave
Baltimore ... 539-4511
Md W G Shinnick, 2315 Wuthering Rd
Timonium ... 539-4511
Mass Norris-Wiener Inc, 35 Dummer St
Brookline ... 232-8480
Mich DeVilbiss Co, 137 Victor, Detroit ... 869-3800
Mich DeVilbiss Co, 511 W Fulton St
Grand Rapids ... 456-1674
Minn Kenneth E DeRosier, 2550 Aldine St
St Paul ... 645-2414
Mo DeVilbiss Co, 1016 Baltimore Bldg
Kansas City ... 421-2525
Mo DeVilbiss Co, 1561 Fairview Ave
St Louis ... 429-1920
Neb D J Smith, 5212 N 84th St, Omaha ... 391-3580
NJ DeVilbiss Co, 10 Stern Ave, Springfield ... 376-7900
NY J K McMahon, 18 Ashlon La, Commack ... 368-2390
NY W A Crandall, 220 Valley Dr, Syracuse ... 478-1933
NY V R English, 102 Hillary Dr, Rochester ... 454-7465

NC J S McNamara, 1448 Devon Dr
Charlotte 376-1804
NC E A Siebenaler, 2706 Lafayette Ave
Greensboro.......... 288-3669
Ohio DeVilbiss Co, 1800 Reading Rd
Cincinnati.......... 733-4490
Ohio DeVilbiss Co, 4008 E 89th St
Cleveland.......... 271-6065
Ohio DeVilbiss Co, 2801 Far Hills Ave
Dayton 299-6550
Okla W B Reed, Rt 3, Box 423, Choctaw 525-2301
Pa DeVilbiss Co, 450 Lawrence Pk
Broomall 356-4400
Pa DeVilbiss Co, 3450 Babcock Blvd
Pittsburgh.......... 931-2072
Tenn J W Anderson, 7207 Deerfield Rd
Memphis 386-6914
Tenn A E Clevenger, 1017 Wyemouth La
Knoxville 524-3783
Tex DeVilbiss Co, 2506 Irving Blvd, Dallas ... 631-4030
Tex J H Mayer, 3012 67th St, Lubbock 529-3775
Wash Star Machy Co, E 415 Sprauge
Spokane 747-6121
Wash Star Machy Co, 241 Lander St, Seattle.... 623-0760
Wis E L Rhyner, Rt 3, West Bend 463-5850
Wis D S Vanduzee, 11060 W Forest Home Ave
Hales Corners 933-2466
Can DeVilbiss (Canada) Ltd, Box 3000, Barrie, Ont
GB DeVilbiss Co, Ltd, Ringwood Rd
West Howe, Bournemouth Hants
Braz DeVilbiss, SA, Caixa Postal 8344, Sao Paulo

DEWEY CORP, G C, 331 E 38TH ST, NEW YORK
N Y, 10016 .... 212 MU 2-7369
M KEMPLE, EMP 200, ENG 30, $2,500-$5,000M
DC G C Dewey Corp, 1121 Arlington Blvd
Arlington, Va 527-3882
Pa G C Dewey Corp, 1 Bala Ave
Bala Cynwyd 835-2160

DI-ACRO DIV, HOUDAILLE INDUSTRIES INC
533 EIGHTH AVE, LAKE CITY
MINN, 55041, TWX 910 578-2300 ...... 612 345-3331
A KNIGHT JR, EMP 275, ENG 5, $5,000-$10,000M
Cal R Roberson, 5403 Persimmon Ave
Temple City 443-0862
Cal G L Garner, 637 Pilgrim Dr
Foster City 415 341-6979
Ga Gordon Bone, 4795 High Point Rd
Atlanta 255-1595
Ill R D McAdaragh, 10718 S Wallace Ave
Chicago 312 264-0933
Mass B E Hughes, 38 Elmwood Pk
East Braintree 617 848-3035
NJ Joe Burns, 440 Dorchester Rd
Ridgewood.......... 201 GI 4-6343
NY D Zazycki, 799 Oliver St
No Tonawanda 716 854-3456
Tex A Pinnell, 2128 Willowdale, Irving... 214 253-5869

DIALIGHT CORP, 60 STEWART AVE, BROOKLYN
N Y, 11237, TWX 212-366-5420 .... 212 497-7600
H GOODMAN, EMP 300, ENG 12, $5,000-$10,000M
Ala Cartwright & Bean, 2506 Aspen Ave
Huntsville 852-4911
Ariz Jack Berman Co, 2101 W Shangri La Rd
Phoenix 944-3361
Cal F W Moulthrop & Assoc, 1530 E 12th St
Oakland .... AN 1-7676
Cal Jack Berman Co, 8295 S LaCienega Blvd
Inglewood 678-1281
Colo Hyde Electronics Co, 888 S Lipan St
Denver 936-3456
Fla Cartwright & Bean, 20100 NE 25th Ct
North Miami 945-2962
Fla Cartwright & Bean, 609 E Colonial Dr
Orlando 425-8284
Ga Cartwright & Bean, 3223 Cain's Hill Pl, NW
Atlanta 237-2273
Ill Hill-Gray Assocs, 821 Garfield
Oak Park .... ES 8-7050
Ind Southern Sales Co, 105 Lakeshore Dr
Angola 665-3961
Ind Paul Sales Co, 3501 Fairfield Ave
Fort Wayne 744-0598
Ind Southern Sales Co, 6216 Carrollton Ave
Indianapolis .... CL 3-3359
Ky Southern Sales Co, 212 Republic Bldg
Louisville 583-6902
La Cartwright & Bean, 1812 Bullard Ave
Metarie.......... 887-0482
Md L D Lowery Inc, 6200 Annapolis Rd
Hyattsville 773-4977
Mass Charles Segel Co, 799 Washington St
Newtonville 969-6900
Mich R C Merchant & Co, Inc, 18411 W McNichols
Detroit 535-6000
Minn R G Ragon Inc, 1136 W Larpenteur Ave
St Paul.......... 488-6634
Mo K & M Sales Co, 1627 Main St
Kansas City .... GR 1-1355
NJ Robert Horne Assocs, 235 Wanaque Ave
Pompton Lakes 835-7400
NM Hyde Electronics Co, 5206 Constitution Ave NE
Albuquerque.......... 265-8895
NY Arthur Perkins Co, Inc, Kinloch Plaza
Manlius 682-5005
NC Cartwright & Bean, 625 Harwyn Dr
Charlotte 333-6457
Ore Almac/Stroum Electronics, 8888 S W Canyon Rd
Portland 292-3534
Pa L D Lowery Inc, 2801 W Chester Pike
Broomall .... EL 6-5300
Tenn Cartwright & Bean, 560 S Cooper
Memphis 901-4442
Tex Campion Sales Co, Box 396, Addison 239-9196
Wash ALMAC/Stroum Elctns, 5811 6th Ave S
Seattle 763-2300
Can Lake Engineering Co Ltd, 123 Manville Rd
Scarborough, Ont 751-5980
For Roburn Agencies Inc, 431 Greenwich St
New York, NY .... WO 6-2130

DIAL PRODUCTS CO, 19 COTTAGE ST, BAYONNE
N J, 07002 .... 201 437-0720
A BURNS, EMP 50, ENG 4
Conn Alpha Engre Co, W Hartford 203 521-4614
Ga Stiltz Sales & Engr, 1440 Oconee Pass N E
Atlanta 404 457-4316
Pa Wm Reeves Assoc, 2973 N Providence Rd
Media.......... 215 LO 6-6709
Tex Delzell & Evans Assoc, 6434 Maple St, Dallas

DIALTRON CORP, 203 HARRISON PL, BROOKLYN
N Y, 11237, TWX 212-366-5420 .... 212 497-7600
J WEIL, EMP 50, ENG 4
Ala Cartwright & Bean, 2506 Aspen Ave
Huntsville 852-4911
Ariz Jack Berman Co, 2101 W Shangri La Rd
Phoenix 944-3361
Cal F W Moulthrop & Assoc, 1530 E 12th St
Oakland .... AN 1-7676
Cal Jack Berman Co, 8295 S LaCienega Blvd
Inglewood 678-1281
Colo Hyde Electronics Co, 888 S Lipan St
Denver 936-3456
Fla Cartwright & Bean, 20100 NE 25th Ct
North Miami 945-2962
Fla Cartwright & Bean, 609 E Colonial Dr
Orlando 425-8284
Ga Cartwright & Bean, 3223 Cain's Hill Pl NW
Atlanta 237-2273
Ill Hill-Gray Assocs, 821 Garfield
Oak Park .... ES 8-7050
Ind Southern Sales Co, 105 Lakeshore Dr
Angola 665-3961
Ind Paul Sales Co, 3501 Fairfield Ave
Fort Wayne 744-0589
Ind Southern Sales Co, 6216 Carrollton Ave
Indianapolis.......... CL 3-3359
Ky Southern Sales Co, 212 Republic Bldg
Louisville 583-6902
La Cartwright & Bean, 1812 Bullard Ave
Metarie.......... 887-0482
Md L D Lowery Inc, 6200 Annapolis Rd
Hyattsville 773-4977
Mass Charles Segel Co, 799 Washington St
Newtonville 969-6900
Mich R C Merchant & Co, Inc, 18411 W McNichols
Detroit 535-6000
Minn R G Ragon Inc, 1136 W Larpenteur Ave
St Paul.......... 488-6634
Mo K & M Sales Co, 1627 Main St
Kansas City .... GR 1-1355
NJ Robert Horne Assocs, 235 Wanaque Ave
Pompton Lakes 835-7400
NM Hyde Electronics Co, 5206 Constitution Ave NE
Albuquerque.......... 265-8895
NY Dialight Corp, 60 Stewart Ave
Brooklyn.......... HY 7-7600
NY Arthur Perkins Co, Inc, Kinloch Plaza
Manlius 682-5005
NC Cartwright & Bean, 625 Harwyn Drive
Charlotte 333-6457
Ore Almac/Stroum Electronics, 8888 S W Canyon Rd
Portland 292-3534
Pa L D Lowery Inc, 2801 W Chester Pike
Broomall .... EL 6-5300
Tenn Cartwright & Bean, 560 S Cooper
Memphis 901-4442
Tex Campion Sales Co, Box 396, Addison 239-9196
Wash ALMAC/Stroum Elctns, 5811 6th Ave S
Seattle 763-2300
Can Lake Engineering Co Ltd, 123 Manville Rd
Scarborough, Ont 751-5980
For Roburn Agencies Inc, 431 Greenwich St
New York, NY .... WO 6-2130

DIAMOND ANTENNA & MICROWAVE CORP
35 RIVER ST, WINCHESTER
MASS, 01890, TWX 710-348-1066...... 617 729-5500
J GLYNN, EMP 40, ENG 5, $1,000-$2,500M
Cal Wright Engineering Co, 126 25th Ave
San Mateo 345-3157
Cal Wright Engineering Co, 180 E California Blvd
Pasadena
Fla Truex Assoc, 3165 McCrory Pl, Orlando ... 841-8931
Ill Berndt & Assoc, 6414 W Belmont Ave
Chicago 283-0713
Ind Tri-State Mktg Inc, 3220 Broadway
Fort Wayne 332-1517
Md C E Snow Co, 10442 Baltimore Ave
Beltsville 345-2211
NJ Williams & Rotundi, Box 264A, Califon... 691-2530
NM Sigma Electronics Co, 209 San Pablo S E
Albuquerque.......... 255-5470
NY Tesco Assoc, 2002 Teall Ave, Syracuse ... 463-4566
NY Williams & Rotundi, 16 Fisher Ave
Tuckahoe 961-4338
Ohio Tri-State Electronics, Inc, 1717 Section Rd
Cincinnati.......... 631-5060
Ohio Tri State Mktg Inc, 25000 Euclid Ave
Cleveland.......... 421-8550
Pa C E Snow Co, 258 N Main St, Ambler.... 345-2211
Tex R F Kimball, 5531 Dyer St, Dallas....... 361-6067
Wash James J Backer Co, 221 W Galer St
Seattle 283-6470

DIAMOND POWER SUB BABCOCK & WILCOX
BOX 415, LANCASTER, OHIO, 43130 ... 614 653-6540
H KRAPF, EMP 575, ENG 106
Ariz Audio Specialists Inc, 333 E Cambelback Rd
Phoenix 602 277-3306
Cal AV Electronics, 240 S Teilman
Fresno.......... 209-233-5861
Cal WardDavis Assoc, 770 S Arroyo Pkwy
Pasadena 213-684-2840
Cal Campbell Engrg Co, Box 395
Pleasant Hill.......... 415 685-1031
Cal Bushnell Cont & Equip Co, 113 Avondale Ave
Monterey Park.......... 213 288-0383
Colo Ross Equipment Co, 7015 W 38th Ave
Wheat Ridge 303-422-3438
Conn Equipment Sales Co, 3013 Dixwell Ave
Hamden 203-248-5581
Conn Burns Elctns Security Systems, 735 Rte 5
South Windsor.......... 203 528-2186
DC Shrader Sound Co, 1815 Wisconsin Ave NW
Washington 202-965-1300
Ga Lewis M Crowe Co, 174 W Wieuca Rd NE
Atlanta 404-255-2700
Ill Rich Engineering, 3531-35 N Martens
Franklin Park .... 312 NA 2-6225
Ind Delta Sales Inc, 1407 N Illinois St
Indpls .... 317 ME 1-4136
Ky Barney Miller Co, 232 E Main St
Lexington 606-252-2216
La Interstate School Supply Co Inc
1564 Convention St
Baton Rouge 504 343-6688
Mass Lake Systems Corp, 55 Chapel St
Newton.......... 617-244-6881
Mich Hermes-Bantle Assoc, 1900 E Jefferson Ave
Detroit .... 313 LO 7-8100
Mich Amer Microwave Commun Inc, Box 216
Alpena 517 356-1510
Mich NWR Electronics Corp, 1010 W Washington St
Marquette.......... 906 226-7578
Minn Photosound Inc, 4444 W 76th St
Minneapolis.......... 612 920-3020
Mo Impala Inc, 47 Vlg Sq Shop Ctr
Hazelwood.......... 314-831-5454
NY Seneca Audio-Visual Corp, 1880 Hertel Ave
Buffalo 716-832-2100
NY A E Jones Inc, 4015 Bailey Ave
Buffalo 716 836-3995
NY Diamond Power Spclty Corp, 666 3rd Ave
New York.......... 212 682-7080
NY Visual Electronics Corp, 356 W 40th St
New York.......... 212 736-5840
NC Brown & Morrison, 1900 E 7th St
Charlotte 704-333-0774
Ohio Process-Power Co, 23300 Chagrin Blvd
Cleveland.......... 216-464-8300
Ohio Squires Inc, 474 Yearling Rd
Columbus.......... 614 237-8635
Ohio Southern Ohio Controls, Box 39023
Cincinnati.......... 513 241-0666
Ohio Television Assoc, 5530 State Rd
Cleveland.......... 216 351-0731
Okla Myers-Aubrey Co, 1624 S Harvard St
Tulsa.......... 918 939-4481
Pa P F Sherman Co, 300 Mt Lebanon Blvd
Pittsburgh.......... 412-561-8218
Pa Emlen-Peterson Co, 237 Lancaster Ave
Devon.......... 215-687-3535
Pa Lofstrom Elctns Inc, Butler & Bailey Sts
McKeesport 412-672-2554
Pa P F Sherman Co, 300 Mt Lebanon Blvd
Pittsburgh.......... 412 561-8218
Pa Emlen-Peterson Co, 237 Lancaster Ave
Devon.......... 215 687-3535
Pa Lofstrom Elctns Inc, Butler & Bailey Sts
McKeesport 412 672-2554
Pa Marco Elctns Inc, 6156 N Gratz St
Philadelphia .... CA 4-4502
Tex Petro-Kim Co, Box 3296, Tyler 214 592-6136
Tex Sound Photo Equip Co, 2107 Broadway
Lubbock .... 806 PO 3-1997
Tex Taft Broadcasting Co, 4801 San Felipe
Houston .... 713 NA 2-1010
Utah Ross Equipment Co, 1781 Meadow Downs Way
Salt Lake City 801-277-0330
W Va Electronics Specialty Co
Delaware Ave at Randolph
Charleston 304 343-5656
Wis Photoart Visual Ser, 840 N Plankinton Ave
Milwaukee.......... 414 271-2252
Isrl Aravah A T I Ltd, 40 Nachmani St, Tel-Aviv

DIAMOND REPEATER CO, 55 MAIN ST, MADISON
N J, 07940, TWX 710-986-8501 .... 201 377-8880
B DIAMOND, EMP 7, ENG 2, $500-$1,000M

DIAMONDS UNLIMITED INC, 311 ALEXANDER ST
ROCHESTER, N Y, 14604 .... 716 482-3200
N LEACH, EMP 197, ENG 13, $5,000-$10,000M

DIAMOND TOOL & HORSESHOE CO, 4702 GRAND AVE
DULUTH, MINN, 55807.......... 218 624-4858
G CLARKE
Cal J Steele Lewis, 14604 E Flomar Dr
Whittier 213 696-8893
Cal J Robinson, 600 16th St, Oakland ... 415 832-3143
Colo J Pitts, Box 5021 Term Annex
Denver 303 466-3991
Fla E L Beaton Jr, 10333 Briarcliff Rd E
Jacksonville.......... 904 765-3763
Ill E Lueder, 5339 madison St, Skokie .. 312 673-8782
Md A Bobbett, 1420 Stonewood Rd
Baltimore.......... 301 433-6679
Mass J Wrigley, 4 Chester St, Taunton..... 617 822-6010

Minn H Tait, 3141 W 85th St
Bloomington 612 888-6615
Mo L Branscom, 1334 Baker Dr
Independence 816 833-3072
Ohio R Reid, 119 Canterbury Dr, Elyria 216 365-5724
Tenn F Thomas, 3003 Atmore, Memphis ... 901 363-1359
Tex L Nowlain, Box 427, Lewisville 214 539-3681
Wash T McCloskey, Box 575, Kenmore 206 486-2681
Can G Pederson, 580 Front St
Toronto Ont 416 364-1605

DIAMONITE PRODUCTS MFG CO, SHREVE
OHIO, 44676 .... 216 567-4211
K ALEXANDER, EMP 200, ENG 5
Ariz William Corlett, 16801 Bollinger Dr
Pacific Palisades 213 GL4-4313
Cal Wadsworth-Pacific Mfg Assoc, 71 Parker Ave
Atherton 415 321-3619
Conn Henry Lavin Assoc Inc, Box 921
Meriden .... 203 BE 7-5527
Ga V Avis McCorvey, 2187 Briarcliff Rd N E
Atlanta 404 636-2502
Ill American Specialty Sales, 1112 Marshall Dr
Des Planes 312 439-3400
Mich Scanlon-Cotter Co, 32500 Grand River Ave
Farmington 313 477-9080
Minn Preferred Mfrs Reps, 4506-71st Ave N
Minneapolis 612 781-6525
Mo A V Doran Co, Box 379 Clayton PO
St Louis .... PA 5-3377
NJ W S Mills, 4 Claremont Rd
Bernardsville 766-0914
NY Wadsworth Mfg Assoc Inc, 183 Buckley Rd
Liverpool .... OL 2-2865
Ohio H G Lake, 1521 N Main St, Dayton ..... BA 4-3122
Ohio F A Gold, 6000 Nob Hill Dr
Chagrin Falls 216 247-8855
Pa W F Satterthwaite, Box 191
Lansdowne .... MA 3-5100
Tex Manufacturers Marketing Service
10303 Carry Back Cir, Dallas 214 357-6893

DI/AN CONTROLS INC, 944 DORCHESTER AVE
BOSTON, MASS, 02125 .... 617 288-7700
M KAUFFMAN, EMP 200, ENG 18, $1,000-$2,500M
Ala Lee Assoc, Inc, 2400 W Clinton Ave
Huntsville 539-0761
Fla Lee Assoc, Inc, 200 E Marks St
Orlando 241-4445
La Lee Assoc Inc, Box 26, New Orleans 245-1110
Md Lee Assoc, Inc, 12250 Wilkins Ave
Rockville 949-4800
Mass Brogan Assoc, 69 Hickory Dr, Waltham ... 894-3250
Minn Pat Lind Electronics Co, 10104 Sunset Rd
Circle Pines 781-6568
NJ Brogan Assoc, 780 N Riverview Dr
Totowa 256-0174
NY Brogan Assoc, 80 Urban Ave, Westbury ... 333-6683
NY Brogan Assoc, 474 Thurston Rd
Rochester 328-2350
NY Brogan Assoc, 202 Arterial Rd
Syracuse 437-2988
NC Lee Assoc, Inc, 432 West End Blvd
Winston-Salem 724-2406
Pa Brogan Assoc, 107 W Ridge Pike
Conshohocken 825-0510
Fr B Freudenberg, Inc, 52 Av de New York
Paris 16eme .... kle 6969
GB Electrautonm, Ltd, 408 Finchley Rd
London NW 2 .... HAM 8468-9

DICE CO, J W, 16 HIGHWOOD AVE, ENGLEWOOD
N J, 07631 .... 201 569-0471
M STRAIN, EMP 8, ENG 4, UP TO $100M
Colo C Helton & Co, 700 E Louisiana Ave, Denver
Ill Sherertz-Henderson, 5707 W Lake St
Chicago .... CO 1-1032
Mass M M Scott, 277 Peakham Rd, Sudbury 443-6264
Tex Southwestern Precision Sales
2712 Southwest Frwy, Dallas .... JA 3-7034

DICEON ELECTRONICS INC, 644 TERMINAL WAY
COSTA MESA, CAL, 92627 .... 714 642-7100
L VELIE, EMP 150, ENG 5, UP TO $100M
Ill Edw Schmeichel Co Inc, 5968 W Chicago Ave
Chicago
Md Wm M Jones Co Inc, 1107 Echo Court N, Towson
Mass Circuit Sales, 591 North Ave, Wakefield
Mo Kelly-Schmitz-Winkeler Assoc, 7546 Troost Ave
Kansas City
Ohio Mike Roth Sales Co, 678 S Green Rd, Cleveland
Ore Jos V Belusko Co, 2355 N W Quimby St, Portland
Tex Ed Coale Sale Co, 324 N Central Expwy, Richardson
For Diceon Elctns Inc, Naguabo PR,

DICKSON ELECTRONICS CORP, BOX 1390
SCOTTSDALE
ARIZ, 85252, TWX 910-950-1292 .... 602 947-2231
S KARLIK, EMP 1000, ENG 30, $5,000-$10,000M
Ala Bostwick & Assocs, Box 4165
Huntsville 881-3677
Cal Engineering Liaison Assoc, 3360 Barham Blvd
Hollywood 469-2283
Cal Jack Logan & Assoc, 801 Mahler Rd
Burlingame 697-6100
Cal Industrial Prod Sales, Box 357
Lemon Grove 286-3911
Cal Dickson Elecgronics Corp, 16661 Ventura Blvd
Encino 981-4830
Colo Hyer Electronics Co, 7895 E Prentice Ave
Englewood 771-5285
Conn Kitchen & Kutchin, Inc, 22 Broadway
New Haven 239-0212

Fla W Ben Wimberly Co, 500 S Osceola Ave
Orlando 425-3083
Fla W Ben Wimberly Co, 532 S Ft Harrison Ave
Clearwater 446-7072
Ga Bostick & Assoc, Box 28378, Atlanta 252-1958
Ill R L Hanna Co, Box 202, Palatine 358-3940
Ill Dickson Electronics Corp, 2720 Des Plaines Ave
Des Plaines 296-6131
Kan Florence & Meyer, Inc, 2900 Woodland
Wichita 838-7226
Mass Kitchen & Kutchin, Inc, 17 Waltham St
Lexington 862-8230
Mich Villani-Pitcher, Inc, 20233 Ann Arbor Trail
Dearborn 271-4600
Minn E C Electronic Sales, 10108 Abbott Ave S
Minneapolis 888-4626
Mo Florence & Meyer, Inc, 6050 Brown Rd
Berkeley 521-6800
Mo Florence & Meyer, Inc, 406 W 34th St
Kansas City 561-7282
NJ Thomas Assoc, Inc, 138 Haddon Ave
Haddonfield 854-3011
NY Advanced Components Corp, 119 Luther Ave
Liverpool 472-7886
NY Dickson Electronics Corp, 1295 Northern Blvd.
Manhasset 365-9100
Ohio Gibson Elctns Mktg Co, 2801 Far Hills Ave
Dayton 298-7683
Ohio Gibson Electronics Mktg Co, 2643 Streetsboro Rd
Hudson 653-2900
Tex Carter Assoc, Box 87, Garland 276-7151
Wash Ray Johnston Co, 1011 NW 69th St
Seattle 524-5170
Can Aero Sales Div Garrett, 4 Racine Rd
Rexdale, Ont 249-9139

DIEBEL MFG CO, 6505 W OAKTON ST
MORTON GROVE, ILL, 60053 .... 312 IN 33100
R MILLAR, EMP 325, ENG 6, $5,000-$10,000M
Ala Southern Dynamics Inc, Box 5983 Homewood Br
Birmingham 205 879-8764
Ariz Robbins & Assoc, 1724 W Tonto La
Phoenix 602 942-2083
Colo Robbins & Assoc, 11940 Quay St
Broomfield 303 255-0397
Conn Schutter-Young Corp, 15 Lakeview Dr
.... 203 677-1546
Fla Southern Dynamics Inc, Box 13317
Orlando 305 855-5122
Ill Custom Components Corp, 649 Fairway Dr
Glenview .... PA 4-2990
Ill Metal Parts & Equip Co, 5909 W Montrose
Chicago .... AU 2-5353
Ind Industrial Components Corp, 2701 W 16th St
Indianapolis .... ME 9-3324
Kan Midwest Sales Engrg Co, Box 373
Pittsburg .... AD 1-9218
Md Glasser-Miller Co, Box 216
Timonium 301 252-0932
Mass Schutter Young Corp, 5 Ober St
Beverly .... WA 2-6121
Minn Dale Merrick & Assoc, 3712 Lake
Minneapolis .... PA 1-5331
Mo R Klorer, 7500 Natural Bridge
St Louis .... EV 1-6530
NJ C D Williams, 20 Church St, Montclair ... PI 6-3535
NY Williams Components Corp, 4237 Susan Dr
Williamsville .... NF 3-5585
NC Southern Dynamics Inc, Box 1484
Charlotte 704 334-2686
Ohio Davis Assoc, 3725 Lee Rd, Shaker Hts .. SK 1-7400
Pa Glaser-Miller Co, Box 632, Bryn Mawr ... 525-8050
Tex Metal Parts & Equip Co, 2525 Ridgmar Blvd
Fort Worth .... PE 8-7624
Wis Diebel Mfg Co, Box 464, Rt 2, Kenosha .. 369-4331
Wis Kent Krumm & Assoc, 6212 W Greenfield
West Allis 414 774-6080

DIELECTRIC MATERIALS CO
1811 W BRYN MAWR AVE, CHICAGO
ILL, 60626 .... 312 561-6891
O MUENZER, EMP 50, ENG 2, $1,000-$2,500M

DIETZ CO INC, HENRY G, 14-26 28TH AVE
LONG ISLAND CITY, N Y, 11102 .... 212 RA 6-3347
M PHEASEY, EMP 20, ENG 2, $250-$500M
For Minthorne Intl Co, 64-14 Woodside Ave
Woodside 77, NY

DIETZ DESIGN INC, 100 ELECTRONICS PKWY, BELTON
MO, 64012, TWX 910-777-7058 .... 816 345-4911
R WHITE, EMP 75, ENG 4, $500-$1,000M
DC Arco Engineering, 1000 16th St NW
Washington 202 393-5991
Ill Ropek & Cahill, Inc, 5439 W Div
Chicago .... 312 AV 7-7292
Md Barnhill & Assoc, 1931 Greenspring Dr
Timonium 301 252-5610
Md Barnhill & Assoc, 12627 Milburn La
Bowie 262-9414
Md Barnhill & Assoc, 1720 Merrimack Dr
Adelphi 301 HE-8801
Mo H A Roes & Co, 2601 Cherry St
Kansas City 816 221-0866
NJ Barnhill & Assoc, Box 296
Collingswood 609 854-5858
NJ Irv Kessler, 30 Knollwood Dr, Cherry Hill
Va Barnhill & Assoc, Box 1104
Lynchburg 703 384-2063

DIETZGEN CO, EUGENE, 2425 N SHEFFIELD AVE
CHICAGO, ILL, 60614 .... 312 549-3300
W DIETZBEN, EMP 900, ENG 10

DIGI-DATA CORP, 4315 BALTIMORE AVE
BLADENSBURG, MD, 20710 .... 301 277-9378
R VAN LUNEN, EMP 20, ENG 4, UP TO $100M
Ala W A Brown & Assoc, Inc, 1314 Buford St NW
Huntsville 536-8393
Ariz PLS Assoc, 365 N 6th Ave, Phoenix 258-0067
Cal QPL Inc, 1015 Fremont Ave
S Pasadena 682-3705
Cal Sedillo Co, 125 E Sunnyoaks Ave
Campbell 264-4010
Colo PLS Assoc, 7895 E Prentice Ave
Englewood 771-0140
Fla W A Brown & Assoc, Inc, 3039 NE 32nd Ave
Ft Lauderdale 564-8000
Fla W A Brown & Assoc, Inc, 212 Bradley Dr NE
Ft Walton Beach 243-6424
Fla W A Brown & Assoc, Inc, 222 Weber Ave
Orlando 425-5505
Ga W A Brown & Assoc, Inc, 1590 Cooledge Rd, NW
Tucker 939-1674
Ill Systems Engineering Assoc, 6253 Milwaukee Ave
Chicago 774-1452
Ind Systems Engineering Assoc, 1010 E 86th St
Indianapolis 846-2593
Md R Davies Assoc, 11215 Oak Leaf Dr
Silver Spring 593-4900
Mass Electronic Sales Assoc, 594 Marrett Rd
Lexington 899-1430
Minn Systems Engineering Assoc, 8633 Harrison S
Minneapolis 881-6386
Mo Harris-Hanson Co, 7916 Paseo St
Kansas City .... HI 4-9494
Mo Harris-Hanson Co, 2814 S Brentwood Blvd
St Louis .... MI 7-4350
NJ Electronic Sales Assoc, 3 Center St
Denville 625-2525
NM PLS Assoc, 4200 B Silver Ave S E
Albuquerque 255-0120
NY Electronic Sales Assoc, 525 Northern Blvd
Great Neck 466-5577
NY A & D Devices, Inc, Box 365
Lyons Falls 348-8532
NY A & D Devices Inc, 830 Linden Ave
Rochester 586-8033
NC W A Brown & Assoc, 1108 Burke N W
Winston-Salem 725-5384
Okla Data Engrg Corp, 4580 E 50th St, Tulsa ... 622-3753
Tex Data Engrg Corp, 5641 Yale Blvd
Dallas 363-9351
Tex Data Engrg Corp, 2120 S Post Oak Rd
Houston 622-2820
Wash Brennan Assoc, 208 Carlson Bldg
Bellevue 454-9332
Can Electronetic Systems, Ltd, 62 Alness St
Downsview, Ont 636-3673
Can Electronetic Systems, Ltd, 6420 Victoria Ave
Montreal, Que 737-2744
Fr Aeromaritime Electronique, 57 Avenue D'Lena
Paris 16E 553-6700
Ger Wacker GMBH, 6 FrankfurtM, Stettenstr, 9
GB Scientific Furnishings Ltd, Terminus Rd
Chichester, Sussex
Swit Maurice Barbier, Rue vil ux college 8
1211 - Geneve
Belg Soc Anonyme Daniel Delgay
58A Chaussee De Charleroi, Bruxelles

DIGILOG ELECTRONICS CORP, 701 A THIRD AVE N
SEATTLE
WASH, 98109, TWX 910-444-1665 ..... 206 284-6811
D HOOS, EMP 30, ENG 5, $100-$250M
Alas Ron Merritt Co, Box 171, Anchorage...... 272-5231
Ariz Dorton Enterprises, Inc, Box 1297
Scottsdale 946-6213
Cal Daniels-Padgett Assoc, 2620 Bayshore Frontage Rd
Mountain View 969-1700
Cal Halbar Assoc, 1805 Third St
Los Angeles 387-8283
Colo Daniels-Padgett Assoc, 2512 S University Blvd
Denver 777-0046
Fla Wm R Lehmann Co, Box 20275
Orlando 841-4901
Ind McDonald Sales Co, 227 S Cornell Cir
Fort Wayne 745-9214
Iowa Engineering Services Co, 1026 3rd Ave SE
Cedar Rapids 366-1591
Kan Engineering Services Co, 7924 A State Line
Prairie Village 649-4000
Md W I Duncan & Assoc, 206 Washington Ave
Towson 823-2506
Mass Bordewieck Engrg Sales Co, 221 Grove St
Braintree 843-0845
Mo Engineering Services Co, 6717 Vernon Ave
St Louis 726-2233
NY W A Franklin Sales, 21 Winhurst Dr, Rochester
NY W A Franklin Sales, 2 Standish Terr
Syracuse 446-1120
NY Friedman-Smith Electronic Sales, 519 S 5th Ave
Mount Vernon 664-4866
NY W A Franklin Sales, 80 W North St
Ilion 894-2227
Ore Ron Merritt Co, 2035 SW 58th Ave
Portland 292-8762
Pa W I Duncan & Assoc, 5452 Charles St
Philadelphia 744-6110
Tex Dunbar Assoc, 417 Meadows Bldg
Dallas 363-2536
Wash Ron Merritt Co, 1320 Prospect, Seattle ... 682-7337
Can Lake Engineering Co Ltd, 123 Manville Rd
Scarborough, Ont 757-3253
Can Lake Engrg Co Ltd, 3380 Toupin
Montreal Que 331-4884

DIGITAL BLENDING SYSTEMS INC, BOX 1355
PROVIDENCE, R I, 02901 .... 401 434-3440
E PICKERING, EMP 25, ENG 7, $250-$500M

Cal	Charles P Crowley Co, 5430 Jillson St Los Angeles	723-6555
Ga	M L Ball Co, 2075 Imperial Dr,N E, Atlanta	
Haw	Dillingham Bros Ltd, 125 Puuhale St Honolulu	810-951
Ill	G Olman, 8603B National Ave Niles	312 967-8964
Mich	William A Dalee Inc, 9190 Roselawn Ave Detroit	933-4430
Minn	Northwestern Power Equip Co Inc 1951 University Ave, St Paul	646-9675
Mo	M H Strickland, 335 Baker Ave St Louis	962-7852
Mo	Coffman Industries, 1317 Central Ave Kansas City	913-342-0059
NY	Jos T Drumm & Assoc, 350 5th Ave New York	21-279-8600
Ohio	H R Bowers Co, 1585 W 117th St Cleveland	221-8442
Ohio	H T Porter Co, Inc, Box 15246 Cincinnati	761-2500
Okla	Bagwell-Hambrick-Jones, 1637 S Harvard Tulsa	939-5473
Pa	Edwards Equipment Co, 300 Mt Lebanon Blvd Pittsburgh	563-0203
Tex	C J Wolfer Co, Box 6771, Houston	526-1335
Can	Control & Metering Ltd, 305 Kipling Ave S Toronto	259-8411
Can	T C Chown, Ltd, 164 Metcalfe Ave Montreal 6, Que	937-2881
For	Centec C A, Apartado Postal 6091, El Paraiso Caracas, Ven	
Holl	Oranjeberg N V, Stationsweg 78, The Hague Netherlands	
Ital	Sogis, Via Antonio Da Recanate 4, Milan	
Jap	Asahi Sales Engr Co, Ltd, Shin Kyobashi Bldg 3-2, Takara-Cho, Chuo-Ku, Tokyo	
BC	John Black Ltd, 2182 W 12th Ave Vancouver	738-3101
Mex	Dorr-Oliver De Mexico, S A Dr. Damuel Ramos 9-A, Mexico 12, D V	
Aust	H P Gregory & Co,Ltd, 96 Belmore Road N, Sydney	

DIGITAL DEVELOPMENT CORP
5575 KEARNY VILLA RD, SAN DIEGO
CAL, 92123 .... 714 278-9920
R TATE, EMP 85, ENG 7, $1,000-$2,500M

DIGITAL DEVICES INC, 200 MICHAEL DR, SYOSSET
N Y, 11791 .... 516 WA 12400
P BAUER, EMP 80, ENG 10

Ala	Reynolds & Assoc, 904 Bob Wallace Ave Huntsville	536-1941
Cal	Costello,Little & Co, 8737 Venice Blvd Los Angeles	870-5951
Cal	Costello,Little & Co, 575 Middlefield Rd Palo Alto	415-321-3745
Fla	Reynolds & Assoc, Box 1043 Eau Gallie	727 3205
Fla	Reynolds & Assoc, Box 8877, Orlando	424-3836
Fla	Reynolds & Assoc,Inc, 161 S W 75 Ave Ft Lauderdale	305-581-6611
Ga	Reynolds & Assoc, 175 W Wieuca Rd, N E Atlanta	252-5360
Ill	R Edward Stemm,Inc, 17W480 Lake St Addison	312-279-2440
Md	Wild & Assoc,Inc, 380 Main St Laurel	301-776-7670
Mass	Wild & Assoc, 570 Hillside Ave Needham	444-2366
Minn	Engineering Products Assoc, 2119 Grand Ave St Paul	698-5531
NJ	Wild & Assoc, Box 300, Ramsey	327 4244
NY	Wild & Assoc, Box 266 Hastings on Hudson	963 3803
NY	Wild & Assoc,Inc, 200 Michael Dr Syosset	516-921-7100
Ohio	Monatron Corp, 20850 Sheldon Rd Cleveland	216-243-6500
Ohio	Tower Engineering Co, 2801 Far Hills Ave Dayton	513-298-1491
Pa	Wild & Assoc Inc, 80 2nd St Pike Southampton	357-6645
Tex	Costello,Little & Co, 5635 Yale Blvd Dallas	363-9031
Fr	Litton Precision Prod Intl Inc 120 Ave des Champs Elysees, Paris 8	
Ger	Litton Precision Prod Intl Inc, Stolzingstr 6 8 Munich 61	
GB	Litton Precision Prod Intl Inc, 503 Uxbridge Rd Hayes,Mdsx	
Holl	Litton Precision Prod Intl Inc, Rembrandtsingel 7 Capelle a/d Yssel	
Ital	Litton Precision Prod Intl Inc, Foro Bonaparte 54 Milano	
Swed	Litton Precision Prod Intl Inc, Box 7277, Stockholm	
Swit	Litton Precision Prod Intl Inc, Gubelstrasse 28 8050 Zurich	
Belg	Litton Precision Prod Intl Inc, 16 Rue du Musee Brussels	

DIGITAL ELECTRONICS INC, AMES CT ENGRS HILL
PLAINVIEW, N Y, 11803 .... 516 GE 3-7800
V RANDAZZO, EMP 50, ENG 15, $500-$1,000M

Ala	Technical Assoc, Box 1443, Huntsville	536-6611
Cal	Sodaro Co, 3753 S Robertson Blvd Culver City	VE 8-5272
Colo	Dyma Engineering, Rt 1, Box 51, Taos	
Del	Brogan Assoc, 80 Urban Ave Westbury, NY	ED 3-6683
Fla	Technical Assoc, 2319 E South St Orlando	424-5681
Ill	Engineering Prod Assoc, 1540 Maple St Northbrook	272-4085
Mass	Waitt Electronic Assoc, 17 Boyd St Newton	923-9799
Minn	Engineering Prod Assoc, 2119 Grand Ave St Paul	698-5531
NY	Stone Co, 97 Friends La, Westbury	ED 3-7426
Ohio	Rep/Corp, 2077 Embury Park Rd Dayton	278-5885
Ore	Peninsula Assoc, 1447 E Bayshore Palo Alto	322-1803
Tex	Noakes Engineering, 2128 W Alabama Irving	BL 5-0441
Va	Mark-Lund Assoc, 205 Park Ave Falls Church	534-9460
Can	Electrodesign Ltd, 9124 St Lawrence Blvd Montreal	389-5914

DIGITAL EQUIPMENT CORP, 146 MAIN ST, MAYNARD
MASS, 01754, TWX 710-347-0212 .... 617 897-8821
T JOHNSON, EMP 2000, ENG 200, OVER $10,000M

Ala	Digital Equipment Corp, 3322 Memorial Pkwy, SW Huntsville	881-7730
Cal	Digital Equipment Corp, 560 San Antonio Rd Palo Alto	326-5640
Cal	Digital Equipment Corp, 801 E Ball Rd Anaheim	776-6932
Colo	Digital Equipment Corp, 5200 S Quebec Way Englewood	771-1180
Conn	Digital Equipment Corp, 129 College St New Haven	777-5796
Fla	Digital Equipment Corp, 412 High Point Dr Cocoa	632-9283
Ill	Digital Equipment Corp, 69 N Broadway Des Plaines	299-0144
Md	Digital Equipment Corp, 7100 Baltimore Blvd College Park	779-1100
Mass	Digital Equipment Corp, 899 Main St Cambridge	491-6130
Mich	Digital Equipment Corp, 3853 Research Pk Dr Ann Arbor	761-1150
NJ	Digital Equipment Corp, 1259 Rt 46 Parsippany	335-3300
NJ	Digital Equipment Corp, 71 Grand Ave Palisades Park	941-2016
NJ	Digital Equipment Corp, Rte 1 & Ninianne Blvd Princeton	452-2940
NM	Digital Equipment Corp 1303 Indian School Rd NE Albuquerque	296-5411
NY	Digital Equipment Corp, 480 Clinton Ave S Rochester	454-2000
NY	Digital Equipment Corp, 1919 Middle Country Rd Centereach	585-5410
Ohio	Digital Equipment Corp, 3110 S Kettering Blvd Dayton	299-7377
Pa	Digital Equipment Corp, 300 Seco Rd Monroeville	351-0700
Pa	Digital Equipment Corp, 1100 W Valley Rd Wayne	687-1405
Tex	Digital Equip Corp, 3417 Milam St Houston	523-2529
Wash	Digital Equip Corp, 10210 NE 8th St Bellevue	454-4058
Can	Digital Equipment Corp, 150 Rosamond St Carleton Pl, Ont	257-2615
Can	Digital Equip of Can Ltd, 39 Dundas Rd E Cooksville, Ont	
Can	Digital Equip of Can Ltd, 640 Cathcart St Montreal,Que	861-5018
Can	Digital Equip Can Ltd, 5531-103 St Edmonton,Alb	434-9444
Fr	Equipement Digital 22, rue du Champ de l'Alouette 75-Paris 8	256-1137
Ger	Digital Equip Corp GmbH, Theresienstr 29 Munich	29-94-07
Ger	Digital Equipment GmbH, Neue Weyerstr 10 5 Koeln	0221-518-727
GB	Digital Equip Corp (UK), 3 Arkwright Rd Reading, Berks	83366
GB	Digital Equip Corp Ltd 13-15 Upper Precinct,Bolton Rd Walkden,Worsley,Man	790-5660
Jap	Rikei Trading Co No 18-14, Nishishimbashi 1-Chome Minto-Ku, Tokyo	591-5246
Nor	H Meltzer & Co Ltd, Bygdo Alle 23, Oslo	564040
Swed	Digital Equipment Corp, Birger Jarlsgatan 110 Stockholm	322598
Swed	Scandia Metric A B, Sodra Langgaten 22 Fack Solna 3,Stockholm	
Aust	Digital Equip Aust Pty Ltd, 89 Berry St N Sydney	92-0919
Aust	Digital Equip Aust Pty Ltd, 36 Outram St West Perth	214-993

DIGITAL PRODUCTS, 335 W 7TH ST BOX 1351
SAN PEDRO
CAL, 90733, TWX 910-345-9676 .... 213 831-0351
D RANSOM, EMP 25, ENG 3, $100-$250M

Ga	910-345-9676.	

DIGITAL PRODUCTS DIV CANOGA ELCTNS CORP
8966 COMANCHE AVE, CHATSWORTH
CAL, 91311 .... 213 341-3010
C SMITH, EMP 345, ENG 106

Ala	Kemp Instru Inc, 4306 Governors Dr W Huntsville	837-4304
Cal	V T Rupp Co, 307 Parkman Ave, Los Angeles	
Fla	Jaeger Assoc Inc, 999 Woodcock Rd Orlando	841-1511
NH	Engineering Assoc of NH, 319 Lincoln St Manchester	623-7294
NJ	Friedman Assoc, 110 Halsted St, East Orange	
Ohio	Micro Sales Corp, 1250 W Dorothy La, Dayton	
Pa	Bartlett Assoc, 130 W Lancaster Ave Wayne	688-7325
Tex	Kemp Engrg Co Inc, 2618 Manana St Dallas	357-6663
Wash	Paratech, 9210 28th Ave NW, Seattle	

DIGITAL SENSORS INC, 4127 N FIGUEROA ST
LOS ANGELES
CAL, 90065, TWX 910-321-3938 213-223-2331
M MUSSELMAN, EMP 110, ENG 8, $2,500-$5,000M

Ala	Space Eng Sales Inc, 4306 Governors Dr, SW Huntsville	205-837-6060
Cal	T F Murray & Assoc, 4421 Riverside Dr Burbank	213-849-6497
Cal	Western Sales Assoc, Box 96 Mountain View	415-967-5913
Fla	Space Eng Sales Inc, 999 Woodcock Rd Orlando	305-841-2271
Ill	R L Hanna Co, Box 202, Palatine	312-358-3940
Md	Milan Assoc, Inc, 7215 York Rd Baltimore	301-825-1120
Mich	Carter, McCormic & Peirce Inc, 16239 Wyoming Detroit	313-862-4600
Mo	W J White Co, Box 3873 Kirkwood	314-965-1115
NJ	A L Livera & Assoc Inc, 2 Green Village Rd Madison	201-377-3220
NY	A L Livera & Assoc, Inc, 275 Warner Ave Roslyn Heights	516-484-1276
NY	R P Kennedy Co, Box 54 Fayetteville	315-637-9531
NY	R P Kennedy Co, 39 Saginaw Dr Rochester	716-271-6322
NY	R P Kennedy Co, Greentree Dr N Hyde Park	914-471-4430
Ohio	Schlemmer Assoc, 1172 W Galbraith Rd Cincinnati	513-522-8340
Ohio	Carter, McCormic & Peirce Inc, 3691 Lee Rd Cleveland	216-921-1360
Ohio	Carter, McCormic & Peirce, Inc, 3406 N Main St Dayton	513-278-5873
Tex	John H Smith Co, 729 Edgefield Rd Ft Worth	817-626-1032
Wash	Jon B Jolly, 413 Maritime Bldg Seattle	206-624-2152

DIGITAL SYSTEMS INC, 1078 E EDNA PL, COVINA
CAL, 91722 .... 213 966-8631
E REESE, EMP 150, ENG 20, $2,500-$5,000M

DIGIT CO INC, 6 ANDERSON ST, MARBLEHEAD
MASS, 01945 .... 617 631-4477
G ALMY, EMP 3, ENG 2

DIGITECH INC, 22 GROVE ST, RIDGEFIELD
CONN, 06877, TWX 96923 .... 203 438-3731
W ANDREWS, EMP 100, ENG 10, UP TO $100M

Md	P B Michael, 6900 Wisconsin Ave Bethesda	657-4014
Can	Instronics Techno-Prods Ltd, Box 100 Stittsville, Ont.	828-1253

DIGITRAN CO, 855 S ARROYO PKWY, PASADENA
CAL, 91105, TWX 910-588-3794 .... 213 449-3110
EMP 160, ENG 9, $2,500-$5,000M
ADV PG [illegible]

Ala	Beacon Electronic Assoc, Box 3127 Huntsville 536-5065	
Ariz	BFA, 4710 N 16th St, Phoenix	264-6536
Cal	Shannon Assoc, 1 First St, Los Altos	941-2217
Colo	BFA, 1309 S Inca St, Denver	744-3301
Fla	Beacon Electronic Assoc Box 10212 417 NW 28th St Ft Lauderdale	564-4298
Fla	Beacon Electronic Assoc, Box 1278 Maitland	647-3498
Ga	Beacon Electronic Assoc, 2285 Peachtree Rd NE Atlanta	351-3654
Ill	Scientific Sales Corp, 7132 N Harlem Ave Chicago	775-7594
Ind	Robert O Whitesell & Assoc, 6620 E Washington Indianapolis	359-5374
Ind	Robert O Whitesell & Assoc, 203 W Wayne St Ft Wayne	743-4411
Iowa	H R Brown Sales Co, 3400 Indian Rd SE Cedar Rapids	366-0635
Ky	Robt O Whitesell & Assoc, 3620 Lexington Rd Louisville	893-7303
Ky	Robert O Whitesell & Assoc, 3620 Lexington Rd Louisville	893-7303
Md	MIL Inc, 817 Silver Spring Ave Silver Spring	585-6141
Md	Biechler Assoc Inc, 7353 Yorktown Dr Baltimore	825-8222
Md	Biechler Assoc Inc, 822 Baltimore Rd Rockville	762-6210
Mass	Digitran Co, Box 78 2120 Commonwealth Ave Auburndale	969-8806
Mich	Robt O Whitesell & Assoc, 25100 Evergreen Rd Southfield	358-2020
Mich	Robert O Whitesell & Assoc, 303 Fidelity Bldg Benton Harbor	927-2041
Minn	Scientific Sales Corp, 6121 Excelsior Blvd Minneapolis	929-6115
Mo	Buse Sales Co, 212 N 2nd St St Charles	724-6667
NM	BFA, 1238 Ortiz SE, Albuquerque	268-4387
NY	Telesco-Messina Inc, 3254 Winton Rd S Rochester	275-9200
NY	Telesco-Messina Inc, 609 Harvard St Vestal	729-6339
NC	Beacon Elctns Assoc, 305 Greenway St Jamestown	454-1010

Ohio Robert O Whitesell & Assoc, 21139 Lorain Ave
Cleveland 333-2585
Ohio Robert O Whitesell & Assoc, 1172 W Galbraith
Cincinnati 521-2290
Ohio Robert O Whitesell & Assoc, 4133 S Dixie Ave
Dayton 298-9546
Ore Arneson Assoc, 200 NE Canyon Rd
Beaverton 646-3416
Pa Biechler Assoc, Box 414, Narberth 667-1827
Pa Robert O Whitesell & Assoc, 201 Penn Center Blvd
Pittsburgh 242-0100
Tex Allied Components Inc, 42 Richmond Ave
Houston 664-4203
Utah Brooks-Feeger Assoc, Salt Lake City .... Zenith 761
Wash Arneson Assoc, 5950 6th Ave S
Seattle 762-7664
Can Brain Engineering Ltd, 45 Shaft Rd
Rexdale Ont 248-0226
Can Brian Engineering Ltd, 2445 Duncan St
Montreal 735-1671

DIGITROL SYSTEMS INC, W MAIN ST, AMENIA
N Y, 12501 914-373-8177
J CHYZIK, EMP 35, ENG 4, UP TO $100M
NY John L Kern, 600 Old County Rd
Garden City 248-8028
Tex Petro-Kim Co, Box 3296, Tyler .... LY 2-5076

DIGITRONICS CORP, ALBERTSON AVE, ALBERTSON
N Y, 11507 .... 516 HT 41000
E PERLMAN, EMP 500, ENG 50, $5,000-$10,000M
Cal Component Sales Cal,Inc, 3980 Fabian Way
Palo Alto 415-326-5317
Cal Digitronics Corp, 2559 W Olympic Blvd
Los Angeles 213-623-2752
Fla Griggs Assoc, Box 13542, Orlando ... 305-585-3141
Ill Loren F Green & Assoc, 5218 W Diversey Ave
Chicago 312-286-6824
Md Digitronics Corp, 8555 16th St
Silver Spring 301-587-4240
Md L G White & Co Inc, 880 Bonifant St
Silver Spring 301-585-3141
Mass Components Sales Corp, 789 Mass Ave
Lexington 617-862-1633
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield 357-3700
Minn Loren F Green & Assoc, 6225 University Ave NE
Minneapolis 612-781-1611
NY Components Sales Corp, 221 E Hartsdale Ave
Hartsdale .... SC 5-1050
NY A & D Devices, 830 Linden Ave
Rochester .... LU 6-8033
NC L G White & Co Inc, 1020 Brookstown Ave
Winston-Salem .... PA 5-3612
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland 442-8080
Okla IBL Eng & Sales Inc, 5149 E 31st St
Tulsa .... WE 6-6305
Pa L G White & Co, 100 Essex Ave
Narberth .... MO 4-6505
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh .... TU 4-5515
Pa Digitronics Corp, 302 3rd St
Carnegie 412-279-3334
Tex IBL Eng & Sales Inc, 219 Preston Royal Ctr
Dallas .... EM 3-2921
Tex IBL Eng & Sales Inc, 3403 Audubon
Houston .... JA 3-8360
Tex IBL Eng & Sales Inc, 1903 W 34th St
Austin .... GL 2-2065
Can Communications Systems, 335 Catherine St
Ottawa, Ont 235-8700
Can Computrex Computer Centres Ltd, 717-7th Ave SW
Calgary,Alb 403-AM-3-1190
Den F Henriques, Poppelgaardvej 13, Soborg, Copenhagen
Fr Technique et Produits, Cle Des Bruyeres
Rue Carle Vernet 92-Seures 626-02-35
Ger F F Henriques, Sophien Str 44, Frankfurt
GB BFI Electronics Ltd, The Avenue, West Ealing
London W13 .... ALP 2113
Jap Nissho Co,Ltd, 10,Nihonbashi-Edobashi 1-Chome
Chuo-Ku,Tokyo 273-5111
SAfr David Pollock (Pty) Ltd, 17 Melle St
Braamfontein, Johannesburg
Swed Teleinstrument AB, Harjedalsgatan 21, Box 14
Stockholm-Vallingby 870-345
Isrl Telsys Ltd Engineering Co, Box 10034, Tel-Aviv
Aust Ronald J T Payne Pty Ltd
385 Bridge Rd Richmond, Victoria 42-1416

DILECTRIX CORP, 69 ALLEN BLVD, FARMINGDALE
N Y, 11735 .... 516 249-7800
M LATORRA, EMP 80, ENG 6
Cal C D LaMoree, 2433 Birkdale St
Los Angeles 225-5666
Cal K W Lockwood Co, 15450 Cabrito Rd
Van Nuys 873-7766
Colo Thorson Co, 300 E Hampden Ave
Englewood 789-1841
Mass C MacAuley, 2 Snug Harbor Dr, South Yarmouth
NY J F Rizzo Co, Empire State Bldg
New York .... PE 6-0398
Ohio Electrolock, Inc, Box 368
Chagrin Falls .... CH 7-4245
Pa Insulation Systems, 5006 Penn Ave
Pittsburgh 661-1140
Tex K S E, Inc, Box 35184, Dallas .... FL 2-8431

DILECTRON DIV, BESTRAN CORP, 2669 S MYRTLE AVE
MONROVIA
CAL, 91016, TWX 910-582-3210 .... 213 446-6195
A NEUHAUSER, EMP 400, ENG 8, $5,000-$10,000M
Cal Dresco Industries, 9601 Wilshire Blvd
Beverly Hills .... CR 5-0108

Cal Lebell-Warren Assoc, 605 Old County Rd
San Carlos 593-7688
Ill R M P Sales, 8159 W Balmoral Ave
Chicago 631-9545
Ill C Nielson, 1725 W North Ave, Chicago ... 384-6060
Kan R R Burton Sales Co, 9915 E 63rd St
Raytown 358-5370
Mass Herb Mandell Co, Box 24, Revere 289-3787
NJ Martin Klein & Assoc, Box 92
Hillsdale 664-8711

DILLON & CO INC, W C, 14620 KESWICK ST
VAN NUYS, CAL, 91407 .... ST 5-3168
G DILLON, EMP 60, ENG 4, $1,000-$2,500M

DILL PRODUCTS INC, 800 W WASHINGTON ST
NORRISTOWN, PA, 19404 .... 215 272-6850
W TAYLOR, EMP 35, ENG 4, $100-$250M
NY Robert Hoff, 1 Merton St, Rochester

DIMCO-GRAY CO, 207 E 6TH ST, DAYTON
OHIO, 45402 .... 513 224-1913
C DEARTH, EMP 130, ENG 4
ADV PG [illegible]
Cal Corbett-Smith Co, 7340 E Florence Ave
Downey 213-927-2677
Ill Lincoln-Hodges & Assoc, 5875 N Lincoln Ave
Chicago 312-561-8440
Mich Barribeau-Dulude Co, 199 W Brown St
Birmingham 313-646-7800
Minn Christian-Richards Co, 8117 Pleasant Ave S
Minneapolis 612-888-9226
NJ Feralite Metals Corp, Box 129
Fanwood 201-757-4656
NY Walter Stevenson, 39 Saginaw Dr
Rochester 716-271-2200
NC Mack White Co,Inc, Box 3222
Charlotte 704-375-2994
Ohio A C Wahl & Assoc Inc, 135 Williams Ave
Cincinnati 513-821-3270
Pa Sanford & Co, 221 Benson E
Jenkintown 215-887-8780
Tex Edmar Technical Sales Co, Box 818
Hurst 817-282-5561

DIMENSIONS INC, 95 MADISON AVE, HEMPSTEAD
N Y, 11550 .... 516 IV 3-3636
M RUDERFER

DINION COIL CO INC, 5 DINION CIRCLE, CALEDONIA
N Y, 14423 .... 716 KE 84412
A ROSATI JR, EMP 100, ENG 6, $1,000-$2,500M
Mass R Hilfiker, 248 Newbury St
Boston 617-266-1513
NY Kahgan Sales Corp, 1261 Broadway
New York 684-7772
Pa Shelmar Electronics, Box 254, glenside ... 885-0800

DINSMORE INSTRUMENT CO, BOX 345, FLINT
MICH, 48501 .... 313 234-1605
R DINSMORE, EMP 25, ENG 2, $250-$500M

DIODES INC, 20235 NORDHOFF ST, CHATSWORTH
CAL, 91311, TWX 910-494-1223 .... 213 341-4850
E GERDING, EMP 160, ENG 8
Cal Components Unltd, Box 801
San Carlos 415-326-1033
Cal R L Assoc, 14401 Gilmore St
Van Nuys 213-782-7826
Colo Waugaman Assoc Inc, 2785 N Speer Blvd
Denver 255-5000
Fla Steele Technical Assoc, 2106 Woodcrest Dr
Winter Park 647-1304
Ill Wasson-Gallagher, 1024 North Blvd
Oak Park 312-CO 1-7517
Ind Technical Reps Co, 4000 Meadows Dr
Indianapolis 317-546-4967
Mass Impact Sales Co, 223 Cresent St
Waltham 617-893-2850
Mich Jefco Sales Inc, 700 Maple E
Birmingham 313-642-3830
Minn Electro-Serv Co, 1455 W Lake St
Minneapolis 827-2907
Mo R R Burton Sales Co, 9915 E 63rd St
Raytown 816-358-5370
NY Andrews & Andrews Inc, 140 E Main St
Huntington 516-692-8686
NC B M Triggs Assoc, Box 17844
Charlotte 704-376-4619
Ohio Luebbe Sales Co, 2649 Erie Ave
Cincinnati 513-871-4211
Pa Hause Assoc, Box 144, Hilltown 822-2112
Pa B E Gibson Co, 201 Penn Center Blvd
Pittsburgh 412-823-8310
Tex Manufacturers Mktg Service
10303 Carry Back Circle, Dallas ... 214-357-6893
Can A C Simmonds & Sons Ltd, 285 Yorkland Blvd
Agincourt,Ont 416-445-9111

DIOTRAN PACIFIC, 2423 J E MIDDLEFIELD RD
MOUNTAIN VIEW, CAL, 94040 .... 415 326-4301
R MINER, EMP 10, ENG 1, $100-$250M

DIPLOHMATIC DIV HARRY LEVINSON CO
1211 E DENNY, SEATTLE
WASH, 98112, TWX 910-444-2154 .... 206 323-5100
G WALLACE, EMP 7
Cal Corcoran Assoc, Box 45897
Los Angeles 213-823-2425

Ill J K Rose & Co, 1116 Linden Ave, Highland Park
Mass Associated Electronics,Inc, 45-47 Kirk St, Lowell
Minn TEC Sales, 9906 Chicago Ave S, Minneapolis
NY Paul D Aaron Assoc, Box 511, Port Washington

DISA ELEKTRONIK A/S, HERLEV HOVEDGADE 17
HERLEV, DENMARK 01-945211
C SORENSEN, EMP 350, ENG 50, $2,500-$5,000M
NJ DISA-S & B Inc, 140 Greenwood Ave
Midland Park 444-0994
Can Canaden Products Ltd, Box 1411
St Laurent,PQ 331-9360
Ger DISA ELEKTRONIK GmbH, Schinnrainstr 9
75 Karlsruhe-Durlach
GB Disa U K Branch, 116 College Rd
Harrow,Mdsx 01-4279263
Swed Svenska Disa AB, Visattravagen 41
Huddinge 08 774-2951

DISAN ENGINEERING CORP, 516 E CHEROKEE
NOWATA, OKLA, 74048 .... 918 CR 31636
EMP 8, ENG 2, UP TO $100M
Okla Vistas Unltd, 1362 E 43rd St, Tulsa

DISC INSTRUMENTS INC, 2701 S HALLADAY ST
SANTA ANA
CAL, 92705, TWX 546-0434-714 .... 714 549-0345
J WILSON, EMP 50, ENG 7, $1,000-$2,500M
Mich Carter, McCormic & Peirce Inc, 16239 Wyoming
Detroit 862-0017
NY Good Counting Instruments, 17 High Park Blvd
Buffalo 834-3333
Ohio Carter, McCormic & Peirce Inc, 3691 Lee Rd
Cleveland 921-1360
Ohio Carter, McCormic & Peirce Inc, 3406 N Main St
Dayton 278-5873
GB Disc Instruments Ltd
Ebberns Rd, Hemel Hempstead, Herts

DISCON CORP, 4250 NW 10TH AVE, FORT LAUDERDALE
FLA, 33309 .... 305 565-5511
F DRAPER, EMP 50, ENG 12
ADV PG 246, 267
Ala Ridge Instrument Co, 7220 Governors Dr W
Huntsville 205 837-3211
Cal Techni Sales Co, 3820 E Colorado Blvd
Pasadena 213 792-5111
Cal Morse Assoc, 1721 Chestnut St
San Francisco 415 567-6871
Conn Astro Tek Assoc, 18 Diane Terr
Waterbury 753-4129
DC Scientific Systems Sales Corp
7705 Georgia Ave NW
Washington 202 726-4161
Fla Orbe, Inc, 300 31st St, N
St Petersburg 894-0678
Fla Orbe, Inc, Box 7777, Orlando 424-0978
Mich Electro-Mation Assoc, 1137 Cole St
Birmingham .... MI 7-2480
Mo Palatine Engrg Sales, 2050 Woodson Rd
St Louis 314 426-7055
NY Salsbury Assoc, Inc, 331 W John St
Hicksville 938-1080
NY Scientific Systems Sales Corp, 376 Great Neck Rd
Great Neck 445-0053
Ohio Ashby Assoc, 4130 Linden Ave
Dayton 513 252-5627
Tex Rob R Thomas Co, 8616 NW Plaza Dr
Dallas 214 363-8591
Can Mel Sales, Ltd, Box 850, Arnprior, Ont ... 755-9235
Den Technitron, 24, Klosterstr, Copenhagen K
Fr Technitron, 20 rue de Boulainuilliers
Paris 16e 527-49 65
Ger Technitron, Sonnenstr 14, Munich 15
GB Technitron, Walmgate Rd, Perivale, Greenford, Mdsx
Holl Technitron, Bldg 64, Schipol Airport, Amsterdam
Ital Technitron, Viale Bruno Buozzi 68, Rome
Jap Kyokuto Boeki Kaisha, Ltd
4, 2-Chome, Otemachi, Chiyoda-Ku, Tokyo
Swed Technitron, Fack, Farsta 4 Stockholm .. 09/64 43 35

DISPLAY DEVICES INC, 2928 NEBRASKA AVE
SANTA MONICA, CAL, 90404
R ROSS JR
Ariz Circle Sales Co, Box 2626
Phoenix 602 967-1044
Cal Noua-Tronix, 1659 Scott Blvd
Santa Clara 408 243-9530
Cal Cutlass Electronics, 8631 Truxton St
Los Angeles 213 776-2895
Conn Wm McCoy Co, 892 Main St
Branford 203 488-2012
Fla Scott & Assoc, Box 20341
Orlando 305 841-4840
Ill Repwood Inc, 260 Sunset Ave
Glen Ellyn 312 469-2344
Md Kraft Elctn Sales Inc, 510 Woodbine Ave
Towson 301 828-5838
Mass Wm McCoy Co, 55 Prospect St
Holliston 617 429-2369
Mich Romarc, Box 257, Plymouth 313 455-0300
Minn Edw Hoffman Co, 1573 Selby Ave
St Paul 612 645-4662
Mo Aerotronics Inc, Box 6326 Lambert Fld
St Louis 314 426-4060
NY Geo Bay Inc, 2 Main St, Brockport ... 716 637-3776
NY E R A Inc, 330 Great Neck Rd
Great Neck 516 482-9320
NC Dula Assoc, Box 5316
Winston-Salem 919 723-4205
Pa W Henry Cordray Sales Co, 1 Radnor Sta
Radnor 215 687-1366

Tex Carey & Assoc, 725 Preston Forest Shop Ctr
Dallas ... 214 361-6234
Tex Carey & Assoc, 3315 W 12th St
Houston ... 713 869-3623
Tex Carey & Assoc, Box 6795
San Antonio ... 512 822-1616
Wis Repwood Inc, 8019 N 50th St
Milwaukee ... 414 354-5161
Can Dart Electronics Ltd, 11 Flaxman Rd
Weston Ont ... 416 248-4181

DIVAC ELECTRONICS, 13025 CERISE, HAWTHORNE
CAL, 90252 ... 213 772-5445
A BOTTENFIELD, EMP 50, ENG 3, $1,000-$2,500M
Utah Pierce Bowthorpe Agency, 143 S 4th E
Salt Lake City ... 328-4513

DIVENTCO INC, 30 WEST ST, NEW MILFORD
CONN, 06776 ... 203 354-3958
J ELPI, EMP 40, ENG 2, $500-$1,000M

DIVISION LEAD CO, 7762 W 61ST PL, SUMMIT
ILL, 60501 ... 312 RE 5-8600
D HIBBELER, EMP 100, ENG 2, UP TO $100M

DIXIE DIAMOND TOOL CO INC, 6875 SW 81ST ST
MIAMI, FLA, 33143 ... 305 665-1121
E MARCUS, EMP 25, ENG 3, $250-$500M
Cal Ross-Szerlip Assoc, 5007 Lankershim Blvd
N Hollywood ... 415 369-6726
Colo Nelson Co Inc, 1294 S Bannock
Denver ... 303 733-5528
Fla Winfield Elctn Sales Co, 666 NE 125th St
N Miami ... 305 PL 1-5566
Ga Paul Hayden Assoc, Box 331
East Point ... 404 PO 6-0261
Ill M Zindell, 6434 N Washtenaw Ave
Chicago ... 312 BR 4-7175
Ind Chas Scheffler Co, 1133 Navajo Trail
Indianapolis ... 317 CL 3-6337
Mass A N Reinherz, 59 Hamilton Rd
Belmont ... 617 484-7784
Minn John E Anderson & Co, 5231 Humboldt Ave S
Minneapolis
Mo Suor Sales Corp, 8115 Troost, Kansas City
NY Maury Farber Assoc, 220 Delaware Ave
Buffalo ... 716 TL 6-3543
NY Newhope Corp, 6 East 39th St
New York ... 212 532-7372
Ohio Perry Lohse & Co, 529 Richmond Rd, Cleveland
Pa John Mustico Co, 206 Bewley Rd
Havertown ... 215 HI 6-1961
Tex Texport Co, 2411 Farrington St
Dallas ... 717 ME 1-6270
Wash W K Wood Inc, 5908 Calif Ave SW, Seattle

DIXON CORP, METACOM AVE, BRISTOL
R I, 02809 ... 401 253-7500
J FEELEY, EMP 130, ENG 9
Ala Industrial Sales Engrg Corp, Drawer 7485-A
Birmingham
Cal A Vaines, Box 792, Los Gatos
Cal K W Lockwood Co, 15450 Cabrito Rd, Van Nuys
Colo Plasticrafts, Inc, 2800 N Speer Blvd, Denver
Ill Harlan Davis, 1201 Lawnmeadow La
Naperville ... 355-1177
Ind George M Hoster, 1627 W 75th Pl
Indnpls ... 251-2566
Mich R Grey Firth, 2021 Monroe Blvd, Dearborn
Minn Benjamin Swenson, 2815 Wayzata Blvd
Minneapolis ... 377-3921
Minn Swenson Industrial Sales, 7601 Wayzata Blvd
Minneapolis
Mo H & R Sales & Engineering Co, 3942 W Pine St
St Louis ... 652-5540
NJ Thurman McDaniel, 606 Graisbury Ave
Haddonfield ... 428-5531
NY Patrick Hoade, 66 Elder Dr, Commack ... 368-2523
NY Hansen Sales Assoc, 1800 Penfield Rd
Penfield ... 381-2800
NC Spencer M Clarke Co, 2044 Sherwood Ave
Charlotte ... 376-8262
Ohio A R Geldhof & Co, 220 Sterncrest Dr, Chagrin Falls
Pa Alexander D Thomas, Box 10654
Pittsburgh ... 242-2220
Tex Benson Engineering Co, 2516 W Mockingbird La
Dallas ... 352-7541
Utah Sherman Nabaum & Co, 4777 S 13th E
Salt Lake City ... 277-0459
Wis Barry H Fisher, Box 571, Oconomowoc ... 567-3531
GB H Crossley Packings Ltd
Box 7, Hill Mill, Astley Br, Bolton

DIXSON INC METER DIV, BOX 1449
GRAND JUNCTION, COLO, 81501 ... 303 242-8863
K ROGERS, EMP 270, ENG 8, $2,500-$5,000M
Ariz Allen Assoc, Box 3091 Papago Sta
Scottsdale ... 945-5781
Cal Straube Assoc, 483 Willow Rd
Menlo Park ... DA 3-2476
Cal Universal Components, 2330 Westwood Blvd
Los Angeles ... 474-1537
Colo Straube Assoc, Box 1649, Boulder ... 443-8600
Ill Ed Flaxman Co, 52 James Ct, Glenview ... 729-1880
Mass Conti-Younger Assoc, 181 West St
Waltham ... 891-4582
Mich J Malcolm Flora, Inc, 165 W Liberty St
Plymouth ... 453-4296
Mo L R Harry & Assoc, Inc, Box 588
Grandview ... 763-3634
NJ M D Industries, 240 Grand Ave, Leonia ... 944-2212

NY Harris & Aldrich Sales, Inc, 42-34 195th St
Flushing ... 357-7350
NY Marchese-Davis Assoc, 97 Park Ave
Rochester ... 442-9120
NY Harold B Heft Assoc, Box 623
Lynbrook ... 599-3351
Ohio John O Olsen Co, 16201 Shaker Blvd
Cleveland ... 752-5444
Ohio John O Olsen Co, 5539 Stokeswood Ct
Cincinnati ... 922-2176
Ohio John O Olsen Co, 116 W Franklin
Centerville ... 885-3722
Pa John O Olsen Co, 104 Elatan Dr
Pittsburgh ... 279-2550
Pa John O Olsen Co, 1843 Maydell St
Pittsburgh ... 341-8391
Wash Wm R Lanphear Co, Inc, 4031 Stoneway Ave, N
Seattle ... 633-4900
Can Desser Elctns Corp, 2425 Grand Blvd
Montreal, Que ... 486-1159

DOALL CO, 254 N LAUREL AVE, DES PLAINES
ILL, 60016, TWX 910 233-3503 ... 312-824-1122
L ROTHENBERGER, EMP 200, ENG 10, OVER $10,000M
Ala DoAll Gulf Co, 108 S 41st St
Birmingham ... 595-3726
Cal DoAll San Fran Co, 1688 Gilbreth Rd
Burlingame ... 697-7620
Cal DoAll Western Co, 2801 E Olympic Blvd
Los Angeles ... 263-7313
Cal DoAll San Diego Co, 3265 India St
San Diego ... 291-4600
Colo DoAll Denver Co, 5 S Kalamath St
Denver ... 255-0413
Conn DoAll Hartford Co, 221-225 Locust St
Hartford ... 249-0654
Fla DoAll Florida Co, 3316 S Westshore Blvd
Tampa ... 839-3341
Ga DoAll S Atlanta Co, 308 Decatur St, SE
Atlanta ... 521-1267
Haw Pell Co Inc, 330 Cooke St, Honolulu
Ill DoAll Rockford Co, 6th St & 3rd Ave
Rockford ... 964-7848
Ill DoAll Midwest, 4650 W Fullerton
Chicago ... 252-5300
Ill DoAll Northern Ill Co, 1586 Des Plaines Ave
Des Plaines ... 824-8191
Ind DoAll South Bend, 2637 W Sample St
South Bend ... 288-4747
Ind DoAll Central Co Inc, 1850 W 16th St
Indpls ... 635-6496
Iowa DoAll Iowa Co, 2016 E River St
Davenport ... 324-9115
Ky DoAll Louisville Co, 214 E Burnett Ave
Louisville ... 636-2803
Md DoAll Baltimore Co, 5621 York Rd
Baltimore ... 433-3993
Mass DoAll Boston Co, 32 Needham St
Newton Highlands ... 969-6350
Mich DoAll Gr Rapids Co, 1211 Burton St SE
Grand Rapids ... 245-2191
Mich DoAll Detroit Co, 15010 Plymouth Rd
Detroit ... 273-4141
Minn DoAll Twin Cities Co, 2327 E Franklin Ave
Mnpls ... 339-9721
Mo DoAll Mtn States Co, 2029 Holmes St
Kansas City ... 421-5857
Mo DoAll Southern Co, 8007 St Charles Rock Rd
St Louis ... 429-1700
NJ DoAll N J Co Inc, 2720 US Hwy 22
Union ... 687-5100
NY DoAll Syracuse Co Inc, 107 Baker St
Syracuse ... 463-8549
NY DoAll Buffalo Co, 1840 Kenmore Ave
Kenmore ... 875-3424
NY DoAll Eastern Co, 36-06 48th Ave
Long Island City ... 392-4595
NC DoAll Carolina Co, 3157 Cullman Ave
Charlotte ... 334-5397
Ohio DoAll Cincinnati Co, 2840 Colerain Ave
Cincinnati ... 681-1131
Ohio DoAll Cleveland Co, 4705 Brookpark Rd
Cleveland ... 749-2626
Ohio DoAll Toledo Co, 730 Phillips Ave
Toledo ... 479-5349
Ohio DoAll Dayton Co, 603 Leo St, Dayton ... 461-5460
Okla DoAll Tulsa Co, 804 S Sheridan, Tulsa ... 835-6944
Pa DoAll Phila Co, 2053 E Glenwood Ave
Phila ... 288-7400
Pa DoAll Pittsburgh Co, 905 Lincoln Hwy
E McKeesport ... 271-8559
Pa Doall Reading Co, 4850 Phila Pike
Reading ... 779-0577
RI DoAll Providence Co, 302 Smith St
Providence ... 331-3460
Tenn DoAll Tenn Co, 501 3rd Ave, Nashville ... 242-5519
Tex DoAll Dallas Co, 2014 Industrial Blvd
Dallas ... 741-4536
Tex DoAll Texas Co, 5512 Gulf Frwy
Houston ... 928-3486
Va DoAll Virginia Co, 1210 W Main St
Richmond ... 359-2479
Wis DoAll Wisc Co, 2725 W Oklahoma
Milwaukee ... 645-3810
Can DoAll Canada Ltd, 10 Meridian Rd
Rexdale, Ont ... 677-2553
Can DoAll Eastern Can Ltd, 330 Port Royal W
Montreal, Que ... 387-6458
Can DoAll Canada Ltd, 1107 Fife St
Winnipeg, Man ... 589-8336
Ger DoAll Co GmbH, Sonnenstr 17
4 Dusseldorf ... 0211 771025
BC DoAll Western Can Ltd, 330 Drake St
Vancouver ... 682-4601
Neth DoAll Nederland NV, Stationsplein 210
Leiden ... 01710 26844

DODGE INDUSTRIES, JOHN ST, HOOSICK FALLS
N Y, 12090, TWX 518 686-7695 ... 518 686-7301
R DUBOIS, EMP 300, ENG 6, $5,000-$10,000M
Cal K Lockwood, 15450 Cabrito Rd
Van Nuys ... 873-7766
Conn E Hildreth, Box 442, Old Saybrook ... 388-3296
Conn P Hart, Woodbury ... 263-3327
Fla R E Gardner, 476 Plasamour Dr NE
Atlanta ... 847-3070
Fla David J Cisan, 530 Eldron Dr
Miami Springs ... 888-1934
Haw M J Hanley, Box 1093, Honolulu ... 503-912
Ill J Edwards, 621 Dawes Ave
Libertyville ... 312 362-4446
Kan C L Omer, 6047 Howe Dr, Mission ... 66205
NJ M B Olbeter, 89 Powell Rd, Allendale ... 327-3509
NY N P Thomas, Box, North Syracuse ... 455-5501
Ohio E Connors, 59 Central Ave, Dayton ... 228-9644
Pa B E Gibson, 201 Penn Center Blvd, Pittsburgh
Tex W Sowden, Sr, 3000 Turtle Creek Plaza
Dallas ... 526-0441
Wash J P Quinn, 9210 28th NW, Seattle ... 784-6447
Den L Levy, Montergade, Copenhagen
Fr R E Judeles, 181, rue Philippe-Triaire, Nanterre
Ger E Pk vonder Bruggen, Weifzenburgstr 78, Koln
GB L Stevens, Littleborough, Lancashire
Ital Angst & Pfister SpA, Via Ferrante Aporti 14, Milano
Jap Dodge Fibers Co of Japan, Ltd
17, Akefune-Cho, Nishikubo Shiba, Tokyo
SAfr R N Scott, Box 280, Durban
Swed B Hammerskiold, Box 152, Malmo
Swit M Schwarzmann, Stampfenbachstr 144, Zurich

DOHRMANN INSTRUMENTS CO
1062 LINDA VISTA AVE, MOUNTAIN VIEW
CAL, 94040 ... 415 968-9710
L HOPPE, EMP 35, ENG 8, $500-$1,000M
Cal Sales Engineers, Ltd, 15408 Cornet Ave
Santa Fe Springs ... 213 868-0076
Cal Charles W Fowler Co, 9911 Inglewood Ave
Inglewood ... 213-678-5211
Cal Charles W Fowler Co, 845 Oak Grove Ave
Menlo Park ... 415-322-5374
Colo Charles W Fowler Co, 1345 Spruce St, Boulder
Ga C H Cloer & Assoc, 3272 Peachtree Rd, NE
Atlanta ... 404-231-4625
Ill Utopia Instrument Co, 1107 W Jefferson
Joliet ... 815-727-5431
Mass Clifford Assoc, Box 636
Newton Lower Falls ... 617-237-0618
Minn Wm M Ruva Co, 3553 46th Ave, S
Minneapolis ... 612-724-1744
Mo Jay Instr & Specialty Co, 1760 S Brentwood Blvd
St Louis ... 314-961-1909
NJ C H Ribble Co, 31 DiCarolis Ct
Hackensack ... 201-342-2602
NJ Friedman Assoc, 110 Halsted St
East Orange ... 201-673-2500
NM Charles W Fowler Co, 9000 Menual Blvd NE
Albuqerque ... 505-299-7676
NY Unbehaun Assoc, 75 College Ave
Rochester ... 716-244-2450
Ohio Robt R Stone & Assoc, Box 47
Mentor ... 216-946-6766
Ohio J R Howe Co, 815 Wakefield
Cincinnati ... 513-321-3245
Okla James E Dyer Co, Box 1226, Tulsa ... 918-742-8832
Pa Weiss Instrument, 6 Barton Dr
Pittsburgh ... 412-371-3020
Pa Control Instr Sales Co, 2727 Philmont Ave
Bethayres ... 215-676-1808
Pa Acromatix Assoc, 3118 Germantown Pike
Fairview Village ... 215-279-0377
Tex Antek Instruments, Inc, Box 16158
Houston ... 713-443-1292
Va Dynamation, Inc, Box 3191
Bon Air ... 703-272-5001
Wash Charles W Fowler Co, 845-106th Ave NE
Bellevue ... 216-454-8600
Can Electrodesign Ltd, 9124 S Lawrence Blvd
Montreal ... 514-389-5914
Can Electrodesign Ltd, 3433 Bathurst St
Toronto ... 416-787-0991
Can Electrodesign Ltd, 83 Arthur St
Ottawa ... 613-233-8815
Can Canadian Lab Supplies Ltd, 80 Jutland Rd
Toronto ... 416-255-5501
Can Canadian Lab Supplies Ltd, 10989 - 124 St
Edmonton
Can Canadian Lab Supplies Ltd, 1004 Main St, Saskatoon
Can Canadian Lab Supplies Ltd, 535 Marjorie St
St James, Winni
Can Canadian Lab Supplies Ltd, Box Sta O, Montreal
For Chemical Supply Co, 112 Chakrapetch Rd, Bangkok
For Cooperative C L Enterprise Co
17, Lane 53, Sec 2, Han-Kow St, Box 1742 Taipei
Den Buch & Holm A/S, Solvgade 34-36
Copenhagen K ... BYen 8208
Fr Techmation, 113, Rue Lamarck
Paris 18 ... 627-4779
Ger Techmation GmbH, 12 Bilkerstr
4 Dusseldorf ... 10741
GB Techmation Ltd, 58 Edgware Way
Edgware, Mdsx ... 01-958-5636
Holl Techmation N V, Keizersgracht 522
Amsterdam ... 22-47-85
Jap Columbia Import & Exp Co Ltd
3-1 Chome, Kanda-Sarugakucho, Chiyoda-Ku
Tokyo ... 291 0641-8
SAfr Optical Instruments Pty Ltd, Box 1561
Johannesburg ... 834-4541
Swed Bo Philip Instr AB, Jamtlandsgatan 108
Stockholm-Vallingby ... 08/372880
Swit Kontron Technik AG, Hardstr 235
8031 Zurich 5 ... 051-44 56 90
BC Canadian Lab Supplies Ltd, 1449 Hornby St
Vancouver ... 604-682-4291

Belg Techmation P. V. B. A, 189-191 Rue de La Victoire
Brussels
Ind Neotronics Corp, Dadasaheb Phalke Rd
Dadar, Bombay-14
Aust Astronic Imports, 622 Nicholson St
No Fitzroy, 3068, Vict 489-1911

DOLAN JENNER INDUSTRIES INC, 10 INGALLS CT
MELROSE, MASS, 02176 617-662-8200
B DOLAN, EMP 50, ENG 10, OVER $10,000M
Cal Duncan Engineering Sales Co, 1800 N Highland St
Hollywood 462-5880
Colo Kelley Enterprises, 336 E 4th St
Loveland 667-1376
Conn Winn Engineering, Box 177, Glenville Stat
Greenwich 531-8927
Ill Automation Equip Co, Inc, 6645 N Oliphant Ave
Chicago 631-9673
Kan Wells-White Co, 1200 Whitney Rd
Independence CI7-2091
La Hahn Sales Co, Box 52795
Baton Rouge 356-2596
Md Scientific Mktg Assoc, 8817 Hunting La
Laurel 776-5130
Mass George Dick Assoc, Box 513, W Acton 899-2364
Mich Electro-Mation Assoc, 1137 Cole St
Birmingham 564-6517
Minn William M Ruva Co, 3553 46th Ave S
Mnpls 533-9033
Mo Wells-White Co, 7607 Page Blvd
St Louis 726-2511
NY Frank Unbehaun Assoc, 75 College Ave
Rochester 244-2450
NC Frederick G Speidel, Box 17661
Raleigh 787-4521
Ohio Fred R Sharp Co, 12417 Cedar Rd
Cleveland 321-4200
Ohio Bernard L Michaelson Co, Box 217
Xenia 372-5496
Pa Bollinger & Bradford, Box 8088
Pittsburgh 561-2340
Pa Elk Engineering Co, Box 388, Paoli 644-6278
Tex Production Engrg Sales, Box 30393
Dallas 369-3181
Wash Far West Agencies Div, Box 805
Bellevue 747-1515
Wis Automation Engineering, 12740 N River Rd 43 W
Mequon 242-1520
Can Power Service Products, Box 184
Islington, Ont 239-2977

DOLINKO & WILKENS INC, 1901-7 SUMMIT AVE, UNION CITY
N J, 07087 .... 201 867-6630
L DOLINKO, EMP 22, ENG 2, $250-$500M
ADV PG 118
Cal Wallace & Wallace, 1206 Maple Ave
Los Angeles 747-0401
Ill Edward Schmeichel Co, 5968 W Chicago Ave
Chicago 378-2070
Minn Dayton Engineering Sales, 2937 Texatonka Ave
Minneapolis 935-7353
Ohio P E Montplaisir, 5021 Rockland Dr
Dayton 277-8939
For Minthorne Intl Co, 64-14 Woodside Ave
Woodside, NY 899-8888

DOLPH CO, JOHN C, NEW RD, MONMOUTH JUNCTION
N J, 08852 201-329-2333
J MAYES
Ala Electric Motor Materials Inc, 63 Sidney Phillips Dr
Mobile 471-2541
Cal Western States Wire & Cable Co
1500 S Calzona St, Los Angeles .... AN 4-1291
Cal Western States Wire & Cable Co, 1342 Rollins Rd
Burlingame 342-7201
Cal Advance Electrical Sales, 850 Montgomery La
San Carlos 591-9651
Cal Arrowhead Elec Corp, 3675 Olympia Blvd
Los Angeles 268-2911
Colo Ward Electric Supply Co, 1909 Blake St, Denver
Fla Brownell Inc, 307 27th St, Orlando .... GA 4-5634
Ga Brownell Inc, 3026 Commerce Way
Hapeville 767-9301
Ga Prehler Elec Insulation Co, 6030 Peachtree Rd
Chamblee 451-4266
Ill Kennedy Engineering Co, 6713 N Oliphant Ave
Chicago 631-8283
Ill Prehler Electrical Insulation Co
2300 N Kilbourn Ave, Chicago 384-6100
Ill Complete Reading Elec Co, 100 S Jefferson St
Chicago 236-5390
La Summers Interstate Co, 3733 Conti St
New Orleans 482-5771
La New Orleans Electric Supply Co
2301 Tchoupitoulas St, New Orleans 522-9564
Md Electric Motor Supply Co, 356 N Gay St
Baltimore .... MU 5-4523
Md Earl B Beach Co, 2003 Greenspring Dr
Timonium 252-5260
Mass Earl B Beach Co, 15 Crane Ct
Woburn 617-935-3150
Mass Brownell Inc, 271 Vassar St
Cambridge 617-864-7500
Mich OEM Sales Co, 106 S Woodward Ave
Birmingham .... MI 7-1172
Minn D A Schultz Co, 801 SE 8th St
Minneapolis .... FE 9-7701
Mo Complete Reading Elec Co, 704 Tracy St
Kansas City 471-5966
Mo Mid West Isulation Inc., 11657 Adie Rd
Maryland Heights 314-432-3444
NY Brownell Inc, 85 Tenth Ave
New York City .... WA 4-6000
NY A W Schmitz Co, 82 St Paul St
Rochester 716-546-7628
NC Brownell Inc, 3109 Cullman Rd
Charlotte 333-8426
Ohio Earl B Beach Co, 5618 Hamlet
Cleveland 341-4300
Ohio Consumers Rubber Co, 410 Lakeside Ave NW
Cleveland .... MA 1-1584
Ohio Electric Parts & Service Co, 1623 E 43rd St
Cleveland .... UT 1-6044
Ohio Prehler Elec Insulation Co, 12200 Brookpark Rd
Cleveland 267-2650
Ohio Complete Reading Elec Co, 13311 Enterprise Ave
Cleveland 252-3003
Okla Butts Electric Supply Co, 420 N Penna
Oklahoma City .... CE 6-5411
Ore Western States Wire, 4505 SE Belmont St
Portland 503-234-0756
Pa Martin Supply Co, 52 Terminal Way
Pittsburgh .... EV 1-6141
Pa Earl B Beach Co, Verona & Mt Carmel Rd
Pittsburgh 242-0400
Pa Earl B Beach Co, 546 Penn St, Yeadon 622-2210
Pa Complete Reading Elec Co, 21 Ter Way
.... 412-431-1000
Pa Prehler Electrical Insul Co, 5696 Rising Sun Ave
Phila 215-725-5913
Pa Brownell Inc., 10980 Dutton & Comly Rd
Phila 215-632-3030
Tenn Brownell Inc, 217 Cumberland St
Memphis 323-7693
Tex Electrical Supply Corp, 2201 Laws St
Dallas 741-1652
Tex Earl B Beach Co Hisco Div, 1815 Dallas
Houston .... CA 8-6663
Tex Complete Reading Electric Co, 903 Sampson St
Houston .... CA 4-5731
Tex Southern Electric Sales Co., 3210 Elm St
Dallas 214-742-9084
Utah Electric Parts & Insulation Co, 246 W 13th St
Salt Lake City 486-0773
W Va West Virginia Armature Co, Bluefield
Bluefield .... DA 7-8164
Wis R J Wittenburg Co, 4805 W Center St
Milwaukee .... HI 5-8487

DON BOSCO ELECTRONICS INC, 16 LITTELL RD
HANOVER, N J, 07963 .... 201 887-5575
S WU, EMP 12, ENG 3
Cal Wallace & Wallace, 1206 Maple Ave
Los Angeles .... RF 7-0401
Colo Gordon Moss Electronics, 1530 13th Ave
Greeley 353-1452
Fla Frank Mellon & Sons, 900 NE 136th St
N Miami 757-0914
Ill A H Bruning Co, 6139 W Touhy Ave
Chicago 775-5381
Ind Delta Sales Inc, 1407 N Illinois St
Indianapolis .... ME 1-4136
Mich Lawrence F Zaffina Co, 15620 Juliana
E Detroit 777-9191
NY Aeroconomy Agency, 1079 Lexington Ave
Schenectady 372-8426
NC Electro-Rep Assoc Inc, 1401 E 7th St
Charlotte 333-0451
Ore A C McMillan Elctns, 16679 SW Maple Cir
Lake Oswego 636-6257
Pa James H Podolny Co, 5912 Penn Ave
Pittsburgh .... HI 1-0800
Pa RLM Assoc Inc, 8221 Roosevelt Blvd
Phila .... DE 8-0680
Utah Gordon Moss Elctns Inc, Box 8022 Foot Hills Sta
Salt Lake City 485-2870
For Eltron Export Co, 122 Broad St
New York, NY .... WH 4-7635

DONNELLY MFG CO, 580 WINTER ST, WALTHAM
MASS, 02154 .... 617 893-5700
A MCMANMON, EMP 250, ENG 3, $1,000-$2,500M

DORAN MFG CO, 1033 BADER ST, CINCINNATI
OHIO, 45225 .... 513 681-5424
Q GINDELE, EMP 30, ENG 3

DORCO ELECTRONICS INC, 109 E ELM ST, COMPTON
CAL, 90220 .... 213 636-5552
R PACK, EMP 12, ENG 3, $100-$250M

DORIC SCIENTIFIC CORP, 7969 ENGINEER RD
SAN DIEGO, CALIF, 92111 .... 714 277-8421
A FROWISS, EMP 20, ENG 5, $250-$500M
Ariz Hilleary Assoc, Phoenix 602 266-3671
Cal Jay Stone & Assoc, 140 Main St
Los Altos 415 948-4563
Cal C G Pierce & Assoc, 1810 Fair Oaks
South Pasadena 213 682-1166
Colo Hilleary Assoc, 2552 Ridge Rd
Littleton 303 794-4279
NJ Williams & Rotondi, Box 264A
Califon 212 691-2530
NM Hilleary Assoc, 311 Washington SE
Albuquerque 505 265-7631
NY Williams & Rotondi, 16 Fisher Ave
Tuckahoe 914 961-4338
Fr Soc Europeenne D'Electronique, 39-41 Rue de l'Est
92 Boulogne-Billancourt

DO-RITE MFG CO, 379 MARKET ST, EAST PATERSON
N J, 07407 201-796-1902
R LOCKEY, EMP 26, ENG 2, $500-$1,000M

DORMEYER INDUSTRIES, 3418 N MILWAUKEE AVE
CHICAGO, ILL, 60641 .... 312 AV 3-4000
G PFEIFFER, EMP 600, ENG 19, $5,000-$10,000M
Cal Weaver & Assoc, 13218 Crenshaw Blvd
Gardena 213-321-8962
Cal Irving Ballard Co, 556 Clay St
San Francisco 415-781-1781
Conn Ray Perron & Co, 36 Louis St
Trumbull .... AM 8-9631
Conn Ray Perron & Co, 10 Briarwood Rd
Farmington 673-4825
Iowa Reid & Assoc, 526 MNB Bldg
Cedar Rapids 362-6302
Md Ansell Engrg Co, 816 Thayer Ave, Silver Springs
Md D K Jones, 2026 Maryland Ave
Balitmore 752-0577
Mass Ray Perron & Co, 1870 Centre St
Boston .... FA 3-1008
Mich Robt H Jackson Co, 200 S Washington
Royal Oak .... 313 LI 2-5059
Mo M-C Sales Co, 615 Wyandotte, Kansas City
NH Ray Perron & Co, Caron Rd RFD 2
Manchester 472-4091
NJ ISC Components Corp, 170 E Ridgewood
Ridgewood 201-445-1312
NY H C Johnson Agencies, Box 215
Fayetteville .... NE 7-9383
NY H C Johnson Agencies, 111 Mount Hope Ave
Rochester .... HA 6-1090
NY H C Johnson Agencies, 8 Los Robles St
Williamsville .... NF 2-7880
NY H C Johnson Agencies, Box 86 Brandywine Sta
Schenectady .... FR 4-5901
NC Wm J Suk Assoc, 1409 E Blvd
Box 3186 .... Charlotte
Ohio E B Kaercher, 2893 Chatham Rd
Cleveland .... TE 1-8098
Ohio Luebbe Sls Co, 2649 Erie Ave
Cincinnati 871-4211
Ohio Ray Mong, 7250 Honeydale Dr
Northfield 467-7219
Ohio John C Lee, 2010 Carew Tower
Cincinnati 241-1844
Pa Beebe & Aikman, 237 Lancaster Rd
Devon .... MU 8-5173
Wash West Coast Agencies, 16715 52nd W Unit E
Edmonds 206-743-5100
Wis Fred H Mann, 1220 Sixth Ave
Oshkosh .... BE 1-3534

DORNE & MARGOLIN INC, 2950 VETERANS MEMORIAL HWY
BOHEMIA, N Y, 11716, TWX 510 228 6502 .... 516 585-4000
F CARR JR, EMP 200, ENG 40, $2,500-$5,000M
ADV PG 49, 54
Ala Gentry Assoc Inc, 2109 Clinton Ave
Huntsville 534-9771
Cal Dorne & Margolin Inc, 9730 Cozycroft Ave
Chatsworth .... DI 1-4010
Fla Gentry Assoc Inc, 550 Bumby Ave
Orlando 305-841-7740
Fla Gentry Assoc Inc, 4152 49th Ave S
St Petersburg 867-7820
Fla Gentry Assoc Inc, 201 Nelson Ave
Eau Gallie 773-3411
Ga Gentry Assoc Inc, Box 13513, Sta K
Atlanta 233-3816
NC Gentry Assoc, Inc, Box 197, Jamestown 454-1919
Tex John W Casey Co, Rt 10 Box 189
San Antonio 692-1477
For Technitron, Inc, 41 W 57th St
New York, NY .... PL 8-2790

DORSETT ELECTRONICS INC, 1143 S 71ST EAST AVE
TULSA, OKLA, 74101 .... 918 TE 65501
H DALY, EMP 225, ENG 12, $2,500-$5,000M
Cal Robert Cameron Assoc, 777 N First St
San Jose 295-5611
Cal Gee Associates, Inc, 14474 Dickens St
Sherman Oaks
Fla Perrott Assoc, Inc, 501 Park Ave N
Winter Park 647-5290
Mass Forsberg Sales, 125 Perkins Ave
Brockton 583-0034
NY Rocke International Corp, 13 E 40th St
New York 689-0200
Ohio E C Greuling & Assoc, 424 Grants Trail
Dayton 298-7801

DOUGLAS DIV KINGSTON PRODUCTS CORP
141 RAILROAD ST, BRONSON
MICH, 49028 .... 517 369-2315
EMP 510, ENG 5, OVER $10,000M

DOUGLAS ELECTRONICS INC, 718 MARINA BLVD
SAN LEANDRO, CAL, 94577 .... 415 483-8770
EMP 12, ENG 1, UP TO $100M

DOUGLAS INSTRUMENT LAB, 176 NORFOLK AVE
BOSTON, MASS, 02119 .... 617 445-4836

DOUGLAS MICROWAVE CO DIV STRUTHERS ELECTRONICS CORP
RAILROAD PL, MAMARONECK, N Y, 10543 .... 914 OW 8-3000
I GOODMAN, EMP 95, ENG 14, $1,000-$2,500M
ADV PG 58, 59

DOWA TRADING CO LTD, 60 NANIWA-CHO, IKUTA-KU
KOBE, JAPAN .... (39) 5384-6
T IKEUCHI, EMP 10, ENG 4, $1,000-$2,500M

DOW CHEMICAL CO, MIDLAND
MICH, 48640 ... 517-636-1000
F QUIGLEY, EMP 36000, OVER $10,000M
Cal Dow Chemical Co, 2600 Wilshire Blvd
Los Angeles ... 382-8131
Cal Dow Chemical Co, 350 Sansome St
San Francisco ... 981-3330
Ga Dow Chemical Co, 618 Fulton Natl Bank
Atlanta ... 688-3085
Ill Dow Chemical Co, 6000 W Touhy Ave
Chicago ... 774-6000
Ind Dow Chemical Co, 3909 N Meridian St
Indnpls ... 926-3441
La Dow Chemical Co, 1100 Commerce Bldg
New Orleans ... 524-0206
Mass Dow Chemical Co, 1330 Boylston St
Boston ... 734-7920
Mich Dow Chemical Co, 600 Northland Towers
Detroit ... 444-1000
Minn Dow Chemical Co, 4901 W 77th St
Mnpls ... 920-4040
Mo Dow Chemical Co, 10 S Brentwood Blvd
St Louis ... 726-5000
Mo Dow Chemical Co, 2208 Commerce Tower Bldg
Kansas City ... 816 221-8933
NJ Dow Chemical Co, 400 Market St
Camden ... 966-4150
NY Dow Chemical Co, 45 Rockefeller Plaza
New York ... 757-8300
NY Dow Chemical Co, 560 Delaware Ave
Buffalo ... 884-6050
NC Dow Chemical Co, 200 S Tryon St
Charlotte ... 334-0851
Ohio Dow Chemical Co, 55 Public Sq
Cleveland ... 861-5825
Ohio Dow Chemical Co, Colonial Ctr Bldg
Cincinnati ... 271-8200
Pa Dow Chemical Co, 4 Gateway Ctr
Pittsburgh ... 281-3030
Tex Dow Chemical Co, 1401 Elm St, Dallas ... 742-8691
Tex Dow Chemical Co, 3636 Richmond Ave
Houston ... 623-3011
Wash Dow Chemical Co, 307 Broad St
Seattle ... 624-6488

DOW CORNING CORP, MIDLAND
MICH, 48640 ... 517 TE 6-8000
L TEICHTHESEN, EMP 3000, OVER $10,000M
Cal Dow Corning Corp, 3033 West Mission Rd
Alhambra ... 289-5186
Ill T A Preston, 3525 W Peterson Rd
Chicago ... 539-8200
Md D J Myers, 8555 16th St, Silver Spring ... 588-3222
Mass R J Dilger, 886 Washington St
Dedham ... 326-8750
Minn Dow Corning Corp, 4716 Overlook Dr, Bloomington
NJ Dow Corning Corp, 401 Sylvan Ave
Englewood Cliffs ... 567-4960
Tex Dow Corning Corp, 6778 Greenville Ave
Dallas ... 368-1301

DRAKE CO, R L, 540 RICHARD ST, MIAMISBURG
OHIO, 45342 ... 513 866-2421
J DELANEY, EMP 100, ENG 10

DRAKE MFG CO, 4626 N OLCOTT AVE
HARWOOD HEIGHTS
ILL, 60656, TWX 910-221-0236 ... 312 867-7227
J KRUTEK, EMP 140, ENG 3, $1,000-$2,500M
Cal Penwarden Assoc, 14547 Titus St
Van Nuys ... 782-4920
Cal Straube Assoc, 483 Willow Rd
Menlo Park ... 323-2476
Colo Straube Assoc, Box 1649, Boulder ... 443-8600
Conn Comp-Rep Assoc, 14 Bowling Green Ave
North Haven ... 239-9762
Fla Winfield Electronic Sales Co, 666 NE 125th St
N Miami ... 751-5566
Ga Winfield/Southeast Co
2991-D N Druid Hills Rd,NE
Atlanta ... 404 636-3023
Ill Russ Gawne Assoc, 6139 Touhy Ave
Chicago ... 775-5381
Ind W W Bieberich Co, 801 Leesburg Rd
Fort Wayne ... 742-8468
Kan Koenig-Myers Assoc, 5500 Buena Vista Dr
Shawnee Mission ... 432-8300
Md Kaufholz Assoc, Box 6232, Baltimore ... 488-6561
Mass Comp Rep Assoc, 1116 Great Plains Ave
Needham ... 444-2484
Mich Grant Shaffer Co, 14241 Fenkell Ave
Detroit ... 273-5390
Minn Chas E Bohlig Co, Box 8095
Minneapolis ... 612 922-7011
Mo Koenig-Myers Assoc, 2721 Beloit Dr
Bridgeton ... 739-1655
NY B H Tollefson Assoc Inc, 11 State St
Pittsford ... 381-2500
NY Howard F Smith, 259 W 14th St
New York ... 242-2398
NC Winfield/Southeast Co, 4909 Carteret Dr
Raleigh ... 787-2841
Ohio Goory Sales Co, 19555 Henry Rd
Cleveland ... 331-2055
Pa Kaufholz Assoc, Box 227
Newtown Square ... 356-5000
Pa J Podolny Co, 5912 Penn Ave
Pittsburgh ... 441-0800
Tex Techno Assoc, 2324 Shorecrest Dr
Dallas ... 357-9213
Wash Fred H Haight Co, 3212 Eastlake Ave
Seattle ... 322-1818
Wis Russ Gawne Assoc, 4927 W Donna Dr
Milwaukee ... 354-4889

Can Atlas Radio Corp, 50 Wingold Ave
Toronto ... 781-6174
Mex Gimbel Mexicana,SA, Sonora 170
Mexico ... 14-65-58

DRANETZ ENGINEERING LABS INC, 1233 NORTH AVE
PLAINFIELD, N J, 07062 ... 201 755-7080
A DRANETZ, EMP 25, ENG 8, $250-$500M
ADV PG 74, 174, 322, 397, 407, 796
Cal Crown Electronics, Box 2573, Van Nuys ... 873-1266
Cal Mel Wallace, Box 991, Reseda ... 213 344-1400
Conn Instrument Consultants, Inc, 2381 Whitney Ave
Hamden ... 248-4174
Mass Instrument Consultants, Inc, Box 25
Waban ... 969-9881
Ohio Electro Sales Assoc, Box 143 Dabel Sta
Dayton ... 426-5551
Ohio Electro Sales Assoc, 335 E 200th St
Cleveland ... 486-1140
Pa Electro Sales Assoc, 201 Penn Center Blvd
Pittsburgh ... 371-9449
Pa J E Cuesta & Co, Inc, Valley Forge ... 265-5800
Va Gans-Fryling Inc, 2030 16th St N
Arlington ... 527-3262

DRESSEN-BARNES ELECTRONICS CORP
250 N VINEDO AVE, PASADENA
CAL, 91107, TWX 910-588-3780 ... 213 795-7731
P HAST, EMP 115, ENG 4
Cal Vistronics, 6158 Mission Gorge Rd, San Diego
Colo Williams Assoc, 4971 Jackson St, Denver
Fla Reynolds & Assoc, 325 5 Ave, Eau Gallie
Kan Impala,Inc, 6917 W 76 St, Overland Park
Md Eastronics, 2401 Blueridge Ave, Wheaton
Mass Dan Greene ORG, 1 Hayden La, Bedford
Mich Technitron Inc, 13657 Grand River Ave, Detroit
NY HAF Spectrum, 16 Lewis Ave, Jericho
NY A & D Devices,Inc, 830 Linden Ave, Rochester
Ohio Technitron Inc, 23203 Lorain Rd, North Olmstead
Pa Technitron Inc, 114 Spring Grove Rd, Pittsburgh
Pa Victor S Malta Co, Box 4007, Philadelphia
Tex A P Kinc Co, 6950 Winchester, Dallas
Can Aeromotive Eng Ltd, 887 Montee De Liesse
St Laurent,Montreal

DRESSER CONTROLS, 10201 WESTHEIMER RD
HOUSTON, TEXAS, 77001 ... 713 SU 1-1911
C ELLIS, JR, EMP 300, ENG 50, $2,500-$5,000M
Ariz Luscombe Engineering Co, 222 Osborn Rd
Phoenix ... 602-274-1542
Cal Luscombe Engineering Co, 610 So Arroyo Pkwy
Pasadena ... 213 684-2000
Colo Cliff Beabout Co, 666 Sherman St
Denver ... 303 244-3151
Ill Hooper-Green Co, 2612 Buckingham Dr
Rockford ... 815 399-1004
Ill Hooper-Green Co, 407 S Dearborn St
Chicago ... 312 427-2680
La Coastal Marine Assoc, 225 Baronne
New Orleans ... 504 524-0503
Mass A C Stohn Assoc, 335 Washington St
Braintree ... 617 843-1136
Mich Geo R Peters Assoc, 2399 Coolidge Hwy
Berkley ... 313 564-6325
Mo Harris-Hanson Co, 2814 S Brentwood Blvd
St Louis ... 314 647-4350
Mo Harris Hanson Co, 7916 Paseo
Kansas City ... 816 444-9494
NJ Maxwell Assoc, 9 Prospect St
Ridgewood ... 201 445-7171
NY Fournier Assoc, 60 E 42nd St
New York ... 212 697-8450
Ore Tarbell Communications, Inc, 1100 S W 6th Ave
Portland ... 503 228-4111
Pa Muller,Harper & Assoc, Box 11147
Pittsburgh ... 412-931-6460
Pa L H Walke, 32 Rittenhouse Pl
Ardmore ... 215 642-4140

DRESSER, CRANE, HOIST & TOWER DIV
875 MICHIGAN AVE, COLUMBUS
OHIO, 43215 ... 614 AX 9-2123
Cal Dresser, Crane, Hoist & Tower Div
2314 Redondo Beach Blvd, Gardena ... FA 1-9850

DRESSER ELECTRIC CO, 2705 WIGHT ST, DETROIT
MICH, 48207 ... 313 LO 8-1855
G WILSON, EMP 25, ENG 4

DRESSER SYSTEMS, INC, 10201 WESTHEIMER RD
HOUSTON
TEX, 77001, TWX 910 881-3755 ... 713 SU 2-2000
C CALDWELL, EMP 550, ENG 30, $5,000-$10,000M
Ala Ridge Instruments Inc, 7220 Governors Dr
Huntsvlle ... 837-3211
Fla Ridge Instru Inc, 2227 Seely Dr
Orlando ... 293-4711
Ga Ridge Instru Inc, 3094 McCully Dr
Atlanta ... 939-1554
Tenn Ridge Instru Co, Inc, 110 Inn La
Oak Ridge ... 483-1311

DREXELBROOK ENGINEERING CO, 600 BROOKE RD
GLENSIDE, PA, 19038 ... 215 885-2344
R LIGHTSTONE, $250-$500M

DRIVER, WILBUR B DIV SYLVANIA ELEC PRODS INC
1875 MCCARTER HWY, NEWARK
N J, 07104 ... 201 482-5550
C JONES, EMP 1300, ENG 40, OVER $10,000M
Cal Wilbur B Driver Co, 2324 Cotner Ave
Los Angeles ... 213 478-4021
Cal Western Gold & Platinum Co, 525 Harbor Blvd
Belmont ... 415 593-3121
Conn Wilbur B Driver Co, 50 Harvest La
W Hartford ... 203 233-4047
Ill Wilbur B Driver Co, 5666 N Northwest Hwy
Chicago ... 312 763-6200
Ind Fort Wayne Metals Co, 3211 Mac Arthur Dr
Fort Wayne ... 219 747-4154
Mich W M Chace Co, 1600 Beard Ave
Detroit ... 313 842-7400
NJ Phila Insulated Wire Co, 333 New Albany Rd
Moorestown ... 609 235-6700
Ohio Wilbur B Driver Co, 13701 Enterprise Ave
Cleveland ... 216 252-3444
Can Canadian Wilbur B Driver Co Ltd, 50 Ronson Dr
Rexdale Ont ... 416 247-7185

DRIVER-HARRIS CO, 201 MIDDLESEX ST, HARRISON
N J, 07029, TWX 710-995-4563 ... 201 483-4800
C PHAYRE, EMP 600, ENG 16, OVER $10,000M
Ala J Tull Metal & Supply Co, 1301 25th Ave
Birmingham ... 323-1612
Cal Driver-Harris Co, 4081 Glencoe Ave
Los Angeles ... 391-8283
Colo Metal Goods Corp, 4343 Holly St
Denver ... 388-4141
Ga J Tull Metal & Supply Co, 285 Marietta St NW
Atlanta ... 525-3871
Ill Driver-Harris Co, 5561 N Milton Pkwy
Rosemont ... 678-0524
Ohio Driver-Harris Co, 14805 Detroit Ave
Cleveland ... 216 228-6880
Okla Metal Goods Corp, 302 N Boston Ave
Tulsa ... 447-4101
Tex Metal Goods Corp, 6211 Cedar Springs Rd
Dallas ... 351-3271
Wash Western Factors, 2833 4th Ave S
Seattle ... 662-3414
Can Driver-Harris Co, 207 Queens Quay W
Toronto ... 368-3271
Den Metalgaarden, St Kongensgade 72, Kobenhavn
Fr Ets Driver-Harris Co, Boite-Postale 62
Mantes-la-Jolie
GB British Driver-Harris Co, Cheadle Heath
Stockport, Cheshire
Ital Driver-Harris Italiana, Terrazzano Di Rho, Milan
Spn Driver-Harris Iberica, SA, Apartado 9079, Madrid

DRYOMATIC DIV LOGETRONICS INC
7001 LOISDALE RD, SPRINGFIELD
VA, 22150 ... 703 971-1400
H PUTTBACH, EMP 35, ENG 5, $1,000-$2,500M

DRY SCREEN PROCESS INC, 1106 REEDSDALE ST
PITTSBURGH, PA, 15233 ... 412 321-5255
J ABT, EMP 60, ENG 2, $250-$500M
Ill R L Hanna, Box 202, Palatine ... 312 358-3940
Mich Photo Reproduction Matls, 19166 Glendale Ave
Detroit ... 313 272-4550

DU-CO CERAMICS CO, BOX 278, SAXONBURG
PA, 16056 ... 412 352-1511
J DUKE, EMP 280, ENG 5, $1,000-$2,500M

DUCOM INC, 22 PORTER ST, SALEM
MASS, 01970 ... 617 745-3487
H PLOURDE, EMP 16, ENG 2, $100-$250M

DUDEK & BOCK SPRING MFG CO
4014 W GRAND AVE, CHICAGO
ILL, 60651 ... 312 DI 2-1020
S WITTEK, EMP 200, ENG 4, $1,000-$2,500M
Ind Buck-Hilkert Inc, 124 5th St, Logansport ... 2555
Mich M & S Sales Co, 20820 Greenfield Rd
Detroit ... 547-7575
Mich Joseph Pickl, Jr, 2475 Adare Rd
Ann Arbor ... 761-7777
Minn Frank W Ladky Assoc, 7601 Wayzata Blvd
Mnpls ... 545-1494
Mo O'Brien & Reynolds Inc, 115 Hanley Ind Ct
St Louis ... MI 5-3665
NY Robt W Neill, Inc, 524 Sibley Tower Bldg
Rochester ... 454-1420
Pa Riley & Aleshire Inc, 306 Leedom St
Jenkintown ... TU 4-1708
Tenn Industrial Hard Goods Co, 809 Market St
Chattanooga ... 267-0907
Tex Gulf Metal Products Co, 901 Vickery St
Fort Worth ... ED 2-1749
Wis Frank W Ladky Assoc, 4604 N Wilson Dr
Milwaukee ... WO 2-2942

DUKANE CORP, 103 ELEVENTH AVE, ST CHARLES
ILL, 60174 ... 312 584-2300
H JAFFE, EMP 570, ENG 80, OVER $10,000M
Cal R Hertenstein, 123 S Kingsley St
Anaheim ... 714 630-1639
Del L Kendall, 20 Glenbarry Dr
Wilmington ... 302-994-2437
DC DuKane Corp, 1025 Vermont NW
Washington ... 783-4666
Ga T Lehman, 4260 Sandy Plains Rd
Marietta ... 404 993-4036
Ill L Klewin, 3210 Huffman Blvd
Rockford ... 815 TR 7-7993
Kan K Cooper, 2216 N 64th St
Kansas City ... 913 299-0859
Mich P Warner, 3301 Lorraine
Ann Arbor ... 313 761-5334

NY W C Jansen, 10 Stratford Rd
Brooklyn 212 287-9865
Ohio J E Hall, 4779 Mc Greevey Dr
Fairfield 513 893-6603
Pa R L Henry, 272 KnickerBocker Dr
Pittsburgh........................ 412 373-0245
Tex D Anderson 10860 Colbert Way, Dallas
214 DI 8-0967
Can W Smutts, 18 Landigo Dr
Weston Ont 416 249-3751

DUMONT MOBILE COMMUNICATIONS DIV LTV LING ALTEC INC, 1515 S MANCHESTER AVE, ANAHEIM
CAL, 92803, TWX 910-591-1142........ 714 776-6760
B WADDELL, EMP 70

DUNCAN ELECTRONICS INC, 2865 FAIRVIEW RD COSTA MESA
CAL, 92626, TWX 910 595-1128........ 714 545-8261
A TRAFFORD, EMP 150, ENG 15, $2,500-$5,000M
Ariz Southwest Engineering Co, 8341 N 7th St
Phoenix 944-1521
Cal Jack Pyle Co, 1611 Borel Pl
San Mateo........................ 349-1266
Colo Waugaman Assoc, 2785 N Speer
Denver 303 255-5000
Conn Gerber Sales Co, Inc, Box 2917
New Haven .... SPruce 7-6279
Fla Orbe Inc, 300 31st St N, St Petersburg ... 894-0687
Ga Orbe Inc, Box 7777, Orlando 424-0978
Ill Carlson Electronic Sales Co, 7448 N Harlem Ave
Chicago .... SP 4-0277
Me Biechler Assoc Inc, 822 Baltimore Rd
Rockville 301 762-6210
Md Biechler Assoc Inc, 7353 Yorktowne Dr
Baltimore........................ 825-8222
Mass Gerber Sales Co, Inc, 176 Second Ave
Waltham 891-8040
Mass Gerber Sales Co, Inc, Box 447
East Longmeadow................ LAurel 5-3059
Mich Elko Sales Corp, 3119 Midland Dr SE
Grand Rapids........................ 616 949-1451
Mich Elko Sales Corp, 970 N Oxford
Grosse Pointe Woods............. 313 884-7893
Minn Carlson Elctn Sales Co, 2500 39th Ave NE
Minneapolis........................ 612 788-4111
Mo Harris-Hanson Co, 2814 S Brentwood Blvd
St Louis 647-4350
Mo Harris-Hanson Co, 7616 Paseo St
Kansas City 444-9494
NJ B B Taylor Corp, 39 Bluefield Ave
Harrington Park 768-0969
NY Reed Electronics, 2815 Monroe Ave
Rochester........................ 716 473-2767
NY Reed Electronics Inc, 326 Fay Rd
Syracuse........................ 315 468-5488
NY Reed Electronics Inc, Box 187
Vestal........................ 607 748-7391
NY B B Taylor Corp, 2270 Grand Ave
Baldwin .... BA 3-8000
Ohio Rockford Controls Ohio Inc, 2077 Embury Park Rd
Dayton 274-1911
Ohio Rockford Controls Ohio Inc, 19001 Villaview Rd
Cleveland........................ 531-4841
Ore Hamilton-Electro Corp, Portland...... 503 286-4733
Pa Biechler Assoc Inc, Box 38, Millersville .. 872-2793
Pa Biechler Assoc, Philadelphia 215 925-3799
Pa Rockford Controls Ohio Inc, 3550 Laketon Rd
Pittsburgh........................ 412 731-4600
Tex R R Thomas Co, 8616 Northwest Plaza Dr
Dallas........................ 363-8591
Tex R R Thomas Co, 4031 Broadway
Houston 644-2369
Wash Hamilton-Electro Corp, 2320 - 6th Ave
Seattle 624-5930
Can Aero Sales Engineering Co, 4 Racine Rd
Rexdale Ont........................ 249-9139
Can Aero Sales Engrg Co, 2695 Regina St
Ottawa Ont 613 828-8560
For Soc Comercial Romar Lda, Rua da Boavista 83-1 D
Lisbon........................ 672161
Fr Radio Television Francaise, 93, Avenue de Neuilly
Neuilly-Sur-Seine 722-70-40
Ger Elektronik Bauelemente GMBH, 46 Dortmund
Bruederweg 26 .... 0231 529414
GB Walmore Electronics, Ltd
11-15 Betterton St, Drury La
London .... Temple Bar 0201-5
Holl Nijkerk's, Handelsonderneming N V
Drentestraat 7-Buitenveldert 020-428933
Ital Ingg S & Agostino Belotti, Piazza Trento N 8
Milano 54 20 51
Jap Shoshin Shoji Kaisha, Ltd, Box Nihonbashi-173
Tokyo 5921-6
Nor J M Feiring A/S, Sandakerveien 46 b
Oslo 4 .... 21 82 12
Swed Allhabo, Box 49044, Stockholm 520030
Belg N V Nijkerk, Rogier Ctr
Brussels 1 Intl........................ 02-176418
Isrl STG Intl Ltd, 52 Nachlat Benyamin St
Tel-Aviv 53459
NZ P H Rothschild & Co Ltd, 83 Pretoria St
Lower Hutt........................ 63-581
Spn REMA Leo Haag S. A., Gen Sanjurjo 18
Madrid 3 .... 253 40 03
Aust Rutherford Elctns Pty Ltd, Box 30
North Balwyn Vic 848-3033

DUNCAN ELECTRONICS INC MIDGI-TRIM DIV BOX 1169, SAN BERNARDINO
CAL, 92402, TWX 910-390-1157........ 714 885-6847
A TRAFFORD, EMP 100, ENG 5, $1,000-$2,500M
Ala Spectec Engrg Reps, 1314 Buford St NW
Huntsville 539-6884

Ariz Hytronic Measurements, 1017 N 3rd St
Phoenix 253-6104
Cal Cutlass Elctns, 8631 Truxton St
Los Angeles........................ 213 776-2895
Cal Mauldin Co, 441 Calif Ave
Palo Alto 415 326-5291
Colo Hytronic Measurements, 4940 E 39th Ave
Denver 388-4081
Fla Spectec Engrg Reps, 222 Weber Ave
Orlando 425-5505
Fla Spectec Engrg Reps, 3039 NE 32nd Ave
Ft Lauderdale........................ 564-8000
Ga Spectec Engrg Reps, 1590 Cooledge Rd NW
Tucker........................ 939-1674
Ill Gassner & Clark Co, 6644 N Western Ave
Chicago 312 764-6121
Ind A C Wahl & Assoc Inc, 1825 Bellemeade Ave
Evansville 477-1054
Ind A C Wahl & Assoc, 5 North Dr
Spri Grove Hts Richmond 962-6751
Ind A C Wahl & Assoc, 510 N Sadlier Dr
Indianapolis........................ 317 353-2921
Kan Maury E Bettis Co, 423 N Fountain
Wichita........................ 316 685-7441
Md Arnold Assoc Inc, Box 9730 Eudowood Br
Baltimore........................ 301 828-7666
Mich ABM Sales Inc, 10116 Puritan Ave
Detroit 313 862-1300
Minn Countryman Wagner & Behnen Co
1955 University Ave, St Paul 612 645-9151
Mo Maury E Bettis Co, 3706 Broadway
Kansas City 816 561-0772
Mo Maury E Bettis Co, 9103 Bessemer
St Louis 314 429-2099
NM Hytronic Measurents, 205 San Pablo SE
Albuquerque........................ 268-3941
NY Comtronic Assoc, 1551 Franklin Ave
Mineola 741-8966
NY Reed Elctns Inc, 2815 Monroe Ave
Rochester........................ 716 473-2767
NY Reed Elctns Inc, 326 Fay Rd
Syracuse........................ 315 468-5488
NY Reed Elctns Inc, Vestal Pkwy E
Vestal........................ 607 748-7391
NC Spectec Engrg Reps, 1108 Burke St
Winston-Salem 725-5384
Ohio A C Wahl & Assoc, Box 15220
Cincinnati........................ 821-3270
Ohio A C Wahl & Assoc, 24232 Maria La
North Olmsted........................ 777-2899
Ohio A C Wahl & Assoc, 1153 Trentwood Rd
Columbus........................ 486-7719
Ohio A C Wahl & Assoc, 2122meron Ave
Dayton 252-0961
Pa Arnold Assoc, 528 Ryers Ave
Cheltenham 742-0600
Pa A C Wahl & Assoc, 724 Valemont Dr
Verona 412 793-0590
Utah Hytronic Measurements, 2022 S Main St
Salt Lake City 466-4924
Wash Electronic Sales Corp, 5600 Calif Ave SW
Seattle 206 932-0330

DUNLEE CORP, 1023 S CERNAN DR, BELLWOOD
ILL, 60104 .... 312 CO 1-6931
R SCHLOEMER, EMP 100, ENG 10, $1,000-$2,500M
Cal M D McCauley Co, 1814 W 8th St
Los Angeles........................ DU 7-9851

DUNTON CO, M W, 350 KINSLEY AVE, PROVIDENCE
R I, 02901 401-331-3600
J CARTER, EMP 17, ENG 1, $500-$1,000M
Cal James A Riordan Co, 1400 Santa Fe Ave
Los Angeles........................ 627-6543
Colo Toole & Co of Colo, 1140 S Kalamath St
Denver 722-3913
DC Barnett & Benner, Box 6780, Washington
Fla Cochran & Co, 2713 24th St N, St Petersburg
Ga Cochran & Co, 1270 Techwood Dr NW
Atlanta 876-6318
Ill Oliver A Hahne Co, 858 Diversey Pkwy
Chicago 348-3500
Minn R H Sweeney Co, 216 Colfax Ave N
Minneapolis........................ 397-2981
Mo Lewis-Lange Co, 51 N La Clede Sta Rd
St Louis 961-5916
NY Kosstad Assoc, 111 Mt Hope Ave
Rochester........................ 325-2239
NC James A Pleasants Co, 2700 Martinsville Rd
Greensboro........................ 288-1707
Pa Herman Lewis Co, 1801 J F Kennedy Blvd
Phila........................ LI 8-1281
Tenn Cochran-Prather Co, 1239 Heistan Pl
Memphis 274-4018
Tex Fourmost sales Co, Box 10302, Dallas.... 637-2510
Tex Jim Martin & Assoc, 2611 W Gramercy
San Antonio........................ 732-6472
Tex R B Arnold Co, Box 7846, Houston....... 864-7733
Va Taylor, Lipscomb & Appel, 2009 Roane St
Richmond........................ 648-4431
Wash Baxter-Rutherford, 1954 1st ave S
Seattle 623-1954
Swed Danielson Forssberg & Co, Klarabergsgaten 33
Stockholm

DUOTONE CO INC, 6875 SW 81ST ST, MIAMI
FLA, 33143 .... 306 665-1121
S NESTER
Cal Ross-Szerlip Assoc, 5007 Lankershim Blvd
N Hollywood 213 766-8109
Colo Nelson Co Inc, 1294 S Bannock
Denver 303-733-5528
Fla Winfield Elctn Sales Co, 666 NE 125th St
N Miami .... PL 1-5566

Ga Paul Hayden Assoc, Box 331
East Point .... PO 6-0261
Ill M Zindell, 6434 N Washtenaw Ave
Chicago .... BR 4-7175
Ind Charles Scheffler Co, 1133 Navajo Trail
Indpls .... CL 3-6337
Mass Albert N Reinherz, 59 Hamilton Rd
Belmont 484-7784
Minn John E Anderson & Co, 5231 Humboldt Ave,S
Minneapolis........................ 612-823-6459
Mo Suor Sales Corp, 8115 Troost
Kansas City .... 816 EM 3-5651
NY Maury Farber Assoc, 220 Delaware Ave
Buffalo .... TL 6-3543
NY Newhope Corp, 6 E 39th St, New York.... 532-7372
Ohio Perry Lohse & Co, 529 Richmond Rd
Cleveland........................ 381-7788
Pa John Mustico Co, 206 Bewley Rd
Havertown .... HI 6-1961
Wash W K Wood,Inc, 5908 Calif Ave SW
Seattle 935-9400
For Singer Products Co, 95 Broad St
New York, NY .... WH 4-8700

DUPLICON CO INC, TURNPIKE RD, WESTBORO
MASS, 01581 .... 617 366-4445
R STERLING, EMP 130, $1,000-$2,500M
NY Zauderer Assoc, Inc, Box 342, Mount Vernon
NY Anscott Engineering, Box 98
Pittsford 716-381-3122
NC Duplicon Co Inc, Box 7277, Greensboro
Pa Miller-Smith & Co, Box 172, Wayne

DU PONT DE NEMOURS & CO INC E I 1007 MARKET ST, WILMINGTON
DEL, 19898 .... 302 774-2421
PRODUCT INFORMATION CTR, EMP 100000, OVER $10,000M
Cal Product Information Ctr, 3300 W Pacific Ave
Burbank 843-1038
Cal Product Information Ctr, 385 Vally Dr
Brisbane........................ 467-9166
DC Product Information Ctr, Washington ..... DU 7-0416
Ill Product Information Ctr, 7 S Dearborn St
Chicago 222-5050
Md Product Information Ctr, Baltimore ...... PL 2-2506
NY Product Information Ctr, 350 Fifth Ave
New York........................ 971-4771
Pa Product Information Ctr, Philadelphia ... WA 3-2493

DURAKOOL INC, 1010 N MAIN ST, ELKHART
IND, 46514 .... 219 CO 41116
K CONSIDINE, EMP 50, ENG 4, $1,000-$2,500M
Ala Gaines & Co, Inc, 2906 Linden Ave
Birmingham........................ 205-879-0574
Cal Fisher Switches, 3199 Park Blvd
Palo Alto 415-321-4080
Cal R Meussdorffer & Assoc, 13441 Ventura Blvd
Sherman Oaks........................ 213 788-0771
Minn Melco Products Inc, 301 Fifth Ave S
Minneapolis........................ 612-339-2791
NY Durakool of NY, 4747 Bronx Blvd
New York........................ 212 324-8000
NY Walter F Haines, Appletree La
Newtonville 518 785-9248
Pa Raymond H Barnes, Box 1361
Lancaster 215 675-9227
Tex Carey & Assoc Inc, 3315 W 12th St
Houston 713 869-3623
Wash Carmody Co, 1731 First Ave S
Seattle 206 682-2330
Can Melcom, 70 Crockford Blvd
Scarborough, Ont 755-9235
Can Mel Sales Ltd, 232 John St
Arnprior, Ont 623-4217
For MEL Sales, Box 1352, Sta O, Montreal ... 627-4313

DURA MAGNETICS, INC, 5356 WHITEFORD RD
SYLVANIA, OHIO, 43560 .... 419 882-6223
D KUCHERS, EMP 14, ENG 1

DURAMIC PRODUCTS INC, SUB KAWECKI CHEMICAL CO, 426 COMMERCIAL AVE, PALISADES PARK
N J, 07650 .... 201 947-0310
N FERN, EMP 75, ENG 10, $1,000-$2,500M
Cal Kawecki Chemical Co, 1500 Service Ave
W Covina 962-3568
Cal R A Maguire, 3553 Via Los Colorados
Lafayette 283-8538
Ga J Nickel, Box 218, Decatur 378-8406
Ill Kawecki Chemical Co, 2590 E Devon Ave
Des Plaines........................ 299-3371
NH Michael Weston, Box 27, Danville 382-8219
NY Kawecki Chemical Co, 220 E 42nd St
New York........................ 682-7143
Tex D C Herndon, 3565 High Bluff Dr
Dallas........................ 247-1854
Fr Mapren, 8 Rue Bellini, Paris 16me
Ger Deutsche Commerz GmbH
Bockenheimer Landstr 106, Frankfurt Am Main
GB Kawecki-Billiton (UK) Ltd, South Pl, London E. C. 2
Holl Kawecki Billiton, Westervoortsedijk 67d, Arnhem
Ital Usivco Societa Ind Commerciale
Via Gen Albricci 8, Milano
Swit Born & Stucki, Postfach, Basel 20

DURANT MFG CO, 612 N CASS ST, MILWAUKEE
WIS, 53201, TWX 910-262-3307........ 414 271-9300
J MCGINLEY, EMP 350, ENG 20, $5,000-$10,000M
Ala James Spader Co, 2805 Crescent Ave
Birmingham........................ 879-1366

Cal Durant Mfg Co, 1710 N LaBrea Los Angeles 876-4000
Cal Durant Mfg Co, 1255 Post St San Francisco 775-7797
Colo Vinson Assoc, 3600 S Lincoln Englewood 789-2203
Conn Masten-Wright Corp, 282 State St New Haven .... AT 8-1638
Fla H R Gross & Co, 314 S Missouri Clearwater 446-6649
Ga Hooker Reid Co, 4271 Garmon Rd NW Atlanta 237-9385
Ill Durant Mfg Co, 6270 W North Ave Chicago 237-1222
Iowa Riekes Equip Co, 1903 Hull Ave Des Moines 265-1661
Kan Parker & Foster, Box 3644, Wichita .... AM 2-8915
La American Supply Co, 7979 Earhart Blvd New Orleans 486-5946
Md Durant Mfg Co, 320 Hillen Rd Baltimore 825-6626
Mass Durant Mfg Co, 544 Salem St Wakefield 361-0288
Mich Durant Mfg Co, 26847 Grand River Rd Detroit 535-3630
Minn Burry-Lind Co, 4010 W 65th St Minneapolis 920-6252
Mo Parker & Foster Inc, 6550-C Troost Ave Kansas City 333-7460
NM Vinson Assoc, Box 3295 Sta D Albuquerque 298-7442
NY Durant Mfg Co, 271 North Ave New Rochelle .... NE 3-6400
NC M R Snyder Co, 304 E Fremont Ave Charlotte 377-6571
Ohio Durant Mfg Co, Roselawn Center Bldg Cincinnati 531-5073
Okla Joe M Henry Co, 6516 E Independence St Tulsa 838-8898
Pa Durant Mfg Co, 7 Heather Rd Bala-Cynwyd .... MO 4-0336
RI Durant Mfg Co, 15 Thurbers Ave Providence 781-7717
Tenn Robbins & Boher, 138 N Market St Chattanooga 267-6696
Tex Wm E Brice Co, 1402 Dunlavy Houston .... JA 6-3167
Wash N R Schultz Co, 305 112th Ave NE Bellevue 454-5224
Can Wainbee Ltd, 121 City View Dr Toronto Ont 248-5621
Fr Auxitrol, 187 Blvd St Denis, Courbevoie
Jap Japan Machinery Co, Box 1451, Tokyo
SAfr Reid Bros (SA) Ltd, 47 Section, Paarden Eiland Cape Town
Swed Billman-Regulator AB, Agency Dept, Huddinge

DURA PLASTICS OF N Y INC, 300 E 40TH ST NEW YORK, NY, 10016 .... 212 661-3256
J LAYMAN, EMP 50
Cal C Watnick, Box 5251 Sherman Oaks 213-872-3640
Conn R G Kenny, 94 Fenwood Dr Old Saybrook 203-388-2058
Conn Dura Plastics of Ny Inc, 49 Richmondville Ave Westport 203 227-9588
Ill Robinson & Assoc, 1721 W Division St Chicago 252-3400
NY E J Dale, 600 Oswego St Liverpool 315-457-6378

DUREZ DIV HOOKER CHEMICAL CORP 1921 WALCK RD, NORTH TONAWANDA N Y, 14120 .... 716 693-1860
H PUFF, EMP 2000, ENG 100
Cal Durez Div, 3075 Wilshire Blvd Los Angeles 388-1374
Ill Durez Div, 1 N LaSalle St, Chicago 372-8757
Mich Durez Div, 2177 E Milwaukee Ave Detroit 873-3700
NY Durez Div, 277 Park Ave, New York 922-2500
Ohio Durez Div, 333 W First St, Dayton 222-7436

DURRUM INSTRUMENT CORP, 3950 FABIAN WAY PALO ALTO, CAL, 94303 .... 415 321-6302
S DUKE, EMP 30, ENG 5, $500-$1,000M

DUTCHESS DESIGN & DEVELOP INC 32 VAN WAGNER RD, POUGHKEEPSIE N Y, 12603 .... 914 471-5420
T MAHONEY, EMP 40, ENG 4, $250-$500M

DUWAGEN INSTRUMENT CO, BOX 499, YARDLEY PA, 19067 .... 215 493-2400
E DUDA, EMP 4, ENG 1, UP TO $100M
Pa Mickle-Milnor Engineering Co, 3616 Chapel Rd Newtown Square 353-2200

D-VEL RESEARCH LABS INC, 555 BEDFORD RD BEDFORD HILLS, N Y, 10507 .... 914 666-3455
D VELZY, EMP 3, ENG 1
Cal Development Assoc Controls, 725 Reddick Ave Santa Barbara 805 963-3708
Mass EPE, 345 Highland St, Weston 617 899-0678
NY Van Valkenburgh Assoc, 611 Broadway New York 212 254-3722
Pa Henry Mann Co, Box 237 Cornwell Heights 215 639-6200

DX ANTENNA CO LTD, 6, IRIE-DORI 5-CHOME HYOGO-KU, KOBE, JAPAN 68-1361
M OKAGAKI, EMP 300, ENG 50, $2,500-$5,000M
ADV PG 50
Can Perfect Mfg & Supplies Corp, 4980 Buchan St Montreal 9
Fr Ets Marcel Portenseigne, 86, Rue Victor-Hugo Bagnolet

DYMO PRODUCTS CO, BOX 1030, BERKELEY CAL, 94701, TWX 033-664 .... 415 654-7272
J SCHUTZMAN, EMP 500, ENG 10, UP TO $100M
Cal J V Kolmer, 1368 Lincoln Ave San Rafael 415 456-6066
Cal W Brogger, 8155 Van Nuys Blvd Panorama City 787-4142
Cal J V Kolmer, 1368 Lincoln Ave San Rafael 415 456-6066
Ga H Ennis, 1720 Peachtree Rd NW Atlanta 876-1138
Ill J Schutzman, 2530 Crawford Ave Evanston 869-6916
Kan T Phillips, 9930 Metcalf Shawnee Mission 648-2462
Mass J Kamp, 245 Elm St, Dedham 617-329-9374
Mich W Locascio, 725 S Adams, Birmingham
NY R Christian, 280 Madison Ave New York .... MU 5-2090
Ohio H S DiNenna, Box 186, Peninsula 216 734-4434
Ohio W Phelps, 2000 Lee Rd Cleveland Hgts 932-4355
Pa J P Davis, 1 Paoli Plaza, Paoli 647-2180
Tex T J Lewis, Box 30506, Dallas .... AD 1-3505
Wash D Hamilton, 1628 177th Ave NE Bellevue 206 746-2182
Can Dymo of Canada, Ltd, 36 Stoffel Dr Rexdale, Ont 416 247-6237

DYNACO INC, 3060 JEFFERSON ST, PHILADELPHIA PA, 19121 .... 215 232-8000
R TUCKER, EMP 100, ENG 3, $2,500-$5,000M
Ark Dick Bellew Sales Co, 418 Maple Hill El Dorado .... 501 UN 3-8325
Cal E W Brandt Co, 199 Valley View Ave San Rafael 415 454-0840
Cal R Mark Markman Co, 4142 Lankershim Blvd North Hollywood 213 877-3368
Colo Hyde Electronics Co, 888 S Lipan St Denver 303 936-3456
Ga Paul Hayden Assoc, 1530 Nabell Ave East Point 404 766-0261
Ill Irving W Rose Assoc, 4734 N Austin Ave Chicago .... AV 2-6835
Ind Charles Scheffler Co, 1133 Navajo Trail Indianapolis .... 317 CL 3-6337
Kan Arthur Elliott Co, 2316 W 104th St Terr Leawood .... 913 MI 9-0654
Md A B & T Sales Corp, 3311 Olney-Sandy Spring Rd Olney 301 924-4976
Mass Willson Sales Co, 6 Mohawk Rd Marblehead 617 631-4016
Mich Riley & Petchell, 16515 Schoolcraft Ave Detroit .... 313 VE 8-9100
Minn Clark R Gibb Co, 1311 W 25th St Minneapolis .... 612 FR 7-1200
NY R W Mitscher Co, 496 Ellicott Sq Bldg Buffalo 716 854-2517
NY Leonard Zlowe Co, 16 N Central Ave Hartsdale .... 914 OW 3-2922
Ohio Les A Morrow Co Inc, 5100 W 164th St Cleveland 216 267-2282
Tex W R Hays Co, 777 S Central Expwy Richardson .... 214 AD 1-1426
Wash Dave Champlin Co, 12347 Lake City Way NE Seattle .... 206 EM 2-0401
Can E S Gould Sales Co Ltd, 11 Louvain St W Montreal 514 384-0453
Den Audiodyne A/S, Humlum, Struer

DYNACOOL MFG CO INC, 1 RUSSELL ST, SAUGERTIES N Y, 12477 .... 914 246-4902
L GOULD, EMP 55, ENG 2, $250-$500M
Cal E Koller, Box 517, Westminster 714 893-2868
Ill A G Erickson Assoc, 571 Hill Ave Glen Ellyn 312 469-1198
NH R Barraclough, 19 Pinewood Ave Amherst 603 673-4012
NJ R J McCardle, 40 Tanner St Haddonfield .... HA 9-8895
Ohio Stork & Assoc, 613 Daniel St Dayton 513 222-3232
Tex Carey & Assoc, 3315 W 12th St Houston .... 713 UN 9-3623

DYNAGE, INC, 1331 BLUE HILLS AVE, BLOOMFIELD CONN, 06002, TWX MR PETER KLEI 203 243-0315
P KLEIN, EMP 45, ENG 5
ADV PG 507
Ariz Portis & Assoc, Box 3109, Scottsdale 945-4925
Cal Jay Stone & Assoc, 140 Main St Los Altos 948-4563
Cal Technical Reps, 10606 W Pico Blvd, Los Angeles
Colo Engineering Research Assoc, 231 Detroit St Denver 377-8306
Conn E E Specialists Inc, 181 Vera Rd Bristol 203-584-0077
Ga E A Moore & Assoc, 254 E Paces Ferry Rd Atlanta 233-9494
Ill Torkelson Assoc, 464 Central Ave Northfield 446-8450
Md Callas Elctns, 6409 Fredrick Ave Baltimore 301-744-7711
Mass E E Specialists, Box 956, Acton 617-259-9200
NY R J C Assoc, 219 Oakridge Terr Liverpool 315-457-3220
NY H R C Assoc, 390 Plandome Rd Manhasset 516-627-6444
Ohio R G Sidnell & Co, 14701 Detroit Ave, Cleveland
Pa Argus Assoc Inc, Box 68, Warminster 675-4131
SC E A Moore & Assoc, Box 871, Aiken 649-7100
Tex Merit Co, 10044 Monroe, Dallas .... 214 FL 2-8040
Utah Cannon Engrg & Sales, 2250 E 17th S Salt Lake City 485-9253
Can Advance Tech Sales, Box 307 Sta 4 Toronto 416-233-5535
For Szuchs Intl Corp, 50 Broad St New York 944-7959

DYNAIR AVIATION PRODUCTS, 395 N JOHNSON AVE EL CAJON, CAL, 92020 .... 714 442-6691
L ROBINS, EMP 52, ENG 17

DYNAIR ELECTRONICS INC, 6360 FEDERAL BLVD SAN DIEGO CAL, 92114, TWX 714 583-8101 .... 714 582-9211
D KELLER, EMP 250, ENG 6, UP TO $100M

DYNALECTRON CORP AEROSPACE PRODS DIV 440 HESTER ST, SAN LEANDRO CAL, 94577, TWX 910-366-7373 .... 415 569-3019
R BRYAN, EMP 175, ENG 10, $2,500-$5,000M
Cal Miad Inc, 8816 S Sepulveda Blvd Los Angeles 213 776-3595
Colo Space Sys Sales & Engrg, 101 University Blvd Denver 303 388-9225
DC Dynalectron Corp, 2233 Wisconsin Ave NW Washington 202 338-4600
Mo Space Sys & Engrg, Box 176, Florissant
NM Space Systems, 1401 Valencia Dr S E Albuquerque 255-7058
Pa Acromatix Assoc, 3118 Germantown Pike Fairview Village 215 279-0377
Tex Space Sys Sales & Engrg, 8383 Stemmons Fwy Dallas 214 631-1740
Utah Space Sys Sales & Engrg, Box 89 Bountiful 801 295-6464

DYNALOY, INC, 7 GREAT MEADOW LA, HANOVER N J, 07936 .... 201 887-9270
S RINGEL, EMP 50, ENG 5, $100-$250M
Ariz E J Foley & Assoc, 3840 N Jokake Dr Scottsdale 945-2665
Cal S Mosher, 257 Castro, Mountain View 969-9213
Cal DC & Assoc, 521 6th St Manhattan Beach 213 374-2326
Ill John Shannon Co, Box 115 Arlington Hts .... CL 3-3188
Ind Meyer Materials Co, 5101 E 65th St Indianapolis 253-6407
Mass L K Ingber Co Inc, 842 Commonwealth Ave Newton Centre 332-8574
Minn International Sales Co, 8703 Beard Rd Minneapolis 881-6683
Mo Vulcan Sales Co, 207 Westport Rd Kansas Ciy 561-1566
Pa SR Assoc, 465 Pinewood Rd Philadelphia 985-3578
Wash H J Sales Co, 500 Wall St, Seattle 623-4810
For F E Dempsey & Sons Ltd, 47 Davies Ave Toronto, Can 461-9231
For F E Dempsey & Sons Ltd, 407 McGill St Montreal, Can 845-8613
For Southern Intl Sales Co, Box 1896, San Juan
Fr Prochimar SA, 219 Rue Du Fanbourg St Honore Paris 227-64-74
Holl Uretha Anchemie N V, Baden Powelweg 35 Amsterdam 020 19 01 47

DYNAMCO LTD, HANWORTH LA, CHERTSEY SURREY ENG, TWX 263-387 .... CHE 2636
I APPLIN, EMP 400, ENG 25, $1,000-$2,500M

DYNA METRIC INC, 330 W HOLLEY ST, PASADENA CAL, 91103 .... 213 449-4300
R PERLEY, EMP 100, ENG 30, $1,000-$2,500M

DYNAMIC AIR ENGINEERING INC, 620 E DYER RD SANTA ANA, CAL, 92705 .... 714 540-1000
H LEVER, EMP 75, ENG 7, $1,000-$2,500M
NJ George R Morrow, 813 Beverly Ct Somerdale 783-5499

DYNAMIC COMPONENTS CORP, 1 FRANKLIN ST HORNELL, N Y, 14843 .... 607 324-2030
R JOHNSTON, EMP 60, ENG 2, $250-$500M
Ill Ryan & Assoc, 7132 N Harlem Ave Chicago 775-5717
Md Trainor Sales, 210 W Pennsylvania Ave Towson 828-1737
NY B H Tollefson Assoc, 11 State St Pittsford 381-2500
NY Jack Miller Co, 1 Continental Ave Forest Hills 263-4446
Ohio Richard A Koozer, Box 2665, Mansfield 525-0034

DYNAMIC CONTROLS CORP, 8 NUTMEG RD SOUTH WINDSOR, CONN, 06074 .... 203 289-6808
T FARKAS, EMP 150, ENG 11, $1,000-$2,500M
Cal Ledbetter Assoc, 2124 Arthur Ave, Belmont
Cal Ledbetter Assoc, 16618 Ventura Blvd Encino .... ST 9-8115

Tex Lane Engrg & Sales Co, Box 844
Arlington 277-3214

DYNAMIC GEAR CO INC, 175 DIXON AVE, AMITYVILLE
N Y, 11701, TWX 510-224-6693 ...... 516 AM 4-4788
P YAHR, EMP 92, ENG 4, $1,000-$2,500M
Ariz Earl Daley, Box 242, Scottsdale 946-2374
Cal Dynamic Gear Co Inc, 8912 Sepulveda Blvd
Van Nuys 877-8039
Cal Nova Tronics, 1659 Scott Blvd, Santa Clara
Fla Wm M Jones Co, Box 6004 B
Orlando .... GA 4-6293
Fla Dynamic Gear Co, 4571 N W 8th Ave
Ft Lauderdale 565-9421
Ga Wm M Jones Co, 2666 Reading Rd NE
Atlanta 404 261-8275
Ill Communications Engineers, 7100 N Western Ave
Chicago .... RO 1-0548
Md Wm M Jones Co, 1107 Echo Ct N
Towson .... VA 3-5721
Mass Tech-Line Co, Box 34, Needham 617 444-3880
Mo Harlan J Weisler Assoc, 2050 Woodson Rd
St Louis .... HA 8-3934
NJ Jacques Edeline, 75-29 141st Place
Kew Gdn's N Y .... BA 5-7600
NJ Wm M Jones Co;, 332 S Forklanding Rd
Maple Shade 662-0480
NY G Ballsmith, 243 Forbes Ave
Tonawanda 716 692-7569
Ohio John B Anderson Co Inc, 59 E Spring St
Columbus 221-6385
Ohio John B Anderson Co Inc, 2872 Montana Ave
Cincinnati 662-3590
Ohio John B Anderson Co, 1557 Waterbury Rd
Cleveland 226-0561
Tex Lawrence Sales Co, 921 Bowser St
Box 1038 .... Richardson
Can Aeromotive Engrs, 887 Montee DeLiesse
Montreal Que

DYNAMIC INSTRUMENT CORP, 115 E BETHPAGE RD
PLAINVIEW, N Y, 11803 .... 516 694-6000
H SULGER, JR, EMP 280, ENG 6, $5,000-$10,000M

DYNAMIC PRECISION CONTROLS CORP
449 E MAIN ST, HAGERSTOWN
IND, 47346 .... 317 489-4431
V VANDERBILT JR, EMP 20, ENG 4
Ariz Research Data Corp, 6660 N 23rd St
Phoenix 265-4666
Cal Research Data Corp, 405 Sunnyvale Ave
Sunnyvale .... RE 9-2205
Cal Research Data Corp, 110 S Euclid Ave
Pasadena 681-3451
Mass Associated Electronics, 45 Kirk St
Lowell 617 454-4206
Mich Carter McCormic & Peirce, 16239 Wyoming Ave
Detroit 862-0017
Ohio Carter McCormic & Peirce, 3691 Lee Rd
Cleveland 921-1360
Ohio Carter McCormic & Peirce, 3406 N Main St
Dayton 278-5873
Pa Letronix, 251 W DeKalb Pk
King of Prussia 215 265-1020
Wash A E Creek Co, 10215 Main St La
Bellevue .... 206 GL 4-7474
Ger K G Ern Motorenteile, Corneliustra 65/67, Dusseldorf

DYNAMICS INSTRUMENTATION CO
583 MONTEREY PASS RD, MONTEREY PARK
CAL, 91754 .... 213 283-7773
W TALLEY, EMP 75, ENG 20, $2,500-$5,000M
Ala Astro-Tec Co, 3322 Memorial Pkwy SW
Huntsville 881-1861
Alas Northland Tech Sales, Drawer 8990 Mt View Sta
Anchorage
Cal D Cantrell, 3977 Forestwood Dr
San Jose 415 961-5575
Cal Don Stanton Electronics, Box 48, Inyokern
Colo D E Bond Assoc, 2149 S Clermont St
Denver 303 756-1234
Fla Astro-Tec Co, 1980 N Atlantic Ave
Cocoa Beach 783-6581
Ga Astro-Tec Co, 3456 Paces Pl NW
Atlanta 404 237-0943
Ill Pat Lind Electronics Hwy, 5483 N Northwest Hwy
Chicago 774-1246
Md C E Snow Co, 10442 Baltimore Ave
Beltsville 301 345-2211
Mass New England Marketing Assoc, 55 Salem St
Lynnfield 617 245-9530
Mich Technitron Inc, 13657 Grand River Ave
Detroit 313 838-7324
Minn Pat Lind Electronics, 10104 Sunset Rd
Circle Pines 612 786-5770
NJ Hansen Assoc, Box 339
Ridgewood 201 652-7055
NM F Y Gates Co, 2631 Texas NE, Albuqu 298-1875
NY A & D Devices, Inc, 830 Linden Ave
Rochester .... LU 6-8033
NY A & D Devices, Inc, Box 365
Lyons Falls 315 348-8532
NY Hansen Assoc, 20 Rolling Hills Dr
Huntington Station
Ohio Technitron, Inc, 1250 Dorothy La
Dayton 298-9964
Ohio Technitron, Inc, 23203 Lorain Rd
N Olmsted 734-0960
Pa Technitron, Inc, 114 Spring Grove Rd
Pittsburgh 371-1231
Pa C E Snow Co, 258 N Main St
Ambler .... 215 MI 6-9451
Tex Braden Engineering Co, 2646 Andjon Dr
Dallas .... FL 2-4626
Tex Braden Engineering Co, 3130 S W Frwy
Houston .... JA 9-9881
Utah F Y Gates Co, 455 E 4th S
Salt Lake City 359-1101
Wash Cane-Jessup Co Inc, Box 250, Bellevue ... 454-0691
Can Technitron Assoc, 769 Lajoie Ave
Dorval Que 514 631-6859

DYNAMICS RESEARCH CORP, 38 MONTVALE AVE
STONEHAM
MASS, 02180, TWX 710 348-0769 ...... 617 438-3900
D MURPHY, EMP 280, ENG 80, $2,500-$5,000M
Ala Young & Lawrence Assoc, 2901 Governors Dr, S W
Huntsville 305 539-6575
Cal Kittleson Co, 416 N LaBrea Ave
Los Angeles 213 933-7371
Cal Kittleson Co, 809 San Antonio Rd
Palo Alto 415 326-7410
Fla Young & Lawrence Assoc, 601 N New York Ave
Winter Park 305 647-6929
Fla Young & Lawrence Assoc
2403 W Vina Del Mar Blvd
St Petersburg 813-894-0026
Ill Ridgway Assoc, Inc, 9420 Foster Ave
Chicago 312 992-2150
Ky Ridgway East Inc, Box 5385
Lexington 606 299-1057
Md Ron Davies Assoc, 11215 Oak Leaf Dr
Silver Spring 301 593-4900
Mass R H Sturdy Co, 204 Worcester St
Wellesley 617 235-2330
Minn Ridgway Assoc, Inc, 4901 Garfield Ave S
Minneapolis 612 824-9059
NJ Instrumentation Sales Co, Box 403
Ridgewood 201 445-5210
Ohio Ridgway East Inc, 4654 Michael Ave
North Olmsted 216 777-6600
Ohio Ridgway East Inc, Box 68
Loveland 513 683-4350
Va Burton L Doggett, Box 1283, Alexandria .. 768-2795
For Sylvan Ginsbury Ltd, 72 W 45th St
New York 212 687-3213

DYNAMIC SYSTEM ELECTRONICS CORP
1040 W ALAMEDA DR, TEMPE
ARIZ, 85281 .... 602 967-8644
N HOLZER, EMP 53, ENG 9, $500-$1,000M
Ala W A Brown & Assoc, Inc, 1314 Buford St N W
Huntsville
Ariz Williams Assoc, 1110 E McDowell Road
Phoenix 602-254-6085
Cal King Engineering Co Inc, 525 S Grant St
San Mateo 342-9645
Cal King Engineering Co Inc, Box 544
Escondido .... SH 5-2310
Cal King Engineering Co Inc, 15720 Ventura Blvd
Encino 981-0161
Colo Williams Assoc, 4971 Jackson St
Denver 303 388-4391
Conn Instrument Reps, Box 165
Glastonbury 203 633-0777
Fla W A Brown & Assoc, Inc, 608 Oleander Dr
Fort Walton Beach 243-6424
Fla W A Brown & Assoc, Inc, 222 Weber Ave
Orlando 425-5505
Fla W A Brown & Assoc, Inc, 3039 NE 32nd Ave
Fort Lauderdale 564-8000
Ga W A Brown & Assoc, Inc, 1590 Cooledge Rd, N W
Tucker 939-1674
Ill Pivan Engr, 3535 W Peterson Ave
Chicago 312 539-4838
Ind Pivan Engr, 8545 Northcrest Ct
Indianapolis 317 253-1681
Iowa Pivan Engr, 4403 1st Ave SE
Cedar Rapids 319 365-6635
Kan Kemco Inc, 6115 E 13th St, Wichita 684-8224
Mass Instrument Reps, 1046 Massachusetts Ave
Arlington 617 646-1034
Mich Electro Sales Assoc, 15324 Mack Ave
Detroit 886-2280
Minn Pivan Engr, 3203 North Hwy 100
Minneapolis 612 537-4501
Mo Kemco Inc, 6050 Brown Rd, St Louis 524-0820
NJ Louis A Garten & Assoc, 375 Passaic Ave
Caldwell 226-7800
NM Williams Assoc, 420 Washington SE
Albuquerque 505 255-1638
NY J A Regan Co, 419 Central Ave
Albany 518 436-9649
NY J A Regan Co, 52B Crestmont Rd
Binghamton 607 723-9661
NY J A Regan Co, 41 Woodberry Rd, New Hartford
NY J A Regan Co, 891 Monroe Ave
Rochester 716 473-2115
NC W A Brown & Assoc, Inc, 440 West End Blvd
Winston-Salem 725-5384
Ohio Electro Sales Assoc, Dable Sta, Box 143
Dayton 426-5551
Ohio Electro Sales Assoc, 335 E 200th St
Cleveland 732-7444
Pa Electro Sales Assoc, 201 Penn Center Blvd
Pittsburgh 371-9449
Pa L A Garten & Assoc, 947 Old York Rd
Abington 927-1200
Tex Kemco Inc, 6440 Hillcroft Blvd
Houston 771-1291
Tex Kemco Inc, Box 998, Irving 637-0163
Va W A Brown & Assoc, Inc, 325 First St
Alexandria 836-1800
Va W A Brown & Assoc, 82 Huxley Pl
Newport News 245-8272
Wash N R Schultz Co, 305 112th Ave, N E
Bellevue 454-5224
Wis Pivan Engr, Box 437, Waukesha 414 547-5131
Can Instronics Ltd, Box 100
Stittsville Ont 613 836-4411
Holl Uni-Office, Box 1122, Rotterdam 172981
Aust Tecnico Electronics Pty Ltd, Box 222
South Melbourne 69 6961

DYNAPAR DIGITAL CENTER, LOUIS ALLIS CO DIV
LITTON IND, 1675 DELANY RD, GURNEE
ILL, 60031 .... 312 662-2666
J APPELGREN
Ala Louis Allis Co, Box 7485A
Birmingham 871-1187
Cal Louis Allis Co, 1275 Rollins Rd
Burlingame 342-4393
Cal Louis Allis Co, 12821 Imperial Hwy
Sante Fe Springs 944-3243
Colo Louis Allis Co, 601 Broadway Bldg
Denver 222-0779
Conn Louis Allis Co, 14 Oakwood Ave
West Hartford 233-8221
Fla Louis Allis Co, 1501 1/2 S Dale Mabry
Tampa 251-3360
Ga Louis Allis Co, 1365 Spring St NW
Atlanta 872-2228
Ill Louis Allis Co, 5633 W Diversey Ave
Chicago 622-8750
Ill Louis Allis Co, 209 7th St, Rockford 962-3783
Ind Louis Allis Co, 333 N Penna St
Indnpls 634-9668
Ind Louis Allis Co, 436 N Michigan St
S Bend .... CE 2-0601
Iowa Louis Allis Co, 517 Main St, Davenport ... 326-1627
Ky Louis Allis Co, 2305 Taylorsville Rd
Louisville 451-8702
La Louis Allis Co, 4000 Louisa St
New Orleans 945-2135
Md Louis Allis Co, 26 W Penna Ave
Towson 828-9242
Mass Louis Allis Co, 90 Cambridge St
Burlington 272-1595
Mich Louis Allis Co, 17220 W 8 Mile Rd
Southfield 357-5252
Mich Louis Allis Co, Box 2143, Kalamazoo 382-1903
Minn Louis Allis Co, 7415 Wayzata Blvd
Mnpls 545-5626
Mo Louis Allis Co, 7929 A State Line
Kansas City .... JA 3-3267
Mo Louis Allis Co, 2800 S Brentwood Blvd
St Louis .... WO 8-0900
NJ Louis Allis Co, 314 Dodd, E Orange 267-3462
NY Louis Allis Co, 1325 Millersport Hwy
Buffalo 632-2364
NY Louis Allis Co, 4455 E Genessee St
DeWitt 446-2290
NY Louis Allis Co, 1314 E 4th St
Charlotte .... ED 4-1658
NY Louis Allis Co, 1630 E Main, Rochester ... 244-0751
Ohio Louis Allis Co, 5545 Wilson Mills Rd
Cleveland 449-4430
Ohio Louis Allis Co, 2330 Victory Pkwy
Cincinnati 861-1582
Ohio Paul H Girkins, 1118 Madison Ave
Toledo .... CH 1-2101
Okla Louis Allis Co, 5127 S Lewis, Tulsa ..... RI 3-6213
Ore Louis Allis Co, 6415 SW Canyon Ct
Portland 292-8833
Pa Louis Allis Co, Box 234, Springfield ..... KI 3-5600
Pa Louis Allis Co, 4135 Brownsville Rd
Pittsburgh 884-6363
Pa Louis Allis Co, 232 E Market St, York 854-5596
Tenn Louis Allis Co, 1114 W Clinch Ave
Knoxville 522-8555
Tenn Louis Allis Co, Division of Litton Industries
4990 E Poplar Ave, Memphis 683-5925
Tex Louis Allis Co, Box 22771, Houston 666-6338
Tex Associated Engineers, 4801 Graham Ct
El Paso 566-9383
Tex Louis Allis Co, 4520 N Central Expwy
Dallas 826-3051
Utah Electrical Sales Co, Box 6049, Sugarhouse Sta
Salt Lake Cy 486-1367
Va Louis Allis Co, 2100 Bremo Rd
Richmond 282-8826
Wash Louis Allis Co, 6140 Maynard Ave, S
Seattle 762-1197
W Va Foster-McClinton Inc, 6213 Brenda Ct
Huntington 736-5161
Wis Louis Allis Co, 1713 S Oneida St
Appleton 733-4914
Wis Louis Allis Co, Box 546, Elm Grove 782-3100
Can Railway & Power Engrg Corp Ltd, Box 880
Montreal, Que 933-6741
For Marina Electr Supplies Inc, Box 3387
San Juan 724-6700
Mex Sistel Sistemas Electronicas SA
Monterrey 105-102-303, Mexico 7 D F

DYNASCAN CORP, 1801 W BELLE PLAINE AVE
CHICAGO, ILL, 60613 .... 312 327-7270
B GOLBUS, EMP 250, ENG 25

DYNASCIENCES CORP, TOWNSHIP LINE RD
BLUE BELL, PA, 19422, TWX ABS 215 643-0250
P KRAUSE, EMP 175, ENG 70, $2,500-$5,000M
Md J B Donahue, 9900 Aldersgate Rd
Potomac 301 762-9544
NJ Dynamic Sales, 39 E Front St, Redbank ... 747-5353
Ohio Rep/Corp, 2077 Embury Park Rd
Dayton 278-5885
Va J G McHugh, 3000 Matoaka Rd
Hampton 722-5597

DYNASIL CORP OF AMERICA, COOPER RD, BERLIN
N J, 08009 .... 609 RO 7-4600
G SAEPOFF, EMP 17, ENG 2

DYNASONICS CORP, HWY 23, PIPESTONE
MINN, 56164 .... 507 825-5441
E ROEWER, EMP 10, ENG 2, $250-$500M
Cal Brennan-Hamilton Corp, 187 Utah Ave
S San Francisco 415 589-2700
Cal Brennan-Hamilton Corp, 301 Coral Cir
El Sequndo 213 772-1151
Colo Walter-Powers Assoc, 880 Bonnie Brae Blvd
Denver 303 777-5585
Conn E E Smith, 7 S Main St, W Hartford .... AD 6-3521
Ill Midway Sales Co, 1025 5th Ave
Rockford 968-1811
Iowa W Carnes, 1904 Greenwood Dr, Ottumwa
Md Martin L Kaiser Inc, Box 171
Cockeysville 301 666-3493
Mich Clifford Armstrong Co, 7053 Cathedral
Brimingham 313 933-5000
Minn Don Harstad Co, 7101 Hwy 65 N E
Minneapolis 612 784-8221
NY C F Russell, 50 Park Ave, Bayshore .... MO 5-2623
NY L J Thorn Co, Box 75, Buffalo 716 875-2246
NY A Roewer, 1 Ireland Pl, Amityville 516 598-1311
Tex Robert R Clarke Co, 2323 Allem Pkwy
Houston .... 713 JA 6-4908
Can Conway Electronic Enterprize, Arrow Rd, Weston, Ont
Swed Sciandia A B, Box 314, Goteborg 1

DYNA TECHNOLOGY, INC, 2201 E SEVENTH ST
SIOUX CITY, IOWA, 51102 .... 712 252-1821
D MOLINE, EMP 267, ENG 16, $250-$500M

DYNATECH PRODUCTS CO DIV DYNATECH CORP
90 CAMBRIDGE ST, BURLINGTON
MASS, 01803 .... 617 272-6050
C DAHL, EMP 40, ENG 5, $1,000-$2,500M
Ala N B S Inc, 201 Homewood Dr SW
Huntsville 205 881-3375
Ariz Kelly Scientific Sales, 412 N Marshall Way
Scottsdale 602-947-7584
Cal Thorson Co, 2443 Ash St
Palo Alto 415 321-2414
Cal Weightman & Assoc, 1226 W Olive Ave
Burbank 213 849-7711
DC H L Robinson Assoc Inc, 1010 Vermont Ave
Washington 737-7775
Fla N B S,Inc, 2813 Primrose Ct
Orlando 305 423-4856
Fla N B S Inc, 4150 SW 23rd St
Fort Lauderdale 305 584-0650
Ga Flo-Con Inc, Box 13165 Station K
Atlanta 404 875-8084
Ill Ernest N Taylor & Assoc, 6760 Stony Island Ave
Chicago 312 324-8532
Mass N J Caswell, 90 Cambridge St
Burlington 617 272-6050
Mich George Instrument Co, 1024 W 14 Mile Rd
Clawson 564-5481
Minn Northern States Sales Co, 1109 West 78 1/2 St
Minneapolis 866-3468
NM Kelly Scientific Sales, 2800 Cardenas NE
Albuquerque 505 268-3324
NY Electronic Tool, 3980 White Plains Rd
Bronx 212 231-7760
NY Fish Associates, 2111 E Ave
Rochester 716 244-5428
NY Fish Assoc, 149 Roosevelt Dr
Utica 315 732-1008
NC Mec-Tric Control Co, 4110 Monroe Rd
Charlotte 376-8552
Ohio E V Swenson & Assoc, 1112 Talbott Tower
Dayton 513-2231
Pa Roberts Engineering Co, 1 Radnor Sta Bldg
Radnor 688-6525
Pa Edwin S Smith Jr, 2510 Reel St
Harrisburg 717 233-8732
Tenn Standard Welders Supply Co, 363 Walnut St
Memphis 901 525-6821
Tenn Standard Welders Supply Co, 363 Walnut St
Memphis 901 525-6821
Tenn N B S Inc, 893 Church St, Marietta .. 404 422-6067
Tex Teamwork Inc, 2646 Andjon
Dallas 214 353-7747
Va Dynamation, Inc, 2060 Buford Rd
Bon Air 272-5001
Wash Bill Waddell Co, 10211 NE 31st Place
Bellevue 822-9629
Can Advanced Technical Sales, 4 Shawbridge Ave
Toronto 18 Ont 416 233-5535
GB Spembly Technical Prod, Trinity Trading Est
Sittingbourne Kent

DYNATEX CORP, 727 SHASTA ST, REDWOOD CITY
CAL, 94063 .... 415 369-4631
B REGAN, EMP 15, ENG 3

DYNATRONIC INSTRUMENTS CORP DIV LAB-LINE INST
INC, 15TH & BLOOMINGDALE AVES
MELROSE PARK, ILL, 60160 312-345-7400
M NEWMAN, EMP 220, ENG 16, $2,500-$5,000M
Cal G Perrine, 1832 Second St
Los Angeles 477-4739
NJ Wm D Keeffe, 2 Grimm Dr, Somerville 722-5483
Tex N A Tilton, 530 Trails End, Houston 227-5605

DYNATRONICS OPER ELCTNS DIV GEN DYNAMICS
CORP, BOX 2566, ORLANDO
FLA, 32802, TWX 305-838-1466 .... 305 838-6161
YAGERMAN, EMP 800, ENG 175, OVER $10,000M
Cal H D Ivey, 17039 Greenleaf St
Fountain Valley 714 962-0711
DC Lee Scott, 1710 H St, Washington 202 298-6600
NY Larry Hart, 15 E 40th St, New York 685-5178

DYNAVOX ELECTRONICS CORP, 40-05 21ST ST
LONG ISLAND CITY, N Y, 11101 .... 212 ST 63770
G DWORKEN, EMP 50, ENG 2, $1,000-$2,500M
Mich S C Meysers, 6555 London St
Detroit 313 862-0611
Minn H Holt, Rte 3,Box 289, Wayzata 612 473-2237
NY I Ampolsky, 725 E 95th St
Brooklyn .... 212 EV 5-3247
NY B & S Sales Co, 5 Barbara La
Monsey 914 352-4144
Pa Herman Lewis Co, 1801 Penn Blvd, Philadelphia
Pa Melvin Ziker, 580 Bigelow St, Pittsburgh
Tex A Pat Samuels & Assoc, 3858 Tartan La, Houston
For Roburn Agency, 431 Greenwich St, New York, NY

DYNISCO DIV MICRODOT INC, 20 SOUTHWEST PARK
WESTWOOD, MASS, 02090 .... 617 864-7260
R CARRARA, EMP 100, ENG 6, $1,000-$2,500M
Ala Kemp Instruments, Inc, 4306 Governors Dr W
Huntsville 837-4304
Cal B J Wolfe Enterprises, Inc, 5700 Cahuenga Blvd
N Hollywood 877-5135
Fla Beacon Electronic Assoc, 540 S Maitland Ave
Maitland 647-3498
Ga Beacon Electronic Assoc, 2235 Plaster Rd
Atlanta 636-7526
Mass Daner Assoc, 684 Commonwealth Ave
Newton Centre 969-4650
Minn Pinkney & Assoc, 1925 Nicollet Ave
Minneapolis 338-0523
NJ Tridon Sales Co, Eight Depot Sq
Englewood 569-8011
NC Beacon Electronic Assoc, 1015 McAlway Rd
Charlotte 366-9761
Ohio R P I Inc, 21565 Hilliard Blvd
Rocky River 333-3441
Pa P D C Corp, 130 S Easton Rd, Glenside .. 887-9610
Tex Kemp Engineering Co, Inc, 2618 Manana Dr
Dallas 357-6663
Utah Applied Engineering Prods Co
6375 Emigration Canyon
Salt Lake City 364-4942
Can B H McGregor, Box 156 Stà H
Toronto 13, Ont 699-5521
For Ad Auriema, Inc, 85 Broad St
New York 269-7750
Fr Technique & Produits, 63 Bis, rue D'Aguesseau
Boulogne-Sur-Seine 408-14-00
Fr A F E, 237 Rue du Fg St
Martin 75 Paris 10 607-04-46
Ger Ad Auriema-Europe, Ludwig Richterstr 8
71 Heilbronn-Sontheim
GB AD Auriema Ltd, 23/31 King St
London 01-992-5388
Holl Ad Auriema-Europe S A, 172A Rue Brognieg
Brussels 7
Swed Ad Auriema-Europe, Molkomsbacken 37, Farsta

DYTRO CORP, 63 TEC ST, HICKSVILLE
NY, 11801 .... 516 822-2130
F BRADLEY, EMP 18
Ala James L Highsmith & Co, Holiday Office Ctr
Huntsville 205 881-3294
Ariz Tech-Ser Inc, 1805 E Indian School Rd
Phoenix 602 265-3629
Cal Tech-Ser Inc, 2435 N Naomi St
Burbank 213 846-9631
Cal Tech-Ser Inc, 477 Castro St
Mtn View 415 969-9020
Cal Tech-Ser Inc, Box 10544
San Diego 714 222-1121
Fla James L Highsmith & Co, 2543 Industrial Blvd
Orlando 305 293-5202
Ill K W Meyers Co, 7256 W Touhy Ave
Chicago 312 774-6440
Minn K W Meyers Co, 4725 Excelsior Blvd
Minneapolis 612 920-7080
NY Bradley Assocs Corp, 130 Van Cortlandt Ave W
Bronx 212 549-8500
NY DB Assoc, Box 14, DeWitt 315 446-0220
NC James L Highsmith & Co, 3733 Monroe Rd
Charlotte 704 333-7743
Pa Holdsworth & Co Inc, Box 298
Newtown Sq .... 215 EL 6-8550
Tex Tech-Ser Inc, 10210 Monroe Dr
Dallas 214 358-2504
Va James L Highsmith & Co, 5003 Brook Rd
Richmond 703 266-2060

DYTRONICS CO INC, 4800 EVANSWOOD DR
COLUMBUS, OHIO, 43224 .... 614 885-3303
R RYAN, EMP 20, ENG 6, $500-$1,000M
Cal Wieler & Co Inc, 10842 S Paramount Blvd
Downey 861-9223
Cal Scott P Davis & Co, One First St
Los Altos 948-7472
Colo P E Bond Assoc, 2149 S Clermont St
Denver 756-1234
Fla Beacon Electronic Assoc Inc, Box 10212
Ft Lauderdale 564-4298
Fla Beacon Electronic Assoc Inc, 540 S Maitland Ave
Maitland 647-3498
Ga Beacon Electronic Assoc, 2285 Peachtree Rd NE
Atlanta 634-4830
Ill Torkelson Assoc, 466 Central Ave
Northfield 312 446-8450
Ind Torkelson Assoc, 3512 Rockville Rd
Indianapolis 317 241-0725
Mass Electronic Components & Serv, 611 Trapelo Rd
Walthan 894-6921
Minn Torkelson Assoc, 4820 W 77th St
Minneapolis 920-1046
Mo Edwin H Murty, 65 Sally Dr, Florissant 838-7061
NM D E Bond Assoc, Box 11331
Albuquerque 247-3442
NY Cane Technical Sales, Inc, 555 E Boston Post Rd
Mamaroneck 698-4411
Ohio McShane, 3633 Trails End Dr, Medina 725-4283
Pa Tyler Griffin Co, 46 Darby Rd, Paoli 647-1550
Pa Tyler Griffin Co, 46 Darby Rd, Paoli 647-1550
Can Megatronix Ltd, 1800 Avenue Rd
Toronto 783-3329
Can Megatronix Ltd, 739B Ridgewood Ave
Ottawa Ont 731-3860
For Joseph Plasencia Inc, 521 Fifth Ave
New York 867-8084

EAGLE ELECTRIC MFG CO INC
23-10 BRIDGE PLAZA, S, LONG ISLAND CITY
N Y, 11101 .... 212 ST 4-9200
J LUDWIG, EMP 1300
Ariz Thomas A Geis, 4820 E Weldon
Phoenix 959-3582
Cal D Moretski, 430 Colyton St
Los Angeles .... MA 6-7736
Cal Brill Electric Sales, 119 Kansas St
San Francisco .... MA 6-0456
Colo Electrical Agencies Co, 1689 Eliot St
Denver 623-8246
Fla Jules J Dreyfuss' Sons, 1361 NW 23rd St
Miami 635-0391
Ga Jules J Dreyfuss' Sons, 596 Means St NW
Atlanta 635-0391
Ill Arthur W Hirshman, 2814 W Fullerton Ave
Chicago .... HU 9-5605
Ill Jack Lunn Jr, 2814 W Fullerton Ave
Chicago .... HU 9-5605
Ind Durnal Electric Sales, 304 W Berkley
Muncie 284-7381
Ky Harry E Robbins, 2507 Gardiner La
Louisville 459-4579
Mass Richard A Harris, 233 Harvard St
Brookline .... RE 4-1040
Mich Young Champagne, 91 E Milwaukee Ave
Detroit .... TR 1-0720
Minn R J Bork Co, 872 Curfew St, St Paul .... MI 6-7994
Mo R J Keely Jr, 7275 Princeton Ave
University City .... PA 7-7579
Neb Ed T Taber, 3240 S 31st St, Lincoln .... GA 3-4420
NY Jules Jenkins, 23 Devon Dr
Orangeburg .... EL 9-3056
NY Alan R Gish, 192-20C 67th Ave
Flushing 454-3023
NY Discenza & Vogt, box 306, Cazenovia
Ohio Don A Stromberg, 18790 E Shoreland
Rocky River .... ED 1-5777
Ore M Levin, 10 SE Tenth Ave, Portland 233-4920
Pa Roger Gusky, 424 Saybrook Rd
Villanova .... LA 5-5111
Tex J M Tuite, 8331 Hoyle Ave, Dallas .... EV 1-2103
Va Leo Arnstein, 4325 Shirley Rd
Richmond 272-6341
Va Bruce MacFadden, 8319 Whitewood Rd
Richmond 272-4461
Wis Frank Snyder, 2944 N 92nd St
Milwaukee .... BL 8-6396
Can Eagle Elec of Can Ltd, 216 Norseman St
Toronto .... BE 3-5835
Can Wm Cohen Corp, 8900 Park Ave
Montreal 388-9201

EAGLE-PICHER INDUSTRIES INC, ELECTRONICS DIV, BOX 47
JOPLIN, MO, 64802 .... 417 623-8000
D LAWSON, EMP 700, ENG 90, OVER $10,000M
ADV PG 336
Cal M O Barr, 8515 S LaCienega Blvd
Inglewood 678-3443
NJ George M Fox, 1180 Raymond Blvd
Newark 642-3225

EAGLE SIGNAL DIV E W BLISS CO, 736 FEDERAL ST
DAVENPORT
IOWA, 52803, TWX 910 525-1213 .... 319 324-1361
P ANDERSON, EMP 900, ENG 70, OVER $10,000M
ADV PG 600, 711
Ala McConnell Sales & Engr Co, 1661 28th Ave S
Birmingham 871-3501
Cal Space Engineering, 491 N Los Robles Ave
Pasadena 681-4421
Cal Hundley Co Inc, 3282 Fletcher Dr
Los Angeles 255-7111
Cal Campbell & George Co, 840 Mahler Rd
Burlingame 697-2965
Colo D E Bond Assoc, 2149 S Clermont St
Denver 756-1234
Fla Ward Eng Co Inc, 7040 Lake Ellenor Dr
Orlando 851-0725
Fla Ward Eng Co Inc, 2727 Phyllis St
Jacksonville 388-7656
Ga Thos B Combs Co, 1823 Gordon Rd SW
Atlanta 758-5516
Ga Emmett Rushin Co, Box 486, Roswell 993-6498
Ill Kelburn Engr Co, 6545 N Olmsted Ave
Chicago 755-5722
Iowa Donald Corp, 313 E 7th St, Des Moines .. 243-7623
La Thompson Equip Co, 4020 Thalia St
New Orleans 822-1336
La Thompson Equip Co, 655 Carrollton Ave
Baton Rouge 926-4311
Md H M Wood & Co Inc, 2117 Eastern Ave
Baltimore 276-1505
Mass Gibson Engr Co, 90 Broadway, Norwood .. 769-3600
Mich R D Ernest Assoc Inc, 12818 Puritan Ave
Detroit 861-7311
Minn Warren A Hallock Co, 5316 Excelsior Blvd
Minneapolis 920-1600
Mo Timer & Equip Co, 3034 Holmes St
Kansas City 931-7110
Mo Richter Equip Co, 9567 Page BLVD
St Louis 427-0990

NJ C H Ribble Co, 31 di Carolis Ct Hackensack 342-2602
NY L-Tron Corp, Box 147, Skaneateles 685-6172
NY Munhall Co, 170 Franklin St, Buffalo 856-1212
Ohio Thal-Mor Assoc Inc, 3232 Encrete La Dayton 298-9939
Ohio J L Finnicum & Assoc, 4500 Euclid Ave Cleveland 431-7477
Okla C B Anderson Electric Co, Box 761 Oklahoma City 843-7718
Okla C B Anderson Electric Co, 6708 E 13th St Tulsa 836-4661
Ore Brannom Instruments Co, 6019 NE Union Ave Portland 285-9861
Pa Edgar M Moore & Co, 6964 Thomas Blvd Pittsburgh 361-8780
Pa w f keegan & Co, 614 Darby Road Havertown 528-6640
Tex Lynn Elliott Co, Pike Rd, Missouri City 499-1571
Tex Lynn Elliott Co, 701 N Dooley Rd Addison 239-8533
Utah C W Silver, Inc, 550 W 7th St S Salt Lake City 355-5377
Wash Brannom Instrument Co, 2137 Second Ave Seattle 622-7320
Wis Kelburn Engr Co, 2445 Thornapple La Brookfield 786-5630
Can Davis Controls Ltd, Box 160, Islington 233-3211
For Rocke International Corp, 13 E 40th St New York, NY 689-0200

EALING CORP, 2245 MASSACHUSETTS AVE
CAMBRIDGE, MASS, 02140 .... 617 491-1515
F FERGUSON, EMP 35, ENG 3

EASTERN AIR DEVICES INC, 385 CENTRAL AVE
DOVER
N H, 03820, TWX 710-336-1611 .... 603 742-3330
D KIRBY, EMP 345, ENG 12, $2,500-$5,000M
Cal Long & Assoc Inc, 505 Middlefield Rd Redwood City 369-3324
Cal Winters & Co, 11766 W Pico Blvd Los Angeles 213 849-6671
Colo Fred A Pease Co, Box 31246 Aurora 303 364-9391
Fla J L Marsh & Assoc, Cypress Aisle Jupiter 746-4911
Ill G Mcl Cole Co, 6514 W Higgins Rd Chicago 774-3535
Ind Sumer Inc, 2211 S Calhoun St Fort Wayne 219-744-1692
Iowa Forristal-Young Sales Co, 3400 Indian Rd SE Cedar Rapids 364-0408
Md Component Sales Inc, 7 Church La Baltimore 484-3647
Mass Selmark Assoc, 181 West St, Waltham 899-8110
Minn Hasse & Assoc, 385 York Ave N, Mnpls 588-0551
Mo Forristal-Young Sales Co, 7110 Oakland St Louis 645-2360
NJ R Lawson Assoc, Box 206, Wenonah 857-1515
NY Comtronic Assoc, 1551 Franklin Ave Mineola 741-8966
NY H C Johnson Agencies, 111 Mt Hope Ave Rochester 232-2688
Ohio G T Wright & Assoc, Box 2950 Cleveland 331-8656
Tex R F Kimball Co, 5531 Dyer St Dallas 214 752-5551
Can Samuel C Hooker (Can) Ltd, 144 Ronald Dr Montreal, Que 488-9114
For Frathom Co, 202 E 44th St New York N Y 687-9390

EASTERN DELTA CORP, 29-09 BROADWAY
FAIR LAWN, N J, 07410 .... 201 797-4200
M GOLDSMITH, EMP 75, ENG 2, $500-$1,000M
Fla John Evans, 1455 E Fidler Ave, Merritt Island
Minn Wenco Sales, 7728 Morgan Ave S Minneapolis 866-3639
NJ J A Rudy Assoc, 409 Grand Ave Englewood 567-5880
NY J F Harm Assoc, 103 Pickford Rd Dewitt 446-2540
Pa Elcom Inc, 130 S Easton Rd, Glenside 885-1325

EASTERN DYNAMICS, INC, BOX 276, BLOOMFIELD
CONN, 06002 .... 203 242-0708
R PONCIN, EMP 35, ENG 4, $500-$1,000M
Ala G F Bohman Assoc, 2022 Golf Rd, Huntsville
Cal James S Heaton Co, 3695 Haven Ave Menlo Park 369-4671
Cal Don Weaver & Assoc, 13218 Crenshaw Blvd Gardena 213 321-8962
Conn COM/PAC, Box 37, Applehill Wethersfield 203 563-4784
Fla G F Bohman Assoc, Box 6966, Lake Ellenor Dr Orlando 855-0274
Ind Tri-State Mktg, 608 Fort Wayne Bank Bldg Fort Wayne 742-2474
Mass Daniels Engineering Sales, Box 27 Lynnfield 334-4200
Mich Romarc, Inc, Box 257, Plymouth 455-0300
Minn G E Arneson & Co, 4900 Viking Dr Minneapolis 920-2086
Mo Buse Sales Co, 212 N Second St St Charles 739-1613
NJ Mid-Eastern Assoc, Inc, 1759 Country Club Dr Cherry Hill 428-7977
NY Bassin Technical Sales Co, 52 Fayette Rd Scarsdale 914 723-3334
Ohio Tri-State Marketing, 25000 Euclid Ave Cleveland 731-9207
Tex Delzell & Evans Assoc, Box 35093 Dallas 351-1839

EASTERN INDUSTRIES DIV LAB FOR ELECTRONICS INC
100 SKIFF ST, HAMDEN
CONN, 06514, TWX 963-425 .... 203 248-3841
J DUFFY, EMP 225, ENG 27, OVER $10,000M
Cal Eastern Industries Div LFE, 3011 W Lomita Blvd Torrance .... 213 DA 5-1820
Del Eastern Industries Div LFE, 1525 Concord Pike Wilmington .... 302 OL 8-7271
Ga Adams Brothers Inc, 532 Plasters Ave NE Atlanta 404 872-8881
Ill Eastern Industries Div LFE, 612 N Michigan Ave Chicago .... 312 MO 4-8070
Ind Donald Blettner, Buck Creek 317 589-3334
Kan Airight Sales, 1544 S Washington Wichita .... 316 AM 4-1691
Ky Henry M Wood Co, Box 5167 Louisville 502 452-2661
Mass 1075 Commonwealth Ave, Boston, 617 254-4252
Mass Eastern Ind Div Lfe, 1075 Commonwealth Ave Boston 617 254-4252
Mich Kerr Machinery Co, 12880 Cloverdale Oak Park 313 564-4850
Minn Air Engineering & Supply Co, 2719 E Franklin Minneapolis 612 335-4181
NJ Eastern Industries Div LFE, 13 Orient Way Lyndhurst 201 933-0930
NY Ross Equipment Co, 80 Rockwood Pl Rochester .... 716 BR 1-5660
NY Ross Equipment Co, 2808 Court St Syracuse 315 455-5509
NY Ross Equipment Co Inc, 1325 Millersport Hwy Buffalo 716 634-0990
NY Ross Equip Co, Box 82, Burnt Hills .. 518 399-8817
NC Purser London & Edwards Inc, 1317 E Fourth St Charlotte .... 704 ED 3-7541
Ohio Henry M Wood Co, 920 E McMillan St Cincinnati .... 513 AV 1-1136
Ohio Henry M Wood Co, 1556 W Dorothy La Kettering 513 298-0157
Ohio H M Wood Co, Box 248 Worthington 614 888-3939
Okla Allan Edwards Inc, Box 7218 Tulsa .... 918 LU 3-7184
Wash Tower Equipment Co, Box 5 Mercer Island 206 AD 2-1460
Can Enterprise Ind Prods Ltd, 208 Kerr St N Oakville Ont 416 364-2032
For Masten-Wright Corp, Box 1896 New Haven Conn 203 288-1638

EASTERN MARKING MACHINE CORP
30 ALABAMA AVE, ISLAND PARK
N Y, 11558 .... 516 889-9090
B BEREZ, EMP 10

EASTERN MICROWAVE CORP, 139 SWANTON ST
WINCHESTER, MASS, 01890 .... 617 729-8850
W BRUCE, EMP 40, ENG 4, $500-$1,000M
Ala Brennan Assoc, Box 1074 Huntsville .... AC 205 536-7425
Cal L & M Engineering Inc, 2620 The Alameda Santa Clara 408 338-0034
Cal Smith Assoc, Central Twrs Union Bank Sq Orange 714 541-2629
Fla Brennan Assoc, 804 Franklin St Clearwater 813 446-5006
Ill Scott Assoc, 663 Fairview Ave Elmhurst 312 279-5681
Mass Eugene Delfino Inc, 75 Reed St Lexington 617 862-1118
NJ Gray & Reed Assoc, 626 Hillcrest Ave Westfield 201 233-2920
NJ Schibley Assoc, 1 Fellowship Rd Cherry Hill 609 424-1894
NY Ossmann Instruments, 101 Pickard Dr Syracuse 315 454-2461
NY Gray & Reed Assoc, 9 Dunford St Huntington Station 516 433-3333
Tex Lear Assoc, Box 1202, Richardson 214 231-7696
Va Schibley Assoc, 10604 Warwick Ave Fairfax 703 591-3008

EASTERN PRECISION RESISTOR DIV CARDWELL
CONDENSER CORP, 80 E MONTAUK HWY
LINDENHURST, N Y, 11757 .... 516 888-5200
N KJELDSEN, $250-$500M

EASTERN REPRODUCTION CORP, 1250 MAIN ST
WALTHAM, MASS, 02154 .... 617 893-8166
G MASON, EMP 75, ENG 3, $1,000-$2,500M
Cal C H Mitchell Co, 18531 Ventura Blvd Tarzana 881-2626
Conn W Couch, Bald Hill Rd, New Canaan 966-4630
Fla Essco, 1529 Pinar Rd, Orlando 275-0680
Ill Electro-Mechanical Sales, 5306 W Lawrence Ave Chicago 777-0554
Md Par-Nell Sales Co, 47 Main St Reisterstown 833-6444
Mass W A Campbell, 1250 Main St Waltham 893-8166
Mass Tech-Line Co, Box 34, Needham 444-3880
Minn Rhode Electronic Sales, 2510 E 7th Ave St Paul 777-8197
NY S F Foster Co, 2806 Hennaberry Rd Pompey 677-3333
NY J H Edeline, 75-29 141 Pl Kew Gardens Hills 261-6387

EASTERN ROLLING MILLS INC, 1122 E 180 ST
NEW YORK, N Y, 10460 .... 212 TA 3-2000
R STAFF, EMP 85, ENG 2, $5,000-$10,000M

EASTERN SMELTING & REFINING CORP
37-39 BUBIER ST, LYNN
MASS, 01901 .... 617 599-9000
D MACINTYRE, EMP 50

EASTERN SPECIALTY CO, PHILADELPHIA
PA, 19140 .... 215 BA 8-0500
E CORNELY, EMP 75, ENG 4, $500-$1,000M
Alas John P Bagoy & Assoc, Box 1005 Anchorage .... BR 4-1884
Cal C C Blecksmith, Box 54, Covina .... ED 2-2150
Colo Mountain States Machinery Co, 1526 Blake St Denver .... CH 4-7421
DC Rumsey Electric Co, 337 Southern Bldg Washington .... RE 7-8117
Fla David & Park Co, Box 1002, Clearwater .. 442-4488
Ga J J Perry Jr, 45 11th NE, Atlanta 875-4848
Ill Cyril Talbot Jr, 569 Cherry St, Winnetka .. 446-8172
Ky Robert Armstrong, 520 Nutwood St Bowling Green 843-9446
La John J Aertker Jr, 315 E Wm David Pkwy Metairie 833-9509
Mass Staford J King Co, 207 Cambridge St Burlington 272-5120
Mich Walter I Foss Co, 2306 Nurmi Dr Bay City .... TW 2-3448
Minn Burmeister Elec Co, 3776 W Broadway Minneapolis 588-0545
Mo Ivan Boggs & Co, Box 3355 Glenstone Sta Springfield .... UN 5-2141
Mont E W Williams, 815 E Center St, Dillon ... 683-2327
Neb F C Clatterbaugh Co, Box 152, Omaha 391-2905
NY M & M Sales, 105 Worthington Terr East Rochester 586-6546
Ohio Mansfield Utility Sls, Box 322 Mansfield 524-5188
Okla C B Anderson Electric Co, Box 676 Tulsa .... TE 6-4661
Pa Rumsey Electric Co, 3rd & Hunting Park Ave Phila .... GL 5-9900
Tenn John S Baron, Box 1271, Nashville 254-1948
Tex J E Rogers, 102 Thomas Bldg, Dallas ... RI 2-3075
Tex Len T Deloney Co, 3230 Mercer St Houston .... JA 3-4854
Va Rumsey Electric Co, 2910 W Moore St Richmond .... EL 5-4379
Wash Shaffer & Helson, 314 NE 72nd St Seattle .... LA 3-0664
Can Sangamo Co Ltd, 215 Laird Dr, Leaside Toronto .... HU 5-0751
For Sangamo Intl Inc, 60 E 42nd St New York, NY .... MU 2-2040

EASTERN TOOL & MFG CO, 1 MONTGOMERY ST
BELLEVILLE, N J, 07109 .... 201 759-7100
H LIGHTHOLDER, EMP 350, ENG 6, UP TO $100M

EASTMAN KODAK CO, 343 STATE ST, ROCHESTER
N Y, 14650 .... 716 325-2000
G ZORNOW, EMP 83546, OVER $10,000M

EASTRON CORP, 25 LOCUST ST, HAVERHILL
MASS, 01830 .... 617 373-3824
A SHALLOW
Ala Young & Lawrence Assoc, 2901 Governors Dr, S W Huntsville 205 539-6575
Ariz Toward Engrg, 4240 E Clarendon Phoenix 955-3191
Cal J Striker Co, 1650 Laurel St San Carlos 591-0736
Cal Kittleson Co, 416 N LaBrea Ave Los Angeles 213 933-7371
Cal Kittleson Co, 809 San Antonio Rd Palo Alto 415 326-7410
Colo J F Hurlbut Co, 2240 S Adams St Denver 303 756-2046
Fla Young & Lawrence Assoc, 601 N New York Ave Winter Park 647-6929
Ill J H Beck Assoc Inc, 7650 Karlov Ave Skokie 674-5151
Ill Lightner Assoc, 6322 N Milwaukee Ave Chicago 312 774-1500
Md J H Dougherty Sls Co, 320 Hillen Rd Towson 823-0431
Mich Elko Sales Corp, 3119 Midland Dr S E Grand Rapids 949-1451
Minn R J Sales & Engrg, 7100 France Ave Minneapolis 922-1425
NJ Abbott-Gordon Assoc, 628 W Englewood Ave Teaneck 836-3876
NJ Andrew A Foley Assoc, Box 155 Morrestown 609 663-4545
NY Abbott-Gordon Assoc, 3939 Wicks Ave Seaford .... SU 1-5256
NY B D Hummel Co, 2224 Maynard Ave Utica 732-2370
Ohio Midwest Mktg Assoc, 137 Lakeview Dr Dayton 513 433-2511
Ore J E Edstrom, 1220 SW Morrison St Portland 227-5311
Tex Charles Hoffman Assoc, 7775 S Central Expwy Richardson 214 235-3600
Can Specialty Electronics, 6600 St Urbain Montreal, Que 274-8271
For Madison Overseas, 433 Liberty St Schenectady .... 372&5841
Mex Distrimex, S A, Box 60-506, Mexico 15-39-71
Mex Distrimex S A, Ave San Antonio Mexico 18 D F 319-101

EATON YALE & TOWNE INC RELIANCE DIV
25 CHARLES AVE, S E, MASSILLON
OHIO, 44646, TWX 810 433-9175 ...... 216 832-1511
J KNOTT, EMP 610, ENG 10, OVER $10,000M

Cal Grether & Grether, Box 47 Stockton 209 462-4124
Cal Grether & Grether, Box 1036 Perry Annex Whittier 213 697-7812
Cal Hobelmann & Co, 225 Kansas St San Francisco 415 626-4304
Fla Guy Waters, 1400 S Ocean Blvd, Pompano Beach
Ill E C Gross Rm 1742 McCormick Bldg 332 So Michigan Ave Chicago 312 427-4441
Ind J J Harrison, 65 Winterton 1010 E 86th St Indianapolis 317 846-6526
Ky E J Helline, 4050 Westport Rd, Louisville
Mass W A Tait, 6 Northgate Rd, Wellesley
Mich M O Hooton, 24275 Northwestern Hwy Southfield 313 358-1500
Minn Jack Griggs, 7710 Computer Ave, Minneapolis
Mo Lynn Boardman & Co, 34 No Brentwood Clayton 314 721-0565
NJ T L Hunter, 3370 Hwy 35, Hazlet 201 264-6777
Ohio Wm F McCormick, 13375 Madison Ave Cleveland 216 226-0986
Tenn Gardener & Meredith Inc, 519 Cherokee Blvd Chattanooga 615 267-4971

EBAUCHES SA DEPT OSCILLOQUARTZ
16 RUE DES BREVARDS, 2001 NEUCHATEL
SWITZ, TWX 35 163 .... 038/5 85 01
S GRANDJEAN, EMP 80, ENG 20, $500-$1,000M

Can Smyth Electronic Components Ltd 1877 S t Antoine St, Montreal PQ .... WE 5-6354
For Max Banninegar & Cie KG, Bauernmarkt 10 Wien 1 .... 0222/632346
For J K Nagele, Ave da Igreja 18 Lisboa Port 71 35 75
Den Chr Ude-Hansen OG Handelsfirma Jaegersborg Alle 53-55 Charlottenlund .... OR 5505
Fr Societe Electronique, 38 Rue Sedaine Paris .... TUR 3513
Ger Terroskop Elektronik, Frauenberge Str 84 535 Euskirchen 4746
GB Newmark Instr Ltd, 143 GT Portland St London W 1 .... MUS 8666
Holl Ing Heijnen, Stendalerstr 56 Gennep 08851-956-678
Ital B S T sas M G Santuz Ilng, Via Carpi 4 Milano 2362981
Nor Arvid Dahm, Fr Nansenspl 9 Oslo 426688/421215
SAfr G H Langler & Co Ltd, 251 Main St Johannesburg 22-4402/23-1541
Swed Gunnar Wilklund A/B, Kungsgatan 38 Stockholm C 20 62 72
Belg Regulation-Mesure Sprl, Rue St Hubert 22 Bruzelles 15 .... 71 20 20
Ind Raj-Der-Kar & Co, Dr D Naoroji Rd Bombay 1 26-2304
Isrl Swiss Electric Representation Ltd, Box 4541 Tel-Aviv 62 983
Spn Autophon Espanola SA, Apartado 6047 Madrid 261/6603
Fin Finntele M Heikkila & Co, Eerikinkatu 28 A 9 Helsinki 18 .... 60 24 42
Aust Austronic Engrg Labs Pty Ltd, 62 Queensberry St Carlton Vic 34-4641

EBERLINE INSTRUMENT CORP, BOX 2108, SANTA FE
N M, 87501 .... 505 982-1881
R GRAY, EMP 256, ENG 24, $2,500-$5,000M

Cal F S Smith, Jr, Box 261, Livermore 447-6050
NM J C Bentley, Box 8885-Sta C Albuquerque 265-6655
Ohio Barney V Roberts, Box 18082 Cincinnati 522-7682
Va Merton R Marley, Box 177, Springfield 451-4641

EBERT ELECTRONICS CORP, 130 JERICHO TPKE
FLORAL PARK, N Y, 11002 .... 516 437-7777
V HOROWITZ, EMP 25, ENG 2

Cal Hundley Co, 3282 Fletcher Dr Los Angeles .... CL 5-7111
Ga Applebe-Church Inc, Box 13485 Atlanta 404 875-7244
Ill Olson Sales Co, 1005 E Washington Blvd Lombard 627-3802
Kan Earl Boutell, 8719 Meadow La Leawood .... 913 MI 9-1072
Mass Hatch SSOC,
Mich Mackinaw Engrg Co, 4071 Lake Mich Dr NW Grand Rapids 616 453-6361
Minn Warren A Hallock Co, 5316 Excelsior Blvd Minneapolis 920-6100
Mo Herdlein Inst Supply Co, 14831 Phelps Dr Bridgeton 314 865-2547
Mont ContinentaLabs, 1402 Central Ave Billings 252-8424
NY MWM Assoc, Box 412, Lynbrook .... LY 3-6190
NY H C Johnson Agencies Inc, 111 Mt Hope Ave rochester 232-2688
NC Carolina Tech Rep Inc, Box 17726 Charlotte 704 364-0163
Ohio Del Steffen & Assoc, 25000 Euclid Ave Cleveland 261-5055
Pa Technicraft Co, 7028 Ridge Ave Philadelphia .... 215 IV 3-4700
Pa Process Engrg Co, Box 10464 Pittsburg 412 561-2242
Pa Technicraft Co, 7028 Ridge Ave Philadelphia .... 215 IV 3-4700
Pa Process Engrg Co, Box 10464 Pittsburg 412 561-2242
Tex Stevens Sales, 2415 Valley View La Dallas .... 214 CH 1-2574
Va VA Thnical Assoc Inc, Box 9524 Richmond 703 266-9654
Wash Branom Instr Co, 2133-37 Second Ave Seattle 206 622-7320
Wash Branom Instr Co, 2133-37 Second Ave Seattle 206 622-7320
Can Philips Elec Ind Ltd, 116 Vanderhoof Ave Toronto .... HU 7-5161

EBY CO HUGH H, 4701 GERMANTOWN AVE
PHILADELPHIA, PA, 19144 .... 215 DA 4-7000
W TELMOSSE, EMP 300, ENG 8, $250-$500M

Ariz Don V Hamilton Co of Arizona, 5363 E Pima S Tucson 326-6461
Cal M-A Assoc, 458 Forest Ave Palo Alto 415-324-1339
Cal Mann & Smith, 8949 Reseda Blvd Northridge .... DI 9-2073
Conn Gerlad Rosen Co Inc, 194 Plymouth St Stratford 375-5456
Fla Aerodyne Engrg, Box 17057 Orlando 305-295-4440
Ga K & E Assoc Inc, 1244 Atlanta Rd Marietta 428-4311
Ill Edward Flaxman Co, 52 James Ct Glenview 729-1880
Ind Southern Sales Co, 105 Lakeshore Dr Angola 665-3961
Kan Mesa Inc, 5460 Buena Vista Dr Mission .... 913 CO 2-6565
Ky Southern Sales Co, 212 Republic Bldg Louisville 583-6902
Mass Gerald Rosen Co Inc, 563 Worcester Rd, Natick
Mich Shalco Inc, 23525 Woodward Ave Ferndale .... LI 7-4771
Minn Hamilton Grayden & Flemmer, Hamilton Rd Hopkins 935-5558
NY Rep Tech Inc, Box 98, Syracuse
Ohio Components Engineering Co, 7461 N Linden La Cleveland 842-2737
Tex Southwest Electronics, 183 Meadows Bldg Dallas .... EM 3-1671
Wis Mesa Inc, 6510 N Clark St, Chicago Ill
Can W T Barron Co, Box 127 Oakville Ont 416-845-2224

ECCO ELECTRONIC COMPONENTS CORP
157 S MCQUESTEN PKWY, MOUNT VERNON
N Y, 10550 .... 914 MO 8-4800

Ga Millar-Hutto Assoc Inc, 3110 Maple Dr, NE Atlanta 404 261-6160
Ill I C Hirsch, 2919 1/2 Armitage Ave Chicago 312 342-1600
Ill Morton L Friedman Co, 4749-51 N Rockwell Ave Chicago
Ind V D DeLong, 418 Berry St Fort Wayne 219 743-1586
Ky P Scott, 1836 Euclid Ave Cleveland 216 861-2626
Mass N Seifert, 10 Day St, Auburndale 617 969-5478
Mo Automatic Gen Elctn Sales, 6550-E Troost Ave Kansas City
NJ A Peterson, Box 822, W Caldwell 201 226-4363
NY Dave Rudnick, 364 Lincoln Pl Brooklyn .... 212 ST 9-9585
Ohio J Kief, 9505 Montgomery Rd Cincinnati 513 791-2513
Tex Bill Wylds Co, 1247 Caudle Dr, Houston

ECKEL INDUSTRIES INC, 155 FAWCETT ST
CAMBRIDGE, MASS, 02138 617-491-3221
W VEAZEY, EMP 70, ENG 4, $1,000-$2,500M

Ariz Barrett Homes Contractors, Phoenix .... AM 5-3031
Cal Abbott Instrument & Eng Co Los Angeles .... GR 4-5310
Cal White & Co, San Jose 292-8229
Mich N W Sales Co, Franklin 851-3545
Minn Insulation Sales Co, Minneapolis 339-9361
Mo Anderson Stolz Corp, Kansas City .... GR 1-2024
Mo Patton Equip Co Inc, St Louis .... MI 7-0080
NJ NLR Assoc, Verona 239-4747
Pa Dorn Ind Equip Co, Havertown .... SU 9-4895
Tex Harold O Knape & Co, Dallas .... RI 7-7596
Tex Harold O Knape & Co, Houston .... JA 6-2729
Wis Building Service & Sales Co Milwaukee .... GL 3-6786

ECKSTEIN BROS, 4807 W 118TH PL, HAWTHORNE
CAL, 90251 .... 213 772-6113
H WHIPPLE, EMP 18, ENG 3, $250-$500M

Ill Gordon Stowe & Assoc, 1728 Chapel Ct, Northbrook
Pa T S Haley & Assoc, Cambra
Fr Audipha, 81 Rue d'Alsace, Courbevoie
Ger Hansaton, Dehnhaide 85, Hamburg 22
GB P C Werth Co, 341 Oxford St, London W 1
Ital Amplifon, Via Durini 26, Milan
SAfr Westdene SVCS, 175 Jeppe St, Johannesburg
SAfr Melco, 165 Jeppe St, Johannesburg
Swit Bommer Co, Langgrutstr 112, Zurich

ECP CORP, 4726 SUPERIOR AVE, CLEVELAND
OHIO, 44103 .... 216 391-0444
I WEISS, EMP 25, ENG 2, $250-$500M

ECTRON CORP, 8070 ENGINEER RD, SAN DIEGO
CAL, 92111 .... 714 278-0600
E CUNNINGHAM, EMP 10, ENG 3, $500-$1,000M

Ala E G Holmes & Assoc, 4862 Governors Dr W Huntsville 837-6900
Ariz BFA Inc, 4710 N 16th St, Phoenix 602 264-6536
Cal Richards Assoc, Box 280 Los Altos 415 941-3226
Cal P H Assoc, 2008 W Carson St Torrance 213 320-7750
Cal Richards Assoc, Box 280 Los Altos 415 941-3226
Fla E G Holmes & Assoc, 316 1/2 S Bumby St Orlando 241-2128
Ga E G Holmes & Assoc, 3667 Clairmont Rd Chamblee 404 457-8518
Mich Twin Region Elctn Sales, 2547 Monroe Blvd Dearborn 313 274-4661
NM BFA Inc, 1238 Ortiz SE Albuquerque 505 268-4387
NC E G Holmes & Assoc, 430 W Gaston St Greensboro 919 272-0855
Ohio Twin Region Elctns Sales 5700 Far Hills Ave Dayton, 513 434-8000
Ohio Twin Region Elctn Sales, 21010 Center Ridge Rd Cleveland 216 331-7650
Okla BFP Inc, Box 15656, Tulsa 918 835-7942
Pa Twin Region Elctn Sales, 201 Penn Center Blvd Pittsburgh 412 824-1120
Tex BFP Inc, Box 50, Friendswood 713 482-7563
Tex BFP Inc, 708 W Euless Blvd Euless 214 264-3363
Va Nine Assoc, 7753 A-4 Patriot Dr Annandale 703 256-9105

EDAL INDUSTRIES INC, 4 SHORT BEACH RD, EAST HAVEN
CONN, 06512 .... 203 467-2591
E PAGANO, EMP 300, ENG 5, $2,500-$5,000M
ADV PG 580

Ala Component Sales Corp, Box 899 Huntsville 205 539-6973
Cal Hal Foraker, Box 1325, Fremont 657-2213
Colo Regan & Assoc, 1188 E Easter Ct Littleton 303 794-6477
Conn A & M Electronic Rep, Ailene Dr Madison 203 245-1031
Fla Component Sales Corp, Box 9545 St Petersburg 813 360-7460
Ill Brock & Cushman, 6261 W Grand Ave Chicago 662-4110
Mass A & M Electronic Representative 1492 Highland Ave, Needham 444-8170
Mich Don Poulin Co, 17222 E Warren Ave Detroit 886-4990
Minn Heimann Co, 5603 Lyndale Ave S Minneapolis 827-5457
NJ S Glassman Assoc, 326 Hillside Ave Nutley 667-0653
NY S Glassman Assoc, 28 Prestwick Terr Glen Cove 676-1039
NY Gislason Sales Inc, 617 Case Bldg Rochester 562-8323
NC Component Sales Corp, Box 6401 Raleigh 919 832-1897
Ohio Goory Sales Co, 19555 Henry Rd Cleveland 331-2055
Ore J E Edstrom, 1220 SW Morrison St Portland 227-5311
Pa W Henry Cordray Sales Co, 1 Radnor Sta Radnor 687-1366
Pa Trymac Inc, 201 Penn Ctr Blvd Pittsburgh 414 823-8400
Tex George Weinreich & Assoc 11554 E Northwest Hwy, Dallas 321-2800
Can Burlec Ltd, 45 Northline Rd, Toronto .... PL 5-3377

EDCRAFT INDUSTRIES INC, 620 COMMERCE RD
LINDEN, N J, 07036 .... 201 925-7760
L EDWARDS, EMP 25, ENG 2, $250-$500M

Cal Weightman & Assoc, 120 Santa Margarita Menlo Park 325-2885
NJ H Wislon Ryno Co, 151 Forest St Montclair 201 783-9700

EDDY MFG CO, 719 MAIN ST, BURBANK
CAL, 91506 .... 213 846-6971
R BREMMER, EMP 12, $250-$500M

Cal R & E Sales Co, 2140 Westwood Blvd Los Angeles 475-1588

EDI, 2548 COLORADO AVE, SARASOTA
FLA, 33577 .... 813 955-1056
R GROVE, ENG 2, UP TO $100M

EDISON, THOMAS A INDUSTRIES, INSTR DIV
81 LAKESIDE AVE, WEST ORANGE
N J, 07051 .... 201 736-1000
G BOSELLI, EMP 300, $5,000-$10,000M

Ala McCain Eng Sales Co, Box 1251 Birmingham 822-8610
Ariz Baron Machine & Engrg Corp 2515 E Indian School Rd, Phoenix 264-3757
Cal T A Edison Ind, 16218 Ventura Blvd Encino 784-8281
Cal T A Edison Ind, 1499 Bayshore Hwy Burlingame 692-0199
Cal Combustion & Controls Co, 15759 Strathern St Van Nuys 787-5660
Cal W F Featherstone & Assoc, 1110 El Camino Real San Mateo 341-0126
Colo R E Cathey Co, 200 Garrison St, Denver 238-1506
Del Energy Control Corp, 64 E Main St Newark 368-9143
DC Meleney Engineering Co, 2430 Penna Ave NW Washington 965-3360

Fla Lewis M Crowe Co, RR 2, Penn Park Jupiter ... 746-7483
Ga Lewis M Crowe Co, 174 W Wieuca Rd NE Atlanta ... 255-2700
Ill T A Edison Ind, 5642 W Lake, Chicago ... 626-5231
Ill Memeco, 6535 Northwest Hwy Chicago ... 774-0920
Ind Dale D Merchent Co, Box 20045 Indianapolis ... 255-4690
Iowa The Walling Co, 1518 Washington St Davenport ... 323-6425
La Gilbert & Assoc, 8130 Willow St New Orleans ... 866-7444
Mass Cambridge Controls Inc, 76 Cambridge St Burlington ... 272-2700
Mich Colley & Schlee Inc, 24681 Telegraph Rd Southfield ... 356-7200
Minn Power-Process Equip Inc, 6032 W 37th St Minneapolis ... 929-6791
Mo E A Mais Co, Box 9721, Kansas City ... 761-3124
Mo Williams Equip Co, 453 N Lindbergh St Louis ... 997-1030
Neb The Walling Co, 1514 Davenport St Omaha ... 342-7044
NJ Thomas A Edison Ind, 81 Lakeside Ave W Orange ... 736-1000
NJ Eastern Power Equip Corp, 105 W Shore Ave Dumont ... 384-9200
NY Stone Co, 1807 Elmwood Ave, Buffalo ... 873-1873
NY The Stone Co, 800 Linden Ave Rochester ... 381-1155
NY Stone Co, Box 143, Skaneateles ... 685-6921
NC B W Allen Co, 121 Greenwich Rd Charlotte ... 366-0031
Ohio Collvra Eng Sales Co, 11926 Lake Shore Blvd Cleveland ... 681-2726
Ohio Colley & Schlee Inc, 601 Orchard View Dr Maumee (Toledo) ... 241-2800
Okla James E Dyer Co, 4836 S Peoria Ave Tulsa ... 742-8832
Ore G H Rosette Co, 216 NE Oregon St Portland ... 234-7433
Pa Process Eng Co, Box 10464, Pittsburgh ... 561-2242
Pa Thomas A Edison Ind, 2801 W Chester Pk Broomall ... 356-2841
Pa Systems Control Assoc, 10 S Orange St Media ... 565-2077
Tenn Process & Power Inc, Box 6138 Memphis ... 942-3253
Tex Thos A Edison Inc, 1300 Sage Brush Tr Euless ... 283-0301
Tex Allied Engrg & Supply Co, 4101 San Jacinto Houston ... 528-5625
Tex Bell Specialties Co, 207 N Amburey Odessa ... FE 2-9552
Utah Edsco Equip Co, Box 17316 Salt Lake City ... 277-0330
Va Berkness Control & Equip Co, 308 W Cary St Richmond ... 643-5357
Wis Geo H Fredricks Co, 4524 W Burleigh St Milwaukee ... 871-4970
Can Associated Inst & Controls Ltd, 2261 Rockland Rd Montreal ... 738-1167
Can Belmac Supply Co Ltd, 5505 4th St S E Calgary, Alberta ... 244-5578
Can Belmac Supply Co Ltd, 1534 Albert St Regina, Saskatchewan ... 568-4824
For Chittick & Co, 123 Ayala Ave, Makati, Rizal
For RETEC, Ave Bulnes 97, Santiago ... 89532
For Tamco Electrical Eng Co Ltd, 12 Jalan Penchala Petaling Jaya, Selangor ... 5892617
For Case Tech Co Ltd, 366 Upper Roosevelt Ave Teheran ... 624738
Den Norsk Sprinkler Co, Rosenkrantzgt 20, Oslo, Norway
Fr Auxitrol, 189, Bd St-Denis, Courbevoie
Ger Billman Regler GmbH, Postfach 1705 4000 Dusseldorf 1
GB Perfection Parts Ltd, 59 Union St, London, S E 1
Ital H Coe & Clerici Ramo Tecnico Via M A Colonna 12, Milan
Jap Nippon St Johnson Sales Co Ltd 3-5 Uchikanda-3 Chome, Tokyo
Swit Panelectra AG, Raffelstr 20, Zurich
Arg Cosari SAIC, Bouchard 432 Buenos Aires ... 31-6763
BC P E Robinson Agencies Ltd, 1100 Lonsdale Ave N Vancouver, B C
Ind Batliboi & Co Ltd, Forbes St, Fort, Bombay-1
Isrl Telsys Ltd Engr Co, Box 10034, Tel-Aviv ... 223756
Mex Ingenieria Termo Industr, S A, Puebla 308 Mexico City D F ... 25-21-50
Spn Auxitrol Iberico, Doctor Fleming 26, Madrid 16
Aust C M Terry Pty Ltd, 115 Pitt St, Sydney ... 28-8128

EDKO ELECTRONICS INC, 397 BEDFORD AVE
BROOKLYN, N Y, 11211 ... 212 EV 42746
M COE, EMP 4, ENG 1, $100-$250M

EDMONT-WILSON, 3080 WALNUT ST, COSHOCTON
OHIO, 43812 ... 614 MA 2-4311
J GAUERKE, EMP 600, ENG 7
Cal J Applehans, Box 21247 Casa Correo Sta Concord ... 689-2038
Cal J F Sines, 847 Marjan St, Anaheim ... 630-2146
Cal R D Stowe, 2659 B 235th St, Torrance ... 326-8323
Cal T L Peterson, 14300 Winchester Blvd Los Gatos ... 379-1143
Fla D A Mallardi, 6808 Crest Hill Ct Tampa ... 884-1980
Ga T E Miller, 2237 Capehart Circle N E Atlanta ... 634-5356
Ill P Bobolia, 245 Gentry St, Park Forest ... 748-9092
Kan R J Iveson, 9703 W 92 St Overland Park ... 381-3447
La R H Tennent, 1550 Wildwood La Slidell ... 643-2647
La Haynesville Mfg Co, Haynesville ... 624-1621
Md C L Dubbs, 1601 Feldbrook Rd, Towson ... 825-4884
Mass H D Byington, 28 Manor Ave Wellesley ... 235-4393
Mich C W Davis, 15644 Ellen Dr, Livonia ... 421-8071
Mich L Hebron, 5393 Newcastle S E Grand Rapids ... 243-9531
Minn D V Ralph, 440 Decatur Ave N Minneapolis ... 544-1048
Mo C H Lester, 3980 Woodcrest, Florissant ... 839-1353
NJ J R Ernst, 9 Kilmer Dr, Morganville ... 536-3030
NJ E B McCaul, Jr, 121 Meeting House La Cherry Hill ... 667-2364
NY C K Gottwik, 1A Appletree La Great Neck ... 482-4890
NY S Stewart, 230 Treadwell Rd Tonawanda ... 837-4711
NC B R Page, 3001-F Patriot Ct Greensboro ... 288-2236
Ohio R C Mohler, 145 Tuxworth Rd, Dayton ... 885-7867
Ohio R G Head, 6199 S Perkins Rd Bedford Heights ... 232-7834
Ore J E Lynes, Jr, 17636 N E Wasco St Portland ... 252-6845
Pa C R Stewart, 1402 Washington Rd Pittsburgh ... 563-5015
Tenn G Kahnweiler, 4258 Green Hall Way Memphis ... 386-3353
Tex J Alexander, 10710 Meadowlake Houston ... 782-7980
Tex L E Sheets, 3143 Jubilee Trail, Dallas ... 352-4306
Utah D Younger, 230 S 5th, Provo ... 374-2944
Wis A D White, 2640 Anita Dr, Brookfield ... 786-5789
Can Edmont Canada Ltd, Cowansville, Que ... 263-0585
Belg Edmont Belgium SA, Nachtegaalstr 4, Erembodegem

EDMUND SCIENTIFIC CO, 380 EDSCORP BLDG
BARRINGTON, N J, 08007 ... 609 547-3488
L COREY, EMP 110, ENG 10

EDNALITE CORP, 210 N WATER ST, PEEKSKILL
N Y, 10566 ... 914 PE 74100
G BAIRD
Cal KEK Scientific Co, 300 N Morris Pl Montebello ... 213 723-8174
Ill EMF Co, 6135 W Belmont Ave Chicago ... 312 889-8323
Mass Production Devices Corp, 489 Main St Stoneham ... 617 438-2772
Minn Servco, 521 S 7th St, Minneapolis ... 339-8611
NJ Jam Scientific, 173 Engle St, Tenafly ... 567-6569
NY Advanced Components, 119 Luthor Ave Liverpool ... 472-7886
Tex H Weaver Co, Box 4219, Dallas ... 214 946-5698
W Va Preiser Scientific, Box 551, Charleston ... 343-5515

EDO CORP, 13-10 111TH ST, COLLEGE POINT
NY, 11356, TWX 539-7968 ... 212 HI 5-6000
L SWANSON, EMP 1700, ENG 400, UP TO $100M
Cal Edo Corp, 5135 N Harbor Dr San Diego ... 222-7417
DC Edo Corp, 1725 K St NW, Washington ... FE 8-8870
Utah Edo Western Corp, 2645 S 2nd W Salt Lake City ... HU 6-7481

EDO WESTERN CORP, 2645 S SECOND W
SALT LAKE CITY, UTAH, 84115 ... 801 486-7481
E WINSTON, EMP 200, ENG 16, $2,500-$5,000M
Cal Kidd, 2813 Gobat Ave, San Diego ... 714 453-4712
Cal G B Leland, 3132 Lasuvida, Hollywood ... 467-5421
Fla Beacon Electronics, Box 1728 Maitland ... 305 564-4298
Haw Paul Hanson Co, Box 2173 Honolulu ... 808 510-484
Ill H J Corey, 2538 W Peterson Ave Chicago ... 312 973-5300
Mass Measurement Equip Corp, 591 North Ave Wakefield ... 617 245-4870
Mich Don Poulin, 17222 E Warren Ave Detroit ... 886-4990
NY J D Buttolph, 59 Pine Cliff Rd Chappaqua ... CE 8-8331
Tex M Brainard Jr, 2505 Broadway Houston ... 713 643-6239
Va Sutter & Co, 145 Church St Vienna ... 703 938-0505
Wash Paratech, Box 5427, Seattle ... 206 783-3900
Can Instronics Ltd, Box 100 Stittsville Ont ... 613 836-4411

E D P CORP, 1900 N MILLS AVE, ORLANDO
FLA, 32803 ... 305 241-5324
J ALOISANTONI, EMP 100, ENG 9, $1,000-$2,500M
Ala Young & Lawrence Assoc, 2907 Governors Dr, SW Huntsville ... 539-6575
Cal W K Geist Co, Box 5004, Glendale ... 245-9501
Fla Young & Lawrence Assoc, 601 N New York Ave Winter Park ... 647-6929
Mass Instrument Reps Inc, 1046 Mass Ave Arlington ... 617 646-1034
Va John Hopkins Assoc, 4520 Starr Jordan Dr Annandale ... 703 280-2086
Wash Avionics Liaison, Inc, 6770 Perimeter Rd, S Seattle ... RO 7-3870
Can Technitron Assoc, Ltd, 769 Lajoie Ave Dorval, Que ... 514 631-6859

EDROY PRODUCTS CO, MAGNI FOCUSER DIV
130 W 29TH ST, NEW YORK
N Y, 10001 ... 212 565-5226
M STOLTZE, EMP 14, ENG 1, $100-$250M

EDSYN, INC, 15954 ARMINTA ST, VAN NUYS
CAL, 91406, TWX EDSYNEX ... 213 989-2324
J DOWDY, EMP 15, ENG 2, $250-$500M
ADV PG 713

EDWARDS CO INC, UNIT OF GENERAL SIGNAL CORP
90 CONNECTICUT AVE, NORWALK
CONN, 06852 ... 203 838-8441
W PIERCE, EMP 900, ENG 25, OVER $10,000M
Ala Edwards Co Inc, 2031 Ninth Ave S Birmingham ... 251-7584
Ariz J A Ware & Assoc, 1400 N 32nd St Phoenix ... 273-7309
Cal Edwards Co Inc, 1485 Bayshore Blvd San Francisco ... 467-2930
Cal Edwards Co Inc, 811 S Main St Burbank ... 845-7852
Colo Lighting Sales Inc, 1170 W Custer Pl Denver ... 744-1089
Conn Edwards Co Inc, 11 Anderson Rd Norwalk ... 847-7475
DC Edwards Co Inc, 4925 Fairmont Ave Bethesda ... 657-3777
Fla Shannon Assoc Inc, 1204 E Colonial Orlando ... GA 5-8520
Fla Shannon Assoc Inc, 3956 Central Ave St Petersburg Beach ... 862-4765
Fla Shannon Assoc Inc, 920 Escobar Coral Gables ... 446-0131
Ga Edwards Co Inc, 246 Simpson St NW Atlanta ... 523-2588
Haw Matt Cabot & Assoc, 1514 Ala Moana Bldg Honolulu ... 949-5378
Ill Edwards Co Inc, 9838 Roosevelt Rd Westchester ... 345-8760
Ind Roth-Mooney Elec Agency Inc 5226 N Keystone Ave, Indianapolis ... CL 1-3504
La E P Jones & Co, 4408 Cleveland Dr Metairie ... 887-0892
Mass Edwards Co Inc, Columbian Sq S Weymouth ... ED 5-1900
Mich Edwards Co Inc, 20100 Greenfield Rd Detroit ... 342-6886
Minn Edwards Co Inc, 7505 Hwy 7 Minneapolis ... 935-8621
Miss A M Spencer, 1838 Camillia La Jackson ... 372-4239
Mo Edwards Co Inc, 8007 Clayton Rd Clayton ... PA 6-5122
Neb Edwards Co Inc, 805 So 75th St Omaha ... 393-9211
NJ Edwards Co Inc, 519 Federal St Camden ... WO 4-5350
NY Edwards Co Inc, 7 Hugh J Grant Cir New York- ... SY 2-9000
NY Edwards Co Inc, 4455 E Genesee St Dewitt ... 446-9030
NC Edwards Co Inc, 1529 S Tryon St Charlotte ... 376-5063
Ohio Edwards Co Inc, 211 E 4th St Cincinnati ... 241-0818
Ohio Edwards Co Inc, 10 N Main St Chagrin Falls ... 247-7818
Okla R W McKnight, 1329 NW 91st St Oklahoma City ... VI 2-8118
Pa Edwards Co Inc, 9800 McKnight Rd Pittsburgh ... 931-2274
Tex Edwards Co, Inc, 4201 Caroline St Houston ... JA 6-2765
Tex Edwards Co Inc, 3003 Live Oak Dallas ... TA 7-3790
Utah Manufacturers Elec Sales Agency, 56 Bryan Ave Salt Lake City ... 486-7111
Va Epperson & Dull Co, 1103 E Main St Richmond ... MI 3-2126
Wash Edwards Co, Inc, 158 Thomas St Seattle ... MA 3-0594
Wis Edwards Co Inc, 741 N Milwaukee St Milwaukee ... BR 1-8644
Can Edwards of Can Ltd, Box 430 Owen Sound, Ont ... FR 6-2430

EDWARDS HIGH VACUUM INC
3279 GRAND ISLAND BLVD, GRAND ISLAND
N Y, 14072, TWX 710-260-1350 ... 716 773-7552
G SCHMIDT, EMP 1300, ENG 8
Ala Physimetrics, Box 4108, Farley Sta Huntsville ... 881-4965
Cal Edwards High Vacuum, Inc, 343 Richmond St El Segundo ... 322-7699
Colo Alta Engrg, 2950 S Fox St, Englewood ... 789-1861
Fla Physimetrics, 999 Woodcock Rd Orlando ... 841-4956
Ga Physimetrics, 3376 Peachtree Rd, N E Atlanta ... 237-8278
Ill Edwards High Vacuum, Inc, 5757 W 95th St Oak Lawn ... 423-0443
Md Kelly Assoc, Box 2087, Rockville ... 427-4774
Mass Edwards High Vacuum, Inc, Box 26 Auburndale ... 332-0886
Mich Edwards High Vacuum Inc, Box 2048 Ann Arbor ... 662-1141
NJ Edwards High Vacuum, Inc, Box 147 Ringwood ... 835-3925
NM Southwestern Engrg, 5301 Central Ave E Albuquerque ... 265-6775
NC Physimetrics, 500 E Morehead St Charlotte ... 372-3179
Tex Southwestern Engrg, 6300 N Central Exp Dallas ... 363-6501
Tex Southwestern Engrg, 4242 Richmond Ave Houston ... 528-5538
Utah Alta Engrg, 5810 Turner Dr Salt Lake City ... 364-5587
Can Edwards High Vacuum Ltd, 430 S Service Rd W Oakville, Ont ... 845-3437

Ger Edwards Hochvakuum GMBH
Niederrad, Hahnstr 46, Frankfurt am Main
GB Edwards High Vacuum Intl Ltd, Manor Royal
Crawley Sussex
Ital Edwards Alto Vuoto, Via C Pisacane, Pero, Milan

EDWARDS HIGH VACUUM 9CANADA0 LTD
430 S SERVICE RD W, OAKVILLE
ONT. 416 845-3437
F BARNES, EMP 10, ENG 1, $250-$500M

EDWIN INDUSTRIES CORP, 11933 TECH RD
SILVER SPRING
MD, 20904, TWX 89-2371 . . . . 301 622-0700
E CAMERON, EMP 10, ENG 3, $2,500-$5,000M
Cal Miad Inc, 8816 S Sepulveda Blvd
Los Angeles. 213 398-7424
Conn Technical Instru, Inc, 575 Broad St
Bridgeport . . . . FO 8-4582
Md Eastronics, 2401 Blueridge Ave
Wheaton. 942-2363
Mass Technical Instru, Inc, 122 West St
Wilmington 944-3930
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield 357-3700
NJ L A Garten & Assoc, 375 Passaic Ave
Caldwell. 226-7800
NM ABC Instru Sales, 3120 Calif, N E
Albuquerque. 268-4778
Pa L A Garten & Assoc, 947 Old York Rd
Abington. . . . . WA 7-1200
Can Instronics, Box 100, Stittsville, Ont 828-5115

E F ASSOC INC, 211 PARK AVE, SCOTCH PLAINS
N J, 07076 . . . . 201 322-6471
G EGERT, EMP 3, ENG 1, $100-$250M
Ariz O'Halloran Assoc, 4747 N 16th St
Phoenix 602 277-3223
Cal O'Halloran Assoc, 10700 Ventura Blvd
North Hollywood. 213 877-0173
Cal O'Halloran Assoc, 3921 E Bayshore
Palo Alto 415 326-1493
Conn Howard J Schuft Co, 965 Dixwell Ave
New Haven 203 865-1365
Ill Laub Engineering, 466 Central St
Northfield. 312 446-4166
Kan Simpson Enterprises, Box 18066 SE Sta
Wichita. 316 943-0502
Mass Howard J Schuft Co, 815 Washington St
Newtonville 617 527-5304
Mich Ohio Instrument Co, 339 Municipal Ct Bldg
Ann Arbor. 313 769-1177
Mo Simpson Enterprises, Kirkwood 314 965-1115
NJ Data-Rep Assoc, Box 645
Ridgewood. 201 447-0660
NY Data-Rep Assoc, Box 164
Huntington Sta 516 423-7677
NY Lightstone Corp, E Molloy Rd
Syracuse. 315 454-3209
Chio Ohio Instrument Co, 505 Whitney Ave
Worthington 614 885-0743
Pa Data-Rep Assoc, Box 349
Norristown 215 279-8210
Tex E G Miller Co, Box 929
Henderson 214 657-5049
Va Schibley Assoc, 10604 Warwick Rd
Fairfax 703 591-3008

E G & G INC CUSTOM EQUIP DIV, CROSBY DR
BEDFORD
MASS, 01730, TWX 710 348-0412 . . . . . . 617 271-5000
E ELOWE

E G & G INC, ELECTRONIC PRODS DIV
160 BROOKLINE AVE, BOSTON
MASS, 02215, TWX 617 262-9317 . . . . . . 617 267-9700
S RUBINOVITZ, $5,000-$10,000M
Ala Physimetrics, Box 4108 Farley Sta
Huntsville 205 881-4965
Ariz Hyer Electronics Co, 301 W Indian School Rd
Phoenix 910 951-4210
Cal Cain & Co Inc, 175 So San Antonio Rd
Los Altos 415 948-6533
Cal E G & G Inc, 5724 Hollywood Blvd
Los Angeles. 213 464-2800
Colo Hyer Electronics Co, 7895 E Prentice Ave
Englewood 303 771-5285
DC Eastern Instru Inc, 2600 Virginia Ave
Washington 202 333-8880
Fla Physimetrics, 999 Woodcock Rd
Orlando 305 841-4956
Ga Physimetrics, 3376 Peachtree Rd N E
Atlanta 404 237-8278
Ill Laub Engineering, Box 8
Northfield. 312 446-4166
Ind Dan C Flanagan, 2512 E Dr
Fort Wayne 219 484-5751
Iowa Engineering Services Co, 1026 3rd Ave NE
Cedar Rapids. 319 366-1591
Kan Engineering Services Co, 7924 A State Line
Prairie Village. 649-4000
Md Eastern Instrumentation Inc, 1002 Ingleside Ave
Baltimore. 301 744-3675
Mich Harvey Teplitz & Co Inc, 26847 Grand River Ave
Detroit 313 537-9058
Minn Engineering Prods Assoc, 2119 Grand Ave
St Paul 612 698-5531
Mo Engineering Services Co, 6717 Vernon Ave
St Louis 314 726-2233
NM HYER Electronics Co, 210 La Veta NE
Albuquerque. 505 265-5767
NY Robert F Lamb Co, 1865 Kenmore Ave
Buffalo 716 874-4900
NY Bertram D Aaron & Co Inc, 55 Northern Blvd
Greenvale. 516 621-0630
NC Physimetrics, 500 E Morehead St
Charlotte 704 372-3179
Ohio Harvey Teplitz & CO Inc, 3718 Salem Ave
Dayton 513 277-9178
Pa Eastern Instrumentation Inc, 613 Cheltenham Ave
Philadelphia 215 927-6269
Tex W Pat Fralia, Box 12625
Fort Worth 817 738-2394
Utah Hyer Electronics Co, 445 E 2nd S
Salt Lake City 801 363-6773
Va Eastern Instru Inc, Ross Bldg
Richmond. 703 644-6622
Wash Dewar & Assoc, 6361 First Ave So
Seattle 206 763-2233
Can Samuel C Hooker Ltd, 144 Ronald Dr
Montreal. 488-9114
For Technical Resources, Inc, 600 Main St, Waltham
Fr. ETS Radiophon, 148 Avenue Malakoff, Paris 16E
Ger Alfred Neye - Enatechnik, Schillerstr 14
Quickborn-Hamburg
GB Nuclear Measurements Ltd, Pallow Rd
Luton, Bedfordshire. . . . . Lut 2-7557
Ital Elettronucleonica S P A, Via Bisleri 19, Milano
Jap Hakuto Co Ltd, CPO Box 25, Tokyo
Swed Svenska Ab Oltronix, Jamtlandsgaton 125, Vallingby
Swit SEN, 31 Ave Ernest Pictet, 1211 Geneva 13
Isrl Landseas, Ltd, 29 Bezalel St, Tel-Aviv
Aust Consolidated Nucleonics Pty Ltd, 813 Dawling St
Waterloo, N S W

E G & G INC LABORATORY PRODS DIV, BOX 755
GOLETA, CAL, 93017. . . . . 805 967-0456
H MARSHALL, EMP 5000, ENG 2000, OVER $10,000M
Ala Physimetrics, Inc, Box 4108
Huntsville 205 881-4965
Ariz Hytronic Measurements Inc, 1017 N 3rd St
Phoenix 602 253-6104
Ark K Porter,
Cal EG&G Inc, 5724 Hollywood Blvd
Los Angeles. 213 464-2800
Cal Cain & Co, 175 S San Antonio Rd
Los Altos 514 948-6533
Colo Hytronic Measurements Inc, 4940 E 39th St
Denver 303 388-4081
Conn Al Waitt Assoc, 7 West St
Danbury 203 743-2151
Del Eastern Instrumentation, 613 Cheltenham Ave
Philadelphia 215 927-6269
DC Eastern Instrumentation, 1002 Ingleside Ave
Baltimore. 301 744-3675
Fla Physimetrics Inc, 999 Woodcock Rd
Orlando 305 841-4956
Ga Physimetrics Inc, 3376 Peachtree Rd NE
Atlanta 404 237-8278
Ill Laub Engineering, Box 8
Northfield. 312 446-4166
Ind D C Flanagan, 2512 East Dr
Ft Wayne 219 484-5751
Iowa Engineering Services Co, 1026 3rd Ave SE
Cedar Rapids. 319 366-1591
Md Eastern Instrumentation Inc, 1002 Ingleside Ave
Baltimore. 301 744-3675
Mass Al Waitt Assoc, 680 Main St
Waltham 617 891-7898
Mich Harvey Teplitz & Co Inc, 26847 Grand River Ave
Detroit 313 537-9058
Minn Engineering Prods Assoc, 2119 Grand Ave
St Paul 612 698-5531
NJ Eastern Instrumentation Inc
Redbank 201 842-4242
NM Hytronic Measurements Inc, 205 San Pablo SE
Albuquerque. 505 268-3941
NY Bertram D Aaron & Co, 55 Northern Blvd
Greenvale. 516 621-0630
Ohio Harvey Teplitz & Co Inc, 3718 Salem Ave
Dayton 513 277-9178
Ohio Harvey Teplitz & Co Inc, 3945 Meadowbrook Blvd
Cleveland. 216 371-2044
Pa Eastern Instrumentation Inc, 613 Cheltenham Ave
Philadelphia 215 927-6269
Va Eastern Instrumentation Inc, Ross Bldg
Richmond. 703 644-6622
Wash Dewar & Assoc, 6361 First Ave S
Seattle 206 763-2233
Ger Alfred Neye-Enatechinik, 14 Schiller Str
2085 Quickborn Hamburg 0/41/06 82/22
GB Nuclear Measurements Ltd, 67 Dudley St
Luton, Bedfordshire
Ital Elettronucleonica SPA, Via Bisleri 19
Milan 40-70-351
Jap Hakuto Co Ltd, Box 25, Tokyo Central 3160
Swed Svenska AB Oltronix, Jamtlandsgatan 125
Vallingby 08/87-0330
Isrl Landseas Corp Ltd, 29 Bezalel St, Tel-Aviv
Aust Consolidated Nucleonics Pty Ltd, 813 Dowling St
Waterloo NSW

E G & G INC, SYSTEMS DEVEL DIV, CROSBY DR
BEDFORD, MASS, 01730 . . . . 617 271-5000
K CLOUGH

E G & G INT'L INC GEODYNE DIV, 151 BEAR HILL RD
WALTHAM, MASS, 02154 . . . . 617 899-3710
J MCCARTHY, EMP 100, ENG 15
Cal EG & G Int'l, Inc, Box 98, Goleta 967-0456
Tex EG & G Geophysical, Ltd, 1913 Southwest Frwy
Houston . . . . JA 4-5317
Fr Codevintec, 27, rue d'Astorg
75-Paris 8e 265 38 54
GB John Mills, Lyne, Nr Chertsey
Surrey . . . . Long Coss 258
GB EG & G Geophysical, Ltd, Kings Ave
New Malden, Sur
Jap Marvbun Co, Ltd
1,2-Chome Odemmacho Nihombashi, Chuo-Ku
Tokyo 662-8151
Isrl Palec, Ltd, Box 960, Tel-Aviv 64568
Aust Swift & Co Pty, Ltd, 149-55 Milton St
Ashfield, NSW 71-0711

EHRENREICH PHOTO OPTICAL INDUSTRIES INC
623 STEWART AVE, GARDEN CITY
NY, 11050 . . . . 516 248-5200
I FELDMAN, EMP 175, ENG 3, OVER $10,000M
Cal A G Heinze Co Inc, 295 S Fair Oaks Ave
Pasadena 681-7474
Cal Technical Instr Corp, 348 6th St
San Francisco . . . . HE 1-8231
Colo Dick Rossmiller Co, 405 S 44th St
Boulder. 444-2411
Conn M E Clark Co, 377 N Granby Rd
North Granby 653-3425
Fla Blanco Inc, 3220 46th Ave N
St Petersburg. 525-2134
Ill Penco Assoc, 286 Lockwood Ave
Northfield. 446-3606
Ind Miller Tool & Gage, 320 S High St
Muncie . . . . AT 4-1691
Iowa Rapid Industrial Supply, 428 1st St SW
Cedar Rapids. . . . . EM 6-1967
Kan Representative Sales & Service, 6110 Willow
Kansas City . . . . FL 3-6010
Ky Preiser Scientific Inc, 1500 Algonquin Pkwy
Louisville 636-3309
Mass Ca-Pra Inc, 75 Lawton St, Brookline . . . . . LO 6-4140
Mich Production Machinery Sales Co, 4845 St Aubin Ave
Detroit 832-4711
Minn Machine Tool Supply, 3301 E 26th St
Mnpls . . . . PA 1-5371
Mo Merrick Machinery Co, 338 N Vandeventer Ave
St Louis
NJ Thomas Sappington Assoc, 304 Pembroke Rd
Bala Cynwyd, Pa . . . . MO 4-8020
NY Peterzell Machinery Co, 305 Webster Ave
Rochester. . . . . HU 2-8160
NY Stangert Corp, 1321 McBride St
Far Rockaway . . . . FA 7-0918
NC Apex Machine Tool Supply Co
3615 Wilkinson Blvd, Charlotte . . . . EX 9-0445
Ohio Elkro Co, 2800 W Lower Springboro Rd
Franklin . . . . SH 6-9271
Pa Optical Apparatus Co, 128 Coulter Ave
Ardmore . . . . MI 2-1636
Tex Southwestern Gage Co, 5819 Denton Dr
Dallas. . . . . FL 7-0937
Tex Dolan Scientific Instruments, 2411 Times Blvd
Houston . . . . JA 3-6444
Wash Seaport Co, 902 NW Leary Way
Seattle . . . . SU 4-9030
W Va Preiser Scientific Inc, 900 MacCorkle Ave SW
Charleston . . . . DI 4-2221

E-H RESEARCH LABS INC, 163 ADELINE ST, OAKLAND
CAL, 94607, TWX 910-366-7258. . . . . 415 834-3030
D CARNEY, EMP 200, ENG 16
Ala Mekco Assoc, Holiday Office Ctr
Huntsville 205 881-3721
Ariz E H Research Labs, 2842 E Cholla
Phoenix 602 944-3383
Cal E-H Research Labs Inc, 1936 Huntington Dr
S Pasadena 213 682-2807
Conn Instrument Dynamics, Inc, 345 N Main St
West Hartford 378-0435
DC SONCO, 4720 Montgomery La
Washington 301 654-5226
Fla Mekco Assoc, 3165 McCrory Rd
Orlando 305 841-8372
Ill Megatek, Inc, 1915 N Harlem Ave
Chicago 889-1277
Iowa Engineering Services Co, 1026 3rd Ave SE
Cedar Rapids. 319 366-1591
Kan Engineering Services Co, 7924A State Line
Prairie Village. . . . . 913 MI 9-4000
Mass Instrument Dynamics, Inc, Wakefield Ind Park
Wakefield. 245-5100
Mich Megatek, Inc, 26847 Grand River Ave
Detroit 531-1404
Minn Pat Lind Electronics, Co, 10104 Sunset Rd
Circle Pines. 781-6568
Mo Engineering Services Co, 6717 Vernon Ave
St Louis 314 726-2233
NJ SBM Assoc, Inc, 1519 Stuyvesant Ave
Union 687-8737
NJ E-H Research Labs, 214 W Main St
Moorestown. 609 235-8779
NJ Sonco, Crystal Brook Prof Bldg
Eatontown 201 542-1441
NY SONCO, 138 Pickard Bldg, Syracuse 454-9377
NY SBM Assoc, Inc, 28 Hobby St
Pleasantville 769-1811
NY SBM Assoc, Inc, 800 Linden Ave
Rochester. 381-8330
NY SBM Assoc, Inc, 528 Old Country Rd
Plainview. 433-1421
NC Mekco Assoc, 100B Lindsey St
Burlington 919 226-7177
Ohio Megatek, Inc, 2533 Far Hills Ave
Dayton 298-8638
Ohio Megatek Inc, 23203 Lorain Ave
Cleveland. 216 734-4433
Ore Arva Inc, 2035 SW 58th Ave
Portland 503 292-8762
Pa Sonco, 107 Town Ctr Rd
King of Prussia 265-3250
Pa Sonco, Park Place Bldg Office
Camp Hill 761-0577
Tex E-H Research Labs, Inc, 13333 N Central Expwy
Dallas. . . . . AD 1-4607
Wash Arva Inc, 1320 Prospect St, Seattle . . 206 622-0177

Can Megatronix, Ltd, 1800 Ave Rd
Toronto 12, Ont.......................783-3329
Can Megatronix Ltd, 739B Ridgewood Ave
Ottawa Ont.......................613 731-3860
Can Megatronix Ltd, 3300 Cavendish Blvd
Montreal P Q.......................514 488-0404
For Josueth Gonzalez, Apar 297, Quito, Ecua.... 10 139
For Cherd Viriyah Bhanij, Box 230, Bangkok, Thai
Den S A Metric, Naerum Hovedgade 121
2850 Naerum.......................804200
Fr Rohde & Schwarz France, 30 BD Berthier
Pariz XVII.......................16-1-3803468
Ger Rohde & Schwarz GMBH, Hohe Str 160-168
5 Koeln.......................0949-221-233006
GB E-H Research Labs UK, Box 157
West Drayton Mdsx.......................6266
Holl Groenpol NV, Box 1188, Amsterdam.... 020-64474
Ital Silverstar Ltd, 20 Via dei Gracchi
Milan.......................469-6551
Jap Iwatsu Electric Co Ltd
No 710, 2-chome, Kugayama-Suginami-Ku
Tokyo.......................398-1911
Nor Hugo Riso, AS, Teknisk Import, Box 8, Taasen
Oslo 8.......................23-25-80
SAfr Protea Physical & Nuclear Instr Ltd, 7 Newton St
Johannesburg.......................838-8351
Swed Scandia Metrid AB, Sodra Langgatan 22
Fack Solna 3.......................820410
Swit Omni Ray AG, 56 Dufourstr, Zurich 8....... 478200
Arg Coasin S A, Virrey Del Pino 4071
Buenos Aires.......................52-3185
Belg C N Rood Bruxelles, 30 reu Leon Frederic
Bruxelles 4
Braz Ambriex, S A, Rua de Consolacao 37
Brup 1102 Sao Paulo
Braz Abmriex S A, 226 Av Graca Aranha, Rio de Janeiro
Gr Marios Dalleggio Reps, 2 Rue Alopekis
Athens.......................710-669
Ind Electronic Enterprises
46, Karani Bldg New Charni Rd
Bombay.......................353069
Isrl Landseas Ltd, 29, Bezalel St, Tel-Aviv...... 55 234
Neth E-H Research Labs, NV, Box 1018
Eindhoven.......................040-33704
NZ W & K McLean Ltd, Box 3097, Auckland... 586-000
Spn Ataio S A, Enrique Larreta 12, Madrid... 235-35-43
Fin Into O/Y, 11 Meritallinkatu, Helsinki........ 11177
Aust Engineering Prods Div, 422 Lane Cove Rd
New Ryde NSW.......................88-6666

EICO ELECTRONIC INSTRUMENT CO INC
283 MALTA ST, BROOKLYN
NY, 11207.......................212 949-1100
H ASHLEY, EMP 300, ENG 10, $5,000-$10,000M
Can Eico Canada Ltd, 11 Millwick Dr, Weston Ont

E I L INSTRUMENT DIV UNITEC INDUSTRIES
110 W TIMONIUM RD, TIMONIUM
MD, 21093, TWX 0879-32.......................301 252-1260
F WINSHIP, EMP 75, ENG 4, $2,500-$5,000M
Ala E I L Instr Div, 2205 University Dr, NW
Huntsville.......................205 539-4181
Fla E I L Instr Div, 716 Bunker Rd
West Palm Beach.......................305 585-9363
Pa E I L Instr Div, 2366 Holiday Pk Area Rt 286
Pittsburgh.......................412 327-4450

EIMAC DIV, VARIAN ASSOCIATES
301 INDUSTRIAL WAY, SAN CARLOS
CAL, 94070.......................415 592-1221
J QUINN, EMP 1300, ENG 300
For Sales Offices/Representatives see Varian Associates Listings

EISLER ENGINEERING CO, 751 S 13TH ST, NEWARK
N J, 07103.......................201 243-5310
C EISLER JR, EMP 50, ENG 5

ELAIR INDUSTRIES LTD, 51 BELVEDERE BLVD
TORONTO, ONT, 18

ELASCO INC, 33 SIMMONS ST, BOSTON
MASS, 02120.......................617 442-1600
J GILLER, EMP 45, ENG 5, $500-$1,000M

ELASTIC STOP NUT CORP OF AMERICA
2330 VAUXHALL RD, UNION
N J, 07083.......................201 686-6000
D SORENSON, EMP 2200, ENG 20, OVER $10,000M
Cal ESNA, 16150 Stagg St, Van Nuys........ 873-7420
Conn J C Morrell, 65 Goodale Dr, Newington... 666-4403
Fla A C Booth, 2615 49th St W, Bradenton... 747-2877
Ga C K Bogle Jr, Marietta.......................427-5744
Ill ESNA, 5555 N Northwest Hwy
Chicago.......................774-3546
Ind ESNA, 1111 E 54th St, Indianapolis...... 253-6526
Mass H E Swendsboe, 1492 Highland Ave
Needham.......................444-1361
Mich ESNA, 2480 W Maple Rd, Birmingham... 646-6700
Minn ESNA, 7710 Computer, Minneapolis...... 922-1686
Mo ESNA, 213B West 75th St, Kansas City.. 333-8394
Mo ESNA, 225 S Meramac, Clayton.......... 862-5544
NY F J Howes, 891 Monroe Ave, Rochester.. 743-5088
Ohio ESNA, 20137 Progress Dr, Strongsville... 238-3351
Tex Duane R Corey, 1st Bank & Trust Bldg
Richardson.......................231-2391
Wis H Baumann, 3055 N Brookfield Rd
Brookfield.......................SU 6-4456
Can Fastener Div, ESNA Ltd, 751 Lajoie Ave
Dorval, Que.......................631-9013
Fr Simmonds S A, Suresnes, Seine,
GB T J Brooks (Leicester) Ltd, Leicester
Ital Urama-Simmonds, Milano
Belg Intair S A, Antwerp
Aust A E S Trading Co Pty Ltd, Niddrie, Victoria

ELASTRONICS LABS, 19458 VENTURA BLVD, TARZANA
CAL, 91356.......................213 345-6828
E STOELZNER, EMP 14, ENG 4, $100-$250M
Ala Tec-Sel Inc, 4306 Governor Dr SW
Huntsville.......................837-4541
Cal Morse Assoc, 1721 Chestnut St
San Francisco.......................415 567-6871
Ger E Brosa Messgeraete GMBH, Kaltenberger Str 45
TetthangWuerttembert

ELCO CORP, MARYLAND RD & COMPUTER AVE
WILLOW GROVE
PA, 19090, TWX 510-665-5573........ 215 OL 9-7000
W MCKAY, EMP 1875, ENG 75, OVER $10,000M
Ariz Jack Berman Co Inc, 5800 N 19th Ave
Phoenix.......................264-6578
Cal Jack Berman Inc, 8295 S Lacienega Blvd
Los Angeles.......................678-1281
Cal F W Moulthrop & Assoc, 1530 E 12th St
Oakland.......................AN 1-7676
Cal Elco Pacific, 2200 Park Pl, El Segundo... 675-3311
Colo McLoud & Raymond Co, 2151 S Grape St
Denver.......................756-1589
Conn Henry Lavin Assoc Inc, Old Colony Rd
Meriden.......................237-5527
DC Mechtronics, 7600 Georgia Ave NW
Washington.......................291-6004
Fla J J Smith & Assoc, Box 460
Winter Park.......................644-4316
Ga Grady-Duckett Sales Co, 24 E Andrews Dr NW
Atlanta.......................451-3529
Ill D Dolin Sales Co, 3525 W Peterson
Chicago.......................JU 8-3738
Minn Countryman Wagner & Behnen
1955 University Ave, St Paul.......... 645-9151
Mo R W Farris Co Inc, 1715 Baltimore Ave
Kansas City.......................HA 1-1751
Mo Dipro Inc, 11657 Adie Rd
Maryland Heights.......................432-3444
NY Telesco Messina Inc, 3254 Winton Rd S
Rochester.......................275-9200
NY Wincor Electronic Sales, 75 Plandome Rd
Manhasset.......................627-9474
Ohio Baehr-Greenleaf & Assoc, 14700 Detroit Ave
Cleveland.......................AC 1-9030
Ore Almac/Stroum Electronics, 8888 SW Canyon Rd
Portland.......................292-3534
Pa Hilliard Assoc Inc, Box 186, Abington.... 884-6100
Pa Lowry-Dietrich Co, 90 Clairton Blvd
Pittsburgh.......................892-2992
Pa Elco Huntingdon Corp, Industrial Park
Huntingdon.......................643-0700
Tex Ammon & Champion Co, Blanton Tower 628
Dallas.......................FL 7-8441
Wash Almac-Stroum Electronics, 5811 Sixth Ave
Seattle.......................763-2300
Can Elco Connectors Canada, 2 Thorncliffe Park Dr
Toronto 17.......................425-3310
For Werkvertretungen, Altmannsdorferstr 174/37
A-1232 Wien Aus
For Electrotecnica
Rua Das Portas De Sto Antao 169/173
Lisboa, Port
For Genex Corp, GPO 1124, New York N Y.. LA 4-2557
Den Int'l Elco A/S, Sdr Ringvej 41-45
Copenhagen-Glostrup
Fr Elco France Distribution, 73 Ave De Neuilly
Neuilly-Sur-Seine Paris
Ger Deutsche Elco GmbH, 5241 Niederdreisbach
Uber Ectzdorf/Sieg Alterweg 1....... 041016131
GB Varelco, Mewmarket Suffolk
Holl Radikor Electronics, Emmastr 13A, Hilversum
Jap Elco Intl Corp, 2-59 Nagato-Cho Chiyoda-Ku
Tokyo.......................580-2711
Nor Hefro Teknish A/S, Trondheimsveien 80, Oslo 5
Swed Elco Svenska, Hornsgatan 58, Stockholm
Swit Sibalco, Claragraben 39, 4000 Basel 5
Belg Betea, 15 Ave Geo Bernier, Brussels 5
Isrl Iselco, 51 Aayarkon St, Tel-Aviv
Mex Gimbel Mexicana, Av Sonora 170, Mexico 11
Fin Oy Elmika AB, Georgsgatan 34 A5, Helsingfors
Aust Elco (Australaisa) Pty Ltd, The Crescent Kingsgrove
Sydney N S W

ELCOR, DIV HALLIBURTON CO, 2431 LINDEN LA
SILVER SPRING, MD, 20910.......... 301 589-6614
R HOTHEM, EMP 20, ENG 3
Ala Reynolds & Assoc, Inc, 904 Bob Wallace Ave
Huntsville.......................536-1941
Cal T Whychell, 580 Spargur Dr, Los Altos.... 948-0355
Cal Gee Assoc Inc, 14474 Dickens St
Sherman Oaks.......................ST 8-5961
Colo Electro Rep, Inc, 1051 S Platte River Dr
Denver.......................744-2821
Fla Reynolds & Assoc, Inc, 161 S W 75th Ave
Ft Lauderdale.......................581-6611
Fla Reynolds & Assoc, Inc, 2903 Timberlake Dr
Orlando.......................424-3836
Fla Reynolds & Assoc, Inc, Box 1043
Eau Gallie.......................305 727-3222
Ga Reynolds & Assoc, Inc, 175 W Wieuco Rd, N E
Atlanta.......................404 252-5360
Ill Dave Hausten Co, 614 Arbor Ave
Wheaton.......................MO 8-7312
Mass Applied Technology Inc, 7 Vine St
Manchester.......................CA 7-2700
Mich Electro Sales Assoc, 15324 Mack Ave
Detroit.......................886-2280
NM Electronic Enterprises, 1900 Washington NE
Albuq.......................AL 6-1585
NM Electronic Enterprises, Box 116
Las Cruces.......................524-0126
NY Bradley Assoc, 130 Van Corlandt Ave, W
New York.......................KI 9-8500
Ohio Electro Sales Assoc, 335 E 200th St
Cleveland.......................486-1140
Ohio Electro Sales Assoc, Overlook Br Bx 3122
Dayton.......................513 426-5511
Pa Electro Sales Assoc, 201 Penn Center Blvd
Pittsburgh.......................371-9449
Pa Letronix, 251 W DeKalb Pike
King of Prussia.......................215 265-1020
Tex E G Miller Co, Box 929
Henderson.......................214 657-5049
Va Jay Co, 2914 Annandale Rd
Falls Church.......................534-7800
Can Glendon Instr Co Ltd, 131 Sunrise Ave
Toronto, Ont.......................757-5101
Can York Instru, 1262 Don Mills Rd
Don Mills, Ont.......................416 445-1255
For Henley & Co Inc, 202 E 44th St
New York, NY.......................YU 6-5544

ELCO TOOL & SCREW CORP, 1111 SAMUELSON RD
ROCKFORD, ILL, 61101.......................815 964-8611
J RATHKE, EMP 550, ENG 14, OVER $10,000M
Cal Corbett-Smith Co, 7340 E Florence Ave
Downey.......................861-0985
Colo S J Morgan & Assoc, Box 5821
Denver.......................303 433-8626
Del D B Lilly Co Inc, Box 2285
Wilmington.......................328-6675
Ill R C Jacobson, 3158 Des Plaines Ave
Des Plaines.......................827-0155
Ill A J Stockman, 1111 Samuelson Rd
Rockford.......................815 964-8611
Iowa Fred W Lagerholm, 340 43rd St
Des Moines.......................277-9513
Mich Snyder & Tribell, Inc, 914 Michigan Nat'l Tower
Lansing.......................487-5475
Mich Gordon Nyquist & Assoc, 123 Brown St
Birmingham.......................644-1430
Minn R E Anderson, 7710 Computer Ave
Mnpls.......................926-1571
Mo Meiners Sales Corp, 7500 Natural Bridge Rd
St Louis.......................314 383-4833
NJ H D Newman Assoc, 368 Owen Ave
Fair Lawn.......................796-1600
NY William Eggleston, 334 El Mar Dr
Rochester.......................663-4554
Ohio E G Sedgwick, Box 2581, Sta B
Toledo.......................531-2701
Ohio T L Eck, 10633 Knollview Dr
Cincinnati.......................513 563-0651
Ohio C L Kerr & Assoc, 26921 Tungsten Rd
Cleveland.......................261-1840
Ohio C L Kerr & Assoc, 1315 Quinby
Wooster.......................264-2661
Tenn T S Stone, 1212 Pierce Pkwy
Knoxville.......................615 546-9282
Tex R E Dahlin, Box 2375, Dallas.......... LA 1-2939
Wash G Teeple, 15121 Washington Ave SW
Tacoma.......................JU 8-1879
Wis A G Kavlar, 1723 Alta Vista Ave
Wauwatosa.......................414 453-0125

ELDEMA DIV GENISCO TECHNOLOGY CORP
18435 SUSANA RD, COMPTON
CAL, 90221, TWX 910-346-6773........ 213 774-1850
R CHASE, EMP 32, ENG 3
Ala Electro-Rep Assoc, Inc, 1930 Owens Dr, S
Huntsville.......................837-0358
Ariz W Bert Knight Co, Box 11394
Phoenix.......................602 264-3578
Ariz W Bert Knight Co, Box 11394
Phoenix.......................602 264-3578
Ark Dick Bellew Sales, Inc, 1005 W 4th St
El Dorado.......................UN 3-8325
Cal William J Purdy Co, 312 Seventh St
San Francisco.......................UN 3-3300
Cal W Bert Knight Co, 112 Glasgow Ave
Inglewood.......................213 678-4711
Cal W Bert Knight Co, 112 Glasgow Ave
Inglewood.......................213 678-4711
Conn Paul R Sturgeon Co Inc, Box 170
Milford.......................TR 4-6080
DC S K MacDonald Inc, 3308 14th St N W
Washington.......................202 265-3938
DC S K MacDonald Inc, 3308 14th St NW
Washington.......................202 265-3938
Fla Geartner Assoc Inc, 350 Lincold Rd
Miami Beach.......................JE 1-0200
Fla Geartner Assoc Inc, 2101 Mohawk Trail
Maitland.......................647-4000
Ga Electro-Rep Assoc, Inc, Box 29-353
Atlanta.......................633-7011
Ill W S Patterson Co Inc, 5604 N Western Ave
Chicago.......................AR 1-3774
Iowa R W Farris Co, 517 Fifth Ave, Des Moines
La Dick Bellew Sales, Inc, 3017 D 18th St
Metairie.......................833-6496
Md S K MacDonald Inc, 5500 Harford Rd
Baltimore.......................254-3380
Mass Paul R Sturgeon Co Inc, 1330 Boylston St
Chestnut Hill.......................734-7710
Mich ABM Sales, Inc, 10116 Puritan Ave
Detroit.......................862-1300
Minn Fred B Hill Co, 6110 Excelsior Blvd
Minneapolis.......................929-6727
Mo R W Farris Co, Inc, 1715 Baltimore Ave
Kansas City.......................HA 1-1751
Mo Dipro, Inc, Box 1427, Maryland Heights.. 432-3444
NJ R W Mitscher Co, Inc, 496 Ellicott Sw Bldg
Buffalo.......................854-2517
NY Fred Spellman Co, 1295 Northern Blvd
Manhasset.......................627-3399

NC Electro-Rep Assoc, Inc, Box 852 Raleigh 834-3398
NC Electro-Rep Assoc, Inc, 128 West 30th St Charlotte 333-0451
Ohio McFadden Sales Co, 150 E Broad St Columbus 221-3363
Pa S K MacDonald Inc, 1531 Spruce St Philadelphia .... KI 5-1205
Pa S K MacDonald Inc, 7805 McKnight Rd Pittsburgh 366-2643
Tex Robert E Nesbitt Co, 2930 Merrell Rd Dallas 357-4601
Wash James J Backer Co, 221 W Galer St Seattle .... AT 3-6470
Can Len Finkler Ltd, 2 Tycos Dr Toronto, Ont 781-5231
For E F Gilson, 27, Merrow Croft, Guildford Surrey .... HAN 3000

ELDER-OILFIELD INC, 5875 N LOOP, HOUSTON
TEX, 77001 .... 713 OX 5-6811
F HOPKINS, EMP 100, ENG 6

ELDORADO ELECTRONICS, 601 CHALOMAR RD CONCORD
CAL, 94520, TWX 910 481-9476 .... 415 686-4200
R SWIFT, EMP 70, ENG 11, $1,000-$2,500M
Ala Gentry Assoc, 2109 W Clinton Ave Huntsville 205 534-9771
Ariz T Louis Snitzer Co, 15 N 40th Pl Phoenix 602 273-1673
Cal T Louis Snitzer Co, 9005 Exposition Blvd Los Angeles 213 836-6170
Cal T Louis Snitzer Co, 1020 Corp Way Palo Alto 415 968-8304
Cal T Louis Snitzer Co, 1150 Camino del Mar Del Mar 714 454-2191
Colo Aztec Enterprises, 3385 S Bannock Englewood 303 761-0101
Conn Applied Measurements, Inc, 2531 Whitney Ave Hamden 203 288-5288
Fla Gentry Assoc, 550 N Bumby Ave Orlando 305 841-7740
Fla Gentry Assoc, 4152 49th Ave, S St Petersburg 813 867-7820
Fla Gentry Assoc, 201 Nelson St Eau Gallie 305 773-3411
Ga Gentry Assoc, Box 13513, Station K Atlanta 404 233-3816
Ill Torkelson Assoc, 464 Central Ave Northfield 312 446-8450
Ind Torkelson Assoc, 3512 Rockville Rd Indianapolis 317 241-0725
Kan Leemark Engineers, Inc, Box 6175 Leawood .... 913 NI 8-0124
Md Gawler-Knoop Co, 1751 Rockville Pike Rockville 301 427-3950
Mass Applied Measurements, Inc, 86 Hayward Rd Acton 617 263-2766
Mich Anderson Elctns Inc, 19471 James Couzens Hwy Detroit .... 313 DI 2-7133
Minn Torkelson Assoc, 4820 W 77th St Minneapolis 612 920-1046
Mo Leemark Engineers, Inc, 9623 St Charles Rock Rd St Louis 314 423-8700
NJ Gawler-Knoop Co, 14 Beaufort Ave Roseland 201 226-4545
NM Aztec Enterprises, 3202 Candelaria Rd Albuquerque 505 345-3441
NY KLM Assoc, 9 Hollywood Dr Whitesboro 315 736-2450
NY KLM Assoc, 201 S Main St North Syracuse 315 458-6214
NY KLM Assoc, 8 Bear Hill Dr Palmyra 315 597-9776
NC Gentry Assoc, 119 N. Ireland Burlington 919 227-2581
Ohio Instrumentation Systems Inc., 3481 Office Park Dr Dayton 513 293-8095
Pa Gawler-Knoop Co, Box 414 Richboro 215 925-7550
Tex Crockett Engrg Co, Box 47287 Dallas .... 214 ME 7-6120
Wash Brennan Assoc, 208 Carlson Bldg Bellevue .... 206 GL 4-9332

ELDRE COMPONENTS INC, 1239 UNIVERSITY AVE, ROCHESTER
N Y, 14607, TWX 510 253-4347 .... 716 244-2570
J ERDLE, EMP 65, ENG 4, $1,000-$2,500M
ADV PG 77, 185
Ala Grady Duckett Sales Co, Box 537 Hazelgreen 828-3475
Ariz Allen Assoc, Box 3091, Papago Sta Scottsdale 945-5781
Cal E E Enterprises Inc, 5901 Noble Ave Van Nuys 787-5360
Cal E E Enterprises Inc, 770 Welch Rd Palo Alto 324-4448
DC J N Barrett Assoc, 2000 L St NW, Washington
Fla Grady Duckett Sales Co, Box 15215 Tampa 876-5295
Fla Grady-Duckett Sales, Box 310 Uleta Br Miami 947-3974
Ga Grady Duckett Sales Co, Box 29067 Atlanta 451-3529
Mass Circuit Sales Co, 591 North Ave Wakefield 245-5320
Mich Jefco Sales Co, 700 Maple E Birmingham 642-3830
NJ D J Fisher Co, 50 Franklin Tpk Ho Ho Kus 652-0090
NM J N Barrett Assoc, 812 Federal St Camden 365-2680
NC Grady Duckett Sales Co, Box 22002 Greensboro 273-4617

Ohio J C Hofstetter Co, 742 Kenbridge Dr Cleveland 449-0944
Ohio J C Hofstetter Co, 3605 N Dixie Dr Dayton 278-6721
Wis Beta Engrg, 128 Jackson Ave, N Hopkins 938--2551

ELECTRAC INC, 1614 ORANGETHORPE WAY, ANAHEIM
CAL, 92801 .... 714 879-6021
L KATZ, EMP 50, ENG 15, $1,000-$2,500M
Ala W Peak, Box 1424 Huntsville, 536-5650
Cal Crown Electronics, Box 2573, Van Nuys ... 873-1266
Cal Waldman Assoc, 1094 W Evelyn Sunnyvale 245-2500
Colo Space Sys Sales & Engrg Inc 101 University BlvDenver, 388-9225
Fla Currie Aerospace Assoc, Box 13229 Orlando 855-0843
Mass Howard J Schuft Co, 815 Washington St Newtonville 617 527-5304
Mich Anderson Electronics Co 19471 James Couzens Hwy, Detroit 342-7133
Mo Space Sys Sales & Engrg Inc, Box 176 Florissant 291-3228
NM Space Sys Sales & Engrg Inc, 1401 Valenica SE Albuquerque 255-8716
NC Currie Aerospace Assoc, 519 Nissen Bldg Winston-Salem
Ohio Instrumentation Sys Inc, 3481 Office Park Dr Dayton 513 293-8095
Pa Engineering Technology Corp, Box 52 Bala Cynwyd 667-5110
Tex Space Sys Sales & Engrg Inc 810 Stemmons Tower S, Dallas 631-1740
Utah Space Sys Sales & Engrg Inc, 429 W 500 S Bountiful 295-6464
Va E-Tech Engrg Tech Corp, 6615 Backlick TRd Springfield 451-6500
Wash Showalter-Judd Inc, 1806 S Bush Pl Seattle .... 206 EA 4-7911

ELECTRALAB DIV TYCO LABS INC, 1105 SECOND ST ENCINITAS
CAL, 92024, TWX 910-322-2130 .... 714 753-6261
P SIMPSON, EMP 275
Ariz Harold C Torrey Assoc, 811 W Linger La Phoenix 602 944-0352
Cal H Rose, 13652B Redhill Ave Tustin 714 544-2950
Cal W R Sanford, 406 Paseo de la Playa Redondo Beach 213 375-7916
Cal Daniels-Padgett Assoc, 2620 Bayshore Frontage Rd Mountain View 415 969-1700
Colo Daniels-Padgett Assoc, 2512 S University Denver 303 777-0046
Kan Impala, Inc, 6917 W 76th Overland Park 913 648-6901
Mass Vector Sales, 774 Pleasant St Belmont 617 489-1400
Minn E C Electronic Sales, 10108 Abbott Ave Minneapolis 612 888-4626
Mo Impala, Inc, 47 Vlg Sq Shop Ctr Hazelwood 314 831-5454
NJ Aerol Assoc, 730 Clifton Ave Clifton 201 779-6744
NY Aerol Assoc, 170 Great Neck Rd Great Neck 516 487-9650
Okla Gordon V Peck Co, Box 15671 Tulsa 918 585-5853
Pa Elcom, Inc, 130 S Easton Rd Glenside 215 885-1325
Tex Gordon V Peck Co, 210 Casa Linda Plaza Dallas 214 328-3511
Tex Gordon V Peck Co, 5757 Bellaire Dr Houston 713 664-1435
Wash Ray Johnston Co, 1011 E 69th St NE Seattle 206 524-5170
Wis E A Dickinson & Assoc, 3612 N Green Bay Ave Milwaukee 414 264-1080

ELECTRA/MIDLAND CORP, 3151 FIBERGLAS RD KANSAS CITY
KAN, 66115, TWX 910 743-6843 .... 913 342-7950
M PUTTHOFF, EMP 500, ENG 12, $5,000-$10,000M
Ariz Runyon Co Inc, 6825 E Thomas Rd Scottsdale 602 947-5711
Ariz G Runyon, 6744 E Cypress Scottsdale 602 945-4655
Cal Electra/Midland Corp, 3921 E Bayshore Palo Alto 415 964-1844
Cal L Jensen, 22305 Carte Blanca Cupertino 415 245-9422
Cal Electra/Midland Corp, 3347 Industrial Ct San Diego 714 453-0332
Cal Electra/Midland Corp, 3402 W Century Blvd Inglewood 213 678-2531
Cal J Bratt, 17220 Mayall, Northridge 213 886-4589
Fla Conley-May Assoc, West Broadway Oviedo 305 365-3284
Fla J Conley, Box 716, Oviedo 305 855-6715
Ill Electra/Midland Corp, 6641 W North Ave Oak Park 312 848-0390
Ill D E LaCross, 1330 Wendy Dr North Brook 312 270-0240
Ill R Hon, 4812 Newport, Chicago 312 283-3544
Iowa Transitron Elctn Corp, 501 36th St NE Cedar Rapids 319 362-7175
Kan Transitron Elctns Corp, 2210 W 75th St Prairie Village 913 362-6640
Md Transitron Elctns Corp, 1111 Park Ave Baltimore 301 685-1070
Mass Transitron Elctns Corp, 168-182 Albion St Wakefield 245-4500
Mich Transitron Elctns Corp, 15800 W McNichols Rd Detroit 313 838-5884

Minn Electra/Midland Corp, 4660 W 77th St Minneapolis 616 927-5426
Minn G Goad, 2400 Harriet Ave S, Minneapolis
NJ Electra/Midland Corp Terrace Office, Parkview Apts Collingswood 609 854-7082
NY Electra/Midland Corp, 22 Boston Post Rd Larchmont 914 834-8000
NY Fowler-Beach Corp, 3700 East Ave Rochester 716 586-0468
NY Transitron Elctn Corp, 2 La Grange Ave Poughkeepsie 914 452-5250
NY R English, 13 Shale Dr Wappingers Falls 914 297-6143
NC Browning Communications Assoc Box 10793 Cameron Vlg Sta Raleigh 919 832-5570
Ohio J C Hofstetter Co, 742 Kenbridge Dr Cleveland 216 449-0944
Ohio J C Hofstetter, 3300 S Dixie Dr Dayton 513 298-0662
Pa Jerry Bresson Assoc, 107 Forrest Ave Narberth 215 839-6770
Tex Transitron Elctns Corp, 3300 W Mockingbird La Dallas 214 357-9448
Tex Electra/Midland Corp, Box 760 Mineral Wells 817 325-7871
Wash Western Technical Sales, 10843 NE 8th St Bellevue 206 454-3906
Can Transitron Elctns Corp, 1229 The Queensway Toronto 18, Ont 259-5461
Fr Transitron Elctn S A R L, 29 Ave de L'Opera Paris 1 .... Opera 69-89
Ger Transitron Elctn GMBH, Munich 5 Corneliusstr 12 24-12-74
GB Transitron Elctn Ltd, Gardner Rd Maidenhead Berkshire .... MU 1-26371

ELECTRAN MFG CO, 1901 CLYBOURN AVE, CHICAGO
ILL, 60614, TWX FAX BGD 312 248-4596
H HUBENTHAL, EMP 50, ENG 2

ELECTRA PRODUCTS INC, RT 309, MONTGOMERYVILLE
PA, 18936 .... 215 855-6674
A LIPSI

ELECTRA SCIENTIFIC DIV GULTON INDUS INC
BOX 3429, FULLERTON
CAL, 92634, TWX 910-592-1247 .... 714 871-2150
R SMALLMAN, EMP 100, ENG 6, $1,000-$2,500M

ELECTRA TRONICS INC, 724 KING ST, COCOA
FLA, 32922 .... 305 636-4111

ELECTRICAL DESIGN & MFG CO, 429 EASTON RD
WARRINGTON, PA, 18976 .... 215 DI 3-2600
G LAWRENCE, EMP 16, ENG 4, $250-$500M

ELECTRICAL INDUSTRIES, DIV PHILIPS ELCTNS & PHARM IND
CORP, 691 CENTRAL AVE, MURRAY HILL
N J, 07974, TWX 201 464-1553 .... 201 464-3200
D WILSON
ADV PG 628
Ariz Edwin E Black, 8238 E Montecito Scottsdale 947-2007
Cal E V Roberts & Assoc, 9601 W Jefferson Blvd Culver City 870-9561
Cal E V Roberts & Assoc, 800 San Antonio Rd Palo Alto 324-1671
Cal E V Roberts & Assoc, 4279 30th St, San Diego
Conn Hathaway Electronics Inc, Ducillo Bldg Canaan 824-7215
Fla Geartner Assoc Inc, 350 Lincoln Rd Miami Beach 538-8266
Fla H Geartner, 2101 Mohawk Trail Maitland 647-4000
Ill J Golten Co Inc, 2750 W North Ave Chicago 384-5959
Ind R O Whitesell & Assoc, 6620 E Washington St Indianapolis 359-5374
Ind M E Gamble, 203 W Wayne St Fort Wayne 743-4411
Kan Burke Sales Co, 7301 Mission Rd Prairie Village 362-4833
Kan Burke Sales Co, 3718 W 95th St Leawood 649-2727
Ky J Bishop, 3620 Lexington Rd, Louisville .. 893-7303
Mass Hathaway Electronics Inc, 7-11 Mystic St Arlington 646-1380
Minn HMR Inc, 9 E 22nd St, Mnpls 335-7734
Mo D D Kohler, 1760 S Brentwood Brentwood 962-9308
NJ A L Livera & Assoc, 4 Green Village Rd Madison 377-3220
NY A L Livera & Assoc, 275 Warner Ave Roslyn Hts 484-1276
NY C W Beach Co, 120 Ramsey Ave Syracuse 446-9587
NC Wm Breeyear, Box 17604, Charlotte
Ohio F Lammers, 12478 W 130th St Strongville 237-4211
Ore Dale G Weber Co, Weatherly Bldg Portland 234-0686
Pa Johnson Assoc, 3306 Buffalo Rd, Erie 899-3155
Pa C H Newson & Assoc, 627 Bethlehem Pike Philadelphia 248-3377
Va McLean Sales Co, Box 250 Waynesboro 942-8678
Wash Dale G Weber Co, 325 Maritime Bldg, Seattle
Wash Dale G Weber Co, 325 Maritime Bldg, Seattle
Can Atlas Electronics Inc, 50 Wingold Ave, Toronto

For L P Graner Inc, 40 E 49th St
New York, N Y 755-2980

ELECTRICAL INSULATION CO INC, 1245 MARCONI BLVD
COPIAGUE, N Y, 11726 .... 516 AM 4-6190
R GOLDSTEIN, EMP 65, ENG 3, $1,000-$2,500M
ADV PG 475
Conn Joseph Onkey, 797 Washington Ave, Bridgeport
Ind Warner, Kessler & Assoc, Box 338, S Whitley
NJ Harry W Halm, 22 Raymond Ave, Rutherford
NY Duncan Cameron, 295 East St, Pittsford

ELECTRICAL PLASTICS CORP
ORIENT WAY & NEW JERSEY AVE, LYNDHURST
N J, 07071 .... 201 438-2400
J FELDHUSEN, EMP 30, ENG 2, $250-$500M
Cal E A Wilcox Co, 173 Utah Ave
S San Francisco 871-5350
Cal E A Wilcox Co, 6436 E Corvette St
Los Angeles 723-6436
Conn Ray Perron & Co, 10 Briarwood Rd
Farmington 673-4825
Conn Ray Perron & Co, 36 Louis St, Trumbull ... 268-9631
Fla Buchanan & Abrams Assoc Inc
1512 E Concord Ave, Orlando 423-8995
Ga V Avis McCorvey Co, 2187 Briarcliff Rd, NE
Atlanta 636-2502
Ill Jerry Golten Co Inc, 2750 W North Ave
Chicago 384-5959
Ill Ray Perron & Co, 1870 Centre St
Boston 394-1008
Mich Burcaw Co & Assoc, 18236 West McNichols
Detroit 533-7700
Minn D A Schultz Co, 801 SE 8th St
Minneapolis 339-7701
Mo H A Roes & Co, 2601 Cherry
Kansas City 221-0866
NH Ray Perron & Co, 19 Caron Rd, RFD 2
Manchester 472-3030
NJ Harry Thaw, 46 Springbrook Rd
Livingston 992-2711
NY Schmitz Bros Inc, 82 St Paul St
Rochester 546-7628
Ohio Midwest Sales Co, 3219 West 117th St
Cleveland 941-2700
Pa Humes-Quinlan Sales Co, 242 E Butler Ave
Ambler 646-7250
Tex Stasco, 13310 Spring Grove Ave
Dallas 239-5042
Wash National Co Inc, 69 Marion St, Seattle 623-7060

ELECTRICAL REFRACTORIES CO, 50 E CLARK ST
EAST PALESTINE, OHIO, 44413 .... 216 426-9433
L TURNER, $250-$500M
Cal E A Wilcox Co, 173 Utah Ave
S San Francisco 871-5350
Cal E A Wilcox Co, 6436 E Corvette St
Los Angeles .... RA 3-6436
Ill Harold L Dale, 5816 W Lake St
Chicago .... CO 1-8244
Mich W A Krogh, 81 Vernier
Grosse Pointe Shores 871-7670
Mo James E Williams Sales Co, 8 Leicester La
St Louis .... JA 2-3747
NY L I Machinery Sales Corp, 568 W Hoffman Ave
Lindenhurst .... TU 4-3070
Wash E A Wilcox Co, 15001 8th Ave SW
Seattle 243-5450

ELECTRICAL TESTING LABS INC, 2 EAST END AVE
NEW YORK, N Y, 10021 .... 212 288-2600
H BEAGLE, EMP 150, ENG 26, $1,000-$2,500M

ELECTRICAL UTILITIES CO, 2427 ST VINCENTS AVE
LA SALLE
ILL, 61301, TWX 910 642-3947 .... 815 223-1732
R WALDORF, EMP 303, ENG 10, $2,500-$5,000M
Cal W E Kirk Co, 415 Wall St
Los Angeles .... MA 4-3651
Ill E C Winkenwerder, 5932 Gunnison Ave
Chicago 736-1332
Ill Ivan Mansfield, Box 1 Muirhead Rd
Plato Ctr 464-5535
Mich Elmer Jordan, 2024 Glen Dr, Jackson ... ST 2-0694
NJ Adley Corp, 210 N 6th St, Camden ..... WO 4-9533
NJ Adley Corp, 210 N 6th St, Camden ..... WO 4-9533
NY Phil Kirsh & Assoc, 223 Windemere Rd
Rochester .... BU 8-0705
Ohio W Brauer & Assoc, 29029 Euclid Ave
Wickliffe 943-0601
Okla Components Inc, 1526 E Fourth St
Tulsa .... LU 3-9149
Tenn D Ransom, 100 N Main, Memphis 527-3194
Tex Industrial Equipment Co, 6831 Navigation Blvd
Houston .... WA 8-3463
Va Adley Corp, 2523 Wilson Blvd
Arlington .... JA 7-8036
Wash Jos C Platt, 111 Bell St, Seattle .... MA 3-6141

ELECTRICAL WINDINGS INC, 2015 N KOLMAR AVE
CHICAGO, ILL, 60639 .... 312 235-3360
L KAMMERER, EMP 200, ENG 4, $1,000-$2,500M
Cal R L Reid & Co, 248 W Pamela Rd
Arcadia 681-0711
Colo Electronic Component Sales Co, 2340 N Main St
Littleton 798-8481
NM Electronic Component Sales Co, Box 3087, Sta D
Albuquerque 344-8130
NY R E Breuer Co Inc, 1 Barstow Rd
Great Neck 516 466-3030
Pa John J Nolan Assoc, 314 W Sparks St
Philadelphia 924-1595
Utah Electronic Component Sales Co, Box 2066
Salt Lake City 262-3700

ELECTRIC INDICATOR CO INC, 195 K DANBURY RD
WILTON, CONN, 06897, TWX 96-5945 .. 203 762-8655
W SLY, EMP 185, ENG 5, $2,500-$5,000M
Cal W I Carson & Assoc, Box 1014
San Carlos 593-4262
Cal Valectron Engineering Co, Box 762
West Covina 213 330-1515
Fla W Ben Wimberly Co, 500 Osceola
Orlando 425-3083
Fla W Ben Wimberly Co, 532 S Ft Harrison Ave
Clearwater 446-7072
Ill Walt Sanders Assoc, 4750 N Milwaukee Ave
Chicago 777-7766
Md Jadelectronic Assoc, Inc, Box 115
Greenbelt 474-8161
Mass John E Boeing Co Inc, Box 5, Lexington ... 862-2500
Mich Sheridan Assoc Inc, Box 128
Lathrup Village 313 358-3333
Minn Murphy Assoc Inc, 730 Chicago Ave
Mnpls 333-4511
Mo Sheridan Assoc, Inc, Box 3997
St Louis 524-4800
NY Jones/Sudders Inc, 309 Colony Park Dr
Liverpool 457-6277
Ohio Sheridan Assoc Inc, Box 37646
Cincinnati 761-5432
Ohio Sheridan Assoc Inc, Box 8226
Cleveland 216 237-9145
Okla T J Ray Co, 8514 E 31st Pl, Tulsa 627-1515
Pa JADElectronic Assoc, Inc, Box 5735
Philadelphia 455-3355
Tex W Pat Fralia Co, 6100 Camp Bowie
Ft Worth 738-2394
Can Power Service Prods Co, Box 184
Islington, Ont 239-2977
For Aeromaritime Inc, 2008 Hillyer Pl NW
Washington, DC 462-9100

ELECTRIC MACHINERY MFG CO, 800 CENTRAL AVE
MINNEAPOLIS, MINN, 55413 .... 612 FE 9-6751
C BURNS, EMP 1200, ENG 125
Ala Electric Machy Mfg Co, Box 2015, Birmingham
Ariz Electric Machy Mfg Co, Drawer 869
Phoenix .... AL 8-4551
Cal Electric Machy Mfg Co, Box 22211
Los Angeles 685-6444
Cal Electric Machy Mfg Co, 420 Market St
San Francisco .... EX 2-8296
Colo Electric Machy Mfg Co, 4949 Colorado Blvd
Denver 388-6322
DC Electric Machy Mfg Co, 1025 Vermont Ave NW
Washington 347-6400
Fla Electric Machy Mfg Co, Box 10537
Tampa 832-8111
Ga Electric Machy Mfg Co, 1677 Tullie Circle
Atlanta 633-9271
Ill Electric Machy Mfg Co, 20 N Wacker Dr
Chicago .... ST 2-7153
Ind Electric Machy Mfg Co, 4165 Millersville Rd
Indpls .... LI 6-4053
Ind Electric Machy Mfg Co, 420 S Alvord Blvd
Evansville 476-1147
Kan Electric Mach Mfg Co, Box 8226
Prairie Village .... En 2-8540
La Electric Machy Mfg Co, 1500 Lafayette St
Gretna 362-1074
Md Electric Machy Mfg Co, 333 E 25th St
Baltimore .... HO 7-3280
Mass Electric Machy Mfg Co, Box 101
Wellesley Hills .... CE 5-5822
Mass Electric Machy Mfg Co, 235 Bear Hill Rd, Waltham
Mich Electric Machy Mfg Co, 3117 W McNichols Rd
Detroit .... DI 1-8686
Mich Electric Machy Mfg Co, 1212 Edith Ave NE
Grand Rapids 459-8156
Minn Electric Machy Mfg Co, 800 Central Ave
Mnpls 339-9631
Minn Electric Machy Mfg Co, 504 Christie Bldg
Duluth .... RA 7-5773
Mo Electric Machy Mfg Co, Box 8226
Prairie Village .... EN 2-8540
Mo Electric Machy Mfg Co, 4378 Lindell Blvd
St Louis .... OL 2-2222
Mont Electric Machy Mfg Co, 829 Maryland
Butte 792-5447
NY Electric Machy Mfg Co, 110 E 42nd St
New York .... OX 7-0955
NY Electric Machy Mfg Co, 3620 Harlem Rd
Buffalo 853-3675
NC Electric Machy Mfg Co, 1409 E Boulevard
Charlotte .... ED 4-4244
Ohio Electric Machy Mfg Co, 4866 Cooper Rd
Cincinnati 791-0480
Ohio Electric Machy Mfg Co, 215 Euclid Ave
Cleveland .... CH 1-6369
Okla Electric Machy Mfg Co, Box 7573
Tulsa .... LU 5-5624
Ore Electric Machy Mfg Co, 1233 NW 12th Ave
Portland .... CA 3-7349
Pa Electric Machy Mfg Co, 1617 J F Kennedy Blvd
Phila .... LO 3-1197
Pa Electric Machy Mfg Co, 5302 Wolf Rd
Erie 833-1027
Pa Electric Machy Mfg Co, 1910 Cochran Rd
Pittsburgh 563-7603
Pa Electric Machy Mfg Co, Box 654, York 854-0217
Tenn Electric Machy Mfg Co, Box 395
Knoxville 523-0111
Tex Electric Machy Mfg Co, Box 9187
El Paso 566-9383
Tex Electric Machy Mfg Co, 2017 Fid Union Tower Bldg
Dallas .... RI 8-6691
Tex Electric Machy Mfg Co, 3701 Kirby Dr
Houston .... JA 6-3283
Utah Electric Machy Mfg Co, Box 16046
Salt Lake City 355-7464
Va Electric Machy Mfg Co, Box 8238
Richmond 288-3008
Wash Electric Machy Mfg Co, 10843 NE 8th St
Bellevue .... GL 4-2485
Wash Electric Machy Mfg Co, Box 2983
Spokane .... HU 7-1641
Wis Electric Machy Mfg Co, 5856 N Pt Wash Rd
Milwaukee .... ED 2-5140
Can Electric Machy Mfg Co, 184 Milvan Dr
Weston 741-6181
Can Electric Machy Mfg Co, 10187 104th St
Edmonton .... GA 2-6954
Can Electric Mach Mfg Co, Box 315 Don Mills
Toronto, Ont 447-5876
For Electric Machy Mfg Co, Lucerna No 78
Mexico 46-63-98
BC Electric Machy Mfg Co, 1300 W 6th Ave
Vancouver .... RE 6-0351

ELECTRIC MOTORS & SPECIALTIES INC
KING & HAMSHER STS, GARRETT
IND, 46738 .... 219 FL 7-4141
J FUHRMAN, EMP 200, ENG 6, $1,000-$2,500M

ELECTRI-CORD MFG CO INC, 312 E MAIN ST
WESTFIELD, PA, 16950 .... 814 367-2265
B GRANT, EMP 125, ENG 2, $2,500-$5,000M
Cal R N Sales Div, 20700 Dearborn St
Chatsworth 213 882-3000
Colo Fred A Pease, Box 31246, Aurora 303 364-9391
Conn Raymond Russ, 244 Mountain Rd
Windsor 203 658-6261
Ill R M Puzerewski Sales, 8159 W Balmoral Ave
Chicago 631-9545
Ind Frederick & Meily, 1601 S Hanna St
Fort Wayne 219 745-2461
Iowa In-Tek Sales Co, 2818 A Ave N E
Cedar Rapids 319 364-0833
Mass Andrew L Gutekunst Co, 46 Gates Rd
Shrewsbury 617 235-6330
Miss Herron Assoc, 4394 18th Ave
Meridan 601 482-1878
NJ A Morin, 18 Johnson Ave, Englewood ... LO 8-8511
NY R W Mitscher Co, Ellicott Sq Bldg
Buffalo 716 854-2517
Pa Victor S Malta, Box 4007, Phila 215 836-5122

ELECTRIC PRODUCTS CO, 1725 CLARKSTONE RD
CLEVELAND
OHIO, 44112, TWX 216 486-5669 ...... 216 481-1500
R PURSELL, EMP 261, ENG 15, $500-$1,000M
Cal Electric Products Co, 1255 Post St
San Francisco .... PR 5-6010
Ill Electric Products Co, 650 Roosevelt Rd
Glen Ellyn 469-7021
NJ Electric Products Co, 1307 Railroad Ave
Asbury Park 776-7669

ELECTRIC SOLDERING IRON CO INC, W ELM ST
DEEP RIVER, CONN, 06417 .... 203 526-5361
EMP 50, ENG 1
Colo Electronic Mfrs Consultants, 1619 N Royer
Colorado Springs 303 636-5131
Fla MacGregor Assoc, Box 1711
Clearwater .... 813 446-7310 or 6949
Ill H Halinton Eng Assoc, 6418 N Central Ave
Chicago 763-2131
Ind B F Homsher Co, 418 E Berry St
Fort Wayne 219 432-1164
Md Thomas H Closs, 21 W Penna Ave
Towson 825-4445
Mass RJC Assoc, 600 Main St, Waltham 899-5858
Mo Maury E Bettis Co, 3706 Broadway
Kansas City .... LO 1-0772
NY Electronic Tool Co, 3980 White Plains Rd
New York 231-7760
NY Oren G Lanzendorf Co, 513 Cumberland Ave
Syracuse .... GR 2-4195
Pa J V Calhoun Co, 349 Montgomery Ave
Bala Cynwyd 839-3000
Tenn Hillyer Tool Sales Co, Bell Meade Cove
Memphis 682-5781
Tex B Grogan Sales Co, 7508 Richland Rd
Fort Worth .... AT 4-7087

ELECTRIC TACHOMETER CORP, 6749 UPLAND ST
PHILADELPHIA, PA, 19142 .... 215 SA 6-7723
F PORTER, EMP 50, ENG 4, $500-$1,000M
Cal Pacific Coast Instrument Co, 1161 Folsom St
S F .... MA 1-1753
Cal Slocum Industries, Box 687, Reseda 345-8544
Fla CES Assoc, Box 1152, Melbourne 254-2183
Ga Rep Inc, 1483 Monroe Dr NE, Atlanta 876-1591
Haw Berkley Eng & Equip Co, Box 3856
Honolulu 581-921
Ill Johnson Eng & Sales Co, 120 E Ogden Ave
Hinsdale 325-2272
Ind Law Instrument Co, Box 95, Angola 665-6016
Mass Hardy Co, 4 Waltham St, Lexington 861-0201
Mich Tufts Equipment Co, Box 2309
Dearborn .... CR 4-0515
Mo C O Leaver Co, 2800 S Brentwood Blvd
St Louis .... WO 8-1500
NJ C G Thomson, 272 Jefferson Ave
Haddonfield 429-5233
NJ A & B Electronics Co, 14-25 Plaza Rd
Fair Lawn 797-5356
NY A & B Electronics Co, 891 Fulton St
Valley Stream 825-8955

NC Associated Agents, Box 11444 Greensboro 292-6508
Ohio Kammerer Sales Co, 3449 Observatory Ave Cincinnati 321-5494
Okla J M Henry Co, Box 3703, Tulsa .... LU 5-1234
Tex Jordan Equipment Co, Drawer V Stafford .... GY 8-6212
Wis Johnson Eng & Sales Co, 2333 W Wells St Milwaukee .... WE 3-3138
For H P Korn Associated Inc, 300 Park Ave S New York, NY .... RE 2-8757
Ital Cesare Pavone S A S, Via Del Cybo, 11/c, Milan

ELECTRIC TERMINAL CORP, 25 BELLOWS ST
WARWICK, R I, 02888 .... 401 781-2189
W MASSIE JR, EMP 50, ENG 2, $500-$1,000M
Ga C H Cloer & Assoc, 3272 Peachtree Rd NE Atlanta 231-4625
Ill J C Angel & Co, 2743 W Peterson Ave Chicago .... UP 8-0653
Ind Sales Assoc, Box 2841, Ft Wayne 627-3152
Ky R O Whitesell & Assoc, 3620 Lexington Rd Louisville 893-7303
Mich Heick & Ralph Assoc, 26847 Grand River Detroit 40 538-3350
Mo H J Weisler & Assoc, 2050 Woodson Rd St Louis .... HA 9-3934
Ohio American Magnetics, 149 Valleyview Dr Dayton 277-5122
Can R Neill Co, 5200 Yonge St Willowdale, Ont 489-1269

ELECTRIC THERMOMETERS, INC, 10 GLOVER AVE
NORWALK, CONN, 06850 .... 203 847-7265
K BISSING, EMP 25, ENG 5, $500-$1,000M
Ariz L H Freeman Co, 13263 Ventura Blvd Studio City 872-1633
Cal Schwarzschild Assoc, 363 Douglass St San Francisco 415 861-8686
Ill Arthur Clark, 6560 N Sheridan Rd Chicago 274-0304
Md Advanced Design Engrg Inc, Box 116, Cockeysville
Mass Andruss-Peskin Corp, Box 268 Natick 617 653-3919
Mich Stillings Instr Systems Co, 4850 Leafdale, Royal Oak
NY Liasson Co, 141 E 44th St, New York .... MO 1-0077
NC Earl M Seagrave Co, 5950 Fairview Rd Charlotte 704 366-5302
Ohio Twin Region Electn Sales 21010 Center Ridge Road, Cleveland
Pa Elek Weiss, 6 Barton Dr, Pittsburgh 371-3020
Pa Guidi & Beane, Marlboro Rd, Rt 1, Kennett Square
Tenn L E Dotts Assoc, 7935 Corteland Dr, Knoxville
Tex Hatfield & Co, Box 19147, Houston
Tex Hatfield & Co, Box 7072, Dallas
Va Earl M Seagrave Co, 2720 Tinsley Dr Richmond 703 272-7501
Wash Instr Engr Sales, 1331 3rd Ave Bldg Seattle .... MU 2-1123

ELECTRIX CORP, BOX 5117, ESMOND
R I, 02917 .... 401 231-1700
J KENNEDY, EMP 31, ENG 2, $1,000-$2,500M
Ill Olson Sales Co, 1005 E Washington Blvd Lombard 312 242-1410
NY Marchese-Davis Assoc, 97 Park Ave, Rochester
NY Harry Kaufman Co Inc, 200 Fifth Ave, New York City
NC B M Triggs & Assoc, Box 17844, Charlotte
Ohio H H Rauh, 1506 Pemberton Dr Columbus 614 488-3574

ELECTRO-AIR DIV EMERSON ELECTRIC CO
OLIVIA & SPROUL STS, MCKEES ROCKS
PA, 15136, TWX FAX-GXC 412 771-4900
A CONWAY, EMP 150, ENG 5, $5,000-$10,000M
Cal W R Hickey, 3337 Clay St San Francisco 415 921-6681
Cal N L King, 16656 Montego Way Tustin 714 542-1673
Conn B R Noonan, 99 Clinton Dr S Windsor 203 644-1206
Ga J S Ragan, 6048 Driftwood Trail Mableton 404 948-3703
Ill Thermal Range Prods Co, 400 N Wells St Chicago 312 644-5644
Ind C E Ray Co, 5555 N Tacoma Ave Indianapolis 317 255-7500
Iowa L L Brouwer, Ventura 515 829-3377
Ky D McAtee, Highland Country Club Ft Thomas 606 441-8864
La T M Peyton, 1223 Compromise St Kenner 504 721-7913
Md W C Mann, 6229 Fernwood Terr Riverdale 301 459-4661
Mass R E Penney, 15 Davis St, Belmont 617 484-6252
Mich Geo Crampton Co, 19956 James Couzens Dr Detroit 313 343-3883
Minn Delanel-Cardinal Co, 1222 Arcade St St Paul 612 776-2757
Mo E W Lytle, 6633 Weber Rd St Louis 314 631-8040
NY N Hill, R D 1 Salt Springs Rd Chittenango 315 687-6642
NC W S Davis, 3010 Shallowford Dr Greensboro 919 299-7076
Ohio Mussun Sales, Inc, 1547 E 18th St Cleveland 216 621-5088
Ore L A Cox, 4214 NE 27th Ave Portland 503 281-5459
Pa A J Finn, 5500 Maragretta St Pittsburgh 412 361-4054
Pa R E Barrall, 451 Benner Rd Allentown 215 395-6262
Tenn Air Control Assoc, 1700 Hayes St Nashville 615 242-6343
For Wesco Export, Ltd, 2 Park Ave Manhasset NY 516 365-9824

ELECTRO APPLICATIONS, INC, GEORGE ST
CANONSBURG, PA, 15317 .... 412 343-6772
J LAHOSKY, EMP 9, ENG 2, $100-$250M
Cal K & S West Coast, 991 Commercial St, Palo Alto
Ill Scientific Metal Treating Co, 1135 W Fullerton Ave Chicago 281-6532
NJ Hemmel Co, Box 267, Caldwell .... CA 8-2220
Pa H A Woolman Co, 4 W Manilla Ave Pittsburgh 922-2420
Pa C Potts, 318 Rettop Pl Warminster .... 215 OS 5-1905

ELECTRO ASSEMBLIES INC, 4338 W MONTROSE AVE
CHICAGO, ILL, 60641 .... 312 282-1266
D STEWART, EMP 50, ENG 4, $250-$500M
Cal Components Unltd, Box 801 San Carlos 326-1033
Ill Nu-Tronix Sales Corp, 4477 N Elston Ave Chicago 736-6023
Iowa Jerry VRBIK Co, 2818 A Ave NE Cedar Rapids 365-0461
NJ Winter Assoc, Box 104, Boonton 334-3434
Pa Cooper-Clement & Assoc, 835 Glenside Ave Wyncote 548-5450
Cal L Kidd, 2813 Gobat Ave San Diego 714 453-4712
Fla Beacon Electronics, Box 1728 Maitland 305 564-4298
Haw Paul Hanson Co, Box 2173 Honolulu 808 510-484/485
Ill H J Corey, 2538 W Peterson Ave Chicago 312 973-5300
Mass Measurement Equip Corp, 591 North Ave Wakefield 617 245-4870
Tex M Brainard Jr, 2505 Braodway Houston 713 643-6239
Va Sutter & Co, 145 Church St Vienna 703 938-0505
Wash Paratech, Box 5427, Seattle 206 783-3900
Can Instronics Ltd, Box 100 Stittsville Ont 613 836-4411

ELECTRO-CHEMICAL ENGRAVING CO INC
1100 BROOK AVE, BRONX
N Y, 10456 .... 212 LU 8-9000
S SMALL, EMP 300, ENG 4, $2,500-$5,000M

ELECTROCHIMICA CORP, 1140 O6BRIEN DR
MENLO PARK, CAL, 94025 .... 415 323-0283
R TRUMP, EMP 20, ENG 8, $250-$500M

ELECTROCHROME CORP, 11 COMMERCIAL ST
PLAINVIEW, N Y, 11803 .... 516 433-0808
M MILLER, EMP 15, ENG 3

ELECTRO CIRCUITS INC, 176 WALKER ST, LOWELL
MASS, 01854, TWX 617-45-8-840 .... 617 452-8981
S OLNEY, EMP 210, ENG 10, $2,500-$5,000M
Ala Grady-Duckett Sales Co, Box 537 Hazel Green 828-3475
NJ A Wetterhahn Co Inc, 4422 Crescent Blvd Pennsauken 662-1611
NY RC Electronics, 310 Northern Blvd, Great Neck
NY Edward Newland, 801 First Ave, Troy 235-0539

ELECTRO CONNECTIVE SYSTEMS INC
87 WESTGATE DR, BROCKTON
MASS, 02401 .... 617 588-5100
H GRANT, EMP 70, ENG 20, $500-$1,000M
Ala NBS, Inc, Box 1343, Huntsville 205 881-3175
Ariz TCI Mfrs Reps, 415 Winfield Scott Plaza Scottsdale 602 945-4554
Cal Hitemp Wires Div, 1532 S Calif Ave Monrovia 213 359-8381
Cal S Heaton Co, 3695 Haven Ave Menlo Park 415 369-4671
Cal Fred W Falck Co, Box 1733 LaJolla 714 233-3341
Colo Lindberg Co, 2654 S Krameria Denver 303 757-6489
Conn Forsberg Sales, 22 Broadway North Haven 203 239-5111
Fla NBS, Inc, 2813 Primrose Ct Orlando 305 423-4856
Fla NBS, Inc, 4150 SW 23rd St Ft Lauderdale 305 584-0650
Ga NBS, Inc, 893 Church St NW Marietta 404 422-6067
Kan Halgin Sales, 5460 Buena Vista Mission 913 722-2441
Md Ansell Engrg Co, 816 Thayer Ave Silver Spring 301 588-4222
Mass Forsberg Sales, 646 Summer St Brockton 617 588-6110
Mich Reichold Assoc, 14 Weston St SE Grand Rapids 616 459-4445
NJ Graydon-Sherman Inc, 230 Madison Ave Morristown 201 538-9246
NM TCI Mfrs Reps, 2318 Wisconsin NE albuquerque 505 298-2628
NY Graydon-Sherman Inc, Davis Bldg Fayetteville 315 637-9861
NY PAR Distributors c/o Huntington Crescent Club Box D Huntington 516 271-0330
Ohio Gallagher Co, 15 Ritchie Ave Cincinnati 513 761-1288
Pa Graydon-Sherman Inc, 835 Connell Ave Yeadon 215 664-7316
Tex Ed Coale Sales Co, 324 N Central Expwy Richardson 214 231-5856
Wash Ray Johnston Co Inc, 1011 NE 69th St Seattle 206 524-5170

ELECTRO-CRAFT CORP, 1600 S SECOND ST, HOPKINS
MINN, 55343 .... 612 935-8226
S HEIDER, EMP 100, ENG 10, $2,500-$5,000M
ADV PG 436
Cal Long & Assoc, 505 Middlefield Rd Redwood City 369-3324
Cal TechniSales Co, 3820 E Colorado Blvd Pasadena 792-3949
Fla Willet-Burnside Co, 1260A S Highland Ave Clearwater 446-0075
Ill Dimpco Inc, 5612 N Clark St, Chicago 784-7314
Mo Wells-White Co, 7607 Page Blvd St Louis .... PA 6-2511
Pa C A Briggs Assoc, Box 151, Glenside 885-2244
Tex J Y Schoonmaker Co Inc, 2995 Ladybird La Dallas .... FL 7-8481
Can Bayley-Milley Ltd, 8 Taber Rd Rexdale, Ont 244-5511

ELECTRO CUBE INC, 1710 S DEL MAR AVE
SAN GABRIEL, CAL, 91776 .... 213 283-0511
V GOTT, EMP 100, ENG 4, $1,000-$2,500M
Ariz Dubblar Assoc, 1822 E Windsor Ave Phoenix 602 277-9739
Cal Alta Sales Co, 401 S Pasadena Ave Pasadena 681-0451
Cal Nickerson-Gray & Assoc, Inc, Box 11295 Palo Alto 326-0152
Colo Banks Sales Corp, 880 Bonnie Brae Blvd Denver 303 777-5585
Fla Electro Sales Co, 304 S Bumby Ave Orlando 241-3627
Fla Conley-May Assoc, Box 668 Orlando 305 365-3283
Ill Lincoln, Hodges & Assoc, 5875 N Lincoln Ave Chicago 561-8440
Kan Penzner Assoc, Box 4362 Overland Park 381-0004
Md Mount & Co, 4853 Cordell Ave Bethesda 301 652-4845
Mass Godfrey Co, Box 68, Reading 944-2230
Mich Skip Greiner Assoc, 15318 Mack Ave Detroit 313 882-7570
Minn Electro-Serv, 1455 W Lake St Minneapolis 612 827-2907
NJ Griffin-Campbell Inc, 25 Skippack Pike Ambler 215 646-7335
NY Gislason Sales Co, 82nd St Paul St Rochester 454-4741
NY Comtronics Assoc, 1551 Franklin Ave Mineola 516 741-8966
Ohio Neal Bear Corp, 2801 Far Hills Ave Dayton 299-3566
Ohio Neal Bear Corp, 3435 Streetsboro Rd West Richfield 659-3331
Pa Nebco Assoc, 1974 Gregory Ave Monroeville 824-2111
Pa Griffin-Campbell, Inc, 25 Skippack Pike Ambler 215 646-7335
Tex Whiteside Sales, Box 22, Garland 276-8382
Wash Mount & Co, 4853 Cordell Ave Bethesda 301 652-4845
Can John Herring & Co, 3468 Dundas St, W Toronto 9, Ont 413 762-7545

ELECTRO-DATA INC, 3121 BENTON ST, GARLAND
TEX, 75040 .... 214 276-6167
G THIESS, EMP 10, ENG 3, $100-$250M
Cal Kipp Assoc, 90 Stadler Dr Woodside 415 851-0123
Cal RDP Instr, 1338 S Atlantic Blvd Los Angeles 213 263-9441
Md Bryne Assoc, 11161 New Hampshire Silver Spring 593-0667
Mich Ohio Instr, 339 Municipal Crt Bldg, Ann Arbor
Ohio Ohio Instruments, 505 Whitney Ave Worthington 614 085-0743
Can Technitron Assoc, 769 Lajoie Ave Dorval, Que 514 631-6859
Den Intelec A/S, Holbergsgade 14, Copenhagen K
Fr Salies Import, 11 Rue Leon Morane Paris 15e 250-90-79
Ger Wacker GMBH, Stettenstr 9 6 Frankfurt Am Main 55 53 54
GB Roberts Electronics Ltd, 17 Hermitage Rd Hitchin .... HI 5-0551
Holl Projecto, Prinsengracht 530 Amsterdam 234342 (2Lijnen)
Jap Seki & Co, Ltd 92-Chome Nihonbashi-Koamicho Chov-Ku Tokyo 860-4121
Swed Teleprodukter, Nybohovsgrand 56 Stockholm 18 29 30
Ind Radiosound, 42 Canady Bridge, Bombay 4 353997

ELECTRO DESIGN INC, 8141 ENGINEER RD
SAN DIEGO, CAL, 92111 .... 714 277-2471
J DEAVENPORT, EMP 3, ENG 1

ELECTRO DEVELOPMENT CORP, BOX 100, LYNNWOOD
WASH, 98036, TWX 910 449-2855 .... 206 743-1313
O SAILER, EMP 350, ENG 100, $5,000-$10,000M
Ala Astro-Tec, 3322 Memorial Pkwy SW Huntsville 881-1861

Cal Egbert Engineering of Cal, 801 Welch Rd
Palo Alto 326-1387
Cal Fred J Snyder & Assoc, 20935 Roscoe Blvd
Canoga Park 341-6444
Fla Astro-Tec, 1980 N Atlantic Ave
Cocoa Beach 305 783-6581
Mo Fen-Co Assoc, 8003 Forsyth Ave
Clayton 314 863-0231
NY The Barker Co, 288 Old Country Rd
Mineola 746-0481
Va Gans-Fryling Inc, 2030 16th St N
Arlington 527-3262

ELECTRO-DEVICES INC SERVOSPEED DIV
4-6 GODWIN AVE, PATERSON
N J, 07501 .... 201 274-8989
O CARLSON, EMP 18, ENG 2, $500-$1,000M
Ind Industrial Transmission Equip, Inc
1147 Mishawaka Ave, South Bend
Mass Stanwood Assoc, Box 112
Sherborn.................... 617 655-2597
NJ Frederick E Kent, Deerhaven, Mahwah
Ohio Wagner-Smith Co, Box 672, Dayton
Pa William D Staats, 2766 Murray Ave
Cornwells Heights
Wash Picatti Brothers Inc, 105 S 3rd Ave, Yakima

ELECTRODYNE DIV BECTON, DICKINSON CO
15 SOUTHWEST PARK, WESTWOOD
MASS, 02091 .... 617 329-1030
M CALLUM
Cal D Morgan, 801 S Arroyo Pkwy
Pasadena 449-6022
Cal K Beardsley, 657 S Van Ness
San Francisco 415 861-7877
Colo L Berlin, 1255 Ogden St, Denver 303 825-8455
Ga C Hayward, 5621 Peachtree Ind Blvd
Chamblee.................... 231-3141
Ill H Osterberg, 315 Miller La, Wooddale.... 766-6611
Mass L Hunter, 3 Pleasant St, Hingham........ 749-1075
Mich R Wrona, 3922 Vassar Ave
Dearborn Heights 562-7744
Minn Robert Lahay, 333 Maple Lane Ct
St Paul.................... 484-3419
Mo R Brandt, 7347 Cartwheel La
Hazelwood.................... 839-3031
NJ F Robertson, 234 Garfield Ave
Collingswood.................... 609 854-8638
NY Samuel Lasky, 98 Ketchum Rd
Hicksville.................... WE 5-2958
NC F Warren, 51 Woodbury Rd, Asheville 252-9947
Ohio L Perlman, 307 E 4th St
Cincinnati.................... 513 721-3031
Tenn T Bigham, 3294 Poplar St
Memphis 901 327-5366
Tex T C Thompson, 2411 Times Blvd
Houston 522-8015
Tex Chas Bolding, Box 30621, Dallas 278-2489
Va E Greene, 635 Fernwood Dr
Salem.................... 703 389-4287
Can J Fortin, 2464 S Sheridan Way
Clarkson, Ont.................... 278-9202

ELECTRO-ETCH CIRCUITS INC, 7112 S VICTORIA AVE
LOS ANGELES, CAL, 90043 .... 213 752-6111
P MAYER, EMP 20, ENG 3

ELECTROFILM, INC, 7116 LAUREL CANYON BLVD
NORTH HOLLYWOOD
CAL, 91605, TWX 910 499-2663........ 213 875-1000
L HORWEDEL, EMP 160, ENG 12, $2,500-$5,000M
Ala Holcombe Sales Agency, Box 1343
Huntsville 881-3175
Ariz Fred Schoeffler Assoc, 6912 E Horseshoe Rd
Scottsdale 948-3470
Cal Westec Elctns, Inc, 110 First St
Los Altos 327-5850
Colo O'Brien Sales Agency, 2785 N Speer Blvd
Denver 477-4713
Fla Holcombe Sales Agency
2827 Cullen Lake Shore Dr, Orlando.... 855-2455
Ga Holcombe Sales Agency, 3098 Piedmont Rd, N E
Atlanta 233-2837
Ill Electrofilm, Inc, 5400 Janes Ave
Downers Grove 969-6052
Ill Malovac Sales Co, 1726 N 76th Ct
Elmwood Park 637-9090
Ind Southern Sales Co, 105 Lakeshore Dr
Angola 665-3961
Mich Grant Shaffer Co, 14241 Fenkell Ave
Detroit 273-5390
Minn William B Odegard, Inc, 6504 Walker St
Minneapolis.................... 929-2226
NJ Electrofilm, Inc, 2 Fellowship Rd
Cherry Hill.................... 428-6300
Ohio Components Inc, 7461 N Linden La
Cleveland 842-2737
Ohio Components Inc, 11820 Knollsprings
Cincinnati.................... 825-8686
Tex Roger A Luce, 617 Scottsdale Dr
Richardson 231-3920
Wash Martin Poggi Co, Box 786, Bellevue...... 454-2026

ELECTRO-FLEX HEAT INC, NORTHWOOD IND PK
BLOOMFIELD
CONN, 06002, TWX 710 425-2978...... 203 242-6287
R RAVENSCROFT, EMP 50, ENG 5, $500-$1,000M
Cal Winco Inc, Box 881
Mountain Veiw 415 961-8510
Cal Don Weaver & Assoc, 13218 Crenshaw Blvd
Gardena 213 321-8962
Colo Franklin Sales Co, 2149 S Clermont St
Denver 303 757-0734

Fla H R Webb Assoc, 409 Oak Lynn Dr
Orlando 305 855-5257
Ill Raines & Assoc, 636 Charlemagne Dr
Northbrook.................... 312 272-9129
Ind F E Menze, 6010 Lower Huntington Rd
Ft Wayne 219 747-5616
Mass Representatives Corp, 10 High St
Boston 617 426-0541
Mich R T Mathews & Co, 20441 James Couzens Hwy
Detroit 313 835-5200
Minn E Melius & Assoc Inc, Box 2606
St Paul.................... 612 484-8541
Mo Maury E Bettis Co, 3706 Broadway
Kansas City 816 561-0772
NJ R Lawson Assoc, Box 206
Wenonah 609 857-1515
NJ Unicomp, 18 Sunny Ridge Rd
Wayne 201 696-2888
NY J P Scanlon Co, 51 Bloomfield Pl
Rochester.................... 716 473-7553
NC Winco Sales Assoc, Box 1022
Raleigh.................... 919 772-4269
Ohio Norco Indus Sales Corp, 3439 W Brainard Rd
Cleveland 216 831-5191
Pa Angus McArn Co, Box 11127
Pittsburgh.................... 412 366-1533
Tex Kanowsky Sales Engineers, Box 35184
Dallas.................... 214 352-8431
Wash Technical Sales Co, Box 3143
Seattle 206 723-4982
Wis Kramer Indus Sales Co, 4117 W North Ave
Milwaukee.................... 414 442-9680
Can S C Hooker Ltd, 144 Ronald Dr
Montreal, Que 514 488-9114
Can Samuel C Hooker Ltd, 2602 St Clair Ave W
Toronto Ont 416 767-7725

ELECTROFORMS INC, 239 E GARDENA BLVD
GARDENA, CAL, 90247.................... 213 321-2905
T LARSEN, EMP 55, ENG 2, $250-$500M

ELECTROGLAS INC, 150 CONSTITUTION DR
MENLO PARK
CAL, 94025, TWX 910 373-1214........ 415 325-1536
B GOTTLIEB, EMP 120, ENG 14, $2,500-$5,000M
Ala Newcomb Assoc, Box 3244
Huntsville 205 852-0304
Cal R E Henriks & Assoc, 4900 Double Dr
Elmonte 442-1820
Cal Electroglas Inc, 150 Constitution Dr
Menlo Park 325-1536
Ill Carter Electns, Inc, 7203 S Western
Chicago 312 776-1601
Minn Carter Elctns, Inc, 2401 West 66th St
Minneapolis.................... 612 869-3261
Miss Newcomb Assoc, Box 1871
Hattiesburg 583-1804
Mo Harris-Hanson Co, 2814 S Brentwood Blvd
St Louis 647-4350
Mo Harris-Hanson Co, 7916 Paseo St
Kansas City 444-9494
NJ Electroglas, Inc, 22 E Quackenbush Ave
Dumont 201 384-2800
Ohio WKM Assoc Inc, 6741 Ridge Rd
Cleveland.................... 885-5616
Ohio WKM Assoc Inc, 5335 Far Hills Ave
Dayton 513 434-7500
Pa WKM Assoc Inc, 90 Clairton Blvd
Pittsburgh.................... 892-2953
Tex Electroglas, Inc, 3251 Latham Dr
Dallas.................... 214 276-7600
Can Intl Scientific of Canada, Box 6200, Sta J
Ottawa, Ont
Fr Technique et Prod, Rue Carle-Vernet
Cite des Bruyeres, Sevres 92 408-14-00
Fr Villa Les Glycines, Traverse De La Luciolle
Petit Roquefavour, 13 Aix en Provence
Fr Sci Du Bois de Picot, Pavillon 18, 33 Eysines
Ger Electroglas GmbH, Herterichstr 9
8 Munich 71 797846
GB E P A K Assoc, 73 Cherry Orchard Rd
Croydon .... CR 9 6AH
Ital Hulss & Cappelli, Vai G Lazzaroni 4, Milano
Jap Tokyo Electron Labs, TBS Kaikan Bldg
Akasaka, Minato-ku, Tokyo
Swit Werner Stolz, Ingenieurbureau
Dorngasse 311, 8967 Widen 05777440
Belg Belram, S A, 83 Ave des Mimosas, Brussels 15
Isrl Intradco, 58/60 Moriah St, Haifa........... 8-4455

ELECTROID CORP, 95 PROGRESS ST, UNION
N J, 07083 .... 201 686-8290
J WILSON, EMP 100, ENG 7, $1,000-$2,500M
Ariz Jarko Assoc, 2032 N 27th Ave
Phoenix 602 272-2684
Cal Willard Engineering Co, 2709 S Hill St
Los Angeles.................... RI 7-0538
Cal Edward L Parsons Co, 3640 Grand Ave
Oakland ....415 TW 3-1577
Conn Tor-Axial Drive Components, Box 193
Unionville 673-3592
Ill Automation Kinetics & Controls, 331 N Austin Blvd
Chicago 379-3755
Mich Cliff Engineering Co, 1104 Gladstone, S E
Grand Rapids.................... 616 241-4070
NY John G Rubino Inc, 313 State Tower Bldg
Syracuse 471-5179
NY Bittan Assoc, Inc, 381 Sunrise Hwy
Lynbrook.................... 593-3833
Ohio Zenith Engineering Sales Co, 3344 Broadview Rd
Cleveland 661-0104
Ohio Paul C Cramer Co, 5945 Ridge Ave
Cincinnati.................... 513 531-9800
Pa E T C Sales, Box 101, Radnor 687-1360
Pa Walter Laska, 530 Sixth Ave, Pittsburgh .. 281-6162

Wash Ted Bender Co, 1938 Fairview E
Seattle .... 206 EA 3-3600

ELECTRO IMPULSE LAB INC, 116 CHESTNUT ST
RED BANK
N J, 07701, TWX 710-722-5767 .... 201 741-0404
M RUBIN, EMP 45, ENG 3, $500-$1,000M
Ala NBS., Inc., Box 1343, Huntsville.... 205-881-3175
Cal RF Assoc, 1621 Pontius Ave
West Los Angeles.................... 213-478-1586
Cal R F Assoc, 800 San Antonio Rd
Palo Alto 415-327-5531
Fla NBS, Inc, 2813 Primrose Ct
Orlando 305-423-4856
Fla NBS, Inc, 4150 S W 23rd St
Ft Lauderdale.................... 305-584-0650
Ga NBS, Inc, 893 Church St NW
Marietta 404-422-6067
Md Scientific Mktg Assoc, 8817 Hunting La
Laurel 301-776-5130
Mass Addelco Corp, 56 Pickering St
Needham 617-444-4754
Mich Tiby Co, 380 Hilton Rd, Ferndale 313-547-3550
NJ Bonn Assoc, 266 Lake Ave
Metuchen 201-549-9573
NY Bonn Assoc, 9 Ridge Dr
Huntington Station 516-427-4328
NY Lightstone Corp, E Molloy Rd
Syracuse.................... 315-454-3209
Ohio Tiby Co, 2245 Warrensville Ctr Rd
Cleveland.................... 216-371-5335
Ohio Tiby Co, 1960 N Main, Dayton 513-277-3822
Pa Bonn Assoc, 7217 Rising Sun Ave
Philadelphia 215-725-2210
Tex Chas Hoffman Assoc, 777 S Central Expwy
Richardson.................... 214-235-3600
Can Conway Elctns Enterprises, Ltd, 88-90 Arrow Rd
Weston, Ont
For Rocke Intl, 13 E 40th St
New York, NY 212 689-0200

ELECTRO-KINETICS CORP DIV EPD IND INC
2063 E 223RD ST, LONG BEACH
CAL, 90810 .... 213 775-3253
L HUBBARD, EMP 20, ENG 4, $250-$500M
Cal Kintec Inc, 9869 Santa Monica Blvd
Beverly Hills 274-5384

ELEC-TROL INC, 21018 SOLEDAD CANYON RD
SAUGUS, CAL, 91350 .... 805 259-7570
K DORIOT, EMP 100, ENG 6, $1,000-$2,500M
Ala Frank C Nickerson Co, Box 1505
Huntsville 881-9565
Cal Ruby Sales Corp, 1265 E Camino Real
Santa Clara 243-1694
Cal Carl E Holmes Co, 107 N Ave 64
Los Angeles.................... 256-2255
Colo Electronic Component Sales, Inc, 2340 W Main St
Littleton 798-8481
Conn N P M Assoc, Inc, 522 E Putnam Ave
Greenwich 869-4955
Conn NP M Assoc Inc, 522 E Putnam Ave
Greenwich 869-4955
Fla Frank C Nickerson Co, 4513 S Cameron Ave
Tampa 833-4321
Ga Frank C Nickerson Co, 1244 Clairmont Ave
Decatur.................... 377-1575
Kan Maury E Bettis Co, 423 N Fountain
Wichita.................... 685-7441
Mo Maury E Bettis Co, 3706 Broadway
Kansas City .... LO 1-0772
Mo Maury E Bettis Co, 9103 Bessemer Ave
St Louis 429-2099
NM Electronic Component Sales, Inc, Box 3087 Sta D
Albuquerque.................... 344-3987
NC Frank C Nickerson Co, 4332 University Dr
Charlotte 525-2682
Ohio R G Sidnell & Co, 3400 S Dixie Dr
Dayton 293-1194
Ohio R G Sidnell & Co, 14701 Detroit Ave
Cleveland.................... 221-1313
Pa John Mustico Co, 206 Bewley Rd
Havertown .... HI 6-1961
Tex Allied Components, Inc, 4234 Richmond Ave
Houston .... MO 4-4203
Tex Allied Components, Inc, 10468 E Northwest Hwy
Dallas.................... DI 8-6660
Utah Electronic Component Sales, Inc, Box 2066
Salt Lake City 278-6044
Wash Ray Over Sales, 1615 103rd Ave, S E
Bellevue.................... GL 4-4551
Can Whittaker Electronics Ltd, 42 Howden Ave
Ottawa, Ont.................... 224-1221
For Madison Overseas, Inc, 433 Liberty St
Schenectady, N Y 372-5841

ELECTROLUBE LTD, OXFORD AVE, SLOUGH
ENGLAND .... SLOUGH 25574
J PAGDIN, EMP 14, ENG 3
Can Charles W Pointon Ltd, 66 Racine Rd
Rexdale, Ont .... CH 7-8777
For Leong Bros, Box 360, Hong Kong 30854
For B Thorvaldsson, Karfavogur 24, Reykjavik
For Abdulla C Marzouca Ltd, 157 Orange St, Kingston
For Bharka Radio & Electrical Service, 36 Norris Rd
Singapore.................... 21229
For Rualdo Lda, Rua De S Jose 15, Lisbon 30676
For Brownlee Bros Ltd, 32 Molesworth St
Dublin 67201
Den E V Johanssen A/S, Scherfigsvej 1
2100 Copenhagen.................... Palae 7304
Fr Film Et Radio, 6 Rue Denis-Poisson
Paris 17 380-24-62

Ger Liqui-Moly GmbH Electrolube Deutschland
79 Ulm-Donau, Postfach
GB Electrolube Ltd, 16 Berkeley St
London W I .... Mayfair 7654
Holl Electrolube (Nederland), Aelbrechtskade 150c
Rotterdam 238267
Ital GBC Italiana SAS, Viale Giacomo Matteotti 66
Milano 92 89 391
Jap USC Intl Co Ltd, 7, 4-Chome Akasaka Tamachi
Tokyo 583-8534
Nor Hefro Teknisk A/S, Trondheimsveien 80
Oslo 5 .... 38 10 88
SAfr Engineering Products (Pty) Ltd, Box 31619
Braamfontein Johannesburg 724-7371
Swed Bo Palmblad A/B, Hornsgaten 58
Stockholm SV 24 61 60
Swit Egli, Fischer & Co Ltd, Gotthardstr 6
Zurich 25 02 34
Arg Malek Reps, Rodrigues Pe[illegible]a 486
Buenos Aires 49-0545
Belg Matelectric SPRL, 199 Boulevard Leopold II
Brussels 26 99 83
Gr A K Piperides & Sons Ltd, 30-A Evagoras Ave
Nicosia 6234
Ind Maurice Roche Ltd, Box 61, Colombo 6246
Ind Killick Nixon & Co Ltd, Box 109, Bombay
Isrl Lachman Ltd, Box 8024, Haifa 54453
NZ P H Rothschild & Co Ltd, Box 170
Lower Hut 63-581
Spn Radio Saturno, Box 501, Barcelona 2320992
Fin Eri Oy, Box 10428, Italandenk 10/12 .... 64 06 26
Aust Richard Foot Ltd, Box 78, Crows Nest NSW

ELECTROMAGNETIC RADIATION LABS INC
240 ARLINGTON ST, WEST ACTON
MASS, 01720 .... 617 263-3356
J BORNHEIM, EMP 8, ENG 5, $100-$250M
Mass Zieco, Inc, 18 Muzzey St
Lexington 617 861-8300
NY Maloy, Stagnitti & Co, 4 Horizon Rd
Fort Lee 516 224-6911
Va Schibley Assoc, 10604 Warwick Ave
Fairfax 703 591-3008

ELECTROMAGNETIC TECHNOLOGY CORP, 486 ELLIS ST
MOUNTAIN VIEW
CAL, 94040, TWX 910-379-6946 .... 415 968-2062
W EDSON, EMP 387, ENG 58, $5,000-$10,000M
Ala NBS, Inc, 902 Bob Wallace Ave, SW
Huntsville 536-7786
Ariz Shefler-Kahn Co, Box 1587
Phoenix 602 258-7893
Cal Waldman Assoc, 1094 W Evelyn Ave
Sunnyvale 245-2500
Cal American Elctn Labs, 8939 S Sepulveda Blvd
Los Angeles 213 670-8755
Colo Edward W Johnson Co, 10130 W Asbury Ave
Denver
Fla NBS, Inc, 2813 Primrose Ct
Orlando 305 423-4856
Fla NBS, Inc, 4150 SW 23rd St
Ft Lauderdale 305 584-0650
Ga NBS Inc, 893 Church St NW
Marietta 404 422-6067
Haw Harkom Hawaii Inc, 630 Piikoi St
Honolulu 587-178
Ill Midwest Microwave, 6414 W Belmont Ave
Chicago 312 283-1051
Kan Penzer Assocs, Box 6264
Overland Park 381-0004
Mass Addelco Corp, 56 Pickering St
Needham 444-4754
Mo Penzner Assoc, Box 1912, Bechtold Sta
St Louis 314 351-1547
NJ Bonn Assoc, 266 Lake St
Metuchen 201 549-9573
NM Shefler-Kahn Co, Box 8342, Albuquerque
NY Lightstone Corp, E Molloy Rd
Syracuse 315 454-3200
Ohio Mulligan & Mathias, 2011 Riverside Dr
Columbus 614 486-2976
Pa Amer Electronic Labs, Inc, Richardson Rd
Colmar 822-2929
Pa Bonn Assoc, 7217 Rising Sun Ave
Philadelphia 215 725-2210
Tex G Weinreich & Assoc, 11554 E Northwest Hwy
Dallas 321-2800
Utah Space Systems Sls & Engrg Inc, 429 W 500 S
Bountiful 295-6464
Va Amer Electronic Labs, Inc, 6629 Iron Pl
Springfield 354-5700
Wash Cane-Jessup, Box 250, Bellevue 454-0691

ELECTRO MFG CORP, HAZELHURST
WIS, 54531 715-356-6155
E DALLIG, EMP 30, ENG 1
NY Irv Morse Sales, 2351 E 65th St
Brooklyn .... CO 7-2913

ELECTRO MARINE CORP, 4 ROBBINS RD, FALMOUTH
MASS, 02540 .... 617 548-2386
H BURNS, EMP 10, ENG 2, UP TO $100M

ELECTRO MATERIALS CORP
11620 SORRENTO VALLEY RD, SAN DIEGO
CAL, 92121, TWX 910-322-1130 .... 714 459-4355
A THURSTON, EMP 250, ENG 8, $2,500-$5,000M
Ala Compar Southern, 904 Bob Wallace Ave
Huntsville 539-8476
Ariz Compar Rocky Mtn, 84 W 1st St
Scottsdale 947-4336
Cal Compar Sn Francisco, 1817 Bayshore Hwy
Burlingame 697-6244
Cal Compar Los Angeles, 434 W Colorado Blvd
Glendale 245-1172
Colo Compar Rocky Mtn, 300 E Hampden Ave
Englewood 781-0912
Conn Comar New England, 2357 Whitney Ave
Hamden 288-9276
Fla Compar Florida, Box 13109, Orlando 855-3964
Ill Compar Midwest, 2 Talcott Rd
Park Ridge 692-4125
Md Compar Chesapeake, 7 Church La
Baltimore 484-5400
Mass Compar New England, 88 Needham St
Newton Highlands 969-7140
Mich Compar Midwest, 21250 10 1/2 Mile Rd
Southfield 357-5369
Minn Compar Twin Cities, Box 8095
Minneapolis 922-7011
Mo Midwest, 11734 Lackland Ind Dr, ... 542-3399
NM Compar Rocky Mtn, 2125 San Mateo Blvd
Albuquerque 265-1020
NY Compar Albany, 419 Central Ave
Albany 436-8536
NY Compar New York, 335 Crossway Pk Dr
Woodbury 921-9393
NC Compar Southern, 1106 Burke St
Winston-Salem 724-0750
Ohio Compar Ohio, Box 388, Fairborn 878-2631
Ohio Compar Ohio, Box 4791, Fairview Park 333-4120
Pa Compar Phila, 15 Potter St
Haddonfield 429-1526
Tex Compar Southwest, 8609 N-W Plaza Blvd
Dallas 363-1526
Tex Compar Southwest, 5757 Bellaire Blvd
Houston 667-3420
Wash Compar Northwest, 6133 Maynard Ave S
Seattle 763-1711

ELECTRO MATERIALS CORP OF AMERICA
605 CENTER AVE, MAMARONECK
N Y, 10543 .... 914 698-8434
G LANE
Ala Necomb Assoc, Box 3244
Huntsville 205-539-3274
Ariz Allen Assoc, Box 3091 Papago Sta
Scottsdale 945-5781
Cal Dahlin & Assoc, 12356 Obrad Dr
Saratoga 408-257-0121
Cal R E Henriks & Assoc, 4900 Double Dr, El Monte
Ill Technical Sales Assoc, 1160 Kenton Rd
Deerfield 312-286-2535
Mass J Q Neenan Assoc, Box 203, Sudbury 893-0914
NJ H R Court Sales Corp, Box 166, Asbury
NY Waters Metal Prods Inc, 290 Larkin St, Buffalo
Can Waters Metal Prod Ltd, Box 492
Fonthill, Ont .... TI 2-3057

ELECTROMATIC EQUIPMENT CO, 562 ALBEMARLE PL
CEDARHURST, N Y, 11516 .... 516 295-4300
S HARRIS, EMP 5, ENG 1, UP TO $100M

ELECTRO MECHANICAL CORP, S ELMER AVE, SAYRE
PA, 18840 .... 717 885-0281
P LACESA, EMP 400, ENG 7, $2,500-$5,000M

ELECTRO-MECHANICAL INSTRUMENT CO, INC
813 CHESTNUT ST, PERKASIE
PA, 18944, TWX 510-661-5170 .... 215 257-6561
R JONES, EMP 130, ENG 4, $1,000-$2,500M
ADV PG 795
Cal C E Holmes Co, 107 N Ave 64
Los Angeles .... CL 6-2255
Cal D H Ross Co, 534 El Camino Real
San Carlos 591-4411
Colo Koether-Cox Co, 1327 S Inca St
Denver .... PE 3-5561
Fla Industronics Inc, 47 E Overbrook Dr
Largo 584-1829
Ill Ropek-Cahill Inc, 5439 W Division St
Chicago .... AU 7-7292
Ind R O Whitesell & Assoc, 6620 E Washington St
Indnpls .... FL 9-5374
Ind R O Whitesell & Assoc, Central Bldg
Ft Wayne 743-4411
Ky R O Whitesell & Assoc, 3620 Lexington Rd
Louisville 893-7303
Md Leff Sales Assoc, 408 York Rd, Towson 823-0774
Mass Anderson Sales Co, 177 State St
Boston .... CA 7-2980
Minn H M R, Inc, 9 E 22nd St, Minneapolis 335-7734
Mo Ridgewood Sales Co, 8754 Big Bend Blvd
St Louis 961-0992
NJ Leff Sales Assoc, 5900 Westfield Ave
Pennsauken 663-4025
NY F W Taylor Co, 4455 E Genesee St
DeWitt 446-0422
NY D Sonkin Assoc, 10 Fiske Pl
Mt Vernon .... MO 8-9809
NC Electro-Rep Assoc Inc, 128 W 30th St
Charlotte 333-0451
Ohio R M Nelson Inc, One Public Sq
Cleveland 241-4581
Tex Campion Sales Co, Addison Arpt Box 396
Addison 214 239-9196
Wash F H Haight Co, 3212 Eastlake Ave
Seattle .... EA 2-1818
Can Desser Electronics Corp, 2425 Grand Blvd
Montreal 514 487-2300
For M Simons & Son Co Inc, 150 Broadway
New York, N Y 227-5513

ELECTRO-MECHANICS CO, BOX 1546, AUSTIN
TEX, 78767 .... 512 GL 28881
D MALONE, EMP 50, ENG 12, $500-$1,000M

ELECTRO-MECHANISMS INC, 407 W CHESTNUT AVE
MONROVIA, CAL, 91016 .... 213 358-2549
G MARTIN, EMP 8, ENG 2, $100-$250M
Cal Lebell-Warren Assoc, Box 246
San Carlos 593-7688
Cal Kirk-Anderson Sales, 666 E Ocean Blvd
Long Beach 436-9756
Colo Regan Assoc, 1188 E Easter, Littleton 794-6477
Fla Lynch-Gentry Assoc, 6671 1st St S
St Petersburg 347-5131
Ill Feller Assoc, 3065 University Ave
Highland Park 433-3646
Mass Drew Assoc, 50 The Great Rd, Bedford 275-7232
Minn Howard Carlson Co, 100 N 7th St, Minneapolis
NJ R P Luce & Co, Inc, Short Hills 379-6600
NY John Shea Assoc, 7172 Transit Rd
Williamsville 634-0206
Ohio Harvey Teplitz & Co, 3945 Meadow Brook Blvd
Cleveland 371-2044
Ohio Harvey Teplitz & Co, 3718 Salem Ave
Dayton 277-9178
Pa R P Luce & Co Inc, 8717 Patton Rd
Phila 884-8365
Tex Robert R Thomas Co, 8616 Northwest Plaza Dr
Dallas 363-8591

ELECTRO-MECHANISMS, INC, 29 CROWN ST, NASHUA
N H, 03060, TWX 710-228-1663 .... 603 889-2611
H DIXON, EMP 200, ENG 15, $2,500-$5,000M
Ala 20th Century Mktg Inc, 902 Bob Wallace Ave SW
Huntsville 205 536-1596
Ariz Carter Assoc, 201 W 1st St, Scottsdale 947-4355
Cal Cirna Assoc, 1418 N Highland Ave
Hollywood 213 464-4064
Fla W Ben Wimberly Corp, 532 S Fort Harrison Ave
Clearwater 813 446-7072
Ill Lightner Assoc, 6322 N Milwaukee Ave
Chicago 312 774-1500
Mass Lancer Kneeland Assoc, 16 Adams St
Burlington 617 862-7782
NJ Bonn Assoc, 266 Lake Ave
Metuchen 201 549-9573
NY L-Tron Corp, Box 147, Skaneateles 315 685-6172
Ohio Compar Ohio, Box 4791
Fairview Park 216 333-4120
Tex Carter Assoc, 400 Forrest Gate La
Garland 276-7151
Wash Compar Northwest, 6133 Maynard Ave S
Seattle 206 763-1711

ELECTRO-MECH COMPONENTS INC
1039 E VALLEY BLVD, SAN GABRIEL
CAL, 91776, TWX 910 589-3382 .... 213 283-9213
W TRUMBULL, JR, EMP 175, ENG 10, $1,000-$2,500M
Ala Estes Assoc, Inc, 8018 Craigmont Rd, S W
Huntsville 881-5470
Ariz AR/TEC, Inc, 14 E Stetson Dr
Scottsdale 947-6304
Cal James S Heaton Co, 3695 Haven Ave, Menlo Park
Conn Todino Engineering Sales Co, Box 402
Milford 874-6643
Fla Estes Assocs, Inc, 629 N Lake Barton
Orlando 277-1510
Ga Estes Assocs, Inc, 533 Decatur Fed Bldg, Decatur
Ill Lightner Assocs, Inc, 6322 N Milwaukee Ave
Chicago 774-1500
Md Quality Components, Inc, Box 711
Rockville 933-1623
Mass Todino Engineering Sales Co, Box 201
Needham Hgts 444-7925
Mich Burcaw & Co, 18236 W McNichols
Detroit 533-7700
Mo Gordon Fixman Engrg Co, 8160 Stanford Ave
St Louis 725-5219
Mo Ozark Electronics, 2573 Woodson Rd, St Louis
NM AR/TEC, Inc, 2800 Cardenas Dr, N E
Albuquerque 268-3324
NY Bassin Technical Sales Co, 52 Fayette Rd, Scarsdale
Ohio Scott Electronics, Inc, 1836 Euclid Ave
Cleveland 861-2626
Pa Chas J McGowan Co Inc, 81 Old York Rd
Willow Grove
Tenn Glidden Engrg & Equip Co, 3802 Winchester St
Houston 224-6471
Tex Glidden Engrg & Equip Co, 4924 Greenville Ave
Dallas 729-0641
GB G E Industrial Supplies, Ltd
182 Campden Hill Rd, Kensington
London W8 .... PAR 5008

ELECTRO-MEC INSTRUMENT CORP
183 COMMERCIAL ST, WATERTOWN
CONN, 06795, TWX 710-478-0387 .... 203 274-5431
R CARTIER, EMP 78, ENG 3, $500-$1,000M
Ala Component Sales Corp, Box 899
Huntsville 205 539-6973
Cal Nytronics Inc, Box 37, Tustin 714 538-1260
Colo J F Hurlbut Co, 2240 S Adams St
Denver 303 756-2046
Fla Component Sales Corp, Box 14523
Orlando 305 277-1510
Fla Component Sales Corp, Box 9545
St Petersburg 813 360-7460
Ill S A R G E Inc, 1915 N Harlem Ave
Chicago 312 237-4343
Mass Components Sales Corp, 1644 Mass Ave
Lexington 617 862-1633
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield 313 357-3700
Minn Carl-M Co, 1926 Wellesley Ave
St Paul 612 699-8004
NY Electro-Rep Inc, 380 N Broadway
Jericho 516 938-0540
NY Components Sales Corp, 221 E Hartsdale Ave
Hartsdale 914 725-1050

NC Component Sales Corp, Box 6401
Raleigh 919 832-1897
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland 216 442-8080
Ohio S Sterling Co, 3300 S Dixie Dr
Dayton 513 298-7573
Okla Southwest Elec Inds, 2015-C S Lakewood
Tulsa 918 835-2481
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh 412 884-5515
Tex Southwest Elec Inds, 621 Meadows Bldg
Dallas 214 363-1671
Tex Southwest Elec Inds, 1405 S Post Oak Rd
Houston 713 621-3760
Wash J C Plate Co, 585 Dexter Horton Bldg
Seattle 206 624-1673
Can Nytronics of Canada Ltd, 68 Wall St
Trenton Ont 613 392-6544

ELECTRO-MED INSTRUMENTS INC, 5525 PINE ST
HOUSTON, TEX, 77036 .... 713 664-9444
J ROSSON, EMP 15, ENG 3, $100-$250M
Cal C Smith, 740 N Lake St, Burbank
Cal EME, 1610 Harrison St, Oakland
Colo Applied Technical Prods, 2229 Oneida St, Denver
Fla Blair Instruments, 1065 97th St, Miami Beach
Ill Medtron Chicago Inc, 9665 Allen Ave, Rosemont
La Medical Specialty Co, 6801 Veterans Hwy
New Orleans
Mo Medtron Midwest, 7530 Big Bend Blvd, St Louis
NY Instrumentation Assoc, 17 W 60th St, New York
Ohio The Dann Co, 1801 E 40th St, Cleveland
Tex Medical Specialty Co, 3500 E Vickery, Ft Worth
Can Electro Design Ltd, 9124 St Lawrence Blvd
Montreal, Que

ELECTRO-METRICS CORP SUB FAIRCHILD CAM & INSTR CORP, 100 CHURCH ST, AMSTERDAM
N Y, 12010 .... 518 843-2600
D SAMUELSON, EMP 200, ENG 10, $2,500-$5,000M
Ala E G Holmes Assoc, 4862 Governors Dr W
Huntsville 837-6900
Ariz F Y Gates Co, 732 S Elm St, Mesa 969-4421
Cal Electro-Metrics Corp, 1616 Victory Blvd
Glendale 245-1196
Colo F Y Gates Co, 3401 S Bannock
Englewood 761-0591
Conn Applied Measurements Inc, 2335 A Whitney Ave
Hamden 288-5288
Fla Griggs Assoc, Box 13542, Orlando 855-4871
Ga E G Holmes & Assoc, 3667 Clairmont Rd
Chamblee 451-6161
Ill Carter Electronics Inc, 7203 S Western Ave
Chicago 776-1601
Ind Carter Electronics Inc, 6333 Hollister Dr
Indianapolis .... AX 3-0696
Kan Harris-Hanson Co, 7916 Paseo
Kansas City .... HI 4-9494
Md Gawler-Knoop Co, 1751 Rockville Pike
Rockville 427-3950
Mass Applied Measurements Inc, 86 Hayward Rd
Acton .... CO 3-2766
Mich WKM Assoc Inc, 1474 E Outer Dr
Detroit 892-2500
Minn Carter Electronics Inc, 2401 W 66th St
Minneapolis 869-3261
Mo Harris-Hanson Co, 2814 S Brentwood Blvd
St Louis .... MI 7-4350
NJ Gawler-Knoop Co, 14 Beaufort Ave
Roseland .... CA 6-4545
NM F Y Gates Co Inc, 2631 Texas NE
Albuquerque 298-1875
NY J A Reagan Co Inc, 41 Woodberry Rd
New Hartford 732-3775
NY J A Reagan Co Inc, 52B Crestmont Rd
Binghamton 723-9661
NY J A Reagan Co Inc, 6 Highland Ave
Albany 489-4777
NY J A Reagan Co Inc, 891 Monroe Ave
Rochester 473-2115
NY J A Reagan Co Inc, RD 3 Meadow Hill Rd
Newburgh 561-4510
NC E G Holmes & Assoc, 430 W Gaston St
Greensboro 272-0855
Ohio WKM Assoc Inc, 5335 Far Hills Ave
Dayton 434-7500
Ohio WKM Assoc Inc, 6741 Ridge Rd
Cleveland 885-5616
Pa Gawler-Knoop Co, Box 414, Richboro .... WA 5-7550
Pa WKM Assoc Inc, 90 Clairton Blvd
Pittsburgh 892-2953
Tex Mitchell Speairs Co, 4944 James Ave
Ft Worth .... WA 3-4657
Tex Mitchell Speairs Co, 7727 Arrowhead La
Houston .... MI 9-7727
Wash G M Gillett & Assoc, Box 99035
Seattle 284-3344
Can Megatronix Ltd, 1800 Avenue Rd
Toronto 783-3329
For Lindor Intl Corp, 10 E 40th St
New York, NY .... MU 5-6740

ELECTRO MINIATURES CORP, 600 HUYLER ST SOUTH HACKENSACK
N J, 07606, TWX 201-488-7717 .... 201 HU 8-7770
H HOROWITZ, EMP 170, ENG 12, $2,500-$5,000M
Ala N B S Inc, Box 1343, Huntsville 205 881-3175
Cal Paul F Wiley Inc, 1632 Silverlake Blvd
Los Angeles 213 663-8028
Fla N B S Inc, 4150 SW 23rd St
Fort Lauderdale 305 584-0650
Ga N B S Inc, 893 Church St NW
Marietta 404 422-6067
Mass Musello Inc, Box 125, Stow 617 369-5900
Ohio Bronson & Co, 789 N Main St
Akron 216 762-7407

ELECTRO MOTIVE MFG CO INC, SOUTH PARK & JOHN STS WILLIMANTIC
CONN, 06226, TWX 710-440-0601 .... 203 423-9231
J GILLIGAN, EMP 2650, ENG 9, OVER $10,000M
ADV PG 110
Cal Collins & Hyde Co, 5380 Whittier Blvd
Los Angeles 685-7975
Cal Collins & Hyde Co, 900 N San Antonia Rd
Los Altos 941-3355
Ill Electro Motive Mfg Co Inc, 2504 E Grove St
Arlington Heights 392-1074

ELECTRON BEAM CORP, 161 PLEASANT ST, LYNN
MASS, 01901 .... 617 592-6866
D BELFORTE, EMP 9, ENG 3, $500-$1,000M
Cal Bailey Equip Co, 3476 Hancock St
San Diego .... CY 5-5141
Cal Fieldtec Inc, 3822 Campus Dr
Newport Beach 860-4000
Cal Fieldtec Inc, Box 11794, Palo Alto 321-7410
Colo Overgard Machine Tool Co, 2045 W 8th Ave
Denver .... MA 3-3141
Conn Evans Equipment Co, Sunset Hill Rd
Brookfield .... SP 5-2800
Ga G H Crossley & Assoc, 3390 Peachtree Rd
Atlanta 231-4278
Ill Marshall & Huschart, 571 Washington Blvd
Chicago 726-8860
Ind Marshall & Huschart Mach Co
Chamber of Commerce Bldg
Indianapolis 635-6347
Mass Nelson & Jacobs Co, 16 Buffam St
Salem .... PI 5-2568
Mich Motch & Merryweather, 15565 Northland Dr
Detroit 444-4920
Minn Minnesota Supply Co, 706 Portland Ave
Minneapolis .... FE 6-4646
Mo J E Rush Machinery Co, 34 N Brentwood Blvd
St Louis .... PA 6-0332
NY J W Hoffman Machinery Co, 3135 Walden Ave
Buffalo 684-7300
Ohio Motch & Merryweather Mach Co, 1250 E 222nd St
Cleveland 486-3600
Ohio Motch & Merryweather Mach Co
7565 Kenwood Rd, Cincinnati 891-6410
Pa Motch & Merryweather Mach Co, 875 Greentree Rd
Pittsburgh 921-1636
Wash Hallidie Machinery Co, 4975 3rd Ave S
Seattle .... PA 3-9520
Can Williams & Wilson Ltd, 1465 Tecumseh Blvd
Windsor 253-1121
Can Williams & Wilson Ltd, 544 Inspector St
Montreal .... UN 6-2851
Can Williams & Wilson Ltd, 71 Front St
Toronto 363-8731

ELECTRON ENTERPRISES INC, 6645 W STANLEY AVE
BERWYN, ILL, 60402 .... 312 BI 22636
J CIMFE, EMP 25, ENG 2, $500-$1,000M

ELECTRO NETIC STEEL INC, 555 SANTA ROSA DR, DES PLAINES
ILL, 60018 .... 312 299-0101
ADV PG [illegible]

ELECTRO NETWORKS INC, MAPLE ST, CALEDONIA
N Y, 14423, TWX 510-254-0422 .... 716 538-4423
W HARRINGTON, EMP 250, ENG 12, $2,500-$5,000M

ELECTRO-NEUTRONICS INC, 630 20TH ST, OAKLAND
CAL, 94612 .... 415 893-0847
EMP 55, ENG 5, $1,000-$2,500M

ELECTRONIC APPLICATIONS CO, ROUTE 46
PINE BROOK, N J, 07058 .... 201 227-0518
F BURTON, EMP 20, ENG 3, UP TO $100M
NJ Electronic Applications Co, Box 267, Whippany

ELECTRONIC ASSISTANCE CORP, 20 BRIDGE AVE
RED BANK, N J, 07701 .... 201 747-5100
W BURTON, EMP 200, ENG 5, OVER $10,000M

ELECTRONIC ASSOCIATES INC SCIEN INSTR
4151 MIDDLEFIELD RD, PALO ALTO
CAL, 94303 .... 415 321-7801
J BURCHEN, EMP 3500, ENG 500, OVER $10,000M

ELECTRONIC ASSOCIATES INC
187 MONMOUTH PARK HWY, WEST LONG BRANCH
N J, 07764, TWX 710-722-6597 .... 201 229-1100
R YEAGER, EMP 2200, ENG 500, OVER $10,000M
Ala Electronic Assoc Inc, 3322 S Memorial Pkwy
Huntsville 881-7031
Cal Electronic Assoc Inc, 1500 E Imperial Hwy
El Segundo 322-3124
Cal Electronic Assoc Inc, 4151 Middlefield Rd
Palo Alto 321-0363
Ill Electronic Assoc Inc, 33166 Des Plaines Ave
Des Plaines 296-8171
Md Electronic Assoc Inc, 12260 Wilkins Ave
Rockville 933-4100
Mass Electronic Assoc Inc, 875 Providence Hwy
Dedham 326-6756
Ohio Electronic Assoc Inc, 6741 Ridge Rd
Parma 842-1840
Tex Electronic Assoc Inc, 3514 Cedar Springs Rd
Dallas 528-4920
Tex Electronic Assoc Inc, 7007 Gulf Frwy
Houston .... MI 4-3678
Fr EAI Electronic Assoc Sarl
72-74 Rue De La Tombe Issoire
Paris 14e .... PRO 93-69
Ger EAI Electronic Assoc GmbH, 5100 Aachen
Bergdriesch 37 26041
GB Electronic Assoc Ltd, Burgess Hill
Sussex 5101-10
GB Electron Assoc Ltd, Manchester Rd
Altrincham .... Alt 5426
Swed EAI Electronic Assoc AB, Hagavagen 14
Solna 82-40-96
Belg EAI, Place Rogier, Brussels 18-40-04
Aust EAI Electronic Assoc Pty Ltd, 34 Queens Rd
Melbourne 26-1329
Aust Eai Electronic Assoc Pty Ltd, 26 Albany St
Leonards 43-7522

ELECTRONIC BATTERIES INC, 28-34 35 ST, BROOKLYN
N Y, 11232 .... 212 499-5301
J STURGES, EMP 35, ENG 2

ELECTRONIC BRAZING CO, 140 GLENRIDGE AVE
MONTCLAIR, N J, 07042 .... 201 744-2160
W LAMBERT, EMP 6, ENG 1, $100-$250M
Ala James Spader Co, 512 N 18th St
Birmingham .... AL 2-7419
Cal C L Repp Co, 11168 Santa Monica Blvd
Los Angeles .... GR 2-5990
Cal Routh-Carter Assoc Inc, 1362 N Carolan Ave
Burlingame 342-4147
Fla Ward Eng Co Inc, 1015 W Central Ave, Orlando
Fla Ward Eng Co Inc, 1718 NE 28th St, Ft Lauderdale
Fla Ward Eng Co Inc, 2727 Phyllis St
Jacksonville .... EV 8-7656
Ga Hooker Reid Co, Box 11754, Atlanta .... CE 7-9385
Ill Murphy & Dickey, 537 S Dearborn St
Chicago .... HA 7-7953
La Mid-South Sales Co Inc, 4424-B Earhard Blvd
New Orleans 822-3030
Mass B H Parker Sales Agency, 610 Atlantic Ave
Boston .... LI 2-9214
Mich G R Peters Assoc, 2399 Coolidge Hwy
Berkley 564-6325
Minn Volco Co, 831 S 6th St, Minneapolis .... FE 6-6631
Mo C O Leaver Co, 2800 S Brentwood Blvd
St Louis .... WO 8-1500
Mo C O Leaver Co, 6225 Brookside Blvd, Kansas City
NY R F Lamb Co, 3407 Delaware Ave
Buffalo .... TR 6-3757
NY R F Lamb Co, Pickard Bldg, Syracuse
NY T Carse Sales Co Inc, 180 Old Loudon Rd
Latham .... ST 5-5844
NY H H Sticht Co Inc, 27 Park Pl
New York .... RE 2-8163
NC Associated Agents Inc, 3408 Rockingham Rd
Greensboro 299-3363
Ohio Beedle Equip Co, Roselawn Ctr Bldg
Cincinnati .... JE 1-2640
Ohio Martin-Rettger Inc, 11955 Shaker Blvd
Cleveland .... SW 1-8787
Ore J L Kearns Co Inc, 6055 NE Glisan St
Portland .... BE 6-1165
Pa R F Clark Co, 10517 Lindberg Ave
Pittsburgh .... CH 2-9500
Pa D S Stuckey & Assoc, 1 Belmont Ave
Bala-Cynwyd .... TE 9-7086
Tex W E Brice Co, 1402 Dunlavy, Houston .... JA 6-3197
Wis M F Jacobs Co, 2218 N 3rd St
Milwaukee .... LO 2-5690
For M R Franceschini Inc, Box 9393, Santurce, PR

ELECTRONIC CHEMICAL CORP
813 COMMUNIPAW AVE, JERSEY CITY
N J, 07304 .... 201 332-2877
W GOTTLIEB, EMP 16, $100-$250M
Cal Heeger Inc, 729 Ceres Ave
Los Angeles .... MA 7-9310
Ill W M Linz Assoc Inc, 4001 W Devon Ave
Chicago .... MU 5-6060
Mass Northeastern Reps, Box 842
Framingham 879-2300
Mich Central Elec Sales Co, 19217 Fairport
Detroit .... LA 6-5841
NY Callahan-Ferguson Co, 107 Greenhedge Dr
Camillus 488-5518
NY Louis W Keller & Assoc, 1542 Pea Pond Rd
No Bellmore 785-2826
Ohio H H Seay Co, 3850 Fairlington Dr
Columbus .... HU 8-9994
Pa S A Jeffries Inc, 105 Forrest Ave
Narberth .... MO 4-8500

ELECTRONIC CLOSURES, 44 FADEM RD, SPRINGFIELD
NJ, 07081 .... 201 376-4042
W SCHWARTZ, EMP 12, ENG 2, $100-$250M
ADV PG 96
Cal J C Simon Co, 5478 Wilshire Blvd
Los Angeles .... 213 WE 9-2366
Fla Geartner Assoc, 350 Lincoln Rd
Miami Beach 305 531-0200
Fla Geartner Assoc, 2101 Mohawk Trail
Maitland 305 647-4000
Ill Nero Elctns Sales Corp, 3516 Elmwood Ave
Wilmette .... 312 AL 6-1045
Mass Gallagher Sales Co, Box 343
W Medway 617 533-7292
Mich Component/Insulation Corp, 610 N Woodward
Birmingham 313 644-0087
NJ A L Livera & Assoc, 2 Green Village Rd
Madison .... 201 FR 7-3220

NY A L Livera & Assoc, 275 Warner Ave
Roslyn Heights 516 484-1276
NC P J Nahser Co, 2709 Amherst Ave
Burlington 919 226-8053
Ohio Component/Insulation Corp, 14235 Detroit Ave
Cleveland 216 521-3570

ELECTRONIC COIL CO, 2506 ONTARIO, BURBANK
CAL, 91505 .... 213 842-9898
E SEIZER, EMP 7, ENG 1, UP TO $100M

ELECTRONIC COILS INC, 33 LYMAN ST, SPRINGFIELD
MASS, 01101 .... 413 736-6339
R LAWSON, EMP 80, ENG 4, $500-$1,000M
Mass New England Component Sales, Box 656
Newton Lower Falls 517 969-9523
NJ Gilbert Sales Assoc, 70 Glenwood Rd
Ridgewood .... GI 4-2604

ELECTRONIC COMMUNICATIONS INC (ECI), BOX 12248
ST PETERSBURG
FLA, 33733, TWX 810 863-0377 .... 813 347-1121
C LUSTY, EMP 2000, ENG 300, OVER $10,000M
Ala L C Layfield, 3207 Hastings Rd SW
Huntsville 205 883-0140
Cal Geo D Pugsley, 4500 Campus Dr
Newport Beach 714 546-5114
Mass Donald P Clark, 594 Marrett Rd
Lexington 617 862-0010
Ohio D N Priddy, 4130 Linden Ave
Dayton 513 253-9166
Va M O'Connor K Prall, 1901 N Fort Mayer Dr
Arlington 703 525-7070

ELECTRONIC COMPONENTS CORP
520 INTERSTATE RD, ADDISON
ILL, 60101 .... 312 543-7720
R GIGNAC, EMP 1200, ENG 18, OVER $10,000M
Ala H E Cain, 3258 Cahaba Heights Rd, Birmingham
Cal Shnable & Assoc, 56 Buckskin La
Rolling Hills Estates 326-9260
Fla W H Bass, 850 E Dayton Cir, Ft Lauderdale
Ga Maitland K Smith Co, 31-16th St, Atlanta
Ill Kudela, 520 Interstate Rd, Addison ... 312 543-7720
NJ A Wetterhahn Co, 4420 Crescent Blvd
Pennsauken 627-1535
NJ Wm Boyce, Sr, 151 Fern Rd
East Brunswick 254-3831
NY Richard A Job, 321 E Lake Rd
Canandaigua 394-0596
NC J M Clymer Jr, 1605 Chatham Ave, Charlotte
Tex Jack Yount Co, 1431 Pleasant Dr
Dallas 391-4125
Wash Northwestern Agencies, 4130 1st Ave S
Seattle 623-8882

ELECTRONIC COMPONENTS DIV UNITED AIRCRAFT
CORP, TREVOSE, PA, 19047 .... 215 355-5000
J D'AQUILA, EMP 500, ENG 200, $2,500-$5,000M
Cal United Aircraft Corp, 128 E Katella Ave
Orange 714 639-4030
Conn Circuit Sales Co, 1125 Fairfield Ave
Bridgeport 203 335-0637
Conn Circuit Sales Co, 4 Fawn Hill Rd, Huntington
Conn Hamilton Standard Elctns Dept, Box 300
Windsor Locks 203 623-1621
Conn Franklin Sales Co, 2149 S Clermont St
Denver 757-1371
Fla Telemetry Sales Corp, Box 6453
Orlando 305 241-1292
Ill Fiat Engineering Assoc, 5133 St Charles Rd
Bellwood 312 547-6200
Ind Fiat Engineering Assoc, Box 1165
Muncie 317 289-6321
Mass Circuit Sales Co, 591 North Ave
Wakefield 617 245-5320
Mass G Bedworth, Box 68
Framingham Ctr 617 838-7339
Minn Northport Engrg Inc, 2027 Grand Ave
St Paul 612 698-3841
NM Telemetry Sales Corp, 2104 San Mateo NE
Albuquerque 505 255-9192
NY Cooper-Simon & Co, 7 W Broad St
Mount Vernon .... 914 OW 9-5400
NY Reed Elctns Inc, 2815 Monroe Ave
Rochester 716 473-2767
NY Reed Elctns Inc, Box 187, Vestal 607 748-7391
NY Reed Elctns Inc, 326 Fay Rd
Syracuse 315 468-5488
Ohio Allen Nace Co Inc, Box 156
Brecksville 216 526-4323
Ohio Fred W Link, Box 93 Riverdale Sta
Dayton 513 277-8215
Ohio G A Zaebst, Rte 3, Galion 419 468-7641
Pa J J Donovan, Box 10630
Pittsburgh 412 241-3200
Pa Wyncote Instrumentation Co, 1616 Kenmare Dr
Dresher 215 643-2440
Tex Telemetry Sales Corp, Box 786
Grand Prairie 214 262-3365
Wash Jon B Jolly, 413 Maritime Bldg
Seattle 206 624-2152
Can United Aircraft of Canada Ltd, Box 10
Longueuil, Que
For United Aircraft Intl, 400 Main St, East Hartford Conn

ELECTRONIC CONTROL CORP, 15341 DALE, DETROIT
MICH, 48223 .... 313 KE 36219
S LAWRENCE, EMP 7, ENG 2, $100-$250M
Mich Elias Elctns, 26817 W 7 Mile
Detroit 313 255-2111
NJ McKay Assoc, 60 Park Pl, Newark

Ohio Cleveland Duplex Machy Co, 14625 Detroit
Lakewood .... AC 6-4740
Ohio Thal-Mar Assoc Inc, 3232 Eucrete, Dayton
Wis Hein Electric Supply Co, 1032 N 6th St
Milwaukee .... BR 6-7802

ELECTRONIC CONTROL CORP
1010 PAMELA DR, BOX J, EULESS
TEX, 76039, TWX 910-890-5706 .... 817 BU 3-6601
E UECKER, EMP 300, ENG 15, $2,500-$5,000M

ELECTRONIC CONTROLS INC, 141 DANBURY RD
WILTON, CONN, 06897 .... 203 762-8351
A MORGAN, EMP 50, ENG 5, $1,000-$2,500M
Ala Beacon Electronics, Box 3127
Huntsville 536-5065
Ariz Portis & Assoc, Inc, 138 E Stetson
Scottsdale 945-4925
Cal Rep Assoc, 1645 S LaCienega Blvd
Los Angeles 274-8485
Cal Rep Assoc, 1744 WLincoln Ave
Anaheim 828-1344
Cal Paul Nurches Co, 999 Commercial St
Palo Alto 326-7842
Colo Engineering Research Assoc, 231 Detroit St
Denver 377-8306
Conn Electronic Controls Inc, Box 254, Wilton .. 762-8351
Conn A & M Electronic Reps Inc, Ailene Rd
Madison 245-1031
Fla Beacon Electronics, Box 10212
Ft Lauderdale 564-4298
Fla Beacon Electronics, Box 1278, Maitland .. 647-3498
Ga Beacon Electronics, 2285 Peachtree Rd NE
Atlanta 351-3654
Ill Potter-Mac Co, 6778 Northwest Hwy
Chicago 381-0004
Kan Penzner Assoc, Box 6264
Overland Park 381-0004
La Gordon V Peck Co, 4771 Spain St
New Orleans 282-1553
Md Arnold Assoc, Box 9730, Baltimore 661-3469
Mass A & M Electn Reps Inc, 1492 Higland Ave
Needam 444-8170
Mich Carter McCormic & Peirce, 16239 Wyoming Ave
Detroit 863-4600
Minn R G Ragon Inc, 1136 W Larpenteur Ave
St Paul 488-6634
Mo Penzner Assoc, 5540 Idaho Ave
St Louis 351-1547
NY A Decew Agency, Box F, Sodus 483-3261
NC Beacon Electronic, 305 Greenway St
Jamestown 454-1010
Ohio Carter, McCormic & Peirce, 3691 Lee Rd
Cleveland 921-1360
Ohio Carter, McCormic & Peirce, 3406 N Main St
Dayton 278-5873
Okla Gordon V Peck Co, 729 W 5th St
Tulsa .... LU 5-5853
Pa Arnold Assoc, 528 Ryers Ave
Cheltenham 742-0600
Tex Gordon V Peck Co, 5757 Bellaire Blvd
Houston 664-1435
Tex Gordon V Peck Co, 210 Casa Linda Plaza
Dallas 328-3511
Utah Cannon Engrg & Sales Co, 2250 E 17th So
Salt Lake City 485-9253
Wash Electronic Sales Corp, 5600 Calif Ave SW
Seattle 932-0330
For Marc Wood Intl, 289 Central Park W
New York 757-6656
Fr Marc Wood Intl, 94 Blvd Haussmann, Paris

ELECTRONIC CONTROL SYSTEMS INC, BOX 1232
FAIRMONT, W VA, 26554 .... 304 363-8632
M GLAZER, EMP 140, ENG 6, $2,500-$5,000M
Cal B J Wolfe Enterprises, 10760 Burbank Blvd
N Hollywood 213 877-5518
Cal B J Wolfe Enterprises
10601 S Saratoga-Sunnyvale Rd
Cupertino 408 252-5010
Fla Co-Ins-Co Inc, 1313 44th St
Orlando 305 423-7615
Ga Co-Ins-Co Inc, 200 Carrington Way
Marietta 404 422-8327
Ind C L Brosey Co Inc, 5555 N Tacoma Ave
Indianapolis 317 253-2097
La Butler & Land Inc, 1067 Mazagine St
New Orleans 504 524-0688
Mass Geo H Birchall Assoc, Box 103
Wellesley 617 235-2989
Mich Uni-Rep, 2410 Woodcliff SE
Grand Rapids 616 949-3250
NJ Geo H Birchall Co, Inc, Box 84
Westfield 232-3600
NY Terryberry Engineering Sales Co, Box 32
Buffalo 632-7404
NY Geo H Birchall Assoc, 3173 Clubhouse Rd
Merrick 516 379-0676
NC Co-Ins-Co Inc, 3925 Guinevire La, Winston-Salem
Ohio RE Surkamp Co, Box 42222, Cincinnati ... 891-1838
Ohio Thorrat & Hanmer, Box 2945, Rocky River
Cleveland 333-5950
Okla Butler & Land Inc, 1560 E 21st St, Tulsa
Pa Instrument Services Inc, 346 Station St
Bridgeville 412 221-3601
Tenn Butler & Land Inc, 3181 Poplar, Memphis
Tex Butler & Land, Box 8085 5538 Dyer St
Dallas 214 361-6631
Tex Butler & Land Inc, 9186 Katy Fwy
Houston 713 523-8526
Tex Butler & Land Inc, 4009 Ave R
Lubbock 713 744-8449
W Va Instrument Services Inc, 200 Washington St W
Charleston 304 343-5651

Wis Shelton F Boyd Co Inc, Box 220
Menomonee Falls 251-8660
Can E W Playford o, Ltd, Box E, Montreal 489-5383
GB S K Instruments, Ltd, Gillibrands, Skelmersdale
Lancashire

ELECTRONIC CORP OF AMERICA
5728 W WASHINGTON BLVD, LOS ANGELES
CAL, 90016 .... 213 939-5826
E WILSON, EMP 10, ENG 2, $100-$250M

ELECTRONIC COUNTERS INC, 235 JACKSON ST
ENGLEWOOD, N J, 07631 .... 201 567-5300
L ROSENDAHL, EMP 15, ENG 4, $100-$250M

ELECTRONIC CREATIONS CO INC, 445 S 10TH AVE
MOUNT VERNON, N Y, 10550 .... 914 OW 92100
M PERLMUTTER, EMP 175, ENG 1, $2,500-$5,000M

ELECTRONIC CRYSTALS CORP, 2035 WASHINGTON ST
KANSAS CITY, MO, 64108 .... 816 HA 1-1270
J COLBERT, EMP 75, ENG 1
ADV PG 241
Cal Murchison Marketing Assoc, 12822 Nutwood
Garden Grove 714 534-1292
Cal Peninsula Assoc, 1447 Bayshore
Palo Alto 415 322-1803
Fla A B Andrews & Co, Box 2627
Raleigh NC 919 833-5567
Ill W F Hamilton Co, 5130 N Elston Ave
Chicago 312 545-7576
Md J A Dougherty Sales Co, 320 Hillen Rd
Towson 301 823-0431
Mass Naton Assoc, 20 Strawberry Hill Rd
Natick 617 235-1966
NJ Marchand-Border Co, Box 181
Cranford 201 272-5510

ELECTRONIC DESIGN LABS INC, BOX 7837
PHILADELPHIA, PA, 19101 .... 215 925-9500
EMP 10, ENG 3

ELECTRONIC DEVELOPMENT CORP
423 W BROADWAY, BOSTON
MASS, 02127 .... 617 268-9696
R ROSS, EMP 20, ENG 3, $250-$500M
Ala NBS Inc, Box 1343, Huntsville 205 536-7786
Cal Barney Friedman Assoc, 1626 Centinella Ave
Inglewood 213 776-6770
Colo A L S Electronics, 1932-14th St
Boulder 505 447-2436
Conn Applied Msmts, Inc, 2531 Whitney Ave
Hamden 203 288-5288
Fla NBS Inc, 506 SE 24th St
Fort Lauderdale 305 524-6403
Fla NBS, Inc, 2813 Promrose Ct
Orlando 305 422-4205
Ga NBC Inc, 893 Chirch St, Marietta 404 926-6324
Kan Impala, Inc, 6917 W 76th St
Overland Park 913 648-6901
Md G L Brown Assoc, 5801 Annapolis Rd, Bladensberg
Mass Applied Measurements, Inc, Box 306
Action 617 646-7250
Mo Impala, Inc, 47 Vlg Sq Shop Ctr
Hazelwood 314 522-1600
NJ Hansen Assoc, 215 Brookside Ave
Hohokus 201 652-7055
NJ SONCO, Crystal Brook Prof Bldg
Eatontown 201 542-1441
NM A L S Electronics, Wayside Prof Bldg, Box 11626
Albuquerque 505 268-9600
NM A L S Electronics, Box 1498
Alamogordo 505 437-6708
NY Pantronics Inc, 500 5th Ave
New York .... 212 CH 4-2855
NY Ossmann Instruments, Inc, 101 Pickard Dr
Syracuse 315 454-2461
NY Ossmann Instruments, Inc, 3100 Monroe Ave
Rochester
NY Ossmann Instruments, Inc, Vestal Pkwy E
Vestal 607 785-9947
NY Ossmann Instruments Inc
Wappingers Falls 914 297-7777
NC NBS Inc, Box 343, Winston-Salem ... 919 724-2073
Pa Sonco, 107 Town Ctr Rd
King of Prussia 215 265-3250
Pa SONCO, Park Place Office Bldg
Camp Hill 717 761-0577
Tex I B L Eng & Sales Inc, 5852 Boca Raton Dr
Dallas .... 214 EM 3-2921
Tex I B L Eng & Sales Inc, 3403 Audubon
Houston .... 713 JA 3-8360
Can Burlec Ltd, 125 Nantucket Blvd
Scarborough, Ont 416 757-5151
Can Burlec Ltd, 1179 Decarie Blvd
Montreal, Que 514 744-0165
Den S/C Metric, Naerum Hovedgade 1212, Naerum 2850
Fr Radio Television Franciase, 73 Ave de Neuilly
Neuilly, Paris
GB Electrautom Ltd, 408 Finchley Rd, London NW 2
Holl Winjhaven 36, Rotterdam 1
Nor Henaco A/S, Cort Adelers Gate 16, Oslo
SAfr Bernard K Server Co, Box 7616, Phila Pa
Ind Internation Trade Agencies, Abid Rd, Ayderadad 1
Isrl Iscamex Co Ltd, 25 Arlozorov St, Tel Avia

ELECTRONIC DEVELOPMENT LABS INC
19 NEWTOWN RD, PLAINVIEW
N Y, 11803 .... 516 293-8997
S NERENBERG, EMP 23, ENG 2
Cal Rex Engineering, Box 39702, Los Angeles

Ill Midwest Electronic Sales, 5707 W Division St
Chicago 626-0030

ELECTRONIC DEVICES INC, 7660 RACE RD
NORTH RIDGEVILLE, OHIO, 44035 ...... 216 777-3867
G DIEHL, EMP 75, ENG 5, $500-$1,000M
Cal Corcoran Assoc, Box 45897
Los Angeles 398-2675
Fla Service Reps Assoc, Box 12056
Palm Beach Gardens 305 848-8687
Ill W G Brouillette Co, 9855 W Roosevelt
Westchester 312 345-6500
Ohio R O Whitesell, 1172 W Galbraith
Cincinnati .... ME 1-9210

ELECTRONIC DEVICES INC (INCL TRANS SIL DIV)
21 GRAY OAKS AVE, YONKERS
N Y, 10710, TWX 710 560 0021 .... 914 YO 54400
G BARD, EMP 135, ENG 6, $1,000-$2,500M
Ariz Mercury Engrg Sales, Box 3130
Scottsdale 602 945-1927
Cal Poltronics, 2015A Latham St
Mountain View 969-9200
Cal M A Stolaroff Co, 4622 W Slauson Ave
Los Angeles 295-7781
Cal Industrial Prods Sales, Box 357
Lemon Grove 286-3911
Conn Glenn M Hathaway Elctns, Ducillo Bldg
Canaan 824-7215
Fla Massey Assoc, Box 13577
St Petersburg 347-6183
Fla Massey Assoc, Box 1201, Winter Park 855-4510
Ill Rozner Sales Co, 4720 N Central Ave
Chicago 283-0022
Iowa Reid Assoc Inc, 526 MNB Bldg
Cedar Rapids 362-6302
Mass Glenn M Hathaway Elctns, 7-11 Mystic St
Arlington 646-1380
Minn Kirkeby & Assoc Inc, 821 2nd Ave N
Minneapolis 377-3239
Mo J C Mankus & Assoc, 400 Brookes La
Hazel Wood 731-4334
NY I A Hotze Co Inc, 112 DeWitt St
Syracuse 479-6641
NY LRC Assoc, 2616 Jerome Ave, Bronx 298-8964
Ohio A H Baier Co & Assoc, 3300 S Dixie Dr
Dayton 298-9897
Ohio A H Baier Co & Assoc, 4399 Industrial Pkwy
Willoughby 946-6080
Pa Be-Mar Assoc, 7217 Rising Sun Ave
Philadelphia 728-6333
Tex Branum Sales, Inc, Box J
Richardson .... 214 AD 1-6148
Va Be-Mar Assoc, Box 556, Falls Church 762-8880
Wash Farwest Agencies, 12410 S E 32nd St
Bellevue 747-1515
GB Walmore Electronics Ltd, 11-15 Betterton St
London W C 2
Ital S F E R A, Via Asmara 72, Rome
Swed Elmetric, Box 433, Johanneshov 4
Isrl Giveon Agencies, 105 Hahashmonain St, Tel Aviv

ELECTRONIC ENCLOSURES, 225 S AVIATION BLVD
EL SEGUNDO, CAL, 90245 .... 213 678-0181
J GORDON, EMP 145, ENG 12, $2,500-$5,000M
Cal Bob Belt, 138 W San Carlos, San Jose ... 225-0371
NJ Electronic Enclosures Inc, 7825 Airport Hwy
Pennsauken 665-6810

ELECTRONIC ENGINEERING CO INC
1325 INGLESIDE RD, NORFOLK
VA, 23502 .... 703 855-1086
L GUY, EMP 25, ENG 3, $500-$1,000M

ELECTRONIC ENGINEERING CO OF CAL
1601 E CHESTNUT AVE BOX 58, SANTA ANA
CAL, 92702, TWX 910-595-1547 .... 714 547-5501
P CADIGAN, EMP 550, ENG 50, OVER $10,000M
Ala Col-Ins-Co Inc, 2109 Clinton Blvd
Huntsville 539-1771
Cal Electronic Engineering Co, 10601 C South Hwy 9
Cupertino 253-5951
Colo Hytronic Measurements Inc, 4940 E 39th Ave
Denver 388-4081
Fla Col-Ins-Co Inc, 1313 44th St, Orlando 423-7615
Ga Col-Ins-Co Inc, 200 Carrington Way
Marietta 422-8327
Ill Torkelson Assoc, 466 Central Ave
Northfield 446-8450
Ind Torkelson Assoc, 3512 Rockville Rd
Indianapolis 241-0725
Kan Palatine Engineering Sales, 5514 Johnson Dr
Mission .... CO 2-5643
Md Electronic Engineering Co, 5801 Annapolis Rd
Bladensburg 779-3636
Mich Megatek, Inc, 26847 Grand River Ave
Detroit 531-1403
Minn Torkelson Assoc, 4820 W 77th St
Minneapolis 920-1046
Mo Palatine Engineering Sales, 2050 Woodson Rd
St Louis 426-7055
NJ Hansen Assoc, Box 339, Ridgwood 652-7055
NJ Electronic Engineering Co, 50 Franklin Tpk
Ho-Ho-Kus 444-3220
NM Hytronic Measurements Inc, 205 San Pablo SE
Albuquerque 268-3941
NC Col-Ins-Co Inc, Box 5597
Winston-Salem 765-3650
Ohio Megatek, Inc, 2533 Far Hills Ave
Dayton 298-8638
Pa Data Engineering Co, 500A E Godfrey Ave
Philadelphia 725-9000

Tex Robert R Thomas Co, 8616 Northwest Plaza Dr
Dallas 363-8591
Tex Robert R Thomas Co, 4031 Broadway
Houston 644-2369
Utah Hytronic Measurement Inc, 2022 S Main St
Salt Lake City 466-4924
Wash Blair Hirsch Co, 4013 Leary Way NW
Seattle 783-3423
Can Willer Eng & Sales Co, 1800 Avenue Rd
Toronto 783-3373
Can Willer Engineering & Sales Co, 1179 Decarie Blvd
St Laurent, Montreal, Que
For Industrial Electronics
89-2 La 75 Nanking E Rd, Box 22423
Taiwan .... 44257 Taipei
Den E V Johansen A/S, 1, Scherfigsvej
Copenhagen .... (01) 29-5622
Fr Technitron, 20, rue deBoulainvilliers
Paris 527-49-65
Ger Technitron, Sonnenstr 14, Munich 5578-32
GB Seslab Electronics, Ltd, Brockhampton La
Havant, Hants .... Hav 6271
Holl Technitron N V, Bldg 64, Schiphol Airport
Amsterdam .... (020) 72-7823
Ital Technitron, Viale Bruno Buozzi, Rome 877-047
Swed Telenco AB, Industrigatan 4
Stockholm K 08/54 61 40
Fin Into O/Y, 11 Meritullinkatu, Helsinki 11 123
Aust Jacoby, Mitchell & Co, 469 Kent St
Sydney, N S W 26-2651

ELECTRONIC ENTERPRISES INC, 65 7TH AVE, NEWARK
N J, 07104 .... 201 485-8500
E FRIELING, EMP 110, ENG 8, $1,000-$2,500M
ADV PG 776
Kan T Modricin Assoc Inc, 5450 Buena Vista Dr
Shawnee Mission 362-7825
Tex IBL Eng & Sales, 6170 Sherry La
Dallas .... EM 3-2921

ELECTRONIC FUTURES INC DIV KMS INDUS INC
57 DODGE AVE, NORTH HAVEN
CONN, 06473 .... 203 239-5341
R SUTTON, EMP 160, ENG 14, $2,500-$5,000M

ELECTRONIC HOMES CO, 200 CLAREMONT AVE
NEW YORK, N Y, 10027 .... 212 MO 2-1129
G SADDLER, EMP 29, ENG 4, $250-$500M
Tex C C S Butt, Box 18045, Houston .... JA 6-3101

ELECTRONIC IDEAS INC, BOX 137, WYNCOTE
PA, 19095 .... 215 TU 6-4770
B COLE, EMP 6, ENG 2, UP TO $100M
Cal S D Ungar, 8810 Rayford Dr
Los Angeles .... 213 OR 0-1560
Ill W L Holst, 2753 W North Ave
Chicago .... 312 SP 2-9455
Pa Denco Data Engrg Co, 500 A E Godfrey Ave
Philadelphia .... 215 RA 5-9000
Va M E Whitney Assoc, 1400 N Uhle St
Arlington 703 524-5642
For Singer Products Co Inc, 95 Broad St
New York, NY .... WH 4-8700

ELECTRONIC INSTRUMENT DIV GEN ATRONICS CORP
1200 E MERMAID LN, PHILADELPHIA
PA, 19118, TWX 215-242-1295 .... 215 CH 8-3700
J COMMINS, EMP 250, ENG 35, $2,500-$5,000M
Cal L & M Engineering, 9911 Inglewood Ave
Inglewood 678-5400
Cal L & M Engineering, 2620 The Alameda
Santa Clara 243-6661
DC Eastern Instrumentation Inc, 2600 Virginia Ave, NW
Washington 333-8880
Md Eastern Instrumentation Inc, 1002 Ingleside Ave
Baltimore .... RI 4-3675
NJ Eastern Instrumentation Inc, 518 Franklin Ave
Nutley 661-2000
NY Eastern Instrumentation, 350 Northern Blvd
Great Neck 466-9505
Ohio Frederic L Ohmer & Assoc, Box 2013
Dayton 434-1454
Pa Eastern Instrumentation, 613 Cheltenham Ave
Philadelphia .... WA 7-6269
Can Electromechanical Prods, Box 156
Agincourt, Ont .... AX 3-7011
For Dismatec, 7758 Wisconsin Ave
Bethesda, Md 656-6594
Jap Kabushiki Kaisha Yonei Shoten
3 Ginza Nichome, Chuo Ku, Tokyo
Ind Eastern Machinery & Trading
Wilson Rd, Ballard Est, Bombay
Aust Gen Electronic Services PTY, Ltd, 15 James St
Lidcombe, N S W

ELECTRONIC INSTRUMENT & SPECIALTY CORP
BOX 24, WINCHESTER, MASS, 01890 ... 617 729-1202
R PAINTER, EMP 10, ENG 2, $100-$250M
Cal Alta Elctn Sales Co, 421 S Pasadena Ave
Pasadena 213 681-0451
Cal Cain & Co Inc, 175 S San Antonio Rd
Los Altos 415 948-6533
Cal Cain & Co Inc, 3595 Mt Acadia Blvd
San Diego 714 278-1031
Conn Gerber Sales Co Inc, 29 Whalley Ave
New Haven 203 777-6279
Ill Repwood Inc, 260 Sunset Ave
Glen Ellyn 312 469-2344
Mass Gerber Sales Co Inc, 176 2nd Ave
Waltham 617 891-8040
Mass Gerber Sales Co Inc, 26 Maple Court
E Long Meadow 413 525-3059

NJ L Adezio Sales Co, Box 159
Morrestown 609 665-6007
NY KBC Engineering Co, 300 Northern Blvd
Great Neck 516 822-1661
Tex Texas Special Elctn Components
8530 S Braeswood Blvd
Houston 713 774-9461
Wis Repwood Inc, 8019 N 40th St
Milwaukee 414 354-5161
Fr TEMI, 18 Rue De La Pepiniere, Paris 8 .. 522-77-00

ELECTRONIC MACHINE PARTS INC, 128-11 18TH AVE
COLLEGE POINT, N Y, 11356 .... 212 IN 1-8850
A HANDAL

ELECTRONIC MFG & ENGINEERING CORP
839 S WHEELING, TULSA
OKLA, 74104 .... 918 582-4188
H CRAMER, EMP 14, ENG 4, $250-$500M
Cal Hollingsworth Assoc, 1700 S Pontius Ave
Los Angeles 213 477-7307
Mass Steve Billowich Enterprises, 109 Warren St
Watertown 617 926-0490
Minn Heimann Co, 5603 Lyndale Ave S
Minneapolis 612 827-5457
Tex Lee Sales Co, 2838 Posey Dr
Irving 214 255-5043

ELECTRONIC MEASUREMENTS CORP, 625 BROADWAY
NEW YORK, N Y, 10012
M LIEBLICH

ELECTRONIC MEASUREMENTS DIV ROWAN CONTROLLER CO
OCEANPORT, N J, 07757, TWX 510 239-9200 ... 201 229-5000
J CRAFT, EMP 1000, ENG 110, OVER $10,000M
ADV PG 498, 536, 731, 733
Ala Lee Assoc, 2400 W Clinton
Huntsville 205 539-0761
Ariz Dorton Enterprises, Box 1297
Scottsdale 602 946-6213
Cal G B H Assoc, Box 1150
Mountain View 415 969-9770
Cal W E Starr & Co, 5440 Pomona Blvd
Los Angeles 213 685-5670
Cal C D H Assoc, 18075 Ventura Blvd
Encino 213 345-1644
Colo P L S Assoc, 7895 E Prentice Ave
Englewood 303 771-0140
Fla Lee Assoc, 200 E Marks St
Orlando 305 241-4445
Ill A S H ASSOC, 6272 W N Ave
Chicago 312 237-2053
Iowa Engineering Service Co, 1026 Third Ave SE
Cedar Rapids 319 366-1591
Kan Engineering Service Co, 7924A State Line
Prairie Village 913 649-4000
Md Lee Assoc, 12250 Wilkins Ave
Rockville 301 949-4800
Mass New England Mktg Assoc, 55 Salem St
Lynnfield 617 245-9530
Minn Rowan Controller Co, 2801 37th Ave NE
Minneapolis 612 781-8231
Mo Engineering Service Co, 6717 Vernon Ave
St Louis 314 726-2233
NJ Hansen Assoc, Box 339
Ridgewood 201 652-7055
NM P L S Assoc, 4220 B Silver Ave NE
Albuquerque 505 255-2330
NY KLM Assoc Inc, 9 Hollywood Dr
Whitesboro 315 736-2450
NY K L M Assoc, 201 S Main St
N Syracuse 315 458-6214
NY K L M Assoc, 8 Bearhill Dr
Palmyra 315 597-9776
NC Lee Assoc Inc, 825 Burke St
Winston-Salem 919 724-2406
Ohio R G Sidnell & Co Inc, 1470 Detroit Ave
Cleveland 216 221-1313
Ohio R G Sidnell & Co, 3400 S Dixie Dr
Dayton 513 293-1194
Pa Holdsworth & Co, 8 Smedley La
Newton Square 215 356-8550
Tex Industrial Equip Co, 6831 Navigation Blvd
Houston 713 928-3463
Tex Industrial Equip Co, 4924 Greenville Ave
Dallas 214 368-8087
Wash Ray Johnston Co Inc, 1011 NE 69th St
Seattle 206 524-5170

ELECTRONIC MEMORIES INC, 12621 CHADRON AVE
HAWTHORNE, CAL, 90250 .... 213 772-5201
E FARRIS, EMP 2000, ENG 50, OVER $10,000M
Cal Tech Mktg Assoc, 355 W Olive Ave
Sunnyvale 736-3687
Cal Electronic Memories Inc, 1161 N Tustin Ave
Orange 639-5811
Ill Ropek-Cahill Inc, 5439 W Division St
Chicago 287-7292
Mass Electronic Memories Inc, 11 Chestnut St
Andover 475-2101
Mich W R Hummon & Assoc, Box 501
Farmington 474-0661
Minn Lloyd Murphy Assoc, 730 Chicago Ave
Minneapolis 333-4511
NY Tech-Mark Inc, 101 Jefferson Ave
Endicott 748-7473
NY Tech-Mark Inc, 19 Valley Brook Dr
Fairport 377-5531
NY Tech-Mark Inc, Box 296, New Hartford 732-1602
Ohio Jay Engineering Co, 4712 W 130th St
Cleveland 252-0486
Ohio Jay Engineering Co, 1721 E 3rd St
Dayton .... CL 3-2151

Pa Electronic Memories, Inc, 26 Summit Grove Ave
Bryn Mawr .... LA 5-6897
Tex Roger Martin Assoc, Box 1002, Bellaire .. 468-3877
Tex Roger Martin Assoc, Box 64513, Dallas .. 358-3704
Wash Showalter-Judd Inc, 1806 S Bush Pl
Seattle 324-7911
Den A/S Nordisk Electronik, Danasvej 2
Copenhagen .... EVA 8285
Fr Technique & Produits
Cite des Bruyeres, Rue Carle Vernet
92 - Sevres 626-02-35
GB Munzig Intl Inc, McGraw-Hill House
Maidenhead Berks .... MAI 20260
Jap Munzig Intl Japan Inc
15-1, Nishi Shimbashi, 1 -chome
Minato-ku, Tokyo
Swed Ingenjorsfirman Nordisk Elektronik AB, Stureplan 3
Stockholm 08/24 83 40
Swit Munzig Intl Inc, 6 Av de Frontenex
1207 Geneva 35 84 14

ELECTRONIC METALS & ALLOYS INC
TRI-BORO INDUS PARK, NORTH ATTLEBORO
MASS, 02760 .... 617 699-7521
P AICHER, EMP 100, ENG 4
Cal Mosher Assoc, Box 877
Mountain View 969-9213
Fla Len Hermanns-Solid State Equip, Box 1469
West Palm Beach 832-8840
Ind Robert Schleicher Assoc, 1121 N Arlington Ave
Indianapolis 356-2162
Mass Ed Hughes Assoc, 21 Park St, Attleboro... 226-0050
Minn Eiler Equipment Co, 1107 So 2nd St
Minneapolis 339-9226
Mo Jos A Crowe & Co, 12542 Weber Hill Rd
St Louis 842-1353
NJ R A Poyda Assoc, 60 Sterling Rd
Watchung 754-2722
NY John Lazor Assoc, 39 Saginaw Dr
Rochester 473-8337
Tex R Marston Co, 1202 Spruce Dr
Richardson 235-3577
For Teknis, 93 South St, Plainville, Mass..... 695-3591

ELECTRONIC MODULES CORP, BOX 141, TIMONIUM
MD, 21093, TWX 710-862-2638 .... 301 666-3300
R VOGEL, EMP 265, ENG 15, $5,000-$10,000M
Ala Astro-Tec, Holiday Office Ctr
Huntsville 205 881-1861
Cal Cardinal Assoc, 16024 Ventura Blvd
Encino 213 788-4540
Colo Inland Assoc, 1136 Pearl St
Boulder 303 442-1336
Conn Applied Measurements Inc, 2531 Whitney Ave
Hamden 203 288-5288
Fla Astro-Tec, North Atlantic Ave
Cocoa Beach 305 783-6581
Ga Astro-Tec, 3456 Paces Pl NW
Atlanta 404 237-5796
Ill Actronic Sales Eng Inc, 4750 N Milwaukee Ave
Chicago 286-1037
Kan Inland Assoc, 6047 Howe Dr
Mission 913 362-2366
Mass Applied Measurements Inc, Box 316
Acton 617 263-MI 6-7250
NY Guidi & Beane Inc, 135 New York Ave
Huntington 516 271-8850
Pa Hilliard Assoc, 766 Old York Rd
Jenkintown .... TU 4-6100
Pa Guidi & Beane Inc, Rd 1 Marlboro Rd
Kennett Square 215 793-1204
Tex Carey & Assoc, 3315 W 12th St
Houston 713 869-3623
Tex Carey & Assoc, 725 Preston Forest Shpg Ctr
Dallas 214 361-6234
Tex Carey & Assoc, Box 6795
San Antonio 512 822-1616
Wash Fred H Haight Co, 3212 East Lake Ave, Seattle

ELECTRONIC MOLDING CORP, 42 CHURCH ST, PAWTUCKET
R I, 02640 .... 401 726-2100
J TATE, EMP 60, ENG 3, $1,000-$2,500M
ADV PG 695

ELECTRONIC PARTS MFG CO INC, 508-10 25TH ST
UNION CITY, N J, 07087 .... 201 865-4028
C DADAIAN, EMP 2, ENG 0, UP TO $100M

ELECTRONIC PRECISION CIRCUITRY INC
39 MANTON AVE, PROVIDENCE
RI, 02909 .... 401 521-2114
R TIERNEY, EMP 25, ENG 2, $100-$250M
Cal Morse Assoc, 1721 Chestnut St
San Francisco 415 567-6871
Ill Berndt Assoc, 6414 W Belmont Ave
Chicago 312 283-1713
Mass A & M Electronic Reps, 1492 Highland Ave
Needham 617 444-8170
NJ M & S Assoc, 31 Tanner St
Haddonfield 609 429-7055
NY L L Malis, 160 E 84th St
New York 212 744-3771
Tex C Butt, Box 18045, Houston 713 526-3101

ELECTRONIC RESEARCH ASSOCIATES INC
67 SAND PARK RD, CEDAR GROVE
N J, 07009 .... 201 CE 9-3000
I WEINSTEIN, EMP 140, ENG 10, $2,500-$5,000M
Ala Mekco Assoc, Holiday Office Ctr
Huntsville 881-3721
Ariz Tech Ser Inc, 1805 E Indian School Rd
Phoenix 265-3629
Cal Tech-Ser Inc, Box 10544, San Diego 222-1121
Cal Tech-Ser Inc, 2435 N Naomi St
Burbank 846-9631
Cal Tech-Ser Inc, 477 Castro St
Mountainview 969-9020
Colo Kelley Enterprises, 336 E 4th St
Loveland .... NO 7-1376
Conn Instrument Consultants Inc, 2831 Whitney Ave
Hamden 248-4174
Fla Mekco Assoc, 3165 McCrory Rd
Orlando 841-2215
Ill Magnuson Assoc, 5639 W Fullerton Ave
Chicago 622-6322
Kan Leemark Engrs Inc, 4518 W 89 St
Prairie Village 648-0149
Md Lewis Assoc, 4925 Fairmont Ave
Bethesda 657-3844
Mass Instrument Consultants Inc, 81 Wyman St
Waban 969-9881
Mich W R Hummon Assoc, Box 501
Farmingham 474-0661
Minn Magnuson Assoc, 1246 W 7th St
St Paul 227-8495
Mo Leemark Engrs Inc, 9623 St Charles Rock Rd
St Louis 423-8700
NJ Lou Garten & Assoc, 375 Passaic Ave
Fairfield 201 226-7800
NY Martin P Andrews Inc, 319 Mott Rd
Fayetteville .... NE 7-3144
NC Electro-Rep Assoc, 128 W 30th St
Charlotte 333-0451
Ohio Edmund C Frost & Co, 30650 Pine Tree Rd
Cleveland 831-1442
Pa Lewis Slubin & Co, 2305 Fairmount Ave
Phila .... CE 6-2072
Tex G Weinreich & Assoc, 11554 E Northwest Hwy
Dallas .... DA 1-2800
Can Electrodesign Ltd, 9124 St Lawrence Blvd
Montreal 389-5914
Can Electrodesign Ltd, 83 Arthur St
Ottawa 4, Ont 233-8815
Can Electrodesign, Ltd, 3433 Bathurst St........ Toronto

ELECTRONIC RESEARCH CO, A TEXTRON CO, 10000 W 75TH ST
OVERLAND PARK, KAN, 66204 .... 913 ME 1-6700
H DANZIG, EMP 350, ENG 10, $1,000-$2,500M
ADV PG 209, 241, 298, 448, 468, 709
Cal Shephard Stern Co, 4109 Burbank Blvd
Burbank 849-6671
Cal J S Heaton Co, 3695 Haven Ave
Menlo Park 415 369-4671
Fla Orbe Inc, Box 7777, Orlando 305 424-0978
Ga Orbe, Inc, 300 31st St N, St Petersburg... 894-0687
Ill Whitmore Assoc Inc, 535 N Michigan Ave
Chicago 321-1503
Md Harry J White Co, 320 Hillen Rd
Towson .... VA 8-6373
Mass Stan Pierce, Inc, 24 Linden St
Norwood 762-3164
Mo Florence & Meyer, Inc, 406 W 34th St
Kansas City .... LO 1-7282
NJ Harry J White Co, 801 N Marlton Pike
Cherry Hill 428-2304
NJ Comp Tech Sales, Box 50, Riverdale 835-0332
NY Comp Tech Sales, Box 384, Lynbrook..... 593-2628
NY J M Geass Assoc, 220 Delaware Ave
Buffalo 716 856-9272
Tex Lawrence Sales Co, 921 Bowser St
Richardson .... AD 5-5504
Wash Allied Agencies, 1818 Westlake N
Seattle 206 284-4082

ELECTRONICS & ALLOYS INC, 145 S DEAN ST
ENGLEWOOD, N J, 07631 .... 201 568-6820
A RICCARDO, EMP 32, ENG 5, $500-$1,000M

ELECTRONICS COMMUNICATIONS DIV ATLANTIC
RESEARCH CORP, SHIRLEY HWY AT EDSALL RD
ALEXANDRIA, VA, 22314 .... 703 354-3400
M REESE, EMP 300, ENG 100, $500-$1,000M
Ala Atlantic Research Corp, 2109 W Clinton Ave
Huntsville 534-3694
Ariz Atlantic Research Corp, 4625 E Broadway, Tucson
Cal Atlantic Research Corp, 999 N Sepulveda Blvd
El Segundo 772-1583
Mass Atlantic Research Corp, 950 Boylston St
Newton Highlands 244-5180

ELECTRONICS CORP OF AMERICA, 1 MEMORIAL DR
CAMBRIDGE
MASS, 02142, TWX 710-320-0359..... 617 UN 48000
J PHILLIPS, EMP 650, ENG 30, OVER $10,000M

ELECTRONIC SEALS CO INC, 13766 SATICOY ST
VAN NUYS, CAL, 91402 .... 213 781-0540
H ADELMAN, EMP 25, ENG 4, $250-$500M
Fla Kirkwood & Assoc, Box 52
Winter Park 305 645-2220
Ill Associated Sales Reps, Box 94
Alton 618 465-2781
Mass Neecco, 700 Main St, Acton 617 263-7566

ELECTRONIC SERVICE CO, 201 LINDEN AVE, VERONA
N J, 07044 .... 201 239-0303
W ZILINSKY, EMP 6, ENG 2, UP TO $100M

ELECTRONICS INC OF PA, 2440 MARYLAND AVE
WILLOW GROVE, PA, 19090 .... 215 OL 9-6666
J ARNOLD, EMP 45, ENG 2, $250-$500M

ELECTRONICS MISSILES & COMMUNICATIONS INC
BOX 116, WHITE HAVEN, PA, 18661.... 717-443-9575
R SWAIN, EMP 46, ENG 5, $500-$1,000M
Ala Signal Engrg & Sales Inc, Box 30127
Birmingham 595-5855
Ariz Elsco of Ariz, 4533 N Scottsdale Rd
Scottsdale 946-4658
Ariz Elsco, 1025 N 74th St, Scottsdale 945-3096
Cal Effective Communications West, 6910 Chandler Dr
Sacramento 916 383-4641
Cal Reeves Electronics Inc, 7512 Santa Monica Blvd
Los Angeles 876-3300
Cal Reeves Electronics Inc, 405 Sherman Ave
Palo Alto 326-0663
Colo L B Walker Radio Co, 100 N Victoria Ave
Pueblo .... LI 2-1924
Colo L B Walker Radio Co, 537 N 1st ASt
Grand Junction .... CH 2-4435
Colo Elsco Colorado Inc, 3501 Kalamath St
Denver 433-8603
Colo L B Walker Radio Co, 300 Bryant St
Denver 935-2401
Colo L B Walker Radio Co, 2817 Main Ave
Durango 247-1652
Haw Intelect Inc, 30 N School St, Honolulu..... 566-366
La Louisiana Electronics, 3121 Convention St
Baton Rouge 348-4962
Mich American Microwave Commun Inc
204 National Bank Bldg, Alpena 356-1510
Minn K & M Electronics Co, 7360 Ohms La
Minneapolis 941-1330
NJ Radiation Service Co, 7150 Airport Hwy
Pennsauken 609 663-4840
NC Electronic Wholesalers Inc, 938 Burke St
Winston-Salem .... PA 5-8711
NC Visual Electronics, 219 Homewood Ave
Greensboro 292-1791
Ohio Electronic Products Corp, 1231 Main St
Cleveland 621-2100
Okla Video Electronic Systems Inc, 3234 E 15th St
Tulsa .... WE 9-2291
Ore Progress Electronics Co, 5652 N Lagoon Ave
Portland 285-8388
Pa Effective Communications Systems, Box 98
White Haven 443-9850
Tex Tipps Electric, Box 7, Canadian...... 806 323-4116
Tex Universal Magnetics Inc, 2600 Stemmons Frwy
Dallas .... ME 1-4730
Utah Electronic Sales Corp, 2275 SW Temple
Salt Lake City 466-8631
Can Canadian Communications Equipt Ltd
5203 8th Ave Rosemount
Montreal P Q 727-3727

ELECTRONICS OF CLEARFIELD INC, 541 NICHOLS ST
CLEARFIELD, PA, 16830 .... 814 765-5597
J BOYD, EMP 80, ENG 8, $500-$1,000M

ELECTRONIC SPACE PRODUCTS INC
DEPT E, 854 S ROBERTSON BLVD, LOS ANGELES
CAL, 90035 .... 213 657-5540
N KERN

ELECTRONIC SPACE STRUCTURES CORP
OLD POWDER MILL RD, WEST CONCORD
MASS, 01781, TWX 710-347-1054...... 617 369-7200
M RAFTERY, EMP 75, ENG 9, $1,000-$2,500M

ELECTRONIC SPECIALTIES CO DIV FIDELITONE
525 N RIVER ST, BATAVIA
ILL, 60510 .... 312 970-5495
J KENNEDY, EMP 46, ENG 2, $1,000-$2,500M
Ark Seiferd Sales Co, 653 National Ave
Memphis 324-2066
Cal J C Henberger, 4032 Wabaska Dr
San Diego 223-7114
Cal W Gruver, Box 101, Lafayette 451-0103
Colo P R Spencer Co, 4201 Brighton Blvd
Denver 534-3293
Mass W Withers, 30 Ericson Rd, Weymouth 337-3474
Minn Shearer-Offerman, 262 Sexton Bldg
Minneapolis 339-0391
Mo Midwestern Sales, 7819 Wornall Rd
Kansas City 363-1169
NJ W Robinson Co, Tompkins Tidewater Term
So Kearny 643-0511
NC Zimmerman-Evans Inc, Box 10026
Greensboro 299-9331
Tenn Seiferd Sales Co, 653 National Ave
Memphis 324-2066
Tex A Simon, 4415 Benning Dr
Houston 713 723-4415
Utah P R Spencer Co, 58 E Truman Ave
Salt Lake City 466-3406
Wash Larrabee & Assoc, 2117 Second Ave
Seattle 682-2358
Wis Foellek Co, Box 444, Green Bay 414 435-1121
Can Owl Lite Equip Ltd, Helena St, Fort Erie
For Skokie Int'l, 2530 Crawford Ave, Evanston

ELECTRONIC SPECIALTY CO, 4561 COLORADO BLVD
LOS ANGELES
CAL, 90039, TWX 910-497-2264........ 213 246-6767
R KEADLE, EMP 6200, ENG 600, OVER $10,000M
Ala Aironic Accessory Co Inc, 2516 N Memorial Pkwy
Huntsville 205 539-7211
Ariz Fred Schoeffler Assoc, Inc, 6912 E Horseshoe Rd
Scottsdale 948-3470
Ariz Circle Sales, Box 2626, Phoenix........ 967-1044
Cal Mauldin Co, 441 California Ave
Palo Alto 326-5291
Cal Fetty/Schoenduve, Inc, 7407 Melrose Ave
Los Angeles 651-4050

Cal Fetty/Schoenduve, Inc, 253 Twn & Cntry Vlg Palo Alto ... 321-7041
Cal T Perry, 371 Mellow Lane, LaCanada ... 790-1577
Cal Westrep, 626 W Commonwealth Ave, Fullerton
Cal C Donohoo, 716 Narcissus Ave Corona Del Mar ... 714 673-2120
Cal J R Campbell, 1930 Balearic Dr Costa Mesa ... 714 546-4435
Cal R C Beltz, 4227 Boston Ave LaCrescenta ... 213 249-5563
Cal R B Schuler, 334 W Chevy Chase Dr 48 Glendale ... 213 241-7245
Colo Peterson Co, 4949 Colorado Blvd Denver ... 333-5434
Colo Electronic Components Sales Inc, 2340 W Main Littleton ... 798-8481
Del T Wright, Egypt Rd, RD 2, Newark ... 398-3748
DC D J Hughes, 815 17th St NW Washington ... 393-5165
Fla Duay Enterprises Inc, 1515 Ensenada Dr Orlando ... 277-3296
Fla Spartak Inc, Box 915, Winter Park ... 644-3023
Ga NBS Sales Inc, 893 Church St, Marietta ... 881-3175
Ga Aironic Accessory Co Inc, 6427 Roswell Rd Atlanta ... 404 255-8422
Ill J D Allyn Co, 419 S Bruner St Hinsdale ... 325-0495
Ind Larry Berberich & Assoc, Box 445 Carmel ... 317 846-2906
Kan Geo E Harris Co, Inc, 2210 W 75th St Prairie Village ... 362-0213
La Aeromarine Corp, 1112 Magazine St New Orleans ... 522-0217
Md J A Maguire & Co, 5716 York Rd Baltimore ... 433-2613
Md Ned Cook, 146 MacAlpine, Ellicott City ... 465-4629
Md Aironic Accessory Co Inc, 102 N Main St Bel Air ... 301 838-9292
Md Wm I Duncan Assoc, 206 Washington Ave Baltimore
Mass Gerald Rosen Co Inc, 563 Worcester Rd Natick ... 655-2211
Mass Carl J Leuders & Co, Box 161 Needham Hts ... 449-0345
Mass Henry L Mann, Huntinghouse La North Scituate ... 647-2834
Mass Wm Holloran, 51 Morrison Rd Wakefield ... 617 245-4639
Minn Countryman, Wagner & Behnen, 1955 University St Paul ... 645-9151
Minn Hasse Assoc, Inc, 3825 York Ave N Minneapolis ... 588-0551
Mo Aerotronics Inc, Box 6236, Lambert Fld St Louis ... 426-4060
Mo Palatine Engrg Sales, Inc, 2050 Woodson Rd St Louis ... 426-7055
Mo J C Mankus & Assoc, 400 Brooks La, Hazelwood
NJ J A Maguire & Co, 726 Cooper St Camden ... 966-3118
NJ J A Maguire & Co, 705 Park Ave Plainfield ... 755-5267
NM Electronic Components Sales Inc, Box 3087, Sta D Albuquerque ... 344-8130
NY Aironic Accessory Co Inc, 161 Orinoco Dr Brightwaters ... 666-6510
NY O F Masin Co, 92 North Ave New Rochelle ... 636-1000
NY Rep Tech Inc, Box 98, Syracuse ... 454-0761
Ohio Components, Inc, 7461 N Linden La Cleveland ... 842-2737
Ohio R Daniells & G Potter, 4130 Linden Ave Dayton ... 513 252-6266
Pa Wm D Staats, 2766 Murray Ave Cornwell Hts ... 639-5231
Pa Wm I Duncan Assoc, 5452 Charles St Philadelphia ... 744-6110
Tex Allied Components Inc, 10468 East N W Hwy Dallas ... 348-6660
Tex Allied Components Inc, 4234 Richmond Ave Houston ... 664-4203
Tex Brice Co, Box 13150, Houston ... 526-3197
Tex Robert R Thomas Co, 8616 Northwest Plaza Dr Dallas ... 363-8591
Tex Robert R Thomas Co, 4031 Broadway Houston ... 644-2369
Tex Allied Components Co, Box 30572 Dallas ... 352-9143
Utah Peterson Co, 521 W 4th N Salt Lake City ... 355-7464
Utah Electronic Components Sales Inc, Box 2066 Salt Lake City ... 262-3700
Wash Allied Agencies, 1818 Westlake N 216 Seattle ... 284-4082
Wash R R Chase & Assoc, Box 548, Kirkland ... 454-2514
Can Sterling Aircraft Prods Ltd, 472 Victoria Ave St Lambert, Que
Ger Eliktro-Metall, Jagerhofstr 29 4 Dusseldorf ... 483041
Jap Sumitome Shoji Kaisha Ltd 8,1-Chome, Marunouchi Chiyoda-Ku Tokyo ... 211-0111
Aust Haramel Intl PTY Ltd, 157 Greville St Prahran, 3181, Vic

ELECTRONIC SPECIALTY CO, CONN DIV
401 WATERTOWN RD, THOMASTON
CONN, 06787, TWX 710 475-0537 ... 203 283-5801
A BLUM, EMP 225, ENG 7

ELECTRONIC STANDARDS CORP, 1426 W FRONT ST
PLAINFIELD, N J, 07063 ... 201 756-1252
EMP 90, ENG 6
Cal Garner Lawe Inc, Box 31388 San Francisco ... AT 5-3475
Cal Crown Electronics, Box 2573, Van Nuys ... 873-1266

ELECTRONIC TRAINING AIDS CO, BOX 53
CAMBRIDGE, MASS, 02141 ... 617 BR 2-4288
D GARDNER, EMP 6, ENG 1, UP TO $100M

ELECTRONIC TRANSFORMER CORP, 460 TOTOWA AVE
PATERSON, N J, 07509 ... 201 279-4445
M GORMAN, EMP 60, ENG 4, $500-$1,000M
Ariz Coronado Electronics Assoc, 5211 N Quail Run Pl Scottsdale ... 947-6383
Fla Wolcott Assoc, Box 1523, Winter Park ... 647-6505

ELECTRONIC TRANSISTORS CORP
153-13 NORTHERN BLVD, FLUSHING
N Y, 11354 ... 212 LE 9-6700
M BYRNES, EMP 70, ENG 6, $500-$1,000M
Cal Win W Tompkins, 3944 El Camino Real Palo Alto ... DA 6-7940
Cal Timco Sales, 16004 Sherman Way Van Nuys ... ST 1-7370
Iowa Koenig-Myers Assoc, 7603 Dennis Dr, Des Moines
Kan Koenig-Myers Assoc, Box 374 Shawnee Mission ... HE 2-8300
Mich W Scroggs, 2221 Harbor Hills Rd, Jackson
NY Minthorne International Co Inc 64-14 Woodside Ave, Woodside ... 899-8888
NC Bemar Assoc Inc, 4213 Barrett Dr High Point ... 883-9218
Pa Bemar Assoc Inc, 7217 Rising Sun Ave Philadelphia ... RA 8-6333
Va Bemar Assoc Inc, 809 W Broad St Falls Church ... 534-1004
Can Manis Assoc Reg'd, 7365 Mountain Sights Montreal ... 731-7748

ELECTRONIZED CHEMICALS CORP, S BEDFORD ST
BURLINGTON
MASS, 01803, TWX 710-322-0245 ... 617 272-2850
C BROWN JR, EMP 120, ENG 10, $1,000-$2,500M
Ala Compar Southern, 904 Bob Wallace Rd Huntsville ... 205 539-8476
Ariz Compar Rocky mtn, 84 W First St Scottsdale ... 602 947-4336
Cal Compar San Fran, 1815 Bayshore Hwy Burlingame ... 415 697-6363
Cal Angus Campbell Inc, 4417 S Soto St Los Angeles ... 213 587-1236
Cal R S Hughes Co, 5301 E Sheila St Los Angeles ... 213 368-2501
Cal Compar Los Angeles, 434 W Colorado Blvd Glendale ... 213 245-1172
Cal Stratos Inc, 6810 San Fernando Rd Glendale ... 213 849-5746
Cal R S Hughes Co, Box 37, Mt View ... 415 961-3700
Cal R S Hughes Co, 2802 8th St Berkeley ... 415 841-0522
Colo Compar Rocky Mtn, 300 E Hampden Ave Englewood ... 303 781-0912
Conn Compar New England, 2341 Whitney Ave Hamden ... 203 288-9276
Fla Compar Florida, Box 13109 Orlando ... 305 855-3964
Fla Brownell Inc, 307 27th Ave Orlando ... 305 424-5634
Ga Brownell Inc, 3026 Commerce Way Hapeville ... 404 767-9301
Ill Russ Diethert Co, 2030 W Montrose Ave Chicago ... 312 561-7627
Ind Russ Diethert Co, 5420 N College Indianapolis ... 317 255-6169
Iowa R W Farris Co Inc, 517 5th Ave Des Moines ... 515 244-8243
Md Compar Chesapeake, 7 Church Lane Baltimore ... 301 484-5400
Md Radio Elec Service Co, 5 N Howard St Baltimore ... 301 539-3835
Mass Compar N E, 88 Needham St Newton Highlands ... 617 969-7140
Mich C B Jensen Assoc, 26711 Woodward Ave Royal Oak ... 313 544-3700
Minn Compar Twin Cities, Box 8095 Minneapolis ... 612 922-7011
Mo Dipro Inc, Box 1427 Maryland Heights ... 314 726-4770
Mo R W Farris Co Inc, 1715 Baltimore Ave Kansas City ... 816 421-1751
NJ Compar Phila, 15 Potter St Haddonfield ... 609 429-1526
NM Compar Rocky Mtn, 2125 San Mateo Blvd NE Albuquerque ... 505 265-1020
NY Compar Albany, 419 Central Ave Albany ... 518 436-8536
NY Compar New York, 335 Crossway Pk Dr Woodbury ... 516 921-7210
NY Compar Albany, Box 135, Endwell ... 607 723-8743
NY Compar Albany, 104 Spruce Tree La Syracuse ... 315 471-3356
NY Brownell Inc, 85 Tenth Ave New York ... 212 924-6000
NC Russ Diethert Co, 903 E 2nd Ave Gastonia ... 704 865-3771
NC Compar Southern, 1106 Burke St Winston-Salem ... 919 724-0750
Ohio Compar Ohio, Box 4791 Fairview Park ... 216 333-4120
Ohio Compar Ohio, 408 W Main, Fairborn513 878-2631
Tex Allied Components Inc, Box 18146 Dallas ... 214 348-6660
Tex Compar Southwest, 8609 NW Plaza Blvd Dallas ... 214 363-1526
Tex Compar Southwest, 5757 Bellaire Blvd Houston ... 713 667-3420
Tex Allied Components Inc, 4234 Richmond Houston ... 713 664-4203
Wash Compar Northwest, 6133 Maynard Ave S Seattle ... 206 763-1711
Wash R S Hughes Co, 1107 S Bailey St Seattle ... 206 7-5750
Wis Russ Diethert Co, 217 Wisconsin Ave Waukesha ... 414 547-6575
Can Ideal-Hellermann Canada Ltd, 33 Frankcom St Ajax Ont
For AD Auriema Inc, 85 Broad St New York, NY ... 212 BO 9-7750
Fr AD Auriema France, 35 Rue Pergolese Paris ... 704-73-60
Fr Ad Auriema-France SARL, 90-98 Bd Victor-Hugo 92-Clichy Hauts de Seine
Ger AD Auriema-Europe GmbH 7100 Heilbronn-Sontheim Uhdestr 33 ... 07131 83394
Ger Paul Hellermann GmbH, 5 Siemens Str Pinnenburg by Hamburg
GB AD Auriema Ltd, 23-31 King St London W 3 ... 01-992-5388
GB Hellermann Electric Ltd, Crawley Sussex
Ital Auriema Italio SRL, Via Cagnola 3 Milano ... 384 634
Jap Ad Auriema-Japan
Swed AB Elektroutensilier, Akers Runo, Stockholm ... 0764 20110
Swit Otto Pfenninger AG, Dufourstr 56 8008 Zurich ... 051/47 74 10
Belg AD Auriema-Europe SA, 172a Rue Brogniez Bruxelles 7 ... 22 22 35
Spn Ad Auriema Spain, Paseo De Gracia 69, Barcelona 9
Aust Auriema (Australasia) Pty Ltd, 443 Kent St Sydney N S W ... 296485

ELECTRON MACHINE CO, BOX M, UMATILLA
FLA, 32784 ... 904 669-3101
G WILLIAMS, EMP 35, ENG 7, $500-$1,000M
Cal Devoe Engineering Co, 1462 Skyline Dr Fullerton ... 871-8076
Ill M E A Inc, 5 S Wabash Ave, Chicago ... 782-4467
Mass J M Lancaster Co, 147 Concord St Framingham ... 873-8893
NJ Wolock & Lott, 200 Market St Kenilworth ... 241-4333
NY W S Stamp, 127 So Long St Buffalo ... 716 634-2240
NC Mac Guire Instrument Co, 4425 Randolph Rd Charlotte ... 366-3454
Ohio R E Surkamp Co, Box 42222, Cincinnati ... 891-1838
Ohio Thorrat & Hanmer, Box 2945 Rocky River Cleveland ... 216 333-5950
Ore Donelson & Courtney Inc, Box 68446 Portland ... 654-3137
Pa Penn-Del Instr Sls Inc, 709 Bethlehem Pike Phila ... CH 7-7389
Can Industrial Projects Ltd, 3300 Cavendish Blvd Montreal Que ... 489-5769
Fr Nucleofrance, 30 Rue Raspail, Argenteuil 95
Fr Nucleofrance, 30 Rue Raspail, Argenteuil 95
GB Bendix Elctns Ltd, High Church St, New Basford Nott
Holl N V Technische Handelsonderneming Coimex-Vlaardingen, Veldweg 11 ... Hattem
Jap Columbia Import & Export Co LTD 3-1 Chome, Kanda-Sarugakucho, Chiyoda-ku Tokyo
Swed Aden Co AB, Regeringsgatan 89, Stockholm C
Aust Ronald J T Payne PTY LTD, 385 Bridge Rd Richmond

ELECTRON-OHIO INC, 1278 W 9TH ST, CLEVELAND
OHIO, 44113 ... 216 621-5377
J LIGHTBODY, EMP 25, ENG 6, $100-$250M
Cal Velmac Assoc, 210 California St San Francisco ... 421-1973
Cal Peninsula Assoc, 1447 Bayshore Palo Alto ... 322-1803
NY Van Valkenburgh Assoc, 611 Broadway New York ... AL 4-3722
RI Gaskill Industries, 229 Georgia Ave Providence ... 401 467-3980
Can Technitron Assoc, 769 Lasoie Ave Doival Que ... 514 631-6859

ELECTRO OPTICS INC, 477 RIVERSIDE AVE, MEDFORD
MASS, 02155 ... 617 396-6021
EMP 86, ENG 45, $2,500-$5,000M

ELECTRON-RADAR PRODUCTS, 4806 W CHICAGO AVE
CHICAGO, ILL, 60690 ... 312 ES 9-1232
J BAILEY, EMP 27, ENG 5, OVER $10,000M

ELECTRONS CO, 127 SUSSEX AVE, NEWARK
N J, 07103 ... 201 621-9666
R ROBERTS, EMP 100, ENG 8, $1,000-$2,500M

ELECTRON TECHNOLOGY INC, 626 SCHUYLER AVE
KEARNY, N J, 07032 ... 201 998-8100
G PERRY, EMP 60, ENG 7, $1,000-$2,500M
Pa Emlen-Peterson Co, Montgomery Lane Radnor ... MU 8-0151

ELECTRO-NUCLEAR LAB INC, 115 INDEPENDENCE DR
MENLO PARK, CAL, 94025 ... 415 322-8450
K CHOW, EMP 30, ENG 8, $500-$1,000M

ELECTRO-OCEANICS, 2000 COLORADO AVE
SANTA MONICA, CAL, 90404 ... 213 393-9706
O DIETRICH, EMP 30, ENG 3, $250-$500M
Cal C Romdry, 2000 Colorado Santa Monica ... 213 393-9706
Conn Lindgren Assoc, Box 61, Wilton ... 261-7937

Fla John L Marsh & Assoc, 341 W Indiantown Rd
Jupiter 305 746-4911
Ill Olson Engrg & Sls Corp, 1921 N Harlem Ave
Chicago 312 622-9777
Ind Delta Sales, 1407 N Illinois St
Indianapolis 631-4136
La Sub Sea Equip & Supply, Box 332 229 5th St
Gretna 504 361-899
Mass Lindgrey Assoc, 176 2nd Ave
Waltham 617 891-8045
Mo Zoppenfeld & Co, Box 3763
Kirkwood .... 314 TA 2-2333
NY Lindgren Assoc, Box 473
Huntington Station 516 261-7937
Pa Stein Instrument Co, 413 Johnston St
Jenkintown 215 885-2370
Tex J T Jones, 25 N Wynden Way
Houston .... 713 NA 2-8521

ELECTRO-OPTICAL SYSTEMS INC, 300 N HALSTEAD ST
PASADENA
CAL, 91107, TWX 910-582-3202 .... 213 351-2351
M LONG, EMP 2000, ENG 500, OVER $10,000M
DC F J Franco, 1735 Eye St NW
Washington 296-0233
Ohio B Giffin, Box 135, Centerville 434-5333
Tex Dean F Horning, 1730 Nasa Blvd
Houston 591-2610

ELECTRO OPTICS ASSOC, 974 COMMERCIAL ST
PALO ALTO, CAL, 94303 .... 415 327-6200
V MET, EMP 20, ENG 4, $100-$250M
Ala Technical Assoc, Box 4088
Huntsville 205 881-8494
Cal A-F Sales Engrg Inc, 94 S Los Robles Ave, Pasadena
Colo PLS Assoc, 7895 E Prentice Ave
Englewood 303 771-0140
Conn Instrument Assoc, 234 Murphy Rd
Hartford 203 525-9367
Fla Technical Assoc, 2319 E South St
Orlando 305 424-5681
Ill Solid State Electronics of Ill, 1925 N Harlem Ave
Chicago 312 889-8033
Mass Instrument Assoc, 30 Park Ave
Arlington 617 648-2922
NJ SBM Assoc, 1519 Stuyvesant Ave
Union 201 687-8737
NM PLS Assoc, 4200 B Silver Ave SE
Albuquerque 505 255-2330
NY SBM Assoc, 800 Linden Ave
Rochester 716 381-8330
NY SBM Assoc, 5858 E Molloy Rd
Syracuse 315 454-9377
NY SBM Assoc, 528 Old Country Rd
Plainview 516 433-1421
NY SBM Assoc, 28 Hobby St
Pleasantville .... 914 RO 9-1811
Tex Noakes Engr, 2128 W Alabama
Houston 713 529-6213
Tex Noakes Engr, Box 968, Irving 214 255-0441

ELECTRO-PACIFIC INC, 5782 THORNWOOD DR
GOLETA, CAL, 93017 .... 805 964-4878
N OTIS, EMP 20, ENG 3, UP TO $100M
Cal Halbar Assoc, 1805 W 3rd St
Los Angeles 213 387-8283
Ohio EV Swenson & Assoc, 1112 Talbott Tower
Dayton 513 223-4279

ELECTRO POWERPACS CORP, 253 NORFOLK ST
CAMBRIDGE, MASS, 02139 .... 617 876-9220
R HOLZMAN, EMP 75, ENG 12, $500-$1,000M
Cal Johnson Assoc, 260 Sheridan Ave
Palo Alto 415 327-1700
Cal Johnson Assoc, 5455 Wilshire Blvd
Los Angeles 213 934-0700
Tex Tyra Fox Scientific Assoc, 3447 Whitehall
Dallas 214 357-0564

ELECTRO PRODUCTS LABS INC POWER SUPPLY DIV
6125 W HOWARD ST, CHICAGO
ILL, 60648 .... 312 647-8744
J EMMA, EMP 100, ENG 3, $250-$500M
Ariz Hyde Electronics Co Inc, 4710 N 16th St
Phoenix 264-5609
Cal Logan Sales Co, 463 Brewster Ave
Redwood City 369-6726
Cal Carter & Rossney Assoc, 2600 W Olive Ave
Burbank 843-3292
Colo Hyde Electronics Co, 888 S Lipan St
Denver 936-3456
Conn Coakley Boyd & Abbett Inc, 6 Gaywood Dr
Waterbury 756-8766
Fla Murphy & Cota, 712 W Vassar Ave
Orlando .... 305 GA 4-2407
Ga Murphy & Cota, 586 Armour Circle NE
Atlanta 875-2525
Haw Dougherty Enterprises, 1164 Waimanu St
Honolulu 90544
Ill Gettleman & Litteken Co, 3736 Dempster St
Skokie .... JU 8-0030
Ind Fishman Assoc, 2060 E 54th St
Indianapolis .... CL 1-2401
La Texport Co, 411 S Murat Dr, New Orleans
Mass Coakley Boyd & Abbett Inc, 1424 Highland Ave
Needham 444-5470
Mich David Milski Co, 20110 Olympia Ave
Detroit 535-4012
Minn A J Warner Co, 4927-34th Ave S
Minneapolis 729-7371
Mo Paul G Scholz Co, 7309 E 109 Terr Box 9621
Kansas City 761-6522

NJ Steve Fisher Sales Co, 121 Cedar Lane
Teaneck 836-6661
NY Callahan-Ferguson Co, 107 Greenhedge Dr
Camillus 488-5518
NC Murphy & Cota, Box 6365
Greensboro 919 288-1923
Ohio Les A Morrow Co, 5100 W 164th St
Cleveland 216 267-2282
Pa John Mustico Co, Box 624, Havertown 446-1961
Pa James H Podolny Co, 5912 Penn Ave
Pittsburgh 441-0800
Tenn Texport Co, 5118 Park Ave
Memphis 901 683-0880
Tex Texport Co, 8811 Gaylord, Houston 713 464-2828
Tex Texport Co, 2411 Farrington St, Dallas 631-6270
Wash Don Smith Sales Co, 2320 N 45th St
Seattle 633-3160
Can Atlas Radio Corp Ltd, 50 Windold Ave
Toronto Ont 781-6174

ELECTRO PRODUCTS LABS INC TRANSDUCER DIV
6125 W HOWARD ST, CHICAGO
ILL, 60648 312-647-8744
J EMMA, EMP 100, ENG 6, $1,000-$2,500M
Ala Vesco, Box 1369, Huntsville 881-8830
Ariz King Engrg Co Inc, 5045 N 12th St
Phoenix 602 266-3485
Cal King Engineering Co, Ventura Blvd
Encino 981-0161
Cal King Engineering Co, 525 Grant St
San Mateo 342-9645
Cal King Engineering Co, Box 544
Escondido 745-2310
Colo Hyde Electronics Co, 888 S Lipan St
Denver 936-3455
Conn Coakley Boyd & Abbett Inc, 6 Gaywood Dr
Waterbury 756-8766
Fla Vesco, Box 250, Cocoa Beach 784-0784
Mass Coakely Boyd & Abbett Inc, 1424 Highland Ave
Needham 444-5470
Mich Electro Mation Assoc, 1137 Cole St
Birmingham 564-6517
Minn Automation Service Corp, 4815 W 77th St
Minneapolis 922-7587
Mo Jack M Gilbert Co, 131 E 70th St
Kansas City 333-8830
Mo Edw W Mooney Co Inc, 7505 Delmar Blvd
University City 725-8875
NJ Sensory Inc, 1 Kennedy Rd
Morris Plains 538-7661
NY Ossmann Instruments Inc, 3100 Monroe Ave
Rochester 586-0380
NY Ossmann Instruments Inc, Box 245
Vestal 785-9947
NY Ossmann Instruments Inc, 101 Pickard Dr
Syracuse 454-2461
NY Ossmann Instruments nc, Box 207
Wappinger Falls 297-7777
NC Systems Service Corp, Box 17525
Charlotte 377-3407
Ohio Fred R Sharp Co Inc, 12417 Cedar Rd
Cleveland 462-2770
Ohio Fred R Sharp Co Inc, 1720 Section Rd
Cincinnati 351-5091
Pa Bollinger & Bradford, Box 8088
Pittsburgh 561-2340
Pa C A Briggs Assoc, 114 Keswick Ave
Glenside 885-2244
Tex Whitson Engineering Co, 1323 Levee St
Dallas 748-0492
Wash Fred H Haight Co, 3212 Eastlake
Seattle 322-1818
Wis Automation Engineering Co
12740 N River Rd 43W, Mequon 242-1520
Can Atlas Instrument Corp, 50 Wingold Ave
Toronto 781-6174

ELECTRO RACK PRODUCTS CO
1742 CLEMENTINE AVE, ANAHEIM
CAL, 92802 .... 714 776-5420
C PETERSON, EMP 50, ENG 4, $500-$1,000M

ELECTRO-RENTS INC, 4131 VAN OWEN PL, BURBANK
CAL, 91504 .... 213 843-3131
J HUSSEY, EMP 30, ENG 3, $1,000-$2,500M
Ariz Electro-Rents Inc, 4430 N 19th Ave
Phoenix 602 264-9351
Cal Electro-Rents Inc, 2351 De La Cruz Blvd
Santa Clara 408 244-3871
Tex Electro-Rents Inc, 326 Kirby St
Garland 214 272-3404

ELECTRO SCIENCE LABS INC, 1133 ARCH ST
PHILADELPHIA, PA, 19107 .... 215 LO 3-1360
C WILKINS, EMP 20, ENG 10
Ariz Shefler-Kahn Co, 2017 N 7th St
Phoenix 258-7893
Cal Ruby Sales Corp, Box 487, Santa Clara 243-1694
Cal Biztek, 10639 Riverside, Toluca Lake 766-4890
Colo Inland Assoc, 2991 Peak Ave
Boulder 303 443-8213
Fla Barrett Assoc, Box 14205, Orlando 305-277-2857
Ill Raymond Klipp Assoc, 389 Center St
Grayslake 223-4837
Kan Inland Assoc, 6047 Howe Dr
Mission 913-362-2366
Md Jadelectronic Assoc, Box 115
Greenbelt 474-8161
Mass L K Ingber Inc, 842 Commonwealth Ave
Newton Centre 617-332-8574
Mo Inland Assoc, 453 N Lindbergh
Creve Coeur 314 993-0301
NJ D & R Assoc, 248 Lorraine Ave
Upper Montclair 744-8378

NM Shefler-HKahn Co, 408 Penna Ave
Albuquerque 265-7077
Ohio R G Sidnell & Co Inc, 3400 S Dixie Dr
Dayton 513-293-1194
Ohio R G Sidnell & Co Inc, 74701 Detroit Ave
Cleveland 216 221-1313
Pa Jadelectronic Assoc Inc, Box 5735
Philadelphia .... GL 5-3355
Tex Ruby Sales Corp, Box 9894
Dallas .... 214 TA 7-6630
Can R G Sidnell & Co Inc, 140701 Detroit Ave
Cleveland 216-221-1313
Fr Salies S A, 11 Rue Leon Morane
Paris 15 842-5256
GB Eurolectron, Station Road, Workingham Berks
Holl Eurolectron, Box 70, Bilthoven 03402
Jap Hakuto Co Ltd, Box 25, Tokyo Central

ELECTRO SCIENTIFIC INDUSTRIES INC
13900 NW SCIENCE PARK DR, PORTLAND
ORE, 97229 .... 503 646-4141
P LINTNER, EMP 190, ENG 21
Ala D Dickinson, Box 4127, Huntsville 205 536-4451
Cal Tom White, 999 Commercial St
Palo Alto 415 327-1571
Cal J Healey & W Lyon, Box 3097
Orange 714 633-4703
Ill Carter Elctns, 7203 S Western Ave
Chicago 312 776-1601
Ind Carter Elctns, 6333 Hollister Dr
Indianapolis 317 293-0696
Mass D Erickson, 580 Main St, Reading 617 944-5080
Minn Carter Elctns, 2401 W 66th St
Minneapolis 612 869-3261
NJ K Scherzer, Box 88, Bergenfield 201 385-9493
Ohio Instrumentation Systems Inc, 3481 Office Park Dr
Dayton 513 293-8095
Can Instronics Ltd, Box 100, Stittsville Ont 836-4411
For Omni Ray Ag Zurich
Technischi Beratung Wien Mollardgasse 54
A-1060 Wien Austria
For Intl Electronic Engr Ltd
Huerfanos 521 Casilla 10483
Santiago Chile 34439
For Arturo Brom, Cerro Cora Esq Yegros
Asuncion Paraguay
For Taiwan Development Co Ltd, 45-3 Changan E Rd
Sec 2 Taipei Taiwan 52320
For Coasin Uruguay S A, Cerrito 617 P 4 Esc 403-4
Montevideo Urug
Den Metric A/S, Naerum Hovedgade 121
2850 Naerum 01 80 42 00
Fr Tranchant Electronique S A
19 Rue Madam De Sanzillon
92 Clichy 270-2255
Ger Wenzel Elektronik, Lamontstr 32
8 Munchen 27 .... 48 65 58/59
GB D A Pitman Ltd, Mill Wks Jessamy Rd
Weybridge Surrey .... Wey 46327
Holl Ingenieursbureau Kempff
Laan Van Meerdervoort 762
Den Haag 070-68 56 56
Ital Silverstar Ltd, Via Dei Gracchi 2d
Milano 46 96 551
Ital Silverstar Ltd, Via Paisiello 30, Roma 855 366
Jap Hakuto Co Ltd, Box 25
Tokyo Central 503 3711-3719
Nor Morgenstierne & Co A/S, PB 2613 St H
Oslo 1 201635
SAfr F H Flanter & Co Pty Ltd, 43 Somerset Rd
Cape Town 2-9711
Swed Teleinstrument A B, Box 14
Vallingby 1 Stockholm 870345
Swit Omni Ray A G, Dufourstr 56
Zurich 8 .... 051 47 82 00
Arg Coasin S A, Virrey Del Pino 4071
Buenos Aires 52-3185
Belg Regulation-Mesure Sprl, 22 Rue Saint-Hubert
Bruxelles 15 .... 71 20 20
Braz Ambriex S A, Av Graca Aranha 226-6
Rio De Janeiro CZ-00 42-7990
Ind Electronic Enterprises
46 Karani Bldg New Charni Rd, Bombay 75376
Isrl Landseas (Israel) Ltd, 29 Bezalel St Box 16166
Tel Aviv 24-4311
Mex Fredin S A, Melchor Ocampo 212-505
Mexico 5 DF 46-44-21
NZ Sample Electronics (NZ) Ltd
Box 13258 Onehunga 6, Auckland 667-356
Spn Ataio Ingenieros, Enrique Larreta 12
Madrid 16 .... 235 3543
Fin Teratron, Puistokaari 12 Parksvangen
Helsinki 20 Helsingfors 67-2998
Aust Sample Elctns Aust Pty Ltd, 82 Alexander St
Crows Nest N S W 439-1441
Aust Sample Electronics (Vic) Pty Ltd, 9-11 Cremorne St
Richmond E 1 Victoria 42-4757

ELECTROSIL LTD, BOX 37, PALLION
SUNDERLAND, DURHAM, ENGLAND 71481
L MC CANN, EMP 430, ENG 30, $5,000-$10,000M

ELECTRO-SONIC-CONTROL, 1625 N MAIN ST
MANTECA, CAL, 95336 .... 209 823-7694
J HELMER, EMP 21, ENG 2, $250-$500M
Ariz W E Sanderson & Assoc, 5045 N 12th St
Phoenix 277-0077
Ill Schrade Batterson Co, 5253 W Belmont Ave
Chicago .... AV 2-0204
Mo Hunter Sales, 4378 Lindell Blvd
St Louis .... 314 JE 1-0467
Ohio S B Reese Sales Co, 3219 Hyde Park
Cleveland Hts .... YE 2-8079
Okla Paul King Co, 826 N Fulton, Tulsa 836-2501

Ore Food Engrg Service, Rood Bridge Rd
Hillsboro 503 648-3800
Pa Walter Koenig Co, Box 57
Allentown 215 433-6061
Tex D Jack Fair Co, 5014 Rexton, Dallas 348-0217
Tex Foster A Jordan Co, 5326 W Bellfort
Houston 723-9544
Va William Barbour Co, Box 3221
Richmond 703 272-6000
Aust Electronic Relay Co, 17 Dickson Ave, Artarmon NSW

ELECTRO-SONICS, INC, 10 MAIN ST, SPOFFORD
N H, 03462 .... 603 363-4701
F FRENCH, EMP 43, $250-$500M
Conn Walworth Controls Co, Inc, 472 Old Main St
Rocky Hill 529-6806
Ill Production Sales Co of Ill, 1925 N Harlem Ave
Chicao 312 237-8920
Ind Hoemig Sales Co, 3405 Butler Ct
Fort Wayne 483-6913
Mo Airborne Elctns, 7759 Loma Vista Dr
Kansas City 816 221-0312
NJ J A Maguire & Co Inc, 726 Cooper St
Camden 215 627-1670
NJ Corcoran Assoc, Box 384, Tabor 627-4146
NY R W Mitcher Co, Inc, Ellicott Sq Bldg
Buffalo 854-2517

ELECTROSPACE CORP, 12G MORRIS AVE, GLEN COVE
N Y, 11542 .... 516 OR 16100
N JACOBSON, EMP 450, ENG 30, $5,000-$10,000M
Cal Sodaro Co, 3753 S Robertson Blvd
Culver City .... UP 0-6001
Va George Gill, 1101 17th St, NW
Washington, d c 296-7997

ELECTRO SPACE FABRICATORS INC, CENTRE AVE
TOPTON, PA, 19562
EMP 30

ELECTRO-STANDARDS LABS INC, 3560 NW 34TH ST
MIAMI, FLA, 33142 .... 305 633-6975
S GOLD, EMP 11, ENG 1, $250-$500M
Fla W Palmer Lanagan, 126 30th Ave N
St Petersburg 862-6133
For Southern Int Sales Co, GPO Box 1896
San Juan PR 723-3879

ELECTRO-STYLUS MFG CO, 31 CHEYENNE BLVD
COLORADO SPRINGS, COLO, 80906 .... 303 633-5969
L MURRAY, EMP 10, ENG 2, UP TO $100M

ELECTRO SWITCH CORP, KING AVE, WEYMOUTH
MASS, 02188, TWX 388-0377 .... 617 335-5200
H GREY, EMP 210, ENG 12, $2,500-$5,000M
Cal Willard Nott & Co, 1485 Bayshore Blvd
S F 415 467-0547
Cal Westrep, 626 W Commonwealth Ave
Fullerton 714 879-4090
Colo Cummings & Assoc, 4772 So Kalamath St
Englewood 303 789-3449
Conn John E Drake Co, 129 Oenoke Ln
New Canaan 203 966 2580
Fla Buchanan & Abrams Assoc Inc
1512 E Concord Ave, Orlando 305 423-8995
Ill Rockford Controls Co, 21W181 Hill Ave
Glen Ellyn 312 469-6016
Md Naudain Assoc, Box 1
Lutherville-Timonium 301 252-5378
Mass J E Drake Co, 99 Cambridge St
Burlington 617 245-0699
Mich Hilltronics, Inc, 13720 Puritan Ave
Detroit 313 342-3242
Minn E A Dickinson & Assoc, 18827 Kingswood Ter
Excelsior 612 474-5273
Mo H J Weisler & Assoc, Inc, 2050 Woodson Rd
St Louis 314 428-3934
Mo Harlan J Weisler & Assoc, 3307 Chippewa Dr
Kansas City 816 454-5096
NY Frank Tylinski Co, 338 Northern Blvd
Great Neck 516 466-9070
NY T Ferguson Sales Inc, 228 Winton Rd N
Rochester 716 235-4577
NY T Ferguson Sales Inc, 4314 E Genesee St
DeWitt 315 446-3330
NC L G White Southern Inc, 1014 Brookstown Ave
Winston-Salem 919 725-3612
Ohio Hiltebrant-Greenleaf Co, 20412 Center Ridge Rd
Cleveland 216 333-5480
Ohio Hiltebrant-Greenleaf Co, 2412 Far Hills Ave
Dayton 513 298-8492
Pa Naudain Assoc, 1032 Suburban Sta Bldg
Philadelphia 215 564-3194
Pa Covert & Newman Co, 300 Mt Lebanon Blvd
Pittsburgh 412 563-0303
Tex Brice Co, 1402 Dunlavy St
Houston 713 526-3197
Wash C B Parsons & Co, 5319 Fourth Ave S
Seattle 206 762-7373
Wis E A Dickinson & Assoc Inc, 3612 N Green Bay Ave
Milwaukee 414 264-1080
Can George M Fraser Ltd, 1670 Bayview Ave
Toronto 416 487-5436
For Norcon Div Intrade Inc, Thomaston 203 283-5563

ELECTROSYN TECHNOLOGY LABS, INC
480 NEPONSET ST, CANTON
MASS, 02021 .... 617 828-2840
M ALTFILLISCH, EMP 10, ENG 3
Cal Ra Tron, Inc, Box 282, Northridge

ELECTRO-TEC CORP, BOX 667, ORMOND BEACH
FLA, 32074 .... 305 677-1771
R URBAN, EMP 475, ENG 12, $5,000-$10,000M
ADV PG 593
Ariz Hecht, Henschen & Assoc Inc, 3825 N 39th Ave
Phoenix 272-6677
Cal Electro-Tec Corp, 6850 Van Nuys Blvd
Van Nuys 989-3970
Cal Universal Components Co, Box 4352
Panorama City 781-2090
Conn R H Whitehead Assoc, Box 292
Guilford .... GL 3-3762
Fla Electro-Tec Corp, 2031 Chippewa Trail
Maitland 647-4954
Mass R H Whitehead Assoc, Statler Office Bldg
Boston 542-7676
Minn F E Peterson Co, 4501 Minnetonka Blvd
Mnpls 927-4453
NJ Electro-Tec Corp, Box 876, Athenia Sta
Clifton 471-5802
Va Electro-Tec Corp, U S Hwy 460, Blacksburg
Va Electro-Tec Corp, 2009 N 14th St
Arlington 524-2882

ELECTRO-TECHNICAL LABS DIV MANDREL INDUS INC
6909 SOUTHWEST FRWY, HOUSTON
TEX, 77036 .... 713 MO 7-6561
Z DENNISON, EMP 462, ENG 37, $2,500-$5,000M
Can Mandrel Industries Ltd, 303 Forge Rd SE
Calgary, Alb. 252-1106
Fr Mandrel Cie, 77 Chemin du Perimetre
Annecy Haute Savoie 454986

ELECTRO TECHNIC PRODUCTS
4642 N RAVENSWOOD AVE, CHICAGO
ILL, 60064 .... 312 561-2349

ELECTROVERT INC, 86 HARTFORD AVE, MT VERNON
N Y, 10553, TWX 1-37483 .... 914 664-6090
F FARRELL, EMP 65, ENG 6

ELECTRO-VOICE INC SUB GULTON INDUSTRIES
600 CECIL ST, BUCHANAN
MICH, 49107, TWX 810-270-3135 .... 616 695-6831
W SIMONITE, EMP 1300, ENG 60, OVER $10,000M
Ala Maitland K Smith Co, 3258 Cahaba Hgts Rd
Birmingham 967-3080
Ark Dick Bellew Sls, 1005 W 4th St
El Dorado .... UN 3-8325
Cal Carter & Rossney Assoc, 2600 W Olive Ave
Burbank 843-3292
Cal Meyer/Ross & Fleming, 113 Tenth St
San Francisco .... HE 1-0652
Colo McLoud & Raymond Sales, 2151 S Grape
Denver 756-1589
Conn Michael Scott Co, 46 Rockefeller
West Haven 923-0261
Fla Jack Sproch Sales, 3520 W Broward
Ft Lauderdale 587-3792
Ga Maitland K Smith Co, 31-16th St, N W
Atlanta 875-8031
Haw Wm Kolans, 158 Nokauea, Honolulu 811-628
Ill J D Boswell Sales, 700 N 20th St
East St Louis 274-0560
Ind Blind & Assoc, 1635 Gent St, N
Indianapolis .... ME 5-6291
Iowa Electronic Sales Co, 1310 Hertz Dr, S E
Cedar Rapids 364-4342
La Dick Bellew Sls, 3017D 18th St
Metairie 833-6496
Md Brothers & Conneen, 6302 Lincoln
Baltimore .... RO 4-7189
Md Brothers & Conneen, 4391 Crestheights Rd
Baltimore
Mass Michael Scott Co, 336 Washington
Wellesley Hills .... CE 5-0102
Mich Riley & Petchell Elect Sales
16515 Schoolcraft Ave, Detroit .... VE 8-9100
Minn Fisher Sls, Inc, 4820 W 77th St
Minneapolis 920-6577
NJ Brothers & Conneen, 3108 Pheasant Run Dr
Cinnaminson 829-9325
NM McLoud & Raymond, 1415 Richmond Dr, N E
Albuquerque 256-1749
NY Carduner Sls Corp, Box 900, Westbury 333-8170
NY LSM Assoc, Orchard Park, Phelps 548-4891
NY LSM Assocs, 109 Easton Ave, Buffalo 892-6551
NY LSM Assocs, 218 E Lake Rd, DeRuyter 852-3374
NC Maitland K Smith Co, 1605 Chatham
Charlotte .... FR 6-5951
Ohio C L Pugh Co, 2144 Riverside
Columbus 486-9678
Pa Brothers & Conneen, 131 Harned Rd
Springfield 543-8641
Tex Edw Miller Sales Co, 1450 Preston Forest Sq
Dallas .... AD 9-3789
Wash Wm R Lanphear Sales, 4031 Stoneway N
Seattle .... ME 3-4900

ELECTRO WINDERS CO INC, 854 W FRONT ST, COVINA
CAL, 91722 .... 213 ED 2-6207
G PAYNE, EMP 150, ENG 7, $1,000-$2,500M
Ariz Gramer & Co, 444 W Camelback Rd
Phoenix .... CR 9-1231

ELECTRO WINDINGS & COMPONENTS INC
725 FEDERAL AVE, KENILWORTH
N J, 07033 .... 201 245-3200
D MACMILLAN, EMP 65, ENG 3, $500-$1,000M
Conn John E Drake Co, Box 507
New Canaan 966-2580
Mass John E Drake Co, 99 Cambridge St
Burlington 245-0699
NJ Howard Kagan Assoc, 18 Tilghman Dr
Wayne 684-7682
NY Louis Ackerman Assoc, 150-08 87th Ave
Jamaica .... OL 8-8881
Ohio Walter Brauer Assoc, 29029 Euclid Ave
Cleveland 943-0601
Ohio Walter J Brauer & Assoc, Box 3085 Overlook Br
Dayton 426-1692
Pa Walter J Brauer Assoc, Box 8466
Pittsburgh 921-3213

ELESTA LTD ELECTRONICS, BAD RAGAZ
SWITZERLAND 085 9-25-55
P BERWEGER, EMP 500, ENG 20, $2,500-$5,000M
Mass Bordewieck Eng Sales Co, 221 Grove St
Boston .... VI 3-0845
Mass Machinery Electrification, Inc, 56 Hudson St
Northboro 393-2451
Den Sophus Berendsen A/S, Amaliegade 10
Kopenhagen .... CE 85 00
Fr Elesta France S a r l, 1, Avenue Herbillon
F-94 St-Mande 328 0730
Ger Elesta GmbH Elektronik, Dammgasse 5
D-775 Konstanz 2650
Ger E-G Hannemann, Gutleutstrasse 11
D-6 Frankfurt a M 1 331594
GB Britec Ltd, 17 Charing Cross Rd
London, WC 2 .... WHI 3070
Holl Handelscompagnie N V, Waalhaven O Z 1
Rotterdam 17 67 60
Ital I R T A Spa, Via Salaino 7, Milano 439 051
Nor Skandinavisk Elektronikk A/S
Ebbellsgt 1, Postboks 129, Oslo 42 58 73
Swed Ingeniorsfirma Hugo Tillquist, Sodra Langgatan 21
Solna 3 .... 83 01 00
Swed Anglo-Nordic-Motor AB, Skeppargatan 70
Stockholm 22 06 50
Belg Electro Appareils SA, 233, rue de la Loi
Bruxelles 4 339-973

ELGAR CORP, 8046 ENGINEER RD, SAN DIEGO
CAL, 92111 .... 714 279-0800
W BARKER, EMP 13, ENG 3
Ala James L Highsmith & Co, 3322 S Memorial Pkwy
Huntsville 881-3294
Ariz V T Rupp Co, 5901 W Highland Ave
Phoenix 266-4233
Cal V T Rupp Co, 307 Parkman Ave
Los Angeles 387-8224
Cal V T RUPP Co, 1182 Los Altos Ave
Los Altos 948-1483
Colo D E Bond Assoc, 2149 S Clermont St
Denver 756-1234
Conn Howard J Schuft Co, 965 Dixwell Ave
New Haven 865-1365
Fla James L Highsmith & Co, 2543 Industrial Blvd
Orlando 293-5202
Ill Megatek Inc, 1915 N Harlem Ave
Chicago 889-1277
Kan Leemark Engineers, Inc, Box 6175
Leawood 648-0124
Mass Howard J Schuft Co, 815 Washington St
Newtonville 527-5304
Mich Megatek Inc, 26847 Grand River Ave
Detroit 531-1403
Mo Leemark Engineers, Inc, 9623 St Charles Rock Rd
St Louis 423-8700
NJ Louis A Garten & Assoc, 375 Passaic Ave
Caldwell 226-7800
NM D E Bond Assoc, Box 11331
Albuquerque 247-3442
NY KLM Assoc, 9 Hollywood Dr
Whitesboro 736-2450
NY KLM Assoc, 8 Bear Hill Dr, Palmyra 597-9776
NY KLM Assoc, 201 S Main St
N Syracuse 458-6214
NC James L Highsmith & Co, 3733 Monroe Rd
Charlotte 333-7743
Ohio Megatek Inc, 2533 Far Hills Ave
Dayton 298-8638
Okla Applied Science Assoc, 7966 E 41st St
Tulsa 627-6199
Pa Louis A Garten & Assoc, 947 Old York Rd
Abington 927-1200
Tex Applied Science Assoc, 3707 Rawlins St
Dallas 526-8316
Tex Applied Sceince Assoc, 6218 Westheimer
Houston 781-1441
Va James L Highsmith & Co, Box 9225
Richmond 226-2060
Va Nine Assoc, Box 328, Annandale 256-9105
Wash Dewar & Assoc, 6361 1st Ave S
Seattle 763-2233
For Trans World Trade, Box 1037
Santa Monica, Cal 472-0444

ELGENCO INC, 1550 EUCLID ST, SANTA MONICA
CAL, 90404, TWX 910-343-6475 .... 213 451-1635
D BEECHER
ADV PG 320, 321
Ariz V T Rupp Co, 5901 W Highland Ave
Phoenix 602 266-4233
Cal V T Rupp Co, 307 Parkman Ave
Los Angeles 387-8224
Cal V T Rupp Co, d, San Diego .... CY 8-9835
Cal V T Rupp Co, 1182 Los Altos, Los Altos 948-1483
Conn Instruments Reps Inc, Box 165
Glastonbury 203 633-0777
Fla Electro Sales Engineering, Box 668
Oviedo 305 365-3283
Ill Chandler Assoc, Box 229, Geneseo 309 944-2010
La Mitchell Speairs Co, New Orleans .... WX 3161

Md Ron Davies Assoc, 11215 Oak Leaf Dr
Silver Spring 301 593-4900
Mass Instruments Reps Inc, 1046 Massachusetts Ave
Arlington 617 646-1034
Mich Chandler Assoc, 32401 W 8 mile
Livonia 476-5800
NJ Ebert Assoc, 50 Messenger La
Willingboro 877-5971
NM Schmidt Sales, 9611 Acoma Rd S E
Albuquerque 505 298-2415
NY Harvey J Krasner Assoc, Inc, 33 Great Neck Rd
Great Neck 487-0690
Tex Mitchell Speairs Co, Dallas 823-3013
Tex Mitchell Speairs Co, 4944 James Ave
Ft Worth 923-4657
Tex Mitchell Speairs Co, Houston .... WA 3-7616
Tex Mitchell Spears Co, San Antonio 341-1511
Can Alan Crawford Assoc Ltd, 65 Martin Ross Ave
Downsview, Ont 636-4910
Can Alan Crawford Assoc Ltd, 6999 Cote des Neiges Rd
Montreal .... RE 9-6776
Can Alan Crawford Assoc Ltd, Toronto 636-4910
Can Allan Crawford Assoc, Ltd, 376 Church Lane
Ottawa 725-1288
Can Allan Crawford Assoc, 5901 E Broadway
North Burnaby 2 b c 604 291-7161
Den Intelec AS, Copenhagen Ind Ctr
Holbergsgade l4 Copenhagen K 15 28 80
Fr Antares, 9 Rue Ernest-Cognacq, 92 Levallois-Perret
GB Claude Lyons Ltd, Valley Works
Hoddesdon, Herts .... Hod 67161
Swed Amerikanska Teleprodukter AB, Nybohovsgrand 56
Stockholm SV 18 29 30
Belg Electronic Instr SPRL, 21 Ave Paul Hymans
Bruxelles 15 .... 02 70 55 00
Ind Electronic Enterprises, New Chatni Rd
Bombay 375376
Fin Nores & Co, Fabianikatu 32, Helsinki 10 13360

ELGILOY CO, 853 DUNDEE AVE, ELGIN
ILL, 60120 .... 312 695-1900
B RICE, EMP 75, ENG 2, $1,000-$2,500M
Ariz ANP Sales Co, 5323 East Mockingbird La
Scottsdale 602 948-6195
Cal Marketek, Inc, One 1st St, Los Altos 941-0882
Colo George Lovering Co, Box 636 Edgemont Br
Golden 237-1406
Conn Elguoy, 17 Washington St, Vernon ... 203 872-6715
Ga Davis Metals Ind, 595 Wimbledon Rd
Atlanta .... TR 5-0911
Ind John Sears Sales, Box 18053
Indianapolis 546-7883
Ky R D Brockmeier Co, Box 7222
Louisville 897-1200
Mich Donigan & Assoc, 1486 West Maple St
Troy 313 642-5050
Minn R O Bittrick Co, 183 S Chatsworth
St Paul 226-6178
Mo Robert L Luck Co, 2201 Grand Ave
Kansas City .... HA 1-1444
NY Plantec Corp, 3923 Harlem Rd
Buffalo 716 839-1777
Ohio Apex Sales Agency, 12920 Triskett Rd
Cleveland 216 941-9000
Wash Tec-Rep Co, 169 Twelfth Ave
Seattle .... Main 2-0650
GB Gilby-Brunton, 47 Whitehall, S W I, London
Swit Institute Dr Ing R Straumann, Waldenburg
Canton of Basil-land

ELGIN ELECTRONICS INC, 2035 W 12TH ST, ERIE
PA, 16505, TWX 510-696-6689 .... 814 452-6773
D SAWTELLE, EMP 600, ENG 31, $5,000-$10,000M
Conn N E Shenk, 58 Pine Ridge Rd, Wilton 762-7012
Minn R F Lugo, 5907 Upton Ave, N
Minneapolis 335-0030
Mo Airborne Elctns, 7759 Loma Vista Dr, Kansas City
NY F R Westphal, 3841 Highland Rd
Skaneateles 685-3364
Pa L C Stuller, 3317 Cindy La, Erie 452-6773

ELITE ELECTRONIC ENGINEERING CO
5100 S ASHLAND AVE, CHICAGO
ILL, 60609 .... 312 436-0600
J KLOUDA, EMP 18, ENG 6, $250-$500M

ELIT-ELETTRONICA ITALIANA S R L
VIA GADAMES 100, 20151 MILAN, ITALY ... 30 47 84
V SAVELLI, EMP 60, ENG 3, $500-$1,000M
Den Tage Olsen A/S, 1, Roennegade
Copenhagen 294800
Nor Morgenstierne & Co A/S, Wesselsgate, 6
Oslo 201635
Swed Erik Ferner AB, Box 56
Bromma, Stockholm 252870
Gr E Devletoglou, 20, Voukourestiou St
Athens 623426
Fin Orbis Oy, Kalannintie, 52, Helsinki 434219
Aust RCA of Australia Pyt Ltd, 221 Elizabith St
Sydney 618541

ELJAY CORP, 2900 HERBERT ST, BALTIMORE
MD, 21216 .... 301 WI 5-2902
J SHARAR, EMP 22, $100-$250M

ELLIOTT CO, B K, BOX 3240, PITTSBURGH
PA, 15230 .... 412 471-3660
E DOBERSTYN, EMP 200, ENG 2, $5,000-$10,000M
Ala B K Elliott Co, 25 W Oxmoor Rd
Birmingham 786-2833
Fla B K Elliott Co, Box 5081, Orlando 424-3027
Mass B K Elliott Co, 281 Billerica Rd
Chelmsford 256-6172
Mich B K Elliott Co, 10136 Puritan Ave
Detroit 863-0822
NY B K Elliott Co, 37 Franklin St, Buffalo 854-5266
Ohio B K Elliott Co, 4551 Willow Pkwy
Cleveland 441-0441
Va A J Buettner, 5034 Waggaman Circle
McLean 356-7142

ELLIS ASSOCIATES, 67 LINCOLN AVE, PELHAM
N Y, 10803 .... 914 738-3360
G ELLIS, EMP 5, ENG 1, $1,000-$2,500M
Ala Technical Products Inc, 2109 W Clinton Bldg
Huntsville 205 539-1154
Cal Research Data Corp, 110 S Euclid
Pasadena 213 681-3451
Ill Pivan Engrg Co, 3535 W Peterson Ave
Chicago 312 539-4838
Ind Pivan Engrg Co, 8545 Northcrest Ct
Indianapolis 317 253-1681
Iowa Pivan Engrg Co, Box 1274
Cedar Rapids 319 365-6635
Kan Pivan Engrg Co, 5920 Nall Ave
Mission 413 722-1030
Mass Daner Assoc Inc, 684 Commonwealth Ave
Newton Centre 617 969-4650
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield 313 357-3700
Minn Pivan Engrg Co, 3203 N Highway 100
Minneapolis 612 537-4501
Mo S Sterling Co, 11734 Lackland Ind Dr
St Louis 314 542-3636
Mo Pivan Engineering Co, 400 Brookes Dr
Hazelwood 314 731-3000
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland 216 442-8080
Ohio S Sterling Co, 2673 Culver Ave
Dayton 513 298-7583
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh 412 884-5515
Tex Technical Products Inc, 10219 Hedgeway Dr
Dallas 214 357-9603
Wis Pivan Engrg Co, Box 437
Waukesha 414 547-5131
Can Intertechnology Ltd, Box 219
Don Mills, Ont 416 447-0738

ELLISON INSTRUMENT DIV DIETERICH STD CORP
GRAND AVE, BOX 96, NEW BUFFALO
MICH, 49117 .... 616 469-0110
P DIETERICH, EMP 35, ENG 2, $250-$500M
Ala Gauggel Eng Co Inc, Box 9065 - Crestline Hts Br
Birmingham 205 871-4684
Alas Du Alaska Co, Spenard
Ariz Hennesy Sales Co, Phoenix
Cal Jensen Instrument Co, Los Angeles
Cal Jensen Instrument Co, San Francisco
Colo Robert F Gardner, Denver
Fla Control Center Inc, Box 6268
Orlando 305 841-3781
Ill Frabimor Equip & Controls Co, 5300 McDermott Dr
Berkeley 312 449-6530
Ind Law Instrument Co, Angola
Iowa Deco Engrg Prod, 1112 Locust St
Des Moines 515 288-5721
Kan Walter E Hickman Co, Box 4248
Overland Park .... 913 DU 1-5456
Ky George Parnson, Fern Creek
La Eggelhof Engineers Inc, Shreveport
La Eggelhof Engineers Inc, 3812 Division St
Metairie 504 888-3541
Md H P Rodgers, Inc, Baltimore
Mass G K Kerisher Co, Boston
Mich Anscor, Inc, Detroit
Minn Dudley's Co, Minneapolis
Mo Cox Valve Specialties Inc, 9567 Page Blvd
St Louis .... 314 HA 3-0700
NJ Charles C Phelps Co, Inc, Union City
NY M S Jacobs & Assoc, Inc, Rochester
NY Heston Owens Inc, 218 Hartsdale Ave
Hartsdale .... 914 SC 5-4011
NY M S Jacobs & Assoc, 1324 Millersport Hwy
Buffalo 715 632-7533
NC Chet Adams Co, Charlotte
NC Chet Adams Co, Greensboro
NC Chet Adams Co, Raleigh
Ohio Owens Co, 6647 Linworth Rd
Worthington 614 885-7245
Ohio M S Jacobs & Assoc, 6900 Grnager Rd
Cleveland 216 524-3000
Okla Eggelhof Engineers, Inc, Tulsa
Ore Martig's Inc, Portland
Pa Huyette Co, Kimberton
Pa M S Jacobs & Assoc, Inc, Pittsburgh
SC Chet Adams Co, 812-B Wade Hampton Blvd
Greenville 803 233-8400
Tenn Dickey Engineering Co, Knoxville
Tex Delta Instrument Co, El Paso
Tex Eggelhof Engineers, Inc, Houston
Tex Eggelhof Engineers, Inc, Lubbock
Tex Eggelhof Engineers, Inc, San Antonio
Tex Eggelhof Engineers Inc, 2462 Calder St
Beaumont .... 713 TE 3-1109
Utah Pace-Turpin Co, 726 3rd W
Salt Lake City 801 521-3740
Wash R E Le Riche, Seattle
W Va M S Jacobs & Assoc, Inc, Charleston
Wis Process Equip & Controls Co, Box 8185
Milwaukee 414 352-6690
Can Palmer Therm Co, Ltd, Toronto, Ont
Can Graham Instru Ltd, 4508 Sixth St NE
Calgary Alb 403 276-1275
For Ellison Instr Div, 38 S Dearborn St, Chicago
BC Instrument Service Lab, 29 West Broadway
Vancouver 604 876-3361

ELMAG CORP, 54 CLARK ST, NEWARK
N J, 07104 .... 201 481-1600
I BLACK, EMP 25, ENG 1, $250-$500M
Conn R H B Sales, 72 Klondike Ave
Stamford 203 322-4363
Mass Branum Sales Co, Box 516
Lake Zurich 312 438-2356
NJ Bob Cameron Assoc, 3 Elaine Ct
Hillsdale 664-2525
NY K B C Engineering, 300 Northern Blvd
Great Neck 516 466-5711
Pa Samuel A Jeffries Inc, 105 Forest Ave
Narberth .... MO 4-8500

ELMAT DIV SEMIMETALS INC, 405 NATIONAL AVE
MOUNTAIN VIEW, CAL, 94040 .... 415 968-9359
R LORENZINI, EMP 55, ENG 4, $1,000-$2,500M
Cal R E Henriks, 4900 Double Dr
El Monte 213 442-1820
Mo W A Shaw, 6550 B Troost St
Kansas City .... 816 JA 3-6618
NY M Leavitt, 172 Spruce St
Westbury 516 333-8400

ELMEK DIV ELECTRO MECHANICS INC
160 WHITING ST, NEW BRITAIN
CONN, 06051 .... 203 225-3524
D ROBOTHAM, EMP 200, ENG 7

ELMWOOD SENSORS INC, 1655 ELMWOOD AVE, CRANSTON
R I, 02907, TWX 701-381-6413 .... 401 781-6500
A NATHAN, EMP 120, ENG 7, $1,000-$2,500M
ADV PG 708
Cal Paul F Wiley Co, 1632 Silverlake Blvd
Los Angeles 213 663-8028
Cal Montgomery Bros Inc, 1831 Bayshore Hwy
Burlingame
Colo O'Brien Sales Agency, 2785 N Speer Blvd
Denver 303 447-4713
Ga J E Joyner & Assoc, Box 10821 Sta A
Atlanta 404 758-7496
Ill J N Derby, 2701 W Howard St
Chicago 312 465-1441
Ind Industrial Components Co, 2701 W 16th St
Indianapolis
Md J A Maguire & Co, 5716 York Rd
Baltimore 301 433-2613
Mich L T Martensen Co, 46 Ridge Rd
Pleasant Ridge 313 543-3633
Minn W B Odegard & Assoc, 6504 Walker St
Minneapolis 612 929-2226
Mo Jack M Gilbert Co, 131 70th St
Kansas Cty 816 333-8830
Mo Edward J Hill Co, 915 Buder Bldg
St Louis 314 621-1818
NJ J A Maguire & Co, 721 Market St
Camden 609 966-3118
NJ G M Moch Co, 585 Broad Ave
Ridgefield 201 945-0080
NY G M Moch Co, New York City 212 279-6758
NY L-Tron Corp, Box 147, Skaneateles ... 315 685-6172
NY L-Tron Corp, Box 114, Latham 518 785-5032
NY L-Tron Corp, 140 Keller St
Rochester 716 436-4410
Ohio Allied Enterprises Inc, 7281 Pearl Rd
Cleveland 216 234-2606
Ohio Bek Assoc Inc, 1700 Needmore Rd
Dayton 513 278-1343
Ohio O H Bromberg & Assoc, 561 Reading Rd
Cincinnati 513 381-5728
Pa Technical Equip Mktg Co, Box 11613
Pittsburgh 412 341-3011
RI G H G Forman, 21 Stratford Rd
Edgewood 401 941-3477
Tex Electrofilm Inc, 617 Scottsdale Dr
Richardson 214 231-3920
Wash Martin Poggi Co, Box 786
Bellevue 206 454-2026
Wis R C Zingler, 2406 E Shorewood Blvd
Milwaukee 414 332-3452
Can Lake Engineering Sales Ltd, 123 Manville Rd
Scarborough, Ont 416 751-5980
For Dkfm Gunther Haase, A-1151 Wien - Box 39
Haidmannsgasse 4 .... 0222 83-64-56
Den E V Johanssen A/S, Scherfigsvej 1, Copenhagen
Fr Deltec S A, 30 rue des Amandiers
Paris 20e 797-52-93
Ger Hans G Werner & Co, Box 2867 Forststr 60
7 Stuttgart 1 .... 07-11 62-66-46
GB M L Industrial Prod Ltd, 292 Leigh Rd Trading Est
Slough Bucks .... SLOUGH 23838
Holl N V Handelmaatschappij van Santen
Heregracht 555, Amsterdam 65238-232113
Ital ReeR di Brunetti & C, Via Catania 22
10153 Torino 280-947
Swed Aktiebolaget Elektroholm, Dalvagen 12 Fack
Solna 1 82-02-80
Swit W Siegrist & Co, CH 4000, Basel 5 .. 061 33-13-54
Isrl Co-Da Ltd, 4 Hashuk St, Tel-Aviv 81170

ELNA-FOX ELECTRONICS CO LTD
7ZENO PL, VENICE, CAL, 90291 .... 213 392-3047
E CARLSON JR, ENG 1, $2,500-$5,000M
Cal J K Assoc, 1337 Middleton Ct
Los Altos 968-4986
Mass Associated Elctns Inc, 45 Kirk St
Lowell 617 454-4206
For Intl Mktg Group, Ltd, Box 64302
Los Angeles 213 271-5631

ELPAC INC, 18651 VON KARMAN AVE, IRVINE
CAL, 92664, TWX 910-595-1513 ... 714 833-1717
EMP 340, ENG 30, $5,000-$10,000M

ELPAC INC, COMPONENTS DIV
18651 VON KARMAN AVE, IRVINE
CAL, 92664, TWX 910-595-1513 ... 714 833-1717
R HANNA, EMP 105, ENG 5
Cal Testco Engineering, 941 Charleston Rd Palo Alto ... DA 6-5320
Cal Dorado Assoc, 13615 Victory Blvd Van Nuys ... 213 873-4124
Cal B Conkel, Box 20295, San Diego ... 714 448-8032
Colo Brown Technical Inc, 830 S Lipan St Denver ... 935-4052
Conn Todino Engineering, 132 New Haven Ave Milford ... 874-6643
Fla Technical Mktg Inc, 1511 E Robinson Orlando ... 305 424-8531
Ill Edward Schmeichel Co, 5968 W Chicago Ave Chicago ... ES 8-2070
Mass Todino Engineering, 50 Kearney Rd Needham Heights ... 444-7925
Mich Elko Sales Corp, 970 N Oxford Grosse Pointe Woods ... 313 884-7893
Minn Beta Engineering, 128 Jackson Ave N Hopkins ... 612 938-2551
Mo PEM Sales Co, 9537 Lackland Rd St Louis ... HA 7-7200
NJ A Wetterhahn Co, 4420 Crescent Blvd Pennsauken ... 609 662-1611
Ohio Sales Coordinators, Box 325, Wickliffe ... 942-3487
Tex Manufacturers Mktg Services, 10303 Carry Back Cir Dallas ... 214 357-6893
Wash Testco Engineering, Boeing Fld Seattle ... PA 3-9000

ELPAC INC CONTROLS DIV, 18651 VON KARMAN AVE
IRVINE
CAL, 92664, TWX 910-595-1513 ... 714 833-1717
J CRONIN, EMP 50, ENG 5, $2,500-$5,000M

ELPAC INC SYSTEMS DIV DATA
18651 VON KARMAN AVE, IRVINE
CAL, 92664, TWX 910-595-1513 ... 714 833-1717
B BALLARD, EMP 365, ENG 40, $5,000-$10,000M
Fla Carlisle Dent, 1355 Stewart Winter Park ... 644-2823

ELPAC INC SYSTEMS DIV RF
18651 VON KARMAN AVE, IRVINE
CAL, 92664, TWX 910-595-1513 ... 714 833-1717
G JUDSON, EMP 365, ENG 40, $5,000-$10,000M
Cal Crown Elctns, 5653 Lankershim Blvd N Hollywood ... 213 873-1266
Cal Wilson & Co, 3520 the Alameda Menlo Park ... 415 854-3253
Fla Cain & Co, 2523 Chippewa Trail Maitland ... 305 422-3460
Ill Cain & Co, 1203 Ironwood Dr Mt Prospect ... 312 253-3578
Md Cain & Co, 7401 New Hampshire Ave Hyattsville ... 202 296-8265
Mass Cain & Co, 45 Essex St, Melrose ... 617 665-8600
NJ Cain & Co, Box 261, South Amboy ... 201 727-1900
NY Cain & Co, 253-16 Northern Blvd Little Neck ... 212 428-3636
NY Cain & Co, 324 First St, Liverpool ... 315 437-2933
Ohio Cain & Co, 2485 Lipton Rd Columbus ... 614 861-2119
Pa Cain & Co, 1 Bala Ave Bldg Bala-Cynwyd ... 215 664-3797
Tex Cain & Co, 8609 N W Plaza Dr Dallas ... 214 369-2897
Can Cain & Co, 324 First St Liverpool N Y ... 514 844-0089

ELPA MKTG INDUSTRIES INC, THORENS & ATLANTIC
NEW HYDE PARK, N Y, 11044 ... 516 PI 6-3002
R WALTER, EMP 41, ENG 2, $1,000-$2,500M
Cal Koessler Sales Co, 818 N Fairfax Ave Los Angeles ... OL 3-1605
Cal Morris-Tait Assoc, 4260 Lankershim Blvd North Hollywood ... 877-4424
Cal Evans Marketing, 845 Malcolm Rd Burlingame ... 415 697-6575
Conn R S Reiss Assoc, 70 Jessie Dr West Haven ... WE 3-8542
Ga Paul Igou & Assoc, 4599 Northside Dr NW Atlanta ... 255-0396
Ill E N Seversen & Assoc, 11435 Circle Dr La Grange ... CH 6-4054
Kan Zimmer Sales Co, Box 207 Shawnee Mission ... HE 2-8900
Mass Hetherington Sales Co, 97 Bogle St Weston ... CE 5-5323
Mich Burcaw-Cowan & Co, 26971 Grand River Ave Detroit ... KE 3-7700
Minn H M R Inc, 9 East 22nd St, Minneapolis
NJ Harold A Moyer Co, 220 Haddon Ave Haddonfield ... HA 9-7792
NM Lee Davis Co, 1415 Richmond Dr NE Albuquerque ... 256-1749
Ohio F Ohman Co, 2590 Post Rd, Twinsburg ... 425-7445
Tex Wybomy Sales Corp, 7209 Scyene Rd Dallas ... 214 EV 1-4645
Wash Wm K Wood Co, 5908 Calif Ave SW Seattle ... 206 WE 5-9400

EL-RAD MFG CO, 4300 N CALIFORNIA AVE, CHICAGO
ILL, 60618 ... 312 478-7300
J CLARK, EMP 250, ENG 20, $1,000-$2,500M
Fla Hanson Assoc, Box 26, Melbourne ... 727-7474
Ill C J Saberson, Box 1108, Evanston ... 274-9668
Ind Frederick & Meily Co, 1601 S Hanna Fort Wayne ... 744-0641
Md Faion Lott & Co, Box 534, Glen Burnie ... 744-4611
Minn Ray Ripley Co, 6838 Pillsbury Ave Mnpls ... 866-8682
NY Megatone Corp, 202 Woodspath Dr Liverpool ... 652-7491
NY LCA Sales, 76 Main St, Tuckahoe ... 961-4700

EL-TECH MFG CO INC
GERMANTOWN PIKE & TROOPER RD, NORRISTOWN
PA, 19401 ... 215 279-1070
EMP 50, ENG 3, $250-$500M
Fla Hi-Co Assoc, Box 1317, Winter Park ... 607-5030
Ill Wm Alle Assoc, 522 W Montrose Chicago ... 539-6267
Kan Plains States Assoc, 1532 Barwise Wichita ... FO 3-4957
Mich Tech-Rep Assoc, 19784 Weyher Ave Livonia ... 474-3702
NJ LBS-Electronics Mfrs Reps, 615 John St Rivervale ... 391-9400
NY Tower Sales Engrg Co, 550 5th Ave New York ... 246-7611
Pa H J Goodman Assoc, 401 Mt Airy Ave Philadelphia ... 247-7116
Can Devitronex Ltd, 2 Tycos Dr, Toronto ... 781-5401

EL-TRONICS INC WARREN COMPONENTS DIV
S IRVINE ST, WARREN, PA, 16365 ... 814 723-6200
M SEARS, EMP 175, ENG 4, $1,000-$2,500M
Cal Wadsworth-Pacific Mfg Assoc, 71 Parker Ave Atherton ... 415-321
Cal Wadsworth-Pacific Mfg Assoc, 16801 Bollinger Dr Pacific Palisades ... 454-4313
Ill Robert McIntosh, 620 N Winthrop St Chicago ... 274-0601
NY Joseph Shay, 5 Willow Brook La, Troy ... 656-9810
NY J Robert Henderson, 37 Arty Dr Williamsville ... 634-8650
NY W Feikert, 183 Buckley Rd-Bayberry Liverpool ... 315 652-2865
NY B Reisner, 35 Stauber Dr Plainview ... 516 433-3559
Pa W B Candler, 1106 E 8th St Eddystone ... 215 876-8462

ELZEE METAL PRODUCTS CO INC, 779 39TH ST
BROOKLYN, N Y, 11232 ... 212 435-5000
C BAKER, EMP 100, ENG 3, $1,000-$2,500M

EMCEE ELECTRONICS INC, 177 OLD CHURCHMAN RD
NEW CASTLE, DEL, 19720 ... 302 EA 8-1354
M CORZILIUS, PRES, EMP 30, ENG 3, $250-$500M

EMC TECHNOLOGY INC, 1300 ARCH ST
PHILADELPHIA, PA, 19107 ... 215 563-1340
S ROLLIN, EMP 40, ENG 6, $500-$1,000M
Cal Manufacturing Assoc, 1738 Colorado Ave Santa Monica ... GR 9-8884
Colo I W Strong & Assoc, 635 Canosa Ct Denver ... 292-6900
Conn Edcom, Inc, 965 Dixwell Ave New Haven ... MA 4-7291
Fla Cain & Co, 2523 Chippewa Trail Maitland ... 422-3460
Mass Edcom, Inc, 815 Washington St Newtonville ... WO 9-9710
Mich Willard Spenser Co, 21500 Greenfield Rd Oak Park ... 398-8005
Mo Technical Marketing Assoc, 2050 Woodson Rd St Louis ... 427-3600
NY Gray & Reed Assoc, 9 Dunford St Huntington Station ... GE 3-3333
NY I A Hotze Co Inc, 112 Dewitt St Syracuse ... 479-6641
Pa Jadelectronic Assoc, Box 5735, Phila ... GL 5-3355
Tex Texas Avionics Co, 4515 Prentice St Dallas ... EM 8-3566
Fr Salies S A, 11, Rue Leon Morane Paris ... 842-52-56
Ger Neumueller Co GMBH, 8 Muenchen 13 Schraudolph Str 2a
GB C T (London) Ltd, 27 Ashley Pl Westminster London, S W 1 ... 8631
Jap Hakuto Co Ltd, Box 25, Tokyo

EMD COMPONENTS INC, 1450 E 289 ST, WICKLIFFE
OHIO, 44092 ... 216 943-2424
J PATZ, EMP 75, ENG 8, $1,000-$2,500M
Conn R W Best, 119 Ann St, Hartford ... CH 7-7568
Fla Harry Tapp, 717 Solar Isle Ft Lauderdale ... JA 3-8785
Ill Applied Eng Sales Co, 4750 Milwaukee Ave Chicago ... 777-4341
Mich Elko Sales Corp, 970 N Oxford Rd Grosse Pointe Woods ... 313 884-7893
Minn E E Rempfer & Assoc, 215 6th St S E Minneapolis ... FE 6-4616
Mo Wells-White Co, 569 Melville Ave, St Louis
NJ Seaboard Assoc, 900 North Ave Plainfield ... PL 6-1664
NY Larry Dawson, Box 255, Waterloo ... 585-9923

EMELOID CO INC, 1239 CENTRAL AVE, HILLSIDE
N J, 07205 ... 201 EL 2-1944
G EMERSON, EMP 150, ENG 4

EMERSON & CUMING INC, CANTON
MASS, 02021, TWX 710-348-1324 ... 617 828-3300
W CUMING, EMP 300, ENG 30, $5,000-$10,000M
Cal Emerson & Cuming Inc, 604 W 182nd St Gardena ... FA 1-6650
Fla DBM Research Corp, Stoddard Bldg Cocoa Beach ... SU 3-2438
Ill Emerson & Cuming Inc, 3450 Commercial Ave Northbrook ... 272-6700
Md Emerson & Cuming Inc, 2446 Reedie Dr Silver Spring ... 949-2777
Minn Electro-Serv Co, 1455 W Lake St Minneapolis ... 827-2907
NY Emerson & Cuming Inc, 315 Walt Whitman Rd Huntington ... HA 1-3430
Ohio Emerson & Cuming, Inc, Box 7035, Sta B Dayton ... 278-0311
Pa Emerson & Cuming Inc, 1340 E Washington La Philadelphia ... VI 8-2040
Tex Emerson & Cuming Inc, 921 Bowser Richardson ... 235-7394
Can Willer Eng & Sales Co, 1800 Avenue Rd Toronto, Ont ... 783-3373
Den Harold Skov, Sotoften 31 Copenhagen-Gentofte ... GE 6868
Fr S D E E, 5 Ave du Marechal de Lattre de Tassigny 92 Boulogne-sur-Seine ... 408-53-10
Ger Emerson & Cuming, GmbH 7023 Stuttgart-Echterdingen Lochwaldweg No 9 ... 791819
GB Emerson & Cuming U K, Ltd, 828, Harrow Rd Sudbury Town, Wembley, Mdsx ... 01 904 9391
Ital Vagnone & Boeri, Corso Re Umberto 18 Torino ... 47981
Jap Munzig Intl Japan K K 15-1 1-Chome Nishi-Shimbashi Minato-ku Tokyo ... 503-4751
Swed Aktiebolaget Galco, Gavlegatan 12A Stockholm ... 23 76 20
Swit Rolf P Praxl, Zurich 38 ... 91 53 64
Belg Emerson & Cuming Europe N V, Nijverheidsstr 24 Oevel ... 014 59 326
Aust Wm J McLellan & Co Pty Ltd The Crescent, Kingsgrove Sydney, NSW ... 50-0111

EMERSON ELECTRIC CO, INDL CONTROLS & ELCTNS
DIV, 9550 TRUE DR, ST LOUIS
MO, 63132 ... 314 423-8800
L RATHZ, EMP 100, ENG 17
Cal C L Norton Co, 1394 Lowrie Ave San Francisco ... 589-8931
Cal Priest Enterprises Inc, 2455 Nalin Dr Los Angeles ... BR 2-0960
Ill Bor-mil Co, 2723 N Clinton St River Grove ... 453-3140
Ill Kelburn Engr Co, 6545 N Olmsted Ave Chicago ... 775-5722
Ind Kelburn Engr Co, 1251 Dori La Indianapolis ... 846-5574
Md Harry M Wood Co, 2117 Eastern Ave Baltimore ... 276-1505
Mass The Benson Co, 150 Spring St, Shrewsbury
Mass Owen C Jones Co, Box 151 Wellesly Hills ... 235-7440
Mich Superior Detroit Co, 14830 Fenkell Ave Detroit ... 837-4370
Mo Mill Supply & Mach Co, 4812 Washington Ave St Louis ... FO 1-4717
NJ Positronics Equip Inc, 12-92 Plaza Rd Fairlawn ... 797-2144
NJ Shingle & Gibb Co, Box 9, Camden ... 665-4411
NJ Lindsay-Oberholzer Inc, 420 Whitehead Rd Trenton ... 586-2020
NY Morton Tool Co, Box 43, Hiler Br Buffalo ... 695-1056
Ohio Scott-Baker Co, 3439 W Brainard Rd Cleveland ... 831-9500
Ohio Kiemle-Hankins Co, Box 2287 C S Toledo ... 698-1541
Pa Rite-Way Tool Co, 4700 Clairton Blvd Pittsburgh ... 884-6226
Pa Philadelphia Tool Co, 112 Bala Ave Bala-Cynwyd ... MO 4-8353
Pa Autotrols Inc, 121 Venango Pl Pittsburg ... 931-4431
Wis Kendall-Collison Inc, 6915 W Capitol Dr Milwaukee ... 464-4200
Wis Kelburn Engr Co, 2445 Thornapple La Brookfield ... 786-5630

EMERSON PLASTICS CORP, 1383 SEABURY AVE
BRONX, NEW YORK, 10461 ... 212 SY 2-4400
A MARGOSIAN, EMP 40, ENG 3, $500-$1,000M
Cal Insulation Components Assoc 4645 E Olympic Blvd, Los Angeles ... NE 2-8528
Ind Ralph J Haffey Co, 4127 N Clinton Fort Wayne ... 748-1159
Md P Mangini, 6630 Baltimore Natl Pike Baltimore ... 744-1991
Ohio C J Voneman & Co, 18522 Detroit Ave Cleveland ... 221-2800
Wis B A Flatley & Assoc, 324 E Wisconsin Ave Milwaukee ... 276-9121

EMI ELECTRONICS LTD, HAYES, MIDDLESEX
ENGLAND ... 01-573-3888
J SHARPE, EMP 8500

EMI COSSOR ELECTRONICS LTD, BOX 1005
DARTMOUTH, N S
CAN, TWX 014 42244 ... 902 466-7491
D LOADER, EMP 500, ENG 65, $5,000-$10,000M

DC B L Robinson, 1629 K St NW
Washington 202 296-7868
Can Corporation House Ltd, 160 Laurier Ave W
Ottawa .... CE 5-4306

EMIHUS MICROCOMPONENTS LTD
BATH RD, CRANFORD, HOUNSLOW, MIDDX
ENGLAND, TWX 23613 .... 759 9584/9961
J CHAMBERS, EMP 600, ENG 25, $5,000-$10,000M
Cal Hughes Microelectronics Div, Newport Beach

E & M LABS, 7419 GREENBUSH AVE
NORTH HOLLYWOOD
CAL, 91605, TWX 910 499-2670 .... 213 983-0912
G UNDERBERGER, EMP 130, ENG 25, $2,500-$5,000M
Ala Beacon Electronic Assoc Inc, Box 3127
Huntsville 536-5065
Ariz Jarko Assoc, 2032 N 27th Ave, Phoenix .. 272-2684
Cal 3 DBM Inc, 7424 Greenbush Ave
No Hollywood 875-0876
Cal L & M Engineering Inc, 2620 The Alameda
Santa Clara 243-6661
Colo Hyer Electronics, 7895 E Prentice Ave
Englewood 771-5285
Fla Beacon Electronic Asoc, Inc, 540 S Maitland Ave
Maitland 647-3498
Fla Beacon Electronic Assoc, Inc, Box 10212
Ft Lauderdale 564-4298
Fla Beacon Electronic Assoc, Inc, Box 3097
Clearwater Beach 446-7902
Ga Beacon Electronic Assoc, Inc, Box 29201
Atlanta 636-7526
Ill Communications Engrs, 7106 N Western Ave
Chicago 761-0548
Kan Simpson Enterprises, Box 3066
Wichita 943-0502
Md VPI, 561 Dorsey Rd NW, Glen Burnie 768-0550
Mass ADDELCO Corp, 56 Pickering St
Needham 444-4754
Mich Anderson Electronics Co
19471 James Couzen Hwy, Detroit 342-7133
Mo Simpson Enterprises, 514 Parkwood Blvd
Kirkwood 965-115
NJ Central Assoc, 44 N Dean St
Englewood 568-0808
NM Hyer Electronics, 210 LaVeta,NE
Albuquerque 265-5767
NY Naco Electronics, 119 Luther Ave
Liverpool 474-7481
NY Naco Electronics, 99 Harvest Rd
Fairport 473-4169
NY Naco Electronics, 2631 Edgewood Rd
Utica 732-1801
NY Naco Electronics, 14 Lori St
Poughkeepsie 462-2730
NC Beacon Elctn Assoc, Box 503
Jamestown 454-1010
Pa CE Snow Co, 258 N Main St, Ambler 646-9451
Tex Spacetronics, 4515 Prentice Ave
Dallas 368-1215
Wash Harry Levinson Co, 1211 E Denny Way
Seattle 323-5100
Can Canadian Micro Elctns, Box 6157 Sta J
Ottawa 725-2332
Den Intelec Akieselobah, Holbergsgade 14, Copenhagen
Fr Cerel, 14-16 Rue Des Lilas, Paris
Ger Nucletron Vertriebs GMBH, 60 Gartner Str
Munich 546081
GB James Scott, Ltd, Carntyne Ind Est, Glasgow
Ital Metroelittronica, Viale Cirene N18, Milan
Jap Seki & Co, Ltd, 92-Chome Ni Honbashi, Tokyo
Swed Amerikanska Teleprodukter, Nybohovsgrand 56
Stockholm
Belg DanielDelgay S A, 58A Chaussee e Charleroi
Brussels
Ind Electronic Enterprises, 46 Karani Bldg, Bombay
Isrl M Kochn, Box 1147, Jerusalem
Aust Jacoby Mitchell & Co, Ltd, 469-475 Kent St, Sydney

EMP ELECTRONICS INC, 1231 W 23RD ST, TEMPE
ARIZ, 85281 .... 602 967-8604
P NEWTON, EMP 75, ENG 5, $1,000-$2,500M
Cal Whitney Engnrg, 7732 Densmore Ave
Van Nuys 213 989-5111
Kan Aerotronics Inc, Box 3425, West Sta
Wichita 316 264-7925
Minn L J Erger, Box 85, Waysata 612 471-9423
Mo Aerotronics Inc, Box 6236, Lambert Fld
St Louis .... 314 HA 6-4060
Pa W F Satterthwaite, Box 191
Lansdowne .... 205 MA 3-5100
Tex Whiteside Sales Co, Box 22, Garland 276-8382

EMPIRE ELECTRONICS CO INC, 60 SPRUCE ST
PATERSON, N J, 07501 .... 201 274-8282
M SURASKY, EMP 40, ENG 1, $500-$1,000M

EMPIRE SCIENTIFIC CORP, 1055 STEWART AVE
GARDEN CITY, N Y, 11530 .... 516 741-2700
E TOOMBS, EMP 96, ENG 7, $1,000-$2,500M
Cal Slocum Industries Inc, 7219 Canby Ave
Reseda 245-8544
Cal C L Repp Co, 12121 Wilshire Blvd
Los Angeles 879-0358
Ill Dwight Smith Assoc Inc, 32 S River St
Aurora 896-0828
Mass Associated Elctns Inc, 45 Kirk St
Lowell 617 454-4206
NM A L S Electronics, Box 11626
Albuquerque 298-2575
NY Marsey Sales Inc, 206 Park Ave
Rochester 442-9700
Ohio Fred R Sharp Co, 12417 Cedar Rd
Cleveland 321-4200
Tex Techno Assoc, 2621 Manana Dr, Dallas ... 357-9213
Can Empire Scientific Corp Ltd, 1476 Eglinton Ave W
Toronto 787-5211
Jap Asahi Trading Co Ltd, C P O Box 49
Tokyo 262-4321

EMPORIUM SPECIALTIES CO INC, 2800 E 116TH ST
CLEVELAND, OHIO, 44120 .... 216 647-8640
M OSBORN, EMP 165, ENG 4
Cal M Haase, 8647 Arbor Dr
El Cerrito 415 527-2604
Ill Karl D Engle Co, 3621 W Devon Ave
Chicago 312 539-1820
Mass First Natl Elctns Inc, Lakeside Park N Ave
Wakefield 617 245-6240
NY Geo Scott, 50 Glen St, Glen Cove .... OR 6-2088
Va H Temple, 810 N Main St, Harrisonburg 4-7381
Can Anbak Sales, 3208 Lendworth
Cooksville Ont 416 625-1061

EMR COMPUTER, 8001 BLOOMINGTON FRWY
MINNEAPOLIS, MINN, 55420 .... 612 888-9581
EMP 500, ENG 100, OVER $10,000M
Cal EMR Computer, 505 W Olive
Sunnyvale 408 245-3694
Cal EMR Computer, 5959 W Century
Los Angeles 213 776-3335
Ga EMR Computer, 1409 Peach Tree St NE
Atlanta 404 892-1471
Ill EMR Computer, 119 E Ogden
Hinsdale 312 323-0450
Md EMR Computer, 1320 Fenwick La
Silver Spring 301 588-7515
NY EMR Computer, 68 Van Bomel
Oakdale 516 589-5010
NY EMR Computer, 19 W 44th St
New York 212 679-5954
Tex EMR Computer, 3616 Richmond Ave
Houston 713 622-9610
For Schlumberger Overseas GmbH
A1120 Vienna Tivoligasse, Vienna 83-54-91
Fr EMR Computer, 33 Ave Victor Hugo 9B
Paris 727-8148
Ger Schlumberger GmbH, 8000 Munchen 15
Bayerstr 558201
GB Solartron Elctn Group Ltd, Farnborough
Hampshire 44433
Ital Schlumberger Italiana Spa, Via Veniero 7
Milan 321-544
Swed Schlumberger Svenska AB
Vesslevagen 2-4 Lidingo, Stockholm ... 765-28-55
Swit Schlumberger Instrumentation SA
8 Ave de Frontenex, Geneva 35-99-57
Aust Solartron Australia, Box 138, Kew Vic 86-9535

EMR DIV WESTON INSTRUMENTS INC, BOX 44
PRINCETON
N J, 08540, TWX 843-457 .... 609 924-9100
EMP 1600
Cal EMR, 505 W Olive St, Sunnyvale 245-3694
Cal EMR, 5959 W Century Blvd
Los Angeles 776-3335
Fla EMR-Telemetry Div, Box 3041
Sarasota 958-0811
Ill EMR, 119 E Ogden Ave, Hinsdale 323-0450
Md EMR Aerospace, 5012 College Ave
College Park 864-6340
Md EMR, 1320 Fenwick La, Silver Spring 588-3122
Minn EMR-Computer Div, 8001 Bloomington Frwy
Minneapolis 888-9581
NY EMR Inc, 6143 E Jerricho Tpk
Commack 368-5470
Ohio EMR Inc, 815 S Main St, Dayton 223-8846
Tex EMR Inc, 3616 Richmond Ave, Houston ... 622-9610
Tex EMR Inc, 8888 Dyer St, El Paso 751-2344
Fr Ste D'Instr Schlumberger, 241 Ave Gambetta
Paris 20 797-57-69
Ger Schlumberger Overseas, 8000 Munich 15
Bayerstr 13 .... 0811/558201-05
GB Solartron Electronic Group Ltd, Victoria Rd
Farnborough Hamp 44433
Ital Schlumberger Italiana Spa, Via Veniero 7
Milano 321 544
Jap Marubun Co Ltd
1 2-Chome Odenmacho Nihonbashi Chuo-K
Tokyo 662-8151
Swed Schlumberger Svenska AB, Vesslevagen 2-4
Lidingo 1 Stockholm 652855
Aust Solartron Australia, Box 138
Kew Victoria 86 9535

EMR-HATBORO DIV WESTON INSTS INC
COUNTY LINE RD, HATBORO
PA, 19040, TWX 510-665-6589 .... 215 OS 2-1240
J HANSEN, EMP 120, ENG 44
Ala Kemp Instrs, 4306 Governors Dr W
Huntsville 837-4304
Cal Weston Instr Inc, 736 S Monterey Pass Rd
Monterey Park 268-9271
Cal Morse Assoc, 1721 Chestnut St, San Francisco
Fla Truex Assoc, 211 E Robinson, Orlando 422-1293
Md Brimbert Assoc, 814 Thayer Ave
Silver Spring 301 588-7790
Mass Daner Assoc, 684 Commonwealth Ave
Newton Centre 617 969-4650
Mo Florence & Meyer Inc, 406 W 34th St
Kansas City 816 Lo-1-7282
NY Essco Controls Inc, 19 W 44th St
New York 212 661-1925
NY DB Assoc Inc, 3307 Erie Blvd E
DeWitt 315 446-0220
Ohio Measurement Instr Inc, 2074 Arlington Ave
Columbus 614 488-9753
Tex Kemp Engrg Co, 2618 Manana Dr
Dallas 214 357-6663
Wash Western Electro Dynamics Co
584 Dexter Horton Bldg, Seattle ..... MU 2-8412

EMTEC INC, EMPIRE SPRING DIV, 140 OLIVE ST
ELYRIA, OHIO 216 323-3287
R WOLFE, EMP 135, ENG 10, $2,500-$5,000M
Cal Emtec Inc, Griffin Spring Div, 5217 Industry Ave
Pico Rivera 685-7378
Ill J McKivitt, 1823 Country Knolls La
Elgin .... SH 1-0855
Mich J E Murtagh Assoc, 29600 Northwestern Hwy
Southfield 444-1260
Mo T J Fitzsimmons Co, 4880 Fairview Ave
St Louis .... FL 3-2257
NY Production Parts, 230 Winton Rd N
Rochester 288-2540

EN-CER INC, 16850 S STATE ST, SOUTH HOLLAND
ILL, 60473
N HUPPERT, SR, EMP 15, ENG 2, UP TO $100M

ENCLOSURE CORP, 1701 INDUSTRIAL BLVD
PENNSAUKEN, N J, 08110 .... 609 665-4321
R EDELMAN, EMP 25, ENG 3, $500-$1,000M
Ala ISI, Box 2091, Huntsville 205 536-9686
Conn J & J Assoc, 953 Dixwell Ave
Hamden 203 624-7800
Fla CE Snow, 2400 E Oakland Pk Blvd
Fort Lauderdale 305 563-2448
Md Brimberg Assoc, 814 Thayer Ave
Silver Spring 301 588-7790
Mass J & J Assoc, 225 Crescent St
Waltham 617 899-0160
NY C & M, 6 Joan La, Monsey .... 914 EL 2-0787
NY Floring & Murray, 6585 Kinne Rd
Syracuse 315 446-5555
NY Floring & Murray, Box 66
Webster .... 716 CH 4-1100
Pa C E Snow, 258 N Main St
Ambler .... 215 CH 4-2626
Tex Stevens Sales, Box 34493
Dallas .... 214 CH 1-3645

ENDEVCO CORP, 801 S ARROYO PKWY, PASADENA
CAL, 91109, TWX 910 588-3272 .... 213 681-2401
J BORST, EMP 350, ENG 50, $5,000-$10,000M
Cal W Zuckert, 3921 E. Bayshore Rd
Palo Alto 415 969-3212
Fla L E Drake, 783 Northlake Blvd
North Palm Beach 305 848-3819
Ill R L Karlson, 306 Busse Hwy
Park Ridge 815 825-4600
Md E H Rosenthal, 1923 West St
Annapolis 301 268-2566
Mass Endevco Corp, 2120 Commonwealth Ave
Auburndale 617 969-8063
NJ L E Leopold, 6 S Haddon Ave
Haddonfield 609 428-5285
Ohio H N Gilmore, 1578 Akron-Peninsula Rd
Akron 216 929-3811
Tex C R Roux, 12803 Demetra Dr
Dallas 214 241-2494
Can Mel Sales Ltd, 232 John St
Arnprior, Ont 613 623-4217
Den Danavia A/S, 4B Strandgade
Copenhagen K .... ASTA 7071
Fr Comptoirs Imex-France, 2, Rue Navoiseau
Montreuil Seine 808-19-20
Ger Bavaria Elektronik GmbH, 8000 Munchen 90
Chiemgaustr 187 0811-409390
GB Endevco, U K Branch, Kneesworth St
Royston, Hert .... ROY 3376
Holl Koning En Hartman, NV, Koperwerf 30
The Hague 685450
Jap Marubun Co Ltd, 1, 2-chome, Odemmacho
Nihombashi, Chuo-ku, Tokyo 662-8151
Nor ESTRONIC, Tollbugt, 4 IV, Oslo 1 .... 42 27 42
SAfr F H Flanter & Co Ltd, 43 Somerset Rd
Cape Town 2-9711
Swed Erik Ferner AB, Snormakarvagen 35, Box 56
Bromma 25 28 70
Swit ENDEVCO S A, 1 place St Gervais
1201 Geneva 022 35 55 20
Belg Koning & Hartman, Rue Gachard 53
Ixelles, Bruxelles 482655
Gr Andromeda, 11 Voukourestiou St
Athens 134 627-236
Ind W J Alcock & Co Ltd, 7 Hastings St
Calcutta 23-3019
Isrl Eastronics Ltd, 75 Haifa Rd, Tel Aviv 446060
Aust Brown & Dureau Ltd, Kavanagh & Ireland Sts
S Melbourne, Vic 61-3411

ENDICOTT COIL CO INC, 24 CHARLOTTE ST
BINGHAMTON, N Y, 13902 .... 607 797-1263
L JIMENEZ, EMP 174, ENG 3, $1,000-$2,500M
Ill Dessco, Box 356, 133 Sioux St, Carpenterville
Mass Tom Crawford & Son, Box 264
Norwood 762-6878
Mich Dort Mfg Co, G-3283 S Dort Hwy, Flint
NY Tech-Mark Inc, Professional Bldg
Endicott 748-7473
Ohio Technical Assoc Inc, Box 388, Fairborn ... 878-2484
Ohio Technical Assoc Inc, 19500 Center Ridge Rd
Rocky River 333-0035
Pa Electrol Assoc, 209 Butler St, York

ENERGY BEAMS INC, 1141 RINGWOOD AVE, HASKELL
N J, 07420 201-835-3535
C RICHARD
NJ Friedman Assoc, 110 Halsted St
East Orange 673-2500

ENERGY CONVERSION DEVICES INC
1675 W MAPLE RD, TROY
MICH, 48048 .... 313 549-7300
L ROBBINS, EMP 35, ENG 7
Ariz Compar Rocky Mtn, 84 W First St
Scottsdale 602 947-4336
Cal W E Starr & Co, 5440 Pomona Blvd
Los Angeles 213 685-5670
Ill Lightner Assoc, 6322 N Milwaukee Ave
Chicago .... 312 SP 4-1500
Ind Delta Sales Inc, 1407 N Illinois Ave
Indianapolis .... 317 ME 1-4136
Mass Kitchen & Kutchin, Inc, 17 Waltham St
Lexington .... 617 VO 2-8230
Mo Ozark Elctn Mktg Inc, 2573 Woodson Rd
St Louis .... 314 HA 3-7200
NJ Sunday-O'Brien, 15 Potter St
Haddonfield 609 429-4013
NJ Technical Electronics, Inc, 730 Clifton Ave
Clifton 201 471-2640
Ohio Van Hala Industrial Co, 14812 Detroit Ave
Cleveland 216 521-6283
Utah Oscar Salme & Assoc, 5762 S 1050 E
Salt Lake City 801 262-0235
Wash Seatronics, Inc, 5931 4th Ave S
Seattle 206 747-4330

ENERGY CONVERSION SYSTEMS CORP
ENERCON PARK, GRAFTON
WIS, 53024 .... 414 377-0800
R BERTLING, EMP 30, ENG 3
Cal electric Motor Engrg, Inc, 6515 Sunset Blvd
Los Angeles 469-7393
Ill Lenhurt Sales Co, 540 W Frontage Rd
Northfield 312 446-7460
Kan D D Darnell & Co, Inc, 6005 Martway
mission 722-1736
Md L G White & Co Inc, 880 Bonifant St
Silver Spring 585-3141
Minn Electric Sales Corp, 9 E 22nd St
Minneapolis 335-7734
NJ Clarfield-Stollmack Assoc, 175 Westwood Ave
Westwood 666-8989
NY Reagan Electronics, Inc, 419 Central Ave
Albany 436-9649
NC L G White & Co, Inc, Box 2356
Winston-Salem 725-3612
Ohio Compar Ohio, Box 388, Fairborn 878-2631
Pa L G White & Co, Inc, 100 N Essex Ave
Narberth 664-6505
Wis Strehlow Co, 6227 W Greenfield Ave
Milwaukee 476-4004
Can Electrodesign, Ltd, 9124 St Lawrence Blvd
Montreal 389-5914

ENERGY LABS INC, 58-09 32ND AVE, WOODSIDE
N Y, 11377 .... 212 726-1833
G KASE, EMP 20, ENG 4, $250-$500M
Cal Rep Assoc, 1645 La Cienega Blvd
Los Angeles 415 969-9200
Cal Poltronics ETS, Box 807
Mountain View 415 959-9200
Ill Jr Sales Engrg, 7132 N Harlem
Chicago 312 774-8550
Iowa Jr Sales Engrg, 3550 Cottage Grove Ave SE
Cedar Rapids 319 365-5259
Md Wm I Duncan & Assoc Inc, 206 Washington Ave
Towson 823-2506
Mass John Q Neenan Assoc, 16 Ruth Dr
Marlboro 485-8759
NY Regulus Ind Sales Corp, 7 High St
Huntington 271-7966
Pa Wm I Duncan & Assoc, 5452 Charles St
Philadelphia .... CU 9-7525
Tex W Pat Fralia Co, 6100 Camp Bowie
Ft Worth .... PE 8-2394

ENERGY SYSTEMS INC, 3180 HANOVER ST
PALO ALTO
CAL, 94303, TWX 910 373-1238 .... 415 326-1640
C ZILM, EMP 143, ENG 25, $2,500-$5,000M
Cal RF Assoc, 800 San Antonio Rd
Palo Alto 327-5531
Cal RF Assoc, 1621 Pontius Ave
Los Angeles 478-1586
Conn George Gregory Assoc, 9 S Main
Cheshire 272-5040
DC James R Eberly Co, 1207 Potomac St, N W
Washington 338-2277
Fla Truex Assoc, 3165 McCrory Pl
Orlando 305 422-1293
Md James R Eberly Co, 3618 Briarstone Rd
Randallstown 922-2092
Mass George Gregory Assoc, 7 Erie Dr
Natick 655-1330
NJ Bonn Assoc, Box 178, Metuchen 549-9573
NY NACO Electronics, 2631 Edgewood
Utica 732-1801
NY NACO Electronics, 119 Luther
Liverpool 474-7481
NY NACO Electronics, 99 Harvest, Fairport 473-4169
NY NACO Electronics, 14 Lori St
Poughkeepsie 462-2830
NY Bonn Assoc, 9 Ridge Dr, Huntington Station
Pa Bonn Assoc, 7217 Rising Sun Ave
Philadelphia 428-6390
Tex Alpha Assoc, 753 S Sherman St
Richardson .... AD 1-0416

Jap Marubun Co Ltd
1 2-Chome, Odenmacho Nihonbashi, Chuo-Ku
Tokyo

ENGELHARD HANOVIA INC, 100 CHESTNUT ST
NEWARK, N J, 07105 .... 201 242-2422
M KASHMIRY
Can Engelhard Hanovia of Can Ltd, 512 King St E
Toronto, Ont 362-3211
GB Engelhard Hanovia Lamps, Bath Rd, Cippenham
Slough, Bucks .... Bucks 500
SAfr Engelhard Hanovia of S A Pty Ltd, Box 9123
Johannesburg 838-4081

ENGELHARD MINERALS & CHEMICALS CORP
ENGELHARD INDUS DIV, 113 ASTOR ST, NEWARK
N J, 07114 .... 201 242-2700
C JOHNSON
Cal T G Ferruggia, 760 Market St
San Francisco 421-1447
Cal W Schmidt Jr, 5437 Sheila St
City of Commerce 724-1800
DC A P Holl, 1700 Penn Ave, NW
Washington 296-7077
Fla T E Neal, 90 E Livingston St, Orlando 423-0521
Ill S P Musco, 8131 Monticello Ave
Skokie 673-1900
Tex W B Ely, 2810 Lemmon Ave E, Dallas 521-0490
Wash J P Blackwell, 3203 Fremont Ave N
Seattle 632-7122
Can G H Scott, 512 King St E, Toronto, Ont 362-3211
Den Engelhard Industries A/S, Vimmelskaftet 42
Copenhagen .... PALAE 7395
Fr Engelhard Industries France, 48, Ave Victor-Hugo
Paris 16e .... KL 82 05
GB Engelhard Industries Ltd, St Nicholas Rd
Sutton, Surrey .... MEL 4721
Ital Industrie Engelhard SpA
Via di Salone, 245 Settecamini, Rome 619004
Jap P C Stryker, 10-16 Akasaka 8-Chome
Minato-Ku, Tokyo 404-5791
Swed Engelhard Industries AB
Hamngatan 1B Norrmalmstorg
Stockholm 08/21-70-01
Swit Engelhard Industries AG, Talacker 42
Zurich 051 25 0930

ENGINEERED PLASTICS INC, 213 CHASE ST
GIBSONVILLE
N C, 27249, TWX 510 992-6376 .... 919 449-4121
S MOORE, EMP 95, ENG 1, $1,000-$2,500M
SC Engineered Plastics Inc, Pleasantburg Ind Pk
Greenville 803 239-3528
Va Engineered Plastics Inc, 1910 Byrd Ave
Richmond 703 288-9340

ENGINEERING ASSOCIATES, 434 PATTERSON RD
DAYTON, OHIO, 45419 .... 513 293-1662
C LITTELL, EMP 5, ENG 1, UP TO $100M

ENGINEERING & ELECTRONIC DEVICES INC
1024 N MCCADDEN PL, LOS ANGELES
CAL, 90038 .... 213 463-4175
A ALEXANDER, EMP 20, ENG 5, $250-$500M
Ala Space Engineering Sales, Inc
4306 Governors Dr, SW, Huntsville 837-6060
Colo Walter-Powers Assoc, 880 Bonnie Brae Blvd
Denver 707-5585
Ill Morton L Friedman Co, 4749-51 N Rockwell Ave
Chicago 561-4257
NY Irv Morse Sales, 150 Broadway
New York .... CO 7-2913
Can Willer Eng & Sales Co, 1800 Avenue Rd
Toronto, Ont 783-3373

ENGINEERING MODEL LAB INC, ASHLAND
MASS, 01721 .... 617 881-1460
J RUSSETT, EMP 25, ENG 3, $250-$500M

ENGLER INSTRUMENT CO, 250 CULVER AVE
JERSEY CITY, N J, 07305 .... 201 332-5353
C ENGLER, EMP 100, ENG 3, $1,000-$2,500M

ENGLISH ELECTRIC VALVE CO, LTD
CHELMSFORD, ESSEX, CHELMSFORD, ESSEX
ENGLAND .... CHE 61777
R COULSON, EMP 2000
NY Calvert Electronics Inc, 220 E 23rd St
New York .... OR 9-1340
Pa G F Brett, 5046 Nevada St, Phila .... TR 8-1047
Can English Elec Valve Co (Can) Ltd, 24 Ronson Dr
Rexdale, Ont 249-8548
Den Sophus Berendsen A/S, Amaliegade 10
Copenhagen .... (01) 14-8500
Fr Tranchant Electronique SA
19-21 Rue Madame de Sanzillon
Clichy Seine 270-22-55
Ger Willy List, Franz Rucker Allee 42
Frankfurt, Main 77 56 55
Ital Marconi Italiana SpA, Via A Negrone
Genoa 47 32 51-5
Jap Comes Holdings (Overseas) Ltd, CPO Box 158
Tokyo 272 5571
Nor Norsk Marconikompani A/S, Ryensvingen 5, Box 50
Manglerud, Oslo 67 04 86
SAfr Marconi (S Afr) Ltd, Cor Van Dyke & Falkirk Rds
Ind Sites, Benoni 52-5961-4
Swed Svenska Radioaktiebolaget, Stockholm 22 31 40
Swit Roschi Telecommunication AG, Spitalgasse 30
3000 Bern .... (031) 22 55 33

E N M CO, 5306 W LAWRENCE AVE, CHICAGO
ILL, 60630 .... 312 282-8787
N POLYDORIS, EMP 11, ENG 4
Cal Hansen & Hartfield, Box 328, Freemont 797-3263
Cal Hansen & Hartfield, 1663 Blake Ave
Los Angeles 225-8114
Colo Petromotive Co, 9839 W 65th Pl
Arvada 422-0990
Conn W Couch Assoc, Bald Hill Rd
New Canaan 966-4630
La Glidden Eng, Box 4063, New Orleans 729-0641
Mass Representatives Corp, 10 High St
Boston 426-0541
Minn J B Wright & Assoc, 200 Lumber Exchange
Mnpls 938-3615
Mo R F Carlson, 8721 Manchester Rd
St Louis .... WO 1-4485
NJ ENM Co, 15 Potter St, Haddonfield 428-8844
NY Niagara Electric Sales Co, 505 Delaware Ave
Buffalo
Ohio Norco Ind Sales Corp, 23203 Lorain Rd
Cleveland 734-1700
Tex Glidden Engineering, 4924 Greenville Ave
Dallas 363-6539
Tex Glidden Engineering, 3802 Winchester
Houston 224-6471
Tex Glidden Engineering, 1909 Martel A,e
Ft Worth 332-9593
Wis F C Du Bois & Assoc, 2364 N 117th St
Milwaukee 774-3100

ENSCO INC, 3100 ELDREDGE ST, SALT LAKE CITY
UTAH, 84115 .... 801 485-9162
F LONGSON, EMP 12, ENG 2, $100-$250M
NJ Engineered Industrial Serv, 84 Sheffield Dr
Willingboro

ENSIGN COIL CO, 2520 S PULASKI RD, CHICAGO
ILL, 60623 .... 312 277-4141
J ENSIGN, EMP 240, ENG 2, $2,500-$5,000M
Ill Rinaldi Sales Co, 6319 N. Central, Chicago
Mass Comp Rep Assoc, 1116 Great Plains Ave
Needham 617 444-2484
NJ Kaygar Assoc, Box 98, Haddonfield 609 795-0550
NY B H Tollefson Assoc, 11 State St
Pittsford .... 716 DU 1-2500

ENTERPRISE DEVELOPMENT CORP, 5149 E 65TH ST
INDIANAPOLIS, IND, 46220 .... 317 CL 1-1231
L KOPERNAK
Cal Henry Feldman Co, Box 66367
Los Angeles .... RI 9-8803
Cal Sinai-Johnson, Inc, 817 Douglas St
Redwood City 365-6263
Ga Hollingsworth & Still Inc, 3098 Peidmont Rd NE
Atlanta 261-5838
Ill Mike Bermann Sales, 8631 E Prairie Rd
Skokie 679-2293
Ind Leslie Devoe Co, 4010 Washington Blvd
Indnpls .... AT 3-1395
Mass Coakley Boyd & Abbett, Inc, 1424 Highland Ave
Needham .... HI 4-5470
Minn Dick Swanson Co, 2655 Brighton Ave NE
Minneapolis .... ST 9-5636
Mo Kay Sales Co, 4049 Penna
Kansas City .... BA 1-3800
NJ Art Cerf & Co, 512 Bloomfield Ave
Caldwell 226-2263
NY Callahan-Ferguson Co, 107 Greenhedge Dr
Camillus 682-9301
Tex G E Anderson Co Inc, 1700 S Ervay St
Dallas .... HA 8-3731
Wash Larrabee Assoc, 2117 2nd Ave
Seattle .... MU 2-2358
Can A C Simmonds & Sons, Ltd, 285 Yorkland Blvd
Agincourt, Ont 445-9111

ENTHONE INC, BOX 1900, NEW HAVEN
CONN, 06508 .... 203 934-8611
J EISELE, EMP 70, ENG 20, $5,000-$10,000M
Conn Edward Busby, 42 McDermott St
Milford 874-4270
Conn Edwin Crandall, 821 Old Turnpike
Plantsville 628-6803
Conn R G Fanelli, 3 Oak Wood Dr, Wapping 644-2026
Conn C J Sergey Jr, 832 Spindle Hill Rd
Wolcott 879-3221
Conn T G Guetig, 90 Tunxis Rd, Bristol 583-2795
Ga T W Hutchins, 2504 Shallowford Rd
Atlanta 634-3958
Ill Robert P Hood, 3804 Halsted Rd
Rockford 968-3162
Ill Enthone, Inc, 5000 West 73rd St
Chicago .... PO 7-2015
Ill A I Zimmer, 3 Crandall Ave
Crystal Lake 459-1163
Ind M Les Reynolds, 6110 Burlington Ave
Indianapolis 255-1807
Mass Louis V Gagnon, 136 Florissant St
Framingham 877-2580
Mich W McGuire, 1668 Millbank SE
Grand Rapids 452-8942
Mich W S Garwood, 22054 Olmstead
Dearborn 562-3768
NJ Albert J Kolb, 340 Hillside Ave
Allendale 327-1242
NJ Howard L Wright, 210 E Oak Ave
Moorestown .... BE 5-1877
NJ N A Ciccone, 6 Karen Rd, Pine Brook 227-1836
NY Derick S Hartshorn, 45 Elm Ave
Larchmont .... TE 4-1514
NY Thomas Kohler, 104 Valerie Dr
Fayetteville .... NE 7-9374
NY L Dervin, 19 Ribbon La, Wantagh 248-2661

NC Walter A Bantle, 3219 Edenwood Dr Greensboro ... 292-0043
Ohio Enthone, Inc, 1210 W 69th St Cleveland ... 281-0909
Ohio D P Sorolis, 11550 Iroquois Trail Brecksville ... 526-4497
Pa James E Lafferty, MR3 Letort Acres Carlisle ... 249-1948
Wis Harvey McClellan, 702 E Capitol Dr Hartland ... 367-2306

ENTRON INC, 2141 INDUSTRIAL PKWY
SILVER SPRING, MD, 20904 ... 301 622-2000
J RUSSELL, EMP 160, ENG 14, $2,500-$5,000M
Ala P McInnish, 231 "B" Stokes St Huntsville ... 536-7259
Cal D L Wyckoff, 566 La Conner Dr Sunnyvale ... 739-4618
Conn G Littlejohn, 1842 Old Post Rd Darien ... 203 655-4421
Ga R LaRue, Box 9801, Atlanta ... 634-4089
Ill H Buchanan, Box 8, Western Springs ... 246-7660
Tex B Frazier, Box 5387, Ft Worth ... 244-2235

ENVIRCO DIV BECTON, DICKINSON & CO
630 HAINES AVE NW, ALBUQUERQUE
N M, 87107 ... 505 243-7823
F SULARZ, EMP 65, ENG 10, $2,500-$5,000M

EON CORP, 175 PEARL ST, BROOKLYN
N Y, 11201 ... 212 UL 80250
H KALISMAN, EMP 65, ENG 20, $500-$1,000M

EONETICS, 3800 COHASSET, BURBANK
CAL, 91504 ... 213 849-2157

EON INSTRUMENTATION INC, 15547 CABRITO RD
VAN NUYS, CAL, 91406 ... 213 781-2185
R JONES, EMP 12, ENG 4, $250-$500M

EPCO PRODUCTS INC, BOX 298, WALLKILL
N Y, 12589 ... 914 TW 5-3300
D UNGER, EMP 65, ENG 3, $500-$1,000M
NJ D Unger, 141-40 73rd Ave Flushing, NY ... WA 5-4850

EPD INDUSTRIES INC, 2055 E 223RD ST
LONG BEACH, CAL, 90810 ... 213 SP 5-7141
C FORD, EMP 50, ENG 4, $500-$1,000M
Ariz Toward Eng Assoc, Box 15268 Arcadia Sta Phoenix ... 955-3193
Cal Nova Tronix, 1659 Scott Blvd Santa Clara ... 243-9530
Colo Cummings & Assoc, 4772 S Kalamath St Englewood ... 303 789-3449
Fla Buchanan & Abrams, 1512 E Concord Orlando ... Ga 3-8995
Ill Paul Pitt & Assoc, 6001 Keystone Ave, Chicago
Ind Federal Insulation of Ind, 641 Growth St Fort Wayne ... 742-4495
Md Earle A Kraft, 510 Woodbine Ave Towson ... 828-5838
NY Puleo Electronics, 250 Park Ave New York ... 212 682-3151
Tex Braden Engineering Co, 2646 Andjon Rd Dallas ... 713 529-9881
Wash Electronic Sales Corp, 5600 Calif Ave S W Seattle ... WE 2-0330
Can Aero Sales Eng Co, 4 Racine Rd Rexdale Ont ... 249-9139
For Machine & Prdts Export Sales, 52 Wall St New York ... 212 Wh 4-4370

EPEC INDUSTRIES INC, NEW BEDFORD IND PK
NEW BEDFORD, MASS, 02745 ... 617 995-5171
R ZENS, EMP 160, ENG 6, $1,000-$2,500M
Fla Repco Sales, Box 38-1164, Miami ... 757-2911
Mich Epec Industries Inc, 18280 W Ten Mile Rd Southfield ... 313 353-1125
Pa S Dudra, 420 Township Line Rd Hatboro ... 215 672-6352

EPIC INC, 150 NASSAU ST, NEW YORK
N Y, 10038 ... 212 349-2470
P LETICA, EMP 7, ENG 1, $250-$500M

EPOXTRONICS CORP, 176 WALKER ST, LOWELL
MASS, 01854 ... 617 453-4142
M KHANDJIAN, EMP 12, ENG 3, $100-$250M
Md A Wetterhahn Co, Inc, 107 York Rd Towson ... 825-1335
NJ A Wettrhahn Co, Inc, 4420 Crescent Blvd Pennsauken ... 662-1611
NY Edw Newland, 801 First Ave, Troy ... 235-0539

EPOXYCAST ELECTRONIC CASE CO, 46 PROSPECT ST
YONKERS, N Y, 10701 ... 914 YO 3-5900
J WILENTCHIK, EMP 20, ENG 1

EPOXY PRODUCTS CO DIV ALLIED PROD INC
166 CHAPEL ST, NEW HAVEN
CONN, 06513 ... 203 562-2171
EMP 75, ENG 10, $500-$1,000M
Ariz E J Foley & Assoc, 3840 N Jokake Dr Scottsdale ... WH 5-2666
Cal N Nesbitt Assoc, 602 S Euclid anaheim ... 535-2814
Cal S Mosher, 1472 Thunderbird Ave Sunnyvale ... 408 739-1769
Ill P Brunswick, 135 S La Salle Chicago ... 312 263-2667
Minn C R Bergquist Co, 3529 Webster Ave S Minneapolis ... 612 929-6082
Ohio N Perme, 3570 Warrensville Ctr Rd Shaker Heights ... 216 283-0122
Swit Ciba Corp, Basle

EPPLEY LAB INC, 12 SHEFFIELD AVE, NEWPORT
R I, 02841 ... 401 847-1020
G KIRK, EMP 65, ENG 12, $1,000-$2,500M
Cal W K Geist Co, Box 5004, Glendale ... 245-9501
Ill Laub Engineering, Box 8, Northfield ... 446-4166
Mass A S Mancib Co, 363 Walden St Cambridge ... 864-2494

EPSCO INC, 411 PROVIDENCE HWY, WESTWOOD
MASS, 02090 ... 617 329-1500
L TARSA, EMP 300, ENG 85, $5,000-$10,000M
Ala Epsco, Inc, 904 Bob Wallace Ave Huntsville ... 534-0653
Cal P Pohl Co, 24002 Long Valley Rd Calabasas ... 348-9363
Cal Westec Elctns Inc, 110 First St Los Altos ... 415 327-5850
Colo Brown Technical, Inc, 830 S Lipan St Denver ... 935-4052
Fla Duay Enterprises, 1515 Ensenada Dr Orlando ... 277-3296
Ill Laub Engineering, 5144 Main St Skokie ... 679-4172
Md Epsco Inc, 608 Dale Dr Silver Spring ... 301 585-0062
Mo Gordon Fixman Eng, 8160 Stanford Ave St Louis ... 314 725-5249
NY Sassoon Sopher Inc, 630 Fifth Ave New York ... 212 246-0671
Ohio Data-Tron, 7016 Euclid Ave Cleveland ... 216 391-8421
For National Atlantic Corp, 50 E 42nd St New York ... OX 7-2584

EQUIPMENT & SERVICE CO, 7118 ENVOY CT, DALLAS
TEX, 75247 ... 214 631-7450
J GREEN, EMP 10, ENG 4, $100-$250M

EQUIPTO ENCLOSURE SYSTEMS DIV EQUIPTO ELCTNS
CORP, 435 WOODLAWN AVE, AURORA
ILL, 60507 ... 312 897-4691
C PETERSON, EMP 48, ENG 3, $500-$1,000M
Cal T Whychell Co, 580 Spargur Dr Los Altos ... 948-0355
Cal Premmco-Welco, 1502 W 166th St Gardena ... 532-6010
Conn Edcom Inc, 965 Dixwell Ave New Haven ... 865-1365
Fla W Ben Wimberly Co, 532 S Fort Harrison Ave Clearwater ... 446-7072
Fla W Ben Wimberly Co, 500 S Osceola St Orlando ... 425-3083
Ga Floyd Fausett & Co Inc, 2264 Melinda Dr NE Atlanta ... 633-3561
Ill Joseph Clark Co, 501 W Hellen Rd Palatine ... 358-5095
Iowa Thomas-Modrcin Assoc Inc, 890 17th Ave Marion ... 377-6261
Kan Thomas-Modrcin Assoc Inc, 5450 Buena Vista Dr Shawnee Mission ... 432-2131
Md QED Electronics Inc, 880 Bonifant St Silver Spring ... 588-8134
Mass Edcom Inc, 815 Washington St Newtonville ... 969-9710
Mich Satullo Co of Mich, 4514 N Woodward Ave Royal Oak ... 549-3910
Minn Irvin I Aaron & Assoc, 614 E Grant St Mnpls ... 336-6659
Mo Thomas-Modrcin Assoc Inc, 47 Village Sq Hazelwood ... 838-6446
NJ QED Electronics Inc, 2916 Federal St Camden ... 365-2450
NM Data Handling Co, 209 San Pablo S E Albuquerque ... 268-0928
NY Qed Electronics Inc, 500 Nuber Ave Mount Vernon ... 968-2200
NY Labtronics, Inc, 130 Pickard Bldg Syracuse ... 454-9314
Ohio Satullo Co of Ohio, 16801 E Euclid Ave Cleveland ... 486-2800
Ohio Satullo Co of Ohio, 2801 Far Hills Ave Dayton ... 293-7061
SC Floyd Fausett & Co Inc, Stoney Point Greenwood ... 451-7847
Tex Aymond Co, Inc, 4340 N Central Expwy Dallas ... 827-8043
Tex Aymond Co, Inc, Box 35023, Houston ... 666-1804
Utah Peirce Bowthorpe Agency, 143 S 4th E Salt Lake City ... 328-8173
Wash Ray Johnston Co Inc, 1011 NE 69th St Seattle ... 524-5170
Wis Irvin I Aaron & Assoc, 829 N Marshall St Milwaukee ... 276-8515

ERA ACOUSTICS CORP, 311 E PARK ST, MOONACHIE
N J ... 201 343-3650
EMP 150, ENG 8
Alas W P Watson Enterprises, 307 1/2 Glacier Ave Fairbanks ... 907 456-6919
Ariz Ungar Sales Assoc, 317 Glasgow Ave Inglewood ... 678-5371
Cal Northern-F W Moulthrop, 1530 E 12th St Oakland ... 415 261-7676
Colo B & B Electronic Prods, 2161 S Platte River Dr Denver ... 303 722-3035
Fla Geartner Assoc, 350 Lincoln Rd Miami Beach ... 305 531-0200
Ill J K M Inc, 6611 N Clark St Chicago ... 312 465-2622
Ind Kirsch Sales Co, 107 N Wabash Ave La Fontaine ... 317 981-2801
Kan Clemenson-Larrabee Co, 3709A Summit Kansas City ... 816 WE 1-0657
Mass Anderson Sales Co, 177 State St Boston ... 617 227-2980
Mich Larry Zaffina Co, 18806 Hayes Ave Detroit ... 313 DR 2-3030
NJ Art Cerf & Co, 512 Bloomfield Ave Caldwell ... 201 226-2263
NC Electro-Rep Assoc, 128 W 30th St Charlotte ... 704 333-0451
Ohio Thomas A Shelby Co, 17 S Walnut St New Bremen ... 419 629-6511
Ore McMillan Electronics, 16679 SW Maple Cir Lake Oswego ... 503 636-6257
Tex Campion Sales Co, Addison Airport-Box 396 Addison ... 214 239-9196
For Ad Auriema Inc, 85 Broad St New York ... 212 269-7750

ERASER CO INC, 1068 S CLINTON ST, SYRACUSE
NY, 13201 ... 315 476-7441
R ADANTI, EMP 18, ENG 1, $250-$500M
Ariz Allen Assoc, Box 3091 Papago Sta Scottsdale ... 602 945-5781
Cal Don Weaver & Assoc, 13218 Crenshaw Blvd Gardena ... 213 321-8962
Cal V B Wyman & Assoc, Box 6021 Southland Hayward ... 415 782-1440
Conn Keyco Assoc, Box 357, Farmington ... 677-1771
Fla Geo Embree, Box 11371 Ft Lauderdale ... 305 564-2401
Ill EMF Co, 2183 W Ogden Ave, Chicago ... 733-1767
Mich J Zaiser, 21 Reading Ave, Hillsdale ... 437-4589
Minn Dick Swanson Co, 2655 Brighton Ave NE Minneapolis ... 612 789-5636
NJ Garten & Assoc, 375 Passaic Ave Caldwell ... 226-7800
NY O G Lanzendorf, 513 Cumberland Ave Syracuse ... 472-4195
NC F G Speidel, 2459 Medway Dr, Raleigh ... 833-0147
Tex R L Wright Assoc, Box 17447 Dallas ... 214 285-8701
Wash Westec Electronics, Box 66521 Burien Br Seattle ... 206 243-7070
Wis Wakefield-Krauthoff Co, 3805 W Fond du Lac Ave Milwaukee ... 871-3381
Can R Neill Co, 91 Roselawn Ave Toronto, Ont ... 489-1269
GB Garford Lilley & Bro, Ltd, 3 Hampton Ct Parade East Molesey, Surry
Swed Elmetric, A B , Box 433 Johannashov 4, Stockholm
Arg Corte & Mon S R L, San Juan 1301, Buenos Aires
Mex Gimbel Mexicana SA, Ave Sonora 170 Mexico 11 DF
Aust Gem Brushware (Aust) Pty Ltd 258 Norton St, Leichhardt, Sydney

ERCONA CORP, 432 PARK AVE S, NEW YORK
N Y, 10016 ... 212 LE 26560
C FRANK, EMP 15, ENG 2, $500-$1,000M
Ariz John E M Anderson Co, 5231 Humboldt Ave Minneapolis ... 823-6459
Cal Ross Sales Co, 5007 Lankershim Blvd N Hollywood ... 766-8109

ERDCO ENGINEERING CORP, 136 OFFICIAL RD
ADDISON, ILL, 60101 ... 312 543-6733
H EADIE, EMP 40, ENG 12, $1,000-$2,500M
Ala C & D Sales & Mfg Co Inc, Box 3677 Birmingham ... 787-8691
Cal Wm R Kehoe Co, 543 S Raymond Pasadena ... 684-1934
Cal Viking Instrument Co, Box 1039 Walnut Creek ... 933-1221
Conn Etter Engineering Co Inc, Box 5126 Hamden ... 288-3575
Fla Roy Steckmesser Assoc, 3039 Saratiga Dr Orlando ... 425-0788
Ill Drager Co, 6333 N Pulaski Rd, Chicago ... 478-5022
Ill Tripco Inc, Box 872, Mount Vernon ... 242-5836
Mass Osgood Engrg Co, 576 Main St, Woburn ... 933-4744
Mich Carter, McCormic & Pierce, 16239 Wyoming Ave Detroit ... 863-4600
NY J Arthur Moore Co, 342 Madison Ave New York ... MU 2-2420
NY E H Cox & Co, Inc, 170 Franklin St, Crosby Bldg Buffalo ... 852-0121
NY W E I, Inc, 201 Second St, Liverpool ... 652-8111
NC Russ Poore Assoc, Box 8556 Greensboro ... 299-5876
Ohio CKM Industrial Sales, 3164 Linwood Rd Cincinnati ... 871-1413
Okla Quigg Process Equip Co, 303 Center Bldg Tulsa ... LU 7-0166
Pa Wm J Gallagher Co, 510 Penna Ave Ft Washington ... MI 6-5710
Pa Whitaker Controls, 607 Laurel Dr Monroeville ... 372-6420
Tex Alpha Engineering Co, Box 12345 Houston ... MI 4-1961
Tex Barnco Co, 1507 W 2nd St, Odessa ... FE 2-0294
Wash Dale G Weber Co, Weatherly Bldg Portland ... 234-7671
Wis Mesa, Inc, 6510 N Clark St, Chicago ... 338-8388

Can Pyle-National (Can) Ltd, 2560 S Sheridan Way
Clarkson, Ont. 274-3471

ERICSSON CENTRUM INC, 16 E 40TH ST, NEW YORK
N Y, 10016 679-1001
W DWYER, EMP 30, ENG 5, $2,500-$5,000M
Ill Ericsson Centrum Midwest, 7040 N Moselle Ave
Chicago 631-1489

ERIE ARTISAN CORP, 11400 MADISON AVE
CLEVELAND, OHIO, 44102 .... 216 521-6173
T BURT, EMP 105, ENG 11, $1,000-$2,500M

ERIE TECHNOLOGICAL PRODUCTS INC
644 W 12TH ST, ERIE
PA, 16512, TWX 091-4435 .... 814 GL 68592
W CROTTY, EMP 2400, ENG 165, OVER $10,000M
Ariz Erie Tech Prods Inc, 553 N Old Scottsdale Rd
Scottsdale 602 947-7424
Cal Erie Tech Prods Inc, 1000 E Walnut St
Pasadena 213 795-8801
Cal Erie Tech Prods Inc, 415 Cambridge Ave
Palo Alto 415 327-1520
Fla Erie Tech Prods Inc, 205D W Fairbanks Ave
Winter Park 305 644-0954
Ill Erie Tech Prods Inc, 3150 Des Plaines Ave
Des Plaines 312 299-8191
Ind Erie Tech Prods Inc, 2924 S Calhoun St
Fort Wayne 219 745-4931
Md Erie Tech Prods Inc, 6630 Baltimore Nat'l Pike
Baltimore 301 744-1100
Mass Erie Tech Prods Inc, 591 North Ave
Wakefield 617 245-7880
NJ Erie Tech Prods Inc, 215 Union St
Hackensack 201 489-7060
NJ Erie Tech Prods Inc, 5425 Marlton Pike
Pennsauken 609 665-4787
NY Erie Tech Prods Inc, 181 Buckley Rd
Liverpool 315 652-2814
NC Erie Tech Prods Inc, 612 Pasteur Dr
Greensboro 919 299-1905
Ohio Erie Tech Prods Inc, 1563 E Dorothy Lane
Dayton 513 293-6959
Tex Erie Tech Prods Inc, 4300 N Central Expwy
Dallas 214 827-4401
Can Erie Tech Prods of Can Ltd, 5 Fraser Ave
Trenton, Ont. 613 392-9251

ESB INC EXIDE MISSILE & ELECTRONICS DIV
2510 LOUISBURG RD, RALEIGH
N C, 27604, TWX 919-828-3849 .... 919 834-8465
L HAYES, EMP 450, ENG 30, OVER $10,000M

ESC ELECTRONICS CORP SUB SIMMONDS PRECISION
534 BERGEN BLVD, PALISADES PARK
N J, 07650, TWX 710-991-9780 .... 201 WI 70400
R MOTTOLA, EMP 250, ENG 9, $1,000-$2,500M
Ariz Fryco, 403 N Old Scottsdale Rd
Scottsdale 945-3281
Cal McKnight Co, 1436 El Camino Real
Menlo Park 325-2844
Cal Interstate Mktg Assoc, 22030 Ventura Blvd
Woodland Hills 213 883-7606
Fla G F Bohman Assoc, 2350 NE 29th St
Pompano Beach 305 943-5529
Fla G F Bohman Assoc, 7040 Lake Ellenor Dr
Orlando 305 855-0274
Ill Carlson Electronic Sales Co, 7448 N Harlem Ave
Chicago 774-0277
Kan Palatine Engrg Sales, 5514 Johnson Dr;
Mission 913 262-5643
Md Harry J White Co, 320 Hillen Rd
Towson 301 828-6373
Mass Cirolia & LeBlanc, 976 Main St
Waltham 893-2742
Minn E C Electronic Sales, 10108 Abbott Ave S
Minneapolis 869-1144
Mo Palatine Engrg Sales, 2050 Woodson Rd
St Louis 314 426-7055
NJ Harry J White Co, 121 Covered Bridge Rd
Haddonfield 428-2304
NJ Harry J White Co, 801 W Marlton Pike
Cherry Hill 609 428-2304
NY Andrews & Andrews Inc, 140 E Main St
Huntington 692-8686
NY Franklin Sales Corp, Two Standish Terr
Syracuse 446-1120
NY Franklin Sales Corp, 21 Winhurst Dr
Rochester 442-9765
NC Candor Co Inc, Bethania 919 924-1480
Tex Robt R Thomas Co, 8616 NW Plaza Dr
Dallas 214 363-8591
Utah Arrowhead Sales Corp, 1966 W 6255 S
Salt Lake City 801 298-2751

ESSEX ENGINEERING CO INC, BOX 28, ESSEX
CONN, 06426 .... 203 SO 78221
E SANDSTROM, EMP 45, ENG 3, $500-$1,000M

ESSEX WIRE CORP CONTROLS DIV RBM CONTROLS
131 GODFREY, LOGANSPORT
IND, 46947, TWX 219 541-8235 219-753-7521
R ERB, EMP 1200, ENG 21
Cal P F Wiley Co, 1632 Silverlake Blvd
Los Angeles 663-8028
Cal Long & Assoc, 505 Middlefield Rd
Redwood City 369-3324
Colo Trans Dynamics, 3402 S Bannock St
Englewood 761-0455
Fla Hollingsworth & Still, 1010 Executive Ctr Dr
Orlando 841-1623
Ga Hollingsworth & Still, 3098 Piedmont Rd NE
Atlanta 261-5838
Haw Earl Assoc, 1638 Kona, Honolulu 996-953
Ill Controls Div, 3501 W Addison St
Chicago 478-9151
Kan Poly-Onics Inc, 4434 W 90th Terrace
Leawood 648-4173
Mass M Scott Co, 336 Washington St
Wellesley Hills 235-0102
Mich Controls Div, 100 Tudor Rd
Berrien Springs 471-7721
Minn Controls Div, 3230 E Hennepin
Minneapolis 331-6370
Mo Poly-Onics Inc, 47 Village Sq
Hazelwood 837-0597
Mo Controls Div, 5959 St Louis Ave
St Louis 382-9000
NJ Controls Div, 199 Lee Place
Hackensack 487-9272
NY Controls Div, 4623 E Genesse St
Dewitte 446-0800
NC Hollingsworth & Still, 6717 Woodstock Dr
Charlotte 523-3327
Ohio Controls Div, 4500 Willow Pkwy
Cleveland 641-7550
Ohio Controls Div, 2077 Embury Park Rd
Dayton 277-8964
Ore Earl & Brown, 2041 SW 58th Ave
Portland 292-9145
Pa Controls Div, Railroad & End Sts
Conshohocken 825-0635
Tenn Controls Div, 2172 Wharf St, Memphis 948-6607
Tex Controls Div, 4924 Greenville Ave
Dallas 369-6541
W Va Earl & Brown, 422 1st Ave W, Seattle 284-1121
Wis Controls Div, 11225 W Blue Mound Rd
Milwaukee 774-4485
Can Electrodesign Ltd, 9124 St Lawrence Blvd
Montreal 11, Que 389-5914

ESSEX WIRE CORP MAGNET WIRE DIV, 1601 WALL ST
FORT WAYNE, IND, 46804 .... 219 743-0311
J FISKE
Cal L A Lundstrom, 1075 N Patt St
Anaheim 714 772-9300
Ga R J Hadden, 170 Ottley Dr NE
Atlanta 404 875-8992
Ga H Winters, 170 Ottley Dr NE, Atlanta .... TR 5-8992
Ill J R Burnett, 3501 W Addison St
Chicago 312 583-3737
Ill Essex Wire Corp, 2816 N Main St
Rockford .... TR 7-2544
Mich Essex Wire Corp, 6233 Concord Ave
Detroit 925-6885
Mich Essex Wire Corp, 170 E South St
Hillsdale 437-3376
Minn Essex Wire Corp, 3230 E Hennepin Ave
Minneapolis 331-6370
Mo J K Casey, 5959 St Louis Ave
St Louis .... 314 EV 2-9000
NJ J S Kern, 199 Lee Pl, Hackensack 201 487-9272
Ohio D G McPherson, 4500 Willow Parkway
Cuyahoga Heights 216 641-7550
Ohio W F Hafer, 2077 Embury Park Rd
Dayton 513 277-8964
Pa Essex Wire Corp, Railroad & End St
Conshohocken 825-0545
Pa S W Weidenbach, Graham St Ext
McKees Rocks 412 771-4731
Tenn W J Smith, 2172 Wharf St
Memphis 901 948-6607
Wis F E Dickmeyer, 2825 N Mayfair Rd
Milwaukee 774-4485

ESSEX WIRE CORP STEMCO CONTROLS
PLYMOUTH ST BOX 1007, MANSFIELD
OHIO, 44903 .... 419 884-1311
G ROUSE, EMP 500, ENG 20, $5,000-$10,000M
Cal Artwel Electric Inc, 1485 Bayshore Blvd
San Francisco .... JU 6-4074
Cal Sales Engineers Ltd, 15408 Cornet Ave
Santa Fe Springs 868-0076
Ill E N Taylor & Assoc, 6760 Stony Island Ave
Chicago .... FA 4-8532
Kan D D Darnell & Co Inc, Box 1354
Mission .... RA 2-1736
Md Rothenenber & Co Inc, 14211 Chesterfield Rd
Rockville 929-3388
Mass Representatives Corp, 10 High St
Boston 426-0541
NY H C Johnson Agencies, 111 Mt Hope Ave
Rochester 232-2688
NY H C Johnson Agencies, 8 Los Robles St
Williamsville .... NF 2-7880
Pa Rothenehber & Co Inc, 53 Cricket Ave
Ardmore .... MI 2-6911
Tenn Perfection Sales Co, 6115 Robertson Rd
Nashville .... CY 1-2251
Tex Engineering Assoc, Box 11069
Ft Worth .... WA 3-8257
Can R W Stark, Box 185, Renfrew Ont .... HE 2-3631

ESSEX WIRE CORP TERMINAL SALES
3501 W ADDISON ST, CHICAGO
ILL, 60618 .... 312 539-2000
R HADDEN, EMP 130, ENG 6

ESTERLINE ANGUS DIV ESTERLINE CORP, BOX 24000
INDIANAPOLIS
IND, 46224, TWX 027-419 .... 317 244-7611
H CAMERON, EMP 328, ENG 35, $1,000-$2,500M
Ala James Spader Co, Box 6074
Birmingham 879-1366
Ariz BFA, 4701 N 16th St, Phoenix 264-6536
Ark L C Byrne Co, 632 Champagnolle
ElDorado .... UN 3-9435
Cal Dynamic Assoc Inc, 1011 E Cadillac Way
Burlingame 344-2521
Cal Esterline Angus, B 465, Montebello 721-5141
Colo Cliff Beabout Co, 666 Sherman St
Denver 244-3151
Ga Hooker Reid Co, Box 11754, Atlanta 237-9385
Ill Murphy & Dickey, 537 S Dearborn St
Chicago .... HA 7-7953
Ind C D Arnold, 4165 Millersville Rd
Indpls .... LI 6-4053
Iowa Harry E Ferris, Co, 1015 Polk Blvd
Des Moines 255-5008
La Mid-South Sales, Box 13032
New Orleans 822-3030
Mass Esterline Angus, Box 385, Holliston 235-5343
Mich George R Peters Assoc, Box 1042
Berkley 564-6325
Mich NWR Electronics Corp, 1010 W Washington St
Marquette 906 226-7578
Minn Pinkney & Assoc Inc, 1925 Nicollet Ave
Mnpls 338-0523
Minn NWR Electronics Corp, Hoover Rd Ind Pk
Virginia 218 741-5080
Mo C B Fall Co, 11301 Bennington St
Hickman Mills .... SO 1-6545
Mo C B Fall Co, 317 N 11th St, St Louis .... CH 1-2433
NJ Esterline Angus, Box 1187, Union 687-4416
NM BFA, 1238 Ortiz, S E, Albuquerque 268-4387
NY Robert F Lamb Co Inc, Box 661
Kingston 338-8833
NY Robert F Lamb Co Inc, Box 28
Syracuse 454-2469
NY Robert F Lamb Co Inc, 1865 Kenmore Ave
Buffalo 874-4900
NC Ranson, Wallace & Co, 116 1/2 E 4th St
Charlotte .... ED 4-4244
Ohio Waldrip, Blankenburg & Co, 7650 Chippewa Rd
Brecksville 526-1100
Ohio Beedle Equipment Co, Box 36061
Cincinnati 793-0140
Okla BFA Inc, 3216 E21st St, Tulsa 936-5295
Ore Shaffer & Nelson Inc, 1001 SE Water Ave
Portland .... BE 4-7437
Pa W H Bollinger, Box 8088, Pittsburgh .... LO 1-2340
Pa Esterline Angus, Rydal W The Fairway
Jenkintown 887-2268
Tenn George W Massey Co, Box 10102
Knoxville 577-9553
Tex BFA Inc, Box 429, Euless 264-3363
Tex BFA Inc, Box 50, Friendswood 482-7563
Tex BFA Inc, Box 16065 Lampham Sta
San Antonio 512 828-0164
Utah Shaffer & Nelson Inc, 805 W 2500 S
Salt Lake City .... HU 4-3382
Va Hildenbrand Co, Box 1060, Fairfax 280-2330
Wash Shaffer & Nelson Inc, Box 3343
Spokane .... FA 7-9528
Wash Shaffer & Nelson Inc, 314 N E 72nd St
Seattle .... LA 3-0664
W Va Talisman Co, Box 8702
South Charleston 304 346-9862
Wis Process Msmt & Control Co, Box 7292
Milwaukee 774-3290
Wis T R Bickler Assoc, Box 7245
Milwaukee 414 453-3772
Can W Hobson & Assoc, 1024 Notre Dame St
Lachine, Que .... ME 7-1231
Can Showalter Agencies Ltd, 2510 4th St SW
Calgary, Alb. 269-6411
Can Ahearn & Soper Ltd, 844 Caledonia Rd
Toronto 789-4325
For J M Carr Y Cia SAC, Box 2439, Santiago, Chile
For Virgil C Applewhite Y Cia, Apartado 2530
Caracas, Ven
Den Oltronix A/S, Maltegaardsvej 18, Gentofte
Fr Ets Radiophon, 148, Ave Malakoff, Paris
Ger Neumuller & Co GmbH, Schraudolphstr 2A
Munchen 13
GB B & Klnsts Ltd, 59 Union St, S E 1
Holl Hitma NV, Jan Luykenstr 3, Amsterdam
Ital Ing S & Dr G Belotti, Piazza Trento 8, Milano
Jap Moritani & Co Ltd, 3,2-chome, Yaesu, Chuo-ku
Tokyo
Nor Gustav A Ring, Box 5370 Mj, Oslo
SAfr A C Gowlett (Pty) Ltd, Box 1257, Braamfontein
Johannesburg
Swed Firma Johan Lagercrantz KB, Box 314, Solna
Swit Seyffer & Co AG, Badenerstr 265, Zurich
Arg D F Olivella, Reconquista 390, Buenos Aires
BC Ahearn & Soper Ltd, 1234 Marine Dr
N Vancouver 988-6822
Belg M B L E Indus Control, E Van Der Smissen 80 Rue
Bruxelles 7
Braz E H Staub, Caixa Postal 30.318, Sao Paulo
Ind Motwane Private Ltd, Box 1312, Bombay
Isrl STG Intl Ltd, Box 1276, Tel-Aviv
Mex Sociedad Electro-Mecanica SA
Manuel Ma Contreras 25, Mexico 4 DF
NZ E C Gough Ltd, Box 873, Christchurch
Spn H & O Wilmer, Peligros, 2, 40, Madrid
Fin Havulinna Oy, Vuorikatu 16, Hilsinki
Aust Electrical Equip of Aus Ltd, Box 4619, Sydney, NSW

ESTES ENGINEERING CO, 543 W 184TH ST, GARDENA
CAL, 90247 .... 213 321-9811
S ESTES, EMP 18, ENG 1, $250-$500M

E-T-A PRODUCTS CO OF AMERICA
6284 N CICERO AVE, CHICAGO
ILL, 60646 .... 312 KI 5-1553
E ROGER, EMP 700, ENG 12
Cal A W Nash Co, 8560 Roland St
Buena Park 714 521-6192

Cal P W Jasin, 3506 Skylark Dr Concord 415 686-0905
Colo Waugaman Assoc Inc, 2785 N Speer Blvd Denver 303 255-5000
Conn Henry Lavin Assoc Inc, Box 921 Meriden .... 203 BE 7-5527
Fla Buchanan & Abrams Assoc, 1512 E Concord Orlando 305 423-8995
Ill Midwest Elctn Sales, 5707 W Division Chicago 626-0030
Ind Midwest Elctn, 5462 E 40th St, Indianapolis
Mass Henry Lavin Assoc Inc, 52 Pickering St Needham .... 617 HI 4-3446
Mich Hilltronics Inc, 13720 Puritan Ave Detroit 313 342-3243
Minn WENCO Sales Co, 7728 Morgan Ave S Minneapolis 612 866-3639
Mo M-C Sales Co, 615 Wyandotte Kansas City .... 816 VI 2-4640
NJ Andrew A Foley Assoc, Box 155 Moorestown .... 609 NO 3-4545
NJ Sydney Justin Assoc, 8 Apache Tr Rockaway 201 627-5170
NY E A Kershaw & Co Inc, 216 Shorewood Dr Webster 716 671-6365
NY E A Kershaw & Co Inc, 15 Canterbury La E Aurora 716 652-1221
NY Sydney Justin Assoc, 544 W 27th St New York 212 279-8180
Ohio John O Olsen Co, 16201 Shaker Blvd Cleveland 216 752-5444
Ohio John O Olsen Co, 5539 Stokeswood Ct Cincinnati 513 922-2589
Tenn Superior Products Co, Box 7272 Nashville 615 244-1549
Tex M F Klicpera Co, Box 2668 Houston 713 747-3868
Tex M F Klicpera Co, Box 4117, Dallas .. 214 742-2515
Va Mark-Lund Assoc, 2828 Mary St Falls Church 703 560-8400
Va Naudain Assoc, Box 254, Lynchburg 846-8044
Wash W J Stulgis Co Inc, 608 W Crocket St Seattle .... 206 AT 2-7870

ETCHOMATIC INC, 151 NEWTON ST, WALTHAM
MASS, 02154 .... 617 893-2020
M LEVINE, EMP 12, ENG 3, $500-$1,000M

ETC INC, 990 E 67TH ST, CLEVELAND
OHIO, 44103 .... 216 HE 2-0855
A WILLIAMS, EMP 215, ENG 12, $2,500-$5,000M
Cal Peters-deLaet Inc, 13845 S Hawthorne Hawthorne 772-4226
Cal Peters-deLaet Inc, 1606 Rollins Rd Burlingame 697-1800
Colo Peters-deLaet Inc, 1536 Wyn Koop St Denver 534-6188
Conn Anchor Engrg Corp, 6 Arrowhead Dr West Simsbury 658-6261
Fla Geartner Assoc Inc, 2101 Mohawk Trail Maitland 647-4000
Fla Geartner Assoc Inc, 350 Lincoln Rd Miami Beach 531-0200
Ga V B Stepka, 2514 Brookdale Dr NE Atlanta 892-0171
Ill A J Ellis Co, 1607 W Howard St Chicago 262-0204
Ind OEM Sales Co, Box 55232 Indianapolis 545-1267
Iowa Vrbik-Taylor Assoc, 2818 A Ave NE Cedar Rapids 365-0461
Mass Anchor Engrg Corp, 336 Washington St Wellesley Hills 235-6330
Mich D A Burrell, 31019 Cooley Dr Westland 425-4754
Minn Hamilton, Grayden & Flemmer Inc, Hamilton Rd Hopkins 941-1120
Mo OEM Sales Co, Box 252, Florissant 838-6600
Mo L Carter, 5200 N Manchester Kansas City 452-0205
NY Friedman-Smith Elec Sales, Inc, 519 S 5th Ave Mt Vernon 664-4866
NY Marchese-Davis Assoc Inc, 97 Park Ave Rochester 342-7664
NC Byrel M Triggs & Assoc, Box 17844 Charlotte 376-4619
Ohio Tom McCullough, 990 E 67th St Cleveland 432-0855
Ore Peters-deLaet Inc, 5937 N Greeley Ave Portland 285-7703
Pa Robt Brown, Box 125, Uwchland 724-4344
Tex Compar Southwest, Inc, 8609 NW Plaza Dr Dallas 363-1526
Utah Peters-deLaet Inc, 138 S 2nd St E Salt Lake City 359-6108
Wash Peters-deLaet Inc, 1708-10 Broadway Seattle 322-2215
Wash Peters-deLaet Inc, 1103 W Sprague Spokane 623-8745
Wis Devos-Prinz Sales Corp, 4637 N Pt Washington Rd Milwaukee 964-0910
Can Douglas-Randall Can Ltd, 1710 Midland Ave Scarborough, Ont 751-7911

ETHYLENE CORP, 755 CENTRAL AVE, MURRAY HILL
N J, 07971 .... 201 464-2600
F DUVALL, EMP 38, ENG 4, $1,000-$2,500M

EUBANKS ENGINEERING CO, 225 W DUARTE RD
MONROVIA
CAL, 91016, TWX 910 585-3249 .... 213 358-4531
E EUBANKS, EMP 70, ENG 3, $500-$1,000M
Ala Powertronic Assoc, Box 3384 Huntsville 205 852-6347
Cal Tool-Tronics, 5 Fairchild Dr Mountain View 967-5305
Cal OEM Sales, 3820 E Colorado Blvd Pasadena 796-9937
Colo L R Steele Co, 6841 S Clarkson St Littleton 303 794-4592
Conn Technical Instruments Inc, 575 Broad St Bridgeport 368-4582
Ill Marsland Distributing Corp, 6699 Lincoln Ave Chicago 676-1104
Ind Marsland Distributing Corp, 3734 Carrollton Ave Indpls 317 924-3568
Mass Technical Instruments Inc, 122 West St Wilmington 944-3930
Mich Electro Enterprises Inc, 10745 Morang Dr Detroit 886-2281
Minn D A Schultz Co, 801 SE 8th St Minneapolis 339-7701
Mo Harlan J Weisler & Assoc, 2050 Woodson Rd St Louis 314 428-3934
NY Maloney Sales Co, 115 Sunnybrook Dr Syracuse 488-3440
NY Salit Assoc, Box 176, Spring Valley 352-4443
NC Powertronics, Inc, 2454 Medway Dr Raleigh 834-6947
Ohio Electro Enterprises, Inc, 2621 Mardon Dr Dayton 426-6071
Ohio Electro Enterprises, Inc, 335 E 200 St Cleveland 486-7040
Ore Van Voorhees Assoc, 4415 NE Sandy Blvd Portland 287-6633
Pa Electro Enterprises, Inc, 201 Penn Ctr Blvd Pittsburgh 371-8947
Tex Sivright Co, 6434 Maple Ave, Dallas 357-6681
Utah Wright-Williams & Assoc, 445 E Second S Salt Lake City 328-3641
Can Robert Neill Co, 5200 A Yonge St Toronto, Ont 225-5200
For ing Karl Wrba, Weyrgasse 6, Vienna 111/40 A
Den E Friis Mikkelsen AG, Krogshojvej 51, Bagsvaerd
Fr Vial et Cie, 18 Rue Volney, Paris 2e
GB Automation Ltd, Bessemer Rd Cranbourne La Basingstoke Hamphire
Holl Westmercuur Handelmij NV, Singel 510 Amsterdam C
Ital Intertecnica SRL, Via Elba 10, Milan
Jap Nippon S T Johnson Sales No 3-5, Uchikanda 3-Chome, Chiyoda-ku, Tokyo
SAfr Forest Engrg (PTY) Ltd, 77 De Korte St Braamfontein, Johannesburg ....
Swed Abemi A B, Faglbacksgatan Ile, Malmol .... Malmo
Swit Almacoa AG, Militarstr 84, Zurich
Arg Rainbow, Cangallo 315, Buenos Aires
Belg E M A S, 70A Rue Des Quatre-Vents Brussels 8
Ind Electronic Enterprises, New Charni Rd, Bombay
Spn Tecnix, S A, Guzman El Bueno 121, Madrid
Aust Rutherford Electronics PTY Ltd, Box 30-N Balwyn Victoria

EUCLID ELECTRIC & MFG DIV HARVEY HUBBELL INC
58 EDWARDS ST, MADISON
OHIO, 44057 .... 216 428-1161
C ROEHRER, EMP 170, ENG 15, $2,500-$5,000M
Ala James Spader Co, 2805 Crescent Ave Birmingham 879-1366
Ariz Central Sta Equip Co, 2323 Aviation Hwy Tucson 623-2493
Cal A W Nash Co, 8560 Roland St Buena Park 521-6192
Cal Milligan-Spika Co, 5800 Christie Ave Emeryville 658-9044
Cal Millard D Shriver Co, Inc, Box 517 Rosemead 283-7321
Colo Hubert Kaub & Co, 4970 Jackson St Denver 399-1520
DC Wm E MacDonald Co, 1917 Eye St, N W Washington 333-8385
Ga Engineering Sls & Serv Corp 6160 Roswell Rd, N E, Atlanta 255-2061
Ill R Larsen, 2727 S 25th Ave, Broadview 379-7920
Ind Engineering Prods, 2511 E 46th St Indianapolis 545-5208
Ind Engineering Prods, 2512 Rosewood Muncie 282-3303
Mass R P Hyland Co, 1420 Providence Hwy Norwood 762-0345
Mich WEBCO, Inc, 16542 Wyoming Ave Detroit 862-4673
Minn W E Bemis Co, Box 6420 Richfield Sta Minn 869-5988
Mo A M McIntyre Inc, 902 N Ballas Rd St Louis 964-9595
NY David M Miller Co, 150 Broadway New York 267-1870
NY C V Stevens, Inc, 5554 Main St Buffalo 632-0300
NC Wm E MacDonald Co, Box 9093 Greensboro 274-9072
Ohio Harry Fisher Assoc, 7016 Euclid Ave Cleveland 881-5757
Ohio Harry Fisher Assoc, 126 Portage Tr Cuyahoga Fls 928-1115
Ohio Harry Fisher Assoc, 808 High St Worthington 888-4200
Ohio Harry Fisher Assoc, 6960 Market St Youngstown 758-4569
Ore Star Mach Co, 3325 N W Yeon Ave Portland 228-7395
Pa E T Sabe, 2249 Allen St, Allentown 432-0437
Pa Foster-McClinton, 5302 Wolf Rd, Erie 833-1027
Pa Foster-McClinton, 1675 Washington Rd Pittsburgh 561-4803
Pa Robert L Tennis, 246 E Leamy Ave Springfield 543-3031
Tex J R Woodruff Co, 9426 Old Katy Rd Houston 465-5506
Wash Star Mach Co, 241 S Lander St, Seattle 623-0760
Wash Star Machinery Co, 328 Sprague Ave Spokane 747-6121
W Va Foster-McClinton, 6213 Brenda Ct Huntington 736-5161
Can Harvey Hubbell of Can Ltd, Box 100 Ajax Ont 942-3130
Mex Panamer Electro-Industrial S A, Luzerne 78 Mexico 6, DF 46-63-98

EUGENE ENGINEERING CO INC, 50 CHURCH ST
ROCKLAND, MASS, 02370 .... 617 878-4800
R BLANK, EMP 100, ENG 4, $500-$1,000M

EUPHONICS CORP, BOX 233, GUAYNABO
P R, 00657 789-2117
J WOOD, EMP 120, ENG 4, $1,000-$2,500M
Fla Euphonics Mktg, 202 Park St Miami Springs 305 888-2323

EUREKA X-RAY TUBE CORP DIV LITTON INDUS
3250 N KILPATRICK AVE, CHICAGO
ILL, 60641 .... 312 545-3126
R MIES, EMP 81, ENG 3, $1,000-$2,500M

EURO CEDAG, VIALE MONZA 40, MILAN
ITALY 28-50-183
A PERISSINOTTO, EMP 6, ENG 2

EVANS ASSOCIATES, BOX 5055, BERKELEY
CAL, 94705 .... 415 653-2616
M JUSTICE, EMP 8, ENG 1, $100-$250M

EVANS EQUIPMENT CO, RT 7, BROOKFIELD
CONN, 06804 .... 203 775-2800
A EVANS, EMP 7, ENG 5, $1,000-$2,500M
Cal F J Toffey Assoc, 2227 Mora Dr Mountain View 415 968-0200
Mass Evans Equip Co, Box 127, Wellesley 235-2275
Pa Evans Equip Co, 1246 Irma Rd Warminster 215 672-2560

EVERARD TAP & DIE CORP, 215 E 144TH ST, BRONX
N Y, 10451 .... 212 LU 5-1760
G ABBOTT, EMP 20, ENG 1, $100-$250M

EVERLUBE CORP OF AMERICA, 6940 FARMDALE AVE
NORTH HOLLYWOOD, CAL, 91605 .... 213 875-0101
R WEIBLE, EMP 45, ENG 3, $500-$1,000M
Ga Edw M Watkins & Assoc, 225 Laredo Dr Decatur 636-4141
Ill Accurate Andodizing Corp, 1803-69 S 55th Ave Cicero .... BI 2-2240
Ind Remote Controls, Inc, 512 S Merrifield, Mishawaka
Kan Kansas Plating, Inc, 1110 N Mosley Wichita .... FO 3-7853
Md Almag Chemical Corp, 1800 Cherry Hill Rd Baltimore
Mass Duralectra, Inc, 61 North Ave, Natick 653-7380
Mich Chemical Processing, Inc, 5485 Concord St Detroit .... WA 5-3400
Minn Plating, Inc, 888 N Prior Ave, St Paul 646-4871
Mo Aero Metal Finishing, Inc, 89 Hwy 141 Valley Park .... AC 5-5262
NJ Ward Industries, Inc, 29 Porete Ave No Arlington 991-8777
Ohio Russell Products, Inc, 12128 Sprecher Ave Cleveland 267-0880
Okla Southwest Metal Finish Co, 424 S St Louis Ave Tulsa .... LU 4-6474
Ore Electronic Specialty Co, Box 7696, Portland
Tex Aeroprocess, Inc, Box 4562 - Hicks Fld Fort Worth .... CE 2-0620
Utah Retep Corp, 1410 Jefferson St, Salt Lake City
Wash Northwest Plating Co, 825 Dakota St Seattle .... MU 2-6442
Ger Aconia G M B H & Co, Tal 18, Munich
GB Stedall Mach Tool Co Ltd, 192-204 Pentonville Rd London
Jap Anglo American Avia Co, 10929 Vanowen St N Hollywood, Cal 985-3500
Swed Nordisk Maskin & Motorindustri AB Drottninggatan 81 B, Stockholm

EVER READY LABEL CORP, 357 CORTLANDT ST
BELLEVILLE, N J, 07109 .... 201 759-5500
R HARTE, EMP 160, ENG 1, $2,500-$5,000M

EVERSON ELECTRIC CO, 1126 UNION BLVD
ALLENTOWN, PA, 18105 .... 215 434-5211
T BOYER, EMP 215, ENG 5, $1,000-$2,500M

EWALD INSTRUMENTS CORP, ROUTE 7E, KENT
CONN, 06757 .... 203 927-3278
ADV PG 659, 801
Fla Embac Inc, Box 3067, Seminole 813 391-2170
Mass EPE Corp, 345 Highland St, Weston 899-0678
NY Eastern Welding Equip Co, 775 Old Country Rd Westbury .... ED 3-0110
Pa Essay Sales Assoc, 201 Penn Center Blvd Pittsburgh 412 242-5151
Tex Teamwork, Inc, 2646 Andjou, Dallas 352-7747

EWEN-KNIGHT CORP, OAK & PINE STS, EAST NATICK
MASS, 01760, TWX 710-386-6757 .... 617 235-6550
P COYNE, EMP 45, ENG 18, $500-$1,000M

EWING PRODUCTS INC, 1014 W BURBANK BLVD
BURBANK, CAL, 91502 ....213 VI 9-4645
L SHARP, EMP 6, ENG 1

EXACT ELECTRONICS INC, BOX 160, HILLSBORO
ORE, 97123 ....503 648-6661
R MACK, EMP 20, ENG 4
Ala Beacon Elctn Assoc, Box 3127
Huntsville 205 536-5064
Colo D E Bond Assoc, 2149 Clermont St
Denver 303 756-1234
Conn Instrument Reps, Box 165
Glastonbury 203 633-0777
Fla Beacon Elctn Assoc, Box 1278
Maitland 305 647-3498
Ga Beacon Elctn Assoc, Box 29201
Atlanta 404 636-7526
Ill Bard Assoc Inc, La Grange Industrial Pk
La Grange 354-0660
Ind Bard Assoc Inc, 4002 Meadows Dr
Indianapolis 849-2723
Md Scientific Mktg Assoc, 8817 Hunting La
Laurel 301 776-5130
Mass Instrument Reps, 1046 Massachusetts Ave
Arlington 617 646-1034
Minn Bard Assoc, 7700 Morgan Ave S
Minneapolis 866-1700
NM D E Bond Assoc, Box 11331
Albuquerque 505 247-3442
NY Martin P Andrews Inc, 319 Mott Rd
Fayetteville 637-6405
NY Measurement Technology, Inc, 19 Danton St
Melville 516 692-2957
NC Technical Mktg Assoc, 5100 N Glen Dr
Raleigh 919 787-7244
Okla SEI Inc, Box 15796, Tulsa ....TE 5-2481
Okla Southwest Elctn Industries, 2015-C S Lakewood
Tulsa
Pa Letronix, 251 W DeKaulb Park, King of Prussia
Tex SEI Inc, 621 Meadows Bldg, Dallas 363-1671
Tex SEI Inc, 1405 S Post Oak Rd, Houston ... 928-5251
Can Atlas Instrument Corp, 50 Wingold Ave
Toronto 19, Ont 416 781-6174
For Ingl Markowitsch & Co, Mariahilfer Str 133
Wien XV, Aust
For Coasin, S A, Virrey Del Pino 4071, Buenos Aires
For Pentz & Cia Ltda, Casilla 2839, Santiago, Chile
For Abdul Masih E Jwaideh, 85 Saadun St, Bagdad, Iraq
For Pak-Land Corp, Iqbal Rd, Pech Soc, Karachi 29, Pak
For Equip De Lab Ltda, Rua Pedro Nunes, 47
Lisbon 1, Port
Den Oltronix A/S, Maltegaardsvej 18, Gentofte
Fr SERIEL (SA), 48, Ave Victor Hugo, Clamart Seine
Ger Rohde & Schwarz Verts GmbH, Hohe Str 160-168
Koeln
GB Advance Electronics, Ltd, Roebuck Rd, Hainault
Ilford
Holl C N Rood NV, 11 Cort Van Der Lindenstr
Rijswijk, ZH
Ital Silverstar Ltd, 20 Via Dei Gracchi, Milano
Jap Midoriya Electric Co Ltd, 3, 2-Chome, Kyobashi
Chuo-Ku Tokyo
Nor Morgenstierne & Co A/S, Wessels Gate 6, Oslo
Swit OMNI Ray Ag, Dufourstr 56, Zurich 8
Belg Regulation-Mesure Sprl, 22 Rue St-Hubert
Bruxelles 15
Braz Importacio Ind E Comm, Ambriexsa
Ave Grace Aranna 226-6 .... Rio de Janeiro
Gr M Dallezzio Repres, 2 Alopekis St, Athens (K)
Ind Electronic Enterprises, New Charni Rd, Bombay
Isrl Eastronics Ltd, 75 Hafia Rd, Box 21029, Tel Aviv
Mex Fredin, SA, Box 53-958, Mexico 17, D F
NZ W & K McLean Ltd, 7 Anzac Ave, Auckland
Spn Telco, S L, Gravina 27, Madrid
Fin Into Y O, Box 153, 11 Meritullinkatu, Helsinki

EXACTEL INSTRUMENT CO DIV STATHAM INSTRS INC
89 PIONEER WAY, MOUNTAIN VIEW
CAL, 94040 ....415 968-6558
J DIBELLO, EMP 654, ENG 56, OVER $10,000M
Cal Statham Instr, Inc, 1400 Coleman Ave
Santa Clara 408 246-2277
Colo Space Sys Sales & Engrg Co, 280 Columbine
Denver 303 388-9225
Fla Statham Instr, Inc, 601 New York Ave N
Winter Park 305 644-0632
Ill Torkelson Assoc, 464 Central Ave
Northfield 312 446-8450
Ind Torkelson Assoc, 3512 Rockville Rd
Indianapolis 317 241-0725
Minn Torkelson Assoc, 4820 W 77th St
Minneapolis 612 920-1046
Mo Space Sys Sales & Engrg Co, Box 176
Florissant 314 291-3228
NJ Statham Instr, Inc, 1429 Rte 22
Mountainside 201 232-5648
NM Space Sys Sales & Engrg Co, 1401 Valencia, SE
Albuquerque 505 255-7058
Ohio Statham Instr, Inc, 3570 Warrensville Ctr Rd
Shaker Heights 216 283-2244
Tex Space Sys Sales & Engrg Co, 8383 Stemmons Fwy
Dallas 214 631-1740
Utah Space Sys Sales & Engrg Co, Box 89
Bountiful 801 295-6464
Va Statham Instr, Inc, 207 Park Ave
Falls Church 703 534-2870
Wash Statham Instr, Inc, 11009 SE 27th Pl
Bellevue 206 456-2257
Can Atlas Instr Corp Ltd, 10204 88th St
Edmonton, Alb 403 424-9065
Can Atlas Instr Corp Ltd, 3333 Cavendish Blvd
Montreal, Que 489-8495
Can Atlas Instr Corp Ltd, 342 1/2 Elgin St
Ottawa, Ont 233-9471
Can Atlas Instr Corp Ltd, 50 Wingold Ave
Toronto 19, Ont 781-6174

For Rocke Intl Corp, 13 E 40th St
New York, NY 212 689-0200

EXCEL ELECTRIC SERVICE CO INC
2101 S WESTERN AVE, CHICAGO
ILL, 60608 ....312 847-7220
R FERRARI, EMP 50, ENG 2, UP TO $100M
Cal Brenner Fiedler & Assoc, 7563 Melrose Ave
Los Angeles ....OL 1-4300
Cal Pacific Coast Instrument Co, 1161 Folsom St
San Francisco ....MA 1-1753
Ga Hooker Reid Co, Box 11754, Atlanta 237-9385
Ind R T Mathews & Assoc, 1128 Bethany La
Ft Wayne 743-9908
Mich R T Mathews & Assoc, 1415 Parker Ave
Detroit ....AD 1-9231
Mo Boutros Instrument Lab, 12011 E 67th St
Kansas City
NH S W Stockwell, R R 2, Concord .... CA 4-4503
Pa Linn O Morrow & Son, Schaff Bldg
Philadelphia ....LO 7-6431
Pa Bollinger & Bradford, Box 8088
Pittsburgh ....LO 1-2340
Tex Texas Sales Reps Co, 3701 Kirby Dr
Houston ....JA 3-6821
Can George M Fraser Ltd, 1554 Yonge St
Toronto 924-1107
For C H Stone, 205 W Wacker Dr
Chicago, Ill ....RA 6-7725

EXCELLON INDUSTRIES INC, 2917 W LOMITA BLVD
TORRANCE, CAL, 90503 ....213 325-8000
R HOGAN, EMP 80, ENG 9, $2,500-$5,000M
Ariz AR/Tec Inc, Box 727, Scottsdale 602 947-6304
Ga MacGregor Assoc, 3479 Northlake Way
Atlanta 404 938-0681
Ill English Sales Co, 411 S Oak St
Itasca 312 773-9449
Ill Midwest Electronic Sales, 5707 Weston St
Chicago 312 626-0030
Mass C J Klimoski, 11 Trinity Cir, Waltham ... TW 3-5766
NY Alderman & Eckerson, Drawer B
Pittsford 586-6020
NC MacGregor Assoc, 2501 Starbrook Dr
Charlotte 704 366-9440

EXCELSIOR ELECTRONICS, 7448 DEERING AVE
CANOGA PARK, CAL, 91303 ....213 884-1605
G DANTIACO, EMP 8, ENG 1, UP TO $100M

EXECUTONE INC, 47-37 AUSTELL PL
LONG ISLAND CITY, N Y, 11101 .... 201 EX 2-4800
E BRODY, EMP 500, $5,000-$10,000M

EXIDE INDUSTRIAL MKTG DIV ESB INC
RISING SUN & ADAMS AVE, PHILADELPHIA
PA, 19120, TWX 215-725-7397 .... 215 FL 2-8000
J CASSERLY, EMP 8800, ENG 300, OVER $10,000M
Ala Elec Storage Battery Co, 512 N 18th St
Birmingham ....TR 9-5321
Ala Elec Storage Battery Co, 351 St Louis St
Mobile ....HE 3-3209
Ariz Elec Storage Battery Co, 5045 N 12th St
Phoenix 279-6680
Cal Elec Storage Battery Co, 286 Lawrence Ave
S San Francisco 589-9005
Cal EJB Inc, 9536 Ann St
Sante Fe Springs 213 723-9384
Colo Elec Storage Battery Co, 1515 Cleveland Pl
Denver 623-7793
Conn Elec Storage Battery Co, 3115 Main St
Stratford ....DR 8-9022
Del Elec Storage Battery Co, 2506 Teal Rd
Wilmington 994-1970
DC Elec Storage Battery Co, 4000 Albemarle St NW
Washington ....EM 2-5700
Fla Elec Storage Battery Co, Fla Nat'l Bank
Jacksonville 356-7506
Ga Elec Storage Battery Co, 1227 Logan Cir, N W
Atlanta 351-2722
Ill Elec Storage Battery Co, 5335 S Western Blvd
Chicago ....WA 5-9800
Ill Elec Storage Battery Co, 423 1st Nat'l Bank
Peoria 674-5051
Ind Elec Storage Battery Co, 106 W Monroe St
South Bend 233-7833
Ind Elec Storage Battery Co, 325 Banker's Trust Bldg
Indpls ....ME 5-6727
Ky Elec Storage Battery Co, 660 S 5th St
Louisville ....JU 5-4500
La Elec Storage Battery Co, 822 Perdido St
New Orleans ....JA 5-6035
Me Elec Storage Battery Co, 142 High, Box 4152
Portland 775-0023
Md Elec Storage Battery Co, 111 W Susquehanna Ave
Towson ....VA 5-2611
Mass Elec Storage Battery Co, 507 Main
Worcester ....SW 1-5786
Mass Elec Storage Battery Co, 315 Mystic Ave
Medford ....EX 5-7979
Mass Elec Storage Battery Co, 1387 Main St
Springfield ....ST 5-1034
Mich Elec Storage Battery Co, 2355 Burchard St
E Grand Rapids ....GL 6-7487
Mich Elec Storage Battery Co, 12717 Prospect
Dearborn 581-0400
Minn Elec Storage Battery Co, 324 S 4th St
Mnpls 377-5770
Mo Elec Storage Battery Co, 1212 Lydia Street
Kansas City 842-7274
Mo Elec Storage Battery Co, 5120 Northrup Ave
St Louis ....PR 3-1644

Neb Elec Storage Battery Co, 3555 Farnum St
Omaha 342-6528
NJ Elec Storage Battery Co, 744 Broad St
Newark 642-0005
NY Elec Storage Battery Co, 220 Delaware Ave
Buffalo ....TL 4-1278
NY Elec Storage Battery Co, 5 Herbert Dr
Latham ....ST 5-6334
NY Elec Storage Battery Co, 25 W 43rd St
New York ....BR 9-8100
NY Elec Storage Battery Co, 74 Park Ave
Rochester ....GR 3-4880
NY Elec Storage Battery Co, 500 Lafayette Bldg
Syracuse ....GR 1-1488
NC Elec Storage Battery Co, 519 E Trade St
Charlotte 375-7966
NC Elec Storage Battery Co, 412 W Market
Greensboro 274-2222
Ohio Elec Storage Battery Co, 920 E McMillan St
Cincinnati ....CA 1-2924
Ohio Elec Storage Battery Co, 2225 Hamilton Ave
Cleveland ....CH 1-6231
Ohio Elec Storage Battery Co, 246 3rd Natl Bldg
Dayton 222-8224
Ohio Elec Storage Battery Co, 540 S Water
Kent ....OR 3-9212
Ohio Elec Storage Battery Co, 518 Jefferson Ave
Toledo 244-1531
Ore Elec Storage Battery Co, 320 SW Stark
Portland 222-5652
Pa Elec Storage Battery Co, 2242 Calif Ave
Pittsburgh ....CE 1-3000
Pa Elec Storage Battery Co, 650 Clark Ave
King of Prussia 265-6060
RI Elec Storage Battery Co, 703 Ind Bank Bldg
Providence ....TE 1-4060
Tenn Elec Storage Battery Co, 3294 Poplar Ave
Memphis 327-6236
Tenn Elec Storage Battery Co, 309 Volunteer Bldg
Chattanooga 267-5850
Tex Elec Storage Battery Co, 318 N Pearl St
Dallas ....RI 8-9977
Tex Elec Storage Battery Co, 4101 San Jacinto St
Houston ....JA 4-2033
Utah Elec Storage Battery Co, 138 S 2nd E
Salt Lake City ....EL 9-5766
Va Elec Storage Battery Co, 2915 W Moore St
Richmond 353-1026
Wash Elec Storage Battery Co, 500 Wall St
Seattle ....MA 3-1377
Wash Elec Storage Battery Co, W 1303 1st Ave
Spokane ....RI 7-0531
W Va Elec Storage Battery Co, 600 Princeton Ave
Bluefield 327-5187
W Va Elec Storage Battery Co, 1216 Quarrier
Nitro 346-5363
Wis Elec Storage Battery Co, 3846 W Wisconsin Ave
Milwaukee 342-1222

EXTRUDONICS INC, 1002 JERSEY AVE
NEW BRUNSWICK, N J, 08901 ....201 249-6867
H EARL

EXTRUDAPAK DIV VALOR INSTRUMENTS INC
13214 CRENSHAW BLVD, GARDENA
CAL, 90249 ....213 323-6160
D WEAVER, EMP 100, ENG 2
Ariz F Y Gates Co, 732 S Elm St, Mesa ... 602 969-4421
Cal Avionics Liaison Inc, 3235 Kifer Rd
Santa Clara 408 739-1991
Cal Don Weaver & Assoc, 13218 Crenshaw Blvd
Gardena 213 321-8962
Ill Technical Devices Inc, 6416 N Central Ave
Chicago 312 774-8252
NM F Y Gates Co, 2631 Texas, N E
Albuquerque 384-1875
NY Bassin Technical Sales, Co, 43 Bronx River Rd
Yonkers ....BE 7-0173
Ohio Arthur H Baier Co, 18236 S Miles Pkwy
Cleveland 475-3080
Ohio Arthur H Baier Co, 4399 Industrial Pkwy
Willoughby 216 946-6080
Utah F Y Gates Co, 455 E 4th St S
Salt Lake City 801 359-1101
Wash Avionics Liaison, Inc, 6770 Perimeter Rd
Seattle ....PA 3-7602
Swit Telemeter Electronic GmbH, 8042 Schleissheim
Munich

EYELEMATIC MFG CO INC, SRAITS TPKE, OAKVILLE
CONN, 06779 ....203 274-8831
C MARSHALL, EMP 30, ENG 2, $500-$1,000M
Cal Ruby Sales Corp, Box 511
San Fernando 361-1201
Ill J L Innes, Box 31, Western Springs 246-2014
Pa Miller-Smith & Co, Box 172, Wayne 687-0750
Va McLean Sales, Box 250, Waynesboro 942-8678

EYELET TOOL CO, 76 ROGERS ST, CAMBRIDGE
MASS, 02142 ....617 UN 4-8170
D SPENCER, EMP 22, ENG 2, $100-$250M
Cal Fastener Supply Co, 977 Howard St
San Francisco ....EX 2-6968
Cal Fastener Supply Co, 319 E Washington Blvd
Los Angeles 878-1270
Fla R W Gravett, Box 2501, Ft Lauderdale 565-2079
Kan Lomax Engrg, 4200 W 99th St
Overland Park 913 649-0742
Md Oakmont Engrg, 11161 New Hampshire Ave
Silver Springs
Mass D H Patterson, 1 Mayo Rd, Wellesley 235-9068
Mich K V Wiener, 27252 Southfield
Lathrup Village 444-4130

NJ	John W Richardt Assoc, Rt 46 Pine Brook	201 228-0600
NY	T P C, Box 184, Syracuse	315 472-8588
NY	T P C, Box 626, Endicott	607 748-7942
Tex	Lomax Engrg, 6338 Prestonshire La Dallas	214 EM 1-1134

E-Z-HOOK TEST PRODUCTS, 1536 WOODBURN, COVINGTON
KY, 41012 ... 606 261-1495
R YOUGER, EMP 2, UP TO $100M
ADV PG 152

Cal	Ash M Wood Co, Box 1158, Arcadia	CU 3-1201
Can	Len Finkler Ltd, 2 Tycos Dr, Toronto	RU 1-5231

E-Z WAY PRODUCTS INC, 13155 NEBRASKA AVE
TAMPA, FLA, 33612 ... 813 932-5321
A JESTER, EMP 30, ENG 2, $250-$500M

Cal	Manufacturing Assoc, 1738 Colorado Ave Santa Monica	479-8884
Kan	Thomas & Modrcin Assoc Inc, 5450 Buena Vista Dr Shawnee Mission	432-2131
La	Scott Ormsby Sales, 230 20th St New Orleans	488-2414
Md	R Finlay Sales Co, Box 1777 Hyattsville	927-1279
NJ	R Finlay Sales Co, 45 N Broad St Ridgewood	652-0088
NY	L Zlowe Inc, 15 N Central Ave Hartsdale	687-7282
NY	Baker & Messina Assoc, Inc, 482 St Paul St Rochester	232-5602
Tex	Parvin Sales Co, Addison Rd, Addison	

FABRICAST INC, 9835 E ALPACA ST
SOUTH EL MONTE, CAL, 91733 ... 213 443-3247
H WOOD, EMP 10, ENG 1, $100-$250M

Mass	Robert J Hoey, 17 Orchard Dr W Acton	617 CO 3-7565
Mo	K & M Sales, 1627 Main St Kansas City	816 GR 1-1355
NY	Robert J Marcy Assoc, 80 8th Ave New York	212 YU 9-2950
Ohio	John O Olsen Co, 16201 Shaker Rd Cleveland	216 SK 2-5444
Pa	Edward A Snefsky, 104 Elatam Dr Pittsburgh	412 279-2550
Wash	James J Backer Co, 221 W Galer St Seattle	206 AT 3-6470

FABRICATION LABS INC, BOX 648, CAMINO
CAL, 95709 ... 209 644-2606
H GREEN, EMP 17, ENG 3, UP TO $100M

FABRI-TEK INC, 5901 S COUNTY RD 18, MINNEAPOLIS
MINN, 55436 ... 612 935-8811
R RIFE, EMP 2276, ENG 167, OVER $10,000M

Ala	Currie Aerospace Assoc, Box 1424 Huntsville	536-5650
Ariz	Fabri-Tek Inc, 3815 N Black Canyon Hwy Phoenix	266-4448
Cal	Videodata, 15720 Ventura Blvd, Encino	981-6022
Cal	Fabri-Tek Inc, 8820 S Sepulveda Blvd Los Angeles	776-6420
Colo	Meter Master Instr Corp, 748 So Broadway Denver	722-8462
Fla	Fabri-Tek Inc, 2826 Broadway Riviera Beach	848-1481
Fla	Currie Aerospace Assoc, Box 13229 Orlando	855-0843
Ill	Engineering Products Assoc, 1343 Western Ave Northbrook	272-2730
Mass	Fabri-Tek Inc, 2120 Commonwealth Ave Auburndale	969-5077
Mich	Sheridan Assoc, Inc, Box 128 Lathrup Village	358-3333
Mich	Technical Equipment Co, Inc, 161 Vester Ferndale	541-2660
Minn	Engineering Products Assoc, 2119 Grand Ave St Paul	698-5531
Mo	Sheridan Assoc, Inc, Box 3997, Jennings Sta St Louis	524-4800
NJ	Radiation Service Co, 7150 Airport Hwy Pennsauken	663-4840
NY	Tech-Aid, Inc, 1551 Franklin Ave Mineola	248-6364
NC	Currie Aerospace Assoc, 519 Nissen Bldg Winston-Salem	725-1927
Ohio	Sheridan Assoc, Inc, Box 37646 Cincinnati	761-5432
Ohio	Sheridan Assoc, Inc, Box 8226 Cleveland	237-9145
Ohio	Sheridan Assoc, Inc, Box 36, Dayton	277-8911
Ohio	Technical Equipment Co, Inc, RD 5 Jasper Pike Xenia	372-9571
Ohio	Information Flow Engineering, 333 W 1st St Dayton	222-6522
Ore	Larrabee & Assoc, Inc, 12320 SW Douglas Portland	232-2215
Pa	Fabri-Tek Inc, 164 Indiana Ave Fort Washington	646-8115
Pa	Sheridan Assoc, Inc, 201 Penn Ctr Blvd Pittsburgh	243-6655
SD	Engineering Products Assoc, 723 1st Ave NW Watertown	886-9429
Tex	Fabri-Tek Inc, 5635 Yale, Dallas	369-5313
Tex	Hays Company, 405 N Browser Richardson	231-1426
Va	Diversified Educational Systems, Box 52 Berryville	955-1453
Wash	Larabee & Assoc, Inc, 119 Blanchard St Seattle	623-2521
Wis	Fabri-Tek Inc, 5225 Verona Rd Madison	238-8476

FAE INSTRUMENT CORP, 16 NORDEN LN
HUNTINGTON STATION, N Y, 11746 ... 516 AR 10300
A MANKES, EMP 45, ENG 2, $500-$1,000M

Cal	Halbar Assoc, 1805 W 3rd St Los Angeles	DU 7-8283
Md	Moler-Eader Assoc, 320 Hillen Rd Baltimore	VA 5-1130
NJ	Moler-Eader Assoc, Box 240 Haddonfield	428-2440

FAFNIR BEARING CO, 37 BOOTH ST, NEW BRITAIN
CONN, 06050 ... 203 225-5151
S FISHER, EMP 5500, OVER $10,000M

Cal	Fafnir Bearing Co, 4635 Sheila St Los Angeles	AN 9-7415
Cal	Fafnir Bearing Co, 20 Rollins Rd Millbrae	Ox 7-1244
Colo	Fafnir Bearing Co, 4425 Vine St Denver	Al 5-1495
Fla	Fafnir Bearing Co, 2690 65th Ave, S St Petersburg	867-6026
Ga	Fafnir Bearing Co, 505 Courtland St, NE Atlanta	872-1844
Ill	Fafnir Bearing Co, 4640 N Olcott Ave Chicago	UN 7-8785
Ill	Fafnir Bearing Co, 2201 5th Ave Moline	762-7766
Ill	Fafnir Bearing Co, 916 1st Nat'l Bank Bldg Peoria	676-6732
Ind	Fafnir Bearing Co, 1500-14 E Riverside Dr Indianapolis	ME 8-1584
La	Fafnir Bearing Co, 5701 York St Metairie	887-4243
Mass	Fafnir Bearing Co, 117 Alewife Brook Pkwy Cambridge	UN 4-9890
Mich	Fafnir Bearing Co, 14300 Puritan Ave Detroit	BR 3-3465
Minn	Fafnir Bearing Co, 3509 Raleigh Ave Minneapolis	926-7631
Mo	Fafnir Bearing Co, 2727 Cherry St Kansas City	HA 1-8355
NY	Fafnir Bearing Co, 39-38 59th St Woodside	TW 9-2000
NY	Fafnir Bearing Co, 3100 Monroe Ave Rochester	DU 1-3530
NC	Fafnir Bearing Co, 433 Wolfberry St Charlotte	376-2442
Ohio	Fafnir Bearing Co, 2637 Erie Ave Cincinnati	EA 1-2482
Ohio	Fafnir Bearing Co, 25000 Euclid Ave Cleveland	AN 1-0600
Ore	Fafnir Bearing Co, 2277 NW Quimby St Portland	222-1917
Pa	Fafnir Bearing Co, 4330 N H St Philadelphia	PI 4-5555
Pa	Fafnir Bearing Co, 305 23rd St Pittsburgh	781-1664
Tenn	Fafnir Bearing Co, 219 E Mallory Ave Memphis	948-8551
Tex	Fafnir Bearing Co, 9000 Directors Row Dallas	ME 1-4180
Tex	Fafnir Bearing Co, 3815 Richmond Ave Houston	MO 7-9918
Wash	Fafnir Bearing Co, 5400 2nd Ave, S Seattle	RO 2-9370
Wis	Fafnir Bearing Co, 711 W Capital Dr Milwaukee	FR 4-2010

FAFNIR-INA NEEDLE ROLLER BEARING CO
37 BOOTH ST, NEW BRITAIN
CONN, 06050 ... 203 225-5151
J GILL

FAIRBANKS MORSE WEIGHING SYS, DIV COLT INDUS
19-01 RT 208, FAIR LAWN
NJ, 07410 ... 201 796-5100
H BOSLEY, EMP 1000, OVER $10,000M

Ala	Fairbanks Morse, 912 Sixth Ave N Birmingham	AL 2-4901
Ariz	Fairbanks Morse, 1844 N 27th Ave Phoenix	272-6561
Cal	Fairbanks Morse, 449 N Fresno St Fresno	268-4285
Cal	Fairbanks Morse, 4535 S Soto St Los Angeles	LU 7-8151
Cal	Fairbanks Morse, 1366 San Mateo Ave San Francisco	871-5566
Colo	Fairbanks Morse, 4995 Colorado Blvd Denver	377-8845
Fla	Fairbanks Morse, 711 N Kentucky Ave Lakeland	MU 3-4018
Fla	Fairbanks Morse, 2720 Park St Jacksonville	EV 8-7648
Ga	Fairbanks Morse, 3762 Northeast Frwy Doraville	457-5551
Ill	Fairbanks Morse, 1550 S State St Chicago	326-3600
Ind	Fairbanks Morse, 27 E Georgia St Indpls	639-4525
Iowa	Fairbanks Morse, 2017 Dean Ave Des Moines	233-6840
La	Fairbanks Morse, 5727 Jefferson Hwy New Orleans	834-9680
Md	Fairbanks Morse, 1050 Cromwell Bridge Rd Baltimore	825-9240
Mass	Fairbanks Morse, 1570 Boston Providence Hwy Norwood	769-2360
Mich	Fairbanks Morse, 8655 E 8 Mile Rd Detroit	536-3500
Minn	Fairbanks Morse, 2767 Highway 55 St Paul	454-4460
Mo	Fairbanks Morse, 2500 W Pennway Kansas City	421-5660
Mo	Fairbanks Morse, 4999 Fyler Ave St Louis	832-4700
Neb	Fairbanks Morse, 6906 L St, Omaha	331-7840
NY	Fairbanks Morse, 3463 Broadway Buffalo	NT 4-5660
NC	Fairbanks Morse, 1616 Toal St Charlotte	333-0121
Ohio	Fairbanks Morse, 4815 Para Dr Cincinnati	242-5710
Ohio	Fairbanks Morse, 7420 Exchange St Cleveland	524-3575
Okla	Fairbanks Morse, 1313 Hunt Bldg Tulsa	LU 2-4055
Ore	Fairbanks Morse, 2632 SE Steele St Portland	BE 2-0131
Pa	Fairbanks Morse, Campbell Run Rd Pittsburgh	923-2650
Pa	Fairbanks Morse, 1 Union Hill Rd Conshohocken	TA 8-4622
Tenn	Fairbanks Morse, 49 Cumberland Ave Memphis	323-2236
Tex	Fairbanks Morse, 5521 Navigation Blvd Houston	WA 3-9441
Tex	Fairbanks Morse, 8101 Carpenter Frwy Dallas	ME 1-0670
Utah	Fairbanks Morse, 3054 S 2nd W Salt Lake City	486-2048
Wash	Fairbanks Morse, 528 Broad St Seattle	MA 4-0833
Wis	Fairbanks Morse, 1630 S 38th St Milwaukee	645-0130

FAIRCHILD CABLE DIV FAIRCHILD CAMERA & INST
13TH & MAIDEN LA, JOPLIN
MO, 64801, TWX 910 774-4506 ... 417 623-1775
EMP 300, ENG 15, $2,500-$5,000M

Cal	E W Roberts, 1657 Lark Ellen Covina	213 ED 6-7669
Kan	J Mansfield, 2801 Main, Parsons	316 GA 1-2991
Mo	D Everett, 618 Empire, Joplin	417 623-0676

FAIRCHILD CONTROLS, 225 PARK AVE, HICKSVILLE
N Y, 11802, TWX 510 221-1854 ... 516 WE 85600
D LAWTON, EMP 450, ENG 90, OVER $10,000M

Cal	Fairchild Controls, 423 National Ave Mountain View	962-2357
Cal	Fairchild Controls, 2445 W Whittier Blvd Montebello	RA 3-5191
Cal	Hyer Electronics Co, 7895 Prentice Ave Englewood	771-5285
Cal	Fairchild Controls, 5625 Kearney Villa Rd San Diego	714 279-5600
Conn	G M Hathaway Electronics Inc, Ducillo Bldg Canaan	824-7215
Fla	Geartner Assoc, 350 Lincoln Rd Miami Beach	531-0200
Fla	Geartner Assoc, 2101 Mohawk Trail Maitland	647-4000
Ga	Fairchild Controls, 2793-A Clairmont Rd NE Atlanta	633-1795
Md	Stemler Assoc & Co, 25 W Penna Ave Towson	VA 8-8853
Mass	George J Neuman & Co, 91 Fairfield Ave Needham	HI 4-4342
Mich	Don Poulin Co, 17222 E Warren Ave Detroit	866-1814
NJ	Stemler Assoc & Co, Box 287 Cherry Hill	966-4070
NY	Everett Sales Eng Co, 160 Plandome Rd Manhasset	MA 7-7750
NY	J F Harm & Assoc, 7952 Boxford Circle Clay	GI 6-2540
Ohio	Components Eng Co, 7461 N Linden La Cleveland	842-2737
Ohio	Components Eng Co, 11820 Knollsprings Cincinnati	825-8686
Ohio	John Kehoe, 3813 E Fifth St, Dayton	256-9125
Tex	Mitchell Speairs Co, 4944 James Ave Fort Worth	WA 3-4657
Can	Whittaker Electronics Ltd, 42 Howden Ave Ottawa, Ont	224-1221
For	Robt J Sullivan, Seestr 233 8700 Kusnacht	26 78 23
Den	A/S Danbridge, 47 Brigadevej Copenhagen	ASTA 1575
Fr	Young Electronic, 117 Rue d'Aquessen 92 Boulogne, France	265 85-00
Ger	Controls & Instruments GmbH Gustav - Adolf - Str 5, 8, Munich 42	
GB	Elliott Bros (London) Servo Comps Div Century Wks Lewisham, London SE 13	TID 1271
Holl	Berg & Burg NV, De Ruyterkade 141 Amsterdam-C.	020-32082
Nor	Ole A Nordby, Sorkedalsveien 18, Oslo	56 51 26
Isrl	Elina Ltd, 7 Harishouim St, Tel-Aviv	64568
Fin	O Y Regulator AB, Box 52009, Helsinki	70807
Aust	Servo Mechanism Co, 505 Lygon St E Brunswick, Vic.	36 3711-4

FAIRCHILD HILLER CORP, SPACE & ELECTRONICS SYS
DIV, FAIRCHILD DR, GERMANTOWN
MD, 20767, TWX 710 828-9700 ... 301 948-9600
J HERRE, EMP 870, ENG 375, OVER $10,000M

Ala	Fairchild Hiller, 3322 Memorial Pkwy S Huntsville	881-8811
Cal	Fairchild Hiller, 7120 Hayvenhurst Ave Van Nuys	989-3100
DC	Fairchild Hiller, 1000 16th St NW Washington	659-1616
Ga	Fairchild Hiller, Box 906 Warner Robbins AFB	923-1091
Haw	Fairchild Hiller, Box 9207, Honolulu	813-811
Mass	Fairchild Hiller, 34 Wolcott Rd Chestnut Hill	566-2350
NJ	Fairchild Hiller, 27 Prince Pl Little Silver	741-9109

NC Fairchild Hiller, 1501 Fairchild Dr
Winston-Salem 723-1803
Ohio Fairchild Hiller, 333 W First St, Dayton ... 222-8337
Tex Fairchild Hiller, 1840 NASA Blvd
Houston 591-5200
Va Fairchild Hiller, 1301 N King St
Hampton 722-0331

FAIRCHILD HILLER CORP REPUBLIC AVIATION DIV
CONKLIN ST, FARMINGDALE
N Y, 11735 .... 516 531-2453
L HELMUTH, EMP 4000, ENG 600, OVER $10,000M
Ala C T Bussey, 3322 Memorial Pkwy S
Huntsville 205 881-8811
Cal D J MacDonald, 1800 Rosecrans Ave
Manhattan Beach 772-2283
Cal A Aratoli, 3382 El Camino Ave
Sacramento 916 483-3888
Cal D J MacDonald, 7120 Hayvenhurst Av
Van Nuys 213 989-3100
Ohio E Nett, 333 W 1st St, Dayton 513 222-8337
Tex V Colovin, 1840 NASA Blvd
Houston 713 591-5200
Va L Trusty, 1301 N King St, Hampton .. 703 722-0331
Holl R Goetz, Schiphol-Zuid, Amsterdam 73-10-44

FAIRCHILD INDUSTRIAL PRODUCTS
221 FAIRCHILD AVE, PLAINVIEW
N Y, 11803, TWX 516 433-9151 ...... 516 WE 8-9600
P HELWEG, $5,000-$10,000M
Cal A C Plautz, 5921 E Shiela St
Los Angeles .... RA 3-9601
Ill M J Dalton, 111 W Washington St
Chicago .... RA 6-5418

FAIRCHILD INDUSTRIES, JERRY, 135 W UNION
PASADENA, CAL, 91101 .... 213 681-4588
J FAIRCHILD, EMP 60, ENG 2, $500-$1,000M

FAIRCHILD INSTRUMENTATION, 974 E ARQUES
SUNNYVALE
CAL, 94086, TWX 910 339-9217 .... 408 735-5011
R HART, EMP 950, ENG 150
Ala Reynolds & Assoc, Inc, 904 Bob Wallace Ave
Huntsville 536-1941
Ala E G Holmes & Assoc, 4862 Governors Dr W
Huntsville 205 837-6900
Ariz Hyer Electronics, 301 W Indian School Rd
Phoenix 246-0291
Cal Fairchild Inst & Test Sys, 4546 El Camino Real
Los Altos 941-3111
Cal Fairchild Inst & Test Sys, 5410 W Imperial Blvd
Los Angeles 678-3166
Colo Hyer Electronics Co, 7895 E Prentice Ave
Englewood 771-5285
Conn Instrument Consultants, Inc, 2381 Whitney Ave
Hamden 203 248-4174
Conn Gerald Rosen Co, 194 Plymouth St
Stratford 203 375-5456
Fla Reynolds & Assoc, Box 1043
Eau Gallie 727-3205
Fla Reynolds & Assoc, Inc, Box 8877
Orlando 424-3836
Fla Fairchild Inst & Test Sys, 2105 Gulf-To-Bay Blvd
Clearwater 446-6419
Fla Reynolds & Assoc, 161 SW 75th Ave
Ft Lauderdale 305 581-6611
Fla E G Holmes, 316 1/2 South Bumby St
Orlando 305 241-2128
Ga Reynolds & Assoc Inc, Box 13173, Sta K
Atlanta 876-0652
Ga E G Holmes, 3667 Clairmont Rd, NE
Chamblee 404 451-6161
Ill Fairchild Inst & Test Sys, 2434 Dempster
Des Plaines 299-1048
Ill Bard Assoc, La Grange Ind Pk
La Grange 312 354-0660
Ill Midwest Microwave, 6414 W Belmont Ave
Chicago 312 283-1051
Ind Bard Assoc, 4002 Meadows Dr
Indianapolis 317 546-3113
Iowa Engineering Services Co, 1026 Third Ave, SE
Cedar Rapids 319 366-1591
Kan Engineering Services Co, 7924A State Line
Prairie Village 913 649-4400
Md Bartlett Assoc, 7979 Old Georgetown Rd
Bethesda 301 656-3061
Mass Instrument Consultants, Inc, 81 Wyman St
Waban 617 969-9881
Mich Twin Region Elctn Sales, Inc, 2547 Monroe Blvd
Dearborn 313 274-4661
Minn Bard Assoc, 7710 Morgan Ave
Minneapolis 612 866-1700
Mo Engineering Services Co, 6717 Vernon Ave
St Louis 314 726-2233
NM Hyer Electronics Co, 210 La Veta NE
Albuquerque 265 5767
NY Fairchild Inst & Test Sys, 50 Jericho Tpk
Jericho 333-9311
NY Bartlett Assoc, 470 Mamaroneck Ave
White Plains 914 949-6476
NY, CDB Enterprises, 675 West Jericho Tpke
Huntington 516 692-5200
NY J D Ryerson Assoc, 1672 Monroe Ave
Rochester 716 442-1900
NY J D Ryerson Assoc, 333 Arthur Ave
Johnson City 607 724-2022
NY J D Ryerson Assoc, 425 Manor Dr
Syracuse 315 656-7419
NC E G Holmes & Assoc, 430 West Friendly St
Greensboro 919 272-0855
Ohio Twin Region Elctn Sales, Inc
21010 Center Ridge Rd
Cleveland 216 331-7650
Ohio Twin Region Elctn Sales, Inc, 5700 Farhills Ave
Dayton 513 434-8000
Pa Bartlett Assoc, 130 West Lancaster Ave
Wayne 215 688-7325
Pa Twin Region Elctn Sales, Inc
201 Penn Center Blvd, Pittsburg ... 412 824-1120
Pa C E Snow Co, 1349 Cheltenham Ave
Philadelphia 215 224-2626
Tex Airep Elctns, Inc, 6300 N Central Expwy
Dallas 214 363-5291
Tex Airep Elctns, Inc, 4901 Richmond Ave
Houston 713 621-0955
Tex Airep Elctns, Inc, 6936 San Pedro
San Antonio 512 828-1488
Utah Hyer Assoc, 445 E 2nd S
Salt Lake City 801 363-6773
Va Gordon Assoc, 2444 Burgess Ave
Alexandria 703 273-2548
Can BRH Assoc, Ltd, 12A Finch Ave, W
Willowdale, Ont 223-4008
Can BRH Assoc, Ltd, 1300 Carling Ave
Ottawa, Ont 728-0113
Can BRH Assoc, Ltd, 6338 Victoria Ave
Montreal 733-5331
GB Fairchild Instrumentation Ltd, 551 London Rd
Isleworth, Middlesex 560-0838
Jap Tokyo Electron Labs, TBS Bldg
Akasaka, Minatu-Ku .... Tokyo

FAIRCHILD SEMICONDUCTOR DIV FAIRCHILD CAM &
INST CORP, 313 FAIRCHILD DR, MOUNTAIN VIEW
CAL, 94040, TWX 910 379-6435 .... 415 962-5011
J SANDERS, EMP 14000, ENG 450, OVER $10,000M
Ala Schweber Electronics, 2101 W Clinton Blvd
Huntsville 539-2756
Ala Fairchild Semiconductor, 2109 W Clinton Blvd
Huntsville 536-4428
Ariz Hamilton Electro of Ariz, 1741 N 28th Ave
Phoenix 272-2601
Ariz Hyer Electronics Co, 301 W Indian School Rd
Phoenix 264-0291
Ariz Fairchild Semiconductor, 301 W Indian School Rd
Phoenix 264-4948
Cal Fairchild Semiconductor, 6922 Hollywood Blvd
Los Angeles 466-8393
Cal Hamilton Electro Sales, 10912 W Washington Blvd
Culver City 870-7171
Cal Hamilton Electro of San Diego
5567 Keamy Villa Rd, San Diego 279-2421
Cal G S Marshall Co, 2065 Huntington Dr
San Marino 684-1530
Cal G S Marshall Co, 890 Warrington Ave
Redwood City 365-2000
Cal Hamilton Electro Sales, 340 Middlefield Rd
Mountain View 961-7000
Cal Avnet Corp, 10916 W Washington Blvd
Culver City 870-0111
Cal G S Marshall Co, 7790 Engineer Rd
San Diego 278-6350
Cal Fairchild Semiconductor
El Camino & San Antonio Rds
Los Altos 941-3150
Colo Hyer Electronics, 7895 E Prentice Ave
Engelwood 771-5285
Colo Fairchild Semiconductor, 280 Columbine Bldg
Denver 322-0848
Conn Cramer Electronics Inc, 60 Connolly Pkwy
Hamden 288-7771
Conn Fairchild Semiconductor, 60 Connolly Pkwy
Hamden 248-1888
DC Powell Electronics Inc, Box 1660, Washington
Fla Powell-Florida, 2049 W Central Blvd
Orlando 423-8586
Fla Cramer Florida Inc, 4141 N E 6th Ave
Ft Lauderdale 566-7511
Fla Hall Mark Electronics, 7233 Lake Ellenor
Orlando 855-4020
Fla Fairchild Semiconductor, 7040 Lake Ellenor Dr
Orlando 850-0152
Fla Fairchild Semiconductor, 3440 NE 12th Ave
Ft Lauderdale 566-7414
Ga Cramer Electronics, 1365 Peachtree St
Atlanta 892-2636
Ill Fairchild Semiconductor, 7310 W North Ave
Elmwood Park 456-4200
Ill Semiconductor Specialists
Box 8725, O'Hare Intl Arpt, Chicago 279-1000
Ill Pace/Avnet Elctns, 3901 Pace Ct
Schiller Park 678-6310
Kan Aunet Corp, 7301 Mission Rd
Prairie Village 362-3250
Md Fairchild Semiconductor, 7100 Baltimore Ave
College Park 779-6868
Md Valley Electronics Inc, 8809 Satyr Hill Rd
Baltimore 668-4900
Md Powell Electronics Inc, 10728 Hanna
Beltsville 474-1030
Md Cramer/Washington, 692 Lostrand La
Rockville 424-2700
Mass Cramer Electronics Inc, 320 Needham St
Newton 969-7700
Mass Fairchild Semiconductor, Lakeside Office Park
Wakefield 245-8880
Mass Schweber Electronics, 400 Wyman St
Waltham 891-8484
Mass L L Schley Co Inc, 36 Arlington St
Watertown 926-0235
Mich Semiconductor Specialists, 25127 W 6 Mile Rd
Detroit 255-0300
Mich Fairchild Semiconductor, 24755 Five Mile Rd
Detroit 537-9520
Mich Sheridan Assoc, Box 128
Lathrup Village 353-3822
Minn Semiconductor Specialists, 7742 Morgan Ave S
Minneapolis 866-3434
Minn Fairchild Semiconductor, 4901 W 77th St
Minneapolis 920-1030
Minn Avnet Electronics of Minn, 4940 Viking Dr
Minneapolis 920-5866
Mo Semiconductor Specialists Inc
10062 Natural Bridge, St Louis 423-6500
Mo Contact-Hamilton, 400 Brookes Lane
Hazelwood 731-1144
NJ Valley Electronics, 1608 Marlton Pike, Rt 70
Cherry Hill 662-9337
NJ Schley/OTS Electronics, Industrial Dr
Rutherford 935-2120
NM Hyer Electronics, 210 La Veta, NE
Albuquerque 265-5767
NM Fairchild Semiconductor, 210 LaVeta, NE
Albuquerque 265-5767
NY Fairchild Semiconductor, 50 Jericho Tpk
Jericho 334-8500
NY Fairchild Semiconductor, 731 James St
Syracuse 472-3391
NY Cramer-Eastern, Pickard Bldg, Syracuse ... 454-6641
NY Summit Distributors Inc, 916 Main St
Buffalo 884-3450
NY Dart-Hamilton, 222 Boss Rd, Syracuse ... 437-2641
NY Schweber Electronics, Westbury 334-7474
NY Taylor Electronic Corp, 2270 Grand Ave
Baldwin 223-8000
NY Fairchild Semiconductor, 44 Haight Ave
Poughkeepsie 454-7320
NY Dart-Hamilton, 1505 Cleveland Dr
Buffalo 633-9110
Ohio Schweber Electronics, 20950 Center Ridge Rd
Cleveland 333-7020
Ohio Sheridan Sales Co, 10 Knollcrest Dr
Reading 761-5432
Ohio Fairchild Semiconductor, 20950 Center Ridge Rd
Cleveland 333-7176
Ohio Fairchild Semiconductor, 5000 Northbranch La
Dayton 278-8278
Ohio Sheridan Sales, Box 37646, Cincinnati
Pa Fairchild Semiconductor, 100 Old York Rd
Jenkintown 886-6623
Pa Powell Electronics Inc, Box 8765, Intl Airport
Philadelphia 724-1900
Tenn Powell Electronics, Box 488
Fayetteville 433-5737
Tex Fairchild Semiconductor, 10210 Monroe
Dallas .... FL 2-9523
Tex Norvell Assoc Inc, 10210 Monroe Ave
Dallas 357-6451
Tex Norvell Assoc Inc, 6440 Hillcroft
Houston 774-2568
Tex Busacker Electronic Equip Co, 1216 W Clay
Houston 528-6383
Tex Arco Electronics, 1610 Industrial Ct
Arlington 277-2231
Wash Fairchild Semiconductor, 700 108th Ave, NE
Bellevue 454-4946
Wash Hamilton Pacific NW, 2320 6th Ave
Seattle 624-5930
Can Avnet Electronics of Can Ltd, 87 Wingold Ave
Toronto, Ont 789-1838
Can Avnet Electronics of Can Ltd, 1505 Louvain St W
Montreal, Que 381-9127
Can Fairchild Semiconductor, 78 Signet Dr
Weston, Ont 749-3911
Can Fairchild Semiconductor, 1505 Louvain St, W
Montreal, Que 381-9127
BC R A E Ind Electronics, 1350 E 4th Ave
Vancouver 253-8494

FAIRCHILD SPACE & DEFENSE SYS DIV FAIRCHILD
CAM INSTR CORP, 300 ROBBINS LA, SYOSSET
NY, 11791, TWX 510 221-1858 .... 516 931-4500
A MEDICA, EMP 2100, ENG 725
Md Fairchild Space & Def Sys, 2401 Blue Ridge Ave
Wheaton 301 949-7543
Ohio Fairchild Space & Def Sys, 131 N Ludlow St
Dayton 338-1111
Den A/S Danbridge, 47 Brigadeves, Copenhagen
Fr Air-Trading, 48 Ave Ray-Poincare
Paris 16 e .... KLE 36-86
Ger Aerotechnik Kirchfield Kg, Trinkaus-Str, 1
4 Dusseldorf 1-05-45
GB Stewart Aero Supply Co Ltd, Gatwick Rd
Crawley .... CRA 28700
Holl Tech Handelmij Hollinda NV, 112 Stadhouderslaan
The Hague 54-23-03
Ital Agenzia Commericale Intl, Via Castelnuovo 33,
Rome
Jap Okura Trading Co Ltd, 3 Ginza Nishi-Nichome
Tokyo 451-2131
Swit Omni Ray AG, Dufourstr 56, Zurich ... 051-34-44-30
Spn Tecnologica De Automacion, S A
Ave del Gen, Franco 354, Barcelona 225-6077

FAIRCHILD SPACE & DEFENSE SYS DIV FAIRCHILD
CAM & INST CORP, 621 HAWAII ST, EL SEGUNDO
CAL, 90245, TWX 910 325-6607 .... 213 644-2275
G SWOBEN
For sales offices/reps see Fairchild Space & Defense
Systems, (Syosset address) listings

FAIRCHILD SPACE & DEFENSE SYS DIV FAIRCHILD
CAM & INSTR CORP, 30 PARK PL, PARAMUS
N J, 07652, TWX 710 990-6610 .... 201 262-7000
A STEWART
Ala Crim Sales & Engrg Co, 15 Office Pk Cir
Birmingham 205 822-0702
Ala Electronic Applications Inc, 3008 Acklen Dr SW
Huntsville 205 536-2293
Ala Floyd Napps Co, 1507 Oak Grove Blvd
Sheffield 205 383-3186
Ariz Roh's Radio Co, 45-53 E Broadway
Tucson 327-5929
Ariz Engineered Sound Inc, 118 N Brown Ave
Scottsdale 947-2441

Ariz Hyer Electronics Co, 301 W Indian School Rd Phoenix ... 602 264-0291
Cal Airtronics, 1338 Mission St San Francisco ... MA 1-3300
Cal Andrews Hdwe & Metal Co, 1610 W 7th St Los Angeles ... 483-8110
Cal R F Biloon Assoc, 2284 Rainbow Ave Sacramento ... 916 925-3003
Colo Hyer Electronics Co, 7895 E Prentice Ave Engelwood ... 771-5285
Conn Audio Center, Inc, 1219 Main St Hartford ... 246-2549
Conn Audio-Video Ind, 217 Westport Ave Norwalk ... 203 847-7231
DC Shrader Sound, 2803 M St NW Washington ... 965-1300
Fla Southeast Electronics Co, 1125 Rosselle St Jacksonville ... EL 6-3007
Ga Dixie Radio Supply Co, Campbell Bldg Augusta ... 404 724-0777
Ill Industrial TV Equip Co, 5224 W Diversey Ave Chicago ... 736-7474
Kan Beston Electronics Inc, 7700 W 63rd St Overland Park ... 913 262-6116
Md Nationwide Communications, 127 Light St Baltimore ... SA 7-7325
Mass Audio-Video Ind, 12 Bailey Pl Newtonville ... 617 527-8666
Mich General TV Network, 901 Livernois Ave Ferndale ... 548-2500
Minn Ecko Sound Equip Co, 1406 1st Ave S Mnpls ... 339-4569
Mo Mobilfone Corp, 3330 Washington Ave St Louis ... JE 5-4806
Neb TV Transmissions Inc, 1342 M St Lincoln ... 402 435-4321
Nev Edco Sound & Commun Co, 1040 Matley La Reno ... 786-2646
NM Hyer Elctns Co, 210 LaVeta NE Albuquerque ... 505 265-5767
NY Windsor Electronics Sys Co, 230-08 S Conduit Ave Laurelton ... LA 5-5607
NY Holland-Wegman Television Inc, 207 Delaware Ave Buffalo ... 716 853-7411
NY W G Brown Co, 521 E Washington St Syracuse ... 315 475-5161
NC Dixie Radio Supply Co, 1431 Bryant St Charlotte ... 704 333-4731
Pa Lerro Elec Corp, 3125 N Broad St Philadelphia ... 215 223-8200
RI Television Systems, 105 Whipple St Providence ... 331-0550
SC Dixie Radio Supply Co, 1900 Barnwell St Columbia ... 803 253-5333
SC Dixie Radio Supply Co, 500 Pendleton St Greenville ... 803 233-5368
Tex Universal Magnetics, 2600 Stemmons Frwy Dallas ... 631-4730
Tex Coastal Electronics Co, 3635 Calder Ave Beaumont ... 832-8344
Tex Audio Video Corp, 216 Lipscomb St Amarillo ... 374-7000
Tex Universal Magnetics, Inc, 1907 Southwest Frwy Houston ... 713 529-3105
Utah Hyer Electronics Co, 445 E 2nd St Salt Lake City ... 801 363-6793
Wash Central TV, 306 Dexter Ave, Seattle ... 624-8990
W Va Prieser Scientific Corp, 900 Mac Corkle Ave SW Charleston ... 343-5515
Can Vancouver Sound Equip, 1152 Kingsway Vancouver, B C ... TR 6-2020
Can BRH Assoc, 6338 Victoria Ave Montreal, Que ... 514 733-5331
Can BRH Assoc, 1300 Carling Ave Ottawa ... 613 728-0113
Can BRH Assoc, 12A Finch Ave, W Willowdale, Ont ... 416 223-4008
For San Juan Electronics Inc, Ponce de Leon 150 San Juan ... 722-3342
For Electromex, Inc, 1843 Taft Ave, Manila, Phil
Isrl Elina, Ltd, Box 960, Tel-Aviv
Mex Cuevas Medina, S A, Apar Postal M 7810 Mexico 4 D.F

FAIRHILL PRODUCTS CORP
FAIRHILL & DIAMOND STS, PHILADELPHIA PA, 19122 ... 215 CE 6-3663
J LICHTENSTEIN, EMP 20, ENG 1

FAIRLANE ELECTRONICS, INC, BOX 335, LONG VALLEY N J, 07853 ... 201 832-2116
M MACLENNAN
NJ Jud Williams Assoc, Inc, Box 262 Califon ... 201 832-2116

FAIRMOUNT CHEMICAL CO INC, 117 BLANCHARD ST NEWARK, N J, 07105 ... 201 623-5790
R BAILES, EMP 120, ENG 6, $2,500-$5,000M
Cal Vivion Chemical Co, 2163 Palm Ave, San Mateo
Ill J H DeLamar & Son Inc, 4529 N Kedzie Ave Chicago ... JU 8-0500

FAIR-RITE PRODUCTS CORP, 1 COMMERCIAL ROW WALLKILL
N Y, 12589, TWX 510-249-4819 ... 914 895-2055
EMP 250, ENG 4, $1,000-$2,500M
Ill Jim Holmes & Assoc, 306 Busse Hwy Park Ridge ... 312 692-2101
NJ Horace Delaney, 5 Edgewood Pl Maplewood ... SO 2-6117
Ohio Frank Campisano, 3985 Race Rd Cincinnati ... 662-1616
Tex Stasco, 13310 Spring Grove Ave, Dallas

Mex C Brena SA, Rep Salvador 30 Sptdo 24320 Mexico 1 DF ... 10-01-12

FALCON MACHINE & TOOL CO INC
175 BALLARDVALE ST, NORTH WILMINGTON MASS, 01887 ... 617 933-7370
S LETO, EMP 15, ENG 2, $100-$250M
Ind Delta Sales, Inc, 1407 N Illinois St Indianapolis ... 631-4136
NJ Smith Co, 111 S Orange Ave South Orange ... 763-1772
Ohio Ralph M Nelson, Inc, 1 Public Sq Cleveland ... 241-4581
Wis Wm A Klinger & Son Co, 743 N 4th St Milwaukee ... 414 332-6898
Swed Aktiebolaget Servus, Industrivagen 20 Solna ... 272780
Swit W Schaffner-Behrend, Geibelstr 35 Zurich ... 051 42 31 42

FALSTROM CO, 44 FALSTROM CT, PASSAIC N J, 07055 ... 201 777-0013
R HILL, EMP 200, ENG 15, $2,500-$5,000M
Fr Aro SA, 33 Rue de la Colonie, Paris
GB Aro SA, 190 Castelnau, London

FANON ELECTRONIC INDUSTRIES DIV COURIER COMMUN INC, 439 FRELINGHUYSEN AVE, NEWARK N J, 07114 ... 201 242-3000
M TROTINER, EMP 125, ENG 5, $2,500-$5,000M
Ala M F Taylor Co, 2328 3rd Way NE, Birmingham
Cal R M Markman Co, 4142 Lankershim Blvd N Hollywood
Cal Meyer Ross & Fleming, 113 10th St, San Francisco
Colo Connors Inc, 2241 Stacey Dr, Denver
Fla Winfield, Elctn Sales, 666 NE 125th St ... N Miami
Ill Markal Sales Corp, 5787 N Lincoln Ave, Chicago
Ind Courier Sales, 2060 E 54th St No 10, Indianapolis
Mass Anderson Sales Co, 177 State St, Boston
Minn Carle M Co, 1926 Wellesley Ave St Paul ... 699-8004
Miss L R Massey, 304 E Jefferson, Greenwood
Mo Knaggs Collins Havercamp Hempe Inc, 6 Bank Sq E St Louis
Mo Knaggs Collins-Havercamp Hemp Inc 5818 N Oak Trafficway, Kansas City
NY Richard Moses, 1710 James St, Merrick
NY Melvin Hulkower, 190-06A 69th Ave, Flushing
NY Simberkoff Sales Inc, 14 Junior Ave, Buffalo
NY Simberkoff Sales Inc, 37 Parkwood St, Albany
NC Morris F Taylor Co, 1224 Dresden Dr W, Charlotte
Ohio Mike Roth Sales, 678 S Green Rd, Cleveland
Pa Simberkoff Sales Inc, 1021 Levick St, Phila
Tex Berthold Sales Co, 4411 Maple Ave, Dallas
Va Simberkoff Sales Inc, 724 W Arlington Twrs Arlington
Wash M K Widdekind, 815 W Ewing St, Seattle
Can Fanon Electronics of Canada Ltd, 489 King St W Toronto
For Roburn Agencies Inc, 431 Greenwich St New York N Y

FANSTEEL METALLURGICAL CORP, 1 TANTALUM PL NORTH CHICAGO
ILL, 60064, TWX 910-235-1577 ... 312 689-4900
E WEIL, EMP 3692, OVER $10,000M
Cal Fansteel Metallurgical Corp, 18201 S Santa Fe Ave Compton ... 638-7771
Cal Fansteel Metallurgical Corp, 21515 Hawthorne Blvd Torrance ... 213 270-8541
Cal Maydwell & Hartzell, 870 Tennessee St San Francisco ... 415 826-6900
Conn Fansteel Metallurgical Corp, 195 W Main St Avon ... 203 677-1300
Fla Belcher & Assoc, 8751 Atlantic Blvd Jacksonville ... 904 724-7811
Ill Dimpco, 7343 W Wilson, Chicago ... 312 867-6262
Ill VR/Wesson Co, 800 Market St Waukegan ... 312 ON 2-5220
Ind Fansteel Metallurgical Corp, 6100 N Keystone Ave Indianapolis ... 317 255-4104
Mich Fansteel Metallurgical Corp, 329 E William St Ann Arbor ... 662-6255
NJ Fansteel Metallurgical Corp, 977 A Main St Hackensack ... 201 DI 2-2878
NJ Fansteel Metallurgical Corp, 351 Main St Metuchen ... 549-0460
NC Fansteel Metallurgical Corp, 2809 Weona Ave Charlotte ... 704 525-4747
NC J Rudisill, 2009 N Tryon St Charlotte ... 704 377-6901
Ohio Fansteel Metallurgical Corp, 24800 Chagrin Blvd Cleveland ... 464-0760
Pa Fansteel Metallurgical Corp, 607 Washington Rd Pittsburgh ... 343-4577
Tex L Elliott, Box 428, Missouri City ... 713 499-1571

FARADAY DIV THE GRAY MFG CO, 805 S MAUMEE ST TECUMSEH
MICH, 49286, TWX 510-450-7160 ... 313 423-2111
C SIEVERTS, EMP 300, ENG 4, $2,500-$5,000M
Cal N Pryor, 8859 Piedra Way Fair Oaks ... 916 966-1538
Md J Harney, 12307 Rockledge Dr Bowie ... 301 262-2647
NY Faraday Div, 16 E 40th St New York ... 212 679-1040

FARGO CO, 1162 BRYANT ST, SAN FRANCISCO CAL, 94103 ... 415 MA 1-4471
L JONES, EMP 25, ENG 3, $250-$500M

FARINON ELECTRIC, 935 WASHINGTON ST SAN CARLOS, CAL, 94070 ... 415 593-8491
H SUTTON, EMP 200, ENG 38, $5,000-$10,000M
DC Farinon Electric, 7735 Old Georgetown Rd Washington ... 657-4180
Ga Caramy Communications Co 426 Decatur Federal Bldg, Decatur ... 373-5801
La Trident Communications Inc, Box 23263 New Orleans ... 737-8153
Mo Farinon Electric, 4601 Madison Ave Kansas City ... 561-6107
For Farinon Elec of Can Ltd, 657 Orly Ave Dorval, Que ... 636-0974
For Eckotel Compania Ananima, Apartado 4649 Este Caracas, Venez

FARMER ELECTRIC PRODUCTS CO INC, TECH CIRCLE NATICK, MASS, 01760 ... 617 653-8850
J FARMER, EMP 60, ENG 4, $100-$250M
Cal Steven Engineering, 343A Hill St San Francisco ... 648-2508
Fla Hummel Industrial Sales, Box 5327 Orlando ... 425-6554
Ga C H Cloer & Assoc, 3272 Peachtree Rd NE Atlanta ... 231-4625
Ill E C Hajduk, 6853 N Concord La, Niles ... 763-8445
Md McCourt Co Inc, 28 W Penn Ave Towson ... 823-3455
Mich L H Dickelman, 13331 Puritan Ave Detroit ... 273-0806
Minn Craighead Assoc, 3822 E Lake St Mnpls ... 721-6529
Mo Edemco Inc, 2605 S Hanley Rd St Louis ... MI 7-5505
Mo Winslow Sales Co, 1217 Linwood Kansas City ... LO 1-6565
NY Jack Miller Co, 1 Continental Ave Forest Hills ... BO 3-4446
NY B Fleckenstein, 210 Sunnybrook Dr Syracuse ... HU 8-7883
NC W K Hile Co Inc, N John St, Matthews ... 847-9125
Ohio Whelan Corp, 2975 Farhills Ave Dayton ... 298-9997
Ore David Fry Co, Box 8303, Portland ... CA 6-3903
Pa Victor S Malta Co, 801 Preston Ave Phila ... VE 6-5122
Pa Gilson Engineering Sales, 978 Perry Hwy Pittsburgh ... 931-6114
Tenn Ransom Sales CoInc, 100 N Main Bldg Memphis ... 527-3194
Tex Wm E Brice Co, 1402 Dunlavy Houston ... JA 6-3197
Can Elequipment Ltd, 930 Brant St Burlington Ont ... 634-1881

FARRAND CONTROLS INC, 99 WALL ST, VALHALLA N Y, 10595 ... 914 761-2600
G QUINN, EMP 135, ENG 25, $2,500-$5,000M
Colo Richard Ives, 555 S Jason St, Denver
Conn G Thomas Hearn Assoc, 60 Connolly Pkwy, Hamden
Mass R H Whitehead Assoc, Statler Bldg Boston ... 542-7676
Minn W K Nelson Co, 807 13th Ave S, Minneapolis
Mo Mochlenpah Engr, 1315 S Vandeventer, St Louis
Okla Marshall Supply, 705 N Virginia, Oklahoma City
Pa Merit Machinery, Pittsburgh
Tex Greene Machinery Co, Frito Lay Bldg, Dallas

FARRAND OPTICAL CO INC, 4401 BRONX BLVD BRONX, N Y, 10470 ... 212 FA 4-2200
O MENDEL, EMP 260, ENG 115, $5,000-$10,000M

FARR CO, 2301 ROSECRANS AVE, EL SEGUNDO CAL, 90245 ... 213 772-5221
G THRUELSEN, EMP 300, ENG 18
Cal Dust Control Inc, 1144 W 135th St Gardena ... 321-9614
Cal Farr Co, 1485 Bayshore Blvd San Francisco ... 467-8616
Ill Farr Co, 2000 Spring Rd, Oak Brook ... 654-3203
Mass Farr Co, 2001 Beacon St, Brookline ... BE 2-8200
NY Advanced Components Inc, 119 Luther Ave Liverpool ... 202 GR 2-7886
NY Farr Co, 90 Park Ave, New York ... 212 867-8855
Va Farr Co, 207 Park Ave, Falls Church ... 532-3811

FARRELLOY CO, 1245 N 26TH ST, PHILADELPHIA PA, 19121 ... 215 PO 3-2124
E FARRELL, EMP 8

FASTEX DIV ILLINOIS TOOL WORKS
195 ALGONQUIN RD, DES PLAINES ILL, 60016 ... 312 292-2222
R GILLILAND, EMP 400, ENG 15
Cal H O Hansen, 12333 E Los Nietos Rd Santa Fe Springs
Mich Fastex, 1403 E State Fair Rd, Detroit
Tex C R Monnich, 5731 Caladium Dr, Dallas
Can Shakeproof-Fastex Div, 67 Scarsdale Rd Don Mills, Ont
Fr ITW de France, 20, Rue Fizeau, Paris
Ger ITW Ateco GmbH, 2 Harksheide, Bez Hamburg Harkshiede Be Hamburg
GB ITW Ltd, 470 Bath Rd, Cippenham, Slough, Bucks
Jap Nippon Indu Fastener Co Ltd, Uchisaiwai-Cho Chiyoda-Ku, Tokyo
Aust W A Deutsher Pty Ltd, 374 Nepean Hwy E Brighton, S6, Vic

FAUL ASSOC INC, THOMAS L, 27 FENNELL ST
SKANEATELES, N Y, 13152 .... 315 685-5761
W WAGNER, EMP 65, ENG 3, $1,000-$2,500M
Cal Smart Supply Co Inc, 2040 Davie Ave, Los Angeles
Colo Bishop Enterprises, 493 Jamaica, Aurora
Ill Zimmerman & Gaumond Inc, 1781 Oakton Blvd
Des Plaines
Md Paddock-Joslow Co, 721 Ellsworth Dr, Silver Springs
Mass Etchomatic, Newton St, Waltham
Minn Albinson, 520 Fourth Ave, Minneapolis
Ohio Measurement Instr Inc, 2074 Arlington Ave
Columbus
Pa Burger Co Inc, 33 Limekiln Pike, Glenside
Can James W Stevens Co, 15 St Mary St, Toronto S Ont
Swit G Coradi AG, 53-55 Seebacher Str, 8052 Zurich

FEAY CO, NEAL, 133 LA PATERA LANE, GOLETA
CAL, 93017 .... 805 967-4521
N RASMUSSEN, EMP 50, ENG 3, $500-$1,000M

FECO DIV BANGOR PUNTA OPERATIONS INC
5855 GRANT AVE, CLEVELAND
OHIO, 44105 .... 216 441-2400
J RUSSELL, EMP 175, ENG 50

FEDERAL PACKAGE CORP, 4200 OLSON HWY
MINNEAPOLIS, MINN, 55422 .... 612 522-6644
J HAGLUND, EMP 40, $1,000-$2,500M

FEDERAL SCIENTIFIC CORP, 615 W 131ST ST
NEW YORK, N Y, 10027 .... 212 286-4400
R ROTHSCHILD, EMP 100, ENG 35, $100-$250M
Ala James L Highsmith & Co
3222 S Memorial Parkway, Huntsville .. 881-3294
Ariz Williams Assoc, 1110 EMcDowell Rd
Phoenix 254-6085
Cal King Engineering Co, 15720 Ventura Blvd
Encino 981-0161
Cal King Engineering Co, 525 S Grand St
San Mateo 342-9645
Cal King Engineering Co, Box 544
Escondido .... SH 5-2310
Colo Williams Assoc, 4971 Jackson St
Denver 388-4391
DC Burlingame Asoc, 1749 Rochville Pike
Rockville 301 427-1255
Fla James L Highsmith & Co, 2543 Industrial Blvd
Orlando 293-5202
Mass Burlingame Assoc, 7 Wellington St
Waltham .... TW 4-1955
NM Williams Assoc, 420 Washington St SE
Albuquerque 255-1638
NY Burlingame Assoc, 510 S Fulton Ave
Mount Vernon .... MO 4-7530
NY Burlingame Assoc, E Molly Rd
Syracuse 454-2408
NC James L Highsmith & Co, 3733 Monroe Rd
Charlotte 333-7743
Ohio Rep Corp, 2077 Embury Park Rd
Dayton 278-5885
Pa Burlingame Assoc, 222 Long Lane
Upper Darby 528-6080
Tex Scientific Sales Co, 777 S Central Expwy
Richardson 214 231-6541
Tex Scientific Sales Co, 2337 Bissonnet St
Houston 713 528-6904
Utah Williams Assoc, 2461 S Main St
Salt Lake City 466-8709
Va James L Highsmith & Co, 5003 Brook Road
Richmond 266-2060
Can Ahearn & Soper Ltd, 844 Caledonia Rd
Toronto 19 Ont 416 789-43257
For Terminal Radio Intl Ltd, 3 W 61st
New York N Y .... 212 CI 6-2133

FEDERAL SCREW PRODUCTS INC, 3917 N KEDZIE AVE
CHICAGO, ILL, 60618 .... 312 478-5744
L HARRIS, EMP 20, ENG 2, $100-$250M
Cal F W Moulthrop & Assoc, 1530 E 12th St
Oakland 261-7676
Cal Robt G Moye Co, 244 Milton Dr
San Gabriel 283-1669
Md Shiplett-Warrington Assoc, Box 373
College Park 865-5757

FEDERAL STAMPINGS, DIV DORIC CORP
2000 W 94TH ST, MINNEAPOLIS
MINN, 55431 .... 612 888-9411
D SCHIEFELBEIN, EMP 190, $250-$500M
Ariz Southwest Engineering, 8341 N 7th St
Phoenix 944-1521
Cal C Youra, 13630 Saticoy St, Van Nuys ..... TR 7-0452
Cal Marketek Inc, One First St, Los Altos 941-0882
Cal Jack Sottile, 13501 S Van Ness
Gardena 324-0309
Cal L F Lawson, 3760 Midway Dr
San Diego 222-5310
Conn R Christopher, 164 Scoville Rd, Avon 673-3408
Fla Wm A McKnight Assoc, Box 8245
St Petersburg .... DI 7-3101
Ill Field & Assoc, 15 S Austin Blvd
Chicago .... MA 6-2421
Ind A D Moore Co, 4020 W 80th St
Indianapolis 291-6550
Iowa R L Burchett, 1821 State St, Bettendorf ... 355-6332
Ky Henry M Wood Co, 2307 Taylorsville Rd
Louisville 452-2661
Md Towle & Son Co, 115 N Market St
Frederick 822-2972
Mich T & G Prods & Sales Co, 14861 W Eleven Mile Rd
Oak Park 566-0775
Mich Maurice H Schultz & Co, 1050 Wall St
Ann Arbor 769-5600
Mich Howard Dodge Co, 1601 Kingswood Dr
Lansing 484-0678
Mo Crowley-Dunkel & Assoc, 2510 S Brentwood Blvd
St Louis .... WO 2-7657
Mo George T Cook Co, 301 Midland Bldg
Kansas City .... VI 2-9678
NY Rock-Stan Co Inc, 410 Brooklawn Dr
Rochester .... BR 1-6200
NY Herbert S Chandler Co, 420 Northern Blvd
Great Neck .... HU 7-2200
Ohio Henry M Wood Co, 920 E McMillan St
Cincinnati .... AV 1-1136
Ohio Deo Volente & Assoc, 4240 Eaglehurst Rd
Toledo .... TU 2-2830
Ore Harry Crist, 412 SW 2nd Ave, Portland ... 222-2211
Pa Towle & Son Co, 813 Bethlehem Pike
Phila 248-3233
Pa R R Cooney, 2987 Babcock Blvd
Pittsburgh .... WE 1-3633
RI Stanley J Woods, Box 1, Pawtucket 725-2854
Tenn J J Keras Sales Co, 1719 West End Bldg
Nashville .... AL 6-6957
Tex Stan W Baxley, 9884 Monroe Dr
Dallas 328-2144
Tex Williams Engrg, 2120 S Post Oak Dr
Houston 621-3374
Utah Tri-Western Agency, 19 N 7th St W
Salt Lake City 359-3763
Wis Mund Indl Engineered Sales, 4747 N Sheffield Ave
Milwaukee .... Wo 2-0310

FEDERAL TOOL ENGINEERING CO DIV ARVIN INDS
1386 POMPTON AVE, CEDAR GROVE
N J, 07009 .... 201 256-5300
R PITYO, EMP 315, ENG 20
ADV PG 376, 385, 801
Cal Ben Lovelace, 3033 S Oak St
Santa Ana 716 546-0161
Cal Cassimus Co, 651 Folsom St
San Francisco 415 421-5941
Cal Cassimus Co, 2703 W Valley Blvd
Alhambra 213 283-6605
Conn D Gillette, White Birch Dr
Guilford 203 453-3484
Fla J Jenzano & Assoc, 1815 S Atlantic Ave
Daytona Beach 904 255-4018
Ill Stanco Welder & Machinery Co, 8 S Clinton St
Chicago .... 312 RA 6-5265
Ind Central States Machinery Co Inc, 824 E 38th St
Indianapolis .... 317 WA 3-5433
Mich Kilpatrick & Martin, 2330 Hilton Rd
Ferndale 313 873-1400
Minn E F Klumb & Assoc, 1690 Third St N W
New Brighton 616 633-5131
NY Fish Assoc Inc, 2133 Monroe Ave
Rochester 716 244-5428
NY Fish Assoc Inc, 149 Roosevelt Dr
Utica 315 732-1008
Ohio H L McCreery & Son, 3567 E 49th St
Cleveland 216 271-1100
Pa C W Middlestead Co, 53 Long La
Upper Darby 215 528-5092
Wis Industrial Htg & Control Div
N91 W16228 Pershing Ave, Menomonee Falls
For Teknis Inc, Plainville, Mass 695-3591

FEDTRO INC, FEDERAL ELECTRONICS BLDG
ROCKVILLE CENTRE, N Y, 11571 .... 516 536-4400
B KLEINMAN

FEL PRO INC DIV FELT PRODUCTS MFG CO
7450 N MCCORMICK BLVD, SKOKIE
ILL, 60076 .... 312 RO 1-4500
E LEHMAN, EMP 850
Mich Don Crampton, 600 Hilton, Ferndale 548-4050

FELSENTHAL INSTRUMENTS CO, 7450 W WILSON AVE
CHICAGO
ILL, 60656, TWX 910-226-1718 .... 312 867-7450
M ZIDRON, EMP 150, ENG 8, $250-$500M
Cal L Lacy, 1258 Sunnycrest Ave, Ventura 642-8659
Ga S Avery, Box 4191, Macon 746-5816
Ill Chas Hayes, 7450 W Wilson Ave
Chicago 867-7450
Ind Ray Stoltenberg, Box 55165
Indianapolis 547-1169
Kan Thunderbir Sales Co, 6405 E Kellogg
Wichita .... MU 4-3941
Mo Thunderbird Sales Co, Box 6156
St Louis .... TE 8-6688
NY N C Ratner, 274 Madison Ave
New York 986-7897
Pa B Fredriksen, 9 Hillcroft Rd, Newark Del
Va Perrott Engineering Co, 3305 N Pershing Dr
Arlington .... JA 8-5861

FELTERS CO, 22 WEST ST, MILLBURY
MASS, 01527 .... 617 865-4401
B GETMAN, EMP 386, ENG 4, $5,000-$10,000M
Ill Felters Co, 2914 N Cicero Ave
Chicago .... KI 5-8894
Mich Felters Co, Box 600, Jackson 764-0650
Mo Felters Co, 1602 Locust St, St Louis ..... CE 1-0070
NY Felters Co, 393 7th Ave, New York ...... LA 4-2200
Ohio Felters Co, 3540 Ridge Rd, Cleveland 631-8866

FENLOW ELECTRONICS LTD, SPRINGFIELD LA
WEYBRIDGE, ENGLAND .... WEY 43978
N RABIN, EMP 85, ENG 6

FEN-TONE CORP, 106 FIFTH AVE, NEW YORK
N Y, 10011 .... 212 OR 5-1707
A GROSSMAN, EMP 12, ENG 1, $500-$1,000M
Fla John F Thompson Co, 322 Riverside Dr
Ormond Beach 677-2298
Ill Loren F Green Assoc, 5218 W Diversey Ave
Chicago 286-6824
NY G G Schloss, 33-46 92nd St
Jackson Heights .... OL 1-5120
Ohio John F Olsen Co, 16201 Shaker Blvd
Cleveland 752-5444

FENWAL ELECTRONICS INC, 63 FOUNTAIN ST
FRAMINGHAM
MASS, 01701, TWX 710-346-0678 ...... 617 875-1351
B WOJESKI, EMP 175, ENG 16
Ala Col-Ins-Co Inc, Box 4246, Huntsville 539-1771
Ariz Dorton Enterprises Inc, Box 1297
Scottsdale 946-6213
Cal B Friedman Assoc, 1626 Centinela Ave
Inglewood 776-6770
Cal McKnight Co, 115 Spruce Ave
Menlo Park 325-2844
Colo Electronic Components Sales Inc, 2340 W Main St
Littleton 798-8481
Fla Col-Ins-Co Inc, Box 13189, Orlando 423-7615
Ill Midwest Electronic Sales, 5707 W Division
Chicago 626-0030
Ind Midwest Electronic Sales, 5462 E 40th
Indianapolis 547-3259
Iowa Thomas & Modrcin Assoc Inc, 890 17th Ave
Marion 377-6261
Kan Thomas & Modrcin Assoc Inc, 5450 Buena Vista
Shawnee Mission 432-2131
Md Bernard White & Co Inc, 7 Church La
Baltimore 484-5400
Mass Andrews Artronics Inc, Executive Pk
Lynnfield 245-5220
Mich Hiltronics Inc, 13720 Puritan Ave
Detroit 342-3242
Minn Murphy Assoc Inc, 730 Chicago Ave
Minneapolis 333-4511
Mo Thomas & Modrcin Assoc Inc, 47 Village Sq
Hazelwood 838-6446
NJ J N Barrett Assoc, 812 Federal St
Camden 365-2680
NM Electronic Components Sales Inc, Box 3087 Sta D
Albuquerque 344-8130
NY CDB Enterprises Inc, 675 W Jericho Tpk
Huntington 692-5200
NY R P Kennedy Co, 39 Saginaw Dr
Rochester 716 271-6322
NC Col-Ins-Co Inc, Box 5597
Winston-Salem 765-3650
Ohio A H Baier Co & Assoc, 4399 Industrial Pkwy
Willoughby 946-6080
Ohio A H Baier Co & Assoc, 3300 S Dixie Dr
Dayton 298-9897
Tex Scientific Sales Co, 777 S Central Expwy
Richardson 231-6541
Tex Scientific Sales Co, 2337 Bissonnet
Houston 214 231-6541
Wash Arneson Assoc, 5950 6th Ave S
Seattle 762-7664
Wis Midwest Electronic Sales, 1317 Garfield Ave
Waukesha 542-5129
Can Douglas Randall Canada Ltd, 1710 Midland Ave
Scarborough Ont 751-7911

FENWAL INC, MAIN ST, ASHLAND
MASS, 01721 .... 617 881-2000
J RICE, EMP 630, ENG 85, $5,000-$10,000M
Cal Belilove Co, 960 Arlington Ave
Oakland 658-0911
Cal Montgomery Bros Inc, 4800 District Blvd
Los Angeles 589-6321
Colo E & M Sales Inc, 2660 Walnut, Denver ... 244-4291
Conn Doonan-Miles Corp, 50 S Main
Wallingford .... CO 9-5973
Fla Ludlum Assoc Co, 4471 NW 36th St
Miami Springs 305 885-3611
Ga Applebee-Church Inc, 1958-A Monroe Dr NE
Atlanta .... TR 5-7244
Ill Fred I Tourtelot Co, 407 S Dearborn
Chicago .... HA 7-5464
Ind Couchman-Conant Inc, 1400 N Illinois
Indianapolis .... ME 5-5313
Iowa Volco Co, 214 Kahl Bldg, Davenport 326-5233
La Ross & Pethtel Inc, 3170 Florida Blvd
Baton Rouge 348-7206
Md Thomas H Closs Co, 21 W Penna Ave
Towson 825-4445
Mich Carman Adams Inc, 17360 W 8 Mile Rd
Southfield 444-1070
Minn Volco Co, 831 S 6th St, Minneapolis 336-6631
Mo Conrow Co, 3300 Wyoming St
Kansas City 531-6065
Mo Richard Greene Co, 1716 S Hanley Rd
St Louis 644-2666
NJ R L Faber & Assoc Inc, 460 Colfax Ave
Clifton 773-8900
NY Robert F Lamb Co Inc, 1865 Kenmore Ave
Buffalo 874-4900
NY Robert F Lamb Co Inc, Box 661 Uptown Sta
Kingston 338-8833
NY Robert F Lamb Co Inc, E Molloy Rd
Syracuse 454-2469
NC W K Hile Co Inc, N John St, Matthews ... 847-9125
Ohio Arnold & Assoc Inc, 597 E Galbraith Rd
Cincinnati 761-5566
Ohio Anderson-Bolds Inc, 2012 W 25th
Cleveland 229-4700
Ohio Anderson-Bolds Inc, Box 123
Worthington 885-3933
Ohio Arnold Dircksen & Assoc, Dabel Sta Box 22
Dayton 256-0351

Okla Paul King Co, 826 N Fulton, Tulsa ...... TE 6-2501
Ore Seatronics Inc, 6415 Canyon Ct
Portland 292-8887
Pa J V Calhoun Co, 349 Montgomery Ave
Bala-Cynwyd .... TE 9-3000
Pa Gilson Eng Sales, 978 Perry Hwy
Pittsburgh 931-6114
Tenn H R Miles & Assoc Inc, 2500 B Franklin Rd
Nashville 292-7016
Tex Gay Eng & Sales Co Inc, 6414 Walnut Hill La
Dallas .... EM 8-2325
Tex Gay Eng & Sales Co Inc, Box 13232
Houston .... UN 9-3306
Wash Seatronics Inc, 5921 4th Ave S, Seattle... 767-4330
Wis Gordon Hatch Co Inc, 635 S 28th St
Milwaukee 671-6550
Can Canadian Chromaldx Co, 210 Rexdale Blvd Rexdale
Toronto Ont 241 8621
Can Temperature Controls Pty Ltd
Box 23019 Joubert Park
Johannesburg SA 724-8237
Can Canadian Chromalox Co Ltd, 285 Hymus Blvd
Point Claire Que 697-1131
For Badrena & Perez Inc, Carpenter Rd 225
Hato Rey P R 767-2455
For Macondray & Co Inc, Box 768
Manila Phillippines 4-38-40
For Pin-Bor CA EDF Son Diego Calle Edison
Loschaguaramos, Aptdo Del Este 5249
Caracos 61 95 04
Den Ditz Schweitzer Automation A/S
Store Kongensgade 59, Copenhagen K
Fr Ets Demoly Freres, Rt de Savignies BP 11
Beauvais Oise 945-20-48
Ger Hans G Werner & Co, Box 2867
7000 Stuttgart W 0711 72343
GB Graviner (Colnbrook) Ltd, Poyle Mill Wks Colnbrook
Slough Bucks .... SLO 28421
Holl A Dehoop NV, Box 5014, Rotterdam 119470
Ital Terry Ferraris & Co, Viale Ortles N 10
Milano 53 91 005
Jap Fenwal Controls of Japan Ltd
4-10 1-Chomi Nishi Shinbashi, Minato-Ku Tokyo
Nor Morgenstierne & Co A/S
Wessels Gate 6 PB ST H 2613
Oslo 1 .... 20 16 35
Swed Salen & Wicander AB, Fack
Sundyberg 3 .... 98 06 80
Swit Bachofen & Co, Ackerstr 42
8610 Uster-Zurich 051 340334
Arg Elescar SCPA, Tucoman 983 4o-D
Buenos Aires 35-9574
Belg Fenwal Intl Ltd Depot C/O Masser SA
104 Rue de Birmingham, Brussels 7.... 23-20-30
Braz IEF Controles Automaticos Ltd
Rua Sao Caetano 312 Cx 1044
Sao Paulo 34-6227
Braz Werco Comercioe Indus Ltda
Ave Rio Branco 57 Salas 1401/3
Rio de Janeiro GB-ZC-21 23-8710
Ind Bali Intl Agencies, Box 1676 Palton Rd
Bombay 1 264592
Isrl Landseas (Israel) Ltd, 29 Bezalel St B 3235
Tel-Aviv 244311
Mex Fredin SA, Aptdo Box 53-905
Mexico 17 D F 46-44-21
NZ Boustead Wood Pty Ltd, 12 Lorne St Box 2451
Auckland
Spn Ind Electricas Soler
Aptd de Correos 22 Canet De Mar, Barcelona
Fin Oy Anglo Nordic AB, Box 10565
Helsinki 21 .... 11 133
Aust Boustead Wood Pty Ltd, Box 120-407 City Rd
South Melbourne

FERGUSON PERFORATING & WIRE CO
132 ERNEST ST, PROVIDENCE, R I 401 941-8876

FERRANTI ELECTRIC INC, E BETHPAGE RD, PLAINVIEW
N Y, 11803 .... 516 293-8383
J BRUSH, EMP 20, ENG 6, $1,000-$2,500M

FERRANTI, LTD, HOLLINWOOD, LANCASHIRE
ENGLAND .... FAILSWORTH 2000
S DE FERRANTI, EMP 20000
NY Ferranti Electric Inc, E Bethpage Rd
Plainview 293-8383
Can Ferranti-Packard Electric Ltd
Toronto, Ont 762-3661

FERRICORE DIV NATL MOLDITE CO INC
250 SOUTH ST, NEWARK, N J, 07114 .. 201 642-6860
M MILLER, EMP 60, ENG 5, $500-$1,000M
Cal Aerospace Sales Corp, 12140 S Atlantic Ave
Lynwood 213 537-1856
Ill Jerry Golten Co Inc, 2750 W North Ave, Chicago
NY G E Mortensen, 250 South St
Newark 212 227-6290
NY Wm A Franklin Sales Corp, 2 Standish Ter
Syracuse .... 315 GI 6-2246
For American Ligurian Co, 271 Madison Ave
New York N Y
For Malek Representaciones, Rodriguez Pena 486
Buenos Aires
Mex Gimbel Mexicana SA, Medellin 184, Mexico 7 DF

FERRITRONICS LTD, 222 NEWKIRK RD
RICHMOND HILL, ONT 416 889-7313
G ARMITAGE, EMP 50, ENG 3, $250-$500M
NY Midstate Research, Syracuse
Ohio Mike Roth Sales, Cleveland

FERRO CORP REF DIV, BOX 781, EAST LIVERPOOL
OHIO, 43920 .... 216 385-1538
W THORNBERRY, EMP 150, ENG 2, $1,000-$2,500M

FERROTEC INC, 80 BRIDGE ST, NEWTON
MASS, 02158, TWX 710-335-1288 .... 617 332-7600
P RUTLEDGE, EMP 105, ENG 13, $1,000-$2,500M
ADV PG 666
Cal J E Hachten Co, 800 Welch Rd
Palo Alto 326-1252
Cal J E Hachten Co, 1135 Huntington Dr
Arcadia .... MU 1-2361
Fla Hi-Co Electronics Inc, Box 1317
Winter Park 647-5030
Ill H G Pretat Inc, 7716 North Ave
Elmwood Park 453-3380
Ind H G Pretat Inc, 3001 S Fairfield St
Ft Wayne 745-1251
Md Brimerg Assoc Inc, 814 Thayer Ave
Silver Spring 588-7790
Mass Microwave Consultants Corp, 195 West St
Waltham 899-4400
NY Salsbury Assoc Inc, 331 W John St
Hicksville .... WE 8-1080
NY D & B Assoc, Box 14, De Witt .... GI 6-0220
Ohio Sheridan Assoc, Box 37646, Cincinnati ... 761-5432
Ohio Sheridan Assoc, 26 W Nottingham Rd
Dayton 277-8911
Ohio Sheridan Assoc, Box 8226, Cleveland 237-9145
Pa Lewis Slubin & Co, 2305 Fairmount Ave
Phila .... CE 6-2072
Tex Lawrence Sales Co, Box 1038
Richardson .... AD 5-5504
Wash Jon Jolly Co, 69 Marion St, Seattle .... MA 3-7060
Can Tech Assc, 1262 Don Mills Rd
Don Mills Ont 445-7490
For Dage Corp, 757 Main St
Stamford Conn .... DA 4-3123

FERROTRAN ELECTRONICS CO INC, 693 BROADWAY
NEW YORK, N Y, 10012 .... 212 AL 4-5810
E ABBOT, EMP 20, ENG 4

FERROXCUBE CORP, SAUGERTIES
N Y, 12477, TWX 510-247-5410 .... 914 246-2811
E HELLENSCHMIDT, EMP 1100, ENG 114, OVER $10,000M
Ariz J Turner, 47-47 N 16 St, Phoenix 602 264-3120
Cal J Devine, 16041 Ventura Blvd
Encino 213 788-2060
Colo R Derschang, 5455 S Valentia Way
Englewood 303 771-2000
Fla Ferroxcube Corp, 1000 Woodcock Rd
Orlando 305 841-6380
Ill R Worban, 360 E North Ave
Northlake 312 261-7880
Mass C Breen, 235 Bear Hill Rd
Waltham 617 899-3110
Mich Ferroxcube Corp, 809 Center St
Lansing 517 482-7140
Minn D Godfrey, 6700 France Ave S
Minneapolis 612 920-7955
NJ W Waldron, 2414 Morris Ave
Union 201 964-1844

FERWALT INC W H, WEBB RD, LAPWAI
IDAHO, 83540 .... 208 VI 3-3463
W FERWALT, EMP 7, ENG 1, UP TO $100M
Cal Didion Assoc, 4901 Heil Ave, Huntington Beach
Kan Impala Inc, 6917 W 76th St, Overland Park
Md Aaron Assoc, 880 Bonifant St, Silver Spring
NY Herbert Shprentz Co, 126 Deertrack La
Irvington .... LY 1-7970

FIBERFIL DIV REXALL CHEMICAL CO
1701 N HEIDELBACH AVE, EVANSVILLE
IND, 47717 .... 812 424-3831
J FLETCHER
Cal Fiberfil Div, Encino 213 783-3235
Ga Fiberfil Div, Atlanta 404 525-7184
Ill Fiberfil Div, Chicago 312 332-6242
Mich Fiberfil IDiv, Detroit 313 963-7419
Minn Fiberfil Div, Minneapolis 612 335-0186
NY Fiberfil Div, New York 212 765-369
Tex Fiberfil Div, Dallas 214 747-4963

FIBERITE CORP, 515 W THIRD ST, WINONA
MINN, 55987, TWX 9105652270 .... 507 8-3611
J DAVID, EMP 300, ENG 30, OVER $10,000M
Cal Fiberite West Coast Corp, 690 N Lemon St
Orange 532-1687
Cal H Christensen, 690 N Lemon St, Orange
Conn E G Atkinson, 30 Germantown Rd
Danbury 8-0684
Ill L Raulsen & T Pilat, 1750 Wright Wood
Chicago .... GR 2-4656
NJ G Bruggemeir Jr, Box 314 RD 3
Somerset .... VI 4-2817
Ohio F Rosenberger, 9730 Bucher Rd
Whitehouse .... TW 3-6484
Tex C Murchison, 14014 Peyton Dr, Dallas ... 239-1494

FIBRE FORM CORP, 700 S MAIN ST, COLUMBIA CITY
IND, 46725 .... 219 244-6169
B BRENNAN, EMP 75, $500-$1,000M

FIBRE PRODUCTS DIV IKELHEIMER-ERNST INC
601 W 26TH ST, NEW YORK
N Y, 10001 .... 212 675-5820
A ERNST, EMP 125, ENG 2, $1,000-$2,500M

FIDELITY AMPLIFIER CO, 1633 N HALSTED ST
CHICAGO, ILL, 60614 .... 312 MO 4-3515
W MARTIN, EMP 15, ENG 1, $100-$250M

FIDELITY CHEMICAL PRODUCTS CORP
470 FRELINGHUYSEN AVE, NEWARK
N J, 07114 .... 201 242-4110
S LONYAI, EMP 500, ENG 5, $500-$1,000M
Mass Fidelity Chem Prods, 489 Washington St, Canton

FIELD ELECTRONICS INC, 14 COMMERCE ST
CHATHAM, N J, 07928 .... 201 635-6566
H ANDERSON, EMP 15, ENG 2

FIELD EMISSION CORP, MELROSE AVE AT LINKE ST
MCMINNVILLE, ORE, 97128 .... 503 472-5101
R HARRISON, EMP 143, ENG 31, $2,500-$5,000M
Cal Robert H Lewis, 421 N Brookhurst Ave
Anaheim 635-6610
Ga D Janzen, 1720 Peachtree St NW
Atlanta 873-5871
Haw X-Ray & Medical Equip Inc, 1157 S King St
Honolulu
Ill D Goebel, 2434 Dempster, Des Plaines... 296-1079
Md D Antrobus, 1753 Rockville Pike
Rockville 427-4242
Mass G Schulze, 55 Salem St, Lynnfield 245-1312
NJ K Smith, 69 Orient Way, Rutherford 933-6331
NY Radiotronix Communications Labs
741 Washington St, New York
Can Spectra Research Ltd, 376 Churchill Ave
Ottawa, Ont 728-3415
For Pakland Corp, Central Comml Area, PECH Society
Karachi 29, Pak 472-315
Den Erik Ferner AB, Absalonsgade 6, Copenhagen V
Fr Comsatec, 134, Ave de Malakoff
75 Paris 16e .... PAS 43-09
Ger Field Emission GmbH, Rheinstr 7, Munchen 23
GB Field Emission UK Ltd, 209 Crescent Rd
New Barnet Herts
Ital Silverstar Ltd, 2 Via delle Stelline
Milano 46 96 551
Jap Midoriya Electric Co Ltd
3, 2-Chome, Kyobashi, Chuo-ku
Tokyo 561-9256
Swed Erik Ferner AB, Box 56, Bromma.......... 25 28 70
Arg Coasin SA, Virrey del Pino 4071, Buenos Aires
Braz Amriex SA, Av Graca Aranha 226-6, Rio de Janeiro
Isrl Eastronics Ltd, 75 Haifa Rd, Tel Aviv
Mex Fredin SA, Melchor Ocampo 212-505, Mexico 5 DF
NZ Watson Victor Ltd, 16 The Terrace, Wellington
Aust Watson Victor Ltd, 95-99 Epping Rd Nth Ryde
Ryde NSW

FIELDSTONE CORP HARDCO SCIENTIFIC DIV
6811 GRACE AVE, CINCINNATI
OHIO, 45227 .... 513 271-3200
L MOUNTFORD, EMP 25, ENG 5, $500-$1,000M

FIFE ELECTRONIC PRODUCTS INC, 80 COMMERCIAL ST
FREEPORT, N Y, 11520 .... 516 378-0441
I SEAMAN, EMP 35, ENG 1
Ariz B & G Sales, 305 E Indian School Rd
Phoenix 264-4761
Cal Technical Sales Assoc, 1485 Bayshore Blvd
San Fran 467-1434
Cal Wayne Dinsmore Co, Box 621, Encino .. MA 2-2849
Cal Walt Dougherty, 2142 Sebring Ave, Simi
Colo Norris & Co, 915 Cheyenne Blvd
Col Springs 635-9319
Conn Robert S Reiss Assoc, 70 Jessie Dr
W Haven .... WE 3-8542
Fla Jack B Moore, Indian River Dr
Jensen Bch 287-0198
Fla John F Thompson Co, 322 Riverside Dr
Ormond Bch 677-2298
Haw Gene Piety Factors, 160 Mokauea, Honolulu
Ill Knaggs, Collins, Havercamp & Hempe
No 6 Bank Sq Box 815, East St Louis
Ill Mike Bermann Sales Co, 8631 E Prairie Rd
Skokie .... OR 5-3740
Ind Howell & Moore Assoc, 5425 N College Ave
Indianapolis 255-8566
Md J C Merican Co, 546 Anchor Dr, Joppa ... 679-6969
Mass Al Appell, 199 E Foxboro Rd, Sharon .... SU 4-3439
Mich David Milsk Co, 20110 Olympia Ave
Detroit .... KE 5-4012
Minn Stan Olsen & Assoc, 6121 Excelsior Blvd
Minneapolis 929-6121
Mo Knaggs, Collins, Havercamp, & Hempe
5818 N Oak Trafficway, Kansas City... GL 3-3203
NY Jack Brown Assoc, 207 Rosedale Rd
Yonkers .... SP 9-7330
NY Warren Kauffman, 157 Rawlinson Rd
Rochester .... CO 6-2728
NY Sir Sales, 35 Powerhouse Rd
Roslyn .... 516 MA 1-7485
NC Geo F Schiffer Co, Box 6365
Greensboro 288-1625
Ohio Hank Miller Sales Co, 4087 Meadowbrook Blvd
Cleveland
Ohio Dave Watkins, 1602 Grove Ave, Madison
Ohio Jim Price, Rte 2 Box 200, Jamestown
Tenn L Jones, 5401 Poplar Ave
Memphis 901 683-7616
Tex Antle-Smith Sales Co, 2721 Brookfield Ave
Dallas .... FL 7-7279
Wash Electronic Sales Corp, 5600 Calif Ave S W
Seattle 932-0330
For ManRep Corp, 1925 NE 150th St, N Miami Fla

FIFTH DIMENSION INC, BOX 483, PRINCETON
N J, 08540, TWX 510-685-9294 .... 609 924-5990
F FEINSTEIN, EMP 110, ENG 14, $1,000-$2,500M
Cal Martin Bergman, Box 37, Saratoga 252-0817
Conn Astrotek Assoc, 49 Leavenworth St Waterbury 753-4129
Ger Telemeter Electronic GmbH 8042 Schleissheim-Muenchen, Parkstadt 154 Munich 0811/32 15 92
Swit A Berlowitz, Gerechtigkeitsgasse 25 8027 Zurich 25-7872

FILM CAPACITORS INC, 100 8TH ST, PASSAIC
N J, 07055 .... 201 779-2240
S LIPMAN, EMP 80, ENG 3, $500-$1,000M
Cal Hal Foraker Co, Box 1325, Fremont .. 415 657-2213
Fla Frank C Nickerson Co, Box 13126, Tampa
Mass John E Boeing Co , box 5 Lexington 617 862-2500
NJ Technical Electronics Inc, 730 Clifton Ave, Clifton
NY J P Scanlon, 51 Bloomfield Pl Rochester .... GR 3-7553
NY Compar N Y, 335 Crossways Pk Dr Woodbury 516 921-9393
Ohio Jay Engineering Co, Box 175, Sta A Dayton .... CY 2-5180
Ohio John Olsen Co, 16201 Shaker Blvd, Cleveland
Tex Geo Weinreich & Assoc, 11554 E Northwest Hwy Dallas 214 899-8133
Can Anbak Sales Ltd, 3208 Lenworth Dr, Cooksville Ont

FILM COMPONENTS DIV REON RESISTER CORP
155 SAW MILL RIVER RD, YONKERS
N Y, 10701 .... 914 965-9850
R RINGER, EMP 100, ENG 5, $1,000-$2,500M

FILM MICROELECTRONICS, INC, 17 A ST, BURLINGTON
MASS, 01803 .... 617 272-5650
W MACDONALD, EMP 40, ENG 6, $500-$1,000M
ADV PG 416
Ala Young & Lawrence Assoc, Inc 2907 Governors Dr S W, Huntsville 539-6575
Ariz Allen Assoc, Box 3091 Papago Sta Scottsdale 945-5781
Cal R H Muenzer Co, Box 997 Redwood City 369-8283
Cal Brooks & Day, Inc, 10700 Ventura Blvd Hollywood 877-3357
Fla Young & Lawrence Assoc, Inc, 601 North N Y Ave Winter Park 647-6929
Md Wm I Duncan & Assoc, 206 Washington Ave Towson 301 823-2506
Mass Micronic Assoc, Box 162 Cochituate 617 653-8229
Mich Harvey Teplitz & Co, 26847 Grand River Ave Detroit 313 537-9058
NJ Gawler-Knoop Co, 14 Beaufort Ave Roseland 212 344-2997
Ohio Harvey Teplitz & Co, 3718 Salem Ave Dayton 513 277-9178
Ohio Harvey Teplitz & Co, 3945 Meadowbrook Blvd Cleveland 216 371-2044
Pa Wm I Duncan & Assoc, 5452 Charles St Philadelphia 744-6110
Wash Ray Johnston Co Inc, 1011 NE 69th St Seattle 206 524-5170

FILMOHM CORP, 37-11 47TH AVE, LONG ISLAND CITY
N Y, 11101, TWX 710 582-2497 .... 212 937-0400
R LATIN, EMP 130, ENG 12, $2,500-$5,000M
Ala Theall Corp, Box 3122, Huntsville
Ariz Fryco, Box 460, Scottsdale 945-3281
Cal C W Swift & Assoc, 14652 Ventura Blvd Sherman Oaks .... ST 4-8550
Cal Green Assoc, 257 Castro St Mountain View 415 964-4435
Fla Theall Engineering Sales Co, Box 922 Maitland 647-4469
Md C L Malinow & Co, 3618 Briarstone Rd Randallstown
Mass Micron Enterprises, South Hamilton 468-4486
Ohio Paul Bockenstedt, Box 175, N Dayton Sta Dayton 233-0849
Tex Scott Tech Sales, Box 30324, Dallas 352-7698
Can Microwave Specialty Co, 6120 Metropolitan Blvd Montreal, Que 254-1722

FILTAIRE INC DIV WALTER KIDDE CO
706 FORREST ST, CHARLOTTESVILLE
VA, 22901 .... 703 293-5154
H FRIZZELL, EMP 115, ENG 5, $1,000-$2,500M
Cal R L Assoc, 14401 Gilmore St Van Nuys 213 780-1666
Cal Melvin Sales Co, 113 El Camino Millbrae 415 697-6922
Fla J J Smith & Assoc, Box 460 Winter Park 305 644-4316
Md Charles O Emrich, Rollins Rd & Wilkens Ave Baltimore 301 744-5764
Mass Gerald Rosen & Co, 563 Worcester Rd Natick 617 655-2211
Mo Ketty Sclitz & Winkeler, 7546 Troost Ave Kansas City 816 363-5651
NY Gemini Elctns, 1295 Northern Blvd Manhasset 516 627-1162
NY Bowser & Sapicky, 4541 Main St Snyder 716 839-2044
NC L & D Inc, Box 7243, Greensboro 919 292-3201
Ohio G & H Sales, 7215 Market Pl Cincinnati 513 761-6185
Pa Arnold Ratner Assoc, 301 York Rd Jenkintown 215 885-0616
Tex Stevens Sales, Box 34493, Dallas ... 214 241-3645

Can Ben Manis Assoc, 6600 St Urbain St Montreal, Que 514 274-8271
Can A E P Intl, London Rd, Isleworth 514 747-4781
Den A/S Dantronik Buddingevej 312-316 Post Konto NR-61943 Kobenhavn .... (01) 692-511

FILTECH CORP, 10103 W PACIFIC AVE
FRANKLIN PARK, ILL, 60131 .... 312 678-8900
E ARGOUDELIS, EMP 75, ENG 9, $1,000-$2,500M

FILTRON CO INC SUB LIQUIDONICS IND INC
131-15 FOWLER AVE, FLUSHING
N Y, 11355, TWX 710 582-3015 .... 212 445-7000
H HAZZARD, EMP 450, ENG 40, $5,000-$10,000M
Ala Reynolds & Assoc, 904 Bob Wallace Ave Huntsville 205 536-1941
Ariz Williams Assoc, 1110 E McDowell Rd Phoenix 602 254-6085
Cal Filtron Co Inc, 5930 W Jefferson Blvd Los Angeles 213 870-6274
Cal Filtron Co Inc, 505 W Olive Sunnyvale 408 738-3140
Colo Williams-Assoc, 4971 Jackson St Denver 303 388-4391
Conn Circuit Sales Co, 1126 Fairfield Ave Bridgeport 203 335-0637
Fla Reynolds & Assoc, 161 Southwest 75th Ave Fort Lauderdale 305 581-6611
Fla Reynolds & Assoc, 408-A Strawbridge Ave Melbourne 305 727-3205
Fla Reynolds & Assoc, 2903 Timerlake Dr Orlando 305 424-3836
Ga Reynolds & Assoc, 175 W Wieuca Rd NE Atlanta 404 252-5360
Ill Berndt Assoc, 6414 W Belmont Ave Chicago 312 283-0713
Md Bernard White & Co, 7 Church La Baltimore 301 484-5400
Mass Circuit Sales Co Inc, 591 North Ave Wakefield 617 245-5320
Mich Reichold Assoc, 14 Weston St GE Grand Rapids 616 459-4445
Minn Ed Hoffman Co, 1573 Selby Ave St Paul 612 645-4662
Mo Aerotronics Inc, Box 10236 Lambert Field St Louis 314 426-4060
NJ Maxwell A Brown Assoc, 308 Second Ave Bradley Beach 201 775-7829
NJ Mid-Eastern Assoc, 1759 Country Club Dr Cherry Hill 609 428-7977
NM Williams-Assoc, 420 Washington Ave SE Albuquerque 505 255-1638
NY R P Kennedy Co, 39 Saginaw Dr Rochester 716 271-6322
NY R P Kennedy Co, Box 56 Fayetteville 315 627-9531
NY R P Kennedy Co, Greentree Dr N Hyde Park 914 229-2269
NY Garrettson Co, 99 Hillside Ave Williston Park 516 747-6610
NC P J Hahser Co, 2709 Amherst Ave Burlington 919 226-8053
Ohio Reichold Assoc, 106 Adams Ave Cuyahoga Falls 216 929-1091
Ohio S M Tetelbaum, 3812 Stormont Rd Dayton 513 837-1036
Tex Allied Components Inc, 4234 Richmond Houston 713 664-4203
Tex Allied Components Inc, 10464-6 E Northwest Hwy Dallas 214 348-6660
Utah Williams-Assoc, 2469 S Main St Salt Lakes City 801 466-8709
Va M E Whitney Assoc, 1400 N Uhle St Arlington 703 524-5642
Wash G M Gillett & Assoc, Box 99035 Seattle 206 284-3344
Can Aircraft Appliances & Equip Ltd, 585 Dixon Rd Rexdale Ont 416 249-8411
Can Aircraft Appliances & Equip Ltd, 77 Metcalf St Ottawa Ont 613 233-1852
For Lindor Intl Corporation, 10 E 40th ST New York N Y 212 685-6740
BC Aircraft Appliances & Equipment Ltd 885 W Broadway, Vancouver 604 879-4828

FINCOR INC, 1000 E BOUNDRY AVE, YORK
PA, 17405 .... 717 843-7841
J SCHAEFER, EMP 150, ENG 16, $2,500-$5,000M
Cal Campbell & George Co, 840 Mahler Rd Burlingame .... MI 8-1236
Cal Fincor Inc, 200 Folsom St San Francisco .... YU 1-1610
Ill John Meyers, 3100 S Central Ave Chicago .... BI 2-4720
Mich Lor-Mac, 403 Fisher Bldg, Detroit
Wash Lloyd Controls Inc, 1200 N 96th St, Seattle
Can Railway & Power Eng Corp Ltd 3745 St James St W, Montreal

FINEISEN CO A R, 15 DOUGLAS ST, WESTWOOD
NJ, 07675 .... 201 664-3332
M NOVOTNY, EMP 4, ENG 1, $100-$250M

FINESCALE CO, 3258 W 6TH ST, LOS ANGELES
CAL, 90005 .... 213 385-6834
J GRAY, EMP 4, ENG 2, UP TO $100M

FINNEY CO, 34 W INTERSTATE, BEDFORD
OHIO, 44014 .... 216 232-6161
T PFEIFFER, ENG 12

Ark D Bellew Sales Co, 418 Maple Hill El Dorado .... UN 3-8325
Cal Wayne Dinsmore, Box 621, Encino ..... MA 2-2849
Cal Technical Sales Assoc, 1485 Bayshore Blvd San Francisco 467-1434
Colo Norris & Co, 915 Cheyenne Blvd Colorado Springs 635-9319
Fla Hollingsworth & Still, 1010 Executive Ctr Dr Orlando 841-1623
Ga Hollingsworth & Still, 3098 Piedmont Rd, N E Atlanta 261-5838
Ill Markal Sales Corp, 5787 Lincoln Ave Chicago .... LO 1-7290
Ind Thomas & Sukup, Inc, 2060 E 54th St Indanapolis 251-4574
Kan Lowell Kangas Assoc, Box 4116 Overland Park .... TU 8-3200
La D Bellew Sales Co, 3017 D 18th St Metairie 833-6496
Md A M Pecore, 1626 Forest Park Ave Baltimore .... RI 7-3170
Mass Lawrence B Cole & Co, 318 Weston Rd Wellesley Hills .... CE 7-1260
Minn Northern States Sales Co, 1109 W 78 1/2 St minneapolis 866-3468
Mo Lowell, Kangas & Assoc, Inc Box 26, Creve Coeur Sta, St Louis ..... MI 7-1111
NY Murray Director, 115-62 237th St Elmont .... CU 5-6823
NY Leonard D Allen, Inc, Box 205 North Syracuse 458-7470
NC Hollingsworth & Still, 6717 Woodstock Dr Charlotte 523-3327
Ohio H Miller Sales Assoc Inc, 4087 Meadowbrook Blvd Cleveland 321-3900
Ore Roger M Minthorne Co, 6565 SW Macadam Portland 246-4556
Pa E K P Assoc, Inc, 1901 Washington Blvd Easton 252-6373
Pa William Eberle, 344 W Court St Doylestown 345-1523
For Rocke Intl Corp, 13 E Wisconsin Ave New York, N Y .... MU 9-0200

FIREWEL CO INC, 3695 BROADWAY, BUFFALO
N Y, 14225 .... 716 683-0440
J HAMILTON JR, EMP 295, ENG 100, OVER $10,000M

FIRING CIRCUITS INC, MULLER AVE, NORWALK
CONN, 06852 .... 203 846-1633
C SIMS, EMP 35, ENG 3
Cal Campbell & George Co, 840 Mahler Rd Burlingame 697-2965
Cal Porter Co, 17000 Ventura Blvd, Encino 788-2350
Cal Porter Co, Box 898, Orange 213 788-2350
Ga Austin Brown Assoc, 1771 Tully Cir NE Atlanta 636-9446
Ill Markson Assoc, 4948 N Bernard Chicago .... CO 7-1905
Mass Bordewieck Eng Sales Co, 221 Grove St Braintree 843-0845
Mich William C Fay, 3049 E Grand Blvd Detroit 871-3270
Mich W C Fay, 1204 N Woodward Royal Oak 313 543-9440
Minn E A Dickinson & Assoc, Box F Excelsior 474-5273
Mo Kattelmann & DeCota, 9715 Page Blvd St Louis 533-5513
NJ Ballow Inc, 51 N Broad, Ridgewood 444-6990
NC A C Electric Sales Co, 3920 Monroe Rd, Charlotte
Ohio R F Reske & Assoc, 512 The Arcade Cleveland .... MA 1-3166
Ohio Jos H Fallon, 5945 Ridge Ave, Cincinnati
Ohio Allen Nace Co Inc, Box 156 Brecksville 216 526-4323
Ohio Allen Nace Co Inc, Box 93 Riverdale Sta Dayton 513 277-8215
Ohio Allen Nace Co Inc, Rte 3, Galion 419 468-7641
Pa H B Stallings & Assoc Inc, 422 Manchester Ave Media 566-4100
Pa Allen Nace Co Inc, Box 10630 Pittsburgh 412 241-3200
Tex W J Wanner Titan, 6434 Maple Bldg Dallas 357-8266
Va Campbell King Co, 2111 Link Rd Lynchburg 703 384-2941
Wis E A Dickinson & Assoc, 3612 N Green Bay Rd Milwaukee .... CO 4-1080
Can Railway & Power Engineering, 3745 St James St Montreal 30, Que

FIRST ELECTRONICS CORP, 71 VON HILLERN ST
BOSTON, MASS, 02125 .... 617 288-2430
W TREGONING, EMP 85, ENG 7

FIRTH STERLING INC, 3113 FORBES AVE, PITTSBURGH
PA, 15230 .... 412 682-4600
J EGAN, EMP 1600, ENG 35, OVER $10,000M
Ala Firth Sterling, 1824 Huntsville Rd Birmingham 324-0627
Cal Firth Sterling, 2900 S Vail Ave Los Angeles 723-6421
Conn Firth Sterling, 25 Talcott Rd W Hartford 236-0811
Ill Firth Sterling, 3415 North Ave Melrose Park 344-5510
Mich Firth Sterling, 2619 Industrial Row Troy 549-8110
NJ Firth Sterling, 1331 Stuyvesant Ave Union 688-5720
Ohio Firth Sterling, 13000 Triskett Rd Cleveland 252-6145
Ohio Firth Sterling, 137 N Main St, Dayton 223-4251

Tex Firth Sterling, 829 S 75th St, Houston 921-2137
Can Firth Sterling, 43 Spaulding Dr
Brantford, Ont 752-6820

FISCHER & CO, H G, 9451 W BELMONT AVE
FRANKLIN PARK, ILL, 60131 .... 312 678-7200
W FISCHER, EMP 287, ENG 15, $2,500-$5,000M

FISCHER & PORTER CO, 476 WARMINSTER RD
WARMINSTER, PA, 18974 .... 215 675-6000
O SEGLEM, EMP 2500, ENG 650, OVER $10,000M
Ala Fischer & Porter, 15 Office Park Cir
Birmingham 205 871-0371
Ala Fischer & Porter Co, 2109 Danville Rd SW
Decatur 205 353-8067
Alas Du Alaska Co, 3959 Spenard Rd
Spenard 322-1607
Ariz Fischer & Porter Co, 3815 N Black Canyon Hwy
Phoenix 265-1000
Cal Fischer & Porter Co, 5722 E Union Pacific
Los Angeles 685-6304
Cal Fischer & Porter Co, 3756 Grand Ave
Oakland 835-8080
Colo Fischer & Porter Co, 300 E Hampden Ave
Englewood 781-7894
Del Fischer & Porter Co, 4708 Kirkwood Hwy
Wilmington 994-3466
Fla Fischer & Porter Co, Box 8132
Jacksonville 724-5510
Fla Fischer & Porter Co, 4471 NW 36th St
Miami Springs 888-7812
Fla Thompson Equipment Co, Box 4642
Pensacola 456-1612
Fla Fischer & Porter Co, 503 S MacDill Ave
Tampa 813 872-7891
Ga Fischer & Porter Co, 674 N Highland Ave NE
Atlanta 873-1338
Ill Fischer & Porter Co, 175 Scott St
Elk Grove 437-6800
Ind Fischer & Porter Co, 2511 E 46th St
Indianapolis 546-4985
Iowa Fischer & Porter Co, 1521 E Locust St
Davenport 323-3665
Ky Fischer & Porter Co, 1733 Brownsboro Rd
Louisville 897-1606
La Thompson Equipment Co, Box 66153
Baton Rouge 926-4311
La Thompson Equipment Co, 4020 Thalia
New Orleans 822-1336
La Fischer & Porter Co, 2209 Justice St
Monroe 318 322-2606
Me Fischer & Porter Co, 137 Main St
Waterville 207 872-6033
Md Fischer & Porter Co, 320 Hillen Rd
Towson 825-2960
Mass Fischer & Porter Co, 10 Kearney Rd
Needham Hts 444-5750
Mich Evered Lezotte, 304 W Superior St
Munising 387-2054
Mich Fischer & Porter Co, 301 W 8 Mile Rd
Detroit 366-8680
Mich Fischer & Porter Co, 4225 W Main St
Kalamazoo 381-3878
Minn Fischer & Porter Co, 7615 Metro Blvd
Minneapolis 941-3323
Mo Durkin Equip Co, 2384 Centerline Ind Dr
St Louis 542-1444
Mo Durkin Equip Co, 9915B E 63rd St
Raytown 816 358-5450
Mont Archibald Co, 55 W Broadway, Butte 723-8075
NJ Fischer & Porter Co, 141 Main Ave
Clifton 472-8500
NY Fischer & Porter Co, 5858 E Molloy Rd
Syracuse 455-6474
NY Fischer & Porter Co, 1621 Central Ave
Albany 869-8471
NY Fischer & Porter Co, 43 Court St
Buffalo 854-0600
NC Fischer & Porter Co, 1719 Remount Rd
Charlotte 376-5509
NC Fischer & Porter Co, Box 9058, Raleigh 834-4491
Ohio Fischer & Porter Co, 7777 Montgomery Rd
Cincinnati 793-3600
Ohio Fischer & Porter Co, 22035 Chagrin Blvd
Cleveland 752-1500
Ohio Fischer & Porter Co, 1429 King Ave
Columbus 486-2991
Okla Fischer & Porter Co, 4717-B S Yale Ave
Tulsa 627-2710
Ore Fischer & Porter Co, 1220 SW Morrison
Portland 227-6897
Pa Fischer & Porter Co, 411 7th Ave
Pittsburgh 471-5955
Pa Fischer & Porter Co, 108 Terwood Rd
Willow Grove 657-1111
SC Fischer & Porter Co, 833 Wappoo Rd
N Charleston 556-4133
Tenn Fischer & Porter Co, 3294 Commercial Pkwy
Memphis 332-3200
Tenn Fischer & Porter Co, Box 10367
Knoxville 584-1557
Tex Fischer & Porter Co, 80 Interstate 10N
Beaumont 832-1617
Tex Fischer & Porter Co, 2727 Oaklawn Ave
Dallas 526-3869
Tex Fischer & Porter Co, 1717 N Mesa
El Paso 532-1579
Tex Fischer & Porter Co, Box 22067
Houston 667-2433
Tex Fischer & Porter Co, Petroleum Tower
Corpus Christi 882-4901
Utah Wayne Wiscomb Co, 768 E 9th St
Salt Lake City 328-3205
Va Fischer & Porter Co, 5610 W Marshall St
Richmond 288-3036
Wash Fischer & Porter Co, 1701 Dexter Ave
Seattle 283-3826
W Va Fischer & Porter Co, 1107 Nelson Bldg
Charleston 343-7514
Wis Fischer & Porter Co, 7600 W Hampton
Milwaukee 463-2470
Can Fischer & Porter (Can) Ltd, 134 Norfinch Dr
Downsview, Ont 633-9810
Den Fischer & Porter Co, Mobro Peer Jaeqervang 31
Birkerod
Fr Otic Fischer & Porter, 151 Bis Ave de la Liberation
Clermont-Ferrand
Ger Fischer & Porter GmbH, Box 701, 34 Gottingen
Grellerhausen
GB Fischer & Porter Ltd, Salterbeck Trading Est
Worington Cumberland
Ital F & P Italiana, SpA, Via G di Vittorio 307/2, Milano
Jap Hokushin Electric Works, Ltd
30-1, 3-chome, Shimomaruko, Ohta-ku, Tokyo
Nor Civ Ing Helge Ingeberg A/S
Prosesskontroll, Waldemar Thranesgate 1A, Oslo
Swed A B Max Sievert, Sorterargatan 14, Stockholm
Swit Kundert Ing Zurich, AG Fur Verfahrenstechnik, Zurich

FISCHER SPECIAL MFG CO, 446 MORGAN ST
CINCINNATI
OHIO, 45206, TWX 810-461-2593 .... 513 961-1280
J CONNOR, EMP 70, ENG 3, $2,500-$5,000M
Cal Southwestern Agencies, 907 E Market St
Long Beach 213 428-1257
Ill J K Blakeslee & Co, 5730 N Western Ave
Chicago 312 561-3669
Ind Hayden, Quinn & Pollard, 320 S High St
Muncie 317 284-1691
Mass David M Rowley, Box 131, Islington Sta
Westwood 617 326-7781
Mo Ben Gerker Co, 569 Melville
St Louis 314 721-6700
NJ Charles D Williams, 20 Church St
Montclair 201 746-3535
NY AFCO, Box 9180, Rochester 716 381-3400
NC Mack W White Jr, Box 3222
Charlotte 704 375-2994
Ohio Donald E Williams, Box 122
Medina 216 725-4088
Ohio T L Eck, 10633 Knollview Dr
Cincinnati 513 563-0651
Pa Harold J Nugent, 547 Swede St
Norristown 215 272-1955
Tenn T S Stone Co, 1212 Pierce Pkwy
Knoxville 615 546-9282
Tex W H Kreer, 3925 Greenbrier Dr
Dallas 214 361-4518

FISHER-AKIN CO, BOX 698, MANHATTAN BEACH
CAL, 90266 .... 213 374-3273
B FISHER, EMP 15, ENG 5, $100-$250M
Ariz Brooks, Feeger Assoc, 4710 N 16th St
Phoenix 264-6536
Cal Tech-Sources Unlimited, 132 S Glenoaks Blvd
Burbank .... VI 9-6863
Cal Mauldin Co, 441 W Calif Ave
Palo Alto .... DA 6-5291
Colo Brooks Feeger Assoc, 2186 S Jason St
Denver 934-5578
Ky Simpson Enterprises, 3809 Westport Dr
Wichita .... WH 3-0502
Ky Simpson Enterprises, 917 Central Ave
Kansas City .... FI 2-2188
Mass Wm Beaver Assoc, 41 Indian Ridge Rd
S Natick 655-1529
Mo Simpson Enterprises, 514 Parkwood
Kirkwood .... YO 5-1115
NM Brooks, Feeger Assoc, 1238 Ortiz SE
Albuquerque 268-4387
Ohio Ohio Instrument Co, 505 Whitney
Worthington 885-0743
Tex Mitchell Speairs Co, Houston Petroleum Ctr
Houston .... WA 3-7616
Tex Mitchell Speairs Co, 4944 James Ave
Ft Worth .... WA 3-4657
Can Aeromotive Eng Products Ltd
887 Montee de Liesse
St Laurent, Que 747-4781

FISHER BERKELEY CORP, 5800 CHRISTIE AVE
EMERYVILLE, CAL, 94608 .... 415 655-9696
R BRUSH, EMP 35, ENG 2
Mass Jim Piper Assoc, 10 Haven St
Dover 617 449-1144
Mass R Flanagan, Box 21
South Duxbury 617 934-2498
NJ Robt Finlay Sales Co, 45 N Broad St
Ridgewood 201 652-0088
Ohio John O Olsen Co, 16201 Shaker Blvd
Cleveland 216 752-5444
Ohio John O Olsen Co, 116 W Franklin
Centerville 513 885-3722
Pa John O Olsen Co, 1843 Maydell St
Pittsburgh 341-8391
Tex Techno Assoc, Box 20544, Dallas ... 214 FL 7-9213
Wash Ron Merritt Co, 1320 Prospect St
Seattle 206 682-7337

FISHER & CROME, INC, 2427 N MASCHER ST
PHILADELPHIA, PA, 19133 .... 215 GA 6-3232
A CROME, EMP 24, ENG 2, $250-$500M

FISHER ENGINEERING INC, 2060 US HWY 24E
HUNTINGTON, IND, 46750 .... 219 356-3500
P PETERINK, EMP 45, ENG 8, $250-$500M

FISH-SCHURMAN CORP, 70 PORTMAN RD
NEW ROCHELLE, N Y, 10802 .... 914 NE 61300
M YAWITZ, EMP 55, ENG 2, $1,000-$2,500M

FITCHBURG COATED PRODUCTS INC, BOX 1106
SCRANTON, PA, 18501 .... 717 347-2035
L HEALY JR, EMP 160, ENG 1, $5,000-$10,000M
Cal Fitchburg Coated Prods Inc
5614 E Washington Blvd
Los Angeles 213 685-8100
Ill Fitchburg Coated Prods Inc, 711 S Blvd
Oak Park 312 848-0172
NY Fitchburg Coated Prods Inc, 850 Third Ave
New York 212 421-6566

FITCHBURG ENGINEERING CORP, CLEGHORN ST
FITCHBURG, MASS, 01420 .... 617 343-7416
G ARTHUR, EMP 94, ENG 11, $1,000-$2,500M
Cal Russell-Holbrook & Henderson, Inc
2840 Supply Ave, Los Angeles

FITRE, VIA VALSOLDA 15, 20143 MILANO
ITALY, TWX MR R BORRONI 843 1818
EMP 160, ENG 6

500 INC SUB ARTHUR D LITTLE INC, 20 ACORN PARK
CAMBRIDGE, MASS, 02140 .... 617 491-5700
H HOWELL
NY C Itoh & Co, 320 Park Ave
New York 212 751-4330
Ohio Aerotronics, 5899 Huberville Ave, Dayton
Ohio L C Immel, 3130 Far Hills Ave, Dayton
Pa Bethlehem Corp, 225 W Second St, Bethlehem
Fr La Cryotechnique, 18-22 Rue d'Arras, Nanterre
Jap C Itoh & Co, Ltd
4,2-Chome, Hon-Cho Nihonbashi, Chuo-Ku, Tokyo
Swit Arthur D Little AG, Seefeldstr 224
Zurich 8 .... (051) 47 42 42
Gr Marios Dellegios Reps, 2 Alopekis St, Athens 139
Spn Productos y Apar Cientificos E Ind SA, Box 7023
Madrid 5

FIVRE DEPT FABBRICA ITAL MAG MARELLI
VIA FABIO FILZI 1, I - 27100 - PAVIA, ITALY 31144
G DI BAGNO, EMP 815, ENG 14, $5,000-$10,000M

FLEETWOOD LABS INC, 35 ROCKWOOD PL
NEW ROCHELLE, N Y, 10804 .... 914 BE 50831
W LURIE, EMP 3, ENG 2, UP TO $100M
Cal Ed Schaar Assoc, Box 644
Pacific Palisades 454-5190
Cal W A Scism, 151 Cronin Dr
Santa Clara .... CH 8-5920
NJ Central Assoc, 44 N Dean St
Englewood .... LO 8-0808
NY Central Assoc, 11 Commercial St
Plainview .... GE 3-0808

FLEISHMAN ELECTRIC CO, 1 TRENTON AVE, CLIFTON
N J, 07015 .... 201 772-5400
T FLEISHMAN, EMP 6, ENG 1

FLEXAUST CO, DIV CALLAHAN MINING CORP
277 PARK AVE, NEW YORK
NY, 10017 .... 212 826-2950
A GRIMM, EMP 60, ENG 4, $1,000-$2,500M
Cal Flexaust Co, 199 Thousand Oaks Blvd
Thousand Oaks 495-0566
Ill Flexaust Co, 799 Roosevelt Rd
Glen Ellyn 469-0898

FLEXIBLE CIRCUITS INC, PAUL VALLEY IND PARK
WARRINGTON, PA, 18976 .... 215 DI 3-2300
G LEE, EMP 60, ENG 10, $2,500-$5,000M
Cal Technical Liaison Co, 1626 Centinela Ave
Inglewood 213 670-6971
Cal Winco Sales Inc, 1901 E Middlefield
Mountain View 415 961-8510
Mass G A Hill Jr, Box 221, Harvard 617 894-6060
Minn R J Siedare Assoc, 4724 42nd Ave N
Minneapolis 612 533-2294
NY Samuel S Egert Co, 146 Meacham Ave
Elmont 516 488-2255
NY Young & Ziff Inc, 555 Winton Rd N
Rochester 716 482-1555
Ohio Electro Com, 8761 Snow Rd
Cleveland 216 886-2404
Ohio Electro Com, 5055 N Main St
Dayton 513 278-4797
Pa Electro Com, 201 Penn Ctr Blvd
Pittsburgh 412 241-5717

FLEXIBLE METAL HOSE MFG CO, 777 W 16TH ST
COSTAMESA, CAL, 92627 .... 714 646-4851
E HALLETT, EMP 45, ENG 4
Ariz McDonald Industrial Sales, Inc, 4637 E Avalon Dr
Phoenix 959-0780
Cal W Gorman, 4476 Tivoli St, San Diego 222-9424
Cal D Richmond, 8949 Reseda Blvd
Northridge 349-5626
Colo K Palmer, 1050 Yuma, Denver 255-9961
Conn William McCoy Co, 896 Main St
Branford 203 488-2012
Ga C O Benedette, 714 Paces Ferry Rd
Smyrna 435-8393
Kan D & O Engineering Co, Box 2349
Kansas City 352-6151

Kan D & O Engineering Co, Box 1800
Wichita.......... 264-7358
NY Fluid Controls & Systems, 6 Hampton St
Hauppauge.......... 234-1444
Ohio R G Lanzit, 515 Laramie Tr, Cincinnati ... 761-2924
Wash O J Harper, 200 Tobin Ave, Renton 255-0414
Can S C Sterling, 65 Martin Ross Road
Downsview.......... 636-5052
Holl Air-Parts Intl N V, Box 4094, Ryswyk

FLEXIBLE PRODUCTS INC, 2678 E 7TH AVE
NORTH ST PAUL, MINN, 55109 .... 612 777-8361
J HANNUM SR, EMP 30, ENG 8, $250-$500M
Ala Young & Lawrence, 2907 Governors Dr SW
Huntsville.......... 205 539-6575
Conn Kitchen & Kutchen Inc, 22 Broadway
North Haven.......... 203 239-0212
Ill Repwood Inc, 260 Sunset
Glen Ellyn.......... 312 469-2344
Ind Tri-State Marketing, 3220 Broadway
Fort Wayne.......... 219 456-3567
Mass Kitchen & Kutchen Inc, 17 Waltham St
Lexington.......... 617 862-8230
Minn Electro-Serv, 1455 W Lake St
Minneapolis.......... 612 827-2907
NY Nycom Inc, 2002 Teall Ave
Syracuse.......... 315 437-8343
NY HAF Spectrum, 35 Broadfield Rd
New Rochelle.......... 914 632-3800
Ohio Tri-State Marketing, 1717 Section Rd
Cincinnati.......... 513 631-5060
Ohio Tri-State Marketing, 25000 Euclid Ave
Cleveland.......... 216 731-9207
Pa Tyler-Griffin Inc, 46 Darby Rd
Paoli.......... 215 644-7710

FLEXI OPTICS LABS INC, 117 DOVER ST, SOMERVILLE
MASS, 02144.......... 617 776-0520
D HUSMANN, EMP 23, ENG 5, $100-$250M
Mass Daniels Engrg, Box 27, Lynnfield 617 334-4200
NY Barnett Assoc, 40 Aberdeen Rd
Hauppague.......... 516 724-0202

FLEXO INTERNATIONAL CORP
3720 N MILWAUKEE AVE, CHICAGO
ILL, 60641.......... 312 KI 5-6609
J TUMEN, EMP 90, ENG 2, $1,000-$2,500M

FLEX PRODUCTS CORP, 445E INDUSTRIAL RD, CARLSTADT
N J, 07072.......... 201 933-3030
D SHER, EMP 40, ENG 1, $500-$1,000M
ADV PG 489
Mich C E Cummiskey & Assoc Inc, 15324 Mack Ave
Detroit.......... TU 5-6635
Ohio Harris Containers, 307 E 4th St
Cincinnati.......... 241-7373
RI Cutler Sales Co, Box 166, Barrington .... CH 5-5142

FLINT STEEL CORP, BOX 1289, TULSA
OKLA, 74101.......... 918 LU 4-3621
J BILLINGSLEY, EMP 800, ENG 10, OVER $10,000M

FLORIDA GENERAL ELECTRONICS INC
BLDG 1, MUNICIPAL ARPT, DAYTONA BEACH
FLA, 32015.......... 904 255-7559
EMP 20, ENG 2, $250-$500M

FLORIDA TRANSFORMER CO, TRANSITRON SUB
BOX 518, DE LEON SPRINGS
FLA, 32028.......... 904 985-4661
J BRADFORD, EMP 200, ENG 5, $2,500-$5,000M
Ala Gentry Assoc Inc, 2109 W Clinton Ave
Huntsville.......... 536-5306
Ariz Allen Assoc, Box 3091 Papago Sta
Scottsdale.......... 945-5781
Cal Power Controls Co, 1720 S Pontius Ave
Los Angeles.......... 473-2397
Fla Gentry Assoc Inc, 2517 B E Colonial Dr
Orlando.......... 424-0730
Ga Gentry Assoc Inc, Box 13513 Sta K
Atlanta.......... 233-3816
Ill Century Eng & Sales Ltd, 1256 W Jefferson St
Joliet.......... 725-3712
Kan Transitron Electronic Sales Corp, 2210 W 75th St
Prairie Village.......... EN 2-6640
Mass Transitron Electronic Sales Corp, 168 Albion St
Wakefield.......... 245-5640
Mich Harvey Teplitz & Co, 26847 Grand River Ave
Detroit.......... 537-9058
Minn Transitron Electronic Sales Corp
7701 Normandale Rd, Minneapolis 927-7923
NJ R C M Assoc, 115 Legion Pl, Hillsdale ... 666-0205
NY H V Sales Co, 1 W Terrace Rd
Great Neck.......... 487-1142
NY Elcom Sales Inc, Box 9112, Rochester.... 244-1960
NY Elcom Sales Inc, Box 134 Southview Sta
Binghamton.......... 723-9270
NC A B Andrews Co, Box 2627, Raleigh 833-5565
Ohio J C Hofstetter Co, 742 Kenbridge Dr
Cleveland.......... 449-0944
Ohio C D Blincoe & Co, 5406 Reading Rd
Cincinatti.......... 731-8132
Pa A & C Assoc, Box 67, Gladwyne.......... 642-9222
Tex William Reese Assoc, 3130 Springwood
Dallas.......... 339-4280
Wash Transitron Electronic Sales Corp, 704 3rd Ave
Seattle.......... MA 2-4115
Can Transitron Electronic Corp of Canada Ltd
1229 The Queensway, Toronto, Ont.... CL 9-5461

FLOTRON INDUSTRIES INC, 1201 E GRAND AVE
EL SEGUNDO, CAL, 90245.......... 213 678-8164
L HORRELL, EMP 14, ENG 1, $500-$1,000M
Ala Southern Dynamics, Box 5983 Homewood Br
Birmingham.......... 879-8764
Ariz Hecht-Henschen & Assoc Inc, 3825 N 39th Ave
Phoenix.......... 272-6677
Cal G E Woods Assoc, 2415 S Manchester Ave
Anaheim.......... 633-9370
Cal G E Woods Assoc, 1184 Los Altos Ave
Los Altos.......... 941-3343
Cal G E Woods Assoc, 1514 Via Madrina
San Diego.......... 279-7120
Colo R G Bowen Co Inc, 1440 S Santa Fe
Denver.......... 722-4641
Fla Southern Dynamics, 6051 S Orange
Orlando.......... 855-5112
Ill Escor Assoc Inc, 6582 Northwest Hwy
Chicago.......... 763-4797
Iowa Escor Assoc Inc, 309 4th Ave SE
Clarion.......... 532-3218
Md L D Lowery Inc, 6200 Annapolis Rd
Hyattsville.......... 773-4977
Mass John Stevenson, 89 Clifford St
Melrose.......... NO 5-0266
Minn SERVCO, 521 S 7th St, Minneapolis .... FE 9-8611
Mo Escor Assoc Inc, 4965 Bancraft St
St Louis.......... FL 2-2027
NJ Simberkoff Sales, 71 Valley St
South Orange.......... 763-7900
NM C T Carlberg & Assoc, 2611 Quincy St NE
Albuquerque.......... 265-1579
NY Simberkoff Sales, 284 Edgewood Ave
Kenmore.......... 652-1997
NC Southern Dynamics, Box 1484
Charlotte.......... 334-2686
Ohio Roc Eng & Sales Co, 7100 N High St
Worthington.......... TU 5-1057
Okla Southwest Electronics Inc, 2015-C S Lakewood
Tulsa.......... TE 5-2481
Pa L D Lowery Inc, 2801 W Chester Pike
Broomall.......... EL 6-5300
Tex Southwest Electronics Inc, 621 Meadows Bldg
Dallas.......... 363-1671
Tex Southwest Electronics Inc, 1405 S Post Oak Rd
Houston.......... 621-3760
Utah R G Bowen Co Inc, 31 S 3rd E
Salt Lake City.......... 364-4632
Wash Stanley Enterprises, 5616 4th Ave S
Seattle.......... 767-3320
Can W R Watkins Co Ltd, 1151 Kipling Ave N
Rexdale, Ont.......... 247-6697
For Meridian Enterprises Inc, 1751 La Cienega
Los Angeles, Cal.......... 837-9121

FLOWCON CO, 1114 E KIMBERLY AVE, ANAHEIM
CAL, 92801.......... 714 871-5781
M FARRELL
Cal Dale-Dahl Assoc, 16000 Ventura Blvd
Encino.......... 788-7963
Colo Chief Equipment Corp, 70 W 6th Ave
Denver.......... 825-8169
Fla Beacon Electronics, Box 1278, Maitland .. 647-3498
NY E C Smith & Assoc, 60 E 42nd St
New York.......... MU 2-6890
NC Beacon Electronics, Box 17584
Charlotte.......... 366-9761
Ohio Elliott-Sarles Co, 15516 Madison Ave
Cleveland.......... 228-1044
Wis Process Measurement & Control, Box 7292
Milwaukee.......... 774-3290
Wyo Chief Equipment Corp, Box 506, Casper... 234-1756
Can Camco Ltd Canada, 307 610 4th Ave SW
Calgary, Alb.......... 266-5315

FLOW CORP, 127 COOLIDGE HILL RD, WATERTOWN
MASS, 02172.......... 617 491-1185
V THOMAS, EMP 60, ENG 15, $500-$1,000M
Ala Technical Assoc, 1000 Airport Rd SW
Huntsville.......... 205 881-8494
Fla Technical Assoc, 2319 E S St
Orlando.......... 305 424-5681
Ill S Sterling Co, 2 Talcott Rd
Park Ridge.......... 312 775-7883
Md Scientific Marketing, 8817 Hunting La
Laurel.......... 301 776-5130
Mass Technical Enterprises, 181 West St
Waltham.......... 617 891-5300
Mich S Sterling Co, 21250 10-1/2 Mile Rd
Southfield.......... 313 357-3700
Mo S Sterling Co, 11734 Lackland Dr
St Louis.......... 314 837-1221
NY Measurement Technology Inst, 19 Danton St
Melville.......... 516 692-2957
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland.......... 216 442-8080
Ohio S Sterling Co, 2673 Culver Ave
Dayton.......... 513 298-7573
Ohio S Swenson Assoc, 1112 Talbott Tower
Dayton.......... 513 223-4279
Pa Letronix Inc, 251 W De Kalb Pike
King of Prussia.......... 215 265-1020
SC Technical Assoc, Box 5583
Spartanburg.......... 803 585-3864
Tex Noakes Engrg, 1006 N Britain
Irving.......... 214 255-0441
Wash Cane-Jessup Co, Box 350
Bellevue.......... 206 454-0691
For Coasin Uruguaya SA, Montevideo, Urag
For Radionics Ltd, 8230 Mayrand St
Montreal, Que.......... RE 9-5517
For Sovate Soc De Aparelhaugem E Estudos Tecnicos
Ltda, Rua Pedro Nunes 47, Lisboa Port
Fr Aeromaritime Electronique, 57 Ave D'ena, Paris 16
Isrl L Kardos, Box 11033, Tel Aviv

FLOW ELECTRONIC CABLE CORP, 239 BINNEY ST
CAMBRIDGE, MASS, 02142.......... 617 868-0860
E VECCHIA, EMP 112, ENG 2, $1,000-$2,500M
Ala B J R Industries, 9202 Naios Dr SE
Huntsville.......... 205 881-1881

FLOW TECHNOLOGY INC, 401 S HAYDEN RD, TEMPE
ARIZ, 85281.......... 602 967-1550
J WOOD, EMP 22, ENG 4, $500-$1,000M
Ala Kemp Engrg Co, 4306 Governors Dr
Huntsville.......... 837-4304
Ariz W E Sanderson & Assoc, 5045 N 12 St
Phoenix.......... 277-0077
Ariz Cosmic-Controls, 5045 N 12 St
Phoenix.......... 266-7661
Cal Kersta Sales, Inc, 2555 N Altadena Dr
Altadena.......... 791-1984
Conn Applied Measurements Inc, 2335A Whitney Ave
Hamden.......... 248-5048
Fla Griggs Assoc, Box 13542, Orlando 855-4871
Ga Thomas Engineering Co, 3867 Roswell Rd NE
Atlanta.......... 261-5070
Ind The Laidlaw Co, 11 W 17 St
Indianapolis.......... 923-7251
Mass Applied Measurements Inc, Box 306
Acton.......... 263-2766
Mo Harris-Hansen Co, 2814 S Brentwood Blvd
St Louis.......... 647-4350
NJ Industrial Flow Control, 19 N Harrison St
E Orange.......... 672-5220
NC Systems Service Corp, 3748 Monroe Rd
Charlotte.......... 377-3407
Ohio L D Bruno Co, Box 2444, Kettering Br
Dayton.......... 434-1847
Pa Representatives Assoc, 107 Forrest Ave
Narberth.......... 839-3488
Tex Kemp Engineering Co, 2618 Manana Dr
Dallas.......... FL 7-6663
Tex Kemp Engineering Co, 6001 Gulf Frwy
Houston.......... 928-5426
Tex Kemp Engineering Co, 102 W Rector
San Antonio.......... 344-1841

FLUID POWER ACCESSORIES INC, 661 GLENN AVE
WHEELING, ILL, 60090.......... 312 537-5771
J ORMEROD, EMP 50, ENG 9, $1,000-$2,500M

FLUKE MFG CO INC, JOHN, BOX 7428, SEATTLE
WASH, 98133.......... 206 774-2211
J ZEVENBERGEN, EMP 650, ENG 40, $5,000-$10,000M
ADV PG 270, 317, 514, 565, 654, 688, 787, 789, 793
Ala BCS Assoc Inc, 2317 Bob Wallace Ave SW
Huntsville.......... 534-1648
Ariz Barnhill Assoc, 4900 E Indian School Rd
Phoenix.......... 959-2115
Cal Instrument Specialists Inc, 2870 Los Felix Pl
Los Angeles.......... 665-5181
Cal Instrument Specialists Inc, 2359 De La Cruz
Santa Clara.......... 244-1505
Colo Barnhill Assoc, 1170 S Sheridan Blvd
Denver.......... 934-5505
Conn Instrument Reps Inc, Box 165
Glastonbury.......... 633-0777
Fla BCS Assoc Inc, 90 N Fern Creek Ave
Orlando.......... 425-2764
Haw Industrial Electronic Inc, 646 Queen St, Honolulu
Ill Cozzens & Cudahy Inc, 9501 W Devon Ave
Rosemont.......... 825-1144
Md Electronic Mktg Assoc, 11501 Huff Ct
Kensington.......... 744-7700
Mass Instrument Reps Inc, 1046 Massachusetts Ave
Arlington.......... 646-1034
Mich Technitron Inc, 13657 Grand River Ave
Detroit.......... 838-7324
Minn Cozzens & Cudahy Inc, 7710 Computer Ave
Minneapolis.......... 920-1022
Mo Cozzens & Cudahy Inc, 10534 Natural Bridge Rd
Edmundson.......... 423-1234
NJ SBM Assoc, 1519 Stuyvesant Ave
Union.......... 687-8737
NM Barnhill Assoc, 827 Pennsylvania Ave
Albuquerque.......... 265-7766
NY SBM Assoc Inc, 5858 E Molloy Rd
Syracuse.......... 454-9377
NY SBM Assoc, Inc, 528 Old Country Rd
Plainview.......... 433-1421
NY SBM Assoc, 28 Hobby St, Pleasantville... 769-1811
NY SBM Assoc, 800 Linden Ave, Rochester .. 381-8330
NC BCS Assoc Inc, 1039 E Wendover Ave
Greensboro.......... 273-1918
Ohio Technitron, Inc, 1250 W Dorothy La
Dayton.......... 298-9964
Ohio Technitron Inc, 23203 Lorain Rd
North Olmsted.......... 734-0960
Pa Acromatix Assoc Inc, 3118 Germantown Pike
Fairview Village.......... 279-0377
Pa Technitron Inc, 114 Spring Grove Rd
Pittsburgh.......... 371-1231
Tex Barnhilloc, 507B Bishop St
Richardson.......... AD 1-2573
Tex Barnhill Assoc, 3810 Westheimer
Houston.......... NA 1-0040
Wash Instrument Specialists Inc, 5950 Sixth Ave S
Seattle.......... 767-4260
Can Allan Crawford Assoc Ltd, 65 Martin Ross Ave
Downsview.......... 636-4910
Can Allan Crawford Assoc, Ltd
6999 Cote de Neiges Rd
Montreal 26, Que.......... RE 9-6776
Can Allan Crawford Assoc, Ltd, 376 Churchill Ave
Ottawa 2, Ont.......... 725-1288
BC Allan Crawford Assoc, Ltd, 5901 E Broadway
No Burnaby.......... 298-6242
Neth Fluke (Nederland) NV, Box 5053, Tilburg

FLUORO-PLASTICS INC, G & VENANGO STS
PHILADELPHIA, PA, 19134 .... 215 GA 5-5500
H HIMBERT, EMP 100, ENG 3, $250-$500M

FLUSH WALL RADIO CO
1012 CLEVELAND ST, BOX 1766, CLEARWATER
FLA, 33515 .... 813 444-6061
L SCHENCK, EMP 6, ENG 1

FLYING TIGER LINE
7401 WORLD WAY W, LA INTL ARPT, LOS ANGELES
CAL, 90009 .... 213 646-6161
P FINAZZO, EMP 2500, ENG 50, OVER $10,000M

FMC CORP, INORGANIC CHEMICALS DIV
633 THIRD AVE, NEW YORK
N Y, 10017, TWX 710 581-4069 .... 212 MU 7-7400
R PURCELL, $100-$250M

Cal	FMC Corp, 15453 Gale Ave, City of Industry	330-0680
Cal	FMC Corp, Box 344, Newark	793-1230
Ill	FMC Corp, Box 191, Villa Park	TE 4-9500
Mass	FMC Corp, Fountain St, Framingham	875-6141
NC	FMC Corp, 201 S Tryon St, Charlotte	372-2400
Ohio	FMC Corp, 11750 Chesterdale Rd, Cincinnati	771-7065
Pa	FMC Corp, Box 101, Ft Washington	646-1783
Tex	FMC Corp, 2990 Richmond Ave, Houston	JA 8-0564

F & M SYSTEMS CO, DIV FISCHBACH & MOORE, INC
2525 WALNUT HILL LA, DALLAS
TEX, 75220, TWX 910-860-5502 .... 214 241-4242
M BAIRD JR, EMP 225, ENG 50, $5,000-$10,000M

Cal	J Morris, 3700 Wilshire Blvd, Los Angeles	213 380-8360
DC	Howard Alsop, 1019 22nd St N W, Washington	202 333-0800

FONTAINE, P, 20 AVE ARAGO, 91 CHILLY-MAZARIN
FRANCE 920 83 79
C VERFAILLIE, EMP 110, ENG 12, $1,000-$2,500M

FOOTE MINERAL CO, RTE 100, EXTON
PA, 19341, TWX 510 663-9306 .... 215 363-6500
R LONGENECKER, EMP 1056, ENG 67, OVER $10,000M

Tenn	D S Collins, Box 479, Knoxville	524-1444

FORBES & WAGNER INC, 345 CENTRAL AVE
SILVER CREEK
N Y, 14136, TWX 510 246-6940 .... 716 934-2691
M CLAFLIN, EMP 198, ENG 8, $1,000-$2,500M

Cal	James S Heaton Co, 3695 Haven Ave, Menlo Park	369-4671
Cal	Murchison Mktg Assoc, 12822 Nutwood, Garden Grove	534-1292
Colo	Electronic Sales Inc, 2340 W Main St, Littleton	798-8575
Ga	Emmett Rushin Co, Box 486, Roswell	993-6498
Ind	Garland Graham & Assoc, 5462 E 40th St, Indianapolis	547-3259
Md	J A Maguire & Co, 5716 York Rd, Baltimore	433-2613
Mass	Brookdale/Richter Eng Co, 348 Lake Ave, Newton Highlands	244-6969
NJ	G M Moch Co, 595 Broad Ave, Ridgefield	945-0080
NJ	J A Maguire & Co, 726 Cooper St, Camden	966-3118
NY	Nycom Inc, 2002 Teall Ave, Syracuse	437-8343
Ohio	Luebbe Sales Co, 2649 Erie Ave, Cincinnati	871-4211
Wash	Fred H Haight Co, 3212 East Lake, Seattle	322-1818
Can	Ryco Electronics Co, 26 Sunnyside Ave, Pointe Claire	695-6236

FORCE ELECTRONICS, 5051 W JEFFERSON BLVD
LOS ANGELES, CAL, 90016 .... 213 735-1421
E RESNICK, EMP 8, $250-$500M

FORD INSTRUMENT DIV, SPERRY RAND CORP
31-10 THOMSON AVE, LONG ISLAND CITY
N Y, 11101, TWX 710 582-2560 .... 212 784-9000
R MANIAN, EMP 1000, ENG 350

DC	Ford Instrument Div, 2121 Wisconsin Ave NW, Washington	202 338-7718

FORD RADIO & MICA CORP, 538 63RD ST, BROOKLYN
N Y, 11220 .... 212 GE 9-8300
A LONG, EMP 41, ENG 1, $250-$500M

FOREDOM ELECTRIC CO INC, BETHEL
CONN, 06801 .... 203 748-3521
D KELLOGG, EMP 24, ENG 1

FOREST CITY FOAM PRODUCTS, 299 CLAY ST
WELLINGTON, OHIO, 44090 .... 216 647-2115
J HOLSCHUH, EMP 60, ENG 3

Mich	Forest City Foam Prods, 610 N Woodward, Birmingham	647-3151

FORK STANDARDS INC, 215 MAIN ST, WEST CHICAGO
ILL, 60185 .... 312 231-3511
T MCCOLLUM, EMP 20, ENG 4
ADV PG 138, 269, 310, 361, 452, 457, 655

Cal	Windsor Dynamics Inc, Box 5500, Sherman Oaks	213 ST 9-2421
Cal	Windsor Dynamics Inc, 195 Greer Rd, Woodside	415 851-0417
Fla	Component Sales Corp, Box 9545, St Petersburg	813 360-7460
Fla	Components Sales Corp, Box 14523, Orlando	305 277-1510
Ill	Whitmore Assoc, Inc, 535 n michigan, Chicago	312 321-1503
Md	Stemler Assoc Inc, 6707 Whitestone Rd, Baltimore	301 944-8262
Mass	Forbes Engineering, 19 Flint St, Salem	617 744-1693
Mich	Harvey Teplitz & Co, 26847 Grand River Ave, Detroit	537-9058
NJ	Stemler Assoc Inc, Box 287, Cherry Hill	609 966-4070
NY	Frank Tylinski Co, 338 Northern Blvd, Great Neck	516 466-9070
Ohio	Harvey Teplitz & Co, 3718 Salem Ave, Dayton	277-9178
Ohio	Harvey Teplitz & Co, 3945 Meadowbrook Blvd, Cleveland	371-2044
Pa	Stemler Assoc, Box 711, Paoli	644-3477
Wash	Benno Persitz & Assoc, 2614 27th W, Seattle	206 AT 2-4860
Ital	Soc AN NA srl, Via Arimondi 8, Milano	32 27 40

FORMA SCIENTIFIC INC, MILL CREEK RD, MARIETTA
OHIO, 45750 .... 614 373-4763
D BERGEN, EMP 109, ENG 2, $1,000-$2,500M

Md	Regional Scientific Assoc, Box 211, Rockville	OL 6-7890
Minn	E J Doyle Co, 4815 W 77th St, Minneapolis	922-1592
NY	Frank R Wilson, 172-12 33rd Ave, Flushing	IN 3-0675
Pa	Kurt J Lesker Co, 5635 Homing Rd, Pittsburgh	892-2996
Pa	Bergen Assoc, Box 62, Flourtown	AD 3-2545

FORMCRAFT TOOL CO, 6453 S BELL ST, CHICAGO
ILL, 60636 .... 312 476-8727
B MARTIN, EMP 20, ENG 2, $250-$500M

Cal	RF Assoc, 800 San Antonio Rd, Palo Alto	327-5531
Cal	RF Assoc, 1621 Pontius Ave, Los Angeles	478-1586
Mass	Tri-Tek Inc, 155A Bedford St, Burlington	272-4550

FORM FIT PLASTICS INC, 95 BRIDGE ST, LOWELL
MASS, 01852
J PORTON

Conn	Conn Assoc Sales Bridgeport, 17 Garfield Ave, Bridgeport	203 367-5668
NY	Fimex, 117 Swaim, Westbury	516 333-4911
Pa	H E Fisher, 58 N Lansdown Ave, Lansdowne	

FORMICA CORP, 4614 SPRING GROVE AVE
CINCINNATI, OHIO, 45232 .... 513 541-3670
K PITT, EMP 2000, ENG 20

Cal	Formica Corp, 2300 S Eastern Ave, Los Angeles	723-6411
Conn	Formica Corp, 43 S Main St, W Hartford	236-2431
Ga	Formica Corp, 5180 Peach Tree Ind Blvd, Chamblee	457-0261
Ill	Formica Corp, 10401 W Touhy Ave, Rosemont	827-8871
Ind	Formica Corp, 1010 E 86th St, Indnpls	846-5818
Mass	Formica Corp, 480 Adams St, E Milton	696-8600
Mich	Formica Corp, Box 5130, Seven Oaks Sta	566-2610
Mo	Formica Corp, 5025 Pattison Ave, St Louis	664-5306
NY	Formica Corp, 111 W 50th St, New York	956-4650
Ohio	Formica Corp, 20545 Center Ridge Rd, Cleveland	333-3400
Pa	Formica Corp, 185 Commerce Dr, Ft Washington	646-7000
Tex	Formica Corp, 7611 Carpenter Frwy, Dallas	631-2130
For	Cyanamid Intl, Berdan Ave, Wayne, NJ	831-1234

FORMICA METAL PRODUCTS CO INC, 220 CORPORATION WAY
MEDFORD, MASS, 02155 .... 617 395-5656
C FORMICA, EMP 45, ENG 1, $250-$500M
ADV PG [illegible]

FORMULABS INDUSTRIAL INKS INC
529 W 4TH AVE, BOX 1056, ESCONDIDO
CAL, 92025 .... 714 745-6423
J RAYMOND, EMP 32, ENG 5, $5,000-$10,000M

Cal	Ash M Wood Co, Box 1158, Arcadia	283-1201
Ill	John Ratkovic, 500 N Gulf La, Lake Forest	234-5549
NY	L P Giorgione, 119 N Greece Rd, Hilton	716 546-8290
Can	Mainguys Ltd, 6033 Hamilton St, Montreal, Que	766-7718

FORNEY INDUSTRIES INC, 1830 LAPORTE AVE
FORT COLLINS, COLO, 80521 .... 303 482-7271
T ANDERSON, EMP 500, ENG 3, $5,000-$10,000M

FORTIN LAMINATING CORP, 11921 SHERMAN WAY
NORTH HOLLYWOOD, CAL, 91605 .... 213 875-2300
R CARTER, EMP 140, ENG 3

Cal	Fortin Laminating Corp, 11921 Sherman Way, N Hollywood	213 875-2300
Colo	Inland Assoc, 2991 Peak Ave, Boulder	303 443-8213
Conn	Currier & Co, 221 W Main St, Avon	203 677-2663
Ill	James Bunting, Box 306, Arlington Heights	312 392-3370
Kan	Inland Assoc, 6047 Howe Dr, Mission	913 362-2366
Mass	Cirolia, LeBlanc Sales Co, Inc, 976 Main St, Waltham	617 893-2742
Minn	G E Arneson & Co, 4900 Viking Dr, Minneapolis	612 920-2086
Mo	Inland Assoc, 453 N Lindbergh, Creve Coeur	314 993-0301
Ohio	Arthur H Baier Co & Assoc, 4399 Industrial Pkwy, Willoughby	216 946-6080
Ohio	Arthur H Baier Co & Assoc, 3300 S Dixie Dr, Dayton	513 298-9897
Ore	van Voorhees Assoc, Box 4383, Portland	503 287-7851
Tex	P J Scanlon Co Inc, 724 S Sherman St, Richardson	214 231-4661
Wash	Ted Battema Co, Box 276, Mercer Island	206 SH 7-0140
Wash	Ted Battema Co, Box 276, Mercer Island	206 SH 7-0140
Can	Lake Engrg Co Ltd, 123 Manville Rd, Scarborough Ont	416 751-5980
Fr	Olibol, 19 rue de la Michodiere, Paris 2	742-45-69
Ger	Oswald E Boll KG, Huhnerposter 14-D-2, Hamburg	
GB	Oswald E Boll Ltd, 4a Commercial Rd, Woking Surrey	Wok 61 633
Ital	Stratil SpA, 15 Via Vivaio, Milano	781-712
Swit	Oswald E Boll, 45 Seefeldstr, Zurich	051 34 58 58
Belg	Oswald E Boll SPRL, 29 Passage Intl Bur 49 Pl Rogier, Brussels	02-17-18-72

FORT WAYNE METALS INC, 3211 MACARTHUR DR
FORT WAYNE, IND, 46809 .... 219 747-4154
B BAIDEN, EMP 63, ENG 2, $1,000-$2,500M

FORWAY INDUSTRIES INC, 122 GREEN AVE
WOODBURY, N J, 08096 .... 609 845-0804
E UHLIG, EMP 30, ENG 2, $250-$500M

FOSTER & ALLEN INC, 26 COMMERCE ST, CHATHAM
N J, 07928 .... 201 635-7766
E FOSTER, EMP 12, ENG 1, $250-$500M

FOSTER ELECTRIC CO LTD
512 MIYAZAWACHO, AKISHIMA-CITY, TOKYO
JAPAN 0425-41-2311
K NAKAHARA, EMP 800, ENG 40, $5,000-$10,000M

Ill	Foster Electric Co, Ltd, 1319 W Sherwin Ave, Chicago	743-3684

FOSTER TRANSFORMER CO, 3820 COLERAIN AVE
CINCINNATI, OHIO, 45223 .... 513 681-2420
H M BORDEN, EMP 300, ENG 16, $2,500-$5,000M

Cal	Penwarden Assoc, 14547 Titus St, Van Nuys	782-4920
Colo	Waugaman Assoc Inc, 2785 N Speers Blvd, Denver	255-5000
Ill	Wm F Swinke, 3014 Colfax St, Evanston	UN 4-3576
Ind	Ralph Haffey Co, 4127 N Clinton, Ft Wayne	748-1159
Ky	George W Thelen Co, 5257 Taylor Mill Rd, Covington	431-0753
Md	J A Maguire Co, 5716 York Rd, Baltimore	433-2613
NJ	Maple Assoc, 22 Park Ave, Maple Shade	665-6152
NY	Samuel Bialek Assoc, 42-15 Crescent St, Long Island	786-5562
Wis	G Tollaksen, 610 Main St, Racine	ME 2-2345

FOSTORIA-FANNON INC, 1200 N MAIN ST, FOSTORIA
OHIO, 44830 .... 419 435-7721
R STROUSE

Ala	R Warnock, Inc, 15 Office Park Cir, Birmingham	871-1022
Ariz	Robert Mathewson Co, 1111 W Hilton Ave, Phoenix	253-6525
Cal	Haldeman Inc, 2845 Supply Ave, Los Angeles	213 685-4710
DC	Walter Lanchak Co, 24 E Springfield, Springfield, Pa	544-3333
Fla	Aerodyne Engineering, Box 17057, Orlando	295-4440
Ga	W L Anderson, 81 S Bay Dr, Jonesboro	404 478-9648
Ill	Thermal Process Engrg Co, 4233 W Lawrence Ave, Chicago	283-7211
Ind	W Dale McBride, 3920 Nokomis Rd, Ft Wayne	744-8040
Iowa	Vogel Paint & Wax Co, 615 Albany Ave, Orange City	712 737-4995
La	Development Engineering Co, Box 2843, Baton Rouge	342-5758
Md	Fostoria Corp, 1509A Stuyvesant Ave, Union	687-8717
Mass	Interlux Corp, 17 Lewis Wharf, Boston	742-0031

Mich	H G Russell Co, 20700 Ecorse Rd Taylor	383-3425
Minn	Infra Red Direct Heat Co 5309 Edina Industrial Blvd, Edina	941-2525
Mo	C L Arehart Co, 6621 Sterling, Raytown	356-3488
Mo	Gillespie & Powers Inc, 4829 Easton Ave St Louis	314 533-4110
NJ	Fostoria-Fannon Inc, 1509A Stuyvesant Ave Union	201 687-8717
NM	Alpine Infra Red Htg, Box 6343 Albuquerque	505 344-2307
NY	Bacon & Co, 78 Princeton Pl Orchard Park	662-5560
Ohio	Walter H Rhoades Assoc, 184 Linden Dr Centerville	433-2631
Ohio	P H Goodell, 20160 Center Ridge Rd Rocky River	216 331-9200
Okla	Jennings Sales Co, 6024 S Irvington Tulsa	622-2814
Pa	Pittsburgh Processing Equip Co, Box 8740 Pittsburgh	371-0900
Utah	Mfrs Electrical Sales Agency, 545 S 2nd W Salt Lake City	364-8466
Va	Campbell & Assoc, 1715 Summit Ave Richmond	359-2015
Wash	Walsh-Ehlers, Inc, 1138 Poplar Pl S Seattle	322-1155
For	Ballagh & Thrall, 1010 Schaff Bldg Phila, Pa	564-4020

FOURJAY INDUSTRIES, 2801 ONTARIO AVE, DAYTON
OHIO, 45414 .... 513 278-2924
J FULKERSON, $100-$250M

Cal	Feldman-Roberts & Assoc, 9724 Washington Blvd Culver City	213 870-5973
Fla	World Wide Products Inc, 1928 NE 151st St N Miami Beach	947-3531
Ill	L F Green & Assoc, 5218 W Diversey Ave Chicago	286-6824
Mass	Willson Sales Co, 6 Mohawk Rd Marblehead	631-4016
Minn	HMR Inc, 9 E 22nd St Minneapolis	612 335-7734
NY	Joseph & Bain, 6 Grace Ave Great Neck	516 487-9395
Ohio	H H Seay Co, 3850 Fairlington Dr Columbus	488-9994
Pa	AB&T Sales Corp, 8921 Turton Dr Philadelphia	464-8921
Tex	Wybomy Sales Co, Box 17070, Dallas	381-4645
Wash	Jas J Backer Co, 221 W Galer St Seattle	287-1158
Can	Len Finkler Ltd, 2 Tycos Dr, Toronto	781-5231

FOXBORO CO, MECHANIC ST, FOXBORO
MASS, 02035 .... 617 543-8750
E KELLY, EMP 6500, ENG 900, OVER $10,000M

Ala	Foxboro Co, 4 Office Pk Circle Birmingham	871-0319
Ala	Foxboro Co, Box 8484, Mobile	471-4488
Cal	Foxboro Co, 399 Preda St, San Leandro	562-5525
Cal	Foxboro Co, 9550 Flair Dr, El Monte	443-4191
Colo	Foxboro Co, 1111 S Colorado Blvd Denver	757-6106
Conn	Foxboro Co, 45 S Main St, W Hartford	236-3577
Del	Foxboro Co, 1815 Newport Gap Pike Wilmington	994-5738
Fla	Foxboro Co, 5440 Mariner St, Tampa	872-7884
Fla	Foxboro Co, 4040 Woodcodk Dr Jacksonville	398-1545
Ga	Foxboro Co, 3393 Malone Dr, Chamblee	457-3154
Ga	Foxboro Co, 709 Stephenson Ave Savannah	EL 5-5115
Haw	Berkley Eng & Equip Co, Box 3856 Honolulu	581-921
Ill	Foxboro Co, 1901 S Busse Rd Mt Prospect	439-2070
Ind	Foxboro Co, 2824-D 173rd St Hammond	845-3676
Iowa	Foxboro Co, 2872 Forest Rd, Davenport	326-2611
Kan	Foxboro Co, 5460 Buena Vista Mission	CO 2-1262
Kan	Foxboro Co, 30 Laurel Dr, Wichita	MU 2-9061
La	Foxboro Co, 2925 Plank Rd Baton Rouge	EL 7-0628
La	Foxboro Co, 3225 Danny Park, Metairie	887-9450
La	Foxboro Co, 3109 Alexander Ave Shreveport	865-6522
Me	Foxboro Co, 256 Water St, Augusta	622-0601
Md	Foxboro Co, 6229 N Charles St Ave Baltimore	DR 7-9000
Mass	Foxboro Co, Rte 1, Walpole	668-6331
Mich	Foxboro Co, 22142 W 9 Mile Rd Southfield	353-3930
Mich	Foxboro Co, 414 W Milham Rd Kalamazoo	FI 5-8928
Minn	Foxboro Co, 4060A Trenton La N Mnpls	927-6460
Mo	Foxboro Co, 11771 Natural Bridge Rd Bridgeton	739-9222
NJ	Foxboro Co, 80 Morris Ave Springfield	DR 9-4000
NY	Foxboro Co, 620 Columbia Tpk E Greenbush	GR 7-9397
NY	Foxboro Co, 4 Webster St N Tonawanda	NX 3-8455
NY	Foxboro Co, 420 Lexington Ave New York	LE 2-4682
NY	Foxboro Co, 230 Winton Rd N Rochester	BU 8-5840
NC	Foxboro Co, 725 Providence Rd Charlotte	376-8452
Ohio	Foxboro Co, 5968 Montgomery Rd Cincinnati	731-5600
Ohio	Foxboro Co, 1579 W 117th St Cleveland	AC 6-1060
Ohio	Foxboro Co, 1355 W Lane Ave Columbus	486-2994
Okla	Foxboro Co, 4836 S Peoria St, Tulsa	RI 3-4096
Ore	Foxboro Co, 5505 S E Milwaukie Ave Portland	BE 4-0209
Pa	Foxboro Co, 2270 Noblestown Rd Pittsburgh	922-3000
Pa	Foxboro Co, 1062 Lancaster Ave Rosemont	525-7636
SC	Foxboro Co, S Pleasantburg Dr, 252 Bldg Greenville	233-4184
Tenn	Foxboro Co, 4711 Old Kingston Pike Knoxville	588-9601
Tenn	Foxboro Co, 3637 Park Ave, Memphis	452-4427
Tex	Foxboro Co, 1240 Petroleum Bldg Beaumont	TE 2-9949
Tex	Foxboro Co, 1507 Lancelot Rd, Borger	274-5760
Tex	Foxboro Co, 11710 E Northwest Hwy, Dallas	44
Tex	Foxboro Co, 6440 Southwest Frwy Houston	SU 2-3150
Tex	Foxboro Co, 804 E 7th, Odessa	FE 2-9343
Tex	Foxboro Co, 523 Petroleum Tower Corpus Christie	TU 4-8858
Utah	Foxboro Co, 2520 S State St Salt Lake City	486-0133
Va	Foxboro Co, 1910 Byrd Ave, Richmond	AT 8-1977
Wash	Foxboro Co, 4210 Stone Way N Seattle	ME 3-3660
W Va	Foxboro Co, 417 D St, Charleston	744-5321
Wis	Foxboro Co, 3005 W College Ave Appleton	RE 9-1153
For	Foxboro Americana Inc 1500 F D Rooselvelt Ave, Caparra Hgts San Juan, PR	782-8033

FOXBORO CO VALENICA PLANT
28020 AVE STANFORD, VALENCIA
CAL, 91355, TWX 910-336-1682 .... 805 259-8080
J WILSON, EMP 126, ENG 10

Ala	Foxboro Co, 4 Office Pk Circle Birmingham	871-0319
Ala	Foxboro Co, Box 8484, Mobile	471-4488
Cal	L L Stoakes Inc, 4438 Ingraham St San Diego	274-6281
Cal	Foxboro Co, 9550 Flair Dr, El Monte	283-6693
Cal	Foxboro Co, 399 Preda St, San Leandro	562-5525
Colo	Foxboro Co, 1111 S Colorado Blvd Denver	757-6105
Conn	Foxboro Co, 45 S Main St West Hartford	236-3577
Del	Foxboro Co, 1815 Newport Gap Pike Wilmington	994-5738
Fla	Foxboro Co, 4040 Woodcock Dr Jacksonville	398-1545
Fla	Foxboro Co, 5440 Mariner St, Tampa	872-7884
Ga	Foxboro Co, 3393 Malone Dr, Chamblee	451-0201
Ga	Foxboro Co, 709 Stephenson Ave Savannah	355-5115
Haw	Berkley Engineering & Equipment Co, Box 3856 Honolulu	581-921
Ill	Foxboro Co, 1901 S Busse Rd Mt Prospect	439-2070
Ind	Foxboro Co, 2824-D 173rd St Hammond	845-3676
Iowa	Foxboro Co, 2872 Forest Rd, Davenport	326-2611
Kan	Foxboro Co, 5460 Buena Vista, Mission	262-1262
La	Foxboro Co, 106 E Kings Hwy Shreveport	865-6522
La	Foxboro Co, 2925 Plank Rd Baton Rouge	357-0628
La	Foxboro Co, 3225 Danny Park, Metairie	887-9450
Me	Foxboro Co, 256 Water St, Augusta	622-0601
Md	Foxboro Co, 6229 N Charles St Ave Baltimore	377-9000
Mass	Foxboro Co, Lan Marc Bldg, Walpole	668-6331
Mich	Foxboro Co, 22142 W 9 Mile Rd Detroit	353-3930
Mich	Foxboro Co, 414 W Milham Rd Kalamazoo	345-8928
Minn	Foxboro Co, 4815 W 77th St Minneapolis	920-4222
Mo	Foxboro Co, 11771 Natural Bridge Rd Bridgeton	739-9222
NY	Foxboro Co, 420 Lexington Ave New York	532-4682
NY	Foxboro Co, 620 Columbia Tpk East Greenbush	477-9397
NY	Foxboro Co, 1868 Niagara Falls Blvd Tonawanda	693-8455
NY	Foxboro Co, 230 Winton Rd N Rochester	BU 8-5840
NC	Foxboro Co, 725 Providence Rd Charlotte	376-8452
Ohio	Foxboro Co, 5968 Montgomery Rd Cincinnati	731-5600
Ohio	Foxboro Co, 1579 W 117th St, Cleveland	226
Ohio	Foxboro Co, 1355 W Lane Ave Columbus	486-2994
Okla	Foxboro Co, 4836 S Peoria St, Tulsa	743-4096
Ore	Foxboro Co, 5505 SE Milwaukee Ave Portland	234-0209
Pa	Foxboro Co, 2270 Noblestown Rd Pittsburgh	922-3000
Pa	Foxboro Co, 1062 Lancaster Ave Rosemont	525-7636
SC	Foxboro Co, S Pleasantburg Dr Greenville	233-4184
Tenn	Foxboro Co, 4711 Old Kingston Pike Knoxville	588-9601
Tenn	Foxboro Co, 3637 Park Ave, Memphis	
Tex	Foxboro Co, 804 E Seventh, Odessa	FE 2-9343
Tex	Foxboro Co, 6440 Southwest Frwy Houston	SU 2-3150
Tex	Foxboro Co, 1240 Petroleum Bldg Beaumont	TE 2-9949
Tex	Foxboro Co, 523 Petroleum Tower Corpus Christi	TU 4-8858
Tex	Foxboro Co, 11710 E Northwest Hwy Dallas	327-4531
Tex	Foxboro Co, 1309 W 8th St, Amarillo	374-8823
Utah	Foxboro Co, 2520 S State St Salt Lake City	486-0133
Va	Foxboro Co, 1910 Byrd Ave, Richmond	288-1977
Wash	Foxboro Co, 4210 Stone Way N, Seattle	633-3660
W Va	Foxboro Co, 417 D St, Charleston	744-5321
Wis	Foxboro Co, 3005 W College Ave Appleton	739-1153
Can	Foxboro Co Ltd, 707 Dollard Ave La Salle, Que	366-4210
For	Foxboro Co, Neponset Ave Foxboro, Mass	543-8750
For	Foxboro Co, 1500 F D Roosevelt Ave San Juan	782-8033

FOX CO, C J, 236 ABORN ST, PROVIDENCE
R I, 02904 .... 401 421-2000
R KAPLAN

FOX VALVE DEVELOPMENT CO INC
2E GREAT MEADOW LA, HANOVER
N J, 07936 .... 201 887-7474
Z FOX, EMP 12, ENG 3, $250-$500M

FRANCIS INDUSTRIES, 11855 BROAD ST, PATASKALA
OHIO, 43062 .... 614 927-4091
C FRANCIS, EMP 10, ENG 2, $100-$250M

Cal	C Ryel, 23709 Haynes St, Canoga Park	883-8118
Ill	Loren F Green & Assoc, 5218 W Diversey Ave Chicago	AV 6-6824
Neb	Claasen Co, 308 N Main St, Fremont	

FRANKE GEAR WORKS INC
4401 N RAVENSWOOD AVE, CHICAGO
ILL, 60640 .... 312 LO 1-0950
H KAROLCZAK, EMP 50, ENG 3

Cal	P C Patterson Co, 102 Brand Blvd Glendale	CH 5-4463
Conn	Zaslow Sales Co Inc, 526 Farmington Ave Hartford	AD 6-3265
Ind	A C Hanson, 117 S Berrien St New Buffalo, Mich	469-3396
Mich	Dorac Sales Co, 20026 James Couzens Detroit	342-3131
Ohio	G T Wright, Box 2950, Cleveland	ED 1-8656
Ohio	R O Mayer, Box 6127-Sta D, Cincinnati	241-0702

FRANKEL ENGINEERING LABS INC, 125 S 5TH ST
READING
PA, 19603, TWX 510-651-0491 .... 215 373-5205
E SHEETZ, EMP 15, ENG 3, $100-$250M

FRANKEL J M, 245 AVE GEORGES-CLEMENCEAU
NANTERRE, FRANCE 204 0731
J BARAN, EMP 200, ENG 7, $1,000-$2,500M

FRANKLIN ELECTRIC CO INC, 420 E SPRING ST
BLUFFTON, IND, 46714 .... 219 824-2900
L BECHLER, EMP 1050, ENG 25, OVER $10,000M

Cal	Franklin Electric Co, Inc, 610 16th St Oakland	451-2621
Cal	Franklin Elec, 5440 Pomona Blvd Los Angeles	685-5352
Colo	T D Miller Assoc, Box 22301, Denver	756-1122
Ga	A Brown Assoc, 1444 Tully Rd NE Atlanta	636-9446
Ill	Franklin Electric Co, Inc, 6516 W Higgins Ave Chicago	763-0510
Ind	Franklin Electric Co Inc, 4919 Christofer La Fort Wayne	474-5120
Mass	Franklin Electric Co Inc, Box 94 Pembroke	826-6065
Mo	Franklin Electric Co Inc, 11692 Chandellay Creve Coeur	997-0665
NJ	Franklin Electric Co Inc, 198 Lafayette Ave Chatham	635-7595
NY	Franklin Electric Co Inc, 1800 Penfield Rd Penfield	381-8160
NC	R W Chapman & Co, Box 4430 Charlotte	375-4495
Ohio	Franklin Electric Co Inc, 4621 Birchwold Rd Cleveland	381-7640
Ohio	Franklin Electric Co Inc, 407 Lansdale Ave Dayton	298-9315
Okla	Franklin Electric Co, Inc, 5517 E Skelly Dr Tulsa	622-1389
Pa	Franklin Electric Co Inc, Box 666 Levittown	949-1222

FRANKLIN FIBRE-LAMITEX CORP, 900 E 13TH ST
WILMINGTON, DEL, 19899 .... 302 652-3621
J VACHRIS, EMP 30, ENG 5, $1,000-$2,500M

Ark	Industrial Sales Co, 6512 Juniper Rd Little Rock	LO 2-5852
Ill	Mfrs Sales Assoc, 5483 N Northwest Hwy Chicago	631-0258
Mich	Wm S Stann, Inc, Box 3763, Oak Park	342-8400
Mo	Ed Ershen & Assoc, 7701 Forsyth Clayton	PA 7-2240
NY	Franklin-Fibre Lamitex, 135 Lafayette St New York	226-4376
NY	Robert W Jackson Co, 4446 Main St Buffalo	716 839-0200
Ohio	R E Sturges Inc, Box 236, Oberlin	774-1304
Ohio	Tarkington Assoc, 214 Harvard Ave Terrace Park	513 831-1069
Ore	Jos V Belusko Co, 2355 NW Quimby St Portland	503 222-4279

Pa Donovan Assoc, Box 212, Exton 215 269-4436
SC A C Ballentine, Box 5742, Sta B
Greenville 244-6514
Tex Jerry Fisch & Co, Box 16153
Fort Worth 926-7601
Utah Jones & Myers Co, Kennecott Bldg
Salt Lake City 801 363-8864
Wis J A Murphy & Assoc, Fennimore La
Hales Corners ..... GA 5-0944

FREDERICK ELECTRONICS CORP, BOX 502
FREDERICK
MD, 21701, TWX 893 438 ..... 301 662-5901
J HARTER, EMP 110, ENG 12, $1,000-$2,500M
Md E J Warner, 9911 Carter Rd
Bethesda 301 469-8904
Can J Manning, Box 274, Agincourt Ont .. 416 291-5871

FREDERICKS CO, PHILMONT AVE & ANNE ST
HUNTINGDON VALLEY, PA, 19006..... 215 WI 7-2500
R BENTZ, EMP 183, ENG 7, $1,000-$2,500M
Ala Holcombe Sales Agency, Inc, Box 1343
Huntsville 539-1929
Cal Long & Assoc, 505 Middlefield Rd
Redwood City 369-3324
Cal Hasco, 1843 Lincoln Blvd
Santa Monica 394-1128
Colo Engineering Rsch Assoc, 231 Detroit St
Denver 377-8306
Conn Northeast Eng, 3013 Dixwell Ave
Hamden ..... CH 8-4481
Ga Holcombe Sales Agency, Box 12428
Atlanta 233-2837
Ill Clarkson Eng Co, 5518 W Lawrence Ave
Chicago 286-2314
Ind Technical Sales & Mktg, 1121 N Arlington Ave
Indianapolis 356-3658
Kan Lawrence L Hill, 1635 Garland Ave
Wichita ..... AM 7-7167
Md B Fuller, 11657 Lockwood Dr
Silver Spring 593-6986
Mass Northeast Eng, 5 Elm St, Danvers ..... SP 4-3010
Mich K J Lesker Co, 5635 Horning Rd
Pittsburgh 245-2580
NJ Control Equipment, 315 Market St
Palmyra 829-1447
NY Northeast Engrg Inc, 124 Trumbull Rd
Manhasset 365-9633
NY Upstate Tech Equip Co, Box 202
Solvay 458-5573
Pa Kurt J Lesker Co, 5635 Horning Rd
Pittsburgh 653-0800
Tex W Gural Co, Box 60206, Houston ..... SU 2-4665
Tex W J Gates Jr, 3713 Wedghill Way
Fort Worth ..... WA 4-3535
Utah Engineering Rsch Assoc, 2250 E 17th St S
Salt Lake City
Wis Process Msmt & Control, Box 7292
Milwaukee 774-3290
Can W K Davidson & Co, 234 Eglinton Ave, E
Toronto, Ont ..... BE 1-2911

FREED TRANSFORMER CO INC, 1736 WEIRFIELD ST
BROOKLYN, N Y, 11227 ..... 212 EV 61300
M SALZBERG, EMP 350
Cal Robt G Moye Co, 244 Milton Dr
San Gabriel ..... CU 3-1669
Colo Nelson Co, 710 E Louisiana Ave
Denver ..... PE 3-5528
Ga Floyd Fausett & Co, 2264 Melinda Dr NE
Atlanta 633-3561
Ill Technical Devices Inc, 6416 N Central Ave
Chicago 312 774-8252
Md Bernard White & Co, 7 Church La
Baltimore 301 484-5400
Mass Henry P Segel Co, 386 Washington St
Brookline ..... BE 2-7525
Mo Automatic Gen Elctn Sales, 6550B Troost Ave
Kansas City ..... DE 3-8206
NJ Sunday-O'Brien, 15 Potter St
Haddonfield 429-4013
NY C W Floring & H R Murray Inc, 3001 James St
Syracuse ..... HO 3-5294
Ohio Scott Electronics Inc, 1836 Euclid Ave
Cleveland ..... TO 1-2626
Tex R F Kimball & Co, 5531 Dyer St
Dallas ..... 214 EM 3-5431
Wash M K Widdekind & Co, 221 1st Ave N
Seattle ..... AT 4-4869
Can Conway Electronic Ent Ltd, 88-90 Arrow Rd
Weston, Ont 244-5655
For Morhan Exporting Corp, 458 Broadway
New York, NY ..... WA 5-1257

FREEMAN CO, 8TH & WALNUT, YANKTON
S D, 57078 ..... 605 665-7456
E FREEMAN, EMP 85, ENG 1, $1,000-$2,500M

FRENCHTOWN/CFI INC, 8TH & HARRISON ST
FRENCHTOWN
N J, 08825, TWX 510-235-3399 ..... 201 996-2121
K MILLER, EMP 310, ENG 15, $2,500-$5,000M
Ariz A Waddell, Box 1086, Mesa 602 969-7281
Cal F Bates, L Rauscher, Box 8
Mountain View 415 961-5310
Cal D Grant, 16661 Ventura Blvd
Encino 910 495-1798
Cal W Blackford, 16661 Ventura Blvd
Encino 213 783-8150
Fla S Bialek, 224 Datura St
West Palm Beach 305 833-6877
Ill Hill & Gray, Inc, 821 Garfield
Oak Park 378-7050

Mass R Spongberg, 666 Main St, Reading 944-6922
Mass Teknis, South St, Plainville 617 695-3591
Mich Pickl Assoc, 2475 Adare Rd
Ann Arbor 313 761-7777
Minn D G Perry & Co, 5010 France Ave So
Minneapolis 612 920-3212
Mo J Lucas, 34 N Brentwood Blvd
St Louis 314 862-6535
NY T Fisher, 320 LI Expressway S, Melville .. 694-7900
NY J Phillips, 201 S Main St
No Syracuse 315 458-4491
NC Electro-Rep Assoc, 128 W 30th St
Charlotte 704 333-0451
Ohio J Shay, 2204 S Patterson Blvd 1
Kettering 513 298-0972
Pa C Brooks, 328 Maple Ave
Horsham 215 672-4916
Tex W Wall, C Smith, Box 41
Richardson ..... 214 AD 5-2307
Can Anbak Sales Can Ltd, 3208 Lenworth Dr
Cooksville, Ont 625-1061
Fr SAPCO, 7 Rue De Dieppe
Courbevoie, Seine 333-4343
Ger Metallgeselischaft, Frankfurt am Main, Reuterweg 14
GB Weil Intl Trading Ltd, 39-41 New Bd St
London EC2, ... LON 5052
Jap Sumitomo Metal Mining Co
12, 5-Chome Shimbashi, Minato-Ku, Tokyo

FREQUENCY ELECTRONICS INC, 3 DELAWARE DR
NEW HYDE PARK
N Y, 11040, TWX 510-223-0418 ..... 516 328-0100
A LAZAR, EMP 200, ENG 30, $2,500-$5,000M
Ala Bostick & Assoc, Box 4165, Huntsville ... 881-3677
Cal Windsor Dynamics Inc, Box 5500
Sherman Oaks 789-2421
Colo D E Bond Assoc, 2149 S Clermont St
Denver 756-1234
Fla Truex Assoc, 3165 McCrory Pl, Orlando ... 841-8931
Ind Tech Line Corp, 2512 East Dr
Fort Wayne 742-4510
Mass Compar New England, 88 Needham St
Newton Highlands 969-7140
Mo Zak & Assoc Inc, 230 S Bemiston Ave
St Louis 727-8559
NY C R Mayer Co, Box 152, Huntington 921-7876
Okla E G Miller Co, Box 929, Henderson 657-5049
Pa Biecler Assoc Inc, Box 38, Millersville ... 872-2793
Wash Associated Industries, 3711 S Hudson St
Seattle 722-3347
Can Technical Mktg Assoc Ltd, 6 Thorncliffe Sq
Toronto, Ont 425-1975
For Henley & Co, 202 E 44th St
New York, N Y 986-5544

FREQUENCY ENGINEERING LABS
FARMINGDALE-LAKEWOOD RD, FARMINGDALE
N J, 07727, TWX 201-938-2456 ..... 201 938-9221
G TIRONE, EMP 1000, ENG 50, $5,000-$10,000M
Ala J L Highsmith & Co, 3322 S Memorial Pkwy
Huntsville 881-3294
Ariz Moxon Electronics Corp, 15 N 40th Pl
Phoenix 273-7363
Cal Moxon Electronics Corp, 2311 Pontius Ave
Los Angeles 272-9311
Cal Moxon Electronics Corp, 15 W 41st Ave
San Mateo 345-7961
Cal Moxon Electronics Corp, 2054 Garnet St
San Diego 274-6525
Colo F Y Gates Co Inc, 3401 S Bannock St
Englewood 303 761-0591
Conn Applied Measurements, Inc, 2531 Whitney Ave
Hamden 288-5288
Fla J L Highsmith & Co, 2543 Industrial Blvd
Orlando 293-5205
Ill Carter Elctns, 7203 S Western Ave, Chicago
Ind Carter Elctns Inc, 6333 Hollister Dr, Indianapolis
Iowa Engineering Services Co, 1026 3rd Ave SE
Cedar Rapids 366-1591
Kan Engineering Services Co, 7924A State Line
Prairie Village 649-4000
Md K G Sales, Box 2025, Wheaton 301 946-4055
Mass Applied Measurements, Inc, 86 Hayward Rd
Acton 263-2766
Mich Micro Sales Corp, 650 Greenlawn
Ypsilanti 313 482-0880
Minn Carter Elctns Inc, 2401 W 66th St, Minneapolis
Mo Engineering Services Co, 6717 Vernon Ave
St Louis 726-2233
NM F Y Gates Co, 2631 Texas NE
Albuquerque 505 298-1875
NY NACO Electronics Corp, 119 Luther Ave
Liverpool 474-7481
NY NACO Electronics Corp, 74 Park Ave
Rochester 473-4169
NY NACO Electronics Corp, 2631 Edgewood Rd
Utica 732-1801
NY NACO, 14 Lori St, Poughkeepsie 462-2730
NC J L Highsmith & Co, 3733 Monroe Rd
Charlotte 333-7743
Ohio Micro Sales Corp, 2000 Lee Rd
Cleveland 371-0522
Ohio Micro Sales Corp, 1250 W Dorothy La
Dayton 298-3033
Pa Micro Sales Corp, 239 Fourth Ave
Pittsburgh 281-3228
Tex Carey Wolf Co, Box 12425, Fort Worth 738-1702
Tex Carey Wolf Co, Box 60338, Houston 643-2114
Utah F Y Gates Co, 455 E Fourth St, Salt Lake City
Va J L Highsmith & Co, 5003 Brook Rd
Richmond 266-2060
Wash Harry Levinson & Co, 1211 E Denny Way
Seattle 232-5100
Can Megatronix, Ltd, 1800 Avenue Rd
Toronto, Ont 783-3329

Can Megatronix Lt
739 B Ridgewood Ave Riverside Mall
Ottawa Ont 613 731-3860

FREQUENCY SOURCES INC, BOX 159 KENNEDY DR
N CHELMSFORD
MASS, 01863, TWX 710 343-6506 ..... 617 251-4921
L EISAMAN, EMP 30, ENG 7, $500-$1,000M
Ala Currie Aerospace, Box 1424
Huntsville 205 536-5650
Ariz Thorson Co, 2505 E Thomas Rd
Phoenix 602 264-5878
Cal Waldman Assoc, 1094 W Evelyn Sunnyvale
408 245-2500
Cal 3 DBM, 7424 Greenbush
N Hollywood 213 875-0876
Colo A L S Electronics, 1932 14th St
Boulder 303 447-2436
Fla Currie Aerospace, Box 13229
Orlando 305 855-0843
Ill Communications Engineers, 7100 N Western
Chicago 312 701-0548
Mass Resco Inc, 7 Skyfield Dr, Groton 617 448-5822
NJ Schibley Assoc, 1 Fellowship Rd
Cherry Hill 609 424-1894
NM A L S Electronics, Box 11626
Albuquerque 505 298-2575
NY B D Hummel, 2224 Maynard Ave
Utica 315 732-2370
NY H A F Spectrum Assoc, 35 Broadfield Rd
New Rochelle 914 632-3800
NY H A F Spectrum Assoc, 16 Lewis Ave
Jericho 516 433-5615
Tex Thorson Co, 7700 Carpenter Fwy
Dallas 214 631-5440
Tex Thorson Co, 3312 Marquart
Houston 713 621-0990
Va Schibley Assoc, 10604 Warwick
Fairfax 703 591-3008
Can Technitron, 769 La Joie
Dorval, Que 819 631-6859
For Microwave Intl, 111 High Ridge Rd
Stamford 203 348-7704

FRIDEN INC, 2350 WASHINGTON AVE, SAN LEANDRO
CAL, 94577 ..... 415 357-6800
S TERRY, EMP 13000, ENG 400, $1,000-$2,500M
Sales Offices located throughout the World

FRIEDEL ELECTRONICS PANEL CO
10500 S ATLANTIC BLVD, SOUTH GATE
CAL, 90281 ..... 213 567-7475
E FRIEDEL, EMP 6, ENG 1, UP TO $100M

FRIEDRICH & DIMMOCK, INC, 565 E HARDING HWY
MAYS LANDING, N J, 08330 ..... 609 825-0305

FRL INC FISHER RESEARCH LAB
1890 EMBARCADERO, PALO ALTO
CAL, 94303 ..... 415 322-4646
D HOUSH, EMP 65, ENG 4, $1,000-$2,500M

FROST ELECTRONICS CORP, 1 GODDARD DR
ROCKAWAY, N J, 07866 ..... 201 625-0222
C HOWARD, EMP 50, ENG 3, $100-$250M
Ala C & D Sales, 15333 Pearson Ave SW
Birmingham 205 787-8691
Cal Carkeek Engrg Co, 637 E Altadena Dr
Altadena 213 681-0489
Cal W F Featherstone Assoc, Box 5271
San Mateo 415 341-0126
Fla Maurice M Henning & Co, 1190 NW 179th Ter
Miami 305 624-5832
Ill Actronic Sales Engrg, 4750 N Milwaukee Ave
Chicago 312 286-1037
Ind Law Instrument, Box 95, Angola 219 665-6016
Md H R Sieber Co, 1005 Bonifant St
Silver Spring 301 589-9110
Mass Moisan Assoc, 287 Mt Hope St
Lowell 617 452-5003
Mich Geo R Peters Assoc, 3347 Coolidge Hwy
Berkley 313 564-6325
Minn Chas F VanderVoort, 1279 Osage St
St Paul 612 489-5222
Mo Williams Equip Co Inc, 453 N Lindberg
St Louis 314 997-1030
NJ Science Supply Corp, 207 Hackensack St
Wood-Ridge 201 438-2780
NY Science Supply Corp, 420 Northern Blvd
Great Neck 516 487-1173
NY Reed Elctns, 2815 Monroe Ave
Rochester 716 473-2767
NC WinCo Sales Assoc, 5322 Fayetteville Rd
Raleigh 919 772-1326
Ohio Jay Industrial Sales Co, 262 Meadowood La
Chagrin Falls 216 831-9393
Ohio Walt Overman Co, 3537 Epley Rd
Cincinnati 513 521-0888
Pa J H Baker & Son, 1811 Callowhill Ave
Philadelphia 215 563-4621
Tex Productive-Equip Assoc, Box 880
Bellaire 713 668-2533
Tex Productive-Equip Assoc, Box 64887, Dallas
Tex Productive-Equip Assoc, Box 1105, El Paso
Can E W Playford Co, 5851 Upper Lachine Rd
Montreal Que 514 489-5383
Can E W Playford Co, Box 894
Lennoxville Quebec 819 569-7936
Can E W Playford Co Ltd, 1344 Bank St
Ottawa Ont 613 733-7384

FROST ENGINEERING DEVELOPMENT CORP
3900 S KALAMATH, ENGLEWOOD
COLO, 80110 .... 303 761-1010
R FROST, EMP 36, ENG 6, $250-$500M

FRY PLASTICS INTERNATIONAL INC, 914 S HOOVER
LOS ANGELES, CAL, 90006 .... 213 PL 3-2641
W FRY, EMP 20, ENG 0, $500-$1,000M

FUGLE-MILLER LABS INC, 130 MARKET ST
KENILWORTH, N J, 07033 .... 201 241-4411
S DOBRACKI, EMP 48, ENG 3, $250-$500M

FUJI ELECTRIC CO LTD
1-1, MARUNOUCHI, CHIYODA-KU, TOKYO
JAPAN 211-7111
S MIYASAKI, EMP 18600, ENG 3200, OVER $10,000M
Ger Fuji Denki Verbindungsstelle, Sieboldstr 5
852 Erlangen .... ERL 811

FUJI ELECTROCHEMICAL CO LTD
5-36 SHINBASHI MINATOKU, TOKYO
JAPAN 434-1271
H SUZUKI, EMP 2150, ENG 350, OVER $10,000M
NY Fuji Electrochemical Co Ltd, 437 5th Ave
New York .... 212 LE 2-5630
Ger Fuji Electrochemical, Hamburg 36
Neur Wall 34 36-32-86

FUJI PHOTO FILM CO LTD
3, GINZA NISHI 2-CHOME, CHUO-KU, TOKYO
JAPAN 567-9111
T KANOH, EMP 10,000, ENG 1,000, OVER $10,000M
NY Fuji Photo Film U S A Inc, 350 Fifth Ave
New York .... 212 PE 6-1800

FUJITSU LTD, MARUNOUCHI, TOKYO
JAPAN 216-3211
Y KITAGO, EMP 14500, ENG 4000, $250-$500M
GB Walmore Electronics Ltd, 11 Betterton St
London WC2 .... TEM 0201-5
Swed Scapro AB, Kungsbroplan 2, Stockholm K ... 530436

FULLER CO, H B, 1150 EUSTIS ST, ST PAUL
MINN, 55108, TWX 029-7005 .... 612 645-3401
T ANDERSEN, EMP 700, ENG 2, OVER $10,000M
Cal H B Fuller Co, 16421 Phoebe Ave
La Mirada 714 523-0500
Cal H B Fuller Co, 57 S Linden Ave
San Francisco 415 761-1763
Colo H B Fuller Co, 8 S Franklin Cir
Littleton 303 761-0132
Fla H B Fuller Co, 107 N 20th St
Tampa 813 248-5814
Ga H B Fuller Co, 655 Mead St SE
Atlanta 404 622-3502
Ill H B Fuller Co, 904 W Blackhawk St
Chicago 312 642-6300
Ill H B Fuller Co, 315 S Hicks Rd
Palatine 312 358-9500
Kan H B Fuller Co, 200 Funston Rd
Kansas City 913 342-3615
Ky H B Fuller Co, 649 W Hill St
Louisville 502 637-5441
Mass H B Fuller Co, 23 Summer Ave
Waltham 617 899-5010
Mich H B Fuller Co, 12800 Mt Elliott
Detroit 313 891-4418
Minn H B Fuller Co, 2267 Como Ave
St Paul 612 645-3401
NJ H B Fuller Co, 383 Kings Hwy
Cherry Hill 609 667-4535
NJ H B Fuller Co, 59 Brunswick Ave
Edison 201 287-2922
NY H B Fuller Co, 155 Isabelle St
Buffalo 716 875-6366
NC H B Fuller Co, 2204 Sullivan St
Greensboro 919 272-1178
Ohio H B Fuller Co, 4020 Cherry St
Cincinnati 513 681-5420
Ohio H B Fuller Co, 4819 Industrial Ct
Saint Bernard 513 281-2855
Ore H B Fuller Co, 9903 N Hurst St
Portland 503 285-6643
Tenn H B Fuller Co, 802 Royal Ave
Memphis 901 526-1221
Tex H B Fuller Co, 2217 Laws St
Dallas 214 742-3627
Tex H B Fuller Co, 803 York St
Houston 713 228-7739
Can H B Fuller Co Can Ltd, 250 Midwest Rd
Scarborough Ont 416 755-7725
Can H B Fuller Co Can Ltd, 1400 Sargent Ave
Winnipeg Man 204 783-4942
For Fuller Adhesives Intl, 10731 NW 7th Ave
Miami Fla 305 758-4768
For Adhesives (Malaysia) Ltd, Box 401
Kuala Lumpur Selangor Mal
For Kativo Chem Ind Ltd, Box 4178
San Jose C R 215044
For Mercadeo Ind S A, Apartado Postal 2457
Managua Nic 51-51
For Adhesivos Ind S A, Casilla 681, Lima Peru
For Fuller Adhesives Overseas Inc
Bayamon P R 785-5973
Arg Fuller Argentina S A, Venezuela 1578
Buenos Aires 37-7971
Aust Davis-Fuller Adhesives Pty Ltd, 28 Spring St
Botany 666-9211

FULLMER ELECTRONICS INC, 18125 NAPA ST
NORTHRIDGE, CAL, 91324 .... 213 886-1300
P ALDEN, EMP 29, ENG 2, $250-$500M
Ariz C J Dorr, 132 S Stetson, Scottsdale 946-6213
Fla Tech Rep Assoc, Box 8218
Madiera Bch 391-0008
Ill Audio Sound Sales Co, 2919 1/2 Armitage Ave
Chicago 342-1600
Mass R Perron & Co, 1870 Centre St
Boston 617 323-1008
Mo Wood & Anderson, 7477 Clayton Rd
St Louis .... VO 3-6678
Tex J Mitchell & Assoc, Box 34031, Dallas ... 352-4748
Utah Paratech, 9210 28th NW, Seattle ...... SU 4-6447

FULTON SYLPHON DIV ROBERTSHAW CONTROLS CO
BOX 400, KNOXVILLE, TENN, 37901 .... 615 546-0550
G OGDIN JR, EMP 1500, ENG 50, OVER $10,000M
Ala Hudson-Gaines Assoc Inc, 1822 28th Ave S
Birmingham 871-1151
Ariz W E Sanderson & Assoc, 5095 N 12th St
Phoenix 277-0077
Cal Fulton Sylphon Div, 1601 S Manchester Blvd
Anaheim 774-8410
Cal Fulton Sylphon Div, 967 Howard St
San Francisco 392-6947
Colo Peterson Co, 4949 Colorado Blvd
Denver 388-6322
Conn Pond Technical Sales Inc, 3013 Dixwell Ave
Hamden 288-6278
Fla Fulton Sylphon Div, 2437 Edgewater Dr
Orlando 424-5664
Ga Fulton Sylphon Div, 1066 Northside Dr N
Atlanta 873-6906
Haw Honolulu Iron Works Co, 570 Auahi
Honolulu 512-011
Ill Fulton Sylphon Div, 7350 N Ridgeway Ave
Skokie 677-8510
Ill Fulton Sylphon Div, 190 Gordon St
Elk Grove Village 437-6060
Ind Electro Eng & Sales Inc, 6909 E 32nd St
Indianapolis 547-5273
Iowa James H Laas Co, 1536 State St
Bettendorf 355-6133
Ky Control Products Co, 1738 Berry Blvd
Louisville 367-6421
La Turner & Co, 311 W Wm David Pkwy
Metairie 834-3848
Md Fulton Sylphon Div, 1933 Green Spring Dr
Timonium 252-4200
Md Fulton Sylphon Div, 2150 Industrial Pkwy
Silver Spring 622-4900
Mass Fulton Sylphon Div, 480 Neponset St
Canton 828-5155
Mich Fulton Sylphon Div, 13333 Puritan Ave
Detroit 272-5000
Mich Fulton Sylphon Div, 4815 W 77th
Minneapolis 920-6177
Mo Kirk Campbell Co, 4020 Main St
Kansas City .... LO 1-0845
Mo Fulton Sylphon Div, 11645 Adie Rd
Maryland Heights .... HE 2-1260
Mont Industrial Systems, 110 Fifth St
Billings 252-9151
NJ Fulton Sylphon Div, 41 E Crescent Blvd
Camden 858-4600
NY Fulton Sylphon Div, Kinderhook 684-2356
NY Fulton Sylphon Div, 797 Military Rd
Buffalo 873-1515
NY Fulton Sylphon Div, 96-35 43rd Ave
Corona 899-4550
NC Fulton Sylphon Div, 1115 commercial Ave
Charlotte 376-7495
Ohio Fulton Sylphon Div, 4866 Cooper Rd
Cincinnati 891-6072
Ohio Fulton Sylphon Div, 1911 Lee Rd
Cleveland Heights 932-6242
Okla Delcon Inc, 1314 S Peoria, Tulsa .... RI 3-6656
Pa Fulton Sylphon Div, 485 Mansfield Ave
Pittsburgh 922-5587
Tenn Fulton Sylphon Div, 5916 Brainerd Rd
Chattanooga .... OX 8-8522
Tenn Fulton Sylphon Div, 4745 Poplar Ave
Memphis 682-5679
Tex Fulton Sylphon Div, 8130 Westglen Dr
Houston .... SU 2-7171
Tex Fulton Sylphon Div, 7196 Envoy Ct
Dallas .... ME 1-0750
Tex Barnco Co, 1507 W Second St, Odessa ... 332-0294
Utah Midgley-Huber Co, 44 W 8th St
Salt Lake City 322-2537
Va Fulton Sylphon Div, 2514 Waco St
Richmond 288-3126
Wash Fulton Sylphon Div, 3820 Stone Way N
Seattle 632-3454
Wis Fulton Sylphon Div, 5626 N 91st St
Milwaukee 464-6446

FURANE PLASTICS INC, 5121 SAN FERNANDO RD W
LOS ANGELES
CAL, 90039, TWX 240-2144 .... 213 245-1151
A COOPER, EMP 200, ENG 30, $2,500-$5,000M
Ariz Martin S Schlegel, 1212 E Gardenia Dr
Phoenix 944-7629
Cal Hecht, Henschen & Assoc, Inc, 3825 N 39th Ave
Phoenix 272-6677
Cal Wm L Wilkinson, Box 6336, San Diego ... 223-3260
Cal K R Anderson Co, 211 E S Whisman Rd
Mountain View 961-6007
Conn J F Kerrigan Co, Box 5385, Hamden 288-2200
Conn R S Pattigrew & Co Inc, 10 N Main
West Hartford 233-8533
Fla Repco Sales Co, Box 38-1164, Miami 757-2911
Ga Furane Plastics Inc, 250 E Ponce De Leon Ave
Decatur 373-3301
Ill J J Glenn & Co, 4300 S Tripp Ave
Chicago 847-6400
Ind Furane Plastics Inc, 3938 Mobile Ave
Ft Wayne 484-4141
Kan Furane Plastics Inc, 5764 N Meridan Dr
Wichita 267-2566
Kan Rebel Marketing Co, Box 685, Olathe 782-3298
Mich H Stark & Sons Co, 16147 Meyers Rd
Detroit 863-6200
Minn Xylem Co, 322 S 4th St, Minneapolis 335-5205
Minn E J Vollhaber Co, 1222 Arcade St
St Paul 776-2757
NJ Furane Plastics Inc, 16 Spielman Rd
Fairfield 227-2850
Ohio Midwest Sales Co Inc, 3219 W 117th St
Cleveland 941-2700
SC Paul Hollen Assoc, 17 Vendue Range
Charleston 723-3536
Tex Herbert B Ellefson Co, 201 S Calhoun
Fort Worth 335-9555
Tex J Laster, 916 Johnson St Apartment 142
Arlington 275-6831
Utah Thos J Webster, 564 Ogden Canyon
Ogden 393-5687
Wash Houston Co, 1738 4th Ave S, Seattle 622-0750
Wis J W Copps, Inc, 710 E Silver Spring Dr
Milwaukee 962-1211
Can Toolmaster, Box 249, Clarkson 278-7497
Fr Sonal, 68 rue Nollet, Paris 17
Belg Ets Jive SPRL, 77 Ave Sainte Anne, Strombeek

FURNAS ELECTRIC CO, 1000 MCKEE ST, BATAVIA
ILL, 60510 .... 312 879-3410
F BIHLER, EMP 1015, ENG 14, OVER $10,000M
Ariz Electric Locator & Sales, 1323 W Tuckey La
Phoenix 602 265-9136
Cal Campbell & George Co, 840 Mahler Rd
Burlingame 415 697-2965
Cal Campbell & George Co, 1331 T St
Sacramento 916 442-4631
Cal Calhoun & Poxon Co, 5429 Alhambra Ave
Los Angeles .... 213 CA 5-2328
Colo Wright-Williams & Assoc, Inc, 1170 W Custer Pla
Denver 303 744-3497
Fla J Carl Turner Assoc, 411 W 28th St
Hialeah 305 888-1761
Ga Austin Brown Assoc, 1771 Tully Cir, NE
Atlanta 404 636-8446
Ill R E Baur & Assoc, 5778 N Lincoln Ave
Chicago .... 312 LO 1-0940
Ind Neal Eng Co, 3720 N College Ave
Indianapolis .... 317 WA 5-2364
Iowa R L Wildauer Co, 1630 State St
Bettendorf 319 355-3121
Kan R E Gooley, 8101 Granada
Prairie Village .... 913 NI 2-3233
La Allied Engineers, 440 N Foster Dr
Baton Rouge 504 926-8188
Mass Electrical Components Inc, 8 Grove St
Wellesley 617 235-4053
Mich Wm C Fay, 1204 N Woodward
Royal Oak 313 543-9440
Mich John M Perry Co, 2339 Oakwood Dr SE
E Grand Rapids 616 949-0271
Minn Harold Mercer Co, 4820 W 77th St
Minneapolis 612 927-7347
Mo Kattelmann & Co, 9715 Page Blvd
St Louis 314 427-5513
Neb Orlin I Wahl, 9730 Florence Hgts Blvd
Omaha 402 451-4276
NM Electric Locator & Sales Co, Box 425
Albuquerque 505 842-8195
NY Furnas Electric, 96 Haarlem Ave
White Plains .... 914 WH 8-7220
NY A F Zissler, 3700 East Ave
Rochester .... 716 LU 6-6226
NY H H Cardozo, 4548 Main St
Buffalo .... 716 TF 9-2243
NY R H Nichols, 1719 Teall Ave
Syracuse 315 437-2813
NC R W Chapman & Co, Box 4430
Charlotte 704 375-4495
Ohio Jos H Fallon, 5945 Ridge Ave
Cincinnati .... 513 RE 1-7286
Ohio Matthew M Haley Co, 6364 Pearl Rd
Cleveland 216 884-8460
Ohio W W Parsons, 2077 Embury Park Rd
Dayton 513 277-2862
Ohio Robert R Smith, 114 College St
Wadsworth 216 334-2518
Okla Industrial Sales & Eng Co, 5127 S Lewis
Tulsa .... 918 RI 3-3610
Ore Donal Co, Box 19013, Portland ..... 503 CH 6-3131
Pa Foster McClinton Inc, 1675 Washington Rd
Pittsburgh 412 561-4803
Pa W L Anderson Co, 5302 Wolf Rd
Erie .... 814 TE 3-1027
Pa H B Stallings & Assoc, 422 Manchester Ave
Media 215 566-4100
Tenn Ransom Sales Co, Inc, 100 N Main Bldg
Memphis 901 527-3194
Tex Titan Reps Inc, 6434 Maple Bldg
Dallas .... 214 FL 7-8266
Tex Gettys-EADS-Adair Inc, 8020 Westglen Dr
Houston .... 713 SU 1-3000
Tex Simmons Co, Rt 3 Box 163H
San Antonio 512 655-3251
Utah Electrical Sales Co, 1719 S Main St
Salt Lake City 801 486-1367
Va Marchant Electrical Sales Co, Box 9534
Richmond 703 266-4220
Wash Muth Richards Co, 1804 Bush Pl S
Seattle .... 206 EA 3-2127
Wash Electro Power Corp, Box 2983
Spokane 509 535-2931
W Va W J Hess & Son, 3145 Washington St W
Charleston .... 304 RI 4-1821

Wis H Mercer Co, Box 222, Brookfield Milwaukee ... 414 SU 6-6431
Wis Harold Mercer Co, Box 581 Appleton ... 414 739-6223
Can Canmark Services Ltd, 193 Bartley Dr Toronto ... 416 757-3213
For J D Marshall Intl Inc, 170 W Washington St Chicago, Ill ... 312 726-8746

FUSE INDICATOR CORP, 5900 FISHER LA, ROCKVILLE MD, 20850 ... 301 427-7014
R BAKER, EMP 40, ENG 2, $250-$500M
Ariz E V Roberts Assoc Inc, 412 N Marshal Way Scottsdale ... 947-7695
Cal E V Roberts Assoc Inc, 9601 W Jefferson Blvd Culver City ... 870-9561
Cal E V Roberts Assoc Inc, 800 San Antonio Rd Palo Alto ... 324-1671
Colo Harry P Daigle Co, 2785 N Speer Blvd Denver ... 433-0226
Conn E R Vizard Co, 5900 Main St, Trumbull ... 268-5619
Fla Buchanan & Abrams Assoc Inc, Box 6026 Orlando ... 423-8995
Haw Electronic Products Assoc, 156 Mokauea St Honolulu
Ill ESCOR Assoc Inc, 6582 Northwest Hwy Chicago ... 763-1570
Minn George A Kelly, Box 222, Wayzata ... 473-7602
Mo Harris-Hanson Co, 2814 S Brentwood Blvd St Louis ... 647-4350
Mo Harris-Hanson Co, 7916 Paseo St Kansas City ... 444-9494
NY Greer Technical Sales Co, 1123 Douglas Pl Seaford ... 785-6919
NY T Ferguson Sales Co, Box 3893 Rochester ... 482-7757
NY Wulfetange-Ferguson Co, Box 126 DeWitt ... 446-3330
NC W A Brown Assoc Inc, 440 West End Blvd Winston-Salem ... 725-5384
Ohio John O Olsen Co, 5539 Stokeswood Ct Cincinnati ... 922-2176
Ohio John O Olsen Co, 16201 Shaker Blvd Cleveland ... 752-5444
Pa Naudain Assoc, 1032 Sub Sta Bldg Philadelphia ... 564-3194
Pa John O Olsen Co, 104 Elatan Dr Pittsburgh ... 279-2550
Tex Techno Assoc, Box 20544, Dallas ... 357-9213
Va W A Brown Assoc, 325 First St Alexandria ... 836-1800
Va W A Brown Assoc, 82 Huxley Pl Newport News ... 245-8272
Can Atkinson & Vail, Ltd, 5 Allenbury Gdns Willowdale, Ont ... 225-7494
Can Atkinson & Vail, Ltd, 13189 Shelborne Pierrefonds, Que ... 626-6156
BC Bowtek Electric Co, 444 Dunsmuir St, Vancouver

FUSITE CORP, 6000 FERNVIEW AVE, CINCINNATI OHIO, 45212 ... 513 731-2020
R SCHWEIKERT, EMP 475, ENG 15
ADV PG 327, 629
Cal Yarbrough Sales Co, 1608 Orange St Alhambra ... 283-0668
Cal MacPherson Sales Co, Box 2206 San Francisco ... 415 775-0303
Fla Buchanan & Abrams, 1512 E Concord Ave Orlando ... 425-0157
Ga Buchanan & Abrams, Box 11585 Atlanta ... 874-6854
Ill Electro-Comp Sales, 5129 W Devon Ave Chicago ... 763-3636
Iowa Forristal-Young Sales, 1917 B Ave NE Cedar Rapids ... 366-0635
Kan Forristal-Young Sales, 5500 Buena Vista Mission ... 913 432-1420
Mass Al Foley, 927 Temple St, Whitman ... 617 588-0488
Mo Forristal-Young Sales, 7110 Oakland Ave St Louis ... 645-2360
NJ F F Sylvester Assoc, Box 207 Springfield ... 376-3324
NY M P Andrews, 319 Mott St, Fayetteville ... 637-6405
Ohio J U Hudnall Co, 211 E 4th St Cincinnati ... 381-5156
Pa Jadelectronic Assoc, Box 5735 Philadelphia ... 455-3355
Tex J B Guenther, 4533 N Central Expwy Dallas ... 528-6286
Wash R R Slater, 915 Terminal Sales Bldg Seattle ... 622-3860
Can Anbak Sales Canada Ltd, 3208 Lenworth Dr Cooksville Ont ... 416 625-1061
For Terminal Prods Inc, State Rd 2-KM 193 4 Hormingueros, PR
Ger Fuiste GmbH, Dieselstrasse 5, Karlsruh-Durlach
Holl Fusite NV, Konigweg - 16, Almelo
Jap Fusite Japan Ltd, Fukasawa, Gotbemba-shi Shizuoka-ken

FUTURECRAFT CORP, 15430 PROCTOR AVE CITY OF INDUSTRY CAL, 91747, TWX 910-584-1330 ... 213 330-1611
W JONES, EMP 112, ENG 6, $1,000-$2,500M
Ala Branner Assoc, 3313 Memorial Pkwy Huntsville ... 205 881-2066
Cal Harris Engineering Assoc, Box 1154 Palto Alto ... 415 328-3370
Colo Larry R Barland Co, 2701 Alcott St Denver ... 303 433-8597
DC Jos C Soraghan & Assoc, Dodge House Washington ... 202 783-3613
Fla System Components Corp, 507 Catalina Rd Cocoa Beach ... 783-1002
La Rino Equip Co, Box 121, Arabi ... 504 943-5226
Miss Rino Equip Co, Rt 1 Box 97 Carriere ... 601 798-5752
NJ H W Johnson, 332 Springfield Ave Summit ... 273-2434
Ohio Scarp Engineering, 12 Covertside Dr Dayton ... 513 433-1303
Okla Fluid Components, 1038 N Sheridan Rd Tulsa ... 835-8491
Pa Brajdich Co, 1402 Lincoln Hwy E Irwin ... 412 864-1170
Pa Brajdich Co, Box 223, Sharon ... 412 271-3118
Tex Complete Technical Rep, 117 Melbourn Rd Hurst ... 817 284-9521
Va Jos C Soraghan & Assoc, 4906 Fitzhugh Ave Richmond ... 358-4411
Wash Willis Sales Co, 2805 124th Pl, NE Bellevue ... 454-3029
Swed Nordiska Fluidik AB, Fack 261, Nacka 2, Stockholm

GABRIEL ELECTRONICS DIV MAREMONT CORP NORTH ST, SACO MAINE, 04072, TWX 710-229-1556 ... 207 282-1526
L LAMPERTI JR, EMP 180, ENG 18, $2,500-$5,000M
Colo Gabriel Sales Office, 231 Detroit St Denver ... 303 333-2075
Colo Trans Sales Intl, 216 Clayton St Denver ... 303 333-6563
Fla Elmore Elctns, 5310 Diplomat Cir Orlando ... 305 647-1900
Tex Trans Sales Intl, 5622 Dyer St Dallas ... 214 361-4753

GAERTNER SCIENTIFIC CORP 1239A WRIGHTWOOD AVE, CHICAGO ILL, 60614 ... 312 281-5335
L HIGGINS, EMP 157, ENG 19, $100-$250M

GAF CORP, 140 W 51ST ST, NEW YORK NY, 10020, TWX 212-420-5088 ... 212-582-7600
EMP 19,000, OVER $10,000M
Cal Gen Anil & Film Corp, 2004 State St San Diego ... 239-4185
Colo Gen Anil & Film Corp, 135 S Kkalamath St Denver ... PE 3-7286
DC Gen Anil & Film Corp, 4601 Lydell Rd Cheverly, Md ... 322-3130
Fla Gen Anil & Film Corp, 7151 Lake Ellenor Dr Orlando ... 855-1220
Ga Gen Anil & Film Corp, 1219 William St N W Atlanta ... TR 6-0351
Ill Gen Anil & Film Corp, 4255 W Touhy Ave Chicago ... 583-2100
Ill Gen Anil & Film Corp, 1950 N Hawthorne Ave Melrose Park ... 681-3880
Ind Gen Anil & Film Corp, 2269 Distributors Dr Indianapolis ... 241-2877
Mass Gen Anil & Film Corp, 240 University Ave Westwood ... 329-1550
Mich Gen Anil & Film Corp, 12790 Westwood Ave Detroit ... BR 3-8410
Mo Gen Anil & Film Corp, 5429 Chippewa St St Louis ... HU 1-4115
NJ Gen Anil & Film Corp, 15 Market St Paterson ... MU 4-6787
NY Gen Anil & Film Corp, Binghamtom ... RA 9-6555
NY Gen Anil & Film Corp, Johnson City ... RA 9-6555
NY Gen Anil & Film Corp, 2366 James St Syracuse ... HO 3-0285
NC Gen Anil & Film Corp, 2459 Wilkinson Blvd Charlotte ... ED 3-4121
Ohio Gen Anil & Film Corp, 2524 Spring Grove Ave Cincinnati ... CH 1-5110
Ore Gen Anil & Film Corp, 3322 N W 35th Ave Portland ... CA 8-3365
Pa Gen Anil & Film Corp, 1800 E Lancaster Ave Paoli ... NI 4-5110
Pa Gen Anil & Film Corp, 550 Seco Rd Monroeville ... 372-1960
Tenn Gen Anil & Film Corp, 4301 Rossville Blvd Chattanooga ... 629-3281
Tex Gen Anil & Film Corp, 2924 Ave E East Arlington ... 275-4411
Wash Gen Anil & Film Corp, 616 8th Ave S Seattle ... MU 2-0991
Wis Gen Anil & Film Corp, 4821 N 32nd St Milwaukee ... HI 2-4640
Can Chemical Develop Can Ltd 420 Lagauchetiere St W Montreal Que ... 874-5400
Can General Anil & Film Canada Ltd, 2403 Stanfield Rd Cooksville Ont ... 277-0381
Can Hughes Owens Co Ltd, 1440 McGill College Ave Montreal Que ... UN 6-3676

GAGNE ASSOCIATES INC, 50 WALL ST, BINGHAMTON N Y, 13901 ... 607 723-9556
A GAGNE, EMP 33, ENG 5, $250-$500M
ADV PG [illegible]

GAI-TRONICS CORP, 525 LANCASTER AVE, READING PA, 19603 ... 215 376-2848
H CAMPBELL, EMP 50, ENG 4, $1,000-$2,500M
Cal Ingalls Assoc, 424 40th St, Oakland ... 658-5622
Colo Cliff Beabout Co, 666 Sherman St Denver ... 244-3151
Ohio E H Wills, Box 292, Dover ... 216 343-0122

GALAXY ELECTRONICS INC, 10 S 34TH ST COUNCIL BLUFFS IOWA, 51501, TWX WRLI ... 712 328-2553
J HUNT, EMP 100, ENG 4

Cal Olympic General Corp, 11240 Olympic Blvd Los Angeles ... BR 2-1440
Cal E C Boring, 46 Traynor St, Hayward ... 582-7179
Colo AES Co, 1559 Chester St, Aurora ... 366-0208
Fla Murphy & Cota, 712 W Vasser St Orlando ... 424-2167
Ga Murphy & Cota, 586 Armour Cir NE Atlanta ... 857-2525
Kan C H Schryver, 5460 Buena Vista Mission ... 722-2441
NY Marty Bettan Sales, 77-15 164th St Flushing ... OL 7-6659
Ohio F Ohman, 2590 Post Rd, Twinsburg ... 425-7445
Tex I Harrison, 13821 Hillcrest Rd, Dallas ... AD 1-5430
Va L H Arnold Co, Drawer 9545, Gwynn ... 725-3255
For Minthorne Intl Co, 64-14 Woodside Ave Woodside, N Y ... 899-1888
BC Filsonic Assoc Ltd, 1063 Howe St Vancouver ... MU 3-0441

GAMBLE INDUSTRIES, CHARLES T FAIRVIEW & NEW JERSEY AVES, RIVERSIDE N J, 08075 ... 609 HO 1-1900
E MCCABE, EMP 120, ENG 1, $250-$500M
Conn Hathaway Electronics, Ducillo Bldg Canaan ... 824-7215
Ill Lou Bacher Assoc, 9690 W Allen Ave Rosemont ... 625-2742
Iowa Reid Assoc, 526 MNB Bldg Cedar Rapids ... 362-6302
NJ W Jones, 32 Glen Ave E, Harrington
NY O F Masin Inc, 140 Boston Post Rd Larchmont ... 914 834-7500
NY J F McElligott, 15 Fruitledge Rd, Glenhead
NY J P Nunsicker, 35 Oak Hill Rd, Chappaqua
Tex John B Guenther, Inc, 4533 N Central Expwy Dallas ... 214 528-6286
Tex John B Guenther Inc, Box 55525 Houston ... 713 468-0232
Va Potomac Elctns Inc, Box 36 Alexandria ... 703 836-1630
Fr Cerel, 6 Impasse Lemiere, Paris (19)

GAMCO INDUSTRIES DATAMATE DIV, BOX 310 BIG SPRING, TEXAS, 79720 ... 915 267-8766
D CUTSFORTH, EMP 80, ENG 4, $1,000-$2,500M

GAMMA SCIENTIFIC INC, 2165 KURTZ ST, SAN DIEGO CAL, 92110 ... 714 291-2230
H FIELD, EMP 45, ENG 6, $500-$1,000M
Cal Griot Assoc, 3002 Midvale Ave Los Angeles ... 474-1587
Cal Griot Assoc, 560 San Antonio Rd Palo Alto ... 327-3996
Conn Northeast Assoc, 516 Pepper Ridge Rd Stamford ... 329-0012
Conn Hoffman Engineering Corp, Box 300 Old Greenwich ... 637-1719
Ill Brooks Engineering Co, 227 E Walton Pl Chicago ... 944-1227
Md Spectro Systems Inc, 7324 Westmore Rd Rockville ... 762-1133
Mass Northeast Assoc, Box 31, Marblehead ... 631-3688
NJ E C Smith & Assoc, 797 Springfield Ave Summit ... 273-8881
NY E C Smith & Assoc, 60 E 42nd St New York ... 682-6890
NY E C Smith & Assoc, 941 Granite Bldg Rochester ... 546-5090

GAMMATRONIX INC, 66 S HIGH ST, DUBLIN OHIO, 43017 ... 614 889-1021
N MILLIGAN, EMP 12, ENG 4, $100-$250M

GAM RAD INC, 16825 WYOMING AVE, DETROIT MICH, 48221 ... 313 864-6006
G SMITH, EMP 15, ENG 3, $100-$250M

GAP INSTRUMENT CORP, 17 BROOKLYN AVE WESTBURY, N Y, 11590 ... 516 333-8020
W SOBOLESKI, EMP 65, ENG 8, $2,500-$5,000M
Cal King-Way & Assoc, 11168 Santa Monica Blvd Los Angeles ... 473-8000
Conn A-1 Technical Assoc, 190 Brook La Cheshire ... 272-6778
Ga Holcombe Sales Agency, Inc 3098 Piedmont Rd NE, Atlanta ... 233-2837
Mo Aerotronics, Box 6236 Lambert St St Louis ... 314 426-4060
NY M R I, 55 Central Ave, Farmingdale ... 293-9696
NY Creek Corp, Box 44, Roslyn ... Ma 1-7410
NY Russell Assoc, 6789 Main St Buffalo ... 716 634-3377
NY HAF Spectrum Assoc, 35 Broadfield Rd New Rochelle ... 914 632-3800
Tex Servo Elctns Products, Box 20371 Dallas ... 214 ME 7-3440

GARDINER ELECTRONICS, 4729 N 7TH AVE, PHOENIX ARIZ, 85013 ... 602 274-9681
R GARDINER

GARDINER SOLDER CO, 4820 S CAMBELL AVE CHICAGO, ILL, 60632 ... 312 847-0100
J MAINS, EMP 60, ENG 6, $2,500-$5,000M
Cal Bunker Hill Co, Los Angeles
Cal Shephard-Stern, 4109 W Burbank Burbank ... 213 849-6671
Cal Nova-Tronics, 1659 Scott Santa Clara ... 408 243-9530

Colo Walter-Powers, 880 Bonnie Brea Denver ... 303 777-5585
Fla Ludlum Co, Box 1337, Miami ... 885-3611
Ind Leslie DeVoe Co, 4010 Washington Indianapolis ... AT 3-1395
Kan Burke Sales, 7301 Mission Rd Prairie Village ... EN 2-4833
Mass C Ellingwood, 38 Piquot Rd Wayland ... 617 265-6400
Minn D A Schultz Co, Minn ... 612 339-7701
NY R E Brewer Co, 1 Barstow Rd Great Neck ... 516 466-3030
NY R Fish Co, 149 Roosevelt Rd Utica ... 315 732-1008
NC Electro Rep Co, 128 W 30th, Charlotte ... 333-0451
Ohio A&H Baier, Industrial Pkwy Willoughby ... 216 946-6080
Pa A Wetterhahn, 4420 Crescent Pennsauken ... 662-1611
Wash M K Widdekind, 815 W Ewing Seattle ... 206 258-5371
For Southern Intl Sales, GPO 1896 San Juan PR ... 723-3879
For Manred, Box 68, N Miami Beach Fla

GARDNER CRYOGENICS CORP, 2136 CITY LINE RD
BETHLEHEM, PA, 18017 ... 215 264-4523
F PTYRYGA, EMP 110, ENG 22, $2,500-$5,000M
Cal Gardner Cryogenics Corp, 6505 San Fernando Rd Glendale ... 246-7306
Mass Mechanical Mktg Engrs, 20 Congress Ave Chelsea ... 889-2279
Mass Gardner Cryogenics Corp, 193 Rumford Ave, Newton
NJ Gardner Cryogenics Corp, 140 William St Hightstown ... 448-3373
Belg Gardner Cryogenics Corp Eur SA-N V 20 Chaussee d'Houtem Vilvorde Brussels ... 514119

GARDNER-DENVER CO, GARDNER EXPWY PLANT
QUINCY, ILL, 62301 ... 217 222-5400
C RIEMAN, OVER $10,000M
Ala Gardner-Denver Co, 817 Green Springs Hwy Birmingham ... 871-3543
Cal Gardner-Denver Do, 5345 Overland Ave San Diego ... BR 8-6000
Cal Gardner-Denver Co, 2555 Pellissier Pl Whittier ... 723-8711
Cal Gardner-Denver Co, 144 W Harris Ave San Fran ... 589-3305
Colo Gardner-Denver Co, 1727 E 39th Ave Denver ... 222-9393
Colo Gardner-Denver Co, 2909 North Ave Grand Junction ... 242-4157
Conn Gardner-Denver Co, 81 Old Windsor Rd Bloomfield ... 243-0311
DC Gardner-Denver Co, 6200 Chillum Pl NW Washington ... RA 3-6366
Ga Gardner-Denver Co, 1545 Mountain Indl Blvd Atlanta ... 938-6633
Idah Gardner-Denver Co, 408 7th St Wallace ... SK 2-6291
Ill Gardner-Denver Co, 2535 S 25th Ave Broadview ... MU 1-2210
Ind Gardner-Denver Co, 2228 Shelby St Indianapolis ... 634-2167
Kan Gardner-Denver Co, 9101 Bond St Overland Park ... 888-1040
Ky Gardner-Denver Co, 4050 Westport Rd Louisville ... 363-2679
La Gardner-Denver Co, 1100 Destrehan Ave Harvey ... 347-1451
La Gardner-Denver Co, 200 Vanway Lafayette ... CE 2-3190
La Gardner-Denver Co, 1025 Joseph St Shreveport ... 424-4446
Mass Gardner-Denver Co, 65 Crawford St Needham Heights ... 444-6616
Mich Gardner-Denver Co, 12700 Capitol Ave Oak Park ... JO 6-7150
Minn Gardner-Denver Co, 1701 W 80th St Minneapolis ... 888-4647
Minn Gardner-Denver Co, 521 E Superior St Duluth ... 727-7453
Mo Gardner-Denver Co, 6011 N Lindbergh Blvd Hazelwood ... PE 1-2220
Mont Gardner-Denver Co, 215 E Park St Butte ... 792-0449
NJ Gardner-Denver Co, 700 Huyler St Teterboro ... AT 8-9151
NY Gardner-Denver Co, 4532 Bailey Ave Buffalo ... TF 6-8300
Ohio Gardner-Denver Co, 12145 Centron Pl Springdale ... 771-7311
Ohio Gardner-Denver Co, 5400 Warner Rd Cleveland ... 524-1856
Okla Gardner-Denver Co, 2200 S Prospect Ave Okla City ... OR 7-5737
Okla Gardner-Denver Co, 6746 E 11th St Tulsa ... TE 5-1531
Pa Gardner-Denver Co, 406 Caredean Dr Horsham ... Os 2-3006
Pa Gardner-Denver Co, Parkway W, Oakdale Exit Pittsburgh ... 923-1511
Tenn Gardner-Denver Co, 709 N 5th Ave Knoxville ... 523-6195
Tex Gardner-Denver Co, 4512 Baldwin Blvd Corpus Christi ... Tu 2-6155
Tex Gardner-Denver Co, 4700 Scyene Rd Dallas ... 428-1561
Tex Gardner-Denver Co, 1704 E Paisano Dr El Paso ... 542-1621
Tex Gardner-Denver Co, 3325 S Rice Ave Houston ... MO 6-0771
Tex Gardner-Denver Co, E Hwy 80, Odessa ... LO 3-1350
Utah Gardner-Denver Co, 35 W Louise Ave Salt Lake City ... 466-8610
Wash Gardner-Denver Co, 623 8th Ave S Seattle ... MA 4-1115
Wis Gardner-Denver Co, 5148 N Teutonia Ave Milwaukee ... 462-5290
Wyo Gardner-Denver Co, 502 N Fenway Casper ... 235-5794

GARDNER LAB INC, 5521 LANDY LA, BETHESDA
MD, 20014 ... 301 656-3600
F UNDERHILL, EMP 52, ENG 5, $1,000-$2,500M
Cal Pacific Coast Chemicals, 2990 7th St Berkeley ... TH 8-1831
Ill Sweet Co, 1770 Dixie Hwy, Homewood ... 799-7880
Ky B Tabler, Inc, Box 1254, Louisville ... 634-0596
Mass H W Edminster, 55 Sohier St, Cohasset
Minn M H Baker Co, Inc, 606 Washington Ave, N Minneapolis ... 333-1357
Ohio Grund-Brown Co, 1501 Euclid Ave Cleveland ... 241-7336
Tex Mileti Chemical Co, 2500 Dunstan Houston ... JA 8-0634
Can Caledonia Chemicals Ltd, 785 Plymouth Ave Montreal, Que ... 342-9100
Can Caledonia Chemicals Ltd, 333 Wilson Ave Downsview ... 636-2571
BC Caledonia Chemicals Ltd, 375 Terminal Ave Vancouver ... MU 5-0231

GAR ENTERPRISES INC, 2029 N LINCOLN AVE, PASADENA
CAL, 91103 ... 213 798-0785
EMP 16, ENG 4, $250-$500M
ADV PE [illegible]

GARNER GLASS CO, 177 S INDIAN HILL RD
CLAREMONT, CAL, 91711 ... 714 NA 6-3526
J HYATT, EMP 75, ENG 3

GARRARD DIV BRITISH INDUSTRIES CORP
SOUTH SERVICE RD, WESTBURY
N Y, 11590 ... 516 ED 4-7450
F HOFFMAN, EMP 75
Cal F W Moulthrop & Assoc, 1530 E 12th St Oakland ... AN 1-7676
Cal Jack Berman Co, 8295 S Lacienega Blvd Inglewood ... 213 678-1281
Colo McLoud & Raymond Co, 2151 S Grape St Denver ... SK 6-1589
Ga Millar-Hutto Assoc Inc, 1036 Peachtree St NE Atlanta ... TR 6-0919
Haw Gene Piety Factors Inc, 160 Mokauea St Honolulu ... 810-185
Ill Geo Petitt Co Inc, 349 N Ashland Ave River Forest ... FO 9-8940
Ind H J Blind & Assoc, 1635 N Gent St Indianapolis ... ME 5-6291
Kan Forristal-Young Sales Co, 5500 Buena Vista Shawnee Mission ... HE 2-1420
Md Charles W Lienau Co, 11411 Amherst Ave Wheaton ... 949-6464
Mass Michael Scott Co Inc, 336 Wash St Wellesly Hills ... CE 5-0102
Mich J Malcolm Flora, Inc, 165 W Liberty Plymouth ... 453-4296
Minn Northern States Sales Co, 1109 W 78-1/2 St Minneapolis ... 866-3468
NY R W Mitscher Co Inc, 496 Ellicott Sq Bldg Buffalo ... TL 4-2517
Pa James H Podolny Co, 5912 Penn Ave Pittsburgh ... HI 1-0800
Tex Jack F McKinney Sales Co, 1303 Chemical St Dallas ... ME 1-9450
Wash Wm R Lanphear Co Inc, 4031 Stoneway Ave N Seattle ... ME 3-4900

GARRETT CORP, 9851 SEPULVEDA BLVD
LOS ANGELES
CAL, 90009, TWX 213 670-4985 ... 213 SP 6-1010
EMP 13500, ENG 2500, $5,000-$10,000M
Ariz AiResearch Mfg Co, 402 S 36th St Phoenix ... 273-3011
Cal Garrett Corp, 2230 Michigan Ave Santa Monica ... 213 451-5711
Cal Garrett Corp, 5555 Mildred St San Diego ... 714 295-4119
Cal Garrett Corp, 2439 Birch St Palo Alto ... 415 321-1820
Cal Garrett Corp, 2701 Cottage Way Sacramento ... 916 481-0123
DC Garrett Corp, 1625 Eye St NW Washington ... 202 393-0873
Ga Garrett Corp, 1190 Hayes Ind Dr Marietta ... 404 422-8210
Ill Garrett Corp, Box 717, Berkeley ... 312 921-7015
Ill Garrett Corp, 200 N E Adams St Peoria ... 309 676-2371
Kan Garrett Corp, Box 18188, Wichita ... 316 682-5518
Mich Garrett Corp, Northland Towers W Southfield ... 313 353-3460
Mo Garrett Corp, 4531 N Lindbergh Bridgeton ... 314 731-0983
NY Garrett Corp, One Dupont St Plainview ... 516 681-8877
Ohio Garrett Corp, 333 W First St Dayton ... 513 224-0728
Ohio Garrett Corp, Box 19738 AMF Columbus ... 614 237-4273
Okla Garrett Corp, 6401 Tinker Diagonal Midwest City ... 405 737-3461
Tex Garrett Corp, 100 N University Dr Fort Worth ... 817 335-4626
Tex Garrett Corp, 1840 NASA Blvd Houston ... 713 591-3750
Tex Garrett Corp, 7801 Broadway San Antonio ... 512 828-0501
Va Garrett Corp, 1120 Mercury Blvd Hampton ... 703 838-0020
Wash Garrett Corp, Box 10, Bellevue ... GL 4-4941
Can Garrett Mfg Ltd, 151 Slater St Ottawa, Ont ... 613 236-0441
Can Garrett Mfg Ltd, 1255 Laird Blvd Montreal, Que ... 738-4708
Can Garrett Mfg Ltd, Toronto Intl Arpt, Adm Bldg Toronto AMF, Ont ... 416 677-2540
Fr Garrett Intl SA, 36 Rue des Plantes Paris ... Segur 32-56
Ger Garrett GMBH, Grosse Gallusstra 15 Frankfurt am Main ... 284773
GB Garrett-AiResearch Ltd, 302-308 High St Slough, Bucks ... 27681
Jap Garrett (Japan) Ltd 1-6, 5 Chome, Roppongi, Minatoku Tokyo ... 401-9713
Swed Garrett Intl S A, Baggensgatan 16 Stockholm ... 21 92 77
Swit Garrett Intl SA, Rue des Pierres-du-Niton 17 Geneva ... 35 73 50

GAS ANALYSIS SYSTEMS INC, BOX 146
BASKING RIDGE, NJ, 07920 ... 201 234-1220
W WILSON, EMP 12, ENG 4, UP TO $100M

GASKET MFG CO INC, 319 W 17TH, LOS ANGELES
CAL, 90015, TWX 901 321-4077 ... 213 RI 9-4063
D CURLEY, EMP 80, ENG 2, $1,000-$2,500M
Ariz Rex Ingram, 1748 E Claremont, Phoenix ... 275-0302
Cal John H Best, 1537 Cherry St San Carlos ... LY 1-4964
Colo A E Werner, 2348 S Broadway, Denver ... 722-5561
Haw Ward Brewster, 941 Koae St, Honolulu
Okla T B Culey Jr, 1118 S Braden Ave Tulsa ... 959-3025
Tex Dynamic Component Sales Inc, Box 31026 Dallas ... 214 363-6191
Tex Jack Gronberg, Box 291, Bellaire ... 713 668-7729
Wash Fred Bear, 431 109th Ave SE, Bellevue ... 454-2749
Jap C Itoh & Co 4-Nihonbashi-Honcho, 2-chome, Chuo-ku, Tokyo

GATES & CO, GEORGE W
HEMPSTEAD TPK & LUCILLE AVE
FRANKLIN SQUARE, N Y, 11010 ... 516 FI 7-0787
T SCHULZ, EMP 8, ENG 2, $500-$1,000M

GATES ELECTRONIC CO INC, 526 VAN NEST AVE
BRONX, N Y, 10460 ... 212 TU 1-5900
I REGENBOGEN, ENG 1

GATES RADIO CO, 123 HAMPSHIRE ST, QUINCY
ILL, 62301 ... 217 222-8202
E EDWARDS, EMP 462, ENG 45, OVER $10,000M
Ala W Moats, Box 20160, Birmingham ... 822-3625
Cal E Wilder, 1945 S Figueroa los Angeles ... RI 7-7129
Cal L Pfister, Box 4825, Arden Br Sacramento ... 916 481-1775
Colo H Dempsy, 8171 Orchard Dr, Denver ... 429-5758
DC Edward Shuey, 1522 K St, N W Washington ... 223-5508
Fla R Spruill, Box 8725, Jacksonville ... 721-2779
Ill C Morgan, 22W235 Burdette Glen Ellyn ... 469-0847
Ill P Timpe, 19 Windy Hill, Quincy ... 223-4701
Iowa Stan Whitman, Box 2397, Sta A Waterloo ... AD 3-0561
Mich C Formark, 31674 Schoenherr Warren ... 313 294-6740
NY T Schoonover, 800 Second Ave New York ... MU 7-7971
NY B Hallenbeck, 11 Ridgecrest, Latham ... 785-9144
Ohio N Arveschoug, Box 414, Granville ... 587-1280
Okla U Whitman, 2719 S Hudson Ave Tulsa ... TE 6-4835
SC E R Lowder, 7209 Stonehaven Dr Columbia ... 803 776-2059
Tex J Woods, 4019 Richmond Ave Houston ... MO 6-4333
Va J Cole, Box 246, Halifax ... 476-6919
Wis R Gorjance, 5333 N 91st St Milwaukee ... 414 461-7931
Can Gates Radio Co of Canada, 212 Brunswick Blvd Pointe-Claire, Que ... 695-3751
For Rocke Intl Corp, 13 E 40th ST New York, N Y ... MU 9-0200

GAUSS ELECTROPHYSICS INC, 1653 TWELFTH ST
SANTA MONICA, CAL, 90404 ... 213 451-9876
W CARA, EMP 30, ENG 8, $500-$1,000M
Cal Audio Video Forum, 2596 Middlefield Rd Mountain View ... 961-1914
Conn NPM Assoc, 522 E Putman Ave Greenwich ... 869-4955
For Worldex Mfg Co Ltd, 1248 S Berendo St Los Angeles, Cal ... 388-966
GB University Recording Ltd, 36, Hertford St London, W 1 ... 01-499, 8157
Jap Warren Birkenhead, Inc 25, 2 Chome, Shiba Hamamatsu cho, Minato Ku Tokyo ... 431-3887

GAVIN INSTRUMENTS INC, 1450 US RT 22
SOMERVILLE
N J, 08876, TWX 710-480-4725 .... 201 356-3500
EMP 200, ENG 12

GAVITT WIRE & CABLE CO DIV AMERACE CORP
CENTRAL ST, BROOKFIELD
MASS, 01506 .... 617 867-6476
A LORENZ, EMP 145, ENG 6
Cal W S Harmon Co, 6118 Venice Blvd Los Angeles .... WE 7-1460
Cal Gavitt Wire & Cable Co, 455 N Quince St Escondido .... SH 5-3181
Cal D H Ross Co, 534 El Camino Real San Carlos .... LY 1-4411
Cal McLoud & Raymond Co, 2151 S Grape St Denver .... SK 6-1589
Fla Jack Geartner Co, 350 Lincoln Rd Miami Beach .... JE 1-0200
Ill Ridley Assoc, 1411A N Harlem Ave Oak Park 383-5650
Ind Gossett & Hill Co, 1326 Indiana Ave Connersville 825-1254
Ind Gossett & Hill Co, 6724 Wilton Crt Indianapolis 317 244-6006
Mass Bahr Sales Co, 91 Woodsley Rd Longmeadow 567-3488
Mich J W Gillette & Co, 2840 Hilton Rd Ferndale .... LI 8-2750
NY G R Baxter Co, Box 550, Babylon 587-8484
NY R W Jackson Co Inc, 4446 Main St Buffalo .... TF 9-0200
NY L Freed & Co, 22 Boston Post Rd Larchmont 834-6510
Ohio R M Nelson Inc, 1 Public Sq Bldg Cleveland .... CH 1-4581
Pa Hilliard Assoc Inc, 766 Old York Rd Jenkintown .... TU 4-6100
Tex J A Green Co, 7118 Envoy Ct, Dallas .... ME 1-7450
Wash J J Backer Co, 221 W Galer St, Seattle 454-1255
Wis Ridley Assoc, Box 370 Williams Bay 414 245-5543
Can Desser Electronics Corp, 2425 Grand Blvd Montreal, Que 514 487-2300

GAYLORD RIVES CO, 422 S PASADENA AVE
PASADENA, CAL, 91105 .... 213 MU 1-3189
K STILES, EMP 30, ENG 5, $500-$1,000M
Cal Alfred Barauck Co, Box 11043, Sta A Palo Alto 327-7711
Cal John H Bender Co, 4467 Mayapan Dr La Mesa 442-6525
Ill Communications Engineers, 7100 N Western Chicago .... RO 1-0548
Mass Wm Beaver Assoc, 41 Indian Ridge Rd S Natick 655-1529
Mo Gordon Fixman Engineering, 8160 Stanford Ave St Louis .... PA 5-2519
NJ A & B Electronics, 14-25 Plaza Rd Fair Lawn 797-5356
NY A & B Electronics, 891 Fulton Valley Stream 825-8955
Tex K O Brown, Box 20845, Dallas 214 357-3996

GCA TECHNOLOGY DIV GCA CORP, BURLINGTON RD
BEDFORD, MASS, 01738 .... 617 275-9000
L SEALE, EMP 143, ENG 70
Ohio Frank Minch, 1132 Donson Dr, Dayton 434-5444
Utah GCA Technology Div, Box 15471 Salt Lake City 487-1073

G C ELECTRONICS DIV, HYDROMETALS INC
400 S WYMAN ST, ROCKFORD
ILL, 61101 .... 815 968-9661
E NARETTA, EMP 450, $5,000-$10,000M
Cal G C Electronics, 3225 Exposition Pl Los Angeles .... AX 3-7201
NY G C Electronics, 140 Miller Pl Hicksville 433-1455

GDO CO INC, 248 BROAD AVE, PALISADES PARK
N J, 07650 .... 201 944-1661
S SPANGLER, EMP 25, ENG 3
Ala Ed Starkey Assoc, 2617 Scenic Dr, Gadsden
Conn R F Snyder Co, 22 Janet La Rockville 203 875-1565
Fla Ed Starkey Assoc, 1514 Bernita St Jacksonville 904 725-1432
Ill Gould Assoc, 1413 Sunnyside Beach Dr McHenry 815 385-4662
Ind Elder Co, Box 294, Michigan City 219 879-7227
La Flanders-Lemley, 604 Morningside Gretna 504 362-3183
Md I & W Assoc, Box 7531, Baltimore 301 744-0747
Mass R F Snyder Co, 11 Putnam St Needham Hts 617 444-2500
Minn Bradford & Assoc, 4721 Dunberry La Minneapolis 612 927-7636
Neb Midwest GDO Inc, 140 S 27th St Lincoln 402 432-0220
NY One Co, 108 S Franklin Ave Valley Stream 516 561-0600
NC Ed Starkey Assoc, 3901 Brookfield Dr Charlotte 704 366-5350
Ohio E Lodge, 2881 Plymouth Rd Cleveland 216 831-8177
Tex Flanders-Lemley, 3131 Stemmons Dallas .... 214 ME 1-2252

GEAR SPECIALTIES INC, 2635 W MEDILL AVE
CHICAGO, ILL, 60647 .... 312 DI 2-3200
W KOZAK, EMP 340, ENG 5, $2,500-$5,000M
Ind Eric Wermcrantz, Box 448, Valparaiso .... HO 2-6044
NY Transmission Equip Co, 1551 Franklin Ave Mineola 741-5070
Ohio Thad J Moore, Box 31, Toledo .... GR 9-7831
Tex Ray Frelk, 318 N Pearl St, Dallas .... RI 1-6051

GEARTRONICS CORP, 124 CHELMSFORD RD
N BILLERICA, MASS, 01862 .... 617 933-1400
F KEAN, EMP 136, ENG 7, $1,000-$2,500M
Ariz Jack Osborn & Assoc, Box 968 Scottsdale 602 945-3884
Cal Rensall Inc, 500-A E Dyer Rd Santa Ana 714 540-4085
Ill Tri-J Engg Assoc, 401 Durley St Greenville 664-0028
Mich J Boyko Eng Co, 13050 Houston-Whittier Ave Detroit 313 371-2840
NY B & B Motor & Control Corp, 96 Spring St New York 212 966-5777
Pa J F Orsi Assoc, Box 346 Bryn Mawr 215 525-6212
Can Percy Hobson, 3425 Montgomery St Montreal, Que 514 527-0201

GELMAN INSTRUMENT CO, 600 S WAGNER RD
ANN ARBOR, MICH, 48106 .... 313 665-0651
C ROBRECHT, EMP 130, ENG 7, $1,000-$2,500M
Ala Vaugn Electrosources, Box 1369 Huntsville 881-8830
Ariz Special Systems Eng, Box 2005, Mesa 945-5082
Cal David J Tripp & Assoc, 17234 Ventura Blvd Encino .... ST 8-8491
Cal Scott Labs Inc, 860 S 19th St Richmond 232-8288
Cal Scientific Products, 150 Jefferson Dr Menlo Park 323-7741
Colo Engineering Research Assoc, 231 Detroit St Denver 377-8306
Conn Larco Corp, 993 Farmington Ave W Hartford 236-3093
Conn Larco Corp, 993 Farmington Ave West Hartford 236-3093
Fla Vaughn Electrosources, 106 Dixie La Cocoa Beach 784-0784
Ill Laub Engineering, Box 8, Northfield 446-4166
Iowa D C Regan Co, 517 Main St, Davenport 322-7734
Mass Larco Corp, 49 Winchester St Newton Highlands .... DE 2-5903
Mich Environment Engineers, Box 702 College Park Sta Detroit 863-5511
Minn Richard-Douglas, Inc, 901 N 5th St Minneapolis 333-8281
Mo Process & Chem Equip Co, 1605 Tower Grove Ave St Louis 771-3741
NJ R L Faber & Assoc, 460 Colfax Ave Clifton 773-8900
NY Filtration Unltd, 373 Hertel Ave Buffalo .... TR 7-4468
Ohio P E Phillips, Box 2205, Dayton 292-7940
Okla W H Curtin & Co, Box 747, Tulsa .... LU 5-5757
Pa J V Calhoun Co, 349 Montgomery Ave Bala-Cynwyd .... TE 9-3000
Pa Gateway Industries Co, Box 11181 Pittsburgh 486-6616
Tex W H Curtin & Co, Box 5304, Dallas .... RI 7-2503
Tex W H Curtin & Co, Box 1546, Houston .... WA 3-1661
Va G C Danch & Assoc, 8027 Leesburg Pike McLean 893-5800
Wash EAN Johnson Co, Box 100, Edmonds .... PR 8-1486
Can Ralph E Benner Ltd, 844-Caledonia Rd Toronto, Ont 781-2207

GEMP TERMINALS INC, 20 WOODWORTH AVE
YONKERS, N Y, 10701 .... 914 476-7300
J DONOVAN, EMP 6, $100-$250M

GEMS CO INC, SPRING LANE, FARMINGTON
CONN, 06032, TWX 710-423-2035 .... 203 677-1311
R WHITE, EMP 72, ENG 4, $1,000-$2,500M
Ala Vaughn Electrosources Co, Sahara Off Park Huntsville 881-8830
Ariz J T Aldrich Co, Box 1299, Scottsdale 945-8598
Cal Con-Val, Inc, 412 Pendleton Way Oakland 568-8922
Cal Carkeek Eng Co Inc, Box 206, Altadena 681-0489
Cal Tech-Controls, Inc, Box 6151, Pasadena 473-8111
Colo Petromotive Co, 9839 W 65th St Arvada 422-0990
Colo Petromotive Co, 9839 West 65th St Arvada 422-0990
Conn Northeast Engineering, 3013 Dixwell Ave Hamden 248-4481
Ill Affiliated Control Equip, 8934 W Ogden Ave Brookfield 485-9353
La Lafaye Sales Engrs Inc, 338 Stafford Pl New Orleans 482-6155
Md Ray Cantwell Co, 9321 Fresno Rd Bethesda 530-2698
Mass Northeast Engineering, 5 Elm St Danvers 774-3010
Mich Robert H Jackson Co, 10534 Ludlow Ave Huntington Woods 542-5059
Minn Guy Speaker Co Inc, 4991 Excelsior Blvd Minneapolis 926-1631
Mo Louis Helekamp, 128 W Mermod Kirkwood 727-7670
NY Northeast Engineering, 124 Trumbull Rd Manhasset 365-9633
NC Robert W Chapman & Co, Box 4430 Charlotte 375-4495
Ohio Gallagher Co, 15 Ritchie Ave Cincinnati 761-1288
Ohio Satullo Co, 16801 Euclid Ave Cleveland 486-2800
Pa C A Briggs Assoc, Box 151, Glenside 885-2244
Pa Process Prods & Instr, 345 Mt Lebanon Blvd Pittsburgh 343-2237
Utah Petromotive Co, Vernal
Wash Fairman B Lee Co, Box 66099 Burien Sta Seattle 244-7262
Wis Norman Engineering Co, 9730 W Bluemound Rd Milwaukee 771-3100
Can Enterprise Ind Prods Ltd, Box 216 Oakville, Ont 416 844-1281
Fr Saint-Cyr Electro Ind, Paris 923-10-46
Holl Savri N V, Box 41, Amstelveen 02964-3236
Ital S M E R I di Ing F Pirrone srl, via Soperga 45 Milano
Jap Pacific Projects Trading Co, Ltd, CPO Box 444 Tokyo

GENERAL ACOUSTICS CORP
12248 SANTA MONICA BLVD, LOS ANGELES
CAL, 90025 .... 213 GR 9-3187
C SMITH, ENG 6, $500-$1,000M
Ala David H Wise, Box 225, Huntsville 539-0871
Cal Thornton Assoc, 2132 Vista Laredo, Newport Beach
Cal Fred C Warren & Assoc, Box 75822 Sanford Sta Los Angeles
NJ Richards Assoc, Box 733, Wayne
Tex Merit Co, 10110 Monroe, Dallas

GENERAL ATRONICS CORP, 1200 E MERMAID LN
PHILADELPHIA
PA, 19118, TWX 215-242-1295 .... 215 248-3700
J COMMINS, EMP 250, ENG 35, $2,500-$5,000M
DC General Atronics Corp, 1330 Mass Ave NW Washington 202 737-7766
Md Robert L Eichberg, 404 Colesville Manor Dr Silver Spring 384-9068
Mass General Atronics Corp, 40 Massachusetts Ave Arlington 646-8680
Ohio F L Ohmer, Box 2013, Kettering Br Dayton 434-1454

GENERAL AUTOMATIC CORP, 235 W FIRST ST
BAYONNE, N J, 07002 .... 201 437-7500
M BARRON

GENERAL AVIATION ELECTRONICS INC
4141 KINGMAN DR, INDIANAPOLIS
IND, 46226 .... 317 545-4545
M DECHTER, EMP 25, ENG 4
Cal Beckman Sales Co, Box 1877 Costa Mesa 714 546-2474
Ohio A Weltman & Assoc, Cayahoga Cty Airport Cleveland 216 731-1284

GENERAL BATTERY & CERAMIC CORP, BOX 1262
READING, PA, 19603 .... 215 929-0771
EMP 2000, OVER $10,000M

GENERAL BINDING CORP, 1101 SKOKIE BLVD
NORTHBROOK, ILL, 60062 .... 312 CR 2-3700
P JASON, EMP 1064, ENG 18, OVER $10,000M
Ala GBC, 1203 S 20th St, Birmingham 328-5240
Ariz Gen Binding Sales Corp, 3422 W Osborn Rd Phoenix 272-2618
Cal Gen Binding Sales Corp, 7308 S La Cienga Blvd Inglewood 678-1124
Cal Gen Binding Sales Corp, 546 Howard St San Francisco .... YU 6-5153
Colo Gen Binding Sales Corp, 645 Delaware St Denver .... AM 6-1416
Conn GBC, 20 Beaver Rd, Wethersfield 529-2531
DC Gen Binding Sales Corp 6620 Sandy Spring Rd NW Washington 882-2536
Fla GBC, 1765 Tully Cir NE, Atlanta 633-0411
Fla GBC, 275 NW 54th St, Miami 757-9506
Haw Gen Binding Sales Corp, 603 Coral St Honolulu 507-684
Ill GBC, 6515 Stanley Ave, Berwyn 277-5025
Ill GBC, 330 Melvin Dr, Northbrook .... CR 2-6030
Ind GBC, 608 N College Ave, Indianapolis .... ME 8-3431
Iowa GBC, 1812 High St, Des Moines 283-0654
La GBC, 422 Poydras St, New Orleans 525-2247
Mass GBC, 200 Boylston St, Chestnut Hill .... DE 2-7330
Mich GBC, 8530 W McNichols St, Detroit 342-2223
Minn Gen Binding Sales Corp, 1620 Harmon Pl Minneapolis .... FE 9-7229
Mo Gen Binding Sales Corp, 1304 E Eighth St Kansas City .... BA 1-1997
Mo GBC, 2736 Mercantile Dr, St Louis .... MI 5-5079
NJ GBC, 1545-A Stuyvesant Ave, Union 687-8500
NY Gen Binding Sales Corp, 1061 Kenmore Ave Buffalo 875-6886
NY GBC, 55 Central Ave, East Farmingdale 694-6674
NY GBC, 95 Madison Ave S, New York .... LE 2-6944
NC GBC, 212 E Independence Blvd Charlotte .... FR 6-7577
Ohio GBC, 3808 Redbank Rd, Cincinnati 272-3322
Ohio Gen Binding Sales Corp, 2536 St Clair Ave Cleveland 241-4838
Pa Gen Binding Sales Corp, 7416 W Chester Pike Upper Darby 352-9100
Pa Gen Binding Sales Corp, 3281 W Liberty Ave Pittsburgh 563-1444
Tex GBC, 1307 Chemical Ave, Dallas .... ME 1-2870
Tex GBC, 8002 Westglen Dr, Houston .... SU 1-1900
Va Gen Binding Sales Corp, 3402 W Cary St Richmond 355-4746
Wash Gen Binding Sales Corp, 3533 Stoneway N Seattle 632-1889
Wis Gen Binding Sales Corp, 7212 W Fond du Lac Ave Milwaukee 464-1720

Can Gen Binding Corp (Canada) Ltd, 49 Railside Rd Don Mills, Ont
For GBC, Fernandez Juncos 903 Santurce, P R 722-3101
For Gen Binding Corp de Venzuela S A Esquina Coliseo, Caracas, Venz
For Gen Binding Corp Ges MBH Schaumburger Gasse 15, Vienna IV, Aust
Fr GBC Buro & Bindemaschinen GMBH Lerchenweg 2, Lottstetten/Baden
Ger GBC Buro & Bindemaschinen GMBH Schloss Str 57B, Stuttgart
GB Gen Binding Co, Ltd, Doman Rd, Camberley, Surrey
Holl Gen Binding (Nederland) N V, Jan Luijkenstraat 70 Amsterdam
Ital Gen Binding Corp Italia S R L, Via Sondrio 3-5 Milan
Jap Gen Binding Corp (Japan) K K, 8-6, 4-chome Iidabashi, Chiyoda-ku, Tokyo
Swed GBC Mfg Corp, Wollerau SZ
Swit GBC Mfg Corp, Seestr 346, Zurich, 2738
Mex Gen Binding Corp S A de C V Alvaro Obregon 213-1er, Mexico 7 D F
Aust Gen Binding Corp (Australia) Pty Ltd 24-26 Lyndhurst St, Glebe, Sydney, N S W

GENERAL CABLE CORP, 730 THIRD AVE, NEW YORK
N Y, 10017 .... 212 YU 6-3800
J DAVIS, EMP 10,000, ENG 200, OVER $10,000M

GENERAL CIRCUITS INC, 95 MT READ BLVD
ROCHESTER, N Y, 14611 .... 716 235-2880
A PLUTA, EMP 268, ENG 6, $2,500-$5,000M
Cal General Circuits, 2750 E Lizbeth Ave Anaheim 630-0131
Ill General Circuits, 325 Central Ave Highland Park .... ID 3-1020
Mass General Circuits, Waltham .... TW 9-8837
NY General Circuits, Syosset .... WA 1-7090

GENERAL COIL PRODUCTS CORP, 156 HINSDALE ST
BROOKLYN, N Y, 11207 .... 212 DI 6-8600
E GREENSTEIN, EMP 50, ENG 4, $500-$1,000M
Ind D Brase, 4002 Meadows Dr Indianapolis 545-8167
NY Paul D Aaron Assoc, Box 511 Port Washington 516 223-0810

GENERAL COMPONENTS, INC, 7425 124TH AVE N
ST PETERSBURG, FLA, 33733 .... 813 544-8879
R SPIERS, EMP 27, ENG 6, $250-$500M

GENERAL COMPOUNDS CO, DIV KAI R KUHL CO
1044 E 22ND ST, LOS ANGELES
CAL, 90011 .... 213 749-0162
K KUHL, EMP 27, ENG 1, $100-$250M

GENERAL COMPUTERS INC, 5990 W PICO BLVD
LOS ANGELES, CAL, 90035 .... 213 939-7687
C ESTES, EMP 20, ENG 2
Ala Applied Dynamics Inc, Holiday Office Ctr Huntsville 883-2710
Cal C R Estes, 24002 Long Valley Rd Calabasas 213 348-9363
Cal Windsor Dynamics, 195 Breer Rd Woodside 415 881-0417
Ill Chandler Assoc Inc, Box 229 Genesco 309 944-2010
Md Ron Davies Assoc, 11215 Oak Leaf Dr Silver Spring 301 593-4900
Mass Hobart Assoc, 750 Main St Winchester 617 729-8884
Mich Chandler Assoc Inc, 32401 W 8 Mile Rd Livonia 476-5800
NM C Schmidt Sales, 9611 Acoma Rd S E Albuquerque 505 298-2415
Ohio Chandler Assoc Inc, 9701 Brookpark Rd Cleveland 216 661-9835
Pa Emlen-Peterson Co, 237 Lancaster Ave Devon 687-3535
Wash Showalter-Judd Inc, 1806 S Bush Pl Seattle .... 206 EA 4-7911

GENERAL CONTROL CO, 1212 SOLDIERS FIELD RD
BOSTON, MASS, 02134 .... 617 782-7440
W KELLEIGH, EMP 25, ENG 2, $100-$250M
Cal C B Rush & Assoc, 1830 W Olympic Blvd Los Angeles 213 388-7111
Cal C B Assoc, 3873 Piedmont Ave Oakland 415 653-5745
Md Leff Sales Assoc, 408 York Rd Towson 301 823-0774
Mass Electrical Apparatus Co Inc, 1200 soldiers Field Rd Boston 617 782-7440
NJ Leff Sales Assoc, 5900 Westfield Ave Pennsauken 609 663-4025
NJ Ballou Inc, 51 N Broad St Ridgewood 201 444-6990
Ohio Electro-Com Inc, 8761 Snow Rd Cleveland 216 886-2404
Ohio Electro-Com Inc, Box "F", Dayton 513 278-4797

GENERAL DESIGN INC, 11676 TUXFORD ST
SUN VALLEY, CAL, 91352 .... 213 875-1260
L ALLAN, EMP 98, ENG 14, $1,000-$2,500M

GENERAL DEVICES INC, INSTRUMENTATION DIV
BOX 253, PRINCETON
N J, 08540, TWX 710-480-5654 .... 609 WA 42500
M MEDVIN, EMP 75, ENG 18, $500-$1,000M
Ariz King Eng Co, Inc, 5045 N 12th St Phoenix 266-3485
Cal King Engineering Co, 525 S Grant St San Mateo 342-9645
Cal King Engineering Co, Box 544 Escondido .... SH 5-2310
Cal King Engineering Co, 5224 Hollywood Blvd LA 666-1822
Ga Stiltz Sales Eng Co, 1440 Oconee Pass N E Atlanta 457-4316
Kan Aerotronics Inc, Box 11026, Washington Sta Wichita 264-7925
Mo Aerotronics Inc, Box 6236, Lambert Fld St Louis .... HA 6-4060
NY S F Foster Co Inc, 2806 Henngberry Rd Pompey 677-3333
NY S F Foster Co Inc, 386 Culver Pkwy Rochester 288-9912
Ohio RDP Assoc, 5899 Hubgrville Ave Dayton .... CL 3-6175
Ohio RDP Assoc, 9081 Royalton Rd Cleveland 237-9155
Wash Brett Eng Assocs, 2610 38th Ave S W Seattle 935-1062
For Akhatar Trading Corp, Box 4852 Karachi 2 Pak 223156
Den Technitron A/S, 24 Klosterstraede Copenhagen .... PAL 2632
Fr Technitron SA, 26 Rue De Boulainvilliers Paris .... ELY 30-33
Ger Technitron GmbH, Sonngstr 14, Munich 55-78-32
GB Technitron England, Walmgate Rd Perivale PER-9949
Holl Techmitron MV, Rottumerstr 15 Amstelvegn 727823
Ital Technitron Srl, Viale Bruno Buozzi 68 Rome 800 235
Isrl Elina Ltd, Box 960, Tel-Aviv 52068

GENERAL DIODE CORP, 18 SOUTH ST, FRAMINGHAM
MASS, 01701 .... 617 879-0880
A TANG, EMP 24, ENG 6, $500-$1,000M
Ariz R Hales Pridmore & Assoc, 1225 E Northview Ave Phoenix
Cal Winco Sales, Box 881 Mountain View 415 961-8510
Cal Mr Irving Finkel, 18137 Kinzie St Northridge 213 349-1372
Ill Karl D Engle Co Inc, 3621 W Devon Ave Chicago 539-1820

GENERAL ELECTRIC CO, AEROSPACE ELCTNS DEPT
FRENCH RD, UTICA, N Y, 13503 .... 315 797-1000
N FELDMAN, EMP 4950, ENG 500, OVER $10,000M
Ala Gen Elec Co, 3322 Memorial Huntsville 883-3131
Cal Gen Elec Co, 6151 W Century Blvd Los Angeles 670-8441
Colo Gen Elec Co, 1719 E Bijou St Colo Spgs 636-2828
DC Gen Elec Co, 777 14th St N W Washington 393-3600
Mass Gen Elec Co, 114 Waltham St Lexington 862-1425
NJ Gen Elec Co, 43 W Front St Red Bank .... SH 1-8484
NY Gen Elec Co, 175 Jericho Tpk, Syosset 921-0400
Ohio Gen Elec Co, Box 2143, Kettering Br Dayton 298-0311
Okla Gen Elec Co, 133 E Atkinson Plaza Midwest City .... PE 7-4431
Pa Gen Elec Co, 3 Penn Center Plaza Philadelphia 568-1800
Tex Gen Elec Co, 8101 Stemmons Frwy Dallas 631-3100

GENERAL ELECTRIC CO COMMUNICATION PRODUCTS
DEPT, BOX 4197, LYNCHBURG
VA, 24502 .... 703 VI 6-7311
G FLOYD

GENERAL ELECTRIC CO, ECSO, 1 RIVER RD, SCHENECTADY
N Y, 12305 .... 518 374-2211
OVER $10,000M
ADV PG 7, 64, 103, 431, 585, 610, 771
Ariz GE Co ECSO, 3550 N Central Ave Phoenix 264-1751
Cal GE Co ECSO, 11840 W Olympic Blvd Los Angeles 479-7763
Cal GE Co ECSO, 555 Veterans Blvd Redwood City 369-7151
Colo GE Co ECSO, 201 University Blvd Denver 388-5771
Conn GE Co ECSO, 1285 Boston Ave Bridgeport 334-1012
DC GE Co ECSO, 777 14th St NW Washington 393-3600
Fla GE Co ECSO, 2104 S Lois Ave, Tampa 877-8311
Fla GE Co ECSO, 14 W Gore St, Orlando 425-8634
Fla GE Co Ecso, 321 N Lake Blvd N Palm Beach 844-5202
Ill GE Co ECSO, 3800 N Milwaukee Ave Chicago 777-1600
Ind GE Co ECSO, 3750 N Meridian St Indpls 923-7221
Ind GE Co ECSO, 3606 S Calhoun St Fort Wayne 744-2346
Iowa GE Co ECSO, 210 2nd St SE Cedar Rapids 364-9149
Ky GE Co Ecso, 316 E Ninth St Owensboro 683-2401
Mass GE Co ECSO, 1 Washington St Wellesley 237-2050
Mich GE Co Ecso, 15160 W 8 Mile Rd Detroit 564-5228
Minn GE Co ECSO, 4900 Viking Dr, Mnpls 927-5458
Mo GE Co ECSO, 911 Main St, Kansas City 221-4033
NJ GE Co ECSO, 200 Main Ave, Clifton 472-8100
NY GE Co ECSO, 625 Delaware Ave Buffalo 883-9210
NY GE Co ECSO, 425 Northern Blvd Great Neck 466-8800
NY GE Co Ecso, Northern Concourse Office Bldg N Syracuse 456-3412
NC GE Co ECSO, 1842 Banking St Greesnboro 275-0835
Ohio GE Co ECSO, 25000 Euclid Ave Cleveland 266-2900
Ohio GE Co ECSO, 3430 S Dixie Hwy Dayton 298-0311
Okla GE Co ECSO, 3022 N W Expwy Oklahoma City 943-9015
Pa GE Co ECSO, 3 Penn Ctr Plaza, Phila 568-1800
Pa GE Co ECSO, 875 Greentree Rd Pittsburgh 921-8594
Tenn GE Co ECSO, 1420 Union Ave Memphis 272-9641
Tex GE Co ECSO, 4447 N Central Expwy Dallas 521-1931
Va GE Co ECSO, 1932 Arlington Blvd Ter Level 6a Charlottesville 296-8118
Wash GE Co ECSO, 112 Andover Park East Seattle 244-7750
Wis GE Co ECSO, 615 E Michigan St Milwaukee 271-5000

GENERAL ELECTRIC CO, HOUSEWARES DIV
HOMER AVE, ASHLAND
MASS, 01721 .... 617 881-2500
J MACLEOD, OVER $10,000M

GENERAL ELECTRIC CO INFO SYS EQUIP DIV
13430 N BLACK CANYON HWY, PHOENIX
ARIZ, 85029 .... 602 941-2142
V COOPER, EMP 6000

GENERAL ELECTRIC CO LAMINATED PRODUCTS DEPT
COSHOCTON
OHIO, 43812, TWX 614-623-7803 .... 614 622-5310
A SCOGGIN, EMP 1100
Ariz G-E Laminated Prods, 719 Old Scottsdale Rd Scottsdale 602 946-8448
Cal G-E Laminated Prods, 1424 W Olympic Blvd Los Angeles 213 386-7150
Ill G-E Laminated Prods, 840 S Canal St Chicago 312 663-3741
Ind G-E Laminated Prods, 1250 Stadium Dr Indpls 317 634-8443
Mass G-E Laminated Prods, 2120 Commonwealth Ave Auburndale 617 969-5552
Minn G-E Laminated Prods, 2524 Hennepin Ave Mnpls 612 377-3810
Mo G-E Laminated Prods, 1015 Locust St St Louis 314 436-4343
NJ G-E Laminated Prods, 4000 Westside Ave North Bergen 201 864-3150
NY G-E Laminated Prods, 1 River Rd Schenectady 518 374-2211
NY G-E Laminated Prods, 3532 James St Syracuse 315 456-7140
NC L A Merritt, 1828 Banking St Greensboro 919 273-6981
Ohio G-E Laminated Prods, 6890 Pearl Rd Cleveland .... 216 VI 2-1000
Pa G S Velimesis, 570 W DeKalb Pike King of Prussia 215 962-3685

GENERAL ELECTRIC CO, LAMP GLASS DEPT
EUCLID AVE & CAMPBELL RD, WILLOUGHBY
OHIO, 44094 .... 216 266-4011
EMP 250,000, OVER $10,000M
Cal GE - Lamp Glass Dept, 2747 S Malt Ave Los Angeles 723-2541
Ill GE-Lamp Glass Dept, 5901 N Cicero Ave Chicago 312 282-4905
Mass GE - Lamp Glass Dept, 50 Industrial Pl Newton Upper Falls 332-6200
NJ GE - Lamp Glass Dept, 133 Boyd St Newark 824-5200
Can GE-Lamp Glass Dept, 165 Dufferin St Toronto Ont 416 537-4481

GENERAL ELECTRIC CO LAMP METALS &
COMPONENTS DEPT, 21800 TUNGSTEN RD
CLEVELAND, OHIO, 44117 .... 216 266-3786
J TOPPER
Cal Gen Electric Co, 349 First St, Los Altos 948-5000
Ill Gen Electric Co, 5901 N Cicero Ave Chicago 282-7902
NJ Gen Electric Co, 133 Boyd St, Newark 824-5201
Ohio Gen Electric Co, 21800 Tungsten Rd Cleveland 266-3788
RI Gen Electric Co, 586 Atwells Ave Providence 421-1610

GENERAL ELECTRIC CO MAGNETIC MATLS BUS SECT
7842 N NEFF PL, EDMORE
MICH, 48829 .... 616 427-5151
R TSCHAEKOFSKE

GENERAL ELECTRIC CO MINIATURE LAMP DEPT
NELA PARK, CLEVELAND
OHIO, 44112 .... 216 266-2121
G DAVIS
Cal General Electric Co, 2747 S Malt Ave Los Angeles 723-2541
Cal General Electric Co, 999 98th Ave Oakland 569-3422
Colo General Electric Co, 6501 E 44th Ave Denver 388-4611
Conn General Electric Co, 86 Tyler Ave W Haven 562-9828
Fla General Electric Co, 1600 NW LeJeune Rd Miami 635-0984
Ga General Electric Co, 120 Ottley Dr NE Atlanta 875-0921
Ill General Electric Co, 550 W Jackson Blvd Chicago 332-4712
Ind General Electric Co, 2511 E 46th St F-1 Indnpls 547-5511
Ky General Electric Co, 2311 S Brook St Louisville 637-3651
La General Electric Co, 4800 River Rd New Orleans 835-6421
Md General Electric Co, 1401 Parker Rd Baltimore 242-5700
Mass General Electric Co, 50 Industrial Pl Newton Upper Falls 332-6200
Mich General Electric Co, 15135 Hamilton Ave Detroit 883-0200
Minn General Electric Co, 500 Stinson Blvd Minneapolis 331-4050
Mo General Electric Co, 535 E 14th Ave N Kansas City 471-0123
Mo General Electric Co, 1530 Fairview Ave St Louis 429-6930
NJ General Electric Co, 133 Boyd St Newark 824-5200
NY General Electric Co, 219 E 42nd St New York 751-1311
NY General Electric Co, 31 Gibbs St Rochester 454-2990
NY General Electric Co, 1001 Broad St Utica 724-1293
NC General Electric Co, 1001 Tuckaseegee Rd Charlotte 376-6585
Ohio General Electric Co, 49 Central Ave Cincinnati 421-6810
Ohio General Electric Co, 12910 Taft Ave Cleveland 266-4337
Ohio General Electric Co, 800 Northwest Blvd Columbus 294-4115
Okla General Electric Co, 2809 NW Expwy Oklahoma City 842-4028
Ore General Electric Co, 2800 NW Nela St Portland 223-2101
Pa General Electric Co, Rt 202 at Expwy King of Prussia 688-5900
Pa General Electric Co, 238 W Carson St Pittsburgh 471-9050
Tenn General Electric Co, 2021 S Latham St Memphis 948-2642
Tex General Electric Co, 6500 Cedar Springs Rd Dallas 351-3725
Tex General Electric Co, 5615 Lymbar Dr Houston 923-2549
Va General Electric Co, 1510 Willow Lawn Dr Richmond 282-7644
Wash General Electric Co, 2400 6th Ave S Seattle 622-8081
Wis General Electric Co, 8100 W Florist Ave Milwaukee 462-3860

GENERAL ELECTRIC CO ORDNANCE DEPT
100 PLASTICS AVE, PITTSFIELD
MASS, 01201 .... 413 443-3561
R HARDESTY, EMP 3450, ENG 900, OVER $10,000M
DC D T Atkinson, 777 14th St N W Washington 393-3600

GENERAL ELECTRIC CO, PRINTER-READER BUS SEC
511 N BROAD ST, PHILADELPHIA
PA, 19123 .... 215 WA 5-4343
J SHUSTERMAN, EMP 200, ENG 40, $5,000-$10,000M
Ill R Alvarado, 1301 W 22nd St Oak Brook 312 654-2038

GENERAL ELECTRIC CO SILICONE PRODS DEPT
SECTION EBG, WATERFORD
N Y, 12188 .... 518 237-3330
V TAYLOR
Cal GE-Silicone Prods, 8555 E Florence Ave Downey 773-3144
Conn GE-Silicone Prods, 1285 Boston Ave Bridgeport 334-1012
DC GE-Silicone Prods, 777 14th St NW Washington 393-3600
Ga GE-Silicone Prods, 1819 Peachtree Rd NE Atlanta 404 351-4400
Ill GE-Silicone Prods, 1301 W 22nd St Oak Brook 654-4570
La GE-Silicone Prods, Box 7246, Metairie ... 833-4330
Mass GE-Silicone Prods, 2120 Commonwealth Ave Auburndale 969-5550
Mich GE-Silicone Prods, 21590 Greenfield Oak Park 548-6005
Minn GE-Silicone Prods, 540 N Fairview Ave St Paul 645-2765
Mo GE-Silicone Prods, 1530 Fairview Ave St Louis 429-6930
Mo GE-Silicone Prods, 911 Main St Kansas City 842-9745
NJ GE-Silicone Prods, 134 Evergreen Pl East Orange 678-5080
NY GE-Silicone Prods, 1495 Fillmore Ave Buffalo 892-8002
NY GE-Silicone Prods, Bldg 43, Rm 211 Schenectady 374-2211
NC GE-Silicone Prods, 1828 Banking St Greensboro 273-6981
Ohio GE-Silicone Prods, 3430 S Dixie Hwy Dayton 298-0311
Ohio GE-Silicone Prods, 1503 Brookpark Rd Cleveland 749-2700
Pa GE-Silicone Prods, 4930 Buttermilk Hollow Rd W Mifflin 466-6700
Tex GE-Silicone Prods, 3130 Southwest Frwy Houston 528-6356
Tex GE-Silicone Prods, 6200 N Central Expwy Dallas 369-2357
Wash GE-Silicone Prods, Box 6100, Seattle 244-7750
Can GE-Silicone Prods, 940 Lansdowne Ave Toronto, Ont 534-6511

GENERAL ELECTRIC CO VACUUM PRODS BUSINESS
SECTION, 1 RIVER RD, SCHENECTADY
N Y, 12305 .... 518 374-2211
J WALSH
Ariz Williams Assoc, 1110 E McDowell Rd Phoenix 602 254-6085
Cal Carl Hermann Assoc, 1215 Chrysler St Menlo Park 415 322-4561
Cal Carl Hermann Assoc, 1245 E Walnut St Pasadena 213 681-5111
Cal GE Co, Box 401, Huntington Beach .. 714 968-3221
Colo Williams Assoc, 4971 Jackson St Denver 303 388-4391
Fla P Mangano, 2104 S Lois Ave Tampa 813 872-0505
Ill GE Co, 117 S Main St Mt Prospect 312 255-3200
Md I J Burrel, 13704 Ashby Rd Rockville 301 933-5621
Mass New England Mktg Assoc, 55 Salem St Lynnfield 617 245-9530
Mo Kemp Engrg Co, 9322 Manchester Rd St Louis 314 968-0300
NM Williams Assoc, 3221 Silver Ave S E Albuquerque 505 255-1638
NY NACO Electronics Corp, 119 Luther Ave Liverpool 315 474-7481
NY NACO Electronics Corp, 14 Lori St Poughkeepsie 914 462-2730
NY NACO Electronics orp, 74 Park Ave Rochester 716 244-4720
NY NACO Electronics Corp, 2631 Edgewood Rd Utica 315 732-1801
Ohio R D P Assoc, 5899 Huberville Ave Dayton 513 253-6175
Ohio GE Co, Box 5278, Akron 216 836-0466
Pa GE Co, 570 W DeKalb Pike King of Prussia 215 962-3685
Tex Kemp Engrg Co, 2618 Manana Dr Dallas 214 357-6663
Tex Kemp Engrg Co, 6001 Gulf Frwy Houston 713 928-5426
Tex Kemp Engrg Co, 102 W Rector San Antonio 512 344-1841
Utah Williams Assoc, 2469 S Main St Salt Lake City 801 466-89

GENERAL ELECTRIC CO WIRE & CABLE DEPT
1285 BOSTON AVE, BRIDGEPORT
CONN, 06602 .... 203 334-1012
Ala GE-Wire & Cable Dept, 2151 Highland Ave Birmingham 322-7683
Cal GE-Wire & Cable Dept, 2142 S Tubeway Ave LA 685-7030
Cal GE-Wire & Cable Dept, 1034 66th Ave Oakland 638-0725
Fla GE-Wire & Cable Dept, 1010 Executive Ctr Dr Orlando 841-7601
Ga GE-Wire & Cable Dept, 1330 W Peach Tree St NW Atlanta 875-6691
Ill GE-Wire & Cable Dept, 5726 W 51st St Chicago 735-2244
Ind GE-Wire & Cable Dept, 3750 N Meridian St Indianapolis 923-7221
Iowa GE-Wire & Cable Dept, 131 E 4th St Davenport 355-0231
Ky GE-Wire & Cable Dept, 4840 Brownsboro Rd Louisville 896-4305
La GE-Wire & Cable Dept, 4833 Conti St New Orleans 488-6684
Md GE-Wire & Cable Dept, 1 N Charles St Baltimore 685-6500
Mass GE-Wire & Cable Dept, 375 Elliot St Newton Highlands 969-8200
Mich GE-Wire & Cable Dept, 700 Antoinette St Detroit 872-2600
Minn GE-Wire & Cable Dept, 12 S 6th St Minneapolis 338-6771
Mo GE-Wire & Cable Dept, 1015 Locust St St Louis 436-4343
Mo GE-Wire & Cable Dept, 911 Main St Kansas City 842-9745
NY GE-Wire & Cable Dept, 8 Colvin Ave Albany 459-1500
NY GE-Wire & Cable Dept, 111 8th Ave New York 924-7300
NY GE-Wire & Cable Dept, 3532 James St Syracuse 456-7568
NC GE-Wire & Cable Dept, 816 Lawton Rd Charlotte 399-8371
NC GE-Wire & Cable Dept, 4633 Brompton Dr Greensboro 292-2644
Ohio GE-Wire & Cable Dept, 4520 W 160th St Cleveland 252-3600
Ohio GE-Wire & Cable Dept, 2702 Erie Ave Cincinnati 871-6300
Okla GE-Wire & Cable Dept, 1330 Classen Bldg Oklahoma City 236-5022
Ore GE-Wire & Cable Dept, 2929 NW 29th Ave Portland 228-0281
Pa GE-Wire & Cable Dept, 875 Greentree Rd Pittsburgh 921-5150
Pa GE-Wire & Cable Dept, 4311 N G St Philadelphia 289-6310
Tenn GE-Wire & Cable Dept, 1805 Hayes St Nashville 242-7785
Tex GE-Wire & Cable Dept, 8101 Stemmons Expwy Dallas 631-0530
Tex GE-Wire & Cable Dept, 5718 Armour Dr Houston 928-5491
Utah GE-Wire & Cable Dept, 431 S 3rd E Salt Lake City 364-1891
Va GE-Wire & Cable Dept, 1510 Willow Lawn Dr Richmond 282-7644
Wash GE-Wire & Cable Dept, 660 S Othello St Seattle 722-6176
Wis GE-Wire & Cable Dept, 615 E Michigan St Milwaukee 271-5000

GENERAL ELECTRIC CO X-RAY DEPT
4855 ELECTRIC AVE, MILWAUKEE
WIS, 53201 .... 414 383-3211
A PACE, EMP 3600, ENG 325, OVER $10,000M
Cal D Swarthout, R Ball, 4550 Colorado Blvd Los Angeles 245-3101
Cal S Cooper, 8128 Capwell Dr, Oakland 532-6010
Conn P Calandra, 935 White Plains Rd Trumbull 261-2838
Fla R Dean, 4514 S Dale Mabry Hwy Tampa 839-6374
Ill R Daniels, L Sheldon, 1061 W Jackson Blvd Chicago 663-3927
Ill D Smith, 1061 W Jackson Blvd Chicago 663-3927
Mass R E Hunt, 10772 Tucker St, Beltsville 345-9100
Mass T Flanagan, 40 Soldiers Field Pl Boston 782-1100
Mich R Landis, 18801 W 7 Mile Rd, Detroit ... 537-6300
Mo W Hughes, 706 Westport Rd Kansas City 531-3505
NJ H Gradner, 52 Commerce St Springfield 379-4865
NY E D Sandretto, 625 Delaware Ave Buffalo 883-9210
Ohio D G Hempstead, 3056 W McMicken Ave Cincinnati 681-7230
Ohio G P Stanhope, 3829 Carnegie Ave Cleveland 881-9600
Ore G T Pashade, 2929 NW 29th Ave Portland 228-0281
Pa J Binns, Hunting Park Ave at Ridge Phila 225-7600
Pa T Spath, 231 S Euclid Ave, Pittsburgh 362-3800
Tenn R E Zuch, 1717 West End Ave Nashville 255-2793
Tex D Stockwell, 6008 Griggs Rd, Houston ... 644-1723
Utah F W Chultz, 431 S 3rd St Salt Lake City 346-1891

GENERAL ELECTRODYNAMICS CORP, 4430 FOREST LN
GARLAND
TEX, 75040, TWX 910 860 5193 .... 214 BR 61161
E OLSZEWSKI, EMP 180, ENG 32, $5,000-$10,000M
Ger Siemens & Halske, St Martin St 76, Muenich

GENERAL-ELECTRO MECHANICAL CORP
785 HERTEL AVE, BUFFALO
N Y, 14207 .... 716 876-9685
J RANDOLPH, EMP 196, ENG 22, $2,500-$5,000M
Cal E R Conn, 20239 San Gabriel Valley Dr Walnut 213 965-1310
Ohio B L Michaelson Co, 259 N Monroe St Xenia 372-5496

GENERAL ELECTRONIC LABS INC
1085 COMMONWEALTH AVE, BOSTON
MASS, 02215 .... 617 783-0460
R HODGDON, EMP 250, ENG 50, $2,500-$5,000M

GENERAL EQUIPMENT & MFG CO
3300 FERN VALLEY RD, LOUISVILLE
KY, 40213 .... 502 969-2386
D WEST, EMP 25, ENG 3, $500-$1,000M
Ala Gaines & Co, Inc, 2906 Linden Ave Birmingham 879-0574
Ariz Portis & Assoc, 132 E Stetson Dr Scottsdale 602 945-4925
Cal R B Clapp Co, 5404 Alhambra Ave Los Angeles 213 225-2395
Colo J H Dorough Co Inc, 6096 W 55th Pl Arvada 904 422-1487
Fla Industrial Systematics Corp, Box 171 Eustis 904 357-2785
Haw Natl Electric Supply Co Ltd, 611 Keeaumoku St Honolulu 941-3091
Ill Electro-Kinetics, Inc, 7040 Higgins Ave Chicago 763-2200
Ind J & F Distributing Co, Inc, 2700 N College Ave Indianapolis 925-8259
Ky Air Hydro Power Co, 4400 Bishop La Louisville 454-1000
La Rema Inc, 3315 Magazine St New Orleans 504 895-2065
Md McCourt Co Inc, 28 W Penna Ave Towson 301 823-3455
Mass Bordewieck Eng Sales Co, 221 Grove St Braintree 617 843-0845
Mich Basic Service Corp, 16544 Plymouth Rd Detroit 837-8820

Mo Alfred F Gliedt Assoc, 10869 Spring Garden Dr
St Louis 314 868-7445
NM A & B Sales Co, Box 11312 Sta E
Albuquerque 505 242-1046
NY MWM Assoc, 590 Merrick Rd, Lynbrook... 593-6190
NY Roy Staff Assoc Inc, 45 Scoville Ave
Buffalo 14206
Ohio Hutco Electric, Inc, 6212 Carnegie Ave
Cleveland 432-2155
Ohio Southern Ohio Controls Co, 3533 Epley Rd
Cincinnati 241-0666
Pa C & M Electric Supplies, Inc
1884 Painters Run Rd, Pittsburgh 15228
Pa Fluid Power, Inc, Germantown Pk & Church Rd
Lafayette Hill 828-6808
Tex Industrial Equip Co of Houston, 6831 Navigation
Houston 928-3463
Utah Control Equip Co, 2255 S 2d W
Salt Lake City 801 487-7741
Va Virginia Tech Assoc Inc, 15 S Belmont Ave
Richmond 353-6411
Wash Tinling & Powell Inc, E 706 Sprague Ave
Spokane 838-8276
Wash H M Denny Co, 3410 16th Ave W
Seattle 206 282-7200
W Va Talisman Co, 114 D St
South Charleston 774-9406
Wis Automation Engrg Co Inc, 12740 N River Rd, 43W
Mequon 354-4984
Can Forster Instruments, Ltd, 20 Algie Ave
Toronto 255-5991
For Tully Intl Inc, Times-Star Tower
Cincinnati Ohio 513 721-1646
Aust Clarke-Strickland Pty Ltd, 141 Clarendon St
South Melbourne, Aust 69-3193

GENERAL FINDINGS CO INDUSTRIAL DIV
56 SCHOOL ST, ATTLEBORO
MASS, 02703 .... 617 CA 2-1155
A MARCELLO, JR, EMP 250, ENG 4, $1,000-$2,500M
Cal Ken Babin, 7327 Lankershim Blvd
N Hollywood 877-0458
Ill R Snow, 801 E Marion St
Arlington Hgts 392-9026
NY S Greenbaum, 153-25 88th St
Howard Beach 848-6578
RI G Forman, 21 Stratford Rd, Edgewood 351-3000

GENERAL GASKETS INC, MIDDLETOWN
CONN, 06457 .... 203 346-6203
J LONDON, EMP 12, UP TO $100M

GENERAL HARDWARE MFG CO INC, 80 WHITE ST
NEW YORK, N Y, 10013 .... 212 BA 72648
A ROSENBERG, EMP 60, ENG 4, $2,500-$5,000M

GENERAL INDICATOR CORP, BOX 97, PARDEEVILLE
WIS, 53954 .... 608 429-2121
R JUSTICE, EMP 150, ENG 7, $5,000-$10,000M
NY E Stockmar, 232 E 32nd St
New York .... 212 OX 7-2626

GENERAL INDUSTRIES CO, TAYLOR & OLIVE STS
ELYRIA
OHIO, 44035, TWX 810-424-2109 ...... 216 323-3136
R CHAPMAN, EMP 1415, ENG 14, $5,000-$10,000M
Ark Meredith Young Assoc, Rte 2, Box 705
Hot Springs .... CO 2-1365
Cal R S Hopkins Co, 15016 Ventura Blvd
Sherman Oaks .... ST 8-5501
Colo Gordon Moss Electronics Inc, 1530 13th Ave
Greely 353-1452
Ill Jack A Funk, 6272 W North Ave
Chicago 237-3782
Ky Raymond R Mong Assoc, 7250 Honeydale Dr
Northfield 216 467-7219
Mass G K Mulvey, Box 146, Springfield........ 734-2922
Mich J E Murtagh Assoc Inc, 29600 Northwestern Hwy
Southfield .... EL 7-1266
NJ Mech-Elec Sales Co, 16 S Main St
Medford 654-8209
NY P Saftler Assoc Inc, 157 W 57th St
New York .... CI 7-3855
NC Byrel M Triggs, 1344 Briar Creek Rd
Charlotte 536-3408
Tex Koch Engineering & Sales Co, 309 Meadows Bldg
Dallas .... EM 1-1765
Utah Gordon Moss Electronics Inc, 1502 Preston
Salt Lake City 485-2870
Wash James J Backer Co, 221 W Galer St
Seattle .... AT 3-6470
Can Charles W Pointon Ltd, 66 Racine Rd
Rexdale, Ont .... CH 7-8777
For Rocke Intl Corp, 13 E 40th St
New York, NY .... MU 9-0200

GENERAL INSTRUMENT CORP AUTOMATIC MFG DIV
65 GOUVERNEUR ST, NEWARK
N J, 07104, TWX 201-621-7993 .... 201 485-2100
A ADESSA, EMP 800, ENG 35, $1,000-$2,500M
Cal Mann & Smith, Box 852
Northridge 213 349-2073
Conn Gerber Sales Co Inc, Box 2917
New Haven 203 777-6279
Fla General Instrument Corp, 321 Northlake Blvd
No Palm Beach 305 842-5259
Ill General Instrument Corp, 6054 W Touhy Ave
Chicago 312 774-7800
Ind Morris & Cunningham Assoc, 720 E 65th St
Indianapolis 317 255-2458
Mass Gerber Sales Co Inc, 176 Second Ave
Waltham 617 891-8040

Minn R G Ragon Inc, 1136 W Larpenteur Ave
St Paul 612 488-6634
NY Harry Zion, 125 E 72nd St
New York 212 744-3382
NY Jack McDonough Assoc, 4541 Main St
Buffalo 716 839-2044
Ohio G&H Sales Co, Box 37416
Cincinnati 513 761-6185
Pa Philip Lepofsky, Box 144
Upper Darby 215 477-2764
Tex Delzell & Evans Assoc, Box 35093
Dallas 214 351-1839
For General Instrument Intl, 600 W John St
Hicksville, NY .... OV 1-8000

GENERAL INSTRUMENT CORP, CAPACITOR GRP
65 GOUVERNEUR ST, NEWARK
N J, 07104 .... 201 485-2100
P MALER, EMP 2020, ENG 45, OVER $10,000M
Ariz Howe & Howe Sales, 4109 N 18th St
Phoenix 602 264-7971
Colo Electronic Component Sales, Inc, 2340 W Main St
Littleton 303 798-8481
Conn Comp Rep Assoc Inc, 14 Bowling Green Dr
North Haven 203 239-9762
Fla General Corp, 321 N Lake Blvd
North Palm Beach 305 842-5259
Ill Gianaras Sales Co, 7051 W Wilson Ave
Chicago 312 774-4600
Ind Needler Sales Co, 5402 Fairfield
Fort Wayne 219 744-5226
Iowa Kelley/Schmitz/Winkeler Assoc, 3831 43rd St
Des Moines 515 279-9235
La Jack F McKinney Sales Co, 2012 Condon Ave
Metairie 504 887-1723
Md Barnhill & Assoc Inc, 1931 Greenspring Dr
Timonium 301 252-5610
Mass Comp Rep Assoc Inc, 116 Great Plain Ave
Needham 617 444-2484
Mich G & H Sales Co, 24001 Southfield Rd
Southfield 313 358-1910
Minn Industrial Components, Inc, 4004 W 78th St
Minneapolis 612 927-9991
Miss Herron Assoc, Box 3008, Meridan.... 601 482-3631
Mo Kelly-Schmitz-Winkeler Assoc, 7546 Troost Ave
Kansas City 816 363-5651
Mo Kelly-Schmitz-Winkeler Assoc, 2319 Hampton Ave
St Louis 314 781-6111
NJ General Instr Corp, 65 Gouverneur St
Newark 201 485-2100
NM Electronic Component Sales, Inc, 209 San Pablo
Albuquerque 505 256-3663
NY W A Franklin Sales Corp, 2 Standish Terr
Syracuse 315 446-1120
NY Kohl-Camber, 201 Crescent Ave
Leonia, NJ 201 944-6488
NY W A Franklin Sales Corp, 80 W North St
Illion 315 894-2227
Ohio G & H Sales Co, 13690 Fox Hill Dr
Novelty 216 338-1122
Ohio G & H Sales Co, 7215 Market Pl
Cincinnati 513 761-6185
Okla Jack F McKinney Sales Co, Box 3958
Tulsa 918 742-4595
Pa Jerry Bresson Assoc, 107 Forest Ave
Narberth 215 839-6770
Tenn Herron Assoc, Box 1521
Chattanooga 615 698-4188
Tex Jack F McKinney Sales Co, Box 1026
Bellaire 713 665-3653
Tex Jack F McKinney Sales Co, 1303 Chemical St
Dallas 214 631-9450
Utah Electronic Component Sales, Inc, Box 2066
Salt Lake City 801 278-6044
Va Barnhill & Assoc Inc, Box 1104
Lynchburg 703 384-2062
Wash Bill Waddell Co, 10211 NE 31st Pl
Bellevue 206 822-9629
Can Gen Instr of Can, Ltd, 151 Weber St, S
Waterloo, Ont 519 744-8104

GENERAL INSTRUMENT CORP, HARRIS ASW DIV
33 SOUTHWEST PARK, WESTWOOD
MASS, 02090 .... 617 326-7815
H MATTES, EMP 200, ENG 40, $2,500-$5,000M
DC General Instrument Corp, 2435 Virginia Ave NW
Wash 965-3712
NY General Instrument Corp, Andrews Rd
Hicksville 681-4300

GENERAL INSTRUMENT CORP RADIO RECEPTOR DIV
ANDREWS RD, HICKSVILLE
N Y, 11802 .... 516 OV 1-4300
M SCHWARTZ, EMP 900, ENG 250, OVER $10,000M

GENERAL INSTRUMENT CORP, SEMICONDUCTOR PRODS GRP
600 W JOHN ST, HICKSVILLE
N Y, 11802, TWX 510-222-2388 .... 516 681-8000
R ADLER, EMP 2526
ADV PG 3RD COVER INLEAF
Ala General Instrument Corp, 2021 Clinton Ave W
Huntsville 536-9671
Ariz General Instrument Corp, 100 W Camelback Rd
Phoenix 277-6295
Cal General Instrument Corp, 18455 Burbank Blvd
Tarzana 873-6500
Cal General Instrument Corp, 1020 Corporation Way
Palo Alto 415 964-4243
Colo Electronic Component Sales, 2340 W Main St
Littleton 798-8481
Conn General Instrument Corp, 608 Ferry Blvd
Stratford 203 378-9308
Conn Todino Engrg Sales Co, 132 New Haven Ave
Milford 874-6643

DC General Instrument Corp, 2600 Virginia Ave NW
Washington 965-3620
Fla General Corp, 321 Northlake Blvd
North Palm Beach 842-5259
Ill General Instrument Corp, 6054 W Touhy Ave
Chicago 774-7800
Ind G & H Sales, 100 W Main St
Fort Wayne 744-3072
Iowa Jerry Vrbik Co, 2818A Ave NE
Cedar Rapids 365-0461
Md Component Sales Inc, 7 Church La
Baltimore 484-3647
Mass General Instrument Corp, Southwest Park
Westwood 329-1480
Mass Todino Engrg Sales Co, 50 Kearney Rd
Needham Heights 444-7925
Mich G & H Sales, 24001 Southfield Rd
Southfield 358-1910
Minn Hamilton, Grayden & Flemmer, Hamilton Rd
Hopkins 941-1120
Minn A J Warner Co, 4927 34th Ave S
Minneapolis 729-7371
NJ R T Reid Assoc, 530 Main St, Fort Lee ... 944-9323
NY Harries-Kershaw, 15 Centerbury La
E Aurora 652-1221
Ohio G&H Sales, Box 37416, Cincinnati 761-6185
Ohio G&H Sales, 137 Lakeview Ave, Dayton ... 433-2511
Ohio G & H Sales, 13690 Fox Hill Dr
Novelty 338-1122
Okla Ammon & Champion, 5500 E Skelly Dr
Tulsa 627-7670
Okla Ammon & Champion, Box 12274
Oklahoma City 942-8222
Pa C H Newson & Assoc, 627 Bethlehem Pike
Phila 248-3377
Tex Ammon & Champion, Box 35263
Dallas 357-8441
Tex Ammon & Champion, 115-14 Burdine
Houston 729-1233
Wash Bill Waddell Co, 10211 NE 31st Pl
Bellevue 822-9629
Can General Instrument of Can Ltd, 151 Weber St
Waterloo, Ont 519 744-8101
Fr General Instrument France, 8 Rue de Montyon
Paris 9 8247121
Ger General Instrument Deutschland
Sonnenbergerstr 64
62 Wiesbaden 06121 3037-50
GB General Instrument (U. K.) Ltd, 136 Cromwell Rd
London S W 7 01-370-5133
Ital General Instrument Europe, Via Turati 28
Milano 654475

GENERAL INSTRUMENT CORP F W SICKLES DIV
165 FRONT ST, CHICOPEE
MASS, 01013, TWX 710-353-1301 ...... 413 594-4781
M WAGENER, EMP 2400, ENG 100
Cal Mann & Smith, Box 852, Northbridge..... 349-2073
Colo Electronic Components Sales, P O Box 784
Littleton 798-8481
Fla General Corp, 321 Northlake Blvd
North Palm Beach 842-5259
Ill General Instrument Corp, 6054 W Touhy Ave
Chicago 774-7800
Mass Gerber Sales Co, Inc, 176 2nd Ave
Waltham 891-8040
Minn R G Ragon Co, 1136 Larpenteur Ave
Mnpls 488-6634
NM Electronic Component Sales Inc, Box 3087, Sta D
Albuquerque 256-3663
NY Donert Assoc, 125 E 50th St, New York... 355-4190
Ohio G&H Sales Co, 7215 Market Pl
Cincinnati 761-6185
Tex Dunbar Assoc Inc, 417 Meadows Bldg
Dallas 363-2536
Utah Electronic Component Sales, Box 2066
Salt Lake City 262-3700
Wash Jas J Backer Co, 221 W Galer St
Seattle 283-6470
Can General Instrument of Canada, Ltd, 151 Weber St S
Waterloo 744-8101

GENERAL INSTRUMENT CORP THERMOELECTRIC DIV
65 GOUVERNEUR ST, NEWARK
N J, 07104 .... 201 485-2100
O SCHREIBER
DC General Instrument, 2435 Virginia Ave N W
Washington 965-3712

GENERAL INSTRUMENT EUROPE SPA
VIALE MONTE ROSA 24, MILANO
ITALY, TWX 31454 654-475
S MINORETTI, EMP 300, ENG 50, $2,500-$5,000M
Den Snordisk Elektronik, Danasvej 2
Copenhagen V .... EVA 8285/8238
Fr G I France, 8 Rue de Montyon, Paris 824-7121
Ger General Instr Deutchland, Oberanger b/III
8000 Munich 2 .... 26.2187.26.24.11
GB G I (UK) Ltd, 136 Cromwall Rd, London .. 370-5133
Holl Eurolectron, Box 70, Bilthoven 3607
Swed Svenska Telekon Bolaget, Box 328
Farsta 3 949023
Swit Ingenieurburo Dam, Box 219, Zurich 8055... 335515
Belg C P Clare Intl NV, 6 Mombersstraat
Tongeren 012-33311
Isrl Alexander Schneider Ltd, 44 Petachtiqua Rd
Tel Aviv 32089
Spn Julio Del Olmo, Camp 6, Barcelona 6 247-7203

GENERAL KINETICS INC, 11425 ISAAC NEWTON SQ S
RESTON, VA, 22070 .... 703 471-7522
W GAVIN, EMP 212, ENG 12, $1,000-$2,500M
Cal General Kinetics Inc, 633 S LaBrea, Los Angeles
Colo Klein Aerospace, Box 1056, Englewood... 781-4967

Fla MacDonald Computer Supplies Co
11730 W Biscayne Canal Rd, Miami .. PL 7-1091
Fla Consulting Assoc Inc, 1623 Prudential Bldg
Jacksonville 359-2886
Ga General Kinetics Inc, 5279 Buford Hwy, Atlanta
Ill General Kinetics Inc, 999 Elmhurst Rd, Mt Prospect
Ill Datapower Inc, 1 S Washington St
Park Ridge 312 692-4183
Ky DA-Pex Co, 334 Francis Bldg
Louisville 585-5454
Mass We E Weeton Co, 42 Newbury Pk
Needham 444-1012
Mich Ace Tel-A-Tape Paper, Inc, 15324 Mack Ave
Grosse Pointe 881-9060
Mich Jenca Assoc, 121 W South St, Lansing ... 484-2134
Minn Sexton Supply Co, 324 N First St
Minneapolis 333-1281
Mo Conner Universal Co, 3930 Lindell Blvd
St Louis 652-4892
Mo Information Prods Inc, 3706 Broadway
Kansas City 816 561-0745
Neb Sahler Business Forms, 2530 Harney St
Omaha 341-4278
NJ GKI Tape Service So, 155 Church St, New Brunswick
NY Machine & Prods Co, 52 Wall St
New York 944-4370
NY Time Brokers, Inc, 380 Lexington Ave
New York 867-5661
Ohio Electro Enterprises Inc, 2621 Mardon Dr
Dayton 513 426-6071
Okla Davis Equip Co, 5110 E 15th St
Tulsa 918 939-3344
Tenn Dixie Business Systems, 731 Commerce St
Nashville 242-4595
Tex R Thaxton Co, 324 S Adams, Ft Worth 322-9710
Tex Davis Equip Co, 5146 Richmond Ave
Houston 713 622-1153
Wash W K Wood, Inc, Box 46046, Seattle 935-9400
Can Barshaw Office Systems Corp, 740 St Maurice St
Montreal 3 Que 866-2849
Can Dalcan Equip Ltd, 5509 6th St SE
Calgary Alb 403 252-2808
For B Freudenberg Inc, 50 Rockefeller Plaza
New York .... 212 PL 7-9130
Fr Technique et Produits
Cite des Bruyeres Rue Carle Vernet 92 Sevres,
Ger BFI Elektronik Gmbh, 6 Frankfurt am Main
Frankfurt 0611 617099
GB Willis (London) Ltd, 10 New St
Bishopsgate London EC 2 .... BIS 3425
Holl N Samsom Ltd, Alphen aan den Rijn,
Jap Kanematsu New York Inc, 1 Whitehall St
New York, NY .... HA 5-2700
Jap F Kanematsu & Co Ltd, CPO Box 141
Marunouchi Tokyo
Swit Impetus Sa, 2 Via Berna, Lugano 091 38214-15
Swit Intronic Sa, 8952 Schlieren ZH Aurcherstr 4
Chur 051-982075
Swit Robinco Ag Zurich, Seestr 5
8027 Zurich 25-47-96-98
Mex PRIC/SA, Zacatecas Num 229 Desp 517
Mexico City 25 147416
Fin K Osakeyhtio, Postilokero 20120, Helsinki
Aust Maurice Chapman & Co Pty Ltd, Box 882, G P O
Sydney 29-1704

GENERAL LABORATORY ASSOC INC, 17 MIDLAND DR
NORWICH, N Y, 13815 .... 607 334-3264
H ROWELL, EMP 550, ENG 60, $5,000-$10,000M
Cal C A Spadaro, 6331 Hollywood Blvd, Hollywood

GENERAL MAGNETIC CORP, 10001 ERWIN AVE
DETROIT, MICH, 48234 .... 313 921-7558
R CAMPBELL, EMP 175, ENG 10
Cal G B Leland, Box 8166, Universal City 465-6545
Ill R Thompson, 125 S Elm, Palatime 625-4085
Ill Corey, 2538 W Peterson Ave, Chicago 463-5550
Mass Gysan Assoc, 5 Elm St, Danvers 774-2012
NJ H Delaney, 5 Edgewood Pl, Maplewood .. 762-6117
Ohio Rockford Controls Ohio, Inc, 19200 Villaview Rd
Cleveland 531-4841
Ohio Rockford Controls Ohio, Inc, 2077 Embury Park Rd
Dayton 274-1911

GENERAL MAGNETICS INC, 135 BLOOMFIELD AVE
BLOOMFIELD
N J, 07003, TWX 710 994-4779 .... 201 743-2700
EMP 75, ENG 4, $1,000-$2,500M
Mass Fred R Lesser, Box 241, Bedford

GENERAL MICROWAVE CORP, 155 MARINE ST, FARMINGDALE
N Y, 11735 .... 516 694-3600
M WIND, EMP 100, ENG 12, $1,000-$2,500M
ADV PG 60, 400, 407, 801
Ala Gentry Assoc, 2109 W Clinton Ave
Huntsville 205 534-9771
Cal RF Assoc Inc, 800 San Antonio Rd
Palo Alto 415 327-5531
Cal RF Assoc Inc, 1621 Pontius Ave
Los Angeles 213 478-1586
Colo D E Bond Assoc, 2149 S Clermont
Denver 303 756-1234
Conn Burlingame Assoc, 310 S Fulton Ave
Mt Vernon, NY 914 664-7530
Fla Gentry Assoc, 550 Bumby Ave
Orlando 305 424-0730
Ga Gentry Assoc, Box 13513, Sta K
Atlanta 404 233-3816
Ill Cain & Co, 1203 Ironwood Dr
Mt Prospect 312 253-3578
Kan Palatine Engrg Sales, Inc, 5514 Johnson Dr
Mission 913 262-5643
Md S & S Assoc, 7720 Wisconsin Ave
Bethesda 301 654-2420
Mass Burlingame Assoc, 7 Wellington St
Waltham 617 894-1955
Mo Palatine Engrg Sales, Inc, 2050 Woodson Rd
St Louis 314 426-7055
NJ Bertram D Aaron & Co, 55 Northern Blvd
Greenvale, NY 516 621-0630
NY Burlingame Assoc, 106 Pickard Bldg
Syracuse 315 454-2408
NC Gentry Assoc, Box 197
Jamestown 919 454-1919
Pa S & S Assoc Inc, Boro Line Rd
King of Prussia 215 265-3450
Tex Cain & Co, 8609 NW Plaza Dr
Dallas 214 369-2897
For Sylvan Ginsbury Ltd, 72 W 45th St
New York, NY 212 687-3213
For Overseas Distributing Co, Box 7342, Karachi Pak
For Guevara & Sons Inc, Box 3130, Manila
Den J Arndt Jensen, Kongevejen, Allerod
Fr Salies S.A., 11, rue Leon Morane, Paris
Ger Ginsbury Electronic, Zaenglweg 20, 8 Munich 56
GB Livingston Labs, 31 Camden Rd, London NW 1
Holl Heijnen N.V., Postbus 10, Gennep
Ital G G Gorgatti, Via Borromei 5, Milan
Swed R E O Olsson, Tradgardsgatan 7, Motala
Swit Metravel S.A., Chemin de la Dode, Onex-Geneva
Belg Heijnen N.V., Gaerveldstr 40, Hasselt
Braz H Merenholz, Rua Mexico 70-803, Rio de Janeiro
Ind Forbes, Forbes, Campbell & Co Ltd, Box 79, Bombay
Isrl Racom Electronics, 74 Nordau Blvd, Tel-Aviv
Spn Instrumentos Electronicos Del Olmo, S.A.
La Gleva 3, Barcelona
Fin Havulinna Oy, Vuorikatu 16 Box 468, Helsinki
Aust Jacoby, Mitchell & Co Pty Ltd, 469-475 Kent St
Sydney, NSW

GENERAL PLASTICS CORP, 55 LA FRANCE AVE
BLOOMFIELD
N J, 07003, TWX 710-994-4781 .... 201 748-5500
J DESMOND, EMP 85, ENG 4
Cal Special Products Inc, 15133 S Broadway, Gardena

GENERAL POWER CORP, 11837 TEALE ST
CULVER CITY, CAL, 90230
J KLEMER, EMP 25, ENG 5, $250-$500M

GENERAL PRECISION SYSTEMS INC
50 PROSPECT AVE, TARRYTOWN
N Y, 10591 .... 914 631-6200
J NETTLETON, JR, EMP 15000, ENG 4000, OVER $10,000M
Cal Gen Prec Sys Inc, 3356 Lugo Ave
San Bernardino .... TU 5-3495
Cal Gen Prec Sys Inc, 9808 Wilshire Blvd
Beverly Hills 273-2137
DC Gen Prec Sys Inc, 1031 15th St N W
Washington 223-4100
Mass Gen Prec Sys Inc, Wellesley Office Park
Wellesley 235-8750
NY Gen Prec Sys Inc, 220 E 42nd St
New York .... YU 6-2828
Ohio Gen Prec Sys Inc, 3609 N Dixie Dr
Dayton 274-1151
Fr General Precision France SARL, 22 Rue de La Paix
Paris .... RIC 26 33
GB Gen Prec Sys Inc, 2 Holly La
Twickenham, Mdsx .... POP 6009
Jap Gen Prec Sys Inc, CPO Box 66, Tokyo

GENERAL PRECISION SYSTEMS INC, INDL CONTROLS
DIV, 6511 OAKTON ST, MORTON GROVE
ILL, 60053, TWX 910 223-3646 .... 312 966-4000
R STOCKDALE, EMP 16000, ENG 4000, OVER $10,000M
Ala McConnell Sales & Eng Corp
Box 5825, Homewood Br
Birmingham .... TR 1-3501
Cal Gen Prec Sys Inc, 2630 Eighth St
Berkeley 845-4344
Cal Gen Prec Sys Inc, 4341 W Commonwealth
Fullerton 714 523-4550
Colo L A Christopher Co, Box 3096, Colfax Sta
Denver .... KE 4-1338
Fla Thompson Equip Co, 311 Teakwood Cir
Pensacola .... GL 6-1612
Ga Dixie Sales Co, 541 Bishop St NW
Atlanta 351-6733
Ill Gen Prec Sys Inc, 4020 W 111th St
Oak Lawn 233-5500
La Thompson Equip Co Inc, 4020 Thalia St
New Orleans 822-1336
La Thompson Equip Co, 655 Carrollton Ave
Baton Rouge 926-4311
Mass Gen Prec Sys Inc, Wellesley Office Park
Wellesley Hills 617 235-8750
Mich F E Early Co, 14730 Fenkell Ave
Detroit 836-4336
Minn Craighead & Assoc, 3822 E Lake St
Mnpls 721-6529
Mo W C Carolan Co, 4530 Madison
Kansas City .... JE 1-5505
NJ General Precision, 1051 Bloomfield Ave
Clifton 201 472-4660
Ohio Gen Prec Sys Inc, 617 Central Trust Tower
Cincinnati 513 381-8279
Ohio Gen Prec Sys Inc, 19200 Villaview Dr
Cleveland 216 692-0707
Okla Gen Precision Inc, 1425 S Main St
Tulsa .... LU 3-9303
Ore Norman Rupp Co, 0112 SW Pennoyer St
Portland 228-4311
Pa Gen Prec Sys Inc, 300 Mt Lebanon Blvd
Pittsburgh 563-1992
Pa Gen Prec Sys Inc, 817 Fayette St
Conshohocken 825-1640
SC Marshall & Williams Equip Co, Box 5285, Sta B
Greenville 232-7337
Tex Gen Prec Sys Inc, 6001 Gulf Frwy
Houston .... WA 3-1696
Utah Specialty Sales Co, 328 2nd S St
Salt Lake City 322-5553
Wash Nebar Supply Co, 430 Minor Ave N
Seattle .... MA 2-6292
W Va Talisman Co, Box 8702
South Charleston 346-9862
Wis Power/Mation Supply Co, 1622 N 52nd St
Milwaukee 414 453-3000
Can Lytle Engrg Specialties Ltd, 438 St Peter St
Montreal 849-4151
Can P D McLaren & Son Ltd, 1219 9th Ave SW
Calgary, Alb 266-2126
For Champion Co, Ltda, Apartado 2742, San Jose, CR
For Neris Phillipines, Inc, Muralla, Intramuros
Manila, Phil 3-84-68
For Avery-Laurence (S'Pore) Ltd, 2 Battery Rd
Singapore 1 96-503
Ger Flexa Controls GmbH, 4300 Essen 1, Box 538
Essen 461312
GB Whessoe Ltd, Brinkburn Rd, Durham 60188
Holl Handelscompagnie NV, Box 5050
Rotterdam 292055
Ital Regulator SRL, Via Gaetana Agnesi, 3
Milano 54-60-141
Jap Nihon Regulator Co Ltd, Yaesu 1-Chome
Chuo-Ku, Tokyo 271-2744/45
SAfr R H Harriss Pty Ltd, 28-32 Harry St Robertsham
Johannesburg 32-6241
SAfr J H Vivian & Co Ltd, 46 Weber St
Selby, Johannesburg 836-2171
Braz Werco Commercio E Industria Ltd
Caixa Postal 4303
Rio De Janeiro, Guanabara 23-87-10
Mex Dominicis SA de CV, Calle 3
Naucalpan, de Juarez 27-11-30
Aust Austral Engrg Supplies Pty Ltd, Mary St
Ermington, N S W 85-0211
Aust Westeels Industries, Ltd, 31-33 Parramatta Rd
Lidcombe, N S W 648-0199

GENERAL PRECISION SYSTEMS INC, KEARFOTT GP
1150 MCBRIDE AVE, LITTLE FALLS
N J, 07424 .... 201 256-4080
W QUIGLEY, EMP 7000, ENG 3000, OVER $10,000M
Ala General Prec Sys Inc, 4306 Governors Dr
Huntsville 533-2062
Cal Gen Prec Sys Inc, 1326 Flower St
Glendale 247-8076
Cal Gen Prec Sys Inc, 991 Commercial St
Palo Alto 326-3010
Cal L L Stoakes, Inc, 4438 Ingraham St
San Diego 274-6281
DC Gen Prec Sys Inc, 1030 15th St
Washington 243-4100
Fla G F Bohman Assoc Inc, 7040 Lake Ellenor Dr
Orlando 855-0274
Ill Gen Prec Sys Inc, 100 Oakbrook Center Mall
Oakbrook 654-0800
Mass Gen Prec Sys Inc, 51 Glenwood Ave
Wellesley Hills 237-1220
NC The Candor Co, Bethania 924-1480
Ohio Gen Prec Sys Inc, 33 W First St
Dayton 222-5892
Tex Gen Prec Sys Inc, 3300 Mockingbird La
Dallas .... Fl 2-1764
Wash J J Backer Co, 221 W Galer St
Seattle .... AT 3-6470
Fr Gen Precision France Sarl, 22 Rue de La Paix
Paris .... Ric 2633
Ger Siemens & Halske, Hoffmannstr 51
Munich 76761
Ital Breda Precision Spa, Torre Gaia, Casalina KM15
Rome 615-0298
Jap H Ziebolz, CPO Box 66, Tokyo 212-0538
Nor Ole A Nordby, Sorkedalsveien, Oslo 56-5126
Swed Svenska Siemens Aktiebolag, Fack
Stockholm 22-9640

GENERAL PRODUCTS CORP, 107 SALEM ST
UNION SPRINGS, N Y, 13160 .... 315 889-7361
J WILLIAMS, EMP 375, ENG 7, $5,000-$10,000M
Mich General Prods Corp, 17500 Northland Park Ct
Southfield 444-4434

GENERAL RADIO CO, 22 BAKER AVE, WEST CONCORD
MASS, 01781, TWX 710 347-1051 ...... 617 369-4400
L CHAMBERLAIN, EMP 1200, ENG 120, OVER $10,000M
Cal General Radio Co, 1000 N Seward St
Los Angeles 469-6201
Cal General Radio Co, 626 San Antonio Rd
Mountain View 948-8233
Fla General Radio Co, 113 E Colonial Dr
Orlando 425-4671
Ill General Radio Co, 9440 W Foster Ave
Chicago 992-0800
Md General Radio Co, 11420 Rockville Pike
Rockville 946-1600
NJ General Radio Co, 845 Broad Ave
Ridgefield 943-3140
NY General Radio Co, E Molloy Rd
Syracuse 454-9323
Ohio General Radio Co, 5579 Pearl Rd
Cleveland 886-0150
Pa General Radio Co, Ft Wash Ind Pk
Ft Washington 646-8030
Tex General Radio Co, 2600 Stemmons Frwy
Dallas 637-2240

Can General Radio Co, 99 Floral Pkwy
Toronto ... 247-2171
Can General Radio Co, 1255 Laird Blvd
Town of Mount Royal ... 737-3673
GB General Radio Co UK Ltd, Bourne End
Buckinghamshire ... 22567
Swit General Radio Co, 8008 Zurich ... (051) 47 70 20

GENERAL RAILWAY SIGNAL CO, ROCHESTER
N Y, 14602, TWX 978317 ... 436-2020
O STOWELL, EMP 1400, OVER $10,000M
Cal Gen Railway Signal Co, 1330 Broadway
Oakland ... 893-3100
Ga Gen Railway Signal Co, 3379 Peachtree Rd NE
Atlanta ... 233-7373
Ill Gen Railway Signal Co, Prudential Plaza
Chicago ... 467-1221
Mass Gen Railway Signal Co, 1029 Statler Office Bldg
Boston ... 426-1003
Minn Gen Railway Signal Co, 9 Wabasha St
St Paul ... 222-2319
Mo Gen Railway Signal Co, 818 Olive St
St Louis ... 621-4696
NY Gen Railway Signal Co, 230 Park Ave
New York ... 689-7533
Can Gen Railway Signal Co, Place Ville Marie
Montreal 2 ... 861-1536

GENERAL REED CO, 19 WALNUT AVE, CLARK
N J, 07066 ... 201 382-7373
H SUNDERMEYER, EMP 115, ENG 4, $500-$1,000M
ADV PG 601, 674
Cal Willard Nott & Co, 1485 Bayshore Blvd
San Francisco ... 587-2091
Cal R L Assoc, 14401 Gilmore St
Van Nuys ... 780-1666
Fla Buchanan & Abrams Assoc Inc
1512 E Concord Ave, Orlando ... GA 3-8995
Ill Jack H Beck Assoc, Inc, 7956 N Karlov
Skokie ... 674-5151
Md Aeron Assoc, 880 Bonifant St
Silver Spring ... 585-3141
Mass Cirolia, Le Blanc Sales Co Inc, 976 Main St
Waltham ... 893-2742
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield ... 357-3700
Minn Caco, Inc, Box 517, Lakeville ... 469-2171
Mo Harlan J Weisler Assoc, 2050 Woodson Rd
St Louis ... HA 8-3934
NJ Alto Assoc, Box 211, Midwood Sta
Brooklyn, NY ... 253-6295
NY S Glassman Assoc Inc, 28 Prestwick Terr
Glen Cove ... OR 6-1039
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland ... 442-8080
Pa C E Babcock, 130 W Lancaster Ave
Wayne ... MU 8-8288
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh ... 884-5515

GENERAL RELAY CORP, 20 MERCER ST, DOVER
N J, 07801, TWX 710-987-7929 ... 201 361-1400
J SUCHER, EMP 100, ENG 5, $1,000-$2,500M

GENERAL RELIANCE DIV GEN RELAY CORP
20 MERCER ST, DOVER
N J, 07801, TWX 710-987-7929 ... 201 361-1400
J SUCHER, EMP 100, ENG 5, $1,000-$2,500M

GENERAL RESEARCH INC, 309 S UNION, SPARTA
MICH, 49345 ... 616 887-0751
H NIES, EMP 50, ENG 5
Ill G Andersen, 1331 S Crescent Ave
Park Ridge ... TA 5-3627

GENERAL RESISTANCE INC, 430 SOUTHERN BLVD
NEW YORK
NY, 10455, TWX 710-593-6727 ... 212 CY 21500
L SILVERMAN, EMP 100, ENG 8, $1,000-$2,500M
Ala Kemp Inst Inc, 4306 Governors Dr
Huntsville ... 837-4304
Cal Q P L, Inc, 1015 Fremont Ave
South Pasadena ... 682-3705
Cal M A Stolaroff Co, 4622 W Slauson Ave
Los Angeles ... 295-7781
Cal Bert Oppenheim Co, 2179 Park Blvd
Palo Alto ... 321-7323
Colo Bishop Enterprises, 493 Jamaica St
Aurora ... 364-7361
Fla Fact-Tronics, Box 3202, Orlando ... 423-7069
Md S & S Assoc, 4405 East West Hwy
Bethesda ... 654-2420
Mass Vector Sales Inc, 774 Pleasant St
Belmont ... 489-1400
Mich Anderson Elec Co, 19471 James Couzens Hwy
Detroit ... 342-7133
NM Bishop Enterprises, 601 San Pedro NE
Albuquerque ... 255-9042
NY Industron Assoc Inc, 300 Northern Blvd
Great Neck ... HU 7-2620
Ohio Rixan Assoc, 5752 Wadsworth Rd
Dayton ... 222-0011
Pa S & S Assoc, Boro Line Rd
King of Prussia ... 265-3450
Tex Kemp Engineering Co, 2618 Manana Dr
Dallas ... 357-6663
Tex Kemp Engineering Co, 6001 Gulf Frwy
Houston ... 667-7578
Tex Kemp Engineering Co, 102 W Rector
San Antonio ... 334-1841
Can Whittaker Electronics, 42 Howden Ave
Ottawa, Ont ... 224-1221

For Terminal Radio Intl, 3 W 61st St, New York
For Intl Engineering Service, Veitingergasse 159-161
A-1130 Wien ... Vienna 13
Fr Imex-France, 2 Rue Navoiseau, Montreuil Seine
Ger Wenzel Elektronik, Lamontstr 32, 8 Munich 27
GB A E P Intl, Ltd, London Rd, Isleworth, Mdsx
Holl Heijnen N V, Box 10, Maasweg 63, Gennep
Ital G G Gorgatti, Via Borromei, 5, Rome
Jap Seki & Co, Ltd, 9, 2-Chome Nihonbashi-Koamicho
Chuo-Ku, Tokyo
Swed Svenksa AB Oltronix, Jamtlandsgatan 125
Stockholm-Vallingby
Isrl S T G Intl, Ltd, 52 Nachlat Benyamin St, Tel-Aviv

GENERAL RF FITTINGS INC, COVE RD, BOX 278
PORT SALERNO
FLA, 33492, TWX 510-953-6010 ... 305 287-5000
W BRAMMEIER, EMP 100, ENG 6, $1,000-$2,500M
Ala NBS, Inc, Box 1343, Huntsville ... 881-3175
Cal K Fields Co, 1 First St, Los Altos ... 948-5444
Cal W E Zimmerman Co, 15443 Cabrito Rd
Van Nuys ... 787-4240
Colo Electronic Sales Inc, 2340 W Main St
Littleton ... 798-8575
Conn Forsberg Sales, 22 Broadway
North Haven ... 239-5111
Fla NBS, Inc, 2813 Primrose Ct, Orlando ... 423-4856
Fla NBS, Inc, 4150 SW 23rd St
Fort Lauderdale ... 584-0650
Ga NBS, Inc, 893 Church St NW, Marietta ... 422-6067
Ill Communications Engineers, 7100 N Western Ave
Chicago ... 761-0548
Md Barnhill & Assoc Inc, 1931 Greenspring Dr
Timonium ... 252-5610
Mass Forsberg Sales, 646 Summer St
Brockton ... 522-6300
Mo Forristal-Young Sales Co, 7110 Oakland Ave
St Louis ... 645-2360
NJ Lawrence C Freeman & Assoc, 484 Bloomfield Ave
Montclair ... 746-5200
NJ Barnhill & Assoc, Box 296
Collingswood ... 854-5858
NY E W Stone Co Inc, Pickard Bldg
Syracuse ... 455-6664
Ohio L J Sculley & Assoc, 2600 Far Hills Bldg
Dayton ... 298-9575
Ohio E Bock, 18838 Canyon Rd, Cleveland ... 331-5212
Tex Lawrence Sales Co, 921 Bowser St
Richardson ... 235-5504
Utah Electronic Sales Inc, 4480 Camille Dr
Salt Lake City ... 278-6044
Wash Associated Industries Inc, 3711 S Hudson St
Seattle ... 723-5600
GB Painton Ltd, Kingsthorpe, Northampton

GENERAL SCIENTIFIC CORP, 1535 FIRST ST
SAN FERNANDO
CAL, 91341, TWX 213-764-5963 ... 213 361-1193
L SMITH, EMP 250, ENG 15
For Sales Reps See San Fernando

GENERAL SEMICONDUCTOR DIV, 230 W 5TH ST
TEMPE, ARIZ, 85281 ... 602 966-7263
EMP 10, ENG 2, $100-$250M
Ariz Carter Assoc, 201 W. 1st St
Scottsdale ... 602 947-4355
Cal W J Purdy Co, 312 7th St
San Francisco ... UN 3-3300
Ill H Grubb & Co, 8039 Lawndale Ave
Skokie ... 312 677-0080
Md Stemler Assoc, 6707 Whitestone Rd
Baltimore ... 301 944-8262
Mass V J Huntoon Assoc, 272 Centre St
Newton ... BI 4-5871
Minn R G Ragon Inc, 1136 W Larpenteur Ave
St Paul ... 488-6634
NY Era, Inc, 330 Great Neck Rd
Great Neck ... HU 2-9320
Vt V J Huntoon Assoc, 272 Centre St
Newton ... BI 4-5871
For Thomson Electric Co, 50 Rockefeller Plaza
New York, N Y ... 015-0444

GENERAL SENSORS INC, BOX 231, ATHENS
TEX, 75751 ... 214 OR 5-5229
L KERCHEVAL JR, EMP 25, ENG 4, $250-$500M
Ill R L Hanna Co, Box 202, Palatine ... 358-3940
Mass Gilway Co, Box 584, Newburyport ... 465-7568
Mich ABM Sales Co, 10116 Puritan, Detroit ... UN 2-1300
Minn Murphy Assoc Inc, 730 Chicago Ave
Minneapolis ... 333-4511
NJ Unicomp Inc, 18 Sunny Ridge Rd
Wayne ... 696-2888
Pa L Anthony Iocono, 6640 Roosevelt Blvd
Philadelphia ... MA 4-1843

GENERAL STAPLE CO, 26 E 22ND ST, NEW YORK
N Y, 10010 ... 212 674-4370
I ZAHN, EMP 15, ENG 5, $500-$1,000M
Ala Don Watts & Assoc, 1901 Greenvale Rd
Birmingham
Ariz Abbott Sales Co, 2030 W McDowell Rd
Phoenix ... 252-6171
Cal Weightman & Assoc, 1226 W Olive Ave
Burbank ... 849-7711
Colo Fred White Assoc Inc, Box 1551
Colorado Springs ... 633-0248
Fla W C Smith, 2000 NE 26th Dr
Ft Lauderdale ... 564-1477
Ill M L Friedman Co, 4751 N Rockwell Ave
Chicago ... 561-4257
Ind Henry J Morath, 325 Bankers Trust Bldg
Indianapolis ... ME 5-4082

Kan M J Burke Sales Co, 7301 Mission Rd
Prairie Village ... EN 3-4833
Md Electric Parts Ltd, Box 442
Randalstown ... 655-6066
Mass L J Maron Assoc, 15 Arbetter Dr
Framingham ... 875-5414
Mich Lamparter Assoc, 17901 E Warren
Detroit ... 885-4444
Minn Abbott Metals Co, Griggs Midway Bldg
St Paul ... 646-8131
NC Tom Dillon & Assoc, Box 351
Clemmons ... 722-5284
Ohio George L Herrick Co, 845 Canterbury Rd
Westlake ... 871-8855
Pa Chas F Babcock, 130 W Lancaster Ave
Wayne ... MU 8-8228
Tenn John L Cottrell Co, Box 1334, Nashville ... 292-8997
Tex R S Black, Box 30393, Dallas ... EM 3-3472
Wash Paratech, 2208 NW Market St, Seattle ... SU 3-3900
Can Robert Neill Co, 5200A Yonge St, Willowdale, Ont

GENERAL SYSTEMS INC, 4238 W 12TH ST, ERIE
PA, 16505 ... 814 838-3564
W ZELINA, EMP 30, ENG 2, $250-$500M

GENERAL TELEVISION NETWORK, 901 LIVERNOIS
FERNDALE, MICH, 48220 ... 313 LI 8-2500
R HIPPLER, EMP 25, ENG 15, $250-$500M
Cal Wholesale Equip Co, 81 Minna
San Francisco ... YU 6-6972

GENERAL THERMODYNAMICS CORP
175 BALLARDVALE ST, NORTH WILMINGTON
MASS, 01887 ... 617 933-7370
S LETO, EMP 15, ENG 2, UP TO $100M
Ind Delta Sales, Inc, 1407 N Illinois St
Indianapolis ... 631-4136
NJ Smith Co, 111 S Orange Ave
South Orange ... 763-1772
NY Ralph C Schwarz & Sons Inc, 75 College Ave
Rochester ... 271-4696
Ohio R M Nelson, Inc, 1 Public Sq
Cleveland ... 241-4581
Wis Wm A Klinger & Son Co, 743 N 4th St
Milwaukee ... 332-6898

GENERAL TIME, INDUSTRIAL CONTROLS DIV, RTE 8
TORRINGTON, CONN, 06790 ... 203 482-4481
J WALLACE, EMP 500, ENG 30, $5,000-$10,000M

GENERAL TIRE & RUBBER CO, 1708 ENGLEWOOD AVE
AKRON, OHIO, 44309 ... 216 733-6311
L MCQUEEN, EMP 3500, ENG 450, OVER $10,000M

GENERAL TRANSDUCER CO, 2961 CORVIN DR
SANTA CLARA, CAL, 95051 ... 408 245-5501
W TAYLOR, EMP 15, ENG 4, $250-$500M
Cal Richard Grey Assoc, Redwood City
Cal Crown Electronics, Box 2573, Van Nuys
Cal Richard Grey Assoc, 1330 Bayshore Hwy
Burlingame
Colo Williams Assoc, 4971 Jackson St, Denver
Fla Stiltz Sales & Engrg Co, 791 Sequoia Trail, Maitland
Ga Stiltz Sls & Engrg Co, 1440 Oconee Pass, NE
Atlanta
Md Tek Rep Inc, 1075 Rockville Pike, Rockville
Mass D H Stewart, 216 Burroughs Rd, Braintree
Mich Elias Electronics, 26817 W 7 Mile Rd, Detroit
NJ R N Juntwait & Co, Box 295
Ridgewood ... 652-9191
NC Ronson, Wallace & Co Inc, 116 1/2 E 4th St
Charlotte
Wash Arva Inc, 1320 Prospect St, Seattle
Can Electrodesign, 9124 St Lawrence Blvd
Montreal, Que

GENISCO TECHNOLOGY CORP, 18435 SUSANA RD
COMPTON
CAL, 90221, TWX 910-346-6773 ... 213 774-1850
D SUDDUTH, EMP 500, ENG 60, OVER $10,000M
Ala W A Brown & Assoc Inc, 1314 Burford St NW
Huntsville ... 536-8393
Cal King Engineering Co, 525 S Grant St
San Mateo ... 342-9645
Cal King Engineering Co, Box 544
Escondido ... 745-2310
Cal King Engineering Co, 15720 Ventura Blvd
Encino ... 981-0161
Fla W A Brown & Assoc Inc, 3039 NE 32nd Ave
Fort Lauderdale ... 564-8000
Fla W A Brown Co, 222 Weber Ave
Orlando ... 425-5505
Ga W A Brown Assoc, 1590 Cooledge Rd
Tucker ... 939-1674
Ill Megatek Inc, 1915 Harlem Ave
Chicago ... 889-1277
Kan Kemco Inc, 6115 E 13th St, Wichita ... MU 4-8224
La W A Brown & Assoc Inc, 8500 Chef Menteur Hwy
New Orleans ... 242-5575
Mass J & J Assoc, 241 Crescent St, Waltham ... 899-0160
Mich Megatek Inc, 26847 Grand River Ave
Detroit ... 531-1403
Minn Fred Peterson Co, 4501 Minnetonko Blvd
Minneapolis ... 927-4453
NM R A Mayes Co, 8016 Zuni St SE
Albuquerque ... 265-7989
NY Martin P Andrews, 319 Mott Rd
Fayetville ... NE 7-3144
NC W A Brown & Assoc Inc, 440 West-End Blvd
Winston-Salem ... 725-5385

Ohio Megatek Inc, 2533 Far Hills Ave Dayton ... 298-8638
Pa Control Equip Sales, Tomlinson & Tracey Rds Bethayres ... OR 6-1808
Tex Kemco Inc, 6440 Hillcrest, Houston ... PR 1-1291
Tex Kemco Inc, Box 998, Irving ... BL 3-6703
Wash Harry Levinson Co, 1211 E Denny Way Seattle ... EA 3-5100
Can Lisle Instrument Sys Ltd, 70 Sheffield St Toronto 15, Ont ... 249-9151
Can Lisle Instruments, 997 Decarie, Montreal, Que

GENISCO TECHNOLOGY CORP COMPONENTS
GENISTRON DIVS, 18435 SUSANA RD, COMPTON
CAL, 90221, TWX 910-346-6773 ... 213 774-1850
W ESSER, EMP 250, ENG 40, $5,000-$10,000M
Ala W A Brown & Assoc, 1314 Buford St NW Huntsville ... 536-8393
Ariz Bennewitz Assoc, 532 N Brown Ave Scottsdale ... 947-7379
Cal Genisco Technology Corp, 378 Cambridge Ave Palo Alto ... 321-9242
Colo Bennewitz Assoc, 2801 E Colfax Ave Denver ... 399-1132
Conn Paul R Sturgeon Co Inc, Box 170 Milford ... 874-6080
Fla W A Brown & Assoc, 3039 NE 32nd Ave Ft Lauderdale ... 564-8000
Fla W A Brown & Assoc, Box 513, Orlando ... 425-5505
Ga W A Brown & Assoc, 1590 Cooledge Rd N W Tucker ... 939-1674
Haw Victor Kim Electronics, 623 South St Honolulu ... 507-132
Ill Genisco Technology Corp, 9367 William St Rosemont ... 671-0632
Iowa Engineering Services Co, 1026 3rd Ave SE Cedar Rapids ... 366-1591
Kan Engineering Services Co, 7924A State Line Prairie Village ... 649-4000
Md Genisco Technology Corp, 10774 Tucker St Beltsville ... 345-8900
Mass Paul R Sturgeon Co, 1330 Boylston St Chestnut Hill ... 734-7710
Minn Countryman, Wagner & Behnen 1955 University Ave, St Paul ... 645-9151
Minn Fred Peterson Co, 4501 Minnetonka Blvd Minneapolis ... 927-4453
Mo Engineering Services Co, 6717 Vernon Ave St Louis ... 726-2233
Mo Engineering Services Co, 7546 Troost Ave Kansas City ... 363-6000
NM Bennewitz Assoc, 9720 Candelaria NE Albuquerque ... 298-6775
NY Henry G Richter Inc, 50 Foxcroft Fayetteville ... 637-6713
NC W A Brown & Assoc, 440 West End Blvd Winston-Salem ... 725-5384
Ohio Genisco Technology Corp, 21877 Euclid Ave Cleveland ... 531-4664
Ore Seatronics, Inc, 6415 SW Canyon Ct Portland ... 292-8887
Pa Control Instru Sales Co, 2727 Philmont Ave Bethayres ... OR 6-1808
Tex Delzell & Evans Assoc, Box 35093 Dallas ... FL 1-1839
Va W A Brown & Assoc, 325 First St Alexandria ... 836-1800
Va W A Brown & Assoc, 82 Huxley Pl Newport News ... 596-2358
Wash Seatronics Inc, 5931 4th Ave S, Seattle ... 767-4330
Wash Harry Levinson Co, 1211 E Denny Way Seattle ... EA 3-5100
Can Dart Elctns Ltd, 3650 Weston Rd Weston, Ont ... 742-3577/8
Can Intl Elect Components Inc, 2055 Mountain St Montreal, Que ... 849-1282

GENTAPE CORP, 51 LA FRANCE AVE, BLOOMFIELD
N J, 07003, TWX 710-994-4781 ... 201 748-5506
P HESS, EMP 65, ENG 5
Cal Sentec Co, 821 Glenhaven Dr La Habra ... 213 697-7614

GENTRONICS INC, 26 KNOLLWOOD DR, CLINTON
CONN, 06413 ... 203 669-5741
G PIANTONI, EMP 25, ENG 2, $250-$500M
Cal R Capell Co, Box 723, Tarzana ... 987-2233
Conn Com/Pak, Box 37 Apple Hill Wethersfield ... 203 563-4784
Conn Norcon Div Intrade Inc, Box B Thomaston ... 203 283-5563
Fla Geartner Assoc, 350 Lincoln Rd Miami Beach ... 305 531-0200
Ill Technical Devices, Inc, 6416 Central Ave Chicago ... 312 774-8252
Mass ORC Co, 134 Upland Rd, Newton ... 617 332-9600
Minn White Sales Co, Box 4530 Minneapolis ... 929 4661-62
NY B D Hummel Co, 2224 Maynard Ave Utica ... 315 736-7821
NY MEG Electronics Sales, 220 Jericho Tpke Mineola ... 516 741-1270
NC A B Andrews & Co, Box 2627 Raleigh ... 919 833-5565
Pa W Henry Cordray Sales Co, One Radnor Station Radnor ... 215 878-3737
Tex Ruby Sales Co, Box 9894, Dallas ... 214 827-6630

GEODYNE DIV EG&G INT'L, 151 BEAR HILL RD
WALTHAM, MASS, 02154 ... 617 899-3710
J MCCARTHY, EMP 150, ENG 15
Cal W Saxe Montgomery, 1360 Rosecran St San Diego ... 714 224-2932

DC R M Shamp, 1500 Massachusetts Ave NW Washington ... 483-4167
Mass P F Smith, 10 Water St, Woods Hole ... 548-2596
Wash Jon B Jolly, 413 Maritime Blvd Seattle ... 624-2152

GEOPHYSICAL INSTRUMENT CO DIV GEORATOR CORP
315 TUDOR LN, MANASSAS
VA, 22110 ... 703 368-3434
E BARROW, UP TO $100M

GEORATOR CORP, 315 TUDOR LN, MANASSAS
VA, 22110 ... 703 368-2101
E BARROW
ADV PG 213
Cal King-Way & Assocs, 11168 Santa Monica Blvd Los Angeles ... 213 473-8000
Cal Artwel Electric Inc, 1485 Bayshore Blvd San Francisco ... 415 467-1880
Fla Lynch-Gentry Assoc, Box 13248 St Petersburg ... 347-5131
Mass Besco, 221 Grove St, Braintree ... 843-0845
Minn Dossett Engr Co, 128 Jackson Ave N Hopkins ... 938-3332
NY Travco Assocs, Inc, 142 Mineola Ave Roslyn Heights ... 621-3223
Ohio Research Process Instru Inc, 21565 Hilliard Blvd Rocky River ... 333-3441
Tex Carey & Assoc, Inc, 3315 W 12th St Houston ... 869-3623
Wash Western Electro-Dynamics Co 584 Dexter Horton Bldg Seattle ... 206 MU 2-8412

GEOSCIENCE INSTRUMENTS CORP, 435E 3RD ST
MT VERNON, N Y, 10553 ... 914 664-5100
A MONASEBIAN, EMP 30, ENG 6, $500-$1,000M
Cal Peninsula Assoc, 1447 Bayshore, Palo Alto

GEO SPACE CORP, 5803 GLENMONT DR, HOUSTON
TEX, 77036, TWX 9108811533 ... 713 MO 6-1611
B LINDSAY, EMP 498, ENG 34
Cal Wallace & Wallace, 1206 Maple Ave Los Angeles ... RI 7-0401
Cal Long & Assoc, 505 Middlefield Rd Redwood City ... 415 369-3324

GEO SPACE SYSTEMS INC
6301 49TH ST N, BOX 13575, ST PETERSBURG
FLA, 32901 ... 813 525-1161
E CARLOUGH, EMP 100, ENG 25, $2,500-$5,000M

GEOTECH A TELEDYNE CO, 3401 SHILOH RD, GARLAND
TEX, 75040 ... 214 271-2561
T NORMAN, EMP 650, ENG 150, $5,000-$10,000M
ADV PG 576

GERBER SCIENTIFIC INSTRUMENT CO, BOX 305
HARTFORD
CONN, 06101, TWX 7104272218 ... 203 644-1551
T BRETT, EMP 250, ENG 60, $5,000-$10,000M
Cal Gerber Scien Instru Co, 16024 Ventura Blvd Encino ... 981-2044
Ore Showalter-Judd, Inc, 1445 NE Arrington Hillsboro ... 503 648-6372
Pa H H Roth, 458 Woodhaven Plaza Philadelphia ... 215 464-1570
Tex D Thayer, 11333 N Central Expwy Dallas ... 214 368-5394
Va A G Howell, 7308 Hogarth St Springfield ... 202 296-8253
Wash Showalter-Judd Inc, 1806 S Bush Pl Seattle ... EA 4-7911
Can Electromechanical Products, Markham Rd Agincourt ... AX 3-7011
For Frathom Co Inc, 202 E 44th St New York, NY ... MU 7-9390
Ger Gerber Scien Instr Co, Ahltener Str 36b 316 Lehrte ... 05132-3674
Jap T Suzuki, Tokyo CPO Box 595, Tokyo
Aust Distributors Corp Pty Ltd, 24-26 Johnston St Fitzroy, Victoria

GHV ELECTRONICS, 777 4TH AVE, RIVER EDGE
N J, 07661 ... 201 265-3555
A RICCITELLI, EMP 6, ENG 2, UP TO $100M

GIANNINI SCIENTIFIC CORP, FLIGHT RSCH DIV
BOX 1-F, RICHMOND, VA, 23201 ... 703 737-4163
W WESTMAN, EMP 70, $1,000-$2,500M
Cal GSC, 3839 S Main St, Santa Ana ... 545-7171
NY GSC, 185 Dixon Ave, Amityville ... 541-3600
NY Photo-Electro Instruments Co, 139 Coolidge Ave Jamaica ... 544-9038
Ohio Aertronic Assoc Inc, 11 W Monument Dayton ... 223-3242
Can Computing Devices of Can Ltd, Box 508, Ottawa
GB J Hadland Photo Instr Ltd, Chipperfield Kings Langley, Herts
Jap J Osawa & Co Ltd, Toranomon, Minato-KU, Tokyo
Swit I Weinberger, Foerrlibuckstr 110, Zurich
Aust J Hadland Pty Ltd, Broadmeadow

GIANNINI-VOLTEX, 12140 E RIVERA RD, WHITTIER
CAL, 90606, TWX 910-986-1382 ... 213 698-1245
E GALISKIS, EMP 195, ENG 23, $2,500-$5,000M
Ala Estes Assoc, 8018 Craigmont Rd SW Huntsville ... 881-5470
Ariz Ar/Tec, Inc, 14 E Stetson Dr, Scottsdale ... 947-6304
Cal Spectrum Sales, 14106 Ventura Blvd Sherman Oaks ... 213 788-9911
Fla Estes Assoc, 629 N Lake Barton Orlando ... 277-1510
Ga Estes Assoc, Decatur Fed Bldg, Decatur ... 373-8266
Ill J R Engineering Sales, 7132 Harlem Ave Chicago ... 744-8550
Ind Southern Sales Co, 105 Lakeshore Dr Angola ... 665-3961
Iowa J R Engineering Sales 3550 Cottage Grove Ave SW Cedar Rapids ... 365-5259
Ky Southern Sales Co, 212 Republic Bldg Louisville ... 583-6902
Mass Harmon Assoc, 251 Harvard St Brookline ... 617 232-6687
Minn Wenco Sales Co, 7728 Morgan Ave S Minneapolis ... 866-3639
Mo Pem Sales Co, 9537 Lackland Rd St Louis ... 427-7200
NM Ar/Tec, Inc, 2800 Gardenas Dr NE Albuquerque ... 268-3324
NY Giannini-Voltex, 12 Steven Pl Smithtown ... 516 724-2992
NY Giannini-Voltex, Box 53, Scarsdale ... 914 261-8313
Ohio Rockford Controls Ohio, Inc, 2077 Embury Park Rd Dayton ... 274-1911
Ohio Rockford Controls, 2077 Embody Park Rd Dayton ... 513 274-1911
Pa Rockford Controls Ohio Inc, 3550 Laketon Rd Pittsburgh ... 731-4600
Tex E B Robertson, 1339 Plowman Ave Dallas ... 214 WH 2-8486
Can A Deskin Sales Co, 1565 Louvain St W Montreal ... 384-1420
For Trans-World Trade, 11973 San Viciente Blvd Los Angeles, Cal ... 472-0444

GIBBS MFG & RESEARCH CORP, 450 N MAIN ST
JANESVILLE, WIS, 53545 ... 608 754-4467
K SCOTT, EMP 500, ENG 75, $5,000-$10,000M
Cal W K Geist Co, Box 5004, Glendale ... 213 245-9501
Colo James F Hurlbut Co, 2240 S Adams St Denver ... 756-2046
Conn Ray Perron & Co Inc, 36 Louis St Trumbull ... 203 268-9631
Conn Ray Perron & Co Inc, 10 Briarwood La Farmington ... 203 673-4825
DC James B Guttridge, 2125 R St NW Washington ... 206 667-2730
Fla Gra-Mar, Inc, 999 Woodcock Rd Orlando ... 841-2330
Ind McDonald Sales Co, 227 S Cornell Cir Fort Wayne ... 754-9214
Mass Ray Perron & Co Inc, 1870 Centre St Boston ... 617 323-1008
NH Ray Perron & Co Inc, 19 Caron Rd Manchester ... 603 472-3030
NY H A F Spectrum Assocs, 35 Broadfield Rd New Rochelle ... 516 433-4615
Tex R W Mureen Co, 5523 Dyer St, Dallas ... 361-0735
Wash Cane-Jessup Co Inc, Box 250, Bellevue ... 454-0691
For Dumann World Trade Co, 6833 W Fond Du Lac Ave Milwaukee, Wis ... 464-0100
Ger Dumann World Trade Co, Postfach 765 415 Krefeld 1
Jap Dumann World Trade Co, 11 1 Chome Kanda Sakumacho ... Chiyodoku
SAfr Dumann World Trade Co, Labratass Hertzog Blvd Capetown

GIBSON-EGAN CO, 34 LA PORTE ST, ARCADIA
CAL, 91006 ... 213-446-5259
G EGAN, EMP 25, ENG 2, $250-$500M
Cal Vico Sales, Box 372, Santa Clara ... 244-5934
Conn Evans Equipment Co, Route 7 Brookfield ... 203 775-2800
Fla ECA Assoc, 711 N Magnolia Ave Orlando ... 305 424-0701
Pa B & A Assoc, 237 Lancaster Ave Devon ... 215 MU 8-5173
Tex Whiteside Sales, Box 22, Garland ... 214 BR 6-8382

GIBSON ELECTRIC CO, DIV TALON INC
OLD WM PENN HWY, DELMONT
PA, 15626, TWX 510 468-3567 ... 412 468-4121
P PAICER, EMP 220, ENG 16
Ariz Hecht, Henschen & Assoc, 3825 N 39th Ave Phoenix ... 602 272-6677
Cal E M I Inc, 11350 Ventura Blvd Studio City ... 213 763-6262
Conn Hale-Forden Assoc Inc, 1245 Farmington Ave W Hartford ... 203 521-5620
Ill O V Miller, Box 505, Libertyville ... 312 362-0038
Mich Elko Sales Corp, 3119 Midland Dr SE Grand Rapids ... 616 949-1451
Mich Elko Sales Corp, 970 N Oxford Rd Grosse Pointe Woods ... 313 884-7893
Minn C R Bergquist Co, 3529 Webster Ave S Minneapolis ... 612 929-6082
Mo Bob Klorer Co, 7500 Natural Bridge St Louis ... 314 381-6530
NJ Electro-Plast Inc, 212 Reeder Ave Riverside ... 609 461-6150
NC W K Hile Co Inc, Box 1015 Matthews ... 704 847-9125
Ohio R R Stone & Assoc Inc, Box 47 Mentor ... 216 946-6766
Wash R Johnston Co Inc, 1011 NE 69th St Seattle ... 206 524-5170
Can Gibson Elec Div, UNIMCO Ltd, 50 Niagara St St Catharines ... 685-7321
For G L Williamson, Old Wm Penn Hwy Delmont, Pa ... 412 468-4121

GILARDONI S P A, VIA E FERMI 2
MANDELLO LARIO COMO, ITALY 71.583
A GILARDONI, EMP 35, ENG 11

GILBRETH CO, 212 E COURTLAND ST, PHILADELPHIA
PA, 19120 .... 215 457-5858
E IRISH

GILLEN CO, JOHN, 2540 S 50TH AVE, CICERO
ILL, 60650 .... 312 242-4575
G ANDREWS, EMP 80
Ala Oliver Assoc, Inc, Box 374, Decatur 355-5210
Cal Peter Leaf & Assoc, 715 Army St
San Francisco 415 826-3126
Cal W W Curtis, 801 N Bush
Santa Ana 714 835-6067
Colo Al Roth, 1719 Boulder, Denver 433-1376
Conn D W Dickinson, Box 146, Trumbull 268-7537
Ind Lowell Black, 1503 E 80th St, Indpls .... CL 1-8758
Kan E & M Co, Box 6053, Leawood 942-1303
Mich R M Richardson, 28880 Southfield Rd
Lathrup Village 353-7860
Minn Palmer Selness, 6705 Cahill Rd, Mnpls ... 941-1246
NY Plantec Corp, 3923 Harlem Rd
Buffalo 716 839-1777
NY Sigma Sales Co, 2293 Bedford Ave
Brooklyn 212 856-7800
Ohio R E Glenn Co, 3109 Mayfield Rd
Cleveland Hts .... ER 1-1080
Ohio Freeman R Smith, 140 Napoleon Dr
Dayton .... AX (9-0725
Pa Paul J Fleming, 907 W Wagner Ave
Phila .... WA 4-1608
Tex Jack I Gronberg, Box 291, Bellaire ..... MA 3-7729

GILLETTE ELECTRONIC PRODUCTS CO, 201 LAUREL ST
BEVERLY, N J, 08010 .... '609 387-1166
M GREEN, EMP 20, ENG 1, $100-$250M

GILLIES CO INC, DUNCAN M, 66 CENTRAL ST
WEST BOYLSTON, MASS, 01583 .... 617 835-4445
D GILLIES, EMP 16, ENG 2
Cal Thompson Assoc, Box 487, Harbor City ... 326-5580
GB Northampton Machinery Co Ltd, Northampton
Swed Akriebolaget Common, Stockholm
Aust A F Bambach Co Ltd, Stanmore, NSW

GILMONT INSTRUMENTS INC ROGER
161 GREAT NECK RD, GREAT NECK
N Y, 11021 .... 516 487-0120
B GEPNER, EMP 5, ENG 1, $250-$500M

GILMORE INDUSTRIES INC, 3355 RICHMOND RD
CLEVELAND
OHIO, 44122, TWX 810-421-8672 ...... 216 464-1200
C GREANOFF, EMP 120, ENG 35, $2,500-$5,000M

GLADDING CORP, DERUYTER ST, SOUTH OTSELIC
N Y, 13155 .... 315 653-7211
H GILLETT, EMP 450, ENG 7
Cal Eon Corp, 2425 San Fernando Rd
Los Angeles 213 223-1241
Fla U S Fiberglass Co, 5101 NW 36th Ave
Miami 635-5353
Ill Stevens Engineering Co, 5306 W Lawrence Ave
Chicago 736-0432
Ind Warner-Kesler Assoc, Box 338, South Whitley
Minn Servco Inc, 521 S 7th St, Minneapolis ... FE 0-8611
Mo R F Carlson Co, 8721 Manchester Rd
St Louis .... WO 1-4485
NY R Roth, Box 217, New York .... LE 5-2541
NY Norb P Thomas, North Star Bldg
Syracuse 455-5501

GLASS BEADS CO, BOX 266, LATROBE
PA, 15650 .... 412 KE 7-7791
T FREDERICK, EMP 100, ENG 8, $500-$1,000M

GLASSCO INSTRUMENT CO, 777 S ARROYO PKWY
PASADENA, CAL, 91105 .... 213 795-3278
D COLE, EMP 80, ENG 6, $1,000-$2,500M
Ala Rep, Inc, 8100 S Memorial Pkwy
Huntsville 881-9270
Cal C J Thompson Assoc, 6880-D Oran Cir
Buena Park 522-6333
Cal Marketek, Inc, One First St, Los Altos 941-0882
Conn Northeast Engineering Inc, 3013 Dixwell Ave
Hamden 248-4481
Fla NBS, Inc, 2813 Primrose Ct, Orlando 423-4856
Fla NBS, Inc., 4150 SW 23rd St
Ft Lauderdale 584-0650
Ga Rep, Inc, 1483 Monroe Dr, NE, Atlanta ... 876-1591
Kan D & O Engrg Co, Box 1800, Wichita 264-7358
Kan D & O Engrg Co, Box 2349
Kansas City 342-6151
Md Ray Cantwell, 9321 Fresno Rd
Bethesda 530-2698
Mass Northeast Engineering Inc, 5 Elm St
Danvers 774-3010
Mo RODAMAC Corp, 625 Hickory La
St Louis 966-4815
NY Northeast Engineering Inc, 124 Trumbull Rd
Manhasset 365-9633
Ohio Ed Griffin, Box 2084, Dayton 298-5421
Okla D & O Engrg Co, Box 5037, Tulsa 932-2813
Tex D & O Engrg Co, Box 8433, Park City Br
Dallas 368-3544
Wash Doland Co, 545 108th NE, Bellevue 454-4952

Can Wm Pass Assoc, 172 Ellis Park Rd
Toronto 635-1678
For Allied Intl Corp, 230 Park Ave
New York 689-6126
Fr Allied Intl Corp, 53 Rue Pierre Charron
Paris .... Ely 80-22
Ital Aircraft & Electronics SP A, 15 Corso Italia, Milan

GLASSEAL PRODUCTS CO INC, 725 COMMERCE RD
LINDEN
N J, 07036, TWX 710-996-5918 .... 201 486-2067
R MCCARTHY, EMP 175, ENG 5, $2,500-$5,000M
Ala Young & Lawrence Assoc, 2907 Governors Dr SW
Huntsville 205 539-6575
Ariz Runyon Co, 6825 E Thomas Dr
Scottsdale 947-5711
Cal Insulectro Inc, 1410 W Olympic Blvd
Los Angeles 387-5201
Cal Insulectro Inc, 1590 Rollins Rd
Burlingame 415 692-2010
Colo Waugaman Assoc, 2785 N Speer
Denver 255-5000
Fla Young & Lawrence Assoc, 601 N New York Ave
Winter Park 305 647-6929
Fla Young & Lawrence Assoc, 300 31st St
St Petersburg 813 394-0026
Ill Nero Electronic Sales Corp, 3516 Elmwood Ave
Wilmette 256-1045
Kan Technical Marketing Assoc , 2050 Woodson Rd
St Louis .... HA 7-3600
Kan Technical Marketing Assoc, 5827 Outlook
Mission .... 913 TE 1-2888
Mass Near, Inc, 99 Highland Ave, Somerville ... 776-2262
Minn Electro Serv Co, 1455 W Lake St
Minneapolis 827-2907
NJ Marshbank Assoc, 123 Clements Bridge Rd
Barrington 609 546-6555
NY Gilbert Sales Assoc, 70 Glenwood Rd
Ridgewood .... GI 4-2604
NY Advanced Components, 119 Luther Ave
Liverpool 472-7886
NC A E Over, 3723 Country Ridge Rd
Charlotte 704 366-8601
Ohio R G Sidnell & Co, 14701 Detroit Ave
Cleveland 221-1313
Ohio R G Sednell & Co Inc, 3400 S Dixie Dr
Dayton 513 293-1194
Tex Aymond Co Inc, 4340 N Central Expwy
Dallas 827-8043
Tex Aymond Co Inc, Box 35023, Houston 666-1804
Wash Insulectro Corp, 2915 First Ave S, Seattle
Can Aeromotive Engrg Prods, 887 Montee De Liesse
St Laurent, Que

GLEASON-AVERY CO, 45 AURELIUS AVE, AUBURN
N Y, 13022 .... 315 253-7396
J ZABRISKIE, EMP 25, ENG 2, $100-$250M
Cal Slocum Industries Inc, 7219 Canby Ave
Reseda 345-8544
Conn Shick's Selling Service, 766 Main St
Newington .... MO 6-4233
Ind Law Instrument Co, Box 95, Angola 665-6016
Md Ansell Engineering Co, 816 Thayer Ave
Silver Spring 588-4222
Ohio R M Nelson, Inc, Marshall Bldg
Cleveland 241-4581
For Gleason/Avery Intl, 65 E 55th St
New York 421-2287

GLENAIR INC, 1211 AIRWAY, GLENDALE
CAL, 91201, TWX 910-497-2066 .... 213 245-8587
J MERRELL, EMP 100, ENG 5, $1,000-$2,500M
Ala Brandel-Stephens & Co Inc, 2003 Byrd-Springs Rd
Huntsville 205 883-0445
Ariz Runyon Co Inc, Box 1567, Scottsdale 947-5711
Cal Glenair, Inc, 2207 Barrett, San Jose 377-9050
Cal Klein Aerospace, Box 1056
Englewood 303 781-4967
Cal John J Colbert Co, 2501 Via Viesta
La Jolla 714 454-1500
Conn William McCoy Co, Box 387, Branford 488-2012
DC Mechtronics Sales, Inc, 7600 Georgia Ave NW
Washington 202 291-6004
Fla Brandel-Stephens & Co Inc, 132 E Colonial Dr
Orlando 305 425-3202
Ga Brandel-Stephens & Co Inc, 3110 Maple Dr NE
Atlanta 261-7579
Ill Marsten Sales Co, 6535 Northwest Hwy
Chicago 775-6611
Kan Harris-Hanson Co, 7916 Paseo Blvd
Kansas City 444-9494
Mass William McCoy Co, 55 Prospect
Holliston 617 429-2369
Minn Fred B Hill Co, 6110 Excelsior Blvd
Mnpls 929-6727
Mo Harris Hanson Co, 2814 S Brentwood Blvd
St Louis 647-4350
NJ Thomas Mills Co, 13 B Tanner St
Haddonfield 429-1005
NY Willgold Electronic Sales Co, 100 N Village Ave
Rockville Ctr 764-4022
NY Telesco-Messina Inc, 3254 Winton Rd
Rochester 716 275-9200
NY Telesco-Messina Inc, 609 Harvard Dr
Binghamton 607 729-6339
NY Telesco-Messina Inc, 25 Greehill Terr
Buffalo 716 674-7445
Ohio Arthur H Baier Co, 3300 S Dixie Dr
Dayton 298-9897
Ohio Arthur H Baier Co, 4399 Industrial Pkwy
Willoughby 946-6080
Tex Dyna-Reps, Box 5154, Fort Worth 732-6621
Tex Dyna-Reps, 6400 SW Freeway, Houston .. 782-0311
Wash James J Backer Co, 221 W Galer St
Seattle 283-6470

GLENMARC MFG CO, 330 MELVIN DR, NORTHBROOK
ILL, 60062 .... 312 272-9030
J KREWER, EMP 6, ENG 2, $100-$250M
Ariz Biztek Co, Box 3091, Scottsdale 945-5781
Cal Biztek Co, 10639 Riverside Dr
Toluca Lake 766-4890
Cal biztek Co, Box 321, San Francisco 421-3172
Cal Biztek Co, 4426 48th St, San Diego 583-4740
Del Pyles East Coast Co, 2711 Market St
Wilmington .... PO 2-4250
Mass Technical Engineering Inc, 253 Summer St
Boston 426-1244
Tex Pennington Sales Co, Box 675
Richardson 214 231-7373

GLENN PACIFIC A TELEDYNE CO, 703 37TH AVE
OAKLAND
CAL, 94601, TWX 415 891-9639 .... 415 532-7404
S THOMAS, EMP 140, ENG 5, $2,500-$5,000M
Cal Halbar Assoc, 1805 W 3rd St
Los Angeles 387-8283
Cal Harold Wells Assoc, Box 1037
San Rafael 545-5730
DC H C Howells, 910 Washington Bldg
Washington 783-2800
Fla W C Smith, 2000 NE 26th Dr
Ft Lauderdale 564-1477
Ga Osgood & Assoc Inc, 1132 W Peachtree St NW
Atlanta 875-7804
Ill Weldy Assoc, 4201 Irving Park Rd
Chicago 777-8575
Ind Kyle G Herder & Son, 6249 Central Ave
Indianapolis 255-2523
Md Clisby & Assoc Inc, 231 E 25th St
Baltimore 235-3726
Mass Sydney S Morgan Co, 131 Clarendon St
Boston 536-8143
Mich Harris-Blancett & Assoc, 14631 W McNichols
Detroit 272-0812
Mo Chas H Douglas, 1110 S Brentwood Blvd
St Louis 721-4424
NJ Norman Bragar Co Inc, 1060 Broad St
Newark 623-6554
NM R B Black Co Inc, 1025 Hermosa Dr SE
Albuquerque 265-0144
Ohio Richard F Reske & Assoc, 401 Euclid Ave
Cleveland 621-3166
Ore J A Tudor & Assoc Inc, 1004 SE Belmont
Portland 233-4421
Pa Foster-McClinton Inc, 5302 Wolf Rd
Erie 833-1027
Pa Clisby & Assoc Inc, 1817 N 5th St
Philadelphia 425-7724
Pa Foster-McClinton Inc, 1675 Washington Rd
Pittsburgh 561-4803
Tex Jim Tuite Co, Box 28176, Dallas 381-2103
Tex Jim Tuite Co, Box 36234, Houston 782-6904
Wash J A Tudor & Assoc, Inc, 2605 Western Ave
Seattle .... MU 2-7444
W Va Foster McClinton Inc, 6213 Brenda Ct
Huntington 736-5161
Wis Weldy Assoc Inc, 2040 W Wisconsin Ave
Milwaukee 242-0635
For Kerby Intl Inc, 80 Wall St
New York, N Y 943-3370

GLENTEK INC, 1557 7TH ST, SANTA MONICA
CAL, 90401 .... 213 451-4511
R VASAK, EMP 10, ENG 3
Cal T P Chleboun, 619 Phil Ct, San Jose 252-2783

GLENTRONICS INC, 748 E ALOSTA AVE, GLENDORA
CAL, 91740, TWX 67-0411 .... 213 963-1676
R BOYD, EMP 50, ENG 4, $500-$1,000M
Ariz Runyon Co, 6825 E Thomas Rd
Scottsdale 947-5711
Cal F W Moulthrop, 1530 E 12th St
Oakland 261-7676
Cal E V Roberts & Assoc Inc, 9601 W Jefferson Blvd
Culver City 870-9561
Colo Transdynamics Inc, 3401 S Bannock St
Englewood 761-0455
Conn Equipment Sales Co, Box 5396
Hamden .... CH 8-5581
Fla Technical Marketing Inc, 1511 E Robinson St
Orlando 424-8531
Ill Marsten Sales Co, 6535 Northwest Hwy
Chicago 775-6611
Pa K Randall Co, 121 N Broad St
Philadelphia .... LO 4-2151
Tex R W Mureen Co, 5523 Dyer St
Dallas .... EM 1-0735
Wash Transdynamics Inc, Box 128
Mercer Island .... AD 2-1094

GLIDDEN METALS, SCM CORP
900 UNION COMMERCE BLDG, CLEVELAND
OHIO, 44115 .... 216 771-5121
J WALKER, OVER $10,000M

GLIDELITE INDUSTRIES INC, 180 CENTRAL AVE
HACKENSACK, N J, 07601 .... 201 487-0838
B BAUMAN, EMP 20, ENG 1, $100-$250M
Del Ferrell S Carmine & Co, 14 Knickerbocker Dr
Newark
Ill Mike Berman Sales, 8631 E Prairie Rd
Skokie .... 312 OR 5-3740
Ind Howell-Moore & Assoc, 5425 N College Ave
Indianapolis 317 255-8566
La Scott Ormsby Sales, 7121 Catina St
New Orleans 488-2414
Md Geo B Pearlman & Assoc, 2815 Shanandale Dr
Silver Spring .... 310 HE 4-7090

Mo K & M Sales Co, 1627 Main St
Kansas City 816 471-1355
NM Lee Davis Co, 1415 Richmond Dr NE
Albuquerque 505 256-1749
NY Cliff Landis Sales Co, 34-28 80th St
Jackson Heights 212 IL 8-7900
Ohio Thomas Shelby & Co Inc, 17 S Walnut St
New Bremen 629-6511
Tex Spivey Cole Co, Box 12321, Houston MI 9-1221
Tex E B Drew Co, Box 3122
Fort Worth 817 JE 5-3719

G-L INDUSTRIES INC, G-L ELECTRONICS DIV
300 HARVARD AVE, WESTVILLE
N J, 08093, TWX 609-456-6429 609 GL 6-7300
J BROOKS, EMP 90, ENG 5, UP TO $100M
Ala W A Brown & Assoc, 1314 Burford St
Huntsville 536-8393
Colo J F Hurlbut Co, 2240 S Adams St
Denver 756-2046
Conn Henry Lavin Assoc Inc, Box 921
Meriden Be 7-5527
Fla W A Brown & Assoc Inc, 222 Weber Ave
Orlando 425-5505
Ga W A Brown & Assoc Inc, 3039 NE 32nd Ave
Ft Lauderdale Lo 4-8000
Ill Paul K Pitt & Assoc, 6022 N Rogers Ave
Chicago 478-3124
Ind R O Whitesell & Assoc, 6620 E Washington
Indpls Fl 9-5374
Ind R O Whitesell & Assoc, 203 W Wayne St
Ft Wayne 743-4411
Ky R O Whitesell & Assoc, 3620 Lexington Rd
Kentucky 893-7303
Mass Henry Lavin Assoc Inc, 52 Pickering St
Needham Hi 4-3446
Mich R O Whitesell & Assoc, 16801 Wyoming Ave
Detroit 862-2225
Mich R O Whitesell & Assoc Inc, 303 Fidelity Bldg
Benton Harbor 927-2041
Minn R G Ragon Inc, 1136 W Larpenteur Ave
St Paul 488-6634
Mo L Ray Harry & Assoc, 11202 Sunnyslope Dr
Kansas City 816 763-3634
NY Tech-Mark, Inc, 101 Jefferson Ave
Endicott 748-7473
NC W A Brown & Assoc Inc, 1108 Burke St
Winston-Salem Pa 5-5384
Ohio R O Whitesell & Assoc, 21139 Lorain Ave
Cleveland Ed 3-2585
Ohio R O Whitesell & Assoc, 1172 W Galbraith Ave
Cincinnati 521-2290
Ohio R O Whitesell & Assoc, 4129 S Dixie Ave
Dayton 298-9548
Pa R O Whitesell & Assoc Inc, 201 Penn Center Blvd
Pittsburgh 242-0100
Tex Vista Engineering Assoc, 777 N Central Expwy
Richardson Ad 5-4547
Tex Vista Engineering Assoc, 1614 S Post Oak Dr
Houston Na 2-5680
Va W A Brown & Assoc Inc, 325 First St
Alexandria Te 6-1800

GLOBE ELECTRICAL MFG CO, 1729 W 134TH ST
GARDENA, CAL, 90249 213 321-3311
A BERGES, EMP 130, ENG 3, $1,000-$2,500M
Tex W B Watkins, 5201 Wedgway Dr
Fort Worth AX 2-0683
Utah P Bowthorpe, 143 S 4th St
Salt Lake City 328-4513

GLOBE INDUSTRIES DIV TRW INC, 2275 STANLEY AVE
DAYTON
OHIO, 45404, TWX 810-459-1642 513 222-3741
R MANHART, EMP 861, ENG 127, OVER $10,000M
Ala J L Highsmith & Co, 3322 S Memorial Pkwy
Huntsville 881-3294
Ariz Jarko Assoc, 2032 N 27th Ave, Phoenix 272-2684
Cal Straube Assoc Inc, 483 Willow Rd
Menlo Park 323-2476
Cal J Davidson Assoc Inc, 2920 Nebraska Ave
Santa Monica 451-5761
Cal Straube Assoc, 98 W Jackson St
Hayward 783-6750
Colo Williams-Assoc, 4971 Jackson St
Denver 388-4391
Conn Stockwell Technical Sales, Overbrook Dr
Vernon 875-5414
Fla Lynch-Gentry Assoc Inc, 6731 1st Ave S
St Petersburg DI 7-5131
Ill Engineered Sales Co Inc, 4738 N Harlem Ave
Chicago UN 7-8434
Ind R O Whitesell & Assoc Inc 6620 E Washington St
Indnpls FL 9-5374
Ky R O Whitesell & Assoc Inc, 3620 Lexington Rd
Louisville 893-7303
Md Nat Kronstadt Assoc Inc, 817 Silver Spring Ave
Silver Spring 585-6141
Md R L Wilkinson Inc, 707 Stevenson La
Towson 377-7800
Mass Stockwell Technical Sales, 44 Walker St
Cambridge 876-5115
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield 357-3700
Minn Nelson & Son Inc, 4005 W 65th St
Mnpls 920-3414
Mo Harris-Hanson Co, 2814 S Brentwood Blvd
St Louis 444-9494
Mo Harris-Hanson Co, 7916 Paseo St
Kansas City 647-4350
NJ Nat Kronstadt Assoc, Inc, 815 Orlando Rd
Cherry Hill 662-2958
NM Williams-Assoc, 420 Washington SE
Albuquerque 255-1638

NY Components Sales Corp, 221 E Hartsdale
Hartsdale SC 5-1050
NY Reed Electronics Inc, 2815 Monroe Ave
Rochester GR 3-2767
NY Reed Elctns Inc, Vestal Pkwy E, Vestal 748-7391
NC J L Highsmith & Co, 3733 Monroe Rd
Charlotte 333-7743
Ohio Technical Assoc Inc, 19500 Center Ridge Rd
Rocky River 333-0035
Ohio R O Whitesell & Assoc Inc, 4133 S Dixie Ave
Dayton 298-9546
Ohio R O Whitesell & Assoc Inc, 1172 W Galbraith
Cincinnati 521-2290
Ohio L S Fedotin, 3680 Dorset Dr, Dayton 275-9345
Ohio Technical Assoc, Box 388, Fairborn 878-2484
Pa R L Wilkinson Inc, Box 215, Glenside HA 4-8400
Pa R O Whitesell & Assoc, Inc, 201 Penn Center Blvd
Pittsburgh 242-0100
Tex Aymond Co Inc, 4340 N Central Expwy
Dallas 827-8043
Tex Aymond Co Inc, 5010 Carew, Houston 666-1804
Utah Williams-Assoc, 2461 S Main St
Salt Lake City 466-8709
Va J L Highsmith & Co, Box 9225
Richmond 266-2060
Wash Harry Levinson Co, 1211 E Denny Way
Seattle 323-5100
Wis E A Dickinson & Assoc Inc, 3612 N Green Bay Ave
Milwaukee 264-1080
Can Leonard Electric Ltd, 1008 Rangeview Rd
Pt Credit, Ont 274-3454
Fr Europelec, Les Clayes-sous-Bois, 92328-24
Ger Uni-Office GmbH, Box 8034, Dusseldorf 36 50 28
GB Lectropon Ltd, Wellington St
Slough, Bucks SLO 27629
Holl Uni-Office NV, Box 1122
Rotterdam 010-13 22 20
Ital G Lo Porto, 2 Largo Luigi, Rome 540-56-89
Swed Aero Material AB, Grev Magnigatan 6
Stockholm 23 49 30
Isrl S T G Intl Ltd, 52 Nahlat Benyamin St
Tel-Aviv 53459

GLOBE PLASTICS INC, 1342 S SIGNAL DR, POMONA
CAL, 91766 714 623-2747
D YOUNG, EMP 17, ENG 3, UP TO $100M
Cal Comark Co, 2310 Fourth St
Santa Rosa 707 544-1044
Fla T Duay, 1515 Ensonada Dr
Orlando 305 277-3296
Ga James F Elman, 84 Silverwood Rd NE
Atlanta 404 255-0920
Ill Harry Halington Engrg Assoc Inc
6418 N Central Ave, Chicago 312 763-2131
La Jack M White, 247 Phosphor Ave
Metairie 729-6515
Md Ted Grossman, 2110 Belvedere Blvd
Silver Spring 301 587-0040
Mass Associated Elctns, 45-47 Kirk St
Lowell 617 454-4206
NY Verter Sales Co, 2352 E 66th St
Brooklyn 212 HI 4-3880
NC Bill Henry Assoc, 1043 Providence Rd
Charlotte 704 375-8958
NC R A Jackson, 1043 Providence Rd
Charlotte 704 375-8958
Ohio Clare Electronics, 24-131 Oakhill Dr
Cleveland 216 IV 1-5364
Tex John Reynolds Co, 335 W Center St
Duncanville 214 AX 8-2354
Wash F W Aurich & Co, 3601 Gilman Ave W
Seattle 206 284-5561

GLOBE-UNION INC, BATTERY DIV
5757 N GREEN BAY AVE, MILWAUKEE
WIS, 53201, TWX 910-262-3084 414 228-2394
R DANCE, EMP 1200, ENG 40, OVER $10,000M
Cal Logan Sales Corp, Box 1219
Redwood City 283-1395
Cal Penwarden & Assoc, 1547 Titus St
Van Nuys 782-4920
Colo Electro-Rep Inc, 1051 S Platte River Dr
Denver 415 369-6726
Ill Fred L Tiegs, 7418 W Belmont Ave
Chicago 889-2900
Ind L M DeVoe, 4010 Washington Blvd
Indianapolis 317 283-1395
Iowa Jerry Vrbik Co, 2818 A Ave NE
Cedar Rapids 319 365-0461
Kan Lowell-Kangas Assoc, Box 4116
Overland Park 913 888-3200
Mass Globe-Union Inc, 60 Dedham
Needham 617 444-4847
Mich R C Merchant & Co, 18411 W McNichols Rd
Detroit 535-6000
Minn Globe-Union Inc, 4901 W 77th St
Minneapolis 612 920-4130
Mo Lowell-Kangas Assoc, Box 26 Creve Coeur Sta
St Louis 314 434-4560
NJ Globe-Union Inc, 382 Franklin Ave
Nutley 661-1300
NM A L S Electronics, Box 11626
Albuquerque 505 268-9600
NY W H Zimmerman, 112 Dewitt St
Syracuse 474-4889
Pa J Bresson Assoc, 246 Haverford Ave
Narberth 839-6770

GM NAMEPLATE, 2040 15TH AVE W, SEATTLE
WASH, 98119 206 284-2200
D ROOT, EMP 43, ENG 1, $500-$1,000M
Alas The Ed Schwab Co, Box 3505
Anchorage 907 272-4454
Ariz Hamilton Reps Inc, 9800 N Oracle Rd
Tucson 602 297-2279

Cal G R McKnight Co Inc, 115 Spruce Ave
Menlo Park 325 2844
Cal Corcoran Assoc, Box 45897
Los Angeles 213 823-4589
Ga F L Hayes, 3936 Club Dr NE, Atlanta 237 8942
Ill Keller Engineering Co, 5352 Division St
Chicago ES 8-0204
Md Faion Lott & Co, Box 534, Glen Burnie 744 4611
Mass Ident Co, Box 353, Marblehead 631 4764
Mich Volk Stamp & Stencil Co, 140 Randolph St
Detroit 965 1234
Minn Hamilton, Grayden & Flemmer, Inc, Hamilton Rd
Hopkins 941 1120
Mo H D Burke & Son, Box 11269, Clayton Br
St Louis VO 3 5562
Mo Halpin D Burke & Son, 2601 W 75th Terr
Prairie Village 913 381 9056
NJ G M Moch Co, 595 Broad Ave
Ridgefield 201 945-0080
Ohio Mulligan & Mathias Co, 2011 Riverside Dr
Columbus 486-2976
Pa H J Fairbanks Co, 420 Chichester La
Wynnewood MI 2-5816
Wash CBO Advertising Co, 1207 S 10th
Pasco 547-3311
Can Diecast Products Ltd, 1085 Winnipeg Ave
Winnipeg SP 4 5541

GMR, INC, 1000 GILMAN ST, BERKELEY
CAL, 94710 415 527-3200

GODDARD VALVE CORP, 705 PLANTATION ST
WORCESTER, MASS, 01605 617 755-8635
D LADD, EMP 20, ENG 2, $250-$500M

GODFREY MFG CO, 1633 N HALSTED ST, CHICAGO
ILL, 60614 MO 4 3516
W MARTIN, EMP 1, ENG 1
Cal Rollins Electric, 804 S Atlantic Blvd
Monterey Park CU 3-1209

GOE ENGINEERING CO, 250 S 9TH AVE
CITY-OF-INDUSTRY, CAL, 91746 213 330 7401
G REYNOLDS, EMP 28, ENG 2, $500-$1,000M
Ariz Howe & Howe, Box 10497, Phoenix 955-1850
Cal Win W Tompkins & Co, 3944 El Camino Real
Palo Alto DA 6-9740
Colo Crump Co, 2785 Speer Blvd, Denver 433-6485
Ill Ellinger Sales Corp, 6580 N Northwest Hwy
Chicago RO 3-1570
NJ Simberkoff Sales Inc, 71 Valley St
South Orange OR 4-4100
Tex T M Curtis Co, 5635 Yale St, Dallas 361-1666

GOERZ OPTICAL CO INC, 461 DOUGHTY BLVD
INWOOD, N Y, 11696 516 239-8700
B MILLER, EMP 150, ENG 30, $2,500-$5,000M
Ohio Ray Howden Co, 909 Oakland Pk Ave
Columbus 614 267-9251
Pa Goertz Optical Co, Inc, Box 11528, Pittsburgh

GOLDEN CORP, I, 1054 38TH ST, BROOKLYN
N Y, 11219 212 GE 6-2476
L GOLDEN, EMP 25, ENG 1

GOLDEN TECHNOLOGY INC, 240 BARHAM AVE
SANTA ROSA, CAL, 95401 707 545-5898
T PETERSON, EMP 30, ENG 3, $1,000-$2,500M

GOLDING MFG CO, 90 PORETE AVE
NORTH ARLINGTON, N J, 07032 201 998-1805
J GOLDING, EMP 35, ENG 1, $500-$1,000M

GOLDSMAN INC, 1328-34 N 4TH ST, PHILADELPHIA
PA, 19122 215 PO 5-4468
R SAGER, EMP 35, ENG 1, $500-$1,000M
Cal Wallace & Wallace Corp, 1206 Maple Ave
Los Angeles RI 7-0401
NJ M & S Assoc Inc, Box 185
Haddonfield HA 9-7055
NY S A M Assoc, 150-08 87th Ave
Jamaica OL 8-8881
Ohio S Schusterman, Box 18095
University Hgs 932-2355

GOMBOS MICROWAVE INC, 40 WEBRO RD, CLIFTON
N J, 07012, TWX 710-989-7021 201 773-6633
J GOMBOS, EMP 110, ENG 10, $1,000-$2,500M
Ariz Jewett Co, 138 E Stetson St
Scottsdale 945-9711
Cal Jewett Co, 13111 Ventura Blvd
N Hollywood 789-8103
Cal Walter Assoc Inc, 175 S San Antonio Rd
Los Altos 941-3141
Colo A L S Electronics, Boulder 303 447-2436
Conn Astro-Tek Assoc, 18 Diane Terr
Waterbury 203 753-4129
Mass Astro-Tek Assoc, Lexington 617 862-6424
NM A L S Electronics, Box 11626
Albuquerque 505 268-9600
NM A L S Electronics, Alamogordo 505 437-6708
NY Friedman-Smith Elctn Sales, 519 S Fifth Ave
Mount Vernon 914 664-4866
Okla S E I Inc, 2015-C S Lakewood, Tulsa TE 5-2481
Tex S E I Inc, 621 Meadows Bldg, Dallas EM 3-1671
Tex S E I Inc, Rm C-102, 6001 Gulf Frwy
Houston WA 8-5251

Can Electronic Mktg Co of Can Ltd, 3600 Barclay Ave
Montreal 739 3206
For Henley & Co, 202 E 44th St
New York, NY 986 5544
Belg Intl Microwave & Elctn Sales Co
124 Rue du Commerce, Brussels 12-47 58

GOOD ELECTRONIC CORP, BOX 235, BEDFORD
MASS, 01730 617 527 0489
E MATHAIS, EMP 19, ENG 3, UP TO $100M

GOODMANS LOUDSPEAKERS LTD
AXIOM WKS, WEMBLEY, MIDDLESEX
ENG, TWX 264038 01 902 1200
K PORTER
NY Elite Elctns Inc, 41 South Mall
Plainview 516 694-9144

GOODRICH INDUSTRIAL PRODS CO, B F
500 S MAIN ST, AKRON
OHIO, 44318, TWX 216 972 9100 216 379-2000
J RICHARDS, EMP 5000, OVER $10,000M
Cal B F Goodrich Ind Prods Co, 3525 S Garfield Ave
LA RA 3-6692
Cal B F Goodrich Ind Prods Co, 325 Valley Dr
Brisbane 467-3000
Colo B F Goodrich Ind Prods Co, 2500 W 8th Ave
Denver 825-7671
Ga B F Goodrich Ind Prods Co, 1721 DeKalb Ave NE
Atlanta DR 8-4561
Ill B F Goodrich Ind Prods Co, 10701 Belmont Ave
Franklin Park 455-6600
Mass B F Goodrich Ind Prods Co, 100 2nd Ave
Needham Heights HI 4-6100
Mich B F Goodrich Ind Prods Co, 16500 Oakwood Blvd
Allen Park CR 8-7000
Minn B F Goodrich Ind Prods Co, 800 Turners Crossrd S
Mnpls 544-3321
Mo B F Goodrich Ind Prods Co, 1975 Walton Rd
St Louis HA 9-4300
NY B F Goodrich Ind Prods Co, 277 Park Ave
New York 826 9700
Ohio B F Goodrich Ind Prods Co, 3770 Indianola Ave
Columbus AM 8-8631
Ore B F Goodrich Ind Prods Co, 4600 NW St Helens Rd
Portland 226-3621
Pa B F Goodrich Ind Prods Co, 955 E Erie Ave
Philadelphia JE 5-5800
Tex B F Goodrich Ind Prods Co, 1400 Turtle Creek Blvd
Dallas RI 1-5601

GOODRICH CO, B F, SPONGE PROD DIV
EBE-4 MICROWAVE-PLT 4, SHELTON
CONN, 06484, TWX 734-4805 203 735-4661
S SIXFIN, EMP 2000, ENG 6, $1,000-$2,500M
Ala Gentry Assoc Inc, 2109 W Clinton St
Huntsville 534-9771
Ariz Hytronic Measurements Inc, 1017 N 3rd St
Phoenix 235-6104
Cal Scientific Sales, Box 5324, Pasadena SY 1-3778
Colo Hytronic Measurements Inc, 4940 E 39th Ave
Denver 388-4081
Fla Gentry Assoc Inc, 2517 B E Colonial Dr
Orlando 424-0730
Ga Gentry Assoc Inc, Box 13513, Sta K
Atlanta 233-3816
Ill Kenneth W Meyers Co, 7256 W Touhy Ave
Chicago 744-6440
Kan Simpson Enterprises, Box 3066, SE Sta
Wichita WH 3-0502
Md E-A Inc, 1406 Shoemaker Rd
Baltimore 825-2385
Mass Microwave Consultants Corp, 195 West St
Waltham 899-4400
Mich Micro Sales Corp, 650 Greenlawn
Ypsilanti 482-1229
Mo Simpson Enterprises, Box 3873
Kirkwood 965-1115
NJ CDB Enterprises, 26 Haddon Ave
Camden WO 3-9164
NM Hytronic Measurements Inc, 205 San Pablo SE
Albuquerque 268-3941
NY DB Assoc Inc, Box 14, Dewitt GI 6-0220
NY DB Assoc Inc, 22 Biscayne Dr
Lancaster TF 5-6186
NY CDB Enterprises, 675 W Jericho Tpk
Huntington 692-5200
Ohio Micro Sales Corp, 1925 Lee Rd
Cleveland 317-0522
Ohio Micro Sales Corp, 1250 W Dorothy La
Dayton 298-3033
Tex Texas Avionics, 4515 Prentice St
Dallas 363-6324
Utah Hytronic Measurements, 2022 S Main St
Salt Lake City 466-4924
Va E-A Inc, 1047 Carper St, McLean 356-6309
Wash Seatronics, 5931 4th Ave S, Seattle 725-4328
Can Douglas Randall Canada Ltd, 1710 Midland Ave
Scarborough 751-7911
For Microwave Intl, 11 High Ridge Rd
Stamford 348-7704

GOODYEAR AEROSPACE CORP, 1210 MASSILLON RD
AKRON
OHIO, 44315, TWX 810-431-2080 216 794-2962
R MOHRMAN, EMP 8500, ENG 2300
Ariz Goodyear Aerospace Corp, Litchfield Park
Phoenix WE 5-9331
Ohio Goodyear Aerospace Corp, 349 W First St
Dayton 224-8301

GOPIC DESIGNS CO, 2166 CHATSWORTH BLVD
SAN DIEGO, CAL, 92107 714 222 6948
G PICKENS, EMP 6, ENG 3; UP TO $100M

GORDON ENTERPRISES, 5362 N CAHUENGA BLVD
NORTH HOLLYWOOD, CAL, 91601 213 985 5500
R LOW, EMP 136, ENG 6, $1,000-$2,500M
Cal Photographic Engineering Co, Box 344
San Jose 356 5856
Mich Jack Doerr Co, 22407 Bayview St, St Claire Shores
Tex Producer Services Inc, 3011 Midas
Dallas 631 5670
Tex Universal Cine Photo, 1430 Slocum St
Dallas 204 RI 8-6645
Wash Vince E Johnson Co, 2614 NE 86th St
Seattle LA 4-4595

GORDOS CORP, 250 GLENWOOD AVE, BLOOMFIELD
N J, 07003 201 743 6800
J DEITH, EMP 250, ENG 10
Ariz Allen Assoc, Box 3091, Papago Sta
Scottsdale 945-5781
Cal Paul Nurches Co, 999 Commercial St
Palo Alto DA 6-7842
Cal Paul Nurches Co, 2396 E Foothill Blvd
Pasadena MU 1-8957
Colo Applied Technical Prods, 2229 Oneida St
Denver 333-7291
Ill Rockford Controls Co, 21 W 181 Hill Ave
Glen Ellyn 469-6016
Mass R F Duffy Assoc Inc, 49 Century Rd
So Weymouth 335-7724
Mich L H Dickelman Co, 13331 Puritan Ave
Detroit 273-0806
Minn Wenco Sales, 7728 Morgan Ave S
Minneapolis 866-3639
NJ Murray Co, 25 W Northfield Rd
Livingston 992-0520
NY Milton C Matthews Co, Box 612
Rochester BR 1-2143
NC Jake Rudisill Assoc, 2009 N Tryon St
Charlotte 377-6901
Ohio Rockford Controls Ohio Inc, 2077 Embury Park Rd
Dayton 274-1911
Ohio Rockford Controls Ohio Inc, 19200 Villaview Rd
Cleveland 216-531-4841
Pa Murray Co, Box 253
Newtown, Bucks Co WO 8-2497
Pa Rockford Controls Ohio Inc, 3550 Laketon Rd
Pittsburgh 731-4600
Tex R F Kimball Co, 5531 Dyer St, Dallas 363-5431
Wash Harry Levinson Co, 1211 E Denny Way
Seattle EA 3-5100
Can Aztec Engrg Co, 136 Tower Dr
Scarborough, Ont 755-7824
Ger Willy Gunther Co, Humbolstr 3739
8500 Nurnberg 9 0911-4442/41
GB B & R Relays Ltd, Temple Fields
Harlow-Essex HAR 2-5231
Jap Sankyo Intl Corp, No. 4-1, 2 Chome, Nishi-Kanda
Chiyoda-Ku, Tokyo 262-6376
SAfr GKN Sankey Ltd, First St, Booysens Reserve
Johannesburg 834-6251
Swit Walter Blum Assoc, Hoenggerstr 115
Zurich 42-23-42-44
Aust Arcos Industries Pty Ltd, Lisbon St, Fairfield, NSW

GORE & ASSOC INC, W L, 555 PAPER MILL RD
NEWARK, DEL, 19711 302 368-0651
R URQUHART, EMP 200, ENG 18
Ariz W L Gore & Assoc, 1505 N 4th St
Flagstaff 602 774-0611
Cal Don Medeiras, Box 96, Mountain View YO 7-5913
Cal W L Gore & Assoc, 8542 Florence Ave
Downey 869-4511
Mass W L Gore & Assoc, 363 Great Oak Rd
Bedford 275-8877
Minn W L Gore & Assoc, 7728 Morgan Ave
Minneapolis 612 861-1800
NJ S R Morrow Co, Box 465, Chatham ME 5-8960
Ohio Schlemmer Assoc, 1172 W Galbraith Rd
Cincinnati 522-8340
Pa Tyler Griffin Co, 46 Darby Rd, Paoli 647-1550
Tex John H Smith Co, 729 Edgefield Rd
Fort Worth MA 6-1032
Wash Martin J Poggi, Box 786, Bellevue FL 4-5648
Can Lake Engrg Co Ltd, 123 Manville Rd
Scarborough, Ont PL 7-3253
For W L Gore & Assoc, 75 Inglis St
Fief, Dunfermline, Scot 25216
Ger W L Gore & Co, Gmbh, Siemenstr 10
8012 Munchen, Ottobrunn 0811-460-2949
Swed A B Galco, Gavelgatan 12B, 7 TR
Stockholm 237620
Ind Garg Assoc (P) Ltd, 5 Nai Abadi
Ghaziabad UP 2958
Isrl Palec Ltd, Box 960, Tel-Aviv 64568

GORMAN MACHINE CORP, 480 S MAIN ST
RANDOLPH
MASS, 02368, TWX 710-348-0450 617 963-7333
H SNIDER, EMP 30, ENG 3, $500-$1,000M
Ala Space Engrg Sales, 4306 Governors Dr SW
Huntsville 837-6060
Cal Gorman Sales Corp, 4338 W Artesia Ave
Fullerton 523-2480
Fla Space Engrg Sales, 999 Woodcock Dr
Orlando 841-2271
Ill Robt J Kennedy Co, 6713 N Oliphant Ave
Chicago 631-8283
Mass Gorman Sales Corp, 480 S Main St
Randolph 963-7335
Minn D A Schultz Co, 801 SE 8th St
Minneapolis 339-7701
NY Alderman & Eckerson, Drawer B
Pittsford 586 6020
NC Space Engineering Sales, 2509 Lakeshore Dr
Greensboro 299 0987
Pa Wm A B Paul, 400 Bethlehem Pike
Philadelphia 247 0567
Tex Noakes Engineering, Box 968, Irving BL 5 0441
Tex Noakes Engineering, 2128 W Alabama
Houston 529 6213
Can Anbak Sales Canada Ltd, 3208 Lenworth Dr
Cooksville Ont 625 1061
Can Anbak Sales Canada Ltd, Box 101
Ile Perrot Sud Que 453 6375
GB Avel Products Ltd, Ayron Rd So Ockendon
Essex SO 2263
Jap U S Asiatic Co Ltd, 1 18 Shimbashi, Minato Ku
Tokyo 591 5181

GORN CORP, 845 MAIN ST, STAMFORD
CONN, 06902, TWX 710 474 2156 203 348 7591
G SPIEGEL, EMP 80, ENG 8, $1,000 $2,500M

GORTON MACHINE CORP, 1106 13TH ST, RACINE
WIS, 53403, TWX 910 271-2400 414 634 6644
K CHRISTOPHERSON, EMP 300, ENG 15
$5,000-$10,000M

GOSLIN CORP, 2921 W OLIVE ST, BURBANK
CAL, 91505 213 848-0776
A WEBB, EMP 50, ENG 3, $250 $500M

GOTHAM AUDIO CORP, 2 W 46TH ST, NEW YORK
N Y, 10036 212 CO 5 4111
H ALLEN, EMP 10, ENG 2, $500-$1,000M

GOULD MARATHON BATTERY CO DIV GOULD-NATL
BATTERIES INC, 931 VANDALIA ST, ST PAUL
MINN, 55114 612 222-4171
H CRAGG, EMP 835, ENG 26, OVER $10,000M
Ala J Caillouet, Box 4108, Farley Sta
Huntsville 205 881-4965
Cal J P Keevers, 11353 Ovada Pl
Los Angeles 213 GR 2-4871
Cal W F White, 3773 Hillway Dr
Glendale 213 249 9110
Cal G Howe, 55 New Montgomery St, San Francisco
Conn B Paule, 12 Victoria La
W Simsbury 203 658-5966
DC W C Kuhl, 5454 Wisconsin Ave
Washington 301 652 2638
Fla S Lenz, 999 Woodcock Rd, Orlando 305 841-4956
Ga W Carter, 3376 Peachtree Rd, NE
Atlanta 404 237-8278
Ill W S Sapp, 253 Pleasant Hill Blvd
Palatine 312 FL 9-1075
Ill R E Rathford, 1915 N Harlem Ave
Chicago 312 889-3217
Ill D L Thompson, 5505 Milton Pkwy
Rosemont 312 671-0671
Mass R A Harrow, 63 Fourth Ave
Needham 617 444-8120
Nev A J Kogan, 6th & B St, Sparks 702 358-3931
NY S Huret, 7 Dey St, New York 212 267-8818
Ohio D Bigler, 1560 Greenleaf Circle
Westlake 216 871-2534
Ohio R P Degel, 4500 Euclid Ave
Cleveland 216 391-0411
Ore A Polich, 5940 SW Hood Ave
Portland 503 246-5451
Tex J W Juderjohn, 1188 Quaker St
Dallas 214 ME 1-1747
Tex Blair Engrg Sales Co, 2930 Merrell Rd
Dallas 314 352-2556
Va C E Stinson, 1208 Morningside La
Alexandria 703 765-2282
Wash Andrew L Polich, Inc, 2636 Thorndyke W
Seattle 206 283-7100
Wis C Marcoux, 840 Henrietta St
Wausau 715 845-7361

GOW-MAC INSTRUMENT CO, 100 KINGS RD
MADISON, N J, 07940 201 377-3450
R MATHIEU, EMP 35, ENG 2, $500-$1,000M
Ala Alabama Controls Co, 2775 Springhill Ave
Mobile 205 479-2345
Tex Antek Instruments Inc, Box 16158
Houston 713 443-1292
For Gow Mac Instrument Co (Ireland) Ltd
Shannon Free Airport, Limerick
Fr Touzart & Matignon, 3 Rue Amyot, Paris V
Ger W Seifert, KG, 22 Feldstr, Duesseldorf
GB Field Instr Co Ltd, Tetrapac House Orchard Rd
Richmond, Surrey
Holl J H Becker NV, Vulcanusweg 113, Delft
Ital Giovanni Vittadini, SpA, Via Cesare Balbo 6, Milano
Jap Tokyo Kogyo Boyeki Shokai Ltd
8-9, S-chrome Shimbashi, Minato-ku, Tokyo
SAfr A Keller, 38 Stiemens St Braamfortein
Johannesburg
Swit Werner Ness, Zurichstr 129, Kusnacht, Zurich
Aust John Morris Pty Ltd, 61 Victoria Ave
Chatswood, NSW

GPL DIV GEN PRECISION SYSTEMS INC
63 BEDFORD RD, PLEASANTVILLE
N Y, 10570, TWX 914 769-7217 914-769-5000
C SERENO, EMP 1100, ENG 700
Cal GPL Div, 5730 W Manchester Ave
Los Angeles 678-5418
DC GPL Div, 1030 15th St, N W
Washington 223-4104

Ohio GPL Div, 33 W First St, Dayton 222-5892

GPS INSTRUMENT CO INC, 188 NEEDHAM ST
NEWTON, MASS, 02164 .... 617 969-9405
S GISER, EMP 40, ENG 10, $500-$1,000M
Ariz Vinson Assoc, 44 E Indian School Rd
Scottsdale 602 947-7371
Cal Wright Engrg Co, 180 E California Blvd
Pasadena 213 681-2651
Cal Wright Engrg Co, 126 25th Ave
San Mateo 415 345-5796
Colo Vinson Assoc, 3600 S Lincoln
Englewood 303 789-2203
Conn Applied Measurements Inc
Hamden 203 288-5288
Ill Megatek, Inc, 1915 N Harlem Ave
Chicago 312 889-1277
Md S & S Assoc, 7720 Wisconsin Ave
Bethesda 301 654-2420
Mass Applied Measurements Inc, 86 Hayward Rd
Acton 617 263-2766
Mich OEM Sales Co, 106 S Woodward
Birmingham 313 647-1172
Mo Ozark Electronic Mktg Inc, 2573 Woodson Rd
St Louis 314 423-7200
Mo Airborne Elctns Co, 7759 Loma Vista Dr
Kansas City 816 221-0312
NJ Smith Co, 111 S Orange Ave
South Orange 201 763-1770
NM Vinson Assoc, Box 3295
Albuquerque 505 298-7442
NY DB Assoc Inc, 3307 Erie Blvd E
DeWitt 315 446-0220
NY Duda Assoc, 24 Edison Dr
Huntington Station 516 427-5863
Ohio Compar Ohio Box 4791
Fairview Park 216 333-4120
Ohio Compar Ohio, Box 388, Fairborn 513 878-2631
Pa S & S Assoc, Boro Line Rd
King of Prussia 215 265-3450
Tex J Y Schoonmaker Co, 2995 Ladybird La
Dallas 214 357-8481
Tex J Y Schoonmaker Co, 107 Winnetka
San Antonio 512 342-0251
Tex J Y Schoonmaker Co, 6001 Gulf Frwy
Houston 712 926-9510
Can Technitron Assoc Ltd, 769 Lajoie Ave
Dorval, Que 514 631-6859

GRACE ELECTRONICS INC, 4380 WARNER RD
CLEVELAND, OHIO, 44105 .... 216 341-7950
M GRACE, EMP 8, ENG 2, $100-$250M

GRAFIX INC, 2014 RIDGECREST DR SE
ALBUQUERQUE, N MEX, 87108 .... 505 265-6903
G BUSSEY, EMP 20, ENG 3, $250-$500M
Cal Persons & Assoc, Box 370, Lafayette 283-3760
For Astrex Intl Corp, 360 Glenwood Ave
East Orange, NJ 676-7020

GRAFO COLLOIDS CORP, BOX 195, SHARON
PA, 16146 412-981-1773
W. FORD, JR., EMP 15, ENG 2, $250-$500M

GRAHAM TESTERS INC, 4220 CENTRAL AVE NE
MINNEAPOLIS, MINN, 55421 .... 612 788-9489
R LEE, EMP 15, ENG 1, $100-$250M

GRALEX INDUSTRIES INC, 28 DITOMAS CT, COPIAGUE
N Y, 11726 .... 516 691-2502
B GRAND, EMP 7, ENG 3, UP TO $100M
Cal Richards Assoc, 900 N San Antonio Rd
Los Altos 415 941-3226
Mass Instrument Consultants, Inc, 25 Waban Ave
Waban 969-9881
Mo Gordon Fixman Engrg Co, 8160 Stanford Ave
St Louis .... 314 PA 5-5219
NJ Friedman Assoc, 110 Halsted St
E Orange 201 673-2500
Pa MCW Inc, 709 W Atlantic St
Philadelphia .... 215 BA 8-7459
Tex Scientific Sales Co, 777 S Central Expwy
Richardson .... AD 1-6541
For Terminal Radio Intl, 3 W 61st St
New York .... CI 6-2133

GRAND TRANSFORMERS INC
BEECHTREE & MARION STS, GRAND HAVEN
MICH, 49417 .... 616 842-5430
G RETZLAFF, EMP 125, ENG 3, $1,000-$2,500M
Cal Miner & Assoc Inc, 2500 Compton Blvd
Redondo Beach 772-6311
Ill Edwar Flaxman Co, 52 James Ct
Glenview 729-1880
Ill Ernest N Taylor & Assoc, 6760 Stony Island Ave
Chicago 324-8532
Kan D D Darnell & Co, 6005 Martway
Mission 722-1736
Md Rothenheber & Co Inc, 14211 Chesterfield Rd
Rockville 929-3388
Mass Henry P Segel Inc, 38 Jordan Rd
Brookline 232-7525
Mich Willard Spenser Co, 21500 Greenfield Rd
Oak Park 398-8005
Mo D D Darnell & Co Inc, Park Lane
Fenton 343-1254
NY Kahgan Sales Corp, 1261 Broadway
New York .... MU 4-7772
Ohio Del Steffen & Asoc, 25000 Euclid Ave
Cleveland 261-5055
Pa Rothenheber & Co Inc, 53 Crickett Ave
Ardmore 642-6911
Tex W T Blackburn Assoc, 137 Walnut Hill Vlg
Dallas 351-9991

GRANGER ASSOCIATES, 1601 CALIFORNIA AVE
PALO ALTO
CAL, 94304, TWX 910-373-1291 .... 415 321-4175
H JOHNSTON, EMP 308, ENG 67, $5,000-$10,000M
Colo Granger Assoc, 3025 Garland Terr
Colorado Springs 633-6068
DC Granger Assoc, 818 18th St NW
Washington 298-7125
Ore Granger Assoc, Box 584A, Boring 503 658-2684
For Hwa Sheng Electronic Co Ltd, 21 Nanking West Rd
Taipei, Taiwan 46076
For Intl Aeradio E A Ltd, Nairobi Airport
Nairobi, Kenya, EA 82222
For Mushko & Co Ltd, Oosman Chambers, Victoria Rd
Karachi 3, Pakis 51027
For A M Bravo & Filhos, Praca de Londres 3
Lisbon 2, Port 728145
For General Equip Co Ltd, Box 2198
Bangkok, Thai 55358
For L Forster & Sabbagh Co, 436/1 Rashid St
Baghdad, Iraq 85126
For Nefan Ticaret Ltd, P. K. 430 Karakoy
Istanbul, Tur 48 56 13
For Intl Electronic Engrg Ltd, Huerfanos 521
Santiago, Chile 34439
For INESA, Davalos Lisson 121, Aptdo 1742
Lima, Peru 43470
For Radio Lab C A, Av Prin Los Ruices
Aptdo de Correo 3421 Caracas 346014
For African Development & Engrg Co, Box 2390
Tripoli Libya 33906
For Associated Tech Services Ltd
8-15 Amber Mansions, Singapore 9 361610
For Industria Electronica Larco
Aptda Postal 866 13 Calle 7-49 Zona 1
Gautemala 83913
Den H Rikard-Petersen, Niels Hemmingsensgade 8-10
Copenhagen, K .... PA 6644
Fr Materiels & Constructions s a, 44, Rue Paul Valery
Paris XIV 553-66-23
Ger Neuzeitliche Elektro & Motorentechnik GmbH
Postfach 1547, 54 Koblenz 34 387
GB Granger Assoc Ltd, Molesey Rd
Walton-on-Thames Surrey 29913
Jap Marunbun Co Ltd
1 2-Chome Odemmacho Nihonbashi Chuo-Ku
Tokyo 662-8151
Nor Datamatik A/S, Ostensjoveein 7, Oslo 6 ... 672847
SAfr A C Gowlett (Pty) Ltd, Box 1257
Johannesburg 729-9341
Swed Allgor Antennspec isten AB
Akersberga 08-552443
Arg SADE CO
Tucuman 834, 5 Piso, Casilla Correo 2693
Buenos Aires 42 8026
Braz S A de Comercio Tec Aer
Av Roosevelt 137, 11 Andar
ZC 39, Rio de Janeiro
Gr Telectrotec, 18 Voulis St, Athens 126 ..... 227 267
Ind Motwane Private Ltd, Box 1312
Bombay 1 252337
Mex DEKSA, S A, Ave Juarez 42, Edif B Piso 9
Mexico 1, D F 10 25 66
Spn Busling SA, Fernan Gonzalez 26
Madrid 225 22 95
Fin Oy Imporex, AB, Ultivilantie 29/3
Helsinki 455676
Aust Granger Assoc Pty Ltd, 1-3 Dale St
Brookvale, NSW 936288

GRANT GEAR WORKS INC, 154 W SECOND ST
SOUTH BOSTON, MASS, 02127 .... 617 268-4403
F EMERY, EMP 110, ENG 4, $1,000-$2,500M
Pa Clisby Assoc, Phila

GRANT PULLEY & HARDWARE CORP, 505 HIGH ST
WEST NYACK
N Y, 10994, TWX 914-358-3541 .... 914 EL 84400
H MILLER, EMP 300, ENG 15, $2,500-$5,000M
Ala Electro Sales Co, Bank for Savings Bldg
Birmingham 252-9056
Cal Grant Pulley & Hdwe, 944 Long Beach Ave
Los Angeles .... MA 7-4851
Cal Ernest J Rhoads, 8420 Lurline
Canoga Park 341-5176
Cal M A Assoc, 2015 Latham St
Mountain View 324-1339
Colo CFL Co, 1391 S Inca St, Denver 777-4381
Conn Harold Belanger, 38 Woolsley Ave
Trumbull .... AM 8-5352
Fla Ben W Wimberly Co, 532 S Fort Harrison St
Clearwater 446-7072
Haw Haneberg & Co, 1100 Ward Ave, Honolulu .. 65-402
Ill Walter Hess, 1780 Maple St
Northfield .... HI 6-8077
Kan J Singer, 6324 W 102 St
Overland Park .... DU 1-3684
Mich Carter, McCormic, & Peirce, 16239 Wyoming
Detroit 863-4600
Minn R G Ragon Inc, 1136 W Larpenteur Ave
St Paul 488-6634
NJ Components for Electronics, 60 Midvale Rd
Mountain Lakes .... DE 4-2921
NY Megatone Corp, 240 Grand Ave
Leonia, NJ 652-8273
NC Associated Technical Reps, 1020 Brookstown Ave
Winston-Salem 723-3069
Ohio Tri State Mktg Inc, 1717 Section Rd
Cincinnati 631-5060
Tex Blackburn Assoc, 137 Walnut Hill Vlg
Dallas .... FL 1-9991
Wash Paramount Technical Agencies, 9210 28th Ave NW
Seattle .... SU 4-6447
Can Electrodesign Ltd, 9124 St Lawrence Blvd
Montreal 389-5914
For Devero Co of America, 1275 Prospect Ave
Brooklyn .... EV 8-5507
For E M Amy & Sons, 888 Munoz River St
Rio Piedras, PR 766-1208
Fr CPI Aeronautique, 57 Ave D'IE'NA, Paris
GB Grant Slides Ltd, Wotton Rd, Kingsnorth Ind Est
Ashford, Kent .... ASH 22675
Belg E T I, 36 Rue Ravenstein, Brussels

GRANVILLE-PHILIPS CO, 5675 E ARAPAHOE AVE
BOULDER, COLO, 80302 .... 303 443-7660
W RINGER, EMP 75, ENG 11, $1,000-$2,500M
Cal Granville-Phillips Co, 2015 Latham St
Mountain View 961-2717
Ga W L Schoonover Inc, 6427 Roswell Rd NE
Atlanta 255-0761
Ill Anger Assoc Inc, 731 Villa Ave
Naperville 355-4365
Mass Granville-Phillips Co, 21 Woodmere Rd
Framingham Ctr. 872-0607
Mich Anger Assoc Inc, 13126 Michigan Ave
Dearborn 584-9853
NJ Granville-Phillips Co, 35 Charles St
Westwood 664-6667
Ohio Anger Assoc Inc, 21139 Lorain Rd
Cleveland 333-4180
Can Technical Mktg Assoc Ltd, 6 Thorncliff Sq
Toronto 17 Ont 425-1975
Ger E Leybold's Nachfolger, Bonner Str 504
Koeln-Bayental
GB Leybold Vacuum Ltd, Blackwall La, London SE 10
Jap Marubun Co Ltd
1-2 chome, Odenmacho, Nihonbashi
Chuo-ku, Tokyo
Isrl Landseas Corp, 48 W 48th St
New York 265-8323
Isrl Landseas (Israel) Ltd, 29 Bezalel St, Tel Aviv

GRAPHIC CONTROLS CORP, 189 VAN RENSSELAER ST
BUFFALO, NY, 14210 .... 716 853-7500
W GREENHOLT, EMP 360, ENG 5, OVER $10,000M
Cal Graphic Controls Corp, 696 E Colorado Blvd
Pasadena .... MU 1-5171
DC Graphic Controls Corp, 1050 31st St, NW
Washington 333-5600
Fla Graphic Controls Corp, 5700 NE 21st Dr
Ft Lauderdale 933-4129
Ill Graphic Controls Corp, Box 535
Barrington .... DU 1-4446
Mass Graphic Controls Corp, 2 Stony Hill Rd
Indian Orchard 543-1327
Mich Graphic Controls Corp, 27224 Southfield Rd
Lathrup Vil 357-5006
Mo Graphic Controls Corp, 2004 Locust St
St Louis .... CE 1-6146
NY Graphic Controls Corp, 30 Church St
New York .... CO 7-3037
Ohio Graphic Controls Corp, 850 Euclid Ave
Cleveland 241-2217
Pa Graphic Controls Corp, 1538 Lancaster Ave
Paoli .... NI 4-9636
Tex Graphic Controls Corp, Box 9451
Austin .... GL 3-5242

GRAPHIC ELECTRONICS INC, 426 SECOND ST
LA SALLE, ILL, 61301 .... 815 223-1489
W BARRON, EMP 25, ENG 5, $1,000-$2,500M

GRAPHICS, INC, HWY 59 N., POTEAU
OKLA, 74953 .... 918 647-2195
W SCHINDEL, EMP 100, ENG 4
Ala J L Highsmith & Co, 3322 S Mem Dr
Huntsville 205 881-3294
Ariz Luscombe Engrg Co, 222 W Osborn Rd
Phoenix 602 274-1542
Cal Luscombe Engineering Co, 610 S Arroya Pkwy
Pasadena 213 684-2000
Cal Luscombe Engrg Co, 220 E 3rd St
San Mateo 415 342-7057
Colo Franklin Sales Co, 2149 S Clermont St
Denver 303 757-1371
Fla J L Highsmith & Co, 2543 Industrial Blvd
Orlando 305 293-5202
Ill R Edward Stemm Inc, 17W480 Lake St
Addison 312 279-2440
La E E Brown Instru Co, Box 9369
Shreveport 318 635-7697
La E E Brown Instr Co, 3346 Greenway Dr
Baton Rouge 504 926-2923
Mass Kenneth H Green Co, Box 339
Lexington 617 274-6699
Mich Electro Enterprises Inc, 10745 Morang Dr
Detroit 313 886-2280
Minn Fred B Hill Co, 6110 Excelsior Blvd
Minneapolis 612 929-6727
NJ Bonn Assoc, Inc, 266 Lake Ave
Metuchen 201 549-9573
NY M P Andrews, Inc, 319 Mott Rd
Fayetteville 637-3144
NY Bonn Assoc, 9 Ridge Dr
Huntington Station 516 427-4328
NC James L Highsmith & Co, 3733 Monroe St
Charlotte 704 333-7743
Ohio Electro Enterprises, Inc, 335 E 200th St
Cleveland 216 486-7040
Ohio Electro Enterprises Inc, 2621 Mardon Dr
Dayton 513 426-6071
Okla Dave Allert Co, Box 7351, Tulsa 918 743-1107

Pa Bonn Assoc, 7217 Rising Sun Ave
Philadelphia .... 215 RA 5-2210
Pa Electro Enterprises Inc, 201 Penn Ctr Blvd
Pittsburgh 412 371-8497
Tex Elgin B Robertson Inc, 1339 Plowman Ave
Dallas .... 214 WH 2-8486
Tex E B Robertson Inc, 4101 San Jacinto
Houston .... 713 JA 9-3797
Tex E B Robertson Inc, 908 Great Plains Bldg
Lubbock .... 806 PO 5-9027
Va J L Highsmith & Co, 5003 Brook Rd
Richmond 266-2060
Wis Fluids Control Corp, Box 97, Butler ... 414 725-5921
Wis Fluids Control Corp, 405 S Green Bay Rd
Neenah 414 725-5921

GRAPHIC SYSTEMS, 925 DANVILLE RD, YANCEYVILLE
N C, 27379 .... 919 694-4138
V MOORE, EMP 20, ENG 3
NY Graphic Systems, 55 W 42nd St, New York

GRAPHITE METALLIZING CORP, 1052 NEPPERHAN AVE
YONKERS, N Y, 10702, TWX 914-476-2411 ...... 914 968-8400
W WALKER, EMP 165, ENG 6, $500-$1,000M
ADV PG 76

GRAPHTEX INC, 1 DELL GLEN AVE, LODI
N J, 07644 .... 201 478-1166
G MARKOFF, EMP 38, ENG 3, $500-$1,000M
Fla Duay Enterprises, 1515 Ensenada Dr, Orlando
Mass A & M Elect Rep Inc, 1492 Highland Ave
Needham 444-8170
NY Reptech, Inc, Box 98, Syracuse
NC Bill Henry Assoc, 1043 Providence Rd
Charlotte 375-8958
NC Bill Henry Assoc, 1043 Providence Rd
Charlotte 375-8958
Tex R P Votteler, 3508 Greenville Ave
Dallas .... TA 3-2320
Can Radelin Ltd, 314 Lakeshore Rd E, Port Credit, Ont
Can Radelin Ltd, 3164 Lenworth Dr
Cooksville, Ont 277-4122

GRASON STADLER CO INC, ELECTRONICS PARK
WEST CONCORD, MASS, 01781 .... 617 369-3787
R GRASON, EMP 85, ENG 7, $1,000-$2,500M

GRAYHILL INC, 537 HILLGROVE AVE, LA GRANGE
ILL, 60525 .... 312 354-1040
B VINKEMOLDER
ADV PG 673, 676
Ala J L Highsmith Co, Holiday Off Ctr
Huntsville 881-3294
Cal F Huddleston Assocs, 408 S Rosemead Blvd
Pasadena .... MU 1-3751
Cal Nickerson-Gray & Assoc Inc, 2434 Park Blvd
Palo Alto 326-0152
Colo R E Cathey Co, 200 Garrison St, Denver .. 238-1506
Conn Michael Scott Comp Inc, 46 Rockefeller Ave
West Haven 934-0261
Fla Geartner Assoc Inc, 2101 Mohawk Trail
Maitland 647-4000
Fla Geartner Assoc Inc, 350 Lincoln Rd
Miami Beach .... JE 1-0200
Ill Hill & Gray Assoc Inc, 821 Garfield
Oak Park .... EU 3-0373
Ind Menze Sales, 6010 Lower Huntington Rd
Ft Wayne 747-5616
Iowa J Taylor Hersey, 2120 Greenwood Dr SE
Cedar Rapids .... EM 2-2031
Md Naudain Assoc, Box 1, Timonium 252-5378
Mass Michael Scott Co Inc, 336 Washington
Wellesley Hills 235-0102
Mich C B Jensen & Assoc, 26711 Woodward Ave
Royal Oak 399-0900
Minn Northport Engineering Inc, 2027 Grand Ave
St Paul 698-3841
Mo L R Harry & Assoc, 7603 Forsyth
Clayton 5 .... PA 7-6123
Mo L R Harry & Assoc, Box 588
Grandview .... SO 3-3634
NM Vermillion Co, 3621 Headingly NE
Albuquerque 344-9823
NY Bob Dean Inc, 714 W Clinton St, Ithaca .. 272-2187
NY Frank Tylinski Co, 338 Northern Blvd
Great Neck 466-9070
NC James L Highsmith Co, 3733 Monroe Rd
Charlotte 333-7743
Ohio Arthur H Baier Co, 3300 S Dixie Dr
Dayton 39 298-9897
Ohio A H Baier Co & Assoc, 4399 Industrial Pkwy
Willoughby 946-6080
Ore Seatronics Inc, 6415 Canyon Ct
Portland 292-8887
Pa Naudain Associates, 1032 Suburban Sta Bldg
Phila .... LO 4-3194
Pa Covert & Newman Co, 300 Mt Lebanon Blvd
Pittsburgh 563-0303
Tex W Pat Fralia Co, Box 12625, Ft Worth ... PE 8-2394
Va James L Highsmith Co, Box 9225
Richmond 266-2060
Wash Seatronics Inc, 5931 4th Ave S
Seattle 206 767-4330
Can Frank Taylor Ltd, 12 Howard Dr
Willowdale, Ont 222-6924
Fr Radio Television Francaise, 73 Ave De Neuilly
Neuilly-Sur-Seine .... SAB 70-40
GB Highland Electronics Ltd, 26 Underwood St
London N1 .... CLE 3723-4

GRAYHILL MOLDTRONICS INC, 703 ROGERS ST
DOWNERS GROVE, ILL, 60515 .... 312 968-7000
D FOSKETT
Cal Nickerson-Gray & Assoc Inc, 2434 Park Blvd
Palo Alto 326-0152
Cal Walter Thorne, 15101 Magnolia Ave
Sherman Oaks 783-1817
Colo R E Cathey Co, 200 Garrison St, Denver .. 238-1506
Fla Geartner Assoc Inc, 2101 Mohawk Trail
Maitland 647-4000
Fla Geartner Assoc Inc, 350 Lincoln Rd
Miami Beach .... JE 1-0200
Ill Hill & Gray Inc, 821 Garfield
Oak Park .... EU 3-0373
Ind Menze Sales, 6010 Lower Huntington Rd
Ft Wayne 747-5616
Iowa J Taylor Hersey, 2120 Greenwood Dr SE
Cedar Rapids .... EM 2-2031
Md Naudain Assoc, Box 1, Timonium 252-5378
Mass Michael Scott Co Inc, 336 Washington
Wellesley Hills 235-0102
Mich C B Jensen & Assoc, 26711 Woodward Ave
Royal Oak 313 399-0900
Minn Northport Engineering Inc, 2027 Grand Ave
St Paul 698-3841
Mo L R Harry & Assoc, Box 588
Grandview .... SO 3-3634
Mo L R Harry & Assoc, 7603 Forsyth
Clayton 5 .... PA 7-6123
NM Vermillion Co, 3621 Headingly NE
Albuquerque 344-9823
NY Frank Tylinski Co, 338 Northern Blvd
Great Neck 466-9070
NY Bob Dean Inc, 714 W Clinton St, Ithaca .. 272-2187
Ohio Arthur H Baier Co, 3300 S Dixie Dr
Dayton 39 298-9897
Ohio Arthur H Baier Co, 4399 Industrial Pkwy
Willoughby 946-6080
Ore Seatronics Inc, 6415 Canyon Ct
Portland 292-8887
Pa Naudain Assoc, 1032 Suburban Sta Bldg
Phila .... LO 4-3194
Pa Covert & Newman Co, 300 Mt Lebanon Blvd
Pittsburgh 563-0303
Tenn Jackson & Assoc, 1615 Williams St
Chattanooga 267-4260
Tex W Pat Fralia Co, Box 12625, Ft Worth ... PE 8-2394
Wash Seatronics Inc, 5931 4th Ave, Seattle 767-4330
Can Frank Taylor Ltd, 12 Howard Dr
Willowdale, Ont 222-6924

GRAY & HULEGUARD INC, 2330 MICHIGAN AVE
SANTA MONICA, CAL, 90404 .... 213 870-9053
N ABIS, EMP 150, ENG 20, $2,500-$5,000M
Md E A Magyar, 11360 Cherryhill Rd
Beltsville 301 935-5167
Mass P Spector, 10 Argyle Ave, Andover ... 617 475-2597
Wash M Baxley, Box 368, Mercer Island ... 206 232-5951

GRAY RADIO CO INC, 501 FOREST HILL BLVD
WEST PALM BEACH, FLA, 33405 .... 305 582-2201
G GRAY, EMP 5, ENG 3, UP TO $100M

GRAY RESEARCH & DEVELOPMENT CO DIV
150 PARK AVE, EAST HARTFORD
CONN, 06108 .... 203 289-2743
H LEARMAN, EMP 15
Cal Ross Sales Co, 5007 Lankershim Blvd, N Hollywood
Can Applied Electronics, 40 Torlake Crescent
Toronto, Ont
For Rocke Intl Corp, 13 E 40th St, New York, NY

GREAT EASTERN METAL PRODUCTS CO
22 WOODWORTH AVE, YONKERS
N Y, 10701 .... 914 476-7300
L WEINBERG, EMP 17, $250-$500M

GREENE ELECTRONICS INC, 1840 CRANSTON ST
CRANSTON, R I, 02920 .... 401 WI 2-3800
R ROGERS, EMP 50, ENG 2

GREEN ELECTRIC CORP, 29-13 BROADWAY
FAIRLAWN, NJ, 07410 .... 201 796-4700
R BEISER, EMP 62, ENG 2, $250-$500M

GREENFIELD COMPONENTS CORP
184 SHELBURNE RD, GREENFIELD
MASS, 01301 .... 413 773-5494
E FLYNN, EMP 75, ENG 5, $500-$1,000M
Tex Joseph E Taylor Co., Box 556
Richardson 235-7011
Wash F W Aurich & Co, 3601 Gilman Ave W
Seattle 282-2223

GREEN INSTRUMENT CO INC
295 VASSAR ST DEPT 63A, CAMBRIDGE
MASS, 02139 .... 617 354-2989
W FULLERTON

GREENLEE DIAMOND TOOL CO, 1516 W ADAMS ST
CHICAGO, ILL, 60607 .... 312 666-4155
R CARLSON, EMP 10, ENG 2, $500-$1,000M

GREENLEE TOOL CO, 2136 12TH ST, ROCKFORD
ILL, 61101 .... 815 963-4881
M TUCKETT, EMP 1400

GREENPAR ENGINEERING LTD, ELECTRONICS DIV
STATION WKS, HARLOW, ESSEX, ENGLAND 27192
N STEPHENSON, EMP 200, ENG 15, $1,000-$2,500M
NJ Data Instr Div, 7300 Crescent Blvd
Pennsauken 662-3031
Can Atlas Instruments Corp, 50 Wingold Ave
Toronto .... RU 1-6174
Den Scaniameter A/S, Finsenavej 39, Kobenhavn F
Ital GBC Italiana, Casella PO 35, Milano 21 10 51
Nor Rieck & Co A/S, Box 2706 Industrihuset A7
Bergen 19977
SAfr United Electronics Corp Ltd
305 S Coast Rd Rossburgh, Durban 81-8211
Belg Sait Electronics , 66 Chaussee de Ruisbroek
Bruxelles 19 .... 45 18 50
NZ Sonophone Distrs Ltd, 5-7 Kingston ST
Auckland C 1 .... 44 265

GREENRAY INDUSTRIES INC, 840 W CHURCH RD
MECHANICSBURG, PA, 17055 .... 717 766-0223
C KROH, EMP 106, ENG 10, $1,000-$2,500M
ADV PG 450, 460
Cal Dorr Wagner Assoc, Box 485, Altadena ... 681-4060
Cal John E Striker Co, 1319 Howard Ave
Burlingame 342-1425
Conn Keyco Assoc, Box 357, Farmington 677-1771
Fla Beacon Electronic Assoc Inc, 540 S Maitland Ave
Maitland 647-3498
Fla Beacon Electronic Assoc Inc, Box 10212
Ft Lauderdale 564-4298
Ga Beacon Electronics Assocs, Inc, Box 29201
Atlanta 351-3654
Ill Branum Sales Co, Box 516, Lake Zurich .. 438-2356
Mass Keyco Assoc, 551 Broadway, Malden 321-2323
Minn R J Sales & Engineering, 7100 S France Ave
Minneapolis 922-1425
Mo A F Gliedt, 10869 Spring Garden Dr
St Louis 868-7445
NJ Andrews & Andrews, Inc, 44 N Dean St
Englewood 569-8800
NY Andrews & Andrews Inc, 140 E Main St
Huntington 427-1313
NY Andrews & Andrews Inc, 236 Erie Blvd E
Syracuse 471-8855
NC Beacon Electronics Assoc, Box 503
Jamestown 454-1010
Ohio McShane, 3633 Trails End Dr, Medina 725-4283
Pa Tyler Griffin Co, 46 Darby Rd, Paoli 647-1550
Tex John A Green Co, Box 47206, Dallas 631-7450
Tex John A Green Co, Box 66506, Houston ... 526-2959
Wash Dewar & Assoc, 6361 First Ave S
Seattle 763-2233
Can Frank Eakin Ltd, 9 Milvan Dr
Weston, Ont 741-7485
For Greenray International, 840 W Church Rd
Mechanicsburg, Pa 766-0246

GREEN RECTIFIER CORP, 1-10 THIRTIETH ST
FAIR LAWN, N J, 07410 .... 201 797-8100
I ROSE, EMP 70, ENG 4, $500-$1,000M

GREENTREE ELECTRONICS CORP, A BELL & HOWELL
CO, BOX 1469, COSTA MESA
CAL, 92626 .... 714 549-2265
J NEIGER, EMP 100, ENG 10, $1,000-$2,500M
Ariz Jack Rowe Assoc, 3332 W Belmont Ave
Phoenix 602 939-4772
Cal F W Moulthrop & Assoc, 1530 E 12th St
Oakland 415 261-7676
Cal Art Herman & Assoc, 6770 Gage
Bell Gardens 213 927-2658
Colo B Olsen, 14080 W 30th, Golden 303 279-7450
Fla Winfield Elctn Sales Co, 666 NE 125 St
North Miami 305 751-5566
Ga Winfield Southeast, 2991 Druid Hills Rd SE
Atlanta 404 636-3023
Ill Loren F Green & Assoc, 5218 W Diversey Ave
Chicago 312 286-6824
Ill Geo Petitt Co Inc, 349 N Ashland Ave
River Forest 312 261-0342
Md Jack Black Sales, 4980 Wyaconda Rd
Rockville 301 933-5880
Mass Lawrence B Cole & Co, 318 Weston Rd
Wellesley 617 237-1260
Mich D Neumaier & Assoc, 14135 Beatrice
Livonia 313 425-8686
Mo Suor Sales Co, 8115 Troost
Kansas City 816 444-2871
NY J H Thal Assoc, 200 Fifth Ave
New York 212 924-9020
NY Jack Brown Elctns Sales Reps, 207 Rosedale Rd
Yonkers 914 779-7330
Ohio Fred Ohman, Box 363, Twinsburg 216 425-7445
Pa Hal Kellar & Co, 653 Ferne Blvd
Drexel Hill 215 259-6758
Tex Texport Co, 2411 Farrington St
Dallas 214 631-6270
Utah S RUDY, 5296 Hilsden Dr
Salt Lake City 801 487-1737
Wash Richard Wilkes Assoc, 325 2nd Ave W
Seattle 206 274-3115
BC Filsonic Assoc Ltd, 1063 Howe St
Vancouver 1 .... 604 683-0441

GREGORY MAGNETIC INDUSTRIES INC
317 SW 5TH ST, POMPANO BEACH
FLA, 33060 .... 305 933-3306
H GREGORY, EMP 20, ENG 4, $100-$250M

GREMAR MFG CO INC, 7 NORTH AVE, WAKEFIELD
MASS, 01880 .... 617 245-4580
D KEOHANE, EMP 240, ENG 5, $2,500-$5,000M

Cal Paul F Wiley Co, 1632 Silverlake Blvd
Los Angeles 663-8028
Cal David H Ross Co, 534 El Camino Real
San Carlos 591-4411
Conn Gerald Rosen Co, 194 Plymouth St
Stratford 375-5456
Ga J E Joyner Jr & Assoc, 868 York Ave SW
Atlanta 758-7496
Haw Gene Piety Factors, 160 Mokaula St
Honolulu 810-185
Ill Lou Bacher & Assoc, 9690 W Allen Ave
Rosemont 678-1820
Ind Menze Sales, 6010 Lower Huntington Rd
Ft Wayne 747-5616
Kan Thunderbird Engr Sales, 7707 E Osie
Wichita 684-3941
Kan Thunderbird Engr Sales, 4014-A W 95th St
Prairie Village 642-7220
Md Stemler Assoc & Co, 6707 Whitestone
Baltimore 944-8262
Mass Gerald Rosen Co, 563 Worcester Rd
Natick 655-2211
Mich Romarc, 696 Adams St, Plymouth 455-0300
Mo Thunderbird Eng Sales, 400 Brookes Dr
Hazelwood PE1-4343
NJ G M Moch Co, 595 Broad Ave
Ridgefield 945-0080
NJ Stemler Assoc & Co, Box 287
Cherry Hill 966-4070
NM R A Mayes Co, 8016 Zuni Rd
Albuquerque 265-7989
Ohio Electro Com, 8671 Snow Rd, Cleveland . . . 886-2404
Ohio Electro Com, 627 Salem Ave, Dayton 278-4797
Tex Thundervird Engr Sales, 5526 Dyer
Dallas . . . . . . EM 8-3064
Wash Dave Miller Sales Co, 2323 N 45th St
Seattle 632-7070
Can Gremar Connectors Can Ltd, 23 Racine Rd
Rexdale, Ont 247-5351
Fr Radio Television Francaise, 73, Ave de Nevilly
Nevilly-Sur-Seine 92
Ger Dressler Elektronik, Leher Heerstr 159, Bremen
Holl Compro Inc, 41 Faurestraat, Bergen Op Zoom
Ital Temac Electronica srl, Via Abbadesse 52, Milan
Nor Carl Bredengen & Co
Sjofartsbygningen V 556, Kirkeganten 7, Oslo 1
Swed Bo Palmblad Aktiebolag, Hornsgaten 58, Stockholm
Gr John Metallinos, 38 Kiffissias, Athens

GRIDCRAFT INC, 2217 S ANTHONY BLVD
FORT WAYNE, IND, 46803 . . . . . . 219 744-4314
K HOWELL, EMP 16, ENG 3, $100-$250M
Conn Keyline Inc, Box 357, Farmington 203 677-1771
NY Andrew-Douglas Corp, 222 Beach 145th St
Neponsit 212 474-6000
Pa Walch Co, Box 261, Newtown 215 968-3989

GRIES REPRODUCER CO DIV COATS & CLARK INC
151 BEECHWOOD AVE, NEW ROCHELLE
N Y, 10802 . . . . . . 914 633-8600
C CHASE, EMP 385
Cal R C Dudek & Co, 600 N Sepulveda Blvd
Los Angeles 272-8097
Cal E Wachtel Co, 3862 Magnolia Dr
Palo Alto 321-2430
Conn R E Jones, Fenway Rd, Branford . . . . HU 8-3022
Ill Jay C Angel & Co, 2743 W Peterson Ave
Chicago . . . . . . UP 8-0653
Ind D G Teeling Co, Box 20111
Indianapolis 251-9571
Mass Schutter-Young Co, 22 Franklin Pl
Beverly 617 922-6121
Mich Snyder & Tribell, Inc, Box 1077
Lansing 487-5475
Minn Crum Co, 1455 W Lake St, Minn 824-5394
Mo Components & Equipment Co, 501 Clark Ave
Webster Groves . . . . . . WO 2-2799
NY Stetler & Stetler, 1807 Elmwood Ave
Buffalo . . . . . . TR 3-6435
Ohio J G McLaughlin & Assoc, 5725 Dragon Way
Cincinnati 271-3324
Ohio Davis Assoc Inc, 3725 Lee Rd
Shaker Heights 216 751-7400
Pa Riley & Aleshire Inc, 306 Leedom St
Jenkintown . . . . . . TU 4-1708
Tenn Melloy Sales Inc, Box 10553, Knoxville . . 584-4124
Tex Fastener Sales Co, Box 9226
Ft Worth . . . . . . ED 5-1448
Wis W J Peters, 10031 W Lisbon Ave
Milwaukee 414 463-9660
Can Precision-Exp Supply Ltd, Box 422, Sta "K"
Toronto, Ont 416 481-3504

GRIEVE CORP, 1350 N ELSTON AVE, CHICAGO
ILL, 60622 . . . . . . 312 BR 8-3400
P CALABRESE, EMP 140, ENG 4
Ala Applebee-Church Inc, 13 Office Park Cir
Birmingham 205 879-4417
Ariz Pacific Scientific Co, 15 N 40th Pl
Phoenix 273-7464
Cal Pacific Scientific Co, 760 Harrison St
San Francisco . . . . . . DO 2-0934
Cal Pacific Scientific Co, 6280 Chalet Dr
City of Commerce . . . . . . SP 3-2020
Cal Pacific Scientific Co, 3235 Hancock St
San Diego 297-4533
Conn William K Duff & Co, Box 536, Avon 677-9175
Fla Hanson Assoc, Box 26, Melbourne 727-7474
Ga Applebee-Church Inc, 1958-A Monroe Dr NE
Atlanta . . . . . . TR 5-7244
Ill W H Tesmer & Assoc, 507 Catherine St
LaGrange Park . . . . . . FL 2-5720
Ind Couchman-Conant Inc, 1400 N Illinois St
Indianapolis 635-5313
Iowa Volco Co, 214 Kahl Bldg, Davenport 326-5233
Kan Pacific Scientific Co, 8020 Santa Fe
Overland Park . . . . . . DU 1-2600
La Church-Dailing Co, 1401 S Rendon St
New Orleans 866-9632
Mass Eastern Appliance Co, 36 Arlington St
Watertown 926-2080
Mich Jesse W Eakins Co, 13040 Captial Ave
Detroit . . . . . . JO 6-1461
Mich Jesse W Eakins Co, 402 Drake Rd
Kalamazoo 616 349-1277
Minn Volco Co, 831 S Sixth St, Minneapolis . . FE 6-6631
Mo Pacific Scientific Co, 11771 Natural Bridge Rd
Bridgeton 291-2440
NJ R L Faber & Assoc, 460 Colfax Ave
Clifton 201 773-8900
NM Pacific Scientific Co, 209 San Pablo SE
Albuquerque 265-6638
NY Davies Ind Services Inc, 3923 Harlem Rd
Buffalo . . . . . . TF 9-1700
NY Upstate Technical Equip Co, Box 202
Solvay 315 458-5573
Ohio Cleveland Ind Equip Sales Co, 4500 Euclid Ave
Cleveland . . . . . . HE 1-8640
Ohio Arnold & Assoc, Inc, 597 E Galbraith Rd
Cincinnati 761-5566
Ore Pacific Scientific Co, 1208 SE 7th Ave
Portland 233-6177
Pa F F Sahms Co, 419 Twickenham Rd
Glenside . . . . . . TU 4-2559
Pa R R Kovach Co, 37 Alton Dr
Bethel Park . . . . . . TE 5-6296
SC Crotts & Saunders Engrg, Inc, 235 N Main St
Winston-Salem 723-3643
Tex Pacific Scientific Co, 702-A E Abram St
Arlington 275-3236
Tex Pacific Scientific Co, 4101 San Jacinto
Houston 529-6822
Va Virginia Tech Assoc, Inc, Box 9524
Richmond 703 266-9654
Wash Pacific Scientific Co, 8915 - 15th Ave S
Seattle . . . . . . RO 2-4260
Wis Gordon Hatch Co Inc, 635 S 28th St
Milwaukee 671-6550
Can Masdom Corp Ltd, 83 Sunrise Ave
Toronto 751-2380
Can Masdom Corp Ltd, Box 159
Westmont, Que . . . . . . WE 7-2803
Can Masdom Corp, 83 Sunrise Ave
Toronto 16, Ont 416 751-2380

GRIFFITH PLASTIC PRODUCTS CO
1027 CALIFORNIA DR, BURLINGAME
CAL, 94011, TWX 910-374-2840 . . . . 415 344-7691
J GRIFFITH, EMP 25, ENG 2, $500-$1,000M
Ala Fred Wamble Sales Co, 3475 Marie Cook Dr
Montgomery
Alas Hoffer Enterprises, 129 Fifth Ave, Anchorage
Cal Jack Logan & Assoc, 801 Mahler Rd
Burlingame 697-6100
Cal Penwarden Assoc, 14547 Titus St
Van Nuys 782-4920
Colo Electro-Rep Inc, 1051 So Platte River Dr
Denver 744-2821
Conn J L Feinberg Assoc, 33 Shirley La
New London 442-2514
Ill Engineering Assoc, 6418 N Central Ave
Chicago 763-2131
Md Barnhill & Assoc, 1931 Greenspring Dr
Timonium 252-5610
Mich R Hartwick, 3371 Cummings Ave
Royal Oak 549-1160
Minn Wenco Sales Inc, 7728 Morgan Ave
Minneapolis 866-3639
Mo Airborne Electronics Co, 7759 Loma Vista Dr
Kansas City 763-0585
NY David Sonkin Assoc, 10 Fiske Pl
Mount Vernon 668-9809
NY Nycom Inc, 2002 Teall Ave, Syracuse 437-8343
Ohio John O Olsen Co, 16201 Shaker Blvd
Cleveland 752-5444
Pa L Anthony Iocono, 6640 Roosevelt Blvd
Phila . . . . . . MA 4-1843
Tex Parvin Sales Co, Box 307, Addison 363-6822
Wash Hamilton Electro Corp, 2320 6th Ave
Seattle 624-5930
Wis Richard Rubenstein Sales, Rte 2
Chedarburg 377-5436
Can Cantronics Ltd, 17 Dellbank Rd
Downsview Ont 636-8311
BC Chas L Thompson Ltd, 3115 Lonsdale Ave
N Vancouver 987-9388

GRIFFITHS ELECTRONICS INC, 1301 E LINDEN AVE
LINDEN, N J, 07036, TWX FHL 201 925-7300
G TUMARKIN, EMP 450, ENG 20, $500-$1,000M

GRIGSBY BARTON INC, 107 N HICKORY AVE
ARLINGTON HEIGHTS, ILL, 60004 . . . . 312 392-5900
R GRIGSBY, EMP 40, ENG 3
ADV PG 805
Cal W S Harmon Co, 6118 Venice Blvd
Los Angeles . . . . . . WE 7-1460
Cal Testco, 941 Charleston Rd, Palo Alto 326-5320
Fla A B Andrews & Co, Box 38
Melbourne Beach 723-0127
Ill Lincoln & Hodges & Assoc, 5875 N Lincoln Ave
Chicago 561-8440
Kan Midland Eng Sales Assoc, 5460 Buena Vista Dr
Mission . . . . . . CO 2-6565
Mass New England Area Reps, 99 Highland Ave
Somerville . . . . . . PR 6-2262
Mich R C Dakin Co, 1520 N Woodward Ave
Bloomfield Hills . . . . . . MI 7-2262
NJ Components for Electronics Inc, 60 Midvale Rd
Mountain Lakes . . . . . . DE 4-2921
NY R P Kennedy Co, 15 Warrington Dr
Rochester 271-6322
NC A B Andrews & Co, Box 2627, Raleigh . . . 833-5565
Ohio L H Dickelman Co, 28829 Chagrin Blvd
Cleveland 831-1039
Pa Cooper Clement Assoc, 835 Glenside Rd
Wyncote 887-8150
Tex Whiteside Sales, Box 22, Garland 276-8382
Wash Testco, Boeing Field, Seattle . . . . RO 2-8220
Can Aztec Engineering, 136 Tower Dr
Scarborough, Ont 755-7824

GRIMES MFG CO, 515 N RUSSELL ST, URBANA
OHIO, 43078 . . . . . . 513 653-5221
L MOORE, EMP 800, ENG 75, OVER $10,000M
Cal Grimes Mfg Co, 999 Sepulveda Blvd
El Segundo 322-6443
NY Harold DeSoye Co, 600 Old Country Rd
Garden City . . . . . . PI 7-8500
Tex Grimes Mfg Co, 1400 Sagebrush Trail
Euless . . . . . . BU 3-3437

GRIP NUT CO, SOUTH WHITLEY, IND, 46787

GROOV-PIN CORP, 1125 HENDRICKS CAUSEWAY
RIDGEFIELD
N J, 07657, TWX 710-992-8963 . . . . 201 945-6780
V MANO, EMP 85, ENG 4, $1,000-$2,500M

GRUENBERG ELECTRIC CO INC
585 COMMERCIAL AVE, GARDEN CITY
N Y, 11530 . . . . . . 516 PI 1-4180
A GRUENBERG, JR, EMP 40, ENG 3
Ariz Montgomery Bros Co, 4247 E Windsor Ave, Phoenix
Ark Jack Greene Co, 2312 Cantrell Rd
Little Rock . . . . . . FR 4-9398
Cal Montgomery Bros, 1831 Bayshore Hwy
Burlingame 697-6500
Cal Montgomery Bros Co, 4800 District Blvd
Los Angeles 589-6321
Conn Dittman & Greer Inc, Box 780
Middletown 346-9606
Conn Sturrup Assoc, Box 1
Middle Haddem 203 267-2097
Ill Hanlon Equip Co, 15 S Austin Blvd
Chicago 312 626-9888
La Ross & Pethtel Inc, 3170 Florida Blvd
Baton Rouge 504 348-7206
Mich Process Engrg Corp, Box 4347, Dearborn
NY Lightstone Corp, E Molloy Rd, Syracuse . . . 454-3200
Ohio Anderson Bolds Co, 10001 Carnegie Ave
Cleveland 229-4700
Ohio Anderson Bolds Inc, Box 123
Worthington 614 885-3933
Ohio Anderson Bolds Inc, 5725 Dragon Way
Cincinnati 513 272-3351
Ore Montgomery Bros Co, 1632 NW Johnson St, Portland
Pa Tyler Griffin Co, 46 Darby Rd, Paoli 647-1550
Tenn H R Miles & Assoc, Box 172
Chattanooga 265-3862
Tenn H R Miles & Assoc, 2500-B Franklin Rd
Nashville . . . . . . CY 2-7016
Tex Gay Sales Co, 6414 Walnut Hill La
Dallas . . . . . . EM 8-2325
Tex The Patterson Co, 3843 N Braeswood Blvd
Houston . . . . . . MO 6-1451
Utah Montgomery Bros Co, Box 6079, Salt Lake City
Wash Montgomery Bros Co, 911 Western Ave, Seattle
For R I Mendels Co, 24 Grey Oaks Ave, Yonkers, NY

GTI CORP, ADVAC DIV, 174 RICHMOND HILL AVE
STAMFORD, CONN, 06904 . . . . 203 325-3881
H BURR, EMP 100, ENG 5, $100-$250M
Ariz W Siebold, 3920 Indian School Rd
Phoenix 955-7000
Cal J Newman, 21044 Ventura Blvd
Woodland Hills 347-7015
Cal Stan Horton, 1275 Piedmont Rd
San Jose 739-8329
Fla J F Griffin Co, 531 Marlin Rd
N Palm Beach 848-4617
Ind W A Dentel & Co, Box 20091
Indianapolis . . . . . . CL 3-0336
Mass W Irish, 99 Cambridge St, Burlington 272-4340
NY D Westcott, 122 E Main St
Wappingers Falls 297-8833
Pa John Bole, 310 Chestnut St, Meadville . . . 336-2191
Pa David Hall, 123 W Germantown Pike
Norristown 279-0251
Tex Hugh Luhr, 3300 W Mockingbird La
Dallas . . . . . . FL 8-4196
Fr Soc Francaise Du Diamant, 8 Rue Lafayette
Paris 9 eme
Ger GTI-GmbH, 8160 Miesbach, Bergwerkstr 33
GB Advanced Semiconductor Materials, 32 Reading Rd
Wokingham, Berk
Holl Advance Semiconductor Materials, Obrechtlaan 47
Bilthoven 03402-5045
Swed Ingemar Beckman AB, Box 97, Farsta
Stockholm 948-300
Braz Artimar Ltd, Largo Sao Bento, 64-ct 101, Sao Paulo

GTI CORP, CLOVER INDUSTRIES DIV, 600 YOUNG ST
TONAWANDA
N Y, 14150, TWX 91393 716-693-1331
L FRIOL, EMP 100, ENG 4
Ala Massey Assoc, Box 3361, Huntsville 852-0991
Ariz Jarko Assoc, 2032 N 27th Ave, Phoenix . . 272-2684
Cal Emtec Inc, 5217 Industry Ave
Pico Rivera 723-6235
Cal Charles J O'Brien & Co
Box 10226, Grand Lake Sta, Oakland . . . 444-5791

Colo Wild Co, 1163 S Cherokee St, Denver ... 744-1253
Fla Gator Plastic Packing, 1601 Adams St Hollywood ... 922-5014
Ga Simco Supply Co, Inc, 679 11th St NW Atlanta ... TR 5-9371
Haw Lynch Co Inc, 618 Pohukaina St, Honolulu
Ill R A Lennox Sales Co, 3158 Des Plaines Ave Des Plaines ... 824-7161
Iowa R L Burchett Co, 202 Plaza Bldg Bettendorf ... 355-6332
Iowa J Taylor Hersey, 2120 Greenwood Dr SE Cedar Rapids ... 362-2031
Kan E F Neel, Box 2195, Wichita ... 264-1935
Mich L B Boensch Co, 24435 Halstead Rd Farmington ... 474-4830
Minn R E Anderson, 7710 Computer Ave Minneapolis ... 926-1571
Mo O'Brien & Reynolds, Inc, 155 Hanley Ind Ct St Louis ... MI 5-3665
NJ H S Bancroft Corp, Rock Hill Rd Cherry Hill ... 424-2120
NY R K Smith, 600 Young St, Tonawanda ... 693-1331
NC Parker Davis Co, 2322 N Tryon St Charlotte ... 372-2898
Ohio H J Smith, 1st Fed Ofc Bldg, Defiance ... 784-5177
Ohio Alexander Ind Sales Inc, 15437 Hemlock Point Rd Chagrin Falls ... 338-6861
Ohio Bosworth & Co, 1330 Observatory Dr Cincinnati ... 321-4517
RI Vince Carroccia Sales Co, 135 Shenandoah Rd Warwick ... 884-5586
Tex Dynamic Component Sales Inc, 6330 Alder St Houston ... 668-7729
Wash G W Warden Co, In, cc1305 Dexter Ave N Seattle ... AT 3-0622
Wis Chas D Haven, 5856 N Port Washington Rd Milwaukee ... 964-2880
Can Alberta Valve Specialties, Box 4357 Edmonton ... 433-3104
Can Jenkinson & Co Ltd, 23 Chauncey Toronto ... 233-6245

GTI CORP, DIX ENGINEERING DIV, 1399 LOGAN AVE COSTA MESA
CAL, 92626, TWX 67-8421 ... 714 546-0411
M ST JOHN, EMP 26, ENG 3, $1,000-$2,500M
Ariz GTI Corp, 3920 Indian School Rd Phoenix ... 955-7000
Cal GTI Corp, 1275 Piedmont, San Jose ... 259-1460
Cal GTI Corp, 21044 Ventura Blvd Woodland Hills ... 347-7015
Mass GTI Corp, 99 Cambridge St, Burlington ... 256-3112
NY GTI Corp, 122 E Main St Wappingers Falls ... 297-8833
Pa GTI Corp, 310 Chestnut St, Meadville ... 336-2191
Pa GTI Corp, 123 Germantown Pike Norristown ... 215 279-0251
Tex GTI Corp, 3300 Mockingbird La, Dallas ... 358-4196
Fr Soc Francaise Du Diamant, 8 Rue Lafayette Paris ... 523-20-43
Ger GTI Corp, 8 Munchen 90 Tegernseer Landstr 300 ... 0811-637052
GB Advanced Semiconductor Mtls, 32 Reading Rd Wokingham, Berks ... West Forest 5138
Holl Advanced Semiconductor Mtls, Soestdijseweg 28 N Bilthoven ... (03402) 5045
Jap Tokyo Electron Labs, Inc, 36 Akasaka Tokyo ... 584-0931
Swed Ingemar Beckman AB, Box 97 Farsta, Stockholm ... 948300,643475
Braz Aplicacoes Elctns Artimar Largo Sao-Bento 64-CJ. 101, Sao Paulo ... 35-2452

GTI CORP DYTRONICS DIV, BOX 217, LEESBURG
IND, 46538 ... 219 453-3261
J KOUGEL, EMP 125, ENG 3, $1,000-$2,500M
Ill M Q & Assoc, 6713 N Oliphant Ave, Chicago
Ind Technical Reps, 4000 Meadows Dr, Indianapolis
Mass Representatives Corp, 10 High St, Boston
Mich K Rosenquist, 322 Northwood Ave, Rochester

GUARDIAN ELECTRIC MFG CO, 1550 W CARROLL AVE, CHICAGO
ILL, 60607, TWX 910-221-5073 ... 312 243-1100
ADV PG 601, 649, 661
Cal Guardian Elec Mfg Co Cal, 5755 Camille Ave Culver City ... 870-4642
Cal O'Donnell Assoc, 1955 B El Camino Real Palo Alto ... 327-9260
Cal O'Donnell Assoc, 18053 Crenshaw Blvd Torrance ... 323-9243
Colo BFA, 1309 S Inca St, Denver ... 744-3301
Conn Sales Engrg Co, Taunton Hill Rd Newtown ... 426-4434
Fla Steele Technical Sales, 2106 Woodcrest Dr Winter Park ... 305-647-1304
Ga H L Macon & Co, Box 19771, Sta N Atlanta ... 355-5282
Ga R A Chalmers & Co, 349 Peach Tree Hill Ave NE Atlanta ... 233-3208
Haw G Piety Factors Inc, 160 Mokauea St Honolulu ... 837-185
Ind Needler Sales Co, Box 2407, Sta C Ft Wayne ... 744-5226
Ind R F Homsher, 418 E Berry St Ft Wayne ... 219 432-1164
Ind Needler Sales Co, Mapleton Sta Box 88153 Indpls ... 255-8056
Kan Thunderbird Eng Sls & Serv, 7707 E Osie Wichita ... MU 4-3941
Kan Thunderbird Eng Sls & Serv, 4014 A W 95th St Prairie Village ... NI 2-7220
Md McCourt Co, Inc, 610 Washington Ave Towson ... VA 3-3455
Mass Sales Engineering Co, Baker Ave W Concord ... 369-3943
Mich Al Steere, 600 Michigan Bldg, Detroit ... WO 3-1913
Minn F A Nitti, 324 S 4th St, Mnpls ... 339-5878
Mo Thunderbird Engrg, 400 Brooks Dr Hazelwood ... 314 731-4343
NJ F J Obici, 207 Country Club Dr Oradell ... LO 8-5747
NY Elcom Sales, Box 9112, Rochester ... CH 4-1960
NY Elcom Sales, Box 134, Southview Sta Binghamton ... 607 723-9270
Ohio J H Burkell, 10 N Main St Chagrin Falls ... CH 7-6011
Ohio J H Burkell, 3501 Meadow La, Dayton ... 298-4451
Pa L G Russo, Box 530, Doylestown ... FI 8-5333
Pa Trymac Co, 201 Penn Ctr Blvd Pittsburgh ... 823-8400
Tex William Reese Assoc, 3130 Springwood Dallas ... 339-4280
Wash R K Squibb Inc, 655 NE Northlake Pl Seattle ... ME 2-2450
Wis F Nitti, 2340 W Wells St, Milwaukee ... WE 3-1975
Can A C Simmonds & Sons Ltd, 285 Yorkland Ave Agincourt Ontario ... HU 5-9111
Fr Techniques Europ de Commutation 31 Rue de General Leclerc, 60 Many
Aust Lorimer Contacts, Pty, Ltd, 511 Church St Richmond El, Vic

GUARDIAN ELECTRIC MFG CO OF CAL INC
5755 CAMILLE AVE, CULVER CITY
CAL, 90230 ... 213 870-4642
R HEYNE, EMP 50, ENG 9, $1,000-$2,500M
Cal O'Donnell Assoc, 11669 Santa Monica Blvd Los Angeles ... 213 Gr 9-2232
Cal O'Donnell Assoc, 18053 Crenshaw Blvd Torrance ... 213 321-6541
Cal O'Donnell Assoc, 19558 El Camino Real Palo Alto ... 415 327-9260
Colo Brooks Feeger Assoc, 2186 S Holly Denver ... 757-3371
Conn Sales Engrg, Baker St West Concord ... 203 247-4015
Fla Steele Technical Sales, 2106 Woodcrest Dr Winter Park ... 647-1304
Ga R A Chalmers Inc, 349 Peachtree Hills Ave NE Atlanta ... 233-3208
Haw Gene Piety Factors Inc, 160 Mokauea St Honolulu ... 837-185
Ill Guardian Electric Mfg Co, 1550 W Carroll Ave Chicago ... CH 3-1100615
Ind Needler Sales Co, Mapleton Sta, Box 88153 Indianapolis ... 255-8056
Kan Thunderbird Eng Sals & Serv, 6405 Kellogg Wichita ... MU 4-3941
Kan Thunderbird Eng Sales & Serv, 4014-A W 95th St Prairie Village ... NI2-7220
Md McCourt Co Inc, 610 Washington Ave Towson ... VA 3-3455
Mass Sales Engineering Co, Baker Ave West Concord ... 369-3943
Mich Guardian Electric Mfg Co, 600 Mihigan BLDG Deroit ... WO 3-1913
Minn Guardian Electric Mfg Co, 324 S 4thSt Minneapolis ... 339-5878
Mo Thunderbird Eng Sales & Serv, Box 6156 St Louis ... 838-6688
NJ F J Obici, 207 Country Club Dr, Oradell ... 568-5747
NY Elcom Sales Inc, 907 Monroe Ave Rochester ... CH 4-1960
Ohio James Burkell2077 Embury Park Rd 2077 Embury Pk Rd, Dayton ... 298-4451
Pa Guardian Elec Mfg Co, 7114 Rising Su Ave Philadelphia ... DE 2-1389
Pa Trymac Co, 201 Penn Center Blvd Pittsburgh ... 823-8400
Tex Wm Reese Assoc, 3130 Springwood Dallas ... 214 Fe 9-4280
Wash R K Squibb Inc, 655 NE Northlake Pl Seattle ... ME 2-2450
Wis Frank Nitti, 2340 W Wells St Milwaukee ... WE 3-1975
Can A C Simmonds & Sons Ltd, 100 Merton St Toronto, Ont ... 485-9111
Fr Techniques Europeennes de Commutation 70 Rue du Temple, Paris IIIe

GUBELMAN CHART DIV NASHUA CORP
100 E KINNEY ST, NEWARK
N J, 07105 ... 201 642-5970
C SMOLINSKE, EMP 150

GUDEBROD BROS SILK CO INC ELECTRONICS DIV, 12 S 12TH ST
PHILADELPHIA, PA, 19107 ... 215 WA 21122
F GLESINGER
ADV PG 223, 342, 747
Cal Gudebrod Bros Silk Co Inc, 2636 Ontario St Burbank ... 848-3962
Ill Gudebrod Bros Silk Co Inc, 1362 Merchandise Mart Chicago ... DE 7-3025
Mass Gudebrod Bros Silk Co Inc, 115 Chauncy St Boston ... HA 6-5347
NY Gudebrod Bros Silk Co Inc, 225 W 34th St New York ... LA 4-5858
NC Gudebrod Bros Silk Co Inc, 1409 East Blvd Charlotte
Pa Gudebrod Bros Silk Co Inc, 12 S 12th St Phila ... WA 2-1122
Can Whittaker Electronics Supply Ltd, 42 Howden Ave Ottawa, Ont

GUDEMAN DIV GULTON INDUSTRIES, INC
340 W HURON ST, CHICAGO
ILL, 60610, TWX 910-221-3863 ... 312 337-7400
P LOVECCHIO, EMP 250, ENG 6

Ariz Carl Hower & Co, 431 N Winfield Scottsdale ... 947-4202
Cal D A Fillmore Co, 1135 Huntington Dr Arcadia ... 573-1408
Cal Melchior & MacPherson, 820 B Cherry St San Carlos ... 415 591-7383
Colo S-L Assoc, Box 15096, Denver ... 303 238-1807
Fla Kirkwood Assoc, 945 Orange Ave Winter Park ... 305 645-2220
Fla W R Lehman Co, 1010 Exec Ctr Dr Orlando ... 305 841-4901
Ga Bostick & Assoc, Box 28378 Atlanta ... 404 252-1958
Ill Wasson-Gallagher Assoc, 1024 North Blvd Oak Park ... CO 1-7517
Ind Technical Representatives Co, 4000 Meadows Dr Indianapolis ... 317 546-4967
Iowa J R Sales Engrg Co, 3550 Cottage Grove Ave SE Cedar Rapids ... 319 365-5259
Md Warren Mount Co, 7735 Old Georgetown Rd Bethesda ... 301 657-9312
Mass Underwood Sales Corp, 32 Shawsheen Plaza Bedford ... 617 275-0780
Mass QRC Co, 1643 Beacon St, Waban ... 617 332-9600
Mich L T Martensen Co, 46 Ridge Rd Pleasant Ridge ... 313 543-3633
Minn Cullen & Assoc, 1595 Selby Ave St Paul ... 612 646-7371
Mo R R Burton Sales Co, 9915 E 63rd St Raytown ... 816 358-5370
NY Ed Glass Assoc, 250 W 57th St New York ... JU 6-8440
NY James Semple Co, 21 Edgewater La Rochester ... 716 FI 2-1413
NC Dula Assoc Inc, Box 5316 Winston-Salem ... PA 3-4205
Ohio R G Siff & Assoc, Inc, 22 Oxford St Dayton ... CR 8-4779
Ohio Components, Inc, 7461 N Linden La Cleveland ... 216 842-2737
Ohio A C Wahl & Assoc, 135 Williams Ave Lockland ... 513 821-3270
Tex Techno Assoc, Box 20544, Dallas ... FL 7-9213
Wash Electronic Sls Co, 6969 SW California St Seattle ... WE 2-0330
Can Samuel C Hooker Canada Ltd, 2425 Grand Blvd Montreal, Que ... HU 8-9114

GUIDE INDUSTRIES INC, 11855 WICKS ST
SUN VALLEY, CAL, 91352 ... 213 767-2610
J GUARRERA, EMP 65, ENG 12, $1,000-$2,500M.

GUILDLINE INSTRUMENTS LTD, BOX 99
SMITHS FALLS
ONT, TWX 610 561-1681 ... 613 283-3000
E NEMEROFF, EMP 85, ENG 4, $1,000-$2,500M
Ala Technical Assoc, Inc, Box 1443 Huntsville ... 881-8494
Alas ARVA, Inc, Box 171, Anchorage ... BR 2-6731
Ariz T Louis Snitzer Co, 15 N 40th Pl Phoenix ... 273-1673
Cal T Louis Snitzer Co, 9005 Exposition Blvd Los Angeles ... 213 836-6170
Cal T Louis Snitzer Co, 1020 Corporation Way Palo Alto ... 968-8304
Cal T Louis Snitzer Co, 1150 Camino DelMar ... 714 GL 4-2191
Colo Hilleary Assoc, 2552 Ridge Rd Littleton ... 303 794-4279
Conn Applied Measurements Inc, 2531 Whitney Ave Hamden ... 203 288-5288
Fla Technical Assoc, Inc, 2319 E South St Orlando ... 424-5681
Ill Saffro & Assoc, 3736 W Dempster St Skokie ... 588-0905
Ind Law Instrument Co, Inc, Box 95, Angola ... 665-6016
Kan Poly-Onics Inc, 4434 W 90th Terr Leawood ... NI 8-4173
Md Brimberg Assoc, Inc, 814 Thayer Ave Silver Spring ... 588-7790
Md Brimberg Assoc, Inc, 110 E Pennsylvania Ave Towson ... 727-1444
Mass Applied Measurements, Inc, 86 Hayward Road Acton ... CO 3-2766
Mich WKM Assoc, Inc, 1474 E Outer Dr Detroit ... 892-2500
Minn Heimann Co, Inc, 5603 Lyndale Ave S Minneapolis ... 827-5457
Mo Poly-Onics Inc, 47 Village Sq Shopping Ctr Hazelwood ... TE 7-0597
NJ SONCO, Crystal Brook Professional Bldg Eatontown ... 542-1441
NM Hilleary Assoc, 311 Washington SW Albuquerque ... 505 265-7631
NY Robert F Lamb Co, Inc, 3407 Delaware Ave Buffalo ... 876-3757
NY Robert F Lamb Co, Inc, East Molloy Rd Syracuse ... 454-2469
NY Robert F Lamb Co, Inc, Box 661 Uptown Sta ... Kingston
NY Guildline Instruments Ltd, Box 177, Mamaroneck
NY Hallmark Standards Inc, 145 Library La Mamaroneck ... 698-8460
NY QED Elctns Inc, 500 Nuber Ave Mt Vernon ... 914 968-2200
NC Technical Assoc, Inc, 3809 Weona Ave Charlotte ... 523-9121
Ohio WKM Assoc, Inc, 6085 Far Hills Ave Dayton ... 298-7203
Ohio WKM Assoc, Inc, 6741 Ridge Rd Cleveland ... 885-5616
Ore ARVA, Inc, 2035 S W 58th Ave Portland ... CA 2-7337
Pa SONCO, 556 W DeKalb Pike King of Prussia ... 265-3250

Pa WKM Assoc, Inc, 90 Clairton Blvd
Pittsburgh 892-2953
Tex Noakes Engrg, 1006 N Britain
Irving .... 214 BL 5-0041
Wash ARVA, Inc, 1320 Prospect St, Seattle .. MA 2-0177
Can Allan Crawford Assoc Ltd, 65 Martin Ross Ave
Downsview, Ont
Can Allan Crawford Assoc Ltd, 376 Churchill Ave
Ottawa, Ont
Can Allan Crawford Assoc Ltd
6999 Cote Des Neiges Rd, Montreal 26, Que
Can Allan Crawford Assoc Ltd, 5901 E Broadway
Burnaby, BC

GULTON INDUSTRIES INC, METUCHEN
N J, 08840, TWX 710-998-0592 .... 201 548-2800
EMP 5200, ENG 300, OVER $10,000M
Ala Young & Lawrence Assoc, 2907 Governors Dr SW
Huntsville 205 894-0026
Ala Gulton Ind, 816 Esslinger Rd
Huntsville 205 881-1750
Ariz Hyer Electronic Co, 301 W Indian School Rd
Phoenix 602 264-0291
Ariz Runyon Co Inc, 6825 E Thomas Rd, Scottsdale
Cal Gulton Indus, 201 Town & Country Vlg
Palo Alto 327-6780
Cal Melchior & Assocs, 820-B Cherry, San Carlos
Cal Recht Assoc, 175 S San Antonio Rd
Los Altos 415 941-0336
Cal Gulton Ind, 1644 Whittier Ave
Costa Mesa 714 642-2400
Cal Gulton Ind, 301 Montclair Rd
Los Gatos 415 327-6780
Cal Jack Pyle & Co, 1611 Borel Pl, San Mateo
Cal Servonic Instru Inc, Box 245, Costa Mesa
Cal Gulton Ind Inc, Box 3429, Fullerton
Cal M A Stolaroff Co, 4622 Slauson Ave, Los Angeles
Colo Gulton Indus, 2765 S Colorado Blvd
Denver 757-3462
Colo Hyer Electronic Co, 7895 E Prentice Ave
Englewood 303 771-5282
Colo S-L Assoc, 11481 W 29th Pl, Denver
Conn Comp Rep Assoc Inc, 14 Bowling Green Ave
North Haven 239-9462
Fla Lynch Gentry, Inc, 6446 Central Ave, St Petersburg
Fla Young & Lawrence Assoc, 601 W New York Ave
Winter Park 305 647-6929
Fla Young & Lawrence Assoc, 300 31st St N
St Petersburg 813 894-0026
Fla F C Nickerson, 4513 S Camerson Ave, Tampa
Fla Gulton Ind, 3039 Saratoga Dr
Orlando 305 425-0788
Ga Bostick & Assoc, Box 28378, Atlanta
Ga Frank C Nickerson, 1244 Clairmont Ave, Decatur
Ill John G Twist Co, 5222 W Diversey Ave
Chicago 312 777-2250
Ill Wasson-Gallagher, 1024 North Blvd, Oak Park
Ill John G Twist & Co, 5222 W Diversey Ave, Chicago
Ind Robt U Whitesell & Assoc, 6602 E Washington St
Indianapolis 317 359-5374
Ind Robt O Whitesell & Assoc, Central Bldg
Fort Wayne 219 743-4411
Ind Southern Sales Co, 105 Lakeshore Dr, Angola
Iowa JR Sales Engineering, 3550 Cottage Grove Ave, SE
Cedar Rapids 365-5259
Iowa Jerry Vrbik Co, 2818 A Ave NE, Cedar Rapids
Kan Thunderbird Eng Sales & Serv, 7707 E Osie
Wichita 684-3941
Kan Thunderbird Eng Sales & Serv, 4014A W 95th St
Prairie Village 642-7220
Ky Robt O Whitesell & Assoc, 3620 Lexington Rd
Louisville 502 893-9546
Md Faust Assoc, 606 Edmondson Ave, Baltimore
Md McCourt Co, 610 Washington Ave, Towson
Mass Comp Rep Assoc Inc, 1116 Great Plain Ave
Needham 617 444-2484
Mass Underwood Sales, Box 375, Bedford
Mass Tesco Inc, Box 201, Keany Rd, Needham Heights
Mass QRC Co, 134 Upland Rd, Wabon
Mass Com-Pak, 14 Oak St, Needham
Mich Robt O Whitesell & Assoc, 303 Fidelity Bldg
Benton Harbor 616 927-2041
Mich Don Poulin Co, 17222 E Warren Ave, Detroit
Mich L T Martensen Co, 46 Ridge Rd, Pleasant Ridge
Mich Robt O Whitesell & Assoc, 25100 Evergreen Rd
Southfield 313 358-2020
Minn Ed Melius & Assoc, 3758 North Dunlap St, St Paul
Mo Gulton Indus, 400 Brookes Dr
Hazelwood 843-2166
Mo R R Burton Sales, 9915 E 63rd St, Raytown
Mo Thunderbird Eng Sales & Serv, 400 Brookes Dr
Hazelwood 314 731-4343
Mo Technical Mktg Assoc, 2050 Woodson Rd, St Louis
NJ Mid Eastern Assoc, 1579 Country Club Dr
Cherry Hill
NM Hyer Electronic Co, 210 Laveta Dr
Albuquerque 505 265-5767
NY Advanced Components Corp, 119 Luther Ave
Liverpool 472-7886
NY Gulton Indus, Box 486, White Plains 761-1847
NY GT Assoc, Box 283, Levittown
NC Dula Assoc, Inc, Box 6096
Charlotte 704 366-6618
NC Dula Assoc, Box 5316
Winston-Salem 919 723-4205
NC Frank C Nickerson, 4332 University Ave, Charlotte
Ohio Robert G Siff & Assoc Inc, 22 Oxford Ave, Dayton
Ohio Robt O Whitesell & Assoc, 4133 S Dixie
Dayton 513 298-9456
Ohio Robt O Whitesell, 1172 W Galbraith
Cincinnati 513 521-2290
Ohio A C Wahl Assoc, Box 15220, Cincinnati
Ohio Walter J Brauer Assoc, 3001 Euclid Ave, Wickliffe
Ohio Robt O Whitesell & Assoc, 21139 Lorain Ave
Cleveland 216 333-2585
Ore Seatronics Inc, 6415 SW Canyon Ct
Portland 503 292-8887
Pa Warren Mount Co Inc, Box 6006
Philadelphia 215 788-2272
Pa Warren Mount, Box 6006, Philadelphia
Pa Robt O Whitesell & Assoc, 201 Penn Center Blvd
Pittsburgh 412 242-0100
Tex Solid State Sales Co, Box 20054, Dallas
Va Gulton Ind, 14900 Carlhern Dr
Centreville 703 631-9666
Wash Seatronics Inc, 5931 Fourth Ave S
Seattle 206 767-4330

GULTON INDUSTRIES INC CONTROLS & INSTRU GRP
1644 WHITTIER AVE, COSTA MESA
CAL, 92627, TWX 910-596-1352 .... 714 642-2400
I LUKE, EMP 220, ENG 20, $5,000-$10,000M
Ala R Steckmesser, 816 Esslinger Rd SE
Huntsville 201 881-1750
Ariz Carter Assoc, Box 99, Scottsdale 602 947-4355
Cal S Pope, 1644 Whittier Ave
Costa Mesa 714 642-2400
Cal Tech Mktg Assoc, 355 W Olive Ave
Sunnyvale 408 736-3687
Colo G Baker, 2765 S Colorado Blvd
Denver 303 757-8462
Conn NPM Assoc, 522 E Putnam Plaza
Greenwich 203 869-4955
Fla Steckmesser Assoc, 3039 Saratoga Dr
Orlando 305 425-0788
Ga B Galbreath, Box 532, Marietta 404 427-3046
Minn R T Bathke, Box 27104
Minneapolis 612 338-1031
Mo W Saunders, 400 Brooks Dr
Hazelwood 314 848-7003
Ohio G Planchak, 6919 Deanmont Pl
Dayton 513 434-7538
Va W Butler, 14900 Carlbern Dr
Centerville 703 631-9666
Wash J Perrigoue, 2458 Nob Hill N
Seattle 206 624-7546

GULTON INDUSTRIES INC ENGINEERED MAGNETICS
DIV, 13041 CERISE AVE, HAWTHORNE
CAL, 90250, TWX 910 325-6208 .... 213 679-0111
L WILTON, EMP 350, ENG 30, $5,000-$10,000M
Ariz Carter Assoc, Box 99, Scottsdale 602 947-4355
Colo Gulton Industries Inc, 2765 S Colorado Blvd
Denver 757-3462
Colo G Baker, 2765 S Colorado Blvd
Denver 303 757-3462
Fla D Leuschner, Box 1227
Winter Park 305 647-1266
Minn R Bathke, Box 27104, Minneapolis ... 612 338-1031
Mo W Saunders, 400 Brooks Dr
Hazelwood 314 848-7003
NJ C Bowland, 304 Washington St
Glen Ridge 201 743-2826
NY M Eichenbaum, Box 486
White Plains 914 761-1847
Tex B Bradley, Box 446, Alvarado 817 783-2166
Wash Seatronics Inc, 5931 4th Ave S
Seattle 206 767-4330

GUNNAR LABS INC, 5803 14TH ST E, BRADENTON
FLA, 33505 .... 813 755-2342
G KNOS, EMP 4, ENG 1, UP TO $100M

GURNARD MFG CO INC, L P HENDERSON RD
BEVERLY, MASS, 01915 .... 617 922-1043
B CONSTANTINE, EMP 45, ENG 4, $1,000-$2,500M
Ariz H Mahaney, 7020 N 15th St
Phoenix 602 272-7108
Cal A Baisley, 18758 Bryant
Northridge 213 886-5354
Conn J A Cognetta, 400 Stillson Rd
Fairfield 203 334-5538
Fla R G Evans, 536 St Dunstan Way
Winter Park 305 671-8716
Ga R H Smith, Box 28677, Atlanta 404 255-7382
Md MacDonell Moore, Jr, 10522 Catterskill Ct
Columbia 301 737-7280
Mass P C Nicholas, 166 Prescott St
Reading 617 944-3145
Minn R A Hedtke, 730 Chicago Ave
Minneapolis 612 333-0612
Mo M Harvey, 10600 Kahlmeyer Dr
St Louis 314 429-2296
NY R S Ricketson, 15 Huckelberry La
Liverpool 315 652-2270
Ohio E Koenig, 1008 Richwood Ave
Cincinnati 513 321-8310
Pa J D Hogan, 59 Iron Hill Rd
New Britain 215 345-1697
Tex J W Braley, 2525 Ridgmar Blvd
Fort Worth 817 737-6636
Wash A F Woolsey, 120-165th Ave NE
Bellevue .... 206 SH 6-0585

G-V CONTROLS INC, 101 OKNER PKWY, LIVINGSTON
N J, 07039, TWX 710-994-4852 .... 201 992-6200
G COMPTON, EMP 200, ENG 12, $1,000-$2,500M
Ala Frank C Nickerson Co, Box 1463
Huntsville 202 881-9565
Ariz Dorton Enterprises, Box 1297
Scottsdale 602 946-6213
Cal M A Stolaroff Co, 4622 W Slauson Ave
Los Angeles 213 295-7781
Cal Dewco Sales Inc, 3240 Hillview Ave
Palo Alto 415 321-2950
Colo J F Hurlbut Co, 2240 S Adams St
Denver 303 756-2046
Conn Todino Engineering Sales Inc, Box 402
Milford 203 874-6643
Fla Frank C Nickerson, 4513 S Cameron Ave
Tampa 833-4321
Ga Frank C Nickerson Co, 1224 Clairmont Ave
Decatur 404 377-1575
Ill Rockford Controls Co, 21W181 Hill Ave
Glen Ellyn 312 469-6016
Kan Thomas & Modrcin Assoc Inc, 5450 Buena Vista Dr
Shawnee Mission 913 432-2131
Md L G White & Co, 880 Bonifant St
Silver Spring 301 585-3141
Mass Todino Engineering Sales Inc, Box 201
Needham Heights 617 444-7925
Mich Tant Enterprises, 16257 Meyers Rd
Detroit 313 863-2665
Minn HMR, Inc, 9 E 22nd St
Minneapolis 612 335-7734
Mo Thomas & Modrcin Assoc Inc, 47 Village Sq
Hazelwood 314 838-6446
NJ Grimm, Siegel Assoc Inc, 246 Clifton Ave
Clifton 201 773-5010
NY C W Floring & H R Murray, 6585 Kinne Rd
Syracuse 315 446-5555
NC L G White & Co, 1020 Brookstown Ave
Winston-Salem 919 725-3612
Ohio Technical Assoc Inc, 16 S Broad St
Fairborn 513 878-2484
Ohio Technical Assoc Inc, 195 Center Ridge Rd
Rocky River 333-0035
Pa L G White & Co, 100 N Essex Ave
Narberth 215 664-6505
Tex T M Curtis Co, 5635 Yale Blvd
Dallas 214 361-1666
Can Leonard Electric Ltd, 1008 Rangeview Rd
Port Credit, Ont 416 274-3454
For Machine & Products Co, 52 Wall St
New York, NY .... 212 Wh 4-4370

G W ELECTRONICS INC, 1647-4 W SEPULVEDA BLVD
TORRANCE, CAL, 90501 .... 213 775-2747
G GOLDEN, EMP 11, ENG 3, $2,500-$5,000M
Ill S Millman, 211 E Chicago Ave
Chicago 312 664-6091
Tex B Wayne, 2622 Irving Blvd, Dallas ... 214 631-6780

GYREX PRODUCTS, VARO INC, 402 E GUTIERREZ ST
SANTA BARBARA
CAL, 93101, TWX 805 449-7200 .... 805 963-2055
W UNDERWOOD, JR, EMP 10, ENG 2

GYROTRON CORP, 14 GROVE ST, WATERBURY
CONN, 06704, TWX 710-4772943 ...... 203 756-8007
EMP 55, ENG 8, $500-$1,000M

GYROTRONICS INC, 3500 SUNSET AVE, ASBURY PARK
N J, 07712 .... 201 988-0408
C CAPPOLA, EMP 20, ENG 1, $100-$250M

HACKENSACK CABLE CORP, 116 ORCHARD ST, HACKENSACK
N J, 07602 .... 201 487-1100
R WILSON, EMP 138, ENG 3, $2,500-$5,000M
ADV PG 83, 222, 807
Cal Hackensack Cable Corp, 463 N Anaheim Blvd
Orange 714 538-9661
Fla J M Keely Sales Co, 3802 NW 32nd Ave
Miami 634-8526
Ill Hackensack Cable Corp, 330 Melvin Dr
Northbrook 312-272-0404
SC Earl V Aronson Jr, 500 Brown Rd
Anderson 226-7752
Tex R D Chapman, 9125 Chatsworth
Houston .... OV 2-9432
Wash John B Merifield Co, 909 Western Ave
Seattle .... MA 3-7850

HADDON TOOL & MFG CO, BOX 1117
MERCHANTVILLE
N J, 08109, TWX 710-892-0725 .... 609 662-8150
R WAHL, EMP 104, ENG 4, $1,000-$2,500M
Cal Thomas Yeakle, 171 Annandale Rd
Pasadena 681-1455

HADLEY CO INC, ROBERT M, 750 W 51ST
LOS ANGELES, CAL, 90037 .... 213 234-9091
C HADLEY, EMP 100, ENG 2, $500-$1,000M

HAFSTROM TECHNICAL PRODUCTS INC
4616 SANTA FE ST, SAN DIEGO
CAL, 92109 .... 714 274-8822
J HAFSTROM, EMP 10, ENG 4
Ariz E V Roberts, 77 3rd Ave W
Scottsdale 602 947-7695
Cal Electronic Engrg Assoc, 1293 Laurel
San Carlos 593-2189
Cal E V Roberts & Assoc, 9601 W Jefferson Blvd
Culver City 870-9561
Fla W Ben Wimberly Co, 500 S Osceola
Orlando 425-3083
Fla W Ben Wimberly Co, 532 S Ft Harrison
Clearwater 446-7072
Ill Megatek Inc, 1915 N Harlem Ave
Chicago 312 889-1277
Kan Lee Mark Engrg Inc, 4518 W 89th St
Prairie Village .... NI 8-0124
Mass J W McQuiston Assoc, 74 Main St
Waltham 617 899-3518
Mich Megatek Inc, 26847 Grand River Ave
Detroit 313 531-1403
Mo Lee Mark Engrg Inc, 9623 St Charles Rock Rd
St Louis 314 423-8700

NM Bowden Engineering Sales, 2633 Texas NE
Albuq 299-0473
NY R S Puleo Assoc, 250 Park Ave
New York 212 682-3151
Ohio Magatek Inc, 23203 Lorain Ave
Cleveland 216 734-4433
Ohio Megatek Inc, 2533 Fair Hills Ave
Dayton 513 298-8638
Pa Lawrence C Fuller Jr, 32 Rittenhouse Pl
Ardmore 642-2468
Tex R W Mureen Co, 5523 Dyer St, Dallas ... 361-0735
Wash Fred H Haight Co, 3212 Eastlake Ave
Seattle .... EA 2-1818
Can D F Beechey, 3218 Weston Rd, Weston, Ont
Fr Tranchant Electroniques S A
19-21 Rue Madame De Sanzillon, Clichy Seine
GB Dage G B Ltd, 1 Penn Pl, Rickmansworth Herts
Spn Hispano Electronica S A, Comandante zorita 8
Madrid 20

HAGAN COMPUTER SYSTEMS DIV WESTINGHOUSE
200 BETA DR, PITTSBURGH
PA, 15238, TWX 86-6234 .... 412 782-1730
R BLACKWELL, EMP 887, ENG 242
Ala J W Eshelman & Co Inc, 1812 28th Ave S
Birmingham 879-3462
Cal Hagan Computer Sys, 18020 S Santa Fe Ave
Compton 638-7781
Cal Hagan Computer Sys, Maritime Plaza
San Francisco 392-5353
Colo Hagan Computer Sys, 55 W 5th Ave
Denver 534-8121
Conn Simler & Sengstaken Inc, Box 127
Granby 653-2426
Ill Hagan Computer Sys, 10 S Riverside Plaza
Chicago 461-7162
Kan Matney & Co, 11 E Gregory Blvd
Kansas City 363-1771
La Mid-South Sales Co Inc, 4414 Calliope St
New Orleans 822-3030
Md Parr Engineering Co, 912 Thayer Ave
Silver Spring 585-8280
Mass Ralph L Williams Inc, 77 Summer St
Boston 426-0696
Mich Hagan Computer Sys, 5757 Trumbull Ave
Detroit 872-7010
Minn Fuel Economy Eng Co, 3094 Rice
St Paul 484-8404
Mo Hagan Computer Sys, 411 N 7th
St Louis 421-6911
NY Hagan Computer Sys, Ellicott Sq Bldg
Buffalo 854-3966
NY Simler & Sengstaken Inc, 271 Madison Ave
New York 532-8385
NY Simler & Sengstaken Inc, 1119 State St
Schenectady 346-1135
NC Jos W Eshelman Co of Carolinas
1808 Montford Dr, Charlotte 523-3399
Ohio Hagan Computer Sys, 55 Public Sq
Cleveland 579-2165
Ohio Hagan Computer Sys, Box 402, Orrville ... 682-9010
Ohio Hagan Computer Sys, Reinhold Exec Office Bldg
Cincinnati 475-7400
Pa Parr Engineering Co, 210 Goddard Blvd
King of Prussia 265-5150
Pa Hagan Computer Sys, Chatham Ctr Off Bldg
Pittsburgh 255-4514
Tex Bernhard Assoc Inc, 2550 Manana St
Dallas 357-3941
Tex Matthews, Coleman & Mowrer Inc, 2502 N Blvd
Houston 528-0638
Tex Hagan Computer Sys, 507 Dallas Ave
Houston 224-7791
Utah Hagan Computer Sys, 1680 S Redwood Rd
Salt Lake City 486-8751
Wash Hagan Computer Sys, 3451 E Marginal Way S
Seattle 623-7001
Can Hagan Computer Sys, c/o Can Westinghouse Co Ltd
Hamilton, Ont 528-8811
For Westinghouse Elec Int Co, 200 Park Ave
New York, N Y 692-3211

HAKE PRODUCTS INC, 6152 WASIGO DR, CINCINNATI
OHIO, 45230 .... 513 231-4650
E HAKE, UP TO $100M
Cal Barstow, Doran & Hansen, 1406 S Grand
Los Angeles 749-7706
Cal Sinai-Johnson, Inc, 817 Douglas St
Redwood City 365-6263
Colo Gordon Moss Electronics Inc, Box J
Greeley 353-1452
Fla Stanley K Wallace Assoc, Box 67, Lutz ... 949-1817
Md A B & T Sales Corp, 3620 Queen Mary Dr
Olney 924-4976
NY Maury Farber Assoc, 203 Jackson Bldg
Buffalo 856-3543
NY Morris J Hacker, 217-18 48th Ave
Bayside 224-5361
Wash Wm R Lanphear Co, 159 Western Ave W
Seattle 633-4900

HALE INSTRUMENT INC, 343 W 23RD ST, HOUSTON
TEX, 77008 .... 713 UN 1-7574
L WIGGINS, EMP 8, ENG 2, $100-$250M

HALEX INC, 3500 W TORRANCE BLVD, TORRANCE
CAL, 90509, TWX 65-3442 .... 213 772-4461
H HANSEN, EMP 85, ENG 11
Ariz Hamilton Reps, 9800 N Oracle Rd, Tucson
Fla Willett, Ellis-Brown, 1260 A S Highland
Clearwater 813 446-0075
Mass Vector Sales, 774 Pleasant St
Belmont 617 489-1400

Minn Hamilton, Grayden & Flemmer, Hamilton Rd
Hopkins 612 941-1120
NM Hamilton Reps, 2515 Gen Bradley NE
Albuquerque 505 295-2803
NY Robert J Marcy Assoc, 80 8th Ave
New York .... YU 9-2950
Pa W F Satterthwaite, 237 N Lansdowne Ave
Lansdowne .... MA 3-5100

HALLETT, ASH AT REGENT, INGLEWOOD
CAL, 90301, TWX 910-328-6198 .... 213 674-3081
R MCLAUGHLIN, EMP 200, ENG 6, $2,500-$5,000M
Cal Logan Sales Co, 463 Brewster Ave, Redwood City
Cal Lou Shaffer Sales, 8613 S Aviation, Inglewood
Mich Hallett Mfg Co, 1915 Dove St
Port Huron 985-9607
Mo J J Vondras & Co, Box 6121, Lambert Fld, St Louis
Pa Magyar & Assoc, Box 6614, Phila
Pa Magyar & Assoc, Box 222, Metuchen
Tex Aero & Ind Sales Corp, 10625 Doric St, Dallas
Wash Allied Agencies, 1881 Westlake N, Seattle

HALLIBURTON ENTERPRISES INC, MFG DIV
4724 S BOYLE AVE, LOS ANGELES
CAL, 90058 .... 213 588-3181
J MURPHY, EMP 284, ENG 7
Ariz Fred Schoeffler Assoc, 6912 E Norseshoe Rd
Scottsdale 948-3470
Conn Ivan B Holmes, 36 Lynne Ter, Shelton 929-3492
Can Whittaker Electronics Ltd, 834 Clyde Ave
Ottawa, Ont 722-7658

HALLIKAINEN INSTRUMENTS, 750 NATIONAL CT
RICHMOND, CAL, 94804 .... 415 233-2010
E SCHIMBOR, EMP 62, ENG 9, $1,000-$2,500M
Ala Alabama Controls Co, 2775 Springhill Ave
Mobile 479-2345
Cal D Freeman, Box 1343
Santa Monica 213 451-4062
Colo L A Christopher Co, 18348 Capitol Hill St
Denver 534-1338
Fla Sutton Sales Engrs, 1721 W Las Olas Blvd
Ft Lauderdale 305 525-6538
Haw Berkley Engrg & Equip Co, Box 3856
Honolulu 581-921
Ind Ray Welch Instruments, 6336 Columbia Ave
Hammond 932-4474
La Alpha Eng Co, Box 15241, Baton Rouge .. 921-1401
Md Dynamation Inc, 1615 Court Sq Bldg
Baltimore .... PL 2-5035
Md Dynamation Inc, 1604 University Blvd
Hyattsville 434-6200
Mass J M Devine Co, 348 Lake Ave
Newton Highlands 244-1132
Mich Basic Service Corp, 16544 Plymouth Rd
Detroit 837-8820
Mo E B Miller Co, 10117 Manchester Rd
St Louis 966-8250
NJ George H Birchall Co, Box 84
Westfield 232-3600
NY Nickles Eng Co, 5754 Main St
Williamsville 632-5579
NY Nickles Eng, 830 Linden Ave, Rochester .. 586-4988
NY A Foundos, 3173 Clubhouse Rd
Merrick 687-6881
NY J C Wilson, Box 5246, Albany 785-1771
NC MacGuire Instr Co, Rt 1, Box 290-K
Matthews 366-3454
Ohio Franklyn W Kirk Co, 15017 Detroit Ave
Cleveland 226-1970
Okla Ernie Graves Co Inc, 201 S Houston
Tulsa .... LU 4-4708
Ore Bumstead-Woolford Co, 811 E Burnside St
Portland 232-5171
Pa Penn-Del Instrument Sales Co, Box 4361
Philadelphia 247-7389
Tex Alpha Eng Co, 6643 Bellfort Blvd
Houston 644-1961
Tex Stepco, Box 9836, El Paso 772-5274
Tex Bryer Assoc, Box 35841, Dallas 351-4350
Va Dynamation Inc, 2060 Buford Rd
Bon Air 272-5001
Wash Bumstead-Woolford Co, 433 N 34th St
E Seattle 632-8318
Can Industron Corp, 1 Phoebe St, Toronto 368-4970
For Instru Ind Bombas de Vacio, Box Casilla 10202
Santiago
For Ind Control & Elctn Services, G. P. O. 238
San Juan
For Shurdut Ind Distributors Inc, Box 1499, Manila
Braz K Bileski, Box 5837, Sao Paulo

HALLMARK STANDARDS INC, 145 LIBRARY LA
MAMARONECK
N Y, 10543, TWX 710-566-1101 .... 914 698-8460
E NEMEROFF, EMP 28, ENG 3, $1,000-$2,500M
Ala Technical Assoc Inc, Box 4088
Huntsville 881-8494
Alas Arva, Inc, Box 171, Anchorage .... BR 2-6731
Ariz T Louis Snitzer Co, 15 N 40th Pl
Phoenix 273-1673
Cal T Louis Snitzer Co, 9005 Exposition Blvd
Los Angeles 213 836-6170
Cal T Snitzer Co, 1150 Camino Del Mar
Del Mar .... 714 GL 4-2191
Cal T Snitzer Co, 1020 Corporation Way
Palo Alto 415 968-8304
Conn Applied Measurements, Inc, 2531 Whitney Ave
Hamden 288-5288
Fla Technical Assoc Inc, 2319 E South St
Orlando 424-5681
Ill Saffro & Assoc, 3736 W Dempster St
Skokie 588-0905
Ind Law Instrument Co Inc, Box 95, Angola ... 665-6016

Kan Poly-Onics Inc, 4434 W 90th Terr
Leawood .... NI 8-4173
Md Brimberg Assoc Inc, 814 Thayer Ave
Silver Spring 588-7790
Mass Applied Measurements, Inc, 86 Hayward Rd
Acton .... CO 3-2766
Mich WKM Assoc Inc, 1474 E Outer Dr
Detroit 892-2500
Minn Heimann Co Inc, 5603 Lyndale Ave S
Minneapolis 827-5457
Mo Poly-Onics Inc, 47 Village Sq Shop Ctr
Hazelwood .... TE 7-0597
NJ SONCO, Crystal Brook Profl Bldg
Eatontown 201 542-1441
NM Hilleary Assoc, 311 Washington S E
Albuquerque 505 265-7631
NY Robert F Lamb Co, Inc, 1865 Kenmore Ave
Buffalo 874-4900
NY QED Elctn, 500 Nuber Ave, Mt Vernon 968-2200
NY Robt F Lamb Co Inc, E Malloy Rd
Syracuse 315 454-2469
NY Robt F Lamb Co Inc, Box 661 Uptown Station
Kingston 914 338-8833
Ohio WKM Assoc Inc, 5335 Far Hills Ave
Dayton 434-7500
Ohio WKM Assoc, 6741 Ridge Rd
Cleveland 216 885-5616
Pa Sonco, 107 Town Ctr Rd
King of Prussia 265-3250
Pa WKM Assoc, Inc, 90 Clairton Blvd
Pittsburgh 892-2953
Pa SONCO, Park Pl Office Bldg
Camp Hill 717 761-0577
SC Technical Assoc, 305 Fairlane Dr, Spartanburg
Tex Noakes Engrg, 1006 N Britain, Irving
Tex Noakes Engrg, 2128 W Alabama, Houston
Wash Arva, Inc, 1320 Prospect St, Seattle .... MA 2-0177
Can BRH Assoc Ltd, 6338 Victoria Ave
Montreal, Que 733-5331

HALMAR ELECTRONICS INC, 1544 W MOUND ST
COLUMBUS, OHIO, 43223 .... 614 276-5265
D YAUCH, EMP 35, ENG 9, $500-$1,000M

HALM INSTRUMENT CO INC, GLEN HEAD ROAD
GLEN HEAD, N Y, 11545 .... 516 OR 66700
A ARNELL, EMP 60, ENG 4

HALSEY X-RAY PRODUCTS INC, 1425 37TH ST
BROOKLYN, N Y, 11218 .... 212 GE 6-1700
EMP 100, ENG 1, $1,000-$2,500M

HAMAMATSU TV CO LTD, 1126 ICHINO-CHO HAMAMATSU CITY
SHIZUOKA, PRE JAPAN 0534-34-3311
M FUJITA, EMP 204, ENG 19, $1,000-$2,500M
ADV PG 774
Cal Calif Eastern Labs, 1540 Gilbreth Rd
Burlingame 697-6670
NY Kinsho-Mataichi Corp, 80 Pine St
New York .... DI 4-6226
Jap Mamamatsu TV Co Ltd
1-4-26 Takanawa Minato Ku, Tokyo 442-6586

HAMILTON ELECTRONICS CORP, 2726 W PRATT AVE
CHICAGO, ILL, 60645 .... 312 274-6373
C HELGREN, $100-$250M

HAMILTON-HALL RESISTOR CORP, 227 N WATER ST
MILWAUKEE, WIS, 53202 .... 414 273-6460
K DEGNAN, EMP 80, ENG 2, $500-$1,000M
Cal R L Assoc, 14401 Gilmore St
Van Nuys .... 213 EM 2-3751
Ill D Dolin Sales Co, 3525 W Peterson Ave
Chicago .... 312 JU 8-3738
Ind Frederick & Meily Co, 1601 S Hanna St
Ft Wayne 219 745-2461
Kan Kangas Sales, Inc, Box 4116
Overland Park .... 913 TU 8-3200
Mass Conti Younger Assoc, 181 West St
Waltham 617 891-4582
Minn John Anderson, 5231 Humbolt Ave S
Minneapolis 612 823-6459
Miss C H Herron Jr, 4394 18th Ave
Meridian 601 482-1878
NJ Floyd W Churchill, Box 43
Haddonfield 609 429-7871
NY W H Zimmerman Inc, 112 DeWitt St
Syracuse 315 474-4889
NY S J Sales Assoc, 148-05 Archer St
Jamaica 212 291-3232
Ohio R K Deunk & Assoc, 7390 Chippewa Rd
Cleveland 216 526-4317
Tex John A Green Co, 7118 Envoy Ct
Dallas .... 214 ME 1-7450
Can Anbak Sales, Can Ltd, 3208 Lenworth Dr
Cooksville, Ont 416 625-1061

HAMILTON INDUSTRIES, BOX 504, WINTER HAVEN
FLA, 33880 .... 813 293-1058
W HAMILTON, JR, EMP 9, ENG 1
Fla Hamilton Co, 228 4th St SW
Winter Haven 293-1058

HAMILTON MFG CO, 18TH ST, TWO RIVERS
WIS, 54241 .... 414 793-1121
W FRIEDRICH, EMP 2300, ENG 60, OVER $10,000M
Cal C L Heise, 3940 W Compton Blvd
Lawndale 772-1211
DC V F Hall, 927 15th St NW, Washington ... 393-2260

Ill Don Bacon, 7132 W Harlem Ave
Chicago 775-4116
Iowa E F Binger, 3247 Bever Circle Dr SE
Cedar Rapids 363-8020
Mass R H Gibson, 436 Boston Post Rd
Weston 899-8878
Mich B F Farnell, 435 W 7 Mile Rd, Detroit 8687400
Miss Hamilton Mfg Co, Kosciusko
NY Hamilton Mfg Co, 99 W Hawthorne Ave
Valley Stream 561-1080
Pa Hughes-Ogilvie Co, 327 5th Ave
Pittsburgh 471-2222
Pa Frank Currie, Cricket Road, Flourtown 247-8096
Tex C L Blake, 1618 Rogers Rd, Ft Worth 336-2047
Wash Guy V Sweet Co Inc, 4200 Aurora Ave
Seattle .... ME 2-2370
Wis Milwaukee Equipment Co, 4221 N 35th St
Milwaukee 445-2640

HAMILTON PRECISION METALS DIV HAMILTON WATCH
CO, 901 COLUMBIA AVE, LANCASTER
PA, 17604 .... 717 394-7161
J BIEHLE, EMP 100, ENG 8, $2,500-$5,000M
Cal King Assoc, Box 2067, Sunnyvale 738-2570
Cal E A Wilcox Co, 6436 E Corvette St
Los Angeles 723-6436
Colo Electro Rep, Inc, 1051 S Platte River Dr
Denver 744-2821
Conn R S Pettigrew & Co Inc, 10 N Main St
W Hartford 233-8533
Ill Electro-Comp Sales, Inc, 5129 W Devon Ave
Chicago 763-3636
Md Barnhill Assoc, 1931 Greenspring Dr
Timonium 252-5610
Mass R S Pettigrew & Co, 950 Watertown St
W Newton 969-5770
Minn Mag Co, 8053 Bloomington Frwy
Minneapolis 888-9292
Mo Holtgrieve & Co, 25 S Bemiston
St Louis 725-6602
NJ Wyman Sales Co, Talmage Rd
Mendham 543-7666
Ohio A W Risser Co, 64 Edgewood Dr
Grafton 458-5091
Ohio A C Wahl & Assoc Inc, Box 15220
Cincinnati 821-3270
Tex Brice Co, 1402 Dunlavy St, Houston 526-397
Can Railway & Power Engrg Corp Ltd, Box 880
Montreal, Que 933-6741
For J J Mahler & Co, Box 457, Reading, Pa .. 372-6000
Fr Societe Somis, 44, Rue la Boetie, Paris
Ger Hans Steiner, Meisenweg 13, 7050 Waiblingen
Ital Pasqualino Carlino, Viale Fulvio Testi, 3, Milan
Spn Enrique Borrellas, c/o Ormeco, Box 5018, Barcelona

HAMILTON STANDARD DIV UAC INDUSTRIAL PRODS
DEPT, BRADLEY FIELD RD, WINDSOR LOCKS
CONN, 06096 .... 203 NA 3-1621
J BURRIDGE, EMP 7500, ENG 1000, OVER $10,000M

HAMLIN INC, LAKE & GROVE STS, LAKE MILLS
WIS, 53551, TWX 910-260-3740 .... 414 648-2361
R ARMANTROUT, EMP 225, ENG 15, $2,500-$5,000M
Cal Carl Holmes Co, 107 N Ave 64
Los Angeles .... CL 6-2255
Cal Testco Sales, 941 Charleston Rd
Palo Alto 326-5320
Colo Electronic Components Sales, 2340 W Main St
Littleton 798-8481
Conn White Sales Co, Box 122, Berlin 224-0423
Conn John S Hammond, 34 Lincoln Ave
Greenwich .... NO 1-9410
Fla Stanley K Wallace Assoc, Box 67, Lutz ... 949-1817
Ill Lincoln, Hodges Assoc, 5875 N Lincoln Ave
Chicago 561-8440
Iowa Thomas & Modrcin Assoc, 890 17th Ave
Marion 377-6261
Kan Thomas & Modrcin Assoc, Box 189
Shawnee Mission 432-2131
Mass White Sales Co, 20 Chestnut St
Needham 444-3676
Mich Gordon Reichold Assoc, 14 Weston St SE
Grand Rapids 459-4445
Minn RJ Sales & Eng, 7100 S France Ave
Minneapolis 922-1425
Mo Thomas & Modrcin, Box 545
Hazelwood 838-6446
NM Electronic Components Sales, Box 3087, Sta D
Albuquerque 344-3987
NY R P Kennedy Co, Inc, Box 8417
Rochester 271-6322
Ohio G & H Sales Co, Box 37416, Cincinnati .. 761-6185
Ohio G & H Sales Co, 13690 Fox Hill Dr
Novelty 338-1122
Pa W F Satterthwaite, Box 191
Lansdowne 623-5100
Pa Nebco Assoc, 1974 Gregory Ave
Monroeville 824-2111
Tex Allied Components Inc, 4234 Richmond Ave
Houston .... MO 4-4203
Tex Allied Components, 10468 E Northwest Hwy
Dallas 348-6660
Utah Electronic Components Sales, Box 2066
Salt Lake City 278-6044
Wash Testco Sales, Boeing Field, Seattle 762-8220
Wis F C Du Bois & Assoc, 2364 N 117th St
Milwaukee 774-3100
Can F P Taylor Ltd, 12 Howard Dr
Willowdale Ont 222-6924
Fr Constructions Electriques Du Centr, Siege Social
Sorviers Loire 53-61-63
Ger Amphenol-Borg Elctns GmbH, 8024 Deisenhofen
Munich 42 70 71
GB Flight Refuelling Ltd, Wimborne, Dorset 2121

Jap Origin Electric, 1-95 Takada Minamcho Tashimaku
Tokyo

HAMMARLUND MFG CO, 73-88 HAMMARLUND DR
MARS HILL
N C, 28754, TWX 510 935-3553 .... 704 689-5411
R FISHER, EMP 300, ENG 15, $2,500-$5,000M
Cal Pat Dooley Co, 18826 Devonshire
Northridge 360-2231
Cal Sinclair Electronic Assoc, 1085 Clarendon Crescent
Oakland 451-1835
Cal R W Thompson Assoc, 4135 El Camino Way
Palo Alto 321-6383
Colo Hyde Elctns Co Inc, 888 South Lipan St
Denver 303 936-3456
Conn R S Pettigrew & Co Inc, 10 N Main St
West Hartford 233-8533
Conn W Sexton, 33 Seaside Ave, Guilford 488-9348
Fla Geartner Assoc Inc, 350 Lincoln Rd
Miami Beach 531-0200
Fla Wm McFarlin, 2140 Falmouth Rd
Maitland 838-7803
Ga Paul Hayden Assoc, 1530 Nabell Ave
East Point 766-0261
Ga Lonnie E Register, Box 385, Sylvester 776-4230
Haw B Kolans & Co, Box 2098, Honolulu 811-628
Ill Ray R Hutmacher Assoc, 6668 Northwest Hwy
Chicago 631-3248
Ill Electro Comp Sales Inc, 5129 W Devon Ave
Chicago 763-3636
Ind Delta Sales, Inc, 1407 N Illinois St
Indianapolis 631-4136
Ind Schroeder & Loomis, 714 E 65th St, Indianapolis
Kan Thomas & Modrcin Assoc Inc, 5450 Buena Vista Dr
Shawnee Mission 432-2131
La Scott Ormsby, 230 20th St
New Orleans 488-2414
Mass Larry Cole Inc, 318 Weston Rd
Wellesley 617 237-1260
Mich Burcaw Co & Assoc, 18236 W McNichols Rd
Detroit 533-7700
Mich Anderson Assoc, 29129 Greenfield Rd
Southfield 444-8544
Minn John E M Anderson Co, 5231 Humboldt Ave S
Minneapolis 823-6459
Mo Kathrinus & Co, 2427 Brentwood Blvd
St Louis 962-5627
NJ Frank Lester, 280 W Main St
Bergenfield 384-1751
NJ Ken Randall Co, 250 Haddon Ave
Collingswood 854-3323
NY Marsey Sales Inc, 206 Park Ave
Rochester 442-9700
NC Electro Rep Assoc Inc, 128 W 30th St
Charlotte 333-0451
NC Murphy & Cota, 1106 Burke St
Winston-Salem 704 724-0750
Ohio Scott Electronics Inc, 1836 Euclid Ave
Cleveland 861-2626
Ohio R G Siff & Assoc, Box 7035, Sta B
Dayton 278-4779
Ohio Chilcote Sales Co, 2940 W Lincolnshire
Toledo 536-6606
Pa D S Linz, 238 Shelmire St
Philadelphia 379-0734
Pa Stinson Assoc, 227 Haverford Ave
Narberth 664-5511
Pa F P Yarussi & Co, 312 Rockfield Rd
Pittsburgh 221-4676
Tex Ivan Harrison, 13821 Hillcrest Rd
Dallas 239-2479
Tex H Lieberman, 3014 Lake St, Houston
Va Commonwealth Communications, 1601 Crump St
Richmond 648-8311
Va Naeco Assoc, 1925 N Lynn St
Arlington 703 524-4551
Wash Ray Johnston Co Inc, 1011 NE 69th St
Seattle 524-5170
Can White Radio Ltd, 392 Wilson St
Hamilton, Ont 522-1364
For Rocke Intl Corp, 13 E 40th St
New York, N Y 689-8200

HAMMARLUND MFG CO DATA COMMUNICATIONS DIV
185 DIXON AVE, AMITYVILLE
N Y, 11701 .... 516 541-3600
R IRWIN, EMP 275, ENG 25
Ala Lewis M Crowe Co, Box 58013
Birmingham 205 871-2942
Cal Bushnell Controls & Equip Co, 113 Avondale Ave
Monterey Park 213 288-0383
Cal Datatek, Box 177, Cupertino
Colo Control Sales Inc, 4000 Forest St
Denver 303 399-7230
Fla Lewis M Crowe Co, 103 Golf View Dr
Tequesta 305 746-7483
Ga Lewis M Crowe Co, 174 W Wieuca Rd NE
Atlanta 404 255-2700
La Gilbert & Assoc, Box 4376
New Orleans 504 866-7444
Mass Naeco Assoc, 23 Killeen Rd
East Walpole 617 227-5956
Mich Frank E Early Co, 15028 Fenkell Ave
Detroit 836-4336
Minn Pinkney & Assoc, 957 Winnetka Ave N
Minneapolis 612 544-3628
NJ Naeco Assoc, 109 Hendrickson Ave
Edgewater Park 609 877-9055
NC A D Penn Co, 1043-C Providence Rd
Charlotte 704 332-8644
Okla James E Dyer Co, Box 1226
Tulsa .... 918 RI 2-8832
Ore Martig's Inc, 5741 NE Glisan St
Portland 232-1949
Pa Harold A Woolman Co, 4 W Manilla Ave
Pittsburgh 922-2420
Tenn Gilbert & Assoc, Box 28522
Memphis 901 388-0571
Tex Dixon Engrg, Inc, Box 18653
Dallas .... 214 DA 1-0240
Tex Dixon Engrg, Inc, Box 12392
Houston .... 713 MI 4-3021
Va Naeco Assoc, 1925 N Lynn St
Arlington 703 524-4551
Wash Martig's Inc, 422-26 Smith Tower
Seattle 623-6622
Wis Custom Electrical Prods, Box 5556
Milwaukee .... WO 2-1045
Can Ahearn & Soper Ltd, 840 Caledonia Rd
Toronto 789-4325

HAMMEL, RIGLANDER & CO INC, BOX 222
NEW YORK, N Y, 10014 .... 212 989-7953
E RENZ, EMP 70

HAMMOND MFG CO LTD, 394 EDINBURGH RD N
GUELPH, ONT, CAN 519 822-2960
E BRITTON, EMP 450, ENG 5, $2,500-$5,000M
Ill Crest Assoc, 7001 N Park St
Chicago 312 274-2640
Mass Daniels Engrg Sales, Box 27
Lynnfield 617 334-4200
NY Ryan Assoc, 60 Roger Dr
Port Washington 516 767-7958

HAMNER ELECTRONICS CO INC, 1945 E 97TH ST
CLEVELAND, OHIO, 44106 .... 216 721-8300
L NETZER, EMP 65, ENG 10, $1,000-$2,500M
Ala Ridge Instrument Co, 7220 Governors Dr W
Huntsville 837-3211
Cal Richard Lowe, 2235 L Middlefield Rd
Mountain View 968-2171
Cal R Villareal, 18051 E Fourth St, Tustin 838-6340
Fla H Newcomb, 2227 Seely Dr, Orlando 293-4711
Ga Ridge Instrument Co, 3094 McCully Dr NW
Atlanta 939-1554
Ill Harshaw Chem Co, Box 348, Hinsdale 325-2340
Mass F Kirrane, Box 28, Sudbury 861-0628
Mich Harshaw Chemical, 1945 E 97th St
Cleveland .... RA 1-8300
NJ Michael Aquinas, 9 Valley View Dr
Ramsey 327-8850
NJ John Rothamel, 276 Linden Rd, Wayne ... 839-3230
Tenn Ridge Instrument Co, 140 E Division St
Oak Ridge 483-1311
Tex J Owens, 2712 Southwest Fwy
Houston 522-8377
Va William B Todd, 7109 Churchill Rd
McLean 356-9570
Wash Showalter-Judd, 1806 S Bush Pl
Seattle 324-7911
Can Spectra-Research Ltd, 376 Churchill Ave
Ottawa, Ont 728-3415
For Harshaw Intl, 1945 E 97th St
Cleveland, Ohio .... RA 1-8300

HAMPDEN MFG CO INC
COR PLEASANT & SCHOOL STS, THOMPSONVILLE
CONN, 06082 .... 203 745-0301
C DAY, EMP 25, ENG 2, $250-$500M
Conn Thomas Reidy, Avon 658-5553
Mass F T Lange, 235 Bear Hill Rd, Waltham ... 899-5393
NJ Howard Kagan, 18 Tilghman Dr, Wayne ... 684-7682
NY Oren Lanzendorf, 513 Cumberland Ave
Syracuse 472-4195
NY L J Ackerman, 150-08 87th Ave
Jamaica 658-8881

HANDY & HARMAN, 850 THIRD AVE, NEW YORK
N Y, 10022, TWX 710-581-3397 .... 212 752-3400
R BURKE, EMP 1200, ENG 11, OVER $10,000M
Cal Handy & Harman, 4140 Gibson Rd
El Monte .... CU 3-8181
Ill Handy & Harman, 1900 Estes Ave
Elk Grove Vlg 625-0944
Mich Handy & Harman, 15565 Northland Dr
Southfield 356-5390
Ohio Handy & Harman, 4402 W 215th St
Cleveland .... ED 3-2166
RI Handy & Harman, 845 Waterman Ave
E Providence .... GE 8-6500
Tex Handy & Harman, 1234 Exchange Bank Bldg
Dallas .... FL 1-5890
Can Handy & Harman of Can Ltd, 141 John St
Toronto, Ont 368-6171

HANIBAL GLASS, INC, 1639 E EDINGER AVE
SANTA ANA, CAL, 92705 .... 714 542-4798
R PLUMBO, EMP 65, ENG 3, $1,000-$2,500M

HANSCOM & CO INC, H F, 7 VIRGINIA AVE
PROVIDENCE, R I, 02905 .... 401 941-1456
H HANSCOM, EMP 50, ENG 4, $500-$1,000M

HANSEN MFG CO INC, BOX 23, PRINCETON
IND, 47570, TWX 810-341-2340 .... 812 385-3415
A BRIDGER, EMP 500
ADV PG 441
Cal R S Hopkins Co, 15016 Ventura Blvd
Sherman Oaks 788-5501
Cal Melchior Assoc, 820B Cherry St
San Carlos .... LY 1-7383
Conn Winslow Electric Co, Essex .... SO 7-8229
Ill Fromm Co, 2136 N Harlem Ave
Elmwood Park 456-3240

Mich John Orr Assoc, 620 28th St SW
Grand Rapids.... LE 4-4029
NJ Winslow Electric Co, 133 Cedar La
Teaneck 836-6778
NY H C Johnson Agency, Inc, 111 Mt Hope Ave
Rochester.... 232-2688
NY H C Johnson Agency, Inc, 404 E Genessee St
Fayetteville .... NE 7-9383
NY H C Johnson Agency, Inc, 8 Los Robles St
Williamsville.... NF 2-7880
Pa Winslow Electric Co, 145 N Narberth Ave
Narberth .... MO 4-2182
Tex Carey & Assoc, 3315 W 12th St
Houston .... UN 9-3623
Tex Carey & Assoc, 725 Preston Forest Shop Ctr
Dallas.... EM 1-6234
Can Sperry Gyroscope Ottawa Ltd, 3 Hamilton Ave
Ottawa Ont .... PA 8-4681
For Minthorne Intl Co, 64-14 Woodside Ave
Woodside, NY .... TW 9-8888

HARBOUR INDUSTRIES INC, BOX 188, SHELBURNE
VT, 05482 .... 802 985-3311
R DIRR, EMP 50, ENG 2, $1,000-$2,500M
Cal Cooner Co, 14725 Arminta St
Van Nuys 873-7507
Ill Berndt Assoc, 6412 W Belmont Ave
Chicago 312 283-0713
Md J J Daly, Box 401, Bowie 262-9641
Mass G A Hill, Box 221, Harvard 894-6060
Minn Scott Elctn Sales, 5209 W 60th St
Minneapolis.... 929-2985
Mo Dipro Inc, Box 1427
Maryland Hgts.... 314 432-3444
Mo R W Farris Co Inc, 1715 Baltimore
Kansas City 816 421-1751
NY D J Fisher Co, Box 146, Hohokus 652-0090
NY B H Tollefson Assoc, 11 State St
Pittsford 716 381-2500
Ohio Components Inc, 7461 N Linden La
Cleveland.... 216 842-2737
Ohio Components Inc, 11820 Knollsprings
Cincinnati.... 513 721-2997
Pa Precision Electronics, 520 Penna Ave
Fort Washington 646-8383

HARDER CO, INC, DONALD C, 2580 K ST, SAN DIEGO
CAL, 92102 .... 714 239-8021
D HARDER, EMP 15, ENG 2, $100-$250M

HARDMAN INC, 600 CORTLANDT ST, BELLEVILLE
N J, 07109 .... 201 751-3000
A BERTELSON, EMP 45, ENG 9, $1,000-$2,500M
Cal Astroel Inc, 349 First St, Los Altos.... 948-3636
Colo Palmer-Robbins Assoc, 1050 Yuma
Denver 255-9961
Ga K & E Assoc, 1244 Atlanta Rd
Marietta 428-4311
Md W F Satterthwaite, Box 10321
Oxon Hill.... 894-4449
Mass Stanwood Assoc, Box 112
Sherborn.... 617 655-2597
Minn D A Schultz Co, 801 SE 8th St, Mnpls... FE 9-7701
Mo Zak & Assoc Inc, 230 S Bemiston Ave
St Louis .... PA 7-8559
NJ Kriegner Sales Co Inc, 1602 Pennington Rd
Trenton.... TU 2-6330
NY C R Mayer, 2 Bittersweet Pl
Huntington.... 938-2405
NY Arthur L Perkins Co Inc, 104 Midtown Plaza
Syracuse.... 478-3323
Ohio Electrolock Inc, 1 N Franklin St
Chagrin Falls.... 247-4245
Tex Apogee Engineering Services, 137 Walnut Hill Vlg
Dallas.... FL 2-2083

HAROWE SERVO CONTROLS INC
WESTTOWN RD AT W CHESTER PIKE
WEST CHESTER
PA, 19380, TWX 510-663-0335.... 215 692-2700
W CUFF, EMP 500, ENG 18, $500-$1,000M
Ariz Southwest e/m Engrg Inc, 8341 N 7th St
Phoenix 602 944-1521
Cal Marketek Inc, One First St
Los Altos 415 941-0882
Cal Westaironics Inc, 1800 N Highland Ave
Hollywood 213 466-6201
Colo Franklin Sales Co, 2149 S Clermont St
Denver 303 757-1371
Conn Zaslow Sales Co Inc, 6 Newberry Rd
Bloomfield.... 203 242-7781
Fla Tech Rep Assoc, Box 8218
St Petersburg.... 391-0008
Fla Tech Rep Assoc, Inc, Box 2095
Melborne 723-9140
Ill Carlson Electronic Sales, 7448 N Harlem Ave
Chicago .... SP 4-4812
Ind McDonald Sales Co, 227 S Cornell Cir
Fort Wayne 745-9214
Kan Engineering Services Co, 7924-A State Line
Praire Village 913 749-4000
Md Globe Assoc, 8121 Georgia Ave, Silver Spring
Mass Zaslow Sales Co Inc, 339 Middlesex St
Lowell 617 458-8452
Minn Carlson Elctn Sales Co, 2500 39th Ave NE
Minneapolis.... 612 788-4411
Mo Engineering Services Co, 6717 Vernon Ave
St Louis 314 726-2233
NJ Electro Rep, Inc, Box 237, Westwood.... 664-1241
NY Electro Rep, 380 N Broadway, Jericho .. WE 8-0540
NY Rep Tech Inc, Box 98 Pickard Bldg
Syracuse.... 454-0761
Ohio Rockford Controls Ohio, Inc, 2077 Embury Park Rd
Dayton 274-1911
Ohio Rockford Controls Ohio, Inc
19200 Villaview Rd NE, Cleveland 531-4841
Pa Rockford Controls Ohio, Inc, 3550 Laketon Rd
Pittsburgh
Tex Engineers Intl Co, 6409 Maple Ave
Dallas.... 214 352-2666
Wash John C Plate Co, 584 Dexter Horton Bldg
Seattle .... MA 4-1673
Can Atkinson & Vail, Ltd, 13189 Shelborne
Pierrefonds, Que 626-6511
Can Atkinson & Vail, Ltd, 5 Allenbury Gardens
Willowdale, Ont 225-7494
For Szucs Intl Corp, 50 Broad St
New York, N Y .... WH 4-7959

HARPER CO, H M, 8200 LEHIGH AVE
MORTON GROVE
ILL, 60053, TWX 910-223-3625.... 312 966-6000
J MENGEL, EMP 860, ENG 35, OVER $10,000M
Ala H M Harper Co, 912 1st Ave N
Birmingham.... 324-5678
Cal H M Harper Co, 2807 10th St, Berkeley .. 841-9100
Cal H M Harper Co, 1420 Monterey Pass Rd
Monterey Park.... AN 8-1345
Colo H M Harper Co, 1719 Boulder Ave
Denver 433-1376
Fla H M Harper Co, 1920 W 4th Ave
Hialeah .... TU 7-8151
Fla H M Harper Co, 5445 Mariner St
Tampa 876-7052
Ga H M Harper Co, 1478 Chattahoochee Ave NW
Atlanta 355-0330
Haw H M Harper Co, 182 Merchant St
Honolulu 514-271
Ill H M Harper Co, 560 W Lake St
Chicago 346-6555
Ind H M Harper Co, 4101 W Minnesota St
Indianapolis.... 244-7888
Md H M Harper Co, 7307 Pulaski
Baltimore.... 866-1600
Mass H M Harper Co, 9 Lowell Ave
Winchester.... 729-8700
Mich H M Harper Co, 17160 Wyoming Ave
Detroit .... UN 3-1200
Mo H M Harper Co, 2615 S Hanley Rd
St Louis 781-9906
NY H M Harper Co, Castleton-on-Hudson
Albany .... PE 2-7711
NY H M Harper Co, 159 W Sandford Blvd
Mount Vernon 664-7555
NY H M Harper Co, 3001 James St
Syracuse.... 437-5577
NC H M Harper Co, 221 S Church St
Charlotte .... FR 6-1854
Ohio H MHarper Co, 2444 Lakeside Ave
Cleveland.... 781-4411
Ohio H M Harper Co, 1837 Reading Rd
Cincinnati.... 733-4411
Pa H M Harper Co, 6452 Penn Ave
Pittsburgh.... 362-7100
Pa H M Harper Co, 178 W Wingohocking St
Phila.... DA 9-8900
Tenn H M Harper Co, 1700 Hayes St
Nashville 256-5018
Tex H M Harper Co, 3505 Turtle Creek Blvd
Dallas.... LA 6-2200
Tex H M Harper Co, 1402 Hutchins at Clay
Houston .... CA 3-4204
Wash H M Harper Co, 4760 Ballard Ave NW
Seattle .... SU 3-9200
Wis H M Harper Co, 836 N 12th St
Milwaukee.... 272-3565
Can H M Harper Co Ltd, 27 Chauncey Ave, Toronton Ont
Can H M Harper Co Ltd, 8469 8th Ave
Montreal Que 729-1811
BC H M Harper Co Ltd, 1402 Ingleton Ave
Vancouver 291-1488

HARPER ELECTRIC FURNACE CORP
SHELDON & DRULLARD AVES, LANCASTER
N Y, 14086 .... 716 684-7400
H ROTH, EMP 55, ENG 10

HARPER-LEADER INC, 1046 S MAIN ST, WATERBURY
CONN, 06706 .... 203 756-8164
M DICORPO, EMP 40, ENG 3, $1,000-$2,500M

HARREL INC, 16 FITCH ST, EAST NORWALK
CONN, 06855 .... 203 866-2573
J PARRY
Ala Brennan Assoc Inc, Box 1074
Huntsville 536-7425
Cal Windsor Dynamics Inc, Box 5500
Sherman Oaks.... 789-2421
Cal ViKing Instr Co, Box 1039
Walnut Creek.... 933-1221
Colo Electro-Rep Inc, 1051 S Platte River Dr
Denver 744-2821
DC Mechtronics Sales Inc, 7600 Georgia Ave NW
Washington 291-6004
Fla Brennan Assoc Inc, Box 5006
Clearwater.... 446-5006
Fla Brennan Assoc, Box 8489
Ft Lauderdale.... 587-8077
Mich L H Dickelman Co, 13331 Puritan Ave
Detroit 273-0806
NM Electro-Rep Inc, 1415 Richmond NE, Albuquerque
NY Alan E DeCew Agency Inc, Box 56
Sodus 483-3261
Ohio DRR Assoc, 6510 Farnsworth Dr
Cleveland.... 885-1324
SC Brennan Assoc Inc, Box 871, Aiken 649-7100
Tex E G Miller Co, Box 929, Henderson 657-5049

HARRIS MFG CO INC, 308 RIVER ST, CAMBRIDGE
MASS, 02139 .... 617 864-4000
R JAMISON, EMP 30, ENG 3, $500-$1,000M
Cal M P Tregnan Co, 6253 Hollywood Blvd
Los Angeles.... 213 463-2271
Cal Matheson Doherty Co, 181 Beacon St
S San Francisco 415 761-2904
Colo T C Jarrett Co, Box 15397, Denver ... 303 233-2333
Conn Thermo Technology Assoc, 32 Elm St
New Haven 203 562-3312
Ga Frank Carryl Co, 250 E Ponce De Leon Ave
Decatur.... 404 377-4948
Ill Byron Ellis Assoc, 6242 N Kenmore Ave
Chicago .... 312 AN 2-2038
Kan Stephens Machinery Co, 208 Somerset Bldg
Prairie Village.... 913 AN 9-4127
Kan Robt R Stephens Machy Co, 3000 W Kellogg Dr
Wichita.... 316 WH 2-5611
Mass Thermo Tech Assoc, 27 Tanglewood Rd
Wellesley Hills.... 617 469-0351
Mich Hartmann-Schaffer Engr Co, 9125 Livernois Ave
Detroit 313 933-8866
Mo Stephens Machinery Co, 8145 Olive Blvd
St Louis .... 314 WY 1-0502
NJ Gerald B Duff & Co, 2165 Morris Ave
Union .... 201 MU 6-1747
NM Southwestern Eng & Equip Co
1400 1st Nat Bank Bldg, Albuq 505 255-7116
NY Egan Indl Sales Co, 920 Niagara Falls Blvd
Buffalo 716 833-8830
Ohio Cleveland Ind Equip Sales Co, 4500 Euclid Ave
Cleveland.... 431-8640
Pa George Vaux, 320 Caversham Rd
Bryn Mawr.... 215 LA 5-4517
Tex Southwestern Eng & Equip Co
6300 N Central Expwy, Dallas .... 214 EM 3-6501
Tex Southwestern Engr & Equip Co, Box 8188
Houston .... 713 JA 8-5538
Wash H E Hartley Co, 223 Terminald Bldg, Boeing Fld
Seattle .... 206 PA 5-7120
Can Severance Tools of Can Ltd, 1232 Eglinton Ave W
Toronto.... 416 RO 1-4641
Fr H Rua & Co, 146, Av Des Champs-Elysees
Paris VIII .... BAL 31-22
Swed A B Max Sievert, Stockholm-Bromma
Stockholm 25-26-00

HARSHAW CHEMICAL CO, DIV KEWANEE OIL CO
1945 E 97TH ST, CLEVELAND
OHIO, 44106.... 216 721-8300
R ANFANG, EMP 1800, ENG 50, OVER $10,000M
Ala Ridge Instruments Co, Inc, 7220 Governors Dr W
Huntsville 837-3211
Cal R Lowe, 2235 E Middlefield Rd
Mountain View 968-2171
Cal R Villareal, 18051 E Fourth St, Tustin 838-6340
Fla Ridge Instruments Co, Inc, 6715 Island St
Orlando 855-1191
Ga Ridge Instruments Co, Inc, 3094 McCully Dr, NE
Atlanta 939-1554
Ill Harshaw Chemical Co, Box 348
Hinsdale.... 325-2340
Mass F Kirrane, Box 28, Sudbury.... 861-0628
NJ Harshaw Chemical Co, 9 Valley View Dr
Ramsey 327-8850
NJ Harshaw Chemical Co, 276 Linden Rd
Wayne 839-3230
Tenn Ridge Instruments Co, Inc, 110 Inn La
Oak Ridge 483-1311
Tex J Owens, 2712 Southwest Fwy
Houston 522-8377
Va W Todd, 7109 Churchill Rd, McLean 356-9570
Wash Showalter-Judd, Inc, 1806 S Bush Pl
Seattle 324-7911
Can Spectra-Research Ltd, 376 Churchill Ave
Ottawa 3, Ont.... 728-3415

HART-ADVANCE RELAY DIV OAK ELECTRO/NETICS
CORP, 201 W CENTRALIA, ELKHORN
WIS, 53121 .... 414 525-3491
EMP 600, ENG 25
Cal Fetty/Schoenduve Inc, 7407 Melrose Ave
Los Angeles.... 213 651-4050
Colo I W Strong, 635 Canosa Crt
Denver 303 292-6900
Conn Richard Purinton Inc, Box 12
Colebrook.... 203 379-2501
Fla O E N, 1040 Bayview Dr
Ft Lauderdale.... 305 563-2681
Haw Bill Kolans & Co, Box 2098, Honolulu.... 252-532
Ill Oak Mfg Co, Crystal Lake.... 815 459-5000
Md L G White, 880 Bonifant St
Silver Spring 301 585-3141
Mass Richard Purinton, Inc, 11 Muzzey St
Lexington 617 862-8300
Mich Sheridan Assoc, Box 128
Lathrup Vlg 313 358-3333
Minn L F Murphy & Assoc, 730 Chicago Ave
Minneapolis.... 612 333-4511
Mo R Bartos, 804 E Essex Ave
Glendale .... 314 CH 1-4351
NJ Gray Williams Assoc, 8 E Mt Vernon Ave
Haddonfield.... 609 429-5330
NJ Hart Products, Box 514, Clifton.... 201 473-0381
NY J A Gehrs Assoc Inc, 410 N Goodman
Rochester.... 716 473-2230
NY Comtronic Assoc, 1551 Franklin Ave
Mineola 516 741-8966
NC L G White, Box 2356, Winston-Salem
Ohio Wm Cole, 24 Endicott Bldg
Cincinnati.... 513 825-7570
Ohio Sheridan Assoc, Box 8226
Cleveland.... 216 237-9145
Ohio Sheridan Assoc, Box 37, Dayton 513 277-8911
Ohio Sheridan Assoc, Box 37646
Cincinnati.... 513 761-5432

Ohio McDaniels Assoc, 3020 California Ave
Kettering 513 298-5752
Tex Norvell Assoc, Box 20279, Dallas ... 214 357-6451
Tex Norvell Assoc, 112 Meyerland Plaza
Houston 713 665-0558
Wash H Levinson Co, 1112 E Denny Way
Seattle 206 323-5100
Wash H D Campbell Co, 3827 Stone Way N
Seattle 206 632-2939
Can E Whittaker Supply Ltd, 42 Howden Ave
Ottawa, Ont........ 613 224-1221
Can E Whittaker Supply Ltd, 1885 Wilson Ave
Weston, Ont 416 247-7454
Can E Whittaker Supply Ltd, Box 216
Roxboro Que 610 422-3980

HARTLEY PRODUCTS CORP, BARNERT PL, HO-HO-KUS
NJ, 07423 .... 201 652-7772
R SCHMETTERER, EMP 3, ENG 2, UP TO $100M
Mich Hartley Prod Lab, 397 W 21st St
Holland .... EX 6-6209

HARTMAN ELECTRICAL MFG CO, 175 N DIAMOND ST
MANSFIELD, OHIO, 44901........ 419 524-1411
E BOYLE, EMP 620, ENG 22, $5,000-$10,000M
Ala Airsupply Co, 2003 Byrd Spring Rd S W
Huntsville 205 883-0244
Ariz Airsupply Co, 2618 E Washington St
Phoenix 272-3292
Cal Airsupply Co, Town & Country Vlg
Palo Alto .... DA 6-4186
Cal Airsupply Co, 5555 Mildred St
San Diego .... CY 8-1121
Cal Airsupply Co, 2230 Michigan Ave
Santa Monica 451-5711
Fla Airsupply Co, 7000 Lake Ellenor Dr
Orlando 305 851-1210
Ga Airsupply Co, 3272 Peachtree Rd NE
Atlanta .... CE 7-8636
Ill Airsupply Co, 5544 St Charles Rd
Berkeley........ 544-7400
Ind Airsupply Co, 2441 N Meridian St
Indianapolis........ WA 5-3528
Kan Airsupply Co, 7062 E Lincoln St
Wichita........ MU 3-7518
Mass Airsupply Co, 235 Bear Hill Rd
Waltham .... TW 4-9165
Mo Airsupply Co, 4531 N Lindbergh
Bridgeton .... PE 1-3011
NY Airsupply Co, 6443 Ridings Rd
Syracuse........ HO 3-8531
NY American Avitron, Box 567, Rye 937-5300
NY Airsupply Co, 1 Dupont St, Plainview..... 681-8710
Ohio AirSupply Co, Box 19738 A M F
Columbus........ 231-9742
Ohio Airsupply Co, 333 W 1st St, Dayton ..... BA 4-0728
Pa Airsupply Co, 237 Lancaster Ave
Devon........ MU 8-5157
Tex Airsupply Co, Box 1906
Forth Worth .... 817 ED 5-4541
Va Airsupply Co, 3865 Wilson Blvd
Arlington 525-1191
Wash Airsupply Co, 10806 NE 8th St
Bellevue........ GL 4-7922
Can AAE Aerospace Products, 585 Dixon Rd
Rexdale, Ont 249-8411

HARTMAN SYSTEMS CO INC, 360 WOLF HILL RD
HUNTINGTON STATION
N Y, 11746, TWX 510 226 6982 .... 516 HA 7-7500
J MINOGUE, EMP 360, ENG 40

HARTWELL CORP, 9035 VENICE BLVD, LOS ANGELES
CAL, 90034, TWX 213-836-0467........ 213 870-3781
L POE, EMP 400, ENG 15, $5,000-$10,000M
Ill Hartwell Corp, Chicago .... ME 7-6696
NJ Hartwell Corp, 10 Banta Pl
Hackensack .... DI 2-2964
Tex Hartwell Corp, 4005 E Lancaster
Ft Worth........ JE 5-0824

HARTZELL ELECTRONICS INC, 5200 W 74TH ST
MINNEAPOLIS, MINN, 55435 .... 612 941-3660
R PRAIRE, EMP 140, ENG 20, $2,500-$5,000M

HARVA CO INC, 104 FAIR ST, SCHOHARIE
N Y, 12157 .... 518 295-8101
E KINTZ, EMP 35, ENG 2, $250-$500M

HARVARD APPARATUS CO INC, 150 DOVER RD
MILLIS, MASS, 02054........ 617 376-2987
W TOWNE

HARVEL PLASTICS INC, BOX 757E, EASTON
PA, 18042 .... 215 252-7355
J WILLIAMS, EMP 40, ENG 3, $1,000-$2,500M

HARVEY HUBBELL INC, STATE ST & BOSTWICK AVE
BRIDGEPORT, CONN, 06602........ 203 333-1181
J HICKS, EMP 800, ENG 20
Cal Harvey Hubbell, Inc, 121 W Elmyra St
Los Angeles........ 223-1167
Cal Harvey Hubbell Inc, 1939 Harrison St
Oakland 415 444-2766
Ga Harvey Hubbell, Inc, 1680 Tullie Cir N E
Atlanta 633-9229
Ill Harvey Hubbell, Inc, 2727 S 25th Ave
Broadview 379-7920
NJ Harvey Hubbell Inc, 2175 Lemoine Ave
Fort Lee 212 565-5968
Wash Strohecker, Inc, 2207 First Ave S
Seattle .... MU 2-8327

HARWIL CO, 1009 MONTANA AVE, SANTA MONICA
CAL, 90403 .... 213 394-4710
H HUTCHINSON, EMP 5, ENG 2, UP TO $100M

HARWORTH MFG CO, 2881 EL CAMINO REAL
REDWOOD CITY, CAL, 94061 .... 415 365-0823
EMP 3, ENG 1

HASSALL INC, JOHN, CANTIAGUE RD, WESTBURY
N Y, 11590 .... 516 ED 4-6200
E KARNES, EMP 150, $2,500-$5,000M
Cal Les Sachs Assoc, 3030 E Olympic Blvd
Los Angeles........ AN 1-0168
Conn Robt M Whelan Co, Box 1131, Darien ... OL 5-0400
Fla Robt A Gravett Assoc, Box 2501
Fort Lauderdale 565-2079
Ill C Dekker, Box 268 Rt 1
St Charles .... 312 JU 4-6200
Iowa J Taylor Hersey, 2120 Greenwood Dr SE
Cedar Rapids........ EM 2-2031
Mich Robt B Ryan, Jaikins Bldg
Birmingham........ MI 6-0606
Mo Robt B Stahlhut, 12760 Post Oak Rd
St Louis .... PA 5-7793
NJ Robt Nyman, 45 Hidden Glen Rd
Upper Saddle River .... DA 7-2346
Ohio Lee Hart Assoc, Box 7154 Station 15
Toledo .... JE 6-8561
Okla Gordon V Peck Co, Box 15671, Tulsa... WE 9-3047
Pa Carl A Karthauser & Co, 1502 Union Bank Bldg
Pittsburgh........ AT 1-9111
Pa Sanford & Co, 221 Benson E
Jenkintown .... TU 7-8780
Tex Gordon V Peck Co, Box 18627, Dallas... DA 8-3511
Wash A J Hanson & Co, 4803 9th Ave NW
Seattle .... SU 4-8030
Wis Hamlet-Smith Inc, 836 N 12th St
Milwaukee........ 272-2787
Ger H H Klumpp, 4 Dusseldorf-Nord, Tersteegenstr 63
Belg James Kenny, 28, Rue Fosse aux Loups, Bruxelles
Fin S Pakalen & Co, Parkgatan 7a, Helsingfors

HASTINGS PLASTICS INC, 1704 COLORADO AVE
SANTA MONICA, CAL, 90404 .... 213 870-2931
A DAMES, EMP 40, ENG 4

HASTINGS-RAYDIST A TELEDYNE CO, NEWCOMB AVE
HAMPTON, VA, 23361 .... 703 723-6531
R DOYLE, EMP 90, ENG 10, $1,000-$2,500M
Ala Electro-Pneumatic Control Co, 416 Shenandoah Dr
Birmingham........ 822-5350
Ariz Williams-Assoc Inc, 1110 E McDowell Rd
Phoenix 254-6085
Cal Samuel O Jewett Co, 13111 Ventura Blvd
N Hollywood........ ST 9-8103
Cal JHS Assoc, 1911 Fairway Dr
San Leandro........ 483-9616
Colo Williams-Assoc Inc, 4971 Jackson St
Denver 388-4391
Conn J H Bertram & Co, 4 Britton Dr
Bloomfield........ 243-0321
Fla Leroy E Rogers Co, 110 Sea Island La
Boca Raton 395-7922
Ga G H Crossley & Assoc, 3390 Peachtree Rd NE
Atlanta 261-4278
Ill Byron Ellis Assoc, 6242 N Kenmore Ave
Chicago 262-2038
Ky Fluidaire Co, 3714 Winchester Rd
Louisville........ 582-1144
La Hahn Sales Co, 5945 Plank Rd
Baton Rouge 356-2596
Mass J H Bertram & Co Inc, 60 Dedham Ave
Needham .... HI 4-7304
Mich Satullo Co, 4514 N Woodward Ave
Royal Oak .... JO 6-2375
Minn Guy Speaker Co Inc, 4991 Excelsior Blvd
Minneapolis........ 926-1631
Mo Rogers Processing Equip Sys, 8002 Florissant Rd
St Louis 521-7929
Mo Kirk Campbell Co, 4020 Main St
Kansas City 561-0845
NM Williams-Assoc Inc, 420 Washington St S E
Albuquerque........ 255-1638
NY George O Miller Co, 607 Midtown Plaza
Syracuse........ 478-3113
NY Nickles Eng Co, 830 Linden Ave
Rochester........ LU 6-4988
Ohio Anger Assoc, Inc, 21139 Lorian Rd
Cleveland........ 333-4180
Ohio G H Drysdale Assoc, 4512 Forest Trail
Cincinnati........ 752-2069
Pa Fogleman Co, Inc, 3849 Willow Ave
Pittsburgh........ 531-4005
Pa Tyler Griffin Co, 46 Darby Rd, Paoli...... 647-1550
Tex Instrumatics Inc, 916 Boundary St
Houston .... CA 5-6626
Utah Williams-Assoc Inc, 2469 S Main St
Salt Lake City 466-8709
Wash Instrumentation Eng Sales & Serv
1331 3rd Ave Bldg, Seattle .... MU 2-1123
W Va Fogleman Co, Inc, 401 4th St
S Charleston 744-5324
Can Brian Eng Ltd, 2445 Duncan Rd
Montreal........ 735-1671
For R Franceschini, Inc, 605 Condado Ave
Santurce, P R 723-4511
For Equipmentos de Lab Lda, Rua Pedro Nunes 47
Lisbon........ 73-34-36/7
Fr Soc D'Instr Schlumberger, 185 Av De La Liberation
92 Clamart........ 644-34-61
Fr Veeco S A, 64 A 70 Rue Des Chantiers
78 Versailles........ 951-03-34
Ger K Schaefer Gesellschaft, Hahnostr 48
Frankfurt/Main-Niederrad........ 67-33-40
GB Bendix Electronics Ltd, High Church St
New Basford Nott........ 75115
Holl Instrumentanhandel Utrecht, Alb Perkstr 6
Hilversum 1-61-01
Ital Filotecnica Salmoiraghi SPA
5 Via Raffaello Sanzio, Milano........ 490-351
SAfr Controltech (Pty) Ltd, 93 De Korte St
Johannesburg........ 724-5602
Swit Klaus Schaeffer GMBL, Regensbergstr 135
Zurich-Oerlikon 46-28-67
Arg Ragel & Corbella S R L, Suipacha 705 - 2 of 5
Buenos Aires........ 31-7485
Belg Regulation-Mesure SPRL, 22 Rue St-Hubert
Brussels........ 71-20-20
Ind Electronic Enterprises, New Charni Rd
Bombay 75376
NZ Geo W Wilton & Co Ltd, 410 Hutt Rd Lower Hutt
Wellington........ 697-099
Spn Hucoa-Erloss, SL, Zurbano 92
Madrid 3 233-93-75
Aust Long Ind Equip Pty Ltd, 4 Foster St
Darlinghurst........ 211-2933

HATHAWAY INSTRUMENTS INC, 5250 E EVANS AVE
DENVER
COLO, 80222, TWX 910-931-0568 ...... 303 756-8301
W THOMSON, EMP 200, ENG 15, $2,500-$5,000M
Ala Compar Southern, 904 Bob Wallace Ave, Huntsville
Ariz Compar Rocky Mtn, 84 W First St
Scottsdale 947-4336
Cal Randolph Industries Inc, 12202 E Garvey Ave
El Monte 283-7901
Cal Compar San Francisco, 1817 Bayshore Hwy
Burlingame 697-6244
Cal Compar L A, 434 W Colorado Blvd
Glendale 245-1172
Colo Compar Rocky Mtn, 3600 S Lincoln
Englewood........ 781-0912
Fla Compar Florida, Box 13109, Orlando 855-3964
Ill Midwest Electronic Sales, 5707 W Division St
Chicago 626-0030
Ill Compar Chicagoland, 6322 N Milwaukee Ave
Chicago 775-5300
Md Milan Assoc Inc, 7215 York Rd
Baltimore........ 825-1120
Mass Saunders & Co, 53 Everett St, Waltham... 894-6071
Mass Compar New England, 246 Walnut St
Newtonville........ 969-7140
Mich Skip Greiner Assoc, 15318 Mach Ave, Detroit
Minn Compar Twin Cities, Box 8095
Minneapolis........ 922-7011
Mo Compar Ozark, 2600 Woodson Rd
St Louis 428-5313
NJ Compar New York, 730 Clifton Ave
Clifton 471-6090
NY M J Fein & Co, Harwood Bldg
Scarsdale........ 472-1100
NY Compar Albany, 419 Central Ave
Albany 436-8536
NY Compar Albany, Box 135, Endwell 723-8743
NY Compar Albany, 570 French Rd, Depew... 684-5731
NC Compar Southern, 1106 Burke St
Winston-Salem 724-0750
Ohio Compar Ohio, Box 4791, Fairview Park
Ohio Compar Ohio, 408 W Main, Fairborn 878-2631
Tex Compar Southwest, 11420 E Northwest Hwy
Dallas........ DA 7-4551
Can Applied Technology Co, Box 272, Don Mills, Ont
For Rocke World Trade Corp, 750 Third Ave
New York, NY 986-2244

HATHAWAY PACIFIC CORP, 4055 FABIAN WAY
PALO ALTO
CAL, 94303, TWX 910 373-1185........ 415 327-7970
G NELSON, EMP 25, ENG 7, $500-$1,000M
Cal Randolph Industries Inc, 12202 E Garvey Ave
El Monte 213 283-7901
Colo Hathaway Instruments Inc, 5250 E Evans Ave
Denver 303 756-8301
NY M J Fein & Co, Harwood Bldg
Scarsdale........ 914 472-1100
Wash J E Sperry Co, 5051 Beach Dr SW
Seattle 206 932-1101

HAVEG INDUSTRIES, INC, PRECISION MOLDING DIV
336 WEIR ST, TAUNTON
MASS, 02780 .... 617 824-4011
W HOLT, EMP 725, ENG 18
Conn American Mdsg Corp, 2440 Reservoir Ave
Trumbull........ 372-6501
Ill R V Reib, 505 Walnut Dr
Streamwood........ 312 289-3883
Kan H C Heyde, 9221 Wenonga Rd
Leawood........ 649-8628
Mass R W Menard, 15 Duffy Dr, Taunton... 617 824-4795
Mass G F Whittle, Moulton Rd, Southborough... 485-4590
Mass E W Callahan, 46 General Cob St
Taunton 617 823-3842
Mass E G Phillips, 4 Scadding St
Taunton 617 824-7113
Mich F R Walker, 810 Northland Towers W
Southfield 313 444-4323
NJ G Nevins, 323 Dutch Neck Rd
Hightstown 609 448-4974
NY W F Hartigan, Rte 20
New Lebanon Center .... LE 7-2731
Ohio H G Lake Co, 1521 N Main St, Dayton ... 277-8181
Pa Layne Assoc, Inc, Box 201
Downingtown 269-1555

HAVEG INDUSTRIES INC, SUPER TEMP WIRE DIV
BOX 7, WINOOSKI, VT, 05404 .... 802 862-9636
W HILL, EMP 325, ENG 10

Cal Haveg Industries, 715 N Central Ave Glendale 245-0101
Conn Lane Sales Co, Box 301, Cheshire 272-6081
Fla Haveg Industries, Box 536 Altamonte Springs 838-6525
Md Haveg Industries, Box 91, Rt 1 Reisterstown 252-3664
Mass Herbert Sales Co, Box 201, Auburn 756-9477
Mich Haveg Industries, 416 E Sixth St Royal Oak 546-2799
Minn Haveg Industries, 150 Juniper La Rosemount 432-7760
Mo Haveg Industries, 119A Kings Highway St Charles 723-3253
NJ Haveg Industries, Box 612, Summit 273-4338
Tenn F G Assoc Inc, Box 6244, Knoxville 525-3321
Tex Haveg Industries, Box 297, Arlington 274-0144

HAYAKAWA ELECTRIC CO LTD
22-22, NAGAIKECHO, ABENOKU, OSAKA
JAPAN 621-1221
M FURUYABU, EMP 13,000, ENG 850, OVER $10,000M

Cal Sharp Electronics Corp, Terminal Annex, Los Angeles
Ill Hayakawa Electric Co Ltd, 78 E Madison St, Chicago
NJ Sharp Electronics Corp, 178 Commerce Rd, Carlstadt
For Hayakawa Electric Co Ltd 85, Sec 1 Chungshan N Road, Taipei, Tai
For Hayakawa Electric Co Ltd, Sibunruang Bldg 283 Silam Rd, Thai
For Hayakawa Electric Co Ltd, 24 Des Valux Rd Central, H K
Ger Hayakawa Elec (Eur) GmbH 2000 Hamburg 1 Ballindamm 17,

HAYDON CO THE, A W, 232 N ELM ST, WATERBURY
CONN, 06720, TWX 710-477-3141 .... 203 756-4481
E DIEMAND, EMP 607, ENG 60, $5,000-$10,000M

Ala W A Brown & Assoc Inc, 1314 Buford St NW Huntsville 205 536-8393
Cal TransDynamics Inc, 3108 Fifth Ave San Diego 714 298-8215
Cal TransDynamics Inc, 44 Encina Ave Palo Alto 415 326-6527
Cal TransDynamics Inc, 4450 Lakeside Dr Burbank 213 849-6261
Cal A W Haydon Co, 4060 Ince Blvd Culver City .... 213 UP 0-5461
Colo TransDynamics Inc, 3401 S Bannock St Englewood 303 761-0455
Conn Nelson & Schoonmaker, 106 Main St Thomaston 203 283-5959
Fla W A Brown & Assoc, 222 Weber Ave Orlando 305 425-5505
Fla W A Brown & Assoc, 3039 NE 32nd Ave Ft Lauderdale 305 654-8000
Fla W A Brown & Assoc, 212 Bradley Dr NE Ft Walton Beach 904 243-6424
Ga W A Brown & Assoc, 1590 Cooledge Rd NW Tucker 404 939-1674
Ill Sumer Inc, 1032 E Northwest Hwy Mt Prospect 312 392-7370
Ind Sumer, Inc, 2211 S Calhoun St Fort Wayne 219 744-1692
Md L D Lowery Inc, 6200 Annapolis Rd Hyattsville 301 773-4977
Mass Selmark Assoc Inc, 181 West St Waltham 617 899-8110
Minn Stack-Johnson Inc, 2907 Portland Ave S Minneapolis 612 827-3841
Mo H J Weisler & Assoc, 2050 Woodson Rd St Louis 314 428-3934
Mo Automatic Gen Electn Sales, 6650 E Troost Ave Kansas City 816 333-8206
NY Malin Assoc Co, Box 426 Forest Hills 212 268-9122
NY A W White, 4 Manor Hill Dr Fairport 716 377-4930
NC W A Brown & Assoc, Inc, 1108 Burke St Winston-Salem 919 725-5384
Ohio C A Robinson Co Inc, 4225 Mayfield Rd Cleveland 216 381-9049
Ohio C A Robinson Co Inc, 11 W Monument Bldg Dayton 513 222-0832
Pa L D Lowery Inc, 2801 W Chester Pike Broomall 215 528-5170
Tex R F Kimball Co, 5531 Dyer St Dallas 214 363-5431
Wash TransDynamics Inc, 7834 SE 32nd St Mercer Island 206 232-1094
Can Philips Electronics Ind, Ltd, 116 Vanderhoof Ave Toronto, Ont 416 425-5161
Can Philips Elctns Ind Ltd, 5930 Cofe-De-Liesse Montreal Que 514 342-9180
Belg S A Polymotor, 29 Ave Paul Henri Spaak Brussels 23 40 81-82-83
Aust Miniwatt Elctns Div, 20 Herbert St, Artarmon, NSW

HAYDON PRODUCTS, IND CONTROLS DIV GEN TIME
CORP, ROUTE 8,, TORRINGTON
CONN, 06790 .... 203 482-4481
R EDGAR, EMP 495, ENG 30

Ariz Dorton Enterprizes, Box 1297, Scottsdale
Cal C Williams, S Armstrong, 1936 Huntington Dr South Pasadena 799-1141
Cal C Williams, 2401 San Pasqual Pasadena 213 793-1161
Cal Long & Assoc, 505 Middlefield Rd, Redwood City
Colo Simpson Assoc, 8000 S Kendall Blvd Littleton 303 798-8439
Conn J Walker, 35 Zimmer Rd, Granby 203 233-5083
Ga L Spence, 1554 Tullie Cir NE Atlanta 404 636-7556
Ill J Barton, 2510 Dempster St Des Plaines 312 775-7003
Ill H L Baumgartner, 2510 Dempster St Des Plaines 312 775-7003
Kan Thomas-Modrcin Assoc, 5450 Buena Vista Dr Shawnee Mission 432-2131
Md Philip Allison, 132 Andover Dr, Exton 363-7813
Mass D Sleeper, 2 Granvaile Rd Southboro 617 762-1466
Mich A Letorneau, 6346 W McNichols Rd, Detroit
Minn J Brewer, 5247 Holiday Rd, Minnetonka
NJ D Lynch, 520 Westfield Ave Elizabeth 201 289-5959
NY S Cousins, 842 North Rd, Scottsville 546-4766
NY K Chalson, 41-11 Parsons Blvd Flushing 201 289-5959
Ohio S Sea, Carew Tower, Cincinnati 421-3366
Ohio A Redding, 20800 Westgate Plaza Cleveland 216 333-6141
Ore David Fry Co, Box 3803, Portland 503 226-3903
Tex Norvell Assoc, 10210 Monroe Dr Dallas 357-6451
Tex Norvell Assoc, 6440 Hillcroft, Houston 774-2568
Wash David Fry Co, Box 66417, Burien 206 246-1170
Can General Time-Canada, Box 239, Peterborough, Ont

HAYDON SWITCH & INSTRUMENT INC, 1500 MERIDEN RD
WATERBURY
CONN, 06720, TWX 710 477-2580 .... 203 756-7441
G HOFFMANN, EMP 125, ENG 8, $1,000-$2,500M
ADV PG 433, 681

Ala Technical Mktg Inc, Box 1001 Huntsville 534-2487
Cal Fetty/Schoenduve, Inc, 253 Town & Country Vlg Palo Alto 321-7041
Cal Fetty/Schoenduve, Inc, 7407 Melrose Ave Los Angeles 651-4050
Conn Aerol Assoc Inc, Box 146, Essex 767-1647
DC J H Electronics Sales, Box 6844 Towson .... VA 5-4440
Fla Technical Mktg Inc, Box 237, Largo 446-6192
Fla Technical Mktg Inc, 1511 E Robinson St Orlando 424-8531
Ga Technical Mktg Inc, Box 1152, Marietta 435-0079
Ill Aerol Assoc, Inc, 466 Central Ave Northfield 446-6486
Kan Aerol Assoc Inc, 6631 E Kellogg Wichita 683-7421
Mass All Star Engrg, Box 58, Woburn 894-7850
Mich R C Merchant & Co Inc, 98 Water St Benton Harbor 616 925-0015
Minn Aerol Assoc, Inc, Rte 1, Box 230 Anoka 421-0751
Mo Aerol Assoc Inc, 34 N Brentwood Blvd St Louis 725-5361
NJ Aerol Assoc Inc, 730 Clifton Ave Clifton 779-6744
NJ J H Electronics Sales, Box 686 Cherry Hill 665-6142
NY Aerol Assoc Inc, 170 Great Neck Rd Great Neck 487-9650
NY Costello, J V, 2030 Erie Blvd E Syracuse .... GR 2-0322
Ohio Aerol Assoc, Inc, Box 7 Centerville Br Dayton 434-6504
Pa J H Electronics Sales, 686 Cherry Hill Cherry Hill 665-6142
Tex P H Kreager Co, 9230 Cliffmere Dr Dallas 348-3521
Wash Willis Sales Co, 2805 124th Pl Bellevue 454-3029
Can Aviquipo of Can Ltd, Montreal Intl Airport Dorval, Que 631-3504
For Aviquipo Inc, 90 Broad St New York, NY .... WH 3-6580

HAYDON TUBE & FORM CORP, 132 THIRD AVE
PATERSON, N J, 07514 .... 201 279-6800
L REMSTEIN, EMP 40, $1,000-$2,500M

NC Manufacturers Sales Co, 1704 Battleground Ave Greensboro 919 274-2474
Pa John F Byers & Co, Box 312 Ft Washington .... 215 LO 3-4268

HAYDU PRODUCTS INC, BOX 383, OPA LOCKA
FLA, 33054 .... 305 688-6521
G HAYD, JR, EMP 100, ENG 2

NJ R Shapack, 988 Kenyon Ave, Plainfield 757-5432

HAYES INC, C I, 875 WELLINGTON AVE, CRANSTON
R I, 02910 .... 401 461-3400
F KNIGHT, EMP 150, ENG 18, $1,000-$2,500M

Cal Egloff & Graper Inc, 1798 Industrial Way Los Angeles 269-7363
Ill Gordon Wheeler, 321 S Spring Ave La Grange .... FL 2-8181
Mass E F Mooney & Assoc Inc, 576 Main St Woburn .... WE 6-1327
Mich Hartmann-Schaffer Eng Co, 9125 Livernois Detroit .... WE 3-8866
Minn Tempco Corp, 5590 W Bald Eagle Blvd White Bear Lake 888-5555
Mo Brandwine Eqpt Co, 2683 Big Bend Blvd St Louis .... ST 1-6432
NJ Howard F Brennan, 1190 Pompton Ave Cedar Grove .... CE 9-0001
NY C W Rew, 121 Wheeler St Tonawanda .... NX 2-3029
Ohio Harry Farnsworth, 240 Sherwood Dr Lexington 884-1893
Pa F F Sahms Co, 419 Twickenham Rd Glenside .... TU 4-2559
Pa A C Whitaker, 3047 Industrual Blvd Bethel Park 835-2525

HAYS CORP, MICHIGAN CITY
IND, 46360 .... 219 822-5561
R JOHNSON, EMP 225, ENG 25, $2,500-$5,000M

Ariz Bews & Wallace Co Inc, 2515 E Union Dr Phoenix 602 275-4496
Cal United Engr Sales & Serv Corp 18345 Ventura Blvd, Tarzana 213 881-2433
Cal R A Edman Co, Box 255, Lafayette 415 283-0810
Colo Joy & Cox Inc, 2124 Broadway Denver 303 266-0323
DC Meleney Engrg Co, 2430 Pennsylvania Ave Washington 202 965-3360
Ga Therm-Mech Inc, Drawer 52599 Atlanta 404 261-3632
Haw Pell Co, Box 1441, Honolulu
Ill Hays Corp, 10055 Roosevelt Rd Westchester 312 379-5806
Ind Dale D Merchant Co Inc, 5250 Keystone Ct Indianapolis .... 317 CL 5-4690
Iowa Deco Engrg Prod Co, 1112 Locust St Des Moines .... 515 AT 8-5721
Kan Tompkins Equip Co, Box 6134 Leawood 913 381-5320
La Gilbert & Assoc Inc, 8130 Willow St New Orleans .... 504 UN 6-7444
Mass Timross Co, 815 Washington St Newtonville 617 244-7586
Mich Metrol Co, 7145 E Davison, Detroit 313 365-5400
Minn Power-Process Equip Inc, 6032 W 37th St Minneapolis 612 929-6791
Mo Golom Equipment Co, 4718 Stanhope St Louis .... 314 TW 2-8030
Neb Deco Engrg Prod Inc, 2002 Burt St Omaha 402 341-4836
NJ Hays Corp, 2171 Morris Ave Union 201 687-5787
NY Bass Industrial Equip Co, 6045 Main St Williamsville 716 632-0600
Ohio Vari-Systems Inc, 1295 W 78th St Cleveland 216 651-7708
Ohio Abbott Co, 3437 Michigan Ave Cincinnati 513 321-2349
Okla Barnard Equip Co, 3726 S Peoria Tulsa .... 918 RI 2-2652
Ore Branom Instrument Co, 6019 NE Union Portland .... 503 BU 5-5205
Pa Systems Control Assoc, 10 S Orange St Media 215 565-2077
Pa Process Prods & Inst Co, 345 Mt Lebanon Blvd Pittsburgh 412 343-2237
Tenn George W Massey Co, Box 10102 Knoxville 615 577-9553
Tenn Gilbert & Assoc, 2978 Austin Peay Hwy Memphis 901 388-0571
Tex Dixon Engrg Inc, 8807 Vinewood Dallas 214 321-0240
Tex Dixon Engrg Inc, Box 12392 Houston .... 713 MI 4-3021
Utah Control Equip Co of Salt Lake, 2255 S 2nd W Salt Lake 801 487-7741
Va R S Lovelace Co Inc, Box 7187 Richmond 703 358-0404
Wash Branom Instr Co, 2137 Second Ave Seattle .... 206 MA 2-7320
Wis Shelton F Boyd Co, 7127 N Green Bay Rd Milwaukee 414 352-3180
Can Brooks Inst Canada Ltd, Box 150, Hwy 48, Markham
Fr Antares SA, 9 rue Ernest Cognacg 92 Levallois Perret
Ger Techmark Corp, Barellistr 18, 8 Munchen
Ital T A I, Via Petrella 21, Milano
Jap Mitaka Inst Co Ltd, 2-Chome, Naka-cho, Tokyo
Swed Ingenjorsfirman Regula AB, Box 13 Johanneshov Gullmarsvagen 51
Swit Timeus & Co, Postfach 171, Zurich 38
BC Pacific Controls Ltd, 2015 Columbia St, Vancouver

HAYSITE REINFORCED PLASTICS DIV HAYS MFG CO.
W 12TH & PLUM STS, ERIE
PA, 16512, TWX 914460 .... 814 452-3221
E SOPP, EMP 50, ENG 2, $1,000-$2,500M

Ala Beck Sales Co, 1209 9th St W Birmingham 205 328-4588
Cal C D LaMoree Co, 2433 Birkdale St Los Angeles 213 225-5666
Cal C D LaMoree Co, 2221 Fourth St Berkeley 415 841-0601
Del Brandywine Fibre Prod Co, 1501 Poplar St Wilmington 302 014-2431
DC Read Plastics, 317 Cedar St NW Washington 202 882-3200
Ill Insulation Mfrs Corp, 7550 Oak Park Ave Niles 312 647-0044
Ill W L Lilja, 5430 W Dakin St Chicago 312 725-6336
Mass G D Gallagher, One Adams St East Milton 617 696-3359
Mich Insulation Mfrs Corp, 745 New Center Bldg Detroit 413 875-3103
Minn D A Schultz Co, 801 SE 8th St Mnpls 612 339-7701
Mo E P Gund Co, 2551 W Dodier St Louis 314 241-8645
NJ L K Detwiler & Assoc, 443 Broad St Newark 201 621-9081
NY Insulation Mfrs Corp, Raulli Bldg Syracuse 315 437-3102
Ohio Insulation Mfrs Corp, 1231 E 26th St Cleveland 216 781-2310
Ohio Insulation Mfrs Corp, Hulman Bldg Dayton 513 224-4515
Ore C E Riggs Inc, 422 NW 8th Ave Portland 503 226-3286

Pa Insulation Mfrs Corp, 3550 Laketon Rd
Pittsburgh........................412 244-1145
Pa J Keys, 110 Dolington Ave, Yardley
SC A C Ballentine Assoc, Box 5742 Sta B
Greenville........................803 244-6514
Tex Cline Supply Inc, 3215 Ave E East
Arlington........................214 264-2466
Wash C E Riggs Inc, 314 Second Ave S
Seattle........................206 623-5707
Wash C E Riggs Inc, 710 Hutton Bldg
Spokane........................509 624-7554
Wis Insulation Mfrs Corp, 367 Bockl Bldg
Milwaukee........................414 342-3927

H B ENGINEERING CORP, 1101 RIPLEY ST
SILVER SPRING, MD, 20910............301 589-0670
H BAKER, EMP 19, ENG 3
Cal Willard Nott & Co, 1485 Bayshore Blvd
San Francisco........................415 467-0547
Ill MQ Assoc, 6713 N Oliphant Ave
Chicago........................312 774-8844
Mass ITM Assoc, Box 385, Sudbury........617 443-8414
Mo Gordon Fixman Engrg Co, 8160 Stanford Ave
St Louis........................314 725-5219
NY TPC Inc, Box 184, Syracuse..........315 472-8588
Ore Martig's Inc, 5741 N E Glisan St
Portland........................232-1949
Pa H J Heffernan Co, Box 395
Ft Washington....................215 VE 6-4411
Pa Harold A Woolman Co, 4 W Manilla Ave
Pittsburgh........................412 922-2420
Va H J Heffernan Co, 1123 North Irving St
Arlington........................522-6666

HEADWAY RESEARCH INC, 3713 FOREST LA
GARLAND, TEX, 75040................214 BR2-1566
V SHIPMAN, EMP 23, ENG 3, $250-$500M
Cal F J Toffey Assoc, 2227 Mora Dr
Mountain View....................415 968-0200
Conn Evans Equip Co, Rte 7, Brookfield....203 775-2800
Mass Evans Equipment Co, Box 127, Willsley...235-2275
Pa Evans Equip Co, 1246 Irma Rd
Warminster........................215 672-2560
GB General Micronetics Ltd, Boston Rd
London W 7........................01-567-8092
Jap Kanematsu-Gosho (USA) Inc, 606 S Hill St
Los Angeles, Cal........................620-1640

HEATH CO, DEPT 520-32, BENTON HARBOR
MICH, 49022, TWX 616-983-3897..............616 983-3961
ADV PG 322, 400, 464, 793
Can Daystrom Ltd, 1480 Dundas Hwy E, Cooksville, Ont
Ger Heathkit Gerate GmbH, Sprendlingen bei Frankfurt/M
GB Daystrom Ltd, Bristol Rd, Gloucester.........2-218

HEATHER FILTERS LTD, 7 KENDALL PL, BAKER ST
LONDON W 1, ENGLAND................01-486-1801

HEATRON CO, 333 EBERTS LN, YORK
PA, 17405........................717 846-8819
D GOLDEN, EMP 8, $250-$500M

HECON CORP, 31 PARK RD, NEW SHREWSBURY
N J, 07724........................201 542-9200
W FUELLEMAN, EMP 50, ENG 8, $1,000-$2,500M
Cal Hecon Corp, 15130 Ventura Blvd
Sherman Oaks........................788-3931
Colo Franklin Sales Co, 2149 S Clermont St
Denver........................757-1371
Fla Compar Florida, Box 13109
Orlando........................305 855-3964
Ill AEC Corp, 6645 N Oliphant Ave
Chicago........................312 263-5935
Minn Clark R Gibbs Co, 1311 W 25th St
Minneapolis........................377-1200
NY Good Counting Instr, 17 High Park Blvd
Buffalo........................716 834-3333
Ohio Mike Roth Sales Co, 678 S Green Rd
Cleveland........................382-9090
Pa Adcons Inc, 3615 Milford Mill Rd
Baltimore........................301 655-5544
SC Barker Controls, Box 3884, Greenville....244-6495
Tex Bellingham Sales Co, 1002 Burlington Ave
Dallas........................942-6595
Tex General Sales Reps, 1510 Spillers St
Houston........................713 923-7371
Wash Compar Northwest, 6133 Maynard Ave S
Seattle........................206 763-1711
Can Lisle Instrument Systems Ltd, 70 Sheffield St
Toronto, Ont........................249-9151
For S Bjoerklund & Co, Hagagatan 31, Stockholm Va
Den Willy H Grib & Co, Bredgade 34, Kopenhagen-K
Fr Blet SA, 132 FG St-Denis, Paris-XE
Ger J Hengstler KG, 7207 Aldingen, West Ger
GB J Hengstler Co GB Ltd, Brooker Rd
Waltham Abbey, Essex
Holl A Bruyaux nv, Box 4064, Amsterdam-Oost
Ital Isothermic Swiss, C So Di Porta Vittoria 54, Milano
Nor Egil Oulie-Hansen, Moellergaten 12, Oslo 1
SAfr Control Instruments (Pty) Ltd, 9, Wolmarans St
Johannesburg
Swit Stauffacher & Co, Wallisellen ZH,

HEDQUIST MACHINE & TOOL CO, 13110 DIERCIX DR
MOUNTAIN VIEW, CAL, 94040..........415 967-0265
E HEDQUIST, EMP 5, ENG 2

HEIDENHAIN CORP, 7952 N WAUKEGAN RD, MILES
ILL, 60648........................312 967-5979

HEINEMANN ELECTRIC CO, BRUNSWICK PIKE, RTE 1
TRENTON, N J, 08602, TWX 843-431...609 882-4800
E BROMBERG, EMP 697

HEKTOR SCIENTIFIC CO INC, 12 GILMORE ST
FOXBORO, MASS, 02035..............617 543-5348
E HOEY, EMP 6, ENG 2, $100-$250M

HELICAL PRODUCTS CO INC, BOX 4, HERMOSA BEACH
CAL, 90254, TWX 213 320-5372..............213 374-9941
C MERRELL, EMP 15, ENG 1, $250-$500M
ADV PG 235
Ariz Williams Assoc Inc, 1110 E McDowell Rd
Phoenix........................254-6085
Cal Straube Assoc Inc, 483 Willow Rd
Menlo Park........................323-2476
Colo Williams Assoc Inc, 4971 Jackson St
Denver........................388-4391
Conn Zaslow Sales Co, Inc, 49 Clark St
Milford........................878-1094
Conn Zaslow Sales Co Inc, 6 Newberry Rd
Bloomfield........................242-7781
Fla Lynch-Gentry Assoc Inc, Box 13248
St Petersburg........................347-5131
Ill Engineered Sales Inc, 4738 N Harlem Ave
Chicago........................867-8434
Md R P Luce & Co, 19 E 21st St
Baltimore........................752-8200
Mass Zaslow Sales Co Inc, 339 Middlesex St
Lowell........................458-8452
Mass Zaslow Sales Co Inc, 371 Howard St
Northboro........................393-8150
Mo Harris-Hanson Co, 2814 S Brentwood Blvd
St Louis........................647-4350
Mo Harris-Hanson Co, 7916 Paseo St
Kansas City........................444-9494
NJ R P Luce & Co, 630 Morris & Essex Tpk
Short Hills........................379-6600
NM Williams Assoc Inc, 420 Washington SE
Albuq........................255-9632
NY R P Luce & Co, 1300 Jericho Tpk
New Hyde Park........................437-4550
NY Reed Electronics Inc, 2815 Monroe Ave
Rochester........................473-2767
NY Reed Electronics, Inc, 326 Fay Rd
Syracuse........................409-5488
Ohio Technical Assoc Inc, Box 388, Fairborn...878-2484
Okla Technical Assoc Inc, 19500 Center Ridge Rd
Rocky River........................333-0035
Pa R P Luce & Co, 8717 Patton Rd, Phila...884-8365
Tex Aymond Co, Box 64917, Dallas..........827-8043
Tex Aymond Co, Box 35023, Houston........666-1804
Utah Williams Assoc Inc, 2469 S Main St
Salt Lake City........................466-8709

HELI-COIL PRODUCTS, DIV HELI-COIL CORP
SHELTER ROCK LA, DANBURY
CONN, 06813........................203 743-7651
H HALL, EMP 500, ENG 25, OVER $10,000M
Cal B B Morgan Jr, 664 Monterey Pass Rd
Monterey Park........................289-5336
Conn John M Rabuse, Box 721, Danbury.......748-8830
Conn James Spiegelhalter, 8 Farnum Hill
Bethel........................847-4718
Kan John Reichmeier, 3509 W 92nd Pl
Leawood........................381-2799
Md John L Nickerson, 128 Brandon Rd
Baltimore........................825-1527
Mass John B Cumming, Jr, Box 493
Billerica........................453-4837
Mass J O'Hara, 64 Humbert St, Springfield.....733-4990
NY Joseph G Paluseo, 33 Nelson St
Cazenovia........................655-3915
NY William P Lockwood, Box 41, Albertson..676-2273
Ohio Richard P Magersupp, Box 384
Chagrin Falls........................CH 7-6631
Ohio Edw J Crotty, Sr, 979 Parkside Pl
Cincinnati........................531-5516
Pa Themis C Pailas, Box 131
Fort Washington....................MO 4-5405
Pa Robert Rodgers, 434 Sangree Rd
Pittsburgh........................471-0605
Pa Simon G Saba, 276 Wyoming St, Wilkes Barre
Holl Est Viba, Kon Emmakade 199, Den Haag
Ital R F Celada & Co, 4 Viale Tunisia, Milano
Nor Norsk Kartro, Kongenn Gate 17, Oslo 5
Swed Colly Co, Aktielbolag, Lidingo 7, Stockholm

HELIOTEK DIV TEXTRON INC, 12500 GLADSTONE AVE
SYLMAR, CAL, 91342, TWX 910 496-1488...365-6301
F WOODWARD, EMP 100, ENG 10, OVER $10,000M
Va Gans-Fryling Inc, 2030 16th St N
Arlington........................703 527-3262

HELIX RESEARCH ASSOC INC, 5345 TIMKEN ST
LA MESA, CAL, 92041................714 465-3557
P SIMON, EMP 22, ENG 6
Cal Crown Electronics, 5653 Lankershim Blvd
N Hollywood........................213 766-9220

HELIX SPRING CORP, 12-15 37TH AVE
LONG ISLAND CITY, NY, 11101.......212 EM 13168
S WHITE, EMP 7, ENG 1, $100-$250M

HELLER CORP, G K, BOX 14746, LAS VEGAS
NEV, 89114, TWX 68 4422..............702 735-8081
T PICARELLI, EMP 25, ENG 2, $500-$1,000M
Ala Automation Equip Co, Box 5983 Homewood Br
Birmingham........................205 879-8764
Alas Electric Motor Engrg, 6515 Sunset Blvd
Los Angeles........................213 469-7393
Cal Electric Motor Engrg Inc, 6515 Sunset Blvd
Los Angeles........................213 469-7393
Cal Electric Motor Engrg, Box 11621
Palo Alto........................415 326-3105
Conn Northeast Technical Sales, 71 Rangely Dr
Trumbull........................203 268-8466
Ill Leo R Fitz Co, 6038 N Newburg Ave
Chicago........................312 631-5488
Md Marva Representation, 7401 New Hampshire Ave
Hyattsville........................301 434-3438
Mass Northeast Technical Sales, 19 Flint St
Salem........................617 744-2816
NY G K Heller Corp, 249-06 Jericho Tpke
Bellerose........................516 775-7170
Tex Brice Co, 1402 Dunlavy St, Houston
Can Testing Machines INtl, 6078 Sherbrooke St W
Montreal........................514 489-8491
GB Kempston Electrical Co Ltd, Shirley Rd Rushden
Northamptonshire....................RUS 4351
Ital FAS Intl, Via F Koristka 8, 10, Milan......339 695
Aust J J Masur & Co Pty Ltd, 500 City Rd
S Melbourne........................69-1357

HELLER INDUSTRIES INC, 30 N 15TH ST, E ORANGE
NJ, 07017........................201 678-4131
L DENNIS
Cal Claude Michael Inc, 2634 Frontage Rd
Mt View........................326-6884
Cal Claude Michael Inc, 703 W Ivy St
Glendale........................245-8401
Colo Claude Michael Co, 1639 Platte St
Denver........................455-1352
Fla MacGregor Assoc, Box 1711
Clearwater........................446-7310
Ga MacGregor Assoc, 3473 Northlake Way
Doraville........................451-3195
Ill W Cockerill Co, 1808 S Fairview
Park Ridge........................692-3650
Mass Contact Assoc, 7 Cypress Dr, Burlington..272-5051
Mich Murray A Percival Co, 25511 Southfield Rd
Southfield........................356-5710
NJ J P Dearie Co, Box 66, Mountain Lakes...334-4848
Ohio Joseph B Clough Co, 4614 Prospect Ave
Cleveland........................431-2700
Tex Production Eng Sales Org, Bos 30393
Dallas........................EM 3-3472
Can Brock Elctns Ltd, 27 Perth St
Lyn Ont........................613 342-0152
Den E Mikkelsen, 51, Krogshojvej, Bagsvaerd
Fr B F I, 52 Ave de New York
Paris 16eme........................KLE 6969
Ger BFI Elektronik GmbH, 26-28 Hainerweg
Frankfurt-am-Main
GB B F I Electronics Ltd, The Avenue
London W 13........................ALP 2113
Jap Nippon S T Johnson Sls Co Ltd
3-5 Uchikanda-3 Chome, Chiyoda-Ku Tokyo
Swed Abemi, Fagelbackagatan 11E, Malmo V
Swit Baerlocher, A G, Box 8021, Zurich
Spn Neotecnica, S A E, Marques De Urquijo, 44, Madrid

HELM INSTRUMENT CO INC, 4216 W ALEXIS RD
TOLEDO, OHIO, 43623................419 479-2951
O COLLIER, EMP 11, ENG 4, $250-$500M
Mich Elias Elctns, 26817 W 7 Mile Rd
Detroit........................313 255-2111

HELWIG CARBON PRODUCTS INC, 2550 N 30TH ST
MILWAUKEE, WISC, 53210............414 372-3113
J KOENITZER, EMP 160
Ariz H W Kuntz, 2132 W Encanto Blvd
Phoenix........................AL 4-1665
Cal Fletcher Electl Specialty Co, 17015 S Broadway
Los Angeles........................327-2020
Colo Damon Ward, 1909 Blake St, Denver....AC 2-3541
Ga Electrical Insul Suppliers, 1255 Collier Rd NW
Atlanta........................355-1651
Ill Heth Inc, 6282 N Cicero Ave, Chicago....282-8737
Ind R B Colby, 4715 Cornelius Ave
Indianapolis........................AT 3-5604
Iowa I L Davidson, 313 E 7th St
Des Moines........................288-0958
Mich L H Dickelman, 13331 Puritan Ave
Detroit........................273-0806
Minn G R Holden, 1208 Harmon Pl
Minneapolis........................FE 6-5353
Okla J H Cole, 1811 NW 1st St
Oklahoma City........................CE 5-2447
Pa D L Ande, 6901 Church St, Swissdale....371-4915
Tex W S McCray, 13331 Indian Creek Dr
Houston........................HO 8-1166
Utah J R Christensen, 246 W 13th S
Salt Lake........................486-0773
Wash D H Perkins, 3047 124th N E
Bellevue........................TU 5-2700

HEMINWAY & BARTLETT MFG CO, 500 FIFTH AVE
NEW YORK
N Y, 10036, TWX 12-7022............212 LO 4-0880
W HEMINWAY JR, EMP 320, ENG 6
Cal Van Smith Co, 336 S Raymond Ave
Pasadena........................684-0330
Cal Lee Hunt & Co, 585 Howard St
San Francisco........................YU 6-6408
Conn Don Purdy, 36 Station Ave
Brockton, Mass........................583-4805
Ga N La Coste, Box 19822, Atlanta.....404 351-2703
Ill Stanley J Smith, 222 W Adams St
Chicago........................AN 3-2685
Me Robert J Noonan, Nash Rd
S Windham........................TW 2-2425
Mass Frank Mossey, 78 Downing St
Worcester........................PL 7-2311

Mo Russ Hart, 10135 Midland Blvd
St Louis .... HA 8-2778
NJ Jay R Vine, Box 122, Haddonfield .... NO 3-4516
NY Kenneth Gardiner, 9 Monroe St
Gloversville .... GL 5-1972
Ohio Jerry Burg, Box 7, Western Hills
Cincinnati .... HU 1-6100
Tex P & H Distributors, 5622 Dyer St
Dallas .... EM 8-2652

HENES MFG CO, 4301 E MADISON ST, PHOENIX
ARIZ, 85034 .... 602 275-4126
J HILL, EMP 20, ENG 2, $250-$500M
Ariz Vinson Assoc, Inc, 44 E Indian School Rd
Scottsdale 947-7371
Cal G E Woods Assoc, 2415 S Manchester Ave
Anaheim 714 633-9370
Colo Vinson Assoc, 3600 S Lincoln
Englewood 789-2203
Conn Technical Instruments Inc, 575 Broad St
Bridgeport 368-4582
Ill Marsland Distributing Corp, 6699 Lincoln Ave
Chicago 676-1104
Ind Marsland Distributing Corp, 6730 E 19th St
Indianapolis 356-4249
Mass Technical Instruments Inc, 122 W St
Wilmington 944-3930
Mich. Electro Enterprises Inc, 15324 Mack Ave
Detroit 886-2280
Minn Marsland Distributing Corp, 231 N Edgewood Ave
Minneapolis 545-4481
Mo Marsland Distributing Corp, Box 567
Florissant 741-3779
NJ L & M Assoc, 511 Victor St
Saddle Brook 343-3070
NM Vinson Assoc, Box 3295, Sta D
Albuquerque 298-7442
NY Alderman & Eckerson, Drawer B
Pittsford 716 586-6020
Ohio Electro Enterprises, Inc, 335 E 200th St
Cleveland 486-7040
Ohio Electro Enterprises, Inc, 2621 Mardon Dr
Dayton 426-6071
Pa L & M Assoc, Box 4242, Philadelphia 438-5666
Tex R W Mureen Co, 5523 Dyer St, Dallas 361-0735
For E D Allmendinger Inc, 74 Trinity Pl
New York, NY 269-0090

HENLEY & CO INC, 202 E 44TH ST, NEW YORK
N Y, 10017 .... 212 YU 65544
B HOLZAPFEL, EMP 30, ENG 2, $5,000-$10,000M
Ariz E J Foley & Assoc, 3840 N Jokake Dr
Scottsdale 945-2665

HENRY ENGINEERING CO, 3625 W PACIFIC AVE
BURBANK, CAL, 91503 .... 213 849-4641
J COBO, EMP 80, ENG 2, $500-$1,000M

HENSCHEL CORP, 14 CEDAR ST, AMESBURY
MASS, 01913 .... 617 388-1103
C LUTY, EMP 240, ENG 4
Cal Allied Industries, 412 Seaton St
Los Angeles .... MA 8-2244
Cal Dahl Beck Electric Co, 580 Howard St
San Francisco .... EX 2-5214
La Carson Stone, 321 Carondelet Bldg
New Orleans 525-2233
NJ Oneal Corp, 15 Exchange Pl
Jersey City .... BA 7-6795
NJ C Gilfillan, 68 E Main St, Moorestown 2353376
NJ J E Fouchaux Co, Box 1286, Paterson 427-4690
Ohio Electro-Marine Corp, 3346 W 46th St, Cleveland
Wash Ralston Cunningham Assoc Inc, 71 Columbia St
Seattle .... SU 4-8444
Wis Benson Electric Co, 1102 N 3rd St
Superior 394-5548
Can J E Fouchaux Can Ltd, 1117 St Catherine W
Montreal

HERAEUS-ENGELHARD VACUUM INC, SECO RD
MONROEVILLE, PA, 15146 .... 412 372-8800
D MEYERS, EMP 90, ENG 10, $5,000-$10,000M
Ala E G Holmes & Assoc, Inc, 4862 Governor's Dr, W
Huntsville 205 837-6900
Ariz Vinson Assoc, 44 E Indian School Rd
Scottsdale 602 947-7351
Cal Heraeus-Engelhard Vacuum, Inc, Box 4225
Hayward 415 538-1493
Cal Fieldtec Inc, 3822 Campus Dr
Newport Beach 213 860-4000
Colo Vinson Assoc, 3600 S Lincoln
Englewood 303 789-2203
Fla E G Holmes & Assoc, Inc, 316 1/2 S Bumby St
Orlando 305 241-2128
Ga E G Holmes & Assoc, Inc, 3667 Clairmont Rd, NE
Chamblee 404 451-6161
Ill Nowack Sales & Engrg Co, Box 423
Palatine 312 358-1600
Md Valley Forge Assoc, 11300 Cushman Rd
Rockville 301 949-0794
Mass Cosmo Torr, Inc, 231 Merriam St
Weston 617 899-2210
Mich Hydro-Vac Pump Engrg Co, Box 292
Farmington 313 537-7800
Mo H & R Sales & Engrg Co, 3942 W Pine
St Louis 314 652-5540
NM Vinson Assoc, Box 3295
Albuquerque 505 298-7442
NY Hydro-Flow Inc, Box 121, Suffern 914 357-4420
NY Cosmo Torr Inc, Ridge Rd
Danbury, Conn 203 744-4484
NC E G Holmes & Assoc, Inc, 430 W Friendly Ave
Greensboro 919 275-0897
Ohio Cavanaugh Bergman & McCann Assoc
1229 W 3rd St, Columbus 614 486-1155
Pa Valley Forge Assoc, 1625 Spruce St
Philadelphia 215 545-8287
RI Cosmo Torr Inc, Box 158
Cumberland 401 333-5300
Tex Hainge Co, Inc, 3323 Mercer
Houston 713 622-3350
Wash Heraeus-Engelhard Vacuum, Inc, 3203 Fremont Ave
Seattle 206 632-7122
Can Ahearn & Soper Ltd, 844 Caledonia Rd
Toronto 416 789-4325
BC Ahearn & Soper Ltd, 1234 Marine Dr
North Vancouver 604 988-6822

HERLEY INDUSTRIES, INC, 355 SCALLY PL, WESTBURY
N Y, 11590 .... 516 333-8090
E BUCKLEY, EMP 26, ENG 4
Cal Carson Electronics, Box 1216
Redwood City 415 365-4620
Cal Davidson Assoc, 2920 Nebraska Ave
Santa Monica 213 451-5761
Del Engineering Assoc Inc, 1406 Shoemaker Rd
Baltimore 301 825-2385
La Gordon V Peck Co, Box 8087, New Orleans
NY Tesco Assoc, 2002 Teall Ave
Syracuse 315 463-4566
Okla Gordon V Peck Co, Box 15671, Tulsa
Tex Gordon V Peck Co, Box 18627
Dallas 214 328-3511
For Emec, Inc, 55 E Old Country Rd
Hicksville, NY 516 931-3700

HERMASEAL CO INC, 1010 N MAIN ST, ELKHART
IND, 46514 .... 219 CO 4-1119
K CONSIDINE, EMP 30, ENG 2, $250-$500M
Cal R Meussdorffer & Assoc, 13441 Ventura Blvd
Sherman Oaks 213 788-0771
Cal Fisher Switches, 3199 Park Blvd
Palo Alto 415 321-4080
Minn Melco Products Inc, 301 5th Ave S
Minneapolis 612 339-2791
NY Durakool of New York, 4747 Bronx Blvd
New York 212 324-8000
NY Walter F Haines, Appletree La
Newtonville Colonie 518 785-9248
Pa Raymond H Barnes, Box 1361
Lancaster 215 675-9227
Can Melcom, 70 Crockford Blvd
Scarborough 755-9235
Can MEL Sales, Box 1352, Sta O, Montreal 627-4313
Can Mel Sales Ltd, 232 John St
Amprior, Ont 623-4217

HERMES PLASTICS INC, 20 COOPER SQUARE
NEW YORK, N Y, 10003 .... 212 533-5100
B WERFEL, EMP 75, ENG 3
Alas Ed Schwab, 12th & Gambell, Anchorage 55735
Cal Hermes Plastics Los Angeles, 4665 Melrose Ave
Los Angeles 665-4141
Cal J Domito, Box 158, Orinda
Fla Joseph George, Box 423, Pinellas Park 544-4348
Ga Hermes Plastics Atlanta, 216 Fourteenth St, N W
Atlanta 873-5677
Haw Hawaii Plastics, Box 3685, Honolulu
Ill Hermes Plastics Midwest, 3534 W 63rd St
Chicago .... PR 8-5352
Mich M Davis, 1163 Champaign St
Lincoln Park .... DU 3-6307
Neb Harold Schoenberg, 5612 Charles St
Omaha 556-7131
Ohio Robert Domito, 3634 Corey Rd, Toledo 472-3141
Pa Laird Equipment Co, 1029 Twining Rd
Dresher .... TU 4-9198
Tex Hermes Plastics Dallas, Box 18597
Dallas .... DA 8-8131
Utah Todd Machinery, 165 S 4th W
Salt Lake City .... DA 2-4663
Can Hermes Plastics Ltd, 1015 St Alexandre
Montreal 861-0222
Can Hermes Plastics Ltd, 65 Kipling Ave S
Toronto 18 239-4833

HERMETIC SEAL CORP, DIV STERLING ELCTNS CORP
4232 TEMPLE CITY BLVD, ROSEMEAD
CAL, 91770, TWX 910-587-3352 .... 213 CU 3-0411
E HARRISON, EMP 120, ENG 11, $1,000-$2,500M
Ariz Sam O Rush Jr, 4315 E St Joseph Way
Phoenix 273-1421
Cal Vistronics, 6158 Mission Gorge Rd
San Diego 283-3946
Mass Lundy Sales Corp, 694 Main St
Waltham .... TW 3-6064
Minn R G Ragon Inc, 1136 W Larpenteur Ave
St Paul 488-6634
NJ Hermetic Seal Corp, 75 Rutgers St
Belleville .... PL 9-7474
NY Willgold Electronic Sales, 100 N Village Ave
Rockville Center .... RO 4-4022
Tex Texport Co, 2411 Farrington St, Dallas .... ME 1-6270

HERMETITE CORP, 100 LADGE DR, AVON
MASS, 02322 .... 617 583-7000
A BROOKS, EMP 245, ENG 6, $2,500-$5,000M
Cal Charter Industrial Sales Co, Box 3202
Granada Hills 360-2295
Ill Robt Bernstein Sales Co, 9009 Golf Rd
Des Plaines 312 824-7526
Minn K L Tannehill Inc, 7800 Computer Ave
Minneapolis 612 927-5681
NJ B Cameron Assoc, 3 Elaine Ct
Hillsdale 664-2525
NY KBC Engineering Co, 300 Northern Blvd
Great Neck 516 466-5711
Ohio Mike Roth Sales Co, 678 S Green Rd
Cleveland 216 382-9090
Pa Arnold Ratner Assoc, 301 York Rd
Jenkintown 215 887-5250
RI Milton Paisner Assoc, 532 Elmgrove Ave
Providence 521-3522
Tex Delzell & Evans Assoc, Box 35093
Dallas 214 351-1839
For P Schwartz, 2360 Mantha St
Montreal, Que 514 744-4041

HERSEY-SPARLING METER CO
4097 N TEMPLE CITY BLVD, EL MONTE
CAL, 91731 .... 213 CU 3-7101
I STEAD, EMP 23, ENG 6, $2,500-$5,000M
Cal Hersey-Sparling Meter Co, 1310 Bayshore Hwy
Burlingame .... DI 4-2575
Colo Goble, Sampson Assoc, 5505 E Evans Ave
Denver;757-4971
Fla Hersey-Sparling Meter Co, 7340 Arble Dr
Jacksonville .... RA 4-9447
Ga Hersey-Sparling Meter Co, 101 Marietta St
Atlanta .... JA 3-7255
Haw Lewers & Cooke, 404 Piikio St, Honolulu 575-961
Ill Hersey-Sparling Meter Co, 1025 Criss Circle
Elk Grove Village 439-7700
Mo Hersey-Sparling Meter Co, 6 E llth St
Kansas City .... VI 2-4730
NJ Hersey-Sparling Meter Co, 401 Main St
Little Ferry 489-0707
Ohio Hersey-Sparling Meter Co, 1276 W 3rd St
Cleveland 241-1813
Tex Hersey-Sparling Meter Co, 3191 Commonwealth Dr
Dallas .... ME 1
Utah Hersey-Sparling Meter Co, 550 S 2nd St W
Salt Lake City 364-3282
Wash Hersey-Sparling Meter Co, 1800 Westlake Ave N
Seattle .... AT 3-9921

HERTZ FILTER CORP, 50 WASHINGTON AVE
GARDEN CITY PARK, N Y, 11040 .... 516 PI 7-7250
B DWORKIN, EMP 25, ENG 2, $100-$250M

HEUER ELECTRONICS CORP, 69 CONNECTICUT AVE
NORWALK, CONN, 06854 .... 203 853-2792
R ESSLINGER, EMP 7, ENG 3, $100-$250M
NY Heuer Time Corp, 441 Lexington Ave
New York .... OX 7-2150
Swit Heuer-Leonidas S A, Bienne

HEVI-DUTY ELECTRIC DIV SOLA BASIC INDUSTRIES
BOX 268, GOLDSBORO
N C, 27530, TWX 5109245285 .... 919 734-8900
W A FELDKIRCHER, EMP 725, ENG 43, OVER
$10,000M
Ala Morrison & Stewart, Box 57046
Birmingham 879-8576
Ariz W C Osborn Co, 5305 D N 7th St
Phoenix 279-5556
Cal W E Starr & Co, 5440 Pomona Blvd
Los Angeles 685-5670
Cal Melchior & MacPherson, 820 B Cherry St
San Carlos 591-7383
Cal Campbell George Co, Box 1462
Sacramento 489-4195
Cal Campbell & George Co, 840 Mahler Rd
Burlingame 697-2965
Colo Electric Lines, Inc, 1480 W 3rd Ave
Denver 222-2587
Conn H W MacLeod Co, 105 Cheney La
East Hartford 568-5123
Conn H W MacLeod Co, 33 Tunxis Rd
West Hartford 521-1127
Fla L W Shaw Sales Agency, Box 273
Clearwater 584-3175
Fla L W Shaw Assoc, 2727 Phyllis St
Jacksonville 388-0351
Fla L W Shaw Assoc, Box 141
N Miami Beach 448-1772
Fla Morrison & Stewart, Box 4157
Pensacola 455-5418
Ga Robt B Paul Co, 1209 Logan Circle NW
Atlanta 355-4566
Haw Specialty Products, 1168 Waimanu St
Honolulu 512-644
Ill Custom Electrical Systems, 4821 Main St
Skokie 679-1424
Ill Clagett Engrg Sales Co, 420 Ellis Ave
Rockford 965-4555
Ind Lester Sales Co, 4040 S Meridian St
Indpls 787-8301
Iowa DECO Engineering Products Inc, 1112 Locust St
Des Moines 288-5721
Ky Fron Paran Assoc, 1941 Bishop La
Louisville 451-6769
La Al Levin, 1201 S Front St, New Orleans 524-8489
Md Haacke & Assoc, 3438 Chestnut Ave
Baltimore 889-7875
Mass H W MacLeod Co, 11 Stillings St
Boston .... LI 2-1910
Mich Electrical Assoc Inc, 6 Andre St
Grand Rapids 452-9613
Mich Dynamic Industrial Sales, 20017 J Couzens Hwy
Detroit 342-3232
Minn Dan D Heimer Agency, 12864 Fillmore St NE
Anoka 781-7144
Mo Charles Dunn, 2 E Gregory Blvd
Kansas City 444-6212
Mo Petefish Engr Co, 10702 Manchester Rd
St Louis 968-0300
Neb Electric Specialties, Box 14042 W Omaha Sta
Omaha 393-5535

NJ R L Brown, 663 Pennsylvania Elizabeth ... FL 1-0250
NM Hallek Sales Co, 7120 Dellwood Rd NE Albuq ... 298-3114
NY Frank Sweeney, 520 Oak St, Syracuse ... GR 5-0662
NY H C Zang, 64 Prairie St, Buffalo ... TR 7-3677
NY R L Brown & Assoc, Box 1051 New York ... 351-0250
NC Glenn & Larson, 1321 E Morehead St Charlotte ... 334-3994
Ohio W W Baerbalck, 1717 Section Rd Cincinnati ... 631-2618
Ohio Wagner-Green, 12808 Drexmore Rd Cleveland ... LO 1-4670
Ohio W W Baerbalck & Assoc, 6075 Romaine Dr Dayton ... 274-4821
Okla Harold Furtney, Box 7081 Southside Sta Tulsa ... RI 7-6490
Ore Northwestern Agencies, 3950 SW Elmran Dr Lake Oswego ... 636-5777
Pa J W Biernbaum, Box 7142 Philadelphia ... ME 5-1030
Pa Robinson-Kopp Co, Box 8358 Pittsburgh ... 271-1000
Pa J Fite, 400 Bethlehem Pike Philadelphia ... 248-3171
Pa J Petro, 2244 S Poplar St, Allentown ... 797-4036
Tenn Ross D Thomas Co, 111 Racine St Memphis ... 458-7569
Tenn Robert B Paul Co, Woodcrest Ave Cleveland ... 476-7155
Tex King Sales Co, 4801 Richmond Ave Houston ... 621-6915
Tex Ed R Boruch, 2415 Converse St Dallas ... ME 1-0276
Utah Bolton & Pack, Box 6079 Salt Lake City ... 484-8871
Va Lynn R Morris, Box 349, Salem ... 389-5798
Va Michael S Juhasz, Box 67, Vienna ... 938-0003
Va Epperson & Dull Co, 1103 E Main St Richmond ... 643-2126
Wash Northwestern Agencies, 4130 1st Ave S Seattle ... MA 3-8883
W Va P M Gandy, Box 6297 Stonewall Sta Charleston ... 344-3479
Wis Walter M Braun, 5401 N Hollywood Milwaukee ... ED 2-1040
Can Sola-Basic Products Ltd, 377 Evans Ave Toronto ... 255-0141
BC Elec Power Equip Ltd, 1285 Homer St Vancouver ... 682-4221

HEWLETT-PACKARD, 1501 PAGE MILL RD, PALO ALTO
CAL, 94304, TWX 910-373-1267 ... 415 326-7000
J PETRAK, EMP 12000, ENG 1,500, OVER $10,000M
ADV PG 232, 266, 421, 546, 572, 574, 575, 576, 657, 689
Ala Hewlett Packard, 2003 Byrd Spring Rd S W Huntsville ... 881-4591
Ariz Hewlett Packard, 5737 E Broadway Tucson ... 298-2313
Ariz Hewlett Packard, 3009 N Scottsdale Rd Scottsdale ... 945-7601
Cal Hewlett Packard, 3939 Lankershim Blvd N Hollywood ... 877-1282
Cal Hewlett Packard, 2591 Carlsbad Ave Sacramento ... 482-1463
Cal Hewlett Packard, 1055 Shafter St San Diego ... 223-8103
Cal Hewlett Packard, 1101 Embarcadeo Rd Palo Alto ... 327-6500
Colo Hewlett Packard, 7965 E Prentice Englewood ... 771-3455
Conn Hewlett-Packard, 508 Tolland St East Hartford ... 289-9394
Conn Hewlett-Packard, 111 E Ave, Norwalk ... 853-1251
Del Hewlett-Packard, 3941 Kennett Pike Wilmington ... 655-6161
Fla Hewlett Packard, 621 Commonwealth Ave Orlando ... 841-3970
Fla Hewlett Packard, 410 150th Ave St Petersburg ... 391-0211
Fla Hewlett-Packard, 9999 N E 2nd Ave Miami Shores ... 758-3626
Ga Hewlett Packard, 2340 Interstate Pky Atlanta ... 436-6181
Ill Hewlett Packard, 5500 Howard St Skokie ... 677-0400
Ind Hewlett Packard, 4002 Meadows Dr Indianapolis ... 546-4891
La Hewlett Packard, 1942 Williams Blvd Kenner ... 721-6201
Md Hewlett Packard, 6707 Whitestone Rd Baltimore ... 944-5400
Md Hewlett Packard, 2 Choke Cherry Rd Rockville ... 948-6370
Mass Hewlett Packard, 32 Hartwell Rd Lexington ... 861-8960
Mich Hewlett Packard, 24315 Northwestern Hwy Southfield ... 353-9100
Minn Hewlett Packard, 2459 University Ave St Paul ... 645-9461
Mo Hewlett Packard, 9208 Wyoming Pl Kansas City ... 333-2445
Mo Hewlett Packard, 2812 S Brentwood Blvd St Louis ... 644-0220
NJ Hewlett Packard, 1050B N King Hwy Cherry Hill ... 609 667-4000
NJ Hewlett Packard, W 120 Century Rd Paramus ... 201 265-5000
NM Hewlett Packard, 6501 Lomas Blvd NE Albuquer ... 255-5586
NM Hewlett Packard, 156 Wyatt Dr Las Cruces ... 526-2485
NY Hewlett Packard, 82 Washington St Poughkeepsie ... 454-7330
NY Hewlett Packard, 39 Saginaw Dr Rochester ... 473-9500
NY Hewlett Packard, 5858 E Molloy Rd Syracuse ... 454-2486
NY Hewlett Packard, 1219 Campville Rd Endicott ... 754-0050
NY Hewlett-Packard, 1025 Northern Blvd Roslyn ... 869-8400
NY Hewlett Packard, 1702 Central Ave Albany ... 869-8462
NC Hewlett Packard, 1923 N Main St High Point ... 882-6873
Ohio Hewlett Packard, 5579 Pearl Rd Cleveland ... 884-9209
Ohio Hewlett Packard, 3460 S Dixie Dr Dayton ... 298-0351
Okla Hewlett-Packard, 2919 United Founders Blvd Oklahoma City ... 848-2801
Ore Hewlett-Packard, 4475 SW Schools Ferry Rd Portland ... 292-9171
Pa Hewlett Packard, 144 Elizabeth St W Conshohocken ... 248-1600
Pa Hewlett Packard, 2500 Moss Side Blvd Monroeville ... 271-0724
Tex Hewlett Packard, 4242 Richmond Ave Houston ... 667-2407
Tex Hewlett Packard, 225 Billy Mitchel Rd San Antonio ... 434-4171
Tex Hewlett Packard, 201 E Arapahoe Rd Richardson ... 231-6101
Utah Hewlett Packard, 2890 S Main St Salt Lake City ... 486-8166
Va Hewlett Parkard, 2111 Spencer Rd Richmond ... 282-5451
Wash Hewlett Packard, 433-108th NE Bellevue ... 454-3971
Can Hewlett-Packard Can Ltd, 880 Lady Ellen Pl Ottawa, Ont ... 722-4223
Can Hewlett-Packard Can Ltd, 1415 Lawrence Ave Toronto, Ont ... 249-9196
Can Hewlett-Packard (Canada)Ltd, 7001 Mumford Rd Halifax, N S ... 902 455-0511
Can Hewlett-Packard (Canada) Ltd, 11745 Jasper Ave Edmonton, Alb ... 482-5561
Can Hewlett-Packard Can Ltd, 275 Hymus Blvd Pointe Claire, Que ... 697-4232
For Unilabor HmbH, Rummelhardtgasse 6/3 Vienna, Aust ... 426 181
For Hector Calcagni, Casilla 13942 Santiago, Chile ... 490-505
For Telecom Ltd, Box 1812 Teheran, Iran ... 43850, 48111
For American Trading Co Korea Ltd 112-35 Sokong-Dong, Jung-Ku, Seoul ... 3-7049
For Telectra, Rua Rodrigo da Fonseco 103 Lisbon, Port ... 68 60 72
For San Juan Electronics Inc Pta de Tierra Sta, Box 5167 San Juan PR ... 725-3342
For Hwa Sheng Electronic Co Ltd, 21 Nanking West Rd Taipei, Taiw ... 4-6076
For TELEKOM Engineering Bureau, Box 376 - Galata Istanbul ... 49 40 40
For C E Macridis, Clemenceau St, Beirut, Leb ... 220846
For Mushko & Co, 31, Jinnah Ave Dacca, E Pak ... 80058
For Fernando Ezeta B, Av Petit Thouars 4719 Casilla 3061 Lima Peru ... 5-0346
For Mushko & Co Ltd, Victoria Rd Karachi 3, W Pak ... 51027, 52927
For Olander Assoc Latin Amer, 7a Calle, 0-22, Zona 1 Guatemala CITY, Guat ... 22812
For Roberto Teran G, Aptdo Postal 689 Managua, Nic ... 3451
For Electronico Balboa, SA, Box 4929 Panama City, Pan ... 3-0833
For African Salespower & Agency, Box 718 Addis Ababa, Ethiopia ... 12285
For Schmidt & Co. (Hong Kong) Ltd 1511 Prince's Bldg, Hong Kong ... 240168
For R J Tilbury Ltd, Hotel Ambassadeur Nairobi, Kenya ... 25670
For Intl Engineering Co, Ltd, 614 Sukhumvit Rd Bangkok, Thail ... 910722
For Pablo Ferrando SA Comercial e Indus Casilla de Correo 370 Montevideo, Urug ... 40-31-02
For Instrumentacion H A Langebaek, Aptdo Aereo 6287 Bogota, Col ... 45-78-06
For Lic Al Gallegos Gurdian, Apartado 3243 San Jose, CR ... 21-86-13
For Electronica, 27 Ave Norte 1133 San Salvador, El Salv ... 25 74 50
For Hewlett-Packard de Ven C. A. Avda. Francisco de Miranda Chacaito, Caracas ... 71 88 05
For Lab de Radio-Ingenieria, Calle Guayaquil 1246 Quito, Ecuador ... 12496
For United Electricals Ltd, Staples St Colombo 2, Ceylon ... 5496
For Kypronics, 19 Homer Ave Nicosia, Cyprus ... 6282-75628
For Mecomb Malaysia Ltd, 2 Lorong 13-6A, Sec 13 Petaling Jaya, Selangor, Mal
For Mechanical & Combustion Eng Co Ltd 9, Jalan Kilang, Singapore 3 ... 642361-3
For Landis Brothers & Co Inc, 216, Hien-Vuong Saigon, Vietnam ... 20.805
For R J Tilbury (Zambia) Ltd, Box 2792 Lusaka, Zambia, Cen Afr
Den Hewlett-Packard A/S, Langebjerg 6 2850 Naerum ... 01 80 40 40
Fr Hewlett-Packard France, 150 Blvd Massena Paris 13e ... 707 97 19
Fr Hewlett Packard France, 4, Quai des Etroits 69 Lyon 5e Rhone ... 42 63 45
Ger Hewlett Packard Vertriebs GmbH, Kurhessenstr 95 6 Frankfurt 50 ... 52 00 36
Ger Hewlett Packard Vertriebs GmbH, Reginfriedstr 13 8 Munich 9 ... 69 51 21/22
Ger Hewlett Packard Vertriebs GmbH Herrenberger Str 110 703 Boblingen Wurttemberg ... 07031 6671
Ger Hewlett Packard Vertriebs GmbH Lietzenburger Sr 30, 1 Berlin W 30 ... 24 86 36
Ger Hewlett Packard Vertriebs GmbH, Achenbachstr 15 4 Dusseldorf 1 ... 68 52 58
Ger Hewlett Packard Vertriebs GmbH Beim Strohhause 26, 2 Hamburg 1 ... 24 05 51/52
GB Hewlett Packard Ltd, 224 Bath Rd Slough, Bucks ... 28406-9
Ital Hewlett-Packard Ital SpA, Viale Lunigiana 46 Milan ... 69 15 84
Ital Hewlett-Packard Ital SpA, Piazza Marconi, 25 Rome-Eur ... 591-2544
Jap Yokogawa-Hewlett-Packard Ltd 59, 1-Chome, Yoyogi Shibuya-Ku Tokyo ... 370-2281
Jap Yokogawa-Hewlett-Packard Ltd, 59, Kotori-Cho Nakamura-ku, Nagoya City ... 551-0215
Jap Yokogawa-Hewlett-Packard Ltd 2-2-8, Kasuga, Ibaragi-shi Osaka ... 0726-23-1641
Nor Hewlett-Packard Norge A/S, Nesveien 13 Haslum ... 53 83 60
SAfr F H Flanter & Co Pty Ltd, 43 Somerset Rd Cape Town ... 2-9711
SAfr F H Flanter & Co (Pty) Ltd, 80 Jorissen St Braamfontein, Johannesburg ... 724-4172
Swed H P Instrument AB, Hagakersgatan 7 Molndal ... 27 68 00
Swed H-P Instrument AB, Svetsarvagen 7, Fack Solna ... (08) 98 12 50
Swit Hewlett Packard S A, 54 Rte des Acacias Geneva ... 42 81 50
Swit Hewpak AG, 8952 Schlieren Zurich ... (051) 98 18 21
Arg Mauricio A Saurez, Carlos Calvo 224 Buenos Aires ... 30-6312
Arg Hewlett-Packard Arg SACel, Lavelle 1171-3 Buenos Aires ... 35-0436
Arg Lutz, Ferrando y Cia. S. A., Florida 240 (R.5) Buenos Aires ... 46-7241
BC Hewlett Packard Can Ltd, 304-1037 W Broadway Vancouver ... 731-5301
Belg Hewlett-Packard Benelux SA 348 Blvd du Souverain, Brussels ... 72 22 40
Belg Belram S A (Yugoslavia), 83 Ave des Mimosas Brussels ... 34 33 32
Braz Hewlett-Packard do Brasil leC Ltda Rua Coronel Oscar Porto 691 Sao Paulo 8 8 SP ... 71-1503
Braz Hewlett-Packard do Brasil leC Ltda Ave Franklin Roosevelt 84-grupo Rio de Janeiro, ZC-39 GB ... 32-9733
Gr Inteco Technical Agencies, Skoufa 15 Athens 136 ... 631 072
Ind Scientific Instr Co Ld, 6 Tej Bahadur Sapru Rd Allahabad 1 ... 2451
Ind Scientific Instr Co Ld, 240 Dr Dadabhai Naoroji Rd Bombay 1 ... 26-2642
Ind Scientific Instr Co Ld, 11 Esplanade E Calcutta 1 ... 23-4129
Ind Scientific Instr Co Ld, 30 Mount Rd Madras 2 ... 86339
Ind Scientific Instr Co Ld, B-7 Ajmeri Gate Ext New Delhi 1 ... 271053
Isrl Electronics & Eng Ltd, 16 Kremenetski St Tel Aviv ... 35021
Mex Hewlett-Packard Mex, SA de CV, Eugenia 408 Mexico 12, DF ... 43 03 79
Neth Hewlett-Packard Benelux NV, de Boelelaan 1043 Amsterdam 2 2 ... 42 77 77
NZ Hewlett-Packard (NZ) Ltd, 32-34 Kent Terr Wellington ... 56-409
Spn Ataio, Ingenieros, Enrique Larreta 12 Madrid, 16 ... 235 43 44
Spn Ataio Ingenieros, Urgel 259 Barcelona 11 ... 230-69-88
Fin Hewlett-Packard OY, Byldenintie 3 Helsinki 20 ... 67 35 38
Aust Hewlett-Packard Austr Pty Ltd, 61 Alexander St Crows Nest 2065 NSW ... 43.7866
Aust Hewlett-Packard Austr Pty Ltd, 22-26 Weir St Glen Iris 3146 Vic ... 20 1371
Aust Hewlett-Packard Austr Pty. Ltd., 97 Churchill Rd Prospect 5082, S Austr ... 65.2366

HEXACON ELECTRIC CO, 130 W CLAY AVE
ROSELLE PARK, N J, 07204 ... 201 245-6200
J GRINDROD, EMP 130, ENG 4
Cal Dillon Stevens & Co, 1610 S Bonnie Brae St Los Angeles ... 747-9221
Cal Dillon Stevens & Co, 833 Mahler Rd Burlingame ... 697-3022
Colo Bax & Co, 2186 S Holly St, Denver ... 756-1804
Conn HDQ & H V Neff, RR 2, Woodstock ... WA 8-4249
Fla Willard Ihlefeld Assoc, 1201 San Marco Blvd Jacksonville ... FL 9-5282
Ill Geo R Hamilton, 1300 Rosalie St Evanston ... UN 4-8220
Ill E M F Co, Inc, 6135 W Belmont Ave Chicago ... 889-8323
Mich Gene Zaiser, 157 S Budlong, Hillsdale ... HE 7-4589
Minn Vernon Gummert, Box 281, Winona ... 2167
NJ Hunt Assoc, Box 98, Cherry Hill ... HA 8-6666
NY Fish Assoc, 149 Roosevelt Dr, Utica ... RE 2-1008
NY Dunn & Bryan, 28 Warren St New York ... WO 4-8091
Tex P J Scanlon Co, 724 C S Sherman Richardson ... AD 1-4661
Wash Bill Waddell Co, 10211 N E 31st Pl Bellevue ... VA 2-9629
Can Adlam Tool & Supply Co, 10 Ronald Dr Montreal ... 482-2548
For Lincoln Export Co, 36 Pearl St New York, NY ... DI 4-0210

For J A Fernandez, Ponce de Leon 400 Stop 7
Puerta de Tierra, PR 724-2854

HEXCEL, 11711 DUBLIN BLVD, DUBLIN
CAL, 94566 .... 415 828-4200
A MARSHALL, OVER $10,000M
Cal Hexcel, 15100 S Valley View
La Mirada 213 773-4230
Cal Hexcel, 9800 S Sepulveda Blvd
Los Angeles 213 776-6700
Md Hexcel, Old Post Rd, Havre de Grace ... WE 9-2900
Mo Hexcel, 4378 Lindell Blvd
St Louis 314 652-9066
Tex Hexcel, 1106 Hwy 360, Grand Prairie 274-2578
Wash Hexcel, 108th Ave NE, Bellevue 206 455-0418

HEYBOER TRANSFORMERS, 17382 HAYES ST
GRAND HAVEN, MICH, 49417 .... 616 842-5830
M HEYBOER, EMP 50, ENG 2, $250-$500M
Ill W S Patterson Co Inc, 5604 N Western Ave
Chicago .... AR 13774
NY E Schwartzman, 135 Sperry Blvd
New Hyde Park .... FL 44996

HEYMAN MFG CO, KENILWORTH
N J, 07033 .... 201 245-2345
J HOLDER, EMP 100, ENG 4, $2,500-$5,000M
Cal Fisher Switches Inc, 3199 Park Blvd
Palo Alto .... 415 DA 1-4080
Cal Heyman Mfg Co, 1611 S Robertson Blvd
Los Angeles 213 272-0049
Colo Fred A Pease Co, Box 31246
Aurora 303 364-9391
Fla Buchanan & Abrams Assoc, 1512 E Concord Ave
Orlando 423-8995
Ga Buchanan & Abrams Assoc, Northside Sta
Atlanta WX-1300
Ohio Heyman Mfg Co, 12429 Cedar Rd
Cleveland 216 462-2969
Ore Pacific Electric Sales Co, 140 SE 28th Ave
Portland 503 235-4137
Tex W P Schoenfield, 4407 Northcrest Rd
Dallas 214 352-2233
Wis Heyco Products Inc, 200 Albert St
Waukesha .... 414 LI 2-7155
Can Cords (Canada) Ltd, 220 Bowie Ave
Toronto 416 787-1114
Fr So Pa Im Ex S A, 66 Rue Dulong
Paris XVII 267-39-22
Ger Tucker-Metal/Waren, Max-Eyth-Str 1
Postfagh 21329 6300 Giessen 77451
Jap Hakuto Co Ltd, Box 25, Tokyo Central 503 3711

H H CONTROLS CO INC, 16 FROST ST, ARLINGTON
MASS, 02174 .... 617 272-3298
J SABO, EMP 7, ENG 3, UP TO $100M
Cal Tucul Engineering Co, 6402 Crenshaw Blvd
Los Angeles 750-0338
Cal Electro-Pacific, 2524 Franklin St
San Francisco 415 776-8582
Cal Tucul Engineering Co, 6402 Crenshaw Blvd
Los Angeles 750-0338
Mass Cambridge Scientific Corp, 69 Pearl St
Cambridge 491-3850
Vt H Seward & Co, S Main St, Bethel
For Madison Overseas Inc, 10 Fiske Pl
Mt Vernon,NY .... OW 9-5633
Jap Eastern Trading Corp, 3-6, 2-chome Uchikanda
Chiyoda-ku, Tokyo 251 1016

H & H SCREW PRODUCTS MFG CO
GEO WASHINGTON HWY, ASHTON
R I, 02864 .... 401 724-2000
F LOWE, EMP 140, ENG 8, $1,000-$2,500M
Ind George C Jerman, 115 E 16th St
Columbus 372-7131
Mich W T Peterson Co, 22100 Vandyke
Warren 754-8600
NJ C D Baringer, Box 337, Ridgewood 445-8660
Pa J M Sullivan, 122 York Rd
Jenkintown 215 887-2676
RI R H McKenney, 140 North Rd
Saunderstown .... CY 4-3234

HI-ALTITUDE INSTRUMENT CO, INC., 1560 S OTIS ST
DENVER, COLO, 80226 .... 303 922-2712
A GODDARD, JR, EMP 6, ENG 2, UP TO $100M

HICKOK ELECTRICAL INSTRUMENT CO, 10514 DUPONT AVE
CLEVELAND, OHIO, 44108, TWX 810-421-8286 ... 216 541-8060
K PETERSEN, EMP 700, ENG 90, OVER $10,000M
ADV PG 231, 397, 447, 791
Cal Hickok Electrical Instr Co, 46 Traynor St, No 1
Hayward .... LU 2-7179
Cal Hickok Electrical Instr Co, 1124 W Magnolia Blvd
Burbank 842-2145
Colo Gordon Moss Electronics, 1530 13th Ave
Greeley 353-1452
Colo Gordon Moss Electronics, Box 26172
Denver 985-8815
Fla Hollingsworth & Still, Inc, 1010 Executive Ctr Dr
Orlando 841-1623
Ga Hollingsworth & Still Inc, 3098 Piedmont Rd NE
Atlanta 261-5838
Haw G Piety Factors Inc, 160 Mokauea St
Honolulu 810-185
Ill Hickok Electrical Instr Co, 7416 W Belmont Ave
Chicago 237-1373
Ind Morris-Cunningham Assoc, 720 E 65th St
Indianapolis 317 634-2665
Kan Lowell, Kangas & Assoc Inc, Box 4116
Overland Park .... TU 8-3200
Mass Johnson Assoc, 81 Merrimack St
Lowell .... GL 2-0413
Mass Johnson Assoc, 471 Washington St
Wellesley Hills 235-3977
Minn N J Laub Co, 3749 Broadway W
Mnpls .... JU 8-4663
Mo Kelly-Schmitz-Winkeler, 2319 Hampton Ave
St Louis .... ST 1-6111
NJ Hickok Electrical Instr Co, 117 Gertrude Ave
Paramus 843-2070
NM Gordon Moss Electronics, Box 344
Albuquerque 505 345-1251
NY R W Mitscher Co Inc, 496 Ellicott Sq Bldg
Buffalo .... TL 4-2517
NC Hollingsworth & Still Inc, 6717 Woodstock
Charlotte 523-3327
Ohio Hickok Electrical Instr Co, 10514 Dupont Ave
Cleveland 541-8060
Tex Hays Co, Box E, Richardson 231-1426
Tex H Lieberman Sales Co, Box 66216
Houston 713 523-9545
Va R W Mitscher Co Inc, 3100 Basin Ct
Virginia Beach 703 464-9039
For Hughes Intl Sales, 11220 S Hindry Ave
Los Angeles 213 670-1515

HICKOK TEACHING SYSTEMS INC
545 TECHNOLOGY SQUARE, CAMBRIDGE
MASS, 02139 .... 617 868-5540
S TAYLOR, EMP 50, ENG 9, $2,500-$5,000M
Ala C Baggett, 1236 Vista La, Birmingham ... 822-4482
Cal K Hecht, 303 N Harbor View
San Pedro .... TE 2-5053
Ill R Johnson, 7416 W Belmont Ave
Chicago 237-1373
Mo Wm Hatina, 145 St Cheryl St
Florissant .... TE 7-3310
NY R Vowell, 275 Warren Ave, Rochester ... CH 4-2161

HIGBIE MFG CO, WAGNER RD, ROCHESTER
MICH, 48063, TWX (313) 651-856 ...... 313 651-5300
E ROBINSON, EMP 460, ENG 12, OVER $10,000M
Cal E Jordan Brookes Co Inc, 6601 Telegraph Rd
Los Angeles 723-8431
Tenn Cap-I-Tol Sales, Box 3617, Nashville 758-5635
Tex W P Schoenfield, 4407 Northcrest Rd
Dallas 352-6200
GB Fulton (TI) Ltd, Green La, Walsall, Staffs
Jap Sanoh Industrial Co Ltd
19, 1-Chome, Kanda-Tuckasacha
Chiyoda-Ku, Tokyo
SAfr A G Jorgensen Pty Ltd, Box 133, Bramley, TVL
Mex Nacional De Cobre, S A, Poniente 134 N, 719
Col Industrial Vallejo 470-165

HIGH ENERGY INC, MALVERN IND PARK, MALVERN
PA, 19355 .... 215 NI 4-7600
R BUSS, EMP 35, ENG 3, $100-$250M

HIGHTEMP RESINS INC, 225 GREENWICH AVE
STAMFORD, CONN, 06902 .... 203 325-4124
H ISBENJIAN, EMP 7, ENG 2, $100-$250M

HIGH VACUUM ELECTRONICS INC, 538 MISSION ST
SOUTH PASADENA
CAL, 91030, TWX 910/588-3765 .... 213 682-3661
J DYSART, EMP 45, ENG 7, $500-$1,000M
Ala Holcombe Sales Agency, 201 Homewood Dr SW
Huntsville 205 881-3175
Ariz Compar Rocky Mtn, Box 1607
Scottsdale 947-4336
Cal Compar San Francisco, 1817 Bayshore Hwy
Burlingame 697-6244
Cal Rep Assoc, 1645 S La Cienega
Los Angeles 213 274-8485
Cal Rep Assoc, 1744 W Lincoln Ave
Anaheim 714 828-1344
Conn Compar New England, 2357 Whitney Ave
Hamden 288-9276
Fla Holcombe Sales Agency
2827 Cullen Lake Shore Dr, Orlando 855-2455
Ga Holcombe Sales Agency, 3098 Piedmont NE
Atlanta 233-2837
Ill Gassner & Clark, 6644 No Western Ave
Chicago 312/764-6121
Iowa Howard R Brown Sales Co, 3400 Indian Rd SE
Cedar Rapids 319 366-0635
Kan Maury E Bettis Co, 423 N Fountain
Wichita 685-7441
Md Biechler Assoc, 7353 Yorktowne Dr
Towson 825-8222
Md Biechler Assoc, 822 Baltimore Rd
Rockville 301 762-6210
Mass Compar New England, 88 Needham St
Newton Highlands 969-7140
Minn Engineering Prod Assoc, 2119 Grand Ave
St Paul 698-5531
Mo Strothers & Assoc, 6050 Brown Rd
St Louis 521-5100
Mo Maury E Bettis Co, 3706 Broadway
Kansas City 561-0772
NM Compar Rocky Mtn, 2125 San Mateo Blvd N E
Albuquerque 265-1020
NY Trionic Assoc, 320 Northern Blvd
Great Neck 466-2300
NY Robt F Lamb Co, 63 Norcrest Dr
Rochester 716 544-5580
NY Robt F Lamb Co, 1865 Kenmore Ave
Buffalo 716 874-4900
NY Robt F Lamb Co, E Molloy St
Syracuse 315 454-2469
NY Robt F Lamb Co Inc, Box 661, Uptown Sta
Kingston 914 338-8833
NC DGW,Inc, 3389 Nottingham Rd
Winston-Salem 919 723-4205
NC DGW, Inc, Box 6096, Charlotte 334-7090
Ohio Harvey Pipe, 5335 Far Hills
Dayton 513 434-7900
Pa Biechler Assoc, Box 414, Narberth ... 215 667-1827
Tex Hays Co, 777 S Central Expwy
Richardson .... 213 AD 1-1426
Wash Al Smith Co, 405 166th St SE
Bellevue 206 746-6770
Can Whittaker Elctn Ltd, 42 Howden Ave
Ottawa, Ont 224-1221
Can Whittaker Eletn Ltd, Box 216
Roxboro, Que 514 683-3621
Can Whittaker Eletn Ltd, 1885 Wilson Ave
Weston, Ont 247-7454
Den Carl Brincker, Skyttegade 7, Copenhagen
Fr Technique Et Produits, Cite Des Bruyeres
Rue Carle Vernet .... 92 Sevres
Ger Willy List Co, Franz Ricker Allee 42
6 Frankfurt am Main W 13
GB Walmore Elctns Ltd, 11 Betterton St
Drury La, London WC 2
Ital G G Gorgatti, Via Borromei 5, 20123 Milan
Jap Densho Kaisha Ltd, 7, 1 Chome
Shiba-Hammatsucho, Minato-Ku .... Tokyo
Swed Aktiebolaget Bromanco AB, Eriksbergsgatan 32
Stockholm O
Swit R F Bettosini, Elfenauweg 5, CH-3000, Bern
BC Whittaker Elctn Ltd, 1144 Millstream Rd
West Vancouver, B. C. 926-3411
Belg N V Nijkerk, Intl Rogier Centre Bureau 725
Brussels 1
Isrl S T G Intl Ltd, Box 1276, Tel Aviv
Neth Nijkerks Handelsondernemitenveldert, Drentestr 7
Amsterdam-Buitenveldert
NZ Sample Elctns Pty Ltd, 8 Matipo St
Onehunga, Auckland
Aust Sample Elctns Pty Ltd, 9-11 Cremorne St
Richmond E 1, Vic
Aust Sample Elctns Pty Ltd, 82 Alexander St
Crows Nest, N S W
Aust Sample Elctns Pty Ltd, 171 Gilbert St, Adelaide

HIGH VACUUM EQUIPMENT CORP, 2 CHURCHILL RD
HINGHAM
MASS, 02043, TWX 710-348-6981 ...... 617 749-9000
A COBB, EMP 70, ENG 5, $2,500-$5,000M
Cal Fieldtec Inc, 3822 Campus Dr
Newport Beach 714 540-4000
Ga Holcombe Sales Agency Inc, 3098 Piedmont Rd NE
Atlanta 404 233-2837
NY Bartlett Assoc Inc, 470 Mamaroneck Ave
White Plains .... 914 WH 9-6476
Ohio Aertronic Assoc, 5899 Huberville Ave
Dayton 513 253-8144
Tex Arnold Barnes Co, 740 S Sherman St
Richardson .... 214 AD 5-4541
Holl Mulder-Vogem, Industriaterrien
Nieuw-Vennep 2526-441
Holl High Vacuum/Mulder-Vogem, Industrieterrein
Nieuw-Vennep 2526-441

HIGH VOLTAGE ENGINEERING CORP, S BEDFORD ST
BURLINGTON
MASS, 01803, TWX 710-332-0245 ...... 617 272-1313
EMP 847, ENG 400, OVER $10,000M
Cal High Voltage Eng Corp, 703 Welch Rd
Palo Alto 328-2181
Mo High Voltage Eng Corp, 7710 Carondelet Ave
Clayton 863-3311

HIGH VOLTAGE POWER SUPPLY CO, 15820 STAGG ST
VAN NUYS, CAL, 91406 .... 213 780-5526
J COLLINS, EMP 5, ENG 2

HI-G INC, SPRING ST & RT 75, WINDSOR LOCKS
CONN, 06096 .... 203 623-2481
R CARROLL, EMP 450, ENG 21, $5,000-$10,000M
Ala Young & Lawrence Assoc, Inc
2907 Governors Dr S W, Huntsville 539-6575
Ariz Barnhill Assoc, 4900 E Indian School Rd
Phoenix 959-2115
Cal Brooks & Day Inc, 10700 Ventura Blvd
N Hollywood 877-3357
Cal James Heaton Co, 3695 Haven Ave
Menlo Park 369-4671
Colo Barnhill Assoc, 1170 S Sheridan Blvd
Denver 934-5505
Conn John E Boeing Co, Box 151, Branford 488-8301
Del Heller Sales Co, Box 293
Timonium 301 252-4780
Fla Hi-G Inc, 5342 Diplomat Cir
Orlando 305 645-0101
Ill Engineered Sales Co Inc, 4738 N Harlem Ave
Chicago 867-8434
Ind JEDCO, 4727 Fox Grove, Ft Wayne .. 219 483-4126
Mass John E Boeing Co, Box 5, Lexington 862-2500
Minn G E Arneson & Co, 4900 Viking Dr
Mnpls 920-2086
Mo Buse Sales Co, 212 N 2nd St
St Charles 739-1613
NJ Electra-Mec Assoc, 51 Carlos Dr
Fairfield 226-3968
NM Barnhill Assoc, 6101 Anderson St SE
Albuquerque 265-7766
NC Candor Co, Bethania 924-1480
Ohio Components Inc, 7461 N Linden La
Cleveland 216 842-2737
Ohio Compontents Inc, 11820 Knoll Springs
Cincinnati 513 721-2997

Tex Blackburn Assoc, Box 20073
Dallas 214 351-9991
Wash Allied Agencies, 1818 Westlake N
Seattle 284-4082
Can Anbak Assoc, Box 101
Ile Perrot Sud, Que 453-6375
Den A F Pedersen, 11 Nytorv, Copenhagen ..... MIN 641
Fr Spetelec, 12 rue Le Chatelier, Paris .... GA 1 05-23
GB Standard Tel & Cables, Ltd, West Rd Temple Fields
Harlow, Essex .... HAR 21341
Holl Bureau Koning & Hartman NV, Haagweg (LSD) 42
The Hague 685450
Ital Hi-G d'Italia, SpA, 276 Corso della Repubblica
Cisterna di Latina 969219
Jap Soshin Shoni Kaisha, Ltd, Box Nihon Bashi 173
Tokyo
Nor Datamatik A/S, Ostensjoveien 7, Oslo
SAfr Standard Tel & Cables, Ltd, Box 286
Boksburg, Transvaal
Swed Ajgers Elektronik AB, Fack, Stockholm 32 ... 464246
Belg Bur des Ingenieurs SA, 53 rue Gachard
Brussels 482655
Isrl Elina Ltd, 52 Nachlat Benjamin St
Tel Aviv 64568
Aust Standard Tel & Cables Pty, Ltd
252/274 Botany Rd, Alexandria, Sidney, n s w

HI-GRADE ALLOY CORP, 17525 S LAFLIN ST
EAST HAZELCREST, ILL, 60429 .... 312 798-8300
M GOLDBERGER, EMP 30, ENG 2
Cal Biztek Co, Box 211, Beverly Hills 766-4890
Fla Williams Assoc, Box 1204
Coral Gables 305 445-6640
Ill Electronic Sales Co, 6418 N Central Ave
Chicago 763-2131
Ind Frederick & Meily, 1601 S Hanna
Fort Wayne 219 241-4121
Minn Xylem Co, 322 S 4th St, Mnpls 335-5205
NY Gislason Sales Inc, 617 Case Bldg
Rochester 454-4741
RI H U Maxson, 54 Osage Dr
Warwick 401 463-8570
Wis R Rubinstein, Williams Dr, Cedarburg 377-5436
Can P J Hennan Ltd, 12 Doncliffe Dr
Toronto Ont 489-9558

HILLBURN RELAY CORP, 125 SCHMITT BLVD
FARMINGDALE, N Y, 11735 .... 516 CH 9-2020
A M FEIN, EMP 40, ENG 2, $100-$250M
Ill E Schmeichel Co, 5968 W Chicago Ave
Chicago 387-2070
NY Ossman Component Sls Co, 39 Saginaw Dr
Rochester .... LU 6-4940
Pa Bill Staats, 2766 Murray Ave, Cornwells Hgts

**HILL ELECTRONICS INC, 300 N CHESTNUT ST
MECHANICSBURG
PA, 17055, TWX 717-230-0506 .... 717 766-0291
L UPPERMAN, EMP 96, ENG 5, $1,000-$2,500M
ADV PG 238**
Cal O'Donnell Assoc, 1955B El Camino Real
Palo Alto 327-9260
Cal O'Donnell Assoc, 18053 Crenshaw Blvd
Torrance 323-9243
Conn Whitehead Assoc, 57 Whitefield St
Guilford 453-3762
Ill MQ & Assoc, 6713 N Oliphant Ave
Chicago 774-8844
Ind Scott Electronics Inc, 911 N Penna Ave
Indianapolis 317 635-8951
Ky Scott Electronics, Inc, 366 Francis Bldg
Louisville 583-3220
Md BE-Mar Assoc Inc, 120 Derwood Cir
Rockville 762-8880
Md Petefish-Kunkel Co, 9322 Manchester Rd
St Louis 314 968-0300
Mass Dan Greene Organization, Box 290
Bedford 617 275-6400
Minn Countryman, Wagner & Behnen Co
1955 University Ave, St Paul 645-9151
NJ Mesa Technical Assoc, Box 466
Haddonfield 429-9531
NY Frank Tylinski Co, 338 Northern Blvd
Great Neck 466-9070
NY James Semple Assoc, 21 Edgewater La
Rochester 342-1413
NY James Semple Co, 215 Fairmont Ave
Liverpool 457-1188
Ohio Scott Electronics, Inc, 1836 Euclid Ave
Cleveland 8612626
Ohio Scott Electronics Inc, 517 Hulman Bldg
Dayton 513 223-2652
Ohio Scott Electronics Inc, 9505 Montgomery Rd
Cincinnati 513 791-2513
Ohio Scott Electronics Inc, 81 E State St
Columbus 614 228-2313
Pa Be-Mar Assoc, 7217 Rising Sun Ave
Phila 215 728-6333
Tex Jacobson Co, Box 9702, Dallas 363-7584
Can Tech Assoc, 1262 Don Mills Rd
Don Mills, Ont 445-7490
For Telcolab Corp, Chrysler Bldg
New York, NY 697-9566

HILL INC E VERNON, 586 CASTRO ST
SAN FRANCISCO
CAL, 94114, TWX 910-372-6120 .... 415 626-6644
N PETERSON, EMP 9, ENG 2, $100-$250M

HILL MAGNETICS, INC, 2201 BAY RD, REDWOOD CITY
CAL, 94063, TWX 910-378-5419 .... 415 369-7351
O POTTER, EMP 95, ENG 9, $1,000-$2,500M

HILL RESEARCH CO, 49 BUCKEYE AVE, OAKLAND
CAL, 94618 .... 415 658-6808
G HILL, EMP 5, ENG 1
Haw Honolulu Electrical Prod Co, Honolulu
Pa Wm Goodridge, 3232 Brentwood Ave
Pittsburgh 881-5807
Aust Chas M Terry, Pty Ltd, 115 Pitt St, Sydney

HI-LO MFG CORP, 1122 W NEWPORT AVE, CHICAGO
ILL, 60657 .... 312 477-1890
R SCHULTZ, EMP 20, ENG 1, $250-$500M
Ala Norman/Russell Assoc, 3040 Whispering Pine Cir
Birmingham
Cal Meyer Ross & Fleming, 113 10th St, San Francisco
Colo Electro-Tek Sales, 3699 W 73rd Ave, Westminister
DC Poff Electronic Sales, 4 W Penfield Rd, Ellicott City
Fla Mac-Jon Assoc, Box 8532, Orlando
Ind Ken White Assoc, 465 E Hanley Rd, Mansfield
Iowa L & R Co, 132 Colfax St, Council Bluffs
Mass L G Abysall, 118 Heywood St, Worcester
Minn John E M Anderson, 5231 Humboldt Ave S
Minneapolis
Mo R J Throckmorton Sales Co, 1042 N Clay Avw
St Louis 966-4555
NY Erde-Haviland Assoc, 333 Hempstead Ave, Malverne
Ore Electronic Sales Co, Box 3252, Portland
Pa L T Benner, 520 W Market St, Bethlehem
Tex Southwest Electronic Assoc, Box 31156
Dallas .... EM 3-8446
Wash Electronic Sales Co, Box 6535, Seattle

HILTON INC, H H, 190 MAPLE ST, GLENS FALLS
N Y, 12801 .... 518 793-3473
P AARONS, EMP 75, ENG 2, $1,000-$2,500M
Ill Ellinger Sales Corp, 6580 Northwest Hwy
Chicago 763-1570
Mass Samuel Hooker Inc, 2 Winchester Pl
Winchester 617 729-5482
NJ Simberkoff Sales, Inc, 71 Valley St
South Orange 763-7900
Ohio Rockford Controls Ohio Inc, 2077 Embury Park Rd
Dayton 513 274-1911
Tex Charles Hoffman Assoc, 777 S Central Expwy
Richardson 214 235-3600

HIMMELSTEIN & CO, S, 2500 ESTES
ELK GROVE VILLAGE, ILL, 60007 .... 312 439-8181
H STELLBERG, EMP 15, ENG 4, $250-$500M
Ala Lee Assoc, 2400 W Clinton Ave
Huntsville 539-0761
Cal Kittleson Co, 809 San Antonio Rd
Palo Alto 326-7410
Cal Kittleson Co, 416 N Labrea Ave
Los Angeles .... WE 3-7371
Fla Lee Assoc, 200 E Marks St, Orlando 241-4445
La IBL Eng & Sales Inc, 1444 Calhoun St
New Orleans 895-4793
Md Lee Assoc, 12250 Wilkins Ave
Rockville 949-4800
Md Lee Assoc, Baltimore .... PL 2-5120
Mich Electro Sales Assoc, 10745 Morang Dr, Detroit
NC Lee Assoc, 825 Burke St
Winston-Salem 724-2406
Ohio Electro-Sales Assoc Inc, 335 E 200th St
Cleveland 486-1140
Ohio Electro Sales Assoc, Overlook Br Box 3122, Dayton
Okla IBL Eng & Sales Inc, 5149 E 31st St
Tulsa .... WE 6-6305
Pa Electro-Sales Assoc Inc, 201 Penn Ctr Blvd
Pittsburgh 371-9449
Tex IBL Eng & Sales Inc, 219 Preston Royal Ctr
Dallas .... EM 3-2921
Tex IBL Eng & Sales Inc, 3403 Audobon, 5
Houston .... JA 3-8360
Tex IBL Eng & Sales Inc, 1903 W 34th St
Austin .... GL 2-2064

HIPOTRONICS INC, ROUTE 22, BREWSTER
N Y, 10509 .... 914 279-8091
J GAINES, EMP 70, ENG 5
Cal Long & Assoc, 505 Middlefield Rd
Redwood City .... 415 EM 9-3324
Md Scientific Marketing, 8817 Hunting La
Laurel 301 776-5131
Mass Musello Assoc, Box 125, Stow 617 369-5900
Mass Westwood Assoc, 181 West St
Waltham 617 891-7810
NJ Ebert Assoc, 50 Messenger La
Willingboro 609 877-8250
NY A E De Cew Agency Inc, Box 56
Sodus .... HT 3-3261
NY Harvey J Krasner Assoc, 33 Great Neck Rd
Great Neck 516 487-0690
Ohio Monatron, 20850 Sheldon Rd
Cleveland 216 243-6500
Belg NV Serelec SA, Kaarderijstr 15, Gent

HIRD-BROWN LTD, FLASH ST, BOLTON, LANCS
ENGLAND .... BOLTON 2734
T HIRD, EMP 80, ENG 9, $250-$500M
GB Controls & Automation Ltd, 55 Bancroft
Hitchin, Herts .... HIT 2104

HIROSE ELECTRIC CO LTD
5-6 HIGASHI-OSAKI SHINAGAWA-KU, TOKYO
JAPAN 443-5291
K YAMADA, EMP 520, ENG 35, $250-$500M

HIRST ELECTRIC INDUSTRIES LTD, GATWICK RD
CRAWLEY, SUSSEX
ENGLAND, TWX 87424 .... CRA 25721
R POWDITCH, EMP 200, ENG 20, $2,500-$5,000M

HI-SHEAR CORP, 2600 SKYPARK DR, TORRANCE
CAL, 90509 .... 213 775-3181
T BERNARD, EMP 1200, ENG 75, OVER $10,000M
Cal F Baker, Box 869, Martinez 408 296-3369
Ga Hi-Shear Corp, DeKalb Peachtree Arpt
Atlanta 404 457-6793
Mo H L Williamson, Box 10001 Lambert Field
St Louis 314 921-5476
NJ Alex Lee, 37 N Star Dr
Morristown 201 539-5250
Tex Bob White, 9942 Edgecliff Cir
Dallas 214 348-0630
Wash Dow Industrial Co, 2410 First Ave S
Seattle 206 623-6370
Wash John Dean, 17525 Bothell Way N E
Seattle 206 624-2373
Wash F B Nance, 15000 NE 15th St
Bellevue 206 624-2373

**HISONIC INC, 249 N TROOST, OLATHE
KAN, 66061 .... 913 782-0012
W BONEBRIGHT, EMP 75, ENG 5, $500-$1,000M
ADV PG 248, 292, 717, 737, 1179**
Cal E B Schwerin, 4922 LaGama Way
Santa Barbara 777-7317
Conn R B Scanlon Co, 10 Halliwell Dr
Stamford 325-2718
Minn K L Tannehill Inc, 7800 Computer Ave
Minneapolis 927-5681
NY Savco Inc, 124 Kinne Rd, Syracuse ...... GI 6-4927
Pa Hile Co, Box 179, St Davids 215 688-9007
Tex Scott Technical Sales, Box 30324
Dallas .... FL 2-7698

TOROIDAL
COMPONENTS

★ INDUCTORS
★ TRANSFORMERS
★ FILTERS
★ DELAY LINES

With a background of over 20 years experience in toroidal components, Hisonic has thousands of designs on file.

Special requirements get prompt, accurate development with Hisonic's Custom Design Service.

Please refer to additional information on pages 301,724. Write, phone or wire:

hisonic inc.

249 N. Troost, Olathe, Kansas 66061
Phone 913-782-0012

HITACHI LTD, 8, 2-CHOME, OHTEMACHI
CHIYODA-KU, TOKYO, JAPAN 212-1111
H KURAMI, EMP 74890, ENG 5000, OVER $10,000M
Cal Hitachi Sales Corp, 12715 S Daphne Ave
Hawthorne
Ill Hitachi Sales Corp, 333 N Michigan Ave, Chicago
NY Hitachi Sales Corp, 48-50 34th St
LIC 212 361-3090

HI-TEK CORP, 2220 S ANNE ST, SANTA ANA
CAL, 92704, TWX 6-78486 .... 714 540-3520
D VALEK, EMP 42, ENG 3, $500-$1,000M
Cal Master Specialties, 916 Calif Ave
Sunnyvale 408 245-9292

Fla Master Specialties, 372 W Fairbanks Ave
Winter Park 305 647-0100
Ga Master Specialties, 443 E Paces Ferry Rd N E
Atlanta 404 261-864
Ill Master Specialties, 5320 W Lawrence
Chicago 312 282-7112
Mass Master Specialties, 751 Main St
Waltham 617 893-1020
Mo Master Specialties, 453 N Lindberg
St Louis 314 991-2877
NJ Master Specialties, 5 Haddon Ave
Haddonfield 609 428-0701
NY Master Specialties, 132 Burnet Ave
Syracuse 315 479-9191
Ohio Master Specialties, 13308 Euclid Ave
E Cleveland 216 851-9700
Tex Master Specialties, 6434 Maple Ave
Dallas 214 357-9459
Wash Master Specialties, 1110 N 175 St
Seattle 206 546-5161

HITEMP DIV SIMPLEX WIRE & CABLE CO
· 1200 SHAMES DR, WESTBURY
N Y, 11590, TWX 516 333-3212 .... 516 333-4600
D CONNOLLY, EMP 300, ENG 24, $5,000-$10,000M
Ala Holcombe Sales Agency, 201 Homewood Dr
Huntsville 881-3175
Ariz Hecht Henschen & Assoc, 3825 N 39th Ave
Phoenix 272-6677
Cal James S Heaton Co, 413 Lathrop St
Redwood City 369-4671
Cal Fred W Falck Co, Box 1733, La Jolla .... BE 3-3341
Cal Hitemp Wires Co, 1532 S Calif Ave
Monrovia .... EL 9-8381
Cal James S Heaton Co, 3695 Haven Ave
Menlo Park 369-4671
Colo Lindberg Co, 2654 S Krameria, Denver ... 757-6489
Conn J H Cosmar, Box 7, Cheshire 272-7325
Fla Wm J Reasor & Assoc, Box 10135
Tampa 836-9011
Fla Wm J Reasor & Assoc, Box 12601
Palm Beach Gardens 848-8686
Ga Holcombe Sales Agency, 3098 Piedmont Rd NE
Atlanta 233-2837
Ill Charles Rossi Sales Co, 2711 N 77th Ave, Chicago
Ill Charles Rossi Sales Co, 2711 77th Ave
Elmwood Park .... GL 6-4710
Ind W H Myers Sales Co, Box 101
N Webster .... TE 4-2570
Ind Reichold Assoc, 2114 Winchester Dr, Indianapolis
Kan Halgin Sales, Box 1245, Mission .... RA 2-2441
Md Kraft Sales Engrg, 510 Woodbine Ave
Towson 828-5838
Mich Reichold Assoc, 1655 House St
Belmont .... VO 6-0626
Minn Kenneth L Tannehill Inc, 7800 Computer Ave
Mnpls 927-5681
Mo Halgin Sales Co, 201 S Central St
Clayton .... PA 1-4415
NH Eagles of New England, Box 296
Hollis 465-2603
NJ Thomas M Mills Co, 13 B Tanner St
Haddonfield .... HA 9-1005
NJ Robert Horne Assoc, Box 31
Pompton Lakes 835-7400
NM Albuquerque Electronics Co, 2318 Wisconsin NE
Albuquerque 298-2628
NY Philip L Kirsh Assoc, 16 Oakwood La
Fairport .... LU 6-9125
NY Philip L Kirsh Assoc, 223 Windemere Rd
Rochester .... BU 8-0705
NY Par Distributors, 105 Prime Ave
Huntington 271-0330
NC Jake Rudisill Assoc Inc, 2009 N Tryon St
Charlotte 377-6901
Ohio Gallagher Co, 15 Ritchie Ave
Cincinnati .... PO 1-1288
Okla T J Ray Co, Box 5417, Tulsa .... NA 7-1515
Tex Bauer Co, Box 9007, Fort Worth 336-4884
Wash Ray Johnston Co, 1011 NE 69th St
Seattle .... LA 4-5170
Can Desser-EE Ltd, 2425 Grand Blvd
Montreal 489-7597
For Marina Electrical Supplies Inc, Box 8157
San Juan, PR 724-6700
Ger Hackethal-Draht & Kabel-Werke, Postfach 491/493
Hannover

HIT PRODUCTS CORP, 7 LEXINGTON AVE
SOUTH NORWALK, CONN, 06854 ...... 203 866-9377
J ROY, EMP 12, ENG 2, $100-$250M

H J ELECTRONIC SEAL CO, SOUTH NORWALK
CONN, 06854 .... 203 838-8426
H LAEVSKY, EMP 75, ENG 4, $500-$1,000M
Cal W Anderson, Box 45768, Los Angeles 670-7949
Ill M Cope, 2417 Prospect Ave, Evanston ... DA 8-1934
Mass R Young, 33 Ship Ave, Medford 396-1381
Ohio Del Steffen, 25000 Euclid Ave
Cleveland 261-5055
Pa H Fairbanks, Box 124, Wynnewood ...... MI 2-5816
RI R Young, 33 Ship Ave, Medord, Mass 396-1381

H M H INDUSTRIES, 7792 RHINE DR
HUNTINGTON BEACH, CAL, 92647 ..... 714 847-6868
H HOLMES, EMP 3, UP TO $100M
Cal Heeger Inc, 729 Ceres Ave
Los Angeles 213 627-9310
Cal W E Metzler, 11143 S Budlong Ave
Los Angeles 213 754-5341

HOAGLAND INSTRUMENT CO, 65 CHESTNUT ST
RED BANK, N J, 07701 .... 201 741-7319
M LOGEL, EMP 40, ENG 3, $250-$500M
Ill W G Brouillette Assoc Inc, 1558 Newcastle Ave
Westchester .... FI 5-6500
Kan Koenig Myers Assoc, 5500 Buena Vista Dr
Shawnee Mission 432-8300
Mass Representative Corp, 10 High St
Boston 426-0541
NJ Ken Randall Co, Box 100
Collingswood 854-3323
NJ Seaboard Assoc, 725 St George Ave
Roselle 201 241-7373
Ohio W J Brauer Assoc, 29029 Euclid Ave
Wickliffe 943-0601
Ore McMillian Electronics, 16679 S W Maple Cir
Lake Oswego 636-6257
Tex Carey & Assoc Inc, 3315 W 12th St
Houston 869-3623
Wis Motors Controls Co, Box 91, Mequon 242-0450

HOBBS MFG CO, 666 LINCOLN ST, WORCESTER
MASS, 01605 .... 617 791-6301
H LAMBERT, EMP 195, ENG 18, $2,500-$5,000M
Cal R Mara, Box 2354, Anaheim 714 772-3099
Ill Hobbs Mfg Co, 3322 W Peterson Ave
Chicago 312 539-4337
NJ N Charatan, 562 Boulevard
Kenilworth 201 276-7960
Ohio R Lane, 11 W Cooke Rd, Columbus .. 614 268-3275

HOBSON BROTHERS INC, 4940 W LAWRENCE AVE
CHICAGO, ILL, 60630 .... 312 AV 3-3600
EMP 125, ENG 5, $1,000-$2,500M

HOFFMAN CO PR DIV AIKEN INDUSTRIES, 321 CHERRY ST
CARLISLE, PA, 17013 .... 717 243-2011
L KINGSBOROUGH, EMP 230, ENG 7, $2,500-$5,000M
ADV PG 236, 376, 554
Cal Gene Yost, 8155 Van Nuys Blvd
Panorama City 781-8966

HOFFMAN ENGINEERING CO, DIV FED CARTRIDGE
CORP, 9TH & TYLER, ANOKA
MINN, 55303, TWX (910) 578-221 ...... 612 421-2240
J GRACE
Ala Charles W Ashby Co, 1827 28th Ave S
Birmingham 879-1651
Ariz Norman F Ross, 4227 N 68th St
Scottsdale 945-7262
Cal Wm J Trenbeth Eng Co, 8847 DeHaviland
Los Angeles 645-4377
Cal W A Borden Co, 110 Bolla Ave, Alamo ... 654-7045
Colo Everett T Vonier Inc, 1230 5th St
Denver 534-8101
Conn L Bell, Box 2247, Bishops Cor
W Hartford 236-0395
Fla Shannon Assoc Inc, Box 11771
St Petersburg 862-4765
Fla Shannon Assoc Inc, Box 1686
Coral Gables 446-0131
Fla Shannon Assoc, 1240-44 SE Lake St
Longwood 831-2245
Ga Holman-Lobsinger Co Inc, 3131 Maple Dr NE
Atlanta 261-5238
Ill KGA Engineering Co Inc, 21 S McLean Blvd
Elgin 742-7465
Ind F E Sedlak Co, 2511 E 46th St
Indianapolis .... LI 5-1141
Ky Fron-Paran Assoc, 1941 Bishop La
Louisville 451-6769
La Schell-Ranna Co Inc, 1922 Lafayette St
New Orleans 525-7000
Md O T Hall & Son, 2301 N Charles St
Baltimore .... HO 7-5359
Mich John M Perry Co, 2339 Oakwood Dr SE
Grand Rapids 949-0271
Mich Willis L Trombley & Son, 28671 Northwestern Hwy
Southfield 353-7300
Minn R D Schwen Engrg Co, 1345 Oakwood Dr
Anoka 421-0640
Mo Ray Martin Co, 136 W Adams
Kirkwood .... YO 6-8659
Mo James A Ekstrom, 632 E 66th St Terrace
Kansas City .... JA 3-4106
Neb Electrical Products Co, Box 325, Omaha .. 341-2592
NJ Waldron Sales Engrg Co, 15 Pond Hill Rd
Morristown 538-5607
NJ McKay-Burgoyne Sales Assoc, 26 Journal Square
Jersey City 532-9796
NY J Fox & T Fox, 5100 Genesee St W
Camillus 488-0200
NY McKay-Burgoyne Sales Assoc, 420 Lexington Ave
New York 532-9796
NC Robert W Chapman Co, 1217 Greenwood Cliff
Charlotte 375-4495
NC R W Chapman Co, 5109 Newcastle Rd
Raleigh 828-3604
NC R W Chapman Co, 716 Mobile St
Greensboro 273-7560
Ohio W W Baerbalck & Assoc, 6075 Romaine Dr
Dayton 274-8075
Ohio Matthew M Haley Co, 6364 Pearl Rd
Cleveland 884-8460
Ohio W W Baerbalck & Assoc, 1717 Section Rd
Cincinnati 631-2618
Okla Wayne G Parker Co, Box 520, Jenks .... CY 9-5449
Ore David Fry Co, Box 3803, Portland 226-3903
Pa Myles F Smith, 761 Lindsay Rd
Carnegie 276-5363
Pa W J Cusick Electrical Sales, 1240 Penna Ave
Oreland 885-3633
SC R W Chapman Co, 805 Asbury Dr
Columbia 776-1954

Tenn Chas W Ashby Co, 902 Crownpoint Rd W
Signal Mountain 879-1651
Tex Electrical Agencies Co, 2813A Allen St
Dallas 747-0108
Tex Jim Edwards Co, 2107 Polk St
Houston .... CA 3-9751
Utah J Henry Jones Co Inc, 120 Apricot Ave
Salt Lake City 363-5813
Wash Muth-Richards Co, 1804 S Bush Pl
Seattle .... EA 3-2127

HOFFMAN INDUSTRIES INC DIV CLARKSON IND INC
103 4TH AVE, NEW YORK
N Y, 10003, TWX 126047 .... 212 677-3600
R NEWCOMBE, EMP 200, ENG 40

HOKE INCORPORATED, 1 TENAKILL PARK, CRESSKILL
N J, 07626 .... 201 568-9100
E HITCHCOCK, EMP 270, ENG 15

HOLBROOK MERRILL CO, 1150 KIFER RD, SUNNYVALE
CAL, 94086 .... 408 736-2300
J TUTTLE, EMP 60, ENG 3, $1,000-$2,500M

HOLEX INC, 2751 SAN JUAN RD, HOLLISTER
CAL, 95023, TWX 910-590-0457 .... 408 637-5851
G ANDERSON, EMP 80, ENG 10, $1,000-$2,500M
Ariz Thorson Co, 2505 E Thomas Rd
Phoenix 264-5878
Cal Thorson Co, 6824 Melrose Ave
Los Angeles .... WE 7-0790
Colo Thorson Co, 300 E Hampden Ave
Englewood .... SU 9-1841
Md Wm M Jones Co, Box 5490
Towson 301 823-5721
Mass R P Mahan Co, 572 Washington Ave
Wellesley 617 237-1040
NY J H Edeline, 75-29 141st Pl, Kew Garden Hills
Okla Dunbar Mid-States Co, 212 1st Natl Bank Bldg
Ponca City 405 762-5400
Wash Thorson Co, 1767 Fifteenth Ave S
Seattle .... EA 5-5000

HOLLAND ELECTRONICS, 675 HINSDALE ST
BROOKLYN, N Y, 11207 .... 212 649-9130
L COHEN, EMP 4, ENG 2, UP TO $100M

HOLLINGSWORTH SOLDERLESS TERMINAL CO
NUTT & FRENCH CREEK RDS, PHOENIXVILLE
PA, 19460 .... 215 933-8947
J LUDWICK, EMP 125, ENG 5, $1,000-$2,500M
Ala T Harrington, 13 Edgewood Dr
Selma 205 872-5293
Cal Hollingsworth, 5557 Cahuenga Blvd
N Hollywood 877-1555
Fla Hollingsworth, 700 NE 57th Pl
Fort Lauderdale 933-5555
Fla Young & Lawrence Assoc, 601 N New York Ave
Winter Park 305 647-6929
Haw Gene Piety Factors Inc, 160 Makauea St, Hawaii
Ill Hollingsworth, 819 Mannheim Rd
Westchester 681-3724
Mass Hollingsworth, 4 Gordon St, Waltham 899-0005
Minn Northern States Sales Co, 1109 78 1/2 St
Minneapolis 866-3468
Mo Modern Electrical Devices, 5717 Gravois
St Louis 314 481-0412
NY Frank Taylor Co, Box 86, DeWitt 446-0422
NC Francis Hager, Rt 1, Box 423
Matthews 847-9262
Ohio Hollingsworth, 670 S Green Rd
Cleveland 381-2600
Ore Walter Royer Industries, Box 3987, Portland
Wis Art Vangsness, 8080 N Navajo Rd
Milwaukee .... FL 2-4694
Can Alpha Electronics, 305 St Zotique St W
Montreal Que 514 271-8898

HOLLIS ENGINEERING INC, CHARRON AVE, NASHUA
N H, 03060, TWX 710-228-1881 .... 603 889-1161
C PAPOUTSY, EMP 50, ENG 10, $500-$1,000M
Cal Acme Industrial Supply, 6213 Avalon Blvd
Los Angeles 233-3211
Fla AMES, 962 Victor Herbert Dr
Largo 813 531-7377
Ga K & E Assoc, Blue Springs Park
Kennesaw 404 974-4264
Idah Roscoe Patton, 565 E 16th St
Idaho Falls 522-5515
Ill Solid State Electronics, 1925 N Harlem Ave
Chicago 889-8033
Ind Howell-Moore & Assoc, 5425 N College Ave
Indianapolis 255-8566
Kan Impala Inc, 6917 W 76th St
Overland Park 913 648-6901
Kan Lomax Assoc, 4200 W 99th St
Overland Park 913 649-0742
Md David K Jones Co, 2026 Maryland Ave
Baltimore 752-0577
Mass EPE Corp, 345 Highland Ave, Weston 899-0678
Minn Electro-Serv Co, 1455 W Lake St
Minneapolis 827-2907
Mo Impala Inc Assoc, 47 Vlg Sq Shpg Ctr
Hazelwood 314 831-5454
NY Spar-Kleen Prod, Box 2, Skaneateles 685-5942
NY R & S Electronic Sales, Box 217
Hempstead .... IV 5-1040
Ohio Perry Lohse and Co, 529 Richmond Rd
Cleveland 381-7788
Ohio Hofferberth Machinery Co, Box 91, Dabel Sta
Dayton 298-0269

Pa Jones Assoc, 6520 Rising Sun Ave
Philadelphia 342-3990
Tex Lomax Engineering, 6338 Prestonshire La
Dallas .... EM 1-1134
Wash Paratech, 2208 NW Market St
Seattle 206 783-3900
Can Willer Engrg & Sales, 1800 Avenue Rd
Toronto, Ont 783-3373
Jap Seishin Trading Co Ltd
11 Shiba-Nishikubo Akefune-Cho, Minato-Ku Tokyo
Swed Retab Micro Electronics, Gaveluagen Box 932
Lidingo
Neth Westmercuur Handelmij NV, Singel 510, Amsterdam

HOLMES CO, CARL E, 107 NORTH AVE 64
LOS ANGELES, CAL, 90042 .... 213 256-2255
C HOLMES, EMP 15, ENG 1, $250-$500M
Cal Melchior & MacPherson, Inc, 820 B Cherry St
San Carlos 591-7383
Wash Carmody Co, 1731 1st Ave So, Seattle 682-2330

HOLMIN CORP, WM A, 1325 7TH ST, ROCKFORD
ILL, 61108 .... 815 968-0517
W HOLMIN, EMP 12, ENG 2
Cal Wes Alderson Co, 8548 Washington Blvd
Culver City .... UP 0-1030
Cal Ewing Assoc, 935 Terminal Way
San Carlos .... LY 1-0309
Ill Bruce Cumming & Assoc Inc, 6029 W Belmont
Chicago .... ME 7-3770
NY Irv Brown Co Inc, 1500 Carroll St
Brooklyn .... HY 3-1379
Wash William R Lanphear Co, 159 Western Ave W
Seattle .... AT 4-8150
Wis Bruce Cumming & Assoc Inc, 4852 N 24th St
Milwaukee
For Rocke Intl Corp, 13 E 40th St
New York, NY .... MU 9-0200

HOLT INSTRUMENT LABS, BOX 230, OCONTO
WIS, 54153 .... 414 834-2222
R ROUZIE, EMP 50, ENG 9, $500-$1,000M
Ala Reynolds & Assoc, Inc, Bob Wallace Ave
Huntsville 536-1941
Cal Q-P-L, 1015 Fremont Ave
South Pasadena 213 682-3705
Cal Bert Oppenheim Inc, 2179 Park Blvd
Palo Alto 415 321-7323
Cal Q-P-L, 2710 Grand Ave
Pacific Beach 714 274-3722
Colo D E Bond Assoc, 2149 S Clermont St
Denver 756-1234
Fla Reynolds & Assoc, Inc, Box 1043
Eau Gallie 727-3205
Fla Reynolds & Assoc, Inc, 161 SW 75th Ave
Ft Lauderdale 581-6611
Fla Reynolds & Assoc, Inc, Box 8877
Orlando 424-3836
Ga Reynolds & Assoc, Inc, 175 W Wienca Rd NE
Atlanta 404 252-5360
Ill Ridgway Assoc, 9420 Foster Ave
Chicago 312 992-2150
Ky Ridgway East Inc, Box 5305
Lexington 606 299-1057
Md Brimberg Assoc Inc, 814 Thayer Ave
Silver Spring 588-7790
Mass Broger Instr Sales, 223 Crescent
Waltham 891-8045
Minn Pat Lind Electronics Co, 10104 Sunset Rd
Circle Pines 612 786-5770
Mo Harris-Hanson Co, 7916 Paseo St
Kansas City 444-9494
Mo Harris-Hanson Co, 2814 S Brentwood Blvd
St Louis 647-4350
NJ Louis A Garten & Assoc, 375 Passaic Ave
Fairfield 201 226-7800
NM D E Bond Assoc, Box 11331
Albuquerque 247-3442
NY Robert E Lamb Co Inc, 1865 Kenmore Dr
Buffalo 716 874-4900
NY Robert E Lamb Co Inc, Box 661, Uptown Sta
Kingston 338-8833
NY Robert E Lamb Co Inc, Box 28
Syracuse 454-2469
Ohio Ridgway East Inc, Box 68
Loveland 513 683-4350
Ohio Ridgway East Inc, 4654 Micheal Ave
N Olmstead 216 777-6600
Pa Louis A Garten & Assoc, 947 Old York Rd
Abington 927-1200
Tex Airep Electronics Inc, 6300 N Central Expy
Dallas 214 363-5291
Tex Airep Electronics Inc, 4901 Richmond Ave
Houston 713 621-0955
Wash Comptronics, 3220 16th Ave W, Seattle 284-4842
Can B R H Assoc Ltd, 6338 Victoria Ave
Montreal, Que 733-5331
Can BRH Assoc, Ltd, 184 Finch Ave W
Willowdale, Ont 223-4008
Can BRH Assoc, Ltd, 1300 Carling Ave
Ottawa, Ont 728-0113
Fr Tranchant Electronique, S A
19-21 rue Madam de Sanzillon, Clichy Seine
Ger Rohde & Schwarz, Hohe Str, 160-168, 5000 Koeln
Ger Rohde & Schwarz, Ernst-Reuter-Platz 10
1000 Berlin 10
Ger Rohde & Schwarz, Korner Str 34, 2000 Hamburg 50
Ger Rohde & Schwarz, Kriegsstr 39, 7500 Karlsrutte
Ger Rohde & Schwarz, Dachauer Str 109
8000 Muenchen
GB Aveley Electric Ltd, South Ockendon, Essex
Holl Inelco Holland NV, 801 A J Ernststr, Amsterdam
Ital Mario Vianello, L Anelli 13, Milan
Ital Mario Vianello, S Croce in Gerusalemme, Rome
Jap Industrial Imports Ltd, Box 1271, CPO, Tokyo
Swed Standard Precision Instrument, Box 12173
Stockholm
Swit Kontron Ltd, Hardsttrasse 235, Box 193, 8031 Zurich
Belg Inelco Belgium, SA, 20 Rue de L'Hopital, Brussels
Ind Electronic Enter, Newcharni Rd Box 3902, Bombay
Isrl Motorola Israel, Ltd, 16 Kremenetski St, Tel Aviv
NZ Sample Electronics, 8 Matipo St, Onehunga
Spn Hispano Electronica SA, Commanoante Zonita 8
Madrid
Aust Sample Electronics, 9-11 Cremorne St
Richmond, Melbourne
Aust Sample Electronics, 82 Alexander St
Crows Nest, N S W
Aust Sample Electronics, 171 Gilbert St, Adelaide

HOLTZER-CABOT CORP, 125 AMORY ST, BOSTON
MASS, 02119, TWX 094-534 .... 617 524-7000
C WALTON, EMP 325, ENG 6, $2,500-$5,000M
Cal Hanley-Brewton & Assoc, 257 N Bayshore Blvd
San Mateo 347-2569
Cal Universal Components, 2330 Westwood Blvd
Los Angeles 213 474-1537
Colo Charles Tidd & Co, Box 19304
Denver 303 935-4544
Conn MacPherson Control Prods Co, Box 174
South Britain 213 264-8351
Fla Dickerson Engrg Sales Co, 905 Harbor City Blvd
Eau Gallie 305 254-1591
Ga Rep Inc, 1483 Monroe Dr NE
Atlanta 404 876-1591
Ill A G Erickson & Assoc, 571 Hill Ave
Glen Ellyn .... FR 2-8557
La O E Barron, 810 Perdido St
New Orleans 504 522-3101
Md Stemler Assoc, 6707 Whitestone Rd
Baltimore 301 944-8262
Minn C F VanderVoort, 1279 Osage St
St Paul 612 489-5222
Mo O A Bauman, Box 3896
Kirkwood .... 314 MI 4-1122
Mo Wayne Prince Co, 1728 Walnut St
Kansas City .... 816 BA 1-3330
NY Ray Fara Assoc, 1295 Northern Blvd
Manhasset .... 516 MA 7-1151
NY E E Card Jr, 2996 W Henrietta Rd
Rochester 716 442-5681
Ohio Holtzer-Cabot Corp, 1900 Euclid Ave
Cleveland 771-8266
Ore C C Conley, 788 NW Glisan St
Portland .... CA 8-4656
Tex Carey & Assoc, 3315 W 12th St
Houston 713 869-3623

HOLUB INDUSTRIES INC, 468 ELM ST, SYCAMORE
ILL, 60178 .... 815 895-2161
G WETZEL, EMP 80, ENG 3, $1,000-$2,500M

HOLYOKE WIRE & CABLE CORP, 720 MAIN ST
HOLYOKE
MASS, 01040, TWX 710-351-1337 .... 413 533-3961
G MILES, EMP 480, ENG 3, $5,000-$10,000M
Cal IRC Inc, 14827 Ventura Blvd
Sherman Oaks 213 981-7722
Conn Anchor Engrg Corp, 6 Arrowhead Dr
W Simsbury 658-6261
Ga Hollingsworth & Still Inc, 3098 Piedmont Rd
Atlanta 404 261-5838
Ill Eschner & Keranen Inc, 20 N Wacker Dr
Chicago 236-1533
Ill IRC Inc, 6020 W Diversey Ave
Chicago 312 889-5800
Mass Anchor Engrg Corp, 336 Washington St
Wellesley Hills 617 235-6330
Minn D A Schultz Co, 801 SE 8th St, Mnpls 339-7701
NJ IRC Inc, 401 N Broad St, Phila 215 922-8900
NY Bowser & Sapecky Assoc, 4541 Main St
Snyder 716 839-4170
NY IRC Inc, 1967 Turnbull Ave
New York 212 597-5500
Ohio Frank J Campisano, 3985 Race Rd
Cincinnati 662-1616
Ore C K Shanks & Assoc, 3176 SW 87th Ave
Portland 503 292-5656
Pa Humes-Quinlan Sales Co, 242 E Butler Ave
Ambler 215 646-7250
Pa Covert & Newman Co, 300 Mt Lebanon Blvd
Pittsburgh 412 563-0303
For M Saliss, Box 2307 GPO, San Juan

HONEYWELL, 2755 FOURTH AVE S, MINNEAPOLIS
MINN, 55408

HONEYWELL-EDP DIV, 60 WALNUT ST
WELLESLEY HILLS
MASS, 02181, TWX MHEDP 617 235-7450
R HENDERSON, EMP 7,000

HONEYWELL INC, COMPUTER CONTROL DIV
OLD CONNECTICUT PATH, FRAMINGHAM
MASS, 01702 .... 617 879-2600
A ASHTON, EMP 1800, ENG 200
Ala Honeywell, 2003 Byrd Spring Rd SW
Huntsville 881-2711
Cal Honeywell, 9171 Wilshire Blvd
Beverly Hills 278-1901
Cal Honeywell, 910 Thompson Pl
Sunnyvale 408 732-0120
Conn Honeywell, 125 LaSalle Rd
West Hartford 523-4037
DC Honeywell, 500 Plasters Ave NE
Atlanta 875-9561
Fla Honeywell, 3986 Boulevard Center Dr
Jacksonville 359-5253
Fla Honeywell, 1000 Woodcock Rd
Orlando 305 841-1570
Ill Honeywell, 4849 N Scott St
Schiller Park 312 671-1800
Mass Honeywell, 275 Wymon St, Waltham 893-2610
Mass Honeywell, 20441 James Couzens Hwy
Detroit 836-7170
Mo Honeywell, 200 S Hanley Ave
Clayton 314 862-1000
NM Honeywell, 1030 San Pedro NE
Albuquerque 268-6714
NY Honeywell, 97-77 Queens Blvd
Forest Hills 275-6200
NY Honeywell, 3001 James St, Syracuse 463-4534
Ohio Honeywell, 401 Astor Ave
West Carrollton 299-8771
Ohio Honeywell, 1001 E 55th St, Cleveland 881-0300
Pa Honeywell, 8367 Bristol Pike
Levittown 943-2210
Pa Honeywell, Bee St & Greentree Rd
Pittsburgh 922-4422
Tex Honeywell, 1535 West Loop S
Houston 713 622-2461
Tex Honeywell, Box 64776, Dallas 214 363-5441
Va Honeywell, 1611 N Kent St
Arlington 703 524-8200
Wash Honeywell, 13253 Northrup Way
Bellevue 206 746-9250

HONEYWELL INC ELECTROPAC OPERATION
INDUSTRIAL PARK, PETERBOROUGH
N H, 03458, TWX 710-364-1866 .... 603 924-3821
EMP 550, ENG 25, $100-$250M

HONEYWELL INDUSTRIAL DIV, 1100 VIRGINIA DR
FORT WASHINGTON, PA, 19034 .... 215 643-1300
W WALTMAN
Ala Honeywell, 730 37th St S, Birmingham 324-3356
Alas Honeywell, 850 Whitney Rd, Anchorage 272-6588
Ariz Honeywell, 4129 N 7th Ave, Phoenix 264-6521
Cal Honeywell, 6620 Telegraph Rd
Los Angeles 724-3500
Cal Honeywell, 2 Dorman Ave
San Francisco 826-9100
Cal Honeywell, 1515 Morena Blvd
San Diego 276-4162
Colo Honeywell, 7825 E Prentice Ave
Englewood 771-2340
Conn Honeywell, 885 Wethersfield Ave
Hartford 525-3163
Fla Honeywell, 1000 Woodcock Rd
Orlando 841-1570
Fla Honeywell, 2137 NW 7th St, Miami 371-1667
Fla Honeywell, 4040 Woodcock Rd
Jacksonville 359-0581
Ga Honeywell, 500 Plaster Ave NE
Atlanta 875-9561
Haw Honeywell, 677 Ala Moana Blvd
Honolulu 575-514
Ill Honeywell, 7350 N Lincoln Ave
Chicago 674-9770
Ind Honeywell, 5739 Profess Cir, Indpls 243-0831
Iowa Honeywell, 4730 SW 9th St
Des Moines 285-5331
Kan Honeywell, 2801 S Madison St
Wichita 591-3431
Ky Honeywell, 1906 Goldsmith La
Louisville 459-5970
La Honeywell, 2217 Ridgelake Dr
Metairie 833-7241
Me Honeywell, Thompson's Pt, Portland 773-4751
Md Honeywell, 1306 Bellona Ave
Lutherville 828-0900
Mass Honeywell, 1230 Soldiers Field Rd
Boston 254-8730
Mich Honeywell, 13631 Plymouth Rd, Detroit 834-6020
Minn Honeywell, 415 E 27th St, Mnpls 339-8551
Miss Honeywell, 3737 Robinson Rd, Jackson 922-3841
Mo Honeywell, 2146 Hampton Ave
St Louis 647-6100
Mont Honeywell, 106 11th St W, Billings 252-5646
Neb Honeywell, 7114 Spring St, Omaha 393-8300
NJ Honeywell, Rt 22 at Springfield Line
Union 688-9000
NY Honeywell, 45 Colvin Ave, Albany 489-2546
NY Honeywell, 811 Orwood Pl, Syracuse 463-9111
NY Honeywell, 40 West Ave, Rochester 328-4510
NY Honeywell, 24-30 Skillman Ave
Long Island City 392-4300
NC Honeywell, 2410 Dunavant St
Charlotte 377-4551
Ohio Honeywell, 19 Knollcrest Dr, Cincinnati 821-7410
Ohio Honeywell, 1001 E 55th St, Cleveland 881-0300
Okla Honeywell, 5115 S Utica, Tulsa 743-6441
Ore Honeywell, 2600 SE Belmont, Portland 235-8411
Pa Honeywell, 3345 W Hunting Park Ave
Phila 226-2400
SC Honeywell, 42 Grand Ave, Greenville 232-2444
Tenn Honeywell, 119 Racine St, Memphis 323-2206
Tex Honeywell, 2803 Buffalo Spwy
Houston 622-2461
Tex Honeywell, 315 Weschester Dr
Corpus Christi 882-4622
Tex Honeywell, 111 E Rhapsody
San Antonio 344-2351
Utah Honeywell, 2280 S Main St
Salt Lake City 487-0681
Va Honeywell, 1516 Harmon St, Norfolk 583-2611
Va Honeywell, 1776 Old Meadow Rd
McLean 893-4660
Wash Honeywell, 401 Pontius Ave N, Seattle 682-5610
W Va Honeywell, 3621 7th Ave, Charleston 744-5341
Wis Honeywell, 2979 N Mayfair Rd
Milwaukee 771-6300

Jap Yamatake-Honeywell Keiki Co Ltd
2-6 Marunouchi Chiyoda-Ku, Tokyo

HONEYWELL PRECISION METER DIV, GRENIER FIELD
MANCHESTER, N H, 03105 .... 603 625-6971
C ANDERSON
Ariz Honeywell Inc, 4129 N 7th Ave
Phoenix 264-6496
Cal Honeywell Inc, 1515 Morena Blvd
San Diego 276-4162
Cal Honeywell Inc, 2 Dorman Ave
San Francisco 826-9100
Cal Honeywell, 6620 Telegraph Rd
Los Angeles 723-6611
Colo Honeywell Inc, 7825 E Prentice Ave
Englewood 771-2340
Conn Honeywell Inc, 885 Wethersfield Ave
Hartford 527-0178
Ga Honeywell Inc, 500 Plaster Ave NE
Atlanta 875-9561
Ill Honeywell Inc, 7350 N Lincoln Ave
Chicago 478-9290
Ind Honeywell Inc, 5739 Profes Cir
Indnpls 243-0831
Iowa Honeywell Inc, 1810 State St
Bettendorf 355-6456
Kan Honeywell Inc, 2801 S Madison
Wichita 591-3435
Mass Honeywell Inc, 1230 Soldiers Field Rd
Boston 254-3939
Mich Honeywell Inc, 13631 Plymouth Rd
Detroit 834-6020
Minn Honeywell Inc, 415 E 27th St
Minneapolis 332-5225
Mo Honeywell Inc, 2146 Hampton Ave
St Louis 647-6100
NJ Honeywell Inc, Rt 22 at Springfield Line
Union 688-8740
NY Honeywell Inc, 1200 Arterial Hwy
Binghamton 723-7993
NY Honeywell Inc, 24-30 Skillman Ave
Long Island City 786-5005
NY Honeywell Inc, 40 West Ave, Rochester ... 328-0373
NY Honeywell Inc, 811 Orwood Pl
Syracuse 437-2851
Ohio Honeywell Inc, 1001 E 55th St
Cleveland 881-0300
Ohio Honeywell Inc, 2314 Stanley Ave
Dayton 416-4480
Ore Honeywell Inc, 2600 SE Belmont
Portland 235-8224
Pa Honeywell Inc, 1 Decker Sq
Bala Cynwyd 835-2330
Tex Honeywell Inc, 6000 N Central Exp
Dallas 363-5441
Tex Honeywell Inc, 2803 Buffalo Spdwy
Houston 622-2461
Va Honeywell Inc, 1776 Old Meadow Rd, McLean
Wash Honeywell Inc, 401 Pontius Ave N
Seattle 682-4580
Wis Honeywell Inc, 2979 N Mayfair Rd
Milwaukee 771-6300
Can Honeywell Inc, 740 Ellesmere Rd
Scarborough Ont 293-8111

HONEYWELL TEST INSTRUMENTS DIV, 4800 E DRY CREEK RD
DENVER, COLO, 80217, TWX 303-771-3424 303-771-4700
W LISENBY
ADV PG 8, 406, 790
Ala Honeywell Test Instr Div, 2003 Byrd Spring Rd
Huntsville 881-2711
Ala Honeywell Test Instr Div, 730 37th St S
Birmingham 205-323-2427
Cal Honeywell Test Instr Div, 6620 Telegraph Rd
Los Angeles 724-3500
Cal Honeywell Test Instr Div, 910 Thompson Pl
Sunnyvale 732-1020
Cal Honeywell Test Instr Div, 1515 Morena Blvd
San Diego 276-4162
Colo Honeywell Test Instr Div, 7825 Prentice Ave
Englewood 771-2340
Conn Honeywell Test Instr Div, 885 Wethersfield Ave
Hartford 525-3163
Fla Honeywell Test Instr Div, 1000 Woodcock Rd
Orlando 841-1570
Ga Honeywell Test Instr Div, 500 Plaster Ave NE
Atlanta 875-9561
Ill Honeywell Test Instr Div, 7350 N Lincoln Ave
Chicago 674-9770
Ill Honeywell Test Instr Div, Box 170
Harvey 849-1230
Ind Honeywell Test Instr Div, 5739 Professional Circle
Indianapolis 243-0831
La Honeywell Test Instr Div, 2217 Ridgelake Dr
Metairie 833-7241
Md Honeywell Test Instr Div, 1306 Bellona Ave
Lutherville 828-0900
Mass Honeywell Test Instr Div, 1230 Soldiers Field Rd
Boston 254-8730
Mich Honeywell Test Instr Div, 13631 Plymouth Rd
Detroit 834-6020
Minn Honeywell Test Instr Div, 415 E 27th St
Minneapolis 339-8551
Mo Honeywell Test Instr Div, 2146 Hampton Ave
St Louis 647-6100
NJ Honeywell Test Instr Div, Rte 22 Springfield Line
Union 688-9000
NM Honeywell Test Instr Div, 3301 Carlisle Blvd
Albuquerque 345-1656
NY Honeywell Test Instr Div, 24-30 Skillman Ave
Long Island City 392-4300
NY Honeywell Test Instr Div, 40 West Ave
Rochester 328-4510
NC Honeywell Test Instr Div, 1216 Perry St
Greensboro 292-1556
Ohio Honeywell Test Instr Div, 2314 Stanley Ave
Dayton 461-4480
Ohio Honeywell Test Instr Div, 1001 E 55th St
Cleveland 881-0300
Okla Honeywell Test Instr Div, 6600 N Broadway
Oklahoma City 848-2812
Pa Honeywell Test Instr Div, Bee St at Greentree Rd
Pittsburgh 922-4422
Pa Honeywell Test Instr Div, 3345 W Hung Pk Ave
Phila 226-2400
Tex Honeywell Test Instr Div, 111 E Rhapsody
San Antonio 344-2351
Tex Honeywell Test Instr Div, 6000 N Central Expwy
Dallas 363-5441
Tex Honeywell Test Instr Div, 2803 Buffalo Spdwy
Houston 622-2461
Tex Honeywell Test Instr Div, 7350 Gateway E
El Paso 915-591-1447
Utah Honeywell Test Instr Div, 2280 S Main
Salt Lake City 487-0681
Va Honeywell Test Instr Div, 1516 Harmon St
Norfolk 583-2611
Va Honeywell Test Instr Div, 1766 Old Meadow Rd
McLean 703-893-4660
Wash Honeywell Test Instr Div, 13253 Northrup Way
Bellevue 746-9250

HONIG LABORATORIES INC, 48 URBAN AVE
WESTBURY, N Y, 11590 .... 516 333-0410
A COHEN, EMP 10, ENG 2, $250-$500M

HOOVER ELECTRIC CO, 2100 S STONER AVE
LOS ANGELES, CAL, 90025 .... 213 BR 23125
A PFALZER JR, EMP 380, ENG 22, $5,000-$10,000M
Ohio Hoover Electric Co, Port Columbus Airport
Columbus 235-9634

HOOVER HANES RUBBER CORP, 450 7TH AVE
NEW YORK, N Y, 10001 .... 212 244-1012
C HOOVER, EMP 35, ENG 3, $1,000-$2,500M

HOPKINS ENGINEERING CO, 12900 FOOTHILL BLVD
SAN FERNANDO
CAL, 91342, TWX 910-496-1531 .... 213 361-8691
N BEVAN, EMP 200, $1,000-$2,500M
ADV PG 306
Ala Young & Lawrence Assoc, 2907 Governors Dr SW
Huntsville 205 539-6575
Ariz Runyon Co, 6825 E Thomas, Scottsdale ... 947-5711
Cal Frauman Assoc, 1010 Doyle
Menlo Park 415 322-8461
Conn Chas K Barton Assoc Inc, 343 New London Tpk
Glastonbury 633-9417
Fla Young & Lawrence, 601 N New York Ave
Winter Park 305 647-6929
Fla Young & Lawrence, 300 31st St N
St Petersburg 813 894-0026
Ill Magnuson Assoc, 5639 W Fullerton Ave
Chicago 622-6322
Md Wm I Duncan & Assoc Inc, 206 Washington Ave
Towson 823-2506
Mass Charles K Barton Assoc Inc, Box 51
Auburndale 332-2021
Mich S Sterling Co, 21250 W 10 1/2 Mile Rd
Southfield 357-3700
Minn Howard Cullen & Assoc, 1595 Selby Ave
St Paul 646-7371
Mo Palatine Engrg Sls, Inc, 2050 Woodson Rd
St Louis .... HA 6-7055
NY Kahgan Sales Corp, 1261 Broadway
New York .... MU 4-7772
NY J Lazor Assoc Inc, 39 Saginaw Dr
Rochester 473-8337
NC Candor Co, Bethania 924-1480
Ohio Allen Nace Co, Box 156, Brecksville 526-4323
Ohio Allen Nace Co, Box 93, Riverdale Sta
Dayton 277-8215
Ohio Allen Nace Co, Rt 3, Galion 468-7641
Pa Allen Nace Co, Box 10630, Pittsburgh ... 241-3200
Pa Wm I Duncan & Assoc Inc, 5452 Charles St
Phila .... PI 4-6110
Tex Blair Engineering Sales Co, 2930 Merrell Rd
Dallas .... FL 2-2556
Tex Blair Eng Sales Co, 2400 W Loop S
Houston .... 713 NA 1-0818
Wash H S Thorpe Co, Box 1117
Bellevue 206 443-2319

HOPT KG, R E, POSTF 232, KONIGSBERGER STR
ROTTWEIL A NECKAR, GERMANY 8451
D VINCON, EMP 860, ENG 25, $1,000-$2,500M
For Waller Corp, Ridgefield, Crystal Lake, Ill
Den Industrial Electronic, 23 Rosenvaengets Alle
Copenhagen 0176 2100
Fr Helga Seibel, 14 Rue du 11 Novembre, Clichy Seine
Ger E van Hazebrouck KG, Rheinbabenallee 49
Berlin 33
Ger E van Hazebrouck KG, Postschliebfach 3226
6 Frankfurt a m
GB G E Industrial Supplies Ltd
182 E Campden Hill Rd, London W 8 .. PAR 0711
Holl J Th van Reysen, Gasthuislaan 214, Delft ... 30940
Ital D Guarini, Via Pietro da Bescape 3, Milano
Nor Oistein Roed, Dronningensgt 22, Oslo ... 41 47 94
SAfr Hans Pollack, Box 8250, Johannesburg
Belg Jean Ivens, 17, Rue du Val Benoit, Liege
Isrl Lamda, Kamil & Co, Box 6097, Haifa
Fin Oy Chester, Uludenmaankatu 23 A, Helsinki

HOPWOOD RETINNING CORP, 303 COMMERCIAL ST
MALDEN, MASS, 02148 .... 617 322-2390
F LIQUORE, EMP 38, ENG 3

HOREX ELECTRONICS INC, 1729 21ST ST
SANTA MONICA, CAL, 90404 .... 213 451-0211
F WIESE, EMP 20, ENG 4, $250-$500M
Ala David H Wise Co, 7218 Vestavia Dr
Huntsville 881-2740
Cal Peninsula Assoc, 1345 Hancock St
Redwood City 369-5500
Conn Abbott-Allison Co, Box 467, Meriden ... BE 7-9232
NJ Kelly Assoc, 169 Pennsylvania Ave
Paterson 271-7441
For Madison Overseas Inc, 10 Fiske Place
Mt Vernon, NY .... OW 9-5633
Jap Electro Technique Trading Co Ltd
22, Agechi-Cho, Shibuya-ku, Tokyo ... 401-3334

HORIBA INSTRUMENTS INC
NAKAGAWARA KISSYOIN MINAMI-KU, KYOTO
JAPAN 37-8121
N KISHIMOTO, EMP 230, ENG 125, $1,000-$2,500M

HORLICK CO INC, WILLIAM I, 266 SUMMER ST
BOSTON, MASS, 02210 .... 617 426-2480
R HORLICK, EMP 25, ENG 3, $250-$500M

HORNET ANTENNA PRODUCTS CO INC, 19 N 8TH ST
DUNCAN, OKLA, 73533 .... 405 255-7520
J GUEST

HOSIDEN ELECTRONICS CO LTD
4-33, 1 CHOME KITAKYUHOJI, YAO CITY, OSAKA
JAPAN 722-0051
T UEDA, EMP 650, ENG 65, $5,000-$10,000M

HOSKINS MFG CO, 4445 LAWTON AVE, DETROIT
MICH, 48208 .... 313 895-2860
F MILLER, EMP 350, OVER $10,000M
Cal Hoskins Mfg Co, 5935 E Sheila St
Los Angeles 685-5550
Conn Hoskins Mfg Co, 159 Main St
Stamford .... FI 8-4442
Ill Hoskins Mfg Co, 2600 W Peterson Ave
Chicago .... RO 1-7111
Ohio Hoskins Mfg Co, 2000 Lee Road Bldg
Cleveland .... ER 1-9529

HOTFOIL ELECTRIC CO, 242 E IRVING PARK RD
WOOD DALE, ILL, 60191 .... 312 595-0050
EMP 4, ENG 2, UP TO $100M
Cal Paul Potter Co, 39215 15th St E
Palmdale 805 947-0118
Fla Gulf Instr Assoc, Box 568
Winter Haven 813 293-7308
Ga James H Chambers Co, 1514 Kingsdown Cir
Dunwoody 404 457-9055
Ind Delta Sales, 1407 N Illinois
Indianapolis 317 631-4136
La Johnson Equip Co, 1821 Wooddale Ct
Baton Rouge 317 631-4136
Md Thermal Devices, 4604 York Rd
Baltimore 301 435-6700
Mass Moisan Assoc, Box 393, Lowell ... 617 452-5003
Mich A J Riopelle Co, 15631 Riverside Dr
Livonia 313 427-5114
Mo Dunn Inc, 3300 Lindell, St Louis ... 314 JE 3-7590
NJ Warren French, 36 Hampton Dr
Berkley 201 322-5350
NY Thermal Systems, Box 146
Orchard Park 716 662-5560
NY Thermal Systems, Box 8459
Rochester 716 271-2143
NY Thermal Systems, Box 117
Syracuse 315 458-5202
Ohio D H Spicer, 23651 Delmere Dr
N Olmsted 216 777-1855
Pa A-Tek, 9037 Convent Ave, Phila ... 215 HO 6-1234
Pa Harold Woolman Co, 4 W Manila Ave
Pittsburgh 412 922-2420
Tex Gay Engrg Sales, 5245 Blossom St
Houston .... 713 UN 9-3306
Tex Gay Engrg & Sales, Box 8414, Dallas
Tex Gay Engrg & Sales, Box 5164, Beaumont
Wash Western Factors, 2733 4th Ave S
Seattle .... 206 MU 2-3414

HOTPACK CORP, 5067 COTTMAN AVE, PHILADELPHIA
PA, 19135 .... 215 DE 3-1700
H DINGMAN, EMP 160, ENG 18, $2,500-$5,000M
Can Hotpack (Canada) Ltd, 385 Phillip St N
Waterloo, Ont .... SH 4-4159

HOTWATT INC, 128 MAPLE ST, DANVERS
MASS, 01923 .... 617 777-0070
R LEE, EMP 128, ENG 4, $1,000-$2,500M
Cal Belilove Co, Box 8612, Oakland 658-9011
Cal Montgomery Bros, 4800 District Blvd
Los Angeles 589-6321
Conn Doonan Miles Corp, Box 216
Wallingford .... CO 9-5973
Ill D M Maytnier Corp, 2510 Gross Pt Rd
Evanston .... GR 5-4334
Ill Electric Thermal Systems, Box 206
Hinsdale 325-1960
Ind Warren Cooley, Box 124, Richmond 7-5229
Mass Fenwal Inc, Main St, Ashland .... TR 5-6111
NY Carlen Reps, 206 E Genessee St
Syracuse 315 422-6155
NY Tri-State Ind Equip Corp, 45-07 162nd St
Flushing 212 358-1010
NC W K Hile Co, Box 325, Matthews 847-1616

Ohio Allied Engrg Sales, 7281 Pearl Rd
Cleveland.......................... 216 234-2606
Pa D R Weber, Box 534, Norristown .... BR 5-4049
Pa Rothenheber & Co, 53 Cricket Ave
Ardmore 642-6911
Pa Instrumetn Services Inc, 346 Station St
Bridgeville.......................... 412 221-3601
Tex Jennings Sales Co, 9923 Mill Trail Dr
Dallas.............................. 214 341-1115
Wash Walsh Ehlers Inc, 1138 Poplar Pl
Seattle .... EA 2-1155
Can P M Wright Electl Co, 7055 Alexandra St
Montreal............................ 274-8263

HOUSTON ATLAS INC, BOX 19035, HOUSTON
TEX, 77024 .... 713 OV 6-7966
N FLEMING, EMP 12, ENG 4, $100-$250M
Cal Velco Assoc, 22122 Londelius St
Canoga Park 346-1908
NJ Tridon Sales Co, 8 Depot Sq
Englewood.......................... 201 569-8011
Can Travis Chemicals, Ltd, 312 4th Ave, SW
Calgary, Alb......................... 266-5636
Can R E Benner, Ltd, 844 Caledonia Rd
Toronto, Ont......................... 781-2207
For Kuwait Commercial Agency, Box 177, Kuwait
For Triester Handelsgesellschaft, M B H, Box 267
1031, Vienna, Austria
Holl Berg & Burg NV, Valkenburgerstr 145, Amsterdam-C
Ital Ila Venturimetro, Viale Bacchiglione, 28, Milano
Jap Yashima Export & Import Co
9-1 Akasaka 3 Chome, Minato Ku, Tokyo
Arg Santos Zaghi, Casilla De Correo 686, Buenos Aires
Ind Impex Chemical Corp, Box 2399, Bombay 2, BR
Mex Accesorios Y Equipos, S A
Div Del Norte 521 So Piso, Mexico 12, D F
Spn Ataio Ingenieros, Enrique Larreta 12, Madrid 16
Aust Long Industrial Equip Pty, Ltd, 4 Foster St
Darlinghurst NSW

HOUSTON ELECTRONICS CORP, PINE ST EXT, KANE
PA, 16735, TWX 510-695-8461.......... 814 837-9550
H SEGRAVES, EMP 165, ENG 5, $1,000-$2,500M
Kan H Segraves, 7831 B Marty St
Overland Park 649-4848
Pa H B Marshall, 244 Oliver Bldg
Pittsburgh.......................... AT 1-1100

HOUSTON INSTRUMENT DIV BAUSCH & LOMB
4950 TERMINAL AVE, BELLAIRE, TEX, 77401 .... 713 667-7403
L BOWER, EMP 85, ENG 6, $2,500-$5,000M
ADV PG 573
Ala J L Highsmith & Co, Holiday Office Ctr
Huntsville 881-3294
Ariz V T Rupp Co, 5901 W Highland Ave
Phoenix 266-4233
Cal V T Rupp Co, 307 Parkman Ave
Los Angeles......................... 387-8224
Cal V T Rupp Co, 1182 Los Altos Ave
Los Altos 948-1483
Colo Aztec Enterprises, 3385 S Bannock
Englewood........................... 761-0101
Fla J L Highsmith & Co, 2543 Industrial Blvd
Orlando 293-5202
Ill Ridgway Assoc Inc, 9420 Foster Ave
Chicago 992-2150
Kan Leemark Engrs Inc, Box 6175, Leawood... 648-0124
Mass J M Lancaster Co, 147 Concord St
Framingham.......................... 873-8893
Minn Ridgway Assoc Inc, 4901 Garfield Ave S
Minneapolis......................... 824-9059
Mo Leemark Engrs Inc, 9623 St Charles Rock Rd
St Louis 423-8700
NM Aztec Enterprises, 3202 Candelaria Rd NE
Albuquerque......................... 345-3441
NY Industron Co, 300 Northern Blvd
Great Neck.......................... HU 7-2620
NY Doolittle Electronics Inc, Box 97
Fayetteville 637-3222
NC J L Highsmith & Co, 3733 Monroe Rd
Charlotte 333-7743
Ohio Ridgway East Inc, 4654 Michael Ave
North Olmsted....................... 777-7120
Ohio Ridgway East Inc, Box 68, Loveland...... 683-4350
Pa S&S Assoc, Boro Line Rd
King of Prussia 265-3450
Tex Data Engr Corp, 5641 Yale Blvd, Dallas .. 363-9351
Va Nine Assoc, Box 328, Annandale 256-9105
Wash Rush S Drake Assoc, 6133 Maynard Ave
Seattle 763-2755
Can Computing Devices of Can, Box 508
Ottawa, Ont......................... 829-1800
For Industrial Electronics, 89-2 La 75 Nanking E Rd
Taipei, Taiwan
For Coasin Chile Ltd, Casilla 14588 Correo 15
Santiago, Chile
Den Scandia Metric A/S, Naerum Hovegade 121
2850 Naerum 80-42-00
Fr Et Tranchant, 19 rue Madame de Sanzillon
Clichy, Seine
Ger Kontron, GmbH & Co, KG, Lerchenstre 8
Munich 8, Feldmoching
GB Advance Electronics Ltd, Roebuck Rd, Hainault
Ilford, Essex
Holl Algemeene Neder Radio Unie NV, Wijnhaven 80
Rotterdam 1
Ital Soc An Na SRL, Via Arimondi 8, Milano
Jap Toyo Trading Co Ltd, Box 999 Central Tokyo, Tokyo
Nor Feiring Instruments A/S, Langmyrgrenda 1, Oslo 8
SAfr A C Gowlett (Pty) Ltd, Box 1257
Braamfontein, Johannesburg
Swed Scandia-Metric AB, Sodra Langgatan 22, Fack
.... Solna 3
Swit Kontron Elctn AG, Box 193 8031, Zurich
Arg Coasin, S A, Virrey Del Pino 4071, Buenos Aires

Belg Ets L deGreef, 53 Ave Everard, Brussels 19
Ind Teletronix, 18, Military Sq La, Kala Ghoda, Bombay
Isrl Electrotechnical, Box 4229, Haifa
Spn Unitronics, Torre de Madrid, Piso 12 - Oficina 9
Madrid
Fin Nores & Co OY, Fabianinkatu 32, Helsinki
Aust Jacoby, Mitchell & Co, 469-475 Kent St
Sydney, NSW

HOWARD INDUSTRIES MSL INDUS INC, MOTOR GRP
1760 STATE ST, RACINE, WIS, 53404 ... 414 632-2731
C VALLEY, EMP 950, ENG 42, OVER $10,000M
Ala Mech-Tronic Sales Co, Box 3384
Huntsville 539-0876
Cal Nickerson-Gray & Assoc, 2434 Park Blvd
Palo Alto .... DA 6-0152
Cal John Rietz Co, 24310 Little Valley Rd
Hidden Hills 883-4540
Colo Cummings & Assoc, Box 1112
Englewood.......................... 303 789-3449
Fla Steele Technical Sales, 2106 Woodcrest Dr
Winter Park 647-1304
Ill Howard Industries, 23 N Broadway
Des Plaines......................... 827-7743
Kan Herbert F Ziegler Co, 1909 W 43rd St
Kansas City .... AD 6-7352
Mass Sales Engineering Co, Baker Ave
W Concord .... EM 9-3943
Minn Howard Industries, 7710 Computer Ave
Minneapolis......................... 920-5890
Mo Howard Industries, 9322 Manchester Rd
Rock Hill 314 961-3350
NJ Technical Sales Co, 157 Broad St
Red Bank .... SH 1-3356
Ohio Howard Industries, 21330 Center Ridge Rd
Cleveland........................... 531-7745
Ohio Howard Industries, 1700 Needmore Rd
Dayton 513 276-2932
Tex Southland Engrg & Sls Co, 5810 Schumacher Rd
Houston .... MO 6-1292
Tex Southland Engrg & Sales Inc, Box 765
Richardson......................... 214 231-2373

HOWELL INSTRUMENTS CO, 3479 W VICKERY BLVD
FORT WORTH, TEX, 76107.............817 ED 67411
L BECKER, EMP 200, ENG 7, $2,500-$5,000M
Ala Alabama Controls Co, 2775 Springhill Ave
Mobile 479-2345
Ariz Portis & Assoc, Inc, Box 3109
Scottsdale 945-4925
Cal Howell Instruments, Inc, 6360 Paramount Blvd
Long Beach 428-1716
Colo Engineering Research Assoc, 231 Detroit St
Denver 377-8306
Ill A S & H Assoc, 6272 W North Ave
Chicago 237-2343
Kan H K James Co, 2707 W 43rd St
Kansas City .... CO 2-1717
Mich Carter, McCormic & Peirce, 16239 Wyoming Ave
Detroit 863-4600
Minn Howell Instruments, Inc, 2811 Idaho Ave N
Minneapolis......................... 544-2646
Mo Williams Equip Co, 8114 Page Blvd
St Louis 423-1300
NY Howell Instruments, Inc, 108 S Franklin Ave
Valley Stream .... LO 1-9220
NC MacGuire Instruments Co, 4425 Randolph Rd
Charlotte 366-3454
Ohio Carter, McCormic & Peirce, 3406 N Main St
Dayton 278-5873
Okla Paul King Co, 826 N Fulton, Tulsa ...... TE 6-2501
Utah Engineering Research Assoc, 2250 E 17th St S
Salt Lake City 485-9253
Wash R R Chase & Assoc, 12422 68th Ave NE
Kirkland .... VA 2-6600
Can George Kelk Ltd, 5 Lesmill Rd, Don Mills, Ont
For Bryans Ltd, 15 Willow La, Mitcham, Surrey
Jap C Itoh & Co, CPO Box 136, Tokyo

HOWIE CORP, NOBLE & JACKSON STS, NORRISTOWN
PA, 19401 .... 215 279-8190
K HOWIE JR, EMP 50, ENG 4

HOWMET CORP AUSTENAL MICROCAST DIV, BOX 625
DOVER
N J, 07801, TWX 710-987-7964 .... 201 361-0300
R BARBERO, EMP 2100, ENG 45, OVER $10,000M
Cal Howmet Corp, 13562 Valleyheart Dr
Sherman Oaks...................... 213 784-6204
Conn Howmet Corp, 3272 Main St
Stratford.......................... 203 375-5251
Ind Howmet Corp, 6450 W 10th St
Indianapolis....................... 317 241-6611
Mass Howmet Corp, 328B Broadway
Lynn 617 593-3390

HOWMET CORP MISCO DIV, 221 W WEBSTER AVE
MUSKEGON
MICH, 49440, TWX 726-5610 .... 616 726-3541
K YONKER, EMP 2000, OVER $10,000M
Cal J L Nichols, 6812 Alexander Dr
Huntington Beach 714 897-3183
Cal C J Anderson, 2638 Chanticleer Rd
Anaheim........................... 714 527-1487
Conn R A Flowers, Village Hill Rd RFD 3
Stafford Springs 203 684-3644
Fla J H Spade, 3810 NE 27th Terr
Lighthouse Point 305 943-3482
Mass H F Carlson, 128 County St
Peabody 617 531-6187
Mich R Hollander, 26362 Pillsbury Rd
Farmington......................... 313 474-0354

Ohio A Reman, 18 Milford Hills Dr
Milford 513 831-4576
Pa G J Probost, Box 185
King of Prussia 215 265-3296
Pa G Gould, 715 Empire Bldg
Pittsburgh......................... 412 281-9960
Tex P H Johnson, 6414 E Bandera
Dallas............................. 214 368-4865

HOYT ELECTRICAL INSTRUMENT WORKS INC
BURTON-ROGERS CO SLS DIV, 42 CARLETON ST
CAMBRIDGE, MASS, 02142............ 617 491-7400
W BURTON, EMP 250, $1,000-$2,500M
Cal Duncan Engrg Sales, 1800 N Highland Ave
Hollywood 213 462-5880
Colo James Dolliver, 1441 Humboldt
Denver .... FR 7-4740
Fla Geartner Assoc, 350 Lincoln Rd
Miami Beach........................ 305 531-0200
Ill R M Krueger Co Inc, 5755 W Irving Park Rd
Chicago .... 312 AV 2-8444
Ind Val-Skol Sales Inc, 510 Fort Wayne Bldg
Fort Wayne 219 742-9122
Md Moler Eader Assoc, 320 Hillen Rd
Baltimore.......................... 301 VA 5-1130
Mass G E Morton Co, 161 Summer St
Scituate 617 545-0155
Minn Mark Sales Co, 3100 Humboldt Ave S
Minneapolis........................ 612 825-0911
Mo K-M Sales, 17th & Main St
Kansas City .... 816 GR 1-1355
NJ Peterson-Rudnick Assoc, Box 822
W Caldwell .... 201 CA 6-4363
NJ Moler Eader Assoc, Box 240
haddonfield 609 428-2440
NY Peterson-Rudnich Assoc, 364 Lincoln Pl
Brooklyn........................... 212 ST 9-9585
NY Carlen Reps, 206 E Genesee St
Syracuse........................... 315 422-6155
Ohio Val-Skol Sales Inc, 12417 Cedar Rd
Cleveland Heights.................. 216 FA 1-0266
Tex Stevens Sales, Box 34493, Dallas ... 214 241-3645
Wash Elden Bowden Co, 12927 NE 26th Pl
Bellevue........................... 206 VA 2-5608
Can Electro-Meters Co, Ltd, 9 Milvan Dr
Weston, Ont 741-5972
BC Frank T Ross & Sons Ltd, 4384 Ross Crescent
W Vancouver 922-6960

HUCK MFG CO, 2500 BELLEVUE AVE, DETROIT
MICH, 48207, TWX 313-222-5517 ...... 313 923-4500
A COOK, EMP 1000, OVER $10,000M
Cal W M Freeburg, 12624 S Daphne, Hawthorne
Cal W R Wyckoff, 560 San Antonio Rd, Palo Alto
Ga Frank F DeLoach, 576 Armour Cir NE, Atlanta
Ill W N Gibler, 7956 W Oakton, Chicago
NJ A J Upton, 2115 Rte 22, Union
Ohio J M Nestor, 5656 Mayfield Rd
Lyndhurst 216 449-0334
Tex A J Walker, 100 N University Ave, Ft Worth

HUDSON LAMP CO, 528 ELM ST, KEARNY
N J, 07032 .... 201 997-1850
P RUST, EMP 275, ENG 5, $2,500-$5,000M
Ariz Don V Hamilton, 5363 E Pima St
Tucson 326-6461
Cal W W Posey Co, 175 S San Antonio Rd
Los Altos 948-7771
Cal Rep Assoc, 1645 S LaCienega Blvd
Los Angeles........................ 274-8485
Ga Paul Oxley, Box 4412, Macon 743-6160
Ind Southern Sales Co, 105 Lakeshore Dr
Angola 665-3961
Kan R W Schultz, 2800 W 73rd St
Prairie Village 362-2449
Mass Coakley, Boyd & Abbett, Box 248
Needham 444-5470
Mich Grant Schaffer Co, 14241 Fenkell Ave
Detroit 273-5390
Minn James Lee Co, 4241 Toledo Ave S
Minneapolis........................ 920-1525
Mo L R Harry & Assoc, Box 588
Grandview 503-3634
NJ Megatone Inc, 240 Grand Ave, Leonia 944-2212
NY LCA Sales Inc, 76 Main St, Tuckahoe... WO 1-4700
NY Paul A Sweeney, 750 Kensington Ave
Plainfield......................... 757-4523
Ohio E H Alexander, 15437 Hemlock Pt RD
Chagrin Falls...................... 338-6861
Ohio Luebbe Sales Co, 2649 Erie Ave
Cincinnati......................... 513 871-4211
Pa W C Sales, Box 109, Easton 252-8300
Pa Shelmar Elec Corp, Box 254, Glenside.... 885-0800
Tenn Dixie Electronic Assoc, Box 200
Madison 895-5666
Tex Jack Yount, Box 17270, Dallas 391-4125
Wash Farwest Agencies, Box 805, Bellevue..... 747-1515

HUDSON WIRE CO, 62 WATER ST, OSSINING
N Y, 10563 .... 914 941-8500
R ABERCROMBIE
Cal Western States Wire & Cable, 1500 S Calzona Ave
Los Angeles........................ 264-1291
Ga Hudson Wire Co, Trenton 657-4321
Ill Hudson Wire Co, 10108 Pacific Ave
Franklin Park 678-8810
NY Jerome J Theobald, 9 E Genessee St
Skaneateles 685-5711
NY Harold B Heft, Box 623, Lynbrook........ 599-3351
Ohio Orr Assoc, 6510 Farnsworth Dr, Parma ... 886-1324
Tenn Philip B Vest, Box 10104, Knoxville 588-0456
Tex Blackburn Assoc, Box 20073, Dallas .... FL 1-9991

HUGHES AIRCRAFT CO, 500 SUPERIOR AVE
NEWPORT BEACH
CAL, 92663, TWX 714 642-1353 .... 714 548-0671
E GOULD III, EMP 1100, ENG 160
Ala F C Nickerson Co, Box 1463
Huntsville 205 881-9565
Ariz Carl Hower & Co, 431 Winfield Scott Pl
Scottsdale 602 947-4204
Cal Hughes Aircraft Co, 500 Superior Ave
Newport Beach 714 548-0671
Cal Deere Electronics, Inc, 20440 Town Center La
Cupertino 408 257-3040
Colo Simpson Assoc, 8000 S Kendall Blvd
Littleton 303 798-8439
Conn Forsberg Sales, 22 Broadway
North Haven 203 239-5111
DC Hughes Aircraft Co, 1875 Connecticut Ave
Washington 202 234-9300
Fla F C Nickerson Co, 4513 S Cameron Ave
Tampa 813 833-4321
Ga F C Nickerson Co, 1244 Clairmont Ave
Decatur 404 377-1575
Ill Hughes Aircraft Co, 2 Talcott Ave
Park Ridge 312 823-5192
Ill Schroeder & Loomis, Inc, 714 E 65th St
Indianapolis 317 251-4571
Kan Technical Reps, Inc, 809 Sheridan Cir
Olathe 913 782-3775
Kan Technical Reps, Inc, 6814 Farmview La
Wichita 316 682-4140
Mass Forsberg Sales, 646 Summer St
Brockton 617 522-6300
Minn Hughes Aircraft Co, 5217 Wayzata Blvd
Minneapolis 612 544-2759
Mo Technical Reps, Inc., 7049 Laupher La
Hazelwood 314 521-1000
NJ Hughes Aircraft Co, 1284 N Broad St
Hillside 201 289-7600
NY Hughes Aircraft Co, 295 Northern Blvd
Great Neck 516 487-3900
NY C W Floring & H R Murray, Inc, 6585 Kinne Rd
Syracuse 315 446-5555
NC F C Nickerson Co, 329 Strickland Ave
Winston-Salem 919 788-8401
Ohio R G Sidnell & Co, 14235 Detroit Ave
Cleveland 216 221-1313
Ohio R G Sidnell & Co, 3400 S Dixie Dr
Dayton 513 293-1194
Ore L A Lawson, 630 SE Belmont
Portland 503 232-0161
Tex J Y Schoonmaker, Inc, 107 Winnetka Rd
San Antonio 512 342-0251
Tex J Y Schoonmaker, Inc, 2995 Lady Bird La
Dallas 214 357-8481
Tex J Y Schoonmaker, Inc, 6001 Gulf Fwy
Houston 713 649-0186

HUGHES AIRCRAFT CO, ELECTRON DYNAMICS DIV
3100 W LOMITA BLVD, TORRANCE
CAL, 90509 .... 213 534-2121
L SMITH, EMP 800, ENG 100, OVER $10,000M
DC Hughes Electron Dynamics Div, 1875 Conn Ave
Washington 202 234-9300
Mass Hughes Electron Dynamics Div, 594 Marrett Rd
Lexington 617 861-0358
NJ Hughes Electron Dynamics Div
Crystal Brook Hwy 35, Eatontown .. 201 741-1259
For Hughes Ind Elctns Gr Intl Sales, Box 90927
Los Angeles 213 776-1515

HUGHES AIRCRAFT CO VAC TUBE PRODS DIV
STORAGE TUBES & COMML DISPLAY SYS
2020 OCEANSIDE BLVD, OCEANSIDE
CAL, 92054, TWX 910 322-1380 .... 714 757-1200
R CURRY, EMP 400, ENG 75, $5,000-$10,000M
NJ Hughes Aircraft Co, 1284 N Broad St
Hillside 289-7770

HUGHES AIRCRAFT CO VACUUM TUBE PRODS DIV
VACUUM DEVICES DEPT, 2020 OCEANSIDE BLVD
OCEANSIDE, CAL, 92057 .... 714 757-1200
W VAN DER LINDEN, EMP 400, ENG 100, OVER
$10,000M
Ala Physimetrics, Box 4108, Farley Sta
Huntsville 881-4965
Colo Edward W Johnson, 10130 W Asbury Ave
Denver 985-4810
Fla Physimetrics, 999 Woodcock Rd
Orlando 841-4956
Ga Physimetrics, 3376 Peachtree Rd, NE
Atlanta 237-8278
Ill Mesco Incorp, 9930 S Western Ave
Chicago 445-7121
Mass Mechanical Mktg Engrs, 20 Congress Ave
Chelsea 889-2279
NY Electrolab Equip Co, 12 Bromleigh Rd
Garden City 775-5562
Ohio Aertronic Assoc, Inc, 5899 Huberville Ave
Dayton 235-8144
Pa Wm Dugger Co, 412 E Spring Ave
Ardmore 649-0889

HUGHES AIRCRAFT CO WELDER DEPT
2020 OCEANSIDE BLVD, OCEANSIDE
CAL, 92054 .... 714 757-1200
C ROLLINS, EMP 28, ENG 5, OVER $10,000M
Ariz Allen Assoc, Box 3091 Papago Sta
Scottsdale 602 945-5781
Cal G E Woods Assoc, 2415 S Manchester Ave
Anaheim 633-9370
Conn E E Specialties Ic, 281 Vera Rd
Bristol 203 584-0077
DC WarenMount Co, 7735 Old Georgetown Rd
Bethesda, Md 657-9312
Fla MacGregor Assoc, Inc, Box 1711
Clearwater 446-7310
Fla Macgregor Assoc, Box 2093, Orlando 831-0445
Ga MacGregor Assoc, Inc, 3473 Northlake Way
Doraville 938-0681
Ill Jay C Angel & Co, 2743 W Peterson Ave
Chicago 878-0653
Kan Dunbar Mid-States Co, 1839 N 70th St
Kansas City 299-2789
Md Warren Mount Co, 7735 Old Georgetown Rd
Bethesda 657-9312
Mass E E Specialists Inc, 111 Massachusetts Ave
Boxborough 259-9200
Minn Dunbar Mid-States Co, 1839 N 70th St
Kansas City 299-2789
NJ L & M Assoc, 511 Victor St
Saddle Brook 843-8700
NY R N Hoopes Assoc, Box 21, Fairport 377-4040
NY L & M Assoc, 7 Mayflower Ct
Brentwood 516 231-8363
NC MacGregor Assoc Inc, 2501 Starbrook Dr
Charlotte 366-9040
Ohio R G Sidnell & Co Inc, 14701 Detroit Ave
Cleveland 221-1313
Ohio R G Sidnell & Co Inc, 3400 S Dixie Dr
Dayton 293-1194
Okla Dunbar Mid-States Co, Box 1858
Ponca City 405 762-5400
Ore Van Voorhees Assoc, Box 4383
Portland 287-6633
Pa R G Sidnell & Co, Inc, 1007 Wood St
Pittsburgh 242-1476
Pa L & M Assoc, 965-A Bristol Pike
Andalusia 639-3100
Tex John A Green Co, 7118 Envoy Ct
Dallas 631-7450
Can Whittaker Elctns Ltd, 42 Howden Ave
Ottawa 5 Ont 224-1221
For International Sales, 11220 S Hindry Ave
Los Angeles, Cal 776-1515
Fr Hughes Intl, 116 Rue de la Tour
Paris 16E TR089-44
Ger Hughes Intl, Adenauerallee 209, 53 Bonn ... 228091
GB Emihus Microcomponents Ltd, Bath Rd Cranford
Hounslow Mdsx SK-9584
Jap Hughes Intl C/O Nippon Aviotronics
CPO Box 1089, Tokyo 501-7927
Swed Hughes International, Strandvaegen 23
S-144 56 Stockholm 63-52-65
Swit Hughes International, Belpstr 16, Berne ... 25-64-22
Swit Hughes Intl (Husint SA), 3 Rue Ami Lullin
Geneva 35-94-05
Belg Hughes Intl (Cobelda), 1470 Chausse de Haecht
Brussels 13 15-88-40

HUGHES CONNECTING DEVICES, 500 SUPERIOR AVE
NEWPORT BEACH
CAL, 92663, TWX 714/642-1353 .... 714 548-0671
D DELORENZIS, EMP 125, ENG 15, $2,500-$5,000M
ADV PG 83, 180, 183, 185, 192, 194
Cal West Inc, 3825 Birch St
Newport Beach 714 540-9040
Cal Deere Electronics, 20440 Town Center La
Cupertino 412 776-3211
Colo Williams Assoc, Inc, 4971 Jackson St
Denver 388-4391
Conn William McCoy Co, 896 Main St
Branford 488-2012
Fla Spectec Engrg Reps Div, 222 Weber Ave
Orlando 305 425-5505
Ill Technical Devices, Inc, 6416 N Central Ave
Chicago 774-8252
Md Kraft Sales Engr, 510 Woodbine Ave
Towson 828-5838
Minn Fred B Hill Co, 6110 Excelsior Blvd
Mnpls 929-6727
Mo Ridgewood Sales Co, 8754 Big Bend Bend Blvd
St Louis 314 966-6878
NJ Tom Mills Co, 13B Tanner St
Haddonfield 429-1005
NJ Robert Home Assoc, Box 31
Pompton Lakes 835-7400
NY C Floring & H Murray Inc, 6585 Kinne Rd
Syracuse 446-5555
Ohio Luebbe Sales Co, 2649 Erie Ave
Cincinnati 871-4211
Ohio Luebbe Sales Co, 1010 Euclid Ave
Cleveland 216 771-7100
Pa Anderson Connector Corp, Box 237
Wexford 776-3211
Tex Space Electronics Corp, Irving Bank Towers
Irving 631-0905
Wash Hughes Aircraft Co, Box 487, Redmond
For Hughes Intl, 11220 S Hindry Ave
Los Angeles 213 776-1515

HUGHES ELECTRONICS CO, 5271 W JEFFERSON BLVD
LOS ANGELES, CAL, 90016 .... 213 937-2160
L BENITEZ, EMP 6, ENG 1, $250-$500M

HUGHEY & PHILLIPS INC, 3050 N CALIFORNIA ST
BURBANK
CAL, 91503, TWX 910-498-2252 .... 213 849-1104
C STEPHENS, EMP 30, ENG 5, $500-$1,000M
DC Faion Lott & Co, Box 534
Glen Burnie 301 744-4611
Fla L W Shaw & Assoc, Box 273
Clearwater 813 584-3175
Ill Lang, Claeson & Assoc, 6733 N Olmstead Ave
Chicago 312 774-3610
Kan Fleming & Co, 3021 Main St
Kansas City 816 753-0111
Mo Control Equipment Co, 1246 Hampton Ave
St Louis 314 647-1022
Tenn J Irvin, Box 816, Nashville 615 255-2219
Tex T F Sears Co, 6434 Maple, Dallas ... 214 357-4161
Can Beechey Enterprises, 3218 Weston Rd
Weston, Ont 416 244-8051

HUGHSON CHEMICAL CO DIV LORD CORP
1635 W 12TH ST, ERIE, PA, 16512 ..... 814 455-7581
C PETERSON, EMP 100, ENG 10
Conn Hughson Chemical Co Div, 61 Cook Hill Rd
Windsor 688-4283
Ga Hughson Chemical Co, 2250 N Druid Hills Rd
Atlanta 636-9475
Ill Hughson Chem Co Div, 2000 Spring Rd
Oak Brook 654-3445
Ohio H Rooney, 1815 W Market St, Akron 836-3613
Pa Hughson Chem Co Div, 1420 Walnut St
Philadelphia 735-0272
Tex Hughon Chem Co, 2400 W Loop S
Houston 622-4205

HUGLE INDUSTRIES, 750 N PASTORIA AVE
SUNNYVALE, CAL, 94086 .... 408 738-1700
D DAVIS, EMP 11, ENG 5, $250-$500M
Cal Hybrid Electronics, 312 7th St
San Francisco 415 863-2543
Cal Charles L Repp Co, 12121 Wilshire Blvd
Los Angeles 213 477-4475
Mo R R Burton Sales Co, 9915 E 63rd St
Raytown 816 358-5370
NY Bradley Assoc Corp, 130 Van Cortlandt Ave
West Bronx 212 549-8500
NY Waters Metal Products, 290 Larkin St
Buffalo 716 852-3057
Tex Southwest Engrg Sales Co, Box 30177
Dallas 214 363-4619
Fr Seurolec, 39-40 Rue De L'est
Boulogne-Billancourt, Seine
Jap Rikei Trading Co, Ltd
18-14 Nishi-Shimbashi, 1-Chome, Minatoku
Tokyo 591-5246

HULL & CO INC, R O, 3203 W 71ST ST, CLEVELAND
OHIO, 44102 .... 216 651-7300
J WEYLS, EMP 70
Cal R O Hull & Co, Inc, 1340 E 6th St
Los Angeles 623-9261
Conn R O Hull & Co, Inc, 110 Old South Ave
Stratford 378-7339
Mich R O Hull & Co, Inc, 66 E 10 Mile Rd
Hazel Park 564-5940
Ohio R O Hull & Co, Inc, 2280 E River Rd
Dayton 293-6829
SC R O Hull & Co, Inc, 511-15 Rhett St
Greenville 233-3904
Tex R O Hull & Co, Inc, 1333 Crampton St
Dallas 631-6630

HULL CORP, 8201 DAVISVILLE RD, HATBORO
PA, 19040, TWX 510-665-6822 .... 215 672-7800
J HULL, EMP 150, ENG 20, $5,000-$10,000M
Cal J W Tyslan, 18432 Topham St
Tarzana 213 345-7558
Ill R M Krask, 4734 Main St, Lisle 312 969-3727
Ill P N Haycox, 3540 Willowdale Rd
Ft Wayne 219 422-8921
Mass A Schramm, Oxbow Dr, Groton 617 448-8921
Mich P Haycox, 3540 Willowdale Rd
Ft Wayne 219 422-8921
Minn R M Krask, 4734 Main St, Lisle 312 969-3727
Mo W A Dehmer Jr, 10745 Waycroft Dr
St Louis 314 423-2700
NJ Neil Carey, Davisville Rd
Hatboro, Pa 215 672-7800
NJ W d'Usseaux, 999 Palmer Ave
Middletown 201 671-2111
NY L Guenther, 2617 Kimberly Dr
Erie, Pa 814 866-1145
NC L N Klein, 3004 The Plaza
Charlotte 704 332-5342
Ohio P N Haycox, 3540 Willowdale Rd
Ft Wayne 219 422-8921
Pa L Guenther, 2617 Kimberly Dr
Erie 814 866-1145
Can Wistar Silver, Davisville Rd
Hatboro 215 672-7800
Ger G Hering, 2 Hamburg 1, Spaldingstr1

HUMBLE OIL & REFINING CO, BOX 2180, HOUSTON
TEX, 77001 .... 713 CA 13636
A MCNEILLY, OVER $10,000M
Cal Humble Oil & Ref Co, 1800 Ave of the Stars
Los Angeles 879-2700
Ill Humble Oil & Ref Co, 1105 W 22nd St
Oak Brook 654-2600
Md Humble Oil & Ref Co, 7720 York Rd
Baltimore .... VA 5-5400
Mass Humble Oil & Ref Co, 1330 Boylston St
Chestnut Hill .... CO 6-2600
NY Humble Oil & Ref Co, Hutchinson River Pkwy
Pelham .... PE 8-4700
NC Humble Oil & Ref Co, 1600 Woodlawn Rd
Charlotte .... JA 3-2211
Ohio Humble Oil & Ref Co, 700 Bryden Rd
Columbus 221-3161
Tenn Humble Oil & Ref Co, 1211 Union Ave
Memphis 272-2461
Tex Humble Oil & Ref Co, Southland Center
Dallas .... RI 8-8261

HUMPHREY ELECTRONICS INC
5815 HILLSBOROUGH ST, RALEIGH
N C, 27606 .... 919 833-9031
R SCHMITZER, EMP 10, ENG 4, $100-$250M

HUMPHREY INC, 2805 CANON ST, SAN DIEGO
CAL, 92106, TWX 910-335-1266........ 714 223-1654
P HUMPHREY, EMP 120, ENG 21, $2,500-$5,000M
Cal TransDynamics Inc, 3108 Fifth Ave
San Diego 714 298-8215
Cal TransDynamics, Inc, 4450 Lakeside Dr
Burbank 213 849-6262
Cal TransDynamics, Inc, 701 Welch Rd
Palo Alto 415 326-6527
Colo Transdynamics, Inc, 3401 S Bannock St
Englewood 303 761-0455
Fla Technical Mktg, Inc, 1511 E Robinson
Orlando 305 424-8531
Kan C R Bonnell, 2101 N Parkwood La
Wichita .... 316 MU 6-0761
Mo OEM Sales Co, Box 252, Florissant 837-9400
NY Andrews & Andrews, 140 E Main St
Huntington 516 427-1313
Ohio Clifford Electronic Sales, Box 81
Toledo 419 882-4000
Pa Humphrey Inc, N Phila Airport
Phila 215 676-1654
Tex W N Rider Co, 6211 Denton Dr
Dallas 214 357-2246
Wash TransDynamics, Inc, 7834 E 32nd St
Mercer Island 206 232-1094
Can Railway & Power Eng Corp Ltd
3745 St James St W
Montreal Que 514 933-6741
For Aeromaritime Inc, 2008 Hillyer Pl NW
Washington, DC 202 462-9100

HUNGERFORD & TERRY INC, ATLANTIC BLVD
CLAYTON, N J, 08312 .... 609 TU 1-3200
A NAUTA, EMP 100, ENG 20, $1,000-$2,500M

HUNT CHEMICAL CORP, PHILIP A, ROOSEVELT PLACE
PALISADES PARK, N J, 07650 .... 201 944-4000
B FISHER, EMP 480, ENG 2, OVER $10,000M
Cal P A Hunt Chemical Corp, 4225 Charter St
Los Angeles 589-9111
Cal P A Hunt Chemical Corp, 707 Army St
San Francisco .... AT 5-1700
Conn P A Hunt Chemical Corp, 119 Ann St
Hartford 247-8184
DC P A Hunt Chemical Corp, 1030 15th St NW
Washington 296-2393
Fla P A Hunt Chemical Corp, 1612 Congress Bldg
Miami 374-3976
Ga P A Hunt Chemical Corp, 333 Candler Bldg
Atlanta .... MU 8-4944
Ill P A Hunt Chemical Corp, 2108 W Fullerton Ave
Chicago .... HU 6-8500
Kan P A Hunt Chemical Corp, 7208 W 80th St
Overland Park .... MI 9-7200
Md P A Hunt Chemical Corp, 19 E 21st St
Baltimore 685-3050
Mass P A Hunt Chemical Corp, 763A Concord Ave
Cambridge .... TR 6-7050
Mich P A Hunt Chemical Corp, 3690 Dunn Rd
Detroit .... WA 5-5130
Minn P A Hunt Chemical Corp, 8452 Pillsbury Ave S
Minneapolis 888-5802
NY P A Hunt Chemical Corp, 47-20 30th St
LIC .... EM 1-9500
Ohio P A Hunt Chemical Corp, 1717 Section Rd
Cincinnati 631-3341
Ohio P A Hunt Chemical Corp, 5150 Grant Ave
Cleveland .... DI 1-9132
Pa P A Hunt Chemical Corp, 401 N Broad St
Philadelphia .... MA 7-3212
Tex P A Hunt Chemical Corp, 3191 Commonwealth Dr
Dallas .... ME 1-8230
Tex P A Hunt Chemical Corp, 1809 Crawford St
Houston .... CA 2-2761
Wash P A Hunt Chemical Corp, 1000 4th Ave S
Seattle .... MA 4-6653
Can P A Hunt Co Can Ltd, 207 Queen's Quay W
Toronto, Ont .... EM 3-5456
Can P A Hunt Co (Can) Ltd, 1118 St Catherine St W
Montreal, Que 521-3191
Can P A Hunt Co (Can) Ltd, 215 10th Ave SW
Calgary, Alb .... AM 3-2252

HUNT ELECTRONICS CO, 2617 ANDJON, DALLAS
TEX, 75220 .... 214 FL 2-8421
H PRESLEY, EMP 200, ENG 18, $2,500-$5,000M
Mex Disenos Y Applicaciones, Reforma 226 altos
Mexico, 6 DF 25-16-48

HUNTER INDUSTRIES, 9851 ALBURTIS AVE
SANTA FE SPRINGS, CAL, 90670 .... 213 692-7281
W SCHICK, EMP 82, ENG 3, $1,000-$2,500M
Cal Roger Munck, 5 Fairchild Dr, Mt View 967-5305
Cal Tooltronics, 9849 Alburtis Ave
Santa Fe Spgs 861-4782
Conn Ed Carroll, 165 London Dr, Hamden 288-0044
Ga Murphy & Cota, 586 Armour Cir NE
Atlanta 404 875-2525
Haw Gene Piety, Box 2903, Honolulu
Ill Tooltronics - Chicago, 4917 W Belmont Ae
Chicago 725-2907
Iowa Richard Capps, 549 Ottumwa St
Ottumwa 684-6110
Minn Richard Swanson, 2655 Brighton
Mnpls 789-5636
Mo Norman Kathrinus, 2427 Brentwood Blvd
St Louis 962-5627
NY Irv Morse, 2351 E 65th St, Brooklyn 267-2913
NY Fish Assoc, 149 Roosevelt Dr, Utica
Ohio Louder Co, 3833 Thornton Dr
Cincinnati 791-9570
Ore J V Belusko, 2355 NW Quimby St
Portland 503 222-4279

Pa W Schick, 904 Henrietta Ave
Huntingdon Valley 379-4760
Pa Sher Sales Co, 21 Cactus Rd, Levittown
Tex Techno Assoc, Box 20544, Dallas 357-921
Utah Arrowhead Sales Corp, 1966 W 6255 S
Salt Lake City 801 298-2751
Can Len Finkler Ltd, 2 Tycos Dr, Toronto
For E D Magnus & Co, 5715 N Lincoln Ave, Chicago, Ill

HUNTER SPRING DIV AMETEK INC, 1 SPRING AVE
HATFIELD
PA, 19440, TWX 510-661-4888 .... 215 822-2971
S CONIGLIO, EMP 500, ENG 40, OVER $10,000M
Cal P S Hicks, 15401 E Carmenita Rd
Sante Fe Springs 213 921-1481
Ill D C Schellinger, 5620 Plymouth Ct
Downers Grove 968-5933
Mass J P Glidden, 105 River Rd, Merrimac ..... FI 6-9764
Mich J V Bishop, 23859 Woodham St
Northville 349-9964
NJ A M Hepp, 177 Prospect St, Garfield 478-5744
NY G B Wittet, 766 Westlake Dr
Canandaigua 315 394-3889
Pa J B Gallagher, 3017 Cottman St
Philadelphia .... 215 DE 8-2448
Pa G B Halt, 27 Devon Dr
Newtown Square 215 EL6-8611

HUNTER STANLEY ELECTRONICS INC, 208 RUSSELL ST
NASHVILLE, TENN, 37213 .... 615 254-6532
W STANLEY, EMP 10, ENG 2, $100-$250M
Tex Manufacturers Mktg Serv, 10303 Carry Back Cir
Dallas 214 357-6893
Tex Manufacturers Mktg Serv, 6306 Schevers St
Houston 713 645-3581

HUPPERT CO, K H, 16850 S STATE ST
SOUTH HOLLAND, ILL, 60473 .... 312 339-2020
M PATTERSON, EMP 64, ENG 3, $500-$1,000M
Ala Industrial Htg & Finishing Co, Hoover Hwy 31 S,
Birmingham
Cal Milligan-Spika Co, 1485 Bayshore Blvd
San Francisco
Cal Pacific Combustion Engrg Co, 5272 E Valley Blvd
Los Angeles
Colo T C Jarrett Co, 15 Hillside Dr, Denver
Conn Halloran Equipment Co, 63 Mowry St, Hamden
Fla Gulf Coast Ind Supply Co, 2226 Fairfield Ave
St Petersburg
Ga Consolidated Eng Co, 3272 Peachtree Rd Ne, Atlanta
La Richards Machinery & Supply Co, 200 Edwards St
Shreveport
Md W L Behymer & Co Inc, 4583 Govans Station
Baltimore
Mass Boston Machinery & Tool Co, 119 Foster St, Peabody
Minn Kemp-Manning Sales Co Inc, 85 Richardson St SE
New Brighton
Mo Ellfeldt Machinery & Supply Co, 1801 McGee St
Kansas City
Mo Beaco Equipment Co, 1304 Christine Ave
St Louis .... YO 5-8600
Neb Fuchs Machinery & Supply Co, 2401 N 11th St
Omaha
NM Equipment Sales & Mfg Co, 1018 4th St NW
Albuquerque
NY Larry Lewis, 1202 Avenue I, Brooklyn
SC Tidewater Supply Co, Box 1183, Greenville
Tex Thermodyne Products Inc, 3305 Sul Ross, Houston
Wash Hartley & Co Inc, 223 Terminal Bldg, Seattle
Wis Industrial Heat Control Prods, 418 Hawthorne Ave
S Milwaukee
Can Caneng Mfg Co Ltd, Box 628, Niagara Falls, Ont

HURLETRON INC, 1938 E FAIRCHILD ST, DANVILLE
ILL, 61832, TWX 910-244-0702 .... 217 446-6500
A MAGRO, EMP 200, ENG 30, $2,500-$5,000M
Cal Hurletron Inc, 1518 Belleville Way
Sunnyvale .... CH 5-2343
Pa Hurletron Inc, Box 266, North Wales .... OX 9-9685
Can Industron Corp, 1 Phoebe St, Toronto 2B

HURON INDUSTRIES, BOX 104, PORT HURON
MICH, 48060 .... 313 984-4213
E KREUTZIGER, UP TO $100M

HURST MFG CORP, ROAD 64 EAST, PRINCETON
IND, 47570, TWX 810-350-2341 .... 812 385-2564
W TAYLOR, EMP 125, ENG 8, $1,000-$2,500M
ADV PG 434
Cal Long & Assoc, 505 Middlefield Rd
Redwood City .... EM 9-3324
Cal Penwarden Assoc, 14547 Titus St
Van Nuys .... ST 2-4920
Ill Bierhaus Sales Co Inc, 1013 E 31st St
LaGrange Park 354-5100
Ind R O Whitesell & Assoc, 6620 E Washington
Indianapolis .... FL 9-5374
Md Billis Sales Co, 110 Gorsuch Rd
Timonium .... CL 2-0779
Mass Hathaway Electronics Inc, 7-11 Mystic St
Arlington 646-1380
Mich Grant Shaffer Co, 14241 Fenkell Ave
Detroit 273-5390
Minn White Sales Co, 5618 W 39th St
Minneapolis 929-4661
NJ Billis Sales Co, 14 Galway La
Cherry Hill .... HA 8-3651
NY Carse Sales Co, 180 Old Loudon Rd
Latham .... AL 5-5844
NY Maury Farber Assoc, 220 Delaware Ave
Buffalo .... TL 6-3543

NY F Edwin Schmitt Co, 311 Meacham St
Elmont 437-8150
Pa Gene S Root Co, 809 Wainwright Dr
Pittsburgh .... LO 1-4125
Tenn Cartwright & Bean, 560 S Cooper St
Memphis .... BR 6-4442
Tex John B Guenther, 4533 N Central Expwy
Dallas .... LA 8-6286
Wash Fred H Haight Co, 3212 Eastlake Ave
Seattle 2 .... EA 1818
Can Lake Engineering Co Ltd, 123 Manville Rd
Scarborough, Ont .... PL 7-3253

HYBRID SYSTEMS CORP, 127 ALEWIFE BROOK PKWY
CAMBRIDGE, MASS, 02140 .... 617 492-6070
ENG 5, $250-$500M

HY-CAL ENGINEERING, 12105 LOS NIETOS RD
SANTA FE SPRINGS, CAL, 90670 .... 213 698-7785
R SKODIS, EMP 45, ENG 7, $500-$1,000M
Ala Physimetrics Inc, Box 4108 Farley Sta, Huntsville
Ariz Vinson Assoc, 44 E Indian School Rd
Scottsdale 602 947-7371
Cal Richards Assoc, 900 San Antonio
Los Altos 941-3226
Cal Miad Inc, 8816 S Sepulveda
Los Angeles 213 776-3595
Colo Vinson Assoc, 3600 S Lincoln
Englewood 303 789-2203
Conn Lindgren Assoc, Box 61, Wilton 762-8114
Fla Physimetrics Inc, 999 Woodcock Rd, Orlando
Ga Physimetrics Inc, 3376 Peachtree Rd NE
Atlanta 404 237-8278
Ill Marsland Assoc, 6699 N Lincoln Ave
Chicago 312 676-1100
Ind Marsland Assoc, 6730 E 19th St
Indianapolis .... 317 FL 6-4249
Md Kinney Technical Prods, 1827 Wheaton Sta
Silver Spring 942-1033
Mich Measurement Instr Inc, 14217 Michigan Ave
Dearborn 313 278-4744
Minn Marsland Assoc, 231 N Edgewood Ave
Minneapolis .... 612 LI 5-4481
Mo Marsland Assoc, Box 567
Florissant .... 314 TE 1-0015
NM Vinson Assoc, Box 3295 Sta D
Albuquerque 505 298-7442
NY Lindgren Assoc, Box 473 Huntington Sta
Long Island City 261-7937
NC Physimetrics Inc, 500 E Morehead St
Charlotte 704 372-3179
Ohio Measurement Instr Inc, 2074 Arlington Ave
Columbus 614 488-9753
Ohio Measurement Instr Inc, 19115 Detroit Rd
Cleveland 216 333-6611
Ohio Measurement Instr Inc, 338 Ridgeway, Cincinnati
Pa Measurement Instr Inc, 908 Perry Hwy
Pittsburgh 412 366-1906
Tex C M Asfahl Agency, Box 22585
Houston .... JA 3-3764
Utah Peirce Bowthorpe Agency, 143 S Fourth E
Salt Lake City 328-4513
Wash Brett Engineering Assoc, 2610 38th Ave SW, Seattle

HYCON, 700 ROYAL OAKS RD, MONROVIA
CAL, 91016, TWX 910 585-3246 .... 213 359-8216
H WILSON, EMP 1142, ENG 357, OVER $10,000M
DC Hycon, 1725 K St NW, Washington 338-5060
Ohio Hycon, 131 N Ludlow Ave, Dayton ...... BA 2-2897
Utah Hycon, Box 252, Clearfield 773-1631

HYDE PARK ELECTRONICS INC, BOX 44, DAYTON
OHIO, 45406 .... 513 222-5392
V BREIDENBACH, EMP 16, ENG 4, $100-$250M
NJ Andrews Press Equip Co, 606 Main St
East Orange 201 673-7070
Ohio Albrecht Engrg Sales, Box 93
Centerville 513 885-3888
Pa Lundy Assoc, 224 Wickford Rd
Havertown 215 449-2211

HYDRA-ELECTRIC CO, 3151 KENWOOD ST, BURBANK
CAL, 91503 .... 213 849-4601
F DAVIS, EMP 130
ADV PG 654
Ariz Shefler-Kahn Co, 2017 N 7th St
Phoenix 602 258-7893
Conn J A Keeneth Co, 119 Ann St
Hartford 203 247-8497
Del J A Keeneth Co, 222 W 8th St
Wilmington .... 302 OL 6-2935
Fla Holcombe Sales Agency
2827 Cullen Lake Shore Dr
Orlando 305 855-2455
Ga Holcombe Sales Agency, 3098 Piedmont Rd NE
Atlanta 404 233-2837
Ind Tri-State Mktg Inc, 3220 Broadway
Fort Wayne 219 422-0821
Ind Tri-State Mktg Inc, 7532 Kingsway Dr
Fort Wayne 219 747-2621
NM Shefler-Kahn Co, 408 San Mateo NE
Albuquerque 505 296-5187
NY J A Keeneth Co, 3 Maple Pl
Glen Head 516 676-1355
Ohio Tri-State Mktg Inc, 1717 Section Rd
Cincinnati 513 631-5061
Ohio Tri-State Mktg Inc, 25000 Euclid Ave
Cleveland 216 731-9270
Ohio Tri-State Mktg Inc, 5258 Robinhood Dr, Willoughby
Tex C P Waggoner Co Inc, 233 SE 14th St
Grand Prairie .... 214 AN 4-1601
Wash D & D Sales Inc, 43 Logan St
Renton 206 226-4120

HYDRO-AIRE INC, DIV CRANE CO, 3000 WINONA AVE
BURBANK
CAL, 91503, TWX 910-498-2713........ 213 842-6121
F COOPER, EMP 700, ENG 90, OVER $10,000M
Conn E Rumford, 109B Sycamore La
Manchester 643-1398
DC Robt N Pitner, 1030 15th Ave NW
Washington 296-5320
Ga W B Hawkins, 500 Club Valley Dr
Marietta 427-1714
Kan W Serven, 256 N Roosevelt, Wichita 684-2783
Ohio D R Schaffer, Box 14112, Dayton 513 276-3741
Va W A Graf, 8311 Cedardale Dr
Alexandria 360-4556

HYDRO MOLDING CO INC, 100 SHARRON AVE
PLATTSBURGH, N Y, 12901............ 518 561-5320
S LEVITES, EMP 135, ENG 6, $1,000-$2,500M
Ky Hydro Plastics Inc, Georgetown Rd
Georgetown 580

HYDRO PRODUCTS DIV DILLINGHAM CORP
11803 SORRENTO VALLEY RD, SAN DIEGO
CAL, 92121, TWX 910-322-1133........ 714 453-2345
H BAUER, EMP 85, ENG 8, $1,000-$2,500M
Cal Tek Mar Instr Inc, 901 Dover Dr
Newport Beach 540-4435
Mass Technical Enterprises, 195 West St
Waltham 891-5300
NJ CDB Enterprises, Inc, 26 Haddon Ave
Camden .... WO 3-9164
NY CDB Enterprises, Inc, 675 W Jericho Tpk
Huntington 692-5200
Va Sutter & Co, Box 426, Vienna 938-0505
For Trabajos Submarinos, Apartado Del Este 5264
Caracas Venezuela
Fr Compagnie Maritime d'Expertises
131 Ave Joseph Vidal, Marseille....... 77 51 77
Ger C T (Hamburg) GmbH, Beim Strohhause 20
Hamburg 240-548
GB Underwater & Marine Equip Ltd, 61A Fleet Rd
Fleet Hants .... Hants 2162
Holl Ingenieursbureau Eurotechniek N V
Groothandelsgebouw, Conradstr 38
Rotterdam 4........................ 135-180
Jap Hakuto Co Ltd, Box 25, Tokyo Central
Nor Jan Staubo A/S, Pilestredet 7, Oslo
SAfr Beckman Instr Pty Ltd, Box 963, Capetown
NZ Pye Ltd, Box 2763, Wellington C3
Aust Natl Instrument Co Pty Ltd, Melbourne Airport
Essendon

HY-GAIN ELECTRONIC CORP, NE HWY 6, LINCOLN
NEB, 68501, TWX 48-6424 .... 402 434-6331
T ANDROS, EMP 170, ENG 6, $2,500-$5,000M
Ark D Bellew Sales Co, 1005 W 4th St
El Dorado........................ UN 3-8325
Cal H Becker Co, Inc, 1140 Crenshaw Blvd
Los Angeles........................ WE 1-1257
Cal Straube Assoc, 483 Willow Rd
Menlo Park 415 323-2476
Cal J A Butler Assoc, Box 1065
Pacifica 415 359-3215
Cal Franklin-Barry, 420 Pendleton Way
Oakland 415 562-6665
Colo Cummings & Assoc, 4772 S Kalamath St
Englewood........................ 303 789-3449
Fla L Hench, 9760 SW 158th St
Miami........................ 305 238-4704
Ill W Linz & Assoc, 4001 W Devon
Chicago .... MU 5-6060
Ill Jack West, 6747 N Octavia Ave
Chicago 763-3500
Iowa J D Irvine & Assoc, 1900 Prospect
West Des Moines........................ 515 279-2206
Mass M Montague, 404 Jerusalem Rd
Canasset 617 383-0634
Mich ABM Sales, Inc, 10116 Puritan
Detroit .... UN 2-1300
NY M Bettan Sales, Inc, 77-15 164th St
Flushing........................ OL 7-6659
Ohio F Ohman, Box 363, Twinsburg....... 216 425-7445
Ore J LeBrun, 1123 SW Yamhill
Portland 503 224-7710
Pa D S Linz, 238 Shelmire St
Philadelphia .... ES 9-0734
Tex I Harrison, 13821 Hillcrest Rd
Dallas........................ 214 239-2479
Can E S Gould, Ltd, 11 Louvain St
Montreal, Que........................ 514 384-0453

HYGRODYNAMICS INC, 949 SELIM RD
SILVER SPRING
MD, 20910, TWX 301 439-4909 .... 301 588-6156
H DWYER, EMP 45, ENG 6, $500-$1,000M
Cal H C Zwart, 3030 Bridgeway, Sausalito.... 332-4726
Cal D Frankel, 1251 Auburn Dr, W Covina 339-0359
Colo R G Davis Co, Box 12004, Denver 422-6313
Fla J Tully, Box 1316, Winter Park 647-3743
Ill D H Lazenby, Box 477, Barrington 381-5120
Md R L Morris, 949 Selim Rd
Silver Spring 588-6156
Mass T D Kelley, Box 344, Bedford 275-0014
NJ J W Crump, 836 Haddon Ave
Collingswood........................ 854-6633
NM Brandon Hanna, 707 1st Natl Bank Bldg E
Albuq 265-6775
NY W H Stewart, Box 4421, Dewey Sta
Rochester........................ 442-6350
NY Valcon Equip Co, 527 Lexington Ave
New York 279-7833
NC J R Hile, Box 804, Black Mountain 669-6100
Ohio Regis Finn, Box 39272, Cleveland 248-5400
Pa Hygrodynamics, Philadelphia 925-8135

Tex Southwestern Engrg & Equip Co
6300 N Central Expwy, Dallas .... EM 3-6501
Tex T Bruce, 4242 Richmond Ave
Houston .... MO 6-2313
Wash Gordon McLaren & Assoc Inc, Box 68
Mercer Island .... AD 2-5164
Can Keith H Turner, Box 8
Point Claire, Que 626-0404
For Harvey Main & Co Ltd, 310 Gloucester Bldg
Hong Kong
For Asia Science Co, Box 1250, Seoul Kor
For Eastern Scientific Co, Box 3875, Beirut Leb
For Dong Nan Instr Co, 3 Lane 1846 Chung Cheng Rd
Taipei Taiwan
Den H Struers Chemiske Lab, Skindergade 38
Copenhagen
Fr Radiophon, 148 Ave Malakoff, Paris
GB V A Howe & Co Ltd, 46 Pembridge Rd, London W11
Holl NV Beun-De Ronde, HVL 2 Henri Polakalaan
Amsterdam
Jap Nippon Automatic Cont Co
36-41 Chome, Chofu-Minemachi, Tokyo
Nor Anth B Nilsen & Co Ltd, Box 776, Oslo
SAfr Protea Phys & Nuc Instr Pty Ltd, 38 Faraday St
Johannesburg
SAfr Equipamentos Tec Ltda, Box 6319, Luanda, Angola
Swed Bergman & Beving, Karlavagen 76, Stockholm
Swit Kontron Ltd, Hardstra 235, Zurich
BC Paul Langwell, 14016 NE 72nd Pl
Redmond, Wash .... GL 4-1353
Belg ETS HVL, 1026 Chaussee de Louvain, Brussels
Gr M Dalleggio Representation, 2 Alopekis St, Athens
Ind Toshniwal Bros, 198 Jamshedji Tata Rd, Bombay 1
Isrl Eastronics, 75 Haifa Rd Box 21029, Tel Aviv
Spn Carlos R Mares, Valencia 333, Barcelona
Fin Instrumentarium, Aleksanterinkatu 15, Helsinki
Aust Watson Victor Ltd, 95-99 Epping Rd, Ryde, N S W

HY-KON MFG CO, BOX 923, ALLIANCE
OHIO, 44601 .... 216 821-2320
A DUCHON

HYLETRONICS CORP, 100 AINSWORTH RD
WILMINGTON, MASS, 01887........... 617 272-0670
H BARMANN, EMP 65, ENG 6, $1,000-$2,500M
Ariz Thorson Co, 1505 E Thomas Rd
Phoenix 264-5878
Cal Cain & Co Inc, 15720 Ventura Blvd
Encino 783-4700
Cal Cain & Co Inc, 3595 Mt Acadia Blvd
San Diego 278-1031
Cal Cain & Co Inc, 175 S San Antonio Rd
Los Altos 948-6533
Colo Thorson Co, 3600 S Lincoln St
Englewood........................ 789-1841
Ill Cain & Co Inc, 1203 Ironwood Dr
Mt Prospect........................ 253-3578
Mass Cain & Co Inc, 45 Essex St, Melrose 665-8600
NJ Cain & Co, Inc, Box 261, South Amboy
NJ Schibley Assoc, 1 Fellowship Rd
Cherry Hill........................ 424-1894
NY Cain & Co Inc, 253-16 Northern Blvd, Little Neck
Ohio Cain & Co Inc, 2485 Lipton Rd
Columbus........................ 861-2119
Tex Thorson Co, 3312 Marquart, Houston 644-2218
Tex Thorson Co, 7700 Carpenter Frwy
Dallas........................ 631-5440
Va Schibley & Assoc, 10604 Warwick Ave
Fairfax 591-3008

HYPERION INDUSTRIES CORP, 134 COOLIDGE AVE
WATERTOWN
MASS, 02172, TWX 710-327-1868...... 617 926-0140
M FRIEDMAN, EMP 150, ENG 12, $1,000-$2,500M

HYSOL DIV, THE DEXTER CORP, FRANKLIN ST, OLEAN
N Y, 14760, TWX 510 245-2800 .... 716 372-6300
R WHITSON, EMP 163, $5,000-$10,000M
Ala Enoch Sales Co, 650 St Francis St
Mobile 433-8478
Ariz Gramer & Co, 110 W Camelback Rd
Phoenix 279-1221
Cal Hysol Div, 9640 Telstar Ave, El Monte ... 283-0471
Cal Hysol Div, 1 First St, Los Altos.......... 948-2505
Cal Transdynamics Inc, 4450 Lakeside Dr
Burbank 849-6261
Colo Transdynamics Inc, 3401 S Bannock St
Englewood........................ 761-0455
Fla Hi-Co Assoc, Box 1317, Winter Park 647-5030
Ill Dexter Corp, 2720 Des Plaines Ave
Des Plaines........................ 827-7773
Ind Hysol Div, 1635 N Gent Ave, Indpls...... 635-3288
La Enoch Sales Co, 705 Camp St
New Orleans 512-1242
Mass Hysol Div, 755 Boylston St, Boston 266-0203
Minn Industra Co, 6504 Walker St, Mnpls 929-6224
Mo Hysol Div, 705 Olive St, St Louis........ 421-0747
Mo T M Roudebush & Co, Box 8521
Kansas City 362-3500
Mo Hysol Div, 705 Olive St, St Louis........ 421-0747
NJ Hysol Div, 214 W Main St
Moorestown 235-8050
NM R-C Sales Co, 3019 Princeton NE
Albuq 345-2651
NY Wolcott Park Inc, 1149 Ridge Rd E
Rochester........................ 342-3120
NY F Schillinberg, 40 8th Ave, Brooklyn...... 622-0078
NC Manufacturers Sales Co, 1704 Battleground Ave
Greensboro........................ 274-2474
Ohio Servisales Co, 12417 Cedar Rd
Cleveland........................ 462-2344
Ohio Hysol Div, 20800 Westgate Pk Plaza
Fairview Park 333-2908

Ore Fiberchem Inc, 5306 NE Irving St
Portland 282-0963
Pa Hysol Div, 530 William Penn Pl
Pittsburgh........................ 391-1122
Tenn Ransom Sales Co Inc, 100 N Main Bldg
Memphis 527-3194
Tex Scott Technical Sales Co, 6636 Briar Cove
Dallas........................ 352-7698
Tex J Oechsner, Box 35391, Dallas.......... 631-0402
Wash Fiberglass & Chem Services, 1220 Occidental St
Seattle 622-7864
Can HYSOL (Canada) Ltd, Box 53 Sta R
Toronto........................ 425-4017
For Southern Intl Sales Co, GPO 1896
San Juan PR 723-3879
Den E Friis-Mikkelsen, 51 Krogshojvej
Bagsvaerd 98 63 33
Ger Hysol Div, 8 Munchen 45/West, Ingolstadter Str 172

IB INSTRUMENTS INC, 7016 EUCLID AVE, CLEVELAND
OHIO, 44103........................ 216 431-4790
M MYERS, EMP 9, ENG 3
Ala Brennan Assoc, Box 1074, Huntsville..... 536-7425
Fla Brennan Assoc, Box 7773, Orlando....... 425-8161
Fla Brennan Assoc, Box 8489
Ft Lauderdale........................ 587-8077
Kan Gordon Fixman Engrg, 6631 E Kellogg
Wichita........................ 682-9433
La Brennan Assoc, Box 907, Clearwater 446-5006
Mo Gordon Fixman Engrg Co, 8160 Stanford Ave
St Louis 725-5219
NY Herbert Shprentz Co, 126 Deertrack La
Irvington........................ 591-7970
Pa W F Assoc, Broad & Chestnut Sts
Phila........................ 546-4121
SC Brennan Assoc, Box 871, Aiken 649-7100
Va Mark-Lund Assoc, 2828 Mary St
Falls Church........................ 560-8400
Can Electrodesign, Ltd, 9124 St Lawrence Blvd
Montreal PQ 389-5914
Can Electrodesign, Ltd, 1390 Raven Ave
Ottawa 3, Ont........................ 729-1231
Can Electrodesign, Ltd, 491 Lawrence Ave W
Toronto 12, Ont........................ 787-0991
Fr Techniques Modernes Intl, 18 Rue de la Pepiniere
Paris 8e 522-77-00

IBM CORP, OLD ORCHARD RD, ARMONK
N Y, 10504 .... 914 765-1900
EMP 225,000, OVER $10,000M

IBM, INDUSTRIAL PRODUCTS MARKETING
1271 AVE OF THE AMERICAS, NEW YORK
NY, 10020 .... 914 696-1900
R WANDS
ADV PG 604, 605
Ariz IBM Corp, 3424 N Central Ave
Phoenix .... CR 7-6661
Cal IBM Corp, Monterey & Cottle Rds
San Jose 227-7100
Cal IBM Corp, 9045 Lincoln Blvd
Los Angeles........................ 670-8350
Fla IBM Corp, 700 Banyan Tr, Boca Raton.... 391-0500
Ill IBM Corp, 1010 Lake St, Oak Park 383-9600
Mass IBM Corp, 1730 Cambridge St
Cambridge 267-9400
Mich IBM Corp, 407 W 13 Mile Rd
Royal Oak 585-2733
Minn IBM Corp, 245 Marquette Ave
Minneapolis........................ 338-8541
NJ IBM Corp, 20 Franklin Tpk, Waldwick..... 447-0600
NJ IBM Corp, 1050 N Kings Hwy
Cherry Hill 667-4141
Pa IBM Corp, 7 Penn Center, Philadelphia ... 864-2335
Tex IBM Corp, 2911 Cedar Springs Rd
Dallas........................ LA 6-7651

IBM DATA PROCESSING DIV, 112 E POST RD
WHITE PLAINS, N Y, 10601 .... 914 WH 9-1900
OVER $10,000M

IBM SERVICE BUREAU CORP, 1350 AVE OF AMERICAS
NEW YORK
N Y, 10010, TWX 710-581-2300 .... 212 262-5000
R LAVRITSEN, EMP 3200

ICON CORP, 156 SIXTH ST, CAMBRIDGE,
MASS 02142 .... 617 868-5400
G BATY, EMP 35, ENG 8, , $500-$1,000M
Conn Components & Controls, 5 Bretton Rd
W Hartford........................ 203 233-9960
Fla Component Sales Corp, Box 14523
Orlando 305 883-1561
Mich Satullo Co, 4514 N Woodward St
Royal Oak 313 549-3910
NH Component & Eqpt Sales Corp, 111 Locke St
Nashua........................ 603 883-1561
NJ Engineered Products, 28 Essex St
Lodi 201 845-6688
NY H C Johnson Assoc Inc, 111 Mt Hope Ave
Rochester........................ 716 232-2688
Ohio Measurment Instr Inc, 2074 Arlington Ave
Columbus........................ 614 488-9753
Ore Seatronics Inc, 6415 SE Canyon
Portland 503 292-8887
Pa Measurment Inst Inc, 908 Perry Hwy
Pittsburgh........................ 412 343-3830
Tex Engineers Intl Co, Box 35601
Dallas........................ 214 352-2666
Wash Seatronics Inc, 5931 4th, Seattle 206 767-4330

ICORE ELECTRO-PLASTICS, 1050 KIFER RD
SUNNYVALE
CAL, 94086, TWX 910-339-9224 .... 408 739-2395
D MACMILLAN, EMP 100, ENG 10, $1,000-$2,500M
Ariz Toward Engrg Assoc, Box 15268 Arcadia, Phoenix
Ark Dick Bellew Sales Co, Box 1835, Eldorado
Colo Electronic Sales Co, 995 S Clermont 302
Denver 756-4148
Colo Electronic Sales Co, 2340 W Main St, Littleton
Conn Forsberg Sales, 22 Broadway, North Haven
Ga J E Joyner & Assoc, Box 10821, Sta A
Atlanta 527-1089
Ind G & H Sales Co, Box 2268, Ft Wayne
Ind G & H Sales Co, Box 2268, Ft Wayne
La Dick Ballew Sales, 3017 D 18th St
Matairie 833-6496
Md Shipplett & Warrigton, Box 6789, Baltimore
Md Shipplett & Warrington, Box 6789, Baltimore
Mass Forsberg Sales, 646 Summer St, Brockton
Mich G & H Sales Co, 24001 Southfield Rd, Southfield
Minn Fred B Hill Co, 6110 Excelsior Blvd, Minneapolis
Mo Dipro, Inc, 11657 Adie Rd
Maryland Heights .... HE 2-3444
Mo R W Farris Co, Inc, 1715 Baltimore Ave
Kansas City .... HA 1-1751
Mo Dipro Inc, 11657 Adie Rd, Maryland Heights
NJ Marshbank Assoc, 123 Clements Bridge Rd
Barrington
NM Electronic Sales Co, 209 San PabloS E 16
Albuquerque
NY Tom Ferguson & Co, Box 3893, Rochester
Ohio G & H Sales Co, 7215 Market Pl, Cincinnati
Pa RalphM Davis Co, 814 Wainwright Dr, Pittsburgh
Tex Rod Parvin Sales, Box 307, Addison
Utah Electronic Sales Inc, 4480 Camille Dr, Salt Lake City
Wash Hal Thorpe Co, 11612 N E 8th St
Bellevue 454-0667
Can Len Finkler, Ltd, 2 Tycos Dr
Toronto, Ont. .... RU 1-5232
For Southern Intl Sales Co, Box 1896, San Juan

IDALEE ELECTRONICS CORP, 891 FULTON ST
VALLEY STREAM, NY, 11580 .... 516 825-8955
R GUSS, EMP 5, ENG 2, $100-$250M
Ill Engineering Products Assoc, 1343 Western Ave
Northbrook
Tex E G Miller Co, Inc, Box 929, Henderson .. 657-5049

IDEAL AEROSMITH, 1505 E FOX FARM RD, CHEYENNE
WYO, 82001 634-7714
N ROYCE, EMP 110, ENG 7, $1,000-$2,500M
Ala Craft Assoc, Box 1053, Huntsville 205 837-0221
Cal D D Peck, 1500 Chestnut St
Santa Ana 714 543-5331
Colo Engineering Research Assoc, 231 Detroit St
Denver 303 377-8306
Conn K A Gleason, 945 Hopmeadow St
Simsbury 203 658-4686
Fla Craft Assoc, Box 986, Maitland 305 645-2242
Ga Craft Assoc, 3151 Maple Dr
Atlanta 404 237-2282
Ill Anger Assoc, 731 Villa Ave
Naperville 312 233-2214
Kan Aero-Hill Sales, Box 1312
Wichita 316 267-7167
Mich Anger Assoc, 13126 Michigan
Dearborn 313 584-9853
NY O'Donnell Sales & Eng, Box 281, Williamsville Br
Buffalo 716 837-3885
Ohio Lowry Dietrich, 333 W 1st St
Dayton 513 223-6042
Ohio Lowry Dietrich, 316 Marion Bldg
Cleveland 216 781-1855
Ohio Lowry Dietrich Co, 439 Deerfield Rd
Columbus 614 878-6138
Ore Branon & Leeland, 6019 NE Union
Portland 503 285-5205
Pa Lowry Dietrich, 90 Clairton Blvd
Pittsburgh 412 892-2992
Tex Stepco, 1035 E Side Rd, El Paso 915 772-5274
Utah Cannon Engrg & Sales Co, 2250 E 17th S
Salt Lake City 801 485-9253
Wash Branome Leeland, 2133 2nd Ave
Seattle 206 622-7320
Can Aviation Electric, 200 Laurentien Blvd
Montreal, Que 514 744-2811
For Air Carrier, 2233 Wisconsin
Washington, DC 202 338-4600

IDEA ASSOCIATES INC, 290 HUYLER ST
SOUTH HACKENSACK, N J, 07606 .... 201 487-1970
EMP 15, ENG 4, $100-$250M

IDEAL ELECTRIC & MFG CO, E 1ST & OAK STS
MANSFIELD, OHIO, 44903 .... 419 522-3611
E STRICKLAND, EMP 460, ENG 14, $5,000-$10,000M
Ala Craft Assoc Co, Box 1053, Huntsville 837-0221
Ariz Central Station Equip Co, 2323 Aviation Hwy
Tucson .... MA 3-2493
Cal W E Starr & Co, 5440 Pomona Blvd
Los Angeles 685-5670
Cal Electrical Systems & Engr Inc, Box 42
Hayward 581-8938
Colo Mid Continent Engr Co, 11950 N Wadsworth
Broomfield 466-6333
Fla Craft Assoc Co, Box 986, Maitland 645-2242
Ga Craft Assoc Co, Box 11716, Atlanta 237-2282
Ill Ideal Electric & Mfg Co, 407 S Dearborn St
Chicago .... WA 2-6459
Ind H E Schornstein Jr, 1111 E 54th St
Indianapolis 255-1327
Kan Hesler Co, Box 8207, Prairie Village 362-4800
La Betz Engineering Sales Co, 7979 Earhart Blvd
New Orleans 486-5452
Mich Plant Equipment Co, 5-208 Gen Motors Bldg
Detroit .... TR 4-0128
Minn Industrial Reps Co, 4 E 14th St
Minneapolis 338-4411
Mo Terry & Hodges Inc, 132 W Monroe
St Louis .... YO 5-0747
NY Ideal Electric & Mfg Co, 55 Liberty St
New York .... RE 2-3730
NY Ideal Electric & Mfg Co, Box 130
Skaneateles 685-3477
NC R W Chapman & Co, 1508 E 4th St
Charlotte 375-4495
Ohio Dorsey-Alexander, Inc, Box 6296
Cincinnati 221-7518
Pa Ideal Electric & Mfg Co, 107 Ridge Pike
Conshohocken .... TA 8-3833
Pa Continental Sales & Eng Co, 211 Nelbon Ave
Pittsburgh 241-5660
Tenn G Goodman & Assoc, 1503 Union Ave
Memphis 275-2984
Tex Industrial Equip Co of Houston
6831 Navigation Blvd, Houston .... WA 8-3463
Tex Industrial Equip Co of Houston
4924 Greenville Ave, Dallas 368-8087
Utah Nickerson Pump & Machy Co Inc, 158 W 4th S
Salt Lake City .... EM 4-1939
Va Marchant Electrical Sales Co, Box 9534
Richmond 266-4220

IDEAL-HELLERMAN CANADA LTD, 331 FRANKCOM ST
AJAX, ONTARIO 416 942-6312
P DEACON, EMP 15
Can E Pelletier, 4285 W Hill Ave
Montreal, Que .... 514 489(4217
BC Les Forwood, 8408 Cambie Rd
Richmond, BC 278-8510

IDEAL INDUSTRIES INC, 5103 BECKER PL, SYCAMORE
ILL, 60178 .... 815 895-5181
M FURMAN, EMP 375, ENG 13
Ariz Maddox Sales Co, 5709 N 19th Pl
Phoenix 274-3807
Cal Maddox Sales Co, 2945 E 12th St
Los Angeles 269-7291
Cal Maddox Sales Co, 420 Market St
San Francisco 362-3249
Colo E-O Sales Co, 610 S Lipan St, Denver 744-7081
Fla Fred Gross & Assoc, 5005 Gilbert Ave
Tampa 855-1753
Fla Fred Gross & Assoc, 5901 SW 50th Terr
Coral Gables 666-8769
Fla Fred Gross & Assoc, 4147 Weber La E
Jacksonville 733-4174
Ga Ideal Industries Inc, 1232 Logan Cir NW
Atlanta 351-4256
Haw Alfred E Linzer Inc, 1210 Auahi St
Honolulu 567-707
Ill Ideal Industries Inc, 6251A N Milwaukee Ave
Chicago .... SP 5-4343
Ill Ideal Industries Inc, 355 E Greenwood
Morton 265-9631
Ind Ideal Industries Inc, 7923 Singleton Dr
Indianapolis 881-9994
Iowa F C Clatterbaugh Co, Box 21
Cedar Rapids 364-5557
Iowa F C Clatterbaugh Co, Box 141
Des Moines 282-3213
La M Morin Rivera, 3112 Verna St
Metairie .... HU 2-1161
Md O T Hall & Son, 2301 N Charles St
Baltimore 467-5359
Mass Electrical Agencies Inc, 49-51 D St
Boston 268-9300
Mich Ideal Industries Inc, 19469 James Couzens Hwy
Detroit 341-6426
Minn Elstad Sales Co, 1405 Oakview La N
Mnpls 545-4000
Mo R E Myers & Son, 504 Louderman Bldg
St Louis .... MA 1-2743
Mo Walker-Loudermilk Co, 205 E 13th Ave
N Kansas City 842-0909
Neb F C Clatterbaugh Co, Box 152, Omaha 391-2905
Neb F C Clatterbaugh Co, Box 6181, College View Sta
Lincoln 489-5912
NJ Ideal Industries Inc, 1217 Penna Ave
Linden 925-0575
NJ Ideal Industries Inc, 1217 Penna Ave
Linden 925-0575
NM Maddox Sales Co, 7504 Morrow Rd NE
Albuquerque 298-2422
NY Ideal Industries Inc, 193 Berkshire Dr
Rochester 225-1820
NY Ideal Industries Inc, Box 178
Saratoga Springs 584-1277
Ohio Ideal Industries Inc, 1423 E McMillan St
Cincinnati 961-3231
Ohio Ideal Industries Inc, 3439 W Brainard Rd
Cleveland 831-1600
Okla Hamco Sales, 2114 S Memorial
Tulsa .... NA 7-2262
Pa Ideal Industries Inc, 246 Washington Rd
Pittsburgh 561-8335
Pa Ideal Industries Inc, NE Cor Chelten & Pulaski Aves
Phila .... VI 4-6300
Tex Galvin Sales Co, 5022 Sharp St
Dallas .... ME 7-0140
Tex Galvin Sales Co, 6302 Bellaire Blvd
Houston .... PR 4-1141
Utah Wright-Williams & Assoc Inc, 230 S 4th W St
Salt Lake City 328-3641
Va Ideal Industries Inc, 2808 Dumbarton Rd
Richmond 353-3766
Wash Northwestern Agencies Inc, 4130 1st Ave S
Seattle .... MA 3-8882
Wis Robt S Knoblauch & Assoc, 1304 S 103rd St
Milwaukee 774-5150
Can IDI Electric (Canada) Ltd, 327 Frankcom St
Ajax, Ont 942-3400

IDEAL PRECISION METER CO INC, 214 FRANKLIN ST
BROOKLYN, N Y, 11222 .... 212 EV 3-6904
B KRONENBERG, EMP 385, ENG 14, $2,500-$5,000M
Cal Dewco Sales Inc, 6915 San Fernando Rd
Glendale .... VI 9-6101
Fla Murphy & Cota, 712 W Vassar St
Orlando 424-2407
Ill Ellinger Sls Corp, 6580 Northwest Hwy
Chicago .... RO 3-1570
Md H J White Co, Inc, 320 Hillen Rd
Towson 828-6373
Mass D W Marcus & Co, Box 453, Natick 235-1432
Mich R Van Riper Sales, 1842 Newton SE
Grand Rapids .... GL 2-0464
Minn Hamilton, Grayden & Flemmer Inc, Hamilton Rd
Hopkins 941-1120
NJ H J White Co Inc, 801 W Marlton Pike
Cherry Hill .... HA 8-2304
NJ RCM Assoc, 115 Legion Pl, Hillsdale 666-0205
NJ G Moch Co, 595 Broad Ave
Ridgefield .... BR 9-6758
NY E Schwartzman, 47 Knolls Dr N
New Hyde Park .... MU 2-6361
NY Arthur L Perkins Co, Kinlock Plaza
Manlius 682-5005
NC Murphy & Cota, 1106 Burke St
Winston-Salem 723-1001
Ohio Mulligan & Mathias Co, 2011 Riverside Dr
Columbus 486-2267
Tex Blackburn Assoc, Box 20073, Dallas .... FL 1-9991
Wash Allied Agencies, 1818 Westlake N, Seattle
Can Lake Engineering Co, Ltd, 123 Manville Rd
Scarborough, Ont 751-5980

IDEAS INC, 118 GRAND AVE, LARAMIE
WYO, 82070 .... 307 742-6668
F SANDER, EMP 37, ENG 2, $250-$500M
Cal Pacific Southwest Sales, 412 Seaton St
Los Angeles .... 213 MA 3-9161
Colo Water-Powers Asoc, 880 Bonnie Brae Blvd
Denver 303 777-5585
Conn J H Cosmar Co, 350 S Main St
Cheshire 203 272-7325
Fla L W Shaw & Assoc Inc, Box 273
Clearwater 813 584-3175
Fla Target Sales, Box 921 RS Sta
Miami 305 374-7618
Ga McKenzie Inc, 205 15th St, Atlanta .. 404 875-7886
Haw Pat Korte & Assoc, Box 660
Honolulu 808 568-868
Ill Ed Conlon & Co, 6677 Northwest Hwy
Chicago .... NE 1-1776
Iowa F Johnson, 517 E Walnut St
DesMoines 515 244-0162
Mass Harold L Frank & Sons, 863 Washington St
Newtonville
NY Mark Sales Agency, 2947 Bayview Ave
Wantagh .... PL 7-6454
NY E J Haines & Son, 322 Vine St
Syracuse 315 474-8508
NC E C Vaughn Co, 1102 Briarcliff Rd
Greensboro 274-3149
Ohio Miller Curtis Assoc, 2728 Euclid Ave
Cleveland 861-5377
Pa J Cutler, 5635 Hempstead Rd
Pittsburgh 412 421-8088
Pa Lewis C Conover Assoc, Miller Rd
Chester Springs 215 827-7325
Tenn Associated Products, Box 2401
Memphis 901 525-0645
Tex B M Kopinitz Co, Box 16039, Houston ... OX 2-0022
Utah P Powers, 2422 Camino Way
Salt Lake City 801 277-5174
Va Webster & Assoc, 808-C S Military Hwy
Virginia Beach 703 420-4232
Wash Assoc Electrical Agents, 2917 1st Ave S
Seattle .... MU 2-5232

IKEGAMI TSUSHINKI CO LTD, 21 MOTOKI
KAWASAKI, KANAGAWA
JAPAN, TWX 3844-160 .... 044 24-2151
T MAEDA, EMP 1000, ENG 700, $1,000-$2,500M
NY Ikegami Elctns Inds Inc of N Y, 501 Fifth Ave
New York 212 867-9209

IKL INC, 4360 CAMPUS DR, NEWPORT BEACH
CAL, 92660 .... 714 540-1301
D LANG, EMP 10, ENG 3, $100-$250M
Cal Component Sales Cal, 4626 Van Nuys Blvd
Sherman Oaks .... ST 8-4550

IKOR, INC, NORTHWEST IND PARK, BURLINGTON
MASS, 01803 .... 617 272-4400
A WINSTON, EMP 90, ENG 25, $500-$1,000M
Ohio Rep Corp, 2077 Embury Park Rd
Dayton 278-5885

ILG INDUSTRIES INC, 2850 N PULASKI RD, CHICAGO
ILL, 60641 .... 312 725-8016
J MALONEY, EMP 500, ENG 25, OVER $10,000M
Ala H B Brown Jr, 1200 S 20th St
Birmingham 322-3629
Ariz R E Tweedy, 256 E Alvarada Rd
Phoenix .... AL 2-8163
Cal J Mahoney, 1709 W 8th St
Los Angeles .... HU 3-7367
Cal F C Espey, 2450 17th St, San Francisco .. 621-2384
Colo D Marmaduke, 1600 W 13th St, Denver
Conn B M Packtor, 21 Pershing, Hamden 288-5241

DC C G Stewart, 421 King St, Alexandria 836-4607
Fla R J Clark, Box 989, Clearwater 446-3783
Ga F H Bigelow, 3131 Maple Dr NE Atlanta 233-4339
Ill R C Rasbid, 228 N La Salle St Chicago .... FR 2-1520
Ill H D Ziel, 1713 291/2 St, Rock Island 786-5120
Ind J H Niesse, 501 Arch & Bldrs Bldg Indianapolis .... ME 5-5045
Iowa D P Schwartz, 415 5th St W Des Moines 279-0569
Iowa M L Smith, Box 3604, Davenport 322-3353
Ky F H Miller, Jr, 139 N Sherrin Ave Louisville 896-4800
La H E Morrison, 639 S Scott St New Orleans 488-2654
Me A E Wallgren, Box 2191, S Portland .... SP 9-0246
Md C F Phillips Jr, 1055 Ingleside Ave Baltimore .... RI 4-5611
Mass D W Noble, 335 Washington St Braintree 843-3000
Mass J F Hayes, 671 Elm St, W Springfield .... RE 4-6975
Mich P S Heisner, 10160 W Nine Mile Rd Detroit 564-6170
Mich D E Raley, 3167 Kalamazoo St SE Grand Rapids 452-6367
Minn D E Boner, 6135 Kellogg Ave, Edina 927-6506
Miss E M Chappell, 1104 Ellis Ave, Jackson 355-5163
Mo D M Allen, 3021 Main St, Kansas City .. LO 1-9741
Mont J B Annin, 1925 Grand Ave, Billings 252-5624
Neb G B Abart, 7062 Maple St, Omaha 346-4000
Nev C H Schneider, 406 Washington Rd Pittsburgh 561-4418
NJ G C Jelliffe, 2011 Lemoine Ave Fort Lee 947-4616
NY F R Foote, Box 5129, Albany .... IV 2-7251
NY C E Williams, 75 College Ave Rochester 232-7545
NY J W Swanson, 1408 Hertel Ave Buffalo 877-6900
NC C Z Adams, 1052 Battleground Ave Greensboro 273-0566
Ohio A K Johnson, 11750 Shaker Blvd Cleveland .... WA 1-5390
Ohio J H Furber, 4001 Lyon Dr, Columbus 451-4777
Ohio B G Silberstein, 626 Broadway Cincinnati 421-4640
Ohio R Fruth, 662 Phillips, Toledo 472-1158
Okla R E Pauling, 125 W 3rd St, Tulsa .... LU 5-9504
Okla R D Robinson, 720 NW 32nd St Oklahoma City .... JA 4-6442
Ore A W Kaufman, 1138 SE 10th Ave Portland 233-5101
Pa C H Schneider, 406 Washington Rd Pittsburgh 561-4418
Pa H T Darnall, Montgomery & Narberth Narberth .... MO 4-2251
Pa R B Gage, 5907 Jonestown Rd Harrisburg 545-4963
SC D E Beeson, 812 B Wade Hampton Blvd Greenville 233-8400
Tenn G J Burke, 3373 Poplar Ave, Memphis 324-2898
Tenn J W Wilson, 1916 8th Ave S, Nashville 297-2761
Tenn L M Ragsdale Jr, 2325 Sutherland Ave Knoxville 524-2815
Tex R S Ryden, 900 Military Dr NE San Antonio .... TA 4-2301
Tex G F Hall, 4904 Travis, Houston 227-4048
Tex R F Long, 2626 W Mockingbird La Dallas .... FL 7-5788
Tex J A Holland, 2210 Montana Ave El Paso 532-1489
Tex J E Ralls, 3410 Knoxville, Lubbock .... SW 9-8880
Utah D R Wilde, 2285 S Second W Salt Lake City 486-0168
Wash A T Hanna, 4000 Aurora, N, Seattle .... ME 3-4229
Wis S Smith, 3846 Wisconsin Ave Milwaukee 933-2880
Den Leif Melton, Svanemllevej 104 Hellerup, Copenhagen
Fr S M C P, 42, Rue Letort, Paris
Ger Hager & Weidmann, AG, Jakobstr 33 Bergisch Gladbach bei Koln
GB Ozonair Eng Co Ltd, The Esplanade, Rochester, Kent
Jap Matsushita Seiko Co Ltd, Box 13 Joto, Osaka
Nor A/S Birger Christensen, Box 114 - Roa, Oslo
Swed Industrifilter AB, Box 155, Boras
Swit Benno Schneider, Steinbuhlallee, Allschwill, Basel
Neth Ned Verwarming & Ventil Mij, Zanddonkweg 1 Waalwijk

ILIKON CORP, NATICK IND CTR, NATICK
MASS, 01762 .... 617 235-8220
H FOUNDAS, EMP 55, ENG 10, $500-$1,000M

ILLINOIS BRONZE POWDER & PAINT CO
300 E MAIN ST, LAKE ZURICH
ILL, 60047 .... 312 438-8201
R SHERWOOD, EMP 200, $2,500-$5,000M
Cal Sinai-Johnson, Inc, 817 Douglas St Redwood City 365-6263
Ind Tri-State Marketing, 608 Ft Wayne Bank Bldg Fort Wayne 742-2474
Miss L R Massey Co, 304 E Jefferson St Greenwood .... GL 3-3038
NJ G W Moler Co, 1001 Coopers Kill Rd, Haddonfield
Ohio Tri-State Marketing, 25000 Euclid Ave Cleveland 731-9207

ILLUMINATION INDUSTRIES INC, 610 VAQUEROS AVE
SUNNYVALE, CAL, 94086 .... 408 738-2744
P JENSEN, EMP 28, ENG 3, $500-$1,000M
Ala Newcombe Assoc, Box 3244 Huntsville 205 852-0304
Ariz Kelly Scientific, 412 N Marshall Way Scottsdale 602 947-7584
Cal R H Muenzer Co, Box 997 Redwood City 369-8283
Cal C K Knickerbocker & Assoc, 4001 Birch Ave Newport Beach 714 545-8409
Fla GPI Instruments, Box 536 Winter Park 305 647-5722
Ill Brooks Engineering, 227 E Walton Pl Chicago 944-1227
Md Callas Electronics, Inc, 6409 Frederick Ave Baltimore 744-7711
NY Krasner Assoc, 33 Great Neck Rd Great Neck 516 487-0690
Pa Precision Engineered Prods Co, 947 Old York Rd Abington 215 887-0727
Tex Teamwork Inc, Box 34465, Dallas ... 214 352-7747
GB Atkinson Enterprises, 38 St John's Rise, Surrey Woking

IMC MAGNETICS CORP ARIZ DIV, 1900 E FIFTH ST
TEMPE, ARIZ, 85281 .... 602 967-7851
P CHASE, EMP 200, ENG 6, $2,500-$5,000M
Ohio BEK Assoc, 330 Salem Ave, Dayton .... CR 8-1343
Tex John Oechsner, Box 35391, Dallas ... 214 631-0402

IMC MAGNETICS CORP EASTERN DIV, 570 MAIN ST
WESTBURY, N Y, 11590, TWX 510-222-4469 ... 516 ED 4-7070
G EGAN, EMP 200, ENG 12, $2,500-$5,000M
ADV PG 68, 69, 439, 440, 649, 686
Cal Poltronics, Box 807, Mountainview 969-9200
Cal Elcom Sales Co, 3600 Motor Ave Los Angeles 870-4707
Colo Lindberg Co, 2654 S Krameria, Denver ... 757-6489
Conn Gerber Sales Co Inc, 31 Broadway New Haven 777-6279
Fla Perrott Assoc Inc, 1607 Forsyth Rd Orlando 275-1132
Fla Perrott Assoc, Box 532, Cleawater 446-2535
Fla Perrott Assoc, Box 6277 W Palm Beach 585-7761
Ill Berndt Assoc, 6414 W Belmont Ave Chicago 283-0713
Ind O Ward, 1303 W Ludwig Rd ort Wayne 748-8753
Kan Inland Assoc, 6047 Howe Dr, Mission 362-2366
Md Burgin-Kreh Assoc Inc, 1600 White OaK Ave Baltimore 661-1120
Mass Gerber Sales Co Inc, 178 Second Ave Waltham 891-8040
Minn Wenco Sales Inc, 7728 Morgan Ave Minneapolis 866-3639
Mo Inland Assoc, 453 N Lindberg Creve Coeur 993-0301
NJ Mesa Technical Assoc, Box 466 Haddonfield 429-9531
NM J F Quirk & Assoc, Box 8738C, Albuq 256-0884
NY Ellis-Haber-Ramp-Corp, 2315 Broadway New York 799-4040
NY Marchese Davis Assoc, 97 Park Ave Rochester 442-9120
NY Davis Assoc, 107 James St, Utica 733-8850
NC Bill Henry Assoc, 1043 Providence Rd Charlotte 375-8958
Ohio Bek Assoc Inc, 1700 Needmore Ave Dayton 442-9120
Ore Shaffer & Nelson Inc, 1001 SE Water Ave Portland 234-7437
Tex Hillman Enterprises Inc, 3505 Turtle Creek Blvd Dallas 521-2070
Va Burgin-Kreh Assoc, 413 Silver Spring Dr Lynchburg 239-7478
Wash Shaffer & Nelson Inc, 314 NE 72nd St Seattle 682-0186
Can Frank P Taylnd Assoc, 453 N Lindberg Creve Coeur 993-0301
Can Frank P Taylor Ltd, 120 Howard Dr, Willowdale Ont

IMC MAGNETICS CORP, NEW HAMPSHIRE DIV, RTE 16B
ROCHESTER, NH, 03867 .... 603 332-5300
J GUINAN, EMP 50, ENG 3, $2,500-$5,000M
ADV PG 68
Ariz Coronado Electronics Assoc, Box 3176 Scottsdale 947-9060
Cal Poltronics, Box 807, Mountain View 969-9200
Cal Elcom Sales Co, 3600 Mortor Ave Los Angeles 870-4707
Colo Lindberg Co, 2654 S Krameria, Denver ... 757-6489
Conn Gerber Sales Co, Inc, 31 Broadway New Haven .... SP 7-6279
Fla Duay Enterprises, 1515 Ensenada Dr Orlando 277-3296
Ill B Anderson, 5969 N Elston, Chicago 774-8989
Ind Walter Bieberich Inc, 801 Leesburg Rd Fort Wayne 742-8468
La Bill Henry Assoc, 247 Phosphor Ave Metairie 831-1931
Mass Gerber Sales Co, Inc, 178 Second Ave Waltham 891-8040
Minn Wennco Sales Inc, 7728 Morgan Ave S Minneapolis 866-3669
NJ Mesa Technical Assoc, Box 466 Haddonfield 429-9531
NY Ellis-Haber-Ramp Corp, 2315 Broadway New York 799-4040
NY Marchese Davis Assoc, 97 Park Ave Rochester 442-9531
NY Davis Assoc, 107 James St, Utica 733-8850
NC Bill Henry Assoc, 1043 Providence Rd Charlotte 375-8958
Ohio Mulligan & Matthias Co, 2011 Riverside Dr Columbus 486-2267
Ore Shaffer & Nelson, Inc, 1001 SE Water Ave Portland 234-7437
Tex Hillman Enterprises Inc, 3505 Turtle Creek Blvd Dallas .... LA 1-2070
Wash Shaffer & Nelson, Inc, 314 NE 72nd St Seattle .... LA 3-0664
Can Frank P Taylor Ltd, 12 Howard Dr Willowdale Ont 222-6924

IMC MAGNETICS CORP WESTERN DIV, 6058 WALKER AVE
MAYWOOD, CAL, 90270, TWX 910-321-3089 .... 213 LU 34785
B BLAIR, $2,500-$5,000M
ADV PG 649, 686
Ariz IMC Magnetics Corp, 1900 E 5th St Tempe 967-7851
Cal Poltronics, Box 807, Mountain View 969-9200
Cal Elcom Sales Co, 3600 Motor Ave Los Angeles 870-4707
Colo Lindberg Co, 2654 S Krameria, Denver ... 757-6489
Conn Edcom Inc, 965 Dixwell, New Haven 624-7291
DC Wm F Drake, 4706 Wisconsin Ave NW Washington 657-1778
Fla Duay Enterprises, 1515 Ensenada Dr Orlando 277-3296
Kan Inland Assoc, 6047 Howe Dr, Mission 362-2366
Md Burgin-Kreh Assoc Inc, 202 W Penna Ave Towson 825-3212
Md Burgin-Kreh Assoc Inc, 1600 White Oak Ave Baltimore 661-1120
Mass Edcom Inc, 815 Washington St Newtonville 969-9710
Minn Wenco Sales Inc, 7728 Morgan Ave S Mnpls 866-3639
Mo Inland Assoc, 453 Lindberg Creve, Coeur 993-0301
NJ Clarfield-Stollmack Assoc, 175 Westwood Ave Westwood 666-8989
NJ Mesa Technical Assoc, Box 446 Haddonfield 429-9531
NY Marchese Davis Assoc, 97 Park Ave Rochester 442-9120
NY Davis Assoc, 107 James St, Utica 733-8850
NY Clarfield-Stollmack Assoc, 175 Westwood Ave Westwood, NJ 666-8989
NC Bill Henry Assoc, 1043 Providence Rd Charlotte 375-8958
Ohio Bek Assoc Inc, 1700 Needmore Rd Dayton 278-1343
Ore Shaffer & Nelson Inc, 1001 SE Water Ave Portland 234-7437
Tex John Oechsner, Box 35391, Dallas .... ME 1-0402
Wash Shaffer & Nelson, 314 NE 72nd St Seattle .... LA 3-0664
Can Frank P Taylor Ltd, 12 Howard Dr Willowdale Ont 222-6924

IMPECTRON INC, 85 BROAD ST, NEW YORK
N Y, 10004, TWX 710 581 3864 .... 212 269-7750
N LAMPERT, EMP 5, ENG 2, $500-$1,000M
Cal Wm J Anderson Assoc, Box 45768 Los Angeles 213 670-7949
Ill Technical Devices Inc, 6416 N Central Ave Chicago 312 774-8252
NJ A & B Electronics, Box 305 Fairlawn 201 797-5356
NY A & B Electronics, 891 Fulton St Valley Stream .... 516 VA 5-8955
NY L G Taggart, Box 304, Pittsf0rd 716 381-3380
Wash J K Dooley Co Inc, 4110 Stone Way N Seattle .... 206 ME 2-1618

IMPROVED SEAMLESS WIRE CO, 775 EDDY ST
PROVIDENCE, R I, 02905 .... 401 461-0855
E SIMMONS, EMP 125, ENG 3, $5,000-$10,000M
Ill W E Blair, 853 N Dundee Ave Elgin .... 312 OW 5-1121
NY A I Stark, 73-43 196th St, Flushing .... SP 6-4393
RI D V Reynolds, 775 Eddy St Providence 401 461-0855

IMTRA CORP, 151 MYSTIC AVE, MEDFORD
MASS, 02155 .... 617 391-5660
W FARNHAM, EMP 4, $250-$500M
ADV PG 580
Cal Electronic Eng Assoc Ltd, 1293 Laurel St San Carlos .... LY 3-2189
Cal Ungar Sales Assoc, 317 Glasgow Ave Inglewood 678-5371
Ill H Grubb & Co, 8039 N Lawndale Ave Skokie 677-0080
Mass Bordewieck Eng Sls Co, 221 Grove St Braintree .... VI 3-0845
Minn F Peterson Co, 4501 Minnetonka Blvd Minneapolis 927-4453
Mo G Fixman Eng Co, 8160 Stanford Ave St Louis .... PA 5-5219
NM Irv Morse Sales, 150 Broadway New York .... CO 7-2913
Ohio Midwest Sales Co, 3219 W 117th St Cleveland .... WI 1-2700
Utah Applied Eng Prdts Co, 6375 Emigration Canyon Salt Lake City .... EM 4-4942
Va Naeco Assoc, 1925 N Lynn St Arlington 524-4551

INCA ENGINEERING CORP, 420 S PINE ST
SAN GABRIEL, CAL, 91776 .... 213 AT 51231
P PRICE, EMP 20, ENG 16, $500-$1,000M

INCOR INC, 29 NEWTOWN RD, PLAINVIEW
N Y, 11803 .... 516 293-8717
T SWIFT, EMP 15, ENG 3, $250-$500M
Ariz Miad Inc, 8816 S Sepulveda Blvd Los Angeles 776-3595

Colo Space Sys Sales & Eng Inc, 101 University Blvd
Denver 388-9225
Conn Technical Instruments, 575 Broad St
Bridgeport 368-4582
Mass Technical Instruments, 122 West St
Wilmington 658-9197
Mo Space Sys Sales & Eng Inc, Box 176
Florissant .... AX 1-3228
NJ G C Engel & Assoc Inc, 210 S Broad St
Ridgewood 444-1400
NM Space Sys Sales & Eng Inc, 1401 Valencia SE
Albuquerque 255-7058
NY J D Ryerson Assoc Inc, Box 8369
Rochester 442-1900
NY G C Engel & Assoc Inc, 528 Old Country Rd
Plainview 822-3787
Ohio Data-Tron, 7016 Euclid Ave
Cleveland 216 391-8421
Pa G C Engel & Assoc Inc, Box 425
Hatboro 922-3270
Tex Space Sys Sales & Eng Inc
810 Stemmons Tower S, Dallas 631-1740
Utah Space Sys Sales & Eng Inc, 429 W 500 S
Bountiful 295-6464
Wash R R Chase & Assoc Inc, Box 548
Kirkland 454-2514
Can Atlas Instrument Corp, 50 Wingold Ave
Toronto .... RU 1-6174
For Rocke Intl Corp, 13 E 40th St
NY NY 212 689-0200

INDAK MFG CO, 1915 TECHNY RD, NORTHBROOK
ILL, 60062 .... 312 272-0343
A COBB, EMP 150, ENG 6, $5,000-$10,000M
Mich Indak Sales Corp, 10160 W 9 Mile, Oak Park
Wis Fred Schmidt & Assoc, Box 813, Mukwanago

INDIANA GENERAL CORP ELECTRO-MECHANICAL DIV
517 W WALNUT ST, OGLESBY
ILL, 61348, TWX 910-642-2370 .... 815 883-8453
R WRIGHT, EMP 250
ADV PG 429
Ala Young & Lawrence Assoc
2907 Governors Drive SW, Huntsville 539-6575
Cal E E Enterprises, Inc, 5901 Noble Ave
Van Nuys 787-5360
Cal F Lavelle, 18455 Burbank Blvd, Tarzana 881-3080
Cal E E Enterprises Inc, 770 Welch Rd
Palo Alto 324-4448
Fla Young & Lawrence Assoc, 601 N New York Ave
Winter Park 647-6929
Fla Young & Lawrence Assoc, 300 31st St, St Petersburg
Ill D Dolin Sales Co, 3525 W Peterson
Chicago 588-3738
Ind Tri-State Mktg Inc, 3220 Broadway
Ft Wayne 456-3567
Iowa Reid Assoc, 526 Merchants Natl Bank Bldg
Cedar Rapids 362-6302
Kan Thunderbird Eng Sales & Service, 7707 E Osie
Wichita 684-3941
Kan Thunderbird Eng Sales & Serv, 4014 A W 95th St
Prairie Village 642-7220
Md Russell Assoc, 102 N Main St, Bel Air 838-9292
Mass F Dunn, 600 Main St, Waltham 894-4841
Minn B Knox, Box 8065, Roseville 488-5402
Mo Thunderbird Eng Sales & Serv, 400 Brookes Dr
Hazelwood 731-4343
NJ Russell Assoc, 200 E Ridgewood Ave
Ridgewood 447-1050
NY Russell Assoc Inc, 165 Orinoco Dr
Brightwaters 666-6500
NY Russell Assoc, 6789 Main St, Buffalo 634-3377
Ohio Tri-State Electronics, Inc, 1717 Section Rd
Cincinnati 461-2697
Ohio Tri-State Mktg Inc, 25000 Euclid Ave
Cleveland 731-9207
Pa Argus Assoc Inc, Box 68, Warminster 922-4009
Tex Allied Components Inc, 10468 E Northwest Hwy
Dallas 348-6660
Tex Allied Components Inc, 4234 Richmond Ave
Houston 664-4203
Wash Russell Assoc, Box 3001, Tacoma 623-7270
Fr Equipements Scientifiquest
35 Chemin Des Roses 92 Suresnes, Paris, 16e
Holl Daniel Delgay, Box 919, Brussels
Ital Sisram SNC, Corso, Matteotti 55, Turin
Fin Elmika oy Ab, Georgsatrn 34A, Helsinki

INDIANA GENERAL CORP ELECTRONICS DIV/FERRITES
CROWS MILL RD, KEASBEY, N J, 08832 .... 201 826-5100
K TALBOT, EMP 550, ENG 30
ADV PG 324
Cal Cesco, McCulloch Bldg, Los Angeles 670-1700
Cal Indiana General Corp, 701 Welch Rd
Palo Alto 321-7525
Cal Indiana General Corp, 18455 Burbank Blvd
Tanzana 881-3080
Fla Geartner Assoc Inc, 350 Lincoln Rd
Miami Beach 531-0200
Ill Indiana General Corp, 1301 W 22nd St
Oak Brook 654-1777
Ind Indiana General Corp, 3969 Meadows Dr
Indianapolis 545-7491
Mass Indiana General Corp, 600 Main St
Waltham .... TW 4-4841
Mich Indiana General Corp, 11000 W Six Mile Rd, Detroit
NJ Indiana General Corp, 300 Kings Hwy E
Haddonfield 428-2706
NY Indiana General Corp, 1463 Monroe Ave
Rochester 244-3920
Ohio Indiana General Corp, 23201 Lorain Rd
N Olmsted 734-3360
Tex Allied Components Inc, 10468 E Northwest Hwy
Dallas 348-6660
Can Indiana Steel Prods Co of Can, 529 Manitou Dr
Kitchener, Ont 744-1161

INDIANA GENERAL CORP MAGNET DIV, 405 ELM ST
VALPARAISO, IND, 46383, TWX 219-462-5103 .... 219 462-3131
C REPENN, EMP 631, ENG 20
ADV PG 321
Cal Indiana General Corp, 701 Welch Rd
Palo Alto 321-7525
Cal Indiana General Corp, 18455 Burbank Blvd
Tarzana 881-3080
Fla Geartner Assoc Inc, 350 Lincoln Rd
Miami Beach 531-0200
Ill Indiana General Corp, 1301 W 22nd St
Oak Brook 654-1777
Ind Indiana General Corp, 3969 Meadows Dr
Indianapolis 545-7491
Mass Indiana General Corp, 600 Main St
Waltham 894-4841
Mich Indiana General Corp, 11000 W Six Mile Rd
Detroit 345-4212
NJ Indiana General Corp, 300 Kings Hwy E
Haddonfield 428-2706
NJ Indiana General Corp, Crows Mill Rd
Keasbey 826-5100
NY Indiana General Corp, 1463 Monroe Ave
Rochester 244-3920
Ohio Indiana General Corp, 23201 Lorain Rd
N Olmsted 734-3360
Tex Allied Components Inc, 10468 E Northwest Hwy
Dallas 348-6660
Can Indiana Steel Prods Co of Can, 529 Manitou Dr
Kitchener, Ont 744-1161

INDICATING CALIPER CO, 167 N RIDGELAND AVE
OAK PARK, ILL, 60302 .... 312 EU 6-2984
H CAMPBELL, EMP 3, ENG 1, UP TO $100M

INDICATOR INDUSTRIES INC, 303 W 42ND ST
NEW YORK, N Y, 10036 .... 212 246-5300
D NELSON, EMP 4, ENG 1, UP TO $100M
Ariz Coronado Electronics, 5211 N Quail Run Pl
Scottsdale 947-6383
Cal Emsco, 7419 Rio Linda Dr
Palos Verdes 377-2773
Colo Coronado Electronics, 2654 S Krameria
Denver 757-6489
Ill Repwood Inc, 260 Sunset, Glen Ellyn 469-2344
NJ P A Sweeney, 2733 Morris, Union 687-8294
NJ J N Barbett Assoc, 812 Federal St
Camden 365-2680
NM Coronado Electronics, Box 11204
Albuquerque 298-6377
NY Ryan Assoc, 60 Roger Dr
Port Washington .... PO 7-7958
Utah Coronado Electronics, 422 Emigration Canyon
Salt Lake City 328-4459
Wis Repwood Inc, 8019 N 50th St
Milwaukee 354-5161

INDIKON CO INC, 76 COOLIDGE HILL RD
WATERTOWN, MASS, 02172 .... 617 926-2710
A FINN
Mich Electro Mation Assoc, 1137 Cole St
Birmingham .... JO 4-6517
Okla Riddle & Hubbell, Box 727, Tulsa .... LU 5-5624
Tex Ranco Engrg Sales Inc, Box 24051, El Paso
Can Associated Instr & Controls, Ltd, 2261 Rockland Rd
Montreal, Que 738-1167

INDIT CORP, 79 ALBERTSON AVE, ALBERTSON
N Y, 11507 .... 516 747-2510
G GRUNDELMAN, EMP 15, ENG 3, $250-$500M
Fla Duay Enterprises Inc, 1515 Ensenada Dr
Orlando 305 277-3296
Mass Yankee Trader Sales CO, Box 549
Salem 745-5757
NJ EMS Sales, 18 Washburn Rd
Pompton Plains 201 839-2743
NC Candor Co, Bethania 919 924-1480
RI Yankee Trader Sales Co, Box 95
Ashton 766-3508
Tex Allied Components Inc, 10468 E Northwest Hwy
Dallas 214 348-6660
Tex Allied Components Inc, 4234 Richmond
Houston 713 664-4203

INDIUM CORP OF AMERICA, 1676 LINCOLN AVE
UTICA
N Y, 13502, TWX 510-242-0288 .... 315 797-1630
W MACARTNEY, EMP 35, ENG 4
Ariz E J Foley, 3840 N Jokake Dr
Scottsdale 945-2665
Cal S Mosher, Box 877, Mountain View 969 9213
Cal J A Reece, 2519 Tulare Ave, Burbank 843 3273
Colo J H Klein, Box 1056, Englewood 781-4967
Ill P Berndt, 6414 W Belmont Ave
Chicago 283 0713
Ind Lesco, Inc, Box 846, Bloomington .... ED 6-6034
Mass F Arenstrup, 250 Hudson Rd, Sudbury 443-2992
NJ C K Wall, 303 Claremont Ave
Montclair .... PI 6-4832
Tex R S Marston Co, Box 1006, Richardson 235-3577

INDUCTOR ENGINEERING INC, 117 SCHLEY AVE
LEWES, DEL, 19958 .... 302 645-6251
E WAGNER, EMP 30, ENG 2, $250-$500M

INDUSTRIAL CHEMICAL SPECIALTIES CORP
75 HILLSIDE RD, FAIRFIELD
CONN, 06430 .... 203 255-2804
EMP 7, ENG 1, $100-$250M

INDUSTRIAL CIRCUITS CO, 23 KULICK RD, FAIRFIELD
N J, 07006 .... 201 227-1510
T ANCEY, EMP 150, ENG 8, $2,500-$5,000M
Ala Don Serven, 500 E Brook Dr, Huntsville 859-0695
Ariz E V Roberts Co, 340 N Marshall Ave
Scottsdale .... WH 7-1381
Cal E V Roberts, 800 San Antonio Rd
Palo Alto 324-1671
Cal E V Roberts, 9601 W Jefferson Blvd
Culver City 340-6363
Conn G M Hathaway Electronics, Box 797
Canaan .... TA 4-7721
Fla Hemminger Sales, Box 6008, Sarasota 388-1800
Ill J E Goode Sales Co, 325 W Huron St
Chicago .... MI 2-2022
Mass G M Hathaway Electronic, 7-11 Mystic St
Arlington .... MI 6-1380
Minn H M Richardson Co, 9 E 22nd St
Minneapls 335-7734
Mo F R Krabbe & Assoc, Box 776
Bridgeton 739-6817
NJ M D Industries, 240 Grand Ave, Leonia 944-2212
NM E V Roberts Co, 112 C Tulane Dr
Albuquerque .... AL 5-7304
NY M D Industries, 202 Wood Path Rd, Liverpool
NC L & D Sales Co, Box 7243, Greensboro 292-3201
Ohio Johnson Assoc, 8010 Montgomery Rd
Cincinnati 891-9800
Ohio Johnson ASSOC, 12478 W 130th St
Cleveland 237-4211
Ore Dale G Weber Co, 8 SE Clay St
Portland .... BE 4-7671
Pa M D Industries, 653 Colebrook Rd
Philadlphia .... OR 7-1161
Tex Dunbar Assoc, 417 Meadows Bldg
Dallas .... EM 3-2536
Can Genuine Autotronics, 140 Kendall St
Toronto, Ont 925-1192

INDUSTRIAL COILS INC, 202 EAST ST, BARABOO
WISC, 53913 .... 608 356-6601
W KIEFFER JR, EMP 350, ENG 8, $2,500-$5,000M
Mich Heick & Ralph Assoc, 26847 Grand River Ave
Detroit 538-3350
Mich Industrial Coils Inc, 1549 Lake St
Niles 683-5148
Ohio J H Gehring, 4080 N Sagamore
Fairview Park 651-5656

INDUSTRIAL COMPONENTS INC, 1675 SE ALLEN
BEAVERTON, ORE, 97005 .... 503 644-0126
D HAND, EMP 9, ENG 2, $100-$250M

INDUSTRIAL CONDENSER CORP
3243 N CALIFORNIA AVE, CHICAGO
ILL, 60618 .... 312 463-2200
R FELBER, EMP 300, ENG 30, $1,000-$2,500M
Conn R Perron & Co, 36 Louis St, Trumbull 268-9631
Conn R Perron & Co, 10 Briarwood Rd
Farmington 673-4825
Md L D Lowery, 6200 Annapolis Rd
Hyattsville 773-4977
Mass R Perron & Co, 1870 Centre St, Boston 323-1008
NH R Perron & Co, 19 Caron Rd
Manchester 472-4091
NJ Abbott-Gordon Assoc, 628 W Englewood Av
Teaneck 201 836-3876
NY Abbott-Gordon Assoc, 3939 Wicks Ave
Seaford 516 781-5256
Ohio Compar Ohio, Box 4791, Fairview Park 333-4120
Ohio Compar Ohio, Box 388, Fairborn 878-2631
Pa L D Lowery Inc, 2801 W Chester Pike
Broomall 356-5300
Wis E A Dickinson & Assoc, 3612 Green Bay Ave N
Milwaukee 264-1080

INDUSTRIAL CONTROL CO, CENTRAL AT PINELAWN
FARMINGDALE, N Y, 11735 .... 516 MY 4-3000
R CONSOLATORE, EMP 30, ENG 5, $500-$1,000M
Ala Rep, Inc, 8100 S Memorial Pkwy
Huntsville 881-1591
Cal Transdynamic, 4450 Lakewood Dr
Burbank .... 415 VI 9-6261
Ga Rep Inc, 1483 Munroe Dr NE, Atlanta 876-1591
Ill Aerol Assoc, 466 Central Ave
Northfield 446-6486
Minn Aerol Assoc, Rte 2, Anoka 336-4240
NY Aerol Assoc, 170 Great Neck Rd
Great Neck 487-9650
Can Tecneek Assoc, 4180 Courtrai Ave
Montreal, Que 733-7335
Ital Soc Elecctronica Lombardi, Via Manfalcone, 12
Milano 287655
Aust Amalgamated Wireless, 47 York St
Sydney 2-0233

INDUSTRIAL DEVICES INC, EDGEWATER
N J, 07020 .... 201 943-4084
B SCHNOLL, EMP 150, ENG 5, $1,000-$2,500M
Cal M-A Assoc, 2015 Latham St
Mt View 415 324-1339
Cal John Rietz Co, 20700 Dearborn St
Chatsworth 213 882-3000
Colo AES Inc, 1549 Chester St, Aurora 303 366-0208
Conn Anchor Engineering Corp, 6 Arrowhead Dr
West Simsbury 203 658-6261

Fla Components Sales Corp, Box 9545 St Petersburg ... 360-7460
Fla Components Sales Corp, Box 14523 Orlando ... 305 277-1510
Ga Industrial Hardgoods Co, Box 9623 Atlanta ... 404 451-5328
Ill K D Engle Co Inc, 3621 W Devon Ave Chicago ... 312 539-1820
Kan Gordon Fixman Eng Co, 6631 E Kellogg Wichita ... 316 682-9433
Md Moler/Eader Assoc, 320 Hillen Rd Baltimore ... 301 825-1130
Mass Anchor Engineering Corp, 336 Washington St Wellesley Hills ... 617 235-6330
Mich Willard Spenser Co, 21500 Greenfield Rd Oak Park ... 313 398-8005
Minn George A Kelly, Box 222, Wayzata ... 612 473-7602
Mo Gordon Fixman Eng Co, 8160 Stanford Ave St Louis ... 314 725-5219
NJ Moler/Eader Assoc, Box 240 Haddonfield ... 609 428-2440
NY Kaelber & Mack Inc, 75 Plandome Rd Manhasset ... 516 627-6620
NY Niagara Electric Sales Co, 505 Delaware Ave Buffalo ... 716 886-4000
NY Niagara Electric Sales Co, 55 Canterbury Rd Rochester ... 716 271-1223
Ore Pacific Electric Sales Co, 140 SE 28th Ave Portland ... 503 235-4137
Tenn Industrial Hardgoods Co, 809 N Market St Chattanooga ... 615 267-0907
Tex Dynamic Cmpnts Sales Inc, Box 291 Bellaire ... 713 668-7729
Tex Dynamil Cmpnt Sales Inc, Box 31026 Dallas ... 214 363-6191
Can Willard Spenser Co, 3238 Curry St Windsor, Ont ... 610 969-1332
For Joseph A Gross Co, 41 Union Sq New York, NY ... 212 929-5063

INDUSTRIAL ELECTRONETICS CORP
1363 S PATRICK DR, SATELLITE BEACH
FLA, 32935 ... 305 262-4593
M KING, EMP 40, ENG 8, $250-$500M
Ala Components Sales Corp, Box 899 Huntsville ... 639-6973
Cal Fetty/Schoenduve Inc, 7407 Melrose Ave Los Angeles ... 651-4050
Cal Fetty/Schoenduve Inc, 253 Twn & Cnty Vlg Palo Alto ... 321-7041
Colo Kelley Enterprises, 336 E 4th St Loveland ... 667-1376
Conn Abbott-Allison Co, Box 467, Meriden ... 237-9232
Fla Components Sales Corp, Box 9545 St Petersburg ... 360-7460
Fla Components Sales Corp, Box 14523 Orlando ... 277-1510
Ill Systems Engineering Assoc, 6253 Milwaukee Ave Chicago ... 774-1452
Ind System Engineering Assoc, 1010 E 86th St Indianapolis ... 846-2593
Mich S Sterling Co, 21250 10-1/2 Mile Rd Southfield ... 357-3700
Minn System Engineering Assoc, 3040 Snelling Ave Minneapolis ... 729-6161
Mo S Sterling Co, 7849 N Lindberg Blvd Hazelwood ... TE 7-1221
NM Electronic Enterprises, Box 116 Las Cruces ... 524-0126
NY Henley & Co Inc, 212 E 44th St New York ... WU 6-5544
NY Penhall Assoc, Farmington Rd, Manlius ... 682-9816
NY CDB Enterprises Inc, 675 W Jericho Tpk Huntington ... 692-5200
NC Components Sales Corp, Box 6401 Raleigh ... 832-1897
Ohio S Sterling Co, 5827 Mayfield Cleveland ... HI 2-8080
Pa S Sterling Co, 4232 Brownsville Rd Pittsburgh ... 884-5515
Wis Systems Engineering Assoc, Box 526, Waukesha
Can Electrodesign Ltd, 9124 St Lawrence Blvd Montreal, Que ... 729-1231
For Madison Overseas, Box 660, Schenectady
For Karl Wrba, Qeyrgasse 6 A-1030, Vienna ... 72 43 83
Ger Cunz GmbH & Co KG, 6 Frankfort AM Main Niedenau 6Z ... 722 839
Ger Wolfgang Zeh, Postfach 83 41 Duisburg-Meiderich ... 43157
Holl Van Drenthem Engrg, 98 Valeriusstr The Hague ... 070-333651
Ital Ing Mario Vianello, Via C Ferrini, 11 Milano ... 57 67 40
Nor Estronic, Parkveien 53, Oslo ... 44 51 37
Swed Robt E O Olsson AB, Box 165, Tradgardsgatan 7 Motola ... 0141/122 29
Swit Telemeter Electronic AG, Gerechtigkeitsgasse 25 8027 Zurich Postfach ... 051 257872
Aust Ronald J T Payne Ltd, 385 Bridge Rd, Richmond

INDUSTRIAL ELECTRONIC ENGINEERS INC
7720 LEMONA AVE, VAN NUYS
CAL, 91405, TWX 910-495-1707 ... 213 787-0311
B SCHARF, EMP 300, ENG 25, $5,000-$10,000M
Ala Meckco Assoc, 3322 Memorial Pkwy Huntsville ... 205 837-2462
Ariz Gramer & Co, 110 W Camelback Rd Phoenix ... 602 279-1231
Cal L L Stoakes Inc, 4438 Ingraham St San Diego ... 274-6281
Cal McGill & McGill, 25 Wayland St San Francisco ... 415 333-5466
Cal Kitchen & Kutchin, 22 Broadway North Haven ... 203 239-0212
Colo Hyer Assoc Inc, 7895 E Prentice Ave Engelwood ... 771-5285
Conn Kitchen & Kutchin, 22 Broadway North Haven ... 203 239-0212
Fla Mekco Assoc, 3165 McCrory Rd Orlando ... 305 841-2215
Ill Magnuson Assoc Inc, 5639 W Fullerton Chicago ... 622-6322
Kan Poly-Onics, Inc, 4434 W 90th Ter Leawood ... 648-4173
Md Biechler Assoc Inc, 7353 Yorktowne Dr Baltimore ... 301 825-8222
Md Biechler Assoc Inc, 822 Baltimore Rd Rockville ... 301 762-6210
Mass Eltron Eng Sales Inc, 246 Walnut St Newtonville ... 332-6975
Mass Kitchen & Kutchin, 17 Waltham St Lexington ... 617 862-8320
Mich S Sterling Co, 21250 10 1/2 Mile Rod Southfield ... 313 357-3700
Minn Magnuson Assoc Inc, 1246 W 7th St St Paul ... 227-8495
Mo Poly-Onics, Inc, 47 Vlg Sq Shop Ctr Hazelwood ... 837-0597
NJ B B Taylor Corp, 39 Blue Field Ave Harrington Park ... 201 768-0969
NM Hyer Assoc, 210 LaVeta Dr NE Albuquerque ... 505 265-5767
NY B B Taylor Corp, 2270 Grand Ave Baldwin ... 223-8000
NY Ossmann Component Sales Corp, 39 Saginaw Dr Rochester ... 442-3290
NY Ossmann Component Sales Corp, 132 Pickard Bldg Syracuse ... 454-4477
NY Ossmann Component Sales Corp 1901 Vestal Pkwy, Vestal ... 785-9949
NC Mecko Assoc, 100-B Lindsey St Burlington ... 919 226-7177
Ohio S Sterling Co, 5827 Mayfield Rd Cleveland ... 442-8080
Pa R F Clark Co, 10517 Lindberg Ave Pittsburgh ... 242-9500
Pa Biechler Assoc Inc, Box 414 Narberth ... 215 667-1827
Tex Norvell Assoc, 6440 Hillcroft, Houston ... 774-2568
Tex Norvell Assoc, 10210 Monroe, Dallas ... 357-6451
Utah Hyer Electronics Co, 445 E 2nd s Salt Lake City ... 801 363-6773
Can Whittaker Electronics Ltd, 42 Howden Ave Ottawa, Ont ... 613 224-1221
Can Whittaker Electronics Ltd, Box 216 Roxboro, Que ... 683-3621
Can Whittaker Electronics Ltd, 1885 Wilson Ave Weston, Ont ... 247-7454
For RE-LI-STE GmbH Gartenstadt Sued, Einkaufszentrum 2344 Maria Enzersdorf ... 0-22-36/4229
Den Erik Ferner AB, Absalonsgade 5 Copenhagen V ... 31 16 07
Fr Europelec, Boite Postale No 1 78 Les Clayes-Souis-Bois ... 923-28-24
Ger Wenzel Electronics, Lamontstr 32 8 Munich 27 ... 0811 Munich 486558
Holl Radikor Electronics, 13a Emmastr Hilversum ... 14678 (02950)
Ital Exhibo Italiana, Via Cornalia 19, Milano ... 652966
Ital Exhibo Italiana, Rome
Jap Okaya Elect Ind Co, Ltd 3-8 1-Chome, Shibuys, Shibuya-Ku Tokyo ... 400-8511
SAfr Peter Rothenberg (PTY) Ltd, Box 2471 Johannesburg ... 22/3757/8
Swed Erik Ferner AB, Snormakarvagen 35 Stockholm ... 252870
Swit Baerlocher AG, Box 8021, Zuric(051) 429900
BC Whittaker Electronics Ltd, 1144 Millstream Rd Vancouver ... 604 926-3411
Belg Servitec NV, Pierst 5, Aartselaar ... 03 774353
Isrl Elina Ltd, 7 Harishonim St, Ramat-Gan ... 720715
Aust RCA Of Australia PTY Ltd, 221 Elizabeth St Sydney ... 61-8541

INDUSTRIAL ELECTRONIC RUBBER CO
8589 DARROW RD, TWINSBURG
OHIO, 44087 ... 216 425-7121
W MATTHEWS, EMP 150, ENG 6, $1,000-$2,500M
Fla D A Thomas Jr, Box 4368 Clearwater ... 813 531-4255
Ohio R R Mong, 7250 Honeydale Dr Northfield ... 467-7219
SC G E Younginer, 249 Lancewood Rd Columbia ... 256-1358

INDUSTRIAL ELECTRONIC HARDWARE CORP
109 PRINCE ST, NEW YORK
N Y, 10012, TWX 710-581-4338 ... 212 OR 7-1881
J JACOBS, EMP 360, ENG 8, OVER $10,000M
Ala Southern Metal & Supply Co, 2417 Mobile Dr Huntsville ... 205 837-0952
Ariz R E Fissell, 4614 N 7th St, Phoenix
Cal John Rietz Co, 20700 Dearborn St Chatsworth ... 213 882-3000
Cal Leddy & Blohm, 1319 Howard Ave Burlingame ... 415 347-5247
Fla Henry Sarkis & Assoc, 671 Dommerich Dr Maitland ... 305 647-3671
Ill M Gottlieb Assoc, 6009 N Milwaukee Chicago ... 312 775-1151
Ind M Gottlieb Assoc, 459 Maple Ave Carpentersville, Ill ... 428-2833
Mass Conti-Younger, 195 West St Waltham ... 617 891-4582
Mich Ecoem Sales Co, 2200 Fairlane Trenton ... 313 346-6800
Minn Technical Assoc Inc, 6121 Excelsior Blvd Minneapolis ... 612 929-6721
Mo H A Roes & Co, 2601 Cherry Kansas City ... BA 1-0866
NY W A Franklin Sales Corp, 2 Standish Ter Syracuse ... GI 6-1120
NY W A Franklin Sales Corp, 21 Winhurst Dr Rochester ... 442-9765
NY F Spellman Co, 1295 Northern Blvd Manhasset ... 516 MA 7-3399
Ohio G L Hernick Co, 845 Canterbury Rd Westlake ... 216 871-8855
Pa M Friedman & Assoc, 7 Heather Rd Bala-Cynwyd ... TE 9-3450
Va F B D Sales Corp, 1806 Leslie Dr Chesapeake ... 484-3162
Wash ELectronic Sales Corp, 5600 Calif Ave SW Seattle ... 206 932-0330
Wis R Rubenstein, Box 188, Cedarburg ... 414 377-7040
Can P J Heenan Ltd, 12 Doncliffe Dr Toronto ... HU 5-2236

INDUSTRIAL ENGRAVERS INC, 130-25 180TH ST
JAMAICA, N Y, 11434 ... 212 LA 7-5900
J ZATZKIN, EMP 40, $500-$1,000M

INDUSTRIAL FORMULATIONS CORP, 30 DUPONT ST
PLAINVIEW, N Y, 11803 ... 516 681-1780
P NOVOGROD, EMP 6, UP TO $100M

INDUSTRIAL GAUGING & CONTROL INC
296 WESTPORT AVE, NORWALK
CONN, 06851 ... 203 847-4581
I RUSSELL, EMP 37, ENG 12, $500-$1,000M

INDUSTRIAL HEAT SINK CO
3040 N SAN GABRIEL BLVD, S SAN GABRIEL
CAL, 91777 ... 213 288-5448
EMP 2, ENG 1, UP TO $100M
Cal D & L Sales Co, 1430 Callecita San Jose ... 269-9300

INDUSTRIAL INSTRUMENT CORP, 8400 RESEARCH RD
AUSTIN, TEX, 78758, TWX 077-6417 ... 512 GL 3-7261
W REESE JR, EMP 75, ENG 6, $1,000-$2,500M
Ala Hayden Engrg Sales Co, 210 Hollywood Blvd Birmingham
Cal John R Bermingham Co, 2231 S Wright St Santa Ana
Cal King Instrument Co, Box 1039, Walnut Creek
Colo Berry Co, 2636 S Sheridan, Englewood
Conn Applied Controls Inc, Box 326, S Windsor
DC Meleney Eng Co, 2430 Penns Ave NW, Washington
Fla Leroy E Rogers Co, 110 Sea Island Ln, Boca Raton
Ill Instrument Assoc Inc, 7905 S Burham Ave, Chicago
La Delta Supply Co, Box1431, Houma
La Bailey Engr Co, Box 15215, New Orleans
Mich Smith Instru & Equip Co, 24487 Gibson Dr, Warren
Mich Smith Instru, 900 N Monroe, Grand Rapids
Minn A-Tu-Zee Inc, 1879 University Ave, St Paul
Mo E B Miller Co Inc, 10117 Manchester Rd, St Louis
NY R M Newell Co, 5152 Main St, Buffalo
NY J Arthur Moore Co Inc, 342 Madison Ave, New York
NC Systems Service Corp, Box 17525, Charlotte
Ohio Abbott Co, 3437 Michigan Ave, Cincinnati
Ohio Franklyn W Kirk Co, 15017 Detroit Ave, Cleveland
Ohio Process Instru & Equip Co, Box 175, Marietta
Pa Jay Instru & Specialty Co, 1201 Banksville Rd Pittsburgh
Tenn Engineered Instru Inc, Box 3944, Memphis
Tex Instru Maintenance Inc, 727 S Treadaway, Abilene
Tex Floyd Logue Oilfield Equip Co, Box 15 Corpus Christi
Tex Industrial Instru Corp, Box 19385, Houston
Wash Tower Equip Co Inc, Box 5, Seattle
W Va Process Instru & Equip Co, Box 2428, Charleston
W Va Process Instru & Equip Co, Box 2035, Huntington
Can Harry Hobbs & Assoc, 1134 Premier Way SW Calgary
Can G B McNeil, 49 Thatcher Dr, Winnipeg
Can Valley Mech Corp, 31 Wallford Way, Ottawa
Can Baker Instru Ltd, 185 Davenport Rd, Tor
Can Chaleur Inc, 2180 Boisjoli St, Sillery
Can Mecon Sales, 5-410 Duchess St, Saskatoon
GB London-Elliott Process Automation Ltd Century Works, Lewisham
Holl Industrial Instru Continental, The Hague, Hague
Jap Tokyo-Hitachi Ltd, Nippon Bldg 8, 2 Chome Ohtemachi, Chiyoda-Ku
SAfr Timon S A, Auda, Pets R Saetz Pena 570 Buenos Aires
BC John Sherman Agencies, 855 E Hastings Ave Vancouver

INDUSTRIAL MEASUREMENTS CORP
445 N GAREY AVE, POMONA
CAL, 91766 ... 714 623-1588
J JONES, EMP 30, ENG 6, $250-$500M
Cal John Jones Co, Inc, 1326 Washington Ave San Leandro ... 351-5808

INDUSTRIAL OPTICS CORP, 377 FIFTH ST, NEWARK
N J, 07107 ... 201 743-1136
R SCHMITT, EMP 25, ENG 6, $500-$1,000M
Ala Optical CalibratiOn Lab, 803C N Memorial Pk Huntsville ... 205 534-7322
Md Faust Assoc, 606 Edmondson Ave Baltimore ... 301 744-6404

INDUSTRIAL REFRIGERATION CO INC, 8940 ELLIS AVE
LOS ANGELES, CAL, 90034 ... 213 870-6664
H POTTER, EMP 16, ENG 4, $250-$500M

INDUSTRIAL RETAINING RING CO, 57 CORDIER ST
IRVINGTON, N J, 07111 .... 201 926-5000
Ill J M Newkirk, 5526 N Lincoln Ave
Chicago 784-3255
Ind Jack Means Assoc, 4120 N Keystone Ave
Indianapolis .... LI 7-5471
Mass S E Johnson, 214 Elmwood St
North Attleboro .... MY 9-8070
Mich D J Clifford, 631 Fisher Bldg, Detroit .... TR 5-3544
Mo Smith Moschner & Co, 6025 Chippewa at Hampton
St Louis .... FL 1-1177
Ohio G R Ingersoll, Jr, 3956 Orchard Rd
Cleveland Heights .... YE 2-6105
Pa H S Glasby, 940 Limekiln Pike
Maple Glen .... MI 6-8877

INDUSTRIAL SOLID STATE CONTROLS INC
435 W PHILADELPHIA ST, YORK
PA, 17404 .... 717 848-2825
D MCINTOSH, EMP 25, ENG 3, $250-$500M
Ariz Campbell Sales, Box 15296, Phoenix 955-4011
Cal Tucul Engineering, 6402 Crenshaw Blvd
Los Angeles 750-0338
Cal Morse Assoc, 1721 Chestnut St
San Francisco 567-6871
Ill Brisky Assoc, 11734 S Western Ave
Chicago 233-1339
Mass R P Hyland Co, 1420 Providence Hwy
Norwood 762-0345
Mich R McBride Co, 18450 Livernois Ave
Detroit 341-8889
NJ Miller & Dietz Co, 2122 Mtg House Rd
Cinnaminson 829-9291
NY Ronald R Overs Assoc, 2671 Main St
York 243-3693
Ohio ROC Assoc, Inc, Box 241, Worthington 885-1057
Ohio J W Murray & Assoc, 3985 Race Rd
Cincinnati 662-1616
Ohio Wood-Compton Co, 3666 E 116th St
Cleveland 751-6122
Pa Jack Bauer & Co, 3981 Wm Penn Hwy
Monroeville 373-1770
Tex Beese Co, 2400 W Loop S, Houston 621-3005
W Va R T Snider, 1872 Loudon Heights Rd
Charleston 342-3203

INDUSTRIAL TECTONICS INC BALL DIV
3715 JACKSON RD, ANN ARBOR
MICH, 48106 .... 313 663-2561
K MCKENZIE, EMP 80, ENG 6, $1,000-$2,500M
Ariz Hecht-Henschen & Assoc, 3825 N 39th Ave
Phoenix 272-6677
Colo Bearings seals & Gears, 13590 W Colfax Ave
Golden
Ga DG Machinery & Gage Co, 2828 Northeast Frwy
Atlanta 636-1484
Mass Robert F X Casey, 7 Nancy Rd, Dedham 326-5912
Mich Chester M Adams, 1600 E Stadium Blvd
Ann Arbor 662-7449
Minn Wm K Nelson Co, 807 13th Ave S
Minneapolis 333-1215
NC Crotts & Saunders Eng, 235 N Main St
Winston-Salem 724-0163
Tex Southwestern Prec Sales, 5819 Denton Dr
Dallas 357-0937
Ger Robert Zapp, Postfach 9020, Duesseldorf
GB Insley Industrial Ltd, 5 Windmill St, London W 1
Ital Castelli, Via Benino Crespi 70, Milano

INDUSTRIAL TECTONICS INC BEARING DIV
18301 SANTA FE AVE, COMPTON
CAL, 90221, TWX 910-346-6302 .... 213 636-9941
EMP 150, ENG 12

INDUSTRIAL TEST EQUIPMENT CO, 20 BEECHWOOD AVE
PORT WASHINGTON, N Y, 11050 .... 516 PO 7-5253
M SCHREIBMAN, EMP 40, ENG 5, $250-$500M
ADV PG 495
Ariz Luscombe Engineering Co, 222 W Osborn Rd
Phoenix 602 274-1542
Cal Luscombe Engineering Co, 610 S Arroyo Pkwy
Pasadena 312 684-2000
Cal Luscombe Engineering Co, 220 E 3rd Ave
San Mateo 415 342-7057
Conn Broger Instr Sales Co Inc, 31 Broadway
New Haven 777-6297
Ill A S & H Assoc, 6272 W North Ave
Chicago 312 237-2343
Mass Broger Instr Sales Co Inc, 223 Crescent St
Brooklin .... 617 TW 1-8045
NY Industron Assoc Inc, 300 Northern Blvd
Great Neck 516 487-2620
Pa W F Assoc, Western Savings Fund Bldg
Philadelphia .... 215 KI 6-4121
Pa Automated Equip & Engrg Inc, 648 Center Ave
Pittsburgh 412 931-7616
Can Whittaker Electronics Ltd, 42 Howden Ave
Ottawa, Ont 613 224-1221

INDUSTRIAL TIMER CORP, 9 SMITH RD, PARSIPPANY
N J, 07054 .... 201 887-2200
G GALION, EMP 300, ENG 7, $5,000-$10,000M
ADV PG 560, 712
Ariz E V Roberts & Assoc, 412 N Marshall
Scottsdale 947-7695
Ark Dick Bellew Sales Co, 1005 W 4th St
El Dorado .... UN 3-8325
Cal Industrial Timer Corp, 115 W 25th St
Los Angeles 747-0051
Colo Electro Rep Inc, 1051 S Platte River Dr, Denver
Fla Murphy e Cota, 2319 E South St
Orlando 305 424-2167
Ill Hill-Gray Inc, 821 Garfield
Oak Park .... 315 ES 8-7050
Ind Val-Skol Sales Inc, 510 Fort Wayne Bk Bldg
Ft Wayne 742-9122
Kan Thunderbird Engrg, 7707-E Osie
Wichita 316 684-3941
Md Naudain Assoc, Box 1, Lutherville 301 252-5378
Mass RJC Assoc, 600 Main, Waltham 617 899-5858
Minn Klass Co, 814 S Ninth St, Minneapolis .... FE 8-8427
Minn Rorthport Eng Inc, 2027 Grand Ave
St Paul 612 698-3841
Mo Thunderbird Engrg, 4014A W 95th St
Prairie Village .... 913 NI 2-7200
Mo Thunderbird Engrg, 400 Brook Dr
Hazelwood .... 314 PE 1-4343
NM Electro Rep Inc, 1415 Pichmond Dr N E
Albuquerque
NY Industrial Timer Corp, New York .... 212 WO 4-8228
NC Baker Instrument & Mach Co
1157 Commercial Ave, Charlotte 704 334-1222
Ohio Val-Skol Sales Inc, 12417 Cedar Rd
Cleveland Hgts 216 321-0266
Ohio Electro Com, Box 1, Dayton 513 278-4797
Pa Naudain Assoc, Suburban Sta Bldg
Phila .... 215 LO 4-3194
Pa Russell F Clark Co, 10517 Lindberg Ave
Pittsburgh .... 412 CH 2-9500
SC Barker Instr & Mach Co, Box 5896 Sta B
Greenville .... 803 GR 5-5022
Tex Lund & Co, Box 35566, Dallas .... 214 RI 8-8839
Wash C B Parsons Co, 5319 Fourth Ave S
Seattle .... 206 PA 5-9700
Can Ind Timer Corp Div Vapor Can Ltd
3955 Courtrai Ave, Montreal, Que
For Communications Elec Equip Co, Box 58, Manila, Phil
For Walter D Fett, Castilla 1666, Santiago, Chile
Fr Sdee, 5 c 5 bis Ave du Mal de Lattre de Tassigny
92 Bologne (Seine)
GB Wooden Automation Ltd, Oxford St, Bilston-Staees
Holl NV Ingen Applicom, Koninginnegracht 7, Box 130
S-Gravenhage
Holl Intl Holland N V, Merwedege 1, Holland
Ital Euromatic, Via a Colautti N 1, Milano
Swed A B Zander & Ingestrom, Fyrverkarbacken 34
Stockholm
Ind Industrial Agencies, 111 Mahatma Gandhi Rd
Fort Bombay
Isrl Dyna-Tronic Ltd, Box 8436, Tel Aviv
Aust Australian Controls Mfg Pty Ltd, Box 1
North Essendon .... Vic 3041

INDUSTRIAL TRANSFORMER CORP, GOULDSBORO
PA, 18424 .... 717 842-2111
J SMITH, EMP 150, ENG 4, $1,000-$2,500M
NY J N Sweeney, 146 Morris Dr
East Meadow .... PE 5-1918

INDUSTRIAL WINDING MACHINERY CORP, BOX 45
RIVER EDGE, N J, 07661 .... 201 488-4492
H ROEHRIG

INDUSTRON CORP, 1 HILLSIDE PK
NEEDHAM HEIGHTS, MASS, 02194 .... 617 444-3936
H GERBER, EMP 35, ENG 4, $250-$500M

INELCO S P A, VIA RISORGIMENTO 11, TAVERNERIO
ITALY 42109-42357
A CAVADINI, EMP 80, ENG 6, $500-$1,000M
Fr M S T, 135 , rue du Theatre
Paris 15e .... DAN 46 54
Ger A Gerhard & W Schmitt, Alter Weg, 15
Reichelsheim, Odenwald 484
Holl Technisch Bureau Uylenburg, lordensstr, 62
Haarlem 42305
Belg Jean Ivens, 27 Rue du Val Benoit, Liege 52 71 00

INERTIA SWITCH INC, 311 W 43RD ST, NEW YORK
N Y, 10036 .... 212 JU 6-5880
M FISCHER, EMP 30, ENG 4, $500-$1,000M
Ala Tec-Sel Inc, 4306 Governors Dr SW
Huntsville 837-4541
Ga Emmett Rushin Co, 786 Mimeosa Blvd
Roswell 993-6498
Mass Bordewieck Eng Sales Co, 221 Grove St
Boston .... VI 3-0845
Ohio Morris Gersh, 3766 Wales Dr, Dayton .... CR 7-6727
Fr Geo B Bernard, Box 6
Enghien-les-Bains (S & O) 964-4558
GB Inertia Switch Ltd, 123 London Rd
Camberley, Surrey .... CAM 1851

INET POWER A TELEDYNE CO, 711 W KNOX ST
GARDENA, CAL, 90247 .... 213 327-0913
R SMITH, EMP 145, ENG 11, $2,500-$5,000M
Cal McCormick-Morgan, 1745 Evans Ave
San Francisco 826-9559
Mo ZAK & Assoc, 230 Bemiston Ave
St Louis 727-8559
NJ Bonn Assoc, 230 Lake Ave
Metuchen 201 549-9573
Pa Device Engineering, 32 E Front St
Media 566-7373
Tex Thorson Co, 7700 Carpenter Frwy
Dallas 631-5440
Tex Thorson Co, 7007 Gulf Frwy, Houston 644-2218
Wash Western Techical Sales, 10843 NE 8th St
Bellevue 454-3906
Can Century Air-Ground Services Ltd, 3160 Sartelon
Montrèal, Que 747-1185

INFINETICS INC, ELECTROMAGNETIC DIV
1601 JESSUP ST, WILMINGTON
DEL, 19802 .... 302 652-3386
M SCHWARTZ
Ariz Dorton Enterprises, Box 1297
Scottsdale 946-6213
Cal King Assoc, Inc, Box 2067, Sunnyvale 738-2570
Cal G H Vaughan Co, 2366 E Foothill Blvd
Pasadena 795-4420
Colo O'Brien Sales Agency, 2785 N Speer Blvd
Denver 477-4713
Del Tech Mktg Gp, 1601 Jessup
Wilmington 652-3386
Fla Geartner Assoc, 350 Lincoln Rd
Miami Beach 531-0200
Fla Geartner Assoc, 2101 Mohawk Trail
Maitland 647-4000
Ill Robert Bernstein Sales, 9009 Golf Rd
Desplaines 824-7526
Ind Richard Scales Assoc, 550 Sommers Ave
Wabash 563-4886
Md Stitzer Assoc, Box 6893, Baltimore 823-2600
Mass Denning Assoc, Box 491, Wakefield 245-4986
Mich Carter, McCormic & Peirce Co
16239 Wyoming Blvd, Detroit 863-4600
Minn Countryman, Wagner & Behnen Co
1955 University Ave, St Paul 645-9151
NJ Denning Assoc, Box 475, East Orange 673-7959
Ohio Carter McCormic & Peirce Co, 3691 Lee Blvd
Cleveland 921-1360
Ohio Carter, McCormic & Peirce Co, 3406 Main St
Dayton 278-5873
Pa Stitzer Assoc, Box 144, Paoli 644-5500
Wash Technical Sales Co, Box 3143, Seattle 723-4982
Can Technitron Assoc, 769 LaJoie Ave
Dorval 514 631-6859
Fr Electronix, 130 Rue de Charonne, Paris XI 10-59
Ger Gladitz GmbH, Box 241
Schwaebisch-Gmuend 07171 62001
Ger Vega, 762 Wolfach/Schwarzwald
Vor Langenbach 11 07834-266
GB Wessex Elec Ltd, Baldwin St, Bristol 26952
Ital Radiotecnica Strumenti Telecomunicazioni
18 Via Fontana, Milano 709-303
Swed Gunnar Wiklund A B, Kungsgatan 38
Stockholm 08-206272

INFORMATION CONTROL CORP
1320 E FRANKLIN AVE, EL SEGUNDO
CAL, 90245, TWX 910-348-6672 .... 213 322-6930
T HENDERSHOT, EMP 75, ENG 15, $500-$1,000M
Ariz F Y Gates Co, 3300 S Mill Ave, Temple 966-5441
Cal Cain & Co, 3595 Mt Acadia, San Diego 278-1031
Cal Cain & Co, 175 S San Antonio Rd
Los Altos 948-6533
Cal Sedillo Co, 125 E Sunnyoaks Ave
Campbell 264-4010
Colo F Y Gates Co Inc, 3401 S Bannock St
Englewood 761-0591
Fla Griggs Assoc, Box 13542, Orlando 855-4871
Ill Scientific Sales Corp, 7132 Harlem Ave
Chicago 775-7595
Ind Scientific Sales Corp;706 Sherwood Dr
Indianapolis, 545-9950
Kan Poly-Onics Inc, 4434 W 90th Terr
Leawood .... NI 8-4173
Md J E Cuesta Co, 8501 Glendale Rd
Greenbelt 552-1200
Mass Vector Sales, 774 Pleasant St, Belmont .... IV 9-1400
Minn Technical Assoc, 6121 Excelsior Blvd
Minneapolis 929-6721
Mo Poly-Onics Inc, 47 Vlg Sq Shop Ctr
Hazelwood .... TE 7-0597
NJ Instrumentation Sales Co, 170 E Ridgewood Ave
Ridgewood 445-5210
NM F Y Gates Co, Inc, 2631 Texas NE
Albuquerque 298-1875
NY N W Alexander & Assoc
Box 2561 Upper Union Branch
Schenectady 377-0581
Ohio Rep/Corp, 2077 Embury Park Rd
Dayton 278-5885
Pa J E Cuesta Co, Valley Forge 265-5800
Tex Thorson Co, 3312 Marquart, Houston .... NA 1-0990
Tex Thorson Co, 7700 Carpenter Frwy
Dallas .... ME 1-5440
Utah F Y Gates Co, 455 E 4th S
Salt Lake City 359-1101
Wash Thorson Co, 1767 Fifteenth Ave S
Seattle .... EA 5-5000
Can Electrodesign Ltd, 3433 Bathurst
Toronto 787-0991
Can Electrodesign Ltd, 83 Arthur St
Ottawa, Ont 233-8815
Can Electrodesign Ltd, 9124 St Lawrence Blvd
Montreal, Que 389-5914
For Machine & Products Co, 52 Wall St
New York, N Y 944-4370

INFORMATION DISPLAYS INC, 333 N BEDFORD RD
MT KISCO
NY, 10549, TWX 710 571-2179 .... 914 666-2936
D PELTZ, EMP 75, ENG 20, $1,000-$2,500M
Ala Currie Aerospace, 912 Bob Wallace Ave
Huntsville 536-5650
Cal Persons & Assoc, Box 370, Lafayette 283-3760
Cal Winters Co, 4109 Burbank Blvd
Burbank 849-6671
Fla Currie Aerospace Assoc, Box 13229
Orlando 855-0843
Ill R Edward Stemm Inc, 17W480 Lake St
Addison 279-2440
Kan Kemco Inc, 6115 E 13th, Wichita 684-8224
Md S & S Assoc Inc, 4405 East-West Hwy
Bethesda 654-2420

Mass	Brogan Assoc Inc, 69 Hickory Dr Waltham	894-3250
Minn	Engineering Prods Assoc, 2119 Grand Ave St Paul	698-5531
NJ	Brogan Assoc, Inc, 780 N River View Dr Totowa	256-0174
NM	Crown Engineering, 2125 San Mateo Blvd NE Albuquerque	256-6124
NY	Brogan Assoc Inc, 80 Urban Ave Westbury	333-6683
NY	Brogan Assoc, Inc, 474 Thurston Rd Rochester	FA 8-2350
Ohio	Rixan Assoc Inc, 5752 Wadsworth Rd Dayton	222-0011
Pa	S & S Assoc Inc, Boro Line Rd King of Prussia	265-3450
Tex	Kemco Inc, Box 998, Irving	253-6703
Tex	Kemco Inc, 6440 Hillcroft Blvd Houston	PR 1-1291
Wash	Showalter-Judd Inc, 1806 S Bush Pl Seattle	206 444-2212
Can	Aeromotive Engrg Prods, Ltd 887 Montee de Liesse, Montreal, Que	747-4781
Can	Aeromotive Engrg Prods, Ltd, 1912A Avenue Rd Toronto, Ont	RU 3-4288
For	Far East Mercantile Co, 50 E 42nd St New York	212 MU 7-8564
Fr	Radio Television Francaise, 73 Ave De Neuilly Neuilly Sur Seine	
GB	Electrautom Ltd, 408 Finchely Rd, London N W 2	

INFORMATION INSTRUMENTS, INC
62 ENTERPRISE DR, ANN ARBOR ,
MICH, 48106 ... 313 761-2255
W JACK, EMP 20, ENG 6

Mich	Anderson Electronics Co 19471 James Couzens Hwy, Detroit	342-7133

INFORMATION INTERNATIONAL INC
545 TECHNOLOGY SQ. CAMBRIDGE
MASS, 02139 ... 617 868-9810
P DOLAN, EMP 48, ENG 15

Cal	Information Intl Inc, 11161 W Pico Blvd Los Angeles	478-2571

INFOTRONICS CORP, 7800 WESTGLEN DR, HOUSTON
TEXAS, 77042 ... 713 SU 29770
J COTTON, EMP 160, ENG 15, $2,500-$5,000M

Cal	Infotronics Corp, 1062 Linda Vista Mountain View	415 964-3700
Colo	Infotronics Corp, 9151 Cypress Thornton	303 237-5811
DC	Infotronics Corp, 13 W Justis St Wilmington	998-0176
Ga	Infotronics Corp, 3587 Oakcliff Rd Doraville	404 451-9039
Ill	Infotronics Corp, 2510 Dempster St Des Plaines	312 827-7440
Mass	Clifford Assoc, Box 636 Newton Lower Falls	237-0618
Mo	Research Assoc Corp, Box 3865 Kirkwood	314 YO 4-9416
Ohio	Infotronics Corp, 1480 Forest Biew Dr Vermilion	216 277-9879
Ohio	Infotronics Corp, 5893 Yankee Rd Middletown	513 241-0031
Can	Technical Mktg Assoc, 6 Thorncliffe Sq Toronto, Ont	416 425-1975
Can	Techincal Market Assoc, 4816 Nipawin Crescent Calgary Alb	403 282-6767
Can	Technical Mktg Assoc, 195H Woodridge Crescent Ottawa Ont	613 829-1238
Fr	Techmation, 113 Rue Lamarck, Paris	627-47-79
Ger	Techmation GmbH, Bilker Str 12 Dusseldorf	10741
GB	Techmation Ltd, 58 Edgware Way Edgware Middlesex	01 958-5636
Ital	Disi Nuclear, Vi Ale Esperanto 71 Torre Miami Rome	5912551
Jap	Overseas Technical Corp 2-2-5 Kudan Minami Chiyoda-Ku Tokyo	263-3576
Swed	L K B Instrument AB, Box 76 Stockholm Bromma	98-00-40
Aust	J Morris Pty, 61-63 Victoria Ave Chatswood NSW	40-0206

INFRARED INDUSTRIES INC, BOX 989
SANTA BARBARA
CAL, 93102, TWX 910-336-1140 ... 805 684-4181
R ROEMER, EMP 500, ENG 62, OVER $10,000M

Ala	James L Highsmith & Co, Holiday Office Ctr Huntsville	881-3294
Cal	Millard D Shriver Co, Box 517 Rosemead	283-7231
DC	Scientific Sys Sales Corp, 7705 Georgia Ave N W Washington	202-726-4161
Fla	James L Highsmith & Co, 2543 Industrial Blvd Orlando	293-5202
Ill	Olson Engrg & Sales Corp, 7124 W 16th St Berwyn	788-2606
NH	Engineering Assoc of N E, 319 Lincoln St Manchester	603-623-7294
NY	Scientific Sys Sales Corp, 376 Great Neck Rd Great Neck	516-466-0053
NC	James L Highsmith & Co, 3733 Monroe Rd Charlotte	333-7743
Ohio	Ashby Assoc, 4130 Linden Ave Dayton	513 252-5627
Tex	Southwestern Engrg, 6300 N Central Expwy Dallas	214 363-6501
Tex	Southwestern Engrg, 4242 Richmond Ave Houston	713-666-2313
Va	James L Highsmith & Co, 5003 Brook Rd Richmond	266-2060
Can	Atlas Instrument Corp, 50 Wingold Ave Toronto, Ont	RU 1-6174
Can	Atlas Instrument Corp, 3333 Cavendish Blvd Montreal, Que	HU 9-8495
Can	Atlas Instrument Corp, 342 1/2 Elgin St Ottawa, Ont	CE 3-9471
Can	Atlas Instrument Corp, 10204 88th St Edmonton, Alb	424-9065
For	Ad Auriema Inc, 805 Broad St New York	212-269-7750
Jap	Ace Co Ltd, 2-2 Nihonbashi-Tori, Chuo-Ku Tokyo	271-7460
Jap	Ace Co Ltd, 2-17 Dojima-Kima, Kita Ku Osaka	361-6218

INFRA-RED SYSTEMS INC, RTE 23, RIVERDALE
N J, 07457 ... 201 839-0300
R REIDER, EMP 45, ENG 4, $1,000-$2,500M

Cal	Smart Supply Co, 2040 Davie Ave Los Angeles	213 723-3621
Colo	Chemical Sales Co, 1125 7th St Denver	303 534-8148
Ill	Infra-Red Systems Inc, 5453 W North Ave Chicago	312 622-3913
Md	E L Miles Co, Box 182, Riderwood	301 823-1434
Mass	Etchomatic Inc, 182 Newton St Waltham	617 893-7020
Mich	Photo Reproduction Matls Inc, 19166 Glendale Ave Detroit	313 272-4550
Minn	Servco Inc, 521 S 7th St Minneapolis	612 339-8611
Mo	Infra-Red Systems Inc, Rte 23 Riverdale	201 839-0300
NH	Hofferberth Machy Co, 3127 Encrete La DaytOn	513 299-7236
NY	Sparkleen Prod Co, Box Skaneateles	315 685-5942
NC	Infra-Red Systems Inc, Box 17201 Charlotte	704 366-8811
Ohio	Hofferberth Machy Co, 3127 Encrete La Dayton	513 299-7236
Ohio	W W Hodson Machy Co, 9400 Midwest Ave Cleveland	216 587-4500
Pa	Barger Co Inc, 33 Limekiln Pike Glenside	215 887-5030
Wash	Paramount Technical Agency, 2208 NW Market St Seattle	206 783-3900
Fr	Deltec SA, 30 Rue des Amandiers Paris	797-52-93
Jap	Kyokulo Boeki Kaisha Ltd 2-Chome Otemachi Chiyoda, Tokyo	270-7711

INGRAHAM INDUSTRIES DIV MCGRAW EDISON
REDSTONE HILL RD, BRISTOL
CONN, 06010, TWX 710-454-1024 ... 203 582-6321
J NICHOLAS, EMP 3000, ENG 40, OVER $10,000M

INJECTORALL ELECTRONICS CORP, 4 NORTH RD
GREAT NECK, NY, 11024 ... 516 487-6015
E WOLLMAN

INLAND CONTROLS INC SUB KOLLMORGEN CORP
342 WESTERN AVE, BRIGHTON
MASS, 02135, TWX 710 330-0143 ... 617 254-0442
M BERGER, EMP 76, ENG 10, $1,000-$2,500M

Ala	E G Holmes & Assoc, Inc, 4862 Governors Dr W Huntsville	837-6900
Ala	Components Sales Corp, Box 3384 Huntsville	852-6347
Ariz	Thorson Co, 2505 E Thomas Rd Phoenix	264-5878
Cal	Griot Assoc, 3002 Midvale Ave Los Angeles	474-1587
Cal	Thorson Co, 6824 Melrose Ave Los Angeles	937-0790
Cal	Thorson Co, 2443 Ash St, Palo Alto	321-2414
Cal	Thorson Co, 444 Olive St, San Diego	298-8385
Cal	Thorson Co, 2114 N Broadway Santa Ana	547-6206
Cal	Griot Assoc, 560 San Antonio Rd Palo Alto	327-3996
Colo	Thorson Co, 300 E Hampden Ave Englewood	789-1841
Colo	Griot Assoc, 8345 W 16th Ave Lakewood	237-2112
Conn	R H Whitehead Assoc, Cherry St Guilford	453-3762
Fla	E G Holmes & Assoc, Inc, 316 1/2 S Bumby St Orlando	241-2128
Fla	Components Sales Corp, Box 9545 St Petersburg	360-7460
Fla	Components Sales Corp, Box 14523 Orlando	277-1510
Ga	E G Holmes & Assoc, Inc, 3667 Clairmont Rd Chamblee	451-6161
Ill	Carlson Electronic Sales, 7448 N Harlem Ave Chicago	SP 4-4812
Md	Daniel & Co, Box 124, Lutherville	825-3330
Md	Burlingame Assoc, 1749 Rockville Pike Rockville	427-1255
Mass	R H Whitehead Jr Assoc, 481 Statler Bldg Boston	542-7676
Mass	Burlingame Assoc, 7 Wellington St Waltham	894-1955
Mass	Inland Controls, Inc, 342 Western Ave Brighton	254-0442
Minn	Carlson Electronic Sales, 2500 39th Ave NE Minneapolis	788-4111
Mo	A F Gliedt, 10869 Spring Garden Dr St Louis	868-7445
NM	Griot Assoc, 119 Richmond Dr SE Albuquerque	268-7422
NY	Bradley Assoc, 130 Van Cortlandt Ave W New York	549-8500
NY	Rep Tech Inc, 5858 E Malloy Rd Syracuse	454-0761
NY	Rep Tech Inc, Box 3, Clarence	684-6250
NY	Burlingame Assoc, 106 Pickard Bldg Syracuse	454-2408
NY	Burlingame Assoc, 510 S Fulton Ave Mount Vernon	664-7530
NY	Rep Tech Inc, 1905 Vestal Rd, Vestal	785-5979
NC	E G Holmes & Assoc, 430 W Friendly Ave Greensboro	272-0855
NC	Components Sales Corp, Box 6401 Raleigh	834-3797
Ohio	Jerry Kilroy Corp, 15517 Dale Rd Chagrin Falls	CH 7-8997
Pa	Daniel & Co, Box 3, Glenside	887-0550
Pa	Burlingame Assoc, 222 Long La Upper Darby	528-6080
Tex	Thorson Co, 7700 Carpenter Freeway Dallas	631-5440
Tex	Thorson Co, 3312 Marquart, Houston	621-0990
Wash	Thorson Co, 1767 15th Ave, S, Seattle	325-5000
Can	Edward J Hayes Co Ltd, 77 Metcalfe St Ottawa, Ont	232-8413
For	Kollmorgen Corp, 104 Lower Westfield Rd Holyoke Mass	536-7500

INLAND INDUSTRIAL PRODUCTS DIV INLAND MFG CO
1108 JACKSON ST, OMAHA
NEB, 68102 ... 402 342-1108
T GOMEZ, EMP 150, ENG 4, $1,000-$2,500M

INLAND MOTOR CORP, 501 FIRST ST, RADFORD
VA, 24141, TWX 710 875-3740 ... 703 639-3973
L DAVIS, EMP 287, ENG 21, OVER $10,000M

Ala	Component Sales Corp, Box 899 Huntsville	205 539-6973
Ariz	Thorson Co, 2505 E Thomas Rd Phoenix	264-5878
Cal	Thorson Co, 6824 Melrose Ave Los Angeles	213 937-0790
Cal	Thorson Co, 2114 N Broadway Santa Ana	547-6206
Cal	Thorson Co, 2443 Ash St, Palo Alto	321-2414
Cal	Thorson Co, 444 Olive St, San Diego	298-8385
Colo	Thorson Co, 3600 S Lincoln St Englewood	303 789-1841
Conn	R H Whitehead Jr Assoc, 57 Whitfield St Guilford	203 453-3762
Fla	Components Sales Corp, Box 9545 St Petersburg	360-7460
Ill	Carlson Electronic Sales, 7448 N Harlem Ave Chicago	312 774-4812
Md	Daniel and Co, Box 124, Lutherville	VA 5-3330
Mass	R H Whitehead Assoc, Statler Office Bldg Boston	542-7676
Minn	Carlson Electronic Sales, 2500 39th Ave NE Minneapolis	612 788-4111
Mo	A F Gliedt, 10869 Spring Garden Dr St Louis	314 868-7445
NJ	Daniel and Co, Box 3, Glenside	TU 7-0550
NY	Bradley Assoc, 9 Dash Pl, New York	KI 9-8500
NC	Component Sales Corp, Box 6401 Raleigh	919 832-1897
Ohio	Jerry Kilroy Corp, 10 N Main St Chagrin Falls	216 247-8997
Pa	Daniel & Co Inc, Box 3, Glenside	215 887-0550
Tex	Thorson Co, 7700 Carpenter Frwy Dallas	ME 1-5440
Wash	Thorson Co, 1767 15th Ave, S Seattle	206 325-5000
For	Henley & Co, 202 E 44th St New York, NY	212 YU 6-5544

INNES INSTRUMENTS, BOX 5216, PASADENA
CAL, 91107 ... 213 796-3288
F FLEMING, EMP 2, ENG 1

Cal	PaulNurches Co, 2396 E Foothill Blvd Pasadena	213 681-8957
Ind	Howell-Moore Assoc, 5425 N College Ave Indianapolis	317 255-8566
For	Meridian/Intl, 1645 S LaCienega Blvd Los Angeles	213 272-5129

INSACO INC, BOX 422, QUAKERTOWN
PA, 18951 ... 215 536-3500
P HAINES, EMP 31, ENG 2

Ariz	FRYCO, Box 460, Scottsdale	602 945-3281
Cal	Wm Coe Assoc, Box 1383 San Carlos	415 593-6057
Cal	Tech-Rep Co, Box 64212 Los Angeles	213 836-6806
Fla	R W Younie, Box 5097, Sarasota	815 355-1646
Ill	J H Beck Assoc, Box 50, Skokie	312 674-5151
NJ	J V Walsh Assoc, Box 59, Teaneck	836-5700
Tex	Techno Assoc, Box 20544, Dallas	214 357-9213
Va	Eric M Lipman Co, 723 American Bldg Richmond	703 648-5831

INSCO CORP, MAIN ST, GROTON
MASS, 01450 ... 617 448-6369
D AMMEN, EMP 32, ENG 2

Cal	Minarik Electric Co, 224 E 3rd St Los Angeles	624-3161
Cal	Republic Supply Co of Cal, 2025 Pike Ave San Leandro	357-2211
Ill	A G Erickson Assoc, 571 Hill Ave Glen Ellyn	469-1198
NJ	F A MacPherson Co, 526 North Ave Westfield	233-4010
Tex	Blair Engrg Sales Co, 10034 Monroe St Dallas	214 352-2556

Tex Blair Engrg Sales Co, 2400 W Loop S Houston 713 621-0818
Tex Blair Engrg Sales Co, 10034 Monroe St Dallas 214 352-2556
Tex Blair Engrg Sales, 2400 W Loop S Houston 713 621-0818

INSO ELECTRONIC PRODUCTS INC, 103 PARK AVE NUTLEY
N J, 07110, TWX 710-989-1426 ..... 201 NO 7-7711
J BELL, EMP 30, ENG 3, $250-$500M
Cal G C Woempner, 821 Malcolm Rd Burlingame 697-5131
Fla Brennan Assoc, Box 907, Clearwater
Ill Marsland Dist Corp, 6699 Lincoln Ave Chicago ..... 312 OR 6-1144
Mass Brookdale/Richter Engrg Co, 1108 Beacon St Newton High ..... BI 4-6969
Minn Kirkeby & Assoc, 821 2nd Ave N, Minneapolis
NY Cain & Co, 253-16 Northern Blvd Little Neck 212 428-3636
Ohio R G Sidnell & Co, 14235 Detroit Ave Cleveland 221-1313
Pa Cain & Co, 670 Ridge Pike, Philadelphia
Tex Cain & Co, 435 Braniff Airways Bldg Dallas 357-8645
Tex Stevens Sales, Box 34493, Dallas ... 214 241-3645
Utah Perice Bowthorpe Agency, 143 S 4th E Salt Lake City 521-2300
Va Potomac Electronics Inc, Box 36 Alexandria 836-1630

INSTRULAB INC, 1205 LAMAR ST, DAYTON
OHIO, 45404, TWX 810-459-1926 ..... 513 223-2241
J CETINSKE, EMP 29, ENG 6, $250-$500M
Cal Premmco, Inc, 2406 Lincoln Ave Alameda 523-9495
Cal W D Gorman, 4476 Tivoli St San Diego ..... AC 2-9424
Cal R Bouton, 4023 Del Ray, Venice 213 870-4582
Fla CES Assoc, Box 1152, Melbourne 723-2321
Ga Aero Reps Inc, Box V, Perry 912 987-2174
Ill Megatek, Inc, 1915 N Harlem Ave Chicago 889-1277
Mass Bilowich Enterprises, 109 Warren St Watertown 617 926-0490
Minn C F Vander Voort, 1279 Osage St St Paul 489-5222
NJ Tridon Sales, 8 Depot Sq Englewood 201 569-8011
NM Als Electronics, Box 11373 Albuquerque 298-2575
NY Moran-Hanson Assoc Inc, 416 Franklin St Fayetteville
Ohio Hocker & Assocs, 2533 Far Hills Ave Dayton 298-8638
Pa L H Boleky Co, 534 Lincoln Ave Pittsburgh 761-8994
Pa Holdsworth & Co, Box 71, Landsdowne ... 626-8300
Tex Braden Engineering Co, 2646 Andjon Dr Dallas 214 352-4626
Tex Braden Engineering Co, 3130 SW Frwy Houston 713 529-9881
Va John Hopkins Assoc, 4520 Starr Jordan Dr Annandale 280-2086
Wis Thomas Industrial, 3504 S Austin Milwaukee 483-9342
Can Electrodesign Ltd, 9124 St Lawrence Blvd Montreal 389-5914
SAfr Electrolink (PTY) Ltd, Hertzog Blvd Capetown 41-2407

INSTRU-LEC CORP, 520 HOMESTEAD AVE
MT VERNON, N Y, 10550 ..... 914 MO 83754
R HOBERT, EMP 50, ENG 3, $500-$1,000M

INSTRUMENT & ACCESSORIES CO INC
SAYVILLE IND PK, SAYVILLE
N Y, 11782, TWX 510-228-7707 ..... 516 LT 9-5700
J RENDZIO, EMP 60, ENG 3, $500-$1,000M

INSTRUMENTATION & CONTROL SYSTEMS INC
129 LAURA DR, ADDISON
ILL, 60101 ..... 312 279-6400
G SERVOS, EMP 25, ENG 3, $500-$1,000M
Cal H R Benike & Assoc, 1338 S Atlantic Blvd Los Angeles 263-7451
Ill Quadtron Assoc, Box 306, Lombard 627-6800
La Glidden Eng & Equip Co, Box 4063 New Orleans 504 737-0642
Md MCW, 422 Burnt Mills Ave Silver Spring 301 593-5307
Pa MCW, 709 W Atlantic Philadelphia ..... 215 BA 8-7459
Tex Glidden Eng & Equip Co, 3802 Winchester St Houston ..... 713 CA 4-6471
Tex Glidden Eng & Equip Co, 4924 Greenville Ave Dallas ..... 214 EM 3-6539

INSTRUMENTATION DIV WEST GULTON INDUS INC
BOX 2176, COSTA MESA, CAL, 92627

INSTRUMENTATION LAB INC, 9 GALEN ST
WATERTOWN
MASS, 02172, TWX 92-2446 ..... 617 926-1700
R DE LUCA, EMP 485, ENG 62, $2,500-$5,000M

INSTRUMENTATION TECHNOLOGY CORP
18811 NAPA ST, NORTHRIDGE
CAL, 91324 ..... 213 886-2034
G HIMLER, EMP 12, ENG 5, $100-$250M

INSTRUMENT COMPONENTS CO
15105 BROADWAY AVE, MAPLE HEIGHTS
OHIO, 44137 ..... 216 475-9650
J WEREB, EMP 8, ENG 2, $250-$500M
Mass Daner Assoc, 684 Commonwealth Ave Newton Centre 617 969-4650
Ohio McShane Co, 3633 Trails End Dr Medina 725-4283
Pa MCW Inc, 709 W Atlantic St Philadelphia ..... 215 BA 8-7459

INSTRUMENT CORP OF AMERICA
1949 GREENSPRING DR, TIMONIUM
MD, 21093 301-252-9220
J BRYAN, EMP 10, ENG 2, $250-$500M
Ariz Electronic Mfrs Consultants, Box 9216, Phoenix
Colo Electronic Mfrs Consultants, Box 503 Colorado Springs
Ill Olson Engrg & Sales Corp, 1921 N Harlem Ave Chicago 312-622-9777
Iowa J H Laas Co Inc, Box 785, Bettendorf 355-6133
Mass C R Swaney Co, Inc, 196 Bear Hill Rd Waltham 899-8200
Utah Electronic Mfrs Consultants, Box 1421 Salt Lake City
Wis Pyro-Matic Industrials Inc, 3220 W National Ave Milwaukee ..... EV 4-9300

INSTRUMENT DEVELOPMENT LABS DIV KOLLMORGEN
CORP, 67 MECHANIC ST, ATTLEBORO
MASS, 02703 ..... 617 222-3880
E CONNOR, EMP 83, ENG 14, $2,500-$5,000M
Cal John K Bice Co, 1319 Boyd St Los Angeles 264-5950
Ga G E Missbach & Co, 3330 Peachtree Rd, N W Atlanta ..... CE 7-1694
Ill Bard Assoc, La Grange Ind Pk La Grange 354-0660
Ind Bard Assoc, 6806 N Farmleigh Dr Indianapolis ..... TI 9-2723
Mass Technall Assoc, 59 Rainbow Cir Brockton ..... JU 6-9620
Mich Carter, McCormic & Peirce, 16239 Wyoming Detroit 862-0017
Minn Bard Assoc, 7700 Morgan Ave, S Minneapolis 866-1700
Mo Mozel Chemical Prods Co, 7550 N Broadway St Louis ..... 314 EV 3-2400
NJ R M Leahy Assoc, 20 Nassau St Princeton 924-2189
Ohio Carter, McCormic & Peirce, 3691 Lee Rd Cleveland 921-1360
Ohio Carter, McCormic & Peirce, 3406 N Main St Dayton 278-5873
Pa Davidson & Hemmendinger, 2857 Nazareth Rd Easton ..... BL 8-2345
Tex Cron Chemical Corp, 6015 Murphy Ave Houston ..... MI 4-5496
Wash E H Sosine Co, 3618 39th Ave W Seattle ..... AT 3-9017
Wyo D A Bamford (Controls) Ltd, Box 304 Intl Airpt Dorval, Que 695-9462
Can D A Bamford (Controls) Ltd, 188 Hymus Rd Scarborough, Ont 759-8737
Fr Le Groupe Scientifique, 114 Ave du Pres Wilson La Plaine St-Denis Seine
Swit Fratelli Kraus, Box 31, Lugano-Cassarate,
Swit Wild Zug AG, Im Rotel 4, Zug

INSTRUMENT LABS CORP, 315 W WALTON PL
CHICAGO, ILL, 60610 ..... 312 642-0123
H TAYLOR, EMP 16, ENG 3, UP TO $100M

INSTRUMENT RESEARCH CO, BOX 231, LINCOLN
MASS, 01773 ..... 618 897-7647
B HOBBS, EMP 8, ENG 2, UP TO $100M

INSTRUMENT RESISTORS CO, 503 ADAMSTON RD
BRICK TOWN, NJ, 08723 ..... 201 477-5454
H MELICK, EMP 20, ENG 1, $100-$250M

INSTRUMENTS FOR INDUSTRY INC, 151 TOLEDO ST
FARMINGDALE, N Y, 11735 ..... 516 694-1414
E SWANSON, EMP 12, ENG 3, $250-$500M
Cal Weightman & Assoc, 1226 W Olive Ave Burbank 849-7711
Cal Weightman & Assoc, 120 Santa Margarita Menlo Park 325-2885
Colo Vinson Assoc, 3600 S Lincoln Englewood 789-2203
Conn Howard J Schuft Co, Inc, 965 Dixwell Ave New Haven 865-1365
Fla Gentry Assoc Inc, 2517 B E Colonial Dr Orlando 424-4949
Ga Gentry Assoc Inc, Box 13513, Sta K Atlanta 233-3816
Md Moler-Eader Assoc, 320 Hillen Rd Baltimore ..... VA 5-1130
Mass Howard J Schuft Co, Inc, 815 Washington St Newtonville ..... LA 7-5304
Mo Automatic Gen Elctn Sales, 6550 E Troost Ave Kansas City 816 333-8206
NJ Moler-Eader Assoc, Box 240 Haddonfield ..... HA 8-2440
NM Vinson Assoc, Box 3295, Albuquerque 298-7442
NY Emec Inc, 160 Terminal Dr, Plainview .. WE 1-3700
Ohio Tower Engineering Co, 2701 Far Hills Dayton 295-1491
Tex Automatic Gen Elctn Sales, 1202 Spruce Dr Richardson 235-3577
Wash Dewer & Assoc, 6361 First Ave S Seattle ..... PA 2-1724
Can Electrodesign Ltd, 9124 St Lawrence Blvd Montreal 11, Que ..... DU 9-5914
Can Electrodesign Ltd, 491 Lawrence Ave W Toronto 12, Ont 787-0991
Can Electrodesign Ltd, 1390 Roven Ave Ottawa, Ont 235-1780

INSTRUMENTS INC, 3434 MIDWAY DR, SAN DIEGO
CAL, 92110 ..... 714 223-7156
D KALBFELL, EMP 7, ENG 3, UP TO $100M

INSTRUMENT SPECIALTIES CO INC, 254 BERGEN BLVD
LITTLE FALLS, N J, 07424 ..... 201 256-3500
J ROBERSON, EMP 175, ENG 10, $250-$500M
ADV PG 636
Cal E V Roberts & Assoc, 9601 W Jefferson Blvd Culver City 870-9561
Ill R Diethert Co, 2030 W Montrose Ave Chicago 561-7627
Mo R Pratt Assoc, 7460 Oakland Ave St Louis 647-2632
Ohio P E Brand, 24424 Wolf Rd, Cleveland 621-5299
Va J E McLean Sales Co, Box 250 Waynesboro 942-8678
Wis R Allen, 316 E Silver Spring Dr Milwaukee 964-2530

INSULATING FABRICATORS INC, 150 UNION AVE
EAST RUTHERFORD, N J, 07073 ..... 201 939-7393
F HANUS JR, EMP 100, ENG 2, $500-$1,000M
Cal Plastic Stamping Inc, 932 Price St Pomona 622-6081
Mass Insulating Fabricators of NE, 69 Grove St Watertown ..... WA 3-9800
SC Insulfab Container Corp, 830 Hayne St Spartanburg 582-7500

INSULATING FABRICATORS OF N E INC, 69 GROVE ST
WATERTOWN, MASS, 02172 ..... 617 923-9800
M MCGUIRE, EMP 200, $2,500-$5,000M
Ind Neal Engineering Co, 3720 N College Ave Indianapolis

INSULATING SHAPES INC, 1383 SEABURY AVE
BRONX, N Y, 10461 ..... 212 SY 2-4400
A MARGOSIAN, EMP 60, ENG 5, $500-$1,000M
Cal Insulation Components Assoc 4645 E Olympic Blvd, Los Angeles ..... NE 2-8528
Ind Ralph J Haffey Co, 4127 N Clinton Fort Wayne 748-1159
Ohio C J Voneman & Co, 18522 Detroit Ave Cleveland 221-2800
Wis B A Flatley & Assoc, 324 E Wisconsin Ave Milwaukee 276-9121

INTEGRATED CIRCUIT ELECTRONICS INC, BOX 647, WALTHAM
MASS, 02154 ..... 617 899-2700
T CHADURJIAN, EMP 20, ENG 4, $250-$500M
ADV PG 229, 267
Cal Paul Nurohes Co, 2396 E Foothill Blvd Pasadena ..... MU 1-8957
Cal Peninsula Assoc, 1447 Bayshore Palo Alto 415 322-1803
Cal Paul Nurches Co, 99 Commercial St Palo Alto ..... 415 DA 6-7842
Conn H Goldfarb, 955 Dixwell Ave Hampton 203 624-7800
Md T C Satterthwaite, Box 51 Kensington 301 942-1700
Mass J & J Assoc, 225 Crescent St, Waltham .. 899-0160
NY Bittan Assoc, 381 Sunrise Hwy Lynbrook 516 593-3833
NY RJC Assoc, 219 Oakridge Terr Liverpool 315 457-3220
Pa W F Satterthwaite, 237 N Lansdowne Ave Lansdowne 215 623-5100
Tex Servo Electronics, Box 20371, Dallas ..... ME 7-3440
Wis O'Meara Co, 800 N Marshall Milwaukee 414 273-8467
Can Elequipment Ltd, Box 174, Oakville Ont

INTEGRATED CIRCUIT ENGINEERING CORP
4900 E INDIAN SCHOOL RD, PHOENIX
ARIZ, 85018, TWX 910-950-1285 ..... 602 959-4760
G MADLAND, EMP 20, ENG 10, $500-$1,000M
Cal ICE Intl Div, 9470 Santa Monica Blvd Beverly Hills 271-4422
Cal J K Logan, 1611 Pacific Coast Hwy Redondo Beach 375-8516
Cal F H Bower, 750 Welch Rd, Palo Alto 326-0503
Pa R D Richardson, 4333 East River Dr Phila 247-9637
Wash Jon B Jolly, 413 Maritime Bldg Seattle 624-2152

INTEGRATED MOTORCONTROL INC, BOX 417
PALO ALTO, CAL, 94301 ..... 415 327-1371
S DAMON, EMP 10, ENG 3, OVER $10,000M
Cal Amtek, 1340 N Carolan Ave, Millbrae 347-3081

INTELECT INC, 30 N SCHOOL ST, HONOLULU
HAWAII, 96817, TWX 723427 ..... 808 510-437
J RICHBARK, EMP 20, ENG 3, $500-$1,000M

For Intelect Inc, Box Q, Agana Guam 423548
For Intelect Inc, Soi Phra Sarde, Bangkok Thai
For Eugene L Brown Co, Box 6304 Loiza Sts
Santurce P R 174 783-5880

INTELLUX INC, 26 COROMAR DR, GOLETA
CAL, 93017 ....805 968-3541
S LEBOW, EMP 100, ENG 10, $2,500-$5,000M
Cal Sedillo Co, 125 E Sunnyoaks, Campbell... 264-4010
Ill Balhorn & Welch, 1925 N Harlem
Chicago 889-5011
Mo Leemark Assoc Inc, 4518 W 89th St
Prairie Village 648-0124
Mo Leemark Assoc Inc, 9623 St Charles Rock Rd
St Louis 314 423-8700
NY Bradley Assoc, 130 Van Cortlandt Ave W
Bronx ....KI 9-8500
NY KLM Assoc, 8 Bear Hill Dr
Palmyra 315 797-9776
NY KLM Assoc, 201 S Main St
North Syracuse 315 458-6214
NY KLM Assoc, 9 Hollywood Dr
Whitesboro 315 736-2450
Ohio G & H Sales Co, 7215 Market Pl
Cincinnati 761-6185
Pa Holdsworth & Co, Box 298
Newtown Sq ....215 EL 6-8550
Va Jay Co, 2914 Annandale Rd
Falls Church 703 534-7800
Wash J A Findlay, 10237 Main St, Bellvue 454-5200
Can O & W Electronics Ltd, Box 278
Don Mills, Ont 447-6471
For Intercontl Aviation Serv Inc, Box 1705
Beverly Hills, Cal 274-7578

INTERCONTINENTAL ELECTRONICS CORP
260 MACEDON CTR RD, FAIRPORT
N Y, 14450 ....716 377-5990
R MAIN, EMP 14, ENG 7, $250-$500M
Cal Peninsula Assoc, 1447 Bayshore
Palo Alto 415 322-1803
Fla CES Assoc, Box 1152, Melbourne.... 305 254-2183
Md Scientific Mktg Assoc, 8817 Hunting La
Laurel 301 776-5130
Mass Carl Lueders & Co, Box 161
Needham Hts 617 449-0345
NJ H Wilson Ryno Div, 151 Forest St
Monclair 201 783-9700
NY Arthur L Perkins Co Inc, Kinlock Plaza
Manlius 315 682-5005
Tex Unimetrics Corp, 2712 Southwest Fwy
Houston 713 524-3157
Can Technitron Assoc Ltd, 769 Lajoi Ave
Dorval Que 514 631-6859

INTERDATA, 2 CRESCENT PL, OCEANPORT
N J, 07757, TWX 510-239-9200 .... 201 229-4040
J BUZZELO JR, EMP 140, ENG 30, $1,000-$2,500M
Cal Interdata, 10350 Saratoga-Sunnyvale
Cupertino 408 257-3418
Cal Interdata, 891 S Sepulveda Blvd
Los Angeles 213 670-8386
Mass Interdata, Baker Ave, W Concord 617 369-7997

INTERELECTRONICS CORP, 500 US RTE 303, CONGERS
N Y, 10920 ....914 358-8000
M PINTELL, EMP 65, ENG 37, $1,000-$2,500M
ADV PG 535

INTERFERENCE MEASUREMENT LAB INC
850 SHEPHERD AVE, BROOKLYN
N Y, 11208 ....212 NI 9-0303
N WOLK, EMP 6, ENG 6

INTERLAB INC, 109 WHEELER AVE, PLEASANTVILLE
N Y, 10570 ....914 769-1103
H LAYTON, EMP 12, ENG 4, $250-$500M
NJ Era Inc, 7 Ball Terr, Boonton
NY Martin P Andrews Co, 319 Mott Rd, Fayetteville
NY Era Inc, 330 Great Neck Rd, Great Neck
Fr BFI, 52 Av de New York, Paris 16eme.... KLE 6969
Ger BFI, 31 Kaiser Str, Frankfurt/Main 33 84 47

INTERMAN INDUSTRIAL PRODUCTS LTD
350 OLD COUNTRY RD, GARDEN CITY
NY, 11530, TWX WU 12-5876 .... 516 248-8812
P PETRACK, EMP 10, ENG 2, $500-$1,000M
Ital SFD Co, Via Turati, 28, Milan 653221

INTER-MARKET INC, 31 WAUKEGAN RD, GLENVIEW
ILL, 60025 ....312 729-5330
H SCOTT, EMP 5, ENG 1, $100-$250M
Ala NBS Inc, Box 1343, Huntsville 205 881-3175
Ariz Bennewitz Assoc, 532 N Brown St
Scottsdale 602 947-7379
Cal Leddy Assoc, 1319 Howard Ave
Burlingame 415 347-5247
Cal Universal Components, 2330 Westwood Blvd
Los Angeles 213 474-1537
Colo Bennewitz Assoc, 2801 E Colfax Ave
Denver 303 399-1132
Conn White Sales Co, Berlin 203 224-0423
Fla NBS Inc, 2813 Primrose Crt
Orlando 305 423-4856
Fla NBS Inc, 4150 SW 23rd St
Ft Lauderdale 305 584-0650
Ga NBS Inc, 893 Church St NW
Marietta 404 422-6067
Ill Actronic Sales Engrg Co, 4750 N Milwaukee Rd
Chicago 312 286-1037

Iowa Norman W Kathrinus & Co, 417 W 4th St
Ottumwa 515 684-6110
Kan Norman W Kathrinus & Co, 2336 Boeke St
Kansas City 913 236-4180
Md Barnhill & Assoc, 1931 Greenspring Dr
Timonium 301 252-5610
Mass White Sales Co, 20 Chestnut St
Needham 617 444-3676
Mo Norman W Kathrinus & Co, 2427 Brentwood Blvd
St Louis 314 962-5627
NJ Barnhill & Assoc, Box 296
Collingswood 609 854-5858
NM Bennewitz Assoc, 9720 Candelaria NE C
Albuquerque 505 298-6775
NY Metro Technical Sales Co, 103 Pinewood La
Metropolitan 516 798-1066
NY R P Kennedy Co Inc, 39 Saginaw Dr
Rochester 716 271-6322
NY R P Kennedy Co Inc, Box 56
Fayetteville 315 637-9531
NY R P Kennedy Co Inc, Green Tree Dr N
Hyde Park 914 229-2269
Ohio Gibson Elctns Mktg Co, 5335 Far Hills Ave
Dayton 513 434-7860
Ohio Gibson Elctns Mktg Co, 77 Maple Dr
Hudson 216 653-2900
Tex W Pat Fraila Co, Box 12625
Ft Worth 817 738-2394
Va Barnhill & Assoc, Box 1104
Lynchburg 703 384-2062
Can Electronic Components Intl, 95 Havenbrook Blvd
Willowdale 416 447-3873
Can H W Brieger Sales Inc, 5253 Decarie Blvd
Montreal 514 482-0722

INTERNATIONAL COMMUNICATIONS CORP, 7620 NW 36TH AVE
MIAMI, FLA, 33147 ....305 691-1220
J GERBER
ADV PG 166

INTERNATIONAL CONTROLS CORP, 88 CLINTON RD
FAIRFIELD,, N J, 07006 ....201 228-4000
C TRUNZO, EMP 500, ENG 15, $5,000-$10,000M

INTERNATIONAL CONTROLS CORP CRYOGENICS DIV
88 CLINTON RD, FAIRFIELD
N J, 07006, TWX 710-734-4340 .... 201 228-4000
K SHMUELI, EMP 100, ENG 7, $1,000-$2,500M
Cal Lee-Tec, Box 717, Lafayette 933-1440
Cal C T Prod Co, 6214 W Manchester Ave
Los Angeles 776-1488
Ga W P Edmondson, 3536 Keswick Dr, Chamblee
Ill Bryon Ellis Assoc, 6242 N Kenmore Ave
Chicago 262-2038
Mass Cosmotorr Inc, 231 Merriam St, Weston... 899-2210
NY G O Miller Co, 607 Midtown Plaza
Syracuse 478-3113
NY Flowmaster Controls Co, 211 E 43rd St
New York ....MU 7-1422
Okla Indrepco Inc, Box 1013, Tulsa 742-8279
RI Cosmotorr Inc, Box 158, Cumberland 333-5300
Tenn Knox Valve & Fitting Co, 6310 Deane Hill Dr
Knoxville 588-7475

INTERNATIONAL CRYSTAL MFG CO INC, 10 N LEE
OKLAHOMA CITY, OKLA, 73102 .... 405 CE 2-3641
R FREELAND
ADV PG 393

INTERNATIONAL DATA PRODUCTS INC, BOX 196 ROAD 3
LUQUILLO
PUERTO RICO, 00673, TWX 385-864 .... 516 681-3200
EMP 150, ENG 6
ADV PG 336

INTERNATIONAL DATA SYSTEMS INC
2925 MERRELL RD, DALLAS
TEX, 75220 ....214 357-6271
J BOUGH, EMP 103, ENG 10, $1,000-$2,500M

INTERNATIONAL DIODE CORP, 90 FORREST ST
JERSEY CITY, N J, 07304 .... 201 432-7151
J LEE, EMP 10, ENG 2, UP TO $100M

INTERNATIONAL ELECTRO-MAGNETICS INC
ERIC DR & CORNELL AVE, PALATINE
ILL, 60067 ....312 358-4622
J PRETTO, EMP 37, ENG 9, $500-$1,000M
Mich Martin Vogt, 2817 Bamlet Rd
Royal Oak 549-3355
Can Thomson Electric Co Inc, 50 Rockefeller Pla
New York, NY ....CI 5-0444

INTERNATIONAL ELECTRONIC RESEARCH CORP
135 W MAGNOLIA BLVD, BURBANK
CAL, 91502, TWX 910-498-2206 .... 213 849-2481
J MARKLEY JR, EMP 213, ENG 40, $5,000-$10,000M
Cal Jack Logan & Assoc, 801 Mahler R
Burlingame 697-6100
Colo Vinson Assoc, 3600 S Lincoln
Englewood 789-2203
Conn Hathaway Electronics Inc, Box 797
Canaan 824-7215
Fla Wm M Jones Co Inc, 2317 E South St
Orlando 424-6298
Ga Wm M Jones Co Inc, 2666 Redding Rd, N E
Atlanta 261-8275
Ill Magnuson Assoc, 5639 W Fullerton Ave
Chicago 622-6322

Kan Thunderbird Eng Sales & Serv, 7707 E Osie
Wichita 684-3941
Kan Thunderbird Eng Sales & Serv, 4014-A W 95th St
Prairie Village 642-7220
Md William M Jones Co Inc, 1107 Echo Ct N
Towson 823-5721
Mass Hathaway Elctns Inc, 7-11 Mystic St
Arlington 646-1380
Mich Sheridan Assoc, Box 128
Lathrup Village 313 358-3333
Minn Magnuson Assoc, 1246 W 7th St
St Paul 227-8495
Mo Thunderbird Eng Sales & Serv, 400 Brooks Dr
Hazelwood ....314 PE 1-4343
NJ Wm M Jones Co, Inc, 332 S Forklanding Rd
Maple Shade 662-0480
NM Vinson Assoc, Box 3295, Sta D
Albuquerque 298-7442
NY B B Taylor Corp, 2270 Grand Ave
Baldwin 223-8000
NY Reed Electronics Inc, 2815 Monroe Ave
Rochester 473-2767
NY Reed Electronics Inc, Vestal Pky E St
Vestal 748-7391
NY Reed Electronics Inc, 326 Fay Rd
Syracuse 408-5488
Ohio Sheridan Assoc Inc, 10 Knollcrest Dr
Reading 761-5432
Ohio Sheridan Assoc Inc, 26 W Nottingham Rd
Dayton 277-8911
Ohio Sheridan Assoc, 7029 Royalton Rd
Cleveland 216 237-9145
Ore Ron Merritt Co, 2035 SW 58th Ave
Portland 222-7337
Pa Sheridan Assoc Inc, 201 Penn Center Blvd
Pittsburgh 243-6655
Tex Hillman Enterprises, 3505 Turtle Creek Blvd
Dallas 521-9907
Tex Hillman Enterprises, 7801 Bissonnet
Houston ....PR 1-5600
Wash Ron Merritt Co, 1320 Prospect St
Seattle 682-7337
Can R-O-R Assoc Ltd, 1470 Don Mills Rd
Don Mills, Ont 444-4403
Can R-O-R Assoc Ltd, 3330 Cavendish Blvd
Montreal, Que 482-8430
Can R-O-R Assoc Ltd, 1320 Carling Ave
Ottawa 3, Ont 722-6531
Can R-O-R Assoc Ltd, 805 5th St SW
Calgary Alb 265-6470
Fr Europelec, Les Clayes-Sous-Bois, Paris
GB Lectropon Ltd, Wellington St, Slough, Bucks
Jap Japan Aviation Elctns Ind Ltd
32, Nampeidai-Cho, Shibuya-Ku, Tokyo
Swed Bo Palmblad Aktiebolag, Hornsgatan 58
Stockholm V

INTERNATIONAL ELECTRONICS CORP
316 S SERVICE RD, MELVILLE
NY, 11746, TWX 212-479-9410 .... 516 694-7700
B GROSSMAN
Ill R Di Marco, 8501 W Higgins Rd
Chicago 312 693-2067

INTERNATIONAL ELECTRONICS INDUSTRIES DIV
CALLINS IND INC, BOX C, GREENFIELD
TENN, 38230, TWX 810-590-3779 ...... 901 235-2234
E ESLICK, EMP 785, ENG 5, $5,000-$10,000M

INTERNATIONAL ENERGY CONVERSION INC
430 KIRBY ST, GARLAND
TEX, 75040, TWX 910-860-5185 .... 214 BR 6-6154
C CROWDUS, EMP 35, ENG 5, $250-$500M
Cal Cairns Eng Sales Corp, 6151 W Century Blvd
Los Angeles 213 670-1700
DC Smith & Carpenter, 1130 17th St NW
Washington 628-2506
Fla Compar, 7040 Lake Elenor Dr, Orlando ... 855-3964
Ill Decker Sales & Service, 133 Sioux Ave
Carpentersville 312 428-3161
Mass Tom Crawford & Son, Box 264
Norwood 762-6878
Pa V S Malta Co, Box 4007, Philadelphia.... 836-5122
Tex L G Sales Corp, 3140 Emily Dr
Dallas 214 279-1936
Wash Jas J Backer Co, 221 W Galer St
Seattle ....AT 3-6470

INTERNATIONAL EQUIPMENT CO, 300 2ND AVE
NEEDHAM HEIGHTS
MASS, 02194, TWX 094-6394 .... 617 444-6700
J WISLER, EMP 500, ENG 50, $1,000-$2,500M

INTERNATIONAL INSTRUMENTS DIV SIGMA INSTR INC
8919 MARSH HILL RD, ORANGE
CONN, 06477 ....203 795-4711
L THOMAS, EMP 175, ENG 5
Ariz Carl Hower & Co, Box 1627
Scottsdale 602 947-4204
Cal Paul F Wiley Co, 1632 Silverlake Blvd
Los Angeles 663-8028
Cal Winco Sales, 1901 Middlefield Rd
Mountain View 415 961-8510
Colo Bishop Enterprises, 493 Jamaica
Aurora 364-7361
Fla Wm R Lehmann Co, Box 20275
Orlando 841-4901
Ga Floyd Fausett & Co, 2264 Melinda Dr NE
Atlanta 633-3561
Ill Gassner & Clark Co, 6644 N Western Ave
Chicago 764-6121
Kan Technical Reps Inc, 809 Sheridan Circle
Olathe ....316 ST 2-3775

Kan Technical Reps Inc, 6814 Farmview La
Wichita .... 316 MU 2-4140
Md Daniel & Co, Box 124, Lutherville 825-3330
Mass Brookdale-Richter Engrg Inc, 348 Lake Ave
Newton Highlands 826-2821
Mich George Peters Assoc, 2399 Coolidge Hwy
Berkley 564-6325
Minn R J Sales & Engineering, Box 6172
Minneapolis 612 922-1425
Mo Technical Reps Inc, 7049 Laupher La
Hazelwood .... 314 JA 1-1000
NY R P Kennedy Co Inc, Box 54
Fayetteville 637-9531
NY R P Kennedy Co Inc, Greentree Dr N
Hyde Park 229-2269
NY O F Masin Co, 140 Boston Post Rd
Larchmont 834-7500
NY R P Kennedy Co Inc, 39 Saginaw Dr
Rochester 716 271-6322
Ohio Scott Electronics Inc, 1836 Euclid Ave
Cleveland 861-2626
Ore Shaffer & Nelson Co, 1001 S E Water
Portland .... BE 4-7437
Pa Stitzer Assoc, 24 State Rd, Paoli 215 644-5500
Tex John B Guenther Inc, 4533 N Central Expwy
Dallas 528-6286
Tex John B Guenther Inc, Box 55525
Houston 213 468-0232
Wash Shaffer & Nelson Inc, 314 NE 72nd St
Seattle .... LA 3-0664
Wash Shaffer & Nelson Inc, N 1114 Ruby St
Spokane .... 509 FA 7-9528
Can Whittaker Elctns Ltd, Box 216
Roxboro, Que 684-3000
Can Whittaker Elctns Ltd, 1885 Wilson Ave
Weston, Ont 247-7454
Can Whittaker Elctns Ltd, 42 Howden Ave
Ottawa, Ont 224-1221
For Terminal Radio Intl, 3 W 61st St
New York, NY 246-2133
Fr Brion Leroux & Co, 40 Quai de Jemmapes
Paris 10E 607 81 48
GB Leland Leroux Ltd, 145 Grosvenor Rd
Westminster London SW .... VIC 3243

INTERNATIONAL LIGHT INC, 12 UNICORN ST
NEWBURYPORT, MASS, 01950 .... 617 465-5923
P LAPE, EMP 19, ENG 4, $250-$500M
Ala Newcomb Assoc, Box 3244, Huntsville ... 852-0304
Cal Wolfl Engineering Corp, Box 2311
Newport Beach 646-7214
Cal R H Muenzer Co, Box 997
Redwood City 369-8283
Mass FJM Assoc, 149 N Washington St
N Attleboro 699-7070
NM ALS Electronics, Box 11626
Albuquerque 268-9600
NY Barnett Assoc, 40 Aberdeen Rd
Hauppauge 724-0202
NY J D Ryerson Assoc, 1672 Monroe Ave
Rochester 442-1900
Ohio Twin Region Elec Sales Inc
21010 Center Ridge Rd, Cleveland
Pa Sonco, 107 Town Center Rd
King of Prussia 265-3250
Tex Teamwork Inc, 2646 Andjon, Dallas 352-7747
Fr Et Vilber Lourmat, 33 Rue des Cordelieres
Paris XIIIe
GB Claude Lyons Ltd, Valley Works, Hoddesdon, Herts
Jap Ushio Electric, Inc, 1-27 Kanda Nishiki-Cho
Chyoda-Ku, Tokyo
Swed Teleinstrument AB, Box 14, Stockholm Vallingby

INTERNATIONAL MICROWAVE CORP, 332 RIVER RD
COS COB
CONN, 06807, TWX 710-579-2925 ...... 203 661-5924
W VALENTINE, EMP 79, ENG 7, $1,000-$2,500M
Ariz Key Representation Inc, Phoenix
Cal Key Representation Inc, Los Angeles
Cal Key Representation Inc, Mountain View
Ill Gassner & Clark Co, 6644 N Western Ave
Chicago 764-6121
Md Burgin-Kreh Assocs Inc, 202 W Penna Ave
Towson 825-3212
Mich Harvey Teplitz Co, 26847 Grand River Ave
Detroit 537-9058
NY Reed Electronics Inc, Syracuse 315 408-5488
NY Reed Electronics Inc, Box 187, Vestal 748-7391
Ohio Harvey Teplitz Co, 3945 Meadowbrook Blvd
Cleveland 371-2044
Ohio Harvey Teplitz Co, 3718 Salem Ave
Dayton 277-9178
Tex P J Scanlon Co, 742C S Sherman St
Richardson 231-4661
Va Burgin-Kreh Assocs Inc, 2600 Memorial Drive
Lynchburg 845-5600
Can R O R Assoc Ltd, 2440 Thorson Ave
Ottowa Ont 828-1330
Can R O R Assoc Ltd, 3285 Cavendish Ave
Montreal P Q 482-8430
Can R O R Associates Ltd, 1470 Don Mills Rd
Don Mills Ont 444-4403
For English Electriode Venezuela C A
Av Uraneta, Ed Luz Electrica, 2 Po
Caracas Venez 54 51 16
Den E V Johanssen As, St Kongensgade 93
Copenhagen .... Palae 7510
Fr Trenchant Electronique, 19.21 r M de Sanzillon
Clichy (Seine) Paris 270-2255
Ger Microwave Assocs Intl, 70 Karl-Theodor Str
Munich 25 .... 30.12.86
GB Microwave Assoc Ltd, Luton Beds
Holl I R C A, Paradysstraat 92, Voorburg 070 987351
Ital B Doleatto, Via San Quintino, 40
Torino 511-271-543-952

Ital Electronics & Microwave Agency, Via Aristide Busi
Roma 9 537-07-95
Jap Hakuto Co Ltd, Box 25, Tokyo Central .. 501-5301-0
Nor British Import A/S, Box 5237, Oslo 3 60-63-63
Swed Swedish Elektrolink AB, Stora Nygatan 39
Stockholm C 08/114595
Swit Omni Ray Ag, Dufoustr 56, Zurich 8 ... 051-34-4430
Gr Androumeda, 11 Voukourestiou St
Athens 134 627-236
Ind Forbes, Forbes Campbell & Co Ltd, Home St
Bombay 1 268081
Spn Inelec, S A, Velazquez 87, Madrid 276-1600
Fin Carlo Casagrande, Kalevankatu 4
Helsinki 640641
Aust Gen Electronics Serv Pty Ltd, 5 Ridge St
N Sydney N S W 929-8453

INTERNATIONAL RECTIFIER SEMICONDUCTOR DIV
233 KANSAS ST, EL SEGUNDO
CAL, 90245, TWX 910-348-6291 .... 213 628-6281
W GORRELL, EMP 1100, ENG 100, OVER $10,000M
Ariz Shefler-Kahn Co, 2017 N 7th St
Phoenix .... AL 8-7893
Cal Intl Rectifier, 401 E Manchester
Inglewood 678-2181
Cal Intl Rectifier, 2158 E Middlefield Rd
Mountain View 969-0660
Colo Hytronic Measurements, Inc, 4940 E 39th St
Denver 388-4081
Fla Intl Rectifier, 4230 SW 15th St, Miami ... 445-5201
Ill Intl Rectifier, 2720 Des Plaines Ave
Des Plaines 299-7181
Md Intl Rectifier, 8605 Cameron St
Silver Spring 589-3305
Mass Intl Rectifier, 361 Massachusetts Ave
Arlington 643-1608
Mich Intl Rectifier, 26789 Woodward Ave
Huntington Woods 548-1144
Minn Intl Rectifier, 5009A Excelsior Blvd
Minneapolis 920-1200
Mo Intl Rectifier, 47 Village Square
Hazelwood 838-6333
NJ Intl Rectifier, 95 Cedar La, Englewood 568-4725
NM Shefler-Kahn Co, 408 Penna St SE
Albuquerque 265-7077
NY Mitscher Co, Ellicott Sq Bldg, Buffalo 854-2518
Ohio Intl Rectifier, 1001 Leader Bldg
Cleveland 771-5562
Ohio Intl Rectifier, 3490 S Dixie Dr
Kettering 299-2635
Pa Intl Rectifier, 145 N Narberth, Narberth ... 839-6670
Tex Intl Rectifier, 2411 Farrington Ave
Dallas 631-2810
Utah Hytronic Measurements Inc, 2022 S Main St
Salt Lake City 466-4924
Wash Electronic Sales, Inc, 5900 Calif Ave SW
Seattle 932-0330
Wis Intl Rectifier, 2825 N Mayfair Rd
Milwaukee 258-2280
Can International Rectifier Canada, 126 Manville Rd
Scarborough 755-7793
For O Rieger, 10 Marxerg, Vienna III Aus 73 46 84
For Reinaldo Bohmer W, Clasificador 850
Santiago Chile
For Electrocentros Ltda, Aptdo Aereo 14312
Bogota DE Col 444-443
For El Gallito Comercial, 2 Ave Entre Calles 4 y 6
San Jose CR
For Electronica Indl Salvadorena, 19 Ave Norte 312
San Salvador El SAL
For Accesorios Electronicos, Aptdo 614
Tegucigalpa Hond 2-0656
For Guillermo A Viloria, Box 1324, Panama 2-3813
For Intesa SA, Box 5754 Correo Central
Lima Peru 36539
For Electrotecnicos Reunidos Lda, Ave Duque D'Avila
Lisbon Port 41161
For R H Ascheri Petrocilli
Boulevar Gral Artigas 635 Ap 2, Montevideo Ura
For Louis D Cohen y Cia, 5323 SW 8th St, Miami Fla
For Louis D Cohen y CIA, Aptdo Postal 8363
Caracas Vene
Den International Rectifier A/S, Tordenskjoldsgade 17
Copenhagen K 11 25 77
Fr Intl Rectifier France SA, 99 Ave Verdier
92-Montrauge 655-53-78
Ger International Rectifier GmbH, Guilettstrasse 15
Frankfurt/main I 72 92 86
GB Intl Rectifier (GB) Ltd, Hurst Green
Oxted-Surrey 3215
Ital Intl Rectifier Corp Italiana, Via Privata Ligoria 19
Borgaro Torino 49 84 84
Jap Intl Rectifier Corp (Japan) Ltd
21, 1-Chome Kanda Soda-Cho
Chiyoda-Ku, Tokyo 8991-8993
Nor J M Feiring, AS, Lilletorvet 1, Oslo 1 .... 41 43 45
SAfr M I Pty Ltd, Box 7037, Johannesburg
Swed A B Nordqvist & Berg, 8, Snoilskyvagen
Stockholm-K 520050
Swit Interelectronic, Kirzhenweg 5, Zurich 34-84-47
Arg Rayo Electronica SRL, Belgrano 990-60. P
Buenos Aires 38-1799
Belg Intl Rectifier Europe SA, 38 Av Des Arts
Brussels 4 .... 11 17 38
Braz Joad Claper, Av Almirante Barroso 6-Solla 2002
Rio De Janeiro
Ind Usha Rectifier Corp (India) Ltd, 12.1 Mathura Rd
Faridabad Haryana 40115
Mex Gimbel Mexicana SA, Av Sonora 170
Mexico 11 14-92-19
Neth N V Diode, Hollanthaan 22, Utrecht 030-84214
NZ Arnold & Wright Ltd, 171-173 Taranaki St
Wellington C3 54-078
Spn Instrumentos Elctns De Precision SL
68 Fernan Gonzalez, Madrid
Spn M Gabarro SA, RBLA Cataluna 80, Barcelona-8
Fin Oy Flinkenberg AB & Co, Bulevardi 28, Helsinki

Aust Warburton Franki (Adelaide) Pty Ltd
GPO Box 683F, Adelaide
Aust Warburton Franki (Brisbane) Pty Ltd, 13 Chester St
Fortitude Valley
Aust Warburton Franki (Melbourne) Pty Ltd, 220 Park St
Melbourne
Aust Warburton Franki (Sydney) Pty Ltd
307-315 Kent St, Sydney

INTERNATIONAL RESEARCH & DEVELOPMENT CORP
6150 HUNTLEY RD, WORTHINGTON
OHIO, 43085 .... 614 885-5376
E HART, EMP 116, ENG 21
Ala Dixie Bearings Inc, 3104 4th Ave
Birmingham 323-7735
Ark Dixie Bearings Inc, 1000 Ringo St
Little Rock .... FR 4-6383
Cal IRD Corp, 376 College Ave, Palo Alto 781-5529
Colo Baker Electric Co, 1842 Lawrence St
Denver 222-4751
Conn IRD Corp, 30 Ermine St, Fairfield 255-0893
Del Bearings Inc, 16th & Gov Printz
Wilmington .... OL 6-2511
Fla Dixie Bearings Inc, 1826 Ionia St
Jacksonville 353-9681
Ga IRD Corp, Box 12403, Northside Sta
Atlanta 874-6268
Ill IRD Corp, 9708 W Foster Ave, Chicago ... 427-1209
Ill IRD Corp, 8030 Swiss St, Houston 944-5082
Kan IRD Corp, 8140 Rosewood Dr
Prairie Village 649-5024
Kan IRD Corp, 8030 Swiss St, Houston 944-5082
Ky Bruening Bearings, 2428 Bowman Ave
Louisville 637-8741
La Dixie Bearings Inc, 401 Howard St
New Orleans 523-6363
Me Tek Bearing Co, 192 Center St, Auburn ... 784-5446
Md Bearings Inc, 2522 Greenmount Ave
Baltimore 243-7220
Mass Tek Bearing Co, 190 N Beacon St
Brighton 254-2800
Mich IRD Corp, 199 N Main St, Plymouth 453-2828
Minn Kirkeby & Assoc, Inc, 821 2nd Ave N
Minneapolis 377-3239
Miss Dixie Bearings Inc, 257 S Walnut St
Greenville 332-1536
Mo Bruening Bearings, 2727 Washington St
St Louis .... JE 3-0837
NJ IRD Corp, 28 Millburn Ave, Springfield ... 379-1132
NY IRD Corp, 500 Mill St, Williamsville .... NF 2-6699
NC Dixie Bearings Inc, 501 Wolfberry St
Charlotte 372-1310
Ore Scientific Supplies Co, 3950 NW Yeon Ave
Portland .... CA 2-1721
Pa IRD Corp, Manoa Shopping Ctr
Havertown .... JA 8-5990
Pa Edward F Mahoney, 5409 Saltsburg Rd
Verona 795-1606
RI Tek Bearing Co, 147 Carolina Ave
Providence 467-6000
SC Dixie Bearings Inc, 405 Pendleton St
Greenville .... CE 9-9681
Tenn Dixie Bearings Inc, 411 Dale Ave
Knoxville 525-4137
Tex IRD Corp, 4058 Davila Dr, Dallas 352-8312
Va Dixie Bearings Inc, 1503 Chamberlayne Ave
Richmond .... MI 4-7837
Wash Scientific Supplies Co, 600 S Spokane St
Seattle .... MU 2-3460
W Va Bearings Inc, 518 Main St, Wheeling .... CE 3-4250
Wis Wisconsin Bearing Co, 1310 S 43rd St
Milwaukee .... OR 2-9220
Can Robertson-Irwin Ltd, 90 Selgrove Crescent
Oakville, Ont 827-0612
Can Robertson-Irwin Ltd, 3126 Marcel
Montreal Que 514 332-1935
GB Mechanalysis Intl, London Rd
Morden Surrey .... OL 540-5477
BC Robertson-Irwin Ltd, 2206 Chapman Way
N Vancouver 929-3173

INTERNATIONAL SCANATRON SYSTEMS CORP
1623 STRAIGHT PATH, WYANDANCH
N Y, 11798 .... 516 643-7111
J VERRUSO, EMP 12, ENG 2, $100-$250M

INTERNATIONAL TEL & TEL CORP INDUSTRIAL PRODS
DIV, 15191 BLEDSOE ST, SAN FERNANDO
CAL, 91342, TWX 910-496-1526 .... 213 EM 76161
J TOPEL, EMP 300, ENG 72, $5,000-$10,000M
Ala E G Holmes & Assoc, 4862 Governors Dr
Huntsville 837-6900
Ariz Moxon Electronics, 15 N 40th Pl
Phoenix 602 273-7363
Cal Moxon Electronics, 2311 Pontius Ave
Los Angeles 213 272-9311
Cal Moxon Electronics, 15 W 41st St
San Mateo 415 345-7961
Cal Moxon Electronics, 2054 Garnet St
San Diego 714 274-6225
Colo D E Bond Assoc, 2149 S Clermont St
Denver 303 756-1234
Conn H J Schuft Co, 965 Dixwell Ave
New Haven 865-1365
Fla E G Holmes & Assoc, 316 1/2 S Bumby
Orlando .... CH 1-2128
Ga E G Holmes & Assoc, 3667 Clairmont Rd
Chamblee 451-6161
Ill Cozzens & Cudahy Inc, 9501 W Devon Ave
Rosemont 825-1144
Ind Cozzens & Cudahy, 44 Kirk Dr
Indianapolis 244-2456
Md K-G Sales, 11151 Viers Mill Rd
Wheaton 301 946-4055

Mass H J Schuft Co, 815 Washington St
Newtonville ... LA 7-5304
Mich Cozzens & Cudahy, 127 Edmund St
Royal Oak ... 313 585-5159
Minn Cozzens & Cudahy, 7710 Computer Ave
Minneapolis ... 920-1022
Mo Cozzens & Cudahy, 10534 Natl Bridge Rd
Edmunson ... 314 423-1234
NJ Moxon Electronics, 40 Coles Ave
Cherry Hill ... 609 665-5444
NJ Moxon Electronics, 151 Hackensack Ave
Hackensack ... 201 343-9490
NM D E Bond Assoc, Box 11331
Albuquerque ... 505 247-3442
NY Naco Electronics, 119 Luther Ave
Liverpool ... GR 4-7481
NY Naco Electronics, 14 Lori St
Poughkeepsie ... 462-2730
NY Naco Electronics, 74 Park Ave
Rochester ... 244-4720
NY Naco Electronics, 2631 Edgewood Rd
Utica ... 732-1801
NC E G Holmes & Assoc, 430 W Friendly Ave
Greensboro ... 275-0897
Ohio Cozzen & Cudahy, 735 Court St
Medina ... 216 725-5660
Okla Data Engineering, 4580 E 50th St
Tulsa ... 918 622-3753
Ore Showalter-Judd, 1445 NE Arrington
Hillsboro ... 503 648-6372
Tex Data Engineering, 5641 Yale Blvd
Dallas ... 214 363-9351
Tex Data Engineering, 2120 S Post Oak Rd
Houston ... 713 622-2820
Tex Data Engineering, 411 E Martin St
San Antonio ... Ent 254
Wash Showalter-Judd, Inc, 1806 S Bush Pl
Seattle ... 324-7911

INTERNATIONAL TRANSDUCER CORP
82 AERO CAMINO, GOLETA
CAL, 93017 ... 805 968-3558
T MADISON, EMP 10, ENG 3

INTERNATIONAL WIRE PRODUCTS CORP, W MAIN ST
WYCKOFF
N J, 07481, TWX 710-988-5839 ... 201 891-5800
R KELLY, EMP 300, ENG 10
NY Stamford Processing Co Inc, Albany Post Rd
Buchanan
SC Int'l Wire Products Corp, Daniel Morgan Ave
Spartanburg

INTERSTATE CIRCUITS INC, 33 CANAL ST, ROCHESTER
N Y, 14608 ... 716 235-2123
E GROSHEK, EMP 80, ENG 3, $500-$1,000M

INTER-TECHNICAL GROUP INC, BOX 23
IRVINGTON-ON-HUDSON
N Y, 10533, TWX 710-564-0802 ... 914 LY 18822
G MORROW, $1,000-$2,500M
Ariz Palmer Assoc, 55 E Thomas Rd
Phoenix ... 274-4581
Colo Palmer Assoc, 1050 Yuma St, Denver ... 255-9961
Fla H Sarkis & Assoc, 671 Dommerich Dr
Maitland ... 647-3671
Ill Crest Assoc, 7001 N Clark St, Chicago ... 274-2640
Mass Normell Assoc, 10 Day St, Auburndale ... 969-5478
Minn International Sales Co, 8703 Beard Rd
Mnpls ... 881-6683
Mo Boweng Inc, 10414 Oak Ave, St Louis ... 429-1327
NJ C R Mayer Co, Box 444, Old Bridge ... PA 7-0970
NY Harold B Heft, Box 623, Lynbrook ... LY 9-3351
NY Naylor Electric Co, 1718 Erie Blvd
Syracuse ... GR 2-9183
Ohio Monatron, 20850 Sheldon Rd
Cleveland ... 243-6500
Pa Robin Products Co, Box 66
Merion Station ... 664-1889
Tex Corwin Assoc, Box 18112, Dallas ... 348-4623

INTERTECHNIQUE, PLAISIR, 78
FRANCE, TWX 25942 ... 951 01 20
R COHEN, EMP 1040, ENG 95, OVER $10,000M
NJ Intertechnique Instr Inc, Randolph Ind Pk
Dover ... 201 361-5550
Den Meditronic A/S, Nybrovej 149
Kgs Lyngby ... 01 87 13 13
Ger Deutsche Intertechnique Gmbh, Postfach 1645
65 Mainz ... 6131 26661
GB Intertechnique Ltd, Unit 5 Victoria Rd
Portslade Sussex ... BRIghton 44 336
Holl Compagnie Gen d'Electricite, Box 1860
The Hague ... 60-88-10
Ital Elettronucleonica S P A, Piazza De Angeli 7
20146 Milano ... 46 35 20
Jap Nichimen Co Ltd, Box Central N 1136
Tokyo ... 567 1311
Nor LEHMKUHL Elektronikk, Box 145
Oslo 2 ... 55 48 90
SAfr Ash Brothers (Pty) Ltd, Box 6061
Johannesburg ... 834-3751
Swed Nanoteknik AB, Box 3045, Taby 3 ... 08 758 40 30
Swit Nucletron AG, Spitalgasse 39
3000 Berne ... 37 451
Belg Nucleobel SA, 266 B ave de Tervueren
Brussels ... 70 82 36

INTRONICS INC, 57 CHAPEL ST, NEWTON
MASS, 02158, TWX 710-335-6835 ... 617 332-7350
C PFAELZER, EMP 13, ENG 5, $250-$500M
ADV PG 39

Cal Compar San Francisco, 1817 Bayshore Hwy
Burlingame ... 415 697-6244
Cal Compar Los Angeles, 434 W Colorado Blvd
Glendale ... 213 245-6573
Ill Gassner & Clark Co, 6644 N Western Ave
Chicago ... 312 764-6121
Md J Daniel & Co, 6 E Penna Ave
Towson ... 301 825-3330
Mass Daniels Engineering, Box 27
Lynfield ... 617 334-4200
NJ Engineering Sales Co, 263 Central Ave
East Orange ... 201 674-6505
Ohio Whelan Corp, 2975 Far Hills Ave
Dayton ... 513 298-9997
Ohio Whelan Corp, 8323 Cedar Rd
Chesterland ... 216 442-8340
Pa Whelan Corp, Box 231, Waterford ... 814 454-3346
Pa J Daniel & Co, 231 S Easton Rd
Glenside ... 215 887-0550
Tex Hays Co, 777 S Central Expwy
Richardson ... 214 231-1426
Wash R Johnston Co Inc, 1011 NE 69th St
Seattle ... 206 524-5170

INVAC CORP, 26 FOX RD, WALTHAM
MASS, 02154 ... 617 899-2380
W BIXBY, EMP 75, ENG 7, $1,000-$2,500M
Ala W A Brown & Assoc Inc, 1314 Buford St, NW
Huntsville ... 536-8393
Cal IFM South, 3455 Cahuenga Blvd
Hollywood ... 469-1641
Cal IFM North, 2269 E Middlefield Rd
Mountain View ... 961-2828
Fla W A Brown & Assoc, 3039 NE 32nd Ave
Ft Lauderdale ... 564-8000
Fla W A Brown & Assoc Inc, 222 Weber Ave
Orlando ... 424-5505
Fla W A Brown & Assoc, Inc, 212 Bradley Dr, NE
Fort Walton Beach ... 243-6424
Ga W A Brown & Assoc, 1590 Cooledge Rd, NW
Tucker ... 939-1674
Ill Scientific Sales Co, 7132 N Harlem Ave
Chicago ... 775-7595
Ind Scientific Sales Corp, 706 Sherwood Dr
Indpls ... 545-9950
Kan Inland Assoc, 6047 Howe Dr, Mission ... 362-2366
Mass Electronic Sales Assoc, 594 Marrett Rd
Lexington ... 899-1430
Mich Micro Sales Corp, 650 Greenlawn St
Ypsilanti ... 482-0880
Minn Scientific Sales Co, 6121 Excelsior Blvd
Minneapolis ... 929-6115
NY Bradley Assoc Corp, 130 Van Cortlandt Ave W
Bronx ... KI 9-8500
NY R P Kennedy Co, Box 54, Fayetteville ... 637-9531
NY R P Kennedy Co, Green Tree Dr
North Hyde Park ... 471-4430
NY R P Kennedy Co, Box 8417, Rochester ... 235-2216
NC W A Brown & Assoc Inc, 1108 Burke St
Winston-Salem ... 725-5384
Ohio Micro Sales Corp, 2000 Lee Rd
Cleveland ... 371-0522
Ohio Micro Sales Corp, 1250 W Dorothy La
Dayton ... 298-3033
Okla Southwest Eng Sales Co, 5149 E 31st St
Tulsa ... WE 6-6305
Pa Data Engineering Co, 500 A E Godfrey Ave
Phila ... 725-9000
Tex Southwest Eng Sales Co, 3301 Montrose Blvd
Houston ... JA 3-8360
Tex Southwest Eng Sales Co, 1903 W 34th St
Austin ... GL 2-2064
Tex Southwest Eng Sales Co, Box 30177
Dallas ... 363-4619
Va W A Brown & Assoc Inc, 325 1st St
Alexandria ... 836-1800
Va W A Brown & Assoc Inc, 82 Huxley Pl
Newport News ... 596-2358
GB Elliott-Automation Ltd, Elstree Way
Borehamwood, Herts

IN-VAL-CO, BOX 556, TULSA
OKLA, 74101, TWX 910 845-2227 ... 918 582-4151
K BALL, EMP 267, ENG 10, $2,500-$5,000M
Ala Electro-Pneumatic Control Co, 416 Shenandoah Dr
Birmingham ... 205 822-5350
Ariz Portis & Assoc Inc, 132 E Stetson
Scottsdale ... 602 945-4925
Cal Carkeek Engrg Co Inc, 637 E Altadena Dr
Altadena ... 213 681-0489
Cal Paul S Everley Co, 335 S Van Ness Ave
San Francisco ... 415 431-2295
Cal Geco Sales Corp, 9570 W Pico Blvd
Los Angeles ... 213 274-1577
Cal Priz-Co, 407 California Ave
Palo Alto ... 415 326-9333
Colo Shuster Sales Co, 2041 S Wolff St
Denver ... 303 934-4622
Fla C B Metcalf Co, 3601 Swan La
Pensacola ... 904 476-7710
Fla Emmons Valve & Fitting Co, 3423 Davie Blvd
Fort Lauderdale ... 305 584-1000
Fla H J Oursler Jr & Assoc, 13787 Oakhurst Rd
Tampa ... 813 595-2391
Ga Estes Assoc Inc, 533 Decatur Federal Bldg
Decatur ... 404 373-8266
Ga Garrett Parker & Assoc
1499 Peachtree Battle Ave NW
Atlanta ... 404 355-6940
Ill Johnson Engrg & Sales Co, 120 E Ogden Ave
Hinsdale ... 312 325-2272
Kan Liquitrol Co, 4820 Belinder Ct
Shawnee Mission ... 913 236-7843
La J H Ware Co, Box 15411
Baton Rouge ... 504 926-3435

Md Arobone & Cline Inc, 8251 Brookfield Rd
Pasadena ... 301 255-7765
Mass Timross Co, 815 Washington St
Newtonville ... 617 244-7586
Mich Hermes-Bantle Assoc, 1900 E Jefferson Ave
Detroit ... 313 567-8100
Minn I L Baltuff Co, 1201 Turner's Cross Rd
Minneapolis ... 612 544-3889
Minn N B Kelly Co, 2519 E 25th St
St Paul ... 612 721-3393
Mo King Equipment Co, 2277 Administration Dr
St Louis ... 314 432-8441
NJ Flo-Tek Inc, 105 W Shore Ave
Dumont ... 201 385-5100
NY Tek-Sales Inc, 1157 Fairport Rd
Fairport ... 716 381-8110
NY Tek-Sales Inc, Box 44
West Seneca ... 716 675-1212
NC W K Hile Co Inc, Box 325
Matthews ... 704 847-9125
Ohio Franklyn W Kirk Co, 15017 Detroit
Cleveland ... 216 226-1970
Ohio CKM Ind Sales, 3164 Linwood Rd
Cincinnati ... 513 871-1413
Ohio Rod Eley & Assoc, Box 3052 Overlook Sta
Dayton ... 513 253-6971
Okla Dave Allert Co, 5138 S Peoria
Tulsa ... 918 743-7705
Ore Martig's Inc, 5741 NE Glisan St
Portland ... 503 232-1949
Pa Autotrols Inc, Box 11038
Pittsburgh ... 412 931-4431
Pa Arobone & Cline Inc, 333 W Mt Pleasant Ave
Philadelphia ... 215 248-1243
Tenn Janis Equipment Co, 4711 Poplar
Memphis ... 901 683-1511
Tex Esch & Assoc Inc, Box 18086
Houston ... 713 928-3357
Tex Bryer-Assoc, Box 35841, Dallas ... 214 351-4350
Tex Esch & Assoc, 110 S 11th St
Beaumont ... 713 832-0271
Utah Sherman Nabaum & Co, 4777 S 13th E
Salt Lake City ... 801 277-0459
Utah Control Equipment Co, 2255 S 2nd W
Salt Lake City ... 801 487-7741
Va Arobone & Cline Inc, 1922 Barribee La
Richmond ... 703 270-2371
Wash Martig's Inc, 422 Central Bldg
Seattle ... 206 623-6622
Can R Muddiman Ltd, 3300 Sartelon St
Montreal Que ... 514 747-3513
Can R Muddiman Ltd, 1875 Leslie St
Don Mills Ont ... 416 445-4600
Can R Muddiman Ltd, 514 Louisa St
Sarnia Ont ... 519 337-2329
For CE-rrey SA
Av Rep Mex 300 San Nicolas de los Garza NL
Monterrey NL ... 52-12-00
GB Meter-Flow Ltd, North Feltham Trading Est
Feltham Mdsx ... 01-890-1166
BC Instrument Service Labs Ltd, 29 W Broadway
Vancouver ... 604 876-3361
Mex CE-rrey SA, Oficina de Ventas Lucerna 78-2
Mexico 6 DF ... 66-17-33

INVESTMENT CASTING CO, 60 BROWN AVE
SPRINGFIELD, N J, 07081 ... 201 376-6260
E PARRIS, EMP 165, ENG 5, $1,000-$2,500M
Ariz Toward Engineering Assoc, 3320 N 44th St
Phoenix ... 955-3193
Conn S Toder, 75 Brockett St, Newington ... 666-5816
Ga Davis Metals, Inc, Box 13613, Sta K
Atlanta ... 875-0911
Ill W A Marugg, 5349 Fletcher St
Chicago ... PE 6-5522
Ind Industrial Products Inc, Box 27000A
Indpls ... 787-4303
Mich W Krogh, 81 Vernier, Grosse Pt Shores ... 886-2409
NJ J Jacobsen, 60 Brown Ave, Springfield ... 376-6260
NY Anscott Engineering Co, Box 98
Pittsford ... DU 1-3122
NY Erath-Anderson Assoc, Box 295, Roslyn ... 486-4757
Ohio Craver & Assoc, Box 37556, Cincinnati ... 731-7312
Ohio Prior Sales Co, Box 383, Chagrin Falls ... 247-7671
Tex H D Bowerman, Box 11271, Fort Worth ... 781-5949

ION CAPACITOR CORP, RADIO RD, COLUMBIA CITY
IND, 46725 ... 219 244-6168
R SEHR, EMP 55, $500-$1,000M

IONETICS CORP, 55 RANDOLPH AVE, AVENEL
N J, 07001 ... 201 382-8400
F BARRY, EMP 45, ENG 1, $500-$1,000M
Cal TAW Assoc, Box 5833, Sherman Oaks ... 784-2765
Cal Raymarg, Box 515, Santa Clara ... 248-5199
Colo Cummings & Assoc, 4772 S Kalamath St
Englewood ... 303 789-3449
Fla Barrett Assoc, Box 14205, Orlando ... 277-2857
Ill A Feller, 3065 University Ave
Highland Park ... 312 ID 3-3646
Ind Kirsch Sales Co, Lafontaine ... 317 981-2801
Kan Penzner Assoc, Box 6264
Overland Park ... 913 DU 1-0004
Md Ansell Engrg Co, 816 Thayer Ave
Silver Spring ... 301 588-4222
Mass United Wire & Cable Corp, 269 Mechanic St
Marlboro ... 617 393-2785
Mich C A Geer Co, 221 Graceland St NE
Detroit ... 361-9252
Minn G A Kelly, Box 222, Wayzata ... 612 GR 3-7602
Mo Penzner Assoc, Box 1912 Bechtold Sta
St Louis ... 314 351-1547
NJ Marshbank-Monteiro Assoc
123 Clements Bridge Rd
Barrington ... 609 546-6555

NY Mars Sales-Tronics, 220 Jericho Tpk Mineola ... 516 741-1270
NY G M Glauber, 62 Lincoln Rd Snyder ... 716 839-3672
Ohio R P Calhoun & Assoc, 40 Southmoor Circle, Rm8 Dayton ... 299-4144
Tex Space Age Sls, Box 31625, Dallas ... FL 7-5713

IONIC ELECTROSTATIC CORP, 111 MONROE ST
GARFIELD, N J, 07026 ... 201 478-7300
J SEDLACSIK JR, EMP 22, ENG 3

IONICS INC, ELECTRONICS DIV, 65 GROVE ST
WATERTOWN, MASS, 02172 ... 617 926-2500
R MAXWELL, EMP 260, ENG 45, $5,000-$10,000M
Cal R P Fiedler, 425 E Green St, Pasadena ... 681-2731
Pa Ionics Inc, Box 99, Bridgeville
Va S McGriff, 100 S Royal St, Alexandria ... 836-3180
Ital E Richmond & F Schoepflin, Via Flaminia 43 Rome ... 318-667
Spn Ionics Inc, Paseo de la Habana 46 Madrid ... 259-06-73

ION PHYSICS CORP, SOUTH BEDFORD ST
BURLINGTON, MASS, 01803 ... 617 272-2800
C HAUER, EMP 177, ENG 49, $2,500-$5,000M
NM Space Sys Sales & Engrg, 1401 Valencia S E Albuquerque ... 989-1661
Ohio T H Orndoff, Talbott Towers, Dayton
Tex Space Sys Sales & Engrg, 8383 Stemmons Frwy Dallas
Den Erik Ferner AB, Keilstruplund 75, Birkerod
Fr Radian Inc, 83 Rue Jouffroy, Paris
Ger Leybold Hochvakuum Anlagen GmbH 5-Koln/Bayental,
GB High Voltage Servicing Co, Ltd, 8 Kildare Close Middlesex
Holl High Voltage Engrg Europa, Amsterdamseweg 61 Amersfoort
Ital Alfa Beta Gamma SRL, Del Giuggiolo 4, Firenze
Jap Marubeni-Iida Co, Ltd, 4, 1-Chome Chiyoda-Ku, Tokyo ... 216-0111
Swed Erik Ferner AB, Box 56, Bromma
Belg Nucleobel SA, 266 b Ave De Tervueren, Bruxelles
Isrl Landseas Ltd, 29 Bezalel St, Tel Aviv

IPSEN INDUSTRIES DIV ALCO STANDARD CORP
BOX 500, ROCKFORD, ILL, 61105 ... 815 965-9581
R KROGH, EMP 496, ENG 40
Cal Ipsen Industries, 6894 Oran Cir Buena Park ... 521-4831
Ga Ipsen Industries, 3071 Peachtree Rd, N E Atlanta ... 237-9676
Ind Ipsen Industries, 215 E 34th St Indianapolis ... 926-9898
Mich Ipsen Industries, 19401 W McNichols Rd Detroit ... 538-2170
NJ Ipsen Industries, 618 Stuyvesant Ave Irvington ... 371-0420
Ohio Ipsen Industries, 14625 Detroit Ave Lakewood ... 221-9500

IRC DIV TRW INC, 401 N BROAD ST, PHILADELPHIA
PA, 19108, TWX 710-670-5949 ... 215 WA 2-8900
M GALLUCCI, EMP 3000, OVER $10,000M
Ariz Carl Hower & Co, Box 1627, Scottsdale ... 947-4204
Cal Jack Logan & Assoc, 801-D Mahler Rd Burlingame ... 697-6100
Cal Elliott Recht Assoc, 175 S San Antonio Rd Los Altos ... 941-0336
Cal IRC, 14827 Ventura Blvd Sherman Oaks ... 981-7722
Colo Electronic Component Sales Co, 2340 W Main St Littleton ... 798-8481
Conn Ray Perron & Co, 10 Briarwood Rd Farmington ... 673-4825
Fla Hollingsworth & Still, 1010 Executive Ctr Dr Orlando ... 841-1623
Ga Hollingsworth & Still, 3098 Piedmont Rd, NE Atlanta ... 261-5838
Haw Bassett & Moore, 12045 Magnolia Blvd North Hollywood ... 877-7129
Ill IRC, 6020 W Diversey Ave, Chicago ... TU 9-5800
Ill Lightner Assoc, 6322 N Milwaukee Ave Chicago ... 774-1500
Ind IRC, Box 40508, Indianapolis ... 846-7314
Iowa Halgin Sales Co, 4403 1st Ave SE Cedar Rapids ... 363-5119
Kan Halgin Sales Co, Box 1245, Mission ... 722-2441
La Jack F McKinney Sales Co, 2012 Condon Ave Metairie ... 887-1723
Md IRC, Baltimore ... 377-9020
Mass Ray Perron & Co, 1870 Centre St Boston ... 323-1008
Mich S Sterling Co, 21250 10 1/2 Mile Rd Southfield ... 357-3700
Minn Northport Engrg, Inc, 2027 Grand Ave St Paul ... 698-3841
Minn Smith Engrg Assoc, 2278 Como Ave St Paul ... 646-4851
Mo Halgin Sales Co, 201 S Central St Clayton ... 721-4415
NH Ray Perron & Co, 19 Caron Rd RFD 2 Manchester ... 472-3030
NM Electronic Component Sales Co, Box 3087, Sta D Albuquerque ... 256-3663
NY IRC, 1967 Turnbull Ave, New York ... 597-5500
NC Hollingsworth & Still, 6717 Woodstock Dr Charlotte ... 523-3327
Ohio Baehr-Greenleaf & Assoc, 14700 Detroit Ave Cleveland ... 221-9030
Ohio Baehr-Greenleaf & Assoc, 9505 Montgomery Rd Cincinnati ... 891-3827
Ohio Baehr-Greenleaf & Assoc, Box 5722 Columbus ... 486-4046
Ohio Baehr-Greenleaf & Assoc, 3550 Maplewood Dr Xenia ... 426-5485
Okla Jack F McKinney Sales Co, Box 3958 Tulsa ... 622-2967
Ore C K Shanks & Assoc, Box 25375 Portland ... 292-5656
Pa Covert & Newman Co, 300 Mt Lebanon Blvd Pittsburgh ... 563-0303
Tex Jack F McKinney Sales Co, 1303 Chemical St Dallas ... 631-9450
Tex Jack F McKinney Sales Co, 5458 Edith St Bellaire ... 665-3653
Tex W T Blackburn Assoc, Box 20073 Dallas ... 351-9991
Utah Electronic Component Sales Co, Box 2066 Salt Lake City ... 278-6044

IRCON INC, 207 LAWRENCEWOOD CTR, NILES
ILL, 60648 ... 312 967-5151
R VAN SCOYOC, EMP 30, ENG 10
Cal Ray Brainard Co, 4765 Chickasaw Ct San Diego ... 274-1333
Cal Priz Co, 407 Calif Ave, Palo Alto ... 415 326-9333
Ill O V Miller, 1002 Milwaukee Ave Libertyville ... EM 2-0038
Ind Electro Eng & Sales Inc, 6909 E 32nd St Indianapolis ... LI 7-5273
La G V Peck Co, 4771 Spain St New Orleans ... 282-1553
Md S & S Assoc Inc, 4405 East West Hwy Bethesda ... 654-2420
Mass J M Lancaster Co, 147 Concord Framingham ... 873-8893
Mich L T Martensen, 46 Ridge Rd Pleasant Ridge ... LI 3-3633
Minn Volco Co, 831 S 6th St, Minneapolis ... 336-6631
Mo Brandwine Equipment Co, 729 Hanley Ind Ct St Louis ... ST 1-6432
Mo Brandwine Equipment Co, 647 W 39th St Kansas City ... LO 1-1665
Neb Volco Co, 119 S 19th St, Omaha ... 346-2203
NJ Tek-Sel, Inc, 440 N Midland Ave Saddle Brook ... 791-5545
NY Robert F Lamb Co, Inc, 3407 Delaware Ave Buffalo ... 876-3757
NY Robert F Lamb Co, Inc, 63 Norcrest Dr Rochester ... 544-5580
NY Robert F Lamb Co, Inc, Box 28 Syracuse ... 454-2469
NY Robert F Lamb Co, Inc, Box 661 Uptown Sta Kingston ... 338-8833
NC Coddington, Gilleland & Assoc, 2150 Hawkins St Charlotte ... FR 5-1701
NC Earl M Seagrave Co, 5950 Fairview Rd Charlotte ... 704 366-5302
Ohio Schlemmer Assoc, 1172 W Galbraith Rd Cincinnati ... 522-8340
Ohio A W Risser Co, 64 Edgewood Dr Grafton ... 458-5091
Okla G V Peck Co, Box 15671, Tulsa ... 838-7068
Pa S & S Assoc Inc, Boro Line Rd King of Prussia ... 265-3450
Pa Weiss Instrument Co, 6 Barton Dr Pittsburgh ... 371-3020
Tex Gordon V Peck Co, 210 Casa Linda Plaza Dallas ... DA 8-3511
Tex Gordon V Peck Co, 5757 Bellaire Blvd Houston ... MO 4-1435
Va Earl M Seagrave Co, 2720 Tinsley Dr Richmond ... 703 272-7501
Wash Gordon McLaren Assoc, Inc, 7419 SE 24th Mercer Island ... 232-5164
Wis Pyromatic Industrials, 3220 W National Ave Milwaukee ... EV 4-9300
Wis Pyro-matic Industrials, Inc, 119R N Douglas Ave Appleton ... 739-4247
Can Willer Engrg & Sales Co, 1800 Avenue Rd Toronto Ont ... 416 783-3373
Can Willer Engrg & Sales Co, 1179 Decarie Blvd Montreal Que ... 514 747-9316

IRWIN LABS INC, 1238 S GERHART AVE
LOS ANGELES, CAL, 90022 ... 213 685-8090
W IRWIN, EMP 7, ENG 3, UP TO $100M

ISOCHEM RESINS CO, COOK ST, LINCOLN
RI, 02865 ... 401 723-2100
H SELYA, EMP 28, ENG 5, $500-$1,000M
Cal Allan Davis Assoc, 1907 Valetta Dr San Pedro ... 547-1288

ISOCYANATE PRODUCTS INC, 900 WILMINGTON RD
NEW CASTLE, DEL, 19720 ... 302 EA 8-5661
C SODERLIND, EMP 25, ENG 8

ISOFILM INTERNATIONAL, 20131 BAHAMA ST
CHATSWORTH, CAL, 91311 ... 213 882-0565
H HERICH, EMP 15, ENG 5
Alas Ron Merritt Co, 826 Whitney Rd Anchorage ... 907 272-5231
Ariz Toward Engrg Assoc, Box 15268 Phoenix ... 602 955-3193
Cal Dewco Sales Inc, 6915 San Fernando Rd Glendale ... 213 849-6101
Cal F W Moulthrop & Assoc, 1530 E 12th St Oakland ... 415 261-7676
Colo Gossard & Assoc, 12159 W Dakota Dr Denver ... 303 985-0602
Conn Impact Sales Co Inc, Box 448 W Hartford ... 203 521-1221
Fla Beacon Elect Assoc, 540 S Maitland Ave Maitland ... 305 647-3498
Ga Beacon Elect Assoc, 2285 Peachtree Rd NE Atlanta ... 404 351-3654
Ill Lightner Assoc Inc, 6322 N Milwaukee Ave Chicago ... 312 774-1500
Mass Impact Sales Co Inc, 223 Crescent St Waltham ... 617 893-2850
Mo Ozark Elctns, 2573 Woodson Rd St Louis ... 314 423-7200
NM Data Handling Co, 209 San Pablo SE Albuquerque ... 505 268-0928
NY Bob Dean Inc, 714 W Clinton St Ithaca ... 607 272-2187
NC Beacon Elect Assoc, Box 503 Jamestown ... 919 454-1010
Ohio Rockford Controls, 19201 Villaview Cleveland ... 216 531-4841
Ohio Rockford Controls, 2077 Embury Pk Rd Dayton ... 513 274-1911
Ore Ron Merritt Co, 2035 SW 50th Ave Portland ... 503 292-8762
Pa Rockford Controls, 3550 Laketon Rd Pittsburgh ... 412 731-4600
Tex Kemp Engrg Co Inc, 2618 Manana Dr Dallas ... 214 357-6663
Wash Ron Merritt Co, 1320 Prospect St Seattle ... 206 682-7337

ISOLANTITE MFG CORP, 337 WARREN AVE, STIRLING
N J, 07980 ... 201 647-3333
F STEVENS, EMP 30, ENG 2, $250-$500M
Mass Melville Grant Assoc Inc, Box 175 Needham ... HI 4-1432
Nor Sverre Hoyem, Tollbodgt 6, Box 919, Oslo

ISOLATION PRODUCTS, 2387 ADELE AVE
MOUNTAIN VIEW, CAL, 94040 ... 415 967-5733
E BIANCO, EMP 5, ENG 1, UP TO $100M

ISOMET CORP, 433 COMMERCIAL AVE
PALISADES PARK, N J, 07650 ... 201 944-4100
M SMITH, EMP 65, ENG 17, $500-$1,000M
Cal Isomet Corp, 22660 Pacific Coast Hwy Malibu ... 213 456-6767
Va Isomet/Electronics, 5414 Port Royal Rd Springfield ... 321-7060

ISOTOPES A TELEDYNE CO, 50 VAN BUREN AVE
WESTWOOD, N J, 07675 ... 201 664-7070
R KOLOGRIVOV, EMP 162, ENG 12, $2,500-$5,000M
Cal Isotopes, 4062 Fabian St Palo Alto ... 415 326-7500

ISOTRONICS INC, 12 COFFIN AVE, NEW BEDFORD
MASS, 02746 ... 617 997-4575
J SCHERER, EMP 50, ENG 4, $500-$1,000M
Ala Massey Assoc, Box 3361 Huntsville ... 205 852-0991
Ariz Carl Hower & Co, 431 N Winfield Scott Plaza Scottsdale ... 947-4204
Cal F W Moulthrop, 1530 E 12th St Oakland ... 261-7676
Cal Aerospace Sales Corp, 12140 S Atlantic Ave Lynwood ... 213 537-1856
Conn Jansen Assoc, 40 Colonial Rd, Madison ... 235-9675
Fla Massey Assoc, 801 79th St St Petersburg ... 813 347-6183
Fla Massey Assoc, Box 1201 Winter Park ... 305 855-4510
Ind Walter Bieberich, Inc, 801 Leesburg Rd Fort Wayne ... 742-8468
Mass Jansen Assoc, Hotel 128, Dedham ... 617 326-6700
NY Paul Aaron Assoc, Box 511 Port Washington ... 767-8480
NY Frank W Taylor Co Inc, 4455 E Genesee St Dewitt ... 315 446-0422
NY Frank W Taylor Co Inc, 63 Willow Brook Rd Victor ... 716 473-2404
Ohio Charles Dolfuss Jr & Co, 2108 Payne Ave Cleveland ... 771-1270
Pa Massey Assoc, 1325 W Chester Pike Havertown ... 215 789-2320
Pa Gene S Root & Co, 809 Wainwright Dr Pittsburgh ... 412 561-4125

I-T-E CIRCUIT BREAKER CO, 1900 HAMILTON ST
EMP 9,000, ENG 300, OVER $10,000M

ITEK CORP, 10 MAGUIRE RD, LEXINGTON
MASS, 02173, TWX TWX II ... 617 276-2000
C HAZZARD JR, EMP 5200, ENG 500, OVER $10,000M
Cal Itek Corp, 1450 Page Mill Rd Palo Alto ... 321-8130
Cal Applied Technology Div, 3410 Hillview Ave Palo Alto
Cal Itek Corp, 9800 S Sepulveda Blvd, Los Angeles
DC Itek Corp, 1735 Eye St, NW Washington ... 659-1820
Mass Wayne-George Div, 27 Christina Ave Newton Upper Falls
NY Itek Business Prods Div, 1001 Jefferson Rd Rochester ... 244-5600
NY Rolor Div, 155 Michael Dr, Syosset
Ohio Itek Corp, 1563 E Dorothy La Kettering ... 513 252-5639
Pa Pennsylvania Optical Co, 234 S 8th St Reading ... 376-4961
Va Itek Data Analysis Ctr, 610 Franklin St Alexandria ... 549-8384

ITHACO INC, 413 TAUGHANNOCK BLVD, ITHACA
N Y, 14850 ...... 607 AR 2-7640
A PADORR, EMP 60, ENG 10, $1,000-$2,500M
ADV PG 26
Ala Kemp Instruments, Inc, 4306 Governors Dr, W
Huntsville 205 837-4304
Cal B J Wolfe Enterprises, Box 718
Cupertino 408 252-5010
Cal F J Wolfe Enterprises, 10760 Burbank Blvd
North Hollywood 213 877-5135
Conn Lindgren Assoc, Box 61, Wilton 203 762-8114
Fla Col-Ins-Co, Box 13189, Orlando 305 423-7615
Ind Measurement Instr, 1635 N Gent Ave
Indianapolis 317 631-0909
Kan Leemark Engineers, Box 6175
Leawood 913 648-0124
Mass Broger Instr Sales Co, 223 Crescent St
Waltham 617 891-8045
Mich Measurement Instr, 14217 Michigan Ave
Dearborn 313 278-4744
Mo Leemark Engineers, 9623 St Charles Rock Rd
St Louis 314 423-8700
NY Lindgren Assoc, Box 473
Huntington Sta 516 261-7937
NY Lindgren Assoc, 3 Kenneth St
Monsey 914 352-8636
NC Col-Ins-Co, Box 5597
Winston-Salem 919 765-3650
Ohio Measurement Instr, 338 Ridgeway
Cincinnati 513 531-2729
Ohio Measurement Instr, 19115 Detroit Rd
Cleveland 216 333-6611
Ohio Measurement Instr, 2074 Arlington Ave
Columbus 614 488-9753
Pa E-Tech Corp, Box 52, Bala Cynwyd ... 215 667-5110
Pa Measurement Instr, 908 Perry Hwy
Pittsburgh 412 366-1906
Tex Kemp Engineering Co, 6001 Gulf Frwy
Houston 713 928-5426
Tex Kemp Engineering Co, 2618 Manana Dr
Dallas 214 357-6663
Tex Kemp Engineering Co, 102 W Rector
San Antonio 512 344-1841
Utah Applied Engineering Products
6375 Emigration Canyon
Salt Lake City 801 364-4942
Va E-Tech Corp, 6615 Backlick Rd
Springfield 703 451-6500
Wash J B Jolly Co, 413 Maritime Bldg
Seattle 206 624-2152
Can Megatronix Ltd, 1800 Avenue Rd
Toronto, Ont. 416 783-3329
Can Megatronix Ltd, 739B Ridgewood Ave
Riverside Mall Ott 613 731-3860
For Frathom Co, Inc, 202 E 44th St
New York 212 687-9390

I T I ELECTRONICS INC, 369 LEXINGTON AVE, CLIFTON
N J, 07015 ...... 201 473-0900
D BAKER SR, EMP 60, ENG 11, $500-$1,000M
Mass R F Duffy Assoc, 49 Century Rd
S Weymouth 617 335-7724
NJ Murray Co, 25 W Northfield Rd
Livingston 201 992-0520
Pa Murray Co, Box 253, Newtown 215 968-2497
Pa Pearson Sales Inc, 1125 York Rd
Abington 215 443-6370

ITT BARTON CONTROLS & INSTR DIV
580 MONTEREY PASS RD, MONTEREY PARK
CALIF, 91754 ...... 213 289-3581
W BIEWER, EMP 325, ENG 15, OVER $10,000M
Ariz Bews & Wallace Co, 2515 E University Dr
Phoenix 602 275-4496
Cal Belilove Co, 960 Arlington Ave
Oakland 891-9111
Colo Scott Equipment Co, 4201 Jackson St
Denver ...... DE 3-4289
Conn Carr Co, 119 Ann St, Hartford ...... CH 7-0395
Haw Durant-Irvine Co Ltd, 450 Piikop Pkwy
Honolulu 66101
Ind W R Frew Co Inc, 1719 E 52nd St
Indianapolis ...... CL 3-3271
La Oil & Gas Specialties Co, 2704 4th St
Harvey 367-7914
Md George Goodman Co, 1800 N Charles St
Baltimore ...... BE 5-5570
Mass Carr Brothers Co, 66 Central St
Wellesley ...... CE 5-7744
Mich Metrol Co, 7145 E Davison, Detroit ... 313 365-5400
Minn Wm M Ruva Co, 3553 46th Ave
Minneapolis 612 724-1744
Mo Economy Equip Co, 4526 Olive St
St Louis ...... FO 7-5328
Mont Scott Equip Co, 7 N 17th St, Billings
NJ Blake Equip Corp, 75 Grand Ave
Englewood ...... 201 LO 7-4252
NM Jade Sales & Service, 612 S Ind St
Farmington 325-6173
NC Fluid Flow Prdts Inc (FFP), 5950 Fairview Rd
Charlotte 366-5304
Ohio M L Johnson Co, 1172 W Galbraith Rd
Cincinnati 931-8868
Okla Snyder Co Inc, 1403 Linwood Blvd
Oklahoma City ...... CE 2-5489
Ore Fryer & Co, 2035 SW 58th Ave
Portland ...... CA 6-3733
Pa M S Jacobs & Assoc, 810 Nobletown Rd, Pittsburgh
Tenn Combustion & Control Co, 824 Crump Blvd
Memphis 525-7402
Tenn Tennessee Instr Co Inc, 309 Commerce St
Kingsport 246-8581
Tex Snyder Co Inc, 11413 Todd St
Houston ...... OV 6-3747
Tex Snyder Co Inc, 709 W County Rd
Odessa 332-9408
Utah Control Systems Inc, 650 Columbus St
Salt Lake City ...... EM 4-6425
Wis Chipley & Jensen Inc, 3500 N Sherman Blvd
Milwaukee ...... HI 2-8170
Can Barton Instruments Ltd, 121 14th St NW
Calgary 283-5513
Fr Hartmann & Braun France, 27 Rue Jean-Juares
Paris 242-79-33
Ger Schoppe & Faeser Gmbh, Schillerstr 72
Minden/Westfalen
GB Associated Electrical Ind Ltd, Box 1
Harlow Essex 25271
Jap Hokushin Electric Works Ltd
312 Shimomaruki-cho Ota-ku, Tokyo
SAfr Negretti & Zambra, 190 Marshall St, Johannesburg
Neth Barton Europa, Zonweg 41, The Hague 779874

ITT CANNON ELECTRIC DIV INTL TEL & TEL CORP
3208 HUMBOLDT ST, LOS ANGELES
CAL, 90031, TWX 910-321-4267 ...... 213 225-1251
T GOODREAU, EMP 4,187, ENG 105
ADV PG 179, 182, 186, 191, 192, 414
Ariz Itt Cannon Electric, 3625 N 16th St
Phoenix 264-5056
Cal ITT Cannon Electric, 1845 S Manchester Ave
Anaheim 638-0770
Cal ITT Cannon Electric, 2636 N Figueroa St
Los Angeles 225-1251
Cal ITT Cannon Electric, 960 San Antonio Rd
Palo Alto 323-9057
Colo ITT Cannon Electric, 300 E Hampden Ave
Englewood 761-1474
Conn ITT Cannon Electric, 61 Cook Hill Rd
Windsor 688-6205
Fla ITT Cannon Electric, 999 Woodcock Rd
Orlando 841-4862
Ga ITT Cannon Electric, 1447 Peachtree St
Atlanta 892-7676
Haw Dougherty Enterprises, Box 3497, Honolulu
Ill ITT Cannon Electric, 5245 N Elston Ave
Chicago 282-3410
Md ITT Cannon Electric, 5202 Balt Natl Pike
Baltimore 744-5965
Mass ITT Cannon Electric, 591 North Ave
Wakefield 245-3850
Minn ITT Cannon Electric, 4725 Excelsior Blvd
Minneapolis 920-2911
Mo ITT Cannon Electric, 9369 Olive Blvd
Olivette 991-1630
NJ ITT Cannon Electric, 640 Rahway Ave
Union 201 687-9500
NY ITT Cannon Electric, 150 Broad Hollow Rd
Melville 549-5454
NY ITT Cannon Electric, E Molloy Rd
Syracuse 454-9241
NC Dula Assoc Inc, 3389 Nottingham Rd
Winston-Salem 723-4205
NC Dula Assoc Inc, 1321 E Morehead St
Charlotte 334-7090
Ohio ITT Cannon Electric, 5335 Far Hills Ave
Kettering 434-8181
Ohio ITT Cannon Electric, 9810 Ravenna Rd
Twinsburg 425-4251
Pa ITT Cannon Electric, 2 Bryn Mawr
Bryn Mawr 527-1120
Tex ITT Cannon Electric, Braniff Airways Bldg
Dallas 357-8171
Wash ITT Cannon Electric, 225 108th Ave NE
Bellevue 454-3903
Can ITT Cannon Elec Can Ltd, 160 Bartley Dr
Toronto 751-5440
For ITT Standard AG, 5 Wiedner Hauptstr, Vienna, Aust
For Interexport Ltd, Box 9269, Santiago, Chile
For Reuben & Co Ltd, Box 547, San Jose, CR
For Aero Technical Corp Ltd, 636 Alexandra Hse
Hong Kong
For Standard Electrica SAL, Ave de India, Lisbon Port
For International Engrg Co Ltd, Box 39, Bangkok Thai
For Latin Trading CA, Aptdo Sabana Grande 10.561
Caracas Vene
Den Tage-Schouboe, 7 Skyttegade, Copenhagen
Fr Cannon Elec France SA, 276 Rue des Pyrenees
Paris
Ger Cannon Electric GmbH, Landstr, Beutelsbach/iR
GB Cannon Elec GB Ltd, Lister Rd Winchester Rd
Basingstoke Hants
Ital Cannon Electric Italiana SpA, Via Roncaglia 13
Milano
Jap Japan Aviation Elctn Ind Ltd
32 Nampeidai-Cho Shibuya-ku, Tokyo
Nor Standard Telefon og Kabelfabrik A/S, Box 60 Okern
Oslo
SAfr Standard Tel & Cables (SA) (PTY) Ltd, Box 286
Boksburg Transvaal
Swed AB Gosta Backstrom, Sysslomansgatan 16
Stockholm
Swit Baerlocher AG, Foerrlibuckstr 110, Zurich
Belg Cannon Electric SA, Belgielei 33, Antwerp
Belg Cannon Electric SA, 120 Rue de la Loi, Brussels
Isrl Eastronics Ltd, 75 Haifa Rd, Tel Aviv
Neth Avio-Diepen Trading Co, Ypenburg Airport
The Hague
Spn Standard Electrica SA, Ramirez de Prado 5, Madrid
Fin ITT Standard Komponentit, Museokatu 8a
Helsinki 10
Aust Connon Electric (Aust) Pty Ltd, Box 22, E Brighton
Vict

ITT DEFENSE COMMUNICATIONS DIV, 492 RIVER RD
NUTLEY
N J, 07110, TWX 201 667-1146 ...... 201 284-0123
E ROSE, EMP 1500, ENG 1000
Ariz ITT Defense Communications Div
2722 W Magee St, Tucson 602 297-3088
Cal Itt Defense Communications Div
999 N Sepulveda Blvd
El Segundo 213 322-6640
DC ITT Defense Communications Div, 1707 L St N W
Washington 202 296-6000
Mass ITT Defense Communications Div
Northwest Industrial Park
Burlington 617 272-0601
Neb ITT Defense Communications Div, 2208 Hancock
Bellevue 402 291-5333
NJ Itt Defense Communications Div
Crystal Brook Prof Bldg Hwy 35
Eatontown 201 542-4848
NY ITT Defense Communications Div, Box 589
Rome 315 336-3000
Okla ITT Defense Communications Div, Box 10757
Midwest City 405 737-7277

ITT ELECTRON TUBE DIV, BOX 100, EASTON
PA, 18043, TWX 510-658-4908 ...... 215 252-7331
W JAKIMER, EMP 235
Cal ITT Electron Tube Div, 15191 Bledsoe St
San Fernando 367-5988
Cal L M Knox, Palo Alto 321-3235
Ill ITT Electron Tube Div, Chicago ...... ST 2-4359
Md ITT Electron Tube Div, Baltimore ...... HO 7-5733
Mass ITT Electron Tube Div, Waltham ...... TW 3-5579
NJ ITT Electron Tube Div, Clifton 284-2762
Tex ITT Electron Tube Div, Dallas ...... FI 7-1000
Can ITT Canada Ltd, Comp Div, 2211 Riverside Dr
Ottawa 733-7788

ITT EUROPE INC COMPONENTS GP
14 RUE DU GOVT PROVISOIRE, BRUSSELS 1
BELGIUM, TWX 23-276 ...... BRU 191830
K CORFIELD, EMP 300, ENG 20, $5,000-$10,000M
For Standard Electrica Sarl, Ave Da India
Lisbon 63 81 71
Den ITT Standard Nederland, 9 Emmastr
Gravenhage 85 41 05
Den ITT Komponent, Gladsaxe Mollevej 15
Soborg Cop 69 3155
Fr Sicopel, 23 rue Pre St Gervais
Paris 19e 205-7978
Ger Sel Bauelemente, 8500 Nurnberg Plattenstr 66
...... 48061
GB STC Components Gp, Edinburgh Way
Harlow Essex 02796-26811
Ital ITT Standard, Piazza de Angeli, Milan 469-6183
Nor Standard Telefon Og Kabelfabrik, Box 60
Oslo 22 20 50
Swed ITT Standard Corp, 2 Nybodagatan
Solna 08 83 0020
Swit ITT Stand S A, 35 Zweierstrasse, Zurich ... 25 45 10
Belg ITT Standard, 2 Sq du Bastion
Brussels 1 ...... 11 07 70
Spn Standard Electrica S A
5 Ramirex de Prado Apar 694, Madrid .. 217 3000

ITT FEDERAL LABS, 3700 E PONTIAC ST, FORT WAYNE
IND, 46806 ...... 219 743-7571
W BENTZ, EMP 700, ENG 100, OVER $10,000M
Ala ITT-USDSG, Memorial Pkwy, Huntsville .. 881-4040
Cal ITT-USDSG, 999 N Sepulveda Blvd
El Segundo 322-6640
Cal ITT-USDSG, 3910 Constellation Rd
Lompoc 733-3521
Cal ITT-USDSG, Box 41116, Sacramento 487-4358
DC ITT-USDSG, 1707 L St NW
Washington 296-6000
Fla ITT-USDSG, 1980 N Atlantic Ave
Cocoa Beach 783-2464
Haw ITT-USGSG, 3207 Nimitz Blvd, Honolulu .. 812-848
Mass ITT-USDSG, Northwest Ind Pk
Burlington 272-0601
Neb ITT-USDSG, 102 Kennedy Plaza
Bellevue 291-5333
NJ ITT-USDSG, 500 Washington Ave
Nutley 284-2017
NJ ITT-USDSG, Crystal Brook Prof Bldg
Eatontown 542-4848
NY ITT-USDSG, Box 589, Rome 336-3000
Ohio ITT-USDSG, 333 W 1st St, Dayton 224-1711
Okla ITT-USDSG, Box 10757, Midwest City 737-4893
Tex ITT-USDSG, 1730 NASA Blvd, Houston ... 591-2550

ITT GILFILLAN INC, 7821 ORION AVE, VAN NUYS
CAL, 91409 ...... 213 988-2600
B CUTLER, EMP 2100, ENG 223, OVER $10,000M
Ala ITT Gilfillan Inc, Holiday Off Ctr
Huntsville 205 881-4040
DC ITT Gilfillan Inc, 1707 L St NW
Washington 202 296-6000
Mass ITT Gilfillan Inc, Northwest Ind Park
Burlington 617 272-0601
NJ ITT Gilfillan Inc, Highway 35
Eatontown 201 542-4848
NY ITT Gilfillan Inc, Box 589, Rome 315 336-3000
Okla ITT Gilfillan Inc, 433 Planet Ct
Midwest City 405 737-4893
Belg ITT Europe Inc, 11 Blvd de l'Empereur
Brussels 12 38 46

ITT INDUSTRIAL LABS DIV, 3700 E PONTIAC ST
FORT WAYNE, IND, 46803 ...... 219 743-7571
J KYLANDER, EMP 309, ENG 100

ITT JENNINGS DIV, INTL TEL & TEL CORP
970 MCLAUGHLIN AVE, SAN JOSE
CAL, 95108, TWX 910-338-0159 ...... 408 292-4025
R JOHNSTON, EMP 698, ENG 48
ADV PG 121, 589, 613, 614, 684, 794

Cal John J Fiske, Box 585, Arcadia 447-7655
Ill JR Sales Engr Inc, 7132 N Harlem Ave
Chicago 213 774-8550
Ind Schroeder & Loomis, 714 E 65th St
Indianapolis 317 251-4571
Mass Forsberg Sales, 646 Summer St
Brockton 617 522-6300
Minn Industrial Components, 4004 W 78th St
Minneapolis 612 927-9991
Mo R Beall, 230 S Bemiston, Clayton 314 862-1560
NJ W Shellhammer, Box 646, Ridgewood 447-0277

ITT LAMP DIV, 330 LYNNWAY, LYNN, MASS, 01901
Ariz Thos Geis, 4820 E Weldon, Phoenix 959-3582
Cal J B Irwin Co, 11845 Teale St
Culver City 870-7233
Cal K Carr, Box 2124, S San Francisco 761-1721
Cal R G Bertell, 472 Eccles Ave
S San Francisco 415 761-3251
Cal R Barth, 732 S Alameda St
Los Angeles 213 628-4218
Fla J Dreyfuss, Box 42-8, Miami 635-0391
Ga J J Dreyfuss & Sons, 596 Means St NW
Atlanta 872-8182
Ill D Mulcrone, 1912 Sunnyside Circle
Northbrook 272-6920
Ill W C Beck, 9445 W Fullerton Ave
Franklin Park 312 455-7707
Minn D C Carlson, 5035 Upton Ave S
Minneapolis .... WA 2-9078
NY A Shaw, 206 Fulton St, New York
NY John McKew, Osborne Hill, Fishkill 896-6468
NY ITT Lamp Div, 214 Glen Cove Rd
Carle Place 516 747-8877
Ore Bruce-Emmet Co, 830 SE Alder St
Portland 503 232-8117
Pa C E Nicodemus, 510 Beechwood La
Narberth .... MO 4-4279
Tex C E Willard Co, Box 12005, Ft Worth .... PE 7-7259
Wash W S Sanderlin Co, 129 1st Ave W
Seattle .... AT 4-7777

ITT SEMICONDUCTORS, 3301 ELECTRONICS WAY
WEST PALM BEACH, FLA, 33407 .... 305 842-2411
R O'HARE, EMP 2100, ENG 250
Ariz ITT Semiconductors, 3550 N Central Ave
Phoenix 264-2778
Cal ITT Semiconductors, 3997 E Bayshore Rd
Palo Alto 415 964-3400
Cal ITT Semiconductors, 3530 Long Beach Blvd
Long Beach 213 774-4820
Colo R G Bowen Co, Inc, 721 South Brdwy
Denver 303 722-4641
Fla J F Griffin, 812 Lakeside Dr
N Palm Beach 848-4617
Fla Mike Griffin, 3449 Ferndell Dr
Winter Park 305 322-2094
Fla J F Griffin Co, 812 Lakeside Dr
North Palm Beach 305 848-4617
Ill ITT Semiconductors, 6416 W Belmont Ave
Chicago 312 282-4777
Md ITT Semiconductors, 200 E Joppa Rd
Towson 828-4616
Mass ITT Semiconductors, 591 North Ave
Wakefield 617 245-8350
Mich ITT Semiconductors, 17000 W 8 Mile Rd
Southfield 313 353-0880
Minn ITT Semiconductors, 4940 Viking Dr
Minneapolis 612 920-2943
Minn Industrial Components Inc, 4004 W 78th St
Minneapolis 612 927-9991
NJ ITT Semiconductors, 71 Valley St
S Orange 201 763-5010
NY ITT Semiconductors, 2 La Grange Ave
Poughkeepsie 914 452-0800
NY ITT Semiconductors, 6562 Ridings Rd
Syracuse 315 463-6677
Ohio Electro Com, 8761 Snow Rd
Cleveland 216-886-2404
Ohio Electro Com, 5055 N Main St
Dayton 513 278-4797
Pa ITT Semiconductors, 100 Presidential Blvd
Bala Cynwyd 215 667-4596
Pa Electro Com, 201 Penn Center Blvd
Pittsburgh 412 241-5717
Utah R G Bowen Co, Inc, 31 S 3rd St
Salt Lake City 801 364-4632
Wash ITT Semiconductors, 550 Mercer St
Seattle 282-9150
Can Atkinson & Vail, Ltd, 13189 Shelborne
Pierrefonds, Que 514 626-6511
Can Atkinson & Vail, Ltd, 5 Allenbury Gdns
Willowdale, Ont 416 225-7494

ITT TELECOMMUNICATIONS, 320 PARK AVE
NEW YORK, N Y, 10022
S REJNIAK
Colo ITT Telecommunications, 10395 W Colfax Ave
Denver 238-6361
Ga ITT Telecommunications, 4 Executive Pk Dr NE
Atlanta 633-0348
Haw ITT Telecommunications, 3207 Nimitz Hwy
Honolulu 812-848
Ill ITT Telecommunications, 2107 Swift Dr
Oakbrook 312 654-3600
Miss ITT Telecommunications, Fulton Dr
Corinth 601 286-6921
Mo ITT Telecommunications, 1006 Grand Ave
Kansas City 471-5433
NC ITT Telecommunications, 2912 Wake Forest Rd
Raleigh 919 833-0858
Tenn ITT Telecommunications, 5050 Poplar Ave
Memphis 901 682-9611
Tenn ITT Telecommunications, Telecom Dr
Milan 901 686-7401

ITT TELECOMMUNICATIONS, APPARATUS DEPT
FULTON DR, CORINTH
MISS, 38834, TWX 510-984-0211 .... 601 287-1471
R SCHUESSLER, EMP 750, ENG 50, OVER $10,000M

ITT TERRYPHONE CORP, 3805 PAXTON ST
HARRISBURG
PA, 17111, TWX 510-650-4918 .... 717 564-4343
O HICKEY, EMP 300, ENG 6, $5,000-$10,000M
Ariz W Heckathorn, 2711 N 24th St
Phoenix 602 274-8872
Cal J Murphy, N 690 N Sepulveda Blvd
El Segundo 213 849-1965
Cal H Toub, 166 Santa Clara, Oakland 415 433-4515
Colo J Lynch, Hilton Office Bldg
Denver 303 433-5066
Conn R Schell, 159 Weathersfield Ave
Hartford 203 527-8421
DC K Zurheide, 15th & New York Ave
Washington 202 347-2240
Fla I Wallace, Box 393, Tampa 813 229-1726
Fla J Angers, 718 Pearl St
Jacksonville 305 354-3416
Fla J Ochs, 126 E Hallandale Beach Blvd
Hallandale 305 754-0961
Ga W Pollock, 3847 Roswell Rd NE
Atlanta 404 261-2840
Ill K Nicholson, 508 Peoria St
Chicago 312 226-1242
Ind R H Herold, 3703 N Sherman
Indianapolis 317 634-1920
Ky P Mallin, 334 Francis Bldg
Louisville 502 583-7822
Md ITT Terryphone, Rte 2 Box 79, ... 301 754-9315
Md T Roth, Maryland National Bank Bldg
Baltimore 301 727-2142
Mass W Davis, 233 Harvard St
Brookline 617 267-4975
Mich N C Podaras, 19815 W McNichols Rd
Detroit 313 962-6340
Mich W G Cardy, 60 N Division
Grand Rapids 616 454-1913
Minn J Mack, 324 4th St, Minneapolis 612 332-1718
Mo R Gilmore, 1919 E Grand, St Louis 314 241-3559
Mo L Burmaster, 225 W 8th St
Kansas City 816 561-8633
NJ R Webb, 664 Highland Ave
Cherry Hill 609 662-6633
NJ R Fratscher, Box 285, Springfield 201 622-7093
NY R Allen, 282 Delaware St, Buffalo 716 856-3478
NY R Winawer, 62-17 Northern Blvd
Woodside 212 535-9030
NY A Mirkin, 74 Park Ave, Rochester 716 473-3330
Ohio L Daiber, 23760 Miles Ave
Cleveland 216 861-6264
Ohio H Fisher, 518 Jefferson Ave
Toledo 419 246-0941
Ohio G Huber, 211 E 4th St, Cincinnati 513 621-5544
Ohio P Newton, 81 E State St
Columbus 614 221-3515
Pa R Hester, 41 N 8th St, Allentown 215 424-0661
Pa J Ent, 3805 Paxton St, Harrisburg 717 564-4343
Pa A L Arlin, 3550 Laketon Rd
Pittsburgh 412 471-7727
RI W Hedstrom, 385 Westminister St
Providence 401 421-8830
Tenn W Pollock, 124 E 10th St
Chattanooga 615 267-4712
Tex K Leiter, 2604 Manor Way, Dallas 214 748-3725
Tex G Markman, 350 W 26th St
Houston 713 528-5153
Va ITT Terryphone, 2309 Franklin Rd SW
Roanoke 703 342-2362
Va W Lumpkin, 801 E Main St
Richmond 703 649-1776
Wis R Wright, 312 E Wisconsin Ave
Milwaukee 414 273-1388
Can R Stone, 10 11-A Glenwatford Dr
Agincourt Ont 416 291-5284

ITT WIRE & CABLE DIV, 172 STERLING ST, CLINTON
MASS, 01510 .... 617 EM 5-6331
V TANNAHILL, EMP 700, ENG 12, OVER $10,000M
Ala Brandel-Stephens & Co, Byrd Spring Rd
Huntsville 205 883-0445
Cal ITT Wire & Cable Div, 1 W Alameda
Burbank 213 843-3220
Cal ITT Wire & Cable Div, 970 McLaughlin Ave
San Jose 408 293-2866
Fla Brandel-Stephens, 132 E Colonial Dr
Orlando 425-3202
Ga ITT Wire & Cable Div, 4780 Fredrick Dr SW
Atlanta 404 349-2100
Ill R D Catellier, 4901 W Fullerton Ave
Chicago .... BE 7-6460
Ill ITT Wire & Cable Div, 3801 W 44th St
Chicago 254-4884
Ind Menze Sales, 6010 Lwr Huntington Rd
Fort Wayne 747-5616
Md Burgin-Kreh Assoc Inc, Box 9787
Towson 301 661-1120
Mass Gerald Rosen Co Inc, 563 Worcester Rd
Natick 655-2211
Mo ITT Wire & Cable Div, 8444 Florissant Rd
St Louis 521-3120
Nev Hyer Assoc, 445 E 2nd S
Salt Lake City 801 363-6773
NJ ITT Wire & Cable Div, 60 Roseland Ave
Caldwell 201 228-2023
NY C Floring & H Murray Inc, 6585 Kinne Rd
Syracuse 446-5555
NY R W Noel & Co, 45-26 Vernon Blvd
Long Island 212 786-1919
Ohio A Kelly, 8493 Melody La
Macedonia 216 467-6957
Pa ITT Wire & Cable Div, Box Q
Paoli 215 644-1450
Tex A E Petsche Co, 1325 E Abrams St
Arlington 277-1379
Wash ITT Wire & Cable Div, 5013 Barton Pl S
Seattle .... PA 3-8152
Can Royal Electric, 171 Hymus Blvd
Pte Claire, Que .... OX 7-3300
Fr Cannon Electric, 78 Rue du Volga, Paris
Ger Connon Electric GmbH, Kesselstr 29, Stuttgart
GB Cannon Electric Ltd, Lister Rd, Basingstoke, Hants
Belg Cannon Electric SA, Rij-sweg, Bornem

ITT WIRE & CABLE DIV, 95 GRAND AVE, PAWTUCKET
R I, 02862, TWX 710-384-1449 .... 401 722-8600
W NICOLL, EMP 1800, ENG 31, OVER $10,000M
Ala Brandel-Stephens & Co Inc
Suite 104B Byrdspring Rd
Huntsville 205 883-0445
Cal ITT Wire & Cable, One W Alameda
Burbank 213 843-3220
Cal ITT Wire & Cable, 970 McLaughlin Ave
San Jose 408 293-2866
Fla Brandel-Stephens & Co, 132 E Colonial Dr
Orlando 305 425-3203
Ga Brandel-Stephens & Co, 3110 Maple Dr
Atlanta 404 261-7579
Haw Dougherty Enterprises, 1164 Waimanu, Honolulu
Ill R D Catellier, 4901 W Fullerton Ave
Chicago 312 237-6460
Ind Menze Sales, 6010 Lower Huntington Rd
Fort Wayne 219 747-5616
Md Burgin-Kreh Assoc, 202 W Penna Ave
Towson 301 825-3212
Mass Gerald Rosen Co, 563 Worcester Rd
Natick 617 655-2211
Mo ITT Wire & Cable, 8444 Florissant Rd
St Louis 314 521-3120
NJ ITT Wire & Cable, 60 Roseland Ave
Caldwell 201 228-2023
NY Floring & Murray Inc, 6585 Kinne Rd
Syracuse 315 446-5555
Ohio R Gibson, 4402 289th St, Toledo 419 726-9469
Pa Withco Sales Co, 2300 Eldo Rd
Monroeville 412 372-1327-8
Tex A E Petsche Co, 1325 E Abrams St
Arlington 817 277-1379
Wash ITT Wire & Cable, 5013 Barton Pl S
Seattle 206 723-8152

IWATSU ELECTRIC CO LTD
710 2-CHOME KUGAYAMA SUGINAMI-KU, TOKYO
JAPAN, TWX TK 4225 398-1911
S NINOSEKI, EMP 2700, ENG 550, OVER $10,000M
Jap Iwatsu Elec Co Ltd, 2-2, Nihonbashi-tori
Chuo-ku, Tokyo 272-0461
Jap Iwatsu Elec Co Ltd, Hokutan Bldg, No 15, 2-chome
Kitanijyo Nishi, Sapporo 241-5091
Jap Iwatsu Elec Co Ltd, 23 Higashi-4 Bancho
Sendai 25 7541
Jap Iwatsu Elec Co Ltd, 23-6 3-Chome
Nishiki-cho, Naka-ku, Nagoya 941 9346
Jap Iwasaki Commun, No 2 5-Chom
Awajicho, Higashi-ku, Osaka 203 6661
Jap Iwatsu Elec Co Ltd, Hiroshima Fudosan Bldg, 7-41
Naka-cho, Hiroshima 47-9324
Jap Iwatsu Elec Co Ltd, 2-6-28 Kawara-cho
Takamatsu 61-2801
Jap Iwatsu Elec Co Ltd, Kawaramachi Bldg 3-6
Kamikawabata, Fukuoka 29 2872
Jap Iwatsu Elec Co Ltd, 6-78 Sumiyoshi-cho
Naka-ku, Yokohama 681-4452
Jap Iwatsu Elec Co Ltd, Kanazawa Nissan Bldg 3-25
2-Chome Korinbo Kanazawa 62-2241
Jap Iwatsu Elec Co Ltd, 6Fl 47 4-chome
Minami Honcho Higashi-ku Osaka 252-1081

J A C ELECTRONICS LTD, STATION EST BLACKWATER
CAMBERLEY, ENGLAND .... CAM 5399
J BELL, EMP 45, ENG 6, $2,500-$5,000M
Can Canadian Electronics Ltd, Box 2330, Edmonton Alb

JACKSON BROTHERS (LONDON) LTD, 258 BROADWAY
NEW YORK, N Y, 10007 .... 212 962-5485
M SWEDGAL

JADOW & SONS INC, B, 53 W 23RD ST, NEW YORK
N Y, 10010 .... 212 YU 9-5522
H JADOW, EMP 90, $2,500-$5,000M

JAIDINGER MFG CO INC, 1916 W HUBBARD ST
CHICAGO, ILL, 60622 .... 312 HA 1-1090
J JAIDINGER, EMP 60, ENG 3, $250-$500M
Mich A K Davis Co, 37500 Carson Rd
Farmington 474-8300
NY Schartzman-Aaron Corp, Box 511
Port Washington 516 767-8480

JAKEL MOTORS INC, 400 BROADWAY, HIGHLAND
ILL, 62249 .... 618 654-2102
A ERICKSON, EMP 75, ENG 2, $1,000-$2,500M
Ark S J Dombroski, Box 910
Batesville .... 501 RI 3-9311
Cal Electric Motor Specialists, Box 517
Westminster 564-7372
Conn Fabbri-Casadei & Assoc, Box 536
Litchfield .... JO 7-8625
Ill A G Erickson, 571 Hill Ave, Glenellyn 469-1198
Ill J L Butler, Box 391, Barrington 381-5625
Ind E Hatton, 3618 Evesham Ct
South Bend .... AT 8-8032

Mich Pickl & Assoc, 2475 Adare Rd
Ann Arbor ... 761-7777
Mo S & M Sales Engineering, 1239 Victory Dr
St Louis ... 314 892-0384
Ohio Stork & Assoc, Inc, 613 Daniel St
Dayton ... 222-3232
Pa C J McGowan, 1863 Cleveland Ave
Abington ... OL 9-1788
Tex Carey & Assoc, Inc, 3315 W 12th St
Houston ... 869-3623
Wis Genesee Sales, Inc, Box 482
Oconomowoc ... 567-5479

JAMAC PRODUCTS CO, 8600 N E SANDY BLVD
PORTLAND, ORE, 97220 ... 503 252-2929
J JACKSON, UP TO $100M

JAMES ELECTRONICS INC, 4050 N ROCKWELL ST
CHICAGO, ILL, 60618 ... 312 463-6500
R VAULMAN, EMP 175, ENG 15, $1,000-$2,500M
Ala Lee Assoc Inc, Box 1506, Huntsville ... 539-0761
Cal Lee G Snyder, 1418 Highland Ave
Hollywood ... 469-6278
Cal Belivove Co, 960 Arlington Ave
Oakland ... 658-9011
Colo Nelson Co, 1294 S Bannock, Denver ... 733-5528
Conn Stan Pierce Inc, 115 Bald Hill Rd
New Canaan ... 966-4630
Fla Lee Assoc, Inc, 200 E Marks St
Orlando ... 241-4445
Ill Harvey Brin & Assoc, 6031 W Dempster
Morton Grove ... 465-1424
Ill James Electronics Inc, 4050 N Rockwell St
Chicago ... 463-6500
Ind W Bieberich, 801 Leesburg Rd
Fort Wayne ... 742-8468
Md D K Jones Inc, 2026 Maryland Ave
Baltimore ... 752-0577
Mass Stan Pierce Inc, 24 Linden St, Norwood ... 762-3164
Mich Shalco Inc, 23539 Woodward Ave
Ferndale ... 547-4771
Minn Wm Engelbretson, 906 Ottawa, St Paul ... 222-2338
Mo Ages Inc, 6550-B Troost Ave
Kansas City ... 333-8206
Mo Ages, Inc, 2050 Woodson Rd, St Louis ... 428-3934
NJ Bressler & Assoc, 4808 Bergenline
Union City ... 864-9577
NC Lee Assoc Inc, Box 906
Winston-Salem ... 724-2406
Ohio Perry Lohse & Co, 537 Richmond Rd
Cleveland ... 381-7788
Ore Dale G Weber Co, 516 SW Morrison
Portland ... 234-7671
Pa D K Jones Inc, 6520 Rising Sun Ave
Phila ... 342-3990
Tex Texport Co, 2411 Farrington St, Dallas ... 631-6270
Wash Dale G Weber, 403 Maritime Bldg
Seattle ... 623-5990
Can D I Snell Ltd, 700 Weston Rd, Toronto Ont
For Comet Corp, 540 Lake Shore Dr
Chicago, Ill ... 337-2292

JAMES ELECTRONIC TOOL CO, BOX 1482, PALO ALTO
CAL, 94302 ... 415 961-3448
D JAMES, EMP 4, ENG 1, UP TO $100M

JAMPRO ANTENNA CO, 6939 POWER INN RD
SACRAMENTO, CAL, 95828 ... 916 383-1177
B BLAKSLEY, $500-$1,000M

JANCO CORP, 3111 WINONA AVE, BURBANK
CAL, 91504, TWX 910 498-2701 ... 849-2107
G ELSNER, EMP 177, ENG 8, $2,500-$5,000M
Ariz Carl Hower & Co, 431 N Winfield Scott Pl
Scottsdale ... 947-4204
Cal Paul J Hildebrand, 6132 Tarragona Dr
San Diego ... 582-4677
Cal Mc Knight Co, 115 Spruce Ave
Menlo Park ... 325-2844
Colo Brown Technical Inc, 130 S Yarrow St
Denver ... 233-0863
Conn Charles K Barton Assoc, Box 91
Glastonbury ... 633-9417
Fla estes Assoc , 629 N Lake Barton Rd
Orlando ... 277-1510
Ga Estes Assoc, Decatur Federal Bldg
Decatur ... 373-8266
Ill Sumer Inc, 1032 E Northwest Hwy
Mt Prospect ... 392-7370
Kan Thunderbird Engr Sales & Serv, 7707 E Osie
Wichita ... 684-3941
Kan Thunderbird Engrg, 4014-A W 95th St
Prairie Village ... 642-7220
Md Kaufholz Assoc, Box 6232, Baltimore ... 488-6561
Md Peter Byrne Assoc, 11161 New Hampshire Ave
Silver Spring ... 593-0667
Mass Charles K Barton Assoc, Box 51
Auburndale ... 332-2021
Minn Electro-Serv Co, 1455 W Lake St
Minneapolis ... 827-2907
Mo Thunderbird Engr Sales & Serv, 400 Brookes Dr
Hazlewood ... 731-4343
NM Bowden Eng Sales Inc, 2633 Texas NE
Albuquerque ... 299-0473
NY Charles Ward, 33 Coventry Ave
Albertson ... 742-5561
Ohio Components Eng Co, 7461 N Linden La
Cleveland ... 842-2737
Ohio Components Eng Co, 11820 Knollsprings
Cincinnati ... 721-2997
Pa Edward Kaufholz Assoc, Box 227
Newtown Square ... 356-5000
Tex Aymond Co, Box 64917, Dallas ... 827-8043
Tex Aymond Co, Box 35023, Houston ... 666-1804
Wash Norwest Co, 1818 Westlake N, Seattle ... 282-3707
Can John Herring & Co Ltd, 3468 Dundas St W
Toronto ... 762-7545
Holl Santon Holland N V, Willingestraat 2
Rotterdam ... 279600

JANEL INC, 226 MAIN AVE, STIRLING
N J, 07980 ... 201 647-5600
M MARCASCIANO, EMP 10, ENG 4, $100-$250M

JAN ENGINEERING, 2018 PICO BLVD, SANTA MONICA
CAL, 90405 ... 213 EX 6-8798
R FRANKEL, EMP 100, ENG 5
NY W Jay Assoc, Box 56, Bayside ... 212 229-0150

JAN HARDWARE MFG CO INC, 47-27 36TH ST
LONG ISLAND CITY, N Y, 11101 ... 212 EM 1-0800
I WASSERMAN, EMP 68, ENG 6, $1,000-$2,500M
Cal G B Ellis Sales Co, 2425 Leghorn Ave
Mountain View ... 967-5531
Fla H R Webb Assoc, Box 13201, Orlando ... 855-5257
Ill Croyden Electronics, 1915 N Harlem Ave
Chicago ... 237-4343
Mass New Eng Component Sales, Box 656
Newton Lower Falls ... 969-9523
NJ Harold Gray Assoc, 20 Foster St
Bergenfield ... 384-3643
NY Lloyd Hart Assoc, Box 8398, Rochester ... 244-3253
Pa Naudain Assocs, Suburban Sta Bldg
Phila ... 564-3194
Wash Tec-Rep Co, 169 Twelfth Ave, Seattle ... MA 3-0651
Can Banke Electronics Ltd, 767 Warden Ave
Scarborough, Ont ... 425-1611

JANITROL AERO DIV MIDLAND-ROSS CORP
4200 SURFACE RD, COLUMBUS
OHIO, 43228, TWX 810-482-1622 ... 614 276-3561
N PETERSEN, EMP 600, ENG 35, OVER $10,000M
Cal Janitrol Aero Div, 650 N Sepulveda Blvd
El Segundo ... SP 2-4236
DC Janitrol Aero Div, 4925 Fairmont Ave
Washington ... 656-1644
Tex Janitrol Aero Div, 2509 W Berry St
Ft Worth ... 926-3386

JANNEY CYLINDER CO SUB EDGEWATER STEEL CO
7401 STATE RD, PHILADELPHIA
PA, 19136 ... 215 624-6600
P JEFFERIS, EMP 425, ENG 4, $5,000-$10,000M
Ala Southern Dynamics Corp, Box 5983
Birmingham ... 879-8764
Cal Allan P James Co, 3808 E Slauson Ave
Maywood ... 589-5606
Cal Allan P James Co, 430 9th St
San Francisco ... 621-5934
Conn Francis J Davis, 75 Beaver Rd
Wethersfield ... 563-0164
Fla Southern Dynamics Corp, 6015 S Orange Ave
Orlando ... 855-5112
Ill Formetal Engineering Co, Box 359
Bartlett ... 837-5852
Ind A D Moore Co, 4020 W 80th St
Indianapolis ... 291-6550
Md R C Carrick, 8641 Colesville Rd
Silver Springs ... 585-8434
Mich J W Fantaski, 512 Colonial Dr
St Joseph ... 983-2400
Mich Bond & Den Uyl Assoc, Inc, 2411 14th St
Detroit ... 962-7430
Minn George G Prest Co, 706 Cleveland Ave S
St Paul ... 609-1537
Mo George T Cook Co, 301 Midland Bldg
Kansas City ... 842-9678
Mo Edgewater Corp, 1972 Railwy Ex Bldg
St Louis ... 241-1489
NC Southern Dynamics Corp, Box 1484
Charlotte ... 334-2686
Ohio Robert H Newton Co, 3645 Warrensville Rd
Cleveland ... 752-1080
Pa Alloy Met Inc, 19 Bustleton Pike
Feasterville ... 355-1110
Tex Esco Inc, 5407 Glenmont, Houston ... 666-3951
Wash Loren Beardsley Indus Sls, Box 229
Medina ... 232-8757
Wis S C Lawson, 12127 W Burleigh St
Milwaukee ... 771-0370

JANUS CONTROL DIV TYCO, 296 NEWTON ST
WALTHAM, MASS, 02154 ... 617 891-4700
R TURNER, EMP 70, ENG 3, $1,000-$2,500M
Ala Medco Assoc, 3322 Memorial Pkwy S
Huntsville ... 205 881-3721
Cal Kittleson Co, 416 N La Brea Ave
Los Angeles ... WE 3-7371
Cal Kittleson Co, 2680 E Bay Shore Hwy
Mountain View ... 415 326-7410
Colo D E Bond Assoc, 2149 S Clermont St
Denver ... 756-1234
Fla Mekco Assoc, 1000 Woodcock Rd
Orlando ... 305 841-2215
Ill Ridgway Assoc, 9420 W Foster Ave
Chicago ... 312 992-2150
Md Ron Davies Assoc, 11215 Oak Leaf Dr
Silver Spring ... 301 593-4900
Mass R H Sturdy Co, 204 Worcester St
Wellesley Hills ... 235-2330
Minn Ridgway Assoc, 7720 Morgan Ave S
Minneapolis ... 612 824-9059
NJ Instrumentation Sales Co, Box 403
Ridgewood ... 445-5210
NM d e bond assoc, box 11331
Albuquerque ... 247-3442
NC Mekco Assoc, 310 W 3rd St, Burlington ... 584-8775
Ohio Ridgway East, Box 68, Loveland ... 513 683-4350
Ohio Ridgway East, 4654 Michael Ave
North Olmsted ... 216 777-6600
Pa Kastle Assoc, R D 1, Chalfont ... 215 348-4466
Tex Scientific Sales Co, 777 S Central Expwy
Richardson ... 214 AD 1-6541
Tex Scientific Sales Co, 2337 Bissonnet St
Houston ... 713 JA 8-6904

JAPAN RESISTOR MFG CO LTD
3-6-20 MIAMI-OHI SHINAGAWA-KU, TOKYO
JAPAN, TWX 246-6052 ... 762 8521-5
T YONETANI, EMP 1000, ENG 35, $2,500-$5,000M
ADV PG 620
Jap Japan Resistor Mfg Co Ltd
20-6 3 Chome Minami-Ohi Shinagawa-Ku
Tokyo ... 762-8521
Jap Japan Resistor Mfg Co Ltd
Kitano Johana-Cho Higashitonami-Gun
Toyama-Pref ... 2-1180
Jap Japan Resistor Mfg Co Ltd
50 1 Chome Kamisasajima-Cho Nakamura-Ku
Nagoya ... 551-6196
Jap Japan Resistor Mfg Co Ltd
3-9 1 Chome Benten-Cho, Hitachi ... 2-1522
Jap Japan Resistor Mfg Co Ltd, Nagasu-Cho
Oita-Pref ... 523

JAPAN VACUUM ENGINEERING CO LTD
1-1, KYOBASHI, CHUO-KU, TOKYO
JAPAN ... 535-6381
EMP 530, ENG 170, $5,000-$10,000M
For Hong Kong Vacuum Co Ltd, Central Bldg
Hong Kong ... 237654

JARRELL-ASH CO, 590 LINCOLN ST, WALTHAM
MASS, 02154 ... 617 899-4300
J SCHUCH, EMP 362, ENG 38, $5,000-$10,000M
Cal Robert E Alvord, 1789 Lexington Ave
San Mateo ... Fl 1-2814
Cal Judd Vile, 2533 Fordham Dr
Costa Mesa ... KI 5-7350
Ga J Sheedy, 474 Medlock Rd, Decatur
Ill Peter T Badame, 110 E Schiller St
Elmhurst ... 834-2878
Md R Whitman, 3909 Byrd Rd, Kensington ... 949-7023
Mich Vincent P Walbridge, 34361 Quaker Valley Rd
Farmington ... 476-5936
NJ Michael Slish, 5 Bonnie Brook Terr
Middlesex ... 968-2322
Pa Robert Kress, 922 Greenhill Rd
Pittsburgh ... 821-2990
Tex Southwestern Eng & Equip Co
6300 N Central Expwy, Dallas ... EM 3-6501
Tex Southwestern Eng & Equip Co, 4101 San Jacinto
Houston ... JA 8-5538
Wash J Linn, 3837 Interlake Ave N, Seattle ... ME 3-5020
Can Technical Service Labs, 355 King St W
Toronto, Ont ... EM 2-4248
Jap Nippon Jarrell-Ash Co Ltd
Kiyamachi-Sanjyo-Sagaru Nakagyoku, Kyoto
Swit Jarrell-Ash (Eur) SA, Rue de la Jaluse, 6
Le Locle ... (039) 5 35

JASIK LABS INC, 100 SHAMES DR, WESTBURY
N Y, 11590 ... 516 333-4010
J SEVERINSEN, EMP 38, ENG 8, $500-$1,000M
Cal R F Assoc, Inc, 800 San Antonio Rd
Palo Alto ... 327-5531
Cal R F Assoc, Inc, 1621 Pontius Ave
Los Angeles ... 478-1586
Va Jay Co Inc, 2914 Annandale Rd
Falls Church ... 703 En 9-7800

JAVEX ELECTRONICS, 9509 OAK GLEN RD
CHERRY VALLEY, CAL, 92223 ... 714 845-3986
C REIMULLER, EMP 60, ENG 2, $250-$500M
Cal Featherstone Sales Co, 1355 Market St
San Francisco ... KI 2-2311
Cal Lou Erickson, 729 Ceres Ave
Los Angeles ... 627-9310
Ill M L Friedman Co, 4751 N Rockwell Ave
Chicago ... LO 1-4257
Kan Kangas, Penzner & Lowell, 7505 W 80th St
Overland Park ... NI 8-4965
NY Verter Sales Co, 2352 E 66th St
Brooklyn ... HI 4-3880
Ohio Ohio Assoc, Box 728, Lima
Pa John J Nolan & Assoc, 314 W Sparks St
Phila ... WA 4-1595
Tex CCS Butts, Box 18045, Houston ... JA 6-3101

JAY-EL PRODUCTS INC, BOX 25, GARDENA
CAL, 90247, TWX 327-1471 ... 213 323-7130
L MILLER, EMP 87, ENG 7, $500-$1,000M
Ala Bostick & Assoc, 8100 Memorial Pkwy S W
Huntsville ... 881-3677
Cal Jay-El Products Inc, 1859 W 169th St
Gardena ... 323-7130
Cal Nova-Tronix, 1659 Scott Blvd
Santa Clara ... 243-9530
Colo P P Robbins & Assoc, 11940 Quay St
Broomfield ... 303 466-0776
Ill Joe Popp Sales, 5719 W Chicago Ave
Chicago ... 261-7423
Mich Ray Van Riper Sales, 1842 Newton SE
Grand Rapids ... 452-0464
Mo Harris-Hanson Co, 2814 S Brentwood
St Louis ... MI 7-4350

Pa G Peterson, 2764 Narcissa
Plymouth Meeting................215 825-0260

J-B ELECTRONICS, INC, BOX 22018
CITY OF COMMERCE, CAL, 90022......213 268-2285
R LEWIS, EMP 20, $100-$250M

JB ELECTRONIC TRANSFORMERS INC
2300 W ARMITAGE AVE, CHICAGO
ILL, 60647, TWX 02-5426..............312 276-0444
N YOST, EMP 150, ENG 7, $1,000-$2,500M
Ariz Toward Engrg Assoc, Box 15268 Arcadia Sta
Phoenix.........................602 955-3193
Cal G R McKnight Co, 115 Spruce Ave
Menlo Park......................415 325-2844
Cal Gene Frake Enterprises
4219 Coldwater Canyon Ave
North Hollywood.................213 984-2550
Colo Nelson Co, 1510 S Acoma, Denver.......733-5528
Mich Ray Van Riper Sales, 1842 Newton St SE
Grand Rapids....................616 452-0464
NM Nelson Co, Box 938, Albuquerque........877-9392
NY Fred Spellman Co, 1295 Northern Blvd, Manhasset
NY Jack McDonough Assoc, 4541 Main St
Buffalo.........................716 839-2044
Ohio Jack Coy Co, Box 2078 Kettering Sta
Dayton..........................513 885-7222
Pa H J Fairbanks Co, 420 Chichester La
Wynnewood..........................642-5816
Tex Cecil Roberts Co, 9704 Lanward Ave
Dallas..........................214 348-4283
Utah Nelson Co, Box 1871, Salt Lake City.....262-2147

J-B-T INSTRUMENTS INC, BOX 1818, NEW HAVEN
CONN, 06508..............................203 772-2220
EMP 225, ENG 9
ADV PG 400, 675, 684
Cal F W Moulthrop Co & Assoc, 1530 E 12th St
Oakland.........................415 261-7676
Cal Howard M Saul & Assoc, 5017 San Vincente Blvd
Los Angeles.....................213 93883591
Colo Nelson Co Inc, 1294 S Bannock St
Denver..........................303 733-5528
Conn Adams-McGregor Inc, 77 Bayberry Dr
Wallingford.....................203 269-5816
DC Massey Assoc, 1 Thomas Cir NW
Washington......................202 628-1023
Fla Millar-Hutto Assoc, 210 Park Ave N
Winter Park.....................305 647-7407
Ga Millar-Hutto Assoc, 3110 Maple Dr NE
Atlanta.........................404 261-6160
Haw Bill Kolans & Co, 158 Mokauea St
Honolulu...........................811-628
Ill Geo Pettit Co, 349 N Ashland Ave
River Forest....................312 369-8940
Ind Walter W Bieberich Inc, 801 Leesburg Rd
Ft Wayne........................219432-2537
La Crockett Sales Co, 2204 Griffin St
Dallas Tex......................214 748-8209
Mass Adams-McGregor Inc, 46 Pearl St
Quincy..........................617 472-7550
Mich Robt Milsk Co, 19375-95-95 James Couzens Hwy
Detroit.........................313 342-6660
Minn Heimann Clnc, 5603 Lyndale Ave S
Minneapolis.....................612 8827-5457
Mo H A Roes &o, 2601 Cherry St
Kansas City.....................816 221-0866
NY C W Floring & H R Murray Inc, 6585 Tinne Rd
Syracuse........................315 446-5555
NY D F Tobias & Co, 48-15 31st Ave
Long Island City................212 726-4551
NC Millar-Hutto Assoc, Box 17173
Raleigh.........................919 787-9564
Ohio Chas H Dolfuss Jr & Co, 1052 Wollenhaupt Dr
Vandalia........................513 898-3493
Ohio Chas H Dolfuss Jr & Co, 2108 Payne Ave
Cleveland.......................216 771-1270
Pa Massey Assoc, 1325 West Chester Pike
Havertown.......................215 789-2320
Pa Gene S Root & Co, 809 Wainwright Dr
Pittsburgh......................412 561-4125
RI Adams-McGregor Inc, 66 Lakeview Rd
Lincoln.........................401 726-1300
Tex Lund & Co, 2616 Manor Way
Dallas..........................214 358-4335
Wash James J Backer Co, 221 W Galer St
Seattle.........................206 283-6470
Can R C Kahnert Sales Ltd, 359 Enford Rd
Richmond Hill Ont..................889-6931
Can C M Robinson Agencies Ltd, 1550 Erin St
Winnipeg Man......................SP 4-1855
For J A Fernandez, Ponce de Leon 400
Puerta De Tierra P R...............724-2845
BC C M Robinson Agencies Ltd, 1206 Hamilton St
Vancouver..........................683-8161

JEFFERSON ELECTRIC CO, 840 25TH AVE, BELLWOOD
ILL, 60104..........................312 626-7700
J MILLER, EMP 1400, ENG 60, OVER $10,000M

JEFFERSON WIRE & CABLE CORP SUB OKONITE CO
181 GREENWOOD ST, WORCESTER
MASS, 01607, TWX 710-340-1269......617 752-3763
M FRIEDMAN, EMP 114, ENG 2, OVER $10,000M
Ala Dewey A White Co, Box 428
Birmingham......................205 251-5293
Alas John P Bagoy & Assoc, Box 1005
Anchorage..........................227-0911
Ariz W H Eddy Electric Prods, Box 9456
Phoenix.........................602 943-0601
Cal Falmat, Inc, 13666 Hawthorne Blvd
Hawthorne..........................772-6207

Cal Special Metals Supply Inc, Box 1352
Fremont.........................415 656-5511
Fla J J Smith & Assoc, 935 Orange Ave
Winter Park.....................305 644-4316
Ill D Dolin Sales Co, 3525 W Peterson Ave
Chicago...........................JU 8-3738
Mass Cirolia-LeBlanc Sales, 976 Main St
Waltham...........................TW 3-2742
Minn C E Bohlig, Box 8095, Minneapolis......922-7011
NY J Lind, 17 Red Barn Circle, Pittsford....DU 1-3838
NY Win-Cor Elctn Sales Corp, 75 Plandome Rd
Manhasset..........................627-9474
Ohio Component Insulation Corp, 14235 Detroit Ave
Cleveland..........................521-3570
Pa W E Girard Co, 715 Fairfield Rd
Glenside..........................TU 7-4411
Pa J W Kight, 4 Longfellow Rd
Pittsburgh......................412 781-8303
Tex Jacobson Co, Box 9702, Dallas.........EM 3-7584
Va Roy Elec Electronics, Box 254
Lynchburg.......................703 846-7117

JELLIFF CORP, C O, 200 PEQUOT AVE, SOUTHPORT
CONN, 06490, TWX 710-459-2191......203 259-1615
EMP 200, ENG 6
Cal C H DeVries, 2737 Sandpiper Dr
Costa Mesa......................714 546-2082
Mass White Sales Co, 20 Chestnut St, Needham
Mich C H Schmidt Co, 16405 W 8 Mile Rd, Detroit
Tex F E Evans & Co, 130 Casa Linde Plaza, Dallas

JELRUS INSTRUMENT CORP, 2020 JERICHO TPK
NEW HYDE PARK, N Y, 11040
J ALPERT

JENSEN MFG DIV, THE MUTER CO, 5655 W 73RD ST
CHICAGO
ILL, 60638, TWX 910-224-4661.........312 767-7600
W DEAN, EMP 500, ENG 17, OVER $10,000M
Ariz Shefler-Kahn Co, 2017 N 7th St
Phoenix............................258-7893
Cal Wes Alderson Co, 8548 Washington Blvd
Culver City........................870-9286
Cal Sinai-Johnson Co, 817 Douglas St
San Francisco......................861-6259
Colo Ron Bowen & Assoc, 1440 S Santa Fe Dr
Denver.............................744-2501
Haw Gene Piety Factors, Inc, 160 Mokauea St
Honolulu...........................810-185
Ill E N Severson, 11435 Circle Dr
La Grange..........................246-4883
Ind Morris-Cunningham & Assoc, 720 E 65th St
Indianapolis.......................255-2458
Md Morris F Taylor, 9431 Georgia Ave
Silver Spring......................589-4002
Mass Willson Sales Co, 6 Mohawk Rd
Marblehead.........................631-0416
Minn H M R Inc, 9 E 22nd, Minneapolis.......335-7734
Mo Kelly-Schmitz-Winkeler Assoc, 7546 Troost Ave
Kansas City........................363-5651
NJ Simberkoff Sales, Inc, 71 Valley St
S Orange...........................763-7900
NY Adelman-Pinn Sales Co, 570 Yonkers Ave
Yonkers............................423-4747
Ohio Neal Bear Corp, 3435 Streetsboro Rd
West Richfield.....................659-3331
Tenn Al Engleman Co, Box 12091, Memphis...458-6263
Tex Wybomy Sales Co, Box 17070, Dallas....381-4645
Wash James J Backer Co, 221 W Galer St
Seattle............................283-6470

JERROLD ELECTRONICS CORP, 401 WALNUT ST
PHILADELPHIA
PA, 19105, TWX 710 670-0263.......215 WA 5-9870
J EINSIDLER, EMP 828, ENG 46, OVER $10,000M
Ala Roy Attaway Co, 912 Bob Wallace Ave S W
Huntsville.........................533-1714
Alas Arva Inc, 826 Whitney Rd, Anchorage....272-5231
Cal L & M Engineering, 9911 Inglewood Ave
Inglewood.......................213 678-5409
Cal L & M Engineering, 2620 The Alameda
Santa Clara.....................408 243-6661
Colo Kelley Enterprises, 336 E 4th St
Loveland...........................667-1376
Conn Measurement Equip Co, Box 8192
East Hartford...................203 874-9222
Fla Roy Attaway Co, 57 E Robinson St
Orlando............................424-9983
Haw Earl Assoc, 1638 Kona St, Honolulu.......996-953
Kan Lee Mark Assoc, Box 6175, Leawood.....648-0124
Mass Measurement Equipment Co, 591 North Ave
Wakefield..........................245-4870
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield......................313 442-5656
Mo LeeMark Assoc Inc, 9623 St Charles Rock Rd
St Louis........................314 647-4545
NJ Central Assoc Inc, 44 N Dean St
Englewood.......................201 568-0808
NM Electronic Enterprises, 1900 Washington St N E
Albuquerque........................256-1585
NM Electronic Enterprises, Box 116
Las Cruces.........................524-0126
NY NACO Electronics Corp, 2631 Edgewood Rd
Utica..............................732-1801
NY Central Assoc Inc, 11 Commercial St
Plainview..........................433-0808
NY NACO Electronics Corp, 74 Park Ave
Rochester.......................716 244-4720
NY NACO Electronics Corp, 119 Luther Ave
Liverpool..........................474-7481
NY Naco Electronics Corp, 14 Lori St
Poughkeepsie.......................462-2730
NC Roy Attaway Co, 614 Nissen Bldg
Winston-Salem......................722-9671

Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland..........................442-8080
Ohio S Sterling Co, 2673 Culver Ave
Dayton..........................513 298-7573
Ore ARVA Inc, 2035 S W 58th Ave
Portland...........................222-7337
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh.........................884-5515
Pa Holdsworth & Co Inc, Box 298
Newtown Square..................215 256-8550
Tex Airep Electronics, Inc, 6300 N Central Expwy
Dallas..........................214 363-5291
Tex Airep Electronics, Inc, 8119 Bellaire Bldg
Houston............................774-2260
Va Jay Co, Box 2008, Falls Church..........534-7800
Wash ARVA Inc, 1320 Prospect St
Seattle.........................206 444-2022
Can Jerrold Electronics Can Ltd, 60 Wingold Ave
Toronto, Ont.......................781-6174

JERSEY TECHNICAL CONSULTANTS, 22 COLLES AVE
MORRISTOWN, NJ, 07960............201 JE 8-8995
A GREGG, EMP 5, ENG 2, UP TO $100M
DC Nuclear Supply & Service Co, 422 Washington Bldg
Washington......................202 ST 3-3480

JETRONIC INDUSTRIES INC, MAIN & COTTON STS
PHILADELPHIA, PA, 19127............215 IV 27660
L SHILOBOD, EMP 125, ENG 10, $2,500-$5,000M

JETRONICS CO DIV J L HALL CO INC, 620 PRICE AVE
REDWOOD CITY, CAL, 94063..........415 365-3330
K ENOCH, EMP 50, ENG 3, $500-$1,000M

JETRON MFG CO, 4310 N KEDZIE AVE, CHICAGO
ILL, 60618..........................312 539-3065
L TENENBERG, EMP 50, ENG 2, $500-$1,000M
Ill H Grubb & Co, 8039 N Lawndale Ave
Skokie.............................677-0080

JETTRON PRODUCTS INC, 57 RTE 10, HANOVER
N J, 07936..........................201 887-0571
J SCHILL, EMP 25, ENG 3, $250-$500M
Cal Western Controls, 2630 Seaman Ave
El Monte...........................443-9376
Cal Western Controls, 947 Green St
San Francisco......................474-7603
Ill W F Hamilton Co, 5130 N Elston Ave
Chicago............................545-7576
Mass John Q Neenan Assoc, Box 203
Sudbury............................893-0914
NJ Hemmel Co, Box 267, Caldwell..........228-2220
NY Hemmel Co, Box 647, Syracuse..........471-0284
NY Hemmel Co, Box 764, Buffalo
Pa Tyler Griffin Co, 46 Darby Rd
Paoli...........................215 647-1550
Can Atkinson & Vail Ltd, 5 Allenbury Gardens
Willowdale Ont
For Eltron Export Co, 122 Broad St
New York, NY.......................944-7635

JFD ELECTRONICS CO, COMPONENTS DIV
15TH AVE AT 62ND ST, BROOKLYN
N Y, 11219, TWX 212-833-7001..............212 DE 1-1000
W BELLENKES, EMP 1000, ENG 22
ADV PG 115-117
Ariz Bennewitz Assoc, 532 N Brawn Ave
Scottsdale.........................947-7379
Cal JFD Western, 9 Morlan Pl, Arcadia......HI 6-0312
Cal Geo Ollen, 278 Gabilan St
Sunnyvale.......................408 732-0525
Colo Bennewitz Assoc, 2801 E Colfax
Denver.............................399-1132
Del JFD Mid-Atlantic, Box 5055
Phila, Pa.........................RA 5-9660
Fla J J Smith & Assocs, Box 460
Winter Park........................644-4316
Fla J J Smith & Assocs, Box 573 Biscayne Anx
Miami...........................305 374-6784
Ga Grady Duckett Sales Co, Box 29067
Atlanta............................237-5531
Ill JFD Midwestern, 6259 W Warwick Ave
Chicago.........................312 775-5424
Kan Thomas-Modrcin Assocs, Inc, 5450 Buena Vista
Shawnee Mission...................HE 2-2131
Md JFD Mid-Atlantic-Md, Box 462
Ellicott City.......................752-7660
Mass JFD New England, Box 1, Saxonville....891-5666
Mich R S Lohmann, 21501 W 7 Mile Rd
Detroit............................535-6144
Minn Heimann Co, 5603 Lyndale Ave S
Minneapolis.....................612 827-5457
Mo Thomas-Modrcin Assoc, 47 Village Sq
Hazelwood..........................838-6446
NY JFD NY Northern, Damiano Pl,Box 96
New Hartford.......................732-3507
NC Grady Duckett Sales Co, Box 22002
Greensboro......................919 273-4617
Ohio JFD Midwestern-Ohio, Box 8086, Cinc...421-1166
Pa Beil & Whitaker Inc, 3623 Jacksonwald Ave
Reading...........................FR 5-6837
Pa JFD Mid-Atlantic, Box 5055
Philadelphia....................215 725-9660
Tex W Pat Fralia Co, Box 12625
Fort Worth........................PE 8-2394
Wash Harry Levinson Co, 1211 E Denny Way
Seattle...........................EA 3-5100
Wis Star Engineering Sales Co, 7328 W Burdick Ave
Milwaukee.........................LI 3-3469
Can H W Brieger Sales Inc, 5253 Decarie Blvd
Montreal Que....................514 489-0722

Den ITT Komponent, Gladsaxe Mollevej 15, Soborg Copenhagen
Fr JFD Elctns Europe S A, 7, Rue de Rocroy Paris 75-xe LAM-86-04
Ger Alfred Neye Enatechnik 14 Schillerstr-2085 Quickborn, Hamburg
GB Standard Tel & Cables Ltd, Brixham Rd Paignton, Devon
Ital Special Ind S R L, Via D Manin 33, Milano
Jap Murata Mfg Co Ltd, Nagaoka Otokuni, Kyoto
Nor Standard Tel og Kabel A/S, Box 60, Oslo
Swed Th:S Elektronik, Brunnsgatan 6, Sundbyberg
Swit ITT Standard, 35, Zweierstr, Zurich
Isrl JFD Israel Ltd, Ind Area B, Bldg 23, Azur
Neth Heijnen n v, steendalerstr 56, Gennep
Aust Ducon Condenser Pty Ltd, Box 2, Villawood, NSW

JOCLIN MFG CO, 9 LUFBERY AVE, WALLINGFORD CONN, 06942 .... 203 269-8708
J CHOMICZ JR, EMP 70, ENG 3, $500-$1,000M

JODY MFG CO, 6464 BENHAM, DETROIT MICH, 48211 .... 313 923-8550
J RADANOVICH, EMP 5, ENG 1, UP TO $100M
Ga R E Wilson Co, Atlanta 876-8833
Mich E B Dewey Co, 2519 Lake St Kalamazoo 344-6163
Mich Electrorep of Michigan, 1049 Hilton Rd Ferndale 313 542-6553
Pa L C Conover Assoc, Miller Rd Chester Springs 215 827-7261
Can Summit Elec Products Ltd, 314 Giles Windsor .... WO 5-0880

JOHANSON MFG CORP, BOX 329, BOONTON N J, 07005 .... 201 334-2676
E JOHANSON, EMP 165, ENG 5, $1,000-$2,500M
ADV PG 119
Cal Weightman & Assoc, 1226 W Olive Ave Burbank .... VI 9-2435
Fla Perrott Assoc, 1607 Forsyth Rd Orlando 305-275-1132
Ill Burt Anderson & Assoc, 5969 N Elston Ave Chicago 774-8989
Mass Moisan Assoc, Box 393, Lowell 452-5003
NJ Bonn Assoc, 266 Lake Ave, Metuchen .... LI 9-9573
NY Graydon-Sherman, Davis Bldg Fayetteville 315-637-9861
NY Machine & Prods Co, 52 Wall St New York .... 212 WH 4-4370
Ohio Reynolds Electronic Sales Co, R R 3 Batavia 734-7553
Tex Gordon V Peck Co, 210 Casa Linda Pl Dallas .... DA 8-3511
Wash Ray Johnston Co Inc, 1011 NE 69th St Seattle .... LA 4-5170
Can Electrodesign Ltd, 9124 St Lawrence Blvd Montreal 389-5914
Fr Technique et Produits, 63 Bis - Rue D'Aguessau Boulogne - S/Seine

JOHNSON & BASSETT INC, HIGGINS ST, WORCESTER MASS, 01606 .... 617 755-1216
J WILLIAMS, EMP 55, ENG 2

JOHNSON CO, E F, 299 10TH AVE SW, WASECA MINN, 56093 .... 507 835-2050
C MARSHALL, OVER $10,000M
Ariz Harry A Moore Sls Co, Box 7245 Phoenix 274-0060
Cal Wallace & Wallace, 1206 Maple Ave Los Angeles 747-0401
Cal Logan Sales Co, 463 Brewster Ave Redwood City 369-6726
Colo McLoud & Raymond Co, 2151 S Grape St Denver 756-1589
Conn P R Sturgeon Inc, 117 Broad St Milford 874-6080
Ga Millar-Hutto Assoc Inc, 3110 Maple Dr NE Atlanta 261-6160
Ill Ellinger Sales Corp, 6580 Northwest Hwy Chicago 763-1570
Iowa Jerry Vrbik Co, 2818 A Ave NE Cedar Rapids 365-0461
Md E F Johnson Co, 113 University Blvd W Silver Spring 593-1010
Mass P R Sturgeon Co Inc, 1330 Boylston St Chestnut Hill 734-7710
Mich A B M Sales Inc, 10116 Puritan Ave Detroit 862-1300
Mo H A Roes & Co, 2601 Cherry St Kansas City 221-0866
NY R W Mitscher Co, 606 Forest Dr N Syracuse 458-1321
NY F Edwin Schmitt Co, 311 Meacham Ave Elmont 437-8150
NY R W Mitscher Co Inc, 51 Ely Dr Fayetteville 446-4540
NY R W Mitscher Co Inc, 496 Ellicott Sq Bldg Buffalo 854-2517
NC Millar-Hutto Assoc, North Hills Office Mall Raleigh 787-9564
Ohio McFadden Sales Co, 150 E Broad St Columbus 221-3363
Tenn E F Johnson Co, 5050 Poplar, Memphis 683-2828
Tex Robert E Nesbitt Co, 2930 Merrell Road Dallas 357-4601
Tex Robert E Nesbitt Co, 4810 Hazard Houston 528-3811
Wash E F Johnson Co, 3049 78th SE Mercer Island 232-6242
Can A C Simmonds & Sons Ltd, 285 Yorkland Blvd Agincourt, Ont 445-9111

For Roburn Agencies Inc, 431 Greenwich St New York, NY 966-2130

JOHNSON ELECTRIC COIL CO, BOX 559, ELMHURST ILL, 60126 .... 312 833-1800
W CRAWFORD, EMP 75, ENG 4, $1,000-$2,500M
Cal Andrews & Assoc, Box 251 Northridge 213 349-0586
Colo Ruby Sales Corp, 1200 S Alton Denver 303 755-1714
Ga V Avis McCorvey Co, 2187 Briarcliff Rd NE Atlanta 404 636-2502
Mass QRC Co, 134 Upland Rd, Newton 617 332-9600
Minn E Melius & Assoc, 3758 Dunlap St St Paul 612 484-8541
NJ Roland R Aitchens Co, Box 363 Haddonfield 609 546-7457
NY Paul D Aaron & Assoc, Box 511 Port Washington .... 516 PO 7-8480
NY Walter M Onyx Co, Box 4 Mattydale 315 446-7930
Ohio John O Olsen Co, 16201 Shaker Blvd Cleveland 216 752-5444
Tex Robt W Moreen Co, 5523 Dyer St Dallas 214 361-0735

JOHNSON ELECTRONICS INC, BOX 7, CASSELBERRY FLA, 32707 .... 305 838-2111
R WEBER, EMP 35, ENG 3, $250-$500M
Ariz Hyde Electronics Co, 4710 N 16th St, Phoenix
Cal W Wainwright, Box 926, Los Gatos 354-1411
Colo Hyde Electronics Co, 888 S Lipan St Denver 936-3486
La Scott Ormsby Sales, 230 20th St New Orleans 488-2414
NM Hyde Electronics Co, 5206 Constitution Ave Albuquerque
Tex El Wilco, Box 14466, Dallas 242-5321
BC Nelson Sales Ltd, 1224 E Pender St Vancouver 254-5149

JOHNSON & HOFFMAN MFG CORP, 40 VOICE RD CARLE PLACE, N Y, 11514 .... 516 PI 23333
R WILLE, EMP 170, ENG 11, $2,500-$5,000M

JOHNSON MFG CO INC, BOX 96, PRINCETON IOWA, 52768 .... 319 697-3600
R THOMPSON, EMP 14, ENG 3, $250-$500M

JOHNSON MATTHEY & MALLORY LTD 110 INDUSTRY ST, TORONTO 15, ONT 763-5111
T SMITH, EMP 600, ENG 9

JOHNS TECHNOLOGY INC, BOX 1168, LIVERMORE CAL, 94550 .... 415 447-3469
R JOHNS, EMP 6, $100-$250M
Cal Hasco, 1843 Lincoln Blvd Santa Monica 394-1128
Colo Bouvette & Assoc, 2785 N Speer St Denver 433-0563
Ill Mesco Inc, 10436 S Western Ave Chicago 445-7121
Mass American Dynamics Corp, 17 Dunster St Cambridge 491-6800
Mich Kurt J Lesker Co, 6747 N Wayne Rd Westland 800 245-2580
NY Electrolab Equip Co, 12 Bromleigh Rd Garden City 775-5562
Ohio Kurt J Lesker Co, 5586 Harleston Ave Lyndhurst 800 245-2580
Ohio Kurt J Lesker Co, 7560 Hollycroft La Mentor 800 245-2580
Ohio Kurt J Lesker Co, 2780 Kunz Rd Galloway 800 245-2580
Pa Tyler Griffin Co, 46 Darby Rd, Paoli 647-1550
Pa Kurt J Lesker Co, 5635 Homing Rd Pittsburgh 892-2996
Pa Kurt J Lesker Co, 6108 Library Rd Bethel Park 800 245-2580
Pa Kurt J Lesker Co, 385 Pennsylvania Ave Oakmont 800 245-2580
Wash Cane-Jessup Co Inc, Box 250, Bellevue 454-0691

JOHNSTON LABS, INC, 3617 WOODLAND AVE BALTIMORE, MD, 21215 .... 301 664-8400
P SHERIDAN

JO-LINE TOOLS INC, 8442 OTIS ST, SOUTH GATE CAL, 90280 .... 213 567-1366
R GRAHAM, EMP 50, ENG 3, $500-$1,000M
Conn Deck Corp, Box 146, Trumbull 268-7537
DC Hand Tools Inc, 3050 Birch St NW Washington 966-2234
Ill Ken South & Assoc, 742 N Kensington LaGrange Park 352-7426
Kan T D Iliff Co, 9621 Canterbury, Leawood 642-2783
Mich Van F Belknap Co, 15016 Fenkell Ave Detroit 837-7969
NY Waldick Aero-Space Devices, 123 W 21st St LIC 427-6780
NC Howard R Haney & Co, 1911 Central Ave Charlotte 375-8708
Pa Bell Indust Supplies Co, 402 Bethlehem Pike Phila 233-2200
Tex P-M-E Equip, 5529 Lawndale, Houston 928-5021
For Jo-Line Intl Mktg Grp, Box 64302 Los Angeles Cal 837-9121

J-OMEGA CO, 2271 MORA DR, MOUNTAIN VIEW CAL, 94040 .... 415 961-2000
E BUCHS, EMP 15, ENG 2, $250-$500M
Cal Blair Assoc, 421 N Brookhurst Anaheim 635-1350
NJ Cain & Co, Box 261, S Amboy 201 727-1900
NY Cain & Co, 253-16 Northern Blvd Little Neck 212 428-3636
Fr Ets Mesureur, 30 Rue Sedaine, Paris
Jap Hakuto Co Ltd, Box 25, Tokyo

JONARD INDUSTRIES CORP, 3047 TIBBETT AVE BRONX, N Y, 10463 .... 212 KI 9-7600
B OSTEN, EMP 82, ENG 4, $250-$500M
Ill Markal Sales Corp, 5787 Lincoln Ave Chicago .... LO 1-7290
NJ T M C Sales Corp, 2465 Lemoine Ave Fort Lee 944-8340
NY J F Harm & Assoc, Inc, 7952 Boxford Cir Clay 699-2342
Pa E S Component Sales, 4733 N Marshall St Phila 457-4805

JONATHAN MFG CO, 1101 ACACIA AVE, FULLERTON CAL, 92631, TWX 910-592-1241 .... 714 526-4651
W WACHTEL, EMP 100, ENG 6, $1,000-$2,500M
Ariz Jewett Co, 132 E Stetson Dr Scottsdale 945-9711
Cal Vistronics, Inc, 6158 Mission Gorge Rd San Diego 283-3946
Cal R A Banks Sales Corp, 1029 Corporation Way Palo Alto 415 964-4464
Fla Willett-Burnside Co, 1837 Oak Lake Dr Clearwater 446-0075
Ill Engineered Sales Co Inc, 4738 N Harlem Ave Chicago 867-8434
Md Burgin-Kreh Assoc Inc, 1600 White Oak Ave Baltimore 301 661-1120
Mass Schaal Assoc, 4 A St, Burlington 617 272-3250
Minn Ed Melius & Assoc, 3758 N Dunlap St St Paul 612 484-8541
Mo G Fixman Eng Co, 8160 Stanford Ave St Louis 725-5219
NJ Jonathan Mfg Co, 1258 Teaneck Rd Teaneck 833-0061
NM Dae Co, Box 8766, Albuquerque 255-8172
NY Reed Electronics Inc, 2815 Monroe Ave Rochester 473-2767
Ohio D Volente & Assoc, 4240 Eaglehurst Rd Toledo 882-2830
Tex Lee Sales Co, 2838 Posey Dr Irving 214 363-3831
Utah O Salme & Assoc, 5762 S 1050 E Salt Lake City 262-0235
Va Burgin-Kreh Assoc Inc, 2600 Memorial Ave Lynchburg 845-5600
Wash R S Drake Assoc Inc, 6133 Maynard Ave S Seattle 725-2700

JONES ELECTRONICS, HIRAM, 3086 N LIMA ST BURBANK, CAL, 91504 .... 213 849-5311
E REED, EMP 12, ENG 1, $250-$500M
Ohio Schlemmer Assoc, 1172 W Galbraith Rd Cincinnati 513 522-8340
Tex Packard Assoc, Inc, Box 20825 Dallas .... 214 FL 7-5713
Can E S Gould Sales Co, Ltd, 11 Louvain St, W Montreal, Que .... AV 8-5716

JONES INC, NORMAN, BOX 1, SOUTH MERRIMACK N H, 03083 .... 603 882-7422
N JONES, EMP 37, ENG 5, $250-$500M
Mass George Dick Assoc, W Acton 899-2364
NJ C E Sweeney & Assoc, Box 77 Haddonfield 419-7018

JONES OPTICAL WORKS INC A D, 64 CAMBRIDGE ST BURLINGTON, MASS, 01803 .... 617 272-5210
R DOWNING, EMP 63, ENG 4, $500-$1,000M
NY Scientific Sales System, 376 Great Neck Rd Great Neck
Ohio Harvey Teplitz Co, 3718 Salem Ave, Dayton

JONESVILLE PAPER TUBE CORP, 474 BECK RD JONESVILLE, MICH, 49250 .... 517 849-2951
W SCHRAY, EMP 40, $250-$500M

JONTZ MFG CO INC, 1101 E MCKINLEY AVE MISHAWAKA, IND, 46544 .... 219 259-2496
W JONTZ, EMP 20, UP TO $100M
Ariz H A Moore Sales Co, Box 7245, Phoenix
Fla Cartwright & Bean, 20100 NE 25th Ct, Miami Beach
Fla Cartwright & Bean, 2505 Nancy St, Orlando
Fla Cartwright & Bean, 395 Triton Rd, Ormond Beach
Ga Cartwright & Bean, 3223 Cain's Hill Pl NW, Atlanta
Ind Thomas & Sukup Inc, 2060 E 54th St, Indpls
Iowa Lee Harrington, 132 Colfax, Council Bluffs
Mass Associated Electronics, 119 The Great Rd Bedford 275-9020
NJ Warner Engineering Co, 239 Lorraine Ave Upper Montclair
NY Maury Farber, 220 Delaware, Buffalo
NC Cartwright & Bean, 625 Harwyn Dr, Charlotte
Tenn Cartwright & Bean, 560 S Cooper Memphis 276-4442
Tex Texport Co & H Lieberman, 2411 Farrington, Dallas

JORDAN CONTROLS INC, 5607 W DOUGLAS AVE MILWAUKEE, WIS, 53218 .... 414 461-9200
S TRAMMEL, EMP 75, ENG 12, $1,000-$2,500M

Ala Automation Equipment Co, Box 5983 Homewood Br
Birmingham
Cal Charles Meriam Co, 5017 Telegraph Rd
Los Angeles........................AN 9-8271
Cal Claypool Controls Co, Box 1167, Los Altos
Colo J H Dorough Co, Box 297, Arvada 422-1487
Conn Canner Assoc, Box 116, Newtonville 244-2895
Fla L W Shaw & Assoc, Box 273, Clearwater
Ill Clarkson Engineering Co, 5518 W Lawrence Ave
Chicago
Kan Edward L Martin Co, Box 175, Shawnee Mission
Mass Canner Assoc, 84 Robert Rd, Marblehead
Mich Electromation Assoc, 1137 Cole St
Birmingham........................JO 4-6517
Mo Richter Equipment Co, 9567 Page Blvd, St Louis
NY Glaser Corp, 797 Military Rd, Buffalo ... TR 5-3221
NY Jackson Automation Inc, 128 Court St
White Plains .... WH 8-1033
NC Ray Sturgill & Assoc, Box 10561
Charlotte 399-6962
Ohio Dorsey-Alexander, Inc, 1433 E McMillan St
Cincinatti 221-5718
Ohio J Kilroy Corp, 15517 Dale Rd
Chagrin Falls..................... 247-8997
Pa Foster-McClinton Inc, 1675 Washington Rd
Pittsbgh 561-4803
Pa Foster-McClinton Inc, 5302 Wolf Rd
Erie.............................. TE 3-1027
Pa Jackson Automation Inc, 228 Bala Ave, Bala-Cynwyd
SD Shakstad Elec & Machine Wks, Box 1045
Sioux Falls
Tenn Engineered Eqpt Corp, 1207 E 23rd St
Chattanooga....................... 267-1804
Tex Carey & Assoc, 3315 W 12th St
Houston ....UN 9-3623
Utah Control Equipment Co, 265 Crossroads Sq
Salt Lake City
Va Dynamation, Inc, 2060 Buford Rd
Bon Air.......................... 272-5001
W Va F McClinton, 6213 Brenda Ct, Huntington
Wis Automation Engineering Co
12740 N River Rd, 43 W, Mequon .... FL 4-4984
Can Lisle Instrument Sys Ltd, 70 Sheffield St
Toronto, Ont...................... 249-9151
For Masten-Wright Corp, 282 State St
North Haven, Conn

JORDAN ELECTRIC CO, 14707 KESWICK ST
VAN NUYS, CAL, 91405 ....213 781-3849
B BARTON, EMP 31, ENG 2, $500-$1,000M
Cal Wm D Gorman Co, 4476 Tindli St
San Diego 22-9424
Ohio Electro Com, 8761 Snow Rd, Cleveland... 886-2404
Ohio Electro Com, 5055 N Main St, Dayton ... CR 8-4797
Pa Electro Com, 201 Penn Center, Pittsburgh

JOSLYN ELECTRONIC SYSTEMS DIV
6868 CORTONA DR, BOX 817, GOLETA
CAL, 93017 ....805 968-3551
D HAMISTER, EMP 45, ENG 5, $1,000-$2,500M

JPM CO, US 15 & PEN RD, LEWISBURG
PA, 17837, TWX 510-655-0406.........717 523-1101
J DOUGHERTY, EMP 400, ENG 5, $5,000-$10,000M
Fla R R Pryor, 1760 56th St, N E
Ft Lauderdale..................... 565-2487
Ill Gib Beane, 5933 W Madison St
Chicago 626-7522
Ind McNabb-Brase & Assoc, 4002 Meadows Dr
Indianapolis...................... 545-8167
Ind McNabb-Brase & Assoc, Rt 1, Laotto 897-4581
Minn Howard Cullen & Assoc, 1595 Selby Ave
St Paul.......................... 646-7371
NJ Henry G Richter Co, 608 Sherwood Pkwy
Mountainside...................... 233-4615
NY H G Richter Co, Box 251, Fayetteville ... NE 7-6713
Ohio Clarke Hinkle, 415 N 4th St, Toronto 537-1316
For Moriss Saliss, Box 464, Roosevelt, PR 6-6296

JUALL GEAR CO INC, 1108 GOFFLE RD, HAWTHORNE
N J, 07506 ....201 427-4220
C JUALL, EMP 40, ENG 1, $500-$1,000M

JUDD WIRE DIV ELECTRONIZED CHEM CORP
900 TURNPIKE RD, TURNERS FALLS
MASS, 01376 ....413 863-4357
T JUDD, EMP 60, ENG 5, $1,000-$2,500M

JULIE RESEARCH LABS, INC, 211 W 61ST ST
NEW YORK, N Y, 10023 ....212 245-2727
L MCCULLEY, EMP 60, ENG 10, $1,000-$2,500M
Ala Beacon Electronic Assoc, Inc, Box 3127
Huntsville 536-5065
Cal Luscombe Engineering, 610 S Arroyo Pkwy
Pasadena 213 684-2000
Cal D Grounds, 13105 S Hoover St, Gardena
Conn Instrument Consultants, Inc, 2381 Whitney Ave
Hamden 248-4174
Fla Beacon Electronic Assoc, Inc, Box 1278
Maitland.......................... 647-3498
Ga Beacon Electronic Assoc, Inc
2285 Peachtree Rd NE, Atlanta 404 351-3654
Ill Mauer Co, 3308 Noyes, Evanston 869-1644
Iowa Engineering Services Co, 1026 3rd Ave SE
Cedar Rapids...................... 366-1591
Kan Engineering Services Co, 7924 A State Line
Prairie Village.................... 649-4000
Md Byrne Assoc, 11161 New Hampshire Ave
Silver Spring 301 593-0667
Mass Instrument Consultants, Inc, Box 25
Waban 969-9881

Mo Engineering Services Co, 6717 Vernon Ave
St Louis .... PA 6-2233
NC Beacon Electronic Assoc, 305 Greenway St
Jamestown 719 454-1840
Tex Julie Research Labs, 804 Ridgeway, Richardson
Can BRH Assoc Ltd, 6338 Victoria Ave
Montreal, 26, Que 733-5331
Fr Salies, S A, 11 Rue Leon Morane, Paris, 15e
Ger Telemeter Electronic GmbH, 8042 Schleissheim
Muchen Parkstadt 154
GB Davies Integrated Sales, 252 Kempshott La
Basingstoke, Hants
Holl Ingenueurs bureau, Westersingel 27a, Rotterdam, 3
Jap Marubin Co Ltd, 1, 2-chome Ödemmacho, Tokyo
Nor Ole A Nordby, Sorkedalsveien 1B, Oslo, 3
Swed Amerikanska Teleprodukter Ab, Nybohovsgrand 56
Stockholm
Swit Telemeter Electronic AG, Gerechtigkeitsgasse 25
Zurich

JUNGNER INSTRUMENT AB, RIDDARGATAN 17
S-10440 STOCKHOLM 14, SWEDEN 08-222340
E BERGGREN, EMP 500, ENG 100, $5,000-$10,000M
NY Nife Inc, 21 Dixon Ave, Copioque 212 445-4554
Den K G Matzen, Kong Georgs Vej 21
Copenhagen........................ 01-344263
Ger Nife Stahlakkumichetoren GMBH, Nicolaistr 2-6
1 Berlin 46 720456
Holl Nife Accumulatoren NV, Kleine Houtweg 12-14
Haarlem 02500-18950
Ital Soc Ital Accumulatori NIFE, Viale Cembrano 11
16148 Genova-Quarto 39 42 41
Nor Norsk Jungner Akkumulaterfabrik A/S
Bernhard Getzgate 3, Oslo 1.............206690
Swit Nife Akkumulatoren AG, Fellenbergstr 244
8047 Zurich 051-523550

JUSTUS & JUSTUS CORP, 1841 NATIONAL AVE
HAYWARD, CAL, 94545 ....415 782-5151
E SPEED, EMP 60, ENG 2, $500-$1,000M
Colo T Sullivan, 7758 W 39th Ave, Wheatridge
Conn M Horowitz, 15 Bartholomew Ave, Ansonia

JUTCO INC, 122 E 162ND ST, GARDENA
CAL, 90247 ....213 FA 1-8135
R SANDEEN, EMP 30, ENG 1, $250-$500M

KAAR ELECTRONICS CORP, 1203 W ST GEORGES AVE
LINDEN
N J , 07036, TWX 710-996-5923 ....201 486-8221
R MADDISON, EMP 100, ENG 6, $500-$1,000M
Cal Kaar Electronics Corp, 2250 Charleston Rd
Mountain View 961-8220
Cal Kaar Electronics Corp, 712 S Vail St
Montebello........................ 723-1819
Fla Karr Electronics Corp, 8005 Cornwall La, Tampa
La Kaar Electronics Corp, 1127 S Rampart St
New Orleans 522-5113
Mass Kaar Electronics Corp, 97A Cambridge St
Burlington 272-6264
Mich Kaar Electronics Corp, 3120 Plymouth Dr, Lansing
Mo Kaar Electronics Corp, 3136 Wyoming Ave
St Louis 773-1703
Mo Kaar Electronics Corp, 1910 S Stewart St
Springfield........................ 883-3388
Neb Kaar Electronics Corp, 6609 S 84th Ave, Ralston
NJ Kaar Electronics Corp, 232 Wescott Dr
Rahway 388-7414
Tex Kaar Electronics Corp, 4710 Lotus St
Houston 729-3964
Wash Kaar Electronics Corp, 12055 Phinney N, Seattle

KAHLE ENGINEERING CO, 3322 HUDSON AVE
UNION CITY, N J, 07087 ....201 867-6500
C NAPOR, EMP 75, ENG 15, $1,000-$2,500M
Ital Kahle Europea, SpA, Via Spartaco 16
Caravaggio, Bergamo 58-00

KAHL SCIENTIFIC INSTRUMENT CORP, 737 W MAIN ST
EL CAJON, CAL, 92022................714 444-5944
A ZARDINI, EMP 24, ENG 4, $500-$1,000M

KAHN & CO INC, 885 WELLS RD, WETHERSFIELD
CONN, 06101 ....203 529-8643
W NOVAK, EMP 90, ENG 25, $2,500-$5,000M

KAHN RESEARCH LABS INC, 81 S BERGEN PL
FREEPORT, N Y, 11520................516 379-8800
E BAKER, EMP 50, ENG 4
Cal Brooks & Day Inc, 10700 Ventura Blvd
N Hollywood 213-877-3357
Cal Crown Electronics, Box 2573
Van Nuys 213 873-1266
Haw Earl Assoc, 1638 Kona St, Honolulu....... 815-649
Ill Webster Engrg Co, 1136 Gail La
Dundee.....................312 428-5173
NM A L S Electronics, Box 11626
Albuquerque.................505 268-9600
Ohio Ohio Instrument Co, 505 Whitney Ave
Worthington 614 885-0743
Va Vernon H Steed & Assoc, Box 4742
Richmond...................703 288-3877

KAISER-AEROSPACE & ELECTRONICS CORP
1681 PAGE MILL RD, PALO ALTO
CAL, 94304, TWX 910-373-1274........415 321-3320
K STERNE, EMP 400, ENG 100, OVER $10,000M
Ohio W D Hazlett, 1405 Ruskin Rd, Dayton 277-9093

KAISER ALUMINUM & CHEM CORP ELECTRICAL
PRODS DIV, 300 LAKESIDE DR, OAKLAND
CAL, 94604, TWX 089-662.............415 271-2211
J LOVELAND, EMP 24405
Ala Kaiser Alum & Chem Corp, 1914 1/2 Airport Blvd
Mobile 205 471-1620
Cal Kaiser Alum & Chem Corp, 6250 Bandini Blvd
Los Angeles.................213 685-4181
Colo Kaiser Alum & Chem Corp, 16th & Glenarm St
Denver 303 825-1381
Conn Kaiser Alum & Chem Corp, 799 Main St
Hartford 203 278-3855
Fla Kaiser Alum & Chem Corp, 1400 NW 36th St
Miami.......................305 NE 3-3431
Ga Kaiser Alum & Chem Corp, 4250 Northeast Fwy
Doraville 404 451-1242
Ill Kaiser Alum & Chem Corp, Box 68
Riverdale 312 841-3551
Ind Kaiser Alum & Chem Corp, 2511 E 46th St
Indianapolis.................317 545-2351
Kan Kaiser Alum & Chem Corp, 3100 Brinkerhoff Rd
Kansas City ....913 AT 1-0464
La Kaiser Alum & Chem Corp, 2609 Canal St
New Orleans 504 822-1401
Md Kaiser Alum & Chem Corp
1919 Halethorpe Farm Rd
Baltimore...................301 247-0130
Mass Kaiser Alum & Chem Corp, 275 Wyman St
Waltham 617 894-8150
Mich Kaiser Alum & Chem Corp, 20700 Greenfield Rd
Detroit 313 548-9930
Minn Kaiser Alum & Chem Corp, 3033 Excelsior Blvd
Minneapolis................. 612 WA 6-1861
Mo Kaiser Alum & Chem Corp, 7701 Forsyth Blvd
St Louis 314 863-9030
Neb Kaiser Alum & Chem Corp, 3555 Farnam St
Omaha 402 341-5357
NJ Kaiser Alum & Chem Corp, 200 U S Route 22
Hillside 201 926-5911
NY Kaiser Alum & Chem Corp, 257 Elmwood Ave
Buffalo .... 716 TT 2-9050
NC Kaiser Alum & Chem Corp, 4425 Randolph Rd
Charlotte 704 366-9303
Ohio Kaiser Alum & Chem Corp, 11750 Chesterdale Rd
Cincinnati...................513 772-1560
Ohio Kaiser Alum & Chem Corp, 20525 Center Ridge Rd
Cleveland...................216 333-3740
Okla Kaiser Alum & Chem Corp, 7500 E 41st St
Tulsa.......................918 NA 7-0100
Ore Kaiser Alum & Chem Corp, 2525 S W Third Ave
Portland 503 226-4351
Pa Kaiser Alum & Chem Corp, 1 Decker Sq
Bala Cynwyd 215 839-7105
Pa Kaiser Alum & Chem Corp, 875 Greentree Rd
Pittsburgh...................412 921-7101
Tex Kaiser Alum & Chem Corp, 2200 Carl Rd
Irving .... 214 BL 4-4251
Tex Kaiser Alum & Chem Corp, 6900 Fannin St
Houston .... 713 RI 7-4282
Wash Kaiser Alum & Chem Corp
5975 E Marginal Way S, Seattle ... 206 762-7050
Wis Kaiser Alum & Chem Corp, 2433 N Mayfair Rd
Wauwatosa 414 771-9180

KALART CO INC, HULTENIUS ST, PLAINVILLE
CONN, 06062 ....203 747-1663
R ZEITLER, EMP 150, ENG 10, $2,500-$5,000M

KAMAN NUCLEAR DIV KAMAN SCIENCES CORP
GARDEN OF THE GODS RD, COLORADO SPRINGS
COLO, 80907, TWX 910-920-4929 ......303 473-5880
C HAASE, EMP 400, ENG 130, $5,000-$10,000M
Ala Ridge Instr Co, 7220 Governors Dr, W
Huntsville 539-8831
Ala VESCO, Box 1369, Huntsville 205 881-8830
Cal C W Fowler Co, 9911 Inglewood Ave
Inglewood 678-5211
Cal C W Fowler Co, 845 Oak Grove Ave
Menlo Park 415 321-1810
Cal Kaman Nuclear, 1761 Balsa Ave
San Jose 408 266-5621
Colo C W Fowler Co, 1345 Spruce, Boulder.... 449-2141
Fla Ridge Instrument Co, 2227 Seely Dr
Orlando 305 293-4711
Ga Ridge Instr Co, 3094 McCully Dr NE
Atlanta 404 939-1554
Ill Corlett & Bird, 13 S Austin Blvd
Chicago 312 626-6726
Ill Contemporary Science, Box 205
Mt Prospect 312 255-3793
Md King Assoc, 10027 Clue Dr
Bethesda 301 469-7610
Mass Daner Assoc, 684 Commonwealth Ave
Newton Center 617 969-4650
Mich Electro Sales Assoc, 10745 Morang Dr, Detroit
NM C W Fowler Co, 9000 Menaul Blvd, NE
Albuquerque........................ 299-7676
NY Scientific Sys Sales Corp, 376 Great Neck Rd
Great Neck...................516 466-0053
NY D-B Assoc, 3307 Erie Blvd E
DeWitt 315 446-0220
NY Capintec Inc, 527 Madison Ave
New York 212 752-2440
Ohio Electro Sales Assoc, 335 E 200th St
Cleveland....................216 486-1140
Ohio Electro Sales Assoc, Overlook Br Box 3122
Dayton 513 426-5551
Ohio Contemporary Science, Box 797, Shaker Heights
Pa Control Instru Sales Co, 2727 Philmont Ave
Bethayres....................215 676-1808
Pa Electro Sales Assoc, 201 Penn Center Blvd
Pittsburgh...................412 371-8497
Tenn Ridge Instrument Co, 140 E Division Rd
Oak Ridge 615 483-1311
Tex Barnhill Assoc, 3810 Westheimer
Houston 621-0040

Tex Advanced Research Elctns, 406 S Yale
Garland 214 272-2502
Wash C W Fowler Co, 845 106th Ave, NE
Bellevue.......................... 206 454-8600
Can Radionics Ltd, 195 Graveline St
Montreal Que 514 631-4567
Can Radionics Ltd, 4938 Yonge St
Willowdale Tor 728-4624
Can Radionics Ltd, 376 Churchill Ave, Ottawa Ont
For Elektronik Import, Wien 1 Makartgasse 3, Austria
For Andrew Enterprises, Box 22423, Taipei Taiwan
For Soc Comercial Romar LDA, R Boavista 83-1-D
Lisbon Port
For Henley & Co, 202 E 44th St, New York N Y
For O Kocak, Kizilay Soyseal Han Kat 2 No 15
Yenisihir Ankara Turkey
Fr Le Groupe Scientifique, 114 Ave du Pres Wilson
La Plaine St Denis .... Paris
Ger Wenzel Elektronik, 8 Munchen 27, Lamonstr 32
GB Plessey Co, Sopers La Poole Dorset, England
Ital D I S I Nuclear Corp, Viale Lunigiana 40, Milano
Jap American Commercial Inc, 212 Fifth Ave
New York N Y
Nor C Grindvold A/S, 16 Tidemandsgt, Oslo
SAfr Plessey S A Pty Ltd, 52 Stiemens St
Braamfontein Johannesburg
Arg Tecniatomic S R L, Zufriategui 3297, Vicente Lopez
Arg Nuclear S R L, Avda J B Justo 7162
Buenos Aires 7 Arg
Belg B I R N, 1026 Chaussee de Louvain, Bruxelles 14
Gr Marios Dalleggio Reps, 2 Alopekis St, Athens 139
Ind Electronic Equip Corp, 8-B Lallbazar St, Calcutta 1
Isrl Eastronics Ltd, 75 Haifa Rd, Tel Aviv
Aust Consolidated Nucleonics Pty Ltd, 813 Dowling St
Waterloo NSW

KAMAYA ELECTRIC CO LTD
2-1-3 SHINBASHI MINATO-KU, TOKYO
JAPAN 501 8701
T ARAI, EMP 980, ENG 105, $5,000-$10,000M

KAMECO LTD, 1080 PORT ROYAL ST W, MONTREAL
QUE 514 331-6100
L WALCH, EMP 20, ENG 3, $500-$1,000M
Can Claude Desgagnes, 2095 Bardy 2
Quebec............................ 418 661-2728
BC A M Crawford Ltd, 850 W Hastings
Vancouver 604 684-4357

KANO LABS, INC, 1000 THOMPSON LA, NASHVILLE
TENN, 37211.............................. 833-4101
C MONTGOMERY, EMP 10, ENG 2

KANTHAL CORP, WOOSTER ST, BETHEL
CONN, 06801 .... 203 744-1440
R BOSSA, EMP 108, ENG 3
Ariz W E Sanderson & Assoc, 5045 N 12th St
Phoenix 277-0077
Cal Montgomery Bros, 1831 Bayshore Hwy
Burlingame 697-6500
Cal Fred Alleman Co, 1625 Blake Ave
Los Angeles............................ 222-8128
Colo R G Davis Co, Box 12004, Denver ...... HA 2-6313
Conn Eisenbeis Sales Co, Box 207 Glenville Sta
Greenwich 203 869-2008
Fla J J Galleher Co, 617 A Cleveland St
Clearwater............................. 446-7706
Ill Kanthal Corp, 5151 N Harlem Ave
Chicago 774-2240
Minn Caco Inc, Box 517, Lakeville 469-2171
NY Dana-Beach Co, 101 Park Ave
New York.............................. 685-1776
NY Thomas Ferguson, Box 3893, Rochester ... 482-7757
Ohio Kanthal Corp, Box 4645, Tri-Village Sta
Columbus.............................. 875-7874
Ore Montgomery Bros, 1632 NW Johnson St
Portland 223-4197
Pa George A Shelps, Box 254, Glenside 885-0800
Pa William M Orr Co, N Braddock at Thomas Blvd
Pittsburgh........................... CH 2-3000
Tenn Peirson-Deakins & McGinness
3806 Tennessee Ave, Chattanooga...... 266-6321
Tex Techno Assoc, 2324 Shore Crest Dr
Dallas.............................. FL 7-9213
Wash Montgomery Bros, 911 Western Ave
Seattle .... MA 4-7297

KAPITOL MAGNETIC CORP, 2241 N KNOX AVE
CHICAGO, ILL, 60639 342-8500
C NOVY, EMP 100, ENG 4, $1,000-$2,500M
Cal Peak Sales Co, 5451 Ryland Ave
Temple City 213 285-2518
Ill Art Stein & Co, 6530 N Christiana
Lincolnwood 312 679-2799
Mass Harmon Assoc, 251 Harvard St
Brookline 617 232-6687
NJ J N Barrett Assoc, 812 Federal St
Camden 215 627-0149

KAPPA NETWORKS INC, 165 ROOSEVELT AVE, CARTERET
N J, 07008................................ 201 541-4226
B RASHKOW, EMP 50, ENG 6, $500-$1,000M
ADV PG 252, 302
Ala Frank C Nickerson Co, Box 1463
Huntsville 204 881-9565
Ariz Luscombe Engrg Co, 3130 N 3rd Ave
Phoenix 602 274-1542
Cal Luscombe Engrg Co, 220 E 3rd Ave
San Mateo......................... 415 342-7057
Cal Luscombe Engrg Co, 610 S Arroyo Pkwy
Pasadena 213 684-2000

Colo Engineering Research Assoc, 231 Detroit St
Denver 303 377-8306
Conn Colavecchio & Co, 14 Daffodil La
Cos Cob 203 869-8409
Conn Forsberg Sales, 22 Broadway
North Haven 203 239-5111
Fla Frank C Nickerson Co, Box 13126
Tampa 813 833-4321
Ga Frank C Nickerson Co, 1244 Clairmont Ave
Decatur........................... 404 377-1575
Ill Engineered Sales Co, 4736 N Harlem Ave
Chicago 312 867-3434
Ind Menze Sales Inc, 6010 Lower Huntington Rd
Ft Wayne 219 747-5616
Kan Impala Inc, 6917 W 76th St
Overland Park 913 648-6901
Md Be-Mar Assoc, 120 Derwood Cir
Rockville 301 534-1004
Mass Forsberg Sales, 646 Summer St
Brockton.......................... 617 522-6300
Mo Impala Inc, 47 Vlg Sq Shop Ctr
Hazelwood......................... 314 831-5454
NY Reagan Electronics, 419 Central Ave
Albany 518 436-9649
NY Reagan Electronics, 52 Cresmont Rd
Binghamton 607 723-9661
NY Reagan Electronics, 327 Westmoreland Rd
Buffalo 716 632-2727
Ohio John Olsen Co, 5539 Stokeswood Ct
Cincinnati............................ 922-2176
Ohio John Olsen & Co, 16201 Shaker Blvd
Cleveland............................. 752-5444
Pa Be-Mar Assoc, 7217 Rising Sun Ave
Philadelphia 215 728-6333
Pa John Olsen & Co, 104 Elatan Dr
Pittsburgh........................ 412 279-2550
Tex Charles Hoffman Assoc, 777 S Central Expwy
Richardson...................... 214 PA 2-4754
Utah Engineering Research Assoc, 2250 E 17th S
Salt Lake City 801 485-9253
Va Be-Mar Assoc, Box 556
Falls Church...................... 301 763-8880
For W van't WOUT, Box 1122, Rotterdam
Holl Unioffice, Box 1122, Rotterdam

KAPPA SCIENTIFIC CORP, 5780 THORNWOOD DR
GOLETA, CAL, 93017................ 805 967-2396
P MATTHEWS, EMP 4, ENG 2, $100-$250M
Conn Northeast Assoc, 516 Pepper Ridge Rd
Stamford 203 329-0012
Ill Brooks Engrg Co, 227 E Walton Pl
Chicago 944-1227
Mass Northeast Assoc, Box 31, Marblehead 631-3688
NY Photo-Electro Instr Co, 116-55 Queens Blvd
Forest Hills 212-544-9038
GB Auriema Ltd, 23/31 King St, London W3

KARG LABS INC, 162 ELY AVE, SOUTH NORWALK
CONN, 06856 .... 203 866-3200
L KARG, EMP 17, ENG 3, $250-$500M

KARKAR ELECTRONICS INC, 245 ELEVENTH ST
SAN FRANCISCO, CAL, 94103.......... 415 552-1247
H REYNOLDS, EMP 60, ENG 8, $1,000-$2,500M

KARLSON RESEARCH & MFG DIV KRC CORP
388 PENINSULA BLVD, HEMPSTEAD
NY, 11550 .... 516 489-3641
A KARLSON, EMP 4, ENG 1
Colo Gordon Moss Electronics, Box J
Greeley........................... 303 353-4452
Haw Max Kelly Assoc, 1107 Fort St, Honolulu .. 562-430
Ohio H Farnsworth, 240 Sherwood Dr
Lexington 884-1893
Tex Chester Butt, Box 18045, Houston ...... JA 6-3101

KARTRON, BOX 472, HUNTINGTON BEACH
CAL, 92648 .... 714 534-1161
EMP 5, ENG 2

KATO ENGINEERING CO, 1415 FIRST AVE, MANKATO
MINN, 56002 .... 612 388-2941
M MADSEN, EMP 350, ENG 12, $2,500-$5,000M
Cal R T Puelicher, 901 Laguna Rd
Pasadena 213 682-3050
Cal H Wells & Assoc, 819 A St
San Rafael........................ 415 454-5730
Cal Harold Wells Assoc, 835 Doverton Sq
Mountain View 415 961-7894
Ga James H Chambers Co, 1514 Kingsdown Cir
Dunwoody 404 457-9055
Ill Coren-Waters & Assoc, 242 E Irving Park Rd
Wood Dale......................... 312 595-0050
Mass Roswell Engrg Co, 955 Plain St
Marshfield 617 834-8632
Minn Engineering Products, 2119 Grand Ave
St Paul........................... 612 698-5531
NY Greer Technical Sales Inc, 1123 Douglas Pl
Seaford........................... 516 785-6919
Tex Gen Power & Equip Co Inc, 6770 Twin Hills
Dallas............................ 214 368-4655
Tex Gen Power & Equip Co Inc, 4507 San Jacinto
Houston 713 524-7133
Wis Arthur Engr Sales, 10720 W Scharles Ave
Hales Corners 414 425-5919
Can C L Thompson, 1440 Erin St
Winnipeg Man...................... 204 783-0848
BC Charles L Thompson Ltd, 3115 Lonsdale Ave
N Vancouver 604 987-9388

KAVLICO ELECTRONICS INC, 20869 PLUMMER ST
CHATSWORTH, CAL, 91311.................. 213 882-2400
S KENNON, EMP 65, ENG 6, $1,000-$2,500M
ADV PG 724
Mass John J Goode Assoc, 44 Ledgewood Rd
Weston................................. 235-3900
Fr Technitron, 55 Rue Pierre Charron, Paris, 8e

KAWECKI CHEMICAL CO, 220 E 42ND ST, NEW YORK
N Y, 10017, TWX 1-26332 .... 212 682-7143
A ASCH, EMP 702, OVER $10,000M
Cal Kawecki Chemical Co, 1500 Service Ave
W Covina............................... 962-3568
Ga Kawecki Chemical Co, Box 218
Decatur................................ 378-8406
Ill Kawecki Chemical Co, 2590 E Devon Ave
Des Plaines............................ 299-3371
Mass Metalonics Corp, 40 W 3rd St, Boston 268-4450
NJ Duramic Products, Inc, 426 Commercial Ave
Palisades Park 947-0310
Ohio Kawecki Chemical Co, Box 391
Twinsburg 425-2980
GB Kawecki-Billiton (UK) Ltd, 165 Kings Rd
Reading Berks
Holl Kawecki-Billiton Metaalindustrie, Box 38, Arnhem

KAYDON ENGINEERING CORP, MUSKEGON
MICH, 49443, TWX 616-726-4670 ...... 616 755-3741
R BLAIS, EMP 600, ENG 30, OVER $10,000M

KAYE & CO INC, JOSEPH, 737 CONCORD AVE
CAMBRIDGE, MASS, 02138............ 617 868-7080
T CORSINI JR, EMP 35, ENG 16, $250-$500M
DC SONCO, 5520 Montgomery La
Washington 654-5226
NJ SONCO, Crystal Brook Prof. Bldg
Eatontown 239-2810
NY Electronic Equipment Eng, 3351 Park Ave
Oceanside 764-3745
Pa SONCO, 556 W De Kalb Pike
King of Prussia 265-3250
Pa SONCO, Park Pl Off Bldg, Camp Hill..... 761-0577

KAY ELECTRIC CO, MAPLE AVE, PINE BROOK
N J, 07058, TWX 710-734-4347 .... 201 227-2000
I SILBERG, EMP 140, ENG 6, $1,000-$2,500M
Cal Kay Electric Co, Box 206, Goleta 967-9316
Ga Murphy & Cota, 586 Armor Cir NE
Atlanta................................ 875-2525
Ind Kay Electric Co, Box 2563, South Bend ... 272-2848
Mass Broger Instrument Sales, 176 2nd Ave
Waltham .... TW 1-8045
Mo Engineering Services Co, 6717 Vernon Ave
St Louis .... PA 6-2233
NY SBM Assoc Inc, 1700 University Ave
Rochester........................... BR 1-7430

KAYNAR MFG CO INC, BOX 3001, FULLERTON
CAL, 92634, TWX 910-592-1239........ 714 871-1550
H HATFIELD

KAY-TOWNES ANTENNA CO, BOX 593, ROME
GA, 30161 .... 404 234-2631
J KAY, EMP 100, ENG 3

KCK CO LTD, 16-1, 5-CHOME, TAKINOGAWA, KITA-KU
TOKYO, JAPAN, TWX 25-4247 984-3521
T OGINO, EMP 1000, ENG 80, $2,500-$5,000M
Ill K C K Co Ltd, 528 W Wellington Ave
Chicago 312 327-8392
Jap KCK Co Ltd, 4,3 Nihonbashi, Naniwako
Osaka.................................. 641-2530

KDI PRECISION PRODS DIV KDI CORP
BEECH & KENILWORTH STS, CINCINNATI
OHIO, 45212, TWX 810-464-8173 ...... 513 351-3040
D FERONE, EMP 800, ENG 60
Ariz E J Foley & Assoc, 3840 N Jukake Dr
Scottsdale 602-946-3578
Cal KDI, 6850 Van Nuys Blvd
Van Nuys 213 989-3970
DC D Chadwick, 75th & L, N W
Washington 659-2466
Mo Fenco Engrg Co, 8003 Forsyth
Clayton........................... 314 863-0231
NJ Talbe Co, 19 Sylvan Ave
Englewood Cliffs....................... 947-5038

KEDMAN CO, 762 S REDWOOD RD, SALT LAKE CITY
UTAH, 84110 .... 801 363-4413
D MOORE, EMP 40, ENG 1, $500-$1,000M
Ala John F Russell Sales Co, Box 20092, Birmingham
Ala Paul L Thornburg, 1524 Blind Brook La, Birmingham
Cal Bob Weaver & Assoc, 2720 S San Pedro
Los Angeles
Cal Loublad-Magliano Assoc, 3370 Countryside Dr
San Mateo......................... 415 349-5861
Colo Vines & Co, Box 1025, Denver
Fla A J Dobbe, 470 N W 91st St, Miami
Ind J A Goodman, 928 Clayburn Dr, Fort Wayne
Kan Paul Schubert, Box 262, Overland Park
Kan A Passman, 10417 Outlook Dr, Overland Park
Mass C R Surprenant, 76 Haverhill St, N Reading
Minn Dick Duerre Sales Co, 5421 3rd Ave S, Minneapolis
Mo Robert Decker, 909 N Kirkwood, Kirkwood
NJ Douglas A Smith, Linden La, Chatham
Ohio Jim Chilcote Co, 2940 W Lincolnshire, Toledo
Ohio John O Olsen Co, 16201 Shaker Blvd, Cleveland
Pa Jos M Hayden, 220 Brookethorpe Cir, Broomall

SC H C Norman Sales Co, Box 5185 Sta B, Greenville
Tex C W Cortez Co, 2405 Westwood Dr, Arlington
Utah Russell Co, 2520 S State St, Salt Lake City
Wash B F Kline, 3432 Hunts Point Rd, Bellevue
Can A G & A L Brown, Box 461 Snowden, Montreal
Can Don L Tomie, 3605 Manchester Road SE, Calgary
Can Grant Assoc, Ltd, 1262 Don Mills Rd
Don Mills, Ont
For Coombs & Bicknell, Box 2579, Salisbury
For Hing Tai Co, 27A Haven St
Causeway Bay, Hong Kong
For Minni Cine Films, Box 1910, Nairobi, Kenya
Den Andersen & Nielsen, 28 Reventlowsgade
Copenhagen
Fr Univacier, 46 Bis Ave, J Juares, Paris
GB Longs Ltd, 41 Bow La, London
Jap Kodama Shoji, Ltd
No 65 Shinmochi-dori, 5-chome Nishi-Ku, Osaka
SAfr C L Konings, Box 5398, Johannesburg
Swed Lundberg & Allert, Vallgaten, Goteborg
Swit Stodel & Cie, 2 Rue du Simplon, Vevey
Belg W Stuart, 513-520 Chaussee De Boom, Antwerp
Aust Paul's (Merchants) Pty Ltd, 314 Pitt St, Sydney

KEIL ENGINEERING PRODUCTS INC
3630 SCARLET OAK BLVD, ST LOUIS
MO, 63122 .... 314 AC 55516
J KEIL, EMP 35, ENG 1, $500-$1,000M
Cal Charles Hansen, 1406 S Grand
Los Angeles .... RI 8-6191
Ill Mike Berman Sales, 8631 E Prairie Rd
Skokie .... OR 5-3740
Ind Thomas & Sukup Inc, 2060 E 54th St
Indianapolis .... CL 1-4574
Minn Clark R Gibb Co, 1311 W 25th St
Minneapolis .... FR 7-1200
Mo N W Kathrinus & Co, 2427 Brentwood
St Louis .... WO 2-5627
Pa R E Tanner, 486 Broadmoor Ave
Pittsburgh 561-4687
Tex W R Retzloff Co, 838 Steves
San Antonio .... LE 3-7839

KEINATH INSTRUMENT CO, 810 W 3RD AVE
COLUMBUS, OHIO, 43212 486-9653
A BAUMEISTER, EMP 24, ENG 6, $500-$1,000M
NJ Keinath Instrument Co, 785 Springfield Ave
Summit 201 464-6430

KEISER'S INDUSTRIES INC, LAUMAN ST
MT HOLLY SPRINGS, PA, 17065 .... 717 486-3611
R PECK, EMP 60, ENG 1, $100-$250M

KEITH CO INC, W P, 8323 LOCH LOMOND DR
PICO RIVERA, CAL, 90660 .... 213 RA 3-1375
W KEITH, EMP 25, ENG 4, $500-$1,000M
Ill Raymond Klipp AssocBox 226, Grayslake,
NJ Budd Cato Assoc, Brielle
NY Upstate Technical Equip Co, Box 202, Solvay

KEITHLEY INSTRUMENTS INC, 28775 AURORA RD
CLEVELAND, OHIO, 44139 .... (216) 248-0400
A KAPLAN, EMP 200, ENG 35, $2,500-$5,000M
Ala Murphy & Cota, 904 Bob Wallace Ave
Huntsville 539-8476
Cal Keithley Instruments Inc, 825 San Antonio Rd
Palo Alto 321-5291
Cal Keithley Instruments Inc, 15010 Ventura Blvd
Sherman Oaks 784-1159
Colo Aztec Enterprises, 3385 S Bannock St
Englewood 303 761-0101
Fla Murphy & Cota, 712 W Vassar Ave
Orlando .... GA 4-2167
Ill Keithley Instruments Inc, 6300 N Cicero Ave
Chicago 545-3690
Md Keithley Instruments Inc, 5817 Baltimore Blvd
Riverdale 301 277-5111
Mass Keithley Instruments Inc, 235 Bear Hill Rd
Waltham 891-4428
NJ Keithley Instruments Inc, 12-94 Plaza Rd
Fair Lawn 797-5440
NM Aztec Enterprises, 3203 Gandelaria Rd NE
Albuquerque 505 345-3441
NY Keithley Instruments Inc, 5858 Molloy Rd
Syracuse 454-1438
NC Murphy & Cota, 1106 Burke St
Winston-Salem .... PA 4-0750
Pa Keithley Instruments Inc, 101 E Lancaster Ave
Wayne 687-1170
Tex John A Green Co, 7118 Envoy Ct
Dallas 351-7450
Wash Aztec Enterprises, 6133 Maynard Ave S
Seattle .... Zenith 957
Can Keithley Instruments Inc, 5858 E Molloy Rd
Syracuse N Y 454-1438
For Intl Engrg Serv Dipl Ing Paul Kugler
Veitingergasse 159, A-1130 Vienna 13, Aust
For Mevag, Karakoy Bankalar Caddesi 71-73, Istanbul
For Coasin, S A, Virrey Del Pino 4071
Buenos Aires, Arg
For Industrial Electronics, Box 22423, Taipei, Taiwan
For Techtronics Corp, Alamgir Rd, Karachi-5 Pakis
For Telectra S A R L, R Rodrigo da Fonseca 103
Lisbon 1 Port
Den SC Metric A/S, Bueager 6, Vedback
Fr Ets Radiophon, 148 Ave Malakoff, Paris 16e
Ger Keithley Instruments, GmbH, Postfach 268
D-8000 Munich 49
GB Keithley Instruments Ltd, Box 43, Reading,Berks
Holl Peekel Lab Voor Electronica NV, Alblasstr 1
Rotterdam 8
Ital Mario Vianello, Via L Anelli 13, Milano
Jap Toyo Trading Co Ltd
2, 1-chome, Hongokucho, Nihonbashi
Chuo-Ku, Tokyo
Nor Morgenstierne & Co, PB ST H 2613, Oslo
SAfr Protea Phys & Nuc Instr Pty Ltd, Box 7793
Johannesburg
Swed Svenska AB Oltronix, Jamtlandsgatan 125
Vallingby .... Stockholm
Swit Keithley Instruments SA, 14 Ave Villardin
1009 Pully
Swit Seyffer & Co Inc, Badenerstr 265, 8040 Zurich
Belg Ets-Miravox, SPRL, 57 EF, Ave d'Auderghem
Brussels
Belg Belram Electronics, 83, Ave Des Mimosas, Brussels
Braz Ambriex, SA, Av Graca Aranha 226-6
Rio de Janeiro
Ind Motwane Private Ltd, 127, Mahatma Gandhi Rd
Bombay 1
Isrl Levant X Ray LTD, Box 246, Tel-Aviv
Mex Fredin SA, Aptdo 53-905, Mexico 17 D F
NZ Sample Electronics (NZ) Ltd, 8, Matipo St
Onehunga, Auckland
Spn Ataio Ingenieros, Enrique Larreta, 12, Madrid
Fin Into O/Y, 11 Meritullinkatu, Helsinki
Aust Sample Electronics (VIC) Pty Ltd, 9-11 Cremorne St
Richmond E1, Vic
Aust Sample Electronics (NSW) Pty Ltd, 82 Alexander St
Crows Nest, Sydney

KEL CORP, 778 PLEASANT ST, BELMONT
MASS, 02178 .... 617 484-8481
J JAMES JR, EMP 75, ENG 25, $1,000-$2,500M

KELEKET DIV LABORATORY FOR ELECTRONICS INC
1601 TRAPELO RD, WALTHAM
MASS, 02154 .... 617 894-6600
H KOFFMAN, EMP 125, ENG 15, OVER $10,000M
Cal Keleket, 3011 W Lomita Blvd, Torrance ... 775-6351
Cal Keleket, 2030 Wright Ave, Richmond 434-1075
DC Keleket, 226 Mass Ave NE, Washington .. 543-6272
Fla Keleket, 50 SE 8th St, Miami 377-8366
Ill Keleket, 1847 Roosevelt Rd, Broadview .. 345-5570
Mass Keleket, 50 Thayer Rd, Waltham 489-1270
Mo Keleket, 4325 Troost, Kansas City 931-1190
Neb Keleket, 3915 Cuming St, Omaha 553-8200
NJ Keleket, 13 Orient Way, Lyndhurst 685-0902
Ohio Keleket, 1843 N Reading Rd
Cincinnati 821-4776
Ohio Keleket, 795 Harmon Ave, Columbus 221-6831
Pa Keleket, 547 Commerce Dr, Yeadon 748-5615
Pa Keleket, 11604 Keleket Dr, Pittsburgh 731-6112
Tenn Keleket, 183 S Camilla St, Memphis 274-5300

KELK LTD, GEORGE, 48 LESMILL RD, DON MILLS
ONT, TWX 02-29434 .... 416 445-5850
C DRAPER, EMP 54, ENG 7, $500-$1,000M

KELLER INC, HUGO P, 41 E 42ND ST, NEW YORK
N Y, 10017, TWX 12-6856 .... 212 682-8450
F PADDEN, EMP 27, ENG 4
ADV PG [illegible]
Cal John N Madonne, 200 Trinity Ave, Berkeley
Ill A C Agazim, 575 E Glenwood Rd, Lake Forest

KELOX INDUSTRIES, 161 PRESCOTT ST, EAST BOSTON
MASS, 02128 .... 617 569-1101
P URBANUS, EMP 65, ENG 2, $1,000-$2,500M

KELTEC FLORIDA DIV AIKEN INDUSTRIES
797 N ELGIN PKWY, FT WALTON BEACH
EMP 85, ENG 16, $2,500-$5,000M
Cal Allgood Assoc, 1621 Centinela Ave
Inglewood 213 776-5820
Md VPI Assoc, 561 Dorsey Rd NW
Glen Burnie 301 768-0550
Mass Reptron Inc, 110 Great Rd, Bedford .. 617 275-8585
NY Gray & Reed, 9 Dunford St, Huntington Sta

KELTEC INDUSTRIES, ALEXANDRIA DIV
333 LINCOLNIA RD, ALEXANDRIA
VA, 22314, TWX 710 832-1154 .... 703 751-5000
G HUDDLESTON, EMP 265, ENG 60, OVER $10,000M

KELVIN, 5919 NOBLE AVE, VAN NUYS
CAL, 91401, TWX 910 495-1770 .... 213 782-6662
R FEATHERSTON, EMP 200, ENG 6, $1,000-$2,500M
Ala Components Sales , Box 899
Huntsville 205 539-6973
Cal Don Allen Co, 7969 Engineer Rd
San Diego 714 278-9250
Cal Deere Electronics, 20440 Town Ctr La
Cuppertino 257-3040
Colo Lindberg Co, 2654 S Krameria, Denver ... 757-6489
Conn Todino Engineering Sales, Box 402
Milford 874-6643
Fla Components Sales Corp, Box 9545
St Petersburg 360-7460
Fla Components Sales, Box 14523, Orlando .. 277-1510
Ill Burt Anderson & Assoc, 5969 N Elston Ave
Chicago 774-8989
Md Habco Electronics , 603 Alleghany Ave
Towson 825-9637
Mass Todino Eng Sales Inc, 50 Kearney Rd
Needham Heights .... HI 4-7925
Mich Sheridan Assoc, Box 128
Lathrup Village 313 358-3333
Minn Burt Anderson & Assoc, 4660 W 77th St
Minneapolis 922-7400
Mo Sheridan Assoc, Box 3997, St Louis 524-4800
NY E W Stone Co Inc, Pickard Bldg
Syracuse 455-6664
NY Trionic Assoc Inc, 320 Northern Blvd
Great Neck .... HN 6-2300
NC Components Sales, Box 6401, Raleigh 832-1897
Ohio J C Hofstetter Co, 742 Kenbridge Dr
Cleveland 449-0944
Pa H J Fairbanks, 420 Chichester La
Wynnewood .... MI 2-5816
Tenn Texport Co, 5104 Capen, Memphis
Tex Texport Co, 2411 Farrington St, Dallas ... ME 1-6270
Utah Peirce Bowthorpe Agency, 143 S 4th E
Salt Lake City 801-328-8173
Wash H S Thorpe Co, 11612 N E 8th St
Bellevue 454-0667
Can Kaytronics Engrg, 5800 Monkland Ave
Montreal Que 489-9335
For Microwave Intl Corp, 111 High Ridge Rd
Stamford Conn

KEMLITE LABS INC, 1819 W GRAND AVE, CHICAGO
ILL, 60622 .... 312 TA 96050
J DANIELS, EMP 65, ENG 5, $500-$1,000M

KEMTRON ELECTRON PRODUCTS INC, 14 PRINCE PL
NEWBURYPORT, MASS, 01950 .... 617 462-4464
K CALLAHAN, EMP 50, ENG 4, $250-$500M
NY Ellis Haber Corp, 2315 Broadway
New York 799-4040
For Minthorne Intl Co, 64-14 Woodside Ave
Woodside, N Y 899-8888

KENDALL CO FIBER PRODS DIV, WALPOLE
MASS, 02081, TWX 710-346-0844 ...... 617 668-0175
P DANGEL, EMP 1300, OVER $10,000M
Cal Kendall Co, 17418 Beach Blvd
Huntington Beach 382-4800
Ill Kendall Co, 222 W Adams, Chicago ..... ST 2-6867
NY Kendall Co, 111 W 40th St, New York ... LO 3-7600
Pa Kendall Co, 12 S 12th St
Philadelphia .... WA 2-1212

KENDICK MFG CO INC, 1025 GOSHEN AVE
FORT WAYNE, IND, 46808 .... 219 484-3111
K BUGG, EMP 13, ENG 2, $100-$250M

KENICS CORP, 1 SOUTHSIDE RD, DANVERS
MASS, 01923 .... 617 774-8600
G JOHNSTONE, EMP 35, ENG 3
Ariz Dow Machine Tool Co, 15 N 40th Pl
Phoenix 275-6291
Cal J Crevelt, 626 Jefferson, Redwood City ... 369-3111
Ind R W Pratt & Co, 230 E 9th St
Indianapolis .... ME 2-9884
NJ J M Thomas Co, 216 Woodlawn Ave
Merchantville 663-7650
NY ABW Agents, Inc, 815 Sibley Tower Bldg
Rochester 546-7421
Can Wilkinson Ind Sales, 34 Crockford Blvd
Scarborough, Ont
Fr J M Frankel & Co, 245 Ave Geo Clemenceau
92 Nanterre
Ger W G Fritzke, Am Werhahn 76
Duesseldorf 350581
GB Gray Dawes & Co Inc, 40 St Mary Axe, London EC3

KENMORE INDUSTRIES, INC, INDUSTRIAL PARK
LOWELL, MASS, 01951 .... 617 454-7764
S SIDMAN, EMP 250, ENG 10, $1,000-$2,500M

KENNAMETAL INC, BOX 346, LATROBE
PA, 15650 .... 412 537-3311
B BURGOON, JR, EMP 2200, ENG 75, OVER
$10,000M
Ala Kennametal Inc, 810 5th Ave N
Birmingham 205 328-4197
Ariz Kennametal Inc, 8054 E Windsor Ave
Scottsdale 602 946-9984
Cal Kennametal Inc, 333 Littlefield Ave
S San Francisco 415 583-5321
Cal Kennametal Inc, 7330 E Adams St
Paramount 213 636-3291
Colo Kennametal Inc, 2545 W 8th Ave
Denver 303 222-5788
Conn Kennametal Inc, 523 Half Way House Rd
Windsor Locks 203 623-2631
Fla Kennametal Inc, 711 N Magnolia Ave
Orlando 405 423-8037
Fla Abrasives & Tools Inc, 948 Avenue E
Riviera Beach 305 848-2531
Ga Kennametal Inc, 1001 Virginia Ave
Atlanta 404 762-8656
Haw C F Machinery Corp, 2812 Awaawaloa St
Honolulu 895-874
Ill Kennametal Inc, 2748 Wisconsin Ave
Downers Grove 312 242-2420
Ill Kennametal Inc, 2314 Barton
Rockford 815 963-3755
Ind Kennametal Inc, 3000 E Meadows Pkwy
Indianapolis 317 547-4854
La Dixie Mill Supply Co, 901 Tchoupitoulas St
New Orleans 504 525-6101
Mich Kennametal Inc, 10201 Capital Ave
Detroit 313 566-3183
Minn W P & R S Mars Co, 215 S 27th Ave
Duluth 218 722-0563
Minn Kennametal Inc, 6425 Nicollet Ave
Minneapolis 612 869-0302
Mo Kennametal Inc, Box 1081
Kansas City 816 931-5313

Mo Kennametal Inc, 287 N Lindbergh Blvd
St Louis 314 993-3755
NY Kennametal Inc, 891 Monroe Ave
Rochester 716 271-540
NY Kennametal Inc, 109 S Warren Sr
Syracuse 315 471-1221
NY Kennametal Inc, 2690 Sheridan Dr
Tonawanda 716 893-6951
NC Kennametal Inc, 3331 Cessna Rd
Charlotte 704 525-1460
Ohio Kennametal Inc, 7620 Reinhold Dr
Cincinnati 513 761-1407
Ohio Kennametal Inc, 27691 Euclid Ave
Euclid 216 261-3500
Okla Hart Industrial Supply Co, 726 W Sheridan
OKLAHOMA City 405 239-2541
Okla Hart Industrial Supply Co, 4236 S 74th E Ave
Tulsa 918 583-2175
Ore Lindsay Bros, 2480 N W Vaughn St
Portland 503 227-2619
Pa Kennametal Inc, 3615 W Ridge Rd
Erie 814 833-6561
Pa Kennametal Inc, 350 Commerce Dr
Fort Washington 215 646-7430
Pa Kennametal Inc, 330 Grant St
Pittsburgh 412 281-4543
Tenn Kennametal Inc, Box 10361
Knoxville 615 523-9598
Tenn Kennametal Inc, 2877 Cotton Way
Memphis 901 363-0514
Tex Engineering Sales Co, 5949 Armour Dr
Houston 713 926-8858
Tex Engineering Sales Co, 7255 Envoy Ct
Dallas 214 637-0310
Utah Kennametal Inc, 552 West 7th S St
Salt Lake City 801 328-8823
Wash Kennametal Inc, 619 8th Ave S
Seattle 206 622-6720
W Va Kennametal Inc, Box 2264
Huntington 304 525-8280
Wis Kennametal Inc, 2421 N Mayfair Rd
Milwaukee 414 453-3888

KENNEDY CO, 540 W WOODBURY RD, ALTADENA
CAL, 91001, TWX 910-588-3751 ...... 213 681-9314
D TAYLOR, EMP 150, ENG 14
Ala Reynolds Assoc, 904 Bob Wallace Ave
Huntsville 536-1941
Ariz Barnhill Assoc, 4900 E Indian School Rd
Phoenix 602 959-2115
Cal Ward-Davis Assoc, 770 S Arroyo Pkwy
Pasadena 213 684-2840
Cal Ward Davis Assoc, 3921 E Bayshore
Palo Alto 415-968-7116
Cal Ward Davis Assoc, 3442 Hancock St
San Diego 714 297-4619
Colo Barnhill Assoc, 1170 S Sheridan Blvd
Denver 303 934-5505
Fla Reynolds Assoc, Box 1043
Eau Gallie 305 727-3205
Fla Reynolds & Assoc, 4677 NW 1st St
Ft Lauderdale 305 581-6611
Fla Reynolds & Assoc, Box 8877
Orlando 305 424-3836
Ga Reynolds Assoc, Box 13173
Atlanta 404 876-0652
Ga Reynolds & Assoc, Box 13173 Sta K
Atlanta 404 876-0652
Ill Carter Electronics Inc, 7203 S Western Ave
Chicago 312 776-1601
Ind Carter Electronics; 6333 Hollister Dr
Indianapolis 317 293-0696
Md Electronic Mktg Assoc, 11501 Huff Ct
Kensington 301 946-0300
Mass J & J Assoc Inc, 225 Crescent St
Waltham 617 899-0160
Mich S Sterling Co, 21250 10 Mile Rd
Southfield 313 357-3700
Mo S Sterling Co, 11734 Lackland Ind Dr
St Louis 314 542-3636
Mont Carter Electronics, 2401 W 66th St
Minneapolis 612 869-3261
NJ Brogan Assoc, 780 N River View Dr
Totowa 201 256-0174
NM Barnhill Assoc, 6101 Anderson St SE
Albuquerque 505 265-7766
NY Brogan Assoc, 80 Urban Ave
Westbury 516 333-6683
NY Brogan Assoc, 474 Thurston Rd
Rochester 716 538-4754
NY Machine & Products Co, 52 Wall St
New York 944-4370
NY Brogan Assoc, 202 Arterial Rd
Syracuse 315 437-2988
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland 216 442-8080
Ohio S Sterling Co, 2673 Culver Ave
Dayton 513 298-7573
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh 412 884-5515
Pa Electronic Marketing Assoc, 210 Goddard Blvd
King of Prussia 215 265-1600
Tex Barnhill Assoc, 3810 Westheimer
Houston 713 621-0040
Tex Barnhill Assoc, 507B Bishop St
Richardson 214 231-2573
Tex Barnhill Assoc, Box 26547, El Paso
Wash Showalter-Judd Inc, 1806 S Bush Pl
Seattle 206 324-7911
Can Allan Crawford Assoc Ltd, 65 Martin Ross Ave
Downsview, Ont 416 636-4910
Can Allan Crawford Assoc Ltd, 367 Churchill Ave
Ottawa, Ont 613 725-1288
Can Allan Crawford Assoc Ltd, 6999 Cote des Neige
Montreal, P Q 514 729-6776

KENT CORP, 169 LAKE ST, MUNDELEIN
ILL, 60060, TWX 910-685-4322 ...... 312 566-1300
C CHUN
Cal Lamcor Sales, 2025 E Orangewood Ave, Anaheim
Ill J Boyle, 6132 N Northwest Hwy, Chicago
Ind The Southern Sales Co, 105 Lake Shore Dr, Angola
Mass Rob Gray, Inc, 572 Washington St, Wellesley
Mich Rob Wells, 22320 O'Conner St, St. Clair Shore
Minn Clark R Gibb, 1311 W 25th St, Minneapolis
NY B H Tollefson ASSOC Inc, 11 State St, Pittsford
NY Cooper-Simon & Co, Inc, 7 W Broad St, Mt Vernon
NC Bill Henry Assoc, Box 6115, Charlotte
Ohio John F Torrence & Assoc, Box 5623, Columbus
Ohio D Ransdell, 550 W Townville Cir, Mansfield
Pa C H Newson & Assoc, 627 Bethlehem Pike, Phila
Pa Love-Haile Co, 1280 Ridge Ave, Pittsburgh
Tex Jack McKinney Sales Co, 1303 Chemical St, Dallas
Wis Robt Gray, Inc, 7824 Luschar St, Milwaukee

KENTON ENGINEERING CORP, 8232 CHRISTIANA AVE, SKOKIE
ILL, 60076 ...... 312 677-8280
E ROBERTS, EMP 30, ENG 6, $250-$500M
ADV PG 563

KENTUCKY ELECTRONICS INC, 2208 W 2ND ST, OWENSBORO
KY, 42301 ...... 502 684-0431
P GAHR, EMP 420, ENG 14, $5,000-$10,000M
ADV PG 767

KENWOOD MFG CO, INC, 1601 W EDGAR RD, LINDEN
N J, 07036 ...... 201 925-5070
B ANDERSON, EMP 12, ENG 1, $100-$250M
Ala John F Russell Sales Co
3040 Whispering Pines Cir
Birmingham 822-2196
Fla John F Thompson Co, 322 Riverside Dr
Ormond Bch 677-2298
Ind Midland Sales Co, 146 E 44th St
Indianapolis 283-1614
Kan Bill Harvey Sales Co, Box 3987 Rosedale Sta
Kansas City 816 252-1842
Mass Bud Ente Sales Co, 64 Mandalay Rd
Newton Center 617 244-4842
NY Dave Kubrick Co, 456 S Franklin St
Hempstead 516 483-7230
NY L J McTaggart Assoc, 2451 Wehrle Dr
Buffalo 716 634-2030
NC DeWitt Austin Co, Box 3186, Charlotte
Ohio Gerald W Perry Co, 5905 San Reno Dr
Sylvania 882-3373
Ohio Robert W Peters Co, 25000 Euclid Ave
Cleveland 261-2330
Tex C C S Butt, Box 18045, Houston 526-3101
Va J F Anderson Co, 8304 Harland Dr
Springfield 703 451-7336

KENYON ELECTRONICS INC, 1057 SUMMIT AVE
JERSEY CITY
N J, 07307, TWX 710-730-5365 ...... 201 656-1100
G CHRISTOPHER, EMP 200, ENG 7, $2,500-$5,000M
Conn H Lavin Assoc Inc, 1257 Old Colony Rd
Meriden ...... BE 7-5527
Kan H C Heyde Co, 9221 Wenonga Rd
Leawood ...... MI 9-8628
Mass H Lavin Assoc Inc, 52 Pickering St
Needham ...... HI 4-3446
Ore Van Voorhees ssoc, 4415 NE Sandy Blvd
Portland 287-6633
Pa Trymac Co, 201 Penn Center Blvd
Pittsburgh 823-8400
Pa Lewis Slubin & Co, 2305 Fairmount Ave
Philadelphia ...... CE 6-2072
Tex Parvin Sales Co, Box 307, Addison ...... EM 3-8596
Can Electrodesign Ltd, 9124 St Lawrence Blvd
Montreal, Que 389-5914

KEPCO INC, 131-38 SANFORD AVE, FLUSHING
N Y, 11352, TWX 710-583-2631 ...... 212 461-7000
M KUPFERBERG, EMP 200
ADV PG 38, 501, 508-513, 539, 540, 542, 543, 550, 551, 552
1206, **4TH COVER**
Ala James L Highsmith Co, 3322 S Memorial Dr
Huntsville 881-3294
Ariz V T Rupp Co, 5901 W Highland Ave
Phoenix 266-4233
Cal V T Rupp Co, 307 Parkman Ave
Los Angeles 387-8224
Cal V T Rupp Co, 1182 Los Altos Ave
Los Altos 948-1483
Conn Ray Perron Co, 36 Louis St, Trumbull 268-9631
Conn R Perron & Co, Inc, 10 Briarwood Rd
Farmington 673-4825
DC Eastern Instrumentation Inc, 2600 Virginia Ave NW
Washington 333-8880
Fla James L Highsmith & Co, Box 7835, Orlando
Ill Midwest Electronic Sales, 5707 W Division St
Chicago 626-0030
Ind Midwest Electronic Sales, 5462 E 40th St
Indianapolis 547-3259
Iowa Midwest Electronic Sales, 2042 Franklin Ave NE
Cedar Rapids 362-4410
Kan N W Kathrinus & Co, 2336 S Boeke St
Kansas City 236-4108
Md Eastern Instrumentation Inc, 1002 Ingleside Ave
Baltimore 744-3675
Mass Ray Perron & Co, 1870 Center St
Boston 323-1008
Mich Satullo Co, 4514 N Woodward Ave
Royal Oak 549-3910
Minn E C Electronic Sales, 10108 Abbott Ave S
Minneapolis 888-4626
Mo N W Kathrinus & Co, 2427 Brentwood Blvd
St Louis 962-5627

TM

Power
Supply
Users

HOW WOULD YOU:

- ... Evaluate the effects of environmental change on a regulated current?
- ... Program a voltage inversely?
- ... Control very small currents ?
- ... Measure dynamic output impedance?
- ... Provide variable voltage limiting?
- ... Connect a feedback signal to a power supply from a temperature sensor? ... From a photo electric cell?
- ... Determine programming speed?
- ... Calculate the effect of duty cycle loading?
- ... Convert a source to a sink?
- ... Make a voltage corrector?
- ... Determine the effect of offset voltage and offset current on a power supply's output?
- ... Write the operational equation that controls feedback power supply behavior?

These are the kinds of questions answered by the 160 page *Power Supply Handbook* published by Kepco, Inc.

This book, now in its fourth printing, takes a close look at the complexities of regulated power supplies and describes their behavior and characteristics in clear, consistent terms using readily understood, simple mathematics and profuse illustrations.

Of course, if you have a power supply project in mind, we'll be glad to discuss it with you personally.

POWER SUPPLY HANDBOOK
KEPCO

For your personal copy of this handy Handbook, write on your company letterhead to:

kepco ®

Dept. BG-1
G.P.O. BOX 67
FLUSHING, N.Y. 11352

NH Ray Perron & Co, 19 Caron Rd
Manchester, Conn 472-3030
NM C Schmidt Sales, 9611 Acoma Rd SE
Albuquerque 298-2415
NY Eastern Instrumentation Inc, 300 Northern Blvd
Great Neck 466-9505
NY Naco Electronics Corp, 119 Luther Ave
Liverpool 474-7481
NC James L Highsmith & Co, Box 9367
Charlotte 333-7743
Ohio Satullo Co, 16801 Euclid Ave
Cleveland 186-2800
Ohio Satullo Co, 2801 Far Hills Ave, Dayton ... 293-7061
Pa Eastern Instrumentation Inc, 613 Cheltenham Ave
Philadelphia 927-6269
Tex Airep Electronics, Inc, 6300 N Central Expwy
Dallas 363-5291
Tex Airep Engineering Co, 4901 Richmond Ave
Houston 621-0955
Tex Airep Eng Co, 6936 San Pedro
San Antonio 828-1488
Va James L Highsmith & Co, Box 9225
Richmond 266-2060
Va Eastern Instrumentation Inc, Ross Bldg
Richmond 644-6622
Wash H Levinson Co, 1211 E Denny Way
Seattle 323-5100
Wis Midwest Electronic Sales, 1317 Garfield Ave
Waukesha 542-5129
Can Atlas Instrument Corp, 50 Wingold Ave
Toronto 781-6174
For Ad Auriema Inc, 85 Broad St
New York N Y .... BO 9-7750
Fr Ad Auriema-France SARL, 90-98 Blvd Victor-Hugo
Clichy 92 .... 270 82-75
Ger Ad Auriema GmbH, Uhdestr 33
7100 Heilbronn-Sontheim
GB Ad Auriema Ltd, 23-31 King St
London W3 01-992-5388
Ital Ad Auriema Inc, Via L Cagnola
1/3 Milan 384-634
Mex Electro Industrias Cicesa SA, Aptdo 8-952
Mexico 8 DF 15-27-07
Neth Ad Auriema, Europe, SA, 172A Rue Brogniez
Brussels 22-28-35

KEPRO CIRCUIT SYSTEMS INC
3630 SCARLET OAK BLVD, ST LOUIS
MO, 63122 .... 314 AC 5-5516
J KEIL, EMP 14, ENG 1, $250-$500M
Cal Charles Hansen, 1406 S Grand Ave
Los Angeles .... RI 8-6191
Ill M Bermann Sales, 8631 E Praire Rd
Skokie .... OR 5-3740
Ind Thomas & Sukup Inc, 2060 E 54th
Indianapolis .... CL 1-4574
Minn Clark R Gibb Co, 1311 W 25th St
Minneapolis .... FR 7-1200
Mo N W Kathrinus & Co, 2427 Brentwood
St Louis .... WO 2-5627
Pa R E Tanner, 486 Broadmoor Ave
Pittsburgh 561-4687
Tex W R Retzloff, 838 Steves Ave
San Antonio .... LE 3-7839

KERRCO INC, BOX 29178, LINCOLN
NEBR, 68529 434-6364
R KERR, EMP 50

KESSLER CO, INC, FRANK, 41-45 47TH ST
LONG ISLAND CITY, N Y, 11104 .... 212 ST 4-0263
F KESSLER, EMP 25, $100-$250M

KESSLER-ELLIS PRODUCTS CO, 46 CENTER AVE
ATLANTIC HIGHLANDS, N J, 07716 ..... 201 291-0500
P SHINE, EMP 20, ENG 2, $250-$500M
Cal W E Starr & Co, 5440 Pomona Blvd
Los Angeles 685-5760
Cal Control Devices Pacific, 1485 Bay Shore Blvd
San Francisco 467-2270
Colo Palmer Assoc, 1050 Yuma St
Denver 303 255-9961
Fla Scott Assoc, Box 20341, Orlando 305 841-4840
Ill Lincoln-Hodges & Assoc, 5875 N Lincoln Ave
Chicago 561-8440
Ind F E Sedlack Co, 2511 E 46th St
Indianapolis .... 317 LI 5-1141
Md Globe Assoc, 8121 Georgia Ave
Silver Spring 587-0060
Mass Gilway Sales Co, Box 584
Newburyport 465-7568
Mich D Poulin Co, 17222 E Warren Ave
Detroit 886-4990
Minn R J Sales & Engineering, 7100 S France Ave
Minneapolis 922-1425
NY Bassin Technical Sales, 43 Bronx River Rd
Yonkers .... Be 7-0173
NY Lee Garner & Assoc, Box 56, Liverpool .. OL 2-7911
Ohio Ken Dimond Co, 2649 Erie Ave
Cincinnati 871-1305
Ohio Edw E Bock & Assoc, 18838 Canyon Rd
Cleveland 331-5212
Pa W Reeves & Assoc, 2973 N Providence Rd
Media .... 215 LO 6-6709
Wash C B Parsons, 5319 4th Ave, Seattle 762-7373
Can Power Service Prods, Box 184
Islington, Ont 239-2977
Ger Amtraco, 851 Furth (Bay)
Im Weller 15 0911-777578

KESTER SOLDER CO, 4201 WRIGHTWOOD AVE
CHICAGO, ILL, 60639 .... 312 235-1601
F KAISER
Cal Kester Solder Co, 1730 N Orangethorpe Pk
Anaheim 714 871-0280
NJ Kester Solder Co, 88 Ferguson
Newark 201 642-0246
Can Kester Solder Co, 1 Prince Charles Rd
Brantford, Ont 519 753-3425

KESTLER ELECTRONICS, 4226 ARICA AVE, ROSEMEAD
CAL, 91770 .... 213 286-2739
R KESTLER, EMP 2, ENG 1, UP TO $100M

KEUFFEL & ESSER CO, 300 ADAMS ST, HOBOKEN
N J, 07030, TWX 1-2291 .... 201 659-1100
M BULL, EMP 2700, OVER $10,000M
Cal K & E Co, 1327 S Olive St
Los Angeles 747-7601
Cal K & E Co, 2675 Folsom St
San Francisco 282-8309
Colo K & E Co, 145 Yuma St, Denver 733-2451
Fla K & E Co, 1012 Sligh Blvd, Orlando 423-1641
Ill K & E Co, 500 Central Ave, Northfield 273-5700
Ill K & E Co, 720 Broadway, Rockford 965-8706
Kan K & E Co, 139 N Topeka Ave, Wichita 265-8505
Md K & E Co, Hirshberg Div, 214 W Franklin St
Baltimore 727-5290
Mich K & E Co, 5535 Woodward Ave, Detroit .. 833-7300
Mo K & E Co, 1728 Broadway, Kansas City ... 842-9077
Mo K & E Co, 4931 Daggett Ave, St Louis ... 773-8500
NY K & E Co, 15 Park Row, New York 349-2400
NY K & E Co, 60 E 42nd St, New York 687-6510
Ohio K & E Co, 3015 Sylvania Ave, Toledo 475-3427
Ohio K & E Co, 319 E Market St, Akron 762-8683
Ohio K & E Co, 1608 E 23rd St, Cleveland 241-7807
Pa K & E Co, 904 Chestnut St
Philadelphia 923-2815
Tex K & E Co, 2211 Pacific Ave, Dallas 742-8084
Tex K & E Co, 1701 Walker Ave, Houston 227-6231
Tex K & E Co, 814 S McCullough Ave
San Antonio 233-3811
Wash K & E Co, 2701 Second Ave, Seattle 623-5535
Wis K & E Co, 3901 N 35th St, Milwaukee ... 444-1890
Can K & E of Can, Ltd, 15 Civic Rd at Golden Mile
Scarborough, Ont 421-1640
Can K & E of Can, Ltd, 475 A Bronson
Ottawa, Ont 232-1625
Can K & E of Can, Ltd, 130 Montee de Liesse
Montreal, P Q 631-9072
For K & E Co, Box 436, Anchorage, Alaska ... 322-4751

KEWAUNEE SCIENTIFIC EQUIPMENT, LOGAN ST
ADRIAN, MICH, 49221 .... 313 263-5731
J PEAY, EMP 100, ENG 9, $1,000-$2,500M
Cal Hasco, 1843 Lincoln Blvd
Santa Monica 394-1128
Cal Erik Herschend, 24 California St
San Francisco 362-6256
Conn Northeast Assoc, Inc, Box 1242
Stamford 323-3814
Fla Harold F Hill, 6221 E Hoffner Ave
Orlando .... CR 7-2267
Ind J C Wiersma, 4165 Millerville Rd
Indianapolis 317 545-4083
Mass Northeast Assoc, Box 31
Marblehead 617 595-1000
Mo T P McCarthy, Box AB, St Louis 314 725-3464
NJ Celtech, Box 462, Haddonfield 609 428-5060
NM D G Whiting, 1009 San Mateo Blvd S E
Albuquerque 255-3833
NY A&E, Electronic Prod Equip, Drawer B
Pittsford 586-6020
Pa Glenn I Moran, 201 N Craig
Pittsburgh .... MU 2-1651
Wash Glenn Goddard, Inc, 4158 California Ave
Seattle 206 937-1717

KEYES FIBRE CO, 420 LEXINGTON AVE, NEW YORK
N Y 212 686-3790

KEYMOX INC, 10245 PARISE DR, WHITTIER
CAL, 90604 .... 213 944-5480
R KEYS, EMP 10, ENG 3, UP TO $100M

KEYSTONE CARBON CO THERMISTOR DIV, ST MARYS
PA, 15857, TWX 510-693-4510 .... 814 834-1591
J BROCK, EMP 950, ENG 20

KEYSTONE ELECTRONICS CORP, 49 BLEEKER ST, NEW YORK
N Y, 10012 .... 212 475-4600
F ARROYO, EMP 28, ENG 2
ADV PG [illegible]
Ala J F Russell Sales Co, Box 20092
Birmingham 822-2196
Alas W P Watson Enter, 307 1/2 Glazier Ave W
Fairbanks
Cal R Del Bucchia Assoc, 15 Southgate Ave, Daly City
Cal Feldman-Roberts Assocs, 9724 Washington Blvd
Culver City
Fla J J Smith Assoc, Box 416, Winter Park
Ill M L Friedman Co, 4751 N Rockwell Ave, Chicago
Ind Blind & Assocs, 1635 N Gent Ave, Indianapolis
Kan Penzner Assoc, Box 4362, Overland Park
La Scott Ormsby Sales, 230 20th St, New Orleans
Md HABCO Elctns, 603 Alleghany Ave, Towson
Mass Conti-Younger Assoc, 195 West St, Waltham
Mich L Zaffina Co, 15620 Juliana, East Detroit
Minn Countryman & Wagner Co, 1955 University Ave
St Paul
NY Mars Electronics, 82-06 Grand Ave, Elmhurst
NY D Hurley, Box 26, Pittsford
Ohio R W Peters Co, 25000 Euclid Ave, Cleveland
SC H C Norman Sls Co, Box 5185 Sta B, Greenville
Tex M Loss Co, 7919 Royal La, Dallas
Utah Arrowhead Sales, 1966 West 6255, Salt Lake City
Wash R K Squibb Inc, 655 NE Northlake Pl, Seattle
Can Ampel Elect, 489 Champagne Dr, Downsview Ont

KEYSTONE MFG CO DIV AVIS INDUSTRIAL CORP
23328 SHERWOOD RD, WARREN
MICH, 48091 .... 313 SL 7-4400
L CROWLEY, EMP 75, ENG 3
Ala Glenn Assoc, 1034 S 23rd St
Birmingham 205 328-5876
Ariz John Allen Ware & Assoc, 1400 N 32nd St
Phoenix 602 273-7309
Cal C A Peterson Co, 607 North Ave 64
Los Angeles 213 254-6711
Cal Fred Benz Co, 162 W Harris Ave
S San Francisco 415 588-2125
Cal Calhoun & Poxon Co, 5330 Alhambra Ave
Los Angeles .... 213 CA 5-2328
Colo Tepe Assoc, 845 Navajo St
Denver 303 623-3294
Fla Glenn Assoc, 4711 SW 8th St
Miami 305 446-6406
Ga Glenn Assoc, 172 Simpson St NW
Atlanta .... 404 JA 2-4906
Ill Weinstein & White,Inc, 1334-40 W Fulton St
Chicago .... 312 CH 3-1155
Ind William E Jobes, 1010 E 86th St
Indianapolis 317 846-0390
Kan Don Hatfield Sales Co Inc, Box 1371
Kansas City .... 913 AT 1-0533
La Associated Mfgs Agents, 601 S Peters St
New Orleans 504 522-6287
Md A D Wilson Co, 508 St Paul St
Baltimore .... 301 SA 7-1424
Mass H E Hudson Co, 80 K St
S Boston .... 617 AN 8-2424
Mich Linder Assoc, 24454 Telegraph Rd
Southfield 313 353-4334
Minn J B Murphy & Assoc, 2018 W 78th St
Minneapolis 612 866-2404
Mo Arnold Haumesser Co, 6378 Delmar
St Louis 314 727-4955
Neb Ed T Taber & Sons, 3240 S 31st St
Lincoln .... 402 GA 3-4420
NY E J Haines & Son, 322 Vine St
Syracuse .... 315 GR 4-8508
NY A C Shultz Co, 2095 Kensington Ave
Buffalo 716 839-1010
NC Wilson P Byrd, 1920 Sullivan St
Greensboro .... 919 BR 3-5932
Ohio Lusty-Thomson Co, 2400 W Superior Viaduct
Cleveland .... 216 MA 1-6900
Ohio Hasselbach & Assoc Inc, 1243 Tennesee Ave
Cincinnati 513 242-5080
Ore Robert A Amey Co, 2057 NW Saltzman Rd
Portland 503 646-7196
Pa Larsen Sales Co, 633 N 19th St
Philadelphia .... 215 LE 6-3232
Pa H W Groetzinger Co, 410 Genl Robinson St
Pittsburgh 412 322-6280
Tenn Norworth & Assoc, 675 S Mansfield St
Memphis 901 275-6415
Tex Fred Walters Co, 2020 Congress Ave
Houston .... 713 CA 4-9676
For Glenn Intl, Box 3984, San Juan PR 791-2605

K-F DEVELOPMENT CO, 2606 SPRING ST
REDWOOD CITY, CAL, 94063 .... 415 368-5670
E DEAN, EMP 12, ENG 1, UP TO $100M

K G S ELECTRONICS INC, 2029 N LINCOLN AVE, PASADENA
CAL, 91103 .... 213 681-8864
G SUGIMOTO, EMP 7, ENG 3, $250-$500M
ADV PG 72[illegible]

KICKSORT, INC, 4200 W 124TH PL, ALSIP
ILL, 60658 .... 312 389-9270
J MCMAHON, EMP 4, ENG 2
Cal R W Thompson Assoc, 4135 El Camino Way
Palo Alto
Md Spectro Systems Inc, 7324 Westmore Rd, Rockville
NY Radiation Electronics Inc, Box 501, Scarsdale
Can Applied Tech Co, Box 272, Don Mills Ont

KIDCO INC, BOX 278, MEDFORD
N J, 08055 .... 609 AM 7-2100
L MOYERMAN, EMP 95, ENG 3, $1,000-$2,500M
Ariz El-khp Sales, 7050 E Moreland St
Scottsdale 946-2457
Cal Components Unltd, Box 801
San Carlos 326-1033
Colo S L Assoc, Box 15096, Dallas 238-1807
Conn S Pierce, Inc, 115 Bald Hill Rd
New Canaan 762-3164
Ill Technical Devices, 6416 Central Ave
Chicago 774-8252
Md Barnhill & Assoc, 1931 Greenspring Dr
Timonium 825-3900
Mass Stan Pierce Inc, 24 Linden St, Norwood ... 762-3164
Mich A K Davis, 21140 Centerfarm La
Northville 474-8300
Minn Scott Electronics Sales, 5209 W 60th St
Mnpls 929-2985
NJ Gilbert Sales Assoc, 70 Glenwood Rd
Ridgewood 444-2604
NJ Sil Venturi Assoc, 24 Silver Rd
Short Hills 201 379-7636
NY Cooper-Simon & Co Inc, 7 W Broad St
Mt Vernon .... OW 9-5400

NY I A Hotze Co Inc, 112 Dewitt St
Syracuse .... GR 9-6641
Ohio Augey Natalino Assoc, 209 Harmony Hills
Akron .... MO 6-1447
Pa Danco Corp, Fairview Village .... CH 8-1619
Tex Teaport Co, 2411 Farrington St, Dallas 631-6270
Wash Jon B Jolly, 423 Maritime Bldg
Seattle 624-2152

KIDDE & CO INC, WALTER, 477 MAIN ST, BELLEVILLE
N J, 07109, TWX 710-995-4925 .... 201 759-5000
EMP 1650, ENG 105, OVER $10,000M
Cal W Kidde & Co Inc, 13607 Saticoy St
Van Nuys 213 989-3510
Cal W Kidde & Co Inc, 1955 E 223rd St
Long Beach 213 775-3693
DC W Kidde & Co Inc, 1825 K St, NW
Washington 223-1526
Ga W Kidde & Co Inc, 3605 NE Frwy Access Rd
Atlanta 261-2412
Ill W Kidde & Co Inc, 1310 W Randolph St
Chicago .... SE 8-2724
Mass W Kidde & Co Inc, 10 Charles St
Needham Heights 617 444-5666
Mich W Kidde & Co Inc, 20850 Coolidge Hwy
Detroit 566-6388
Mo W Kidde & Co Inc, 10726 Trenton Ave
St Louis 314 426-2525
NY W Kidde & Co Inc, 1350 Ave of the Americas
New York 581-4884
NY W Kidde & Co Inc, 132 Peachtree La
Roslyn Heights 516 484-2336
Pa W Kidde & Co Inc, 101 N 33rd St
Phila 215 222-8181
Pa Walter Kidde & Co Inc, 223 Arch St
Philadelphia 215 923-1560
Tex W Kidde & Co Inc, Box 35485
Dallas 214 637-5320
Can W Kidde & Co of Can Ltd, 154 Oneida Dr
Pointe Claire 697-1310
Ger Walter Kidde GmbH, Goseburgstr 15, 3140 Luneburg
GB Walter Kidde Co Ltd, Belvue Rd, Northolt

KILO ENGINEERING CO, 2118 D ST, LA VERNE
CAL, 91750 .... 714 LY 3-4626
R GACH, EMP 11, ENG 910-581-3
ADV PG 260

KILOVOLT CORP, 238 HIGH ST, HACKENSACK
N J, 07602 .... 201 488-7373
S ROTHMAN, EMP 23

KIMBALL SYSTEMS DIV LITTON INDUSTRIES
151 CORTLANDT ST, BELLEVILLE
N J, 07109, TWX 201-758-6500 .... 201 759-6500
D O'BRIEN
Ala Kimball Systems, 1116 S 20th St
Birmingham 205 254-3065
Ariz Kimball Systems, 2303 N Central Ave
Phoenix 602 258-6000
Cal Kimball Systems, 5651 W Century Blvd
Los Angeles 213 776-3160
Cal Kimball Systems, 275 5th St
San Francisco 415 986-4951
Colo Kimball Systems, 450 Decatur St
Denver 303 534-0041
Conn Kimball Systems, Taunton Lake Dr
Newtown 203 426-9701
DC Kimball Systems, 2212 Wisconsin Ave, N W
Washington 202 338-0689
Fla Kimball Systems, Box 44221, Tamiami Sta
Miami .... 305 JE 8-8369
Fla Kimball Systems, 829 N Mills St
Orlando 305 425-4327
Ga Kimball Systems, Box 19999 Sta N
Atlanta 404 355-3342
Ill Kimball Systems, Mannheim & Higgins Rds
Des Plaines 312 827-3183
Ill Kimball Systems, 6151 S State St
Chicago 312 288-3300
Ind Kimball Systems, 3925 N College Ave
Indianapolis 317 546-0335
La Kimball Systems, 4001 Division St
Metairie 504 887-7600
Md Kimball Systems, 505 Park Ave
Baltimore 301 685-7350
Mass Kimball Systems, 313 Washington St
Newton 617 332-9331
Mass Kimball Systems, 30 Bowdoin St
Springfield 413 781-1771
Mich Kimball Systems, 19215 W 8 Mile Rd
Detroit 313 531-7835
Mich Kimball Systems, 3574 Chicago Dr
Grandville 616 532-9179
Minn Kimball Systems, 1254 W 7th St
St Paul 612 222-2015
Mo Kimball Systems, 607 N Grand Blvd
St Louis .... 314 JE 3-1711
Mo Kimball Systems, 3907 Broadway
Kansas City 816 931-7387
Neb Kimball Systems, 1517 Harney
Omaha 402 345-5440
NJ Kimball Systems, 225 Rte 46
Totowa 201 256-3730
NY Kimball Systems, 2557 Elmwood Ave
Buffalo .... 716 TR 3-2211
NY Kimball Systems, 850 3rd Ave
New York .... 212 PL 2-7910
NY Kimball Systems, 933 Main St E
Rochester .... 716 CH 4-1500
NY Kimball Systems, 1 De Kalb Ave
Brooklyn .... 212 MA 4-5116
NY Kimball Systems, 296 Hempstead Tnpk
West Hempstead 516 538-3170
NY Kimball Systems, 572 N Broadway
White Plains 914 948-1325
NC Kimball Systems, Box 4188
Charlotte 704 377-2927
NC Kimball Systems, 407 W End Blvd
Winston-Salem 919 722-4485
Ohio Kimball Systems, 533 E University Ave
Cincinnati 513 751-4118
Ohio Kimball Systems, 2930 Prospect Ave
Cleveland 216 861-1230
Ohio Kimball Systems, 1101 Dublin Rd
Columbus 614 486-1916
Ohio Kimball Systems, 5055 N Main St
Dayton 513 275-5152
Ore Kimball Systems, 1963 NW Kearney St
Portland 503 224-6249
Pa Kimball Systems, 3914 Jonestown Rd
Harrisburg 717 652-1267
Pa Kimball Systems, 913 Penn Ave
Pittsburgh 412 281-8152
Pa Kimball Systems, 237 Lancaster Ave
Devon 215 687-3450
Pa Kimball Systems, Rte 315, Pittston .. 717 655-0166
Tenn Kimball Systems, 2037 Union Ave
Memphis 901 272-3948
Tenn Kimball Systems, 713 16th Ave S
Nashville 615 254-0559
Tex Kimball Systems, 2311 Cedar Springs
Dallas 214 747-9853
Tex Kimball Systems, 2703 Milam St
Houston 713 528-4073
Va Kimball Systems, 3608 W Carey St
Richmond 703 353-2327
Wis Kimball Systems, 231 W Wisconsin Ave
Milwaukee .... 414 BR 1-3161

KINELOGIC CORP, 873 S FAIR OAKS AVE, PASADENA
CAL, 91105, TWX 910-588-3287 .... 213 449-8707
R HADADY, EMP 160, ENG 46, $5,000-$10,000M
ADV PG 432
Ala Currie Aerospace Assoc, 2603 Artie St
Huntsville 536-5650
Cal Egbert Engineering Assoc, 801 Welch Rd
Palo Alto 326-1387
Cal Technisales Co, 3820 E Colorado
Pasadena 792-5111
Conn Instrument Reps Inc, Box 165
Glastonbury 633-0777
Fla Currie Aerospace Assoc, 2907 McCoy Rd
Orlando 855-0843
Md Paddock-Joslow Co, 721 Ellsworth Dr
Silver Spring 588-7866
Mass Instrument Reps Inc, 1046 Massachusetts Ave
Arlington 646-1034
Mo Space Sys Sales & Engrg, Box 156
St Ann 291-3228
NM Space Sys Sales & Engrg, 1401 Valencia SE
Albuquerque 255-7058
NY A & D Devices, Inc, 830 Linden Ave
Rochester 586-8033
NY A & D Devices, Inc, Box 365
Lyon Falls 348-8532
NY Harvey J Krasner Assoc, 33 Great Neck Rd
Great Neck 487-0690
Ohio Tower Engineering Co, 2801 Far Hills Ave
Dayton 298-1491
Pa DENCO, 500 A E Godfrey Ave
Philadelphia 725-9000
Tex Space Sys Sales & Engrg, 8383 Stemmons Frwy
Dallas 631-1740
Utah Space Sys Sales & Engrg, Box 89
Bountiful 295-6464
Wash Rush S Drake Assoc, 6133 Maynard Ave S
Seattle 763-2755
Fr Bureau de Liaison, 113, Rue de L'Universite
Paris VIIe 468-99-20

KINETIC INSTRUMENT CO DIV NORTEK INC
1070 LINWOOD ST, BROOKLYN
N Y, 11208 .... 212 649-8800
H MASLIN, EMP 240, ENG 4, $2,500-$5,000M
Cal Ed Landa Co, 2288 Westwood Blvd
Los Angeles 272-9525
Cal Bell Electronics, 1070 O'Brien Dr
Menlo Park 323-9431
Fla Kirkwood & Assoc, 7203 Central Ave
St Petersburg 345-3955
Ill PG&M Component Sales, 5700 W Diversey Ave
Chicago 622-8183
NJ Jack Onore, 555 Winchester Ave
Union .... EL 5-0474

KINETICS A TELEDYNE CO, 410 S CEDROS AVE
SOLANA BEACH, CAL, 92075 .... 714 755-1181
L LINGENFELTER, EMP 130, ENG 22, $2,500-$5,000M
Cal Thorson Co, 2443 Ash St, Palo Alto 321-2414
Colo Thorson Co, 3600 S Lincoln, Englewood .. 789-1841
Wash Thorson Co, 1767 5th Ave S, Seattle 325-5000

KINETRON CORP, 1416 ROLLER RD, OCEAN TWP IND PK
ASBURY PARK, N J, 07712
V TRIWEDI, EMP 12, $100-$250M
ADV PG [illegible]

KING LABORATORIES INC, 127 SOLAR ST, SYRACUSE
N Y, 13204 .... 315 GR 1-8123
W MACLEOD, EMP 60, ENG 4, $500-$1,000M
For Alton Co, 3214 Bergenline Ave
Union City,NJ .... UN 5-4080

KINGMANN-WHITE INC, 653 S MELROSE ST
PLACENTIA, CAL, 92670 .... 714 528-2111
J QUIRK, EMP 39, ENG 3
Ala Lewis M Crowe Co, Box 58013
Birmingham 871-2942
Ariz Geo S Thomson Co Inc, 915 S Central Ave
Phoenix 258-4591
Ark Kennedy Engineering Co, 4710 Glenmere Rd
N Little Rock 753-6306
Cal Measurtrol Inc, 331 Artemesia, Ventura ... 642-2256
Cal Control Systems Inc, 1745 9th Ave
San Francisco 661-0920
Colo Davis & Davis, 1095 Arizona Ave
Denver 744-1316
Conn Owen C Jones Co Inc, R F D 4 Old Kent Rd
Rockville
Conn Owen C Jones Co Inc, 2660 Redding Rd, Fairfield
Fla Lewis M Crowe Co, 337 22nd Ave N
St Petersburg 894-0249
Fla Lewis M Crowe Co, 103 Golf View Dr
Tequesta 746-7483
Ga Lewis M Crowe Co, 174 W Wieuca Rd NE
Atlanta 255-2700
Haw Berkley Engineering, 564 South St
Honolulu 581-921
Ill Johnson Engrg & Sales, 120 E Ogden Ave
Hinsdale 325-2272
Ind Pyromation Inc, 2532 Central Dr
Ft Wayne 456-2191
Iowa H G Klug Co, 612 Kahl Bldg
Davenport 323-4024
La G E T Sales, 433 Hiway Dr, Harvey 362-6212
Md Marginia Supply Co, 710 Evesham Ave
Baltimore 435-1369
Mass Owen C Jones & Co, Box 151
Wellesley Hills 235-7440
Mich Steam Specialties Co, 25255 Southfield Rd
Southfield 444-4636
Minn A-tu-Zee Inc, 1879 University St
St Paul .... MI 6-6383
Mo K C Brown Co, 4530 Madison
Kansas City 561-5515
Mo E B Miller Co, 10117 Manchester Rd
St Louis 966-8250
Neb H G Klug Co Inc, 2029 N 67th Ave
Omaha 553-1377
NJ J Arthur Moore Co, 1611 E Elizabeth Ave, Linden
NY Al Estey Assoc, 1063 Erie Station Rd
Rochester 334-3633
NY J Arthur Moore Co, 342 Madison Ave
New York 682-2420
NC Dudley Garland & Jensen Inc
Box 26185 Derita Sta, Charlotte 596-4033
Ohio J R Douglass Co, 1735 De Armand Ave
Cincinnati 931-4986
Ohio J R Douglass Co, Box 104, Reynoldsburg
Ohio Franklyn W Kirk Co, 15017 Detroit Ave
Cleveland 226-1970
Okla Myers-Aubrey Co, 1624 S Harvard
Tulsa 939-4481
Okla Kennedy Engineering Co, 1312 S Peoria
Tulsa 582-7178
Ore Martig Inc, 5741 NE Glisan St, Portland
Pa Shelby Jones Co Inc, Havertown .... HI 6-6600
Pa Friday Engineering Sales, 666 Washington Rd
Pittsburgh 341-1444
Tenn Knox Valve & Fitting Co, 6310 Deane Hill Dr
Knoxville 588-7475
Tex Kennedy Engineering, 400 W 27th
Odessa 332-0813
Tex Geo S Thomson Co, Inc, 3738 Durazno Ave
El Paso 533-9503
Tex G E T Sales, 3231 Audley, Houston 524-8488
Tex Kennedy Engineering Co, 116 Phillips Rd
Borger 806 273-2871
Utah Control Equip Co, 2255 S 2nd W
Salt Lake City 487-7741
Wash Martig Inc, 442 Central Bldg, Seattle 623-6622
Wis Process Msmt & Control Co, Box 7292
Milwaukee 774-3290
Can Davis Controls Ltd, 4251 Dundas St W
Toronto Ont 233-3211
Can Davis Controls Ltd,.265 Richer St
Montreal Que 481-7765
Can Davis Controls Ltd, Winnipeg Man
Can Glenor Agents & Suppliers, 10356 58th Ave
Edmonton Alb 434-6491
For Mario R Franceschini, Box 9393
Santurce, PR 723-4511
For Equipos & Controles Inc
Calle 19, 6-21 Piso 10 Spt 1003
Bogota, Col 425-164
For Empresas Norte-Sur S R L, Apartado 1095
Maracaibo .... Venezuela
For Matpetrol S R L, Esmerelda 155
Buenox Aires .... Argentina
For Oilfield Import, S A, Apartado 1A, Talara .... Peru
For Jord International Supply Co, Box 2033
Tehran .... Iran
For I CHI Co, Box 1166, Tapei Tai 72777-9
Holl Barton Europa, NV, Zonweg 41
The Hague 7201 36
SAfr Honeywill Tube Fittings Afr (Pty) Ltd, 101 Smith St
Germiston South
BC Southwell Controls Ltd, 1332 Powell St
Vancouver 255-9141
Mex Vical, SA, Miguel Angel 96, Mexico 19 ... 15-82-83

KINGS ELECTRONICS CO INC, 40 MARBLEDALE RD
TUCKAHOE, N Y, 10707 .... 914 SW 3-5000
E CORCORAN, EMP 250, ENG 10, $2,500-$5,000M
Ariz B Schlecht, 305 E Indian School Rd
Phoenix .... AM 4-4761
Cal A A Dowers Co, 2918 E Florence Ave
Huntington Park .... LU 2-5105
Cal R Del Bucchia & Assoc, 30 Hillcrest Dr
Daly City .... PL 6-8414

Colo Hytronic Measurements, Inc, 1295 S Bannock St
Denver ... 733-3701
Fla Massey Assoc, Box 13577
St Petersburg ... 347-6183
Ill D Dolin Sales, 3525 W Peterson Ave
Chicago ... JU 8-3738
Iowa Thomas & Modrcin Assoc Inc, 890 17th St
Marion ... 377-6261
Kan Thomas & Modrcin Assoc Inc, 5450 Buena Vista Dr
Shawnee Mission ... HE 2-2131
Md J A Dougherty Sales Co, 320 Hillen Rd
Towson ... 823-0431
Mass Michael Scott Co, Inc, 336 Washington St
Wellesley Hills ... 235-0102
Mo Thomas & Modrcin Assoc Inc, 47 Village Square
Hazelwood ... 838-6446
NY J F Coughlin Assoc, Box 281
Massapequa ... PY 9-7743
NY Savco Inc, 124 Kinne Rd, E Syracuse ... GI 6-4927
Ohio Gallagher Co, 15 Ritchie Ave
Cincinnati ... PO 1-1288
Ohio G & H Sales Co, 7215 Market Pl
Cincinnati ... 761-6185
Tex Braden Engineering Co, 2646 Andjon Dr
Dallas ... FL 2-4626
Wash R K Squibb Inc, 655 NE Northlake Pl
Seattle ... ME 2-2450
Can Kings Electronics Ltd, 2425 Grand Blvd
Montreal ... HU 8-9114
For ITT Export Corp, 250 Broadway
New York, NY ... 797-3300
GB Stewart Aeronautical, Gatwick Rd, Crawley, Sussex

KINGSLEY MACHINE CO, 858EB N CAHUENGA BLVD
HOLLYWOOD, CAL, 90038 ... 213 469-7243
G KINGSLEY, EMP 102, ENG 6, $1,000-$2,500M

KINNEY VACUUM DIV NEW YORK AIR BRAKE CO
3529 WASHINGTON ST, BOSTON
MASS, 02130 ... 617 522-7100
W STERN, EMP 260, ENG 13, OVER $10,000M
Cal Kinney Vacuum Div, 2525 Van Ness Ave
San Francisco ... 775-7158
Cal Kinney Vacuum Div, 2323 E Rosecrans Ave
El Segundo ... 772-5191
Colo Kinney Vacuum Div, 70 W 6th Ave
Denver ... 222-4215
Ga Kinney Vacuum Div, 3390 Peachtree St N E, Atlanta
Ill Kinney Vacuum Div, 17-19 S LaGrange Rd
La Grange ... 352-1280
Mass Kinney Vacuum Div, 10 Kearney Rd
Needham ... 332-5022
NJ Kinney Vacuum Div, 7030 Colonial Hwy Park
Pennsauken ... 665-9364
NY Kinney Vacuum Div, 222 Mamaroneck Ave
White Plains ... 948-5760
Ohio Kinney Vacuum Div, 3211 W 117th St
Cleveland ... 941-0324

KINSEKISHA LAB LTD
23-17, 2-CHOME, MIYASAKA SETAGAYA-KU, TOKYO
JAPAN ... 429-2111
M ISO, EMP 450, ENG 24, $250-$500M

KIRK & BLUM MFG CO, 3166 FORRER ST, CINCINNATI
OHIO, 45209 ... 513 351-1400
E VOGEL, EMP 450, ENG 15, $5,000-$10,000M
Colo L Z P Inc, 601 S Jason St, Denver
Ga John L Underwood Co Inc, 555 Whitehall SW
Atlanta
Ill K E Jensen & Co, 5949 W North Ave, Chicago
Ind Kirk & Blum of Indiana, 3501 W Kelly St
Indianapolis
Ky Liberty Engrg & Mfg Co, 656 Bizzell Rd, Lexington
Ky Liberty Engrg & Mfg Co, 1450 S 15th St, Louisville
La Development Engineers, Box 2843, Baton Rouge
Mass E L Flowers, 727 High St, Westwood
Mich June Equip Sales, 470 N Woodward, Birmingham
Mo Midvale Mng & Mfg Co, 6310 Knox Industrial Dr
St Louis
NY M H Snyder & Sons, 81 Pondfield Rd, Bronxville
NY T P C, 101 Jefferson Ave, Endicott
NC Edw J Stone, Box 17601, Charlotte
Ohio A F Brock & Co, 4040 Mayfield Rd, Cleveland
Ohio Kirk & Blum Mfg Co, 2219 E River Rd, Dayton
Okla Midvale Mng & Mfg Co, Box 7493, Tulsa
Pa Bushnell Machinery Co, 3015 W Liberty St
Pittsburgh
Pa G H Drayton Assoc, Box 113, Flourtown
Va E Douglas Via & Assoc, Box 104, Roanoke

KIRKHILL RUBBER CO, 300 E CYPRESS ST, BREA
CAL, 92621, TWX 910-596-1213 ... 714 529-4901
D REID, EMP 700, ENG 11
Ala Russell Assoc Inc, 2516 N Memorial Pkwy
Huntsville ... 205 539-7211
Ariz Sales Representation Inc, 2618 W Berridge La
Phoenix ... 602 266-6334
Cal Kirkhill Rubber Co, 610 16th St
Oakland ... 415 TW 3-5377
Colo Bennett & Assoc, 1440 W Bayaud
Denver ... 303 722-2878
Fla Russell Assoc Inc, 211 W Fairbanks
Winter Park ... 305 MI 7-2251
Ga Russell Assoc Inc, 6427 Roswell Rd
Atlanta ... 404 255-8422
Ill Russell Assoc Inc, 1303 N Richmond Rd
McHenry ... 815 385-4220
Kan Assoc Industries, Inc, 455 S Washington
Wichita ... 316 AM 4-6311
Md Russell Assoc Inc, 102 N Main St
Bel Air ... 301 838-9292
Mass Russell Assoc Inc, 69 Hickory Dr
Waltham ... 617 891-4570
Mich Russell Assoc Inc, 24634 Five Mile Rd
Detroit ... 313 KE 2-5770
Minn Peterson Enterprises, 4645 5th St NE
Minneapolis ... 612 781-3801
Mo J Reinhardt, Box 252, Florissant ... 314 TE 8-6600
NJ Russell Assoc Inc, 200 E Ridgewood Ave
Ridgewood ... 201 447-1050
NY Russell Assoc Inc, 165 Orinoco Dr
Brightwaters ... 516 MO 6-6500
NY Russell Assoc Inc, 6789 Main St
Buffalo ... 716 634-3377
Ohio Russell Assoc Inc, 4 Eswin St
Cincinnati ... 513 825-0930
Ore H Josephson, 411 NE 12th Ave
Portland ... 503 235-4174
Tex Dwight Payne, Box 7444
Ft Worth ... 817 TE 4-4444
Utah Industrial Sales Agency, 1604 S 2nd W
Salt Lake City ... 801 466-1323
Wash Houston Co Inc, 1738 4th Ave S
Seattle ... 206 MA 2-0750

KIRKHOF MFG CORP, 2450 BUCHANAN AVE SW
GRAND RAPIDS, MICH, 49510 ... 616 241-2494
W EMAUS, EMP 212, ENG 14, $2,500-$5,000M

KIRKLAND CO, H R, 8 KING ST, MORRISTOWN
N J, 07960 ... 201 538-2777
B KIRKLAND, EMP 15, ENG 1, $100-$250M
Cal Fred D Benz Co, 162 W Harris
So San Francisco ... 588-2125
Pa Brown Electrical Equip, 1612 Potomac Ave
Pittsburgh ... 412 LO 3-4444

KISTLER INSTRUMENT CORP, 8989 SHERIDAN DR
CLARENCE
N Y, 14031, TWX 710-523-1880 ... 716 634-6600
J RAAB, EMP 150, ENG 20, $5,000-$10,000M
Ala Space Engineering Sales, 4306 Governors Dr
Huntsville ... 837-6060
Cal Dale-Dahl Assoc, 16000 Ventura Blvd
Encino ... 788-7963
Cal Dale-Dahl Assoc, Box 2145, Fair Oaks ... 967-8284
Cal Dale-Dahl Assoc, 1338 S Atlantic Blvd
Los Angeles ... 263-9441
Cal Dale-Dahl Assoc, 999 Commercial St
Palo Alto ... 328-6666
Ill Torkelson Assoc Inc, 464 Central Ave
Northfield ... 446-8450
Ind Systems Engineering Assoc, 1010 E 86th St
Indianapolis ... 846-2593
Md Tek Rep Inc, 1075 Rockville Pike
Rockville ... 762-7777
Mass Addelco Corp, 56 Pickering St
Needham ... 444-4754
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield ... 442-5656
Minn Torkelson Assoc Inc, 4820 W 77th St
Minneapolis ... 920-1046
Mo S Sterling Co, 11734 Lackland Ind Dr
St Louis ... 542-3636
NJ Tek-Sel Inc, 440 N Midland Ave
Saddle Brook ... 791-5545
NM P-M Elctns Co, Inc, 406 San Mateo Blvd NE
Albuquerque ... 256-7228
Ohio S Sterling Co, 2673 Culver Ave, Dayton ... 298-7573
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland ... 442-8080
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh ... 884-5515
Tex Charles M Asfahl, Box 22585, Houston ... 523-3764
Utah Peirce Bowthorpe Agency, 143 S 4th E
Salt Lake City ... 328-4513
Wash Brett Engineering Assoc, 2610 38th Ave S W
Seattle ... 935-1062
Can Electromechanical Products, Markham Rd
Agincourt, Ont ... 293-7011
Jap Midoriya Electric Co Ltd
3, 2-Chome, Kyobashi, Chuo-Ku, Tokyo
Aust J J Masur & Co Pty Ltd, Box 48
South Melbourne, Vic

K L A LABS INC, 7375 WOODWARD AVE, DETROIT
MICH, 48202 ... 313 874-1100
G TODOROFF, EMP 30, ENG 4, $500-$1,000M

KLEER-VUE MFG CO INC, BOX 10326, PITTSBURGH
PA, 15234 ... 412 835-2662
M PARKER, EMP 50, ENG 2, UP TO $100M

KLEINSCHMIDT, DIV SCM CORP, LAKE-COOK RD
DEERFIELD, ILL, 60015 ... 312 945-1000
N GEISER, EMP 800, ENG 195, OVER $10,000M
Fla G Marks, 3445 Bowman Dr, Winter Park
NJ Frank Zampino, 1985 E State St
Trenton ... 586-2700
Pa John Thompson, Vine St, Philadelphia ... LO 4-2700
Tex R Senour, 401 Hill Ct, Hurst

KLEIN & SONS INC, MATHIAS, 7200 MCCORMICK RD
CHICAGO, ILL, 60645, TWX 72-4431 ... 312 JU 8-6820
C CASTINO, EMP 225, ENG 5, $5,000-$10,000M
Ariz Maddox Sales Co, 5709 N 19th Pl
Phoenix ... CR 4-3807
Cal Maddox Sales Co, 914 E 3rd St
Los Angeles ... MA 4-2306
For ITT Export Corp, 250 Broadway
New York, NY ... 797-3300

KLING METAL SPINNING & STPG CORP
247 CENTRE ST, NEW YORK
N Y, 10013 ... 212 226-5052
S GROSS, EMP 22, ENG 2, $250-$500M
Cal Nordia Enterprises, 3430 S Hill St, Los Angeles
Ind Richard J Sanders, 430 W Erie St, Chicago
NY Rayzel Sales Assoc, 247 Centre St, New York
Pa Springel Sales, 325 N Franklin St, Phila

KMC SEMICONDUCTOR CORP, PARKER RD, R D 2
LONG VALLEY, N J, 07853 ... 201 876-3811
R JOHNSON, EMP 75, ENG 12, $1,000-$2,500M
Cal Kipp Assoc, 90 Stadler Dr, Woodside ... 851-0123
Cal Riner-Sullman Inc, 3402 W Century Blvd
Inglewood ... 213 673-0800
Cal Cain & Co Inc, 175 S Antonio Rd
Los Altos ... 415 948-6533
Fla Cain & Co Inc, 2523 Chippewa Tr
Maitland ... 305 422-3460
Ill Communications Engineers, 7106 N Western Ave
Chicago ... 312 761-0548
Md VPI, 561 Dorsey Rd NW
Glen Burnie ... 301 768-0550
Mass Stan Pierce Inc, 24 Linden St, Norwood ... 762-3164
NJ Graydon-Sherman, Inc, 230 Madison Ave
Morristown ... 201 538-9246
NY Graydon-Sherman, Inc, Davis Bldg
Fayetteville ... 637-9611
Ohio A C Wahl & Assoc Inc, Box 15220
Cincinnati ... 821-3270
Ohio A C Wahl & Assoc Inc, 1153 Trentwood Rd
Columbus ... 486-7719
Ohio A C Wahl & Assoc Inc, 2122 Mershon Ave
Dayton ... 252-0961
Ohio A C Wahl & Assoc, Inc, 24232 Maria La
North Olmstead ... 777-2800
Ore C K Shanks & Assoc, 3104 S W 87th Ave
Portland ... 292-5656
Pa VPI, 10714 Haldeman Ave, Phila ... 215 676-4133
Tex Parvin Sales Co, Box 307, Addison Rd
Addison ... EM 3-8596
Can Banke Electronics, Ltd, 767 Warden Ave
Scarborough, Ont ... 751-7484
For Montclair Electronics Intl, 90 West St
New York ... CO 7-0350
Fr Machine & Products Co, 52 Wall St
New York, NY ... WH 4-4370
Ger E Sommer Electronik, Johnstr 43, 6 Frankfurt/Main
GB Walmore Electronics Ltd, 11-14 Betterton St, London
Ital Milano Bros, 250 W 57 St, New York ... CI 6-0375
Jap Densho Kaisha, Ltd
7, 1-Chome Shiba-Hamamatsucho, Minato-Ku
Tokyo
Swed Thure F Forsberg AB, Forshagagatan 58, Farsta 1
Belg Technique & Produits, 16 Rue Marco, Brussels
Isrl Giveon Agencies, 105 Hahashmonaim St, Tel Aviv

K & M ELECTRONICS CORP, 102 HOBART ST
HACKENSACK, N J, 07601 ... 201 343-4518
D METZGER, EMP 100, ENG 10
Ariz Premmco/Welco, 2738 W McDowell Ave
Phoenix ... 602 272-2684
Cal Premmco/Welco, 1502 W 166th St
Gardena ... 213 532-6010
Colo Premmco/Welco, 2785 N Speer Blvd
Denver ... 303 433-6485
Ill Audio Sound Sales Co, 2919 1/2 W Armitage Ave
Chicago
NJ Irwin Brill, 326 Hillside Ave
Nutley ... 201 667-0653
NY E Nachman Assoc, 37 Park Cir
White Plains ... 914 946-2477
Ohio E Frost, 306-50 Pine Tree Rd, Cleveland
Pa Argus Assoc, Box 68, Warminster
Wash Premmco/Welco, Box 5427
Seattle ... 206 SU 3-3900
For EMEO Inc, 55 E Old Country Rd, Hicksville N Y

KNOPP INC, 1307 66TH ST, OAKLAND
CAL, 94608 ... 415 653-1661
H MULLER, EMP 25, ENG 2
Ark Gregory-Salisbury & Co Inc, 500 E Markham St
Little Rock ... 375-1383
Cal C C Blecksmith, Box 54, Covina ... 332-2150
Cal The MaBi Co, Box 835, Oakland ... 523-6100
Cal Arthur E Booth Co, 265 S Alexandria
Los Angeles ... 381-2161
Cal Pacific Electric Sales, Pier 3
San Francisco ... 415 986-1504
Colo Hamilton Assoc, 1236 Elati St, Denver ... 244-2901
Fla Ward Engineering Co, Box 5545
Orlando ... 422-4295
Ga E A Thornwell Inc, 1537 Howell Mill Rd NW
Atlanta ... 351-6535
La Gregory-Salisbury & Co Inc, 805 S Front St
New Orleans ... 524-5207
Mich Horton Electric Sales, 24801 Five Mile Rd
Detroit ... 534-2070
Minn Dolan-Feldhaus Co, 4010 W 65th St
Minneapolis ... 926-6504
Miss Gregory-Salisbury & Co, Box 9767
Jackson ... 362-1671
Mo Smith Electric Sales Co, 8516 Maywood
Raytown ... 353-5418
Neb Conrad R Bangh, 524 WOW Bldg
Omaha ... 341-4232
Ohio A C Koenig Assoc, 3554 Akins Rd
Cleveland ... 237-5908
Pa John S Ridinger, 4828 Liberty Ave
Pittsburgh ... 683-4588
Pa L C Conover Assoc, Chester Springs ... 248-1828
Pa William Goodridge, 3232 Brentwood Ave
Pittsburgh ... 881-5807
Tenn Gregory-Salisbury & Co, Box 6166
Memphis ... 948-0496

Tex Myles R Summers Assoc, 1721 Wroxton Ct Houston 529-2085
Wash Ed B Schack & Co, 2213 First Ave Seattle 623-1918
Can R L Brews & Son Ltd, 10810 119th St Edmonton, Alb
Can Sangamo Co Ltd, 215 Laird Dr, Leaside, Ont
BC Griffon Sales Ltd, 521 W 8th Ave, Vancouver

KNOWLES ELECTRONICS INC, 3102 N MANNHEIM RD
FRANKLIN PARK, ILL, 60131, TWX 25-3387 ..... 312 455-3600
J JOHNSON
ADV PG 417
GB Knowles Electronics, Ltd Victoria Road, Burgess Hill, Sussex

KOBE INDUSTRIES CORP
5 WADAYAMA-DORI 1-CHOME, HYOGO-KU, KOBE
JAPAN 675081
Y HIRATA, EMP 4600, ENG 1200, OVER $10,000M

KOCH LIGHT LABS LTD, POYLE TRADING ESTATE
COLNBROOK, BUCKS
ENGLAND, TWX 84-103 .... COL-2262
R MILES, EMP 150, ENG 28
Fr Sochibo, 118 Rue du Chateau, 92 Boulogne
Holl Amstelstad, Box 9100, Amsterdam W 18
Nor F Heidenrich, Gronland 2, Oslo
SAfr Taubner & Corssen PRY Ltd, 28 Thorpe St Selby Johannesbrg
Swed Novakemi Aktiebolag, Harpsundsvagen 76 Stokholm Badhage
NZ Geo Wilton & Co, 156 Willis St, Wellington
Aust Townson & Mercer, Box 100, Lane Cove NSW

KOILED KORDS INC, 1565 DIXWELL AVE, NEW HAVEN
CONN, 06514, TWX 710-465-1798 ...... 203 248-5515
B MEINERT, EMP 100, ENG 10, $1,000-$2,500M
Cal T Holmes, Box 808, N Hollywood 845-5442
Conn J H Cosmar Co, 350 S Main St Cheshire 272-7325
Fla W Galliher, Box 1324, Clearwater 513-4300
Ga W R Bruce, Box 28437, Atlanta 237-0564
Ill E Finlay, 11333 Addison St Franklin Park .... GL 5-8010
Ind G Voyles, 209 Briarwood, Terre Haute
Iowa B Hodges, 9736 Overbrook, Leawood .... NI 8-2404
Mich J A Good Co, 15842 James Couzens Hwy Detroit 624-2300
Minn D Omans, 2011 3rd Ave S Minneapolis 335-3070
NC S Baker, 311 Wesley Ct, Chapel Hill 929-5515
ND B Gobeille, 785 Lexington Ave Mansfield .... SK 6-3385
Ore D Adams, 18280 S W Wheeler St Aloha .... MI 6-3682
Pa H Cluver, 100 S Broad St, Philadelphia ... 563-4067
Pa B Meals, 2987 Babcock Blvd Pittsburgh 452-6380
Tenn C Moore, Box 3091, Bristol 764-3811
Tex G McKenzie, 400 Stemmons Tower S Dallas 351-4427
Tex J George, 42 Bash Dr, Houston .... MO 5-5605

KOKUSAI ELECTRIC CO LTD
9, SAKUROGAWA-CHO, NISHIKUBO, MINATO-KU
TOKYO, JAPAN, TWX 222-3277 503-2211
D AYUZAWA, EMP 1200, ENG 500, OVER $10,000M

KOKUYO ELECTRIC CO LTD
36-15, 1-CHOME, OHOKAYAMA, MEGURO-KU
TOKYO, JAPAN 03 717-3181
K YANAGI, EMP 200, ENG 50, $250-$500M

KOLLSMAN INSTRUMENT CORP
575 UNDERHILL BLVD, SYOSSET
N Y, 11791 .... 516 WA 1-4300
D NICHINSON, EMP 4500, OVER $10,000M
Ala Kollsman Inst, S Memorial Pkwy Huntsville 205 881-3000
Cal Kollsman Inst, 999 N Sepulveda Blvd El Segundo 322-6680
DC Kollsman Inst, 1725 K St NW Washington .... FE 8-9062
Fla Kollsman Inst, 405 Fifth Ave Indialantic 305 723-1100
NJ Kollsman Inst, Box 504, Eatontown .. 201 747-0400
Ohio Kollsman Inst, 333 W 1st St, Dayton .... BA 8-8111
Tex Kollsman Inst, 1730 Nasa Rd 1 Houston .... HU 8-3117
Wash Kollsman Inst, 12725 Ranier Ave Renton .... PA 5-0125
Can Kollsman Inst, 151 Slater St Ottawa Ont 613 233-1129
Ger Kollsman System-Technik, Kirschstr 20, Munchen
GB Kollsman Inst Ltd, The Airport Southampton .... EAS 2731

KOLLSMAN INSTRUMENT LTD, THE AIRPORT
SOUTHAMPTON, ENGLAND, TWX 47671 .... EAS 2731
R BIRD, EMP 235, ENG 50

KOLLSMAN MOTOR CORP, MILL ST, DUBLIN
PA, 18917, TWX 510-665-9584 .... 215 249-3561
J KENDRICK JR, EMP 280, ENG 10, $2,500-$5,000M
Cal Western Aircraft Supply Co, 815 Moraga Dr Los Angeles 213 476-1931
Md Mount & Co, 7735 Old Georgetown Rd, Bethesda
Mass Garrettson Co, 10 Kearney Rd Needham 617 449-2640
Mo J C Mankus & Assoc, 400 Brookesha Hazelwood 314 731-4334
NY Garrettson Co Inc, 99 Hillside Ave Williston Park 747-6610
Ohio Orr Assoc, 6510 Farnsworth Dr, Parma .. TU 5-1324
Pa Garrettson CO, 9214 Masland St Phila .... HO 4-2275
Tex Compar Southwest, 8609 Northwest Plaza Blvd Dallas .... EM 3-1526
Tex Compar Southwest, 6001 Gulf Frwy Houston .... MI 5-2135
Can Intl Electronic Components Inc, 2055 Mountain St Montreal, Que 849-1282

KOLLSTAN SEMICONDUCTOR ELEMENTS
111 NEW YORK AVE, WESTBURY
NY, 11590 .... 516 333-8880
F AHRENS, EMP 25, ENG 2, $100-$250M
Cal Interconsal Assoc, 825 San Antonio Rd Palo Alto 415 321-8113
Fla R Walker, 404 5th Ave, Indialantic ... 305 723-1100
RI Euro/Tech Inc, Box 269, Warwick 401 884-5671

KOLTON ELECTRIC MFG CO
123 NEW JERSEY RAILROAD AVE, NEWARK
N J, 07105 .... 201 642-4622
H KOLTON, EMP 30, ENG 2, $250-$500M

KOMAK INC, 9TH & ONTARIO STS, PHILADELPHIA
PA, 19140 .... 215 226-0770
W AUCHENBACK, EMP 75, ENG 5
Conn William McCoy Co, 892 Main St Branford 488-2012
Fla Jos Griffin, 812 Lakeside Dr North Palm Beach 305 848-4617
Ill Potter-Mac Co, 6778 N Northwest Hwy Chicago 775-6626
Ill Mil-Rep Assoc, 311 S Pine St Mt Prospect 312 392-5286
Md Harry J White & Co Inc, Baltimore
Mass William McCoy Co, 306 Water St Clinton 365-9254
Minn Mark Sales Co, 3100 Humbolt Ave, 612 825-0911
NJ Wetzel Assoc, 1400 Suckle Hwy Pennsauken .... WA 5-3345
NJ Marshbank-Monteiro Assoc 123 Clements Bridge Rd Barrington 609 546-6555
NJ Humes-QUINLAN Sales Co, 950 Hwy 22 Somerville 201 526-1419
NY Heft Assoc, 193 Bixley Heath Lynbrook .... LY 9-3351
Ohio John O Olsen Co, 5539 Stokeswood Ct Cincinnati .... SY 1-1297
Ohio John O Olsen Co, 16201 Shaker Blvd Cleveland .... SK 2-5444
Pa Beil & Whitaker, 3623 Jacksonwald Ave Reading .... FR 5-6837
Pa Techrep Assoc, Box 209 King of Prussia 265-0653
Pa Beil & Whitaker, Box 384, R D 2 Dover 292-4071
Pa John O Olsen Co, 104 Elatan Dr Pittsburgh .... BR 9-2550
Pa Beil & Whitaker, 1303 N Troxell St Allentown .... HE 4-5220
Pa Mil-Rep Assoc, 120 S Five Point Rd West Chester .... OW 6-4216
Pa Mil-Rep Assoc, 4120 Comly St Philadelphia 215 289-7262
Pa Humes-Quinlan Sales Co, 242 E Butler Ambler 215 646-7250

KONIGSBERG ELECTRONICS INC, 271 HARBOR WAY
SO SAN FRANCISCO, CAL, 94080 ...... 415 588-5315
B BALLARD JR, EMP 60, ENG 5, $1,000-$2,500M
Fla Rich Electronics, 1400 NW 17th Ave, Miami
La Frank L Beier, 8622 Oak St, New Orleans
NJ Konigsberg Elctns Inc, 2629 Hwy 70 Manasquan 201 223-5551

KONTES GLASS CO, VINELAND, N J, 08360

KOOLTRONIC FAN CO, BOX 504, PRINCETON
N J, 08540 .... 609 799-1466
P PAULUCCI, $500-$1,000M

KOPPERS CO INC, KOPPERS BLDG, PITTSBURGH
PA, 15219 .... 412 391-3300
F BYROM, EMP 11237, OVER $10,000M
Ala Koppers Co, Woodward 788-1611
Cal Koppers Co, 3440 Wilshire Blvd Los Angeles 388-0676
Cal Backer-Ricker Co, 850 S VanNess Ave San Francisco 282-8220
Cal Koppers Co, 55 New Montgomery St San Francisco 986-2660
Ga Koppers Co, 1120 Healey Bldg, Atlanta ... 524-3844
Ill Koppers Co, 122 S Michigan Ave Chicago 939-2405
Ill Koppers Co, 23 Cambridge La Deerfield 945-6070
Ill Koppers Co, 7001 W 60th St, Chicago 586-3300
Kan Koppers Co, 7121 W 79th St Overlan Pk 381-1622
Md Koppers Co, 200 Scott St, Baltimore 727-2500
Mass Koppers Co, 245 Elm St, Dedham 329-1700
Mich Koppers Co, 6500 French Rd, Detroit 925-1420
Mich Koppers Co, 301 W 8 Mile Rd, Detroit ... 366-5200
Minn Koppers Co, 7710 Computer Ave, Mnpls .. 926-5381
Minn Koppers Co, 1000 N Hamline Ave St Paul 646-7801
Mo Koppers Co, VFW Bldg, Kansas City 531-6680
Mo Koppers Co, 706 Chestnut St, St Louis 241-8096
NY Koppers Co, 155 Washington Ave Albany 436-8591
NY Koppers Co, 2451 Wehrle Dr, Buffalo 634-3225
NY Koppers Co, 15 Virginia Ave West Nyack 358-6163
NY Koppers Co, 430 Park Ave, New York 755-2810
Ohio Koppers Co, 1900 Euclid Ave, Cleve 621-2034
Ohio Koppers Co, 7023 Miami Ave Cincinnati 561-6676
Ohio Koppers Co, Campbell & Van Denmark Rds Sidney 492-8783
Okla Koppers Co, 310 Thompson Bldg, Tulsa ... 583-2233
Pa Koppers Co, 355 Lancaster Ave Haverford 642-3170
SC Koppers Co, Meeting St & Greenleaf Rd Charleston 722-7001
Tex Koppers Co, Industrial Rd, Houston 453-5446
Tex Koppers Co, 2639 Manana Dr, Dallas 357-2206
Tex Koppers Co, 2509 W Berry St Fort Worth 923-9053
Wis Koppers Co, 7915 W Appleton Ave Milwaukee 464-3040

KOPPERS CO REINFORCED PLASTICS DIV
KOPPERS BLDG, PITTSBURGH, PA, 15219
P LISTON, EMP 150, ENG 8, $2,500-$5,000M

KORAD DEPT ELCTNS DIV UNION CARBIDE CORP
2520 COLORADO AVE, SANTA MONICA
CAL, 90406 .... 213 393-6737
A SHELDON, EMP 150, ENG 42, $2,500-$5,000M
Cal Korad Corp, 2520 Colorado Ave Santa Monica 393-6737
Cal Applied Instruments, 421 E Broadway Anaheim .... 714 KE 5-6551
Kan Impala, Inc, 6917 W 76th St Overland Park 648-6901
Md C W Hench, 2800 Hathaway Terr Wheaton .... WH 6-7822
Mass Instrument Assoc, Inc, 30 Park Ave Arlington 648-2922
NM Space Systems Sales & Eng, 1401 Valencia S E Albuquerque 255-8716
NY Scientific Sys Sales Corp, 376 Great Neck Rd Great Neck .... HN 6-0053
NC Murphy & Cota, 1106 Burke St Winston-Salem 724-0750
Ohio Witt Sales Co, Box 37561, Cincinnati 791-5828
Pa Fawcett Assoc, 701 Investment Bldg Pittsburgh 471-7748
Tex Scientific Sales Co, 777 S Central Expwy Richardson .... AD 1-6541
Wash Showalter-Judd, Inc, 1806 S Bush Pl Seattle .... EA 4-7911
Can Radionics, Ltd, 8230 Mayrand St Montreal 9 739-5517
GB Union Carbide Ltd, 8 Grafton St, London W-1

KORFUND DYNAMICS CORP, CANTIAGUE RD
WESTBURY, N Y, 11590 .... 516 333-7580
J FASANO, EMP 100, ENG 20, $1,000-$2,500M
Ala G O Mabry Co, Box 568, Birmingham 592-7213
Cal Mills Ralph & Co, 974 Valencia St San Francisco .... VA 4-8524
Cal John G Bell Co, 618 Crocker St Los Angeles 623-6257
Cal Huffman Engrg Co, 1645 W Sepulveda Blvd Torrance 534-1962
Colo E N Murray Co, 505 Bryant St, Denver 255-0533
Conn Robert Upton Assoc, 22 Farmcliff Dr Glastonbury 633-2531
Conn Robert Upton Assoc, Box 917 New Haven 777-6835
Fla Voyce-Legier, Inc, 523 NW 28th St Miami 633-0359
Ga E W Klein Co, 3327 Cains Hill Pl NW Atlanta 237-7509
Ill Himelblau, Blyfield & Co, 1214 W Madison St Chicago .... TA 9-5450
Ill Himelblau-Blyfield & Co, 425 E State St Rockford 965-6393
Ill Himelblau-Blyfield & Co, 1042 Jefferson Bldg Peoria 674-1516
Iowa Pfau Vogel Co, 31 E Georgia St Indianapolis .... ME 2-2523
Kan Messplay-Neuer Engrg Co, 7031 Johnson Dr Mission .... CO 2-8191
La David Fried & Assoc, 6027 Chatham Dr New Orleans 288-5629
Md George Cassis, 2208 Maryland Ave Baltimore 467-3801
Mass R E Lyons & Assoc, 279 Newbury St Boston .... KE 6-5253
Mass Sussman Assoc, 46 Joyce Rd Framingham 877-1631
Mich Mechanical Sales Assoc, 1000 E 7 Mile Rd Detroit 892-9200
Minn W E Bemis & Co, Box 6420 Richfield Sta Minneapolis 612 869-5988
Mo C H Schuetienberg Co, 8501 Park La St Louis 385-3292
NJ Frank Purcell, 225 St Paul's Ave Jersey City 659-2923
NY R R Smith Co Inc, 1510 Central Ave Albany .... HO 3-0626
NY Alling Equipment Co, 1685 Elmwood Ave Buffalo 874-0031
NY R P Smith Co, Inc, 6443 Ridings Rd Syracuse 463-6641

NC	Paul Stack Sales Co, 1800 Norland Rd Charlotte	537-8331
Ohio	Sheldon Storer & Assoc, 5300 Vine St Cincinnati	242-1191
Ohio	Baker & English Inc, 1370 W 9th St Cleveland	CH 1-3703
Okla	R E Pauling, 822 E 6th St, Tulsa	LU 5-9504
Pa	Follansbee Ind Sales Inc, 1885 Main St Pittsburgh	781-8700
Tenn	Mechanical Equip Co, 1123 Church St Nashville	256-1074
Tex	Frank R Young Co, 5402 Bell Houston	WA 8-3771
Tex	Joiner-Korfund Corp, 1623 W Mockingbird La Dallas	ME 7-6680
Va	H M Summerell Co Inc, 104 S Foushee St Richmond	644-0361
Wash	John L Harvey Co, W 7 Trent Ave Spokane	MA 4-3002
Wis	McDougall Control Co, Box 22231 Milwaukee	654-2127
Wis	Ed Gifford & Co, 6470 Fond Dulac Ave Milwaukee	HO 3-6400
Can	Korfund-Sampson Ltd, 9216 Boivin St La Salle Montreal, Que	DO 5-0420
For	Korfund Sampson Ltd, 801 York Mills Rd Don Mills, Ont	445-2060

KORRY MFG CO, 223 8TH AVE N, SEATTLE
WASH, 98109, TWX 910-444-2295 ..... 206 624-4066
J HEVLY, EMP 201, ENG 6, $1,000-$2,500M

Ala	NBS, Inc, Box 1343, Huntsville	205 881-3175
Cal	Cal-Tronix, Inc, 916 DiGiulo Ave Santa Clara	408 296-1366
Cal	F Huddleston Assoc, Inc, 408 S Rosemead Blvd Pasadena	213 681-3751
Conn	C K Barton Assoc Inc, Box 91 Glastonbury	203 633-9417
Fla	NBS Inc, 2813 Primrose Ct Orlando	305 423-4856
Fla	NBS, Inc, 4150 SW 23rd St Ft Lauderdale	305 584-0650
Ga	NBS Inc, 893 Church St NW Marietta	404 422-6067
Iowa	Engineering Services Co, 1026 3rd Ave SE Cedar Rapids	319 366-1591
Kan	Engineering Services Co, 7924 A State Line Prairie Village	913 649-4000
Mass	C K Barton Assoc, Box 51 Auburndale	617 332-2021
Mo	Engineering Services Co, 6717 Vernon Ave St Louis	314 726-2233
NY	P Saftler Assoc Inc, 157 W 57th New York	212 247-3855
NY	P Saftler Assoc Inc, 17 Red Barn Circle Pittsford	716 381-3838
Pa	Charles J McGowan Co Inc, 81 Old York Rd Willow Grove	215 659-1788
Tex	W Pat Fralia Co, Box 12625 Fort Worth	738-2394
Can	Wilson Enterprises, 19 Abercorn Rd Markham Ont	416 297-1289

KOSS ELECTRONICS INC, 2227 N 31ST ST
MILWAUKEE, WIS, 53208 .... 414 444-9442
G CORNEHLS, EMP 94, ENG 2

Cal	F W Moulthrop & Assoc, 1530 E 12 St Oakland	261-7676
Cal	Jack Berman Co, 1751 S LaCienega Blvd Los Angeles	870-4711
Colo	J Rowe & Assoc, 3100 W 71 Ave Westminster	429-4595
Fla	ManRep Corp, 1925 NE 150 St North Miami Beach	949-6391
Ga	R A Chalmers, 349 Peachtree Hills Ave N E Atlanta	233-3208
Mass	Bud Ente Sales Co, 64 Mandalay Rd Newton Centre	244-4842
Mo	Carmine A Vignola Assoc, 21 Schellridge Rd Jefferson City	635-1023
NY	Bach Sales Corp, 78 Wellington Rd Garden City	741-0570
Ohio	McFadden Sales, 150 E Broad St Columbus	221-3363
Ohio	Schroeder Sales Co, 2084 Noble Rd Cleveland	268-3636
Pa	Brendan O'Hara, 4952 Wynnefield Ave Philadelphia	473-3654
Pa	F P Yarussi Co, 312 Rockfield Rd Pittsburgh	221-4676
Tex	Maynard Sales Co, 158 Express St Dallas	742-2384
Wash	Vector Corp, 2403 10th Ave E, Seattle	EA 2-4343
Can	A C Simmonds & Sons, 285 Yorkland Blvd Agincourt	445-9111
Can	R C Kahnert Sales Ltd, 359 Enford Rd Richmond Hill Ont	416 884-8185
Fr	Cineco, 72 Ave des Champs Elysees Paris	BAL 11-94
Ger	Boyd & Haas, Melchiorstr 23-27, 5-Koln	
Ital	Koss Electronics S R L, Via Bellini 7 Nova Milinese	0362-40-674
Swed	Sonic AB, Stationsvagen 13, Djursholm	
Swit	Impetus, SA, 2 Via Berna, Lugano	091-38214
Aust	Encel Electronics Pty Ltd, 431 Bridge Rd, Richmond	

KRAUTKRAMER ULTRASONICS INC, 1 RESEARCH DR
STRATFORD, CONN, 06497 .... 203 335-2504
A RUIZ JR, EMP 16, ENG 2, $250-$500M

Ala	Ridge Instrument Co, 7220 Governors Dr W Huntsville	837-3211
Cal	Uresco, Inc, 12412 Benedict Ave Downey	WA 3-3278
Cal	Uresco of San Francisco, 857 Hinckley Rd Burlingame	415 692-2841
Colo	Geo O'Brien Sales Agency, 2785 N Speer Blvd Denver	477-4713
Fla	Ridge Instrument Co, 931 N Powers Dr Orlando	293-4711
Ga	Ridge Instrument Co, 3094 McCully Dr NE Atlanta	939-1554
Ill	Balteau ElectricCorp, 410 S Hager St Barrington	381-4345
Ill	Balteau Electric Corp, 410 S Hager St Barrington	381-4345
La	Calonje Products, 4434 Earhart Blvd New Orleans	504 822-8011
Mass	J M Devine Co, 348 Lake Ave Newton Highlands	244-1132
NJ	J W Dice Co, 16 Highwood St Englewood	569-0471
NY	Buffalo X-Ray Co, 81-83 E Market St Buffalo	856-9200
Ohio	Detec, Inc, 3841 Ridge Rd, Cleveland	281-3959
Pa	Atomic Industries Inc, W Broad St Telford	723-5551
Pa	Detec, Inc, 175 Orchard Dr, Pittsburgh	243-8383
Tenn	Ridge Instrument Co, 110 Inn La Oak Ridge	483-1311
Tex	Whitson Engineering Co, 1323 Levee St Dallas	748-0492
Utah	T E Sweet Co, 852 E 9th S Salt Lake City	364-0331
Can	Electro Physical Instr P, 8174 Wavell Rd Montreal Que	514 486-2441
Mex	Industrial De Control, S A, Calle 3 No 9 Naucalpan De Juarez	27-11-90

KRECKMAN CO, HERB, CRESCO
PA, 18326 .... 717 595-2212
H KRECKMAN, EMP 3, ENG 1, UP TO $100M

Ala	Fred Wamble Sales Co, 3745 Marie Cook Dr Montgomery	272-4600
Alas	Hoffer Enterprises, 129 5th Ave, Anchorage	
Cal	C H Mitchell Co, 18531 Ventura Blvd Tarzana	881-2626
Minn	John Anderson & Co, 5231 Humbolt Ave S Mnpls	823-6459
Mo	H A Roes & Co, 2601 Cherry Kansas City	221-0866
NJ	Ed Braddock, Box 305, Haddonfield	429-0087
NY	Chester Drexler, 3 Lee Dr, Farmingdale	249-8206
Ohio	Ohio Assoc, Box 728, Lima	
Tex	Wyborny Sales Co, Box 17070, Dallas	381-4645
Wash	Don Kohler Co, 115-32 4th Ave NE Seattle	363-1439
For	ITT Export Corp, 20 Broadway New York, NY	269-3800

KRESSILK PRODUCTS INC, 420 SAWMILL RIVER RD, ELMSFORD
N Y, 10523, TWX 01-25572 .... 914 592-7700
J SLATER, EMP 25, ENG 2, $1,000-$2,500M
ADV PG 383

Ill	Kressilk Prod Inc, 2434 Dempster St Des Plaines	299-1051

KROHN-HITE CORP, 580 MASSACHUSETTS AVE
CAMBRIDGE
MASS, 02139, TWX 710-320-6583 ...... 617 491-3211
R HADDAD, EMP 80, ENG 5, $1,000-$2,500M

Ala	Col-Ins-Co Inc, Box 4246, Huntsville	539-1771
Cal	L & M Engineering, 9911 Inglewood Ave Inglewood	678-5409
Cal	L & M Engineering, 2620 The Alameda Santa Clara	243-6661
Colo	Aztec Enterprises Inc, 3385 S Bannock Englewood	761-0101
Conn	Instruments Consultanta Inc, 2381 Whitney Ave Hamden	248-4174
Fla	Col-Ins-Co Inc, Box 13189, Orlando	423-7615
Ga	Col-Ins-Co Inc, 200 Carrington Way Marietta	422-8327
Ga	Bali Intl Agencies, Polton Rd, Bombay 1-Br	
Ill	Hugh Marsland & Co, 6699 Lincoln Ave Chicago	676-1100
Ind	Hugh Marsland & Co, 3734 Carrollton Indianapolis	924-3568
Iowa	Engineering Services Co, 1026 3rd Ave S E Cedar Rapids	366-1591
Kan	Engineering Services Co, 7924 State Line Prairie Village	649-4000
Md	C E Snow Co, 10442 Baltimore Ave Beltsville	345-2211
Mass	Instrument Consultants Inc, Box 25 Waban	969-9881
Mich	Electro Sales Assoc Inc, 10745 Morans Drive Detroit	886-2280
Minn	Hugh Marsland & Co, 231 N Edgewood Ave Mnpls	545-4481
Miss	Col-Ins-Co Inc, Box 1292, Bay St Louis	833-1116
Mo	Engineering Services Co, 6717 Vernon Ave St Louis	726-2233
NJ	NLR Assoc, 617 Bloomfield Ave Verona	239-4747
NM	Aztec Enterprises Inc, 3202 Candelaria Rd NE Albuq	345-3441
NY	DB Assoc Inc, 22 Biscayne Dr Lancaster	835-6186
NY	DB Assoc Inc, Box 14, Dewitt	446-0220
NC	Col-Ins-Co Inc, Box 5597 Winston-Salem	765-3650
Ohio	Electro Sales Assoc Inc, 335 E 200th St Cleveland	486-1140
Ohio	Electro Sales Assoc Inc, Overlook Br Box 3122 Dayton	426-5551
Pa	NLR Assoc Inc, 529 Shoemaker Rd Philadelphia	224-1663
Pa	Electro Sales Assoc, 201 Penn Ctr Blvd Pittsburgh	371-9449
Tex	Roger Martin Assoc Inc, Box 1002 Bellaire	468-3877
Tex	Roger Martin Assoc, Box 64513, Dallas	358-3704
Wash	Avionics Liaison Inc, 6770 Perimeter Rd S Seattle	RO 7-3870
Can	Alan Crawford Assoc Ltd, 65 Martin Ross Ave Downsview Ont	636-4910
Can	Alan Crawford Assoc Ltd, 376 Churchill Ave Ontario	725-1288
Can	Alan Crawford Assoc Ltd, 6999 Cote de Neiges Rd Que	739-6776
Can	Alan Crawford Assoc Ltd, 5901 E Broadway North Burnaby	298-6242
For	Universal Elektronik Import, Makartgasse 3 1010 Wien 1, Aus	57 93 71
Den	S C Metric A/S, Naerum Hovedgade 121 2850 Naerum	(01) 89 08 76
Fr	Radio equip Antares, Baite Postale N 66 92 - Levallois-Perret	737-54-82
Ger	Nucletron Vertriebs-Gmbh, Gartnerstr 60 8Munich 54	(0811) 54 60 81
GB	Seslab Electronics Ltd Radley House Brockhampton La, Havant Hants	
Holl	C N Rood n.v., Box 4542 Rijswijk (Z H)	070-98.51.53
Ital	M Vianello, Via Luigi Anelli, 13 1-20122 Milan	553.081
Jap	Shoshin Shojikaisha Ltd, Box Nihonbashi 173, Tokyo	
Nor	Feiring Instrument, Langmyrgrenda 1, Oslo 8	
SAfr	A C Gowlett (Pty) Ltd, Box 1257, Johannesburg	
Swed	Teleinstrument, Box 14 Stockholm-Vallingby	87 03 45
Swit	Megex Zurich Co Ltd, Badenstr 582 8048 Zurich	(051) 52 78 00
Belg	C N Rood SA, 30 rue Leon Frederic, Brussels 4	
Ind	Bali Intl Agencies, Polton Rd, Bombay 1-BR	
Isrl	R D T Electronics Engry Ltd, 13 Dov-Hos St Tel-Aviv	22 09 89
NZ	Sample Electronics (NF) Ltd, 8 Matipo St Onehurga Auckland 6	
Spn	REMA Leo Haag, S A, General Sanjurjo, 18 Madrid 3	253 40 03
Fin	Into O/Y, Box 10153 11 Meritullinkatu	Helsinki 10
Aust	Sample Elctn Vic Pty Ltd, 9-11 Cremorne St Richmond E.1 Vic	42 4757

KRUSE-STORKE ELECTRONICS, 790 HEMMETER LA
MOUNTAIN VIEW, CAL, 94040 .... 415 967-2299
G HACKLEY, EMP 32, ENG 6, $500-$1,000M

Ariz	Electronic Enterprises, 45 W 1st St Scottsdale	602 946-9860
Cal	Dynamic Assoc, 5190 W Washington Los Angeles	933-5833
Cal	Garner Laine Elctns, 825 San Antonio Rd Palo Alto	415 828-1717
Colo	Bishop ENterprises, 493 Jamaica Aurora	364-7361
Fla	BCS Assoc, Inc, Box 6578, Orlando	425-2764
Ill	Cozzens & Cudahy Inc, 9501 Devon Ave Rosemont	825-1144
Md	Ron Davies Assoc, 11215 Oak Leaf Dr Silver Spring	301 593-4900
Mass	Instrument Assoc, 30 Park Ave Arlington	648-2922
NJ	G Curtis Engel & Assoc Inc, 210 S Broad St Ridgewood	444-1400
NM	Bishop Enterprises, 601 San Pedro NE Albuquerque	505 255-9042
NY	NACO Electronics Corp, 119 Luther Ave, Liverpool	
Tex	Airep Electronics Inc, 6300 N Central Expwy Dallas	512 828-1488
Wash	J K Dooley Co Inc, 4110 Stone WAY N Seattle	ME 2-1618

KSC SEMICONDUCTOR CORP, KSC WAY
CHELMSFORD
MASS, 01824, TWX 710-343-0576 ...... 617 969-8451
J ADAMS JR, EMP 65, ENG 12, $1,000-$2,500M

Ariz	Southwest Engineering, 8341 N 7th St Phoenix	944-1521
Cal	W W Posey Co, 1378 Don Kirk St Los Altos	967-8998
Cal	Rep Assoc, 1645 S LaCienega Blvd Los Angeles	274-8485
Colo	Waugaman Assoc, 2785 N Speer Blvd Denver	303 255-5000
Fla	Perrott Assoc, 1607 Forsyth Rd Orlando	275-1132
Ill	H Grubb & Co, 8039 Lawndale Ave Skokie	677-0080
Kan	H C Heyde Co, 9221 Wenonga Rd Leawood	649-8628
Md	Barnhill & Assoc, 1931 Greenspring Dr Timonium	252-5610
Mass	Impact Sales Co, Box 95, Norwood	762-8227
NM	C T Carlberg & Assoc, 2611 Quincy NE Albuquerque	265-1579
NY	James L Semple Assoc, 21 Edgewater La Rochester	342-1413
NY	C Tennant, Sons & Co of N Y, 100 Park Ave New York	679-1300
NY	Comp-Tech Sales, Box 384 Lynbrook	516 593-2628
Ohio	Electro Com, 5055 N Main St Dayton	513 278-4797
Va	Barnhill & Assoc Inc, 3320 Candlers Mt Rd Lynchburg	
Wash	Jon B Jolly, 69 Marion St, Seattle	623-7060
Can	Canadian Gen Elec Co, 189 Dufferin St Toronto, Ont	534-6311

KSM DIV OMARK INDUSTRIES INC
301 NEW ALBANY RD, MOORESTOWN
N J, 08057 ... 609 235-6900
J RAYNER, EMP 300, ENG 25, $500-$1,000M
Ala J E Duncan, 512 N 18th St Birmingham ... 251-5815
Cal KSM Div, 447 East Gardena Blvd Gardena ... 770-0321
Cal KSM Div, 746 Ellis St, San Francisco
Fla J B Thompson, 6231 Stetler Dr Jacksonville ... 355-1871
Ga KSM Div, 280 Mt Zion Rd, Atlanta ... 766-7029
Ill KSM Div, 11528 S Halsted St, Chicago ... 468-2800
Ind Richard L Alley, 325 Bankers Trust Bldg Indpls ... 631-6511
Kan B J O'Boyle, 605 E 74th St Kansas City ... 561-1127
La R F Rizzi, 3401 Academy Rd, Metairie ... 943-1073
Md KSM Div, 8237 Georgia Ave Silver Spring ... 588-3181
Mass A Towne, 37 Franklin St, Needham ... 449-0994
Mich KSM Div, 12810 Puritan Ave, Detroit ... 864-8660
Minn R Knoll, 200 Upper Midwest Bldg Mnpls ... 336-8246
Mo J Caulfield, 2701 N 25th, St Louis ... 621-4246
NJ KSM Div, 389 Main St, Hackensack ... 489-6262
NY T E Acker, 1006 Prudential Bldg Buffalo ... 856-1289
NY J Ketel, 3001 James St, Syracuse ... 463-6165
NC J Rhodes, 1033 Jenkins Dr, Charlotte ... 376-1966
Ohio R C Taverna, 8020 Montgomery Rd Cincinnati ... 793-0212
Ohio J Shandor, 2051 Elmwood Ave, Stow ... 653-2520
Ohio C J Damm Jr, 101 N High St Columbus ... 221-6165
Pa KSM Div, 1300 Clark Bldg, Pittsburgh ... 471-8875
Tex M J Boni, 1332 McCarty Drive Houston ... 673-3360
Tex KSM Div, 2817 Walnut Hill La, Dallas ... 352-9845
Va A Horne, 9201 Cherokee Rd, Richmond ... 643-4530
Wis T H Tanner, 525 N 6th St, Milwaukee ... 271-3290
Can K S M of Canada Ltd, 1090 Kipling Ave N Rexdale, Ont ... 247-6294
GB K S M Stud Welding Ltd, 1 Farnham Trading Est Surrey ... FAR 2110114
Belg K S M Continental, SA, Chaussee De Namur Nivelles ... NIV 24931
Aust K S M (Australia) Pty, Ltd 49 Mologa Rd W Heidelberg, Victoria

K SQUARE CORP, 321 PENNWOOD AVE, PITTSBURGH
PA, 15221 ... 412 241-5500
K KERMAN, EMP 20, ENG 2
Cal David J Tripp & Assoc, 17234 Ventura Blvd Encino ... 213 788-8491
Mass Atlantex Instrument Co, 131 Lexington St Waltham ... 617 893-0776
Tex Wm H Talley Co, 3411 Richmond Ave Houston ... 713 621-3372
Va Danch Assoc, 8027 Leesburg Pike McLean ... 703 893-5800
Wash Air Masters Inc, 5600 Calif Ave S W Seattle ... 206 932-8267

KUHLMANN-IMPEX, INC, 5843 ARMOUR DR
HOUSTON, TEX, 77011 ... 713 WA 1-2658
W LIESNER, EMP 6, $100-$250M
Cal Kuhlmann-Impex,Inc, Box 45343 Los Angeles ... 213 748-5508
Tex Kuhlmann-Impex, Inc, Box 1654 Dallas ... RI 2-3588

KUHNKE, H, ELEKTROTECHNISCHE FABRIK GMBH
MALENTE, HOLSTEIN, GERMANY ... 397
H TREIBER, EMP 460, ENG 12
For Omni Ray AG, Mollardgasse 54, Wien VI ... 570638
For Soc Com Mattos Tavares Lta R Dos Sapateiros 39 2 Caixa Postal 2171 Lisboa ... 361101
Den Radio Parts A/S, 13, Sankt Knudsvej Kopenhagen ... HIL 3111
Fr Spetelec, 13, Rue de Chatelier, Paris ... GAL 05-23
GB H Kuhnke Ltd, St Johns Rd, Penn Bucks ... H 343
Holl NVJC Stuifmeel-Electrotechnik, 684, Keizersgracht Amsterdam ... 66936 243377
Ital SIEI, 37, Via Lomellina, Milano ... 720 871/715670
Nor P D Waerner A/S, 1, Kirkegaten 1, Oslo ... 421815
SAfr H Kopp & Co (Pty) Ltd, Box 2944 Johannesburg ... 22-2529
Swed BO Palmblad AB, 58, Hornsgatan Stockholm S ... 246160
Swit Omni Ray AG, 56, Dufourstr 56 Zurich 8 ... 051/478200
Isrl Lamet, 56, Allenbz Rd, Tel-Aviv ... 56851
Spn Juan Staib, C Mallorca 327, Barcelona 9 ... 2580019
Fin Oy Honeywell AB, 5, Hitsaajankatu Helsinki ... 780311

KULICKE & SOFFA INDUSTRIES INC
135 COMMERCE DR, FORT WASHINGTON
PA, 19034, TWX 215-646-6236 ... 215 646-5800
EMP 250, ENG 25, $5,000-$10,000M
Cal K & S Pacific, 991 Commercial St Palo Alto ... 327-9292
Cal K & S Pacific, 241 S Labrea Inglewood ... 213 672-1212
GB K & S-Fell Ltd, 13 New Rd New Haven Sussex ... New Haven 3331
Jap Nissho Co Ltd 10 Nihonboshi Edobashi, 1-Chome, Chu-ku Tokyo ... 216-0311
Swit Kulicke & Soffa Sales AG, Postr 14 Box 263 C H 6300 Zug ... 042-48033

Ind Electronic Enterprises, New Charni Rd Bombay 4 ... 375-376

KULKA ELECTRIC CORP, 520 S FULTON AVE, MOUNT VERNON
N Y, 10551 ... 914 MO 44024
J MURPHY, EMP 500, ENG 10
ADV PG 598
Ala Murphy & Cota Inc, 904 Bob Wallace Ave S W Huntsville ... 536-9121
Ariz Shefler Kahn Co, 2017 N 7th St Phoenix ... AL 8-7893
Cal E E Strassner Co, 3121 Los Feliz Blvd Los Angeles ... 666-1511
Colo Koether-Cox Co, 1327 S Inca St Denver ... 733-5561
Conn Coakley Boyd & Abbett Inc, 6 Gaywood Dr Waterbury ... 756-8766
Fla Murphy & Cota Inc, 712 W Vassar St Orlando ... 424-2167
Ga Murphy & Cota Inc, 586 Armour Cir N E Atlanta ... 876-3020
Ill R A Hanke Co, 2660 N Clybourne Ave Chicago ... 312 528-5800
Ind Burton F Homsher Co, 418 Berry St Fort Wayne ... 419 432-1164
Kan Lowell-Kangas Assoc, Box 4116 Overland Park ... TU 8-3200
La Jack F McKinney Sales Co, 2012 Condon Ave Metairie ... 504 887-1723
Md L D Lowery Inc, 6200 Annapolis Rd Hyattsville ... 773-4977
Mass Coakley Boyd & Abbett Inc, 1424 Highland Ave Needham ... 444-5470
Mich Shalco Inc, 23529 Woodward Ave Ferndale ... 547-4771
Minn R G Ragon Inc, 1136 W Larpenteur Ave St Paul ... 488-6634
Mo Lowell-Kangas Assoc, Box 12526 Creve Coeur Sta St Louis ... MI 7-1111
Nev Lebell-Warren Assoc, 605 Old Country Rd San Carlos ... 593-7688
NJ Simberkoff Sales Inc, 71 Valley St South Orange ... 201 763-7900
NY F W Taylor Co, Inc, 4455 E Genessee St De Witt, N Y ... 446-0422
NC Murphy & Cota Inc, 1106 Burke St Winston-Salem ... 919 723-1001
Ohio Neal Bear Corp, 3435 Streetboro Rd W Richfield ... 216 659-3331
Ore Earl & Brown Co Inc, 2041 SW 58th Ave Portland ... 503 292-9145
Pa L D Lowery Inc, 2801 Westchester Pike Broomall ... 356-5300
Tex Jack F McKinney Sales Co, 1303 Chemical St Dallas ... 214 631-9450
Wash Earl & Brown Co Inc, Box 9285, Seattle
W Va Trymac Assoc, 201 Penn Ctr Blvd Pittsburgh, Pa ... 823-8400
Wis A J Gaertner & Assoc, 206 W Highland Milwaukee ... BR 3-6162
Can Munro Electronic Components, 67 Portland Toronto 2B ... 416 363-0438

KURMAN INSTRUMENTS CORP, 15 BURKE LA
SYOSSET, N Y, 11791 ... 516 921-7550
J BOZART, EMP 100, ENG 4, $1,000-$2,500M
Cal Westec Electronics Inc, 110 First St, Los Altos
Cal Westec Electronics Inc, 14125 Inglewood Ave Hawthorne
Colo Inland Assoc, 2991 Peak Ave Boulder ... 303 443-8213
Fla Young & Lawrence Assoc, 601 N New York Ave Winter Park ... 647-6929
Kan Inland Assoc, 6047 Howe Dr Mission ... 913 362-2366
La Jack F McKinney Sales Co, 2012 Condon Ave Metairie ... 887-1723
Md A Wetterhahn Co Inc, 107 York Rd Towson ... 825-1335
Mass RJC Assoc, 600 Main St, Waltham
Mich Product Sales Corp, 415 W Grand River East Lansing ... 351-9180
Mo Inland Assoc, 455 N Lindbergh Creve Coeur ... 314 993-0301
NJ A Wetterhahn Co Inc, 4420 Crescent Blvd Pennsauken ... 662-1611
NY R P Kennedy Co Inc, 39 Saginaw Dr Rochester ... 716 271-6322
Ohio Midwest Mktg Assoc, 137 Lakeview Dr, Dayton
Okla Jack F McKinney Sales Co, Box 3958 Tulsa ... 622-2967
Ore Fluid Air Components, Box 02038 Portland ... 246-4297
Tex Jack F McKinney Sales Co, 1303 Chemical St Dallas ... 631-9450
Tex Jack F McKinney Sls, 5458 Edith St Bellaire ... 665-3653
Can J M Nelson Sales Co, 53 Fidler Ave N Winnepeg ... 832-3396
Can Tri-Tel Assoc Ltd, 55 Brisbane Rd Downsview, Ont ... 633-4325
BC Nelson Sales Ltd, 1224 E Pender St Vancouver, B C ... 255-9626

KURZ & ROOT CO, 1000 N MEADE ST, APPLETON
WIS, 54910, TWX 910272-1169 ... 414 733-6641
R KAMPS, EMP 300, ENG 18, $5,000-$10,000M
Cal R B Hutton, 1720 S Pontius, Los Angeles
Cal Star Marine Engine Works, 2920 7th St, Berkeley
Cal Able Market Engineers, 2149 W Washington Blvd Los Angeles
Colo Electrical Agencies Co, 1689 Eliot St, Denver
Conn D & F Sales Co Inc, 31 Old Hill Rd, Westport
Conn D & F Sales Co Inc, 1199 Whitney Ave, Hamden
Fla C Singleton, 551 N Ellis Rd, Jacksonville
Ga Mark C Pope Assoc, 240 Walker St, Atlanta
Haw Matt Cabot & Assoc, Box 3708, Honolulu
Ill Charles Equipment Co, 17W601 North Ave Villa Park
Ill Globe Assoc, 110 S Dearborn St, Chicago
Kan T D Iliff, 9621 Canterbury, Leawood
La J Taylor , 225 Baronne St, New Orleans
Md Eastern Sales Co, 1561 Lister Rd, Baltimore
Mass Toher & Williams Assoc, 4 Indian Hill Rd, Wakefield
Mass Toher & Williams Assoc, 5 Turner St, Waltham
Mass D & F Sales Co Inc, Box 203 N Postal Anx, Boston
Mich Paul Horst Co, 25511 Southfield Rd, Southfield
Minn Building Products Inc, 3505 Hennepin Ave Minneapolis
Mo Charles Equipment Co, 40 N Rock Hill Rd, St Louis
NJ D & F Sales Co Inc, 476 Riverside Ave, Lyndhurst
NM Paul J Connington Co, 11S16 Morenci NE Albuquerque
NY D & F Sales Co Inc, 103 Park Ave, New York
NC B Weeks, Box 606, Raleigh
Ohio A G Smith, 1229 W Third Ave, Columbus
Ohio Martin-Rettger Inc, 11955 Shaker Blvd, Cleveland
Okla Johnson-Coates Inc, 1405 S Midwest Blvd Oklahoma City
Pa Ronald E Grinder Co, 220 Highland Rd, Pittsburgh
Pa O'Brien Machinery Co, 1915 W Clearfield St Philadelphia
RI Toher & Williams Assoc, 2027 Elmwood Ave Warwick
Tenn Swift Industrial Power, 4315 Paper Mill Rd Knoxville
Tex P Connington, 2137 Mills St, El Paso
Tex Kup Electric Co, 1326 N Hackberry, San Antonio
Tex Carey & Assoc, 3315 W 12th St, Houston
Wis Kirchmayer-Seidel Co, Box 3004, Milwaukee
For R Rojas B, Galvez 83 Casilla 9269, Santiago, Chile
For Altay Kollektif Ortakligi, Sumer Sokak 16 Yenisehir - Ankara, Turkey
For Font Assoc, Box 69, Old San Juan PR
For Shukwang Industrial Co Ltd, Box 2036, Seoul Korea

K-W ENGINEERING WORKS
N50 W 16328 PIN OAK CT, MENONOMEE FALLS
WIS, 53051 ... 414 781-8616
H KAETEL
Ill Gene T Clear Co, 435 Indianwood Blvd Park Forest ... SK 5-8359
NJ Metrorep Inc, Box 782, Freehold ... 462-1221
NC Buthan Inc, 4924 Oleander Dr, Wilmington
Ohio Midwest Sales Co, 3219 W 117th St Cleveland ... WI 1-2700

KYORITSU ELECTRICAL INSTRUMENTS WORKS LTD
20-5, 2-CHOME, NAKANE, MEGURO-KU, TOKYO
JAPAN, TWX TK 2849 ... 717-0131
Y OGATA, EMP 300, ENG 30

KYORITSU ELECTRIC WORKS LTD
37-7,3-CHOME,NAKANO-KU, TOKYO
JAPAN ... 381-7191
Y HANAOKA, EMP 90, ENG 60, $250-$500M

KYOTO CERAMIC CO LTD, 101 HARAMACHI, NISHINOKYO,
NAKAGYO-KU, KYOTO, JAPAN, TWX 5422-479 ... 811-3141
M OKUNO, EMP 590, ENG 95
ADV PG 130
Cal Kyoto Ceramic, c/o Marubeni-Iida (Amer) Inc 624 S Grand Ave, Los Angeles ... 213 628-6271
Ill Marubeni-Iida (Amer) Inc, 1181 Merchandise Mart Chicago ... 467-6993
NY Marubeni-Iida (Amer) Inc, 200 Park Ave New York ... WH 973-6500
Fr Marubeni-Iida France S A R L, 4 Rue Ventadour Paris 1e ... 073-59-60
GB Dereck Carver, 16 OAK Ave Hampton, Mdsx ... 01-979-7074

L A B CORP, 992 ONONDAGA ST, SKANEATELES
N Y, 13152 ... 315 685-5781
J HUBBARD, EMP 40, ENG 6, $500-$1,000M
Cal Howard & Co, 294 Lawrence Ave San Francisco ... JU 9-3050
Cal Tucul Engineering Co, 6402 Crenshaw Blvd Los Angeles ... 750-0338
Ill Bard Assoc Inc, La Grange Ind Park La Grange ... 354-0660
NY Space Tronics Inc, 1705 Merrick Ave N Merrick ... TN 8-1800
Tex Merit Company, 10044 Monroe St Dallas ... FL 2-8040
Can Beechey Enterprises, 3218 Weston Rd Weston, Ont ... CH 4-8051
For Ameresco Inc, 101 Park St Montclair N J ... PI 6-5300

LAB ELECTRO-ACOUSTIQUE, 5 RUE JULES-PARENT
92 RUEIL-MALMAISON, FRANCE ... 967 27-84
G LUBSZYNSKI, $250-$500M

LABELON CORP, 10 CHAPIN ST, CANADAIGUA
N Y, 14424 ... 315 394-6220
R DILL, EMP 220, ENG 6, $2,500-$5,000M
Cal R L Smith Co, 2415 S Broadway Los Angeles ... 746-1710
Colo Robert Smith, Jr, 7912 Chestnut Way Littleton ... 794-5397
Ga Kogco, 406 Henry Grady Off Bldg Atlanta ... 524-0095
Ill Paul Coriden, 1808 S Cumberland Park Ridge ... 825-3129

Mass R F Kingsbury, 46 June La
Newton Centre 244-0777
NY Labelon Corp, 349 Broadway
New York .... WO 6-4940
NY B Reusch, 154 Kettering Dr, Buffalo 834-6440
Ohio F J Kaltenmark, 26367 Nestwood Dr
Westlake .... TR 1-5045
Tex M Holberg, 6116 N Central Expwy
Dallas 368-5795
Va R Braunlich, 1801 Ivy Hill Dr
Mac Lean 638-2482
Wash D Burgoyne, 4202 Oswego Dr
Vancouver .... OX 3-2485
Can A R Davey Co, 1162 Caledonia Rd
Toronto 781-5267
Swit Ernst Hess Basel, Zuerchestr 65, Basel

LABEN S P A, VIA EDOARDO BASSINI 15, MILAN
ITALY, 20133, TWX GABBRO 236-5551
M GEREVINI, EMP 250, ENG 30, $2,500-$5,000M
Den Hans Buch & Co A/S, 6 Svanevej
Kobenhavn NV .... Taga 5170
Ger Elektronik-Service GmbH, Savignstr 55
6 Frankfurt/Main 1 72-63-81
GB Nuclear Enterprises GB Ltd, Sighthill
Edinburgh 11 .... CRA 4060
Holl Intechmij NV, Hoogkarspelst 68
The Hague 070 36-37-00
Nor H Meltzer & Co, BYGDOa Alle 23
Oslo 2 56-40-40
Swed Polyamp AB, Toppvagen 20
Jakobsberg 0758-36-770
Swit High Energy & Nuclear Equip S A
2 Chemin de Tavernay
Grand Saconnex 1218 Geneve 022 34-17-07
Isrl Palec Ltd, 7 Harishonim St, Ramat-Gan 72-07-15
NZ A A Guthrie Ltd, 4 Adelaide Rd
Wellington 80-069
Aust A A Guthrie Pty Ltd, 16 Meeks Rd
Marrickville 51 89 61

LABORATORY EQUIPMENT CORP, 1415 HILLTOP RD
ST JOSEPH, MICH, 49085 .... 616 YU 3-5533
W STOCKWELL, EMP 150, ENG 11, $1,000-$2,500M

LABORATORY FOR ELECTRONICS INC ELCTNS DIV
1075 COMMONWEALTH AVE, BOSTON
MASS, 02215, TWX 617-788-2743 .... 617 254-4233
G GAMBLE, EMP 1400, ENG 400, OVER $10,000M

LA CESA ENGINEERING CORP, 5614 W GRAND AVE
CHICAGO, ILL, 60639 .... 312 237-0060
J LACESA, EMP 24, ENG 1, $250-$500M
Cal Batina Machinery Co, 72 E 3rd Ave
San Mateo 342-1813
Ill H G Pretat Inc, 7716 W North Ave
Elmwood Park 312 453-3380
Ind H G Pretat Inc, 3001 S Fairfield Ave
Fort Wayne 219 745-1251
Mass Denning Assoc, Box 491
Wakefield 617 334-4099
NJ Denning Assoc, Box 475
East Orange 201 673-7959

LAD ELECTRONICS CORP, 7 COMMERCIAL ST
HICKSVILLE, N Y, 11801 .... 516 822-1420
J LAZAR, EMP 15, ENG 3, $100-$250M
Colo Kelley Enterprises, 336 E 4th St
Loveland 303 667-1376
Md Tomco Sales
Rt 2 Box 420A Longpoint on the Severn
Crownsville 301 849-2401
Mass Zigco Inc, 18 Muzzey St, Lexington 617 861-8300
NJ Power Conversion & Control, Box 1251
Englewood Cliffs 201 569-0015
Tex Applied Engrg Sales, 1st Bank & Trust Bldg
Richardson .... 214 AD 1-1322
Can Technitron Assoc Ltd, 769 Lajoie Ave
Dorval Que 514 631-6859
For Emec Inc, 160 Terminal Dr
Plainview N Y .... 516 WE 1-3700

LAFAYETTE RADIO ELECTRONICS, 111 JERICHO TPK
SYOSSET, NY, 11791 .... 516 WA 17700
A PLETMAN, EMP 495, OVER $10,000M

LAKA TOOL & STAMPING CO, INC, 62 KINKEL ST
WESTBURY, N Y, 11590 .... 516 ED 4-4620
G LAKA, EMP 10, ENG 1, $100-$250M

LAKE CHEMICAL CO, 250 N WASHTENAW AVE
CHICAGO, ILL, 60612 .... 312 826-1700
C KLEIMAN, EMP 40, ENG 4

LAKE ENGINEERING CO LTD, 123 MANVILLE RD
SCARBOROUGH, ONT 416 751-5980
W WELK, EMP 91, ENG 3, $1,000-$2,500M

LAKE ERIE ELECTRIC MFG, INC, 2952 W 22ND ST
ERIE, PA, 16506 .... 814 838-1916
G SINGER, EMP 42, ENG 2, $500-$1,000M
NJ L H Walke, 22 Harreton Rd, Allendale .... DA 7-8021
NY D S Reynolds, 5695 Main St, Buffalo 634-5550
Ohio S J Vereb, 4619 East 93 rd St
Cleveland 271-2066
Pa A B Powell Co, Inc, 3829 Willow Ave
Pittsburgh 561-7511

LAKE MFG CO, 909 KING ST, OAKLAND
CAL, 94606 .... 415 534-5086
W HOWE, EMP 40, ENG 2, $250-$500M
Ga Southland Assoc, 3884 N Peachtree Rd
Chamblee 362-4031
Ind Northland Assoc, Box 429, Moorhead 233-4616
Miss Southland Assoc, 5466 N State St
Jackson 451-4077

LAKE SHORE INC, IRON MOUNTAIN
MICH, 49801, TWX 810-278-4843 .... 906 774-1500
P MITCHELL, EMP 557, ENG 20, OVER $10,000M
Cal M J Gigy & Assoc, 463 6th St, San Francisco
La Carson Stone, 321 Carondelet Bldg, New Orleans
Mass W E Litwin Assoc, 103 Thaxter St, Hingham
Mich Lake Shore, Inc, 29429 Southfield Rd
Southfield 358-1350
NY J R Stewart Inc, 2900 Erie Blvd, Syracuse
Ohio J R Engle Co, 20776 Chagrin Blvd, Cleveland
Can Affiliated Engrg Equip 1961 Ltd, 2435 Duncan Rd
Montreal 9, Que

LAKE STATES INDUSTRIES DIV LAKE STATES OIL CO, BOX 30,
IRON MOUNTAIN, MICH 49801 906 774-0454
W NEWTON

ADV PG 73

LAKE SYSTEMS CORP, BOX 65, NEWTON
MASS, 02160 .... 617 244-6881
W DWYER, EMP 35, ENG 3, $1,000-$2,500M

LAKE TOWN MFG CORP, BOX 27A, RFD 1, WACONIA
MINN, 55387 .... 612 442-4045
N FIELD, EMP 6, ENG 2, UP TO $100M
Can Lisle Instrument Systems Ltd, 70 Sheffield St
Toronto, Ont

LAMART CORP, 16 RICHMOND ST, CLIFTON
N J, 07015 .... 201 772-6262
W HIRSH

LAMBDA ELECTRONICS CORP, TERMINAL DR, PLAINVIEW
N Y, 11803, TWX 510-221-1897 .... 516 694-4200
EMP 3, ENG 50, $5,000-$10,000M
ADV PG 515-525
Cal Lambda Electronics Corp, 13425 Wyandotte St
N Hollywood 877-0041
Cal Lambda Electronics Corp, 4546 El Camino Real
Los Altos 370-7964
Colo Lambda Electronics Corp, Denver 238-0158
Fla Lambda Electronics Corp, Orlando 644-9012
Fla Lambda Electronics Corp
West Palm Beach 833-1447
Ill Lambda Electronics Corp, 8 S Michigan Ave
Chicago 332-3644
Mass Lambda Electronics Corp, 182 Forbes Rd
Braintree 848-1610
Minn Lambda Electronics Corp, Minneapolis 332-6714
NM Lambda Electronics Corp, Box 11640
Albuquerque 247-4854
NY Lambda Electronics Corp, 20 DuPont St
Plainview 681-8300
NY Lambda Electronics Corp, 515 Broad Hollow Rd
Melville 694-4200
Ohio Lambda Electronics Corp, 1414 S Green Rd
Cleveland 381-3610
Ohio Lambda Electronics Corp, Dayton 222-6656
Pa Lambda Electronics Corp, Norristown 272-7101
Tex Lambda Electronics Corp, 777 S Central Expwy
Richardson 231-7191
Can Radionics Ltd, 195 Graveline St
Montreal Que 631-4568
Can Radionics Ltd, 505 Eglinton Ave W
Toronto Ont 483-7191
Can Radionics Ltd, 376 Churchill Ave
Ottowa Ont 728-4624

LAMB ELECTRIC DIV AMETEK INC, LAKE ST, KENT
OHIO, 44240, TWX 986-497 .... 216 673-3451
C WOODWARD, EMP 9000, ENG 15, OVER $10,000M
Cal Charles L Repp Co, 12121 Wilshire Blvd
Los Angeles 477-4475
Cal W J Purdy Co, 312 7th St
San Francisco 863-3300

LAMBERT CO, INC, 920 COMMONWEALTH AVE
BOSTON, MASS, 02215 .... 617 BE 2-8551
J CONSILVIO, EMP 14, UP TO $100M

LAMINAIR, INC, 13226 S FIGUEROA, LOS ANGELES
CAL, 90061 .... 213 FA 1-0545
B WEINER, EMP 25, ENG 1, $100-$250M

LAMINATED FABRICATORS, 1145 SAN MATEO AVE
SAN BRUNO, CAL, 94066 .... 415 583-5092
H JACOBS

LAMINATED SHEET PRODUCTS CORP
449 NEPONSET ST, NORWOOD
MASS, 02062 .... 617 762-3500
R MCQUIGGAN, EMP 110, ENG 4, $1,000-$2,500M
Conn Laminated Sheet Prods, Woodmont Rd
Milford 878-3561
Mass Laminated Sheet Prods Co, 127 W Main St
Millbury 865-5881

LAMINATED SHIM CO INC, 48 UNION ST, GLENBROOK
CONN, 06906 .... 203 325-2631
M ERRICO, EMP 250, ENG 4
Cal Laminated Shim, 1101 Flower St
Glendale .... CH 5-9271
Fla Spartak Inc, 410 Phelps Ave S, Winter Park
Ga C M Sallee, Box 17595, Atlanta
Ill L W Swenson, 1154 Vernon Dr
Glenview .... PA 4-5098
Ohio W D Berry, Box 2970, Rocky River .... ED 1-5394
Tex W N Rider, 6211 Denton Dr, Dallas
Can Climax Co Ltd, 140 Ronald Dr
Montreal .... WE 5-2457

LAMPKIN LABORATORIES, INC, DEPT 70, BRADENTON
FLA, 33505 .... 813 746-4175
D BOYERS, EMP 18, ENG 3

LANCASTER GLASS CORP, LANCASTER
OHIO, 43130 .... 614 653-0311
B GREENLEE, EMP 900, ENG 25, OVER $10,000M

LANCE ANTENNA CORP, 13001 BRADLEY AVE
SYLMAR, CAL, 91342 .... 213 367-5941
I SILVERSMITH, EMP 75, ENG 5, $1,000-$2,500M
Cal Sinai Johnson Inc, 417 Douglas St
Redwood City .... UN 1-6259

LANDIS & GYR, INC, 45 W 45TH ST, NEW YORK
N Y, 10036, TWX 710-581-5888 .... 212 JU 6-4644
J MAROTTA, EMP 38, $2,500-$5,000M
Cal Paul F Wiley, 1632 Silverlake Blvd
Los Angeles .... NO 3-8028
Cal Recht Assoc, 175 S San Antonio Rd
Los Altos 941-0336
Cal Bearings Seals & Gears Inc, 1650 Broadway
Redwood City 415 365-5444
Cal Instrument Components Co, 711 S Vermont Ave
Los Angeles 213 386-6561
Colo Bishop Enterprises, 493 Jamaica St
Aurora 364-7361
Colo Bearings Seals & Gears Inc, 6867 84th Ave SE
Mercer Island 206 232-6070
Colo Bearings Seals & Gears Inc, 13605 Wide Acres Rd
Golden 303 238-2411
Fla Wm R Lehmann Co, Box 20275
Orlando 841-4901
Fla Instrument Components Co
10355 Paradise Blvd 515
Treasure Island 813 360-8119
Haw Berkley Eng & Equip Co, Box 3856, Honolulu
Ill Burt Anderson & Assoc, 5969 N Elston Ave
Chicago 774-8989
Ill S W Anderson Co, 2425 Wisconsin
Downers Grove 312 964-2600
Ind S W Anderson Co, R R 4 Box 25B1
Crown Point 219 663-1707
Ind S W Anderson Co, 160 E 71st St
Indianapolis 317 251-9050
Iowa Lorenz Sales Corp, 320 30th St SE
Cedar Rapids 319 366-0774
Md Billis Sales Co, 110 Gorsuch St
Timonium .... CL 2-0779
Md R P Luce & Co Inc, 19 E 21st St
Baltimore 301 752-8200
Mass Instrument Dynamics Inc, Wakefield Ind Pk
Wakefield 245-5100
Mass George A Hill Assoc, Box 221
Harvard 617 894-6060
Mich L H Dickelman Co, 13331 Puritan Ave
Detroit 273-0806
Mich Reed Bearing & Equip Co, 21031 Mach Ave
Grosse Pointe Woods 313 884-1820
Minn Burt Anderson & Assoc, 4660 W 77th St
Minneapolis 922-7400
Minn S W Anderson Co, Rte 7 Box 34
Excelsior 612 474-6203
Mo S W Anderson Co, 8768 Del Vista Dr
St Louis 314 771-8080
Mo Tompkins Co, 2317 Charlotte
Kansas City 816 842-8366
NJ Billis Sales Co, 14 Galway La
Cherry Hill .... HA 8-3651
NJ R P Luce & Co Inc, 630 Morris & Essex Tpk
Short Hills 201 379-6600
NM Bishop Enterprises, 601 San Pedro, N E
Albuquerque 255-9042
NY Wm H Goudy Assoc, Box 70, Centerport 271-8830
NY Naylor Electric Co, 1718 Erie Blvd E
Syracuse .... GR 2-9183
NY R P Luce & Co, 1300 Jericho Tpk
New Hyde Park 516 437-4550
NC Moffatt Bearings Co, 901 W Lee St, Greensboro
Ohio L H Dickelman Co, 28829 Chagrin Blvd
Cleveland 831-1039
Ohio John H Doerner Co Inc, 4125 Hamilton Ave
Cincinnati 513 681-7624
Pa R P Luce & Co, 8717 Patton Rd
Philadelphia 215 884-8365
Pa H F Wood Co, 221 Commercial Ave
Pittsburgh 412 781-7000
SC Moffatt Bearings Co, 2032 Laurens Rd, Greenville
Tex Southland Engrg & Sales, 777 S Central Expwy
Richardson 231-2373
Tex Southland Engrg & Sales, 5810 Schumacher La
Houston 782-4575
Tex Tompkins Co, 2743 Irving Blvd
Dallas 214 631-2460
Tex Tompkins Co, 3205 36th St
Lubbock 806 799-0125
Wash Bearings Seals & Gears Inc, 6867 84th Ave SE
Mercer Island 206 232-6070
Wis S W Anderson Co, 6033 W Bluemound Rd
Milwaukee 414 771-6211
Can Landis & Gyr Inc, Box 1216, St Laurent, Que
Can Merrill-McLean Co Ltd, 45 Seigneurs St
Montreal Que 514 935-1107
Can Merrill-McLean Co Ltd, Box 32 Sta D
Hamilton Ont 416 544-0394

LANDIS & GYR AG, GUBELSTR, ZUG
SWITZERLAND ... 042 4 25 25
P LUSSER, EMP 13500, ENG 1000, OVER $10,000M
NY Landis & Gyr Inc, 45 W 45th St, New York

LANDSVERK ELECTROMETER CO, 641 SONORA AVE
GLENDALE, CAL, 91201 ... 213 245-9281
R GARON, EMP 75, ENG 6, $1,000-$2,500M
Cal Don L Collins & Assoc, Box 2045
Glendale ... 213 245-2711
NJ Wm B Johnson & Assoc, Research Park
Montville ... 201 334-9222

LANE INDUSTRIES,ELECTRONICS DIV
7254 ATOLL AVE, NORTH HOLLYWOOD
CAL, 91605 ... 213 983-1925
W READMAN, EMP 30, ENG 3, $500-$1,000M

LANGEVIN DIV, SCIENTIFIC IND, INC
1801 E CARNEGIE AVE, SANTA ANA
CAL, 92705 ... 714 546-8830
J SWANSON, EMP 60, ENG 6
Cal Ash M Wood Co, Box 1A, Arcadia ... 213 287-0449
Cal Parsons Co, One First Street
Los Altos ... 415 941-4745
Colo Transdynamics, 3401 S Bannock St, Englewood
Conn Zaslow Sales Co, 6 Newberry Rd
Bloomfield ... 203 242-7781
Fla Young & Lawrence Assoc, 601 N New York Ave
Winter Park ... 647-6929
Ill Technical Devices, Inc, 6416 N Central Ave
Chicago ... 774-8252
Md Tomco Sales Co, Long Point on the Severn
Crownsville ... 301 849-2401
Mich R S Lohmann Co, 21501 W 7 Mile Rd
Detroit ... 535-6144
NJ J A Rudy & Assoc, 409 Grand Ave
Englewood ... 201 LO 7-5880
NM C T Carlberg Assoc, Box 3177, Sta-D
Albuquerque ... 265-1579
NY J A Gehrs Assoc, Inc, 410 North Goodman St
Rochester ... GR 3-2230
Ohio Lowry Dietrich Co, 316 Marion Bldg
Cleveland ... 216 781-1855
Pa Lowry Dietrich Co, 90 Clairton Blvd
Pittsburgh ... 892-2992
Pa Elcom, Inc, 130 S Easton Rd, Glenside ... 885-1325
For M Simons & Son Co Inc, 150 Broadway
New York N Y ... 212 BA 7-5513

LANSDALE TRANSISTOR & ELECTRONICS INC, 111 N BROAD ST
LANSDALE, PA, 19446 ... 215 855-9002
C WARSHAW, EMP 25, ENG 3, $1,000-$2,500M
ADV PG 754
Cal LJG Industries, 654 N Sepulveda Blvd
Los Angeles ... 472-8902
Cal LJG Industries, 201 Town & Country Vlg
Palo Alto ... 472-8902
Ill Brock & Cushman Inc, 6261 Grand Ave
Chicago ... CO 1-6313
Minn Countryman & Wagner Co, 560 N Prior Ave
St Paul ... 645-9151
NJ LBS Assoc, 615 John St, Rivervale ... 391-9400
Ohio Hugh Stabbs, 2279 Seminole Dr
Springfield ... 255-4023
Tex McNicol Inc, 811 N Estrella, El Paso ... LO 5-8282
Can Wm Barron, Box 127, Oakville, Ont ... 845-2224

LANSING SOUND INC, JAMES B, 3249 CASITAS AVE
LOS ANGELES
CAL, 90039, TWX 910-321-4317 ... 213 NO 5-4101
T FORRY, EMP 300, ENG 7, $2,500-$5,000M
Cal Pacific Audio Sales Inc, 1933 S Broadway
Los Angeles ... RI 7-7314
Cal Electronics Mktg Assoc, P O Box 5199
San Mateo ... 415 341-6666
Conn R S Reiss Assoc, 70 Jessie Dr
W Haven ... WE 3-8542
Fla J F Thompson Co, 322 Riverside Dr
Ormond Beach ... 677-2298
Ga Paul Igou & Assoc, 4599 Northside Dr N W
Atlanta 5 ... 255-0396
Ill I W Rose Assoc, 4734 N Austin Ave
Chicago ... AV 2-6835
Ind Fishman Assoc, 2060 E 54th St, 10
Indianapolis ... 251-2401
Kan Zimmer Sales, 5620 Woodward Ave
Merriam ... HE 2-8900
Md G Rosen & Assoc Inc, 9501 Wadsworth Dr
Bethesda ... 365-5113
Mich J Malcolm Flora Inc, 165 W Liberty
Plymouth ... GL 3-4296
Minn C R Gibb Co, 1311 W 25th St
Minneapolis ... 377-1200
NY Stang Sales Co, 271 Columbus Ave
Tuckahoe ... SP 9-6868
Ohio J B Parent Co, 21330 Center Ridge Rd
Cleveland ... 333-5520
Tex Maynard Sales Co, 158 Express, Dallas ... RI 2-2384
Utah J E Hall Co, 205 N 2300 W
Salt Lake City ... 328-0921
Utah Stevenson Co, 2045 Walker La
Salt Lake City ... 277-2515
Wash D Champlin Co, 12347 Bothell Way NE
Seattle ... EM 2-0401

LANSKY DIE CUTTING CORP, 12-01 34TH AVE
LONG ISLAND CITY, N Y, 11106 ... 212 RA 1-3333
M LANSKY

LAPINE SCIENTIFIC CO, 6001 S KNOX AVE, CHICAGO
ILL, 60629 ... 312 RE 5-4700
R RINGHOFER, ENG 2, $5,000-$10,000M
Cal LaPine Scientific Co, 920 Parker St
Berkeley ... 845-3614
Fla J H Barteids, 12820 S W 62nd Ave, Miami

LAPOINTE INDUSTRIES, INC, 155 W MAIN ST, ROCKVILLE
CONN, 06066 ... 203 875-3351
J STILLBACH, EMP 420, ENG 20, $5,000-$10,000M
ADV PG 120

LAPP INSULATOR CO, INC, 31 GILBERT ST, LE ROY
N Y, 14482 ... 716 967-6221
S LAPP, EMP 1000, ENG 25, OVER $10,000M
ADV PG 109, 356, 357, 358, 359, 720
Cal E S Conoon Co Inc, 1912 Tubeway Ave
Los Angeles ... OV 5-6370
Cal D E Ingalls, 420 Market St
San Francisco ... 982-2072
DC Rumsey Electric Co, 1425 H St NW
Washington ... 737-8117
Fla Belcher & Assoc, 8751 Atlantic Blvd
Jacksonville ... RA 4-7811
Fla Belcher & Assoc Inc, Box 7567 Ludlam Br
Miami ... 371-1700
Ill JSG Electric Co, 9420 W River St
Schiller Park ... 678-5990
Mass J Kelso Co, 216 Tremont St, Boston ... HU 2-3256
NJ Lapp Insulator Co Inc, 585 Main St
East Orange ... 201 674-9020
NY Canavan-Scanlon Assoc, 564 Ellicott Sq Bldg
Buffalo ... 852-1122
NY Canavan-Scanlon Assoc, Box 142 Eastwood Sta
Syracuse ... HO 3-9161
Ohio H Fisher Assoc Inc, 7016 Euclid Ave
Cleveland ... 881-5757
Pa Rumsey Elect Co, 3rd & Hunting Park Ave
Phila ... GL 5-9900
Tex E B Robertson, 1339 Plowman St
Dallas ... WH 2-3157
Utah Riter Engineering Co, Box 2187
Salt Lake City ... 322-1628
Wash C F James, 1001 Lloyd Bldg, Seattle ... MA 3-1531
Can D T Shaw, 1966 Graham Blvd
Montreal ... 735-1541

LARAGO ELECTRONICS MFGRS INC, 615 S DIXIE HWY
MELBOURNE, FLA, 32901 ... 305 727-3416
G FREDERICK JR, EMP 50, ENG 3, $250-$500M
Fla Tech Rep Assoc, Box 2095
Melbourne ... 305 723-9140
Fla Tech Rep Assoc, Box 1828
Madiera Beach ... 813 391-0008
Kan Maury E Bettis Co, 423 N Fountain
Wichita ... 316 685-7441
Mass D W Marcus & Co, Box 453
Natick ... 617 235-1432
Mich Tiby Co, 380 Hilton Rd, Ferndale ... 313 547-3550
Mo Maury E Bettis Co, 9103 Bessemer
St Louis ... 314 429-2099
Mo Maury E Bettis Co, 3706 Broadway
Kansas City ... 816 561-0772
NM Westcott Sales, 727 Morningside NE
Albuquerque ... 505 255-7255
NY J V Costello, 2030 Erie Blvd E
Syracuse ... 315 472-0322
NC B M Triggs & Assoc, Box 17844
Charlotte ... 704 376-4619
Ohio Tiby Co, 2245 Warrensville Ctr Rd
Cleveland ... 216 371-5335
Ohio Tiby Co, 1960 N Main, Dayton ... 513 277-3822
Okla T J Ray Co, Box 5417, Tulsa ... 918 627-1515
Ore Van Vooehees Assoc, 4415 NE Sandy Blvd
Portland ... 503 287-6633

LARAMY PRODUCTS CO, INC
130 CHIEF JUSTICE CUSHING RD, COHASSET
MASS, 02025 ... 617 383-1590
P POTTIER, EMP 3, ENG 1, $100-$250M

LARK ELECTRONICS INC, 45 WALKER ST, NEW YORK
N Y, 10013 ... 212 925-9060
J COLE

LAROSE & ASSOC INC, W T, 31-A ONTARIO ST
COHOES, NY, 12047 ... 518 237-6500
W LAROSE JR, EMP 100, ENG 4
Cal T C Laine Co, 11520 San Vicente Blvd
Los Angeles ... 478-0038
Cal Green Engineering Co, 2680 Bay Shore Frontage Rd
Mountain View ... 415 969-9660
Conn David Raymond, 232 Lawrence Rd
Wapping ... 643-9796
Ill John T Arnold, 104 E Irving Park Rd
Roselle ... 529-3062
Mass L V Bombard, 183 Riverside Dr
Northampton ... 584-5089
Minn Chas W Stone Co, 1914 LaSalle Ave
Minneapolis ... 339-0611
NJ H J Tebbs, Box 113, Runnemede ... 215 546-1066
NY C Tennant & Sons, 100 Park Ave
New York ... OR 9-1300
Ohio R C Miller, Box 531, Ashland ... 419 524-2000
Ore Green Engineering Co, 3555 SE Insley St
Portland ... 503 775-3535
Tex Hainge Co Inc, 3323 Mercer St
Houston ... 622-3350
Can J Williams Machinery Ltd, 3210 American Dr
Malton, Ont ... 279-7250

LARSON AERO DEVELOPMENT, BOX 135, CONCORD
CAL, 94522 ... 415 228-7870
M LARSON, EMP 15, ENG 3
Fla D & E Assoc, 2031 Chippewa Trail
Maitland ... 305 644-3039
Mich Tiby Co, 380 Hilton Rd, Ferndale ... 313 547-3550
NY Donegan-Ross, Inc, Box 124
Chappaqua ... 914 CE 8-8619
Ohio Tiby Co, 2245 Warrensville Ctr Rd
Cleveland ... 216 371-5335
Ohio Tiby Co, 1960 N Main, Dayton ... 277-3822

LARSON INSTRUMENT CO, GREENBUSH RD
ORANGEBURG, N Y, 10962 ... 914 EL 92310
L LARSON, EMP 10, ENG 2
Cal Westron Sales, 7407 Melrose Ave
Los Angeles ... OL 1-4050
Cal Garner Laine, Box 31388
San Francisco ... AT 5-3475
Mass Bilowich Enterprises, 109 Warren St
Watertown ... 926-0490
NY A L Livera & Assoc, James Bldg
Madison ... FR 7-3220

Pa Kastle Assoc, R 1, Chalfonte ... 822-3501
Tex IBL Engr Sales, 5852 Boca Raton Dr
Dallas ... EM 3-3698
Va Mark Lund Assoc, 205 Park Ave
Falls Church ... 534-9460

LASELCO PACIFIC, 945 INDUSTRIAL AVE, PALO ALTO
CAL, 94303 ... 415 326-9353
G LASKA, EMP 5, ENG 2

LASER OPTICS INC, 98-1/2 MILL PLAIN RD, DANBURY
CONN, 06810, TWX 710-456-0463 ... 203 744-4160
J BACEVIC JR, EMP 42, ENG 5, $500-$1,000M
Cal A F Sales Engrg Inc, 94 S Los Robles Ave
Pasadena ... MU 1-5631
Cal Johnson Assoc, 260 Sheridan Ave
Palo Alto ... 415 327-1700
Fla L P Hench Co, 9760 S W 158th St
Miami ... 305 238-4704
Md Stemler Assoc, 6707 Whitestone Rd
Baltimore ... 301 944-8262
Mass Zieco Inc, 18 Muzzey St, Lexington ... 617 861-8300
NJ Harold Gray Assoc, 20 Foster St
Bergenfield ... 201 384-3643
NM Space Sys Sales & Engrg Inc, 1401 Valencia S E
Albuquerque ... 505 255-7058
NY Hoyer Wall Assoc, Box 51, Dewitt ... 315 446-1338
Ohio Ashby Assoc, 4130 Linden Ave
Dayton ... 513 252-5627

LASH LABS, INC, 6152 MISSION GORGE RD
SAN DIEGO, CAL, 92120 ... 714 283-2208
D WILLIAMS, EMP 8, ENG 2, $100-$250M
Kan Maury E Bettis Co, 423 N Fountain
Wichita ... 316 685-7441
Mo Maury E Bettis Co, 3706 Broadway
Kansas City ... 816 561-0772
Mo Maury E Bettis Co, 9103 Bessemer
St Louis ... 314 429-2099
NC Bill Henry Assoc, Box 6097
Charlotte ... 704 375-8958
Wash Houston Co, 1738 4th Ave S
Seattle ... 206 622-0750

LA TELEMECANIQUE ELECTRIQUE, BOX 8, 92 RUEIL
FRANCE ... 967-25-30
A MAIDANATZ, EMP 4000. ENG 700, OVER $10,000M

LATRONICS CORP, 1001 LLOYD AVENUE, LATROBE
PA, 15650, TWX 510-468-7002 ... 412 539-1626
J BELL, EMP 100, ENG 6, $1,000-$2,500M
Cal A C Stearns Co, 826 N Hollywood Way
Burbank ... 849-5776
Cal John Fenstermacher, 681 Market St
San Francisco ... 362-4930
Conn Fly Assoc, Box 304, Fairfield ... 259-0772
Ga V Avis McCorvey Co, 2187 Briarcliff Rd N E, Atlanta
Mo Automatic Gen Electronic Sales, 6550 B Troost Ave
Kansas City ... 333-8206
Mo Automatic Gen Elctn Sales Inc
4253 Westminister Pl, St Louis ... 314 652-5366
Ohio Harry M Lake Co, 1521 N Main St
Dayton ... 277-8181
Pa John F Orsi Assoc, Box 346
Bryn Mawr ... 525-6212
Tex R Marston, 1202 Spruce St, Richardson ... 235-3577
Wash Frank Aurich, 3601 Gilman Ave W
Seattle ... 282-2223
GB Wessex Electronics Ltd, Baldwin St
Bristol ... BRIS 26952
Ital Kimates S p A, A Turati 28, 20121 Milano
Swed Thure F Forsberg AB, Molkomsbacken 37, Farsta I
Ind Electronic Enterprises, Newcharri Rd, Bombay 4

LAUCKS LABS INC, OVERLAKE PARK, REDMOND
WASH, 98052 ... 206 885-4118
W PAGE, EMP 30, ENG 5
Fla Moore Dry Kiln Co, Box 4248, Jacksonville
Ohio Coe Mfg Co, Painesville
Ore M Oregon, Box 248, North Portland
Ore E V Prentice Co, 2303 Randolph Ave, Portland
Tenn Wilco Machine Works Inc, Airport Ind Park
Memphis ... 363-4884
Tenn Laucks Labs Inc, 3228 Emerald St. Memphis

LAVEZZI MACHINE WORKS INC, 4635 W LAKE ST
CHICAGO, ILL, 60644 ... 312 378-1636
W BAIRD, EMP 45

LAVINO DIV INTL MIN & CHEM CORP
3 PENN CENTER PLAZA, PHILADELPHIA
PA, 19102 ... 215 LO 8-2000
R ORBAN, EMP 2000, ENG 25, OVER $10,000M

LAVOIE LABS DIV SPEDCOR
MATAWAN-FREEHOLD RD, MORGANVILLE
N J, 07751 ... 201 591-1000
L LIPPERT
Cal Peninsula Assoc, 1447 Bayshore
Palo Alto ... 322-1803
Md Scientific Mktg Assoc, 8817 Hunting La
Laurel ... 776-5130
Mich Electro Sales Assoc, 15324 Mack Ave
Detroit ... 886-2280
NJ Louis A Garten & Assoc, 375 Passaic Ave
Caldwell ... 226-7800
Ohio Electro Sales Assoc, 2621 Mardon Dr
Dayton ... 426-6071
Ohio Electro Sales Assoc, 335 E 200th St
Cleveland ... 486-1140
Pa Louis A Garten & Assoc, 947 Old York Rd
Abington ... 885-1550
Tex I B L Eng & Sales Inc, 219 Preston Royal Ctr
Dallas ... EM 3-2921
For Sylvan Ginsbury Ltd, 72 W 45th St
New York, N Y ... 687-3213
GB Bemex Instru Ltd, 54 Victoria Rd
Surbiton, Surrey ... EL 2776

LCC-CICE, 128 RUE DE PARIS
93 MONTREUIL-SOUS-BOIS
FRANCE, TWX 20 936 ... 287 22 54
P DE BONNECHOSE, OVER $10,000M

LEACH CORP, 1499 HUNTINGTON DR, SOUTH PASADENA
CAL, 91030 .... 213 682-3506
D PURKEY, EMP 1000, ENG 244, OVER $10,000M
ADV PG 596-599
Cal Leach Corp, 9800 S Sepulveda
Los Angeles 776-3222
Cal Leach Corp, 814 San Antonio Rd
Palo Alto .... YO 8-4408
Colo Brown Technical, Inc, 130 S Yarrow St
Denver 233-0863
Ga A C Craft & Assoc, 3151 Maple Dr NE
Atlanta 237-2282
Ill Torkelson Assoc, 540 W Frontage Rd
Northfield 446-8450
Md Billis Sales Co, 110 Gorsuch Rd
Timonium .... CL 2-0779
Mass Leach Corp, 235 Bear Hill Rd
Waltham .... TW 9-1930
Minn Torkelson Assoc, 4820 W 77th St
Minneapolis 920-1046
Mo Leach Corp, 9191 W Florissant Rd
St Louis 524-2880
NJ Billis Sales Co, 14 Galway La
Cherry Hill .... HA 8-3651
NJ Leach Corp, 2500 Lemoine Ave
Fort Lee 201 461-6550
Ohio Leach Corp, 5335 Far Hills Ave, Dayton .. 434-8151
Tex Leach Corp, 2433W Northwest Hwy
Dallas 352-9731
Va Leach Corp, 2009 N 14th St, Arlington 524-4460
Wash Leach Corp, S Annex Bldg, Boeing Fld
Seattle 767-3660
Can Brian Engineering Co, 2445 Duncan Rd
Montreal, Que 735-1671
Ger Leach Relais & Elektronik GmbH (Lre)
Kreittmayrstr 5, 8 Munich 2 592886

LEACH & GARNER CO, INDUSTRIAL DIV
55 SCHOOL ST, ATTLEBORO
MASS, 02703 .... 617 CA 2-1155
A MARCELLO, JR, EMP 250, ENG 4, $1,000-$2,500M
Cal K Babin, 7327 Lankershim Blvd
N Hollywood 877-0458
Ill R Snow, 801 E Marion St
Arlington Heights 392-9026
NY S Greenbaum, 153-25 88th St
Howard Beach 848-6578
RI G Forman, 21 Stratford Rd, Edgewood 351-3000
Can General Findings Inc, Pearl & James Sts
Attleboro, Mass .... CA 2-1155

LEA MFG CO, 235 E AURORA LN, WATERBURY
CONN, 06720 .... 203 753-5116
R CRANE, EMP 55, ENG 4, $1,000-$2,500M
Cal Lea-Calif, Inc, 3025 W Mission Rd
Alhambra 213 283-9277
Mich Lea-Michigan Inc, 14459 Wildemere
Detroit 313 868-1490

LEAR JET INDUSTRIES INC, 13131 LYNDON AVE
DETROIT, MICH, 48227 .... 313 272-0730
J ROWLEY
Ariz N J Fuchs, 2334 N 32nd St
Phoenix 602 956-3560
Cal F Yudelson, 9060 Santa Monica Blvd
Los Angeles 213 274-6949
Colo A Solen, 34 Ash St, Denver 303 322-8585
Ga H Souther, 127 Willow La, Decatur .. 404 378-7546
Haw W Earl Sr, 1638 Kona St, Honolulu ... 808 996-953
Ill R L Hirsch, 666 Lake Shore Dr
Chicago 312 943-1910
Kan T Ellis, Box 8297, Prairie Village 913 269-4522
Mass J Conti, 181 West St, Waltham 617 891-4582
Minn R Devereaux, 7505 Hwy No 7
Minneapolis 612 935-7878
NY G B Lucas, 340 E 64th St
New York 212 688-5485
Ohio J Coldiron, 3650 Otterbein Ave
Dayton 513 274-1240
Tenn J Baine Jr, Box 11412, Memphis 901 452-3662
Tex V E Wallingford, 4012 University Blvd
Dallas 214 521-9749
Utah O Norberg, 590 Gale St
Salt Lake City 801 355-4177
Wash L Brillhart Jr, 14559 Stone St
Seattle 206 454-1731

LEA-RONAL INC, 272 BUFFALO AVE, FREEPORT, N Y
M NADEL, OVER $10,000M
Cal Lea-Ronal Inc, 1116 E 12th St, Los Angeles
GB Lea-Ronal U K Ltd, Box 1, Buxton Derbyshire

LEAR SIEGLER INC, 3171 S BUNDY DR
SANTA MONICA
CAL, 90406, TWX 910-343-6463 .... 213 EX 1-0666
W O'HERN, EMP 24500, ENG 2224, OVER $10,000M
Cal J Currie, 714 N Brookhurst St
Anaheim 714 774-1010
Conn J P Retelle, 10 Corbin Dr, Darien 203 655-8231
DC R E Walters, 1120 Connecticut Ave, N W
Washington 202 338-8260
Ga C Teichert, 201 Lawrence St
Marietta 404 422-5470
NY D W Martin, 532 Broad Hollow Rd
Melville 516 293-9000
Ohio C B Bagwell, 333 W First St
Dayton 513 222-5524
Tex P R Carlton, 6100 Camp Bowie Blvd
Ft Worth 817 738-7642
Tex J C Beckman, Braniff Airways Bldg Exchange Park
Dallas 214 352-8455
Wash H J Betten, S Annex King County Arpt Boeing Fld
Seattle 206 725-6077

LEAR SIEGLER INC, CIMRON DIV, 1152 MORENA BLVD
SAN DIEGO, CAL, 92110 .... 714 276-3200
G THOMAS, EMP 125, ENG 15, $5,000-$10,000M
Ala E G Holmes & Assoc, 4862 Governors Dr, W
Huntsville 837-6900
Alas Arva Inc, Box 759, Anchorage 272-5231
Ariz BFA, 4710 N 16th St, Phoenix 264-6536
Cal Moxon Electronics Corp, 2311 Pontius Ave
Los Angeles 272-9311
Cal Moxon Electronics Corp, 15 W 41st Ave
San Mateo 345-7961
Cal Moxon Electronics Corp, 2054 Garnet
San Diego 274-6525
Colo BFA, 1309 S Inca St, Denver 744-3301
Conn Instrument Dynamics, Inc of Conn, 345 N Main St
West Hartford 233-5503
Fla E G Holmes & Assoc, 316 1/2 S Bumby St
Orlando 241-2128
Ga E G Holmes & Assoc, 3667 Clairmont Rd N E
Chamblee 451-6161
Ill Systems Engrg Assoc, 6253 Milwaukee Ave
Chicago 312 774-1452
Ind Systems Engrg Assoc, 1010 E 86th St
Indianapolis 317 846-2593
Md Burlingame Assoc, 1749 Rockville Pike
Rockville 427-1255
Mass Instrument Dynamics Inc, Wakefield Ind Pk
Wakefield 245-5100
Mich Technitron Inc, 13657 Grand River Ave
Detroit 313 838-7324
Minn Systems Engrg Assoc, 8633 Harrison S
Minneapolis 612 881-6386
NM BFA, 1238 Ortiz St SE, Albuquerque 268-4387
NY Burlingame Assoc, 510 S Fulton Ave
Mount Vernon 664-7530
NY NACO Electronics Corp, 119 Luther Ave
Liverpool 474-7481
NY NACO Electronics Corp, 74 Park Ave
Rochester 244-4720
NY NACO Electronics Corp, 14 Lori St
Poughkeepsie 462-2730
NY NACO Electronics Corp, 2631 Edgewood Rd
Utica 732-1801
NC E G Holmes & Assoc, 430 W Friendly Ave
Greensboro 275-0897
Ohio Technitron Inc, 23203 Lorain Rd
North Olmstead 734-0960
Okla BFA Inc, 3216 E 21st , Tulsa 918 936-5295
Ore Arva, Inc, 2035 SW 58th Ave, Portland ... 292-8762
Pa Technitron Inc, 114 Spring Grove Rd
Pittsburgh 371-1231
Pa Burlingame Assoc, 416A Barclay Ave
Bala Cynwyd 215 835-2080
Tex BFA Inc, 708 W Euless, Euless 283-4684
Tex BFA Inc, Box 50, Friendswood 713 482-7563
Utah BFA, 535 S 2nd W, Salt Lake City ... 801 355-2684
Wash Arva, Inc, 1320 Prospect St, Seattle 622-0177
Ger Arva, Inc, 1624 W Third Ave
Vanouver 9, B C 736-6377

LEAR SIEGLER INC, ELECTRONIC INSTRUMENTATION
DIV, 714 N BROOKHURST ST, ANAHEIM
CAL, 92803 .... 714 774-1010
EMP 900, ENG 200, OVER $10,000M
DC Lear Siegler Inc, 1120 Conn Ave NW
Washington 338-8268
Ill Mauer Co Inc, 2000 Harrison St
Evanston 869-4000
Pa J E Cuesta Inc, Valley Forge 265-5800
Wash Harry Levinson Co, 1211 E Denny Way
Seattle .... EA 3-5100
For American Avitron, Box 567, Rye, NY ... WE 7-5300

LEAR SIEGLER INC, INSTRUMENT DIV
4141 EASTERN AVE SE, GRAND RAPIDS
MICH, 49508, TWX 810-273-6929 ...... 616 241-7000
G ANDERSON, EMP 3700, ENG 550
Cal Lear Siegler Inc, 3171 S Bundy Dr
Santa Monica 870-0456
Conn Lear Siegler Inc, 10 Corbin Dr, Darien 655-8231
DC Lear Siegler Inc, 1120 Conn Ave
Washington 338-8260
Ga Lear Siegler Inc, 3001 N Fulton Dr NE
Atlanta 404 261-0144
Mo Lear Siegler, Inc, Box 6213, Lambert Field
St Louis 739-5881
Ohio Lear Siegler Inc, 333 W 1st St
Dayton .... BA 2-5524
Okla Lear Siebler I NC, Box 10841, Midwest City
Tex Lear Siegler Inc, 6100 Camp Bowie Blvd
Fort Worth .... PE 8-2571
Wash Lear Siegler, Inc, 5900 Fourth Ave
Seattle 725-6077
Can Aircraft Appliances & Equip Ltd, 585 Dixon Rd
Rexdale Ont
For American Avitron Inc, 610 Midland Ave, Rye, NY
Fr American Avitron Inc, 12 Rue Degas, Paris

LEAR SIEGLER INC, POWER EQUIPMENT DIV
BOX 6719, CLEVELAND
OHIO, 44101, TWX 810-422-2213 ...... 216 662-1000
S HANVILLE, EMP 1300, ENG 140, OVER $10,000M
Cal Lear Siegler Inc, 3171 S Bundy Dr
Santa Monica 870-0345
DC Lear Siegler Inc, 1120 Conn Ave NW
Washington 338-8260
Mo Lear Siegler, Inc, 11771 Natl Bridge Rd
Bridgeton 291-2600
NJ Lear Siegler Inc, 71 Grand Ave
Palisade Park 941-1200
Ohio Lear Siegler Inc, 333 W 1st St, Dayton ... 222-5524
Tex Lear Siegler Inc, 1131 Frito-Lay Tower
Dallas 352-8455
Wash Lear Siegler Inc, 5900 4th Ave S
Seattle 767-3250

NEW ENGLAND'S DEPENDABLE SOURCE
FOR TECHNICAL ELECTRONIC COMPONENTS

- **A.C. MOTORS** (Ashland)
- **ALUMINA CERAMIC PARTS** (Diamonite)
- **CERAMIC DISC CAPACITORS** (RMC)*
- **CONTROLS, RESISTORS, SWITCHES,** (Mallory)*
- **CIRCUIT BREAKERS** (E-T-A)
- **CONNECTORS, SUB-ASSEMBLIES** (Elco)*
- **DIODES, CAPACITORS, THYRISTORS** (Mullard)*
- **HI VOLTAGE CAPACITORS** (Plastic Capacitors)*
- **INSTRUMENT METERS** (WacLine)
- **LAMINATIONS, TAPE CORES** (G-L)
- **METAL HOUSINGS** (Premier)*
- **PERMANENT MAGNETS** (Leyman)
- **R.F. CONNECTORS, SEALS** (Specialty Connector)*
- **TRANSFORMERS, FILTERS** (Kenyon)

*LOCAL INVENTORY AVAILABLE

HENRY Lavin Associates inc.
®
Box 921, Meriden, Conn. 06450 • Phone: (203) 237-5527
Box 223, Needham, Mass. 02192 • Phone: (617) 444-3446

LEAR SIEGLER INC, ROMEC DIV, 241 S ABBE RD
ELYRIA
OHIO, 44035, TWX 810-424-2103 ...... 216 323-3211
E HUSNEY, EMP 475, ENG 70
Cal Lear Siegler Inc, 3171 S Bundy Dr
Santa Monica 213 870-0345
Ga Lear Siegler Inc, 3001 N Fulton Dr NE
Altanta 404 261-0144
Mass Lear Siegler Inc, 235 Bear Hill Rd
Waltham 617 899-0570
NJ Lear Siegler Inc, 71 Grand Ave
Palisades Park 201 941-1200
Tex Lear Siegler Inc, 1131 Frito-Lay Tower
Dallas 214 352-8455
Can Aircraft Appli & Equip Ltd, 585 Dixon Rd
Rexdale, Ont 416 244-5506
For American Avitron Inc, 160 Miland Ave
Rye, N Y 914 937-5300

LEBOW ASSOCIATES INC, 21820 WYOMING AVE
OAK PARK
MICH, 48237, TWX 810-232-1510 ..... 313 JO 6-8622
C STORIE, EMP 65, ENG 7, $1,000-$2,500M
Ala Vaughn Electrosources, Box 1369
Huntsville 205 881-8830
Cal Research Data Corp, 110 S Euclid Ave
Pasadena .... 213 MU 1-3451
Colo P Lahana & Co, 7895 E Prentice Ave
Englewood 303 771-0141
Fla Vaughn Electrosources, Box 250
Cocoa Beach 305 784-0784
Ill Pivan Engineering Co, 3535 W Peterson Ave
Chicago .... 312 KE 9-4838
Ind Pivan Engineering Co, 8545 Northcrest Ct
Indianapolis 317 253-1681
Mass Addelco Corp, 56 Pickering St
Needham 617 444-4754
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield 313 357-3700
Minn Pivan Engineering Co, 3203 N Hwy 100
Minneapolis 612 537-4501
Mo S Sterling Co, 11734 Lackland Indu Dr
St Louis 314 542-3636
NJ Tek-Sel, Inc, 440 N Midland Ave
Saddle Brook 201 791-5545
NY O R Lawrence Co, Inc, Box 2698
Buffalo 839-4422
NY O R Lawrence Co, Inc, 101 Pickard Dr
Syracuse 315 454-4621
NY O R Lawrence Co, Inc, 7 Norman Ave
Albany 518 438-6071
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh .... 412 TU 4-5515
Pa Representative Assoc, 107 Forrest Ave
Narberth 839-3488
Pa Roberts Engrg Sales Co, Box 9
Radnor 215 688-6525
Tex Technical Prods Inc, 10219 Hedgeway Dr
Dallas 214 357-9603
Can Atlas Instruments, 50 Wingold Ave
Toronto, Ont .... 416 RU 1-6174

LECLANCHE SA, AV DE GRANDSON 48,
CH - 1401 YVERDON, SWITZ 024-24721
J PIGUET, EMP 700, ENG 20
Den Scansupply Scan Semiconductor AS, Thorsgade 59
Copenhagen .... Agir 5090
Fr Michel Audibert, 2, Allee de la Petite Ferme
Draveil S & O 921-7581
Ger J Gauthier, 283 Rüe Crequi
Lyon 7e - Rhone 72 32 79
Holl G J de Leede, Churchill-Laan 242
Amsterdam-Z 72 50 26
Swed BO Palmblad AB, Hornsgatan 58
Stockholm 24 61 60
Belg Ets Freddy Leger, 23-25, rue du Meridien
Brussels 18 35 90

LECROY RESEARCH SYSTEMS CORP, 126 NORTH 303
WEST NYACK, N Y, 10994 .... 914 358-7900
M BEDESEM, EMP 50, ENG 5, $1,000-$2,500M
Cal R W Thompson Assoc, 5005 W Century Blvd
Inglewood 677-6401
Cal R W Thompson Assoc, 4135 El Camino Way
Palo Alto 321-6383
Conn Amplitudes, Inc, Box 470, Middletown
Ill Corlett-Bird, Inc, 13 S Austin Blvd
Chicago 626-6726
Md King Assoc, 10027 Clue Dr, Bethesda
Mass Capintec Inc, 16 Congress St, Stoneham
NM Scientific Engineering, 209 San Pablo, Albuquerque
NY Scientific Systems Sales Corp, 376 Great Neck Rd
Great Neck
Ohio Corlett-Bird, Inc, Box 1001, Fairborn 222-4723
Tex Scientific Engineering, 910 Justin La, Austin
Can Spectra Research Ltd, 376 Churchill Ave
Ottawa 3 728-3415
For Frathom Co, 202 E 44th St, New York .. MU 7-9390

LECTRODRYER DIV, MCGRAW-EDISON CO, BOX 4599
PITTSBURGH, PA, 15205 .... 412 923-2970
J BOYDSTON, EMP 400, ENG 100, $2,500-$5,000M
Ala D B Gooch Assoc Inc, 5018 1st Ave N, Birmingham
Cal L M H Inc, 2802 10th St, Berkeley
Cal L M H, Inc, 7340 E Florence Ave
Downey .... SP 3-3773
Colo Control Sales Inc, 2619 W Holden Pl, Denver
Fla R R Cotter Co, 1171-D Cleveland St, Clearwater
Ill W V Kincaid, 414 Todd St, Park Forest
La Verlander Equipment Co, 5534 Canal Blvd
New Orleans
Mich Agren-Ascher Co, Inc, 2970 W Grand Blvd
Detroit 875-7933
Minn Hartzell C Mills, 1954 University Ave, St Paul
Mo Midvale Mining & Mfg Co, 6310 Knox Ind Dr
St Louis
NY Lectrodryer Div, 25 Broad St, New York
NC D B Gooch Assoc Inc, 3809 Weona Ave, Charlotte
Ohio F F Eiseman, 3645 Warrensville Ctr
Cleveland 752-2677
Ohio F B Scharringhausen, 7488 Clough Pike
Cincinnati 231-5313
Ohio C D Weaver Co, 5335 Far Hills Ave
Dayton 434-7130
Okla B W McKalip Co, 5702 E Admiral Blvd, Tulsa
Pa G Kelso, Box 34, Upper Darby
Tex G R Kritzer, 5115 Westheimer Rd, Houston
Tex D Jack Fair Co, Box 9945, Dallas
Va G K Burnet, Box 3107, Richmond 359-2802
Wash R E Chase & Co, 168 Denny Way, Seattle

LECTROHM INC, 5560 NORTHWEST HWY, CHICAGO
ILL, 60630 .... 312 763-1700
J RINALDI, EMP 500, ENG 5
Cal Logan Sales Co, 463 Brewster Ave
Redwood City 369-6726
Cal Ruby Sales, Box 511, San Fernando ..... Em 1-1201
Colo Ruby Sales Co, 1200 S Alton
Denver 303 755-1714
Conn Coakley, Boyd & Abbett, Inc, 6 Gaywood Dr
Waterbury 203 756-8766
Ind Del Steffan & Assoc, 737 N LaFontaine St
Huntington 219 356-5124
Kan D D Darnell & Co, 6005 Martway
Mission .... 913 RA 2-1736
Mass Coakley, Boyd & Abbett, Inc, Box 248
Needham .... HI 4-5470
Mich Carl H Schmidt Co, 16405 W 8 Mile Rd
Detroit .... BR 3-8500
NJ Winter Assoc, Box 104, Boonton 201 334-3434
NY J A Gehrs Assoc, 410 N Goodman St
Rochester .... GR 3-2230
Okla T J Ray Co, Box 5417, Tulsa 918 627-1515
Pa Technicraft, 7028 Ridge Ave, Phila .... IV 3-4700
Wis F C DuBois & Assoc, 2364 N 117th St
Milwaukee 774-3100
Can Electronic Components Intl, 95 Havenbrook Blvd
Willowdale Ont 416 447-3873
Can H W Brieger Sales Inc, 5253 Decarie Blvd
Montreal Que
For A J Castle Co, Box 111, Riverdale Sta
New York, NY .... PL 8-4847

LECTRO MAGNETICS INC, 6056 W JEFFERSON BLVD
LOS ANGELES, CAL, 90016
F NICHOLS, EMP 25, ENG 5, $250-$500M
Ariz R A Mayes Co, 4747 N 16th St
Phoenix 602 279-5243
Cal Nelgo Assoc, 10174 Rush St
S El Monte 213 443-3122
Cal J A Heaton, 3695 Haven Ave
Menlo Park 415 369-4671
Colo R A Mayes Co, Box 314
Broomfield 303 421-0706
Fla Tech-Rep Assoc, Box 8218 Maderia Beach
St Petersburg 813 391-0008
Haw Victor Kim Elctns, 623-625 South St
Honolulu 507-132
Ill Sam Tollaksen, 304 S Halsted St
Chicago .... 312 CE 6-2964
Md Magyar & Assoc, 11360 Cherry Hill Rd
Beltsville 301 937-6468
Mass Magyar & Assoc, Box 182, Allston ... 617 566-9759
Mo Engineering Services Co, St Louis
NJ Magyar & Assoc, Box 222
Metuchen 201 549-2255
NM R A Mayes Co, 8016 Zuni Rd SE
Albuquerque 505 265-7989
Ore Seatronics, 6415 Southwest Canyon Ct
Portland 503 292-8887
Pa Magyar & Assoc, Box 8506
Philadelphia 215 763-5044
Tex Dyna-Reps, 200 S Grants La
Fort Worth .... 817 PE 2-6621
Wash Seatronics, 5931 Fourth Ave
Seattle 206 767-4330

LECTROTECH INC, 1221 W. DEVON AVE, CHICAGO
ILL, 60626 .... 312 764-7005
EMP 35, ENG 2, $100-$250M
Ariz P Z Ray Assoc, 10809 N 33rd Ave
Phoenix 602 942-2502
Ark Bellew Sales Inc, 1005 W 4th St
Eldorado 504 863-8325
Cal Technical Sales Assoc, 1485 Bayshore Blvd
San Francisco 415 467-1434
Cal Feldman Roberts Co, Box 66367
Los Angeles .... 213 EX 7-2385
Colo B & B Electronic Products, 2161 S Platte River Dr
Denver 303 935-4631
Ga V Avis McCorvey Co, 2187 Briarcliff Rd NE
Atlanta 404 636-2502
Haw Earl Assoc, 1638 Kona St
Honolulu 808 949-6953
Ill Ed Flaxman Co, 52 James Court
Glenview 312 729-1880
Iowa L-R Co, 132 Cofax St
Council Bluffs 712 323-9253
Mass Keene Sales Co, G-14 Professional Bldg
Lynn 617 595-1001
Mich Robert Milsk Co, 19375 James Couzens
Detroit 313 342-6660
Minn Stan Olsen & Assoc, 6121 Excelsior Blvd
Minneapolis 612 929-6121
NJ TMC Corp, 2465 Lemoine Ave
Fort Lee 201 944-8340
NJ Art Cerf & Co, 512 Bloomfield
Caldwell 201 226-2263
Ohio Hank Miller Sales, 4087 Meadowbrook Blvd
Cleveland 216 321-3900
Tex Branum Sales Inc, 747 Sherman Ave
Richardson .... 214 CH 7-7128
Wash Ron Merritt Co, 1320 Prospect
Seattle 206 998-0733
Can Watkins Elctns Ltd, 60 Wingold Ave
Toronto Ont 416 781-6174
Can Watkins Elctns Ltd, 60 Wingold Ave
Toronto Ont 416 781-6174
For Morhan Exporting Corp, 458 Broadway
New York, N Y .... 212 WA 5-1259

LEDEX DIV LEDEX INC, 123 WEBSTER ST, DAYTON
OHIO, 45402, TWX 513-944-0286 ...... 513 224-9891
R SCRIVNER, EMP 500, ENG 32, $5,000-$10,000M
Ariz Barnhill Assoc, 4900 E Indian School Rd
Phoenix 602 959-2115
Cal Testco, 941 Charleston Rd, Palo Alto 326-5320
Cal Ledex Inc, 1621 Centinela Ave
Inglewood 670-6112
Colo Barnhill Assoc, 1170 S Sheridan Blvd
Denver 303 934-5505
Fla W Ben Winberly Co, 532 S Ft Harrison Ave
Clearwater 446-7072
Fla W Ben Wimberly Co, 500 S Osceola
Orlando 425-3083
Ill C R Strain, 1028 Cherry La, Lombard 627-7696
Kan Thunderbird Eng Sales, 7707 E Osie
Wichita 684-3941
Kan Thunderbird Eng Sales, 4014-A W 95th St
Kansas City 642-7220
Mass K C Stevens & Co, Box 24, Lexington 862-1812
Mich R C Nordstrom & Co, Box 32
Lathrup Village 444-4417
Minn Component Sales, Inc, Box 247
Excelsior 474-9100
Mo Thunderbird Eng Sales, 400 Brookes Dr
Hazelwood 731-4343
NJ Ledex Inc, 753 Bergen Blvd, Ridgefield ... 945-1840
NM Barnhill Assoc, 827 Penna NE
Albuquerque 505 265-87766
NY Lee Garner, Box 56, Liverpool 652-7911
NC A B Andrews Co, Box 2627, Raleigh 833-5567
Ohio Dynel Co, Box 7, Centerville Br, Dayton .. 434-6467
Pa Victor S Malta, Box 4007, Phila 836-5122
Tex Thunderbird Eng Sales, 5526 Dyer
Dallas 368-3064
Wash Testco, Boeing Fld, Seattle 723-9000
Can Marsland Engrg Ltd, 350 Weber St N, Waterloo, Ont
Fr Appar Electro-Mecanique G-P
115, Ave J-B Clement, Boulogne s/Seine
Ger Elektro-Bau-Elemente GmbH, 7021 Stetten/Filder
Uber Stuttgart-Vaihingen
GB NSF Ltd, 31 Alfred Pl, London WC1
Jap Shindengen Elec Mfg Co Ltd
4, 2-Chome Ohtemachi, Chiyodaku, Tokyo

LEECE-NEVILLE CO, 1374 E 51ST ST, CLEVELAND
OHIO, 44103 .... 216 431-0740
W CARTER, EMP 2000, ENG 12, OVER $10,000M
Ga Leece-Neville Co, 989 Athens St
Gainesville .... LE 6-2354
Mich Leece-Neville Co, 222 E Maple St
Birmingham .... JO 6-7930

LEE CO, RICHARD, BOX 724, NEW PROVIDENCE
N J, 07974 .... 201 273-3933
EMP 3, ENG 3, UP TO $100M

LEECRAFT MFG CO INC, 21-16 44TH RD
LONG ISLAND CITY
N Y, 11101, TWX 12-6977 .... 212 EX 2-8800
A MICHEL, EMP 250, ENG 6, $1,000-$2,500M
Cal Hansen & Hartfield, 1663 Blake Ave
Los Angeles 225-8114
Cal Hansen & Hartfield Co, Box 328
Fremont 863-2200
Colo Lindberg Co, 2654 S Krameria, Denver ... 757-6489
Conn Zaslow Sales Co Inc, 6 Newberry Rd
Bloomfield 242-7781
Fla Geartner Assoc, 350 Lincoln Rd
Miami Beach 531-0200
Ill Hill & Gray Inc, 821 Garfield
Oak Park .... ES 8-7050
Ind Southern Sales Co, Box 105, Angola 665-3961
Ind Southern Sales Co, 6216 Carrollton Ave
Indianapolis .... CL 3-3359
Iowa Kelly-Schmitz-Winkeler, 3831 43 St
Des Moines .... CR 9-9235
Ky Southern Sales Co, 212 Republic Bldg
Louisville 583-6902
Md L D Lowery Co, 6200 Annapolis Rd
Hyattsville 733-4977
Mich C B Jensen & Assoc, 26711 Woodward Ave
Royal Oak 399-0900
Minn R G Ragon Co, 1136 W Larpenter Ave
St Paul 488-6634
Mo Kelly-Schmitz-Winkeler, 7546 Troost Ave
Kansas City .... EM 3-5651
Mo Kelly-Schmitz-Winkeler, 3219 Hampton Ave
St Louis .... ST 1-6111
NY Leecraft Mfg Co Inc, 21-16 44th Rd
LIC .... EX 2-8800
NY A L Perkins, Kinloch Plaza, Manlius 682-5005
NC B M Triggs & Assoc, Box 17844
Charlotte 704 376-4619
Ohio Anderson-Bolds Inc, 10001 Carnegie Ave
Cleveland 229-4700
Ore Almac-Stroum Elctns, 8888 SW Canyon Rd
Portland 292-3534
Pa L D Lowery Co, 2891 W Chester Pike
Broomall .... EL 6-5300

Pa L D Lowery, Inc, 1501 Allison St
Harrisburg 233-0917
Tenn Shipley Sales Co, Box 4051
Chattanooga 266-6235
Tex Campion Sales Co, Addison Airport Box 396
Addison 239-9196
Wash Almac-Stroum Elctns, 5811 6th Ave
Seattle 763-2300
Can Lake Eng Co Ltd, 123 Manville Rd
Scarborough, Ont 751-5980
For Roburn Agencies, 431 Greenwhich St
New York, NY .... WO 6-2130

LEED INSULATOR CORP, 781 E PICO BLVD
LOS ANGELES, CAL, 90021 .... 213 RI 9-6685
W CORNWELL
Ariz Robert Jasper, 2018 Berridge La, Phoenix

LEEDS & NORTHRUP CO, 4970 STENTON AVE
PHILADELPHIA, PA, 19144 .... 215 DA 9-4900
H SCUTT, EMP 2950, ENG 640, OVER $10,000M
Ala Leeds & Northrup Co, 4 Office Pk Circle
Birmingham 871-4639
Ariz Leeds & Northrup Co, 3839 N 39th Ave
Phoenix 272-2540
Cal Leeds & Northrup Co, 1190 Monterey Pass Rd
Monterey Park 269-3191
Cal Leeds & Northrup Co, 1095 Market St
San Francisco 621-3464
Colo Leeds & Northrup Co, 2442 S Downing St
Denver 744-1047
Conn Leeds & Northrup Co, 2535 Albany Ave
W Hartford 232-4474
Del Leeds & Northrup Co, 2625 Concord Pike
Wilmington 478-3248
Fla Leeds & Northrup Co, 14 W Gore St
Orlando 422-0810
Ga Leeds & Northrup Co, 2964 Peachtree Rd NW
Atlanta 237-8624
Ill Leeds & Northrup Co, 101 S Washington St
Park Ridge 825-4402
Ill Leeds & Northrup Co, 18525 Torrence Ave
Lansing 474-7070
Ind Leeds & Northrup Co, 2511 E 46th St
Indianapolis 545-4364
Iowa Leeds & Northrup Co, 321 8th St
Bettendorf 355-6439
La Leeds & Northrup Co, Box 15315
Baton Rouge 921-5487
Md Leeds & Northrup Co, 8485 Fenton St
Silver Spring 588-8144
Mass Leeds & Northrup Co, 875 Providence Hwy
Dedham 326-8816
Mich Leeds & Northrup Co, 2347 28th St, S E
Grand Rapids 949-2661
Mich Leeds & Northrup Co, 20820 Greenfield Rd
Oak Park 398-3035
Minn Leeds & Northrup Co, 4940 Viking Dr
Minneapolis 926-6567
Mo Leeds & Northrup Co, 7935A1 State Line Rd
Kansas City 523-8199
Mo Leeds & Northrup Co, 8000 Bonhomme Ave
Clayton 726-0853
Neb Leeds & Northrup Co, 7000 Dodge St
Omaha 551-0592
NJ Leeds & Northrup Co, 99 Washington St
East Orange 678-0420
NY Leeds & Northrup Co, 3343 Harlem Rd
Buffalo 836-5900
NY Leeds & Northrup Co, 201 E 42nd St
New York 687-4133
NY Leeds & Northrup Co, 3522 James St
Syracuse 437-3305
NY Leeds & Northrup Co, 474 Thurston Rd
Rochester 235-1700
NC Leeds & Northrup Co, 1250 National Dr
Winston-Salem 723-1087
Ohio Leeds & Northrup Co, 8005 Plainfield Rd
Cincinnati 791-2274
Ohio Leeds & Northrup Co, 5010 Mayfield Rd
Cleveland 291-2100
Ohio Leeds & Northrup Co, 1465 Northwest Blvd
Columbus 486-7146
Ohio Leeds & Northrup Co, 3864 S Kettering Blvd
Dayton 293-5033
Ohio Leeds & Northrup Co, 1000 12th St, N W
Canton 455-2302
Ohio Leeds & Northrup Co, 4334 W Central Ave
Toledo 531-4489
Okla Leeds & Northrup Co, 5515 E Skelly Dr
Tulsa 622-4515
Ore Leeds & Northrup Co, 6415 SW Canyon Ct
Portland 292-8945
Pa Leeds & Northrup Co, 2800 Paxton St
Harrisburg 564-3523
Pa Leeds & Northrup Co, Fort Washington 646-5500
Pa Leeds & Northrup Co, 65 E Elizabeth Ave
Bethlehem 865-2257
Pa Leeds & Northrup Co, 300 Mt Lebanon Blvd
Pittsburgh 561-7808
Pa Leeds & Northrup Co, 300 Mt Lebanon Blvd
Pittsburgh 561-7808
Tenn Leeds & Northrup Co, 4711 Old Kingston Pike
Knoxville 584-8141
Tex Leeds & Northrup Co, 2730 Stemmons Frwy
Dallas 631-1965
Tex Leeds & Northrup Co, 3939 Essex La
Houston 622-8411
Utah Leeds & Northrup Co, 445 E 2nd S
Salt Lake City 328-8861
Va Leeds & Northrup Co, 2839 Stratford Hills Shop Ctr
Richmond 272-1912
Wash Leeds & Northrup Co, 1311 Republican St
Seattle 623-5505
W Va Leeds & Northrup Co, 1216 Quarrier St
Charleston 342-6678
Wis Leeds & Northrup Co, 10625 W North Ave
Milwaukee 774-6000

LEESONA CORP, COIL WINDING MACHINE DIV, BOX 5000
DANBURY, CONN, 06810 .... 203 744-5510
F SCHATZLE
ADV PG 377
Cal Zol-Tek Enterprises, 2009 Burbank Blvd
Burbank 849-7311
Colo John F Quirk & Assoc, 280 Columbine St
Denver 388-9225
Fla MacGregor Assoc, Box 1711
Clearwater 446-7310
Fla MacGregor Assoc, 398 Cinnamon Dr
Satellite Beach 262-6150
Fla MacGregor Assoc, 350 Lake Kathryn Cir
Casselberry 831-0445
Ga MacGregor Assoc, 3473 Northlake Hwy
Doraville 938-0681
Ill Leesona Corp, 452 N York Ave
Elmhurst .... TE 4-6150
Ill William A Cockerill Co, 1808 S Fairview
Park Ridge 692-3650
Ind Leesona Corp, 401 Ravine Park Dr
Ligonier 457-3715
NM John F Quirk & Assoc, Box 8738-C
Albuquerque 255-6981
NY George Wolfe, 5 Sanhurst Dr
Scottsville 889-1429
NC MacGregor Assoc, 2501 Starbrook Dr
Charlotte 366-9440
SC Leesona Corp, 86 Florence St
Providence 789-9567
Tex Sivright Co, 10028 Monroe Ave, Dallas ... 357-6682
Utah John F Quirk & Assoc, 429 W 500 S
Bountiful 295-6464
Wis Automated Process, Inc, 7869 N 73rd
Milwaukee 354-4370
Fr Leesona SA, 171-173 Quai de Valmy, Paris
Ger Leesona, SA, Schutzenstr 8, Frankfurt
GB Leesona Ltd, Gateway House, Gateway St, Leicester
Ital Kinomat, Via Monte Bernina 8, Milan
Jap American Trading Co, 2 Broadway, New York, NY
Swit Leesona Corp, Grenzacherstr 65, Basle

LEESONA MOOS LABS, COMMUNITY DR, GREAT NECK
N Y, 11021 .... 516 466-0800
P TARR, EMP 370, ENG 125

LEE SPRING CO, 30 MAIN ST, BROOKLYN
N Y, 11201 .... 212 855-7163
P GIOSA, EMP 200, ENG 3, $2,500-$5,000M
Cal Yarbrough Sales Co, 1608 Orange St
Alhambra 213 288-6002
Fla Engineering Sales & Serv Co, 1529 Pinar Dr
Orlando 305 275-0680
Ill Communication Engineers, 7100 N Western Ave
Chicago 761-0548
Ind Tom Hughes & Assoc, 3949 Winding Way
Indianapolis 317 255-4640
Mich L H Dickelman & Co, 13331 Puritan Ave
Detroit 273-0806
Minn Christensen Sales Co, 648 Lowrey Ave NE
Minneapolis 612 789-2234
Mo Aerol Assoc, 34 N Brentwood Blvd
St Louis 725-5361
NC D G W Inc, 3389 Nottingham Rd
Winston-Salem .... PA 3-4205
Ohio L H Dickelman & Co, 28829 Chagrin Blvd
Cleveland 831-1039
Tex Parvin Sales Co, Addison Rd, Addison 239-9148

LEFFINGWELL CHEMICAL CO, BOX 188, BREA
CAL, 92621 .... 714 529-3973
A FRIELING, EMP 75, $100-$250M

LEHIGH METAL PRODUCTS CORP
134 ALEWIFE BROOK PKWY, CAMBRIDGE
MASS, 02140, TWX 92-1424 .... 617 UN 49500
R DIRICO, EMP 81, ENG 1, $2,500-$5,000M

LEHIGH VALLEY ELECTRONICS ENGRG & MFG CO, INC
BOX 125, FOGELSVILLE, PA, 18051 ..... 215 285-4211
R MOYER, EMP 42, ENG 4, $500-$1,000M
Cal Lehigh Valley Elctns, 441 Waverly St
Palo Alto 415 321-4212

LEIMAN BROS INC, 140 E UNION AVE
EAST RUTHERFORD, N J, 07073 .... 201 939-3900
A DAILEY, EMP 72, ENG 2, $1,000-$2,500M
Cal Simonds Pump Co, 455 E 4th St
Los Angeles .... MA 8-8211
Cal Simonds Machinery Co, 816 Folsom St
San Francisco .... DO 2-6794
Cal Kenton Equip Co, 3280 Kurtz St
San Diego 297-4971
Colo Wild Co, 1163 S Cherokee St, Denver 744-1253
Conn Ober Co, Box 5093, New Haven .... AT 8-0437
Fla Southeastern Assoc, 6446 Central Ave
St Petersburg 813 347-1508
Ill Squire-Cogswell Co, 4151 N Kedzie Ave
Chicago .... KE 9-9240
Ind Jackson Eng Co Inc, 3501 Sutherland Ave
Indianapolis .... WA 3-2361
Kan Baker Engineering Co Inc, 1111 S West St
Wichita .... FO 3-4246
Ky Dynafluid Products Co, 2206 Frankfort Ave
Louisville 896-6889
La Pneumatic & Hydraulic Co, 2500 North St
Baton Rouge 343-6693
Md Gray Fluid Power Co, 1600 White Oak Ave
Baltimore 301 668-1423
Mich Ind Air & Hydraulic Equip Co, 13324 Kercheval Ave
Detroit .... VA 1-9800
Minn T O Berreau Co, Box 6801
Minneapolis 913 262-5818
Mo Baker Engr Co of Missouri, 5918 W 59 Terr
Mission 262-5818
Mo Flo Products Co, Box 506
Hazelwood 314 731-1900
NY F X Montbach, 225 Sagamore Dr
Rochester .... HU 2-9510
NC Crotts & Saunders Eng Inc, 235 N Main St
Winston-Salem .... PA 4-0163
Ohio Great Lakes Supply Co, 4115 E 116th St
Cleveland .... MI 1-4100
Ohio Werner Pumps, 10170 Springfield Pike
Cincinnati 772-1112
Ore W G Ballantyne Co, 123 SW Pine St
Portland 503 222-7004
Pa Link Engineering Co, Box 363
Narberth .... MO 4-4399
Pa Magnus Co, Box 7943, Pittsburgh 412 561-6638
Tenn All-South Sales & Engrg Co, 3131 Bellbrook St
Memphis 901 396-0191
Tex Challenge Products Corp., 1405 S. Post Oak Rd.
Houston 622-1491
Tex Challenge Products Corp, Box 447
Richardson 214 231-5231
Utah Wild Co, 2355 S W Temple
Salt Lake City 487-0709
W Va Industrial Equip Co, 200 MacCorkle Ave, S E
Charleston 343-7606
Can Albany Pump Co Ltd, 840 King St W
Toronto 2-B .... EM 3-5887
GB Rowlen & Co, Ltd, Empire Way
Wembley, Mdsx 345-1277
Mex Maquinario y Accessorios, Luis Moya No 59
Mexico 1 DF

LEITZ CANADA LTD, ERNST, 122 ELLEN ST, MIDLAND
ONT 705 526-5401
W KLUCK, EMP 240, ENG 17, $2,500-$5,000M
Cal E Leitz Inc, 830 Mitten Rd, Burlingame ... 697-9182
NY E Leitz Inc, 468 Park Ave, S
New York .... MU 4-3700
NY Opto-Metric Tools Inc, 304 Hudson St
New York .... OR 5-9076

LEKTRA LABS INC DIV KRISER CORP
129-07 18TH AVE, COLLEGE POINT
N Y, 11356 .... 212 939-7171
F CHILTON, EMP 50, ENG 3, $2,500-$5,000M

LEK-TROL, INC, RT 2, BOX 453B, GRAPEVINE
TEX, 76051 .... 817 281-5320
J PRIDDY, EMP 50, ENG 6, $500-$1,000M
Tex Lek-Trol Inc, Pleasant Run Rd at Church, Colleyville

LELAND AIRBORNE PRODUCTS DIV AMF, BOX 128
VANDALIA
OHIO, 45377, TWX 819-472-2822 ...... 513 898-5881
E JOHNS, EMP 790, ENG 16, OVER $10,000M
Cal Leland Airborne Prods W, 15840 Ventura Blvd
Encino 213 783-2850
Pa J K Hiatt, 200 Sycamore Mills Rd
Media 215 566-2467
For AMF-International, 261 Madison Ave
New York, N Y 687-3100

LEL DIV VARIAN ASSOCIATES, 1365 AKRON ST, COPIAGUE
N Y, 11726, TWX 510-224-6692 .... 516 AM 4-2200
F RICH, EMP 130, ENG 20, $2,500-$5,000M
ADV PG 24, 25, 30, 32, 41, 42, 228, 233, 266, 270, 419, 420
Ariz Varian Assoc, 77 3rd Ave W, Scottsdale .. 947-5461
Cal Varian Assoc, 4940 El Camino Real
Los Altos 968-7630
Cal Varian Assoc, 7760 Fay Ave, La Jolla 454-2567
Cal Varian Assoc, 2901 Wilshire Blvd
Santa Monica 828-5588
Fla Varian Assoc, 314 S Missouri
Clearwater 446-8513
Ga Varian Assoc, 3110 Maple Dr, Atlanta 261-4572
Ill Varian Assoc, 205 W Touhy Ave
Park Ridge 825-6686
Mass Varian Assoc, 400 Wyman St, Waltham ... 891-4560
NJ Varian Assoc, 1500 Kings Hwy
Cherry Hill 428-6800
NM Varian Assoc, 9000 Menaul Blvd NE
Albuquerque 296-1248
NY Varian Assoc, 2005 Rte 22, Union, N J ... 688-8800
NY Varian Assoc, 113 Twin Oaks Drive
Syracuse 437-2568
Ohio Varian Assoc, 10 Southmoor Circle
Dayton 298-7318
Tex Varian Assoc, Box 689, Richardson 235-2385
Va Varian Assoc, 714 Church St
Alexandria 549-8205
For Varian Assoc of Can, Ltd, 45 River Dr
Georgetown, Ont 877-6901
Fr Thomson-Varian, 6 Rue Mario Nikis
Paris 15E .... SUF 91-00
Ger Varian GmbH, Breitwiesenstr 9
7000 Stuttgart-Vaihingen 0711/78/33/51
GB Varian Assoc Ltd, Molesey Rd
Walton-on-Thames, Surrey .... WAL 28766
Holl Varian Assoc Holland NV
Atoomgebouw 112, Kamer 186
Schiphol Airport, Amsterdam 020/15 94 10
Ital Varian SpA, Via C Battisti 2, Torino ... 011/540 991
Swed Varian AB, Skytteholmsvagen 7D
Solna 08/82 00 30
Swit Varian A G, Baarerstr 77, 6300 Zug 042/44555

Aust Varian Assoc, 38 Oxley St
Crows Nest Sydney, NSW 43-0673

LEM INSTRUMENT CORP, 20 SARAH DR
FARMINGDALE, N Y, 11735............ 516 293-7240
F LOWELL, $100-$250M

LEMOSA INC, 465 CALIFORNIA ST, SAN FRANCISCO
CAL, 94104 .... 415 989-5515
K BURGESS

LENKURT ELECTRIC CO INC, 1105 COUNTY RD
SAN CARLOS
CAL, 94070, TWX 910-376-4396........ 415 591-8461
W LEONARD, EMP 3700, ENG 400, OVER $10,000M
Conn Lenkurt Electric Co Inc, 1200 Summer St
Stamford 327-2677
Ga Lenkurt Electric Co Inc, 361 E Paces Ferry Rd NE
Atlanta 237-6489
Haw Lenkurt Electric Co Inc, 1027 Kikowaena Pl
Honolulu 895-288
Ill Lenkurt Electric Co Inc, 130 N Franklin St
Chicago .... AN 3-1321
Mass Lenkurt Electric Co Inc, 1644 Mass Ave
Lexington 862-2568
Tex Lenkurt Electric Co Inc, 340 Northcrest Bldg
Dallas.............................. EM 3-0268
Va Lenkurt Electric Co Inc, 6201 Leesburg Pike
Falls Church..................... 703 533-3344

LENOX-FUGLE ELECTRONICS INC, 100 SYLVANIA PL
SOUTH PLAINFIELD, N J, 07080 .... 201 756-1164
H LENOX, EMP 38, ENG 2, $500-$1,000M
Cal Shephard-Winters Co, 2600 Olive St
Burbank 849-6671
Cal M-A Assoc, 458 Forest Ave, Palo Alto.... 324-1339
Iowa J R Sales Co, 3316 Rosewood Ct NE
Cedar Rapids......................... 365-2864
Mass Reptron Inc, 110 Great Rd, Bedford 275-8585
NJ J W Richardt Co, Rte 46, Pine Brook 227-0600
NY H C Johnson Agencies, 111 Mt Hope Ave
Rochester........................... 232-2688
Ohio R P Calhoun & Assoc, 40 Southmoor Circle
Dayton 299-4144
Pa Paragon Sales Co, 111 S 22nd St
Philadelphia .... LO 3-7060

LENOX INSTRUMENT CO, 105 E LURAY ST
PHILADELPHIA, PA, 19120, TWX JMK .. 215 324-4543
S MACDONALD, EMP 30, ENG 3, $250-$500M
Cal Abbott Instr & Engrg Co, 1736 Westwood Blvd
Los Angeles
Ill Roetgen Industrial Corp, 1491 Old Deerfield Rd
Highland Park

LENZ ELECTRIC MFG CO, 1751 N WESTERN AVE
CHICAGO, ILL, 60647 .... 312 276-4454
R ZENDER, EMP 125, ENG 3, $2,500-$5,000M
Ariz R Hales Pridmore Assoc, 2012 E Thomas Rd
Phoenix 602 277-9961
Cal Penwarden Assoc, Inc, 14547 Titus St
Van Nuys 213 782-4920
Iowa Norman W Kathrinus & Co, 417 W 4th St
Ottumwa .... 515 MU 4-6110
Kan Norman W Kathrinus & Co, 2336 S Boeke St
Kansas City .... 913 AU 6-4108
Minn M Foster Co, 228 S Cedar Lake Rd
Minneapolis.......................... 374-2612
Mo Norman W Kathrinus & Co, 2427 Brentwood Blvd
St Louis 314 962-5627
Ohio McFadden Sales Co, 150 E Broad St
Columbus............................ 221-3363
Tex Campion Sales Co, Addison Airport Box 396
Addison 214 239-9196

LEPEL HIGH FREQUENCY LABS, INC
59-21 QUEENS-MIDTOWN EXPWY, MASPETH
N Y, 11378 .... 212 HA 64580
A HOFFMAN, EMP 220, ENG 10, $2,500-$5,000M
Cal Lepel High Freq Labs, Box 527, Diablo ... 467-9444
Cal Lepel High Freq Labs, 915 W Washington Blvd
LA.................................. 748-4238
Colo Mine & Smelter Supply Co, 3800 Race St
Denver 244-4353
Ga Dilcher Engineering, 3376 Peachtree Rd, N E
Atlanta 231-1678
Ill Lepel High Freq Labs Inc, 7000 W North Ave
Chicago 637-7244
Ind Loy Instrument Co, 2111 N Kitley Ave
Indpls .... FL 6-6318
Mass Eastern Appliance Co, 36 Arlington St
Watertown 926-2080
Mich Industrial Burner Systems Co, 16911 W 8 Mile Rd
Detroit .... VE 5-5100
Minn Chas W Stone Co, 1914 La Salle Ave
Minneapolis.......................... 339-0611
Mo Brandwine Equipment Co, 647 W 39th St
Kansas City .... LO 1-1665
Mo Brandwine Equip Co, 729 Hanley Ind Ct
St Louis .... ST 1-6432
Okla Barr McDermott Inc, Box 7010, Tulsa.... RI 3-3628
Tex Engineering Sales Co, 7255 Envoy Ct
Dallas............................. ME 7-0310
Tex Engineering Sales Co, 5949 Armour Dr
Houston .... WA 6-8858
Utah Mine & Smelter Supply Co, 121 W 2nd S St
Salt Lake City .... EM 3-2791
Can R Morse Corp, 6995 St James St W, Montreal, Que

LESA-COSTRUZIONI ELETTROMECCANICHE SPA
VIA BERGAMO 21, MILAN, ITALY........... 55 40 41
G RONDONI, EMP 2000, ENG 75, OVER $10,000M
NY Lesa of America Corp, 521 Fifth Ave
New York 697-5838

LESLIE MFG CORP, 1025 GRAND AVE, SAN MARCOS
CAL, 92069 .... 714 744-1658
N GREGORY, EMP 24, ENG 3

LEUPOLD & STEVENS INSTRUMENTS INC, BOX 25347
PORTLAND, ORE, 97225 .... 503 234-7423
C FETTY, EMP 150, ENG 10, $2,500-$5,000M
Cal Hinde Eng Co, 18713 Metler, Saratoga ... 378-4112
Colo Goble, Sampson & Smith Inc, 5505 E Evans Ave
Denver 757-4971
Fla R A Litkenhaus & Assoc, 5027 Stepp Ave
Jacksonville..................... 904 733-6740
Ga Lewis M Crowe Co, 174 W Wieuca Rd NE
Atlanta 255-2700
Ill O De Celle & Assoc, 7310 W Central Ave
Chicago 312 366-3530
Kan B C Control Co, 9 Elmwood
Kansas City .... CO 2-0404
La E E Brown Instr Co, 5100 Jewella Rd
Shreveport 635-7697
Md Kappe Assoc, 14215 Travilah Rd
Rockville 301 762-7797
Mass Electrical Apparatus Co Inc, 1200 Soldiers Field Rd
Boston 617 782-7440
Mich J E Foyle Co, Box 48, Ferndale 398-3136
Minn Engineered Sales Co, 311 W 44th St
Minneapolis......................... 823-8238
Mo Maddock Equip Co, 12015 Manchester Rd
St Louis 966-2080
NY Walker & Lodge, 117 Liberty St
New York .... BA 7-6668
NC B W Allen Co, Box 17218, Charlotte 366-0031
Ohio H F Thompson Co, 4866 Cooper Rd
Cincinnati.......................... 891-4414
Ohio J P Bergren Co, Box 18077, Cleveland ... 932-9445
Okla Kennedy Engrg Co, 1312 S Peoria
Tulsa............................ LU 2-7178
Tex Macaulay Controls Co, Box 26832
Houston 928-3794
Utah Waterworks Equip Co, 502 W 3rd S
Salt Lake City .... DA 8-8551
Can Hughes-Owens Co Ltd, 8500 Decarie Blvd, Montreal

LEVIN & SON INC, LOUIS, 3573 HAYDEN AVE
CULVER CITY, CAL, 90231 .... 213 UP 0-9555
R LEVIN, EMP 30, ENG 2, $1,000-$2,500M
Ill M L Friedman Co, 4749 N Rockwell Ave
Chicago 561-4257

LEVITON MFG CO INC, 236 GREENPOINT AVE
BROOKLYN
N Y, 11222, TWX 710-584-2362 .... 212 EV 3-4500
J AMSTERDAM, EMP 8500
Ala L Kolmaister, 2536 Poydras St
New Orleans 504 821-2345
Ariz Jerry Levitt, Box 13117, Phoenix..... 602 252-6171
Cal R Barnecut, 385 E 2nd St
Los Angeles.................. 213 MA 5-1546
Cal J Driscoll, 2166 Market St
San Francisco .... 415 UN 3-2600
Cal S Yenter, 670 Vernon St, Oakland.... 415 658-5709
Colo R J O'Donnell, 2256 S Delaware St
Denver .... 303 PE 3-5541
Conn M Taylor, Jo Ann La, Weston........ 203 227-7580
Fla P Levitt, 1418 Jefferson St
Hollywood .... 305 WA 2-6600
Fla J Wright, 212 W Thomas St
Tampa 813 238-2439
Ga T Jordan, 2572 Lenox Rd NE
Atlanta 404 233-7453
Ill L Worth, 325 N Ashland Ave
Chicago .... 312 MO 6-9500
Ind G H Will, 4502 N Kelley Ave
Indianapolis.................... 317 LI 7-8925
Ky Tom Gray, 52 Madonna Pl
Fort Thomas..................... 606 441-1420
Ky C Pfeiffer, Box 7044, Louisville...... 502 895-2864
La L Kolmaister, 2536 Poydras St
New Orleans 504 821-2345
Md M Hansen, 1405 Nicholay Way
Baltimore..................... 301 MU 6-1121
Mass Associated Agencies, 330 Congress St
Boston 617 426-8651
Mich J Groff, 1550 Clay Ave, Detroit...... 313 871-7170
Mich T Walsh, 133-60th St SE
Grand Rapids................... 616 LE 4-1443
Minn J B Murphy & Assoc, 2018 W 78 St
Minneapolis..................... 612 866-2404
Mo B Milford, Jr, 1525 Broadway
Kansas City ....816 BA 1-7131
Mo C Thomas, 1523 Ridgewood Dr
St Louis .... 504 WO 1-1399
Neb G E Peterson, 4525 Valley St
Omaha 402 391-0776
NJ L Sush, 1142 Reeves Ter, Union .... 212 EV 3-4500
NY J Siegal, 343 Scott Ave
Syracuse......................313 GR 6-0232
NC C Froeba, 4650 Murray Hill Rd
Charlotte 704 525-1541
Ohio T Gray, 52 Madonna Pl, Cincinnati ...... HI 1-4654
Ohio R Lawton, 6790 McVey Blvd
Worthington 614 889-2257
Ohio S Schwartz, 13800 Fairhill Rd
Shaker Heights 216 721-6265
Pa S Isaacs, 2401 Penna Ave
Philadelphia 215 765-0115
Pa A Isack, 1606 Mt Pleasant Rd
Havertown .... 215 HI 6-6307
Tenn S F Hiller, Box 2141, Memphis..... 901 JA 5-8463
Tex E Barr, 6834 Colfax St, Dallas ..... 214 DI 8-6362
Tex F Dupont, 7611 Edgeway
Houston .... 713 OV 6-0279
Utah L Dowding, 1975 Hubbard Ave
Salt Lake City 801 364-6952
Va Epperson & Dull Co, 1103 E Main St
Richmond.................... 703 MI 3-2126
Wash D Wheat, 3818 E Marginal Way
Seattle .... 206 MA 4-6222
Wis J Lustig, 3839 N 54th Blvd
Milwaukee.................... 414 UP 1-8539
Can D Mendels, 8255 St Michel Blvd
Ville St Michel, Montreal .... 514 RA 9-2871
Can Leviton Mfg of Can Ltd, 8255 St Michel Blvd
Montreal Que .... 514 RA 9-2871
For Export Dept, 236 Greenpoint Ave
Brooklyn N Y.................. 212 EV 3-4500

LEWIS CORP, MAIN ST, WOODBURY
CONN, 06798 .... 203 263-2158
J LOGAN, EMP 10, ENG 3, UP TO $100M
Ala System Engieneering Co, 2108 W Clinton Bldg
Huntsville 305 783-2839
Ariz Bews & Wallace Co, 1325 S 26th St
Phoenix 602 275-4496
Cal John H McCamey & Assoc, 1260 S Atlantic Blvd
Los Angeles..................... 213 263-9812
Cal Manfred Haase, 8647 Arbor Dr
El Cerrito 415 527-2604
Conn Nelson & Schoonmaker Inc, 106 Main St
Thomaston 283-5959
Minn Industra Co, 6504 Walker St
Minneapolis..................... 612 929-6224
Mo H Hansen, 10426 Maple La
St Louis 314 842-1404
NY Owens & Co, Milford Bldg
Skaneateles .... OV 5-5771
NY Barlett Assoc, 470 Mamaroneck Ave
White Plains 914 949-6476
NC Ed Morrison Co, Box 10271
Greensboro...................... 919 274-2639
Ohio R D P Assoc, 5899 Huberville Ave
Dayton 253-6175
Ore A W Shirley, Box 14283, Portland ... 503 234-0281
Tex Technical Products Inc, 10219 Hedgeway Dr
Dallas.......................... 214 357-9603

LEWIS ENGINEERING CO, 550 SPRING ST
NAUGATUCK
CONN, 06770, TWX 962439............ 203 729-5253
L SMITH, EMP 450, ENG 32
Ala Rep Inc, 8100 S Memorial Pkwy
Huntsville 205 881-9270
Ariz Pacific Scientific Co, 15 N 40th Pl
Phoenix 273-7464
Ark Pacific Scientific Co, 702-A E Abram St
Arlington 275-3236
Cal Pacific Scientific Co, 760 Harrison St
San Francisco 362-0934
Cal Pacific Scientific Co, 6280 Chalet Dr
City of Comm 773-2020
Cal Pacific Scientic Co, 3235 Hancock St
San Diego 714 297-4533
Conn J H Cosmar Co, 350 S Main St
Cheshire........................ 203 272-7325
Fla Currie Aerospace Assoc, Box 13229
Orlando 305 855-0843
Ga Rep, Inc, 1483 Monroe Dr NE, Atlanta.... 876-1591
Ill D S Davis Co, 2929 N Paulina St
Chicago 327-4777
Kan Pacific Scientific Co, 8020 Santa Fe Dr
Overland Park 913 381-2600
Md Stitzer Assoc, 212 Washington Ave
Baltimore........................... 823-2600
Mass J H Cosmar Co, 60 Ardsley Cir
Brockton........................ 617 583-4259
Mich George Instrument Co, 1024 W 14 Mile Rd
Clawson............................. 564-5481
Mich George Instrument Co, 1440 Eastern Ave SE
Grand Rapids.................... 616 243-5325
Minn D S Davis Co, 3300 Canterbury Dr
Bloomington 612 881-2585
Mo Pacific Scientific Co, 11771 Natl Bridge Rd
St Louis 291-2440
NM Pacific Scientific Co, 209 San Pablo SE
Albuquerque......................... 265-6638
NY R H Perry Co, 1807 Elmwood Ave
Buffalo 876-2318
NY A Mac Callum, 103 Charles Dr
Camillus........................ 315 488-1049
NY Alfred W Subert Assoc, 81 Russell Rd
Garden City 516 747-4650
NC MacGuire Instrument Co, Rte 1 Box 290K
Matthews............................ 366-3454
Ohio Satullo Co, 16801 Euclid Ave
Cleveland........................... 486-2800
Ohio Satullo Co, 2801 Far Hills Ave
Dayton 513 293-7061
Ore Pacific Scientific Co, 1208 SE 7th Ave
Portland 503 233-6177
Pa Stitzer Assoc, 24 State Rd, Paoli 644-5500
Tex Pacific Scientific Co, 4101 San Jacinto
Houston 713 529-6822
Wash Pacific Scientific Co, 8915 14th Ave S
Seattle 762-4260
W Va Renko Sales, Inc, 2 Church St
Scottdale 261-4472
Can Aviation Electric Ltd, 200 Laurentien Blvd
Montreal............................ 744-2811
Den Technitron A/S, 24 Kloster Str, Copenhagen
Fr Technitron S A, 20 Rue de Boulainvilliers, Paris
Ger Technitron, Sonnenstr 14, Muchen
GB Technitron Ltd, Walmgate Rd Perivale
Greenford Mdsx
Holl Technitron N V, Schiphol Airport, Amsterdam

Ital Technitron S r l, Viale Bruno Buozzi 68, Rome
Swed Technitron Sweden A B
Finbagarvagen 35 Fack Farsta 4
Stockholm 08 64 43 35

LFE ELECTRONICS DIV, LAB FOR ELECTRONICS INC
1605 TRAPELO RD, WALTHAM
MASS, 02154, TWX 617-788-2743 ...... 617 254-4233
G GAMBLE, EMP 600, ENG 150
Cal W J Miller, 3011 Lomita Blvd
Torrance 213 325-1820
DC J C Milligan, 1725 K st N W
Washington 202 659-2355
NJ R Goodwin, Crystal Prof Bldg
Eatontown 201 542-9065
Ohio C H Metzger, 4130 Linden Ave
Dayton 513 254-3966

LGM ELECTRONICS INC, 4304 LA BRANCH ST
HOUSTON, TEX, 77004 .... 713 JA 4-8383
E SCHACHT, EMP 36, ENG 3, $250-$500M
Ala C Rothell, 1516 S 19th St, Birmingham ... 323-3688
Alas R L Winter, Box 8242, Anchorage 907 277-7295
Cal Michel Bros, 1413 E 20th St
Los Angeles .... RI 9-7587
Cal Pacific Electric, Pier 3, San Francisco 986-1504
Colo J Gardner, 2723 S Meade St
Denver 303 935-4053
Fla W W Jackson Co, Box 8605
Ft Lauderdale 305 922-8204
Fla L H Leetzow, 205 22nd Ave W
Bradenton 813 745-6491
Ga Trapani & Assoc, Box 9944
Atlanta 404 233-8244
Ill Elliott & Assoc, 1240 Isabella St
Wilmette 312 251-6058
La E J Hagan & Co, Box 19361
New Orleans 504 488-0897
Mass Mel Bardin Sales Corp, 45 Cottage St
Brookline 617 731-2628
Mich Hal Roth Sales Co, 1986 Marston Ave
Detroit .... TR 5-4300
Minn Jensen Sales Co, 8240 Zenith Ave S
Minneapolis 612 888-1850
Mo Schooler-Gorman Co, 1224 W 9th St
Kansas City .... VI 2-0733
Mo Wm W Green Co, 1821 Chouteau Ave
St Louis 314 231-1061
NM A & B Sales Co, Box 11312
Albuquerque 505 298-0770
NY R H Schaub & Assoc, 1201 Kellogg Ave
Utica .... RA 4-8689
NY B & W Sales Inc, 48-09 43rd Ave
Long Island City 212 898-5360
NC Whiting Co, Box 17833, Charlotte 704 366-0555
Pa P A Dieffenbach Sls Co, 23 N 23rd St
Mt Penn 376-7118
Pa L C Conover Assoc, Miller Rd
Chester Springs 215 827-7261
Tex F Blessing, 4304 La Branch St
Houston 713 524-8383
Tex Kirkpatrick & Co, 2527-B McKinney Ave
Dallas 214 747-3989
Utah Sherman Nabaum & Co Inc, 4777 S 13th E
Salt Lake City
Va Doyle Sales Agency, 9105 Crystalwood La
Richmond 703 270-2192
Wash West Coast Agencies, 17615 52nd W
Edmonds 206 743-5100

LIBERTY MIRROR DIV LIBBEY-OWENS FORD GLASS
CO, 811 MADISON AVE, BRACKENRIDGE
PA, 15014 .... 419 242-5781
R GRAHAM, EMP 11648
Ariz Libbey-Owens Ford, 3800 N Central St
Phoenix 264-9097
Cal Libbey-Owens Ford, 3440 Wilshire Blvd
Los Angeles 388-0641
Cal Libbey-Owens Ford, 116 New Montgomery St
San Francisco 781-4360
Colo Libbey-Owens Ford, 2106 Mile High Ctr
Denver 255-0395
DC Libbey-Owens Ford, 900 17th St N W
Washington 296-5051
Fla Libbey-Owens Ford, 6660 Biscayne Blvd
Miami 758-5529
Ga Libbey-Owens Ford, 1819 Peachtree Rd N E
Atlanta 355-2410
Ill Libbey-Owens Ford, 10 S Riverside Plaza
Chicago 236-2490
Ind Libbey-Owens Ford, 5 E Market St
Indianapolis 637-1363
Mass Libbey-Owens Ford, 20 Providence St
Boston 482-0100
Mich Libbey-Owens Ford, 610 Fisher Bldg
Detroit 875-0080
Minn Libbey-Owens Ford, 1916 1st Natl Bank Bldg
Minneapolis 332-8429
Mo Libbey-Owens Ford, 10004 Baltimore St
Kansas City 842-5360
Mo Libbey-Owens Ford, 330 Mansion Housecenter
St Louis 231-9863
NY Libbey-Owens Ford, 14 Lafayette Sq
Buffalo 856-7656
NY Libbey-Owens Ford, 99 Park Ave
New York 682-6511
NY Libbey-Owens Ford, 1654 Central Ave
Albany 869-9261
Ohio Libbey-Owens Ford, 2330 Victory Pkwy
Cincinnati 961-8181
Ohio Libbey-Owens Ford, 20575 Center Ridge Rd
Cleveland 331-6522
Ohio Libbey-Owens Ford, 811 Madison Ave
Toledo 242-5781
Pa Libbey-Owens Ford, 121 Coulter Ave
Ardmore 477-4120
Tenn Libbey-Owens Ford, 8 N Third St
Memphis 527-7589
Tex Libbey-Owens Ford, 812 Southland Ctr
Dallas 748-8641
Tex Libbey-Owens Ford, 622 Houston Siteman Bldg
Houston 747-8562
Va Libbey-Owen Ford, 3311 W Broad St
Richmond 358-4906
Wash Libbey-Owens Ford, 1301 Tower Bldg
Seattle 682-7047
Wis Libbey-Owens Ford, 161 W Wisconsin Ave
Milwaukee 272-2887

LIBRASCOPE GROUP GEN PRECISION SYS INC
808 WESTERN AVE, GLENDALE
CAL, 91201, TWX 910-497-2266 .... 213 245-8711
R VAUGHAN, EMP 2000, ENG 500, OVER $10,000M
Ala Reynolds & Assoc, 904 Bob Wallace Ave
Huntsville 536-1941
Ariz Brooks Feeger Assoc, 4710 N 16th St
Phoenix 264-6536
Cal Products Div, 1100 Frances Ct
Glendale 245-8591
Colo Brooks Feeger Assoc, 1309 S Inca St
Denver 744-3301
DC Librascope Group, 1030 15th St N W
Washington 223-4100
Fla Reynolds & Assoc, P O Box 1043
Eau Gallie 727-3205
Fla Reynolds & Assoc, Box 8877, Orlando 424-3836
Fla Reynolds & Assoc, 161 SW 75th Ave
Ft Lauderdale 581-6611
Fla Reynolds & Assoc, 175 W Wieuca Rd
Atlanta 252-5360
Ill Anger Assoc, 731 Villa Ave, Napaville 233-2214
Mich Anger Assoc, Inc, 13126 Michigan Ave
Dearborn .... LU 4-9853
Mich Anger Assoc, Inc, 21139 Lorain Rd
Cleveland 333-4180
Mich Anger Assoc, Inc, 3605 N Dixie Dr
Dayton 278-8311
Minn Engineering Prods Assoc, 2119 Grand Ave
St Paul 698-5531
Mo Engineers Intl Inc, 9523 Lackland Rd
St Louis .... HA 8-7887
NJ Products Div, 66 Glen Ave, GlenRock 652-6150
NM Brooks Feeger Assoc, 1238 Ortiz St SE
Albuquerque 268-4387
Tex Engineers Intl Inc, 6409 Maple Ave
Dallas .... FL 2-2666
Tex Engineers Intl Inc, 954 Corbindale
Houston 465-9246

LICON DIV, ILLINOIS TOOL WORKS INC
6615 W IRVING PARK RD, CHICAGO
ILL, 60634 .... 312 282-4040
W BEAM
Cal McKnight Co, 115 Spruce Ave
Menlo Park 325-2844
Cal Carter-Rossney Assoc Inc, 2600 W Olive Ave
Burbank 843-3292
Colo Electronic Components Sales, 2340 W Main St
Littleton 798-8481
Conn Geo Olmstead, Longview Dr
Ridgefield 203 743-2113
Fla W Ben Wimberly Co, 532 S Ft Harrison Ave
Clearwater 446-7072
Fla W Ben Wimberly Co, 500 S Osceola
Orlando 425-3083
Ga Grady Duckett Sales Co, Box 29067
Atlanta 451-3529
Ind Hoemig Sales Co, 3405 Butler Ct
Fort Wayne 483-6913
Iowa H R Brown Sales Co, 1917 B Avenue NE
Cedar Rapids 366-0635
Md McCourt Co Inc, 28 W Penna Ave
Towson 823-3455
Mich Villani-Pitcher Inc, 20203 Ann Arbor Tr
Dearborn 271-4600
Minn Henco Sales Inc, 7728 Morgan Ave S
Minneapolis 866-3639
Mo Jack C Mankurst & Assoc, 400 Brookes La
Hazelwood 731-4334
NJ F F Sylvester Assoc, 649 Morris Ave
Springfield 376-3324
NM Electronic Components Sales, Box 3087 Sta D
Albuquerque 505 344-4616
NY Licon Ind, 3650 James St, Syracuse 315-8525
NC Grady Duckett Sales Co, Box 718
Kernersville 993-3906
Ohio Rockford Controls Ohio Inc, 2077 Embury Park Rd
Dayton 274-1911
Ohio Rockford Controls Ohio Inc, 19200 Villaview Rd
Cleveland 531-4841
Pa Kaufholz Assoc, Box 227, Newtown Sq ... 356-5000
Tex Delzell & Evans Assoc, Box 35093
Dallas 351-1839
Wash Licon-Div ITW, Rm 446 Central Bldg
Seattle .... 206 MA 2-6595
Can Licon Div, Can Ill Tools Ltd, 67 Scarsdale Rd
Don Mills, Ont
Fr Control Equipment, 8 Rue Dequerry, Paris - XI
Ger Amphenol-Tuchel Elctns
8024 Deisenhofen Bei Munchen,
GB Plessey Co (UK) Ltd, New Lane, Havant, Hampshire
GB Plessey Co Ltd, Abbey Works, Titchfield, Hampshire

LIEBEL-FLARSHEIM CO, 111 E AMITY RD, CINCINNATI
OHIO, 45215 .... 513 761-2700
K GREINER, EMP 309, ENG 8, $2,500-$5,000M

LIECO INC, 426 GREAT EASTNECK RD
EMP 40, ENG 3, $500-$1,000M

LIFE INSTRUMENT CO INC, 100 BROOK ST, FRANKLIN
MASS, 02038 .... 617 528-0332
W TAYLOR, EMP 100, ENG 4, $500-$1,000M
Cal R R Slater, 420 Market St
San Francisco .... EX 2-9154
Cal Corcoran Assoc, Box 45897
Los Angeles 823-2425
Ill A S & H Assoc, 6272 W North Ave
Chicago 237-2343
Kan Gordon Fixman Engrg Co, 6631 E Kellogg
Wichita 316 682-9433
Mass Bordewieck Eng Sales Co, 221 Grove St
Braintree 843-0845
Mich W L Trombley & Son, 28671 Northwestern Hwy
Southfield 353-7300
Minn Heimann Co Inc, 5603 Lyndale Ave S
Minneapolis 827-5457
Mo Gordon Fixman Eng Co, 8160 Stanford Ave
St Louis .... PA 5-5219
Mo Aire-Borne Elctns Co, 7759 Loma Vista Dr
Kansas City 816 221-0312
NY O F Masin, Inc, 140 Boston Post Rd
Larchmont 835-0960
NC Wm J Suk Assoc, Box 3186
Charlotte 704 332-6191
Ohio E C Frost & Co, 30650 Pine Tree Rd
Cleveland 831-1442
Ohio F J Campisano & Assoc, Box 11043
Cincinnati 513 662-1616
Tex G Weinreich & Assoc, 11554 E Northwest Hwy
Dallas .... DA 1-2800
Va Royelec, Box 254, Lynchburg 846-7117
Wash R R Slater, Terminal Sales Bldg
Seattle .... MA 2-3860
Wis Honkamp Sales Co, 11120 W Ruby Ave
Milwaukee 463-2530
Can Willer Eng & Sales Co, 1800 Avenue Rd
Toronto, Ont 782-3375
Ital Equip & Automazione Ind, Via Talucchi, 27, Torino

LIGHT ELECTRIC CORP, 214 LACKAWANNA AVE
NEWARK, N J, 07103 .... 201 621-9144
L TORCICOLLO, EMP 47, ENG 4, $500-$1,000M
Mass George Neuman, 91 Fairfield St
Needham .... HI 4-4342

LIGHTNING CIRCUITS, VICTORIA AVE
NIAGARA ON THE LAKE
ONT, TWX 610-372-0607 .... 416 468-7663
I LANGSTON, EMP 25, ENG 1, $250-$500M

LIGNES TELEGRAPHIQUES ET TELEPHONIQUES
89 RUE DE LA FAISANDERIE, PARIS 16
FRANCE 870-45-50
M JACQUEMINET, EMP 4000, ENG 140, OVER
$10,000M

LINAIR DESIGN CORP, 1016 E ELIZABETH AVE, LINDEN
N J, 07036 .... 201 486-1722
G WEBER, EMP 20, ENG 3, $500-$1,000M
ADV PG 615
Conn Abbott-Allison Co Inc, Box 67
Meriden 203 237-9232
NJ Electra-Mec Assoc, 1258 Teaneck Rd
Teaneck 201 837-4262
Ohio E V Swenson & Assoc, 1112 Talbott Tower
Dayton 513 223-4279

LINDBERG HEVI-DUTY DIV SOLA BASIC INDUSTRIES
2450 W HUBBARD ST, CHICAGO
ILL, 60612 .... 414 261-7000
C BURLING
Cal Lindberg Hevi-Duty, 2632 Bayshore Frontage Rd
Mountain View 321-6432
Cal Lindberg Hevi-Duty, 747 W Katella
Orange 639-1541
Colo Blair Engineering Co, 3435 E Bayaud Ave
Denver 388-6423
Ga Lindberg/Hevi-Duty, 3030 Peach Tree Rd NW
Atlanta 233-8014
Ill Lindberg Hevi-Duty, 3150 Des Plaines Ave
Des Plaines 775-7933
Ind Lindberg Hevi-Duty, 230 E Ohio
Indianapolis 635-4574
Kan Robt R Stephens Machinery Co
7830 State Line Rd, Praire Village 269-4126
Kan Robt R Stephens Machinery Co
3000 W Kellogg Dr, Wichita 942-5611
La Stanley Hughes Co, Box 1932
Baton Rouge 342-8793
Mass Lindberg Hevi-Duty, 69 Maple St
E Longmeadow 525-3689
Mass Lindberg Hevi-Duty, 10 Kearney Rd
Needham Heights 444-5910
Mich Lindberg Hevi-Duty, 414 W Milham Rd
Kalamazoo 381-3036
Mich Lindberg Hevi-Duty, 725 S Adams Rd
Birmingham 647-7712
Mo Robt R Stephens Machinery Co, 8145 Olive Blvd
St Louis 991-0502
NJ Lindberg Hevi-Duty, 1549 Irving St
Rahway 388-4404
NY Lindberg Hevi-Duty, 455 Empire Blvd
Rochester 482-4680
Ohio Lindberg Hevi-Duty, 20525 Center Ridge Rd
Cleveland 221-5576
Okla Robt R Stephens Machinery Co, 1419 E 6th St
Tulsa 587-4904

Pa Lindberg Hevi-Duty, 3709 W Chester Pike
Newtown Square 356-6900
Pa Lindberg Hevi-Duty, 4 Parkway Ctr
Pittsburgh 921-3778
Tex Hainge Co, 3323 Mercer St, Houston 529-2573
Wash Walsh-Ehlers Inc, 1138 Poplar Pl
Seattle 322-1155
Wis Lindberg Hevi-Duty, 10721 W Capitol Dr
Milwaukee 462-3420
Can Lindberg Hevi-Duty Can Ltd, 15 Pelham Ave
Toronto 9, Ont 766-6456
Can Lindberg Hevi-Duty Can Ltd, 5050 de Sorel
Montreal 9, Que 733-1101
For Sola Basic Intl, Marine Plaza
Milwaukee 276-1480

LIND ELECTRO DEVELOPMENT A TELEDYNE CO
2294 MORA DR, MOUNTAIN VIEW
CAL, 94040 .... 415 961-1221
L HOVEY, EMP 40, ENG 3
Ariz Dorton Enterprises, Box, Scottsdale ... 602 946-6213
Cal Thorson Co, 6824 Melrose Ave
Los Angeles 213 937-0790
Cal Thorson Co, 2443 Ash St, Palo Alto 321-2414
Cal Thorson Co, 444 Olive St, San Diego 298-8385
Colo Thorson Co, 3600 S Lincoln St
Englewood 789-1841
Ill Burt Anderson Assoc, 5969 N Elston Ave
Chicago 312 774-8989
Ohio Electronics Mktg Corp, 814 W 3rd Ave
Columbus 614 299-4161
Tex Thorson Co, 7700 Carpenter Freeway
Dallas 631-4988
Wash Thorson Co, 1767 15th Ave S, Seattle 325-5002

LINDEN & CO INC, 72 BAKER ST, PROVIDENCE
R I, 02905 .... 401 HO 1-7770
J MASTERSON, EMP 75, ENG 1, $500-$1,000M

LINDEN LABS INC, BOX 920, STATE COLLEGE
PA, 16801 .... 814 383-2308
J ANDERSON, EMP 67, ENG 15, $500-$1,000M
Cal James L McCoy Co, 940 Alma St
Glendale .... CI 6-2134
Ill Olson Sales Co, 1005 E Washington Blvd
Lombard 627-3802
NY M J Fein Co, Box 28, Scarsdale .... GR 2-1100
Tex C C S Butt, Box 18045, Houston .... JA 6-3101

LINDGREN & ASSOCIATES INC, ERIK A
4515 N RAVENSWOOD AVE, CHICAGO
ILL, 60640 .... 312 LO 1-0408
R FELICE, EMP 30, ENG 2, $250-$500M
Cal Wallace & Wallace, 1206 Maple Ave
Los Angeles .... RI 7-0401
Cal White & Co, 777 N 1st St
San Jose 408 292-8229
Fla Dbm Research Corp, Box 521
Cocoa Beach .... SU 3-2438
Mass L Roffer Co, 12 Nancy La, Framingham ... 877-4900
Mich Satullo Co, 4512 N Woodward Ave
Royal Oak .... JO 6-2375
NM Electronic Enterprises, 1900 NE Washington
Albuquerque .... AL 6-1585
NM Electronic Enterprises, Box 116
Las Cruces 524-0126
Ohio Satullo Co, 618 Cin-Batavia Pike
Cincinnati 752-6683
Ohio Satullo Co, 16801 Euclid Ave
Cleveland 486-2800
Tex E G Miller Co, Box 929, Henderson
Utah Applied Engrg Prods, 6375 Emigration Canyon
Salt Lake City 364-7309
Va Schibley Assoc, 10604 Warwick Ave
Fairfax 703 591-3008
Can Atlas Instrument Corp, 50 Wingold Ave
Toronto .... RU 1-6174
For Scheel Intl Inc, 5909 N Lincoln Ave
Chicago, Ill 561-7832

LINDSAY SPECIALTY PRODUCTS LTD, 50 MARY ST W
LINDSAY, ONTARIO 324-2196
J THOMAS, $1,000-$2,500M

LINDSAY STRUCTURES DIV, INTL STEEL CO
1321 EDGAR ST, EVANSVILLE
IND, 47710 .... 812 425-3311
F SCHROEDER, EMP 600, ENG 80, OVER $10,000M

LINEAR ALPHA, INC, 823 EMERSON ST, EVANSTON
ILL, 60201 .... 312 475-1731
E WAKEFIELD, EMP 28, ENG 6, $250-$500M

LINEAR NETWORKS CO, 1309 S BLACK AVE, BOZEMAN
MONT, 59715 .... 406 587-8531
J HOGIN, EMP 7, ENG 3, UP TO $100M
ADV PG 288
Mass Russell Engrg Sales, 7 Skyfield Dr
Groton 617 448-5822
Va J A Hopkins, Jr, 4520 Starr Jordan Dr
Annandale 280-2086

LINEAR SYSTEMS INC, 220 AIRPORT BLVD
WATSONVILLE, CAL, 95076 .... 408 722-4177
N KITTERER, EMP 30, ENG 4, $500-$1,000M
Cal Herb Becker Co, Inc, 1140 Crenshaw Blvd
Los Angeles 931-1257
Fla Sproch Sales Inc, 3520 W Broward Blvd
Fort Lauderdale 305 587-3792

Ill Jack West, 6747 N Octavia Ave
Chicago 763-3500
NJ R Finlay Sales Co, 45 N Broad St
Ridgewood 652-0088
Ore Tarbell Communications, 1100 S W Sixth Ave
Portland 228-4111
Tex C C S Butt, 4544 Walker St, Houston ... WA 6-5206
For Telesco Intl Corp, 171 Madison Ave
New York, NY .... MU 3-9420

LINE ELECTRIC CO, US HWY 287, PARSIPPANY
N J, 07054 .... 201 887-8200
A KINNEY, EMP 105, ENG 3, $1,000-$2,500M
Ala Murphy & Cota, 112 Gallatin St SW
Huntsville 536-9121
Cal E V Roberts, 9601 W Jefferon Blvd, Culver City
Colo Arrowhead Sales Co, 6367 S Gallop St
Littleton 798-0319
Conn White Sales Co Inc, Box 122, Berlin .... BA 4-0423
Fla Murphy & Cota, 2319 E South St
Orlando 424-2167
Ga Murphy & Cota, 2110 Peachtree Rd NW
Atlanta .... TR 6-3020
Ill Hill-Gray Assoc, 821 Garfield
Oak Park 315 378-7050
Iowa Thomas-Modrcin Assoc Inc, 590 17th Ave
Marion 377-6261
Kan Thomas-Modrcin Assoc Inc, 5450 Buena Vista Dr
Shawnee Mission .... HE 2-2131
Md Moler Eader Assoc, 320 Hillen Rd
Baltimore .... VA 5-1130
Mass White Sales Co, 20 Chestnut St, Needham
Minn D A Schultz Co, 801 SE 8th
Minneapolis .... FE 9-7701
Mo Thomas-Modrcin Assoc Inc, 47 Village Square
Hazelwood 838-6446
NJ G W Moler Co, Box 240, Haddonfield ... HA 8-2440
NY Marchese-Davis Assoc, 80 Karlan Dr, Rochester
NC Murphy & Cota, Box 6365, Greensboro 288-1923
NC Murphy & Cota, 1106 Burke St
Winston Salem 724-0750
Ohio Electro Co, 8761 Snow Rd, Cleveland ... TU 6-2404
Ohio Electro-Com, Box F, Dayton 278-4797
Tex Techno Assoc, 2324 Share Crest Dr, Dallas
Utah Arrowhead Sales Corp, 1966 W 6255 S
Salt Lake City 298-2751
Can Vapor Heating Ltd, 3955 Courtrai Ave, Montreal, Que
For Buck Intl Co, Box 1146, Brookdale Sta
Bloomfield .... PI 3-8110

LINEN THREAD CO, DIV INDIAN HEAD MILLS INC
BLUE MOUNTAIN, ALA, 36201 .... 205 237-9461
T ROTHWELL, EMP 650, $5,000-$10,000M
Cal Linen Thread Co, 92 Charter Oak Ave
San Francisco .... JU 7-5234
Mass Linen Thread Co, 51 Sleeper St, Boston ... LI 2-6910
NY Linen Thread Co, 40 E 34th St
New York .... WA 5-3500

LING ELECTRONICS DIV LTV ALTEC INC
1515 S MANCHESTER AVE, ANAHEIM
CAL, 92803, TWX 910-591-1142 .... 714 774-2000
H PROPPE, EMP 383, ENG 50, OVER $10,000M
Ala Space Engrg Sales Inc, 4306 Governors Dr S W
Huntsville 837-6060
Ariz R A Mayes Co, 4747 N 16th St
Phoenix 279-5243
Cal C G Pierce & Assoc, 1810 Fair Oaks Ave
S Pasadena 682-1166
Cal C G Pierce & Assoc, 363 S Taafee
Sunnyvale .... CH 5-0986
Colo R A Mayes Co, Box 314, Broomfield 421-0706
Fla Space Engineering Sales, 999 Woodcock Rd
Orlando 841-2271
Ill Marsland Assoc, 6699 Lincoln Ave
Chicago 676-1100
Ind Marshland Assoc, 3734 Carrollton Ave
Indianapolis 356-4249
Md Brimberg Assoc, 814 Thayer Ave
Silver Spring 588-7790
Mass Ling Electronics, Northern Ind Pk
Wilmington .... PA 9-3810
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield 442-5656
Minn Marsland Assoc, 231 N Edgewood
Minneapolis .... LI 5-4481
Mo Marsland Assoc, Box 567, Florissant 831-0015
NJ Tek Sel Inc, 440 N Midland Ave
Saddle Brook 791-5545
NM R A Mayes Co, 8016 Zuni Rd SE
Albuquerque 265-7989
NY D B Assoc Inc, 3307 Erie Blvd, DeWitt ... 446-0220
NY D B Assoc Inc, 22 Biscayne Dr
Lancaster 835-6186
NC Space Engrg Sales, 2509 Lakeshore Dr
Greensboro 919 299-0987
Ohio S Sterling Co, 2673 Culver Ave
Dayton .... AX 8-7573
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland .... HI 2-8080
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh .... TU 4-5515
Pa J E Cuesta & Co Inc, Valley Forge 385-3000
Tex Carey Wolf Co, Box 12425, Fort Worth ... PE 8-1702
Tex Carey Wolf Co, Box 60338, Houston .... OL 4-2114
Wash Cane Jessup Co Inc, Box 250
Bellevue .... GL 4-0691
Can David R Beattie Ltd, 1260 Lakeshore Rd E
Port Credit, Ont 274-3445

LINK GROUP GEN PRECISION SYS INC, BINGHAMTON
N Y, 13902, TWX 510-252-0195 .... 607 772-3011
W TURNER, EMP 5700, ENG 1500
Cal Link Group, 5730 Manchester Blvd
Los Angeles 678-1417
Cal Link Group, 1077 Arques Ave
Sunnyvale 408 732-3800
Cal Link Group, 716 Fair Oaks Blvd
Carmichael 916 481-2120
DC Link Group, 1030 15th St
Washington 202 223-4102
Fla Link Group, 999 Woodcock Rd
Orlando 305 841-3554
Ill Link Group, Indus Controls Div, 6511 Oakton St
Morton Grove 966-4000
Md Link Group, 11800 Tech Rd
Silver Spring 301 622-4400
Minn Link Group, 7710 Computer Ave
Minneapolis 612 929-0131
Ohio Link Group, 33 W 1st St, Dayton 513 222-8948
Tex Link Group, Box 57668, Webster 488-4191
Utah Link Group, 445 E 2nd S
Salt Lake City 322-1670
Fr Gen Precision France, S A R L, 22 rue de la Paix
Paris 2e

LION RESEARCH CORP, 60 BRIDGE ST, NEWTON
MASS, 02195 .... 617 969-4710
L MICHELSON, EMP 35, ENG 7, $5,000-$10,000M
Ala Space Engrg Sales, 4306 Governors Dr SW
Huntsville 837-6060
Cal P Pohl, 24002 Long Valley Rd
Calabasas 348-9363
Cal Schwarzschild Assoc, Box 14166
San Francisco 861-8686
Conn Instrument Consultants Inc, 2381 Whitney Ave
Hamden 248-4174
Mo Harris-Hanson Co, 2814 S Brentwood Blvd
St Louis .... MI 7-4350
NY Donegan-Ross Co, Box 124, Chappaqua ... 238-8619
Pa Stein Instrumentation Corp, 413 Johnson St
Jenkintown 885-2370
Tex Clear Lake Tech Services, 18065 Upper Bay Rd
Houston 591-2323
Va Gans & Fryling, 2030 16th St N
Arlington 527-3262
Fr Pizon Bros, 18 rue de la Felicite, Paris 17e
Ger K E Kubelik, Baslertorstr 64, 75 Karlsruhe-Durlach
Holl Intechmij N V, Hoogkarspelst 68, Den Haag

LIPPS INC, 1630 EUCLID ST, SANTA MONICA
CAL, 90404 .... 213 EX 3-0449
B LIPPS, EMP 70, ENG 5, $500-$1,000M

LIQUID CARBONIC DIV, GEN DYNAMICS CORP
135 S LASALLE ST, CHICAGO
ILL, 60603 .... 312 FI 6-8181
W CRESCENTI, EMP 3100, ENG 30, OVER $10,000M

LIQUID LEVEL LECTRONICS INC, BOX 1002
RICHARDSON, TEX, 75080 .... 214 AD 5-8393
J JOHNSON, EMP 7, ENG 1, $100-$250M
Cal Dilley Org, 429 S Western Ave
Los Angeles 383-1805
Cal Ben Brundage Co, 4390 Piedmont Ave
Oakland 658-2161
Colo L Z P, Inc, 601 S Jason, Denver .... SH 4-1311
Ill Becker Engineering & Supply, 5577 Northwest Hwy
Chicago .... RO 3-3187
La Cecil Doyle Co, 132 N Beck
Baton Rouge 348-5906
NY R J Eiche & Assoc, Inc, 233 Broadway
New York 227-3888
NY Robt H Perry Co, 1807 Elmwood Ave
Buffalo .... TR 6-2318
NC Russ Poore Assoc, Box 8556
Greensboro 299-5876
Ohio Space Assoc, 1717 Section Rd
Cincinnati 631-0402
Okla Flow-Quip Inc, Box 2804, Tulsa .... 918 LU 4-0304
Pa Davis Controls Corp, 1910 Cochraw Rd
Pittsburgh 412 563-2412
RI D L Thurrott Co, 11 Alexander Ave
East Providence 401 434-5590
Tex Mechan Equip, Inc, 2535 Farrington
Dallas .... ME 1-5090
Tex Mixon Co, 4935 Dumfries, Houston .... PA 9-0501
Utah Engineered Products Co, Box 3051
Odessa .... FE 2-7442
Wash Interstate Sales Co, W 904 Broadway
Spokane .... FA 7-9528

LISK CO INC, G W, 5017 SOUTH ST
CLIFTON SPRINGS
N Y, 14432, TWX 510-250-2593 .... 315 462-2611
R NELSON, EMP 125, ENG 8, $1,000-$2,500M
Fla Young & Lawrence Assoc, 601 N New York Ave
Winter Park 647-6929
Ind Tri-State Marketing, Inc, 3220 Broadway
Fort Wayne 456-3567
Mo L R Harry & Assoc, Box 588
Grandview 763-3634
Mo L R Harry & Assoc, 7603 Forsyth
Clayton 727-6123
Ohio Tri-State Marketing, Inc, 1717 Section Rd
Cincinnati 631-5060
Ohio Tri-State Marketing, Inc, 25000 Euclid Ave
Cleveland 731-9207
Tex Ed-Mar Tech Sales Co, Box 818
Hurst 817 282-5561

LISTENING INC, 6 GARDEN ST, ARLINGTON
MASS, 02174 .... 617 643-4100
P FOSDICK, EMP 14, ENG 5, $100-$250M

Cal Morse Assoc, 1721 Chestnut St San Francisco 415 567-6871
Md Scientific Mktg Assoc, 8817 Hunting La Laurel 301 776-5130
Mass Airtronics, Executive Park Lynnfield 617 245-5220
Mo Gordon Fixman Engrg Co, 8160 Stanford Ave St Louis 314 725-5219
NJ N L R Assoc, 617 Bloomfield Ave Verona 201 239-4747
NY Rocke World Trade, 750 Third Ave New York .... 212 YO 6-2244
Can Electro Design Ltd, 9124 St Lawrence Blvd Montreal Que 514 389-5914

LITHOID CORP, LIMA, PA, 19060 .... 215 566-9502
C KNIGHT, EMP 16, ENG 4, $1,000-$2,500M
Cal Protective Coatings Inc, Box 464, Alhambra
Ill R F Fisher, 2663 W Medill Ave, Chicago
Pa Industrial Infra Red Inc, 157 Dayton Way, Sharon
Wash N R Cole Co, 610 Pontius Ave, Seattle
GB Durham Chemical Ltd, Birtley, County Durham,
Jap International Engineers Inc, Yokohama

LITTELFUSE INC, 800 E NORTHWEST HWY
DES PLAINES
ILL, 60016, TWX 910-233-3598.......... 312 824-1188
W CLEMENTS, EMP 1000, ENG 60
Ariz H Moore Sales Co, Box 7245 Phoenix .... 602 CR 4-0060
Cal W J Purdy Co, 312 7th St San Francisco .... 415 UN 3-3300
Cal Jack Berman Co, Inc, 8295 S La Cienega Blvd Los Angeles.......... 213 678-1281
Colo McLoud & Raymond Co, Box 22044 Denver .... 303 SK 6-1589
Ga F C Nickerson Co, Box 1185 Decatur.......... 404 377-1575
Haw B Kolans & Co, Box 2098, Honolulu 811-628
Ill Markal Sales Corp, 5787 N Lincoln Ave Chicago .... 312 LO 1-7290
Ind DeVoe Assoc, 4010 Washington Blvd Indnpls .... 317 AT 3-1395
Kan Thomas-Modrcin Assoc Inc, 5450 Buena Vista Dr Shawnee Mission .... 913 HE 2-2131
Md Geo Pearlman & Assoc, 2815 Shanandale Dr Silver Spring 301 572-4477
Md Ansell Engrg Co, 816 Thayer Ave Silver Spring 301 588-4222
Mass C Segel Co, 799 Washington St Newtonville 617 969-6900
Mich R C Merchant & Co Inc, 18411 W McNichols Rd Detroit .... 313 KE 5-6000
Minn M Foster Co Inc, 228 S Cedar Lake Rd Minneapolis.......... 612 374-2612
NJ J J Bressler, 4808 Bergenline Ave Union City ....201 UN 4-9577
NY R W Mitscher Co Inc, 496 Ellicott Sq Bldg Buffalo .... 716 TL 4-2517
Ohio Neal Bear Corp, 3435 Streetsboro Rd W Richfield .... 216 OL 9-3331
Ore Jos V Belusko Co, 2355 N W Quimby St Portland 503 222-4279
Pa Nebco Assoc, 1974 Gregory Ave Monroeville 412 824-2111
Pa S A Jeffries Inc, 105 Forrest Ave Narberth .... 215 MO 4-8500
Pa Beil & Whitaker, 3623 Jacksonwald Ave Reading 215 779-2610
Tenn Al Engelman Co, Box 12091 Memphis .... 901 GL 8-6263
Tex Lund & Co, Box 35566, Dallas 214 358-4335
Can Avnet Intl Prod, 87 Wingold Ave Toronto Ont 416 789-2621
Ger Wickmann Werke, Annenstr 113, Witten Annen

LITTLE FALLS ALLOYS INC, 189 CALDWELL AVE
PATERSON
N J, 07501, TWX 710-988-5923 .... 201 525-1014
J FISK, EMP 38, ENG 3, $1,000-$2,500M
Cal E Jordan Brookes Co, 6601 Telegraph Rd Los Angeles.......... 723-8431
Cal E Jordan Brookes Co, 1440 Minnesota Ave San Francisco 826-2305
Conn Gibbs Wire & Steel Co, West St Southington 628-5574
Ill Guardian Metal Sales Inc, 6116 W Oakton St Morton Grove.......... 967-7400
Ind Gibbs Wire & Steel Co, 1710 N Sheridan S Bend 234-6071
Minn Eiler Equipment Co, 1107 S 2nd St Minneapolis.......... 339-9226

LITTLE INC, ARTHUR D, 15 ACORN PARK, CAMBRIDGE
MASS, 02140 .... 617 864-5770
R COVENEY, EMP 1200, ENG 200
Cal C C Herrmann, 500 Sansome St San Francisco 981-2500
Cal F W Maurer, 1424 4th St Santa Monica 451-1721
DC M Michaelis, 1735 Eye St NW Washington 223-4400
Ill R Taylor, Prudential Plaza, Chicago 346-7575
NY A Wall, 630 5th Ave, New York 586-2300
Can W Boyd, 120 Eglinton Ave E, Toronto.......... 487-4114
For N Woodward, Inveresk Gate Musselburgh Midlothian, Scot .... MUSS 2434
GB W Martin, Berkeley Sq London W 1 .... Hyde Park 4841
Belg A de Picciotto, 2 Pl du Champ de Mars Brussels 5 .... 11 59 58
Mex R L Bolin, Paseo de la Reforma, 116 Mexico 46 57 74

LITTON DATALOG DIV, LITTON IND INC
343 SANSOME, SAN FRANCISCO
CAL, 94104, TWX 910-372-7835.......... 415-397-2813
D NEWTON, EMP 50, ENG 30, $2,500-$5,000M

LITTON EDUCATIONAL TECHNOLOGY DIV
210 WESTCHESTER AVE, WHITE PLAINS
N Y, 10604 .... 914 428-1260
H SHAPIRO

LITTON ENGINEERING LABS, BOX 949, GRASS VALLEY
CAL, 95945 .... 916 273-6176
C LITTON, EMP 38, ENG 1, $250-$500M

LITTON INDUSTRIES, ADVANCED CIRCUITRY DIV
4811 W KEARNEY, SPRINGFIELD
MO, 65803, TWX 910-775-4705 .... 417 862-0751
F DELNEVO, EMP 350, ENG 20
Ariz Shefler-Kahn, 2017 N 7th, Phoenix.......... 602 258-7893
Cal Litton Industries, 1001 W Maude Ave Sunnyvale 738-2222
Cal Litton Industries, 12444 Victory Blvd N Hollywood 213 985-5212
Fla Litton Industries, Box 979, Orlando.......... 425-6414
Ill Litton Industries, 5151 Harlem, Chicago 775-6697
Mass Litton Industries, 395 Totten Pond Rd Waltham 899-2246
Mich Litton Industries, 1287 S Woodward Birmingham.......... 646-5321
Minn Litton Industries, 2003 E Hennepin Minneapolis.......... 617 331-4282
NJ Litton Industries, 616 Palisade Ave Englewood Cliffs.......... 567-6800
NM Shefler-Kahn, 408 San Mateo NE Albuquerque.......... 505 265-7077
NC Litton Industries, 901 Oakview High Point.......... 919 883-1058
Ohio Litton Industries, 5899 Huberville Dayton 513 254-1441
Tex Litton Industries, 310 Stemmons Tower S Dallas.......... 631-5004

LITTON INDUSTRIES, ADVANCED CIRCUITRY DIV
EAST, 370 N MAIN, SMYRNA
DEL, 19977 .... 302 653-9285
EMP 100

LITTON INDUSTRIES, ADVANCED CIRCUITRY DIV
WEST, 8020 DEERING, CANOGA PARK
CAL, 91304 .... 213 884-8200
EMP 100

LITTON INDUSTRIES, ATHERTON DIV, 2530 N 2ND ST
MINNEAPOLIS, MINN, 55411 .... 612 522-4341
J ASHBY, EMP 300, ENG 50

LITTON INDUSTRIES, ELECTRON TUBE DIV
960 INDUSTRIAL RD, SAN CARLOS
CAL, 94070, TWX 415-594-8839.......... 415 591-8411
B SILVER, EMP 1200, ENG 110, OVER $10,000M
Cal Litton Ind Electron Tube Div, 4500 Campus Dr Newport Beach 546-8338
DC Litton Ind Electron Tube Div, 1875 Conn Ave NW Washington 462-8833
Ga Litton Ind Electron Tube Div, 1213 Watson Blvd Warner Robins.......... 923-3397
Mass Litton Ind Electron Tube Div, 594 Marrett Rd Lexington 617 861-8286
NJ Litton Ind Electron Tube Div, 191 Main St Manasquan .... CA 3-4160
Ohio Litton Ind Electron Tube Div, 379 W 1st St Dayton .... BA 3-3285
Pa Litton Inc Electron Tube Div, 1035 Westminster Dr Williamsport 326-3561
Tex Litton Ind Electron Tube Div 11333 N Central Expwy, Dallas 214 369-2184
Can Litton Systems (Canada) Ltd, 25 Cityview Dr Rexdale, Ont 249-1231
Fr Litton Prec Prods Int'l Inc 120 Ave Des Champs Elysees, Paris .... BAL 38-65
Ger Euratronix, Rathausg 13, 53 Bonn 570 36/37
GB Litton Prec Prods Int'l Inc, 503 Uxbridge Rd Hayes, Mdsx .... HAY 82 32
GB English Electric Valve Co Ltd Chelmsford Essex .... CHe 61777
Ital Litton Prec Prods Int'l Inc, Foro Bonaparte, 54 Milano 650148
Jap Westrex Co, Orient, Central Box 760 Tokyo 28-8706
Swed Litton Prec Prods Int'l Inc, Grev Turegatan 2 Stockholm 7 .... 11 43 90/11 97 90
Swit Litton Prec Prods Int'l Inc, Gubelstr 28 8050 Zurich 48 35 44
Belg Litton Prec Prods Int'l Inc, 16, Rue du Musee Brussels 1 .... 12 55 52
Neth Litton Prec Prods Int'l Inc, Rembrandtsingel 7 Capelle a/d Yssel, ... 010 294977

LITTON INDUSTRIES ENCODER DIVISION
20745 NORDHOFF ST, CHATSWORTH
CAL, 91311, TWX 910 494-1229.......... 213 341-6161
EMP 200
Ala P Miller, Box 1334, Huntsville 534-2652
Ariz Barnhill Assoc, 4900 E Indian School Rd Phoenix 959-2115
Cal Testco, 941 Charleston Rd, Palo Alto
Colo Barnhill Assoc, 1170 S Sheridan Blvd Denver 934-5505
Fla Perrott Assoc, Box 532, Clearwater.......... 531-5513
Md Stemler Assoc, 6707 Whitestone Rd Baltimore.......... 944-8262
Mass Brogan Assoc, 69 Hickory Dr, Waltham 894-3250
Mo Cozzens & Cudahy Inc, 10534 Natural Bridge Rd Edmundson
NJ Brogan Assoc, 780 N River View Dr Totowa 256-0174
NM Barnhill Assoc, 6101 Anderson St SE Albuquerque.......... 265-7766
NY Brogan Assoc, 80 Urban Ave, Westbury 333-6683
NY Brogan Assoc, 474 Thurston Rd Rochester.......... 328-2350
NC Electro Rep Elctns, 128 W 30th St Charlotte 333-0451
Ohio Twin Region Elctn Sales Inc 21010 Center Ridge Rd, Cleveland 331-7650
Wash Testco, Admin Bldg, King County Arpt .... Seattle
Fr Litton Prec Prod Intl Inc 120 Ave des Champs Elysees, 75 Paris 8e
Ger Litton Precision Prods Intl Inc Zweigniederlassung Stolzingstr 6, 8 Muenchen 61
GB Litton Precision Products Intl Inc 503 Uxbridge Rd, Hayes, Middlesex
Ital Litton Prec Prod Intl Inc, Foro Bonoparte, 54, Milano
Swit Litton World Trade Corp, Gubelstra 28, 8050 Zurich
Belg Litton Prec Intl Inc, 16, Rue du Musee, Brussels 1

LITTON INDUSTRIES, GUIDANCE & CONTROLS SYS
DIV, 5500 CANOGA AVE, WOODLAND HILLS
CAL, 91364, TWX 910-494-2091.......... 213 887-4040
A REICHENBACH, EMP 7500, ENG 750, OVER $10,000M
Cal Litton, Guid & Cont Sys, 336 N Foothill Rd Beverly Hills 273-7860
DC Litton, Guid & Cont Sys, 1875 Conn Ave NW Washington 462-5330
Minn Litton, Guid & Cont Sys, 9th Ave W & Railroad St Duluth .... RA 7-8241
NY Litton, Guid & Cont Sys, Box 366 Bethpage 796-1006
Ohio Litton Guid & Cont Sys, 379 W 1st St Dayton 223-3285
Tex Litton, Guid & Cont Sys, 4417 Bucknell Dr Garland .... BR 6-9008
Tex Litton, Guid & Cont Sys, Quirt Ave & Loop 289 Lubbock .... PO 2-0651
Utah Litton, Guid & Cont Sys, 221 W North Temple Salt Lake City 328-2241
Ger Fritz Hellige & Co GmbH Heinrich von Stephenstr 4 Freiburg im Breisgau 45 861
Ger Litton Technische Werke, Loerracher Str Freiburg im Breisgau 34266
Ital Litton Italia, Viale Porta Vercellina 20 Milan 483-486

LITTON INDUSTRIES, POTENTIOMETER DIV
226 E 3RD ST, MT VERNON
N Y, 10055, TWX 710-562-0129 .... 914 664-7733
N PELL
Cal Litton Ind, Potentiometer Div, 336 N Foothill Rd Beverly Hills 273-7015
Fla Perrott Assoc, 1607 Forsyth Rd Orlando 305 275-1132
Fla Perrott Assoc, Box 532, Clearwater.......... 813 446-2535
Fla Perrott Assoc, Box 6277 West Palm Beach.......... 305 967-1770
Ill Burt Anderson & Assoc, 5969 N Elston Chicago 774-8989
Mass Vector Sales, 774 Pleasant St Belmont 617 489-1400
Minn Burt Anderson & Assoc, 4660 W 77th St Minneapolis.......... 922-7400
Mo B & H Assoc, Box 2365, St Louis.......... 314 427-7200
NJ Dynamic Sales Co, Box 834 Red Bank 201 848-5353
NY Tech-Mark Inc, 101 Jefferson Ave Endicott 607 748-7473
Ohio Rixan Assoc Inc, 5752 Wadsworth Rd Dayton 222-0011
Tex Hillman Enterprises, 3505 Turtle Creek Dallas.......... 214 LA 1-9907
Tex Hillman Enterprises, 7801 Bissonnet Houston 214 771 0608
Can Lake Engineering Co, 123 Manville Rd Scarborough.......... 416 751-5980
Fr Litton-France, 120 Ave des Champs Elysees, Paris
GB Litton England, 503 Uxbridge Rd, Hayes, Middlesex
Ital Litton Italy, Foro Bonaparte, 54, Milan
Swed Litton Ind Scandinavian Comp, Box 7277 10384 Stockholm
Swit Litton Prec Prods Intl Inc, Gubelstr 28, 8050 Zurich

LITTON SYSTEMS (CANADA) LTD, 25 CITY VIEW DR
REXDALE, ONT, TWX 610-492-2110 249-1231
R MARCILLE, EMP 2150, ENG 110, OVER $10,000M
Can Litton Systems (Canada) Ltd, 1790 Woodward Ave Ottawa, Ont.......... 725-2025

LIVINGSTON ELECTRONIC DIV JETTRON PRODS INC
56 RTE 10 BOX 7, HANOVER
N J, 07936 .... 201 226-3333
B LEROE, EMP 30, ENG 3, $250-$500M
Ill Wm F Hamilton Co, 5130 N Elston Ave Chicago 312 545-7576
Mass John Q Neenan Assoc, Box 203 Sudbury 617 893-0914

L & L MFG CO, 136 CONCHESTER RD, TWIN OAKS
PA, 19016 ....215 HU 5-6334
S LEWICKE, EMP 32, ENG 1, $250-$500M

LOCKHART INDUSTRIES INC, 15707 TEXACO AVE
PARAMOUNT, CAL, 90723 .... 213 774-2981
E LOCKHART, EMP 63, ENG 5, $1,000-$2,500M
Cal John Walker-Walco Engrg, 3427 Alma St
Palo Alto 327-6211
Ill S Sargis, 7125 N Laramie Ave
Skokie .... 312 OR 4-8606

LOCKHEED ELECTRONICS CO, US HWY 22
PLAINFIELD
N J, 07061, TWX 710-997-9541 .... 201 PL 7-1600
B MAYER, EMP 5400, ENG 600, OVER $10,000M

LOCKHEED ELECTRONICS CO, AVIONICS & IND PRODS
DIV, 6201 E RANDOLPH ST, LOS ANGELES
CAL, 90022, TWX 910-580-3623 .... 213 722-6810
G MAISCH, EMP 1100, ENG 90, OVER $10,000M
Ariz Berry Co, 2636 S Sheridan, Denver 303 935-4587
Ariz FRYCO, Box 460, Scottsdale 602 945-0086
Cal Lockheed Electronics Co, Box 504
Sunnyvale 408 742-4321
Mass Herbert Sales Co, Box 201, Auburn 617 756-9477
Mass Lockheed Electronics Co, 555 High St
Westwood 617 329-1160
Minn Lockheed Electronics Co, 10100 Morgan Ave S
Minneapolis 612 884-5351
Mo Buse Sales Co, Box 68, St Charles 314 724-6667
NJ Lockheed Electronics Co, U S Hwy 22
Plainfield 201 757-1600
Ohio G & H Sales Co, Box 37416
Cincinnati 513 761-6185
Tex Lockheed Electronics Co, 777 S Central Expwy
Richardson 214 231-6163

LOCKHEED ELECTRONICS CO, HOUSTON AEROSPACE
SYSTEMS DIV, 16811 EL CAMINO REAL, HOUSTON
TEX, 77058, TWX 910 880-4026 .... 713 HU 8-0080
G GIACCHINO, JR, EMP 20, ENG 5, $250-$500M
Ala Reynolds & Assoc, 904 Bob Wallace Ave
Huntsville 205 536-1941
Ariz Portis & Assoc, Box 3109
Scottsdale 602 945-4925
Cal W K Geist Co, 1205 Air Way
Glendale 213 245-9501
Fla Reynolds & Assoc, Box 1043
Eau Gallie 305 727-3205
Ga Reynolds & Assoc, Box 13173, Sta K
Atlanta 404 876-0652
Ill Maher Engineering Co, 13 Broadway
Des Plaines 312 824-2124
Mass John E Boeing Co, Inc, Box 5
Lexington 617 862-6750
Mich Anderson Electronics Inc
19471 James Couzens Hwy, Detroit
Mo Buse Sales Co, 610 1/2 S Main St
St Charles 314 724-6667
NJ Hanson Assoc, 215 Brookside Ave
Hohokus 201 652-7055
NM Southwestern Engrg & Equip Co
707 First Nat Bank Bldg E
Albuquerque 505 265-6775
NC Reynolds & Assoc, 212 Beverly Pl
Greensboro 919 292-4236
Ohio Instrumentation Systems, Inc, 3481 Office Park Dr
Dayton 513 293-8095
Pa Engineering Technology Corp, 6615 Backlick Rd
Springfield 703 451-6500
Tex Southwestern Engrg & Equip Co
600 N Central Expwy, Dallas .... 214 EM 3-6501
Utah Oscar Salme Assoc, 5762 S 1050 E
Salt Lake City 801 266-0235
Wash Arva, Inc, 1320 Prospect St
Seattle .... 205 MA 2-0177

LOCKHEED ELECTRONICS CO, INDUS TECHNOLOGY
DIV, 27 NATIONAL RD, EDISON
N J, 08817 .... 201 757-1600
B MCKNIGHT, ENG 30
Ala Reynolds & Assoc, 904 Bob Wallace Ave
Huntsville 536-1941
Cal Lockheed Aircraft Intl Inc, 510 W 6th St
Los Angeles 623-7252
Conn Equipment Sales Co, Inc, Box 5396
Hamden 248-5581
Fla Reynolds & Assoc, 161 SW 75th Ave
Ft Lauderdale 581-6611
Fla Reynolds & Assoc, Box 13173, Orlando 424-3836
Fla Reynolds & Assoc, Box 1043
Eau Gallie 727-3205
Ga Reynolds & Assoc, 484 Tara Tr NW
Atlanta 876-0652
Ill Marsland & Assoc, 6699 Lincoln Ave
Chicago 676-1100
Ind Marsland & Assoc, 3734 Carrollton
Indianapolis 924-3568
Mich Lowry-Dietrich Co, 600 Michigan Blvd
Detroit 961-4540
Minn Marsland & Assoc, 231 N Edgewood Ave
Minneapolis 545-4481
Mo Marsland & Assoc, Box 567, Florissant 831-0015
NM Southwestern Engrg & Equip Co
707 First Natl Bank Bldg
Albuquerque 265-6775
Ohio Lowry-Dietrich Co, 316 Marion Bldg
Cleveland 781-1855
Ohio Lowry-Dietrich Co, 333 W First St
Dayton 223-6042
Pa Lowry-dietrich Co, 90 Clairton Blvd
Pittsburgh 892-2992
Pa LEtronix, 251 W DeKalb Pike
King of Prussia 667-0310
Tex Southwestern Engrg & Equip Co
6300 N Central Expwy, Dallas 363-6501
Tex Southwestern Engrg & Equip Co
4242 Richmond Ave, Houston 666-2313
Va W A Brown & Assoc, Inc, 325 First St
Alexandria 826-1800
Va W A Brown & Assoc, Inc, 82 Huxley Pl
Newport News 596-2358
Can Ahearn & Soper Ltd, 844 Caledonia Rd, Toronto Ont
Fr Bell & Howell Instruments, 37 due des Morillons
Paris XVe
Ger Bell & Howell, GmbH, 636 Friedberg (Hessen)
Frankfurter Str 3441
GB Bell & Howell Ltd, Lennox Rd
Basingstoke, Hants 3681
Swit Lockheed Aircraft Intl A G, Place Longemalle 1
1204 Geneva 32-48-00
Aust Amal Wireless (Australasia) Ltd, 47 York St, Sydney

LOCKHEED GEORGIA NUCLEAR LAB, 86 S COBB DR
MARIETTA
GA, 30060, TWX 404-290-4250 .... 404 424-7736
G KALEMBER, EMP 198, ENG 37, $2,500-$5,000M

LOCTITE CORP, 705 N MOUNTAIN RD, NEWINGTON
CONN, 06111 .... 205 278-1280
C MYER, EMP 155, ENG 12
Cal Richard P Shaw, 13707 Valley Vista Blvd
Sherman Oaks 872-0722
Cal J Van Keulen, 1817 Kirklyn Dr
San Jose 408 266-4560
Colo Paul R Spencer Co, 4201 Brighton Blvd
Denver 534-3201
Fla J H Stonehouse, 6251 N Washington Ave
Sarasota 355-1455
Ill Philip J Gleason, 810 S Elmwood Ave
Oak Park 637-6911
Ill Douglas C Davis, 1314 N Eagle St
Naperville 637-6911
Ind E Reid Jr, 11015 Timber La Rd RR
Carmel 317 253-9300
Mass James C Megeath, Box 124, Hingham 749-1629
Mich William Pauwels, 23345 Brandywynne La
Southfield 543-0068
Minn Forcey Machine Tool Sales, 445 Endicott Bldg
St Paul 222-1600
Mo Correll Engineering, 9131 Watson Ind Pk
St Louis .... WO 1-6545
NJ G Martin Wiley, 486 Alpine Ter
Ridgewood 201 445-2743
NY A C Mealy, 23 Milky Way Rd, Troy .... BE 5-7472
NY R Kryder, 405 Rhode Island St
Buffalo 716 883-8712
NC J Houghton, 3808 Willowood Rd
Charlotte 704 364-0757
Ohio J R Engle Co, Box 856, Cleveland .... SK 2-6652
Pa J Fry, 9813 Redd Rambler Dr
Philadelphia .... 215 OR 6-1411
Tenn M Dula, 2010 Ridgeway Rd, Memphis 683-9318
Tex David Barton, Box 10151, Dallas .... FL 2-5630
Utah Paul R Spencer Co, 58 Truman E
Salt Lake City .... IN 6-3406
Wis William A Klinger, 826 E Sylvan Ave
Milwaukee .... ED 2-6898

LOGAN ELECTRONICS CORP, 100 MILL ST, REVERE
MASS, 02151 .... 617 284-7000
M HEBERT, EMP 40, ENG 3, $250-$500M
Fla Jones Co, Box 6004B, Orlando 305 424-6298
Ga Jones Co, 1437 Kenilworth Dr SW
Atlanta 404 261-8275
Ill Scott Assoc, 663 Fairview Ave
Elmhurst 312 279-6474
Md W M Jones Co Inc, Box 6880
Towson 301 823-5721
Mass John Q Neenan Assoc, Box 203
Sudbury 617 893-0914
Mich Component/Insulation Corp, 610 N Woodward Ave
Birmingham 313 644-0087
Ohio Component/Insulation Corp, 14235 Detroit Ave
Cleveland 216 521-3570
Pa W F Saller Thwaite, 237 N Lansdowne Ave
Lansdowne 215 623-5100
Pa J W Kight, 4 Longfellow Rd
Pittsburgh 412 781-8303
Tex Ev Smith Sale Co, Box 12583
Houston 713 649-5756
For J P Intl Corp, 1989 Summer St
Stamford, Conn 348-2691

LOGE ELECTRONICS, 2171 W WASHINGTON BLVD
LOS ANGELES, CAL, 90018 .... 213 734-9178
J LOGE, EMP 20, ENG 20

LOGIC CORP, 15 E EUCLID AVE, HADDONFIELD
N J, 08033 .... 609 428-4626
E SUTHERLAND, EMP 95, ENG 15, $100-$250M

LOGITEK INC, 42 CENTRAL DR, FARMINGDALE
N Y, 11735 .... 516 MY 4-3080
A FISCHER, EMP 49, ENG 7, $500-$1,000M
Cal Technical Liaison Co, 1626 Centinela Ave
Inglewood 213 670-6971
Fla Orbe Inc, 300 31st St N
St Petersburg 813 894-0687
Kan Zites Aviation Sales Corp, Box 3055, SE Sta
Wichita .... MU 4-0286
Md R Wafer Assoc, 3809 Victoria Ave
Baltimore 301 655-1565
Mass Daner Assoc, 684 Commonwealth ave
Newton Centre 969-6383
Mich R M Kaiser Co, 8545 2nd Ave, Detroit 871-6923
Mo Palatine Engrg Sales, 2050 Woodson Rd
St Louis 314 426-7055
NJ Hy-Rel Electronic Sales Co, 735 Bergen Blvd
Ridgefield 695-6980
Ohio R M Kaiser Co, 1435 DeLynn Dr
Dayton 885-2238
Tex Stasco, 13310 Spring Grove Ave
Dallas 239-5054
Wis Gentron Co, 744 N 4th St
Milwaukee 414 271-2110

LONDON CHEMICAL CO INC, 1535 N 31ST ST
MELROSE PARK, ILL, 60160 .... 312 FI 51167
K ANDERSON, EMP 20, ENG 3, $500-$1,000M
Cal Claude Michael Inc, 703 W Ivy
Glendale 213 245-8401
Cal Claude Michael, Inc, 2634 Frontage Rd
Mountain View 415 326-6884
Colo Claude Michael, Inc, 1639 Platte
Denver 303 455-1352
Fla Embac Inc, Box 897, Largo 813 581-2437
Mass Etchomatic Inc, 182 Newton St
Waltham 617 893-2020
Minn Servco, Inc, 521 S 7th St
Minneapolis 612 339-8611
NY Van Valkenburg Assoc, 611 Broadway
New York 212 244-1416
NY Spar-Kleen Products, Fennell St
Skaneateles 315 685-5942
Can Paisley Prods Ltd of Can, 36 Upton Rd
Toronto .... PL 5-2216
For Neuert, Wilton, & Assoc, 1569 Sheman Ave
Evanston, Ill 273-2297
Fr Spetelec, SA, 12 Rue Le Chatelier, Paris
Ger Neuert, Wilton Assoc, Box 85, 8700 Wuerzburg 1
Ital Mercantile Condor, SPA, Via G B Pirelli 30, Milano
Jap Yoshikawa Chemical Co Ltd
18 1-Chome Kitakyutaro-Machi, Osaka

LONDON CO, 811 SHARON DR, WESTLAKE
OHIO, 44145, TWX 810-427-9125 .... 216 871-8900
R KEDSLIE, EMP 50, ENG 1
Cal W K Geist Co, Box 5004, Glendale 213 245-9501
Ill Berndt Assoc, 6414 W Belmont Ave
Chicago 312 283-0713
Mass Instrument Reps Inc, 1046 Massachusetts Ave
Arlington 617 646-1034
Mich Satullo Co, 4514 N Woodward
Royal Oak 313 549-3910
NJ Data-Rep Assoc, Box 645
Ridgewood 201 447-0660
NY E W Hoyer Assoc, Box 51, Dewitt 315 446-1338
Va Nine Assoc, 7753 Patriot Dr
Annandale 703 256-9105
Wash Dewar & Assoc, 6361 1st Ave S
Seattle 206 763-2233

LONG INC, THOMAS J, 215 STONEHINGE LN
CARLE PLACE, N Y, 11514 .... 516 ED 42300
N TERRY, EMP 75, $1,000-$2,500M
Conn Thomas J Long Inc, Pumpkin Hill
New Milford .... EL 4-7554
Md Small Business Assoc, 3406 Morlock Ave
Bowie 262-9641
Mass W A Campbell, 25-1 Arlington Rd
Woburn 617 935-4658
Ohio Curtis Sales Corp, 4815 Superior Ave
Cleveland 391-3826

LONG-LOK CORP SUB WHITTAKER CORP
GATEWAY EAST, LOS ANGELES
CAL, 90067 .... 213 277-1033
A CLUSTER, EMP 200, ENG 4
Ala Russell Assoc Inc, 2516 N Memorial Pkwy
Huntsville 539-7211
Cal Long-Lok Western, 4101 Redwood Ave
Los Angeles 391-7128
Cal J Colbert, 2501 Via Vista, La Jolla 454-1500
Colo C F L Co, 1391 S Inca St, Denver .... SP 7-4381
Fla Russell Assoc Inc, 211 W Fairbanks
Winter Park .... MI 7-2251
Ga Russell Assoc Inc, 6427 Roswell Rd
Atlanta 255-8422
Ill Richards Industries, Box 164
Des Plaines 296-1284
Mass Long-Lok Corp, 235 Bear Hill Rd
Waltham 899-4225
Mich Long-Lok Corp, 20382 Harper Ave
Detroit 881-8837
Minn Long-Lok Corp, Minneapolis 926-1611
Mo R F Carlson Co, 8721 Manchester Rd
St Louis .... WO 1-4485
NY Long-Lok Corp, 500 Northern Blvd
Great Neck 466-5850
NC Perry & Barr Co, Rte 8, Box 115C Reedy Creek Rd
Charlotte 537-2225
Ohio Long-Lok Corp, 10630 Chester Rd
Cincinnati 772-1880
Pa K B Erdman Co, 7906 Montgomery
Phila .... ME 5-3202
SC Perry & Barr Co, 208 Oak St
St Mathews 874-3276
Wash Doland Co, Box 1004, Bellevue 454-4952
Can S D Woollings, 83 Penn Dr, Weston, Ont
For Long-Lok Ltd, Buckingham Ave - Trading Est
Slough-Bucks

LORAL ELECTRONIC SYSTEMS, DIV LORAL CORP
825 BRONX RIVER AVE, NEW YORK
NY, 10472 .... 212 TI 2-9500
R UHRICH, EMP 800, ENG 285, OVER $10,000M
DC Loral Electronic Systems, 1700 Penna Ave, NW
Washington 223-5615
NY Loral Electronic Systems, 6360 Kolton Dr
Rome .... FF 7-6470

Ohio	Loral Electronic Systems, 4130 Linden Ave Dayton	254-3595

LORCH ELECTRONICS CORP, 105 CEDAR LANE
ENGLEWOOD, N J, 07631 . . . . 201 569-8282
J LORCH

Ala	James L Highsmith & Co, 3322 S Memorial Pkwy Huntsville	881-3294
Ariz	Williams-Assoc, 1110 E McDowell Rd Phoenix	254-6085
Cal	IFM-North, 2269 E Middlefield Rd Mountain View	961-2828
Cal	IFM-South, 3455 Cahuenga Blvd Hollywood	469-1641
Colo	Williams-Assoc, 4971 Jackson St Denver	388-4391
Fla	James L Highsmith & Co, 2543 Industrial Blvd Orlando	293-5202
Ill	Bard Assoc, La Grange Industrial Pk La Grange	354-0660
Ind	Bard Assoc, 4002 Meadows Dr Indianapolis	849-2723
Md	Burlingame Assoc Ltd, 1749 Rockville Pike Rockville	427-1255
Mass	Burlingame Assoc Ltd, 7 Wellington St Waltham	TW 4-1955
Minn	Bard Assoc, 7710 Morgan Ave S Minneapolis	866-1700
NJ	Lorch Electronics Corp, 105 Cedar La Englewood	569-8282
NM	Williams-Assoc, 420 Washington SE Albuquerque	255-1638
NY	Burlingame Assoc Ltd, 510 S Fulton Ave Mount Vernon	664-7530
NY	Burlingame Assoc Ltd, East Molloy Road Syracuse	454-2408
NC	James L Highsmith & Co, 3733 Monroe Rd Charlotte	333-7743
Ohio	Manrep Assoc, 745 Salem Ave, Dayton	278-6111
Pa	Burlingame Assoc Ltd, 222 Long Lane Upper Darby	JA 8-6080
Tex	Mitchell Speairs Co, Box 28334 San Antonio	DI 1-1511
Tex	Mitchell Speairs Co, 4944 James Ave Fort Worth	923-4657
Utah	Williams-Assoc, 2461 S Main St Salt Lake City	466-8709
Va	J L Highsmith & Co, 5003 Brook Rd Richmond	266-2060
Wash	G M Gillett & Assoc, Box 99035 Seattle	MA 3-5755
Can	Instronics Ltd, 171 Neil St Stittsville Ont	836-4411
For	Lindor Intl Corp, 10 E 40th St New York	MU 5-6740

LORD MFG CO, DIV LORD CORP, 1635 W 12TH ST
ERIE, PA, 16512, TWX 510 696-6672 . . . 814 456-8511
R CHARTRAW, EMP 1400, ENG 200

Cal	Lord Mfg Co, 2111 Kenmere Ave Burbank	845-3787
Cal	Lord Mfg Co, 575 Middlefield Rd Palo Alto	327-4545
Ga	E H Atkinson, 2250 N Druid Hills Rd Atlanta	636-9473
Ill	Lord Mfg Co, 2000 Spring Rd Oak Brook	654-0850
Mass	Lord Mfg Co, North Ave, Wakefield	245-4565
Mich	Lord Mfg Co, 28660 Southfield Rd Lathrup Village	357-2150
Mo	Lord Mfg Co, 406 W 34th St Kansas City	931-0138
NJ	Lord Mfg Co, 312 Forest Ave, Paramus	261-0800
Pa	Lord Mfg Co, 1420 Walnut St Philadelphia	735-8852
Tex	Lord Mfg Co, 6116 N Central Expwy Dallas	363-0265

LOUDIN ELECTRIC CO, 5 WILLOWBROOK PL
STAMFORD, CONN, 06902
E LOUDIN, EMP 1, ENG 1

LOUIS ALLIS CO DIV LITTON INDUSTRIES
427 E STEWART ST, MILWAUKEE
WISC, 53201, TWX 910-262-3160 . . . . . . 414 481-6000
G NORTHERN

Ala	Louis Allis Co, 14 Office Park Cir Birmingham	871-1187
Cal	Louis Allis Co, 1275 Rollins Rd Burlingame	342-4393
Cal	Louis Allis Co, 12821 E Imperial Hwy Santa Fe Springs	944-3243
Colo	Louis Allis Co, 601 Broadway Bldg Denver	222-0779
Conn	Louis Allis Co, 14 Oakwood Ave W Hartford	233-8221
DC	Louis Allis Co, 1827 Jefferson Pl NW Washington	296-8835
Fla	Louis Allis Co, 1501 1/2 S Dale Mabry Tampa	251-3360
Ga	Louis Allis Co, 1365 Spring St, NW Atlanta	872-2228
Haw	Atlas Electric Co, Inc, 645 Halekauwila St Honolulu	571-902
Ill	Louis Allis Co, 5633 W Diversey Ave Chicago	622-8750
Ill	Louis Allis Co, 209 7th St, Rockford	962-3783
Ind	Louis Allis Co, 333 N Penna St Indianapolis	634-9668
Ind	Louis Allis Co, 436 N Michigan St South Bend	232-0601
Iowa	Louis Allis Co, 517 Main St, Davenport	326-1627
Ky	Louis Allis Co, 2305 Taylorsville Rd Louisville	451-8702
La	Louis Allis Co, 4000 Louisa St New Orleans	945-2135
Md	Louis Allis Co, 26 W Penna Ave Towson	828-9242
Mass	Louis Allis Co, 90 Cambridge St Burlington	272-1595
Mich	Louis Allis Co, 17220 W 8 Mile Rd Southfield	357-5252
Mich	Louis Allis Co, 414 W Milham Rd Kalamazoo	382-1903
Minn	Louis Allis Co, 7415 Wayzata Blvd Minneapolis	545-5626
Mo	Louis Allis Co, 7929A State Line Kansas City	523-3267
Mo	Louis Allis Co, 2800 S Brentwood Blvd St Louis	968-0900
NJ	Louis Allis Co, 314 Dodd St, E Orange	267-3462
NY	Louis Allis Co, 1325 Millersport Hy Buffalo	632-2364
NY	Louis Allis Co, 1650 Main St Rochester	288-0230
NY	Louis Allis Co, 4455 E Genessee St Dewitt	446-2290
NC	Louis Allis Co, 1314 E 4th St, Charlotte	334-1658
Ohio	Louis Allis Co, 2330 Victory Pkwy Cincinnati	861-1582
Ohio	Paul H Girkins, 1118 Madison Ave Toledo	241-2101
Ohio	Louis Allis Co, 5545 Wilson Mills Rd Cleveland	449-4430
Okla	Louis Allis Co, 5127 S Lewis, Tulsa	743-6213
Ore	Louis Allis Co, 6415 SW Canyon Ct Portland	292-8833
Pa	Louis Allis Co, Box 234, Springfield	543-5600
Pa	Louis Allis Co, 4135 Brownsville Rd Pittsburgh	884-6363
Pa	Louis Allis Co, 232 E Market St, York	854-5596
Tenn	Louis Allis Co, 4990 E Poplar Ave Memphis	683-5925
Tenn	Louis Allis Co, 1114 W Clinch Ave Knoxville	522-8555
Tex	Louis Allis Co, 4520 N Central Expwy Dallas	826-3051
Tex	Associated Engineers, 4801 Graham Ct El Paso	566-9383
Tex	Louis Allis Co, 4223 Richmond Ave Houston	666-6338
Utah	Electrical Sales Co, 1719 S Main St Salt Lake City	486-1367
Va	Louis Allis Co, 2100 Bremo Rd Richmond	282-8826
Wash	Louis Allis Co, 6140 Maynard Ave S Seattle	762-1197
W Va	Foster-McClinton, Inc, 6213 Brenda Ct Huntington	736-5161
Wis	Louis Allis Co, 1713 S Oneida St Appleton	733-4914
Wis	Louis Allis Co, 910 Elm Grove Rd Elm Grove	782-3100
For	Rocke International Corp, 13 E 40th St New York	689-0200
For	Sociedad Electro-Mecanica, SA M MA Contreras 25 Mexico 4, D F	25-66-00-11
For	Marina Electrical Supplies, Inc, Box 3387 San Juan	724-6700

LOVEJOY INC, 4949 W LAKE ST, DEPT EBG, CHICAGO
ILL, 60644 . . . . 312 ES 9-3010
R MCADAM, EMP 150, ENG 6, $2,500-$5,000M

Ala	M F Linster & Assoc, 110 Yorkshire Dr Birmingham	TR 1-8559
Cal	Engineered Indus Prods, 4072 Olive St Huntington Pk	LU 8-9161
Cal	R L Hanley & Assoc, 257 N Bayshore Blvd San Mateo	347-2569
Colo	Charles Tidd & Co, Box 19304, Denver	935-4544
Fla	J K Kessler & Assoc, 205 N 11th St Tampa	223-3867
Ga	M F Linster & Assoc, 130 New St Decatur	284-3635
Ga	Gale Linster, 608 DeKalb Industrial Way Decatur	633-2548
Mich	Don Walker, M R 64, S Haven	637-3019
Mo	H Scott, Box 9351, Raytown	FL 8-4511
NJ	M Manning & Assoc, 31 Broad St Ridgewood	447-2170
NY	M A Byrnes, 1039 Monroe Ave Rochester	BR 1-4580
NC	B C & H Co, Box 17252, Charlotte	847-9131
Ohio	Power Trans Sale, 24 N Main Chagrin Falls	247-5995
Ore	C Conley, 5661 N E Halsey St, Portland	284-0110
Pa	Trans Eqpt Co, 1700 Jane St Pittsburgh	HE 1-2100
Pa	F S Bartlett, One Radnor Bldg Radnor	MU 8-2312
RI	A E Murphy, 118 Kenyon Ave Wakefield	ST 3-7148
Tex	Robco Sales Engineers, 1111 Quaker Dallas	ME 1-7191
Can	Western Eqpt Ltd, 102 Main St, Vancouver BC	
Can	Reyco Ltd, 51 Comstock, Scarborough	

LOWELL MFG CO, 3030 LACLEDE STATION RD
ST LOUIS, MO, 63143 . . . . 314 ST 1-9058
R BAUER, EMP 175, ENG 2, $1,000-$2,500M

Ariz	Harry Moore Sales Co, 4142 N 18th St Phoenix	CR 4-0060
Cal	Bassett & Moore, 12045 Magnolia Blvd N Hollywood	766-2117
Cal	F W Moulthrop Co, 1530 E 12th Oakland	AN 1-7676
Colo	McLoud & Raymond Co, 2151 S Grape St Denver	SK 6-1589
Fla	Stanley K Wallace Assoc, 3115 N W 81st Ter Miami	
Fla	Stanley K Wallace Assoc, 11010 Carrollwood Dr Tampa	935-5817
Ga	Stanley K Wallace Assoc, 715 Flamingo Dr S W Atlanta	PL 3-8463
Haw	M & M Ltd, Box 9027, Honolulu	893-907
Ill	KCHH, Inc, Box 815, E St Louis	397-2398
Ill	Geo Petitt Co, 349 N Ashland Ave River Forest	CO 1-0342
Ind	Hoemig Sales Co, 3405 Butler Ct Ft Wayne	483-6913
Md	Art Cerf & Co, 7 Mellenbrook Rd Ellicott City	465-1493
Mich	Burcaw Cowan, 18236 W McNichols Detroit	KE 3-7700
Minn	Fisher Sales Co, 4820 77th St Minneapolis	920-6577
Mo	Theodore B Lowell Assoc, Box 26, Creve Coeur Br St Louis	HE 2-4560
NJ	Art Cerf & Co, 512 Bloomfield Caldwell	226-2263
NY	Maury Farber Assoc, 220 Delaware Ave Buffalo	TL 6-3543
NY	Stang Sales Corp, 271 Columbus Ave Tuckahoe	SP 9-6868
NC	Stanley K Wallace Assoc, Rte 1, Box 423 Matthews	847-9262
NC	Stanley K Wallace Assoc, 204 Westwood Dr Kernersville	993-3993
Ohio	John O Olsen Co, 16201 Shaker Blvd Cleveland	SK 2-5444
Ohio	John O Olsen Co, 116 W Franklin Centerville	885-3722
Ore	Jos V Belusko Co, 2355 N W Quimby, Portland	
Pa	Art Cerf & Co, 19 Fern Ave, Willow Grove	
RI	W B Pray Sales, 8 Larchwood Dr Cumberland	401 333-5440
Tenn	Stanley K Wallace Assoc, 5960 Brierdale Cove Memphis	682-2281
Tex	Miller & Assoc, 1450 Preston Forest Sq Dallas	AD 9-3789

LOWRANCE ELECTRONIC MFG CORP
7809 E ADMIRAL PL, TULSA
OKLA, 74115 . . . . 918 TE 8-9861
B DEEMING, EMP 50, ENG 5, $1,000-$2,500M

LOYOLA INDUSTRIES INC, 155 ARENA ST
EL SEGUNDO, CAL, 90245 . . . . 213 322-6140
I HIGGINSON, EMP 25, ENG 2, $500-$1,000M

Cal	Western Automation, Box 116 Placentia	525-9273
Cal	Control Switches, 6241 W 89th St Los Angeles	776-2766
Minn	Volco Co, 831 S 6th St, Minneapolis	336-6631
Mo	Conrow Co, 3300 Wyoming St Kansas City	531-6065
Neb	Volco Co, 119 S 19th St, Omaha	346-2203
NH	Engrg Assoc NE, 319 Lincoln St Manchester	623-7294
NC	W K Hile Co, Inc, Box 325, Matthews	847-9125
Pa	J K Munhall Assoc, 550 Butler St Pittsburgh	781-8855
Pa	J V Calhoun Co, 349 Montgomery Ave, Bala-Cynwyd	
Tex	Wilson-Mohr, 3939 Hartsdale, Houston	781-3393

L P ASSOCIATES INC, 11830 W PICO BLVD
LOS ANGELES, CAL, 90064 . . . . 213 477-2762
L PINCUS, EMP 11, ENG 4

LRC ELECTRONICS INC, 901 SOUTH AVE
HORSEHEADS, N Y, 14845 . . . . 607 739-3844
K MCINTOSH, EMP 60, ENG 3, $500-$1,000M

Cal	Interstate Mktg Assoc, 22030 Ventura Blvd Woodland Hills	883-7606
Fla	Component Sales Corp, Box 9545 St Petersburg	360-7460
Ill	Carlson Electronics Sales Co, 7448 N Harlem Ave Chicago	774-0277
Mass	Gerber Sales Co, Inc, 176 Second Ave Waltham	891-8040
Mo	J C Mankus & Assoc, 400 Brookes La Hazelwood	731-4334
NJ	G M Moch Co, 595 Broad Ave Ridgefield	945-0080
NY	B H Tollefson Assoc, 11 State St Pittsford	381-2500
Ohio	James W Murray & Assoc, Inc, Box 11028 Cincinnati	662-1616
Pa	Wm I Duncan & Assoc, Inc, 5452 Charles St Phila	744-6110
Tex	Solid State Sales Co, Box 20054 Dallas	352-4485
Can	Atkinson & Vail Ltd, 5 Allenbury Gardens Willowdale Ont	626-6511
Fr	Sovcor Electronique, 11 Chemin de Ronde Le Vesinet (S&O)	966-5100
GB	Electrosil Ltd, Box 37 Pallion, Sunderland, Co Durham	71481

L & R MFG CO, 577 ELM ST, KEARNY
N J, 07032 . . . . 201 WY 1-5330
J LAZARUS, EMP 104, ENG 4, $1,000-$2,500M

Cal	L & R Mfg Co, 215 W 5th St Los Angeles	624-7381
Fla	H R Gross & Co, 314 S Missouri Ave Clearwater	446-6649
Ill	L & R Mfg Co, 55 E Washington St Chicago	236-2443
NY	C L Mick, 21-13 23rd Ave, Astoria	RA 8-1324
Tex	Raymond T Diedrichsen, 246 Stoney Creek Dr Houston	HO 8-4555

GB L & R Ultrasonics Ltd, 20 Northburgh St London .... CLE 3132

LTV ELECTROSYSTEMS INC, GARLAND DIV, BOX 6118 DALLAS
TEX, 75222, TWX 910-860-5187 .... 214 BR 6-7111
H HARDY, EMP 2062, ENG 806
Ala Ling-Temco-Vought, Inc, 30 S Mimorial Pkwy Huntsville 881-4560
Cal Ling-Temco-Vought, Inc, 808 E Mill St San Bernardino 889-9968
Cal Ling-Temco-Vought, Inc, 701 Welch Rd Palo Alto 322-4631
Cal Ling-Temco-Vought Inc, 5959 W Century Blvd Los Angeles 776-6680
DC Ling-Temco-Vought, Inc, 1155 15th St NW Washington 659-2020
Fla Ling-Temco-Vought, Inc, 1011 E Colonial Dr Orlando 425-2603
Mass Ling-Temco-Vought Inc, 9 Meriam St Lexington 617 861-9050
Ohio Ling-Temco-Vought, Inc, 333 W 1st St Dayton 228-9165
Fr Ling-Temco-Vought, Inc, 15 Rue de Remusat Paris .... AU 90-95

LTV-ELECTROSYSTEMS INC MEMCOR DIV 1320 FLAXMILL RD, HUNTINGTON
IND, 46750 .... 219 356-4300
R VANDERSPOOL, EMP 551, ENG 31, $2,500-$5,000M
Ala Murphy & Cota, 904 Bob Wallace Ave Huntsville 539-8476
Cal David H Ross & Co, 534 El Camino Real San Carlos 591-4411
Cal W J Barron Co, 1406 S Grand Ave Los Angeles 748-6191
Colo Gossard & Assoc, 12159 W Dakota Dr Denver 985-0602
Fla Geartner Assoc Inc, 350 Lincoln Rd Miami Beach 531-0200
Fla Geartner Assoc Inc, 2101 Mohawk Trail Maitland 647-4000
Ga Murphy & Cota, 586 Armour Cir NE Atlanta 875-2525
Ill Wm J Griffin, 8135 W Davis St, Niles 384-2646
Iowa Thomas-Modrcin Assoc, 819 17th Ave Marion 377-6261
Kan Thomas-Modrcin Assoc, 5450 Buena Vista Dr Shawnee Mission 432-2131
Md Brothers & Conneen Assoc, 6302 Lincoln Ave Baltimore 764-7189
Md Brothers & Conneen Assoc, 1620 Myamby Rd Baltimore 301 823-5063
Md Brothers & Conneen, 4391 Crestheights Rd Baltimore 301 486-6127
Mass R P Keilty, 42 Larnis Rd Framingham 617 877-5943
Minn Howard A Cullen Assoc, 1595 Selby Ave St Paul 646-7371
Mo Thomas-Modrcin Assoc, 47 Village Sq Hazelwood 838-6446
NJ Howard O Strand, 397 Chestnut St Union 687-8484
NY Martin P Andrews Inc, 319 Mott Rd Fayetteville 637-3144
NY Martin P Andrews Inc, Box 26, Pittsford 586-6159
NC Murphy & Cota, 1106 Burke St Winston-Salem 724-0750
NC Murphy & Cota, Box 6365, Greensboro 273-6288
Ohio Glover Sales Co, 7008 Big Creek Pkwy Cleveland 842-4520
Ohio Glover Sales Co, 3307 Panorama Cir Dayton 298-4654
Pa Brothers & Conneen Assoc, 131 Harned Rd Springfield Del Cty 543-8641
Pa Brothers & Conneen, 24 Highland Ave Flourtown 215 233-3684
Tex Parvin Sales Co, Addison Rd Addison 214 239-9148
Wash Jas J Backer Co, 221 W Galer St Seattle 283-6470
Can Atr Armstrong & Co, 700 Weston Rd Toronto Ont 767-3151
For Southern Intl Sales, Box 1896, San Juan PR

LUCAS-MILHAUPT INC, 5656 S PENNSYLVANIA
CUDAHY, WIS, 53110 .... 414 744-8700
F MARCINIAK, EMP 70, ENG 5, $2,500-$5,000M
NJ A J Rubbo, 8 Dogwood La New Providence 464-3029

LUCCI & CO, 3216 CLARK RD, SARASOTA
FLA, 33581 .... 813 924-8994
R THEETGE, EMP 8, ENG 1, $100-$250M

LUCIFER LTD, CHEMIN LUCIFER, GENEVA
SWITZ 42 23 30
A HOLDER, EMP 300, ENG 20, $2,500-$5,000M
Cal Circle Seal Products Co, Box 3666 Anaheim 714 774-6110

LUDLOW CHARTS DIV, LUDLOW CORP, WARE
MASS, 01886 .... '413 967-6204
E FOX, EMP 25, ENG 2
ADV PG 472
Cal Wm Kichline, 4546 San Carlos Ave Oakland 536-9927
Cal C E Evans, 4700 Alcoa Ave Los Angeles 588-9101

LUDLUM MEASUREMENTS INC, 1219 E BROADWAY
SWEETWATER, TEX, 79556 .... 915 234-5494
D STEVENS, EMP 15, ENG 2, $250-$500M
Ala Ridge Instrument Co, 7220 Governors Dr W Huntsville
Cal R W Thompson Assoc, 4135 El Camino Way Palo Alto
Ill Central Eng Sales Co, 667 W Roosevelt Rd, Lombard
Md Spectro Systems Inc, 7324 Westmore Rd, Rockville
Mass Applied Technology Inc, 7 Vine St, Manchester
Tex Hastings Radiochemical Co, Box 69448 AMF Houston
Utah O Salme, 5762 S 1050 E, Salt Lake City
For Shin Kwang Commercial Co Ltd Box 410 Kwang Wha Moon, Seoul
Ger Mauler-Nukleonik GmbH 5650 Solingen 1, Box 1288, Solinger-Ohligs
Ital Soc Elettronica Lombarda, Sesto San Giovanni Milano

LUFT INSTRUMENTS INC, OLD WINTER ST, LINCOLN
MASS, 01773 .... 617 259-9215
L LUFT, EMP 25, ENG 3, $100-$250M
NY Kramer Assoc, 80-23 Shore Pkwy Howard Beach 212 848-0066
Tenn Chas Reyle Co, 1768 Hayden Rd Germantown 884-3282
Can Electronic Mktg Co of Can, 3600 Barclay Ave Montreal 26, P Q 739-3206

LUMA ELECTRIC EQUIPMENT CO, 1607 COINING DR
TOLEDO, OHIO, 43612 .... 419 479-8481
R HINDS JR, EMP 10, UP TO $100M
Cal Garner Laine Inc, Box 31388 San Francisco .... HE 1-9802
Ill EMF Co Inc, 6135 W Belmont, Chicago 889-8323
Ill George Hamilton, 1300 Rosalie Evanston 864-8220
Mass E B Hatch Co Inc, 43 Upham St Melrose .... NO 5-0055
Mich J E Zaiser, 157 S Budlong, Hillsdale .... HE 7-4589
Minn Wm K Nelson Co, 807 13th Ave S Minneapolis .... FE 3-1215
Mo Solas Mach Co, 1227 Tracy Kansas City .... GR 1-0505
NJ R & D Assoc, 320 Downs, Ridgewood 445-0033

LUMINATOR INC DISPLAY-CONTROL DIV 1200 E DALLAS N PKWY, PLANO
TEX, 75074 .... 214 AD 5-8307
B DYER, EMP 60, ENG 5
Ariz G E Runyon Co, 6825 E Thomas Scottsdale 947-5711
Cal Ledbetter Assoc, 16618 Ventura Blvd Encino 789-8116
Cal Ledbetter Assoc, 2124 Arthur Ave Belmont 591-7774
Mass K C Stevens Co, 235 Bedford St Lexington 862-1812
Pa V S Malta Co, Box 4007, Phila 836-5122
Tex Blair Engrg & Sales, 2930 Merrell Rd Dallas .... FL 2-2556
Wash Ledbetter Assoc, 431 109th Ave SE Bellvue 454-2749
Can Railway & Power Eng Corp Ltd 3745 St James St W, Montreal

LUNDEY ASSOCIATES INC, 694 MAIN ST, WALTHAM
MASS, 02154 .... 617 893-6064
E ENGLUND, EMP 23, ENG 2, $500-$1,000M
Ariz Shefler-Kahn Co, Box 1587, Phoenix
Cal Elsner-Rambo Assoc, 2526 Hyperion Ave Los Angeles
Cal R R Slater Assoc, 420 Market St, San Francisco
Conn R H Whitehead Jr Assoc, 57 Whitfield St, Guilford
Fla Buchanan & Abrams Assoc, Box 6026, Orlando
Ga Buchanan & Abrams Assoc, Box 11585, Atlanta
Ill Gene F Sales Co, 4750 N Milwaukee Ave, Chicago
Md Stitzer Assoc Inc, 212 Washington Ave Baltimore 823-2600
Minn Heimann Co, 1711 Hawthorne Ave, Minneapolis
NJ Hamilton Electronic Corp, 251 West St S Hackensack
Ohio Midwest Sales Co, 3219 W 117th St Cleveland 252-7243
Pa Stitzer Assoc Inc, 17 S Valley Rd, Paoli 644-5500
Tex Lawrence Sales Co, Box 20676, Dallas
Wash R R Slater, 915 Terminal Sales Bldg, Seattle
Can A Deskin Sales Corp, 1565 Louvain St W Montreal, Que 384-1420

LUNDY ELECTRONICS & SYSTEMS INC, ROBERT LANE GLEN HEAD
N Y, 11545, TWX 510-223-0605 .... 516 OR 6-1440
J SNEE, EMP 546, ENG 78, OVER $10,000M
Cal Lundy Elctns & Sys Inc, 18345 Ventura Blvd Tazazana 345-4000
Colo Lundy Elctns & Sys Inc, Sugarloaf Star Rte Boulder 443-2606
DC Lundy Elctns & Sys Inc, 1750 Penna Ave NW Washington 298-5995
Fla Lundy Elctns & Sys Inc, Box 5280 Pompano Beach 305 943-1500
Kan Lundy Elctns & Sys Inc, 8114 Peachtree La Wichita .... MU 4-2733
NY Sassoon Sopher, Inc, 630 5th Ave New York .... CI 6-0670

LUNKENHEIMER CO SUB CONDEC CORP WAVERLY & BEEKMAN ST, CINCINNATI
OHIO, 45214 .... 513 921-3400
P ARNALL, EMP 1000, OVER $10,000M
Cal L J Bradford, 1610 Orchard La Walnut Creek 934-6063
Cal L A Barth, 5440 Pomona Blvd Los Angeles 685-6606
Ill B J Rinklin, 483 Middlesex Ct Buffalo Grove 537-6709
Mass T A Caie, 751 Main St, Waltham 894-2120
NJ Lunkenheimer Co, 538 Huyler St S Hackensack 488-7777
NJ D Cox, Box 261, Morrestown 235-3461
NY T B Maher, 807 Dean Dr, N Baldwin 486-7881
Okla J R Callaway, 2605 E King St, Tulsa 939-5446
Tex W M Biddison, Box 1045, Houston 224-9763

LUTRON ELECTRONICS CO INC, 6TH & MINOR STS
EMMAUS, PA, 18049 .... 215 965-9081
A KENN, EMP 100, ENG 6
Cal C A Peterson Co, 607 N Ave 64 Los Angeles 254-6711
Cal Pacific Electric Sales, 290 Tehama San Francisco .... YU 6-1504
DC J F Anderson Co, 3138 Brinkley Rd, Washington
Ill R L Kanter Co, 1132 Birch La Western Springs 246-2131
Mass Yusen Assoc, Inc, 345 Franklin St Cambridge 547-0435
Mich Block Bros, 1600 Clay Ave, Detroit .... TR 5-4090
Minn O'Connor Sales, 3731 Edgerton, White Bear Lake
Miss L R Massey Co, 304 E Jefferson St, Greenwood
NY Louis W Keller & Assoc, 1542 Pea Pond Rd North Bellmore 785-2826
NY J DiScenza, Box 134, Solvay Sta, Syracuse
NC Paul Sherrill Inc, Box 20882, Greensboro
Ohio Eisenberg Agency, Box 725, Cleveland 464-0220
Pa Lewis Conover, Miller Rd Chester Springs 827-7261
Pa James A Hodges Co, 2500 Baldwick Rd Pittsburgh 922-2415
Tenn L Jones, 5263 Seneca St, Memphis
Tex Jack Carnell & Co, 2001 McKinney Dallas .... RI 7-9121
Tex Caldwell-Gray, 105 W Grayson St San Antonio 222-1661
Wash Jas J Backer Co, 221 W Galer, Seattle .... AT 3-6470
Wis L K Stadler, 1348 N 37th, Milwaukee

LUXO LAMP CORP, DOCK ST, PORT CHESTER
N Y, 10573 .... 917 WE 74433
S BLAKE JR, EMP 50, ENG 2
Cal J Barnett, Box 1244, Studio City
Cal E Myer, 2820 Scott St, San Francisco
Fla Wm F Hemminger, Box 6008, Sarasota
Ga P G Sessions Jr & Assoc, 230 Spring St, Atlanta
Ill Luxo Lamp Corp, 1603 Orrington Ave, Evanston
Md Harry H Abrams, 6800 Liberty Rd, Baltimore
Mass F J Carteen, 125 Gaslight Dr, S Weymouth
Mich Horton Electric Sales, 24801 5 Mile Rd, Detroit
Minn James Lee Co, 4241 Toledo Ave S, Minneapolis
Miss L R Massey, 304 E Jefferson St, Greenwood
Mo Clemson-Larrabee Co, 4034 Broadway, Kansas City
Mo Clemson-Larrabee Co, 7725 Beloit Dr, Bridgeton
NJ J DeBlock, 41 Concord La, Basking Ridge
NY Geo S Gilbert, Box 104, Buffalo
NC L J Coleman, 316 Scofield Rd, Charlotte
Ohio A Radin, 2745 Sulgrave Rd, Cleveland
Tex Berthold Sales Co, 4411 Maple Ave, Dallas
Tex Geo E Anderson Co, Inc, 1700 S Ervay St, Dallas

LYNCH COMMUNICATION SYSTEMS, 695 BRYANT ST SAN FRANCISCO
CAL, 94107, TWX 3-4421 .... 415 397-1471
D LARSON, EMP 450, ENG 30, $5,000-$10,000M
DC Graybar Electroc Co, 425 13th St NW Washington .... EX 3-0022
Ga Graybar Electric Co, 333 North Ave N W, Atlanta
Ill Graybar Electric Co, 2045 N Cornell Ave Melrose Park .... FI 5-2400
Minn Graybar Electric Co, 824 S 4th St, Minneapois
Mo Graybar Electric Co, 600 S TayLor Ave, St Louis
Tex Graybar Electric Co, 717 Latimer St Dallas 214 742-6451
Va Graybar Electric Co, 1510 Tomlynn St Richmond 359-1381

LYNCH MFG CO, R H, 7831 E ARROYO DR
SOUTH SAN GABRIEL, CAL, 91777 .... 213 280-3810
R LYNCH, EMP 10, ENG 2, $100-$250M

LYON METAL PRODUCTS INC, 33 RAILROAD AVE
AURORA, ILL, 60507 .... 312 892-8941
L TILLY, EMP 1500, ENG 50

MABUCHI, 314 FIFTH AVE, NEW YORK
N Y, 10001 .... 212 279-9034
M HUBERT, EMP 8, ENG 2, $100-$250M

LYTRC INC, 71 PINE ST, WOBURN
MAS 01801, TWX 617-933-6645 .... 617 933-7300
Z LAYCOCK, EMP 130, ENG 8, $1,000-$2,500M
Cal Dewco Sales, 6915 San Fernando Rd Glendale .... VI 9-6101
NJ Moler-Eader Assoc, Box 240 Haddonfield 609 428-2440
NY Bass Industrial Equip Co, 6045 Main St Buffalo 716 632-0600

MACALLEN CO INC, BAY RD, NEWMARKET
N H, 03857 .... 603 659-5555
C BROTHWELL, EMP 300, ENG 3, $2,500-$5,000M

Cal	C D LaMoree, 2433 Birkdale Los Angeles	225-5666
Cal	C D LaMoree, 2221 4th Ave, Berkeley	841-0601
Colo	Ward Electric Supply Co, 1909 Blake St Denver	222-3541
Ga	Electrical Insul Suppliers, 1255 Collier Rd NW Atlanta	355-1651
Ill	Insulation Mfg Corp, 7550 Oak Park Ave Niles	647-0044
Mich	Insulation Mfrs Corp, 7430 Second Blvd Detroit	875-3103
Mo	Insulation Mfrs Corp, 2394 Centerline Ind Dr St Louis County	423-3470
NY	Insulation Mfrs Corp, 202 Arterial Rd Syracuse	437-3102
NY	Kalglas International, 220 5th Ave New York	683-5881
NY	Lionel Essex Intl, 15 E 26th St New York	685-1308
NC	Electrical Insul Suppliers, 917 Berryhill Rd, Charlotte	
Ohio	Insulation Mfrs Corp, 1231 Superior Ave NE Cleveland	781-2310
Ohio	Insulation Mfrs Corp, 120 W 2nd St Dayton	223-3931
Ore	C E Riggs Inc, 422 NW 8th Ave Portland	226-3286
Pa	Electrical Maintenance Equip Co, 915 N Broad St Phila	236-7100
Pa	Insulation Mfrs Corp, 3550 Laketon Rd Pittsburgh	244-1145
Tenn	Electrical Insul Suppliers Inc, 317 Belz Blvd Memphis	947-4176
Tex	Cline Supply Co Inc, Box 413, Arlington	
Wash	C E Riggs Inc, 314 Second Ave, Seattle	613-5707
Wash	C E Riggs, 710 Hutton Bldg, Spokane	624-7554
Wis	Insulation Mfrs Corp, 2040 W Wisconsin Ave Milwaukee	342-3927
Can	Andrew Gilchrist Ltd, 5645 Pare St Montreal 9	735-3603
Aust	R E Jeffries Pty Ltd, Hotham Parade, Sydney	

MACARR INC, 4360 BULLARD AVE, BRONX
N Y, 10466 .... 212 325-5510
J HOLLEY, EMP 104, ENG 5, $1,000-$2,500M

Cal	Russell Assoc, 3951 E Huntington Dr Pasadena	213 795-9521
Fla	Technical Mktg Inc, 1511 E Robinson Orlando	305 424-8531
Ill	Russell Assoc, 3618 W Elm St McHenry	815 385-4220
La	David B Young Sales Co, Box 50327 New Orleans	JA 2-6292
Mich	Russell Assoc, 24634 Five Mile Rd Detroit	313 KE 2-5770
Ohio	Russell Assoc, 4 Eswin St Greenhills	513 825-0930
Tex	Lane Engrg & Sales Co, Box 844 Arlington	817 CR 7-3214
Va	Gans Fryling, 2030 16th St N, Arlington	527-3262
Wash	Russell Assoc, 810 3rd Ave Seattle	206 MA 3-7270

MACDERMID INC, 526 HUNTINGDON AVE
WATERBURY
CONN, 06720, TWX 962413 .... 203 754-6161
G KASTNER, EMP 225, ENG 45, OVER $10,000M

Ark	D J Montfort, 1455 Rosemary La Memphis, Tenn	BR 6-8141
Cal	MacDermid Pacific Inc, 3134 W 182nd St Torrance	DA 3-6292
Colo	Davies Supply & Mfg Co, 1395 W Quincy Englewood	781-3314
Conn	MacDermid Inc, 526 Huntingdon Ave Waterbury	754-6161
Del	Arthur J LoVetere, 1319 Welsh Rd Maple Glen, Pa	643-1195
Ga	Arnold H Kurth, 2702 Frontier Trail Chamblee	GL 7-7555
Ill	E F Stack, 822 Timberhill Rd Highland Park	433-3966
Ill	Richard Roy, 819 S 5th Ave Libertyville	312 362-3540
Ind	F C Hartwig, 4213 N Audubon Rd Indianapolis	LI 6-2743
Iowa	R N Holford Jr, 935 25th St SE Cedar Rapids	363-6069
Md	Arthur J LoVetere, 1319 Welsh Rd Maple Glen, Pa	643-1195
Mass	J T Sullivan, 59 Thackeray Rd Wellesley Hills	CE 5-1701
Mich	MacDermid Inc, 1221 Farrow St Ferndale	313 566-2680
Mo	Davies Supply & Mfg Co, 4160 Meramec Ave St Louis	MO 4-9332
NY	Harold Lazaar, 9 Gallileo Ct, Suffern	EL 2-0934
NC	Peter D Yannet, 2732 Watson Dr Charlotte	704 332-7898
Ohio	L Endicott, 422 Limberlost Trail, Dayton	434-1158
Ohio	A J Butterer, Box 42163 Cincinnati	513 793-4845
Okla	William E Ross, 5345 S 71st E Ave Tulsa	NA 7-0782
Pa	A J Lovetere, 1319 Welsh Rd Maple Glen	643-1195
RI	C L Capobianco, 639 Fruit Hill Ave N Providence	EL 3-3725
Tenn	Gilbert J Osterfeld, 1300 Elliston St Old Hickory	615 847-5095
Tex	Davies Supply & Mfg Co, 2547 Farrington St Dallas	ME 1-5520
Can	Donald Berry, 265 Savoy Crescent Oakville, Ont	827-1206
GB	Electrochemical Engrg Co Ltd, Sheerwater Woking, Surrey	
Swit	Prochimie Inc, 5 Pl de L'Hotel-de-Ville La Chaux-De-Fonds	
Braz	Republic S A, Av Ipiranga 1097, Sao Paulo	
NZ	Automatic Plating Equip Co Ltd, 103 Newton Rd Auckland C3	
Spn	MacDermid Espanol, San Justo Desvern	
Aust	MacDermid Australia Pty Ltd, 306 Little Collins St Melbourne	

MACDONALD & CO, 213 S BRAND BLVD, GLENDALE
CAL, 91204 .... 213 245-5253
D MACDONALD, EMP 9, ENG 1, $250-$500M

Cal	James Electronic, 2366 Jane La Palo Alto	415 961-3448
Colo	Claude Michael Inc, 1630 Platte St, Denver	
Fla	Embac Inc, 6241 Seminola, Seminola	
Ill	EMF Co, 6135 W Belmont Ave Chicago	213 889-8323
Md	David K Jones & Assoc, 2026 Maryland Ave Baltimore	301 752-0577
Mass	EPE Corp, 345 Highland St Weston	617 899-0678
Minn	D A Schultz Co, 801 SE 8th Ave Minneapolis	612 339-7701
NJ	Aero Sales Co, Box 53, Caldwell	201 226-2642
NY	CDB Enterprises, 675 W Jericho Tpk Huntington	516 692-5200
NY	Maloney Sales Co, 115 Sunnybrook Dr Syracuse	315 488-3440
Ohio	Perry Lohse & Co, 529 Richmond Rd Cleveland	216 381-7788
Pa	Thomas M Mills Co, 13 Tanner St Haddonfield, N J	609 429-2932
Pa	Perry Lohse & Co, 529 Richmond Rd Cleveland, Ohio	216 381-7788
Tex	Sivright Co, 6434 Maple Ave Dallas	214 357-6681
Can	Wilson Enterprises, Box 688 Markham, Ont	416 297-1289
Fr	E Fischer, 20 Rue Robert Fleury, Paris	
GB	Frank Whitelegg Ltd, 304 High St, Sutton-Surry	

MACHINERY ELECTRIFICATION INC, 56 HUDSON ST
NORTHBORO, MASS, 01532 .... 617 393-2451
D PERCIVAL, EMP 190, ENG 30, $2,500-$5,000M

Cal	Control Devices Pacific Inc, 1485 Bayshore Blvd San Francisco	415 467-2270
Cal	Schrade-Batterson Co, 5253 W Belmont Chicago	312 282-0200
Colo	Hubert Kaub & Co, 4970 Jackson St Denver	303 399-1520
Ga	Austin Brown Assoc, 1771 Tully Circle NE Atlanta	404 636-9446
Ind	Dorsey-Alexander, Inc, Box 6296 Cincinnati	513 221-7518
Iowa	Johnson Equipment Co, 1630 State St Bettendorf	319 355-5623
Mich	Machinery Electrification Inc, Box 175 St Clair Shores	313 771-3020
Minn	George C May Co, 730 E 38th St Minneapolis	612 827-5621
Mo	Chas V Dunn Assoc, 2 East Gregory KC	816 444-6212
Mo	Terry & Hodges, 132 W Monroe St Louis	314 965-0746
NY	Swedelco, 65 Court St White Plains	914 946-1122
NC	Electromotion Corp, Box 10432 Charlotte	704 334-5557
Ohio	Zenith Engineering Sales Co, 3344 Broadview Rd Cleveland	216 661-0104
Ore	Donal Co, Box 7013, Portland	503 246-3131
Pa	C A Briggs & Assoc, PO Box 151 Glenside	215 885-2244
Tenn	Industrial Electric Co, 123 S 11th St Nashville	615 227-3812
Tex	Carey & Assoc, 3315 W 12th St Houston	713 869-3623
Va	Lynn Morris, Box 349, Salem	703 389-5798
Va	Frazier & Baer, Box 8238 Richmond	703 288-3008
W Va	Process Engineering Co, Box 10464 Pittsburgh	412 561-2242
Wis	Schrade-Batterson Co, 4620 Shasta Dr Brookfield	414 781-5660

MACHLETT LABS INC, THE, 1063 HOPE ST, STAMFORD
CONN, 06907, TWX 203 327-3496 .... 203 348-7511
D FRANKEL, EMP 1700, ENG 150, OVER $10,000M
ADV PG 774

Cal	K G Morrison, 120 El Camino Real San Carlos	593-1021
Cal	R A Hoffman, 2501 W 7th St Los Angeles	383-0297

MACKAY INC, A D, 198 BROADWAY, NEW YORK
N Y, 10038 .... 212 BA 7-8532
P NISLEY, EMP 7, $250-$500M

MACKAY RESEARCH LABS, P O DRAWER GGG
WICKENBURG, ARIZ, 85358
S MACKAY, EMP 13, ENG 3, UP TO $100M

MACK ELECTRIC DEVICES INC, 49 GLENSIDE AVE
WYNCOTE, PA, 19095 .... 215 884-8123
N MCKINNEY, EMP 18, ENG 2, $250-$500M

Cal	Irving Ballard Co Inc, 556 Clay St San Francisco	781-1781
Cal	R B Clapp Co Inc, 5404 Alhambra Ave Los Angeles	225-2395

MACKWORTH REES DIV, 1524 E 14 MILE RD
MADISON HEIGHTS, MICH, 48071 585-0370
T MOORE, EMP 125, ENG 15

Cal	Artwel Electric, Inc, 1485 Bayshore Blvd San Francisco	467-1880
Cal	W E Starr & Co, 5440 Pomona Blvd Los Angeles	685-5670
Colo	T & W Sales, 6464 W 14th St, Denver	238-1383
DC	Wm E MacDonald, 1917 Eye St NW Washington	333-8385
Fla	Frank C McPherson & Assoc, 2450 Central Ave St Petersburg	896-4584
Fla	Frank C McPherson & Assoc, 1150 NE 110th St Miami	PL 4-6818
Fla	Frank C McPherson & Assoc, 1460 N Hibiscus Cir Clearwater	446-7960
Ga	O V Scott Jr & Assoc, 305 Techwood Dr N W Atlanta	523-0927
Ill	L Butter & Assoc, 570 Northwest Hwy Des Plaines	824-6179
Ind	Wm E Jobes, 1010 E 86th St Indianapolis	846-0390
Mass	A R Booth & Co, 360 First, Needham	444-4880
Mich	Electro-Matic, 32500 Grand River Farmington	447-7270
Minn	R D Schwen Engineering, 1345 Oakwood Dr Anoka	HA 1-0640
Mo	Conrow Co, 3300 Wyoming Kansas City	531-6065
Mo	Richter Equipment Co, 9567 Page Blvd St Louis	HA 7-0990
NY	A C Schultz Co, 7240 Rosewood Cir N Syracuse	458-6927
NY	A C Schultz Co, 2095 Kensington Buffalo	839-1010
NY	Noel Tech Sales, 45-26 Vernon Blvd LongIsland City	ST 6-1919
NC	A-C Electric Sales, Box 17466 Charlotte	332-7791
NC	A-C Electric Sales, Box 6147, Raleigh	828-8098
Ohio	W W Baerbalck Assoc, 6075 Romaine Dr Dayton	274-8075
Ohio	W W Baerbalck Assoc, 1717 Section Rd Cincinnati	631-2618
Ohio	Martin-Rettger Inc, 11955 Shaker Blvd Cleveland	SW 1-8787
Pa	Robinson-KoppCo, 1913 Mc Cague Pittsburgh	271-1000
Pa	Wis Tex Corp, Barclay Bldg Bala Cynwyd	TE 9-7086
Tenn	T J Snow Co, 3925 Ringgold Rd Chattanooga	629-4045
Tex	F Walters Co, 2020 Congress, Houston	CA 4-9676
Tex	F Walters Co, 318 N Pearl, Dallas	RI 2-6047
Wash	H D Campbell Co, 3827 Stone Way N Seattle	ME 2-2939
Wis	W M Braun, 5401 N Hollywood Milwaukee	332-1040
Can	North Shore Industrial Sales Co, 284 Gardenview Burlington	529-8497
Jap	Japan Machinery Co Ltd, Box 1451 CPO, Tokyo	

MACLEAN-FOGG LOCK NUT CO, 1000 ALLANSON RD
MUNDELEIN, ILL, 60060 .... 312 566-0010
H BISHOP, EMP 180, ENG 12, $5,000-$10,000M

Cal	Fastron Co, 8026 Allport Ave Santa Fe Springs	693-3781
Conn	D W Dickinson Assoc, Box 146 Trumbull	268-7537
Fla	Thomas C Taber, 1102 Waterway La Delray Beach	276-9646
Ind	Ronald E Yard, 8728 Haverstick Rd Indianapolis	639-1683
Iowa	J Taylor Hersey, 2120 Greenwood Dr S E Cedar Rapids	362-2031
Mich	Jack Walsh, 614 E Drive, Marshall	ST 1-2322
Mich	P E Ripmaster, 15944 W 12 Mile Rd Southfield	358-1170
Minn	Vincent Brass & Aluminum Co, 124 12th Ave S Minneapolis	339-7361
Mo	Ben J Gerker Co, 569 Melville Ave St Louis	PA 1-6700
NY	George P Timmerman, 39 W Main St Mendham, N J	543-4510
Ohio	Ralph C Weary, 100 College St Hudson	653-6876
Pa	M L Crowell Co, Box 497, Erie	GL 4-0250
Pa	R T Brosius, 1617 John F Kennedy Blvd Phila	LO 3-6784
Tenn	L E Offutt Co Inc, 1492 S Roxelle St Memphis	274-0235
Tex	Ronald A Larsen Co, 2414 Holcombe Blvd Houston	MO 8-1914
Utah	Carlos W Stone Co, 2282 S W Temple Salt Lake City	487-6277
Va	A B Kreger Jr, Box 1971, Roanoke	DI 5-7011
GB	A P H Pehrson, 10 Manor Way Beckenham, Kent	01-650 0445

MAC PANEL CO DIV ADAMS-MILLIS CORP
2060 BRENTWOOD AVE, HIGH POINT
N C, 27262 .... 919 882-8138
G LONG, EMP 2200, ENG 5

Ala	Reynolds & Assoc, Inc, 904 Bob Wallace Ave Huntsville	205 536-1941
Ariz	Costello Little & Co, 3922 N 30th Ave Phoenix	602 266-4448
Cal	Costello Little & Co, 8737 Venice Blvd Los Angeles	213 870-5951
Cal	Costello Little & Co, 535 Middlefield Rd Palo Alto	415 321-3745
Colo	Electronic Components Sales, 2340 W Main St Littleton	303 798-8481
Fla	Reynolds & Assoc, 2903 Timberlake Dr Orlando	305 424-3836
Fla	Reynolds & Assoc, Box 1043, Eau Gallie	

Fla Reynolds & Assoc, 325 5th Ave
Indialantic 305 727-3222
Fla Reynolds & Assoc, 4677 NW 1st St
Ft Lauderdale.......... 305 581-6611
Ga Reynolds & Assoc, 484 Tara Trail NW
Atlanta 404 255-8955
Ill Megatek, Inc, 1915 N Harlem Ave
Chicago 312 889-1277
Mass Wild & Assoc, 570 Hillside Ave
Needham 617 444-2366
Mich Megatek, Inc, 26847 Grand River Ave
Detroit 313 531-1403
Minn Bonament Heyda Co, 3830 Rustic Pl
St Paul.......... 612 944-2582
NJ Wild & Assoc, Box 300, Ramsey 201 327-4244
NM Electronic Components Sales, Box 3087 Sta D
Albuquerque.......... 505 256-3663
NY Wild & Assoc, 200 Michael Dr
Syosset.......... 516 921-7100
NC K O Brown & Co, Box 21791
Greensboro 919 273-5973
Ohio Megatek, Inc, 2533 Far Hills Ave
Dayton 513 298-8638
Pa Wild & Assoc, 80 Second St Pike
Southampton 215 357-6645
Tex K O Brown & Co, Box 20845
Dallas.......... 214 357-3996
Utah Electronic Components Sales, Box 2066
Salt Lake City 801 262-3700
Va Wild & Assoc, 1011 N Highland St
Arlington 202 524-2274
Wash Jas J Backer Co, 221 W Galer
Seattle .... 206 AT 3-6470
Fr Metox Importation, 71 Rue Orfila, Paris
Isrl STG Intl, 52 Nachlat Benyamin St
Tel-Aviv 5 3 4 5 9

MACROSONICS CORP, 880 ELSTON ST, RAHWAY
NJ, 07065 .... 201 382-2030
P LAUVER, EMP 12, ENG 5, $100-$250M
Md Scientific Mktg Assoc, 8817 Hunting La, Laurel

MADIGAN ELECTRONIC CORP, 1625 EYE ST N W
WASHINGTON, D C, 20006 .... 202 223-6524
H FLEMMING, EMP 150, ENG 4, $2,500-$5,000M
Fla Madigan Electronic Corp, 741 N W 57th Pl
Ft Lauderdale.......... 933-3556
NY Madigan Electronic Corp, 255 Broad Hollow Rd
Farmingdale.......... 293-8470

MADISON LABS, INC, BOX 608, BRADLEY RD
MADISON, CONN, 06443 .... 203 245-4280
D MACDONALD, EMP 9, ENG 1, UP TO $100M
Cal James L McCoy Co, 940 Alma St
Glendale .... CI 6-2134
Conn Mancib Co, Box 467, Middletown .... DI 7-5629
Mass Mancib Co, Middlesex Tpke & A St
Burlington 617 272-9450
NY McIntosh Equip Corp, 15 Park Row
New York .... DI 9-3288
Pa Technicraft Co, 7028 Ridge Ave
Philadelphia 215 483-4700
Can Bestobell Controls Ltd, 235 Norseman St
Toronto, Ont

MADISON RESEARCH INC, 7617 DONNA DR
MIDDLETON, WISC, 53562 .... 608 836-7831
T HINKES, EMP 10, ENG 4
Cal F S Smith Jr, 4111 Pomona Way
Livermore.......... 415 447-6050
NM R A Gray, 805 Early St, Santa Fe 505 982-1881
NM J C Bentley, 1404 San Mateo Blvd SE
Albuquerque.......... 505 265-6655
Ohio B V Roberts, 8620 Winton Rd
Cincinnati.......... 513 522-7682
Va M R Marley, 7000 Old Keene Mill Rd
Springfield.......... 703 451-4641

MAGNAFLUX CORP, 7328 W LAWRENCE AVE
CHICAGO, ILL, 60656, TWX 214194....312 UN 7-8000
K VANKIRK, EMP 543, ENG 47, $5,000-$10,000M
Cal Magnaflux Corp, 6800 E Washington
Los Angeles.......... 213 685-6001
Mich Magnaflux Corp, 11000 Capital Ave
Detroit 313 542-4900
NY Magnaflux Corp, 25 W 43rd St
New York.......... 212 BR 9-1716-7
Ohio Magnaflux Corp, 5350 Grant Ave
Cleveland.......... 216 271-2955
Pa Magnaflux Corp, 5161 Brownsville Rd
Pittsburgh.......... 412 892-2711
Tex Magnaflux Corp, 6115 Denton Dr
Dallas.......... 214 FL 2-2626
Can Williams & Wilson Ltd, 544 Inspector St
Montreal Que 514 866-2851
Can Robt Morse Corp Ltd, 455 42nd Ave SE
Calgary Alb 403 243-4251

MAGNASYNC/MOVIOLA CORP, 5539 RIVERTON AVE
NORTH HOLLYWOOD, CAL, 91601...... 213 877-2791
W MILLS, EMP 200, ENG 15, $5,000-$10,000M

MAGNECESSORIES, BOX 6960, WASHINGTON
D C, 20032 .... 301 LO 7-1383
R CARSON, EMP 1, ENG 1, UP TO $100M

MAGNECRAFT ELECTRIC CO, 5575 N LYNCH AVE, CHICAGO
ILL, 60630, TWX 910 221-5521.......... 312 282-5500
E OLSEN, EMP 175, ENG 10
ADV PG 535

Cal F W Moulthrop & Assoc, 1530 E 12th St
Oakland 261-7676
Cal Universal Components, 2330 Westwood Blvd
Los Angeles.......... 213 474-1537
Colo Waugaman Assoc, 2785 Speer Blvd N
Denver 255-5000
Conn Ray Perron & Co Inc, 10 Briarwood Rd
Farmington.......... 203 673-4825
Conn Ray Perron & Co Inc, 36 Louis St
Trumbull.......... AM 8-9631
Fla Mark Electronic Sales, Box 291
North Miami .... WI 7-5080
Ga J E Joyner & Assoc Inc, Box 10821, Sta A
Atlanta 758-7496
Ill Ellinger Sales Corp, 6580 Northwest Hwy
Chicago .... RO 3-1570
Iowa Ellinger Sales Corp, 309 4th Ave S E
Clarion 532-3218
Mass Ray Perron & Co Inc, 1870 Centre St
Boston .... FA 3-1008
Mich Koehler-Pasmore Co, 25245 Five Mile Rd
Detroit 313 477-8790
Mo Ellinger Sales Corp, 4969 Bancroft Ave
St Louis 352-2027
NH Ray Perron & Co Inc, 19 Caron Rd - RFD 2
Manchester 603 472-3030
NJ Simberkoff Sales Inc, 71 Valley St
South Orange.......... 201 763-7900
NY Simberkoff Sales Inc, 284 Edgewood Ave
Kenmore.......... 716 834-8119
NY Simberkoff Sales, Inc, 28 August Crescent
Commack 516 543-3421
NY Simberkoff Sales, Inc, 58 Homeland Rd
North Syracuse 315 458-5469
NY Simberkoff Sales Inc, 37 Parkwood St
Albany 518 438-0437
NY Simberkoff Sales Inc, 14 Junior Ave
Buffalo 716 823-8399
Ohio J Cutts & Assoc, 24039 Ambour Dr
North Olmsted.......... 216 777-0992
Ore David Fry Co, Box 3803, Portland....... CA 6-3903
Pa Simberkoff Sales Inc, 1031 E Phil-Ellena St
Philadelphia 215 224-1905
Tex Parvin Sales Co, Box 307, Addison... 214 239-9148
Va Simberkoff Sales Co Inc, 420 W Arlington Towers
Arlington .... JA 5-5898
Wash David Fry Co, Box 66417, Burien 246-1170
Can Lake Engineering, 123 Manville Rd
Scarborough, Ont 416 751-5980
Fr Litton Prec Prod Intl
120 Ave des Champs Elysees 75
Paris 8 225-54-72
Ger Litton Prec Prod Intl, Stolzingstr 6
8 Munchen 61 .... 48 93 95/96
GB Litton Prec Prod Intl, 503 Uxbridge Rd
Hayes Mdsx.......... Hay 82 32
Ital Litton Prec Prod Intl, Foro Bonaparte 54
Milano 89 33 62
Swed Litton Prec Prod Intl, Grev Turegatan 2
Stockholm 11 43 90
Swit Litton Prec Prod Intl, Gubelstr 28
8050 Zurich.......... 48 35 44
Belg Litton Prec Prod Intl, 16 Rue du Musee
Brussels.......... 12 55 52

MAGNE-HEAD DIV, GEN INSTRUMENT CORP
3216 W EL SEGUNDO BLVD, HAWTHORNE
CAL, 90250

MAGNETIC CIRCUIT ELEMENTS INC, 3720 PARK PL
MONTROSE, CAL, 91020 .... 213 245-9173
J CONKLIN, EMP 24, ENG 3, $250-$500M

MAGNETIC CORE CORP, BOX 368, NEWBURGH
N Y, 12550 .... 914 561-5116
J ROBERTS, EMP 25, ENG 4, $250-$500M
Cal Mulvin & Co, Inc, 3843 E Colorado Blvd, Pasadena
Fla Barrett Assoc, Box 14205, Orlando.......... 305-277
Ill Robt J Kennedy Co, 6713 N Oliphant Ave, Chicago
NJ A L Livera & Assoc, Inc, 2 Green Village Rd
Madison
NJ A Wetterhahn, 4420 Crescent Blvd, Pennsauken
NY Oren G Lanzendorf, 513 Cumberland Ave, Syracuse
Can Robert Neill Co, 91 Roselawn Ave, Toronto, Ont

MAGNETIC DEVICES INC, 3621 IMPERIAL AVE
LEMON GROVE, CAL, 92045 .... 714 469-8920
E SAUNDERS, EMP 20, ENG 3, $100-$250M
Cal D C & Assoc, 521 6th St, Manhahan Beach

MAGNETIC ENGINEERING CORP, MILLRIDGE RD
DANBURY
CONN, 06810, TWX 710-381-1584...... 203 748-8824
C CAMPBELL, EMP 16, ENG 2, $100-$250M
Conn B D Knowlton, Metcalf Rd, Tolland .. 203 875-6689
RI Market Development Corp, 1365 Wampanoag Trail
E Providence 203 433-4404

MAGNETIC HEADS, INC, 5710 W 36TH ST
MINNEAPOLIS, MINN, 55416 .... 612 929-7841
M EFRON, EMP 45, ENG 5, $500-$1,000M
Cal Spectrum Sales Co, 1406 Ventura Blvd
Sherman Oaks.......... 213 788-9911
Cal Technical Mktg Assoc, 1485 Bayshore Blvd
San Francisco 415 467-8700
Fla World Wide Prods, Inc, 1999 N E 150th St
N Miami Beach.......... 949-3457
Ill Wesley L Wilson Co, 5938 W Montrose Ave
Chicago .... 312 AV 2-5535
Ind Howell Moore & Assoc, 5425 N College Ave
Indianapolis.......... 317 255-8566
Mass Jim Piper Assoc, 10 Haven St, Dover..... 449-1144

NY Bittan Assoc, 381 Sunrise Hwy
Lynbrook.......... 593-3833

MAGNETIC METALS CO, 21ST & HAYES, CAMDEN
N J, 08101, TWX 710-891-7054 .... 609 964-7842
H PAYNTER, EMP 500, ENG 27, OVER $10,000M
Cal Magnetic Metals Co, 853 Production Pl
Newport Beach 545-9413
Cal D W Walters, 2205 Deodora Dr
Los Altos 968-5797
Colo Electronic Components Sales Inc, 2340 W Main St
Littleton 798-8481
Conn J T Hogan, 36 Green Acre La, Fairfield ... 259-6787
Fla W J Irvine Co, 1641 Santa Barbara Dr
Dunedin 733-5382
Ill Magnetic Metals Co, 990 Criss Circle
Elk Grove Village 437-7440
Mass J W Montgomery, 11 Marshall Ter
Wayland.......... 536-5227
Minn D G Perry & Co, 5010 France Ave S
Minneapolis.......... 920-3212
Mo R J Larko, 14 Bonnie Ct, Florissant 621-0013
Ohio K S Larko, 129 House Dr, Akron 376-4652
Pa Magnetic Metals Co, 1616 Walnut St
Phila.......... 735-8625
Tex Allied Components Inc, 10468 E NW Hwy
Dallas.......... 348-6660
Can Magnetic Metals Can Ltd, 10 Spalding Dr
Brantford, Ont 753-8675
Mex Metales Magneticos SA, Calle Cedro 431
Mexico DF.......... 47-17-17

MAGNETICO INC, 8 RICHTER COURT
EAST NORTHPORT, N Y, 11731 .... 516 261-4502
S RENARD, EMP 45, ENG 3, $500-$1,000M
Ariz E J Foley & Assoc, 3840 N Jokake Dr
Scottsdale 602 945-2665
Cal J B Leddy & Assoc, 161 W 25th Ave
San Mateo.......... 349-0241
Cal Leddy & Blohm, 1319 Howard Ave
Burlingame 415 347-5247
Cal Universal Components Co, 2330 Westwood Blvd
Los Angeles.......... 213 474-1537
Ind McDonald Sales Co, 227 S Cornell Cir
Ft Wayne 219 745-9214
Md Wm M Jones Co, 1107 Echo Ct
Towson.......... 301 823-5721
Mo Gordon Fixman Engr Co, 8160 Stanford Ave
St Louis 314 725 5219
NY Lenard Co, 132 Burnet Ave
Syracuse.......... 315 347-5247
Ohio Compar Ohio, 19500 Center Ridge Rd, Rocky River
Tex Southern Engrg Co, 6434 Maple Ave
Dallas.......... 214 357-0069

MAGNETIC SHIELD DIV, PERFECTION MICA CO
1322 N ELSTON AVE, CHICAGO
ILL, 60622, TWX 910-221-0105.......... 312 EV 4-2122
J CODDINGTON, EMP 50, $1,000-$2,500M
ADV PG 345, 635
Ala N B S Inc, Box 1343, Huntsville..... 205 881-3175
Cal Frauman Assoc, Box 969, Menlo Park 322-8461
Cal Tech-Rep Distributor Co, Box 64212
Los Angeles.......... 836-6806
Colo Edw Johnson, 10130 W Asbury Ave
Denver 985-4810
Conn Abbott Allison Co, Box 467, Meriden .... BE 7-9232
Fla N B S Inc, 2813 Primrose Ct
Orlando 305 423-4856
Fla N B S Inc, 4150 SW 23rd St
Ft Lauderdale.......... 305 584-0650
Ga N B S Inc, 893 Church St NW
Marietta 404 422-6067
Ill W G Brouillette & Assoc, 9855 Roosevelt Rd
Westchester.......... FI 5-6500
Iowa Engineering Services Co, 1026 3rd Ave SE
Cedar Rapids.......... 319 366-1591
Kan Engineering Services Co, 7924 A State Line
Prairie Village.......... 913 MI 9-4000
Md D K Jones & Assoc, 2026 Maryland Ave
Baltimore.......... 752-0577
Mo Engineering Services Co, 6717 Vernon Ave
St Louis 314 726-2233
NJ Bressler Assoc, 4808 Bergenline
Union City .... 201 UN 4-9577
NM Bennewitz Assoc, 9720 Candelaria NE
Albuquerque.......... 505 298-6775
Ore Seatronics Inc, 6415 SW Canyon Ct
Portland 503 292-8887
Pa D K Jones & Assoc, 6520 Rising Sun Ave
Philadelphia 215 342-3990
Tex Techno Assoc, Box 20544, Dallas....... FL 7-9213
Utah Peirce Bowthorpe Agency, 143 S Fourth, E
Salt Lake City 801 328-8173
Wash Seatronics Inc, 5931 4th Ave S, Seattle... 767-4330
Can R S Griffith, 455 Mt Stephen
Montreal, Que .... WE 7-1167
Fr S P I A, 11 Rue de Provence, Paris 9e
Ital G B C Italiana SAS, Viale G Matteotti 66
Cinisello Balsamo Milan
Nor Arthur L Kongshaug, Shouterrassen, Oslo
Swit Baerlocher AG, Box 8021, Zurich
Belg Inelco S A, 20-24 rue de l'Hopital, Brussels
Isrl Eltam, 13 Hanevilm St, Haifa
Aust Servo Mechanism Co, 505-511 Lygon St
Victoria, Melbourne

MAGNETICS DIV INSTRUMENT SYSTEMS CORP
770 PARK AVE, HUNTINGTON
NY, 11743, TWX 510-226-6983.......... 516 HA 3-6200
R LACKNER, $100-$250M

MAGNETICS INC, BUTLER
PA, 16001, TWX 710-373-3821 .... 412 285-4711
J HUTH, EMP 450, ENG 35, OVER $10,000M
ADV PG 226, 227

MAGNETICS INC, COMPONENTS, BUTLER
PA, 16001, TWX 710-373-3821 .... 412 285-4711
J HUTH, EMP 450, ENG 35, OVER $10,000M
Cal Magnetics Inc, 3841 E Colorado Blvd
Pasadena .... MU 1-7487
Cal Magnetics Inc, 1061 Blaney Ave
San Jose 408 253-0591
Colo Inland Assoc, 2991 Peak Ave
Boulder 303 443-8213
Conn Magnetics, Inc, 75 Elm Pl
New Canaan .... WO 6-1583
Ill H G Pretat Inc, 7716 North Ave
Elmwood Park 453-3380
Ind H G Pretat Inc, 3001 S Fairfield Ave
Ft Wayne 745-1251
Kan Inland Assoc, 6047 Howe Dr, Mission 432-8053
Mass Magnetics, Inc, Box 23, Watertown 923-0726
Minn Fred Peterson Co, Box 8409
Minneapolis 927-4453
Mo Inland Assoc, 453 N Lindbergh
Creve Coeur 314 993-0301
NY Fowler-Beach Corp, 3700 East Ave
Rochester .... LU 6-0468
NC Magnetics, Inc, 2313 Killarny Dr
Greensboro 292-2066
Ohio R G Sidnell & Co, 3400 S Dixie Dr
Dayton 293-1194
Ohio R G Sidnell & Co, 14701 Detroit Ave
Cleveland 221-1313
Pa R G Sidnell & Co, 1007 Wood St
Pittsburgh 242-1476
Pa Magnetics, Inc, 206 Garth Rd, Oreland .. TU 4-8239
Tex Lawrence Sales Co, 921 Bowser
Richardson 235-5504
Can Bayly Engineering Ltd, Hunt St
Ajax, Ont 942-1020
For B Freudenberg, Inc, 50 Rockefeller Plaza
New York, N Y .... PL 7-9130

MAGNETICS INC KEMCO DIV, SANDY LAKE
PA, 16145 .... 412 376-7515
L MARTIN, EMP 89, ENG 6, $1,000-$2,500M
Conn Baynes Inc, Hartford .... JA 2-6545
Ga Austin Brown Assoc, 1444 Tully Rd NE
Atlanta 404 639-9446
Ill Ropek-Cahill Inc, 5439 W Division St
Chicago 287-7292
Mass Walter Steinberg Assoc, Maravista Rd
Worcester 617 853-1133
Mich Charles H Armstrong Co, 570 Livernois Ave
Ferndale .... LI 4-1305
NY Nickles Engineering Co, 830 Linden Ave
Rochester 586-4988
NY Nickles Engineering Co, Box 232
Williamsville 632-5579
Ohio Martin-Rettger, Inc, 11955 Shaker Blvd
Cleveland 791-8787
Ohio Beedle Equipment Co, 6900 Silverton Ave
Cincinnati 793-0140
Pa Russell F Clark Co, Laketon Profl Bldg
Pittsburgh 242-9500
Pa Magnetics, Inc, Box 11, Roslyn 887-1536
Tex Lawrence Sales Co, 921 Bowser
Richardson 214 235-5504
For B Freudenberg Inc, 50 Rockefeller Pl
New York, N Y .... PL 7-9130

MAGNETIC SPECIALTIES INC, BOX 5111, TRENTON
N J, 08638 .... 609 883-3150
W BYRD, EMP 9, ENG 2, $100-$250M

MAGNETIC SYSTEMS CORP, 2000 CALLUMET ST
CLEARWATER, FLA, 33515 .... 813 446-2301
S LINARDOS, EMP 100, ENG 11, $1,000-$2,500M

MAGNETIC TECHNOLOGY INC, CANOGA PARK
CAL, 91303 .... 213 873-6260
R JOHNSON, EMP 54, ENG 5, $500-$1,000M
Ala Craft Assoc Co, Box 1053, Huntsville 837-0221
Fla Craft Assoc Co, Box 6664, Orlando 425-4284
Ga Craft Assoc Co, 3151 Maple Dr NE
Atlanta 237-2282
Mich Carter, McCormic & Peirce, 16239 Wyoming
Detroit 863-4600
NY East Coast Sales & Serv Co, 1405 Northern Blvd
Roslyn .... MA 1-7500
Ohio Carter, McCormic & Peirce, 3691 Lee Rd
Cleveland 921-1360
Ohio Carter, McCormic & Peirce, 3406 N Main St
Dayton 278-5873
Tex Servo Electronics Prods Co, Box 20371
Dallas .... ME 7-3440

MAGNETIKA INC, 4254 GLENCOE AVE, VENICE
CAL, 90291 .... 213 391-0391
G PETROPOULOS, EMP 55, ENG 5, $500-$1,000M

MAGNETROL INC, 5300 BELMONT RD
DOWNERS GROVE, ILL, 60515 .... 312 969-4000
EMP 100, ENG 10

MAGNO-CERAM CO, 2614 S CLINTON AVE
PLAINFIELD, N J, 07080 .... 201 561-2000
H GELBARD

MAGNUSONICS INDUSTRIES INC, 68 TOLEDO ST
FARMINGDALE, N Y, 11735 .... 516 OV 1-5100
M LEVITT, EMP 65, ENG 4, $500-$1,000M
Cal Charles L Repp Co, 12121 Wilshire Blvd
Los Angeles .... GR 7-4475
NY KLM Assoc, 9 Hollywood Dr
Whitesboro 315 736-2450

MAGTROL INC, 240 SENECA ST, BUFFALO
N Y, 14204 .... 716 TL 6-7451
W MULROY, EMP 70, ENG 4, $1,000-$2,500M
Cal J Davidson Assoc, 2920 Nebraska
Santa Monica 451-5761

J. A. Maguire and Co.

ELECTRONIC COMPONENTS AND MATERIALS

SERVING:
Delaware
District of Columbia
Eastern Pennsylvania
Eastern Tennessee
Maryland
New Jersey
North Carolina
South Carolina
Virginia

REPRESENTING:
Brand-Rex Div. of America Enka Corp.
Davis & Hemphill, Inc.
Electronic Specialty Co.
Electro-Sonics, Inc.
Elmwood Sensors, Inc. • Engineered Wire & Cable, Inc.
Forbes & Wagner, Inc.
Mic-Lin Company
Penntube Plastics Co.
Siemens America Inc., Components Div.
The Metal Etching Corp.

Camden, N. J. 08102 726 Cooper St. Ph.: 609-966-3118—215-627-1670 • TWX: 710-891-7081
Baltimore, Md. 21212 5716 York Rd. Ph.: 301-433-2613 • TWX: 301-323-3580
Plainfield, N. J. 07060 705 Park Ave.—Rm. 212 Ph.: 201-754-6400
Winston-Salem, N. C. 27101 440 W. End Blvd. Ph.: 919-723-5980

Ill Burt Anderson & Assoc, 5969 N Elston Ave
Chicago 774-8989
Mass Bordewieck Eng Sales Co, 221 Grove St
Boston .... VI 3-0845
Mich Hal C Heym, 1688 Buckingham Rd
Birmingham .... MI 4-9166
NY Travco Assoc, 142 Mineola Ave
Roslyn Heights 621-3223
Ohio Jerry Kilroy Corp, Box 365
Chagrin Falls 247-8997
Pa W H Tucker, 1018 Derwydd La, Berwyn ... 644-0142
Can Bayley-Milley, Ltd, 8 Taber Rd
Rexdale, Ont 244-5511

MAHLER RESEARCH INC, G P O BOX 1159
NEW YORK, N Y, 10001 .... 212 651-2798
C CONREY, EMP 12, ENG 2

MAIDA DEVELOPMENT CO, 214 ACADEMY ST
HAMPTON, VA, 23369 .... 703 PA 3-0785
F MAIDA
Ariz Shefler-Kahn Co, 2017 N 17th St
Phoenix .... AL 8-7893
Cal J C Simon, 5478 Wilshire Blvd
Los Angeles .... WE 9-2366
Ill M Gottlieb Assoc, 6009 N Milwaukee Ave
Chicago 775-1151
NJ J M Hansen, 610 Valley Rd, Brielle ..... CA 3-1881

MAJOR ELECTRONICS CORP, 649 39TH ST, BROOKLYN
N Y, 11232 .... 212 854-2100
W LANE, EMP 50, ENG 3, $2,500-$5,000M

MALAKER CORP, W MAIN ST, HIGH BRIDGE
N J, 08829 .... 201 638-6112
J MALAKER, EMP 40, ENG 8, $500-$1,000M

MALCO MFG CO INC, 5150 W ROOSEVELT RD
CHICAGO, ILL, 60650 .... 312 287-6700
M REITH, EMP 350, ENG 15
Cal F Wilkie, 9613 Kessler Ave, Chatsworth .. 776-6677
Conn R S Pettigrew & Co Inc, 10 N Main St
W Hartford 233-8533
Ga K & E Assoc, 1244 Atlanta Rd
Marietta 428-4341
Ind Frederick & Meily Co, 1601 S Hanna St
Ft Wayne 744-0641
Md Habco Electronics, 603 Allegheny Ave
Towson 825-9637
NJ Murray Co, 35 W Northfield Rd
Livingston 992-0520
Tex Techno Assoc, 2324 Shore Crest Dr
Dallas .... FL 7-9213
Wash Paratech Agencies, 9210 28th Ave NW
Seattle 283-1800
For Agustin Collazo Inc, Box 1645, Bayamon, PR

MALLINCKRODT CHEMICAL WORKS, BOX 5439
ST LOUIS, MO, 63160 .... 314 CE 18980
W HAYNES, EMP 2500, ENG 200
Cal W D Golde, 434 Jasmine Dr, Brea ...... JA 9-1383
Cal Mallinckrodt Chem Wks, Box 58645, Vernon Sta
LA .... LU 3-2237
Cal J Roberts, 20875 Valley Green Dr
Cupertino 257-4554
Ga W W Rhymes, 2962 Heather Dr
East Point 344-1620
Ill R C Whorton, 1310 N Pine
Arlington Heights 253-5994
Ill R M Katis, 262 Hawthorne, Glen Ellyn ... 469-8964
Kan D J Damron, 8809 W 94th St
Shawnee Mission .... DU 1-0539
Mass R A Shamel, 61 Alcott St, Acton .... CO 3-5861
Mo J H Birk, 37 Muirfield, St Louis 434-8508
NJ T A Wamstad, 608 Woodfield Rd
Wyckoff .... TW 1-0324
NJ R Cunningham, 3 Glen Rd, Wayne ... 201 839-2765
NY Mallinckrodt Chem Wks, Box 2525 Church St Sta
NY 986-2001
NY T H Lombardo, 366 Blacksmith Rd W
Levittown 796-7499
Ohio M R Shaughnessy, 11811 Lake Ave
Lakewood 228-3542
Tex B F Harper, Box Y, Conroe .... PL 6-5747
Can Mallinckrodt Chem Wks, 600 Delmar Ave
Pte Claire, Que .... OX 5-1220

MALLORY & CO INC, P R, 3029 E WASHINGTON ST
INDIANAPOLIS, IND, 46206 .... 317 ME 6-5353
G MALLORY, OVER $10,000M
ADV PG 102
Cal P R Mallory & Co Inc, 6121 Randolph St
Los Angeles 685-4880
Cal P R Mallory & Co Inc, 801 Mahler Rd
Burlingame 697-6766
Fla P R Mallory & Co Inc, 7040 Lake Ellenor Dr
Central Park 855-6353
Ga Grady Duckett Sales Co, Box 29067
Atlanta 451-3529
Haw Earl Assoc, Box 2845, Honolulu 815-649
Ill P R Mallory & Co Inc, 3672 Milwaukee Ave
Chicago 282-7100
La Gordon V Peck Co, 4771 Spain
New Orleans 282-1553
Mass P R Mallory & Co Inc, 118 Main St
Boston 924-2214
Mich P R Mallory & Co inc, 2254 Cole Ave
Birmingham 646-0100
Minn P R Mallory & Co Inc, 721 W Lake St
Minneapolis 827-2525
Mo P R Mallory & Co Inc, 215 Meramec Ave
St Louis 727-8695
NY P R Mallory & Co Inc, Box 8, Tarrytown .. 591-7400
NY P R Mallory & Co Inc, 200 Allen St
Warsaw 796-2218
Ohio P R Mallory & Co Inc, 3300 S Dixie Dr
Dayton 299-5505
Ohio P R Mallory & Co Inc, Box 9055
Maple Heights 663-6600
Okla Gordon V Peck Co, Box 15671, Tulsa 585-5853
Ore Earl & Brown Co, 2041 SW 58th Ave
Portland 292-9145
Pa P R Mallory & Co Inc, 4343 E River Dr
Phila 844-8891
Tex Gordon V Peck Co, 5757 Bellaire Blvd
Houston 664-1435
Tex Gordon V Peck Co, Box 18627, Dallas 328-3511
Wash Earl & Brown Co, 422 First Ave
Seattle 284-1121
Wis P R Mallory & Co Inc, 1348 N 37th St
Milwaukee 842-3616
Can Johnson Matthey & Mallory Ltd, 110 Industry St
Toronto 763-5111
Can A C Simmonds & Sons Ltd, 285 Yorkland Blvd
Agincourt 445-9111

MALLORY BATTERY CO
S BROADWAY & SUNNYSIDE LN, TARRYTOWN
N Y, 10591 .... 914 591-7000
H ROBERTS
See Listing for P R Mallory & Co Inc

MALLORY CAPACITOR CO, 3029 E WASHINGTON ST
INDIANAPOLIS, IND, 46206 .... 317 636-5353
A IRWIN
See Listing for P R Mallory & Co Inc

MALLORY CONTROLS CO, BOX 231, FRANKFORT
IND, 46041 .... 317 654-5501
R HORSTMANN
See Listing For P R Mallory & Co Inc

MALLORY ELECTROMAGNETIC CO, DU QUOIN
ILL, 62832
L HEMELGARN
See Listing for P R Mallory & Co Inc

MALLORY TIMERS CO, 3029 E WASHINGTON ST
INDIANAPOLIS, IND, 46206 .... 317 636-5353
D BOWDEN
See listing for P R Mallory & Co Inc

MANDEX MFG CO INC, 2618 W 48TH ST, CHICAGO
ILL, 60632 .... 312 CL 4-4200
S NOVELLO, EMP 250, ENG 5, $2,500-$5,000M
Cal R & L Assoc, 14547 Tities St
Panorama City 357-0374
Conn Keyco Assoc, Box 357, Farmington 677-1771
Fla K & E Assoc, 417 Gulf Rd
North Palm Beach 848-2037
Ga Blue Springs Mobile Home Pk, 7A Rte 2, Kennesaw
Ind Frederick Meily, 1601 S Hanna
Fort Wayne 745-2461
NJ Barrett Border, 121 Oak St, Tenafly ..... LO 8-3737
NY W M Onyx, 101 Pickwick Rd, Dewitt
Ohio Components Engineering Co, 7461 Linden La
Cleveland 842-2737
Pa W H Cordray Co, 1 Radnor Sta, Radnor .. TR 8-3737
Tex Space Age Sales Co, 2655 S Perth St
Dallas 357-0374
Can Eric Marsland, 100 Ahrens St
Kitchener, Ont .... SH 5-8310

MANDREL INDUSTRIES INC, 6909 SOUTHWEST FRWY
HOUSTON, TEX, 77036 .... 713 PR 4-7561
F STAPLETON, EMP 600, ENG 70
Can Mandrel Industries Ltd, 303 Forge Rd
Calgary, Alb 252-1106
GB ESM Ltd, 106 Coldharbour La
Hayes Mdsx 01-573-3698
Braz Elexso Industria Eletronica Ltd, Caixa Postal 15009
Sao Paulo 36-71-61

MANGER ELECTRIC CO INC, W HENRY ST, STAMFORD
CONN ... 203 348-7761
R BOURNE, EMP 60, ENG 2, $500-$1,000M

MANN CO, HENRY, BOX 237, CORNWELL HEIGHTS
PA, 19020 ... 215 639-6200
L SUDER, EMP 10, ENG 1, $100-$250M

MANN-RUSSELL ELECTRONICS INC, 1401 THORNE RD
TACOMA, WASH, 98421 ... 206 383-1591
R KLING, EMP 36, ENG 4, $500-$1,000M
Cal E C Wilkerson & Assoc, Box 367
Paradise ... 916 877-2888
Tenn Wilco Machine Works Inc, Indl Airpark
Memphis ... 363-4884
Can Ferro Machinery Co Ltd, 139 Front St
Toronto, Ont ... 368-3884
Swed Kahrs Maskiner, AB, Nybro ... 119 20
Swit Gustaf Kahr, AG, Bahnhofstr 7, Chur ... 221 16
BC S O Tjelta, 3399 Garden Dr, Vancouver ... 879-1241

MANUFACTURERS ENG & EQUIP CORP
250 TITUS AVE, WARRINGTON
PA, 18976, TWX MEECO ... 215 DI 3-6600
G BERGSON, EMP 50
Tex Mfrs Eng & Equip Corp, 3801 Kirby Dr
Houston ... JA 9-5001

MARANTZ CO INC, BOX 99, SUN VALLEY
CAL, 91352 ... 213 767-9750
R FORREST
Cal Superscope, Inc, 8150 Vineland Ave, Sun Valley
Colo Satter Sales, 3835 Elm St, Denver ... 388-6376
Fla J & B Assoc, 380 N E 67th St, Miami ... PL 1-9752
Haw Gene Piety Factors, 160 Makauea, Honolulu
Ill Superscope Chicago Inc, 152 Burlington Ave
Clarendon Hills
Mass Superscope New England Inc, Box 124, Accord
Mich Superscope/Detroit, 17220 W 8 Mile Rd
Southfield ... 353-0212
Minn Northern State Sales, 1109 W 78-1/2 St
Minneapolis
Mo C W Dreese, 3710 Canterbury Pl
Independence ... IN 1-7294
NJ Harold A Moyer Co, Box 14
Haddonfield ... HA 9-7792
NY Superscope/New York, 37-09 57th St
Woodside ... 446-7227
Ohio M S Sales, 670 S Green Rd, Cleveland
Tex Miller & Assoc, 1450 Preston Forrest Sq
Dallas ... AD 9-3789
Wash Superscope Northwest Inc, 11044 SE 30th Pl
Bellevue
For Del Rama Intl, 1140 Broadway
New York, N Y ... MU 3-5440

MARATHON PRODUCTS CORP, 334 W BOYLSTON ST
WEST BOYLSTON, MASS, 01583 ... 617 853-0988
B BAGDASARIAN, EMP 10, ENG 2, $100-$250M
Mass Marathon Bdcst Equip Sales Corp, 57 N Putnam St
Danvers ... 774-5611

MARBLETTE CO DIV ALLIED PRODS CORP
37-31 30TH ST, LONG ISLAND CITY
N Y, 11101 ... 212 ST 4-8100
S GLICKSTEIN, EMP 100, ENG 3, $2,500-$5,000M
Cal Ram Chemicals, Box 192, Gardena ... FA 1-0710
Fla Barrett Assoc, Box 14205, Orlando ... 277-2857
Ill P Brunswick, 135 S LaSalle
Chicago ... 312 263-2667
Kan Henry Co, 6405 E Kellogg, Wichita ... MU 4-1241

MARCAL ELECTRO-SONICS, BOX 185, BURBANK
CAL, 91503 ... 213 VI 9-4473
J POSNER, EMP 10, ENG 1, UP TO $100M
Fr T E M I, 18 Rue de la Pepiniere
Paris 8e ... 522-77-00

MARCHE MFG CO, 106 BRADROCK DR, DES PLAINES
ILL, 60018 ... 312 299-1188
A ROTSCHILD, EMP 175, ENG 2, $2,500-$5,000M
Ark L Byrne, 632 Champagnalle Rd
El Dorado ... UN 3-9435
Cal D Meyers, 16024 Ventura Blvd, Encino ... 848-4476
Cal B Saletta, 10567 San Pablo Ave
El Cerrito ... 427-6552
Colo J Raney, 4068 E Iliff Ave, Denver ... 303 757-7623
Fla R Rinehart, 1332 Guava Isle
Ft Lauderdale ... 305 525-7009
Ga J Reid, 4271 Garman Rd, N W
Atlanta ... CE 7-9385
Ill B Conrardy, 4821 Main St, Skokie ... 825-0138
Ind K Schneider, 1407 N Illinois St
Indianapolis ... 631-4136
Md R La Marche, 128 Severn Ave
Annapolis ... CO 8-5600
Mass W B Doggett, 159 Warwick Rd
Melrose ... 665-7404
Mich R Smith, 18038 Mack Ave, Detroit ... 313 886-3930
Mich J Perry, 2338 Oakwood Dr SE
Grand Rapids ... 949-0271
Minn T H Ayre, Jr, Box F, Excelsior ... 264-5273
Mo C V Dunn, 2 E Gregory Blvd
Kansas City ... Highland 4-6212
Mo H B Zeppenfeld, Box 3763
Kirkwood ... 314 822-2333
Neb J Greshake, 5064 Arcadia Ave, Omaha ... 457-5211
NJ C W Wright, 601 Park Ave
Collingswood ... 858-4887
NJ L J Cleary, 403 Preston Rd
Cherry Hill ... 609 667-0642
NM R Black, 1025 Hermosa S E
Albuquerque ... 265-0144
NY A F Crowe, 783 Henry St, Uniondale ... 485-2622
NY W Stamp, 127 S Long St, Buffalo ... 634-2240
NC M Constantino, 2317 McMullan Cir
Raleigh ... 919 828-8669
Ohio A N Ulrich, 1251 Millerdale Rd
Columbus ... 237-3084
Ohio R Ehret, Box 488, Willoughby ... 216 946-2033
Ohio N Montgomery, Box 333
Tallmadge ... 216 633-8091
Ohio P Navin, Box 221, W Carrollton ... 513 859-5551
Okla R Riddle, Box 7573, Tulsa ... RI 3-9851
Ore G L Wright, 1233 N W 12th Ave
Portland ... 233-7349
Tex H L Ingram, 4390 Fiesta La, Houston ... RI 8-5238
Tex D E Cooper, 4924 Greenville Ave
Dallas ... EM 8-8087
Tex E F Meyer, 6831 Navigation Blvd
Houston ... 713 WA 8-3463
Wash A B McKaig, 10843 N E 8th St
Bellevue ... GL 4-2485
Wash S Maxwell Co Ltd, 1380 W 6th Ave
Vancouver ... 736-5431
Wis E A Dickinson, 3612 N Green Bay Ave
Milwaukee ... 264-1080
Can A E Preston, Box 102, Sta A
Scarborough ... 293-8716

MARCONI CO LTD, MARCONI HOUSE, CHELMSFORD
ENGLAND ... CHELM 53221
D SMEE
NY Marconi Div, 1 Park Ave, New York ... 679-9313

MARCONI DIV, ENGLISH ELECTRIC CORP
ONE PARK AVE, NEW YORK
N Y, 10016 ... 212 679-9313

MARCONI INSTRUMENTS DIV, ENGLISH ELECTRIC
CORP, 111 CEDAR LANE, ENGLEWOOD
N J, 07631 ... 201 567-0607
W BUCK, MGR, EMP 1620, $1,000-$2,500M

MARCO-OAK INDUSTRIES, 207 S HELENA ST
ANAHEIM
CAL, 92803, TWX 714-776-6111 ... 714 535-6037
R LANDVOGT, EMP 130, ENG 5, $2,500-$5,000M
Cal Marco-Oak Industries, 960 San Antonio Rd
Los Altos ... 941-1237
Colo I W Strong & Assoc, Inc, 635 Canosa Ct
Denver ... 292-6900
Fla Oak Electro/Netics, 1040 Bayview Dr
Ft Lauderdale ... 305 563/2681
Ill Oak Mfg Co, Crystal Lake ... 459-5000
Md J W Sheffer, 4609 Old Frederick Rd
Baltimore ... CE 3-0606
Mass Richard Purinton, Inc, 11 Muzzey St
Lexington ... 862-8300
Minn Lloyd F Murphy & Assoc, 730 Chicago Ave
Minneapolis ... 333-4511
Mo Robert Bartos, 804 Essex, Glendale ... 964-9594
NJ Gray-Williams Assoc, 8 E Mt Vernon
Haddonfield ... 429-5300
NJ Henry G Richter, Inc, 608 Sherwood Pkwy
Mountainside ... AD 3-4615
NY Henry G Richter, Inc, Box 251
Fayeteville ... 637-6713
Ohio William Cole, Endicott Bldg Greenhills Shop Ctr
Cincinnati ... 771-4491
Tex Jack F McKinney Sales Co, 1303 Chemical St
Dallas ... 631-9450
Wash M K Widdekind Co, Inc, 815 W Ewing St
Seattle ... 284-8020

MARIN CONTROLS CO, 517 MARINE VIEW AVE
BELMONT, CAL, 94002 ... 415 591-8924
J MORFORD, EMP 23, ENG 5, $250-$500M
Cal Fetty/Shoenduve, 7407 Melrose Ave
Los Angeles ... 213 651-4050
Cal Fetty/Shoenduve, 253 Town & Country Vlg
Palo Alto ... 415 321-7041
Mass John J Goode & Assoc, 44 Ledgewood Rd
Weston ... 617 235-3900

MARKAL CO, 250 N WASHTENAW AVE, CHICAGO
ILL, 60612 ... 312 826-1700
D LYTTON, EMP 40, ENG 4

MARKEL & SONS INC L FRANK, SCHOOL LANE
NORRISTOWN
PA, 19404, TWX 510-660-0190 ... 215 272-8960
W MICHENER, EMP 324
Ala Elec Motor Materials Inc, Box 7173
Mobile ... 205 471-2541
Ariz AR/TEC Inc, Box 727, Scottsdale ... 602 947-6304
Cal Natl Wire & Cable Co, 136 San Fernando Rd
Los Angeles ... 213 225-5611
Cal Insul Supply Co, 779 E Pico Blvd
Los Angeles ... 213 747-5416
Colo Plasticrafts Inc, 2800 N Speer Blvd
Denver ... 303 455-4755
Colo Ward Electric Supply Co, 1909 Blake St
Denver ... 303 222-3541
Conn R P Mahan Co, Hopkins Rd
Watertown ... 203 274-2363
Fla J F Griffin & Co, 812 Lakeside Dr
N Palm Beach ... 305 848-4617
Ga Estes Assoc, 533 Decatur Fed Bldg
Decatur ... 404 373-8266
Ill J J Glenn & Co, 4300 S Tripp Ave
Chicago ... 312 847-6400
Mass R P Mahan Co, 572 Washington St
Wellesley ... 617 237-1040
Mich Lloyd George Agency, 40958 Malott Dr
Novi ... 313 474-1505
Minn F Peterson Co, Box 8409
Minneapolis ... 612 927-4453
Mo Hippler Sales Co, 1135 Cheshire La
Webster Grove ... 314 961-8499
Mo Ray Deane, 10825 McGee St
Kansas City ... 816 942-0130
NJ Electrical Insul Sales Co, Box 829
N Bergen ... 201 864-2376
NY H B Heft, Box 623, Lynbrook ... 516 599-3351
NY Gislason Sales Inc, 617 Case Bldg
Rochester ... 716 454-4741
NY Barco Sales, 1205 Godfrey La
Schenectady ... 518 393-2729
NC Harry T Altman Co, Box 8031
Charlotte ... 704 399-8926
Ohio Electrolock Inc, 1 N Franklin St
Chagrin Falls ... 216 247-4245
Okla John H Cole Co, 1811 NW 1st St
Oklahoma City ... 405 235-2447
Ore C E Riggs Inc, 422 NW 8th Ave
Portland ... 503 226-3286
Pa C H Newson & Assoc, 627 Bethlehem Pike
Phila ... 215 CH 8-3377
Pa P E I Sales Corp, Box 8233
Pittsburgh ... 412 462-6300
Tenn Jackson & Assoc, 1615 Williams St
Chattanooga ... 615 267-4260
Tex Cline Supply Co, Box 1267
Arlington ... 817 274-5331
Utah Electric Parts & Insul Co, 246 W 13th S
Salt Lake City ... 801 486-0773
Wash C E Riggs Inc, 314 Second Ave S
Seattle ... 206 623-5707
Wis J J Glenn & Co, Box 553
Elm Grove ... 414 352-7262
Can H P Ruggles Co Ltd, 3077 Mainway
Burlington Ont ... 416 632-1403

MARKEM MACHINE CO, 150 CONGRESS ST, KEENE
NH, 03431 ... 603 352-1130
G ROSSITER, EMP 500, ENG 30, $5,000-$10,000M
Cal Markem Machine Co, 5320 E Washington Blvd
Los Angeles ... 263-7187
Ga Markem Machine Co, Atlanta ... 231-3533
Ill Markem Machine Co, 2082 Estes Ave
Elk Grove Village ... 625-2866
Ind Markem Machine Co, Fort Wayne ... 743-8497
Md Markem Machine Co, Baltimore ... 235-6607
Mass Markem Machine Co, Boston ... 523-4632
Mich Markem Machine Co, Detroit ... 871-4605
Mo Manufacturers Supplies Co, 716 N 18th St
St Louis ... 231-7886
NY Markem Machine Co, 9 Rockefeller Pl
New York ... 586-3925
NC Markem Machine Co, 4425 Randolph Rd
Charlotte ... 366-4642
Ohio L G Freeman Co, 1819 Freeman Ave
Cincinnati ... PA 1-1080
Ohio Markem Machine Co, Cleveland ... 281-4711
Pa Markem Machine Co, Pittsburgh ... 281-6638
Pa Markem Machine Co, Phila ... 563-7153
Pa Markem Machine Co, 150 Paoli Plaza
Paoli ... TR 7-3355
Tex Markem Machine Co, 4633 N Central Expwy
Dallas ... 214 521-1080
Wis Factory Supplies Inc, 3876 N Port Washington Rd
Milwaukee ... FR 4-7070
Can McDowell & Lincoln Ltd, 130 Highland Rd E
Kitchener ... 744-5261
GB Marken(UK) Ltd, Leicester Rd
Rugby, Warwickshire ... Rugby 5202
Holl Markem Europa NV, Box 7509 Atoomegebouw
Schiphol Oost ... 153204

MARK EYELET & STAMPING INC, ROUTE 69, WOLCOTT
CONN, 06716 ... 203 755-9410

MARKITE CORP, 155 WAVERLY PL, NEW YORK
N Y, 10014, TWX 710-581-3673 ... 212 OR 5-1384
M LUCH, EMP 350, ENG 30, $2,500-$5,000M

MARKON MFG INC, 4675 S PECOS ST, ENGLEWOOD
COLO, 80110 ... 303 781-7877
K WILLIAMS, EMP 30, ENG 1, $500-$1,000M
Ariz Don Battenfield Assoc, 2034 N 69th Pl
Scottsdale ... 946-3060
Cal Sales Engineering Service, 1410 S Los Angeles St
LA ... 747-9126
Colo Markon, 4675 S Pecos St, Englewood ... 781-7877
Ga R J Prothro, Inc, 1531 Candler Bldg, Atlanta
Minn C E Bohlig Co, 3925 Monterey Ave S
Minneapolis ... 922-7011
Mo Strother & Assoc, 6050 Brown Rd
St Louis ... 521-5100
Tex Jacobson Co, 8609 NW Plaza Dr
Dallas ... 363-7584
Utah Peirce Bowthorpe Agency, 143 S 4th E
Salt Lake City ... 328-8173

MARKWIK CORP, 60 QUEENS ST, SYOSSET
N Y, 11791 ... 516 WA 14900
A BACHY, EMP 36, ENG 1, $100-$250M
ADV PG 813

MARLANE DEVELOPMENT CO INC, 116 E 16TH ST
NEW YORK, N Y, 10003 ... 212 CA 8-6800
M RUBINSTEIN, EMP 5, ENG 2, $250-$500M
Ala Massey Assoc, 4306 Governors Dr SW
Huntsville ... 852-0991
Mass Applied Technology Inc, 7 Vine St
Manchester ... CA 7-2700
NY J Birchard, Box 736, Syracuse ... 315 469-4689
Pa Robert Ream Assoc, 105 W Queen St
Ephrata ... 717 733-3844
SC P Hollen, 17 Vendue Range
Charleston ... 803 723-3536

Va Karstone Co, Genito Rd, Powhatan 598-3138

MARLIN MFG CORP, 12404 TRISKETT RD, CLEVELAND
OHIO, 44111 .... 216 941-6200
P HRUBY, EMP 44, ENG 2, $500-$1,000M

MARLIN-ROCKWELL DIV TRW INC, 402 CHANDLER ST
JAMESTOWN
N Y, 14701, TWX 914449 .... 716 484-0141
D LUNDQUIST, EMP 3000, ENG 75, OVER $10,000M
Cal Marlin-Rockwell Div, 340 Adrian Rd
Millbrae 415 697-9154
Cal Marlin-Rockwell Div, 2320 S Main St
Los Angeles 213 749-6377
Colo Marlin -Rockwell Div, 729 Broadway
Denver 303 255-4651
Conn Marlin-Rockwell Div, Woodford Ave
Plainville 203 747-2771
Ga Marlin-Rockwell Div, Box 7989 Sta C
Atlanta 404 873-6348
Ill Marlin-Rockwell Div, 4659 W 47th St
Chicago 312 585-2100
Iowa Marlin-Rockwell Div, 716 1st Natl Bank Bldg
Davenport 319 322-2578
Kan Benson Engineering Co, 519 Broadway
Wichita 316 262-6971
Kan Benson Engineering Co, 6900 W 80th St
Shawnee Mission 913 648-2843
Md Marlin-Rockwell Div, 1811 Newcastle Rd
Baltimore 301 944-9353
Mass Marlin-Rockwell Div, 125 N Beacon St
Boston 617 782-7827
Mich Marlin-Rockwell Div, 17175 Wyoming Ave
Detroit 313 864-6815
Minn Marlin-Rockwell Div, 228 Fremont Ave N
Minneapolis 612 377-1960
Mo Marlin-Rockwell Div, 12 Garden La
Kirkwood 314 966-8804
NY Marlin-Rockwell Div, 58-18 37th Ave
Woodside 212 899-1886
NY Marlin-Rockwell Div, 312 Dawley Rd
Fayetteville 315 637-6891
NC Marlin-Rockwell Div, Box 21063 Atandu Sta
Charlotte 704 372-2270
Ohio Marlin-Rockwell Div, 7614 Reinhold Dr
Cincinnati 513 761-3336
Ohio Marlin-Rockwell Div, 1591 E 22nd St
Cleveland 216 861-1150
Ore Marlin-Rockwell Div, 351 NW 12th Ave
Portland 503 222-9905
Pa Marlin-Rockwell Div, 3118 W Allegheny Ave
Philadelphia 215 226-0700
Pa Marlin-Rockwell Div, 5118 Penn Ave
Pittsburgh 412 362-7090
Tex Marlin-Rockwell Div, 1420 Dallas Ave
Houston 713 222-6261
Tex Benson Engineering Co, 9884 Monroe St
Dallas 214 352-7541
Wash Marlin-Rockwell Div, 5700 1st Ave S
Seattle 206 767-3560
W Va Marlin-Rockwell Div, 1614 2nd Ave W
Charleston 304 346-0857
Wis Marlin-Rockwell Div, 2433 N Mayfair Rd
Milwaukee 414 476-2872
Can Thompson Prods, Ltd, 230 Louth St
St Catharines, Ont 416 685-8411
For W D Blood & Co, 38 Pearl St
New York .... 212 DI 4-0210

MARMA ELECTRONIC CO, 1633 N HALSTED ST
CHICAGO, ILL, 60614 .... 312 MO 4-3515
W MARTIN, EMP 1, ENG 1

MARMAN DIV AEROQUIP CORP
11214 EXPOSITION BLVD, LOS ANGELES
CAL, 90064 .... 213 BR 2-8511
W WILSON, EMP 775, ENG 35
Ala G R Barnard, Box 20181, Birmingham 251-3597
Cal Ray Lee, 3508 E Mt Diablo Blvd
Lafayette 283-2200
Cal J J Trainor, 5803 Kearny Villa Rd
San Diego 277-6524
Cal R Yoder, 2513 Poinsettia Ave
Manhattan Beach 374-8246
Cal J Browne, Box 2546, Anaheim 530-2218
Ill R Braun C Wiker, 140 N LaGrange Rd
LaGrange 352-4247
Ind F B Stewart, 6216 Carrollton Ave
Indianapolis .... CL 1-6688
Md W Poppe, 31 Allegheny Ave, Baltimore ... 828-4515
Mo E Sinnard, 6050 Brown Rd, St Louis .... JA 4-2032
NJ J F Morris, 635 Maple Ave, Wyckoff 891-0333
NJ Edw C Winfield, 921 E Glen Ave
Ridgewood .... GI 5-0630
NJ D C Kane, 754 Terhune Dr, Wayne 835-9574
Ohio A M McDougall, 344 Shaker Bldg
Cleveland 771-6487
Tex J S Goodwin, 1154 Templemore Dr
Dallas .... DA 1-0105
Wis J Owings, 3107 S 122nd St, West Allis .. 321-7894

MARQUARDT INDUSTRIAL PRODUCTS CO
4320 W MONTROSE AVE, CHICAGO
ILL, 60641 .... 312 777-6200
E ZEBE, EMP 46, ENG 5, $1,000-$2,500M
Can Natl Sound Services Ltd, 1785 Boise Franc Rd
Montreal 334-2930

MARSHALL INDUSTRIES CAPACITOR DIV
1960 WALKER AVE, MONROVIA
CAL, 91016, TWX 910-585-1830 .... 213 359-8281
R BUTTERS, EMP 229, ENG 11
Ala Beacon Electronic Assoc, Box 3127
Huntsville 205 536-5065
Ariz Hyer Electronics, 301 W Indian School Rd
Phoenix 602 264-0291
Cal G S Marshall Co, 890 Warrington Ave
Redwood City 415 365-2000
Colo Hyer Electronics Co, 7895 E Prentice
Englewood 303 771-5354
Conn Kitchen & Kutchin Inc, 22 Broadway, New Haven
Fla Beacon Electronic Assoc, 540 S Maitland
Maitland 305 647-3498
Ill Marshall Industries, 3900 N 25th Ave
Schiller Park 671-2450
Mass Kitchen & Kutchin Inc, 17 Waltham St
Lexington 617 862-8230
Minn Marshall Industries, 8053 Bloomington Fwy
Bloomington 884-1865
NY Waxman-Currant Sales Inc, 990 Kenmore Ave
Buffalo 873-0442
NY G S Marshall Co, 75 Jackson Ave
Syosset 516 921-9420
Ohio Gibson Electronic Mktg, 2801 Far Hills Ave
Dayton 298-7683
Pa Tyler Griffin Co, 46 Darby Rd, Paoli 647-1550
Tex Marshall Industries, 2130 Lofland
Dallas 637-5660
Can Electromechanical Products, Markham Rd
Agincourt, Ont 293-7011
For Dage Corp, 757 Main St, Stamford 324-3123

MARSHALL INSTRUMENTS INC, 14203 BESSEMER ST
VAN NUYS, CAL, 91401 .... 213 873-1016
J PAVELKA, EMP 8, ENG 2, $1,000-$2,500M

MARSHALL LABS, 3530 TORRANCE BLVD, TORRANCE
CAL, 90503, TWX 910-344-6805 .... 213 371-3501
D LAFACE, EMP 195, ENG 46

MARSTAN ELECTRONICS DIV BALCO ELCTNS INC
307 WASHINGTON ST, ORANGE
N J, 07050 .... 201 677-1200
S BROMBERG, EMP 40, ENG 3, $250-$500M
Cal Pritchard & Haney Co, Box 102
Los Altos 961-8218
Cal Richard Capell Co, Box 723, Tarzana
Colo J L Goodman Sales Co, 1869 S Pearl, Denver
Fla Spartak Inc, 410 Phelps Ave S, Winter Park
Ill Scott Assoc, 663 Fairview Ave, Elmhurst
Md Shiplett-Warrington Assoc, Box 6789, Baltimore
Mass D W Marcus Co, Box 453, Natick 617 235-1432
NJ Andrew A Foley Assoc, Box 155
Moorestown 609 663-4545
NY P D Aaron Assoc, Box 511
Port Washington .... PO 7-8480
Ohio Del Steffen & Assoc, 3130 Far Hills Ave
Dayton 293-3145
Tex Southern Engrg Co, Box 8393, Dallas
Can Electrodesign Ltd, 491 St Lawrence Blvd
Montreal Que

MARTI ELECTRONICS, BOX 661, CLEBURNE
TEX, 76031 .... 817 MI 5-4091
R RICHARDS, EMP 16, ENG 4, $250-$500M

MARTINDALE ELECTRIC CO, EDGEWATER BR BOX 617
CLEVELAND, OHIO, 44107 .... 216 521-8567
J ACKERMAN, EMP 75, ENG 1, $1,000-$2,500M

MARTIN-DECKER CORP, 1928 S GRAND AVE
SANTA ANA
CAL, 92705, TWX 678-464 .... 714 540-9220
C HOWARD, EMP 125, ENG 9

MARTRON INC, 875 W 15TH ST, NEWPORT BEACH
CAL, 92660 .... 714 646-7151
J SAMS, EMP 15, ENG 2

MARYLAND LAVA CO INC, BOX 527 DEPT EGB
BEL AIR, MD, 21014 .... 301 838-4114
J DINNING, EMP 72, $500-$1,000M
Cal C H Mitchell Co, 18531 Ventura Blvd
Tarzana 881-2626
Mich N T Sullivan Co, 801 S Adams Rd
Birmingham 647-3444

MARYLAND TELECOMMUNICATIONS INC
10534 YORK RD, COCKEYSVILLE
MD, 21030 .... 301 666-2727
J ROCKWELL, EMP 110, ENG 37, $2,500-$5,000M
Fla W Lee, Box 2513, Ft Lauderdale 305 522-2378
Ga D Rosswig, 3224 Peachtree Rd NE
Atlanta 404 261-1841
Ill R Natwick, 11 S Spring St, Elgin 312 742-3232
Kan F T Albright, Box 8173, Wichita 682-5378
NJ J Korcuba, Box 310, Moorestown 235-5858
NJ F Hidalgo, Box 652, Hackensack 201 489-6360
Pa R German, 104 Princeton Rd, Exton 696-3211

MASON MFG CO DIV FRAM CORP, 1962 DEXTER RD
EAST PROVIDENCE, R I, 02914 .... 401 434-2810
C SPRAGUE, EMP 125, ENG 6, $2,500-$5,000M
Cal Thompson Assoc, Box 487, Harbor City 326-5580

MASON-RENSHAW INDUSTRIES
6315 E COAST HWY BOX 445, CARPINTERIA
CAL, 93013 .... 805 684-2413
M CARBONE, EMP 6, ENG 3

MASSA DIV DYNAMICS CORP OF AMERICA
280 LINCOLN ST, HINGHAM
MASS, 02043, TWX 710-348-0162 ...... 617 749-4800
E MASSA, EMP 250, ENG 16, $2,500-$5,000M
Ill Marsland Assoc, 6699 Lincoln Ave
Chicago 676-1100
Ind Marsland Assoc, 3734 Carrollton Ave
Indianapolis 924-3568
Mass New England Mktg Assoc, 55 Salem St
Lynnfield 245-9530
Minn Marsland Assoc, 231 N Edgewood Ave
Minneapolis 545-4481
Mo Marsland Assoc, Box 567, Florissant 831-0015
Pa Test Equip Sales Co, 4447 N Bodine St
Phila 329-1822
Can B H McGregor, Box 156 Sta H
Toronto, Ont 699-5521
For Milano Bros, 250 W 57th St
New York NY 212 246-3210
Aust Dynamco Elctns Pty Ltd, 90 Alexander St
Crows Nest, N S W

MASSEY DICKINSON CO INC, 9 ELM ST, SAXONVILLE
MASS, 01701 .... 617 877-2511
D WOLFE, EMP 25, ENG 3, $2,500-$5,000M
Md Lewis Assoc Inc, 107 Continental Bldg
Bethesda 657-3844
Ger FA Heinz Albrecht, Montensire 9, 8000 Munich

MAST DEVELOPMENT CO, 2212 E 12TH ST
DAVENPORT, IOWA, 52803 .... 319 323-9729
J CARRIG, EMP 65, ENG 9

MASTECH INC, BOX 178, E MOLLOY RD, SYRACUSE
N Y, 13211 .... 315 455-6662
R MERRITHEW, EMP 20, ENG 3, $250-$500M
ADV PG 755
Cal Scrantom Engrg Assoc, 2750 Bellflower Blvd
Long Beach 213 421-8951
Mass New England Mktg Assoc, 55 Salem St
Lynnfield 617 245-9530
Tex IBL Engrg & Sales, 219 Preston Royal Ctr
Dallas 214 363-2921

MASTERCRAFT INSTRUMENT CO
1598 MCPOLAND AVE, DUBUQUE
IOWA, 52003 .... 319 583-3046
A WINKLEHAUS, EMP 15, ENG 2, UP TO $100M
Cal Hill-Blare Inc, 4570 Campus Dr, Newport Beach
Ill Ellman & Zuckerman Inc, 119 S Jefferson
Chicago .... CE 6-3905
Minn MR/L, 1661 Portland Ave, St Paul 644-1577
Pa Gilson Engineering Sales, 978 Perry Hwy
Pittsburgh 931-6114

MASTER DYNAMICS, 922 CALIF AVE, SUNNYVALE
CAL, 94086 .... 415 245-9040
K HALSETH, EMP 65, ENG 3, $500-$1,000M

MASTER ENGRAVING, 19 W PASSAIC ST
ROCHELLE PARK, N J, 07662 .... 201 843-1211
K RAINDORF, EMP 8, $100-$250M

MASTER MOBILE MOUNTS DIV, 1000 CRYSTAL DR
FORT MYERS, FLA, 33901 .... 813 WE 6-2100
L HARRIS, EMP 20, ENG 2, $100-$250M
Cal Lou J Erickson, 729 Ceres Ave, LA 627-9319
Cal Technical Sales Co, 1485 Bayshore Blvd
San Francisco 334-3161
Colo Hyde Electronics Co, 888 S Lipan St
Denver 936-3455
Ga Grady Duckett Sales Corp, 24 E Andrews Dr
Atlanta .... CE 7-5531
Ill Ellinger Sales Co, 6580 Northwest Hwy
Chicago 763-1570
NJ Simberkoff Sales Inc, 71 Valley St
South Orange 763-7900
Ohio Jim Chilcote Sales, 2940 W Lincolnshire
Toledo 536-6606
Tex Tex-Elex, 4222 Richmond Ave, Houston ... 666-1636
Wash Wm R Lanphear Co, 159 Western Ave
Seattle .... HE 4-8150

MASTERITE INDUSTRIES CORP, 835 W OLIVE ST
INGLEWOOD, CAL, 90301 .... 213 678-2575
J VALLERAND, EMP 350, ENG 9, $2,500-$5,000M
Ala R E Stuart, 2516 N Memorial Pkwy
Huntsville 536-4611
Ariz S O Rush Jr, 4315 E St Joseph Way
Phoenix 602 959-3594
Cal Daniels -Padgett Assoc
2620 Bayshore Frontage Rd
Mountainview 969-1700
Fla P S Ragan, Jr, 211 W Fairbanks
Winter Park .... MI 7-2251
Ga R P Templeton, 6427 Roswell Rd
Atlanta 404 255-8422
Ill L Bacher, 9690 W Allen Ave
Rosemont 312 678-1820
Md C E Fry, 102 N Main St, Bel Air 301 838-9292
Mass V Lamparelli, 69 Hickory Dr
Waltham 617 891-4570
Mich W J Wentzel, 24634 5 Mile Rd
Detroit .... KE 2-5770
NJ S Keller, 200 E Ridgewood Ave
Ridgewood 201 447-1050
NY J V Casamassa, 165 Orinoco Dr
Brightwaters .... MO 6-6500
Ohio R D Thirkield, 4 Eswin St, Cincinnati 825-0930

Tex V J Sykes Assoc, 13333 N Central Expwy
Dallas .... 214 AD 5-5289
Wash Paratech, 9210 28th St NW, Seattle .... SO 4-6447
Can J W McIntyre, 6333 Decarie Blvd
Montreal 828-0791

MASTER SPECIALTIES CO, 1640 MONROVIA
COSTA MESA
CAL, 92627, TWX 6-78433 .... 714 642-2427
T DE STEFANO, EMP 400, $5,000-$10,000M
Cal Master Specialties Co, 916 Calif Ave
Sunnyvale 245-9292
Fla Master Specialties Co, 372 W Fairbanks Ave
Winter Park 647-0100
Ga Master Specialties Co, 443 E Pacis Ferry Rd NE
Atlanta 261-8642
Ill Master Specialties Co, 5320 W Lawrence St
Chicago 282-7112
Mass Master Specialties Co, 751 Main St
Waltham 893-1020
Mo Master Specialties Co, 453 N Lindbergh Ave
St Louis 991-2877
NJ Master Specialties Co, 5 Haddon Ave
Haddonfield 428-0701
NY Master Specialties Co, 507 Rockaway Ave
Valley Stream .... LO 1-2334
NY Lenard Co, 132 Burnet Ave, Syracuse .... GR 9-9191
Ohio Master Specialties Co, 13308 Euclid Ave
Cleveland 851-9700
Tex Master Specialties Co, 6434 Maple Ave
Dallas 357-9459
Tex Master Specialties Co, 1811 Crawford St
Houston 228-2294
Wash Master Specialties Co, 1110 N 175th St
Seattle 546-5161

MASTER TAPE PRINTERS INC, 4517 ELSTON AVE
CHICAGO, ILL, 60630 .... 312 685-4100
R DORFMEISTER, EMP 11, $100-$250M

MASTER TOWER CO, BOX 694, SIOUX CITY
IOWA, 51102 .... 712 258-0108
G HOUPT, EMP 23, ENG 2, $250-$500M

MATEC INC, 60 MONTEBELLO RD, WARWICK
R I, 02886 .... 401 739-9030
B CHICK, EMP 10, ENG 4, $100-$250M
Cal Wolff Engrg Corp, Box 2311
Newport Beach 714 646-7214
GB Roditi Intl Corp Ltd, 130 Regent St
London W 1 .... 01-437 1905
Jap Rikei Trading Co Ltd, 18-14 Nishi-Shimbashi
1-Chome Minatoku Tokyo 591-5246

MATEER CO, G DIEHL, 776 U S RTE 30, WAYNE
PA, 19087 .... 215 MU 8-4300
G MATEER JR, EMP 90, ENG 15, $2,500-$5,000M

MATERIALS ELECTRONIC PRODUCTS CORP
990 SPRUCE ST, TRENTON
N J, 08638 .... 609 393-4178
M LEVINE, EMP 25, ENG 6, $250-$500M
Ill Spartan Engineering Co, 4654 Oakton St
Skokie .... OR 4-2950
Tex Hale Engineering Sales, 8609 NW Plaza Dr
Dallas .... EM 8-1695

MATERIALS FOR ELECTRONICS, INC, 149-32 132ND ST
JAMAICA, N Y, 11430 .... 212 322-9400
G PLANCHON, EMP 340, ENG 18, $2,500-$5,000M

MATERIALS RESEARCH CORP, RTE 303
ORANGEBURG, N Y, 10962 .... 914 EL 9-4200
R HEIL JR, EMP 100, ENG 30, $1,000-$2,500M
Cal R D Hills, Box 14, Redwood City 324-0454
Mass H Gilbert, Box 493, Framingham 872-1390
NY P Fletcher, Orangeburg 359-4200
Tex D Lund, Dallas 214 235-9008
Va E Segal, 4069 S 4 Mile Run Rd
Arlington 528-1912

MATHESON GAS PRODUCTS, BOX 85
EAST RUTHERFORD, N J, 07073 .... 201 933-2400
F LIVELLI, EMP 400, ENG 15, OVER $10,000M
Cal Matheson Gas Prods, Box 188, Newark 793-2559
Cal Matheson Gas Prods, Box 608
Cucamonga 987-4611
Ga Matheson Gas Prods, Box 136, Morrow 478-7274
Ill Matheson Gas Prods, Box 966, Joliet 727-4848
Mass Matheson Gas Prods, 105 Maplewood Ave
Gloucester 617 283-7700
Tex Matheson Gas Prods, Box 908, LaPorte 421-2544

MATHEWS ELECTRONIC CORP, 312 S BROAD ST
MOBILE, ALA, 36603 .... 205 433-1645
J MATHEWS, EMP 19, ENG 3

MATI ELGEET DIV, 4225 W HENRIETTA RD
ROCHESTER, NY, 14623 .... 716 334-6880
L REED, EMP 75, ENG 6, $500-$1,000M
Fla B G Lansford, 2126 Mohawk Trail
Maitland 305 644-8512
Mass Cordel Engrg, 210 Broadway
Everitt 617 289-4200
NJ Photo-Electro Instr Co, 501 Couse St
Neptune 201 775-7159
NY Photo-Electro Instr Co, 125-10 Queens Blvd
Kew Gardens 212 544-9038
Va Photo-Electro Instr Co, Box 741
Ashland 703 798-7436
Va R R Youso, 7608 Elba Rd, Alexandria

MATRIX CORP, 520 N 11TH AVE, BEECH GROVE
IND, 46107 .... 312 786-4601
K BARTLETT, EMP 15, ENG 4, $100-$250M
Ill Systems Engrg Assoc, 6253 Milwaukee Ave
Chicago 312 774-1452
Ind Systems Engineering Assoc, 1010 E 86th St
Indianapolis 846-2593
Mich Electro Sales Assoc, 10745 Morang Dr
Detroit 886-2280
Minn Systems Engrg Assoc, 8633 Harrison S
Minneapolis 612 881-6386
Ohio Electro Sales Assoc, 335 E 200th St
Cleveland 486-5761
Ohio Electro Sales Assoc, Overlook Br Box 3122
Dayton 513 426-5551
Pa Electro Sales Assoc, 201 Penn Center Blvd
Pittsburgh 371-9449
Pa Acromatix Assoc, 3118 Germantown Pike
Fairview Village 215 279-0377
Wis Systems Engrg Assoc
420 W Ravenswood His Circle, Waukesha

MATRIX DIV, SCHAFER ELECTRONICS
9119 DE SOTO AVE, CHATSWORTH
CAL, 91311 .... 213 882-2000
N STRID, EMP 54, ENG 6, $1,000-$2,500M
Ala Lee Assoc, 5R Tray,or Island
Huntsville 205 539-0761
Ariz Moxon Elctns Corp, 15 N 40th Pl
Phoenix 602 273-7363
Cal Moxon Electronics Corp, 15 41st Ave
San Mateo 345-7961
Cal Moxon Electronics Corp, 2054 Garnet
San Diego 274-6525
Cal Moxon Electronics Corp, 2311 Pontius
Los Angeles 272-9311
Colo D E Bond Assoc, 2149 S Clermont St
Denver 303 756-1234
Conn Instrument Consultants Inc, 2381 Whitney Ave
Hamden 203 248-4174
Fla Lee Assoc, 200 East Marks St
Orlando 305 241-4445
Ill Cozzens & Cudahy Inc, 9501 W Devon
Rosemont 312 825-1144
Ind Cozzens & Cudahy Inc, 44 Kirk Dr
Indianapolis 317 244-2456
Md Lee Assoc, 12250 Wilkins Ave
Rockville 301 949-4800
Mass Instrument Consultants Inc, Box 25
Waban 617 969-9881
Minn Cozzens & Cudahy Inc, 7710 Computer
Minneapolis 612 920-1022
Mo Cozzens & Cudahy Inc, 10534 Natl Bridge Rd
Edmundson 314 423-1234
NJ Moxon Electronics Corp, 40 Coles Ave
Cherry Hill 665-5444
NJ Moxon Electronics Corp, 151 Hackensack Ave
Hackensack 201 343-9490
NM 1, D E Bond Assoc, Albuquerque 505 247-3443
NY Naco Elctns Corp, 119 Luther Ave
Liverpool 315 474-7481
NC Lee Assoc, 825 Burke St
Winston-Salem 919 724-2406
Ohio Cozzens & Cudahy Inc, 735 S Court St
Medina 216 725-5660
Tex Carter Assoc, Inc, 400 Forrest Gate La
Garland 276-7151
Wash J K Dooley Co, 4110 Stone Way N
Seattle 206 632-1618
Fr Seurolec, 39-41 Rue de l'Est
Boulogne, Billancourt 408-38-60
GB Autonetics & Co, 90 Saltergate
Chesterfield, Derbyshire .... Che 75946
Holl Inelco S A, 20-24 Rue de l'Hopital
Bruxelles 1 11-22-20

MATRIX ENGINEERING CORP, 1502 W 166TH ST
GARDENA, CAL, 90247 .... 213 770-0521
R LACE, EMP 4, ENG 3, $100-$250M
Cal Welco Inc, 1502 W 166th St, Gardena 532-6010
Cal Welco, 2406 Lincoln Ave, Alameda
Colo A G Electronics, 5417 S Oneida St, Englewood
Fla Macgregor Assoc, Box 1711, Clearwater
Mass Contact East Inc, 7 Cypress Dr, Burlington
Mich Michigan Precision Prods, 622 E Henry St, Charlotte
NY Ryan Assoc, 60 Roger Dr, Port Washington
Pa Henry Mann Co, Box 237, Cornwells Hts
Tex Production Engrg Sales Organ, Box 30393
Dallas .... 214 EM 9-3181

MATRIX SCIENCE CORP, 435 MAPLE AVE, TORRANCE
CAL, 90503, TWX 910 349-693 .... 213 775-2411
S BROWN, EMP 110, ENG 10, $1,000-$2,500M
Cal Ed Landa Co, One First St
Los Altos 415 948-0788
Fla Perrott Assoc & Co, 1607 Forsyth Rd
Orlando 305 275-1132
Mass R H Sturdy, 204 Worchester St
Wellesley Hills 617 235-2330
Minn Electro-Serv Co, 1455 W Lake St
Minneapolis 612 827-2907
NJ G T Assoc, Box 1233, Wayne 516 731-3499
NY G T Assoc, Box 283, Levittown 516 731-3449
Pa C H Newson & Assoc, 672 Bethlehem Pike
Philadelphia 215 248-3377
Tex Carey & Assoc, 3315 W 12th St
Houston 713 869-3623
Tex Carey & Assoc, 725 Preston Forest Shppg Ctr
Dallas 214 361-6234
Tex Carey & Assoc, 6633 N Broadway, San Antonio
Wash Ray Over Sales, 1615 103rd Ave SE
Bellevue .... 206 GL 4-4551

MATSUNAGA MFG CO LTD
1-2 HIMONYA MEGURO-KU, TOKYO
JAPAN, TWX TK2550 713-7171
T HASEGAWA, EMP 150, ENG 15, $500-$1,000M
For Campion Electronics Ltd, 458 Victoria, Singapore 7
For Arirong Radio Corp
70-4 4-Ka Myongyan-Dong Chongno-Ku
Seoul Korea
GB Service Trading Co, 57 Bridgman Rd
Acton London W4
Aust Ferguson Transformers Pty Ltd, 331 High St
Chatswood N S W

MATSUO ELECTRIC CO, LTD, 3-5, 3-CHOME, SENNARI-CHO
TOYONAKA-SHI, OSAKA, JAPAN 392-0871
T KANKI, EMP 450, ENG 51, $250-$500M
ADV PG 113
Ger Radiotronic, Frankfurt/Main, ... 728944
Jap Matsuo Electric Co Ltd
25, 2-Chome, Kanda, Awaji-Cho
Chiyoda-Ku, Tokyo 253-3371
Swed Kjellbergs Successors AB:, Drottninggatan 14
Stockholm 23 62 60
NZ David J Reid (NZ) Ltd, Box 2630
Auckland, C, 1 299089

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, KADOMA, OSAKA
JAPAN, TWX OS3426 991-1121
H YASUKAWA, EMP 40000, ENG 6000, OVER $10,000M
ADV PG 295
Haw Matsushita Electric of Hawaii, 205 Kalihi St
Honolulu 852-928
Ill Matsushita Elec Corp Of Amer, 363 N 3rd Ave
Des Plaines 312 299-7171
NY Matsushita Elec Corp of Amer, 200 Park Ave
New York 212 973-5700
Can Matsushita Elec of Canada, 1054 Kipling VE N
Ont 416 248-5551
For Matsushita Elec (Taiwan) Co Ltd
64 Chung San Rd, Chung Ho
Taipei Hsien 92-2691
For National Thai Co Ltd, 484 Mahachai Rd
Bangkok Thailand 20921
For Matsushita Elec of P R Inc, Box 184
Caguas PR 731-6878
For Taimatsu Indusl Co Ltd
22, Nankung Oldroad Sec 2
Taipei Hsien Täi 74792
For Matsushita Elec Co (Malaysia) Ltd, Batu Tiga
Selangor Malaysia
For National Peruana S A, Hernan Velarde 345
Lima, Peru
For Natl Centroamericana S A
Altos Edo Mas Por Menos
Paseo Colon San Jose 22-29-92
For Matsushita Elec East Afr Co Ltd, Box 25037
Dar Es Szlaam Rip Tanzania
For Precision Elctns Corp, 31 San Luis St, Passay Phil
For Matsushita Elec Del Peru Sa, Jiron Carabaya 933
Lima
For Matsushita Elec Costaris Sa, Calle 2 Ave Central/2
San Jose, CR
Fr Matsushita Elec France Sarl, 61 Rue Chaptal
92 Levailois Perret
Ger Matsushita Electric (Hamburg) GmbH
Jungfernstieg 40
2000 Hamburg 36 .... 34 47 43-45
Braz Matsushita Elec Brasileira Ind E Comm Ltda
Caixa Postal 2094, Sao Paulo
Mex National Mexicana S A, Blvd de Toluca 22
Naucalpan Edo de Mexico 27-00-00

MATTHEWS & CO JAS H, 6605 PENN AVE
PITTSBURGH, PA, 15206 .... 412 362-6500
S KERR, EMP 200, ENG 4, $500-$1,000M

MATTHEWS RESEARCH INC, 4306 WHEELER AVE
ALEXANDRIA, VA, 22304 .... 703 751-1600
W DEXTER, EMP 12, ENG 1
Cal William F Farmer Co, 1501 San Pablo Ave
Berkeley 524-4942
Cal Process Supply Co, 2644 E Sycamore St
Anaheim 714 630-0239
Fla Barrett Assoc, Box 14205, Orlando
Ill D P Corrigan & Assoc, 5306 W Lawrence Ave
Chicago 312 725-2500
Mass Clifford Assoc, Box 636
Newton Lower Falls 617 237-0618
Mich Satullo Co, 4514 N Woodward Ave, Royal Oak
Minn W F Just Co, 5029 W 56th St
Minneapolis 612 921-1200
Ohio Aertronic Assoc Inc, 5899 Huberville Ave
Dayton 253-8144

MATTHEY BISHOP INC, 4 MALIN RD, MALVERN
PA, 19355, TWX 510 668 9565 .... 215 NI 4-3100
H ROBERTS, EMP 550, ENG 12, OVER $10,000M
Cal R Squier H Griffin, 1513 6th St
Santa Monica 393-0481
Conn L M Bailey, 47 Ivy Ln, Wethersfield 529-2324
Ill R Kopf, 675 Hillside Ave
Glen Ellyn 312-469-8853
NJ M J McLaughlin, 25 Bartman Rd
Old Bridge 254-5372
Pa E Simendinger, 782-A Cooke Dr
Pittsburgh 343-0103

Pa A Morelli, 780-A Cooke Dr, Pittsburgh 343-1855
Tex B M Reilly, 3317 Montrose Blvd
Houston .... JA 8-2790

MAUCHLY ASSOCIATES INC
COMMERCE & ENTERPRISE DR, MONTGOMERYVILLE
PA, 18936 .... 215 MI 6-5700
S LOPEZ, EMP 125, ENG 105, $2,500-$5,000M
Cal Mauchly-Wood Software Corp, 3355 Via Lido
Newport Beach 675-4060
NY Honig Time Sharing Assoc, 116 N Central Ave
Hartsdale .... 914 WH 9-4580
Pa Computer Sharing Inc, One Bala Ave Bldg
Bala-Cynwyd .... 215 MO 7-1700
Tex Digital Seismic Corp, 2200 S Post Oak Rd
Houston 713 622-5383

MAUREY INSTRUMENT CORP, 4555 W 60TH ST
CHICAGO, ILL, 60629 .... 312 581-4555
E MAUREY JR
Ariz Coronado Electronics, Box 3176
Scottsdale 947-9060
Cal Poltronics, Box 807, Mountain View 969-9200
Cal E E Enterprises, Inc, 5901 Noble Ave
Van Nuys 787-5360
Colo Gossard & Assoc, 12159 W Dakota Dr
Denver 985-0602
Conn Zaslow Sales Co Inc, 6 Newberry Rd, Bloomfield
Ill Balhorn & Welch, 1925 N Harlem Ave
Chicago 889-5011
Ind Menze Sales, 6010 Lwr Huntington Rd
Ft Wayne 747-5616
Kan Maury E Bettis Co, 3706 Broadway
Kansas City .... LO 1-0772
Md J-H Electronic Sales Co, Box 6844
Towson .... VA 5-4440
Md J-H Elctn Sales Co, 7200 N Charles St, Lutherville
NJ Clarfield-Stollmack Assoc, 175 Westwood Ave
Westwood 666-8989
NJ J-H Elctn Sales Co, Box 686, Cherry Hill
NM A L S Electronics, Box 11626
Albuquerque 298-2575
NY Lenard Co, 132 Burnet Ave, Syracuse 479-9191
Ohio Electro-Com, 8761 Snow Rd, Cleveland ... 886-2404
Ohio Electro-Com, Box F, Dayton 278-4797
Tex Texport Co, 2411 Farrington, Dallas
Tex Texport Co, 8811 Gaylord, Houston
Wash Paratech, 9210 28th Ave NW, Seattle 784-6447

MAURY MICROWAVE CORP, 10373 MILLS AVE
MONTCLAIR, CAL, 91763 .... 714 NA 60441
M MAURY JR, EMP 20, ENG 4, $100-$250M
Cal Kipp Assoc, 90 Stadler Dr, Woodside 851-0123

MAXSON ELECTRONICS DIV, MAXSON ELECTRONICS
CORP, SUNRISE HWY, GREAT RIVER
N Y, 11739, TWX 510-227-7614 .... 516 362-2000
A ANANIA, EMP 2800, OVER $10,000M
Cal Maxson Electronics, Orange 714 835-1102
DC Maxson Electronics, Washington 202 659-8300
Fla Maxson Electronics, Maitland 305 647-5220
Fla Maxson Electronics, Pensacola 904 477-0924
Ill Maxson Electronics, Woodridge 312 969-8420
NJ Maxson Electronics, Montvale 391-4414
Ohio Maxson Electronics, Dayton 222-0201

MAYBERRY ELECTRONICS CO
543 W MANCHESTER BLVD, INGLEWOOD
CAL, 90301, TWX 910-328-6188 .... 213 678-4847
L MAYBERRY, EMP 12, ENG 2, $250-$500M

MAYTRONICS INC, GARDEN OF THE GODS RD
COLORADO SPRINGS
COLO, 80901, TWX 910-920-4982 .... 303 636-1301
W WOODS, EMP 35, ENG 4, $500-$1,000M

MB BEDDING CO, 526 S MAIN ST, WILKES-BARRE
PA, 18701 .... 717 822-2491
M BROWN, EMP 10, ENG 2, $100-$250M

MB ELECTRONICS A TEXTRON CO, 781 WHALLEY AVE
NEW HAVEN
CONN, 06511, TWX 701-465-3283 .... 203 389-1511
R J KAYE, EMP 439, ENG 59
Ala Lee Assoc Inc, 2400 W Clinton St
Huntsville 539-0761
Cal M B, 1220 E Imperial Ave, El Segundo ... 772-3371
Conn Equipment Sales Co Inc, Box 5396
Hamden 248-5581
Fla Lee Assoc Inc, 200 E Marks St, Orlando .. 241-4445
Ill Maher Engineering Co, 13 Broadway
Des Plaines 824-2124
Md Lee Assoc, 12250 Wilkins Ave
Rockville 949-4800
Mass Equipment Sales Co Inc, Bedford 617 275-7730
NJ T E Sales Co, 1367 Stuyvesant Ave
Union 687-5353
NM Pacific Scientific Co, 209 San Pablo S E
Albuquerque 265-6638
NY Components for Industry, 416 Franklin St
Fayetteville 637-9601
NC Lee Assoc Inc, 432 West End Blvd
Winston-Salem 724-2406
Ohio Lowry-Dietrich Co, 333 W First St
Dayton 223-6042
Ohio Lowry-Dietrich Co, 1276 W Third St
Cleveland 781-1855
Ore Pacific Scientific Co, 1218 SE 7th Ave
Portland 233-6177
Pa Lowry-Dietrich Co, 90 Clairton Blvd
Pittsburgh 892-2992
Tex Pacific Scientific Co Inc, 702A E Abram St
Arlington 275-3236
Wash Pacific Scientific Co, 8915 14th Ave
Seattle 762-4260

MCCOY ELECTRONICS CO, SUB OAK ELECTRO/NETICS
CORP, MOUNT HOLLY SPRINGS
PA, 17065, TWX 510-650-3548 .... 717 486-3411
D JACOBY, EMP 550, ENG 20, $2,500-$5,000M
Ariz W Bert Knight Co, Box 11394, Phoenix ... 264-3578
Cal W Bert Knight Co, 112 Glasgow Ave
Inglewood 678-4711
Cal Oak Electro/Netics Corp, 960 N San Antonio Rd
Los Altos 941-1237
Colo I W Strong & Assoc, 635 Canosa Ct
Denver 292-6900
Fla J F Griffin & Co, 812 Lakeside Dr
N Palm Beach 848-4617
Ill Oak Mfg Co, Crystal Lake 459-5000
Md J W Sheffer, 4609 Old Frederick Rd
Baltimore .... CE 3-0606
Mass Richard L Purinton, 11 Muzzey St
Lexington .... VO 2-8300
Miss Lloyd F Murphy, 730 Chicago Ave
Minneapolis 333-4511
Mo Automatic Gen Elctn Sales, 6550 E Troost Ave
Kansas City .... DE 3-8206
Mo Automatic Gen Elctn Sales, 4253 Westminster Pl
St Louis 314 652-5366
NJ Gray-Williams Assoc, 8 E Mt Vernon Ave
Haddonfield .... HA 9-5300
NJ Clarfield, 175 Westwood Ave
Westwood 666-8989
NY S F Foster Co Inc, 2806 Hennaberry Rd
Pompey 677-3333
Ohio Oak Mfg Co, Greenhills Shop Ctr
Cincinnati 513 825-7570
Tex R F Kimball Co, 5531 Dyer St, Dallas ... EM 1-6067
Wash M K Widdekind Co, 815 W Ewing St
Seattle .... AT 4-8020
Can Oak-Hart Mfg Co, Aurora, Ont .... PA 7-4231
For Sylvan Ginsbury Ltd, 72 W 45th St
New York, NY .... MU 7-3213

MCCULLOUGH AERO CORP, 13105 S CRENSHAW
HAWTHORNE, CAL, 90250 213-679-0253
J HEASLEY, EMP 30, ENG 3, $500-$1,000M

MCDANEL REFRACTORY PORCELAIN CO
510 NINTH AVE, BEAVER FALLS
PA, 15010 .... 412 843-8300
J MARKHAM, EMP 125, ENG 7

MCDONNELL & MILLER INC, 3500 N SPAULDING AVE
CHICAGO, ILL, 60618 .... 312 267-1600
N SWANSON, EMP 200, ENG 4, $1,000-$2,500M

MCDOWELL ELECTRONICS INC, BOX 342, METUCHEN
N J, 08840 .... 201 548-9109
R B MCDOWELL
Ill Olson Engrg & Sales Corp, 1921 N Harlem Ave
Chicago 622-9777
Ill J Olson Engrg & Sales Corp, 1921 N Harlem Ave
Chicago 622-9777
Minn R J Hartmann, 421 County Rd, Hopkins ... 935-9195

MCELROY ELECTRONICS CORP, FREDONIAN ST
SHIRLEY, MASS, 01464 .... 617 425-4055
J MCELROY, EMP 10, ENG 2

MCFADDEN ELECTRONICS CO, 8953 ATLANTIC BLVD
SOUTH GATE, CAL, 90281 .... 213 564-5958
W MCFADDEN, EMP 10, ENG 3, $100-$250M
Ala Space Engrg Sales, Inc, 4306 Governors Dr, SW
Huntsville 837-6060
Fla Space Engrg Sales, Inc, 999 Woodcock Rd
Orlando 841-2271
Md Brimberg Assoc, Inc, 814 Thayer Ave
Silver Spring 538-7790
NY Donegan-Ross Co, 120 W Johns St
Hicksville 433-1940
NY Donegan-Ross Co, Box 124, Chappaqua ... 238-8619
Tex W-M Electronics, Inc, 5507 W Rosedale
Fort Worth 737-6781

MCG ELECTRONICS, 279 SKIDMORE RD, DEER PARK
N Y, 11729 .... 516 586-5125
M COYLE, $500-$1,000M
Cal Gerry Sales Co, Box 1901
Glendale 213 246-2517
Cal Peninsula Assoc, 1447 Bayshore
Palo Alto 415 322-1803
Fla ECA Assoc, 711 N Magnolia Ave
Orlando 305 424-0701
Ill Audio Sound Sales Co, 2919 1/2 W Armitage Ave
Chicago 312 342-1600
Pa Kastle Assoc, R D 1, Chalfont 215 348-4466
Can Technitron Assoc Ltd, 769 Lajoie Ave
Dorval Que 514 631-6859
For Telcolab Corp, Chrysler Bldg
New York N Y .... 212 OX 7-9566

MCGILL MFG CO INC, ELECTRICAL DIV
909 N LAFAYETTE ST, VALPARAISO
IND, 46383 .... 219 462-2161
P BAIN, EMP 200, ENG 5, $2,500-$5,000M
Cal George A Gray Co, 2720 17th St
San Francisco .... HE 1-1526
Cal Penwarden Assoc Inc, 14547 Titus St
Van Nuys 213 782-4920
Ga E T Loyd Inc, 500 Van Heusen Blvd N W
Atlanta 351-2300
Ill R J Eckert, 3361 River Falls Dr
Northbrook 338-8484
Ill E A Kaspar, 1301 Wood La
Prospect Heights 338-8484
Ind Bennett Electric Sales Co, 2051 E 46th St
Indnpls .... CL 3-2021
Mass Leonard Howard, 11 Massapoag La
Sharon 326-6442
Mich R C Merchant & Co, 18411 W McNichols
Detroit 313 535-6000
Minn Howard Lee, 819 24th Ave SE
Minneapolis 612 331-2457
Mo Larco Sales Inc, 5075 Clayridge Dr
St Louis 314 487-2796
NY Chris Glianna, 548 Summit Ave
Baldwin .... FR 8-2700
NY A C Schultz Co, 2095 Kensington Ave
Buffalo 839-1010
Ohio B W Gramps, 1935 Grafton Rd, Elyria ... GL 8-5203
Pa Chapman Sales Co, 14 E Rambler Dr
Holland .... EL 7-8207
Tex Jack Raley, 7409 Caruth Blvd, Dallas ... EM 8-1683
Wash Strohecker Inc, 2207 1st Ave S
Seattle .... MA 3-0357
Can T W MacKay & Son Ltd, 1807 Fir St
Vancouver 9,BC .... RE 1-6561
Can MacKay Morton Ltd, 50 Myrtle St
Winnipeg M 786-5891
Can MacKay Morton Western Ltd, 4504 First St SE
Calgary A .... CH 3-1664
Can Marr Electric Ltd, 2555 Hensall St
Cooksville O 277-9481
Aust Thomas Wark, 11 Shannon St, St Ives, Sydney

MCGRAW COLORGRAPH CO, 175 W VERDUGO AVE
BURBANK, CAL, 91503 .... 213 846-4171
L GROVER, EMP 30
Ill McGraw Colorgraph Co, 4849 N Scott St
Schiller Pk 312 671-0340
NY McGraw Colorgraph Co, Box 99
Valley Stream 212 895-6835
Belg McGraw Colorgraph S A, Blvd Leopold II 35
Brussels 28.53.66

MCGRAW-EDISON POWER SYSTEMS DIV
700 W MICHIGAN ST, MILWAUKEE
WIS, 53201, TWX MR E F BRIESE 272-8777
OVER $10,000M
Ala McGraw-Edison Pwr Sys Div, 1700 Vanderbilt Rd
Birmingham 323-1651
Alas McGraw-Edison Pwr Sys Div, 4502 Lois Dr
Anchorage 277-3531
Ariz McGraw-Edison Pwr Sys Div, Box 7495
Phoenix 264-2251
Ark McGraw-Edison Pwr Sys Div, 203 W 15th St
Pine Bluff 535-6390
Cal McGraw-Edison Pwr Sys Div
7105 S Paramount Blvd, Los Angeles ... 723-6251
Cal McGraw-Edison Pwr Sys Div
5835A Mission Gorgerd, San Diego 284-3881
Cal McGraw-Edison Pwr Sys Div, 360 Shaw Rd
S San Francisco 589-9435
Cal McGraw Edison Pwr Sys Div, 1331 T St
Sacramento 442-6264
Colo McGraw-Edison Pwr Sys Div, 3955 Forest St
Denver 335-1688
Conn McGraw-Edison Pwr Sys Div, 1841 Broad St
Hartford 525-8258
Fla McGraw-Edison Pwr Sys Div, 800 Douglas Rd
Miami 446-3338
Fla McGraw-Edison Pwr Sys Div, 617 Park St
Jacksonville 356-7523
Fla McGraw-Edison Pwr Sys Div, Box 17655
Tampa 988-5271
Ga McGraw-Edison PWR Sys Div, 3289 McCall Dr
Atlanta 451-0121
Haw McGraw-Edison Pwr Sys Div, 1150 So King St
Honolulu 562-467
Idah McGraw-Edison Pwr Sys Div, 700 W Idaho St
Boise 344-7894
Ill McGraw-edison Pwr Sys Div, 381 N York St
Elmhurst 279-7200
Ill McGraw-Edison Pwr Sys Div, Myers Bldg
Springfield 544-4819
Ind McGraw-Edison Pwr Sys Div
608 Ft Wayne Bank Bldg, Ft Wayne 743-8620
Ind McGraw-Edison Pwr Sys Div, 5257 N Tacoma Ave
Indianapolis 251-1218
Iowa McGraw-Edison Pwr Sys Div, 508 10th St
DesMoines 282-1413
Kan McGraw-Edison Pwr Sys Div, Box 1619
Wichita 684-0855
Ky McGraw-Edison Pwr Sys Div, 1810 Brownsboro Rd
Louisville 897-1298
La McGraw-Edison Pwr Sys Div, 5201 Jefferson Hwy
New Orleans 733-7810
Me McGraw-Edison Pwr Sys Div, 83 Western Ave
Augusta 623-3225
Md McGraw-Edison Pwr Sys Div
705 Balt & Annapolis Blvd NW
Baltimore 761-0340
Mass McGraw-Edison Pwr Sys Div, 763 C Concord Ave
Cambridge 491-2605
Mich McGraw-Edison Pwr Sys Div, 761 W Michigan Ave
Jackson 784-7148
Mich McGraw-Edison Pwr Sys Div, 690 E Maple Ave
Birmingham 647-0345
Minn McGraw-Edison Pwr Sys Div, 7710 Computer Ave
Mnpls 927-7771

Miss McGraw-Edison Pwr Sys Div, 230 Rose St
Jackson 354-3528
Mo McGraw-Edison Pwr Sys Div, 1501 Bedford
N Kansas City 471-4696
Mo McGraw-Edison Pwr Sys Div, 111 S Meramec
St Louis 721-7322
Mont McGraw-Edison Pwr Sys Div, 601 Utah Ave
Butte 723-7961
Neb McGraw-Edison Pwr Sys Div, 8990 W Dodge Rd
Omaha 391-2049
NJ McGraw-Edison Pwr Sys Div, 690 Rahway Ave
Union 688-1300
NM McGraw-Edison Pwr Sys Div, 4th & Gold
Albuquerque 842-1055
NY McGraw-Edison Pwr Sys Div, 966 Broadway
Albany 463-8312
NY McGraw-Edison Pwr Sys Div, 321 Erie Blvd W
Syracuse 474-7491
NC McGraw-Edison Pwr Sys Div, 608 W Johnson St
Raleigh 834-4373
NC McGraw-Edison Pwr Sys Div
3601 Independence Blvd E, Charlotte ... 536-3030
Ohio McGraw-Edison Pwr Sys Div, 907 Schneider St
N Canton 499-7688
Ohio McGraw-Edison Pwr Sys Div, 2800 Euclid Ave
Cleveland 621-7635
Ohio McGraw-Edison Pwr Sys Div, 901 High-Loner Bldg
Columbus 221-3261
Ohio McGraw-Edison Pwr Sys Div, 6101 Creek Rd
Cincinnati 793-4660
Okla McGraw-Edison Pwr Sys Div, 2901 Classen Blvd
Oklahoma City 528-7763
Ore McGraw-Edison Pwr Sys Div, 1313 Omark Dr
Portland 659-2884
Pa McGraw-Edison Pwr Sys Div, 2 Bryn Mawr Ave
Bryn Mawr 525-8801
Pa McGraw-Edison Pwr Sys Div, 2700 Paxton St
Harrisburg 564-6400
Pa McGraw-Edison Pwr Sys Div, 250 Mt Lebanon Blvd
Pittsburgh 271-7878
SC McGraw-Edison Pwr Sys Div
23 Forest Lake Shop Ctr, Columbia 782-5214
Tenn McGraw-Edison Pwr Sys Div, 2680 Yale Ave
Memphis 324-2131
Tenn McGraw-Edison Pwr Sys Div, 1721 Magnolia Ave
Knoxville 522-5551
Tenn McGraw-Edison Pwr Sys Div, 3716 Hillsboro Rd
Nashville 291-7870
Tex McGraw-Edison Pwr Sys Div, 6000 Padre Island Dr
Corpus Christi 991-1775
Tex McGraw-Edison Pwr Sys Div, 8801 Governor's Row
Dallas 631-6900
Tex McGraw-Edison Pwr Sys Div
1906 Chamber of Commerce Bldg
Houston 227-7266
Utah McGraw-Edison Pwr Sys Div, 431 S 3rd E
Salt Lake City 355-6257
Va McGraw-Edison Pwr Sys Div, 915 S Jefferson St
Roanoke 342-5949
Va McGraw-Edison Pwr Sys Div, 5911 W Broad St
Richmond 282-9739
Va McGraw-Edison Pwr Sys Div, 6201 Leesburg Pike
Falls Church 534-5055
Wash McGraw-Edison Pwr Sys Div, 1220 W Nickerson
Seattle 283-6368
Wash McGraw-Edison Pwr Sys Div, 12 Indiana Ave
Spokane 326-0371
Wis McGraw-Edison Pwr Sys Div, 12th & Madison Aves
S Milwaukee 762-2500
Can CLM Industries, 3595 St Clair Ave E
Scarboro Ont 261-7111

MCGREGOR ELECTRONIC INDUSTRIES INC
132 1ST ST, MCGREGOR
IOWA, 52157 .... 319 873-3414
P OSLAC, EMP 125, ENG 4, $1,000-$2,500M
Cal M Cozzi, 6245 Zelza St, Reseda .... 213 DI 2-7383
Ill M Oslac, 829 Belle Plaine, Chicago ..... BI 8-7388
Ill H Moskow, 3750 Lakeshore Dr
Chicago .... LA 5-3758
Ind F. Butters, 318 Central Blvd, Ft Wayne ... 742-4107
Mich Butchart-Rathsburg, 16637 E Warren
Detroit 313 882-1717
NY P Saftler, 157 W 57th St, New York ...... CI 7-3855
NY J Lind, 17 Red Barn Cir, Pittsford ... 716 DU 1-3838
Tex J Yount, 1431 Pleasant, Dallas 214 391-4125

MCHUGH THERMODYNAMICS CORP
3600 BOUNDBROOK AVE, TREVOSE
PA, 19047 .... 215 632-0770
H PALMER, EMP 11, ENG 3, $250-$500M
Md Thermal Devices, Inc, 4604 York Rd
Baltimore .... ID 5-6700
Mass Atlantic Technical Sales, 9 Mayhew St
Framingham Centre
Mich Geo R Peters Assoc, 3347 Coolidge Hwy, Berkley
NY E C Smith & Assoc, 60 E 42nd St
New York .... MU 2-6890
NY E C Smith & Assoc, 941 Granite Bldg, Rochester
NC Systems Services, Box 17525, Charlotte .. 377-3407
Ohio Morrow Control & Supply, 1410 5th St NE, Canton
Pa Stoeltzing & Co, 704 Castle Shannon Blvd
Pittsburgh
Tenn H R Miles, Box 172, Chattanooga 292-7016
Tenn H R Miles & Assoc, Box 17252, Memphis
Tenn H R Miles & Assoc, 2500-B Franklin Rd, Nashville
Can R F Combustion Sys Ltd, 5700 Cote St Francois
St Laurent Que

MCI ELECTRONICS, 4087 GLENCOE AVE
MARINA DEL REY, CAL, 90291 .... 213 391-3791
J CATALDO, EMP 15, ENG 2, $100-$250M

MCINTOSH LABORATORY INC, 2 CHAMBERS ST
BINGHAMTON, N Y, 13903 .... 607 723-3512
G GOW, EMP 250, ENG 4, $2,500-$5,000M
Cal Koessler Sales Co, 818 N Fairfax Ave
Los Angeles 653-1605
Cal Evans Marketing, 2803 Geneva Ave
Daly City 584-0818
DC Donald McIntosh, 4912 Cordell Ave
Washington 652-4477
Fla Arthur Cohen, Box 429, N Miami 945-6901
Ill Arthur Peterson, 3647 W 62nd St
Chicago 785-0846
Kan Zimmer Sales Co, 5642 Woodward Ave
Merriam 432-8900
Mass Hetherington Sales Co, 97 Bogle St
Weston 235-5323
NJ Miller Electronics Inc, 27 Mechanic St
Red Bank 741-9300
NC L D Roddey Sales, Box 11302
Charlotte 332-7232
Ohio Schroeder Sales Co, 2254 Euclid Ave
Cleveland 621-5075
Tex Charles Lucas Sales Co, 2004 S Beckley
Dallas 942-5958
Utah F Y Gates Co, 455 E 4th S
Salt Lake City 359-1101
Wash Vector Corp, 307 Wall St, Seattle 206 623-6891
Can Alex L Clark Ltd, 3751 Bloor St W
Toronto, Ont 231-3303
For Elpa Mktg Industries, Thornes & Atlantic Ave
New Hyde Park, NY 746-3002

MCKEE AUTOMATION CORP SUB JAMES
CUNNINGHAM INC, 13636 VAUGHN ST
SAN FERNANDO
CAL, 91340, TWX 510 254-4202 .... 213 899-1845
V FRANCESCA, EMP 15, ENG 2, $250-$500M
Ala Gentry Assoc, 2109 W Clinton Ave
Huntsville 205 534-9771
Ariz Luscombe Engrg Co, 222 W Osborn Rd
Phoenix 602 274-1542
Cal Luscombe Engrg Co, 610 S Arroyo Pkwy
Pasadena 213 684-2000
Cal Luscombe Engrg Co, 220 E Third Ave
San Mateo 415 342-7057
Colo Price-Parrish Elctns, 2130 S Albion St
Denver 303 756-9455
Conn Instrument Consultants, 2381 Whitney Ave
Hamden 203 248-4174
Fla Gentry Assoc, 550 N Bumby Ave
Orlando 305 841-7740
Ga Gentry Assoc, Box 13513 Station K
Atlanta 404 233-3816
Ill Scientific Sales Corp, 7132 N Harlem Ave
Chicago 312 775-7594
Ind Scientific Sales Corp, 706 Sherwood Dr
Indianapolis 317 545-9950
Md Bartlett Assoc, 7979 Old Georgetown Rd
Bethesda 301 656-3061
Mass Instrument Consultants Inc, 81 Wyman St
Waban 617 969-9881
Mich Scientific Sales Corp, 6121 Excelsior Blvd
Minneapolis 612 929-6115
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield 313 357-3700
Mo Harris-Hanson Co, 2814 S Brentwood Blvd
St Louis 314 647-4350
Mo Harris-Hanson Co, 7916 Paseo St
Kansas City 816 444-9494
NM Price-Parrish Elctns, 507 Wyoming Blvd NE
Albuquerque 505 268-6791
NY Bartlett Assoc, 470 Mamaroneck Ave
White Plains 516 643-7751
NY KLM Assoc, 8 Bear Hill Dr
Palmyra 315 597-9776
NY KLM Assoc, 201 S Main St
N Syracuse 315 458-6214
NY KLM Assoc, 9 Hollywood Dr
Whitesboro 315 736-2450
NC Gentry Assoc, Box 197
Jamestown 919 454-1919
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland 216 442-8080
Ohio S Sterling Co, 2673 Culver Ave
Dayton 513 298-7573
Pa Bartlett Assoc, 130 W Lancaster Ave
Wayne .... 215 MU 8-7325
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh 412 884-5515
Tex Scientific Sales Co, 777 S Central Expwy
Richardson .... 214 AD 1-6541
Tex Scientific Sales Co, 2337 Bissonet St
Houston .... 713 JA 8-6904
Utah Price-Parrish Elctns, 16 E Stratford Ave
Salt Lake City 801 487-7847
Wash Paratech, 2208 NW Market St
Seattle .... 206 SU 4-6447
Can X-Tronix Engrg, Box 190 Sta H
Toronto 416 425-6118
Can X-Tronix Engrg, Box 875
St Laurent 9 Que 514 688-2560

MCKEE-PEDERSEN INSTRUMENTS, 200 FAIRWAY DR
DANVILLE, CAL, 94526 .... 415 837-9349
R MCKEE, EMP 3, ENG 2, $100-$250M

MCKIERNAN-TERRY MARINE DIV LITTON INDUSTRIES
580 WINTERS AVE, PARAMUS
N J, 07652 .... 201 265-2600
J MILLER, EMP 150, ENG 45, OVER $10,000M

MCLEAN ENGINEERING LABS, BOX 127
PRINCETON JUNCTION, N J, 08550 .... 609 799-0100
W ECKENHOFF, EMP 70, ENG 9, $1,000-$2,500M

Ala W A Brown & Assoc Inc, 1314 Buford St, N W
Huntsville 536-8393
Ariz T Louis Snitzer Co, 15 N 40th Pl
Phoenix 273-1673
Cal T Louis Snitzer Co, 9005 Exposition Blvd
Los Angeles 836-6170
Cal T Louis Snitzer Co, 1020 Corporation Way
Palo Alto 968-8304
Cal T Louis Snitzer Co, 1150 El Camino Del Mar
Del Mar 454-2191
Colo P L S Assoc, 7895 E Prentice Ave
Englewood 771-0140
Conn Technical Instruments Inc, 575 Broad St
Bridgeport .... FO 8-4582
Fla W A Brown & Assoc Inc, 3039 NE 32nd Ave
Ft Lauderdale .... LO 4-8000
Fla W A Brown & Assoc Inc, 222 Weber Ave
Orlando 425-5505
Ga W A Brown & Assoc, 1590 Cooledge Ave, N W
Atlanta 939-1674
Ill Bauman & Bluzat, 2925 W Touhy
Chicago 761-3630
Kan Poly-Onics Inc, 4434 W 90th Terr
Leawood .... NI 8-4173
Mass Technical Instruments Inc, 122 West St
Wilmington 658-9171
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield 357-3700
Minn Scott Electronic Sales, 5209 W 60th St
Minneapolis 929-2985
Mo Poly-Onics Inc, 47 Village Sq Shop Ctr
Hazelwood .... TE 7-0597
NJ K E Hughes Co, 2175 LeMoine Ave
Ft Lee 944-1600
NM P L S Assoc, 4200 B Silver Ave
Albuquerque 255-2330
NY J A Reagan Co Inc, 52B Crestmont Rd
Binghamton 723-9661
NY J A Reagan Co Inc, 6 Highland Ave
Albany 518 489-4777
NY J A Reagan Co Inc, 891 Monroe Ave
Rochester 473-2115
NC W A Brown & Assoc Inc, 1108 Burke St
Winston-Salem 725-5384
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland .... HI 2-8080
Ohio S Sterling Co, 2673 Culver Ave
Dayton .... AX 8-7573
Okla J A Green Co, Box 3209, Tulsa .... RI 2-4657
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh .... TU 4-5515
Tex John A Green Co, 7118 Envoy Ct
Dallas .... ME 1-7450
Tex John A Green Co, 3400 Montrose
Houston .... JA 6-2959
Va W A Brown & Assoc Inc, 325 First St
Alexandria .... TE 6-1800
Wash N R Schultz Co, 305 112th Ave NE
Bellevue 206 454-5224
Can Brian Engineering Ltd, 2445 Duncan Rd
Montreal, Que 735-1671
Can Brian Engrg Ltd, 45 Shaft Rd
Rexdale Ont 248-0226

MCLEOD OPTICAL CO INC, 357 WESTMINSTER ST
PROVIDENCE, R I, 02903 .... 401 421-2200
N MACLEOD JR, EMP 60, ENG 2
Mass McLeod Optical Co, 39 Lyman St
Springfield .... RE 4-8297
Mass McLeod Optical Co, 296 Main St
Northampton .... JU 4-5211

MCMAHON ELECTRONIC ENGINEERING RES & DEV
LAB, 381 W SEVENTH ST, SAN PEDRO
CAL, 90731 .... 213 833-4112
J LUNKES, EMP 12, ENG 5, UP TO $100M
Cal Wm J Barron Co, 1406 S Grand Ave
Los Angeles .... RI 8-6191
Ill R Edward Stemm Inc, 5681 W Lake St
Chicago .... ES 9-2700
Jap Hakuto Co Ltd, Box 25, Tokyo 501 3168

MCMARTIN INDUSTRIES INC, 3104 FARNAM ST
OMAHA, NEB, 68131, TWX 48-513 ..... 402 342-2753
G SMITH, EMP 160, ENG 6, $2,500-$5,000M
Cal F W Moulthrop & Assoc, 1530 E 12th St
Oakland 415 261-7676
Cal Carter & Rossney Assoc, 2600 W Olive
Burbank 213 843-3292
Fla John F Thompson Co, 322 Riverside Dr
Ormond Beach 904 667-2298
Ga Elliott Assoc, Inc, 534 Armour Cir, N E
Atlanta 404 873-3169
Haw Hawkins Audio Eng Inc, 2500 Kalakaua Ave
Honolulu 938-448
Ill Gorden Duvall Co, 6838 N Ottawa
Chicago 312 763-6785
Ind Robt Milsk Co, 3231 N Meridian
Indianapolis 317 923-1545
Ky Robt Milsk Co, 212 Republic Bldg
Louisville 502 964-0862
Mass Keene Sales Co, 156 Broad St
Lynn 617 595-1001
Mich Robt Milsk Co, 19375 James Couzens Hwy
Detroit 313 342-6660
Mich Robt Milsk Co, 200 N Division Ave
Grand Rapids 616 451-0615
Minn Clark R Gibb Co, 1311 W 25 St
Minneapolis 612 336-9700
Mo Kelly-Schmitz-Winkeler Assoc, 7546 Troost Ave
Kansas City 816 363-5651
Mo Kelly-Schmitz-Winkeler Assoc, 2319 Hampton Ave
St Louis 314 781-6111
NY Leonard D Allen Inc, Box 205
North Syracuse 315 458-7470

NY Joseph & Bain Assoc, 6 Grace Ave
Great Neck 516 487-9395
NC A W Greeson Jr, 219 Homewood Ave
Greensboro 919 292-1791
Ohio H H Seay Co, 3850 Fairlington Dr
Columbus 614 451-6611
Tex Wyborny Sales Co, Box 17070
Dallas 214 381-4645
Utah J E Hall Co, 205 N 2300 W
Salt Lake City 801 328-0921
Wash Paratech, 2208 NW Market St
Seattle 206 784-6447
Can Delbee Assoc Ltd, 70 Port Royal E
Montreal 12 Que 514 381-3097

MCMASTER PRODUCTS CORP, 4200 W VICTORIA AVE
CHICAGO
ILL, 60646, TWX 910-221-2576 .... 312 583-5100
A TROZZO, EMP 150, ENG 20, $2,500-$5,000M
DC Mechtronics Sales Inc, 7600 Georgia Ave NW
Washington 291-6004
NJ Avionics Equip Inc, 179 Louise St
Clifton 772-1956
NY L-Tron Corp, Box 147, Skaneateles 685-6172
Wash N R Schultz Co, 220 S Hudson St
Seattle 762-7800
Can Wilson Enterprises, Box 688
Markham, Ont 297-1289

MCMILLAN RADIATION LABS INC, BROWNVILLE AVE
IPSWICH
MASS, 01938, TWX 710-390-1133 .... 617 356-5761
M MULLIGAN, EMP 123, ENG 18, $1,000-$2,500M
Cal J Olson, 18345 Ventura Blvd, Tarzana 345-4000
DC Lundy Elctn & Systems, 1750 Penn Ave NW
Washington 298-5995
Fla William Ashworth, 3901 N E 12th Ave
Pompano Beach 941-1800
Kan R Wm Rapp, 8114 Peachtree LA
Wichita 684-2733
NY Henley & Co, Inc, 202 E 44th St
New York .... YU 6-5544
NY Sassoon Sopher, Inc, 630 Fifth Ave
New York .... CI 6-0670

MCNAB INC, 165 SPRING ST, NEW YORK
N Y, 10012 .... 212 966-2625
R RYAN, EMP 25, ENG 2, $250-$500M
Cal ETS-Hokin Corp, 218 Avalon Blvd
Wilmington .... 213 TE 5-5601
La Young Engr Co Inc, Box 50327
New Orleans 504 522-6292
NJ J E Fouchaux Co, Box 1286
Paterson 201 427-4690
Ohio Ashmead-Danks Co, 316 Marion Bldg
Cleveland .... 216 MA 1-6192
Wash Branom Instr Co, 2133-37 2nd Ave
Seattle .... 206 MA 2-7320

MCPHERSON INSTRUMENT CORP SUB GCA CORP
530 MAIN ST, ACTON, MASS, 01720 ... 617-263-7733
S HAMMOND, EMP 60, ENG 5
Cal McPherson Instrument Corp, 1724 Lyans Dr
LaCanada 213 790-1274
Fr Radiophon Corp, 148 Ave Malakoff, Paris
Ger Kontron, GmbH Co, Heidemannstr 8, Munchen
GB Ealing Scientific Co, 23 Leman St, London
Jap H Nisshio Corp, 2, I-chome Otemachi, Tokyo
Swit Kontron Ltd, 8031, Zurich
Isrl Eastronics Inc, 75 Haifa Rd, Tel Aviv
Aust Astronics Import, Box 192 G P O, Melbourne

MCS CORP, 1307 S MYRTLE AVE, MONROVIA
CAL, 91016, TWX 910-585-3482 .... 213 357-3285
A COVERLEY, EMP 70, ENG 6, $500-$1,000M

MDC INDUSTRIES, 923 W SCHILLER ST
PHILADELPHIA, PA, 19140 .... 215 BA 3-2957
B LYNN, EMP 15, ENG 2, UP TO $100M

MEADOWS TERMINAL BOARDS
22185 HOMESTEAD RD, CUPERTINO
CAL, 95014 .... 408 732-1252
H KUREK, EMP 5, ENG 1, $100-$250M

MEASUREMENT CONTROL DEVICES INC
2445 EMERALD ST, PHILADELPHIA
PA, 19125 .... 215 426-8602
J BLACK, EMP 125, ENG 9, $1,000-$2,500M
Ala Col-Ins-Co Inc, 2109 W Clinton Bldg
Huntsville 205 539-1771
Cal Wieler & Co, 10842 Paramount Blvd
Downey 213 861-9223
Cal Scott P Davis Co, 1 First St
Los Altos 415 948-7472
Colo Vinson Assoc, 3600 S Lincoln
Englewood 303 789-2203
Fla Col-Ins-Co Inc, 1313 - 44th St
Orlando 305 423-7615
Ga Col-Ins-Co Inc, 200 Carrington Way
Marietta 404 422-8327
Ill Laub Engineering, Box 8
Northfield 312 446-4166
Kan Leemark Engineers Inc, Box 6175
Leawood 913 648-0124
Mass Daner Assoc, 684 Commonwealth Ave
Newton Center 617 969-4650
Mich Anderson Electronics, 19471 James Couzens Hwy
Detroit 313 342-7133
Minn Engineering Prods Assoc, 2119 Grand Ave
St Paul 612 698-5531
Mo Leemark Engineers Inc, 9623 St Charles Rock Rd
St Louis 314 647-4548
NM Vinson Assoc, Box 3295 Stat D
Albuquerque 505 298-7442
NY Crane & Egert Corp, 127 Rockaway Ave
Valley Stream 561-7791
NY Brooks Delektro Inc, 41 E 42nd St
New York 212 687-4940
NY Crane & Egert Corporation, 146 Meacham Ave
Elmont 516 488-2100
NC Col-Ins-Co Inc, 3925 Guinevere La
Winston-Salem 919 765-3650
Ohio Harvey Teplitz & Co, 3718 Salem Ave
Dayton 513 277-9178
Ohio Harvey Teplitz & Co, 3945 Meadowbrook Blvd
Cleveland 216 371-2044
Ore Richard Legg Co, 4475 SW Scholls Ferry Rd
Portland 503 292-8824
Pa W F Assoc, Broad & Chestnut
Philadelphia 215 546-4121
Tex Roger Martin Assoc, Box 1002
Bellaire 713 468-3877
Tex Roger Martin Assoc, Box 64513
Dallas 214 358-5407
Can Electrodesign Ltd, 9124 St Lawrence Blvd
Montreal 11 Que 514 389-5914
Can Electrodesign Ltd, 83 Arthur St
Ottawa 4 Ont 613 233-8815
Can Electrodesign Ltd, 3433 Bathurst St
Toronto 19 Ont 416 787-0991
Fr Litton Prec Prods Intl Inc, 120 Ave Des Champs
Elysees 75 Paris
Ger Litton Prec Prods Intl Inc, 8 Munich 61, Stolzingstr
GB Litton Prec Prods Intl Inc, 503 Uxbridge Rd
Hayes Mdsx
Ital Litton Prec Prods Intl Inc, Foro Bonaparte 54
20121 Milano
Swed Litton Prec Prods Intl Inc
Grev Teregatan 2 Box 7277, Stockholm
Swit Litton Prec Prods Intl Inc, Box 125, 1110 Morges
BC Aurora Tech Indust Ltd, 2-650 Clyde Ave
W Vancouver 604 922-0136
Belg Litton Prec Prods Intl, 16 Rue Du Musee, Brussels 1

MEASUREMENTS A MCGRAW-EDISON DIV, BOX 180
BOONTON, N J, 07005 .... 201 334-2131
J REDINGTON
Ala Murphy & Cota, 904 Bob Wallace Ave
Huntsville 205 536-9120
Ariz F Y Gates Co, 732 Elm St, Mesa 602 969-4421
Cal IFM North, 2269 E Middlefield Rd
Mt View 415 961-2828
Cal IFM South, 3455 Cahuenga Blvd
Los Angeles 213 469-1641
Colo F Y Gates Co, 3401 S Bannock
Englewood 303 761-0591
Conn Ray Perron & Co, 36 Lewis St
Trumbull 268-9631
Conn Ray Perron & Co, 10 Briarwood Rd
Farmington 677-9025
Fla Murphy & Cota, 712 W Vassar St
Orlando 305 424-2407
Ill Midwest Elctn Sales, 5707 W Division St
Chicago 312 626-0030
Ind Midwest Elctn Sales, 5426 E 40th St
Indianapolis 317 547-3259
Md Gawler-Knoop Co, 1751 Rockville Pike
Rockville 301 427-3950
Mass Ray Perron & Co, 1870 Centre St
Boston 323-1008
NH Ray Perron & Co, 19 Caron Rd RFD 2
Manchester 472-4091
NJ Gawler & Knoop Co, 14 Beaufort Ave
Roseland 212 344-2997
NM F Y Gates Co, 2631 Texas NE
Albuquerque 298-1875
NC Murphy & Cota, 1106 Burke St
Winston-Salem 919 724-0750
Ore Tarbell Communications, 312 Standard Pl
Portland 228-4111
Pa Gawler-Knoop Co, Box 414
Richboro 215 925-7550
Utah F Y Gates Co, 455 E 4th S
Salt Lake City 359-1101
Wis Midwest Elctn Sales, 1317 Garfield Ave
Waukesha 414 542-5129
Can H Roy Gray Ltd, 14 Laidlaw Blvd
Markham, Ont 297-1476
For Sylvan Ginshory Ltd, 72 W 45th St
New York NY 212 687-3213

MEASUREMENT SYSTEMS INC, 523 WEST AVE
NORWALK, CONN, 06850 .... 203 838-5561
M MEHR, EMP 20, ENG 3, $100-$250M
Cal King-Way Assoc, 11168 Santa Monica Blvd
Los Angeles 473-8000
Ohio Rep/Corp, 2077 Embury Park Rd
Dayton 513 278-5885

MEASUREMENT TECHNOLOGY CORP
7124 OWENSMOUTH AVE, CANOGA PARK
CAL, 91303 .... 213 887-9300
M ASNES, EMP 10, ENG 4, $250-$500M
Ala Gentry Assoc, 2109 Clinton Bldg
Huntsville 205 534-9771
Cal Blair Assoc, 421 N Brookhurst St
Anaheim 714 635-1350
Cal Kipp Assoc, 90 Stadler Dr
Woodside 415 851-0123
Colo Kelley Enterprises, 336 E 4th St
Loveland 303 667-1376
Fla Gentry Assoc, 550 N Bumby Ave
Orlando 305 841-7740
Ga Gentry Assoc, Box 13513 Sta K
Atlanta 404 233-3816
Ill Kenneth W Meyers Co, 7256 W Touhy Ave
Chicago 312 774-6440
Kan Simpson Enterprises, Southeast Sta Box 18066
Wichita 316 943-0502
Md EA Inc, 1406 Shoemaker Rd
Baltimore 301 825-2385
Mass Microwave Consultant Corp, 195 West St
Waltham 617 899-4400
Mich Microsales Corp, 650 Greenlawn
Ypsilanti 313 483-1229
Minn Kenneth W Meyers Co, 4725 Excelsior Blvd
Minneapolis 612 920-7080
NY CDB Enterprises, 675 W Jericho Tpk
Huntington 516 692-5200
NY Lightstone Corp, E Molloy Rd
Syracuse 315 454-3209
NC Gentry Assoc, Box 197
Jamestown 919 883-4521
Ohio Microsales Corp, 1250 W Dorothy La
Dayton 513 298-3033
Ohio Microsales Corp, 2000 Lee Rd
Cleveland 216 371-0522
Tex Kelley Enterprises, 5432 Vancover St
El Paso 915 751-3843
Tex Texas Avionics, 4515 Prentice St
Dallas 214 363-6324
Wash Seatronics Inc, 5931 4th Ave S
Seattle 206 767-4330
Can Douglas Randall Ltd, 126 Manville Rd
Scarborough 416 571-7911
For Microwave Intnl Corp, 111 High Ridge Rd
Stamford, Conn 203 348-7704

MEASURING INSTRUMENT CONTROLS INC
438 SPRINGFIELD AVE, BERKELEY HEIGHTS
N J, 07922 .... 201 464-4711
EMP 5, ENG 2, UP TO $100M

MECA ELECTRONICS, INC, 459 E MAIN ST, DENVILLE
N J, 07834 .... 201 625-0661
B BAKER, EMP 22, ENG 4, $250-$500M
Ala Int'l Scientific Instru, 614 Madison St S
Huntsville 536-9686
Cal Townsend Tech Sales, Box 265
Saratoga 408 252-3478
Cal Manufacturing Assoc, 1738 Colorado Ave
Santa Monica 213 479-8884
Mass John Q Neenan Assoc, Box 203
Sudbury 893-0914
Mo Palatine Engrg Sales, 2050 Woodson Rd
St Louis 314 426-7055
NY B D Aaron & Co, 55 Northern Blvd
Greenvale 516 621-0630
NC Candor Co, Bethania 919 924-1480
Pa Bartlett Assoc, 130 W Lancaster Ave
Wayne 215 688-7325

MECHANICAL PRODUCTS INC
1824 RIVER ST BOX 729, JACKSON
MICH, 49204, TWX 517-787-1962 .... 517 782-0391
R ROBSON, EMP 450, ENG 16
Cal Mechanical Products Inc, 8155 Van Nuys Blvd
Panorama City 781-8966
Minn Kirkeby & Assoc, Inc, 821 2nd Ave N
Minneapois 377-3239

MECHANICAL RUBBER PRODUCTS CO, INC
FORESTER AVE, WARWICK
NY, 10990 .... 914 986-2271
F MCCARTHY, EMP 150, ENG 3
Cal Cal-State Seal Co, 10601 Acacia St
Garden Grove .... JE 4-7837
Conn Thos J Reidy, Box 167, Avon 658-5553
Ind Hoster Assoc, Inc, 1627 W 75th Pl
Indianapolis .... CL 1-2566
Md C R Robison, 241 Hawthorn Rd
Ellicott City 465-1551
Mass D M Rowley, Box 131, Islington Sta
Westwood 769-3860
Mich Plas-Tronics, Inc, 565 E Milwaukee
Detroit .... TR 2-7000
Minn Pray & Pray, Box 5221, St Paul 612 664-3825
NY F H Brenneman, Drawer M, Victor 716 924-3710
NC Melloy Sales, 1100 Redcoat Dr
Charlotte 704 366-3046
Ohio S Hojnowski, 20010 Sumpter Rd
Cleveland 216 662-3569
Pa E Evans, Box 114, Lancaster 392-1653
Pa Glaser-Miller Co, Box 632, Bryn Mawr .... LA 5-8050
Tenn Melloy Sales, 179 Lakewood Cir
Nashville 615 352-8385
Tenn Melloy Sales, 4711 Old Kingston Pike
Knoxville 615 584-4124
Tex Berry Co, 2710 Oak Lawn, Dallas .... 214 LA 8-0461

MECHANICAL TECHNOLOGY INC
968 ALBANY SHAKER RD, LATHAM
N Y, 12110 .... 518 785-2211
J AUBERT, EMP 250, ENG 125, $5,000-$10,000M
Ala Space Engineering Sales, 4306 Governors Dr SW
Huntsville 837-6060
Cal Tucul Engineering, 6402 Crenshaw Blvd
Los Angeles 750-0338
Cal Howard & Co, 294 Lawrence Ave
S San Francisco 589-3050
Conn Kent Davis, Box 67, New Milford 354-3467
Haw Pacific Instrumentation, 4950 Kilauea Ave
Honolulu 747-809
Ind Maher Engineering, 13 Broadway
Des Plaines 824-2124

Md Paddock-Joslow, 721 Ellsworth Dr
Silver Spring 589-6554
Mass D H Stewart, 216 Burroughs Rd
Braintree 848-1477
Mich Lowry-Dietrich Co, 600 Michigan Bldg
Detroit 961-4540
Mo Louis A Hoppe Co, 148 Hanley Ind Ctr
St Louis 647-3420
NJ NLR Assoc, 617 Bloomfield Ave
Verona 239-4747
NY Penhall Assoc, Farmington Rd, Manlius ... 682-9816
NC Space Engrg Sales, 2509 Lakeshore Dr
Greensboro 299-0987
Ohio Lowry-Dietrich, 1276 W 3rd St
Cleveland 781-1855
Pa Lowry-Dietrich Co, 90 Clairton Blvd
Pittsburgh 892-2992
Tex Space Engineering Sales, Box 68, Azle ... 257-4646
Utah Peirce Bowthorpe Agency, 143 S 4th E
Salt Lake City 328-8173
Wash Cane Jessup Co, Box 250, Bellevue 454-0691
Can Simmonds Aerocessories, 637 Parkdale Ave, N
Hamilton, Ont 547-1248
For Teknis Inc, 95 South St
Plainville, Mass 695-3591

MECHANICS FOR ELECTRONICS INC, 152 SIXTH ST
CAMBRIDGE
MASS, 02142, TWX 710-320-6657 ...... 617 864-8130
R HUBBELL, EMP 35, ENG 5, $500-$1,000M
Ariz Thorson Co, 2505 E Thomas Rd
Phoenix 264-5878
Cal Thorson Co, 2443 Ash St, Palo Alto ..... DA 1-2414
Cal Thorson Co, 444 Olive St, San Diego .... CY 8-8345
Cal Thorson Co, 6824 Melrose Ave
Los Angeles .... WE 7-0790
Cal Thorson Co, 2114 N Broadway
Santa Ana 547-6206
Colo Thorson Co, 300 E Hampden Ave
Englewood .... SU 9-1841
Ill R Edward Stemm Inc, 17W480 Lake St
Addison 279-2440
Minn R Edward Stemm Inc, 2713 Lyndale Ave
Mnpls 822-8404
NY H C Johnson Agencies Inc, 111 Mt Hope Ave
Rochester .... HA 6-1090
NY H C Johnson Agencies, Inc, 8 Los Robles St
Williamsville 632-7880
NY H C Johnson Agencies, Inc
Box 86, Brandywine Sta, Schenectady .. 374-5901
NY Travco Assoc, Inc, 142 Mineola Ave
Roslyn Heights 621-3223
Ohio Jerry Kilroy Corp, 15517 Dale Rd
Chagrin Falls 338-5123
Pa Victor S Malta Co, 801 Preston Rd
Phila .... VE 6-5122
Tex Thorson Co, 7700 Carpenter Frwy
Dallas .... ME 1-5440
Tex Thorson Co, 3312 Marquart, Houston .... NA 1-0990
Wash Thorson Co, 1767 15th Ave, S, Seattle .. EA 5-5000
Can Electromechanical Products, Markham Rd
Agincourt, Ont .... AX 3-7011

M E C, 796 BERRY RD, NASHVILLE
TENN, 37204 .... 615 298-3376
M HORN, EMP 130, ENG 6, $500-$1,000M
Ariz Electronic Sales Co, 2314 N Stone Ave
Tucson 887-3471
Conn Sales Engineering Co, Taunton Hill Rd
Newtown 247-4015
Fla Wm M Jones Co Inc, Box 60048
Orlando 424-6298
Ga Wm M Jones Co Inc, 2666 Redding Rd NE
Atlanta 261-8275
Ill Thos B Hunter Assoc, 5653 W Irving Park Rd
Chicago 777-2500
Ind James R Neff, 5349 Hedgerow Dr
Indianapolis 546-5824
Md Wm M Jones Co Inc, 1107 Echo Court N
Towson 823-5721
Mass Sales Engineering Co, Baker Ave
W Concord 369-3943
Minn G E Arneson & Co, 4900 Viking Dr
Mnpls 920-2086
Mo R R Burton Sales Co, 9915 E 63rd St
Raytown 358-5370
NY Levison Sales Co Inc, 5 Sunrise Plaza
Valley Stream 561-9696
NY Walter M Onyx Co, Box 4, Mattydale 479-6561
Pa Cooper-Clement Assoc, 835 Glenside Ave
wyncote 548-5450
Tex Geo Weinreich & Assoc, 11554 E Northwest Hwy
Dallas 321-2800
Wis Rubinstein Sales, Williams Dr
Cedarburg 377-5436

MECHTRONICS CORP, 1635 N 25TH AVE
MELROSE PARK, ILL, 60160

MEDISTOR INSTRUMENT CO, 4503 8TH AVE NW
SEATTLE, WASH, 98107 .... 206 SU 4-8141
W HAMM, EMP 20, ENG 2

MEDTRONIC INC, 3055 OLD HWY 8, MINNEAPOLIS
MINN, 55418, TWX 029-5307 .... 612 781-6855
G SEBRING, EMP 350, ENG 20, $5,000-$10,000M
Ala C Cummings, 1736 B Woodcrest Rd
Birmingham 205 251-4636
Cal Electro-Medical Engrg Co, 740 N Lake St
Burbank 213 849-6851
Colo ValleyLab Inc, 980 Simms, Golden ... 303 237-4021
Conn A F Morrison Co, 298 Danbury Rd
Wilton 203 762-8334
Fla L Kirkpatrick, 316 Aragon Ave
Coral Gables 305 445-7431
Fla L Gadbaw, 2328 Chinook Trail
Maitland 305 647-8501
Ga C Barfield, 1001 Virginia Ave
Atlanta 404 762-8601
Ill M Neu, 381 N York St, Elmhurst 312 834-4800
Ky Malkin Instrument Co, 962 Baxter Ave
Louisville 502 587-0776
Minn R Berg, 3055 Old Hwy 8
Minneapolis 612 781-6855
Mo Medtron Midwest, 7530 Big Bend
St Louis 314 644-1500
NY B Coburn Co Inc, 5800 Main St
Buffalo 716 634-2820
Ohio The Dann Co, 1801 E 40th St
Cleveland 216 391-7240
Ore Corvek Medical Equipment, 1005 NW 16th Ave
Portland 503 227-7559
Tex Medical Specialty Co, 1231 W Magnolia
Fort Worth 817 926-5295
Va Cardio Pace Co Inc, 4821 Dodson Dr
Annandale 703 354-5024
Wis S Anderson, W-182 N 5909 Spruce La
Menomonee Falls 414 252-3167
Can John Hay & Co Ltd, 2155 W Broadway
Vancouver 604 738-7168
For Picker Intl Corp, 1275 Mamaroneck Ave
White Plains, NY 914 948-0080

MEGADYNE INDUSTRIES INC, 1665 BUFFALO RD, ROCHESTER
N Y, 14624
J ADAMS, $100-$250M
ADV PG 415
Ariz Luscombe Engrg Co, 222 Osborn Rd
Phoenix 602 274-1542
Cal Luscombe Engrg Co, 610 Arroyo Pkwy
Pasadena 213 684-2000
Iowa Thomas & Modrcin Assoc, 890 17th Ave
Marion 319 377-6261
Kan Thomas & Modrcin Assoc, 5450 Buena Vista
Shawnee Mission 913 432-2131
Mass Brookdale-Richter Engrg Co, 348 Lake Ave
Newton Highlands 617 826-2821
Minn R J Sales & Engrg, 7100 S France Ave
Mnpls 612 922-1425
NY R F Kennedy, 39 Saginaw Dr
Rochester 716 271-6322

MEGA ELECTRONICS CORP, 1612 W 134TH, GARDENA
CAL, 90249 .... 213 321-4246
R GEORGE, EMP 20, ENG 1, $100-$250M

MEGA ENGINEERING CO, 2271 MORA DR
MOUNTAIN VIEW, CAL, 94041 .... 415 961-7500
E BUCHS, EMP 15, ENG 2, $250-$500M
Mass Alkaline Batteries Corp, 1 Ferry St
Easthampton 527-1200

MEGURO DENPA SOKKI K K
5-1, 2-CHOME, CHUO-CHO, MEGURO-KU, TOKYO
JAPAN 711-7191
E YOSHINO, EMP 145, ENG 95, $1,000-$2,500M

MEKTRON DIV, CALIF GEN CORP INC, 798 F ST
CHULA VISTA, CAL, 92012 .... 714 420-5007
D PRETOT, EMP 17, ENG 2, $250-$500M
Ariz Fryco, Box 464, Scottsdale 945-3281
Cal Sea Horse Electronics, 6727 Muscatel
San Gabriel 287-0997
Fla Poly Tronix, Box 17608, Orlando 295-5294
Tex S B & H CO, 2930 Merrell Rd
Dallas 214 358-3807
Wash Tomelco/Moulton, 15846 Pacific Hwy S
Seattle 246-1727

MELABS, 3300 HILLVIEW AVE, PALO ALTO
CAL, 94304, TWX 910-373-1777 .... 415 326-9500
F BREWER, EMP 422, ENG 45, $5,000-$10,000M
Ala Gentry Assoc, 2109 W Clinton Ave
Huntsville 205 534-9771
Cal Allgood Assoc, 1621 Centinela Ave
Inglewood 213 776-5820
Cal Allgood Assoc, 2680 W Bayshore
Mt View 415 961-9686
Colo Ed W Johnson, 10130 W Asbury Ave
Denver 985-4810
Fla Gentry Assoc, 550 N Bumby
Orlando 305 841-7740
Ga Gentry Assoc, Box 13513 Sta K
Atlanta 404 233-3816
Ill Dave Hausten Co, 614 Arbor Ave
Wheaton 668-7312
Md Electronic Marketing Assoc, 11501 Huff Ct
Kensington 946-0300
Mass Reptron Inc, 110 Great Rd, Bedford 275-8585
Mo Maury E Bettis Co, 3706 Broadway
Kansas City 561-0772
NJ Gawler-Knoop Co, 14 Beaufort Ave
Roseland 201 226-4545
NY Gray & Reed Assoc Inc, 9 Dunford St
Huntington Station 433-3333
NY J D Ryerson Assoc, Inc, Box 8369
Rochester 442-1900
NC Gentry Assoc, Box 197
Jamestown 919 454-1919
Ohio Rep/Corp, 2077 Embury Park Rd
Dayton 278-5885
Pa Electronic Marketing Assoc, 210 Goddard Blvd
King of Prussia 215 265-1600
Tex Dunbar Assoc, 417 Meadows Bldg
Dallas 363-2536
Can Microwave Specialty Co Ltd, 8490 Lafrenaie St
Montreal 38 Que 514 324-1780
For L M Desmaras, S A C, Alameda 1150, Casilla 761
Santiago de Chile
For San Juan Electronics, Inc, Box 5167
Pta de Tierra Sta .... San Juan, P. R.
Fr Technique & Produits
Cite Des Bruyeres Rue Carle-Vernet, 92 Sevres
GB Walmore Electronics Ltd, 11-15 Betterton St
London W C 2
Ital Motordiesel, Casella Postale N 116, La Spezia
Jap Marubun Co, 1, 2-Chome, Odenmacho, Nihonbashi
Chuo-Ku Tokyo
Nor N E C O A/S Norsk Elektro Compani, Tollbugt 4
Oslo
SAfr Nucleonic Eng Pty Ltd, Box 1257
Braamfontein, Johannesburg
Swed Scantele AB, Tengdahlsgatan 24, Stockholm
Belg Melabs S A, 393 chausee de Stockel
Brussels 71-00-32
Fin Nores & Co Oy, Fabianinkatu 32, Helsinki
Aust Sample Electronics Pty Ltd, 9-11 Cremorne St
Victoria
Aust Sample Electronics Pty Ltd, 82 Alexander St
Crow's Nest NSW

MELCOR ELECTRONICS CORP, 1750 NEW HIGHWAY
FARMINGDALE
N Y, 11735, TWX 510 224-6429 .... 516 694-5570
J BRICK, EMP 95, ENG 8, $1,000-$2,500M
ADV PG 33
Cal IFM - South, 3455 Cahuenga Blvd
Hollywood 469-1641
Cal IFM - North, 2269 East Middlefield Rd
Mountain View 961-2828
Fla Tech-Rep Assoc, Inc, Box 2095
Melbourne 723-9140
Ill J D Allyn Co, 419 S Bruner St
Hinsdale 325-0495
Md Barnhill & Assoc, 1931 Greenspring Dr
Timonium 252-5610
Md Electronic Sales Assocs Inc, 12050 Tech Rd
Silver Spring 622-2246
Mass Ray Perron & Co, 1870 Centre St
Boston 323-1008
Mo Engineering Services Co, 6717 Vernon Ave
St Louis 726-2233
NY J Kunze Assoc, 29 Jefferson St
Glen Cove .... OR 1-2376
Ohio Rixan Assoc Inc, 33 Stratford Ave
Dayton .... BA 2-0011
Can Datacomp Elctns Ltd, 1477 Eglinton Ave W
Toronto Ont 789-5732
For Total Electronics Int'l Inc, 301 Mill Rd
Hewlett 374-9620

MELETRON CORP, 940 N ORANGE DR, LOS ANGELES
CAL, 90038, TWX 67-7234 .... HO 3-4841
M NELSON, EMP 100, ENG 4, $1,000-$2,500M

MELLER CO, ADOLF, BOX 6001, PROVIDENCE
R I, 02904 .... 401 331-3717
R MELLER, EMP 35, ENG 5, $500-$1,000M

MELLOWES CO, 125 E NASH ST, MILWAUKEE
WIS, 53212, TWX 910-262-3126 .... 414 264-5090
J FISCHER, EMP 35, ENG 2, $250-$500M
Cal C E Moffet & Co, 120 S Vignes St
Los Angeles 213 626-5183
Cal C E Moffet Co, 340 Bryant St
San Francisco 415 421-2384
Colo Regional Sales Co, 1719 Boulder
Denver 303 433-7397
Del D B Lilly Co Inc, Box 2285
Wilmington 302 328-6675
Iowa Fred Lagerholm, 340 43rd St
Des Moines 515 277-9513
Kan Carl W Hilton, 3207 W 92nd St
Leawood .... MI 9-8422
Mass Burr & Moynihan, 315 Grove St
Worcester 617 791-8444
Mich C E Von Der Heide & Assoc, 211 Washington Plaza
Royal Oak .... KE 2-4566
Mich Gillespie Sales Eng Co, 515 Cambridge Blvd SE
Grand Rapids .... 616 GL 4-9511
Minn Palmer Selness, 6705 Cahill Rd
Minneapolis 941-1246
NY F Sheehan, Box 271, Skaneateles 315 865-6687
NY H T O'Donnell, 303 W 42nd St
New York 212 581-7447
Ohio W A Hepner & Assoc Inc, 2019 Jefferson Ave
Toledo 419 243-9261
Ohio R L Morrissey & Assoc, 1925 Lee Rd
Cleveland 216 321-7616
Ore Dan C Tiffany & Co, 4000 S W Macadam
Portland 503 222-9203
Tenn J R Richards & Assoc, Box 8335
Chattanooga 615 892-8405
Tex J J Stiegman & Assoc, 4515 Prentice St
Dallas 214 368-1766

MELPAR INC, SPECIAL PRODS DEPT, 7729 ARLINGTON BLVD
FALLS CHURCH
VA, 22046, TWX 710 831-9802 .... 703 534-6000
C MAUCH
ADV PG 145, 204, 310, 355, 458
Cal Collins & Hyde Inc, 5380 Whittier Blvd
Los Angeles 685-6540
Cal Collins & Hyde Inc, 900 N San Antonio Rd
Los Altos 941-3355
Ill Bauman & Bluzat, Box 364, Northtown
Chicago 761-3630

Md L G White & Co Inc, 880 Bonifant St Silver Spring ... 585-3141
NC L G White & Co Inc, 1020 Brookstown Ave Winston-Salem ... 725-3612
Ohio Ashby Assoc, 4130 Linden Ave Dayton ... 513 252-5627
Pa L G White & Co Inc, 100 Essex Ave Narbarth ... 664-6505
Tex Scott Technical Sales, Box 30324 Dallas ... 352-7698

MEL-RAIN CORP, 3100 ROOSEVELT AVE
INDIANAPOLIS
IND, 46218, TWX 027-2122 ... 317 ME 7-3531
S MORRIS, EMP 175, ENG 3, $1,000-$2,500M
Cal W S Harmon Co, 6118 Venice Blvd Los Angeles ... 937-1460
Ill Rinaldi Sales, 6319 N Central, Chicago ... 763-4848
Ind R O Whitesell & Assoc, Central Bldg Ft Wayne ... 743-4411
Ind R O Whitesell & Assoc, 6620 E Washington Indianapolis ... FL 9-5374
Ky R O Whitesell & Assoc, Lex Manor Bldg Louisville ... 893-7303
La Gordan V Peck Co, 4771 Spain St New Orleans ... 282-1553
Mass H Mandell Co, Box 24, Revere ... 289-3787
Mich R O Whitesell & Assoc, 303 Fidelity Bldg Benton Harbor ... 927-2041
Mich R O Whitesell & Assoc, 16801 Wyoming Ave Detroit ... 862-2225
Minn Rhode Electronics, 2510 E 7th Ave St Paul ... 777-8197
Mo Technical Marketing Assocs, Woodsen Park Bldg St Louis
Mo Technical Marketing Assocs, Box 5324, Kansas City
NY Fred Spellman Co, 1295 Northern Blvd Manhasset ... MA 7-3399
NY Fowler Beach Corp, 3700 East Ave Rochester ... LU 6-0468
Ohio R O Whitesell & Assoc, Mager Bldg Cleveland ... 333-2585
Ohio R O Whitesell & Assoc, 4133 S Dixie Ave Dayton ... 298-9546
Ohio R O Whitesell & Assoc, 1172 W Galbraith Cincinnati ... 521-2290
Okla Gordon V Peck Co, Box 1567, Tulsa
Pa R T Pearson Sales, 1125 York Rd Abington ... TU 7-0186
Pa R O Whitesell & Assoc, 201 Penn Center Blvd Pittsburgh ... 241-6100
Tex Gordon V Peck Co, 210 Casa Linda Plaza Dallas ... DA 8-3511
Tex Gordon V Peck Co, 5757 Bellaire Blvd Houston ... 664-1435

MELSTROM MFG CORP, 103 N FELTUS ST
SOUTH AMBOY, N J, 08879 ... 201 721-6300
H MELNICK, EMP 25, ENG 2, $500-$1,000M

MELTRONICS INC, 54 ANCHOR DR, MASSAPEQUA
NY, 11758, TWX MRS M MIELE ... 516 541-7691
EMP 10, ENG 1, UP TO $100M
Cal Gerry Sales, Box 1901, Glendale ... 213 246-2517
Fla D & E Assoc, 1 N Rosalind Ave Orlando ... 305 644-3039
NJ Budd-Tronics Inc, 71 Grayson Pl Teaneck ... 201 837-1660

MEMCOR DIV LTV ELECTROSYSTEMS INC
41 E PARK DR, HUNTINGTON
IND, 46750, TWX 810-333-1531 ... 219 356-4300
C HORVATH, EMP 1800, ENG 135, OVER $10,000M
DC Memcor Div, 815 Connecticut Ave N W Washington ... 298-7365
Mich Memcor Courter Oper, 375 N Lake St Boyne City ... 582-6526
Utah Memcor Montek Oper, 4675 S State St Salt Lake City ... 262-2461

MEMOREX CORP, 1180 SHULMAN AVE, SANTA CLARA
CAL, 95052, TWX 910-338-0131 ... 408 248-3344
W GASKINS, EMP 1500, ENG 380, OVER $10,000M
Cal B Patsuris, 1291 Fifth Ave, Belmont ... 593-1691
Cal J C Wiegers, 1045 Gayley Ave Los Angeles ... 213 478-6108
Colo R Crain, 601 Broadway St, Denver ... 303 244-5473
Conn W Dwyer, Vernon Cir, Vernon ... 203 643-9619
Fla J C Lory, 5331 W Colonial Ave Orlando ... 305 295-2635
Ga W Beavers, 3033 Maple Dr NE Atlanta ... 404 261-4865
Ill Venon A Kuellmer, 595 N York Elmhurst ... 312 834-8922
Md Sneath, C Wagner, 4905 Delray Ave Bethesda ... 654-2545
Mass J Armstrong, 100 Merrimack St Lowell ... 617 458-6322
Mich C Krueger, 24638 Northwestern Hwy Southfield ... 313 353-2670
Minn L Lindsey, 7710 Computer Ave Minneapolis ... 612 926-4616
Mo E Higdon, 1750 S Brentwood Blvd St Louis ... 314 961-7070
NJ G Kulper, R Funk, J Becker, 225 Rte 46 Totowa ... 256-4100
NJ G Heitel, 212 Haddon Ave Westmont ... 609 854-1196
NJ M G Kulper, 225 Route 46, Totowa ... 201 256-4100
NY Irr Hamlin, 60 Oswego St Baldwinsville ... 315 458-6672
NY B Reeder Jr, 680 Troy-Schenectady Rd W Latham ... 518 785-4660

NC R H Mallins, 285 S Stratford Rd Winston-Salem ... 919 725-1969
Ohio Alfred Domine, 4130 Linden Ave Dayton ... 513 254-8911
Ohio J R Studer, 25000 Euclid Ave Cleveland ... 216 732-8007
Ore P Macey, 6846 N Interstate Ave, Portland
Pa W J Ringler, 3413 Babcock Blvd Pittsburgh ... 412 366-3302
Tex R E Geiser, 1625 W Mockingbird La Dallas ... 214 638-2430
Tex C Schlinke, 1614 S Post Oak Houston ... 713 622-1413
Utah D L Giauque, 543 E 5th S Salt Lake City ... 801 328-2857
Wash S Bennatts, 808 106 Ave NE Bellevue ... 206 454-0662

MEMORY TECHNOLOGY INC, 223 CRESCENT ST
WALTHAM, MASS, 02154 ... 617 891-8465
M GUTMAN, EMP 15, ENG 5, $250-$500M
Ala Col Ins Co, Box 4246, Huntsville ... 205 539-1771
Ariz King Engineering, 5045 N 12th St Phoenix ... 602 266-3485
Cal King Engineering, 15720 Ventura Blvd Encino ... 213 981-0161
Cal King Engineering, Box 544 Escondido ... 714 745-2310
Cal King Engineering, 525 Grant San Mateo ... 415 342-9645
Fla Col Ins Co, 1313 44th St, Orlando ... 305 423-7615
Ga Col Ins Co, 200 Carrington Way Marietta ... 404 422-8327
NY Crane & Egert, 146 Meacham Ave Elmont ... 516 488-2100
NC Col Ins Co, Box 5597 Winston-Salem ... 919 765-3650
Pa Denco Data Engrg Co, 500A E Godfrey Ave Philadelphia ... 215 725-9000

MENNEN-GREATBATCH ELECTRONICS INC
10440 MAIN ST, CLARENCE
N Y, 14031 ... 716 759-8361
T BELLANCA, EMP 127, ENG 5, $1,000-$2,500M
Cal Coast Medical Corp, 1278 Civic Dr Walnut Creek ... 933-4460
Cal Coast Medical Corp, 3107 S Kilson Santa Ana ... 714 546-0640
Conn A F Morrison Co, 293 Danbury Rd Wilton ... 762-8334
Fla G A McDonnell, 1135 Polk St Hollywood ... 305 927-8939
Ill Life Instruments, Inc, 5156 S Rockwell Chicago ... 737-7477
Ky Malkin Instrument Co, 962 Baxter Ave Louisville ... 587-0776
La Medical Specialty Co, 3615 Anderson Ct Metairie ... 504 834-2098
Mich Lynn Medical Instru Co, 15660 W Ten Mile Rd Southfield ... 353-5255
Mo Medtron Midwest, 7530 Big Bend Blvd St Louis ... 314 644-1500
NY A F Morrison Co, 29 Newtown La Huntington Sta ... 271-7514
NY B Coburn Co Inc, 5800 Main St, Buffalo ... 634-2820
Ohio B Coburn Co, 2178 Lee Rd, Cleveland ... 442-2487
Okla Medical Specialty Co, 100 Park Ave Oklahoma City ... 232-0839
Ore Corvek Medical Equip, 1005 N W 16th Ave Portland ... 227-7559
Pa B Coburn Co, 3310 Benden Dr Murraysville ... 412 327-7150
Tex Medical Specialty Co, 1231 W Magnolia Blvd Fort Worth ... 926-5295
Tex Medical Specialty Co, 4317A Montrose Blvd Houston ... 528-3468
Va Cardio/Pace Co, 4821 Dodson Dr Annandale ... 354-5024
Wash Corvek Medical Equip, Box 1038 Seattle Heights ... 206 774-5500
Can John Hay & Co, Ltd, 2155 W Broadway Vancouver 9, B C ... 738-7168
Can John Hay & Co Ltd, 1808 Ave Rd Toronto, Ont ... 789-1368
Can John Hay & Co Ltd, 5925 Monkland Ave Montreal, Que ... 489-0505

MEPCO INC, COLUMBIA RD, MORRISTOWN
N J, 07960, TWX 710-986-7437 ... 201 539-2000
R GEBHARDT, EMP 530, ENG 33, $5,000-$10,000M
Ariz Carter Assoc, Inc, Box 99, Scottsdale ... 947-4355
Cal Mepco Inc, 7727 S Painter Ave Whittier ... 698-0764
Cal Mepco Inc, 1653 Milroy Pl San Jose ... 408 265-8709
Conn Circuit Sales Co, 4 Fawn Hill Rd Huntington ... 929-4249
Fla Perrott Assoc, 1607 Forsyth Rd Orlando ... 305 275-1132
Fla Perrott Assoc, Box 532, Clearwater ... 813 446-2535
Fla Perrott Assoc, 7515 W Lake Dr W Palm Beach ... 305 967-1770
Ill Sumer, Inc, 1032 E Northwest Hwy Mt Prospect ... 392-7370
Ind Sumer, Inc, 2211 S Calhoun St Fort Wayne ... 744-1692
Iowa Howard R Brown Sales Co, 3400 Indian Rd SE Cedar Rapids ... 319 366-0635
Md J R Daniels & Co Inc, 6 E Pennsylvania Ave Towson ... 301 825-3330
Mass Circuit Sales Co, 591 North Ave Wakefield ... 245-5320
Mich Sumer, Inc, 2211 S Calhoun St Fort Wayne ... 744-1692

Minn Stack-Johnson Inc, 2907 Portland Ave Minneapolis ... 612 827-3841
Mo F R Krabbe & Assoc, 11469 St Charles Rock Rd Bridgeton ... 314 739-6817
NJ Falk-Baker Assoc, 382 Franklin Ave Nutley ... 661-2430
NY Mepco Inc, 675 W Jericho Tpk Huntington ... MY 2-6604
NY Mepco Inc, Box 571 Union Sta Endicott ... 607 785-4420
NY Mepco Inc, 306 Colony Park Dr Liverpool ... 315 457-0430
Ohio Luebbe Sales Co, 2649 Erie Ave Cincinnati ... 513 871-4211
Pa Pamco, 613 Cheltenham Ave, Phila ... 224-7766
Pa J R Daniels & Co Inc, 231 S Easton Rd Glenside ... 215 887-0550
Tex Carter Assoc, Box 87, Garland ... 276-7151
Wash Blair Hirsh Co, 4013 Leary Way, N W Seattle ... 783-3423
Can Philips Electron Devices Div, 116 Vanderhoof Ave Toronto ... 416 425-5161
Den Miniwatt A/S, 115 Emdrupvej, Kobenhavn
Fr Cie Gene des Condensateurs, 21 Rue de Javel, Paris
Holl Philips Nederland N V-Elonco, Eindhoven
Nor Norsk A/S Philips Electr Dept, Box 5220, Oslo, N V
SAfr EDAC Pty Ltd, S Park La, Johannesburg
Swed A B Philips, 50 Lidengovagen, Stockholm
Belg M B L E, 80 Rue des Deux Gares, Brussels
Mex Apesa, Apartado Postal 24-354, Mexico 7, D F
NZ E D A C, 18 Lorne St, Wellington
Fin O Y Phillips A B, Box 10255, Helsinki 10
Aust Philips Electronic Pty, Ltd, 69 Clarence St Sydney N S W

MERCHANT CO, ROBERT C, BOX 246, CARMEL VALLEY
CAL, 93924 ... 408 659-2255
R MERCHANT, EMP 12, ENG 2, $500-$1,000M
Cal RC Merchant Assoc, Box 214671 Sacramento ... 483-3724

MERCO PRODUCTS INC, 1298 BETHEL DR, EUGENE
ORE, 97402 ... 503 688-7331
J AULD, EMP 7, $100-$250M

MERCURY DIV WHITTAKER CORP
10459 W JEFFERSON BLVD, CULVER CITY
CAL, 90230, TWX 213 836-0405 ... 213 UP 0-5921
A FERNANDEZ, EMP 150, ENG 4, $2,500-$5,000M
Mo Repco Inc, Box 6706, St Louis ... 314 961-5010
Ohio J J Lauer, 7546 Lockwood St, Dayton

MERCURY CONTACTS INC, 1950 NEVA DR, DAYTON
OHIO, 45414 ... 513 278-4710
A MUNHALL

MERCURY ELECTRONICS CORP, 339 E COTTAGE PL
YORK, PA, 17403 ... 717 854-9557
C BRUNS, EMP 60, ENG 1, $500-$1,000M
Mich Robt M Gardner, 26940 Lyndon St, Detroit
NY R D McGrath, 1 Cornell Dr, Wyandanch ... 643-6936
Pa Steven E Balint, Box 105, West Chester

MERCURY ELECTRONICS INC, 315 ROSLYN RD
MINEOLA, N Y, 11501 ... 516 PI 2-5400
S CHAYER, EMP 110, ENG 6, $1,000-$2,500M
Cal Ray DelBucchia Assoc, 15 Southgate San Francisco ... 756-8414
Cal Carter & Rossney Assoc, 2600 W Olive St Burbank ... 843-3292
Colo McLood & Raymond, 2151 S Grape Denver ... 756-1589
Fla Stanley K Wallace Assoc, Box 67, Lutz ... 949-1817
Ga Stanley K Wallace, 715 Flamingo Dr, Atlanta
Ill Ellinger Sales Corp, 6580 Northwest Hwy Chicago ... 763-1570
Ind Howell & Moore, 5425 N College Ave Indianapolis ... 255-8566
Md Morris Taylor Assoc, 9431 Georgia Ave Silver Springs ... 589-4002
Mich C A Geer, 221 Graceland St, N E Grand Rapids ... 363-0902
Minn Fisher Sales, 4820 W 77th St Minneapolis ... 920-6577
Mo Ellinger Sales Corp, 4969 Bancroft St Louis ... FL 2-2027
NY Jerry Kirshbaum Co, 1533 Peninsular Blvd Hewlett ... FR 4-0111
NY Mar1sey Sales, 206 Park Ave Rochester ... 442-9700
Ohio Neal Bear Assoc, 3425 Streetsboro Rd West Richfield ... 659-3331
Tex W R Retzloff Co, Box 1786 San Antonio ... LE 3-7839
Wash R K Squibb, 655 N E Northlake Pl Seattle ... 632-2450
Can Wm Cohn Ltd, 8900 Park Ave Montreal ... DU 8-9201
For Singer Product Corp, 95 Broad St New York ... WH 4-8700

MERECO PRODS INC, DIV METACHEM RESINS CORP
553 WELLINGTON AVE, CRANSTON
RI, 02910 ... 401 781-4070
H SPIVACK, EMP 50, ENG 3, $250-$500M
Cal Martin & Ozier, 5170 Hollywood Blvd Hollywood ... 665-5823
Cal Paul D Jacobs, 35 S Park San Francisco ... 982-7266
Ill William E Burgoyne, 7001 N Clark St Chicago ... 465-2112

Mass Harco, Box 203, Stowe, Mass 263-7748
Mich Lor-Mac Assoc, 403 Fisher Bldg
Detroit 871-7600
NJ P Rosefield, 15-07 Radburn Rd
Fairlawn 201 796-3920
NY R B Scanlon Co, 263 Palisade Ave
Yonkers 476-0321
RI Aran Dee Assoc, 10 Pilgrim Dr
Cranston 781-8171
GB Cornelius Chemical Co Ltd, Ibex House, Minories
London .... ROY 7525

MERIAM INSTRUMENT CO, 10920 MADISON AVE
CLEVELAND, OHIO, 44102 .... 216 281-1100
A FEIERABEND, EMP 210, ENG 5, $1,000-$2,500M
Cal C Meriam Co, 5017 Telegraph Rd
Los Angeles .... AN 9-8271
Ind National Eng Co, 5416 N College Ave
Indianapolis .... CL 1-1132
Mass New England Controls, 19 Fox Rd
Waltham 899-0230
Mich Smith Instrument Co, 7140 E Daison Ave
Detroit .... TW 1-6500
Mich Smith Instrument Co, 900 N Montoe
Grand Rapids .... GL 8-4682
Mo C F Gast Co, 6110 Garesche, St Louis ... EV 3-0751
NJ Blake Equipment Corp, 75 Grand Ave
Englewood .... LO 7-4252
NY Blake Equipment Corp, New York .... LO 4-4815
NY Robert H Perry Co, 1807 Elmwood
Buffalo .... TR 6-2318
Ohio H R Bowers Co, 1585 W 117th
Cleveland .... AL 1-8442
Ohio Myers & Henley Inc, 226 Ludlow Ave
Cincinnati 861-0038
Pa H A Woolman Co, 4 W Manilla Ave
Pittsburgh .... WA 2-2420
Pa Maleson Co, 225 N 32nd St, Phila ...... EV 2-6400

MERIDIAN LAB INC, 2611 UNIVERSITY AVE, MADISON
WIS, 53705 .... 608 238-3333
C KRAUSE, EMP 27, ENG 6, UP TO $100M
Cal Research Data Corp, 110 S Euclid Ave
Pasadena 213 681-3451
Md East Coast Liaison, Box 243
Lutherville 301 252-1288
NY Physiotronic Sales, 1154 E 9th St, Brooklyn
Ohio Monatron, 21055 Lorain Rd, Cleveland 331-3554
Can Baker Instruments Ltd, 185 Davenport Pt
Toronto 5, Ont .... Canada

MERIDIAN METALCRAFT INC
8739 S MILLERGROVE DR, WHITTIER
CAL, 90606, TWX 910 586 1396 .... 213 OX 2-3761
J WILLIS, EMP 100, ENG 8, $1,000-$2,500M

MERIT COIL & TRANSFORMER CORP
2027 SHERMAN ST, HOLLYWOOD
FLA, 33020 .... 305 WA 31536
M REMUND, EMP 200, ENG 10, $2,500-$5,000M
Cal J W Marsh & Co, 4216 W Jefferson Blvd
Los Angeles .... RE 2-0145
Cal Sinki-Johnson Inc, 817 Douglas St, Redwood City
Colo Koether-Cox Co, 1325 So Inca St, Denver
Fla S K Wallace Assoc Inc, Box 67, Lutz 949-1817
Fla Telexport Inc, Box 756, Hialeah
Fla Geartner Assoc, 350 Lincoln Rd, Miami Beach
Haw B Kolans & Co, Box 2098, Honolulu
Ill Olson Sales, 1005 E Washington Blvd, Lombard
Ill Knaggs-Collins-Hempe Inc, 3 Bank Sq, East St Louis
Ind Thomas & Sukup Inc, 2060 E 54th St
Indianapolis .... CL 1-4574
Md E K Passoc Inc, 1626 Forest Park Ave, Baltimore
Mass Conti-Younger Assoc, 181 West St, Waltham
Mich ABM Sales, 10116 Puritan Ave
Detroit .... UN 2-1300
Minn H M R Inc, 9 E 22nd St, Minneapolis
NY Marsey Sales Inc, 206 Park Ave
Rochester .... HU 2-4133
NY Becker & Pressler, 35 Powerhouse Rd
Roslyn Hts 621-7485
Ohio L A Morrow Co, 3123 W 117th St
Cleveland .... CL 1-5700
Ore Dale G Weber Co, Weatherly Bldg, Portland
Pa Brown-Frederick & Assoc, 88 Penna Ave
Oreland .... BR 9-7560
Pa Nebco Assoc, 1974 Gregory Ave, Monroeville
Tex Lund & Co, 2215 N Olive St, Dallas .... RI 8-8839
For Cofan Assoc, Box 122, San Juan P R
For Manrep Corp, Box 68, North Miami Fla
For Telexport S R L, Box 9529, Caracas Ven

MERIT PLATING CO INC, 212 E 141ST ST, BRONX
N Y, 10451 .... 212 CY 26380
D LEVY

MERIT SHORT WAVE DIATHERMY CO
2758 WHITTIER BLVD, LOS ANGELES
CAL, 90023 .... 213 261-7521
G MOGILNER, EMP 6, ENG 1, UP TO $100M

MERRIMAC RESEARCH & DEVELOPMENT INC
41 FAIRFIELD PL, WEST CALDWELL,
N J, 07006 .... 201 228-3890
F WEBER, EMP 90, ENG 9, $1,000-$2,500M
Ala Reynolds & Assoc, Inc, 904 Bob Wallace Ave
Huntsville 536-1941
Cal J E Hachten Co, 1135 W Huntington Dr
Arcadia .... MU 1-2361
Cal J E Hachten Co, 800 Welch Rd
Palo Alto 326-1252
Fla Reynolds & Assoc, 325 Fifth St
Indialantic 727-3205
Fla Reynolds & Assoc, Inc, 2903 Timberlake Dr
Orlando 424-3836
Fla Reynolds & Assoc, Inc, 161 SW 75th Ave
Ft Lauderdale 581-6611
Ga Reynolds & Assoc, Inc, 475 W Wieuca Rd NE
Atlanta 452-5360
Ill Carlson Elctn Sales, 7448 N Harlem Ave
Chicago .... SP 4-0277
Md Brimberg Assoc, 814 Thayer Ave
Silver Spring 588-7790
Mass Lancer Assoc, 16 Adams St
Burlington .... VO 2-7782
Minn Carlson Elctn Sales, 2500 39th Ave NE
Minneapolis 738-4111
NY J D Ryerson Assoc, Box 1400
Syracuse 656-7419
NY J D Ryerson Assoc, Box 8369
Rochester 442-1900
Tex Applied Engrg Sales, First Bank & Trust Bldg
Richardson .... AD 1-1322
Wash Jon B Jolly, 413 Maritime Bldg
Seattle 624-2152
For Dage Corp, 757 Main St, Stamford 324-3123

MERRIMACK MAGNETICS CORP, 361 AIKEN ST
LOWELL, MASS, 01852 .... 617 458-1487
J MORAN, EMP 100, ENG 3, $1,000-$2,500M
Conn Comp Rep Assoc, 14 Bowling Green Dr
North Haven 239-9762

MESA CO, 220 MILL ST, BRISTOL
PA, 19007 .... 215 788-5521
EMP 25, ENG 6, $250-$500M
Cal Transdynamics Inc, 701 Welch Rd
Palo Alto 415 326-6527
Cal Transdynamics Inc, 3108 Fifth Ave
San Diego 714 298-8215
Cal Transdynamics Inc, 4450 Lakeside Dr
Burbank 213 849-6261
Colo Trans Dynamics Inc, 3401 S Bannock St
Englewood 303 761-0455
Fla Steele Tech Sales, 2106 Woodcrest Dr
Winter Park 305 647-1304
Ill Bernot Assoc, 6414 Belmont Ave
Chicago 312 283-0713
Kan Gordon Flxman Eng Co, 6631 E Kellogg
Wichita 316 682-9433
Md MCW Inc, 422 Burnt Mills Ave
Silver Sprgs 301 593-6121
Mass Sales Engineering, Baker Ave
W Concord 617 862-7320
Mo Gordon Fixman Eng Co, 8160 Stanford Ave
St Louis 314 725-5219
NY Bradley Assoc Corp, 130 Van Cortlandt St W
Bronx 212 549-8500
NY N W Alexander, Box 2561 Upper Union Br
Schenectady 518 377-0581
Ohio McShane, 3633 Trails End Dr
Medina 216 725-4283
Okla S E I Inc, 2015C S Lakewood
Tulsa .... 918 TE 5-2481
Pa MCW Inc, 709 W Atlantic St
Philadelphia 215 228-7459
Tex S E I Inc, 621 Meadows Bldg
Dallas .... 214 EM 3-1671
Tex S E I Inc, 1405 S Post Oak
Houston 713 621-3761
Wash Trans Dynamics Inc, 7834 SE 32nd St
Mercer Island 206 232-1094

MESON ELECTRONICS CO, INC, 380 COTTAGE ST, ROCHESTER
N Y, 14611 .... 716 235-7070
H DORREN, EMP 27, ENG 4, $250-$500M
ADV PG 613
Cal David Ellis Co, 123 N Marenzo Ave
Pasadena 681-9108
Cal CoMark Co, Box 2086, Santa Rosa 544-1044
Fla Hanson Assoc, Box 26, Melbourne
Ill Frank B Tatro & Assoc, 1921 N Harlem Ave
Chicago 312 622-9777
Mass Magyar Assoc, Box 182, Allston 566-9759
NJ Magyar Assoc, Box 222, Metuchen 549-2255
NY S S Foster Co, 2806 Hennaberry Rd
Pompey 677-3333
NY S S Foster Co, 386 Culver Pkwy
Rochester 288-9912
NC Bill Henry Assoc, Box 6097, Charlotte 375-8958
Okla James E Dyer Co Inc, Box 1226, Tulsa ... 748-8832
Ore CoMark Co, 949 Dakota St, Madford
Pa Magyar Assoc, Box 8506, Philadelphia ... 289-3261
Tex General Sales Reps, 1510 Spillers, Houston
Can DeVitornex Ltd, 2 Tycos Dr, Toronto 781-5401
For Hamos Co, 332 W 21st St, New York

MESUR-MATIC ELECTRONIC CORP, CHURCH ST
WARNER, N H, 03278 .... 603 456-2285
M MACKAY, EMP 23, ENG 4, $100-$250M

METALAB EQUIPMENT CO, 270 DUFFY AVE
HICKSVILLE, N Y, 11801 .... 5 6 931-3100
G SMITH, EMP 700, ENG 150, OVER $10,0 0M

METAL BELLOWS CORP, 1075 PROVIDENCE WY
SHARON
MASS, 02067, TWX 71034-0849 .... 61 668-3050
R CAREY, EMP 300, ENG 15, $2,500-$5,000 M

METAL CERAM INC, 17 N WEST ST, MOUNT VERNON
N Y, 10550 .... 914 664-2800
N HASCOE, EMP 150, ENG 10, $1,000-$2,500M
Cal Heim & Smolen, 3360 Barham Blvd
Hollywood .... 213 HO 2-7357
Fla Young & Lawrence Assoc, 601 N New York Ave
Winter Park 305 647-6929
Mass George Miller Assoc Inc, 9 Spring St
Waltham 899-1600
Minn Wire & Sintered Prods, 4477 N Farwell
Milwaukee 962-4944
Mo W A Shaw Co, 6550-B Troost
Kansas City 816 523-6618
NJ RHB Sales Co, 95 Carpenter St
Belleville 201 751-1415
NC Candor Co Inc, Bethania 919 924-1480
Wis Wire & Sintered Prods Inc, 4477 N Farwell
Milwaukee 962-4944
Fr Precimeca, 18 Rue D'Arras, (Nanterre) Seine

METAL DYNAMICS CORP, 9324 STATE RD
PHILADELPHIA, PA, 19114 .... 215 DE 8-8992
I RACHMAN, EMP 13, ENG 2, $100-$250M
NY R Morehouse, 2609 Ave R, Brooklyn
Pa H T Bauerle Assoc, Box 53, Glenside

METALEX CORP, BOX 147, LIBERTYVILLE
ILL, 60048 .... 312 362-8300
L SANDBERG, EMP 35

METAL FAB DIV, ARTISAN INDUSTRIES INC
63 POND ST, WALTHAM
MASS, 02154 .... 617 TW 3-6800
H FERGUSON, EMP 190, ENG 30, $2,500-$5,000M

METALIZED CERAMICS CORP, WEST RIVER IND PARK
PROVIDENCE, R I, 02904 .... 401 331-9800
R GREENLESS, EMP 135, ENG 20, $1,000-$2,500M
Cal Interconsal Assoc Inc, 825 San Antonio Rd
Palo Alto 321-8113
Cal Interconsal Assoc Inc, 104 Country Club Dr, Glendora
Fla Florida Electronic Engrg Sls, 609 E Colonial Dr
Orlando 425-0032
Tex C D Price, Jr, 1306 Glen Cove
Richardson 231-4321

METALPHOTO CORP, 18531 S MILES RD, CLEVELAND
OHIO, 44128 .... 216 475-0555
E BAUMAN, EMP 35, ENG 2, $500-$1,000M
Cal Metalphoto of Cal, 11781 E Slauson Ave
Santa Fe Springs 698-0453
DC Metalphoto D C Inc, 52 Talbert Dr
Washington 301 567-1314
Ill Metalphoto Chicago, Inc, 1332 Green Willow
Glenview .... 312 DE 2-2866
Mass Metalphoto of New England, 74 Chilmark St
Worcester 227-4426
NY Metalphoto of N Y Inc, 11 Dunwood Rd
Port Washington 516 883-5842
Ohio Metalphoto Corp, 18531 S Miles Rd
Cleveland 475-0555

METAL REMOVAL CO, 1859 W COLUMBIA AVE
CHICAGO, ILL, 60626 .... 312 465-2900
D WETHERALD, EMP 450, ENG 10, $5,000-$10,000M

METAL WORKS INC, 9TH & JEFFERSON, HERMANN
MO, 65041 .... 314 486-2128
R MATHIAS, EMP 80, ENG 1, $500-$1,000M
Ala Craft & Assoc, Box 1053, Huntsville
Cal Marshank Sales Co, 7422 Melrose Ave
Los Angeles .... WE 8-2591
Cal L H Harriss Co, 204 E Hillsdale Blvd
San Mateo .... FI 1-2909
Cal Western Elctn Components, 4301 Birch St
Newport Beach 540-1322
Colo TELSCO Inc, 1781 S Filbert Ct, Denver ... 756-1909
Colo Palmer-Robbins Assoc, 1050 Yuma St
Denver 255-9961
Fla S K Wallace Assoc, Box 67, Lutz 949-1817
Fla Craft & Assoc, Box 6664, Orlando
Ga J Odom, 715 Flamingo Dr SW, Atlanta .. PL 3-8643
Ga Craft & Assoc, 3151 Maple Dr, Atlanta
Ill J H Kleker Co, 177 Sunset Ave
Glen Ellyn 469-2297
Ill Knaggs Collins Havercamp Hempe, Inc
6 Bank Sq Box 815, E St Louis .... EX 7-2398
Ill LeRoy J Osberg & Assoc, 1348 Rosita Dr
Palatine .... FL 8-3849
Ind Hoemig Sales Co, Butler Ct
Fort Wayne 483-6913
Kan Poly-Onics, Inc, 4434 W 90th Ter
Leawood .... NI 8-4173
Mass W B Pray Sales, Elm St, Dedham 326-9220
Mass D H Stewart, Inc, 216 Burroughs Rd
Braintree 848-1477
Mich Robert Milsk Co, 19375 James Couzens Hwy
Detroit 342-6660
Mich R Hartsema, 3055 Chapel Ct, Muskegon
Minn J E M Anderson Co, 5231 Humboldt Ave S
Minneapolis 823-6459
Mo Knaggs Collins Havercamp Hempe, Inc
5818 N Oak Trafficway, Kansas City ... GL 3-3203
Mo Poly-Onics, Inc, 47 Village Sq Shop Ctr
Hazelwood .... TE 7-0597
NJ Robert Finlay Co, Lincoln Bldg
Ridgewood 652-0088
NY O F Masin Co, Inc, 140 Boston Post Rd
Larchmont 834-7500
NC Francis Hager, Rte 1 Box 423
Matthews 847-9262

Ohio Weller Electronic Sales Inc, Box 212
Worthington .... TU 5-7819
Ohio Del Steffen & Assoc, 25000 Euclid Ave
Cleveland 261-5055
Okla Pres Clancey & Assoc, 4840 NW 62nd Ter
Okla City .... PA 1-2395
Pa R Finlay Co, Lincoln Bldg
Ridgewood, NJ 652-0088
Pa Riv Co, Box 52, Bala Cynwyd .... MO 7-5110
Wash Larrabee Assoc, 2117 2nd Ave
Seattle .... MU 2-2358

METAPLAST ELECTROCHEMICALS CORP
915 WESTCHESTER AVE, BRONX
N Y, 10459 .... 212 DA 8-2444
J LESTER, EMP 3, ENG 1, $100-$250M

METAVAC INC, 45-68 162 ST, FLUSHING
N Y, 11358 .... 212 445-0400
G FADEL, EMP 50, ENG 10

MET-BAY INC, 906 HARRISON AVE, BAY CITY
MICH, 48706 .... 517 894-2841
W ALLSOPP, EMP 35, ENG 6, $5,000-$10,000M
Cal R Sarnowski, 14966 Roma Dr
LaMirada 944-2522

METCOM INC, 76 LAFAYETTE ST, SALEM
MASS, 01970, TWX 710 347-6740 ...... 617 744-8400
P BAGNELL, EMP 225, ENG 35, $2,500-$5,000M
Ala Brennan Assoc, Box 1074, Huntsville 536-7425
Ariz Fryco Co, Lighthall Bldg, Scottsdale .... WH 5-3281
Cal C W Swift & Assoc, Box 316, Encino 989-1133
Colo Franklin Sales, 2149 S Clermont St
Denver 757-1371
Fla Brennan Assoc, 804 Franklin St
Clearwater 446-5006
Ill H G Pretat Inc, 7716 W North Ave
Elmwood Pk 453-3380
Ind James Green, 2511 Drexel St
Fort Wayne 745-1251
Md J H Electronic Sales Co, Box 6844
Towson .... VA 5-4441
Mass Micron Enterprises, South Hamilton 468-4486
Mass R J Broderick, 6 Somerset Ave
Beverly 617 922-9211
Minn Scott Electronics, 5209 W 60th St
Minneapolis .... WA 6-3919
NJ M J Hollingsworth, Box 686
Cherry Hill 665-6142
NY E W Stone, Pickard Bldg, Syracuse 455-6664
NY CDB Enterprises, 675 W Jericho Tpk
Huntington 692-5200
NC Brennan Assoc, 274 N Graham-Hopedale Rd
Burlington 227-6677
Ohio H G Pretat Inc, 7716 W North Ave
Elmwood Pk 453-3380
Okla J F McKinney Sales, Box 3958, Tulsa 939-2564
Tex J F McKinney Sales Co, 1303 Chemical St
Dallas .... ME 1-9450
Can Elpro Electronic Sales Ltd, Box 35, Youville Sta
Montreal, Que 389-8051
For Dage Corp, 757 Main St
Stamford, Conn 324-3123
Fr Radiotronix Communications Labs
741 Washington St, New York, NY .... AL 5-8900

METEOROLOGY RESEARCH INC
464 W WOODBURY RD BOX 637, ALTADENA
CAL, 91001 .... 213 791-1901
T LOCKHART, EMP 150, ENG 14, $1,000-$2,500M
NJ Science Assoc Inc, 230 Nassau St
Princeton 924-4470

METEOR TRANSFORMER MFG CO, 8877 HUBBELL AVE
DETROIT, MICH, 48228 .... 313 838-6125
J MIZE, EMP 75, ENG 3

METERMASTER, INC, 5646 JILLSON ST, LOS ANGELES
CAL, 90022 .... 213 685-4340
R CARLSON, EMP 50, ENG 6, $1,000-$2,500M
Ariz Metermaster, 2633 E Buckeye Rd
Phoenix 273-7331
Cal Metermaster/San Diego, 8797 Balboa Ave
San Diego 714 278-2112

METEX CORP, 970 NEW DURHAM RD, EDISON
N J, 08817, TWX 710-998-0578 .... 201 287-0800
R FAAS, EMP 150, ENG 10, $1,000-$2,500M
Ala Massey Associates, Box 3361
Huntsville 205 837-4542
Ala Tec-Sel Inc, 4306 Governors Dr SW
Huntsville 205 837-4541
Ariz Allen Assoc, Box 3091 Papago Sta
Scottsdale 602 945-5781
Cal Frauman Assoc, 1010 Doyle St
Menlo Park 415 322-8461
Cal Universal Components, 2330 Westwood Blvd
Los Angeles 213 474-1537
Colo Electro-Rep, Inc, 1051 S Platte River Dr
Denver 303 744-2821
DC Massey Assoc, 1 Thomas Circle NW
Wash 202 628-1023
Fla Massey Assoc, Box 13577
St Petersburg 813 347-6183
Fla Massey Assoc, Box 1201
Winter Park 305 855-4510
Haw Victor Kim Electronics, 625 S South St
Honolulu 507-132
Ill R M Krueger Co Inc, 5755 W Irving Park Rd
Chicago 312 282-8444
Iowa Thomas & Modrcin Assoc, 890 17th Ave
Marion 319 377-6261
Kan Thomas & Modrcin Assoc, Box 189
Shawnee Mission 913 432-2131
Ky Walter J Brauer Assoc, Box 3085 Overlook Br
Dayton Ohio 513 426-1692
Md Massey Assoc, 1325 West Chester Pike
Havertown Penna 215 789-2320
Mass Wm Connors Co, 100 Everett St
Westwood 617 769-2570
Mich DeoVolente & Assoc, 4240 Eaglehurst Rd
Toledo 419 882-2830
Minn Ed Melius & Assoc Inc, Box 2606
St Paul 612 484-8541
Mo Thomas & Modrcin Assoc, 47 Village Sq
Hazelwood 314 838-6466
NJ Bressler Assoc, 4808 Bergenline Ave
Union City 201 864-9577
NC D G W Inc, Box 5316
Winston-Salem 919 723-4205
Ohio Jay Engineering Co, Box 175
Dayton 513 253-2151
Ohio Jay Engineering Co, 4712 W 130th St
Cleveland 216 252-0486
Pa Massey Assoc, 1325 W Chester Pike
Havertown 215 789-2320
Pa Walter J Brauer Assoc, Box 8466
Pittsburgh 412 921-3213
Tex P J Scanlon Co, 724 S Sherman St
Richardson 214 231-4661
Wash Jon B Jolly, 413 Maritime Bldg
Seattle 206 624-2152
W Va Walter J Brauer Assoc, Box 305
Wickliffe Ohio 216 943-0601
Can Ben Manis Assoc, 6600 St Urbain St
Montreal, Que 514 274-8271
Fr Soc de Diffusion D'Equip Elctns
5 & 5 Bis Ave du Mal De Lattre
Tassigny 92 Boulogne su Seine
GB Walmore Electronics, 11-15 Betterton St
London, W C 2
Swed Aktiebolaget Trako, Tegnergatin 4
Stockholm 23 35 60

METHODE ELECTRONICS INC, 7447 W WILSON AVE
CHICAGO
ILL, 60656, TWX 910-221-2468 .... 312 867-9600
K YOUNGBECK, EMP 750, ENG 35, OVER $10,000M
Cal Jack Logan & Assoc, 801 Mahler Rd
Burlingame 607-6100
Cal Methode Elctns, 18075 Ventura Blvd
Encino 213 881-3130
Colo R G Bowen Co Inc, 721 S Broadway
Denver 722-4641
Ga Rep Inc, 1483 Monroe Dr NE, Atlanta 867-1591
Ky G W Thelen Co Inc, 5257 Taylor Mill Rd
Covington 606 431-0753
Md Mount & Co, 4853 Cordell Ave, Bethesda
Mass Com/Pac, 14 Oak St, Needham 444-1259
Mich Mezey Agency, 1800 Fisher Bldg
Detroit .... TR 2-2400
Mich Don Poulin Co, 17222 E Warren Ave
Detroit 886-4990
Mo Ozark Elctns Mktg Inc, 2573 Woodson Rd, St Louis
NJ Components For Electronics, 60 Midvale Rd
Mtn Lakes .... DE 4-2921
NY M P Andrews Inc, 319 Mott Rd
Fayetteville 637-3144
Ohio J C Hofstetter, 742 Kenbridge Dr
Cleveland 449-0944
Tenn Cartwright & Bean, 560 S Cooper St
Memphis 276-4442
Tex Howell Sales Co, Box 747
Grand Prairie .... AN 2-5153
Wash Ray Over Sales Co, 1615 103rd St SE
Bellevue 454-4551
Wis Honkamp Sales Co, 11120 W Ruby Ave
Milwaukee 463-2530

METOX, 86 RUE VILLIERS DE L'ISLE ADAM, PARIS 20
FRANCE 625-31 10
J CHAUCHAT, EMP 130, ENG 7, $1,000-$2,500M

METRIC ENGINEERING DIV GREENRAY INDUS INC
BOX 324, MECHANICSBURG
PA, 17055 .... 717 766-0741
T NOLAN, EMP 6, ENG 2, UP TO $100M
Cal John E Striker Co, 1319 Howard Ave
Burlingame 342-1425
Cal Dorr Wagner Assoc, Box 485
Altadena 213 681-4060
Conn Keyco Assoc, Box 357, Farmington 677-1771
Fla Beacon Electronic Assocs Inc, Box 1278
Maitland 647-3498
Ill Branum Sales Co, Box 516, Lake Zurich .. 438-2356
Mo Alfred Gliedt Assoc, 10869 Spring Garden Dr
St Louis 314 868-7445
NY Andrews & Andrews Inc, 140 E Main St
Huntington 692-8686
Ohio McShane Co, 3633 Trails End Dr
Medina 725-4283
Pa Tyler Griffin Co, 46 Darby Rd, Paoli 647-1550
Tex John A Green Co, Box 47206, Dallas .... ME 1-7450
Wash Dewar & Assoc, 6361 First Ave S
Seattle 206 763-2233
Can Frank Eakin Ltd, 9 Milvan Dr
Weston, Ont 741-7485
For Greenray Intl, 840 W Church Rd
Mechanicsburg Pa 717 766-0246

METRIC SYSTEMS CORP, 736 N BEAL ST
FORT WALTON BEACH, FLA, 32548 ..... 904 242-2111
C SCRIBNER, EMP 1150, ENG 382, OVER $10,000M

METRITAPE CONTROLS INC, 50 COMMONWEALTH AVE
WEST CONCORD, MASS, 01781 .... 617 369-7500
EMP 7, ENG 4
Cal Crown Berkley Engrg Inc, 2439 Riverside Dr
Los Angeles 665-1251
Cal Velmac Assoc, 210 California St
San Francisco 421-1973
Cal Crown Hammarstrom Inc, 664 Monterey Pass Rd
Monterey Park 213 283-0991
Colo Ross Equipment Co, 7015 W 38th Ave
Wheat Ridge 422-1845
Ill Epco Services Inc, 7760 W Devon Ave
Chicago 312 322-3128
Mass Owen C Jones & Co Inc, Box 151
Wellesley Hills 235-7440
Mich Basic Service Corp, 16544 Plymouth Rd
Detroit .... 313 VE 7-8820
Minn Wm K Nelson Co, 807 13th Ave S
Minneapolis 612 333-7203
Mo E W Mooney Co Inc, 7505 Delmar Blvd
University City .... 314 PA 5-8875
NJ G H Birchall Assoc, 189 Elm St
Westfield 201 232-3600
NY Al Estey Assoc, Box 63, W Henrietta 334-3633
NC Macguire Instr Co, Route 1 Box 290-K
Matthews 704 366-3454
Ohio Control Components Co, 1515 E 40 St
Cleveland 216 881-0166
Ohio J W Murray & Assoc, 3985 Racr Rd
Cincinnati 513 662-1616
Ore R E Donelson Co, Box 68446
Portland 503 654-3137
Pa Wistex, 1 Belmont Ave, Bala-Cynwyd 839-7086
Pa Whitaker Controls, 607 Laurel Dr
Monroevill 372-6420
Tex Pan-Tech Engrg Co, 3815 Richmond Ave
Houston .... 713 MO 6-0248

METRIX INSTRUMENT CO, 5760 RICE AVE, HOUSTON
TEX, 77036 .... 713 MO 8-2386
P SUNDT, EMP 10, ENG 3, $100-$250M
Cal Southern Combustion & Controls, 15759 Strathern
Van Nuys 213 787-5660
Cal ABCO Co, 555 W 9th St
San Pedro 213 833-8333
Mass Daner Assoc, 684 Commonwealth Ave
Newton Centre 617 969-4650
Mich Twin Region Elctn Sales, 2547 Monroe Blvd
Dearborn 313 274-4661
NJ Control Equipment Co, 315 Market St
Palmyra 829-1447
NJ Tridon Sales Co, Eight Depot Sq
Englewood 201 569-8011
NY Tek-Sales Inc, 1157 Fairport Rd
Fairport 716 381-8110
NY Tek-Sales Inc, Box 44
West Seneca 716 675-1212
Ohio Twin Region Elctn Sales Inc, 21010 Center Ridge
Cleveland 216 331-7650
Ohio Twin Region Elctn Sales, 5700 Far Hills Ave
Dayton 513 434-8000
Pa Stein Instr Co, 413 Johnson St
Jenkintown 215 885-2370
Pa Twin Region Elctn Sales, 201 Penn Center Blvd
Pittsburgh 412 824-1120
Tex Astro Assoc, 5760 Rice Ave, Houston ... NO 8-0493
Wis Process Msmt & Control Co, Box 7292
Milwaukee 774-3290
Can Vibron Ltd, 2400 Finch Ave W
Weston Ont 416 741-5200
For Intl Equipment, 52 Edifico Villa Aptdo 399
Maracaibo, Ven
For Intl Equip, 7.3701 Kirby Dr
Houston, Tex .... JA 9-7535
Swed ab Elektronik Enheter
Torogatan 24, Posteiro 70-85-90, Enskede
Aust Martens, Box 16 Indooroopilly, Brisbane ... 78-3805

METROLOGICAL DATA CORP, 70 PLAUDERVILLE AVE
GARFIELD, N J, 07026 .... 201 772-6720
T NASH, EMP 18, ENG 7, $100-$250M

METRON INSTRUMENTS, INC
1051 S PLATTE RIVER DR, DENVER
COLO, 80223 .... 303 744-1791
J PALMER, EMP 100, ENG 5
Conn Maynard Selmon Co, 98 Suzanne Cir
Trumbull 268-0010
Can Power Service Prods, 18 Dorchester Ave
Toronto 225-7759

METROTECH, INC, 670 NATIONAL AVE
MOUNTAIN VIEW, CAL, 94040 .... 415 968-8389
E FEICHTMEIR, EMP 30, ENG 3, $500-$1,000M

METROTEK ELECTRONICS INC, 7900 PENDLETON PIKE
INDIANAPOLIS, IND, 46226

METTLER ELECTRONICS CORP, 123 N FAIR OAKS
PASADENA, CAL, 91101 .... 213 795-7769
H METTLER, EMP 12, ENG 2, $250-$500M

METZ REFINING CO, 3900 S CLINTON AVE
SOUTH PLAINFIELD, N J, 07080 .... 201 561-1100
W SINK, EMP 27, ENG 3, $5,000-$10,000M

MGD PNEUMATICS INC, 100 4TH ST, RACINE WIS, 53401 ... 414 637-5673
K FORSTER, EMP 100, ENG 8

MIAL S P A, 25 VIA CASTALDI, I 20124 MILANO ITALY, TWX 32409 ... 200952
G BONELLI, EMP 900, ENG 50, $5,000-$10,000M
For K Haciosmanoglu Necatibey Caddesi Kaini Han 90/6 Karakoy Istanbul ... 495794
For M I A L USA Inc, 165 Franklin Ave Nutley N J ... 667-1600
For Siegfried Kom, Spittelbergg 26 1070 Wien VII ... 938267
Den Rudolpf Schmidt A/S, 66 NY Carlsbergvej Copenhagen V ... 215165
Fr Soral S A, 4 Cite Griset, Paris XI ... 023/24-26
Ger Mial Elek Bauel Vert, Landwehrstr 44 8 Munchen 15 ... 535325
GB Waycom Ltd, Wokingham Rd Bracknell Berk ... 24571
Holl Geo C F Kauderer N V, Herengracht 88 Muiden ... (02942) 1342
SAfr Impectron Ltd, 123 Pritchard St Johannesburg ... 221386
Swed AB Elektronik Enheter, Torogatan 24 Enskede ... 08/484/839
Swit Seyffer & Co AG, Badenerstr 265 8040 Zurich ... 255411
Belg Ets Miravox, 57EF Av d'Auderghem Bruxelles 4 ... 02/354174
Braz Mialbras SA, Caixa Postal 6297 Sao Paulo ... 61/2898
Gr jelbiex, 52 Halkokondyli Street Athens 102 ... 528288
Ind Eastern Engineering Co, 278 D Naoroji Rd Fort Bombay 1 ... 261967 - 266470
Isrl Racom Electronics Co Ltd, 74 Nordau Blvd Tel Aviv ... 443244
Spn Manuel Ros, Paseo De Gracia 69 Barcelona 8 ... 2151720
Fin OY Hermas AB, Vatakuja 1A7 Helsinki 20 ... 495314
Ger Selectron GmbH, Pappenheimstr 7/V Munich ... 59 65 38
GB Dage (G B) Ltd, 1 Penn Pl, Rickmansworth Herts
Holl Koning en Hartman NV, Koperwerf 30 The Hague ... 070-67.83.80
Ital Radiotechnica Strumenti Telecomun Via Fontana 18, Milano ... 709 303
Ital M T C srl, Via Aurora 39, Rome ... 481 976
Jap Medix Intl Corp, Hani Bldg 22 2-chome Ebara-Oho Nakano-Ku, Tokyo ... 953-2651
Jap Shoshin Shoji Kaisha, Ltd, Box Nihonbashi 173 Tokyo ... (270)5921
Nor NECO, Tollbugt 4, Oslo ... 420492
Swed Ajgers Elektronik AB, Postfack Stockholm ... 46-42-46
Swit Kurt Hirt AG, Postfach 8021, Zurich ... 267808
Arg Rayo Electronica SR, Begrano 990 Buenos Aires ... 38-1779
Belg Bureau Des Ingenieurs SA, 53 Rue Gachard Brussels ... 48-2655
Braz Aplicacoes Electronicas ARTIMAR Ltds Caixa Postal 5881, Sao Paulo ... 35-2452
Isrl Elina Ltd, Box 1020, Ramat - Gan ... 720715
NZ Sample Electronics (N Z), ltd 8 Mitipo St, Onehunga, Auckland ... 567-356
Aust Sample Electronics Pty, Ltd, 9-11 Cremome St Richmond, E I, Vic ... 42-4757
Aust Sample Electronics, 48 Chippen St Sydney NSW ... 69-6338

MIAL USA INC, 165A FRANKLIN AVE, NUTLEY N J, 07110, TWX 710-989-1443 ... 201 667-1600
J YUHAS, EMP 10, ENG 1, $500-$1,000M
Cal Interstate Mktg Assoc, 22030 Ventura Blvd Woodland Hills ... 213 883-7606
Cal MacPherson Sales Co, Box 2206 San Francisco ... 415 775-0303
Colo J F Hurlbut Co, 2240 S Adams St Denver ... 756-2046
Conn Com/Pak, Box 37, Weathersfield ... 203 563-4784
Fla A B Andrews & Co, 1408 S Bayshore Dr Miami ... 305 377-2522
Ill Lightner Assoc Inc, 6322 N Milwaukee Ave Chicago ... 774-1500
Mass Com/Pak, 14 Oak St, Needham ... 617 444-1259
Mich J L Montgomery Inc, 24001 Southfield Rd Southfield ... 313 358-2616
Mo Kay Sales Co, 2600 Grand Kansas City ... 816 BA 1-8586
NJ Falk-Baker Co, 382 Franklin Ave Nutley ... 661-2430
NY S F Foster Co, 2806 Hennaberry Rd Pompey ... 315 677-3333
NC A B Andrews & Co 1401 Branch Banking & Trust Bldg Raleigh ... 833-5565
Pa J Oberlies, Box 517, Hatboro ... 672-6633
Tex Parvin Sales Co, Addison Rd Addison ... 214 239-9148
Ger Mial Intl SA, 14 Rue Aldringer, Luxemborg

MICA CORP, 4031 ELENDA ST, CULVER CITY CAL, 90230, TWX 910-340-6365 ... 213 870-6861
B KESSLER, EMP 300, ENG 11, $5,000-$10,000M
Cal Daniels-Padgett Assoc, 2620 Bayshore Frontage Rd Mtn View ... 415 969-1700
Colo Daniels - Padgett Assoc, 2512 S University Blvd Denver ... 303 777-0046
Fla Joseph Adams Assoc, Box 1322 Melbourne ... 305 773-1946
Ga Technical Marketing Inc, Box 1152 Marietta ... 404 435-0079
Ill H Halinton Engrg Assoc, 6418 N Central Ave Chicago ... 312 RO 3-2132
Mass John Cano, Box 96, Natick ... 617 OL 3-0880
Mich Burcaw Co & Assoc, 18236 W McNichols Rd Detroit ... 313 KE 3-7700
Minn Servco, 521 S Seventh St, Mnpls ... 612 FE 9-8611
Mo R F Carlson Co, 8721 Manchester Rd St Louis ... 314 WO 1-4485
NJ Mica Corp, U S Hwy 206 Princeton ... 609 921-2003
NC Technical Marketing Inc, Box 6664 Greensboro ... 919 274-2570
Ohio Robt K Deunk & Assoc, 7390 Chippewa Rd Cleveland ... 216 526-4317
Tex Stevens Sales, Box 34493, Dallas ... 214 241-3645
Wash Ray Johnston Co, 1011 NE 69th St Seattle ... 206 LA 4-5170
Wis Arthur Engrg Sales Co, 10720 W Scharles Ave Hales Corner ... 414 GA 5-5919
Can Intl Electronic Components, 2055 Mountain St Montreal, Que ... 514 849-1282
For Intl Electronic Eng, Ltd, Huerfanos 521 Santiago, Chile ... 34439
For Colonial Electronica, Ltd, Apartado Aereo 72-23 Bogota, Col ... 431-506
Den A Fredslund Pedersen, Nytorv 11 Copenhagen ... MI 641
Fr SPETELEC, 12 Rue Le Chatelier, Paris ... GAL 05-23

MICACRAFT PRODUCTS, INC, 49-55 LIBERTY ST NEWARK, N J, 07102 ... 201 623-4074
C GARNEAU, EMP 40, $250-$500M

MICAFIL LTD C/O UNIVERSAL, 1168 EB GROVE ST IRVINGTON, N J, 07111 ... 201 374-9800
A VICARI, EMP 80, ENG 5
Cal Universal Mfg Co Inc, Box 2041 Whittier ... 213 693-9800

MICHIGAN CHEMICAL CORP, 351 E OHIO ST CHICAGO
ILL, 60611, TWX 910 221 3843 ... 312 828-9500
L MCCOWEN

MICHIGAN MAGNETICS, 203 W 3 RD ST VERMONTVILLE, MICH, 49096 ... 517 259-8911
B KILLINGER, EMP 100, ENG 2, $500-$1,000M
Cal McKnight Co, 115 Spruce, Menlo Park ... 326-3762
Cal Ungar Sales Assoc, 317 Glasgow Ave Inglewood ... 678-5371
Ill John G Twist Co, 5222 W Diversy Ave Chicago ... 777-2250
Ind Morris-Cunningham Assoc, 720 E 65th St Indianapolis ... 255-2458
Mass N S Stachelek Co, 94 Kenwood St Kensington, Conn ... 828-4587
Minn Countryman, Wagner & Behnen Co 1955 University Ave, St Paul ... 645-9151
Tex J Y Schoonmaker Co Inc, 2995 Ladybird La Dallas ... 631-8480
Tex J Y Schoonmaker Co Inc, 6001 Gulf Frwy Houston ... 926-9510
Wash Larrabee & Assoc Inc, 119 Blanchard St Seattle ... 623-2521

MICHIGAN OVEN CO, FIRST OVEN PLACE (M) ROMULUS, MICH, 48174 ... 313 TE 2-1901
E MEYERS, EMP 200, ENG 7
Cal R F Horak, 821 Glenhaven Dr La Habra ... 213 697-7614
Conn Joseph Halloran, 63 Mowry St Hamden ... CH 8-3069
Ga R W Allen, 1055 Stovall Blvd NE Atlanta ... 404 233-2361
Ill Michigan Oven Co, 7845 N Merrimac Ave Morton Grove ... AR 1-9100
Ill L H Asman, 6274 N Leona Ave Chicago ... RO 3-9045
Ind H O Bennett, 927 Sunset Dr, Anderson ... 644-8567
Md Edward R Talone, 605 Pershing Dr Silver Spring ... 587-0330
Mo Brandwine Equip Co, 2683 Big Bend Blvd St Louis ... ST 1-6432
Mo Brandwine Equip Co, 4638 Nichols Pkwy Kansas City ... LO 1-1665
NY A C Towne & Assoc Inc, 1456 Niagara Falls Blvd Tonawanda ... 832-1468
NY A C Towne Corp, 75 College Ave Rochester ... GR 3-1136
NY Inman Assoc, Inc, 200 Park Ave New York ... 936-3390
NC Infratex, 2152 Hawkins St, Charlotte ... 376-8138
Ohio E T Wasinski, 105 Whitehorn Dr Vandalia ... 898-5718
Pa Equipment Engineering Co, 3737 Library Rd Pittsburgh ... 563-7700
Pa W H Evans, 524 Kingston Rd Oreland ... 215 887-4748
Tex Sellealloys & Equip Co, Box 66763 Houston ... 524-3013
Wis Industrial Htg & Control Div N 91 W 16228 Pershing Ave Menomonee Falls ... 251-2730
Can H J R Court, 162 Prince Charles Dr Georgetown, Ont ... TR 7-4694
Fr Moco/France - Mafit, Boite Postal 49 Macon Saone-et-Loire
GB General Engineering Co, Sta Wks - Bury Rd Radcliffe Lancs ... RAD 3271

MICHIGAN SCIENTIFIC CORP, 730 BELLEVUE AVE MILFORD, MICH, 48042 ... 313 684-0035
H LARSEN, EMP 4, ENG 1, UP TO $100M
Ala Technical Products Inc, 2109 W Clinton Huntsville ... 539-1154
Cal P-H Assoc, 11168 Santa Monica Blvd Los Angeles ... 879-0033
Ga Technical Prods Inc, 3711 Roswell Rd Atlanta ... 404 237-8780
Ill Larpen Instruments Inc, 799 Roosevelt Rd Glen Ellyn ... 858-1700
Md Kinney Technical Prods Inc, 108 England Terr Rockville ... 942-1033
Mass Andruss-Peskin Corp, Box 268, Natick ... 653-3919
Mich William T Bean, 18915 Grand River Detroit ... 838-6700
Ohio Wm T Bean, Inc, 138 Front St, Berea ... 371-0606
Pa Photolastic Inc, 67 Lincoln Hwy Malvern ... 644-4587
Tex Technical Products Inc, 10219 Hedgeway Dr Dallas ... 357-9603
Wash Brett Engrg Assoc, 2610 38th Ave SW Seattle ... 935-1062
Wis Larpen Instruments Inc, 5512 W State St Milwaukee ... 771-3060

MICO INSTRUMENT CO, 80 TROWBRIDGE ST CAMBRIDGE, MASS, 02138 ... 617 547-8660
R WALKER, EMP 15, ENG 2, $100-$250M

MICOM INC, 855 COMMERCIAL ST, PALO ALTO CAL, 94303, TWX 910-373-1179 ... 415 328-2961
D NELSON, EMP 35, ENG 5
Ala Currie Aerospace Assoc, Box 1424 Huntsville ... 205 536-5650
Ariz BFA, 4710 N 16th St, Phoenix ... 602 264-6536
Cal Ward/Davis Assoc, 770 S Arroyo Pkwy Pasadena ... 213 684-2840
Colo BFA, 1309 S Inca, Denver ... 303 744-3301
Fla Currie Aerospace Assoc, 2907 McCoy Rd Orlando ... 305 855-0843
Ill Loren F Green & Assoc, 5218 W Diversey Ave Chicago ... 312 286-6824/21
Md Paddock-Joslow Co, 721 Ellsworth Dr Silver Spring ... 301 588-7866
Mass Instrument Assoc Inc, 30 Park Ave Arlington 02174 ... 617 648-2922
Mich S Sterling Co, 21250 10 1/2 Mile Rd Southfield ... 313 357-3700
Minn Loren F Green & Assoc, 6225 University Ave NE Minneapolis ... 612 781-1611
Mo S Sterling Co, 11734 Lackland Ind Dr St Louis ... 314 542-3636
NJ L&M Assoc, 511 Victor St Saddle Brook ... 201 843-8700
NM BFA, 1238 Ortiz SE, Albuquerque ... 505 268-4387
Ohio S Sterling Co, 5827 Mayfield Rd Cleveland ... 216 442-8080
Ohio S Sterling Co, 2673 Culver Ave Dayton ... 513 298-7573
Okla BFA Inc, 3216 E 21st St, Tulsa ... 918 936-5295
Pa S Sterling Co, 4232 Brownsville Rd Pittsburgh ... 412 884-5515
Pa L&M Assoc, 965A Bristol Pike Andalusia ... 215 639-3100
Tex BFA Inc, 708 W Euless Blvd Euless ... 214 264-3363
Tex BFA Inc, Box 16065 Lampham Sta San Antonio ... 512 828-0164
Tex BFA Inc, Box 50, Friendswood ... 713 482-7563
Utah BFA, 535 S 2nd W, Salt Lake City ... 801 355-2684
Wash Rush Drake Assoc, 6133 Maynard Ave S Seattle ... 206 763-2755

MICROBEADS DIV, CATAPHOTE CORP, BOX 2369, JACKSON MISS, 39205 ... 601 939-4612
H SMALLEY, EMP 150, ENG 6, $5,000-$10,000M
ADV PG 10
Cal R W Norris, 1485 Bayshore Blvd San Francisco ... 467-8909
Conn A Pretto, 295 Cherry Hill Dr, Newington
Ga C E Schwinne, 3975 Covington Hwy Decatur ... 284-5773
Ill R N Schnitzius, 422 W Clarendon Prospect Heights ... 392-0917
NJ J S Humphries, 41 Coopers Run Dr Cherry Hill ... 424-1594
Ohio R D Walker, 4517 Overland Toledo ... 419 GR 2-5191
Can C J Malcolm, 15 Bismarck Rd Toronto, Ont ... 251-1681

MICRO-CIRCUITS CO, NEW BUFFALO MICH, 49117 ... 616 469-2727
R BRADLEY

MICRO COMMUNICATIONS CO, 2450 W 2ND AVE DENVER, COLO, 80223 ... 303 744-3461
D CORBIN, EMP 20, ENG 4
Colo Radio Specialists, 507 Berkeley Alamosa ... 589-2911
Colo Radio Specialists, 2621 W Bijou Colorado Spgs ... ME 2-9511
Colo Radio Specialists, 707 Jackson, Pueblo ... 543-1544

MICRO CO, BOX 543, EASTON, PA, 18042

MICRO CONTACTS, INC, 5-01 BURNS AVE, HICKSVILLE N Y, 11801 ... 516 GE 34830
R DUFFEY, EMP 80, ENG 2, $1,000-$2,500M
ADV PG 196, 393, 394

MICRODOT, INC, 220 PASADENA AVE
SOUTH PASADENA
CAL, 91030, TWX 213-449-2756 .... 213 682-3351
L LEVITT, EMP 734, ENG 60, OVER $10,000M
Ala W A Brown & Assoc, 1314 Buford St NW Huntsville 533-1026
Ala Rep Inc, 8100 S Mem Pkwy, Huntsville ... 881-9270
Ariz Compar Rocky Mountain, 84 W 1st St Scottsdale 947-4336
Ariz Brooks Feeger Assoc, 4710 N 16th St Phoenix 264-6536
Cal B J Wolfe Enterprises, 10760 Burbank Blvd N Hollywd 499-2666
Cal Microdot Inc, 725 Loma Verde Palo Alto 328-3022
Cal B J Wolfe Enterprises, Box 718 Cupertino 252-5010
Colo Brooks Feeger Assoc, 1309 S Inca St Denver 744-3301
Colo Robert Maich Co, 300 E Hampden Englewood 781-0912
Fla W A Brown & Assoc, 222 Weber Ave Orlando 425-5505
Fla W A Brown & Assoc, 3039 NE 32nd Ave Ft Lauderdale 564-8000
Fla Geartner Assoc, 350 Lincoln Rd Miami Beach 531-0200
Fla Geartner Assoc, 2101 Mohowk Tr Maitland 647-4000
Ga Rep, Inc, 1483 Monroe Dr., Atlanta 876-1591
Ga W A Brown & Assoc, 1590 Cooledge Rd Tucker 939-1674
Ill Larpen Instruments, Inc, 799 Roosevelt Rd Glen Ellyn
Ill Arthur J Ellis Co, 1607 W Howard St Chicago 262-2708
Ill S Sterling Co, 2 Talcott Rd, Park Ridge ... 692-4125
Ind O E M Sales Co, 4165 Millersville Rd Indianapolis 545-1267
Kan Ray Strother & Assoc, Box 18021 Wichita 683-4955
Md Warren Mount Co, 7735 Old Georgetown Rd Bethesda 657-9312
Md Burlingame Assoc, 1749 Rockville Pike Rockville 427-1255
Mass Microdot Inc, 20 SW Pk, Westwood 326-7090
Mass Burlingame Assoc, 7 Wellington St Waltham 894-1955
Mass Daner Assoc, 684 Commonwealth Ave Newton Center 969-4650
Mich Romarc, 696 Adams, Plymouth
Mich Elias Electronics, 26817 W 7 Mile Rd Detroit 255-2111
Mich S Sterling Co, 21250 10 1/2 Mile Rd Southfield 357-3700
Minn Howard Carlson, 100 N 7th St Minneapolis 336-2236
Mo Ray Strother & Assoc, 6050 Brown Rd St Louis 521-5100
Mo S Sterling Co, 11734 Lackland Ind Dr St Louis 542-3636
NJ Friedman Assoc, Inc, 110 Halsted St East Orange 673-2500
NJ Microdot Inc, Box 1911, So Hackensack .. 333-4664
NM Compar Rocky Mountain, 2125 San Matio Blvd NE Albuquerque 265-1020
NM Brooks Feeger Assoc, 1238 Ortiz SE Albuquerque 268-4387
NY Advanced Compts Corp Inc, 119 Luther Ave Liverpool 472-7886
NY Burlingame Assoc, 510 S Fulton Mt Vernon 664-7530
NY Burlingame Assoc, 106 Pickard Bldg Syracuse 454-2408
NY Microdot Inc, Box 172, Malvern 333-4664
NC W B Brown & Assoc, 1108 Burke St Winston-Salem 725-5384
Ohio R B Calhoun & Assoc, 40 S Moor Cir Dayton 299-4144
Ohio Geo L Herrick Co, 845 Canterbury Rd Westlake 871-8855
Ohio Rocky Process Instr, 21565 Hilliard Blvd Rocky River 333-3441
Ohio S Sterling Co, 5827 Mayfield Rd Cleveland 442-8080
Ohio S Sterling Co, 2673 Culver Ave, Dayton ... 298-7573
Okla Brooks Feeger & Puckett Inc, Box 15656 Tulsa 835-7941
Ore Showalter-Judd Inc, 1445 NE Arrington Hillsboro 648-6372
Pa Burlingame Assoc, 222 Lone La Upper Darby 538-6060
Pa Essay Sales Assoc, 201 Penn Center Blvd Pittsburgh 242-5151
Pa Warrent Mount Co, Box 6006, Philadelphia
Pa PDC Corp, Benson-E, Jenkintown 887-9610
Tex Brooks Feeger & Puckett, 708 W Euless Euless 283-4684
Tex Varec Inc, 466 M & M Bldg, Houston 224-9555
Tex Aymond Co Inc, 4340 N Central Expwy Dallas 827-8043
Tex Brooks Feeger & Puckett Inc Box 16065 Lampham Sta San Antonio 828-0164
Wash Ray Over Sales, 1615 103rd Ave SE Bellevue 454-9187
Wash Showalter-Judd Inc, 1806 S Bush Pl Seattle .... EA 4-7911
Can Douglas Randal Ltd, 1710 Midland Ave Scarborough 751-7911

MICRODOT MAGNETICS INC, 5960 BOWCROFT ST
LOS ANGELES, CAL, 90016 .... 213 870-7491
M MOUGEL, EMP 100, ENG 15, $1,000-$2,500M
Ala Reynolds & Assoc Inc, 904 Bob Wallace Ave SW Huntsville 536-1941
Ariz Vinson Assoc, 44 E Indian School Rd Scottsdale 602 947-7371
Colo Vinson Assoc, 3600 S Lincoln St Englewood 303 789-2203
Conn Howard Schuft Co Inc, 965 Dixwell Ave New Haven 865-1365
Fla Reynolds & Assoc Inc, Box 13088 St Petersburg 345-2128
Kan Palatine Engrg Sales, 5514 Johnson Dr Mission 913 262-5643
Mass Howard Schuft Co Inc, 815 Washington St Newtonville 527-5304
Mass Daner Assoc, 684 Commonwealth Ave Newton Center 617 969-4650
Mo Palatine Engrg Sales, 2050 Woodson Rd St Louis 314 426-7055
NM Vinson Assoc, 2329 Wisconsin NE Albuquerque 505 298-7442
Pa Engineering Tech, Box 52 Bala Cynwyd 215 667-5110
Tex V J Sykes, 13333 N Central Expwy Dallas .... 214 AD 5-5289
Va Engineering Tech Corp, 6615 Backlick Rd Springfield 703 451-6500

MICRODYNE INC, 1600 S HICKS RD
ROLLING MEADOWS, ILL, 60008 .... 312 774-9022
P MCCAULEY, EMP 100, ENG 18, $500-$1,000M

MICRODYNE INSTRUMENTS, 225 CRESCENT ST
WALTHAM, MASS, 02154 .... 617 893-8210
J GALLAGHER, EMP 26, ENG 5, $500-$1,000M
Ala Currie Aerospace Assoc, 2603 Artie St Huntsville 205 536-5650
Cal Mitronics Industries, 18039 Crenshaw Blvd Torrance 213 323-7934
Colo Hilleary Assoc, 2552 Ridge Rd Denver 303 794-4279
Conn J & J Assoc, 953 Dixwell Ave Hamden 203 624-7800
Fla Currie Aerospace Assoc, 2907 MCCoy Rd Orlando 305 855-0843
Ill Megatek Inc, 1915 N Harlem Ave Chicago 312 889-1277
Md S & S Assoc Inc, 7720 Wisconsin Ave Bethesda 301 654-2420
Mich Megatek Inc, 26847 Grand River Ave Detroit .... 313 531 -1403
NJ L Garten & Assoc, 375 Passaic Ave Caldwell 201 226-7800
NM Hilleary Assoc, 311 Washington Albuquerque 505 265-7631
NY J A Reagan Co, 419 Central Ave Albany 518 436-9649
NC Currie Aerospace, 519 Nissen Bldg Winston-Salem 919 725-1927
Ohio Megatek Inc, 3533 Far Hills Ave Dayton 513 298-8638
Ohio Megatek Inc, 23203 Lorain Ave Cleveland 216 734-4433
Pa L Garten Assoc, 947 Old York Rd Abington 215 929-5654
Tex Blacketer Co, 777 S Central Expw Dallas 214 231-1718
Can Electronic Mktg, 3600 Barclay Ave Montreal Que 514 739-3206
For Freuenberg Co, 50 Rockefeller Plaza, New York

MICROFLECT CO, INC, 3575 25TH ST SE, SALEM
ORE, 97302, TWX 510-599-0107 .... 503 363-9267
G KREITZBERG, EMP 50, ENG 5, $1,000-$2,500M

MICRO INSTRUMENT CO, 12901 CRENSHAW BLVD
HAWTHORNE, CAL, 90250 .... 213 772-1275
B BENETEAU, EMP 80, ENG 9, $1,000-$2,500M
Ariz Kelly Scientific Sales, 412 N Marshall Way Scottsdale 602 947-7584
Cal J Stone & Assoc, 140 Main St Los Altos 415 948-4563
Cal Mitronics Industries, 18039 Crenshaw Blvd Torrance 213 323-7934
Conn Instrument Dynamics Inc, 345 N Main St W Hartford 203 233-5503
Fla D MacGregor & Assoc, Box 1711 Clearwater 813 446-7310
Fla MacGregor Assoc, Box 2093 Orlando 305 831-0445
Ga D MacGregor & Assoc, 3473 Northlake Way Doraville 404 938-0681
Ill Bard Assocs, Inc, LaGrange Industrial Park LaGrange 312 354-0660
Ind Bard Assoc, Inc, 4002 Meadows Dr Indianapolis 317 849-2723
Kan Palatine Engineering Sales, 5514 Johnson Dr Mission 913 262-5643
Md QED Elctns Inc, 880 Bonifant St Silver Spring 301 588-8134
Mass Instrument Dynamics Inc, Wakefield Ind Pk Wakefield 617 245-5100
Mich Electro Enterprises, 10745 Morang Dr Detroit 313 886-2280
Minn Bard Assoc, Inc, 7700 Morgan Ave S Minneapolis 612 866-1700
Mo Palatine Engineering Sales, 2050 Woodson Rd St Louis 314 426-7055
NJ L Garten & Assoc, 375 Passaic Ave Fairfield 201 226-7800
NM Kelly Scientific Sales, 2800 Cardenas NE Albuquerque 505 268-3324
NY RJC Assoc, 219 Oakridge Ter Liverpool 315 457-3220
NY RJC Assoc, 294 2nd St, Ilion 315 724-6111
NC MacGregor Assoc, 2501 Starbrook Dr Charlotte 704 366-9440
Ohio Electro Enterprises, 335 E 200 St Cleveland 216 486-7040
Ohio Electro Enterprises Inc, 2621 Marden Dr Dayton 513 426-6071
Pa L Garten & Assoc, 947 Old York Rd Abington 215 927-1200
Pa Electro Enterprises, 201 Penn Center Blvd Pittsburg 412 371-8497
Tex Crockett Engrg Co, Box 47287 Dallas 214 637-6120
For Itonra Int'l, 9470 Santa Monica Blvd Beverly Hills 213 272-0011
Fr Seurolec, 39-41 rue de l'Est Boulogne-Billancourt, Seine 408-38-60
Jap Hakuto Co Ltd, Box 25, Tokyo Central

MICROLAB/F X R, 10 MICROLAB RD, LIVINGSTON
N J, 07039, TWX 710-994-4850 .... 201 992-7700
R VINCENT, EMP 250, ENG 40, $2,500-$5,000M
Ala Brennan Assoc, Inc, Box 1074 Huntsville 536-7425
Ariz Barnhill Assoc, 4900 E Indian School Rd Phoenix 959-2115
Cal L & M Engrg, Inc, 2620 Alameda Santa Clara 243-6661
Cal L & M Engrg, Inc, 9911 Inglewood Ave Inglewood 678-5400
Colo Barnhill Assoc, 1170 S Sheridan Blvd Denver 934-5505
Conn Instrument Dynamics Inc of Conn, 345 N Main St West Hartford 233-5503
Fla Brennan Assoc, Inc, Box 5006 Clearwater 446-5006
Fla Brennan Assoc, Inc, Box 8489 Ft Lauderdale 587-8077
Fla Brennan Assoc , Box 7773 Orlando 305 855-8161
Ga Brennan Assoc, Box 372, Tucker 404 469-8324
Ill Marsland Assoc, 6699 Lincoln Ave Chicago 676-1100
Ind Marsland Assoc, 3734 Carrollton Ave Indianapolis 317 924-3568
Md V P I, 561 Dorsey N W Glen Burnie 301 768-0550
Mass Instrument Dynamics Inc, Teal Rd Wakefield 245-5100
Mich Technitron, Inc, 13657 Grand River Ave Detroit 838-7324
Minn Marsland Assoc, 231 N Edgewood Ave Minneapolis 545-4481
Mo Marsland Assoc, Box 567, Florissant 831-0015
NM Barnhill Assoc, 827 Penna N E Albuquerque 265-7766
NY Ossmann Component Sales Corp, 39 Saginaw Dr Rochester 442-3290
NY Ossmann Component Sales Corp 1901 Vestal Pkwy E, Vestal 785-9949
NY Ossmann Component Sales Corp, 132 Pickard Bldg Syracuse 454-4477
NY Ossmann Component Sales Corp 17 Round Lake Pk Rd, Monroe 297-7773
NC Jake Rudisill Assoc Inc, 2009 N Tryon St Charlotte 377-6901
Ohio Technitron, Inc, 1250 W Dorothy La Dayton 298-9964
Ohio Technitron, Inc, 23203 Lorain Rd North Olmsted 734-0960
Pa Technitron, Inc, 114 Spring Grove Rd Pittsburgh 371-1231
Tex Barnhill Assoc, 507B Bishop St Richardson .... AD 1-2573
Tex Barnhill Assoc, 3810 Westheimer Houston .... NA 1-0040
Wash Paratech, Box 5427, Seattle 783-3900
Can Radionics Ltd, 195 Graveline St Mont 514 631-4568
Can Radionics, Ltd, 376 Churchill Ave Ottawa, Ont 613 728-4624
Can Radionics Ltd, 505 Eglinton Ave W Toronto 12 Ont 416 483-7191
Fr Machine & Products Co, 52 Wall St New York, NY 944-4370

MICRO-LECTRIC INC, 1015D WELLWOOD AVE
LINDENHURST, N Y, 11757 .... 516 884-7600
G RALSTON, EMP 19, ENG 1, $100-$250M
Fla Young & Lawrence Assoc Inc, 70 Moss La Winter Park 647-2528
Fla Young & Lawrence Assoc Inc, 325 72nd St N St Petersburg 341-6574
NJ A Wetterhahn, Inc, 4420 Crescent Blvd Pennsauken 662-1611

MICRO-LINK SYSTEMS, VARIAN ASSOC
19 WARTBURG AVE, COPIAGUE
NY, 11726 .... 516 598-2240
W HALLIGAN
Ill Video Systems, 6444 N Ridgeway Ave Chicago .... OR 7-9000
Mo Video Systems, 3743 Gravois St Louis .... PR 2-3295
NY Rochester Radio Supply Co, 140 W Main St Rochester 454-7800
Tex Taft Broadcasting Co, 4808 San Felipe Rd Houston .... NA 2-1010
Wash Aero Marc Co, 2304 Rainier Ave S Seattle 325-5880

MICRO-MAGNA ELECTRONICS CORP
3311 PERKINS AVE, CLEVELAND
OHIO, 44114 .... 216 431-6210
L NOLL, EMP 50, ENG 2, $500-$1,000M

MICRO-MAGNETIC INDUSTRIES INC
951 COMMERCIAL ST, PALO ALTO
CAL, 94303, TWX 34-8422 .... 415 321-5520
J SEDAM, EMP 101, ENG 7, $2,500-$5,000M
Cal T Reynolds, 951 Commercial St
Palo Alto 415 321-5520
Colo FIELD TECH SERVICES, 2515 W 8th St, Denver
Fla Buck Marks, 7070 SW 12th St
Miami 305 226-9632
Ga W H Sides Jr, 1954 Glenmar Dr
Decatur 404 289-7430
Ga COIN DEVICE SERVICE INC, 1220 Spring St NW
Atlanta 404 874-4856
Ill J F Murnane, 7233 W Breen St
Niles 312 965-1991
Ill Armin Montavon, 9202 1/2 Waukegan Rd
Morton Grove 312 966-0730
Mass VESCO, 302 Copeland, Quincy 617 472-2994
Mo Vendo Co, 7400 E 12th St
Kansas City .... HU 3-7400
NJ E M Leonard, 6 Myrtle Ave
Old Bridge 201 257-7474
NC COIN DEVICE SERVICE INC, 3403 Belhaven Blvd
Charlotte 704 392-0925
Ohio Raymond G Sipe, 529 W 3rd St
Cincinnati 513 721-6275
Wash COIN CONTROL SERVICES, 6202 - 8th Ave NW
Seattle 206 789-0110

MICROMAGNETICS DIV GULTON IND, 7473 AVE 304
VISALIA
CAL, 93277, TWX 910-377-3070 .... 209 732-4811
G HAMMERS, EMP 100, ENG 5, $1,000-$2,500M

MICRO MEASUREMENTS INC, 38905 CHASE ROAD
ROMULUS, MICH, 48174 .... 313 941-3900
C PERRY, EMP 70, ENG 5, $500-$1,000M

MICROMECH MFG CORP, 695 RAHWAY AVE, UNION
N J, 07083 .... 201 687-3200
J SORRENTINO, EMP 35, ENG 2, $500-$1,000M
Conn H O Robinson, 47 Riverside Terr
Madison 245-2054
Pa Sophisticated Metal Prods
Township Line Rd at Cromly
Phoenixville 933-4573

MICROMEGA DIV AMPHENOL CORP
4134 DEL REY AVE, VENICE
CAL, 90291, TWX 910-342-6990 .... 312 391-7137
E STRUMWASSER, EMP 57, ENG 12, $1,000-$2,500M
Cal Blair Assoc, 421 N Brookhurst St
Anaheim 635-1350
Colo Thorson Co, 300 E Hampden Ave
Englewood 789-1841
Fla Truex Assoc, 3165 McCrory Pl, Orlando ... 841-8931
Md Stemler Assoc, 6707 Whitestone Rd
Baltimore 944-8262
Mass P J Eng Sales Co Inc, Box 212
Watertown .... WA 4-5950
NJ EAC Assoc, 24 E Northfield Rd
Livingston 994-0061
NY EAC Assoc, 53-11 90th St, Elmhurst .... DE 5-0606
Tex Thorson Co, 7700 Carpenter Freeway
Dallas .... ME 1-5440
Wash Thorson Co, 1767 15th Ave S, Seattle ... EA 5-5000
Fr Seurolec, 39-41 Rue de l'est
Boulogne-Billancourt 408-38-60
Ger Wacker G M G H, Stettenstr 9, 6 Frankfurt Am Main
GB Microwave Systems Ltd, 32 Hunting Gate
Hitchin, Herts .... HIT 4554
Swed M Stenhardt AB, Bojornsonsgatan 197
Stockholm-Bromma 87 02 40

MICROMETALS INC, 72 E MONTECITO AVE
SIERRA MADRE, CAL, 91024 .... 213 MU 19025
R BARDEN, EMP 25, ENG 2, $500-$1,000M
Cal King Assoc, Box 2067, Sunnyvale 738-2570
Conn A L Gutekunst Co, 6 Arrowhead Dr
West Simsbury 688-1612
Fla Wm J Irvine Co, 1641 Santa Barbara Dr, Dunedin
Ill H G Pretat, Inc, 7716 W North Ave
Elmwood Park 453-3380
Ind H G Pretat, Inc, 3001 S Fairfield
Fort Wayne 745-1251
Mass A L Gutekunst Co, 336 Washington St
Wellesley Hills 235-6330
NY Lloyd Hart Assoc, Box 8398
Rochester .... CH 4-3253
NY Kahgan Sales, 1261 Broadway
New York 212 684-7772

MICRO METRICS INC, 165 PENNSYLVANIA AVE
PATERSON, N J, 07503 .... 201 271-7441
S LISS, $100-$250M

MICRON GEAR CO INC, 210 EXPRESS ST, PLAINVIEW
N Y, 11803 .... 516 433-5000
M AMOROSIA, EMP 90, ENG 3, $1,000-$2,500M
Md Globe Assoc, Inc, 8121 Georgia Ave
Silver Spring .... JU 7-0060
Ohio Wm Turner, 4240 Eaglehurst Rd
Toledo .... TU 2-2830
Tex Koch Engineering Co, 309 Meadows Bldg
Dallas .... EM 1-1765

MICRONETICS DIV TELEDYNE SYSTEMS CO
7155 MISSION GORGE RD, SAN DIEGO
CAL, 92120 .... 714 583-3525
J MOORE, EMP 100, ENG 43, $2,500-$5,000M

MICRONICS CORP OF AMERICA, 11 POMFRET ST
PROVIDENCE, RI, 02904 .... 401 351-4408
F D'UVA, EMP 40, ENG 2, $250-$500M

MICRO-NOW INSTRUMENT CO INC, 6124 N PULASKI RD
CHICAGO, ILL, 60646 .... 312 282-0846
C ARNOW, EMP 6, ENG 2, UP TO $100M
ADV PG 685
Ala N B S, Box 1343, Huntsville 205 881-3175
Colo Bennewitz Assoc, 2801 E Colfax
Denver 303 399-1132
Fla N B S, 4150 SW 23rd St
Ft Lauderdale 305 584-0650
Fla N B S, 2813 Primrose St, Orlando ... 305 423-4856
Ga N B S, 893 Church St NW
Marietta 404 422-6067
Mass Reptron, 110 Great Rd, Bedford 275-8585
Mich Tiby Co, 380 Hilton Rd, Ferndale 313 547-3550
NJ Gray & Reed, 626 Hillcrest Ave
Westfield .... 201 AD 3-6116
NM Bennewitz Assoc, 9720 Candelaria Ave
Albuquerque 505 299-8651
NY Gray & Reed, 9 Dunford St
Huntington Sta .... GE 3-3333
Ohio Tiby Co, 2245 Warrensville Ctr Rd
Cleveland 371-5335
Ohio Tiby Co, 1960 N Main St, Dayton 513 277-3822
Pa W Dugger Co, 412 Spring Ave
Ardmore .... MI 9-0889
GB Roberts Electronics Ltd, 17 Hermitage Rd
Hitchin, Herts .... HIT 5 0551/2

MICRO OHM CORP, 4900 DOUBLE DR, EL MONTE
CAL, 91731 .... 213 686-0535
C SCHWAB, EMP 90, ENG 1, $250-$500M
Cal Micro-Ohm Corp, 1999 S Coast Hwy
Laguna Beach 494-1036
Cal Sinai-Johnson Inc, Box 591, Redwood City
Ill Audio Sound Sales Co, 2919 1/2 W Armitage
Chicago
Md Barnhill & Assoc, 1931 Greenspring Dr, Timonium
Ohio Del Steffen & Assoc, 904 E 222nd St, Cleveland
Tex Hays Co, 405 N Bowser, Richardson
For Machine & Products Co, 52 Wall St, New York, N Y
Fr Neotronics Corp, 165 Samuel St
MasjidBunder, Bombay
Ital S P Ellectronica, Milano

MICRO PARTS INC, 2922 WORTHEN AVE
LOS ANGELES, CAL, 90039 .... 213 NO 3-3238
A SULLIVAN, EMP 35, ENG 3, $500-$1,000M

MICROPHASE CORP, BOX 1166, GREENWICH
CONN, 06830 .... 203 661-6200
F PARIN, EMP 100, ENG 12, $2,500-$5,000M
Cal RF Assoc, 1621 Pontius Ave
Los Angeles 478-1586
Cal RF Assoc, 800 San Antonio Rd
Palo Alto 327-5531
Md Eastern Instrumentation, 1002 Ingleside Ave
Baltimore .... RI 4-3675
NJ Eastern Instrumentation, 518 Franklin Ave
Nutley 661-2000
NY Eastern Instrumentation, Inc, 350 Northern Blvd
Great Neck 661-2000
Pa Eastern Instrumentation, 613 Cheltenham Ave
Phila .... WA 7-6269
Wash J K Dooley Co, 4110 Stone Way N, Seattle
For Intl Technical Products, 1250 Connecticut Ave NW
Washington, D C 223-5520

MICROPOROUS FILTER DIV, BOX 3666, ANAHEIM
CAL, 92803 .... 714 774-6110

MICRO POWER INC, 25-14 BROADWAY
LONG ISLAND CITY
N Y, 11106, TWX 710-582-2608 .... 212 726-4060
B KAISER, EMP 40, ENG 4, $1,000-$2,500M

MICRO-RADIONICS INC, 14844 OXNARD ST
VAN NUYS
CAL, 91409, TWX 910-495-1786 .... 213 786-1760
J BECKER, EMP 100, ENG 20
NJ F H Tyndall, 40 Cleveland Rd
Caldwell 201 228-2560

MICRO SCIENCE ASSOC, 2274 MORA WAY
MOUNTAIN VIEW, CAL, 94040 .... 415 968-7215
N COX, EMP 150, ENG 6, $2,500-$5,000M
Cal Micro Science, 16661 Ventura Blvd
Encino 213 686-1632
Colo Electro-Rep, Inc, 1051 S Platte River Dr
Denver 744-2811
Conn COM/PAK, 104 Apple Kill
Wethersfield 203 563-4784
Fla J F Griffin Co, 812 Lakeside Dr
N Palm Beach 848-4617
Ga J F Griffin Co, 3449 Ferndell Dr
Winter Park 305 671-6060
Ill Lightner Assoc, Inc, 6322 Milwaukee Ave
Chicago 774-1500
Mass COM/PAK, 14 Oak St, Needham 444-1259
Minn Northport Engrg, 2027 Grand Ave
St Paul 612 698-3841
Mo Ozark Electronic, 2573 Woodson Rd
St Louis 423-7200
NY Samuel S Egert Co, 146 Meacham Ave
Elmont 516 488-2255
NY A U Sales Corp, 201 S Main St
North Syracuse 315 458-4491
NC Electro Rep, 128 W 30th St
Charlotte 704 333-0451
Ohio Technical Assoc, Box 388, Fairborn 878-2484
Ore Van Voorhees Assoc, Box 4383
Portland 287-6633
Pa Samuel S Egert Co, 109 W Ridge Pike
Conshohocken 215 277-0559
Tex A U Sales Corp, 415 N Bowser
Richardson 214 235-1551
Can Anbak SalesCan Ltd., 3208 Lenworth Dr
Cooksville Ont 416 625-1061
Fr Deltec S A, 30 rue des Amandiers
Paris 20e 797-52-93
Ger Gladitz GmbH, Freiburg/BR, Merianstr
GB EPAK Assoc, 73 Cherry Orchard Rd
Croyden 01-6889201
Ital Exhibo Italiana S R C, Via Cornalia, 19
Milano 667832

MICROSEMICONDUCTOR CORP, 11250 PLAYA COURT
CULVER CITY
CAL, 90230, TWX 910-343-6470 .... 213 391-8271
E STARK, EMP 300, ENG 8, $2,500-$5,000M
Ariz TCI, 415 Winfield Scott Plaza
Scottsdale 298-0429
Cal Dorado Electronics, Inc, 13615 Victory Blvd
Van Nuys 787-4125
Colo Brown Technical Inc, 130 S Yarrow St
Denver 233-0863
Ill Fiat Engineering, 5133 St Charles
Bellwood 547-6200
Md Faion Lott, North Shore Dr, Glenburnie 744-4611
Mass Vector Sales, 774 Pleasant St, Belmont ... IV 9-1400
Mich W R Hummon Co, Box 501, Farmington ... 474-0661
Minn Hamilton, Grayden & Flemmer, Hamilton Rd
Hopkins 941-1120
NY Tech-Mark, Inc, Professional Bldg
Endicott 748-7473
NY Comp-Tech Sales, Box 384, Lynbrook 593-2628
Pa Elcom, Inc, 130 S Easton Rd, Glenside ... 885-1325
Can Canadian Micro Electronics, Box 6157, Sta J
Ottawa 728-7444
Fr France Nucleaire Electronique, 125 Rue De Rome
Paris 227-54-22
Holl N V Diode - Lab Voor Electr, Hollantlaan 22
Utrecht 030-84214
Jap Nichimen Co Inc, 1150 S Olive St
Los Angeles, Cal 749-9201

MICROSONICS INC, 60 WINTER ST, WEYMOUTH
MASS, 02188 .... 617 337-4200
B O'SULLIVAN, EMP 150, ENG 17, $1,000-$2,500M
ADV PG 248, 298, 452
Cal Tech-Reps, Box 64212, Los Angeles 838-4100
Cal Waldman Assoc, 1094 W Evelyn St
Sunnyvale 245-2500
Fla Geartner Assoc Inc, 350 Lincoln Rd
Miami Beach .... JE 1-0200
Fla Geartner Assoc Inc, 2101 Mohawk Tr
Maitland 647-4000
Ind Chester Given, 921 E 3rd St
Mishawaka 255-6439
Md Burgin-Kreh Assoc, Box 9787, Towson 661-1120
NY EAC Assoc, 53-11 90th St, Elmhurst .... DE 5-0606
NY Young & Ziff Inc, 555 Winton Rd N
Rochester .... HU 2-1555
Ohio Whelan Corp, 2975 Far Hills Ave
Dayton 298-9997
Tex P J Scanlon, Inc, Box 70, Richardson .... AD 1-4661
Va Burgin-Kreh Assoc, 2600 Memorial Ave
Lynchburg 845-5600
Can D T Shaw Co Ltd, 1966 Graham Blvd
Montreal 735-1541
Can D T Shaw Co Ltd, 5150 Dundas St W
Islington Ont 231-2706
Fr J F D Electronics Europe sa, 7, Rue de Rocroy
75 Paris X
Jap Rikei Trading Co Ltd
18-14 Nishi-Shimbashi Minatoku, Tokyo

MICRO STATE ELECTRONICS OPER RAYTHEON CO
152 FLORAL AVE, MURRAY HILL
N J, 07971, TWX 710-984-7966 .... 201 464-3000
R KOLTS
Ala Gentry Assoc, 2109 W Clinton St
Huntsville 534-9771
Cal Raytheon Co, 2930 W Imperial Hwy
Inglewood 757-0251
Cal Raytheon Co, 120 El Camino Real
San Carlos 593-1021
DC Raytheon Co, 1000 16th St
Washington 638-5200
Fla Gentry Assoc, Inc, 550 N Bumby Ave
Orlando 841-7740
Fla Gentry Assoc, 201 Nelson Ave
Eau Gallie 254-3021
Fla Gentry Assoc, 4152 49th Ave S
St Petersburg 867-7820
Ga Gentry Assoc, Box 13515, Sta K
Atlanta 233-3816
Ill Raytheon, 3158 Des Plaines Ave
Des Plaines 296-6677
Md Raytheon, 100 Roesler Rd, Glen Burnie ... 761-0450
Mass Raytheon, 190 Willow St, Waltham 899-8400
NJ Raytheon, 475 S Dean St, Englewood 567-4919
NC Gentry Assoc, Box 197, Jamestown 454-1919
Ohio Raytheon, 333 W 1st St, Dayton 223-8128
Tex Raytheon, Stemmons Tower W, Dallas 631-3745
Wash Associated Ind, 3711 S Hudson St
Seattle 722-3347
Can Renfrew Elec Ltd, 349 Carlaw Ave
Toronto 8, Ont 461-3511

MICRO SWITCH DIV, HONEYWELL, CHICAGO & SPRING STS
FREEPORT, ILL, 61032, TWX 910-642-0922 ...... 815 232-1122
J LINCOLN
ADV PG 662, 663, 665, 667, 671, 672, 674, 678, 681, 683
Ariz Micro Switch Div Honeywell, 4129 N 7th Ave
Phoenix 602 264-6521
Cal Micro Switch Div Honeywell, 2 Dorman Ave
San Francisco 415 826-9100
Cal Micro Switch Div Honeywell, 1515 Morena Blvd
San Diego 714 276-4668
Cal Micro Switch Div Honeywell, 6620 Telegraph Rd
Los Angeles 213 723-6611
Colo Micro Switch Div Honeywell, 7825 E Prentice Ave
Englewood 303 771-2340
Conn Micro Switch Div Honeywell, 885 Wethersfield Ave
Hartford 203 527-0178
Ga Micro Switch Div Honeywell, 500 Plaster Ave NE
Atlanta 404 875-9561
Ill Micro Switch Div Honeywell, Box 8530-A
Chicago 312 478-9290
Ind Micro Switch Div Honeywell, 5739 Professional Cir
Indianapolis 317 243-0831
Iowa Micro Switch Div Honeywell, 1810 State St
Bettendorf 319 355-6456
Kan Micro Switch Div Honeywell, 2801 S Madison
Wichita 316 591-3435
Mass Micro Switch Div Honeywell
1230 Soldiers Field Rd, Boston 617 254-3939
Mich Micro Switch Div Honeywell, 13631 Plymouth Rd
Detroit 313 834-6020
Minn Micro Switch Div Honeywell, 415 E 27th St
Mnpls 612 332-5222
Mo Micro Switch Div Honeywell, 2146 Hampton Ave
St Louis 314 647-6100
NJ Micro Switch Div Honeywell, Box 161
Union 201 688-8740
NY Micro Switch Div Honeywell, 811 Orwood Pl
Syracuse 315 437-2851
NY Micro Switch Div Honeywell, 40 West Ave
Rochester 716 328-0373
NY Micro Switch Div Honeywell, 1200 Arterial Hwy
Binghamton 607 723-7993
NY Micro Switch Div Honeywell, 24-30 Skillman Ave
LIC 212 786-5005
Ohio Micro Switch Div Honeywell, 1001 E 55th St
Cleveland 216 881-0300
Ohio Micro Switch Div Honeywell, 2314 Stanley Ave
Dayton 513 461-4480
Ore Micro Switch Div Honeywell, 2600 SE Belmont
Portland 503 235-8224
Pa Micro Swtich Div Honeywell, One Decker Square
Bala Cynwyd 215 835-2500
Tex Micro Switch Div Honeywell
6000 N Central Expwy, Dallas 214 363-5441
Tex Micro Switch Div Honeywell, 2803 Buffalo Spdwy
Houston 713 622-2461
Va Micro Switch Div Honeywell
1716 Old Meadow Rd, McLean 703 893-4660
Wash Micro Switch Div Honeywell, 401 Pontius Ave N
Seattle 206 682-4580
Wis Micro Switch Div Honeywell, 2979 N Mayfair Rd
Milwaukee 414 771-6300

MICRO TECH MFG INC, 703 PLANTATION ST
WORCESTER
MASS, 01605, TWX 710-340-6739 ...... 617 755-5215
A RILEY, EMP 85, ENG 12, $2,500-$5,000M
Cal Micro Tech Mfg Inc, 114 Wm Moffatt Rd
Goleta 805 964-6996
Cal Hybrid Electronics, 312 7th St
San Francisco 415 863-2543
Fla Duncan MacGregor, Box 1711
Clearwater 446-7310
Fr ETS Precimeca, 18 Rue D'Arras
Nanterre (Seine) France
GB P Baksh, Radnor House, Regent St, London
Jap Rikie Trading Co Ltd, 18-14 Nishishimbashi
1-Chome, Minato-ku, Tokyo

MICRO TEL CORP, 1406 SHOEMAKER RD, BALTIMORE
MD, 21209 .... 301 823-6227
R FINKE, EMP 30, ENG 9, $1,000-$2,500M
Cal Blair Assoc, 421 N Brookhurst Ave
Anaheim 714 635-1350
Cal Walter Assoc, 175 S San Antonio Rd
Los Altos 415 941-3141
Fla Tech-Rep Assoc, Box 8218
St Petersburg 813 391-0008
Ill Feller Assoc, 3065 University Ave
Highland Park 312 433-3646
Md E-A Inc, 1406 Shoemaker Rd
Baltimore 825-2385
Mass Microwave Consultant Corp, 195 West St
Waltham 617 899-4400
NY CDB Enterprises, 675 W Jericho Tpk
Huntington .... MY 2-5200
NC Technical Mktg Assoc, 5100 N Glen Dr
Raleigh 919 787-7244
Ohio Micro Sales Corp, 1250 W Dorothy L
Dayton 513 298-3033
Tex Kelley Enterprises, 5432 Vancover St
El Paso 915 751-3843

MICROTRAN CO INC, 145 E MINEOLA AVE
VALLEY STREAM, N Y, 11582 .... 516 LO 16050
W BENSCHER, EMP 100, ENG 10, $1,000-$2,500M
Ala F C Nickerson Co, Box 1463
Huntsville 205 881-9565
Cal Microtran West Inc, 1728 W 130th St
Gardena 770-0610
Cal R A Strassner Co, 3112 Los Feliz Blvd
Los Angeles 666-4040
Cal R A Strassner Co, 885 N San Antonio Dr
Los Altos 948-3334
Colo Gossard & Assoc, 12159 W Dakota Dr
Denver 985-0602
Fla Jack Geartner Co, 2101 Mohawk Tra
Maitland 647-4000
Fla Geartner Assoc, 350 Lincoln Rd
Miami Beach 531-0200
Ga F C Nickerson Co, 1244 Clairmont Ave
Decatur 404 377-1575
Ill Jerome H Kleker Co, 177 Sunset Ave
Glen Ellyn 469-2297
Kan Penzner Assoc, 5600 W 95th St
Overland Park .... DU 1-0004
Md Arnold Assoc, 528 Ryers Ave
Cheltenham .... VA 8-7666
Mass Chas Segel Co, 799 Washington St
Newtonville 969-6900
Mich R C Nordstrom & Co, Box 32
Lathrup Village 444-4417
Minn Beta Engineering Co, 128 Jackson Ave N
Hopkins 938-2551
Mo Penzner Assoc, Box 1912, St Louis ...... CH 1-4385
NY Arthur L Perkins, Kinloch Plaza
Manlius 682-5005
NY Edglass Assoc, 250 W 57th St
New York .... JU 6-8440
Ohio John O Olsen Co, 16201 Shaker Blvd
Cleveland 752-5444
Pa Arnold Assoc, 528 Ryers Ave
Cheltenham .... PL 2-0600
Pa John O Olsen Co, 104 Elatan Dr
Pittsburgh 279-2500
Tex Howell Sales, Box 747, Grand Prairie ... AN 2-5153
Wash Electronic Sales Corp, 5600 Calif Ave SW
Seattle .... WE 2-0330
Wash Harry Levinson Co, 1211 E Denny Way
Seattle .... East 3-5100
Can Lake Engineering, 123 Manville Rd
Scarborough 757-3253

MICROWAVE ASSOCIATES INC
NORTHWEST IND PARK, BURLINGTON
MASS, 01803, TWX 710-332-6789 ...... 617 272-3000
R DIBONA, EMP 1400, ENG 400, OVER $10,000M
Ariz Carter Assoc Inc, Box 99, Scottsdale 947-4355
Cal Recht Assoc, 175 S San Antonio Rd
Los Altos 941-0336
Cal Microwave Assoc Inc, 3605 Long Beach Blvd
Long Beach 213 426-9531
Fla W Ben Wimberly Co, 532 S Fort Harrison Ave
Clearwater 466-7072
Fla W Ben Wimberly Co, 500 S Osceola St
Orlando 425-3083
Ga Edgar A Moore & Assoc, 254 E Paces Ferry Rd
Atlanta 233-9494
Ill Gassner & Clark Co, 6644 N Western Ave
Chicago 764-6121
Kan Technical Reps, Inc, 809 Sheridan Cir
Olathe 782-3775
Kan Technical Reps, Inc, 6314 Farm View La
Wichita 316 682-4140
Md Burgin-Kreh Assoc Inc, Box 9787
Towson 301 661-1120
Mich Harvey Teplitz & Co, 26847 Grand River Ave
Detroit 537-9058
Minn Countryman, Wagner & Behnan
1955 University Ave, St Paul 612 645-9151
Mo Technical Reps, Inc, 7049 Laupher La
Hazelwood 521-1000
NJ L Adezio Sales Co, Box 159
Moorestown 665-6007
NY ERA Inc, 330 Great Neck Rd
Great Neck 516 482-9320
NY Reed Electronics, Box 187 Vestal Pkwy E
Vestal 748-7391
NY Reed Electronics, 2815 Monroe Ave
Rochester 473-2767
Ohio Harvey Teplitz & Co, 3718 Salem Ave
Dayton 277-9178
Ohio Harvey Teplitz & Co, 3945 Meadowbrook Blvd
Cleveland 371-2044
SC Edgar A Moore & Assoc, Box 871
Aiken 649-7100
Tex P J Scanlon Co, Box 70, Richardson 231-4661
Va Burgin-Kieh Assoc, 2600 Memorial Dr
Lynchburg 845-5600

MICROWAVE CAVITY LABS INC, 10 N BEACH AVE, LA GRANGE
ILL, 60525 .... 312 354-4350
R MORGAN, EMP 75, ENG 21, $1,000-$2,500M
ADV PG 124, 125
Ala N B S, Inc, Box 1343, Huntsville 205 881-3175
Cal Smith & Assoc, Box 1525, Orange 541-2629
Fla N B S, Inc, 2813 Primrose Ct, Orlando ... 423-4856
Fla N B S, Inc, 4150 SW 23rd St
Ft Lauderdale 305 584-0650
Ga N B S Inc, 893 Church St NW
Marietta 404 422-6067
Iowa Engineering Services Co, 1026 3rd Ave SE
Cedar Rapids 366-1591
Kan Engineering Services Co, 7924 A State Line
Prairie Village 649-4000
Md Stemler Assoc & Co, 6707 Whitestone Rd
Baltimore 301 944-8262
Mass Reptron, Inc, 110 Great Rd, Bedford 275-8585
Mo Engineering Services Co, 6717 Vernon
St Louis 726-2233
NJ F & F Assoc, 58 Arcadia Rd
Woodcliff Lake .... PR 8-6767
NJ Stemler Assoc & Co, Box 287
Cherry Hill 966-4070
NM A L S Electronics, Box 11626
Albuquerque 298-2575
NY J D Ryerson Assoc, Inc, Box 8369
Rochester 442-1900
NY F & F Assoc, 461 Old Country Rd
Westbury, L I .... ED 4-1160
NY J D Ryerson Assoc, Box 1400
Syracuse 656-7419

MICROWAVE CHEMICALS LAB INC, 282 7TH AVE
NEW YORK, N Y, 10001 .... 212 WA 4-6725
B KRAMARSKY, EMP 16, ENG 3, $250-$500M
Cal H Stout Assoc, 199 First St
Los Altos 415 948-3265
Can W Weiler, 1504 Marie Claire St
Lasalle Que 514 684-3000
For Microwave Intl Corp, 111 High Ridge Rd
Stamford 203 348-7704

MICROWAVE CONTROL CO, BOX 808, RED BANK
N J, 07701 .... 201 938-9531
A CRIVELLO, EMP 6, ENG 2, $100-$250M

MICROWAVE DEVELOPMENT LABS INC
87 CRESCENT RD, NEEDHAM HEIGHTS
MASS, 02194 .... 617 449-0700
R TUCKER, EMP 350, ENG 12
Cal J E Hachten Co, 800 Welch Rd
Palo Alto 362-1252
Cal J E Hachten Co, 1135 Huntington Dr
Arcadia 681-2361
Fla Hi-Co Assoc, Box 1317, Winter Park 647-5030
Md Brimberg Assoc Inc, 814 Thayer Ave
Silver Spring 588-7790
Mass Microwave Consultants Corp, 195 West St
Waltham 899-4400
Minn Sheridan Assoc, Box 128
Lathrup Village 353-3822
Mo Gennel Technical Sales Co, Box 6064 Lambert Fld
St Louis 838-6010
NY D B Assoc, Box 14, Syracuse 446-0200
NY Salsbury Assoc, 331 W John St
Hicksville 938-1080
Ohio Sheridan Assoc, Box 37646, Cincinnati ... 761-5432
Ohio Sheridan Assoc, Box 37, Dayton 277-8911
Ohio Sheridan Assoc, Box 7486, Cleveland 884-2001
Pa Lewis Slubin, 2305 Fairmount Ave
Philadelphia 236-2072
Tex Lawrence Sales Co, Box 1038
Richardson 235-5504
Wash J B Jolly, 69 Marion St, Seattle 623-7060
Can Tech Assoc Inc, 1262 Don Mills St
Don Mills Ont 445-7490
For Dage Corp, 757 Main St
Stamford Conn 324-3123

MICROWAVE ELECTRONICS A TELEDYNE CO
3165 PORTER DR, PALO ALTO
CAL, 94304 .... 415 321-1770
J VANCE, EMP 500, ENG 50
Ala Gentry Assoc, 2109 W Clinton St
Huntsville 536-5306
Ariz Thorson Co, 2505 E Thomas Rd
Phoenix 264-5878
Cal Jay Stone Assoc, 140 Main St
Los Altos 948-4563
Cal Thorson Co, 6824 Melrose Ave, Los Angeles
Cal Thorson Co, 444 Olive St, San Diego 298-8385
Cal Thorson Co, 2114 N Broadway
Santa Ana 547-6206
Colo Thorson Co, 300 E. Hampden Ave.
Englewood 789-1841
Conn G Gregory Assoc, 9 S Main St
Cheshire 272-5040
DC T Britt, 1523 L St NW, Washington 628-0707
Fla Gentry Assoc, 2517 B E Colonial Dr
Orlando 424-0730
Ga Gentry Assoc, Box 13513, Atlanta 233-3816
Ill Cozzens & Cudahy, 9501 W Devon Ave
Rosemont 825-1144
Ind Cozzens & Cudahy, 44 Kirk Ave
Indianapolis 244-2456
Md Electronic Marketing Assoc, 11501 Huff Ct
Kensington 946-0300
Mass George Gregory Assoc, 7 Erie Dr
Natick 235-9070
Minn Cozzens & Cudahy, 7710 Computer Ave
Minneapolis 920-1022
Mo Cozzens & Cudahy, 1160 Florissant Rd
Florissant 831-0100
NJ Gawler-Knoop Co, 14 Beaufort Ave
Roseland .... CA 6-4545
NJ Sonco Inc, Crystal Brook Prof Bldg
Eatontown 761-0577
NY NACO Electronics Corp, 119 Luther Ave
Liverpool 474-7481
Ohio Aertronic Assoc Inc, 5899 Huberville Ave
Dayton 253-8144
Pa Sonco Inc, 556 W Dekalb Pike
King of Prussia 660-3951
Tex Thorson Co, 7700 Carpenter Freeway
Dallas 631-5440
Tex Thorson Co, 7007 Gulf Frwy, Houston 644-2218
Wash Harry Levinson Co, 1211 E Denny Way
Seattle 323-5100
Can Ahearn & Soper Ltd, 844 Caledonia Rd
Toronto, Ont. 789-4325

MICROWAVE FILTER CO INC, 135 W MANLIUS ST
EAST SYRACUSE, NY, 13057 .... 315 437-4529
G BOSTICK, EMP 12, ENG 4, $100-$250M
Cal Crown Electronics, Box 2573
Van Nuys 213 873-1266
Mass B & W Assoc, B St, Burlington 617 275-9177

MICROWAVE GUIDE INC, 361 AIKEN ST, LOWELL
MASS, 01850 .... 617 454-0484
R WILSON, EMP 12, ENG 1, $100-$250M

Tex Applied Engrg Sales, 1st Bank & Trust Bldg
Richardson .... 214 AD 1-1322

MICROWAVE INSTRUMENTS CO, 3111 SECOND AVE
CORONA DEL MAR, CAL, 92625 .... 714 673-7688
R BOTSCO, EMP 6, ENG 2, $100-$250M

MICROWAVE LABS OF AMERICA, BOX 13, BAY STA
BROOKLYN, N Y, 11235
H GINDINS, EMP 22, ENG 3, $250-$500M

MICROWAVE PRODUCTS GROUP DIV C A S INC
115 OLD COUNTRY RD, CARLE PLACE
N Y, 11514, TWX 510-222-3789 .... 516 741-1500
R PIZZUTIELLO, EMP 150, ENG 50, $1,000-$2,500M
Cal Wright Engrg, 180 E Calif Blvd
Pasadena 213 681-2651
Cal Wright Engrg, 126 25th Ave
San Mateo 415 345-5796
Fla Beacon Elctn Assoc Inc, Box 1278
Maitland 305 647-3498
Fla Beacon Elctn Assoc Inc, Box 10212
Ft Lauderdale 305 564-4298
Ga Beacon Electn Assoc Inc, 2285 Peachtree
Atlanta 404 351-3654
Ill Feller Assoc, 3065 University Ave
Highland Pk 312 433-3646
Mass Microwave Consultants, 195 West St
Waltham 617 899-4400
Mich Tiby Co, 380 Hilton Rd, Ferndale 313 547-3550
NY NACO Electronics Corp, 14 Lori St
Poughkeepsie 462-2730
NY DAL-Tech Devices Inc, 114 Old Country Rd
Mineola .... 516 PI 7-0236
NC Beacon Elctn Assoc Inc, Box 503, Jamestown
Ohio Tiby Co, 2245 Warrensville Ctr Rd
Cleveland 216 371-5335
Ohio Tiby Co, 1960 N Main, Dayton 513 277-3822
Okla J A Green Co, Box 3209, Tulsa .... 918 RI 2-4657
Tex J A Green Co, Box 47206, Dallas .... 214 ME 1-7450
Tex J A Green Co, Box 66506, Houston
Va Jay Co, Box 2008, Falls Church 703 534-7800
Can Tech Assoc, 1262 Don Mills Rd
Don Mills Ont 416 445-7490
For Dage Corp, 757 Main St
Stamford Conn 203 324-3123

MICROWAVE PRODUCTS INC, 9533 IRONDALE AVE
CHATSWORTH, CAL, 91311 .... 213 882-3434
C TROESKEN, EMP 75, ENG 5, $1,000-$2,500M
NY Bert D Aaron & Co, 55 Northern Blvd
Greenvale .... MA 1-0630
Tex Texas Investment Castings, 1758 Proctor St
Dallas 631-0252
Va Schibley Assoc, 10604 Warwick Ave
Fairfax 703 591-3008

MICROWAVE/SYSTEMS INC, 1 ADLER DR, EAST SYRACUSE
N Y, 13057 .... 315 437-9951
R MCLAUGHLIN, EMP 25, ENG 7, $250-$500M
ADV PG 652
Ala Intl Scientific Instr, 614 Madison Ave S
Huntsville 205 536-9686
Cal Blair Assoc, 421 N Brookhurst St
Anaheim 714 635-1350
Cal Kipp Assoc, 90 Stadler Dr
Woodside 415 851-0123
Conn Microwave Consultants, 195 West St
Waltham, Mass 617 899-4400
Del C E Snow Co, 258 N Main St
Ambler, Pa 215 224-2626
DC C E Snow Co, 10442 Baltimore Ave
Beltsville, Md 301 345-2211
Fla Griggs Assoc, Box 13542, Orlando 305 855-4871
Md C W Snow Co, 10442 Baltimore Ave
Beltsville 301 345-2211
Mass Microwave Consultants, 195 West St
Waltham 617 899-4400
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield 313 357-3700
NY Central Assoc, 11 Commercial St
Plainview 516 433-0808
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland 216 422-8080
Ohio S Sterling Co, 3300 S Dixie Dr
Dayton 513 298-7573
Pa C E Snow Co, 258 N Main St
Ambler 215 224-2626
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh 412 884-5515
Can BRH Assoc Ltd, 6338 Victoria Ave
Montreal 26 .... 514 733-5331
Can BRH Assoc Ltd, 1300 Carling Ave
Ottawa 613 728-0113
Can BRH Assoc Ltd, 184 Finch Ave W
Willowdale 415 223-4008
Fr Soc Europeenne D'Electronique, 39-41 Rue de l'Est
92 Boulogne-Billancourt 408-38-60
Ger Litton Prec Prods Intl, Stolzingstr 6
8 Munchen 61 .... 48-93-95/96
GB Litton Prec Prods Intl, 503 Uxbridge Rd
Hayes, Mdsx .... Hayes 8232
Holl Litton Prec Prods Intl, 16 Rue du Musee
Brussells, Belgium 12-55-52
Ital Litton Prec Prods Intl, Foro Bonaparte, 54
Milano 89-33-62
Swed Litton Prec Prods Intl, Grey Turegatan 2
Stockholm 7 11-43-90
Swit Litton Prec Prods Intl, Gubelstr 28
8050 Zurich 53-646

MICTRON INC, 265 OSBORN RD, ALBANY
NY, 12211 .... 518 459-7350
M WEINSTEIN, EMP 19, ENG 6, $500-$1,000M
Mass Gostenhofer Assoc Inc, 235 Bear Hill Rd
Waltham 899-4400
Pa C E Snow Co, 613 W Cheltenham Ave
Phila .... CA 4-2626
Fr Machine & Products Co, 52 Wall St
New York, NY .... WH 4-4370

MID-CONTINENT LAB INC, 840 N 48TH ST, LINCOLN
NEB, 68504 .... 402 434-7488
R SALESTROM, EMP 60, ENG 7, $500-$1,000M

MIDDLESEX PAPER TUBE CO INC
345 CHELMSFORD ST, LOWELL
MASS, 01851 .... 617 457-7687
J PORTON, EMP 75, $500-$1,000M
Conn Conn Assoc Sales, 17 Garfield Ave
Bridgeport 367-5668
NY Middlesex Paper Tube Co, 261 Broadway
New York .... CO 7-3201
Pa H E Fisher, 78 S 60th, Philadelphia 474-2550

MID-EASTERN INDUSTRIES INC, 48 BROWN AVE
SPRINGFIELD, N J, 07081 .... 201 376-7130
D ELLENBACK, EMP 75, ENG 5, $1,000-$2,500M
Fla Willett & Ellis-Brown, 1260A S Highland Ave
Clearwater 813 446-0075
Ill Mauer Co Inc, 3308 Noyes St, Evanston 869-1644
Md J E Cuesta Co, 8501 Glendale Ave
Greenbelt 552-1200
Mass Naeco Assoc, 30 Bullard St
Sharon 617 668-9091
Mich Lowry-Dietrich Co, 600 Michigan Bldg
Detroit 961-4540
NM Electronic Enterprises, 1900 Washington St
Albuquerque 256-1585
NM Electronic Enterprises, Box 116
Las Cruces 524-0126
NY C R Mayer Co Inc, Box 152, Huntington 921-7876
Ohio Lowry-Dietrich Co, 316 Marion Bldg
Cleveland 781-1855
Ohio Lowry-Dietrich Co, 333 W 1st St
Dayton 223-6042
Pa J E Cuesta Co, Valley Forge 265-5800
Pa Lowry-Dietrich Co, 90 Clairton Blvd
Pittsburgh 892-2992
Tex Bellingham Sales Co, 1002 Burlington Ave
Dallas .... WH 2-6595
Wash Eicher-Richards Co, 2727 NE Blakeley St
Seattle 523-7888
BC Canadian Dynamics Ltd, 8264 St George St
Vancouver 15 B C 321-0430
NZ Sonophone Distributors Ltd, 5-7 Kingston St
Auckland C. 1

MIDGET LOUVER CO, 800 MAIN AVE, NORWALK
CONN, 06852 .... 203 866-2342
F NOLAN, EMP 10, ENG 1

MIDLAND INTERNATIONAL CORP, 1909 VERNON ST
NORTH KANSAS CITY, MO, 64116 .... 816 842-0511
J LOSE
Cal Barstow & Doran Inc, 1406 S Grand Ave
Los Angeles
Cal Featherstone Sales, Box 726
Sunnyvalle 408 734-2663
Colo A-E-S Inc, 1559 Chester, Aurora
Ill Maury Bender & Co, 2945 W Peterson Ave
Chicago 312 728-1171
Mass Keene Sales COo, 156 Broad St
Lynn 617 595-1001
Minn HMR Inc, 9 E 22nd St, Minneapolis 335-7734
Mo R W Farris, 1715 Baltimore, Kansas City
Mo Dipro Inc, 11657 Adie Rd
Maryland Heights 314 432-3444
NY Wm Tauber Co, 151 Fayette Blvd
Syracuse 446-7094
NY Representatives of Elctn Prods, 5 Sador La
Yonkers 914 793-4200
NC Adams & Assoc, 1414 Westover Terr
Greensboro 919 272-6838
Ohio Perry Lohse & Co, 537 Richmond Rd
Cleveland 216 381-7788
Ore McMillan Electronics, 16679 SW Maple Cir
Lake Oswego
Pa Martin Weinberg Assoc, 1122 E Cliveden St
Philadelphia
Tex J Earl Smith Co, 1353 Chemical St, Dallas

MIDWEST AUDIO CORP, 5707 W DIVISION ST
CHICAGO
ILL, 60651, TWX 910-221-5247 .... 312 626-0030
B MENARIK, EMP 30, ENG 4, $500-$1,000M
Ala Frank C Nickerson Co Inc, Box 1463
Huntsville 881-9565
Conn William Toll, RFD 3, Pocono Rd
Newtown 426-2470
Fla Frank Nickerson Co Inc, Box 13126
Tampa 833-4321
Ga Frank Nickerson Co Inc, 1244 Clairmont Ave
Decatur 377-1575
NC Frank C Nickerson Co Inc, 4332 University Dr
Charlotte 525-2682

MIDWEST AUTOMATIC INC OF IOWA, 510 3RD ST
DES MOINES, IOWA, 50309 .... 515 244-3103
H FRANKLE, EMP 7, ENG 2, UP TO $100M

MID-WEST COIL & TRANSFORMER CO
1642 N HALSTEAD ST, CHICAGO
ILL, 60614 .... 312 MI 2-4055
G ORTAGGIO, EMP 300, ENG 5, $5,000-$10,000M
Cal M J Cozzi, 6245 Zelzah Ave, Reseda .... DI 2-7383
Ind Frederick & Meily Co, 1601 S Hanna St
Fort Wayne 744-0641
Minn D G Perry & Co, 5010 France Ave S
Minneapolis 612 920-3212
NJ Ned Krouse, Box 34, Cherry Hill 667-0164
NJ H G Richter, 608 Sherwood Pkwy
Mountainside 233-4615
NY Bowser & Sapecky Assoc, 4317 E. Genessee St
Dewitt .... GI 6-5920
NY Bowser & Sapecky Assoc, 4541 Main St
Snyder 839-4170

MIDWEST CORTLAND, 9535 W RIVER ST
SCHILLER PARK, ILL, 60137 .... 312 BE 5-2181
W KALLSTROM, EMP 90, $1,000-$2,500M
Ind Temco Inc, Box 757, Bloomington 812 332-3377
Iowa J Taylor Hersey, 212 Greenwood Dr, Cedar Rapids
Mich Roy Dean Products Co, 23440 Kean Ave
Dearborn 313 563-7396
Mich J P Hasse, Box 278, St Joseph 616 429-3805
Mo R Klorer, 7500 Natural Bridge
St Louis .... EV 1-6530
NJ H G Richter Co, 1376 US Hwy No 22
Mountainside .... 201 AD 3-4615
Ohio W Putich, 7685 Ann Arbor Dr
Cleveland 216 845-3090
Pa J J Cleary, Pilgrim Gardens Sta Box 65
Drexel Hill 215 789-2130
Can McIntyre Agencies Ltd, 6333 DeCarie Blvd
Montreal 29 Que 731-9617

MIDWEST ELECTRIC PRODUCTS INC
1517 N FRONT ST, MANKATO
MINN, 56001 .... 612 388-2919
H NEUBAUER, EMP 99, ENG 4, $1,000-$2,500M
Cal W W Goepp Co, 15 Tubbs St, San Fran 285-5200
Cal W W Corman, 7432 W 80th St, LA 670-2520
Colo R & M Sales Co, 4068 E Iliff Ave
Denver 757-7623
Fla F C McPherson, 2450 Central Ave
St Petersburg 896-4584
Ga W F Bishop, 529 Whitehall St SW
Atlanta 524-8227
Ill Robt L Kanter, 1132 Birch Lane
Western Springs 246-2131
Iowa Jim Bixler & Assoc, 2822 Ave A
Council Bluffs 328-1841
Ky H M Baldwin, Box 962, Lexington 6-4650
La E P Jones & Co, 4408 Cleveland Pl
Metairie 887-0892
Mass E P McEleney & Co, Box 124
Hyde Park 361-8070
Mich H E Mahaffey, 18500 Margareta
Detroit 532-3376
Minn M J Pelletier, 403 Napco Ave N, Mpls 332-4369
Mo J W Gatchell, 407 Broadway
Kansas City 221-4716
Mo Arnold Haumesser Co, 6378 Delmar
St Louis 727-4955
NJ A G Adams, 150 Baker Ave
Bergenfield 384-4569
NM Electric Locator & Sales, Box 425
Albuquerque 842-8195
NY Discenza & Vogt Assoc, Box 306
Cazenovia 655-9770
NC E W Fishburne, Box 6514, Greensboro 272-0620
Okla G Watkins, Box 20654, Oklahoma City 842-7872
Ore W C Wells, 6055 NE Glisan, Portland 235-2437
Pa Detch Electric Sales Co, 2133 Chalfant St
Pittsburgh 241-5034
Pa P Jacobson, Box 64, Jenkintown 884-5524
Tenn Norworth & Assoc, Box 4881, Memphis 275-6415
Tenn J Bill Johnson Co, Box 352, Knoxville 577-5845
Tex Delta Agency, 2001 McKinney, Dallas 747-9121
Utah Electrical Rep Co, Box 16091
Salt Lake City 363-2431
Va H T Snapp, 600 Horsepen Rd
Richmond 282-5068
Wis Electric Materials of Wisc, Box 1680
Milwaukee 383-0350

MIDWESTERN INSTRUMENTS INC, DIV TELEX CORP
6422 E 41ST ST, TULSA
OKLA, 74135, TWX 918-627-6030 .... 918 NA 71111
S BROWN, EMP 500, ENG 50, $5,000-$10,000M
ADV PG 577
Ala Lee Assoc, Box 1506, Huntsville 539-0761
Ariz Barnhill Assoc, 4900 E Indian School Rd
Phoenix 959-2115
Cal Ward-Davis Assoc, 3492 Pickett St
San Diego 297-4619
Cal Ward-Davis Assoc, 1020 Corporation Way
Palo Alto 968-7127
Cal Ward-Davis Assoc, 770 S Arroyo Pkwy
Pasadena 684-2840
Colo Barnhill Assoc, 1170 S Sheridan Blvd
Denver 934-5505
Conn Technical Instruments Inc, 575 Broad St
Bridgeport 368-4582
DC Tek-Rep Inc, 4924 Adrian St, Rockville 946-2900
Fla Lee Assoc, Box 7896, Orlando 241-4445
Ill Pivan Engineering, 3535 W Peterson Ave
Chicago 539-4838
Ind Pivan Engineering, 10447 N College Ave
Indnpls 846-5805
Iowa Pivan Engineering, Box 851
Cedar Rapids 367-6635
Kan Palatine Engr Sales, 5514 Johnson Dr
Mission 262-5643

Mass Technical Instruments Inc, 122 West St
Wilmington 658-9171
Mich M P Odell Co, 14027 Puritan Ave
Detroit 838-7324
Minn Pivan Engineering, 3203 N Hwy 100
Minneapolis 537-5626
NJ Tek-Sel Inc, 19 Locust Pl
Rochelle Park 843-3210
NJ Engel Assoc, 210 S Broad St
Ridgewood 658-9171
NM Barnhill Assoc, 319A Wyoming Blvd NE
Albuq 265-7766
NY Ossman Instruments, 3100 Monroe Ave
Rochester 586-0380
NC Lee Assoc, Box 906, Winston-Salem 724-2406
Ohio Technitronic Inc, 1250 W Dorothy La
Dayton 298-9964
Ohio Technitron Inc, 26614 Center Ridge Rd
Westlake 871-8000
Pa Technitron Inc, 114 Spring Grove Rd
Pittsburgh 371-1231
Tex Barnhill Assoc, 3810 Westheimer
Houston 621-0040
Tex Barnhill Assoc, 507 B Bishop St
Richardson 231-2573
Wash Premmco Inc, 2208 NW Market St
Seattle 783-3900
Can Emisco Ltd, 850 Belfast Rd, Ottawa 236-0811
For Rocke Intl Corp, 13 E 40th St
New York, NY 689-0200
Fr IMEX Corp, 2, Rue Navoiseau, Montreuill, Seine
Ger Telco, Eichornchenstr 26, Baldham, Munich
GB System Eng Serv Ltd, 34 Bloomsbury St, London
Jap Nissho Co Ltd, 2, 1-Chome Otemachi Chiyoda-Ku
Tokyo
Swed John C Lagerkrantz A/B, Gardsvagen 10-B, Solna
Belg Rocke Intl Europe S, 20 Passage Intl Ctr Int Rogier
Brussels
Isrl Telsys Ltd, Box 10834, Tel-Aviv

MID-WEST METAL PRODUCTS INC
450 E DONOVAN RD, KANSAS CITY
KANS, 66115, TWX 913-553-9260 ...... 913 621-1980
J MINZEY, EMP 135, ENG 9, $1,000-$2,500M

MIDWEST MOLDING & MFG CO, GURNEE
ILL, 60031 .... 312 ON 21320
T RICHARDS, EMP 100, ENG 2, $1,000-$2,500M
Ohio J A Toth, 33290 Wagon Wheel Dr
Solon 216 248-0184

MIDWEST SINTERED PRODUCTS CORP
13605 S HALSTED ST, RIVERDALE
ILL, 60627 .... 312 849-5290
P TARR, EMP 36, ENG 1, $1,000-$2,500M
Ga Robert Miller, Box 28255, Atlanta ...... BL 5-5287
Mass Technical Applications, Inc, One Dormar Way
Arlington 646-1055
Minn W R Maleckar Co, 5009 A Excelsior Blvd
Minneapolis .... WA 6-7601
NY S D Christie Assoc, 175 5th Ave
New York .... OR 4-9010
Ohio W Olsen & Assoc Inc, 21055 Lorain Rd
Fairview Park .... ED 1-0697
Ohio L T McKee, 125 Cleveland Ave
Milford .... TE 1-0356
Pa S Ray Simon & Assoc, 300 Michaels Dr
Irwin .... OR 3-5976
Pa R T Brosius, 1617 J F Kennedy Blvd
Philadelphia .... LO 3-6784
Can Excel Agencies, Box 14, Downsview 421-1516

MI-KRO CONNECTOR CORP, 40-09 21ST ST
LONG ISLAND CITY, N Y, 11101 .... 212 392-8814
S STRAUS, EMP 70, ENG 3, $500-$1,000M
Ariz Dorton Enterprises, Box 1297
Scottsdale 602 946-6213
Cal Washburn Electro Sales, 11853 Wicks St
Sun Valley 213 767-0778
Cal Townsend Technical Sales, Box 265
Saratoga 408 252-3478
Ga Bill Henry Assoc, 84 Silverwood Rd NE, Atlanta
Ill A D Clark, 6560 N Sheridan Rd
Chicago .... 312 BR 4-0304
La Bill Henry Assoc, 247 Phosphor Ave, Metairie
Md J & B Elctn Sales Inc, 5 N Howard St, Baltimore
Mass New England Elctn Sales Corp, 590 Washington St
Canton 617 828-4835
NC Will Henry Assoc, 1043 D Providence Rd
Charlotte 704 375-8958
Ohio Mid-West Sales Co, 3219 W 117th St
Cleveland .... 216 WI 1-2700
Ore Dale Weber Assoc, 8 SE Clay St, Portland
Tex Spacetronics, 4515 Prentice St, Dallas

MIL ASSOCIATES INC, DRACUT RD, HUDSON
NH, 03051 .... 603 889-6671
R IRELAND, EMP 21, ENG 2, $250-$500M
Cal Allgood Assoc, 1621 Centinela Ave
Inglewood 213 776-5820
Mass Kitchen & Kutchen Inc, 17 Waltham St
Lexington .... VO 2-8230
NY R/C Electronics Inc, 310 Northern Blvd
Great Neck 516 487-9311
Va J A Hopkins, Jr, 4520 Starr Jordan Dr
Annandale 280-2086

MILES INDUSTRIES INC, 70 W RAILROAD AVE
GARNERVILLE, N Y, 10923 .... 914 947-1420
H THUNE, EMP 30, ENG 2

MILES REPRODUCER CO INC, 598 BROADWAY
NEW YORK, N Y, 10012 .... 212 WA 5-6985
J KUHLIK, EMP 80, ENG 12, $2,500-$5,000M

MILFORD RIVET & MACHINE CO
857 BRIDGEPORT AVE, MILFORD
CONN, 06460, TWX 710-462-0538 ...... 203 878-4631
D CLARK, EMP 475, ENG 10, OVER $10,000M
Ariz J Russell Smith, 7128 N 8th Ave
Phoenix 944-8872
Cal Milford-Pacific Div, 12935 E Imperial Hwy
Sante Fe Springs 941-8787
Cal A R Hessell, 1320 Rio Vista Ave
Los Angeles 263-5567
Cal David Cox, 2166 Market St
San Francisco 863-2600
Colo Regional Sales Co, 1719 Boulder
Denver 433-1376
Conn H W Schipul, 239 Housatonic Ave
Stratford 375-9647
Fla A-Gen-Teers Enterprises, Box 7305
Orlando 293-6269
Ga R R Miller, Box 28255, Atlanta 255-5287
Ill K L Ekdahl Co, Box 397, Moline 762-3100
Ill Milford Rivet & Machine Co, 801 Illinois Ave
Aurora 892-4278
Ill Mlfd Rivet& Machine Co, Box 358
Naperville 242-1486
Ind L T Clower, 3526 W Morris
Indianapolis 244-6197
Mass G W Byron, 77 Greenhill Rd, Westwood .. 762-2878
Mich W T Peterson, 11568 Thirteen Mile Rd
Warren 754-8600
Minn R E Kenney Co, 6301 W Lake St
Minneapolis 929-6222
Mo Smith-Moschner & Co, 6025 Chippewa at Hampton
St Louis .... FL 1-1177
NJ Affiliated Sales Inc, 400 Delancy St
Newark 623-8113
NY W T Stevenson, 39 Saginaw Dr
Rochester 271-2200
NC Alexander Scot Co, Box 17762
Charlotte 364-0397
Ohio Milford-Ohio Div, 1000 W River St
Elyria 323-3381
Ohio A C Wahl & Assoc Inc, 135 Williams Ave
Lockland 821-3270
Ohio G E Goehring Co, Cleve Hopkins Airport
Cleveland 267-3855
Pa Milford-Penn Div, Jacksonville Rd
Hatboro 675-4560
Pa E C Oliver, Box 11165, Pittsburgh 931-2941
Pa Riley & Aleshire Inc, 306 Leedom St
Jenkintown 884-1708
Tenn L E Offutt Co Inc, 1492 S Rozelle St
Memphis 274-0235
Tex F Teves, 1352 Chemical St, Dallas 631-8820
Wash National Co, 69 Marion St, Seattle 623-7060
Wis Clague Sales Corp, 759 N Milwaukee St
Milwaukee .... BR 2-1951

MILGO ELECTRONIC CORP, 7620 NW 36TH AVE, MIAMI
FLA, 33147, TWX 810-848-6588 .... 305 6-1220
D CRANE, EMP 325, ENG 45, $5,000-$10,000M
ADV PG 188
Cal Milgo Electronic Corp, 3450 E Spring St
Long Beach 426-7375

MILLEN MFG CO INC, JAMES, 150 EXCHANGE ST
MALDEN, MASS, 02148 617-324-4108
R CAYWOOD, EMP 500
Cal W S Harmon Co, 6118 Venice Blvd
Los Angeles .... WE 7-1460
Cal Moulthrop Polach & Bensinger Inc, 165 11th St
San Francisco .... UN 3-7880
Cal W Alderson Co, 8548 Washington Blvd
Culver City .... UP 0-1669
Conn Gerber Sales Co Inc, 29 Whalley Ave
New Haven .... SP 7-6279
Ill Carlson Electronic Sales, 7448 N Harlem Ave
Chicago .... SP 4-0277
Ind Schroeder & Loomis, 714 E 65th St, Indianapolis
Iowa Kelly-Schmitz-Winkeler Assoc, 3831 43rd St
Des Moines 515 279-9235
Md L D Lowery Inc, 6200 Annapolis Rd
Hyattsville 773-4977
Mass Gerber Sales Co Inc, 176 2nd Ave, Waltham
Mass C Glassanos, 26 Maple Ct
E Longmeadow 413 BE2-2425
Minn Carlson Elctn Sales, 2500 39th Ave NE
Minneapolis 612 788-4111
Mo Kelly-Schmitz-Winkeler Assoc, 7546 Troost Ave
Kansas City .... EM 1-5651
NY J DiBlasi Assoc Inc, 14 Vanderventer Ave
Port Washington .... PO 7-0470
NY J V Costello, 2030 Erie Blvd E
Syracuse 472-0322
Pa L D Lowery Inc, 2801 W Chester Pike
Broomall .... JA 8-5170
Tex Jack Yount Co, 1431 Pleasant Dr
Dallas .... EX 1-1631
Can H Roy Gray Ltd, 14 Laidlaw Blvd
Markham, Ont 297-1476
For Technical Equip Co, 487 Lincoln Hwy
Iselin, N J 283-2340

MILLER CO INC, J K, 80 WABASH AVE, PITTSBURGH
PA, 15220 .... 402 922-5070
J MILLER, EMP 31, ENG 2, $250-$500M

MILLER CO, J W, 5917 S MAIN ST, LOS ANGELES
CAL, 90003, TWX XCM 213 233-4294
L CRAWFORD, EMP 85, ENG 3, $500-$1,000M

Ariz Harry A Moore Sales Co, 4142 N 18th St
Phoenix .... CR 4-0060
Cal Osborne & Bidwell Inc, 225 E Redondo Beach Blvd
Gardena 770-0300
Cal Logan Sales Co, 463 Brewster Ave
Redwood City 369-6726
Colo R G Bowen Co Inc, 1440 S Santa Fe
Denver 303 722-4641
Fla Millar-Hutto Assoc Inc, 501 Park Ave N
Winter Park .... 305 MI 7-7407
Ga Millar-Hutto Assoc Inc, 3110 Maple Dr NE
Atlanta 404 261-6160
Ill Markal Sales Corp, 5787 N Lincoln Ave
Chicago 312 561-7290
Ind Burton F Homsher Co, 418 E Berry St
Fort Wayne 219 432-1164
Md Par-Nell Sales Co, 69 Main St
Reisterstown 301 833-6444
Mass W A Hendrickson Co, 766 Country Way
N Scituate 617 545-0652
Minn Clark R Gibb Co, 1311 W 25th St
Mnpls 612 377-1200
Mo H A Roes & Co, 2601 Cherry St
Kansas City 816 221-0866
NJ Jules J Bressler Inc, 4808 Bergenline Ave
Union City 201 864-9577
NM C T Carlberg & Assoc, 2611 Quincy NE
Albuq 505 265-1579
NY LSM Assoc, Orchard Park, Phelps 315 548-4891
NC Millar-Hutto Assoc, N Hills Office Mall
Raleigh 919 787-9564
Ohio Thos Shelby & Co, 17 S Walnut St
New Bremen 419 629-6511
Ore Earl & Brown Co Inc, 2041 SW 58th Ave
Portland 503 292-9145
Pa Par-Nell Sales Co, 1135 Bustleton Pike
Feasterville 215 357-7230
Tex Maynard Sales Co, 158 Express
Dallas 214 742-2384
Utah R G Bowen Co Inc, 31 South 3rd E
Salt Lake City 801 364-4632
Wash Earl & Brown Inc, 422 First Ave W
Seattle 206 284-1121
Can Atlas Radio Corp, 50 Wingold Ave
Toronto .... RU 1-6174
For Roburn Agencies Inc, 431-435 Greenwich St
New York, NY .... 212 WO 6-2130

MILLER CO, L C, 717 MONTEREY PASS RD
MONTEREY PARK, CAL, 91754 .... 213 268-3611
E THOMPSON, EMP 40, ENG 2, $500-$1,000M

MILLER CO, W A, MINGO LOOP, OQUOSSOC
MAINE, 04964 .... 207 864-3344
R HUNGER, EMP 24, ENG 2, $100-$250M

MILLER DIAL & NAME PLATE CO
4400 N TEMPLE CITY BLVD, EL MONTE
CAL, 91731, TWX 910-587-3438 .... 213 283-5111
S BUCK, EMP 250, ENG 2, $2,500-$5,000M
Ariz Ensco, 6513 N 12th St, Phoenix 279-6564
Ark R E Lee, Box 302, Clarksville
Cal Craft Industries, 2855 El Camino Real
Palo Alto 328-3026
Conn Seton Name Plate Corp, 592 Boulevard
New Haven 772-2520
Fla Engineering Sales & Services, 1529 Pinar Dr
Orlando 305 275-0680
Ga F Z Doak, 320 Lakemoore Dr NE
Atlanta .... BL 5-3165
Haw P W Research, 3030 Pualei Cir 101
Honolulu 932-044
Ill Robinson & Assoc, 1721 W Division St
Chicago 252-3400
Ind Ralph J Haffey Co, 4127 N Clinton
Fort Wayne 219 748-1159
Kan Ken Skinner, 5959 Sullivan Rd
Wichita .... TE 8-6346
Mich Clark Sales Co, 17136 E Warren Ave
Detroit .... TU 5-1723
Minn Bill Houlihan, 6030 Wayzata Blvd
Minneapolis 545-2538
Mo Rudolph Freedman, 3942 W Pine
St Louis .... FR 1-4777
Mo A Williams, 9216 Clayton Rd
St Louis .... WY 3-2578
NJ Simberkoff Sales Inc, 71 Valley St
South Orange .... OR 4-4100
NY Rueby Process Co, Inc, 1461 Hudson Ave, Rochester
Ohio Jay Engineering Co, 1721 E 3rd St
Dayton 253-2151
Ohio Jay Engineering Co, 4712 W 130th St
Cleveland 252-0486
Ore Murphy Industrial Supply Co, 2186 NW Wilson Ave
Portland .... CA 6-6081
Pa L A Tucci, 1225 Cornell Ave
Drexel Hill .... HI 6-4554
Tex Jordan Equip Co, Inc, Drawer V
Stafford .... GY 8-6212
Tex F Roberts, Box 1118, Richardson ... 214 AD9-8991
Utah Salt Lake Stamp Co, 380 W 2nd St S
Salt Lake City 328-3281
Utah Regional Sign Supply Inc, 352 Paxton Ave
Salt Lake City 801 HO6-8116
Wash Wm Dierickx Co, 1210 Valley St
Seattle .... MA 2-8327
Wis Bruce Equipment Co, 2609 W Mineral St
Milwaukee .... OR 1-0420

MILLER ELECTRIC CO, 150 HAMLET AVE
WOONSOCKET, R I, 02895 .... 401 767-2800
M WEIL, EMP 650, ENG 7, $5,000-$10,000M
Cal Carol Cable Co, 1950 Naomi Ave
Los Angeles 747-9655

Colo H P Daigle Co Inc, 2785 N Speer Blvd Denver 433-0226
Ill Midwest Warehouse Corp, 3919 Wesley Terr Schiller Park .... NA 5-8383
Ind Warner, Kesler & Assoc, Box 338 South Whitley 723-5353
Iowa Bixler-O'Dougherty Co, 2822 Ave A Council Bluffs 328-1841
Mass R D Gale, Box 6, Reading 944-1829
Minn H Lee, 819 24th Ave SE, Minneapolis 331-2457
Mo A O Woerner & Sons, 4030 Chouteau Ave St Louis .... FR 1-2780
NY H Kaufman Co Inc, 104-70 Queens Blvd Forest Hills 896-8006
NY Louis Marchese Assoc, 97 Park Ave Rochester 442-9120
NC B M Triggs & Assoc, 1344 Briar Creek Rd Charlotte 376-4619
Ohio Jubell Assoc, 23760 Miles Rd Cleveland 662-2884
Ore Pacific Electric Sales Co, 140 SE 28th Ave Portland .... BE 5-3456
Pa Paragon Sales Co, 111 S 22nd St Philadelphia .... LO 3-7060
Pa Springel Sales Co, 325 N Franklin St Phila 925-7831
Tex Corwin Assoc Inc, Box 18112, Dallas 348-4623

MILLER ELECTRIC MFG CO, 718 S BOUNDS ST
APPLETON
WIS, 54910, TWX 910-272-1156 .... 414 734-9821
K LIGARE, EMP 750, ENG 25, OVER $10,000M
Cal B Hawkins, 4371 Appleton St San Diego 273-4009
Cal K P Hansen, 10100 Van Alden Ave, Northridge
Cal A H Thurlow, 2319 Stillwell Ave, Hayward
Fla D R Warner, 720 Isle of Palms Fort Lauderdale 522-7521
Ga C L Malott, 2242 Leafmore Dr, Decatur ... 636-4466
Ill B R Baker, 9955 S Homan Ave Evergreen Park 233-6467
Ind F H Beck, 3220 Avon La, Richmond 962-7138
Iowa M Selser, 200 Joy St, Red Oak 4423
Kan R W Cork, 8412 W 88th Terr, Overland Park
La Jay Englehardt, 6116 Bridget St Metairie 887-3323
Mass F W Spear, 16 Hampton Rd, Natick 653-1676
Mich H E Van Pelt, 705 S Highland Dearborn 561-4933
Mich J Van Pelt, 1151 Shore Dr New Buffalo 561-0251
NJ K I Ebrahim, 23 Taylor Rd, Princeton 329-2421
NJ C J Bocklet, 1050 George St, New Brunswick
Ohio F J Kagel, 24510 Clareshire Dr, North Ounsted
Okla L Finch, 4648 E 59th St, Tulsa 627-7829
Ore W J Sterling, 2951 NW Valle Vista Terr Portland 228-0937
Pa A McKenzie, 201 Claremont Rd Philadelphia 549-4168
Pa P J Patton, 5901 Dorlyn Dr, Bethel Park
Tex Van Dreser & Hawkins, 14930 Telephone Rd Pearland 485-2731
Tex W H Robinson, 1303 S Montreal St Dallas 337-2486
Tex D Young, 3310 61st St, Lubbock 795-5875
Wis R G Stroessenreuther, 330 W Seymour St Appleton 733-9402
Can Miller Welders Canada Ltd, 8451 Parkway Blvd Montreal, Que 352-2210

MILLER ELECTRO-RESEARCH LABS
14800 W GRANGE AVE, NEW BERLIN
WIS, 53151 .... 414 425-6303
A MILLER, EMP 4, ENG 1, UP TO $100M

MILLER INDUSTRIES INC, R A, 1527 MARION ST
GRAND HAVEN, MICH, 49417 .... 616 842-9450
R MILLER, EMP 35, ENG 2, $500-$1,000M

MILLER MFG CO, M A, 325 N 4TH ST, LIBERTYVILLE
ILL, 60048 .... 312 362-7550
E FOXX, EMP 100, ENG 5, $1,000-$2,500M

MILLER-STEPHENSON CHEMICAL CO INC, RT 7
DANBURY, CONN, 06810 .... 203 743-4447
H ROBERTSON
Cal Miller-Stephenson Chemical, 1001 E 1st St Los Angeles .... MA 4-3887
Ill Miller-Stephenson Chemical, 445 N Lakeshore Dr Chicago 467-6075
Pa Miller-Stephenson Chemical, 401 N Broad St Philadelphia .... MA 7-4631

MILLETRON, INC, 540 ALPHA DR, PITTSBURGH
PA, 15238 .... 412 781-5300
D PAPPAS, EMP 36, ENG 4, $500-$1,000M
Cal Charles W Fowler Co, 9911 Inglewood Inglewood 213 678-5211
Cal Southwest Scientific, 15452 Cabrito Rd Van Nuys 213 873-3554
Cal Charles W Fowler Co, 845 Oak Grove Menlo Park 415 322-5374
Conn Northeast Assoc, Bedford Ave Stamford 203 323-3814
Ill Service Assoc, 339 W 112th Pl Chicago 312 568-4545
Ind Law Instru Co, Inc, Box 95, Angola 665-6016
Kan Petro-Chem Equip Co, Box 358 Baton Rouge 504 248-7593
Mass Northeast Assoc, Box 31 Marblehead 617 595-1000
Mich C & D Assoc, 8968 Burdickville Rd, Cedar
Mo Gordon Fixman Eng Co, 8160 Stanford Ave St Louis 314 725-5219
NJ Electronic Equip Engrs, Box 231 Saddle River 201 825-0033
NM Charles W Fowler Co, 9000 Menual Blvd Albuquerque 505 299-7676
NY Electrical Equip Engineers, 3351 Park Ave New York 764-8745
NC Ray Sturgill & Assoc, Box 8584 Charlotte 704 399-6962
Ohio C & D Assoc, 47 Whipp Rd Dayton 513 434-8030
Pa Milletron Inc, 540 Alpha Dr, Pittsburgh ... 781-5300
Tenn Control Center Inc, 3517 Sutherland Ave Knoxville 588-7461
Tenn Grant-Moore Inc, 2220 Polymer Dr Chattanooga 615 877-8549
Tenn Janis Equip Co, 4711 Poplar St Memphis 901 683-1511
Tex Jack Simpson Co, Box 35543 Houston 713 723-4816
Va Mark-Lund Assoc, 2828 Mary St Falls Church 703 560-8400
Wash Chas W Fowler Co, 845 106th Ave NE Bellevue 206 454-8600
Wis G H Fredericks, 4524 W Burleigh St Milwaukee 414 871-4970
Can Electrodesign, Ltd, 491 Lawrence Ave W Toronto, Ont 787-0991
For Norcon Div Intrade, Inc, Box B Thomaston, Conn 203 283-5563

MILLIKEN D B A TELEDYNE CO, 131 N FIFTH AVE
ARCADIA, CAL, 91006 .... 213 359-6691
L MEYER, EMP 90, ENG 15, $2,500-$5,000M
Fla C G Holzapfel, 501 Park Ave N Winter Park 305 644-2929
Md W E Smith, Box 490 Upper Marlboro 301 336-6190

MILLIPORE CORP, BOX 35504, BEDFORD
MASS, 01730, TWX 710-326-1938 ...... 617 275-8800
R SNUGGS, EMP 300, ENG 30
Cal Millipore Corp, Box 1271, San Pedro 775-1343
Cal H A Aronson, 1650 Borel Pl San Mateo 415 349-4481
Ga Millipore Corp, Box 387, Decatur 373-3872
Ill A J Pakshs, 9501 W Devon Ave Rosemont 312 692-4155
Md F D Bartlett, 200 Shawan Rd Cockeysville 301 666-7220
Mich Millipore Corp, Box 95, NE Sta, Livonia .. 476-8972
NY J Cole, Box 680 Madison Sq Sta New York 212 684-7323
Tex Millipore Corp, Box 35504, Houston 729-2515

MILLI-SWITCH CORP, MILL CREEK RD, GLADWYNE
PA, 19035 .... 215 642-9222
B CHANDLER, EMP 20, ENG 1
Cal Dynasales, 926 1/2 S Atlantic Blvd, Los Angeles
Ill Wm Cowan, 1142 N Campbell Ave, Chicago
Kan Maury E Bettis Co, 3706 Broadway Kansas City 561-0772
Md Byrne Assoc, 1400 Spring St, Silver Spring
Mass Near, Inc, 99 Highland Ave, Somerville
Mo Maury E Bettis Co, 9103 Bessener Ave St Louis 429-2099
Mo Maury E Bettis Co, 7802 E 108th Terr Grandview 761-1843
NJ L B S Assoc, Box 413, Westwood 391-9400
NY E E Harries & Co Inc, 15 Canterbury La E Aurora 886-0912
NC Troy Assoc, Box 314, Burlington
Ohio Roger L Emish, 3300 S Dixie Dr Dayton 299-5505
Okla Gordon V Peck, 553 S Allegheny, Tulsa ... 835-5484
Pa A & C Assoc, 1400 Mill Creek Rd Gladwyne 642-9222
Tex Gordon V Peck Co, 210 Casa Linda Plaza Dallas 328-3511
Tex Gordon V Peck Co, 4007 Bellaire Blvd Houston 664-1435
Can A C Simmonds & Sons Ltd, 100 Merton St Toronto 485-9111

MILLITEST CO, 88 MADISON AVE, HEMPSTEAD
N Y, 11550, TWX 510-2224189 .... 516 483-8200
M BUTENSKY, EMP 415, ENG 27, $5,000-$10,000M
Ala Intl Scientific Instr, Box 2091 Huntsville 404 893-4361
Cal Components Sales Corp, 4626 Van Nuys Blvd Sherman Oaks .... ST 8-4550
Cal Bill Coe & Assoc, Box 1383 San Carlos 593-6057
Colo Engineering Research Assoc, 231 Detroit St Denver 377-8306
Conn Nelson & Schoonmaker, 105 Main St Thomaston 283-5959
Fla Aerodyne Engineering, Box 17057 Orlando 295-4440
Ill Sumer, Inc, 1032 E Northwest Hwy Mt Prospect 392-7370
Ind Sumer Inc, 2211 S Calhoun St Fort Wayne 744-1692
Kan Impala, Inc, 6917 W 76th St Overland Park .... NI 8-6901
La Pan Tech Engrg Co, Box 1783 Baton Rouge 344-2791
Md Thomas H Closs Co, 21 W Penna Ave Towson .... VA 5-4445
Md T H Closs Co, 9100 49th Ave College Park 474-8800
Mass Selmark Assoc, Inc, 181 West St Waltham 899-8110
Minn R & J Sales & Engineering, 7100 S France Ave Minneapolis 922-1425
NJ Engineering Sales Corp, 263 Central Ave E Orange 674-6505
NJ M Monteiro, 123 Clements Bridge Rd Barrington 609 546-6555
NM Crown Engineering, 2125 San Mateo, NE Albuquerque 256-6124
NY A & D Devices, Inc, 830 Linden Ave Rochester LU6-8033
NY A & D Devices, Inc, Box 365 Lyon Falls 348-8532
NY Physiotronic Sales Co, 1154 E 9 St Brooklyn 332-4343
NC R G Sidnell & Co, 3723 County Ridge Rd Charlotte 704 366-8601
Ohio J C Hofstetter Co, 742 Kenbridge Dr Cleveland 449-0944
Ohio J C Hofstetter Co, 3300 S Dixie Dr Dayton 298-0662
Tex Pan-Tech Engineering Co, Box 22491 Houston .... MO 6-0248
Tex Servo Electronics Prods Co, Box 20371 Dallas .... ME 7-3440
Utah Cannon Engrg & Sales Co, 2250 E 17th St S Salt Lake City 485-9253
Wash G M Gillett Co, Box 4035, Seattle 284-3344

MILLIVAC INSTRUMENTS INC, BOX 997
SCHENECTADY, N Y, 12301 .... 518 355-8300
D MOREY, EMP 45, ENG 4, $500-$1,000M
Ala Mekco Assoc, Holiday Office Ctr Huntsville 881-3721
Ariz Hyde Electronics Co, 4710 N 16th St Phoenix 264-5609
Cal Roland Olander & Co, 6313 Santa Monica Blvd Los Angeles 469-6313
Cal Electronic Engrg Assoc Ltd, 1293 Laurel St San Carlos 593-2189
Cal Electronic Engrg Assoc, 540 Hollywood Way Burbank 843-5200
Cal Electronic Engrg Assoc Ltd, Box 997 San Carlos 593-2189
Colo Hyde Electronics Co, 888 S Lipan St Denver 936-3455
Fla Mekco Assoc, 3165 McCrory Rd Orlando 841-2215
Ill Loren F Green Assoc, 5218 W Diversey Ave Chicago 286-6824
Kan Gordon Fixman Engrg, 6631 E Kellogg Wichita 838-9433
Md QED Electronics Inc, 880 Bonifant St Silver Spring 588-8134
Mass W M Hague Co, 10 Muzzey St Lexington 862-5700
Mich F R Sharp Co, Rte 3 Deep Lake Rd Middleville 795-9279
Mo Gordon Fixman Engineering Co, 8160 Stanford Ave St Louis 725-5219
Mo Loren F Green & Assoc, 6225 University Ave NE Minneapolis 781-1611
NJ QED Electronics Inc, P O Box 1325 Camden 925-8711
NY QED Electronics Inc, 500 Nuber Ave Mount Vernon 968-2200
NC Mekco Assoc, 100-B Lindsey St Burlington 226-7177
Ohio Fred R Sharp Co, Inc, 12417 Cedar Rd Cleveland 462-2770
Tex Scientific Sales, 2337 Bissonnet St Houston 528-6904
Tex Scientific Sales Co, 777 S Central Expwy Richardson 231-6542
Wash M K Widdekind Co, 815 W Ewing St Seattle 284-8020
Can Conway Elctn Enterprises Ltd, 88 Arrow Rd Weston, Ont 244-5655
For Frathom Co, Inc, 202 E 44th St, New York, N.Y.
For European Electronics, 41 E 42nd St New York MU2-5343
GB Claude Lyons Ltd, Ware Rd Hoddesdon, Herts .... MAR 1761

MILTON ROY CO, 5000 PARK ST, N, ST PETERSBURG
FLA, 33733 .... (813) 544-2581
A LUBBERS, EMP 350, ENG 38, $5,000-$10,000M
Ala D B Gooch Assoc, 5018 N 1st Ave Birmingham .... LY 2-8191
Ark Johnson & Scott, 1425 Garland Ave N Little Rock 753-5600
Cal Milton Roy Co, 2020 Pioneer Ct San Mateo 341-8796
Cal Milton Roy Co, 526 N Garfield Ave Monterrey Park .... CU 3-7674
Colo Fluid Systems, Inc, 1550 S Pearl St Denver 744-1781
Ga Milton Roy Co, 3950 Peach Tree Rd N E Atlanta 404 233-6715
Haw Dearborn Chemical, 510 Piikoi St Honolulu 564-941
Ill Milton Roy Co, 711 W Devon Ave Park Ridge 775-1626
Ind W R Frew Co Inc, 1719 E 52nd St Indianapolis .... CL 3-3271
Iowa Deco Engineering Products, 517 Main St Davenport 324-6123
Iowa Deco Engineering Products, 1112 Locust St Des Moines .... AT 8-5721
Kan Valvtrol Inc, 4010 Washington St Kansas City .... WE 1-5995
Kan B J Alberts, Inc, 502 S Main St Wichita .... FO 3-4941
Ky Jay Instrument & Specialty Co, 3849 Cane Run Rd Louisville 778-6609
La R V Gildersleeve Co, Box 66203 Baton Rouge 348-7538

Mass Cochrane Steam Spec Co, 55 Battery March St
Boston ... HA 6-6447
Mass Cochrane Steam Spec Co, Box 1393
Springfield ... ST 8-4551
Mich Metrol Co, 7145 E Davison St, Detroit ... 365-5400
Mich Metrol Co, 919 S Burdick St
Kalamazoo ... FI 2-6097
Minn Campbell-Sevey Inc, 1525 South 5th St
Minneapolis ... FE 3-2403
Mo Durkin Equipment Co; 2384 Centerline Ind Dr
St Louis ... 542-1444
Mo Valvtrol, 4010 Washington St
Kansas City ... 931-5995
Mont L P Lee, Box 1934, Billings ... 248-8877
Neb Deco Engineering Products
Box 1541 Downtown Sta, Omaha ... 341-4836
NJ Milton Roy Co, 215 14th St
Jersey City ... 792-1400
NY R C Schwarz & Sons, 75 College Ave
Rochester ... 271-4696
NY R C Schwarz & Sons, 15 Webster Dr
North Ionawanda ... 693-7433
NC Brown & Morrison, Box 4307
Charlotte ... ED 3-0774
Ohio Jay Instr & Specialty Co, 555 N Wayne Ave
Cincinnati ... 761-9292
Ohio Chemical Pump & Equip Co, 2000 Lee Rd
Cleveland ... 371-4558
Ohio Jay Instr & Specialty Co, 2835 Springboro Pike
Dayton ... AX 8-7373
Ohio Jay Instr & Specialty Co, Delashxmut at King Ave
Columbus ... 294-5415
Ohio Milton Roy Co, 3809 Wilmington Pike
Dayton ... 513 274-1496
Okla Vanco Engineering Co, Box 4734, Tulsa ... 747-0425
Pa Milton Roy Co, 1310 E Mermaid La
Philadelphia ... CH 7-8000
Pa Ramsay Pump & Supply Co, 1504 Keenan Bldg
Pittsburgh ... CO 1-1155
Tenn Johnson & Scott, Box 158
Hendersonville ... 824-6658
Tenn Johnson & Scott, Box 12364, Memphis ... 324-3582
Tex Bernhard Assoc, Box 20098, Dallas ... 357-3941
Tex Delta Instrument Co, 1814 Montana Ave
El Paso ... 533-4207
Tex Milton Roy Co, Box 8188, Houston ... JA 3-5524
Utah Nibley & Co, 870 Kennecott Bldg
Salt Lake City ... 359-6045
Va Tate Engineering Inc, 13 W 14th St
Richmond ... 232-5611
Va Tate Engineering Co, 920 S Jefferson St
Roanoke ... 343-4033
Wash Tower Equipment Co, Box 5
Mercer Island ... AD 2-1460
W Va Industrial Equipment Co, Box 2747
Charleston ... 343-7606
Wis Crane Engineering Sales Inc
1110 W Wisconsin Ave, Appleton ... RE 3-4425
Can Milton Roy Industries Ltd, 8550 Delmeade Rd
Montreal ... 342-1820
Can Consolidated Engines & Machy Ltd
Box 848 (Moncton)
Riverview, New Bruns ... 386-6285
Can Consolidated Engines & Machy Ltd
241 Birmingham St, Toronto, Ont ... 255-3484
Can Consolidated Engines & Machy, 8550 Delmeade Rd
Quebec, Montreal ... 342-9840
Can Zazula Process Equip Ltd, 122 17th Ave S E
Calgary, Alb ... 266-4687
Can MacKay-Morton Ltd, 50 Myrtle St
Winnipeg 3, Mani ... 786-5891
For Gilberto Venegas, Box 6629
Santurce PR ... 791-1116
Fr Dusapro-Milton Roy S A, 3, rue d'Edimbourg
Paris 8e ... Lab 05-89
GB Milton Roy GB Ltd, Glenburn
College Milton N, E Kilbride, Scot ... 25461
Jap Milton Roy A G, 52, Ohwada-Cho
Shibuya-ku, Tokyo ... 463-5121
Jap Nippon Kikai Keiso Kaisha, Ltd
17-3, Shibuya 2-chome
Shibuya-ku, Tokyo ... 403-1211
Swit Milton Roy AG, Hirschangraben 43, Luzerne
BC Harvey Carruthers Ltd, 1639 W 5th Ave
Vancouver 9 ... 763-0471

MILWAUKEE RESISTOR CORP, 700 W VIRGINIA ST
MILWAUKEE, WIS, 53204 ... 414 271-9900
R BRODD, EMP 150, ENG 3, $1,000-$2,500M
Ala Frank C Nickerson, Box 1463
Huntsville ... 534-8900
Cal Ungar Sales Assoc, 317 Glasgow Ave
Inglewood ... 678-5371
Cal B & B Sales Co, 1433 Oregon St
Berkeley ... TH 3-3254
Colo Nelson Co Inc, 1294 S Bannock
Denver ... 733-5528
Ga Frank C Nickerson, Box 33185, Decatur ... 377-1575
Ill William F Swinke, 3014 Colfax St
Evanston ... BI 8-4343
Ind Walter W Bieberick Inc, 801 Leesburg Rd
Ft. Wayne ... 742-8468
Mass Johnson Assoc, 471 Washington St
Wellesley Hills ... 235-3977
Mich Lawrence F Zaffina, 18806 Hayes Ave
Detroit ... 372-3030
Minn Clark Gibb Co, 1311 W 25th St, Mnpls ... FR 7-1200
Mo Technical Mktg Assoc, 2050 Woodson Rd
St Louis ... HA 7-3600
NJ Braddock Assoc, Box 305, Haddonfield ... 429-0087
NY Gislason Sales Inc, 82 St Paul St
Rochester ... 454-4741
NY Cooper Simon & Co Inc, 7 W Broad St
Mt Vernon ... OW 9-5400
NY Jerry Kirshbaum Co, 1533 Peninsula Blvd
Hewlett ... FR4-0111

Ohio R A Staff Co, 19680 Center Ridge Rd
Rocky River ... 331-5100
Ore Roger M Minthorne Co, 6565 S W Macadam Ave
Portland ... CH 6-4556
Tenn Dick Bellew Sales Co, 5388 Brantford Rd, Memphis
Tex Robert E Nesbitt Co, Box 20816
Dallas ... FI 1-4601
Tex Robert E Nesbitt Co, 4810 Hazard St
Houston ... JA8-3811
Can Norris Burgess, 418 Mt Pleasant Ave
Toronto, Ont ... HU 9-1854

MINARIK ELECTRIC CO, 228 E THIRD ST
LOS ANGELES, CAL, 90013 ... 213 MA 43161
L JENSEN, EMP 54, ENG 5
Ill W T Moran, 333 Webster St, Elmhurst ... 832-3697
Ohio Reserve Electric Co, 2090 E 19th St
Cleveland ... PR 1-5746

MINCOM DIV 3M CO, 300 S LEWIS RD, CAMARILLO
CAL, 93010 ... 805 482-1911
R BROWN, EMP 500, ENG 120
DC Mincom Div, 1750 Penna Ave N W
Washington ... 298-9200
Fla Mincom Div, 1010 Exec Ctr Dr, Orlando ... 841-4291
Mass Mincom Div 3M Co, Box 966
Framingham ... 429-1717
NJ Mincom Div, 700 Grand Ave
Ridgefield ... 943-6700
Tex Mincom Div 3M Co, 14010 Far Hills La
Dallas ... 239-7389

MINCO PRODUCTS INC, 740 WASHINGTON AVE N
MINNEAPOLIS
MINN, 55401, TWX 910-576-2848 ... 612 338-6753
R ZELINKA, EMP 62, ENG 14, $1,000-$2,500M
Ala Roy Steckmesser Assoc, 816 Esslinger Rd SE
Huntsville ... 881-1750
Ariz Hytronic Measurements Inc, 1017 N 3rd St
Phoenix ... 253-7452
Cal Pentagon Co, 1010 Fair Oaks
S Pasadena ... 799-7141
Colo Hytronic Measurements Inc, 4940 E 39th Ave
Denver ... 388-4081
Ill Electrical Materials & Equip Co
6120 N Milwaukee Ave, Chicago ... RO 3-2980
Ky Skaff Engrg Co, Inc, 208 Bellefont Dr
Ashland ... 325-7391
Md Magyar & Assoc, 11360 Cherry Hill Rd
Beltsville ... 937-6468
Md Magyar & Assoc, 11360 Cherry Hill Rd
Beltsville ... 937-6468
Mass Magyar & Assoc, Box 182, Alston ... 566-9759
Minn Electrical Jobbers Equip Inc, 1120 Glenwood Ave
Minneapolis ... 377-7904
NJ E R Davis Co, 45 Rose Terr, Chatham ... CR 3-7300
NJ Magyar & Assoc, Box 222, Metuchen ... 549-2255
NM Hytronic Measurements Inc, 205 San Pablo, SE
Albuquerque ... 268-3941
Ohio Allen Nace Co Inc, Box 156
Brecksville ... 526-4323
Ohio Fred W Link, Box 93, Riverdale Sta
Dayton ... 277-8215
Ohio George A Zaebst, Rte 3, Galion ... 468-7641
Pa Larry G Keeley, Box 8506, Philadelphia ... 763-5044
Pa James J Donovan, Box 10630
Pittsburgh ... 241-3200
Tex Dyna-Reps, 200 S Grants La, Ft Worth ... 732-6621
Tex Dyna-Reps, 6400 Southwest Frwy
Houston ... 782-0311
Utah Hytronic Measurements Inc, 2022 S Main
Salt Lake City ... 466-4924
W Va Skaff Engrg Co, 3418 Staunton Ave SE
Charleston ... 342-2211

MINDRUM PRECISION PRODUCTS, 9593 E 9TH ST
CUCAMONGA, CAL, 91730 ... 714 987-1611
P MINDRUM, EMP 15, ENG 1, $100-$250M

MINE SAFETY APPLIANCES CO, 201 N BRADDOCK AVE
PITTSBURGH, PA, 15208 ... 412 241-5900
J SHERWIN

MINIATURE ELECTRONIC COMPONENTS CORP
600 SOUTH ST, HOLBROOK
MASS, 02343 ... 617 963-7717
R POZZO, EMP 80, ENG 3, $250-$500M
Ala Airsupply Co, 2003 Byrd Spring Rd SW
Huntsville ... 205 883-0244
Ariz Airsupply Co, 2618 E Washington St
Phoenix ... 602 267-3916
Cal Airsupply Co, Town & Cnty Vlg
Palo Alto ... 415 DA 6-4186
Cal Airsupply Co, 2230 Michigan Ave
Santa Monica ... 213 871-0520
Fla Airsupply Co, 7000 Lake Ellenor Dr
Orlando ... 305 851-1210
Ga Airsupply Co, 3272 Peachtree Rd NE
Atlanta ... 404 CE 7-8636
Ill Airsupply Co, 5544 St Charles Rd
Berkeley ... 312 LI 4-7400
Ind Airsupply Co, 2441 N Meridian St
Indianapolis ... 317 WA 5-3528
Kan Airsupply Co, Box 18188
Wichita ... 312 MU 3-7518
Mass Airsupply Co, 235 Bear Hill Rd
Waltham ... 617 TW 4-9165
Mo Airsupply Co, 4531 N Lindbergh
Bridgeton ... 314 PE 1-3011
NY Airsupply Co, 6443 Ridings Rd
Syracuse ... 315 HO 3-8531
NY - Airsupply Co, 1 Dupont St
Plainview ... 516 681-8710
Ohio Airsupply Co, Box 19738 A M F
Columbus ... 614 231-4571
Ohio Airsupply Co, 333 W 1st St
Dayton ... 513 BA 4-0728
Pa Airsupply Co, 237 Lancaster Ave
Devon ... 215 MU 8-5157
Tex Airsupply Co, Box 1906
Fort Worth ... 817 ED 5-4541
Va Airsupply Co, 3865 Wilson Blvd
Arlington ... 703 525-1191
Wash Airsupply Co, 10806 NE 8th St
Bellevue ... 206 GL 4-7922
For Norcon Div Intrade Inc, Box B
Thomaston, Conn ... 283-5563

MINIATURE ELECTRONIC COMPONENTS LTD
COPSE RD, ST JOHNS, WOKING, SURREY
ENGLAND, TWX 85147 ... WOKING 63621
B SARGENT, EMP 250, ENG 20, $1,000-$2,500M
Can Aero Space Tronics Ltd, 1080 Port Royal W
Montreal, Que
Den Hans Buch & Co A/S, 6 Svanevej
Copenhagen ... TAGA 5197
Fr Seurelec, 39-41 Rue de L'Est
Boulogne-Billancourt ... 408-38-60
Ger R H Suss & Co K G, Oehleckerring 10
Hamburg 62 ... 520 50 21
Holl Nijkerks, Drentestr 7, Amsterdam C
Nor Ole A Nordby, Sorkedalsveien 1B
Oslo 3 ... 46 31 75
SAfr Indentronics Pty Ltd, 27 Hans St
Jeppe Johannesburg
Swed A B Kuno Kallman, Jarntorgot 7, Gotheborg
Swit Digitana AG, Gertrudstr 24, 8003 Zurich
Ind Southern Electronics, 20 Greenwats Rd, Madras 28
Aust Austral Engrg Supplies Pty Ltd, Mary St
Ermington, NSW ... 85-0211

MINI-CIRCUITS LAB, 152 W 42ND ST, NEW YORK
N Y, 10036 ... 212 947-1346
B WHITE, EMP 5, ENG 1, UP TO $100M

MINI-FLEX CORP, 7916 WOODLEY AVE, VAN NUYS
CAL, 91406 ... 213 988-2860
P JORGENSEN, EMP 10, ENG 1, $250-$500M

MINIGRIP, INC, RTE 303, ORANGEBURG
N Y, 10962 ... 914 359-3100
J HASTY, EMP 50, UP TO $100M

MINITEC CORP, 30 BANK ST, MORRISTOWN
N J, 07960 ... 201 539-6333
H PECK, EMP 10, ENG 2, $100-$250M

MINNEAPOLIS SPEAKER CO, 3806 GRAND AVE
MINNEAPOLIS, MINN, 55409 ... 825-1010
D RINGHAM
Ala John F Russell Sales Co
3040 Whispering Pines Cir
Birmingham ... 822-2196
Cal Osborne & Bidwell, Inc, 225 E Redondo Beach
Gardena ... 770-0300
Cal Straube Assoc, 483 Willow Rd
Menlo Park ... DA 3-2476
Colo Straube Assoc, 1123 Spruce St, Boulder ... 443-8600
Conn Adams McGregor, Inc, Box 353
Wallingford ... 269-5816
Fla Sproch Sales, Inc, 3520 W Broward Blvd
Ft Lauderdale ... 587-3792
Ill L F Green & Assoc, 5218 W Diversey Ave
Chicago ... AV 6-6824
Iowa Thomas & Modrcin Assoc, Inc, 890 17th Ave
Marion ... 377-6261
Kan Thomas & Modrcin Assoc Inc, 5450 Buena Vista Dr
Shawnee Mission ... 432-2131
Md Par-Nell Sales Co, 69 Main St
Reisterstown ... 833-6444
Mass Adams McGregor, Inc, 46 Pearl St
Quincy ... 472-7550
Mich Butchart-Rathsburg & Assoc, 16637 E Warren
Detroit ... 882-1717
Minn Misco, 3806 Grand Ave S, Minneapolis ... 825-1010
Mo Thomas & Modrcin Assoc Inc, 47 Village Sq
Hazelwood ... 838-6446
NY Gil Miller Sales Co, 47 Birchwood Park Dr
Jericho ... 586-4780
Ohio J O Olsen Co Inc, 16201 Shaker Blvd
Cleveland ... SK 2-5444
Ohio John O Olsen Co, Inc, 116 W Franklin
Centerville ... 885-3722
Ore Jud Lebrun Co, 1123 SW Yamhill St
Portland ... 224-7710
Pa J O Olsen Co Inc, 1843 Maydell St
Pittsburgh ... FI 1-8391
Pa Par-Nell Sales Co, 1135 Bustleton Pike
Feasterville ... 357-7230
RI Adams McGregor, Inc, 66 Lakeview Rd
Lincoln ... 726-1300
SC Hal C Norman Sales Co, Box 5185, Sta B
Greenville ... 244-6254
Tex Techno Assoc, 2324 Shorecrest, Dallas ... FL 7-9213

3M COMPANY, 3M CENTER, ST PAUL
MINN, 55101, TWX 910 563-3712 ... 612-733-1110
R CHRISTENSEN, EMP 54000, OVER $10,000M
Cal 3M Co, 6023 S Garfield Ave
Los Angeles ... 723-6641
Cal 3M Co, 320 Shaw Rd S, San Francisco ... 761-1155

DC 3M Government, 425 13th St NW Washington .... NA 8-9478
Ga 3M Co, 5925 Peachtree Ind Blvd Chamblee 451-1661
Ill 3M Co, 6850 S Harlem Ave Bedford Park .... LU 5-7800
Mass 3M Co, 155 4th Ave Needham Heights .... HI 9-0300
Mich 3M Co, 411 Piquette, Detroit 875-7111
Minn 3M Co, 935 Bush Ave, St Paul 733-1110
Mo 3M Co, Box 510, St Louis .... WY 1-1320
NJ 3M Co, 700 Grand Ave, Ridgefield .... WH 3-6700
NY 3M Co, 330 Green St, Buffalo .... TX 4-5214
NC 3M Co, 2401 Brevard St 3, High Point 883-1496
Ohio 3M Co, 4835 Para Dr, Cincinnati 242-2313
Ohio 3M Co, 12200 Brookpark Rd, Cleveland 267-1800
Pa 3M Co, 5698 Rising Sun Ave, Phila .... PI 2-0200
Tex 3M Co, 2121 Santa Anna Ave, Dallas .... DA 7-7311
Wash 3M Co, 100 Andover Park W, Seattle .... CH 4-7200

3 M CO DM&S DIV, 5178 CROOKSHANK RD
CINCINNATI, OHIO, 45238 513-922-0941
D MULHOLLAND, EMP 41, ENG 5, $1,000-$2,500M
Cal J McCoy, Box 8, LaCanada 213-246-2134
Cal J A Morrison, 1240 E 12th St Oakland 415-534-2233
Conn Henry Lavin Assoc, Box 921 Meriden 203-237-5527
Ga W C Schwartz, 4710 Highpoint Rd NE Atlanta 404-252-4997
Ill Electro-Comp Sales, 5129 W Devon Ave Chicago 312-763-3636
Ill L Linderoth, 261 Cherokee Trail Rockford 815-877-2266
Ill W J Koness, 23 N Columbia Naperville 312-355-8673
Kan D D Darnell & Co Inc, Box 1354 Mission 913-722-1736
Minn Edward Hoffman Co, 201 Liberty Bank Bldg St Paul 612-645-4665
NJ John W Richardt Co, Rt 46 Pine Brook 201-227-0600
NJ V DiLorenzo, 700 Grand Ave Ridgefield 201-943-6700
NY R P Evans, 1101 Vine St, Liverpool 315-652-5987
NC W C Turrentine, 2312 Danbury Rd Greensboro 919-273-4702
Ohio American Magnetics, 149 Valleyview Dr Dayton 513-277-5122
Wash National Co, 69 Marion St, Seattle 201-227-0600

3M INSTRUMENT PRODUCTS, 300 S LEWIS RD
CAMARILLO
CAL, 93010, TWX 510-866-7099 213-482-1911
M ACKERMAN, EMP 53496, $1,000-$2,500M
Ala James Highsmith Co, 3322 S Memorial Pkwy Huntsville 881-3294
Cal IFM - North, 2269 Middlefield Rd Mountain View 961-2828
Cal Product Data Co, 1147 S Robertson Blvd Los Angeles 278-3356
Fla James Highsmith Co, 2543 Industrial Blvd Orlando 293-5202
Kan Leemark Engrs Inc, Box 6175, Leawood 648-0124
Md Whitcomb Assoc, 730 Deepdene Rd Baltimore 889-1245
Mass Broger Instr Sales Co, 223 Crescent St Waltham 891-8045
Mo Leemark Engrs Inc, 9623 St Charles Rock Rd St Louis 423-8700
NY Industron Assoc, 300 Northern Blvd Great Neck 487-2620
NC James Highsmith Co, 3733 Monroe Rd Charlotte 333-7743
Tex 3 M Co, 14010 Far Hills La, Dallas 239-7389
Va James Highsmith Co, 5003 Brook Rd Richmond 266-2060

MINNESOTA RUBBER CO, 3630 WOODDALE AVE
MINNEAPOLIS
MINN, 55416, TWX 910-576-2727 .... 612 929-6781
R MATTOCKS, EMP 500, ENG 3, $5,000-$10,000M
Cal Minn Rubber Co, 664 Monterey Pass Rd Monterey Park 213 283-8757
Colo C F L Co, 900 E Louisiana, Denver 303 777-4381
Ill Minn Rubber Co, 5604 N Western Ave Chicago .... 312 AR 1-3777
Ill Minn Rubber Co, 1505 15th St Moline 309 762-7133
Ind Minn Rubber Co, 1111 E 54th St Indianapolis 317 251-5958
Mass Minn Rubber Co, 1 W Shore Dr Marblehead 617 631-1928
Mich Minn Rubber Co, 24634 Five Mile Rd Detroit .... 313 KE 5-6332
Mo Minn Rubber Co, 10 S Lyle St Louis .... 314 PA 5 9400
NJ Minn Rubber Co, 295 Ratzer Rd Wayne 201 694-3062
Pa Minn Rubber Co, Box 318 Cherry Hill, NJ .... 609 HA 8-4400
Tex Andy & Assoc, 2716 W Mockingbird La Dallas 214 FL7-3978
Tex Triplex Rubber & Supply, Box 10815 Houston .... 713 WA 8-5643
Wis Minn Rubber Co, 5822 W Fond Du Lac Milwaukee .... 414 HO 1-6200
Can Canadian Packing & Seal Prod, 78 Six Points Rd Toronto 416 231-1161
Fr Minn Rubber France, 5 Rue Laure-Fiot 92-Asnieres Paris
Ger O-Ring Vertriebsgesellschaft Busak & Luyken KG, Box 551?7 Stuttgart 1
Holl Eriks N. V., Voormeer 33, Alkmaar

MINNETECH LABS INC, 6140 WAYZATA BLVD
MINNEAPOLIS, MINN, 55416 .... 612 544-4431
R LARSON, EMP 16, ENG 4, $250-$500M
Cal Dimensional Control Corp, 1231 Westwood Blvd Los Angeles 213 477-3561
Cal Dimensional Control Corp, 760 Industrial Rd San Carlos 415 591-0365
Ore Dimensional Control Corp, 2035 SW 58th Ave Portland 503 292-0141
Wash Dimensional Control Corp, 353 Lind St Renton 206 226-9405

MINOR RUBBER CO INC, 40 ACKERMAN ST
BLOOMFIELD, N J, 07003 .... 201 338-6800
S MESSING, EMP 70, ENG 6, $1,000-$2,500M

MIRACLE-HILL ELECTRONICS, 320-B MARTIN AVE
SANTA CLARA, CAL, 95050 .... 408 296-1730
J MIRACLE, EMP 6, ENG 3, UP TO $100M
Ariz Hytronic Measurements Inc, 1017 N 3rd St No 9 Phoenix 602 253-6104
Cal Wieler & Co, 10842 S Paramount Blvd Downey 213 861-9223
Colo Hytronic Measurements Inc, 4940 E 39th Ave Denver 303 388-4081
Ill H & H Sales, 1255 Sandburg Chicago 312 642-4464
Mass Electronics Sales of New England, Box 276 Attleboro 617 222-4078
NJ Maloy & Stagnitti, 4 Horizon Rd Fort Lee 201 224-6911
NM Hytronic Measurement Inc, 205 San Pablo SE Albuquerque 505 268-3941
Tex Dannemiller-Smith Inc, 2720 W Mockingbird Dallas 214 357-8247
Utah Hytronic Measurements Inc, 2022 S Main Salt Lake City 801 466-4924
Jap Tokyo Electron Labs Inc, TBS Kaikan Bldg Akasaka Tokyo 584-5611

MISKELLA INFRA-RED CO, E 73RD & GRAND AVE
CLEVELAND, OHIO, 45216 .... 216 431-2210
F ZITEK, EMP 4, $100-$250M

MISSIMERS INC, 3737 SAN FERNANDO RD, GLENDALE
CAL, 91204 .... 213 245-8471
D ADAMS, EMP 55, ENG 5, $1,000-$2,500M
ADV PG 137
Ariz Pacific Scientific Co, 15 N 40th Pl Phoenix 273-7464
Cal Pacific Scientific Co, 6280 Chalet Dr City of Commerce 773-2020
Cal Pacific Scientific Co, 3235 Hancock St San Diego 297-4533
Cal Pacific Scientific Co, 760 Harrison St San Francisco 362-0934
Fla Cain & Co, 2523 Chippewa Trail Maitland 205 536-1422
Ill Technical Devices, Inc, 6416 N Central Ave Chicago 774-8252
Kan Pacific Scientific Co, 8020 Santa Fe Dr Overland Park 931-5863
Md Cain & Co, 7401 New Hampshire Ave Hyattsville 296-8265
Mass Cain & Co, 45 Essex, Melrose 665-8600
Mo Pacific Scientific Co, 11771 Natl Bridge Rd Bridgeton 291-2440
NM Pacific Scientific Co, 209 San Pablo SE Albuquerque 265-6638
NY Cain & Co, 324 First St, Liverpool 437-2933
Ohio Fred R Sharp Co, 12417 Cedar Rd Cleveland 462-2770
Ore Pacific Scientific Co, 1218 SE 7th St Portland 233-6177
Pa Test Equip Sales Co, 4447 N Bodine St Phila 329-1822
Tex Pacific Scientific Co, 702-A E Abram St Arlington 275-3236
Tex Pacific Scientific Co, 4101 San Jacinto Houston 529-6822
Wash Pacific Scientific Co, 8915 14th Ave Seattle 762-4260
Can Electrodesign Ltd, 9124 St Lawrence Blvd Montreal 389-5914
Can Electrodesign Ltd, 3433 Bathhurst St Toronto 787-0991
Can Electrodesign Ltd, 83 Arthur St Ottawa Ont 233-8815
For B Freudenberg Inc, 50 Rockefeller Plaza New York 757-9130

MISSOURI RESEARCH LABS INC, 2109 LOCUST ST
ST LOUIS, MO, 63103 .... 314 CH 17875
W HOLLANDSWORTH, EMP 400, ENG 40, OVER $10,000M

MITCHELL CO, E C, 88-90 BOSTON ST, MIDDLETON
MASS, 01949 .... 617 774-1191
E MITCHELL, EMP 5

MITCHELL RAND MFG CORP, TORNE VALLEY RD
HILLBORN, N Y, 10931 .... 914 EL 7-2700
JFINN, EMP 25, ENG 2, $500-$1,000M

MITE CORP, 446 BLAKE ST, NEW HAVEN
CONN, 06515, TWX NR 963419 .... 203 387-2572
R HIRSCH, EMP 700, ENG 50, OVER $10,000M

MITRONICS INC, 132 FLORAL AVE, MURRAY HILL
N J, 07974 .... 201 464-3300
H PENSACK, EMP 125, ENG 8, $1,000-$2,500M
Ariz E J Foley & Assoc, 3840 N Jokake Dr Scottsdale .... WH 5-2666
Cal A Davis, 1720 Mermaid Dr San Pedro 213 547-1288
Fla Lake Park Electronics, 1001 Newman Rd, Lake Park
Ill Karl D Engle Co, 3621 W Devon Ave Chicago 539-1820
Md David K Jones & Assoc, 2026 Maryland Ave Baltimore 752-0577
Mass John F Morse, 1838 Mass Ave Lexington 862-0856
Mo Gordon Fixman Engr Co, 8160 Stanford Ave, St Louis
NJ D & R Assoc, Box 772, Upper Montclair
Ohio Augey Natalino Assoc, 209 Harmony Hills Akron .... MO 6-1447
Pa David K Jones & Assoc, 6520 Rising Sun Ave, Phila
Pa Production Components, 300 MT Lebanon Blvd Pittsburg
Tex Scott Technical Sales, 6636 Briar Cove Dallas .... FL 2-7698
Fr Technique Et Produits Cite Des Bruyeres Rue Carle-Vernet, 92 Serves
Ger A Metzeler, GmbH Electronic Kg 8 Munich 71 .... Aidenbachstr 234
GB Joseph Electronics Ltd, 23/24 Warwick St, London
Ind Bali Intl Agencies, Box 1676, Bombay-1BR

MITSUBISHI ELECTRIC CORP
MITSUBISHI DENKI BLDG MARUNOUCHI, TOKYO
JAPAN 212-6111
S SHIBUYA, EMP 49300, ENG 4000, OVER $10,000M
ADV PG 785
Cal Mitsubishi Intl Corp, 606 S Hill St Los Angeles 627-1491
Ill Mitsubishi Intl Corp, 130 E Randolph Dr Chicago 467-1111
NY Mitsubishi Intl Corp, 277 Park Ave New York 922-3700
Ore Mitsubishi Intl Corp, 310 SW 4th Ave Portland 226-2986
Tex Mitsubishi Intl Corp, 1021 Main St Houston 8-7423
Wash Mitsubishi Intl Corp, 810 Third Ave Seattle 2-0744
Can Mitsubishi Intl Corp, 717 W Pender St Vancouver 3-3305
Fr Mitsubishi France (SA), 9 Rue Scribe, Paris 98-70
GB Mitsubishi Shoji Kaisha Ltd Bow Bells Hse Bread St, London .... City 3292
Ital Mitsubishi Shoji Kaisha Ltd, Via Fabio Filzi 27 Milano 653062
Jap Mitsubishi Electric Corp, Marunouchi Tokyo 212-6111
SAfr Mitsubishi Shoji Kaisha Ltd, 158 Market St Johannesburg 22-1134

MITSUMI ELECTRIC CO LTD, 1056 KOADACHI, KOMAE-MACHI
TOKYO, JAPAN 415-6211
T USUI, EMP 3600, ENG 500, $1,000-$2,500M
ADV PG 775
NY Mitsumi Electronics Corp, 11 Broadway New York .... HA 5-3085
Ger Mitsumi Elec Co Ltd, Marienstra 12, Duesseldorf
Jap Mitsumi Elec Co Ltd, 112, Shibata-Cho Kita-Ku Osaka 06-372-0761

MKC ELECTRONICS CORP, 454 E DONOVAN RD
KANSAS CITY, KANS, 66115 .... 913 DR 1-1351
V MATHEWS, EMP 25, ENG 2, $250-$500M
Kan Thomas-Modrcin Assoc Inc, 5450 Buena Vista Dr Shawnee Mission 432-2131

MKS INSTRUMENTS INC, 45 MIDDLESEX TPKE
BURLINGTON, MASS, 01803 .... 617 272-9255
F KRAUSS, EMP 45, ENG 9, $500-$1,000M
Ala Currie Aerospace Assoc, Box 1424 Huntsville 536-5650
Cal Griot Assoc, 3002 Midvale Ave Los Angeles 474-1587
Cal Griot Assoc, 560 San Antonio Rd Palo Alto 327-3996
Colo Space Systems Sales & Engrg, 101 University Blvd Denver 388-9225
Fla Currie Aerospace Assoc, Box 13229 Orlando 855-0843
Ill Clarkson Engrg, 5518 W Lawrence Ave Chicago 286-2314
Ind Tech Sales & Mktg, 1121 N Arlington Ave Indianapolis 356-3658
Md A Ratner Assoc, 4928 St Elmo Ave Bethesda 657-2585
Mo Space Systems Sales & Engrg, Box 176 Florissant 291-3228
NJ Electronic Equipment Engineers, Box 231 Saddle River 825-0033
NM Space Systems Sales & Engrg, 1401 Valencia S E Albuquerque 255-7058
Pa Arnold Ratner Assoc, 301 York Rd Jenkintown 887-5250
Pa Kurt Lesker Co, 5635 Horning Rd Pittsburgh 892-2996
Tex Space System Sls & Engrg, 8383 Stemmons Frwy Dallas 631-1740
Utah Space Systems Sales & Engrg, 429 W 500 S Bountiful 295-6464
Wash Paratech, Box 5427, Seattle 784-6447
Can Spectra Research Ltd, 376 Churchill Ave Ottawa 728-3415
For Henley & Co, 202 E 44th St New York, NY 986-5544

MM ELECTRONIC ENCLOSURES INC, 111 BLOOMINGDALE RD
HICKSVILLE
N Y , 11801, TWX 510-221-1857 .... 516 WE 5-9400
M PRESNICK, EMP 70, ENG 5, $1,000-$2,500M
ADV PG 122
Cal Daton Engrg Co, 1263 Westwood Blvd
Los Angeles........................ 213 479-4211
Cal Vico Sales Co, Box 372, Santa Clara
Colo Vinson Assoc, 3600 S Lincoln
Englewood........................ 303 789-2203
Conn N S Stachalek, 52 Cole La
Kensington.......................... VA 8-4587
Fla Tech Rep Assoc, Box 8218
Madeira Beach 813 391-0008
Ill Aerol Assoc, 466 Central Ave
Northfield........................ 312 446-6486
Kan Aerol Assoc Inc, 6631 E Kellogg
Wichita............................ 683-7421
Mass Kenneth B Reidy, 43 Quaboag Rd
West Acton .... CO 3-7146
Mich Carter McCormic & Peirce, 16239 Wyoming Ave
Detroit 313 863-4600
Minn Hasse & Assoc, 3825 York Ave N
Mnpls 588-0551
Mo Aerol Assoc Inc, 34 N Brentwood Blvd
St Louis 725-5361
NJ Aerol Assoc Inc, 730 Clifton Ave
Clifton 779-6744
NJ M & S Assoc Inc, Box 185
Haddonfield .... HA 9-7055
NY Aerol Assoc Inc, 170 Great Neck Rd
Great Neck.......................... HU 7-9650
NY Aerol Assoc, Box 8860, Rochester ... 716 235-7290
Tex Blair Engrg Sales Co, 10034 Monroe St
Dallas.......................... 214 FL 2-2556
Can John G Weiss Co Ltd, 5725 Monkland Ave
Montreal 28 PQ 514 489-6887

M & M ELECTRONICS CORP, 35 ALBANY AVE
AMITYVILLE,, N Y, 11701 .... 516 598-2520
M LASKY, EMP 30, ENG 1

M & M MACHINE SHOP, 815 NASH, EL SEGUNDO
CAL, 90245 .... 213 322-1663
EMP 25, ENG 1

MOBIL ELECTRONICS INC, BOX 1132, ANDERSON
IND, 46015 .... 317 642-7976
H HART, EMP 9, ENG 3, UP TO $100M

MODELECTRIC PRODUCTS CORP, 1500 BANGS AVE
ASBURY PARK, N J, 07712 .... 201 774-2519
S NADLER, EMP 25, ENG 3, $100-$250M

MODE ELECTRONICS INC, 6407 WARRICK AVE
CINCINNATI, OHIO, 45227 .... 513 271-8400
R BERNHARD, EMP 40, ENG 4, $100-$250M
Ill Bierhaus, 1013 E 31st
LaGrange Park...................... 312 354-5100

MODEL RECTIFIER CORP, 5300 21ST AVE, BROOKLYN
N Y, 11204 .... 212 CL 2-4300
B SADOF, EMP 52, ENG 3, $500-$1,000M

MODERN MFG CO INC, 680 DAVISVILLE RD
WILLOW GROVE, PA, 19090 .... 215 659-4820
E JASTREY, EMP 40, ENG 2, $250-$500M

MODUTEC INC, 18 MARSHALL ST, NORWALK
CONN, 06854 .... 203 353-3636
P DEERY, EMP 30, ENG 5, $100-$250M
ADV PG 402, 403
Ala Beacon Elctn Assoc, Box 3127
Huntsville 205 536-5065
Ariz Luscombe Engrg Co, 3130 N 3rd Ave
Phoenix 602 274-1542
Cal Luscombe Engrg Co, 610 S Arroyo Pkwy
Pasadena 213 684-2000
Cal Luscombe Engrg Co, 220 E 3rd St
San Mateo.......................... 416 432-7057
Colo J L Goodman Sales Co, 2848 S Harrison
Denver 303 757-6858
Fla Beacon Elctn Assoc, Box 1278
Maitland.......................... 305 647-3498
Fla Beacon Elctn Assoc, Box 10212
Ft Lauderdale...................... 305 564-4298
Ga Beacon Elctn Assoc, 2285 Peachtree Rd NE
Atlanta 404 351-3654
Ill Crest Assoc, 7001 N Clark St
Chicago 312 274-2640
Kan Gordon Fixman Engrg Co, 6631 E Kellogg
Wichita............................ 316 682-9433
Md Shiplett-Warrington Assoc, Box 6789
Baltimore.......................... 301 823-8759
Md Shiplett-Warrington Assoc, Box 373
College Park 301 864-5757
Mass New England Elctn Sales Corp, 590 Washington St
Canton
Mich Carter McCormic & Peirce, 16239 Wyoming Ave
Detroit 313 863-4600
Minn R J Sales & Engrg Co, 7100 S France Ave
Mnpls.............................. 612 922-1425
Mo Gordon Fixman Engrg Co, 8160 Stanford Ave
St Louis 314 725-5219
NY Sprung Nussbaum Inc, 254 W 31st St
New York.......................... 212 565-1820
NY R P Kennedy Co, Box 8417
Rochester.......................... 716 271-6322
NY R P Kennedy Co, Box 54
Fayetteville 315 637-9531
NY R P KennedCo, Green Tree Dr N
Hyde Park 914 229-2269
NC Beacon Elctn Assoc, 305 Greenway St
Jamestown 919 454-1010
Ohio Carter McCormic & Peirce, 3691 Lee Rd
Cleveland.......................... 216 921-1360
Ohio Carter McCormic & Peirce, 3406 N Main St
Dayton 513 278-5873
Pa Holdsworth & Co, Box 298
Newtown Square.................... 215 356-8550
Tex E B Robertson Inc, 1339 Plowman Ave
Dallas............................ 214 942-8486
Tex E B Robertson Inc, 4101 San Jacinto
Houston 713 529-3797
Tex E B Robertson Inc, 908 Great Plains Bldg
Lubbock 806 765-9027
Wash Associated Industries, 3711 S Hudson St
Seattle 206 722-3347
Can Motion Control Engrg, Box 374
Burlington Ont.................... 416 637-9369
For Frathom Co Inc, 202 E 44th St
New York N Y 212 687-9390

MOHAWK DATA SCIENCES CORP, 150 CAUSEWAY ST
BOSTON, MASS, 02114 .... 617 742-4585
G SOTER, EMP 1900, ENG 220, OVER $10,000M
Cal Mohawk Data Sciences Corp, 6252 Telegraph Rd
Los Angeles........................ 213 685-5165

MOHAWK ELECTRONICS CORP, RT 113, BOX E305
FREDERICA, DEL, 19946 .... 302 335-5461
S WELCH, EMP 60, ENG 3, $500-$1,000M
Va J H Thrower Co, 206 88th St
Virginia Beach........................ 428-7482

MOHAWK WIRE & CABLE CORP, BOX 707,
LEOMINSTER
MASS, 01453, TWX 92822.............. 617 537-9961
R VAN VLECK, EMP 110, ENG 4, $2,500-$5,000M
Ala Maitland K Smith Inc, 3258 Cahaba Hgts Rd
Birmingham........................ 205 871-9341
Cal Bucky Harris Co, 3440 Overland Ave
Los Angeles........................ 213 870-4647
Colo Rocky Mtn Elec Sales, 208 Wazee Market
Denver 303 255-3921
Fla M K Smith Co, 897 Penna Ave
Fort Lauderdale 305 587-7378
Ga Maitland K Smith Co, 31 16th St
Atlanta 404 875-8031
Ill Wasson-Gallagher, 1024 North Blvd
Oak Park 312 383-6572
Ill E H Seversen, 11435 Cir Dr
La Grange 312 246-4883
Mass Harco, Box 203, Stow.............. 617 369-5900
Mass Jim Piper Assoc, 10 Haven St
Dover 617 449-1144
Minn Walter Schmitt Assoc, 3881 Hwy 100
Minneapolis........................ 612 920-3883
NJ W Murray, 100 Hepburn Rd, Clifton .. 201 472-1566
NJ John A Vogt Co, Box 514
Haddonfield........................ 609 428-2506
NY ABW Agents Inc, 815 Sibley Tower Bldg
Rochester.......................... 716 546-8061
NY R Albrecht, 221 Lonesome Oak
Rochester.......................... 313 651-7081
NC Maitland K Smith Inc, 1605 Chatham Ave
Charlotte 704 376-5951
Ohio Orr Assoc, 6510 Farnsworth Dr
Cleveland.......................... 216 885-1324
Ohio Weller Elctn Sales, Box 212
Worthington........................ 614 885-7819
Pa J J Nolan Assoc, 314 W Sparks St
Phila.............................. 215 924-1595
Tex Chester Butt, Box 18045, Houston ... 713 526-3101
Can Desser E-E Ltd, 2425 Grand Blvd
Montreal.............................. 489-7597

MOLDED RUBBER & PLASTIC CORP
13161 W GLENDALE AVE, BUTLER
WISC, 53007.......................... 414 781-7122
A MITTAG, EMP 70, ENG 3, $500-$1,000M
Ill A Berngen, 5483 N Northwest Hwy
Chicago 631-0258
Wis Henry Hauser, Mukwonago 363-8519

MOLDING ENGINEERS INC, 466 VISTA, ADDISON
ILL, 60101 .... 312 543-6890
A KUTHE, EMP 75, ENG 2, $1,000-$2,500M
Mich Brown Ind Sales Co, 1834 S Woodward
Birmingham.......................... MI 6-4143
NY M C Matthews Co, Box 612
Rochester.......................... BR 1-2143

MOLECULAR DIELECTRICS INC, 101 CLIFTON BLVD
CLIFTON, N J, 07015.................. 201 473-4108
J DUBOIS, EMP 120, ENG 8, UP TO $100M
Cal Insulation Components Assoc, 905 Olympic Blvd
Monte Bello...................... 213 RA 3-5600
Ill Mykroy Div, 645 Wheeling Rd
Wheeling .... 312 RO 3-2000
NY W F Sauers, 101 Briarcliff Rd
Rochester........................ 716 NO 3-1997
Can A Gilchrist Ltd, 5645 Pare St
Montreal Que 514 735-3606

MOLECULAR ENERGY CORP, 82 NAYLON AVE
LIVINGSTON, NJ, 07039................ 201 994-0010
J ROOT, EMP 25, ENG 6, $100-$250M

MOLECULAR RESEARCH INC, 4176 BURNS RD
PALM BEACH GARDENS, FLA, 44306 ... 305 842-4271
W KEIKES, EMP 152, ENG 18, $2,500-$5,000M
Ala H B Hanson, Box 20157, Birmingham 243-4141
Cal Huffman Engineering Co, Rolling Hills
Ill R B Kraft Co, 10911 S Hoyne Ave
Chicago .... BE 8-3552
Ill John H Loux Co, 542 S Deerborn, Chicago
Ohio Twin Region Electronic Sales, Inc
21010 Center Ridge Rd, Cleveland
Pa John Kohan Co, Box 425, Irwin........... 863-1282
Pa John Taylor, Drawer E, Irwin 863-7425

MOLECU-WIRE CORP, BOX 495, FARMINGDALE
N J, 07727 .... 201 776-9200
E EDMUNDS, EMP 180, ENG 12
Cal EMI, 11350 Ventura Blvd, Studio City 763-6262
Colo Cobbs Sales Co, 1311 E Bates Pkwy
Englewood.............................. 781-1476
Fla J J Smith & Assoc, Box 460
Winter Park 644-4316
Ill Russ Gawne Assoc, 6139 W Touhy Ave
Chicago 775-5381
Ind R H Campbell Inc, 3715 Nokomis Rd
Fort Wayne 745-7063
Mich A D Walter, 2711 E Jefferson Ave
Detroit .... LO 7-6380
NJ Carl B Hamblen, 932 Sycamore Ave
Eatontown 623-8880
NJ Budd Cato Assoc, 235 Parker Ave
Brielle 223-3842
Pa Patterson Electric Co, 1844 Ardmore Blvd
Pittsburgh.......................... 412 244-1818
Va Royalec Elctn Rep, Box 254, Lynchburg ... 846-7117
Wash Comptronics Inc, 3220 16th Ave W
Seattle 284-4842
Fr Elenic, 6 Rue Monsieur, Paris 71-33
GB Leonard Wadsworth, Wimbledon S W 19, London
Belg Appareils & Prods pour L'Industrie
858 Chee d'Alsemberg, Brusells

MOLEX PRODUCTS CO, 5224 KATRINE, DOWNERS GROVE
ILL, 60515 .... 312 969-4550
J KREHBIEL JR, EMP 250, ENG 12, $5,000-$10,000M
ADV PG 190, 670
Cal C Gorham Getchel, 11520 San Vicente Blvd
Los Angeles............................ 477-3591
Cal Peters-deLaet Inc, 1606 Rollins Rd
Burlingame 415 697-1800
Conn Sales Engineering Co, Sugar La
Newton.................................. 426-4434
Fla R J Soblosky, 211 N Ridgewood Ave
Daytona Beach 255-6313
Ill E Healy Assoc, 225 Warwick La
Crystal Lake............................ 459-4386
Ind D Miller & Assoc, 4091 Millersville Rd
Indnpls 546-9414
Mass Sales Engineering Co, Baker Ave
West Concord 426-4434
Mich Jensen-Morrow Co, 1815 Catalpa G
Detroit 544-3700
Mo Palmer Still, 9415 Old Bonhomme Rd
St Louis 993-2077
NY P Saftler & Assoc, 157 W 57th St
New York................................ 247-3855
NY Matt Orzell, 3307 W Genesee
Syracuse................................ 468-2880
Ore Peters-deLaet Inc, 5937 N Greeley
Portland 503 285-7703
Pa Sanford & Co, 221 Benson E
Jenkintown 887-8780
Tenn Peirson, Deakins & McGinness, 3806 Tenn Ave
Chattanooga............................ 266-6321
Tex Stasco, 13110 Spring Grove Ave
Dallas.................................. 239-5054
Can Lisle Instr Systems Ltd, 70 Sheffield Ave
Toronto, Ont............................ 249-9151

MOLLY CO DIV USM CORP, 504 MT LAUREL AVE
TEMPLE, PA, 19560.................... 215 929-5768
R LE SAGE, EMP 43, ENG 1, $1,000-$2,500M
Cal J M Jurist, 5983 Smithway St
Los Angeles............................ 723-0731
Ga J M Hanning, 1670 NE Freeway Access Rd
Atlanta 633-0561
Ill J P Burgard, 5300 McDermott Dr
Berkeley................................ 449-8080
Mass P E McGinness, Lakeside Office Park
Wakefield.............................. 245-5930
NJ F H Cummings, 67 Sanford St
E Orange 674-1060
Ohio R L Gruber, 20545 Center Ridge Rd
Cleveland.............................. 333-3334
Tex J L Salmon, 9102 Garland Rd, Dallas 321-6466
Can USMC of Can, Ltd, Box 1658 Place'D'Armes
Montreal, Que 255-3631
For P H Randall, 140 Federal St
Boston, Mass 542-9100

MOLONEY ELECTRIC CO, 5390 BIRCHER BLVD
ST LOUIS, MO, 63120.................. 314 EV 33300
W SCHIEK, EMP 1000, ENG 45, OVER $10,000M
Cal Garland-Affolter Engr Corp, 417 S Hill St
Los Angeles.......................... MA 4-1864
Cal Garland-Affolter Engr Corp, 58 Sutter St
San Francisco .... EX 7-1800
Conn Moloney Electric Co, 283 Greenwich Ave
Greenwich 661-5151
Ill Moloney Electric Co, 650 Roosevelt Bldg
Glen Ellyn 469-4737
Ill Paul K Pitty Assoc, 6001 N Keystone Ave
Chicago 312 478-3124
Ind Moloney Electric Co, 5250 Keystone Ct Bldg
Indianapolis.......................... CL 3-2334

Kan Moloney Electric Co, 2200 W 75th St
Prairie Village .... EN 2-0404
Kan H C Heyde, 9221 Wenonga Rd
Leawood .... MI 9-8628
NY Pacent Engineering Corp, 300 Northern Blvd
Great Neck .... HU 2-4678
NY Canavan-Scanlon Assoc, Box 142
Syracuse 463-9161
Tex Moloney Electric Co, 1205 Fid Union Life Bldg
Dallas .... RI 2-3710
Tex Moloney Electric Co
1400 Chamber of Commerce Bldg
Houston .... CA 3-8578
Va Moloney Electric Co, 101 Lincolnia Rd
Alexandria 751-7443

MOLON MOTOR & COIL CORP, 3737 INDUSTRIAL AVE
ROLLING MEADOWS, ILL, 60008 .... 312 259-3750
J BAILEY, EMP 300, ENG 6, $5,000-$10,000M
Cal G M Stevenson Co, 20331 Coulson St
Woodland Hills 213 348-5506
Cal Hanley-Brewton & Assoc, 257 N Bayshore Blvd
San Mateo 415 347-2569
Conn Zaslow Sales Co, 6 Newberry Rd
Bloomfield 203-242-7781
Minn Dale Merrick Co, 3712 E Lake St
Minneapolis 612 721-5331
NJ Hy-Rel Electronic Sales Co Inc, 753 Bergen Blvd
Ridgefield 201 945-7511
NY R W Mitscher Co, 496 Ellicott Sq Bldg
Buffalo .... 716 TL 4-2517
Ohio E B Kaercher Co, 2893 Chatham
Cleveland .... 216 TE 1-8098
Pa W D Staats Co, 2766 Murray Ave
Cornwells Heights .... 215 ME 9-5231

MOLYBDENUM CORP OF AMERICA, 280 PARK AVE
NEW YORK, N Y, 10017 .... 201 983-7500
J CANNON, EMP 900, ENG 50, OVER $10,000M
Ill Molybdenum Corp of Amer, 990 Grove St
Evanston .... UN 9-6454
Pa Molybdenum Corp of Amer, 4 Gateway Ctr
Pittsburgh .... AT 1-3786

MONA INDUSTRIES INC, 65 E 23RD ST, PATERSON
N J, 07524 .... 201 274-8220
W SCHLIMBACH, EMP 50, ENG 1, $2,500-$5,000M

MONARCH INDUSTRIES INC
1121 E EL SEGUNDO BLVD, EL SEGUNDO
CAL, 90245 .... 213 772-2294
A LAMB, EMP 25, ENG 1, $250-$500M

MONITOR PRODUCTS CO INC, 815 FREMONT AVE
SOUTH PASADENA, CAL, 91030 .... 213 682-3761
J BLASIER, EMP 90, ENG 5, $1,000-$2,500M
Cal Shallway International, 327 W Highland Ave
Los Angeles 939-0032
Cal Orchard Assoc, 1826 Industrial Way
Redwood City 415 365-7790
Fla Tech Rep Assoc, Inc, Box 8218
Madeira Beach 391-0008
Ill D Hausten, 614 Arbor Ave, Wheaton 668-7312
Mass New England Tech Sales Corp, 7 Cypress Dr
Burlington 617 272-0434
Mich W Spenser Co, 21500 Greenfield Rd
Oak Park 398-8005
NY Trionic Assoc Inc, 320 Northern Blvd
Great Neck 466-2300
NY Tech-Mark Inc, 101 Jefferson Ave
Endicott 607 748-7473
Tex Blackburn Assoc, 137 Walnut Hill Village
Dallas 351-9992

MONITOR SYSTEMS INC, 401 COMMERCE DR
FORT WASHINGTON
PA, 19034, TWX 510-861-1520 .... 215 MI 68100
T COWGILL, EMP 110, ENG 30, $2,500-$5,000M

MONOLITHIC DIELECTRICS INC, BOX 647, BURBANK
CAL, 91503 .... 213 848-4465
G GROH, EMP 55, ENG 3
Fla Kirkwood & Assoc Inc, Box 52
Winter Park 305 645-2220
Mass Normell Assoc, 10 Day St, Newton 617 969-5478
NY Wm H Goudy Assoc, Box 70
Centerport 516 271-8830
Tex Roberts Sales Co, 9704 Lanward Dr
Dallas 214 348-4283

MONROE ELECTRONICS INC, 6 VERNON ST
MIDDLEPORT, N Y, 14105 .... 716 735-3721
K O'BRIEN, EMP 35, ENG 5, $500-$1,000M
Cal Crown Elctns, Box 2573, Van Nuys 213 873-1266
Ill R Edward Stemm Inc, 5681 W Lake St
Chicago 379-2700
Ill R Edw Stemm Inc, 17 W 480 Lake St
Addison 312 279-2440
Md Whitcomb Assoc, 730 Deepdene Rd
Baltimore 889-1245
Mass R Schermerhorn, 55 Salem St, Lynnfield
Minn R Edward Stemm Inc, 2713 Lyndale Ave S
Mnpls 822-8404

MONSANTO CO, 800 N LINDBERGH BLVD, ST LOUIS
MO, 63166 .... 314 OX 4-1000
G BUCHANAN, EMP 57647, OVER $10,000M
Cal Monsanto, 2710 Lafayette, Santa Clara 243-0414
Cal Monsanto, 6670 E Flotilla St
Los Angeles .... RA 3-2492
Del Monsanto, 2005 Concord Pike
Wilmington .... OL 8-6531
Ga Monsanto, 3400 Peachtree Rd NE
Atlanta 577-2260
Ill Monsanto, 3158 Des Plaines Ave
Chicago 296-6688
Mass Monsanto, Everett Station, Boston .... DU 7-5010
Mass Monsanto, 730 Worcester St
Springfield 788-6911
Mich Monsanto, 500 Northland Towers
Detroit 357-0910
Minn Monsanto, 110 S 7th St, Minneapolis .... FE 9-4651
NY Monsanto, 277 Park Ave, New York 922-4111
Ohio Monsanto, 1501 Madison Rd
Cincinnati 751-6707
Ohio Monsanto, 3645 Warrensville Ctr Rd
Cleveland 991-5400
Pa Monsanto, 4 Gateway Ctr Bldg
Pittsbgh 261-2156
Tex Monsanto, 1300 Main St, Houston .... CA 3-4011
Wash Monsanto, 911 Western Ave, Seattle .... MA 2-4203

MONSANTO CO, 800 N LINDBERGH BLVD, ST LOUIS
MO, 63166 .... 314 OX 4-4642
L LUTOSTANSKI, EMP 58000, OVER $10,000M

MONSANTO CO, ST PETERS
MO, 63376, TWX 910 760-1591 .... 314 272-6281
S ALEXANDER, EMP 58000

MONSANTO ELEC TECH CENTER, 620 PASSAIC AVE
WEST CALDWELL
N J, 07006, TWX 710-734-4334 .... 201 228-3800
M POGUE, EMP 250, ENG 25
Ala Lee Assoc, Box 1506, 5R Traylor Island
Huntsville 205-539-0761
Ariz F Y Gates Co, 3300 S Mill Ave, Tempe
Cal Dynamic Assoc, 1011 Cadillac Way
Burlingame 344-3521
Cal Dynamic Assoc, 5190 W Washington
Los Angeles 933-5833
Colo F Y Gates Co, 3401 S Bannock
Englewood 303-761-0591
Conn George Gregory Assoc, 9 S Main St
Cheshire 272-5040
DC Eastern Instrumentation Inc, 2600 Virginia Ave NW
Washington 202-333-8880
Fla Lee Assoc, 200 E Marks St
Orlando 305-241-4445
Ill Scientific Sales Corp, 7132 N Harlem Ave
Chicago 312-775-7594
Ind Scientific Sales Corp, 706 Sherwood Dr
Indianapolis 317-545-9950
Kan Technical Reps, Inc, 809 Sheridan Cir
Olathe .... ST 2-3775
Kan Technical Reps, Inc, 6814 Farmview La
Wichita .... MU 2-4140
Md Eastern Instrumentation, Inc, 1002 Ingleside Ave
Baltimore 744-3675
Mass George Gregory Assoc, 7 Erie Dr
Natick 235-9070
Mich Satullo Co, 4514 N Woodward Ave
Royal Oak 549-3910
Minn Scientific Sales Corp, 6121 Excelsior Blvd
Minneapolis 612-929-6115
Mo Technical Reps Inc, 7049 Laupher La
Hazelwood 314-JA 1-1000
NM F Y Gates Co, 2631 Texas NE
Albuquerque 505-298-1875
NY Martin P Andrews, Inc, 319 Mott Rd
Fayetteville .... NE 7-3144
NY Eastern Instrumentation, Inc, 300 Northern Blvd
Great Neck 466-9505
NC Lee Assoc, 825 Burke St
Winston-Salem 919-724-2406
NC Applied Science Assoc, 3707 Rawlins St
Dallas 214-526-8316
NC Applied Science Assoc, 6218 Westheimer
Houston 713-781-1441
Ohio Satullo Co, 16801 Euclid Ave
Cleveland 486-2800
Ohio Satullo Co, 2801 Far Hills Ave
Dayton 513-293-7061
Okla Applied Science Assoc, 7966 E 41st St
Tulsa 918-NA 7-6199
Pa Eastern Instrumentation, Inc, 613 Cheltenham Ave
Philadelphia 215-927-6269
Utah F Y Gates Co, 455 E 4th S
Salt Lake City 801-359-1101
Va Eastern Instrumentation Inc, Ross Bldg
Richmond 703-644-6622
Wash Cane-Jessup Co Inc, 1433 130th NE
Bellevue 206-454-0691

MONTEDORO CORP, 2740 ORCUTT AVE
SAN LUIS OBISPO, CAL, 93401 .... 805 543-1233
J PALMER, EMP 12, ENG 4, $100-$250M
Cal Westec Electronics, 14125 Inglewood Ave
Hawthorne 213 772-4479
Cal Wested Electronics, 4117 El Camino Way
Palo Alto 415 327-5851
DC J R Eberky Co, 1207 Patomic NW
Washington 202 338-2277
Tex Engineers Intl, Box 35601, Dallas 214 352-2666
Wash Paratech, 2208 NW Market St
Seattle 206 783-3900
Aust General Elctn Services, 5 Ridge St N
Sydney, N S W 929-8453

MONTGOMERY CO, CANAL ST, WINDSOR LOCKS
CONN, 06096 .... 203 NA 33336
G MONTGOMERY, EMP 150, ENG 3

MONTGOMERY MFG CO, INC, 204 S MAIN ST
OWENSVILLE, IND, 47565 .... 812 724-2505
A MONTGOMERY, EMP 20, ENG 2, $250-$500M

MOODY MACHINE PRODUCTS CO INC, 36 DUDLEY ST
PROVIDENCE, R I, 02905 .... 401 421-3317
J MOODY, EMP 21, $500-$1,000M
Alas Robert E Renkert, Box 324, Anchorage
Cal L P Feeley, 5728 Campo Walk, Long Beach
Cal Willison & Simpson, 555 Fifth Ave
Oakland 415 832-3395
Colo Vines & Co, Box 1025, Denver
Del Ed Shaw Co, Inc, 1601 Concord Pike
Wilmington 762-1784
Fla M Alden Porter, Box 6372, Miami
Ill Witz-Knight, Ing, 4750 N Milwaukee Ave, Chicago
Ind Shamrock Electronics, Box 298, Angola
Mo Maury E Bettis Co, 3706 Broadway
Kansas City 561-0772
NY William Ferguson, 117 Fayette St, Manlius
NY Arthur Mizner Assoc Inc, 23 E 26th St, New York
Ohio Shamrock Electronics, 1755 W Market St
Akron 665-6329
Ore Roger Minthorne Co, 6565 S W Macadam Ave
Portland
RI Gene Goddard, 144 Warren Ave, E Providence
Tex J C Bernard Co, Box 47306, Dallas
Can Len Finkler, 2 Tycos Dr, Toronto

MOOG CO, R A, MAIN ST, TRUMANSBURG
N Y, 14886 .... 607 387-6101
R MOOG, EMP 15, ENG 2, $100-$250M
Cal P Beaver, 2825 Hyans St
Los Angeles 213 382-4764
NY W E Sear, 784 6th Ave, New York 212 684-0333

MOOG INC, INDUSTRIAL DIV, BOX 8, EAST AURORA
N Y, 14052, TWX 710-264-1440 .... 716 652-0221
R BILL, EMP 90, ENG 20, $5,000-$10,000M
Ala Activation Inc, Box 3990, Birmingham 787-9661
Cal Rucker Co, 4700 San Pablo Ave
Oakland 653-5221
Cal Rucker Co, 6170 Telegraph Rd
Los Angeles .... OV 5-8170
Colo Price Engineering Sales Assoc, 2130 S Albion
Denver
NC Livingston & Haven Inc, Box 4391
Charlotte 377-6551
Ohio RAF Fluid Power, 4228 Lee Rd, Cleveland
Pa Fluid Circuits Inc, Box 164, Flourtown .... AD 3-2047
SC Livingston & Haven Inc, Box 808
Charleston 853-1086
Tex Allied Components, 10468 E Northwest Hwy
Dallas 348-6660
Wash Rucker Co, 1705 4th Ave S, Seattle 725-4961
Can Railway & Power Engrg, 3745 St James W
Montreal Que
GB Dowty Rotol Ltd, Cheltenham Rd, Gloucester

MOORE ASSOCIATES DIV ROCKER CO
815 AMERICAN ST, SAN CARLOS
CAL, 94070, TWX 910-376-4898 .... 415 591-5363
W EARL, EMP 55, ENG 8, $1,000-$2,500M
Ariz Portis & Assoc, 132 E Stetson Dr, Scottsdale
Colo Peterson Co, 4949 Colorado Blvd
Denver .... DE 3-5434
Fla Naeco Assoc, Inc, 1501 84th Ave
St Petersburg 527-3149
Ill W L Cunningham & Assoc, 435 Addison Ave
Elmhurst .... TE 2-0905
Mass Naeco Assoc, 30 Bullard St, Sharon
Mich Jasper Engrg & Equip Co, Box 688, Iron Mountain
Minn Jasper Engrg & Equip Co, 1215 E 13th Ave
Hibbing 262-3421
NJ Naeco Assoc, Inc, 109 Hendrickson Ave
Edgewater Park 877-9055
Okla Paul King Co, 826 N Fulton, Tulsa .... TE 6-2501
Utah Peterson Co, 521 W 4th N
Salt Lake City 355-7464
Va Naeco Assoc, 1925 N Lynn St
Arlington 524-4551
Can Microwave Systems, 100 Barbados Blvd
Scarborough, Ont 261-7265
For Electronics of Puerto Rico, Box 6412 Loiza St
Santurce, PR 767-6380

MOORE PRODUCTS CO, SUMNEYTOWN PIKE
SPRING HOUSE
PA, 19477, TWX 83-4378 .... 215 MI 6-7400
J GAMBRILL, EMP 500, ENG 100, OVER $10,000M
Cal Moore Products Co, 1223 Solano Ave
Albany 526-0555
Cal Moore Products Co, 8615 Florence Ave
Downey 773-0831
Del Moore Products Co, 2011 Concord Pike
Wilmington .... OL 5-3321
Ga Moore Products Co, 3420 Whipple St
Hapeville 766-4191
Ill Moore Products Co, 72 N Broadway
Des Plaines .... VA 4-6141
Ky Moore Products Co, 400 Sherburn La
Louisville 897-1896
La Moore Products Co, Box 15243
Baton Rouge 927-1674
Mass Moore Products Co, 544 Salem St
Wakefield 245-5414
Mich Moore Products Co, 716 W 11 Mile Rd
Royal Oak .... LI 7-9515

Minn Moore Products Co, Griggs-Midway Bldg
St Paul ... 646-4086
Mo Moore Products Co, 100 St Francois
Florissant ... TE 1-2444
NJ Moore Products Co, 2720 Morris Ave
Union ... 687-5242
NY Moore Products Co, 2000 Sheridan Dr
Buffalo ... TR 4-0422
NC Moore Products Co, 2505 S Boulevard
Charlotte ... JA 3-7355
Ohio Moore Products Co, 25000 Euclid Ave
Cleveland ... AN 1-2250
Okla Moore Products Co, 1129 E 15th St
Tulsa ... LU 4-2027
Pa Moore Products Co, 300 Mt Lebanon Blvd
Pittsburgh ... 343-4555
Tenn Moore Products Co, 6601 Deane Hill Dr
Knoxville ... 584-6131
Tex Moore Products Co, 6001 Gulf Freeway
Houston ... 923-7686
Va Moore Products Co, 2405 Westwood Ave
Richmond ... 355-1640
W Va Moore Products Co, 411 1/2 D St
S Charleston ... 744-3476
Can Moore Instrument Co Ltd, 51 Brydon Dr
Rexdale, Ont ... 249-8251
Can Moore Instrument Co Ltd, 7101 Cote St Luc Rd
Montreal ... 489-4951

MOORE & CO, SAMUEL, MANTUA
OHIO, 44255, TWX 810-437-2430 ... 216 274-2276
B BURNHAM, EMP 325, ENG 25, OVER $10,000M
Ala G S Edwards Co, 1913 27th Ave S
Birmingham ... 879-1633
Ariz Portis & Assoc, 138 E Stetson Dr
Scottsdale ... 945-4925
Cal Milton S Frank Co Inc, 94 Natoma St
San Francisco ... 982-5405
Cal M Fournier, 13602 Siskiyou
West Minster ... 662-1450
Colo Process Equip Co, Inc, 2548 W 29th Ave
Denver ... 455-4766
Conn Toll Assoc, 6 Queen St, Newtown ... 426-5844
DC Robert Klein, 1629 K St NW
Washington ... 296-8324
Fla Malcolm D Duncan & Assoc, 2525 Industrial Blvd
Orlando ... 295-2432
Ga Stallings Inc, 3098 Piedmont Rd NE
Atlanta ... 261-2540
Ill Donald A Schuh, 201 Lockerbie La
Wilmette ... 236-3212
Kan H-E Engineered Equip Co, Box 9035, Kansas City
La J H Yeates, 115 Broad St, Lake Charles ... 433-8695
La R E Lynch, 416 Grammont St, Monroe ... 387-6013
La J F Houser, Box 2681, Baton Rouge ... 344-7586
Minn Ritchie Engineering Co, 999 E 79th St
Minneapolis ... 866-3393
Mo Raydic Equipment Co, 150 Hanley Ind Ct
St Louis ... MI 7-2838
NJ T L Yost, 55 Cliffside Trail, Denville ... 867-6370
NY W J Sommers Co Inc, 235 Hartford Ave
Buffalo ... TR 3-3211
NY David H Endsley, 14 Monfort Pl
Syosset ... 867-6370
NC C Sifford, 519 E Trade St, Charlotte ... 376-1172
Ohio Myers & Henley Inc, 226 Ludlow Ave
Cincinnati ... 861-0038
Ohio W Jones, 252 Margaret Pl, Perrysburg ... 474-2991
Ohio W Jones, 252 Margaret Pl, Perrysburg ... 474-2991
Okla H-E Engineered Equip Co, 1740 E 6th St
Tulsa ... LU 7-2411
Pa Biltmore Products Co Inc, 466 Castle Shannon Blvd
Pittsburgh ... 563-0808
Pa W D Van Hest, 1836 Canterbury Rd
Abington ... KI 5-6094
Tex Stepco, 1035 E Side Rd, El Paso ... PR 2-5274
Tex Samuel Moore & Co, 327 M & M Bldg
Houston ... CA 7-8297
Wash Tower Equipment Co Inc, 5053 88th SE
Mercer Island ... 232-1460
W Va Biltmore Products Co Inc, 415 1/2 D St
S Charleston ... 744-9432

MOREY CORP, 2659 WISCONSIN AVE
DOWNERS GROVE, ILL, 60515 ... 312 964-2300
R MOREY, EMP 135, ENG 7, $1,000-$2,500M

MORAN CO INC, T R, 137 EUCALYPTUS DR
EL SEGUNDO, CAL, 90245 ... 213 772-1574
T MORAN, EMP 10, ENG 1, $100-$250M

MORAN INSTRUMENT CORP
170 E ORANGE GROVE BLVD, PASADENA
CAL, 91103 ... 213 796-7158
R MORAN, EMP 12, ENG 3, UP TO $100M

MORGANITE RESISTORS LTD, BEDE INDL ESTATE
JARROW, ENGLAND, TWX 53353 ... JAR 89-7771
J WOOD, EMP 1200, ENG 40, $5,000-$10,000M
Cal Collins & Hyde Inc, 900 N San Antonio Rd
Los Altos ... 941-3355
Can Morganite Canada Ltd, 49 Mobile Dr, Toronto, Ont
For Firma Werksvertung Hans Kocourek, Box 220
A-1061 Wien
Den Holger Prytz, St Strandstr 10, Copenhagen K
Fr Ets Marshall, BP 39, 95 - Argenteuil
Ger Labbuda GmbH, Bismarkstr 149, 5650 Solingen
Holl Mulder Hardenberg, Box 7256, Amsterdam Z
Ital G B C Italiana SAS, Viale Giacomo Matteotti 66
Milan
Jap Morganite Carbon Kabushiki Kaisha
Nishiyodogawa-ku, Osaka
Nor J M Feiring A/S, Lilletorvet 1, Oslo 1

SAfr Morganite S Afr (Pty) Ltd, Box 84, Jeppestown
Johannesburg
Swed A B Trako, Tegnergaten 4, Stockholm Va
Swit Omni Ray AG, Dufourst 56, Zurich 8
Belg S A Office Technico Industriel
80 Chaussee De Charleroi, Brussels 6
Ind M R Elctn Components Ltd, 7/8 Mount Rd, Madras 2
Fin Asiomsliike Emmett, Bulevarden 3, Helsinki 12

MORI PHYSICS & CHEMISTRY LAB CO LTD
205 TOZUKA-MACHI TOZUKA-KU, YOKOHAMA
JAPAN ... 881 3341-3
T KINOSHITA, EMP 400, ENG 30, $1,000-$2,500M

MORRIS CO, J I, 376 ELM ST, SOUTHBRIDGE
MASS, 01550 ... 617 764-4394
J DIRLAM, EMP 40, ENG 1

MORRIS ENTERPRISES INC, 16799 SCHOENBORN ST
SEPULVEDA
CAL, 91343, TWX 910-496-1525 ... 213 892-0761

MORRISON PRODUCTS INC, 16816 S WATERLOO RD
CLEVELAND, OHIO, 44110 ... 216 531-1460
J BOLT, EMP 300, ENG 5, $2,500-$5,000M

MORSE CO, FRANK W, 354 CONGRESS ST, BOSTON
MASS, 02210 ... 617 426-5398
R MORSE, EMP 25, ENG 2

MORTON CHEMICAL CO DIV MORTON INTL INC
110 N WACKER DR, CHICAGO
ILL, 60606 ... 312 FI 6-6760
R KRON, EMP 500, ENG 20, OVER $10,000M
Cal Morton Chemical Co, 11733 E Slauson
Santa Fe Springs

MOSELEY ASSOCIATES INC, 111 CASTILIAN DR
GOLETA, CAL, 93017 ... 805 968-9621
J BURT, EMP 40, ENG 5

MOSLER ELECTRONIC SYSTEMS DIV MOSLER SAFE CO
9 SOUTH ST, DANBURY
CONN, 06810 ... 203 743-6766
A MARZANO, EMP 150, ENG 20
Va W G Frederick, 1401 Wilson Blvd
Arlington ... 525-5800

MOSER JEWEL CO, 544 FAYETTE ST, PERTH AMBOY
N J, 08862 ... 201 442-3434
J ACKLEY, EMP 68, ENG 2, $500-$1,000M
Cal Bearings, Seals & Gears Inc, 858 San Antonio Rd
Palo Alto ... 321-6040

MOSINEE PAPER MILLS CO, MOSINEE
WIS, 54455, TWX 910-279-1480 ... 715 693-2111
J HOWLAND, EMP 600, ENG 4, OVER $10,000M
Ill Mosinee Paper Mills, 405 W Jackson Pkw
Springfield ... 528-6253
Ill Mosinee Paper Mills, 2720 Des Plaines Ave
Des Plaines ... 312 296-1051
Mass G F Whiting, 8 Grove St
Wellesley ... 617 CE5-6248
Ohio Mosinee Paper Mills Co, Box 55
Centerville ... 513 885-3258
Pa P C Hugo Jr, 2987 Babcock Blvd
Pittsburgh ... 931-4611
Va J H Adams, Box 732, Fredericksburg ... 786-8126

MOSLEY ELECTRONICS INC, 4610 N LINDBERGH BLVD
BRIDGETON, MO, 63044 ... 314 PE1-3036
N RAHE, EMP 70, ENG 5
ADV PG 58
Ala Fred Wamble Sales Co, 3745 Marie Cook Dr
Montgomery ... 272-4600
Cal Barstow, Doran & Hansen Co, 1406 S Grand Ave
Los Angeles ... RI 9-0438
Cal Sinclair Electronic Assoc, 1085 Clarendon Cres
Oakland ... GL 1-1835
Colo Electro-Tek Sales Inc, 8171 Julian St
Westminster ... 429-3070
Ill Al Quackenbush, 535 N Michigan
Chicago ... 321-1503
Ind Frank J McSweeney & Assoc
4123 N Keystone Ave, Indianapolis ... LI 7-2212
Kan Koenig-Myers Assoc, 5500 Buena Vista Dr
Shawnee Mission ... HE 2-8300
Mich Riley & Petchell Electronic Sales, 13209 Fenkell
Detroit ... VE 8-9100
Minn Wm Engelbretson Co, 906 Ottawa
St Paul ... 222-2338
NJ Steve Fisher Sales Corp, 161 Cedar La
Teaneck ... 201 836-6661
Ohio Thos Shelby & Co, 17 S Walnut St
New Bremen ... 419 629-6511
Pa Par-Nell Sales Co, 1135 Bustleton Ave
Feasterville ... EL 7-7230
RI Adams-McGregor Assoc, 66 Lakeview Rd
Lincoln ... PA 6-1300
Tex Antle-Smith Sales, 2721 Brookfield
Dallas ... 214 FL7-7279
Wash Ron Merritt Co, 1320 Prospect St
Seattle ... MU 2-7337
Can Electro Tec Marketers Ltd, 1624 W 3rd Ave
Vancouver, BC ... RE 6-6377
Can John R Tilton Ltd, 51 McCormack St
Toronto, Ont ... 762-7571

For Minthorne Intl Co Inc, 64-14 Woodside Ave
Woodside, NY ... TW 9-8888

MOSLO MACHINERY CO, 20120 DETROIT RD
CLEVELAND, OHIO, 44116 ... 216 333-4850
S FITTES, EMP 130, ENG 6, $2,500-$5,000M
Mich Michigan Commercial Corp, 24634 Five Mile Rd
Detroit ... 538-9144
NY Industrial Machy Sales, Box 121
S Plainfield, N J ... 756-0714
NY J W Hoffman Machy Co, 3135 Walden Ave
Buffalo ... 684-7300
Ohio W E Boruff & Assoc, 2201 Niagara Dr
Cleveland ... 216 226-7579
RI Northeast Plastics Engrg, Potter Rd
N Kingston ... 884-7050
Tex Haylett O'Neill & Son, 3410 Mercer St
Houston ... 622-4938

MOSSMAN-ELLIOTT CORP, 202 S LARKIN AVE, JOLIET
ILL, 60436 ... 815 725-2241
A GROTZ, EMP 88, ENG 4, $1,000-$2,500M
Ariz Hytronic Msmts Inc, 1017 N 3rd St
Phoenix ... 602 253-6104
Cal Hansen & Hartfield Co, 1663 Blake Ave
Los Angeles ... 225-8114
Cal K Kennan, Box 328, Fremont ... 797-3263
Colo Hytronic Msmts Inc, 4940 E 39th Ave
Denver ... 303 388-4081
Fla R F Carlson Co, 3900 S Lockwood Ridge Rd
Sarasota ... 813 922-2462
Ill Stevens Engineering Co, 5306 W Lawrence Ave
Chicago ... PE 6-0432
Ind Delta Sales Inc, 1407 N Illinois St
Indianapolis ... 317 631-4136
La Glidden Engrg & Equip Co, Box 4063
New Orleans ... 737-0642
Mass Representative Corp, 10 High St, Boston
Minn Countryman, Wagner, & Behnen Co
1955 University Ave, St Paul ... 645-9151
Mo R F Carlson Co, 8721 Manchester Rd
St Louis ... 314 961-4485
Mo R F Carlson Co, 9401 Richmond Ave
Kansas City ... 816 761-4569
NJ D A Rugg, 2 Dove Ct, Middletown
NM Hytronic Msmts Inc, 205 San Pablo SE
Albuquerque ... 505 268-3941
NY Niagara Electric Sales Co, 505 Delaware Ave
Buffalo ... TT 6-4000
NY Niagara Electric Sales Co, 55 Canterbury Rd
Rochester ... BR 1-1223
Pa C H Newson & Assoc, 627 Bethlehem Pike
Philadelphia ... 248-3377
Tex Glidden Engrg & Equip, 4924 Greenville Ave
Dallas ... EM 3-6539
Tex Glidden Engrg & Equip, 3802 Winchester St
Houston ... CA 4-6471
Utah Hytronic Msmts Inc, 2022 S Main
Salt Lake City ... 801 466-4924

MOSSMAN INC, DONALD P, BOX 265, BREWSTER
N Y, 10509 ... 914 BR 93725
B RIST, EMP 72, ENG 2, $500-$1,000M
Cal Mossman-Pacific Inc, Box 1105, Covina ... 331-0413
Ill Engineered Sales Co Inc, 4738 N Harlem Ave
Chicago ... UN 7-8434
Mass Stan Pierce Inc, 24 Linden St, Norwood ... 762-3164
Mich R D Ernest Assoc Inc, 12818 Puritan Ave
Detroit ... UN 1-7311
Can Burlec Sales Ltd, 125 Nantucket Blvd
Scarborough, Ont ... PL 7-5151
GB Painton & Co Ltd, Kingsthorpe, Northampton
Swed Svenska Painton, AB, Akers Runo, Stockholm

MOTOR CONTROL CORP SUB ZENRAD COMPUTER
CORP, BOX 273, HUNTINGTON
NY, 11743 ... 516 427-8786
M AGRESS, EMP 4, ENG 2
Cal Zenrad Computer Corp, 15730 Stagg St
Van Nuys ... 213 780-3615
NY M Clifford Agress, 891 Fulton St, Valley Stream

MOTORESEARCH MFG CO INC, 1600 JUNCTION AVE
RACINE, WIS, 53403 ... 414 632-5131
M CHRISTENSEN, EMP 25, ENG 2, $250-$500M
Wis Stanley Gorski, 801 Wolff St, Racine ... JR 3-2793

MOTOR GENERATOR DIV HOBART BROS CO
W WATER & JACKSON, TROY
OHIO, 45373 ... 513 335-7141
J GUILD, EMP 1500, ENG 70, $5,000-$10,000M

MOTOROLA COMMUNICATIONS & ELECTRONICS DIV
4900 W FLOURNOY, CHICAGO
ILL, 60644 ... 203 772-6500
Cal Motorola, 1170 Chess Dr
San Mateo ... 415 349-3111
Cal Motorola, 2333 Utah Ave
El segundo ... 213 644-1101
Ga Motorola, Lake Mirror Rd
Forest Park ... 404 366-6035
Ill Motorola, 1500 S Harlem Ave
Franklin Park ... 312 771-8900
Ill Motorola, 4935 W Lemayne
Chicago ... 312 379-6700
NJ Motorola, 1500 Pollitt Dr
Fair Lawn ... 201 791-1700
Tex Motorola, 3320 Belt Line Rd
Dallas ... 214 CH 1-2151
Va Motorola, 1831 Michael Faraday Dr
Reston ... 703 471-4622

MOTOROLA COMMUN & ELCTNS INC PREC INSTR PRODS
4501 AUGUSTA BLVD, CHICAGO, ILL, 60651 .... 312 772-6500
J TUKE, OVER $10,000M
ADV PG 465
Ala Technical Marketing Inc, Box 1001
Huntsville 534-2487
Cal Tech-Rep Co, Box 64212, Los Angeles.... 838-4100
Cal Frauman Assoc, Box 357, Menlo Park 322-8461
Colo P L S Assoc, Inc, 7895 E Prentice
Englewood 771-0140
Conn W M Hague Co, Box 344, Fairfield 259-2657
Fla Technical Marketing, Inc, Box 237
Largo 446-6192
Fla Technical Mktg Inc, 1511 E Robinson St
Orlando 424-8531
Ga Technical Mktg, Inc, Box 1152
Marietta 435-0079
Ill Mauer Co, Inc, 2000 harrison, Evanston ... 869-1644
Md G L Brown Assoc, 5801 Annapolis Rd
Bladensburg 779-1500
Mass W M Hague Co, 10 Muzzey St
Lexington .... VO 2-5700
NJ NLR Assoc, 617 Bloomfield Ave
Verona 239-4747
NY NLR Assoc, New York 227-9460
NY J D Ryerson Assoc, 1672 Monroe Ave
Rochester 442-1900
Ohio Ashby Assoc, 4130 Linden Ave, Dayton ... 224-0561
Pa NLR Assoc, 529 Shoemaker Rd, Phila ... CA 4-1663
Tex Elcom, 2616 W Mockingbird La, Dallas ... 352-5006
Can Canadian Motorola Elctns Co, 105 Bartley Dr
Toronto 759-2222
Fr S C A I B, 15-17 Avenue De Segur, Paris
Ital Mario Vianello, Via L Anelli, 13
Milano 7 567 250
Jap Kowa Co, Ltd, 19 Kanda, Nishiki-Cho 3-Chome
Chyoda-Ku, Tokyo 291-5406
SAfr Motorola S Afr Pty, Ltd, Box 118, Transvaal
Swed M Stenhardt AB, Bjornsongatan 197
Stockholm-Bromma VX08/870240
Belg Motorola Commun Intl Inc, 10 Ave Hamoir
In Uccle Brussels
Isrl Motorola-Israel Ltd, 16 Kremetski St, Tel Aviv
Fin Havulinna Oy, Vuorihatu 16, Helsinki 61-451

MOTOROLA, GOVT ELECTRONICS DIV, 8201 E MCDOWELL RD
SCOTTSDALE, ARIZ, 85252 .... 602 947-8111
ADV PG 329

MOTOROLA INSTRUMENTATION & CONTROL INC
BOX 5409, PHOENIX
ARIZ, 85010, TWX 910-950-0088 .... 602 959-1000
A MARSH, EMP 500, ENG 30, $5,000-$10,000M
Cal MICI, 3030 Bridgeway Blvd
Sausalito 415 332-5070
Cal MICI, 2333 Utah Ave, El Segundo ... 213 772-3411
Ga MICI, 443 E Paces Ferry, Atlanta 404 261-8656
Ill MICI, 10353 W Roosevelt Rd
Westchester 312 343-5070
La MICI, 3209 Ridgelake Dr, Metairie ... 504 835-6144
Mich MICI, 1685 Ft Hwy, Wyandotte 313 285-5077
Mo MICI, 2510 S Brentwood Blvd
St Louis 618 656-8440
NH MICI, 82 Main St, Nashua 603 883-1521
NJ MICI, 60 Glen Ave, Glen Rock 201 447-2100
Ohio MICI, 1821 Summit Rd, Cincinnati ... 513 821-3922
Okla MICI, 4835 S Peoria, Tulsa 918 743-8088
Pa MICI, 300 Mt Lebanon Blvd
Pittsburgh 412 563-2566
Pa MICI, 134 N Narberth Ave
Narberth 215 839-6344
Tex MICI, 6655 Hillcroft Ave, Houston ... 713 774-2513
Wash MICI, 808 106th Ave NE, Bellevue ... 206 454-3322
Can Canadian Motorola Elctns Co, 3125 Steeles Ave E
Agincourt Ont 416 293-8141
For Badrena & Perez, Inc, 225 Carpenter Rd
Hato Rey P R 767-2455
GB Motorola Control Sys Ltd, Taylors Rd
Stotfold Hitchin Herts

MOTOROLA SEMICONDUCTOR PRODUCTS INC
BOX 955, PHOENIX, ARIZ, 850001 ..... 602 273-6900
R O'CONNOR, EMP 12000, OVER $10,000M
Ala Motorola Semiconductor, 3322 S Memorial Pkwy
Huntsville 881-5920
Ariz Motorola Semiconductor, 5005 E McDowell Rd
Phoenix 273-6900
Ariz Motorola Semiconductor, 2500 N 44th St
Phoenix 273-6364
Cal Motorola Semiconductor, 511 S Brookhurst Rd
Fullerton 879-8111
Cal Motorola Semiconductor, 604 Price Ave
Redwood City 365-0311
Cal Motorola Semiconductor, 7961 Engineer Rd
San Diego 279-0010
Cal Motorola Semiconductor, 12034 Riverside Dr
North Hollywood 985-3320
Colo Motorola Semiconductor, 111 S Colorado Blvd
Denver 757-6123
Conn Motorola Semiconductor, 2348 Whitney Ave
Hamden 288-6478
Fla Motorola Semiconductor, 520 S Maitland Ave
Maitland 644-3422
Fla Motorola Semiconductor, Lakeview Bldg
North Palm Beach 848-8651
Ga Motorola Semiconductor, 6427 Roswell Rd NE
Atlanta 255-2043
Ill Motorola Semiconductor, 5940 W Touhy Ave
Niles 647-9802
Iowa Motorola Semiconductor, Merchants Nat'l Bank
Cedar TRapdis 363-8244
Md Motorola Semiconductor, 6200 Annapolis Rd
Landover Hills 772-1500
Mass Motorola Semiconductor, 176 Second Ave
Waltham 891-8500
Mich Motorola Semiconductor, 21600 Greenfield Rd
Oak Park .... LI 2-2174
Minn Motorola Semiconductor, 7515 Wayzata Blvd
Minneapolis 545-0251
Mo Motorola Semiconductor, 6050 Brown Rd
St Louis .... JA 2-6565
NJ Motorola Semiconductor, Bergen Mall
Paramus 488-5100
NY Motorola Semiconductor, 3806 Union Rd
Buffalo 685-1233
NY Motorola Semiconductor, 333 Jericho Tpk
Jericho 822-2822
NY Motorola Semiconductor, E Molloy Rd
Syracuse 454-9373
NY Motorola Semiconductor, 3380 Monroe Ave
Rochester .... DU 1-7220
NY Motorola Semiconduttor, Box 1476
Poughkeepsie .... GR 1-6655
Ohio Motorola Semiconductor, 3490 S Dixie Dr
Dayton 298-9976
Ohio Motorola Semiconductor, 16611 Chagrin Blvd
Shaker Heights 921-5260
Pa Motorola Semiconductor, 29 Bala Ave
Bala Cynwyd .... TE 9-7070
Tex Motorola Semiconductor, 7007 Gulf Frwy
Hoston .... HI 3-2619
Tex Motorola Semiconductor, 777 S Central Expwy
Richardson .... AD 5-8385
Wash Motorola Semiconductor, 4000 Aurora Ave
Seattle .... ME 2-7532
Can Motorola Electronic Sales Ltd
1040 Martin Grove Rd, Rexdale Ont 279-7654
Can Motorola Electronic Sales Ltd
6130 Cote De Liesse Rd
Montreal Que 747-3567
For Motorola Semiconductor, Box 2953
Phoenix Ariz 273-4321
Ger Motorola Halbleiter GmbH
Kaiser-Friedrich-Ring 96, Wiesbaden.... 394-91-3
GB Motorola Semiconductor, Empire Way
Wembley Mdsx .... DIL 0944/8
Ital Motorola Semiconduttori SPA
Via Giovanni Pascoli 60, Milan 235134
Swit Motorola European Service Ctr, 1217 Meyrin
Geneva 41 55 50

MOTSON CO, J FRANK, 1717 BETHLEHEM PIKE
FLOURTOWN, PA, 19031 .... 215 CH 7-1900
G STEWART, EMP 50, ENG 4, $500-$1,000M
Mass G A Hill Assoc, Box 221, Harvard 894-6060
NJ D A Rugg, 2 Dove Ct, Middletown ... 201 671-0662

MT VERNON RESEARCH CO, 4316 WHEELER AVE
ALEXANDRIA, VA, 22304 .... 703 751-4446
G MONK, EMP 30, ENG 3
Cal Carl Herrmann Assoc, Box 1179
Palo Alto 415 322-4561
Cal R Borgers, Box 4608, Santa Barbara
Colo O'Brien Sales Agency, 2785 N Speer Blvd
Denver 303 433-0563
Ga W L Schoonover Inc, 6427 Roswell Rd
Atlanta 404 255-0761
Ill Byron Ellis Assoc, 6242 N Kenmore
Chicago 312 262-2038
Ind Tech Sales & Mktg, 1121 N Arlington Ave
Inidanapolis 317 356-3658
Mass Industrial Equip & Sales, 84 State St
Boston 617 227-8112
NY J Brush, Box 5312, Albany 518 869-3866
NY S Maxman, Box 912, New York..... 212 PL 7-9656
Pa Kurt J Lesket Co, 5635 Horning Rd
Pittsburgh 412 892-2996
Pa Tyler Griffin Co, 46 Darby Rd
Paoli 215 644-7710
Wash Cane Jessup Co, Box 250, Bellevue
Can Instronics Techno-Prods Ltd, Box 100
Stittsville Ottawa 613 836-4411

M-O VALVE CO LTD, BROOK GREEN WKS
HAMMERSMITH, LONDON W6
ENG, TWX 23435 01-603-3431
N GIRTON, EMP 1500, ENG 150, OVER $10,000M

MOXNESS PRODUCTS INC, 1916 INDIANA ST, RACINE
WIS, 53405 .... 414 637-4425
D GOLL, EMP 200, ENG 6, $2,500-$5,000M
Ariz Sam O Rush, Jr, 4315 E St Joseph Way
Phoenix 273-1421
Cal Calif Gasket & Washer Co, 1601 W 134th St
Gardena 323-4250
Ill Moxness Products Inc, 3158 Des Plaines Ave
Des Plaines 299-5574
Mich L T Martensen, 46 Ridge Rd
Pleasant Ridge .... LI 3-3633
Mo L Boardman & Co, 34 N Brentwood Blvd
Clayton 721-0565
NY R H Eisenhart Inc, 2815 Monroe Ave
Rochester .... GR 3-2657
NC Byrd & Barbour Sales Inc, 619A S 3rd St
Smithfield 919 934-8136
Pa H Sorensen, 425 Charles La
Wynnewood 642-7968
Tex Kanowsky Sales Engrs, Box 35184
Dallas 352-8431
Wash O J Harper, 200 Tobin Ave, Renton 255-0414

MP AUDIO CORP, FAIRFIELD
CONN, 06430 .... 203 268-2385
M PANEYKO, EMP 17, ENG 3, UP TO $100M

MPB CORP, PRECISION PARK, KEENE
N H, 03431, TWX 710-366-1801 .... 603 352-0310
E RICHARDSON, EMP 1000, ENG 140, OVER
$10,000M
Cal MPB Corp, 8621 S Bellanca Ave
Los Angeles 678-3482
Cal MPB Corp, 1291 Terra Bella Ave
Mountain View 967-6940
Conn Wafe Div MPB Corp, 28 Woodmont Rd
Milford 878-5793
Ill MPB Corp, 2001 N Parkside Ave
Chicago 237-0131
Iowa MPB Corp, 417 1st Ave SE
Cedar Rapids 363-8121
Md MPB Corp, 319 Holland Rd
Severna Park 837-1636
NH Split Ballbearing Div, Hwy 4, Lebanon.... 448-3000
NH MPB Corp, 164 Cypress La
Nashua 603 883-1782
NM Montezuma Bearings Co, 1413 1st St nw
Albuquerque 247-0222
NY MPB Corp, 18 Purdy Ave, Rye 967-5700
NY MPB Corp, 111 E Gibson St
Canadaigua 394-1334
NY MPB Corp, 22 Kingsland Pl, Babylon 669-1714
Ore Bearing Sales & Service Inc, 1645 NW Hoyt St
Portland 226-7141
Ore MCGuire Bearing Co, 213 NW 10th Ave
Portland 226-2678
Can Lyman Tube & Supply Co Ltd, 5420 Pare St
Montreal 748-6953
Can MPB, 700 Beaumont Ave
Montreal Que 276-3113
Fr S-O-F. C. I., 17 Blvd de la Somme
Paris 17E 425-24 20 21
Ger MPB Intl, Klopstockstr 16, 1 Berlin 21 ... 39-93-50
GB MPB Corp, Wellington St
Slough Bucks .... SLO 2 7637
Ital MPB Intl, Via Marco Greppi 5, Milano 578471
Neth MPB Europa N V, Medemblik .... 744 and 745

MSI ELECTRONICS INC, 34-32 57TH ST, WOODSIDE
N Y, 11377 .... 212 672-6500
A LEDERMAN, EMP 16, ENG 4, $100-$250M
Cal Carson Ele, Box 1216
Redwood City 415 365-4520
Mass John Q Neenan Assoc, Box 203
Sudbury 617 893-0914
Va Potomac Electronics Inc, Box 36
Alexandria 836-1630
Can Technitron Assoc, 769 Ladolie Ave
Dorval Que 514 631-6859
For Dage Corp, 757 Main St
Stamford, Conn 324-3123

MSL STEEL CO, MSL INDUSTRIES INC
3912 W MCLEAN AVE, CHICAGO
ILL, 60647 .... 312 342-5900
D AYERS, EMP 450, ENG 8, OVER $10,000M
Cal John T Rietz RN Sales Div
Chatsworth 213 882-3000
Fla Components Sales Corp, Box 9545
St Petersburg 360-7460
Mo R Hopman, 9322 Manchester
Rock Hill 314 961-3550
Pa MSL Steel Co, 4 Center Sq, Easton....... 258-2500
Tex Southland Sales Co, 777 S Central Expwy
Richardson 214 231-2373

M S & R INC, COLONIAL MANOR RD, IRWIN
PA, 15642 .... 412 UN 3-1000
W SHEPHERD, EMP 105, ENG 5, $1,000-$2,500M

MS TRANSISTOR CORP SUB SILICON TRANSISTOR
CORP, 80-02 51ST AVE, ELMHURST
N Y, 11373 .... 212 478-3134
S AIVAZIAN, $500-$1,000M
Ala Bostick & Assoc, Box 4165
Huntsville 205 881-3677
Cal Engineering Liaison, 3360 Barham Blvd
Hollywood 213 469-2283
Cal Engineering Liaison, 175 S San Antonio Rd
Los Altos
Colo Waugaman Assoc, 2785 N Speer Blvd
Denver 303 255-5000
Conn Huntoon & Assoc, 272 Centre St
Newton 617 244-5871
Ill Lightner Assoc, 6322 N Milwaukee Ave
Chicago 312 774-1500
Ill H Grubb & Co, 8039 N Lawndale
Skokie 312 677-0080
Kan Impala Inc, 6917 W 76th St, Overland Park
Md Dougherty & Co, 320 Hillen Rd
Towson 301 823-0431
Mich Greiner & Assoc, 15318 Mack Ave
Detroit 313 882-7570
NJ Comp-Tech Sales, Box 50
Riverdale 201 835-0332
NY Comp-Tech Sales, Box 384
Lynbrook 516 593-2628
NY Graydon-Sherman, Davis Bldg
Fayetteville 315 637-9861
Ohio Electro Com, 8761 Snow Rd
Cleveland 216 886-2404
Pa Argus Assoc, Box 68, Warminster 215 922-4009
Tex Vista Engineering, 777 N Central Expwy
Richardson 214 235-4547
Wash Electronic Sales Corp, 5600 Calif Ave SW
Seattle 206 932-0330

M & T CHEMICALS INC SUB AMERICAN CAN CO
RAHWAY, N J, 07065 .... 201 499-0200
J OBERG, OVER $10,000M

Cal M & T Chemical Inc, 7343 Paramount Blvd
Pico Rivera 213 723-0991
Ga M & T Chemicals Inc, 3379 Peachtree Rd NE
Atlanta 404 261-8968
Ill M & T Chemicals Inc, 6121 N Elston Ave
Chicago 312 774-6767
Ind M & T Chemicals Inc, 415 E 151st St
E Chicago .... 219 EX 8-3200
Mich M & T Chemicals Inc, 20820 Greenfield Rd
Detroit 313 566-2410
Mich M & T Chemicals Inc, 631 Chestnut St SW
Grand Rapids .... 616 GL 9-8191
Mo M & T Chemicals Inc, 470 N Kirkwood Rd
Kirkwood 314 966-5050
NY M & T Chemicals Inc, 100 Park Ave
New York 212 972-2400
Ohio M & T Chemicals Inc, 20525 Center Ridge Rd
Cleveland 216 333-50000
Pa M & T Chemicals Inc, 100 Presidential Blvd N
Bala-Cynwyd .... 215 TE 9-7288
Tex M & T Chemicals Inc
Exchange Bank & Trust Tower
Dallas .... 214 FL 1-3789
Can M & T Products of Can Ltd, 670 Strathearne Ave N
Hamilton Ont. 416 547-1471
Ger M & T Metallic GmbH, Steinwegstr 34
583 Schwelm/Westx 7031/32
Holl Billiton-M & T Chemische Industrie N V
Louis Couperusplein 19, Hague 18-3440
Holl M & T Metallic Industrie NV, Industrieweg 14
Loosdrecht 3444
Jap Nitto Kasei Co Ltd, 369 Nishiawajicho
Osaka 37-6551/3

M TECH CORP, 2805 METROPOLITAN PL, POMONA
CAL, 91767 .... 714 593-4944
C DAVIS, EMP 94, ENG 53, $1,000-$2,500M
Md M Tech Corp, 8720 Georgia Ave, Silver Spring

M-T ELECTRONICS CO, 536 LEWELLING BLVD
SAN LEANDRO, CAL, 94579 .... 415 357-5262
B MOORE, EMP 35, ENG 3, $500-$1,000M

M TEN BOSCH, INC, BOX 38, PLEASANTVILLE
N Y, 10570 .... 914 769-3000
M TEN BOSCH, EMP 25, ENG 5, $500-$1,000M
Cal Russell Assoc Inc, 3951 E Huntington Dr
Pasadena 795-9521
NY B B Taylor Corp, 2270 Grand Ave
Baldwin 223-8000
Pa E T Hufnal, Box 31, Malvern 644-5270
For Frathom Co Inc, 202 E 44th St
New York, NY 687-9390

MUCKLE MFG CO, PRINZING RD, OWATONNA
MINN, 55060 .... 507 451-7115
S MUCKLE, EMP 46, ENG 2, $500-$1,000M

MUCON CORP,
See Republic Electronics Corp Listings

MUELLER ELECTRIC CO, 1582H E 31ST ST, CLEVELAND
OHIO, 44114 .... 216 771-5225
S MUELLER, EMP 120, ENG 1
Ala Cartwright & Bean, 2506 Aspen La
Huntsville 852-4911
Ariz Maddox Sales Co, 5709 N 19th St
Phoenix 274-3807
Cal Maddox Sales Co, 2945 E 12th St
Los Angeles 269-7291
Cal Maddox Sales Co, 420 Market St
San Francisco 362-3249
Colo L B Putnam Co, 7111 Larsh Dr
Denver .... TA 5-5066
Fla Cartwright & Bean, 20100 NE 25th Co
N Miami Beach .... WI 5-2962
Fla Cartwright & Bean, 609 E Colonial
Orlando .... GA 5-8284
Fla Cartwright & Bean, 779 John Anderson Dr
Ormond Beach .... OR 7-3480
Ga Cartwright & Bean, 3223 Cain's Hill Pl
Atlanta .... CE 7-2273
Ill Ray Klipp Assoc, 389 Center St
Grays Lake .... BA 3-4837
La Cartwright & Bean, 1812 Bullard
Metarie 887-0482
Mass Keene Sales Co, 156 Broad St, Lynn 595-1001
Mich Hilltronics Inc, 13720 Puritan Ave
Detroit 342-3242
Minn Arch S Miller Jr, 6608 17th Ave S
Minneapolis .... UN 6-6677
Mo K & M Sales Co, 17th & Main
Kansas City .... GR 1-1355
NY Ben Joseph Assoc, 6 Grace Ave
Great Neck .... HU 7-9395
NY R W Mitscher Co Inc, Ellicott Sq Bldg
Buffalo 854-2517
NC Cartwright & Bean, 625 Harwyn Dr
Charlotte 537-7965
Ohio H H Seay Co, 3850 Fairlington Dr
Columbus 451-6611
Ore Richard R Legg Co, 4475 SW Scholls Ferry Rd
Portland 292-8824
Tenn Cartwright & Bean, 560 S Cooper
Memphis .... BR 6-4442
Tex Sanders-Willis Co, 500 Professional Bldg
Waco .... PL 4-0441
Utah L B Putnam Co, 3695 Lois La
Salt Lake City .... CR 7-0375
Can W H Cooper & Co, 1103 Yonge St
Toronto .... WA 3-1700
Fr Demoly Freres, 72 Rue de Romainville, Paris (19)
Ger H C Kosmeier, Carolus Magnus Str
Essen-Bergeborbeck
Holl Theal n v, Box 396, AmsterdamC
Ital Erregiere Elettronica, Viale Beatrice D'este 5, Milan
Nor H E Greff, Box 831, Oslo

MUIRHEAD INSTRUMENTS INC, 1101 BRISTOL RD
MOUNTAINSIDE, N J, 07092 .... 201 233-6010
J STEIN, EMP 3000, $500-$1,000M
Can Muirhead Instruments Ltd, Stratford
Ontario 271-3880
Den Handelsfirmaet Ditz Schweitzer, Store Kongensgade
Copenhagen .... MIN 57
Fr Jacques Peres Fils, 4 Avenue De L'Opera
Paris 1 .... OPE 87-21
Ger Telco, Franz Pruller-Str 15, Munchen 443 424
GB Muirhead & Co Ltd, Elmers End, Beckenham
Kent .... BEC 4888
Holl Ingenieursbureau J & C, Sweelinckstr 58
Hague 637940
Ital S Garrone SRL, 40 Via Marco Besso
Rome 320 305
Jap Iwai & Co Ltd, 6, 3 Chome, Nihonbashi-Edobashi
Chuo-Ku, Tokyo 281-1811
Nor J L Nerlien A/S, Nedre Slottsgate 13
Oslo 41 56 10
SAfr The Balco Co (Pty) Ltd, 123 Hulbert Rd
New Centre, Johannesburg 834-8251
Swed Sven Bjorklund, Annebodavagen 60
Alvsjo 5 47-90-95
Swit Megex Zurich GmbH, Badenerstr 582
Zurich 9/48 52-31-16

MULLARD LTD, TORRINGTON PL, LONDON, WC 1
ENG 01-580 6633
NY Mullard Inc, 100 Finn Ct, Farmingdale
NY Intl Electronics, 316 S Service Rd, Melville

MULTICORE SALES CORP DIV BRITISH INDUSTRIES
CORP, S SERVICE RD, WESTBURY
N Y, 11590 .... 516 ED 4-7450
M ZALKIN, EMP 75
For Sales Reps see Garrard Div British Industries Corp

MULTI-ELMAC CO, 21470 COLLIDGE HWY, OAK PARK
MICH, 48237 .... 313 543-9613
EMP 50, ENG 4, $1,000-$2,500M
Cal C H Mitchell Co, 18531 Ventura
Tarzana 213 881-2626
Colo Electronix Spealties Co, 7966 E Jefferson Pl
Denver 303 771-1459
Mass Associated Electronics, 45 Kirk St
Lowell 617 454-4206
Mich Central Elctns Sales Co, 19217 Fairport
Detroit 526-5841
Miss L R Massey Co, 4 E Jefferson
Greenwood 453-3038
Mo K & M Sales Co, 1627 Main St
Kansas City 471-1355
NY G H Fass, 1050 Ocean Ave, Brooklyn 434-3072
NY Radio Page Commun Co, 928 Onondaga Rd
Camillus 468-4770
Ohio Chilcote Sales Co, 2940 W Lincolnshire
Toledo 536-6606
Tex I Harrison, 13821 Hillcrest Rd
Dallas .... 214 AD 9-2479
Va J F Anderson Co, 8304 Harland Dr
Springfield 703 451-7336

MULTI - FLEX SEALS INC, 1170 COMMERCE AVE
BRONX, N Y, 10462 .... 212 792-9010
L FINARD, EMP 13, ENG 2, $250-$500M
Ariz Allen Assoc, Box 3091 Papago Sta
Scottsdale 602 945-5781
Cal C B Rush & Assoc, 1830 W Olympic Blvd
Los Angeles 388-7111
Conn Abbott-Allison Co, Box 467
Meriden .... 203 BE 7-9232
Ga L A Walkling & Assoc, Box 27045
Atlanta 373-8346
Ill Joe Popp Sales Co, 5719 W Chicago Ave
Chicago 261-7423
Ind Menze Sales, 6010 Lower Huntington Rd
Fort Wayne 747-5616
Mich OEM Sales Co, 106 S Woodward
Birmingham 647-1172
Minn MR/L, 1661 Portland Ave, St Paul 644-1577
Mo Larco Sales Co, 39 E Glenwood La
Kirkwood .... YO 6-8511
NJ Ken Randall Co, 250 Haddon Ave
Collingswood 609 854-3323
NY Levison Sales Co, 5 Sunrise Plaza
Valley Stream .... LO 1-9696
NY L M Loveless Co, Box 3566, Beechwood Sta
Rochester .... BU 8-5766
Ohio Foley & Beilstein Co, Box 72
Westlake .... TR 1-8830
Tex G Weinreich & Assoc, 11554 E Northwest Hwy
Dallas .... DA 1-2800
Wash D Miller Sales Co Inc, 2323 N 45th
Seattle .... ME 2-7070
Can Banke Elctns Ltd, 757 Warden Ave
Scarborough 425-1611

MULTIFORM DESICCANT PRODUCTS INC
1418 NIAGARA ST, BUFFALO
N Y, 14213 .... 716 881-0100
J CULLEN, EMP 25, ENG 3
Ariz E J Foley & Assoc, 3840 N Jokake Dr
Scottsdale .... WH 5-2666
Cal N Nesbitt, 602 S Euclid Dr, Anaheim 535-2814
For Teknis, 93 South St, Plainville, Mass 695-3591

MULTI MEDIA ENGINEERING INC, 2385 LEWIS AVE
ROCKVILLE, MD, 20851 .... 301 762-1340
H SPILMAN, EMP 12, ENG 2, $500-$1,000M

MULTIPER N V, 1E VD KUNSTR 275-285, DEN HAAG
NETHERLANDS 184360
J RAVELLI, EMP 60, ENG 10, $250-$500M

MULTI-PHASE ELECTRONICS, BOX 3762, VAN NUYS
CAL, 91407 .... 213 765-6260
E MOMJIAN, EMP 4, ENG 2, UP TO $100M

MULTISONIC CLEANING SYSTEMS, 9615 MEECH AVE
CLEVELAND, OHIO, 44105 .... 216 883-8484
G CRAWFORD, EMP 70, ENG 3, $1,000-$2,500M
Ariz AR/TEC Inc, Box 727, Scottsdale 947-6304
Cal Gordon-Elliot Inc, 13615 Victory Blvd
Van Nuys 873-6862
Cal Sara Scientific, Box 321, San Francisco
Mich Northwest Radio, 1010 W Washington Ave
Marquette
NM Ar/Tec, Inc, 2800 Cardenas Dr, N E
Albuquerque 268-3324
Can L E Baxter Ltd, 1229 The Queensway
Toronto 18, Ont

MULTITONE ELECTRONICS LTD, 111 BROADWAY
NEW YORK, N Y, 10006 .... 212 349-2540
H STODDART, EMP 350, ENG 20, $2,500-$5,000M
Can Multitone Electronics Ltd, 130 Merton St
Toronto 481-2265
GB Multitone Electric Co Ltd, 12 Underwood St
London W 1 .... CL 8022

MULTRONICS INC, 5712 FREDERICK AVE, ROCKVILLE
MD, 20852 .... 301 427-4666
G HOWARD, EMP 93, ENG 17, $1,000-$2,500M

MUNDT & SONS, CHARLES, 53 FAIRMOUNT AVE
JERSEY CITY, N J, 07304 .... 201 333-6200
L SIEBERT, EMP 95, ENG 3, $1,000-$2,500M
Mass R F Duffy Assoc, Inc, 49 Century Rd
S Weymouth 335-7724
Mich M J Scanlon Co, 19250 James Couzens Hwy
Detroit 342-3736
NY H S Ritch, 166 Beverly Rd
Syracuse 315 476-6303
Pa Rolled Steel Prods Corp of Pa
Windsor & Forrest Ave, Narberth .... MO 4-5450

MUNI QUIP CORP SUB DUNCAN PARKING METER
CORP, 751 PRATT BLVD, ELK GROVE VILLAGE
ILL, 60007 .... 312 437-0710
D MERRILL, EMP 55, ENG 5, $500-$1,000M

MURA CORP, 355 GREAT NECK RD, GREAT NECK
N Y, 11021, TWX 12-5034 .... 516 HU 7-0430
E WEISL, EMP 20, ENG 3, $1,000-$2,500M
Ala C M Gibson, Box 537, Hazelgreen 205 828-3475
Cal C H Mitchell Co, 18531 Ventura Blvd
Tarzana 213 881-2626
Conn D Haskell, Aileen Dr, Madison 203 245-1031
Fla C Tom Gay, Box 15213, Tampa 813 855-3222
Fla B C Peddy, Box 310, Miami 305 947-3974
Ga Grady Duckett Sales Co, Box 29067
Atlanta 404 451-3529
Ill KaDell Sales Assoc, 6134 N Milwaukee
Chicago 312 774-6815
Ind Ollie Waid, 1303 W Ludwig Rd
Ft Wayne 219 748-8753
Md B Jerry Hoover, 2013 Winford Rd
Baltimore 301 435-5872
Mass A & M Electronic Reps, Box 73
Needham 617 444-8170
Mich J Malcolm Flora Inc, 165 W Liberty Ave
Plymouth 313 453-4296
Minn James Lee Co, 4241 Toledo Ave S
Minneapolis 612 920-1525
Mo Carmine Vignola, Box 569, Jefferson City
NJ Bressler Assoc, 4808 Bergenline Ave
Union City 201 864-9577
NY W A Franklin Sales, 2 Standish Ter
Syracuse 315 446-1120
NY H Lessman, 80 W North St, Ilion 315 894-2227
NC J W Hamilton, Box 22002
Greensboro 919 273-4617
Ore James W Eckersley Co, 3150 SW Hamilton St
Portland 503 246-3183
Pa Martin Friedman Assoc, 7 Heather Rd
Bala Cynwyd 215 839-3450
Pa J H Podolny Co, 5912 Penn Ave
Pittsburgh 412 441-0800
Tex Branum Co, Box J, Richardson 214 231-6148

**MURATA MFG CO, LTD, KAIDEN, NAGAOKA-CHO, KYOTO
JAPAN, TWX 5422-317KYO 075 921-9111
T AKEBI, EMP 1360, ENG 170, OVER $10,000M
ADV PG 311**
NY Murata Corp of America, 160 Broadway
New York 686-2510
Ger Stettner & Co, Box 7,8560 Lauf Bei Nurnberg
Nurnberg .... Lauf 01923 3021
GB Pedoka Ltd, 54 England Old Broad
London 01-588 6781
Ital Boccalero, Via Vigoni 11, Milano 598-184

MURDOCK CORP, 158 CARTER ST, CHELSEA
MASS, 02150 .... 617 884-0076
G MURDOCK, EMP 40, ENG 2, $500-$1,000M
Conn Comp-Rep Assoc Inc, 14 Samoset Ave
North Haven 239-9767
Ill Potter-Mac Co, 6027 N Northwest Hwy
Chicago 775-6626
Mass Comp-Rep Assoc Inc, 1116 Great Plain Ave
Needham 444-2484

MURPHY INDUSTRIES G W CLECO PNEUMATIC DIV
7007 PINEMONT, HOUSTON
TEX, 77040, TWX 910-881-1732 .... 713 HO 2-4521
J ROBERTS, EMP 1000, ENG 33
Ala Cleco Pneumatic, 1516 Second Ave S
Birmingham 252-9097
Cal Cleco Pneumatic, 12069 E Slauson Ave
Santa Fe Springs 698-9726
Cal Cleco Pneumatic, 875 Cowan Rd
Burlingame 697-7220
Cal Cleco Pneumatic, 3358 Kurtz St
San Diego 714 297-4184
Fla Cleco Pneumatic, 2610 NW 39th Ave
Miami 305 633-4656
Ill Cleco Pneumatic, 5926 S Pulaski Rd
Chicago .... PO 7-1166
Kan Cleco Pneumatic, 6900 W 80th St
Overland Park 649-3233
La Cleco Pneumatic, 830 Third St, Harvey 347-7336
La Cleco Pneumatic, 1191 Hawn Ave
Shreveport 423-3481
Mass Cleco Pneumatic, 10 Dedham St
Newton Highlands 969-8882
Mich Cleco Pneumatic, 25300 W 8 Mile Rd
Southfield 356-6756
NJ Cleco Pneumatic, 1174 W Chestnut
Union 687-6870
NY Cleco Pneumatic, 367 Nagel Dr
Buffalo 685-1220
Ohio Cleco Pneumatic, 1956 Lee Rd
Cleveland .... YE 2-6976
Ohio Cleco Pneumatic, 11306 Southland Rd
Cincinnati 851-1500
Pa Cleco Pneumatic, 4671 N Sixth St
Philadelphia .... DA 4-5500
Pa Cleco Pneumatic, 1060 Saw Mill Run Blvd
Pittsburgh 431-8411
Tex Cleco Pneumatic, 10032 Monroe St
Dallas 358-5661
Wash Cleco Pneumatic, 6114 Maynard Ave S
Seattle 762-3370
Wis Cleco Pneumatic, 4532 W Greenfield Ave
Milwaukee 383-9480
Can Canadian Cleco Air Tools Ltd, 3120 Wharton Way
Cooksville Ont 625-2920
Holl Cleco Pneumatic, Rooseveltstr 6, Leiden 32446
Mex Cleco de Mexico
Calle 8 No 11 Alce Blanco Naucalpan
Edo de Mex 27-67-43

MURRAY MFG CORP, 113 S SERVICE RD, JERICHO
NY, 11754 .... 516 333-6000
R EASLEY, EMP 700, ENG 20, OVER $10,000M

MURRAY WAY CORP, BOX 180, BIRMINGHAM
MICH, 48012 .... 313 564-6890
R ZECH, EMP 60, ENG 12, $2,500-$5,000M

MUTRON CORP, 646 SUMMER ST, BROCKTON
MASS, 02402, TWX 710-345-0194 .... 617 588-6110
H FORSBERG, EMP 100, ENG 8
Mass Forsberg Sales, 646 Summer St
Brockton 617 522-6300

MVR CORP, 470 SAN ANTONIO RD, PALO ALTO
CAL, 94306 .... 415 327-1220
F GONZALEZ JR, EMP 50, ENG 10, $500-$1,000M
Cal Cameron G Pierce & Assoc, 1810 Fair Oaks Ave
South Pasadena 213 682-1166
Cal Cameron G Pierce & Assoc, 363 S Taaffe
Sunnyvale 408 245-0986
Colo Space Systems Sls & Engrg Co Inc, 280 Columbine
Denver 303 388-9225
Conn Brogan Assoc, 80 Urban Ave
Westbury 516 333-6683
Fla Jaeger Assoc, 999 Woodcock
Orlando 305 841-1511
Md Paddock-Joslow Co, 721 Ellsworth Dr
Silver Spring 301 588-7866
Mass Brogan Assoc, 69 Hickory Dr
Waltham 617 894-3250
Mich Electro Sales Assoc, 10745 Morang Dr
Detroit 313 886-2280
Mo Space Systems Sls & Engrg Co Inc, Box 176
Florissant .... 314 AX 1-3228
NJ Data-Rep Assoc Inc, 1250 E Ridgewood Ave
Ridgewood 201 447-0660
NM Space Systems Sls & Engrg Co Inc
1401 Valencia SE, Albuquerque 505 255-7058
NY Data-Rep Assoc Inc, Box 164
Huntington Sta 516 423-7677
NY Brogan Assoc, 474 Thurston Rd
Rochester 716 328-2350
NY Brogan Assoc, 202 Arterial Rd
Syracuse 315 437-2988
Ohio Electro Sales Assoc, 335 East 200th St
Cleveland 216 486-1140
Ohio Electro Sales Assoc, Box 3122 Overlook Br
Dayton 513 426-0661
Pa Data-Rep Assoc Inc, Box 349
Norristown 215 279-8210
Pa Electro Sales Assoc, 201 Penn Center Blvd
Pittsburgh 412 371-8497
Tex Space Systems Sls & Engrg Co Inc
8383 Stemmons Fwy, Dallas 214 631-1740
Utah Space Systems Sls & Engrg Co Inc, Box 89
Bountiful 801 295-6464
GB Crow Co, 79 London St
Reading Berks .... (0-734) 40942
Holl N V Optishe Industrie de Oude Delft, Postbus 72
Delft .... (01730) 24044
Aust RCA of Australia Pty Ltd, 221 Elizabeth St
Sydney 61 8541

M-W LABS INC, 1824 N MILWAUKEE AVE, CHICAGO
ILL, 60647 .... 312 342-4020
R MAKINS, EMP 40, ENG 3, $500-$1,000M

MYCALEX CORP OF AMER SUB SPAULDING FIBRE CO
INC, 125 CLIFTON BLVD, CLIFTON
N J, 07015 .... 201 779-8866
E DEVILLEROY, EMP 250, ENG 15, $1,000-$2,500M
Cal J E Faloon, Box 808, Alhambra 213 282-8221
Cal Spaulding Fibre Co, 2000 S Hoefner Ave
Los Angeles 213 685-6710
Ill Spaulding Fibre Co, 965 Rand Rd
Des Plaines 312 775-7070
Ind Spaulding Fibre Co, 5255 N Tacoma Ave
Indianapolis 317 253-4477
Md Spaulding Fibre Co, 2104 N Charles St
Baltimore 301 837-7566
Mass Spaulding Fibre Co, 554 Washington St
Wellesley 617 235-2100
Mich Spaulding Fibre Co, 3370 Washtenaw Ave
Ann Arbor 313 971-0311
Mo Spaulding Fibre Co, 1850 S Henley Rd
St Louis 314 647-4781
NY Spaulding Fibre Co, 120 E Prospect Ave
Mount Vernon 914 664-2828
NY Spaulding Fibre Co, Box N
Tonawanda 716 692-2000
Ohio Spaulding Fibre Co, 136 S Ludlow St
Dayton 513 223-2286
Ohio Spaulding Fibre Co, 3494 Lee Rd
Cleveland 216 921-3141
Pa Spaulding Fibre Co, 7 Heather Rd
Bala Cynwyd 215 839-3767
Wis Spaulding Fibre Co, 3718 N 92nd St
Milwaukee 414 466-1210
Can Spaulding Fibre Co, 7 Waulron St
Etobicoke Ont 416 233-2151

MYKROY INC, 645 WHEELING RD, WHEELING
ILL, 60090 .... 312 537-0280
W SIMPSON, EMP 12, ENG 2, $250-$500M

MYSTIK TAPE, BORDEN INC, 1700 WINNETKA AVE
NORTHFIELD
ILL, 60093, TWX 910-992-1436 .... 312 446-4000
J GAVIN, EMP 500, ENG 10, OVER $10,000M
Cal D McGrew, 827 W Hawthorne
Ontario 213 264-5210
Cal J V Christman, 51 Los Cerros Pl
Walnut Creek 415 863-1270
Ga Charles MCCullough, 7340 Hunters Br Dr
Atlanta .... CE 3-1196
Mass D Hamby, 46 Arborway, Scituate 617 444-3200
Mo Fred Peil, Box 11554, Clayton .... PA 5-1234
NY J Horowitz, 350 Madison Ave
New York 212 573-3800
Ohio George R Lundberg, 619 Albin Ave
Wash Court House 335-1319
Pa J C Hesh, 547 Valley Brook Dr
Lansdale .... LO 3-6574
Tex J M Halligan, 13815 Far Hills La
Dallas 214 352-6981

NAMEPLATE INC, 12939 BUDLONG AVE, GARDENA
CAL, 90247 .... 213 321-3000
J STEVENSON, EMP 12, $100-$250M

NANMAC CORP, 9-11 MAYHEW ST
FRAMINGHAM CENTRE
MASS, 01701 .... 617 872-4811
J NANIGIAN, EMP 12, ENG 3, $100-$250M
Cal United Engrg Sales & Serv, 18345 Ventura Blvd
Tarzana 213 881-2433
Pa Alpha Plus Inc, Box 8203, Erie 814 454-8500

NANODYNE CORP, BOX 212, SUDBURY
MASS, 01776 .... 617 443-2712
H COHEN, EMP 2, ENG 1, UP TO $100M

NANOFAST, INC, 416 W ERIE ST, CHICAGO
ILL, 60610 .... 312 943-4223
C VESPA, EMP 44, ENG 7, $500-$1,000M
Ala Roy Attaway Co, 900 Bob Wallace Ave, S W
Huntsville 534-2811
Ariz Vinson Assoc, 44 E Indian School Rd
Scottsdale 947-7371
Colo Vinson Assoc, 3600 S Lincoln
Englewood 933-0187
Conn Vector Sales, 774 Pleasant St, Belmont .... IV 9-1400
Fla Roy Attaway Co, 57 E Robinson St
Orlando 424-5328
Kan Impala, Inc, 6917 W 76th St
Overland Pk 648-6901
Md Tek-Rep, Inc, 1075 Rockville Pike
Rockville 762-7777
Mass Vector Sales, 774 Pleasant St, Belmont .... IV 9-1400
Mo Impala, Inc, 47 Village Sq, Hazelwood 522-1600
NJ Friedman Assoc, 110 Halsted
East Orange 673-2500
NM Vinson Assoc, Box 3295, Albuquerque 298-7442
NC Roy Attaway Co, 519 Nissen Bldg
Winston-Salem 722-9671
Ohio Ashby Assoc, 4130 Linden, Dayton 252-5627
Pa Tek-Rep, Inc, 727 Bridgeman Terr
Towson, Md 828-0394

NANOSECOND SYSTEMS INC, 176 LINWOOD AVE
FAIRFIELD, CONN, 06430 .... 203 255-1008
R POCRASS, EMP 50, ENG 12, $250-$500M

NARCO AVIONICS DIV NATL SCIENTIFIC INDUSTRIES
COMMERCE DR, FORT WASHINGTON
PA, 19034 .... 215 646-2900
D TRICEBOCK, EMP 450, ENG 34, $5,000-$10,000M
Cal J Monaco, 1501 Highland Dr
Newport Beach 642-5142
SC R King, 602 St Andrews Blvd
Charleston 766-6421
Tex D Hawkins, Rt 1 Box 176, Roanoke .... FL 8-2863

NARDA MICROWAVE CORP, ENGINEERS HILL
PLAINVIEW, N Y, 11803 .... 516 GE 3-9000
J SCHINDLER, EMP 275, ENG 15, $5,000-$10,000M
Ala E G Holmes & Assoc, 4862 Governors Dr W
Huntsville 837-6900
Cal O'Halloran Assoc, 10700 Ventura Blvd
N Hollywood .... TR 7-0173
Cal O'Halloran Assoc, 3921 E Bayshore
Palo Alto .... DA 6-1493
Colo Bennewitz Assoc Inc, 2801 E Colfax Ave
Denver 303 399-1132
Fla E G Holmes & Assoc, 316 1/2 S Bumby St
Orlando .... CH 1-2128
Ga E G Holmes & Assoc, 3667 Clairmont Rd N E
Chamblee 451-6161
Haw Industrial Electronic Inc, 646 Queen St
Honolulu 506-095
Ill Scientific Sales Co, 7132 N Harlem Ave
Chicago 775-7595
Kan Poly-Onics Inc, 4434 W 90th Terr
Leawood .... NI 8-4173
Md Electronic Mktg Assoc, 11501 Huff Ct
Kensington 946-0300
Mass Tri-Tek Inc, 165A Bedford St
Burlington 272-4550
Mich Micro Sales Corp, 650 Greenlawn Ave
Ypsilanti 513 298-3033
Minn Scientific Sales Co, 6121 Excelsior Blvd
Minneapolis
Mo Poly-Onics Inc, 47 Village Sq Shop Ctr
St Louis .... TE 7-0597
NJ Sonco, Crystal Brook Prof Bldg
Eatontown 542-1441
NM Bennewitz Assoc Inc, 97 Candelaria NE
Albuquerque 505 298-6775
NY Ossmann Instruments Inc, Vestal Pkway E
Vestal 785-9947
NY Ossmann Instruments Inc, 101 Pickard Dr
Syracuse .... GL 4-2461
NY Gray & Reed Assoc Inc, 9 Dunford St
Huntington .... GE 3-3333
NY Ossmann Instruments Inc, 3100 Monroe Ave
Rochester .... LU 6-0380
NC E G Holmes & Assoc, 430 W Friendly Ave
Greensboro 919 275-0897
Ohio Micro Sales Corp, 1250 W Dorothy La
Dayton 298-3033
Ohio Micro Sales Corp, 2000 Lee Rd
Cleveland 371-0522
Pa Sonco, Park Pl Office Bldg, Camp Hill .... SO 1-0577
Pa Sonco, 107 Town Center Rd
King of Prussia 215 265-3250
Tex Vidal Electronics, 3403 High Bluff Dr
Dallas 214-2414
Wash Showalter-Judd Inc, 1806 S Bush Pl
Seattle .... EA 4-7911
Can Electronetic Systems Ltd, 62 Alness St
Downsview, Ont 636-3673
Can Electronetic Systems Ltd, Victoria Ave
Montreal, Que 737-2744
For Inglomark, Mariahilfer Str 133, Vienna
For Modern Trading Co, Victoria Rd, Karachi 3, Pak
For Delta Ltda, Aptdo Aereo 12175, Bogota, Col
For Importadora Janssen Y Cia Ltda
Moneda 1160 9 o piso, Santiago
For Coasin C A, Aptdo 10366 Sabana Grande
Caracas Ven
For Heighten Trad Co Ltd, Box 1408, Taipei Tai
For Mevag Teknik Ticaret ve Sanayi A S
Galata Bankalar Cad 71-73, Istanbul Turkey
Den Handelsfirmaet-Ditz-Schweitzer, Copenhagen
Den Handelsfirmaet Ditz Schweitzer A/S
St Kongensgade 59, Copenhagen
Fr Salies SA, 11 Rue Leon Morane, Paris
Ger Rohde & Schwarz Vertriebs-GmbH
Hohe Str 160-168, Cologne
GB Aveley Electric Ltd, S Ockendon, Essex
Holl Ingenieursbureau Projecto, Prinsengracht 530
Amsterdam
Ital Mario Vianello, Via L Anelli, 13, Milan
Jap Midoriya Elec Co Ltd, 3 2-chome Kyobashi chuo-ku
Tokyo
Nor Metronic A/S, Tollbodgt 4, Oslo
SAfr Leigh & Hurwitz Pty Ltd, Box 3236, Johannesburg
Swed Amerikanska Teleprodukter, Box 43070
Stockholm 43
Swit Megex Zurich Co Ltd, Badenerstr 588, Zurich
Arg Coasin S A, Virrey del Pino 4071, Buenos Aires
Belg Regulation-Mesure, SPRL, 22 Rue St Hubert
Brussels
Gr Kostas Karayannis, 18 Ermou St, Athens
Ind K Lal Bhakri, Box 487, New Delhi
Isrl Eastronics Ltd, 75 Haifa Rd, Tel Aviv
NZ W G Leatham Ltd, 58 Kent Ter, Wellington

Fin Into O/Y, 11 Meritullinkatu, Helsinki 10
Aust Warburton Franki Ltd, 307 Kent St, Sydney

NARDON MFG CO INC, 2125 W MISSION RD
ALHAMBRA, CAL, 91803 .... 213 289-4441
G MAVREDAKIS

NASH CONTROLS INC, 1275 BLOOMFIELD AVE
CALDWELL
N J, 07006, TWX 710-734-4350 .... 201 228-0880
W NASH, EMP 160, ENG 25, $2,500-$5,000M
Ala Russell Assoc Inc, 2516 N Memorial Pkwy
Huntsville 539-7211
Cal Russell Assoc Inc, 3951 E Huntington Dr
Pasadena 795-9521
Fla Russell Assoc Inc, 211 W Fairbanks
Winter Park .... MI 7-2251
Ga Russell Assoc Inc, 6427 Roswell Rd
Atlanta 255-8422
Ill Russell Assoc Inc, 1303 N Richmond Rd
McHenry 385-4220
Kan D & O Engineering Co Inc, Box 1800
Wichita .... AM 4-7358
Kan D & O Engineering Co Inc, 727 Kansas Ave
Kansas City 342-6151
Md Russell Assoc, 102 N Main St, Bel Air ... 838-9292
Mass Russell Assoc Inc, 69 Hickory Dr
Waltham 891-4570
Mich Russell Assoc Inc, 24634 Five Mile Rd
Detroit .... KE 2-5770
NJ Russell Assoc, 201 E Ridgewood Ave
Ridgewood 447-1050
NY Russell Assoc Inc, 165 Orinoco Dr
Brightwaters .... MO 6-6500
NY Russell Assoc Inc, 6789 Main St
Buffalo 634-3377
Ohio Russell Assoc Inc, 4 Eswin St
Cincinnati 825-0930
Okla D & O Engineering Co Inc, 3216 E 21st St
Tulsa 932-2813
Tex D & O Engineering Co Inc, 4924 Greenville Ave
Dallas .... EM 8-3544
Wash Russell Assoc, Box 3001, Seattle .... Ma 3-7270

NASH & HARRISON LTD, 1355 WELLINGTON ST
OTTAWA 3, ONT 613 722-6544
W CASWELL, EMP 13, ENG 4, $500-$1,000M
Cal Campbell Engineering Co, 814 E 14th St, Oakland
Ga Lewis M Crowe Co, 174 W Wieuca Rd NE, Atlanta
Ill Epco Services Inc, 7760 W Devon Ave, Chicago
La Petro-Chem Equip Co, Box 358, Baton Rouge
Md Gilro Assoc, Box 730, Glen Burnie
Mass Owen C Jones & Co, Box 151, Wellesley Hills
Mich Basic Service Corp, 16544 Plymouth Rd, Detroit
NJ Geo H Birchall Assoc, Box 84, Westfield
NC MacGuire Instrument Co, Rte 1 Box 290-K
Matthews
Ohio R E Surkamp Co, 4866 Cooper Road, Cincinnati
Ore R E Donelson Co, Box 68446, Portland
Wash C T Takahashi Co, Box 3626, Seattle
Can Industrial Projects Ltd, 3300 Cavendish Blvd
Montreal 28 PQ
Can Minami-Senju Mfg Co Ltd, 3333 Pl Ville Marie
Montreal 2 PQ
For Equipos Industriales S A C I, Casilla 13550
Santiago Chile
Fr S E D E I, 32 bis rue Godefroy, Puteaux
GB Vacuumatic Ltd, 129 Kingsway
London WC 2 .... 01 242-4372
Holl W Seegers, Verspronckweg 295, Haarlem
Ital Emilio Palazzi, Via Edolo 27, Milan 600922
Jap Matsuzaka Trading Co Ltd
2-4 3-Chome Kasumigaseki, Chiyoda-Ku Tokyo
Nor O Skotvedt Maskin A/S, Stalverksvn 2 Box 6080
Etterstad Oslo
SAfr Eltec Services (Pty) Ltd, 77 Canada Rd, Durban
Swed AB Wesskon, Virebergsvagen 1, Solna 1
Arg Aiefe S R L, Cordoba 991 6 Piso A, Buenos Aires
Ind H W Wood, Box 281, Kathmandu Nepal
Mex M J De La Vega, Paseo de la Reforma 393-501
Mexico 5 DF
NZ Pulp & Paper Mills Supplies Agencies Ltd
Graham St, Auckland
Spn Internacional Tecnica SA
Torre de Madrid Planta 8 No 3, Madrid
Fin AB Ekstroms Maskinaffar, Box 10310
Alexandersgatan 7 Helsinki 10
Aust B J Ball Ltd, 63 River St, Richmond Vict .. 42-3371

NASSAU PRECISION METAL PRODUCTS
20 BEECHWOOD AVE, PORT WASHINGTON
N Y, 11050 .... 516 PO 7-5255
EMP 5

NATEL ENGINEERING CO INC, 7129 GERALD AVE
VAN NUYS, CAL, 91406 .... 213 782-4161
P DIAMOND, EMP 50, ENG 8, $1,000-$2,500M
Cal Electronic Engr Assoc Ltd, 1293 Laurel
San Carlos 593-2189
Colo F Y Gates Co, 3401 S Bannock St
Englewood 303 761-0591
Fla Perrott Assoc, 1607 Forsyth Rd
Orlando 275-1132
Iowa Engineering Services Co, 1026 3rd Ave S E
Cedar Rapids 319 366-1591
Kan Engineering Services Co, 7924-A State Line
Prairie Village 913 649-4000
Md Zenatronix Assoc, 8121 Georgia Ave
Silver Spring 588-5677
Mass J & J Assoc, 225 Crescent St
Waltham 617 899-0160
Mo Engineering Service Co, 6717 Vernon Ave
St Louis 314 726-2233

NM F Y Gates Co, 2631 Texas N E
Albuquerque 505 298-1875
NY Sencor Inc, 79 Albertson Ave
Albertson 516 747-1273
NY Machine & Products Co, 54 Wall St, New York
Ohio Rep Corp, 2077 Embury Park Rd
Dayton 513 278-5885
Pa Sencor Inc, 2222 Glendale St
Philadelphia 215 342-0223
Tex Thorson Co, 7700 Carpenter Frwy
Dallas 631-5440
Utah F Y Gates Co, 455 E 4 St S
Salt Lake City 801 358-1101
Can Whittaker Electns Ltd, Box 216
Roxboro Que 514 684-3000
For Landseas Corp, 48 W 48th St, New York N Y
For Technique et Produit, 63 bis Rue d'Aguesseau
Boulogne-sur Seine
Isrl Landseas (Israel) Ltd, 29 Bezalel St, Tel-Aviv

NATIONAL ACME CO ELECTRICAL CONTROLS DIV
170 E 131ST ST, CLEVELAND
OHIO, 44108, TWX 98-411 .... 216 268-4200
W MARSHALL, EMP 2467, OVER $10,000M
Ala D McLay, Box 5983 Homewood Br
Birmingham 879-8764
Cal C Huffman, 1645 W Sepulveda Blvd
Torrance 534-1962
Conn R Benton, Box 42, Fairfield 259-2105
Fla J R McMaster, Box 1054, Lake Worth 585-8016
Ga Scott Mach Co, 411 Williams Ave NW
Atlanta 525-8311
Ill S L Drexler, 343 S Dearborn, Chicago 427-0496
Kan D Winslow, 1217 E Linwood Ave
Kansas City 561-6565
La J Laubersheimer, Box 51323
New Orleans 282-4696
Mass G Paul, 69 Eaton Rd, Needham 444-6358
Mich D M Sutter, 1012 Francis Palms Bldg
Detroit 961-0578
Mo E A Winslow, 206 N Clay Ave
Kirkwood 965-5880
NJ W Kinnaugh, 972 Broad St, Newark 623-8865
NY J Ridout, 4309 Bailey Ave, Buffalo 835-7688
NC Jeffrey Engr & Equip Co, 2507 S Elm St
Greensboro 274-6364
Ohio Tom Anderson, 3914 Miami Rd
Cincinnati 271-1530
Ohio Roger Elson, 4620 River St, Willoughby .. 942-4313
Ohio R Root, 2260 Harcourt Dr, Cleveland 421-0932
Ohio C H Simpson, Rte 1, Box 294-B, Tiffin ... 447-1291
Ore W Wells, 6055 NE Glisan Ave
Portland 235-2437
Pa H Graybill, 267 Edgehill Rd, York 843-2002
Tex M Johnson, 2837 Ladybird La, Dallas 352-8469
Tex Johnson Equip Co, 7721 Park Place Blvd
Houston 643-2454
Wis D Clark, 213 Fremont, Walworth 275-2771
Can A M T Mach Tool Ltd, 1212 Caledonia
Toronto 787-0687
Ger Fritz Dienes Co, 16 Muhlheim (Main) Postfach 96,
GB Herbert-B S A Electrics Ltd
Mackadown La, Kitts Green, Birmingham

NATIONAL ASTRO LABS INC, 2201 HOLLYWOOD WAY
BURBANK, CAL, 91504 .... 213 849-6701
L EVANS, EMP 75, ENG 3, $500-$1,000M

NATIONAL BAND & TAG CO, 721 YORK ST, NEWPORT
KY, 41072 .... 606 261-2035
EMP 60

NATIONAL BELLOWS CO, 785 WOODEND RD
STRATFORD, CONN, 06497 .... 203 375-5225
J ANDREWS, EMP 22, ENG 4, $250-$500M
NJ Ewertz, Box 30, Cranford 201 276-7340
NY Ahlheim, 284 Delaware Ave
Buffalo 716 854-0134

NATIONAL BERYLLIA CORP, 1ST & HASKELL AVES
HASKELL
N J, 07420, TWX 710-988-5363 .... 201 839-1600
H SCHMIT, EMP 150, ENG 33
Ariz Gramer & Co, 110 W Camelback Rd
Phoenix 279-1231
Cal Heim & Smolen Inc, 3360 Barham Blvd
Hollywood .... HO 2-7357
Fla Perrott Assoc, 1607 Forsyth Rd
Orlando 275-1132
Ill Electro-Comp Sales Inc, 5129 W Devon Ave
Chicago .... RO 3-3636
Kan Thomas & Modrcin Assoc, 5450 Buena Vista Dr
Shawnee Mission .... HE 2-2131
Mass S P Cole, 365 Webster St, Marshfield 542-4575
Minn Merrill Franklin Co, 730 E 38th St
Mnpls 827-5348
NM Space Systems Sales & Engrg, 1401 Valencia S E
Albuquerque 255-7058
NC A E Over, 3723 Country Ridge Rd, Charlotte
Va Technics, Inc, 506 Lloyds La
Alexandria 548-0900
Can Douglas Randall (Can) Ltd, 1710 Midland Ave
Scarborough, Ont 751-7911
For Equipamentos De Lab, Apartado 1 100, Lisbon, Port
Den V M Christensen A/S, 20, Bulowsvej, Copenhagen V
Fr Technique et Produits, 63 Bis Rue D'Aguesseau
Boulogne-S/-Seine
Ger E A Giessen, Postfach 9, 8000 Munchen-Allach
GB Steatite Insulations Ltd, Hagley Rd, Edgbaston, Birm
Holl M Rietveld, Westersingel 27A, Rotterdam
Ital Tecnicom, Via Visconti Di Modrone, 21, Milano
Jap Sankyo Intl Corp, 20 - 2 Chome, Misaki-cho, Kanda
Chiyoda-ku, Tokyo

Nor Ole A Nordby, Huitfeldtsgt 9, Oslo
SAfr C L Konings, Box 5398, Johannesburg
Swed Edstraco AB, Kungsgatan 33, Stockholm
Swit Otto Kofmehl, Solothurn
Ind Intl Trade Agencies, Abid Rd, Hyderabad-DN-1
Isrl Aravah A T I Ltd, Box 14051, Tel Aviv
Spn Ormeco, S A, Box 5 018, Barcelona

NATIONAL CAPACITORS INC, 5900 VOSS RD
WEST PALM BEACH
FLA, 33407, TWX 510-952-6689 .... 305 842-3201
J BEHRENS, EMP 375, ENG 15, $2,500-$5,000M
Ariz Toward Engineering Assoc, Box 15268 Arcadia Sta
Phoenix 602 955-3193
Cal Leddy Assoc, 1319 Howard, Burlingame .. 374-2840
Cal NCI Inc, 15720 Ventura Blvd, Encino 783-3700
Colo Williams Assoc, 4971 Jackson St
Denver 292-3249
Fla J F Griffin & Co, 812 Lakeside Dr
N Palm Beach 848-4617
Ill Brock & Cushman Inc, 6261 W Grand Ave
Chicago 622-4110
Iowa Electronic Sales, 1310 Hertz Dr SE, Cedar Rapids
Kan Electronic Sales, 4835 Skyline Dr, Roeland Park
Md McCourt & Co Inc, 28 W Penna Ave
Towson 823-3455
Mass NCI Inc, 850 Providence Hwy
Dedham 617 329-2030
Mich D Poulin Co, 17222 E Warren Ave
Detroit 886-4990
Minn R G Ragon Inc, 1136 W Larpenteur Ave
St Paul 612 488-6634
Neb Electronic Sales, 1830 N 49th St, Lincoln
NY Ed Glass Assoc, 250 W 57th St
New York 586-8440
NY NCI Inc, 4511 Harlem Rd, Snyder 716 839-9830
Ohio Electro Com, 8761 Snow Rd
Cleveland 216 886-2404
Ohio Electro Com, Box F, Dayton 513 278-4797
Pa Griffin-Campbell Inc, 25 Skippack Pike
Ambler 646-7535
Pa Electro Com, 201 Penn Center Blvd, Pittsburgh
Wash Westek, Box 902, Bellevue 454-3906
Can Cantronics of Que, 4252 Braille Ave
Montreal 9 Que 514 733-0749
Can Cantronics Ltd, 17 Delbank Rd, Downsview Ont

NATIONAL CASH REGISTER CO, MAIN & K STS
DAYTON, OHIO, 45409 .... 513 449-2000
J BOYLE, EMP 73,000, OVER $10,000M
Sales Offices located in principal cities in United States
and Canada

NATIONAL CERAMIC CO, 500 SOUTHARD ST
TRENTON, N J, 08602 .... 609 394-5373
E DOMBER, EMP 94, $500-$1,000M
Fla E P F, 621 N Clearwater-Largo Rd
Largo 813 584-4678
Ill J Golten Co, 2750 W North Ave
Chicago .... EV 4-5959
Iowa J R Sales Co, 3550 Cottage Grove Ave SE
Cedar Rapids 365-5259
Minn Scott Electronic Sales, 5209 W 60th St
Minneapolis .... WE 9-2985
NY Wadsworth Mfg Assoc Inc, 183 Buckley Rd
Liverpool .... OL 2-2865

NATIONAL CINE EQUIPMENT INC, 37 W 65TH ST
NEW YORK, N Y, 10023 .... 212 799-4602
E HARWOOD, EMP 12, ENG 1, $250-$500M

NATIONAL COIL CO INC, BOX 1347, SHERIDAN
WYO, 82801 .... 307 674-7644
H DEMPLE, EMP 60, ENG 4, $500-$1,000M
Cal Win W Tompkins & Co, 2875 Middlefield Rd
Palo Alto 415 326-7940
Cal Sutherland Sales Co, 13819 Inglewood Ave
Hawthorne 213 772-3236
Ill MQ & Assoc, 6713 N Oliphant Ave
Chicago 312 774-8844
Ind W T Brase Sales, 925 Tulip Tree Rd
Ft Wayne 483-1656
Md Stemler Assoc & Co, 6707 Whitestone Rd
Baltimore 301 944-8262
Tex Jacobson Co, Box 9702, Dallas 214 363-7584

NATIONAL CONNECTOR CORP
9210 SCIENCE INDUSTRY CTR, MINNEAPOLIS
MINN, 55428, TWX 910 576-2866 ...... 612 533-5361
S WICKS, EMP 425, ENG 15, $5,000-$10,000M
Ala Young & Lawrence Assoc, 2907 Governors Dr S W
Huntsville 205 539-6575
Cal Gene C Woempner Co, 821 Malcolm Rd
Burlingame 415 697-5131
Cal Ed Landa Co, 2288 Westwood Blvd
Los Angeles 213 272-6343
Colo National Connector Corp, Denver
Conn Kitchen & Kutchin Inc, 22 Broadway
North Haven 203 239-0210
Fla Young & Lawrence Assoc, 601 N New York Ave
Winter Park 305 647-6929
Fla Young & Lawrence Assoc, 300-31st St N
St Petersburg 813 894-0026
Ind Robt O Whitesell & Assoc, 6620 E Washington St
Indianapolis 317 359-5374
Ind Robt O Whitesell & Assoc, Central Bldg
Fort Wayne 219 743-4411
Ky Robt O Whitesell & Assoc, 3620 Lexington Rd
Louisville 502 893-7303
Mass Kitchen & Kutchin Inc, 17 Waltham St
Lexington 617 862-8230

Mich Robt O Whitesell & Assoc, 25100 Evergreen Rd
Southfield 313 358-2020
Mich Robt O Whitesell & assoc, 303 Fidelity Bldg
Benton Harbor 616 927-2041
Mo Suor Sales Corp, 8115 Troost
Kansas City 816 444-2871
NJ National Connector Corp, 1360 Brace Rd
Cherry Hill 609 428-6840
NJ S R Morrow, Box 465, Chatham
NY J Lazor & Assoc, 39 Saginaw Dr
Rochester 716 473 8337
NY J Lazor & Assoc, 4569 Stoneledge La
Manlius 315 682-9700
NY J Lazor & Assoc, Box 237
Tonawanda 716 886-1386
NC Candor Co Inc, Bethania 919 924-1480
Ohio Robt O Whitesell & Assoc, 4133 S Dixie Ave
Dayton 513 298-9546
Ohio Robt O Whitesell & Assoc, 1172 W Galbraith
Cincinnati 513 521-2290
Ohio Robt O Whitesell & Assoc, 21139 Lorain Ave
Cleveland 216 333-2585
Pa Robt O Whitesell & Assoc, 201 Penn Center Bldg
Pittsburgh 412 242-0100
Tenn Candor Co Inc, Briston 615 764-6215
Tex Jack F McKinney Sales, 1303 Chemical St
Dallas 214 231-9450
Tex Jack F McKinney Sales, 5458 Edith St
Houston 665-3653
Va Candor Co Inc, 202 DeHart Ave
Blacksburg 703 552-4445

NATIONAL ELECTRIC WELDING MACHINES CO
1846 N TRUMBULL ST, BAY CITY, MICH 893-9505
H LANGE, EMP 250, ENG 38
Ala Welding Alloys & Supply Co, 615 N 9th St
Birmingham 251-7142
Cal Dasco Equipment Co, Box 4604
Whittier 213 696-0100
Ill L J Gottschalk, Jr, 5200 W Chicago Ave
Chicago .... AU 7-0786
Mass E C Hall, 96 Dewey St, Worcester ...... PL 9-1130
Mich Anderson & Ellsworth, 2608 N Woodward
Royal Oak .... JO 6-7171
Mo Duane Wade, Box 3785, St Louis .... YO 5-3737
Ohio Moulton & Heller, Box 39068
Cleveland 248-6545
Ohio C O Adams, 2412 Far Hills Ave
Dayton 299-2960
Pa K W Ostrom & Co, 333 Shadeland Ave
Drexel Hill .... CL 9-1130
Tex Preston Machine Tools, Box 18327
Houston .... WA 8-3157
Can Volta Welders Ltd, 3126 Devon Rd
Windsor, Ont 969-9510
Jap Toyomenka Inc, 2 Broadway, New York, N Y

NATIONAL ELECTRONICS INC VARIAN SUB, BOX 269, GENEVA
ILL, 60134, TWX 910-237-1685 .... 312 232-4300
B ROBERTS, EMP 320, ENG 22
ADV PG 267, 579
Cal Natl Electronics Inc, 201 Town & Country Village
Palo Alto 415 328-3786
Cal Natl Electronics Inc, 2901 Wilshire Blvd
Santa Monica 213 870-8755
Cal Natl Electronics Inc, 2901 Wilshire Blvd
Santa Monica 213 870-8755
NJ Natl Electronics Inc, 744 Broad St
Newark 201 623-9250

NATIONAL ENGINEERING PRODUCTS INC
338 WASHINGTON BLDG, WASHINGTON
D C, 20005 .... 202 737-4473
D EKEDAHL

NATIONAL INSTRUMENT LABS INC
12300-M PARKLAWN DR, ROCKVILLE
MD, 20852 .... 301 933-1144
D STEELE, EMP 35, ENG 10, $1,000-$2,500M
Cal Pete Berry Assoc, 1146 E Ash Ave
Fullerton 871-5615
Cal R W Thompson, 4135 El Camino Way
Palo Alto .... DA 1-6383
Colo Famco of Denver, 1438 Oneida St
Denver 355-1382
Fla M J Erickson, Box 323, Cape Canaveral ... 796-2896
Ga Datatron, 484 Tara Trail NW, Atlanta .... BL 5-8955
Ill Martel Engineering, 345 Quincy Rd
Riverside .... HI 7-5440
Kan D & O Products, Box 11203
Wichita .... 316 AM 4-8351
Mass E Clark & Assoc, 19 Whittier Dr
Acton .... CO 3-5759
Mich Basic Service Corp, 16544 Plymouth Rd
Detroit .... VE 7-8820
Mo D & O Products, Box 2349
Kansas City Kan .... 913 FI 2-6151
NY Alex Dalgleish Co, 96 Capen Blvd
Buffalo 836-0546
NY Ken Weinberger, 28 Terri Lee La
Spring Valley .... EL 6-9200
Pa Research Appliance Co, Route 8 & Craighead Rd
Allison Park 961-0588
Pa K-S Engineering, Box 119, Kimberton 933-1888
Tex Instrumatics, Box 8762, Houston .... CA 5-6626
Can Bayley-Milley, Ltd, 8 Tabor Rd
Rexdale, Ont 244-5511

NATIONAL LAMINATING MFG CO
339 S ROBERTSON BLVD, BEVERLY HILLS
CAL, 90211 .... 213 655-9784
D CASSARD, EMP 10, ENG 4, $100-$250M
Cal Wesrep Corp, 339 S Robertson Blvd
Beverly Hills 655-9784

NATIONAL LEAD CO, 111 BROADWAY, NEW YORK
N Y, 10006 .... 212 RE 2-9400
W TRASK
ADV PG 647
Ga National Lead Co, 451 Bishop St NW
Atlanta .... TR 6-7361
Ill National Lead Co, 900 W 18th St
Chicago .... CA 6-3700
Md National Lead Co, 214 Henrietta St
Baltimore .... PL 2-6900
Mass National Lead Co, 800 Albany St
Boston .... GA 7-1000
Mich National Lead Co, 3501 Griffin St
Detroit .... TR 4-0488
Mo National Lead Co, 1015 Locust St
St Louis .... CH 1-8782
NJ National Lead Co, 1050 State St
Perth Amboy .... VA 6-6000
Ohio National Lead Co, 1776 Columbus Rd
Cleveland .... PR 1-4060
Ohio National Lead Co, 3670 Werk Rd
Cincinnati 922-4100
Pa National Lead Co, 2607 E Cumberland St
Philadelphia .... GA 6-0600
Pa National Lead Co, 1376 River Ave
Pittsburgh .... FA 1-2335
Tex National Lead Co, 1000 Sargent Rd
Dallas .... WH 8-3521
GB Hoyt Metal Co of G B Ltd, Deodar Rd, Putney
London .... VA 6061

NATIONAL MFG CO A TELEDYNE CO, 2700 OAKLAND
GARLAND, TEX, 75040 .... 214 BR 1-2591
H MITCHELL, EMP 100, ENG 4, $2,500-$5,000M

NATIONAL MOLDITE CO INC, 250 SOUTH ST, NEWARK
N J, 07114 .... 201 642-6860
S LOWENBERG, EMP 55, ENG 5, $500-$1,000M
Cal Aerosace Sales Corp, 12140 S Atlantic Ave
Lynwood 213 537-1856
Ill J Golten Co Inc, 2750 W North Ave, Chicago
NY W A Franklin Sales Corp, 2 Standish Terr
Syracuse 315 446-2246
For American Ligurian Co, 271 Madison Ave
New York, NY
For Malek Reps, Rodriguez Pena 486, Buenos Aires
Mex Gimbel Mexicana S A, Ave Sonora 170, Mexico City

NATIONAL RADIO CO INC, 111 WASHINGTON ST
MELROSE
MASS, 02176, TWX 617 665-3172 ...... 617 662-7700
G BENAS JR, EMP 553, ENG 130, $5,000-$10,000M
Cal National Radio Co Inc, 2850 Nomad Dr
Woodland Hills 346-4080
DC National Radio Co Inc, 1815 Fort Meyer Dr N
Arlington 542-6140
Can Instronics Ltd, Box 100, Stittsville 828-1253
GB Racal Instr Ltd, Heatherdene Rd
Crowthorne Dukes Ride .... Bra 941
Jap Hakuto Co Ltd, Box 25, Tokyo Central 3168-9

NATIONAL SEMICONDUCTOR CORP
2950 SAN YSIDRO WAY, SANTA CLARA
CAL, 95051, TWX 910 339 9240 .... 408 245-4320
D VALENTINE, EMP 500, ENG 50, OVER $10,000M
Ala Technical Mktg Inc, Box 1001
Huntsville 534-2487
Ariz Shefler-Kahn Co, Box 1587, Phoenix 258-7893
Cal Natl Semiconductor Corp, 650 N Sepulveda Blvd
El Segundo 678-4161
Cal Electro-Product Sales, 809 G St
Chula Vista 714 427-7900
Cal National Semiconductor, 2975 San Ysidro Way
Santa Clara 408 245-4320
Colo Waugaman Assoc Inc, 2785 N Speer St
Denver 255-5000
Conn New England Technical Sales Co, 3 Mott Ave
Norwalk 323-0005
Fla Natl Semiconductor Corp, 4471 N W 36th St
Miami Springs 887-6651
Fla G F Bohman Assoc, 7040 Lake Ellenor Dr
Orlando 305 855-0274
Ga Bostick & Assoc, box 2837-8, Atlanta
Ill Gassner & Clark Co, 6644 N Western Ave
Chicago 764-6121
Ind C Given, 921 Third St, Mishawaka .. 213 BI 5-6439
Kan Ridgewood Sales Corp, Box 466, Shawnee Mission
Md Natl Semiconductor Corp, 1826 Pot Spring Rd
Timonium 252-5310
Md Stemler Assoc & Co, 6707 Whitestone Rd
Baltimore 301 944-8262
Mass Natl Semiconductor Corp, 555 High St
Westwood 326-6508
Mass New England Tech Sls Corp, 7 Cypress Dr
Burlington 272-0434
Mich Jefco Sales Inc, 700 Maple E
Birmingham 313 642-3830
Minn Smith Engrg Assoc, 2278 Como Ave
St Paul 646-4851
Mo Ridgewood Sales Co, 1225 Tahiti Dr
St Louis 726-5078
NJ T A I, 138 Haddon Ave, Haddonfield 854-3011
NJ National Semiconductor, 2375 Hudson Terr, Fort Lee
NM Shefler-Kahn Co, 408 San Mateo Blvd
Albuquerque 265-7077
NY E R A Inc, 330 Great Neck Rd
Great Neck 482-9320
NY Advanced Components Corp, 119 Luther Ave
Liverpool 315 472-7886
Ohio Gibson Elctns, 2643 E Streetsboro Rd
Hudson 653-2900
Ohio Gibson Elctns, 2801 Far Hills Rd
Dayton 513 299-7223
Tex Natl Semiconductor Corp, 777 S Central Expwy
Richardson 231-5021
Tex Carter Assoc, Box 87, Barland 214 276-7151
Wash Electronic Sales, 5600 California Ave
Seattle 932-0330
Can Anbak Sales, Box 101
Ile Perrot Sud Que 453-6375
Can Anbak Sales, 3208 Lenworth Dr
Cooksville, Ont 625-1061
For Southern Intl Sales, Box 1896, San Juan P R
For O Rieger, Marxergasse 10, Vienna Aus 734684
Den E V Johanssen A/S, 1 Scherfigsvej, Copenhagen
Fr Young Electronics, 9 Bis 11 Rue Roguepine
Paris 8e 265-8500
Fr Electronique M S, 7 Rue Valentin-Hawy
Paris 7837090
Fr France Nucleaire Electronique, 125 Rue de Rome
Paris 2275422
Ger Neumuller & Co GMBH, 8 Munich 2
Karlstr 55 592421
Ger E Sommer, 6 Frankfurt am Main 1
Johnstr 43 550289
GB Walmore Electronics Ltd, 11 Betterton St Drury La
London .... TE 0201
Holl Koning en Hartman N V, Koperwerf 30
's- Gravenhage 678380
Ital Guiseppe de Mico, Via Manzoni 31
20121 Milano 653131
Jap Midoriya Electric Co, 3,-2-Chome
Kyobashi Chuo-Ku Toyko 561-8851
Nor M Foyn, Rosenkrantzgate, Oslo
Swed Aktiebalaget Elektroholm, Dalvager 12, Fack Lolna
Belg J P Lemaire, 134 Blvd Leopold II
Brussels 258739
Aust Adelaide Pty Ltd, 189 Flinders St
Adelaide 23-1922

NATIONAL SONICS CORP, 43 MILBAR BLVD
FARMINGDALE, N Y, 11735 .... 516 694-5110
N POULIS, EMP 20, ENG 5, $500-$1,000M
Ala Roy Steckmesser Assoc, 816 Esslinger Rd
Huntsville 881-1750
Ariz J T Aldrich Co, Box 1299, Scottsdale 945-8598
Ark Johnson & Scott, 1425 Garland Ave
N Little Rock 753-5600
Cal Smith-Jesse, 500 S Hauser Blvd
Los Angeles 931-9451
Cal Sara Sales, Box 321, San Francisco ..... GA 1-3172
Colo Automatic Control & Equip Co, 5750 Pecos St
Denver 433-6436
Fla Gulf Instru Assoc, 1625 Ave E, NE
Winter Haven 293-7308
Ill Pro-Quip Inc, 418 Shawmut Ave
La Grange 352-3121
La Williams Equip Co, Box 35, Metairie 835-9417
La Williams Equip Co, Box 355
Batan Rouge 344-4162
Md W H Cooke & Co, 1440 S Charles St
Baltimore 752-3867
Mass Pump Equip & Engrg Co, 79 Prospect St
Somerville .... MO 6-4444
Mich Robt H Jackson Co, 10534 Ludlow Ave
Huntington Woods .... LI 2-5059
Mo Alfred Cliedt, 10869 Spring Garden Dr
St Louis .... UN 8-7445
NJ W Tyson, 55 E Edsall Ave
Palisades Pk 945-7669
NY Shorts Tech Sales Co, Box 284
Orchard Park 662-7290
NC Robert W Chapman & Co, Box 4330
Charlotte 375-4495
Ohio Thorrat & Hammer, Box 2945
Rocky River 333-5950
Ohio Chemical Plant Equip, Box 15311
Cincinnati 821-4600
Ore W F Kelly, 2734 SW Greentree
Lake Oswego 222-9748
Pa Fogleman Co, Inc, 3849 Willow Ave
Pittsburgh 531-4005
Pa Kohl Equip Co, Box 107, Wayne .... MU 8-9550
Tenn Johnson & Scott, Box 12364, Memphis ... 324-3582
Tenn L E Dotts Assoc, 7935 Corteland Dr
Knoxville 588-7878
Tenn Johnson & Scott, 104 Burrus Ave
Hendersonville 824-6658
Tex Hallum Control Equip Co, Box 6446
Odessa .... FE 7-0901
Tex Tech-Controls Inc, Box 6151, Pasadena ... 473-1728
Wash Fairman B Lee Co, Box 66099, Seattle .. CH 4-7262
W Va Fogelman Co Inc, 401 4th Ave
S Charleston 744-5324
Wis Simone Engineering Inc, 4962 N Hopkins St
Milwaukee 463-4870
Can Brian Engineering Ltd, 2445 Duncan Rd
Montreal 9 735-1571
Can Brian Engineering Ltd, 45 Shaft Rd, Rexdale Ont
For Wallach-Gracer Export Corp, Empire State Bldg
New York .... LO 4-5490

NATIONAL SPECIALTIES CO INC, 1902 HOWELL ST
FORT WAYNE, IND, 46808 .... 219 422-9012
D GUMBERT, EMP 5, ENG 1, UP TO $100M

NATIONAL STANDARD CO, 601 N 8TH ST, NILES
MICH, 49120 .... 616 683-8100
R ELDER, EMP 700, ENG 50, OVER $10,000M

NATIONAL STEEL SERVICE CENTER INC
2424 OAKTON ST, EVANSTON
ILL, 60202 .... 312 262-6700
EMP 400, ENG 1
Iowa Natl Steel Service Ctr, 1300 Scott St
Des Moines 288-3341
Mich Natl Steel Service Ctr, 14841 McNichols Rd
Detroit 835-3838
Minn Natl Steel Service Ctr, 3225 Como Ave SE
Minneapolis 331-4300
Ohio Natl Steel Service Ctr, 11150 Southland Rd
Cincinnati 825-8550
Ohio Natl Steel Service Ctr, 5100 W 164th St
Cleveland 257-1373
W Va Natl Steel Service Ctr, Hamilton Rd
Weirton 748-8520
Wis Natl Steel Service Ctr, 7550 S 10th St
Oak Creek 764-4200

NATIONAL TECHNOLOGY, INC, 220 W CENTRAL AVE
SANTA ANA, CAL, 92707 .... 714 546-6186
D STOPHEL, EMP 125, ENG 12, $1,000-$2,500M

NATIONAL TELEVISION TUBE INC, ROUTE 46
SADDLE BROOK, N J, 07662 .... 201 478-5900
G DALED, EMP 20, ENG 2, $250-$500M
NJ Natl Television Tube, Inc, 384 Lexington Ave, Clifton

NATIONAL TEL-TRONICS CORP, 55 NORTHERN BLVD
GREAT NECK, N Y, 10702 .... 516 466-5100
L VALLE, EMP 150, ENG 2, $1,000-$2,500M
ADV PG 362, 481, 482, 696
Cal Shephard-Winters-Stern Co, 4109 Burbank Blvd
Burbank 849-6671
Cal L H Harriss Co, 204 E Hillsdale Blvd
San Mateo 341-2909
Fla Sproch Sales, Inc, 3520 W Broward Blvd
Ft Lauderdale 587-3792
Ill Rozner Sales Co, 4720 N Central Ave
Chicago .... Av 3-0022
Ind McNabb-Brase & Assoc, R R 1, La Otto .. 897-4581
Ind McNabb-Brase & Assoc, 4002 Meadows Dr
Indianapolis 545-8167
Mass H Mandell Co, Box 24, Revere 284-5623
Minn Heimann Co, Inc, 5603 Lyndale Ave, S
Minneapolis 827-5457
NY Marsey Sales Co, 206 Park Ave
Rochester 442-9700
NY Milton Ross Assoc, 38 E Main St
Elmsford 592-7940
Ohio John O Olsen Co, 16201 Shaker Blvd
Cleveland 752-5444
Pa R J Cooper, 2928 Sandyford Ave
Phila .... MA 4-5486
Tex Dunbar Assoc, 417 Meadows Bldg
Dallas .... Em 3-2536
Wash M K Widdekind Co, 815 W Ewing St
Seattle .... AT 4-8020
For Manrep Corp, 1999 NE 150th St
N Miami Beach, Fla 949-3457

NATIONAL TIME & SIGNAL CO, 21800 WYOMING
DETROIT, MICH, 48237 .... 313 JO 4-6281
J GUAY, EMP 38, ENG 2, $500-$1,000M
Ill Weldon Eng Co, 5 N Broadway
Des Plaines 299-7701
Ind Weldon Eng Co, 2060 E 54th
Indianapolis .... CL 5-5414
Ind Weldon Eng Co, 7315 Harold Dr
Ft Wayne .... TE 4-5550
NY Natl Time Recording Equip Co, 62 Reade St
New York .... BA 7-3310
Ohio Concord Sales, 2830 Concord Ave
Cleveland 831-1446
Can National Time & Signal Co, Box 42
Agincourt 421-0616

NATIONAL UNION ELECTRIC CORP ELECTRONICS DIV
1201 E BELL ST, BLOOMINGTON
ILL, 61701, TWX 510 352-2170 .... 309 967-6041
E EWALD, EMP 40, ENG 10
Ariz R A Strassner Co, 55 E Thomas Rd
Phoenix 602 277-3921
Cal R A Strassner Co, 3112 Los Feliz Blvd
Los Angeles 666-4040
Cal R A Strassner Co, 885 N San Antonio
Los Altos 948-3334
Mass K C Stevens & Co, 140 E Main St
Lexington .... VO 2-1812
NY Andrews & Andrews Inc, 140 E Main St
Huntington .... MY 2-8686
Can Munro Elctn Components, 67 Portland St
Toronto Ont 416 363-0438

NATIONAL VIDEO CORP, 4300 W 47TH ST, CHICAGO
ILL, 60632, TWX MFW 312 254-5600
R SCOTT, EMP 2000, ENG 75, OVER $10,000M

NATIONAL WATER LIFT CO, INSTR & CONTROL OPER
3000 KRAFT AVE SE, GRAND RAPIDS
MICH, 49501, TWX 810-273-6918 .... 616 949-2150
J PHILLIPS, EMP 170, ENG 10, OVER $10,000M
Cal Natl Water Lift Co, 1301 E El Segundo Blvd
El Segundo 772-3495
DC Natl Water Lift Co, 1730 Rhode Island Ave NW
Washington 202 293-2093
Ga Natl Water Lift Co, 1208 Roswell St NE
Marietta 404 422-2148
Mich Natl Water Lift Co, 2220 Palmer Ave
Kalamazoo 616 345-8641
Mo Natl Water Lift Co, 6050 Brown Rd
St Louis 314 524-3348
NJ Natl Water Lift Co, 50 Franklin Tpk
Hohokus 201 447-1516
Ohio Natl Water Lift Co, 11465 Springfield Ave Pike
Cincinnati 513 771-0491
Wash Natl Water Lift Co, 400 108th St
Bellevue 206 454-8288

NATIONAL WIRE & CABLE CORP
136 SAN FERNANDO RD, LOS ANGELES
CAL, 90031, TWX 910-321-4155 .... 213 225-5611
J MILLER, EMP 75, ENG 3, $1,000-$2,500M
Ariz AR/TEC Inc, Scotsdale 602 947-6304
Cal S G Dawson, San Diego 714 278-9260
Cal P O Weston, San Mateo 415 344-3066
Colo Franklin Sales Co, Denver 303 757-1371
Conn Vector Sales Inc, Monroe 203 261-2212
Ill Scott Assoc, Elmhurst 312 279-5681
Kan Inland Assoc, Mission 913 362-2366
Md Faion Lott Co, Glen Burnie 301 744-4611
Mass Vector Sales Inc, Belmont .... 617 Vi 9-1400
Minn Technical Assoc, Minneapolis 612 929-6721
NJ John W Richardt Co, Pine Brook 201 227-0600
NY J A Gehrs Assoc, Rochester .... 716 Gr 3-2330
Ohio Orr Assoc, Cleveland .... 216 TU 5-1324
Pa Howard J Fairbanks Co
Wynnewood .... 215 Mi 2-5186
Pa R M Davis, Pittsburgh 412 341-6611
Tex John H Gibbs Assoc, Fort Worth .... 817 Ax 2-1065
Utah Peirce H Bowthorpe Agnecy
Salt Lake City 801 328-4513

NATVAR CORP, 211 RANDOLPH AVE, WOODBRIDGE
N J, 07095, TWX 710-965-5860 .... 201 388-8800
L BELLINGHAM, EMP 175, ENG 14, $2,500-$5,000M
Ariz Electrical Specialty Co, 120 S 29th St
Phoenix 275-5739
Cal Electrical Specialty Co, 2820 E 12th St
Los Angeles 269-9511
Cal Electrical Specialty Co, 213 E Harris Ave
San Francisco 589-9611
Colo Electrical Specialty Co, 2026 Arapahoe St
Denver 244-4588
Conn E F Bosse, 48 Sanford La, Stamford 322-2026
Fla Hi-Co Assoc, Box 1317, Winter Park 647-5030
Ill W Maxwell Co, 1222 W Morse Ave
Chicago .... BR 4-3164
Ind C Dykema Agency, 2701 W 16th St
Indianapolis .... ME 9-02025
Mass Earl B Beach Co of N E, 15 Crane Ct
Woburn 617 935-3150
Mich C & R Assoc, 939 Rivenoak
Birmingham .... MI 6-8792
Minn D A Schultz Co, 801 Southeast 8th St
Minneapolis 339-7701
Mo J F Shekelton, 11726 Sappington Barracks Rd
St Louis .... VI 3-0203
NJ L K Detwiler, 443 Broad St, Newark 621-9080
NY Hansen Sales Assoc, 1800 Penfield Rd
Penfield .... DU 1-2800
NC Manufacturers Sales Co, Box 20005
Greensboro 274-1401
Ohio C J Voneman Co, 18522 Detroit Ave
Cleveland 221-2800
Ohio C J Voneman Co, 2801 Far Hills Ave
Dayton 299-5161
Ore Electrical Specialty Co, 2360 NW Quimby St
Portland 227-3601
Pa I R Blair, 123 S Main St, North Wales ... 699-5756
Pa C H McCullough, 418 1st Ave
Pittsburgh 391-1887
Tex Southern Elec Sales, 4320 Main St
Dallas 214 827-8891
Tex Cline Supply Co, Box 1267
Arlington .... 817 CR 4-7371
Wash Electrical Specialty Co, 2442 1st Ave S
Seattle .... MU 2-3434
Can E W Playford Ltd, 5851 Upper Lachine Rd
Montreal Que 489-5383
Den A/S E Friis-Mikkelsen, 51 Krogshojvej Bagsvaerd
Copenhagen 98 63 33
Fr P Barnier SA, 9 Rue Ed Branly, Valence Drome
Holl NV Elec Maatschappij Electr, Box 301, Rotterdam
Nor C Bagges Asbestkompani A/S, Radhusgt 6, Oslo
SAfr W R Burnett Pty Ltd, Box 358
Johannesburg 32-6624
Swed AB Materiel-Importen, Fagelbacksgatan 11E
Malmo V 77255
Swit Micafil Ltd, Box Zurich 8048zurich, 051/62/52/00

NAUGLER ENGINEERING INC, OFF DUNHAM RD
BEVERLY, MASS, 01915 .... 617 922-5634
C OSBORN, EMP 7, ENG 2, UP TO $100M

NAVIGATION COMPUTER CORP
VALLEY FORGE IND PARK, NORRISTOWN
PA, 19401, TWX 510-660-4234 .... 215 666-6531
J FINERFROCK, EMP 101, ENG 10, $1,000-$2,500M
Cal Navigation Computer Corp, 15551 Cabrito Rd
Van Nuys 787-7223
Cal R J Homer & Assoc, 14436 Sherman Way
Van Nuys 781-1236
Md Tek Rep, Inc, 1075 Rockville Pike
Rockville 762-7777
Tex Texas Avionics Co, 4515 Prentice St
Dallas .... Em 3-6324

NAYBOR LABORATORIES INC, E V
26 MANORHAVEN BLVD, PORT WASHINGTON
N Y, 11050 .... 516 767-4300
E NAYBOR, EMP 12, ENG 1, UP TO $100M
Ariz Central Station Equip Co, 2323 Aviation Hwy
Tucson 623-2493
Cal R L Assoc, 14401 Gilmore St, Van Nuys
NJ Ballou, Inc, Box 306, Ridgewood 444-6990
For Allied Intl Corp, 230 Park Ave
NY, NY .... MU 9-6126

NAZ-DAR CO, 1087 N NORTH BRANCH ST, CHICAGO
ILL, 60622 .... 312 943-8338
J NICKELS, EMP 50, $1,000-$2,500M
Cal Naz-Dar Co of Cal, 756 Gladys Ave
Los Angeles .... MA 7-4701
Mich Naz-Dar Co of Mich, 12800 Woodrow Wilson
Detroit .... TO 5-2600
NY Naz-Dar Co of NY, 33 Lafayette Ave
Brooklyn .... UL 5-3388
Can Naz-Dar Can Ltd, 925 Roselawn
Toronto .... RU 7-1261

NEBEL LAB, R E, 31 WHITEHALL BLVD, GARDEN CITY
N Y, 11530 .... 516 741-6603
R NEBEL, ENG 1

NEFF INSTRUMENT CORP, 1088 E HAMILTON RD
DUARTE
CAL, 91010, TWX 910-585-1833 .... 213 357-2281
R MYERS, EMP 25, ENG 4, $250-$500M
Ala W A Brown & Assoc, 1314 Buford St NW
Huntsville 539-6884
Ariz Vinson Assoc, 44 E Indian School Rd
Scottsdale 947-7371
Colo Vinson Assoc, 3600 S Lincoln
Englewood 789-2203
Fla W A Brown & Assoc, 222 Weber Ave
Orlando 425-5505
Ga W A Brown & Assoc, 1590 Cooledge Rd NW
Tucker 939-1674
Kan Technical Representatives, 6814 Farmview La
Wichita 682-4140
Mass Andruss-Peskin Corp, Box 268, Natick 653-3919
Mich Satullo Co, 4514 N Woodward Ave
Royal Oak .... JO 6-2375
Mo Technical Representatives, 7049 Lauper La
Hazelwood 521-1000
NM Vinson Assoc, Box 3295, Albuquerque 298-7442
NY Doolittle Electronics, Box 97
Fayetteville 637-3222
NY Lindgren Assoc, Inc, Box 473
Huntington Sta 261-7937
NC W A Brown & Assoc, 1108 Burke St
Winston-Salem 725-5384
Ohio Satullo Co, 16801 Euclid Ave
Cleveland .... IV 6-2800

NEICO MICROWAVE CO, 211 SECOND AVE, WALTHAM
MASS, 02154 .... 617 899-3535
R RANSLOW, EMP 45, ENG 4, $1,000-$2,500M
Cal Blair Assoc, 421 N Brookhurst St
Anaheim 635-1350
Cal Kipp Assoc, 90 Stadler Dr
Woodside 415 851-0123
Ill Technical Devices, Inc, 6416 N Central Ave
Chicago 774-8252
Md Stemler Assoc, 6707 Whitestone Rd
Baltimore 301 944-8262
NJ Stemler Assoc, Box 287
Cherry Hill 609 966-4070
NY Manufacturers Reps Inc, 55 Central Ave
Farmingdale 516 293-9696
NY Syracuse Technical Reps, Box 47
Syracuse 315 488-0222
Ohio McShane, 114 Trails End Dr, Medina 725-4283
Tex Parvin Sales Co, Box 307, Addison ... 214 363-6822
Den Tage Olsen A/S, 1 Ronne Gade, Copenhagen
Fr Radio Antares Equip
9 Rue Ernest Cognacq 92 Levallois-Perret, Paris
Ger Wacker GmbH, 6 Frankfurt/Main, 9 Stettenstr
GB Roberts Elctns Inc, 17 Hermitage Rd, Hitchin Herts
Ital Metroelettronica, Viale Cirene N 18, I-20135 Milan

NEILL ENGINEERING CO, OLD TOWN RD
EAST HARTLAND, CONN, 06027 .... 203 653-2591
G NEILL, EMP 7, ENG 2, UP TO $100M

NELCO PRODUCTS INC, 1100 E KIMBERLY AVE
ANAHEIM
CAL, 92801, TWX 910 592-1271 .... 213 697-1724
R DILLON, EMP 50, ENG 3, $1,000-$2,500M
Cal Nelco Prods, 1400 Coleman Ave
Santa Clara 402 248-8546
Tex K & L Sales Co, 5521 Maple Ave
Dallas .... 214 ME 1-0566

NELSON ELECTRONIC LABS INC
1717 DALLAS N PKWY, PLANO
TEX, 75074 .... 214 AD 5-1217
R PEARCE, EMP 40, ENG 2, $500-$1,000M
Tex Nelson Electronics Labs Inc, 4223 Richmond Ave
Houston .... MO 6-1914

NELSON-HERSHFIELD ELECTRONICS CO
1848 W CAMPBELL AVE, PHOENIX
ARIZ, 85015 .... 602 264-1348
L BUSHKIN, EMP 22, ENG 3, $500-$1,000M

NELSON-ROSS ELECTRONICS INC, 5-05 BURNS AVE
HICKSVILLE, NY, 11801 .... 516 GE 3-2730
L WEINER, EMP 28, ENG 5
Ala Technical Assoc, Box 4088, Huntsville 881-8494

Alas Hoffer Enterprises, 129 Fifth Ave Anchorage 279-3793
Cal R F Assoc, 1621 Pontius Ave Los Angeles 478-1586
Cal R F Assoc, 800 San Antonio Rd Palo Alto 327-5531
Fla Technical Assoc, 2319 E South St Orlando 424-5681
Ill Loren F Green & Assoc, 5218 W Diversey Ave Chicago 286-6824
La Technical Assoc, Box 731, Slidell 288-7122
Md S & S Assoc, 7720 Wisconsin Ave Bethesda 654-2420
Mass Microwave Consultant Corp, 195 West St Waltham 899-4400
Mich Tiby Co, 380 Hilton Rd, Ferndale 547-3550
Minn Loren F Green & Assoc, 6225 University Ave NE Minneapolis
NJ Central Assoc, 44 N Dean St Englewood 568-0808
NY M P Andrews Inc, 319 Mott Rd Fayetteville 637-3144
NY Central Assoc, 11 Commercial St Plainview 433-0808
Ohio Tiby Co, 2245 Warrensville Ctr Rd Cleveland 371-5335
Ohio Tiby Co, 1960 N Main St, Dayton 277-3822
Pa S & S Assoc, Boro Line Rd King of Prussia 265-3450
SC Technical Assoc, Box 5583 Spartanburg 585-3846
Tex Data Engineering Corp, 5641 Yale Blvd Dallas 363-9351
Tex Data Engrg Corp, 2120 S Post Oak Rd Houston 622-2820
Can Electronetic Sys Ltd, 62 Alness St Downsview, Ont 636-3673
Can Electronrtic Systems Ltd, 6420 Victoria Ave Montreal, Que 737-2744
For Akhtar Trading Corp, McLeod Rd Karachi 2 Pak 223156
For Telectra, Rua Rodrigo Da Fonseca 103 Lisbon 1 Port 686072
For Sun Moon Star Co, 81 Nei-Chiang St Taipei Tai ..... 32111 & 32112
For Suha Fazli Taylan Orak Posta Kutusu Beyoglu 291 Cumhuriyet Cad 14-11 Istanbul Turk 486870
Fr Technique et Produits, Cite des Bruyeres 92 Sevres 626 02 35
Ger Neumuller & Co GmbH, Karlstr 55 8 Munchen 2 592421
GB M L W Assoc, 31 Queen Anne's Gate London SW 1 ..... (01) 930 9711
Holl Air-Parts Int'l NV, 149 Haagweg Ryswyk ZH 989890
Jap Midoriya Electric Co Ltd, 3 2-Chome Kyobashi Chuo-ku Tokyo 561-8851
SAfr Westbell Electronics Pty Ltd, Box 453 Johannesburg 23 9947/9
Swed M Stenhardt AB, Grimstagatan 89 Stockholm-Vallingby 87 02 40
Belg Inelco Inc, 20-24 Rue de L'Hopital Bruxelles 1 ..... 11 22 20
Belg Technique et Produits, 16 Rue Marcq Bruxelles 02 18 76 74
Ind Electronic Enterprises, New Charni Rd Bombay 4 353069-375376
Isrl Racom Electronics Ltd, 74 Nordau Blvd Tel-Aviv 443244
Fin Nores & Co OY, Fabianinkatu 32 Helsinki 10 13360
Aust R J T Payne Pty Ltd, 385-387 Bridge Rd Richmond Vict 421416

NELSON VACUUM PUMP CO, 2133 4TH ST, BERKELEY
CAL, 94710 ..... 415 TH 8-2277
D WEBB, EMP 6, ENG 1, $500-$1,000M

NEOTEC CORP, 640 LOFSTRAND LA, ROCKVILLE
MD, 20850 ..... 301 762-8900
K WITT, EMP 100, ENG 25, $500-$1,000M

NEPTUNE ELECTRONICS CO, 30 W 15TH ST
NEW YORK, N Y, 10011 ..... 212 CH 3-8130
I AFFIAS, EMP 20, ENG 1, $250-$500M

NESHAMINY ELECTRONIC CORP
EDISON-FURLONG RD, FURLONG
PA, 18925 ..... 215 794-7411
P KLEIN, EMP 120, ENG 3, $1,000-$2,500M
Cal Dorr Wagner Assoc, 2512 N Lake Ave Altadena ..... MU 1-4060
Md Lee Cohen, 107 York Rd, Towson 825-1335
NJ Thomas Assoc, Inc, 138 Haddon Ave Haddonfield ..... UL 4-3011
NJ A Wetterhahn Co, Inc, 4420 Crescent Blvd Pennsauken 662-1611
NY Wilson H Zimmerman Inc, 112 Dewitt St Syracuse ..... GR 4-4889
Tex Texas Spcl Elctns Components 8530 S Braeswood Blvd, Houston 774-9461

NESOR ALLOY CORP, 666 PASSAIC AVE
WEST CALDWELL, N J, 07006 ..... 201 228-0400
M FELDMAN, EMP 160, $2,500-$5,000M
Ariz E J Foley & Assoc Inc, 3840 N Jokake Dr Scottsdale ..... WH 5-4290
Cal Allan Davis Assoc, 1907 Valleta Dr San Pedro 547-1288
Mass Fred Arenstrup, 250 Hudson Rd Sudbury ..... HI 3-2992

Mich E H Cox Agency, 939 Ribenoak Birmingham ..... MI 6-8792
NJ D & R Assoc, 248 Lorraine Ave Upper Montclair 744-8378
Pa RHB Sales Co, 95 Carpenter St Belleville 759-8839
Tex R S Marston Co, 1202 Spruce Dr Richardson ..... AD 5-3577

NETWORK INDUSTRIES INC, 39 EVERGREEN ST
BAYONNE, N J, 07002 ..... 201 437-3929
A MERCER, EMP 21, ENG 3, $250-$500M

NETWORKS ELECTRONIC CORP, 9750 DESOTO AVE
CHATSWORTH
CAL, 91311, TWX 910-494-1225 ..... 213 341-0440
L MAY, EMP 178, ENG 19
Minn Stack-Johnson, Inc, 4501 Minnetonka Blvd Minneapolis 920-4933
Mo J D McCarthy, 7380 Westmoreland St Louis 727-4550
Mo C Rues, 635 E 74th St, Kansas City 333-6012
NJ Gray Williams Assoc, 18 Washington Ave Haddonfield 429-5300
Ohio C H Dolfuss Jr & Co, E 21st & Payne Ave Cleveland 771-1270
Aust Austronics engrg Labs, 62 Queensberry ST Carlton, Vic

NEUTRONIC ASSOCIATES, 4 HAWTHORNE ST
FARMINGDALE, N Y, 11735 ..... 516 CH 9-3214
C HERNANDEZ, EMP 10, ENG 1

NEWARK WIRE CLOTH CO, 351 VERONA AVE
NEWARK
N J, 07104, TWX 201-621-7995 ..... 201 483-7700
P MCGUIRE JR, EMP 150, ENG 2
Ala Industrial Sales Engrg Corp, Drawer 7485 Birmingham 871-9931
Ariz Pacific Metals Co, 705 W Jefferson St Phoenix 258-7821
Cal Pacific Metals Co, 2187 S Garfield Ave Los Angeles 723-5431
Cal Pacific Metals Co, 1900 3rd St San Francisco 863-5600
Cal Pacific Metals Co, 1248 K St San Diego 234-3253
Conn C L Foley, 448 Willard Ave, Newington 666-5980
Ga Consolidated Engineering Co, 38 Old Ivy Road NE Atlanta 237-1606
Ill Simmonds-Folkening Co, 165 N Canal St Chicago 236-5242
Mich John Barry, 3744 Estates Dr, Troy 642-3670
Mo H D Burke & Son, 210 S Bemiston Ave St Louis 863-5562
NY Metallic Operations Inc, 14 W Buffalo St Warsaw 796-3480
Ohio Hare Equipment Co, 1720 Section Rd Cincinnati 631-4703
Pa W E Green, 2110 Stackhouse Dr Yardley ..... CY 5-6100
Pa Bowman Co, 56 Oakhurst Cir Pittsburgh 781-5949
Tex Fischer Co, Box 19071, Houston ..... HO 5-5110
Utah Pacific Metals Co, 939 S 6th W Salt Lake City 328-2222

NEW-BERG LEATHER PRODUCTS CO
61 GREENPOINT AVE, BROOKLYN
N Y, 11222 ..... 212 EV 38282
P NEWDOW, EMP 130, ENG 2, $1,000-$2,500M
Ill L G Bacher Assoc, 9690 W Allen Ave Rd Des Plaines 678-1820
NY R E Breuer Co, 1 Barston Rd Great Neck 516 466-3030

NEWCOMB AUDIO PRODUCTS CO
12881 BRADLEY AVE, SYLMAR
CAL, 91342 ..... 213 367-1921
R NEWCOMB
Ala M F Taylor Co, 2328 3rd Way NE Birmingham 853-3673
Cal W J Purdy Co, 312 7th St San Francisco ..... UN 3-3300
Colo Norris & Co, 915 Cheyenne Blvd Colo Springs 635-9319
Fla M F Taylor Co, 940 Lake Elbert Dr Winter Haven ..... CY 4-2941
Fla M F Taylor Co, Box 458, Casselberry 838-0821
Ill J H Kleker Co, 177 Sunset Ave Glen Ellyn ..... HO 9-2297
Iowa Kelly-Schmitz-Winkeler Assoc, 3831 W 43rd St Des Moines 279-9235
Md M F Taylor Co, 9431 Georgia Ave Silver Spring ..... JU 9-4002
Md Morris F Taylor Co, 9500 Buckhorn Rd Baltimore 668-9054
Mass A Reinherz, 59 Hamilton Rd, Belmont 484-7784
Mich Shalco Inc, 23529 Woodward Ave Ferndale ..... LI 7-4771
Mich Shalco Inc, 5364 Kimball Ave SE Grand Rapids ..... CH 5-8762
Minn S C Olsen, 6121 Excelsior Blvd Minneapolis 929-6121
Mo Kelly-Schmitz-Winkeler Assoc, 7546 Troost Ave Kansas City ..... EM 3-5651
Mo Kelly-Schmitz-Winkeler Assoc, 2319 Hampton Ave St Louis ..... ST 6-6111
NJ M F Taylor Co, Box 23, Marlton ..... MA 2-0383
NY H N Reizes, 1473 Sylvia La East Meadow ..... IV 3-1928

NY L J McTaggart Assoc, 2451 Wehrle Dr Buffalo ..... NF 4-2030
NC M F Taylor Co, 1224 Dresden Dr W Charlotte 537-4878
Ohio K White Assoc, 465 E Hanley Rd Mansfield 756-3363
Pa M F Taylor Co, 201 Penn Center Blvd Pittsburgh 823-8400
Pa M F Taylor Co, 105 9 Richland La Camp Hill 233-3112
Pa Morris F Taylor Co, 3100 Grant Ave Philadelphia 622-0383
Tex Crockett Sales Co, 2204 Griffin St Dallas ..... RI 8-8209
Tex Crockett Sales Co, 7922 Braesdale Houston ..... PR 4-2677
Wash Electronic Sales Corp, 5606 Calif Ave Seattle 932-0330

NEW DEPARTURE-HYATT BEARINGS DIV GMC
2509 HAYES AVE, SANDUSKY
OHIO, 44870 ..... 419 626-2120
EMP 1000
Ariz G C Leclair, 44 E Indian School Rd Scottsdale ..... WH 6-8232
Cal D L Clark, 3650 S Broadway Los Angeles 233-5101
Cal R B Rubsamen, 235 W Mac Arthur Blvd Oakland 654-5350
Ill J S Besemer, 2204 41st St, Moline 762-7797
Ill J P Keane, 1301 22nd St, Oak Brook 654-1580
Ind A W Edmond, 320 N Meridian St Indianapolis 635-5374
Me E H Goodridge Jr, 886 Washington St Dedham 326-8778
Mich M J Pattyn, 5-261 Gen Motors Bldg Detroit ..... TR 2-4700
Minn R R McNamara Jr, 7100 France Ave S Minneapolis 922-9441
Mo E J Mueller, 500 Northwest Plaza St Ann-St Louis ..... PE 9-0500
NJ H C Henry, 1300 Raritan Rd, Clark 382-6600
NY T H Adams Jr, 753 James St Syracuse ..... GR 2-5121
NC R E Honeycutt, 1051 E Morehead St Charlotte 376-6566
Ohio R E Lutz, 1720 Section Rd, Cincinnati 631-3020
Ohio J Lee, 20950 Center Ridge Rd Cleveland ..... ED 1-3525
Pa A Curtis, Jr, Box 775, Devon 688-5411
Wis J T Baker, 2040 W Wisconsin Ave Milwaukee 933-3813
Can R & M Bearings Can Ltd, 5385 Pare St Montreal, Que 342-1490

NEW ENGLAND INSTRUMENT CO, KENDALL LN
NATICK
MASS, 01760, TWX 710-346-0398 873-9711
P BURNS, EMP 300, ENG 30, $2,500-$5,000M
Ala W A Brown & Assoc, 1314 Buford St NW Huntsville 539-6884
Ariz Compar Rocky Mtn, 84 W First St Scottsdale 947-4336
Cal J S Heaton Co, 3695 Haven Ave Menlo Park ..... EM 9-4671
Cal El-Com Sales Co, 3600 Motor Ave Los Angeles 870-4707
Colo Compar Rocky Mtn, 300 E Hampton Ave Englewood 781-0912
Fla W A Brown & Assoc, 222 Weber Ave Orlando 425-5505
Ga W A Brown & Assoc, 1590 Cooledge Rd, NW Tucker 939-1674
Ill J Popp, 5719 W Chicago Ave, Chicago 261-7423
Iowa H B Kirkland, 286 Tomahawk Tr SE Cedar Rapids 363-6425
Md Daniel & Co, Box 124, Lutherville ..... VA 5-3330
Mass Underwood Sales, 32 Shawsheen Plaza Bedford 275-0780
Mich Tri-State Marketing, Inc, 3220 Broadway Fort Wayne 219 456-3567
Minn Chas E Bohlig Co, Box 8095 Minneapolis 612 922-7011
Mo J C Mankus & Assoc, 400 Brookes La Hazelwood 731-4334
NJ R Horne Assoc, 2282 Hamburg Tpk Wayne 835-7400
NM Compar Rocky Mtn, 2125 San Mateo Blvd, NE Albuquerque 265-1020
NY Bob Dean Inc, 714 W Clinton St Ithaca 607 272-2187
NC W A Brown & Assoc, 1108 Burke St Winston-Salem 725-5384
Ohio Tri-State Marketing, Inc, 1717 Section Rd Cincinnati 631-5060
Ohio Tri-State Marketing, Inc, 25000 Euclid Ave Cleveland 731-9207
Pa Daniel & Co, Box 3, Glenside 887-0550
Tex G W Delzell & Assoc, Box 35093 Dallas ..... FL 1-1839
Wash Associated Industries Inc, 3711 S Hudson St Seattle 723-5600
Can Kaytronics Engineering, 5800 Monkland Ave Montreal 28, Que 489-9335
Can Kaytronics Engineering, 1001 Finch Ave W Downsview, Ont 638-5511
For Dage Corp, 757 Main St, Stamford 324-3123

NEW ENGLAND LAMINATES CO INC, 481 CANAL ST
STAMFORD
CONN, 06904, TWX 710 474-2492 ..... 203 324-4181
G WEINER, EMP 125, ENG 10
Cal Nelco Products Inc, 1100 E Kimberly Ave Anaheim 213 879-4293
Fla Repco Sales, Box 38-1164, Miami 305 757-2911

Ill New Eng Laminates Co, Inc, 4030 N Rockwell Ave Chicago 312 583-4499
Mass New Eng Laminates Co, Inc, 822 Boston Rd Billerica 617 667-6321
Mich Plastronics, Inc, 565 E Milwaukee Ave Detroit 313 872-7044
Minn Xylem Co, 322 S Fourth St Minneapolis 612 335-5205
NC L & D, Inc, Box 7243, Greensboro ... 919 292-3201
Pa S R Assoc, 465 Pinewood Rd Philadelphia 215 676-4743
Tex K & L Co, 5521 Maple Ave, Dallas .. 214 631-0566
Can Ampel Electronics Sales Ltd, 489 Champagne Dr Downsview, Ont 416 635-8783

NEW ENGLAND OVEN & FURNACE CO INC
385 BOSTON POST RD, ORANGE
CONN, 06477 .... 203 799-2005
R KELLY, EMP 20, ENG 3, $250-$500M
NJ Richards Assoc, Box 733, Wayne 201 696-4100
NY Owens & Co, Milford Bldg Skaneateles 315 685-5771
Tex Jennings Sales Co, 9923 Mill Trail Dr Dallas .... 214 DI 1-1115
Va Sloan Assoc, 4828 Morrison Rd Richmond 703 358-4115

NEW ENGLAND RETINNING INC, 158 TREMONT ST
EVERETT, MASS, 02149 .... 617 387-2100
E BLAKELOCK, EMP 40, ENG 2, $250-$500M

NEW ENGLAND TRANSFORMER CO INC
55 CHAPEL ST, NEWTON
MASS, 02195 .... 617 244-6055
H MORRIS, EMP 60, ENG 4, $500-$1,000M

NEW HAMPSHIRE BALL BEARINGS INC
PETERBOROUGH
N H, 03458, TWX 710 364-1805 .... 603 924-3311
T KANELL, EMP 1050, ENG 51, OVER $10,000M
Cal N H Ball Bearings Inc, 6315 Arizona Pl Los Angeles 776-5330
Ill N H Ball Bearings Inc, 27 N Broadway Des Plaines 827-6646
NH N H Ball Bearings, Inc, Jeffrey Rd Peterborough 924-3311
NY N H Ball Bearings Inc, 550 Old Country Rd Hicksville 938-2011
Tex N H Ball Bearings Inc, 7305 Grapevine Hwy Ft Worth 817 281-6640

NEW HERMES ENGRAVING MACHINE CORP
20 COOPER SQ, NEW YORK
N Y, 10003 .... 212 777-3080
H SUSSKIND, EMP 75
Alas E Schwab, 12th & Gambell, Anchorage 55735
Cal K J Flamm, 4665 Melrose Ave Los Angeles 665-4141
Cal J Domito, 77 El Toyomal, Orinda
Colo Mine & Smelter, 3800 Race St Denver .... CH 4-4353
Fla J George, Box 423, Pinellas Park 544-4348
Kan J J Ricketson, Box 161 Shawnee Mission .... RA 2-4246
Mich M Davis, 1163 Champaign St Lincoln Park .... DU 3-6307
Minn Bader Tool Sales, 2506 1/2 Chicago Ave Mnpls .... FE 8-2218
Mo McLeod Machinery, 4449 Manchester Ave St Louis .... JE 1-6200
Neb H Schoenberg, 5612 Charles St, Omaha .. 556-7131
Ohio R Domito, 3634 Corey Rd, Toledo 472-3141
Ohio W Kamin, 3534 W 63rd St, Chicago ..... PR 8-5352
Ohio Cleveland Duplex, 14625 Detroit Ave Lakewood .... AC 6-4740
Pa Laird Equipment Co, 1029 Twining Rd Dresher .... TU 4-9198
Pa W Rosenfield, 805 Sweetleaf Rd Monroeville 351-3206
Tex E Griggs, Dallas ..
Utah Todd Machinery, 165 S 4th W Salt Lake City .... DA 2-4863
Can New Hermes of Canada Ltd, 65 Kipling Ave S Toronto 239-4833

NEW JERSEY MACHINE CORP
16TH ST & WILLOW AVE, HOBOKEN
N J, 07030 .... 201 659-0483
A SCHAEFER, EMP 275, ENG 25, $5,000-$10,000M
Cal N J Machine Corp, 2500 W 6th St Los Angeles 382-9284
Ill N J Machine Corp, 325 W Huron St Chicago 944-5737
Mass N J Machine Corp, 51 Appleyard La Holliston 429-5757
NH N J Machine Corp, Etna Rd, Lebanon
Pa N J Machine Corp, RD 1 Glenmoore Phila 384-8220
Tex N J Machine Corp, 3505 Turtle Creek Blvd Dallas 528-1767
Can R S Gold Co, 888 DuPont St, Toronto, Ont
GB Packaging Machinery, Slough, Bucks

NEW LONDON INSTR CO DIV CRESCENT COMM CORP
153 CALIFORNIA ST, NEWTON
MASS, 02158 .... 617 969-8276
A GORDON, EMP 10, ENG 2, UP TO $100M
Ala Gentry Assoc, 2109 W Clinton Ave Huntsville 205 534-9771
Ariz Ramco, Phoenix 602 279-5243
Cal Allgood Assoc, 1621 Centinela Ave Inglewood 213 776-5820
Colo Ramco, Denver 303 421-0706
Fla Gentry Assoc, 550 N Bumby Ave Orlando 305 841-7740
Ga Gentry Assoc, Box 13513 Sta K Atlanta 404 233-3816
Md J E Cuesta & Co, 8501 Glendale Rd Greenbelt 301 552-1200
Mo Gordon Fixman Engrg, 8016 Stanford Ave St Louis 314 725-5219
NM Ramco, 8016 Zuni Rd SE Albuquerque 505 265-7989
NC Gentry Assoc, Box 197 Jamestown 919 454-1919
Pa J E Cuesta & Co, Valley Forge 215 265-5800
Tex Ramco, El Paso .... Enterprise 750
Utah Ramco, Salt Lake City .... Enterprise 750
For EMEC Inc, 55 Old Country Rd Hicksville N Y 516 931-3700

NEWMAN CORP, M M, 80 CLIFTON AVE
MARBLEHEAD, MASS, 01945 .... 617 631-7100

NEWMARKET TRANSISTORS LTD, EXNING RD
NEWMARKET, SUFFOLK, ENGLAND 3381
R ELLIOTT

NEWPORT INSTRUMENT CORP, 893 W 16TH ST
NEWPORT BEACH, CAL, 92660 .... 714 642-1000
J GASAWAY, EMP 40, ENG 4, $500-$1,000M
Cal W D Gorman, 4476 Tivoli St San Diego .... AC 2-9424
Cal Ash M Wood Co, Box 1-A, Arcadia ...... CU 3-1201
Cal Leddy Assoc, 1314 Howard Ave Burlingame 415 347-5247
Fla C E S Assoc, Box 1152, Melbourne 723-2321
Ill Joe Popp Sales Co, 5719 W Chicago Ave Chicago 312 261-7423
Md Hobco Elctns, 603 Alleghany Ave Towson 825-9637
Mass Roy Perron & Co Inc, 1870 Centre St, Boston
Mich Hummon & Assoc, Box 501 Farmington 313 474-0061
Mo J C Mankus & Assoc, 400 Brookes La Hazelwood .... 314 Pe 1-4334
NM C T Carlberg & Assoc, 2611 Quincy NE, Albuquerque
NY Technitron Inc, 41 W 57th St New York .... PL 8-2790
NY Instrumentation Sales Co, Box 403 Ridgewood NJ 212 445-5210
NC L G White-Southern Inc, 1014 Brookstown Winston-salem 919 725-3612
Ohio Coy Co, Box 2078 Kettering Sta Dayton 513 885-7222
Pa L G White Co, 100 Essex Ave Narbeth .... 215 MO 4-6505
Tex S B H & Co, 2930 Merrell Rd Dallas 214 358-2807
Can Technitron Assoc, 8 Glanlynn Rd Pointe Claire, Que 695-2579
Den Technitron A/S, 24, Klosterstraede Copenhagen K .... Palae 2632
Fr Technitron S A, 55 Rue Pierre Charron Paris 8 .... Elysees 30-58
Ger Technitron GmbH, Sonnenstrasse 14 Munich 15 .... 557832/592519
GB Technitron Ltd, Walmgate Rd Perivale, Greenford, Middlesex .... PER 9949
Holl Technitron N V, Box 7542, Schiphol Airport Amsterdam 020 727823
Ital Technitron S r l, Viale Bruno Buozzi 68 Rome 877047

NEWPORT LABS INC, BOX 2087, NEWPORT BEACH
CAL, 92663 .... 714 540-4914
P TURNQUIST, EMP 10, ENG 4, $250-$500M
Cal Dynamic Assoc, 5190 W Washington Blvd Los Angeles 213 933-5833
Cal Dynamic Assoc, 1011 Cadillac Wav Burlingame 415 344-2521
Fla Cain & Co, 1 N Rosalind, Orlando ... 305 422-3460
Md Electronic Sales Assoc, 12050 Tech Rd Silver Spring 301 622-2246
Mass Electronic Sales Assoc, 594 Marrett Rd Lexington 617 899-1430
Mich Twin Region Elctn Sales, 2547 Monroe Blvd Dearborn 313 274-4661
NJ Electronic Sales Assoc, 3 Center St Denville 516 466-5577
NY Electronic Sales Assoc, 525 Northern Blvd Great Neck 516 466-5577
Ohio Twin Region Elctn Sales, 21010 Center Ridge Rd Cleveland 216 331-7650
Ohio Twin Region Elctn Sales, 5700 Far Hills Ave Dayton 513 434-8000
Pa Twin Region Elctn Sales, 201 Penn Center Blvd Pittsburgh 412 824-1120
Tex Cain & Co, 8609 Northwest Plaza Dr Dallas 214 369-2897
Va Electronic Sales Assoc, 2601 Waldo La Richmond 703 644-9095
Wash Western Technical Sales, 10843 NE 8th Bellevue .... 206 GL 4-3906

NEW PRODUCT ENGINEERING INC SUB WABASH
MAGNETICS INC, 812 MANCHESTER AVE, WABASH
IND, 46992, TWX 810 290-2722 .... 219 563-3111
R KEIPPER, EMP 1100, OVER $10,000M
Ala 20th Century Mktg Inc, 902 Bob Wallace Ave Huntsville 205 536-1596
Cal Halbar Assoc, 188A W 36th Ave San Mateo 415 349-4700
Cal Gerald Shane, 1150 18th St Santa Monica 213 393 0072
Colo Walter-Powers Assoc, 880 Bonnie Brae Blvd Denver 303 777-5585
Conn Todino Engrg Sales Inc, 132 New Haven Ave Milford 203 874 6643
Ind R G Baier, Box 225, Leesburg 219 453-4242
Mass Todino Engrg Sales Inc, 50 Kearney Rd Needham Hts 617 444 7925
Mich W R Hummon & Assoc, Box 501 Farmington 313 474 0661
NJ E L Bowman, Box 38, Magnolia 609 546-5750
NJ J Princiotta, Box 124 Pompton Plns 201 839-1221
NY Carlen Representatives, 206 E Genesee St Syracuse 315 422-6155
Ohio Neal Bear Corp, 1563 E Dorothy La Dayton 513 299-3566
Okla Neal Bear Corp, 3435 Streetsboro Rd W Richfield 216 659 3331
Ore Richard Legg Co, Box 25327 Portland 503 292-8824
Tex W Pat Fralia Co, Box 12625 Ft Worth 817 738-2394
Utah Walter-Powers Assoc, 2422 Camino Way Salt Lake City 801 277-5174

NEW TRONICS CORP, 3455 VEGA AVE, CLEVELAND
OHIO, 44113, TWX 0985224 .... 216 631-6660
J LINTON, EMP 130, ENG 4, $2,500-$5,000M
Cal D & L Sales Co, 430 Callecita San Jose .... 408 AN 9-9300
Cal Chick Ryel & Co, Box 762 Woodland Hills 213 347-2670
Colo McLoud & Raymond Co, 2151 S Grape St Denver 303 756-1589
Fla Murphy & Cota, 712 W Vassar Ave Orlando 305 424-2167
Ga Murphy & Cota, 586 Armour Cir NE Atlanta 404 875-2525
Ill M Bermann Sales, 8631 E Prairie Rd Skokie 312 675-3740
Ind Central Elctn Sales, 445 Green St Tipton 317 675-4821
Mass B Ente Sales Co, 64 Mandalay Rd Newton Center 617 244-4842
Mich Central Electronic Sales, 19217 Fairport Detroit 313 526-5841
Minn Heimann Co, 5603 Lyndale Ave Minneapolis 612 827-5457
Miss L R Massey Co, 304 E Jefferson St Greenwood 601 453-3038
Mo H A Roes & Co, 2601 Cherry Kansas City 816 221-0866
NY Louis W Keller & Assoc, 1542 Pea Pond Rd North Bellmore 516 785-2826
NY A Toupkin Sales Co, 105 Traverse Blvd Kenmore 716 873-8839
NC Murphy & Cota, Box 6365 Greensboro 919 288-1923
Pa Sher Sales Co, 21 Cactus Rd Levittown 215 946-6200
Tex R E Nesbitt Co, 2930 Merrell Rd Dallas 214 357-4601
Wash J J Backer Co, 221 W Galer St Seattle 206 283-6470
Can W Cohen Corp, 8900 Park Ave Montreal 514 388-9201
For Roburn Agnecies Inc, 431 Greenwich St New York N Y 212 966-2130

NEW YORK COIL CO INC, 40-48 SECOND AVE
PHOENIXVILLE, PA, 19460 .... 215 933-8851
R DUGANSKY, EMP 75, ENG 3, $500-$1,000M
Pa Hause Assoc, Box 144, Hilltown 822-2112

NEW YORK TESTING LABS INC, 81 URBAN AVE
WESTBURY, N Y, 11590 .... 516 ED 47770
R SCHULTZ, EMP 50, ENG 14, $500-$1,000M

NEY CO, J M, MAPLEWOOD AVE, BLOOMFIELD
CONN, 06002 .... 203 242-2281
D LANDMANN, EMP 286, ENG 20, $2,500-$5,000M
ADV PG 197
Cal Raymond C Miltimore, 535 N Armel Dr Covina .... ED 1-5716
Cal W E Wolk, 1026 Mt Carmel Dr San Jose 408 264-2445
Mich A J MacDonald, 345 Baltimore Dr NE Grand Rapids .... GL 4-0288

NGK SPARK PLUG CO LTD, 17 1-CHOME HORITA-DORI
MIZUHO-KU NAGOYA, JAPAN 871-2111
K MIKI, EMP 2800, ENG 290
ADV PG [illegible]

N-H MICROWAVE INC, 60 WHITE ST, RED BANK
N J, 07701 .... 201 842-3535
L NILSON, EMP 20, ENG 3, $250-$500M
Ala Brennan Assoc, Box 1074, Huntsville 536-7425
Ariz Bennewitz Assoc, Inc, 532 N Brown Ave Scottsdale 947-7379
Cal Crown Electronics, Box 2573, Van Nuys ... 873-1266
Cal Townsend Tech Sales, Box 265 Saratoga 252-3478
Colo Bennewitz Assoc, Inc, 2801 E Colfax Ave Denver 399-1132
DC Eastern Instr Inc, 2600 Virginia Ave NW Washington 333-8880
Fla Brennan Assoc, Inc, 211 Ewing Ave S Clearwater 446-5006

Fla Brennan Assoc, Box 8489
Ft Lauderdale 587-8077
Ga Brennan Assoc, Box 372, Tucker 469-8324
Ill Berndt Assoc, 6414 W Belmont Ave
Chicago 283-0713
Md Eastern Instrumentation, 1002 Ingelside Ave
Baltimore 744-3675
Mass Russell Engrg Sales Co, 7 Skyfield Dr
Groton 448-5822
NJ Eastern Instrumentation, Inc, 518 Franklin Ave
Nutley 661-2000
NM Bennewitz Assoc, 9720 Candelaria NE
Albuquerque 298-6775
NY Eastern Instrumentation Inc, 350 Northern Blvd
Great Neck .... HN 6-9505
Pa Eastern Instrumentation, 613 Cheltenham Ave
Phila .... WA 7-6269
Tex Texas Avionics Co, 4515 Prentice St
Dallas 368-3566
Va Eastern Instr Inc, Ross Bldg, Richmond 644-6620
Can Technitron Assoc, 769 Lajoie Ave
Dorval Que 631-6859
For Microwave Intl Corp, 111 High Ridge Rd
Stamford Conn 348-7704

NH RESEARCH INC, 1510 S LYON ST, SANTA ANA
CAL, 92705 .... 714 835-1616
F SCHLINES, EMP 25, ENG 4, $1,000-$2,500M
Ala Fact tronics, Inc, Box 2091
Huntsville 205 536-9686
Fla Fact-tronics, Inc, Box 745, Casselberry 838-5607
Ill Pat Lind Electronics Co, 5483 N Northwest Hwy
Chicago 774-1246
Mass W M Hague Co, 10 Muzzey St
Lexington 862-5700
Minn Pat Lind Electronics Co, 10104 Sunset Rd
Circle Pines 781-6568
NJ Hansen Assoc, Box 339, Ridgewood 652-7055
Va Gans-Fryling Inc, 2030 16th St N
Arlington 527-3262
For J D Ryerson Assoc, Box 8369
Rochester NY 716 442-1900
Fr Radio Television Francaise, 73 Ave De Neuilly
Neuilly-Sur-Seine

NIAGARA MACHINE & TOOL WORKS, BOX 475
BUFFALO, N Y, 14240 .... 716 893-4070
H CHEYNEY

NICHICON CAPACITOR LTD
OIKEDORI, KARASUMAHIGASHI-IRU
NAKAGYO-KU, KYOTO
JAPAN, TWX 5422-120 231-8461
N MURAKAMI, EMP 1600, ENG 220, OVER $10,000M

NICHOLS CO LTD, R H, 4544 DUFFERIN ST
DOWNSVIEW
ONT, TWX 610-492-1348 .... 416 633-8190
G PAY, EMP 100, ENG 10, $2,500-$5,000M
Can R H Nichols Co Ltd, 736 Granville St
Vancouver 604 683-0019
Can R H Nichols Co Ltd, 4900 Fisher St
Montreal 514 631-3420

NICHOLS PRODUCTS CO, INC, 325 W MAIN ST
MOORESTOWN, N J, 08057 .... 609 235-0877
EMP 16, ENG 2, $250-$500M

NIELSEN HARDWARE CORP, 770 WETHERSFIELD AVE
HARTFORD, CONN, 06101 .... 203 522-8145
G SWANSON, EMP 100
Cal Robert E Minto, 3047 Roycove Dr
Covina .... ED 2-8735
Ill C E Mix, 333 N Michigan Ave
Chicago .... FR 2-1147
Tex J I Gronberg, Box 291, Bellaire .... MO 8-7729
Can Metal & Wood Fastening Devices, Inc
6302 Papineau Ave, Montreal, Que 274-9434

NIEMAND BROS INC, 45-12 94TH ST, ELMHURST
N Y, 11373 .... 212 592-2300
J CIACCIO, EMP 400, ENG 5, $1,000-$2,500M
Cal K W Lockwood Co, 15450 Cabrito Rd
Van Nuys 213 873-7766
Conn Pfannkuch & Co, 935 White Plains Rd
Trumbull 203 268-4950
Ill K D Engle Co Inc, 3621 W Devon Ave
Chicago 312 539-1820
Minn D A Schultz Co, 801 SE 8th St
Minneapolis 612 339-7701
Mo R E Kennedy Co, 12025 Manchester Rd
St Louis 314 965-7650
NY P M Woodams, Box 7696
Rochester 716 546-1560
NY W R Punt Co, 66 Tyson Ave
Floral Park 516 352-1742
NC R A Wellons Jr, 2500 Taylorsville Rd
Statesville 704 873-6364
Ohio Electrolock Inc, 1 N Franklin St
Chagrin Falls 216 247-4245
Ohio Electrolock Inc, 2077 Embury Park Rd
Dayton 513 277-3221
Ore C E Riggs Inc, 422 NW 8th Ave
Portland 503 226-3286
Pa B E Gisbon, 201 Penn Center Blvd
Pittsburgh 412 823-8310
Tex Gulf Metal & Materials Co, 901 W Vickery
Fort Worth 817 332-1749

NIEMAND INDUSTRIES INC, 2500 TAYLORSVILLE RD
STATESVILLE, N C, 28677 .... 704 873-6364
R WELLONS JR, EMP 100, ENG 13, $1,000-$2,500M
Cal K W Lockwood Co, 15450 Cabrito Rd
Van Nuys 213 873-7766
Conn Pfannkuch & Co, 935 White Plains Rd
Trumbull 203 368-4950
Ill Karl D Engle Co, 3621 W Devon Ave
Chicago 312 539-1820
Minn D A Schultz Co, 801 SE 8th St
Minneapolis 612 339-7701
Mo R E Kennedy Co, 12025 Manchester Rd
St Louis 312 965-7650
NY W R Punt Co, 66 Tyson Ave
Floral Park 516 352-1742
NY P W Woodams, Box 7696
Rochester 716 546-1560
Ohio Electrolock Inc, 1 N Franklin St
Chagrin Falls 216 247-4245
Ohio Electrolock Inc, 2077 Embury Park Rd
Dayton 513 277-3221
Ore C E Riggs Inc, 422 NW 8th Ave
Portland 503 226-3286
Pa B E Gibson, 201 Penn Center Blvd
Pittsburgh 412 823-8310
Tex Gulf Metal & Materials Co, 901 W Vickery
Fort Worth 817 332-1749

NIHON KOHDEN KOGYO CO LTD
93, 2-CHOME TSUNOHAZU SINJUKU-KU, TOKYO
JAPAN 343-0611
S KATO, EMP 879, ENG 327, $5,000-$10,000M

NIKON INC INSTRUMENT DIV, 623 STEWART AVE
GARDEN CITY
N Y, 11050, TWX 125855 .... 516 248-5200
I FELDMAN, EMP 190, ENG 2, OVER $10,000M
Cal A G Heinze Co, 170 N Daisy Ave
Pasadena .... 213 MU 1-7474
Cal Technical Instrument Corp, 348 6th St
San Francisco .... HE 1-8231
Colo Dick B Rossmiller, 405 S 44th St
Boulder 444-2411
Colo Dick B Rossmiller Co, 405 S 44th St
Boulder 444-2411
Conn M E Clark Co, 377 N Granby Rd
N Granby 653-3425
Fla Blanco Inc, 5195 102nd Ave
Pinellas Park 544-2505
Ga Lewyn Machy Co Inc, 2130 Jackson Pkwy NW
Atlanta 404 799-5666
Haw Hawaii Camera Co, 1415 Kapioiani Blvd, Honolulu
Ill Penco Assoc, 1805 Sunset Ridge Rd
Northbrook 312 446-3606
Ill Radiation Equip Co, 1495 Old Deerfield Rd
Highland Park 312 831-2900
Ind Miller Tool & Gage, 320 S High St
Muncie .... AT 4-1691
Ky Preiser Scientific Inc, 1500 Algonquin Pkwy
Louisville 636-3309
Mass Ca-Pra Co, 75 Lawton St, Brookline .... LO 6-4140
Mich Production Machinery Sales Co, 4845 St Aubin Ave
Detroit 832-4711
Minn Machine Tool Supply, 3301 E 26th St
Minneapolis .... PA 1-5371
Mo Representative Sales & Service, 6110 Willow
Kansas City .... FL 3-6010
Mo Merrick Machinery Co, 2383 Schuetz Rd
St Louis 314 542-3966
NJ Thos Sappington Assoc, 405 E Glen Ave
Ridgewood 201 445-4869
NY Peterzell Machinery Co, 305 Webster Ave
Rochester .... HU 2-8160
NY Stangert Corp, 299 Rockaway Tpk
Lawrence .... 212 FA 7-0918
Ohio Elkro Corp, 2800 W Lower Springboro Rd
Franklin .... SH 6-9271
Pa Optical Apparatus Co, 128 Coulter Ave
Ardmore .... MI 9-6622
Tex Dolan Scientific Instruments, 2411 Times Blvd
Houston .... JA 3-6444
Tex Southwestern Gage Co, 5819 Denton Dr
Dallas .... FL 7-5235
Wash Seaport Co, 902 NW Leary Way
Seattle .... SU 4-9030
W Va Preiser Scientific Inc, 900 MacCorkle Ave SW
Charleston .... DI 4-2221
Wis Jordan Engr & Tool Sales, 3680 N 126th St
Brookfield 414 771-4450
Can Anglophto Ltd, 29 Haas Rd, Rexdale, Tor
Den Dansk Fotoagentur A/S, Rygaardsalle 131, Hellerup
Fr Maison Brandt Freres S A, 8, Quai du Marche Nerf
Paris
Nor A/S Lowener, Mohn, Box 741, Oslo
SAfr Frank & Hirsch Pty Ltd, Box 1803, Johannesburg
Swed Axel V Bergstrom A B, Box 1037, Solna
Swit Nikon A G, Kirchenweg 5, Muhlebachstr, 8008
Zurich

NILSEN MFG CO, BOX 127, 606 HWY 27 N
HAINES CITY, FLA, 33844 .... 813 422-1197
R STOBBE, EMP 25, ENG 2, $250-$500M

NIPPERT ELECTRIC PRODUCTS CO
835 PITTSBURGH DR, DELAWARE
OHIO, 43015 .... 614 363-1981
J NIPPERT, EMP 230, ENG 5, $5,000-$10,000M

NIPPON CHEMICAL CONDENSER CO LTD
167, 1-CHOME HIGASHI-OME, OME CITY, TOKYO
JAPAN, TWX TK4618 783-2121
K SATO, EMP 1350, ENG 200, $5,000-$10,000M

NIPPON COIL CO LTD, 1, 1-CHOME, HOMMACHI
HIGASHI-KU, OSAKA, JAPAN 261-0068
Y OSHITA, EMP 20, ENG 5, $250-$500M
ADV PG 746

NIPPON ELECTRIC CO LTD, 15, 7-5 CHOME SHIBA, MINATO-KU
TOKYO, JAPAN 452-1111
T SASAKI, EMP 31500, ENG 4800, OVER $10,000M
ADV PG 752, 753
Cal Nippon Electric N Y Inc, 6617 Nevada Ave
Canoga Park
NY Nippon Electric N Y Inc, 200 Park Ave, New York
For Nippon Electric Co Ltd, Box 2578, Djakarta, Indon
For Nippon Electric Co Ltd, Box 4019, Karachi, W Pak
For Nippon Electric Co Ltd, 1344 Taft Ave, Manila, Phil
For Ryoji Hosokawa, Chung Shan North Rd, Taipei, Tai
For Nippon Electric Co Ltd, 297 Suriwongse Rd
Bangkok, Tha
For Nippon Electric Co Ltd, 2, Weld Rd Kuala Lumpur
Malaysia 80377
Belg Mitsuru Uzuka, 80 Rue de Namur, Brussels
Braz Nippon Elec Co Ltd
Ind Nippon Electric Co Ltd, 2A Hailey Rd, New Delhi
Mex Mindru Morita, Box 32-692, Mexico

NIPPON FERRITE INDUSTRIAL CO LTD
21 SANAICHO ICHIGAYA SHINJUKU-KU, TOKYO
JAPAN 370-1571
E SUGITA, EMP 585, ENG 60, $2,500-$5,000M
Jap Nippon Ferrite Ind Co Ltd, 2-10 Yoyogi Shibuya-ku
Tokyo
Jap Nippon Ferrite Ind Co Ltd, 1-108 Tenjinbashisuji
Kitaku Osaka

NITINE INC, 45 S JEFFERSON RD, WHIPPANY
N J, 07981 .... 201 887-6000
R SCHLECK, EMP 20, ENG 4, $500-$1,000M
ADV PG 142
Ariz E J Foley & Assoc, 3840 N Joakake Dr, Phoenix
Mass J Hourihan, 19 Arrowhead Rd, Marblehead

NITSUKO LTD, 260 KITAMIKATA, KAWASAKI-CITY
KANAGAWA-PREF, JAPAN 044-82-5131
N YATABE, EMP 2300, ENG 268, $5,000-$10,000M
ADV PG 102
NJ MH & W Intl Corp, 280 Midland Ave
Saddle Brook 791-6277
Ger W Labudda, 5650 Solingen
Wupperstr 84, Box 408 .... 02122, 26166
Swed Aktiebolaget Trako, Tegnergatan 4
Stockholm 23 35 60

NITTO ELECTRIC INDUSTRIAL CO LTD
27 UMEDACHO, KITAKU, OSAKA, JAPAN 341-9531
J SANO, EMP 1385, ENG 144, OVER $10,000M

NJE CORP, 20 BORIGHT AVE, KENILWORTH
N J, 07033, TWX 233-8665 .... 201 272-6000
F SPOSATO, EMP 300, ENG 25, $2,500-$5,000M
ADV PG 530, 531
Ala Col-Ins-Co Inc, Box 4246, Huntsville 539-1771
Ariz BFA Assoc, 4710 N 16th St, Phoenix 264-6536
Cal Electronic Eng Assoc Ltd, Box 997
San Carlos 593-2189
Cal Roland Olander & Co, 540 Hollywood Way
Burbank 213 843-5200
Colo BFA Assoc, 1309 S Inca St, Denver 744-3301
Fla Col-Ins-Co Inc, Box 13189, Orlando 423-7615
Ga Col-Ins-Co Inc, 418-A Armour Cir NE
Atlanta 873-5118
Ill Carter Electronics, 7203 S Western Ave
312 776-1601 776-1601
Ind Carter Electronics, 6333 Hollister Dr
Indianapolis 293-0696
Kan Technical Reps Inc, 6814 Farmview La
Wichita .... 316 MU 2-4140
Md Burlingame Assoc, 1749 Rockville Pike
Rockville 427-1255
Mass Burlingame Assoc, 7 Wellington St
Waltham 894-1955
Mich Sheridan Assoc, Box 128
Lathrup Village 353-3822
Minn Carter Electronics Inc, 2401 W 66th St
Minneapolis 612 869-3261
Miss Col-Ins Co, Box 1292, Bay St Louis 833-1116
Mo Technical Reps Inc, 7049 Laupher La
St Louis .... 314 JA 1-1000
NM BFA Assoc, 1238 Ortiz SE, Albuquerque 268-4387
NY Burlingame Assoc, 510 S Fulton Ave
Mt Vernon .... 516 MO 4-753
NY Burlingame Assoc, E Malloy Rd
Syracuse 454-2408
NC Col-Ins-Co Inc, Box 5597
Winston-Salem 765-3650
Ohio Sheridan Assoc, Box 37, Dayton 277-8911
Ohio Sheridan Assoc, Box 37646, Cincinnati 761-5432
Ohio Sheridan Assoc, Box 7486, Cleveland 884-2001
Okla BFA Assoc, Box 15656, Tulsa 835-7942
Pa Burlingame Assoc, 222 Long La
Upper Darby .... 215 JA 8-6080
Pa Sheridan Assoc, 201 Penn Center Blvd
Pittsburgh 243-6655
Tex BFA Assoc, Box 429, Euless 264-3363
Tex BFA Assoc, Box 57888, Webster 482-7563
Utah BFA Assoc, 253 Rio Grande
Salt Lake City 359-2427
Wash Brennan Assoc, 208 Carlson Bldg
Bellevue 206 454-9332
Can Allan Crawford Assoc Ltd, 65 Martin Ross Ave
Toronto, Ont 416 636-4910

NOBLE & WESTBROOK DIV, BRISTOL BRASS CORP
27 WESTBROOK ST, EAST HARTFORD
CONN, 06108 203 289-2717
R ABBOTT JR, EMP 60, ENG 6, $500-$1,000M

NOEL-SMYSER ENGINEERING CO, 5230 W 10TH ST
INDIANAPOLIS, IND, 46224 317 244-4437

NOLLER CONTROL SYSTEMS INC
150 E STANDARD AVE, RICHMOND
CAL, 94804, TWX 910-382-8143 415 233-8220
A OGILVIE, EMP 100, ENG 20, $1,000-$2,500M

NON-LINEAR SYSTEMS INC, BOX N, DEL MAR
CAL 92014 714 755-1134
EMP 250, ENG 40, $5,000-$10,000M
ADV PG 244, 412, 792
Ala W A Brown & Assoc, 1314 Buford St, NW Huntsville 539-6884
Ariz Kelly Scientific, 412 N Marshall Way Scotsdale 602 947-7584
Cal QPL, Inc, 1015 Fremont, S Pasadena 682-3705
Cal Bert Oppenheim Inc, 2179 Park Blvd Palo Alto 321-7323
Fla W A Brown & Assoc, 222 Weber Ave Orlando 305 425-5505
Ill Carter Electronics Inc, 7203 S Western Ave Chicago 312 776-1601
Kan Palatine Engrg Sales, Inc, 5514 Johnson Dr Mission 262-5643
Md Electronic Sales Assoc, 12050 Tech Rd Silver Spring 301 622-2246
Mass Electronic Sales Assoc, 594 Marrett Rd, Lexington
Mich Bob Hacker Assoc, 26847 Grand River Ave Detroit 531-1403
Minn Carter Electronics Inc, 2401 W 66th St Minneapolis 612 869-3261
Mo Palatine Engrg Sales, Inc, 2050 Woodson Rd St Louis 426-7055
NJ M G Assoc, 1500 Kings Hwy Cherry Hill 428-1663
NJ KLS Assoc, 387 Passaic Ave Fairfield 201 228-2526
NM Kelly Scientific, 2800 Cardenas Dr, NE Albuquerque 268-3324
NY Electronic Sales Assoc, 525 Northern Blvd Great Neck 516 466-5577
NC W A Brown & Assoc, 1108 Burke St Winston-Salem 725-5384
Ohio Megatek, Inc, 2533 Far Hills Ave Dayton 298-8638
Tex Data Engineering Corp, 5641 Yale Blvd Dallas 214 363-9351
Tex Data Engineering Corp, 2120 S Post Oak Rd Houston 713 622-2820
Wash Brennan Assoc, 208 Carlson Bldg Bellevue 206 454-9332
Can Electronetic Systems Ltd, 62 Alness St Downsview, Ont 636-3673
Can Electronetic Systems, Ltd, 6420 Victoria Ave Montreal, Que 737-2744
Fr Seurolec S/A, 3941 Rue de 1'Est 92 Boulogne Billancourt 408-38-60
Ger Ernst Fey, Horemansstr 28, Munich 60459
Holl Belram SA, 83 Ave des Mimosas Brussels 35-29-58
Jap Rikei Trading Co Ltd 18-14 Nishishimbashi Minato-ku Tokyo 591-5246
Nor Morgenstierne & Co A/S, Wessels Gate 6 PB ST H 2613 201635
SAfr A C Gowlett (Pty) Ltd, Box 1257 Johannesburg 724-9341
Swed Amerikanska Teleprodukter, Nybohovsgrand 56 Stockholm 18-19-30
Swit Kontron AG, Hardstr 235, Zurich 051 44-56-90

NONOTUCK MFG CO, CANAL ST
SOUTH HADLEY FALLS, MASS, 01075 413 534-0271
E EMMET JR, EMP 190, ENG 2, OVER $10,000M
Cal Thompson Assoc, Box T, Harbor City 326-5580

NOPCO CHEMICAL DIV DIAMOND SHAMROCK CHEM
CO, 60 PARK PL, NEWARK
N J, 07101 201 HU 4-8400
R WEBER, EMP 9500, OVER $10,000M

NORBATROL ELECTRONICS CORP
NORBATROL AVE & CARSON ST, MURRYSVILLE
PA, 15668 412 327-0100
H NICHOLS, EMP 70, ENG 11, $2,500-$5,000M
Ala Beacon Electronics, Box 3127 Huntsville 536-5065
Cal Artwel Electric Inc, 1485 Bay Shore Blvd San Francisco 586-4074
Fla Beacon Electronics, Box 10212 Ft Lauderdale 564-4298
Fla Beacon Electronics, Box 1278, Maitland 647-3498
Ga Beacon Electronics, 2285 Peachtree Rd NE Atlanta 351-3654
Ill A S & H Assoc, 6272W North Ave Chicago 237-2343
Md David K Jones Co Inc, 2026 Maryland Ave Baltimore 752-0577
Mass Electrical Apar Co, 1200 Soldiers Field Rd Boston ST 2-7440
Mich G R Peters Assoc, 3347 Coolidge Hwy Berkley 564-6325
NY Travco Assoc Inc, 142 Mineola Ave Roslyn Heights 516 487-9666
NY Analog Instruments Inc, 120 Elmwood Ave East Aurora 881-0155
NY Analog Instruments Inc, Box 366 Liverpool 457-3120
NC Robt W Chapman & Co, 1217 Greenwood Cliffs Charlotte 375-4495
Ohio W W Parsons & Assoc, 2077 Embury Pk Rd Dayton CR 7-2862
Ohio Research Process Instru Inc, 21565 Hilliard Blvd Rocky River 333-3441
Pa Process Eng Sales, Box 10464 Pittsburgh 561-2242
Wash G F Rutter Sys Supply Co, 2324 SW Spokane St Seattle 937-4442
Fr Galtier & Cie, 20 Rue la Condamine, Paris

NORDEN DIV, UNITED AIRCRAFT CORP, HELEN ST
NORWALK, CONN, 06856 203 838-4471
F HALAS, EMP 2700
Ala L G White Southern Inc, 3305 Patton Rd Huntsville 205 539-6901
Cal Norden Div UAC, 10920 Wilshire Blvd Los Angeles 272-9523
Conn Com/Pak, Box 37, Wethersfield 203 563-4784
DC Norden Div UAC, 1725 DeSales St NW Washington 296-7600
Fla Griggs Assoc, Box 13542, Orlando 305 855-4871
Fla Telemetry Sales Corp, Box 6453 Orlando 305 241-1292
Ill Electro-Comp Sales, 5129 W Devon Chicago 763-3636
Md Riffe Assoc, 4313 Knox Rd College Park 301 779-7770
Md L G White & Co, 880 Bonifant St Silver Spring 301 685-1780
Minn Merrill Franklin Co, 730 E 38th St Minneapolis 827-5348
NJ R Keiper, Center Grove Rd, Dover 201 895-2257
NM Telemetry Sales Corp, 2104 San Mateo NE Albuquerque 505 255-9192
NY Ellis-Haber-Ramp Corp, 2315 Broadway New York 212 799-4040
NC McDonald & Griggs, Rte 1, Pfafftown 924-2182
NC L G White Southern Inc, Box 2356 Winston-Salem 919 725-3612
Ohio Norden Div UAC, 333 W 1st St, Dayton 228-4481
Ohio Monatron, 20850 Sheldon Rd Cleveland 243-6500
Tex Norden Div UAC, 2646 Andjon St Dallas 351-6061
Tex Braden Engr, 2646 Andjon Dr, Dallas 342-4626
Tex Braden Engr, 3130 Southwest Frwy Houston 713 529-9881
Tex Telemetry Sales Corp, Box 786 Grand Prairie 214 262-3365
Wash Jon B Jolly, 413 Maritime Bldg Seattle 206 624-2152
Can United Aircraft of Can Ltd, Box 10 Longueuil Que 514 677-9411

NORRICH PLASTICS CORP, 206 BABYLON TPK
ROOSEVELT, N Y, 11575 516 MA 3-3100
T BARTON, EMP 45, ENG 2, $250-$500M

NORRIS INDUSTRIES THERMADOR DIV
5119 S DISTRICT BLVD, LOS ANGELES
CAL, 90022 213 588-6131

NORRMAN LABORATORIES, ERNST, 200 ELKHORN RD
WILLIAMS BAY, WIS, 53191 414 245-5516
H KASHUTA

NORTH AMERICAN PHILIPS CO INC CRYOGENIC DIV
MENDON & ANGELL RDS, ASHTON
R I, 02864 401 722-2200
J MARSHALL, EMP 174, ENG 6, $1,000-$2,500M
Ala A & S Industries, Inc, Box 1474 Huntsville 539-4156
Cal Transdynamics Inc, 3108 5th Ave San Diego 298-8215
Cal Transdynamics Inc, 44 Encina Ave Palo Alto 326-6527
Cal Transdyanmics Inc, 4450 Lakeside Dr 4450 Lakeside Dr 849-6261
Colo Transdynamics Inc, 3401 S Bannock St Englewood 789-1544
Mich Anger Assoc, Inc, 13126 Michigan Ave Dearborn 584-9853
Tex M Page & Assoc, Inc, 5122 Burnet Rd Austin 452-9503
Wash Transdynamics Inc, 7834 S E 32nd St Mercer Island 232-1094

NORTH ATLANTIC INDUSTRIES INC, 200 TERMINAL DR
PLAINVIEW, N Y, 11803 516 OV 1-8600
F SPOSATO, EMP 175, ENG 30, $2,500-$5,000M
ADV PG 218, 407, 625, 706
Ala Fact-Tronics, Box 2091, Huntsville 205 536-9686
Cal Instrument Specialists, 2870 Los Feliz Pl Los Angeles 213 665-5181
Cal Instrument Specialists Inc, 2359 De La Cruz Blvd Santa Clara 408 244-1505
Fla Fact-Tronics, Box 745, Casselberry 305 838-5607
Ill Pat Lind Electronics Co, 5483 NW Hwy Chicago 312 774-1246
Ind Pat Lind Electronics Co, Indianapolis ENT 7711
Kan Technical Rep, 809 Sheridan Circle Olathe 913 St 2-3775
Md Ron Davies Assoc, 11215 Oak Leaf Dr Silver Spring 301 593-4900
Mass Brogan Assoc Inc, 69 Hickory Dr Waltham 617 894-3250
Mich WKM Assoc, 1474 E Outer Dr Detroit 313 892-2500
Minn Pat Lind Electronics Co, 10104 Sunset Blvd Circle Pines 612 786-5770
Mo Technical Rep, 7049 Laupher La Hazelwood 314 Ja 1-1000
NY Brogan Assoc, Inc, 202 Arterial Way Syracuse 315 437-2988
NY Brogan Assoc, Inc, 474 Thurston Rd Rochester 716 Fa 8-2350
NY Brogan Assoc, Inc, 80 Urban Ave Westbury 516 333-6684
NY Brogan Assoc, 22 Purchase St, Rye 212 657-9653
Ohio WKM Assoc, 5335 Far Hills Ave Dayton 513 434-7500
Ohio WKM Assoc, 6741 Ridge Rd Cleveland 216 885-5616
Pa WKM Assoc, 90 Clairton Blvd Pittsburgh 412 892-2953
Pa Acromatix Assoc, Box 271 Fairview Vlg Montgomery Co 215 279-0377
Tex Scientific Sales Co, 6400 Westpark Dr Houston 713 781-2711
Tex Scientific Sales Co, 777 S Central Expwy Richardson 214 231-6542
Wis Pat Lind Electronics Co, Milwaukee ENT 1611
Can Electromechanical Products, Markham Rd Agincourt, Ont 416 293-7011
Den Technitron A/S, Klosterstr 24 Copenhagen Pal 2632
Fr Technitron, 20 rue de Boulainvilliers Paris 527-4965
Ger Technitron GmbH, Sonnenstrasse 14 8 Munich 15 557832/592519
GB Aveley Electric Ltd, So Ockendon, Essex 3444
Holl C N Rood, 11-13 Cort Van Der Linderstr Rijswijk, The Hague 98-51-53
Holl C N Rood, 30 Rue Leon Frederic Brussels 02-35.54.79
Ital Motordiesel, Via Minzoni 5 Box 116 La Spezia 1 19100 36 232
Ital Motordiesel, Via Pacini 5, Milan 297035
Ital Motordiesel, c/o Echo S r l Via Prisciano 28 Rome 341706
Ital Motordiesel Via Minzoni 5, LaSpezia, 36 232
Ital Motordiesel Vis Pacini 5, Milan, 297035
Ital Motordiesel c/o Echo Irl, Via Prisciano 28 Rome 341706
Swed A E Ajgers Electronic AB, Stockholm 08/46 42 46
Swed Ajgers Elektronik AB, Valhallsvagen 49 Skalderviken 0431/20773
Swed Ajgers Elektronik AB, Valhallsvagen 49 Skalderviken 0431-20773
Swit Nucletron AG, Spitalgasse 30, Berne 031-374-51
Ind Brogan Assoc, Inc, 780 N River View Dr Totowa, N J 201 256-0174
Isrl Racom Electronics Co, 74 Nordau Blvd Tel-Aviv 443244
Aust Ronald J T Payne Pty Ltd, 385 Bridge Rd Richmond Vic 42-1416
Aust R J T Payne Pty Ltd, 385 Bridge Rd Richmond Vic 42-1416

NORTHEAST ELECTRONICS CORP, 83 ERNA AVE
MILFORD, CONN, 06463 203 878-3511
A CANTAFIO, EMP 50, ENG 4, $500-$1,000M

NORTHEAST ELECTRONICS CORP, BOX 649, CONCORD
N H, 03301 603 224-7466
H COREY JR, EMP 176, ENG 27
Cal R J Hammond, 4632 Kingswell Ave Los Angeles 662-2602
DC L A Dell, 7735 Old Georgetown Rd Washington 657-2010
Ga L A Dell, 3127 Maple Drive NE Atlanta 404 233-3219
Mo R S Kunkel, 1312 Garden Ct, Columbia 443-8922
NJ E N Little, 61 Ivy La, Englewood 568-3827
NY D W Waters, 2 Kidd Kove Baldwinsville 315 471-3718

NORTHEASTERN ENGINEERING INC, 130 SILVER ST
MANCHESTER, NH, 03103 603 622-6485
L ALEXANDER, EMP 40, ENG 3, $5,000-$10,000M
Cal Weiler & Co, 10842 S Paramount Blvd Downey 861-9223
Cal Weiler & Co, 1 First St, Los Altos 948-7472
Colo Kelley Enterprises, 336 E 4th St Loveland 667-1376
Ill Loren F Green & Assoc, 5218 W Diversey Ave Chicago 286-6824
Md C E Snow Co, 3720 Farragut Ave Kensington 949-1010
Minn Loren F Green & Assoc, 3037 Central Ave, NE Minneapolis 781-1611
NJ K & J Assoc, Box 1152, Wayne 694-3334
NY J D Ryerson Assoc, Inc, Box 8369 Rochester 442-1900
NC C & G Assoc, Inc, Box 12342, Charlotte 537-9563
Pa C E Snow Co, 1349 W Cheltenham Ave Phila 224-2626
Tex Texas Avionics Co, 4515 Prentice St Dallas 368-3566
Tex Texas Avionics Co, 1108 Meyer Seabrook 424-3155
Tex Kelley Enterprises, 5432 Vancover St El Paso 751-3843
Wash Hudson Radio Comm Co, 7615 N E 123rd St Kirkland 822-1810
Fr Ste Europenne De Electronic, 123 Rue De Silly Boulogne Billancourt
Holl C N Rood NV, Box 4542, Rijswijk
Ital G G Gorgatti, Borromei 5, milano
Nor Hugo Riso A/S, Box 8 Taasen, Oslo 8
Swed A B Scantele, Tengdahlgaten 24, Stockholm
Belg C N Rood SA, Centre Intl Rogier, Brussels
Fin Orbis Oy, Box 16015, Helsinki

NORTHEAST SCIENTIFIC CORP, 30 WETHERBEE ST
ACTON, MASS, 01720.................... 617 263-2711
C MORITZ, EMP 16, ENG 1, $100-$250M
Cal White & Co, 777 N 1st St
San Jose 408 292-8229
Cal G H Vaughan Co, Box 5096, Pasadena
Mass Bilowich Enterprises, 109 Warren St, Watertown
NJ Data-Rep Assoc, Inc, Box 645, Ridgewood
NY Data-Rep Assoc, Inc, Box 163, Huntington Sta
Pa Data-Rep Assoc, Inc, Box 349, Norristown
Can Whittaker Electronics Ltd, 42 Howden St
Ottawa, Ont

NORTH ELECTRIC CO, GALION
OHIO, 44833, TWX 419-464-4864 ...... 419 468-2420
N MCCARTY, EMP 4000, ENG 200, OVER $10,000M
Cal W Bird - J Hubley, 409 W Foothill Blvd
Glendora 335-6017
Iowa Marketing Assoc, Box 53938
Lincoln 402 434-6974
Mass R M Purinton Inc, 11 Muzzey St
Lexington .... VO 2-8300
NJ R Horne Assoc, 235 Wanaque Ave
Pompton Lakes 835-7400
Tex Jacobson Sales, Box 9702, Dallas ...... FL 1-3362
Can L M Ericsson, 2300 Laurentian Blvd, Montreal
For RivCo, Box 52, Bala Cynwyd, Pa 215 667-5110

NORTHERN ENGINEERING CO, 600 SOUTH BLVD
BARABOO, WIS, 53913 .... 608 356-3921
L RODEMS, EMP 80, ENG 2, $1,000-$2,500M

NORTHERN ENGINEERING LABS INC, 257 BELOIT ST
BURLINGTON, WIS, 53105, TWX 910-278-2453... 414 763-3591
D GRIEBEL, $500-$1,000M
ADV PG 242
Cal Tech-Sources Unltd, 2104 W Magnolia
Burbank 849-6863
Cal G B Ellis Sales Co, 2425 Leghorn St
Mt View 967-5531
Fla Components Sales Corp, Box 9545
St Petersburg 360-7460
Ill Edward Schmeichel Co, 5968 W Chicago Ave
Chicago 378-2070
Mass DeVeer Sales Eng Co Inc, 1459 Highland Ave
Needham 444-4200
NJ Harold Gray Assoc, 20 Foster St
Bergenfield 384-3643
Ohio S Hojnowski, 20010 Sumpter Rd
Cleveland 662-3569

NORTHERN PRECISION LABS INC, 202 FAIRFIELD RD
FAIRFIELD
N J, 07006, TWX 710-734-4301 .... 201 227-4800
T MONACO, EMP 56, ENG 5, $1,000-$2,500M
Ala Intl Scientific Instru, 614 Madison Ave S
Huntsville 536-9686
Ariz Luscombe Engineering Co, 3130 N 3rd Ave, Phoenix
Cal Luscombe Engineering Co, 610 S Arroyo Pkwy
Pasadena
Cal Luscombe Engineering Co, 220 E 3rd Ave
San Mateo
Fla Truex Assoc, 3165 McCrory Pl
Orlando 305 841-8931
Ind Tri-State Mktg, 3220 Broadway
Fort Wayne 219 456-3567
Md G L Brown Assoc, 5801 Annapolis Rd
Bladensburg 301 779-1500
Minn Stack-Johnson, Inc, 4501 Minnetonak Blvd
Minneapolis 920-4933
NJ Ray Lawson Assoc, 8 N Lincoln Ave
Wenonah 857-1515
NM A L S Electronics, Box 11626
Albuquerque 505 268-9600
NY Alan E De Cew Agency, Box 73, Sodus
Ohio Tri-State Mktg, 1717 Section Rd
Cincinnati 513 613-5060
Can Technitron Assoc Ltd, 769 Lajovie Ave, Dorval Que

NORTHERN RADIO CO INC, 149 W 22ND ST
NEW YORK, N Y, 10011 .... 212 WA 99117
R HENNINGER, EMP 104, ENG 9, $2,500-$5,000M

NORTHERN SCIENTIFIC INC, 2551 W BELTLINE HWY
MIDDLETON
WIS, 53562, TWX 910-280-2521......... 608 836-6511
W BUFFO, EMP 38, ENG 5, $1,000-$2,500M
Ala Holmes & Assoc, 4862 Governors' Dr W
Huntsville 837-6900
Cal Roland Trehearne Assoc, Box 68
San Rafael 415 456-9442
Colo Radco Scientific Co, 508 Newark
Aurora 303 343-1777
Fla Holmes & Assoc, 316 1/2 S Bumby St
Orlando .... CH 1-2128
Ga E G Holmes & Assoc, 3667 Clairmont Rd NE
Chamblee 451-6161
Ill Corlett-bird Inc, 15 S Austin Blvd
Chicago 312 626-6726
Mass Applied Technology, 7 Vine St, Boston... CA 7-2700
NY Scientific Systems Sales Corp, 376 Great Neck Rd
Great Neck .... HN 6-0053
NC Holmes & Assoc, 430 W Friendly Ave
Greensboro .... BR 2-0855
Wash Showalter-Judd Inc, 1806 S Bush Pl
Seattle .... EA 4-7911
Can Spectra-Research Ltd, 376 Churchill Ave
Ottawa 728-3415
For Long Ind Eqpts Pty Ltd, 4 Foster St
Darlinghurst, N S W 211-2933
GB Nuclear Measurements, 67 Dudley St
Luton 27557

Jap Seki & Co Ltd
9 2-Chome Nihonbashi-Koamicho, Chuo-ku
Tokyo 669 4121
Swed AB Chemetal, Sit Eriksgatan 5
Stockholm K 515111
Isrl Isramex Co Ltd, 25 Arlozorov St, Tel-Aviv ... 245403
Neth Line-A-Data, Bldg 112A Schiphol Airport
Amsterdam 020 151602

NORTHFIELD PRECISION INSTRUMENT CORP
4400 AUSTIN BLVD, ISLAND PARK
N Y, 11558.......................... 516 431-1112
M FARBER, EMP 35, ENG 2, $1,000-$2,500M
ADV PG 67, 154
Cal Electro-Mechanical Instr Inc, 1388 E Walnut St
Pasadena .... MU 1-2748

NORTH HILLS ELECTRONICS INC, ALEXANDER PL, GLEN COVE
N Y, 11542.......................... 516 671-5700
S CRAMER, EMP 65, ENG 9, $500-$1,000M
ADV PG 746
Cal R C Kruse Assoc, 21000 Arminta St
Canoga Park 213 341-3020
NJ Engineered Prods Inc, 28 Essex St
Lodi 201 845-6668
For Terminal Radio Int'l Ltd, 3 W 61st St
New York N Y 212 246-2133

NORTHRIDGE ENGINEERING CO DIV REPUBLIC CORP
18758 BRYANT ST, NORTHRIDGE
CAL, 91324 .... 213 349-4732
P HARRIS, EMP 35, ENG 14, $250-$500M

NORTHROP NORTRONICS, 1 RESEARCH PARK
PALOS VERDES PENINSULA
CAL, 90274, TWX 67-7199............ 213 377-4811
W PARKER, EMP 6028
Cal Anaheim Dept, 500 E Orangethorpe
Anaheim .... TR 1-5000
Cal Navigation Dept, 2301 W 120th St, Hawthorne
Mass Needham Dept, 66 B St
Needham Heights .... HI 9-0400
Mass Precision Products Dept, 100 Morse St
Norwood 762-5300

NORTHWEST PLASTICS INC, 2415 PILOT KNOB RD
ST PAUL, MINN, 55118 .... 612 452-1120
J ADAMS, EMP 500, ENG 6, $5,000-$10,000M
Ill Russ Diethert Co, 2030 Montrose Ave
Chicago 561-7627
Ind Russ Diethert Co, 6060 N College
Indianapolis 255-6169
Iowa Plastronics Inc, Grundy Center 824-5201
NC Russ Diethert Co, 903 E Second Ave
Gastonia 849-0365
Wis Russ Diethert Co, 316 E Silver Spring Dr
Milwaukee 964-2530

NORTON ASSOCIATES INC, 10 DI TOMAS CT, COPIAGUE
N Y, 11726.......................... 516 598-1600
E NORTON
ADV PG 337-339

NORTON CO, 1 NEW BOND ST, WORCESTER
MASS, 01606, TWX 710-340-1126...... 617 853-1000
D MELVILLE, EMP 4335, ENG 500, OVER $10,000M
Cal Norton Co, 110 S Garfield Ave
Montebello 213 685-5750
Ga Norton Co, 5200 Peachtree Rd
Chamblee 404 457-7984
Ill Norton Co, 4737 S Christiana Ave
Chicago 312 523-8700
Ind Norton Co, 2511 E 46th St
Indianapolis 317 547-5541
Mich Norton Co, 5805 Lincoln Ave
Detroit 313 872-8300
Mo Norton Co, 5435 Highland Park Dr
St Louis 314 531-2433
Ohio Norton Co, 1306 E 55th St
Cleveland 216 431-9500
Pa Norton Co, 4732 Stenton Ave
Phila 215 329-4452
Pa Norton Co, 1130 Butler Plank Rd
Pittsburgh 412 961-0440

NORTON CO METALS DIV, 45 INDUSTRIAL PL
NEWTON, MASS, 02164............... 617 969-7690
A CHESTER JR, EMP 200, ENG 20, OVER $10,000M
Cal Norton Co Metals Div, 292 Wilshire Blvd
Anaheim 772-6469
Ill Norton Co Metals Div, 3553 W Peterson
Chicago 478-8838
Mass Norton Co Metals Div, 865 Providence Hwy
Dedham 329-1778
NJ Norton Co Metals Div, 99 Kinder Kamack Rd
Westwood 664-1800
Ger Norton Co Metals Div, Ernst Haekelstr 18, Muenchen
Swit Norton Co Metals Div, 81 Route De Cointrin
Geneva 331180

NORTON CO SUPERCON DIV, 9 ERIE DR, NATICK
MASS, 01760 .... 617 235-0949
J WONG
For NRC Europe, 81 Rte De Cointrin
Geneva-Cointrin 33-1180

NORTON CO VACUUM EQUIP DIV
160 CHARLEMONT ST, NEWTON
MASS, 02161 .... 617 332-5800
J FLOOD
Cal Norton Co Vac Equip Div, 292 Wilshire Blvd
Anaheim 776-2810
Cal Norton Co Vac Equip Div, 904 Industrial Ave
Palo Alto 3623455
DC Norton Co Vac Equip Div, 1640 Wisconsin Ave
Washington 338-8079
Ga Norton Co Vac Equip Div, 6075 Roswell Rd NE
Atlanta 255-0761
Ill Norton Co Vac Equip Div, 2553 W Peterson Ave
Chicago 478-8676
Ind Norton Co Vac Equip Div, 1111 E 54th St
Indianapolis 253-7434
Mass Norton Co Vac Equip Div, 865 Providence Hwy
Dedham 329-2677
Mich Norton Co Vac Equip Div, 34415 Grand River Ave
Farmington 476-3010
NJ Norton Co Vac Equip Div, 99 Kinderkamack Rd
Weswood 201 664-5156
NY Norton Co Vac Equip Div, Box 362
Latham 518 346-8111
Ohio Norton Co Vac Equip Div, 8935 Brecksville Rd
Brecksville 526 4100
Pa Norton Co Vac Equip Div, Box 499
Willow Grove 215 657-2131
Tex Norton Co Vac Equip Div, First Bank & Trust Bldg
Richardson 214 528-9250
Can BRH Assoc Ltd, 6338 Victoria Ave
Montreal 733-5331
Can BRH Assoc Ltd, Box 214 Sta Q
Toronto 489-9191
Can BRH Assoc Ltd, 1300 Carling Ave
Ottawa Ont 613 728-0113
Fr NRC Europe, 1 Rue Jean-Pigeon F-94 Charenton
Paris 368 04.46
Ger NRC Europe
D-8 Menchen 19 Sudliche Auffahrtsallee 29
Munich 57.38.25
Swit NRC Europe, 81 Rte De Cointrin, Geneva ... Cointrin

NORTON VACUUM EQUIPMENT DIV, COLUMBUS
PLANT, 1045 RIDGE ST, COLUMBUS
OHIO, 43212........................ 614 486-9683
C HORNELL, EMP 30, ENG 2, $500-$1,000M
Cal Norton Vac Equip Div, 904 Industrial Ave
Palo Alto 415 326-3455
Cal Norton Vac Equip Div, 292 Wilshire Ave
Anahein 714 776-2810
DC Norton Vac Equip Div, 1640 Wisconsin Ave
Washington 202 338-8079
Ga Norton Vac Equip Div, 6075 Roswell Rd NE
Atlanta 404 252-3402
Ill Norton Vac Equip Div, 3553 W Peterson Ave
Chicago 312 478-8676
Ind Norton Vac Equip Div, 1111 E 54th St
Indianapolis 317 253-7434
Mass Norton Vac Equip Div, 865 Providence Hwy
Dedham 617 329-2677
Mich Norton Vac Equip Div, Box 128
Farmington 313 476-3010
NJ Norton Vac Equip Div, 99 Kinderkamack Rd
Westwood 201 664-5156
NY Norton Vac Equip Div, Box 362
Latham 518 346-8111
Pa Norton Vac Equip Div, Box 499
Willow Grove 215 657-2131
Tex Norton Vac Equip Div, First Bank & Trust Bldg
Richardson .... 214 Ad 1-7241
Wash Cane-Jessup Co Inc, Box 250
Bellevue .... GL 4-0691
Can BRH Assoc Ltd, 6338 Victoria Ave
Montreal 733-5331
Can BRH Assoc Ltd, 184 Finch Ave W
Willowdale 223-4008
Fr NRC-Europe SARL, Zone Industrielle F-74
Saint Julien

NORTRONICS CO INC, 8101 W 10TH AVE N, MINNEAPOLIS
MINN, 55427 .... 612 545-0401
J DUNDOVIC
ADV PG 340
Ala Murphy & Cota, 904 Bobwallace Ave SE
Huntsville 536-9121
Ariz Barstow & Doran , 647 Ave Feliz
Tucson 622-6351
Cal Barstow & Doran Inc, 1406 S Grand Ave
Los Angeles 749-0438
Cal Nickerson-Gray & Assoc, 2434 Park Blvd
Palo Alto 326-0152
Cal E Bedell, 2470 Edith Ave
Redwood City 365-7487
Colo Norris & Co, 915 Cheyenne Blvd
Colorado Springs 635-9319
Conn John Stawicki, Box 126, Essex 767-8566
Ga Murphy & Cota, 586 Armour Circle NE
Atlanta 875 2525
Ill Irving Rose & Assoc, 4734 N Austin Ave
Chicago 282-6835
Ind Schroeder Sales Co, 2084 Noble Rd
Cleveland Ohio 268-3636
Md Martin Friedman & Assoc, 1620 Winford Rd
Baltimore 435-5872
Mich Burcaw Co, 18236 W McNichols Rd
Detroit 533-7700
Minn Jack Perling, 8947 Terrace Rd NE
Mnpls 927-8465
Mo Kelly-Schmitz-Winkler Co, 7546 Troost Ave
Kansas City 363-5651
NJ Component Marketers Inc, 109 Valley Rd
Montclair 746-6717
Ohio Perry Lohse Co, 529 Richmond Rd
Cleveland 381-7788

Ore Earl & Brown Co, 2041 SW 58th Ave
Portland 226-4148
Pa Martin Friedman & Assoc, 7 Heather Rd
Bala-Cynwyd 839-3450
Pa Par-Nell Sales Co, 421 Bustleton Pike
Philadelphia 357-7230
Tex Techno Assoc, 2324 Shorecrest Dr
Dallas..................... 357-9213
Wash Earl & Brown Co, 422 1st Ave W
Seattle 284-1121
Can Len Finkler Ltd, 2 Tycos Dr, Toronto 781-5231
Can Len Finkler Ltd, 1440 Bannatyne Ave
Winnipeg Man..................... 775-3354
For Artronics Co, 12 Lincoln Blvd
Emerson N J 265-3850
For M Kronfeld, 46 Sussex Rd
New Rochelle N Y 632-7589

NORTRONICS DIV, NORTHROP CORP, PREC PRODS
DEPT, 100 MORSE ST, NORWOOD
MASS, 02062 .... 617 762-5300
W VAN PELT, EMP 1200, ENG 120, OVER $10,000M
Ala Nortronics Div, 3302 Memorial Pkwy SW
Huntsville 881-2141
Cal Nortronics Div, 2566 Mission St
San Marino 799-4117
DC Nortronics Div, 1730 K St NW
Washington 338-8840
Fla Northrop Corp, 1325 N Atlantic
Cocoa Beach 783-4880
Ohio Nortronics Div, 349 W 1st St, Dayton 222-7805
Okla Northrop, 6401 Tinker Diagonal, Midwest City
Tex Nortronics Div, 1730 FM 528, Houston ... 928-5476
For Northrop Intl, 12 Rue Hamelin, Paris 16e
France..................... 727-13-39
Ger G W Boehm, Rathams Gasse 13
53 Bonn .... Bonn 57036

NOTHELFER WINDING LABS INC, 220 EWINGVILLE RD
TRENTON, N J, 08603 .... 609 882-2500
C TOOLE, EMP 62, ENG 5
ADV PG 743
Tex W J Wanner Assoc, 6434 Maple Ave
Dallas..................... 214 357-8266

NOTIFIER CO SUB EMHART CORP, 3700 N 56TH ST
LINCOLN, NEB, 68504 .... 402 434-0211
J HARRIS, EMP 125, ENG 12, $1,000-$2,500M

NOVATRONICS INC, 500 N ANDREWS AVE EXT
POMPANO BEACH
FLA, 33061, TWX 510-956-9878 .... 305 942-5200
J CIANCIARULO, EMP 171, ENG 9, $2,500-$5,000M
Ga Estes Assoc, 533 Decatur Fed Bldg
Decatur..................... 373-8266
Ohio E V Swenson Assoc, 112 Talbot Tower
Dayton 223-4279
Tex Spacetronics, Inc, 8328 Tucson Tr
Fort Worth 244-0081
Va W A Brown & Assoc Inc, 325 1st St
Alexandria 836-1800
Wash J K Dooley Co Inc, 4100 Stone Way
Seattle 632-1618
Can Electrodesign Ltd, 9124 St Lawrence Blvd
Montreal, Que 389-5914
For Dage Corp, 757 Main St
Stamford, Conn 374-3124

NUCLEAR-CHICAGO CORP, 333 E HOWARD AVE
DES PLAINES
ILL, 60018, TWX 0253788 .... 312 827-4456
J GALLAGHER, EMP 800, ENG 200, OVER $10,000M
Cal Nuclear-Chicago Corp, 1611 Beverly Blvd
Los Angeles..................... 626-3236
Cal Nuclear-Chicago Corp, 825 Sn Antonio Rd
Palo Alto 321-0782
Colo Nuclear-Chicago Corp, 4805 N Broadway
Denver 825-3255
Ga Nuclear-Chicago Corp, 3166 Maple Dr NE
Atlanta 261-5866
Ill Nuclear-Chicago Corp, 2510 Dempster St
Des Plaines..................... 827-6136
Kan Nuclear-Chicago Corp, 2200 W 75th St
Prairie Village..................... 362-6442
Md Nuclear-Chicago Corp, 8720 Georgia Ave
Silver Spring 588-2862
Mass Nuclear-Chicago Corp, 767 Main St
Waltham 894-7733
Mich Nuclear-Chicago Corp, 20225 Ann Arbor Trail
Dearborn Heights 271-0712
Minn Nuclear-Chicago Corp, 156 Griggs-Midway Bldg
St Paul..................... 646-1744
Mo Nuclear-Chicago Corp, 287 N Lindbergh Blvd
Creve Coeur..................... 997-0977
NJ Nuclear-Chicago Corp, 383 King's Hwy
Cherry Hill..................... 667-0631
NM Nuclear-Chicago Corp, 203 Wellesley Dr
Abluq 268-2478
NY Nuclear-Chicago Corp, 3036 E Tremont Ave
Bronx 828-3900
NY Nuclear-Chicago Corp, 3259 S Winton Rd
Rochester..................... 442-2430
NC Nuclear-Chicago Corp, 2405 Guess Rd
Durham 286-3227
Ohio Nuclear-Chicago Corp, 3537 Epley Rd
Cincinnati..................... 931-9100
Ohio Nuclear-Chicago Corp, 20525 Center Ridge Rd
Cleveland..................... 333-4355
Pa Nuclear-Chicago Corp, 1910 Cochran Rd
Pittsburgh..................... 343-4141
Tenn Nuclear-Chicago Corp, 230 N Purdue Ave, Box 454
Oak Ridge 482-3153
Tex Nuclear-Chicago Corp, 1066 W Mockingbird La
Dallas..................... 631-2363
Tex Nuclear-Chicago Corp, 4912 Travis St
Houston 524-7461
Wash Nuclear-Chicago Corp, 4000 Aurora Ave N
Seattle 632-5313
Can Nuclear-Chicago Corp, 160 Eglinton Ave E
Toronto, Ont..................... 481-4884
Can Nuclear-Chicago Corp, 7511 104th St
Edmonton, Alb..................... 433-8262
Can Nuclear-Chicago Corp, 3300 Cavendish Blvd
Montreal, Que 481-8159
Neth Nuclear-Chicago Europa NV, Donker Curtiusstr 7
Amsterdam W 162666

NUCLEAR CORP OF AMERICA, NUCLEAR DIV
2 RICHWOOD PLACE, DENVILLE
N J, 07834 .... 201 627-4200
D SILVERSTEIN, EMP 140, ENG 10, $1,000-$2,500M
Ala Brennen Assoc, 1602 Wilma Cir
Huntsville 205 536-3715
Cal Crown Elctns, 5653 Lankershim Blvd
Van Nuys 213 873-1266
Fla Brennen Assoc, Box 5006
Clearwater 813 446-5006
Fla Brennen Assoc, Box 7773, Orlando....... 425-8161
Ga Brennan Assoc, Box 372, Atlanta 404 469-8324
Md A Ratner Assoc, 4928 St Elmo Ave
Bethesda 657-2585
Mass Geo Neuman & Co, 91 Fairfield St
Needham 617 444-4342
NJ Hansen Assoc, Box 339
Ridgewood..................... 201 652-7055
NY Ryerson Assoc, 1672 Monroe Ave
Rochester..................... 716 442-1900
Ohio Twin Region Sales, 21010 Center Ridge Rd
Cleveland..................... 216 331-7650
Ohio Twin Region Sales, 5700 Far Hills Ave
Dayton 513 434-8000
Pa Arnold Ratner Assoc, 301 York Rd
Jenkintown .... 215 Tu 7-5250
Pa Twin Region Sales, 201 Penn Center Blvd
Pittsburgh..................... 412 824-1120
Tex Elcom, Box 20313, Dallas 352-5006

NUCLEAR DATA INC, 100 W GOLF RD, PALATINE
ILL, 60067 .... 312 529-4600
C LONG JR, EMP 150, ENG 15
Cal Nuclear Data Inc, Box 920
Inglewood 213 677-8400
Cal Nuclear Data Inc, 1666 Abrams Ct
San Leandro..................... 415 483-9200
Ga Nuclear Data Inc, Box 17742
Atlanta 404 241-3220
Md Nuclear Data Inc, 6900 Wisconsin Ave
Chevy Chase 301 657-9700
Mass Nuclear Data Inc, 39 Lanewood Ave
Framingham..................... 617 899-4927
NY Nuclear Data Inc, 5 Beekman St
New York 212 962-3666
Ohio Nuclear Data Inc, 9135 Fernwood Dr
Olmstead Falls 216 235-1696
Pa Nuclear Data Inc, 3081 WestChester Pike
Newtown Sq 215 356-2882
For Electronic Corp, 114-P/2 P E C H Soc, Karachi, Pak
For Thai Engrg Corp Ltd, 41 Sukhumit 27, Bangkok
For Cooperative C L Enterprise Co, Box 1742
Taipei Taiwan
For Coasin Chile Ltda, Casilla 14588-Correo 15
Santiago Chile
For Coasin C A, Aptdo 10386 Sabana Grande
Caracas Vene..................... 72.96.37
For Coasin S A, Virrey del Pino 4071
Buenos Aries Arg 52-3185
Den Hans Christiansen, Hvidtjornevej 36, Vanlose
Kobenhavn
Ger Nuclear Data GmbH, Mathilde-Kaiser-Str 25
43- Essen-Huttrop
Ger Nuclear Data GmbH, Blittersdorffplatz 29
6 Frankfurt/M 23 11 44
GB B & K Electronic Services, Ltd, 59 Union St
London, S E 1
GB R Baker, 36 Welley Rd, Wraysbury nr Staines Mdsx
Holl Nuclear Data Europe, Schiphol Airport, Amsterdam
Ital R C Cavalcanti-INEA, Via Porri 10, Torino
Ital Radiax S R L, Corso Beccaria 2
Torino 10122..................... 54. 38.39
Jap C Itoh & Co Ltd, CPO Box 136, Tokyo
SAfr Protea Phys & Nuclear Instr Pty Ltd
38, Faraday St, Wemmer, Johannesburg
Swed Nuclear Data (Scandinavia), Spangavagen 327
Stockholm Spanga 08 369-897
Swit Ets. H V L, Grellingerstr 13, Basle
Arg Coasin SA, Virrey del Pino 4071, Buenos Aires
Belg Ets H V L SA, 1026-1048 Chaussee de Louvain
Brussels 14 .... 02 20. 15. 06
Braz Indus E Commercio Ambriex S/A
Av Graca Aranha 226-6, Rio De Janeiro
Ind Electronic Equipment Corp, 8-B Lallbazar St, Calcutta
Isrl Racom Electronics Co, Ltd, 74, Nordau Blvd
Tel-Aviv
Mex Fredin S A, Adpo Postal 53-958, Mexico 5, D F
Mex Fredin S A, Adpo Postal 53-905, Mexico
NZ Philips Electrical Ind (N Z) Ltd, 18-20 Lorne St
Wellington 54-039
Aust AEI Nuclear Dept, 15 Whiting St
Artarmon NSW 2064 439-1922

NUCLEAR DEVELOPMENT LAB, INC, BOX 7034
KANSAS CITY, MO, 64113 .... 816 DE 37692
M TEST, EMP 2, ENG 1, UP TO $100M

NUCLEAR DIODES, INC, BOX 135, PRAIRIE VIEW
ILL, 60069 .... 312 634-3870
R LICHTINGER, EMP 25
Cal R F Trehearne Assoc, Box 68
San Rafael..................... 456-9442
Ill Contemporary Science Inc, Box 205
Mt Prospect..................... 312 255-3793
Mo Contemporary Science Inc, Box 4384
Affton 314 647-8481
Ohio Contemporary Science Inc, Box 797
Shaker Hts..................... 216 292-7533
Tenn Pulcir Inc, 2711 Kingston Pike, Knoxville
Can BRH Assoc Ltd, 184 Finch Ave W
Willowdale Ont..................... 416 223-4008
Can BRH Assoc Ltd, 6338 Victoria Ave
Montreal Que 514 733-5331
Fr Quartz & Silice, 8 rue d'Anjou, Paris VIII
Holl Quartz & Silice, Box 227, Passage 61
Den Haag..................... 116717
Jap Toyo Trading Co Ltd, CPO Box 999, Tokyo
SAfr Protea Phys & Nuclear Instr
7, Newton St, Wemmer
Johannesburg..................... 838-8351
Swed LKB Instrument AB, Box 76, Stockholm - Bromma 1
Arg Coasin S A, Virrey del Pino 4071, Buenos Aires
Isrl Ammo, Box 26155, Tel-Aviv
Aust Australian Electrical Ind Pty Ltd, 34 Whiting St
Artarmon, N S W

NUCLEAR ENTERPRISES LTD
BANKHEAD CROSSWAY S, EDINBURGH 11
SCOTLAND, TWX 72333 .... 031 443-4060
A MACKENZIE, EMP 500, ENG 170, $5,000-$10,000M
Cal Nuclear Equip Corp, 931 Terminal Way
San Carlos 591-8203
For W Thilo, Viktringer Ring 13
A-9020 Klagenfurt ....(0 42 22) 70 5 49
For Techtronics Corp Overseas Chmbrs, Alamgir Rd
Karachi 5 Pak 45325
For Cassel Ind E Mecanicas S A R L
Rua Pedro Nunes 47, Lisbon 1 Port..... 73 34 38
For Orhan Kocak, Kizilay Soysal Han Kat 2 No 15
Ankara Turk 17 58 61
Den Hans Buch & Co A/S, Svanevej 6
Copenhagen NV..................... TA 5170
Ger Derek S Forster, Perfallstr 4
8 Munich 80 .... 44 58 49
GB Nuclear Enterprises Ltd, Bath Rd Beenham
Reading Berks..................... WOO 2121
Holl Skaler, Brabantse Turfmarkt 76
Delft..................... 01730-26254
Holl J A G Lemmens, Lagemorgen laan 64
's Hertogenbosch 0 4100 37079
Holl Intechmij N V, Hoogkarspelstr 68
Den Haag..................... 36 37 00
Holl Negretti & Zambra Contl NV
Johan van Oldebarnevalthlan 14
Zeist 03404 1 66 44
Ital Silvio Garrone, S R L, 40 Via Marco Besso
Rome 320-305/6
Ital Fontanella Co di Regolazione Automatiche SRL
Via Ressi 21, 20121 Milan............ 688 15 78
Jap A R Brown, McFarlane & Co Ltd, Tokyo ... 561/5141
Jap A R Brown, McFarlane & Co Ltd, Osaka .. 361 3934
Jap Ataka & Co, 14 5-Chome Imabashi Higashiku
Osaka .... (23) 8461
Jap Toyo Trading Co Ltd, Box 999, Central Tokio
Nor Solberg & Andersen A/S, Hansteens Gate 5
Oslo 2 .... (02) 44 19 85
Nor Fridthjof E Bernsten A/S, Kr Augustsgt 6
Oslo 1 Norway 33 33 85
SAfr M L Instruments, 301 Beverly Hills, Honey St
Berea, Johannesburg 44-0226
SAfr Protea Physical & Nuclear Instr
7 Newton St Wemmer, Johannesburg 33-1015
Swed Falico Ltd, Stadsgarden 18, Stockholm...... 442535
Swed Bureau Technique Max Neukomm S A R L
CH 1605, Chexbres S/Vevey........ 021 56 1530
Swed Ingenjorsfirma Bo Engelbrecht AB
Eriksbergagatan 18, Stockholm O.... 08/11 51 90
Swit High Energy & Nuclear Equip S A
2 Chemin De Tavernay Grand Saconnex
1211 Geneva..................... 022 34 17 07
Gr J Metallinos, 38 Kifissias Ave
Athens 608 .... 646 455
Isrl M Kochn, 12 Shamai St, Jerusalem 22862
NZ B R Homersham Ltd, 126 Victoria St
Christchurch..................... 69-579
Fin Sonar Oy, Salomonkatu 17B, Helsinki 64 01 23
Fin Oy Honeywell Ab, Hitsaajankatu 5
Helsinki 80 .... 78 03 11
Aust Long Industrial Euip Pty Ltd, 4-14 Foster St
Sydney NSW 211-2933

NUCLEAR EQUIPMENT CHEMICAL CORP
145 FLORIDA ST, FARMINGDALE
N Y, 11735 .... 516 CH 9-8454
S TARRAS, EMP 6, ENG 3, $100-$250M

NUCLEAR FUEL SERVICES, INC
WHEATON PLAZA BLDG, WHEATON
MD, 20902 .... 301 933-5440
C BRAUN, EMP 500, ENG 100, OVER $10,000M
NY C R Moore, Box 124, West Valley 942-3235
Tenn S Williams, Box 218, Erwin............. 742-1721

NUCLEAR MATERIALS & EQUIPMENT CORP
609 WARREN AVE, APOLLO
PA, 15613, TWX 510-467-5781 .... 412 842-0111
D PETERS, EMP 1000, ENG 150, OVER $10,000M
Cal E F Whitmore Co, Box 162, San Marino
Cal Erb & Gray Scientific Co, 210 S Los Angeles St
Los Angeles
Mass Northeast Assoc, 15 Gregory St, Marblehead

NY Nuclear Assoc, 35 Urban Ave, Westbury . . 333-9344
Ital Elettronucleonica S p a, Via Bisleri 19, Milano
Jap Mitsubishi Shoji Kaisha Ltd
20 Marunouchi 2-Chome, Tokyo
Swed A Johnson & Co, Stureplan 3, Stockholm
Belg Rene Schurmans, 80 Av de la Brabanconne
Bruxelles

NUCLEAR MEASUREMENTS CORP
2460 N ARLINGTON AVE, INDIANAPOLIS
IND, 46218 ... 317 546-2415
L VAUGHN, EMP 28, ENG 4, $500-$1,000M
Ala Electro-Pneumatic Control Co, 416 Shenandoah Dr
Birmingham ... 205 822-5350
Cal R W Thompson Assoc, Inc, 4135 El Camino Way
Palo Alto ... 415 321-6383
Colo Rocky Mountain Scientific Co, Box 15462
Denver ... 303 238-6727
Ind Tech Sales & Marketing, 1121 N Arlington Ave
Indpls ... 317 356-3658
Mass M M Newman Corp, 7 Hawkes St
Marblehead ... 617 631-7100
Mich Martin Vogt, 2817 Bamlet Rd
Royal Oak ... 549-3355
NY Scientific Systems Sales Corp, 376 Great Neck Rd
Great Neck ... 516 466-0053
NC MacGuire Instrument Co, 4425 Randolph Rd
Charlotte ... 704 366-3454
Tex Hastings Radiochemical Corp, Box 60448
Houston ... 713 482-7535
Utah O Salme, 5762 S 1050 E
Salt Lake City ... 801 262-0235
Va Hildenbrand Co, Box 1060, Fairfax . . . 703 280-2330
Can Applied Technology Co, Box 272
Don Mills Ont ... 416 444-1264
For Rock Intl Corp, 13 E 40th St
New York, NY ... 212 689-0200

NUCLEAR RESEARCH INSTRUMENTS, 2800 7TH ST
BERKELEY, CAL, 94710 ... 415 841-7012
B JENNINGS, EMP 40, ENG 35, $1,000-$2,500M
Cal Houston Fearless Corp, 11801 W Olympic Blvd
Los Angeles ... 213 272-4331
Fla Houston Fearless Corp, 2126 Mohawk Trail
Maitland ... 305 647-7737
Ill Houston Fearless Corp, 3900 N 25th Ave
Schiller Park ... 312 678-8226
NY Houston Fearless Corp, Box 237
Croton-on-hudson ... 212 299-3121
Ohio Houston Fearless Corp, 125 Sheldon Dr
Centerville ... 513 885-2100
Va Houston Fearless Corp, 2304 Wilson Blvd
Arlington ... 703 522-8686

NUCLEAR SUPPLIES, BOX 312, ENCINO
CAL, 91316 ... 213 985-6190
E TAKEHARA
Cal Nuclear Supplies, 10747 Chandler Ave
N Hollywood ... 985-6190
Haw Hawaii Chemical Co Ltd, Box 3616
Honolulu ... 814-266
Ill Corlett-Bird, 13 S Austin Blvd
Chicago ... 312 626-6726
NY Capintec Inc, 527 Madison Ave
New York ... 212 752-2414
Tenn Research Electronics Co, 121 E Irving La
Oak Ridge ... 483-6487
Jap Kobe Industries Corp, Box 1092, Kobe 67-5081

NUCLEAR TECHNOLOGY CORP, 116 MAIN ST
WHITE PLAINS, N Y, 10601 ... 914 949-5660
G ROBICHAUD, EMP 16, ENG 8, $250-$500M

NUCLEONIC INDUSTRIES, 2255 E AVIATION WAY
TUCSON, ARIZ, 85713 ... 602 622-7423
C NOBLE, EMP 10, ENG 3, $250-$500M

NUCLIDE CORP, AGV DIV, 916 MAIN ST, ACTON
MASS, 01720 ... 617 263-2936
D MARSHALL, EMP 15, ENG 5, $5,000-$10,000M
Cal L Patrick, Box 695M, Altadena ... 797-4511
NY Owens & Co, 24 Jordan St
Skaneateles ... 685-5571

NUMAR CORP, 242 W 30TH ST, NEW YORK
N Y, 10001 ... 212 LA 4-4411
L CHILL, EMP 28, ENG 4, $1,000-$2,500M
ADV PG 343

NUMBERALL STAMP & TOOL CO, 379 HUGUENOT AVE
STATEN ISLAND, N Y, 10312 ... 212 YU 4-0822
W BUECHLINE, EMP 30, ENG 2, $250-$500M

NUMERICAL CONTROL CORP, 3033 JEFFERSON ST
SAN DIEGO, CAL, 92110 ... 714 291-2030
W WOLF JR, EMP 25, ENG 6
DC B Combs, 1625 Eye St NW
Washington ... 393-6246

NUMEX CORP, 223 CRESCENT ST, WALTHAM
MASS, 02154 ... 617 899-4040
S RADLER, EMP 10, ENG 2
Ariz Compar Rocky Mountain, Box 1607
Scottsdale ... 947-4336
Cal Compar San Francisco, 1817 Bayshore Hwy
Burlingame ... 697-6244
Colo Robert Maich Co, 3600 S Lincoln St
Englewood ... 781-0912

Ill Scientific Sales Corp, 7132 N Harlem Ave
Chicago ... 775-7595
La IBL Engineering & Sales Inc, 1444 Calhoun St
New Orleans ... 895-4793
Md Compar Chesapeake, Inc, 7 Church La
Baltimore ... 484-5400
Mass Impact Sales Co Inc, 223 Crescent St
Waltham ... 893-2850
Minn Anderson Electronics Co
19471 James Couzens Hwy, Detroit . . . DI 2-7133
Minn Compar Twin Cities, Box 8095
Minneapolis ... 922-7011
Mo Ozark Electronic Mkt, 2573 Woodson Rd
St Louis ... 423-7200
NM Compar Rocky Mountain, 2125 San Mateo Blvd NE
Albuquerque ... 265-1020
NY N W Alexander & Assoc
Box 2561, Upper Union Br
Schenectady ... 377-0581
NY H J Krasner Assoc, 33 Great Neck Rd
Great Neck ... HU 7-0690
Ohio Compar Ohio, 19500 Ctr Ridge Rd
Rocky River ... 333-4120
Okla IBL Engineering & Sales, Inc, 5149 E 31st St
Tulsa ... WE 6-6305
Pa W F Keegan & Co, Inc, Box 687
Havertown ... JA 8-6640
Tex IBL Engineering & Sales, Inc
219 Preston Royal Center, Dallas . . . . . EM 3-2921
Tex IBL Engineering & Sales, Inc 3403 Audubon 5
Houston ... JA 3-8360
Wash Al Smith Co, 405 166 SE, Bellevue . . . . MA 2-2212
Can Douglas Randall Canada Ltd, 1710 Midland Ave
Scarborough, Ont

NURAD INC, 2165 DRUID PARK DR, BALTIMORE
MD, 21217 ... 301 664-8300
N HART, EMP 14, ENG 3, $250-$500M
Cal Crown Electronics, Box 2573, Van Nuys
DC J R Eberly, 1207 Potomac St NW
Washington ... 202 338-2277
Ohio L J Sculley & Assoc, Box 71 Far Hills Sta
Dayton ... 513 298-9575

NUS CORP, UNDERWATER SYS DIV, 9 KEYSTONE PL
PARAMUS, N J, 07652 ... 201 265-2400
D VELLEKAMP, EMP 35, ENG 7, $1,000-$2,500M
Cal Tekmar Instruments, Inc, 901 Dover Dr
Newport Beach ... 714 540-4435
Cal Tekmar Instruments, Inc, 307 S B St
San Mateo ... 415 342-6334
Fla Beacon Electronic Assoc, Inc, Box 1278
Maitland ... 305 647-3498
Fla Beacon Electronic Assoc, Inc, Box 10212
Ft Lauderdale ... 305 564-4298
Ga Beacon Electronic Assoc, 2285 Peachtree Rd NE
Atlanta ... 404 351-3654
Mass Technical Enterprises, 195 West St
Waltham ... 617 891-5300
Mo Blue Ridge Elctn Sales Co, 7759 Loma Vista Dr
Kansas City ... 816 761-9550
NY CDB Enterprises, 675 W Jericho Tnpk
Huntington ... 516 MY 2-5200
NC Beacon Electronic Assoc, Box 503
Jamestown ... 919 454-1010
Tex M Brainard Jr, 2505 Broadway
Houston ... 713 643-6239
Va Sutter & Co, Box 426, Vienna ... 703 938-0505
Va Negley Assoc, 7315 Venice St
Falls Church ... 703 560-7920
Can Electrodesign, Ltd, 9124 St Lawrence Blvd
Montreal ... 514 389-5914
Can Electrodesign, Ltd, 83 Arthur St
Ottowa ... 613 233-8815
Can Electrodesign, Ltd, 3433 Bathurst St
Toronto ... 416 787-0991
For NUS Corp, 750 3rd Ave
New York, N Y ... 212 YU 6-2244

NUTMEG SCREW MACHINE PRODUCTS CO
BOX 1470-E, WATERBURY
CONN, 06720 ... 203 879-1496
EMP 86, ENG 1, $250-$500M

NUTRON, 790 HEMMETER LANE, MOUNTAIN VIEW
CAL, 94040 ... 415 961-6070
R DONLEY, EMP 25, ENG 2, UP TO $100M

NUTRONICS, KEYCODE DIV, BOX 72, PARAMUS
N J, 07652 ... 201 652-4220
R SCHMIDT, EMP 201, ENG 4, $250-$500M
Ala Medco Assoc, 90 Holiday Office Ctr
Huntsville ... 205 881-3721
Cal Sharron Assoc, 1 First St
Los Altos ... 415 941-2217
Cal L L Stoakes, 4438 Ingraham St
San Diego ... 714 274-6281
Fla Medco Assoc, 4 Wavecrest Dr
Indialantic ... 305 783-9407
Ill Magnuson Assoc, 5639 W Fullerton Ave
Chicago ... 312 622-6322
Ind R O Whitesell Assoc, 272 Central Blvd
Ft Wayne ... 219 743-4411
Ind R O Whitesell Assoc, 6620 E Washington St
Indianapolis ... 317 FL 9-5374
Ky R O Whitesell Assoc, 223 Lex Manor Blvd
Louisville ... 502 893-7303
Md Biechler Assoc, 17733 New Hampshire Ave
Ashton ... 301 924-4507
Md Biechler Assoc, 7353 Yorktowne Dr
Baltimore ... 301 825-8222
Mass J & J Assoc, 225 Crescent Ave
Waltham ... 617 899-0160

Mich R O Whitesell Assoc, 16801 Wyoming Ave
Detroit ... 313 862-2225
Mich R O Whitesell Assoc, 303 Fidelity Blvd
Benton Harbor ... 616 927-2041
Minn Magnuson Assoc, 1246 W 7th St
St Paul ... 612 227-8495
NY Ossman Component Sales Corp, 39 Saginaw Dr
Rochester ... 716 442-3290
NY B B Taylor Corp, 2270 Grand Ave
Baldwin ... 516 223-8000
Ohio R O Whitesell Assoc, 1172 W Galbraith
Cincinnati ... 513 521-2290
Ohio R O Whitesell Assoc, 21139 Lorain Ave
Cleveland ... 216 333-2585
Ohio R O Whitesell Assoc, 1350 W Fifth Ave
Columbus ... 614 488-9731
Ohio R O Whitesell Assoc, 4133 S Dixie Ave
Dayton ... 513 298-9546
Pa Biechler Assoc, Goodbrothers Blvd
Narberth ... 215 667-1827
Pa R O Whitesell Assoc, 201 Penn Center Blvd
Pittsburgh ... 412 242-0100
Tex Norvall Assoc, 10210 Monroe
Dallas ... 214 357-6451
Tex Norvall Assoc, 6440 Hillcroft
Houston ... 713 665-0558

NVF CO, MARYLAND AVE & BEECH ST, WILMINGTON
DEL, 19899 ... 302 OL 5-6371
R DAVIS, EMP 1800, ENG 70, OVER $10,000M
Cal NVF Co, 6025 Scott Way
Los Angeles ... 213 723-0291
Cal NVF Co, 1 First St, Los Altos ... 415 948-5560
Conn NVF Co, 1960 Whitney Ave
Hamden ... 203 248-0500
Fla NVF Co, 2411 Covina Way S
St Petersburg ... 867-2201
Ga NVF Co, 3166 Maple Dr, Atlanta ... 231-2946
Ill NVF Co, 2415 Gardner Rd, Broadview . . . AU 7-1935
Ind NVF Co, 3513 N Hovey St
Indianapolis ... WA 3-6381
Md NVF Co, 121 W Allegheny Ave
Towson ... VA 3-0393
Mass NVF Co, 62 Prospect St, Waltham ... TW 4-3500
Mich NVF Co, 15800 W McNichols Rd
Detroit ... 313 838-8700
Mo NVF Co, 2 S Brentwood Blvd, St Louis . . PA 5-9577
NY NVF Co, 895 Winton Rd S, Rochester . . . GI 2-1383
NY NVF Co, 43 Prospect St
East Orange, N J ... 212 CO 7-3895
NC NVF Co, 121 Greenwich Rd, Charlotte 366-5712
Ohio NVF Co, 30 E Central Pkwy
Cincinnati ... GA 1-0632
Ohio NVF Co, 2000 Lee Rd, Cleveland ... ER 1-0240
Pa NVF Co, 6910 Market St, Upper Darby . . . JA 8-6760
Pa NVF Co, 207 Martin Bldg, Pittsburgh . . . . FA 1-3939
Wis NVF Co, 741 N Milwaukee St
Milwaukee ... BR 6-6995
Can Natl Fibre Co of Can Ltd, 107 Atlantic Ave
Toronto ... 532-2837
Can Natl Fibre Co of Can Ltd, 4795 St Catherine St
Montreal ... 514 931 2595
Fr La Fibre Francaise, Yvours-Irigny
Irigny, Rhone ... 88 & 19 Irigny

NYE, INC, WILLIAM F, BOX G-927, NEW BEDFORD
MASS, 02742 ... 617 992-1327
G MOCK, EMP 7, ENG 2, $100-$250M

NY-GLASS, INC, 7314 E MADISON ST, PARAMOUNT
CAL, 90723 ... 213 NE 6-1035
A WILLIS, EMP 50, ENG 2, $500-$1,000M

NYLOGRIP PRODUCTS, 281 WINTER ST, WALTHAM
MASS, 02154 ... 617 891-8100
N HOUGHTON, EMP 35, ENG 1

NYLOMATIC CORP, NOLAN AVE, MORRISVILLE
PA, 19067 ... 215 295-4151
C ENGEL, EMP 100, ENG 6, $1,000-$2,500M
Cal Southwestern Agencies, 907 E Market St
Long Beach ... 428-1257
Fla H R Williams Assoc, Inc, Box 126
Weirsdale ... 753-2239
Mass Staley Assoc, Box 205
Wellesley Hills ... CE 5-1643
Mo J P Broadwell & Assoc, 110 S Central
St Louis ... PA 5-8700
NJ H R Williams Assoc, Inc, Box 344
Ridgewood ... 444-5392
Ohio Luebbe Sales Co, Box 8955, Cincinnati . . . 871-4211

NYTRON, 795 SAN ANTONIO RD, PALO ALTO
CAL, 94303 ... 415 327-0490
L WATSON, EMP 40, ENG 7, $500-$1,000M
Ala I S I, 614 Madison St S
Huntsville ... 205 536-9686
Cal Nytron Inc, 795 San Antonio Rd
Palo Alto ... 415 327-0490
Cal Techni Sales Co, 3820 E Colorado Blvd
Pasadena ... 213 792-5111
Colo J F Hurlbut Co, 2240 S Adams St
Denver ... 756-2046
Conn Impact Sales Co, Box 448
West Hartford ... 203 521-1221
DC John Hopkins Assoc, 4520 Starr Jordan Dr
Annandale, Va ... 280-2086
La Noakes Engrg, Box 940, Slidell ... 504 529-3012
Mass Impact Sales Co, 223 Crescent St
Waltham ... 617 893-2850
Mo Boweng, 10414 Oak Ave, St Louis ... 429-7327

NM A L S Electronics, Box 11626 Albuquerque.......... 505 268-9600
Pa Rivco, Box 52, Bala Cynwyd .... MO 7-5110
SC Technical Assoc, Box 5583 Spartanburg 305 424-5681
Tex Noakes Engrg, Box 968, Irving....... 214 255-0441
Tex Noakes Engrg, Box 36258, Houston .. 713 529-6213
Can Electronic Marketing of Canada, 3600 Barclay Ave Montreal.......... 739-3206

NYTRONICS INC, 550 SPRINGFIELD AVE
BERKELEY HEIGHTS
N J, 07922, TWX 710-984-7977 .... 201 464-9300
H PIKE, EMP 800, ENG 38, $5,000-$10,000M

Cal Bell Electronics, 1070 O'Brien Dr Menlo Park 323-9431
Cal Santa Monica Bell Electronics, 306 E Alondra Blvd Gardena 321-5802
Colo Paul P Robbins & Assoc, 1050 Yuma St Denver 255-9961
DC Mechtronics Sales, 7600 Georgia Ave NW Washington 291-6004
Fla Kirkwood & Assoc, 1701 Pinellas Pt Dr S St Petersburg.......... 391-8452
Ill Balhorn & Welch Inc, 1925 N Harlem Ave Chicago .... TU 9-5011
Ill Croydon Electronics, 1915 N Harlem Ave Chicago 237-4343
Iowa Balhorn & Welch, Inc, Box 1521 Cedar Rapids.......... 363-9970
Mass Fred R Lesser, 20 Hayden La, Bedford 275-7558
Mich Hal C Heym Assoc, 1688 Buckingham Rd Birmingham.......... 644-9166
Minn Mel Foster Co Inc, 228 Cedar Lake Rd Minneapolis.......... FR 4-2612
NY Sprung/Nussbaum, Inc, 254 W 31st St New York.......... LO 5-1820
Okla Southwest Electronic Industries, Box 15796 Tulsa.......... TE 5-2481
Pa D G Quinlan Co, 242 E Butler Ave Ambler .... MI 6-7250
Tex Southwest Electronic Industries Inc 183 Meadows Bldg, Dallas.......... EM 3-1671
Tex Southwest Electronic Industries, 6001 Gulf Frwy Houston .... WA 8-5251
Wash Associated Industries Inc, 3711 S Hudson St Seattle .... PA 2-3347
Can Essex Electronics of Can, Ltd, 68 Wall St Trenton, Ont.......... EX 2-6545
For National Atlantic Corp, 50 E 42nd St New York, NY .... OX 7-2584

NYTRONICS INC CAPACITOR DIV, ORANGE ST
DARLINGTON
S C, 29532, TWX 803 393-4071 .... 803 393-5421
M DAVIS, EMP 500, ENG 15

Ariz Howe & Howe Sales, 4109 N 18th St Phoenix 602 264-7971
Cal Nytronics Inc, Box 37, Tustin........ 714 538-1260
Colo Electronic Component Sales Inc, 2340 W Main St Littleton 303 798-8481
Conn Comp Rep Assoc, 14 Samoset Ave N Haven.......... 203 239-9762
Fla General Corp, 1520 Edgewater Dr Orlando 205 241-3384
Ill Gianaris Sales Co, 7051 W Wilson Ave Chicago 312 774-4600
Ind Needler Sales Co, 5402 Fairfield Ft Wayne 219 744-5226
Iowa Kelly-Schmitz Winkeler Assoc, 3831 43rd St Des Moines.......... 515 279-9235
La J F McKinney Sales Co, 2012 Condon Ave Metairie 504 887-1723
Md Barnhill & Assoc, 1931 Greenspring Dr Timonium.......... 301 252-5610
Mass Comp Rep Assoc, 116 Great Plain Ave Needham 617 444-2484
Mich G & H Sales Co, 16815 James Couzens Hwy Detroit 313 342-4747
Minn Industrial Components Inc, 4004 W 78th St Minneapolis.......... 612 927-9991
Mo Kelly-Schmitz-Winkeler Assoc, 7546 Toost Ave Kansas City 816 363-5651
NJ Kohl-Camber, 201 Crescent Ave Leonia 201 944-6488
NM Electronic Component Sales, Box 3087 Albuquerque.......... 505 344-8130
NY Kohl-Camber, 1700 York Ave New York.......... 212 369-4222
NY Franklin & Andrews Sales Corp, 2 Standish Terr Syracuse.......... 315 446-1120
Ohio G & H Sales Co, Box 37416 Cincinnati.......... 513 761-6185
Ohio G & H Sales Co, 13690 Fox Hill Dr Novelty.......... 216 991-1020
Ohio G & H Sales Co, 137 Lakeview Dr Dayton 513 433-2511
Okla J F McKinney Sales Co, Box 3958 Tulsa.......... 918 742-4595
Pa J Bresson Assoc, 107 Forest Ave Narberth 215 839-6770
Tex J F McKinney Sales Co, 1303 Chemical St Dallas.......... 214 631-9450
Utah Electronic Component Sales Inc, Box 2066 Salt Lake City 801 262-3700
Wash B Waddell Co, 10211 NE 31st Pl Bellevue 206 822-9629
Can Nytronics of Can Ltd, 68 Wall St Trenton Ont .... 613 EX 2-6544

NYTRONICS INC, PRECISION RESISTOR DIV, BOX 240
KUTZTOWN, PA, 19530 .... 215 683-7307
P SHATUSKY, EMP 48, ENG 2, $500-$1,000M

Cal Santa Monica Bell, 306 E Alondra Blvd Gardena 321-5802
Cal Bell Electronic Corp, 1070 O'Brien Dr Menlo Park 323-9431
Colo Palmer-Robbins Assoc, 1050 Yuma St Denver 255-9961
Fla Kirkwood Assoc, 1701 Pinellas Pt Dr St Petersburg.......... 391-8452
Ill Croydon Electronics, Inc, 1915 N Harlem Ave Chicago 237-4343
Ill Balhorn & Welch, Inc, 1925 N Harlem Ave Chicago 889-5011
Mich Hal C Heym Assoc, 1638 Buckingham Rd Birmingham.......... 644-9166
Minn Mel Foster Co, Inc, 228 S Cedar Lake Rd Minneapolis.......... 374-2612
NY Telesco-Messina, Inc, 220 Delaware Ave Buffalo.......... 853-1007
NY Sprung/Nussbaum, Inc, 254 W 31st St New York.......... 565-1820
Tex Southwest Elctn Industries, 621 Meadows Bldg Dallas.......... 631-1727
Wash Associated Industries, 3711 S Hudson St, Seattle
Can Electronic Components, Intl, 95 Havensbrook Blvd Willowdale, Ont .... PA 2-3347
Can D I Snell, Ltd, 2150 Ward St Montreal, Que 748-9646
For National Atlantic Corp, 50 E 42nd St New York, N Y .... OX 7-2584

NYTRONICS OF CANADA LTD, 68 WALL ST, TRENTON
ONT, TWX 610 320-3151 .... 613 EX 2-6544
EMP 42, ENG 4

Cal Nytronics Inc, Box 37, Tustin........ 714 538-1260
NJ Nytronics Inc, 550 Springfield Ave Berkeley Hts 201 464-9300

OAKITE PRODUCTS INC, 50 VALLEY RD
BERKELEY HEIGHTS, N J, 07922 .... 201 464-6900
F MCNALLY, EMP 800

Cal F J Darden, 572 Monadnock Bldg San Francisco .... YU 2-6582
Cal T A Rohlfsen, 544 S 6th Ave, City of Industry
Conn R R Heroux, 410 Asylum St, Hartford.... CH 7-8323
Ga C C Wagemann, 415 E Paces Ferry Rd NE Atlanta 231-5881
Ill L E Welch, 1032 Lee St, Des Plaines 824-3178
Ky W L Wagemann, 400 Sherburn La Louisville.......... 893-2718
Mich D B Lamb, 16000 W 9 Mile Rd Southfield 358-3355
Mo T A Rink, 111 S Bemiston Ave St Louis .... PA 5-8200
Mo T C Zimmerman, 800 W 47th St Kansas City.......... WE 1-6619
NJ W G Sittmann, 50 Valley Rd Berkeley Hgts 464-6900
NY V C Schaeffer, 315 Alexander St Rochester.......... 454-4764
Ohio W G Boaeuf, 20800 Center Ridge Rd Cleveland.......... 333-4210
Pa O W Jommersbach, 42 S 15th St Philadelphia .... LO 7-7660
Tex Griffin Tatum, 5934 Royal La, Dallas.... EM 3-3665
Can A V Corbit, 115 East Dr, Bramalea, Ont... 677-2211
Den L Reinhard & Co A/S, Krimsvej 15 Copenhagen S .... CE 11908 AM 9352
Fr Herson, 242, rue du Fg St-Antoine, Paris XIIe
Ger Ascon Chemie, Kaiser Wilhelm-Str 89, OE Hamburg.......... 34 62 41
GB General Descaling Co Ltd, Retford Rd, Worksop, Notts 3211-5
Holl Rogier Bosman N V, Groothandelsglbouw, Box 73 Rotterdam 119525
Ital Nymco SpA, Via dei Giove 6 Cormano-Milano 92 52 21
Jap Ishimoto Trading Co 1-chome, Muro-Machi, Nihonbashi, Tokyo
Nor Tollner, Handel-Agentur, Karl den 12 tes Gate 15 Oslo 1 693516
SAfr John Beith Pty Ltd, 36 Faraday St Wemmer, Johannesburg.......... 838-8351
Swed Ascon-Kemi AB, 11 H Jenny Hillsvagen Partille.......... 031/442614
Swit Milloil, Bahnstr 44, 3000 Bern 5 .... 031/25 43 66

OAK MFG CO, DIV OAK ELECTRO/NETICS CORP
CRYSTAL LAKE
ILL, 60014, TWX 910 634-3353......... 815 459-5000
R KOLARIK, EMP 2000, ENG 127, OVER $10,000M

Cal Oak Electro/Netics Corp, 960 N San Antonio Rd Los Altos 941-1237
Cal Marco-Oak Industries Div, Box 4011 Anaheim.......... KE 5-6037
Colo I W Strong & Assoc, Inc, 635 Canosa Ct Denver 292-6900
La J F McKinney Sales Co, 2012 Condon Ave Metairie 887-1723
Md J W Sheffer, 4609 Old Frederick Rd Baltimore .... CE 3-0606
Mass R Purinton Inc, 11 Muzzey St, Lexington .. 862-8300
Minn L F Murphy & Assoc Inc, 730 Chicago Ave Mnpls 333-4511
Mo R Bartos, 804 E Essex Ave, Glendale.... CH 1-4351
NJ Gray-Williams Assoc, 8 E Mt Vernon Ave Haddonfield .... HA 9-5300
NJ Henry G Richter Inc, 608 Sherwood Pkwy Mountainside.......... AD 3-4615
NY Henry G Richter Inc, Box 251 Fayetteville .... NE 7-6713
NY E J Schomburg Co, 3100 Monroe Ave Rochester.......... LU 6-0725
Okla J F McKinney Sales Co, Box 3958 Tulsa.......... RI 2-4595
Tex J F McKinney Sales Co, 1303 Chemical St Dallas.......... ME 1-9450
Tex J F McKinney Sales Co, Box 1026 Bellaire .... MO 5-3653
Wash M K Widdekind Vo, Inc, 815 W Ewing St Seattle .... AT 4-8020
Can Oak-Hart Mfg (Can) Ltd, Box 100, Aurora, Ont
For E S Mowat & Sons (Pvt) Ltd, Box 1385 Bulawayo, Rhod
For Ferreteria Americana, Apartado Aereo 3973 Bogota, Colombia
GB Diamond H Controls Ltd, Vulcan Rd N, Norfolk
Holl Oak Electro/Netics Holland NV, Box 58, Emmen
Jap Oak Electro/Netics Corp (Jap) Ltd 11-3 E Kimae Hon-cho, Kawasaki
SAfr E S Mowat & Sons (Pty) Ltd, 51-57 Milne St Durban, Natal
Arg Jose Luis Pontet SA, Ave Cordoba 1432 Buenos Aires
Mex Distrimex S A, Box 60-506, Mexico 18 D F
Aust Mfgrs Special Prdts Pty Ltd, 47 York St, Sydney

OAKTRON INDUSTRIES INC, HWY 69 S, MONROE
WIS, 53566 .... 608 325-2121
C MATTHEWS, EMP 300, ENG 2

Ariz R Fissell Co, 4614 N 7th St, Phoenix..... 264-4031
Cal Ewing-Foley Inc, 900 N San Antonio Rd Los Altos 415 941-4525
Cal Carter-Rossney Assoc, 2600 W Olive Ave Burbank 213 843-3292
Colo Electro-Tek Sales Inc, Box 395 Westminster 255-4566
DC Charles Lienau Co, 5121 Westridge Ave Washington 654-6924
Fla Winfield Electronics Sales, 666 NE 125th St N Miami 751-5566
Ga Millar-Hutto Assoc, 3110 Maple Dr NE Atlanta 404 261-6160
Ill Markal Sales Corp, 5787 N Lincoln Chicago 312 561-7290
Ind Shamrock Electronic Sales, 2511 E 46th St Indianapolis.......... 317 546-8228
Md Charles Lienau Co, 11411 Amherst Ave Wheaton.......... 949-6464
Mass Keene Sales Co, 156 Broad St, Lynn 595-1001
Mich D Milsk Co, 20110 Olympia Ave Detroit 535-4012
Minn Carlem Co, 1926 Wellesley Ave St Paul.......... 699-8004
Mo Svor Sales Corp, 8115 Troost Kansas City.......... 816 444-2871
NY LSM Assoc, Orchard Park, Phelps 548-4891
NY J Brown Assoc, 207 Rosedale Rd Yonkers.......... 779-7330
NC Millar-Hutto Assoc, North Hills Office Mall Raleigh.......... 919 787-9564
Ohio Shamrock Electronic Sales, 805 Rockhill Ave Dayton 298-3052
Ohio Shamrock Electronic Sales, 1755 W Market St Akron 216 864-3090
Pa C Lienau Co, 15034 Carter Rd Philadelphia 464-8148
Pa Tanner Co, 486 Broadmoor Ave Pittsburgh.......... 412 561-4687
Tex Antle-Smith Sales, 2721 Brookfield Dallas.......... 357-7279
Va C Lienau Co, 1094 Bonnieview Dr Great Falls.......... 703 759-3128
Wash M K Widdekind Co, 815 W Ewing St Seattle 206 284-8020

OAL ASSOCIATES INC, 155 SULLIVAN LANE, WESTBURY
N Y, 11590.......... 516 742-0278
D LOHKEMPER
ADV PG [illegible]

Cal K & S West Coast Div, 991 Commerical St Palo Alto 415 327-9292
Mich Geo C Davis Assoc, 22931 Avalon St Clair Shores 313 778-2784
Pa Reese Engineering Sales, Box 600 Paoli.......... 215 644-8717

OBATA ELECTRIC CO LTD, TOMODA 348, OME-CITY, TOKYO
JAPAN 0428 2 6155
H HAYASHI, EMP 60, ENG 3
ADV PG [illegible]

O'BRIEN INC, D G, 500 COCHITUATE RD
FRAMINGHAM, MASS, 01701 .... 617 872-6596
A BERBERIAN, EMP 80, ENG 6, $1,000-$2,500M

Cal Heckerman Corp, 814 W Hyde Park Blvd Inglewood 678-2264

OCCO MFG CORP, 8 ROMANELLI AVE
SOUTH HACKENSACK, N J, 07606 ..... 201 342-8984
P OCCHIPINTI, EMP 25, ENG 2, $500-$1,000M

Cal J Davidson Assoc, 2920 Nebraska Ave Santa Monica 451-5761
NY Industron Assoc, Inc, 300 Northern Blvd Great Neck.......... 487-2670
Ohio E V Swenson Assoc, 1112 Talbot Towers Dayton 223-4279
Wash Jon B Jolly, 69 Marion St, Seattle 623-7060

OCEAN SONICS INC, 125 LOMITA ST, EL SEGUNDO
CAL, 90245 .... 213 322-6881
K ZABLOUDIL, EMP 10, ENG 2, $250-$500M

Mass Alden Electronic, Washington St, Westboro

O'DELL BROTHERS, 2950 GRANT RD
MOUNTAIN VIEW, CAL, 94040 .... 415 967-2267
F O'DELL, EMP 10, ENG 1, $100-$250M

OGALLALA ELECTRONICS MFG INC, BOX 59
OGALLALA
NEBR, 69153, TWX 910-620-0322 ...... 308 284-4093
H HARRINGTON, EMP 50, ENG 3, $500-$1,000M
Cal Arnold Engrg Co, 1551 E Orangethorpe Ave
Fullerton 714-871-1560
Cal Straube Assoc, 483 Willow Rd
Menlo Park 415-323-2476
Colo Straube Assoc, Box 1649, Boulder ... 303 443-8600
DC Arnold Engrg Co, 1001 15th St N W
Washington 202-393-0074
Ill Arnold Engrg Co, 300 S Hicks Rd
Palatine 312-359-4595
Ill Arnold Engrg Co, Box G, Marengo 815-568-2000
Ind Arnold Engrg Co, U B Building
Huntington 219-356-5224
Mass Arnold Engrg Co, Box 309
Lexington 617-862-2804
Mich Arnold Engrg Co, 1304 W Michigan Ave
Jackson 517-784-5663
NJ Arnold Engrg Co, Box 938
Englewood Cliffs 201-567-4640
NC Arnold Engrg Co, 204 N Person St
Raleigh 828-3270
Ohio Arnold Engrg Co, 8905 Lake Ave
Cleveland 216-651-1242
Tex Southwest Elctn Ind, 183 Meadows Bldg
Dallas 214-363-1671
Tex Southwest Elctn Ind, 1405 S Post Oak Rd
Houston 713-621-3760
Wash Arnold Engrg Co, 3327 White-Henry-Stuart Bldg
Seattle

OGDEN TECHNICAL LABS INC
573 MONTEREY PASS RD, MONTEREY PARK
CAL, 91754, TWX 213 288-3123 ...... 213 289-4425
J SEIDER, EMP 500, ENG 80, OVER $10,000M
Cal Ogden Technology Labs, 150 Wolfe Rd
Sunnyvale 408 739-5900
DC Ogden Technology Labs, 1225 19th St NW
Washington 202 296-2340
NY Ogden Technology Labs, Comac Rd
Deer Park 516 667-7200
NY Ogden Technology Labs, 58-17 37th Ave
Woodside 212 478-2010
Ohio Scarp Engineering Assoc, Box 2003/Kettering Br
Dayton 513 433-1303
Okla Ogden Technology Labs, 407 N Rockwell St
Oklahoma City 405 946-9986

O'HARA METAL PRODUCTS CO, 542 BRANNAN ST
SAN FRANCISCO, CAL, 94107 ...... 415 989-5390
C O'HARA, EMP 30, ENG 3, $500-$1,000M
Cal O'Hara Metal Prods Co, 21044 Sherman Way
Canoga Park 213 887-7077

OHIO CARBON CO, 12508 BEREA RD, CLEVELAND
OHIO, 44111 ...... 216 252-6100
D STOFFEL, EMP 160, ENG 9, $1,000-$2,500M
Cal W E Heiman, 544 S San Pedro St
Los Angeles ...... MA 8-2354
Fla B W Lewis, 3122 S Peninsula Dr
Daytona Beach ...... CL 3-7303
Ga Strausz Inc, 344 Williams St NW
Atlanta 688-1928
Ill E & J Specialties, 2952 Milwaukee Ave
Chicago ...... SP 2-5533
Ill Eschner & Keranen Inc, 20 N Wacker Dr
Chicago ...... CE 6-1533
Md J F Ehlers, 356 N Gay St, Baltimore ... MU 5-4523
Mass C H Macauley, 2 Snug Harbour
South Yarmouth 394-5800
Mich W F Sietman, 14570 Ardmore, Detroit 835-9363
Mo K & M Sales Co, 1627 Main St
Kansas City ...... GR 1-1355
NJ Lloyd M Hunter, 1242 N Van Buren St
Allentown 437-9333
Ohio F P Kobert, 1507 Sherbrook Rd
S Euclid ...... EV 1-6361
Ohio W B Lucas, 7358 N Center Rd, Mentor .. BL 5-2764
Ohio Herbert J Smith, Jr, 173 Poinciana Dr
Centerville 433-1094
Wis H J Hoeft, 1743 S 1st St, Milwaukee ... EV 4-5154

OHIO SEAMLESS TUBE DIV, COPPERWELD STEEL CO
SHELBY
OHIO, 44875, TWX 810-490-2480 ...... 419 347-2424
J HORNER, EMP 690, ENG 4
Cal Ohio Seamless Tube Div, 11301 Long Beach Blvd
Lynwood 774-1255
Colo Ohio Seamless Tube Div, Box 15497
Lakewood 237-1757
Ill Ohio Seamless Tube Div, 6429 W North Ave
Oak Park 848-4884
Ill L R Christiansen Co, 3001 48th Ave
Moline 762-8886
Ind Ohio Seamless Tube Div, Box 7
Plainfield 545-8487
Kan Olander-Weatherholt Inc, 2210 W 75th St
Prairie Village ...... EN 2-7869
Mich Ohio Seamless Tube Div, 26125 Woodward Ave
Huntington Woods 564-5766
Minn Sandberg-Peterson Co, 6111 Excelsior Bldg
Minneapolis 929-6745
Mo J Grant & Co, 1246 Hampton Ave
St Louis ...... MI 7-1022
NY Woodburn-Taylor Co, 617 Sibley Tower Bldg
Rochester 546-3298
NY Ohio Seamless Tube Div, 200 S Service Rd
Roslyn Heights ...... HT 4-2550
NC Davis-Harkness Co, 1420 E 7th St
Charlotte 376-6382
Ohio Ohio Seamless Tube Div, 3740 Salem Ave
Dayton 277-9327
Ohio Ohio Seamless Tube Div, 3733 Lee Rd
Cleveland 991-4200
Pa Ohio Seamless Tube Div, 1206 Pinewood Dr
Pittsburgh ...... FI 1-1173
Pa Ohio Seamless Tube Div, 1 Wynnewood Rd
Wynnewood ...... MI 2-6102
Tenn Indusco, 1615 Williams St
Chattanooga 266-3072
Tex C J White & Co, 712 Central Natl Bank
Houston ...... CA 7-1178
Wash Ohio Seamless Tube Div, 1208 Hoge Bldg
Seattle ...... MA 4-5393
For Copperweld Steel Intl Co, 100 Church St
New York, NY ...... BE 3-5600

OHIO SEMITRONICS INC, 1205 CHESAPEAKE AVE
COLUMBUS, OHIO, 43212 ...... 614 HU 6-9561
J GILLARD, EMP 12, ENG 4, $100-$250M

OHMART CORP, 4241 ALLENDORF DR, CINCINNATI
OHIO, 45209 ...... 513 272-0131
S ROWE, EMP 110, ENG 25, $2,500-$5,000M
Ariz W E Sanderson & Assoc, 5045 N 12th St
Phoenix 277-0077
Cal Campbell Engrg Co, Box 395
Pleasant Hill 685-1031
Colo Equipment Specialties, 1727 Boulder St
Denver 433-3371
Ga L M Crowe Co, 174 W Wieuca Rd NE
Atlanta 255-2700
Ill Epco Services Inc, 6535 Northwest Hwy
Chicago 775-1688
Md Gilro Assoc, 123 Country Club Dr
Glen Burnie 761-2141
Mass O C Jones & Co Inc, Box 151
Wellesley Hills 235-7400
Mich Basic Service Corp, 16544 Plymouth Rd
Detroit 837-8820
Minn Wm K Nelson Co, 807 13th Ave
Minneapolis 333-1215
Mo E B Miller Co; 10117 Manchester Rd
St Louis 766-8250
NJ G H Birchall Co Inc, Box 84, Westfield ... 232-3600
NC MacGuire Instrument Co, Box 645
Matthews 366-3454
Ohio R E Surkamp Co, Box 42222, Cincinnati .. 891-1838
Okla Paul King Co, 826 N Fulton, Tulsa 836-2501
Ore Donelson Co, Box 446, Oakgrove Sta
Portland 654-0152
Pa Penn-Del Instr Sales Co, Box 4361
Philadelphia 247-7389
Tenn Chas Reyle, 1768 Haydon Rd, Germantown
Tex Pan-Tech Eng Co, Box 22491, Houston ... 666-0248
W Va Biltmore Prods Co Inc, 411 1/2 D St
S Charleston 744-9432
Can Industrial Projects Ltd, 2052 St Catherine St W
Mont, Que 937-9195

OHMITE MFG CO, 3601 HOWARD ST, SKOKIE
ILL, 60076, TWX 910-223-0805 ...... 312 675-2600
M FORESTER, EMP 1000, ENG 60, OVER $10,000M
Ala S K Wallace Assoc, 1871 Grove Hill La
Montgomery 205 262-2011
Ariz Shefler Kahn Co, Box 1587, Phoenix .... AL 8-7893
Cal Ohmite Mfg Co, 6115 Selma Ave
Hollywood ...... HO 6-3434
Cal Ohmite Mfg Co, 201 Town & Country Vlg
Palo Alto ...... DA 1-6953
Colo McLoud & Raymond Co, Box 22044
Denver ...... SK 6-1589
DC Samuel K Macdonald Inc, 3303 - 14th St N W
Washington 202 265-3938
Fla Stanley K Wallace Assoc, Box 67, Lutz ... 949-1817
Ga Stanley K Wallace Assoc, 715 Flamingo Dr
Atlanta 404 753-8463
Ind Val-Skol Sales Inc, 510 Ft Wayne Bank Bldg
Fort Wayne 742-9122
La Cartwright & Bean, 1812 Bullard Dr
Metairie 504 887-0482
Md Samuel K Macdonald Inc, 5500 Harford Rd
Baltimore 301 254-3380
Mass Ohmite Mfg Co, 99 Cambridge St
Burlington 272-6060
Mich Ohmite Mfg Co, 725 S Adams St
Birmingham 642-6040
Minn Fred B Hill Co, 6110 Excelsior Blvd
Minneapolis 929-6727
Mo H A Roes & Co, 2601 Cherry St
Kansas City ...... BA 1-0866
Mo Russ D Sebright & Co, 7120 W Florissant Ave
St Louis ...... CO 1-0055
NJ Ohmite Mfg Co, Box 148
Palisades Park ...... WI 7-1777
NM Shefler-Kahn Co, Box 8342
Albuquerque 505 565-7077
NY Ohmite Mfg Co, 3700 East Ave
Rochester ...... DU 1-1890
NC Cartwright & Bean, 625 Harwyn Dr
Charlotte 704 537-7965
Ohio Ohmite Mfg Co, Box 3084, Cleveland 261-6000
Pa Samuel K Macdonald Inc, 1531 Spruce St
Phila ...... KI 5-1205
Pa Samuel K Macdonald Inc, 7805 McKnight Rd
Pittsburgh 412 366-2643
SC Cartwright & Bean, 3223 Cain's Hill Pl N W
Atlanta 404 237-2273
Tenn Cartwright & Bean, Box 4760 Crosstown Sta
Memphis 276-4442
Tex J Earl Smith Co, 1353 Chemical St
Dallas ...... ME 1-1727
Tex J Earl Smith Co, 9623 Winsome La
Houston 713 782-5720
Wash R K Squibb Inc, 655 NE Northlake Pl
Seattle ...... ME 2-2450
Can C M Robinson Agencies, 1550 Erin St
Winnipeg, Man 776-1855
Can A C Simmonds & Sons Ltd, 285 Yorkland Blvd
Agincourt, Ont 445-9111
Den Tage Schouboe, Skyttegade 7, Copenhagen
Holl Groenpol Ind Sales Co, 13-15, Prinsengracht
Amsterdam
Ital Centro Ital Componenti Elettr, Via E Ximenes 3
Rome 62
SAfr A G Jorgensen (1956) Pty Ltd, Box 133, Bramley
Transvaal
Swed Universal Import A-B, Kronobergsgatan 19
Stockholm K
Swit Seyffer & Co, Badenerstr 265, Zurich 3/40
BC C M Robinson Agencies 1963) Ltd
1206 Hamilton St, Vancouver 604 681-0743

OHMWEVE CO INC, 43 DARCY ST, WEST HARTFORD
CONN, 06110 ...... 203 232-1104
B OLSSON, EMP 4, ENG 1, UP TO $100M
Mass J J Secher Assoc, 114 Eaton St
Reading 944-4343
Mo Jack M Gilbert Co, 131 E 70th St
Kansas City 816 333-8830
NY C R Mayer Co, Box 152, Huntington 921-7876
Wis Automation Equip Co, 12740 N River Rd
Mequon 414 242-1520

OHR-TRONICS INC, 305 W GRAND AVE, MONTVALE
N J, 07645, TWX 201-391-5118 ...... 201 391-7000
C CONNELLY, EMP 70, ENG 5, $500-$1,000M
Ala Technical Assoc, 100 Airport Rd
Huntsville 205 881-8494
Cal Tucul Engineering, 6402 Crenshaw Blvd
Los Angeles 213 750-0338
DC Sonco Inc, 4720 Montgomery La
Washington 202 654-5226
Fla Technical Assoc, 2319 E South St
Orlando 305 424-5681
Ill Bard Assoc, La Grange Ind Pk
La Grange 312 354-0660
Ind Bard Assoc, 4002 Meadows Dr
Indianapolis 317 849-2723
Mass Hobart Assoc, 750 Main St
Winchester 617 729-8884
Minn Bard Assoc, 7710 Morgan Ave S
Minneapolis 612 866-1700
NJ Engineered Products Inc, 28 Essex St
Lodi 201 NO4-3098
NJ Sonco Inc, 244 Hwy 35, Eatontown .. 201 542-1441
Ohio Instrumentation Systems Inc, 3481 Office Pk Dr
Dayton 513 293-8095
Pa Sonco Inc, 107 Town Ctr Rd
King of Prussia 215 265-3250
Pa Sonco Inc, Park Pl Office Bldg
Camp Hill ...... 717 SO 1-0577
SC Technical Assoc, Box 5583
Spartanburg 803 585-3864
Tex Noakes Engineering, Box 968
Irving 214 BL5-0441
Tex Noakes Engineering, Box 36258
Houston ...... 713 JA 9-6213
Wash Data Rep, 8611 N E 133rd St
Kirkland ...... 206 VA 2-4688
Can Electronic Systems Ltd, 62 Alness St
Donsview Ont 416 636-3673

OKAYA ELECTRIC INDUSTRIES CO LTD
3-8 1-CHOME SHIBUYA SHIBUYA-KU, TOKYO
JAPAN 400-8511
H HAMA, EMP 453, ENG 63, $2,500-$5,000M

OKI ELECTRIC INDUSTRY CO LTD
10 SHIBA KOTOHIRA-CHO, MINATO-KU, TOKYO
JAPAN, TWX TK2627 501-3111
S SHINOZAKI, EMP 10,219, ENG 3,941, OVER $10,000M
Fla Oki Electronics of Amer Inc, 500 SE 24th St
Ft Lauderdale 523-7202
NY Oki Electric Ind Co Ltd, 202 E 44th St
New York ...... MU 2-1665
For Mitsubishi Colombia Ltda
Carrera 10 19-64 Oficina 602 Aptdo Aereo 12356
Bogota Col 43-23-00
For Edificio de la Capitalizadora Hondurena
3er Piso No 301 Aptdo Postal 420
Tegucigalpa D C Hon 2-3479
For Casilla 4319, La Paz Bolivia 13085
For Far Eastern Elec Ind Co Ltd, 10 Sec 1 Hankow St
Taipei Taiwan 33611
Mex Mitsubishi de Mexico S A
Paseo de la Reforma No 243 2 Piso
Mexico 5 33-21-00

OKI ELECTRONICS OF AMERICA, INC, 500 SE 24TH ST
FORT LAUDERDALE
FLA, 33316, TWX 510-955-9837 ...... 305 523-7202
W KELLEY, EMP 17, ENG 4
Fr Le Groupe Scientifique, 114 Ave du Pres Wilson
La Plaine St-Denis (Seine)
Ger Nucletron-Vertriebs GmbH, Gartnerstr 60
8 Munich 54
GB Wessex Electronics Ltd, Baldwin St, Bristol 1
Holl C N Rood N V, Postbus 4542, Rijswijk
Ital Silverstar Ltd, Via dei Gracchi 20, Milano
Swed American Electronics AB, Norrlandsgatan 15BII
Stockholm C
Swit Nucletron AG, Spitalgasse 30, Bern
Belg Electronique Generale sprl, 14 Rue Pere de Deken
Brussels 4

OLSON & CO INC, B W, BOX 3670, FULLERTON
CAL, 92634 .... 714 879-1141
R DUPPENTHALER, EMP 6, ENG 2

OLYMPIC INSTRUMENTS INC, DEPT 527, VASHON
WASH, 98070 .... 206 463-5641
C CRECELIUS, EMP 11, ENG 1, $100-$250M
Cal W Nott & Co, 1485 Bayshore Blvd
San Francisco 467-0547
Cal Natl Wire & Cable Corp, 136 San Fernando Rd
Los Angeles 225-5611
Ill C W Lint, 2323 W 18th St, Chicago 829-1142
Pa S N Mills, Box 488, Rosemont .... LA 5-4778

OLYMPIC PLASTICS CO, 3471 S LA CIENEGA BLVD
LOS ANGELES, CAL, 90016 .... 213 UP 0-1121
B RICE, EMP 200, ENG 1, $2,500-$5,000M
Tex Associated Aircraft Supply Co
5021 W Jefferson Blvd, Dallas .... FE 1-4554
Wash Ted Battema & Assoc, Box 276
Mercer Is .... AD 2-5480

OLYMPIC PRODS CO DIV J B SCHAEFER INDUS
THIRD AVE, ALPHA, N J, 08865 .... 201 454-1193
G PAPPAS, EMP 65, ENG 3, $1,000-$2,500M
Mass F R Lesser, Box 241, Bedford 275-7558
NJ Sphere Sales Co, 25 Amity St
Little Falls .... CL 6-2550
Ohio Component Insulation Corp, 14235 Detroit Ave
Cleveland 521-3570
Pa J W Kight, 4 Longfellow Rd, Pittsburgh 781-8304
Pa G H Zapp, 301 Suburban Square Bldg
Ardmore .... MI 2-7754
Tex Allied Components Inc, 10468 E Northwest Hwy
Dallas .... DI 8-6660

OLYMPUS CORP OF AMERICA, 1190 BROOKS AVE
ROCHESTER, N Y, 14624 .... 716 436-4070
G SCHLUETER, EMP 25, ENG 8, $500-$1,000M
Cal H T Lowe, 659 Jacon Way
Pacific Palisades 213 454-0451
Ill E W Honath, 701 S Mitchell Ave
Arlington Heights 312 253-5552
Mich J N Fisher, 26628 Baldwin St
Dearborn Hgts 313 278-6947

OMARK INDUSTRIES INC
9701 SE MCLOUGHLIN BLVD, PORTLAND
ORE, 97222, TWX 036-627 .... 503 654-6531
C BALTZEGAR, EMP 3000, ENG 100, OVER $10,000M

OMEGA ENGINEERING INC, BOX 4047, STAMFORD
CONN, 06907 .... 203 322-1666
B GRODBERG, EMP 25, ENG 3, $250-$500M
Cal B J Wolfe Enterprises, 10760 Burbank Blvd
North Hollywood
Mass Daner Assoc, 684 Commonwealth Ave
Newton Centre

OMEGA INDUSTRIES INC, 841 PRODUCTION PL
NEWPORT BEACH, CAL, 92660 .... 714 642-8313
D HALL, EMP 15, ENG 2, $250-$500M

OMEGA LABORATORIES INC, BOX 309, ROWLEY
MASS, 01969 .... 617 948-7757
H RIBBEL, EMP 25, ENG 4, $250-$500M
Cal Crane Assoc, 15419 Keswick St
Van Nuys .... State 0-7972
Conn Dage Corp, 757 Main St, Stamford 324-3123
Fla C E Snow Co, 2400 E Oakland Park Blvd
Ft Lauderdale 305 563-2448
Md C E Snow Co, 10442 Baltimore Ave
Beltsville 301 345-2211
Mass Omega Labs, Haverhill St, Rowley 948-7757
Pa C E Snow Co, 258 N Main St
Ambler 215 646-9451

OMEGA LEADS INC, 6122 W SLAUSON, CULVER CITY
CAL, 90230 .... 213 391-3758
S UMBER, EMP 8, ENG 1

OMEGA-T SYSTEMS INC, 516 W BELT LINE RD
RICHARDSON, TEX, 75080 .... 214 235-5286
D HEITZMAN, EMP 18, ENG 11, $100-$250M
NJ Bonn Assoc, 266 Lake Ave
Metuchen 201 549-9573

OMNI SPECTRA INC, 24600 HALLWOOD CT
FARMINGTON, MICH, 48075 .... 313 255-1400
V MCHENRY
Ala Gentry Assoc Inc, 2109 W Clinton St
Huntsville 536-5306
Ariz Fryco, Box 460, Scottsdale .... WH 5-3281
Cal Walter Assoc, 175 S San Antonio Rd
Los Altos 941-3141
Cal C W Swift & Assoc, 15236 Burbank Blvd
Van Nuys 989-1133
DC James R Eberly Co, 1207 Potomac NW
Washington .... FE 8-2277
Fla Gentry Assoc, 550 N Bumby Ave
Orlando 305 841-7740
Ill H C Pretat Inc, 7716 W North Ave
Elmwood Pk 453-3380
Ind Clifford Electronic Sales, Box 3091
Dayton, Ohio 233-7373
Ind Clifford Electronic Sales, 5152 Cherrington Rd
Toledo 419 882-4000
Kan Simpson Enterprises, Box 18066
Wichita .... WH 3-0502
Md James R Eberly Co, 3618 Briarstone Rd
Randalstown 922-2092
Mass Connaughton & Co, 18 Bothwell Rd
Brighton .... ST 2-2244
Mo Simpson Enterprises, Box 3873
Kirkwood .... YO 5-1115
NJ Graydon-Sherman Inc, 230 Madison Ave
Morristown 201 538-9246
NY Graydon-Sherman Inc, Davis Bldg
Fayetteville 315 637-9861
NC Gentry Assoc, Box 197
Jamestown 919 454-1919
Pa Massey Assoc, 1325 W Chester Pike
Havertown .... JA 8-6384
Tex R W Mureen Co, Box 28082, Dallas 361-0735
Wash Cane-Jessup Co Inc, Box 250
Bellevue .... GL 4-0691
Can Whittaker Electronics, Ltd, 42 Howden Ave
Ottawa 224-1221
Fr Ad Auriema-France Sarl, 90-98 Bd Victor-Hugo
92-Clichy Hauts de Seine 270 82-75
Ger 56, Ad Auriema-G mb H
Uhdestra 33 7100 .... Heilbronn-Sontheim
GB Ad Auriema Ltd, 23 King St
London W 3 .... ACO 8762
Ital Ad Auriema Inc, Via Ferdinando di Savoia 2
Milan 65 31 06
Jap MidoriyaAuriema Japan Ltd
3 2-Chome Kyobashi Chuo-Ku, Tokyo 561-8851
Swed Svenska Painton AB, Erik Tegels Vag 35
Spanga Stockholm 13. 26. 53
Belg Ad Auriema-Europe, SA, 172 A Rue Brogniez
Brussels 22 28 35

OMNITEC CORP, 903 N SECOND ST, PHOENIX
ARIZ, 85004 .... 602 258-8246
D OGLESBY, EMP 42, ENG 12
NY Omnitec Corp, 10 Pelham Pkwy
Pelham Manor 914 738-5009

OMTRONICS MFG INC, 2406 LEAVENWORTH ST, OMAHA
NEB, 68105, TWX 402 348-1258 .... 402 345-8408
D WATTERS, EMP 85, ENG 2
ADV PG 622
Ariz Dorton Enterprises Inc, Box 1297
Scottsdale 602 946-6213
Cal F Huddleston Assoc, 408 S Rosemead Blvd
Pasadena 213 681-3751
Cal Woodworth Co, Box 2165
Redwood City 415 365-0252
Colo Gossard & Assoc, 12159 W Dakota Dr
Denver 303 985-0602
Fla Mark Electronics Sales, Box 291
N Miami 305 947-5080
Ill Bierhaus Sales Co, 1013 E 31st ST
La Grange Park 312 354-5100
Md J H Electronic Sales Co, Box 6844
Towson 301 825-4440
Mass Dan Greene Organization, Box 290
Bedford 617 275-6400
Minn Hasse & Assoc, 3825 York Ave N
Mnpls 612 588-0551
Mo J C Menkus Assoc, 400 Brookes La
Hazelwood 314 731-4334
NY Podeyn-Schmidt Co, 420 Northern Blvd
Great Neck 487-1173
NY J V Costello, 2030 Erie Blvd E
Syracuse 315 472-0322
Ohio Components Engrg Co, 7461 N Linden La
Cleveland 216 842-2737
Ohio Components Engrg Co, 11820 Knollsprings
Cincinnati 513 721-2997
Tex W Pat Fralia Co, Box 12625
Fort Worth .... 817 PE 8-2394
For Pan-Mar Corp, 1270 Broadway
New York, N Y 212 947-7986

ONAN DIV, STUDEBAKER CORP
2515 UNIVERSITY AVE SE, MINNEAPOLIS
MINN, 55414, TWX 612-321-1014 .... 612 332-1155
W AUGER, EMP 1400
Cal Frank Gernand, 1588 Edgewood Dr
Palo Alto .... 415 DA 2-0127
Colo Les W LeLande, 2800 Tennyson St
Denver 303 455-6786
Ga Norval Beggs, 2739 Rivera Ct
Decatur 404 939-1144
Ill Richard Nelson, 1639 Forest Rd
La Grange Park 312 352-0569
Mass B Isaacson, 28 Taunton St
Bellingham 617 473-9602
Minn Frank Ciemia, 3 Lincoln Ave
White Bear Lake .... 612 GA 9-7270
NY Joe B Young, 23 Canterbury Rd, R D 2
Elnora 518 877-8462
Ohio Don Earhart, 3567 Bradford Ave
Columbus 614 451-0490
Okla Gene Anderson, 4331 S Braden Pl
Tulsa .... 918 NA 7-5029
Ore Bill Haynes, 401 SE 50th Ave
Portland .... 503 BE 6-2801
Pa Art Luthy, 20 Evertum Cir
Norristown 215 279-6754
Tex Warren Olson, 11831 Jamestown Rd
Dallas .... 214 AD 9-1291
Va Gene Tadsen, 1008 Emerald Dr
Alexandria 703 780-1002
Can Onan Generators Can Ltd, 233 Campbell Rd
Guelph, Ont 824-9560
Can F Beauchamp, 91 Chatrand Blvd
Ste Rose de Laval P Q 514 625-6533

ONEIDA ELECTRONIC MFG CO, 843 N COTTAGE ST
MEADVILLE, PA, 16335 .... 814 337-5702
D SMITH, EMP 15, ENG 2
Ala N Russell Assoc, Box 20092
Birmingham 822-2196
Cal Tom Lynch Co, 1125 Singingwood Dr
Arcadia 335-1753
Colo Electro-Tek Sales, Inc, Box 395
Westminster 255-4566
Fla John F Thompson Co, 322 Riverside Dr
Ormond Beach 677-2298
Ill Mike Bermann Sales, 8631 E Prairie Rd
Skokie 675-3740
Md George B Pearlman & Assoc, 1035 Puatan St
Silver Spring 434-7090
Mich Polyphase Sales Co, 917 Canal St
Milford 684-0411
Minn G R Johnson, 1115 Highland Ave
St Paul 451-3039
Mo R J Throckmorton Sales Co, 1042 N Clay, St Louis
NY Jack Brown Elctn Sales Rep Inc, 207 Rosedale Rd
Yonkers 779-7330
NY Sir Sales Inc, Box 335, Roslyn Heights 684-0411
NC Joe Corn Co, 4110 Pemberton Dr
Charlotte 336-7927
Ohio Shamrock Elctn Sales, Inc, 1755 W Market St
Akron 864-3090
Ore Richard Legg Co, 4475 S W Sholls Ferry Rd
Portland 292-8824
Pa Lester T Benner, 520 W Market St
Bethlehem 865-3014
Pa Robt Tanner, 486 Broadmoor Ave
Pittsburgh 561-4687
RI W B Pray Sales, 8 Larchwood Dr
Cumberland 333-5440
Tex Bill Grogan Sales Co, 7508 Richland Rd
Fort Worth 4-7087

OPAD ELECTRIC CO, INC, 43-5 WALKER ST, NEW YORK
N Y, 10013 .... 212 WO 60380
ADV PG 537

OPAMP LABS, 172 S ALTA VISTA BLVD, LOS ANGELES
CAL, 90036 .... 213 934-3566
B LOSMANDY, EMP 5, ENG 1, $100-$250M

OPCALITE INC, 2110 S ANNE ST, SANTA ANA
CAL, 92704, TWX 910-595-1505 .... 714 546-9330
D GROSSMAN, EMP 75, ENG 18
Pa Oppenheimer, Inc, Wyandotte Rd
Willow Grove 659-6000

OPPENHEIMER, INC, WYANDOTTE RD
WILLOW GROVE
PA, 19090, TWX 510-665-5922 .... 215 OL 96000
W OPPENHEIMER, EMP 65, ENG 8, $1,000-$2,500M
Cal Opcalite Inc, 2110 S Anne St
Santa Ana 546-9330

OPTICAL COATING LAB INC, BOX 1599, SANTA ROSA
CAL, 95403, TWX 510-744-2083 .... 707 545-6440
D JOSLYN, EMP 399, ENG 40, $5,000-$10,000M
Mass Optical Coating Lab, Inc, Box 427
Concord 369-5542
GB OCLI Optical Coatings Ltd, Hillend Ind Est
Dunfermline, Fife, Scot

OPTICAL ELECTRONICS INC, BOX 11140, TUSCON
ARIZ, 85706 .... 602 624-3605
R GERDES, EMP 9, ENG 3, $100-$250M
Ala Fact-Tronics, Box 1135, Huntsville 539-7193
Cal Frazar & Hansen Ltd, 150 California St
San Francisco 981-5262
Cal W K Geist Co, 1205 Air Way, Glendale 245-9501
Cal W K Geist Co, Box 746, Cupertino 968-1608
Fla Fact-Tronics, Box 3202, Orlando 423-7069
Mass Datech Assoc, 815 Washington St
Newtonville 527-5394
Mich Electro-Mation Assoc, 1137 Cole St
Birmingham 647-2480
NY Herbert Shprentz Co, 126 Deertrack La
Irvington 591-7970
NY RJC Assoc, 219 Oakridge Ter, Liverpool 457-3220
Ohio Cavanaugh Bergman McCann, 1229 W Third Ave
Columbus 486-1155
Pa William Dugger Co, 412 E Spring Ave
Ardmore 649-0889
Tex IBL Engineering, 217 Preston Royal Ctr
Dallas 363-2921
Va John Hopkins Assoc, 4520 Starr Jordan Dr
Annandale 280-2086
Wash Paratech, 2208 N W Market St, Seattle 783-3900

OPTICAL GAGING PRODUCTS INC, 26 FORBES ST
ROCHESTER, N Y, 14611 .... 716 328-9090
J HORGAN, EMP 58, ENG 10
Cal Slater Tools & Gages, 2505 S Yates Ave
Los Angeles 723-7251
Cal Dimensional Control Co, 760 Industrial Rd
San Carlos 591-0365
Colo I J Esbenson Co, 666 Bryant St, Denver 222-3808
Conn G T Hearn Assoc, 60 Connolly Pkwy
Hamden 248-2102
Ga D G Machy & Co, 2828 Northeast Frwy
Atlanta 636-5511
Ill John C Ott Co, 154 E Erie St, Chicago 787-1546
Ind R L Guimont Co, 2037 E 46th St
Indianapolis 251-9261
Iowa T Froeberg, 364 Park Terrace SE
Cedar Rapids 362-6547

La Church-Dailing Co, 1401 S Rendon St New Orleans 806-9632
Mass Sterling Sales Inc, 770 Grafton St Shrewsbury 757-0800
Mich R D Seeley Inc, 2073 N Dort Hwy Flint 232-7163
Minn Walter Hammond Co, 1419 Washington Ave S Mnpls 338-8943
Mo Louis A Hoppe Co, 148 Hanley Ind Ct St Louis 647-3420
NY Precision Tool & Gage Co, 240 Windemere Rd Rochester 482-5513
NY Precision Service Co, E Lake Rd Skaneateles 685-7715
NY Tool Specialists Inc, 891 Prospect Ave Westbury 334-4180
NC Crotts & Saunders Eng Inc, 235 N Main St Winston-Salem 723-3643
Ohio Production Service Co, 10003 Memphis Ave Cleveland 671-2550
Ohio Woodall Sales & Service Co, 3070 Far Hills Ave Dayton 299-5534
Okla P D Browne Co, 6538 E 31st St, Tulsa ... 627-3043
Pa R W Whittenberger, 421 N Braddock Ave Pittsburgh 241-5200
Pa Holco Inc, 3621 Chapel Rd Newtown Square 353-2060
Tex P D Browne Co, 2512 W Mockingbird La Dallas 357-6239
Wash H F Soderling Co, 1214 Poplar Pl S Seattle 322-3593
Wis Larry Hammond Co, 1551 N 35th St Milwaukee 342-6822
Can A C Wickman Ltd, 1425 Queensway Toronto 259-2311
Fr Davum, 22 Blvd Gallieni, Seine, Paris
Ger Ex-Cell-O GmbH, 7332 Eislingen/Fils Salacharstr 93
GB Ex-Cell-O Group Sales Ltd, Charles St, Leicester
Holl R S Stokvis & Zonen, NV, Box 426, Rotterdam
Ital Soc Per Az Eman Mascherpa, Via Pergolesi 20 Milano
Jap Marubeni-Iida Co, Box 595, Tokyo
Swed AB Landelius & Bjorklund, 61 Sandhamnsgatan Stockholm
Swit Commerce D'Outremer, SA, Dufcur Str 56, Zurich

OPTICAL PRODUCTS A TELEDYNE CO
1725 S PECK RD, MONROVIA
CAL, 91016 .... 213 357-2216
J PIGATY, EMP 50, ENG 5, UP TO $100M

OPTICS ELECTRONICS CORP, 2605 MANANA DR
DALLAS, TEX, 75220 .... 214 FL 7-1721
EMP 160, ENG 6, $2,500-$5,000M

OPTICS TECHNOLOGY INC, 901 CALIFORNIA AVE
PALO ALTO, CAL, 94303 .... 415 327-6600
R APLIN, EMP 140, ENG 40, $2,500-$5,000M
Ala Physimetrics, Box 4108, Farley Sta Huntsville 881-4965
Cal Griot Assoc, 3002 Midvale Ave Los Angeles 474-1587
Cal Griot Assoc, 560 San Antonio Rd Palo Alto 327-3996
Conn Northeast Assoc, Box 1242, Stamford 323-3814
Fla Physimetrics, 999 Woodcock Rd Orlando 841-4956
Ga Physimetrics, 3376 Peach Tree Rd Atlanta 237-8278
Ill Brooks Engineering Co, 227 E Walton Pl Chicago 944-1227
Md G Prior, 2422 Seminary Rd Silver Spring 585-4455
Mass Northeast Assoc, Box 31, Marblehead 631-3688
NJ E C Smith & Assoc, 797 Springfield Ave Summit 273-8881
NM Southwestern Eng & Equip Co 707 1st Ntl Bank Bldg E, Albuquer 265-6775
NY E C Smith & Assoc, 60 E 42nd St New York .... MU 2-6890
NY E C Smith & Assoc, 941 Granite Bldg Rochester 546-5090
Tex Southwestern Eng & Equip Co 6300 N Central Expwy, Dallas .... EM 3-6501
Tex Southwestern Eng & Equip Co, 4101 San Jacinto St Houston .... JA 8-5538
Can Technical Marketing Assoc, 6 Thorncliffe Sq Toronto, Ont 425-1975

OPTIMATION, INC, 9421 TELFAIR AVE, SUN VALLEY
CAL, 91352, TWX 910-498-2710 .... 213 768-0830
L PULSIPHER, EMP 50, ENG 4, $1,000-$2,500M
Ala BCS Assoc, Inc, 2317 Bob Wallace Ave, SW Huntsville 534-1648
Ariz Barnhill Assoc, 4900 E Indian School Rd Phoenix 959-2115
Cal Instrument Specialists, Inc, 2870 Los Feliz Pl Los Angeles 665-5181
Cal Instrument Specialists Inc, 2359 De La Cruz Santa Clara 244-1505
Cal Instrument Specialists Inc, 1909 State St San Diego 232-2017
Colo Barnhill Assoc, 1170 S Sheridan Denver 934-5505
Conn Applied Measurements, 2531 Whitney Ave Hamden 288-5288
Fla BCS Assoc, Inc, 940 N Fern Creek Ave Orlando 425-2764
Ill Scientific Sales Co, 7132 N Harlem Ave Chicago 775-7595
Ind Scientific Sales Co, 706 Sherwood Dr Indianapolis 545-9950
Kan Technical Reps, Inc, 6814 Farmview La Wichita 682-4140
Kan Technical Reps Inc, 809 Sheridan Cir, Olathe
La BCS Assoc, Inc, 3414 Hessmer Ave Metairie 888-2266
Md Ron Davies Assoc, 11215 Oak Leaf Dr Silver Spring 593-4900
Mass Applied Measurements Inc, 86 Hayward Rd Acton .... CO 3-2766
Mich Technitron Inc, 14027 Puritan Ave Detroit 838-7324
Minn Scientific Sales, 6121 Excelsior Blvd Minneapolis 929-6115
Mo Technical Reps, Inc, 7049 Laupher La Hazelwood 521-1000
NJ SBM Assoc, 1519 Stuyvesant Ave Union 687-8737
NM Barnhill Assoc, 827 Penna N E Albuquerque 265-7766
NY SBM Assoc, 28 Hobby St, Pleasantville... 769-1811
NY SBM Assoc, 800 Linden Ave, Rochester .. 381-8330
NY SBM Assoc, 5858 E Molloy Rd Syracuse 454-9377
NY SBM Assoc, 528 Old Country Rd Plainview 433-1421
NC BCS Assoc, Inc, 1039 E Wendover Ave Greensboro 273-1918
Ohio Technitron Inc, 23203 Lorain Rd N Olmsted 734-0960
Ohio Technitron Inc, 1250 W Dorothy La Dayton 298-9964
Pa Acromatix Assoc, Inc, 3118 Germantown Pike Fairview Village 279-0377
Pa Technitron Inc, 114 Spring Grove Rd, 371-1231
Tex Barnhill Assoc, 3810 Westheimer Houston 621-0040
Tex Barnhill Assoc, 507 B Bishop St Richardson 231-2573
Tex Barnhill Assoc, 2721 Fir St, El Paso 598-2442
Wash Instrument Specialist Int, 5950 6th Ave Seattle 767-4260
Can Radionics Ltd, 195 Graveline Montreal, Que 735-4565
Can Radionics, Ltd, 376 Churchill Ave Ottawa, Ont 728-4624
Can Radionics Ltd, 505 Eglinton Ave W Toronto Ont 483-7191
For Intronics Ltd, 4 Hankow Rd Kowloon Hong Kong 672141
Den Tage Olsen A/S, I Ronnegade Copenhagen 01 29 4800
Fr Imex France, 2 Rue Navoiseau Montreuil-Sous-Bois, Seine 808 19-20
Ger Telemeter Electronic GmbH, Parkstadt 154 8042 Schleissheim-Munchen 0811/321592
GB Fluke Intl Corp, Greycaine Rd Watford Herts .... Wat 27769
Holl C N Rood n v, 13 Cort Van Der Lindenstr Rijswijk Z H 98 51 53
Ital Mario Vianello, Via L Anelli, 13, Milano ... 553 081
Ital Mario Vianello, 97 Via S Croce in Gerusalemme Rome 772.941
Jap Toyo Trading Co Ltd, Box 999 Central Tokyo 279-0771
Nor Morgenstierne & Co A/S Wessels Gate 6-PB St H 2613, Oslo 1 201635
SAfr Protea Physical & Nuclear Instr Pty Ltd 7 Newton St, Johannesburg 838-8351
Swed Amerikanska Teleprodukter AB, Nybohovsgrand 56 Stockholm SV 182930
Swit Telemeter Electronic AG, Gerechtigkeitsgasse 25 Zurich 051 25 78 72
Belg C N Rood S A, 30 Rue Leon Frederic, Brussel
Isrl R D T Electronics Engrg Ltd, 13 Dov-Hos St Tel-Aviv 220989
Spn Telco, S L, Gravina, 27, Madrid 31 71 01
Fin Havulinna Oy, Vuorikatu 16, Helsinki 61451
Aust Elmeasco Instruments, 41 Carter Rd Brookvale N S W 93-6222

OPTIMAX INC, 238 MAIN ST, AMBLER
PA, 190002 .... 215 MI 6-4201
A RUBIN, EMP 11, ENG 4, $500-$1,000M
Cal W K Geist Co, 1205 Air Way Glendale 213 245-9501
Cal W K Geist Co, Box 746, Cupertino ... 408 253-5433
Fla C E Snow Co, 2400 E Oakland Park Blvd Ft Lauderdale 305 563-2448
Ind Texscan Corp, 4610 N Franklin Rd Indianapolis 317 545-6481
Md C E Snow Co, 10442 Baltimore Ave Beltsville 301 345-2211
Mass Russel Engineering Sales, 7 Skyfield Dr Groton 617 448-5822
Mich Technitron Instruments, 13657 Grand River Ave Detroit 313 838-7324
NH Graydon-Sherman Inc, Davis Bldg, Fayetteville, NY
NJ Graydon-Sherman Inc, 230 Madison Ave Morristown .... 201 JE 8-9246
NY Graydon-Sherman Inc, Great Neck 516 487-9696
NY Szucs Intl Corp, 50 Broad St New York .... 212 WH 4-7959
Ohio Technitron Instruments, 23203 Lorain N Olmstead 216 734-0960
Pa Technitron Instruments, 114 Spring Grove Rd Pittsburgh 412 371-1231
Tex Stevens Sales, Box 34493, Dallas ... 214 241-3645
Wash Dewar & Assoc, 6361 1st Ave S Seattle 206 763-2233
Can Technitron Assoc Ltd, 769 Lajoie Ave Dorval, Que 514 631-6859

OPTIMIZED DEVICES, INC, 220 MARBLE AVE
PLEASANTVILLE, N Y, 10570 .... 914 769-6100
C WINICK, EMP 30, ENG 5

Ala L G White - Southern, Box 2091 Huntsville 205 536-9686
Cal Premmco-Welco, 1502 W 166th St Gardena 532-6010
Cal Premmco-Welco, 2406 Lincoln Ave Alameda 523-9495
Fla Griggs Assoc, Box 13542, Orlando 855-4871
Ill Midwest Electronic Sales, 5707 W Division St Chicago 626-0030
Ind Midwest Electronic Sales, 5462 E 40th St Indianapolis 547-3259
Kan Impala Inc, 6917 W 76th St Overland Park 648-6901
Md C E Snow Co, 10442 Baltimore Ave Beltsville 345-2211
Mass Addelco Corp, 56 Pickering St Needham 444-4754
Mich Twin Region Elctn Sales, 2547 Monroe Blvd Dearborn 313 274-4661
Minn Pat Lind Electronics Co, 10104 Sunset Rd Circle Pines 786-5770
Mo Impala Inc, 47 Vlg Sq Shop Ctr Hazelwood 831-5454
NY KLM Assoc, 9 Hollywood Dr Whitesboro 736-2450
NY Krasner Assoc, 33 Great Neck Rd Great Neck 487-0690
NY KLM Assoc, 201 S Main St N Syracuse 458-6214
NY KLM Assoc, 8 Bear Hill Dr, Palmyra 597-9776
NC L G White - Southern, Box 2356 Winston-Salem 725-3612
Ohio Twin Region Electronic Sales, Inc 21010 Center Ridge Rd, Cleveland 331-7650
Ohio Twin Region Elctn Sales, 5700 Far Hills Ave Dayton 513 434-8000
Pa C E Snow Co, 258 N Main St Ambler 215 646-9451
Tex Stevens Sales, Box 34493, Dallas 241-3645
Wash Premmco-Northwest, 2208 NW Market St Seattle 783-3900
Wis Midwest Electronic Sales, 1317 Garfield Ave Waukesha 542-5129
Can Ahearn & Soper Ltd, 844 Caledonia Rd Toronto Ont 416 789-4325
For Kanematsu-Gosho USA Inc, 1 Whitehall St New York, N Y 425-2700
Fr Quantum S A, 125 Rue de Rome Paris 17 267-3402
GB Quantum Engrg Ltd, 31 Queen Anne's Gate London S W 1 01-930-9711

OPTOMECHANISMS INC, 40 SKYLINE DR, PLAINVIEW
N Y, 11803, TWX 510-221-1882 .... 516 GE 38100
R MCGOWAN, EMP 100, ENG 20, $1,000-$2,500M
Ala Optical Calibration Labs, 803C N Memorial Pkwy Huntsville 205 534-7322
Cal Bell Machinery Co Inc, 4439 Santa Fe Ave Los Angeles .... LU 2-6181
Cal Precision Tool Dist, 2624 Bayshore Frontage Rd Mt View 961-1160
Cal Carl E Johnson, 1149 Abbot Ave San Gabriel .... AT 4-0422
Colo Clint Helton, 2442 S Downing St Denver 722-5751
Fla Anshur Machine Tool Corp, 811 Court St Clearwater 813 446-5978
Ill Industrial Pricision Msmt Inc, 1836 E Liberty Dr Wheaton 668-2967
Ind R L Guimont Co, 2037 E 46th St Indianapolis 317 251-9261
Mich Riordan Bros Inc, 24061 W Ten Mile Rd Southfield 444-8644
Mich E A Madison Co, 25245 Five Mile Rd, Detroit
Minn Production Mach Co, 614 W Broadway Minneapolis 612 522-8075
Minn Machine Tool Supply Inc, 3301 E 26th St Minneapolis 612 721-5371
Mo Dolph Boettler & Co, 569 Melville St Louis .... PA 1-4607
Mo R M Engineering & Sales, Box 8044, Kansas City
NY J R Stewart Co, 2900 Erie Blvd E, Syracuse
NY Tri-Seco Inc, 26 Dumont Ave Staten Island 212 987-7800
Ohio The Hofferberth Mach Co, 3127 Encrete La Dayton 513 299-7263
Pa Holco Inc, 3621 Chappel Rd Newtown Square 215 528-5115
Pa Quality Control Tools, Box 104 Murrysville 412 327-2010
RI Bravo Instruments Corp, Box 1282 Woonsocket 762-0500
RI Gaskill Industries Inc, 229 Georgia Ave Providence 401 467-4370
Tex Southwestern Prec Sales Inc, 5810 Denton Dr Dallas 214 FL7-0837
Wash H F Soderling Co, 1214 Poplar Pl Seattle .... EA 2-3593

OPTO-METRIC TOOLS INC, 304 HUDSON ST
NEW YORK, N Y, 10013, TWX GQW 212-675-9076
A CRYSTLE, EMP 15, ENG 2, $1,000-$2,500M

OPTRON CORP, 50 FITCH ST, NEW HAVEN
CONN, 06515 .... 203 389-5384
J STEPHENS, EMP 5, ENG 1, $500-$1,000M
Cal Pacific Scientific Co, 6280 Chalet Dr City of Commerce 213 773-2020
Fla Lee Assoc, Inc, 200 E Marks St Orlando 305 241-4445
Ill Maher Engineering Co, 13 Broadway Des Plaines 312 824-2124
Mass Daner Assoc, 684 Commonwealth Ave Newton Centre 617 969-4650

NY Components for Industry, 416 Franklin St
Fayetteville ... 315 637-9601
Ohio Lowry Dietrich Co, 1276 3rd St
Cleveland ... 216 781-1855

OPTRONICS INC, 51 PLEASANT ST, NEWBURYPORT
MASS, 01950 ... 617 465-7568
G WADE, EMP 4, ENG 2

ORBIT INDUSTRIES, DIV COUNTIS INDUSTRIES
BOX 1444, SAN LUIS OBISPO
CAL, 93401 ... 805 544-1770
E COUNTIS, EMP 4, ENG 1, UP TO $100M

ORBIT INSTRUMENT CORP, 121 EILEEN WAY
SYOSSET, N Y, 11791 ... 516 WA 1-6310
P SHERMAN, EMP 65, ENG 6, $1,000-$2,500M
Cal P Hilderrand, 6132 Tarragona Ave
San Diego ... 714 582-4677
Ga Aironic Accessory Co, 6427 Roswell Rd
Atlanta ... 255-8422
Pa Sencor Inc, 2222 Glendale St
Philadelphia ... FI 2-0223

ORBITRAN CO, INC, 11487 WOODSIDE AVE, LAKESIDE
CAL, 92040 ... 714 448-5075
R PRICE, EMP 25, ENG 4, $250-$500M
Conn Microwave Intl Corp, 111 High Ridge Rd
Stamford ... 203 348-7704
Ill Marsten Sales Co, 6677 Northwest Hwy
Chicago ... 755-6611
NY L-Tron Corp, Box 147, Skaneateles ... 685-6172

OREGA ELECTRONIQUE & MECANIQUE
106 RUE DE LA JARRY, VINCENNES, SEINE
FRANCE ... 328 43 20
H CREMER, OVER $10,000M

ORGANIC PRODUCTS CO, BOX 428, IRVING
TEXAS, 75060 ... 214 254-4342
J WALTER, EMP 3, UP TO $100M
Cal The Mabi Co, Box 835, Oakland ... 523-6100
Cal B A & T Industrial Supply Co, 1440 E 17th St
Los Angeles ... RI 9-9266
Tex Teamwork, Inc, Box 14465, Dallas ... FL 2-7747

ORIEL-OPTICS CORP, 1 MARKET ST, STAMFORD
CONN, 06902 ... 203 348-4247
K JOHNSTONE, EMP 9, ENG 2

ORIGIN ELECTRIC CO LTD, 1-18 TAKADA, TOSHIMAKU
TOKYO, JAPAN ... 983-7111
M KIMIZUKA, EMP 1500, ENG 230, $1,000-$2,500M

ORMOND, INC, 11969 RIVERA RD
SANTA FE SPRINGS, CAL, 90670 ... 213 698-0641
G BEWLEY, EMP 26, ENG 1, $500-$1,000M
Ala Col-Ins-Co, Inc, Box 4246, Huntsville ... 539-1771
Fla Col-Ins-Co, Inc, Box 13189, Orlando ... 423-7615
Ga Col-Ins-Co, Inc, Box 14077, Atlanta ... 873-5118
Ill Systems Engineering Assoc, 1564 N Damen Ave
Chicago ... 252-5437
Ind Systems Engineering Assoc, 1010 E 86th St
Indianapolis ... 846-2593
Md Kinney Technical Prod, Inc, 108 England Ter
Rockville ... 762-7303
Mich Carter, McCormic & Peirce, 16239 Wyoming
Detroit ... 863-4600
Minn Systems Engineering Assoc, 3040 Snelling Ave
Minneapolis ... 729-6161
NJ Hoder Corp, 121 E Hamilton Ave
Englewood ... 568-0217
NC Col-Ins Co, Inc, Box 5597
Winston-Salem ... 765-2650
Ohio Carter, McCormic & Peirce, 3691 Lee Rd
Cleveland ... 921-1360
Okla Carter, McCormic & Peirce, 3406 N Main St
Dayton ... 278-5873
RI Hoder Corp, 589 Warren Ave
East Providence ... 438-2726
Utah Peirce Bowthorpe Agency, 143 S 4th E
Salt Lake City ... 328-4513
Wash J A Tudor & Assoc, Inc, N 1413 Division
Spokane ... 327-3328
Wis Mainline Supply, Boyd Bldg Box 368
Mercer Island ... 402-5950
Can Hallwin Agencies, 30 Surrey Ave
Scarborough ... AD 2-5951

ORRTRONICS INC, BOX 864, TOLEDO
OHIO, 43601 ... 419 693-0641
J MEIDT, EMP 150, ENG 5, $2,500-$5,000M
Cal Dobbs/Stanford, 569 Laurel St
San Carlos ... 415 591-0339
Cal Morris-Tait Assoc, 4260 Lankershim Blvd
No Hollywood ... 213 877-4424
Colo Gordon Moss Electronics Inc, Drawer J
Greeley ... 303 353-1452
Colo L Moss, Box 26172, Denver ... 303 985-8815
Conn G B Smith, 188 Brewster Rd, W Hartford
Fla E Gompertz, Box 12266
Fort Lauderdale ... 305 583-5819
Ga R Cathey, 4061 Macon Rd
Columbus ... 404 561-6588
Haw Dougherty Enterprises, 1164 Waimanu St, Honolulu
Ill J J McBride Sales Co, 6054 Touhy Ave
Chicago ... 312 775-1080
Ind B J Clancy, 5750 N Ewing St, Indianapolis
Mass Robert Smith Co, 59 Verndale St
Brookline ... 617 AS 7-0017
Minn John E M Anderson Co, 5231 Humboldt Ave S
Minneapolis ... 612 823-6459
Mo C W Dreese & Assoc, 3710 Canterbury Pl
Independence ... 816 IN 1-7294
NM R Higgins, Box 344, Albuquerque ... 505 877-9392
NY Irv Brown Co, 401 Kingston Ave
Brooklyn ... 212 HY 3-1379
NY J R Sabo, 112 N 8th St, Indiana ... 412 463-9370
Ohio Shamrock Elctn Sales Inc, 1755 W Market St
Akron ... 216 864-3090
Ohio W Harding, 806 Rockhill, Dayton
Ohio T M Carney, 1755 W Market St, Akron
Tex R Coble, 14422 Castlereagh
Houston ... 713 433-1778
Va J Gordon, 1401 Wilson Blvd, Arlington
Wash R Larrabee, 2117 Second Ave
Seattle ... 206 MU 2-2358
Can Perception Industries Inc, 274 Church St
Toronto Ontario Canada ... 416 363-9141
For Morhan Exporting Corp, 458 Broadway
New York, NY ... WA 5-1257
For Intercontinental Trade Corp, 1569 Sherman Ave
Evanston ... 312 475-5488

OSAKA ONKYO CO, LTD
32 OMIYA-NISHINO-CHO 5-CHOME
ASAHI-KU, OSAKA, JAPAN ... 951-5631
R KIMURA, EMP 2500, ENG 600, OVER $10,000M
Jap Osaka Onkyo Co Ltd
12-8 Uchikanda 1-chome, Chiyoda-ku
Tokyo ... 293-0191

OSBORNE ELECTRIC CO, LTD, 95 WESLEY ST
TORONTO 18, ONT ... CL 9-7886
M LANGLEY, EMP 35, ENG 4

OSBORNE TRANSFORMER CORP, 3834 MITCHELL AVE
DETROIT, MICH, 48207 ... 313 568-0700
R OSBORNE, EMP 25, ENG 2, $250-$500M

O & S RESEARCH INC, 1912 BANNARD ST, RIVERTON
N J, 08077 ... 609 829-2800
E SANDERS, EMP 42, ENG 1, $500-$1,000M

OSTBY & BARTON CO, BOX 6267, PROVIDENCE
R I, 02904, TWX 710-381-1584 ... 401 739-7310
A BERGMANN, EMP 135, ENG 4, $1,000-$2,500M
Cal R R Cannon Co, Box 5026, Pasadena ... 449-6157
Conn B Knowlton, RFD 1, Metcalf Rd
Tolland ... 875-6689
Ill J Mageau, 281 Dover La, Des Plaines ... 299-1417
Mass Wray Sales, 15 Sagamore Rd
Worcester ... 757-7909
NY Tech-Mark, Inc, 101 Jefferson Ave
Endicott ... 748-7473
Pa Walch Co, Box 261, Newtown ... 968-3989
Tex Challenge Products Corp, Box 447
Richardson ... 231-5231

OTIS ELEVATOR CO, DEFENSE OPER, 2051 W MAIN ST
STAMFORD
CONN, 06904, TWX 710-474-0170 ... 203 325-2251
R WILLIAMS, EMP 450, ENG 75, OVER $10,000M
DC Otis Elevator Co, 1900 L St NW
Washington ... 296-9178
Fla Otis Elevator Co, 1115 Thunder Trail
Maitland ... 647-0105
NY Otis Elevator Co, 35 Ryerson St
Brooklyn ... UL 5-6800
Ohio Otis Elevator Co, 1405 Ruskin Rd
Dayton ... 277-9093
Utah Otis Elevator Co, 445 E 2nd S
Salt Lake City ... DA 2-5191

OTIS RADIO & ELECTRIC CORP, 222 AVE E
HAWARDEN
IOWA, 51023, TWX 910-967-1651 ... 712 552-2144
R OTIS, EMP 500, ENG 1, $2,500-$5,000M

OTTAWA, 37 BIS RUE GAUTHEY, PARIS
FRANCE ... 228 38 30
J P GOUIN, EMP 200, ENG 5, $1,000-$2,500M
Den Stern S B A/S, Svend Trostsvej 12
Copenhagen ... 21 58 86
Holl Inelco, A J Ernstr 801 Am'dam Zuid 11, Amsterdam
Ital Metroelettronica, Viale Cirene 18
Milano ... 58 98 81
SAfr Thomson Electronics SA Pty Ltd, Box 123 Newville
Johannesburg ... 27 43 21
Swed Ajers Electronic, Stockholm 32
Belg Inelco S A, 20/24 Rue de l'Hopital
Bruxelles 1 ... 112 220
Spn Poulain, Rambla de Cataluna 10 3 3
Barcelone 7 ... 221 86 06
Aust Coulter's & Co, Trust Bldg 155 King St
Sydney ... BW 38 44

OTTO CONTROLS, 8611 LINCOLN AVE
MORTON GROVE, ILL, 60053 ... 312 966-7858
J ROESER

OVENAIRE INC, 706 FORREST ST, CHARLOTTESVILLE
VA, 22902, TWX 703-296-5432 ... 293-5148
D ELLIS, EMP 100, ENG 5, $1,000-$2,500M
Cal Melvin Sales Co, 113 El Camino Real
Millbrae ... 697-6922
Cal R L Assoc, 14547 Titus St
Panorama City ... 780-1666
DC C O Emrich, Rolling Rd & Wilkens Ave
Baltimore ... RI 7-8348
Fla J J Smith & Assoc, Inc, Box 460
Winter Park ... 644-4316
Ill Thos B Hunter Assoc, 5653 W Irving Park Rd
Chicago ... 777-2500
Mass Gerald Rosen Co Inc, 563 Worcester Rd
Natick ... 655-2211
Mo Kelly-Schmitz-Winkeler Assoc, 7546 Troost Ave
Kansas City ... 363-5651
NJ Gemini Exectronics, Inc, 1415 Newbridge Rd
N Bellmore ... 826-4440
NY Bowser & Sapecky Co, 4541 Main St
Snyder ... 839-4170
NC L & D Inc, Box 7243, Greensboro ... 292-3201
Ohio G & H Sales Co, 7215 Market Pl
Cincinnati ... 761-6185
Pa Arnold Ratner Assoc, 301 York Rd
Jenkintown ... 887-5250
Tex Stevens Sales, Box 14493, Dallas ... 521-9409
Can Ben Manis Assoc Reg, 6600 St Urbain St
Montreal, Que ... 274-8271
Den A/S Dantronik Ltd, Buddingevej 312
Kobenhavn, Soborg ... OL 692511
Fr Comptoir Commercial D'Importation
42 Rue Etienne Marcel, Paris 2 ... 20-70 A 20-72
GB AEP Intl Ltd, London Rd
Isleworth, Mdsx ... ISL 7447

OVEN INDUSTRIES, 1106 E SIMPSON RD, BOX 229
MECHANICSBURG, PA, 17055 ... 717 766-0721
R SHAFFNER, EMP 39, ENG 5, $500-$1,000M
ADV PG 467
Cal Dorr Wagner Assoc, Box 485, Altadena ... 681-4060
Cal J E Striker Co, 1319 Howard Ave
Burlingame ... 342-1425
Colo O'Brien Sales Agency, 2785 N Speer Blvd
Denver ... 303 477-4713
Conn Keyco Assoc, Box 357, Farmington ... 677-1771
Fla Beacon Electronic Assoc, Box 1278
Maitland ... 647-3498
Fla Beacon Electronic Assoc, Box 10212
Ft Lauderdale ... 305 564-4298
Ga Beacon Electronic Assoc, 2285 Peach Tree Rd N E
Atlanta ... 404 351-3654
Ill Branum Sales Co, Box 516, Lake Zurich ... 438-2356
Mass Keyco Assoc, 551 Broadway, Malden ... 321-2323
Minn R J Sales & Eng Co, 1700 S France Ave
Minneapolis ... 922-1425
Mo Alfred Gliedt Assoc, 10869 Spring Garden Dr
St Louis ... 868-7445
NJ Andrews & Andrews Inc, 44 N Dean St
Englewood ... 201 569-8800
NY Andrews & Andrews Inc, 140 Main St
Huntington ... 692-8686
NY Andrews & Andrews Inc, 336 Erie Blvd E
Syracuse ... 315 471-8855
NC Beacon Electronic Assoc, Box 503
Jamestown ... 919 454-1010
Ohio McShane, 114 Trails End Dr, Medina ... 725-4283
Okla John A Green Co, Box 3209, Tulsa
Pa Tyler Griffin Co, 46 Darby Rd, Paoli ... 647-1550
Pa Greenray Intl, 840 W Church Rd
Mechanicsburg ... 766-0246
Tex John A Green Co, 7118 Envoy Ct
Dallas ... 631-7450
Tex John A Green Co, 3400 Montrose St, Houston
Wash Dewar & Assoc, 6361 1st Ave S
Seattle ... 206 763-2233
Can Frank Eakin Ltd, 9 Milvan Dr
Weston, Ont ... 741-7485

OVERLOAD CONTROLS INC, BOX 341, BRONXVILLE
N Y, 10708 ... 914 337-5057
F PARKER, EMP 5, ENG 2, UP TO $100M

OVITRON CORP INDUSTRIAL SYST DIV
1425 MILLDALE RD, CHESHIRE
CONN, 04610 ... 203 272-3234
J GEIS, ENG 5, OVER $10,000M
Cal Kittleson Co, 416 N La Brea, L A ... 213 433-7371
Colo Stirrup Assoc, Box 1
Middle Haddan ... 617 861-8720
Ind Kennedy Sales, R D 2 Box 610
Richmond ... 317 966-1933
NJ H W Ryno, 51 Forest St, Montclair
Wis Industrial Htg & Controls, 8926 N 91st St
Milwaukee ... 414 354-8335

OWATONNA TOOL CO, 186 CEDAR ST, OWATONNA
MINN, 55060 ... 507 451-5310
J MULLENMASTER, EMP 450, ENG 4
$5,000-$10,000M
Cal R Long, 30 Cabrillo Rd, Arcadia ... HI 7-0081
Cal G Packer, 2288 Maroel Dr, San Jose ... 378-1853
Conn W P Weeks, Box 37, Wykagyl Sta
New Rochelle, N Y ... 636-5445
Fla Lewis S Rickett Jr, 7711 W Hiawatha
Tampa ... 884-1046
Ga W K King, 2413 Sherbrook Dr NE
Atlanta ... 636-2412
Idah W Noesen, 206 S 9th Ave, Pocatello ... 232-2045
Ill J L Dooley, 1901 Indiana Ave
Chicago ... DA 6-4510
Ind T J Payne, 2201 Terrace La, Lebanon ... 482-1376
Iowa R Vandermeulen, 3901 74th
Des Moines ... 276-2290
Md Gene Miller, Jr, 16800 Briardale Rd
Derwood ... 948-2892
Mich D L Michau, 1219 Quarton Rd
Bloomfield Hills ... 642-6368
Mich N Rice, 229 S Hosmer Rd, Lansing ... 484-0111

Minn R S Nestande, Linden Dr, Rt 5
Excelsior 474-5034
Minn C Johnson, Box 253, Westwood Dr
Alexandria 763-5461
Neb F Bartelson, 1722 W 9th St, Hastings 462-5264
NJ J Stowers, 24 Kross Dr, Parlin 727-6020
NY F G Nolan, Box 55, Pulaski 298-5415
NC R J Ludes Sr, 4032 B Providence Rd
Charlotte 366-4963
Ohio D O Schneider, 2519 Dover Center Rd
Westlake .... TR 1-8820
Ohio J T Conricote, 416 Afton Ave
Youngstown .... ST 8-5391
Ore R Wilkinson, Rte 2, Box 273-A
Sherwood 625-7419
Tenn L W McKelvy, 3126 Crump Ave
Memphis 323-7496
Tex J Cissne, Box 473, Richardson .... AD 5-6127
Tex Wm Parker, 10005 Lazy Oaks Dr
Houston .... HO 8-6157
Wis E L Diamond, 5811 N 81st St
Milwaukee .... HO 2-1770
For C Bareikis, 21 Rittenhouse Ct
Willingboro 871-0399
Swit Sven-Arne Nilsson, Corsy, La Conversion

OWENS-ILLINOIS CONSUMER & TECH PRODUCTS DIV
BOX 1035, TOLEDO, OHIO, 43601 ...... 419 242-6543
J CHANDLER

OXFORD ELECTRIC CORP, 3911 S MICHIGAN AVE
CHICAGO, ILL, 60653 .... 312 536-8100
H STEVENS, EMP 175, ENG 9, OVER $10,000M
Cal Dresco Industries Inc, 9601 Wilshire Blvd
Beverly Hills .... CR 5-0108
Cal Technical Sales Assoc, 1485 Bayshore Dr
San Francisco .... DE 4-3161
Colo Hyde Electronics Corp, 888 S Lipan St
Denver 936-3456
Conn John Stawicki Assoc, Box 126, Essex ... SO 7-8566
Ill Ray R Hutmacher Assoc Inc, 6668 Northwest Hwy
Chicago .... NE 1-3248
Minn R M Ragon Inc, 1136 W Larpenteur Ave
St Paul 488-6634
Mo C A Vignola, 21 Shellridge Rd
Jefferson City 314 635-1023
NJ A Wetterhahn Co, 4420 Crescent Blvd
Pennsauken .... NO 2-1611
NM Hyde Electronics Co, 5206 Constitution Ave NE
Albuquerque 265-8895
NY S S Egert Co, 146 Meacham Ave
Elmont 516 488-2255
Ohio L Liakos Agency, 1479 Devonhurst Dr
Columbus 866-6701
Tenn Dixie Electronics Assoc, 608 N Gallatin Rd
Madison 615 895-5666
Tex Maynard Sales Co, 158 Express St
Dallas .... RI 2-2384
Utah Hyde Electronics Co, 85 E 7th S
Salt Lake City 355-5361
Wash Ron Merrett Co, 1320 Prospect St
Seattle 682-7337
For Roburn Agencies Inc, 431 Greenwich St
New York, NY .... WO 6-2130

PABST ENGINEERING EQUIPMENT CO INC
676 PENNSYLVANIA AVE, ELIZABETH
NJ, 07201 353-2880
R VERKOUILLE, EMP 85, ENG 5

PAC ELECTRONICS CORP, 200 JOE L EVINS DR
CELINA, TENN, 38551 .... 615 243-3612
J CENTER, EMP 50, ENG 5
Fla Cartwright & Bean, 609 E Colonial Dr
Orlando 305 425-8282
Ga Cartwright & Bean, 3223 Cain's Hill Pl
Atlanta 404 237-2273
Ill John Lightner Assoc, 6322 N Milwaukee Ave
Chicago 312 774-1500
La Cartwright & Bean, 1812 Bullard Ave
Metairie 504 887-0482
Md A Wetterhahn Co Inc, 107 York Rd
Towsen 301 825-1335
Mass Stanley A HarrisCo, 945 Great Plain Ave
Needham 617 444-4780
Mich R C Merchant Co, 18411 W McNichols
Detroit 313 535-6000
Mo Ozard Elctns Mktg Inc, 2573 Woodson Rd
St Louis 314 423-7200
NJ A Wetterhahn Co, 4420 Crescent Blvd
Pennsauken 609 662-1611
NC Cartwright & Bean, 625 Harwyn Dr
Charlotte 704 537-7965
Tenn Cartwright & Bean, 560 S Cooper St
Memphis 901 276-4442

PACE METERS, 73-07 88TH ST, GLENDALE
N Y, 11227 .... 212 896-0346
D SCHETTINI

PACIFIC AUTOMATION PRODUCTS INC, 1200 AIR WAY
GLENDALE
CAL, 91201, TWX 213 240-2141 .... 213 246-2411
C PORZENHEIM, EMP 80, ENG 5, $1,000-$2,500M

PACIFIC COPY CORP, 142 OREGON ST, EL SEGUNDO
CAL, 90246 .... 213 772-2311
M MATTHEWS JR, EMP 30, ENG 2, $1,000-$2,500M
Pa Continental Copy Products, 351 Lincoln Hwy
Frazer-Malvern 215 647-1177

PACIFIC DATA & CONTROLS, 1476 ODDSTAD DR
REDWOOD CITY, CAL, 94063 .... 415 365-6063
J SICARD, EMP 8, ENG 2, $100-$250M
Cal Artwel Electric Inc, 1485 Bayshore Blvd
San Francisco 586-4074
Cal Artwel Electric, 6311 Yucca St
Hollywood 467-1445
Ore Pacific Data & Controls, 6055 NE Glisan St
Portland 774-8851

PACIFIC DATA SYSTEMS INC, 644 YOUNG ST
SANTA ANA, CAL, 92705 .... 714 540-3610
L UTIGARD, EMP 130, ENG 15, $1,000-$2,500M
Cal Pacific Data Systems, 4151 Middlefield Rd
Palo Alto 415 328-4977
Ill Pacific Data Systems, 3166 des plaines ave
Des Plaines 299-0179
NJ Pacific Data Systems, 185 Monmouth Pkwy
West Long Branch 201 229-1100

PACIFIC ELECTRIC MOTOR CO, 1009 66TH AVE
OAKLAND, CAL, 94621 .... 415 569-7621
J ALLEN, EMP 125, ENG 12, $2,500-$5,000M

PACIFIC ELECTRICORD CO
747 W REDONDO BEACH BLVD, GARDENA
CAL, 90247 .... 213 532-6600
L BUTLER, EMP 400, ENG 6

PACIFIC ELECTRO DYNAMICS INC, 4516 STONE WAY N
SEATTLE, WASH, 98103 .... 206 633-3212
EMP 40, ENG 5, $500-$1,000M
Cal Testco, 941 Charleston Rd
Palo Alto .... 415 DA 6-5320
Tex CTR Inc, 117 Melbourn Rd, Hurst ... 817 AT 4-9521
Wash Testco, Boeing Field, Seattle .... 206 PA 3-9000

PACIFIC ELECTRO MAGNETICS CO INC
942 COMMERCIAL ST, PALO ALTO
CAL, 94303, TWX 415-492-9484 .... 415 321-1177
R BUCKMASTER, EMP 26, ENG 5, $500-$1,000M
Ala Lee Assoc Inc, 5R Traylor Is, Huntsville ... 539-0761
Ariz PLS Assoc, 2365 N 6th Ave, Phoenix 258-0067
Cal Instrument Specialties, Inc, 2870 Los Feliz Pl
Los Angeles 665-5181
Cal Instrument Specialists, 2359 De La Cruz
Santa Clara 244-1505
Colo PLS Assoc, 7895 E Prentice Ave
Englewood 771-0140
Fla Lee Assoc Inc, 200 E Marks St, Orlando .. 241-4445
Ill Ridgway Assoc Inc, 3759 N Harlem Ave
Chicago 282-5929
Md Lee Assoc Inc, 12250 Wilkins Ave
Rockville 949-4800
Minn Ridgway Assoc Inc, 8053 Bloomington Frwy
Mpls 824-9050
NJ Garten & Assoc, 375 Passaic Ave
Caldwell 226-7800
NM PLS Assoc, 4200 B Silver Ave SE
Albuquerque 255-0120
NC Lee Assoc, 829 Burke St
Winston-Salem 724-2406
Ohio Ridgway Assoc East, 4654 Michael Ave
N Olmsted 777-6600
Tex Applied Science Assoc, 3707 Rawlins St
Dallas 781-4967
Tex J Casey, 200 Cadillac Dr, San Antonio .. OX 2-1477
Can Allan Crawford Assoc, Ltd, 65 Martin Ross Ave
Downsview, Ont 636-4910
Fr Societe' FREI, 172 Rue de Courcelles, Paris 17 eme
Ger Telemeter Elctn GMBH
8042 Schleissheim-Munchen, Parkstadt 154
GB Pemco, 56 Queen's Rd
Basingstoke Hampshire 315-25323
Holl Air-Parts Intl N V, Ryswyk (Z H), 149 Haagweg
Ital AESSE, Corso Lodi 47, 20139 Milano
Jap Kyowa Electronic Instr Co Ltd
19 Shiba Nishikubo Akifuni-Cho, Minato-Ku, Tokyo
Nor Hugo Riso A/S, Box 8 Taasen, Oslo
Swed Tel Inter AB, Filipstadsbacken 48 Box 59
Stockholm-Farsta 1
Swit Telemeter Electronic AB, Gerechtigkeitsgasse 25
8027 Zurich
Aust H B Shelby & Co Pty Ltd, 352 Ferntree Gully Rd
Notting Hill Vic 544-4844

PACIFIC INSTRUMENT CO, 4926 E 12TH ST, OAKLAND
CAL, 94601 .... 415 532-2035
E MCLAUGHLIN, EMP 15, ENG 2, $100-$250M
Cal Bay-Tronics, Box 356, San Bruno 415 588-0958
Cal C B Rush & Assoc, 1830 W Olympic Blvd
Los Angeles 213 388-7111
Mo J C Mankus Assoc, 400 Brookes La
Hazelwood 314 731-4334

PACIFIC MAGNETIC CORP, BOX 1398, HWY 74
ROMOLAND, CAL, 92380 .... 714 657-5195
H MILLS, EMP 35, ENG 4, $250-$500M

PACIFIC MEASUREMENTS INC, 940 INDUSTRIAL AVE
PALO ALTO
CAL, 94303, TWX 910 373-1171 .... 415 328-0300
D ARMANN, EMP 30, ENG 6, $500-$1,000M
Ala BCS Assoc, Inc, 2317 Bob Wallace Ave, S W
Huntsville 534-1648
Colo P L S Assoc, 7895 E Prentice Ave
Englewood 771-0140
Fla BCS Assoc, Inc, 940 N Fern Creek Ave
Orlando 425-2764
Ill Pivan Engineering Co, 3535 W Peterson Ave
Chicago 539-4838
Ind Pivan Engineering Co, 8545 Northcrest Ct
Indianapolis 846-5805
Iowa Pivan Engineering Co, Box 1274
Cedar Rapids 365-6635
La BCS Assoc, Inc, 3414 Hessmer Ave
Metairie 888-2266
Md Nine Assoc, Inc, 7753A2 Patriot Dr
Annandale 256-8784
Mass New England Mktg Assoc, 55 Salem St
Lynnfield 245-9530
Mich WKM Assoc, Inc, 1474 E Outer Dr
Detroit 892-2500
Minn Pivan Engineering Co, 3203 N Hwy 100
Minneapolis 537-5626
NJ G Curtis Engel & Assoc, 210 S Broad St
Ridgewood 444-1400
NM P L S Assoc, 601 San Pablo N E
Albuquerque 255-2330
NY Ossmann Instruments, Inc, 101 Pickard Dr
Syracuse 454-2461
NY Ossmann Instruments, Inc, 3100 Monroe Ave
Rochester 586-0380
NY Ossmann Instruments, Inc, Box 207
Wappingers Falls 297-7777
NY Ossmann Instruments, Inc, Vestal Pkwy E, Vestal
NC BCS Assoc, Inc, 1039 E Wendover Ave
Greensboro 273-1918
Ohio WKM Assoc, 6085 Far Hills Ave
Dayton 298-7203
Ohio WKM Assoc, Inc, 6741 Ridge Rd
Cleveland 885-5616
Pa WKM Assoc, Inc, 90 Clairton Blvd
Pittsburgh 892-2953
Tex Dannemiller-Smith, Inc, 5760 Rice Ave
Houston 668-4461
Tex Dannemiller-Smith, Inc, 2712 W Mockingbird La
Dallas 357-8249
Tex Dannemiller-Smith, Inc, 7077 San Pedro
San Antonio 341-1356
Wash Cane-Jessup Co, Inc, 1433 - 130th Ave, N E
Bellevue 454-0691
Wis Pivan Engineering Co, Box 437
Waukesha 547-5131
Can R-O-R Assoc Ltd, 1470 Don Mills Rd
Don Mills Ont 444-4403
Can R-O-R Assoc Ltd, 3285 Cavendish Blvd
Montreal 28 P Q 482-8430
Can R-O-R Assoc Ltd, 1320 Carling Ave
Ottawa 3 Ont 722-6531
Can R-O-R Assoc Ltd, 805 5th St SW
Calgary Alb 265-6470
For Pacific Measurements Intl Div, 750 Third Ave
New York, N Y 986-2244

PACIFIC METROLOGY LABS, INC, BOX 3552
SAN DIEGO, CAL, 92103 .... 714 276-4900
H NORTON, UP TO $100M

PACIFIC OPTICAL DIV CHICAGO AERIAL IND
5221 102ND ST, LOS ANGELES
CAL, 90045 .... 213 670-4902
L THOMPSON, EMP 125, ENG 6

PACIFIC PHOTOMETRIC INSTRUMENTS
3024 ASHBY AVE, BERKELEY
CAL, 94705 .... 415 848-1141
F WEEKES, EMP 4, ENG 1, UP TO $100M
Colo D E Bond Assoc, 5670 E Evans Ave, Denver
Colo D E Bond Assoc, 2149 S Clermont St, Denver
Md C E Snow Co, 10442 Baltimore Ave, Beltsville
Mass Addelco Corp, 56 Pickering St, Needham
NJ Friedman Assoc, 110 Halsted St, East Orange
NM D E Bond Assoc, Box 11331, Albuquerque
Ohio Tiby Co, 2245 Warrensville Ctr Rd, Cleveland
Pa C E Snow Co, 258 N Main St, Ambler
Tex D E Bond Assoc, Box 12293, El Paso

PACIFIC PLANTRONICS INC, BOX 635, SANTA CRUZ
CAL 95060, TWX 910-598-4415 .... 408 426-5858
G VAN METER, EMP 200, ENG 10, $2,500-$5,000M
ADV PG 273

PACIFIC RELAYS INC, 13915 SATICOY AVE, VAN NUYS
CAL, 91402 .... 213 782-2360
EMP 25, ENG 1, $250-$500M

PACIFIC RESINS & CHEMICALS INC, PLASTICS DIV
3142 W MILL RD CT, MILWAUKEE
WIS, 53209 .... 414 352-2510
R PETERS, EMP 208, ENG 3
Mass F W Willett, 102 Doane St, Cohasset 383-1113
Mich R J Peters, 809 Tomahawk La, Niles 683-8506
NJ J A Krut, 7100 Blvd East, Guttenberg 869-4256

PACIFIC RESISTOR CO, 2320 PONTIUS AVE
LOS ANGELES, CAL, 90064 .... 213 477-5589
H GUINESS, EMP 70, ENG 3, $500-$1,000M
Colo Arrowhead Sales Co, 6460 Brentwood, Arvada
DC Jadelectronic Assoc, 601 Boston Ave
Washington .... JU 8-3084
Fla Young & Lawrence Assoc, 601 N New York Ave
Winter Park 305 647-6929
Ill Technical Devices, 6416 N Central Ave
Chicago 312 774-8252
Ind Tristate Electronics, 124 W Washington St
Ft Wayne 742-2474
Md Jadelectronic Assoc, 601 Boston Ave
Washington .... JU 8-3084
Mass V J Huntoon Assoc, 272 Centre St, Newton

Minn Countryman, Wagner, Behnen Co, 560 N Prior Ave St Paul 645-9151
Mo Aerotronics Inc, Box 6236 St Louis 314 426-4060
NY A L Livera Assoc, 275 Warner Ave Roslyn Heights 516 484-1276
NY Lloyd Hart Assoc, Box 8398 Rochester 716 244-3253
NC De-Witt Austin Co, Box 17271 Charlotte 704 366-0806
Ohio Tristate Electronics, 1717 Section Rd Cincinnati 631-5060
Pa Jadelectronics Assoc, Box 5735, Phila... GL 5-3355
Tex W T Blackburn Assoc, Box 20073 Dallas .... FL 1-9991
Utah Arrowhead Sales Co, 1966 W 6255 S Salt Lake City 801 298-2751

PACIFIC TRANSDUCER CORP, 2301 FEDERAL AVE
LOS ANGELES, CAL, 90064 .... 213 478-1134
G ARGABRITE, PRES, EMP 8, ENG 2, $250-$500M

PACIFIC UNIVERSAL PRODUCTS CORP, 168 VISTA AVE
PASADENA, CAL, 91107 .... 213 MU 17646
C CHOPNICK, EMP 9, ENG 1, $100-$250M

PACKARD BELL ELECTRONICS, CLOSED CIRCUIT TV
PRODS, 649 LAWRENCE DR, NEWBURY PARK
CAL, 91320, TWX 910-336-1263 .... 805 498-6601
J STACK, EMP 268, ENG 100, $5,000-$10,000M

PACKARD-BELL ELECTRONICS CORP
12333 W OLYMPIC BLVD, LOS ANGELES
CAL, 90064, TWX 910-342-6347 .... 213 272-6141

PACKARD INSTRUMENT CO, INC
2200 WARRENVILLE RD, DOWNERS GROVE
ILL, 60515, TWX 910 695-3220 .... 312 969-6000
V MATTISON JR, EMP 522, ENG 25, OVER $10,000M

PAINTON & CO, LTD, BEMBRIDGE DR, KINGSTHORPE
NORTHAMPTON, ENGLAND .... NOR 34251
M DOW, EMP 1100, $5,000-$10,000M
NY Painton, Inc, 109 Wheeler Ave, Pleasantville
Ger Painton GmbH, 7 Stuttgart - 1, Rotebuhlstr 84/1
Ital Painton Italiana SpA, Via D Manin 33 Milan 632 435
Swed Svenska Painton, Erik Tegels Vag 35 Spanga 08/36 2850
Belg Painton Soc Anonyme, 11 Rue Keyenveld Brussels, 5 .... 13 26 53
Aust Painton (Australia) Pty Ltd, Box 131 Richmond E I Vict 42 2338

PAKTRON DIV, ILLINOIS TOOL WORKS INC
1321 LESLIE AVE, ALEXANDRIA
VA, 22301 .... 703 KI 8-4400
P ROTH, EMP 400, ENG 30

PALA SWITCH CO, 1367 E EDINGER, SANTA ANA
CAL, 92705 .... 714 835-5800
J ELLIOTT, EMP 10, ENG 2, UP TO $100M

PALISADES ENGINEERING CO INC, BOX 22
PACIFIC PALISADES, CAL, 90272 454-8569
N LOCKMAN, EMP 4, ENG 2, UP TO $100M

PALL CORP, ENVIRONMENTAL CONTROL SYSTEMS DIV
43-22 QUEENS ST, LONG ISLAND CITY
NY, 11101 .... 212 EM 1-7575
R HUEFFED, EMP 125
Ala Russell Assoc Inc, 2516 N Memorial Pkwy Huntsville 539-7211
Ala D L Christensen, Box 3180, Huntsville 852-6586
Cal Pall Western Corp, 8050 Florence Ave Downey 861-1297
Cal MENSCO, 1787 Lark La, Sunnyvale 253-6106
Colo L R Barland, 2701 Alcott St, Denver 388-0813
Conn Northeast Engineering Inc, 3013 Dixwell Ave Hamden .... CH 8-4481
Fla N A Wright, Box 3208, Tallahassee 385-4411
Fla Russell Assoc Inc, 211 W Fairbanks Ave Winter Park .... MI 7-2251
Ga Russell Assoc Inc, 6427 Roswell Rd Atlanta 255-8422
Ill Russell Assoc Inc, 3618 W Elm St McHenry 385-4220
Kan D&O Engineering Co Inc, Box 1800 Wichita .... AM 4-7358
Md R Cantwell Co, 9321 Fresno Rd Bethesda 654-3698
Md Russell Assoc Inc, Reckord Bldg Baltimore .... VA 3-3350
Mass Northeast Engineering Inc, 5 Elm St Danvers .... SP 4-3010
Mich Russell Assoc Inc, 24634 Five Mile Rd Detroit 532-5770
Mo H E Walker Assoc Inc, Box 4600 St Louis .... MA 2-2486
NJ Russell Assoc, Inc, 47 E Blackwell St Dover 366-7377
NY Russell Assoc Inc, 165 Orinoco Dr Brightwaters .... MO 6-6500
NY Transaero Inc, 155 First St, Mineola ..... CH 8-6800
NY Russell Assoc, Inc, 6789 Main St Buffalo 634-3377
Ohio Rixan Assoc Inc, 33 W Stratford Ave Dayton .... BA 2-0011
Ohio Russell Assoc Inc, 4 Eswin St Cincinnati 825-0930
Tex D&O Engineering Co Inc, Box 8433 - Park Cities Br Dallas .... EM 8-3544
Tex Engineered Equip Inc, 409 Executive Park Blvd El Paso 533-4221
Tex Engineered Equip Inc, 3617 W Storey Midland .... MU 3-3191
Tex Stolle Hamilton Co, 1108 Meyer Seabrook .... HA 4-3155
Wash Thorson Co, 1767 15th Ave S, Seattle ... EA 5-5000
Can Pall Canada Aerospace Div, Box 99 Belleville, Ont 968-6479
GB Fairey Engrg Ltd, Cranford La, Heston, Hounslow Middlesex .... HAY 7777
GB Pall (UK)Ltd, 275 King St Hammersmith, London W-6
Jap Sumitomo Shoji, 8-1 Marunouchi-Chiyoda-ku, Tokyo

PALL TRINITY MICRO CORP, RTE 281, CORTLAND
N Y, 13045, TWX 510-252-0791 .... 607 756-7535
N NICKOLAUS, EMP 230, ENG 31, $5,000-$10,000M
Ala F A Thomas, 1805 Liberty St, Mobile 471-1593
Ala Brownlee & Morrow Engr Co, 1006 S 15th St Birmingham 328-5650
Ala G S Edwards Co Inc, 1913 27th Ave S Birmingham 879-1633
Cal Pall Western Corp, 8050 Florence Ave Downey 861-1297
Cal Trident Engineering Co, 16 Beale St San Francisco 986-6558
Cal mensco, 1787 Lark La, Sunnyvale 253-6106
Colo Brookes Engineering Co, 1122 12th Ave Denver 222-5791
Conn Pond Technical Sales, 3013 Dixwell Ave Hamden 288-6278
Fla DruKill Co, Inc, Box 927, Maitland 647-4288
Ga Thomas Engineering Co, 3867 Roswell Rd, N E Atlanta 261-5071
Ill Enpro Inc, 744 N Michigan Ave Villa Park 279-2525
Ky Ladt Engineering Co, Avondale St Paducah 444-6494
La Alford Woods Shilds Inc, 1713 Wooddale Blvd Baton Rouge 926-5595
Mass J R Chisholm Corp, 370 Amer Legion Hwy Revere 289-4100
Mich H A Reed Co, 19465 James Couzens Hwy Detroit 342-7474
Minn Industra Co, 6504 Walker St, Mnpls 929-6224
Mo Process Eng & Equip Co, 710 Hanley Ind Ct St Louis 644-2244
Mo Durkin Equip Co, 238 Centerline Ind Dr St Louis .... LI 2-1444
Mont Archibald Co, 55 W Broadway, Butte 723-8075
Neb H G Klug Co Inc, 2029 N 67th Ave Omaha 553-1377
NJ Alison Controls Inc, 954 Kinderkamack Rd River Edge 265-3737
NJ Pall Trincor Corp, 459 Chestnut St Union 245-8400
NY Owens & Co, Box 1405, Buffalo 835-9166
NY Owens & Co, 24 Jordan St Skaneateles 685-5771
NC Abernathy-Thomas Eng Co, 3809 Weona Ave Charlotte 525-2072
Ohio Lester Johnson Co, 3909 E 123rd St Cleveland 751-7040
Ohio Lester Johnson Co, 9870 Springfield Pike Cincinnati 771-2270
Okla Condit Co, 3120 S Winston Ave, Tulsa 743-6651
Pa Biltmore Products Co, 466 Castle Shannon Blvd Pittsburgh 563-0808
Pa G L Clapper, 7019 Meade St Pittsburgh 241-3737
Tenn Abernathy-Thomas Eng Co, 535 Sullivan St Kingsport 245-6151
Tex Paul Condit Co, 1025 LeHall, Houston 747-0802
Tex Engineered Equip Co, 409 Executive Pk Blvd El Paso 533-4221
Tex Engineered Equip Co, 3617 W Storey Midland 694-4997
Va Dynamation Inc, Box 3191, Bon Air 272-5000
Wash Cane Jessup Co, 1433-130th N E Bellevue 454-0691
W Va Biltmore Products Co, 411 1/2 D St S Charleston 744-9432
W Va Allied Controls Co, 4840 MacCorkle Ave SW S Charleston 768-7313
Wis Chipley & Jensen, 3500 N Sherman Blvd Milwaukee 442-8170
Can Graham Instruments, Ltd, 4508 6th St N E Calgary, Alb 276-1275
Can Scarborough & Grant Co, 12 LePage Ct Downsview, Ont
For Portilla Corp, Box 1428, San Juan, PR ... 766-6190
For Indoquip CA, Sabana Grande, Apartado 10518 Caracas, Venez 34 44 11
For Joongwon & Co Ltd, 51-14 2-ka myung dong Chung-Ku, Seoul, Kor 8-4325
For Ligold Ingenieros, S A, Av Militar 2576 Lince, Lima, Peru
For American Trading Co, Inc, 2 Broadway New York, N Y
GB Pall UK Ltd, Walton Rd Portsmouth Hants London .... RIV 8924-8
BC T W MacKay & Son Ltd, 1807 Fir St Vancouver 731-6561
Gr Intl Process Controls Co, 15 Voulis St Athens 238 536
Isrl Intl Process Controls Co, 46A Shalom Alechem St Tel Aviv 233893
Mex Pall S A, Aptdo Postal 199 Cd Naucalpan de Juarez 27-11-37

PALMER ELECTRONICS INC, 156 BELMONT AVE
GARFIELD, N J, 07026 .... 201 772-5900
V PALMERI, EMP 18, ENG 3, $100-$250M
Ill RHO Electronics, 6314 N Lincoln Ave Chicago 583-5171
Mass A Wait, 17 Boyd St, Newton .... WA 4-3262
Mich OEM Sales, 106 S Woodward Birmingham 647-1172
Minn George Kelly, Box 222, Wayzata
NJ Unicomp, 18 Sunny Ridge Rd, Wayne 696-2888

PALMER LTD, G A STANLEY, ISLAND FARM AVE
W MOLESEY, SURREY
ENGLAND, TWX 917069 01-979-7254
G PALMER, EMP 35, ENG 4, $500-$1,000M
Ger TWK Electronik, 4 Dusseldorf, Lindemannstr 13
Ital C Dolman, Via Flaminia 388, 00196 Rome

PALOMAR INSTRUMENT CO, 563 COUNTRY CLUB DR
ESCONDIDO, CAL, 92025 .... 714 746-2666
EMP 15, ENG 1
Cal Chick Ryel & Co, Box 762 Woodland Hills 883-8118
Cal W Levin, 1999 Pacific San Francisco 415 775-0962
Ga J E Joyner & Assoc, Box 10678, Sta A Atlanta 758-7496
Ind Howell-Moore, 5425 N College Ave Indianapolis 317 255-8566
Iowa J D Irvine & Assoc, 1900 Prospect W Des Moines 279-2206
Kan M E Bettis Co, 3706 Broadway Kansas City 561-0772
Md TESSCO, 1931 Greenspring Timonium 301 252-5610
Mass Montague Assoc, 404 Jerusalem Rd Cohasset 383-0634
Mich Butchart-Rathsburg & Assoc, 16637 E Warren Detroit 882-1717
Tex I Harrison, Box 30241, Dallas 214 249-2479
Wash Vector Corp, 307 Wall St, Seattle 623-6891

PAMOTOR INC, 312 7TH ST, SAN FRANCISCO
CAL, 94103, TWX 910-372-6127 .... 415 863-5440
D LINZEY, EMP 28, ENG 7, $1,000-$2,500M
Ariz Toward Engineering Assoc, box 15268 arcadia sta Phoenix 955-3193
Cal William J Purdy Co, 312 7th St San Francisco 863-3300
Cal Charles L Repp Co, 12121 Wilshire Blvd Los Angeles .... GR 7-4475
Conn Paul R Sturgeon Co, 117 Broad St Milford 874-6080
Fla Cartwright & Bean, 20100 NE 25th Ct N Miami Beach 305 954-2962
Fla Cartwright & Bean, 779 John Anderson Dr Ormond Beach 904 677-3480
Fla Cartwright & Bean, 609 E Colonial Dr Orlando 904 677-3480
Ga Cartwright & Bean, 3223 cain's hill pl nw Atlanta 404 237-2273
Ind Thomas & Sukup, 2060 E 54th St Indianapolis 317 251-4574
La Cartwright & Bean, 1812 Bullard Ave Metairie 504 887-0482
Md L D Lowery, Inc, 6200 Annapolis Rd Hyattsville 773-4977
Mass Paul R Sturgeon, Co, 1330 Boylston St Chestnut Hill 734-7710
Mich R C Merchant & Co Inc, 18411 W McNichols Detroit 535-6000
Mich R C Merchant & Co, 92 Water St Benton Harbor 616 925-4211
Minn Mel Foster Co Inc, 228 S Cedar Lake Rd Minneapolis 374-2612
NJ Bressler Assoc, 4808 Bergenline Ave Union City 201 864-9577
NM C T Carlberg & Assoc, 2611 Quincy St NE Albuquerque 505 265-1579
NY Martin P Andrews Inc, 319 Mott Rd Fayetteville 315 637-3144
NC Cartwright & Bean, 625 Harwyn Dr Charlotte 704 537-7965
Ohio Neal Bear Corp, 3435 Streetsboro Rd W Richfield 659-3331
Ohio Neal Bear Corp, 2801 Far Hills Ave Dayton 513 299-3566
Pa L D Lowery, Inc, 2801 W Chester Pike Broomall 356-5300
Pa NEBco Assoc Inc, 1974 Gregory Ave Monroeville 824-2111
Tenn Cartwright & Bean, 560 South Cooper St Memphis 910 276-4422
Tex J Y Schoonmaker Co, Inc, 2995 Ladybird La Dallas 357-8481
W Va Nebco Assoc, 1 Spotswood Ct Charleston 304 344-1111

PAN AMERICAN TRADE DEVELOPMENT CORP
2 PARK AVE, NEW YORK, N Y, 10016 .. 212-686-7960
R WHITE, EMP 75, ENG 10, OVER $10,000M

PANDUIT CORP, 17301 RIDGELAND AVE
TINLEY PARK, ILL, 60477 532-1800
D SCHOFIELD, EMP 130, ENG 9
Cal Ewing Assoc, 935 Terminal Way San Carlos .... LY 1-0309
Cal Panduit Corp, 5331 E Olympic Blvd Los Angeles 685-6505
Colo Lindberg Co, 2654 S Krameria, Denver
Conn C K Barton Assoc Inc, 343 New London Tpk Glastonbury 633-9417
Fla Triflex Inc, 1400 Hillcrest Ave, Orlando ... 841-5440

Fla J F Griffin & Co, 536 Marlin Rd
N Palm Beach..........VI 8-4617
Ind Val-Skol Sales Inc, 511 Fort Wayne Bank
Fort Wayne..........742-9122
Kan Thomas & Modrcin Assoc, Inc
5450 Buena Vista Dr
Shawnee Mission..........432-2131
Md Naudain Assoc, Timonium..........252-5378
Mass C K Barton Assoc Inc, 345 Auburn St
Auburndale..........DE 2-2021
Mich Heick & Ralph Assoc, 26847 Grand River Ave
Detroit
Minn Electric Component Sales, 6524 Walker St
Minneapolis
Mo Thomas & Modrcin Assoc, Inc, 47 Village Sq
Hazelwood..........838-6446
NM Vermillion Co, 3621 Headingly N E
Albuquerque..........344-9823
NY R W Mitscher Co Inc, 496 Ellicott Square Bldg
Buffalo..........TL 4-2517
NY J R Mitscher, 214 Palmer Dr
Fayetteville..........NE 7-9761
NY Panduit Corp, 32 Lark Dr, Woodbury....WA 1-2052
Ohio Val-Skol Sales Inc, 12417 Cedar Rd
Cleveland 6..........FA 1-0266
Pa Naudain Assoc, 1032 Suburban Sta Bldg
Phila..........LO 4-3194
Pa Myles F Smith & Assoc, 761 Lindsay Rd, Carnegie
Tex Eads Co of Dallas Inc, Fidelity Union Life Bldg
Dallas
Tex Gettys-Eads-Adair Inc, 8020 Westglen Dr, Houston
Wis Harold Mercer Co, 1325 Stillwater Ct
Brookfield..........SU 6-6431
Wis Harold Mercer Co, 1824 E Byrd St
Appleton..........RE 9-5030
Can L Finkler Ltd, 2 Tycos Dr, Toronto, Ont....781-5231

PANEL CONTROLS CORP, 1000 MT ELLIOTT, DETROIT
MICH, 48207..........313 568-2400
R HULL, EMP 14, ENG 1, $250-$500M
Cal EPD Industries, 2055 E 223rd St
Long Beach..........213 775-7141
Ill W Castle, 411 E Lake Ave
Glenview..........312 446-6486
Kan Aerol Assoc, 6631 E Kellogg
Wichita..........316 683-7421
Mass Contact East Inc, 7 Cypress Dr
Burlington..........617 272-5051
Mich Andersen & Assoc, 16110 W McNichols
Detroit..........313 273-6266
Minn Aerol Assoc, Rte 2, Anoka..........612 421-0751
Mo Aerol Assoc, 34 N Brentwood
St Louis..........314 725-5361
NJ J P Dearie Co, Box 66
Mountain Lakes..........201 334-4848
NC Material Handling Systems, 6345 Gaywind Dr
Charlotte..........704 366-8130
Ohio Aerol Assoc, Box 7, Centerville Br
Dayton..........513 298-5024
Tex W W Cannon Co, Dallas..........214 FL 7-2846

PANELGRAPHIC CORP, 66 KULICK RD, CALDWELL
N J, 07006..........201 227-1500
E GREASON, EMP 85, ENG 6, $2,500-$5,000M
Ala Massey Assoc, 4306 Governor's Dr SW
Huntsville..........837-4542
Conn Feinberg Assoc, 9 Bay Shore Dr
New London..........442-2514
Fla Massey Assoc, Box 13577
St Petersburgh..........347-6183
Md East Coast Liason, Inc, Box 243
Lutherville..........252-1288
Minn MacNamara Assoc, Box 38, Mound......472-4919
NJ Henry G Richter Inc, 1376 U S Hwy 22
Mountainside..........201 233-4615
NY Lloyd Hart Assoc, 796 Hillside Ave
Rochester..........244-3253
Ohio Components Engineering Co, 7461 N Linden La
Cleveland..........842-2737
Ohio Components Engineering Co, 11820 Knollspring
Cincinnati..........721-2997
Pa Massey Assoc, 1325 W Chester Pike
Havertown..........789-2320

PANGBORN CORP, 1060 PANGBORN BLVD
HAGERSTOWN
MD, 21740, TWX 710-853-6841........301 739-3500
J HAIDER, EMP 1,250, ENG 25
Ala Pangborn Corp, 1500 Georgia Rd
Birmingham..........592-9636
Cal Pangborn Corp, 595 E Colorado Blvd
Pasadena..........681-6715
Cal Pangborn Corp, Box 38, Alamo..........934-2698
Ill Pangborn Corp, 5240 St Charles Rd
Berkeley..........626-3993
Ind Pangborn Corp, 665 E 61st St
Indianapolis..........251-3148
Mass Pangborn Corp, 4 Stony Hill Rd
Indian Orchard..........543-2244
Mich Pangborn Corp, 15800 W McNichols Rd
Detroit..........837-1420
Mo Pangborn Corp, 10406 Manchester Rd
Kirkwood..........822-0212
NY Pangborn Corp, 2214 Kensington Ave
Buffalo..........839-0770
NC Pangborn Corp, 3813 south blvd
Charlotte..........523-1481
Ohio Pangborn Corp, 10006 Carnegie Ave
Cleveland..........791-2770
Ohio Pangborn Corp, 3914 Miami Rd
Cincinnati..........271-8944
Ore Western Ind Supply Co, 208 S E Hawthorne Blvd
Portland..........232-6640
Pa Pangborn Corp, 212 lansdowne ctr bldg
Lansdowne..........748-1236
Pa Pangborn Corp, 700 Wood St
Pittsburgh..........731-2200
Tex Pangborn Corp, 3311 W Alabama
Houston..........529-8729
Wash Frank H Jefferson, Inc, 3300 First Ave, So
Seattle..........622-4277
Wis Pangborn Corp, 1131 S 40th St
Milwaukee..........384-2530
Can Pangborn Canada Ltd, 47 Shaft Rd
Rexdale, Ont..........249-7397
Can Pangborn Canada Ltd, 4970 Pl De La Savane
Montreal 9 Que..........731-6874
BC Overseas Commodities Ltd, Box 2337
Vancouver 4..........684-8531

PANOB CORP, 49 BEECH ST, PORT CHESTER
N Y, 10574..........914 WE 93066
C PERSCHKE, EMP 41, ENG 2, $250-$500M
Ill P G M Components, Diversey St, Chicago

PANTHER ELECTRONICS INC, 901 S MAIN, BURBANK
CAL, 91506..........213 849-6296
D KAUFMAN, EMP 9, ENG 1

PARABAM INC, 12822 YUKON AVE, HAWTHORNE
CAL, 90250..........213 679-3393
J DAY, EMP 40, ENG 5, $500-$1,000M
Cal Gordon-Elliot Inc, 13615 Victory Blvd
Van Nuys..........873-6862
Colo Aztec Enterprises, 3385 S Bannock St
Englewood..........303 761-0101
Ill Actronic Sales Eng Inc, 4750 N Milwaukee Ave
Chicago..........286-1037
NM Aztec Enterprises, 3202 Candelaria Rd NE
Albuquerque..........505 345-3441
NY Herbert Shprentz Co, 126 Deertrack La
Irvington..........LY 1-7970
NY RJC Assoc, 219 Oakridge Terr
Liverpool..........457-3220
Pa Tyler Griffin Co, 46 Darby Rd, Paoli......647-1550
Tex R W Mureen Co, 5523 Dyer St, Dallas...361-0735
Aust CEMA (Australia) Pty Ltd, 213 Angas St, Adelaide

PARAMETRIC INDUSTRIES INC, 63 SWANTON ST
WINCHESTER, MASS, 01890..........617 729-7333
F FALLON, EMP 45, ENG 12, $1,000-$2,500M
Cal Cain & Co, 15720 Ventura Blvd
Encino..........213 783-4700
Cal Cain & Co, 175 S San Antonio Rd
Los Altos..........415 948-6533
Ill H G Pretat Inc, 7716 W North Ave
Elmwood Park..........453-3380
Ind H G Pretat Inc, 2511 Drexel Ave
Ft Wayne..........745-1251
Mass V J Huntoon Assoc, 908 Belmont Ave
Springfield..........617 244-5871
NJ Unicomp, Inc, 18 Sunny Ridge Rd
Wayne..........696-2888
NY B D Hummel Co, 32 Main St
Whitesboro..........315 736-7821
Ohio V C Hofstetter Co, 742 Kenridge Dr
Cleveland..........216 449-0944
Pa Lewis Slubin & Co, 2305 Fairmount Ave
Phila..........236-2072
Tex Cain & Co, 8609 Northwest Plaza Dr
Dallas..........214 369-2897
Va Schibley Assoc, 10604 Warwick Ave
Fairfax..........591-3008
Wash Paratech, Box 5427, Seattle.........206 783-3900
For Microwave Intl Corp, 420 Lexington Ave
New York, NY..........532-2989
For Commun & Ind Elctns Corp, Box 2526 GPO
San Juan..........789-4375

PARAMETRICS, 929 BAKER ST, BOX 629
COSTA MESA, CAL, 92626..........714 549-2221
C RAMALEY, EMP 50, ENG 9, $500-$1,000M
Cal Lorain Products Corp, 2564 Fairbrook Dr
Mountain View..........968-0542
Cal J S McAndrew, 1350 E San Bernardino Rd
West Covina..........966-7561
Ga Lorain Products Corp, 5855 Green Grier Rd NE
Atlanta..........255-5137
Ill Lorain Products Corp, 9500 W Ogden Ave
Brookfield..........HU 5-6287
Neb Lorain Products Corp, 7020 Eastborough La
Lincoln..........434-5380
NY Lorain Products Corp, 1860 Five Mile Line Rd
Penfield..........381-2253
NC Lorain Products Corp, 1023 Broadmoor Dr
Charlotte..........523-3596
Ohio Lorain Products Corp, 1122 F St
Lorain..........AT 8-9191
Tex Lorain Products Corp, Box 9, Denton......387-4734

PARAMOUNT INDUSTRIES INC, 1430 PROGRESS RD
FORT WAYNE, IND, 46808..........219 484-4111
R WEIMER, EMP 32, ENG 2, $500-$1,000M
Cal Tri-State IWI, 554 Bryant St
San Francisco..........PLAZA 6-0825
Minn D A Schultz Co, 801 S E 8th St
Minneapolis..........339-7701
Can Lake Engmg, 123 Manville Rd
Scarbough, Ont..........757-3253

PARAPLEGICS MFG CO INC, 304 N YORK RD
BENSENVILLE, ILL, 60106..........312 NA 5-7740
J GUILFOIL, EMP 92, ENG 4, $500-$1,000M
Ariz Tuck Vinson, Box 7220, Phoenix.........275-7141

PARECHOC S A, 19 RUE G-H PIGUET
CH 1347 LE SENTIER, SWITZERLAND... 021 85-61-41
P ROCHAT, EMP 350, ENG 11, $2,500-$5,000M
NY Inducohc Inc, Me Syz, 74 Trinity Pl
New York..........3-3340
Ger Oskar Guntert KG, Berliner Str 1, Villingen....2687
GB W F Hamilton Instr
157 Ashley Gardens, Thirleby Rd
London..........Tate Gallery 4470
Jap J Osawa & Co, Toranomon Minato Ku
Tokyo..........502 2211-30

PARELCO, INC, 26181 AVE AEROPUORTO
SAN-JUAN CAPISTRANO
CAL, 92675, TWX 910-596-1412........714-493-4507
J P SUTTER, EMP 50, ENG 3, $500-$1,000M
Ala Bostick & Assoc, Box 4165
Huntsville..........205 881-3677
Ariz Mercury Engineering Sales, Box 3130
Scottsdale..........945-1927
Cal James S Heaton Co, 3695 Haven Ave
Menlo Park..........369-4671
Cal M A Stolaroff Co, 4622 W Slauson Ave
Los Angeles..........213 295-7781
Colo Franklin Sales Co, 2149 S Clermont St
Denver..........303 757-1371
Del Danco Corp, Germantown & Quarry Hill Rds
Fairview Vge, Pa..........275-2600
Fla W Ben Wimberly Co, 532 S Ft Harrison
Clearwater..........446-7072
Fla W Ben Wimberly Co, 500 S Osceola St
Orlando..........425-3083
Ga Bostick & Assoc, Box 28378
Atlanta..........404 253-1958
Ill Burt Anderson & Assoc, Inc, 5969 N Elston Ave
Chicago..........774-8989
Kan Penzner Assoc, Inc, 6920 W 82nd St
Overland Park..........DU 1-0004
Mass Kitchen & Kutchin, Inc, 17 Waltham St
Lexington..........862-8230
Minn Robt W Marshall Co, 6106 Excelsior Blvd
Minneapolis..........929-0457
Mo Penzner Assoc, Inc, Box 1912, Bechtold Sta
St Louis
NJ R T Reid Assoc, 530 Main St
Fort Lee..........201 944-9323
NY Advanced Components Inc, 119 Luther Ave
Liverpool..........315 472-7887
NY Advanced Components Inc, Box 3154
Rochester..........716 482-2153
NY Advanced Components Inc, 1 Shamrock Cir
Poughkeepsie..........914 471-1623
Ohio Twin Region Elctn Sales Co
21010 Center Ridge Rd
Cleveland..........216 331-7650
Ohio Twin Region Elctn Sales Co, 5700 Far Hills Ave
Dayton..........513 434-8000
Ohio 1, twin region elctn sales co
2..........21010 center ridge rd
Pa Lowry Dietrich Co, 90 Clairton Blvd
Pittsburgh..........892-2992
Tex Lee Sales Co, 2838 Posey Dr
Irving..........214 231-6149
Va Barnhill & Assoc, Inc, Box 1104
Lynchburg..........384-2062
Wash H S Thorpe Co, Pioneer Ctr Bldg, 11612 NE 8th St
Bellevue..........454-0667
Can Technitron Assoc Ltd, 769 Lajoie Ave
Porval Que..........514 631-6859

PARKER-HARTFORD CORP, 100 LAMBERTON RD
WINDSOR, CONN, 06095..........203-688-4961
A KINSELLA, EMP 140, ENG 1, $2,500-$5,000M
Cal Bearings, Seals & Gears Inc, 4718 Bindewald Rd
Torrance..........375-8333
Cal Bearings, Seals & Gears, Inc, 20122 Camden St
Glendora..........963-1404
Cal Bearings, Seals & Gears Inc, 1650 Broadway
Redwood City..........365-5444
Cal Bearings, Seals & Gears Inc, 6791 Michele Way
San Jose..........253-6072
Colo Bearings, Seals & Gears, Inc, 13590 W Colfax Ave
Golden..........238-2411
NY Plantec Corp, 3923 Harlem Rd
Buffalo..........716 839-1777
Wash Bearings, Seals & Gears Inc, 4140 85th Ave SE
Mercer Island..........232-6070

PARKER INSTRUMENT CORP, 200 HARVARD AVE, STAMFORD
CONN, 06904, TWX 710-474-2277..........203 325-4361
G LONGWELL, EMP 83, ENG 8
ADV PG 406
Ala Vaughn Electrosources, Box 1369, Huntsville
Cal Weightman & Assoc, 1226 W Olive Ave
Burbank..........849-7711
Cal Weightman & Assoc, 120 Santa Margarita
Menlo Park..........415 325-2885
Colo Electronic Sales Co, 5650 E Evans
Denver..........756-4148
Fla Vaughn Electrosources Co, 106 Dixie La
Cocoa Beach..........305 784-0784
Ill B Anderson & Assoc, 5969 N Elston Ave, Chicago
Kan Polyonics, 4434 W 90th Terr
Leawood..........913 NI 8-4173
Mo Polyonics, 47 Vlg Sq Shop Ctr
Hazelwood..........314 TE 7-0597
NJ Kenneth E Hughes Co, 2175 Lemoine Ave
Ft Lee..........201 944-1600
NY Tech-Mark Inc, 19 Valley Brook Dr
Fairport..........716 377-5531
NY Tech-Mark Inc, Professional Bldg
Endicott..........607 748-7473
NY Tech-Mark Inc, Box 296
New Hartford..........315 732-1602
NC L & D Assoc, Box 7243, Greensboro

Ohio Neal Bear Corp, 1563 E Dorothy La
Dayton 299-3566
Ohio Neal Bear Corp, 3435 Streetsboro Rd
West Richfield 216 659-331
Pa C J McGowan Inc, 81 N Old York Rd
Willow Grove .... 215 OL 9-1788
Pa Covert & Newman Co, 300 Mt Lebanon Blvd
Pittsburgh.................... 412 563-0303
Tex Techno Assoc, Box 20544, Dallas
Wash R Johnston Co, 1011 E 69th St, Seattle
Can Burlic Ltd, 125 Nantucket Blvd
Scarborough Ont 416 757-5151
Can Burlic Ltd, 1179 Dearie Blvd St Laurent 9
Montreal Que 514 744-0165
GB Teddington Autocontrols Ltd, Windmill Rd
Mdsx.................... Sunbury-on-Thames 5500
Swit Conel Ltd, Hanggerstr 115
CH-8037 Zurich.................... 051-44-66-46

PARKER-KALON CORP, UNITED SHOE MACHY CORP
1 PEEKAY DR, CLIFTON, N J, 07014 201-471-1000
W CONOVER, EMP 500
Ill Parker-Kalon, 2830 S 19th Ave
Broadview .... AU 7-0226
NJ E Sterns, 126 Hillside Ave, West Caldwell
NY A Dickson, 76 Jane St, New York .... CH 3-4582
NY N Davis, 37 Bittersweet Rd, Fairport .... DU 1-2242
Tex F Teves, 1352 Chemical St, Dallas...... ME 1-8820
Wis G Kosnar, 1106 Ridgeway Blvd
De Pere .... ED 6-3287
Den Markt & Co A/S, Bredgade 25 E, Copenhagen K
Ger W Renner, Maierwald Str 5
7 Stuttgart Weilimdorf 886186
GB GKN Fasteners Ltd, Box 24, Heath St
Birmingham 18
Holl N V Handel-Mij Douwes, Noordwal 3-5, The Hague
Ital Societa Industrie Frapolli, Via Nizza 32, Turin
Jap Toyo P-K Ltd
100 Ohkubo Aza-Murato Chigasaki City
Kanagawa-Ken
Swit Michael Markt Ltd, Schoentalstr 8, Zurich
Isrl Efco Agency Ltd, Box 1181, Tel-Aviv

PARKER METAL GOODS CO, 85 PRESCOTT ST
WORCESTER
MASS, 01605, TWX 710-340-6963...... 617 791-7131
J LEMAY, EMP 350, ENG 4, $2,500-$5,000M

PARKER SEAL CO, 10567 JEFFERSON BLVD
CULVER CITY
CAL, 90230, TWX 910-340-6764........ 213 837-5101
T MCCUISTION, EMP 387, ENG 10, OVER $10,000M
Cal R McCarthy, 23852 Bower Cascade
Diamond Bar.................... 595-5306
Cal Bonner Adams, 13822 Mauve Dr
Santa Ana 544-1050
Cal B Ridgway, 4425 Ventura Canyon Ave
Sherman Oaks.................... 312 981-7034
Cal G Swanson, 1901 Garden Dr
Burlingame 415 597-7471
Cal R Heyn, 36 Wales St
Thousand Oaks 805 495-2646
Cal J Long, 1342 Sonora Ave
Glendale 213 247-4468
Cal D deVries, 532 El Encino Dr
Diamond Bar.................... 714 595-2311
Colo B Berglund, 2660 S Sheridan Ct
Denver 303 985-9649
Ga Jay Pickett, 350 Hillside Dr NW
Atlanta .... BL 5-0798
Ill H Roerig, 91 South St, W Dundee ... 312 428-5219
Ill B Young, 1225 S Villa, Villa Park.... 312 832-2894
Ill B Ferrell, 2913 W Gilbert, Peoria 309 688-8229
Ind F Chesnik, 5029 Haynes Ave
Indianapolis.................... 317 849-4025
Mass Al Wickson, 34 Bonwood Rd, Needham... 444-8267
Mich Bob Cutting, 1715 Baldwin, Ann Arbor... NO 2-3315
Mich Bob McMasters, 717 Lexington Blvd
Royal Oak 585-5056
Mich J Swan, 28626 oak point dr
Farmington.................... 476-5505
Mich G Strawser, 3844 S Miller Way
Birmingham.................... 313 646-2771
Minn R Lane, 2730 St Albans St
Roseville 612 484-5938
Mo D McDowell, 299 Villar Hill Dr
Chesterfield 314 469-1777
NJ Jack Watson, 283 Pines Lake Dr E
Wayne 835-8336
NJ Robt Doyle, 360 Lynn St, Harrington Pk... 768-2264
NY John Pember, 28 Homeland Dr
Huntington .... MY 2-3126
NY B Hansen, 810 Onondaga St
Lewiston 716 754-4108
NY G Armstrong, 214 Roycroft
Syracuse.................... 315 446-0607
Ohio S Connair, 1033 Donson Dr, Dayton...... 434-5570
Ohio D Wilson, 3874 Baird Rd, Stow 688-4000
Pa R Jewett, 10 Hallowell Ave
Phoenixville.................... WE 3-5772
Pa H Moorehead, 1215 W Pine St
Trevose.................... EL 7-5694
Pa B Taylor, 409 Englewood Dr, Pittsburgh... 486-5651
Pa T Klosinski, 3885 Isabella Ave
Pittsburgh.................... 412 486-2303
Tex J Gregor, 4959 Heatherglen, Houston.... PA 3-0290
Tex B Looney, 408 Ridgewood Dr
Richardson.................... 214 357-1225
Va K Lang, 505 Tapawingo Rd SW
Vienna 703 938-9800
Wash Al Finch, 11005 SE 26th St, Bellevue 454-6001
Wis A Gruenewald, 3427 N 83rd St
Milwaukee.................... 414 873-1043

PARK LANE RESEARCH LABS, 10 HIGHVIEW RD
NEW MILFORD, CONN, 06776 203-354-2864
L YARRISH, EMP 10, ENG 2, UP TO $100M
Ariz Electrical Specialty Co, 120 S 29th
Phoenix 602 275-5739
Cal Electrical Specialty Co, 213 E Harris Ave
S San Francisco 415 589-9611
Cal Electrical Specialty Co, 2820 E 12th
Los Angeles.................... 213 269-9511
Colo Electrical Specialty Co, 2026 Arapahoe St
Denver 303 244-4588
Ill Marsland Distributing Corp, 6699 Lincoln Ave
Chicago 676-1104
Ind Marsland Distributing Corp, 3734 Carrollton Ave
Indianapolis.................... 317 924-3568
Mass Production Devices Corp, 489 Main
Stoneham.................... 617 438-2772
Minn Marsland Distributing Corp, 231 N Edgewood Ave
Minneapolis.................... LI 5-4481
Mo Marsland Distributing Corp, Box 567
Florissant.................... 314 831-0015
NJ Aztech Assoc, Box 1066
Mountain Side.................... 201 232-1412
NY Maloney Sales Co, 115 Sunnybrook Dr
Syracuse.................... 315 488-3440
Ore Electrical Specialty Co, 2360 NW Quimby St
Portland 503 227-3601
Wash Electrical Specialty Co, 2442 First Ave
Seattle 206 682-3434

PARKO ELECTRONICS CO INC, 1540 S LYON
SANTA ANA, CAL, 92705 .... 714 547-0184
F PARKER, EMP 15, ENG 2, $250-$500M
Cal Ed Landa Co, 2288 Westwood Blvd
Los Angeles.................... 272-9525
Ill Carlson Elctn Sales Co, 7448 N Harlem Ave
Chicago 312 774-0277
Minn Carlson Elctn Sales Co, 2500 - 39th Ave NE
Minneapolis.................... 612 788-4111
Ohio G & H Sales Co, 7215 Market Pl
Cincinnati.................... 513 761-6185

PARK PRODUCTS ENGINEERING CO INC, BOX 228
TINLEY PARK, ILL, 60477.............. 312 339-9528
C VICKROY, EMP 10, ENG 2, $100-$250M

PAR-METAL PRODUCTS DIV EON CORP
32-62 49TH ST, LONG ISLAND CITY
N Y, 11103 .... 212 AS 88905
J NOVAK, EMP 50, ENG 1
Fla Millar-Hutto Assoc Inc, Box 1603
Winter Park 241-6601
Ga Millar-Hutto Assoc Inc, 1036 Peachtree St N E
Atlanta .... TR 6-0919
Ill Oren H Smith Co, 5255 N Lawler Ave
Chicago 286-4476
Ind Scott Electronics Inc, 911 N Penna Ave
Indianapolis.................... 635-8951
Ind Scott Electronics Inc, 418 E Berry St
Fort Wayne 743-1586
Ky Scott Electronics Inc, 366 Francis Bldg
Louisville.................... 583-3220
Mass Stanley A Harris Co Inc, 60 Dedham Ave
Needham 444-4780
NC Millar-Hutto Assoc, Inc, Box 17566, Charlotte
Ohio Scott Electronics Inc, 9505 Montgomery Rd
Cincinnati.................... 791-2513
Ohio Scott Electronics Inc, 517 Hulman Bldg
Dayton 223-2652
Ohio Scott Electronics Inc, 1836 Euclid Ave
Cleveland.................... 861-2626
Ohio Scott Electronics Inc, 79 E State St
Columbus.................... 228-2313
Pa Scott Electronics Inc, 313 Empire Bldg
Pittsburgh.................... 471-5233

PARTICLE TECHNOLOGY INC, BOX 248
MOUNTAIN VIEW, CAL, 94040 .... 415 328-3511
R BECK, EMP 6, ENG 2, $250-$500M

PARTRICK & WILKINS CO, 5100 LANCASTER AVE
PHILADELPHIA, PA, 19131 .... 215 GR 3-8300
W KNETTLE, EMP 25, ENG 1, $100-$250M

PARZEN RESEARCH INC SUB OVITRON CORP
48 URBAN AVE, WESTBURY
N Y, 11590 .... 516 ED 43900
L WARD, EMP 50, ENG 6, $1,000-$2,500M
Cal Kittleson Co, 416 N La Brea Ave
Los Angeles.................... 213 933-7371
Cal Kittleson Co, 809 San Antonio Rd
Palo Alto 415 326-7410
For Machine & Products Co, 52 Wall St
New York.................... 212 944-4370
For Rualdo Lda
Rue de S Jose 9 Largo de Anunciada 19
Lisbon 2 Port
Den Henning Mac, Fortunstraede 4, Copenhagen K
Fr Technique Et Produits, Rue Carle-Vernet
Cite des Bruyeres, 92 Sevres 626-02-35
Ger Tekelec/Airtronic Gmbh, Alte Postr 5
7000 Stuttgart.................... 0711-225315
GB Guest Electronics, 78.86 Brigstock Rd
Thornton Heath, Surrey.............. OL-684-9371
Ital Temac, Via Abbadesse 52, Milan
Jap Marabun Co Ltd
1,2-Chome, Odemmacho, Nihombashi, Chuo-Ku
Tokyo 622-8 1 5 1
Nor Ulrichsen, Karl Johansgate 2, Oslo 1 415-937
SAfr Impectron Pty Ltd, Box 10252, Johannesburg
Swed Gosta Backstrom AB, Ehrensverdesgatan 1-3
Stockholm 12

Swit Metronic SA, Postfach, Dubendorfstr 22
8051 Zurich.................... 051/418484
Gr Telectrotec, 18 Voulis St, Athens 126
Neth Tekelec/Airtronic NV, Herengracht 532
Amsterdam 020-2452 43
NZ Geo W Wilton & Co, Ltd, 419 Hutt Rd, Lower Hutt
Wellington
NZ Geo W Wilton & Co Ltd, 63 Shortland St, Auckland
Spn Unitronics
Torre de Madrid, Plaza de ESPANA, Princessa 1
Madrid 13 241-14-96
Aust H B Selby & Co Pty Ltd
393 Swanston St, Melbourne, Victoria
Aust H B Selby & Co Pty Ltd, 35 York St, Sydney, N S W
Aust H B Selby & Co Pty Ltd, 350 Upper Roma St
Brisbane, Queens
Aust H B Selby & Co Pty Ltd, 1100 Hay St, Perth
Aust H B Selby & Co Pty Ltd, 48 North Terr, Adelaide
Aust H B Selby & Co Pty Ltd, 279 Argyle St
Hobart, Tasmania

PASADENA HYDRAULICS INC, 1434 N TYLER
SO EL MONTE
CAL, 91733, TWX 213-442-5658......... 213 444-0376
H GREENMAN, EMP 106, ENG 6

PASS & SEYMOUR, SOLVAY STA, SYRACUSE
N Y, 13209 .... 315 468-6211
G BAIER, EMP 500, ENG 3, $5,000-$10,000M
Ga D Stuart, 2819 Fairlane Dr, Doraville.... GL 7-0633
Ky G Bright, 82 Burney La, Ft Thomas....... 441-5144
Minn R Nelson, 3032 34th Ave S
Minneapolis.................... 612 729-4878
NY D Guterman, 11 Longacre Dr
Huntington.................... 516 HA 7-7217
Tex W O Schmidt, 11006 Endicott La
Houston .... PA 9-9994

PASTORIZA ELECTRONICS INC, 385 ELLIOT ST
NEWTON UPPER FALLS
MASS, 02164 .... 617 332-2131
R FERRERO, EMP 35, ENG 4, $500-$1,000M
Cal CDH/Westec, Box 875
Garden Grove 714 636-2930
Cal CDH/Westec, 18075 Ventura Blvd
Encino 213 345-1644
Cal GBH Assoc Inc, Box 1150
Mountain View 415 969-9770
Colo Klein Aerospace, Box 1056
Englewood.................... 303 781-4967
Fla Brennan Assoc, Box 5006
Clearwater 813 446-5006
Fla Brennan Assoc, Box 8489, Ft Lauderdale
Fla Brennan Assoc, Box 1074, Huntsville..... 852-5292
Ga Brennan Assoc, Box 372, Tucker..... 404 469-8324
Ill H H Sales, 1255 Sandburg
Chicago 312 642-4464
Kan Impala Inc, 6917 W 76th St
Overland Park 913 648-6901
Mass Electronic Sales Of NE, Box 276
Attleboro 617 222-4078
Mo Impala Inc, Vlg Sq Shop Ctr
Hazelwood.................... 314 831-5454
NY J D Ryerson Assoc, Inc, Box 8369
Rochester.................... 716 442-1900
NY J D Ryerson Assoc, Inc, 1717 Harris Rd
Penfield 377-2019
NY J D Ryerson Assoc, Inc, Box 1400
Syracuse.................... 315 656-7419
NY Terminal Radio Intl Ltd, 3 W 61st St
New York.................... 246-2133
NY Electronic Sales Of NE, Box 344
Johnson City 607 724-2022
NY Crane & Egert Corp, 146 Meacham Ave
Elmont 516 488-2100
Ohio Tower Engineering Co, 2801 Far Hills Ave
Dayton 513 298-1491
Pa C Osisek, 1601 Daws Rd, Norristown ... PE 5-3520
Pa Crane & Egert, 107 W Ridge Pike
Conshohocken 215 277-0559
Tex The Blacketer Co, Box 119
Richardson.................... 214 231-1718
Va Gans-Fryling Inc, 2030 Sixteenth St
Arlington 703 527-3262
Wash Paratech, 2208 NW Market St
Seattle 206 784-6447
Can Ahearn & Soper, 844 Caledonia Rd
Toronto.................... 416 789-4325
Can Ahearn & Soper Ltd, 3300 Cavendish Rd
Montreal 28 Que.................... 514 482-9750
For Terminal Radio Intl Ltd, 3 W 61st St
New York, NY 212 246-2133
BC Ahearn & Soper Ltd, 1234 Marine Dr, N Vancouver

PATTON-MACGUYER CO, 17 VIRGINIA AVE
PROVIDENCE, R I, 02905.............. 401 HO 1-1550
M GRAY, EMP 48, ENG 3, $500-$1,000M
Conn T P O'Connor, 98 Mansfield St
New Haven 777-2801
Ill W F E Bomke Sales Co, 6966 W North Ave
Chicago .... ME 7-8433
Mich L C Nyman & Co, Box 67, Detroit....... TU 1-7830
Mo M L Seyffert & Assoc, 910 Jefferson St
St Charles .... RA 3-1185
NJ H Corcoran, 77 Morris Ave, Mt Tabor.... OA 7-4146
NC Manufacturers Sales Co, Box 20005
Greensboro.................... 274-1401
Ohio Hiltebrant-Greenleaf Co, 20412 Center Ridge Rd
Cleveland.................... 333-5480
RI C B Cookson, Box 3544, Cranston........ 461-1550
Tex R L Goodard, 130 SE 17th St
Grand Prairie.................... AN 4-1681

PATWIN ELECTRONICS DIV PATWIN INC
41 BROWN ST, WATERBURY
CONN, 06720, TWX 710 447-1219 ...... 203 756-3636
J WATKINS, EMP 30, ENG 6, $250-$500M
Ariz Luscombe Engineering Co, 3130 N 3rd Ave
Phoenix ... 274-1542
Cal Luscombe Engineering Co, 220 E 3rd St
San Mateo ... 342-7057
Cal Luscombe Engineering Co, 190 E Glenarm St
Pasadena ... 682-3386
Colo Cobbs Sales Co, 1311 E Bates Pkwy
englewood ... 733-7336
Ill Crest Assoc, 7001 N Clark St, Chicago ... 274-2640
Mass Component Sales Corp, 1644 Massachusetts Ave
Lexington ... 862-1633
Minn Beta Engrg Co, 2905 Dean Blvd
Minneapolis ... 926-3552
Mo L R Harry & Assoc Inc, Box 588
Grandview ... 763-3634
NJ Jack McCoy, 300 Marlton Pike
Cherry Hill ... 338-4095
NM Dyma Engineering, Box 51, Taos ... 758-2686
NY Aero Sales Co, 600 Oswego St
Liverpool ... 458-1364
NY Component Sales Corp, 221 E Hartsdale Ave
Hartsdale ... 725-1050
Pa Holdsworth & Co, Box 298
Newton Square ... EL 6-8550
Tex Vista Engineering Assoc, 1st Bank & Trust Bldg
Richardson ... 235-4547
For R I Mendels Inc, 21 Gray Oaks Ave
Yonkers N Y ... 965-4210

PAUL & BEEKMAN INC, 1801 COURTLAND ST
PHILADELPHIA, PA, 19140 ... 215 329-9050
J SCHMIDT, EMP 75, ENG 2, $1,000-$2,500M

PAUL & STEIN BROS INC, F H, 235 FIFTH AVE
NEW YORK, N Y, 10016 ... 212 MU 4-6370
E STEIN, EMP 15, $2,500-$5,000M

PAYNE ENGINEERING CO, BOX 9277
SOUTH CHARLESTON, W VA, 25309 .... 304 755-4353
H PAYNE, EMP 8, ENG 2, $100-$250M
Cal Technical Instr Equip, Box 5205
San Jose ... 408 378-8221
NJ Wolock & Lott, 200 Market t, Kenilworth
NY Swedelco Inc, 65 Court St
White Plains ... 914 946-1122
Ohio James W Murray & Assoc Inc, 3985 Race Rd
Cincinnati
Pa Fogleman Co, 3849 Willow Ave
Pittsburgh ... 531-4005
Pa C A Briggs & Assoc, Box 151, Glenside
Tenn L E Dotts Assoc, 7935 Corteland Dr
Knoxville ... 615 588-7878
Tex A R Beyer & Co, 1318 Polk Ave
Houston ... 713 CA 8-7491
Va Frazier & Co, Box 8238, Richmond ... 703 288-3008
W Va Charleston Electr Supply Co, Box 2473, Charleston
W Va Fogleman Co, 401 Fourth Ave
South Charleston ... 304 744-5324
Ger Arenco Elektronik GmbH, 6000 Frankfurt/M
Schoene Aussicht 16 ... 0611/288247
Neth Savri N V, Box 41, Amstelveen-Zuid ... 02964-13236

PCA ELECTRONICS INC, 16799 SCHOENBORN ST
SEPULVEDA
CAL, 91343, TWX 910-496-1525 .... 213 892-0761
B PARIS, EMP 115
Ariz Toward Engineering Assoc, Box 15268 Arcadia Sta
Phoenix ... 602 955-3193
Cal Morris Enterprises, Inc, 16799 Schoenborn
Sepulveda ... 894-9103
Cal Bay-Tronics, Box 443, San Carlos ... 592-5484
Fla Willett & Ellis-Brown, 1260 A S Highland
Clearwater ... 446-0075
Fla Willett & Ellis-Brown, 5531 Gross Ct
Orlando ... 305 647-2417
Ill W G Brouillette & Assoc, 9855 Roosevelt Rd
Westchester ... 345-6500
Iowa Thomas & Modrcin Assoc, 890 17th Ave
Marion ... 377-6261
Kan Thomas & Modrcin Assoc, 5450 Buena Vista Dr
Shawnee Mis'n ... 432-2131
Md R P Luce & Co, 19 E 21st St
Baltimore ... 752-8200
Mass Bordewieck Eng Sales Co, 221 Grove St
Boston ... 843-0845
Mo Thomas & Modrcin Assoc, 47 Village Square
Hazelwood ... 838-6446
NJ R P Luce & Co, 30 Locust Ave
Berkeley Heights ... 464-6440
NY H C Johnson Agencies Inc, 111 Mt Hope Ave
Rochester ... 232-2688
NY H C Johnson Agencies Inc, 8 Los Robles St
Williamsville ... 632-7880
NY H C Johnson Agencies Inc, Box 215
Fayetteville ... 637-9383
NY H C Johnson Agencies Inc, Box 86, Brandywine Sta
Schenectady ... 374-5901
NY R P Luce & Co, 1300 Jericho Tpk
New Hyde Park ... 437-4550
Ohio J Cutts & Assoc, 24039 Ambour Dr
North Olmstead ... 777-0992
Pa R P Luce & Co Inc, 8717 Patton Rd
Philadelphia ... 884-8365
Tex Blackburn Assoc, Box 20073, Dallas 351-9992

PCB ELECTRONICS, BOX 33, CHEEKTOWAGA
N Y, 14225 ... 716 684-0001
J LALLY, EMP 5, ENG 2, UP TO $100M

P & D MFG CO INC SUB BENDIX CORP
19-02 STEINWAY ST, LONG ISLAND CITY
N Y, 11105 ... 212 728-1600
F MUNISTERI, EMP 400, ENG 4

PEARCE-SIMPSON INC, BOX 800 BISCAYNE ANNEX
MIAMI, FLA, 33152 ... 305 888-1551
P BELL, EMP 350, ENG 12, $2,500-$5,000M

PEARSON ELECTRONICS INC, 4007 TRANSPORT ST
PALO ALTO, CAL, 94303 ... 415 326-7285
D MEACHAM, EMP 12, ENG 2, $250-$500M

PECK STOW & WILCOX CO, 217 CENTER ST
SOUTHINGTON, CONN, 06489 .... 203 628-9621
W GRIFFITHS, EMP 170, ENG 3

PECO CORP, 111 ORTEGA AVE, MOUNTAIN VIEW
CAL, 94040 ... 415 967-5738
E GARD, EMP 60, ENG 10, $1,000-$2,500M
Cal J Bollinger, 10289 Richwood Ave
Cupertino ... 257-0760
Ill R Lucasey, 5159 N McVicker, Chicago 763-3526
Ind C M Artherhults, 4103 S Hanna
Ft Wayne ... 744-4782
NJ J Bellamy, 8 Dartmouth Rd, Mt Lakes 334-2222
Ore C K Murphy Co, 1465 Johnson St NE
Portland ... 503 581-5425
Can Canners Machy Ltd, Simcoe Ont 426-0310

PECO INC, 4707 SE 17TH ST, PORTLAND
ORE, 97202 ... 503 232-5104
W RIECKMANN, EMP 115, ENG 4, $1,000-$2,500M

PEECO CORP, 2760 WHITTIER BLVD, LOS ANGELES
CAL, 90023 ... 213 269-4164
G MOGILNER, EMP 6, ENG 1, UP TO $100M

PEERLESS ELECTRICAL PRODS DIV LTV LING ALTEC INC
1515 S MANCHESTER AVE, ANAHEIM
CAL, 92803, TWX 910-591-1142 ... 714 774-5373
J RAMSAY, EMP 215, ENG 7
ADV PG 288, 494, 728
Ariz Carl Hower & Co, 431 N Winfield Scott Plaza
Scottsdale ... 602 947-4204
Cal Vistronics, 6158 Mission Gorge Rd
San Diego ... 714 283-3946
Fla Trainor Sales Inc, 437 Privateer Rd
N Palm Beach ... 305 844-9791
Ill Midwest Electronics Sales, 5707 W Division St
Chicago ... 312 626-0030
Ind Midwest Electronic Sales, 5462 E 40th St
Indianapolis ... 317 547-3259
Iowa Midwest Electronic Sales, 2042 Franklin Ave NE
Cedar Rapids ... 319 362-4410
Md Habco Electronics, 603 Alleghany Ave
Towson ... 301 825-9637
NH F Lawrence Moore, Box 196
Rye Beach ... 603 964-8551
NJ Hy-Rel Electronic Sales, 753 Bergen Blvd
Ridgefield ... 212 695-6980
Pa James H Podolny Co, 5912 Penn Ave
Pittsburgh ... 412 441-0800
Pa Arugus Assoc Inc, Box 68
Warminster ... 215 675-4131
Va Habco Electronics, 603 Alleghany Ave
Towson ... 301 825-9637
Wis Midwest Electronic Sales, 1317 Garfield Ave
Waukesha ... 414 542-5129

PEERLESS INSTRUMENT CO INC, 90-15 CORONA AVE
ELMHURST, NY, 11373, TWX 12-6951 .. 212 592-3300
C MEYER, EMP 320, ENG 20, $5,000-$10,000M
Mich Thies & Assoc, 1450 Rossman Ave, Grand Rapids
Mo G Fixman Eng Co, 8160 Stanford Ave, St Louis
NY Comtronic Assoc, 1551 Franklin Ave, Mineola
Ohio W J Brauer & Assoc, 29029 Euclid Ave, Wickliffe

PEERLESS PRODUCTS INDUSTRIES
4210 W CHICAGO AVE, CHICAGO
ILL, 60651 ... 312 772-1900
W GRIFFING, EMP 50, ENG 3, $500-$1,000M

PEGASUS LABS INC, 3500 ELEVEN MILE RD, BERKLEY
MICH, 48072, TWX 313-541-4586 ...... 313 547-8700
R TAYLOR, EMP 150, ENG 9, $1,000-$2,500M
Cal Paul-Munroe Hydraulics, 8345 Slauson
Pico Rivera ... RA 3-0692
Conn Fluid Kinetics, 106 E Center St
Manchester ... 646-0081
Ill Midwest Hydraulics Inc, 3500 W North Ave
Melrose Park ... 681-4888
Ind Tec-Hackett Engrg Inc, 646 Growth Ave
Fort Wayne ... 742-8261
Iowa Midwest Hydraulics Inc, Box 653
Davenport ... 323-6505
Mass Fluid Kinetics, 1093 Main St, Holden 829-4307
Mich J N Fauver Co, 1500 Avis Rd
Madison Hts ... 564-5050
Mo Midwest Hydraulics Inc, 9929 Manchester Rd
St Louis ... 968-2220
NJ Airoyal Co, 1990 Springfield
Maplewood ... 267-9614
Ohio Paquin Co, 13405 St Clair Ave
Cleveland ... 851-4100
Ohio Paquin Co, 6901 Longview, Cincinnati
Pa Fluid Power, Inc, Mt Pleasant & Railroad Rds
Ambler ... 643-0350
Tex Womack Machine Supply Co, 2010 Shea Rd
Dallas ... 357-3871
Va C A Weaver Co, Inc, 2420 Grenoble St
Richmond ... 359-5771
Wis Midwest Hydraulics Inc, 11610 W North Ave
Milwaukee ... 476-3981
GB Telehoist Ltd, Cheltenham, England
Jap Japan Machinery Co Ltd, Box 1451 CPO, Tokyo

PEK, INC, 825 E EVELYN AVE, SUNNYVALE
CAL, 94086, TWX 910 339-9214 .... 408 245-4111
W CAMERON, EMP 88, ENG 5, UP TO $100M
Cal A F Sales Eng, 94 S Los Robles Ave
Pasadena ... 681-5631
Md Faust Assoc, 606 Edmondson Ave
Baltimore ... 744-6403
NY Advanced Components Corp, 119 Luther Ave
Liverpool ... 472-7886
Ohio Micro Sales Corp, 1250 W Dorothy La
Dayton ... 298-3033
Tex Airep Engineering Co, Box 9555, Dallas .. 824-3800
For Pek, Intl Div, 750 Third Ave
New York N Y ... 986-2244

PELLEY CO INC, E H, 37 HURLEY ST, CAMBRIDGE
MASS, 02141 ... 617 UN 4-9788
E PELLEY, EMP 10, UP TO $100M
Mass Tradco Assoc, 6A Columbus Ave
Boston ... 617 HA 6-2068

PELLON CORP, IND DIV, 221 JACKSON ST, LOWELL
MASS, 01852 ... 617 454-0461
R HOEHN, EMP 350, OVER $10,000M
Den Hartfelt & Co, Slotsherrensvey 136
Copenhagen-Van Lose
Ger Carl Freudenberg, Viledon Werk
694 Weinheim/Bergstr
GB Bondina Sales Ltd, Greetland, Halifax, Yorkshire

PELMOR LABS INC, 401 LAFAYETTE ST, NEWTOWN
PA, 18940 ... 215 968-3825
C MORGAN, EMP 32, ENG 4, $500-$1,000M
Mass W S FarrellCo, 19 Pelham Island Rd
Wayland ... 358-4569

PEMCO INC, 2800 S ELATI ST, ENGLEWOOD
COLO, 80110 ... 303 789-2244
R BROWN, EMP 17, ENG 2, $100-$250M

PEM MACHINE TOOL CO INC, 39A MYRTLE ST
CRANFORD, N J, 07016 ... 201 276-8600
J KOSTECKI, EMP 40, ENG 4, $250-$500M

PENBERTHY DIV HOUDAILLE IND INC, BOX 112
PROPHETTSTOWN, ILL, 61277 .... 815 537-2311
P MILLER, EMP 225, ENG 5, $5,000-$10,000M
Cal Frost Engr Serv Co, 380 First St
Oakland ... 415 451-7622
Colo Industrial Systems, Box 16632
Denver ... 303 244-5613
Del Energy Control Corp, 64 E Main St
Newark ... 302 EN 8-9143
Ga Jack M Smither & Co, 498 Armour Cir NE
Atlanta ... 404 876-4423
Ill Pro-Quip Inc, 418 Shawmut Ave
La Grange ... 312 352-5732
Ky Control Products Co, 1738 Berry Blvd
Louisville ... 502 367-6421
La Deco Engr Products, 1112 Locust St
Des Moines ... 515 288-5721
La Deco Engr Products, 517 Main St
Davenport ... 319 324-6123
Mass King-Gage Engr Corp, 33 Trowbridge St
Newton Centre ... 617 BI 4-7200
Mich Smith Instru & Equip, 24487 Gibson Dr
Warren ... 313 539-3920
Mich Smith Instru & Equip, 900 N Monroe
Grand Rapids ... 616 451-2931
Minn Campbell-Sevey Inc, 1525 S 5th St
Minneapolis ... 612 333-2403
Mo T G Rankin Co, 533 E Argonne Dr
St Louis ... 314 YO 5-8454
Mont Industrial Systems, 110 5th St W
Billings ... 406 252-9151
Neb Deco Engr Products, 2002 Burt St, Omaha
NJ Dynatrol Inc, 5426 Tonnelle Ave
North Bergen ... 201 864-3245
NY J V Tripoli & Co, 1622 Fillmore Ave
Buffalo ... 716 TX 4-1777
NC Paul Stack Sales Co, 1800 Norland Rd
Charlotte ... 740 537-8331
Ohio Howard S Gens & Assoc, 4790 Delhi Rd
Cincinnati ... 513 251-0038
Ohio M S Jacobs & Assoc, 6900 Granger Rd
Cleveland ... 216 524-3000
Okla Ernie Graves Co, 201 S Houston
Tulsa ... 918 584-4708
Pa Autotrols Inc, Box 11038
Pittsburgh ... 412 931-4431
Pa Energy Control Corp, 3147 N Broad St
Philadelphia ... 215 BA 8-7900
Tenn Johnson & Scott, 299 Cumberland St
Memphis ... 901 324-3582
Tex Control Equipment Inc, 2311 E 2nd St
Odessa ... 914 332-1438
Tex Clif Mock Co, 5808 Schroeder La
Houston ... 713 748-0130
Utah Electrical Sales Co, Box 6049
Salt Lake City ... 801 486-1367
Wis Chipley & Jensen Inc, 3500 N Sherman Blvd
Milwaukee ... 414 HI 2-8170

Wyo Industrial Systems, Box 2525, Casper
For W D Blood & Co, 38 Pearl St, New York
Mex Servicios Y Ventas S A, Daguna De Mayren 250
Mexico 17 DF.... 45-61-28

PENFIELD MFG CO INC, 467 BRITANNIA ST, MERIDEN
CONN, 06450.... 203 235-1694
R COOLEY, EMP 50, ENG 7, $1,000-$2,500M

PENINSULA MICROWAVE LABS, 855 MAUDE AVE
MOUNTAIN VIEW, CAL, 94040.... 415 969-3303
P LATOURRETTE, EMP 13, ENG 3, $250-$500M
Cal Jay Stone & Assoc, 140 Main St
Los Altos.... 415 948-4563
Cal C W Swift & Assoc, 15236 Burbank Blvd
Van Nuys.... 213 873-4778
DC James R Eberly Co, 1207 Potomac St NW
Washington.... 202 338-2277
Md James R Eberly Co, 3618 Briarstone Rd
Randallstown.... 301 922-2092
NY Gray & Reed Assoc, 9 Dunford St
Huntington Sta.... 516 433-3333
NY Ossmann Instr Inc, 101 Pickard Dr
Syracuse.... 315 454-2461

PENN ENGINEERING & MFG CORP, BOX 311
DOYLESTOWN
PA, 18901, TWX 510 665-9338.... 215 766-8859
L ROBINSON, EMP 125, ENG 5, $500-$1,000M
Cal R C Dudek & Co, 600 N Sepulveda Blvd
L A.... 213 272-8097
Colo Fred A Pease Co, Box 646, Aurora.... 303 364-9391
Fla Spyraflo Inc, 1295 NW 163rd St
Miami.... 305 NA 1-0556
Ill S W Anderson Co, 1812 Ogden Ave
Downers Grove.... 312 WO 9-7770
Mich Dodsworth & Assoc, 10432 W McNichols Rd
Detroit.... 313 538-3522
NY M Brenner, 432 Beach, 140th St
Belle Harbor.... 212 NE 4-7103
NC Lee Ltd, Bethania.... 919 924-8245
Ohio F E Kahsar Sales, 5229-A Glenway Ave
Cincinnati.... 513 GR 1-9011
Pa Albert Dorn, 838 Central Ave
Southampton.... 215 EL 7-4060
Tex Blair Engrg Sales Co, 2930 Merrell Rd
Dallas.... 214 352-2556
Can Intl Fasteners Ltd, 83 Penn Dr
Weston, Ont.... 416 749-0070

PENN FIBRE & SPECIALTY CO
2020 E WESTMORELAND ST, PHILADELPHIA
PA, 19134.... 215 RE 9-4862
W DAVIS, EMP 20, ENG 1, $500-$1,000M

PENN KEYSTONE CORP, DIVISION ST, ANSONIA
CONN, 06401.... 203 734-3301
E PARKER, EMP 85, ENG 8, $1,000-$2,500M
Cal Aerospace Sales Corp, 6214 W Manchester Ave
Los Angeles.... 670-5656
Ill J H Bagshaw, Box 147, Glen Ellyn.... 469-3179
Ind Tri-State Mktg Inc, 608 Ft Wayne Bank Bldg
Ft Wayne.... 742-2474
NY Lloyd Hart Assoc, Inc, Box 8398
Rochester.... CH 4-3253
Ohio Tri-State Mktg, Inc, 1717 Section Rd
Cincinnati.... 631-5060
Ohio Tri-State Mktg Inc, 25000 Euclid Ave
Cleveland.... 731-9207
Pa Chas J McGowan Co, 81 Old York Rd
Willow Grove.... 215 659-1788
Can Abercorn Aero Ltd, 2240 Beaconsfield Ave
Montreal.... HU 9-4978

PENN RESISTOR CORP, 526 N BROAD ST, LANSDALE
PA, 19446.... 215 855-9516
R POLLSEN, EMP 30, ENG 2, $250-$500M
Cal Lee Grant Snyder Co, 1418 N Highland
Hollywood.... HO 9-6278
Colo NORAD Inc, 1700 Broadway, Denver.... 222-1107
Conn Comp-Rep Assoc, 14 Samoset
North Haven.... 239-9762
Ga P Hayden Assoc, Box 331, East Point.... 766-0261
Ill E Flaxman Co, 52 James Ct, Glenview.... 719-0682
Mass Comp-Rep Assoc, 1116 Great Plain Ave
Needham.... 444-2484
Mich ABM Sales Co, 10116 Puritan Ave
Detroit.... 862-1300
NJ D F Assoc, Box 452, Haddonfield.... HA 9-1000
NY Andrews & Andrews Inc, 140 E Main
Huntington.... MY 2-8686
Ohio W C Brauer & Assoc, 29029 Euclid Ave
Wickliffe.... 943-0601
Wash Ray Over Sales Corp, Box 593
Belleville.... GL 4-4551
For Intl Electro-Comp Co, Box 353
Pinebrook, NJ.... 335-1822

PENNSALT CHEMICALS CORP, 3 PENN CENTER
PHILADELPHIA, PA, 19102.... 215 LO 44700
L ROBB, EMP 10,000, OVER $10,000M
Cal David B Cory, 6277 E Slauson Ave
Los Angeles.... OV 5-7120
Cal S Wright-Hay, 307 S B St, San Mateo.... 343-1673
Ga R Montgomery, College Pk Rd
Hapeville.... 761-4321
Ill T M Sullivan, 120 E Burlington Ave
LaGrange.... 354-5930
Mass J Michaud, Box 44, Framingham.... 761-4323
Ohio D Walker, 14700 Detroit Ave
Cleveland.... 521-6411
Pa J Houser, 3 Penn Center, Philadelphia.... 564-4700
Tex W Cunningham, 5115 Westheimer Rd
Houston.... 622-4850

PENNSALT CHEMICALS CORP EQUIPMENT DIV
3 PENN CENTER, PHILADELPHIA
PA, 19102.... 215 LO 4-4700
A BICKNELL
Cal Pennsalt Chem Corp, 1100 Carolan Ave
Burlingame.... 415 343-4519
Cal Pennsalt Chem Corp, 205 N Puente Ave
City of Industry.... 213 330-4545
Conn Pennsalt Chem Corp, 125 LaSalle Rd
West Hartford.... 203 521-3900
Ga Pennsalt Chem Corp, College Park Rd
Hapeville.... 404 761-4321
Ga J D Robertson Inc, 3110 Maple Dr NE
Atlanta.... 404 237-1506
Ill Pennsalt Chem Corp, 5875 N Lincoln Ave
Chicago.... 312 878-4450
Mich Pennsalt Chem Corp, 26200 Greenfield Rd
Oak Park.... 313 541-2728
Mo Pennsalt Chem Corp, 7811 Carondelet Ave
St Louis.... 314 727-0608
NJ Pennsalt Chem Corp, 385 Chestnut St
Union.... 201 688-2636
NY Pennsalt Chem Corp, 890 Winton Rd S
Rochester.... 716 473-1940
NY Pennsalt Chem Corp, 501 Fifth Ave
New York.... 212 687-1640
Ohio Pennsalt Chem Corp, 142 Shaker Bldg
Cleveland.... 216 752-6260
Ohio Pennsalt Chem Corp, 3300 S Dixie Dr
Dayton.... 513 293-2175
Pa Pennsalt Chem Corp, 5600 Tabor Rd
Philadelphia.... 215 289-0100
Pa Pennsalt Chem Corp, 300 E Lancaster Ave
Wynnewood.... 215 649-6700
Tex Pennsalt Chem Corp, 5115 Westheimer Rd
Houston.... 713 622-2170
Tex Pennsalt Chem Corp, 6200 N Central Expwy
Dallas.... 214 363-5468
Can Pennsalt Chem Corp of Can Ltd
1072 Kipling Ave N, Rexdale.... 416 247-6251

PENNSYLVANIA ELECTRONICS TECHNOLOGY, INC
1397 FREY RD, PITTSBURGH
PA, 15235.... 412 351-0890
F HEDDINGER
Cal Carl E Holmes Co, 107 North Ave 64
Los Angeles.... 213 256-2255
Cal Melchior & MacPherson Inc, 820 B Cherry St
San Carlos.... 415 591-7383
Ill Ernest N Taylor & Assoc, 6760 Stony Is Ave
Chicago.... 312 324-8532
Md Rothenheber & Co, 14211 Chesterfield Rd
Rockville.... 301 929-3388
Mass Daniels Engrg/Sales, Box 27
Lynnfield.... 617 334-4200
Mich JEFCO Sales Inc, 700 Maple E
Birmingham.... 313 642-3830
Minn Ernest N Taylor & Assoc, 8340 Fremont Ave
Minneapolis.... 612 888-4298
Mo Herdlein Instr Co, 14831 Phelps Dr
Bridgeton.... 314 865-2547
NY H C Johnson Agencies, 111 Mt Hope Ave
Rochester.... 716 232-2688
NY H C Johnson Agencies, 8 Los Robles St
Williamsville.... 632-7880
NY H C Johnson Agencies, 404 E Genesee St
Fayetteville.... 637-9595
NY H C Johnson Agencies, Box 86 Brandywine Sta
Schenectady.... 374-5901
NC Bill Henry Assoc, 1043 Providence Rd
Charlotte.... 704 375-8958
Ohio GEM Components Co, 2801 Far Hills Ave
Dayton.... 513 298-7683
Ohio GEM Components Co, 2643 E Streetsboro Rd
Hudson.... 216 653-8716
Pa N Rothenheber & Co, 53 Cricket Ave
Ardmore.... 215 642-6911
Pa Rothenheber & Co, 53 Cricket Ave
Ardmore.... 215 642-6911
Tex Scott Technical Sales, Box 30324
Dallas.... 214 352-7698
Wash Cane-Jessup Co, 1433 130th N E
Bellevue.... 206 454-0691
Can John Harring & Co Ltd, 3468 Dundas St W
Toronto 9, Ont.... 416 762-7545-6-7
For C Tennant Sons & Co of NY, 100 Park Ave
New York, NY.... 212 679-1300

PENNSYLVANIA FLUOROCARBON CO INC
HOLLEY ST & MADISON AVE, CLIFTON HEIGHTS
PA, 19018.... 215 MA 22300
J BURLEY, EMP 95, ENG 9, $1,000-$2,500M
Ariz Runyon Co, Box 1567, Scottsdale.... 602 947-5711
Cal Daniel A Tornello, 13328 Hatteras
Van Nuys.... 213 781-4481
Cal Insulation Components Assoc, Box 158
Montebello.... 213 685-4078
Colo CFL Co, 1391 S Inca St, Denver.... 303 777-4381
Conn Hart, Nininger & Campbell Assoc
Woodbury.... 203 263-4321
Ill Jerry Golten Co, 2750 W North Ave
Chicago.... EV 4-5959
Iowa H B Kirkland & Assoc, 210 5th St SE
Cedar Rapids.... 363-6425
Md J A Maguire & Co, 5716 York Rd
Baltimore.... 301 433-2613
Mich Gitre Co, Inc, 12909 W Eight Mile Rd
Detroit.... DI 1-9270
Mo T M Roudebush & Co, Box 8521
Kansas City.... 913 362-3500
Mo J Cregan Co, 9216 Clayton Rd
St Louis.... 314 WY 3-0251
Mo T M Roudebush & Co, Box 8521
Kansas City.... 913 362-3500
NJ Sil Venturi Assoc, 24 Silver Spring Rd
Short Hills.... 379-7636
NM C L Carlberg & Assoc, Box 3177, Sta D
Albuquerque.... 505 265-1579
NY Robert A Colucci, Box 447, Mineola.... PI 6-0397
NY Norbert P Thomas, Box 366
N Syracuse.... 455-5501
NC J A Maguire & Co, 440 W End Blvd
Winston-Salem.... 919 723-5980
Ohio Edward J Connors, 59 Central Ave
Dayton.... BA 4-4577
Ohio A Geldhof, 220 Sterncrest Rd
Chagrin Falls.... 248-0185
Okla J W Turner, 4343 S Jamestown Ave
Tulsa.... 918 TE 5-2306
Pa Edward J P & R E Ritter, 1256 Rosemont La
Abington.... TU 4-6849
Pa Martin Electric Co, 6741 N 13th St
Philadelphia.... WA 7-5858
Pa F Moller, 589 Winston Way
Berwyn.... 215 NI 4-3630
Tex Allied Components Inc, Box 18146
Dallas.... 214 DI 8-6660
Tex C J Garvey, 516 Brookshire La
Richardson.... 214 235-4015
Wash H J Sales Co, 500 Wall St
Seattle.... 206 MA 3-4810
Can Andrew Gilchrist Ltd, 5645 Pare St
Montreal.... 735-3603
For Joseph F Rizzo Co, 5710 Empire State Bldg
New York.... PE 6-0398

PENNSYLVANIA INDUSTRIAL CHEMICAL CORP
120 STATE ST, CLAIRTON
PA, 15025, TWX 710-660-4870.... 412 233-8600
A PATUREAU, EMP 675, ENG 22, OVER $10,000M
Ariz Rinchem Co, 1550 W Lower Buckeye Rd
Phoenix.... 602 252-6518
Cal Penna Ind Chem Corp, 14921 Ventura Blvd
Sherman Oaks.... 213 872-1762
Cal Harwick Standard Chem Co, 7225 Paramount Blvd
Pico Rivera.... 213 723-9911
Cal Harwick Standard Chem Co, 3871 Piedmont St
Oakland.... 405 654-8950
Ga Penna Ind Chem Corp, 2779 B Clairmont Rd NE
Atlanta.... 404 636-3021
Ill Penna Ind Chem Corp, 120 Oakbrook Mall
Oakbrook.... 312 242-4755
NY Pa Ind Chem Corp, 202 Mamaroneck Ave
White Plains.... 212 682-9146
Ohio Penna Ind Chem Corp, 5982 Breckswood Oval
Brecksville.... 216 771-7100
Ore W Ronald Benson Co, 2728 NW Nela St
Portland.... 503 222-1301
Pa Pa Ind Chem Corp, Box 500
Chester.... 215 874-4381
Tex Pa Ind Chem Corp, 10443 Marsh La
Dallas.... 214 FL 7-4229
Wash W Ronald Benson Co, 2250 1st Ave S
Seattle.... 206 MU 2-4425
Can Chas Tennant Co Inc Ltd, 34 Clayson Rd
Weston, Ont

PENN TRANSFORMER CO, E BISHOP ST, EXT
BELLEFONTE, PA, 16823.... 814 355-4747
J BATT, EMP 150, ENG 3, $1,000-$2,500M
Cal W Bert Knight Co, 112 Glasgow Ave
Inglewood.... 213 678-4711
Ill Lightner Assoc Inc, 6322 N Milwaukee Ave
Chicago.... 774-1500
NJ Simberkoff Sales, 71 Valley St
S Orange.... 763-7900

PENNTUBE PLASTICS CO DIV PENNA FLUOROCARBON
CO, HOLLEY & MADISON AVE, CLIFTON HEIGHTS
PA, 19018.... 215 MA 2-2300
J BURLEY, EMP 95, ENG 9, $1,000-$2,500M
Ariz Runyon Co, Box 1567, Scottsdale.... 602 947-5711
Cal D Tornello, 13328 Hatteras
Van Nuys.... 213 781-4481
Cal Insulation Components Assoc, Box 158
Montebello.... 213 685-4078
Colo CFL Co, 1391 S Inca St, Denver.... 777-4381
Conn Hart Nininger & Campbell Assocs
Woodbury.... 203 263-4321
Ill Jerry Golten Co, 2750 W North Ave
Chicago.... EV 4-5959
Iowa Herbert B Kirkland & Assoc, 210 5th St, S E
Cedar Rapids.... 363-6425
Md J A Maguire & Co, 5716 York Rd
Baltimore.... 301 433-2613
Mich Gitre Co, Inc, 12909 W 8 Mile Rd
Detroit.... DI 1-9270
Mo J Cregan Co, 9216 Clayton Rd, St Louis
Mo T M Roudebush & Co, Box 8521
Kansas City.... 913 362-3500
NJ Sil Venturi, 24 Silver Spring Rd
Short Hills.... 379-7636
NM C L Carlberg & Assoc, Box 3177, Sta D
Albuquerque.... 505 265-1579
NY R A Colucci, Box 447, Mineaola.... PI 6-0397
NY N P Thomas, Box 366, N Syracuse.... 455-5501
NC J A Maguire & Co, 440 W End Blvd
Winston-Salem.... 919 723-5980
Ohio A Geldhof, 220 Sterncrest Rd
Chagrin Falls.... 248-0185
Ohio E J Connors, 59 Central Ave, Dayton.... 228-9644
Okla J W Turner, 4343 S Jamestown Ave
Tulsa.... 918 TE 5-2306
Pa Martin Electric Co, 6741 N 13th St
Phila.... WA 7-5858

Pa F Moller, 589 Winston Way
Berwyn........................... 215 NI 4-3630
Tex Allied Components Inc, Box 18146
Dallas........................... 214 DI 8-6660
Tex C J Garvey, 516 Brookshire La
Richardson........................ 214 235-4015
Wash H J Sales Co, 6011 34th Ave, N E
Seattle............................ ME 2-9215
Can Andrew Gilchrist, Ltd, 5645 Pare St
Montreal............................ 735-3603
For Joseph F Rizzo Co, 5710 Empire State Bldg
New York, N Y .... PE 6-0398

PENN-UNION ELECTRIC A TELEDYNE CO
WATERFORD ST, EDINBORO
PA, 16412, TWX 914-490............... 814 732-5201
L CRANE, EMP 400, ENG 8, $5,000-$10,000M
Ala James E Heusser, 620 Sundale Dr
Birmingham.......................... 836-3896
Ariz R A Young of Ariz Inc, 635 W Indian School Rd
Phoenix............................ 274-3576
Cal F M Nicholas Co, 72 Townsend St
San Francisco .... YU 2-1964
Cal R A Young & Co, 807 Air Way
Glendale 245-3721
Colo Electrical Agencies Co, 1689 Eliot St
Denver 623-8246
Conn R Meyer Co, 295 Treadwell St, Hamden .. 288-5291
Fla Arnold-Bryant, Inc, 6400 SW 106th St
Miami.............................. HI 4-5751
Fla Arnold-Bryant, Inc, 6475 1st Ave N
St Petersburg....................... 347-6689
Ga I Arnold Hoge Assoc, 471 Whitehall St S W
Atlanta 524-6417
Ill R A Hanke Co, 2660 N Clybourn Ave
Chicago .... EA 7-2234
Ind Roth-Mooney Elec Agency Inc
5226 N Keystone Ave, Indianapolis.... CL 1-3504
Ind Roth-Mooney Elec Agency, 5226 N Keystone Ave
Indianapolis........................ CL 1-3504
Iowa Bassett-Eischen Co, 1109 Bowler St
Hiawatha 366-3705
Kan John M Hill Sales Co, Inc, 1401 Fairfax Trfwy
Kansas City .... Fi 2-6500
La Jeanes Enterprises, 2009 Elizabeth
Metairie 888-0941
La Jeanes Enterprises Inc, Box 5634
Bossier City........................ 746-1434
Me Electrical Agencies Inc, 451 Ferry St
Saco 282-3938
Md Campbell & Assoc, 200 Duke of Kent La
Cockeysville........................ 666-2993
Mass Electrical Agencies Inc, 49-51 D St
S Boston .... AN 8-9300
Mich J Kinnear & Co, 3019 E 8 Mile Rd
Warren 759-1213
Minn C R Krenik Sales, Inc, 740 Washington Ave N
Minneapolis......................... 338-5661
Miss Jeanes Enterprises, 5315 Farnsworth Dr
Jackson 362-0278
Mo Roy E Kennedy Co, 12025 Manchester Rd
St Louis 965-7650
Neb Bassett-Eischen Co, 610 S 14th St
Omaha 341-9224
Neb Bassett-Eischen Co, 923 W John St
Grand Island 382-1137
NM Paul J Connington Co, 11516 MOrenci NE
Albuquerque......................... 298-2509
NY Mills, Talbot & Co, 609 3rd Ave N
Troy................................ 235-0103
NY Mills, Talbot & Co, 45 Saginaw Dr
Rochester........................... CH 4-1311
NY Warshaw-Cooper Co Inc, 25 Franklin St
Brooklyn............................ EV 3-1900
NY Mills Talbot & Co, 62 Belmont Ave
Kenmore............................. 876-1788
NY Mills Talbot & Co, 609 Third Ave N
Troy................................ 235-0103
NC Fred Woods Agency, RFD 1 Box 40
Cary .... HO 7-2151
NC Fred Woods Agency, Rt 1, Box 415
Pineville........................... 525-3297
Ohio J G Gates Co, Box 40206, Cincinnati..... 521-4335
Ohio K R Dodge Co, 1836 Euclid Ave
Cleveland........................... 241-3307
Okla J W Dodge Co, 2406 E 14th Pl, Tulsa .. WE 6-4416
Okla J W Dodge Co, 8901 S Youngs St
Oklahoma City....................... MU 5-9459
Pa W C Welde & Sons, 120 N 32nd St
Philadelphia .... EV 6-0925
Pa H E Ransford Co, 5400 Clairton Blvd
Pittsburgh.......................... 884-3425
Tenn B Carson Co, 4230 Hwy 51 S
Memphis 396-4553
Tenn Henry H Reagan, Box 177, Knoxville 689-2092
Tex W J Huemmer Co, 6538 Glade St
Dallas.............................. FR 1-3600
Tex W J Huemmer Co, 6319 Heatherbrook St
Houston .... MO 6-1311
Tex Paul J Connington Co, 2137 Mills Ave
El Paso............................. 532-3025
Utah Melville Sales Co, 328 W 2nd South St
Salt Lake City 363-3363
Va Campbell & Assocs, Inc, 2527 Laburnum Ave SW
Roanoke 343-6452
Va Campbell & Assoc, Inc, 1715 Summit Ave
Richmond............................ 359-2015
Wash Northwestern Agencies Inc, 4130 1st Ave S
Seattle .... MA 3-8882
W Va H E Ransford Co, 1872 Louden Heights Rd
Charleston .... DI 2-3203
Wis A W Schwind Co, 121 N Broadway
Milwaukee........................... BR 3-6260
Can Dominion Cutout Ltd, 155 Nantucket Blvd
Scarborough......................... 759-9377

PENNWOOD NUMECHRON CO TYMETER ELECTRONICS
7249 FRANKSTOWN AVE, PITTSBURGH
PA, 15208 .... 412 371-4200
E MIRANOV, EMP 35, ENG 2, $500-$1,000M

PENTRONICS CORP, 10 CHENEY ST, DORCHESTER
MASS, 02121, TWX GJD .... 617 HI 5-7100
J O'TOOLE, EMP 30, ENG 3, $250-$500M
Mass First National Elctns, Lakeside Office Park
Wakefield........................... 245-6240

PEPCO, INC, 11910 VALERIO ST, NORTH HOLLYWOOD
CAL, 91605 .... 213 765-2205
R PALMA, EMP 18, ENG 2, $100-$250M

PERFECTAIRE EQUIPMENT CO INC, 42 FIRST ST
CAMBRIDGE, MASS, 02141.............. 617 547-2700
R SHEFFIELD, JR, EMP 20, ENG 3, $250-$500M

PERFECTONE SOUND LABS, 44 MIDWOOD AVE
ALLENDALE, NJ, 07401 .... 201 825-1427
G LEHSTEN, EMP 10, ENG 3, UP TO $100M

PERFORMANCE MEASUREMENTS CO, 21100 HUBBELL
DETROIT, MICH, 48237................ 313 564-4811
G SPENCER, EMP 100, ENG 8, $1,000-$2,500M

PERIPHERAL EQUIPMENT CORP, 9551 IRONDALE AVE
CHATSWORTH
CAL, 91311, TWX 910 494-2093........ 213 882-0030
N MCMULLIN, $1,000-$2,500M
Ala L G White Southern Inc, 3305 Patton Rd
Huntsville 205 539-9601
Ariz Hyer Elctns Co, 301 W Indian School Rd
Phoenix 602 264-0291
Cal Instrument Specialists Inc, 2870 Los Feliz Pl
Los Angeles......................... 213 665-5182
Cal Instrument Specialists Inc, 1909 State St
San Diego 714 232-2017
Cal Instrument Specialists Inc, 2359 DeLaDruz Blvd
Santa Clara 408 244-1505
Colo Hyer Electronics Co, 7895 E Prentice Ave
Englewood 303 771-5354
Fla Griggs Assoc, Box 13542, Orlando ... 305 855-4871
Ill Cozzens & Cudahy Inc, 9501 W Devon
Rosemont............................ 312 825-1144
Ind Cozzens & Cudahy Inc, 44 Kirk Dr
Indianapolis........................ 317 244-2456
Md L G White & Co Inc, 880 Bonifant St
Silver Spring 301 585-3141
Mass Hobart Assoc, 750 Main St
Winchester.......................... 617 729-8884
Mich Cozzens & Cudahy Inc, 127 Edmund St
Royal Oaks 313 585-5159
Minn Cozzens & Cudahy Inc, 7710 Computer
Minneapolis......................... 612 920-1022
Mo Cozzens & Cudahy Inc, 10534 Natural Bridge Rd
Edmundson 314 423-1234
NM Hyer Electronics Co, 210 LaVeta Dr NE
Albuquerque......................... 505 265-5767
NY Harvey J Krasner Assoc, 33 Great Neck Rd
Great Neck.......................... 516 487-0690
NY Ossmann Instr Inc, 101 Pickard Dr
Syracuse............................ 315 454-2461
NY Ossmann Instr Inc, 3100 Monroe Ave
Rochester........................... 716 586-0380
NY Ossmann Instr Inc, Box 207
Wappinger Falls 914 297-7777
NY Ossmann Instr Inc, Vestal PKWY E
Vestal.............................. 607 785-9947
NC L G White Southern Inc, 1014 Brookstown Ave
Winston-Salem 919 725-3612
Ohio Cozzens & Cudahy Inc, 735 S Court St
Medina.............................. 216 725-5660
Pa Data Engineering Co, 500 A E Godfrey Ave
Philadelphia 215 725-9000
Tex Arnold Barnes Co, 740 S Sherman
Richardson.......................... 214 235-4541
Tex Arnold Barnes Co, 3230 Mercer St
Houston 713 622-3620
Tex Arnold Barnes Co, E106 Petroleum Ctr
San Antonio......................... 512 828-1323
Utah Hyer Electronics Co, 445 E 2nd S
Salt Lake City 801 363-6773
Wash Instrument Specialists Inc, 5950 6th Ave S
Seattle 206 767-1636
Can Datagraphics, 2239 Prescott Hwy
Ottawa Ont 613 825-3045
Ger Controls & Instruments GMBH, 8 Munchen 42
Gustav-Adolf-Str 5

PERKIN-ELMER CORP, MAIN AVE, NORWALK
CONN, 06852 .... 203 762-1000
N BRENNER, EMP 7000, ENG 1000, OVER $10,000M
Ala Perkin-Elmer Corp, 3500 Montgomery Hwy
Birmingham.......................... 205 879-8534
Cal Perkin-Elmer Corp, 433 W Foothill Blvd
Monrovia 359-2549
Cal Perkin-Elmer Corp, 2930 Bristol St
Costa Mesa 546-1410
Cal Perkin-Elmer Corp, 851 Hinckley Rd
Burlingame 415 692-0472
Colo Perkin-Elmer Corp, 2727 E Second Av
Denver 355-0331
DC Perkin-Elmer Corp, 1875 Conn Ave NW, Washington
Fla Perkin-Elmer Corp, Box 671 12th St
Vero Beach 567-4200
Ga Perkin-Elmer Corp, 3100 Maple Dr
Atlanta 237-6664
Ill Perkin-Elmer Corp, 2205 Curtiss St
Downers Grove 312 964-3600
Ind Perkin-Elmer Corp, 4002 Meadows Dr, Indianapolis
La Perkin-Elmer Corp, Box 15385
Baton Rouge 926-0807
Md Perkin-Elmer Corp, 8555 16th St
Silver Spring 588-5334
Mass Perkin-Elmer Corp, Wellesley Off Park, Wellesley
Mich Perkin-Elmer Corp, Stevens Bldg, 1025 E Maple Rd
Birmingham
Minn Perkin-Elmer Corp, 7726 Morgan Ave S
Mnpls 866-1422
Mo Perkin-Elmer Corp, 9322 Manchester Rd
St Louis 968-1303
NJ Perkin-Elmer Corp, 100 Menlo Park
Edison 201 549-1810
NY Perkin-Elmer Corp, 3100 Monroe Ave
Rochester........................... 381-4730
NC Perkin-Elmer Corp, 12 Buck Jones Rd
Raleigh............................. 833-6439
Ohio Perkin Elmer Corp, 20575 Center Ridge Rd
Rocky River 331-4077
Ohio Perkin-Elmer Corp, 505 Riverside Dr
Dayton 513 224-7453
Ohio Perkin-Elmer Corp, 3814 West St
Cincinnati.......................... 513 231-4407
Okla Perkin-Elmer Corp, 55 E Skelly Dr
Tulsa............................... 627-1948
Pa Perkin-Elmer Corp, 7900 W Chester Pike
Upper Darby 352-7000
Pa Perkin-Elmer Corp, 337 Freeport Rd
Pittsburgh.......................... 412 781-9111
Tex Perkin-Elmer Corp, 3911 Stoneybrook Dr
Houston 782-7112
Tex Perkin-Elmer Corp, Box 30506
Dallas.............................. 214 235-7320
Wash Perkin-Elmer Corp, 1107 NE 45th St
Seattle 632-0400
Can Perkin-Elmer (Can) Ltd, 5250 Ferrier St
Montreal............................ 735-1121
Can Perkin-Elmer (Can) Ltd, 2929 Bathurst St
Toronto............................. 787-1633
Can Perkin-Elmer Ltd, 376 Churchill Ave, Ottawa 3, Ont
Den Perkin-Elmer A/S, Engvej 155
Copenhagen S 55-45-30
Fr Perkin-Elmer France S A R L, 10, rue de Laborde
Paris............................... EUR 1220
Ger Bodenseewerk Perkin-Elmer & Co GmbH
777 Ueberlingen/See, Ueberlingen ...... Bod 716
GB Perkin-Elmer Ltd, Beaconsfield Bucks
Beaconsfield 2020
Ital Perkin-Elmer Ital S p A, Via Edoardo Bassini 17/2
Milano 23-65-579
Jap Hitachi Perkin-Elmer Ltd, Daisan Ohtemachi Bldg
Tokyo Ohtemachi 2702111
Swed Perkin-Elmer AB, Frokloversgatan 5
Goteborg/Froelunda
Swit Perkin-Elmer AG, Dufourstr 90, Zurich 47-46-50

PERKIN-ELMER, ELECTRONIC PRODS DIV
131 DANBURY RD, WILTON
CONN, 06897, TWX 965 954............ 203 762-6574
A VANETTEN, EMP 100, ENG 6, $2,500-$5,000M
Cal Electronic Prods Div, 5005 W Century Blvd
Inglewood 678-7797
Ill Electronic Prods Div, 1301 22nd St
Oak Brook 312 654-1950

PERKIN-ELMER CORP LASER DEPT, 131 DANBURY RD
WILTON, CONN, 06897................. 203 762-4709
E HALEY, EMP 40, ENG 4, $1,000-$2,500M
Cal Perkin-Elmer, 5005 W Century Blvd
Inglewood 213 678-7791
Md Perkin-Elmer, 8555 16th St
Silver Spring 301 588-2244
NJ Perkin-Elmer, 387 Passaic Ave
Fairfield 201 228-1900
Ohio Perkin-Elmer, Box 451
Worthington......................... 614 888-7751
Wash Perkin-Elmer, 16852 31st Ave S
Seattle 206 244-8685
GB Pilkington Perkin-Elmer Ltd, Glascoed Rd
St Asaph Flintshire
Jap Nissei Sangyo, Tokyo CPO Box 1316, Tokyo

PERKIN-ELMER CORP, OPTICAL GROUP, MAIN AVE
NORWALK
CONN, 06852, TWX 710-479-3787...... 203 762-1000
T FAHY, EMP 1550, ENG 500, OVER $10,000M
Cal Perkin-Elmer, 2930 Bristol St
Costa Mesa 546-1410
Cal Perkin-Elmer, 9800 S Sepulveda Blvd
Los Angeles......................... 670-2980
DC Perkin-Elmer, 2600 Virginia Ave NW
Washington 202 337-4220
Ohio Perkin-Elmer, 505 Riverside Dr, Dayton... 224-7453
Tex Spacetronics, Inc, Box 12445, Ft Worth... 244-0528

PERKINS MACHINE & GEAR CO, CIRCUIT AVE
WEST SPRINGFIELD
MASS, 01089, TWX 710 350-6759...... 413 737-4751
C PARKER, EMP 340, ENG 25, $2,500-$5,000M
Mich Robert W Frazier, 10751 Hart Ave
Huntington Woods .... LI 2-6427
Ohio Harry A Liss, 1717 Section Rd
Cincinnati.......................... 731-0966
Can D Brown-Foote Gears Ltd, 26 Howden Rd
Scarborough, Ont .... PL 5-5271
For J D Williams Export Corp, 90 West St
New York, NY

PERMACEL, U S HIGHWAY 1, NEW BRUNSWICK
N J, 08903 .... 201 524-0400
A CALLAHAN, OVER $10,000M

Cal Permacel, 3014 Lakeshore Ave
Oakland 452-4388
Ga Permacel, 3595 Zip Ind Blvd, Atlanta 767-4387
Ill Permacel, 1200 Harger Rd, Oakbrook
Ohio Permacel, 6415 Stumph Rd, Perma Heights

PERMACOR DIV, RADIO CORES INC, 9540 TULLEY AVE
OAK LAWN, ILL, 60454 .... 312 422-3353
J LOUGHLIN, EMP 100, ENG 3
ADV PG 225

PERMAG CORP, 88-06 VAN WYCK EXPWY, JAMAICA
N Y, 11418, TWX 710-582-2952 .... 212 OL 71818
J MEEGAN, EMP 30, ENG 2
ADV PG 384
Cal Permag Pacific Corp, 5441 W 104th St
Los Angeles 213 776-5656
Ill Permag Central Corp, 5301-D Otto Ave
Rosemont 312 678-1120
Mass Permag Northeast Corp, 50 Thayer Rd
Waltham 617 484-0550
Ohio Permag Magnetics Corp, 3130 South Ave
Toledo 419 385-4621

PERMALI INC, BOX 718, MT PLEASANT
PA, 15666, TWX 510-468-1584 .... 412 547-2353
J DWYER, EMP 107, ENG 5, $1,000-$2,500M
Cal Permali Inc, Box 1408, Arcadia 445-3217
NY Permali Inc, 46 Washington Rd, Scotia ... 374-2800
Can Permali (Canada) Ltd, 2870 Slough St
Malton, Ont 677-2090
Fr S A Permali, Boite Postale No 12
Maxeville (M&M) 52 08 55
GB Permali Ltd, Bristol Rd, Gloucester 28282

PERMALUSTER INC, 1844 N KEYSTONE, BURBANK
CAL, 91504 .... 213 849-4543
H WALKER, EMP 8, ENG 2

PERMANENT MAGNET CO INC, 4437 BRAGDON ST
INDIANAPOLIS, IND, 46226 .... 317 547-1336
R BURNS, EMP 150, ENG 5, $1,000-$2,500M
Ala A Halliday Co, Inc, 607 N 31st St
Birmingham 323-5793
Cal Thos W Yeakle, 171 Annandale
Pasadena 681-1455
Cal Special Metals Supply Inc, Box 1352
Freemont 415 656-5511
Ga A Halliday Co Inc, 174 14th St NW
Atlanta 436-3028
Ill Hill & Gray Inc, 821 Garfield, Oak Park ... 378-7050
Ind Hoster Assoc Inc, 1627 W 75th Pl
Indianapolis 251-2566
Ky A Halliday Co Inc, 719 S Preston St
Louisville 582-2462
Mass Denning Assoc, 45 Albion St
Wakefield 245-4986
Minn Peterson Enterprises, 4645 5th St N E
Minneapolis 781-3801
Ohio Petrie-Ingram Co, 5767 Mayfield Dr
Cleveland 442-5530

PERMA-POWER CO, 5740 N TRIPP AVE, CHICAGO
ILL, 60646 .... 312 539-7171
P ROSENBERG, EMP 400, ENG 12, $5,000-$10,000M
Ark Dick Bellew Sales Co, 1005 W 4th
El Dorado .... 501 UN 3-8325
Cal Wes Alderson Co, 8548 Washington Blvd
Culver City .... UP 0-9286
Cal Technical Sales Assoc, 1485 Bayshore Blvd
San Francisco .... DE 4-3161
Cal Morris-Tait Assoc, 4442 Van Noord Ave
N Hollywood 872-1819
Colo A-E-S Inc, 1559 Chester St, Aurora 366-0208
Ill Wm Linz & Assoc Inc, 4001 W Devon
Chicago .... MU 5-6060
Ind Hoemig Sales Co, 3405 Butler Ct
Fort Wayne 483-6913
Mass Robert Smith Co, 59 Verndale St
Brookline .... AS 7-0017
Mich J Malcolm Flora Co, 165 W Liberty St
Plymouth .... 313 GL 3-4296
Minn Wm Engelbretson Co, 906 Ottawa Ave
St Paul .... CA 2-2338
Mo Clemenson-Larrabee Co, 3709-A Summit
Kansas City .... VA 1-0657
Mo Carmine A Vignola Assoc
21 Schellridge Rd, Box 569
Jefferson City 635-1023
NJ Trinkle Sales, Inc, 500 N Kings Hwy
Cherry Hill 667-3500
NY L S M Assoc, RD 1, Phelps .... KI 8-4891
NY Landau & Mack, Inc, 75 Plandome Rd
Manhasset 869-8390
Ohio J W Lehner Co, 367 Brynhild Ave
Columbus .... AM 8-5260
SC Atcheson & Adams, Box 9085
Greensboro .... BR 2-6838
Tex Berthold Sales Co, 4411 Maple Ave
Dallas .... LA 6-8329
For Crescent Intl Inc, 540 Lake Shore Dr
Chicago .... DE 7-2292

PERMOFLUX CORP, 4111 SAN FERNANDO RD
GLENDALE, CAL, 91204 .... 213 245-5111
P ROBERTS, EMP 30, ENG 2, $100-$250M

PERMONITE MFG CO, 910 W JACKSON BLVD
CHICAGO
ILL, 60607, TWX 312-431-1173 .... 312 738-2220
A KAYE, EMP 325, ENG 7, $2,500-$5,000M
Ala N B S, Inc, 902 Bob Wallace Ave, S W
Huntsville 536-7786
Cal R L Reid & Co, 248 W Pamela Rd
Arcadia 681-0711
Colo Walter-Powers Assoc, 880 Bonnie Brae Blvd
Denver 777-5585
Fla NBS Inc, 2813 Primrose Ct, Orlando 423-4856
Fla N B S, Inc, 4150 SW 23rd St
Ft Lauderdale 584-0650
Ga NBS Inc, 893 Church St NW, Marietta 422-6067
Ill Electro-Mech Sales Co, 5306 W Lawrence Ave
Chicago 777-0554
Ind Industrial Components Co, 2701 W 16th St
Indpls 639-0205
Minn R G Ragon Inc, 1136 W Larpenteur Ave
St Paul 488-6634
Mo F R Hearn Co, 9131 Watson Ind Park
St Louis 961-6257
NJ Mac R Perlman, 4 Bates Way
Westfield 232-2332
NY Gislason Sales Inc, 617 Case Bldg
Rochester 454-4741
Ohio J A York, 3600 Honeybrook Ave
Dayton 274-4950
Utah Walter-Powers Assoc, 2422 Camino Way
Salt Lake City 277-5174
Can Anbak Sales, Can Ltd, 2180 Blvd Perrot
Ile Perrot Sud, Que 453-6375
Can Anbak Sales, Can Ltd, 3208 Lenworth Dr
Cooksville, Ont 625-1061

PERMUTIT CO, E 49 MIDLAND AVE, PARAMUS
N J, 07652 .... 201 262-8900
E CONNELLEY, OVER $10,000M

PERRY AMPLIFIER, 138 FULLER ST, BROOKLINE
MASS, 02146 .... 617 734-0844
G GESKOS, EMP 42, ENG 7, $100-$250M

PERRY-BRIGGS CO, 4135 W 150TH ST, CLEVELAND
OHIO, 44135 .... 216 941-8500
G WEBER, EMP 40, ENG 3, $500-$1,000M
Cal Koessler Sales Co, 818 N Fairfax Ave
Los Angeles 213 653-1605
Cal Featherstone Sales Co, 1080 N Fairoaks Ave
Sunnyvale 408 734-2663
Colo Tandy's Electronic Sales, 1664 S Monroe St
Denver 303 756-1909
Fla Sproch Sales Inc, 3520 W Broward Blvd
Ft Lauderdale 305 587-3792
Ga Guyer & Assoc, 110 Robin Rd
Marietta 404 428-4261
Ill Loren F Green & Assoc, 5218 W Diversey Ave
Chicago 312 286-6824
Ill J D Boswell & Assoc, 700 N 20th St
East St Louis 618 274-0560
Mass Piper Assoc, 10 Haven St, Dover 617 449-1144
Minn Northland Assoc, 1012 19th Ave S
Moorhead 701 232-7450
NY Gilbert E Miller Assoc, 47 Birchwood Park Dr
Jericho 212 586-4780
NY W J Gallagher, Wren Ct
Old Brookville 212 679-8588
Ohio Schroeder Sales Co, 2084 Noble Rd
Cleveland 216 268-3636
Pa John Mustico Co, 206 Bewley Rd
Havertown 215 446-1961
Tex Miller & Assoc, 1450 Preston Forest Sq
Dallas 214 239-3789
Wash Northwestern Agencies, 4130 1st Ave S
Seattle 206 623-8882
Can Electro Tec Marketers, Ltd, 1624 W 3rd Ave
Vancouver 9, B C 604 736-6377
Can R C Kahnert Sales Ltd, 359 Enford Rd
Richmond Hill, Ont 416 884-8185
For Minthorne Intl, 64-14 Woodside Ave
Woodside N Y 516 899-8888

PERVEL INDUSTRIES, INC, PLAINFIELD
CONN, 06374 .... 203 564-2741
T LANCASTER, EMP 800, ENG 20, OVER $10,000M

PESCHEL INSTRUMENTS INC
CAPE CORAL IND PK, CLUB DR, CAPE CORAL
FLA, 33904 .... 813 LI 2-3164
F PESCHEL, EMP 10, ENG 2, $100-$250M
Ohio Steve Vereb & Assoc, 4619 E 93rd St
Cleveland 271-2066
Can Ahear & Soper Ltd, 844 Caledonia Rd
Toronto, Ont .... RU 9-4325

PETER PARTITION CORP, 124 BOERUM PL, BROOKLYN
N Y, 11201 .... 212 UL 8-9330
L RAUBENHEIMER, EMP 90, $1,000-$2,500M

PETERSEN RADIO CO INC, 2800 W BROADWAY
COUNCIL BLUFFS, IOWA, 51501 .... 712 323-7539
W PETERSEN, JR, EMP 70, ENG 3, $500-$1,000M
ADV PG 451
Alas W P Watson, 307 1/2 Glacier Ave W
Fairbanks 907 456-6919
Cal C H Mitchell, 18531 Ventura Blvd
Tarzana 213 881-2626
Colo C McLoud, 2151 Grape St, Denver ... 303 756-1589
Ga R Chatham, 2264 Melinda Dr NE
Atlanta 404 633-3561
Ill J Threlkeld, 1120 W 94th St
Chicago 312 238-4771
Mass T Coakley, 1424 Highland Ave
Needham 617 444-5470
Minn N J Laub, 3749 W Broadway
Minneapolis .... 612 JU 8-4663
Mo W Kenton, 17th & Main
Kansas City 816 471-1355
NJ T Lydon, Box 64, Rutherford 201 939-6290
Ohio Thos Shelby, 17 South Walnut St
New Bremen 419 629-6511
Tex M F Klicpera, Box 2668, Houston 713 747-3868
Wash R Squibb, 655 NE Northlake Pl
Seattle .... 206 ME 2-2450
For G Saderman, 431 Greenwich St, New York, N Y
BC Reptronic Sales Ltd, 1063 Howe St
Vancouver 1 .... 604 685-4436

PETROLEUM ELECTRONICS MFG INC
3311 CHARLES PAGE BLVD, TULSA
OKLA, 74127 .... 918 LU 7-0174
T WILKINSON, EMP 15, ENG 2, $250-$500M

PFAFF & KENDALL, 84 FOUNDRY ST, NEWARK
N J, 07105, TWX 138-474 .... 201 MA 3-2215
S COLE, EMP 185, ENG 9, $5,000-$10,000M

PFIZER MINERALS, PIGMENTS & METALS DIV, 235 E 42ND ST
NEW YORK, NY, 10017, TWX 212 867-7434 .... 212 LR 3-2816
R LINNETT, EMP 38000, OVER $10,000M
ADV PG 10
Cal Pfizer Minerals, Pigments & Metals Div
4650 Shellmound St, Emeryville 652-4806
Cal Pfizer Minerals, Pigments & Metals Div
2800 Ayers Ave, Vernon 268-8331
Ga Pfizer Minerals, Pigments & Metals Div
4360 NE Expwy, Chamblee 457-8231
Ill Pfizer Minerals, Pigments & Metals Div
6460 W Cortland St, Chicago 889-2971
Ill Pfizer Minerals, Pigments & Metals Div
2001 Lynch Ave, E St Louis 271-4600
La Pfizer Minerals, Pigments & Metals Div
3809 Napoli Dr, Metairie 887-1274
Mass Pfizer Minerals, Pigments & Metals Div
131 State St, Boston 523-0255
Minn Pfizer Minerals, Pigments & Metals Div
2210 Territorial Rd, St Paul 646-1339
Mo Pfizer Minerals, Pigments & Metals Div
406 W 34th St, Kansas City 561-2676
NJ Pfizer Minerals, Pigments & Metals Div
230 Brighton Ave, Clifton 773-7666
Ohio Pfizer Minerals, Pigments & Metals Div
7650 Chippawa Rd, Brecksville 526-1293
Ohio Pfizer Minerals, Pigments & Metals Div
3914 Miami Rd, Cincinnati 271-4280
Ore Pfizer Minerals, Pigments & Metals Div
3333 NW Industrial Ave, Portland 222-5226
Tex Pfizer Minerals, Pigments & Metals Div
7600 Ambassador Row, Dallas 631-8181
Tex Pfizer Minerals, Pigments & Metals Div
11520 Burdine St, Houston 729-1646
Wis Pfizer Minerals, Pigment & Metals Div
4215 N Port Washington Rd
Milwaukee 332-9120

PHALO CORP, 530 BOSTON TPKE, SHREWSBURY
MASS, 01546 .... 617 844-4021
A AVERILL, EMP 575, ENG 8
Ariz Transitron Elctn Sales Corp, 77 Third Ave W
Scottsdale 945-0771
Cal Transitron Elctn Sales Corp, 1227 Temple St
Los Angeles .... MA 9-2551
Cal Transitron Elctn Sales Corp, 3921 E Bay Shore
Palo Alto 961-1954
Fla Transitron Elctn Sales Corp, 22 W Lake Beauty Dr
Orlando 838-3154
Ill Transitron Elctn Sales Corp, 6641 W North Ave
Oak Park .... VI 8-5556
Kan Transitron Elctn Sales Corp, 2210 W 75th St
Prairie Village .... EN 2-6640
Md Transitron Elctn Sales Corp, 1111 Park Ave
Baltimore .... CH 3-3220
Mass Transitron Elctn Sales Corp, 168 Albion St
Wakefield 245-4500
Mich Transitron Elctn Sales Corp, 15800 McNichols Rd
Detroit 838-5884
NJ Transitron Elctn Sales Corp, Park View Apts
Collingswood .... UL 4-7082
NY Transitron Elctn Sales Corp, 22 Boston Post Rd
Larchmont .... TE 4-8000
NC Murphy & Cota, 1106 Burke St
Winston-Salem 723-1001
Ohio Transitron Elctn Sales Corp, 379 W 1st St
Dayton 224-9651
Ohio J C Hofstetter Co, 742 Kenbridge Dr
Cleveland 449-0944
Pa L D Lowery Inc, 2801 W Chester Pike
Broomall 356-5300
Tex Transitron Elctn Sales Corp
3300 W Mockingbird La, Dallas .... FL 7-9448
Can Transitron Elctn Sales Corp, 1229 The Queensway
Toronto, Ont .... CL 9-5461

PHAOSTRON INSTRUMENT & ELECTRONIC CO
151 PASADENA AVE, SOUTH PASADENA
CAL, 91030, TWX 910-312-4134 .... 213 255-1471
P FAULKNER, EMP 301, ENG 7, $2,500-$5,000M
Ariz Southwest Engrg Co, 8341 N 7th St
Phoenix 944-1521
Cal Jack Logan & Assoc, 801 Mahler Rd
Burlingame 697-6100
Cal Nelgo Assoc, 10174 Rush St
South Elmonte 443-3122

Fla Tech-Rep Assoc, Box 8218
Madeira Beach 391-0008
Ill Phillips & Johnston Inc, 799 Roosevelt Rd
Glen Ellyn 469-8150
Kan R W Farris Co, 1715 Baltimore Ave
Kansas City, Mo 421-1751
Mass Hathaway Electronic Inc, 7-11 Mystic St
Arlington 646-1380
Mich Don Poulin Sales Co, 17222 E Warren Ave
Detroit 886-4990
Mo Dipro Inc, 7811 Carondelet, St Louis 726-4770
NY Wilson H Zimmerman Co, 112 Dewitt St
Syracuse 474-4889
NY S-J Sales Assoc Inc, 148-05 Archer Ave
Jamaica 291-3232
Pa Jerry Bresson Assoc, 107 Forrest Ave
Narberth 839-6770
Tex Parvin Sales Co, Addison Rd, Addison 363-8596
Wash N R Schultz Co, 305 112th Ave NE
Bellevue 454-5224

P & H ELECTRONICS, 426 COLUMBIA ST, LAFAYETTE
IND, 47901 .... 317 742-0361
E HOOVER, EMP 30, ENG 2, $250-$500M

PHELON CO INC, R E, 70 MAPLE ST
EAST LONGMEADOW, MASS, 01028.... 413 525-6471
R FINN, EMP 180, ENG 12, $5,000-$10,000M

PHELPS DODGE COPPER PRODUCTS CORP
300 PARK AVE, NEW YORK
N Y, 10022 .... 212 PL 1-3200
C DIMITY, EMP 14894, OVER $10,000M
Ala Phelps Dodge, Box 38, Florence
Ala Phelps Dodge, Box 31089, Birmingham
Ala Phelps Dodge, Box 1229, Anniston
Ariz Phelps Dodge, 3800 N Central Ave, Phoenix
Cal Phelps Dodge, 30 Ingold Rd, Burlingame
Cal Phelps Dodge, Box 6936, Los Angeles
Colo Phelps Dodge, 222 Milwaukee St, Denver
Conn Phelps Dodge, Box 187, North Haven
DC Phelps Dodge, 529 14th St, NW, Washington
Fla Phelps Dodge, Box 3009, Tampa
Ga Phelps Dodge, Box 1017, Covington
Ga Phelps Dodge, 3379 Peachtree Rd NE, Atlanta
Haw Phelps Dodge, 179 Sand Island Rd, Honolulu
Ill Phelps Dodge, Box 300, Du Quoin
Ill Phelps Dodge, 1940 N Janice Ave, Melrose Park
Ind Phelps Dodge, Box 600, Fort Wayne
Ind Phelps Dodge, Box 450, Fort Wayne
Iowa Phelps Dodge, 305 Merle Hay Tower, Des Moines
Ky Phelps Dodge, Box 768, Hopkinsville
La Phelps Dodge, 1011 Carondelet Bldg, New Orleans
Mass Phelps Dodge, 175 Albany St, Cambridge
Mich Phelps Dodge, 24500 Southfield Rd, Southfield
Minn Phelps Dodge, 4930 W 77th St, Minneapolis
Mo Phelps Dodge, 230 S Bemiston Ave, Clayton
Mo Phelps Dodge, 1222 Ozark St, N Kansas City
NJ Phelps Dodge, Freehold Rd, Rte 79, Marlboro
NJ Phelps Dodge, 530 South Ave E, Cranford
NY Phelps dDodge, 3380 Monroe Ave, Rochester
NY Phelps Dodge, Box 448, Yonkers
NC Phelps Dodge, Box 1802, Charlotte
Ohio Phelps Dodge, 50 Public Sq, Cleveland
Ohio Phelps Dodge, 49 E 4th St, Cincinnati
Ore Pehlps Dodge, 2950 N W Yeon Ave, Portland
Pa Phelps Dodge, Oliver Bldg, Pittsburgh
Pa Phelps Dodge, Box 6843, Philadelphia
Tenn Phelps Dodge, Box 18499, Holiday City Sta
Memphis
Tenn Phelps Dodge, Box D, Columbia
Tex Phelps Dodge, Box 22342, Houston
Tex Phelps Dodge, 3113 McKinney Ave, Dallas
Utah Phelps Dodge, 1935 S Main St, Salt Lake City
Va Phelps Dodge, Box 8685, Richmond
Wash Phelps Dodge, 808 106th Ave NE, Bellevue
Wis Phelps Dodge, 2421 N Mayfair Rd, Wauwatosa

PHELPS DODGE ELECTRONIC PRODUCTS CORP
60 DODGE AVE, NORTH HAVEN
CONN, 06473 .... 203 239-3311
K CLARK, EMP 80, ENG 30, $5,000-$10,000M
Alas Yukon Radio Supply Inc, Box 406
Anchorage 277-1497
Ariz Hytronic Measurements, Inc, 1017 N 3rd St
Phoenix 253-7452
Cal Jack Logan & Assoc, 801 Mahler Rd
Burlingame 697-6100
Cal Wright Eng, 180 E Calif Blvd, Pasadena .. 681-2651
Cal Woodworth Co, Box 2165
Redwood City 415 365-0252
Cal M W Reidel Co, 2215 W Valley Blvd
Alhambra 213 283-7694
Colo Hytronic Measurements, 4940 E 39th St
Denver 388-4081
DC P F Bell, 1028 Conn Ave NW
Washington 296-3355
Fla Willet-Burnside Co, 1260 A S Highland
Clearwater 446-0075
Fla W A Brown & Assoc, 222 Weber Ave
Orlando 305 425-5505
Ill Claude Booth & Assoc, 1921 N Harlem Ave
Chicago 237-7910
Iowa Forristal-Young Sales Co, 3400 Indian Rd SE
Cedar Rapids 364-0408
Mass Lancer Assoc, 16 Adams St, Burlington ... 862-7782
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield 357-3700
Mo Forristal-Young Sales Co, 7110 Oakland Ave
St Louis 645-2360
Mo Forristal-Young Sales Co, 5500 Buena Vista Rd
Mission 432-1420
NJ F F Sylvester Assoc, 260 Northern Blvd
Springfield 376-3324

NM Hytronic Measurements, 204 San Pablo SE
Albuquerque 268-3941
NY Martin P Andrews Inc, 319 Mott Rd
Fayetteville 637-3144
NY Reed Electronics, 2815 Monroe Ave
Rochester 716 473-2767
NC Missiletronics Inc, 1321 E Morehead St
Charlotte 377-1922
NC W A Brown & Assoc, 1108 Burke St
Winston-Salem 919 725-5384
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland 442-8080
Ohio S Sterling Co, 2673 Culver Ave, Dayton... 289-7573
Pa P F Bell, Box 826, Devon 688-5011
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh 884-5515
Tex Hillman Enterprises, 3505 Turtle Creek Blvd
Dallas 521-9907
Utah Hytronic Measurements Inc, 2022 S Main
Salt Lake City 466-4924
Wash Thorson Co, 1767 15th Ave S, Seattle 325-5000

PHELPS DODGE ELECTRONIC PRODS CORP, COMMUN
PRODS DIV, MARLBORO, N J, 07746

PHELPS DODGE MAGNET WIRE CORP, BOX 600
FORT WAYNE, IND, 46801 .... 219 743-0511
W AINSWORTH

PHELPS MFG DIV, HELI-COIL CORP
SHELTER ROCK LN, DANBURY
CONN, 06813 .... 203 743-7651
H HALL, EMP 60, ENG 20, $250-$500M
Cal B B Morgan, Jr, 664 Monterey Pass Rd
Monterey Park 289-5336
Conn J Spiegelhalter, 8 Farnum Hill, Bethel 847-4718
Kan J Reichmeier, 3509 W 92nd Pl
Leawood 381-2799
Md J L Nickerson, 128 Brandon Rd
Baltimore 825-1527
Mass J B Cumming, Jr, Box 493, Billerica 453-4837
Mass J O'Hara, 64 Humbert St, Springfield 733-4990
NY W P Lockwood, Box 41, Albertson 676-2273
NY J G Paluseo, 33 Nelson St, Cazenovia 655-3915
Ohio E J Crotty, Jr, 979 Parkside Pl
Cincinnati 531-5516
Ohio R P Magersupp, Box 384
Chagrin Falls .... CH 7-6631
Pa T C Pailas, Box 131, Fort Washington .. MO 4-5405
Pa R Rodgers, 434 Sangree Rd, Pittsburgh ... 471-0605
Pa S G Saba, 276 Wyoming St
Wilkes-Barre 847-4718
Can W Moran, 6795 Jeanne Mance St
Montreal, Que 272-8291
For Refac, 100 E 42nd St, New York, N Y

PHILADELPHIA HANDLE CO INC, 1643 HADDON AVE
CAMDEN, N J, 08103 .... 609 966-0980
G BUSH
Ill Richard & Weiss Inc, 800 N Clark St
Chicago 944-7788
NY Samuel Garfinkel, New York 925-0139

PHILADELPHIA INSULATED WIRE CO
333 NEW ALBANY RD, MOORESTOWN
N J, 08057, TWX 710-897-0810 .... 609 235-6700
L DECKER, EMP 165, ENG 5, $5,000-$10,000M
Cal K W Lockwood Co, 15450 Cabrito Rd
Van Nuys 863-7766
Conn R S Pettigrew & Co Inc, 10 N Main St
West Hartford 233-8533
Ill McAllister Eng Sales Assoc, 6510 N Clark St
Chicago .... MA 6-0666
Kan Midland Eng & Sales Assoc, 5460 Buena Vista Dr
Mission .... CO 2-6565
Mass R S Pettigrew & Co Inc, 950 Watertown St
West Newton 969-5770
Minn B E Swenson, 7601 Wayzata Blvd
Minneapolis 544-7789
NY Fowler Beach Corp, 3700 East Ave
Rochester .... LU 6-0468
NY R A Colucci Co, Box 447, Mineola .... PI 6-0397
NC F G Speidel, 628 Macon Pl, Raleigh 787-9148
Ohio John O Olsen, 16201 Shaker Blvd
Cleveland 216 752-5444
Tex Allied Components, Inc, 10468 E Northwest Hwy
Dallas .... 214 DI 8-6660
Tex Allied Components, Inc, 4234 Richmond Ave
Houston 713 664-4203
Wash Consolidated Elec Distributors, 6141 4th Ave S
Seattle 206 762-4880

PHILADELPHIA QUARTZ CO
1146K PUBLIC LEDGER BLDG, PHILADELPHIA
PA, 19106 .... 215 MA 7-7200
J FORREST
Ill Phila Quartz Co, 205 W Wacker Dr
Chicago .... ST 2-7734

PHILAMON LABORATORIES INC, 90 HOPPER ST
WESTBURY
N Y, 11590, TWX 510-222-4749 .... 516 333-1700
EMP 60, ENG 5
Cal Fetty-Schoenduve Inc, 7407 Melrose Ave
Los Angeles 651-4050
Minn Countryman Wagner & Behnen Inc
1955 University Ave, St Paul 645-9151
Wash Seatronics Inc, 5931 4th Ave S, Seattle... 767-4330

PHILBRICK/NEXUS RESEARCH A TELEDYNE CO
ALLIED DRIVE AT RTE 128, DEDHAM
MASS, 02026, TWX 617 326-5754 .... 617 329-1600
R HANSON, EMP 300, $5,000-$10,000M
ADV PG 34, 35
Ala W A Brown & Assoc Inc, 1314 Buford St N W
Huntsville 536-8393
Alas ARVA Inc, Box 759, Anchorage 272-5231
Ariz Hytronic Measurements Inc, 1017 N 3rd St No 9
Phoenix 602 253-6104
Cal Ward/Davis Assoc, 770 S Arroyo Pkwy
Pasadena 213 684-2840
Cal Ward/Davis Assoc, 3442 Hancock St
San Diego 714 297-4619
Cal Ward/Davis Assoc, 3921 East Bayshore
Palo Alto 415 968-7116
Colo Hytronic Measurments Inc, 1295 S Bannock St
Denver 303 388-4081
Conn Instrument Dynamics Inc, 345 N Main St
West Hartford 233-5503
Fla W A Brown & Assoc Inc, 3039 NE 32nd Ave
Ft Lauderdale 564-8000
Fla W A Brown & Assoc Inc, 222 Weber Ave
Orlando 425-5505
Fla W A Brown & Assoc, 212 Bradley Dr NE
Fort Walton 243-6424
Ga W A Brown & Assoc Inc, 1590 Cooledge Rd
Tucker 939-1674
Ill Torkelson Assoc, 540 W Frontage Rd
Northfield 312 446-8450
Ind Torkelson Assoc, 3512 Rockville Rd
Indianapolis 317 241-0725
Kan Palatine Eng Sales Inc, 5514 Johnson Dr
Mission 262-5643
Mass Instrument Dynamics Inc, Wakefield Ind Park
Wakefield 245-5100
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield 313 357-3700
Minn Torkelson Assoc, 4820 W 77th St
Minneapolis 612 920-1046
Mo Palatine Eng Sales Inc, 2050 Woodson Rd
St Louis 314 426-7055
NM Hytronic Measurements Inc, 204 San Pablo SE
Albuquerque 268-3941
NY Crane & Egert Corp, 146 Meacham Ave
Elmont 488-2100
NY KLM Assoc, 9 Hollywood Dr
Whitesboro 315 736-2450
NY KLM Assoc, 8 Bear Hill Dr, Palmyra 597-9776
NY KLM Assoc, 201 S Main St
N Syracuse 458-6214
NC W A Brown & Assoc Inc, 1108 Burke St
Winston-Salem 725-5384
Ohio S Sterling Co, 2673 Culver Ave
Dayton 513 298-7573
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland 216 442-8080
Okla Applied Science Assoc, 7966 E 41st St
Tulsa 627-6199
Ore ARVA Inc, 2035 SW 58th Ave, Portland .. 292-8762
Pa Crane & Egert Corp, 107 W Ridge Pike
Conshohocken 277-0559
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh 412 884-5515
Tex Applied Science Assoc, 3707 Rawlins St
Dallas 526-8316
Tex Applied Science Assoc, 6218 Westheimer
Houston 781-1441
Utah Hytronic Measurements Inc, 2022 S Main St
Salt Lake City 466-4924
Va W A Brown & Assoc Inc, 325 1st St
Alexandria 836-1800
Va W A Brown & Assoc, 82 Huxley Pl
Newport News 245-8272
Wash ARVA Inc, 1320 Prospect St
Seattle 206 622-0177
Can R-O-R Assoc, 1470 Don Mills Rd
Don Mills Ont 416 444-4403
Can R-O-R Assoc, 3330 Cavendish Blvd
Montreal Que 514 482-8430
Can R-O-R Assoc, 805 5th St SW
Calgary Alb 265-6470
Can R-O-R Assoc, 1320 Carling Ave
Ottawa Ont 722-6531
For Kontron Ges mbH, Mariahilferstr 13/8
Vienna 56 1193
For SIREX, San Antonio 427, Santiago 395752
For Industrial Elctns, 89-2 La 75 Nanking E Rd 4th Sec
Taipei Tai 74257
Den SC MetricA/S, Naerum Hovedgade 121
2850 Daerum 01 80 4200
Fr Tranchant Electronique Soc Anonyme
19 Rue Mme de Sanzillon
Clichy Seine 270-22-55
Ger Kontron GmbH & Co KG, Lerchenstr 8
8 Munchen-Feldmoching 35 50 70
GB Philbrick/Nexus Research, 81A North St
Chichester Sussex .... Chi 8-3671
Holl C N Rood n v, Box 4542, Rijswijk (ZH) ... 98 51 53
Ital Soc An Na SRL, Via Arimondi 8, Milan ... 32-27-40
Jap Takachiho Koheki Co Ltd
6 1-Chome Kanda-Surugadai
Chiyoda-Ku Tokyo 294-1951
Nor Scancopter AS, Drammensveien 40
Oslo 2 448706
SAfr A C Gowlett (Pty) Ltd, Box 1257
Johannesburg 724-9341
Swed Scandia-Metric AB, Sodra Langgatan 22
Fack/Solna 3 .... 08/82 0410
Swit Kontron Electronic Ltd, Hardstr 235
8031 Zurich 051-44-56-90
Arg SIREX, Liberstad 836, Buenos Aires 42-1927
Belg C N Rood s a, 30 Rue Leon Frederic
Brussels 35 54 79
Ind Electronic Enterprises, New Charni Rd
Bombay 353069-375376
Isrl Eastronics Ltd, 75 Haifa Rd, Tel Aviv 446060

Mex G M Fajardo, Altamirano 114-304-A Col San Rafael Mexico 4 DF ... 47-82-75
NZ Sample Elctyns (NZ) Ltd, 8 Matipo St Onehunga Auckland ... 667-356
Spn Hispano Electronica SA, Comandante Zorita No 8 Madrid 20 ... 2334664
Fin Findip AB, Mannerhaimintie 29C Helsinki 25 ... 90-41 9358
Aust Sample Electronics Pty Ltd, 9-11 Cremorne St Richmond, Vic ... 42-4757

PHILCO-FORD CORP, 815 CONNECTICUT AVE NW WASHINGTON
D C, 20006, TWX 202-965-0903 ... 202 298-7800
E CANFIELD, EMP 45,000, ENG 18,000, OVER $10,000M

Ala Philco-Ford Corp, 3322 Memorial Pkwy SW Huntsville ... 881-1515
Ala BCS Assoc Inc, 2317 Bob Wallace Ave SW Huntsville ... 534-1648
Alas Arva, Inc, Box 171, Anchorage ... 272-5231
Ariz T Louis Snitzer Co, 15 N 40th Pl Phoenix ... 273-1673
Cal Philco-Ford Corp, 808 E Mill St San Bernardino ... TU 9-4281
Cal Philco-Ford Corp, 999 N Sepulveda Blvd El Segundo ... 772-3544
Cal Crane Assoc, 15419 Keswick St Van Nuys ... ST 0-7972
Cal Jay Stone & Assoc, 140 Main St, Los Altos
Cal T Louis Snitzer Co, 5354 W Pico Blvd Los Angeles ... 938-2073
Cal T Louis Snitzer Co, 1020 Corp Way Palo Alto ... 968-8304
Colo Philco-Ford Corp, Medalion Bldg Colo Springs ... 632-3559
Colo Straube Assoc, Box 1649, Boulder ... 443-8600
Colo Williams Assoc, 4971 Jackson St Denver ... 388-4391
Conn Kitchen & Kutchin, Inc, 22 Broadway North Haven ... 239-0212
Conn J & J Assoc, 953 Dixwell Ave, Hamden
Conn Technical Enterprises, 357 E Center St Manchester ... 643-4535
DC Philco-Ford Corp, 815 Connecticut Ave NW Washington ... 298-7800
Fla Philco-Ford Corp, 1325 N Atlantic Ave Cocoa Beach ... 783-1380
Fla Philco-Ford Corp, 1215 Drew St Clearwater ... 446-0124
Fla BCS Assoc Inc, 1009 E Colonial Dr Orlando ... 425-2764
Haw Philco-Ford Corp, 1210 Auahi St Honolulu ... 567-022
Ill Lightner Assoc, 6322 N Milwaukee Ave Chicago ... SP 4-1500
Ill Scientific Sales Co, 7132 N Harlem Ave Chicago ... 775-7595
Ill J G Twist Co, 5222 W Diversey Ave Chicago ... SP 7-2250
Ind R O Whitesell & Assoc, Central Bldg Ft Wayne ... 743-4411
Iowa Philco-Ford Corp, 2435 Kimberly Rd Bettendorf ... 355-5313
Iowa Technical Enterprises, 850 Lindale Dr Marion ... 377-4555
Ky R O Whitesell & Assoc, 3620 Lexington Rd Louisville ... 893-7303
Md C E Snow Co, 3720 Farragut St Kensington ... 949-1010
Md Bartlett Assoc, Inc, 7979 Old Georgetown Rd Bethesda ... 656-3061
Mass J & J Assoc, 241 Crescent St, Waltham ... 899-0160
Mass Philco-Ford Corp, 2nd Ave NW Ind Park Burlington ... 272-1600
Mass Technical Enterprises, 195 West St Waltham ... 891-5300
Mass Kitchen & Kutchin, Inc, 17 Waltham St Lexington ... VO 2-8230
Mich R O Whitesell & Assoc, 303 Fidelity Bldg Benton Harbor ... 927-2041
Mich R O Whitesell & Assoc, 16801 Wyoming Detroit ... 862-2225
Minn Technical Enterprises, 6121 Excelsior Blvd Minneapolis ... 929-6115
Mo Ammon & Champion Co, Box 2424, Overland Sta St Louis
Mo Technical Enterprises, 2050 Woodson Rd St Louis ... 427-3600
Mo Technical Enterprises, 7546 Troost Kansas City ... JA 3-7865
NJ Philco-Ford Corp, 103 E Front St Red Bank ... 747-0016
NJ J N Barrett Assoc, 812 Federal St Camden ... 365-2680
NJ Graydon-Sherman Inc, 33 Morris St Morristown ... JE 9-2460
NM Williams Assoc, 3221 Silver Ave SE Albuquerque ... 255-1638
NY Philco-Ford Corp, 1333 E Dominick St Rome ... FF 6-8200
NY C Floring & H Murray Inc, 6585 Kinne Rd Syracuse ... 446-5555
NY Fred F Bartlett Co, 470 Mamaroneck Ave White Plains ... 949-6476
NY J D Ryerson Assoc, Box 1400, Syracuse
NY Philco-Ford Corp, 609 Saw Mill River Rd Ardsley ... 693-3700
NY Graydon-Sherman Inc, Davis Bldg Fayetteville ... 637-9611
NC C E Snow Co, 225 Reynolds Rd, Raleigh
NC BCS Assoc, 1039 E Wendover Ave Greensboro ... 273-1918
Ohio Philco-Ford Corp, Talbott Tower, Dayton ... 223-7215
Ohio Ashby Assoc, 333 W 1st St, Dayton ... 224-0561
Ohio R D Whitesell & Assoc, 21139 Loraine Ave Cleveland ... 333-2585
Ohio R O Whitesell & Assoc, 1172 W Galbraith Cincinnati ... 521-2585
Ohio R O Whitesell & Assoc, 4133 S Dixie Ave Dayton ... 298-9546
Okla Ammon & Champion, Box 4682, Tulsa
Okla Philco-Ford Corp, 6401 Tinker Diagonal Okla City ... PE 2-6877
Ore Arva, Inc, 2035 SW 58th Ave, Portland ... 222-7337
Pa C E Snow Co, 613 W Cheltenham Ave Phila ... CA 4-2626
Pa Fred F Bartlett Co, 130 W Lancaster Ave Wayne ... 688-7325
Pa Philco-Ford Corp, Washington La Jenkintown ... 885-0430
Tex Ammon & Champion Co, 2714 Bomar St Dallas ... FL 7-8441
Tex Mitchell Speairs Co, 4944 James Ave Ft Worth ... 923-4657
Tex Mitchell Speairs Co, 6001 Gulf Frwy Houston ... 923-7616
Tex Dunbar Assoc, 417 Meadows Bldg Dallas ... 363-2536
Utah Williams Assoc, 2461 S Main St Salt Lake City ... 466-8709
Wash Philco-Ford Corp, 700 108th St NE Bellevue ... 454-5061
Wash Arva Inc, 1320 Prospect St, Seattle ... 622-0177
Can Philco-Ford Corp, 900 Don Mills Rd Don Mills Ont ... HI 4-2541
For Rualdo LDA Rua de S Jose Largo da Anunciada 19 1, Lisboa 2
For Intl Engineering Service, Etschnerweg 48 Vienna 14 Aust
Den Intelec Aktieselskab, Holbergsgade 14 Copenhagen K
Fr Tranchant Electronique 19-21 Rue Madame de Sanzillion, Clichy Seine
Ger Philco-Ford Corp, Barenstr 6 62 Wiesbaden ... 37-20-58
Ger Nucletron Vertriebs-GmbH, Gartnerstr 60 8 Munchen 54
GB Wessex Electronics Ltd, Baldwin St Bristol ... BRI 26952
Holl Air-Parts Intl N V, 149 Haagweg, Ryswyk ... 989392
Ital G G Gorgatti, Via Borromei 5, Milano
Jap Seki & Co Ltd 9 2-Chome Nihonbashi Koamicho Chuo-Ku Tokyo ... 669 4121
Nor Hugo Riso A/S, Box 8 Taasen, Oslo ... 23 25 80
SAfr Specialized Electronics, Box 15552 Siemend Johannesburg ... 724-5396
Swed Amerikanska Teleprodukter, Nybohovsgrand 56 Stockholm ... 18 29 30
Swit Kontron A G, Hardstr 235, Zurich ... 44 56 90
Ind Bali Intl Agencies, Box 1676, Bombay 1-BR
Isrl Racom Electronics Co Ltd, 74 Nordau Blvd Tel Aviv ... 443244
Mex Carlos Brena S A, Apartado 29-320, Mexico 1 D F
Spn Ataio Ingenieros, Enrique Larreta 12, Madrid-16
Fin Teratron Co, Puistokaari 12 Parksvangen Helsinki 20 Helsingfors
Aust Sample Electronics (Vic) Pty Ltd, 9-11 Cremorne St Richmond ... 42 4757

PHILIPS ELECTRONICS INDUSTRIES LTD
116 VANDERHOOF AVE, TORONTO 17
ONT ... 416 425-5161
E BATLER, EMP 1600, ENG 30, OVER $10,000M

PHILIPS ELECTRONIC INSTRUMENTS, ANAL INST
750 S FULTON AVE, MOUNT VERNON
N Y, 10550, TWX 710-562-0127 ... 914 664-4500
G DIENES, EMP 350, ENG 30, $5,000-$10,000M

Ariz V W & R Braun Div, 2930 W Osborn Rd Phoenix ... 602 254-6111
Cal Van Waters & Rogers Inc, Box 3200 Rincon Anx San Francisco ... 415 467-2600
Cal V W & R Braun Div, 1363 S Bonnie Pl Los Angeles ... 213 269-9311
Colo Technical Eqpt Corp, 917 Acoma St Denver ... 303 623-0258
Fla Phelps Elctns Instr, Box 187 North Miami ... 305 949-0086
Ga Philips Elctns Instr, 1664 Tully Cir NE Atlanta ... 404 633-0394
Haw V W & R B-K-H Div, Box 9697 Honolulu ... 871-361
Ill Philips Elctn Instrs, 7525 Long Ave Skokie ... 312 676-1714
La Philips Elctn Instr, 1821 Wooddale Ct Baton Rouge ... 504 927-4050
Mich Philips Electronic Instrs, 450 S Main St Ann Arbor ... 313 665-4455
Mo Philips Electronic Instruments, 11722 Studt Ave St Louis ... 314 432-5233
NM Technical Eqpt Corp, 4501 Palo Duro NE Albuquerque ... 505 344-5891
NY Philips Electronic Instrs, 1595 Elmwood Ave Rochester ... 716 244-4940
NY Philips Electronic Instruments, 10 Virginia Ave West Nyack ... 914 358-5150
Ohio Philips Electronic Instrs, 3130 Far Hills Ave Dayton ... 513 298-0234
Ohio Philips Electronic Instrs, 6500 Pearl Rd Cleveland ... 216 886-2131
Pa Philips Electronic Instrs, 1825 Grant Ave Philadelphia ... 215 673-0900
Tex Philips Electronic Instrs, 6400 W Park Dr Houston ... 713 782-4845
Tex Philips Elctn Instr, 3131 Stemmons Expwy Dallas ... 214 638-0514
Utah V W & R B-K-H Div, 650 W 8th S Salt Lake City ... 801 328-1112
Can Philips Electronic Eqpt Ltd, 116 Vanderhoof Ave Toronto, Ont ... 416 425-5161
Can Philips Electronic Eqpt Ltd, 1301 Richmond Rd Ottawa, Ont ... 613 828-6823
Can Philips Electronic Eqpt Ltd, 5800 Cote de Liesse Montreal ... 514 342-9180

PHILIPS ELECTRONIC INSTRUMENTS, TEST & MEASURING INST, 750 S FULTON AVE
MOUNT VERNON, NY, 10550 ... 914 664-4500
R RUDE, EMP 350, OVER $10,000M

Ala J L Highsmith & Co, 3322 S Memorial Pkwy Huntsville ... 205 881-3294
Ala Ridge Instr Co, 7220 Governors Dr W Huntsville ... 205 837-3211
Ariz V W & R Braun Div, 2930 W Osborn Rd Phoenix ... 602 254-6111
Ariz V T Rupp Co, 5901 W Highland Ave Phoenix ... 602 266-4233
Cal Van Waters & Rogers Inc, Box 3200 Rincon Anx San Francisco ... 415 467-2600
Cal V W & R Braun Div, 1363 S Bonnie Pl Los Angeles ... 213 269-9311
Cal V T Rupp Co, 1182 Los Altos Ave Los Altos ... 415 948-1483
Cal V T Rupp Co, 307 Parkman Ave Los Angeles ... 213 387-8224
Colo Technical Eqpt Corp, 917 Acoma St Denver ... 303 623-0258
Colo Bennewitz Assoc, 2801 E Colfax Ave Denver ... 303 399-1132
Conn Lico Inc, 69 Allen St, Wilson ... 203 525-5965
DC Burlingame Assoc, 1749 Rockville Pike Washington ... 301 427-1255
Fla J L Highsmith & Co, 2543 Industrial Blvd Orlando ... 305 293-5202
Fla Ridge Instr Co, 2227 Seely Dr Orlando ... 305 293-4711
Ga Philips Elctn Inst, 1644 Tully Circle, NE Atlanta ... 404 633-0394
Ga Ridge Instr Co, 3094 McCully Dr NE Atlanta ... 404 939-1554
Haw V W & R B-K-H Div, Box 9697 Honolulu ... 871-361
Ill Philips Elctn Inst, 7525 Long Ave Skokie ... 312 676-1714
Ill Bard Assoc, LaGrange Ind Pk La Grange ... 312 354-0660
Ill Philips Elctn Inst, 1821 Wooddale Ct Baton Rouge ... 504 927-4050
Ill Larpen Instr Inc, 799 Roosevelt Rd Glen Ellyn ... 312 858-1700
Ind Bard Assoc, 4002 Meadows Dr Indianapolis ... 317 849-2723
Kan Kemco Inc, 6115 E 13th St Wichita ... 316 MU 4-8224
Kan Radiatronics Inc, 8104 Newton St Overland Park ... 913 MI 9-6856
Md Philips Elctn Instrs, 11141 Georgia Ave Silver Spring ... 301 933-3002
Mass Burlingame Assoc, 7 Wellington St Waltham ... 617 TW 4-1955
Mass Lico Inc, 149 Middlesex Tpk Burlington ... 617 272-5550
Mich Philips Elctn Instrs, 450 S Main St Ann Arbor ... 313 665-4455
Minn Bard Assoc, 7710 Morgan Ave S Minneapolis ... 612 866-1700
Minn Pengelly X-Ray Co, 6002 Excelsior Blvd Minneapolis ... 612 929-7895
Mo Philips Elctn Inst, 11722 Studt Ave St Louis ... 314 432-5233
Mo Kemco Inc, 6050 Brown Rd St Louis ... 314 JA 4-0824
Mo Radiatronics Inc, 4910 Forest Park Blvd St Louis ... 314 FO 1-7143
NJ Philips Elctn Instrs, 1 Hewlet La Willingboro ... 609 877-2135
NM Technical Eqpt Corp, 4501 Palo Duro NE Albuquerque ... 505 344-5891
NM Bennewitz Assoc, 9720 Candelaria NE Albuquerque ... 505 299-8651
NY Philips Elctn Inst, 1595 Elmwood Ave Rochester ... 716 244-4940
NY Philips Elctn Inst, 10 Virginia Ave West Nyack ... 914 358-5150
NY Burlingame Assoc, 510 S Fulton Ave Mt Vernon ... 914 664-7530
NY Burlingame Assoc, E Molloy Rd Syracuse ... 315 454-2408
NY Buffalo X-Ray Co, 81-83 E Market St Buffalo ... 716 856-9200
NC J L Highsmith & Co, 3733 Monroe Rd Charlotte ... 704 333-7743
Ohio Philips Elctn Inst, 3130 Far Hills Ave Dayton ... 513 298-0234
Ohio Philips Elctn Inst, 6500 Pearl Rd Cleveland ... 216 886-2131
Ohio Ohio Instr Co, 505 Whitney Ave Worthington ... 855-0743
Ohio Bardel Inc, 13810 Enterprise Ave Cleveland ... 216 267-9234
Ore Scientific Supplies Co, 3950 NW Yeon Ave Portland ... 503 222-1721
Pa Philips Elctn Inst, 1825 Grant Ave Philadelphia ... 215 673-0900
Pa Burlingame Assoc, 222 Long La Upper Darby ... 215 JA 8-6080
Pa Mitchell X-Ray Prods Co, 2544 W Main St Norristown ... 215 279-4847
Pa Pitchford Scien Instr Corp, 1901 Painters Run Rd Pittsburgh ... 412 563-2626
Pa Pitchford Scien Instr Corp, 911 Scenery Dr Harrisburg ... 717 652-0511
Tenn Ridge Instr Co, 140 E Division Rd Oak Ridge ... 615 483-1311
Tex Philips Elctn Inst, 6400 W Park Dr Houston ... 713 782-4845
Tex Kemco Inc, Box 998, Irving ... 214 BL 3-6703

Tex Kemco Inc, 6440 Hillcroft Blvd
Houston .... 713 PR 1-1291
Tex W H Henken Indus Inc, 415 Lillard La
Arlington 817 275-4191
Utah V W & R B-K-H Div, 650 W 8th S
Salt Lake City 801 328-1112
Va J L Highsmith & Co, 5003 Brook Rd
Richmond 703 266-2060
Wash Scientific Supplies Co, 600 S Spokane St
Seattle 206 682-3460
Wash Scientific Supplies Co, N 809 Washington St
Spokane .... 509 WA 6-8868
Can Philips Elctn Eqpt Ltd, 116 Vanderhoof Ave
Toronto, Ont 416 425-5161
Can Philips Elctn Eqpt Ltd, 1301 Richmond Rd
Ottawa, Ont 613 828-6823
Can Philips Elctn Eqpt Ltd, 5800 Cote de Liesse
Montreal 514 342-9180
Can Philips Elctn Equip, 540 Marjorie St
Winnipeg, Man 204 774-1931
Can Philips Elctn Equip, 30 Airport Rd
Edmonton, Alb 403 454-0302
Can Philips Elctn Equip, 106 Delmont Ave
London, Ont 519 433-9711
For M F Franceschini Inc, 605 Condado Ave
Santurce, PR 809 723-4511
BC Philips Elctn Equip, 3605 Grandview Hwy
Vancouver 604 431-4411

PHILIPS ELMET CORP, LISBON RD, LEWISTON
ME, 04240 .... 207 784-5478
J HIX, EMP 200
Ariz Ferroxcube Corp of Amer, 4747 N 16th St
Phoenix 602 265-1792
Cal C E Holmes Co, 107-115 N Ave 64
Los Angeles .... CL 6-2255
Cal Wm J Purdy Agents, 312 Seventh St
San Francisco 415 863-3300
Mo Suor Sales Corp, 8815 Troost
Kansas City 816 444-2871
NY Philips Electronic Instr, 10 Virginia Ave
West Nyack 914 358-5150

PHILIPS' GLOEILAMPENFABRIEKEN, N V, EINDHOVEN
HOLLAND 60-000
N ROORDA, EMP 250000, OVER $10,000M

PHILIPS METALONICS, 888 S COLUMBUS AVE
MOUNT VERNON, N Y, 10550 .... 914 MO 44500
R KLEIN, OVER $10,000M

PHILLIPS MFG CO, 7334 N CLARK ST, CHICAGO
ILL, 60626 .... 312 338-6200
G VINES, EMP 50, ENG 10
NY J Dempsey R Balton, 248 E 33rd St
NY .... 212 MU 5-9137
Pa Phillips Mfg Co, 50 Freeport Rd
Pittsburgh .... 412 ST 1-0438

PHILLIPS PROCESS CO INC, 192 MILL ST, ROCHESTER
N Y, 14614 .... 716 232-1825
W GEIB, EMP 18

PHILMORE MFG CO INC, 130-01 JAMAICA AVE
RICHMOND HILL, N Y, 11418 .... 212 HI 15000
J GRANAT, EMP 50, ENG 4, $1,000-$2,500M
Cal Osborne-Bidwell Sales Co
225 E Redondo Beach Blvd, Gardena ... 682-3175
Cal W Levin, 1999 Pacific, San Francisco
Fla John F Thompson Co, 322 Riverside Dr
Ormond Beach
Ill G Granat, 5518 N Kedzie Ave
Chicago 312 539-4722
Ind Charles Scheffler Co, 1133 Navajo Trail
Indianapolis 253-6337
Md J C Merican, Box 128, Joppa
Mass Gerber Sales Co, 176 Second Ave, Waltham
Minn Northern States Sales, 1109 W 78 1/2 St
Minneapolis
Miss L R Massey Co, 304 E Jefferson St
Greenwood 453-3038
NM Lee Davis Co, 1415 Richmond Dr NE, Albuquerque
NY Jack Brown Assoc, 207 Rosedale Rd
Yonkers 266-2728
NY Harris & Aldrich Sales, 320 Northern Blvd
Great Neck 516 466-4122
NC DeWitt Austin Co, Box 17271, Charlotte
Pa Cooper-Daugherty Sales Co, 112 Oakwood Rd
Canonsburg 941-6473
Tex Antle-Smith Sales Co, 2721 Brookfield St
Dallas 357-7279
Wash Electronic Sales Co, 5600 Calif Ave, Seattle
Can Len Finkler Ltd, 2 Tycos Dr, Ontario, Can
For Minthorne Intl, 64-14 Woodside Ave, New York, NY

PHILWAY PRODUCTS INC, 701 VIRGINIA AVE
ASHLAND, OHIO, 44805 .... 419 322-1587
J MILLER, EMP 145, ENG 3, $1,000-$2,500M

PHIPPS PRECISION PRODUCTS, 7749 DENSMORE AVE
VAN NUYS, CAL, 91406 .... 213 785-3109
J PHIPPS, EMP 15, ENG 3, $100-$250M
Cal Don Sullins, Box 561, Escondido 744-125
Cal Nickerson-Gray & Assoc, Box 11295
Palo Alto 326-0152
Cal Web Elect Assoc, 18039 Crenshaw Blvd
Torrance 213 323-8676
Fla Wm R Lehmann Co, Box 20275
Orlando 841-4901
Ill Feller Assoc, 3065 University Ave, Highland Park

Md Mount & Co, 4853 Cordell Ave
Bethesda 652-4845
Mich Romarc, Box 257, Plymouth 455-0300
NH Engineering Assoc of N E Inc, 319 Lincoln St
Manchester .... NA 3-7294
NY Andrews & Andrews, 140 E Main St
Huntington 692-8686
Ohio Del Steffen & Assocs, 904 E 222nd St
Cleveland 216 261-5055
Tex Dyna-Reps, 200 S Grants La
Fort Worth 817 732-6621
Utah Peirce Bowthorpe Agency, 143 S 4th E
Salt Lake City 328-4513
Wash Farwest Agencies, Box 805
Bellevue 206 747-1515
Can Communication Systems Co, Box 973
Ottawa, Ont .... CE 5-8700
For Intercontinental Aviation, 608 N Bedford Dr
Beverly Hills, Cal 213 274-7578
Fr Inter Composants, 96, Rue Championnet
Paris 18e 254-59-33
Ital Giuseppe Lo Porto, Largo Luigi Antonelli 2
Roma 540-56-89

PHOENIX MATERIALS CORP, BOX 248, MONROEVILLE
PA, 15146 .... 412 795-3010
W SANTINI JR, $250-$500M

PHOENIX PRECISION INSTRUMENT CO, INC
3805 N 5TH ST, PHILADELPHIA
PA, 19140 .... 215 BA 8-7417
H BLUME, EMP 56, ENG 14, $1,000-$2,500M
Cal Applied Instrs Corp, 421 E Broadway
Anaheim 714 535-6551
Colo Lambda Assoc, Box 31104, Aurora ... 303 366-6016
Ga B H Yates Co, 2186 Clairmont Rd
Decatur 404 633-9600
Ill Utopia Instr Co, 1107 W Jefferson St
Joliet 815 727-5431
La Scientific Systems Corp, 6453 Choctaw Dr
Baton Rouge 504 356-2461
Md C W Hench Assoc, 2800 Hathaway Ter
Silver Spring 201 946-7822
Mass Adams Scientific Co, 244 S Central Ave
Quincy .... 617 GR 9-4955
NJ F J Lucchesi, 244 Heritage Rd
Cherry Hill 609 428-3527
NY International Sci Sales, Box 145
Briarcliff Manor 914 762-0685
Ohio Dann Co, 1801 E 40th St
Cleveland 216 391-7240
Pa Fawcett Assoc, 701 Investment Bldg
Pittsburgh 412 471-7748
Pa W S Conway, 220 E Highland Ave
Phila .... 212 CH 7-0895
Wash Northwest Sci Instrs Inc, Box 338
Lynnwood 206 776-9511
Can Acadian Instrs Ltd, Box 342
Don Mills, Ont 416 222-4204

PHOENIX TRANSFORMER CO, 1818 E MADISON ST
PHOENIX, ARIZ, 85034 .... 602 254-9747
L MIDDLETON, EMP 50, ENG 4, $500-$1,000M
Cal Straube Assoc, 483 Willow Rd
Menlo Park 415 323-2476
Cal Interstate Mktg Assoc, 22030 Ventura Blvd
Woodland Hills 213 883-7606

PHOTOBELL CO INC, 12G E 22ND ST, NEW YORK
N Y, 10010 .... 212 674-2121
A EDELMAN, EMP 29, ENG 7, $500-$1,000M
Mo Richter Equipment Co, 9567 Page Blvd
St Louis 314-427-0990
Tex E G Miller Co, Box 929
Henderson 214-657-5049
Utah Sherman Nabaum Co, 4777 S 13th
Salt Lake City 801-277-0459
Wis Electric Power Co, 7939 N Lake Dr
Milwaukee 414-352-9590

PHOTO CHEMICAL PRODUCTS INC, 1715 BERKELEY ST
SANTA MONICA, CAL, 90404 .... 213 EX 3-9761
J PRATT, EMP 46, ENG 2, $500-$1,000M

PHOTOCIRCUITS CORP, 31 SEA CLIFF AVE
GLEN COVE, N Y, 11542 .... 516 OR 68000
A KINGSBURY, EMP 750, ENG 70, OVER $10,000M
Ariz Bennewitz Assoc, 532 N Brown Ave
Scottsdale 947-7379
Colo Bennewitz Assoc, 2801 E Colfax Ave
Denver 399-1132
Fla Young & Lawrence Assoc, 601 N New York
Winter Park 647-6929
Ohio Terry Vance, 9141 Clyo Rd
Spring Valley 885-2121

PHOTO CONTROL CORP, 5225 HANSON CT
MINNEAPOLIS, MINN, 55429 .... 612 537-3601
S MERZ, EMP 35, ENG 2, $250-$500M
Cal LaGrange Inc, 1139 N Highland Ave
Hollywood .... HO 2-0831
Mass M Wolf, 22 Summit St, Newton 332-1373
Minn T P Carroll, 5225 Hanson Ct
Minneapolis 537-3601

PHOTO ELECTRONICS CORP
11907 SAN VICENTE BLVD, LOS ANGELES
CAL, 90049 .... 213 477-6086
G HEARON, JR, EMP 15, ENG 4, $250-$500M

PHOTOLOGIC CO, 3704 E WALNUT AVE, ORANGE
CAL, 92667 .... 714 538-7977
R ARNOLD, EMP 11, ENG 4, $100-$250M
Cal Brooks & Day Inc, 10700 Ventura Blvd
N Hollywood 213 877-3357
Md Quality Components Inc, Box 711
Rockville 301 933-1623
NJ Quality Components of N J, Box 586
Cherry Hill 609 428-6266
NY Salsbury Assoc, Inc, 331 W John St
Hicksville .... WE 8-1080

PHOTOMATION INC, 280 POLARIS AVE
MOUNTAIN VIEW, CAL, 94040 .... 415 967-8992
R HEIMSOTH, EMP 8, ENG 2, $250-$500M

PHOTO RESEARCH CORP, 3000 N HOLLYWOOD WAY
BURBANK, CAL, 91502 .... 213 849-6017
J BRANCH, EMP 25, ENG 3, $1,000-$2,500M

PHOTO-SONICS INC, 820 S MARIPOSA ST, BURBANK
CAL, 91506 .... 213 849-6251
D LASSITER, EMP 200, ENG 16, $2,500-$5,000M
Md A M Uremovich, 9525 Georgia Ave
Silver Spring 588-1028

PHO-TRONICS INC, 12500 W SILVER SPRING DR
BUTLER, WISC, 53007 .... 414 781-3280
D KNAUP, EMP 90, ENG 3, $1,000-$2,500M
Conn Talbe Co, 38 Barmore, Stanford 322-6570
Fla Talbe Assoc, 1 N Rosalind Ave
Orlando 423-8208
Fla Talbe Co, 4401 Roosevelt St
Hollywood 981-7225
Ill R Sloan Co, 340 Willow Rd, Wavconda ... 526-8839
Ind Reichold Assoc, 3520 Dudley Ave E
Indianapolis 783-1178
Mich Reichold Assoc, 1655 House St, Belmont
Mich Reichold Assoc, 44 Division Ave S
Grand Rapids 451-4449
NJ Talbe Assoc, 19 Sylvan Ave, Englewood .. 947-5038
Wis Pho-Tronics, Inc, 12500 W Silver Spring
Butler 781-3280

PHOTRON INSTRUMENT CO, 6516 DETROIT AVE
CLEVELAND, OHIO, 44102 281-7020
N FAYERWEATHER, EMP 21, ENG 2, $100-$250M
Md Zenatronix Assoc, 8121 Georgia Ave
Silver Spring 301 588-5677
Mass J & J Assoc, 225 Crescent St, Waltham
Ohio Pioneer Standard Elctns, 5403 Prospect Ave
Cleveland 216 432-0010
Pa Acromatix Assoc, Inc, Box 271, Fairview Village

PHYS-CHEMICAL RESEARCH CORP, 36 E 20TH ST
NEW YORK, N Y, 10003 .... 212 GR 5-0355
A HERSHLER

PHYSICAL ELECTRONICS LABS, 1185 O'BRIEN DR
MENLO PARK, CAL, 94025 .... 415 323-9092
R CRAIG, EMP 15, ENG 5, $500-$1,000M
Ala C Edge, 5020 Reginia Way, Huntsville 859-3410
Cal B White, 175 San Antonio Rd
Los Altos 948-6533
Cal D Lewis, 15720 Ventura Blvd, Encino 783-4700
Cal A Giddings, 3595 Mt Acadia Blvd
San Diego 278-1031
Fla D Gibson, Box 235, Dade City 422-3460
Ill B Forlaw, 1203 Ironwood Dr
Mt Prospect 253-3578
Md B McClennahan, 7401 New Hampshire Ave
Hyattsville 296-8265
Mass C Geder, 45 Essex St, Melrose 665-8600
NJ Gawler-Knoop Co, 14 Beaufort Ave
Roseland 226-4545
Ohio B Hansel, 2485 Lipton Rd, Columbus 861-2119
Pa M Lader, One Bala Ave Bldg
Bala-Cynwyd 664-3797
Tex W Cain, 8609 Northwest Plaza Dr
Dallas 369-2897
Tex B Kreeger, 324 First St, Liverpool 437-2933
For Microwave Intl, 111 High Ridge Rd
Stamford Conn 348-7704

PHYSICAL SCIENCES CORP, 314 E LIVE OAK AVE
ARCADIA
CAL, 91006, TWX 910-582-3215 .... 213 445-2611
D ALLEN, EMP 140, $1,000-$2,500M
Ala Friden, Inc, 5 Traylor Island, Huntsville ... 539-2071
Ala Lew Wright Assoc, Box 4305
Huntsville 205 741-2950
Cal M W Riedel Co, 2215 W Valley Blvd
Alhambra 283-7694
Ill Jay C Angel Co, 2743 W Peterson Ave
Chicago .... 312 UP 8-0653
Ind R O Whitesell & Assoc, Central Bldg
Ft Wayne 743-4411
Ind R O Whitesell & Assoc, 6620 E Washington St
Indnpls .... FL 9-5374
Kan Inland Assoc, 6047 Howe Dr
Mission .... 913 EN 2-2366
Ky R O Whitesell & Assoc, Lex-Manor Bldg
Louisville 893-7303
Mass Paul R Sturgeon Co, 1330 Boylston St
Chestnut Hill 617 734-7710
Mich R O Whitesell & Assoc, 303 Fidelity Bldg
Benton Harbor 927-2041
Mich R O Whitesell & Assoc, 25100 Evergreen Rd
Southfield 313 358-2020

Minn E C Electronic Sales, 10108 Abbott Ave
Minneapolis ... 888-4626
NM C T Carlberg, Box 3177 Sta D
Albuquerque ... 265-1579
Ohio R O Whitesell & Assoc, 21139 Lorain Ave
Cleveland ... ED 3-2585
Ohio R O Whitesell & Assoc, 4133 S Dixie Ave
Dayton ... 298-9546
Ohio R O Whitesell & Assoc, 1172 W Galbraith
Cincinnati ... 521-2290
Pa R O Whitesell & Assoc, 201 Penn Center Blvd
Pittsburgh

PHYSICON CO, BOX 232, BOSTON
MASS, 02114 ... 617 383-0646
H VON ZWECK

PIC DESIGN CORP, 477 ATLANTIC AVE
EAST ROCKAWAY
N Y, 11518, TWX 510-225-8421 ... 516 593-6470
W CARNEY, EMP 160, ENG 4
Cal PIC Design Corp, 8155 Van Nuys Blvd
Van Nuys ... 782-6702
Ill Frank Tye Sales Co, 4645B Elston Ave
Chicago ... 283-1227
Ind Hoemig Sales Co, 3405 Butler Ct
Fort Wayne ... 483-6913
Iowa Forristal Young Sales Co, 3400 Indian Rd SE
Cedar Rapids ... 364-0408
Kan Forristal Young Sales Co, 5500 Buena Vista
Mission ... 432-1420
Mich Villani-Pitcher Inc, 20233 Ann Arbor Trail
Dearborn ... 271-4600
Minn Ladky Assoc, 7601 Wayzata Blvd
Minneapolis ... 545-1494
Mo Forristal-Young Sales Co, 7110 Oakland Ave
St Louis ... 645-2360
Ohio John O Olsen Co, 16201 Shaker Blvd
Cleveland ... 752-5444
Ohio John O Olsen Co, 5539 Stokeswood Ct
Cincinnati ... 922-2176
Okla Components Inc, 1526 E 4th St, Tulsa ... 583-9149
Pa Kenneth B Erdman Co, 7906 Montgomery Ave
Phila ... 224-1833
Pa John O Olsen Co, 104 Elatan Dr
Pittsburgh ... 279-2550
Tex Robco Inc, 710 Harold St
Houston ... 713 JA 3-1326
Tex Robco Inc, 1111 Quaker St
Dallas ... 214 ME 1-7191
Wis Frank W Ladky Assoc Inc, 4604 N Wilson Dr
Milwaukee ... 962-2942
Can Philip French Sales Ltd, 785 Plymouth Ave
Montreal ... 731-7513
Can Philip French Sales Ltd, 8 Taber Rd
Rexdale, Ont ... 244-4281
GB Reliance Gear Co Ltd
St Helen's Gate, Almondsbury
Huddersfield ... HUD 21121
Ital Pic Design Corp, Via Roma 108
Paderno Dugnano ... 92-62-87

PICKERING & CO INC, 101 SUNNYSIDE BLVD
PLAINVIEW, N Y, 11803 ... 516 OV 1-0200
R ZUPA, EMP 250, ENG 8
Ala Components Sales Corp, Box 899, Huntsville
Cal Scranton Engrg Assoc, 2750 Bellflower Blvd
Long Beach
Cal Fetty/Schoenduve Inc, 253 Twn & Cnty Vlg
Palo Alto
Fla Components Sales Corp, Box 9545, St Petersburg
Fla Components Sales Corp, Box 14523, Orlando
Ill Quadtron Assoc, Box 306, Lombard ... 312 627-6800
Mass Bordewieck Engrg Sales Co, 221 Grove St
Braintree ... 843-0845
Mo Maury E Bettis Co, 3706 Broadway
Kansas City ... LO 1-0772
Mo Maury E Bettis Co, 423 Fountain, Wichita
Mo Maury E Bettis, 9103 Bessemer, St Louis
NY O F Masin, 140 Boston Post Rd
Larchmont ... 834-7500
NC Components Sales Corp, Box 6401, Raleigh
Ohio Twin Region Elctn Sales, 210210 Center Ridge Rd
Cleveland ... 216 331-7650
Pa Control Instrument Sales Co, 2727 Philmont Ave
Bethayres
Tex Geo Weinreich & Assocs, 11554 E NW Hwy, Dallas
Wash G M Gillet, 3217 W Wheeler, Seattle

PICKER NUCLEAR, 1275 MAMARONECK AVE
WHITE PLAINS, N Y, 10605 ... 914 948-0080
V BURKE

PICO CRIMPING TOOLS CO, 9832 JERSEY AVE
SANTA FE SPRINGS, CAL, 90670 ... 213 695-8632
S CARPENTER, EMP 12, ENG 3
Conn Ed Carroll, 165 London Dr, Hamden ... 288-0044
DC W S Jenks & Son, 738 7th St, N W
Washington ... 737-7490
Ill Seversen Engineering, 432 Hill Ave
Elmhurst ... 261-1955
Iowa N W Kathrinus & Co, 549 Ottumwa St, Ottumwa
Kan N W Kathrinus & Co, 2336 S Boeke, Kansas City
Mich C A Geer & Co, 221 Graceland St, N E
Grand Rapids ... 361-9252
Minn Dick Swanson, 2655 Brighton Ave
Minneapolis ... 789-5636
NY Fish Assoc, 149 Roosevelt Dr, Utica ... 732-1008
NY Fish Assoc, 2111 East Ave, Rochester ... 244-5428
NY Irv Morse Sales Co, 2351 E 65th St
Brooklyn ... 267-2913
NC Edward F. Johnson, 7417 Redfern Ct
Charlotte ... 536-0714

Ohio Louder Co, 3833 Thornton Dr
Cincinnati ... 791-9570
Wash W K Wood Inc, 5908 Calif Ave, S W
Seattle ... 935-9400
GB P A Kingham, 17 Briarywood La
Welwyn Heath Herts

PICONICS INC, 220 BOSTON RD, NORTH BILLERICA
MASS, 01862 ... 617 663-4862
J NEENAN, EMP 25, ENG 3, $250-$500M
Cal Ruby Sales Co, Box 487, Santa Clara ... 243-1694
Cal Brooks & Day Inc, 10700 Ventura Blvd
No Hollywood ... 213 877-3357
Colo Ruby Sales Co, 1200 So Alton
Denver ... 303 755-1714
Fla NBS Co, 2813 Primrose Ct
Orlando ... 305 423-4856
Ind Joe Popp Sales Co, 1133 Lincoln St
Hobart ... 942-1962
Iowa Howard Brown Sales Co, 1917 B Ave N E
Cedar Rapids
Md Shiplett Warrington & Assoc, Box 373
College Park ... 864-5757
Md Scott Warrington, Box 6789, Baltimore
Mo Harris-Hanson Co, 2814 S Brentwood Blvd
St Louis ... MI 7-4350
Mo Harris-Hanson Co, 7916 Paseo St, Kansas City
NY Regulus Industrial Sales, 7 High St
Huntington ... 271-7966
NY Micro-Component Sales, Box 263, Utica
Pa W F Satterthwaite, 237 N Lansdown Ave
Lansdowne ... 623-5100
Tex Texport Co, 2411 Farrington St, Dallas ... 641-6270
Wash Ray Johnston Co Inc, 1011 N E 69th St
Seattle ... 206 524-5170
Can Lake Engineering Co, 123 M nville Rd
Scarborough Ont ... 751-5980
For Machine & Products Co, 52 Wall St
New York, N Y ... WH 4-4370
Fr Technique et Produits Co, Cite des Bruyeres
Eue Carle Veruet 92 Sevres
GB C Tennant Sons Co, 100 Park Ave, New York

PICO PRODUCTS INC, 53 UNION AVE, RONKONKOMA
NY, 11779 ... 516 JU 8-6066
M KASINDORF, EMP 50, ENG 2

PIERCE & STEVENS CHEMICAL CORP, BOX 1092
BUFFALO, N Y, 14240 ... 716 856-4910
R STEVENS JR
Cal Pierce & Stevens Chem Corp, 805 S Dempsey Rd
Milpitas
Ill Pierce & Stevens Chem Corp, 4851 S St Louis Ave
Chicago
Pa Pierce & Stevens Chem Corp, Coldstream Rd
Kimberton
Can Pierce & Stevens Chem Corp, 224 Catherine St
Fort Erie, Ont

PIERPONT TELEVISION CO, 723 THIRD AVE W
BIRMINGHAM, ALA, 35204 ... 205 785-5143
W OESTREICHER, EMP 30, ENG 3, $250-$500M
NJ J P Ryaby Assoc, 38 Wall St
Passaic ... 201 773-6359

PIEZO CRYSTAL CO, 100 K ST, CARLISLE
PA, 17013 ... 717 249-2151
W SAMUELSON, EMP 270, ENG 7
Cal Dorr Wagner Assoc, Box 485
Altadena ... 213 681-4060
Tex Branum Sales Inc, 747 Sherman St
Richardson ... 214 231-6148

PIEZO TECHNOLOGY INC, 2400 DIVERSIFIED WAY
ORLANDO, FLA, 32804 ... 305 425-1574
S KAPLAN, EMP 46, ENG 6, $100-$250M
Cal Melvin Sales Co, 113 El Camino Real
Millbrae ... 697-6922
Cal R L Assoc, Box 2255, Sepulveda ... 782-7826
Cal R L Assoc, 14401 Gilmore St, Van Nuys
Conn Gerald Rosen Co, 194 Plymouth St, Stratford
Fla J J Smith & Assoc, Box 460
Winter Park ... 644-4316
Fla Jos J Smith Assoc, Box 573 Biscayne Annex, Miami
Ill Thos B Hunter Assoc, 5653 W Irving Park Rd
Chicago ... 787-2500
Iowa Kelly-Schmitz-Winkeler Assoc, 3831 43rd St
Des Moines
Md C O Emrich, Rolling Rd & Wilkens Ave
Baltimore ... 747-8348
Mass Gerald Rosen Co Inc, 563 Worcester Rd
Natick ... 655-2211
Mo Kelly-Schmitz-Winkeler Assoc, 7546 Troost Ave
Kansas City ... 363-5651
Mo Kelly-Schmitz-Winkeler Assoc, 2319 Hampton
St Louis
NY Bowser & Sapecky Assoc, 4317 E Genessee St
Dewitt
NY Bowser & Sapecky Assoc, 4541 Main St, Buffalo
NY Bowser & Sapecky Assoc, Box 1684, Poughkeepsie
NY Gemini Electronics Inc, 1295 Northern Blvd
Manhasset
NC L & D Inc, Box 7243, Greensboro ... 292-3201
Ohio G & H Sales Co, 7215 Market Pl
Cincinnati ... 761-6185
Pa Arnold Ratner Assoc, 301 York Rd
Jenkintown ... TU 7-5250
Tex Stevens Sales Co, Box 34493, Dallas
Wash Electronic Sales Corp, 5606 Calif Ave SW, Seattle
Can Ben Manis Assoc Ltd, 6600 St Urbain St
Montreal Que ... 274-8271
For AB Farad, Byborgsgrand 1, Hagersten

GB Microwave Systems Ltd, Hunting Gate, Hitchen Herts

PIKE & CO INC, E W, 577 PENNSYLVANIA AVE
ELIZABETH, N J, 07207 ... 201 EL 2-0630

PILOT CHEMICALS INC, 36 PLEASANT ST
WATERTOWN, MASS, 02172 ... 617 924-5445
R HEADLEY, EMP 18, ENG 3

PINLITES, INC, 1275 BLOOMFIELD AVE, FAIRFIELD
N J, 07007 ... 201 CA 6-7724
P DEMAREST, EMP 150, ENG 15

PIONEER ELECTRIC & RESEARCH CORP
743 CIRCLE AVE, FOREST PARK
ILL, 60130 ... 312 771-8242
J BULLOCK, EMP 76, ENG 13, $1,000-$2,500M
Mass Jones Assoc, 4 Waltham St, Lexington ... 861-0201
Mich Hoofnagle Bros, 18264 James Couzens Hwy
Detroit ... 342-2050
Mo RM Engineering & Sales Co, Box 8044
Kansas City ... EM 1-5164
NY Floyd G Nolan & Sons, 7670 North St
Pulaski ... 298-2043
Ohio K Dimond Co, 3455 Edwards Rd
Cincinnati ... TR 1-1305
Pa H S Nicholson & Sons, 1219 York Rd
Abington ... 624-0729
Tex R A Larsen Co, 2414 W Holcombe Blvd
Houston ... MO 8-1914
Wash Northwest Sales & Eng Serv, Terminal Sales Bldg
Seattle ... MA 2-3860
For E D Magnus & Assoc Inc, 5715 Lincoln Ave
Chicago, Ill ... 334-1503
For A Friedman Assoc, 189-19 Jamaica Ave
Jamaica, N Y ... 586-3080

PIONEER ELECTRONIC CORP
15-5, 4-CHOME, OHMORI-NISHI, OHTA-KU, TOKYO
JAPAN ... 763 2111
N KONO, SLS MGR, EMP 2731, ENG 160
NY Pioneer Electns USA Corp, 140 Smith St
Farmingdale ... 516 694-7720
Swit Pioneer Electronic Eur AG, 59 Forch St
Zurich ... 477565

PIONEER MACHINE WORKS INC, 6107 POLK ST
WEST NEW YORK, N J, 07093 ... 201 868-6226
J BAACH JR, EMP 5, UP TO $100M

PIONEER MAGNETICS INC, 1745 BERKELEY ST
SANTA MONICA, CAL, 90404 ... 213 EX 30136
R MAY, EMP 75, ENG 8, $1,000-$2,500M
Ala Kemp Engrg Co, 4306 Governors Dr W
Huntsville ... 837-4304
Ariz Hilleary Assoc, 3033 N Central Ave
Phoenix ... 266-3671
Cal Frauman Assoc, Box 357, Menlo Park ... 322-8461
Colo Hilleary Assoc, 2552 Ridge Rd
Littleton ... 794-4279
Fla Willett & Ellis-Brown, 1260A S Highland Ave
Clearwater ... 446-0075
Ill Audio Sound Sales Co, 2919 1/2 W Armitage Ave
Chicago ... 342-1600
Mass Stan Daner Assoc, 684 Commonwealth Ave
Newton Center ... 969-6383
NM Hilleary Assoc, 311 Washington S E
Albuquerque ... 265-7631
NY Manufacturers Reps Inc, 55 Central Ave
Farmingdale ... 293-9696
Pa Stein Instrumentation Corp, 413 Johnson St
Jenkintown ... 885-2370
Tex Kemp Engineering Co, 2618 Manana Dr
Dallas ... FL 7-6663
Tex Kemp Engineering Co, 6001 Gulf Fwy
Houston ... 928-5426
For Frathom Co Inc, 202 E 44th St
New York, NY ... MU 7-9390

PIPETRON CO DIV WESTERN TECH PRODS
12926 SATICOY AVE, NORTH HOLLYWOOD
CAL, 91605 ... 213 765-4562
A LETO, EMP 5, ENG 4, UP TO $100M
Cal Western Technical Prods, 12926 Saticoy
North Hollywood

PI TAPE, 7951 NORTH AVE, LEMON GROVE
CAL, 91605 ... 714 466-2255
L COCHRAN, EMP 5, ENG 2, UP TO $100M

PIX MFG CO, 75 HUDSON ST, NEWARK
N J, 07103, TWX 710-995-4608 ... 201 484-5400
L WILKERSON, EMP 150, $1,000-$2,500M
Cal E V Roberts & Assoc, 9601 W Jefferson Blvd
Culver City ... 213 870-9561
NJ A L Livera & Assoc Inc, 2 Green Village Rd
Madison ... FR 7-3220

PLANET INSTRUMENT INC, 1520 PROGRESS RD
FT WAYNE
IND, 46808, TWX 810-332-1419 ... 219 483-8194
R BURKETT, EMP 102, ENG 4, $1,000-$2,500M
Ariz E E Black, 8238 Montecito, Scottsdale ... 947-6007
Cal E E Enterprises, 5901 Noble Ave
Van Nuys ... 787-5360
Ill Magnuson Assoc, 5639 W Fullerton Ave
Chicago ... 622-6322

Ind McDonald Sales Co, 227 S Cornell Cir
Fort Wayne 745-9214
Mass F R Lesser, Box 241, Bedford 275-7558
Mo d,
Mo J C Mankus & Assoc, 400 Brookes La
Hazelwood .... 314 PE 1-4334
NJ R A Potter Assoc, 64 Woodland Ave
Summit 277-0220
NY Ellis-Haber Corp, 2315 Broadway
New York 799-4040
NY Elcom Sales Co, Box 9112, Rochester 244-1960
Tex Southwest Elctn Industries, 621 Meadows Bldg
Dallas .... EM 3-1671
Tex Southwest Elctn Industries, 1405 S Post Oak Rd
Houston 713 621-3760
Can E Whittaker Supply Ltd, 42 Howden Ave
Ottawa, Ont 224-1221

PLANNAIR, LTD, KINGSTON RD
LEATHERHEAD, SURREY, ENGLAND 5341
E RUNDLE, EMP 146, ENG 50
Can Railway & Power Eng Corp, Ltd
3745 St James St W, Montreal, Que
For Tecnova, Av Almirante Reis 127-2 E sq, Lisboa Port
Fr Air-Equipment, 18 Rue Basly Asnieres, Seine
Ger Apparatebau Gauting, GmbH, 8035 Gauting 2
Ammerseestr, 31
Holl A G O Verenigde Ing En Handelsbureaux
Pruisische Veldweg 52, Hengelo-0 Amsterdam-C
Ital Cierock S R L, Via Donizetti 1, 00198 Roma
Jap Kyokuto Boekig Kaisha Ltd
4 2-chome Otemachi Chiyoda-ky, Tokyo
SAfr United Africa Elec Uniafel Pty Ltd, 1 Roeland St
Cape Town
Swed Micromatic Intl AB, Tulegatan 17, Stockholm VA
Swit P M Scheidegger, Freiburgstr 396
CH 3018 Bern-Bumpliz
Ind Indian Avitronics, Laxmi Bazar Cloth Mkt, Delhi 6
NZ Amalgamated Wireless (Australasia) NZ Ltd
126 Wakefield St, Wellington C 1
Fin OY Atomica AB, Box 13161, Helsinki 13
Aust Amalgamated Wireless (Australasia) Ltd
47 York St, Sydney

PLASTIC CAPACITORS INC, 2620 N CLYBOURN AVE, CHICAGO
ILL, 60614 .... 312 348-3735
T BROWN, EMP 130, ENG 7, $1,000-$2,500M
ADV PG 106
Cal Richard A Strassner Co, 3112 Los Feliz Blvd
Los Angeles 213 666-4040
Conn Henry Lavin Assoc Inc, 3112 Los Feliz Blvd
Meriden 203 237-5527
Fla Mark Electronic Sales Co, Box 291
North Miami 305 947-5080
Ill D Dolin Sales, 3525 W Peterson
Chicago 312 588-3738
Ind Walter Bieberich Inc, 801 Leesburg Rd
Ft Wayne 219 742-8468
Md Leff Sales, 408 York Rd, Towson 301 823-0774
Mass Henry Lavin Assoc Inc, 52 Pickering St
Needham 617 444-3446
NJ Leff Sales, 5900 Westfield Ave
Pennsauken 609 663-4025
NY Ellis Scovel, 865 E Lake Rd
Rushville 315 584-6522
Ohio Electro-Com, 8761 Snow Rd
Cleveland 216 886-2404
Tex Packard Assoc, 2655 Perth St
Dallas 214 357-5713

PLASTIC WIRE & CABLE CORP, E MAIN ST
JEWETT CITY, CONN, 06351 .... 203 376-4411
J DALY, EMP 910, ENG 16, OVER $10,000M
Ariz K Anderson Co, 4747 N 16th St
Phoenix 254-5464
Cal K Anderson Co, 123 S Myers St
Los Angeles 268-6771
Cal Black & Egbert Assoc, 2025 McKinnon Ave
San Francisco 861-3030
Colo Kennedy-Lee Sales Co, 1133 Speer Blvd
Denver 623-5311
Conn Charles Morgan, Birch Heights Rd
N Franklin 822-8555
Conn Paul M Leary, Jr, Wynn La, Greenwich
Del Roger D Miller, 2625 Concord Pike
Wilmington 478-1272
Fla O C Puckett Co, 601 N Fern Creek Bldg
Orlando 422-7197
Fla E M Swanson, Box 5333, Jacksonville 733-0728
Ga Berry-Elsberry Inc, 1061 Howell Mill Rd NW
Atlanta
Ill Electrical Mktg Corp, 9855 Roosevelt Rd
Westchester
Kan Stover-Andrews & Co, 1401 Fairfax Trfway
Kansas City 321-3363
La Stephen M Redmann, 643 N Scott St
New Orleans 486-5421
Md Downie Turner & Buress, 2323 Maryland Ave
Baltimore 889-3470
Mass Jerome B Gleason, 9 Devens St
Concord 263-4754
Mich Benfield Assoc, 2920 E Jefferson
Detroit 833-3515
Minn R E Dunn Sales, 5630 France Ave S
Minneapolis 922-8551
Mo Harlan J Weisler & Assoc, 2050 Woodson Rd
St Louis
NH J F Cornwall, Sunset & Summit Dr
Atkinson 362-5292
NJ James B Baxter, 1271 Dogwood Dr, Somerville
NY W Laver & Son, 1922 Genesse St
Utica 724-2304
NY Kenneth Straus, 1669 Hunt Ave, Bronx
NC W P Byrd, Box 6101 Summit Sta
Greensboro 273-5932

Ohio H J Van Welde, 3540 Ridge Rd
Cleveland 961-8446
Okla L Moyer, 5400 NW 45th Terr, Okla City 789-2728
Ore Shaffer & Nelson Inc, 1001 SE Water Ave, Portland
Pa R K Richards Co, Box R, Waverly 586-8797
Pa D S MacCorkle Inc, Box 145, Skytop
SC D Robbins, 2 Rosebrier La, Taylors 244-3554
Tex J M Tuite, Box 28176, Dallas 328-3529
Utah Shaffer & Nelson Inc, 805 W 2500 S, Salt Lake City
Va Mike Murphy, 1905 Windsordale Dr
Richmond 288-6869
Wash Shaffer & Nelson Inc, 314 NE 72 St, Seattle
Wash Shaffer & Nelson Inc, 1114 Ruby, Spokane
Wis F Meyer Co, 724 E Mason St
Milwaukee 774-4311
Can F G Lightfoot Co, 1539 W 3rd Ave, Vancouver

PLASTIGLIDE MFG CORP, BOX 867, SANTA MONICA
CAL, 90406 .... (213) 451-1681
M KAY, EMP 400
Conn Better Formed Metals, Box 1188
Waterbury .... PL 6-7487
Fla R Wiltcher, Box 428, Crescent City .... OW 8-6091
Haw Allied Furn & Metal Prods Co Inc, Box 2869
Honolulu 854-146
Ill Plastiglide Mfg Corp, 6848 W North Ave
Chicago .... TU 9-2150
NC Plastiglide Mfg Corp, 1940 W Green St
High Point 882-3718
Tex Chandler Reynolds, Box 35553, Dallas .... FL 7-3844
Wash M B Brown, 5932 28th Ave, S
Seattle .... PA 3-4982
Can Plastiglide Ltd, 150 Norfinch Dr
Downsview, Ont 638-4023
Fr Plastiglide Prods S A, 4, Rue Gutenberg
Montreuil, Seine
GB Plastiglide Products Ltd, Masons Rd
Stratford-Upon-Avon, Warwicks 5181
Aust Brentware (Vic) Pty, Ltd, 114-112 Balmain St
Richmond, Vic 42-4171

PLASTOFILM INC, 916 W UNION AVE, WHEATON
ILL, 60187 .... 312 668-2838
G WISS, EMP 180, ENG 4, $5,000-$10,000M
Ga Mifflin Packaging, 130 Alden Ave NW, Atlanta
Mich B T Doyle, 8659 Grayfield, Dearborn
Mo Larson Packaging Equip Co, 3270 Ivanhoe Ave
St Louis
NY L Heindl & Son Inc, 151 Andrews St, Rochester
Pa Morris Paper Co, 6th Ave & Broad St, Johnstown
Tenn Dick Bradley Co, Box 2212, Nashville

PLASTOID CORP, 42-61 24TH ST, LONG ISLAND CITY
N Y, 11101 .... 212 ST 66200
W GRANT, EMP 350, ENG 20, OVER $10,000M
Cal Plastoid Corp of Calif, 1737 E 21st St
Los Angeles 748-0491
Tex R L Wright & Assoc, Box 17447
Dallas .... AT 5-8701
For Louis D Cohen y Cia, 5955 Twin Lakes Dr
S Miami, Fla

PLATRONICS INC, 500 COMMERCE RD, LINDEN
N J, 07036 .... 201 925-3600
G KANKOWSKI, EMP 75, ENG 6
NY W H Zimmerman Inc, 112 Dewitt St
Syracuse .... GR 4-4889

PLECTRON CORP, OVERTON
NEBR, 68863 .... 308 987-2416
M MEYER, EMP 120, ENG 9, $1,000-$2,500M

PLESSEY AIRBORNE CORP, 1414 CHESTNUT AVE
HILLSIDE
NJ, 07205, TWX 710-985-4667 .... 201 688-0250
D GARRETSON JR, EMP 300, ENG 70
$5,000-$10,000M
Ariz J T Aldrich Co, Box 1299
Scottsdale 602 945-8598
Cal Richard Askew, 501 S Fairfax Ave
Los Angeles .... WE 8-3227
Cal L L Stokes Inc, 4438 Ingraham St
San Diego 274-6281
Cal Electro-Pacific Sales, 2524 Franklin
San Francisco 776-8582
Cal Penwarden Assoc, 14547 Titus St
Van Nuys 213 782-4920
Conn Mancib Co, Box 467, Middletown 347-5629
Fla Floyd Fausett & Co, 685 Selkirk Dr
Winter Park 305 644-6672
Ga Floyd Fausett & Co, 2264 Melinda Dr NE
Atlanta 404 633-3561
Ill Dwigh Smith Assoc, 32 S Rive St
Aurora 312 896-0828
Mass Mancib Co, Middlesex Tnpk at A St
Burlington 617 272-9450
NY Tek-Sales Inc, 1157 Fairport Rd
Fairport 716 381-8110
NY Tek-Sales Inc, Box 44, W Seneca 716 824-3360
NC Floyd Fausett & Co, 318 S Eugene St
Greensboro 919 274-7760
Ohio Edw E Bock & Assoc, 18838 Canyon Rd
Cleveland 331-5212
Pa Lanco Sales Co, 33rd & Arch St
Philadelphia 386-8835
Pa Process Engrg Co, Box 10464
Pittsburgh 561-2242
Tenn Floyd Fausett & Co, Box 12091
Memphis 901 458-6263
Tex Bates Engrg Co, Box 172
Seabrook 713 474-3791
Tex William Armstead, 2646 Andjon Rd, Dallas

Va Floyd Fausett & Co, 1338 Pulaski St
Salem 703 389-6669
Wash M Poggi Co, 845 106th N E, Bellevue .... GL 4-2026
Can Railway & Power Engrg Corp Ltd, 197 Eastern Ave
Toronto
Can Railway & Power Engrg Corp Ltd, Box 445
Hamilton, Ont
Can Railway & Power Engrg Corp Ltd, Box 880
Montreal .... WE 3-6741
Can Railway & Power Engrg Corp Ltd
1850 Erlanger Ville les Saules, Quebec, Que
GB Perfection Ports Ltd, 59 Union St
London, SE 1 .... HOP-4567

PLESSEY CO LTD, TELECOMMUNICATIONS GROUP
EDGE LANE, LIVERPOOL 7, ENGLAND 4830

PLESSEY INC, 170 FINN CT, FARMINGDALE
N Y, 11735 .... 516 694-7377
G LEVEN, EMP 60, ENG 5, $5,000-$10,000M

P M C ELECTRONICS CORP, 7815 OXFORD AVE
PHILADELPHIA, PA, 19111 .... 215 RA 5-8120
C O'DONNELL, EMP 35, ENG 2, $250-$500M
NJ Mesa Technical Assoc, Box 466
Haddonfield 609 429-9531
NY O F Masin Co, 140 Boston Post Rd
Larchmont 914 834-7500
NY Garner Assoc, Box 56, Liverpool 315 652-7911
Ohio Deo Volente & Assoc, 4240 Eaglehurst Rd
Toledo 419 882-2830
Wis Gentron Co, 744 N 4th St
Milwaukee 414 271-2110

P M & E ELECTRONICS INC, BOX 4263
EAST PROVIDENCE, R I, 02914 .... 401 438-5400
D BARRETT, EMP 200, ENG 2, $2,500-$5,000M
Ala J F Russell, 4030 Whispering Pines Ave
Birmingham
Ariz C Repp Co, 11168 Santa Monica Blvd
Los Angeles .... TR 9-0358
Cal A Bolton Co, 671 Oak Grove Ave
Menlo Park 322-6244
Ill M Q & Assoc, 6713 N Oliphant Ave
Chicago 774-8844
Mass J Piper & Assoc, 10 Haven St, Dover 449-1144
Mo H A Ross & Co, 2601 Cherry
Kansas City .... BA 1-0866
NJ Mechelec Sales, 16 N Main St
Medford .... OL 4-8209
NY Ellis Haber Corp, 2315 Broadway
New York .... HU 7-5145
NY George Gay Inc, Box 14, Brockport .... NE 7-3776
Tex Branum Sales Co, Box 14348, Dallas .... AD 1-6148
Can Banke Electronics Ltd, 767 Warden Ave
Scarborough 425-1611

PMF ELECTRONICS INC, 124 E THIRD ST, DAYTON
OHIO, 45402 .... 513 224-1948
T RICHARDSON, EMP 25, ENG 3, $250-$500M
Cal L G Snyder Co, 1418 N Highland Ave
Hollywood .... HO 9-6278
Cal Electro Pacific Sales, 2524 Franklin
San Francisco 776-8582
Conn E E Specialists, 281 Vera Rd, Bristol 584-0077
Ind McDonald Sales Co, 227 S Cornell Cir
Fort Wayne 219 745-9214
Md H R Sieber Co, 1005 Bonifant St
Silver Spring 589-9110
Mass E E Specialists, Box 956, Acton 259-9200
Minn Mack Brown Co, 5215 Edina Ind Blvd
Minneapolis 941-2010
Mo Williams Equip Co, Box 8327
St Louis 314 997-1030
NJ Bixon Assoc, Box 305, Fair Lawn 797-5356
NY ABW Agents Inc, Sibley Tower Bldg
Rochester 546-8061
NC R W Chapman & Co, Box 4430
Charlotte 375-4495
Ohio R P I Inc, 21565 Hilliard Blvd
Rocky River 333-3441
Ore J E Edstrom, 407 S W 11th Ave
Portland 227-5311
Ore Charles Automatic Controls Inc
345 Mt Lebanon Blvd, Pittsburgh 412 561-6488
Pa C A Briggs Co, Box 151, Glenside 885-2244
Pa Charles Automatic Controls Inc
345 Mt Lebanon Blvd, Pittsburgh 412 561-6488
Tex General Sales Reps, 10063 Haddington
Houston 923-7371
Wis A E C Inc, 12740 N River Rd
Mequon 414 242-1520
Can Advanced Tech Sales, 4 Shawbridge Ave
Toronto 18, Ont 416 233-5535

PNEUMAFIL CORP, 2516 WILKINSON BLVD
CHARLOTTE, N C, 28208 .... 704 399-7441
J PRAGER, EMP 350, ENG 45, $2,500-$5,000M
Ariz Hyer Assoc, 301 W Indian School Rd
Phoenix 602 264-0291
Cal NELGO Assocs, 10174 Rush St
South El Monte 213 443-3122
Colo Hyer Assoc, 7895 E Prentice St
Englewood 303 771-5285
Mich Sheridan Assocs, Box 128
Lathrup Village 313 358-3333
Minn Ed Melius & Assoc, 3758 N Dunlap St
St Paul 484-8541
Mo R F Carlson Co, 8721 Manchester Rd
St Louis .... 314 WO 1-4485
NM Hyer Assoc, 210 La Veta Dr NE
Albuquerque 505 265-5767

NY H A F Spectrum Assoc, 35 Broadfield Rd
New Rochelle 914 632-3800
Ohio Sheridan Assocs, Box 37646
Cincinnati 513 761-5432
Ohio Sheridan Assocs, Box 7486
Cleveland 216 884-2001
Ohio Sheridan Assoc, Box 37, Dayton 513 277-8911
Tex Dyna-Reps, 6400 S W Frwy
Houston 713 782-0311
Tex Dyna-Reps, Box 5154, Fort Worth 817 732-6621
Utah Hyer Assoc, 445 E Second S
Salt Lake City 801 363-6773

POCO GRAPHITE, INC, 1200 JUPITER RD, GARLAND
TEX, 75040, TWX 910-860-5099 .... 214 272-1584
C GANTT
Cal Poco Graphite, Inc, 714 W Olympic Blvd
Los Angeles 747-611
DC Poco Graphite, Inc, 1612 K St
Washington 638-2852
NY Poco Graphite, Inc, 610 Fifth Ave
New York 765-1020

PODGOR CO INC, JOSEPH E, BOX 1714
PHILADELPHIA, PA, 19105 .... 215 WA 5-7878
F KLINE, EMP 15, ENG 1, $500-$1,000M

POLARAD ELECTRONIC INSTRUMENTS DIV
34-02 QUEENS BLVD, LONG ISLAND CITY
N Y, 11101 .... 212 EX 24500
J EILLS, EMP 350, ENG 70, $5,000-$10,000M
Ala Brennan Assoc Inc, Box 1074
Huntsville 536-7425
Alas Arva Inc, Box 759, Anchorage 272-5231
Ariz T Louis Snitzer Co, 15 N 40th Pl
Phoenix 273-1673
Cal T Louis Snitzer Co, 1020 Corporation Way
Palo Alto 968-8304
Cal T Louis Snitzer Co, 9005 Exposition Blvd
Los Angeles 213 836-6170
Cal T Louis Snitzer Co, 1150 Camino Del Mar
Del Mar 714 454-2191
Colo Bennewitz Assoc, 2801 Colfax Ave
Denver 303 399-1132
Conn George Gregory Assoc, 9 S Main St
Cheshire 203 272-5040
DC Eastern Instrumentation, 2600 Virginia Ave NW
Washington 333-8880
Fla Brennan Assoc Inc, Box 7773, Orlando ... 425-8161
Fla Brennan Assoc Inc, Box 8489
Fort Lauderdale 587-8077
Fla Brennan Assoc Inc, Box 5006
Clearwater 446-5006
Haw J J Harding Co Ltd, 2825 Ualena St
Honolulu 810-941
Ill Midwest Microwave Assoc, 6414 W Belmont Ave
Chicago 283-0713
Iowa ENSCO, 1026 3rd Ave SE
Cedar Rapids 366-1591
Kan Ensco, 7924 A State Line
Prairie Village 649-4000
Me Eastern Instrumentation, 1002 Ingleside Ave
Baltimore 744-3675
Md Brimberg Assoc, 814 Thayer Ave
Silver Spring 588-7790
Mass George Gregory Assoc, 7 Erie Dr
Natick 235-9070
Mich Harvery Teplitz, 26847 Grand River Ave
Detroit 537-9058
Mo ENSCO, 6717 Vernon Ave
St Louis 314 726-2233
NJ Eastern Instrumentation, 518 Franklin Ave
Nutley 201 661-2000
NM Bennewitz Assoc Inc, 9720 Canelaria NE
Albuquerque 505 299-8651
NY Naco Electronics, 2631 Edgewood Rd
Utica 733-5632
NY Naco Electronics, 119 Luther Ave
Liverpool 474-4781
NY Naco Electronics, 74 Park Ave
Rochester .... 716 CH 4-4720
NY Eastern Instrumentation, 350 Northern Blvd
Great Neck 466-9505
NY Naco Electronics, 14 Lori St
Poughkeepsie 462-2730
Ohio Harvey Teplitz, 3718 Salem Ave
Dayton 277-9178
Ohio Harvey Teplitz, 3945 Meadowbrook Blvd
Cleveland 371-2044
Ore Arva Inc, 2035 SW 58th Ave, Portland 222-7337
Pa Eastern Instrumentation, 613 Cheltenham Ave
Phila 215 927-6269
Tex Vidal Electronics Co, 3403 High Bluff Dr
Dallas 214 241-4491
Wash Arva Inc, 1320 Prospect St, Seattle 622-0177
Can Mel Sales, 70 Crockford Blvd
Scarborough 755-9235
Can Mel Sales, Box 1352 Post Sta O
Montreal, Que 473-7655
Can Polarad-Canada Ltd, 232 John St
Amprior, Ont 623-4217
For Equip De Lab Lda, Rua Pedro Nunes, 47
Lisbon, Port
For Equip Technicas Lda, Box 6319
Luanda-Angola, Port W Afr
For Radio Electronics Hdqtrs Inc, Box 1400, Manila, Phil
For Elding Trading Co, Hasnarhvoli, Reykjavik, Iceland
For Chung Do Indus Co Ltd, Box 1535, Seoul, Korea
For Inglomark, Markowitsch & Co, Mariahilfer St 133
Vienna, Aus
For Heighten Scient Co Ltd, Box 1408, Taipei
Taiwan, China
For Equip Tecnicos lda
Av 24 De Julho, 1847 Lourenco Marques
Mocambique, Port E Africa
Den Hans Buch & Co A/S, Svanevej 6, Copenhagen NV
Fr Polarad-France, 85 Rue Gabriel Peri, Montrouge 92
Ger Neumuller Co GMBH, Karlstrasse 53, 8 Munchen 2
GB Wessex Electronics Ltd, Baldwin St, Bristol 1
Holl C N Rood nv, Box 4542, Rijswijk (ZH)
Ital Dott, Ing M Vianello, Via L Anelli, 13, Milano
Jap Marubun Co Ltd
1, 2-Chome, Odenmacho, Nihonbashi
Chuo-Ku, Tokyo
Nor Metronic A/S, Tollbodgt 4, Oslo
SAfr Aerosignals M & M (Pty) Ltd, 16 Frederick St
Johannesburg
Swed Gunnar Petterson, Box 117, Stockholm-Farsta 1
Swit Omni Ray AG, Dufourstr 56, Zurich 8008
BC Arva, Inc, 1624 W 3rd Ave
Vancouver 9 736-6377
Gr Andreas E Devletoglou, 20 Voukourestiou St
Athens 134
Ind Motwane Pvt Ltd, 127 Mahatma Gandhi Rd
Bombay 1 Br
Ind Motwane Private Ltd, 127 Mahatma Gandhi Rd
Bombay 1 BR
Isrl Racom Electronics Co Ltd, 74 Nordau Blvd, Tel-Aviv
Mex AD Auriema Inc, 85 Broad St
New York 212 269-7750
NZ W & K McLean Ltd, 103 Felton Mathew Ave
Glen Innes Auckland
Fin Orbis O/Y, Box 42015, Helsinki 42
Aust Astronic Imports, 622 Nicholson St
North Fitzroy, N. 7 .... Melbourne, Vic

POLARIS ENGINEERING CORP, 1622 W CARROLL AVE
CHICAGO, ILL, 60612 .... 312 738-2000
M LANGHAUS, EMP 40, ENG 3, $500-$1,000M

POLAROID CORP, 549 TECHNOLOGY SQ, CAMBRIDGE
MASS, 02139, TWX 710-320-6611 ...... 617 864-6000
G HOWARD, OVER $10,000M
Cal Polaroid Corp, 875 Stanton Rd
Burlingame 692-2708
Ga Polaroid Corp, 3720 Browns Mill Rd S W
Atlanta 762-1717
Ill Polaroid Corp, 2020 Swift Dr
Oak Brook 654-4600
NJ Polaroid Corp, Box 400, Mahwah 529-3579
Va Polaroid Corp, 1501 Wilson Blvd
Arlington 524-2807

POLLAK CORP, JOSEPH, 179-195 FREEPORT ST
BOSTON, MASS, 02122 .... 617 282-9550
H MACDONALD, EMP 350
Conn Lew J Carr, 103 Carmalt Rd, Hamden ... AT 8-4269
Fla Winfield Electronic Sales Co, 666 N E 125th St
N Miami 751-5566
Ga Wingield/Southeast, N Druid Hills Rd N E
Atlanta 636-3023
Md Trainor Sales, 30 Haddon Ave
Haddonfield 428-7440
Mass W Connors Co, 100 Everett St
Westwood 769-2570
Mich Johnston-Cutting Inc, 22100 Coolidge Hwy
Oak Park 564-5641
Mo R R Burton Sales Co, 9915 E 63 St
Raytown 358-5370
NJ Budd-Tronics Inc, 71 Grayson Pl
Teaneck 837-1660
NY ABW Agents, Inc, 815 Sibley Tower Bldg
Rochester 546-8061
Ohio A D Dircksen & Assoc, Dabel Sta, Box 22
Dayton .... CL 6-0351
Tex Dahlin Assoc, Box 2375, Dallas .... LA 1-2939
Wis C A Hokans Inc, 7230 W Capitol Dr
Milwaukee 464-8700

POLYKEN DIV THE KENDALL CO
309 W JACKSON BLVD, CHICAGO
ILL, 60606 .... 312 939-7100
H WALSH

POLYMER CORP, READING, PA, 19603 ... 215 929-5858
R BARTHOLD, EMP 1000, ENG 50
Cal Polymer Corp, 18345 Ventura Blvd
Tarzana 213 345-0420
Conn Polymer Corp, 993 Farmington Ave
W Hartford 203 232-1716
Ga Polymer Corp, 5105 Peachtree Ind Blvd
Chamblee 404 451-4567
Ill Polymer Corp, 3835 Industrial Ave
Rolling Meadows 312 259-1550
Ill Polymer Corp, Chicago 312 775-2000
Mich Polymer Corp, 29429 Southfield Rd
Southfield 313 353-2370
Mo Polymer Corp, 1750 S Brentwood Blvd
St Louis 314 962-9574
NH Polymer Corp, 6-1/2 Kinsley St
Nashua 603 882-8675
NJ Polymer Corp, 285 Highland Cross Rd
Rutherford 201 933-2333
NY Polymer Corp, New York 212 929-7901
NY Polymer Corp, 890 Winton Rd S
Rochester 716 271-1550
NY Polymer Corp, 77 Colvinhurst Dr
Kenmore 716 854-0262
NC Polymer Corp, 413 W Main St
Gastonia 704 864-7041
Ohio Polymer Corp, 5710 Wooster Pike
Cincinnati 513 271-6568
Ohio Polymer Corp, 3691 Lee Rd, Cleveland ... 295-1255
Ohio Polymer Corp, 3691 Lee Rd
Shaker Heights 216 295-1255
Pa Polymer Corp, 120 E Grandview Ave
Zelienople 412 452-7127
Pa Polymer Corp, Philadelphia 215 818-4551
Tex Polymer Corp, 3810 Westheimer St
Houston 713 621-0671
Tex Polymer Corp, 7735 El Pastel Dr
Dallas 214 231-5971
Can Polypenco Canada Ltd, 100 Frederick St
Acton, Ont 853-0280
Fr Polypenco (France) S A R L
122, Ave de Gen Leclexc, 91 Yerres Essonne
Ger Polypenco GMBH, Paffrather Stl 51
507 Bergisch-Gladbach
GB Polypenco Ltd, Welwyn Garden City, Herts
Holl Polypenco Europa, N V, Box 59, Almelo
Jap Nippon Polypenco Ltd, 12 Marunouchi 2-chome
Chiyoda-ky, Tokyo

POLYMICA & INSULATION CO INC, 470 CAPITOL AVE
HARTFORD, CONN, 06106 .... 203 525-9108
J MARSHALL, EMP 5, ENG 1, $250-$500M

POLY-OPTICS, INC, 1815 E CARNEGIE, SANTA ANA
CAL, 92705 .... 714 546-2250
A MENADIER, EMP 25, ENG 5, $250-$500M

POLYPHASE INSTRUMENT CO, E FOURTH ST
BRIDGEPORT, PA, 19405 .... 215 279-4660
R SIMMONS, EMP 200, ENG 15
Ala N B S, Box 1343, Huntsville 881-3175
Ariz Jack Berman Co, Phoenix
Cal Jack Berman Co, 1751 S Lacienega Blvd
Los Angeles .... UP 0-4711
Conn Mahan Co, Hopkins Rd, Watertown 274-2363
Fla N B S , 4150 S W 23rd
Ft Lauderdale 305 584-0650
Fla N B S, 2813 Prinrose Ct, Orlando 305 423-4856
Ga NBS, 893 Church St NW, Marietta ... 404 422-6067
Ill Lightner Assoc, 6322 N Milwaukee
Chicago 775-5300
Mass Mahan Co, 572 Washington St
Wellesley 237-1040
NY Young & Ziff, 555 Winton Rd N
Rochester .... HU 2-1555
NY Weiland Assoc, 61-47 219th St
Bayside 631-0457
Pa Porecca Assoc, 1062 Lancaster Ave
Rosemont .... LA 5-6473

POLYSCIENCES INC, WARRINGTON
PA, 18976 .... 215 OS 2-1117
B HALPERN, EMP 10, ENG 4, $250-$500M

POLY SCIENTIFIC DIV LITTON INDUSTRIES, 1111 N MAIN ST
BLACKSBURG, VA, 24060, TWX 710-875-3692 ... 703 552-3011
M GALLAGHER, EMP 550, ENG 52
ADV PG 642
Ariz E J Foley & Assoc, 3840 N Jokake Dr
Scottsdale 945-2666
Cal Poly-Scientific Div, Box 872
Woodland Hills 887-3361
NJ Talbe, Inc, 19 Sylvan Ave
Englewood Cliffs 947-5038
NC Candor Co, Bethania 924-1480
Ohio Talbe, Inc, 5899 Huberville Ave
Dayton 253-5351
Tex K O Brown & Co, Box 14192, Dallas 357-3996

POLYTRONICS COMMUNICATIONS, BALTIMORE DIV
BOX 536, BALTIMORE, MD, 21203 ..... 301 766-5000
D JUDY, EMP 300, ENG 5, $500-$1,000M
Cal D Muir, 2909 N Lake Ave
Altadena 213 681-2516
Fla Geortner Assoc, 350 Lincoln Rd
Miami Beach 305 538-8266
Ga Sam Little Co, 2396 Connally Dr, East Point
Haw Nylen Brothers, 820 S Beretania St, Honolulu
Kan Penzner Assoc, 5600 W 96th St
Overland Pk 913 381-0004
Minn N Laub, 3745 W Broadway
Minneapolis 612 588-4663
NY Chester Drexler Co, 3 Lee Dr
Farmingdale 249-8206
Ohio Ohio Assoc, 283A Silica Rd
North Jackson 216 538-3215
Pa Samuel K Macdonald Inc, 1531 Spruce St
Philadelphia 215 545-1205
Tex Branum Sales Inc, 747 Sherman St
Richardson 213 681-2516
Wash Kenmac, Intl, 8711 Suanita Dr, Yakima ... 236-6650
Wash Ron Merritt Co, 1320 Prospect St
Seattle 206 682-7337

POMONA ELECTRONICS CO INC, 1500 E NINTH ST, BOX 2767
POMONA, CAL, 91766, TWX 910-581-3822 ...... 714 623-3463
C MUSARRA, EMP 60, ENG 3
ADV PG 12, 83, 223, 277, 480, 643
Ariz H A Moore Sales Co, Box 7245
Phoenix 602 274-0060
Cal P Nurches Co, 999 Commercial St
Palo Alto 415 326-7842
Cal P Nurches Co, 2396 E Foothill Blvd
Pasadena 213 681-8957
Cal A J Rissi Sales Co, 1817 S San Gabriel Blvd
San Gabriel 213 283-7614
Cal Belchamber & French, 308 Playa Blvd
La Selva Beach 688-3281
Colo AES Inc, 12891 E Nevada Cir
Aurora 303 366-0208
Conn R S Reiss Assoc, 70 Jessie Dr
West Haven 203 933-8542
Ga V Avis McCorvey Co, 2187 Briarcliff Rd
Atlanta 404 636-2502

Ill W M Linz Assoc Inc, 4001 W Devon Ave
Chicago 312 685-6060
Ind W Sharkey, 329 Benton Dr
Indianapolis 317 881-0696
Kan Clemenson-Larrabee Co, 3709-A Summit St
Kansas City 816 931-0657
Mass Al Appell, 199 E Foxboro St
Sharon 617 784-3439
Mich C A Geer Co, 221 Graceland St
Grand Rapids 616 363-0905
Minn Northern States Sales Co, 1109 W 78 1/2 St
Minneapolis 612 866-3468
Mo B Fontaine, 2725 Beloit Dr
Bridgeton 314 739-6857
NY J Weber, 2700 Henry Hudson Pkwy
New York 212 546-8306
Ohio P Lohse & Co, 537 Richmond Rd
Cleveland 216 381-7788
Pa D S Linz, 238 Shelmire St, Phila 215 379-0734
SC H Norman, Box 5185 Sta B
Greenville 803 244-6254
Tex Techno Assoc, Box 20544, Dallas 214 357-9213
Wash R K Squibb Inc, 655 NE Northlake Pl
Seattle 206 632-2450
Can Electronetic Systems Ltd, 62 Alness St
Downsview, Ont 416 636-3673
Can Electronetic Systems Ltd, 6420 Victoria Ave
Montreal, Que 514 737-2744
For Intercontl Avia Services, Box 1705
Beverly Hills Calif 213 274-7578
BC A Deskin Sales Corp, 1641 Venables St
Vancouver 604 253-6396

POOLE INSTRUMENTS INC, 150 EXPRESS ST, DALLAS
TEX, 75221 .... 214 RI 7-2353
F POOLE, EMP 25, ENG 4, $100-$250M

POPPER & SONS INC, 300 PARK AVE S, NEW YORK
N Y, 10010 .... 212 674-5500
H LEIGHTON
Cal J W Leser Co, 4408 W Jefferson Blvd
Los Angeles 731-4173
Conn Professional Packaging Assoc
Hartford 203 298-8003
Ill Markers Equip & Supplies, Box 236
Lombard 261-3441
Ill F B Tatro Assoc, 1921 N Harlem Ave
Chicago 622-9777
Mass Professional Packaging Assoc, 89 Main St
Northboro 617 393-6886
Mo S Riekes & Sons, 413 Grande Ave
Kansas City 921-3222
Mo Steel Mark Sales, 4501 Swan Ave
St Louis 535-3393
Tex Teamwork Inc, 2646 Andjon, Dallas 352-7747

PORCELAIN PRODUCTS CO DIV CLARKEN CO
225 N PATTERSON ST, CAREY
OHIO, 43316 .... 419 396-2211
W LITTEN, EMP 120, ENG 3, $2,500-$5,000M
Cal G A Gray Co, 2720 17th St
San Francisco 415 431-1526
Cal Allied Industries, 412 Seaton St
Los Angeles 213 628-2244
Colo K B Schumann Co, 1073 Galapago St
Denver 303 222-8913
Fla Busser-Hollowell Inc, 49 NE 22nd St
Miami 305 379-8122
Ga McKenzie Co, Inc, 205-15th St, N W
Atlanta 404 875-7886
Ill Andersen Elec Sales, 201 Forest Ave
Glen Ellyn 312 469-7805
Ind Electric Sales Inc, 25 N Pine St
Indianapolis 317 635-0144
Iowa Midwest Equip Co of Iowa, 1163 24th St
Des Moines 515 255-3116
Ky L P Chick & Co, 1551-55 S 10th St
Louisville 502 636-2871
Md H S Ellen Assoc Inc, 1525 N Gay St
Baltimore 301 732-1500
Mass Saracen Assoc, 1616 Soldiers Field Rd Ext
Boston 617 787-4310
Mich J L Miner Assoc, 15318 Mack Ave
Grosse Pointe Park 313 886-5878
Minn R J Bork Co, 872 Curfew St
St Paul 612 646-7994
Mo F A Bettis Co, 3718 Broadway
Kansas City 816 531-1530
Mo Arbeiter Co, 7297 Olive Blvd
St Louis 314 727-0016
Neb R D Watson, 2106 Burt St, Omaha 402 345-8514
NJ L P O'Brien Sales Co, 299 Forest Ave
Paramus 201 262-0073
NY E J Haines & Son, 322 Vine St
Syracuse 315 474-8508
NC P Lumpkin Co, 611 Templeton Ave
Charlotte 704 376-8428
Ohio Curtis Sales Corp & Assoc, 4815 Superior Ave
Cleveland 216 391-3828
Ohio Allan G Smith Sales, 1229 W 3rd Ave
Columbus 614 291-0263
Ore Robert A Amey Co, 2057 NW Saltzman Rd
Portland 503 646-7196
Pa Crescent Slaes Co Inc, 4830 McKnight Rd
Pittsburgh 412 364-3700
Pa L Keller Electric Sales Co, 3045 W Jefferson St
Phila 215 232-0702
Tex G E Anderson Co Inc, 1700 S Ervay St
Dallas 214 428-3731
Wash Tal Agencies Inc, 1043 6th Ave S
Seattle 206 624-3355

PORTA-TRACE DIV, GAGNE ASSOCIATES INC, 50 WALL ST
BINGHAMTON, N Y, 13901 .... 607 723-9556
M HOUGHTALEN, EMP 33, ENG 5, $250-$500M
ADV PG 271

PORTCHESTER INSTRUMENT CORP, 114 WILKINS AVE
PORT CHESTER
N Y, 10573, TWX 914-937-5080 .... 914 937-3237
J SIMMONDS, EMP 40, ENG 2, $250-$500M

PORTER CO (CAN) LTD, H K, 265 SUFFOLK ST
GUELPH, ONT, TWX 02956531 822-6730
R SORBARA, EMP 500, ENG 10, OVER $10,000M

PORTER CO INC, H K ELECTRICAL DIV, PORTER BLDG
PITTSBURGH, PA, 15219 .... 412 391-1800
E SCRUGGS, OVER $10,000M
Ala H K Porter Co Inc, 8436 1st Ave N
Birmingham 836-4264
Ariz H K Porter Co Inc, 1824 E Jefferson St
Phoenix 254-6088
Cal H K Porter Co Inc, 6900 E Elm St
Los Angeles 723-0393
Cal H K Porter Co Inc, 640 Dubuque St
San Francisco 589-9850
Colo H K Porter Co Inc, 455 W Wesley Ave
Denver 733-3741
DC H K Porter Co Inc, 4435 Wisconsin Ave NW
Washington 244-7100
Fla H K Porter Co Inc, 112 E Cass St
Tampa 229-6910
Fla H K Porter Co, Inc, Box 894
South Miami 661-1679
Ga H K Porter Co Inc, 1238 Fernwood Cir NE
Atlanta 237-0336
Ill H K Porter Co Inc, 725 Nicholas Blvd
Elk Grove Village 921-2633
Ind H K Porter Co Inc, 5259 Tacoma Ave
Indianapolis 253-3401
La H K Porter Co Inc, 3301 N Causeway Blvd
Metairie 835-7377
Mass H K Porter Co Inc, 216 Tremont St
Boston 426-8840
Mich H K Porter Co Inc, 50 W McNichols Rd
Detroit 883-4668
Mich H K Porter Co Inc, 17 W 10th St
Holland 396-1000
Minn H K Porter Co Inc, 2256 Myrtle Ave
St Paul 645-5574
Mo H K Porter Co Inc, 8230 Forsythe Blvd
St Louis 726-1070
Mo H K Porter Co Inc, 7933 A State Line
Kansas City 361-8070
NY H K Porter Co Inc, 300 Park Ave
New York 688-2700
NY H K Porter Co Inc, State Tower Bldg
Syracuse 474-5305
NC H K Porter Co Inc, 215 Greystone Rd
Charlotte 523-4058
Ohio H K Porter Co Inc, 9156 Montgomery Rd
Cincinnati 791-0312
Ohio H K Porter Co Inc, 1836 Euclid Ave
Cleveland 781-2250
Okla H K Porter Co Inc, 5200 S Harvard St
Tulsa 743-6673
Pa H K Porter Co Inc, 325 Chestnut St
Phila 923-3253
Tex H K Porter Co Inc, 2727 Kirby Dr
Houston 524-5334
Tex H K Porter Co Inc, 1411 Fid Union Life Bldg
Dallas .... RI 2-5881
Va H K Porter Co Inc, 3600 W Broad St
Richmond 355-9138
Wash H K Porter Co Inc, 3440 E Marginal Way
Seattle 623-3775
Wis H K Porter Co Inc, 6228 W Capitol Dr
Milwaukee .... HO 3-9030

PORTER CO INC H K, FABRICATED METALS DIV
300 PORTER BLDG, PITTSBURGH
PA, 15219, TWX 7196642015 .... 412 391-1800
R QUINN, OVER $10,000M
Cal Fabricated Metals Div, 6900 E Elm St
Los Angeles 213 723-0393
Cal Fabricated Metals Div, 5 Third St
San Francisco 415 391-0727
Fla Fabricated Metals Div, 836 Bordeau Ave W
Jacksonville 904 725-2555
Ga Fabricated Metals Div, 2136 American Ind Way
Atlanta 404 451-4621
Ill Fabricated Metals Div, 725 Nickolas Blvd
Elk Grove Village 439-7040
Kan Fabricated Metals Div, Box 6116
Shawnee Mission 913 649-7788
Mass Fabricated Metals Div, 1060 Homestead Ave
Holyoke 534-7377
Mich Fabricated Metals Div, 50 W McNichols Rd
Detroit 313 883-4600
NJ Fabricated Metals Div, 1 Pavilion Ave
Riverside 215 627-7838
NJ Fabricated Metals Div, Box 95
Roselle 201 241-5120
NY Fabricated Metals Div, 230 Winton Rd N
Rochester 716 654-9370
Ohio Fabricated Metals Div, 8613 Winton Rd
Cincinnati 522-0089
Ohio Fabricated Metals Div, 4040 Mayfield Rd
Cleveland 216 382-2020
Tex Fabricated Metals Div, Box 13468
Houston 713 522-2524
Va Fabricated Metals Div, Box 118
Stuarts Draft 703 337-1110
Wis Fabricated Metals Div, 6228 W Capitol Dr
Milwaukee 414 463-3590

PORTER CO INC H K THERMOID DIV
1250 PORTER BLDG, PITTSBURGH
PA, 15219 391-1800
D, EMP 3120, ENG 25, OVER $10,000M
Cal Thermoid Div, 2324 Vernon Ave
Vernon 582-0871
Ga Thermoid Div, 2135 American Ind Way
Chamblee 451-4621
Ill Thermoid Div, Box 250
Mt Prospect 255-2010-2011
Ind Thermoid Div, Union St & Concord Rd
Lafayette 447-5088
NJ Thermoid Div, 13 Production Way
Woodbridge 382-5600
Ohio Thermoid Div, 500 Industrial Mile Rd
Columbus 276-6531
Tex Thermoid Div, 9250 King Arthur Dr
Dallas 637-0980

PORT PLASTICS INC, 8037 E SLAUSON AVE
MONTEBELLO, CAL, 90640 .... 213 685-6200
EMP 26, $1,000-$2,500M
Ariz Port Plastics Inc, 3066 W Clarendon Ave
Phoenix 264-1171
Cal Port Plastics Inc, 180 Constitution Dr
Menlo Park 324-1391

POSITIVE CONNECTOR CO, 304 SEYMOUR AVE, DERBY
CONN, 06418 .... 203 735-7831
R COMBS, EMP 550, ENG 20, $5,000-$10,000M
Ariz Electronic Sales Co, 3615 E 24th St
Tucson 325-3782
Cal R C Dudek & Co, 600 N Sepulveda Blvd
Los Angeles 272-8097
Cal H K Foraker Co, 4606 Porter St
Fremont 657-2213
Conn Products Sales Co, Bridgeport
Ill Ropek-Cahill Inc, 5439 W Division St
Chicago 287-7292
Mich C H Schmidt Co, 16405 W 8 Mile Rd
Detroit 273-8500
Minn J Lee Co, 4241 Toledo Ave, Mnpls 920-1525
Mo H A Roes & Co, 2601 Cherry St
Kansas City .... BA 1-0866
NJ Leff Sales Assoc, 5900 Westfield Ave
Pennsauken 663-4025
NJ Kenbar Industries, Somerville 725-9470
NY Gislason Sales Inc, 617 Case Bldg
Rochester 562-8323
Ohio Geo L Herrick Co, 845 Canterbury Rd
Westlake 871-8855
Tex Packard Assoc, 2655 Perth St, Dallas 357-5713
Can Innes Engineering Assoc, 767 Warden Ave Unit 4
Scarboro, Ont 425-1611

POSITRONIC INDUSTRIES INC, 1906 S STEWART ST
SPRINGFIELD, MO, 65804 .... 417 883-3434
J GENTRY, EMP 18, ENG 2, $100-$250M
Cal Dewco Sales Inc, 6915 San Fernando Rd
Glendale 213 849-6101
Cal Parsons Co, One First St, Los Altos 415 941-4745
Fla CES Assoc, Box 1152, Melbourne 305 254-2183
Ga V Avis McCorvey Co, 2187 Briarcliff Rd NE
Atlanta 404 636-2502
Ill MQ Assoc, 6713 N Oliphant Ave
Chicago 312 774-8844
Mich Elko Sales Corp, 3119 Midland Dr, Grand Rapids
NJ Cluett Sales Assoc, 43 E Main St
Marlton 609 983-2154
NY J Kunze Assoc, 29 Jefferson St
Glen Cove 516 671-2376
Ohio Del Steffen & Assoc, 3130 Far Hills Ave
Dayton 293-3145
Ohio Del Steffen & Assoc, 25000 Euclid Ave
Cleveland 216 261-5055
Tex Delzell & Evans Assoc, Box 35093
Dallas 214 351-1839
Wash F W Aurich & Co, 3601 Gilman Ave W
Seattle 206 282-2223
Wis Erdman Sales Co, 6712 S 27th St
Oak Creek 414 761-2120

POSSIS MACHINE CORP, 825 RHODE ISLAND AVE, S
MINNEAPOLIS, MINN, 55426 .... 612 545-1471
G BAILLIE, EMP 300, ENG 75, $2,500-$5,000M

POTTER & BRUMFIELD, DIV AMER MACH & FDRY CO
1200 E BROADWAY, PRINCETON
IND, 47570, TWX 812-291-4125 .... 812 385-5251
D MORROW, EMP 2000, ENG 47, OVER $10,000M
ADV PG 589, 591, 592, 593, 595, 601, 611, 612
Ariz Howe & Howe Sales Inc, 4109 N 18th St
Phoenix 602 264-7971
Cal Elloitt Recht Assoc, 175 S San Antonio Rd
Los Altos 415 941-0339
Cal Black & Strong, Inc, 1728 S La Cienega Blvd
Los Angeles .... 213 UP 0-9191
Cal Black & Strong, Inc, 444 Olive St
San Diego 714 298-4711
Colo R G Bowen Co Inc, 1440 S Santa Fe
Denver 303 722-4641
Conn G M Hathaway Electronics Inc, Box 797
Canaan 203 824-7215
Fla Cartwright & Bean Inc of Fla, 20100 NE 25th Ct
N Miami Beach 305 945-2962
Fla Cartwright & Bean Inc of Fla, 609 E Colonial Dr
Orlando 305 425-8284
Ga Cartwright & Bean Inc of Ga
3223 Cain's Hill Pl NW, Atlanta 404 237-2273
Ill Balhorn & Welch Inc, 1925 N Harlem Ave
Chicago 312 889-5011
Ill Bierhaus Sales Inc, 1013 E 31st St
LaGrange Park 312 354-5100

Ind	R O Whitesell & Assoc Inc, 203 W Wayne St Fort Wayne	219 743-4411
Ind	R O Whitesell & Assoc Inc, 6620 E Washington Indianapolis	317 FL 9-5374
Ky	R O Whitesell & Assoc Inc, 3620 Lexington Rd Louisville	502 893-7303
La	Cartwright & Bean Inc of Tenn, 1812 Bullard Ave Metairie	504 834-8312
Mass	G M Hathaway Electronics Inc, 7-11 Mystic St Arlington	617 646-1380
Mich	Hilltronics Inc, 13720 Puritan Ave Detroit	313 342-3242
Mich	R O Whitesell & Assoc, Inc, 303 Fidelity Bldg Benton Harbor	927-2041
Minn	A J Warner Co, 4927 34th Ave S Minneapolis	612 729-7371
Mo	L R Harry & Assoc Inc, 7603 Forsyth Clayton	314 PA 7-6123
Mo	L R Harry & Assoc Inc, Box 588 Grandview	816 763-3634
NJ	J W McCoy, 300 Marlton Pike Cherry Hill	HA 8-3444
NJ	J A Rudy & Assoc, 409 Grand Ave Englewood	201 567-5880
NM	C T Carlberg & Assoc, 2611 Quincy St NE Albuquerque	505 265-1579
NY	R F Lamb Co Inc, 1865 Kenmore Ave Buffalo	716 874-4900
NY	T Carse Sales Co Inc, Box 71 Latham	518 785-5844
NY	J A Rudy & Assoc, New York	OX 5-7850
NY	AMF International, 261 Madison Ave New York	212 687-3100
NY	J F Harm & Assoc., Inc, 7952 Boxford Circle Clay	315 699-2342
NY	R F Lamb Co Inc, 63 Norcrest Dr Rochester	716 876-3757
NC	Cartwright & Bean Inc of Ga, 625 Harwyn Dr Charlotte	704 537-7965
Ohio	R O Whitesell & Assoc Inc, 1172 W Galbraith Cincinnati	513 521-2290
Ohio	Scott Electronics, Inc, 1836 Euclid Ave Cleveland	216 861-2626
Ohio	Scott Electronics Inc, 79 E State St Columbus	614 228-2313
Ohio	R O Whitesell & Assoc Inc, 4133 S Dixie Ave Dayton	513 298-9546
Okla	Components Inc, Box 50277 Tulsa	918 LU 3-9149
Pa	Beil & Whitaker Inc, 1303 N Troxell St Allentown	HE 4-5220
Pa	Beil & Whitaker Inc, Box 384, RD 2 Dover	717 292-1786
Pa	Jack W McCoy, Philadelphia	WA 2-7333
Pa	Scott Electronics, Inc, 507 Liberty St Pittsburgh	412 471-5233
Pa	Beil & Whitaker Inc, 3623 Jacksonwald Ave Reading	215 779-2610
Pa	Beil & Whitaker, Inc, 5610 Akron Dr Harrisburg	717 652-0184
Tenn	Cartwright & Bean Inc of Tenn, 560 S Cooper St Memphis	901 276-4442
Tex	John B Guenther, iNC, 4533 N Central Expwy Dallas	214 528-6286
Tex	John B Guenther Inc, Box 55525 Houston	713 468-0232
Utah	R G Bowen Co Inc, 31 S 3rd E Salt Lake City	801 364-4632
Va	Potomac Electronics Inc, 604 Montgomery St Alexandria	836-1630
Va	Potomac Electronics Inc, Box 3705 Richmond	703 275-0411
Wash	R Johnston Co Inc, 1011 NE 69th St Seattle	206 524-5170
Wis	E A Dickinson & Assoc Inc, 3612 N Green Bay Ave Milwaukee	414 264-1080
Can	Potter & Brumfield, Div AMF Can Ltd 135 Oxford St, Guelph, Ont	519 822-0390
Can	C L Thompson Ltd, 3115 Lonsdale Ave N Vancouver, BC	604 987-9388
Can	Aeromotive Engineering, 887 Montee De Liesse Mont, Que	514 747-4781
Can	F Eakin Ltd, 9 Milvan Dr Weston, Ont	416 741-7485
Can	C L Thompson Ltd, 1440 Erin St Winnipeg, Man	204 783-0848

POTTER CO, 464 CENTRAL AVE, NORTHFIELD
ILL, 60093, TWX 910-992-1438 .... 312 761-8450
W JOHNSON, EMP 300, ENG 10, $2,500-$5,000M

Cal	M A Stolaroff Co, 4622 W Slauson Los Angeles	AX 5-7781
Cal	Potter Co, 11144 Penrose, Sun Valley	875-1090
Cal	R A Banks Sales Corp, 1029 Corporation Way Palo Alto	964-4464
Conn	J P Intl, 1989 Summer St, Stamford	348-2691
Fla	Geartner Assoc, 350 Lincoln Rd Miami Beach	531-0200
Kan	Midland Engrg Sales Assoc, 5460 Buena Vista Dr Mission	262-6565
Md	Arnold Ratner Assoc, 9148 Edmonston Rd Greenbelt	474-8552
Mass	Samuel C Hooker, Inc, 2 Winchester Pl Winchester	729-5482
Minn	Stack-Johnson, Inc, 4301 Minnetonka Blvd Minneapolis	920-4933
Miss	Potter Co, 950 W Congress St Brookhaven	643-2216
Mo	J C Mankus & Assoc, 400 Brooks La Hazelwood	731-4334
NY	R A Colucci Co, Box 447, Mineola	746-0397
NY	A W Schmitz, 82 St Paul St, Rochester	546-7628
Ohio	C Thoene, 148 Victor Ave, Dayton	278-5030
Pa	Arnold Ratner Assoc, 301 York Rd Jenkintown	TU 7-5250
Tex	Jacobsen Co, Box 9702, Dallas	348-1999
Can	Abbey Electronics Ltd, 1 Daybar Ave Rexdale, Ont	769-9080

POTTER CO CHEM ELECTRO RESEARCH DIV
11144 PENROSE ST, SUN VALLEY
CAL, 91352, TWX 910-498-2248 .... 213 875-1090
D FLOWERS, EMP 125, ENG 5

Cal	R A Banks Sales Corp, 1029 Corporation Way Palo Alto	964-4464
Fla	Gaertner Assoc, 350 Lincoln Rd Miami Beach	531-0200
Ill	Earl Johnson, 464 Central Ave Northfield	761-8450
Kan	Mindland Engrg Sales, 5460 Buena Vista Dr Mission	262-6565
Md	Ratner Assoc, 9148 Edmonston Rd Greenbelt	474-8552
Mass	Samuel C Hooker Inc, 2 Winchester Pl Winchester	729-5482
Minn	Stack-Johnson Inc, 2907 Portland Ave S Minneapolis	827-3841
NY	Colucci Co, Box 447, Mineola	746-0397
NY	A W Schmitz, 82 Paul St, Rochester	546-7628
Ohio	Carl Thoene, 148 Victor Ave, Dayton	278-5050
Pa	Ratner Assoc Inc, 301 York Rd Jenkintown	TU 7-5250
Tex	Jacobson Co, Box 9702, Dallas	DI 8-1999
Can	Abbey Electronics Ltd, 1 Daybar Ave Rexdale Ont	249-8431

POTTER INSTRUMENT CO, INC, 151 SUNNYSIDE BLVD
PLAINVIEW, N Y, 11803 .... 516 OV 1-3200
W SHARPE, EMP 750, ENG 100, OVER $10,000M

Ala	Currie Aerospace Assoc, Box 1424 Huntsville	536-5650
Cal	Potter Instr Co, Inc, 715 E Mission Dr San Gabriel	283-8177
Colo	Kelley Enterprises, 336 E 4th St Loveland	667-1376
Fla	Currie Aerospace Assoc, Box 13229 Orlando	855-0843
Ill	Scientific Sales Corp, 7132 N Harlem Chicago	775-7594
Mass	Potter Instr Co, Inc, 3 Erie Dr, Natick	235-4727
Mich	Potter Instr Co Inc, 18610 W 8 Mile Rd Southfield	353-9822
Minn	Potter Instr Co, Inc, 4940 Viking Dr Minneapolis	920-4973
Mo	Technical Mktg Assoc, 2050 Woodson Rd St Louis	HA 7-3600
Mo	Technical Mktg Assoc, 5827 Outlook Mission	TE 1-2888
NC	Currie Aerospace Assoc, 519 Nissen Bldg Winston-Salem	725-1927
Tex	Carey-Wolf Co, Dallas	TA 3-5383
Tex	Carey-Wolf Co, Box 12425, Fort Worth	PE 8-1702
Tex	Carey-Wolf Co, Box 60338, Houston	MI 3-2114
Va	Potter Instr Co Inc, 1400 Spring St Silver Spring	588-0030
Wash	Data Rep, 8611 NE 133, Kirkland	822-4688
Ind	Utility & Ind Prods Inc, 3925 N College Ave Indianapolis	317 924-3607
Mich	Edgar D Harder & Assoc, 6626 Schaefer Rd Dearborn	313 584-2933
NY	H C Johnson Agencies, 111 Mt Hope Ave Rochester	232-2688
Ohio	Technical Assoc, Box 388, Fairborn	513 878-2484
Pa	Rothenheber & Co, Inc, 53 Cricket Ave Ardmore	TR 7-9090

POWER COMPONENTS INC, BOX 421, SCOTTDALE
PA, 15683 .... 412 887-6600
B HILL, EMP 62, ENG 5, $500-$1,000M

Cal	R L Reid & Co, 248 W Pamela Rd Arcadia	MU 1-0711
Cal	Townsend Technical Sales, Box 265 Saratoga	408 252-3478
Colo	Electronic Mfgrs Consultant, Box 503 Colorado Springs	303 636-5131
Conn	R S Pettigrew & Co, 10 N Main St W Hartford	AD 3-8533
Conn	R S Pettigrew & Co, Inc, 10 N Main St West Hartford	233-8533
Fla	Brennan Assoc Inc, 804 Franklin St Clearwater	446-5006
Fla	Brennan Assoc, 2115 Ewing Ave S Clearwater	813 446-5006
Ill	Edward Schmeichel Co, 5968 W Chicago Ave Chicago	312 378-2070
Md	Quality Components, Inc, 13403 Grenoble Dr Rockville	933-1623
Mich	Butchart-Rathsburg & Assoc, 16637 E Warren Ave Detroit	882-1717
Minn	Wenco Sales, 7728 Morgan Ave S Mnpls	866-3639
Miss	Charles R Herron Jr, 4394 18th Ave Meridian	482-1878
Mo	Suor Sales Corp, 8115 Troost Kansas City	816 444-2871
NJ	Quality Components of N J, 220 N Woodstock Dr Cherry Hill	428-6266
NY	Lloyd Hart Assoc, Box 8398 Rochester	CH 4-3253
NY	P Saftler Assoc, Inc, 157 W 57th St New York	247-3855
NC	Brennan Assoc Inc, 274 N Graham-Hopedale Rd Burlington	227-6677
Ohio	Del Steffen & Assoc, 25000 Euclid Ave Cleveland	486-7078
Wash	Paramont Technical Agencies, 9210 28th NW Seattle	SU 4-6447
Can	Burlec Sales Ltd, 45 Northline Rd Toronto, Ont	755-3377
For	Henley & Co Inc, 202 E 44th St New York, N Y	986-5544

POWER CONTROL CORP, 122 GAMMA DR
PITTSBURGH, PA, 15238 .... 412 782-3120
M WAINWRIGHT JR, EMP 30, ENG 4, $250-$500M

Fla	J J Galleher Co, Box 1376, 617A Cleveland St Clearwater	813 446-7706
Ill	Brisky Assoc, 11734 S Western Ave Chicago	312 233-1339

POWER DESIGNS, INC, 1700 SHAMES DR, WESTBURY
N Y, 11590 .... 516 333-6200
H GOLDSTEIN, EMP 220, ENG 15, $2,500-$5,000M
ADV PG 532, 533

Cal	Dynamic Assoc, 1011 D Cadillac Way Burlingame	344-2521
Cal	Dynamic Assoc, 5190 W Washington Los Angeles	933-5833
Conn	H J Schuft, 965 Dixwell Ave New Haven	865-1365
Ill	L F Green & Assoc, 5218 W Diversey Ave Chicago	286-6824
Mass	H J Schuft, 815 Washington St Newtonville	LA 7-5304
Mich	H Teplitz & Co, 26847 Grand River Ave Detroit	KE 7-9058
Minn	L F Green & Assoc, 6225 University Ave NE Minneapolis	612 781-1611
NJ	QED Electronics Inc, 2916 Federal St Camden	365-2470
NY	QED Electronics Inc, 500 Nuber Ave Yonkers	698-2200
NY	Ossmann Instr Inc, 101 Pickard Dr Syracuse	315 454-2461
NY	Ossmann Instr Inc, 3100 Monroe Ave Rochester	716 586-0380
NY	Ossmann Instr Inc, Vestal Pkwy Vestal	607 785-9947
NY	Ossmann Instr Inc, Box 207 Wappingers Falls	914 297-7777
Ohio	H Teplitz & Co, 3945 Meadowbrook Blvd Cleveland	371-2044
Ohio	H Teplitz & Co, 3718 Salem Ave Dayton	513 277-9178
Tex	Applied Science Assoc, 3707 Rawlins St Dallas	526-8316
Tex	Applied Science Assoc, 5716 Southeast Frwy Houston	781-1441
Wash	Showalter-Judd, Inc, 1806 S Bush Pl Seattle	EA 4-7911
Can	ROR Assoc, 1470 Dan Mills Rd Don Mills, Ont	416 444-4403

POWER INC, ELECTRONICS DIV
12809 EAGLE RIDGE DR, BURNSVILLE
MINN, 55378 612-890-1360
D CARLSON, EMP 500

Wash	Blair Hirsh Co, 4013 Leary Way N W Seattle	783-3423

POWER INSTRUMENTS INC, 7352 N LAWNDALE AVE
SKOKIE, ILL, 60078 .... 312 676-2300
A SVANASCINI, EMP 15, ENG 3, $250-$500M

Cal	Davidson Assoc, 2920 Nebraska Ave Santa Monica	451-5761
Cal	Electro Pacific, 2524 Franklin St San Francisco	776-8582
Ill	Power Instruments Inc, 7352 N Lawndale Ave Skokie	676-2300
Ind	Delta Sales Inc, 1407 N Illinois St Indianapolis	ME 1-4136
Mass	Addelco Corp, 56 Pickering St Needham	444-4754
Mich	S Sterling Co, 21250 10 1/2 Mile Rd Southfield	357-3700
NY	Components Sales Corp, 221 E Hartsdale Hartsdale	725-1050
Ohio	S Sterling Co, 5827 Mayfield Rd Cleveland	442-8080
Ohio	S Sterling Co, 3300 S Dixie Dr, Dayton	298-7573
Pa	S Sterling Co, 4232 Brownsville Rd Pittsburgh	884-5515
Tex	Teamwork, Inc, 2646 Andjon, Dallas	FL 2-7747
Wash	M K Widdekind Co, 815 W Ewing St Seattle	776-8582
Can	Electrodesign, Ltd, 9124 St Lawrence Blvd Montreal, Que	389-5914
Fr	Recherches Mecaniques et Physiques 2 et 4, Rue Danton - 92, Levallois	
Arg	M S Roganti, Rivadavia 2057 -70, Buenos Aires	

POWER/MATE CORP, 163 CLAY ST, HACKENSACK
N J, 07601 .... 201 343-6294
R GRAHAM, EMP 85, ENG 5, $1,000-$2,500M
ADV PG 506, 536

Ala	NBS, 902 Bob Wallace Ave Huntsville	205 536-7786
Cal	Power/Data, Box U, Cupertino	408 257-3100
Cal	Power/Data Rep, 4821 W Century Blvd Inglewood	213 673-1785
Cal	Power/Data Rep, Santa Barbara	ZE 9-7003
Cal	Power/Data Rep, China Lake	ZE 9-7004
Cal	Power/Data Rep, San Diego	ZE 9-9915
Colo	Hilleary Assoc, 2552 Ridge Rd Littleton	303 794-4279
Conn	Waitt Elect Assoc, 7 West St Danbury	203 743-2151
Fla	NBS, Inc, 4150 SW 23rd St Ft Lauderdale	305 584-0650
Fla	NBS, Inc, 2813 Primrose Ct Orlando	305 423-4856
Ga	NBS, Inc, 893 Church St NW Marietta	404 422-6067
Idah	Hilleary Assoc, Idaho Falls	Zenith 7777

Ill K W Meyers Co, 7256 Touhy Ave
Chicago 312 774-6440
Mass Waitt Elect Assoc, 680 Main St
Waltham 617 891-7898
Minn K W Meyers Co, 4725 Excellsior Blvd
Minneapolis 612 920-7080
NJ Graydon-Sherman Inc, 230 Madison Ave
Morristown 201 538-9246
NM Hilleary Assoc, 311 Washington SE
Albuquerque 505 265-7631
NY Graydon-Sherman Inc, Great Neck 516 487-9696
NY KLM Assoc, 9 Hollywood Dr
Whitesboro 315 736-2450
NY KLM Assoc, 8 Bear Hill Dr
Palmyra .... 716 LY 7-9776
NY KLM Assoc, 201 S Main St
Syracuse 315 458-6214
Ohio Gibson Electronic Mktg, 2801 Far Hills Ave
Dayton 513 298-7683
Ohio Gibson Electronic Mktg, 2643 E Streetsboro Rd
Hudson 216 653-2900
Tex Blacketer Co, Box 119, Richardson ... 214 231-1718
Utah Hilleary Assoc, Utah .... Zenith 7777
Va Nine Assoc, Box 328, Annandale 703 256-8784
Wash Al Smith Co, 405 166 SE
Bellevue 206 746-6770
Can Electronic Mktg, 3600 Barclay Ave
Montreal 514 447-0660
Can Electronic Mktg, 160 Bay St
Toronto 416 364-1022
For Emec, Inc, 160 Terminal Dr
Plainview N Y 516 931-3700
BC Electronic Mktg, 2238 Wall St
Vancouver 736-5053

POWER SEMICONDUCTORS INC, 90 MUNSON ST
DEVON, CONN, 06460 .... 203 878-9455
J MUNGENAST, EMP 20, ENG 5, $1,000-$2,500M
Cal J Semar, 3530 Long Beach Blvd
Long Beach 213 427-6432
Conn Gerber Sales, 29 Whalley Ave
New Haven 203 777-6279
Ind R O Whitesell, Central Bldg
Fort Wayne 219 743-4411
Ind R O Whitesell, 6620 E Washington St
Indianapolis 317 359-5374
Ky R O Whitesell, 3620 Lexington Rd
Louisville 502 893-7303
Mass Gerber Sales, 24 Maple Ct
East Long Meadow 413 525-3059
Mass Gerber Sales, 176 Second Ave
Waltham 617 891-8040
Mich R O Whitesell, 25100 Evergreen Rd
Southfield 313 358-2020
Mich R O Whitesell, 303 Fidelity Bldg
Benton Harbor 616 927-2041
Ohio R O Whitesell, 21139 Lorain Ave
Cleveland 216 333-2585
Ohio R O Whitesell, 4133 S Dixie Ave
Dayton 513 298-9546
Ohio R O Whitesell, 1172 W Galbraith
Cincinnati 513 521-2290
Pa R O Whitesell, 201 Penn Center Blvd
Pittsburgh 412 242-0100
Wis R Koerber, 13909 W Lilac La
New Berlin 414 782-1310
For Sims-Worms Intl Ltd, 9000 Sunset Blvd
Los Angeles .... 213 CR 8-3300
Den Sims-Worms Intl Ltd, 17-27 High St
Hounslow .... HUD 0393

POWER SOURCES DIV, TECHNICAL OPERATIONS INC
SOUTH AVE, BURLINGTON
MASS, 01803, TWX 094-508 .... 617 272-2000
R SMYTH, EMP 30, ENG 5, $500-$1,000M
Minn Gould-Natl Batteries, Inc, 1st Natl Bank Bldg
St Paul 222-4171

POWER SYSTEMS INC, 4023 DEL REY AVE, VENICE
CAL, 90291 .... 213 391-6817
R BOUTON, EMP 10, ENG 2, UP TO $100M
Ariz Ar/Tec, Box 727, Scottsdale 602 947-6304
Cal W Gorman, 4476 Tivoli St
San Diego 714 222-9424
Cal Premmco, 2406 Lincoln Ave
Alameda 415 523-9495
DC L Comerford, 927 15th St NW
Washington 202 513-1430
Mass K C Stevens & Co Inc, 235 Bedford St
Lexington 617 862-1812
Minn Component Sales, Box 247
Excelsior 612 474-9100
Wash Instrumentation Engrg, 1331 3rd Ave
Seattle .... 206 MU 2-1123
Can Technitron Assocs, 769 Lajoie Ave
Dorval Que 514 631-6859

POWERTEC DIV, AIRTRONICS CORP
9168 DESOTO AVE, CHATSWORTH
CAL, 91311 .... 213 873-4322
J LING, EMP 25, ENG 3

POWERTON DIV CONRAC CORP, EXPWY IND PARK
PLAINVIEW, N Y, 11803 .... 516 GE 39600
R GEIGER, EMP 76, ENG 4, $1,000-$2,500M
Ill Conrac Corp, 3150 Des Plaines Ave
Des Plaines 827-7134
NY Conrac Corp, 122 E Main St, Rt 119
Elmsford 592-5500

POXYLUBE INC, 525 S WEBSTER AVE, INDIANAPOLIS
IND, 46219 .... 317 359-5407
L VAUGHN, EMP 10, ENG 2, UP TO $100M
Mich Martin Vogt, 2817 Bamlet Rd
Royal Oak 313 549-3355
Minn Hasse & Assoc, 3825 York Ave N
Minneapolis 612 588-0551
NJ Robert L Ringer Co, 14 Glen Ave
Glen Rock 201 444-1434
Ohio Martin-Rettger Inc, 11955 Shaker Blvd
Cleveland 216 791-8787

PPG INDUSTRIES, 1 GATEWAY CTR, PITTSBURGH
PA, 15222, TWX 412-642-4103 .... 412 281-5100
W NEWTON, EMP 38,000, ENG 600, UP TO $100M
Sales offices in principal cities throughout the U S

PPG INDUSTRIES INC, ADHESIVE PRODS
225 BELLEVILLE AVE, BLOOMFIELD
N J, 07003, TWX 710-994-4755 .... 201 748-1300
EMP 210, ENG 22, $5,000-$10,000M

PRAIRIE HOLLOW ENTERPRISES INC, BOX 138
EMINENCE, MO, 65466 .... 314 226-3271
EMP 120

PRATT & WHITNEY MACHINE TOOL DIV
CHARTER OAK BLVD, WEST HARTFORD
CONN, 06101, TWX 710-425-2907 .... 203 233-7561
W KOE, EMP 2204, ENG 75
Cal J H Bungartz, 4535 S Soto St
Los Angeles 213 582-8301
Ill T L Jenner, 4649 W Fullerton Ave
Chicago 312 489-1626
Mich R G Miller Jr, 13321 Puritan Ave
Detroit 313 272-4950
Ohio R G Miller Jr, 13801 Enterprise Ave
Cleveland 216 671-7216

PRD ELECTRONICS INC, SUB H-I CORP
1200 PROSPECT AVE, WESTBURY
N Y, 11590, TWX 510-222-4494 .... 516 ED 4-7810
W MCCRACKEN, EMP 450, ENG 158
Ala R Attaway Co, 900 Bob Wallace Ave SW
Huntsville 205 534-2811
Ariz T Louis Snitzer Co, 15 N 40th St
Phoenix 602 273-1673
Cal T Louis Snitzer Co, 9005 Exposition Blvd
Los Angeles 213 836-6170
Cal T Louis Snitzer Co, 1150 Camono Del Mar
Del Mar 714 454-2191
Cal L Louis Snitzer Co, 1020 Corporation Way
Palo Alto 415 968-8304
Colo PLS Assoc, 7895 E Prentice
Englewood 303 771-0140
DC Eastern-Instrumentation Inc, 2600 Virginia Ave NW
Washington 202 333-8880
Fla R Attaway Co, 57 E Robinson St
Orlando 305 424-9983
Ill K W Meyers Co, 7256 W Touhy Ave
Chicago 312 774-6440
Kan Thunderbird Eng Sales, 7707 E Osie
Wichita 316 684-3941
Kan Thunderbird Eng Sales, 4014-A W 95th St
Prairie Village 913 642-7220
Md Eastern Instrumentation Inc, 1002 Ingleside Ave
Baltimore .... 301 RI 4-3675
Mass PRD Electronics Inc, 60 Warren Rd
Ashland 617 235-8860
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield 313 357-3700
Minn Kenneth W Meyers Co, 4725 Excelsior Blvd
Minneapolis 612 920-7080
Mo Thunderbird Eng Sales, 400 Brookes Dr
Hazelwood 314 731-4343
NJ Eastern-Instrumentation, 518 Franklin Ave
Nutley 201 661-2000
NM PLS Assoc, 4200 B Silver Ave SE
Albuquerque 505 255-2330
NY Labtronics Inc, E Molloy Rd
Syracuse 315 454-9314
NY Labtronics Inc, 3568 Mayer Rd
N Tonawanda .... 716 NX 5-1982
NY Eastern-Instrumentation Inc, 350 Northern Blvd
Great Neck 516 466-9505
NC R Attaway Co, 614 Nissen Bldg
Winston-Salem 919 722-9671
Ohio S Sterling Co, 2673 Culver Ave
Dayton 513 298-7573
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland 216 442-8080
Okla Data Engrg Corp, 4580 E 50th St
Tulsa 918 622-3753
Ore ARVA Inc, 2035 SW 58th Ave
Portland 503 292-8762
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh 412 884-5515
Pa Eastern-Instrumentation Inc, 613 Cheltenham Ave
Philadelphia 215 927-6269
Tex Data Engrg Corp, 2641 Yale Blvd
Dallas 214 363-9351
Tex Data Engrg Corp, 2120 S Post Oak Rd
Houston 713 622-2820
Va Eastern-Instrumentation Inc, Ross Bldg
Richmond 703 644-6622
Wash ARVA Inc, 1320 Prospect St
Seattle 206 622-0177
Can Instronics Ltd, Box 100
Stittsville, Ont. 613 836-4411
For Radiotronix Communications Labs
741 Washington ST, New York 212 255-8900
Den A/S Danbridge, 47 Brigadevej, Copenhagen
Fr COMSATEC SA, 134 Ave Malakoff, 75 Paris 16
Ger TELCO GMBH, 8 Munchen 8, Franz-Pruller-Str 15
GB Roberts Elctns Ltd, 17 Hermitage Rd
Hitchen Herfordshire
Holl Groenpol Industrial Sales Co, Box 1188, Amsterdam
Ital Guido Belotti, Piazzo Trento 8, Milan
Jap Shimada Phys & Chem Ind Co Ltd
415 Shibazakicho Chofu-City, Tokyo
Nor Odd Tvedt & Co A/S, Box 3020, Bergen
Swed Scandia Metric AB, Sodra Langgatan 22
Fack Solna 3
Swit Seyffer & Co Inc, Badenerstr 265, 8040 Zurich
Ind Toshniwal Bros Private Ltd
198 Jamshedji Tata Rd Fort, Bombay 1
Spn I T A M E Co, Desengano 7 - 3a Planta, Madrid 13
Fin Oy Findip AB Ltd, Mannerheimintei 29 C
Helsinki 25
Aust Jacoby Mitchell & Co Pty Ltd, 469 Kent St
Sydney NSW

PRECISION ARC CO, 785 WOODEND RD, STRATFORD
CONN, 06497 .... 203 378-7397
J ANDREWS, EMP 23, ENG 4, $250-$500M
Ariz AR/Tec, Box 727, Scottsdale 947-6304
NJ H Ewertz, Box 30, Cranford .... BR 6-7340
NY C F Ahlheim, 284 Delaware Ave
Buffalo .... TL 4-0134
Ohio Richards & Alstedt, 14237 Detroit Ave
Cleveland 221-3634
Ore van Voorhees Assoc, Box 4383
Portland 287-6633
Pa Fred Merchant, Box 82, Abington .... TU 4-7035
Wash van Voorhees Assoc, 2208 White Henry Stuart Bldg
Seattle 623-8075

PRECISION CIRCUITS INC, 85 WEYMAN AVE
NEW ROCHELLE, N Y, 10802 .... 914 235-4300
H REISS, EMP 75, ENG 4, $500-$1,000M
Md T C Satterthwaite, Box 51
Kensington 301 942-1700
Pa W F Satterthwaite, Box 171
Lansdowne .... 215 MA 3-5100

PRECISION COIL MFG CO, 2215 MAIN
SANTA MONICA, CAL, 90405 .... 213 EX 9-2704
S TREWHITT, EMP 50, ENG 2, $250-$500M
Ala Young & Lawrence Assoc, 2907 Governors Dr SW
Huntsville 205 539-6575
Cal W W Posey, 175 S San Antonio Rd
Los Altos 415 948-7771
Cal Tri-State Marketing, 3220 Broadway
Ft Wayne 219 456-3567
Fla Young & Lawrence Assoc, 601 N New York Ave
Winter Park 305 647-6929
Fla Young & Lawrence Assoc, 300 31st St N
St Petersburg 813 894-0026
Ind Tri-State Marketing, 3220 Broadway
Ft Wayne 219 456-3567
Minn Countryman & Wagner, 560 N Prior Ave
St Paul 645-9151
Ohio Tri-State Marketing, 1717 Section Rd
Cincinnati 503 631-5060
Ohio Tri-State Marketing, 25000 Euclid Ave
Cleveland 216 731-9207

PRECISION CRAFTS, 3538 FOOTHILL BLVD
LA CRESENTA, CAL, 91014 .... 213 248-3211
P WHYTE, EMP 15, $100-$250M

PRECISION CRYSTAL LAB, 11240 W OLYMPIC BLVD
LOS ANGELES, CAL, 90064 .... 213 BR 2-0861
T HENRY, EMP 15, ENG 2, UP TO $100M

PRECISION DEVICES INC, 619 VERMONT ST
LAWRENCE, KANS, 66044 .... 913 843-0813

PRECISION ELECTRONIC COMPONENTS LTD
HAFIS RD 19, TORONTO 15, ONT 241-4491
S STEWART, EMP 60, ENG 3, $500-$1,000M

PRECISION ELECTRONICS CO, 427 PLAIN ST
MARSHFIELD, MASS, 02050 .... 617 834-6677
J CHANDLER, EMP 18, ENG 2
Mass Carl Lueders, Box 161, Needham Hgts 449-0345

PRECISION ELECTRONICS INC, 1 DITOMAS CT
AMITYVILLE, N Y, 11701 .... 516 598-2300
J SALIT, EMP 75, ENG 3, $1,000-$2,500M

PRECISION INC, 3415 48TH AVE. N, MINNEAPOLIS
MINN, 55429 .... 612 588-9441
E HONEBRINK, EMP 25, ENG 2, $250-$500M

PRECISION INSTRUMENT CO, 3170 PORTER DR
PALO ALTO, CAL, 94304 .... 415 321-5615
J SHANE, EMP 300, ENG 50, $5,000-$10,000M
Colo BFA, 1309 S Inca St, Denver
Conn Instrument Assoc, 234 Murphy Dr, Hartford
Fla Mekco Assoc, 1000 Woodcock Rd, Orlando
Ill Pivan Engineering Co, 3535 W Peterson Ave
Chicago
Mass Instrument Assoc, 30 Park Ave, Arlington
Mich Carter McCormic & Peirce Inc
16239 Wyoming Ave, Detroit
NJ Moxon Electronics, 151 Hackensack Ave, Hackensack
NM Precision Instr Co, 2104 San Mateo NE
Albuquerque 505 268-7703
NM BFA, 1238 Ortiz SE, Albuquerque

NY db Assoc, 3307 Erie Blvd E, DeWitt
Ohio Precision Instr Co, 213 N Broad St
Fairborn 513 879-0134
Va Precision Instr Co, 1401 Wilson Blvd
Arlington 703 525-9343
Va E-Tech Corp, 6615 Backlick Rd, Springfield
Wash Arva Inc, 1320 Prospect ST, Seattle

PRECISION INTERNATIONAL CORP, 6 NEWBERRY RD
BLOOMFIELD, CONN, 06002 .... 203 243-0341
L MUFATTI, EMP 3, ENG 2

PRECISION LAMP ENGINEERS, 25 WAYLAND ST
SAN FRANCISCO, CAL, 94134.......... 415 333-5466
H MCGILL

PRECISION MECANIQUE LABINAL, 17 RUE DE CLICHY
93 SAINT-OUEN, FRANCE 076-09-04
M POIRIER, EMP 4000, ENG 350, OVER $10,000M

PRECISION MECHANISMS CORP, 44 BROOKLYN AVE
WESTBURY, N Y, 11590 .... 516 ED 35955
L CANICK, EMP 25, ENG 4, $500-$1,000M
Cal Components Sales Calif, 4626 Van Nuys Blvd
Sherman Oaks 788-4550
Mass Components Sales Corp, 1644 Mass Ave
Lexington .... VO 2-1633
NY Components Sales Corp, 221 E Hartsdale Ave
Hartsdale .... SC 5-1050
NY A & D Devices, Pittsford .... LU 6-8033

PRECISION METAL PRODUCTS CO OF MALDEN INC, 41 ELM ST
STONEHAM, MASS, 02180 .... 617 438-3650
R DEGNAN, EMP 80, ENG 3, $1,000-$2,500M
ADV PG 333, 474, 475, 695
Ariz J Osborn Assoc, Box 968, Scottsdale 948-0501
Cal P W Jasin, 3506 Skylark Dr, Concord 686-0905
Cal C W Saxon & Assoc, Box 517
El Segundo .... EA 2-2111
Colo McLoud & Raymond Co, 2151 S Grape St
Denver 756-1589
Fla Wm R Lehmann Co, Box 20275
Orlando 841-4901
Ill Rusz Sales Co, 7740 Ardmore
Chicago .... NE 1-7322
Ind Burton F Homsher Co, 418 E Berry St
Fort Wayne 432-1164
Md Moler/Eader Assoc, 320 Hillen Rd
Baltimore .... VA 5-1130
Mass Sales Eng Co, Baker Ave, Concord .... VO 2-7320
Mich R C Nordstrom & Co, Box 32
Lathrup Village 444-4417
Minn Fred Peterson Co, Box 8409, Mnpls 927-4453
NJ G W Moler Co, Box 240, Haddonfield .... HA 8-2440
NY Willgold Elctn Sales Corp, 100 N Village Ave
Rockville Center .... RO 4-4022
NY Robert P Kennedy Co, Box 8417
Rochester 271-6322
Ohio Glover Sales Co, 7008 Big Creek Pkwy
Cleveland 842-4520
Tex Engineers Intl Co, 6409 Maple Ave
Dallas 352-2666
Wash W J Stulgis Co Inc, 608 W Crockett St
Seattle .... AT 2-7870
Can A Deskin Sales Co, 1565 Louvain St W
Montreal 384-1420

PRECISION OPTICS DIV PENNA OPTICAL CO
234 S 8TH ST, READING, PA, 19603 .... 215 376-4961
D POLKOSKY, EMP 450, ENG 10, $1,000-$2,500M

PRECISION PAPER TUBE CO, 1033 S NOEL AVE
WHEELING, ILL, 60090 .... 312 537-4250
R HATTON, EMP 150, ENG 3, $2,500-$5,000M
Ariz Electrical Specialty Co, 120 S 29th St
Phoenix 275-5739
Cal Electrical Specialty Co, 2820 E 12th St
Los Angeles .... AN 9-9511
Colo Electrical Specialty Co, 2026 Arapahoe St
Denver .... CH 4-4588
Ky Packaging Service, 3001 W Madison, Louisville
Mass H W Peterson, 12 Overbrook Terr
Natick .... OL 3-3855
Mo Tanler & Co, 7720 E Big Bend Blvd
St Louis .... MI 5-0590
Ore Electrical Specialty Co, 2360 NW Quimby St
Portland .... CA 7-3601
Can Glendon Co Ltd, 603 Evans Ave
Toronto .... CL 5-5001
For Industrias Comerciales SA, Medellin No 184
Mexico 7, DF 14 65 58
GB Langley London Ltd, Kelvin Way, Crawley, Sussex

PRECISION PLATING CO DIV, ROBERT ZACHARIAS CO
6057 N KEYSTONE AVE, CHICAGO
ILL, 60646 .... 312 JU 33333
J ZACHARIAS, EMP 50, $1,000-$2,500M
Mo Robert Decker & Assoc, 909 N Kirkwood
Kirkwood .... YO 5-7248

PRECISION PRODUCTS CO INC OF WALTHAM
26 BEDFORD ST, WALTHAM
MASS, 02154 .... 617 894-1400
J SERVELLO, EMP 40

PRECISION RESEARCH INC, BOX 434, STAMFORD
CONN, 06902 .... 203 DA 5-0950
L JOHNSON, EMP 25, ENG 5, $1,000-$2,500M

PRECISION RESISTOR CO INC, 109 U S HWY 322
HILLSIDE, N J, 07205 .... 201 926-3036
R WRIGHT, EMP 50, ENG 1, $250-$500M

PRECISION SCIENTIFIC CO SUB GCA CORP
3737 W CORTLAND ST, CHICAGO
ILL, 60647, TWX 910-221-3122 .... 312 CA 7-2660
J BLACK
Cal Precision Scientific Co, Answering Service
.... 213 CU 3-7815
NJ Precision Scientific Co, Answering Service
.... 201 686-9392

PRECISION SENSORS INC, 789 ELLSWORTH ST
BRIDGEPORT, CONN, 06605 .... 203 367-5368
J BALDYGA, EMP 80, ENG 3, $1,000-$2,500M
Cal Rinek Co, Box 1276, Arcadia 446-7445
Conn Magna Engrg Sales Co, 400 Stillson Rd
Fairfield 334-5538
Fla R G Evans, 536 St Dunstan Way
Winter Park 305 671-8716
Ga R Hayden Smith, 933 Crestline Rd
Atlanta 255-7382
Kan M D Davis, 924 W 30th St S
Wichita 316 591-1136
Md MacDonell Moore Jr, 10522 Catterskill Ct
Columbia 301 737-7280
Mass Paul C Nicholas, 166 Prescott St
Reading 944-3145
Mo Mfrs Sales & Services, Box 656
Florissant 314 831-0900
NY R S Ricketson, 15 Huckleberry La
Liverpool 652-2270
NY R W Chrysler, 261 Battery Ave
Brooklyn 836-0554
Ohio Magna Engrg Sales Co, Box 3482
Columbus 268-6588
Pa James D Hogan, 59 Iron Hill Rd
New Britain 215 345-1697
Tex Chas J Schleeweis, 7232 Oakbluff Dr
Dallas 239-2110

PRECISION SPECIALTIES INC, BOX 118, PITMAN
N J, 08071 .... 609 589-0815
R DRYSCH, EMP 75, ENG 4, $500-$1,000M
Cal Power Products Co, 6025 Maywood Ave
Huntington Park 583-4609
Ill Illinois Power Transmission, Inc, 2454 W 38th St
Chicago 927-8484
Mass Forbes Engineering, 19 Flint St, Salem 744-1693
Mich Reed Bearing & Equip Co, 21031 Mack Ave
Grosse Pointe Woods 884-1820
Minn E E Rempfer & Assoc, Inc, 215 6th St SE
Minneapolis 336-4616
Mo Potranco, Box 9351, Raytown 358-4511
NJ Delta Torque Sales Inc, Box 233
Oradell 261-6656
NY Henkell Co, Box 132, Skaneateles 685-6945
NC Robt W Chapman & Co., Box 4430
Charlotte 375-4495
Ohio Wood-Compton Co, 3666 E 116th St
Cleveland 751-6122
Ohio Paco-Perkins, Box 8102, Cincinnati 321-8366
Pa B & A Assoc, 237 Lancaster Ave
Devon 688-5173
Tex Robco, 1111 Quaker St, Dallas 631-7191
Tex Robco, Box 66436, Houston 523-1326

PRECISION STANDARDS CORP, BOX 8361
SAN MARINO, CAL, 91108 .... 213 795-5172
E ZIMMER JR
Ala Currie Aerospace Assoc, Box 1424
Huntsville 205 536-5650
Colo D E Bond Assoc, 2149 S Clermont St
Denver 303 756-1234
Conn Instrument Consultants, Inc, 2381 Whitney Ave
Hamden 203 248-4174
Fla Currie Aerospace Assoc, 2907 McCoy Rd
Orlando 305 855-0843
Ill Loren F Green & Assoc, 5218 W Diversey Ave
Chicago 312 286-6824
Iowa Engineering Services Co, 1026 3rd Ave SE
Cedar Rapids 366-1591
Md Electronic Sales Assoc, 12050 Tech Rd
Silver Spring 301 622-2246
Mass Instrument Consultants, Inc, Box 25
Waban 969-9881
Mich Megatek Inc, 26847 Grand River Ave
Detroit 313 531-1403
Minn Loren F Green & Assoc, 6225 University Ave NE
Minneapolis 612 781-1611
Mo Engineering Services Co, 6717 Vernon Ave
St Louis 726-2233
Mo Engineering Services Co, 7546 Troost
Kansas City 363-6000
NJ Electronic Sales Assoc, 3 Center St
Denville 201 625-2525
NJ MG Assoc, 1500 Kings Hwy
Cherry Hill 609 428-1663
NM D E Bond Assoc, Box 11331
Albuquerque 505 247-3442
NY Electronic Sales Assoc, 525 Northern Blvd
Great Neck 516 466-5577
Ohio Megatek Inc, 2533 Far Hills Ave
Dayton 513 298-8638
Ohio Megatek Inc, 23203 Lorain Ave
Cleveland 216 734-4433
Tex Data Engrg Corp, 5641 Yale Blvd
Dallas 214 363-9351
Tex Data Engrg Corp, 2120 S Oak Post Rd
Houston 713 622-2820
Wash J K Dooley Co Inc, 4110 Stone Way N
Seattle 206 632-1618

PRECISION SYSTEMS CO, INC, BOX 148, US HWY 22
SOMERVILLE, NJ, 08876 .... 201 722-7100
D GRESHAM, EMP 54, ENG 10
Cal Weightman & Assoc, 1226 W Olive Ave
Burbank 849-7711
Cal Weightman & Assoc, 120 Santa Marguerita Ave
Menlo Park 325-2885
Fla Gra-Mar Inc, 3113 Lawton Rd
Orlando 305 841-2330
Tex Teamwork Inc, 2646 Andjon
Dallas 214 352-7747
Fr Elenic, 1 Ave Carnot, Massey
Ger Elenic, Frankfurt
GB B T U Engineering, 53 Victoria Rd
Aldershot, Hampshire .... Ald 2-5191
Jap Seishin Trading Co
11, Shiba-Nishikubo Akefune-Cho, Minato-ku
Tokyo

PRECISION SYSTEMS CORP, 1183 CHESAPEAKE AVE
COLUMBUS, OHIO, 43212 .... 614 488-0771
EMP 10, ENG 2, $250-$500M

PRECISION THERMOMETER & INSTRUMENT CO
DEPT EBG, SOUTHAMPTON IND PK, SOUTHAMPTON
PA, 18966 .... 215 EL 5-1500
D HALL, EMP 55, ENG 5, $500-$1,000M
Ala Electro-Rep Assoc, 8960 Hartwell Rd, Birmingham
Ariz EMC, Inc, 1112 W Mission La, Phoenix
Cal G D Pribble Co, 3104 W Beverly Blvd
Montebello .... RA 3-8881
Cal P W Beggs & Son, 1485 Bayshore Blvd
San Francisco 467-2950
Colo Electronic Mfgrs Consultants, 1619 N Royer
Colo Springs 636-5131
Ga Electro-Rep Assoc, 2793A Clairmont Rd NE, Atlanta
Ill Coren-Waters Inc, 242 E Irving Park Rd
Wood Dale 595-0050
La J H Ware Co, 1512 S Woodhaven Dr
Baton Rouge 926-6097
Md R A Reitz, 2301 N Charles St
Baltimore .... BE 5-4161
Mass R S Lee Co, 50 Needham St
Newton Hghlnds .... DE 2-4737
Mich Garrett Burgess Inc, 29800 Grand River
Farmington 477-7440
Minn Kirkeby & Assoc, 821 Second Ave N
Minneapolis 377-3239
Mo Dunn's Inc, 3300 Lindell Blvd
St Louis .... JE 3-7590
NJ Valcon Equip Co, 201 Washington Ave, Nutley
NY O R Lawrence Co, 7 Norman Ave, Albany
NY O R Lawrence Co, 4446 Main St
Buffalo .... TF 9-4422
NY O R Lawrence Co, 101 Pickard Dr
Syracuse 454-4621
NY Valcon Equip Co, 527 Lexington Ave
New York .... Tel 212 279-7833
NC Electro-Rep Assoc, 128 W 30th St
Charlotte 333-0451
Ohio Myers & Henley Inc, 226 Ludlow Ave
Cincinnati 861-0038
Ohio Thorrat & Hanmer, Box 2945 Rocky River
Cleveland 333-5950
Tex Instrumatics, Inc, Box 8762, Houston .... CA 5-6626
Va Dynamation Inc, Box 3191, Bon Air 272-5001
Wash Instrumentation Eng Sales & Serv
Seattle .... MU 2-1123
Can MEL Sales Ltd Div, Box 850
Arnprior, Ont 623-4217
For RECOMAT, 7, Rue des Epinettes, Paris, France
For Eduardo Sina T
San Antonio 427-Of 1021 Casilla 13830, Santiago
For V I P Engineering Co, Box 212 Frederiksted
St Croix US VI
GB Systems & Components
Broadwey, Market Lavington, Devizes, Wilts
Jap Columbia Import & Export Co, 3-1 Chome
Kanda-Sarugakucho .... Chiyoda-ku, Tokyo
Swed AB Max Sievert, Fack, Vallingby 1, Stockholm
Arg D F Olivella S. R. L., Florida 253, Buenos Aires
Belg B T C de Moor, 8 Einde Were, Ghent
Braz I. E. F.-Controles Automaticos S/A
Rua Sao Caetano 312 Caixa Postal 1044
Sao Paulo
Isrl Telsys Ltd. Engrg Co, 21 Haifa Rd, Tel-Aviv
Mex Factor Industrial S. A., Tonala, 15-109
Aptdo Postal 7-1022 .... Mexico 7, D. F.
Neth V. A. F., Sluisjesdijk 119, Rotterdam
Fin Oy Control Ab, Hitsaajankatu 5, Herttoniemi
Aust Automatic Accessories Pty Ltd, 218 Belmore Rd
Melbourne E. 8

PRECISION TRANSFORMERS INC
1541 ORANGETHORPE WAY, ANAHEIM
CAL, 92801 .... 714 871-4941
R RAUCH, EMP 32, ENG 6, $250-$500M

PRECISION TUBE CO INC, CHURCH RD & WISSAHICKON AVE
NORTH WALES, PA, 19454, TWX 510-661-8427 .. 215 699-5801
R SCHULTZ, EMP 145, ENG 3, $2,500-$5,000M
ADV PG [illegible]
Ala Theall Eng Sales Co, Box 3122
Huntsville 852-1525
Ariz Fryco, 403 N Old Scottsdale Rd
Scottsdale .... WH 5-3281
Cal Roger B Dahl, 1931 Orchard
La Canada 790-6111
Cal C W Swift & Assoc, 15235 Burbank Blvd
Van Nuys 873-4778
Colo Walter-Powers Assoc, 880 Bonnie Brae Blvd
Denver 303 777-5585
Fla Theall Eng Sales Co, Box 922
Maitland 647-4469

Ga Don W Slavin Co, 3127 Randolph Rd NE
Atlanta 404 938-1677
Mass TriTek, Inc, 165A Bedford St, Burlington .. 272-4550
Minn Morlock & Assoc, 2148 Carter Ave
St Paul 612 645-2303
Mo Crowley-dunkel & Assoc, 2510 W Brentwood Blvd
St Louis .... WO 2-7657
NJ Graydon-Sherman, Inc, 230 Madison Ave
Morristown .... 201 JE 8-9246
NY Young & Ziff Inc, 555 Winton Rd N
Rochester 716 482-1555
NC Spencer M Clarke Co, 2044 Sherwood Ave
Charlotte 704 376-8262
Ohio Clifford Electronic Sales, 5152 Cherrington Rd
Toledo 419 882-4000
Pa Massey Assoc Inc, 1325 W Chester Pike
Havertown .... SU 9-2320
Tenn L E Offutt Co, 1492 S Rozelle St
Memphis 901 274-0235
Tex Max Daggett, Jr & Assoc, 5934 Royal La
Dallas .... FL 7-1256
Va Schibley Assoc, 10604 Warwick Ave
Fairfax 703 591-3008
GB Sealectro Ltd, Walton Rd, Farlington
Hants .... CO 7-0323

PRECISION WELDER & FLEXOPRESS CORP
3520 IBSEN AVE, CINCINNATI
OHIO, 45230 .... 513 351-3300
T JONES, EMP 225, ENG 40, $5,000-$10,000M

PRECO CHEMICAL CORP, 55 SKYLINE DR, PLAINVIEW
N Y, 11803 .... 516 935-9100
B GLASER, EMP 52, ENG 3, $1,000-$2,500M

PREFERRED ELECTRONICS INC, MAIN LINE DR
WESTFIELD, MASS, 01085 .... 413 568-2301
P MUTO, EMP 75, ENG 4, $500-$1,000M

PREFORMED LINE PRODUCTS CO, 5349 ST CLAIR AVE
CLEVELAND, OHIO, 44103 .... UT 1-4900
M LEKSON, EMP 463, ENG 22, OVER $10,000M
Cal Preformed Line Prods Co, 600 Hansen Way
Palo Alto 327-0170
Ga Preformed Line Products Co
3289 Montreal Industrial Way, Tucker ... 938-6820

PREIS ENGRAVING MACHINE CO, H P
651 U S HWY 22, HILLSIDE
N J, 07205 .... 201 686-7736
J HOFFMANN, EMP 20, ENG 2, $100-$250M
Cal J A Jean Machine Co, 302 Industrial Way
San Carlos 593-2118
Cal Marshall Tool & Supply Co, 2850 E Olympics Blvd
Los Angeles .... AN 3-6121
Conn Botwinik Bros Inc, 333 Welton St
New Haven .... ST 7-5751
Fla Holley Edwards Sales Inc, 1738 E Adams St
Jacksonville .... EL 5-1671
Fla Glorbett Distributors, NW 27th Ave, Miami
Ky Louisville Machy Sales Inc, 212 Eiler Ave
Louisville .... EM 6-1438
Md Phillips Mach & Supply Co, 5104 College Ave
Maryland .... AP 7-0418
Mass Botwinik Bros Mass Inc, 2 Sherman St
Worcester .... PL 6-5175
Mich Owen Engineering Co, 17304 Lahser, Michigan
Ohio C H Gosiger, 108 McDonough St
Dayton 228-5147
RI H Leach Machinery Co, 387 Charles St
Providence .... DE 1-0695
Va Virginia Art Metal & Plastics
4548 E Princess Anne Rd, Norfolk 855-3173
Wash Hallidie Machinery Co Inc, 210 Hudson St
Seattle .... PA 3-9520
Can H J G McLean Ltd, 45 Albion St
Brantford, Ont .... PL 3-4221

PREMAX PRODUCTS DIV, CHISHOLM-RYDER CO INC
HIGHLAND & COLLEGE AVES, NIAGARA FALLS
N Y, 14305 .... 716 285-9186
M LLOP, EMP 150, ENG 15, UP TO $100M
Ariz Shefler-Kahn Co, 2017 N 7th St
Phoenix .... AL 8-7893
Cal Belchamber & French, 308 Playa Blvd
La Selva Beach 688-3281
Cal Rissi Sales Co, 1817 S San Gabriel Blvd
San Gabriel 283-7614
Colo G Moss Electronics Inc, 1530 13th Ave
Greeley 353-1452
Colo Gordon Moss Elctns Inc, 1750 S Carr St
Denver 985-8815
DC S K Macdonald, Inc, 3308 14th St, NW
Washington 265-3938
Ill Lund-Hansen Co, Mundelein 6-0660
La Scott Ormsby Sales Co, 7121 Catina St
New Orleans 282-2097
Md S K Macdonald Inc, 5500 Harford Rd
Baltimore 254-3380
Mich F Zaffina Co, 18806 Hayes Ave, Detroit ... 372-3030
Mo K & M Sales Co, 17th & Main St
Kansas City .... GR 1-1355
NY Willgold Elec Sales Corp, 100 N Village Ave
Rockville Centre .... RO 4-4022
Ohio J O Olsen Co Inc, 16201 Shaker Blvd
Cleveland .... SK 2-5444
Ore R M Minthorne Co, 6565 S W MaCadam Ave
Portland .... CH 6-4556
Pa S K Macdonald Inc, 1531 Spruce St
Philadelphia .... KI 5-1205
Pa S K Macdonald, Inc, 7805 McKnight Rd
Pittsburgh 366-2643

RI W B Pray Sales, 8 Larchwood Dr
Cumberland 333-5440
Tex E L Wilks Co, 1821 N Broadway
Carrollton .... CH 2-5321
For M Simons & Son Co Inc, 150 Broadway
New York, NY .... BA 7-5513

PREMIER METAL PRODUCTS CO INC, 337 MANIDA ST
NEW YORK, N Y, 10474 .... 212 WY 1-6600
E HANS, EMP 100, ENG 2, $1,000-$2,500M
Cal A Rissi, 1017 Las Tunas Dr
San Gabriel .... AT 6-1476
Cal Staube Assoc, 483 Willow Rd
Menlo Park 415 323-2476
Cal E E Strassner Co, 3121 Los Feliz Blvd
Los Angeles 213 666-1511
Colo Stevenson Co, 1642 Sheridan Blvd
Denver 244-7960
Fla Atcheson & Adams, Box 2171, Orlando ... 424-9491
Ill Ellinger Sales Corp, 6580 Northwest Hwy
Chicago 763-1570
Kan Penzner Assoc Inc, Box 4362
Overland Park .... DU 1-6004
La Gordon V Peck Co, Box 8087
New Orleans 504 282-1553
Md E K P Assoc Inc, 1626 Forest Park Ave
Baltimore 747-3170
Md Leff Sales Assoc, 408 York Rd, Towson ... 823-0774
Mass Henry Lavin Assoc, Needham 444-3446
Mich R S Lohmann Co, 21501 W 7 Mile Rd
Detroit 535-6144
NJ Leff Sales Assoc, 5900 Westfield Ave
Pennsauken 663-4025
NY D Sonkin Assoc, 10 Fiske Pl
Mt Vernon .... MO 8-9809
NY Callahan-Ferguson Co, 107 Greenhedge Dr
Camillus .... HU 8-5518
NY Callahan-Ferguson Co, 117 Fayette St
Manlius 682-9301
NY Harris & Aldrich Sales Inc, 320 Northern Blvd
Great Neck 466-4122
NC Atcheson & Adams, Box 9085
Greensboro 272-6838
Ohio J O Olsen Co, 16201 Shaker Blvd
Cleveland .... SK 2-5444
Ohio John O Olsen Co, Cincinnati 933-2176
Ohio John O Olsen Co, Dayton 885-3722
Okla Gordon Peck Co, Box 15671
Tulsa .... 918 LU 5-5853
Pa E K P Assoc Inc, 4302 Embur Terr
Easton 252-6373
Pa John O Olsen Co, Pittsburgh 341-8391
Pa E K P Assoc Inc, Ferry Rd, RD 1
Doylestown 345-1523
Tenn Atcheson Adams, Maloney Rd Rt 3
Knoxville 577-4241
Tex Gordon V Peck Co, 210 Casa Linda Plaza
Dallas .... 214 DA 8-3511
Tex Gordon V Peck Co, 5757 Bellaire Blvd
Houston .... 713 MO 4-1435
Utah R S Stevenson, Box 17495
Salt Lake City .... CR 7-2515
Wash W K Wood, Inc, Box 46046, Seattle 935-9400
For Emec Inc, 160 Terminal Dr
Plainview, NY .... WE 1-3700

PREMIER MICROWAVE CORP, 33 NEW BROAD ST
PORT CHESTER
N Y, 10573, TWX 914-937-5080 .... 914 WE 98900
J SIMMONDS, EMP 60, ENG 4, $1,000-$2,500M
ADV PG 51, 363, 419
Ala J L Highsmith Co, Holiday Office Ctr
Huntsville 579-2210
Cal Melvin Sales Co, 113 El Camino Real
Milbrae 697-6922
Cal Brooks & Day, 10700 Ventura Blvd
Torrance 213 877-3357
Cal Brooks & Day, 10700 Ventura Blvd
N Hollywood 213 877-3357
Fla J L Highsmith & Co, Box 7835
Orlando 293-5202
Ill P G M Component Sales, 5700 W Diversey Ave
Chicago 622-8183
Mass Samuel Hooker Co, 2 Winchester Place
Winchester 729-5482
Mo Gordon Fixman Eng Co, 8160 Stanford St
St Louis 725-5219
NJ M D Iindustries, 240 Grand Ave
Leonia 201 944-2212
NY C D B Enterprises, Inc, 675 West Jericho Tpk
Huntington .... 516 MY 2-5200
NY M D Industries, 202 Woods Path Rd
Liverpool .... 315 OL 2-8273
NY C D B Enterprises Inc, 675 W Jericho Tpk
Huntington .... 516 MY 2-5200
NC J L Highsmith Co, Box 9367, Charlotte ... 333-7743
Ohio BEK Assoc, 330 Salem Ave, Dayton 944-0040
Pa Ben Manis Assoc, 6600 St Urbain St
Montreal 514 274-8271
Tex Scott Technical Sales, Box 30324
Dallas .... FL 2-7698
Va J L Highsmith Co, Box 9228, Richmond .. 956-0075
For Lindor Intl Corp, 10 E 40th St
New York, NY .... MU 5-6740
BC Bowtek Elec Co, 444 Dunsmuir St
Vancouver 685-4626

PREMIUM ALLIED TOOL INC, 1611 W 7TH ST
OWENSBORO, KY, 42301 .... 502 684-9621
J HINES JR, EMP 30, ENG 3, $5,000-$10,000M

PRESIN CO INC, TRAP FALLS RD, SHELTON
CONN, 06484 .... 203 929-1495
F PIERZGA, EMP 40, ENG 2, $1,000-$2,500M

Cal Tucul Engineering Co, 6402 Crenshaw Blvd
Los Angeles 750-0338
Cal Electro Pacific Sales, 2524 Franklin St
San Francisco 776-8582
Ill A S & H Assoc, 6272 W North Ave
Chicago 237-2343
Md Kraft Elctn Sales Inc, 510 Woodbine Ave
Towson 828-5838
Minn Wenco Sales Co, 7728 Morgan Ave
Minneapolis 866-3639
NY Lightstone Corp, E Molloy Rd, Syracuse ... 454-3209
NY David Sonkin Assoc, 10 Fiske Pl
Mount Vernon 914 668-9809
Ohio Rockford Controls Ohio, 19200 Villaview Rd
Cleveland 531-4841
Ohio Rockford Controls Ohio, Inc, 2077 Embury Park Rd
Dayton 274-0611
Pa Rockford Controls Ohio, Inc, 3550 Laketon Rd
Pittsburgh 731-4600
Pa Holdsworth & Co, Box 298
Newtown Square 356-8550
Tex Stolle-Hamilton Co, 1108 Meyer Rd
Seabrook 474-3156
GB Telephone Mfg Co Ltd, Roper Rd, Canterbury, Kent

PRES-ON PRODUCTS CO, 39 FACTORY RD, ADDISON
ILL, 60101 .... 312 543-9466
T CUMMINS, EMP 30, ENG 1

PRESSTEEL CO, 9705 E GARVEY AVE, EL MONTE
CAL, 91733 .... 213 283-1225
R MCKENZIE, EMP 30, ENG 1, $500-$1,000M

PRESTOLITE WIRE & CABLE, PRESTOLITE DIV, ELTRA
CORP, 3529 24TH ST, PORT HURON
MICH, 48060 .... 313 985-6131
V STEINMEYER, EMP 1000, ENG 33, OVER $10,000M
Cal Prestolite Wire & Cable, 901 N Selby St
El Segundo .... SP 2-2115
Conn J E McGowan, 25 Meadowcrest La
Watertown 274-2089
Ill W H Foley, 555 Cordial Dr
Des Plaines 637-7355
Mich F F Edie, 3529 24th St, Port Huron 985-6131
NJ R D Fitzpatrick, 50 Fuhrman Ave
Ramsey .... DA 7-7695
NY Elcom Sales Inc, Box 9112, Rochester 244-1960
Pa Prestolite Wire & Cable, Box 658
Hazleton .... GL 5-4781
Tex Dahlin Assoc, Box 2375, Dallas .... LA 1-2939
Wis L R Kubiak, 1209 Downing Dr
Waukesha 547-7653

PRESTON SCIENTIFIC, INC, 805 E CERRITOS AVE
ANAHEIM, CAL, 92805 .... 714 776-6400
B SPEAR, EMP 250, ENG 8, $2,500-$5,000M
Ala Intl Scientific Instr, Box 2091
Huntsville 205 536-9686
Ariz William Assoc, 1110 E McDowell Rd
Phoenix 602 254-6085
Cal Bert Oppenheim Inc, 2179 Park Blvd
Palo Alto 415 321-7323
Colo Williams Assoc, 4971 Jackson St
Denver 303 388-4391
Conn Instrument Dynamics Inc, 345 N Main St
West Hartford 203 233-5503
Fla Truex Assoc, 3165 McCrory Pl
Orlando 305 422-1293
Ill Megatek, Inc, 1915 N Harlem Ave
Chicago 312 889-1277
Mass Instrument Dynamics Inc, Wakefield Ind Park
Wakefield 617 245-5100
Mich Megatek, Inc, 26847 Grand River
Detroit 313 531-1403
NM William Assoc, 420 Washington SE
Albuquerque 505 255-1638
Ohio Megatek, Inc, 2533 Far Hills Ave
Dayton 513 298-8638
Ohio Megatek Inc, 23203 Lorain Ave
Cleveland 216 734-4433
Okla Applied Science Assoc, 7966 E 41st St
Tulsa .... 918 NA 7-6199
Pa Stein Instrumentation Co, 413 Johnson St
Jenkintown 215 885-2370
Tex Applied Science Assoc, 3707 Rawlins
Dallas 214 526-8316
Tex Applied Science Assoc, 6218 Westheimer
Houston 713 781-1441
Utah Williams Assoc, 2461 S Main St
Salt Lake City 801 466-8709
Wash Brennan Assoc Inc, 208 Carlson Bldg
Bellevue 206 454-9332
Can Ahearn & Soper Lt, 844 Caedonia Rd
Toronto 19 .... 416 789-4325
Can Ahearn & Soper Ltd, 3300 Cavendish Blvd
Montreal 28 Que 514 482-9750
Den Hans Qrngreen AS, Krogshqjvej 30, Bagsuoerd
Fr Sercel, 96 Ave Verdier, Montrouge-Seine
Fr Sercel, BP 11, 44-Carquefou
Ger Technitron, Sonnenstr 14, 8 Munchen 15
GB Britec Ltd, 17 Charing Cross Rd, London WC 2
Ital G Terzano & C, Via Darwin 19 21 23, 20143 Milano
Jap Rikei Trading Co, Ltd
Kozato Kaikan Bldg 18-14 Nishi-Shimbashi
Minatoku, Tokyo
BC Ahearn & Soper Ltd, 1234 Marine Dr
N Vancouver 604 988-6822
Belg Eltoraco S A, 50 52 Ivd St Mkhel, Bruxelles
Neth Spiteurope, Joh Vermeerstr 36, Amsterdam
Aust EA1-Electronic Assoc Pty Ltd, 26 Albany St
St Leonards Sydney NSW

PRICE ELECTRIC CORP, E CHURCH & 2ND STS FREDERICK
MD, 21701, TWX 710-862-0901 .... 301 663-5141
B REEDER, EMP 450, ENG 11, $5,000-$10,000M
Ala W A Brown & Assoc, Inc, 1314 Buford St N W Huntsville 536-8393
Ariz Carter Assoc, Inc, Box 99, Scottsdale 947-4355
Cal Mepco, Inc, 7727 S Painter Ave Whittier 698-0764
Cal Componetics Inc, 138 N 4th St San Jose 297-5670
Cal Westaironics Inc, 1800 N Highland Hollywood 466-6201
Colo Hamilton Electro Sales, 3010 W Alameda Denver 934-5508
Conn Aerol Assoc, Box 146, Essex 767-0156
Fla W A Brown & Assocs, Inc, 222 Weber Ave Orlando 425-5505
Fla W A Brown & Assoc, 3039 NE 32nd Ave Ft Lauderdale 564-8000
Fla W A Brown & Assoc, 212 Bradley Dr NE Ft Walton Beach 243-6424
Fla W A Brown & Assoc, 212 Bradley Dr NE Ft Walton Beach 243-6424
Ga W A Brown & Assoc, 1590 College Rd NW Tucker 939-1674
Ill Whitmore Assoc Inc, 535 N Michigan Ave Chicago 321-1503
Md J - H Electronic Sales Co, Box 6844 Towson .... VA 5-4441
Mass Selmark Assoc, Inc, 195 West St Waltham 899-8110
Mich R C Merchant, 98 Water St Benton Harbor 925-0015
Mo R B Stahlhut, 12760 Post Oak Rd St Louis .... PA 5-7793
NJ ESCO Eng Sales Corp, 263 Central Ave East Orange 674-6505
NJ Aerol Assoc, 730 Clifton Ave, Clifton 779-6744
NY Aerol Assoc, 1185 Scottsville Rd Rochester 235-7290
NY C B Hopkins Co, 3 N Utica Ave North Massapequa 796-0066
NC W A Brown & Assoc, Inc, 1108 Burke St Winston-Salem 725-5384
Ohio C A Robinson Co, 4225 Mayfield Rd Cleveland .... EV 1-9049
Ohio C A Robinson Co, 11 W Monument Bldg Dayton .... BA 2-0832
Pa Griffin-Campbell, Inc, 25 Skippack Pike Ambler .... MI 6-7535
Tex Southwest Electr Ind Inc, Meadows Bldg Dallas .... EM 3-1671
Tex Southwest Electr Ind Inc, 1405 Post Rd Houston 621-3760
Wash Blair Hirsh Co, 4013 Leary Way N W Seattle .... SU 3-3423
Can TRW Electronic Components, Ltd, 6 Bermondsey Rd Toronto .... PL 5-2235
For Fratham Co Inc, 202 E 44th St New York, NY .... MU 7-9390

PRIESTER CORP, H E, BOX 267, SCARSDALE
N Y, 10583 .... 914 SC 34815
H PRIESTER, EMP 4, ENG 1, $250-$500M

PRIMEC CORP, 1871 S ORANGE DR, LOS ANGELES
CAL, 90019, TWX 910-321-3942 .... 213 931-1451
R RAMEY, EMP 35, ENG 3, $500-$1,000M
Cal Paul Nurches Co, 999 Commercial St Palo Alto 415 326-7842
Cal Westrep, 626 W Commonwealth Ave Fullerton 714 879-4090
Conn Wm McCoy Co, 896 Main St Branford 203 488-2012
Fla Orbe Inc, Box 7777, Orlando 305 424-0978
Fla Orbe Inc, 300 - 31st St St Petersburg 813 894-0687
Ill Communications Engrs, 7106 Western Ave N Chicago 312 221-0554
Md Kraft Elctn Sales Inc, 510 Woodbine Ave Towson 301 828-5838
Mass Wm McCoy Co, 55 Prospect St Holliston 617 429-2369
Minn Countryman Wagner & Behnen Co 1955 University Ave, St Paul 612 645-9151
Mo Harris-Hanson Co, 2814 S Brentwood Blvd StLouis .... 314 MI 7-4350
Mo Harris-Hanson Co, 7916 Paseo St Kansas City 816 444-9494
NY Rolmar Components Inc, 4312 W Genesee St Syracuse 315 488-3251
NY Win-Cor Elctn Sales Corp, 75 Plandome Rd Manhasset 516 627-9474
NC E E Gaillard, 288 Enwood Dr Charlotte 704 399-8523
Ore Richard Legg Co, Box 25327 Portland 503 292-8824
Pa RIV Co, Box 52, Bala Cynwyd ..... 215 MO 7-5110
Tex Blair Engrg Sales Co, 10034 Monroe St Dallas 214 352-2556

PRIMO CO LTD, 25-1 6-CHOME, MURE, MITAKA,, TOKYO
JAPAN, TWX 2822-326 0422433121
N MINORU, EMP 300, ENG 23, $250-$500M
ADV PG 417
For Primo Co Ltd, 530 W Surf St, Chicago 472-6142

PRINCETON APPLIED RESEARCH CORP, BOX 565
PRINCETON, N J, 08540 .... 609 924-6835
C NITTROVER, EMP 100, ENG 15
Ala Technical Assoc Inc, Box 4088 Huntsville 881-8494
Cal O'Halloran Assoc, 10700 Ventura Blvd N Hollywood 877-0173
Cal O'Halloran Assoc, 3921 E Bayshore Dr Palo Alto 326-1493
Colo F Y Gates Co, 3401 S Bannock St Englewood 761-0591
Fla Technical Assoc Inc, 2319 E South St Orlando 424-5681
Ill Bard Assoc Inc, LaGrange Ind Park LaGrange 354-0660
Ind Bard Assoc, Inc, 4002 Meadows Dr Indianapolis 849-2723
Kan Poly-Onics, Inc, 4434 W 90th Terr Leawood .... NI 8-4173
Md Princeton Applied Research Corp 4922 St Elmo Ave, Bethesda 301 652-0010
Mass American Dynamics Corp, 17 Dunster St Cambridge 491-6800
Mich WKM Assoc, 1474 E Outer Dr Detroit 313 892-2500
Minn Bard Assoc Inc, 7710 Morgan Ave Minneapolis 866-1700
Mo Poly-Onics, Inc, 47 Vlg Sq Shop Ctr Hazelwood .... TE 7-0597
NM F Y Gates Co, 2631 Texas NE Albuquerque 298-1875
Ohio WKM Assoc, 6741 Ridge Rd Cleveland 216 885-5616
Ohio WKM Assoc, 5335 Far Hills Ave Dayton 513 434-7500
SC Technical Assoc Inc, Box 5583 Spartanburg 803 585-3864
Utah F Y Gates Co, 455 E 4th S Salt Lake City 359-1101
Wash Avionics Liaison Inc, 6770 Perimeter Rd S Seattle 767-3870
Can Radionics Ltd, 195 Graveline St Montreal 514 631-4568
Can Radionics Ltd, 505 Englington Ave W Toronto 416 483-719
For Thomson Electric Co, 50 Rockefeller Pl N Y, NY 245-3950
For International Engr Services, Veitingerstrasse 159 A-1130 Vienna 8246-732
For Industrial Elctns Ltd, Box 22423 Taipei, Taiwan 74-257
For Coasin C A, Aptdo 10386, Sabana Grande... Caracas
Den C F Rovsing Ltd, 7 Ader Gade Flk 3 1304 Copenhagen K 01 411011
Fr Par (France) Sarl, 53 Ave de Lenine Gentilly 94 .... 655 53-53
Ger Nucletron Vertriebs GmbH, Gaertnenstr 60 8 Munich 54 546081
Ger Nucletron Vetriebs GmbH Zweigbuero Hamburg 2 Hamburg 13 Hansastr 18 .... 0411 450190
Ger Nucletron Vertriebs GmbH Zweigbuero Dortmunt 46 Dortmund-Luecklemberg Liesemorgen 10 .... 0231 76973
Ger Nucletron Vertriebs GmbH Zweigbuero Karlsruhe 75 Karlsruhe Mathystr 38 .... 0721 24237
GB Nuclear Measurements Dalroad Industrial Estate Dallow Rd Luton Beds .... Luton 27557
Holl Nenimij NV, 16 Nassau Dillenburgstr The Hague .... (070) 244496
Holl Nenimij N V, Box 925 16 Nassau Dillenburgstr The Hague .... (070) 24 44-96
Ital Eurelletronica, Piazza J Babila, 5, Milan ... 799-088
Jap Rikei Trading Co Ltd, 18-14 Nishishimbashi 1-Ch Minato-Ku, Tokyo 591 5246
Nor Hugo Riso A S, Box 8, Tassen, Oslo 23-2580
SAfr Thompson Electns S A Pty Ltd, Box 123 Newville Transvaal 27-4321
Swed Teleinstrument AB, Box 14 Stockholm-Vallingby 87 03 45
Swit Resistronic AG, Hugistr 3, 2500 Biel ... 032 356-66
Arg Coasin S A, Virrey Del Pino 4071 Buenos Aires 52-3185
Braz Ambriex S A, Av Graca Aranha 226-6 Martriz, Rio De Janeiro 42-7990
Ind Bali Intl Agencies, Ltd, Box 1676 Bombay 1 Br 264592
Isrl Racom Electronics Co Ltd, 76 Nordav Blvd Tel-Aviv 443244
Fin Havulinna Oy, Vuorikatu 16, Helsinki 10 61451
Aust Technico Electns Pty Ltd, 53 Carrington Rd Marrickville NSW 55-0291

PRINTACT RELAY DIV EXECUTONE INC, 47-37 AUSTELL PL
LONG ISLAND CITY, N Y, 11101 .... 212 EX 2-4800
J RICHARDS, EMP 500, ENG 16
ADV PG 591
Cal Townsend Technical Sales, Box 265 Saratoga 252-3478
Cal Brooks & Day, 10700 Ventura Blvd North Hollywood .... TR 7-3357
Colo Electronic Mfrs' Consultants Inc, Box 503 Colorado Spgs 636-5131
Fla CES Assoc, Box 1152, Melbourne 254-2183
Ill Mesa Inc, 6510 N Clark St Chicago 312 338-8388
Mass New England Component Sales, Box 656 Newton Lower Falls 969-9523
NJ D & R Assoc, Olympic Prof Bldg Upper Montclair 201 744-8378
NY S A M Assoc, 150-08 87th Ave Jamaica 212 658-8881
Pa H A Goodman, 401 W Mt Airy Ave Philadelphia .... 215 CH 7-7116
Can Banke Electronics, 767 Warden Ave Scarborough, Ont 425-1611
Swed Gylling Teledata AB, Pepparvagen 27 Farsta 5, Stockholm 930120

PRINTED CIRCUITS INC, 7800 COMPUTER AVE MINNEAPOLIS
MINN, 55435, TWX 910-576-2852 ...... 612 927-5681
P MILLUNZI, EMP 170, ENG 6, $1,000-$2,500M
Ariz Hecht Henschen & Assoc, 3825 N 39th Ave Phoenix 272-6677
Cal Hecht Henschen & Assoc, 3997 E Bayshore Rd Palo Alto 415 969-3131
Colo Brown Technical Inc, 830 S Lipan St Denver 935-4052
Fla NBS Inc, 2813 Primrose Ct Orlando 305 423-4856
Ga NBS Inc, 893 Church St NW Marietta 404 422-6067
Ill C Rossi Sales Co, 2711 N 77th Ave Chicago 456-4710
Kan E W McGrade Co, 5640 Mission Dr Shawnee Mission .... EN 2-6485
Mich Butchart-Rathsburg Assoc, 16637 E Warren Detroit 882-1717
Minn K L Tannehill Inc, 7800 Computer Ave Minneapolis 927-5681
NJ Robert Horne Assoc, 2282 Hamburg Tpke Wayne 201 835-7400

PRINTED MOTORS INC, 31 SEA CLIFF AVE, GLEN COVE
N Y, 11542 .... 516 676-8000
ADV PG 435

PRINTEX CORP, 145 EVELYN AVE, MOUNTAIN VIEW
CAL, 94040 .... 415 967-8123
R FINNIE, EMP 30, ENG 2, $500-$1,000M

PRINTLOID INC, 10-04- 44TH AVE, LONG ISLAND CITY
N Y, 11101 .... 212 361-1770
J WODISKA, EMP 50, ENG 1

PRIVATE TELE COMMUNICATIONS INC
1300 W BELMONT AVE, CHICAGO
ILL, 60657 .... 312 477-0100
C NELSON, EMP 35, ENG 2, $500-$1,000M
Alas W P Watson Enterprises, 307-1/2 Glacier Ave, W Fairbanks 456-6919
Cal Telepacificom, Box 926, Los Gatos ... 408 354-1411
Colo A E S, Inc, 1549 Chester St, Aurora 366-0208
Conn G B Smith, 188 Brewster Rd West Hartford 523-0512
Fla H K Dewees Co, 724 Clayton St Orlando 305 423-5720
Ga H K Dewees Co, 349 Peachtree Hills Ave NE Atlanta 404 261-7362
La Scott Ormsby Sales Co, 7121 Catina St New Orleans 504 282-2097
Md A-B & T Sales Corp, Box 4, Olney 924-4976
Mass R Smith Co, 59 Verndale St, Brookline .. AS 7-0017
Mo R Shaw Co, 2831 Hampton, St Louis .... MI 7-8866
NY G E Miller Assoc, Box 171, Jericho ..... OV 1-6335
NY M Farber Assoc, Inc, 220 Delaware Ave Buffalo 856-3543
Ohio Doug Cook & Asso, 4992 Medfield Way Columbus 614 878-3341
Pa A-B & T Sales Corp, 8921 Turton Dr Philadelphia .... HO 4-8921
Tex J Earl Smith Co, 1353 Chemical St Dallas .... ME 1-1727

PROBESCOPE CO INC, 211 ROBBINS LA, SYOSSET
N Y, 11791 .... 516 GE 38120
R SAVOLD, EMP 100, ENG 12, $1,000-$2,500M
Ala Gentry Assoc, 2109 W Clinton Ave Huntsville 205 534-9771
Cal Crown Electronics, Box 2573, Van Nuys ... 873-1266
DC Sonco, 4720 Montgomery La Washington 301 654-5226
Fla Gentry Assoc, 550 N Bumby Ave Orlando 305 841-7740
Fla Gentry Assoc, 201 Nelson Ave Eau Gallie 305 773-3411
Ga Gentry Assoc, Station K, Atlanta 404 233-3816
Ill Laub Engineering, Box 8 Northfield 312 446-4166
Mass Electronic Sales of NE, Box 276 Attleboro 617 222-4078
NJ Sonco, Crystal Brook Prof Bldg Eatontown 201 542-1441
NY Probescope Co Inc, 211 Robbins La Syosset .... GE 3-8120
NC Gentry Assoc, Box 197 Jamestown 919 454-1919
Okla John A Green Co, 2715 S Lewis Tulsa .... 918 RI 2-4657
Pa Sonco, Park Pl Office Bldg Camp Hill 701 761-0577
Pa Sonco, 107 Town Ctr Rd King of Prussia 215 265-3250
Tex John A Green Co, 7118 Envoy Dallas .... 214 ME 1-7450
Tex John A Green Co, 3400 Montrose Blvd Houston .... 713 JA 6-2959
Wash Dewar Assoc, 6361 First Ave Seattle .... 206 PA 2-1724
Can Conway Electr Enterprises Ltd, 88-90 Arrow Rd Weston, Ont 244-5655

PROCEDYNE CORP, 221 SOMERSET ST
NEW BRUNSWICK, N J, 08903 .... 201 249-8347
R STAFFIN, EMP 26, ENG 10, $500-$1,000M
Ala R Attaway Co, 900 Bob Wallace Ave Huntsville 534-2811
Ariz J T Aldrich Co, Box 1299, Scottsdale 945-8598
Cal Belilove Co, 960 Arlington Ave Oakland 658-9011

Cal Kersta Sales Inc, 2555 N Altadena Dr
Altadena 791-1984
Colo D E Bond Assoc, 2149 South Clermont St
Denver 756-1234
Fla R Attaway Co, 51-53 E Robinson St
Orlando 424-9983
Ill B T Clark Co, 6774 Northwest Hwy
Chicago 775-1717
Kan Aero-Hill Sales, 901 N Broadway
Wichita 367-7167
Md Scientific Mktg Assoc, 8817 Hunting La
Laurel 776-5130
Minn Volco Co, 831 S 6th ST, Minneapolis 336-6631
NJ E C Smith & Assoc Inc, 797 Springfield Ave
Summit 273-8881
NJ Forrdahl, Box 1403, Plainfield 548-2212
NY E C Smith & Assoc Inc, 60 E 42nd St
New York 682-6890
NY E C Smith & Assoc Inc, 941 Granite Bldg
Rochester 546-5090
NC R Attaway Co, 614 Nissen Bldg
Winston-Salem 722-9671
Ohio Hitt Equip Co, Box 15385, Cincinnati 761-1714
Ohio A S Belous, 7495 Salida Ave, Mentor 942-6800
Pa Harold A Woolman Co, 4 W Manilla Ave
Pittsburgh 922-2420
Tex True Technology, 12016 Fieldwood La
Dallas 239-7741
Wash Cane-Jessup Corp, Box 250, Bellevue 454-0691
Can Brian Engrg Ltd, 2445 Duncan Rd
Montreal Que 735-1671
For Emec Inc, 55 E Old Country Rd
Hicksville .... WE 1-3700
For Consulting & Suppliers Co for S A Inc
61 Broadway, New York .... BO 9-0610
For Madison Overseas Inc, 433 Liberty St
Schenectady 372-5841
For Ellis Intl Corp, 61 Broadway, New York
Den Tage Olsen A/S, Ronnegade 1
Copenhagen 0 01-29-48-00
Fr MESUREUR, 30 Rue Sedaine, Paris .... ROQ 93-19
Holl Instrumentenhandel Utrecht
Postbus 513 Alb Perstr 6, Hilversum
Ital Electtromecanica Carlo Clerici, L Testori 30
Castellanza
Swit Jacques Baerlocher Corp, Nuschler Str 31
Zurich 429-900
Braz Ambriex, 226 Ave Graca Aranha s/601/606
Rio de Janeiro
Aust Ronald T Payne Ltd, 385 Bridge Rd
Richmond, Vict 42-1416

PROCESS & INSTRUMENTS CORP, 1943 BROADWAY
BROOKLYN, N Y, 11207 .... 212 GL 2-8380
J GREENSPAN, EMP 15, ENG 3, $100-$250M

PRO-CHEM INC, 14713 ROCKSIDE RD, CLEVELAND
OHIO, 44137 .... 216 663-6618
J BRILLHART, EMP 5, ENG 1, $250-$500M

PRODELIN INC, BOX 131, HIGHTSTOWN
N J, 08520 .... 609 448-2800
J LEVERGOOD, EMP 100, ENG 15
Cal J H Hamilton, 2126 Bangor Way
Anaheim .... PR 6-3769
Cal Prodelin Inc, 901 American St
San Carlos 593-8277
Colo C E Lindberg, 2654 S Krameria, Denver 757-6489
Haw Gene Piety Factors, 160 Mokauea St
Honolulu 837-185
NM Bennewitz Assoc, 8310 Cutler, N E
Albuquerque 299-8651
Tex C C S Butt, Box 18045, Houston .... JA 6-3101
Tex Applied Engineering Sales, 1st Bank & Trust Bldg
Richardson .... AD 1-1322
Wash Electronic Sales Corp, 6969 S W Calif St
Seattle .... WE 2-0330
Wis Electronic Products, Inc, 3612 N Green Bay Ave
Milwaukee 264-3380
Can H D Schiller, 401 Winnett Ave
Toronto 10, Ont 781-7921

PROD-EL, PRODOTTI ELETTRONICI SPA
VIA PLEZZO 16, 20132 MILAN, ITALY 230 930
G GUIDI, EMP 100, ENG 4, $2,500-$5,000M
Ital Telecommit, Via Livorno 64, Rome
Ital C Renzo, Montenero, Livorno
Ital C Winspeare, Villa Salve, Napoli

PRODUCT COMPONENTS CORP, 15 WASHINGTON AVE
HASTINGS-ON-HUDSON
N Y, 10706 .... 914 GR 8-1556
K KASTENS, $100-$250M

PRODUCT IMPROVEMENT CORP, 150 E STEVENS AVE
SANTA ANA, CAL, 92707 .... 714 540-7755
Ariz Ar/Tec Inc, Box 727, Scottsdale 602 947-6304
Cal G E Woods Assoc, 2415 S Manchester
Anaheim 714 633-9370
Fla W A Brown & Assoc, 222 Weber Ave, Orlando
Ill R Edward Stemm Inc, 17 W 480 Lake St
Addison 312 279-2440
Mass Production Devices, 489 Main St
Stoneham 617 438-2772
Minn R Edward Stemm Inc, 2713 Lyndale Ave S
Minneapolis
Ore Van Voorhees Assoc, Box 4383
Portland 503 287-6633
Pa Walch Co, Box 261, Newtown 215 968-3989
Ital LaCommissionaria Mercantile, 1 via U Foscolo
Milano

Jap Rikei Trading Co Ltd
Nishi-Shimbashi Minatoku 1 Chome, Tokyo

PRODUCTION ASSOCIATES INC, BOX 5093, MADISON
WIS, 53705 .... 608 238-0589
J LITTLEFIELD, EMP 3, ENG 1, UP TO $100M
Cal Peninsula Assoc, 1447 E Bayshore Frwy, Palo Alto
Fla MacGregor Assoc, Box 1211, Clearwater
Ill F W Castle, 411 E Lake, Glenview
Md David K Jones Co, 2026 Maryland Ave, Baltimore
Mass Contact East Inc, 7 Cypress St, Burlington
Mich Michigan Precision Products, 622 E Henry St
Charlotte
Minn Dick Swanson Co, 2655 Brighton Ave NE
Minneapolis
Mo Airborne Electroics Co, 7759 Vista Loma Dr
Kansas City
NY Alderman & Eckerson Inc, Drawer B, Pittsford
Ohio Steve Vereb & Assoc, 4619 E 93 St, Cleveland
Okla Tom Burton Sales, 4624 E 25th St, Tulsa
Pa Henry Mann Co, Box 37, Cornwells Heights
Tex LeBoeuf-Nelson Sales Co, 716 Nottingham
Richardson
Utah Arrowhead Sales Corp, 1966 W 6255 S
Salt Lake City

PRODUCTS FOR RESEARCH, INC, 57 N PUTNAM ST
DANVERS, MASS, 01923 .... 617 774-3250
M COLE, EMP 5, ENG 1, UP TO $100M
Cal O'Halloran Assoc, 10700 Ventura Blvd
North Hollywood .... TR 7-0173
Mass American Dynamics Corp, 17 Dunster St
Cambridge 491-6800
Va Dunskin Assoc, 1007 Mountfort Ct SW
Vienna 703 281-3638
Can Ahearn & Soper Ltd, 844 Caledonia Rd
Toronto .... RU 9-4325
Ger Alfred Neye Enatechnik, 14 Schillerstr
2085 Quickburn Hamburg 8222

PRODUCTS RESEARCH CO, 2919 EMPIRE AVE
BURBANK, CAL, 91504 .... 213 849-3992
J NELSON, EMP 300, OVER $10,000M
Cal D M Figley, 83 21st Ave, San Mateo 341-2605
Fla R J Blanchard, IRC Sta, Titusville 269-2064
Ga D B Bell, 1119 Clifton Rd NE, Atlanta
Ill John M Hanley, 205 W Wacker Dr
Chicago 263-2055
Mich J R Monk, 15105 W 8 Mile Rd, Detroit 537-7410
Mo W V Jones, 2 Floweridge La, Florissant 838-6600
NJ D W Markham, 410 Jersey Ave
Gloucester City 456-5700
Tex L J Shepek, 837 Wheelwood Dr, Hurst 253-4207
Wash M L Matson, 2731 E Marginal Way S
Seattle 682-6570
Den A/S Skandinavisk-Spaenbeton, Hellerupvej 66
Copenhagen .... HEL 9505
Fr Le Jount Francais, 84A 116 Rue de Carrieres
Bezons S & O 961-77-50
GB British Paints Ltd, 303 High Holborn
London WC .... HOL 9581-6
Jap Yokohama Rubber Co Ltd
9, 5-Chome Shiba Tamura-Cho, Minato-ku, Tokyo
Nor Lars Foss Kjemi A/S, Drammensvn, 65
Oslo 447906
Swed Lars Foss Kemi, Balladgatan 5
Goteborg .... LIN 2-34000

PRODUCT TECHNIQUES, INC, 12049 REGENTVIEW AVE
DOWNEY, CAL, 90241 .... 213 923-9271
EMP 20, ENG 2, $250-$500M
Ariz Russell Smith, 7128 N 8th Ave
Phoenix 602 944-8872
Cal Astroel, Inc, 349 1st St, Los Altos 415 948-3636
Cal A E Yale Enterprises, 4277 Taylor St
San Diego 714 296-6148
Fla Gra-Mar Inc, Box 20493, Orlando 305 841-2330
NJ FGK Co, 28 Wilson Pl, Closter 201 768-3911
Ohio L J Sculley & Assoc, 2600 Far Hills Ave
Dayton 513 298-9575
Ohio Edward E Bock & Assoc, 18838 Canyon Rd
Cleveland 331-5212
Tex Coating, Inc, 14622 S Main St
Houston .... 713 PA 3-0880
Wash Paratech, 2208 NW Market St, Seattle 783-3900

PROFILE ELECTRONICS INC, BOX 314, CONCORD
N H, 03301 .... 603 224-2556
A WRIGHT, EMP 37, ENG 1, $250-$500M
NY Verter Sales Co, 2352 E 66th St, Brooklyn
Ohio Foley & Beilstein, Box 73, Westlake 871-8830
Pa W F Assoc, W S F Bldg, Broad & Chestnut St
Philadelphia

PROTECTIVE CONTROLS INC, BOX 357, CHARTLEY
MASS, 02712 .... 617 222-7590
V VAUGHAN, EMP 17, ENG 3
Cal R S Hopkins Co, 15016 Ventura Blvd
Sherman Oaks 213 788-5501
Ga C H Cloer Assoc, 3272 Peachtree Rd N E
Atlanta 231-4625
Ill L W Somers Co, 608 S Burton Pl
Arlington Hts .... CL 9-1106
Mich W & D Chek'r Co, Box 567
Mt Clemens 313 468-1381
NY Creek Corp, Box 44, Roslyn .... MA 1-7410
NY Tri State Components Inc, 45-07 162nd St
Flushing 212 358-1010
Ohio Steve Vereb Assoc, 4619 E 93rd St
Cleveland 216 271-2066
Pa Bradley Engrg Sales, Whiteside Bldg
Bala Cynwyd 664-9543

Tex D Davis, 2704 Hardy Pl, Arlington .... CR 4-7448
For Teknis, Plainville, Mass

PROTOTYPE TRANSFORMER CORP
545 N ARLINGTON AVE, EAST ORANGE
NJ, 07017 .... 201 672-2400
H GAYNOR, EMP 52, ENG 3, UP TO $100M

PROUDFOOT CO, INC, 283 GREENWICH AVE
GREENWICH, CONN, 06830 .... 203 869-9031
D PROUDFOOT, EMP 2, ENG 1, UP TO $100M

PULSE COMMUNICATIONS INC, 5714 COLUMBIA PIKE
FALLS CHURCH
VA, 22041, TWX 710-831-1114 703-481-0652
C M GRAY, EMP 100, ENG 7, $1,000-$2,500M
NJ Bruce R Meier Assoc, 810 Kensington Ave
Plainfield 753-4099
NJ James R Sliwa, 192 Walnut st, Nutley 661-1719
Pa RivCo, Box 52, Bala Cynwyd .... MO 7-5110
Can Electronetic Systems Ltd, 62 Alness St
Downsview, Ont 636-3673
Can Electronetic Systems Ltd, 6420 Victoria Ave
Montreal 26, Que 737-2744
For Telesco Intl Corp, 171 Madison Ave
New York .... MU 3-9420

PULSE ENGINEERING INC, 560 ROBERT AVE
SANTA CLARA, CAL, 95050 .... 408 248-6040
D KENNEDY, EMP 250, ENG 14, $2,500-$5,000M
Cal Pulse Engineering, 560 Robert Ave
Santa Clara 248-6040
Cal Pulse Engineering, 1600 Ventura Blvd
Encino 918-4555
Colo Bennewitz Assoc, 2801 E Colfax Ave
Denver 399-1132
Fla W R Lehmann Co, Box 20275
Orlando 305 841-4901
Fla W R Lehmann Co, Box 20275, Orlando 422-9848
Ill Carlson Elctn Sales Co, 7448 N Harlem Ave
Chicago 312 774-0277
Md Stemler Assoc, 6707 Whitestone Rd
Baltimore 301 944-8262
Mass R H Sturdy Co, 204 Worcester St, Wellesley Hills
Minn Technical Assoc, 6121 Excelsior Blvd
Minneapolis 612 929-6721
NJ Stemler Assoc, Box 287, Cherry Hill 966-4070
NY ERA Inc, 330 Great Neck Rd
Great Neck 482-9320
NY Tech-Mark Inc, 101 Jefferson Ave
Endicott 748-7473
Ohio Luebbe Sales, 2649 Erie Ave
Cincinnati 513 871-4211
Tex Hillman Enterprises, 3505 Turtle Creek Blvd
Dallas 521-2070

PULSE TECHNIQUES INC, 1411 PALISADE AVE
WEST ENGLEWOOD, N J, 07666 .... 201 837-2575
W SUMMERLIN

PURE AIRE CORP OF AMERICA, 15544 CABRITO RD
VAN NUYS, CAL, 91406 .... 213 873-6010
K LINN, EMP 20, ENG 2
Cal David J Tripp & Assoc, 17234 Ventura Blvd
Encino 788-8491
Fla Southern Dynamics, Inc, Box 13317
Orlando 855-5112
Mex L Grey, 100 Tokyo Rd, Mexico City

PURE CARBON CO INC, WELLSVILLE ST, ST MARYS
PA, 15857 .... 814 834-1573
J CLARK, EMP 700, ENG 30, $5,000-$10,000M
Cal Bearings, Seals & Gears, 20122 Camden St
Glendora 963-1404
Cal D E Miller, 1102 Lavender La
LaCanada 790-1830
Cal Bearings Seals & Gears, 1650 Broadway
Redwood City 365-5444
Conn J D Henry, 155 Indian Trail Rd, Bristol 584-0367
Ill C B Chase, 109 Racill Ct, East Peoria 699-1935
Ill O W Kessens, Box 17, Des Plaines 824-6464
Ill Sittler Co, 18 N Ada St, Chicago 733-4616
Ind W C Boldt, 5243 Hohman Ave
Hammond 931-7091
Mich Eynon Co, 9125 Telegraph Rd, Detroit .... KE 8-4800
Minn Frank E Edey, 1409 Willow St
Minneapolis 333-2813
Mo J Grant & Co, 1246 Hampton Ave
St Louis .... MI 7-1022
NJ Hoyt Sales Co, 440 Barell Ave at Wash
Carlstadt 935-0045
NY Bardwell & Schoelles, 230 Winton Rd N
Rochester .... OL 4-9540
Ohio A H Clark, 65 Mimosa Dr, Centerville 433-1314
Ohio J P Vecchiarelli, 114 Laurel Rd
Chagrin Falls .... CH 7-6382
Pa W R McCorkle, 407 W Ashbridge St
West Chester 696-3445
Pa F Lee Squires, 615 Theresia St
St Marys 834-2722
SC A C Ballentine, Box 5742 Sta B
Greenville 244-6514
Tex Clyde L Webb Co, 2533 Whitmore St
Fort Worth .... ED 5-4659
Wash Bearings, Seals & Gears, 6867 84th Ave, S E
Mercer Island .... AD 2-6070

PYLE-NATIONAL CO, 1334 N KOSTNER AVE, CHICAGO
ILL, 60651 .... 312 342-6300
C CURRIE, EMP 1100, ENG 71, OVER $10,000M
ADV PG 181, 182
Ala Glenn Assoc, Inc, 1034 S 23rd St
Birmingham 328-5876
Ark Curtis H Stout, Inc, 2207 Cantrell Rd
Little Rock 374-8201
Cal P/N, 242 S Anderson St, Los Angeles 268-7131
Cal P/N, 210 Ryan Way, S San Fran 589-4002
Cal P/N, 2840 Adams Ave, San Diego 283-2575
Colo P/N, 758 Wyandot St, Denver 222-2638
Fla Glenn Assoc, Inc, 4711 S W 8th St
Miami 446-6406
Fla Glen Assoc, Inc, 680 Fairvilla Rd
Orlando 293-7482
Ga Glenn Assoc, Inc, 172 Simpson St, N W
Atlanta .... JA 2-4906
Haw Alfred E Linzer Assoc, 1210 Auahi St, Honolulu
Ill P/N, 2700 Roosevelt Rd, Broadview ... MA 6-4021
Ill Subent Co, 715 Norfolk, Westchester 343-6425
Ind P/N, 3923 N College Ave, Indnpls .... LI 5-1450
La C H Stout Inc, Box 13337
New Orleans 486-3707
La Curtis H Stout, Inc, 409 Fairfield Bldg
Shreveport 425-5485
Md P/N, 403 E 25th St, Baltimore 467-3404
Mass P/N, 471 Washington St, Wellesley 237-1428
Mich P/N, 23235 Woodward Ave, Detroit 545-5350
Minn P/N, 7710 Computer Ave, Mnpls 922-2442
Miss Curtis H Stout, Inc, Box 967, Jackson 354-4326
Mo P/N, 400 Brookes Dr, Hazelwood 731-1226
Mo P/N, 3800 Summit, Kansas City 531-4636
Neb P/N, 4202 F St, Omaha 733-7472
NJ P/N, 519 Federal St, Camden 966-1015
NY P/N, 202 Arteriel Rd, Syracuse 463-3694
NY P/N, 2337 Lemoine Ave, Fort Lee, N J ... 944-6364
Ohio P/N, 1243 Tennessee Ave, Cincinnati 381-3625
Ohio P/N, 1836 Euclid Ave, Cleveland ...... MA 1-6894
Okla J W Dodge Co, Box 3895, Tulsa .... WE 6-4416
Ore P/N, 215 S E Morrison, Portland 236-3511
Pa P/N, 239 4th Ave, Pittsburgh 471-3193
SC P/N, Daniel Bldg, Greenville 239-9365
Tenn C H Stout Inc, 3506 Tehulahoma
Memphis 362-1616
Tex Jack Morgan Co, Inc, 6434 Maple
Dallas .... FL 8-2431
Tex Jack Morgan Co, Inc, 614 Kipling St
Houston .... JA 2-4361
Tex Jack Morgan Co, Inc, Box 1678
Lubbock .... SW 5-4133
Tex Jack Morgan Co, Inc, 5108 Brdwy
San Antonio 824-4712
Va J H Thrower Co, 10155 Merrimac Rd
Bon Air 272-3660
Va P/N, 1300 Old Chain Bridge Rd
McLean 356-6460
Wash P/N, 3123 E Lake Ave E, Seattle 324-1520
Wis P/N, 711 W Capitol Dr, Milwaukee 442-4740
Can P/N Can Ltd, 2560 S Sheridan Way
Clarkson 274-3471
For Glen Intl, Box 3984, San Juan P R

PYLON CO, INC, 51 NEWCOMB ST, ATTLEBORO
MASS, 02703 617-222-3726
R POZZO, EMP 17, ENG 2, $250-$500M
Cal E Wachtel Co, Box 11199 Sta A
Palo Alto 415 221-2430
Cal Hansen & Hartfield Co, 1663 Blake Ave
Los Angeles 213 225-8114
Ill L W Somers Co, 608 S Burton Pl
Arlington Hgts 312 259-1105
Mich L T Martensen, 46 Ridge Rd
Pleasant Ridge 313 543-3633
NJ R Potter, 64 Woodland Ave
Summit 201 277-0220
NC Robt W Chapman Co, 1217 Greenwood Cliff
Charlotte 704 375-4495
Pa Robt Ream Assoc, 105 W Queen St
Ephrata 717 733-3844
RI G Forman, 21 Stratford Rd
Edgewood 401 941-3477
Can Finnan Engineered Prods Co, 60-8 Barbados Blvd
Scarborough, Ont 416 266-4459
For Teknis, South St, Plainville, Mass.... 617 695-3591

PYRAMID PLASTICS INC, 560 S HICKS RD, PALATINE
ILL, 60607 .... 312 358-5300
F JONES, EMP 12, $250-$500M

PYRO ELECTRIC INC, MUSKIN RD, WALKERTON
IND, 46574 .... 219 586-3144
W D MORRIS, EMP 40, ENG 5, $1,000-$2,500M
Del Test Equip Sales Co, 4447 N Bodine St
Phila, Pa 329-1822
Mich S Sterling Co, 212150 10 Mile Rd
Southfield 357-3700
Mo S Sterling Co, 7849 N Lindbergh Blvd
Hazelwood 837-1221
NC L & D Inc, Box 7243, Greensboro 292-3201
Ohio S Sterling Co, 3300 S Dixie Ave
Dayton 298-7573
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland 442-8080
Pa Foster-McClinton, Inc, 1675 Washington Rd
Pittsburgh 561-4803
Pa Foster-McClinton, Inc, 5302 Wolf Rd
Erie 833-1027
W Va Foster-McClinton, Inc, 6213 Brenda Crt
Huntington 736-5161
Holl N V Alliage-Maatschappij, Box 391
The Hague 600-917
Jap Asahi Trading Co Ltd, 104, Umegae-Cho, Kita-Ku
Osaka 361-6979

PYROFERRIC-NEW YORK, INC
BRONX BLVD AT 216TH ST, NEW YORK
N Y, 10467 .... 212 OL 43930
E WINETT, EMP 50, ENG 4, $500-$1,000M
Cal Yarbrough Sales Co, 1608 Orange St
Alhambra 213 283-0668
NJ Andrew A Foley Assoc, Box 155
Moorestown .... 609 NO 3-4545
NY J Lazor Assoc, 39 Saginaw Dr
Rochester .... 716 GR 3-8337

PYROFILM RESISTOR CO INC, 3 SADDLE RD
CEDAR KNOLLS
N J, 07927, TWX 201-538-7820 .... 201 JE 97110
J COOK, EMP 135, ENG 8, $1,000-$2,500M
Ala Technical Marketing Inc, Box 1001
Huntsville 534-2487
Ariz Bennewitz Assoc, 532 N Brown Ave
Scottsdale 947-7379
Cal Winco Inc, Box 881, Mt View 961-8510
Cal Ed Landa Co, 2288 Westwood Blvd
Los Angeles 272-9525
Colo Bennewitz Assoc, 2801 E Colfax Ave
Denver 399-1132
Fla G F Bohman Assoc, 7040 Lake Eleanor Dr
Orlando 855-0274
Ga Technical Marketing Inc, Box 1152
Marietta 435-0079
Ill Compar Midwest, 2 Talcott Rd
Park Ridge 692-4125
Md A Ratner Assoc, 4928 St Elmo Ave
Bethesda 657-2585
Mass P J Eng Sales, Box 212, Watertown .... WA 4-5950
Mich Satullo Co, 4514 N Woodward
Royal Oak 549-3910
Minn Technical Assoc, 6121 Excelsior Blvd
Minneapolis 929-6721
Mo R R Burton Sales Co, 9915 E 63rd St
Raytown 358-5370
NJ A L Livera & Assoc, James Bldg
Madison .... FR 7-3220
NM Bennewitz Assoc, 9720 E Candelaria NE
Albuquerque 298-6775
NY Ossman Component Sales, 39 Saginaw Dr
Rochester 442-3290
NY Ossman Component Sales, 1901 Vestal Pkwy E
Vestal 785-9949
NY Ossman Component Sales, 132 Pickard Bldg
Syracuse .... GL 4-4477
NY A L Livera & Assoc, 275 Warner Ave
Roslyn Heights 484-1276
NC Technical Marketing Inc, Box 6664
Greensboro 274-2570
Ohio Satullo Co, 16801 Euclid Ave
Cleveland 486-2800
Ohio Satullo Co, 2801 Far Hills Ave, Dayton ... 293-7061
Pa Ratner Assoc, 301 York Rd
Jenkintown .... TU 7-5250
Wash Ray Over Sales, Box 593, Bellevue 454-4551
Can Electrodesign Ltd, 9124 St Lawrence Blvd
Mont, Que 389-5914
For Dage Corp, 757 Main St
Stamford, Conn 324-3123

PYROMETER CO OF AMERICA INC
600 E LINCOLN HWY, PENNDEL
PA, 19047 .... 215 757-3704
T WEHR, EMP 35, ENG 4, $1,000-$2,500M
Cal William Kehoe, 543 S Raymond Ave
Pasadena 689-1934
Cal Technical Instrument Equip, Box 5205
San Jose 378-8221
Ill A S & H Assoc, 6272 W North Ave
Chicago 237-2343
NY W Erftenbeck Co, 18 Tee Court
Buffalo .... NF 4-5414
Ohio Process Instruments, Box 175
Marietta .... FR 4-6767
W Va Process Instruments, 162 Court St
Charleston 342-2151

PYROMETER INSTRUMENT CO INC
234 INDUSTRIAL PKWY, NORTHVALE
N J, 07647 .... 201 768-2000
R AYERS, EMP 39, ENG 5, $500-$1,000M
Ala W Gibbs Co, 14 Office Pk Cir
Mountain Bok 205 822-2700
Cal L H Freeman Co, 13263 Ventura Blvd
Studio City 872-1633
Cal C B Smith Co, 844 E 12th St, Oakland .. TE 2-0103
Colo Marshall Sales Co, 1863 Wazee St
Denver 825-4372
Fla John D Homan, 4825 Sunset Blvd
Tampa 835-7211
Haw Berkley Eng & Equip Co, Box 3856
Honolulu 581-92
Ill A J Antunes & Co, 2545 W Congress Pkwy
Chicago .... TA 9-8050
Ind Electro Eng & Sales Inc, 6909 E 32nd St
Indnpls .... LI 7-5273
La W S Huey Co, 8726 Oak St
New Orleans 866-6341
Md R A Reitz, 2301 N Charles St
Baltimore .... BE 5-4161
Mass Industrial & Scien Instr Co, 107 Old Sudbury Rd
Wayland .... TW 3-7453
Mich M C Schwer, 513 New Center Bldg
Detroit 313 871-4900
Minn Pinkney Assoc, 957 Winetka Ave
Minneapolis 612 544-4628
Mo E W Mooney Co Inc, 7505 Delmar Blvd
University Cty .... PA 5-8875
Mo Parker & Foster Inc, 6550-C Troost Ave
Kansas City 816 333-7460

Neb H G Klug Co Inc, 2029 N 67th Ave
Omaha 326-3824
NJ L E Roher, 39 Delaware Ave
Bloomfield .... PI 3-9384
NY G O Miller Co, 607 Midtown Plaza
Syracuse .... TR 6-3757
NY Robt A Colucci, Box No 448, Mineola ... DI 6-0397
NY Robt F Lamb Co, 1865 Kenmore Ave
Buffalo 716 874-4900
NC R S Hudgins Co, Box 17217
Charlotte .... EM 6-4887
Ohio Industrial Elect Labs, 606 Lagrange St
Toledo .... CH 4-5827
Ohio C H Joy Co, 27005 Knickerbocker Rd
Bay Village .... TR 1-5900
Ohio Chapman Eng Sales Co, 4866 Cooper Rd
Cincinnati .... SY 1-1104
Pa G F Bertrand Co, 700 Panorama Rd
Villanova 525-8177
Pa Bradshaw & Co, 925 Penn Ave
Pittsburgh 412 261-2627
Tex Hatfield & Co, Box 7072, Dallas .... FL 2-6612
Tex Hatfield & Co, Box 19147, Houston ..... HO 8-1138
Va H M Summerell Co Inc, 104 S Foushee St
Richmond 644-0631
Wis Thomas Ind Services, 3504 S Austin St
Milwaukee .... 414 HU 3-9342
Can Calgon Corp Can Ltd, 185 Eileen Ave
W Toronto .... RO 2-8285
For Walter D Fett S A, Casilla 1666, Santiago
For Milciades Sanchez, Apartado Aereo 4675
Bogota, Col
For Siber Hegner & Co (HK) Ltd, Chartered Bank Bldg
Hong Kong
Fr Etab Izart & Cie, 27 Ave Saint-Laurent
(ORSAY S&O)
Holl W J Schuiling's Handelsondememing N V, Box 52
Hengelo-O
Ital Il Venturimetro, Viale Bacchiglione, 28, Milano
Nor M Mortensen, Grensen 13, Oslo
SAfr R H Harriss (Pty) Ltd, Box 171
Booysens, Tvl, Johannesburg
Swed Aktieb F Egnell, Tunnelgatan 20B, Stockholm
Swit Max Neukomm Bureau Technique, Chexbres Vd,
Arg Casa Otto Hess S A, Maipu 50, Buenos Aires
Belg Etab Van der Heyden, 49, Rue du Marais, Brussels
Ind Pioneer Equip Co Pvte Ltd, Box 1909, Fort Bombay

PYROMET INDUSTRIES, 595 INDUSTRIAL RD
SAN CARLOS, CAL, 94070 .... 415 LY 1-7161
L HEMMEL, EMP 51, ENG 14

PYRO-SERV INSTRUMENTS, INC, 348 RIVER RD
NORTH ARLINGTON, N J, 07032 .... 201 991-8000
W ENGELHARD, EMP 9, ENG 2
Cal Paul Wittenbrock, 2316 Howard Ave, San Carlos
Conn Industronics, 489 Sullivan Ave, South Windsor
Ill Service Assoc, 339 W 112th Pl, Chicago
Md W H Cooke & Co, 1440 S Charles St, Baltimore
Mich George Instruments, 1024 W 14 Mile Rd, Clawson
NY M S Jacobs & Assoc, 1325 Millersport Hwy
Williamsville
NY M S Jacobs & Assoc, 1664 Monroe Ave, Rochester
Pa M S Jacobs & Assoc, 810 Noblestown Rd
Pittsburgh
Pa C Wilhjelm, 102 McClosky Rd
Flourtown .... AD 3-4588
W Va M S Jacobs & Assoc, Box 523, Charleston
Wis Pyro-Matic Industrials Inc, 3220 W National Ave
Milwaukee 384-9300
For B K Serfer, 2401 Penna Ave, Phila, Pa

PYROTECTOR INC, 349 LINCOLN ST, HINGHAM
MASS, 02043, TWX 710-348-0163 ...... 617 749-3466
J CALDWELL, EMP 100, ENG 6, $2,500-$5,000M

PYROTEL CORP C/O MILLETRON INC, 540 ALPHA DR
PITTSBURGH, PA, 15238 .... 412 781-5300
D PAPPAS, EMP 27, ENG 4, $250-$500M
Cal Chas W Fowler Co, 9911 Inglewood
Inglewood 213 678-5211
Cal Chas W Fowler, 845 Oak Grove Ave
Menlo Park 415 322-5374
Cal Southwest Scientific Co, 15452 Cabrito Rd
Van Nuys 213 873-3554
Ill Service Assoc, 339 W 112th Pl
Chicago 312 568-4545
Ind Law Instrument Co, Box 95, Angola
La Petro-Chem Equip Co, Box 358
Baton Rouge 504 248-7593
Mass Northeast Assoc, Box 31, Marblehead
Mich C & D Assoc, 8968 Burdickville Rd, Cedar
Mo Gordon Fixman Engrg Co, 8160 Stanford Ave
St Louis 314 725-5219
NJ Electronic Equip Engrs, Box 231
Saddle River 201 825-0033
NM C W Fowler Co, 9000 Menaul Blvd N E
Albuquerque 505 299-7676
NC Ray Sturgill & Assoc, Box 8584, Charlotte
Ohio C & D Assoc, 47 Whipp Rd, Dayton
Tenn Grant-Moore Inc, 220 Polymer Dr
Chattanogga 615 877-8549
Tenn Janis Equip Co, 4711 Poplar St
Memphis 901 683-1511
Tenn Control Center Inc, 3517 Sutherland Ave, Knoxville
Tex Jack Simpson Co, Box 35543
Houston 713 723-4816
Va Mark-Lund Assoc, 2828 Mary St
Falls Church 703 560-8400
Wash Chas W Fowler Co, 845 106th Ave N E
Bellevue 206 454-8600
Wis G H Fredericks, 4524 W Burleigh St
Milwaukee 414 871-4970

PYXIS, INC, 2741 8TH ST, BERKELEY
CAL, 94710 .... 415 843-2072
G FOSTER, EMP 8, ENG 2, $100-$250M
Ala Ridge Instrument Co Inc, 7220 Governors Dr W
Huntsville 205 837-3211
Cal Sibal Engineering Co, Inc
11741 E Washington Blvd, Whittier 723-2000
Cal Chas W Fowler Co, 845 Oak Grove Ave
Menlo Park 415 322-5374
Cal Chas W Fowler Co, 9911 Inglewood Ave
Inglewood 213 678-5211
NM Chas W Fowler Co, 9000 Menaul Blvd NE
Albuquerque 505 299-7676
Pa Control Instruments Sales Co, 2727 Philmont Ave
Bethayres 676-1808
Tex Merit Co, 10110 Monroe St, Dallas 352-8040
Wash Chas W Fowler Co, 845-106th Ave NE
Bellevue 206 454-8600

Q-MAX CORP, RTE 79, MARLBORO
NJ, 07746 .... 201 462-3636
C HICKS

QUAKER CITY GEAR WORKS INC
RED LION & PHILMONT, BETHAYRES
PA, 19006 .... 215 WI 7-0800
F BERLINGER, EMP 300, ENG 3, $2,500-$5,000M

QUAKER ELECTRONICS, BOX 215, HUNLOCK CREEK
PA, 18621 .... 717 256-3477
L KORLISHAN, EMP 3, ENG 1, UP TO $100M

QUALITRON CORP, COMMERCE DR, DANBURY
CONN, 06810 .... 203 744-0100
R BARBER, EMP 45, ENG 6, $1,000-$2,500M
Holl Advanced Semiconductor Matls, Obrechtlaan 47
Bilthoven

QUALITY COMPONENTS INC, ST MARYS
PA, 05857 .... 814 834-2817
A KRONENWETTER

QUALTRONICS CORP, 1169 E ELM AVE, FULLERTON
CAL, 92631 .... 714 871-1930
G ZIMMERMAN, EMP 10, ENG 2, $100-$250M

QUAM NICHOLS CO, 234 E MARQUETTE RD, CHICAGO
ILL, 60637 .... 312 HU 8-5800
M LITTLE, EMP 250
Cal Wm J Purdy Co, 312 Seventh St
San Francisco .... UN 3-3300
Cal Jack Berman Co Inc, 8295 S La Cienega Blvd
Inglewood 213 678-1281
Colo Koether-Cox Co, 1327 S Inca St
Denver .... PE 3-5561
Fla Cartwright & Bean, 20100 NE 25th Ct
N Miami Beach 945-2962
Ga Cartwright & Bean, 3223 Cain's Hill Pl NW
Atlanta .... CE 7-2273
Ill Bruce Cumming & Assoc, 6132 W Belmont Ave
Chicago 312 725-8110
Ill John G Twist Co, 5222 W Diversey Ave
Chicago 312 777-2250
Ind Thomas & Sukup Inc, 2060 E 54th St
Indpls 317 251-4574
Kan Thos L Dowell Co Inc, 6007 W 94th Terr
Overland Park 649-6069
La Cartwright & Bean, 1812 Bullard Ave
Metairie 504 887-0482
Mass Coakley, Boyd & Abbett, Inc, 1424 Highland Ave
Needham 617 444-5470
Mich Robert Milsk Co, 19375 James Couzens Hwy
Detroit 313 342-6660
Minn Mel Foster Co Inc, 228 S Cedar Lake Rd
Minneapolis 612 374-2612
NJ Trinkle Sales Inc, 500 N Kings Hwy
Cherry Hill 607 663-3500
NY Jerry Kirshbaum Co, 1533 Peninsula Blvd
Hewlett 516 374-0111
NY Paston-Hunter Co, 2002 Teall Ave
Syracuse 315 437-2992
NY Bowser & Sapecky Assoc, 4455 E Genesee St
Dewitt 315 446-5920
NY R E Breuer Co, One Barstow Rd
Great Neck 516 466-3030
NC Cartwright & Bean, 625 Harwyn Dr
Charlotte 704 537-7965
Ohio Les A Morrow Co, 5100 W 164th St
Cleveland 216 267-2282
Ore Jos V Belusko Co, 2355 NW Quimby St
Portland 503 222-4279
Pa Les A Morrow Co, 312 Rockfied Rd
Pittsburgh 412 221-4676
Tenn Cartwright & Bean, 560 S Cooper St
Memphis 901 276-4442
Tex Ernest L Wilks Co, 1821 N Broadway
Carrollton .... 214 CH 2-5321
BC Electro-Tec Marketers Ltd, 1624 W 3rd Ave
Vancouver, BC .... RE 6-6377

QUANTATRON DIV, TELEDYNE INC, 1631 10TH ST
SANTA MONICA
CAL, 90404, TWX 910-343-6872 .... 213 393-9631
K MILLS, EMP 55, ENG 5, $1,000-$2,500M
Colo Trans Dynamics Inc, 3401 S Bannock St
Englewood 789-1544
Fla NBS Inc, 3524 Devonswood Dr
Orlando 423-4856
Ga NBS Inc, 4500 Bells Ferry Rd
Kennesaw 926-6324
Ill Burt Anderson & Assoc Inc, 5969 N Elston Ave
Chicago 774-4174
Kan Thunderbird Eng Sales & Serv, 2802-D W 9th St
Leawood 642-7229
Mass Tritek Inc, 155A Bedford St, Burlington ... 272-4550
Minn B Anderson & Assoc Inc, 4725 Excelsior Blvd
Minneapolis 922-7400
Mo Thunderbird Eng Sales & Serv, Box 6156
St Louis 838-6688
NJ Teledyne Inc, 42 Monmouth Rd
Eatontown 201 542-6884
NY E W Stone Co Inc, Pickard Bldg
Syracuse 455-6664
Ohio B Anderson & Assoc Inc, Monterey R R 3
Batavia 734-7553
Tex Thorson Co, 7700 Carpenter Fwy
Dallas 214 631-5440
Wash Trans Dynamics Inc, 7834 SE 32nd St
Mercer Island 232-1094
For Dage Corp, 757 Main St
Stamford, Conn 324-3123

QUAN-TECH LABS INC, 43 S JEFFERSON RD
WHIPPANY
N J, 07981, TWX 710-986-8251 .... 201 887-5508
J FREEMAN, EMP 50, ENG 7, $1,000-$2,500M
Ala R Attaway Co, 900 Bob Wallace Ave
Huntsville 534-2811
Cal A-F Sales Eng Inc, 94 S Los Robles Ave
Pasadena .... MU 1-5631
Cal J Stone & Assoc, 140 Main St
Los Altos .... WH 8-4563
Conn Vector Sales, Inc, Box 87, Milford ...... TR 4-2112
Fla R Attaway Co, 51-53 E Robinson St
Orlando 424-9983
Ill Kenneth W Meyers Co, 7256 W Touhy Ave
Chicago 774-6440
Md Paddock-Joslow Co, 721 Ellsworth Dr
Silver Spring 589-6554
Mass Vector Sales Co, 774 Pleasant St
Belmont .... IV 9-1400
Minn Kenneth W Meyers Co, 4725 Excelsior Blvd
Minneapolis 920-7080
NJ L & M Assocs, Engrg Reps Inc, 511 Victor St
Saddle Brook 843-8700
NY Lindgren Assoc, 605 Palmer Dr
N Suracuse .... GL 8-3113
NC R Attaway Co, 614 Nissen Bldg
Winston-Salem 722-9671
Ohio Components Inc, 7461 N Linden La
Cleveland 842-2737
Ohio Components Inc, 11820 Knollsprings
Cincinnati 825-8606
Pa L & M Assoc, Engrg Reps Inc, 965A Bristol Pike
Andalusia 639-3100
Tex True Technology Co, 12016 Fieldwood La
Dallas 239-7741
Wash J K Dooley Co, Inc, 4110 Stone Way N
Seattle .... ME 2-1618
Can Atlas Instr Corp Ltd, 50 Wingold Ave
Toronto 781-6174
Can Atlas Instrument Corp, 3333 Cavendish Blvd
Montreal .... HU 9-8495
Can Atlas Instrument Corp, 342 1/2 Elgin St
Ottawa .... CE 3-9471
Can Atlas Instr Corp Ltd, 10204 - 88th St
Edmonton, Alb 424-9065
For Sylvan Ginsbury Ltd, 72 W 45th St
New York, NY .... MU 7-3213

QUANTIC INDUSTRIES INC, 1011 COMMERCIAL ST
SAN CARLOS
CAL, 94070, TWX 910 376-4409 .... 415 591-9411
F LUSCH, EMP 200, ENG 50, $2,500-$5,000M

QUANTUM DEVICES, 15 W MAIN ST, BERGENFIELD
NJ, 07621 201
R KROLL, EMP 25, ENG 5, $250-$500M
NJ Unicomp, 18 Sunny Ridge Rd
Wayne 201 696-2888

QUANTUM ELECTRONICS CORP
3120 CROW CANYON RD, SAN RAMON
CAL, 94583 .... 415 837-5516
R CRAWFORD, EMP 12, ENG 2, $100-$250M

QUARTZITE PROCESSING, INC, 6 HOLYOKE ST
MALDEN, MASS, 02148 .... 617 322-1380
P YANOFSKY, EMP 9, $100-$250M

QUARTZ RADIATION CORP, 1275 BLOOMFIELD AVE
FAIRFIELD, N J, 07006 .... 201 228-4200
W GUPTILL, EMP 25, ENG 2, $1,000-$2,500M

QUARTZ & SILICE, 8 RUE D'ANJOU, PARIS 8 EME
FRANCE .... PARIS 1-265 17 36
EMP 770, ENG 40, $5,000-$10,000M
NJ Quartz Products Corp, 688 Somerset St
Plainfield 757-4545
Can Emile Tasso, 350 Victoria Ave
Montreal 6, Que 488-9993
Ger Quartz & Silice GmbH, AM Hylligen Born, 1
3280 Bad Pyrmont 0 52 81 8101
GB Silica Products, 84 Kensington High St
London W 8 .... 1 937 4929
Holl Quartz & Silice NV, Passage 61
Den Haag 70 11 6717
Ital Quartz & Silice SRL, Corso Europa 22
20-122 Milano 790 257
Jap Cie Olivier SA, 21 Akasaka 1-Chome, Minato-Ku
Tokyo 582 0871
Swed F R E M A , Strandvagen 17
S-114 56 Stockholm 63 29 55
Swit Soc Electrothermique de la Tour de Treme
1635 La Tour de Treme, Fribourg 0 29 29696
Belg Quartz & Silice SA, 4, rue Jenneval
Bruxelles 4 .... 02-33 80 31
Braz Reimpex, Av Pres Vargas, 446 Conj 903
Rio De Janeiro-Es Da Guan 23-0549
Spn C Rafael Mares SL, Valencia, 333
Barcelona 9 .... 257 62 00
Aust L H Smart Pty Ltd, 16-20 Bridge St
Sydney, N S W 27 1311

QUICK-SET, INC, 8121 CENTRAL PARK AVE, SKOKIE
ILL, 60078 .... 312 OR 3-1200
A BRIGLIA, EMP 100, ENG 3, $1,000-$2,500M

QUIETROLE CO, 395 ST JOHN ST, SPARTANBURG
S C, 29302 .... 803 582-8996
R MONK, UP TO $100M
Cal W J Purdy Co, 312 7th St
San Francisco .... UN 3-3300
Fla E W Irby, 2505 Nancy, Orlando .... GA 5-8284
Fla H E Antley, 20100 NE 25th Ct
N Miami Bch .... WI 5-2962
Fla W L Miller, 779 John Anderson Dr
Ormond Bch 677-348
Ga Cartwright & Bean, 3223 Cain's Hill Pl NW
Atlanta 237-2273
Ill R Gawne & Assoc, 6139 W Touhy Ave
Chicago 775-5381
Ind R P Kingston Co, 5241 Primrose Ave
Indianapolis 255-0471
La D McCoy, 1812 Bullard Ave, Metairie 887-0482
Mich S Tugman & Assoc, 6346 W McNichols, Detroit
NJ H A Moyer Co, 220 Haddon Ave
Haddonfield .... HA 9-7792
NY Landau & Mack, Inc, 75 Plandome Rd
Manhasset 869-8390
NC Cartwright & Bean, 625 Harwyn Dr
Charlotte 537-8561
Ohio R W Peters Co, 350 E 215th St
Cleveland .... AN 1-2330
Tenn Cartwright & Bean, 560 S Cooper
Memphis .... BR 6-4442
Tex J B Guenther, 4533 N Central Exp
Dallas .... LA 8-6286
Wash C B Parsons & Co, 5319 4th Ave S
Seattle .... PA 5-9700
For L D Cohen, 5955 Twin Lakes Dr, S Miami, Fla

QUINDAR ELECTRONICS INC, 60 FADEM RD
SPRINGFIELD
NJ, 07081, TWX 13-8495 .... 201 379-7400
L MENKES, EMP 200, ENG 35, $2,500-$5,000M
Ariz Campbell Sales, Box 15296
Phoenix 602 955-4011
Ark Gregory-Salisbury & Co Inc, 500 E Markham
Little Rock 501 375-1383
Cal Garland Affolter Eng Corp, 417 S Hill St
Los Angeles .... 213 MA 4-1864
Cal Garland Affolter Eng Corp, 58 Sutter St
San Francisco .... 415 EX 7-8100
Cal Quindar Electronics Inc, 1741 Saratoga Ave
San Jose 408 257-3028
Colo Hamilton Assoc, 1236 Elati St
Denver 303 244-2901
Fla Elmore Elect Inc, 5310 Diplimat Cir
Orlando 305 647-1900
Haw Intelect, Inc, 30 N School St, Honolulu 566-366
Ill Quindar Electronics Inc, 799 Roosevelt Rd
Glen Ellyn 312 858-1910
Ill Cozzens & Cudahy Inc, 9501 W Devon
Rosemont 312 858-1910
Ind Cozzens & Cudahy Inc, 44 Kirk Dr
Indianapolis 317 244-2456
La Gregory-Salisbury & Co Inc, 805 S Front St
New Orleans 504 524-5207
La Gregory-Salisbury & Co Inc, Box 1126
Baton Rouge 504 342-2873
Md FEC Electronics Inc, Box 38
Pasadena Md 301 255-8576
Mass Frederic S Bacon, 100 Main St
Marion 617 748-1064
Mass Techmar Assoc, 18 Bothwell Rd
Brighton .... 617 ST 2-2244
Minn Cozzens & Cudahy Inc, 7710 Computer
Minneapolis 612 920-1022
Miss Gregory-Salisbury & Co Inc, 350 N Mart Plaza
Jackson .... 601 EM 2-1671
Mo Cozzens & Cudahy Inc, Box 10013 Lambert Fld
St Louis 314 423-1234
NY E C Smith & Assoc, 941 Granite Bldg
Rochester 716 546-5090
NY Puleo Electronics Inc, 250 Park Ave
New York 212 682-3151
NC Ranson, Wallace & Co Inc, 116 1/2 E 4th St
Charlotte 704 334-4244
Ohio P E Lax Co, 13945 Lake Ave
Cleveland 216 226-8815
Okla Dave Allert Co, Box 7351, Tulsa 918 743-1107
Ore Garland Affolter Eng Corp, 1233 NW 12th Ave
Portland .... 503 CA 3-7349
Pa Systems Control Assoc, 10 S Orange St
Media 215 565-2077
Pa Peter E Lax Co, 1725 Washington Rd
Pittsburgh 412 833-5477
Pa Process Products & Instr, 345 Mt Lebanon Blvd
Pittsburgh 412 343-2237
Tenn Gregory-Salisbury & Co Inc, 240 S Parkway E
Memphis 901 948-0496
Tex Quindar Electronics Inc, 12315 Woodthorpe
Houston .... 713 HO 4-1178
Tex Len T Deloney Co, 5757 Bellaire Blvd
Houston .... 713 MO 5-1433

Tex Len T Deloney Co, Box 12428
San Antonio........................512 CA 7-7070
Tex Len T Deloney Co, 3705 Bellaire Dr S
Fort Worth .... 817 WA 6-1301
Va Negley Assoc, 7315 Venice St
Falls Church........................301 560-7920
Wash Garland Affolter Eng Corp, 10843 NE 8th St
Bellevue........................206 GL 4-2485
For Eugene L Brown, Box 6304, Loiza Sta
Santurce, P R 809 783-5880

QUTRONIC TRANSFORMER CORP, 177 RIVER ST
ONEONTA
N Y, 13820, TWX 510-241-8294 .... 607 432-5600
P KOMAR, EMP 150, ENG 4, $2,500-$5,000M
Cal J J Components Co, 8820 Sunset Blvd
Los Angeles........................213 652-4571
Fla Lynch Gentry Assoc Inc, Box 13248
St Petersburg........................813 347-5131
Ill Olsen Engineering, 1921 N Harlem Ave, Chicago
Ind McNard-Brase Assoc, Rte 1
La Otto........................219 897-4581
NY Norb P Thomas Corp, Box 366
N Syracuse 315 455-5501
NY Garrettson Co, Box 5
Williston Park........................516 747-6610
NC A Over, 3723 Country Ridge Rd
Charlotte 704 366-8601
Va John Hopkins Assoc, 4520 Starr Jordon Dr
Annandale 703 280-2086

Q V S INC, 20 N 15TH ST, EAST ORANGE
N J, 07017 ....201 673-3996
F FOGLE, EMP 40, ENG 3, $250-$500M
NY H V Sales Co, 1 W Terrace Rd
Great Neck........................516 HU 7-1142

RABINOW ELECTRONICS INC, 1425 RESEARCH BLVD
ROCKVILLE, MD, 20850 ....301 762-5310
R MAIHOFER, EMP 305, ENG 51, $5,000-$10,000M
Cal Control Data Corp, 8616 La Tijera Blvd, Los Angeles
Cal Control Data Corp, 440 Grand Ave, Oakland
Md Control Data Corp, 11428 Rockville Pike, Rockville
Minn Control Data Corp, 8100 34th Ave S
Minneapolis........................612 888-5555
Minn Control Data Corp, 4901 W 77th St, Edina
NY Control Data Corp, 730 Third Ave, New York
Tex Control Data Corp, 1010 Holcombe Blvd, Houston

RACAL COMMUNICATIONS INC, 8440 SECOND AVE
SILVER SPRING, MD, 20910 ....301 587-8515
R LYNCH, EMP 160, ENG 10, $2,500-$5,000M

RADAR DESIGN CORP, 104 PICKARD DR, SYRACUSE
N Y, 13211........................315 454-4418
S BONFE, EMP 21, ENG 3, $500-$1,000M
ADV PG 10, 57, 233, 699

RADAR RELAY DIV, TELEDYNE INC, 1631 10TH ST
SANTA MONICA
CAL, 90404, TWX 910-343-6872........213 393-9631
K MILLS, EMP 60, ENG 5, $2,500-$5,000M

RADATRON INC, BOX 177, NORTH TONAWANDA
N Y, 14120 731-4171
J PATTERSON, EMP 50, ENG 6, $500-$1,000M
Alas W P Watson Enterprise, 307 1/2 Glacier Ave W
Fairbanks 479-2784
Ariz Hyde Electronics, 4710 N 16th St, Phoenix
Cal C H Mitchell Co, 18531 Ventura Blvd
Tarzana........................881-2626
Cal Carelli Sales Co, 801-D Mahler Rd
Burlingame 697-6286
Colo Hyde Electronics Co, Inc, 888 S Lipan St
Denver 936-3456
Fla Geartner Assoc, Inc, 350 Lincoln Rd
Miami Beach........................531-0200
Ga Electro Rep Assoc, Inc, 2793-A Clairmont Rd, N E
Atlanta 633-7011
Haw Dougherty Enterprises, 1164 Waimanu St
Honolulu 510-281
Ind Ed Howell & Assoc, R R 1, Box 228
New Palestine........................861-5483
Mich C A Geer Co, 221 Graceland St NE, Grand Rapids
Minn B Bartleson Co, 330 Oak Grove
Minneapolis........................ FE 3-6709
Miss L R Massey Co, 304 E Jefferson
Greenwood........................ GL 3-3038
NY C Drexler Co, 3 Lee Dr, S Farmingdale .. CH 9-8206
NY L J McTaggart Assoc, 2451 Wehrle Dr
Buffalo .... NF 4-2030
NC Electro Rep Assoc, Inc, 128 W 30th St
Charlotte 333-0451
Ohio J W Lehner Co, 367 Brynhild Rd
Columbus........................ AM 8-5260
Ohio J W Lehner Co, 1773 18th St
Cuyahoga Falls 928-7630
Pa Gross & Gordon Sales Co, 7312 Castor Ave
Philadelphia ....215 Ra 5-3568
Tex Southwest Electronic Assoc, Box 31156
Dallas........................EM 3-8446
Tex Southwest Electronic Assoc, Box 31156
Dallas........................214 Em 3-8446
Wash R K Fotheringham Co, 9629 Waverly Dr S W
Tacoma........................205 584-0119

RADETTE CO, FIRE RD RTE 2, BOX 64E
PLEASANTVILLE, N J, 08232 ....609 646-0197
M JONES, EMP 20, ENG 2, $100-$250M

RADIATION DYNAMICS INC, 1800 SHAMES DR
WESTBURY, N Y, 11590 ....516 ED 4-3990
R MALNATI, EMP 115, ENG 15, $2,500-$5,000M
Cal West Coast Scientific Sales & Service
Box 2947, Rockridge Sta, Oakland .... OL 4-2665
Cal West Coast Scientific Sales & Service
11168 Santa Monica Blvd
Los Angeles........................478-4396
NJ Radiation Elctns Inc, Box 501, Scarsdale, N Y
NM Southwestern Engrg & Equip Co
707 1st Nat'l Bank Bldg E
Albuquerque........................255-7116
Tex Southwestern Engrg & Equip Co
6300 N Central Expwy, Dallas ....EM 3-6501
Tex Southwestern Engrg & Equip Co
4101 San Jacinto St, Box 8188
Houston .... JA 8-5538
Can Radionics Ltd, 8230 Mayrand St
Montreal 9, Que 739-5517
Can Radionics Ltd, 4930 Yonge St
Willowdale, Ont 222-3261
Can Radionics, Ltd, 376 Churchill Ave
Ottawa 3, Ont........................728-5533
For Industrial Electronics
89-2 Lane, 75 Nanking E Rd, 4th Sec
Taipei, Taiwan
For Marios Dalleggio Rep, 2 Alopekis St, Athens 139
Fr Numelec S.A., 2, Petite Pl
78 Versailles........................ 951-29-30
Ger W Schaarschmidt, 43 Essen
Dreilindenstr 95 232-827
Ital SELO
Sesto San Giovanni, Via G di Vittorio 307/28
Milan
Ital Ele Sud, Via Acherusio 18, 00199-Roma... 834-249
SAfr Ash Brothers (Pty) Ltd, Box 6061, Johannesburg
Swed Bergman & Beving AB, Karlavagen 76
Stockholm 67-92-60
Ind Toshniwal Bros Pvt Ltd, 3 E/8, Jhandewalan Ext
New Delhi
Isrl Eastronics, Ltd, 22, Maze St, Box 2554, Tel Aviv
Isrl Eastronics, Ltd, 75 Haifa Rd, Box 21029, Tel Aviv
Spn Alonso Alegre Y Cia, Aguirre 9, Bilbao
Aust W E Beveridge & Co, 204 Cross Rds
Unley Park-Adelaide........................71-7635

RADIATION INC SYSTEMS DIV
BOX 37 MAIL STOP 2-246, MELBOURNE
FLA, 32901, TWX 910 959-6182 ....305 727-4240
G HARTZOG JR, EMP 3,600, ENG 800, OVER
$10,000M
Cal Radiation Inc, 6151 W Century Blvd
Los Angeles........................213 670-5432
DC Radiation Inc, 2600 Virginia N W
Washington 202 337-9414
Mass Radiation Inc, 9 Meriam St
Lexington 617 861-8100
NY Radiation Inc, 600 Old Country Rd
Garden City .... PL 7-3730
Ohio Radiation Inc, 333 W 1st St
Dayton 513 224-1629

RADIATION SYSTEMS INC, 1755 OLD MEADOW RD
MCLEAN, VA, 22101 ....703 893-5500
EMP 215, ENG 100, $2,500-$5,000M

RADIO CORP OF AMERICA, COMML ELCTN PRODS DIV
BLDG 15-5, CAMDEN
N J, 08102, TWX 609 365-5939 .... 609 WO 38000
E TRACY
Ala D Forbes, Office Park Bldg 10
Birmingham........................871-1155
Cal R Newman/M Corbett, 343 Sansome St
San Francisco 956-4818
Cal E Frost, 2700 W Olive Ave, Burbank 849-6741
Colo J H Butts, 2785 N Speer, Denver 433-8841
DC O J McReynolds, 1725 K St NW
Washington .... FE 7-8500
Fla R E Giles, 3900 RCA Blvd
West Palm Beach........................844-7351
Ga P G Walters, 14 Executive Park Dr, N E
Atlanta 634-6131
Ill D Borchert/F Timberlake, 120 S Riverside Plaza
Chicago 782-0700
Ind N Traxler, 501 N LaSalle St
Indianapolis........................635-9000
Mass D Allen, 950 Watertown St
West Newton........................969-6010
Mich W P Happel, 20830 Rutland Ave
Southfield 357-0080
Minn W G Eberhart, 4522 Excelsior Blvd
Minneapolis........................929-3303
Mo V S Mattison, 7711 State Line Rd
Kansas City ....EM 3-6770
Mo D Freeman, 7710 Carondelet Ave
St Louis 862-3660
NY J Nickels/J Shipley/R Varda, 30 Rockefeller Plaza
New York .... MU 9-7200
NC J Smith, 330 Charlottetown Ctr
Charlotte 333-3996
Ohio C Raasch, 8234 Winton Rd, Cincinnati.... 522-8810
Tenn W Powers, 2978 Austin Peay Hwy
Memphis 386-9370
Tex D Forbes, 1007 W 31st St, Austin ...... GL 3-8233
Tex G McClanathan, E Hoff, 210-C Court Ter
Dallas........................351-5361
Wash R Harding, 2246 1st Ave S, Seattle .... MA 2-8350

RADIO CORP OF AMERICA, ELECTRONIC
COMPONENTS, 415 S FIFTH ST, HARRISON
N J, 07029 ....201 485-3900
W GLASER
Cal RCA, 6363 Sunset Blvd, Hollywood 461-9171
Cal RCA, 4546 El Camino Real, Los Altos 948-8996
Cal RCA, 7969 Engineer Rd, San Diego 279-0420
DC RCA, 1725 K St NW, Washington........ 337-8500
Fla RCA, 2828 Broadway, Riviera Beach 842-1577
Ill RCA, 446 E Howard Ave, Des Plaines 827-0033
Ind RCA, Atkinson Sq, Indianapolis 546-4001
Mass RCA, 64 A St, Needham Heights 444-7200
Mich RCA, 28840 Southfield Rd
Lathrup Village 353-9770
Minn RCA, 5805 Excelsior Blvd, Minneapolis... 929-0676
Mo RCA, 7711 State Line, Kansas City 363-1720
NJ RCA, 605 Marlton Pike, Haddonfield 428-4802
NJ RCA, 2075 Millburn Ave, Maplewood 485-3900
NJ RCA, Central & Terminal Aves, Clark 382-1000
NY RCA, 731 James St, Syracuse........... 474-8221
Ohio RCA, 224 N Wilkinson St, Dayton 461-5420
Tex RCA, Exchange Park N, Dallas 351-5361
Wash RCA, 2246 1st Ave S, Seattle........... 622-8350
Can RCA, 1001 Lenoir St, Montreal 30, Que .. 933-7551
For RCA, 415 Prince's Bldg, Chater Rd, Hong Kong
Swit RCA, 118 Rue du Rhone, Geneva 35 75 00

RADIO CORP OF AMERICA, RADIOMARINE DEPT
BLDG 2-3, CAMDEN, N J, 08102 ..... 609 WO 3-8000
V LEWIS
Cal E W Baker, 1415 Donner St
San Francisco 822-5108
DC R W Hutcheon, 1725 K St NW
Washington 337-8500
Fla A Vadas, 3531 SW 13th St, Miami ..... HI 8-4228
La C E Croft, 43 W Bank Expwy, Gretna 367-9092
Mo R W Ugel, 3721 Grandel Sq, St Louis 531-5180
NY H F Hayes, 30 Rockefeller Pla
New York .... MU 9-7200

RADIOEAR CORP, 375 VALLEY BROOK RD
CANONSBURG, PA, 15317 .... 412 941-9000
E MYERS, EMP 120, ENG 5, $1,000-$2,500M

RADIO ENGINEERING LABS, DIV DCA
29-01 BORDEN AVE, LONG ISLAND CITY
N Y, 11101 ....212 786-2100
M BURRIDGE, EMP 600, ENG 65
Cal Radio Eng Labs, Div DCA, 415 Cambridge Ave
Palo Alto 321-5441
DC Radio Eng Labs, Div DCA
1120 Connecticut Ave, N W
Washington 223-4950
Mass Radio Eng Labs, Div DCA, Lorusso Prof Bldg
Franklin 528-3580
Okla T P Rizzuti, 6401 Tinker Diagonal
Midwest City........................ PE 7-1616
GB Dynamics Corp of America, 11 Park Pl
St James SW 1........................HY 2704

RADIO MATERIALS CO, 4242 W BRYN MAWR AVE
CHICAGO
ILL, 60646, TWX 910-221-2915........... 312 478-3600
J GLYNN, EMP 1000, ENG 40, $5,000-$10,000M
Ariz J Berman Co, 2101 W Shangri La Rd
Phoenix 602 944-3661
Cal P R Mallory Co, RMC Div, 801 Mahler Rd
Burlingame 697-6766
Cal J Berman Co, Box 453, La Mesa......... 583-6457
Cal J Berman Co, 8295 S Lacienega Blvd
Inglewood 213 678-1281
Conn H Lavin Assoc Inc, Box 921, Meriden..... 237-5527
Fla Components Sales Corp, Box 9545
St Petersburg........................360-7460
Mass H Lavin Assoc Inc, 52 Pickering St
Needham 444-3446
Minn Rhode Electronic Sales, 2510 E 7th Ave
St Paul........................612 777-8197
NJ J Kornberger, Box 218, Marlton........... 428-4050
NY F Spellman Co, 1295 Northern Blvd
Manhasset .... MA 7-3399
NY N J Matchuk Co, 4312 W Genesee St
Syracuse........................488-3251
Ohio A C Wahl & Assoc Inc, 315 Reading Rd
Cincinnati........................821-3270
Okla G V Peck Co, Box 15671, Tulsa 918 585-2853
Ore Earl & Brown Co, 2041 SW 58th St
Portland 503 292-9145
Tex G V Peck Co, 210 Casa Linda Plaza
Dallas........................214 328-3511
Wash D H Burcham Co, 422 1st Ave W
Seattle .... AT 4-1121
Can P J Heenan Ltd, 12 Doncliffe Dr
Toronto, Ont........................489-9558
For P R Mallory Intl, 3029 E Washington
Indianapolis, Ind........................ME 6-5353

RADIOMETER A/S, 72 EMDRUPVEJ, DK 2400
COPENHAGEN NV, DENMARK .... (01) SO 5000
E RASMUSSEN, EMP 650, ENG 50
Ohio London Co, 811 Sharon Dr
Westlake 216 871-7980
Can Bach-Simpson Ltd, Box 2484
London Ont 451-9490
For M R Drott KG, Postfach 254
A-1015 Wien........................0222 524545
For Centro De Cooperacao Techica S A R L
Aptdo 2-591, Lisboa........................680007
Fr Jarre-Jacquin Recherches & Labs
18 Rue Pierre Curie, Paris 0337843
Ger Kurt Hillerkus, Uerdingerstr 463
4150 Krefeld........................50180
GB Omega Labs Ltd, 57 Union St, London .... Hop 4567
Holl Blessing-Etra NV, Groenendaal 219-221
Rotterdam 11 34 55
Ital Ugo de Lorenzo & Csrl, via Bellarmino, 29
Milano 84 39 508
Jap Yokohama Shojl Kaisha Ltd
3 Sarugahucha 1-chrome Kanda, Chiyoda-Ku Tokyo

SAfr Dowson & Dobson Ltd, Box 7764
Johannesburg 836 1301
Swed Bergman & Beving AB, Fack
Stockholm 10 .... 08 246040
Swit G Glats & Co, Postfach
8036 Zurich 051 33 03 38
Belg Ets L de Greef S P R L, 53 Ave Everard
Brussels 441913
NZ Watson Victor Ltd, Box 1180, Wellington
Spn Telcò SL, Gravina 27, Madrid 4 317101
Fin Havulinna Oy, Box 10468
Helsinki 10, Finland 61451
Aust Andrew Thom Ltd, 261 Broadway, Sydney 684241

RADIO RESEARCH CO, 189 MT PLEASANT AVE
ROCKAWAY, NJ, 07866 201627-1754
A ADLER, EMP 6, ENG 2
NY Kahgan Sales Corp, 1261 Broadway
New York .... 212 MU 4-7772
Can Hackbusch Sales Ltd, 58 Eddystone Ave
Downsview 416 636-6405
For Sylvan Ginsbury Ltd, 72 W 45th St
New York 212 MU7-3213

RADIO SPECIALTY MFG CO, 2023 SE 6TH AVE
PORTLAND, ORE, 97214 .... 503 232-8123
K JOHNSON, EMP 31, ENG 2

RADIO SWITCH CORP, MARLBORO
N J, 07746 .... 201 462-6100
C HICKS

RADIO TELEVISION PRODUCTS CORP, 308 N LAKE ST
GRASS LAKE, MICH, 49240 .... 517 522-3511
R TRULL, EMP 260, ENG 4, $1,000-$2,500M
Cal R L Reid & Co, 248 N Pamela Rd
Arcadia 681-0711
Ind R L Reid & Co, 707 E 106th St
Indianapolis 846-2511

RADIX ELECTRONICS CORP
1560 ORANGETHORPE WAY, ANAHEIM
CAL, 92801, TWX 910 592 1275 .... 714 879-4360
R TAYLOR, EMP 150, ENG 7, $2,500-$5,000M
Ala Emory Design & Equip Co, Box 9013
Birmingham 881-0848
Cal Halbar Assoc, 188A W 36th Ave
San Mateo 349-4700
Cal Sullins Co, Box 561, Escondido 744-0125
Mass Sencor, New England, Executive Park
Lynnfield 245-6274
NY J D Ryerson Assoc Inc, Box 8369
Rochester 442-1900
Pa Sencor, Inc, 2222 Geadale St, Phila .... FI 2-0223

RADIX WIRE CO, 26260 LAKELAND BLVD, CLEVELAND
OHIO, 44132 .... 216 731-9191
J WILLIAMS, EMP 55, ENG 1, $2,500-$5,000M
Cal S Kobert, 331 Winston St
Los Angeles 213 628-7235
Fla W J Milner Co, Box 14306, Orlando 277-8836
Ga Whit-Shaw Co Inc, Box 17901
Atlanta 404 873-3191
Ill N Gage, 818 Clinton Pl, Evanston .... UN 4-6016
Mass A A MacPherson, 336 Washington St
Wellesley 237-1865
Mich Arthur Wood, 24634 Five Mile Rd
Detroit 313 531-1224
Minn Mitchell Elctn Sales, 10 Hennepin Ave
Minneapolis 612 332-6441
Mo R E Myers, 504 Louderman, St Louis .... MA 1-2748
NJ Nash & Cornell, 1679 Elizabeth Ave
Rahway 201 381-2400
NY N Henry Mosesohn, 93 Fair Oaks Ave
Rochester .... CH 4-1079
Ohio Howard Gregory, 7440 N Timberlane Dr
Cincinnati 561-4808
Ohio Gregory & Flynn, 4501 Perkins
Cleveland .... EN 1-0676
Ore Carlson & Friesen, 815 NW 16th Ave
Portland 503 227-1181
Pa Shelmar Electronics Corp, Box 254
Glenside 215 885-0800
Tex Fain Assoc, 2334 S Harwood, Dallas .... HA 8-7488

RAECORD INC, 192 BEECH ST, PATERSON
N J, 07501 .... 201 274-2692
F ROBERTS, EMP 6, ENG 2, $100-$250M

RAE MOTOR CORP, BOX 518, MCHENRY
ILL, 60050 .... 815 385-3500
E HANSEN, EMP 135, ENG 4, $1,000-$2,500M
Cal Electric Motor Eng, 6515 Sunset Blvd
Los Angeles .... HO 9-7393
Cal Electric Motor Eng, Box 11621
Palo Alto 326-3105
Fla Technical Marketing, 1511 E Robinson
Orlando 305 424-8531
Ga Technical Marketing, Box 1152
Marietta 404 435-0079
Md Eastern Components, 1002 Ingleside Ave
Baltimore .... RI 4-4900
Md Eastern Components, 6200 Annapolis Rd
Landover Hills 301 322-1412
Mass Stanwood Assoc, 92 S Main
Sherborn 617 655-2597
Mich Industrial Representatives Co, 1442 Berkshire Rd
Grosse Pointe 821-0390
Minn Wm Taubert, 985 Cypress St, St Paul 776-1285

NJ Kent Assoc, W Deerhaven Rd
Mahwah .... DA 7-7878
Ohio S J Vereb & Assoc, Box 4424
Cleveland 216 883-6999
Okla Components Inc, Box 50277, Tulsa .... LU 3-9149
Pa Eastern Components, 1349 Cheltenham Ave
Philadelphia .... WA 7-6262
Tex Carey Assoc, 3315 W 12th St, Houston 869-3623
Tex Lynn Elliott Co, Box 428
Missouri City 713 499-1571
Utah Brandon Co, 511 E 7th St
Salt Lake City 801 322-1061
Wis J C Morkin, 1317 Garfield Ave
Waukesha 542-5129

RAGEN PRECISION INDUSTRIES INC, 9 PORETE AVE
NORTH ARLINGTON, N J, 07032 .... 201 997-1000
W SAUNDERS, EMP 300
Cal IFM North, 2269 E Middlefield Rd
Mt View 415 961-2828
Cal IFM South, 3455 Cahuenga Blvd
Hollywood 213 469-1641
Conn E E Specialists Inc, 281 Vera Rd
Bristol 203 584-0077
Ill Laub Engineering, Box 8
Northfield 312 446-4166
Md Eastern Components Inc, 6200 Annapolis Rd
Landover Hills 301 322-1412
Mass E E Specialists Inc, Box 956
Acton 617 259-9200
Mich Electro Enterprises Inc, 15324 Mack Ave
Detroit 313 886-2281
Ohio Electro Enterprises Inc, 335 E 200th St
Cleveland 216 486-7040
Ohio Electro Enterprises Inc, 2621 Mardon Dr
Dayton 513 426-6071
Pa Eastern Components Inc, 1349 W Cheltenham Ave
Philadelphia 215 927-6262

RAMAPO INSTRUMENT CO INC, BOX 11
BLOOMINGDALE, NJ, 07403 .... 201 838-2300
G ANDERSON, EMP 8, ENG 2, $100-$250M
Ala Rep Inc, 8100 S Memorial Pkwy
Huntsville 881-9270
Ariz J T Aldrich Co, 801 E McKellips Rd
Tempe 945-8598
Cal Gene D Pribble Co, 3104 W Beverly Blvd
Montebello 723-8881
Cal Con-Val Inc, 412 Pendleton Way
Oakland 568-8922
Colo J M Warner Co, 600 W 48th Ave
Denver 222-2685
Fla Gulf Instrument Assoc, 1625 Ave E NE
Winter Haven 293-7308
Ga Rep Inc, 1483 Monroe Dr NE, Atlanta 876-1591
Ill Drager Co, 6333 N Pulaski Rd, Chicago 478-5022
La Rolston Co, 3160 Florida St
Baton Rouge 342-8422
Md Briggs-Cooper, Inc, 2916 Stafford St
Baltimore 945-2200
Mass Daner Assoc, 684 Commonwealth Ave
Newton Centre 969-4650
Mich Elias Electronics, 26817 W 7 Mile Rd
Detroit 255-2111
NJ Technical Representation, Inc, 280 Midland Ave
Saddle Brook 791-5225
NC Mec-Tric Control Co, 3811 St Mary Ave
Charlotte 376-8551
Pa Kurt J Lesker Co, 5635 Horning Rd
Pittsburgh 892-2996
Pa H A Lucas, Inc, Box 34, Flourtown 233-5543
Tex Whitson Engineering Co, 1323 Levee St
Dallas 748-0492
Va Briggs-Cooper, Inc, 4803 Midlothian Tpke
Richmond 233-4346
Wash Technical Sales Co, Box 3143, Seattle 723-4982
Can Hoke Controls Ltd, 280 Manitou Dr
Kitchener, Ont 578-5710
GB Mawdsley's Ltd, Electronics Div, Dursley, Glouc

RAMCO MFG CO INC, 540 WESTFIELD AVE W
ROSELLE PARK, N J 201 245-4500
R MATTHESSEN, EMP 100, ENG 1, $250-$500M

RAMCON CORP, 1725 FLEETWOOD DR, ELGIN
ILL, 60120 .... 312 695-3735
C KOEHLERT, EMP 70, ENG 5, $1,000-$2,500M

RAMCOR INC, 270 E PULASKI RD, HUNTINGTON
NY, 11743, TWX 516-421-4085 .... 516 271-4000
M EGAN, EMP 180, ENG 25, $2,500-$5,000M
Cal Fetty-Schoenduve Inc, 7407 Melrose Ave
Los Angeles .... OL 1-4050
Cal Fetty-Schoenduve Inc, 253 Town & Country Vlg
Palo Alto .... DA 1-7041
Md Holden Engineering, 1133 Gypsy La W
Towson .... VA 3-3763

RAMIC CORP, BOX 1389, MEDFORD
ORE, 97501 .... 503 772-6189
L HORTON, EMP 24, ENG 6

RAMLOR PRINTED CIRCUITS, 126 SAN ANTONIO RD
MOUNTAIN VIEW, CAL, 94040 .... 415 326-4690

RAM METER INC, 1100 HILTON RD, FERNDALE
MICH, 48220 .... 313 547-1000
R WHALEN, EMP 50, ENG 6, $500-$1,000M

RAMM RECTIFIER CO, INC, 340 COSTER ST, BRONX
N Y, 10474 .... 212 991-4200
T MENDEL, EMP 50, ENG 4, $1,000-$2,500M

RAMNEY INDUSTRIES CORP
MONMOUTH CTY AIRPORT, RTE 34, FARMINGDALE
N J, 07727 .... 201 681-0101
B VAN VLIET, EMP 30, ENG 2
Cal F J Toffey Assoc, 1 First St, Los Altos 941-4366
Cal F J Toffey Assoc, 2227 Mora Dr
Mt View 415 968-0200
Conn Evans Equip Co, Rt 7, Brookfield 203 775-2800
Fla Beacon Electronics Assoc, Box 10212
Ft Lauderdale 564-4298
Fla Beacon Electronics Assoc, Box 1278
Maitland 647-3498
Ga Beacon Elctns Assoc, 2285 Peachtree Rd NE
Atlanta 404 351-3654
Ill Olson Engineering & Sales, 7124 W 16th St
Berwyn 788-2602
Ill Olson Engrg & Sales Corp, 1921 N Harlem Ave
Chicago 312 622-9777
Ind Delta Sales, Inc, 1407 N Illinois St
Indianapolis 631-4136
Md Regional Scientific Assoc, Box 211
Rockville 301 365-8986
Mass Evans Equip Co, Box 127, Welsley 235-2275
Minn Olson Engrg & Sales Corp, 5533 Warren Ave
Minneapolis 612 929-7979
NY Aries Associated Prods, Box L
Centerport 261-4230
NY Alderman & Eckerson, Drawer B
Pittsford 716 586-6020
NC Beacon Electronics Assoc, Box 17584
Charlotte 366-9761
NC Beacon Elctns Assoc, Box 503
Jamestown 919 454-1010
Pa Evans Equip Co, 12 School La
Willow Grove 657-0445
Pa Evans Equip Co, 1246 Irma Rd
Warminster 215 672-2560
Can Technitron Assoc, 8 Glanlynn Rd
Pointe Claire, Que 695-2579
Can Technitron Assoc, 769 Lajoie Ave
Dorval, Que 514 631-6859

RAMSAY ENGINEERING CO, 707 N ANAHEIM BLVD
ANAHEIM, CAL, 92805 .... 714 774-5511
S RAMSAY

RAMSEY CONTROLS INC, 333 RTE 17, MAHWAH
N J, 07430 .... 201 529-4400
S HUNTER, EMP 55, ENG 4, $1,000-$2,500M
Ga J H Chambers Co, 1514 Kingsdown Cir
Dunwoody 404 457-9055
Minn Craighead Assoc, 3822 E Lake St
Minneapolis 612 721-6529
Pa Kaufholz Assoc, Box 227
Newtown Square 356-5000

RAMSEY CORP SUB TRW, 3693 FOREST PARK BLVD
ST LOUIS, MO, 63108 .... 314 227-5371
R MARSHALL, EMP 850, ENG 20

RAMYR MFG CO, 6750 CABELLERO BLVD
BUENA PARK, CAL, 90620 .... 714 521-8344
E SANDERSON, EMP 50, ENG 6, OVER $10,000M
Cal Ramyr Mfg Co, 175 San Antonio Rd
Los Altos 415 941-3067

RANDALL INC, DOUGLAS, SUB WALTER KIDDE & CO INC
477 PAWCATUCK AVE, WESTERLY, R I, 02891 .... 203 599-1750
J ROLLINS, EMP 350, ENG 5
ADV PG 602, 603
Cal Huddleston Assoc, 408 Rosemead Blvd
Pasadena .... MU 1-3751
Cal W J Carson & Assoc, 124 El Camino Real
San Carlos 415 593-4262
Fla Lynch Gentry Assoc, 6446 Central Ave
St Petersburg .... DI 7-5131
Ind Reichold Assoc, 3520 E Dudley Ave
Indianapolis 783-1138
Md Barnhill & Assoc, 1931 Greenspring Dr
Timonium 301 252-5610
Mass R F Duffy Assoc Inc, 49 Century Rd
S Weymouth 335-7724
Mich Reichold Assoc, 1655 House St
Belmont 451-1449
Minn L F Murphy & Assoc, 730 Chicago Ave
Minneapolis 612 333-4511
NY Frank Tylinski Co, 338 Northern Blvd
Great Neck .... HN 6-9070
NY Milton C Matthews Co, Box 612
Rochester .... BR 1-2143
NC Powertronics Assoc, Box 403
Thomasville 476-4257
NC Powertronics Assoc, 2454 Medway Dr
Raleigh 834-6947
Pa Elcom Inc, 130 S Easton Rd, Glenside 885-1325
Can M J Howard & Co Ltd, 1300 Carling Ave
Ottawa 728-2991

RANDAM ELECTRONICS INC, 3091 SHADYCREST DR
CINCINNATI, OHIO, 45239 .... 513 522-3322
J HUMMELDORF, EMP 25, ENG 5

RANSOM LABS, JOHN H, 6425 S CRENSHAW BLVD
LOS ANGELES, CAL, 90043 .... 213 753-7140
R RANSOM, EMP 25, ENG 3, $500-$1,000M

RANTEC DIV EMERSON ELECTRIC CO
24003 VENTURA BLVD, CALABASAS
CAL, 91302 .... 213 347-5446
E TORGOW, EMP 250, ENG 55, $5,000-$10,000M
Ala Roy Attaway Co, 900 Bob Wallace Ave SW
Huntsville 205 534-2811
Ariz Moxon Elctns Corp, 15 N 40th Pl
Phoenix 602 273-7363
Cal Moxon Elctns Corp, 2311 Pontius Ave
Los Angeles 213 272-9311
Cal Moxon Elctns Corp, 2045 Garnet St
San Diego 714 274-6525
Cal Moxon Elctns Corp, 15 41st Ave
San Mateo 415 345-7961
Fla Roy Attaway Co, 57 E Robinson St
Orlando 305 424-9983
Md VPI, 561 Dorsey Rd NW
Glen Burnie 301 768-0550
Mass Rantec Northeastern, 1762 Massachusetts Ave
Lexington 617 861-0502
Mass Zieco Inc, 18 Muzzey St, Lexington 617 861-8300
NJ VPI, 44 Fresh Pond Rd
East Brunswick 201 821-8977
NC Roy Attaway Co, 519 Nissen Bldg
Winston-Salem 919 722-9671
Pa VPI, 10714 Haldeman Ave
Philadelphia .... 215 OR 6-4133
Tex Arnold Barnes Co, 740 S Sherman
Richardson .... 214 AD 5-4541
Tex Arnold Barnes Co, 3230 Mercer St
Houston .... 713 NA 2-3620
Tex Arnold Barnes Co, E106 Petroleum Ctr
San Antonio .... 512 TA 8-1323
Wash Rush S Drake Assoc Inc, 6133 Maynard Ave S
Seattle 206 763-2755
For Trans World Trade, Box 1037
Santa Monica, Cal 213 472-0444

RAPIDESIGN INC, 2601 SAN FERNANDO RD
BURBANK, CAL, 91502 .... 213 849-5007
M BARON, EMP 36, ENG 3, $500-$1,000M

RAPID SPECIALTIES CO, 327 W HURON ST, CHICAGO
ILL, 60610 .... 312 337-1440
E TATE, EMP 6, UP TO $100M
ADV PG [illegible]

RATEL INC, 1 EL CAMINO RATEL, GOLETA
CAL, 93017 .... 805 967-1214
W MCGAW, EMP 125, ENG 4, $500-$1,000M
Cal R L Reid & Co, 248 W Pamela Rd
Arcadia .... MU 1-0711
Ind R L Reid & Co, Inc, 707 E 106th St, Indianapolis

RATELCO INC, 610 PONTIUS, SEATTLE
WASH, 98109 .... 206 624-7770
P BURTON, EMP 30, ENG 2, $500-$1,000M
Cal Howe-Stephens Co, 55 New Montgomery St
San Francisco 415 982-3593
Cal Matzinger Assoc, 315 9th St
Los Angeles 213 624-8001
Ore A L Polich Inc, 734 NW Glison St
Portland .... CA 3-6241
Ore P & R Industries, Box 554, Portland 222-7186
Tex CCS Butt, Box 18045, Houston .... JA 6-3101
Wash A L Polich Inc, 2636 Thorndyke W
Seattle .... AT 3-7100
For Kem Mac Intl, 8711 Juanita Dr
Yakima, Wash .... GL 2-2066

RAULAND-BORG CORP, 3535 W ADDISON ST
CHICAGO, ILL, 60618 .... 312 CO 7-1300
C DORWALDT, EMP 350, ENG 30, $2,500-$5,000M
Cal D Solhaug, 1134 Allston Way
San Jose 269-8003
Conn S R McDonald, 5 MacDonald La
Wallingford 203 269-9867
Ga W D Erskine, 3341 Chamblee-Tucker Rd
Chamblee 938-8967
Ill J J McBride Sales Inc, 6054 Touhy Ave
Chicago 312 775-1080
Kan E H Sinclair, 8710 Metcalf
Overland Park .... 913 Mi 9-5521
La E J McDonald, 3033 Sandra Dr
Shreveport .... ME 1-3693
Ohio C L Feightner, 7604 Alan Pkwy
Cleveland .... CH 3-3076

RAULAND CORP, 2407 W NORTH AVE
MELROSE PARK, ILL, 60160 .... 312 345-4700
T SNOW

RAVEN ELECTRONICS INC, 101 W ALAMEDA
BURBANK
CAL, 91502, TWX MR ARTHUR CHI 213 849-7747
A CHIANELLO, EMP 85, ENG 30, $1,000-$2,500M
Va N Castiglia, 6300 15th Rd N
Arlington 703 534-8329

RAVEN INDUSTRIES INC, 205 E 6TH ST, SIOUX FALLS
SD, 57101 .... 605 336-2750
M WIEMAN, EMP 700, ENG 40, OVER $10,000M

RAWAY BEARING CO INC, 139-141 CHRYSTIE ST
NEW YORK, N Y, 10002 .... 212 925-8150
A BASKIN, EMP 5, $250-$500M

RAWCO INSTRUMENTS INC, BOX 1286, FORT WORTH
TEX, 76101 .... ED 5-1228
E BASHAM, EMP 20, ENG 3, $100-$250M
Fla Buchanan & Abrams, 1226 E Colonial Dr
Orlando .... GA 3-8995
Tex Space Electronics Inc, Box 705, Irving 631-0905

RAWSON-LUSH INSTRUMENT CO INC, HARRIS ST
ACTON, MASS, 01720 .... 617 263-3531
M LUSH, EMP 25, ENG 2, $100-$250M
Cal Southwest Scientific Co, 15452 Cabrito Rd
Van Nuys 213 873-3554
Cal Southwest Scientific Co, 2313 Marina Blvd
San Leandro 415 483-7254

RAYBESTOS-MANHATTAN INC, 61 WILLETT ST
PASSAIC
N J, 07055, TWX 710989-7014 .... 201 473-2000
R PARK
Distributors, Dealers, Sales Representatives & District
Offices in US

RAYBOND ELECTRONICS INC DIV WILLCOX & GIBBS
INC, 930 WASHINGTON ST, NORWOOD
MASS, 02062 .... 617 762-6990
J ERZ, EMP 50, ENG 10, $1,000-$2,500M

RAYCHEM CORP, 300 CONSTITUTION DR
MENLO PARK
CAL, 94025, TWX 910-373-1728 .... 415 324-3333
R GESELL, EMP 1316, ENG 75, OVER $10,000M
Ala Raychem Corp, 2109 Clinton Ave
Huntsville 539-4146
Cal Raychem Corp, 14011 E Ventura Blvd
Sherman Oaks 788-9872
Cal Raychem Corp, 3435 Camino Del Rio S
San Diego 281-7775
Cal Rayclad Distribution Ctr, 1333 Air Way
Glendale 213 245-7417
Colo Raychem Corp, 800 Wadsworth, Denver 238-4355
Conn Raychem Corp, 111 East Ave
Norwalk 203 853-2700
Fla Raychem Corp, 7040 Lake Ellenor Dr
Orlando 855-4214
Ga Raychem Corp, 2970 Peachtree Rd, N W
Atlanta 261-3657
Ill Raychem Corp, 9501 W Devon Ave
Rosemont 698-3306
Md Raychem Corp, 1810 Pot Spring Rd
Timonium 252-5410
Mass Schaal Assoc, 4 A St, Burlington .... BR 2-3250
Mich Raychem Corp, 18770 Farmington Rd
Livonia 313 477-8686
Minn R G Ragon Inc, 1136 W Larpenteur Ave
St Paul 488-6634
Mo Raychem Corp, 11913 St Charles Rock Rd
Bridgeton 845-8161
NJ Raychem Corp, 622 Valley Rd
Upper Montclair 744-6261
NY Raychem Corp, 140 E Main St
Huntington .... HA 3-4860
NY Raychem Corp, 474 Thurston Rd
Rochester 716 235-2512
NC Raychem Corp, Box 628
Greensboro 919 274-3292
Ohio Raychem Corp, 6500 Pearl Rd
Parma Heights 888-4355
Pa Raychem Corp, Chadds Ford .... GL 9-3284
Tex Dyna-Reps Inc, 200 S Grants La
Fort Worth .... PE 2-6621
Wash Raychem Corp, 7834 S E 32nd St
Mercer Island .... AD 2-1998
Can Raychem Canada Ltd, 3089 Bathhurst
Toronto Ont 416 789-7425
Can Raychem Canada Ltd, 5375 Pare St
Montreal Que 514 731-7901
For Raychem Ltd, 1 Melville Terr
Stirling Scotland .... Stirling 5192
Fr Raychem S A, 11 Rue du Renard
La Garenne Colombes 782-42-81
Ger Raychem GmbH
Buro Norddeutschland, 209 Winsen (Luhe)
Eckermannstr 28
Ger Raychem GmbH, 8012 Ottobrunn bei Munich
Seimensstr 14 .... 0811 606014
GB Raychem Ltd, Cheney Manor
Swindon, Wiltshire .... SWI 27146
Ital Special - Ind SYI, Via D Manin 33
Milan 632 435
Swed Raychem AB, Birger Jarlsgatan 112
114 20 Stockholm 08 24 59 35
Swit Raychem AG, Sihlbruggstr, 6340 Baar o42 47788
Belg Raychem S A, 2 Ave de Burlet
Nivelles 067-23091
Neth Raychem N V, Vijzelstraat 2-18
Amsterdam 020 23 24 06
Spn Ibertronics, Velazquez 4, Madrid 226-64-97

RAYCO ELECTRONIC MFG INC, 2233 FEDERAL AVE
LOS ANGELES, CAL, 90064 .... 213 477-8238
EMP 22, ENG 2, $250-$500M

RAYLINE INC, 80 E OLD COUNTRY RD, MINEOLA
N Y, 11502 .... 516 PI 25353
J LORPER, EMP 6, ENG 1, UP TO $100M
Cal Ross-Szerlip Assoc, 5007 Lankershim Blvd
N Hollywood 766-8109
Colo AES Inc, 1559 Chester St, Aurora
Mo C A Vigola Assoc Inc, 21 Schellridge
Jefferson City 635-1023
NY Surpless Dunn & Appleyard Inc, 57 Leonard St
New York .... BA 7-4770

RAYMOND ENGINEERING INC, SMITH ST
MIDDLETOWN
CONN, 06457, TWX 710-428-7944 .... 203 347-5611
J LOMBARDO, EMP 500, ENG 82, $5,000-$10,000M
Cal Western Technical Assoc, 8644 Wilshire Blvd
Beverly Hills 657-7066
Conn Astro-Tek Assoc, Box 813, Waterbury 753-4129
Fla North American Engrg Sales Co, Box 17057
Orlando 295-4440
For Controls & Instr Overseas Corp, 15 E 40th St
New York 685-5178

RAYONIC CORP, 1934 E HAGERT ST, PHILADELPHIA
PA, 19125 .... 215-NE 4-6970
D BURKE, EMP 48, ENG 7
Ariz Dorton Enterprises, 132 E Stetson Dr
Scottsdale 946-6213
Cal Abbott Eng Co, 2600 El Camino Real
Palo Alto 415 827-0830
Cal Shephard-Stern, 4109 Burbank Blvd
Burbank 849-6671
Colo Gordon Moss Electronics Inc, 1530 13th Ave
Greeley 353-1452
Fla Geartner Assoc Inc, 350 Lincoln Rd
Miami Beach 531-0200
Ga K & E Assoc, Blue Sp Mobile Home Pk Rte 2
Kennesaw 404 974-4264
Ill M A Cope, 2417 Prospect Ave
Evanston 312 328-1934
Ind Southern Sales Co, 105 Lakeshore Dr
Angola 665-3961
Mass A & M Electronic Reps, 1492 Highland Ave
Needham 444-8170
Mich The Don Poulin Co, 17222 E Warren
Detroit 886-4990
Minn Ed Melius & Assoc, 3758 N Dunlap St
St Paul 488-7293
Mo Kay Sales Co, 4049 Penna Ave
Kansas City 531-2014
NJ A Wetterhahn Co, 4420 Crescent Blvd
Pennsauken 627-1535
NM Lee Davis Co, 1415 Richmond Dr NE
Albuquerque 256-1749
NY Franklin & Andrews Sales Corp, 2 Standish Terr
Syracuse 446-1120
NY Samuel S Egert Co Inc, 146 Meacham Ave
Elmont 516 488-2255
NY F Edwin Schmitt Co, 311 Meacham Ave
Elmont 437-8150
Ohio George L Herrick Co, 845 Canterbury Rd
Westlake 871-8855
Ohio McDaniel Assoc, 3020 California Ave
Dayton 513 293-2522
Ore Van Voorhees Assoc, Box 4383
Portland 287-6633
Tex M F Klicpera Co, Box 2668, Houston 747-3868
Can Gen Instrument of Can Ltd, 151 Weber St S
Waterloo Ont 744-8101
For Roburn Agencies Inc, 431 Greenwich St
New York N Y 966-2130

RAY-O-VAC DIV ESB INC, 212 E WASHINGTON AVE
MADISON, WIS, 53703 .... 608 255-7201
K BING, EMP 6000, ENG 100
Cal Ray-O-Vac Div, 111 Sutter St
San Francisco 982-9901
Ga Ray-O-Vac Div, 4669 Lewis Rd
Stone Mountain 938-7111
Ill Ray-O-Vac Div, 1985 Janice Ave
Melrose Park 626-4755
NJ Ray-O-Vac Div, 480 S Dean St
Englewood 569-1522
Ohio Ray-O-Vac Div, 2825 Silver Dr
Columbus 263-0901
Tenn Ray-O-Vac Div, Box 11506 - E Memphis Sta
Memphis 327-5627
Wis Ray-O-Vac Div, 3310 University Ave
Madison 255-7201

RAY PRODUCTS INC, 703 S PALM AVE, ALHAMBRA
CAL, 91803 .... 213 283-8877
H HOWARD, EMP 29, ENG 2, $500-$1,000M
Tex Sivright Co, 6434 Maple Ave, Dallas 357-6681

RAY PROOF CORP, KEELER AVE, NORWALK
CONN, 06856 .... 203 838-4555
E KESNEY, EMP 75, ENG 9, $1,000-$2,500M
Cal Ray Proof, 731 S Garfield, Alhambra 283-5055
Ill R Edw Stemon Inc, 17W480 Lake St
Addison 279-2440
Md Burlingame Assoc, 1749 Rockville Pike
Rockville 427-1255
Mass Burlingame Assoc, 7 Wellington St
Waltham .... TW 4-1955
Minn R Edw Stemon Inc, 2713 Lyndale Ave S
Minneapolis 822-8404
NY Burlingame Assoc, 510 S Fulton Ave
Mt Vernon .... MO 4-7530
Ohio Harvey Teplitz & Co, Dayton 513 277-9178
Ore Meriwether Prods Co, 1960 S E Hawthorne Blvd
Portland 233-5421
Pa Burlingame Assoc, 222 Long Lane
Upper Darby .... JA 8-6080
Tex Blair Engrg Sales Co, Dallas .... 214 FL 2-2556
Tex Blair Engrg Sales Co, Houston .... 713 NA 1-0818
Can Ray Shield, 1260 Lakeshore Rd E
Port Credit 274-3445

RAYTEK INC, 1277 TERRA BELLA AVE
MOUNTAIN VIEW, CAL, 94041 .... 415 961-1650
M WANK
Cal Hickman Engineering, 499 Embarcadero
Oakland 832-5626

Cal McCamey & Assoc, 1260 S Atlantic Blvd Los Angeles 263-9812
Cal Wm Wahl Corp, 1001 Colorado Ave, Santa Monica
Colo Bennett & Assoc, 1440 W Bayaud Ave Denver 722-2878
Ill Leo R Fitz Co, 6038 N Newberry Ave Chicago 312 631-5488
Ind Neal Engineering Co, Box 55552 Indianapolis 317 925-2364
La Cecil Doyle Co, Box 4014, Shreveport 861-4357
Mass Robert Scott, Box 26, Winchester 729-4643
Mich Webtrol, Inc, 19951 James Couzens Hwy, Detroit
Minn Engineered Sales Co, 311 W 44th St Minneapolis 823-8238
NM ALS Electronics, 429 Buena Ventura Pl NE Albuquerque .... AX 8-2575
NY Frank Unbehan & Assoc, 75 College Ave Rochester 244-2450
NY Guidi & Bean Inc, 135 New York Ave Huntington 516 271-8850
NC W K Hile Co, Inc, Box 325, Matthews
Ohio Angus McAm Co, Box 2286, Cleveland ... 351-2942
Okla Johnson-Coates & Assoc, Box 5792 Oklahoma City .... PE 2-2141
Pa Angus McAm Co, Box 11127 Pittsburgh 366-1533
Tex Dixon Engineering, Inc, Box 18653 Dallas .... DA 1-0240
Tex Dixon Engineering, Inc, Box 12392 Houston .... MI 4-3021
Wash Woolsey & Powell, 69 Marion St Seattle .... 206 MA 3-7060

RAYTHEON COMPANY, 141 SPRING ST, LEXINGTON
MASS, 02173 .... 617 862-6600
EMP 50000, ENG 5000, OVER $10,000M

RAYTHEON CO, COMMUNICATIONS & DATA PROCESSING OPER
1415 BOSTON-PROVIDENCE HWY, NORWOOD
MASS, 02062 .... 617 762-6700
J BANISTER
Cal Raytheon Co, 341 Moffett Blvd Mountain View 415 968-8170
Ga Raytheon Co, 1600 Tullie Cir NE Atlanta 404 231-3350
Ill Raytheon Co, 3158 Des Plaines Ave Des Plaines 312 296-6677
Mo Raytheon Co, Box 9117 Kansas City 816 741-1560

RAYTHEON CO, COMPONENTS DIV, IND COMPNTS OPER, 465 CENTRE ST, QUINCY
MASS, 02173, TWX 710-337-6879 .... 617 479-5300
P KEELER
Cal Raytheon, 120 El Camino Real San Carlos 593-1021
Cal Raytheon, 2930 W Imperial Hwy Inglewood 757-0251
DC Raytheon, 1000 16th St NW Washington 638-5200
Ill Raytheon, 3158 Des Plaines Ave Des Plaines 296-6677
Md raytheon, 104 Roesler Rd, Glen Burnie ... 761-0450
Mass Raytheon, Fourth Ave, Burlington 272-6400
NJ Raytheon, 475 Dean St, Englewood 567-4911
Ohio Raytheon, 333 W 1st St, Dayton 223-8128
Tex Raytheon, Stemmons Tower West Dallas 631-3745

RAYTHEON CO, COMPONENTS DIV, SEMICONDUCTOR OPER, 350 ELLIS ST, MOUNTAIN VIEW
CAL, 94040, TWX 910-379-6445 .... 415 968-9211
W PETERS, EMP 1200, ENG 150
Ariz Mercury Engineering Sales, Box 3130 Scottsdale 602 945-1927
Cal Raytheon, 2930 W Imperial Hwy Inglewood 757-0251
Cal Raytheon, 120 El Camino Real San Carlos 593-1021
Cal Industrial Products Sales, Box 357 Lemon Grove 714 286-3911
Colo Arrowhead Sales Corp, 6460 Brentwood Arvada 303 798-0319
Fla Perrott Assoc, 1607 Forsyth Rd Orlando 305 275-1132
Fla Perrott Assoc, Box 532, Clearwater ... 813 446-2535
Fla Perrott Assoc, Box 6277 West Palm Beach 305 585-7761
Ill Raytheon, 3150 Des Plaines Ave Des Plaines 296-6677
Kan Midland Engr Sales Assoc, 5460 Buena Vista Dr Mission 913 262-6565
Md Raytheon, 104 Roesler Rd, Glen Burnie ... 761-0450
Md Doss Electronics Inc, 6600 Security Blvd Baltimore 301 944-1900
Mass Raytheon, Fourth Ave, Burlington 272-6400
Minn Raytheon, 4820 W 77th St Minneapolis 927-9923
NJ Raytheon, 475 S Dean St, Englewood 567-4911
NJ M D Industries Inc, 240 Grand Ave Leonia 201 944-2212
NY W A Franklin Sales Corp, 2 Standish Terr Syracuse 315 446-1120
NY W A Franklin Sales Corp, 21 Winhurst Dr Rochester 716 442-9765
Ohio Raytheon, 333 W 1st St, Dayton 223-8128
Ohio Mike Roth Sales Co, 678 S Green Rd Cleveland 216 382-9090
Ore Arneson Assoc, 200 NE Canyon RD Beaverton 503 646-3416
Pa M D Industries Inc, 653 Colebrook Rd Philadelphia 215 655-0390
Tex Raytheon, Stemmons Tower W, Dallas 631-3745

Utah Arrowhead Sales Corp, 1966 W 6255 S Salt Lake City 801 298-2751
Utah Arrowhead Sales Corp, 1033 Third Ave Salt Lake City 801 359-3926

RAYTHEON CO, GOVERNMENT MARKETING
141 SPRING ST, LEXINGTON
MASS, 02173 .... 617 862-6600
W WELSH
Ala Raytheon Co, 3322 S Memorial Pkwy S W Huntsville 205 881-0331
Cal Raytheon Co, 12701 S Van Ness Ave Hawthorne 213 757-3151
Colo Raytheon Co, 2103 E Bijou St Colo Springs 303 633-3846
DC Raytheon Co, 1000 16th St NW Washington 202 638-5200
Fla Raytheon Co, 14 S Eglin Pkwy Ft Walton Beach 904 243-6925
NJ Raytheon Co, Box 5, Colts Neck 201 431-0088
NY Raytheon Co, Box 790, Rome 315 337-2500
Ohio Raytheon Co, 333 W 1st St Dayton 513 223-8128
Tex Raytheon Co, 1115 Gemini Ave Houston 713 488-3220

RAYTHEON CO, MARINE PRODUCTS OPERATION
213 E GRAND AVE, S SAN FRANCISCO
CAL, 94080, TWX 910-371-7227 .... 415 589-7474
W GROVE

RAYTHEON CO, MICROWAVE & POWER TUBE DIV
FOUNDRY AVE, WALTHAM
MASS, 02154, TWX 617 894-8590 ...... 617 899-8400
A VACARO
Cal Raytheon, 2930 W Imperial Hwy Inglewood 757-0251
Cal Raytheon, 120 El Camino Real San Carlos 593-1021
Ill Raytheon, 3158 Des Plaines Ave Des Plaines 296-6677
Md Raytheon, 104 Roesler Rd, Glen Burnie ... 761-0450
Mass Raytheon, 190 Willow St, Waltham 899-8400
NJ Raytheon, 475 S Dean St, Englewood 567-4919
Ohio Raytheon, 333 W 1st St, Dayton 223-8128
Tex Raytheon, Stemmons Tower W, Dallas 631-3745

RAYTHEON CO PRODUCTION EQUIP DEPT
RICHARDS AVE, NORWALK
CONN, 06856, TWX 710-468-2940 ...... 203 838-6571
A MORRILL
Ariz E J Foley & Assoc, 3840 N Jokake Dr Scottsdale 945-2666
Cal Gordon-Elliot Inc, 13615 Victory Blvd Van Nuys 873-6862
Fla Gra-Mar Inc, 3113 Lawton Rd, Orlando ... 841-2330
Ill VBS Assoc, 6969 N Western Ave Chicago 743-3310
Ind Delta Sales Inc, 1407 N Illinois St Indianapolis 631-4136
Kan Palatine Engrg Sales Inc, 5514 Johnson Dr Mission 262-5643
Md Raytheon, 103 Roesler Rd, Glen Burnie ... 761-4300
Mass L J Maroni Assoc, 15 Arbetter Dr Framingham 875-5414
Minn Modern Controls Inc, 3040 Snelling Ave Minneapolis 721-4871
Mo Palatine Engrg Sales Inc, 2050 Woodson Rd St Louis 426-7055
NJ Harold Ewertz, Box 30, Cranford 376-7340
NY H C Murray Jr, 11 Farview Circle Camillus 468-3562
Ohio E R Lipaj Sales & Engrg, 24524 Lake Rd Bay Village 871-3294
Pa Wm Dugger Co, 412 E Spring Ave Ardmore .... MI 9-0889
Tex Robt W Mureen Co, 5523 Dyer St Dallas 361-0735
Utah Peirce Bowthorpe Agency, 143 South 4th E Salt Lake City 328-8173

RAYTHEON COMPUTER, 2700 S FAIRVIEW ST
SANTA ANA
CAL, 92704, TWX 910-595-1570 .... 714 546-7160
H BUTLER
Ala Raytheon Computer, Holiday Off Ctr Huntsville 881-2844
Ala Currie Aerospace Assoc, Box 1424 Huntsville 536-5650
Cal Raytheon Computer, 2700 S Fairview St Santa Ana 546-7160
Cal Cain & Co Inc, 175 S San Antonio Rd Los Altos 948-6533
Colo Hilleary Assoc, 2552 Ridge Rd Littleton 794-4279
Conn J & J Assoc, 953 Dixwell Ave Hamden 624-7800
Fla Currie Aerospace Assoc, Box 13229 Orlando 855-0843
Ill Systems Engineering Assoc, 6253 Milwaukee Ave Chicago 774-1452
Ind Systems Engineering Assoc, 1010 East 86th St Indianapolis 846-2593
Md L G White & Co, 880 Bonifant St Silver Spring .... JU 5-3141
Md Raytheon Computer, 1316 Fenwick La Silver Spring 587-9110
Mass Raytheon Computer, 440 Totten Pond Rd Waltham 891-5418
Mass J & J Assoc, 225 Crescent St, Waltham .. 899-0160
Mich WKM Assoc Inc, 1474 E Outer Dr Detroit 892-2500
Minn Systems Engineering Assoc, 8633 Harrison S Minneapolis 881-6386
Mo Harris-Hanson Co, 2814 S Brentwood Blvd St Louis 647-4350
Mo Harris-Hanson Co, 7916 Paseo St Kansas City 444-9494
NJ K E Hughes Co Inc, 2175 Lemoine Ave Fort Lee 944-1600
NM Hilleary Assoc, 311 Washington SE Albuquerque 265-7631
NY D B Assoc Inc, 3307 Erie Blvd E DeWitt 446-0220
NY D B Assoc Inc, 22 Biscayne Dr Lancaster 835-6186
Ohio WKM Assoc Inc, 6741 Ridge Rd Cleveland 885-5616
Ohio WKM Assoc, 5335 Far Hills Ave Dayton 434-7500
Pa L G White & Co, 100 N Essex Ave Narbeth .... MO 4-6505
Pa WKM Assoc Inc, 90 Clariton Blvd Pittsburgh 892-2953
Tex Carey-Wolf Co, 3327 Winthrop Ave Ft Worth 738-1702
Tex Cary-Wolf Co, Box 60338, Houston 643-2114
Tex Raytheon Computer, 6420 Hillcroft Houston 771-4449
Wis Systems Engineering Assoc, Box 526 Waukesha 782-3388
For Raytheon Intl, 141 Spring St Lexington, Mass 862-6600
For Triad Intl Marketing Co, Box 4984 Beirut Leb 230091
Fr Tranchant Electronique 19, Rue Madame de Sanzillon Clichy 92 270-26-10
Ger Era-Elek Rech, Postfach 465 5100 Aachen 02405-4444
GB A C Cossor Ltd, Data Systems Div, Harlow Essex Harlow 26862
Holl Koopman & Co, Stadhouderskade 6 Amsterdam 020-82821
Jap New Japan Radio Co Ltd 25 Nishikubo Sakuragawa Cho, Tokyo ... 591-7813
Swed Magnetic AB, Box 11060 Bromma 11 Stockholm Bromma 290460
Swit Computer AG Zurich, Bleicherweg 7 8002 Zurich 051 277-325
Arg Rayo Electronica, Belgrano 990 Buenos Aires 38-1779
Belg Koopman & Co, 13 Ave de Gaulois Brussels 35 80 62

RAYTHEON LEARNING SYSTEMS CO
455 SHERIDAN AVE, MICHIGAN CITY
IND, 46360, TWX 810-296-3987 .... 219 874-3251
EMP 500, ENG 50
Cal J Poci, 341 Moffett Blvd Mountain View 968-8170
Ga D Schonmeyer, 1600 Tullie Circle, N E Atlanta 233-3383
NJ H Kawaters, 475 S Dean St Englewood 201 567-0020

RAZDOW LABS INC, 377 5TH ST, NEWARK
N J, 07107 .... 201 484-2400
R SCHMITT, EMP 35, ENG 14, $1,000-$2,500M

RCA, DEFENSE ELECTRONIC PRODUCTS
MARNE HWY & BORTON LANDING RD
MOORESTOWN
N J, 08057, TWX 609-235-7125 .... 609 963-8000
N PENSIERO, EMP 17000, ENG 2200, OVER $10,000M
Ala A C McDermott, Holiday Office Ctr Huntsville 205 881-4101
Cal E A Holmes, 8621 Bellanca Ave Los Angeles 213 674-9511
Cal P A Piro, 8500 Balboa Blvd Van Nuys 213 894-8111
DC C M Lewis, 1725 K St Washington 202 337-8500
Ga L J Reardon, Box 4065, Macon 912 923-3144
Haw J C Moore, 237 E Hind Dr, Honolulu 808 33070
Mass D M Fennelly, Box 588, Burlington ... 617 272-4000
Mass H E Bradshaw, Jr, Box 588 Burlington 617 272-4000
NJ M G Staton, Box 800, Princeton 609 448-3400
NJ W V Goodwin, Marne Hwy Moorestown 609 963-8000
NJ M L Ribe, Box G, Red Bank 201 741-8888
NJ S N Lev, Front & Cooper Sts Camden 609 963-8000
NY N L Gillispie, 227 W Dominick St Rome 315 337-5430
Ohio J M Nazak, 224 N Wilkinson St Dayton 513 461-5420
Tex F J Hazel, 1840 Nasa Blvd Houston 713 488-2322
Swit B R Dean, 118 Rue du Rhone, Geneva

RCA INFORMATION SYSTEMS DIV, CAMDEN, NJ, 08101
Ariz RCA Info Sys Div, 3550 N Central Ave Phoenix 602 277-8267
Cal RCA Info Sys Div, 6363 Sunset Blvd Los Angeles 213 461-9171
Cal RCA Info Sys Div, 1730 W Olympic Blvd Los Angeles 213 385-2071
Cal RCA Info Sys Div, 455 Capitol Mall Sacramento 916 444-3480
Cal RCA Info Sys Div, 343 Sansome St San Francisco 415 981-5600
Colo RCA Info Sys Div, 2401 E Second Ave Denver 303 399-1460

Conn RCA Info Sys Div, One Constitution Plaza Hartofrd 203 527-4143
DC RCA Info Sys Div, 1725 K St NW Washington 202 337-8500
Fla RCA Info Sys Div, 95 Merrick Way Coral Gables 305 455-5487
Fla RCA Info Sys Div, 313 Williams St Tallahassee 904-224-4188
Ga RCA Info Sys Div, 14 Executive Pk Dr NE Atlanta 404 634-6131
Ill RCA Info Sys Div, 120 S Riverside Plaza Chicago 312 782-0700
Ind RCA Info Sys Div, 3000 E Meadows Pkwy Indianapolis 317 546-1188
La RCA Info Sys Div, 1030 Louisiana Ave New Orleans 504 891-3761
Md RCA Info Sys Div, One Charles Ctr Baltimore 301 752-7230
Mass RCA Info Sys Div, Prudential Ctr Boston 617 536-0880
Mich RCA Info Sys Div, Rutland Bldg Rutland Ave Southfield 313 356-6150
Mich RCA Info Sys Div, 444 Alligan St Lansing 517 485-7045
Mo RCA Info Sys Div, 1627 Main St Kansas City 816 421-7890
Mo RCA Info Sys Div, 7710 Carondelet Ave Clayton 314 726-5322
NJ RCA Info Sys Div, 36 Park Pl Newark 201 621-7035
NY RCA Info Sys Div, 560 Delaware Ave Buffalo 716 886-1510
NY RCA Info Sys Div, 40 Wall St New York City 212 689-7200
NY RCA Info Sys Div, 1250 Ave of Americas New York City 212 689-7200
NY RCA Info Sys Div, State Tower Bldg Syracuse 315 472-9111
NC RCA Info Sys Div, 316 E Morehead St Charlotte 704 377-5971
NC RCA Info Sys Div, 301 N Main St Greenville 803 235-1535
NC RCA Info Sys Div, First Fed Bldg Raleigh 919 833-2621
Ohio RCA Info Sys Div, 441 Vine St Cincinnati 513 241-1690
Ohio RCA Info Sys Div, 1621 Euclid Ave Cleveland 216 579-0880
Ohio RCA Info Sys Div, 3110 S Kettering Blvd Dayton 513 293-6907
Ohio RCA Info Sys Div, Edison Bldg Toledo 419 246-4021
Okla RCA Info Sys Div, 4040 Lincoln Blvd Oklahoma City 405 427-6506
Pa RCA Info Sys Div, 2511 N 7th St Harrisburg 717 236-9367
Pa RCA Info Sys Div, 2 Penn Center Plaza Philadelphia 215 568-8150
Pa RCA Info Sys Div, 222 Four Gateway Center Pittsburgh 412 261-1080
Tenn RCA Info Sys Div, 17th Ave S Nashville 615 255-7035
Tex RCA Info Sys Div, 724 Polk St Amarillo 806 373-2631
Tex RCA Info Sys Div, 210-C Court Terr Dallas 214 351-5361
Tex RCA Info Sys Div, 2120 Travis St HOuston 713 529-7601
Utah RCA Info Sys Div, 445 E Second S Salt Lake City 801 364-7045
Wash RCA Info Sys Div, 410 W 5th St Olympia 206 357-4448
Wis RCA Info Sys Div, 633 W Wisconsin Ave Milwaukee 414 273-3931
For RCA Info Sys Div, 255 Ponce de Leon Ave Hato Rey .... PR 765-1455

RCK, INC, 1108 W EVELYN AVE, SUNNYVALE
CAL, 94086 .... 408 245-6613
E SMITH, EMP 35, ENG 5, $1,000-$2,500M

R C L ELECTRONICS INC, 700 S 21ST ST, IRVINGTON
N J, 07111, TWX 710-999-5511 .... 201 374-3311
J JACUES
ADV PG 621, 675
Ala Bostick Assoc, Box 4165 Huntsville 205 881-3677
Ariz Dorton Enterprises Inc, Box 1297 Scottsdale 602 946-6213
Cal M W Riedel, 2215 W Valley Blvd Alhambra .... 213 CU 3-7694
Colo Waugaman Assoc, 2785 N Speer Blvd Denver 303 255-5000
Conn Kitchen & Kutchin, Inc, 22 Broadway North Haven 203 239-0212
Fla Young & Lawrence Assoc, Inc 601 N New York Ave Winter Park 305 647-6929
Ga Bostick Assoc, Box 28378, Atlanta ... 404 252-1958
Ill Gassner & Clark Co, 6644 N Western Ave Chicago .... 312 RO 4-6121
Ind L M DeVoe Assoc, 4010 Washington Blvd Indnpls .... 317 AT 3-1395
Kan Technical Reps Inc, 809 Sheridan Cir Olathe .... 913 ST 2-3775
Kan Technical Reps Inc, 6814 Farmview La Wichita .... 316 MU 2-4140
Md Doss Electronics, Inc, 6660 Security Blvd Baltimore 301 944-1900
Mass Kitchen & Kutchin Inc, 17 Waltham St Lexington .... 617 VO 2-8230
Mich W R Hummond Assoc, 20274 Stout Detroit 313 538-5704
Minn L F Murphy Assoc Inc, 730 Chicago Ave Mnpls 612 333-4511
Minn Component Sales, Box 247 Excelsior 612 474-9100
Mo Technical Reps Inc, 7049 Laupher La Hazelwood .... 314 JA 1-1000
NJ T A I, 138 Haddon Ave Haddonfield .... 609 UL 4-3011
NY Comtronics Assoc, 1551 Franklin Ave Mineola .... 516 PI 1-8966
NY W H Zimmerman Inc, 112 DeWitt St Syracuse .... 315 GR 4-4889
NY W H Zimmerman Inc, 3100 Monroe Ave Rochester .... 716 LU 6-4450
Ohio A Natalino Assoc, 209 Harmony Hills Akron .... 216 MO 6-1447
Ore Almac/Stroum Electronics, 8888 SW Canyon Rd Portland 503 292-3534
Pa Augey Natalino Assoc, 530 6th Ave Pittsburgh 412 281-8283
Tex Vista Eng Assoc, 777 N Central Expwy Richardson .... 214 AD 5-4547
Tex Vista Engrg Assoc, 1614 S Post Oak Houston .... 713 NA 2-5680
Wash Almac/Stroum Electronics, 5811 6th Ave S Seattle 206 763-2300
Can Samuel C Hooker Ltd, 144 Ronald Dr Montreal W, Que 514 488-9114

RC-95 INC, 9 E 38TH ST, NEW YORK
N Y, 10016 .... 212 689-9776
K BIRKEN, EMP 30, ENG 5
Ariz Tech Ser, 1805 E Indian School Rd Phoenix 602 265-3629
Cal Tech Ser, 477 Castro St Mountain View 415 969-9020
Cal Tech Ser, 2435 N Naomi St Burbank 213 846-9631
Cal Tech Ser, 3760 Midway Dr San Diego 714 222-1121
Colo Arrowhead Sales, 6367 S Gallup, Littleton
Md Wild & Assoc, 380 Main St, Laurel .. 301 776-7670
Mass Wild & Assoc, 570 Hillside Ave Needham 617 444-2366
NJ Wild & Assoc, Box 300, Ramsey 327-4244
NY Wild & Assoc, 200 Michael Dr, Syosset .. 921-7100
NY Wild Assoc, Box 266 Hastings on Hudson 963-3803
NY Frank Bradley Assoc, 130 Van Cortlandt Ave W Bronx .... KI 9-8500
Ore Showalter Judd, 1445 NE Arrington Hillsboro 503 648-6372
Pa Wild & Assoc, 80 2nd St Pike Southampton 357-6645
Tex Mitchell Speairs Co, 4944 James Ave Ft Worth .... WA 3-4657
Tex Mitchell Speairs, 7727 Arrowhead La Houston 713 923-7616
Utah Arrowhead Sales, 1966 W 6255 S Salt Lake City 801 298-2751
Wash Showalter Judd, 1806 S Bush Pl Seattle .... 206 EA 4-7911

RDF CORP, 23 ELM AVE, HUDSON
N H, 03051, TWX 710 228-1882 .... 603 882-5195
F STEMPEL, EMP 103, ENG 15, $1,000-$2,500M
Ala Astro-Tec, Goliday Office Ctr Huntsville 205 881-1861
Cal RdF, 19702 S Main St, Gardena 213 327-1915
Colo Space Sys Sales & Engrg, 280 Columbine St Denver 303 388-9225
Fla Astro-Tec, 1980 N Atlantic Ave Cocoa Beach 305 783-6581
Kan Technical Reps, Inc, 6814 Farmview La Wichita 316 682-4140
Mo Technical Reps Inc, 7049 Laupher La Hazelwood 314 521-1000
NJ S R Morrow Co, Box 465, Chatham .. 201 635-8960
NM Space Sys Sales & Engrg, 1401 Valencia SE Albuquerque 505 255-7058
Pa Kurt J Lesker Co, 5635 Homing Rd Pittsburgh 412 653-0800
Pa PDC Corp, The Benson-East Jenkintown 215 887-9610
Tex Roger Martin Assoc, Box 1002 Bellaire 713 668-3877
Utah Space Sys Sales & Engrg, Box 89 Bountiful 801 295-6464
Wash James Findlay Co, 10237 Main St Bellevue 206 454-5200
Can Electromechanical Products, Markham Rd Agincourt, Ont 416 293-7011
For Machine & Products Co, 52 Wall St New York, N Y 944-4370

REACH ELECTRONICS INC, BOX 308, LEXINGTON
NEB, 68850 .... 308 324-4609
K WYCOFF, EMP 36, ENG 7

REACTION RESEARCH LABS OF AMERICA, BOX 356
GROTON, CONN, 06340 .... 203 536-3450
ENG 2

R E A EXPRESS, 219 E 42ND ST, NEW YORK
N Y, 10017 .... 212 557-2000
D KERRIGAN, EMP 30,000, ENG 15, OVER $10,000M

RE-AL ELECTRONICS CO, 58 WESLEY ST, WATERBURY
CONN, 06708 .... 203 756-7085
A MAURIELLO, EMP 40, ENG 1, $250-$500M
Conn Astro-Tek Assoc, Waterbury

REALTONE ELECTRONICS CORP, 34 EXCHANGE PL
JERSEY CITY
NJ, 07302, TWX 7107305342 .... 201 434-1050
H FRANCO, EMP 105, ENG 8, OVER $10,000M
Cal Realtone Western Corp, 10832 E Rush St El Monte .... CU 3-2796
Ga R Beinecke Co, 710 Peachtree St Atlanta .... TR 4-3414
Ill D Kennett, 87th & County Line Rd Hinsdale .... FA 3-8171
Mass F Garmon & Assoc, 200 Boylston St Boston .... WO 8-7540
Mich S G Sherman Co, 10725 W McNichols Rd Detroit .... UN 3-5300
Minn G & C Assoc, 7505 Hwy 7, Mnpls ..... WE 5-7878
Mo Salky & Assoc, 3938 Lindell Blvd St Louis .... JE 5-1122
NY Herbert Schiller, 142 Hillturn La Roslyn Heights .... MA 1-7078
Ohio F Fleischmann, 334 Frazier Dr, Pittsburgh
Pa Kay, Weisman & Rosenthal, The Benson-East Jenkintown 215 885-2450
Tex J V Folsom, 9027 Diplomacy Rd Dallas .... ME 1-1440

REA MAGNET WIRE CO INC, 3610 E PONTIAC ST
FORT WAYNE, IND, 46806 .... 219 743-8032
M PASTRICK, EMP 750, ENG 30
Cal George Croft, 4443 S Santa Fe Ave Los Angeles 582-5176
Conn H Ferguson, 190 Abbe Rd, Hazardville 749-0874
Ill Geo C Behrens, 5932 Gunnison St Chicago .... AV 3-2608
Ill R Slater, 5932 Gunnison St Chicago .... 312 AV 3-2608
Ill S Chapman, 5932 Gunnison St Chicago .... AV 3-2608
Ind R F Johnson, 1707 Fairhill Rd Ft Wayne 743-0002
Minn F Roubik, 2807 Dean Blvd, Minneapolis .. 922-2444
Mo G P Ryan, 118 Seabrook Dr Chesterfield 469-3037
NJ Rea Magnet Wire, Box 276, Somerville ... 722-6100
NY R Durham, 85 Wildbriar Rd, Rochester 334-1101
NY Richard Lill, 25 Gilbert Rd Hohokus, N J 444-0908
NC P Perrey, Old Laurel Hill Church Rd Laurinburg 276-0975
Ohio Frank Bidlack, 8310 E Wadora Ave N Canton 494-9016
Tenn Erwin Heth, 5334 Wilton Ave, Memphis .. 685-9833

RECOTON CORP, 46-23 CRANE ST, LONG ISLAND CITY
N Y, 11101 .... 212 EX 2-6442
P WISH, ENG 1
Ala Earl Neal, 2328 3rd Way NE Birmingham 853-3673
Alas W P Watson Enterprises, 307 1/2 Glacier Ave W Fairbanks 456-6919
Ariz Southwest Marketing Co, 133 E McLellan Blvd Phoenix 266-5361
Cal Marshank Sales, 7422 Melrose Ave Los Angeles .... WE 8-2591
Cal Electronics Marketing Assoc, 681 Market St San Francisco 392-3853
Cal Electronics Mktg Assoc, 3327 Caxton Crt San Mateo 341-6666
Colo B & B Electronic Prods, 2120 S Platte River Dr Denver 722-3035
Fla R H Van Dusen, 940 Lake Elbert Dr Winter Haven .... CY 4-2941
Ill Gettleman & Litteken Co, 3736 Dempster St Skokie .... JU 8-0030
Ill Knaggs Collins Havercamp Hempe, 6 Bank Sq E St Louis 618 397-2398
Ind Frank J McSweeney & Assoc 4123 N Keystone Ave, Indianapolis 547-2112
Md Morris F Taylor Co, Inc, 9431 Georgia Ave Silver Spring .... JU 9-4002
Mass Keene Sales Co, 156 Broad St, Lynn 595-1001
Mich J Malcolm Flora Inc, 165 W Liberty St Plymouth 453-4296
Mo Knaggs-Collins-Havercamp-Hempe, Inc 5818 N Oak Trafficway, Kansas City 453-3203
NJ James Fahy, Box 23, Marlton 622-0383
NY Jack Brown Electr Sales Reps Inc 207 Rosedale Rd, Yonkers .... SP 9-7330
NY Stang Sales, 271 Columbus Ave Tuckahoe .... SP 9-6868
NC Lee Reed, 1224 Dresden Dr W Charlotte 537-4878
Ohio Hank Miller Sales Co, 4087 Meadowbrook Blvd Cleveland 321-3900
Pa W G Blocki, 9 Richland La, Camp Hill 233-3112
Tex Tech-Tronic Sales, 716 Nottingham Richardson .... AD 1-3190

RECTICO INC, 20 FACTORY ST, CEDAR GROVE
N J, 07009 .... 201 239-6464
F SANDLER, EMP 60, ENG 2, $250-$500M

RECTICON CORP, 730 E ELM ST, CONSHOHOCKEN
PA, 19428 .... 215 828-2421
E JOHNIS, EMP 24, ENG 4, $250-$500M
NJ R H B Sales Co, 95 Carpenter St Belleville 201 751-1415

RECTIFIER ENGINEERING & SUPPLY CO INC
8754 BIG BEND BLVD, ST LOUIS
MO, 63119, TWX 910-760-1653 .... 314 968-0303
F WAELTERMAN, EMP 10, ENG 3, $100-$250M
For Marina Electrical Supplies, Inc Box 8157, Juncos Sta, San Juan, P R .. 724-6700

RECTOR ENGINEERING & PLASTICS CO
318 RANDOLPH PL NE, WASHINGTON
D C, 20002 .... 202 462-1208
C RECTOR, EMP 3, ENG 1, UP TO $100M

REDCOR CORP, 7800 DEERING AVE, CANOGA PARK
CAL, 91304, TWX 910-494-1228 .... 213 348-5892
J STORY, EMP 200, ENG 54, $2,500-$5,000M
Ala E G Holmes & Assoc, 4862 Govenor's Dr W Huntsville 205 837-6900
Cal Sedillo Co, 3621 Manda Dr, San Jose 264-4010
Colo PLS Assoc, 7895 E Prentice Ave Englewood 303 771-0140
Fla E G Holmes & Assoc, 316 1/2 Bumby St Orlando 305 241-2128
Ga E G Holmes & Assoc, 3667 Clairmont Rd Chamblee 404 451-6161
Ill Cozzens & Cudahy, Inc, 9501 W Devon Ave Rosemont 825-1144
Ind Cozzens & Cudahy, Inc, 44 Kirk Dr Indianapolis 244-2456-7
Md Ron Davies Assoc, 11215 Oakleaf Dr Silver Spring 301 593-4900
Mass Broger Instrument, 223 Crescent St Waltham 891-8045
Minn Cozzens & Cudahy, Inc, 7710 Computer Ave Mnpls 920-1022
Mo Cozzens & Cudahy, Inc, 1160 S Florissant Rd Florissant 831-0010
Mo Cozzens & Cudahy, 10534 Natural Bridge Rd Edmundson 314 423-1234
NJ Instrumentation Sales Co, Box 403 Ridgewood 201 445-5210
NM PLS Assoc, 4200 B Silver Ave SE Albuquerque 505 255-2330
NY Advanced Components Corp Inc, 119 Luther Ave Liverpool 472-7886
NY Advanced Components Corp, 1 Shamrock Cir Poughkeepsie 471-1611
NY Advanced Components Corp, 5 Sanhurst Ave Scottsville 889-1429
NY Advanced Components Corp, Box B Whitesboro 736-9195
NC E G Holmes & Assoc, 430 W Friendly Ave Greensboro 919 275-0897
Okla Data Engrg Corp, 4580 E 50th St Tulsa 918 622-3753
Tex Data Engrg Corp, 5641 Yale Blvd Dallas 214 363-9351
Tex Data Engrg Corp, 2120 S Post Oak Rd Houston 713 622-2820
Wis Cozzens & Cudahy Inc, 3712 W Elm St Milwaukee 332-0700
Can Allan Crawford Assoc Ltd, 65 Martin Rose Ave Downsview, Ont 636-4910
Can Allan Crawford Assoc Inc, 6999 Cote de Neiges Rd Montreal, Que RE-96776
Can Allan Crawford Assoc Ltd, 376 Churchill Ave Ottawa 3, Ont .... PA 5-1288
For Machine & Products Co, 52 Wall St New York, NY 944-4370
Fr Technique et Produits Cite des Bruyeres Rue Carle Vernet, 92 Sevres
GB Benson-Lehner Ltd, W Quay Rd Southampton 2-7831
Holl Lab PEEKEL, Alblasstr T, Rotterdam 8
Jap Hakuto Co Ltd, Box 25, Tokyo Central
SAfr Eltec Services Pty, Ltd, Box 3434, 77 Canada Rd Durban
Belg Nucleobel, 266b Ave de Tervueren, Bruxelles 15
Isrl STG Intl Ltd, 52 Nachlat Benyamin St, Box 1276 Tel Aviv
NZ Electronic Dev & Appl Co Ltd, Box 6415, Wellington
Spn Ibertronics, Torre de Madrid Plaza de Espana .... Madrid

RED DEVIL MFG CO, 1420 N OGDEN AVE, CHICAGO
ILL, 60610 .... 312 642-5161
M KASSNEL, EMP 10, $250-$500M

REDFORD CORP, 968 ALBANY-SHAKER RD, LATHAM
N Y, 12110 .... 518 785-2345
E BOYD, EMP 250, ENG 30, $5,000-$10,000M
Cal Fieldtec Inc, 3822 Campus Dr Newport Beach 860-4000
Cal Alfred Barauck Co, Box 11043, Sta A Palo Alto 327-7111
Fla Embac Inc, 621 N Clearwater-Largo Rd Largo 581-2437
Ill Technical Sales Assoc, 1160 Kenton Rd Deerfield 286-2535
Mass Contact East Assoc, 7 Cypress Dr Burlington 272-5051
Mich Wayne Sales Corp, 2211 Monroe Blvd Dearborn 274-0890
Minn D G Perry Co, 5010 France Ave S Minneapolis 920-3212
NJ J P Dearie Co, Mountain Lakes 334-4848
Ohio Coy Co, Box 2078 - Kettering Sta Dayton 885-7222
Okla Johnson-Coates & Assoc, Inc, Box 10792 Oklahoma City .... PE 2-2141
Wash Dewar & Assoc, 6361 First Ave S Seattle 763-2233
Can Brock Electronics, Ltd, 27 Perth St Lyn, Ont 748-9646

REDGRAY INDUSTRIES, BOX 1, UNION CITY
CAL, 94587

REDINGTON COUNTERS INC, 130 ADDISON RD
WINDSOR, CONN, 06095 .... 203 688-6207
T NELSON

RED LAKE LABS INC, 2971 CORVIN DR, SANTA CLARA
CAL, 94086, TWX 910-339-9241 .... 408 739-3034
J SAUNDERS, EMP 55, ENG 6, $1,000-$2,500M
Cal R C Kiteley, Box 8177, Long Beach 431-7112
Cal J Y Saunders, 2971 Corvin Dr Santa Clara 739-1698
NJ Photographics Analysis, 190 Alps Rd Wayne 696-1000
Can Photographic Analysis Ltd, 8 Brian Cliff Dr Don Mills, Ont 445-6410
For Coasin, Chile Ltda, Casilia 7603, Carreo 3 Santiago, Chile
GB John Hadland P I Ltd, Newhouse Labs Bovingdon, Herts
Jap J Osawa & Co Ltd, Toranomon, Minato-Ku, Tokyo
Swit I Weinberger, Poerrlibuckstr 110, 8005 Zurich
Arg Coasin S A, Virrey Del Pino 4071, Buenos Aires

REDMAN ELECTRONICS CORP, 92 PROSPECT ST
THOMPSONVILLE, CONN, 06082 .... 203 745-8024
E TAVIDIAN, EMP 12, ENG 2, UP TO $100M
Mass Brad Daniels & Co, 8 Linden Gardens Wellesley 617 235-8250

RED POINT CORP, 105 W SPAZIER AVE, BURBANK
CAL, 91502 .... 213 849-1057
R CRAIG, EMP 15, ENG 2, $250-$500M
Cal R L James, 105 W Spazier Ave Burbank 842-4895
Cal J H Crevelt, 626 Jefferson Ave Redwood City 369-3111
Ill Byron Ellis Assoc, 6242 N Kenmore Chicago 262-2038
Mich Kurt J Lesker Co, 18 Smith St, Detroit 549-7833
NY Electrolab Equipment Co, 12 Bromleigh Rd Garden City .... PR 5-5562
Ohio Kurt J Lesker Co, 1229 W Third Ave Columbus 488-2995
Ohio Kurt J Lesker Co, 66 Northfield Rd Bedford 241-1301
Pa Kurt J Lesker Co, 5635 Horning Rd Pittsburgh 653-0800
W Va Kurt J Lesker Co, 1216 Quarrier St Charleston 346-5363

REEVE ELECTRONICS INC, W LAKE ST, CHICAGO
ILL, 60606 .... 312 726-9755
A DAVIS, EMP 50, ENG 10, $500-$1,000M

REEVES-HOFFMAN DIV, 400 W NORTH ST, CARLISLE
PA, 17013 .... 717 243-5929
C RAHN, EMP 550, ENG 24
ADV PG 241
Ariz Carter Assoc, Box 99, Scottsdale 947-4355
Cal A M Wood Co, Box 1-A, Arcadia 283-1201
Cal L & M Engineering, 2620 Alameda Santa Clara 243-6661
Ill P G M Sales, 5642 W Diversey Chicago 622-8183
Md Valley Electronics Inc, 8809 Satyr Hill Rd Baltimore 668-4900
Mass H Jappe Co, 137 Water St, Wakefield 245-9359
NJ G M Moch Co, 595 Broad Ave Ridgefield 945-0080
NY Midstate Research Sales Co, 327 Wellesley Rd Syracuse 478-8314
Ohio Tri-State Mktg Inc, 1717 Section Rd Cincinnati 631-5060
Pa Eastern Compts Inc, 1349 W Cheltenham Ave Phila 927-6262
Tex Carter Assoc, Box 87, Garland 276-7151

REEVES INSTRUMENT DIV, DCA, EASTGATE BLVD
GARDEN CITY, N Y, 11530 .... 516 746-8100
J ZUKE, EMP 1100, ENG 175, OVER $10,000M
Ariz McNicol Inc, Box 7675, Phoenix 602 266-6841
Cal Reeves Instrument Div, 16042 Ventura Blvd Encino 213 981-0900
Cal O'Donnell Assoc, 18053 Crenshaw Blvd Torrance 213 323-9243
Cal O'Donnell Assoc, 1955 El Camino Real Palo Alto 415 327-9260
DC Reeves Instrument Co, 1826 Jefferson Pl NW Washington .... 202 FE 8-1747
Mass Musello Assoc, Box 125, Stow 617 369-5900
Mich Carter,McCormic & Peirce, 16239 Wyoming Ave Detroit 313 863-4600
Mo Blaze Milby, 7337 Trotwood Dr Hazelwood .... 314 JA 1-5894
NJ Gerald Muldoon, Box 46, Middletown
NY Musello Assoc, 30 Arty Dr, Buffalo 716 632-0454
NY Garrettson Co Inc, 99 Hillside Ave Williston Park 516 747-6610
Ohio Carter, McCormic & Peirce, 3691 Lee Rd Cleveland 216 921-1360
Ohio Carter, McCormic & Peirce, 3406 N Main St Dayton 513 278-5873
Pa Garrettson Co Inc, 9214 Masland St Philadelphia 215 464-2275
Tex McNicol Inc, 3012 E Yandell El Paso 915 566-2936
Wash R K Squibb Inc, 655 NE Northlake Pl Seattle 206 632-2450
Can D Randall (Can Ltd, 1710 Midland Ave Scarborough, Ont 416 751-7911

REEVES SOUNDCRAFT DIV, REEVES INDUSTRIES INC
15 GREAT PASTURE RD, DANBURY
CONN, 06813 .... 203 743-7601
A FRITOG, EMP 352, ENG 6
Cal Reeves Soundcraft Div, 342 N LaBrea Ave Los Angeles 931-1181
Cal J Nunn, 261 Howes Ct, Los Gatos 415 585-1015
Colo Norcon, Ltd, 2241 Stacey Dr, Denver
Ga R A Chalmers & Co, 349 Peachtree Hill Ave Atlanta 233-3208
Haw Earl Assoc, 1638 Kona St, Honolulu 996-953
Ill Reeves Soundcraft Div, 7310 W North Ave Elmwood Park 456-2940
Ind Hoemig Sales Co, Butler Ct Fort Wayne 482-6913
Mass E A Seeley, 26 Hubbard St Concord 617 369-9589
Mich A B M Sales Co, 10116 Puritan Ave Detroit 862-1300
Mo R J Throckmorton Sales Co, 1042 N Clay Ave St Louis
NY Leonard D Allen Co Inc, Box 32, Salina Sta Syracuse 471-3108
Ohio F A Daugherty Co, 6025 Mayfield Rd Cleveland 449-1122
Pa Gene S Root & Co, 809 Wainwright Dr Pittsburgh 561-4125
Pa Stinson Assoc, 227 Haverford Ave Narberth 664-5511
Pa Joseph Binns, 1529 E Mt Pleasant Ave Philadelphia .... LO 8-1036
Tex C C Mc Nicol Inc, 811 N Estrella El Paso 566-2936
Va J Buranovsky, 5130 Echols Ave Alexandria 703 481-7235
Wash Vector Corp, 307 Wall St, Seattle
Can E S Gould Sales Co Ltd, 11 Louvain St W Montreal 384-0453

REFLEX CONTROLS CORP, 15 STEPAR PL
HUNTINGTON STATION, NY, 11746 .... 516 HA 3-4433
H MOSKWIK, EMP 4, ENG 1, UP TO $100M

REGDON CORP, 3713 GRAND BLVD, BROOKFIELD
ILL, 60513 .... 312 485-5152
N KRASOWSKY, EMP 25, ENG 4, $250-$500M
Cal Barstow & Duran, 1407 S Grand Ave Los Angeles 213 749-0438
Cal Technical Marketing Assoc, 1485 Bay Shore Blvd San Francisco 415 467-8700
Conn Technical Applications, Ducillo Bldg Cannan 203 824-7215
Ill Ryan & assoc, 7132 N Harlem Chicago 312 775-5717
Mass Glenn Hathaway Co, 7-11 Mystic St Arlington 617 646-1380
Mo Automatic General Elctn Sales, 6550 E Troost Kansas City 816 333-8206
NJ Colrud Co, 601 Ardmore Ave Pittman 609 589-5866
NJ J A Rudy & Assoc, 409 Grand Ave Englewood 201 567-5880
NY J F Harms & Co, 7952 Boxford Circle Syracuse 315 699-2342
Ohio Midwest Sales Co, 7409 Pearl Rd Cleveland 216 941-2700

REGENCY ELECTRONICS INC, 7900 PENDLETON PIKE
INDIANAPOLIS, IND, 46226 .... 317 547-3581
A HARLING, EMP 325, ENG 20, $2,500-$5,000M
Cal Elvey Proctor Co, 1319 Howard Ave Burlingame 415 374-2994
Colo Hyde Electronics, 888 S Lipan St Denver 936-3456
Colo Cummings Assocs, Box 1112 Englewood 303 789-3449
Fla R W Mittchell, 4724 Monroe St Hollywood 989-7926
Ga Murphy & Cota, 586 Armour Circle Atlanta 876-3020
Haw Earl Assoc, 1638 Kona St, Honolulu
Ill J West, 6747 N Octavia Ave, Chicago .... RO 3-3500
Ind Morris-Cunningham Assoc, 720 E 65th St Indpls 255-2458
Ind Kirby West, 7900 Pendleton Pike Indianapolis 317 547-3581
Iowa J Irvine, 1900 Prospect St W Des Moines 279-2206
Md Tessco Inc, 1931 Greenspring Dr. Timonium 252-5610
Mass Montague Assoc, 404 Jerusalem Rd Cohasset 383-0634
Mich Robert Milsk Co., 19375 James Couzens Hwy Detroit 342-6660
NY M Farber, 220 Delaware Ave 203 Buffalo 856-3543
Ohio F A Daugherty & Co, 6025 Mayfield Rd Cleveland 449-1122
Ore D H Burcham Co, 510 NW 19th Ave Portland 226-4148
Ore Earl & Brown Assoc, 2041 SW 58th Ave Portland 503 292-9145
Pa Cooper-Daugherty & Co, 112 Oakwood Rd McMurray 941-6473
Wash D H Burcham Co, 422 1st Ave W Seattle 284-1121
Wash Earl & Brown Assocs, 422 First Ave W Seattle 206 284-1121
For Singer Prods Co Inc, 95 Broad St, New York, NY

REGENT CONTROLS INC, 102 HARVARD AVE
STAMFORD, CONN, 06902 .... 203 348-7734
W CARROLL, EMP 30, ENG 4
Cal C R Alford Co, 307 N Santa Anita Ave Arcadia 681-9361
Ill Lee Butter & Assoc, 570 Northwest Hwy Des Plaines 924-6179
Mass Carl Lueders & Co, Box 161, Needham 449-0345
NJ Hemmel Co, Box 267, Caldwell 201 228-2220
NY Hemmel Co, Box 647, Syracuse 471-0284

NY Hemmel Co, Box 764, Buffalo....... 716 634-9873
NC Carolina Technical Reps Inc, 211 Greenwich Rd
Charlotte 704 364-0163
Ohio Orr Assoc, 6510 Farnsworth Dr
Cleveland........................... TU 5-1324
Pa Angus McArn Co, Box 11127
Pittsburgh........................... 366-1533
Wis J Hogan, 213 Brookdale Dr, S
Milwaukee........................... 824-6179

REICHHOLD CHEMICALS INC, 525 N BROADWAY
WHITE PLAINS, N Y, 10602.......... 914 WH 8-6200
R URICH, EMP 3000, OVER $10,000M
Ala Reichhold Chemicals Inc, Reichhold Rd
Tuscaloosa 205 553-5620
Cal Reichhold Chemicals Inc, 107 S Motor Ave
Azusa 213 283-4123
Cal Reichhold Chemicals Inc, 120 S Linden Ave
S San Francisco 415 761-1585
Colo G C Brandt Inc, 4200 Garfield St
Denver 303 388-0997
Fla Reichhold Chemicals Inc, W Beaver St
Jacksonville...................... 904 389-4561
Fla Reichhold Chemicals, Inc, 3210 W 16th St
Hialeah 305 822-2751
Ga Deeks & Co Inc, 4748 Lewis Rd
Stone Mountain.................... 404 938-3100
Ga Reichhold Chemicals, Inc, 1680 Tullie Cirle NE
Atlanta 404 636-6367
Haw Best Chemicals & Fertilizer Co Ltd
646 Pohukaina St, Honolulu 567-208
Ill Reichhold Chemicals Inc, 7738 W 61st Pl
Argo 312 735-4400
Ill Alkydol Labs Div, 3242 S 50th Ave
Cicero............................ 312 652-7740
Kan Reichhold Chemicals Inc, 3150 Fiberglas Rd
Kansas City 913 621-4900
Ky Reichhold Chemicals Inc, 400 Sherburn La
Louisville........................ 502 897-1515
La Reichhold Chemicals Inc, 1342 Intl Trade Mart
New Orleans 504 525-6695
Mass Deecy Products Div, 120 Potter St
Cambridge 617 491-1950
Mass Reichhold Chemicals Inc, Box A
Andover 617 475-6600
Mass Blane Chemical Div, Mansfield 617 339-4551
Mich Reichhold Chemicals Inc
601-707 Woodward Hts Blvd
Detroit 313 564-6500
Minn G C Brandt Inc, 2210 Territorial Rd
St Paul 612 646-1339
Miss Reichhold Chemicals, Inc, Box 548
Gulfport 601 864-7040
Mo Reichhold Chemicals Inc, 7730 Carondelet Ave
St Louis 314 726-2929
NJ Reichhold Chemicals Inc, 726 Rockefeller St
Elizabeth 201 353-6600
NJ Rosett Chemicals Inc, 649 Ferry St
Newark............................ 201 623-5076
NJ Reichhold Chemicals Inc, Box 38
Carteret 201 541-4201
NY Varcum Chemical Div, Box 863
Niagara Falls..................... 716 282-2356
NC Reichhold Chemicals Inc, Box 11051
Charlotte 704 523-4114
Ohio Reichhold Chemicals Inc, 20545 Center Ridge Rd
Cleveland......................... 216 331-5120
Ohio M C Hutt Sales Co, 105 Church St
Berea 216 234-3244
Ohio Modiglass Fibers Div, Box 86
Bremen............................ 614 569-4175
Ohio Reichhold Chemicals, Inc, 11750 Chesterdale Rd
Cincinnati........................ 513 771-4446
Ore Reichhold Chemicals Inc, 1405 Antelope Rd
White City 503 826-2651
Pa Reichhold Chemicals Inc, 1 Belmont Ave
Bala-Cynwyd .... 215 MO 4-1672
Pa Reichhold Chemicals Inc, H W Oliver Bldg
Pittsburgh........................ 412 471-6645
SC Reichhold Chemicals Inc, Hampton .. 803 943-2861
Tex Specialty Chemicals, Box 9405
Austin............................ 512 452-2561
Tex Reichhold Chemicals Inc, Box 9608
Houston 713 453-5431
Tex Reichhold Chemicals Inc, Box 608
Lake Dallas 817 497-2966
Va Reichhold Chemicals Inc, Box 1427
Martinsville 703 632-4797
Wash Reichhold Chemicals Inc, 2340 Taylor Way
Tacoma............................ 206 383-5311
Can Reichhold Chemicals Can Ltd, 1919 Wilson Ave
Weston, Ont 416 248-0231

REK-O-KUT DIV, KOSS ELECTRONICS, 2227 N 31ST ST
MILWAUKEE, WISC, 53208 .... 414 444-9442
G CORNEHLS, EMP 94, ENG 2
Cal Shephard Stern Co, 4109 Burbank Blvd
Burbank 849-6671
Cal Sinai-Johnson, Inc, 817 Douglas St
Redwood City 365-6263
Colo John Rowe & Assoc, 3100 W 71 Ave
Westminster 429-4595
Fla ManRep Corp, 1925 NE 150 St
North Miami Beach 949-6391
Ga R A Chalmers, 349 Peachtree Hills Ave N E
Atlanta 233-3208
Mass Bud Ente Sales Co, 64 Mandalay Rd
Newton Centre 244-4842
Mass Chas A Berube Co, 30 White St
Westfield............................. 562-6690
Mo Carmine A Vignola Assoc, 21 Schellridge Rd
Jefferson City 635-1023
NY Bach Sales Corp, 78 Wellington Rd
Garden City 741-0570
Ohio Schroeder Sales Co, 2084 Noble Rd
Cleveland............................. 268-3636
Ohio McFadden Sales, 150 E Broad St
Columbus.............................. 221-3363
Pa B O'Hara, 4952 Wynnefield Ave, Phila 473-3654
Pa F P Yarussi Co, 312 Rockfield Rd
Pittsburgh............................ 221-4676
Tex Maynard Sales Co, 158 Express St
Dallas................................ 742-2384
Wash Vector Corp, 2403 10th Ave E, Seattle .. EA 2-4343
Wash Koss Elctns Inc, 2227 North 31 St
Milwaukee............................. 444-9442
Can R C Kahnert Sales Ltd, 359 Enford Rd
Richmond Hill, Ont 884-8185
Ital Koss Elctns S.r.l., Via Bellini 7
Nova Milinese..................... 0362-40-674
Swit Impetus, S A, 2 Via Berna, Lugano...... 091 38214

RELAY & CONTROL CORP, 23-16 40TH AVE
LONG ISLAND CITY, N Y, 11101........ 212 361-2892
D PICKER, EMP 30, ENG 2, $250-$500M
Cal Huffman Engrg Co, 1645 W Sepulveda Blvd
Torrance 213 534-1962
Cal RMCo Sales Co, 335 Glendale Blvd
Los Angeles....................... 213 483-7122
Colo Beta Tech Sales, 4732 S Broadway
Englewood 303 781-3271
Ga W A Edwards, 2343 Sanford Rd
N Decatur 404 636-3445
Mass F G Banester, 90 Arcadia Ave
Reading 617 944-3776
Mich Mareco, Inc, 120 N Winter St
Adrian............................ 313 263-1333
Minn Volco Sales Co, 831 S 6th St
Minneapolis....................... 612 336-6631
NJ Ken Randall Co, 250 Haddon Ave
Collingswood...................... 609 854-3323
Tenn J C Agneta & Co, 5351 Brenton Ave
Memphis 901 685-1310
Tex Bill Grogan Sales Co, 7508 Richland Rd
Ft Worth.......................... 817 284-7087
Tex Carl Yarborough Co, 3014 Sandage Ave
Ft Worth.......................... 817 WA 3-5769
Wash Ed B Schack & Co, 2212 First Ave
Seattle 206 623-1918

RELAYS INC, 162 W 83RD ST, NEW YORK
N Y, 10024 .... 212 TR 3-4500
S HARTLEY

RELAY SPECIALTIES INC, 3 GODWIN AVE, BOX 223
FAIR LAWN, N J, 07410.............. 201 791-3208
J SAUER, EMP 20, ENG 3, $100-$250M
Cal Biztek Co, Box 211, Beverly Hills
Conn W Walworth Controls Co, 472 Old Main St
Rocky Hill
Conn J P Intl Corp, 1989 Summer St
Stamford 348-2691
Ind R J Haffey Co, 4127 N Clinton, Fort Wayne
Iowa Hal Reid Assoc, 526 Merchants Natl Bank Bldg
Cedar Rapids.......................... 365-8411
Pa Victor S Malta, 801 Preston Rd, Erdenheim

RELCOA SUB HI-G INC, 112 PARKWAY DR S
HAUPPAUGE, N Y, 11787 .... 516 543-6700
W GREEN, EMP 50, ENG 6, $500-$1,000M
Ala Young & Lawrence Assoc, 2907 Governors Dr SW
Huntsville 205 539-6575
Ariz Barnhill Assoc, 4900 E Indian School Rd
Phoenix 602 959-2115
Cal Winco Sales Inc, 1901 E Middlefield Rd
Mountain View 415 961-8510
Cal Brooks & Day Inc, 10700 Ventura Blvd
N Hollywood....................... 213 877-3357
Colo Barnhill Assoc, 1170 S Sheridan Blvd
Denver 303 934-5505
Conn John E Boeing Co, 225 Montowese St
Branford 203 488-8301
Fla Hi-G Inc, 5342 Diplomat Cir
Orlando 305 645-0101
Fla Young & Lawrence Assoc, 601 N New York Ave
Winter Park 305 647-6929
Ill Engineered Sales Co Inc, 4738 N Harlem Ave
Chicago 312 867-8434
Ind JEDCO, 4727 Fox Grove
Fort Wayne 219 483-4126
Md Naudain Assoc, Box 1, Lutherville.... 301 252-5378
Mass John E Boeing Co Inc, 18 Muzzey St
Lexington 617 862-2500
Mich Romarc Inc, Box 257, Plymouth 313 455-0300
Minn G E Arneson & Co, 4900 Viking Dr
Minneapolis....................... 612 920-2086
NJ Electra-Mec Assoc, 1258 Teaneck Rd
Teaneck 201 837-4262
NM Barnhill Assoc, 827 Pennsylvania NE
Albuquerque....................... 505 265-7766
NY Tech-Mark Inc, Box 296
New Hartford...................... 315 732-1602
NY Tech-Mark Inc, 19 Valley Brook Dr
Fairport.......................... 716 377-5531
NY Tech-Mark Inc, 101 Jefferson Ave
Endicott 607 748-7473
NC Candor Co Inc, Bethania 919 924-1480
Ohio John O Olsen Co, 16201 Shaker Blvd
Cleveland......................... 216 752-5444
Ohio Robt G Siff & Assoc, Box 7035 Sta B
Dayton 513 278-4779
Ohio John O Olsen Co, 5539 Stokeswood Ct
Cincnnati 513 922-2176
Pa John O Olsen Co, 104 Elatan Dr
Pittsburgh........................ 412 279-2550
Pa Naudain Assoc, 1032 Suburban Sta Bldg
Philadelphia 215 564-3194
Wash David Miller Sales Co, 2323 N 45th St
Seattle 206 632-7070
Can Anbak Sales Ltd, 3208 Lenworth Dr
Cooksville Ont.................... 416 625-1061
Can Anbak Sales Ltd, Box 101
Ile Perrot Sud Que 514 453-6375

RELCOM, 2329 CHARLESTON RD, MOUNTAIN VIEW
CAL, 94040 .... 415 961-6265
J COCHRANE, EMP 50, ENG 7, $500-$1,000M
Ala Theall Eng Sales Co, Box 3122
Huntsville 852-1525
Cal 3 dbm Inc, 7424 Greenbush Ave
N Hollywood 875-0876
Fla Theall Eng Sales Co, Box 922
Maitland.............................. 647-4469
Mass Triter Inc, 165A Bedford St
Burlington 617 272-4550
NY Ossmann Instruments, Inc, 101 Pickard Dr
Syracuse.............................. 454-2461
NY Williams & Rotondi, 16 Fisher Ave
Tuckahoe 914 961-4338
NY Machine & Products Co, 52 Wall St
New York 212 944-4370
Tex Cain & Co, 8609 NW Plaza Dr
Dallas............................ 214 369-2897
Va Schibley Assoc, Inc, 10604 Warwick Rd
Fairfax 591-3008
Fr Technique & Products
Cite des Bruyeres Rue Carle Verret
92 Sevres............................. 626-02-35

RELCO PRODUCTS INC, 5594 E JEFFERSON AVE
DENVER, COLO, 80237................ 303 756-1143
R RUEHLE, EMP 10, ENG 2, $100-$250M

RELE FINDER SAS, VIA DRUBIAGLIP
14440 ALMESE (TO), ITALY
Fr Apacel, 2 bis Impasse Thoreton, Paris XV
GB Thor Bendix Ltd, Great Cambridge Rd, Enfield Middy
Swit Rotronic AG, Kernstr 8, 8004 Zurich
Belg Comptoir Commercial et Industriel
27 Ave de la Couronne, Bruxelles

RELIABLE CAPACITORS CO, 14716 ARMINTA ST
VAN NUYS, CAL, 91402 .... 213 786-1057
H VILAIN, EMP 21, ENG 2, $100-$250M
Cal Prichard & Haney Co, Box 102
Los Altos 961-8218
Cal John J Colbert Co, 2501 Via Viesta
La Jolla 454-1500
Tex Texas Special Elctn Components
8530 S Braeswood Blvd, Houston 774-9461

RELIABLE ELECTRIC CO, 11333 W ADDISON ST
FRANKLIN PARK
ILL, 60131, TWX 312 455 2055.......... 312 455-8010
W JOHNSON, EMP 500, ENG 30
Cal D B Evans, 653 Wildwood La
Palo Alto 321-4468
Cal W E Boutillier, 1401 Las Lomitas Cir
Sacramento 422-4630
Conn J H Sullivan, 38 Stoner Dr, W Hartford ... 523-5130
Ga B J Williams, 1566 Huntingdon Trail
Dunwoody 993-4930
Kan J R Johnson, 10231 Oakridge Cir
Overland Park 432-3338
Minn Reliable Commun & Power Prods, Ltd
911 46th Ave S E, Calgary, Alb 243-2388
Minn J A McCrum, 6524 Morgan Ave S
Richfield 866-8575
Neb J A McKinzie, 2944 Woodsdale
Lincoln 423-2415
NJ A T Johnson, 98 Harvard Rd
Fair Haven 747-1686
NJ A C Kelley, Box 158, Berkeley Hts....... 273-4445
NY D Zeissett, 134 Hudson Ave
Chatham........................... 518 392-6271
Ohio L M Price, 217 Mimosa Dr, Centerville ... 223-4452
Pa W C Tucker, 114 Maplewood Ave E
Mechanicsburg 766-5494
Tenn R D Chambers, Box 747, Springfield 256-8461
Tex D M Bucy, 5603 Yarwell, Houston ...... PA 3-5724
Tex R E Cleland, 9656 Ferndale Rd, Dallas ... 357-8357
Tex T J Gavin, 3609 Vinecrest Dr, Dallas..... 357-4273
Wash M E Pierce, Box 1581, Vancouver........ 694-6724

RELIABLE SPRING & WIRE FORMS CO
3167 FULTON RD, CLEVELAND
OHIO, 44109, TWX FVG 216 631-2800
R POND, EMP 135, ENG 6, $1,000-$2,500M
Fla K P Trimble, 2244 Norman Dr
Clearwater 813 442-3911
Ill Robert P Petersen, Box 515, Park Ridge .. 692-3541
Ky Byron K Harris, 55 Mayfield Ave
Ft Thomas 441-8975
Mich Robert D Meek, 286 Southfield Rd
Lathrup Village 353-2490
Mo J J Grant & Co, 1246 Hampton Ave
St Louis 647-1022
NY Warelin Inc, Box 282 - Eastwood Sta
Syracuse.............................. 437-4001
NC Wm G Baynard Co, 1811 Sterling Rd
Charlotte 704 333-3860
Ohio VanNatta & Collins, 13000 Triskett Rd
Cleveland............................. 941-4338
Pa W F W Reeve, Box 231, North Wales 699-3052
Wis Richard P Vallee, 1717 N Water St
Milwaukee............................. 272-4138

RELIANCE ELECTRIC CO, 24701 EUCLID AVE
CLEVELAND
OHIO, 44117, TWX 216 486-5630 ...... 216 732-7000
C GREGORY, EMP 5000, ENG 500, OVER $10,000M
Ala Reliance Electric Co, 2805 Crescent Ave
Birmingham 805 271-1149
Ala Reliance Elec Co, Box 8411, Mobile 342-2007
Cal Reliance Elec Co, 980 Monterey Pass Rd
Monterey Park 262-2121
Cal Reliance Elec Co, 1525 Adrian Rd
Burlingame ...... OX 7-5341
Cal Reliance Elec Co, 1018 22nd St
Sacramento 441-0226
Colo Petersen Co, 4949 Colorado Blvd
Denver 388-6322
Conn Reliance Elec Co, 60 Connolly Pkwy
Hamden 288-6204
Fla Reliance Elec Co, 6957 Lillian Rd
Jacksonville ...... RA 4-7080
Fla Reliance Elec Co, 5445 Mariner St
Tampa 877-3448
Ga Reliance Elec Co, 2775 Curtis Dr SE
Atlanta 436-2413
Haw Speciality Prods Co, 1168 Waimanu St
Honolulu 512-6444
Idah C W Silver Co Inc, 255 Ash St
Twin Falls 733-0460
Ill Reliance Elec Co, 3300 N Knox Ave
Chicago ...... AV 2-0400
Ill Reliance Elec Co, 623 N Prospect St
Rockford 965-6707
Ind Reliance Elec Co, 1818 Summer St
Hammond 931-0840
Ind Reliance Elec Co, 2511 E 46th St
Indnpls 547-9434
Iowa Reliance Elec Co, 1630 State St
Davenport 355-6448
Ky Reliance Elec Co, 4050 Westport Rd
Louisville 896-6176
La F N Johnston Co, 829 Howard Ave
New Orleans 524-1792
La Reliance Elec Co, 1739 Wooddale Blvd
Baton Rouge 927-0600
La Reliance Elec Co, 303 Arkansas Ave
Monroe 387-2697
Me Reliance Elec Co, 96 Harlow St
Bangor 942-5843
Md Reliance Elect Co, 5202 Baltimore Natl Pk
Baltimore 744-2400
Mass Reliance Elec Co, 70 Highland Ave
Needham Hts ...... HI 4-4280
Mich Reliance Elec Co, 2734 W 11 Mile Rd
Berkley ...... LI 8-8000
Mich Reliance Elec Co, 1055 E Fulton
Grd Rapids 456-5314
Mich Reliance Elec Co, 1600 N Michigan Ave
Saginaw 755-0427
Minn Reliance Elec Co, 1600 E Franklin Ave
Mnpls ...... FE 9-8531
Mo Reliance Elec Co, 11431 Gravois Rd
St Louis ...... VI 3-3835
Mo Reliance Elec Co, 7600 Raytown Rd
Kansas City 356-1300
Neb Allied Equipment Co, 1710 Jackson St
Omaha 344-4944
NJ Reliance Elec Co, 1021 US Hwy 22
Mountainside 233-7900
NM R B Black Co, 1025 Hermosa Dr SE
Albuquerque 265-0144
NY Reliance Elec Co, 959 Kenmore Ave
Buffalo ...... TR 7-4252
NY Reliance Elec Co, 155 E 44th St
New York ...... OX 7-7373
NY Reliance Elec Co, 890 Winton Rd S
Rochester ...... BR 1-6009
NY Reliance Elec Co, 5858 E Mallay Rd
Syracuse 454-3205
NC Reliance Elec Co, 1630 Mockingbird La
Graham Park 525-5540
Ohio Reliance Elec Co, 24800 Chagrin Blvd
Cleveland 732-7010
Ohio Reliance Elec Co, 823 Delta Ave
Cincinnati ...... TR 1-5100
Ohio Reliance Elec Co, 909 Irving Ave
Dayton ...... AX 8-7366
Ohio Reliance Elec Co, 6911 Market St
Youngstown ...... SK 8-2377
Ohio Reliance Elec Co, 3138 Dorr St, Toledo ... 531-1478
Ore Shaffer & Nelson Inc, 1001 SE Water Ave
Portland ...... BE 4-7437
Pa Reliance Elec Co, 225 Bala Ave
Bala-Cynwyd ...... MO 4-6150
Pa Reliance Elec Co, 520 Penn Ave
W Reading ...... FR 4-5517
Pa Reliance Elec Co, 1910 Cochran Rd
Pittsburgh 563-5010
Pa Reliance Elec Co, 2816 E Market St
York 755-2871
SC Reliance Elec Co, 1613 E North St
Greenville 232-5162
Tenn Reliance Elec Co, 401 Georgia St
Knoxville 546-1050
Tenn Reliance Elec Co, 3143 Carrier Dr
Memphis 397-9387
Tenn Reliance Elec Co, 1040 Murfreesboro Rd
Nashville 256-3173
Tex Reliance Elec Co, 1393 Round Table Dr
Dallas ...... ME 1-4520
Tex B & M Machinery Co, 2301 Wyoming Ave
El Paso 533-3651
Tex Reliance Elec Co, Box 22663, Houston ... 667-8313
Utah C W Silver Co Inc, 550 W 7th S St
Salt Lake City 355-5376
Va Reliance Elec Co, 4906 Fitzhugh Ave
Richmond 353-5506
Wash Shaffer & Nelson Inc, 314 NE 72 St
Seattle 523-0664
W Va Reliance Elec Co, 1210 Virginia St E
Charleston 343-7611
Wis Reliance Elec Co, 526 W Wisc Blvd
Appleton ...... RE 9-1241
Wis Reliance Elec Co, 1410 E Capitol Dr
Milwaukee ...... WO 2-8300
Can Reliance Elec Co, 127 Judge Rd
Toronto 233-3281
Jap Japan Reliance Elctns Co Ltd
3,1,1-Chome Yaesu, Chuo-Ku
Tokyo ...... (271) 7126/9
Swit Schindler-Reliance Elctns Inc, 6036 Dierikon
Lucerne ...... (041) 6-61-61
Mex Reliance - Mexico, Lucerna 78
Mexico 6 DF 46-63-96
Aust Electric Control & Engrg Ltd, Box 222
Lanecove (Sydney) 42-0351

REMBAR CO INC, 68 MAIN ST, DOBBS FERRY
N Y, 10522 ...... 914 693-2620
ADV PG 427

REMEX ELECTRONICS, 5250 W EL SEGUNDO BLVD
HAWTHORNE
CAL, 90250, TWX 910 325-6219 ...... 213 772-5321
T WERNER, EMP 140, ENG 25, OVER $10,000M
Ala Reynolds & Assoc, 904 Bob Wallace Ave
Huntsville 536-1941
Colo D E Bond Assoc, 2149 S Clermont St
Denver 756-1234
Conn Instruments Dynamics, 345 N Main St
West Hartford 233-5503
Fla Reynolds & Assoc, Box 1043
Eau Gallie 727-3205
Fla Reynolds & Assoc, Box 8877, Orlando 424-3836
Fla Reynolds & Assoc, 161 SW 75th Ave
Ft Lauderdale 581-6611
Ga Reynolds & Assoc, 175 W Wieuca Rd
Atlanta 252-5360
Ill Systems Engrg Assoc, 6253 Milwaukee Ave
Chicago 774-1452
Ind Systems Engineering Assoc, 1010 E 86th St
Indianapolis 846-2593
Md K-G Sales, Box 2025, Wheaton 946-4055
Mass Instrument Dynamics Inc, Wakefield Ind Park
Wakefield 245-5100
Mich Carter, McCormic & Peirce, 16239 Wyoming Ave
Detroit 863-4600
Minn Systems Engineering Assoc, 3040 Snelling Ave
Minneapolis 729-6161
NM D E Bond Assoc, Box 11331
Albuquerque 247-3442
NY H J Krasner Assoc Inc, 33 Great Neck Rd
Great Neck 487-0690
NY Ossmann Instr, Inc, 101 Pickard Dr
Syracuse 454-2461
NY Ossmann Instr, Inc, 3100 Monroe Ave
Rochester 586-0380
NY Ossmann Instr, Inc, Vestal Pkwy E
Vestal 785-9947
NY Ossmann Instruments Inc, Box 207
Wappingers Falls 297-7777
Ohio Carter, McCormic & Peirce, 3406 N Main St
Dayton 278-5873
Ohio Carter, McCormic & Peirce, 3691 Lee Rd
Cleveland 921-1360
Pa Emlen-Peterson Co, 237 Lancaster Ave
Devon 687-3535
Tex D E Bond Assoc, Box 12293, El Paso 532-4048
Tex Arnold Barnes Co, 3230 Mercer St
Houston 622-3620
Tex Arnold Barnes Co, 740 S Sherman St
Richardson 235-4541
Tex Arnold Barnes Co, Box 13069
San Antonio 828-1323
Wash Rush S Drake Assoc, 6133 Maynard Ave S
Seattle 763-2755
Wis Systems Engrg Assoc, 420 W Ravenswood Hills Cir
Waukesha 422-1560
Can Whittaker Electronics Ltd, 42 Howden Ave
Ottawa, Ont 224-1221
Can Whittaker Electronics Ltd, Box 216
Roxboro, Que 684-3000
Can Whittaker Electronics Ltd, 1885 Wilson Ave
Weston, Ont 247-7454
Can Whittaker Electronics Ltd, 1144 Millstream Rd
West Vancouver, B C 926-3411
Ital SpA Microtecnica, 147, Madama Cristina
Torino 693 024

REMLER CO, 2101 BRYANT ST, SAN FRANCISCO
CAL, 94110, TWX 3-4751 ...... 415 824-3435
H GREENE, EMP 100, ENG 5, $500-$1,000M
DC L M Looney, 777 14th St NW
Washington 202 783-4767

REM SALES INC, BOX 41, WEST HARTFORD
CONN, 06107, TWX 710-423-2034 ...... 203 233-3663
E NIEDERSHUH, EMP 40, ENG 8, $1,000-$2,500M
Cal R D Judd, 334 Starlight Crest Dr
La Canada 790-0067
Conn Robert E Morris Co, 953 Bridgeport Ave
Milford 874-4161
Ill A G Peterson, 6513 Sands Rd
Crystal Lake 459-6891
Mass Robt E Morris Co, Adams St at Silver Lake Ave
Newton 332-7907
NJ Stratton Leach, 353 Luhmann
New Milford ...... CO 1-6356

REM-TRONICS INC, 192 CENTRAL AVE, SILVER CREEK
N Y, 14136 ...... 716 934-2222
F HOCKENBERGER, EMP 32, ENG 1, $250-$500M

RENBRANDT INC, 6 PARMELEE ST, BOSTON
MASS, 02118 ...... 617 445-8910
M ROGERS, EMP 25, ENG 3
Mass Renbrandt Inc, 659 Massa Ave, Boston ... 445-8910

RENCO ELECTRONICS INC, 240 OLD COUNTRY RD
HICKSVILLE, N Y, 11801 ...... 516 938-0022
J RENSING, EMP 30, ENG 1, $100-$250M
Fla R A Gravett Assoc, Box 2501
Fort Lauderdale 565-2079
Mass Autarch Assoc, Box 169, Wakefield .. 617 245-9155
NJ H K Blackburn, 122-B Haddon Hills
Haddonfield 609 858-4361
NY I Morse, 2351 E 65 St, Bklyn ...... 212 CO 7-2913

REN ELECTRONICS CORP, 775 NEW LUDLOW RD
SOUTH HADLEY FALLS
MASS, 01075 ...... 413 JE 6-1800
E PODGORSKI

REON RESISTOR CORP, 155 SAW MILL RIVER RD
YONKERS, N Y, 10701 ...... 914 965-9850
R DEVITO, EMP 100, ENG 5, $1,000-$2,500M
Ala Orbe Inc, Box 4164, Huntsville 205 881-8230
Ariz El-Kap Sales, 7050 E Moreland St
Scottsdale ...... WH 6-2457
Cal El-Kap, 2808 Santa Monica Blvd
Santa Monica 451-9881
Cal Melvin Sales, 113 El Camino Real
Millbrae 415 697-6922
Colo Cummings Assoc, 4772 S Kalamath
Englewood 789-3449
Conn Gerber Sales, 29 Whalley Ave, New Haven
DC Be-Mar Assoc, 809 W Broad St
Falls Church, Va 534-1004
Fla Orbe, Inc, 300 31 St N, St Petersburg 894-0280
Fla Orbe Inc, Box 7777, Orlando 305 424-0978
Fla Southern Intl Sales Co, 7355 NW 5th St
Miami 443-0578
Ill Ropek-Cahill Inc, 5439 W Division St
Chicago 312 287-7292
Ind Tri-State Elctns, 3220 Broadway
Fort Wayne 219 456-3567
Md BeMar Assoc, 120 Darwood Cir
Rockville 301 762-8880
Mass Gerber Sales, 176 2nd Ave, Waltham
Mo PEM Sales Corp, 9537 Lackland Rd
St Louis ...... HA 7-7200
NY LRC Assoc, Box 114
Valley Cottage ...... 212 CY 8-8964
NY El-Com Sales Inc, Box 9112
Rochester 716 244-1960
NY El-Com Sales Inc, Box 134 Southview Sta
Binghamton 607 723-9270
Ohio Thomas Shelby & Co, 17 S Walnut St
New Bremen 629-6511
Pa Be-Mar Assoc, 7217A Rising Sun Ave
Phila 215 728-6333
Tex STASCO, 13310 Spring Grove Ave
Dallas 239-5054
Wash Electronic Sales Corp, 5600 Calif Ave SW
Seattle ...... 206 WE 2-0330
For Sterne Intl, 425 Park Ave S, New York, NY

REPCO INC, BOX 7065, ORLANDO
FLA, 32804 ...... 305 422-2451
H HOWLAND, EMP 100, ENG 8, $1,000-$2,500M

REPUBLIC ELECTRONIC INDUSTRIES CORP
575 BROAD HOLLOW RD, HUNTINGTON
N Y, 11743, TWX 510-224-6497 ...... 516 CH 91414
C HALTOF, EMP 450, ENG 15, OVER $10,000M
Ohio Karl Biales Assoc, DV Sta, Box 114
Dayton ...... CR 7-3081

REPUBLIC ELECTRONICS CORP, 176 E 7TH ST, PATERSON
N J, 07524, TWX 710-988-5908 ...... 201 279-0300
W EISENBERGER
ADV PG 98
Ariz Hamilton Reps Inc, 9800 N Oracle Rd
Tucson 297-2279
Cal M-A Assoc, 2015 Latham St
Mountain View 324-1339
Cal Engineering Liaison Assoc, 3360 Barham Blvd
Los Angeles 469-2283
Conn Vector Sales Inc, Box 112, Monroe 261-2212
Fla Geartner Assoc Inc, 350 Lincoln Rd
Miami Beach 531-0200
Fla Geartner Assoc Inc, 2101 Mohawk Trail
Maitland 647-4000
Ind McDonald Sales Co, 227 S Cornell Cir
Fort Wayne 745-9214
Ind McDonald Sales Co, Box 27131
Indianapolis 253-1831
Md Rothenheber & Co, Inc, 14211 Chesterfield Rd
Rockville 929-3388
Mass Vector Sales, Inc, 774 Pleasant St
Belmont 489-1400
Mich R C Nordstrom & Co, Box 32
Lathrup Village 444-4417
Minn Hamilton, Grayden & Flemmer, Hamilton Rd
Hopkins 941-1120
NJ Comp-Tech Sales, Box 50, Riverdale 835-0332
NM Hamilton Reps Inc, 2515 Gen Bradley NE
Albuquerque 296-2803
NY Arthur L Perkins Co, Kinloch Plaza
Manlius 682-5005
NY Comp-Tech Sales, Box 384, Lynbrook 593-2628
NC Jake Rudisill Assoc Inc, 2009 N Tryon St
Charlotte 376-6901
Pa Argus Assoc Inc, Box 68, Warminster 922-4009
Tex Stevens Sales, Box 34493, Dallas 241-3645

Wash Allied Agencies, 1818 Westlake N
Seattle 284-4082
Can Banke Electronics Ltd, 767 Warden Ave
Scarborough 751-7484
GB G A Stanley Palmer Ltd
Island Farm Ave W Molesey Trading Est
Surrey .... MOL 7245
Swed Bo Palmblad Aktiebolag, Hornsgatan 58
Stockholm SV 24-61-60
Aust Austral Instruments, 1 A Albert St
Clarence Gardens 53-5676
Mucon Corp., See Republic Electronics Corp. Mucon
Corp., See Republic Electronics Corp

REPUBLIC FOIL INC, 55 TRIANGLE ST, DANBURY
CONN, 06813 .... 203 743-2731
P BAKER, EMP 400, ENG 5, OVER $10,000M
ADV PG 15
Cal Electrical Specialty Co, 213 E Harris Ave
S San Francisco 415 589-9611
Ill Republic Foil Inc, 4750 N Milwaukee Ave
Chicago 312 545-2142
NC Republic Foil Inc, Box 1388
Salisbury 704 633-6020
Ohio Wm L Russell, 2060 Radcliffe Dr
Westlake 216 871-6268

REPUBLIC INDUSTRIAL CORP, 27244 SOUTHFIELD RD
LATHRUP VILLAGE, MICH, 48075 .... 313 444-4810
R MCDOWELL, EMP 1500, ENG 75, OVER $10,000M
Mich Elicon Div, 2687 Industrial Row, Troy 549-7631
Mich Everlock Div, 21244 Southfield Rd, Lathrup Village

REPUBLIC LENS CO INC, 31 E 169TH ST, BRONX
N Y, 10452 .... 212 CY 32790
J LURIE, EMP 15, ENG 1

REPUBLIC STEEL CORP, REPUBLIC BLDG, CLEVELAND
OHIO, 44101 .... 216 574-7100
T PATTON, EMP 55000
Ala Republic Steel Corp, 8 Office Park
Birmingham 879-0471
Cal Republic Steel Corp, 823 Mobil Bldg
Los Angeles .... MA 4-5144
Cal Republic Steel Corp, 648 Mission St
San Francisco .... GA 1-0977
Colo Republic Steel Corp, 2920 Security Life Bldg
Denver 623-5287
Conn Republic Steel Corp, 164 School St
E Hartford .... BU 9-9301
Ga Republic Steel Corp, 5 Executive Park Dr NE
Atlanta 633-1471
Ill Republic Steel Corp, 1200 McCormick Bldg
Chicago .... WA 2-3279
Ind Republic Steel Corp, 2511 E 46th St
Indianapolis .... LI 7-3431
La Republic Steel Corp, 7979 Earhart Blvd
New Orleans 488-3781
Mass Republic Steel Corp, 1330 Boylston St
Boston 734-7300
Mich Republic Steel Corp, Fisher Bldg
Detroit .... TR 5-9300
Mich Republic Steel Corp, Old Kent Bldg
Grand Rapids .... GL 9-6244
Minn Republic Steel Corp, 3033 Excelsior Blvd
Minneapolis 920-2122
Mo Republic Steel Corp, 906 Fairfax Bldg
Kansas City .... HA 1-1195
Mo Republic Steel Corp, 501 Clayton Tower
St Louis .... PA 6-2990
NY Republic Steel Corp, 1400 Rand Bldg
Buffalo .... TL 3-5760
NY Republic Steel Corp, Chrysler Bldg
New York 983-6000
NY Republic Steel Corp, 968 James St
Syracuse .... GR 2-6319
Ohio Republic Steel Corp, 3300 Carew Tower Bldg
Cincinnati 721-3801
Ohio Republic Steel Corp, 3832 S Kettering Blvd
Dayton 299-5564
Ohio Republic Steel Corp, Republic Bldg
Warren 399-3679
Okla Republic Steel Corp, 2001 Philtower Bldg
Tulsa 583-6261
Ore Republic Steel Corp, 1500 Plaza Bldg
Portland 234-0803
Pa Republic Steel Corp, 313 Henry W Oliver Bldg
Pittsburgh 471-4950
Pa Republic Steel Corp, 555 City Line
Bala Cynwyd .... TE 9-6710
Tex Republic Steel Corp, Stemmons Tower W
Dallas .... ME 7-1852
Tex Republic Steel Corp, 2200 S Post Oak Rd
Houston 622-8200
Wis Republic Steel Corp
1312 First Wisconsin Natl Bank Bldg
Milwaukee .... BR 6-1864
For Republic Steel Corp, 500 Chrysler Bldg
New York, NY 983-6000

RESALAB INC, 4000 CAMPBELL AVE, MENLO PARK
CAL, 94025 .... 415 323-2442
H HEARD, EMP 20, ENG 10
Ala R Attaway Co, 900 Bob Wallace
Huntsville 534-2811
Fla R Attaway Co, 51 E Robinson St
Orlando 424-9983
Ill Laub Engineering, Box 8 Northfield
Chicago 446-4166
Md Electronic Sales Assoc, 12050 Tech Rd
Silver Spring 301 622-2246
Mass Zieco Inc, 18 Massey St, Lexington ... 617 861-8300
Mo Ozark Elctn Mktg, 2573 Woodson Rd
St Louis 314 423-7200
NJ TAK Instrument Assoc, Box 226
Palisades Park 201 944-3337
NM Richard A Mayes Co, 8016 Zuni Rd SE
Albuquerque 505 265-7989
NY B D Hummel Co, 2222 Maynard Ave
Utica 315 736-7821
NC Roy Attaway Co, 614 Nissen Bldg
Winston-Salem 722-9671
Tex True Technology Co, 12016 Fieldwood La
Dallas .... 214 AD 9-7741
Wash Para-Tech, 9210 28th Ave NW
Seattle .... SU 4-6447
Can Electrodesign Ltd, 9124 St Lawrence Blvd
Montreal 11 Que 514 389-5914
For Resalab Inc Intl Div, 750 Third Ave
New York N Y .... YU 6-2244

RESDEL CORP, BOX 217, RIO GRANDE
N J, 08242 .... 609 522-5643
W TAYLOR, EMP 21, ENG 1, $100-$250M

RESDEL ENGINEERING CORP, BOX 2400 D
PASADENA
EMP 220, ENG 59, $2,500-$5,000M
Ariz AR/TEC Inc, Box 727, Scottsdale 602 947-6304
Cal Electronic Lab Assoc, Box 20333
San Diego 714 232-7195
Md G L Brown Assoc, 5801 Annapolis Rd
Bladensburg 301 779-1500

RESEARCH ASSOCIATES INC, 555 E LINDEN AVE
LINDEN, N J, 07036 .... 201 486-1154
M COHEN, EMP 60, ENG 8, $100-$250M

RESEARCH CALCULATIONS DIV ADP OF MASS INC
200 BOYLSTON ST, CHESTNUT HILL
MASS, 02167 .... 617 969-5700
A KRANSELER, EMP 125, ENG 35, $500-$1,000M
Fla Research Calculations Div, 2525 SW 27th Ave
Miami 305 444-8257
NJ Research Calculations Div, 1040 U S Hwy 46
Clifton 201 472-1000
NY Research Calculations Div, 50 Broadway
New York 212 425-8940
Pa Research Calculations Div, 12th & Walnut Sts
Philadelphia .... 215 WA 5-9360

RESEARCH CHEMICAL DIV, NUCLEAR CORP OF
AMERICA, BOX 14588, PHOENIX
ARIZ, 85031 .... 602 936-1481
J CUNNINGHAM, EMP 19, ENG 6, $250-$500M
Fr Cacermet, 29 Rue Victor Hugo Puteaux Seine, Paris
Ger Kurt Rasmus & Co, 2000 Hamburg 36
Postr 14, Streishof
Jap New Metals & Chemicals, Box 565 Central, Tokyo

RESEARCH INC, R-I CONTROLS DIV
BOX 61641, EDINA BR, MINNEAPOLIS
MINN, 55424 .... 612 941-3300
J LAW, EMP 120, ENG 20, $2,500-$5,000M
Ala Craft Assoc, Box 1053, Huntsville 205 837-0221
Cal Berggren & Co, 13774 S Hawthorne Blvd
Hawthorne 676-5858
Cal Berggren & Co, 1659 Scott Blvd
Santa Clara 408 296-8430
Fla Craft Assoc, Box 986, Maitland 305 645-2242
Ga Craft Assoc, 3151 Maple Dr NE
Atlanta 404 237-2282
Ill Olson Engrg & Sales Co, 1921 N Harlem Ave
Chicago 312 622-9777
Kan Aero-Hill Sales Co, 1635 Garland Ave
Wichita .... 316 AM 7-7167
Mass Lancaster Co, 147 Concord St
Framingham 873-8893
Mich Carter, McCormic & Peirce, 16239 Wyoming
Detroit 862-0017
Miss Holland Engrg, 4637 Greenville Ave, Dallas
NJ E C Smith & Assoc, 797 Springfield Ave
Summit 201 273-8881
NM Electronic Enterprises, 1900 Washington Ave
Albuquerque 505 256-1585
NM Electronic Enterprises, Box 116
Las Cruces 505 524-0126
NY Alpha Co, 1218 Prudential Bldg
Buffalo 854-4121
NY E C Smith & Assoc, 60 E 42nd St
New York .... 212 MU 2-6890
Ohio RDP Assoc, 5899 Huberville, Dayton 253-6175
Ohio RDP Assoc, 9081 Royalton Rd
Cleveland 237-9155
Pa Roberts Eng & Sales Co, 1 Radnor Sta, Box 9
Radnor .... MU 8-6525
Tex Holland Engrg, 4637 Greenville Ave
Dallas .... 214 BR 1-1527
Tex Holland Engrg, 3810 Westheimer Rd, Houston
Utah Applied Engrg, 6375 Emigration Canyon
Salt Lake City
Va Edwin Sutter, Box 426, Vienna 560-2266
Wash Martin Poggi, 103 Redwood Bldg
Bellevue 454-2026
Can Megatronix Ltd, 1800 Avenue Rd, Toronto 12, Ont
Fr M A I R
9 Bis Ave Du Marechal De Lattre De Tassigny
Boulogne
Ger Intermatic, Ing Hans W Schemm
Lagerstr 60 .... 8031 Munchen-Puchheim
GB Seslab Elctns Ltd, Brockhampton La, Havant, Hants
Ital P Ricolfi & C. s.a.s., Corso A Tassoni, 21, Torino
Jap S T Johnson Sales Co Ltd
10 Kanda Kamakuracho, Chiyoda Ku
Tokyo 291 7611-8
Swed Ingenjorsbyra G Nabholz, Larsbergsvagen 15
Lidingo 1
Swit M Russenberger, Kesselstr 10, Schaffhausen
Belg Ets J P Gerdom, 60, Avenue Emile Zola, Bruxelles
Neth Technisch Advies, Oostzeedijk 138, Rotterdam
Aust Kenelec Imports, 49 Essex Rd, Mt Waverly Victoria
Aust Kenelec Imports P/L, 67 Baltimore St, Belfield NSW

RESEARCH INDUSTROLECTRONICS
2459 SUSQUEHANNA RD, ROSLYN
PA, 19001 .... 215 884-8098
R DONNIKAY, EMP 18, ENG 2, UP TO $100M

RESEARCH INSTRUMENT CO INC, 558 MAIN ST
EMP 17, ENG 3, $100-$250M
Cal Interconsal Assoc Inc, 825 San Antonio Rd
Palo Alto 321-8113
Fla GPI Instru Inc, Box 536, Winter Park 647-5722
Ill Technical Sales Assoc, 1160 Kenton Rd
Deerfield 286-2535
Fr Technique et Produits, 63 Bis Rue D'Aguesseau
92 Sevres 408-14-00
GB Epak Assoc, 75 Cherry Orchard Rd
Croydon 01-688-9201
Ital Kimates, Via Turati, 28, Milano 653-221

RESEARCH MFG CORP, BOX 6056, SAN DIEGO
CAL, 92106 .... 714 298-9419
R HEYER, EMP 13, ENG 4, $100-$250M

RESEARCH PRODUCTS CORP
1015 E WASHINGTON AVE, MADISON
WIS, 53701 .... 608 257-8801
V HELLENBRAND
Ariz N S Wright & Co, 2641 E Adams St
Phoenix 275-4469
Cal N S Wright & Co, 1015 Folsom St
San Francisco 863-3321
Colo Western Sales Service, 5464 E Utah Pl
Denver 756-8161
Fla M Haller, Inc, 930 NE Second, Miami 374-5225
Ga M DuQuet, 2465 Spring Dr
Smyrna 404 436-7876
Ind P Capron, 7203 N Olney, Indianapolis 849-2716
Mass R G Rice, 110 May St, Needham 617 449-0845
Mich K P Gutreuter, 16556 Archdale
Detroit 313 272-7319
Minn R L Schappek, 540 18th Ave N
South St Paul 612 455-3279
Mo F Sours, 1207 DuBois, St Louis 966-0575
NJ L Ludkey, 211 Orchard Pl, Ridgewood 445-3988
Ohio L W Millard, 2806 Welsford Rd
Columbus 614 486-3095
Ore N S Wright & Co, 3605 SW Corbett St
Portland 226-4827
Pa J Donnelly, 157 Whiteland Hunt Rd
Downingtown 269-0653
Tenn C M Jacobs, 1426 Vera Cruz
Memphis 901 683-5358
Tex G Olsen, 3006 Ridgeview La, Irving 255-6745
Utah Western Sales Serv, 150 E Seventh S
Salt Lake City 355-2434
Va W F Rowen, 1024 Chiswick Dr
Richmond 703 272-6329
Wash N S Wright & Co NW, 1055 N 38th St
Seattle 633-1366
Wis L A Monty, 5555 S 110th St
Hales Corners 414 425-8977
Can Spall-Bowman Ltd, 123 Woolwich
Guelph, Ont 822-3491
Can Hicks-Baker Ltd, 1530 St James St
Winnipeg, Man 774-1485
Fr Alec Ferguson, 26 Ave Gambetta
Chatou (Seine & Oise) 266-7561
Swit Walter Hausler & Co, Postfach 8046, Zurich

RESISTANCE PRODUCTS CO, 914 S 13TH ST
HARRISBURG
PA, 17104, TWX 510 650 4920 .... 717 236-5081
W ZIMMERMAN, EMP 200, ENG 12, $1,000-$2,500M
Ariz B-G Sales Co, 305 E Indian School Rd
Phoenix 264-4761
Cal A A Dowers Co, 2918 E Florence Ave
Huntington Pk 582-5105
Cal Ray Del Bucchia & Assoc, 15 Southgate Ave
Daly City 756-8414
Cal LJG Industries, 1720 Pontius Ave
Los Angeles 213 472-8902
Colo Walter-Powers Assoc, 880 Bonnie Brae Blvd
Denver 303 777-5585
Fla P Slothower, Box 12, Winter Park 305 424-6298
Ill Bauman & Bluzat, 3014 N Pulaski Rd
Chicago 312 761-3630
Md Faion Lott & Co, 6409 Frederick Ave
Glen Burnie 301 744-4611
Mass Selmark Assoc, 181 West St, Waltham ... 899-8110
Mich R C Nordstrom & Co, Box 32
Lathrup Village 313 444-4417
Minn Countryman Wagner & Behnen
1955 University Ave, St Paul 612 645-9151
Mo Alfred F Gliedt Assoc, 10869 Spring Garden Dr
St Louis 314 868-7445
NY Cooper-Simon Co, 7 W Broad St
Mt Vernon 699-5400
NY F Taylor Co, 4455 E Genesee St
De Witt 446-0422
NY F W Taylor Co Inc, 63 Willow Brook Rd
Victor 716 473-2404
Ohio J O Olsen Co, 16201 Shaker Blvd
Cleveland 752-5444

Ohio	J O Olsen Co, 5539 Stokeswood Ct Cincinnati	922-2176
Ohio	Hugh S Stobbs, 2709 Northbourne Dr Springfield	513 255-4023
Pa	Lowry Dietrich Co, 90 Clairton Blvd Pittsburgh	892-2992
Tex	MMS Components, 10303 Carry Back Cir Dallas	214 357-6893
Utah	Walter-Powers Assoc, 2422 Camino Way Salt Lake City	801 277-5174
Wash	D Smith Sales Co, 2320 N 45th St Seattle	633-3160
Can	Bruce Lord & Assoc, 6116 Lloyd Crescent Calgary Alb	249-0420
Can	Anbak Sales Canada Ltd, 3208 Lenworth Dr Cooksville Ont	416 625-1061
For	Minthorne Intl Co Ltd, 64-14 Woodside Ave Woodside N Y	212 246-2133

RESISTORS INC, 5226 W 26TH ST, CHICAGO
ILL, 60650 .... 312 652-7555
M BRYANS, EMP 50, ENG 3, $250-$500M
ADV PG 621

Ala	F Wamble Sales Co, 3745 Marie Cook Dr Montgomery	272-4600
Cal	W W Tompkins & Co, 2875 Middlefield Rd Palo Alto	DA 6-7940
Cal	W S Harmon Co, 6118 Venice Blvd Los Angeles	937-1460
Conn	White Sales Co, Berlin	BA 4-0423
Ill	C J Saberson, 1791 Howard St Chicago	BR 4-9668
Ind	Technical Reps, Box 171, Indianapolis	546-5996
Iowa	J R Sales Eng, 3550 Cottage Grove Cedar Rapids	EM 5-2864
Kan	Penzner Assoc, 5600 95th St Overland	913 DU 1-0004
Mass	White Sales Co, 20 Chestnut St Needham	444-3676
Mich	J Thorpe, 640 Hidden La, Detroit	TU 4-4360
NJ	Andrew A Foley Assoc, Box 155 Moorestown	609 663-4545
NY	Symon Assoc, 550 5th Ave, New York	JU 6-7771
NY	James M Glass Assoc, 220 Delaware Ave Buffalo	716 TL 6-9272
Ohio	W J Brauer & Assoc Inc, 29029 Euclid Ave Wickliffe	943-0601
Tex	Whiteside Sales Co, Box 22 Garland	214 BR 6-8382
Wis	Honkamp Sales Co, 11120 W Ruby St Milwaukee	463-2530

RETT ELECTRONICS INC, 7047 MURTHUM, WARREN
MICH, 48092 .... 313 536-5010
V DORER, EMP 125, ENG 13

REULAND ELECTRIC CO, 17969 E RAILROAD ST
CITY OF INDUSTRY
CAL, 91744, TWX 910 584-1308 .... 213 964-6411
W JOHNSON, EMP 555, ENG 4, OVER $10,000M

Ala	Fluid Dynamics, Inc, 1917 Lynn Blvd Birmingham	871-4673
Ariz	Air-Draulics Co, 3135 N 29th Ave Phoenix	254-8414
Cal	H S Walling, 1015 W Alamos Ave Fresno	227-1734
Cal	Reuland Electric Co, 1240 E 12th St Oakland	534-2233
Colo	Mid-Continent Engineering Co, 11950 Wadsworth Broomfield	466-6333
Ga	Smith Industrial Sales, 634 Longwood Dr NW Atlanta	355-4118
Haw	Hydro-Mech, Inc, 250 Ward Ave Honolulu	563018
Ill	Schrade-Batterson Co, 5253 W Belmont Ave Chicago	282-0200
Iowa	Moehlenpah Engrg of Des Moines Inc 4817 University Ave, Des Moines	255-5426
Ky	Charles Gipperich, Jr, 8504 Cheltenham Cir Louisville	895-3370
Mass	R L Baltz Co, 28 Robinson Rd Lexington	862-5556
Mich	Reuland Electric Co, 4500 E Grand River Ave Howell	546-4400
Mich	Harris-Blancett & Assoc Inc 14631 W McNichols Rd, Detroit	272-0812
Minn	R X Raymond Co, 260 Tyrol West Bldg Minneapolis	544-8831
Mo	Mochlenpah Engrg Inc, 1315 S Vandeventer Ave St Louis	533-0325
Mo	Systems Machy Engrg Inc 1332-42 Woodswether Rd Kansas City	421-1790
NY	Harry Powell, Inc, 4317 E Genesee St Syracuse	446-4110
NC	H B Owsley & Son, Inc, S Pineville Rd Charlotte	523-3141
Ohio	A-C Equip Co, 20545 Center Ridge Rd Cleveland	333-2777
Ohio	S W Pratt Inc, 114 Wooster Pike Milford	831-6522
Ore	J A Tudor & Assoc, 1004 SE Belmont St Portland	233-4421
Pa	K H Raymond, N Forge Mtn Dr Valley Forge	666-0575
Pa	J L Souser & Assoc, 198 Summit Dr York	854-0217
Tex	Glenn W King Co, 6440 Hillcroft Houston	771-0603
Wash	J A Tudor & Assoc, 2605 Western Ave Seattle	682-7444
Wis	Schrade-Batterson Co, 4620 Shasta Dr Brookfield	781-5660
Can	Rotator Products, Inc, 1262 Don Mills Rd Don Mills, Ont	447-0583
Can	Rotator Products Ltd, 375 Victoria Ave Westmount, Que	514 486-5763
BC	Tormag Transmissions Ltd, 338 W 6th Ave Vancouver	879-5251

REUTER-STOKES ELECTRONIC COMPONENTS INC
18530 S MILES PKWY, CLEVELAND
OHIO, 44128 .... 216 475-3434
T FLEMING, EMP 39, ENG 4, $500-$1,000M

Cal	C W Fowler Co, 9911 Inglewood Ave Inglewood	678-5211
Cal	Charles W Fowler Co, 845 Oak Grove Menlo Park	322-5374
NM	C W Fowler Co, 9000 Menaul Blvd Albuquerque	299-7676
Wash	C W Fowler Co, 845 106 Ave, N W Bellevue	GL 4-8600
For	Terminal Radio Intl Ltd, 3 W 61st St New York, NY	246-2133

REVERE COPPER & BRASS, INC, 230 PARK AVE
NEW YORK
N Y, 10017, TWX 710-581-6718 .... 212 689-6800
F HYDE JR, EMP 8020, ENG 25, OVER $10,000M

Cal	Revere Copper & Brass, 851 Burlway Rd Burlingame	347-0751
Colo	Revere Copper & Brass, 900 E Louisiana Ave Denver	744-3491
Conn	Revere Copper & Brass, 45 S Main St West Hartford	521-1190
Fla	Revere Copper & Brass, 5750 NW 32nd Ct Miami	635-0406
Ga	Revere Copper & Brass, 1310 Ellsworth Ind Dr NW Atlanta	355-9834
Ind	Revere Copper & Brass, 6100 N Keystone Ave Indianapolis	251-4505
Ind	Revere Copper & Brass, Box 4223 Sta Evansville	424-7555
Ky	Revere Copper & Brass, Box 7326 Louisville	895-4268
La	Revere Copper & Brass, 923 Howard Ave New Orleans	JA 5-4259
Mass	Revere Copper & Brass, 220 Boylston St Chestnut Hill	969-7220
Mich	Revere Copper & Brass, 236-244 State St SE Grand Rapids	459-3301
Minn	Revere Copper & Brass, 5217 Wayzata Blvd Minneapolis	545-2521
Mo	Revere Copper & Brass, 34th St & Broadway Kansas City	LO 1-8403
Mo	Revere Copper & Brass, 2510 Brentwood Blvd St Louis	WO 8-0600
NJ	Revere Copper & Brass Box 1010, 99 Washington St East Orange	672-5400
NY	Revere Copper & Brass, 4498 Main St Buffalo	839-1001
NY	Revere Copper & Brass, 99 W Hawthorne Ave Valley Stream	LO 1-1800
NY	Revere Copper & Brass, 75 College Ave Rochester	CH 4-0733
NY	Revere Copper & Brass, 22 Boston Post Rd Larchmont	689-6800
NC	Revere Copper & Brass, 816 Lawton Rd Charlotte	392-6174
Ohio	Revere Copper & Brass, Box 8026 Cincinnati	871-1232
Ohio	Revere Copper & Brass, 3898 Linden Ave Dayton	252-5616
Ohio	Revere Copper & Brass, 14714 Detroit Ave Cleveland	521-2440
Pa	Revere Copper & Brass, 666 Washington Rd Pittsburgh	561-8606
Pa	Revere Copper & Brass, 1 Wynnewood Rd Wynnewood	GR 7-8326
Tenn	Revere Copper & Brass, 3387 Poplar Ave Memphis	323-6241
Tex	Revere Copper & Brass, 8320 Chancellor Row Dallas	631-4090
Tex	Revere Copper & Brass, 3202 Weslayan St Houston	NA 1-0921
Wash	Revere Copper & Brass, 314 Fairview Ave N Seattle	MA 2-1401
W Va	Revere Copper & Brass, Box 1623 Huntington	523-6418
Wis	Revere Copper & Brass, 4222 W Capitol Dr Milwaukee	442-0430

REVERE CORP OF AMERICA, 845 N COLONY RD
WALLINGFORD
CONN, 06492, TWX 710-476-3197 ...... 203 269-7701
G GRACE, EMP 417, ENG 48, $5,000-$10,000M

Cal	W C Diemer, 16834 Klee St, Sepulveda	723-8751
Cal	E E Lee, 210 Verbena La, Brea	723-8751
Conn	J M Kolbe, 291 Henry St, Manchester	269-7701
Fla	A K Baxter, Box 326, St Petersburg	891-3692
Ga	E C Jones, 3460 Buford Hwy, NE Atlanta	427-3732
Ill	P A Nissen, 28 Rainbow Rd Springfield	529-5573
Ill	W T Dalton, 5340 Meyer Dr, Lisle	439-5513
Md	D W Brown, 18408 Goshen Rd Gaithersburg	OL 6-5121
Mass	G F Slowe, 528 Turnpike St Stoughton	HA 6-3900
NJ	A C Hills, 52 Park Ave, Caldwell	CA 6-1174
NJ	R G Luckjiff, 33 Magnolia Pl, Wayne	226-1174
NY	R P Wickins, 87 Nettlecreek Rd Fairport	377-3380
Ohio	H L Zupp, 3525 Guilford Ave, NW Canton	492-3632
Pa	C E Roessler, 1846 Dillon Rd Maple Glen	747-7000
Tex	D H Oldham, 405 Phillips Ct Arlington	CR 4-7500
Tex	L A Lewis, Box 35125, Houston	729-2511
Va	C K Johnson, 7735 Boyd Ct, Springfield	256-4304

REX CHAINBELT INC, 4701 W GREENFIELD AVE
MILWAUKEE, WIS, 53214 .... 414 384-3000

Ala	R L Blackmon, 4 Office Park Cir Birmingham	871-6161
Cal	A F Phillips, 8300 Rex Rd, Pico Rivera	723-1381
Cal	E C Rose, 2940 7th St, Berkeley	843-6801
Colo	J N Tufts, 70 W Sixth Ave, Denver	244-7467
Fla	J D Curlee, 1449 E 8th St, Jacksonville	353-5739
Ga	D P Murrill, 1788 Ellsworth Ind D NW Atlanta	355-4890
Ill	W M Throop, 2200 S Wolf Rd Des Plaines	827-0002
Iowa	J F Merker, 321 8th St, Bettendorf	355-6407
La	J E Ohman, 3209 Ridgelake Dr Metarie	834-4038
Md	C Esche, 621 York Rd, Baltimore	828-1020
Mass	E N Lutts, 10 Kearney Rd Needham Heights	444-8114
Mich	R Pierson, 22105 Greenfield Park Rd Oak Park	554-2347
Minn	R A Seidenstricker, 7710 Computer Ave Mnpls	927-7066
Mo	T J Hammel, 7530 Troost Ave Kansas City	361-8889
Mo	P R Schoeffler, 8000 Bonhomme St Louis	727-6917
NJ	J M Stockbridge, 160 Halsted St East Orange	673-2120
NY	J R Coolman, 1807 Elmwood Ave Buffalo	873-5004
NY	W W Byrne, 19 Rector St, New York	943-6141
NC	D D Campbell, 1023 S Caldwell St Charlotte	334-7257
Ohio	D A Anderson, 10488 Chester Rd Cincinnati	771-4343
Ohio	G E Smith, 20545 Center Ridge Rd Cleveland	333-3456
Ore	B W Wright, 5700 N E Hassalo St Portland	287-2691
Pa	A K King, 4125 Whitaker Ave Philadelphia	426-6150
Pa	W M Wood, 300 Mt Lebanon Blvd Pittsburgh	563-2000
Tex	W W Klemme, 8601 Sovereign Row Dallas	631-1140
Tex	B D Treat, 6440 Gulf Term Dr, Houston	923-2786
Utah	W C Beals, 445 E 2nd St Salt Lake City	359-6679
Wash	R W Lange, 2425 Airport Way S Seattle	682-6750
Wis	K P Coan, 6130 W National Ave Milwaukee	771-6262
Wis	W S Woodward, 425 S Military Ave Green Bay	494-8717

REYNOLDS INDUSTRIES INC, 2105 COLORADO
SANTA MONICA, CAL, 90404 .... 213 UP 4-0843
G E SHERIDAN, EMP 150, ENG 8, $1,000-$2,500M

Ariz	S O Rush, Jr, 4315 E St Joseph Way Phoenix	273-1421
Cal	Heinrich & Company, 3820 E Colorado Ave Pasadena	795-9081
Utah	Western Sales Assoc, 1879 S Main St Salt Lake City	486-7251

REYNOLDS METALS CO, 6601 W BROAD ST
RICHMOND, VA, 23218 .... 703 282-2311
J BLOMQUIST, EMP 30,000, OVER $10,000M

Ala	Reynolds Metals Co, 213 N 21st St Birmingham	FA 2-6793
Ariz	Reynolds Metals Co, 3501 W Van Buren St Phoenix	272-7961
Ark	Reynolds Metals Co, 406 Coml Natl Bank Bldg Little Rock	FR 4-6472
Cal	Reynolds Metals Co, 5670 Wilshire Blvd Los Angeles	937-3680
Cal	Reynolds Metals Co, Box 7935 San Francisco	MI 7-2990
Cal	Reynolds Metals Co, 311 N Fulton St Fresno	AD 3-2047
Colo	Reynolds Metals Co, 222 Milwaukee St Denver	388-2406
Conn	Reynolds Metals Co, 999 Asylum Ave Hartford	278-1760
DC	Reynolds Metals Co, 503 World Ctr Bldg Washington	NA 8-5336
Fla	Reynolds Metals Co, 627 SW 27th Ave Miami	444-8245
Fla	Reynolds Metals Co, 1920 E Hillsborough Ave Tampa	237-3357
Ga	Reynolds Metals Co, Box 4272, Atlanta	875-2731
Ill	Reynolds Metals Co, Wrigley Bldg Chicago	527-2200
Ind	Reynolds Metals Co, 4002 Meadow Dr Indianapolis	LI 6-4766
Ind	Reynolds Metals Co, 605 Ft Wayne Bank Bldg Ft Wayne	743-3133
Ind	Reynolds Metals Co, 1326 Mishawaka Ave South Bend	289-3044
Kan	Reynolds Metals Co, 202 W First St Wichita	AM 5-7245
Ky	Reynolds Metals Co, 2000 S Ninth St Louisville	ME 4-1581
La	Reynolds Metals Co, 1055 St Charles Ave New Orleans	524-5482
La	Reynolds Metals Co, 425 Milam St Shreveport	422-6163
Md	Reynolds Metals Co, 200 E Joppa Rd Towson	VA 3-4141
Mass	Reynolds Metals Co, 1300 Boylston St Chestnut Hill	RE 4-3770

Mich Reynolds Metals Co, Beverly & Porter Sts Grand Rapids .... CH 1-4677
Mich Reynolds Metals Co, Box 5050, Detroit ... 444-1300
Mich Reynolds Metals Co, 700 Capital Ave SW Battle Creek 962-9579
Minn Reynolds Metals Co, 4005 W 65th St Mnpls' 927-4424
Mo Reynolds Metals Co, Box 1355 Kansas City .... JE 1-3536
Mo Reynolds Metals Co, Box 414 St Louis .... PA 6-5700
Neb Reynolds Metals Co, 3000 Farnam St Omaha 342-0614
NJ Reynolds Metals Co, 100 Evergreen Pl E Orange .... OR 6-4441
NY Reynolds Metals Co, 1529 Western Ave Albany .... IV 2-7320
NY Reynolds Metals Co, 19 E 47th St New York .... EL 5-7700
NY Reynolds Metals Co, 115 Twin Oaks Dr Syracuse 437-2947
NY Reynolds Metals Co, 1965 Sheridan Dr Buffalo .... TR 7-2565
NY Reynolds Metals Co, 75 College Ave Rochester .... BR 1-5060
NC Reynolds Metals Co, 4037 E Independence Blvd Charlotte 536-0494
Ohio Reynolds Metals Co, 2600 Victory Pkwy Cincinnati .... PL 1-2808
Ohio Reynolds Metals Co, 11801 Clifton Blvd Lakewood 226-3330
Ohio Reynolds Metals Co, 245 S Frank Blvd Akron 836-9533
Ohio Reynolds Metals Co, Box 5596 Columbus 488-9788
Ohio Reynolds Metals Co 408 Eleven W Monument Bldg Dayton .... BA 2-6344
Ohio Reynolds Metals Co, 6221 Market St Youngstown 758-4518
Ohio Reynolds Metals Co, 1806 Madison Ave Toledo 246-5991
Okla Reynolds Metals Co, 3216 E 21st St Tulsa 939-4449
Okla Reynolds Metals Co, 2809 NW Expwy Oklahoma City 848-2853
Ore Reynolds Metals Co, 3950 NW St Helens Rd Portland 224-3794
Pa Reynolds Metals Co, 3117 Lehigh St Allentown 797-0831
Pa Reynolds Metals Co, 100 Fleet St Pittsburgh 922-3757
Pa Reynolds Metals Co, 10 Presidential Blvd, N Bala-Cynwyd .... TE 9-4820
Tenn Reynolds Metals Co, 2701 Union Ave, Ext Memphis 323-4563
Tenn Reynolds Metals Co, 1717 West End Ave Nashville .... CH 2-5694
Tex Reynolds Metals Co, 100 Exchange Park N Dallas 352-4871
Tex Reynolds Metals Co, 3411 Richmond Ave Houston .... NA 2-7810
Tex Reynolds Metals Co, 1310 S Brazos St San Antonio 226-6996
Utah Reynolds Metals Co, 2188 Highland Dr Salt Lake City .... HU 7-7749
Wash Reynolds Metals Co, 2819 1st Ave Seattle .... MA 3-2503
Wis Reynolds Metals Co, 1412 Majestic Bldg Milwaukee .... BR 1-1051

RF AMPLIFIER CO, BOX 141, LAKE GROVE
N Y, 11755 .... 516 724-1831
W JOHNSON, EMP 6, ENG 2, UP TO $100M
Cal Smith & Assoc, 501 Central Tower Orange 714 541-2629
Md Zenatronx Assoc, 904 World Bldg Silver Springs 301 588-5677
NJ Comp-Tech, Box 50, Riverdale 201 835-0332
NY Tesco, 2002 Teall Ave, Syracuse 315 463-4566
NY Comp-Tech, Box 384, Lynbrook 516 593-2628
For Madison Overseas, Box 660 Schenectady, N Y 372-5841
Fr Cerel, 6 Impasse Lemiere, Paris (19) 208-50-23
GB Microwave System, Huntingate, Hitchins, Hurts Hurts .... HUT 4554

R F COMMUNICATIONS INC, 1680 UNIVERSITY AVE
ROCHESTER
N Y, 14610, TWX 510-253-7469 .... 716 244-5830
N GARMAN, EMP 800, ENG 100, OVER $10,000M
Ala Reynolds & Assoc, Inc, 904 Bob Wallace Ave Huntsville 536-1941
Ariz O'Halloran Assoc, 4747 N 16th St Phoenix 602 277-3223
Cal O'Halloran Assoc, 10700 Ventura Blvd North Hollywood 877-0173
Cal O'Halloran Assoc, 3921 E Bayshore Dr Palo Alto 326-1493
Cal O'Halloran Assoc, 724 Muirlands Vista Way San Diego 224-2824
Fla Reynolds & Assoc, Inc, Box 1043 Eau Gallie 727-3205
Fla Reynolds & Assoc, Inc, 161 SW 75th Ave Ft Lauderdale 581-6611
Fla Reynolds & Assoc, Box 8877, Orlando 424-3836
Ga Reynolds & Assoc, 175 W Wiecuea Rd NE Atlanta 404 252-5360
Md R F Communications, 7064 Wolf Tree La Rockville 427-3636
Mass I T M Assoc, Box 385, Sudbury 443-8414
Nev O'Halloran Assoc, Las Vegas 361-5084
NJ SBM Assoc, Inc, 1519 Stuyvesant Ave Union 687-8737
NY M J Fein & Co, Harwood Bldg Scarsdale 472-1100
NY SBM Assoc, 1700 University Ave Rochester .... BR 1-7340
NY SBM Assoc, 138 Pickard Bldg Syracuse 454-9378
NY SBM Assoc, 655 Commerce St Thornwood .... RO 9-1811

RFD INC, 1501 W CASS ST, TAMPA, FLA, 33606 .. 813 253-0637
C BEATY, EMP 32, ENG 2, $250-$500M
ADV PG 454
Ala Theall Corp, Box 3122, Huntsville 852-1525
Cal Kipp Assoc, 90 Stadler Dr, Woodside 851-0123
Cal Cain & Co, 15720 Ventura Blvd, Encino 783-4700
DC J R Eberly Co, 1207 Potomac Ave, N W Washington 338-2277
Fla Theall Corp, 116 E Dover Rd, Maitland 647-4469
Ill Communications Engineers, 7106 N Western Ave Chicago 761-0548
Md J R Eberly Co, 3618 Briarstone Rd Randallstown 922-2092
Mass Tritek, Inc, 155A Bedford St, Burlington 272-4550
NY Gray & Reed Assoc, 9 Dunford St Huntington Sta .... AR 1-6677
NY Graydon-Sherman Inc, Davis Bldg Fayetteville 637-9611
Pa Holdsworth & Co Inc, Box 298 Newtown Square .... EL 6-8550
Tex Vidal Electronics Co, 3403 High Bluff Dr Dallas 241-4491
Wash Premmco - Northwest, 2208 NW Market St Seattle .... SU 3-3900
For Madison Overseas, Inc, 433 Liberty St Schenectady 372-5841

R F INTERONICS INC, 100 PINE AIRE DR, BAY SHORE
N Y, 11706 .... 516 231-6400
M KAUFMAN, EMP 125, ENG 6, $1,000-$2,500M
ADV PG 3050
Ala Roy Attaway Co, 900 Bob Wallace Ave Huntsville 534-2811
Ariz Toward Engrg Assoc, Box 15268 Arcadia Sta Phoenix 955-3193
Cal Melvin Sales Co, 113 El Camino Real Millbrae 697-6922
Cal Rep Assoc, 1645 S Cienaga Blvd Los Angeles 274-8485
Cal Rep Assoc, 1744 W Lincoln Ave Anaheim .... TA 8-1344
DC Mechtronics Sales Inc, 7600 Georgia Ave NW Washington 291-6004
Fla Roy Attaway Co, 51-53 E Robinson St Orlando 424-9983
Ill Carlson Elect Sales, 7448 N Harlem Ave Chicago .... SP 4-0277
Mass Brookdale/Richter, 348 Lake Ave Newton Highlands 244-6969
Minn Ed Melius & Assoc, 3758 N Dunlap Ave St Paul 612 488-7293
Mo Edemco Inc, 2605 S Hanley Rd St Louis 647-5505
NY Trionic Assoc, 320 Northern Blvd Great Neck .... HN 6-2300
NY W A Franklin Sales Corp, 2 Standish Ter Syracuse 446-1120
NY W A Franklin Sales Corp, 80 W North St Ilion 315 894-2227
NC Roy Attaway Co, 614 Nissen Bldg Winston-Salem 722-9671
Ohio R M Kaiser Co, Centerville Box 57 Dayton 885-2238
Ohio John O Olsen, Inc, 16201 Shaker Blvd Cleveland 752-5444
Ohio John O Olsen, Inc, 5539 Stokeswood Ct Cincinnati 922-2176
Pa Arnold Assoc, Inc, 528 Ryers Ave Cheltenham 742-0600
Pa John O Olsen, Inc, 104 Elatan Dr Pittsburgh 279-2550
Tex Roberts Sales Co, 9704 Lanward Dr Dallas 214 348-4283
Tex Roberts Sales Co, 4833 Caroline Houston 523-9545
Wash James J Backer Co, Box 9077, Seattle .. AT 3-6470
Aust Distributors Corp Pty Ltd, 24-26 Johnston St Fitzroy Vic 41-7021

RFL INDUSTRIES INC, COMMUNICATIONS DIV
POWERVILLE RD, BOONTON
N J, 07005, TWX 710-987-8352 .... 201 334-3100
H EMKER, EMP 350, ENG 35, $2,500-$5,000M
Ariz Portis & Assoc, Box 3109, Scottsdale 945-4925
Cal Luscombe Engineering Co, 610 S Arroyo Pkwy Pasadena 684-2000
DC RFL Industries Inc, 1629 K St NW Washington 223-1759
Fla Naeco Assoc Inc, Box 20023 St Petersburg 527-3149
Ga Naeco Assoc Inc, 1925 N Lynn St Arlington, Va 524-4551
Haw Hawaiian Lighting & Supply Corp, 726 Kohou St Honolulu 870-641
Ill W L Cunningham & Assoc, 435 Addison Ave Elmhurst 832-0905
Ky Utility & Industrial Prods Inc, 3925 N College Ave Indianapolis 317 924-3607
NM Stepco, Box 9836, El Paso, Tex 772-5274
Ore Tarbell Communications, 1100 SW 6th Ave Portland 228-4111
Pa E Stoker, 2888 Highbridge Dr Baldwin Township 412 343-6616
Tex Kemco Inc, Box 998, Irving 253-6740
Utah Cannon Engrg & Sales Co, 2250 E 17th S Salt Lake City 485-9253
Can Uni-Tel Ltd, 100 Barbados Blvd Scarborough, Ont 261-7265
For Badrena & Perez, Inc, Box 1839 Hato Rey, P R 767-2455
Fr Compagnie Europeenne de Tele Transmission Rue-Jean-Jaures, 78 Les Clayes-Sous-Bois
Belg Sait Electronics, 66 Chaussee De Ruisbroek Bruxelles 19
Spn Rema Leo Haag S A, c/General Sanjurjo 18 Madrid 3

R F L INDUSTRIES INC COMPONENTS DIV, UNION ST
BRANDON, VT, 05733 802-247-6811
E BASSET, EMP 350, ENG 35, $2,500-$5,000M
NY R/C Electronics, 310 Northern Blvd Great Neck 516-487-9311

RFL INDUSTRIES INC, INSTRUMENTATION DIV
POWERVILLE RD, BOONTON
N J, 07005, TWX 710-987-8352 .... 201 334-3100
J JANICKE, EMP 350, ENG 35, $2,500-$5,000M
Ala Space Engrg Sales Inc, 4306 Governors Dr SW Huntsville 837-6060
Ariz Hytronic Measurements, Inc, 1017 N 3rd St Phoenix 253-6104
Cal IFM-South, 3455 Cahuenga Blvd Hollywood 469-1641
Cal IFM-North, 2269 E Middlefield Rd Mountain View 961-2828
Colo Hytronic Measurements, Inc, 4940 E 39th Ave Denver 388-4081
DC RFL Industries, Inc, 1629 K St NW Washington 223-1759
Fla Space Engrg Sales Inc, 999 Woodcock Rd Orlando 841-2271
Ill Marsland Assoc, 6699 N Lincoln Ave Chicago 676-1100
Ind Marsland Assoc, 3734 Carrollton Ave Indianapolis 317 924-3568
Mass Cowperthwait & Brodhead, 570 Hillside Ave Needham Hgts 444-9410
Mich Carter McCormic & Peirce Inc 16239 Wyoming Ave, Detroit 313 863-4600
Minn Marsland Assoc, 231 N Edgewood Ave Minneapolis 545-4481
Mo Marsland Assoc, Box 567, Florissant 831-0015
NM Hytronic Measurements, Inc, 205 San Pablo S E Albuquerque 268-3941
NY L-Tron Corp, Box 114, Latham 785-5032
NY L-Tron Corp, 140 Keller St Rochester 716 482-2076
NY L-Tron Corp, Box 147, Skaneateles 685-6172
NC Space Engrg Sales Inc, 2509 Lake Shore Dr Greensboro 919 299-0987
Ohio Carter McCormic & Peirce Inc, 3691 Lee Rd Cleveland 206 921-1360
Ohio Carter McCormic & Peirce Inc, 3406 N Main St Dayton 513 278-5873
Tex Scientific Sales Co, 777 S Central Expwy Richardson 231-1407
Tex Scientific Sales Co, 2337 Bissonet St Houston 528-6904
Utah Hytronic Measurements, Inc, 2022 S Main St Salt Lake City 466-4924
Wash Dewar & Assoc, 6361 First Ave S Seattle 763-2233
Can Instronics Techno-Prods Ltd, 171 Neil St Stittsville, Ont 613 836-4411
For Equipamentos de Lab Lda, Rua Pedro Nunes 47 Lisbon 1
For Teknik Ticaret ve sanayi A S Karakoy Bankalar Caddesi 71-73, Istanbul 143
Fr Ets Radiophon, 148 Ave Malakoff, Paris 16e
Fr Radiophon Corp, 509 Madison Ave New York 355-5198
Ger Beekman Labs, 30 E 42nd St New York 861-5841
GB Wessex Elctns Ltd, Baldwin St, Bristol 1
Holl Groenveld, Van Der Poll & Co's, Box 1188 Amsterdam
Ital Dott Ing M Vianello, Via L Anelli, 13, Milano
Jap Shoshin Shoji Kaisha, Ltd, Box Nihonbashi 173 Tokyo
Nor Nucleotron A/S, Mollergaten 16, Oslo
Swed Teleinstrument A B, Box 14, Stockholm-Vallingby
Swit Nucletron A G, 30 Spitalgasse, CH 3000 Bern
Belg Multitechnic S A, 30 Pl Saincte Lette, Bruxelles 1
Braz Comercial Cachel Ltd, Rua Vigario Jose Inacio 371 Porto Alegre
Gr T Houdzoumis, 15 Voulis St, Athens 126
Ind Scientific Instr Co Ld, 6 Tej Bahadur Sapru Rd Allahabad
Isrl Cidev Co Ltd, 47 Rothchild Blvd, Tel Aviv
Neth Groeneveld Van Der Poll & Cos, Box 1188 Amsterdam
Spn Ataio Ingenieros, Enrique Larreta No 12, Madrid 16
Fin Into O/Y, 11 Meritullinkatu, Helsinki 10
Aust Sample Electronics Pty Ltd, 9-11 Cremorne St Richmond E I Vic

RFL INDUSTRIES INC, THERMOCONTROL DIV
POWERVILLE RD, BOONTON
N J, 07005, TWX 710-987-8352 .... 201 334-3100
A BOICE, EMP 350, ENG 25, $2,500-$5,000M
Ariz Hytronic Measurements, Inc, 1017 N 3rd St Phoenix 253-6104
Cal Dorr Wagner & Assoc, Box 485 Altadena 681-4060
Cal John E Striker Co, 1319 Howard Ave Burlingame 342-1425
Colo Hytronic Measurements, Inc, 4940 E 39th Ave Denver 398-4081
DC RFL Industries, Inc, 1629 K St NW Washington 223-1759
Fla Beacon Electronics, Box 1278 Maitland 305 647-3498

Ill Branum Sales Co, Box 516
Lake Zurich 312 438-2356
Mass Cowperthwait & Brodhead, 570 Hillside Ave
Needham Hgts 444-9410
Mich Electro Sales Assoc, 15324 Mack Ave
Detroit 886-2280
Mo Alfred F Gliedt Assoc, 10869 Spring Garden Dr
St Louis 314 868-7445
NM Hytronic Measurements, Inc, 205 San Pablo SE
Albuquerque 268-3941
NY L-Tron Corp, Box 114, Latham 785-5032
NY L-Tron Corp, 140 Keller St
Rochester 716 482-2076
NY L-Tron Corp, Box 147, Skaneateles 685-6172
Ohio McShane, 3633 Trails End Dr
Medina 216 725-4283
Ohio McShane, 1248 Gresham Rd
Columbus 614 274-8649
Pa MCW Inc, 709 W Atlantic Ave
Philadelphia .... 215 BA 8-7459
Tex Southwest Elctn Ind Inc, 1405 S Post Oak
Houston 713 621-3760
Tex Southwest Elctn Ind Inc, 621 Meadows Bldg
Dallas .... 214 EM 3-1671
Utah Hytronic Measurements, Inc, 2022 S Main St
Salt Lake City 466-4924
Wash Dewar & Assoc, 6361 First Ave S
Seattle 763-2233
Can Instronics Techno-Prods Ltd, 171 Neil St
Stittsville, Ont 836-4411
For Comercial Cachel Ld, Rua Vigario Jose Inacio 371
Caixa Postal 1207 Porto Alegre
For Equipamentos de Lab Lda, Rua Pedro Nunes 47
Lisbon 1
For Mevag Teknik Ticaret ve sanayi A S
Karakoy Bankalar Caddesi 71-73 Box 143, Istanbul
Fr Radiophon Corp, 509 Madison Ave
New York, N Y 355-5198
Ger Beekman Labs, 30 E 42nd St
New York, N Y 861-5841
GB Wessex Electronics Ltd, Baldwin St, Bristol 1
Holl Groeneveld, Van Der Poll & Co's, Box 1188
Amsterdam
Ital Dott Ing M Vianello, Via L Anelli, 13
I 20122 Milano
Jap Shoshin Shoji Kaisha, Ltd, Box Nihonbashi 173
Tokyo
Nor Nucleotron A/S, Mollergaten 16, Oslo
Swed Teleinstrument A B, Box 14, Stockholm-Vallingby
Swit Nucletron A G, 30 Spitalgasse, CH 3000 Bern
Belg Multitechnic S A, 30 Pl Sainctelette, Bruxelles 1
Gr T Houdzoumis, 15 Voulis St, Athens 126
Ind Scientific Ins Co Ltd, 6 Tej Bahadur Sapru Rd
Allahabad 1
Isrl Cidiv Co Ltd, 47 Rothchild Blvd Box 2024, Tel Aviv
NZ Sample Electronics Pty Ltd, 8 Matipo St
Onehunga SE 5 Auckland
Fin Into O/Y, Box 153 11 Meritullinkatu, Helsinki 10
Aust Sample Electronics Pty Ltd, 9-11 Cremorne St
Richmond E I Vic

R F S ENGINEERING CO, 2ND & WESTMORELAND STS
PHILADELPHIA, PA, 19140 .... 215 425-7910
D BIBERMAN, EMP 27, ENG 6, $100-$250M
Cal Techni-Sales Co, 3820 E Colorado Ave
Pasadena 792-3949
Colo Kelley Enterprises, 336 E 4th St
Loveland 667-1376
NY Roche International, 13 E 40th St
New York 689-0200
NY Donegan-Ross Co, 120 W John St
Hicksville .... GE 3-1940
NY Donegan-Ross Co, Box 124, Chappaqua .. 238-8619
NY RJC Assoc, 219 Oakridge Ter, Liverpool .. 457-3220
Can Philips Electronic Equip, 116 Vanderhoof Ave
Toronto 17, Ont 425-5161
GB Component Test Services Ltd, 83 Hobs Moat Rd
Solihull, Warwickshire
Jap Nissho Co Ltd, 2, 1-Chome, Otemachi, Chiyoda-Ku
Tokyo

R F SYSTEMS INC, 155 KING ST, COHASSET
MASS, 02025 .... 617 383-1200
D VINING, EMP 55, ENG 5, $500-$1,000M

RG CIRCUITS CO, 114 SIERRA ST, EL SEGUNDO
CAL, 90245 .... 213 322-7060
R GRIMSINGER, EMP 12, ENG 1, $100-$250M

R H G ELECTRONICS LAB INC, 94 MILBAR BLVD, FARMINGDALE
N Y, 11735 .... 516 694-3100
R HIRSCH, EMP 40, ENG 8, $1,000-$2,500M
ADV PG 563
Ala Theall Corp, Box 3122, Huntsville 852-1525
Cal Cain & Co Inc, 15720 Ventura Blvd
Encino 783-4700
Cal Cain & Co Inc, 175 S San Antonio
Los Altos 948-6533
Cal Cain & Co, Inc, 3595 Mt Acadia Blvd
San Diego 278-1031
Fla Theall Corp, Box 922, Maitland 647-4469
Ill Cain & Co, Inc, 1203 Ironwood Dr
Mt Prospect 253-3578
Mass Cain & Co Inc, 45 Essex St, Melrose 665-8600
NJ Cain & Co, Inc, Box 261, South Amboy 727-1900
NM ALS Electronics, Box 11626
Albuquerque 298-2575
NY KLM Assoc, 8 Bear Hill Dr, Palmyra .... LY 7-9776
NY Cain & Co, Inc, 324 First St 5,
Liverpool 437-2933
NY Cain & Co Inc, 253-16 Northern Blvd
Little Neck 428-3636
Ohio Cain & Co, Inc, 2485 Lipton Rd
Columbus 861-2119
Pa Cain & Co, Inc, One Bala Ave
Bala-Cynwyd 664-3797
Tex Cain & Co, Inc, 8609 NW Plaza Dr
Dallas 369-2897
Wash Paratech, Box 5427, Seattle 784-6447
Can Radionics, Ltd, 8230 Mayrand St
Montreal, Que .... RE 9-5517
Can Radionics, Ltd, 376 Churchill Ave
Ottawa, Ont 728-5533
Can Radionics Ltd, 4938 Yonge St
Willowdale, Ont 416 222-3261
Fr Ets Tranchant, 19 & 21 Rue Mme de Sanzillon
Clichy, Seine
Ger Wacker GmbH, Stettenstr 9, 6 Frankfurt Am Main
GB Walmore Electronics Ltd, 11-15 Betterton St
Drury La, London WC2
Ital Motordiesel, Casella Postale No 116 via Minzoni
La Spezia
Jap Rikei Trading Co Ltd, No 18-14 Nishi-Shimashe
Minato-Ku, Tokyo
Swed Standard Precision Inst, Box 12173, Stockholm
Spn Hispano Electronica, SA, Comandante Zorita, no 8
Madrid 20

RHODE ISLAND INSULATED WIRE CO
50 BURNHAM AVE, CRANSTON
R I, 02910 .... 401 WI 2-6500
G DUBOIS

RHODES INC, M H, 30 BARTHOLOMEW AVE
HARTFORD, CONN, 06101 .... 203 522-4265
S LIEBER, EMP 200, ENG 10, $2,500-$5,000M
Ariz J Good, 5612 N 19th Pl, Phoenix 602 279-6729
Cal R Renz, 225 W 23rd St
Los Angeles 213 747-3545
Cal Ewing-Foley Inc, 900 N San Antonio Rd
Los Altos 415 941-4525
Colo E & M Sales Inc, 2660 Walnut St
Denver 303 244-4291
Conn F G Kosowicz, 2 Madsen Rd
W Hartford 203 233-7883
Fla E H Rhodes, Summerland Key
Ga F Z Doak, 320 Lakemoore Dr, NE
Atlanta 404 255-3165
Haw B F Schoen Inc, 660 Ala Moana Blvd
Honolulu 808 587-121
Ill Spartan Engrg Co, 4654 Oakton St
Skokie 647-2950
Iowa F R Johnston Co, 853 42nd St
Des Moines 515 255-5865
Kan W Zimmerman, Box 8121, Wichita 316 683-3161
La R G Titherington, 601 S Peters St
New Orleans 504 522-6287
Mich J W Eakins Co, 13040 Capital Ave
Oak Park 313 566-1461
Minn Nelson & Son Inc, 4005 W 65th St
Mnpls 612 920-3414
Mo N C Lamb & Co Inc, 122A W Lockwood Ave
Webster Groves 314 962-6663
Mo Richard D Mercer, 1810 Walker St
Kansas City 913 621-5405
NM Electric Locator & Sales Co, Box 425
Albuquerque 505 842-8195
NY Closter Bros, 381 Sunrise Hwy
Lynbrook 212 679-0530
NY R P Smith Co Inc, 6443 Ridings Rd
Syracuse 315 463-6641
NY R P Smith Co Inc, 1510 Central Ave
Albany 518 869-8515
NC C C Niedringhaus, Box 424 Rt 1
Matthews 704 847-9288
Ohio Jubell Assoc, 23760 Miles Rd
Cleveland 216 662-2884
Ohio Phister Equip Co Inc, Federal Reserve Bank Bldg
Cincinnati 513 421-3850
Ore J R Penning, 1132 NW Glisan St
Portland 503 227-7115
Pa Wm Ward, 409 Dartmouth Ave
Swarthmore 215 544-6086
Pa H E Ransford Co, 5400 Clairton Blvd
Pittsburgh 412 884-3425
Tenn Alfco Sales Agency, 153 Kenner Ave
Nashville 615 291-7040
Tex J Y Schoonmaker Co Inc, 2995 Ladybird La
Dallas 214 357-8481
Va C C Laney Agency, 8424 Midlothian Pike
Richmond 703 272-2480
Can M H Rhodes Can Ltd, 10 Kimway Crescent
Ottawa, Ont 613 224-1180
For Salles & Co, Box 2853, San Juan P R 783-5604

RHO ENGINEERING CO, 2234 COLBY AVE
LOS ANGELES, CAL, 90064 .... 213 BR 2-1163
B BECKER, EMP 50, ENG 4, $500-$1,000M

RICAGNI SRL, VIA MECENATE 71, MILANO
ITALY 504002-3-8
F POLIMENE, EMP 465, ENG 31, $2,500-$5,000M
Fr Videon S A, 95 rue d'Aguesseau
Boulogne s/Seine 8255595
Holl Ormatu Electric, Singel 398
Amsterdam C. 235971
Spn E Ros, Passeo de Gracia, 69, Barcelona 2151720
Fin Oy Hermas AB, Arkadiankatu 18 A
Helsinki 10 495314

RICHARDS METAL PRODUCTS INC
17 SWISS LA BOX 6290, WOLCOTT
CONN, 06716 .... 203 879-2555
L RICHARDS, EMP 25, ENG 3, $500-$1,000M

RICHARDSON COMPANY, 2767 LAKE ST
MELROSE PARK, ILL, 60160 .... 312 MA 6-8900
A WOLFINGER, EMP 3800, ENG 20, OVER $10,000M
Ariz Special Products Inc, 2772 S Mill Ave
Tempe 946-7131
Cal Special Products Inc, 15133 S Broadway
Gardena 321-9910
Cal Special Products Inc, 808 San Antonio Rd
Palo Alto 321-8298
Fla Commercial Plastics & Supply Corp, 2331 Laura St
Jacksonville .... EL 6-4286
Fla Commercial Plastics & Supply Corp
4096 S Orange Ave, Orlando 424-8571
Fla Commercial Plastics & Supply Corp
3801 NW Second Ave, Miami .... PL 7-2477
Ill Richardson Co, 2767 Lake St
Melrose Park .... MA 6-8900
Ill Richardson Co, 1267 S 7th St, De Kalb 758-8181
Ill Richardson Co, 381 N York Rd
Elmhurst 626-8900
Ind Richardson Co, Box 582, Indianapolis 638-2341
Mass Richardson Co, 594 Marrett Rd
Lexington 862-6954
Mich Arthur R Morrow Co, 24001 Southfield Rd
Southfield 358-3630
Mich Charles Yost Co, 1500 Kendale Blvd
East Lansing 351-6870
Minn Richardson Co, 3307 N Highway 100
Minneapolis 533-6870
Mo O'Brien & Reynolds Inc, 155 Hanley Ind Ct
St Louis .... MI 5-3665
Mo Plastics Sales & Mfg Co Inc
3030 McGee Trafficway, Kansas City .. LO 1-3480
NJ Richardson Co, 409 Joyce Kilmer Ave
New Brunswick .... KI 5-4850
NY Richardson Co, 3700 East Ave
Rochester .... LU 6-6887
Ohio Richardson Co, 3300 S Dixie Ave
Dayton 293-3482
Ohio Richardson Co, 26915 Westwood Rd
Cleveland 871-8822
Pa Richardson Co, 113 N Olive St, Media... LO 6-9660
Tex John W Reynolds Co, 335 W Center St
Duncanville .... AX 8-2354
Tex L-K Pump Valve Co, 6952 Lawndale Ave
Houston .... WA 6-2623
Wash Bill Waddell Co, 10211 NE 31st Pl
Bellevue .... VA 2-9629
Wis Richardson Co, 5501 W North Ave
Milwaukee .... HI 4-7711
Can Commercial Plastics & Supply Corp
5655 Western Ave, Montreal .... HU 9-9738
Can Commercial Plastics & Supply Corp
300 Bridgeland Ave, Toronto 787-4215

RICHCO PLASTIC CO, 5825 N TRIPP AVE, CHICAGO
ILL, 60646 .... 312 539-4060
C RICHARDSON, EMP 90, ENG 7
Cal Dewco Sales, 6919 San Fernando Rd
Glendale .... VI 9-6101
Fla W H Hemminger Co Inc, Box 676
Winter Park 644-7472
Ind Stoltenberg Sales, 2919 Andre La
Ft Wayne 745-4453
Mass J D Decker Co, 40 Berkley St
Waltham .... TW 3-2682
Mich Jack Walsh Co, 614 East Dr, Marshall 781-2322
Minn E Melius & Assoc, 2635 University
St Paul .... MI 6-7991
Mo H A Roes & Co, 2601 Cherry, Kansas City
NY Perry Saftler & Assoc, 157 W 57th St
NY .... CI 7-3855
Ohio G L Herrick Co, 845 Canterbury Rd
Westlake .... ED 1-9144
Pa W H Cordray Sales Co, 1 Radnor Sta
Radnor 687-1366
Tenn Perfection Sales Co, 6115 Robertson Rd
Nashville 291-2251
Tex Packard Assoc, 2655 Perth St, Dallas
Can Lake Engineering, 123 Manville Rd
Scarborough, Ont 751-5980

RICH ELECTRONICS INC, 1400 NW 17TH AVE, MIAMI
FLA, 33125 .... 305 635-1351
R RICH, EMP 15, ENG 3, $250-$500M
Fla Rich Electronics Inc, 207 S Hoover Blvd
Tampa 877-5905

RICHFIELD COINED PRODUCTS CO, 722 BROAD ST, CLIFTON
N J, 07015 .... 201 473-4381
B KASSA, EMP 75, $1,000-$2,500M
ADV PG 392

RIEDON AVIONICS, INC, 7932 HASKELL AVE
VAN NUYS, CAL, 91406 .... 213 873-3464
P ROBINSON, EMP 103, ENG 5, $500-$1,000M
Ala Coleman Industries, 4306 Governors Dr W
Huntsville 837-3560
Cal Engineering Liaison Assoc, 3360 Barham Blvd
Hollywood .... HO 9-2283
Cal Mauldin Co, 441 California Ave
Palo Alto .... DA 6-5291
Cal Technical World Inc, Box 2010
Sunnyvale 245-1584
Conn John E Boeing Co Inc, 225 Montewese St
Branford 203 488-8301
Ill Engineered Sales Co Inc, 4738 N Harlem Ave
Chicago .... UN 7-8434
Ind Midwest Engrg & Sales Co, 4091 Millersville Rd
Indianapolis 547-5297
Mass John E Boeing Co Inc, Box 5
Lexington 617 862-2500
NJ I Brill, 326 Hillside Ave, Nutley .... NO 7-0653

NY Midwest Research Sales Inc, 327 Wellesley Rd
Syracuse ... GR 8-8314
NY E Nachman Assoc, 37 Park Cir
White Plains ... 946-2477
Tex Bauer Co, 1017 Norwood St, Ft Worth ... ED 6-4884
Can J Herring & Co Ltd, 3468 Dundas St W
Toronto ... 762-7545

RIESTER & THESMACHER CO, 1526 W 25TH ST RD
CLEVELAND, OHIO, 44113 ... 216 CH 1-0154
C BURT, EMP 125, $1,000-$2,500M

RIKER VIDEO DIV, 100 PARKWAY DR S, HAUPPAUGE
N Y, 11787 ... 516 543-5200
K CHAPMAN, EMP 180, ENG 16, $2,500-$5,000M
Cal J C Morrison, 735 Esplanade
Redondo Beach ... 373-3456
Colo H Didier, 451 E 58 St, Denver ... 303 534-3995
DC R Simms, 1336 Missouri Ave NW
Washington ... 202 291-5923
Mich H M Dyer, 2982 Wixam Rd
Milford ... 313 685-2696

RIL ELECTRONICS INC, STREET RD & 2ND ST PIKE
SOUTHAMPTON, PA, 18966 ... 215 EL 5-1361
D SHYLAN, EMP 21, ENG 5, $250-$500M

RILS INDUSTRIES INC, BOX 77, AUDUBON
PA, 19407 ... 215 666-7127
S MURPHY, EMP 9, ENG 4, $100-$250M
Mass R F Duffy Assoc, 49 Century Rd
So Weymouth ... 617 335-7724
Mich H Dickelman Co, 18450 Livernois Ave
Detroit ... 864-4376
NJ Murray Co, 25 W Northfield Rd
Livingston ... 962-0520
NY M C Matthews Co, Box 612, Rochester ... 271-2143
Pa Murray Co, Box 253 Newtown
Bucks County ... 968-2497

RING, INC, BERNARD, 239 PARK AVE S, NEW YORK
N Y, 10003 ... 212 477-0055
B RING, EMP 4, $100-$250M
Ala Nees Co, 2519 Toll Gate Rd, Huntsville ... 539-4577
Cal Joseph M Himot Co, 5253 Buffalo Ave
Van Nuys ... 872-1136
Ind Professional Assoc, 4553 Dickson Rd
Indianapolis ... 546-0234
Mass Douglas Sales Co, 11 High St, Woburn ... 935-2061
Minn Edward J Doyle Co, 4815 W 77th St
Minneapolis ... 922-1592
NY Tower Sales Co, 550 Fifth Ave
New York ... 757-6454
Okla Indrepco Inc, Box 1013, Tulsa ... 742-8279
Tex Electro-Dynamics Co, Box 9892
El Paso ... 772-5275

RIPLEY CO INC, 1 FACTORY ST, MIDDLETOWN
CONN, 06457 ... 203 346-6677
R CLARK, EMP 130, ENG 12, $1,000-$2,500M
Ariz Carl Hower & Co, 431 N Winfield Scott Pl
Scottsdale ... 947-4204
Cal A W Nash Co, 8560 Roland St
Buena Park ... 521-6192
Fla Geartner Assoc, 350 Lincoln Rd
Miami Beach ... 305 531-0200
Ill Technical Devices, Inc, 6416 N Central Ave
Chicago ... 738-2394
Mass M Scott Co, 336 Washington St
Wellesley Hills ... 235-0102
Mich Hilltronics, 13720 Puritan Ave, Detroit ... 342-3242
NJ A & C Assoc, Box 585
Willingboro ... 609 877-5616
NY Application Specialists Inc, 4548 Main St
Buffalo ... 716 839-2243
NY Application Specialists Inc, 3700 East Ave
Rochester ... 716 586-6226
Ohio Scott Elctns Inc, 1836 Euclid Ave
Cleveland ... 216 861-2626
Pa A & C Assoc, Box 67, Gladwyne ... 215 642-9220
Tex W Pat Fralia Co, Box 12625
Fort Worth ... 738-2394
Can John Herring & Co Ltd, 3468 Dundas St W
Toronto, Ont ... 416 762-7545
For Rocke Intl Co, 13 E 40th St
New York, NY ... 689-0200

RISK INDUSTRIES INC, GEORGE, 672 15TH AVE
COLUMBUS, NEB, 68601 ... 402 564-2777
D RISK, EMP 60, ENG 6
Cal Woodworth Co, Box 2165
Redwood City ... 365-0252
Cal Carl E Holmes Co, 107 N Ave 64
Los Angeles ... 256-2255
Colo Hyer Electronics Co, 7895 E Prentice Ave
Englewood ... 771-5285
Fla Perrott Assoc Inc, 1607 Forsyth Rd
Orlando ... 275-1132
Ga Grady Duckett Sales, Box 29067
Atlanta ... 451-3529
Kan Thomas & Modrcin Assoc Inc, 5450 Buena Vista Dr
Shawnee Mission ... 432-2131
Mass George E Morton Co, 161 Summer St
Scituate ... 545-0155
Mich Shalco, Inc, 23529 Woodward Ave
Ferndale ... 547-4771
Minn M G Franklin Co, 730 E 38th St, Mnpls ... 827-5348
NY M P Andrews Inc, Fayetteville ... NE 7-3144
NY A & M Assoc Ltd, 1119 Grant Ave
Bronx ... 538-2930

Ohio Del Steffin & Assoc, 21877 Euclid Ave
Cleveland ... 261-5055
Pa Gene S Root Co, 809 Wainwright Dr
Pittsburgh ... 561-4125
Tex Ruby Sales, Box 35361, Houston ... 666-5343
Wash Ray Oner Sales, Box 593, Bellevue ... GL 4-4551
Can Charles W Pointon Ltd, 66 Racine Ave
Rexdale, Ont ... CH 7-8777
For Madison Overseas Inc, 433 Liberty St
Schenectady, N Y ... 372-5841

RIVERBANK LABS, DEPT OF ENGRG, BOX 65, GENEVA
ILL, 60134 ... 312 232-2207
B EISENHOUR, EMP 24, ENG 3, $250-$500M

RIXON ELECTRONICS INC, 2120 INDUSTRIAL PKWY
SILVER SPRING
MD, 20904, TWX 301-622-2292 ... 301 622-2121
C KRAKAUER, EMP 325, ENG 21, $2,500-$5,000M
Cal Costello & Co, 8737 Venice Blvd
Culver City ... 213 870-5951
Cal Costello & Co, 575 Middlefield Rd
Palo Alto ... 321-3745
Mass ITM Assoc, Box 385, Sudbury ... 443-8414
Tex Costello & Co, 5635 Yale Blvd, Dallas ... 363-9031
Can R-O-R Assoc Ltd, 1470 Don Mills Rd
Don Mills, Ont ... HI 4-4429

RLC ELECTRONICS INC, 25 MARTIN PL
PORT CHESTER, N Y, 10573 ... 914 WE 74770
B WEISMAN, EMP 40, ENG 7, $500-$1,000M
Cal Carson Electronic Prods, Box 1216
Redwood City ... 415 365-4620
Cal Smith & Assoc, Central Tower
Orange ... 714 541-2629
Fla Gra-Mar, Inc, 3113 Lowton Rd, Orlando ... 841-2330
Ill Communications Engineers, 7106 N Western Ave
Chicago ... 312 RO 1-0548
Mass Zieco Inc, 18 Muzzey St, Lexington ... 617 861-8300
NJ Schibley Assoc, 1 Fellowship Rd
Cherry Hill ... 609 424-1894
Va Schibley Assoc, Inc, 10604 Warwick Ave
Fairfax ... 591-3008
GB Microwave Systems, Ltd
Caltronic Hse - Hunting Gate
Hitchin Herts ... 4554-5

RMS ELECTRONICS INC, 50 ANTIN PL, BRONX
N Y, 10462 ... 212 TY 2-6700
A FINK, $1,000-$2,500M

RMS ENGINEERING INC, 486 14TH ST NW, ATLANTA
GA, 30318 ... 404 873-5257
W WRIGHT, EMP 30, ENG 3
Ala Gentry Assoc, 2109 West Clinton Ave
Huntsville ... 205 534-9741
Cal Didion Assoc, 4901 Heil Ave
Huntington Beach ... 842-5814
Colo Kelley Enterprises, 336 E Fourth St
Loveland ... 667-1376
Fla Gentry Assoc, 550 N Bumby Ave
Orlando ... 305 841-7740
Kan Simpson Enterprises, Box 18066, Wichita
Md G L Brown Assoc, 5801 Annapolis Rd
Bladensburg ... 779-1500
Mo W White, Box 3873, Kirkwood
NJ Bonn Assoc, Inc, 266 Lake Ave
Metuchen ... 549-9573
NY Bonn Assoc, 9 Ridge Dr
Huntington Station ... 516 427-4328
Pa Bonn Assoc, 7217 Rising Sun Ave
Philadelphia ... 215 RA 5-2210
Wash Rush S Drake Assoc, 6133 Maynard Ave S, Seattle

RMS MOTOR CORP, 24 CHARLOTTE ST, BINGHAMTON
N Y, 13905 ... 607 797-8005
S FOLDES, EMP 20, ENG 3, $100-$250M
Conn Fabbri, Casadei & Assoc, Box 536, Litchfield
Ill Decker Sales & Ser Co, 133 Sioux Ave
Carpentersville ... 428-3161
Mass T Crawford & Son, Box 264, Norwood ... 762-6878
NY Tech-Mark Inc, Professional Bldg
Endicott ... 748-7473
Ohio Technical Assoc Inc, Box 388, Fairborn ... 878-2484
Ohio Technical Assoc Inc, 19500 Center Ridge Rd
Rocky River ... 333-0035
Pa H C Johnson Agencies, 8 Los Robles St
Williamsville ... NF 2-7880
Pa Electrol Assoc, 209 Butler St, York ... 843-0242

ROANWELL CORP, 180 VARICK ST, NEW YORK
N Y, 10014, TWX 212-640-4791 ... 212 989-1090
H CLARK, EMP 450, ENG 50, $5,000-$10,000M
Ariz Jewett Co, 32-B E 1st St, Scottsdale ... WH 5-9711
Cal Jewett Co, 13111 Ventura Blvd
N Hollywood ... 789-8103
Colo AR/TEC Inc, Box 727, Scottsdale, Ariz ... 947-6304
Fla Hi-Co Assoc, Box 1317, Winter Park ... 647-5030
Ill Balhorn & Welch, Inc, 1925 N Harlem Ave
Chicago ... 889-5011
Iowa Balhorn & Welch Inc, 1849 C Ave NE
Cedar Rapids ... 309 363-9970
NY Regulus Industrial Sales Corp, 7 High St
Huntington ... 271-7966
Pa Hileco, Box 102, Devon ... MU 8-9007
Tex Howell Sales, 235 SE 14th St
Grand Prairie ... AN 2-5153
Va M E Whitney Assoc, 1400 N Uhle St
Arlington ... 703 524-5642
Can Eric Sullivan Assoc, 53 Queen St
Ottawa 4, Ont ... 613 237-1098

Ger Heinz Cunz, Niedenau 62
Frankfurt, Au Main ... 722839
Aust Electronics Prods Australia, Ltd
Box 85, Mt Waverly, Melbourne, Vic ... 232-7120

RO ASSOCIATES INC, 3705 HAVEN AVE, MENLO PARK
CAL, 94025, TWX 910 378 5929 ... 415 322-5321
R OKADA, EMP 25, ENG 5, $250-$500M
Cal Cairns Engrg Sales Co, 6151 W Century Blvd
Los Angeles ... 670-1700
Cal Artwel Electric Inc, 1485 Bayshore Blvd
San Francisco ... 467-1880
Conn Hobart Assoc, 53 Longview Ave
Danbury ... 744-7544
Ill Lightner Assoc, 6322 N Milwaukee Ave
Chicago ... 774-1500
Mass Hobart Assoc, 750 Main St, Winchester ... 729-8884
Mo Ozark Elctn Mktg Inc, 2573 Woodson Rd
St Louis ... 423-7200
NJ Engineered Prods Inc, 28 Essex St, Lodi ... 845-6668
Ohio Compar Ohio, Box 388, 408 W Main
Fairborn ... 878-2631
Pa Emlen-Peterson Co, 237 Lancaster Ave
Devon ... 687-3535
Tex Compar Southwest, 8609 NW Plaza Blvd
Dallas ... 363-1526
Tex Compar Southwest, 5757 Bellaire Blvd
Houston ... 667-3420
Va Gans-Fryling Inc, 2030 16th St N
Arlington ... 527-3262
Wash Al Smith Co, 405 166 SE St, Bellevue ... 746-6770
Can McGregor B H, Box 156 Sta H
Toronto Ont ... 699-5521

ROBACK CORP, BUCK RD, HUNTINGDON VALLEY
PA, 19006 ... 215 OR 6-4000
H RUSSELL, EMP 100, ENG 15, $1,000-$2,500M
Ala Beacon Electronic Assoc, 3901 Mastin Lake Rd
Huntsville ... 536-5065
Ariz Instruments For Measurements, Phoenix ... EN-1252
Cal Instruments For Measurements
3455 Cahuenga Blvd, Hollywood ... HO 9-7294
Colo R G Bowen Co Inc, 721 S Broadway
Denver ... RA 2-4641
Fla Beacon Electronic Assoc, 540 S Maitland Ave
Maitland ... MI 7-3498
Ga Beacon Electronic Assoc, Box 29201
Atlanta ... 636-7526
Kan Simpson Enterprises, Box 18066
Wichita ... 943-0502
Md Aeron Assoc, 880 Bonifant St
Silver Spring ... 301 588-4047
Minn Heimann Co Inc, 5603 Lyndale Ave S
Mnpls ... 827-5457
Mo Simpson Enterprises, Box 3873
Kirkwood ... 965-1115
NM C T Carlberg & Assoc, 2611 Quincy St NE
Albuquerque ... 265-1979
NY Donegan-Ross Co, 120 W John St
Hicksville ... 516 GE 3-1940
NY Robert F Lamb Co, 1865 Kenmore Ave
Buffalo ... 716 874-4900
NC Beacon Electronic Assoc, Box 17584
Charlotte ... 366-9761
Tex Southwest Engineering Sales, 5852 Boca Raton Dr
Dallas ... EM 3-4619
Utah R G Bowen Co Inc, 31 S 3rd E
Salt Lake City ... 364-4632
For Rocke International Corp, 13 E 40th St
New York, NY ... MU 9-0200

ROBAND ELECTRONICS LTD, LOWFIELD CHARLWOOD
SURREY, ENGLAND ... CRA 20172
L HAMMOND, EMP 270, ENG 17
Holl C N Rood nv, Box 4542, Rijswijk ... 98-51-53
SAfr Ash Brothers (pty) Ltd, 40 Webber St, Selby
Johannesburg ... 834-3751
Swed Scantele AB, Tengdahlsgatan 24, ... 24-58-25
Swit Silectra, G Glatz & Co, Seebahnstr 109
Zurich 36 ... 33-03-38

ROBBINS & MYERS INC, 1347 LAGONDA AVE
SPRINGFIELD, OHIO, 45501 ... 513 323-6461
R ARLT, EMP 2500, OVER $10,000M
Cal Electric Motor Assoc, 20 Willow Rd 8
Menlo Park ... 415 323-2200
Colo Robbins & Myers, Inc, 7020 W 44th Ave
Wheat Ridge ... 303 421-0500
Conn Robbins & Myers, Inc, Box 361
East Hartford ... 203 289-6327
Fla R McGinn, 4019 Woodcock Dr
Jacksonville ... 305 359-7079
Ill Robbins & Myers, Inc, 5517 W Montrose Ave
Chicago ... 312 777-8970
Kan B-C Control Co, 9 Elmwood St
Kansas City ... 913 562-0404
La O E Barron, 810 Perdido St
New Orleans ... 504 522-3101
Minn T C Tsatsos, 6500 Olson Memorial Hwy
Minneapolis ... 612 544-4070
Mo Robbins & Myers Inc, 10259 St Charles Rock Rd
St Ann ... 314 423-1250
NJ Robbins & Myers, Inc, 227 Grand Ave
Palisades Park ... 201 947-4200
NY Robbins & Myers Inc, 39 Saginaw Dr
Rochester ... 716 442-1557
Ohio Robbins & Myers, Inc, 814 E 185th St
Cleveland ... 216 481-5430
Okla G R Haley Co, 5138 S Peoria
Tulsa ... 918 743-2525
Pa Robbins & Myers Inc, 3509A W Chester Pike
Newtown Square ... 215 356-4224
Tenn Jones & Sweany, Inc, 5119 Summer Ave
Memphis ... 901 682-6655

Tex G R Haley Co, 2514 Irving Blvd
Dallas 214 631-8430
Tex G R Haley Co, 1107 Rosine St
Houston 713 526-3975
Can R & M Co of Canada, Ltd
Brantford, Ont 752-5447

ROBERTS & ASSOCIATES INC, E V
9601 W JEFFERSON BLVD, CULVER CITY
CAL, 90230, TWX 910-340-6363 .... 213 870-9561
P VAN AMBURGH, EMP 38, ENG 8
Ariz E V Roberts & Assoc, 77 3rd Ave W
Scottsdale 947-7695
Cal E V Roberts & Assoc, 800 San Antonio Rd
Palo Alto 415 324-1671
Cal E V Roberts & Assoc, 4379 30th St
San Diego 714 282-7691

ROBERTSHAW CONTROLS CO, ACRO DIV, BOX 449, COLUMBUS
OHIO, 43216, TWX 810-335-2560 .... 614 875-2351
H HUSTON JR
ADV PG 661
Ariz Shefler-Kahn Co, Box 1587, Phoenix .... AL 8-7893
Cal Robertshaw Controls Co, 1601 S Manchester Blvd
Anaheim .... PR 4-8410
Cal Robertshaw Controls Co, Los Angeles ... MA 5-7885
Fla W C Smith, 2000 NE 26th Dr
Fort Lauderdale 305 564-1477
Ga Robertshaw Controls Co, 3349C Hamilton Blvd SW
Atlanta 404 762-5548
Ill Robertshaw Controls Co, 190 Gordon St
Elk Grove Village 569-2200
Mass Robertshaw Controls Co, 24 Wayside St
Springfield .... RE 4-8410
Mich Robertshaw Controls Co, 13333 Puritan
Detroit 272-5000
Mo Robertshaw Controls Co, 11645 Adie Rd
Maryland Hgts .... 413 RE 4-8410
NJ Robertshaw Controls Co, 1111 Rte 22
Mountainside .... AD 3-7272
NY Robertshaw Controls Co, 797 Military Rd
Buffalo .... TR 3-1515
NY Robertshaw Controls Co, 96-35 43rd Ave
Corona 212 899-4550
Ohio Robertshaw Controls Co, 223 Koebel Suydan Rd
Galloway .... TR 8-5071
Ohio Robertshaw Controls Co, 6116 St Clair Ave
Cleveland 216 391-0530
Wash C B Parsons Co, 5319 4th Ave S
Seattle .... PA 5-9700

ROBERTSHAW CONTROLS CO, AERO & INSTRUMENT
DIV, SANTA ANA FRWY AT EUCLID ST, ANAHEIM
CAL, 92803 .... 714 535-8151
D BURROWS, EMP 300, ENG 27
Ala Hudson Engrg Co Inc, 1822 28th Ave, S
Birmingham 871-1151
Ariz Special Systems Eng, 59 S Horne St
Mesa 964-5807
Cal Robertshaw Controls Co, 1601 S Manchester Blvd
Anaheim 774-8410
Cal Robertshaw Controls Co, 967 Howard St
San Francisco 392-6947
Colo Peterson Co, 4949 Colorado Blvd
Denver 388-6322
Conn Pond Technical Sales Inc, 3013 Dixwell Ave
Hamden 288-6278
Ga Jay Instr & Specialty Co, 532 Armour Cir NE
Atlanta 873-6137
Ga Robertshaw Controls Co
3349-C Hamilton Blvd SW, Atlanta 762-5548
Haw Honolulu Iron Works, Box 3140
Honolulu 512-011
Ill Robertshaw Controls Co, 190 Gordon St
Elk Grove Village 312 569-2200
Ind Electro Eng & Sales Inc, 6909 E 32nd St
Indpls 547-5273
Ky Control Products Co, 1738 Berry Blvd
Louisville 367-6421
La E E Brown Instrument Co, 5100 Jewella Rd
Shreveport 635-7697
Mass C R Swaney & Co, 196 Bear Hill Rd
Waltham 899-8200
Mich H A Reed Co, 19465 James Couzens Hwy
Detroit 342-7474
Minn Automation Service Corp, 4815 W 77th St
Minneapolis 920-7241
Mo Andy Zahner Co, 207 Westport Rd
Kansas City 561-1110
Mo Carl F Gast Co, 6110 Garesche Ave
St Louis 383-0750
Mont Industrial Systems, 405 16th St W
Billings 252-6671
Neb H G Klug Co, 2029 N 67th Ave, Omaha .. 553-1377
NJ Robertshaw Controls Co, 1111 Rt 22
Mountainside 233-7272
NJ Robertshaw Controls Co, 41 E Crescent Blvd
Camden 858-4600
NJ J C Edwards & Co, 209 Hollister Ave
Rutherford 438-7823
NY Nickles Engineering Co, 830 Linden Ave
Rochester 586-4988
NC Electro-Tech, Inc, 5141 Belhaven Blvd
Charlotte 392-7451
Ohio Jay Instr & Specialty Co, 1515 Delashmut at King
Columbus 294-5415
Ohio Jay Instr & Specialty Co, 555 N Wayne Ave
Cincinnati 761-9292
Ohio Jay Instr & Specialty Co, 2950 Dryden Rd
Dayton 298-7373
Ohio Hodan & Knight Co, 19630 Center Ridge Rd
Cleveland 331-9344
Okla Myers-Aubrey Co, Box 5436, Donaldson Sta
Tulsa 939-4481

Pa Russell F Clark Co, 10517 Lindberg Ave
Pittsburgh 242-9500
Tenn Jay Instr & Specialty Co, 5212 Homberg Dr
Knoxville 584-1985
Tex Robertshaw controls Co, 8130 W Glen Dr
Houston 782-7171
Tex Barnco Co, 1507 W 2nd St, Odessa 332-0294
Utah Peterson Co, 521 W 4th N
Salt Lake City 355-7464
Va Engineering Equip Co, 2515 Waco St
Richmond 282-4258
Wash Transdynamics Co Inc, 7834 SE 32nd St
Mercer Island .... AD 2-1094
Wis Robertshaw Controls Co, 5626 N 91st St
Milwaukee 464-6446
Can Railway & Power Engrg Corp Ltd, Box 880
Montreal, Que 933-6741

ROBERTSON INSTRUMENT CO, BOX 834, AZUSA
CAL, 91702 .... 213 334-3101
H ROBERTSON, EMP 10, ENG 1, UP TO $100M
Ala Currie Aero Space Assoc, 12018 Chickamauga
Birmingham 881-4194
Ariz Coranado Electronics Assoc, 5211 N Quail Rn Pl
Scottsdale 947-6383
Fla Triple R Sales, 2286 Allan Adale Rd
Eau Gallie 254-5574
Mass Associated Electronics Inc, 119 Great Rd
Bedford 275-9020
NJ J W Richart Co, Rte 46, Pine Brook .... CA 8-0600

ROBICON CORP, 6452 PENN AVE, PITTSBURGH
PA, 15206 .... 412 361-7211
N ALTMAN, EMP 60, ENG 16, $1,000-$2,500M
Ala Ridge Instrument Co, 7220 Governors Dr W
Huntsville 837-3211
Cal Time-Trol Inc, 1485 Bayshore Dr
San Francisco 467-9441
Cal Time-Trol Inc, 14552 Friar St, Van Nuys .. 781-3202
Colo L S Reed Co, 1151 10th St, Denver 255-1777
Conn Abbott-Allison, Box 467, Meriden 203 237-9232
Fla Ridge Instrument, 931 N Powers Dr
Orlando 293-4711
Ga Ridge Instrument Co, 3094 McCully Dr, NE
Atlanta 939-1554
Ill Tourtelot Co, 407 S Dearborn St
Chicago 312 427-5464
Ind Delta Sales, 1407 N illinois St
Indianapolis 631-4136
La Ross & Pethtel, 3170 Florida Blvd
Baton Rouge 504 348-7206
Md S & S Assoc, 4405 East-West Hwy
Bethesda 654-2420
Mass George Neuman Co, 41 Fairfield St
Needham 444-4342
Mich Harris-Blancett, 14631 W McNichols Rd
Detroit 272-0812
Mo Jay Instrument Co, 1760 S Brentwood Blvd
St Louis 961-1909
NJ Smith Co, 111 S Orange Ave, S Orange ... 763-1770
NY Robinson Assoc, 1280 Niagara St
Buffalo 886-7350
NY Robinson Assoc, Box 8127, Irondequoit
Rochester 342-3130
NY Robinson Assoc, 526 Robineau Rd
Syracuse 478-0241
Ohio Van Hala Industrial, 14812 Detroit Ave
Cleveland 521-6283
Pa Weiss Instruments, 6 Barton Dr
Pittsburgh 371-3020
Pa S & S Assoc, Boro Line Rd
King of Prussia 265-3450
Tenn Ridge Instrument Co, 110 Inn La
Oak Ridge 483-1311
Tex Gettys Engineering Co, 8020 Westglen
Houston 781-3000
Wash Al Smith Co, 405-166 SE, Bellevue 746-6770
Wis Gordon Hatch Co, 635 S 28th St
Milwaukee 671-6550

ROBINS DATA DEVICES INC, 15-58 127TH ST
FLUSHING, N Y, 11356 .... 212 445-7200
H HELLER, EMP 50, ENG 4, $250-$500M
Ala MeKco Assoc, Holiday Office Ctr
Huntsville 205 881-3721
Cal Peninsula Assoc, 1447 Bayshore
Palo Alto 415 322-1803
Colo Machine Acctg Equip Co, 1049 Acoma St
Denver .... KE 4-4221
Colo Brooks Feeger Assoc, 1309 S Inca St
Denver 303 744-3301
DC Rex Peake Assoc Inc, 1346 Conn Ave NW
Washington 223-4737
Fla MeKco, 1000 Woodcock Rd
Orlando 305 841-2215
Ga Tab Sales Corp, 414 Armour Circle, NE, Atlanta
Ill Systems Engineering Assoc, 6253 Milwaukee Ave
Chicago 312 774-1452
Kan Leemark Engineers Inc, Box 6175
Leawood 913 648-0124
Mass E D P Supply, 313 Congress St, Boston
Mich Jenca Assoc, 1142 S Washington, Lansing
Minn Hall Assoc Inc, 1821 University Ave
St Paul 646-7959
Mo Peterson Business Systems, 12015 Manchester Rd
St Louis 214 966-2245
NJ Garden State Business Sys, 121 Cedar La
Teaneck 836-4994
NJ Bonn Assoc, 266 Lake Ave
Metuchen 201 549-9573
NY Stauber Systems, 75 College Ave, Rochester
NY Advanced Components Co, 119 Luther Ave
Liverpool 315 472-7886
NC MeKco Assoc, 100-B Lindsey St
Burlington 919 226-7177

Ohio A Bruce Crock Inc, 8286 Winton Rd
Cincinnati 513 521-5040
Pa E W Curry Co, 234 Blvd of the Allies
Pittsburgh 391-4400
Pa Trius Co, 81 N York Rd, Willow Grove
Can H Barshaw Office Systems, 740 St Maurice
Montreal 3, Que

ROBINS INDUSTRIES CORP, 15-58 127TH ST
FLUSHING, N Y, 11356 .... 212 HI 57200
R COHEN, EMP 150, ENG 5, $2,500-$5,000M
Ala John Russell Sales Co, 3040 Whispering Pines Cir
Birmingham 822-2196
Alas W P Watson Enterprises, 307 1/2 Glacier Ave
Fairbanks
Cal Mike Stobin Co, 14663 Arminta St
Van Nuys .... ST 2-9421
Cal Electronic Mktg Assoc, 3327 Caxton Court
San Mateo 415 341-6666
Colo Electro-Tek Sales Inc, 3699 W 73 Ave
Westminster 429-5305
Fla John F Thompson Co, 322 Riverside Dr
Ormand Beach .... 904 OR 7-2298
Haw Piety Factors Inc, Mokauea St, Honolulu ... 810-185
Ill R R Hutmacher Assoc, 6668 Northwest Hwy
Chicago .... NE 1-3248
Ind E A Schulz Co, 721 Sherwood Dr
Indnpls .... CL 5-1993
Md Charles Lienau Co, 11411 Amherst
Wheaton 949-6464
Mass Bud Ente Sales Co, 64 Mandalay Rd
Newton Center 617 244-4842
Mich J M Flora Inc, 165 W Liberty
Plymouth .... GL 3-4296
Minn Ray Ripley Assoc, 6838 Pillsbury Rd
Mnpls .... UN 6-8682
Mo C A Vignola Assoc, 21 Schellridge Rd
Jefferson City 635-1023
NY Elrep Corp, 271 Columbus Ave
Tuckahoe .... SP 9-6868
NY L S M Assoc, Orchard Park, Phelps .... KI 8-4891
Ore R M Minthorne Co, 6565 S W Macadam Ave
Portland .... CH 6-4556
Pa J H Podolny Co, 5912 Penn Ave
Pittsburgh .... HI 1-0800
SC Hal C Norman Sales Co, Box 5185 Sta B
Greenville 803 244-6254
Tex Maynard Sales, 158 Express St, Dallas ... 742-2384

ROBINSON ELECTRONIC COMPONENTS
9162 LA ROSA DR, TEMPLE CITY
CAL, 91780 .... 213 283-1156
D LANDAUER, EMP 35, ENG 2, $250-$500M
Cal Components Unltd, Box 801
San Carlos 415 326-1033
Mo PEM Sales Co, 9537 Lackland Rd
St Louis 314 427-7200
NY Madison Overseas Inc, 433 Liberty St
Schenectady 372-5841
NY Irv Morse Sales, 2351 E 65th St
Brooklyn 212 267-2913
Tex M R Summers Assoc, 4012 Breakwood
Houston 713 667-6900

ROBINSON-HALPERN CO, 5 UNION HILL RD
W CONSHOHOCKEN
PA, 19428, TWX 510 660 8416 .... 215 825-1300
M GARBER, EMP 50, ENG 10, $500-$1,000M
Ala BCS Assoc, Inc, 2317 Bob Wallace Ave SW
Huntsville 205 534-1648
Cal Research Data Corp, 110 S Euclid Ave
Pasadena 213 681-3451
Conn Applied Measurements, Inc, 2531 Whitney Ave
Hamden 203 288-5288
DC Sonco, 4720 Montgomery La
Wash 301 654-5226
Fla BCS Assoc, Inc, 940 N Fern Creek Rd
Orlando 305 425-2764
Ill Kelburn Engineering Co, 6545 N Olmsted Ave
Chicago 312 775-5722
Ind Kelburn Engrg Co, 1251 Dori La
Indianapolis 317 846-5574
Kan Leemark Assoc, Inc, Box 6175
Leawood .... 913 NI 8-0124
La Lynn McGuffy Co, Inc, Box 952
Shreveport 318 425-3466
La BCS Assoc, Inc, 3414 Hessmer Ave
Metairie 504 888-2266
Mass Applied Measurements, Inc, 86 Hayward Rd
Acton 617 263-2766
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield 313 357-3700
Mo Leemark Engrs Inc, 9623 St Charles Rock Rd
St Louis 314 423-8700
NJ Tek-Sel Inc, 440 N Midland Ave
Saddle Brook 201 791-5545
NY Ossmann Instru, Inc, 101 Pickard Dr
Syracuse 315 454-2461
NC BCS Assoc, Inc, 1039 E Wendover Ave
Greensboro 919 273-1918
Ohio Baehr-Greenleaf & Assoc, 14700 Detroit Ave
Cleveland 216 221-9030
Okla James E Dyer, Box 1226, Tulsa .... 918 RI 2-8832
Pa Gilson Engineering Sales, 978 Perry Hwy
Pittsburgh 412 931-6114
Pa PDC Corp, The Benson East
Jenkintown .... 215 TU 7-9610
Tex Lynn McGuffy Co, Inc, 1230 Lumpkin Rd
Houston .... 713 HO 4-2761
Va BCS Assoc, 153 Winston Dr
Williamsburg 703 229-5108
Wash G McLaren & Assoc, 7419 SE 24th
Mercer Island 206 232-5164
Wis Kelburn Engrg Co, 2445 Thornapple La
Brookfield 414 786-5630

ROBINSON-NUGENT INC, 802 E EIGHTH ST
NEW ALBANY, IND, 47150 .... 812 945-0211
S SHINE, EMP 175, ENG 4, $1,000-$2,500M

Cal	A M Wood Co, Box 1-A, Arcadia	283-1201
Cal	Logan Sales Co, 463 Brewster Ave Redwood City	369-6726
Conn	J F Kerrigan & Co, Box 5385, Hamden	288-2200
Fla	Conley-May Assoc, Box 668 Oviedo	305 365-3283
Ill	Electro-Comp Sales Inc, 5129 w devon Ave Chicago	63-3636
Ind	Warner, Kesler & Assoc, Box 338 South Whitley	723-5353
Minn	R W Marshall Co, 6106 Excelsior Blvd Minneapolis	WE 9-0457
Mo	K & M Sales Co, 17th & Main Sts Kansas City	471-1355
NY	C R Mayer Co, Box 152, Huntington	921-7876
NY	J P Scanlon, 51 Bloomfield Pl Rochester	473-7553
Ore	J V BeLusko Co, 2355 NW Quimby St Portland	503 222-4279
Pa	S A Jeffries Inc, 105 Forrest Ave Narberth	664-8500
Tex	Space Electronics Corp, Irving Bank Towers Irving	631-0905
For	Ovic Intl, Inc, Box 7447 Louisville, Ky	502 896-1162

ROBINTECH INC, 3310 VANOWEN ST, BURBANK
CAL, 91504, TWX 910-498-2217 .... 213 849-7181
D LOURO, EMP 737, ENG 37, OVER $10,000M

Cal	Ed Landa Co, 2288 Westwood Blvd Los Angeles	272-9525
Cal	E Landa Co, Box 639, Los Altos	415 948-0788
Conn	Trionic Assoc Inc, 320 Northern Blvd Great Neck, N Y	466-2300
DC	Hughes Sears & Shiver Inc, 1629 K St NW Washington	
Ga	Holcombe Sales Agency Inc, 3098 Piedmont Rd NE Atlanta	237-4013
Ill	Sumer Inc, 1032 E Northwest Hwy Mount Prospect	312 392-7370
Ind	Walter Shirley Co, 5420 N College Ave Indianapolis	255-5100
Kan	Ben Penn Co, 6631 E Kellogg, Wichita	682-9433
Md	A Wetterhahn Co Inc, 107 York Rd Towson	825-1335
Mass	Lincoln Assoc, 109 Great Rd, Bedford	275-1200
Mich	Carter, McCormic & Peirce Inc 16239 Wyoming Ave, Detroit	862-0017
Mich	K V Wiener & Assoc, Box 68 Lathrup	313 444-4130
Minn	Fred Peterson Co, 4501 Minnetonka Blvd Minneapolis	927-4453
Mo	Aerotronics, Inc Box 6236 Lambert St Louis Mun Arpt St Louis	426-4060
Mo	Ben Penn Co, 6631 E Kellogg Wichita	316 682-9433
NJ	A Wetterhahn Co Inc, 4420 Crescent Blvd Pennsauken	662-1611
NY	Rep Tech Inc, Box 98, Syracuse	684-6250
NY	Trionics Assoc, 320 Northern Blvd Great Neck	516 466-2300
Ohio	BEK Assoc, 330 Salem Ave, Dayton	278-1343
Tex	Lane Engineering & Sales, 204 E Main Arlington	277-3214
Wash	O J Harper Sales Co, 200 Tobin Ave Renton	255-0414

ROBINTECH INC, BOX 215, OWEGO
N Y, 13827 .... 607 754-0410
W STARNER, EMP 100, $2,500-$5,000M

Cal	Robintech Inc, 3310 Vanowen St, Burbank	
Mich	Robintech Inc, 18505 W Eight Mile Rd, Detroit	
NJ	Robintech Inc, 526 Rte 17, Paramus	
Tex	Robintech Inc, Box 502, Richardson	

ROBISON ELECTRONICS INC, 3636 W 139TH
HAWTHORNE, CAL, 90250 .... 213 SP 2-6166
B INNES, EMP 24, ENG 2, $100-$250M

Ariz	E E Black, Box 939, Scottsdale	602 947-2007
Cal	Hylad Enterprises, Box 1146 Mountain View	961-1250
Cal	Sullins Co, Box 561, Escondido	745-5461
Conn	A & M Electronics Reps, Inc, Box 174 Rocky Hill	563-0866
Fla	Tech-Rep Assoc, Box 8218 Madeira Beach St Petersburg	813 391-0008
Ga	Tech-Rep Assoc, 2793 A Clarimont Rd Atlanta	305 633-5897
Mass	A & M Electronic Reps, Inc, 1492 Highland Ave Needham	444-8170
NY	Harold B Heft, 193 Bixley Heath Lynbrook	LY 9-3351
Ohio	Del Steffen & Assoc, Inc, Box 3157 Cleveland	261-5055
Ohio	Del Steffen & Assoc, Inc, Box 2341 Dayton	293-3145
Pa	Robin Products Co, Box 66 Merion Station	215 642-3082

ROBOT INDUSTRIES INC, 7041 ORCHARD ST
DEARBORN, MICH, 48121 .... 313 TI 6-2623
F O'SUCH, EMP 27, ENG 3, $250-$500M

ROBOTRON CORP, 21300 W 8 MILE RD, DETROIT
MICH, 48219 .... 313 444-1444
R LACHNER, EMP 140, ENG 14, $2,500-$5,000M

Conn	E Flynn, 149 Porter St, Manchester	649-9082
Ill	M Viau, 79 Blecke Dr, Addison	279-7140
Mich	M Johnson, 402 Labian Dr, Flushing	OL 9-9827

Mich	A Weber, Grand Rapids	616 243-0705
Mo	Vito D Grasso, 8433 Tally Ho Dr Hazelwood	CH 1-5757
NY	M Wing, 317 Main St, E Rochester	DU 1-4756
Ohio	J Bystranowski, 2539 Kenilworth Rd Cleveland Htgs	FA 1-9054
Ohio	O Martin, R R 1, Union	513 222-7772
Can	F Amy, 253 Appleby Line Burlington, Ont	NE 4-0704

ROCHESTER INSTRUMENT SYSTEMS INC
275 N UNION ST, ROCHESTER
N Y, 14605 .... 716 325-5120
J GARNER, EMP 75, ENG 14, $1,000-$2,500M

Ala	J Spader Co, Box 6074, Birmingham	879-1366
Ariz	Portis & Assoc, Inc, 132 E Stetson Dr Scottsdale	945-4925
Cal	Crown-Hammarstrom Inc, 664 Monterey Pass Rd Monterey Park	283-0991
Cal	T J Campbell, 1415 Rollins Rd Burlingame	342-7007
Colo	Joy & Cox, 2124 Broadway, Denver	266-0323
Fla	Carter Watsey & Assoc, Box 512 Lake Wales	676-1474
Ga	Hooker-Reid Co, Box 11754, Atlanta	CE 7-9385
Ill	Rochester Instr Sys Inc, 306 Bosse Hwy Park Ridge	692-4541
La	Gilbert & Assoc, Inc, 8130 Willow St New Orleans	866-7444
Mass	Rochester Instr Sys, Inc, 183 Bedford St Lexington	861-0127
Mich	Rochester Instr Sys, Inc, 600 Michigan Blvd Detroit	WO 3-2258
Minn	Electrical Jobbers Equip, 1120 Glenwood Ave Mnpls	377-7904
Mo	Matney & Co, Inc, 11 E Gregory Blvd Kansas City	EM 3-1771
Mo	Rochester Instr Sys, Inc, 705 Olive St St Louis	GE 6-4429
Neb	Conrad R Bangh, 14th & Farnam St Omaha	341-4232
NJ	Rochester Instr Sys, Inc, 45 N Broad St Ridgewood	447-1395
NJ	Rochester Inst Sys, Inc, 208 Clements Bridge Rd Barrington	215 FO 9-1144
NY	Thos Carse Sales Co, Inc, 14 Meadow La Latham	785-5844
NC	A D Penn Co, 1043-C Providence Rd Charlotte	332-8644
Ohio	M L Johnson Co, 1172 W Galbraith Rd Cincinnati	931-8868
Ohio	Rochester Instr Sys, Inc, 21330 Center Ridge Rd Cleveland	331-8080
Okla	Kennedy Engineering Co, 1312 S Peoria Tulsa	LU 2-7178
Ore	Branom Instrument Co, 6019 NE Union Portland	BU 5-5205
Pa	Gilson Engrg Sales, 978 Perry Hwy Pittsburgh	931-6114
Tenn	G W Massey Co, Box 10102, Knoxville	577-9553
Tex	Kennedy Engrg Co, Box 3434, Borger	BR 3-2871
Tex	Kennedy Engrg Co, 400 W 27th St Odessa	FE 2-4081
Tex	Esch & Assoc, 4623 Gulf Fwy Houston	WA 8-3357
Tex	Bill McLung & Co, Box 34447, Dallas	241-3655
Utah	Cannon Engrg & Sales Co, 2250 E 17th S St Salt Lake City	485-9253
Wash	Branom Instrument Co, 2133-37 2nd Ave Seattle	MA 2-7320
W Va	Skaff Engineering Co, Inc, 3418 Staunton Ave, SE Charleston	342-0131
Can	Rochester Instr Sys of Canada, 156 Ronald Dr Montreal W Que	484-9148
For	International Controls Co, Box 266 Warrington, Pa	DI 3-0615
GB	Mimic Diagrams & Elctns Ltd, Maxim Rd Crayford, Kent	

ROCKER SOLENOID CO, 140 N MARINE AVE
WILMINGTON
CAL, 90746, TWX 910-345-6394 .... 213 835-8281
J SANDOR, EMP 80, ENG 6, $1,000-$2,500M

Ala	Estes Assoc, Inc, 8018 Craigmont Rd, SW Huntsville	881-5470
Conn	Aerol Assoc Inc, Box 146, Essex	767-1647
Fla	Estes Assoc, Inc, 629 N Lake Barton Rd Orlando	277-1510
Ga	Estes Assoc, Inc, Decatur Federal Bldg Decatur	373-8266
Ill	Aerol Assoc, Inc, 446 Central Ave Northfield	466-6486
Iowa	Snider Sales Co, 2042 Franklin Ave Cedar Rapids	362-4410
Md	R L Wilkinson Inc, 707 Stevenson La Towson	377-7800
Mass	All Star Engineering Co, Box 58 Woburn	935-3417
Minn	Aerol Assoc, Inc, Rte 2, Anoka	336-4240
Mo	Harris-Hanson Co, 2814 S Brentwood Blvd St Louis	MI 7-4350
NJ	Aerol Assoc Inc, 730 Clifton Ave Clifton	779-6744
NY	Aerol Assoc Inc, 170 Great Neck Rd Great Neck	487-9650
Pa	R L Wilkinson Inc, Box 215, Glenside	HA 4-8400
Va	R L Wilkinson Inc, Box 218 Falls Church	JE 2-6076

ROCKET RESEARCH CORP
WILLOWS RD & NE 116TH ST, REDMOND
WASH, 98052, TWX 910-444-2026 .... 206 TU 5-5000
R EIDE, EMP 250, ENG 70, $2,500-$5,000M

DC	D W Londahl, 1730 Rhode Island Ave NW Washington	202 296-5142

ROCKLAND INSULATED WIRE & CABLE CO
36 MAIN ST, HAVERSTRAW
N Y, 10927 .... 914 429-3103
E KIGLER

Cal	Bucky Harris Co, 3440 Overland Ave Los Angeles	870-4647

ROCKWELL ENGINEERING CO, 2125 E 45TH ST
INDIANAPOLIS, IND, 46205 .... 317 251-9453
W DELLINGER, EMP 10, ENG 2, $100-$250M

ROCKWELL MFG CO, MSMT & CONTROL DIV
400 N LEXINGTON AVE, PITTSBURGH
PA, 15208 .... 412 241-8400
C KENTLER, OVER $10,000M

Cal	Rockwell Mfg Co, 6363 Knott Ave Buena Park	714 523-4000
Cal	RMC, 445 Lesser St, Oakland	415 535-2424
Ga	Equipment Controls Co, 6666 Buford Hwy Doraville	404 448-4531
Ill	Rockwell Mfg Co, 4533 North Ave Melrose Park	312 921-2650
La	Rockwell Mfg Co, Box 1333 New Orleans	504 486-6081
Md	RMC, 13 Arbor Hill Rd, Annapolis	301 268-2020
Mass	RMC, 32 Wexford St Needham Heights	617 444-0035
NY	Rockwell Mfg Co, 350 5th Ave New York	212 565-4830
NC	RMC, 3601 South Blvd, Charlotte	704 525-4410
Okla	RMC, 4932 S 83rd Ave, Tulsa	918 622-0330
Pa	Rockwell Mfg Co, 555 City Line Ave Bala Cynwyd	215 839-4850
Tex	Rockwell Mfg Co, 2934 Iron Ridge Dallas	214 631-1890
Tex	Rockwell Mfg Co, Box 2126 Houston	713 228-9641
Tex	RMC, Box 2288, Odessa	915 563-2468
Wash	Rockwell Mfg Co, 1918 Minor Ave Seattle	206 622-4576

ROCKY MOUNTAIN RESEARCH INC
1020 YUMA ST, DEPT E, DENVER
COLO, 80204 .... 303 244-7683
G THOMPSON JR, EMP 7, ENG 2, UP TO $100M

For	Transworld Marketing Co, 1373 Fillmore St Denver, Colo	333-8632

RODALE ELECTRONICS INC, 603 CHESTNUT ST
GARDEN CITY, NY, 11530 .... 516 248-5050
W LYONS, EMP 140, ENG 15, $2,500-$5,000M

RODNEY METALS A TELEDYNE CO
1357 RODNEY FRENCH BLVD, NEW BEDFORD
MASS, 02744, TWX 710 344 1347 ...... 617 996-5694
L DOBSON, EMP 400, ENG 20, OVER $10,000M

RODON ELECTRONICS CORP, 1845 W 169, GARDENA
CAL, 90247 .... 213 321-8040
R BERTELS JR, EMP 50, ENG 2, $250-$500M

ROGAN BROTHERS INC, 8031 N MONTICELLO AVE, SKOKIE
ILL, 60076 .... 312 OR 5-1233
J ROGAN, EMP 50, ENG 3
ADV PG 305

Cal	Don Allen Co, 7969 Engineer Rd San Diego	714 278-9250
Cal	R N Sales Div, 20700 Dearborn St Chatsworth	213 882-3000
Cal	Ewing-Foley Assoc, 900 N San Antonio Rd Los Altos	415 591-0309
Conn	F Kosowicz, 2 Madsen Rd W Hartford	203 AD 3-7883
Ga	NBS Inc, 893 Church St, Marietta	404 422-6067
Ill	J U Willman, 6034 N Cicero Ave Chicago	AV 6-1614
Mich	J L Montgomery Inc, 24001 Southfield Rd Southfield	358-2616
Minn	Robt W Marshall Co, 6106 Excelsior Blvd Minneapolis	929-0457
Mo	C B Fall Co, 317 N 11th St St Louis	314 CH 1-2433
NJ	L C Sanford Assoc, 202 Woodland Ave Rutherford	201 939-0979
NY	Elcom Sales Inc, Box 9112 Rochester	716 244-1960
Tex	R C Lamb Co, 2245 Valwood Pkwy Dallas	214 247-2820
Utah	C Clark, 1966 W 6255 S Salt Lake City	801 298-2751
Va	Royelec Electronic Representation, Box 254 Lynchburg	846-7117
Wash	Leo Steinhauer & Son, 2525 NE 105th Pl, Seattle	
Can	Munro Elctns, 67 Portland St Toronto 28, Ont	416 363-0438
For	C H Stone, 205 W Wacker Dr Chicago, Ill	RA 6-7725
GB	Birmingham Mica Co Ltd, 3 South Rd, Hockley Birmingham	

ROGERS CORP, ROGERS
CONN, 06263 .... 203 774-9605
W HAYES, JR, EMP 891, ENG 21, OVER $10,000M

Cal	Rogers Corp, 10510 Sandal La Los Angeles	475-5541
Conn	Rogers Corp, 389 Mansfield Ave Willimantic	423-1298
DC	Nalls & Co Inc, 1317 F St NW Washington	737-7040

Ga Rogers Corp, 85 Silverwood Rd NE Atlanta ... 255-8737
Ill Rogers Corp, 1137 Oakmont, Flossmoor ... 798-5800
Ill Rogers Corp, 2810 W 173rd St Hazelcrest ... 798-5800
Ind Rogers Corp, 603 King Dr, Indianapolis ... 253-3985
Mass Rogers Corp, 9 Manchester Rd Newton Highlands ... 332-6466
Mich Rogers Corp, 966 Woodlea Rd Birmingham ... 642-8556
Mo Rogers Corp, Box 14, Ballwin ... 966-3530
NJ Rogers Corp, 2160 Center Ave, Fort Lee ... 944-7777
NY Rogers Corp, 25 Oriole Dr, Roslyn ... 621-8723
NY Rogers Corp, 106 Concord Pl Fayetteville ... 637-3912
NY Rogers Corp, 460 Frankel Blvd, Merrick ... 988-6510
Ohio Rogers Corp, 104-B Turner Rd, Dayton ... 274-9882
Ohio Rogers Corp, 7187 Hayes Blvd, Mentor ... 946-2125
Pa Rogers Corp, 269 Maple Dr, Sharon ... 347-3129
Tex Max Daggett Jr & Assoc, 5930 Royal La Dallas ... 357-1256
Wash Associated Industries, 3711 S Hudson St Seattle ... 723-5600
Wis Rogers Corp, 2362 Lefeber Ave Milwaukee ... 476-1030
Jap Marusho Indus Co Ltd, 1, 4-Chome Ginza Higashi Chuo-ku, Tokyo
Belg Vynckier-Freres & Cie, S A, 51 Nieuwe Vaart, Ghent

ROHDEN MFG CO TRW INC, 4630 N LAMON AVE
CHICAGO, ILL, 60630 ... 312 777-4600
C MCDOWALL, EMP 380, ENG 6, $500-$1,000M
Cal W S Harmon Co, 6118 Venice Blvd Los Angeles ... WE 7-1460

ROHDE & SCHWARZ SALES CO USA INC, BOX 148
PASSAIC, N J, 07055 ... 201 773-8010
R FELDT, EMP 14, ENG 3, $1,000-$2,500M
Ariz Tech-Ser Inc, 1805 E Indian School Phoenix ... 265-3629
Cal Tech-Ser Inc, 2435 N Naomi, Burbank ... 846-9631
Cal Tech-Ser Inc, 477 Castro, Mt View ... 969-9020
Cal Tech-Ser Inc, 3760 Midway Dr San Diego ... 222-1121
Colo Walter-Powers Assoc, 880 Bonnie Brae Dr Denver ... 777-5585
Ill Loren F Green & Assoc, 5218 W Diversey Ave Chicago ... 286-6824
Md W A Brown & Assocs Inc, Baltimore ... 727-1999
Mich Twin Region Electronic Sales, 2547 Monroe Dearborn ... 274-4661
Minn Loren F Green & Assoc, 6225 University Ave NE Minneapolis ... 781-1611
Nev Tech-Ser Inc, 1805 E Indian School Phoenix ... 265-3629
NJ L A Garten Assoc, 375 Passaic Ave Fairfield ... 226-7800
NY L A Garten & Assoc, New York ... 269-4339
NY RJC Assoc, 219 Oakridge Terr Liverpool ... 457-3220
NY RJC Assocs, 294 Second St, Illion ... 724-6111
Ohio Twin Region Electronic Sales 21010 Center Ridge Rd, Cleveland ... 331-7650
Ohio Twin Region Elctn Sales, 5700 Far Hills Dayton ... 434-8000
Pa L A Garten & Assoc, 947 Old York Rd Abington ... 927-1200
Pa Twin Region Electronic Sales 201 Penn Center Blvd, Pittsburgh ... 824-1120
Tex Vidal Electronics Co, 3403 High Bluff Dr Dallas ... 241-4491
Utah Walter-Powers Assoc, 2422 Camino Way Salt Lake City ... 277-5174
Va W A Brown & Assoc Inc, 325 1st St Alexandria ... 836-1800
Va W A Brown & Assoc, 82 Huxley Pl Newport News ... 596-2358

ROHN MFG CO, BOX 2000, PEORIA
ILL, 61601, TWX 309-697-1488 ... 309 697-0171
R KLEINE, EMP 100, ENG 4
Cal Logan Sales Co, 463 Brewster Ave Redwood City ... 369-6726
Cal Chick Ryel & Co, Box 762 Woodland Hills ... 883-8118
Colo R G Bowen Co Inc, 1440 S Santa Fe Dr Denver ... 722-4641
Haw Intelect, Inc, 30 N School St, Honolulu ... 566-366
Ill Alvin M Repsumer, 6718 W Plank Rd Peoria ... 637-8416
Mass D S Fehr, Box 2101, Hanover ... 826-2511
Minn Stan Olsen & Assoc, 6121 Excelsior Blvd Mnpls ... 929-6121
Mo R W Farris Co Inc, 1715 Baltimore Ave Kansas City ... 421-1751
Mo Dipro Inc, Box 1427, Maryland Hgts ... 432-3444
Nev G Francis, 310 Quincy St, Reno ... 322-9300
NJ Andrew Foley Assoc, 15 S Shirley Ave Moorestown ... 663-4545
NJ S Fisher Elctn Sales Corp, 161 Cedar La Teaneck ... 836-6661
NM C T Carlberg & Assoc, Box 3177 Albuquerque ... 265-1579
NY Leonard D Allen Inc, Box 205 North Syracuse ... 458-7470
Ohio Neal Bear Corp, 3435 Streetsboro Rd W Richfield ... 659-3331
Pa Nebco Assoc, 1974 Gregory Ave Monroeville ... 824-2111
Tenn Dixie Electronics Assoc, 109 Webster St Madison ... 895-5666
Tex Marion Athans, Box 134, Richardson ... 231-3481
Wash James J Backer Co, 221 W Galer St Seattle ... 283-6470

Can R C Kahnert Sales Ltd, 359 Enford Rd Richmond Hill, Ont ... 884-8185
Can A L Whitehead Ltd, Box 25 W Vancouver, B C ... 922-2210
For M Haller, Inc, Box 1208, Miami, Fla ... 374-5225

ROLA CO INC, 21010 MILES PKWY, CLEVELAND
OHIO, 44128 ... 216 475-9200
W CHAPMAN, EMP 500, ENG 8, $5,000-$10,000M
Ill T B Hunter Assoc, 5653 W Irving Park Rd Chicago ... SP 7-2500
Kan Thomas & Modrcin Assoc, 5450 Buena Vista Dr Shawnee Mission ... 432-2131
Mass Todino Engineering Sales, 50 Kearney Rd Needham Heights ... 444-7925
Mich H D Mysing, 18450 W McNichols Rd, Detroit
Minn Countryman Wagner & Behnen 1955 University Ave, St Paul ... 645-9151
Miss Herron Assoc, 4394 Eighteenth Ave Meridian ... 482-1878
NJ F W Churchill, 50 Upland Way Haddonfield ... HA 9-7871
NY S Bialek Assoc, 42-15 Crescent St L I C ... ST 6-5562
NY W A Franklin Sales Corp, 2 Standish Terr Syracuse ... 446-1120
Ohio F J Campisano, 3985 Race St Cincinnati ... MO 2-1616
Ohio C H Dolfuss Jr, 2108 Payne Ave Cleveland ... 771-1270
Pa Gene S Root Co, 809 Wainwright Dr Pittsburgh ... 561-4125
Tex Crockett Sales Co, 2204 Griffin, Dallas ... 748-8209

ROLLAN ELECTRIC CO, 8233 S PRINCETON AVE
CHICAGO, ILL, 60620, TWX 25-4778 ... 312 723-4000
H DAUBS, EMP 225, ENG 8, $1,000-$2,500M

ROMAC ELECTRONICS INC, 48-01 25TH AVE
LONG ISLAND CITY, N Y, 11103 ... 212 721-2222
M BLOOMBERG

ROMAN INDUSTRIES, 1601 W 240TH ST
HARBOR CITY, CAL, 90710 ... 213-325-6023
N HERNDON, EMP 18, ENG 2, $100-$250M

ROMAR PLASTICS INC, 1311 E MAIN ST, ST CHARLES
ILL, 60174 ... 312 584-6571
C PETERSON, EMP 150, ENG 3, $2,500-$5,000M

ROME CABLE DIV CYPRUS MINES CORP
421 RIDGE ST, ROME
N Y, 13440, TWX 510-243-9732 ... 315 337-3000
F MARKS, EMP 1300
Ala W J McCann, 437 Shenandoah Dr Birmingham ... 822-1973
Cal Rome Cable, 277 Utah Ave S San Francisco ... 761-2015
Cal Rome Cable, 2937 S Tanager Ave Los Angeles ... OV 5-8363
Colo Rome Cable, 1230 Fifth St, Denver ... 534-8101
Ga Rome Cable Corp, 212 Permalume Pl NW Atlanta ... 355-3021
Ill J W Campbell, 4700 W Lake St Melrose Park ... 261-1106
Ind R Blake Shannon, 1716 Minturn La Indianapolis ... 421-1711
Mass T S Gildersleeve, 31 Washington St Wellesley Hills ... 237-1680
Mich A J Dawson, Jr, 17600 W 8 Mile Rd Detroit ... 353-6530
Minn T H Stokke, 2640 Territorial Rd St Paul ... MI 6-7201
Mo E H Linhardt, 2424 Schuetz Rd Maryland Heights ... 432-3611
NJ J W Hayes, 1111 Clifton Ave, Clifton ... 773-1500
NY E B Jones, Box 861, Syracuse ... 541-0444
NY S J Laddick, 1943 Jackson Rd, Penfield ... 377-5441
Ohio R L Sharkey, 21010 Center Ridge Rd Cleveland ... 333-6700
Ore R R Davis, 3322 NW 35th Ave Portland ... 226-6028
Pa R H Sawyer, 39th & Butler Sts Pittsburgh ... 683-8452
Pa G E Rolston, Jr, 5100 State Rd Drexel Hill ... 623-4242
Pa Rome Cable Corp, 5100 State Rd Drexel Hill ... 623-4242
Tex W S Williams, 721 Great Southwest Pkwy Arlington ... 264-2541
Tex W D Barwick, 5610 Savoy St, Houston ... 781-2520
Va D McMahon, 2123 W Laburnum Ave Richmond ... 353-5551
Wash T E McCarthy, 270 S Hanford St Seattle ... 623-7994
Wis R Moravec, 4878 S 78th St, Greenfield ... 281-6766

RONSON METALS CORP, 55 MANUFACTURERS PL
NEWARK, N J, 07105 ... 201 624-1380
B BERZON, EMP 70, ENG 5

ROOSEVELT METAL CO INC, 968 MEEKER AVE
BROOKLYN, N Y, 11222

ROOT CO, A I, 623 W LIBERTY ST, MEDINA
OHIO, 44256 ... 216 723-1561
W ELLIS, EMP 160, $2,500-$5,000M

ROSAN INC, 2901 W COAST HWY, NEWPORT BEACH
CAL, 92663, TWX 714 642 1342 ... 714 548-5533
I MAKEL, EMP 264, $250-$500M
Cal Rosan Inc, Box 733, Palo Alto ... 415 969-3170
Ill Rosan Inc, Box 71, Westchester ... 863-2911
Mich Rosan Inc, 29900 Van Dyke Ave Warren ... 756-3340
NJ Rosan Inc, 707 Broadway, Bayonne ... MA 4-3201
Ohio Rosan Inc, 5912 Hamilton Ave Cincinnati ... 513 542-2191
Tex Rosan Inc, 4056 Shady Valley Dr Arlington ... 817 275-4797
Ital S J Grassadonia, Via Istria 8, La Spexia ... 29420

ROSEMOUNT ENGINEERING CO, 4900 W 78TH ST
MINNEAPOLIS
MINN, 55435, TWX 612-292-4136 ... 612 927-7711
D SULLIVAN, EMP 500, ENG 100, $500-$1,000M
Ala Craft Assoc Co, Box 1053, Huntsville ... 837-0221
Cal REC Los Angeles, 16000 Ventura Blvd Encino ... 788-6141
Cal Rosemount Eng Co, 960 San Antonio Rd Palo Alto ... 415 327-1420
DC F G Harlow, 910 17th Ave NW Washington ... 296-3575
Fla Craft Assoc Co, Box 6664, Orlando ... 425-4284
Ga Craft Assoc Co, Box 11716, Atlanta ... 237-2282
Ill Lesman Instrument Co, 5642 St Charles Rd Berkeley ... 287-9128
Mass J M Lancaster Co, 147 Concord St Framingham ... 235-9010
Mich G R Peters Assoc, 2399 Coolidge Hwy Berkley ... 546-1166
Minn REC Engineering Co, 4900 W 78th St Minneapolis ... 927-7711
Mo REC - St Louis, 110 So Hgwy 140 Florissant ... 864-4100
NJ Rosemount Eng Co, 600 Palisade Ave Englewood Cliffs ... 201 568-6366
NY E C Smith & Assoc, 941 Granite Bldg Rochester ... 546-5090
NC Rosemount Eng Co, Box 17375 Charlotte ... 704 364-0133
Ohio Rosemount Eng Co, Box 177 North Olmsted ... 216 777-1140
Okla D Allert Co, Box 7351, Tulsa ... RI 3-7705
Pa Roberts Eng & Sales Co, 1 Radnor Sta Bldg Radnor ... MU 8-6525
Pa Gilson Engrg Sales, 978 Perry Hwy Pittsburgh ... 935-3641
Tex Holland Engrg Co, Box 8427, Dallas ... EM 3-7591
Tex Holland Engrg Co, 3810 Westheimer Rd Houston ... NA 1-1481
Can Willer Eng & Sales Co, 1800 Avenue Rd Toronto ... 783-3373
Fr Geroges Ferry, 6 Park De La Berengere, St Cloud SO
GB Research & Eng Controls Ltd, Bognor Regis Sussex ... BR 4101
Swit C/O Consulta Revisions & Treuhand 26 Bellevueweg, Zug

ROSEMOUNT PLUG-IN INC, 1416 LEBANON RD
NASHVILLE
TENN, 37210, TWX 810-371-1699 ... 615 244-1330
P KELSO, EMP 50, ENG 5, $500-$1,000M
Minn Rosemount Engineering Co, 4900 W 78th St Minneapolis
8672 SELB
ROSS CO, MILTON, 511 SECOND ST PIKE
SOUTHAMPTON
R MCGONIGAL, EMP 150, ENG 3
Cal Milton Ross Co of Cal, 4559 Sheila St Los Angeles ... 268-9222
Ill Milton Ross Co, 2900 W Peterson Ave Chicago ... 338-5141
Mass R P Mahan Co, Sandy Pond Rd S Lincoln ... CL 9-9300
Tex P J Scanlon Co, Inc, Box 70 Richardson ... AD 1-4661
GB M Ross Co Ltd, 14 New Road Watford, Herts ... Wat 24446

ROSSELLI DEL TURCO ROSSELLO
VIA TOR CERVARA 261, ROME
ITALY ... 220104-221393
M IOSTO, EMP 100, ENG 2, $250-$500M
Fr Seriel, 48 Ave Victor Hugo Clamart-Seine ... 736.25.55
Ger Suss & Co., Oehleckerring 5 2 Hamburg 62 ... 5205021
Holl Electro Apparaten Onderneming, Rijksstraatweg 5 De Meern (Utr) ... 03406-1324
Swed Teltronic AB, Harjedalsgatan 14 Vallingby 1 ... 372840

ROSS ENGINEERING CORP, 11915 SHADYBROOK
SARATOGA, CAL, 95070 ... 408 253-1572
H ROSS, EMP 16, ENG 2, UP TO $100M

ROSS LABORATORIES INC, 3138 FAIRVIEW AVE E
SEATTLE, WASH, 98102 ... 206 EA 4-3950
H POLLACK

ROSS MATTHEWS CORP, E WARREN ST, FALL RIVER
MASS, 02723 ... 617 674-8436
E STRASMICH, EMP 275, ENG 3, $1,000-$2,500M

ROSTONE CORP, RT 52 SOUTH, LAFAYETTE
IND, 47902 ... 317 474-2421
J JAMISON, EMP 250, ENG 10

Mass E B Beach Co of NE, 15 Crane Ct
Woburn.......... 617 935-3150
Pa Anderson Connector Corp, Box 237
Wexford 412 776-3211
Can Electro-Porcelain Ltd, 173 Rogers St
Waterloo, Ont .... SH 3-2621
GB Rosite Ltd, Ashcroft Rd, Cirencester, Glos

ROTAMEC INC, 4121 REDWOOD AVE, LOS ANGELES
CAL, 90066, TWX 910-343-6458.......... 213 870-6131
K HODGES, EMP 35, ENG 2, $250-$500M
Cal Electric Motor Eng Inc, Box 11621
Palo Alto 321-6408
Cal Electric Motor Engrg, 6515 Sunset Blvd, Los Angeles
Fla Geartner Assoc, 2101 Mohawk Trail
Maitland.......... 305 647-4000
Md Tomco Sales Co, 4233 58th St
Bladensburg.......... 277-1610
Mass Kitchen & Kutchen, 17 Waltham St
Lexington 617 862-8230
Mich Sheridan Assoc, 25625 Southfield
Southfield 313 358-3333
Mo Sheridan Assoc, 10137 W Florissant
St Louis 314 524-4800
NJ Hy-Rel Electronic Sales, 753 Bergen Blvd
Ridgefield 201 945-7511
Ohio Sheridan Assoc, 10 Knollcrest Dr
Reading 513 761-5432
Tex Carey & Assoc, 3315 W 12th St
Houston 713 869-3623

ROTARY CO, INC, 1746 DALE RD, BUFFALO
N Y, 14225 .... 716 894-4425
W WEISS, EMP 70, ENG 1, $1,000-$2,500M

ROTATING COMPONENTS DIV INSTRUMENT SYS CORP
1560 FIFTH AVE, BAY SHORE
N Y, 11706, TWX 516-666-7047 .... 516 MO 68500
N GIARRA, EMP 215, ENG 5, $1,000-$2,500M
Ala Grady Duckett Sales Co, Box 537
Hazel Green.......... 828-3475
Cal Shephard-Stern Co, 4109 W Burbank Blvd
Burbank 213 849-6671
Conn Todino Eng Sales Inc, Box 402
Milford .... TR 4-6643
Fla Grady Duckett Sales Co, Box 15215
Tampa 813 876-5295
Fla Grady Duckett Sales Co, Box 310
Miami.......... 947-3974
Ga Grady Duckett Sales Co, Box 29067
Atlanta 451-3529
Ill E Schmeichel Co, 5968 W Chicago Ave
Chicago .... ES 8-2070
Md J H Elctn Sales Co, Box 6844
Towson.......... 301 VA 5-4440
Mass Todino Eng Sales Inc, Box 201
Needham Hgts .... HI 4-7925
NY Manufacturers Reps Inc, 55 Central Ave
Farmingdale.......... 516 293-9696
NC Grady Duckett Sales Co, Box 22002
Greensboro.......... 919 273-4617
Pa Lundy Assoc, 224 Wickford Rd
Havertown 449-2211
For Milano Bros, 250 W 57th St
New York, N Y .... 212 CI 6-3210

ROTAX LTD, WILLESDEN JUNCTION, LONDON NW 10
ENG 019657777
F YATES, EMP 3500, ENG 120, OVER $10,000M
Fr Lucas Service Europe
96 Boulevrd du General Leccerc
Nanterre.......... 204-54-65
Ger Joseph Lucas GMBH, 505 Porz Bei Koln
Postfach 609
Holl Transmark, Box 30 Hooftan 37, Bussurn
Nor J Eide, Box 97, Fjosanger Bergen
Swed Aeromateriel A B, 6 Grevmagnigatan, Stockholm
Belg Comauto S A, Grand Bigarre, Brussels
Isrl Consolidated Near East Co Ltd
115 Hachashmonaim St, Tel Aviv
Aust Lucas Rotax (Australia) Pty, Joynton Ave Zetland
Sydney

ROTOHMETERS INC, 46 PROSPECT ST, YONKERS
N Y, 10701 .... 914 YO 3-5900
J WILENTCHIK, EMP 25, ENG 1, UP TO $100M

ROTOLITE SALES CORP, BOX 7H, STIRLING
N J, 07980 .... 201 647-1040
L NELLIGAN, EMP 24, ENG 3

ROTOR CLIP CO, INC, 1323 RANDALL AVE, BRONX
N Y, 10474 .... 212 DA 9-0400
R SLASS, EMP 50, ENG 4
Ill H F Spath & Co, 5413 Diversey Ave
Chicago .... BE 7-1020
Ind L T Clower, 3526 W Morris St, Indianapolis
Mich W T Peterson Co, Box 233, Warren.......... SL 4-8600
Ohio R L English Co, 6510 Juniata Ave
Cleveland.......... 391-8400

ROTRON MFG CO INC, HASBROUCK LN, WOODSTOCK
N Y, 12498, TWX 510-247-9033 .... 914 679-2401
E GODDARD, EMP 481, ENG 14, OVER $10,000M
Ariz Fryco, Box 460, Scottsdale.......... WH 5-3281
Cal Rotron/Pacific, 1912 W Burbank Blvd
Burbank 849-7871
Cal Rotron/Pacific, 560 San Antonio Rd
Palo Alto 328-6633

Colo Gossard Assoc, 12159 W Dakota Dr
Denver 985-0602
Conn Circuit Sales Co, Inc, 1126 Fairfield Ave
Bridgeport 929-4249
Fla G F Bohman Assoc, 7040 Lake Ellenor Dr
Orlando 855-0274
Ill Gassner & Clark Co, 6644 N Western Ave
Chicago .... RO 4-6121
Kan Thomas-Modrcin Assoc Inc, Box 189
Shawnee Mission.......... 432-2131
Mass Circuit Sales Co, 591 North Ave
Wakefield.......... 245-5320
Mich Carrier & Gable Inc, 15565 Northland Dr
Southfield 444-8980
Minn E C Electronic Sales, 10108 Abbott Ave S
Minneapolis.......... 888-4626
Mo Thomas-Modrcin Assoc Inc, Box 545
Hazelwood.......... 838-6446
NJ F F Sylvester Assoc, 649 Morris Ave
Springfield.......... DR 6-3324
NY F F Sylvester Assoc, 260 Northern Blvd
Great Neck.......... 487-6447
NC Alan E Over, 3723 Country Ridge Rd
Charlotte 704 366-8601
Ohio F J Campisano, Box 11043
Cincinnati.......... MO 2-1616
Ohio Components Inc, 7461 N Linden La
Cleveland.......... VI 2-2737
Okla Ammon & Champion Co, Box 4682
Tulsa.......... NA 7-7670
Okla Ammon & Champion Co, Box 12274
Oklahoma City.......... 942-8222
Pa Rotron Engrg Sales, 211 Ford Rd
Bala-Cynwyd .... MO 4-4337
Tex Ammon & Champion Co, P O Box 35263
Dallas.......... FL 7-8441
Tex Ammon & Champion Co, Box 35552
Houston 729-1233
Wash R Johnston Co Inc, 1011 NE 69th
Seattle 524-5170
Can Aerovox Canada Ltd, 1551 Barton St E
Hamilton, Ont.......... 545-5893
For Ad Auriema Inc, 85 Broad St
New York, NY .... BO 9-7750

ROUGE ELECTRONICS CO, 3401 NE 23RD ST
OKLAHOMA CITY, OKLA, 73121 .... 405 GA 4-1435
J NORVELL, EMP 24, ENG 4, $250-$500M
Ohio F Ohmer & Assoc, Box 2013 Kettering Br
Dayton 434-1454

ROUND HILL ASSOCIATES, INC, 434 SIXTH AVE
NEW YORK, N Y, 10011 .... 212 CA 8-6600
A SCHWARTZ, EMP 200, ENG 25, OVER $10,000M

ROVALCO CONTROLS, 1879 MULLIN AVE, TORRANCE
CAL, 90508, TWX 213-328-6629.......... 213 SP 5-2221
G BUMGARNER, EMP 42, ENG 2, $500-$1,000M
Conn Aerol Assoc, Box 146, Essex 203 767-0156
Fla Estes Assoc, 629 N Lake Barton Rd
Orlando 277-1510
Ga Estes Assoc, Box 4071, Decatur 404 373-8266
Ill Aerol Assoc, 466 Central Ave
Northfield.......... 312 446-6486
Kan Aerol Assoc, 6631 E Kellogg
Wichita.......... 316 683-7421
Md Aerol Assoc, 2926 E Cold Spring La
Baltimore.......... 301 426-1665
Minn Aerol Assoc, Rte 1 Box 230
Anoka 612 421-0751
Mo Aerol Assoc, 34 N Brentwood Blvd
St Louis 314 725-5361
NJ Aerol Assoc, 730 Clifton Ave
Clifton 201 779-6744
NY Aerol Assoc, 170 Great Neck Rd
Great Neck.......... 516 487-9650
NY Aerol Assoc, 1185 Scottsville Rd
Rochester.......... 716 235-7290
Ohio Aerol Assoc, 6010 Far Hills Ave
Dayton 513 434-6504

ROVETI INSTRUMENTS, 238 WEST ST, ANNAPOLIS
MD, 21401 .... 301 932-8800
A BELENSKY, EMP 9, ENG 3, $100-$250M

ROWAN CONTROLLER CO, 2 CRESCENT PL
OCEANPORT, N J, 07757 .... 201 229-5000
P EATON, EMP 1000, ENG 110, OVER $10,000M
Ala Craft Assoc, 301 Forest Park Ct
Huntsville 205 837-0221
Cal Artwel Electric Inc, 1485 Bayshore Blvd
San Francisco 467-1880
Cal W E Starr & Co, 5440 Pomona Blvd
Los Angeles.......... 685-5670
Colo I W Strong & Assoc, Inc, 635 Canosa Ct
Denver 292-6900
Conn Rowan Controller Co, Box 206
Rockville 203 875-4328
Fla Impex Sales Ltd, 1101 Brickell Ave
Miami.......... 373-8386
Ga Craft Assoc, 3151 Maple Dr N E
Atlanta 404 237-2282
Ill Rowan Controller Co, 125 W Factory Rd
Addison 312 543-9106
Ill Wilkinson Assoc, Box 325
Wilmette 312 256-1597
Ind F E Sedlak Co, 2511 E 46th St, Indpls.......... 545-1141
Kan Wells-White Co, 2100 W 75th St
Prairie Village.......... 913 EN 2-2533
La Mid-South Sales, 4414 Calliope St
New Orleans 504 822-3030
Md Rowan Controller Co, Bethel Rd
Westminster 301 876-2214
Mass Rowan Controller Co, 789 Mass Ave
East Lexington.......... 862-3767
Mich Harris-Blancett & Assoc, 14631 W McNichols Rd
Detroit 272-0812
Minn Rowan Controller Co, 2801 37th Ave NE
Minneapolis.......... 612 781-8231
Mo Wells-White Co, 1200 Whitney Rd
Independence.......... 816 257-2091
Mo Wells-White Co, 7607 Page Blvd
St Louis .... 314 PA 6-2511
NJ Rowan Controller Co, 570 N Broad St
Elizabeth 354-8312
NJ Bonn Assoc, 266 Lake Ave
Metuchen 201 549-9573
NY Rowan Controller Co, 8 Schryver La
Hyde Park 471-4970
NY KLM Assoc, 9 Hollywood Dr
Whitesboro.......... 736-2450
NY K L M Assoc, 201 S Main St
N Syracuse 315 458-6214
NY K L M Assoc, 8 Bearhill Dr
Palmyra 315 597-9776
NC Rowan Controller Co, 2622 Country Club La
Charlotte 704 334-5096
Ohio Rowan Controller Co, 8905 Lake Ave
Cleveland.......... 961-3939
Ohio Dorsey-Alexander, Box 6296, Cincinnati 221-7518
Pa Rowan Controller Co, 60 Garrett Rd
Upper Darby 528-6753
Pa Rowan Controller Co, Box 11613
Pittsburgh.......... 412 341-3011
Tex Industrial Equip Co of Houston
6831 Navigation Blvd, Houston 928-3463
Tex Industrial Equipment Co, 4924 Greenville Ave
Dallas.......... 368-8087
Wash Seatronics Inc, 6133 Maynard Ave S
Seattle 206 725-4328
Can A Deskin Sales Co, 1565 Louvain St
Montreal, Que.......... 384-1420
Ger Rowan (Deutschland) Gmbh Electro Technik
893 Schwabmunchen, Riedstr 26

ROWE INDUSTRIES INC, 1702 AIRPORT HWY, TOLEDO
OHIO, 43609, TWX 810-442-1734 .... 419 382-5666
T RICKETTS, EMP 125, ENG 6, $1,000-$2,500M
Cal H K Foraker Co, Box 1325
Fremont 415 657-2213
Mass EDCOM, 815 Washington St
Newtonville.......... 969-9710
NJ Quality Components Co, Box 586
Cherry Hill.......... 428-6266
NY L Taggart, 285 Woodland Rd, Pittsford.......... 381-3380
NC Bill Henry Assoc, 1043-D Providence Rd
Charlotte 375-8958

ROXTER CORP, 10-11 40TH AVE, LONG ISLAND CITY
N Y, 11101 .... 212 392-5060
H SCIAN, EMP 75, ENG 4, $500-$1,000M
Cal M Cohen, 1125 S Corning St
Los Angeles.......... 655-7934
Ill J J Hall, Box 27, Joliet 722-1115
Md W H Bramman, 1 Country Club Dr
Phoenix 592-7495
Mass C Ellingwood, 38 Pequot Rd, Wayland.......... 358-2883
Wash R J Heineman, 1505 Fourth Ave
Seattle .... MA 4-2373

ROYAL WORCESTER INDUSTRIAL CERAMICS INC
11 E 26TH ST, NEW YORK
NY, 10010 .... 212 683-7130
T HAYDEN, EMP 250, ENG 20

ROYAL ZENITH CORP, 2101 JERICHO TPK
NEW HYDE PARK, N Y, 11040 .... 516 488-3200
M ROSS, EMP 60, ENG 3
Ill Royal Zenith Corp, 549 W Washington Blvd
Chicago .... RA 6-6441
Pa Royal Zenith Corp, Broad & Chestnut
Phila.......... LO 3-4115
Va Alexander Malachuk, 501 J Marshall Dr
Vienna .... WE 8-6707

ROYCO INSTRUMENTS INC, 141 JEFFERSON DR
MENLO PARK, CAL, 94025 .... 415 325-7811
EMP 48, ENG 9, $1,000-$2,500M
Cal J Theis, 432 - 31st St
Manhattan Beach 257-5340
NJ R Brown, Box 404, Woodbury 212 265-2086
Pa T Paffas, 609 S Central Blvd, Broomall 265-2086
Fr V Promesur, 19, Rue Eugene Carriere, Paris
GB Hawksley & Sons, 12 Peter Rd, Lancing, Sessex
Ital G Terzano & Co, via Darwin 19-2123, Milan
Jap Yoshio Kondoh, 36-4 1-Chome Chofu-Minemachi
Ohta-Ku, Tokyo
Swit Omni-Ray AG, Doufourstr 56, Zurich
Belg Ets Van der Heyden, 49, Rue du Marias, Brussels

ROYSON ENGINEERING CO, 101 N PENN ST
HATBORO, PA, 19040.......... 215 675-2800
E WIEGMANN, EMP 40, ENG 5, $500-$1,000M
Cal Lewis & Assoc, 607 Market St
San Francisco .... YU 2-8777
Cal Time-Trol, Inc, 14522 Friar St
Van Nuys .... TR 3-5151
Ind C D Arnold Co, 4165 Millersville Rd
Indianapolis.......... LI 6-4053
Mich George r Peters, 3347 Coolidge Hwy
Berkley.......... 564-6325
Mo C B Fall, 317 N 11th St, St Louis.......... CH 1-2433
NJ Engineering Sales Co, 1 Columbia Ave
Hopewell .... HO 6-0747

Ohio Beedle Equipment Co, Box 36061
Cincinnati.............................793-0140
Ohio Waldrip Blankenburg & Co, 7650 Chippewa Rd
Brecksville............................526-1100
Pa Bollinger & Bradford, Box 8088
Pittsburgh.............................LO 1-2340
Va Hildenbrand Co, Box 1060, Fairfax.......280-2330
Wash Fairman B Lee, 14629 22nd Ave SW
Seattle................................CH 4-7262
Wis Automation Engr Co, 12740 N River Rd
Mequon.................................FL 4-4984
Can Lisle Instrument Systems, 70 Sheffield St
Toronto, Ont...........................249-9151

RUNDEL ELECTRIC CO, 230 ADRIAN RD, MILLBRAE
CAL, 94031.............................415 697-5500
T LEVIN, EMP 50, ENG 15, $1,000-$2,500M
Cal Combustion & Controls, 15759 Stealthern St
Van Nuys...............................787-5660
Wash Power & Controls, 11300 25th Ave, N E
Seattle................................EM 2-2321

RUNZEL CORD & WIRE CO, 4727 MONTROSE AVE
CHICAGO, ILL, 60641................312 MU 5-7400
A DRAUGELIS, EMP 100

RUSSELL, BURDSALL & WARD, BOLT & NUT CO
MIDLAND AVE, PORT CHESTER
N Y, 10573.............................914 WE 96000
T TOBY, EMP 1500, ENG 10, OVER $10,000M

RUSTRAK INSTRUMENT DIV GULTON IND INC
MUNICIPAL AIRPORT, MANCHESTER
NH, 03103..............................603 623-3596
R PHILLIPS, EMP 95, ENG 5, $1,000-$2,500M
Ala W A Brown & Assoc Inc, 1314 Buford St, NW
Huntsville.............................205 536-8393
Alas Arva Inc, Box 759, Anchorage.......907 272-5231
Ariz E V Roberts & Assoc Inc, 77 3rd Ave W
Scottsdale.............................602 947-7695
Cal E V Roberts & Assoc Inc, 9601 W Jefferson Blvd
Culver City............................213 870-9561
Cal E V Roberts & Assoc, Inc, 800 San Antonio Rd
Palo Alto..............................415 324-1671
Cal E V Roberts & Assoc, Inc, 4379 30th St
San Diego..............................714 282-7691
Colo Williams Assoc, 4971 Jackson St
Denver.................................303 388-4391
Fla W A Brown & Assoc Inc, 222 Weber Ave
Orlando................................305 425-5505
Fla W A Brown & Assoc Inc, 3039 NE 32nd Ave
Ft Lauderdale..........................305 564-8000
Ga W A Brown & Assoc, Inc, 1590 Cooledge Rd NW
Tucker.................................404 939-1674
Ill Warner Instr & Sls Co, Inc, 6548 W Higgins Ave
Chicago................................312 631-6778
Ind Scott Electronics, Inc, 418 E Berry St
Fort Wayne.............................219 743-1586
Ind Scott Electronics, Inc, 911 N Penna Ave
Indianapolis...........................317 635-8951
Ky Scott Electronics, Inc, 366 Francis Bldg
Louisville.............................502 583-3220
Mass Gibson Engrg Co Inc, 90 Broadway
Norwood................................617 769-3600
Mich S Sterling Co, 21250 1/2 Mile Rd
Southfield.............................313 357-3700
Minn Heimann Co, 5603 Lyndale Ave S
Minneapolis............................612 827-5457
Mo S Sterling Co, 11734 Lackland Ind Dr
St Louis...............................314 542-3636
NJ Podeyn & Schmidt Inc, 207 Hackensack St
Wood-Ridge.............................201 438-2780
NM Williams Assoc Inc, 420 Washington SE
Albuquerque............................505 255-1638
NY Podeyn & Schmidt Inc, 420 Northern Blvd
Great Neck.............................516 487-1173
NY Ossmann Instruments Inc, 3100 Monroe Ave
Rochester..............................716 586-0380
NY Ossmann Instruments Inc, 101 Pickard Dr
Syracuse...............................315 454-2461
NY Ossmann Instruments Inc, 1901 Vestal Pkwy E
Vestal.................................607 785-9947
NY Ossmann Instruments Inc, 122 E Main St
Wappingers Falls.......................914 297-7777
NC W A Brown & Assoc Inc, 1108 Burke St
Winston-Salem..........................919 725-5384
Ohio Scott Electronics, 1836 Euclid Ave
Cleveland..............................216 861-2626
Ohio Scott Electronics, 81 E State St
Columbus...............................614 228-2313
Ohio Scott Electronics, Inc, 517 Hulman Bldg
Dayton.................................513 223-2652
Ohio Scott Electronics, Inc, 9505 Montgomery Rd
Cincinnati.............................513 791-2513
Ore Arva, Inc, 2035 SW 58th Ave
Portland...............................503 292-8762
Pa Holdsworth & Co, 8 Smedley La
Newtown Square.........................215 356-8550
Pa Whitaker Controls, 607 Laurel Dr
Monroeville............................412 371-6220
Tex Kemp Engineering Co, Inc, 2618 Manana Dr
Dallas.................................214 357-6663
Utah Williams Assoc, Inc, 2461 S Main St
Salt Lake City.........................801 466-8709
Va W A Brown & Assoc, Inc, 325 1st St
Alexandria.............................703 836-1800
Wash Arva Inc, 1320 Prospect St, Seattle..206 622-0177
Wis Automation Eng Co Inc, 12740 N River Rd 43W
Mequon.................................414 242-1520
Can R-O-R Assocs, Ltd, 1470 Don Mills Rd
Don Mills, Ont.........................416 444-4403
Can R-O-R Assocs, Ltd, 3330 Cavendish Blvd
Montreal 28............................514 482-8430
Can R-O-R Assocs Ltd, 1320 Carling Ave
Ottawa 3 Ont...........................613 722-6531
Den Scaniameter A/S, Finsensvej 39, Kobenhavn F
Fr Tranchant Electronique
19-21 Rue Madame De Sanzillon, Clichy Seine
Ger Kontron, GmbH & Co K G, Lerchenstr 8
8 Munchen-Feldmoching
GB Gulton Industries Britain Ltd
c/o The Hyde Lower Bevendean, Brighton 7
Holl Mulder-Hardenberg, Michelangelostr 10
Amsterdam-Z
Ital Forniture Appar e Internazi Strumenti
Via F Koristka 8/10, Milano
Nor J M Feiring A/S, Langmyrgrenda 1, Oslo
SAfr A C Gowlett Pty Ltd, Box 1257, Johannesburg
Swed A B Zander & Ingestrom, Fyrverkarbacken 34
Stockholm
Swit Kontron Electronics, Ltd, Hardstr 235, Zurich
BC Arva, Inc, 1624 W 3rd Ave, Vancouver....736-6377
Ind Landseas Corp, 48 W 48th St, New York, NY
Isrl Landseas Ltd, 29 Bezalel St, Tel-Aviv
Mex Instrumentos Ind S A, Manual Maria Contreras 82
Mexico 4, D F
NZ B R Homersham Ltd, 126 Victoria St, Christchurch
Aust Industrial Controls Pty Ltd
Box 9, 600 Parramatta Rd, Petersham, NSW

RYCOM INSTRUMENTS, 9351 E 59TH ST, RAYTOWN
MO, 64133..............................816 353-2100
E TUEL, EMP 30, ENG 5, $500-$1,000M
Cal Dolphin Engrg Co, 3410 Lakeshore Ave
Oakland................................451-8262
Cal Kennedy Engrg Co, 12631 E Imperial Hwy
Santa Fe Springs.......................868-9965
Ga Caramy Communications Co, 426 Decatur Fed Bldg
Decatur................................373-7635
Ill Cunningham Assoc, 435 Addison Ave
Elmhurst...............................832-0905
Md Tessco, Inc, 1931 Greenspring Dr
Timonium...............................252-5610
Can Tele-Radio Systems Ltd, 1015 Finch Ave W
Toronto, Ont...........................762-8224

RYE INDUSTRIES, INC, 125 SPENCER PL
MAMARONECK, N Y, 10543................914 698-0080
C DAVID, EMP 40, ENG 3, $1,000-$2,500M
Cal Marshank Sales Co, 7422 Melrose Ave
Los Angeles............................938-2591
Colo Norris & Co, 915 Cheyenne Blvd
Colo Springs...........................685-9319
Haw Av-Tronic Sales, 825 Keeaumoku St, Honolulu
Ill W J Doyle Co, 2600 W Touhy Ave
Chicago................................BR 4-6685
Kan Penzner Assoc, Inc, Box 4362
Overland Park..........................DU 1-0004
Mass Montague Assoc, 404 Jerusalem Rd
Cohasset...............................383-0634
NY Bittan Assoc, Inc, 381 Sunrise Hwy
Lynbrook...............................593-3833
NC Clymer Enterprises, Inc, 1605 Chatham Ave
Charlotte..............................376-5951
Ohio H H Seay Co, 3850 Fairlington Dr
Columbus...............................HU 8-9994
Ore Van Voorhees Assoc, 4415 N E Sandy Blvd
Portland...............................287-3355
Pa John Mustico Co, 206 Bewley Rd
Havertown..............................hi 6-1961

RYERSON & SON INC, J T, 2558 W 16TH ST
CHICAGO
ILL, 60608, TWX 312 265-1460........312 RO 2-2121
EMP 4000, OVER $10,000M
Cal J T Ryerson & Son, 65th & Hollis Sts
Emeryville.............................653-2933
Cal J T Ryerson & Co, 4310 E Bandini Blvd
Los Angeles............................AN 2-6141
Colo J T Ryerson & Son, 6301 Dexter St
Commerce City..........................287-0393
Conn J T Ryerson & Son, 780 N Colony Rd
Wallingford............................269-8744
Ind J T Ryerson & Son, 6701 E English Ave
Indnpls................................FL 9-8282
Mass J T Ryerson & Son, 60 Everett St
Boston.................................ST 2-6900
Mich J T Ryerson & Son, 1600 E Euclid Ave
Detroit................................874-3311
Minn J T Ryerson & Son, 1605 N County Rd
Minneapolis............................544-4401
Mo J T Ryerson & Son, 5 Clinton St
St Louis...............................CE 1-1020
Mo J T Ryerson & Son, 101 E Ninth Ave
N Kansas City..........................GR 1-3500
NJ J T Ryerson & Son, 203 West Side Ave
Jersey City............................HE 4-1123
NY J T Ryerson & Son, 40 Stanley St
Buffalo................................TX 4-3311
NC J T Ryerson & Son, Mt Holly & HOVIS Rds
Charlotte..............................EX 2-1321
Ohio J T Ryerson & Son, 3475 Spring Grove Ave
Cincinnati.............................542-5800
Ohio J T Ryerson & Son, 5300 Lakeside Ave
Cleveland..............................432-1411
Pa J T Ryerson & Son, 5200 Grays Ave
Phila..................................SA 4-0700
Pa J T Ryerson & Son, Arch St & Bell Ave
Pittsburgh.............................923-2424
Tex J T Ryerson & Son, 4606 Singleton Blvd
Dallas.................................FE 1-4311
Tex J T Ryerson & Son, 1211 Kress St
Houston................................WA 8-5181
Wash J T Ryerson & Son, N 207 Freya St
Spokane................................KE 5-1581
Wash J T Ryerson & Son, 1200 4th Ave S
Seattle................................MA 4-2300
Wis J T Ryerson & Son, 500 S 88th St
Milwaukee..............................GL 3-8000

RYKA SCIENTIFIC INC, 2455 E MIDDLEFIELD RD
MOUNTAIN VIEW, CAL, 94040..........415 968-1880
L FLETCHER, EMP 10, ENG 4, $250-$500M
Ariz Thorson Co, 2505 E Thomas Rd
Phoenix................................602 956-5300
Cal Thorson Co, 444 Olive St
San Diego..............................714 CY 8-8385
Cal Thorson Co, 2114 N Broadway
Santa Ana..............................714547-6206
Cal Thorson Co, 6824 Melrose Av
Los Angeles............................213 937-0790
Colo Thorson Co, 300 E Hampden Av
Englewood..............................303 SU 9-1841
Md E A Inc, 1406 Shoemaker Rd
Baltimore..............................301 825-2385
NM Thorson Co, 5921 Lomas NE
Albuquerque............................505 265-5655
Tex Thorson Co, 3312 Marquart
Houston................................713 NA 1-0990
Tex Thorson Co, 7700 Carpenter Fwy
Dallas.................................214 ME 1-5440
Wash Thorson Co, 1767 15th Av S
Seattle................................206 EA 5-5000

RYTRON CO, INC, 7303 LANKERSHIM BLVD
NORTH HOLLYWOOD, CAL, 91605......213 765-0756
D ST JOHN SHAW, EMP 75, ENG 6, $500-$1,000M

SACHS KG, ERSA ERNST, BOX 66, WERTHEIM/MAIN
W GERMANY, 6980....................(09342) 5161
G KNOSPE, EMP 200, ENG 8, $2,500-$5,000M

SAE ADVANCED PACKAGING INC
1357 E EDINGER AVE, SANTA ANA
CAL, 92705.............................714 781-6483
A MOYER, EMP 7, ENG 2, $100-$250M
Cal Stanford Applied Engrg, 340 Martin St
Santa Clara............................408 243-9200
Fr Machine & Products Co, 52 Wall St
New York...............................WH 4-4370

S & A ELECTRONICS INC, 202 W FLORENCE ST
TOLEDO, OHIO, 43605................419 693-0528
P WILSON, EMP 100, ENG 2, $1,000-$2,500M
Cal Logan & Logan, 703 Woodside Rd
Redwood City...........................365-1303
Cal Osborne & Bidwell, 2533 Mission St
San Marino.............................770-0300
Fla Winfeild Electronic Sales, 666 NE 125th St
Miami..................................751-5566
Ga Winfield Southeast Co, 2991 Drudi Hills Rd NE
Atlanta................................404 636-3023
Ind C Scheffler Co, 1133 Navajo Trail
Indnpls................................253-6337
Mass N R Macinnis, Box 131, Melrose........665-0879
Mich Riley & Petchell, 16515 School Craft Ave
Detroit................................313 838-9100
Minn L Johnson, 4033 Oregon Ave N, Mnpls...533-4835
Mo M E Bettis Co, 3706 Broadway
Kansas City............................561-0772
NY Kubrick & Yurman, 456 S Franklin St
Hempstead..............................IV 3-7230
Ohio J Olsen Co, 16205 Shaker Blvd
Cleveland..............................752-5444
Pa Stinson Platt Assoc, 227 Haverford Ave
Narberth...............................664-5511
Tex J B Guenther, 4533 N Central Ex
Dallas.................................528-6286
Wash Larabee Assoc, 7999 Perimeter Rd S
Seattle................................MU 2-2358

SAFETY ELECTRICAL EQUIPMENT CORP
1187 DIXWELL AVE, NEW HAVEN
CONN, 06514............................203 865-3171
H CLARKE, EMP 397, ENG 20, $5,000-$10,000M
Ill E K Goldschmidt, 80 E Jackson Blvd
Chicago................................427-5401
Mo H A Sperry, 915 Olive St, St Louis.......621-2349
NY H W Keyser, 103 Park Ave, New York....686-4840

SAFEWAY HEAT ELEMENTS INC, 440 MIDDLEFIELD ST
MIDDLETOWN
CONN, 06458, TWX 710 428-1655......203 346-6601
C GENSLER, EMP 130, ENG 11
Cal E A Wilcox Co, 173 Utah Ave
S San Fran.............................PL 6-7380
Cal E A Wilcox Co, 6436 E Corvette St
Los Angeles............................723-6436
Colo R G Davis Co, Box 12004 Alcott Sta
Denver.................................HA 2-6313
Ill Revere Engineering, 6272 W North Ave
Chicago................................637-7869
Minn F Peterson Co, Box 8409, Minneapolis....927-4453
NJ D J Fisher Co, 50 Franklin Tpk
Ho-Ho-Kus..............................652-0090
NY Terryberry Eng Sales Co, Box 32
Buffalo................................632-7404
NC W K Hile Co Inc, Box 1015, Matthews...847-9125
Pa Riley & Aleshire Inc, 306 Leedom St
Jenkintown.............................TU 4-1708
Wash E A Wilcox Co, 15001 8th Ave SW
Seattle................................682-1468
Can Railway & Power Eng Corp Ltd, Box 880
Montreal...............................WE 3-6741

SAGE ELECTRONICS CORP, BOX 3926, ROCHESTER NY, 14610, TWX 510-254-2861 .... 716 LU 6-8010
R GREENE, EMP 230, ENG 4, $1,000-$2,500M
Ala Frank C Nickerson Co, Box 1463 Huntsville 881-9565
Ariz Runyon Co, Inc, 6825 E Thomas Rd Scottsdale 602 947-5711
Cal M A Stolaroff Co, 4622 W Slausen Ave Los Angeles .... AX 5-7781
Cal J Pyle Co, 1611 Borel Pl, San Mateo 349-1266
Colo S-L Assoc, 11481 W 29th Pl, Denver 238-1807
Conn Tesco Inc, 132 New Haven Ave Milford .... TR 4-6643
Fla Frank C Nickerson Co, 4513 S Camerson Ave Tampa 833-4321
Ga Frank C Nickerson Co, 1244 Clairmont Ave Decatur 377-1575
Ill John G Twist Co, 5222 W Diversey Ave Chicago .... SP 7-2250
Ind Southern Sales Co, 105 Lakeshore Dr Angola 219 665-2109
Ind Southern Sales Co, 6216 Carrollton Ave Indianapolis 317 253-3359
Iowa Jerry Vrbik Co, 2818 A Ave NE Cedar Rapids .... EM 5-0461
Ky Southern Sales Co, 429 W Walnut St Louisville 502 583-6902
Md McCourt Co Inc, 28 W Penna Ave Baltimore 823-3455
Mass Tesco Inc, 50 Kearney Rd Needham Heights 444-7925
Mich Don Poulin Co, 17222 E Warren Ave Detroit 313 886-4990
Minn E Melius & Assoc, Inc, 3758 N Dunlap St St Paul 484-8541
Mo Technical Mktg Assoc Inc, 2050 Woodson Rd St Louis 314 427-3600
NJ Mid-Eastern Assoc, 1759 Country Club Dr Cherry Hill 428-7977
NY Reed Electronics Inc, 2815 Monroe Ave Rochester .... GR 3-2767
NY Ed Glass Assoc, 250 W 57th St New York 212 586-8440
NY Reed Electronics Inc, Box 187 Vestal 607 252-1987
NY Reed Electronics Inc, 326 Fay Rd Syracuse 315 468-5488
Ohio Walter J Brauer & Assoc, Box 305 Wickliffe 943-0601
Ohio Walter J Brauer & Assoc, Box 3085 Dayton 426-1692
Tex Solid State Sales Co, Box 20054 Dallas 214 861-4394
Wash Electronic Sales Corp, 5606 Calif Ave SW Seattle .... WE 2-0330
Can Electromechanical Products, Markham Rd Agincourt, Ont .... AX 3-7011
Fr Europelec, Les Clayes-Sous-Bois, S & O
GB Lectropon Ltd, Wellington St, Slough, Bucks

SAGE INSTRUMENTS INC, 2 SPRING ST WHITE PLAINS, N Y, 10601 .... 914 949-4121
H NEWMAN, EMP 20, ENG 4, $250-$500M
Cal Western Scientific Assoc, Box 678 Danville 837-4622
Cal M Erb Instruments, Inc, 2112 W Burbank Blvd Burbank 843-0775
DC Bunton Instrument Co, Inc, 489 S Stonestreet Ave Rockville, Md 762-5115
Ga Halco Instruments, Inc, 1534 N Decatur Rd N E Atlanta 378-4365
Ill W H Kessel Div, 110 S River Rd Des Plaines 229-1151
Ky Preiser Scientific Inc, 1500 Algonquin Pkway Louisville 636-3307
Mass E F Mahady Co, 225 Monsignor O'Brien Hwy Cambridge .... UN 4-8200
Mo Adlon Instrument Co, 4825 Black Hawk Dr St Louis .... ME 1-1199
NY Monroe Microscope, Box 656 Rochester .... GR 3-9400
Ohio Microscientific Co, Box 476 Worthington 888-5697
Pa E P Dolbey & Co, 465 Penn St Yeadon .... GR 6-9300
Tex Baltimore Inst Co Inc, 7216 Mimosa La Dallas .... EM 9-2433
W Va Preiser Scientific Inc, 900 MacCorkle Ave SW Charleston 343-5515
Can Welch Scientific, 106 Rivalda Rd Weston, Ont 247-5421

SAG HARBOR INDUSTRIES, INC, BAY DR SAG HARBOR, N Y, 11963 .... 516 725-0440
S MILLER, EMP 150, ENG 1, $500-$1,000M
Cal Charter Industrial Sales, Box 3202 Granada Hills 213 360-2295
Ore Van Voorhees Assoc, Box 4383 Portland 503 287-6633

ST JOHN X-RAY LABORATORY, CALIFON N J, 07830 .... 201 832-2449

ST MARYS CARBON CO, W STATE ST, ST MARYS PA, 15857 .... 814 834-2844
E SMITH, EMP 236, ENG 10, $2,500-$5,000M

SAKAE TSUSHIN KOGYO CO LTD 9-7 MITA 1-CHOME MEGURO-KU, TOKYO JAPAN, 153 .... 03 713-7168
T SHIMODA, EMP 150, ENG 15, OVER $10,000M
Den Ove Krarup, Landmalergarden Ullerslev 09 35 14 46
Ger Megatron G Kullick & Co 8 Muenchen 83 Box 0242 .... 46 60 24
GB Electro Mechanisms Ltd, 218-221 Bedford Ave Slough-Bucks 27242

SAKI MAGNETICS INC AN MCA INC CO, 1649 12TH ST SANTA MONICA, CAL, 90404 .... 213 393-9861
ADV PG 335
Cal Western Sales Assoc, Box 96 Mountain View 415 967-5913
Conn N P M Assoc, 522 E Putnam Ave Greenwich 203 869-4955

SALCH & CO HERBERT MKT DIV TOMPKINS RADIO PRODS, BONNIE VIEW, WOODSBORO TEX, 78393 .... 512 543-4400
H SALCH, $100-$250M

SAMARIUS, INC, 300 SEYMOUR AVE, DERBY CONN, 06418, TWX 710-451-2495 .... 203 735-7405
R HEITZ, EMP 70, ENG 3, $500-$1,000M
Cal M W Riedel & Co, 2215 W Valley Blvd Alhambra 283-7694
Colo Simpson Assoc, 8000 S Kendall Blvd Littleton 798-8439
Ill Bauman & Blazat, Box 364 Northtown, Chicago
Md Globe Assoc, 8121 Georgia Ave Silver Springs 587-0060
Mass Ray Perron & Co, 1870 Center St Boston 617 323-1008
Minn Boweng, 10414 Oak Ave, St Louis 429-7327
Minn Scott Elctns Sales, 5209 W 60th St Minneapolis 612 929-2985
NH Ray Perron & Co, 19 Caron Rd RFD 2 Manchester 603 472-3030
NJ Power Conversion & Control Co, Box 1251 Englewood Cliffs 569-0022
NY Power Conversion & Control Co 160-04 Cross Island Pkwy Whitestone 357-6381
NY Midstate Research, 327 Wellsley Rd Syracuse 478-0715
Ohio Sales Engineering Assoc, Box 92 Avon Lake 933-3327
Pa W Reeves Assoc, 2973 N Providence Rd Media 215 566-6709
Tex Stasco, 13310 Spring Grove Ave Dallas 214 239-5054
Can Banke Electronics Ltd, 767 Warden Ave Scarborough, Ont 751-7484
Can Banke Electronics Ltd, 767 Warden Ave Scarborough Ont 425-1611

SAMPSON ELECTRONIC PRODUCTS DIV 2244 S WESTERN AVE, CHICAGO ILL, 60608, TWX 910-221-1394 .... 312 847-6363
J ALSCHULER, ENG 6
Cal Coplan Assoc, 4206 A Glencoe Venice 213 397-2166
Cal Sinai-Johnson Inc, 817 Douglas St Redwood City 415 365-6263
Ind Morris-Cunningham & Assoc, 720 E 65th St Indianapolis 317 255-2458
Md Moler-Eader Assoc, 320 Hillen Rd Baltimore 301 825-1130
Mich Burcaw Company & Assoc, 18236 W Mc Nichols Detroit 313 533-7700
Minn Stack-Johnson Inc, 2907 Portland Ave S Minneapolis 612 827-3841
NJ Peterson-Rudnick Assoc, Box 822 West Caldwell 201 226-4363
NY Peterson-Rudnick Assoc, 120 Hilldale Rd Albertson 212 789-9585

SANDEFUR ENGINEERING CO, INC 14507 S HAWTHORNE BLVD, LAWNDALE CAL, 90260, TWX 910-325-6612 .... 213 772-5255
P EDENHOLM, EMP 14, ENG 1, $1,000-$2,500M
Ala W A Brown & Assoc, 1314 Burford St N W Huntsville 536-8393
Ariz Vinson Assoc, 44 E Indian School Rd Scottsdale 947-7371
Cal Claude Michael, Inc, 703 W Ivy St Glendale 245-9631
Cal Claude Michael Inc, 2634 Frontage Rd Mountain View 326-6884
Colo Vinson Assoc, 3600 S Lincoln Englewood .... SU 9-2203
Conn Technical Instruments Inc, 575 Broad St Bridgeport .... FO 8-4582
Fla W A Brown & Assoc, 3039 N E 32nd Ave Ft Lauderdale 564-8000
Fla W A Brown & Assoc, 222 Weber Ave Orlando 425-5505
Fla W A Brown & Assoc, 212 Bradley Dr, NE Fort Walton Beach 243-6424
Ga W A Brown & Assoc, 1590 Cooledge Rd, NW Tucker 939-1674
Ill Marsland Distributing Corp, 6699 Lincoln Ave Chicago 676-1104
Ind Marsland Distributing Corp, 6730 E 19TH St Indianapolis 356-4249
Mass Technical Instruments, Inc, 122 West St Wilmington 944-3930
Mich Electro Enterprises, Inc, 10745 Morang Dr Detroit 886-2281
Minn Marsland Distributing Corp, 231 N Edgewood Ave Minneapolis 545-4481
Mo Marsland Distributing Corp, Box 567 Florrissant 741-3779
NJ Louis A Garten & Assoc, 375 Passaic Ave Caldwell .... CA 6-7800
NM Vinson Assoc, Box 3295, Albuquerque 265-7642
NY Advanced Components Corp, 119 Luther Ave Liverpool 472-7886
NC W A Brown & Assoc, 1108 Burke St Winston-Salem 725-5384
Ohio Electro Enterprises, Inc, 335 E 200th St Cleveland 486-1140
Ohio Electro Enterprises, Inc, 2621 Mardon Dr Dayton 426-5551
Pa Electro Enterprises, Inc, 201 Penn Center Bvd Pittsburgh 371-8497
Pa Louis A Garten Assoc, 947 Old York Rd Abington .... WA 7-1200
Tex P J Scanlon Co, 724-C S Sherman St Richardson .... AD I-4661
Va W A Brown & Assoc, 325 First St Alexandria 836-1800
Va W A Brown & Assoc, 82 Huxley Pl Newport News 245-8272

SANDERS ASSOCIATES, INC, 95 CANAL ST, NASHUA N H, 03060, TWX 710-228-1894 .... 603 883-3321
M GOULDER, EMP 10000, ENG 2800, OVER $10,000M
Ala Sanders Assoc Inc, 3322 S Memorial Pkwy Huntsville 205 881-1940
Cal Sanders Assoc Inc, 885 N San Antonio Rd Los Altos 415 948-9010
Cal Sanders Assoc Inc, 1311 Ynez Pl Coronado 714 435-1900
Cal Sanders Assoc Inc, 5959 W Century Blvd Los Angeles 213 776-5480
DC Sanders Assoc Inc, 825 New Hampshire Ave NW Washington 202 333-7357
DC Sanders Assoc Inc, 1750 Pennsylvania Ave Washington 202 298-6842
Ill Sanders Assoc Inc, 8501 W Higgins Rd Chicago 312 693-2087
Me Sanders Assoc Inc, 133 Pope Ave South Portland 207 775-5471
Mass Sanders Assoc Inc, Crosby Rd Bedford 617 275-0200
Mass Sanders Assoc Inc, 701 Concord Ave Cambridge 617 868-2000
NH Sanders Assoc Inc, Grenier Field Manchester 603 669-4615
NJ Sanders Assoc Inc, 121 Monmouth Pk Hwy West Long Branch 201 229-6050
NY Sanders Assoc Inc, 1 Fairchild Ave Plainview 516 938-8300
NY Sanders Assoc Inc, 400 Madison Ave New York 212 421-5664
Tex Sanders Assoc Inc, 2815 W T C Jester Blvd Houston 713 681-3663
Tex Sanders Assoc Inc, 207 Killarney Dr San Antonio 512 534-1369

SAN-EI INSTRUMENT CO LTD 89 1-CHOME KASHIWAGI SHINJUKU-KU, TOKYO JAPAN 363-8251
K YAMAGUCHI, EMP 350, ENG 100
NY Medical Systems Corp, 43 Plymouth Rd Great Neck .... HU 2-0808
Fr RACIA, 65 et 65 bis Blvd Pierre Ier 33 Bordeaux 56 52 69 34
GB Instrumentarium Ltd, 28 Manchester St London W I .... Wel 5323
Swit Heberlein & Co Ag, Wattwil Schweiz 074 7 13 21
Aust Warburton Franki Ltd, 372 Eastern Valley Way Chatswood NSW 40 3261

SAN FERNANDO ELECTRIC MFG CO, 1509 FIRST ST SAN FERNANDO, CAL, 91341 .... 213 365-9411
L SMITH, EMP 475, ENG 9, $5,000-$10,000M
Ariz Ruby Sales Co, Box 11277, Tucson 602 294-0762
Cal Ruby Sales Co, Box 511 San Fernando 213 361-1201
Colo Ruby Sales Co, 1200 S Alton Denver 303 755-1714
Conn Gerald Rosen Co Inc, 194 Plymouth St Stratford 203 375-5456
Conn Dage Corp, 757 Main St, Stamford 203 324-3123
Fla Perrott Assoc, 1607 Forsyth Rd Orlando 305 275-1132
Fla Perrott Assoc, Box 4532 Clearwater 813 531-5513
Fla Perrott Assoc, 7515 W Lake Dr W Palm Beach 305 967-1770
Ill Ruby Sales Co, Box 391 Park Ridge 312 763-2255
Md Valley Hamilton Electro, 8809 Satyrhill Rd Baltimore 301 668-4900
Mass Gerald Rosen Co Inc, 563 Worcester Rd Natick 617 655-2211
Minn Smith Engineering Assoc, 2278 Como Ave St Paul 612 646-4851
Mo R F Carlson & Co, 8721 Manchester Rd St Louis 314 961-4485
NY Fowler-Beach Corp, 3700 East Ave Rochester 716 586-0468
Ohio R G Sidnell & Co Inc, 14701 Detroit Ave Cleveland 216 221-1313
Ohio R G Sidnell & Co Inc, 3400 S Dixie Dr Dayton 513 293-1194
Tex Ruby Sales Co, Box 9894, Dallas 214 827-6630
Wash Blair Hirsch Co, 4013 Leary Way NW Seattle 206 783-3423
Can Whittaker Elctns Ltd, 42 Howden Ave Ottawa Ont 613 224-1221
Can Whittaker Elctns Ltd, Box 216 Roxboro Que 514 683-3621
Can Whittaker Elctns Ltd, 1885 Wilson Ave Weston Ont 416 247-7454
Aust A J Ferguson (Adelaide) Pty Ltd, 189 Flinders St Adelaide 29-1922

SANFORD MILLER CORP, 89 THROOP AVE
BROOKLYN, N Y, 11206 .... 212 EV 70600
I ISERSON, EMP 12, ENG 2, $250-$500M
Ga R W Allen, Sta C Box 7142, Atlanta .... CE 3-2361
Ill Bauman, Bluzat, Box 364, Northtown Sta
Chicago 761-3630
La Glidden Eng & Equip Co, Box 4063
New Orleans 729-0641
NY Verter Sales Co, 2352 E 66th St
Brooklyn .... HI 4-3880
Ohio Midwest Sales Co, 3219 W 117th St
Cleveland .... WI 1-2700
Tex Glidden Eng & Equip Co, 3802 Winchester St
Houston 224-6471
Tex Glidden Eng & Equip Co, 6617 Snider Plaza
Dallas 363-6539
Tex Glidden Eng & Equip Co, 1909 Martel Ave
Ft Worth .... ED 2-9593

SANGAMO ELECTRIC CO, BOX 359, SPRINGFIELD
ILL, 62705, TWX 910-242-0533 217-544-6411
W LOVELESS, EMP 5000, OVER $10,000M

SANGAMO ELECTRIC CO, CAPACITOR DIV, BOX 128, PICKENS
S C, 29671 .... 803 878-6311
W BAKES, EMP 5000, ENG 200, OVER $10,000M
ADV PGS 101 111
Ariz El-Kap Sales Co, 7050 E Moreland St
Scottsdale 946-2457
Cal El-Kap Sales Co, 2808 Santa Monica Blvd
Santa Monica 451-9881
Cal Sangamo Electric Co, 1020 Corporation Way
Palo Alto 967-1653
Fla J J Smith & Assoc, Box 460
Winter Park 644-4316
Fla J J Smith & Assoc, Box 573, Biscayne Annex
Miami 374-6784
Ill Sangamo Electric Co, 1400 Winston Plaza
Melrose Pk 344-3275
Ill Sangamo Electric Co, 1301 n 11th St
Springfield 544-6411
Mass Sangamo Electric Co, 817 Washington St
Braintree 848-0532
Mich D E Poulin Co, 17222 E Warren Ave
Detroit 886-4990
Minn Stan Clothier Co, 7400 Lyndale Ave
Minneapolis 612 869-3231
Ohio Sangamo Electric Co, 1640 W Lane Ave
Columbus 486-7791
Ore Chuck Shanks & Assoc, 3104 S W 87 Ave
Portland 292-5656
Tex R E Nesbitt Co, 4810 Hazard, Houston 528-3811
Tex R E Nesbitt Co, 2930 Merrell Rd
Dallas 357-4601
Can D R Beattie Ltd, 1260 Lakeshore Rd E
Pt Credit, Ont 274-3445

SANKEN ELECTRIC CO, LTD, 1-22-8 NISHI-IKEBUKURO
TOSHIMA-KU, TOKYO
JAPAN, TWX 0272-2323 .... 03 986-6151
B SUZUKI, EMP 1700, ENG 100, $1,000-$2,500M
Den Krarup, Landmalergarden, Ullerslev 09-35 446
Ger Hans Burklin, Schillerstr 40, 8 Munchen 15
GB Photain Controls Ltd, Randalls Rd, Leatherhead
Surry
Swed Aug Eklow AB, Norrtullpalatset Ynglingagatan 18
Stockholm

SANKYO SEIKI MFG CO, LTD
17-2, 1-CHOME SHINBASHI, MINATO-KU, TOKYO
JAPAN, TWX 222 3130 591-8371
T IIJIMA, EMP 3063, ENG 500, OVER $10,000M
NY American Sankyo Corp, 95 Madison Ave
New York .... LE 2-8020
Ger Sankyo (Eur) Ex & Im GMBH., Bahnstr 45/47
4 Duesseldorf 325652

SANON CO LTD

SANSHA ELECTRIC MFG CO LTD
SANSHA ELECTRIC MFG CO LTD, 150, 1-CHOME
AWAJI-HONMACHI, HIGASHIYODOGAWA-KU
OSAKA, JAPAN 321-0321
M SHIKATA, EMP 400, ENG 60, $2,500-$5,000M
Jap Sansha Electric Trading Co, Ltd
56, 3-chome Oimatsucho, Kitaku
Osaka 364-0445

SANTA RITA TECHNOLOGY INC, 1040 O'BRIEN DR
MENLO PARK, CAL, 94025 .... 415 324-4701
EMP 14, ENG 3, $100-$250M
Cal Santa Rita Tech Inc, 451 California Ave
Palo Alto 415 328-6336
Mich Lowry Dietrich Co, 600 Michigan Bldg, Detroit
Ohio Lowry Dietrich Co, 333 W 1st St
Dayton 513 223-6042
Ohio Lowry Dietrich Co, 1276 W Third St
Cleveland 216 781-1855
Pa Lowry Dietrich Co, 90 Clairton Blvd
Pittsburgh 412 892-2992
Can Bionetics, 62 Alness St
Downsview Ont 416 636-3673
For Cuvensa CA
Transversal S-L 7-09 Quinta Rita-Campo Claro
Caracas
Fr La Societe Frei, 172 Rue De Courcelles, Paris
Holl Cryoson, Hugo De Grootstr 2, Midden Beemster
Ital F Schettini Di V Massimino
Piazza Santa Francesca Romana 3, Milano
Belg Betea SPRL, 15 Ave George Bernier, Brussels

SANWA ELECTRIC INSTRUMENT CO, LTD
2-CHOME, SOTO-KANDA, CHIYODA-KU, TOKYO
JAPAN 253-4871
M KIMOTO, EMP 155, ENG 15, $5,000-$10,000M
For Nanyang Radio Co Ltd, 213 Victoria St, Singapore
For Cha Wei Electric Trading Co Ltd, Chang An E Rd
Taipei
For Asia Radio Co, 212-214 Selegie Rd, Singapore
For Hoon Kee Ltd, 26-28 Chakrawad Rd, Bangkok
For Silpa Thai Electric Ltd, 113 Yawaraj Rd, Bangkok
Den Otto Lumme Oy, Kaisanienmenkatu 13A, Helsinki
Ger Transonic Elektrohandelsges GmbH & Co
2000 Wandalenweg 22, Hamburg 1
GB Household Electrix Ltd, 47-49 High St
Kingston on Thames
Holl C V Klein's H Mij, Viselstr 27-35, Amsterdam
Swed Bergman & Beving AB, Karlavagen 76, Stockholm
BC R Mack & Co Ltd, 1485 SW Marine Dr, Vancouver
NZ TeeVee Radio Ltd, Elliot St, Auckland
Aust Warburton Franki Ltd, 307 Kent St, Sydney

SANYO ELECTRIC CO LTD
18, 2-CHOME, KEIHANHONDORI,MORIGUCHI
OSAKA, JAPAN 991-1181
K IUE, EMP 16218, ENG 4100, $5,000-$10,000M

SARA SCIENTIFIC CO, BOX 321, SAN FRANCISCO
CAL, 94101 .... 415 GA 1-3172
S FISHMAN, EMP 5, ENG 3, UP TO $100M

SARCO CO, 169 PLEASANT HILL RD, HARRISONBURG
VA, 22801 .... 703 434-3591
S KLINE, EMP 161, ENG 20, $1,000-$2,500M

SAREX CORP, 1001 ROOSEVELT AVE, CARTERET
NJ, 07008 .... 201 969-2440
O SEDA, EMP 25, ENG 6, $250-$500M
ADV PG 81
Cal Electronic Marketing Assoc, 33-27 Cayton St
San Mateo 415 341-666
Cal Dyna Service Co, 1020 S Atlantic Blvd
Los Angeles 213 268-8531
Colo Koether Cox Co, 1327 S Inca St
Denver 303 733-5561
Fla Winfield Elec Sales Co, 666 NE 125th St
N Miami 305 751-5566
Ga Winfield/Southeast Co, 2991 D N Druid Hills NE
Atlanta 404 636-3023
Ill Irving W Rose Assoc, 4734 N Austin Ave
Chicago 312 282-6835
Md Charles Lienau Co, 11411 Amherst Ave
Wheaton 301 949-6464
Mich Burcaw Co & Assoc, 18236 W McNichols
Detroit 313 533-7700
NY R E P, 5 Sadore La, Yonkers 914 793-4200
Ore Joseph V Belvsko Co, 2355 NW Quimby st
Portland 503 222-4279
Pa James H Podolny Co, 5912 Penn Ave
Pittsburgh 412 441-0800
Tex J Y Schoonmaker Co, 2995 Ladybird La
Dallas .... 214 FL 7-8481
Can Eric S Gould Sales Co, 11 Louvain St
Montreal Que 514 384-0453

SARKES TARZIAN INC, BROADCAST EQUIP DIV
E HILLSIDE DR, BLOOMINGTON
IND, 47401 .... 812 332-7251
R IDE, EMP 2700, ENG 200, OVER $10,000M

SARKES TARZIAN INC, MAGNETIC TAPE DIV
E HILLSIDE DR, BLOOMINGTON
IND, 47401 .... 812 332-7251
A MONEYHUN, ENG 4

SARKES TARZIAN INC, SEMICONDUCTOR DIV
415 N COLLEGE AVE, BLOOMINGTON
IND, 47401 .... 812 332-1435
S NICIEJEWSKI, EMP 490, ENG 25, OVER $10,000M
Ala Murphy & Cota Co, 904 Bob Wallace
Huntsville 205 536-9121
Cal W Bert Knight Co, 112 Glasgow Ave
Inglewood 213 678-4711
Cal Moulthrop & Hunter, 165 11th St
San Francisco 415 863-7880
Colo McLoud & Raymond Co, 2151 S Grape St
Denver 303 756-1589
Fla Murphy & Cota Co, 712 W Vassar St
Orlando 305 424-2407
Ga Murphy & Cota Co, 586 Armour Circle NE
Atlanta 412 561-4125
Ill J G Twist Co, 5222 W Diversey
Chicago 312 777-2250
Ind R D Whitesell & Assoc, 6620 E Washington St
Indianapolis 317 359-5374
Ind R D Whitesell & Assoc, Central Bldg
Fort Wayne 219 743-4411
Kan Thunderbird Sales, 4014-A W 95th St
Prairie Village 913 724-7220
Kan Thunderbird Sales, 7707 E Osie
Wichita .... 316 MU 4-3941
Md J & H Electronics Sales, Box 6844
Towson 301 825-4441
Mass Gerber Sales Co, 176 2nd Ave
Waltham 617 891-8040
Mich Grant Shaffer, 14241 Fenkell Ave
Detroit 313 273-5390
Minn Scott Electronic Sales, 5209 W 60th St
Minneapolis 612 929-2985
Mo Thunderbird Sales, 400 Brooks Dr
Hazelwood 314 731-4343
NJ Simberkoff Sales, 71 Valley St
South Orange 201 763-7900
NJ M J Hollingsworth, Box 686
Cherry Hill 609 665-6142
NC Murphy & Cota Co, 1106 Burke St
Winston-Salem 919 724-0750
NC Murphy & Cota Co, Box 6365
Greensboro 919 288-1923
Ohio R O Whitesell & Assoc, 21139 Lorain Ave
Cleveland 216 333-2585
Pa R O Whitesell & Assoc, 201 Penn Center Bldg
Pittsburgh 412 242-0100
Tex J Guenther Co, 4533 N Central Expway
Dallas 214 528-6286
Wash M K Widdekind Co, 815 W Ewing St
Seattle 206 284-8020
Can Frank Eakin Ltd, 9 Milvan Dr
Weston Ont 416 741-7485
For Ad Auriema Inc, 85 Broad St
New York, NY 212 269-7750

SARKES TARZIAN INC, TUNER DIV, E HILLSIDE DR
BLOOMINGTON, IND 812 332-7251
K JOYCE, EMP 1500

SARTRON INC, 114 N MAIN ST, NEWBERG
ORE, 97132 503-538-3191
J JOHNSON, EMP 52, ENG 3
Cal Held & Mollard, Inc, 1494 Oddstad Dr
Redwood City 369-4871
Cal Wm J Anderson Assoc, Box 45768
Los Angeles 776-1163
Colo Electronic Component Sales, 2340 W Main St
Littleton
Wash Arneson Assoc, 5950 6th Ave S
Seattle .... RO 2-7664

SATURN ELECTRONICS CO, BOX 112, GRAND ISLAND
N Y, 14072 .... 716 773-3507
R ROWE, EMP 3, ENG 1, UP TO $100M
For Gerald Kluyskens Co, 295 Fifth Ave
New York, N Y .... MU 5-5710

SATURN ELECTRONICS CORP, 3111 BENTON
GARLAND, TEX, 75074 .... 214 BR 67104
R ROUTSONG, EMP 70, ENG 5, $1,000-$2,500M

SAUNDERS CORP, 4515 ALGER ST, LOS ANGELES
CAL, 90039 .... 213 246-5595
L HALE, EMP 51, ENG 4, $250-$500M

SAVOY ELECTRONICS INC
1175 NE 24TH ST, BOX 7127, FORT LAUDERDALE
FLA, 33304 .... 305 566-8416
J HARRIS, EMP 48, ENG 1, $250-$500M

SAWYER ASSOCIATES INC, 3 ALPHA DR
CHELMSFORD, MASS, 01824 .... 617 256-6583
C SAWYER, EMP 15, ENG 3, $100-$250M
Mass Marketing Assoc, 850 Main St
Tewksbury 617 851-9806

SAWYER RESEARCH PRODUCTS INC
35400 LAKELAND BLVD, EASTLAKE
OHIO, 44094 .... 216 942-8747
H DODDS, EMP 65, ENG 4, $1,000-$2,500M

SAXONBURG CERAMICS INC, 1045 OLIVER BLDG
PITTSBURGH, PA, 15222 .... 412 352-1561
T SINCLAIR, EMP 200, ENG 6, $1,000-$2,500M
Cal E V Roberts & Assoc, Inc, 9601 W Jefferson Blvd
Culver City
Conn J F Whitehead Co, Box 177, Guilford
Ill Electro Comp Sales Inc, 5129 W Devon Ave
Chicago .... RO 3-3636
Kan D D Darnell & Co, Inc, Box 1354, Mission
Md D K Jones & Assoc, 2026 Maryland Ave, Baltimore
Mich Libbey & Taylor, 420 New Center Bldg
Detroit 875-9111
NJ Ray Walker, 24 West Rd, Short Hills .... DR 9-2340
NY B Dean, Inc, 714 W Clinton St, Ithaca
Ohio J L Giesey, Jr, 1588 Circlefield Dr, Cincinnati
Ohio J T Markham, 320 Canterbury, Cleveland
Pa J R Eckley, Coxcomb Hill Rd
N Kensington 335-2632
Tex R W Mureen Co, 5523 Dyer St, Dallas
Wash H D Campbell Co, 3827 Stone Way N
Seattle .... ME 2-2939
Can H C Machin & Assoc Ltd, Box 34, Sta K
Toronto .... HI 4-3643

SAXTON PRODUCTS INC, 215 N RTE 303, CONGERS
N Y, 10920 .... 914 CO 8-6846
M KLEINER, EMP 90, ENG 2, $1,000-$2,500M
Ariz Hyde Elctns Co Inc, 4710 N 16th St
Phoenix 602 264-5609
Cal Sinclair Electronic Assoc, 1086 Clarendon
Oakland .... CO 1-1835
Cal L Gould, 339 1/2 N Gardner
Los Angeles 213 463-3123
Cal Geo Stein Assoc, 1624 Camden Ave
Los Angeles 213 477-1637
Colo Hyde Elctns Co Inc, 888 S Lipan St
Denver 303 936-3456
Conn John Colaveccio, 122 Grant, Hartford 522-0596
Fla Fame Assoc, 7000 NW 37th Ct
Miami 305 696-2510
Mich Polyphase Sales Co, 917 Canal St, Milford

Minn Northern State Sales Co, 1109 W 78 1/2 St
Minneapolis ... 612 866-3468
Mo R J Throcknorton Sales Co, 1042 N Clay Ave
St Louis ... 314 964-4555
NY P Heller, 609 W 189th St, New York ... LO 8-9141
NY I Guidin, 156-34 71st Ave
Flushing ... 212 591-5030
NY S Rheiner, 3 Hilltop La, Monsey ... 914 350-2638
NY H Cooperman, 150-15 72nd St, Flushing
NY L Smith, 9 Fletcher Rd, Monsey ... 914 352-6143
NY D Gunzburg, 150 A W Eckerson Rd, Spring Valley
Ore Jos Belusko Sales Co, 2355 NW Quinby St
Portland ... 503 222-4279
Pa L Feinstein, 1601 Griffith St
Philadelphia ... 215 RA 5-2718
Tenn Southeast Assoc, 121 Cloudland Dr
Bristol ... 615 764-4044
Tenn Air Com, Box 3322, Knoxville

SBD SYSTEMS INC, 90 ROME ST, FARMINGDALE
N Y, 11735, TWX 510-224-6420 ... 516 MY 4-5484
A SCHNEIDER, EMP 41, ENG 8, $500-$1,000M
Cal King-Way & Assoc, 11168 Santa Monica Blvd
Los Angeles ... 473-8000
Conn Zaslow Sales Co, 6 Newberry Rd
Bloomfield ... 203 242-7781
Fla Geartner Assoc Inc, 350 Lincoln Rd
Miami Beach ... 538-8266
Fla Geartner Assoc Inc, 2101 Mohawk Trail
Maitland ... 647-4000
Ill Ellinger Sales Co, 6580 N Northwest Hwy
Chicago ... 763-1570
Ind Ellinger Sales Co, 5214 Forest Ave
Fort Wayne ... TR 3-4833
Iowa Ellinger Sales Co, 309 4th Ave SE, Clarion
Mass Zaslow Sales Co, 339 Middlesex St
Lowell ... GL 8-8452
Mich Zaslow Sales Co, 371 Howard St
Northboro ... EX 3-8150
Mo Ellinger Sales Co, 6427 Evergreen St
Berkeley ... JA 4-1116
NJ A A Foley Assoc, Box 155
Moorestown ... NO 3-4545
NY EAC Assoc, 53-11 90th St
Elmhurst ... 212 DE 5-0606

SCAICO DIV, WAVETRONICS INDUSTRIES INC
211 WARREN ST, WEST PITTSTON
PA, 18643 ... 717 654-3332
H REAL, EMP 12, ENG 2

SCALA RADIO CORP, 1970 REPUBLIC AVE
SAN LEANDRO, CAL, 94577 ... 415 351-3792
B ZUCCONI, EMP 25, ENG 2

SCAM INSTRUMENT CORP, 7401 N HAMLIN, SKOKIE
ILL, 60076, TWX 910-326-3603 ... 312 CO 78300
G MITCHELL, EMP 230, ENG 20, $5,000-$10,000M
Ala Frank A Thomas Co, 1805 Liberty St
Mobile ... 471-1593
Alas Power & Controls Inc, 704 Second Ave
Anchorage ... 272-3629
Cal Jensen Instrument Co, 1919 Beverly Blvd
Los Angeles ... 388-9525
Cal Jensen Instrument Co, 429 Bryant St
San Francisco ... EX 2-1472
Colo Cliff Beabout Co, 666 Sherman St
Denver ... 244-3151
Fla M D Duncan & Assoc, 2525 Industrial Blvd
Orlando ... 295-2432
Ga Stallings, Inc, 3098 Piedmont Rd, NE
Atlanta ... 231-2540
Ill Drager Co, 6333 N Pulaski Rd, Chicago ... 478-5022
Ind Booth-Spearing Corp, 5335 W Raymond St
Indianapolis ... 244-7819
Ky Control Products Co, 1738 Berry Blvd
Louisville ... 367-6421
La Alpha Engineering Co, 1821 Wooddale Ct
Baton Rouge ... 921-1401
Md Thermal Devices, Inc, 4604 York Rd
Baltimore ... 435-6700
Mass Timross Co Inc, 815 Washington St
Newtonville ... 244-7586
Mich G R Peters Assoc, 3347 Coolidge Hwy
Berkley ... 564-6325
Minn Engineered Sales Co, 311 W 44th St
Minneapolis ... 823-8238
Mo C F Gast Co, 6110 Garesche Ave
St Louis ... EV 3-0750
Mo Boschert & Fitzwater Inc, 207 Westport Rd
Kansas City ... LO 1-1880
Neb H G Klug Co Inc, 2029 N 67th Ave
Omaha ... 553-1377
NJ Technical Representation, Inc, 280 Midland Ave
Saddle Brook ... 791-5225
NY D S Reynolds Co, Inc, 5695 Main St
Buffalo ... 634-5550
NY Northeast Controls Inc, 180 Old Loudon Rd
Latham ... 785-5593
NC Systems Service Corp, 3748 Monroe Rd
Charlotte ... 377-3407
Ohio Lester Johnson Co, 3909 E 123rd St
Cleveland ... SK 1-7040
Ohio Process Instr & Equip Co Inc, 1246 Cislar Dr
Marietta ... FR 4-6767
Ohio L Johnson Co, 9870 Springfield Pike
Cincinnati ... 771-2270
Ohio Lester Johnson Co, 2500 W Granville Rd
Worthington ... 889-8447
Okla Ernie Graves Co, 201 S Houston St
Tulsa ... LU 4-4708
Ore R E Donelson Co, Box 68446, Portland ... 654-3137
Pa Arobone & Cline Inc, 333 W Mt Pleasant Ave
Philadelphia ... CH 8-1243
Pa W A Stoeltzing, 704 Castle Shannon Blvd
Pittsburgh ... 341-0773
Tex Alpha Engineering Co, 6643 Bellfort Blvd
Houston ... MI 4-1961
Tex Millis & Co Inc, 2623 Manor Way
Dallas ... FL 2-4419
Tex Barnco Co, 1507 W 2nd St, Odessa ... FE 2-0294
Tex Ranco Engrg Sales Inc, Box 4662
El Paso ... 755-5271
Utah Control Systems Inc, Box 2204
Salt Lake City ... EM 4-6425
Va Engineering Equip Co, Inc, 2515 Waco St
Richmond ... 282-4258
Wash Power & Controls Inc, 11300 25th Ave NE
Seattle ... EM 2-2321
Wash Power & Controls Inc, Box 8056
Spokane ... KE 5-1085
W Va Process Instr & Equip Co Inc, 706 Central Ave
Charleston ... DI 2-2151
W Va Process Instr & Equip Co Inc, 560 N Inwood Dr
Huntington ... JA 3-9658
Wis Chipley & Jensen Inc, 3500 N Sherman Blvd
Milwaukee ... HI 2-8170
Can SIOC Ltd, 27 Jutland Rd, Toronto ... 255-1131
GB Scama Ltd, Easternway-bury St Edmunds
Suffolk ... 2168

SCANBE MFG CORP, 1161 MONTEREY PASS RD
MONTEREY PARK
CAL, 91754, TWX 910-321-4336 ... 213 264-2300
M RICE, EMP 52, ENG 4, $1,000-$2,500M
Ariz Jarko Assoc, 2738 W McDowell Rd
Phoenix ... 272-3000
Cal McKnight Co, Box 36, Menlo Park ... 325-2844
Cal Premmco, 5470 Valley Blvd
Los Angeles ... 222-0167
Colo Cummings & Assoc, 4772 S Kalamath St
Englewood ... 303 789-3449
Fla Perrott Assoc, 1607 Forsyth Rd
Orlando ... 275-1132
Fla Perrott Assoc, 7515 W Lake Dr
West Palm Beach ... 967-1770
Fla Perrott Assoc, Box 532, Clearwater ... 466-2535
Ill Jay C Angel & Co, 2743 W Peterson Ave
Chicago ... 878-0653
Kan Simpson Enterprises, 3809 Westport Dr
Wichita ... 943-0502
Mass Russ P Mahon Co, Sandy Pond Rd
Lincoln ... 259-9300
Mich Jack M Thorpe Co, 640 Hidden La
Detroit ... 884-4360
Minn Howard Cullen Assoc, 1595 Selby Ave
St Paul ... 646-7372
Mo Simpson Enterprises, 514 Parkwood
Kirkwood ... 965-1115
NJ H J Krasner Assoc, 33 Great Neck Rd
Great Neck ... 487-0690
NY K L M Assoc, 9 Hollywood Dr
Whitesboro ... 736-2450
Ohio Augey Natalino Assoc, 333 W 1st St, Dayton
Ohio Augey Natalino Assoc, 209 Harmony Hills Dr
Akron ... 666-1447
Pa Augey Natalino Assoc, 530 Sixth Ave, Pittsburgh
Tex Techno Assoc, 2324 Shorecrest Dr
Dallas ... 357-9213
Wash Associated Industries, 3711 S Hudson St
Seattle ... 722-3347
Can Whittaker Electronics, 42 Howden Ave
Ottawa 5, Ont ... 224-1221

SCANS ASSOCIATES INC, 13000 FARMINGTON RD
LIVONIA, MICH, 48150 ... 313 427-8800
L SEYMOUR, EMP 75, ENG 15, $1,000-$2,500M

SCHAEVITZ ENGINEERING, US RT 130 & UNION AVE
PENNSAUKEN
N J, 08101, TWX 710-892-0714 ... 609 662-8000
L BONDY, EMP 151, ENG 25, $2,500-$5,000M
Ala Roy Attaway Co, 900 Bob Wallace Ave SW
Huntsville ... 534-2811
Cal Electronic Engrg Assoc, 1293 Laurel St
San Carlos ... 593-2189
Cal B J Wolfe Enterprises, 10760 Burbank Blvd
N Hollywood ... 877-5518
Colo Aztec Enterprises, 3385 S Bannock
Englewood ... 761-0101
Fla Roy Attaway Co, 57 E Robinson St
Orando ... 424-9983
Ill Lightner Assoc, 6322 N Milwaukee Ave
Chicago ... 774-1500
Md Brimberg Assoc Inc, 814 Thayer Ave
Silver Spring ... 588-7790
Mich Anderson Electronics Co
19471 James Couzens Hwy, Detroit ... DI 2-7133
Minn Arrow Technical Sales, 231 Edgewood Ave N
Minneapolis ... LI 5-6595
Mo Ozark Elctn Mktg Inc, 2573 Woodson Rd
St Louis ... 423-7200
NJ Robt J Markey, Box 505, Camden ... 662-8000
NM Aztec Enterprises, 5206 B Constitution N E
Albuquerque ... 268-6421
NY Components Sales Corp, 221 E Hartsdale Ave
Hartsdale ... 725-1050
NY Labtronics Inc, 161 Pickard Bldg
Syracuse ... 454-9314
NC Roy Attaway Co, 614 Nissen Bldg
Winston-Salem ... 722-9671
Ohio Measurement Instruments Inc, 2074 Arlington Ave
Columbus ... 488-9753
Pa Measurement Instrs, 908 Perry Hwy
Pittsburgh ... 366-1906
Tex Southwest Elctn Industries, 621 Meadows Bldg
Dallas ... 363-1671
Can R C Ward & Co Ltd, 1710 Midland Ave
Scarborough, Ont ... 266-7749
Fr Machine & Products Co, 52 Wall St
New York ... WH 4-4370
GB Electro Mechanisms Ltd, 218 Bedford Ave
Slough, Bucks
Ital Soc An Na SRL, Via Arimondi 8, Milan
Jap Mercantile Co Ltd, 24 Sonezahi Shinahi 2 Choma
Osaka
SAfr Hans Pollack & Co Pty Ltd
Cor Jeppe & Joubert Sts, Johannesburg

SCHAFFNER, HANS - ELEKTRONISCHE BAUTEILE
LUTERBACH SO, SWITZ ... 065 37848
R ENGIST, EMP 30, ENG 2, $250-$500M

SCHAUER MFG CORP, 4500-1 ALPINE AVE
CINCINNATI, OHIO, 45242 ... 513 791-3030
S WRIGHT
Cal F Huddleston Assoc, 408 S Rosemead Blvd
Pasadena ... 213 681-3751
Cal G B Ellis Co, 2425 Leghorn St
Mountain View ... 967-5531
Colo Cummings & Assoc, 4772 Kalamath St
Englewood ... 303 789-3449
Conn Henry Lavin Assoc, Box 921
Meriden ... 203 237-5527
Fla E Clyde Ammerman Jr, 685 Selkirk Dr
Winter Park ... 644-6672
Ga Floyd Fausett & Co, 2264 Melinda Dr NE
Atlanta ... 404 633-3561
Ill Ellinger Sales Corp, 6580 N Northwest Hwy
Chicago ... 312 763-1570
Ind Jim Winkelblech, 5214 Forest Ave, Ft Wayne
Iowa Don Sharp, 309 4th Ave SE, Clarion
Mich Koehler-Pasmore Co, Box 6596
Detroit ... 313 477-8790
Mo Enos Rea, 4969 Bancroft, St Louis ... 314 352-2027
NY D F Tobias & Co, 48-15 31st Ave
Long Island City ... 212 726-4551
NY J M Glass Co, 220 Delaware Ave
Buffalo ... 716 856-9272
Ohio John O Olsen Co, 16201 Shaker Blvd
Cleveland ... 752-5444
Ohio W F Needles, 5539 Stokeswood Ct
Cincinnati ... 513 922-2176
Ohio Wm L Metcalfe, 116 W Franklin
Centerville ... 885-3722
Pa E A Snefsky, 104 Elatan Dr, Pittsburgh ... 179-2550
Pa R A Stone, 1843 Maydell St, Pittsburgh ... 241-8391
Pa Kenneth Erdman Co, 7906 Montgomery
Elkin Park ... 215 224-1833
SC Donald Hawthorne, Stony Point Hwy
Greenwood ... 404 451-7847
Tex J Y Schoonmaker Co, 2995 Ladybird La
Dallas ... 214 357-8481
Wash Tec-Rep Co, 169 Twelfth Ave
Seattle ... 206 623-0650
Can H W Brieger, 5253 Decarie Blvd
Montreal ... 514 489-0725
For Roburn Agencies Inc, 431 Greenwich St
New York, NY ... 966-2130

SCHENCK TREBEL CORP MICRO BALANCING DIV
120 FINN CT, FARMINGDALE
N Y, 11735 ... 516 694-7965
K FRANK, EMP 50, ENG 5, $500-$1,000M
Cal Schenck Trebel Corp, 2849 Long Beach Blvd
Long Beach ... 427-6266

SCHENECTADY CHEMICALS INC, CONGRESS & 9TH
SCHENECTADY, N Y, 12301 ... 518 DI 6-8711
A SHEALS, EMP 350
Ill A O Doherr, 625 N Washington St
Park Ridge ... 823-6545
Mass J S Beale, Crescent Rd, Concord ... EM 9-4202
Ohio R M Henry, 13870 Edgewater Dr
Lakewood ... 221-3535
Ohio T J Holmes, 318 Ravenwood Ave
Dayton ... AX 3-7613

SCHERMA MFG CO INC, F A, 424 BROOME ST
NEW YORK, N Y, 10013 ... 212 WA 52077
M SCHERMA, EMP 12, ENG 2, $100-$250M

SCHERR TUMICO INC, 301 ARMSTRONG BLVD N
ST JAMES, MINN, 56081 ... 507 375-3211
R ANDERSON, EMP 400, ENG 14, $5,000-$10,000M
Cal Scherr-Tumico, 5926 E Washington Blvd
Los Angeles ... 685-6392
Ill Scherr-Tumico, 5045 W Harrison St
Chicago ... ES 8-8042
NY Scherr-Tumico, 27-20 42nd Rd
Long Island City ... EX 2-8282

SCHJELDAHL CO, G T, NORTHFIELD
MINN, 55057, TWX 910-565-2180 ... 507 645-5633
E BEAVAN, EMP 1100, ENG 100, OVER $10,000M
Ariz Runyon Co, 6825 E Thomas Rd
Scottsdale ... 947-5711
Colo Waugaman Assoc, 2785 N Speer Blvd
Denver ... 255-5000
Conn R H Robinson Co, Box 368, Coventry ... 742-7323
Fla Young & Lawrence Assoc, 601 N New York Ave
Winter Park ... 647-6929
Mass R H Robinson Co, Hangar 4 Civ Area Hascom Fld
Bedford ... 274-7933
Mo Tech Marketing Assoc, 7546 Troost
Kansas City ... JA 3-7865
NJ A C Allegri, Box 159, Chester ... 879-5950
NY Advanced Components Corp, Inc, 119 Luther Ave
Liverpool ... 472-7886
NC Candor Co Inc, Bethania ... 924-1480

Wash Aymond Co, Inc, 4340 N Central Expwy Dallas...827-8043
Can Aeromotive Engrg Prods Ltd 1700 Montee de Liesse Rd Montreal Que...332-1020
Jap Nissho American Corp, 110 Wall St New York, N Y...943-7840
Swit Contiflex Ag/Sa/Ltd, Seestr 233, Zurich...908181

SCHJELDAHL CO G T, CONNECTOR DEPT
21 FOURTH ST SW, OSSEO
MINN, 55369...612 425-4104
F SMITH, EMP 96, ENG 5, $500-$1,000M
Ala Young & Lawrence Assoc, 2907 Governors Dr SW Huntsville...205 539-6575
Ariz Runyon Co, Box 1567, Scottsdale...947-5711
Cal Insulectro Corp, 1410 W Olympic Blvd Los Angeles...387-5201
Cal Insulectro Corp, 1590 Rollins Rd Burlingame...415 692-2010
Colo Waugaman & Assoc, 2785 N Speer Blvd Denver...255-5000
Conn R H Robinson Co, Box 368, Coventry...742-7323
Fla Young & Lawrence Assoc, 601 N New York Ave Winter Park...305 647-6929
Fla Young & Lawrence Assoc, 300 31st St N St Petersburg...813 894-0026
Ill Repwood Inc, 260 Sunset, Glen Ellyn...469-2344
Ind Tri-State Mktg Inc, 3220 Broadway Fort Wayne...219 456-3567
Kan Technical Marketing Assoc, 5827 Outlook Mission...816 523-7865
Mass R H Robinson Co, Hangar 4, Hanscom Fld Bedford...274-7933
Mo Technical Mktg Assoc, 2050 Woodson Rd St Louis...314 427-3600
NJ A C Allegri, Box 159, Chester...201 879-5950
NY Advanced Components, Inc, 119 Luther Ave Liverpool...472-7886
Ohio Tri-State Mktg, Inc, 1717 Section Rd Cincinnati...631-5060
Ohio Tri-State Mktg, Inc, 25000 Euclid Ave Cleveland...731-9207
Tex Aymond Co, Box 64917, Dallas...827-8043
Tex Aymond Co, Inc, Box 35023, Houston...666-1804
Wash Insulectro Corp, 2915 First Ave S Seattle...206 624-7250
Wis Repwood Inc, 8019 N 50th St Milwaukee...354-5161
Can Aeromotive Engrg Prods Ltd, 887 Montee de Liesse St Laurent Montreal Que...514 747-4781

SCHLUMBERGER, 51 RUE RACINE
92-MONTROUGE 32, FRANCE...735-3140
M ODIER, EMP 210, ENG 32, $2,500-$5,000M
NJ Weston-Instruments, 614 Frelinghuysen Ave Newark...201 BI 3-4700

SCHNEIDER RADIO-TELEVISION DIV
12 RUE LOUIS BERTRAND, IVRY
FRANCE...482-43-87
R DOLHEM, EMP 3300, ENG 200, OVER $10,000M
Den Hans Orngreen, Krogshoyvej 30, Bagsvaerd
Ger Hotronic, Schwarzwaldstr 9 7700 Singen (Hohentwiel)
GB Kynmore Engineering Co Ltd, 19 Buckingham St London W C 2...18 72 23 71
Ital Automazione Industriale, Via Mario Donati 8 20 146 Milan
Nor Metric, Box 80 Bekkelagshjd, Oslo
Swed Saven AB, Bjornsonsgaten 197, Bromma
Swit Filmo A G, Seestr 341, 8038 Zurich
Belg L De Greef, 53 Ave Everard Bruxelles 19...44 19 13
Isrl Elron, 88 Hagiborim St, Haifa
Neth Philips Bedrijfsapparatuur Nederland, Boschdijk Eindhoven
Fin Nores & Co OY, Fabianinkatu 32, Helsinki 10
Aust Honeywell Pty Ltd, 63-73 Ann St, Surry Hills Sydney

SCHOBER ORGAN CORP, 43 W 61ST ST, NEW YORK
N Y, 10023...212 JU 6-7552
A ROSENBERG, EMP 16, ENG 3
Can Associated Music Services, 120 Sherwood Ave Toronto...483-8570
Swit L Leibundgut, in Linden 8, Rumlang, ZH...838-186
Aust Schober Organs, 124 Livingston Ave Pymble...49-2479

SCHOEFFEL INSTRUMENT CO, 15 DOUGLAS ST
WESTWOOD, NJ, 07576...201 664-7263
D KELLER, EMP 11, ENG 2
Ill Vico Assoc, 775 North Bank La, Lake Forest

SCHONSTEDT INSTRUMENT CO, 9170 BROOKVILLE RD
SILVER SPRING, MD, 20910...301 585-8595
M WICKMAN, EMP 40, ENG 6, $500-$1,000M

SCHOTT CO INC, OSCAR A, 500 11TH AVE S
MINNEAPOLIS, MINN, 55415...612 332-8971
O SCHOTT, EMP 79, ENG 4, $1,000-$2,500M

SCHRACK ELECTRICAL SALES CORP, 1140 BROADWAY
NEW YORK, N Y, 10001...212 MU 3-0790
H SIEGELL, EMP 4, ENG 1, $100-$250M
Ala NBS Inc, 902 Bob Wallace Ave Huntsville...205 536-7786
Alas Ron Merritt Co, Anchorage
Ariz Electronic Mfg Consultants, 1112 W Mission La Phoenix...997-8049
Cal Lebell-Warren Assoc, 601-603 Old County Rd San Carlos...593-7688
Cal R S Hopkins Co, 15016 Ventura Blvd Sherman Oaks...213 ST 8-5501
Fla NBS Inc, 2813 Primrose Ct Orlando...305 423-4856
Ga NBS Inc, 893 Church St NW Marietta...404 422-6067
Ill Actronic Sales Engr Inc, 4750 N Milwaukee Ave Chicago...312 286-1037
Kan Maury E Bettis Co, 423 N Fountain Wichita...685-7441
Md H R Sieber Co, 1005 Bonifant St Silver Spring...589-9110
Mass Abbott-Allison Co, Box 96 North Andover...617 245-0250
Mich ABM Sales Co, 10116 Puritan Ave, Detroit
Minn White Sales Co, 6418 W Lake St Minneapolis...929-4661
Mo Maury E Bettis Co, 3706 Broadway Kansas City...LO 1-0072
NJ Irwin Brill, 326 Hillside Ave, Nutley...667-0653
NJ Frank Kriegner Sales Co, 1602 Pennington Rd Trenton...882-6330
NY Alan E DeCew Agency, 27 State St Sodus...483-3261
NY Sam Glassman Assoc, 28 Prestwick Ter Glen Cove...OR 6-1039
Ohio Richard P Calhoun & Assoc, 40 Southmoor Cir Dayton...299-4144
Ore Ron Merritt Co, 2035 SW 58th Ave Portland...503 292-8762
Tex General Sales Rep, 1510 Spillers Houston...713 465-8720
Wash Ron Merritt Co, 1320 Prospect St Seattle...MU 2-7337
Wis James O'Meara Co, 800 N Marshall St Milwaukee...273-8467
Can Datacomp Elctns Ltd, 1477 Eglinton Ave W Toronto Ont...416 789-5732

SCHURTER AG, H, WERKHOFSTR 8, 6002 LUCERNE
SWITZERLAND...(041) 3 10 41
U KAUFFMAN, EMP 270, ENG 4
NY Impectron, Inc, 85 Broad St New York...212 BO 9-7750
Den H Jorgensen & Co A/S Niels Hemmingsensgade 32 Kopenhagen-K...Byen 2000
Fr Arnould, 15, rue de Madrid 75 Paris 8e...522-19-19
Ger F Pfisterer KG, Kornbergstr 50 7000 Stuttgart-W...675 24
Ger F Merschjohann, Eichenweg 4 4831 Gutersloh-Spexard...(05142) 7287
GB Britimpex Ltd, 16/22 Great Russell St London, W C1...MUS-7600
Holl N V Handelmaatschappij Blessing-Etra Groenendaal 219-221, Rotterdam-1...11 34 55
Ital G de Mico, Via Manzoni 31 20121 Milano...653 131
Nor J M Feiring A/S, Sandakerveien 46 b Oslo 4...41 43 45
SAfr L'Electron (Pty) Ltd, 141 Pritchard St Johannesburg...22-3363
Swed Stahlberg & Nilsson AB, Langsjovagen 51A Alvsjo 1...99 33 05

SCHUTTER MICROWAVE DIV, CARDWELL CONDENSER
CORP, 80 E MONTAUK HWY, LINDENHURST
NY, 11757...516 TU 4-4300
R HERMAN, EMP 70, ENG 2, $500-$1,000M

SCHWALM ELECTRONICS INC
1640 OLD DEERFIELD RD, HIGHLAND PARK
ILL, 60035...312 432-3910
R LEHMAN, EMP 50, ENG 2, $500-$1,000M

SCHWARZER CORP, 46 SALMI RD, FRAMINGHAM
MASS, 01701...617 877-5195
D SCHWARZER
Cal Modern Elctn Diagnostics Co, 6363 W 80th St Los Angeles...213 670-0566
Cal SIM Instruments, 657 S Van Ness Ave San Francisco...415 621-5250

SCHWEITZER, PETER J, DIV, KIMBERLY-CLARK CORP
LEE, MASS, 01238...413 243-1000
DE LOSS KAHL JR, EMP 500, OVER $10,000M
Ariz Electrical Specialty Co, 120 S 29th St Phoenix...275-5739
Cal Electrical Specialty Co, 2820 E 12th St Los Angeles...269-9511
Cal Electrical Spec Co, 213 E Harris Ave S San Francisco...589-9611
Colo Electrical Specialty Co, 2026 Arapahoe St Denver...244-4588
Ore Electrical Specialty Co, 2360 NW Quimby St Portland...227-3601
Wash Electrical Specialty Co, 2442 1st Ave S Seattle...682-3434

SCIAKY BROS INC, 4915 W 67TH ST, CHICAGO
ILL, 60638, TWX 910-224-3809...312 PO 7-5600
W FARRELL, EMP 450, ENG 50, $2,500-$5,000M

SCIENCE ACCESSORIES CORP, 65 STATION ST
SOUTHPORT, CONN, 06490...203 259-8329
J MOORE, EMP 17, ENG 4, $500-$1,000M

SCIENTIFIC ADVANCES INC, 1400 HOLLY AVE
COLUMBUS, OHIO, 43212...614 294-5436
C EASTON, EMP 2200, OVER $10,000M
Cal Premmco-Welco, 2406 Lincoln Ave Alameda...523-9495
Cal Research Data Corp, 110 S Euclid Pasadena...681-3451
Conn Todino Engr Sales Co, 132 New Haven Ave Milford...874-6643
Fla W M Jones Co Inc, Box 6004-B Orlando...424-6298
Ga W M Jones Co Inc, 2666 Redding Rd, NE Atlanta...755-5318
Kan Inland Assoc, 6047 Howe Dr, Mission...EN 2-2366
Md W M Jones Co, Box 6880, Towson...823-5721
Mass Todino Engr Sales Co, Box 201 Needham Hgts...HI 4-7925
NJ R W Marshbank Assoc, Box 1395 Merchantville...665-6434
Tex Servo Electronics, Box 20371, Dallas...ME 7-3440

SCIENTIFIC-ATLANTA INC, BOX 13654, ATLANTA
GA, 30324...404 938-2930
L STANLEY, EMP 700, ENG 84, OVER $10,000M
ADV PG 80
Cal Scientific-Atlanta, Inc, 1000 E Walnut St Pasadena...213 681-0278
Cal Scientific Atlanta Inc, 960 N San Antonio Rd Los Altos...415 941-1616
DC Scientific Atlanta Inc, 5801 Annapolis Rd Bladensburg, Md...301 779-1515
Fla Scientific Atlanta Inc, Box 2516 Satellite Beach...305 773-1817
Mass Scientific-Atlanta Inc, 87 Terrace Hall Ave Burlington...617 272-1256
NJ Scientific-Atlanta, Inc, Rte 27 & Parsonage Rd Edison...201 549-0515
NY DB Assoc Inc, 3307 Erie Blvd E DeWitt...315 446-0220
Ohio Scientific Atlanta Inc, 205 E Franklin St Troy...513 335-4714
Tex Scientific-Atlanta, Inc, Frito Lay Tower Dallas...214 357-1855
Wash Showalter-Judd Inc, 1806 S Bush Pl Seattle...206 324-7911
Can Radionics Ltd, 195 Graveline St Montreal, Que...514 739-5517
Can Radionics Ltd, 4938 Yonge St Willowdale, Ont...416 222-3261
Can Radionics Ltd, 376 Churchill Ave Ottawa, Ont...613 728-5533

SCIENTIFIC CELL CO INC, 118-21 QUEENS BLVD
FOREST HILLS, N Y, 11375...212 BO 8-6887
D FRIEDMANN, EMP 8, ENG 1, $250-$500M

SCIENTIFIC COLUMBUS INC, 1035 W THIRD AVE
COLUMBUS, OHIO, 43212...614 291-4681
E GLEIBS, EMP 9, ENG 4
Ariz Campbell Sales Co, Box 15296 Phoenix...955-4011
Ark Gregory-Salisbury & Co, 500 E Markham Little Rock...375-1383
Cal W K Geist Co, 1205 Air Way, Glendale...245-9501
Cal Geo E Honn Co, 171 King St San Francisco...781-7352
Colo Peterson Co, 4949 Colorado Blvd Denver...388-6322
Conn Mancib Co, Box 467, Middleton...347-5629
Ga Booth Hinson & Noack, 300 W Peachtree St NW Atlanta...525-4489
Ind Utility & Ind Prod Inc, 3925 N College Ave Indianapolis...317 924-3607
La Gregory-Salisbury & Co, 805 S Front St New Orleans...524-5207
Mass Mancib Co, Middlesex Tpk at A St Burlington...272-9450
Mich M F Knaus Co, 3117 W McNichols Rd Detroit...341-8686
Minn Electrical Jobbers Equip Inc, 1120 Glenwood Ave Minneapolis...377-7904
Miss Gregory-Salisbury & Co, Box 9767 Jackson...362-1671
Mo McKinley & Tuley Sales Co, 10101 E 65th St Kansas City...816 356-5700
Mo McKinley & Tuley Sales Co 1110 S Brentwood Blvd, St Louis...727-8999
NY M J Fein & Co Inc, Harwood Bldg Scarsdale...914 472-1100
NC Robt W Chapman & Co, Box 4430 Charlotte...375-4495
NC Jake Rudisill Assoc, 2009 N Tryon St Charlotte...704 377-6901
Ohio Pioneer-Standard Electronics, Inc 5403 Prospect Ave, Cleveland...432-0010
Ohio W Blake, 871 E Dublin-Granville Rd Columbus...888-7680
Pa Systems Control Assoc, 10 S Orange St Media...215 565-2077
Pa Muller Harper & Assoc, Box 11147 Pittsburgh...931-6460
Tex Ev Smith Sales Co, Box 12583 Houston...713 649-5756
Wash Sperry Co, Box 6868, Seattle...932-1101
Wis Sangdahl Co, 321 N 121st St Wauwatosa...774-1060
Can Canadian Dynamics Ltd, 8264 St George St Vancouver BC...325-6014
Fr Societe Electronique, 38, Rue Sedaine Paris-11e...TUR 35-13

SCIENTIFIC CONTROL CORP, BOX 34529, DALLAS
TEX, 75234, TWX 910-860-5509...214 CH1-2111
W POTTER, EMP 220, ENG 50, $5,000-$10,000M

Ala Scientific Control Corp, S Memorial Pkwy Huntsville 205 881-8805
Cal Moxon Electronics, 2311 Pontius Ave Los Angeles 272-9311
Md Scientific Control Corp, 7100 Baltimore Ave College Park 301 779-2510

SCIENTIFIC DATA SYSTEMS INC
711 S AVIATION BLVD, EL SEGUNDO
CAL, 90245, TWX 910-325-6609 .... 213 679-4511
C COLE, EMP 3600, ENG 435, OVER $10,000M
Ala SDS, 3322 S Memorial Pkwy Huntsville 205 881-5746
Ariz Thorson Co, 2505 E Thomas Rd Phoenix 202 264-5878
Cal SDS, 505 W Olive Ave, Sunnyvale ... 408 736-9193
Cal SDS, 1360 S Anaheim Blvd Anaheim 213 865-5293
Cal SDS, 600 E Bonita, Pomona 714 628-7371
Cal SDS, 555 S Aviation Blvd El Segundo 213 772-4511
Cal SDS, 2526 Broadway Ave Santa Monica 213 870-5862
Cal SDS, 1649 17th St, Santa Monica ... 213 451-4747
Colo SDS, 1111 S Colorado Blvd Denver 303 756-3683
Colo Thorson Co, 300 E Hampden Ave Englewood 303 789-1841
Fla SDS, 3880 Hwy U S 1 S Titusville 305 267-6181
Ga SDS, 2964 Peachtree Rd, NW Atlanta 404 261-5323
Ill SDS, 2720 Des Plaines Ave Des Plaines 312 824-8147
La SDS, 7809 Airline Hwy, Metairie 504 721-9172
Md SDS, 12150 Parklawn Dr Rockville 301 933-5900
Mass SDS, 69 Hickory Dr, Waltham 617 899-4700
Mich SDS, 17500 W 8 Mile Rd Southfield 313 353-7360
Mo SDS, 2510 S Brentwood Blvd Brentwood 314 968-0250
NJ SDS, 190 Moore St, Hackensack 201 489-0100
NM SDS, 9000 Menual Blvd N E Albuquerque 505 298-7683
NY SDS, 1301 Ave of Americas New York 212 765-1230
NY SDS, 673 Panorama Trail W Rochester 716 586-1500
Ore Showalter-Judd Inc, 1445 NE Arrington Hillsboro 503 648-6372
Pa SDS, 7 Parkway Ctr, Pittsburgh 412 921-3640
Pa SDS, Box 168, Ft Wash 215 643-2130
Tex SDS, 3411 Richmond Ave Houston 713 621-0220
Tex SDS, 8383 Stemmons Frwy Dallas 214 637-4340
Wash SDS, 225 108th St, NE, Bellevue 206 454-3991
Wash Showalter-Judd Inc, 1806 S Bush Pl Seattle 206 324-7911
Can SDS, 864 Lady Ellen Pl, Ottawa 3 ... 613 722-3242
Fr Cie Intl Pour L'Informatique, 68 Rte de Versailles Paris 951-8600
GB GEC Computers & Automation Ltd, East Lane Wembley, Mdsx
Jap F Kanematsu & Co Inc, Box 141, Marunouchi, Tokyo
Isrl Elbit Computers Ltd, 88 Hagiborim St, Haifa

SCIENTIFIC ELECTRIC INC, 105-119 MONROE ST
GARFIELD, N J, 07026 .... 201 478-7050
J SEDLACSIK JR, EMP 25, ENG 3

SCIENTIFIC ENGINEERING MFG CO INC
11505 VANOWEN ST, NORTH HOLLYWOOD
CAL, 91605 .... 213 982-1400
EMP 40, ENG 10, $1,000-$2,500M
Ala Ridge Instr Co Inc, 7220 Governors Dr Huntsville 205 837-3211
Ariz Shefler-Kahn Co, 2017 N 7th St Phoenix 602 258-7893
Cal Dale Dahl Assoc, Box 97, Alamo 415 939-3597
Cal Dale Dahl Assoc, Box 2145 Fair Oaks 916 967-8284
Colo Process Equip Co Inc, 2548 W 29th Ave Denver 303 455-4766
Fla Ridge Instr Co Inc, 2227 Seely Dr Orlando 305 293-4711
Ga Ridge Instr Co Inc, 3094 MCCully Dr NE Atlanta 404 939-1554
Md J E Cuesta & Co Inc, 8501 Glendale Rd Greenbelt 301 552-1200
Mass Addelco Corp, 56 Pickering St Needham 617 444-4754
Mich Lowry Dietrich Co, 600 Michigan Bldg Detroit 313 961-4540
Mo Kemp Engrg Co Inc, 9322 Manchester Rd St Louis 314 968-0300
NJ Tek-Sel Inc, 440 N Midland Ave Saddle Brook 201 791-5545
NM Shefler-Kahn Co, 408 San Mateo NE Albuquerque 505 265-7077
NY Geo O Miller Co, 607 Midtown Plaza Syracuse 315 478-3113
Ohio Lowry Dietrich Co, 333 W First St Dayton 513 223-6042
Ohio Lowry Dietrich Co, 316 Marion Bldg Cleveland 216 781-1855
Pa Lowry Dietrich Co, 90 Clairton Blvd Pittsburgh 412 892-2992
Pa J E Cuesta & Co Inc, Valley Forge ... 215 265-5800
Tenn Ridge Instr So Inc, 140 E Division Rd Oak Ridge 615 483-1311
Tex Kemp Engrg Co Inc, 2618 Manana Dr Dallas 214 357-6663
Tex Kemp Engrg Co Inc, 6001 Gulf Fwy Houston 713 928-5426
Tex Kemp Engrg Co Inc, 102 W Rector San Antonio 512 344-1841
Wash Avionics Liaison Inc, 6770 Perimeter Rd S Seattle 206 767-3870

SCIENTIFIC INSTRUMENTS CO, 9165 INDEPENDENCE
CHATSWORTH, CAL 213 341-4700
G RIGGLE, EMP 10, ENG 3, UP TO $100M

SCINTILLONICS INC, BOX 701, FORT COLLINS
COLO, 80521 .... 303 482-4752
R SHILLING, EMP 26, ENG 2, $100-$250M

SCIONICS CORP, 8900 WINNETKA AVE, NORTHRIDGE
CAL, 91324 .... 213 341-5500
M COURTNEY, EMP 80, ENG 13, $1,000-$2,500M
Ala Young & Lawrence Assoc, 2907 Governors Dr SW Huntsville 539-6575
Cal Gordon Elliot, Inc, 13615 Victory Blvd Van Nuys 873-6862
Cal Westec Electronics, 1101 First St Los Altos 415 327-5850
Fla Young & Lawrence Assoc, 601 N New York Ave Winter Park 647-6929
Ind Tri-State Mktg, Inc, 608 Ft Wayne Bank Bldg Fort Wayne 742-2474
Minn Pat Lind Electronics Co Circle Pines 612 781-6568
NJ S-W Assoc, Box 6789, Towson, Md ..... VA 3-8759
NC Byrd & Barbour Sales, 619-A S 3rd St Smithfield 919 934-8136
Ohio Tri-State Mktg, Inc, 1717 Section Rd Cincinnati 631-5060
Ohio Tri-State Mktg, Inc, 25000 Euclid Ave Cleveland 731-9207
Pa Acromatix Assoc, 3118 Germantown Pike Fairview Village 215 279-0377
Tex Hillman Enterprises, 3505 Turtle Creek Blvd Dallas .... LA 1-9907
Wash Westec Electronics Inc, Box 66521 Burien Seattle 206 243-7070
For Machine & Products Co, 52 Wall St New York, N Y .... WH 4-4370

SCI-TEK COMPUTER CENTER INC, 1707 GILPIN AVE
WILMINGTON, DEL, 19806 .... 302 652-3967
R SCHULTHEIS JR, EMP 30, ENG 10
Pa H Plowfield, Franklin Inst Res Lab Bldg Phila .... 215 LO 7-0331

SCOPE INC, 1860 MICHAEL FARADAY DR, RESTON
VA, 22070, TWX 710-833-1178 .... 703 471-5600
V BRIGIDA, EMP 480, ENG 125, OVER $10,000M
Mass Robt V Ridpath, Depot Rd, Boxford 887-5112
Ohio W O Chamberlin Jr, 4555 B Westmoreland Ct Dayton 513 256-4756

SCOTT ELECTRONICS CORP, 2525 SHADER RD
ORLANDO
FLA, 32804, TWX 810-850-4127 .... 305 295-5850
A EGAN, EMP 380, ENG 7, $2,500-$5,000M
Ariz Runyon Co Inc, Box 1567 Scottsdale 602 947-5711
Fla Spartak Inc, Box 915, Winter Park ... 305 644-3023
Md J-H Elctn Sales Co, Box 6844 Towson 301 825-4441
NY Electrical Mfrs Services, Box 123 Poughkeepsie 914 471-6830
NY Electrical Mfgrs Services, 3170 Veterans Mem Hwy Bohemia 516 585-3100
Pa Lundy Assoc, 224 Wickford Rd Havertown 215 449-2211
Wash Western Tech Sales Inc, 10843 NE 8th Bellevue .... 206 GL 4-3906

SCOTT INC, H H, 115 POWDER MILL RD, MAYNARD
MASS, 01754 .... 617 897-8801
E DYETT JR, EMP 625, ENG 12, OVER $10,000M
Cal W K Geist Co, Box 746, Cupertino ... 415 968-1608
Cal W K Geist Co, 1205 Air Way Glendale 213 245-9501
Fla Dickerson Engrg Sales Co, 905 Harbor City Blvd Eau Gallie 305 254-1591
Ill Midwest Electronic Sales, 5707 W Division St Chicago 312 626-0030
Mass W M Hague Co, 10 Muzzey St Lexington .... 617 VO 2-5700
Mo Robert Shaw Sales Co, 2831 Hampton Ave St Louis .... 314 MI 7-8866
NY Crane & Egert Corp, 146 Meacham Ave Elmont 516 488-2100
Tex J Y Schoonmaker Co, 2995 Ladybird La Dallas .... 214 FL 7-8481
Va Jay Co, 2914 Annandale Rd Falls Church 703 534-7800
Wash Ray Johnston Co Inc, 1011 NE 69th Seattle .... 206 LA 4-5170
For Technical Resources, Inc, 600 Main St Waltham Mass .... 617 TW 9-3741

SCRIPTA MACHINE TOOL CORP, 575 E LINDEN AVE
LINDEN, N J, 07036 .... 201 925-1950
R KRAFT, EMP 80, $500-$1,000M
Cal Robert Edgcomb, 2217 W Burbank Blvd Burbank 848-4020
Ill Jerico, Inc, 5110 N Elson Ave, Chicago ... 286-3366
Can Ferrovolt, 16 Milford Ave, Toronto 244-5397
Fr Scripta S A, 7, Passage Turauetil, Paris
Ger Scripta Werkzeugmaschinen, 15, Pionierstr Dusseldorf
Swit Scripta A G, Bolleystr, Zuerich

SCULLY INTERNATIONAL INC, 5240 BELMONT RD
DOWNERS GROVE, ILL, 60515 .... 312 969-5333
S KOLARICH, EMP 24, ENG 7, $1,000-$2,500M
Cal R Stevens, 1421 Broadview Dr Glendale 747-9221

SEACOR INC, 598 BROADWAY, NORWOOD
NJ, 07648, TWX MR MEL FINK 201 768-6070
M FINK, ENG 2, $250-$500M
Cal John Rietz Co, 20700 Dearborn St Chatsworth 213 882-3000
Ill W S Patterson, 5604 Western Chicago .... 312 AR 1-3774
Kan TMA Assoc, 5827 Outlook Mission .... 913 TE 1-2888
Md A Wetterhahn Co, 107 York Rd Towson 301 825-1335
Mass Conti-Younger Assoc, 181 West St Waltham 617 891-4582
Mich Skip Greiner Assoc, 15318 Mack Ave Detroit 313 882-7570
Minn Heimann Co, 5603 Lyndale Ave S Minneapolis 612 827-5457
NJ A Wetterhahn Co, 4420 Crescent Blvd Pennsauken 609 662-1611
NY P Saftler Assoc, 157 W 57th St New York .... 212 CI 7-3855
Ohio G L Herrick, 845 Canterbury Rd Westlake 216 871-8855

SEAL-A-METIC, INC, 1 JOHN ST, HALEDON
N J, 07508 .... 201 278-5400
R ROIG, EMP 225, ENG 18, $2,500-$5,000M
Ariz Hecht Henschen & Assoc, 3825 N 39th Ave Phoenix 602 272-6677
Cal Hecht Henschen & Assoc, 2261 Stradella Rd Los Angeles 213 849-4720
Cal Hecht Henschen & Assoc, 3997 E Bayshore Rd Palo Alto 415 969-3131
Kan Inland Assoc, 6047 Howe Dr, Mission
Mass J Lozouski, 211 Lake Shore Dr Marlboro 617 485-4171
NJ Technical Elctns, 730 Clifton Ave Clifton 201 471-2640
NY C & M Assoc, 6 Joan La, Monsey 914 352-0787
Ohio Tri-State Marketing Inc, 1717 Section Rd Cincinnati 631-5060
Pa Mech Elec Sales, 16 S Main St, Medford, N J
Va Lafayette Enterprises, 6910 Valley Brook Dr Falls Church 703 534-5430
For MPB International, 18 Purdy Ave Rye, N Y 914 967-5704

SEALECTRO CORP, 225 HOYT ST, MAMARONECK
N Y, 10543, TWX 710-566-1110 .... 914 OW 85600
M ROBICH, EMP 600, ENG 15, $5,000-$10,000M
Cal Alan Laflin, 885 N San Antonio Rd Los Altos 948-3334
Cal R A Strassner Co, 3112 Los Feliz Blvd Los Angeles 213 666-4040
Colo Regan & Assoc, 1188 E Eastercourt Littleton 303 794-6477
Fla Steele Technical Sales Co, 2106 Woodcrest Dr Winter Park 647-1304
Haw Paul Hanson Co Inc, Box 2173 Honolulu 808 510-484
Ill R Diethert Co, 2030 W Montrose Ave Chicago .... LO 1-7627
Iowa R W Farris Co, 517 5th St, Des Moines ... 244-8243
Mass Sales Engineering Co, Box 7 W Concord 369-3943
Mich Carter, McCormic & Peirce, Inc, 16239 Wyoming Detroit 862-0017
Mich Elko Sales, 3119 Midland Dr SE Grand Rapids 616 949-1451
Minn Hasse & Assoc Inc, Box 7707 Minneapolis .... JU 8-2523
Mo R W Farris Co Inc, 1715 Baltimore Ave Kansas City .... HA 1-1751
Mo Dipro, Inc, Box 1427, Maryland Heights .. 432-3444
NJ Engineered Prods Inc, 28 Essex St, Lodi .. 342-4119
NY Friedman-Smith Electronic Sales, 519 S 5th Ave Mt Vernon .... MO 4-4866
NY I A Hotze Co, 112 DeWitt St Syracuse .... GR 9-6641
NC R Diethert Co Inc, 903 E 2nd Ave Gastonia 865-3771
Ohio McFadden Sales Co, 150 E Broad St Columbus .... CA 1-3363
Ohio McFadden Sales Co, Box 624 Far Hills Br, Dayton
Okla R L Ditson, 729 W 5th St, Tulsa .... LU 5-5853
Pa S A Jeffries, 105 Forrest Ave Narberth .... MO 4-8500
Pa R F Clark Co, Inc, 10517 Lindberg Ave Pittsburgh .... CH 2-9500
Tex G V Peck Co, 210 Casa Linda Plaza Dallas .... DA 8-3511
Tex G V Peck Co, 5757 Bellaire Blvd Houston .... MO 4-1435
Wash Allied Agencies, 1818 Westlake N Seattle .... AT 4-4082
Wis R Diethert Co Inc, 217 Wisconsin Ave Waukesha 414 547-6575
Can White Radio Ltd, 392 Wilson St Hamilton, Ont 522-1364
Can C L Thompson Ltd, 1440 Erin St, Winnipeg, Man
Fr Sealectro SA, 62 Rte De Paris, Villiers-Le-Bel 95
GB Sealectro, Ltd, Walton Rd, Farlington Portsmouth, Hants

BC C L Thompson Ltd, 3115 Lonsdale Ave
N Vancouver 987-9388

SEALOL INC, BOX 2158, PROVIDENCE
R I, 02905, TWX 92-7731 .... 401 ST 1-4700
H GREINER, EMP 400, ENG 28, $5,000-$10,000M
Cal Sealol, Inc, 8759 Remmet Ave
Canoga Park 882-3060
Ohio Sealol Inc, 15 Catalpa Dr, Springboro 746-4021
Pa Sealol Inc, Box 265, Media .... LO 6-3770
Fr Sealol-Europe sarl, 29.31 Rue Michelet
92 Nanterre .... MIC 83-50
Ger Sealol GmbH, 6239 Fischbach/Taunus
Staufenstr 12 .... 06195/2056
GB Sealol Ltd, Willow Ave, Uxbridge .... UX 3-7878
Ital Sealol SpA -Italy, Via S Giovanna D'Arco 6
Milano 22-15-15
Jap Nippon-Sealol Co Ltd, Sakado-machi Iruma-gun
Saitama Prefecture .... KA 2-7334

SEALTRON CORP, 188 READING RD, CINCINNATI
OHIO, 45215, TWX 810-461-2551 .... 513 821-7444
K NEAL, EMP 100, ENG 3, $1,000-$2,500M
Ariz Southwest Engineering Co, 8341 N 7th St
Phoenix 944-1521
Cal Elsner Rambo Co, 2526 Hyperion Ave
Los Angeles 664-2928
Cal Special Metals Supply, Inc, Box 1352
Fremont 656-5511
Conn W R McCoy, 892 Main St, Branford 488-2012
Conn Dage Corp, 757 Main St, Stamford 324-3123
Ill Dave Dolin Sales Co, 3525 W Peterson
Chicago 588-3738
Kan Penzner Assoc, Inc, Box 6264
Overland Park 381-0004
Md Daniel & Co, Box 124, Lutherville 825-3330
Mass Wm Mc Coy Co, 55 Prospect St
Holliston 429-2369
Mich Component/Insulation Corp, 610 N Woodward
Birmingham 644-0087
Mo Denzner Assoc, Box 1912 Bechtold Sta
St Louis 241-4385
NJ Robert Horne Assoc, 2282 Hamburg Tpke
Pompton Lakes 835-7400
NY Canavan-Scanlon Assoc, Box 142 Eastwood Sta
Syracuse 463-9161
NY Canavan-Scanlon Assoc, 564 Elliott Sq Bldg
Buffalo 852-1122
Ohio Component/Insulation Corp, 14235 Detroit Ave
Cleveland 521-3570
Pa J Kight, 4 Longfellow Rd, Pittsburgh 781-8304
Pa Daniel & Co, Box 3, Glenside 887-0550
Tex Stasco, 13310 Spring Grove Ave
Dallas 239-5054
Wash J K Dooley Co Inc, 4110 Stone Way N
Seattle 632-1618
Can Cantronics Ltd, 17 Dellbank Rd
Downsview, Ont 636-8311
Can Cantronics, Inc, 4252 Braille Ave
Montreal, Que 636-8311

SEASTROM MFG CO INC, 701 SONORA AVE
GLENDALE, CAL, 91201 .... 213 245-9121
R REMINGTON, EMP 70, ENG 3
Ariz Hecht, Henschen & Assoc, 3825 N 39th Ave
Phoenix 19 272-6677
Cal M Donley Co, 1104 Morena Blvd
San Diego 276-1934
Cal Hecht Henschen & Assoc, 3997 Bayshore Rd
Palo Alto 415 969-3131
Colo Harry P Daigle Co, 2785 N Speer Blvd
Denver 433-0226
Fla R F Carlson Co, 3900 S Lockwood Ridge Rd
Sarasota 813 922-2462
Ill Hill & Gray, Inc, 821 Garfield
Oak Park 378-7050
Minn Smith Engineering Assoc, 2278 Como Ave
St Paul 646-4851
Mo R F Carlson Co, 8721 Manchester Rd
St Louis .... WO 1-4485
NY Long Island Machy Sls Corp, 568 W Hoffman Ave
Lindenhurst 884-3070
Ohio Clare Electronics, 24431 Oakhill Dr
Cleveland 481-5364
Pa S A Jeffries, Inc, 105 Forrest Ave
Narberth 664-8500
Tex Blair Engrg Sales Co, 2930 Merrell Rd
Dallas .... FL 2-2556
Vt Bahr Sales Co, 91 Woodsley Rd
Longmeadow 567-3488
Wash F W Aurich & Co, 3601 Gilman Ave W
Seattle 282-2223

S E C I SOC ELETTROTECHICA CHIMICA ITALIANA
VIA G B GRASSI 97, MILANO
ITALY, 20157 3555146
E FINARDI, $2,500-$5,000M
For E I R A Largo, Augusto 7, Milano
Fr Sfernice, 115 B D De La Madaleine,
GB Welwyn Electric Ltd, Bedlington, Northumberland
Swit Woertz, Eulerstr 55, 4002 Basel 3

SECO ELECTRONICS CORP, 1001 2ND ST S, HOPKINS
MINN, 55343 .... 612 935-6963
J BOSIGER, EMP 47, ENG 4, $1,000-$2,500M
Cal L H Harriss Co, 204 E Hillsdale Blvd
San Mateo 341-2909
Cal Feldman Roberts Assoc, 9724 Washington Blvd
Culver City 870-5973
Colo Connors, Inc, 2241 Stacey Dr, Denver 428-1575
Conn Aid Engineering Sales Co, 38 Colonial Dr
Rocky Hill

Del Ferril Carmine, 14 Knickerbocker Dr
Newark 368-7603
Fla Geartner Assoc, Inc, 235 Lincoln Rd
Miami Beach 531-0200
Ga Electro-Rep Assoc, Box 28655, Atlanta
Haw Dougherty Enterprises, Box 3497
Honolulu 504-987
Ill Edward Flaxman Co, 52 James Ct
Glenview 729-1880
Minn F Hill Co, 6110 Excelsior Blvd
Minneapolis 929-6727
Mo Maury E Bettis Co, 3706 Broadway
Kansas City 561-0772
NY Cliff Landis Sales Co, 76-11 37th Ave
Jackson Hgts 458-7900
NC Electro-Rep Assoc, Inc, 128 W 30th St
Charlotte 333-0451
Ohio Lawrence Elliott Co, 20011 Fairmont Blvd
Cleveland 321-8732
Ohio J W Lehner Co, 367 Bryhild Rd
Columbus 268-5260
Pa W J Hager, Jr Co, 7535 Rosemary Rd, Pittsburgh
Tex Bill Wylds Co, 1247 Caudle Dr, Houston
Wash Dave Miller Sales Co, 2323 N 45th St
Seattle 637-7070

SECON WIRE DIV, 7 INTERVALE ST, WHITE PLAINS
N Y, 10606, TWX 914-997-1711 .... 914 949-4757
W SLAWSON, EMP 180, ENG 15

SECS, INC, 19-36 38TH ST, LONG ISLAND CITY
N Y, 11105, TWX 710-582-2605 .... 212 932-4545
A PALATTELLA
ADV PG 319
Ala International Scientific, 614 Madison Ave S
Huntsville 205 536-9686
Cal Thomas & Thomas Eng, 6515 W Sunset Blvd
Hollywood 213 466-6181
Ill Actronic Sales Eng, 4750 Milwaukee Ave
Chicago 312 286-1037
Mass Wm Beaver Assoc, 41 Indian Ridge Rd
S Natick 617 655-1529
Mich M Siditch, 9440 Marlowe
Plymouth .... 313 GL 3-4438
Minn Beta Engineering, 128 Jackson Ave N
Hopkins 612 938-2551
NJ Trainor Sales, 30 Haddon Ave
Haddonfield 609 428-7440
NY Vallin Assoc, 59 Appleton Pl
Dobbs Ferry .... 914 OW 3-1571
NY George Corp, 215 Fairmont Ave
Liverpool 315 457-1188
NY L & L Assoc, Box 96, Jackson Heights 899-4800
Ohio K Stahre, 24100 Lakeshore Blvd
Cleveland 216 261-6668
Tex Jacobson Co, Box 9702, Dallas .... 214 EM 3-7584
Can Altsol Co Ltd, 2325 Nantel
Montreal Que 514 747-5443

SEDCO SYSTEMS INC, 130 SCHMITT BLVD
FARMINGDALE, N Y, 11735 .... 516 694-7440
I BARDASH, EMP 31, ENG 14, $250-$500M

SEED ELECTRONICS CORP, 258 EAST ST, LEXINGTON
MASS, 02173 .... 617 862-8090
C MACDONALD, EMP 14, ENG 7, $100-$250M
Ga Physimetrics Inc, 3376 Peachtree Rd NE
404 237-8278
Ill Brooks Engrg & Equip Corp, 227 E Walton Pl
Chicago 312 944-1227
NM Southwestern Eng & Equip Co
707 1st Natl Bank Bldg E
Albuquerque 505 265-6775
NY Barnett Assoc, 40 Aberdeen Rd
Hauppauge 516 724-0202
Tex South Western Eng & Equip Corp
4101 San Jacinto, Box 8188, Houston
For Frathom Co Inc, 202 E 44th St
New York, NY .... 213 MU 7-9390

SEELY INSTRUMENT CO INC, 375 FOURTH ST
NIAGARA FALLS, N Y, 14302 .... 716 BU 2-1276
N MACDONALD, EMP 20, ENG 1, $250-$500M
Cal Power Transmission Engineering Corp
4863 Telegraph Rd, Los Angeles .... AN 8-3526
Ill Premium Instr, 1318 W 87th St
Chicago 846-4646
Ind National Engineering Co, 6100 N Keystone
Indianapolis .... CL 1-1132
Mass George H Bohling, 120 Boylston St
Boston .... LI 2-6933
NY Shea Assoc, Inc, 300 Hamilton Ave
White Plains .... WH 9-2366
Ohio Beckett-Harcum Co, 985 W Locust St
Wilmington 382-3875
Pa Charles E Robinson, 2 Gateway Center
Pittsburgh .... EX 1-5222
SC Livingston & Haven Inc, 2115 Meeting St
Charleston .... SH 4-3334
Tex The Hydraquip Corp, 6645 Navigation Blvd
Houston .... WA 6-8301
Can Rosseau Controls Ltd, 271 Labrosse Ave
Pointe-Claire Ind Park 695-1240
For Masten-Wright Corp, 282 State St
North Haven, Conn

SEELYE PLASTIC FAB INC, 9812 JAMES CIRCLE S
MINNEAPOLIS, MINN, 55431 .... 612 881-2658
R MCNAMARA, EMP 15, $500-$1,000M

SEEZAK PRODUCTS INC, 5057 W WASHINGTON BLVD
LOS ANGELES
CAL, 90016, TWX 213 937-0629 .... 213 939-3129
B PERLMUTH, EMP 10, ENG 2, $100-$250M
Cal Belchamber & French, 308 Plaxa Blvd
La Setua Beach 408 688-3281
DC Samuel A Jeffries Inc, Washington 202 737-2295
Fla Frank C Nickerson Co, 4513 Cameron
Tampa 833-4321
Ga Frank C Nickerson Co, 1244 Clairmont Ave
Decatur 377-1575
Ill Michael Bermann Sales Co, 8631 E Prairie Rd
Skokie .... OR 5-3740
Ind Chas Scheffler Co, 1133 Navajo Trail
Indianapolis .... CL 3-6337
Kan Mullenax Gowler Menezes Co Inc
9500 Mission Rd, Overland Park 913 649-8050
Md Samuel A Jeffries Inc, 500 Outercrest Rd
Baltimore 301 825-8913
Mass Henik Assoc, 54-60 Lexington St
W Newton 527-2451
Mass Northeastern Reps Inc
Framingham Center 617 879-2300
Minn John E M Anderson Co, 5231 Humboldt Ave S
Minneapolis 823-6459
NY Aeroconomy Agency, 1079 Lexington Ave
Schenectady
NY Marty Bettan Sales, 77-15 164th St
Flushing .... 212 OL 7-6659
Ohio John Olsen Co, 16201 Shaker Blvd
Cleveland 752-5444
Ohio John Olsen Co, 5539 Stokeswood Ct
Cincinnati 922-2176
Pa John Olsen Co, 104 Elatan Dr
Pittsburgh 279-2550
Pa Samuel A Jeffries Inc, 105 Forrest Ave
Narbeth 215 664-8500
Tex J Earl Smith Co, 1353 Chemical St
Dallas 631-1727
Tex J Earl Smith Co, 9623 Winsome Lane
Houston 802-5720
Wash Dave Millon Sales, 2323 N 45th St
Seattle 206 632-7070

SEGAL INC, EDWARD, 132 LAFAYETTE ST, NEW YORK
N Y, 10013 .... 212 996-3935
R GARRETSON, EMP 25, ENG 4
Cal R R Cannon Co, Box 5026, Pasadena 449-6157
Ill E C Rowell, 10742 S Western Ave
Chicago 238-3401
NY High Speed Hammer Co Inc, 313 Norton St
Rochester 266-6740

SEG ELECTRONICS DIV, E J HOWLES INC, 2589 PITKIN AVE
BROOKLYN, NY, 11208 .... 212 277-3770
S GENDLER
ADV PG 290
Cal Marland Enterprises, Box 101, Arcadia 681-9440
Cal H Stout Assoc, 199 First St, Los Altos
Ill Audio Sound Sales, 2919 1/2 W Armitage Ave
Chicago
Mass New England Elctn Sales Corp, 590 Washington St
Canton
NY Ed Glass Assoc, 250 W 57 St
New York .... 212 JU 6-8440
Pa Bittech Engrg, Boro Line Rd
King of Prussia 215 265-3452

SEI MANUFACTURING, 18800 PARTHENIA ST
NORTHRIDGE, CAL, 91324 .... 213 349-4111
J SCHLENKER, SLS MGR, EMP 75, ENG 5
$500-$1,000M
Cal Parsons Co, One First St, Los Altos 415 941-4745
Ill Ropek-Cahill Co Engineers, 5439 W Division St
Chicago 287-7292
NY Electrical Mfrs Services, 3170 Veterans Mem Hwy
Bohemia 510 228-6506

SELA ELECTRONICS CO, 545 WEST END AVE
NEW YORK, N Y, 10024 .... 212 787-7925
S HART, EMP 7, ENG 2, $100-$250M
Cal Comark Co, 2310 4th St, Santa Rosa 545-8442
Ill J R Sales Engineering, 6446 W Bloomingdale Ave
Chicago 889-6662
Mass Meditech Co, 23 Senders Ct, Hyde Park 361-4755

SELAS CORP OF AMERICA, BOX 200, DRESHER
PA, 19025 .... 215 MI 66610
R LEMAY, EMP 700, ENG 150, OVER $10,000M
Cal Egloff & Graper Inc, 1798 Industrial Way
Los Angeles 269-7363
Cal Florentine & Co, Box 144, Santa Clara 243-3217
Ga Boiler Equipment Service Co, Box 13138
Atlanta .... ME 4-7373
Ill Selas Corp of Amer, 3553 W Peterson Ave
Chicago 478-2333
Mich Selas Corp of Amer, 743 New Center Bldg
Detroit .... TR 5-1221
NJ Selas Corp of Amer, Box 411, Chatham 377-5502
Ohio Selas Corp of Amer, 1533 Marilyn Ave
Dayton 253-9597
Pa Selas Corp of Amer, 300 Mt Lebanon Blvd
Pittsburgh .... LO 1-0115
Tex Selas Corp of Amer, 8312 Hempstead Rd
Houston .... UN 4-7751
Wash E Sam Dick Co, 800 NW 46th St
Seattle 784-3010
Can R F Combustion Sys, Ltd, 5700 Cote St Francois
St Laurent, P Q 744-5573
Can Selas Corp of Amer, Box 506
Burlington, Ont 634-8247
Swit Selas Corp of Amer, 10 Chemin de l'Imperatrice
1292 Chambesy, Geneva

Neth Selas of America N V, 134 Gevers Deynootweg
The Hague, Scheveningen

SELCO ELECTRONICS INC, 465 COMMERCIAL AVE
PALISADES PARK, N J, 07650 .... 201 944 6046
D SELICK, EMP 30, ENG 1, $250-$500M

SELECTRONS LTD, 116 E 16TH ST, NEW YORK
N Y, 10003 .... 212 CA 8-6800
M RUBINSTEIN, EMP 15, ENG 5, $500-$1,000M
Cal Vanguard Pacific Inc, 1216 W Washington Blvd
LA 747-5626
Mich Continental Products Co, Box 61
Royal Oak .... LI 6-4520
Minn D G Perry, 5010 France Ave S, Mnpls 920-3212
Tex Forslund Pump & Machy Corp, 1717 Main St
Kansas City .... VI 2-0868
Can Aero Plating & Repair Ltd, 122-02 118th Ave
Edmonton, Alb 455-9639
For Yung Zeng Ind Co (HK) Ltd, Pedder St
Hong Kong 23967
For G S Intl Co Inc, Roxas Blvd, Manila, Phil
Ger Prico, GmbH, 5608 Krebsoge Wilhelmstal 24-26,
Jap New Metals & Chem Corp Ltd, CPO 565
Tokyo .... WA 6-585-7
Isrl Racom Electronics Co Ltd, 74, Nordau Blvd, Tel-Aviv

SELENIA - INDUSTRIE ELETTRONICHE ASSOC
VIA TIBURTINA, KM 12400, ROME
ITALY, 00131, TWX 61106 419451
M FRANCHETTI-PARDO, EMP 2200, ENG 300, OVER $10,000M

SELF-ORGANIZING SYSTEMS INC, BOX 9918, DALLAS
TEX, 75214 .... 214 BR 6-9487
J COX, EMP 20, ENG 2, $250-$500M
Cal O'Donnell Assoc, 18053 Crenshaw Blvd
Torrence 479-2232
Ohio Scott & Steffen Inc, 1836 Euclid Ave
Cleveland 861-2626
Pa Holdsworth & Co, Box 71, Lansdowne .... MA 6-8300
Ger Stewart Aeronautical Supply Co
Gatwick Rd, Crawley, Sussex .... CR 2-8700

SELL-TRONIC PRODUCTS CO INC, 138-20 31ST RD
FLUSHING, N Y, 11354 .... 212 TU 6-4763
I CHERNOFF
Mass Mass Assoc Electronic, 119 The Great Rd
Bedford 275-9020

SEL-REX CORP & SUB THE MEAKER CO, 75 RIVER RD
NUTLEY, N J, 07110 .... 201 667-5200
S WILSON, EMP 205, ENG 13, OVER $10,000M
Cal Sel-Rex Corp, 2321 Pontius Ave
Los Angeles 447-8555
Ga Sel-Rex Corp, 1000 Peachtree St NE
Atlanta 892-0577
Ill Sel-Rex Corp, 5544 St Charles Rd
Berkeley 547-8300
RI Sel-Rex Corp, 105 Bellows St, Warwick 781-0700

SEL-REX INTERNATIONAL S A
65 AVENUE DE L'ETANG, GENEVE
SWITZERLAND, 1211 44-00-00
J VALICARI, EMP 78, ENG 18, $1,000-$2,500M
Fr Prochimie-Eesa-France
Rue Berthelot Zone Industrielle, Besancon 25
GB Sel-Rex U K, Trading Est 689 Stirling Rd
Slough Bucks
Holl Electroplating Engrs of Japan, 14 2 Nagatoro
Hiratsuka
Jap Electroplating Engrs NV, Molenstr 7, Helvoirt

SEMI-ALLOYS INC, 20 N MACQUESTEN PKWY
MT VERNON, N Y, 10550 .... 914 664-2800
E PIAN, EMP 150, ENG 12, $5,000-$10,000M
Cal Heim & Smolen, 3360 Barham Blvd
Hollywood .... 213 HO 2-7357
Fla Young & Lawrence Assoc, 601 N New York Ave
Winter Park 305 647-6929
Mass Geo Miller Assoc, Inc, 9 Spring St
Waltham 899-1600
Mo W A Shaw Co, 6550-B Troost
Kansas City 816 523-6618
NJ RHB Sales Co, 95 Carpenter St
Belleville 201 751-1415
NC Candor Co Inc, Bethania 919 924-1480
Wis Wire & Sintered Products, 4477 N Farwell
Milwaukee 962-8921
Fr Precimeca, 18 Rue d'Arras, Nanterre, Seine

SEMICON ASSOCIATES INC, BOX 832, LEXINGTON
KY, 40501 .... 606 255-2446
M MILLER, EMP 35, ENG 5, $500-$1,000M

SEMICONDUCTOR CIRCUITS, INC, 163 MERRIMAC ST
WOBURN, MASS, 01801 .... 617 935-5200
D BELANGER, EMP 10, ENG 3, $100-$250M
Ill Systems Engrg Assoc, 6253 Milwaukee Ave
Chicago 312 774-1452
Ind Systems Engrg Assoc, 1010 E 86th St
Indianapolis 846-2593
Kan Impala, Inc, 6917 W 76th St
Overland Park 648-6901
Md Ron Davies Assoc, 11215 Oak Leaf Rd
Silver Spring 301 593-4900
Mass Vector Sales, 774 Pleasant St, Belmont 489-1400
Mich Electro Sales Assoc, 15324 Mack Ave
Detroit 886-2280
Minn Systems Engrg Assoc, 8633 Harrison St
Minneapolis 729-6161
Mo Impala, Inc, 47 Vlg Sq Shop Ctr
Hazelwood 522-1600
NY Labtronics, Inc, 161 Pickard Bldg
Syracuse 454-9314
Ohio Electro Sales Assoc, Overlook Br Box 3122
Dayton 426-5551
Pa Electro Sales Assoc, 201 Penn Center Blvd
Pittsburgh 371-9449

SEMICONDUCTOR DEVICES INC, 1353 E EDINGER ST
SANTA ANA, CAL, 92705 714-547-9401
R BURCHART, EMP 23, ENG 5, $250-$500M

SEMICONDUCTOR PRODUCTS INC, 250 CANAL ST
LAWRENCE, MASS, 01842 .... 617 686-0197
L KING, EMP 40, ENG 2, $250-$500M
Cal Coplan Assoc, 4206A Glencoe Ave
Venice 213 397-2166
Ill Brock & Cushman, Inc, 6261 W Grand Ave
Chicago 622-4110
Md Leff Sales Assoc, 408 York Rd
Towson 301 823-0774
Mass D W Marcus & Co, Box 453, Natick 235-1432
Minn R G Ragon, Inc, 1136 W Larpenteur Ave
St Paul 488-6634
Mo Aire-Borne Elctns, 7759 Loma Vista Dr
Kansas City 816 221-0312
NJ Leff Sales Assoc, 5900 Westfield Ave
Pennsauken 609 663-4025
NJ RCM Assoc, 115 Legion Pl
Hillsdale 201 666-0205
NY B D Hummel Co, 2224 Maynard Ave
Utica 315 736-7821
Ohio Sales Engineering Assoc, Box 92
Avon Lake 933-3327

SEMICONDUCTOR SPECIALISTS INC
BOX 66125 O'HARE INTL ARPT, CHICAGO
ILL, 60666 .... 312 279-1000
D FISHER, EMP 75, ENG 14
Ill Semiconductor Spclsts, 195 Spangler Ave
Elmhurst 312 279-1000
Mich Semiconductor Spclsts, 25127 W Six Mile Rd
Detroit 313 255-0300
Minn Semiconductor Spclsts, 7742 Morgan Ave So
Minneapolis 612 866-3434
Mo Semiconductor Spclsts, 10062 Natural Bridge
St Louis 314 423-6500
Ohio Semiconductor Spclsts, 5858 N Main St
Dayton 513 278-9455
Pa Semiconductor Spclsts, 2011 Waverly St
Pittsburgh 412 351-3611
GB Semiconductor Spclsts, 127 Station Rd
West Drayton Mdsx 6415

SEMICONDUCTOR SPECIALTIES CORP
POLLITT DR, DEPT EBG, FAIR LAWN
NJ, 07410 .... 201 797-1500
R TUCKER, EMP 30, ENG 3, $250-$500M
Mass First Nat'l Elctns, Inc, North Ave
Wakefield 245-6240

SEMICON INC, SWEETWATER AVE, BOX 328
BEDFORD, MASS, 01730 .... 617 275-8542
A NELSON JR, EMP 160, ENG 5, $1,000-$2,500M
Cal Brooks & Day Assoc, 10700 Ventura Blvd
N Hollywood 213 877-3357
Colo Gossard & Assoc, 12159 W Dakota Dr
Denver 985-0602
Conn Comp Rep Assoc Inc, 14 Samoset Ave
N Haven 239-9762
Fla Winfield Electronic Sales Co, 666 NE 125th St
N Miami 751-5566
Ill Fiat Engineering Assoc, 5133 St Charles Rd
Bellwood 547-6200
Md Shiplett-Warrington & Assoc, Box 6789
Baltimore 823-8759
Mass Comp Rep Assoc Inc, 1116 Great Plain Rd
Needham 444-2484
Mich Elko Sales, 3119 Midland Dr SE
Grand Rapids 616 949-1451
Minn Countryman Wagner & Bohnen
1955 University Ave, St Paul 612 645-9151
Mo Ozark Elctn & Mktg Inc, 2573 Woodson Rd
St Louis 314 428-5313
NY R Emrick, Box 67, East Islip 516 798-2234
NY S F Foster Co, 2806 Hennaberry Rd
Pompey 315 677-333
Wash Winco Sales Inc, Box 331
Mountain View 415 961-8510
Can Ben Manis Assoc Reg'd, 5317 Prince of Wales Ave
Montreal 247-8271
For Minthorne Int'l Co Inc, 64-14 Woodside Ave
Woodside, N Y 899-8888

SEMI-ELEMENTS INC, SAXONBURG BLVD
SAXONBURG, PA, 16056 .... 412 265-1581
E COGHE, EMP 35, ENG 10, $1,000-$2,500M

SEMIKRON INTERNATIONAL INC, BOX 323
SCARSDALE, N Y, 10583 .... 914 725-2529
R WALTER, EMP 4, ENG 2, $250-$500M
Ala Wallace Assoc, 1871 Grove Hill La
Montgomery 205 262-2011
Cal Kittleson Co, 416 N La Brea Ave
Los Angeles 213 933-7371
Colo A J Nelson Co, 1294 S Bannock St
Denver 303 733-5538
Fla Stanley K Wallace Assoc, Box 67
Lutz 813 935-5817
Ga Stanley K Wallace Assoc, 715 Flamingo Dr
Atlanta 404 753-8463
Ill Ropek-Cahill Inc, 5439 W Division St
Chicago 312 287-7292
NH Sales Engineering Co, Baker Ave
West Concord 617 369-3943
NJ Braddock Assoc., Box 306
Haddonfield 609 429-0087
NC Wallace Assoc, Box 423
Matthews 704 377-1113
Ohio Martin-Rettger Inc, 11955 Shaker Blvd
Cleveland 216 791-8787
Tex J Earl Smith Co, 1353 Chemical St
Dallas 214 631-1727
Fr Semikron, 15 Ave Jules Quantin, 92-Nanterre Seine
Ger Semikron GMBH, Wiesentalstr 40, 85-Nuernberg
Holl Semikron, Werpad 5, Zaandam
Ital Semikron s r l, Box 58, VARNA/Bressanone Bz
Swit Semikron, Suerichstrasse 64, 8700 Zuerich
Arg Semikron Argentina S C p A
Cap Ramon Freire 1458, Buenos Aires
Braz Semikron Sudamericana Com e Ind
Aven Franklin Roosevelt 137, Rio de Janeiro
Mex Semikron de Mexico S A de C V
Mazatlan 83 Piso 1, Mexico 11 D F

SEMIMETALS INC, 172 SPRUCE ST, WESTBURY
N Y, 11591, TWX 510-222-8810 .... 516 ED 38400
M LEAVITT, EMP 160, ENG 14, $2,500-$5,000M
Cal R E Henriks & Assoc, 4900 Double Dr
El Monte 442-1820
Can Glendon Co, 603 Evans Ave
Toronto, Ont 255-5001
Can Anbak Sales, Canada, Ltd., Box 101
Ile Perrot Sud, Que 453-6375
Can Anbak Sales Canada Ltd, 3208 Lenworth Dr
Cooksville, Ont 625-1061

SEMTECH CORP, 652 MITCHELL RD, NEWBURY PARK
CAL, 91320, TWX 910-336-1264 .... 213 628-5392
W KRAUSE, EMP 310, ENG 20, $5,000-$10,000M
ADV PG 582
Ala Rep, Inc, 8100 S Memorial Pkwy
Huntsville 881-9270
Ariz Dubblar Assoc, 1822 E Windsor Ave
Phoenix 277-9739
Cal AD Electronics, 7969 Engineer Rd
San Diego 278-9260
Cal Semtech Corp, 941 E Charleston
Palo Alto 415 328-8025
Colo Arrowhead Sales Corp, 6460 Brentwood
Arvada 303 798-0319
Conn Westwood Assoc, 1584 North St
Suffield 668-5333
Fla Hanson Assoc, Box 26, Melbourne 305 727-7474
Ga Rep, Inc, 1483 Monroe Dr NE, Atlanta 876-1591
Ill Carlson Electr Sales, 7448 N Harlem Ave, Chicago
Ill Semtech Corp, 140 N LaGrange Rd
La Grange 352-3227
Ind Scott Electronics Inc, 915 N Penna Ave
Indpls .... ME 5-8951
Ky Scott Electronics Inc, 366 Francis Bldg
Louisville .... JU 3-3220
Mass Westwood Assoc, 181 West St
Waltham 617 891-7810
Mass Semtech Corp, Box 264, Woburn 617 935-5595
Minn Stan Clothier Co, 7400 Lyndale Ave S
Minneapolis 869-3231
Mo Boweng, 10428 Lackland Rd, St Louis 429-7327
NJ Martin Klein Assoc, Box 92
Hillsdale 201 664-8711
NJ Graydon-Sherman, 230 Madison Ave
Morristown 215 259-8670
NY Bowser & Sapecky, 4317 E Genessee St
DeWitt .... GI 6-5920
NY Bowser & Sapecky, 4541 Main St
Snyder 873-0484
NY Semtech Corp, 116-55 Queens Blvd
Forest Hills 212 263-3115
NC Candor Co, Bethania 919 924-1480
Ohio Scott Electronics Inc, 102 W 2nd St
Dayton .... BA 3-2652
Ohio Scott Electronics Inc, 1836 Euclid Ave
Cleveland .... TO 1-2626
Pa Scott Electronics Inc, 313 Empire Bldg
Pittsburgh .... GR 1-5233
Tex Semtech Corp, 402 Irving Bank Tower
Irving 214 253-7644
Utah Arrowhead Sales Corp, 1966 W 6255 S
Salt Lake City 801 298-2751
Va Jay Co Inc, 2914 Annadale Rd
Falls Church 703 534-7800
Wash Western Technical Sales, 10843 NE 8th St
Bellevue 206 454-3906
For Flan Assoc, Box 6283, San Juan PR 724-3581
Swit Bourns AG, Alpenstr 1, 6301 Zug

SENCORE INC, 426 WESTGATE DR, ADDISON
ILL, 60101 .... 312 543-7740
R BOWDEN, EMP 160, ENG 10, $2,500-$5,000M

SENECA FALLS MACHINE CO, 314 FALL ST
SENECA FALLS, N Y, 13148 .... 315 568-5804
R EISENGRE, EMP 270, ENG 8, $1,000-$2,500M

SENNHEISER ELECTRONIC CORP (NY), 500 FIFTH AVE
NEW YORK, N Y, 10036 .... 212 LO 4-0433
T SCHILLINGER, EMP 9, ENG 2, $500-$1,000M

SENSI-TRONICS INC, 7172 TRANSIT RD
WILLIAMSVILLE, N Y, 14221 ... 716 634-0200
J SHEA, EMP 8, ENG 3, UP TO $100M
Cal Huffman Engrg Co, 1465 W Sepulveda
Torrance ... 216 534-1962
Conn Earl E Smith Assoc, 7 S Main St
West Hartford ... 203 236-3521
Ga Pittman-Shuman, 241 W Wieuca Rd
Atlanta ... 404 233-2639
Ill Gul P Bhatia, Box 126, Park Ridge 312 698-3436
Ill Malovac Sales Co, 1726 N 76th Ct
Elmwood Park ... 312 654-4110
Ind D-Mark Assoc, 1819 E Michigan Blvd
Michigan City ... 219 872-8469
Mich Elias Elctns, 26817 W 7 Mile Rd
Detroit ... 313 255-2111
Minn Servco-Div of Service Tool, 521 S Seventh St
Minneapolis ... 612 339-8611
NJ Z-K Assoc, 201 Crescent Ave
Leonia ... 201 544-6488
NY John M Shea Assoc, Inc, 7172 Transit Rd
Williamsville ... 634-0200
Ohio Press & Equip Sales, 8040 Montgomery Rd
Cincinnati ... 513 793-4744
Ohio Automation Component Sales, 34 Lexington Sq
Euclid ... 216 481-7300
Pa EMESCO Assoc, Box 7191
Elkins Park ... 215 224-3102
Wis Manureps, 2179 S 84th St
Milwaukee ... 414 543-1629
Can Dominion Power Press, 1392 Grahams La
Burlington Ont ... 416 634-5547

SENSOR CORP, 97 INDIAN FIELD RD, GREENWICH
CONN, 06830 ... 203 661-5600
G MORDWINKIN, EMP 22, ENG 4, $250-$500M
Cal Parson Co, 3640 Grand Ave
Oakland ... 415 TW 3-1577
Conn Abbot Allison Co, Inc, Box 467
Meriden ... 237-9232
Fla Scott & Assoc, Box 20341
Orlando ... 305 841-4840
Ill Lightner Assoc Inc, 6322 N Milwaukee
Chicago ... 774-1500
Md H R Sieber Co, 1005 Bonifant St
Silver Spring ... 589-9110
Mass Abbot Allison Co Inc, Box 96
North Andover ... 245-0250
Mich Owen Engineering Co, 17304 Lahser Rd
Detroit ... 538-1120
Mo Ozark Electronic Mktg Inc, 2573 Woodson Rd
St Louis ... 428-7200
Tex General Sales Reps, 1510 Spiller S
Houston ... 923-7371
Can Electrodesign Ltd, 9124 St Lawrence Blvd
Montreal ... 389-5914
For J P Intl Corp, 1989 Summer St
Stamford, Conn ... 348-2691
Swed Essen Metotest AB, Tack, Skultuna ... 021/750 000

SENSOR SYSTEMS INC, 8734 REMMET AVE
CANOGA PARK, CAL, 91304 ... 213 341-5366
C FULLER
Wash D & D Sales, Inc, 43 Logan St
Renton ... BA 6-4120

SENSORY SYSTEMS, BOX 2071, COSTA MESA
CAL, 92626 ... 714 549-3812
R JOHNSON, EMP 25, ENG 10, UP TO $100M

SENTRON INC, BOX 70, DANBURY
CONN, 06810 ... 203 744-6311
R SENAY, EMP 6, ENG 2, $250-$500M

SENTRY CO, 62 MAIN ST, FOXBORO
MASS, 02035 ... 617 543-5391
W ROBERTSON, EMP 20, ENG 3, $500-$1,000M
Cal Bickford & Assoc, Box 2151, Santa Ana .. 545-0419
Cal F Lowell Garrison, 850 S Van Ness Ave
San Francisco ... 285-8220
Ill Newholm Sales & Eng Co, 6135 N Elston Ave
Chicago ... 774-6577
Mich Sales Engineering Assoc, Box 237
Plymouth ... 453-3811
Minn W G Barstow Co, 6519 Nicollet Ave
Mnpls ... 866-4676
NJ G B Duff & Co, 2165 Morris Ave
Union ... MU 6-1747
NC Price Equipment Co, 541 Morgan Mill Rd
Monroe ... 283-4788
Ohio H F Mura, 1839 Wynwood Dr
Rocky River ... ED 1-1447
Pa Gibson & Stanier Eng Products, Box 9742
Pittsburgh ... 931-5522
Tenn Die Supplies, Inc, Box 2387, Memphis ... 948-6613
Can Peacock Brothers Ltd, Box 1040, Montreal
Ital La Forni-Tecnica, Via Giampiero Lucini 21, Milan
Jap Iwai-Takachiho-Trading Co, Ltd
6-7, 1 Chome, Yushima, Bunkyo-Ku, Tokyo
Swed Ingen A. Bystrom AB, Box 41, Bastad
Mex Electronics SA, Aptdo 683, Mexico 1 D F

SEQUENTIAL ELECTRONIC SYSTEMS INC
66 SAW MILL RIVER RD, ELMSFORD
N Y, 10523 ... 914 592-8810
M VINARUB, EMP 90, ENG 12, $1,000-$2,500M
Ariz Thorson Co, 2505 E Thomas Rd
Phoenix ... 602 264-5878
Cal Thorson Co, 6824 Melrose Ave
Los Angeles ... 213 WE 7-0790
Cal Thorson Co, 2443 Ash St
Palo Alto ... 415 321-2414
Cal Thorson Co, 2114 N Broadway
Santa Ana ... 714 547-6206
Cal Thorson Co, 444 Olive St
San Diego ... 714 CY 8-8385
Colo Thorson Co, 300 E Hampton Ave
Englewood ... 303 789-1841
Ind Robt O Whitesell & Assoc, 6620 E Washington St
Indianapolis ... 317 359-5374
Ind Robt O Whitesell & Assoc, Central Bldg Room 272
Ft Wayne ... 219 743-4411
Ky Robt O Whitesell & Assoc, 3620 Lexington Rd
Louisville ... 502 893-7303
Mich Robt O Whitesell & Assoc, 25100 Evergreen Rd
Southfield ... 313 358-2020
Mich Robt O Whitesell & Assoc, 303 Fidelity Bldg
Benton Harbor ... 616 927-2041
NY Crane & Egert Corp, 146 Meacham Ave
Elmont ... 516 488-2100
Ohio Robt O Whitesell & Assoc, 4133 S Dixie Ave
Dayton ... 513 298-9546
Ohio Robt O Whitesell & Assoc, 1172 W Galbraith
Cincinnati ... 513 521-2990
Ohio Robt O Whitesell & Assoc, 21139 Lorain Ave
Cleveland ... 216 333-2585
Pa Crane & Egert Corp, 107 W Ridge Pike
Conshohocken ... 215 277-0599
Pa Robt O Whitesell & Assoc, 201 Penn Center Blvd
Pittsburgh ... 412 242-0100
Tex Thorson Co, 7700 Carpenter Frwy
Dallas ... 214 631-5440
Tex Thorson Co, 3312 Marquart
Houston ... 713 NA 1-0990
Wash Thorson Co, 1767 15th Ave S
Seattle ... 206 325-5000
Can Technitron Assoc Ltd, 769 Lajoie Ave
Dorval Que ... 514 631-6859

SERFILCO DIV SERVICE FILTRATION CORP
7433 N HARLEM AVE, CHICAGO
ILL, 60648 ... 312 647-9568
J BERG, EMP 32, ENG 1, $1,000-$2,500M
Cal J A Rinek, Box 1276, Arcadia
Mass J R Chisholm Corp, 92 Hutchinson St, Revere

SERVO CORP OF AMERICA, 111 NEW SOUTH RD, HICKSVILLE
N Y, 11802, TWX 510-221-1872 ... 516 938-9700
R SHELOFF, EMP 300, ENG 50, $5,000-$10,000M
ADV PG 32, 323
Ala Brennan Assoc, Box 1074
Huntsville ... 205 536-7425
Cal L & M Engrg, Inc, 9911 Inglewood Ave
Inglewood ... 678-5409
Cal L & M Engrg, Inc, 2620 The Alameda
Santa Clara ... 243-6661
Colo A L S Elect, 1932 14th St, Boulder ... 447-2436
DC Eastern Instr Inc, 2600 Virginia Ave NW
Washington ... 202 333-8880
Fla Brennan Assoc, Box 5006
Clearwater ... 813 446-5006
Ga Brennan Assoc, Box 372, Tucker ... 404 469-8324
Ill Berndt Assoc Inc, 6414 W Belmont Ave
Chicago ... 283-0713
Md Eastern Instr Inc, 1002 Ingleside Ave
Baltimore ... 301 RI 4-3675
Mass Addelco Corp, 56 Pickering St
Needham ... 444-4754
NJ Eastern Instrumentation, Inc, 518 Franklin Ave
Nutley ... 661-2000
NM A L S Engineering, 209 San Pablo SE
Albuquerque ... 268-9600
NM A L S Elctns, Box 1498, Alamagordo ... 437-6708
NY Tesco, 2002 Teall Ave, Syracuse ... 463-4566
NY Eastern Instrumentation, Inc, 350 Northern Blvd
Great Neck ... 466-9505
Okla John A Green Co, 2714 S Lewis, Tulsa .. RI 2-4657
Pa Eastern Instrumentation, Inc, 613 Cheltenham Ave
Phila ... WA 7-6269
SC Brennan Assoc, Box 871, Aiken ... 649-7100
Tex John A Green Co, Box 66506, Houston .. JA 6-2959
Tex John A Green Co, 7118 Envoy Ct
Dallas ... ME 1-7450
Va Eastern Instr Inc, Ross Bldg
Richmond ... 703 644-6622

SERVO DEVELOPMENT CORP, 2 WILLIS CT
HICKSVILLE, N Y, 11802 ... 516 OV 14343
A DOUGLAS, EMP 70, ENG 7
Cal Dyna Sales Co, 962 1/2 S Atlantic Blvd
Los Angeles ... AN 8-1175
Colo Paul P Robbins & Assoc, 1621 Orchard Dr
Denver ... HA 9-2835
Fla Duay Enterprises, 1515 Ensenada Dr
Orlando ... CR 7-3296
Ill Ryan & Assoc, 71-32 N Harlem Ave
Chicago ... 312 775-5717
Ind Garland Graham Assoc, 5462 E 40th St
Indianapolis ... 317 547-3259
Md Ken Randall Co, 821 Scarlett Dr
Towson ... 828-5310
Minn Beta Engrg Co, 128 Jackson Ave N
Hopkins ... 612 938-2551
Mo Technical Marketing Assoc, 2050 Woodson Rd
St Louis ... HA 7-3600
NJ Ken Randall Co, 250 Haddon Ave
Collingswood ... 854-3323
NM Paul P Robbins & Assoc, 2201 10th St, Alamogardo
NY EAC Assoc, 53-11 90th St
Elmhurst ... 212 DE 5-0606
Ohio C & D Assoc, 47 W Whipp Rd, Dayton ... 434-3030
Tex Thorson Co, 7700 Carpenter Frwy
Dallas ... ME 1-5440
Wash Thorson Co, 1767 15th Ave S, Seattle ... EA 5-5000
Can Technitron Assoc Ltd, 769 Lajoie Ave
Dorval Que ... 514 631-6859
For Chas E Johnson & Assoc, 1 E. 42nd St
New York ... 212 MU 7-2570
Fr ETS Radiophon, 148 Avenue Malakoff
Paris ... KLE 32-50
Ital TAI Automation, Via Petrella 21, Milano

SERVO LABS INC, 14744 ARMINTA ST, VAN NUYS
CAL, 91402 ... 213 ST 1-7640
C CZERNEK, EMP 40, ENG 4, $1,000-$2,500M

SERVOMETER CORP, 82 INDUSTRIAL E, CLIFTON
N J, 07012 ... 201 773-0474
J DIEGNAN, EMP 47, ENG 4, $500-$1,000M
Cal Bearings, Seals, & Gears Inc, 1650 Broadway
Redwood City ... 365-5444
Cal Bearings, Seals & Gears, Inc, 20122 Camden St
Glendora ... 335-3736
Cal Bearings, Seals & Gears Inc, 24035 Ocean Ave
Torrance ... 375-8333
Colo Bearings, Seals & Gears, Inc, 13590 W Colfax Ave
Goldon ... 238-2411
Tex T M Curtis Co, 5635 Yale Blvd, Dallas ... 361-1666
Wash Bearings, Seals & Gears Inc, 6867 84th Ave, SE
Mercer Island ... 232-6070

SERVOMEX CONTROLS LTD, CROWBOROUGH
SUSSEX, ENGLAND, TWX 95113 ... 2151
R STEEL

SERVONETICS INC, 2228 PURDUE AVE, LOS ANGELES
CAL, 90064 ... 213 879-0340
J BURWELL, EMP 20, ENG 4, $100-$250M
Cal Halbar Assoc, 1805 W 3rd St
Los Angeles ... DU 7-8283
NY Ellis-Haber Corp, 2315 Broadway
New York ... 799-4040

SERVO-TEK PRODUCTS CO, MARINE DIV
1086 GOFFLE RD, HAWTHORNE
EMP 50, ENG 3, $100-$250M
Cal Servo-Tek of Cal, Inc, 6741 Sepulveda Blvd
Van Nuys ... 213 786-0690
Fla Servo-Tek Products Co, 1855 Gulf-to-Bay Blvd
Clearwater ... 813 442-4164

SERVO-TEK PRODUCTS CO, 1086 GOFFLE RD
HAWTHORNE, N J, 07506 ... 201 427-3100
J DUFFY, EMP 105, ENG 5, $1,000-$2,500M
Cal Servo-Tek of Cal, 6741 Sepulveda Blvd
Van Nuys ... 213 786-0690
Fla Servo-Tek Products Co, 1855 Gulf-to-Bay Blvd
Clearwater ... 813 442-4164
Mass Forbes Engrg, 19 Flint St, Salem ... 617 744-1693
GB Neco Electronics Europe Ltd
North St, Clapham Common
London SW 4 ... Macauley 3211/5

SERVOTRONICS INC, 3902 UNION RD, BUFFALO
N Y, 14225, TWX 710 523-1855 ... 716 633-5990
F ILLIG, EMP 100, ENG 9, $1,000-$2,500M

SESCO INC, 47 NICHOLS AVE, FRIDAY HARBOR
WASH, 98250 ... 206 378-3333
J O'NEIL, EMP 15, ENG 2

SESCO, 41 AMIRAL MOUCHEZ, PARIS XIII
FRANCE, TWX 26 621 PARIS ... 588 32 74
J BOUVSSONNIE, EMP 1140, ENG 105
For Transalpina, Elisabethstr 8
1010 Wien I ... 0 22 2 5715 68
For Romar Ltda, Rua da Boavista 83 1 D
Lsboa ... 67 21 a 69
Den E V Johanssen A/S, Scherfigsvej 1
Kobenhavn ... PAL 75 10
Ger Thomson GMBH, Eschenheimer Anlage 28
Frankfurt Main ... 59 06 01
Ger Thomson GMBH, Leonrodstr 20
8 Munchen 19 ... 5 16 52 58
Ger Thomson GMBH, Graf von Galen stra 40
4711 Suedkirchen ... 025 96 198
GB M C P Electronics Ltd, Station Wharf Wks
Alperton-Wembley Mddx ... Wem 1191
Ital Thomson Italiana
Via Erba No 21 20037 Paderno Dugnano
Milano ... 92 36 91 a 94
Nor Henaco A/S, Cort Adelersgate 16
Oslo 2 ... 56 51 80
SAfr Thomson Electronics S A, 29 Princess St
Johannesbourg ... 27 43 21
Swed Elektroholm A B, Dalvagen 12
Fack Solna 1 ... 82 02 80
Swit Metronic S A, Dubendorfstr 22
Zurich ... 051/41 84 84
Belg Thomson Belge, 196 A ave Louise
Bruxelles 5 ... 49 29 54
Braz Sibrasco Electronica Ltda, Box 19 166
Rua Marcos Lopes 305 ... Sao Paulo
Neth Mijnssen & Co NV, Keizersgracht 205
Amsterdam C. ... 64 122
NZ G E C Ltd, 31 Taranaki St, Wellington ... 54 885
Spn Gen Electrica Espanola, Grupo IV
Doctor Esquerdo 225 ... Madrid 7
Fin O Y Sufra AB, Ruusulankatu 20 A 12
Helsinki 25 ... 49 01 37
Aust Pantechna Pty Ltd, 8-12 Eastern Rd
S Melbourne ... 69 26 29

SESSIONS & SON, J H, 280 RIVERSIDE AVE, BRISTOL
CONN, 06012 .... 203 582-3127
R SHERMAN, EMP 55, $500-$1,000M
Cal Smith Sales Co, 1243 S Goodrich Blvd, Los Angeles
Cal Smith Sales Co, 115 New Montgomery St
San Francisco
Ill C E Mix Mfrs Agency, 333 N Michigan Ave, Chicago

SETCHELL CARLSON, INC, NEW BRIGHTTON
MINN, 5112.... 612 633-3131
R DEARDORFF, EMP 450, ENG 8, $5,000-$10,000M
Cal F W Moulthrop & Assoc, 1530 E 12th St
Oakland 261-7676
Cal Sales Reps Unltd, 7750 Industry Ave
Pico Rivera 723-8493
Colo Nor-Con, Ltd, 2241 Stacey Dr, Denver 428-1575
DC Mainline Prods, Inc, 3400 New York Ave N E
Washington 832-5330
Fla A A Hamilton, 162 University Ave
Ormond Beach.... 677-1116
Haw Earl Assoc, 1638 Kona St, Honolulu.... 996-953
Ill Loyd Yaeger, 1617 Dial Ct, Springfield 546-6203
Mass Anderson Sales Co, 177 State St
Boston 227-2980
Mich R Milsk Co, 19375 James Couzens Hwy
Detroit 342-6660
NY Marsey Sales Co, 206 Park Ave
Rochester.... 442-9700
NC Erde-Haviland Assoc, 333 Hempstead Ave
Malverne 599-6500
Ohio D Dorsey Co, Rt 2, Nashport 763-3894
Ore Earl & Brown Co Inc, Box 25408
Portland 292-9145
Pa Beil & Whitaker, Inc, 3623 Jacksonwald Ave
Reading 375-6837
Tex J Paul Johnson, 3715 Durango St
Dallas.... 352-3174
Wash Earl & Brown Co Inc, 422 First Ave W
Seattle 284-1121

SETCHELL CARLSON INC AUDIO VISUAL PRODS
NEW BRIGHTON, MINN, 55112 .... 612 633-3131
Ill George Petitt Co, 349 N Ashland Ave
River Forest 261-0342
Kan Forristal-Young Sales Co, 5500 Buena Vista
Mission 432-1420
Ohio Weller Elctn Sales, Box 212
Worthington.... 885-7819

SETON NAME PLATE CORP, 592-EBG BLVD
NEW HAVEN, CONN, 06519 .... 203 772-2520
M CRESPO, EMP 24, ENG 2, $500-$1,000M

SEVEN ASSOCIATES INC, 568 SAN XAVIER AVE
SUNNYVALE, CAL, 94086.... 408 736-9488
R HENDRICSEN, EMP 24, ENG 1, $250-$500M
Cal Claude Michaels, Inc, 703 W Ivy St
Glendale 245-8401
Cal Lo Dan Inc, 1710 Industrial
San Carlos.... 415 592-4600
Cal West Inc, 3825 Birch St
Newport Beach 714 540-9040
Minn Servco, 521 S 7th St, Minneapolis 612 339-8611
NY Van Valkenburg Assoc, 611 Broadway
New York.... 212 254-3713
Pa Shelmar Elctns, Box 254, Glenside.... 215 885-0800
Can Electro Design Ltd, 9124 St Lawrence Blvd
Montreal Que 514 389-5914

SEVERNA DIV AMPHENOL CORP, 45 GLENWOOD PL
EAST ORANGE, N J, 07017 .... 201 676-2288
EMP 60, ENG 6, $1,000-$2,500M
Conn Hart Nininger & Campbell Assoc
Woodbury.... 203 263-4321
Ill Bunting & Assoc, Box 306
Arlington Heights 312 392-3370
Md Mount & Co, 4853 Cordell Ave
Bethesda 301 652-5612
NJ T L Bristol & Assoc, Box 287
Morris Plains.... 201 538-5041
Ohio C E Starling, 2206 21st St
Cuyahoga Falls 216 928-7211
Pa Martin Electric Co, 6741 N 13th St
Phila.... 215 WA 7-5858

SEXTON CAN CO INC, 31 CROSS ST, EVERETT
MASS, 02149 .... 617 387-2500
C WHITMAN, EMP 300, ENG 2, $5,000-$10,000M
Ala Sexton Can Co, Inc, Sexton Rd, Decatur.... 355-5850
Cal Yarbrough Sales Co, 1608 Orange St
Alhambra .... SY 9-7055
W Va Sexton Can Co Inc, Fairfax Ave
Martinsburg .... AM 7-8923

S-F-D LABS INC, 800 RAHWAY AVE, UNION
N J, 07083, TWX 201-687-0333 .... 201 687-0250
R LEE, EMP 200, ENG 30
Ariz Varian Assoc, 77 Third Ave W
Scottsdale 947-5461
Cal Varian Assoc, 2901 Wilshire Blvd
Santa Monica 451-5877
Cal Varian Assoc, 4940 El Camino Real
Los Altos 968-7630
Cal Varian Assoc, 7760 Fay Ave, La Jolla 454-2567
Fla Varian Assoc, 314 S Missouri Ave
Clearwater 446-8513
Ga Varian Assoc, 3110 Maple Dr, Atlanta.... 261-4754
Ill Varian Assoc, 205 W Touhy Ave
Park Ridge.... 825-6686
Mass Varian Assoc, 400 Wyman St, Waltham.... 891-4560
NJ Varian Assoc, 1500 Kings Hwy
Cherry Hill 428-6800
NJ Varian Assoc, 2005 Rte 22, Union 688-8800
NM Varian Assoc, 9000 Menual Blvd, NE
Albuquerque.... 296-1248
NY Varian Assoc, 113 Twin Oaks Dr
Syracuse.... 437-2568
NY Varian Assoc, 900 Walt Whitman Rd
Melville 549-5422
Ohio Varian Assoc, 10 Southmoor Circle
Dayton 298-7318
Tex Varian Assoc, Box 689, Richardson.... 235-2385
Va Varian Assoc, 714 Church St
Alexandria 549-8205
Swit Varian AG, Baarerstr 77, Zug 4-45-55

SHAKEPROOF DIV, ILLINOIS TOOL WORKS INC
ST CHARLES RD, ELGIN, ILL, 60120 .... 312 741-7900
S SMITH, EMP 1000
Cal Shakeproof Div, 12333 E Los Nietos Rd
Santa Fe Springs.... 213 723-8674
Mich Shakeproof Div, 1403 E State Fair
Detroit 313 891-3000
NY Shakeproof Div, 180 S Broadway
White Plains 914 946-1801

SHALLCROSS MFG CO SUB CUTLER-HAMMER
PRESTON ST, SELMA
N C, 27576, TWX 510-920-0740 .... 919 965-2341
J SWERTFEGER, EMP 350, ENG 20, $2,500-$5,000M
Ariz Vinson Assoc, 44 E Indian School Rd
Scottsdale 910 950-1288
Cal Westec Electronics Inc, Box 781
El Segundo 213 322-1561
Cal Westec Elctns, 110 First St
Los Altos 415 327-5851
Colo Vinson Assoc, 3600 S Lincoln
Englewood.... 303 SU 9-2203
Conn Forsberg Sales, 22 Broadway
North Haven 203 239-5111
Fla Conley-May Assoc, Box 668
Oviedo 305 365-3283
Ill Berndt Assoc Inc, 6414 W Belmont Ave, Chicago
Iowa Thomas & Modrcin Assoc, Inc, 890 17th Ave
Marion 319 377-6261
Kan Thomas & Modrcin Assoc, Inc
5450 Bueno Vista Dr
Shawnee Mission.... 913 432-2131
Mass Forsberg Sales, 646 Summer St
Brockton.... 617 522-6300
Minn Technical Assoc, Inc, 6121 Excelsior Blvd
Minneapolis.... 612 929-6721
Mo Thomas & Modrcin Assoc, Inc, Box 545
Hazelwood.... 314 838-6446
NM Vinson Assoc, Box 3295, Sta D
Albuquerque.... 505 298-7442
NY B B Taylor Corp, 2270 Grand Ave
Baldwin .... 516 BA 3-8000
NC Byrd & Barbour Sales Inc, 619A S 3rd St
Smithfield 919 934-8136
Ohio A C Wahl & Assoc, Box 15220
Cincinnati.... 513 821-3270
Ohio A C Wahl & Assoc, 2122 Mershon Ave
Dayton 513 252-0961
Ohio A C Wahl & Assoc, 24232 Maria La
North Olmstead.... 216 777-2899
Pa Danco Corp, Germantown Pike & Quarry Hall Rd
Fairview Village 215 275-2600
Wash Westec Electronics, Box 66521, Seattle
Can Aero Sales Engrg Co, 4 Racine Rd
Rexdale, Ont 416 249-9139
Can Aero Sales Engrg Co, 2695 Regina St
Ottawa, Ont.... 613 828-8560
For Chica/Cutler-Hammer Intl, 4201 N 27th St
Milwaukee.... 414 442-7800

SHAMBAN & CO, W S, 11543 W OLYMPIC BLVD
LOS ANGELES, CAL, 90064 .... 213 397-2195
W SHAMBAN, EMP 225, ENG 11, $2,500-$5,000M

SHANNON LUMINOUS MATERIALS CO
7356 SANTA MONICA BLVD, HOLLYWOOD
CAL, 90046 .... 213 876-2660
J ALBURGER, EMP 10, ENG 2, $100-$250M
Cal Uresco, 12412 Benedict Ave, Downey .... SP 3-3828
Idah Boise Blue Print, 817 Bannock, Boise 32564
NY Black Light Eastern, 24 Kinkel, Westbury
Okla Black Light Specialty, 1139 NW 41st St
Oklahoma City
Ore Stagecraft Industries, 1505 NW Lovejoy, Portland
Pa Herbacht & Rademan, 1205 Cuthbert, Philadelphia
Tex Roy C Lee Co, 934 N Lancaster, Dallas
Wash Commercial Paint, 1173 Harrison, Seattle

SHARPE INSTRUMENTS DIV SCINTREX INC
950 MARYVALE DR, BUFFALO
NY, 14225 .... 716 634-1180
K MALICK, EMP 52, ENG 12, $250-$500M
Cal Dobbs/Stanford, 569 Laurel St
San Carlos 591-7314
Cal Art Herman & Assoc, 6770 E Gage
Bell Gardens 588-1175
Colo Gordon Moss Electronics Inc, Box J, Greeley
Ga P Igou & Assoc, 4599 Northside Dr, N W
Atlanta 255-0396
Ill Irving Rose Co, 4734 N Austin Ave, Chicago
Ind Robert Milsk Co, 3231 N Meridian
Indianapolis.... 923-1545
Ky Robert Milsk Co, 6908 Bedford La
Louisville 425-6984
Mass Hetherington Sales Co, 97 Bogle St
Weston .... CE 5-5323
Mich Robert Milsk Co, 19375 James Couzens Hwy
Detroit
Mich R Milsk Co, 19375 James Couzens Hwy
Detroit 342-6660
Minn C R Gibb Co, 2400 Hennepin Ave, Minneapolis
Mo Sour Sales Corp, 8115 Troost
Kansas City 816 444-2871
NJ H A Moyer Co, Box 14, Haddonfield.... 429-7792
NY Don R Evans Assoc, 161 Mineral Spring Rd
Buffalo 822-2363
NY Bercoa, 1174 Day St, Seaford 516 221-1597
Ohio Shamrock Electronic Sales, Inc, 1755 W Market St
Akron 864-3090
Pa Tanner Co, 486 Broadmoor Ave
Pittsburgh.... 561-4687
Tex Charles Lucas Sales Co, Box 13632, Dallas
Wash W K Wood Co, Box 46046, Seattle
For ELPA Marketing Industries, Inc
New Hyde Park NY.... PI 6-3002

SHARP ELECTRONICS CORP, 178 COMMERCE RD
CARLSTADT
N J, 07072, TWX 13-3429 .... 201 933-4200
G ISEDA, EMP 12,000, ENG 2,500
Cal Hayakawa Electric Co, 1635 Essex St
Los Angeles.... 749-7260
Ill Hayakawa Electric Co, Ltd, 78 E Madison Ave
Chicago 263-7217
Ger Hayakawa Electric Co, 2 Hamburg 36
Hohe Bleichen, 16
Jap Hayakawa Electric Co, Osaka

SHAW INSULATOR CO, 276 SYNDER AVE
BERKELEY HEIGHTS, N J, 07922 .... 201 464-1000
S SAUNDERS, EMP 225, ENG 7, $2,500-$5,000M
Mass J Gallagher, Box 343, Medway 617 533-7292
NY F X Montbach, 225 Sagamore Dr
Rochester.... FI 2-2907
NY L Wynn, 3763 Nautilus Ave
Brooklyn.... 212 373-5489
Ohio R R Stone, Box 47, Mentor 946-6766
Pa C R Hile, Box 102, Devon .... 215 MU 8-9007
Pa B E Gibson, 201 Penn Ctr Blvd
Pittsburgh.... 412 823-8310
Va T C Felger, Box 1061, Charlottesville

SHELL CHEMICAL CO, 50 W 50TH ST, NEW YORK
N Y, 10020 .... 212 262-3000
J KROEGER, EMP 5500, $2,500-$5,000M
Cal Shell Chemical Co, 9901 Paramount Blvd
Downey 869-1131
Ga Shell Chemical Co, 230 Peachtree St
Atlanta 523-6634
Ill Shell Chemical Co, 6054 W Touhy Ave
Chicago 774-6711
NJ Shell Chemical Co, Box 700, Woodbury.... 848-8800
NY Shell Chemical Co, 700 White Plains Rd
Scarsdale 472-2233
Ohio Shell Chemical Co, 20575 Center Ridge Rd
Cleveland.... 333-0600
Tex Shell Chemical Co, Box 2633, Deer Park

SHELLY ASSOCIATES, INC, 111 EUCALYPTUS DR
EL SEGUNDO
CAL, 90246, TWX 910 348 6683.... 213 322-2374
B GEORGE JR, EMP 70, ENG 5, $1,000-$2,500M
Ariz El Kap Sales, 7050 E Moreland
Scottsdale 946-2457
Cal Compar San Francisco, 1817 Bayshore
Burlingame 697-6244
Cal McKim Enterprises, 1812 Santa Fe
Del Mar 755-1757
Cal Compar, 1817 Bayshore Hwy
San Francisco 415 697-6244
Colo Gossard & Assoc, 12159 W Dakota Dr
Denver 985-0602
Fla Tech-Rep Assoc, Box 2095
Melbourne 305 723-9140
Fla Ray Perron Co, 10 Briarwood Dr
Farmington.... 203 268-9705
Fla R Pegeot, 3094 McCully Drive
Atlanta 404 939-1554
Fla Mauer Co, 3308 Noyes, Evanston 312 869-1644
Md T H Projector, 3304 Edgewood Rd
Kensington.... 933-0833
Mass Ray Perron & Co, 1870 Centre St
Boston 617 323-1008
Mich Hartwick-Van Awker, Box 1204, Berkley
Minn G E Arneson & Co, 4900 Viking Ave
Mnpls 920-2086
Mo Edemco Inc, 2605 S Hanley Rd
St Louis 647-5505
NJ Williams Assoc, Box 284
Morris Plains.... 538-3911
NY Metro-Technical Sales, 103 Pinewood La
Massapequa Park 798-1066
NY R P Kennedy Co, Box 8417
Rochester.... 716 271-6322
Ohio Compar-Ohio, Box 388, Fairborne 878-2631
Pa Emlen Peterson Co, 237 Lancaster Ave
Devon.... 687-3535
Tex Dyna-Reps, 501 Bailey, Ft Worth .... ED 6-0774
Tex Dyna Reps, Box 9494, Ft Worth .... PE 2-6621
Can Kaytronics Engrg, 5800 Monkland Ave
Montreal, Que 489-9335

SHELTERED WORKSHOPS INC, 1560 12TH ST
SANTA MONICA, CAL, 90406 .... 213 451-5563
R VASH, EMP 65, ENG 1, $100-$250M

SHEPARD LABS INC, 480 MORRIS AVE, SUMMIT
NJ, 07901, TWX 710-984-7989 .... 201 273-5255
L TISCHLER, EMP 55, ENG 8, $1,000-$2,500M
Ala J P Smith Assoc, Huntsville-Madison Cty Jetport
Huntsville 205 741-2950
Cal Wright Engrg Co, 180 E Calif Blvd
Pasadena 213 681-2651
Colo Aztec Enterprises, 3385 S Bannock
Englewood 303 761-0101
Ill Systems Engrg Assoc, 6253 Milwaukee Ave, Chicago
Ind Systems Engrg Assoc, 1010 E 86th St
Indianapolis 317 846-2593
Md Electronic Sales Assoc, 12050 Tech Rd
Silver Spring 301 622-2246
Mass Electronic Sales Assoc, 594 Marrett Rd
Lexington 617 899-1430
Mich Electro Sales Assoc, 10745 Morang Dr
Detroit 313 886-2280
Minn Systems Engrg Assoc, 8633 Harrison S, Minneapolis
NJ Electronic Sales Assoc, 3 Center St
Denville 201 625-2525
NM Aztec Enterprises, 3202 Candelaria NE
Albuquerque 505 345-3441
NY Electronic Sales Assoc, 525 Northern Blvd
Great Neck 516 466-5577
Ohio Electro Sales Assoc, Overlook Br Box 3122
Dayton 513 426-5551
Ohio Electro Sales Assoc, 335 E 200th St
Cleveland 216 486-1140
Pa W Pa Electro Sales Assoc, 201 Penn Center Blvd
Pittsburgh 412 371-9449
Tex Arnold Barnes Assoc, Box 709, Richardson
Wis System Engrg Assoc, Box 526, Waukesha
Fr Seurolec, 39-41 Rue de 'Est, Paris

SHEROLD CRYSTALS INC, 1510 MCGEE ST, KANSAS CITY
MO, 64108 .... 816 842-9792
K THOMSON, EMP 150, ENG 15
ADV PG 240

SHEROLD FILTERS INC, 4302 WARREN AVE, HILLSIDE
ILL, 60162 .... 312 547-6630
T SOKOL, EMP 75, ENG 4
ADV PG 299

SHERWIN INC, 5007 E WASHINGTON BLVD
LOS ANGELES, CAL, 90022 .... 213 AN 1-0251
A SHERWIN, EMP 5, ENG 1, $100-$250M

SHERWOOD ELECTRONIC LABS INC
4300 N CALIFORNIA AVE, CHICAGO
ILL, 60618 .... 312 478-7300
A FIELDS, EMP 150, ENG 8, $2,500-$5,000M
Ariz Hyde Electronics Co, 4710 N 16th St
Phoenix 265-5609
Cal Meyer-Ross & Fleming, 113 10th St
San Francisco .... HE 1-0652
Cal James Angus Blare & Assoc, 4570 Campus Dr
Newport Beach 546-9030
Colo Hyde Electronics, 888 S Lipan St
Denver 936-3455
Conn Anderson Sales, 133 Mansfield Ave
Waterbury 753-2487
Fla Millar-Hutto Assoc, 210 Park Ave N
Winter Park 647-7404
Ga Millar-Hutto Assoc, 3110 Mape Dr NE
Atlanta 261-6160
Ill Wm M Weiner & Assoc, 6233 N Calif Ave
Chicago 743-4641
Ind E A Schulz Co, 721 Sherwood Dr
Indianapolis .... CL 5-1993
Mass Anderson Sales, 177 State St, Boston ... CA 7-2980
Mich J M Flora Inc, 165 W Liberty
Plymouth .... GL 3-4296
Minn Northern States Sales Co, 1109 W 78 1/2
Mnpls 866-3468
Mo Carmine Vignola, 21 Schell Ridge Rd
Jefferson City 635-1023
NY L-C-A Sales Inc, 76 Main St
Tuckahoe .... WO 1-4700
NY Simberkoff Sales Inc, 37 Parkwood St
Albany 438-0437
NY Simberkoff Sales Inc, 14 Junior Ave
Buffalo 823-8399
NC Millar-Hutto Assoc, N Hills Office Mall
Raleigh 787-9564
Ohio Robert W Peters Co, 25000 Euclid Ave
Cleveland 261-2330
Okla Pres Clancey & Assoc, 4840 NW 62nd Terr
Oklahoma City .... PA 1-2395
Pa L-C-A Sales Inc, 1623 Earlington Rd
Havertown .... GR 7-2725
Tex Campion Sales, Box 396 Addison Arprt
Addison 239-9196
Va L-C-A Sales Inc, 3505 Epsilon Rd
Annandale 560-9485
Wash Fleehart & Sullivan, 3826 Woodland Ave N
Seattle 633-4979
Can A A Pringle Co, 1067 Young St
Toronto 5, Ont 925-7891
BC Electro-Tec Mkts, 1624 W 3rd Ave
Vancouver .... RE 6-6377

SHESTER ENGINEERING CO INC
8526 W WASHINGTON BLVD, CULVER CITY
CAL, 90230 .... 213 837-3332
EMP 5, ENG 1

SHERWOOD INDUSTRIES FLEXCO DIV, 6855 SUVA ST
BELL GARDENS, CAL, 90201 .... 213 927-2525
D MANNES, EMP 75, ENG 3, $500-$1,000M

Ariz D Macrobbie, 4356 N 36 Pl 4
Phoenix 602 955-8256
Ga Holcombe Sales Agency Inc, 3098 Piedmont Rd NE
Atlanta 404 233-2837
Mich Spherical-Stover Corp, 16902 Whitby Dr
Livonia 313 425-6872
Tex G L Slagle, Box 34063, Dallas 214 241-3348
Wash O J Harper Sales Co, 200 Tobin Ave
Renton .... 206 AL 5-0414

SHIBA ELECTRIC CO LTD, 58-25 BKLYN-QNS EXPWY
WOODSIDE
N Y, 11377, TWX 710-582-2495 .... 212 898-1261
A REINBERG, EMP 1500, ENG 200
Cal Shibaden Corp of Amer, 21015 S Figueror St
Torrance 213 328-2110
Ill Shibaden Corp of Amer, 1725 N 33rd Ave
Melrose Park 312 344-4020

SHIELDALLOY CORP, WEST BLVD, NEWFIELD
N J, 08344 .... 609 692-4200
S MADSEN, EMP 125, ENG 6, $5,000-$10,000M
Ala Robert T Smith Co, 2516 8th Ct N
Birmingham 323-4881
Ill Shieldalloy Corp, 120 Oak Brook Center Mall
Oak Brook 654-3067
Mo Oswald Refractories Co Inc
1750 S Brentwood Blvd, St Louis 962-4600
NY Metallurg Inc, 25 E 39 St, New York 697-0650
Pa Shieldalloy Corp, 1336 Oliver Bldg
Pittsburgh 261-6342
Tex Great Southern Supply Co, Box 14507
Houston 654-0655
Wis Wehco Reps, 155 E Silver Spring Dr
Milwaukee 332-8817

SHIELDING CORP, 345 NEW ALBANY RD
MOORESTOWN
N J, 08057, TWX 710-897-0661 .... 609 235-7800
J MCDEVITT, EMP 49, ENG 2, $1,000-$2,500M
Ala Reynolds & Assoc, Inc, 904 Bob Wallace Ave
Huntsville 254-0520
Cal Anechoic Co Div, 1444 Daisy Ave
Long Beach 213 436-3296
Fla Reynolds & Assoc, Inc, Box 1043
Eau Gallie 254-0520
Ga Reynolds & Assoc, Inc, Box 13173, Sta K
Atlanta 876-0652
NJ J V Walsh Assoc, Box 59, Teaneck 836-5700
Tex Mitchell Speairs Co, 4944 James Ave
Fort Worth 923-4657
Can Stark Electronic Instr Ltd, 180 Station St
Ajax, Ont 942-2120

SHIGOTO INDUSTRIES LTD, 350 FIFTH AVE
NEW YORK, N Y, 10001 .... 212 695-0200
R CRAIG, EMP 43, ENG 6, $2,500-$5,000M

SHINYEI ELECTRIC DIV SHINYEI KAISHA LTD
77 KYOMACHI, IKUTAKU, KOBE
JAPAN 078-39-3326
K HATTA, EMP 750, ENG 28, $2,500-$5,000M

SHIPLEY CO INC, 2300 WASHINGTON ST, NEWTON
MASS, 02162 .... 617 969-5500
R LAVASH, EMP 100
Cal C L Newton, 8621 Bellanca Ave
Los Angeles 678-3155
Cal James M Feeney, 1588 Endicott Dr
San Jose 263-1632
Fla E Nicolle, 2353 Sunderland Rd
Maitland 645-0123
Ill Dennis A Koepke, 325 S Bennett La
Des Plaines 439-6712
Mich R B Zarse, 5462 Van Ness Dr
Bloomfield Hills 851-1646
Minn D M Roholt, 2811 W 85th St
Bloomington 881-0929
NJ K Kenneth Nevar, Hickory Corner Rd
Hightstown 924-7677
NY Clair J Eichinger, 2 Fennell St
Skaneateles 685-6020
Tex G J Roelants, 423 Worcester Way
Richardson .... AD 5-3829
Can Ralph Coxon, 265 Cassandra Blvd
Don Mills, Ont 447-1421

SHIZUKI ELECTRICAL MFG CO LTD, 45-10 TAISHACHO
NISHINOMIYA, HYOGO PRE
JAPAN, TWX 5644-472 33-5821
Y IZUMI, EMP 1250, ENG 55, $5,000-$10,000M

SHORT WAVE PLASTIC FORMING CO
2755 BRISTOL ST, COSTA MESA
CAL, 92626 .... 714 540-2695
R CHAPPELLE, ENG 2

SHOWA MUSEN KOGYO CO LTD
5-5, 6-CHOME, TOGOSHI, SHINAGAWA-KU, TOKYO
JAPAN, TWX 024-301 783-1171
T IKEDA, EMP 800, ENG 120, $5,000-$10,000M

SHOW SOUND, INC, 33 W 46TH ST, NEW YORK
N Y, 10036 .... 212 265-1265
C MACCARDELL, SLS MGR, $100-$250M
Cal Show Sound West, 26 Duffy Pl
San Rafael 415 454-5131

SHRADER SOUND INC, 1815 WISC AVE NW
WASHINGTON, D C, 20007 .... 202 965-1300
N BENNETT, EMP 48, ENG 4, $1,000-$2,500M

SHURE BROTHERS INC, 222 HARTREY AVE
EVANSTON
ILL, 60204, TWX 910-231-0048 .... 312 328-9000
C MCCABE
Cal F W Moulthrop & Assoc, 1530 E 12th St
Oakland 415 261-7676
Cal Jack Berman Co Inc, 8295 S La Cienega Blvd
Inglewood 213 870-4711
Colo Stevenson Co, 2149 S Clermont St
Denver 303 757-0550
Fla Millar-Hutto Assoc, Inc, Box 1509
Winter Park .... 305 MI 7-7407
Ga Millar-Hutto Assoc, Inc, 3110 Maple Dr NE
Atlanta 404 261-6160
Haw Gene Piety Factors, Inc, 160 Mokauea St
Honolulu 808 810-185
Ill Ray R Hutmacher Assoc, Inc, 6668 Northwest Hwy
Chicago 312 631-3248
Mass Stanley A Harris Co, Inc, 945 Great Plain Ave
Needham 617 444-4780
Mich J Malcoln Flora, Inc, 165 W Liberty
Plymouth 313 453-4296
Minn Northern States Sales Co, 1109 W 78 1/2 St
Minneapolis 612 866-3468
Mo Forristal-Young Sales Co, 7110 Oakland Ave
St Louis .... 314 MI 5-2360
NY F Edwin Schmitt Co, Inc, 311 Meacham Ave
Elmont 516 437-8150
NY Simberkoff Sales, Inc, 71 Valley St
South Orange 201 763-7900
NC Millar-Hutto Assoc Inc, North Hills Off Mall
Raleigh 919 787-9564
Ohio McFadden Sales Co, 150 E Broad St
Columbus 614 221-3363
Pa S K Macdonald, Inc, 1531 Spruce St
Philadelphia .... 215 KI 5-1205
Tex Campion Sales Co, Addison Arprt
Addison 214 239-9196
Utah Stevenson Co, 2045 Walker La
Salt Lake City 801 277-2515
Wash Northwestern Agencies, Inc, 4130 1st Ave S
Seattle .... 206 MA 3-8882
Can C M Robinson Agencies (1963)Ltd, 1550 Erin St
Winnipeg Man 204 774-1855
Can A C Simmonds & Sons, Ltd, 285 Yorkland Blvd
Agincourt, Ont 416 445-9111
GB Shure Electronics, Ltd, 84 Blackfriars Rd
London SE 1 .... Waterloo 6361

SHURITE METERS, 428 CHAPEL ST, NEW HAVEN
CONN, 06508 .... 203 787-5824
E ERICSON, EMP 220, $250-$500M
Cal Howard M Saul & Assoc, 5017 San Vicente Blvd
Los Angeles 938-3591
Cal F W Moulthrop Co & Assoc, 1530 E 12th St
Oakland 261-7676
Colo Nelson Co, Inc, 1294 S Bannock
Denver 733-5528
Conn Adams-McGregor Assoc, 77 Bayberry Dr
Wallingford 269-5816
DC Massey Assoc, 1 Thomas Cir NW
Washington 628-1023
Fla Millar-Hutto Assoc, 210 Park Ave
Winter Park 647-7407
Ga Millar-Hutto Assoc Inc, 3110 Maple Dr, NE
Atlanta 404 261-6160
Haw Bill Kolans & Co, 158 Mokauea St
Honolulu 811-628
Ill Geo Petitt Co Inc, 349 N Ashland Ave
River Forest 312 369-8940
Ind Walter W Bieberich Inc, 80L Leesburg Rd
Ft Wayne 742-8468
Mich Robt Milsk Co, 19375-95 James Couzens Hwy
Detroit 313 342-6660
Minn Heimann Co Inc, 5603 Lyndale Ave S
Minneapolis 827-5457
Mo H A Roes & Co, 2601 Sherry St
Kansas City 221-0866
NY C Floring & H Murray Inc, 6585 Kinne Rd
Syracuse 446-5555
NY D F Tobias & Co Inc, 48-15 31st Ave
Long Island City 726-4551
NC Les T Watts Jr, Box 17566, Charlotte 366-2061
Ohio Chas H Dolfuss Jr & Co, 2108 Payne Ave
Cleveland 771-1270
Pa Massey Assoc, 1325 W Chester Pike
Havertown 789-2320
RI Adams-McGregor Assoc, 66 Lakeview Rd
Lincoln 726-1300
Tex Lund & Co, 2161 Manor Way
Dallas 214 358-4335
Tex Crockett Sales Co, 2204 Griffin St
Dallas 748-8209
Wash James J Backer Co, 221 W Galer St
Seattle 283-6470
Can R C Kahnert Sales Ltd, 359 Enford Rd
Richmond Hill, Ont 889-6931
Can C M Robinson Agencies (1963) Ltd, 1550 Erin St
Winnipeg .... SP 4-1855
Can C M Robinson Co Ltd, 1206 Hamilton St
Vancouver 683-8161

SHUR-LOK CORP, 1300 E NORMANDY PL, SANTA ANA
CAL, 92711, TWX 910-595-1544 .... 714 547-8891
H WILCOX, EMP 150, ENG 8
Conn D W Dickinson Assoc, Box 146
Trumbull 203 268-7537
Fla Aero Products Engrg Inc, Box 602
Miami 305 887-2109
Ga Dane & Co, Box 28175, Atlanta 404 427-3488

Ill Frank Tye Sales Co, 4645-B Elston Ave
Chicago 312 283-1227
Kan D & O Engineering Co, Inc, Box 1800
Wichita 316 264-7358
Md M & J Assoc, Inc, Box 24
Lutherville 301 828-6230
Mich Lowry Dietrich Co, 600 Michigan Bldg
Detroit 313 961-4540
Mo Robt McClure, 625 Hickory La
St Louis 314 966-4815
NY F D Reimer, 10 Wavy La, Wantagh ... 516 796-2331
NY Phillip B Eyre, 67 Oakgrove Dr
Buffalo 716 632-4363
Ohio Lowry Dietrich Co, 316 Marion Bldg
Cleveland 216 781-1855
Ohio Lowry Dietrich Co, 333 W First St
Dayton 513 223-6042
Pa Lowry Dietrich Co, 90 Clairton Blvd
Pittsburgh 412 892-2992
Tex Edw J Fay, Box 818, Hurst 817 282-5561
Wash Wm Dowd, Carlson Bldg, Bellevue ... 206 455-1434
Can Railway & Power Engrg Corp Ltd, Box 880
Montreal, Que 514 933-6741
Can Railway & Power Engrg Corp Ltd, 197 Eastern Ave
Toronto, Ont 416 362-4771
Den T Praestmark, Vester Farimagsgade 1, Copenhagen V
GB Bonded Structures Div CIBA (A R L) Ltd
Duxford, Cambridge
Ital R F Celada s a s, Via G B Morgagni, 10, Milano
Belg Shur-Lok Instl S A, 7-9 rue du Midi, Petit-Rechain

SIEBELAIR CO, 5563 W WASHINGTON BLVD
LOS ANGELES, CAL, 90016 213-939-2183
J SIEBEL, EMP 12, ENG 4, $100-$250M

SIEMENS AMERICA INC, 350 FIFTH AVE, NEW YORK
N Y, 10001 .... 212 LO 47674
EMP 175, ENG 85, OVER $10,000M
Ala NBS Inc, 902 Bob Wallace Ave
Huntsville 536-7786
Cal Siemens America Inc, 860 Hinckley Rd
Burlingame 697-9445
Cal Collins & Hyde Co, 900 N San Antonio Rd
Los Altos 415 941-3355
Cal Collins & Hyde Co, 5380 Whittier Blvd
Los Angeles 213 685-6540
Conn Anchor Engineering, 6 Arrowhead Dr
W Simsbury 658-6261
Fla NBS Inc, 2813 Primmrose Court
Orlando 305 423-4856
Fla NBS Inc, Ft Lauderdale 305 584-0650
Ga NBS Inc, 893 Church St NW
Marietta 404 422-6067
Ill Siemens America Inc, 832 Busse Ave
Parkridge 825-8104
Ill Wesley L Wilson, 5938 W Montrose, Chicago
Md J A Maguire Co, 5716 York Rd
Baltimore 433-2613
Mass Anchor Engineering Co, 336 Washington St
Wellesley Hills 235-6330
NJ Eastern Scientific Sales Co, Box 155, Cherry Hill
NJ J A Maguire & Co, 726 Cooper St
Camden 609 966-3118
NJ J A Maguire & Co, 705 Park Ave
Plainfield 201 754-6400
NM Sanders & Co, Box 1509, Santa Fe 982-9888
NY C D Taylor Assoc, 33 Ely Dr
Fayetteville 446-1431
NY Siemens America Inc, 230 Ferris Ave
White Plains .... WH 8-3434
NY Win-Cor Elctn Sales Corp, 75 Plandome Rd
Manhasset 516 627-9474
NC J A Maguire & Co, 440 W End Blvd
Winston Salem 919 723-5980
Ohio Luebbe Sales Inc, Box 224 Dabel Sta
Dayton 513 252-2200
Ohio Luebbe Sales Inc, 2649 Erie Ave
Cincinnati 513 871-42211
Ore Richard Legg Co, 4475 SW Scholls Ferry Rd
Portland 503 292-8824
Tex Corwin Assoc Inc, Box 18112, Dallas ... DI 8-4623
Tex Siemens America Inc, 8822 Langdon Ave
Houston 713 771-5533

SIEMON MFG CO, BOX 188, WAYNE
ILL, 60184 .... 312 584-0544
EMP 30, ENG 2

SIERRACIN CORP, 12780 SAN FERNANDO RD
SYLMAR, CAL, 91342 .... 213 367-6184
J BRONNER, EMP 310, ENG 25, $5,000-$10,000M
Cal Kowal Assoc, 8133 San Fernando Rd
Sun Valley 213 768-0378
NY George G Scott Co, 6 W Stuart Dr
Glen Cove .... 516 OR 6-2088
Pa Andco Sales Eng Inc, 10 E School House La
Philadelphia .... VI 4-9100
Tex V J Sykes Assoc Inc, 13333 N Central Expwy
Dallas .... AD 5-5289

SIERRA ELECTRIC INC, 15100 S FIGUEROA ST
GARDENA, CAL, 90247 .... 213 DA 9-6391
EMP 170, ENG 4, $5,000-$10,000M

SIERRA ENGINEERING CO, 123 E MONTECITO
SIERRA MADRE, CAL, 91024 .... 213 355-4281
J MITCHELL, EMP 300, ENG 20

SIERRA RESEARCH CORP, BOX 222, BUFFALO
N Y, 14225, TWX 710-523-1864 .... 716 632-8823
S IVES, EMP 170, ENG 40, $2,500-$5,000M

Md H R Clum, 6600 Ian St, Hyattsville .. 301 474-8386
Mass A R Seville, 7 Colonial Village Dr
Arlington 646-7921
Va R E Holtzworth, 6542 Bay Tree Ct
Falls Church 703 256-2482

SIFCO METACHEMICAL DIV STEEL IMPROVEMENT &
FORGE CO, 935 E 63RD ST, CLEVELAND
OHIO, 44103 .... 216 881-8600
J POPELY, EMP 52, ENG 4, $500-$1,000M
Conn C E Peck, 801 Mill Plain Rd, Fairfield 255-0315
Del R Humphrey, 113 Glenrock Dr
Claymont .... SY 8-3497

SIGMA INSTRUMENTS CANADA LTD, 55 SIX POINT RD
TORONTO 18 ONT
CANADA, TWX 02-29576 .... 416 239-8161
R BLAIR, EMP 30, ENG 4, $500-$1,000M
Mass Sigma Instr Inc, 160 Pearl St
Braintree 617 843-5000

SIGMA INSTRUMENTS INC, 170 PEARL ST, BRAINTREE
MASS, 02185, TWX 617-848-0532 ...... 617 843-5000
R FISHER, EMP 1000, ENG 19, OVER $10,000M
Ariz Toward Engineering Assoc, Box 15268 Arcadia Sta
Phoenix 602 955-3193
Cal Penwarden Assoc, 14574 Titus St
Van Nuys 213 782-4920
Cal McCarthy-Kelly & Assoc, 279 N Bay Shore Blvd
San Mateo .... 415 DI 2-8351
Colo Williams Assoc, 4971 Jackson St
Denver 303 388-4391
Conn Sigma Instruments Inc, 75 Boylston St
Milford 203 777-5593
Fla Estes Assoc, Inc, 629 N Lake Barton
Orlando 305 277-1510
Ga Estes Assoc Inc, 533 Decatur Fed Bldg
Decatur 404 373-8266
Ill Sigma Instruments Inc, 3158 Des Plaines Ave
Des Plaines 312 296-5594
Ind L M DeVoe Co, 4010 Washington Blvd
Indpls 317 283-1295
Md Aeron Assoc, 880 Bonifant St
Silver Spring 301 588-4047
Mich W Hummon & Assoc, Box 501
Farmington 313 474-0661
Minn Rhode Electronic Sales, 2510 E 7th Ave
St Paul 612 777-1555
Mo Technical Mktg Assoc, 2050 Woodson Rd
St Louis 314 427-3600
NJ Sigma Instruments Inc, 299 Forest Ave
Paramus 201 262-6800
NJ Sigma Instruments Inc, 1864 E Marlton Pike
Cherry Hill 609 795-0505
NM Williams Assoc Inc, 420 Washington St S E
Albuq 505 255-1638
NY H C Johnson Agencies Inc, 111 Mount Hope Ave
Rochester 716 232-2688
NY H C Johnson Agencies, Box 215
Fayetteville 315 637-9595
NY H C Johnson Agencies, 8 Los Robles St
Williamsville 716 632-7880
NC D G W Inc, Box 5316
Winston-Salem 919 723-4205
NC D G W Inc, 1321 E Morehead St
Charlotte 704 334-7090
Ohio J C Hoffstetter Co, 742 Kenbridge Dr
Cleveland 216 449-0964
Ohio Jack C Hofstetter Co, 3605 N Dixie Dr
Dayton 513 278-6721
Ore Seatronics Inc, 6415 S W Canyon Ct
Portland 503 292-8887
Tex P J Scanlon Co Inc, Box 70
Richardson 214 231-4661
Utah Williams Assoc Inc, 2461 S Main St
Salt Lake City 801 466-8709
Wash Seatronics Inc, 5931 4th Ave S
Seattle 206 725-4328
W Va Talisman Co, Box 8702
South Charleston 304 346-9862
Fr Ad Auriema-France SARL, 90-98 Bd Victor-Hugo
92 Clichy Hauts de Seine
GB Ad Auriema Ltd, 23-31 King St, Acton London W3
Ital Auriema Italia SRL, Via Cagnola 3, Milano
Jap Midoriya Elec Co Ltd, 3 2 chome Kyobashi, Chuo-ku
Swed Svenska Painton AB, Erik Tegels Vag 35
Spanga Stockholm
BC Electro-Tec Marketers Ltd, 1624 W 3rd Ave
Vancouver 604 736-6377

SIGMA SYSTEMS CORP, SUB APPLIED SCIENCE INC
3707 RAWLINS ST, DALLAS
TEX, 75219 .... 214 526-7707
C ENGLAND, EMP 35, ENG 7, $500-$1,000M
Cal Sedillo Co, 3621 Manda Dr, San Jose 264-4010
Mich Megatek Inc, 26847 Grand River Ave
Detroit 531-1403
Ohio Megatek Inc, 2533 Far Hills Ave
Dayton 298-8638
Okla Applied Science Assoc, 7966 E 41st St
Tulsa 627-6199
Tex Applied Science Assoc, 3707 Rawlins
Dallas 526-8316
Tex Applied Science Assoc, 5716 Southwest Frwy
Houston 781-1441
Wash Rush S Drake Assoc Inc, 6133 Maynard Ave S
Seattle 763-2755
Fr Pantronics Ltd, 500 Fifth Ave
New York 244-2855

SIGNAL ANALYSIS INDUSTRIES CORP
12 DITOMAS CT, COPIAGUE
N Y, 11726 .... 516 691-8080
E LEVINE, EMP 17, ENG 7, $500-$1,000M
Ala Astro Tec, 3322 Memorial Pkwy
Huntsville 881-1861
Conn I C I, 2381 Whitney Ave, Hamden 248-4174
Fla Astro-Tec, 1980 N Atlantic Ave
Cocoa Beach 305 783-6581
Ga Astro Tec, Lenox Towers, Atlanta 404 261-4919
Mass I C I, Box 25, Woban 969-9881
NJ Brogan Assoc, 780 Riverview Dr
Totowa 201 256-0174
NY Brogan Assoc, 80 Urban Ave
Westbury 516 333-6683
NY Brogan Assoc, 202 Arterial Rd, Syracuse
NY Brogan Assoc, 474 Thurston Rd
Rochester .... 716 FA 8-2350
Pa Brogan Assoc, 107 W Ridge Pike
Conshohocken 215 825-0510
Va Gans-Fryling, 2040 16th St N
Arlington 703 527-3262

SIGNAL & COMMUNICATIONS DIV WESTINGHOUSE
AIR BRAKE CO, 1789 BRADDOCK AVE, PITTSBURGH
PA, 15218, TWX 710-664-2096 .... 412 242-5000
T SCHROEDER, EMP 1700, ENG 150, OVER $10,000M
Ala Frank C Nickerson Co, Box 1463
Huntsville 881-9565
Cal Carl E Holmes Co, 107 North Ave 64
Los Angeles 256-2255
Cal Hunter Assoc, 252 Fox Plaza
San Francisco 626-8576
Colo Franklin Sales Co, 2149 S Clermont Ave
Denver 757-1371
Fla Frank C Nickerson Co, Box 13126
Tampa 883-4321
Ga Frank C Nickerson Co, Box 33185
Decatur 377-1575
Ill Maury E Bettis Co, 9103 Bessemer Ave
St Louis 429-2099
Ill Berndt Assoc Inc, 6414 W Belmont Ave
Chicago 283-0713
Ind W W Bieberich, 801 Leesburg Rd
Ft Wayne 742-8468
Kan Maury E Bettis Co, 423 N Fountain
Wichita 685-7441
Md Holden Engrg Sales Co, 1133 Gypsy La W
Towson 823-3763
Mass Garrettson Co Inc, 135 South Rd
Bedford 275-0558
Minn Fred B Hill Co, 6110 Excelsior Blvd
Mnpls 929-6727
Mo Maury E Bettis Co, 3706 Broadway
Kansas City 561-0772
NJ Sunday-)'Brien Inc, 15 Potter St
Haddonfield 429-4013
NY Garrettson Co, 99 Hillside Ave
Williston Pk 747-6610
NY Reed Electronics Inc, 2815 Monroe Ave
Rochester 473-2767
NY Reed Electronics Inc, Box 187, Vestal 748-7391
NY Reed Electronics Inc, 326 Fay Rd
Syracuse 408-5488
NC Frank C Nickerson Co, 4332 University Dr
Charlotte 525-2682
Ohio R G Sidnell & Co, 14701 Detroit Ave
Cleveland 221-1313
Ohio R G Sidnell Co Inc, 3400 S Dixie Dr
Dayton 293-1194
Tex Scott Technical Sales, Box 30324
Dallas 353-7698
Tex McNicol Inc, 811 Estrella St, El Paso 566-2936
Wash Associated Industries, 3711 S Hudson St
Seattle 723-5600
Can Douglas-Randall (Can) Ltd, 1710 Midland Ave
Scarborough Ont 751-7911

SIGNALITE INC, 1933 HECK AVE, NEPTUNE
N J, 07753, TWX 201-775-2255 .... 201 775-2490
J MOOR, EMP 275, ENG 7, $2,500-$5,000M
ADV PG 369, 769
Ariz Williams Assoc, 1110 E McDowell
Phoenix 602 254-6085
Cal REP Assoc, 1645 S La Cienega Blvd
Los Angeles 213 274-8485
Cal Rep Assoc, 1744 W Lincoln Ave
Anaheim 714 828-1344
Cal Tech Marketing Assoc, 355 W Olive Ave
Sunnyvale 408 736-3687
Cal W W Posey Co, 175 S. Antonio Rd
Los Altos 948-7771
Colo Williams Assoc, 4971 Jackson St
Denver 303 388-4391
Ill John G Twist, 5222 W Diversey
Chicago 312 777-2250
Ind R O Whitesell & Assoc, 6620 E Washington St
Indianapolis 317 359-5374
Ind R O Whitesell & Assoc, Central Bldg
Fort Wayne 219 743-4411
Ky R O Whitesell & Assoc, 3620 Lexington Rd
Louisville 502 893-7303
Md Component Sales Inc, 7 Church La
Baltimore 484-3647
Mass Techmar Assoc, 18 Bothwell Rd
Brighton 617 782-2244
Mich R O Whitesell & Assoc, 303 Fidelity Bldg
Benton Harbor 616 927-2041
Mich Robt O Whitesell & Assoc, 25100 Evergreen Rd
Southfield 358-2020
Minn E D Melius Assoc, 3758 N Dunlap
St Paul 612 484-8541
Mo L H Harry & Assoc, Box 588
Grandview 816 763-3634
Mo L R Harry & Assoc, 7603 Forsyth
Clayton 314 727-6123

NJ Maloy Stagnitti & Co, 7 Abbot Rd Wayne 201 696-3747
NM Williams Assoc, 420 Washington St SE Albuquerque 505 255-1638
NY Advanced Components Corp Inc, 119 Luther Ave Liverpool 315 472-7886
NY Advanced Components Corp Inc, 1 Shamrock Cir Poughkeepsie 914 471-1623
NY Advanced Components Corp Inc, Box 3514 Rochester 716 482-2153
NY Advanced Components Corp Inc, Box 142 Scottsville 716 889-1429
NC Bill Henry Assoc, 1043 Providence Rd Charlotte 704 375-8958
Ohio R O Whitesell & Assoc, 1172 W Galbraith Cincinnati 513 521-2290
Ohio R O Whitesell & Assoc, 21139 Lorain Cleveland 216 333-2585
Ohio R O Whitesell & Assoc, 4133 S Dixie Ave Dayton 513 298-9546
Ore Ron Merritt Co, 2035 SW 58th Ave Portland 503 292-8762
Pa R O Whitesell & Assoc, 201 Penn Center Blvd Pittsburgh 412 242-0100
Tex J B Guenther, 4533 N Central Expy Dallas 214 528-6286
Tex John B Guenther Inc, Box 55525 Houston 713 468-0232
Utah Williams Assoc, 2461 S Main Salt Lake City 801 466-8709
Wash Ron Merritt Co, 1320 Prospect St Seattle 206 682-7337
Can Lake Engineering Co Ltd, 123 Manville Rd Scarborough, Ont 416 751-5980
For Alton Co, 3214 Bergenline Ave Union City, NJ 201 865-4080
For Metropolitan Overseas Supply, 468 Park Ave S New York 212 686-2120

SIGNAL TRANSFORMER CO INC, 1 JUNIUS ST BROOKLYN, N Y, 11212 .... 212 498-5111
E POLEN, EMP 35, ENG 6, $500-$1,000M
Conn Zaslow Sales Co, 6 Newberry Rd, Bloomfield
Pa Technicraft Co, 7028 Ridge Ave, Philadelphia
Utah Arrowhead Sales Co, 1966 W 6255 S, Salt Lake City

SIGNET CONTROLS INC, 7611 E 42ND PL, TULSA OKLA, 74145 .... 918 622-4248
P GILLIAM, EMP 7, ENG 5

SIGNETICS CORP, 811 E ARQUES AVE, SUNNYVALE CAL, 94086 .... 408 739-7700
J HALTER, EMP 1500, ENG 150, OVER $10,000M
Ala Compar Southern, 904 Bob Wallace Ave Huntsville 205 539-8476
Ariz Compar Rocky Mountain, 84 W 1st St Scottsdale 602 947-4336
Cal Signetics Corp, 120 S Lasky Dr Beverly Hills 213 272-9421
Cal Compar Los Angeles, 434 W Colorado Blvd Glendale 213 245-1172
Cal Compar San Francisco, 1817 Bayshore Hwy Burlingame 415 697-6244
Cal Signetics Corp, 9252 Garden Grove Blvd Garden Grove 714 636-4260
Cal Signetics Corp, 705 Veterans Blvd Redwood City 415 369-0333
Cal Jack Pyle Co, 1611 Borel Pl San Mateo 415 349-1266
Colo Compar Rocky Mountain, 300 E Hampden Ave Denver 303 781-0912
Conn Compar New England, 2357 Whitney Ave Hamden 203 288-9276
Fla Signetics Corp, 3267 San Mateo Clearwater 813 726-3734
Fla Compar Florida, Box 13109 Orlando 305 855-3964
Ill Compar Midwest, 2 Talcott Rd Park Ridge 312 692-4125
Ill Signetics Corp, 4902 Tollview Dr Rolling Meadows 312 259-8300
Md Compar Chesapeake, 7 Church La Baltimore 301 484-5400
Mass Signetics Corp, 591 N Ave Wakefield 617 245-8200
Mass Compar New England, 88 Needham St Newton Highlands 617 969-7140
Mich Compar Midwest, 21250 10 1/2 Mile Rd Southfield 313 357-5369
Minn Compar Twin Cities, 3925 Monterey Ave Minneapolis 612 922-7011
Mo Compar Midwest, 11734 Lackland Ind Dr St Louis 314 542-3399
Mo Ozark Electronic Mktg Inc, 2573 Woodson Rd St Louis 314 423-7200
NJ Compar Philadelphia, 15 Potter St Haddonfield 609 429-1526
NJ Signetics Corp, 412 Lees Ave Collingswood 609 858-2864
NJ Signetics Corp, 2460 Le Moine Ave Ft Lee 201 947-9870
NM Compar Rocky Mountain, 2125 San Mateo, N E Albuquerque 505 265-1020
NY Signetics Corp, 11 Maxwell Court Syracuse 315 469-1072
NY Compar Albany, 419 Central Ave Albany 518 436-8536
NY Compar Albany, 530 Verna Dr Endwell 607 723-8743
NY Compar New York, 335 Crossways Pk Dr Woodbury 516 921-9393
NY Compar Albany, 104 Spruce Tree La Syracuse 315 471-3356
NC Compar Southern, 1106 Burke St Winston Salem 919 724-0750
Ohio Compar Ohio, Box 4791 Fairview Park 216 333-4120
Ohio Compar Ohio, 16 So Broad St Fairborn 513 878-2631
Tex Compar Southwest, 8609 Northwest Plaza Blvd Dallas .... 214 EM 3-1526
Tex Compar Southwest, 5757 Bellaire Blvd Houston 713 667-3420
Wash Compar Northwest, 6133 Maynard Ave So Seattle 206 763-1711

SIGNET SCIENTIFIC CO, 129 E TUJUNGA AVE BURBANK, CAL, 91502 .... 213 849-6615
R OBLINGER, EMP 20, ENG 4

SILEC, 122 RUE NOLLET, PARIS, FRANCE 359 07-89
M LAFITTE

SILICONE SEALS INC, 3694 MILWAUKEE AVE CHICAGO, ILL, 60641 .... 312 282-3787
L BROWN, ENG 3
Cal B & B Sales Co, 1433 Oregon St Berkeley 843-3254
Fla Sproch Sales Inc, 3520 W Broward Blvd Ft Lauderdale 587-3792
Ill Escor Assoc, 6582 NW Hwy Chicago 312 763-4797
Mass G E Morton Co, 161 Summer St Scituate 617 545-0155

SILICONIX INC, 1140 W EVELYN AVE, SUNNYVALE CAL, 94086, TWX 910-339-9216 .... 408 245-1000
L LYNBERG, EMP 400, ENG 50
Ariz Barnhill Assoc, 4900 E Indian School Rd Phoenix 959-2115
Cal Siliconix Inc, 6118 Venice Blvd Los Angeles 933-9233
Cal Siliconix Inc, 2750 Bellflower Blvd Long Beach 527-5271
Colo Barnhill Assoc, 1170 S Sheridan Blvd Denver 934-5505
Conn R Perron & Co, Inc, 10 Briarwood Rd Farmington 673-4825
Conn R Perron & Co, Inc, 36 louis St Trumbull 268-9631
Fla Perrott Assocs Inc, 1607 Forsyth Rd Orlando 275-1132
Fla Perrott Assocs, Inc, Box 6277 West Palm Beach 967-1770
Fla Perrott Assoc, Box 532, Clearwater 446-2535
Ill Cozzens & Cudahy, Inc, 9501 Devon Ave Rosemont 825-1144
Ind Cozzens & Cudahy, Inc, 44 Kirk Dr Indianapolis 244-2456
Md J-H Electronic Sales Co, 1125 Gypsy La Towson 825-4440
Mass R Perron & Co, 1870 Centre St, Boston 323-1008
Mich Skip Greiner Assoc, 15318 Mack Ave Detroit 882-7570
Minn Cozzens & Cudahy, Inc, 7710 Computer Ave Minneapolis 920-1022
Mo Cozzens & Cudahy, Inc, 1160 S Florissant Rd Florissant 831-0010
Mo Cozzens & Cudahy Inc, 10534 Natural Bridge Rd Edmundson 423-1234
NH R Perron & Co, Inc, 19 Caron Rd Manchester 472-3030
NJ Harold Gray Assoc, 20 Foster St Bergenfield 384-3643
NJ J-H Electronic Sales, Box 686 Cherry Hill 665-6142
NM Barnhill Assoc, 827 Penna NE Albuquerque 265-7766
NY Siliconix Inc, 4250 Hempstead Tpke Bethpage 796-4680
NY NYCom, 2002 Teall Ave, Syracuse 437-8343
Ohio Gibson Electronics Mktg Co, 2801 Far Hills Ave Dayton 298-7683
Ohio Gibson Electronics Mktg Co, 2643 E Streetsboro Rd Hudson 653-2900
Tex W Pat Fralia Co, Box 12625 Fort Worth 738-2394
Wash Blair Hirsh Co, 4013 Leary Way NW Seattle 783-3423
Wis Cozzens & Cudahy, Inc, 3712 W Elm St Milwaukee 352-3640
Can Cantronics, 4252 Braille Ave Montreal, Que 733-0749
Can Cantronics, 17 Delbank Rd Toronto, Ont 636-8311

SILICON TRANSISTOR CORP, EAST GATE BLVD GARDEN CITY, NY, 11530 .... 516 742-4100
G HILDEBRAND, EMP 350, ENG 50, $5,000-$10,000M
Ala Bostick & Assoc, Box 4165, Huntsville 881-3677
Cal Engineering Liaison Assoc, 3360 Barham Blvd Hollywood
Cal Silicon Transistor Corp, 1813 Wilshire Blvd Los Angeles
Cal W W Posey Co, 175 S San Antonio Rd, Los Altos
Colo Waugaman Assoc, 2785 N Speer Blvd Denver 255-5000
Fla G F Bohman Assoc, 7040 Lake Ellenor Dr, Orlando
Ga Bostick & Assoc, Box 28378, Atlanta
Ill Lightner Assoc Inc, 6322 N Milwaukee Ave Chicago 774-1500
Ill H Grubb & Co, 8039 Lawndale Ave, Skokie
Md J A Dougherty Sls Co, 320 Hillen Rd Towson .... VA 3-0431
Mass Silicon Transistor Corp, 161 Ash St, Reading
Minn Silicon Transistor Corp, 7710 Computer Ave Minneapolis
Mo Impala Inc, 47 Vlg Shpg Ctr, Hazelwood
NJ Graydon-Sherman Inc, 33 Morris St Morristown .... JE 8-9246
NJ Harold Gray Assoc, 20 Foster St Bergenfield 384-3643
NY Graydon-Sherman Inc, Davis Bldg Fayetteville 637-9611
NY C Tennant Sons & Co, 100 Park Ave New York .... 212 OR 9-1300
Ohio Electro-Com, 8761 Snow Rd Cleveland .... TU 6-2404
Ohio Electro-Com, 5055 N. Main St Dayton .... CR 8-4797
Pa Elcom Inc, 130 S Easton Rd, Glenside 885-1325
Tex Vista Engrg Assoc, 777 N Central Expwy Richardson .... AD 5-4547
Wash Electronic Sales Corp, 5600 Calif Ave SW Seattle 932-0330
Can Canadian Micro Elctns, 1390 Raven Ave, Ottawa Ont
For Total Elctns Intl, 301 Mill Rd Hewlett N Y 516 374-9620

SILTRONICS INC, 140 PENNSYLVANIA AVE, OAKMONT PA, 15139 .... 412 828-7003
S GREEN, EMP 200, ENG 6, $2,500-$5,000M

SILVER & ASSOC INC G H, BOX 21, NEWTONVILLE MASS, 02160 .... 617 332-7747
G SILVER, EMP 4, ENG 3, UP TO $100M
Ohio Henry S Rondeau, 2865 Coventry Rd Cleveland .... LO 1-7168

SILVER GLO PICTURE TUBES LTD, 12418 66TH ST EDMONTON, ALB
EMP 7, ENG 1

SIMCO CO INC, 920 WALNUT ST, LANSDALE PA, 19446 .... 215 368-2220
H SCHWERINER, EMP 45, ENG 3
Cal Bonjanower Machy Service Co 5270 E Washington Blvd, LA .... 213 AN 3-6175
Cal Wolcott Machinery Co, 3002 Midvale Ave Los Angeles 213 879-2055
Ga J R Davis Inc, 1020 Hightower Trail Dunwoody 404 993-4633
Ill Application Engrg Corp, 850 Pratt Blvd Elk Grove 312 625-8877
Ky Finishing Equip Co, 4712 Pinewood Rd Louisville 502 964-5909
Mass McIntyre Machine Sales Co, 712 Plantation St Worcester 617 799-0017
Mich A L Belrose Co Inc, 936 N Telegraph Rd Dearborn 313 274-2000
Mo E W Mooney Co Inc, 7505 Delmar Blvd University City .... 314 PA 5-8875
NC D G Eaton Equip Sales Inc, 1464 Cohasset Ave Cleveland 216 221-1623
NC Elicker Co, 5335 Far Hills Ave Dayton 513 434-3721
Ohio H Snelling, 2478 Princeton Rd Cleveland 216 371-2414
Pa Stuver Equip Co, 5234 Towers Terr Pittsburgh .... 412 931-2[illegible]2
Pa J Holter, 3100 Monroe Ave Rochester .... 716 DU 1-79[illegible]
Tex I P Newby & Assoc, 6211 Denton Dr Dallas .... 214 FL 7-835
Tex H O'Neill & Son, Box 22553 Houston .... 713 NA 2-4938
Wis E Schuerer Sales, 2625 N 111th St Milwaukee 414 453-2960
Can W S Wood Machinery Ltd, 23 Jutland Rd Toronto, Ont 416 259-7831
Can Alex L Clark Ltd, 3751 Bloor St W Islington Ont 416 231-5691
GB Meech Static Eliminators Ltd 150 Clapham Manor St, London SW 4
Neth Simco (Netherland) NV, Kwinkweerd 2 Lochem (GLD)

SIMMONS FASTENER CORP, 1752 N BROADWAY ALBANY N Y, 12201, TWX 710-441-8284 .... 518 HO 2-5431
F PUFPAFF, EMP 120
Ariz Vinson Assoc, Inc, 44 E Indian School Rd, Scottsdale
Cal El-Com Sales Co, 3600 Motor Ave, Los Angeles
Cal M-A Assoc, 2015 Latham St, Mt View
Colo Vinson Assoc, 3600 S Lincoln, Englewood
Conn Facilities Unltd Inc, 180 E Post Rd, White Plains
Ill Allied Engrg & Sales Co, 6272 W North Ave Chicago
Iowa F Noll, 1200 20th St SW, Cedar Rapids
Mass White Sales Co, 20 Chestnut St, Needham
Mich W T Peterson Co, 11568 Thirteen Mile Rd, Warren
Minn R E Kenney Co, 6301 W Lake St, Mnpls
Mo Mid-Continent Sales Co, 119a N Kingshighway St Charles
Ohio A C Wahl Co, 135 Williams Ave, Cincinnati
Pa C H Stratton Co, 514 E Wadsworth Ave, Phila
Pa Charles Bent Co, Box 203, Glenside
Pa Lowry-Dietrich Co, 90 Clairton Blvd, Pittsburgh
Tex Tech Sales Co, 1352 Chemical St, Dallas
Can Simmonds Aerocessories, 637 Parkdale Ave N Hamilton, Ont
Ger Wolf Renner, Maierwaldstr 5, Stuttgart-Weilimoorf
Ital Technofast, Via Sammartini 95, Milano
Swed Hogoson Duhs Corp, Drottninggatan 88-D, Stockholm
Swit Stadler AG, 9435 Heerbrugg, Zurich
Mex Fabrido SA, Anaxagoras 95, Mexico City

SIMMONS REFINING CORP, 1704 S NORMAL AVE CHICAGO, ILL, 60616 .... 312 421-1210
L GORDON, EMP 20, ENG 2, $2,500-$5,000M

SIMONDS MACHINE CO INC, 246 WORCESTER ST
SOUTHBRIDGE, MASS, 01550 ... 617 764-3236
A MANCUSO, EMP 60, ENG 3, $500-$1,000M
Cal Maddox Sales Co, 2945 E 12th St Los Angeles ... 269-7291
Fla T Round, Box 119, Winter Park ... 644-1917
Ill EMF Co, 6135 W Belmont Ave Chicago ... 889-8323
Ind OEM Sales Co, Box 55232 Indianapolis ... 545-1267
Iowa Lund Prods Sales Co, 235 Richmond Ave Ottumwa ... 682-7576
Md W Bramman, 1 Country Club Dr Phoenix ... 592-7495
Mich J F Kolar, Box 92, Birmingham ... 647-1166
Minn Ringerud Equip Co, 2651 Louisiana Ave Minneapolis ... 929-0611
Mo Waynne Prince Co Inc, 1728 Walnut St Kansas City ... 221-3330
NJ W Walsh, 385 Ocean Blvd Long Branch ... 229-5473
NC W P Younger Inc, 3807 Old Monroe Rd Charlotte ... 375-2263
Ohio Sullivan Sales & Service, 2975 W Market St Akron ... 836-4477
Pa Elek Weiss, 6 Barton Dr, Pittsburgh ... 371-3020
Tenn Fluid Power of Memphis, 2248 Dunn Ave Memphis ... 743-1122
Wis PT Co, 5530 W Center St, Milwaukee ... 442-4120
Can Adlam Tool & Supply Co, Inc, 10 Ronald Dr Montreal, Que ... 482-2548
For W M McKim & Son Inc, 238 Main St Cambridge, Mass ... 876-4733

SIMPLATROL PRODUCTS CORP, 675 PLANTATION ST
WORCESTER, MASS, 01605 ... 617 791-6308
H PETERSON
Fla Mansfield Equip Co, Box 969 Boca Raton ... 395-7315
Mass E Conover, 675 Plantation St Worcester ... 791-6308
Mich Miller & Miller, Box 36, Grosse Ile ... 386-0900
NY Keller Ind Prods Inc, 70 Mt Hope Ave Rochester ... 546-4313

SIMPLEX TIME RECORDER CO, 26 S LINCOLN ST
GARDNER, MASS, 01440 ... 617 632-2500
R LEBLANC, EMP 775, ENG 11, OVER $10,000M
Ala Simplex Time Recorder Co, 415 S 41st St Birmingham ... 595-8437
Alas Simplex of Alaska, 3112 Spenard Rd Anchorage ... 272-0131
Ariz Simplex Time Recorder Co, 5012 E Van Buren St Phoenix ... 275-7578
Ark Simplex Time Recorder Co, 1509 Mart Dr Little Rock ... MA 4-0280
Cal Simplex Time Recorder Co, 1425 Minnesota St San Francisco ... 648-9245
Colo Simplex Time Recorder Co, 2620 W 2nd Ave Denver ... 934-5441
Conn Simplex Time Recorder Co, 3395 Main St Hartford ... 249-8591
DC Simplex Time Recorder Co 4590 MacArthur Blvd, N W Washington ... FE 7-9000
Fla Simplex Time Recorder Co, 618 Virginia Dr Orlando ... GA 3-6511
Ga Simplex Time Recorder Co, 3623 NE Expwy Atlanta ... 457-1321
Idah Simplex Time Recorder Co, 1138 N Orchard Boise ... 375-0263
Ill Simplex Time Recorder Co, 449 N Walnut St Springfield ... 522-1214
Ind Simplex Time Recorder Co, 5238 N Keystone Ave Indianapolis ... 251-1471
Iowa Simplex Time Recorder Co, 2210 Ingersoll Ave Des Moines ... 283-2094
Kan Simplex Time Recorder Co, 256 N Waco Wichita ... AM 4-3721
Ky Simplex Time Recorder Co, 2441 Critterden Dr Louisville ... 636-2843
La Simplex Time Recorder Co, 3144 N Market St Shreveport ... 424-9556
Me Simplex Time Recorder Co, 905 Forest Ave Portland ... 772-3479
Md Simplex Time Recorder Co, 424-426 E 25 St Baltimore ... 243-0424
Mass Simplex Time Recorder Co, 196 Broadway Cambridge ... 491-0313
Mass Simplex Time Recorder Co, 687 Prospect St Methuen ... MU 3-9437
Mich Simplex Time Recorder Co, 3092 W Pasadena Ave Flint ... 785-0829
Minn Simplex Time Recorder Co 5309 Edina Industrial Blvd Minneapolis ... 941-2221
Miss Simplex Time Recorder Co, 825 S Plaza St Jackson ... 948-666
Mo Simplex Time Recorder Co, 2508 Brentwood Blvd St Louis ... WO 8-1010
Mont Simplex Time Recorder Co, 711 Central Ave Billings ... AL 2-6455
Neb Simplex Time Recorder Co, 7545 Main St Ralston ... 331-5533
NJ Simplex Time Recorder Co, 25 Lexington Ave Trenton ... 882-0245
NM Simplex Time Recorder Co, 1816 4th St Lubbock ... PO 3-9178
NY Simplex Time Recorder Co, 350 Broadway New York ... WO 6-4750
NC Simplex Time Recorder Co, 3017 Hillsboro St Raleigh ... 834-6136
ND Simplex Time Recorder Co, 2107 Third Ave, N Fargo ... 234-6712
Ohio Simplex Time Recorder Co, 51 Parson Ave Columbus ... 221-9292
Okla Simplex Time Recorder Co 4201 N Barnes & U S Hwy 66 Oklahoma City ... JA 5-0543
Ore Simplex Time Recorder Co, 8210 S W 19th Ave Portland ... 246-4239
Pa Simplex Time Recorder Co, 309 S 10th St Lemoyne ... 233-6761
RI Simplex Time Recorder Co, 252 East St Cranston ... RE 7-3420
SC Simplex Time Recorder Co, 3404 Fernadina Rd Columbia ... 772-3005
Tenn Simplex Time Recorder Co, 1805 Church St Nashville ... 242-1365
Tex Simplex Time Recorder Co, 2600 Stemmons Dallas ... ME 1-3830
Utah Simplex Time Recorder Co, 64 Bryan Ave Salt Lake City ... 486-8471
Vt Simplex Time Recorder Co, 14 A Church St Burlington ... 863-4504
Va Simplex Time Recorder Co, 2916 W Marshall St Richmond ... 353-1058
Wash Simplex Time Recorder Co, 2015 N-W Blvd Spokane ... FA 8-5233
W Va Simplex Time Recorder Co, 401 W 14th St Huntington ... 522-8761
Wis Simplex Time Recorder Co, 1941 Gross Ave Green Bay ... 494-8741
Can Canadian Simplex Sales Co, 700 St James St, W Montreal ... 866-4429
For Armando Halpern, Lda, Rua Antonio Pedro 8-Apartado 1342 ... 59095
Den Simplex Tidskontrol, Middelfartvej 4 Himmelev, Roskilde ... 03-351020
Fr Simplex Intl Time Equip, S A 10 Rue du Faubourg Poissonniere Paris ... 824-4631
Ger Deutsche Simplex Time Recorder GMBH Spitalwaldstr, 7 Stuttgart-Zuffenhausen ... 855742
GB Simplex Time Recorder Co (U K) Ltd, 70/72 Old St London ... 01 253-7801/2/3/4
Holl Ahrend-Globe N V, Simon Stevinweg 7-21 Hilversum
Ital Ditta Enrico Boselli S P A, Via G, da Procida, 11 Milan ... 348741
Jap Dodwell & Co Ltd, CPO Box 297, Tokyo
Nor Simplex Tidkontroll A/S, Grenlandsleiret 39, Oslo 1
SAfr Garlick's Office Equip Co, 92 St Georges St Cape Town
Swed Rune Ferner, A B, Box 11, sundbyberg
Swit Simplex Time Recorder Gen Vertretung-W Baumann Rainweg 8 ... 8902 Urdorf
Spn Jebrimont, Ave Jose' Antonio, 82, Madrid 13

SIMPSON ELECTRIC CO, 5218 W KINZIE ST, CHICAGO
ILL, 60644, TWX 02-53343 ... 312 379-1121
M BUEHRING, EMP 1051, ENG 80
Cal W J Purdy Assoc, 312 7th St San Francisco ... 863-3300
Cal Simpson Sales, 232 W Maple Ave Monrovia ... 359-8132
Colo R G Bowen & Co Inc, 1440 Santa Fe Denver ... 722-4641
Conn P R Sturgeon & Co Inc, Box 170 Milford ... 874-6080
DC S K Macdonald Inc, 14th St & Park Rd NW Washington ... 265-3938
Fla Cartwright & Bean, 609 E Colonial Dr Orlando ... 425-8284
Ga Cartwright & Bean, 3223 Cain's Hill Pl N W Atlanta ... 237-2273
Haw Earl Assoc, 1638 Kona St, Honolulu ... 996-953
Ind Thomas & Sukup Inc, 2060 E 54th St Indpls ... 251-4574
Iowa N Kathrinus & Co, 417 W 4th St Ottumwa ... 684-6110
Kan N Kathrinus & Co, 2336 S Boeke St Kansas City ... AD 6-4108
La Cartwright & Bean, 1812 Bullard Ave Metairie ... 887-048
Md S K Macdonald Inc, 5500 Harford Rd Baltimore ... 254-3380
Mass P R Sturgeon Co Inc, 1330 Boylston St Chestnut Hill ... 734-7710
Mich R C Merchant Co Inc, 18411 W McNichols Rd Detroit ... 535-6000
Minn M Foster Co Inc, 228 S Cedar Lake Rd Mnpls ... 374-2612
Mo N W Kathrinus & Co, 2427 Brentwood Blvd St Louis ... 962-5627
NJ C Langseder, 521 3rd St Palisades Park ... 944-7733
NM C T Carlberg & Assoc, 2611 Quincy St NE Albuquerque ... 265-1579
NY Simpson Instr Sales & Service, 130 Cutter Mill Rd Great Neck ... 482-3103
NY Leonard D Allen Inc, Brewerton Rd N Syracuse ... 458-7470
NC Cartwright & Bean, 625 Harwyn Dr Charlotte ... 537-7965
Ohio Baehr Greenleaf & Assoc Inc, 9505 Montgomery Rd Cincinnati ... 891-3827
Ohio Baehr Greenleaf & Assoc Inc, 14700 Detroit Ave Cleveland ... 221-9030
Ore Earl & Brown Co Inc, 2041 SW 58th Ave Portland ... 292-9145
Pa S K Macdonald Inc, 7805 McKnight Rd Pittsburgh ... 366-2643
Pa S K Macdonald Inc, 1531 Spruce St Phila ... 545-1205
Tenn Cartwright & Bean, 560 S Cooper St Memphis ... 276-4442
Tex J Y Schoonmaker Co Inc, 6001 Gulf Frwy Houston ... WA 6-9510
Tex J Y Schoonmaker Co Inc, 2995 Ladybird La Dallas ... 357-8481
Utah R G Bowen & Co Inc, 31 S 3rd St E Salt Lake City ... 364-4632
Wash Earl & Brown Co Inc, 422 1st Ave W Seattle ... 284-1121
Wis E A Dickinson & Assoc, 3612 N Green Bay Ave Milwaukee ... 264-1080
Can Bach-Simpson Ltd, 1255 Brydges St London, Ont ... 451-9490
For Intl Amarex Inc, 400 W Madison St Chicago, Ill ... 332-0646

SIMPSON ELECTRONICS, INC, 2295 NW 14TH ST
MIAMI, FLA, 33125 ... 305 633-3261
N AMOROSI, EMP 75, ENG 1, $1,000-$2,500M

SIMS CASTING CORP, 2174 E ERIE BLVD, SYRACUSE
N Y, 13224 ... 315 446-7420
R SIMS, EMP 100
Cal Aeron Corp, 201 S Lake St, Pasadena
Mass E Delfino, 75 Reed St, Lexington ... 862-1118
NY R Krause, One Barstow Rd Great Neck ... HU 2-7134
NY R C Dengler, Box 98, Pittsford ... DU 1-3122
Pa Miller-Smith, Box 172, Wayne ... 687-0750
Tex J H Kannen, 1723 Peer St, Houston ... 465-6313
Utah H L Schmidt, Box 126, Hurst ... 282-1202

SINCLAIR RADIO LABS INC, BOX 23, TONAWANDA
N Y, 14150 ... 716 874-3682
E JOHNSON, EMP 24, ENG 2
Ga Southeastern Commun Sys Inc, Box 18851 Atlanta ... 351-6453
Mass Russell Engrg Sales, 7 Skyfield Dr Groton ... 617 448-5822
Mich Central Michigan Commun Co, 2101 Northampton Lansing ... 485-6444
Neb Comm Systems Assoc, 203 Shevro La Bellevue ... 402 291-4309
NM Bowden Engrg Sales, 2633 Texas NE Albuquerque ... 505 299-0473
NY Ash Electronics, 221 Lafayette Blvd Williamsville ... 634-3745
NC A B Andrews & Co, Box 2627, Raleigh ... 833-5565
Utah D E Parker & Assoc, 3385 S 2770 E Salt Lake City ... 801 467-1703
Wash B J Hudson Co, 7615 NE 123rd St Kirkland ... 822-1810
Can Sinclair Radio Labs Ltd, Box 179 Downsview, Ont ... 635-1881
BC Sinclair Radio Labs Ltd, 155 Pemberton Ave N Van Couver

SINGER CO, DIEHL DIV, FINDERNE PLANT
SOMERVILLE
N J, 08876, TWX 710-480-9325 ... 201 725-2200
J KACHMAR, EMP 650, ENG 30
Cal Halbar Assoc, 1805 W Third St Los Angeles ... 387-8283
Colo Transdynamics Inc, 3401 S Bannock St Englewood ... 761-0455
Fla Tech-Rep Assoc, Inc, Box 8218, Madeira Beach St Petersburg ... 391-0008
Ill Balhorn & Welch Inc, 1925 N Harlem Ave Chicago ... TU 9-5011
Md East Coast Liaison, Inc, Box 243 Lutherville ... 252-1288
Mass Cirolia Le Blanc Sales Co, 976 Main St Waltham ... TW 3-2742
Mich G & H Sales Co, 24001 Southfield Rd Southfield ... 358-1910
Minn Hamilton, Graydon & Flemmer, Hamilton Rd Hopkins ... 941-1120
NY ERA Inc, 330 Great Neck Rd Great Neck ... 482-9320
Ohio G & H Sales Co, Box 37461, Cincinnati ... 761-6185
Tex V J Sykes Assoc, Inc, 13333 N Central Expy Dallas ... AD 5-5289
Wash Transdynamics, Inc, Box 128, Mercer Isl Seattle ... 232-1094

SINGER CO, METRICS DIV, 915 PEMBROKE ST
BRIDGEPORT
CONN, 06608, TWX 710-453-3483 ... 203 366-3201
M SCHERAGA, EMP 525, ENG 77, OVER $10,000M
Ala James L Highsmith & Co, 3322 S Memorial Pkwy Huntsville ... 205 881-3294
Ariz Williams & Assoc Inc, 1110 E McDowell Rd Phoenix ... 602 254-6085
Cal Ward/Davis Assoc, 770 S Arroyo Pkwy Pasadena ... 213 684-2824
Cal Ward/Davis Assoc, 3442 Hancock St San Diego ... 714 297-4619
Cal Ward/Davis Assoc, 3921 E Bayshore Palo Alto ... 415 968-7116
Colo Williams & Assoc Inc, 4971 Jackson St Denver ... 303 388-4391
Conn Instrument Assoc Inc, 234 Murphy Rd Hartford ... 203 525-9367
Fla James L Highsmith & Co, 2543 Industrial Blvd Orlando ... 305 293-5202
Ill Bard Assoc Inc, LaGrange Indstl Pk LaGrange ... 312 354-0660
Ind Bard Assoc Inc, 4002 Meadows Dr Indpls ... 317 849-2723
Md Burlingame Assoc, 1749 Rockville Pike Rockville ... 301 427-1255
Mass Instrument Assoc Inc, 30 Park Ave Arlington ... 617 648-2922
Mich S Sterling Co, 21250 10 1/2 Mile Rd Southfield ... 313 357-3700
Minn Bard Assoc Inc, 7700 Morgan Ave S Mnpls ... 612 866-1700

Mo S Sterling Co, 11734 Lackland Ind Dr St Louis 314 542-3636
NM Williams Assoc Inc, 420 Washington SE Albuq 505 255-1638
NY Burlingame Assoc Inc, 510 S Fulton Ave Mt Vernon 914 664-7530
NY Burlingame Assoc Inc, E Molloy Rd Syracuse 315 454-2408
NC James L Highsmith & Co, 3733 Monroe Rd Charlotte 704 333-7743
Ohio S Sterling Co, 5827 Mayfield Rd Cleveland 216 442-8080
Ohio S Sterling Co, 2673 Culver Ave Dayton 513 298-7573
Pa S Sterling Co, 4232 Brownsville Rd Pittsburgh 412 884-5515
Pa Burlingame Assoc Inc, 222 Long La Upper Darby 215 528-6080
Tex Arnold Barnes Co, 3230 Mercer St Houston 713 622-3620
Tex Arnold Barnes Co, Box 709 Richardson 214 235-4541
Tex Arnold Barnes Co, E 106 Petroleum Bldg San Antonio 512 828-1323
Utah Williams Assoc Inc, 2469 S Main St Salt Lake City 801 466-8709
Va James L Highsmith & Co, 5003 Brook Rd Richmond 703 266-2060
Wash Rush S Drake Assoc Inc, 6133 Maynard Ave S Seattle 206 763-2755
Can Whittaker Electronics Ltd, 1885 Wilson Ave Weston, Ont 416 247-7454
Can Whittaker Electronics Ltd, 42 Howden Ave Ottawa, Ont 613 224-1221
Can Whittaker Electronics Ltd, Box 216, Roxboro Que 683-3621
BC Whittaker Electronics Ltd, 1144 Millstream Rd West Vancouver, B C 926-3411

SINGER CO, METRICS DIV, GERTSCH DEPT 3211 S LA CIENEGA BLVD, LOS ANGELES CAL, 90016, TWX 910-340-6352 . . . . . . 213 870-2761
R LEWIS, EMP 188, ENG 10, $2,500-$5,000M
Ala J L Highsmith Co, 3322 S Memorial Pkwy Huntsville 881-3294
Ariz Williams Assoc Inc, 1110 E McDowell Rd Phoenix 254-6085
Cal Ward/Davis Assoc, 3921 E Bayshore Palo Alto 968-7116
Colo Williams & Assoc Inc, 4971 Jackson St Denver 388-4391
Conn Instrument Assoc Inc, 742 Asylum Ave Hartford 246-5686
Fla J L Highsmith & Co, 2543 Industrial Blvd Orlando 293-5202
Ill Bard Assoc Inc, LaGrange Ind Park LaGrange 354-0660
Ind Bard Assoc Inc, 6806 N Farmleigh Dr Indianapolis 849-2723
Md Burlingame Assoc, 1749 Rockville Pike Rockville 301 427-1255
Mass Instrument Assoc Inc, 30 Park Ave Arlington 648-2922
Mich S Sterling Co, 21250 10 1/2 Mile Rd Southfield 357-3700
Minn Bard Assoc, 700 Morgan Ave S Minneapolis 866-1700
Minn Bard Assoc, 7710 Morgan Ave S Minneapolis 612 866-1700
Mo S Sterling Co, 7849 N Lindbergh Blvd Hazelwood 837-1221
NM Williams Assoc Inc, 3221 Silver Ave SE Albuquerque 255-1638
NY J D Ryerson Assoc, 105 Pickwick Dr Rochester 444-9344
NY J D Ryerson Assoc, Box 1400 Syracuse 656-7419
NY Burlingame AAssoc, 510 S Fulton Ave Mt Vernon 914 664-7530
NC J L Highsmith & Co, 3733 Monroe Rd Charlotte 333-7743
Ohio S Sterling Co, 5827 Mayfield Rd Cleveland 442-8080
Ohio S Sterling Co, 2673 Culver Ave, Dayton . . . 298-7573
Pa S Sterling Co, 4232 Brownsville Rd Pittsburgh 884-5515
Pa Burlingame Assoc, 222 Long La Upper Darby 215 528-6080
Tex Arnold Barnes Co, 740 S Sherman St Richardson 235-4541
Tex Arnold Barnes Co, 3230 Mercer St Houston 622-3620
Tex Arnold Barnes Co, 108 Petroleum Bldg San Antonio 828-1323
Utah Williams Assoc Inc, 2461 S Main St Salt Lake City 466-8709
Va J L Highsmith & Co, 5003 Brook Rd Richmond 266-2060
Wash Rush S Drake Assoc Inc, 6133 Maynard Ave S Seattle 725-2700
Can Allan Crawford Assoc Ltd, 65 Martin Ross Ave Downsview, Ont 636-4910
Can Allan Crawford Assoc Ltd, 376 Churchill Ave Ottawa, Ont 725-1288
Can Allan Crawford Assoc Ltd 6999 Cote des Neiges Rd Montreal, Que 739-6776

SINTERED SPECIALTIES DIV, 1405 RIVERSIDE ST JANESVILLE, WIS, 53546 . . . . . . 608 752-7821
J BROST, EMP 40, ENG 4, $500-$1,000M
Cal Harold R Swanton, Inc, 325 W 17 St Los Angeles 749-8114
Cal Harold R Swanton, Inc, 456 Brannan St San Francisco 781-0972
Colo Harold Swanton, Inc, 2348 S Broadway Denver 722-1258
Va T C Felger, Box 1061, Charlottesville 293-4812
Wash Harold R Swanton, Inc, 2739 4th Ave S Seattle 682-3232

SIPPICAN CORP, IND PRODS DIV, 34 BARSTOW ST MATTAPOISETT, MASS, 02739 . . . . . . 617 758-6905
W BAYLIES, EMP 350, ENG 96, $5,000-$10,000M
Ala Young & Lawrence Assoc, 2907 Governers Dr SW Huntsville 539-6575
Ariz Hyer Electronics Co, 301 W Indian School Rd Phoenix 264-0291
Cal Premmco-Welco, 2406 Lincoln Ave Alameda 523-9495
Cal Premmco-Welco, 1502 W 166th St Gardena 532-6010
Colo Hyer Electronics CO, 7895 E Prentice Ave Englewood 771-5285
Conn Instrument Dynamics Inc, 345 N Main St West Hartford 233-5503
Fla Young & Lawrence Assoc, 601 N New York Ave Winter Park 647-6929
Ill R Edward Stemm Inc, 17 W 480 Lake St Addison 279-2440
Ind Tri-state Electronics Inc, 3220 Broadway Fort Wayne 456-3567
Md Par-Nell Sales Co, 47 Main St Reisterstown 833-6444
Mass Instrument Dynamics Inc, Wakefield Ind Park Wakefield 245-5100
Minn R Edward Stemm Inc, 2713 Lyndale Ave, S Minneapolis 822-8404
NJ John W Richardt Co, Rte 46 Pine Brook 227-0600
NM Hyer Electronics Co, 210 La Veta N E Albuquerque 265-5767
NY Geo O Miller Co, 607 Midtown Plaza Syracuse 478-3113
NC The Candor Co Inc, Bethania 924-1480
Ohio Tri-State Mktg Inc, 1717 Section Rd Cincinnati 631-5060
Ohio Tri-State Mktg. Inc, 25000 Euclid Ave Cleveland 731-9207
Pa Chas E Babcock Co, 130 W Lancaster Ave Wayne 688-8288
Tex Teamwork Inc, 2646 Andjon, Dallas 352-7747
Utah Hyer Electronics Co, 445 E Second S Salt Lake City 363-6773
Wash James J Backer Co, 221 W Galer St Seattle 283-6470
Can Wm F B Armstrong, 16 Graywood Dr Islington Ont 233-0598
Den Tage Olsen A/S, 1, Ronnegade Copenhagen . . . . . . (01)29 48 00
Fr Deltec SA, 30 rue des Amandiers Paris 797 52-93
Ger Controls & Instruments GMBH, Gustav-Adolf Str 5 Munich 525387
Holl Van Rietschoten & Houwens, Box 6025 Rotterdam 259700
Swed Eduard Schneidler AB, Malmskillnadsgatan 54 Stockholm
Swit Amcel, Muhlemattstr 36, Fullinseorf

SITCO ANTENNAS, 10330 NE MARX ST, PORTLAND ORE, 97220 . . . . . . 503 253-2000
G BERLINER, EMP 6, ENG 1, $250-$500M

SITTLER CORP, 18 N ADA ST, CHICAGO ILL, 60607 . . . . . . 312 733-4661
E SEWERYN, EMP 22, ENG 3, $250-$500M

SKF INDUSTRIES INC, FRONT ST & ERIE AVE PHILADELPHIA, PA, 19132 . . . . . . 215 GA 6-6400
T MORRIS, EMP 7500, ENG 310, OVER $10,000M
Ala S K F Industries Inc, 12 Office Park Cir Birmingham 871-4466
Cal SKF Industries Inc, 1835 Rollins Rd Burlingame 697-6605
Cal SKF Industries Inc, 3131 S Hill St Los Angeles 749-3167
Colo SKF Industries Inc, 3865 Elm St Denver 399-1363
Fla SKF Industries Inc, 1201 San Marco Blvd Jacksonville . . . . . . FL 9-6577
Ga SKF Industries Inc, 1052 W Peachtree St NW Atlanta 875-8846
Ill SKF Industries Inc, 1800 N 25th Ave Melrose Park 626-7456
Ind SKF Industries Inc, 6144 College Ave Indpls 253-6416
Iowa SKF Industries Inc, 517 Main St Davenport 786-7666
Mass SKF Industries Inc, 210 N Harvard St Boston 254-8400
Mich SKF Industries Inc, 18350 Schaefer Detroit 864-9373
Minn SKF Industries Inc, 1228 7th St S Minneapolis 333-8271
Miss SKF Industries Inc, 127 S Roach St Jackson 355-1451
Mo SKF Industries Inc, 2149 Hampton Ave St Louis 647-3444
NJ SKF Industries Inc, 20 Henry St Teterboro 736-9767
NY SKF Industries Inc, 4317 E Genesee St Syracuse 446-9090
NY SKF Industries, Inc, 2696 Sheridan Dr Buffalo 837-5244
NC SKF Industries Inc, 300 W 32nd St Charlotte 376-0795
Ohio SKF Industries Inc, 13426 Cedar Rd Cleveland 932-1340
Ohio SKF Industries Inc, 6115 Wiehe Rd Cincinnati 731-7117
Ohio SKF Industries Inc, 102 Shutrump Ct Youngstown 799-1561
Okla SKF Industries Inc, 4021 S Harvard Ave Tulsa 747-6420
Ore SKF Industries, 3205 NW Yeon Ave Portland 223-3167
Pa SKF Industries Inc, 9800 McKnight Rd Pittsburgh 931-2955
Tex SKF Industries Inc, 4101 San Jacinto St Houston 529-2164
Tex SKF Industries Inc, 2246-52 Vantage St Dallas 631-0831
Utah SKF Industries Inc, 445 E 2nd St, S Salt Lake City 359-4322
Wash SKF Industries Inc, 500 Wall St Seattle 624-4454
Wis SKF Industries Inc, 4730 W Fond du Lac Ave Milwaukee 442-5990

SKAN-A-MATIC CORP, 2-4 FENNELL ST, SKANEATELES N Y, 13152 . . . . . . 315 685-3473
M ALLEN, EMP 8, ENG 3, UP TO $100M
Ariz Coronado Elctns, 8134 E Granada Rd Scottsdale 602 947-9060
Ariz Sara Scientific Sales, 1740 University Ave Berkeley . . . . . . 415 GA 1-3172
Cal WEC Reps, 4301 Birch St Newport Beach 714 540-1963
Colo O'Brien Sales Agency, 2785 N Speer Blvd Denver 303 477-4713
Conn Abbott-Allison Co, Box 467 Meriden 203 237-9232
Fla Gra-Mar Inc, 3113 Lawton Rd Orlando 305 841-2330
Ill LeRoy J Osberg & Assoc, 1348 Rosita Dr Palatine . . . . . . 312 FL 8-3849
Md Renoff Assoc Inc, 333 E 25th St Baltimore . . . . . . 301 HO 7-3280
Mich Jack M Thorpe Co, 640 Hidden La Detroit 313 884-4360
Mo Maury E Bettis Co, 3706 Broadway Kansas City . . . . . . Telx 4-26146
NJ Renoff Assoc Inc, 333 E 25th St Baltimore . . . . . . 301 HO 7-3280
NJ H J Pyle Assoc, 35 Oak La Boonton 201 334-4274
NM A L S Elctns, 209 San Pablo S E Albuquerque 505 268-9600
NY L-Tron Corp, 2-4 Fennell St Skaneateles 315 685-6172
Ohio Walter J Brauer Assoc, Box 305 Wickliffe 216 943-0601
Pa Walter J Brauer Assoc, Box 8466 Pittsburg Pa 412 921-3213

S K G ASSOCIATES INC, 206 EUSTIS ST, BOSTON MASS, 02119 . . . . . . 617 442-3300
G CLAPP, EMP 20, ENG 3, $100-$250M
Mass First National Electronics, North Ave Wakefield 245-6240

SKINNER ELECTRIC VALVE DIV, 95 EDGEWOOD AVE NEW BRITAIN, CONN, 06050 . . . . . . 203 225-6421
E LISTRO, EMP 375
Cal Western Controls, 2630 Seaman Ave El Monte 443-9376
Cal J Dickson, 3232 Gough St San Francisco 885-2209
Ga R G Burkard, 2220 Randolph Ct NE Atlanta 233-9494
Ill Skinner Elec Valve Div, 1211 W 22nd St, Oakbrook
Md Rothenheber & Co Inc, 14211 Chesterfield Rd Rockville 929-3388
Mass R J Kelly, 400 Old Conn Path Framingham 536-1011
Mich C W Blessed, 323 Wimbleton Birmingham 564-5633
Minn R F Reierson, 3004 W 71st St, Minneapolis
NJ A Todres, 328 Georgian Dr, Paramus 227-2470
NY C W Bibler, 891 Monroe Ave Rochester 244-3180
Ohio W M Redman, Box 18093, Cincinnati 681-3405
Ohio R A Bowers, 35895 Solon Rd Chagrin Falls 391-8115
Pa Rothenheber & Co Inc, 53 Cricket Ave Ardmore 877-9090
Tex E A Wheeler, Box 20792, Dallas 352-3543
For Valadas LDA, Avenida D Carlos 1, 60-Lisbon-2
For Shurdut Ind Distributors Box 1499 300 Dasmarinas St Manila Phil 3-82-03
For Gonzalez Trading Inc, 903 Labra Ave Santurce PR 725-2060
For T H Zoebl, Maria Tersienstr 5, Vienna 9 . . . 72 53 91
Den Ditz Schweitzer Automation A/S Store Kongensgade 59, Copenhagen 15 00 57
Fr Societe HFT, 21 Rue Louis Blanc 92-- Courbevoie Paris
Ger Drumag gmbH, Druckluftgerate Glarnerstr 2 7880 Sackingen Rhein 2310
GB ARCA Controls, Ltd, Sisson Rd, Gloucester . . . 24901
Holl Skinner-Europa NV, Scherpdeel 30 Roosendaal . . . . . . 01650 - 35855
Holl NV Technische Handelmaatschappij Schiedamsedijk 57-59, Rotterdam 11 94-70
Ital Honeywell SpA, Via Vittor Pisani 13 Milan 62.45
Jap Japan Controls Co., Ltd 45 of 11, 1 Chome Akasaka Minato-Ku, Tokyo 584-4251
Nor Morgenstierne & Co AS, Wessels Gate 6 Box 2613 Oslo 20 16 35

SAfr West & du Toit (Pty) Ltd, Box 4299 Johannesburg 834-2351
Swed Stig Wahlstrom AB, Torsbygatan 30-38 Box 52 Farsta 1 Stockholm 94 03 00
Swit Tecalto A G, Dufourstr 153, 8034 Zurich .. 47 17 70
Belg La Dynamique Appliquee SA 21 Square de l'Aviation, Brussels 7 .... 22 59 02
Braz J Low-Beer SA Com E Ind Rua Treze De Maio 95-4, Sao Paulo 34-3144
Braz J Low-Beer SA Com E Ind Caixa Postal 4117-ZC-05 Rio De Janeiro 23-0382
Ind Bali Intl Agencies, Palton Rd Bombay 1-BR 264592
Isrl ZVI Blass, 39 Peretz St, Tel-Aviv 611 301
Mex Enterprise SA, Rodniquez Saro No 424 Mexico 12 .... 34 60 20
NZ Boustead Wood (N Z) Ltd, Box 2451, Auckland
NZ Boustead Wood (N Z) Ltd, Box 2738 Wellington 52-817
Spn Technologica de Automacion Tecusa Ave del Gen Franco 354, Barcelona
Aust Boustead Wood Pty Ltd, 407 City Rd South Melbourne Vic 69 7501
Aust Boustead Wood Pty Ltd, 608 Harris St Ultimo Sydney NSW 211-1145

SKINNER POLYNOID DIV, 95 EDGEWOOD AVE
NEW BRITAIN, CONN, 06050 .... 203 225-6421
B WHITE, EMP 375
Cal Minarik Electric Co, 224 E 3rd St Los Angeles 624-3161
Cal J Dickson, 3232 Gough St San Francisco 885-2209
Ga R G Burkard, 2220 Randolph Ct NE Atlanta 233-9494
Ill Skinner Polynoid Div, 1211 W 22nd St, Oakbrook
Md Rothenheber & Co Inc, 14211 Chesterfield Rd Rockville 929-3388
Mass R J Kelly, 400 Old Conn Path Framingham 536-1011
Mich C W Blessed, 323 Wimbleton Birmingham 564-5633
Minn R F Reierson, 3004 W 71st St, Minneapolis
NJ A Todres, 328 Georgian Dr, Paramus 227-2470
NY C W Bibler, 891 Monroe Ave Rochester 244-3180
Ohio W M Redman, Box 18093, Cincinnati 681-3405
Ohio R A Bowers, 35895 Solon Rd Chagrin Falls 391-8115
Pa Rothenheber & Co Inc, 53 Cricket Ave Ardmore 877-9090
Tex E A Wheeler, Box 20792, Dallas 352-3543
Holl Skinner Europa NV, Scherpdeel 30 Roosendaal .... 01650 - 35855

SKOTTIE ELECTRONICS INC, LINE ST, ARCHBALD
PA, 18403, TWX 510-656-2979 .... 717 876-1686
R ALDANA, EMP 175, ENG 4, $1,000-$2,500M
Ariz Carl Hower & Co, Box 1627 Scottsdale 602 947-4204
Cal John Penwarden & Assoc, 14547 Titus St Van Nuys 213 782-4920
Cal Winco Sales, Box 881 Mountain View 415 961-8510
Colo Gossard & Assoc, 12159 W Dakota Dr Denver 303 985-0602
Ga F C Nickerson Co, 1244 Clairmont Ave Decatur 404 377-1575
Ill Mr Mac Sales Co, 4740 N Austin Ave Chicago 312 545-1033
Ind Needler Sales Co, Sta C, Box 2407 Fort Wayne 744-5226
Md Bemar Assoc, 120 Derwood Cir Rockville 301 762-8880
Mass A&M Electronics Reps, 1492 Highland Ave Needham 617 444-8170
Mich R S Lohmann Co, 21501 W 7 Mile Rd Detroit 535-6144
Minn Mark Sales Co, 3100 Humbolt Ave S Minneapolis 612 825-0911
Mo Kelly Schmitz Winkeler Assoc, 7546 Troost Ave Kansas City 816 363-5651
NJ J Gordon, 628 W Englewood Ave Teaneck 836-3876
NY Naylor Electric Co, 1718 Erie Blvd Syracuse 472-9183
NY Henry J Abbott, 3939 Wicks Ave Seaford 781-5256
Ohio Midwest Mktg Assoc, 137 Lakeview Dr Dayton 433-2511
Pa Lewis Slobin & Co, 2305 Fairmont Ave Phila 215 236-2072
Tex Charles Hoffman Assoc, 777 S Central Expwy Richardson 214 235-3600
Va Electronic Specialties Co, Box 102 Montross 703 493-5611

SKURKA ENGINEERING CO, 4002 N MISSION RD
LOS ANGELES, CAL, 90032 .... 213 CA 1-6113
W STOCKSTILL, EMP 75, ENG 3, $500-$1,000M

SKYDYNE INC, RIVER RD, PORT JERVIS
N Y, 12771, TWX 510-260-1249 .... 914 856-5241
W MACCALLUM, EMP 200, ENG 15
Ala Tech Marketing Inc, Box 1001 Huntsville 534-2487
Ariz Runyon Co, 6825 E Thomas, Scottsdale 947-5711
Cal Westec Electronics Inc, 504 Main St El Segundo 322-1561
Cal Westec Electronics, 110 First St Los Altos 948-8880
Colo Crump Co, 2785 N Speer Blvd, Denver 433-6485
Colo Crump Co, 2785 N Speer Blvd, Denver 433-6485

Conn John E Boeing Co, Box 151, Branford 488-8301
Fla Technical Mktg Inc, 1511 E Robinson Orlando 424-8531
Ill Edward Magnuson Co, 3347 W Irving Park Rd Chicago .... JU 8-2613
Kan Thunderbird Eng Sls & Serv, 4014A W 95th St Prairie Village
Md Moler-Eader Assoc, 320 Hillen Rd Baltimore 825-1130
Mass J E Boeing Co Inc, 18 Muzzy St Lexington 862-2500
Mich Satullo Co, 4514 N Woodward Royal Oak .... JO 6-2375
Mo Thunderbird Eng Sls Serv Inc, 400 Brookes Dr Hazelwood .... PE 1-4343
NJ L McFadden, 4 Rever Dr, Florham Park 377-6014
NY Frank W Taylor Co, 4455 E Genesee St DeWitt 446-0422
NC Technical Marketing Inc, Box 6664 Greensboro 274-2570
Ohio Satullo Co, 16801 Euclid Ave Cleveland .... IV 6-2800
Pa Moler-Eader Assoc, Box 240 Haddonfield, NJ 428-2440
Tex Dyna-Reps, 200 S Grants La Fort Worth .... PE 2-6621
Wash Seatronics Inc, 5931 4th Ave S Seattle .... PA 5-4328

SKYLINE PRODUCTS INC, 8190 GRAND BLVD
DEER PARK, N Y, 11729 .... 516 667-8644
M HERBERG, EMP 70, ENG 1, $500-$1,000M
Cal L Shaffer, 8618 S Aviation Blvd Inglewood 678-2755

SKYWAY MAGNETICS, 637 ISIS AVE, INGLEWOOD
CAL, 90301 .... 213 678-6959
J GRUDZIADZ, EMP 15, ENG 2, UP TO $100M

SLATER ELECTRIC INC, 45 SEA CLIFF AVE, GLEN COVE
N Y, 11542 .... 516 OR 1-7000
H HEBOW, EMP 400, ENG 20, $5,000-$10,000M
Ariz J Berman Co, 2101 W Shangri La Rd Phoenix 602 944-3361
Cal J Berman Co, 1751 La Cienega Blvd Los Angeles .... 213 UP 0-4711
Fla Willet-Birnside Co, 1837 Oak Lake Dr Clearwater 446-0075
Ga K & E Assoc, 1244 Atlanta Rd Marietta 428-4311
Ill Actronics Sales Engrg, 4750 N Milwaukee Ave Chicago 312 286-1037
Mich R S Lohmann Co, 21501 W 7 Mile Rd Detroit 535-6144
Minn Cullen & Assoc, 1595 Selby Ave St Paul 646-7371
NY B D Hummel Co, 2224 Maynard Ave Utica 315 736-7821
NY J Kahgan Sales Corp, 1261 Broadway New York .... 212 MU 4-7772
Ohio Gibson Elctns, 2801 Far Hills Ave Dayton 513 298-7683
Pa Danco Corp, Box 245 Fairview Village 215 275-2600
Can Dart Corp, 11 Flaxman Rd, Weston, Ont

SLAUGHTER CO, MOORE & HAILEY STS, ARDMORE
OKLA, 73401, TWX 910-830-6972 .... 405 223-4773

SLEPIAN & CO, ARTHUR, BOX 2127, NOBLE STA
BRIDGEPORT, CONN, 06608 .... 203 366-5294
M MADOW, EMP 5, ENG 1, UP TO $100M

SLIDING MECHANISMS INC, 2339 N GREENVIEW
CHICAGO, ILL, 60614 .... 312 477-9100
H KOBITTER, EMP 21, ENG 2, $500-$1,000M
Cal E V Roberts & Assoc, Inc, 9601 W Jefferson Blvd Culver City
Cal Cal Tronix, Inc, 344 Martin Ave, Santa Clara
Fla Don Kirkwood Assoc, Inc, 1701 Pinellas Point Dr St Petersburg
Ill Leo Rusz, 7740 W Ardmore, Chicago
Mass Wm Connors, North Abington
NJ O P M Corp, R D 1, Box 501, Belmar
NJ P B Leary, 72 Hawthorne La, Willingboro
NJ J Onore, 555 Winchester Ave, Union
NY Frank Tylinski Co, 338 Northern Blvd, Great Neck
NY George L Ziff Co, R F D 2, Cazenovia
NY John L Toole, 1045 Park Ave, New York
NC Robert E Lee, Bethania
Tex R C Lamb Co, 2646 Andjon Dr, Dallas
Can Sterling Aircraft Prod, 65 Martin Ross Rd Downsview, Ont
Fr La Glissiere Mecanique, 67 Ave de la Republique St-Maur Val de Marne Paris 16 .... 225-37 69

SLOAN CO, 7704 SAN FERNANDO RD, SUN VALLEY
CAL, 91353 .... 213 875-1123
H MONTGOMERY, EMP 25, ENG 1
Ariz Mercury Engrg Sales, Box 3130 Scottsdale 602 945-1927
Cal Carter & Rossney Inc, 2600 W Olive Ave Burbank 213 843-3292
Cal R A Banks Sales Corp, 1029 Corporation Way Palo Alto 415 964-4464
Colo Electronic Sales, Inc, 995 S Claremont 302, Denver
Colo Electronic Sales Inc, 2340 W Main St Littleton 303 798-8575
Conn Com/Pak, 104 Apple Hill Wethersfield 203 563-4784

Ga V Avis McCorvey Co, 2187 Briarcliffe Rd NE Atlanta 404 636-2502
Ill Engineered Sales Co, Inc, 4738 N Harlem Ave Chicago 312 867-8434
Kan Florence & Meyer Inc, 2900 Woodland Wichita 316 838-7226
La The Texport Co, 411 S Murat New Orleans 504 486-6810
Md Biechler Assoc, 7353 Yorktowne Dr Baltimore 301 825-8222
Md Biechler Assoc, 822 Baltimore Rd Rockville 301 762-6210
Mass COM/PAK, 14 Oak St, Needham 617 444-1259
Minn E C Electronic Sales, 10108 Abbott Ave S Minneapolis 612 888-4626
Mo Florence & Meyer, Inc, 406 W 34th St Kansas City 816 561-7282
NY Ed Glass Assoc, 250 W 57th St New York 212 586-8440
NY R R Overs Assoc, 2671 Main St York (Livingston Co) 716 245-5693
Ohio M Roth Sales Co Inc, 678 S Green Rd Cleveland 216 382-9090
Pa Biechler Assoc, Box 38 Millersville 717 872-2793
Tenn Texport Co, 5118 Park Ave Memphis 901 363-4160
Tex Texport Co, 2411 Farrington St Dallas 214 631-6270
Tex Texport Co, 8811 Gaylord St Houston 713 464-2828
Utah Electronic Sales Inc, 4480 Camille Dr Salt Lake City 801 278-6044
Wash D Miller Sales, 2323 N 45th St Seattle 206 632-7070
Can Whittaker Electronics, Ltd, Box 216 Roxboro 514 683-3621
Can Whittaker Electronics Ltd, 1885 Wilson Ave Weston, Ont 416 247-7454
Can Whittaker Electronics, Ltd, 42 Howden Ave Ottawa Ont 613 244-1221
Fr Ets Russenberger, 34 Ru de Paradis Paris 770-58-43
GB Sloan Components Ltd, London Rd Rake Liss Hampshire .... Liss 3418
Swit Sloan AG, CH 4000 Basel 5 Claragraben 39 .... 061 33-1354

SLOAN INSTRUMENTS CORP, BOX 4608
SANTA BARBARA, CAL, 93103 .... 805 963-4431
W MILLER, EMP 65, ENG 15, $1,000-$2,500M
Cal Carl Herrmann Assoc, Box 1179 Palo Alto 322-4561
Cal Carl Herrmann Assoc, 1245 E Walnut St Pasadena .... MU 1-5111
Colo O'Brien Sales Agency, 2785 N Speer Blvd Denver 303 477-4713
Ga W L Schoonover Co, 6427 Roswell Rd Atlanta 255-0761
Ill Byron Ellis Assoc, 6242 N Kenmore Ave Chicago 312 262-2159
Ind Tech Sales & Marketing, 1121 N Arlington Ave Indianapolis 356-3658
Mass Industrial Equip & Sales, 84 State St Boston 227-0838
Mich Kurt J Lesker Co, 2281 W Grand Blvd Detroit 542-9938
NY Sloan Instr Corp, Box 5312, Albany .. 518 869-3866
NY Sloan Instr Corp, Box 912, New York 757-9656
Pa Kurt J Lesker Co, 5635 Horning Rd Pittsburgh 892-2996
Pa Tyler Griffin Co, 46 Darby Rd Paoli 215 647-1550
RI Industrial Equip & Sales, 106 Beach St N Kingstown 294-9033
Wash Cane-Jessup Co, Box 250 Bellevue 206 454-0691
Can Instronics Ltd, Box 100, Stittsville, Ont 836-4411
Fr J P Achard, Rue du Docteur Roux St Martin d' Heres (Grenoble)
Ger Dr Sevogt & Co, Schliessfach 59 Trifthofstr Weilheim OBB
Ger Hans-Georg Zell, Weissbirkenkamp 31 2 Hamburg 64
GB Epak Assoc, 73 Cherry Orchard Rd Croydon CR9 6AH
Holl Instrumentenhandel Utrecht, Alb Perkstraat 6 Hilversum
Ital G Gorgatti, Via Borromei 5, Milan
Jap Japan Vacuum Eng Co Ltd 1 1-Chome Kyobashi Chuo-Ku, Tokyo
Swed Eric Ferner AB, Box 56, Bromma
Swed Vacuum World-Europa N V Bldg 67-Schiphol Arprt E, Amsterdam 793-377
Swit W Stolz, 8967 Widen, Dorngasse 311
Isrl Landseas (Israel) Ltd, 29 Bezalel St, Tel Aviv

SLOCUM INDUSTRIES, INC, BOX 687, RESEDA
CAL, 91335 .... 213 345-8544
R SLOCUM, EMP 15, ENG 3, $250-$500M

SMALL MOTORS INC SUB SIGMA INSTR INC
2076 ELSTON AVE, CHICAGO
ILL, 60614 312-276-6900
F COOK, EMP 40, ENG 3, $500-$1,000M
Ariz Toward Engrg Assoc, Box 15268 Aracdia Sta Phoenix 602-955-3193
Cal McCarthy-Kelly & Assoc, 279 N Bay Shore Blvd San Mateo 415-DI 2-8351
Cal Penwarden Assoc, 14547 Titus St Van Nuys 213-782-4920
Colo Williams Assoc, 4971 Jackson St Denver 303-388-4391
Conn Sigma Instr Inc, 75 Boylston St Milford 203-777-5593

Fla Estes Assoc, 629 N Lake Barton Rd
Orlando 305-277-1510
Ga Estes Assoc, 533 Decatur Fed Bldg
Decatur 404-373-8266
Ill Sigma Instr Inc, 3158 Des Plaines Ave
Des Plaines 312-296-5595
Ind Leslie M DeVoe Co, 4010 Washington Blvd
Indianapolis 317-283-1395
Kan Technical Mktg Assoc, 5827 Outlook
Mission 913-831-2888
Md Aeron Assoc, 880 Bonifant St
Silver Spring 301-588-4047
Mass Sigma Instr Inc, 170 Pearl St
Braintree 617-843-5000
Mich W R Hummon & Assoc, Box 501
Farmington 313-474-0661
Minn Rhode Electronic Sales, 2510 E 7th Ave
St Paul 612-777-8197
Mo Technical Mktg Assoc, 2050 Woodson Rd
St Louis 314-427-3600
NJ Sigma Instru Inc, 299 Forest Ave
Paramus 201-262-6800
NJ Sigma Instr Inc, 1864 E Marlton Pike
Cherry Hill 609-795-0505
NM Williams Assoc, 420 Washington St SE
Albuquerque 505-255-1638
NY H C Johnson Agencies Inc, 111 Mt Hope Ave
Rochester 716-232-2688
NY H C Johnson Agencies Inc, 8 Los Robles St
Williamsville 716-632-7880
NY H C Johnson Agencies Inc, Box 215
Fayetteville 315-637-9595
NC D G W Inc, 3389 Nottingham Rd
Winston-Salem 919-723-4205
NC D G W Inc, 1321 E Morehead St
Charlotte 704-334-7090
Ohio Jack C Hofstetter Co, 742 Kenbridge Dr
Cleveland 216-449-0944
Ohio Jack C Hofstetter Co, 3605 N Dixie Dr
Dayton 513-278-6721
Ore Seatronics Inc, 6415 S W Canyon Ct
Portland 503-292-8887
Tex P J Scanlon Co, 724 S Sherman St
Richardson 214-231-4661
Utah Williams Assoc, 2461 S Main St
Salt Lake City 801-466-8709
Wash Seatronics Inc, 5931 4th Ave S
Seattle 206-725-4328
W Va Talisman Co, Box 8702
South Charleston 304-346-9862

SMALLWOOD LTD, S G, 391-97 KING ST E
KITCHENER, ONT 519 745-9583
S SMALLWOOD, EMP 120, ENG 3

SMITHS INDUSTRIES NORTH AMERICA LTD
172-76 BAISLEY BLVD, JAMAICA
N Y, 11434 .... 212 528-1900
M RANT, EMP 70, ENG 3, $500-$1,000M

SMITH INC, HERMAN H, 812 SNEDIKER AVE
BROOKLYN, N Y, 11207 .... 212 272-9400
S FLEISCHMAN, EMP 200, ENG 2, $2,500-$5,000M
Ala Morris F Taylor Co, 2328 3rd Way NE
Birmingham 853-3673
Cal E E Strassner Co, 3121 Los Feliz Blvd
Hollywood 666-1511
Colo Koether-Cox, 1327 S Inca St, Denver 733-5561
Haw Earl Assoc, 1638 Kona St, Honolulu 996-953
Ill McBride Sales Co, 6054 Touhy Ave
Chicago 775-1080
Ind Schroeder & Loomis, 714 E 65 St
Indianapolis 251-4571
Mass Coakley/Boyd/Abbett, Inc, 1424 Highland Ave
Needham
Mich Shalco, Inc, 23529 Woodward Ave
Ferndale 232-1514
Minn Clark R Gibb Co, 1311 W 25 St, Mnpls 377-1200
Mo Lowell Kangas Assoc, Box 26 Creve Coeur Sta
St Louis .... MI 7-1111
NY Jack Brown Assoc, 207 Rosedale Rd
Yonkers 779-7330
Ohio Neal Bear Corp, 3435 Shreetsboro Rd
W Richfield 659-3331
Pa Nebco Assoc, 1974 Gregory Ave
Monroeville 824-2111
Tex J McKinney Sales Co, 1303 Chemical St
Dallas 631-9450
Can Atlas Radio Ltd, 50 Wingold Hwy
Toronto .... RU 1-6174

SMITHS INDUSTRIES LTD, AVIATION DIV
WEMBLEY PARK DR, WEMBLEY, MDSX
ENGLAND 01 452-3333
D JOHNSON, EMP 5000, ENG 800

SMOOTH-ON INC, 1000 VALLEY RD, GILLETTE
N J, 07933 .... 201 647-5800
J TOMPKINS, EMP 35, ENG 3

SMYTH RESEARCH ASSOCIATES, 3555 AERO COURT
SAN DIEGO, CAL, 92123 .... 714 277-0543
D TURLEY, EMP 60, ENG 35, $500-$1,000M

SNYDER MFG CO, STOKLEY & WESTMORELAND
PHILADELPHIA, PA, 19129 .... 215 BA 8-3000
R MORRIS, EMP 300, OVER $10,000M

SODERBERG MFG CO INC, 628 S PALM AVE
ALHAMBRA, CAL, 91803 .... 213 283-3382
D SNOW, EMP 60, ENG 4, $500-$1,000M
Cal Collbran & Co, 25 California, San Francisco
Wash Norwest Co, 1818 Westlake N
Seattle .... ME 3-3232
Can Leonard Electric Ltd, 1008 Rangeview Rd
Port Credit, Ont 274-3454
For Aviation Sales Corp, 125-12 84th Rd
Kew Gardens, NY 441-3100

SODILEC SA SALIES-S A, 65 AVE JEAN JAURES
91 PALAISEAU, FRANCE, TWX 62 718 920-40-10
R SALIES, EMP 100, ENG 8, $1,000-$2,500M

SOLA-BASIC INDUSTRIES, 111 E WISCONSIN AVE
MILWAUKEE, WIS, 53201 .... 414 276-1480
J HOSLER, EMP 3500, ENG 200, OVER $10,000M

SOLA ELECTRIC DIV SOLA BASIC INDUSTRIES
1717 BUSSE RD, ELK GROVE VILLAGE
ILL, 60007, TWX 2-53395 .... 312 HE 9-2800
R KAYE, EMP 650, OVER $10,000M
Ark D Bellew Sales Co, 1005 W 4th St
El Dorado .... UN 3-8325
Cal Sola Electric, 4701 Eagle Rock Blvd
Los Angeles 254-9233
Colo Electronic Components Sales, 2340 W Main St
Littleton 798-8481
Fla Millar-Hutto Assoc, 501 Park Ave, Winter Park
Ga Millar-Hutto Assoc, 3110 Maple Dr NE
Atlanta 261-6160
Kan Halgin Sales, Box 1245, Mission .... RA 2-2441
Md Towson Eng Sales Serv Co, 1931 Greenspring Dr
Timonium 252-5610
Mass Sola Electric, Box 36
Needham Heights 444-8280
Mich R C Merchant & Co Inc, 18411 W McNichols Rd
Detroit 535-6000
Mo Halgin Sales, 201 S Central St
Clayton .... PA 1-4415
NJ Sola Electric, 111 Charlotte Pl
Englewood Cliffs 567-3880
NJ Sola Electric, 232 Kings Hwy E
Haddonfield 428-2311
NM Electronic Components Sales, Inc, Box 3087, Sta D
Albuquerque 256-3663
NY Harries & Kershaw, 15 Canterbury La
East Aurora 652-1221
NC Millar-Hutto Assoc, North Hills Off Mall
Raleigh 787-9564
Ohio Sola Electric, 14235 Detroit Ave
Cleveland .... LA 1-8038
Tex Robert E Nesbitt Co, 2930 Merrell Rd
Dallas .... FL 7-4601
Wash Northwestern Agencies Inc, 4130 1st Ave S
Seattle .... MA 3-8882
Wis W M Braun, 5401 N Hollywood Ave
Milwaukee .... ED 2-1040
Can Sola-Basic Products Ltd, 377 Evans Ave
Toronto, Ont 255-0141
For Sola Basic Ind Intl Div, 111 E Wisconsin
Milwaukee .... BR 6-1480

SOLAR ELECTRONICS CO, 901 N HIGHLAND AVE
HOLLYWOOD, CAL, 90038 .... 213 462-0806
A PARKER, EMP 16, ENG 4, $100-$250M
Cal Bill Coe Assoc, 75 Northam Ave, San Carlos

SOLAREX MFG CO INC, 9 LUCON DR, DEER PARK
N Y, 11729 .... 516 586-1200
I CRIMI, EMP 25, ENG 1, $250-$500M
For Export Research Mktg Inc, 52 Broadway
New York N Y

SOLARI & C/UDINE, VIA CHIUSAFORTE 4, UDINE
ITALY, 33100, TWX 46155 0432-54551
EMP 410, ENG 20
NY Solari America Inc, 60 E 42nd St
New Yrok 212 986-1684
Ital Solari, Via P Sapri 7, Roma 06 482386
Ital Solari, Via Visconti di Modrone 19
Milano 02 795445

SOLAR MFG CORP, 4553 SEVILLE AVE, LOS ANGELES
CAL, 90058 .... 213 583-1411
E HULING, EMP 350, ENG 12, $2,500-$5,000M
Ill Paul Hotchkiss, 5811 W Montrose Ave
Chicago 725-1366
Ind Solar Mfg Corp, 219 W 4th St
Bloomington 339-1680
Mich Solar Mfg Corp, Rt 1 Box 225
Bloomingdale .... LA 1-7732
NJ Laux Assoc, 332 Springfield Ave
Summit .... CR 3-8350
NY Saftler Assoc, 157 W 57th St
New York .... CI 7-3855

SOLAR RESEARCH CORP, BOX 23130
OAKLAND PARK, FLA, 33307

SOLAR SYSTEMS DIV TYCO, 8241 N KIMBALL AVE
SKOKIE
ILL, 60078, TWX 910-223-3642 .... 312 676-2040
R BACHNER, EMP 46, ENG 3, $500-$1,000M

SOLIDSTATE CONTROLS INC
600 OAKLAND PARK AVE, COLUMBUS
OHIO, 43214 .... 614 263-1886
J HOLSCHER, EMP 60, ENG 11, $500-$1,000M
Ark Gregory-Salisbury, Inc, 500 E Markham, Little Rock
Cal Garland Affolter Engrg Corp, 417 S Hill St
Los Angeles 624-1864
Cal Garland Affolter Engrg Corp,, 58 Sutter St
San Francisco .... EX 7-1800
Colo Peterson Co, 4949 Colorado Blvd
Denver 802 388-6322
Fla Ed Sandin & Assoc, 1640 Orange Ave
Winter Park 305 647-4496
Ga Automatic Controls, 313 Techwood Dr, N W
Atlanta 522-3656
La Gregory-Salisbury Co, 805 S Front St
New Orleans 524-5207
La Gregory-Salisbury, Inc, Box 1126, Baton Rouge
Mich Measurement Instruments Inc, 14217 Michigan Ave
Dearborn 313 278-4744
Minn Electrical Jobbers Equip Inc, 1120 Glenwood Ave
Minneapolis 612 377-7904
Miss Gregory-Salisbury, Inc, 350 North Mart Plaza
Jackson
Mo E H Boyer Assoc, 5460 Highland Park Dr
St Louis .... 314 JE 1-2115
Neb C R Bangh, 14th & Farnam St, Omaha 341-4232
NM Babcock & Wilcox De Mex S A De D V
Apartado 416 , Mexico 1, D F
NY W S Stamp, 127 S Long St, Buffalo 875-9003
NY M J Fein & Co Inc, Harwood Bldg
Scarsdale .... 914 GR 2-1100
NC A C Controls Co, Inc, 812 Seigle Ave
Charlotte 377-2715
Ohio Measurement Instr Co, 2074 Arlington Ave
Columbus 488-9753
Ohio Measurement Instruments Inc, 19115 Detroit Rd
Rocky River 216 333-6611
Ohio Measurement Instruments Inc, 338 Ridgeway
Cincinnati 513 531-2729
Okla Dave Allert Co, Box 7351, Tulsa 918 743-7705
Ore Carlson Sales Inc, 1521 SW Salmon
Portland 503 228-1341
Pa Measurement Instr Co, 908 Perry Hwy
Pittsburgh 793-0202
Pa Systems Control Assoc, 10 S Orange St
Media 215 565-2077
Tenn Gregory-Salisbury, Inc, 240 S Pkwy E, Memphis
Tex Pan-Tech Engrg Co, Box 22491
Houston .... MO 6-0248
Tex H Markowitz Assoc, Box 191, El Paso 532-4852
Utah Peterson Co, 521 W 4th N
Salt Lake City 801 355-7464
Va Engineering Equip Co, 8536 Patterson Ave
Richmond 282-4258
Wash Carlson Sales Inc, 1201 Dexter Ave, N
Seattle .... AT 4-4630

SOLID STATE ELECTRONICS CORP, 15321 RAYEN ST
SEPULVEDA, CAL, 91343 .... 213 894-2271
E POLITI, EMP 20, ENG 3
Cal Garner Laine Inc, Box 31338
San Francisco .... AT 5-3475
Ill PGM Component Sales, 5642 W Diversey
Chicago 622-8183
Mass Saunders & Co, 53 Everett St, Waltham
Pa W F Assoc, Broad & Chestnut Sts
Phila .... KI 6-4121
Tex J Y Schoonmaker Co Inc, 5328 Redfield Ave
Dallas .... ME 1-8484
Den Intelec Aktieselskab, Holbergsgade 14
Copenhagen K
Fr Ets Radiophon, 148 Ave Malakoff, Paris 16e-
Jap Overseas Technical Corp, CPO 2137, Tokyo
Isrl Palec Ltd, 7 Harishonim St, Ramat-Gan
Neth Ingenieursbureau Arquatron NV, Willemstr 25, Breda

SOLID STATE EQUIPMENT CORP, 4343 E RIVER DR
PHILADELPHIA, PA, 19129 .... 215 844-3501
H BATEMAN, EMP 10, ENG 4, $500-$1,000M
Cal F H Bower, 424 Waverley St
Palo Alto 415 325-2240

SOLID STATE PRODUCTS CO, 1 PINGREE ST, SALEM
MASS, 01970, TWX 710-347-0226 .... 617 745-2900
A MULICA, EMP 315, ENG 50
Ariz Hecht-Henschen Assoc, 3825 N 39th Ave
Phoenix 272-6677
Ariz Carter Assoc, Box 99, Scottsdale 602 947-4355
Cal Gene C Woempner Co, 821 Malcolm Rd
Burlingame 697-5131
Cal Black & Strong, 1728 S Lacienega Blvd
Los Angeles 213 870-9191
Cal Black & Strong Inc, 444 Olive St
San Diego 714 298-4711
Colo Simpson Assoc, 8000 S Kendall Blvd
Littleton 303 798-8439
Conn Kitchen & Kutchin, 22 Broadway
North Haven 203 239-0212
Fla Perrott Assoc, 1607 Forsyth Rd
Orlando 305 275-1132
Fla Perrott Assoc, 1381 Lime St
Clearwater 813 446-2535
Fla Perrott Assoc, 7515 W Lake Dr
W Palm Beach 305 967-1770
Ill Carlson Elctn Sales Co, 7448 N Harlem, Chicago
Md J R Daniel & Co, 6 E Pennsylvania Ave
Towson 301 825-3330
Mass Kitchen & Kutchin, 17 Waltham St
Lexington 617 862-8230
Mich Elko Sales Corp, 3119 Midland Dr SE
Grand Rapids 616 949-1451
Minn S Clothier Co, 10 W 58th St
Minneapolis 825-5945

Mo Technical Mktg Assoc, 2050 Woodson Rd
St Louis 314 427-3600
Mo Technical Mktg Assoc, 7546 Troost
Kansas City .... 816 JA 3-7865
NY Bob Dean Inc, 714 W Clinton St, Ithaca .. 272-2187
NY Technical Electronics, 730 Clifton Ave
Clifton 741-2640
NC Bill Henry Assoc, Box 6097, Charlotte ... FR 5-8958
Ohio Gibson Electronic Mktg Co, 2801 Far Hills Ave
Dayton 298-7683
Ohio Gibson Electronics Mktg Co, 2643 E Streetsboro Rd
Hudson 653-2900
Pa J R Daniel & Co, 231 S Easton Rd
Glenside 215 887-0550
Tex Carter Assoc, Box 87, Garland 214 276-7151
Wash Ray Johnston Co Inc, 1011 E 69th St
Seattle .... LA 4-5170
Wis Arthur Engineering Sales Co, 11216 W Mallory
Hales Corners .... GA 5-5919
Can Anbak Sales Canada Ltd, Ile Perrot Sud
Que 514 453-6375
Can Anbak Sales Canada Ltd, 3208 Lenworth Dr
Cooksville Ont 416 625-1061
For Dage Corp, 757 Main St
Stamford, Conn 203 324-3123

SOLID STATE RADIATIONS INC
2261 S CARMELINA AVE, LOS ANGELES
CAL, 90064 .... 213 478-0557
F ZIEMBA, EMP 28, ENG 11, $500-$1,000M
Ital DISI Nuclear Corp, Via Lunigiana 40, Milan
Jap Marubeni-Iida Co Ltd, Box 595 CPO, Tokyo
Aust A A Guthrie Pty Ltd, 16 Meeks Rd
Marrickville, NSW

SOLID STATE RESEARCH CORP, 640 COORS RD S W
ALBUQUERQUE
N M, 87105, TWX 910-989-1173 .... 505 242-2721
E HOLLEY, EMP 60, ENG 5

SOLITRON DEVICES INC, 256 OAK TREE RD, TAPPAN
NY, 10983, TWX 710-576-2654 .... 914 359-5050
R RUBIN, EMP 800, ENG 57, OVER $10,000M
Ariz Barnhill Assoc, 4900 E Indian School Rd
Phoenix 602 959-2115
Cal Leddy Assoc, 1319 Howard Ave
Burlingame 415 347-5247
Colo Barnhill Assoc, 1170 S Sheridan Blvd
Denver 303 934-5505
Fla Conley-May Assoc Inc, Box 668
Oviedo 305 365-3284
Ill Solitron Devices Inc, 2720 Des Plaines Ave
Des Plaines 312 824-8127
Ill Fiat Engineering Assoc, 5133 St Charles Rd
Bellwood 312 547-6200
Iowa Jack Fitch, 1310 Hertz Dr SE
Cedar Rapids 364-4342
Kan Penzner Assoc, 5600 E 95th St
Overland Park 913 381-0004
Md Jerry Bresson Assoc, 511 N Charles St
Baltimore .... MU 5-0100
Mass Solitron Devices, Inc, 52 Pickering St
Needham 444-1152
Mass Circuit Sales, 591 North Ave, Wakefield .. 245-5320
Mich HVA Co, Box 1204, Berkley 313 549-1160
Minn Rhode Electronic Sales, 2510 E 7th Ave
St Paul 777-8197
NY S-J Sales Assoc, 148-05 Archer Ave
Jamaica 291-3232
NY Nycom, Inc, 2002 Teall Ave, Syracuse 437-8343
NC Mechtonics Sales Inc, 619-A South 3rd St
Smithfield 919 934-3189
Ohio Whelan Corp, 2975 Far Hills Ave
Dayton 298-9997
Ohio Whelan Corp, 8323 Ceader Rd
Chesterland 298-9997
Pa Jerry Bresson Assoc, 107 Forrest Ave
Narberth 839-6770
Tex W Pat Fralia Co, 6100 Camp Bowie Blvd
Ft Worth 738-2394
Can Cantronics Ltd, 17 Dellbank Rd
Downsview, Ont 492-1341
Can Cantronics, Ltd, 4252 Braille Ave, Montreal, P Q
Fr Young Electronic, 11 Rue Roquepine
Paris 8e 265-85-00
Ger Neumuller & Co GmbH, Schraudolphstr 2A
8 Munchen 13 .... 29 97 24
Ital Sisram, Corso Matteotti 55
10121 Torino 54-78-04
Swed Integrerad Elektronik AB, Skeppargatan 3
Stockholm 634320
Swit Industrade AG, 8021 Zurich 26-78-08
Isrl Telsys Ltd Engr Co, Box 10034, Tel Aviv

SOLITRON DEVICES INC TRANSISTOR DIV
1177 BLUE HERON BLVD, RIVIERA BEACH
FLA, 33404, TWX 510-952-6670 .... 305 848-4311
R SCHOONOVER, EMP 722, ENG 50, OVER $10,000M
Ala 20th Century Mktg Inc, 902 Bob Wallace Ave SW
Huntsville 205 536-1596
Ariz Barnhill Assoc, 4900 E Indian School Rd
Phoenix 602 959-2115
Cal J B Leddy, 1319 Howard Ave
Burlingame 415 347-5247
Cal Solitron Devices Inc, 4014 Long Beach Blvd
Long Beach 213 426-0331
Colo Barnhill Assoc, 1170 S Sheridan Blvd
Denver 303 934-5505
Fla Conley May Assoc, Box 668
Oviedo 305 365-3283
Ill Solitron Devices Inc, 2720 Des Plaines Ave
Des Plains 312 824-8127
Ill Fiat Engineering, 5133 St Charles Rd
Bellwood 312 547-6200

Iowa Fitch Elctn Sales, 1310 Hertz Dr SE
Cedar Rapids 319 364-7966
Kan Penzner Assoc, 5600 W 95th St
Overland Park .... 913 DU 1-0004
Md Jerry Bresson Assoc, 511 N Charles St
Baltimore .... MU 5-0100
Md Solitron Devices Inc, 2 Craine Hwy N
Glen Burnie 301 761-5050
Mass Solitron New England, 52 Pickering St
Needham 617 444-1152
Mass Circuit Sales Co, 591 North Ave
Wakefield 245-5320
Mich The Hartwick Co, Box 1204
Berkley 313 549-1160
Minn Rhode Electronic Sales, 2510 E 7th Ave
St Paul 777-8197
Mo Penzner Assoc, 5540 Idaho Ave, St Louis
NM Barnhill Assoc, 6101 Anderson St SE
Albuquerque 505 265-7766
NY S-J Sales Assoc, 148-05 Archer Ave
Jamaica .... 212 AX 1-3232
NY Nycom Inc, 2002 Teall Ave
Syracuse 315 437-8343
NC Mechtronics Sales Inc, 619 A S 3rd
Smithfield 919 934-3189
Ohio Whelan Corp, 8323 Cedar Rd
Chesterland 442-8340
Ohio Whelan Corp, 2975 Far Hills Ave
Dayton 298-9997
Ore Ron Arneson Assoc, 200 NE Canyon Rd
Beaverton 503 646-3416
Pa Jerry Bresson Assoc, 107 Forrest Ave
Narberth .... TE 9-6770
SC Mechtronics Sales Inc, 619A S 3rd
Smithfield 919 934-3189
Tex W Pat Fralia Co, 6100 Camp Bowie Blvd
Fort Worth 738-2394
Wash Ron Arneson Assoc, 5950 6th Ave S
Seattle 206 762-7664
Wis Gentron Co, 744 N 4th St
Milwaukee 414 271-2110
Can Cantronics Ltd, 17 Dellbank Rd
Downsview, Ont 636-8311
Can Cantronics Ltd, 4252 Braille Ave
Montreal, Que 733-0749
Fr Young Electronic, 117 Rue D'Aguesseau
92 Boulogne Billancourt 604 10 50
GB Best & Raynor, 32 Monkton St
London SE 11 01-735-9881
Ital Sisram, Corso Matteotti 55
10121 Torino 54-78-04
Swed Integrerad Elektronik AB, Skeppargatan 3
Stockholm 634320
Isrl Telsys Ltd Engineering Co, 21 Haifa Rd
Tel Aviv 252-839

SOLUTEC CORP, 7165 30TH AVE N, ST PETERSBURG
FLA, 33710 .... 813 345-0155
E GILBERG, EMP 7, ENG 2, UP TO $100M
Ill Sumer Inc, 1032 East NW Hwy, Mt Prospect
Kan Thunderbird Engrg Sales & Serv, 6405 E Kellogg
Wichita .... NU 4-3941
Kan Thunderbird Engrg Sales & Serv, 4014-A W 95th St
Prairie Village .... NI 2-7220
Mass Etchomatic, 151 Newton St, Waltham
Minn T K Gray Inc, 1812 S Sixth St, Minneapolis
Mo Thunderbird Engrg Sales & Serv, Box 6156
St Louis .... PE 1-4343
NY Advanced Engrg, 119 Luther Ave, Liverpool
NY Malin Assoc, 88-43 69th Rd, Forest Hills
Tex Thunderbird Engrg Sales & Serv, 5526 Dyer
Dallas .... EM 8-3064

SOLVERE INC, 1902 W CHESTNUT ST, SANTA ANA
CAL, 92703 .... 714 547-8027
A MENIG, EMP 100, ENG 15, $2,500-$5,000M
Cal Halbar Assoc, 1805 W 3rd St
Los Angeles .... DU 7-8283
Md W C Joiner, 13805 Briarwood Dr
Laurel 301 725-8292
Mass Kitchen & Kutchin, 17 Waltham St
Lexington .... 617 VO 2-8230
Mich R C Nordstrom & Co, Box 32
Lathrup Village 313 444-4417
Minn Smith Eng Assoc, 2278 Como Ave
St Paul 612 646-4851
Mo Thunderbird Eng Sales, 400 Brookes Dr
Hazelwood 314 PE1-4343
NY J Moonelis, 50 Gazza Blvd
Farmingdale 516 694-5002
NY F Bowser, 129 Woods Path Rd
Liverpool 652-5160
Pa A C Lanson, 720 Selmer Rd
Philadelphia .... 215 OR 7-1224
Tex Jacobson Co, Box 9702, Dallas .... EM 3-7584
Wash Ray Johnston Co, 1011 N E 69th St
Seattle .... LA 4-5170
Can Electrodesign Ltd, 9124 St Lawrence Blvd
Montreal Que .... 514 DU 9-5914
GB Moore Reed & Co Ltd, Walworth Andover
Hampshire .... OAN 4-4155

SOMERS THIN STRIP INC SUB OLIN
215 PIEDMONT ST, WATERBURY
CONN, 06706, TWX 710-477-0518 756-8321
R NICHOLS, EMP 150, ENG 3, OVER $10,000M
Cal Laminated Shim, 1101 Flower St
Glendale 245-9271
NY Somers Thin Strip Inc, 405 Lexington Ave
New York 245-9271

SOMERSET RADIATION LAB INC, 2060 N 14TH ST
ARLINGTON, VA, 22216 .... 703 525-4255
K SCHOMAKER

Cal Edward Schaar Assoc, Box 644
Pacific Palisades 454-5190
Mass Associated Elctns Inc, 45 Kirk St
Lowell 617 454-4206
Tex Spacetronics Co, 4515 Prentice St
Dallas .... EM 8-1215
For Machine & Products Co, 52 Wall St
New York, NY .... WH 4-4370
Fr Technique Et Produits, 63 bis Rue d'Aquesseau
Boulogne -sur-Seine
Swed Harry Thellmod AB, Hornsgatan 89, Stockholm Sv

SONEX INC, 20 E HERMAN ST, PHILADELPHIA
PA, 19144 .... 215 VI 3-6400
R FURSTEIN, EMP 180, ENG 30, $2,500-$5,000M
Ala Currie Aerospace Assoc, Box 1424
Huntsville 536-5650
Ariz Bennewitz Assoc, 532 N Brown Ave
Scottsdale 947-7379
Cal Sonex Inc, 999 N Sepulveda Blvd
El Segundo 772-2181
Colo Bennewitz Assoc, 2801 E Colfax
Denver 399-1132
Fla Currie Aerospace Assoc, Box 13229
Orlando 855-0843
Kan Aerol Assoc, 6631 E Kellogg, Wichita 683-7421
Md Tek-Rep Inc, 1075 Rockville Pkrockville, 762-7777
Mass Northeastern Instrumentation, Box 740
Norwood 617 566-2707
Minn Beta Engineering Co, 128 Jackson Ave N
Minneapolis 938-2551
Mo Aerol Assoc Inc, 34 N Brentwood Blvd
St Louis 725-5361
NM Bennewitz Assoc Inc, 9720 E Candelaria NE
Albuquerque 505 298-6775
NY Travco Assoc, 142 Mineola Ave
Roslyn Heights 516 621-3223
NY Lighstone Corp, 155 Pickard Bldg
Syracuse 454-3209
Ohio Midwestec, Box 111, Gates Mills 371-9660
Tex Alpha Assoc, 753 Sherman St
Richardson 231-0416
Wash Avionics Liaison Inc, 6770 Perimeter Rd S
Seattle .... RO 7-3870

SONIC ENGINEERING, NORWALK
CONN, 06850, TWX 203-866-6088 ...... 203 838-4717
J PARISH, EMP 14, ENG 3, $500-$1,000M

SONOBOND CORP, 310 E ROSEDALE AVE
WEST CHESTER, PA, 19380 .... 215 696-4710
D KIRKPATRICK, EMP 110, ENG 25
Ariz AR/TEC, Inc, Box 727, Scottsdale 947-6304
Cal G E Woods Assoc, Inc, 2415 S Manchester Ave
Anaheim 633-9370
Cal G E Woods Assoc, Inc, 1184 Los Altos Ave
Los Altos 941-3343
Cal G E Woods Assoc, 7969 Engineer Rd
San Diego 714 279-7120
Colo The Crump Co, 2785 N Speer Blvd
Denver 433-6485
Fla Duncan MacGregor, Box 1711
Clearwater 446-7310
Ill Hanlon Equipment Co, 15 S Austin Blvd
Chicago 626-9888
Md Par-Nell Sales Co, 64 Main St, Reisterstown
Mass Nelson & Jacob Co, 18 Lansing Rd
Lynn 503-7533
Mo Nyberg Equipment Co, 642 Bacon Ave
St Louis .... WO 1-7924
NY Bradley Assoc Corp, 130 Van Courtlandt Ave W
Bronx .... KI 9-8500
NY Advanced Components Corp, 119 Luther Ave
Liverpool 315 472-7886
NY Advanced Components Corp, Box 142
Scottsville 716 889-1429
NY Advanced Components Corp, Box B
Whitesboro 914 736-9195
NY Advanced Components Corp, 1 Shamrock Cir
Poughkeepsie 914 471-1623
NY Advanced Components Corp, Box 3514
Rochester 315 482-2153
Ohio REP/Corp, 2077 Embury Park Rd
Dayton 278-5885
Pa Leonard R Nourie Inc, 2414 W Liberty Ave
Pittsburgh 561-1628
Pa Charles E Babcock Co, 130 W Lancaster Ave
Wayne 215 688-8288
Tex Tech/Ser, Inc, 10210 Monroe Dr
Dallas 358-2504
Can Conway Elctn Enterprises, 88-90 Arrow Rd
Weston, Ont 742-6631
For E P White, 1501 Alcoa Bldg
Pittsburgh, Pa 553-2846

SONOTONE CORP, BATTERY DIV, ELMSFORD
N Y, 10523, TWX 914 592 8361 .... 914 592-9600
E MURPHY, EMP 2800, ENG 100, OVER $10,000M
Cal A A Dowers Co, 2918 E Florence
Huntington Pk 582-5105
Cal R Del Bucchia & Assoc, 15 Southgate Ave
Daly City 756-8414
Colo Brown Technical, 130 S Yarrow St
Denver 233-0863
Fla Perrott Inc, 1607 Forsyth Rd, Orlando 275-1132
Ill Whitmore Assoc, 535 N Michigan Ave
Chicago 312 321-1503
Ind Southern Sls Co, 105 Lakeshore Dr
Angola 665-3961
Mich Assoc Factory Agents, 1347 Audubon
Grosse Pt Pk 886-1669
Minn Countryman, Wagner & Behnen Co
560 N Prior Ave, St Paul 645-9151

Mo H A Roes Co, 2601 Cherry St
Kansas City ...... BA 1-0866
NJ M & S Assoc, 19 Tanner St
Haddonfield ...... HA 9-7055
NY M P Andrews Co, 319 Mott Rd
Fayetteville ...... NE 7-6405
Tex Edmer Technical Sales Co, Box 818
Hurst 817 282-5561
Va Perrott Engineering Labs, 1020 N Fillmore St
Arlington ...... JA 8-5861
Wash R K Squibb Inc, 655 NE Northlake Pl
Seattle ...... ME 2-2450
Wis Erdman Sles Co, 6312 S 27th St
Oak Creek 414 761-2120
Can Mt Royal Transportation, 2121 Old Orchard Ave
Montreal, Que 481-8107

SONOTONE CORP, ELECTRONIC APPLICATIONS DIV
ELMSFORD, N Y, 10523 ...... 914 592-9600
R MAHLER, EMP 2800, ENG 50, OVER $10,000M
Cal J W Marsh Co, 4216 W Jefferson Blvd
Los Angeles ...... RE 2-0145
Cal David H Ross Co, 534 El Camino Real
San Carlos 591-4411
Colo Hyde Electronics Co, 888 S Lipan St
Denver ...... WE 6-3456
Fla Stanley K Wallace Assoc, Box 67, Lutz ... 949-1817
Ill Klem-Steffen Inc, 417 W Harrison St
Oak Park 921-1200
Ind Southern Sales Co, 105 Lakeshore Dr
Angola 665-3961
Md C W Lienau Co, 11411 Amherst Ave
Wheaton 949-6464
Mass W A Hendrickson, 291 1st Parish Rd
Scituate 545-0652
Mich Butchart & Rathsburg Assoc, 16637 E Warren Ave
Detroit 882-1717
Minn Clark R Gibb Co, 1311 W 25th ST
Minneapolis 377-1200
Mo Carmine A Vignola Assoc, Box 569
Jefferson City ...... JE 5-1023
NY Newhope Corp, 6 E 39th St, New York 532-7372
NY L D Allen, Inc, Box 205, No Syracuse 458-7470
Ohio John O Olsen Co, 16201 Shaker Blvd
Cleveland ...... SK 2-5444
Tex Texport Co, 2411 Farrington Blvd
Dallas ...... ME 1-6270
Wash R K Squibb Inc, 655 NE Northlake Pl
Seattle ...... ME 2-2450
Can Atlas Radio Corp, 50 Wingold Ave
Toronto 781-6174

SONUS CORP, 15 STRATHMORE, NATICK IND CTR
NATICK, MASS, 02138 655-4160
E KOLM, EMP 50, ENG 4, $1,000-$2,500M

SONY CORP
7-35 KITASHINAGAWA-6, SHINAGAWA-KU, TOKYO
JAPAN 445-2190
K MIYATAKE, EMP 7500, ENG 1,100
Cal Sony Corp of Amer, 500 W Florence Ave
Inglewood ...... OR 8-8141
Ill Sony Corp of Amer, 5551 N Milton Pkwy
Rosemont 678-4790
NY Sony Corp of Amer, 47-47 Van-Dam St
Long Island 361-8600
Swit Sony Overseas S A, Baarerstr 73, Zug 44644

SORENSEN OPERATION, RAYTHEON CO., RICHARDS AVE
NORWALK, CONN, 06856, TWX 710-468-2940 ... 203 838-6571
R SLATER, EMP 500, ENG 25, $5,000-$10,000M
ADV PG 528, 529
Ala BCS Assoc Inc, 2317 Bob Wallace Ave SW
Huntsville 534-1648
Alas Arva, Inc, Box 759, Anchorage 272-5231
Ariz Barnhill Assoc, 4900 E Indian School Rd
Phoenix 959-2115
Cal Ward-Davis Assoc, 770 S Arroyo Pkwy
Pasadena 684-2840
Cal Ward-Davis Assoc, 3921 E Bayshore
Palo Alto 968-7116
Cal Ward-Davis Assoc, 3442 Hancock St
San Diego 297-4619
Colo Barnhill Assoc, 1170 S Sheridan Blvd
Denver 934-5505
Conn Instrument Assoc, 234 Murphy Rd
Hartford 525-9367
Fla BCS Assoc Inc, 940 N Fern Creek Ave
Orlando 425-2764
Haw Earl Assoc, 1638 Kona St, Honolulu 996-953
Ill Pivan Engineering Co, 3535 W Peterson Ave
Chicago 539-4838
Ind Pivan Engineering Co, 8545 Northcrest Ct
Indianapolis 253-1681
Iowa Pivan Engineering Co, 4403 First Ave S E
Cedar Rapids 365-6635
Kan S Sterling Co, 6045 Martway
Shawnee Mission 913 432-0555
La BCS Assoc Inc, 3414 Hessmer Ave
Metairie 888-2266
Md ELCTN Marketing Assoc, 11501 Huff Ct
Kensington 946-0300
Mass Instrument Assoc Inc, 30 Park Ave
Arlington 648-2922
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield 357-3700
Minn Pivan Eng Co, 3203 N Hwy 100
Minneapolis 537-4501
Mo S Sterling Co, 11734 Lackland Ind Dr
St Louis 542-3636
NJ SONCO, Crystal Brook Prof Bldg
Eatontown 542-1441
NJ SBM Assoc Inc, 1519 Stuyvesant Ave
Union 687-8737
NM Barnhill Assoc, 827 Penna NE
Albuquerque 265-7766
NY SBM Assoc Inc, 28 Hobby St
Pleasantville 769-1811
NY SBM Assoc Inc, 800 Linden Ave
Rochester 381-8330
NY SBM Assoc Inc, 138 Pickard Bldg
Syracuse 454-9377
NY SBM Assoc Inc, 528 Old Country Rd
Plainview 433-1421
NC BCS Assoc Inc, 1039 E Wendover Ave
Greensboro 273-1918
Ohio S Sterling Co, 2673 Culver Ave, Dayton ... 298-7573
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland 442-8080
Ore Arva, Inc, 2035 SW 58th Ave, Portland ... 292-8762
Pa SONCO, 107 Town Ctr Rd
King of Prussia 265-3250
Pa SONCO, Park Pl Off Bldg Box 187
Camp Hill 761-0577
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh 884-5515
Tex Barnhill Assoc, 507B Bishop St
Richardson 231-2573
Tex Barnhill Assoc, 3810 Westheimer
Houston 621-0040
Wash Arva, Inc, 1320 Prospect, Seattle 622-0177
Wis Pivan Eng Co, Box 437, Waukesha 547-5131
Can Megatronix Ltd, 1800 Avenue Rd
Toronto 12 Ont 783-3329
For Raytheon IS&S, 141 Spring St
Lexington 862-6600
BC Arva, Inc, 1624 W 3rd Ave, Vancouver 736-6377

SORENSON LIGHTED CONTROLS INC
530 OAKWOOD AVE, WEST HARTFORD
CONN, 06110, TWX 710-425-0034 ...... 203 236-3267
J MARTIN, EMP 200, ENG 2

SORGEL ELECTRIC CO, 838 W NATIONAL AVE
MILWAUKEE, WIS, TWX 2-6785 .... 414 384-8100
H EDEREGGER

SOROBAN ENGINEERING, INC, BOX 1690
MELBOURNE
FLA, 32901, TWX 56-6436 ...... 305 723-7221
B WEBER, EMP 323, ENG 19, $2,500-$5,000M

SORVALL INC, IVAN, PEARL ST, NORWALK
CONN, 06852 ...... 203 847-2491
C LINDGREN, EMP 320, ENG 17, $5,000-$10,000M

SOSSNER STEEL STAMPS INC, 39-39 29TH ST
LONG ISLAND CITY, N Y, 11101 .... 212 EM 1-1311
EMP 30, ENG 2, $500-$1,000M
Conn B Ostman, 2 Rod Hwy, Wethersfield .... JA 2-6506
Ill J Just & Assoc, 2703 Eisenhower Dr
Des Plaines 631-2722
Ind Walter C Kennedy, Box 40095
Indianapolis 632-1461
NY E P Johnson, 216 Fulton St, Jamestown .. 489-7491
Ohio Huntington Sales Co, 32250 Woodsdale La
Cleveland 248-6773
Pa Charles Chase, Jr, Box 6, Radnor ...... MU 8-3333
Tex Southern Specialty Products, 6502 Rusk
Houston 923-2601

SOUNDOLIER INC, 9380 WATSON IND PARK
ST LOUIS, MO, 63126 ...... 314 WO 2-9870
C RANCILIO
Ala John Russell Sales Co, Box 20092
Birmingham 822-2196
Ariz Hyde Elctns Co Inc, 4710 N 16th St
Phoenix 264-5609
Cal Ellard E Strassner Co, 1321 Los Feliz Blvd
Los Angeles 666-1511
Colo Hyde Elctns Co Inc, 888 S Lipan St
Denver 936-3456
Fla Winfield Elctn Sales Co, 666 NE 125th St
N Miami 751-5566
Haw Gene Piety Factors Inc, 160 Mokauea St
Honolulu 837-185
Ill R R Hutmacher Assoc Inc, 6668 Northwest Hwy
Chicago 631-3248
Ind F J McSweeney & Assoc, 4123 N Keystone Ave
Indpls ...... LI 7-2112
Md Charles Lienau Co, 11411 Amherst Ave
Wheaton 949-6464
Mass Jim Piper Assoc, 10 Haven St, Dover 449-1144
Mich Robert Milsk Co, 19375 James Couzens Hwy
Detroit 342-6660
Minn A J Warner Co, 4927 34th Ave S
Mnpls 729-7371
Mo Forristal-Young Sales Co, 7110 Oakland Ave
St Louis ...... MI 5-2360
NY LSM Assoc, Orchard Park, Phelps 548-4891
NY Adelman-Pinz Sales Corp, 570 Yonkers Ave
Yonkers 914 423-4747
Ohio Les A Morrow Co, 3123 W 117th Ave
Cleveland ...... CL 1-5700
Pa Charles Lienau Co, 1148 Greentree La
Narberth ...... MO 4-6924
SC Hal Norman Sales Co, Box 5185 Sta B
Greenville 244-6254
Tenn Texport Co, 5118 Park Ave, Memphis 683-0880
Tex Texport Co, 2411 Farrington St, Dallas ... ME 1-6270
Wash Vector Corp, 307 Wall St, Seattle 623-6891
Can R C Kahnert Sales Ltd, 359 Enford Rd
Richmond Hill 285-6931
BC Electro-tec Marketers Ltd, 1624 W 3rd Ave
Vancouver ...... RE 6-6377

SOUNDSCRIBER CORP, 680 THIRD AVE, WEST HAVEN
CONN, 06516 ...... 203 934-9211
A CUSANO, EMP 50, ENG 6

SOURIAU ET CIE, 9 RUE GALLIENI
92-BOULOGNE-BILLANCOURT, FRANCE 408-96-23
C HORIOT, EMP 1200, ENG 300, OVER $10,000M
Ger Souriau Electric GMBH, Rathausufer 17, Dusseldorf
GB Lectropon Ltd, Wellington St, Slough, Bucks
Holl S E B S Nederland, Eendrachtsweg 68, Rotterdam
Ital Souriau Italiana S P A, Viale Suzzain 873/8c
Milano
Belg S E B S, 163 Rue Royale, Bruxelles

SOUTH BAY CABLE CORP, 17360 GRAMERCY PL
GARDENA, CAL, 90247 ...... 213 FA 1-1956
D SMITH, EMP 60, ENG 5, $1,000-$2,500M
Ala Young & Lawrence Assoc, 2907 Governors Dr SW
Huntsville 205 539-6575
Ariz Jack Osborn Assoc, 5912 Foothill Dr N, Scottsdale
Cal Storm Products, 4049 Transport St, Palo Alto
Cal Wm A Gibson Co, Box 6124 Pt Loma Sta
San Diego
Colo Storm Products, Box 225, Bloomfield
Fla Young & Lawrence Assoc, 601 N New York Ave
Winter Park
Ill Claude Booth & Assoc, 1921 N Harlem Ave, Chicago
Ind Tri-State Mktg, Inc, 608 Ft Wayne Bank Bldg
Fort Wayne
Kan Palatine Engrg Sales, 5514 Johnson Dr
Mission 913 262-5643
Md S W Goodman Co, 5 W Biddle St, Baltimore
Minn C Macnamara, 5227 Bartlett Blvd
Mound 612 472-4919
Mo Palatine Engrg Sales, 2050 Woodson Rd
St Louis 314 426-7055
NJ Manufacturers Rep, Inc, 215 Diamond Springs Rd
Denville
NY Manufacturers Rep, Inc, 55 Central Ave, Farmingdale
Ohio Tri-State Mktg, Inc, 1717 Section Rd, Cincinnati
Ohio Tri-State Mktg, Inc, 25000 Euclid Ave, Cleveland
Ohio Tri-State Mktg, Inc, 35 N Main St, Chagrin Falls
Pa Geo Needs, c/o M R I, 2326 Rhawn St, Philadelphia
Tex Southern Engrg Co, Box 8393
Dallas ...... 214 LA 1-3748
Wash Rowe/Northwest, 1123 38th Ave, Seattle

SOUTHCO INC, LESTER, PA, 19113 .... 215 521-0800
T DUNLEVY
Ariz Kennedy Sales & Serv, 15 N 40th Pl
Phoenix 275-8824
Cal Southco Inc, Anaheim 533-4110
Cal Ray R Sweet & Son Inc, 11150 Tenn Ave
West LA 477-4517
Cal Dean Lewis Assoc, 4444 Piedmont Ave
Oakland 654-0613
Colo Harry P Daigle Co, 2785 N Speer Blvd
Denver 433-0226
Conn Southco Inc, W Hartford 232-8055
Fla A-Gen-Teers Enterprises, Box 7305
Orlando 293-6269
Ga Southco Inc, Atlanta 237-3306
Ill Southco Inc, Chicago 337-2532
Ind Southco Inc, Indpls 547-1292
Iowa Clancey Co, 3844 Valdez Dr
Des Moines 279-9102
Md Southco Inc, Baltimore 825-7999
Mass Southco Inc, Boston 227-6717
Mich Lamparter & Assoc, 17901 E Warren Ave
Detroit 885-4444
Minn A A Gustafson Co, Griggs-Midway Bldg
St Paul 644-7630
Mo Clancey Co, 3527 Broadway
Kansas City 931-3090
Mo Southco Inc, Clayton ...... PA 7-6544
NY Southco Inc, New York 964-3459
NY Southco Inc, 250 East St
Honeoye Falls 624-2545
NC Piedmont Equipment Co, 401 W 32nd St
Charlotte 334-6823
Ohio Southco Inc, Cincinnati 351-2424
Ohio Southco Inc, Cleveland 221-2561
Pa Production Components Co, 300 Mt Lebanon Blvd
Pittsburgh 563-1888
Tenn Southco Inc, Memphis 901 272-3846
Tex Southco Inc, Dallas 363-5072
Wash Frank W Aurich & Co, Box 3941
Seattle 282-2223
Wis Southco Inc, Milwaukee 273-7666
Can Metal & Wood Fastening Dev Co
6302 Papineau Ave, Montreal, Que 274-9434
BC Wm P Somerville Ltd, 539 Hastings St E
Vancouver ...... MU 4-4928

SOUTHERN AVIONICS CO, 5055 BELMONT
BEAUMONT, TEX, 77706 ...... 713 833-8633
J GOODHUE, EMP 10, ENG 1, $100-$250M

SOUTHERN ELECTRONICS CO INC, BOX 240
GREENEVILLE, TENN, 37743 ...... 615 422-4114
F LAMONS, EMP 314, ENG 3, $2,500-$5,000M
NJ Keefe Electronic Sales Co, 15 S Haddon Ave
Haddonfield 429-4650
Ohio H H Rauh, 1506 Pimberton Dr
Columbus 488-3574
Tenn T S Stone Co, Box 1361, Knoxville 588-1969

SOUTHERN ELECTRONICS CORP, 150 W CYPRESS AVE
BURBANK
CAL, 91502, TWX 910-998-2207 .... 213 846-9302
J CAMMISO, EMP 80, ENG 4, $500-$1,000M

Cal Bell Electronics Corp, 1070 O'Brian St
Menlo Park .... DA 3-9431
Cal Bell Electronics, 1729 W 134th St
Gardena 213 327-1152
Fla Astro-Tec, Cape Royal Off Bldg, Cocoa Beach
Ill PGM Sales Inc, 5700 W Diversey
Chicago 622-8183
Kan Inland Assoc, 6047 Howe Dr, Mission
NY J F Harm & Assoc, 101 Pickwick Rd
Dewitt .... GL 6-2540
Ohio BEK Assoc, 330 Salem Ave, Dayton...... 278-1343
Tex Reese Assoc, 3130 Springwood Dr, Dallas
Can Electrodesign, 9124 St Lawrence Blvd
Montreal.......... 389-5914

SOUTHWEST PRODUCTS CO, 1705 S MOUNTAIN AVE
MONROVIA, CAL, 91016 .... 213 358-0181
K HACKMAN, EMP 250
Kan D & O Engineering Co, Box 1800, Wichita
Kan D & O Engrg Co, Box 2349, Kansas City
Okla D & O Engrg Co, Box 5037, Tulsa
Tex D & O Engineering Co, 4924 Greenville Ave, Dallas

SOVCOR ELECTRONIQUE, 11 CHEMIN DE RONDE
LE VESINET 78, FRANCE, TWX 26831 ......966.51.00
C LEVY, EMP 300, ENG 30, $5,000-$10,000M
Ger Sovcor Elektronik GmbH, Kornbergstr 79
Stuttgart.......... 294153

SPACE AGE ELECTRONICS INC, 269 MECHANIC ST
MARLBORO, MASS, 01752 .... 617 485-0966
EMP 20, ENG 2, $100-$250M
Mass J M Hogan Assoc, 50 Clarke Dr
Marlboro.......... 617 481-0994

SPACE CRAFT INC, 8620 S MEMORIAL PKWY
HUNTSVILLE, ALA, 35802 .... 205 881-1611
L RHOADS, EMP 750, ENG 100, $5,000-$10,000M

SPACEKOM INC, BOX 235, GOLETA
CAL, 93017 .... 805 967-7114
G SPACEK, EMP 8, ENG 3
Cal Eckert Assoc, 11945 Gerald Ave
Granada Hills 213 360-6191
Va Schibley Assoc, 3415 Andover Dr
Fairfax 591-3008
For EMEC Inc, 55 E Old Country Rd
Hicksville NY .... 516 WE 1 3700

SPACE POWER ASSOCIATES INC, 161 BRIELLE AVE
STATEN ISLAND, N Y, 10314 .... 212 448-4172
T STERN, EMP 20, ENG 2, $250-$500M
Ala Cordray Inc, Box 1227, Huntsville........ 881-2014
Cal Electronic Devices Sales-Service Co, Box 5442
Buena Park 522-2101
Colo Palmer-Robbins Assoc, 1050 Yuma St
Denver 255-9961
Fla Cordray Inc, 1400 Hillcrest Ave
Orlando 424-6509
Ga Cordray Inc, 809 1st Nat'l Bk Bldg
Atlanta 872-2885
Mass GJM Assoc, 33 Bradford Rd, Natick 237-0047
Mich Martin Vogt, 2817 Bamlet Rd
Royal Oak 549-3355
NJ Power Conversion & Control, Inc, 650 Palisade Ave
Englewood Cliffs.......... 569-0015
Ohio Midwest Sales Co, 3219 W 117th St
Cleveland.......... WI 1-2700
Okla James E Dyer Co, Box 1226, Tulsa....... 742-8832
Tex Whiteside Sales, Box 22, Garland........ 276-8382
Va Schibley Assoc, 3415 Andover Dr
Fairfax 591-4593
Wash W J Stulgis Co, Inc, 608 W Crokett St
Seattle .... AT 2-7870
For Minthorne Intl Co, Inc, 64-14 Woodside Ave
Woodside.......... BO 9-6272

SPACE PRODUCTS INC, 6631 SARNIA AVE
LONG BEACH, CAL, 90805.......... 213 636-6161
R RUBLEY, EMP 25, ENG 2, $250-$500M

SPACE RAYS INC, NORTHWEST INDUSTRIAL PK
BURLINGTON, MASS, 01803.......... 617 272-6220
G HARDWAY, EMP 54, ENG 19, $500-$1,000M

SPACE & SYSTEMS DIV GENERAL TIME CORP
HIGH RIDGE PARK, STAMFORD
CONN, 06905, TWX 710-474-2636...... 203-322-7611
R SCHIMPF, EMP 650, ENG 35, OVER $10,000M
Ala Airsupply Co, 2003 Byrd Spring Rd
Huntsville 205-883-0244
Ariz Airsupply Co, Twn Cnty Vlg
Phoenix 602-267-3916
Cal Airsupply Co, 2230 Michigan Ave
Santa Monica 451-5711
Cal Braincon Corp, 5816 Lankershim Blvd
Hollywood 213-763-3103
DC General Time Corp, 2139 Wisc Ave
Washington 333-4645
DC Braincon Corp, 2233 Wisconsin Ave
Washington 202-333-1572
Fla Airsupply Co, 7000 Lake Ellenor Dr
Orlando 305-851-1210
Ga Airsupply Co, 3272 Peachtree Rd NE
Atlanta .... CE 7-8636
Ill Space & Sys Div Midwest, 1200 Hicks Rd
Rolling Meadows .... CL 9-0740
Ill Aerospace Facility GTC, Wheeling Rd
Wheeling 312-537-8550
Ill Airsupply Co, 5544 St Charles Rd
Berkeley.......... 312-LI-4-7400
Ind Airsupply Co, 2441 N Meridian St
Indianapolis.......... 317-WA-5-3528
Kan Airsupply Co, Box 18188
Wichita.......... 316-MU 3-7518
Mass Airsupply Co, 235 Bear Hill Rd
Waltham .... TW 4-9165
Mass Minelco Inc, 600 S St, Holbrook 617-967-7717
Mass Braincon Corp, Shenendoah Rd
Marion 617-748-1085
Mo Airsupply Co, 4531 N Lindbergh
Bridgeton .... PE 1-3011
NY Airsupply Co, One Dupont St
Plainview.......... 516-681-8710
Ohio Airsupply Co, Box 19738 A M F
Columbus.......... 614-231-4571
Ohio Airsupply Co, 333 W 1st Ave, Dayton ... BA 4-0728
Ohio Airsupply Co, 333 W 1st Ave, Dayton ... BA 4-0728
Ohio S & S Div GTC, 5950 Mad River Rd
Dayton 513-434-1723
Pa Airsupply Co, 237 Lancaster Ave
Devon.......... 215-MU 8-5157
Tex Airsupply Co, 100 N University Dr
Ft Worth.......... ED 5-4541
Wash Airsupply Co, 10806 NE 8th St
Bellevue.......... GL 4-7922
Can Braincon Corp, 46 Wedgewood Av
Rockingham.......... 902-454-5726

SPAR AEROSPACE PRODUCTS LTD
BOX 6022 TORONTO INTL AIRPORT, TORONTO
ONT.......... 416 676-3246
D DALZELL, EMP 350, ENG 35, $5,000-$10,000M
DC L C Stansel, 1639 K St NW
Washington 223-4484

SPAR ELECTRONICS INC, 7969 ENGINEER RD
SAN DIEGO, CAL, 92111 .... 714 279-1641
R MCNAUL, EMP 8, ENG 3, $100-$250M
Ariz Bishop Enterprises, 1828 E Windsor St
Phoenix 602 265-8747
Cal Paul Nurches Co, 999 Commercial St
Palo Alto 415 326-7842
Cal Paul Nurches Co, 2396 E Foothill Blvd
Pasadena 213 681-8957
Colo Bishop Enterprises, 493 Jamaica St
Aurora.......... 303 364-7361
NM Bishop Enterprises, 601 San Pedro N E
Albuquerque.......... 505 255-9042

SPARTA ELECTRONIC CORP
5851 FLORIN-PERKINS RD, SACRAMENTO
CAL, 95828 .... 916 383-5353
J LAWSON, EMP 50, ENG 70
Ala Jess Swicegood, Box 1828, Dothan ..... SY 2-2161
Ariz A Dean, 3301 W Marshall
Pheonix 602 258-8181
Cal Brooks & Day, 10700 Ventura Blvd
N Hollywood 213 877-3357
Colo Henry Broughall, 600 Marble St, Broomfield
Ill Glenn E Webster, 1136 Gail La
Dundee.......... 428-5173
Ind Herbert L Arms, Box 327, Corydon 738-5752
Mass J Ring, Box 587, West Dennis 617 398-3277
Mich D Veldsma, 2342 Division Ave S
Grand Rapids.......... 616 452-5495
NC Russell Sutton, 221 W Washington St, Greenville
NC R T Windsor, 838 Huffman St
Greensboro.......... 919 273-6357
Okla Delta Tronics, Box 7484, Tulsa 918 582-9949
SC R Sutton, 221 W Washington St, Greenville
Tex C B Henry, Box 5727, Lubbock
Can Caldwell A/V, 443 Jarvis St, Toronto
Can Caldwell A/V, 135 Midwest Rd, Scarborough Ont
For Singer Products Co, 95 Broad St, New York, NY
For J A Fernandez, Box 5124
Puerta de Tierra Sta PR.......... 724-2854

SPARTA MFG CO, BOX 128, DOVER
OHIO, 44622.......... 216 878-5521
H BURKHOLDER, EMP 140, ENG 4, $2,500-$5,000M
Ariz Gramer & Co, 444 W Camelback Rd
Phoenix 279-1231
Cal Circle S Sales Assoc, 530 Van Ness
Fresno.......... 264-4568
Colo Franklin Sales Co, 2149 S Clermont St
Denver 757-1371
Idah Lutz Sales Co, 6677 Northwest Hwy
Chicago .... RO 3-7404
Ill Harry D DeLeon Co, 1907 7th Ave
Moline 762-4418
Ind Richard Bigler, 611 S 8th St, Goshen.... KE 3-6740
Kan P A D'Ambrogi Co, Box 18064
Wichita.......... 316 788-0791
Mass Martin Assoc, 87 Forest Dr, Holden 829-4230
Mich Janus Co, 20905 Greenfield Rd
Southfield 313 353-0580
Mo Associated Rubber Prods, 8671 Pennell Dr
Overland.......... 993-6020
NJ C D Williams, 20 Church St, Montclair ... 746-3535
NY S L Shafer Co, 895 Winton Rd
Rochester.......... 716 442-1407
NC W M Minor Jr, 3920 Glenfall Ave
Charlotte 704 366-5150
Ohio Paul Teller Assoc, 1022 Neeb Rd
Cincinnati.......... 922-1956
Ohio P Teller Assoc, Box 21, Avon Lake ... 216 871-2454
Pa Riley & Allshire, 306 Leedom St
Jenkintown .... CA 4-6060
Pa G H Herchenroether, 3829 Willow Ave
Pittsburgh.......... 412 341-9300
Tex Jack Gronberg, Box 291, Bellaire ...... MO 5-8698
Wash A J Woolsey Co, 120 165th Ave, N E
Bellevue.......... 746-0585

SPARTON CORP, 2400 E GANSON ST, JACKSON
MICH, 49202.......... 517 784-9131
F KEISTER, EMP 2400, ENG 250, OVER $10,000M

SPARTON ELECTRONICS, 2400 E GANSON, JACKSON
MICH, 49202, TWX 810 253 1925 ...... 517 784-9131
J SCHULTZ, EMP 1100, ENG 175, OVER $10,000M
Cal G B Lange, 13397 Sousa Way
Saratoga.......... 379-4504
Va R Simpson, 117 Cameron Mews
Alexandria 836-2844

SPARTON OF CANADA LTD, 100 ELM ST, LONDON
ONTARIO
Can Sparton of Canada Ltd, 858 Millwood Rd
Toronto Ont 416 425-8545

SPARTON SOUTHWEST INC, BOX 1784
ALBUQUERQUE
NM, 87103, TWX 910-989-1657 .... 505 898-1150
G LANGE, EMP 300, ENG 35
Ariz E Daley, Box 242, Scottsdale 602 946-2374
Cal Whitney Assoc, 4001 Birch Ave
Newport Beach 545-8409
Cal Whitney Assoc, 2507 San Anselma, San Diego
Colo Vinson Assoc, 3600 S Lincoln
Englewood.......... 303 789-2203
Md J E Cuesta & Co Inc, 8501 Glendale Rd
Greenbelt.......... 301 552-1200
NM Vinson Assoc, Box 3295
Albuquerque.......... 505 298-7442
NY Alto Assoc, Box 211, Midwood Sta
Brooklyn.......... 253-6295
Pa J E Cuesta & Co Inc, Valley Forge
Tex Space Electronics, Box 705, Irving 631-0905
Va Ross Simpson, 11 Cameron Mews
Alexandria 836-2844

SPATRON INC, 715 S RAYMOND AVE, ALHAMBRA
CAL, 91803 .... 213 283-8831
H BALDERSON, EMP 30, ENG 3, $500-$1,000M

SPAULDING FIBRE CO INC, 310 WHEELER ST
TONAWANDA, N Y, 14150.......... 716 692-2000
E LEITZ, EMP 2400, ENG 200, OVER $10,000M
Cal Spaulding Fibre Co, 2000 S Hoefner Ave
Los Angeles.......... 685-6710
Ill Spaulding Fibre Co, 965 Rand Rd
Des Plaines.......... 775-7070
Ind Spaulding Fibre Co, 5255 N Tacoma Ave
Indpls 253-4477
Md Spaulding Fibre Co, 2104 N Charles St
Baltimore.......... 837-7566
Mass Spaulding Fibre Co, 554 Washington St
Wellesley.......... 235-2100
Mich Spaulding Fibre Co, 3370 Washtenaw Ave
Ann Arbor.......... 971-0310
Mo Spaulding Fibre Co, 1850 S Hanley Rd
St Louis 647-4781
NY Spaulding Fibre Co, 120 E Prospect Ave
Mount Vernon 664-2828
Ohio Spaulding Fibre Co, 3494 Lee Rd
Cleveland.......... 921-3141
Ohio Spaulding Fibre Co, 136 S Ludlow St
Dayton 223-2286
Pa Spaulding Fibre Co, 7 Heather Rd
Bala Cynwyd 839-3767
Tex Engineering Assoc Inc, 2912 Stanley Ave, Fort Worth
Wash Houston Co, 1738 Fourth Ave S, Seattle
Wis Spaulding Fibre Co, 3718 N 92nd St
Milwaukee.......... 466-1210
Can Spaulding Fibre of Can Ltd, 7 Waulron St
Etobicoke, Ont.......... 233-2151
For Walter Schmaddebeck, 1061 Vienna VI/56
Postfach 47
For New Foundation Trading Inc, Box 1270, Manila
For Karden Corp, Box 1568, Hato Rey, P R
For F Escobar U, Apar Nal 83, Bogota, Col
For Venezuelan Supply C A, Apar 11394, Caracas, Ven
Den A/S E Friis-Mikkelsen, 51, Krogshojvej, Bagsverd
Fr La Fibre Vul Spaulding, Zone Industrielle, Meru, Oise
Ger U P Scheamm, 2 Hamburg 66, Op'n Mohlnrad 11
GB Spauldings Ltd, Station Rd, Edenbridge, Kent
GB British Vulcanized Fibre Ltd, Bridge Mills
Hadfield, Via Chishire
Holl W H Poelmann NV, Bussumerstr 38F, Hilversum
Ital G B Debono, S Giuliano Milanese, Frazione Civesio
Via Molise, Milan
Jap Metro Trading Co Ltd
1-36, Asakusabashi, 5-Chome, Taito-Ku, Tokyo
Nor Henaco A/S, Cort Adelers Gate 16, Oslo
SAfr H M Marthinusen, Box 3368, Johannesburg
Swed Allhabo-Allmanna Handelsaktiebolaget
Alstromergatan 20, Stockholm
Swit Keyser & Co AG, Stampfenbachstr 44, Zurich
Arg R S Grassi, Bartolome Mitre 4014, Buenos Aires
Belg Isolants Victor Hallet, 43 Rue Edouard Faes
Brussels 9
Braz C A Menge, Caixa Postal, 2875, Sao Paulo
Ind R G Keswani, Box 16552, Bombay 18(WB)
Isrl Metalex, Ltd, Box 16009, Tel-aviv
Mex L De Block, Calle Industria 52-B, Mexico 16, D F
NZ Arnold & Wright Ltd, Box 6198, Wellington
Spn P E M Vivomir S A, Montalban, 9, Madrid-14
Aust R E Jeffries Pty Ltd
Hotham Parade, Artarmon, N S W, Sydney

SPAULDING PRODUCTS CO INC, BOX 365
FRANKFORT, IND, 46041 .... 317 654-4494
M JOYCE, EMP 50, ENG 2, $500-$1,000M
Mich Robt Milsk, 19375-95 James Couzens Hwy, Detroit
NC Joe Cam Co, 4110 Pemberton Dr, Charlotte
Ohio F Ohman, Box 363, Twinsburg 425-7445

SPEAR INC, 335 BEAR HILL RD, WALTHAM
MASS, 02154 .... 617 899-4800
J BURNS, EMP 30, ENG 8, $500-$1,000M
Ill G Knackstedt, 9420 Foster Ave
Chicago 312 992-2150
Md R Davies, 7801 Norfolk Ave
Bethesda 301 652-6330
Minn W J McGoldrick, 4901 Garfield Ave S
Minneapolis 612 824-9059
Ohio R Lemon, 4054 Michael Ave
N Olmstead 216 777-6600

SPECIAL CHEMICALS CORP, 100 S WATER ST
OSSINING, N Y, 10562 .... 914 941-5052
M MIRANTZ, $100-$250M

SPECIAL DEVICES LABS INC, BOX 85 26 FIELDING CT
SOUTH ORANGE, N J, 07079 .... 201 763-1770
W SMITH, EMP 6, ENG 3, UP TO $100M

SPECIAL METALS CORP, MIDDLESETTLEMENT RD
NEW HARTFORD
NY, 13413, TWX 315 797-1154 .... 315 797-0950
N CALKINS, EMP 400, ENG 30
Cal C E Wilderman, 5333 E Slauson Ave
Los Angeles 213 723-9507
Ill J R Pyne, 213 S Wheaton Ave
Wheaton 668-4399
NY R Nielsen, New Hartford 315 797-0950
Ohio A Rowlands, Cleveland 845-4951

SPECIALTY WAVEGUIDE CORP, 82 CAMBRIDGE ST
BURLINGTON, MASS, 01803 .... 617 272-0801
A HAWES, EMP 30, ENG 2, $500-$1,000M

SPECIFIC PRODUCTS DIV DR H L RICHTER CORP
1237 S SHAMROCK AVE, MONROVIA
CAL, 91016 .... 213 359-6636
D MCDOWELL, EMP 14, ENG 3, $250-$500M
ADV PG 656
Mass W M Hague Co, 10 Muzzey St
Lexington .... VO 2-5700
NJ Data-Rep Assoc, 1250 E Ridgewood Ave
Ridgewood 201 447-0660
NY Data-Rep Assoc, Box 164
Huntington Station 516 423-7677
Pa Data-Rep Assoc, Box 349
Norristonw 215 279-8210
Tex Vidal Electronics Co, 3403 High Bluff Dr
Dallas .... CH 7-4252
Va Nine Assoc, 7753 A4 Patriot Dr
Annandale 703 256-9105
For Sylvan Ginsbury Ltd, 72 W 45th St
New York, NY .... 212 MU 7-3213

SPECTRA-ELECTRONICS INC, BOX 85, LOS ALTOS
CAL, 94022 .... 415 948-4998
F MCCARTHY, EMP 8, ENG 2, $100-$250M
ADV PG 389, 453
Ala Cain & Co, Inc, 5020 Regina Way
Huntsville 536-1422
Cal Cain & Co Inc, 175 S San Antonio Rd
Los Altos 948-6533
Cal Cain & Co, Inc, 15720 Ventura Blvd
Encino 783-4700
Cal Cain & Co, Inc, 3595 Mt Acadia Blvd
San Diego 278-1031
DC Cain & Co Inc, Washington 296-8265
Fla Cain & Co, Inc, 2523 Chippewa Trail
Maitland 422-3460
Ill Cain & Co,Inc, 1203 Ironwood Dr
Mt Prospect 253-3578
Md Cain & Co, Inc, 7401 New Hampshire Ave
Hyattsville 296-8265
Mass Cain & Co Inc, 45 Essex St, Melrose 665-8893
NJ Cain & Co, Inc, Box 261, South Amboy 727-1900
NY Cain & Co, Inc, 324 1st St 5, Liverpool 437-2933
NY Cain & Co, Inc, 253-16 Northern Blvd
Little Neck 428-3636
Ohio Cain & Co Inc, 2485 Lipton Rd
Columbus 861-2119
Pa Cain & Co, Inc, One Bala Ave Bldg
Bala-Cynwyd 664-3797
Tex Cain & Co, Inc, 8609 Northwest Plaza Dr
Dallas 369-2897
Can Instruments Service Labs, Ltd, 29 Broadway
Vancouver 876-3361
For Venoya Enterprises Inc, Box 707
Daly City 756-9433
Den A/S Nordisk Elektronik, Danasvej 2, Kopenhamn V
Fr Soc d'Exploitation et de Prod des Tech Avancees
13 Rue de Tiquetonne, Paris 2e 236-37-45
Jap Rikei Trading Co, Ltd, 18-14 Nishishimbash
1-chome, Minato-Ku, Tokyo 591-5246
SAfr Ash Brothers (Pty) Ltd, 40 Webber St, Selby
Johannesburg
Swed Ab Nordiska Elektronik, John Ericssonsgatan 12-14
Stockholm K 08/248340
Arg Cia Anhanguera de Impy Exp, Ave Belgrano 1104
Buenos Aires 37 2441/5710
Ind Shiv Engineering Co, 18, Rajpur Rd
Delhi 43251/223896
Aust Nuetronics Pty, Ltd, 364 Eastern Valley Way
Chatswood, NSW 40-0251

SPECTRAL DYNAMICS CORP OF SAN DIEGO
BOX 671, 8911 BALBOA AVE, SAN DIEGO
CAL, 92112, TWX 910 335 2022 .... 714 278-2501
W HAWKINS JR, EMP 115, ENG 17, $2,500-$5,000M
Ala BCS Assoc, Inc, Box 1273, Huntsville 534-1648
Ariz R A Mayes Co, 4747 N 16 St, Phoenix 279-5243
Cal C G Pierce & Assoc, 1810 Fair Oaks Ave
S Pasadena 682-1166
Cal C G Pierce & Assoc, 363 S Taaffe
Sunnyvale 245-0986
Colo R A Mayes Co, Box 314, Broomfield 421-0706
Conn Northeast Engrg Inc, 3013 Dixwell Ave
Hamden 248-4481
Fla BCS Assoc, Inc, Box 6578, Orlando 425-2764
Ill Torkelson Assoc, 464 Central Ave
Northfield 446-8450
Ind Tri-State Technical Sales, 3734 Carrollton Ave
Indianapolis 317 924-3568
Kan Florence & Meyer Inc, 2900 Woodland
Wichita 838-7226
Md J E Cuesta & Co Inc, 8501 Glendale Rd
Greenbelt 552-1200
Mass Northeast Engrg Inc, 5 Elm St, Danvers 774-3010
Mich Electro Sales Assoc, Inc, 10745 Morang Dr
Detroit 886-2280
Minn Torkelson Assoc, 4820 W 77th St
Minneapolis 920-1046
Mo Florence & Meyer Inc, 406 W 34th St
Kansas City 561-7282
Mo Florence & Meyer Inc, 8650A Airport Rd
St Louis 521-6800
NJ Bonn Assoc, 266 Lake Ave
Metuchen 201 549-9573
NM R A Mayes Co, 8016 Zuni Rd SE
Albuquerque 265-7989
NY D B Assoc Inc, 3307 Erie Blvd, DeWitt 446-0220
NY D B Assoc Inc, 22 Biscayne Dr
Lancaster 835-6186
NY Bonn Assoc, 9 Ridge Dr
Huntington Station 516 427-4328
NC BCS Assoc, Inc, Box 6426, Greensboro 273-1918
Ohio Electro Sales Assoc Inc, 335 E 200th St
Cleveland 486-1140
Ohio Electro Sales Assoc Inc, Overlook Br Box 3122
Dayton 426-5551
Pa Electro Sales Assoc Inc, 201 Penn Center Blvd
Pittsburgh 371-9449
Pa J E Cuesta & Co Inc, Valley Forge 265-5800
Tex Carey-Wolf Co Inc, Box 60338, Houston 643-2114
Tex Carey-Wolf Co Inc, Box 12425
Ft Worth 738-1702
Wash Cane-Jessup Co Inc, Box 250, Bellevue 454-0691
Can David R. Beattie Ltd, 1260 Lakeshore Rd E
Port Credit, Ont 274-3445
Fr IMEX-FRANCE, 2Rue Navoiseau
93 Montreuil (Seine) 808-19-20
Ger TELCO (GmbH.), 8 Munchen 8
Franz-Prueller-Str 15 .... 443 424
GB LTV Ling Altec Ltd, Heath Wks Baldock Rd
Royston Herts ROY-2424
Ital S & Agostino Belotti, Piazza Trento N 8
Milano (718) 54 20 51
Jap Toyo Trading Co, Ltd, Box 999
Central Tokyo 03-279-0771
Jap Toyo Trading Co Ltd, 2-38 Junkeicho-dori
Minami-ku Osaka 06-262-3471
Nor Hugo Riso A/S, Box 8 - Taasen, Oslo 8 .... 23 25 80
Swed AB Sveadiesel, Gardsvagen 10, Solna 83 08 70
Swit Digitana AG, Gertrudstra 24
8003 Zurich 051/250070
Isrl Landseas (Israel) Ltd, 29, Bezalel St
Tel-Aviv 244311-2
Neth Koning En Hartman N V, Koperwerf 30
The Hague 070-67 83 80
Aust Simon Gray Pty Ltd, 28 Elizabeth St
Melbourne,Vic 63-8101

SPECTRA-MAT INC, 1240 HWY 1, WATSONVILLE
CAL, 95076 .... 408 722-4116
R REAVES, EMP 45, ENG 2, $5,000-$10,000M

SPECTRA-PHYSICS, 1255 TERRA BELLA AVE
MOUNTAIN VIEW
CAL, 94040, TWX 910-379-6941 .... 415 961-2550
G BRILL, EMP 260, ENG 25, $2,500-$5,000M
Ariz Barnhill Assoc, 4900 E Indian School Rd
Phoenix 959-2115
Cal Spectra-Physics Inc, 20125 Needles St
Chatsworth 213 462-7639
Colo Barnhill Assoc, 1170 S Sheridan Blvd
Denver 934-5505
Conn Spectra Physics Inc, 1250 Farmington Ave
West Hartford 617 873-8070
Ill Spectra-Physics Inc, 735 Wisconsin Ave
Oak Park 386-5104
NM Barnhill Assoc, 827 Penna NE
Albuquerque 265-7766
NY Spectra Physics Inc, 234 Parish Rd
Honeoye Falls 716 454-6080
Pa Spectra Physics Inc, 5 Fireside La
Levittown 215 923-2859
Tex Barnhill Assoc, 3810 Westheimer
Houston 713 621-0040
Tex Barnhill Assoc, 507-B Bishop
Richardson 214 231-2573
Va Spectra Physics Inc, 9826 Fairfax Sq
Fairfax 703 591-3151
Swit Spectra Physics SA, 18 rue St Pierre, 1701 Fribourg

SPECTRA-STRIP CORP, 7100 LAMPSON AVE
GARDEN GROVE
CAL, 92642, TWX 910 596-1314 .... 714 892-3361
F HANNA, EMP 40, ENG 2, $1,000-$2,500M
Ala Perrott Assoc Inc, Box 1601, Huntsville 837-2290
Ala Perrott Assoc Inc, Box 4306, Huntsville
Ariz Toward Engrg Assoc, Box 15268 Arcadia Sta
Phoenix 602 955-3193
Cal Western Electronic Components, 4301 Birch St
Newport Beach 540-0906
Cal V B Wyman & Assoc, Box 6021
Hayward 782-1440
Conn Com/Pak, Box 37, Wethersfield 203 563-4784
Fla Perrott Assoc Inc, 1607 Forsyth Rd
Orlando 275-1132
Fla Perrott Assoc Inc, Box 532, Clearwater 446-2535
Fla Perrott Assoc Inc, 7515 W Lake Dr
West Palm Beach 585-7761
Ill Quadtron Assoc, Box 306, Lombard 627-6800
Ind Scott Electronics, Inc, 911 Penna Ave
Indianapolis 635-8951
Mass COM/PAK, 14 Oak St, Needham 444-1259
Minn Fred B Hill Co, 6110 Excelsior Blvd
Minneapolis 929-6727
NJ Megatone Inc, 240 Grand Ave
Leonia 201 944-2212
NY L-C-A Sales, Inc, 76 Main St, Tuckahoe 961-4700
Ohio Scott Electronics, Inc, 79 State St
Columbus .... CA 8-2312
Ohio Scott Electronics, Inc, 1836 Euclid Ave
Cleveland .... TO 1-2626
Ohio Scott Electronics, Inc, 517 Hulman Bldg
Dayton 233-2652
Ohio Scott Electronics, Inc, 9509 Montgomery Rd
Cincinnati 791-2513
Pa Scott Electronics, Inc, 313 Empire Bldg
Pittsburg 471-5233
Pa L-C-A Sales Inc, 1623 Earlington Rd
Havertown .... Hi 6-5420
Tex E V Smith Sales Co, Box 12583
Houston .... MI 9-5756
Tex E V Smith Sales Co, 1721 Wroxton Ct
Houston .... Ja 9-2085
Tex P Kreager Co, 9230 Cliffmere Dr
Dallas 214 348-3521
Utah Electronics-Intermountain, Inc, 1904 S 13th St
Salt Lake City 484-5595
Va L-C-A Sales Inc, 201 Epsilon Pl, Annandale
Wash J J Backer Co, Box 9077, Seattle .... 206 AT 3-6470
For Frazar & Hansen Ltd, 150 California St
San Francisco, Calif .... Yu 1-5262
For Frazar & Hansen Ltd, 225 W 23rd St
Los Angeles, Calif 749-2538

SPECTROLAB DIV, TEXTRON ELECTRONICS INC
12484 GLADSTONE, SYLMAR
CAL, 91342 .... 213 EM 54623
T HUTCHINSON, EMP 200, ENG 50
Cal Pacific Scientific Co, 1950 5th Ave
San Diego 233-0156
Cal Pacific Scientific Co, 6280 Chalet Dr
City of Commerce 773-2020
Cal Pacific Scientific Co, 760 Hariison St
San Francisco 362-0934
Conn Equipment Sales Inc, Box 5396
New Haven 248-5581
NJ TE Sales Co, 1367 Stuyvestant Ave
Union 687-5353
NM Pacific Scientific Co, 209 San Pablo SE
Albuquerque 265-6638
NM Southwestern Engrg & Equip Co
707 1st Natl Bank Bldg E, Albuquerque
Ohio Lowry-Dietrich, 333 W 1st St, Dayton 223-6042
Ohio Lowry-Dietrich Co, 1276 3rd St
Cleveland 781-1855
Pa Lowry-Dietrich Co, 90 Clairton Blvd
Pittsburgh 892-2992
Tex Pacific Scientific Co, 702A E Abram St
Arlington 275-3236
Tex Southwestern Engrg & Equip Co
6300 N Central Expwy
Dallas .... A/C 214 363-6501
Tex Southwestern Engrg & Equip Co
4242 Richmond Ave, ... Houston
Tex Astro Assoc, 5760 Rice Ave
Houston 713 668-0493
Va Gans-Fryling Inc, 2030 16th St N
Arlington 703 527-3262

SPECTROL ELECTRONICS CORP, 17070 E GALE AVE
CITY OF INDUSTRY
CAL, 91745, TWX 910 584-1314 .... 213 964-6565
T STENGLEIN, EMP 750, ENG 40, $500-$1,000M
ADV PG 484
Ala Technical Mktg Inc, Box 1001
Huntsville 534-2487
Ariz Brooks, Feeger Assoc, 4710 N 16th St
Phoenix 264-6536
Cal Transdynamics Inc, 3108 5th Ave
San Diego 298-8215
Cal W J Purdy Co, 312 7th St
San Francisco 863-3300
Colo Brooks, Feeger Assoc, 1309 S Inca St
Denver 744-3301
Conn Kitchen & Kutchin Inc, 22 Broadway
North Haven 239-0212
Fla Technical Mktg Inc, 1511 E Robinson
Orlando 424-8531
Fla Technical Mktg Inc, Box 237, Largo 446-6192
Ga Technical Mktg Inc, Box 1152, Marietta 435-0079
Ill Knoblock & Assoc Inc, 4902 Tollview Dr
Rolling Meadows 392-8586
Ind R O Whitesell & Assoc, 272 Central Bldg
Fort Wayne 743-4411
Ind R O Whitesell & Assoc, 6620 E Washington St
Indpls 359-5374
Iowa Jerry Vrbik Co, 2818 A Ave NE
Cedar Rapids 365-0461
Kan Aerotronics, Inc, Box 11026, Washington Sta
Wichita 264-7925
Ky R O Whitesell & Assoc, 3620 Lexington Rd
Louisville 893-7303

Md Mechtronics Sales Inc, 7600 Gerogia Ave, N W
Washington 291-6004
Md Mechtronics Sales, Inc, 606 Edmondson Ave
Baltimore 744-6403
Mass Kitchen & Kutchen Inc, 17 Waltham St
Lexington 862-8230
Mich R C Nordstrom & Co, Box 32
Lathrup Village 444-4417
Minn Fred B Hill Co, 6110 Excelsior Blvd
Minneapolis 929-6727
Mo Aerotronics Inc, Box 6236 Lambert Fld
St Louis 426-4060
NJ Sunday'O'Brien, 15 Potter St
Haddonfield 429-4013
NM Brooks, Feeger Assoc, 1238 Ortiz SE
Albuquerque 268-4387
NY I A Hotze Co Inc, 112 DeWitt St
Syracuse 479-6641
NY D R Bittan Co Inc, 381 Sunrise Hwy
Lynbrook 593-3833
NY Spectrol Elctns Corp, 333 Jericho Tpk
Jericho 938-4000
NC Technical Mktg Inc, Box 6664
Greensboro 274-2570
Ohio R O Whitesell & Assoc , 1172 W Galbraith
Cincinnati 521-2290
Ohio R O Whitesell & Assoc, 21139 Loraine Ave
Cleveland 333-2585
Ohio R O Whitesell & Assoc, 4133 S Dixie Ave
Dayton 298-9546
Okla Ammon & Champion Co, Box 4682
Tulsa 627-7670
Okla Ammon & Champion Co, Box 12274
Oklahoma City 942-8222
Pa Russell F Clark Co, 10517 Lindberg Ave
Pittsburgh 242-9500
Tex Ammon & Champion Co, 11514 Burdine
Houston 729-1233
Tex Ammon & Champion Co, 628 Blanton Towers
Dallas 357-8441
Utah Brooks, Feeger Assoc, 253 Rio Grande
Salt Lake City 359-2427
Wash Transdynamics Inc, 7834 SE 32nd St
Mercer Island 232-1094
Wis Malone Engrg Assoc, Inc, 7640 W North Ave
Elmwood Park 456-4031
Can Aeromotive Engrg Ltd, 1912 A Ave RD
Toronto Ont 783-4288
Can Aeromotive Engrg Ltd, 887 Montee DeLiesse
Montreal Que 747-4781

SPECTRUM INSTRUMENTS INC, 102 COLUMBUS AVE
TUCKAHOE, N Y, 10707 .... 914 779-8111
J MCCLEAN
NY H Shprentz Inc, 126 Deertrack La
Irvington .... 914 LY 1-7970

SPECTRUM SYSTEMS, INC, 211 SECOND AVE
WALTHAM, MASS, 02154 .... 617 899-4000
J GREENE, EMP 32, ENG 12

SPEDCOR ELECTRONICS INC, 70-31 84TH ST
GLENDALE
N Y, 11227, TWX 710-582-2288 .... 212 894-8100
H SONDOV, EMP 350, ENG 30

SPEEDFAM CORP, 509 N THIRD AVE, DES PLAINES
ILL, 60016 .... 312 827-8891
J FARLEY, EMP 50, ENG 2, $1,000-$2,500M

SP ELETTRONICA SPA, VIA C PISACANE 10/4
PERO, MILAN, ITALY, 20016, TWX 32242 3530241
P CIACCHELLA, EMP 180, ENG 17, $2,500-$5,000M
Den E V Johanssen A/S, Scherfigsvej 1
Copenhagen .... (01)295622
Fr Technique et Produits S A, Rue Carle Vernet
Cite Des Bruyeres - Sevres 92 .... 626 02-035
Ger Tekelec-Airtronic G m b H, Alté Poststr 5
7000 Stuttgart 1 .... 0711 22 53 15
GB Guest Electronics Ltd, Brigstock Rd
Thornton Heath Surrey CR4 7JA..... 01-684 9731
Holl Uni-Office NV, Botersloot 23/27
Rotterdam .... (010)132220
Nor Henaco A/S, Box 2456 Solli, Oslo 2 ..... 56 51 80
Swed Elektroholm AB, Dalvagen 12
Fack Solna 1 .... 82 02 80
Swit Baerlocher AG, Forrlibuckstr 110
Zurich .... (051)429900
Belg Avi-Elec N V, 10 Rue De L'Egalite
Brussels 4 .... 02 49 38 16
Isrl Elina Ltd, Box 960, Tel-Aviv 52068
Fin Elektrotjanst, Helsingfors 17, Helsinki 17 .. 659-877

SPELLMAN HIGH VOLTAGE ELECTRONICS CORP, 1930 ADEE AVE
BRONX, N Y, 10469 .... 212 547-0306
S SKEIST, EMP 15, ENG 3, $250-$500M
ADV PG 502, 503

SPENCER-KENNEDY LABS INC, 1320 SOLDIERS FIELD RD
BOSTON, MASS, 02135 .... 617 254-5400
D LEMIRE, EMP 150, ENG 15, $2,500-$5,000M
ADV PG 303
Cal Kittleson Co, 416 N La Brea Ave
Los Angeles .... 213 WE 3-7371
Colo PLS Assoc, 7895 E Prentice Ave
Englewood 303 771-0140
Ill Loren F Green & Assoc, 5218 W Diversey Ave
Chicago 312 286-6824
Md G L Brown, 5801 Annapolis Rd
Bladonsbury 301 779-1500

Mass W M Hague Co, 10 Muzzey St
Lexington 617 862-5700
NJ Louis A Garten & Assoc, 375 Passaic Ave
Caldwell .... 201 CA 6-7800
NM PLS Assoc, 4200B Silver Ave
Albuquerque 505 255-0120
NY R J C Assoc, 219 Oakridge Ter
Liverpool 315 457-3220
Ohio H Teplitz & Co, 3718 Salem Ave
Dayton 513 277-9178
Pa Louis A Garten & Assoc, 947 Old York Rd
Abington 215 885-1550
Tex John A Green Co, 7118 Envoy Ct
Dallas .... 214 ME 1-7450
Tex John A Green Co, 3400 Montrose
Houston .... 713 JA 6-2959
Fr Ets Radiophon, 148 Ave Malakoff, Paris 16e
Ger Dr-Ing Nusslein, Rissener Str 102, Hamburg 2
GB B & K Lab Ltd, 4 Tilney St, Park La, London W 1
Holl C N Rood, NV, Box 4542, Rijswijk
Ital Silverstar Ltd, 21 Via Visconti di Modrone, Milan
Swed Telare AB, Industrigatan 4, Stockholm K
Swit Walter Blum Electronics, Honggerstr 115, Zurich
Belg C N Rood, NV, 30 Rue Leon Frederic, Brussels 4

SPEREX CORP, 2239 PONTIUS AVE, LOS ANGELES
CAL, 90064 .... 213 478-1541
W JOHNSTON, EMP 10, ENG 3, $100-$250M
Kan Kenco, Inc, 800 N Mosley, Wichita .... AM 2-2361

SPERRY ELECTRONIC TUBE DIV, SPERRY RAND CORP
GAINESVILLE, FLA, 32601 .... 904 372-0411
D DAVIS, EMP 550, ENG 85, OVER $10,000M
Ala Cain & Co, Huntsville 205-536-1422
Cal Cain & Co, 15720 Ventura Blvd
Encino 213-783-4700
Cal Cain & Co, 175 S Antonio Rd
Los Altos 415-948-6533
Cal Cain & Co, 3595 Mt Acadia Blvd
San Diego 714 278-1031
Fla Cain & Co, 2523 Chippewa Trail
Maitland 305 422-3460
Ill Cain & Co, 1203 Ironwood Dr
Mt Prospect 312-253-3578
Md Cain & Co, 7401 New Hampshire Ave
Hyattsville 202-296-8265
Mass Cain & Co, 45 Essex St, Melrose 617-665-8600
NJ Cain & Co, Box 261, S Amboy 201-727-1900
NY Cain & Co, 253 16 Northern Blvd
Little Neck 212-428-3636
NY Cain & Co, 324 First St, Liverpool ... 315-437-2933
Ohio Cain & Co, 2485 Lipton Rd
Columbus 614 861-2119
Pa Cain & Co, One Bala Ave Bldg
Bala-Cynwyd 215 664-3797
Tex Cain & Co, 8609 NW Plaza Dr
Dallas 214-369-2897
Can Cain & Co, Montreal, Quebec 844-0089
Den Sophus Berendsen, 10 Amaliegade, Copenhagen
Fr Comsatec, 134 Ave de Malakoff, Paris
Ger Nucletron Vertriebs - GMBH, 60 Gartnerstr
Munchen 54
GB Roberts Elctns Ltd, 17 Hermitage Rd, Hitchin Herts
Holl Feteris Felektron NV, Scheveningseweg 15
'S Gravenhage
Jap Tokyo Siezosho Co Ltd
46, 16th Minami-Kamata, 2-Chome, Ota-Ku, Tokyo
Nor A S G Hartmann, Postboks Nr 1, Oslo
Swed Scantele AB, Tengdalsgatan 24, Stockholm So
Swit Tronicair SA, 3 Rampe de Treille, Geneva 11
Belg Sait, 66 Chaussee de Ruisbroek, Brussels
Gr Denaxas & Trakas, 8 Rue Stadiou, Athens 13
Ind Motwane Ltd, 127 Mahatma Ghandi Rd, Bombay 1
Isrl Electrotechnical Office, 6 Herzl St, Haifa
Spn E M Calderon, Aptdo 50231, Madrid 14
Aust National Instrument Co Ltd
Melbourne Arpt Essendor, Victoria

SPERRY FLIGHT SYSTEMS DIV SPERRY RAND CORP
21111 N 19TH AVE, PHOENIX
ARIZ, 85027, TWX 602 582-2312 .... 602 942-2311
V ACRI, EMP 3000, ENG 300, OVER $10,000M
Cal L Webel, 650 N Sepulveda Blvd
El Segundo 213 772-4215
Ga F Miles, 6075 Roswell Rd NE
Atlanta 404 255-4878
NY A L Eisenhäuer, Box 15
E White Plains 914 948-7559
NY Sperry Gyroscope Co, Mail Sta T 214
Great Neck .... 516 LR 4-1425
Wash L W Neff, 300 W Harrison, Seattle... 206 284-7551

SPERRY GYROSCOPE DIV SPERRY RAND CORP
MARCUS AVE, GREAT NECK
N Y, 11020, TWX 510-223-0404 .... 516 LR 40111
C HIGGINS, EMP 5500, ENG 1300, OVER $10,000M
Ala Sperry Gyroscope Co, 716 Arcadia Cir
Huntsville 539-3771
DC Sperry Gyroscope Co, 1625 Eye St NW
Washington .... ST 3-6966
Fla Sperry Gyroscope Co, 7016 N Atlantic Ave
Cocoa Beach 783-7801
Mass Sperry Gyroscope Co, 100 North Rd
Sudbury 369-6310
Ohio Sperry Gyroscope Co, 118 W First St
Dayton 223-8836
Fr Sperry Europe Contl, 7 Ave De L'Opera
Paris 1 Er. .... OPE 1384
Ger Sperry Kreiseltechnik GmbH, Moehlstr 24
8 Munich 27 .... 48 6534
GB Sperry Gyroscope Co Ltd, Great West Rd
Brentford Mdsx .... ISL 1241

SPERRY INSTRUMENTS INC A W, 150 FIFTH AVE
NEW YORK, N Y, 10011 .... 212 255-6020
S SCHUSTER, EMP 11, ENG 1, $250-$500M
Ariz John Smithbaker Agency, Box 298
Scottsdale 602 945-5209
Cal Black & Egbert Assoc, 2025 McKinnon Ave
San Francisco 415 282-0840
Colo Electrical Agencies Co, 1689 Eliot St
Denver 303 623-8246
Conn Russ Myer Co, Box 4212, Hamden ... 203 288-5291
Fla Shannon Assoc, Box 768
Longwood 305 831-2245
Ga Roach & Petrolin Sales, 713 Healey Bldg
Atlanta 404 525-2959
Ill J L Rowe & Sons, 3005 W Franklin Blvd
Chicago 312 722-0330
Ind Electric Sales Inc, 25 N Pine St
Indianapolis 317 635-0144
Ky Hackman Elec Sales, 227 Scott St
Covington 606 291-3800
La E P Jones & Co, 4408 Cleveland Pl
Metairie 504 887-0892
Mass H L Frank & Sons, 863 Washington St
Newtonville 617 969-8300
Mich Fred Cohen, 8356 Huntington Rd
Huntington Woods 313 547-9846
Minn Eggar Bennett & Hondlik, 3280 Gorham Ave
Minneapolis 612 929-8874
Mo F A Bettis Co, 3718 Broadway
Kansas City 816 531-1530
Neb F C Clatterbaugh Co, Box 6181 College View Sta
Lincoln 402 489-5912
NJ N N Krug Assoc, 181 N Wyoming Ave
S Orange 201 763-4160
NY Mills Talbot Co, 45 Saginaw Dr
Rochester 716 244-1311
NY S S Schuster, 91 Cedar Rd
Westbury 516 333-6182
NC W H Lassiter Sales, 5934 Old Pineville Rd
Charlotte 704 523-2736
Ohio Vikimatic Sales, Box 86, LeRoy 216 253-1048
Pa Chapman Sales Co, 14 E Rambler Dr
Holland 215 357-8207
Pa M F Smith & Assoc, 761 Lindsay Rd
Carnegie 412 276-5363
Tenn Ross D Thomas Co, 111 Racine St
Memphis 901 683-0341
Tex Hodges Co, 1336 Crampton St
Dallas 214 631-8460
Wash E B Schack Co, 2212 First Ave
Seattle 206 623-1918
For Fernando Parces, Box 1376
Hato Rey P R 809 765-2993

SPERRY MICROWAVE ELECTRONICS DIV, BOX 4648
CLEARWATER, FLA, 33518 813-855-4471
F LAVELLE, EMP 560, ENG 150, OVER $10,000M
Ala Cain & Co, 5020 Regina Way
Huntsville 205-536-1422
Cal Cain & Co, 15720 Ventura Blvd, Encino... 783-4700
Cal Cain & Co, 175 S San Antonio Rd
Los Altos 948-6533
Fla Cain & Co, 2523 Chippewa Trail
Maitland 305-422-3460
Ill Cain & Co, 1203 Ironwood Dr
Mt Prospect 312-253-3578
Md Cain & Co, 7401
New Hampshire Ave .... Hyattsville
Mass Cain & Co, 45 Essex St, Melrose 665-8600
NJ Cain & Co, Box 261, South Amboy 727-1900
NY Cain & Co, 253-16 Northern Blvd
Little Neck 212-428-3636
NY Cain & Co, 324 First St, Liverpool ... 315-437-2933
NY Sperry Gyroscope Co, Great Neck .... LR 4-2168
Ohio Cain & Co, 2485 Lipton Rd
Columbus 614-861-2119
Pa Cain & Co, One Bala Ave Bldg
Bala-Cynwyd 215-664-3797
Tex Cain & Co, 8609 Northwest Plaza Dr
Dallas 369-2897
Can Cain & Co, Montreal Que 844-0089
Den Sophus Berendsen, 10 Amaliegade, Copenhagen k
Fr Sperry Rand France, 3 Rue Bellini - La Defense
92 Puteaux 256-55-00
Fr Comsatec, 134 Ave Malakoff, Paris 16EME
Ger Nucletron Vertriebs GMBH, Gartnerstra 60
8 Munchen 54
GB Roberts Electronics Ltd, 17 Hermitage Rd
Hitchin Hertshire
Holl Feteris Felektron NV, Scheveningseweg 15
'S-Gravenhage
Jap Tokyo Keiki Seizosho Co Ltd
46 16th Minami-Kamata 2-Chome, Ota-Ku Tokyo
Jap Shosin Shoji Kaisha Ltd, Box 173 N Honbashi, Tokyo
Nor A/S G Hartmann, Box 1, Oslo
Swed Scan Tele AB, Tengdalsgatan 24, Stockholm Sq
Swit Tronicair Sa, 3 Rampe De La Treille, Geneve
Belg Sait Electronics, 66 Chausee De Ruisbroek, Brussels
Ind Motwane Private Ltd, 127 Mahatma Gandhi Rd
Bombay
Spn Enrique M Calderon, Apartado 50 231, Madrid 14
Aust Nationwide Instrument Co, Essendon Airport
Essendon

SPHERE CO INC, 256 AMITY ST, LITTLE FALLS
N J, 07424 .... 201 256-2550
R SOBON, EMP 15, ENG 1, $100-$250M
Cal Yarbrough Sales Co, Orange St, Alhambra
Ind R H McCampbell, 3715 Nokomis Rd
Fort Wayne 745-7063

SPIRLING PRODUCTS CO INC
HENRIETTA ST & DUFFY AVE, HICKSVILLE
N Y, 11801 .... 516 WE 1-6550
L SPIRT, EMP 50

SPITZ LABS INC, YORKLYN
DEL, 19736 .... 302 CE 9-5212
W YOUNG, EMP 150, ENG 12, $2,500-$5,000M

SPIVEY INC, JAMES S, 3817 LIVINGSTON ST N W
WASHINGTON, D C, 20015 202-363-1580
J SPIVEY, EMP 7

SPRAGUE ELECTRIC CO, 125 MARSHALL ST
NORTH ADAMS
MASS, 01247, TWX 413 663-3581 .... 413 664-4411
EMP 11500, OVER $10,000M
Ariz Sprague Electric Co, 3550 N Central Ave
Phoenix 602 279-5435
Cal William J Purdy of Cal, 312 7th St
San Francisco 415 863-3300
Cal Sprague Electric Co, 12870 Panama St
Los Angeles 213 870-0161
Colo Sprague Electric Co, 5670 E Evans Ave
Denver 303 756-3611
Conn Sprague Elec Co, 935 White Plains Rd
Trumbull 203 261-2551
DC Sprague Electric Co, 3900 Wisc Ave NW
Washington 202 338-7911
Fla Sprague Electric Co, 1439 Gulf to Bay Blvd
Clearwater 813 446-0466
Ill Sprague Electric Co, 9950 W Lawrence Ave
Schiller Park 312 678-2262
Ind Sprague Electric Co, 2511 E 46th St
Indianapolis 317 546-4911
Mass Sprague Electric Co, 343 Washington St
Newton 617 969-7640
Mass Sprague Elec Co, Marshall St
North Adams 413 664-4411
Mich Sprague Electric Co, 259 Collingwood
Ann Arbor 761-4080
Minn H M Richardson Co, 9 E 22nd St
Minneapolis 612 335-7734
Mo Sprague Electric Co, 500 Northwest Plaza
St Ann 314 291-2500
NJ Sprague Elec Co, 1050 N Kings Hwy
Cherry Hill 609 667-4444
NM C T Carlberg & Assoc, Box 3177 Sta D
Albuquerque 505 265-1579
NY Sprague Electric Co, 50 E 41st St
New York 212 679-1195
NY William Rutt Inc, 475 White Plains Rd
Eastchester 914 779-4100
NC Sprague Electric Co, 928 Burke St
Winston-Salem 919 722-5151
Ohio Sprague Electric Co, 24 N Main St
Chagrin Falls 216 247-6488
Ohio Sprague Electric Co, 224 Leo St
Dayton 513 223-9187
Tex Sprague Electric Co, 1st Bank & Trust Bldg
Richardson 214 235-1256
Wash Sprague Electric Co, 4601 Aurora Ave N
Seattle 206 632-7761
Can Sprague-TCC Canada Ltd, 10 Bertal Rd
Toronto 15 .... 416 766-6123
Can Sprague-TCC Canada Ltd, 860 Decarie Blvd
Ville St Laurent Montreal 514 747-7811
For Sprague World Trade Corp, P O Box 14289
Hong Kong 70-5254
Fr Sprague France SARL, 14-16 Rue Gabriel Peri
92-Montrouge 655-19-19
Ger Sprague GmbH, 6000 Frankfurt am Main
Frankfurt A/Main 77-50-72
GB Sprague Electric (UK) Ltd, Sta Rd
Hayes, Mdsx 01 573-8833
Ital Sprague-Creas S P A, Viale Legioni Romane 27
Milano 4034245
Ital Sprague-Creas SpA
Via Costantino Maes 82 Int 2-B Palazzino
00162 Rome 83-33-96
Swit Sprague World Trade Corp, Farberstr 6
Zurich 051 47-01-33
Belg Sprague World Trade Corp, 2 Rue de Merode
Renaix 055/230.55

SPRAGUE OF WISCONSIN INC, 6TH & BEECH ST
GRAFTON, WIS, 53024, TWX 2-6768 ... 414 DR 7-3500
I HOUSE, EMP 300, ENG 10, $2,500-$5,000M

SPRAYON PRODUCTS INC, 26300 FARGO AVE
BEDFORD HEIGHTS, OHIO, 44146 .... 216 292-7400
D POWERS, EMP 300, OVER $10,000M
ADV PG 151
Cal Sprayon Products Inc, Anaheim

SPRENGNETHER INSTRUMENT CO INC, W F
4567 SWAN AVE, ST LOUIS
MO, 63110 .... 314 JE 5-1682
R HAUTLY, EMP 18, ENG 4, $250-$500M

SPRING CITY ELECTRICAL MFG CO, 5 S MAIN ST
SPRING CITY, PA, 19475 .... 215 948-4000
EMP 70, ENG 4, $500-$1,000M
Ariz W C Osborn Co, 5035 I N 7th St
Phoenix 279-5556
Cal Arthur & Allen, 35 S Park
San Francisco .... YU 2-3483
Cal Robert A Carew Co, 412 Seatton St
Los Angeles .... MA 8-8072
Colo Electrical Lines Inc, 721 S Jason St
Denver 222-2587
Conn Burton L How, 35 Clifton Ave
W Hartford 521-6657
Fla Target Sales Co, Box 921 RS Sta
Miami 374-7618
Fla Van & Smith Co Inc, Box 102055
Tampa 877-8393
Fla Van & Smith Co Inc, 2723 Park St
Jacksonville 384-2376
Fla Van & Smith Co Inc, 12158 N Orange Ave
Orlando 425-7026
Ga Osgood & Assoc Inc, 1280 W Peachtree St NW
Atlanta 875-7804
Haw Hawaiian Aire Inc, 45-552 Kam Hwy
Kaneohe 240-471
Iowa C R Krenik Sales Inc, 4506 Country Club Blvd
Sioux City 258-1527
Ky Pfeiffer Sales Co, Box 7044, Louisville ... 896-9876
La Geo E Anderson Co Inc, 3505 Green Acres Rd
Metairie 887-2166
Md Specialty Elec Sales Co, 7130 Milford Ind Rd
Baltimore 486-8666
Mass Saracen Assoc, 1616 Soldiers Field Rd Ext
Boston 787-4310
Mich Arlee Electric Sales Inc, 16570 Coyle
Detroit 835-6310
Minn C R Krenik Sales Inc, 740 Washington Ave N
Mnpls 338-5661
Miss Geo E Anderson Co Inc, 5935 Whitestone Rd
Jackson 362-7388
Mo Fleming & Co, 3021 Main St
Kansas City .... PL 3-0111
Mo Arbeiter Co, 7297 Olive Blvd, St Louis .. PA 7-0016
NJ Wm M Collier & Assoc, Box 815
Butler 838-7676
NY Walter E Daw Co Inc, 31 E Wiggand Dr
Albany .... HO 3-2357
NY Walter E Daw Co Inc, 775 Main St
Buffalo 854-0677
NY Walter E Daw Co Inc, 222 Linden St
Rochester .... CH 4-8305
NY Lighting Materials Co, 101 Park Ave
New York .... OR 9-3727
NY Walter E Daw Co Inc, 202 Arterial Rd
Syracuse 463-8541
NC W P Byrd, Box 6101 Summit Sta
Greensboro 273-5932
NC W P Byrd Agency, Box 1245, Hickory 324-6281
Ohio W W Baerbalck & Assoc, 6075 Romaine Dr
Dayton 274-8075
Ohio W W Baerbalck & Assoc, 1717 Section Rd
Cincinnati 631-2618
Ohio Verne Lasalle Co, 2630 St Clair Ave
Cleveland 241-3788
Okla G E Anderson Co Inc, 7704 S Villa Ave
Oklahoma City .... MU 5-1513
Pa Specialty Electrical Sales Co, 401 N Broad St
Phila .... WA 2-4046
Pa H William Petty & Co, 520 Washington Rd
Pittsburgh 341-7404
SC Wilson & Byrd, 126 Forestdale Dr
Taylors 244-3554
Tenn Geo E Anderson Co Inc, Box 8441 Hollywood Sta
Memphis 386-2423
Tex Geo E Anderson Co Inc, 1700 S Ervay St
Dallas .... HA 8-3731
Tex Geo E Anderson Co Inc, Box 3294
Houston .... FA 3-5001
Tex Geo E Anderson Co Inc, Box 13028 Cresthaven Sta
San Antonio .... DI 2-7797
Wis Electric Materials Co, Box 1680
Milwaukee 383-0350
For Communications Elec Equip Sup Co, Box 58
Manila Philip

SPRINGER AIRCRAFT-RADIO CORP, RR 2 BOX 98
SHELBYVILLE, IND, 46176 317-835-7757
E SPRINGER, EMP 3, ENG 1, $500-$1,000M

SPRUCE PINE MICA CO INC, BOX 280, SPRUCE PINE
N C, 28777 .... 704 765-4241
E FARNAM, EMP 65, ENG 1
Cal Mitronics Indus, Box 2129, Rolling Hills
Cal Straube Assoc, 483 Willow Rd
Menlo Park 415 323-2476
Colo Waugaman Assoc Inc, 2785 N Speer Blvd
Denver 303 255-5000
Ill Federal Insulation Co, 549 W Randolph St
Chicago 312 236-7703
Ind Del Steffen & Assoc, 737 N LaFontaine St
Huntington 219 356-5124
NY T H Lee, 167 E 82nd St, New York ... 212 744-4611
NC Barbee Sales Assoc, Box 10051
Raleigh 919 828-5691
Ohio Del Steffen & Assoc, 3130 Far Hills Ave
Dayton 513 293-3145
Ohio Del Steffen & Assoc, 25000 Euclid Ave
Cleveland 216 261-5055
Tex Robert P Votteler, 3508 Greenville Ave
Dallas 214 823-2320

SPYRAFLO INC, 1295 NW 163RD ST, MIAMI
FLA, 33169 .... 305 621-0556
L SWANSTROM
Cal R C Dudek & Co, 600 N Sepulveda Blvd
L A .... 213 BR 2-8097
Colo Fred A Pease Co, Box 646, Aurora ... 303 364-9391
Ill S W Anderson Co, 1812 Ogden Ave
Downers Grove .... 312 WO 9-7770
Mich Dodsworth & Assoc, 8855 Riverdale
Detroit 313 538-3522
NY M Brenner, 432 Beach 140th St
Belle Harbor .... 212 NE 4-7103
NC Lee Ltd, Bethania
Ohio Frank E Kahsar Sales, 5229A Glenway Ave
Cincinnati .... 513 GR 1-9011
Pa A Dorn, 838 Central Ave
Southampton .... 215 EL 7-4060
Pa Penn Engng & Mfg Corp, Box 311
Doylestown 215 766-8853
Tex Blair Engrg Sales Co, 10034 Monroe St
Dallas 214 352-2556
Can Intl Fasteners Ltd, 83 Penn Dr
Weston Ont 416 749-0070

SQUARE D CO, EXECUTIVE PLAZA, PARK RIDGE
ILL, 60068 .... 312 774-9200
R KING, EMP 10000, ENG 200, $5,000-$10,000M
Sales Offices in all principal cities

SQUIRES-SANDERS INC, MARTINSVILLE RD
LIBERTY CORNER, N J, 07938 .... 201 647-3200
R POWELL, EMP 100, ENG 13, $2,500-$5,000M
Ala Lichtenstein & Guyer, 1226 Franklin Circle NE
Atlanta, Ga 634-0798
Cal Barstow, Doran & Hansen, 1406 S Grand Ave
Los Angeles .... RI 9-0438
Cal Meyer, Ross & Fleming, 113 10th St
San Francisco .... HE 1-0652
Cal Shepphard, Winters & Stern, 4109 Burbank Blvd
Burbank
Colo Hyde Electronic Co Inc, 888 S Lipan St
Denver 936-3456
Ga Lichtenstein & Guyer, 110 Robin Rd, RFD 3
Marietta 428-4261
Ill Morton Fields, 8330 Springfield Ave
Skokie .... OR 4-3018
Ind Chas Scheffler, 1133 Navojo Tr
Indianapolis .... CL 3-6337
Kan Lowell, Kangas & Assoc Inc, Box 4116
Overland Park 888-3200
Mass Robert Smith Co, 59 Verndale St
Brookline .... AS 7-0017
Minn Northern States Sales, 1109 W 78 1/2 St
Minneapolis 866-3468
Mo Gordon Lowell, Box 26, Creve Corner Sta
St Louis .... MI 7-1111
NM Hyde Electronic Co Inc, 5206 Constitution Ave
Albuquerque 265-7313
Ohio Ohio Assoc, Box 728, Lima 646-3495
Tex Bill Wylds Co, 1247 Caudle Dr
Houston 468-8411
Utah Hyde Electronic Co Inc, 2422 Camino Way
Salt Lake City
Wash William R Lanphear Co, 4031 Stoneway Ave N
Seattle .... ME 3-4900

SRC DIV MOXON ELECTRONICS CORP
2309 PONTIUS AVE, LOS ANGELES
CAL, 90064, TWX 910-342-6345 213-477-4573
J HEYER, EMP 20, ENG 3, $500-$1,000M
Ala Mekco Assoc, Holiday Office Ctr
Huntsville 205-881-3721
Ariz Moxon Electronics Corp, 44 E Indian School Rd
Scottsdale 602-273-7363
Cal Moxon Electronics, 2311 Pontius Ave
Los Angeles 213-879-2550
Cal Moxon Electronics, 15 41st Ave
San Mateo 415-345-7961
Cal Moxon Electronics, 2054 Garnet St
San Diego 714-274-6525
Colo BFA, 1309 S Inca St, Denver 303-744-3301
Fla Mekco Assoc, 3165 McCrory Rd
Orlando 305-841-2215
Ill Cozzens & Cudahy Inc, 9501 W Devon Ave
Rosemont 312-825-1144
Ind Cozzens & Cudahy Inc, 44 Kirk Dr
Indianapolis 317-244-2456
Md Ron Davies Assoc, 11215 Oak Leaf Dr
Silver Spring 301-593-4900
Mass Vector Sales, 774 Pleasant St
Belmont 617-489-1400
Minn Cozzens & Cudahy Inc, 7710 Computer Ave
Minneapolis 612-920-1022
Mo Cozzens & Cudahy Inc, 10534 Natural Bridge Rd
Edmundson 314-423-1234
NJ Moxon Elctns Corp, 40 Coles Ave
Cherry Hill 609-665-5444
NM BFA, 1238 Ortiz SE, Albuquerque 505-268-4387
Ohio Cozzens & Cudahy Inc, 735 S Court St
Medina 216 725-5660
Okla BFA, Box 15656, Tulsa 918-835-7942
Tex BFA, 708 W Euless, Euless 214-264-3363
Tex BFA Inc, Box 50, Friendswood 713-482-7563
Wis Cozzens & Cudahy Inc, 3712 W Elm St
Milwaukee 414-352-3640
Fr European Electronics, 41 E 42nd St
New York N Y 212-MU 2-5345
Fr Tranchant Electronique S/A
19-21 Rue Madame De Sanzillon, Clichy Seine
Isrl STG Intl Ltd, 52 Nachlat Benyamin St
Tel-Aviv 53459

S R ENGINEERING INC, 123 W 155TH, GARDENA
CAL, 90247 .... 213 FA 1-9400
R RAY, EMP 20, ENG 3, $500-$1,000M

SSCO STANDARDS LAB, INC, 12800 NORTHEND AVE
DETROIT
MICH, 48237, TWX 810-232-4848 ...... 313 398-2100
J GHESQUIERE, EMP 15, ENG 6, $100-$250M

STABRO LABS INC, 23 KENSINGTON AVE
SALT LAKE CITY, UTAH, 84115 .... 801 467-8011
J BROWN, EMP 15, ENG 1, $250-$500M

STACKPOLE CARBON CO, STACKPOLE ST, ST MARYS
PA, 15857, TWX 510-693-4511 .... 814 834-1521
H WILLIAMS, EMP 4200, ENG 150, OVER $10,000M
ADV PG 224, 616, 675
Ariz Dorton Enterprises Inc, Box 1297
Scottsdale 602 946-6213

Cal	Melchoir Assoc, 820B Cherry St San Carlos	LY 1-7383
Cal	Black & Strong Inc, 1728 S LaCienega Blvd Los Angeles	UP 0-9191
Cal	F A Auman, 1135 Fernwood Dr Millbrae	392-5353
Cal	C R Lemmon, 6819 Stearns St Long Beach	596-0716
Colo	J L Goodman Sales Co, 1869 S Pearl Denver	303 744-6477
Conn	R J Pisaneschi, 202 Diana Rd Plantsville	628-9505
Fla	Technical Mktg, Inc, 1511 E Robinson Orlando	424-8531
Ga	J A Creighton, 2625 Fontainebleu SW Atlanta	344-6185
Ill	W F Hartman, 30 W Rocket Cir Park Forest	748-6816
Ill	J L Clingingsmith, 1415 W Concord Dr Arlington Hts	392-1639
Ill	A A Woods, 5511 W Montrose Ave Chicago	283-7400
Ind	R E Riggs, Box 846, Bloomington	812 339-6166
Mass	Samuel C Hooker Inc, 2 Winchester Pl Winchester	729-5482
Mich	J E Vollmer Jr, 31516 Robinhood Dr Birmingham	644-3571
Mich	D J Mohr, 24324 Washington Ct Farmington	476-4015
Minn	HMR, Inc, 9 E 22nd St, Minneapolis	335-7734
Mo	L R Harry & Assoc, Box 588 Grandview	763-3634
NJ	G P Boylan, 11 Sugar Maple Ave Englishtown	536-9561
NY	H S Wegemer, 215 St Regis Dr S Rochester	271-0878
NY	Sprung/Nussbaum, Inc, 254 W 31st St New York	565-1821
NY	R W Mitscher Co, 496 Ellicott Sq Bldg Buffalo	854-2517
Ohio	J F Clark, 3828 Tall Oaks, Toledo	382-1813
Ohio	E V Ansley, Box 514, Dayton	299-1360
Ohio	G F Pauline, 1007 Wilmington Ave Dayton	298-8727
Pa	J P Clancy, 1008 Drexel Ave Drexel Hill	789-6556
Pa	C A Hammer, 684 Maurus St, St Marys	834-1437
Pa	Brown-Frederick & Assoc, 88 Penna Ave Oreland	TU 7-1325
Tex	M N Herbst, 7733 Indian Springs Rd Dallas	239-2497
Wash	Electronic Sales Corp, Box 6535 Seattle	WE 2-0330
Can	J R Hayward, 550 Evans Ave Etobicoke, Tor	CL 5-2373
For	Auriema Intl Group, 85 Broad St New York, NY	BO 9-7750

STACO INC, STANDARD ELEC PRODS CO
1139 BAKER ST, COSTA MESA
CAL, 92626, TWX 910 595-1507 .... 714 549-3041
J GUST, EMP 75, ENG 7, $1,000-$2,500M

Ala	Murphy & Cota, 905 Bob Wallace Ave Huntsville	205 536-9121
Conn	Nelson & Schoonmaker, 106 Main St Thomaston	203 283-5959
DC	Staco, Inc, 1139 Baker St Costa Mesa	714 549-3041
Fla	Murphy & Cota, 712 W Vassar St Orlando	305 424-2047
Ind	G & H Sales Co, 325 Bankers Trust Bldg Indianapolis	317 637-5048
Ind	G & H Sales Co, Box 2268 Fort Wayne	219 744-3072
Kan	Florence & Meyer Co Inc, 2900 Woodland Wichita	316 TE 8-7226
Mass	Nelson & Schoonmaker Inc, 71 Grove St Box 189 Arlington	617 643-5454
Mich	G & H Sales Co, 24001 Southfield Rd Southfield	313 358-1910
Mo	Florence & Meyer Inc, 406 W 34th St Kansas City	816 LO 1-7282
Mo	Florence & Meyer Inc, 6050 Brown Rd Berkley	314 JA 1-6800
NY	Geo F McCarthy Corp, 75 Plandome Rd Manhasset	516 MA 7-8790
NC	Murphy & Cota, 1106 Burke St Winston Salem	919 724-0750
Ohio	G & H Sales Co, 7215 Market Pl Cincinnati	513 761-6185
Ohio	G & H Sales Co, 13690 Fox Hill Dr Novelty	216 338-1122
Ohio	G & H Sales Co, 7215 Market Pl Cincinnati	513 577-1239
Tex	Robert R Thomas Co, 8616 Northwest Plaza Dr Dallas	214 363-8591
Tex	Robert R Thomas Co, 4031 Broadway Houston	713 644-2369
Wash	R Squibb & Assoc, 655 N E Northlake Pl Seattle	206 632-2450

STACO INC STD ELEC PRODS CO DIV
2240 E THIRD ST, DAYTON
OHIO, 45403, TWX 513 944-0432 ...... 513 253-1191
C MILLER, EMP 500, ENG 18, $5,000-$10,000M

Ariz	C T Carlberg & Assoc, 45 W 1st Ave Scottsdale	946-8654
Cal	Jack Logan & Assoc, 801-D Mahler Rd Burlingame	697-6100
Cal	West Inc, 3825 Birch St Newport Beach	540-9040
Conn	Coakley Boyd & Abbett Inc, 6 Gaywood Dr Waterbury	756-8766
Fla	Millar-Hutto Assoc, Inc, 501 Park Ave N Winter Park	MI 7-7707
Ga	Millar-Hutto Assoc, Inc, 3110 Maple Dr NE Atlanta	261-6160
Ill	Saffro & Assoc, 3736 Dempster St Skokie	JU 8-0905
Ind	R O Whitesell & Assoc, 6620 E Washington St Indpls	359-5374
Ind	R O Whitesell & Assoc, 203 W Wayne St Ft Wayne	743-4411
Kan	Poly-Onics Inc, 4434 W 90th Terr Leawood	NI 8-4173
Ky	R O Whitesell & Assoc, 3620 Lexington Rd Louisville	893-7303
Md	Eastern Components Inc, 6200 Annapolis Rd Landover Hills	322-1412
Mass	Coakley, Boyd & Abbett, 1424 Highland Ave Needham	DE 2-4800
Mich	R O Whitesell & Assoc, 25100 Evergreen Rd Southfield	358-2020
Mich	R O Whitesell & Assoc, 303 Fidelity Bldg Benton Harbor	927-2041
Minn	Clark Gibb Co, 1311 W 25th St, Mnpls	FR 7-1200
Mo	Poly-Onics Inc, 47 Vlg Sq Shop Ctr Hazelwood	TE 7-0597
NM	C T Carlberg & Assoc, 2611 Quincy St NE Albuquerque	265-1579
NY	Levison Sales Co, 5 Sunrise Plaza Valley Steam	LO 1-9696
NY	Robert F Lamb, 1865 Kenmore Ave Buffalo	874-4900
NY	Robt F Lamb Co Inc, 17 John St Kingston	338-8833
NY	Robt F Lamb Co, 63 Norcrest Dr, Rochester	
NY	Robt F Lamb Co, E Molley Rd, Syracuse	454-2469
NC	Millar-Hutto Assoc Inc, Box 17173 Raleigh	787-9564
Ohio	R O Whitesell & Assoc, 4133 S Dixie Ave Dayton	298-9546
Ohio	R O Whitesell & Assoc, 21139 Lorain Ave Cleveland	333-2585
Ohio	R O Whitesell & Assoc, 1172 W Galbraith Rd Cincinnati	521-2290
Ore	Ron Merritt Co, 2035 SW 58th Ave Portland	292-8762
Pa	Eastern Components Inc, 1349 W Cheltenham Ave Phila	WA 7-6262
Pa	R O Whitesell & Assoc, 201 Penn Center Blvd Pittsburgh	242-0100
Tenn	Texport Co, 5118 Park Ave, Memphis	683-0880
Tex	Texport Co, 2411 Farrington, Dallas	ME 1-6270
Tex	Texport Co, 8811 Gaylord, Houston	HO 4-2828
Utah	Arrowhead Sales Corp, 1966 W 6255 S Salt Lake City	801 298-2751
Wash	Ron Merritt Co, 1320 Prospect St Seattle	MU 2-7337
For	Roburn Agencies, 431 Greenwich St New York	WO 6-2130

STAFFALL, INC, 7 WOODLAND ST, PROVIDENCE
R I, 02908 .... 401 351-8282
A DEMURJIAN, EMP 20, ENG 1, $500-$1,000M

Ariz	Jack Osborn Assoc, Box 968 Scottsdale	602 948-0501
Cal	R C Kruse Assoc, Box 1225 Canoga Park	213 341-3020
Cal	Mac Pherson Sales Co, Box 2206 San Francisco	415 775-0303
Fla	R F Willett Co, 1260a S Highland Ave Clearwater	813 446-0075
Ill	L W Phinney, 1504 N Hoffman Park Ridge	312 825-5296
Ind	Delta Sales Inc, 1407 N Illinois St Indianapolis	317 ME 1-4136
Iowa	Howard R Brown Sales Co, 3400 Indiana Rd SE Cedar Rapids	319 366-0635
Md	Ansell Engineering Co, 816 Thayer Ave Silver Spring	301 588-4222
Mass	Lincoln Assoc, 13 Eaton Ct Wellesley Hills	617 235-8770
Minn	T W Macomber Assoc, 3851 Winnetka Ave Minneapolis	612 545-7613
Mo	Aire-Borne Electronics, 7759 Loma Vista Dr Kansas City	816 221-0312
NJ	Unicomp Inc, 18 Sunny Ridge Rd Wayne	201 696-2888
NY	J L Stone, 110 Terrace Cir, DeWitt	315 446-5127
NC	P J Nahser Co Inc, Box 432 Burlington	919 226-8053
Ohio	Whelan Corp, 2975 Far Hills Ave Dayton	513 298-9997
Pa	Humes-Quinlan Sales Co, 242 E Butler Ave Ambler	215 646-7250
Tex	Carter Assoc, Box 87, Garland	214 278-2988
Wash	R R Chase Assoc, Box 548 Kirkland	206 GL 4-2514
Can	Electrodesign Ltd, 9124 St Lawrence Blvd Montreal 11 Que	514 389-5914
For	Masten Wright Corp, Box 1896 New Haven, Conn	203 288-1638

STAFF GASKET MFG CORP, 40 W 22ND ST
NEW YORK, N Y, 10010 .... 212 OR 5-4097
N HELF, EMP 25, ENG 3, $100-$250M

STAFFORD MFG CO INC, 145-171 58TH ST, BROOKLYN
N Y, 11220 .... 212 492-6000
G MOSS, EMP 120, ENG 5

STAINLESS INC, THIRD ST, NORTH WALES
PA, 19454 215-699-4871
J GUZEWICZ, EMP 100, ENG 15, $2,500-$5,000M

Fla	Elmore Electronics, 5310 Diplomat Cir Orlando	305 647-1900
Tex	Allied Tower Co, Box 331 South Houston	713 946-9546

STAKE FASTENER CO, 1710 POTRERO AVE
S EL MONTE, CAL, 91733 .... 213 CU 3-7681
E WOOD, EMP 20, ENG 2, $100-$250M

Cal	James N Dupree Co Inc, 1710 N Potrero S El Monte	CU 3-7681
Cal	Paul J Hildebrand, 6132 Tarragona Dr San Diego	582-4677
Cal	Shannon Elctns, 1 First St Los Altos	415 941-2217
Ill	Royal A Stemm, 662 Irving Park Chicago	525-8333
Ind	McDonald Sales Co, 227 S Cornell Cir Ft Wayne	219 745-9214
Mass	Gilway Sales Co, Box 584 Newburyport	617 465-7568
Mo	Suor Sales Corp, 8115 Troost Kansas City	816 444-2871
NY	Harold B Heft, Box 623, Lynbrook	LY 9-3351
Ore	Arneson Assoc, 200 NE Canyon Rd Beaverton	503 646-3416
Tex	Scott Technical Sales, Box 30324 Dallas	FL 2-7698
Wash	Arneson Assoc, 5950 6th Ave S Seattle	206 762-7664

STAMPTRONICS INC, 757 N CONEY AVE, AZUSA
CAL, 91702 .... 213 ED 4-8296
H REYNOLDS, EMP 20, ENG 1, $250-$500M

STANCIL-HOFFMAN CORP, 921 N HIGHLAND AVE
HOLLYWOOD, CAL, 90038 .... 213 464-7461
W STANCIL, EMP 55, ENG 8, $500-$1,000M

Ill	Ellinger Sales, 6580 Northwest Hwy Chicago	312 763-1570
NJ	Simberkoff Sales Inc, 71 Valley St South Orange	201 763-7900

STANCOR CONTROLS DIV ESSEX WIRE CORP
3501 W ADDISON ST, CHICAGO

Ariz	W Bert Knight Co, 444 Camelback Rd W Phoenix	264-3578
Cal	W Bert Knight Co, 112 Glasgow Ave Inglewood	678-4711
Cal	Moulthrop Polach & Bensinger, 165- 11th St San Francisco	415 861-6958
Colo	R G Bowen Co Inc, 1440 S Santa Fe Denver	303 722-4641
DC	Chas Lienau Co, 5121 Westridge Rd Washington	202 654-2333
Fla	Hollingsworth & Still Inc, 1010 Executive Center Dr Orlando	841-1623
Ga	Hollingsworth & Still Inc, 3098 Piedmont Rd NE Atlanta	261-5838
Haw	Earl Assoc, 1638 Kona St, Honolulu	568-677
Ill	George Petitt Co Inc, 349 N Ashland Ave River Forest	CO 1-0342
Ill	G Petitt Co, Inc, 309 Avondale Dr East Peoria	699-3301
Iowa	Thomas & Modrcin Assoc, Inc, 890 17th Ave Marion	377-6261
Kan	Thomas & Modrcin Assoc Inc, 5450 Buena Vista Dr Shawnee Mission	432-2131
La	Cartwright & Bean Inc of Tenn, 1812 Bullard Ave Metairie	504 887-0482
Md	Chas Lienau Co, 11411 Amherst Ave Wheaton	301 949-6464
Mass	Michael Scott Co Inc, 336 Washington St Wellesley Hills	235-0102
Mich	R C Merchant & Co, 18411 W McNichols Ave Detroit	KE 5-6000
Mich	R C Merchant & Co, Box 591 Benton Harbor	616 925-4211
Minn	Nick J Laub Co, 3749 W Broadway Minneapolis	588-4663
Mo	Thomas & Modrcin Assoc, Inc, 47 Village Sq Hazelwood	838-6446
NM	C T Carlberg & Assoc, 2611 Quincy St NE Albuquerque	265-1579
NY	R W Mitscher Co Inc, 496 Ellicott Sq Bldg Buffalo	854-2517
NY	F Edwin Schmitt Co Inc, 311 Meacham Ave Elmont	437-8150
NC	Hollingsworth & Still Inc, 6717 Woodstock Dr Charlotte	523-3327
Ohio	McFadden Sales Co, 150 East Broad St Columbus	221-3363
Ore	Earl & Brown Inc, 2041 SW 58th Ave Portland	292-9145
Pa	Chas Lienau Co, 15034 Carter Rd Philadelphia	464-8148
Pa	Covert & Newman Inc, 300 Mt Lebanon Rd Pittsburgh	563-0303
Tenn	Cartwright & Bean Inc of Tenn, 560 S Cooper St Memphis	BR 6-4442
Tex	Robert E Nesbitt Co, 2930 Merrell Rd Dallas	357-4601
Tex	R E Nesbitt Co, 4810 Hazard, Houston	528-3811
Utah	R G Bowen Co Inc, 31 S 3rd E Salt Lake City	364-4632
Wash	Earl & Brown Inc, 422 1st Ave W Seattle	284-1121
Wis	G Petitt Co, Inc, 928 E Wisconsin Ave Pewaukee	691-0622
For	Roburn Agencies, Inc, 431 Greenwich St New York	966-2130

STANDARD CABINET CO INC, 377 MINNISINK RD, TOTOWA
N J, 07512 .... 201 256-2200
A BEUGLESS, EMP 35, ENG 4
ADV PG 137

STANDARD CONDENSER CORP, 1065 W ADDISON, CHICAGO
ILL, 60613 .... 312 327-5440
R MCLEAN, EMP 50, ENG 2, $500-$1,000M
ADV PG 113, 592
Ill Rinaldi Sales Co, 6319 N Central Ave Chicago 763-4848
Ind McDonald Sales Co, 227 S Cornell Cir Fort Wayne 219 745-9214
Mich A K Davis Co, 21140 Centrfarm La Northville 474-8300
NY Samuel Bialek Assoc, 42-15 Crescent St L I C .... ST 6-5562
NY J V Costello, 2030 Erie Blvd E Syracuse 472-0322
Ohio J Cutts & Assoc, 24039 Ambour Dr North Olmsted 216 777-0992
Pa Shelmar Electronics Corp, Box 254 Glenside 885-0800

STANDARD CONNECTOR CORP, 59 BROADWAY
NORTH HAVEN, CONN, 06473 .... 203 239-2519
E QUACKENBUSH, EMP 35, ENG 3, $100-$250M
Conn R W Gray Inc, 47 DeForest St Watertown 274-2363
Mass R W Gray Inc, 572 Washington Wellesley 237-1040

STANDARD CONTROLS INC, 2401 S BAYVIEW ST
SEATTLE
WASH, 98144, TWX 910-444-2164 .... 206 PA 3-1705
E BALYEAT, EMP 50, ENG 6, $500-$1,000M
Ala Russell Assoc, Inc, 2516 N Memorial Pkwy Huntsville 205 539-7211
Cal Egbert Engrg of Cal, 801 Welch Rd Palo Alto 415 326-1387
Cal Scrantom Engineering Assoc, 2750 Bellflower Blvd Long Beach 213 421-8951
Fla Russell Assoc, 211 W Fairbanks Ave Winter Park 305 647-2251
Ga Russell Assoc, Inc, 6427 Roswell Rd Atlanta 305 255-8422
Ill Russell Assoc, Inc, 3618 W Elm St McHenry 815 385-4220
Md Russell Assoc, 102 N Main St BelAir 301 838-9292
Mass Burlingame Assoc, 7 Wellington St Waltham 617 894-1955
Mich Russell Assoc, 24634 Five Mile Rd Detroit 313 532-5770
NJ Russell Assoc, 200 E Ridgewood Ave Ridgewood 201 447-1050
NM C Schmidt Sales, 9611 Acoma Rd SW Albuquerque 505 298-2415
NY Burlingame Assoc, 510 S Fulton Ave Mt Vernon 914 664-7530
NY Total Electronics Intl Inc, Box 356 Hewlett 516 374-9620
NY Russell Assoc, 165 Orinoco Dr Brightwaters .... 516 MO 6-6500
NY Burlingame Assoc, E Molloy Rd Syracuse 315 454-2408
Ohio Russell Assoc, Inc, 4 Eswin St Greenhills Cincinnati 513 825-0930
Wash Avionics Liaison, Inc, 6770 Perimeter Rd S Seattle 206 723-7602
Can Russell Assoc, 6789 Main St Buffalo 716 634-3377
Fr France Nucleaire Electronique, 125 Rue de Rome Paris
Ger Bavaria Electronik GMBH, Hohenbrunnerstr 7A 8000 Munchen 82
GB Brookes & Green, Ltd, 1 Leadenhall St London E C 3
Nor Estronic, Tollbugt 4 IV, Oslo
SAfr Controltech (Pty) Ltd, Box 10964, Johannesburg
Aust J J Masur & Co Pty Ltd, 500 City Rd South Melbourne, S C

STANDARD CRYSTAL CO, 1105 S FREMONT AVE
ALHAMBRA, CAL, 91803 .... 213 284-4176
J FISHER, EMP 5, ENG 2, UP TO $100M
Cal Compar Corp, 434 W Colorado Blvd Glendale 213 245-1172

STANDARD ELECTRIC MFG CO INC, 135 HADDON AVE
WEST BERLIN, N J, 08091 .... 609 767-0207
H COHEN, EMP 30, ENG 1, $250-$500M

STANDARD ELECTRIC TIME CO, 89 LOGAN ST
SPRINGFIELD, MASS, 01101 .... 413 732-1141
W BUTTERWORTH, EMP 425, ENG 10
$5,000-$10,000M
Ala Standard Elec Time Co, 608 37th St S Birmingham 324-5331
Alas Warner/Michael, Box 4-1494, Anchorage
Ariz Dan Garretson, 1824 E Jefferson St Phoenix 252-2944
Cal Standard Elec Time Corp, 2968-C E McKinley Fresno 266-1041
Cal Standard Elec Time Corp, 5405 Sheila St Los Angeles 723-6409
Cal Standard Elec Time Corp, 1817 Silica Ave Sacramento .... WA 2-2273
Cal Standard Elec Time Corp, 2214 Quesade Ave San Francisco .... MI 8-0390
Colo Gaer Sales Co, 1230 S Inca St, Denver 744-6031
DC Standard Elec Time Co, 8485 Fenton St Silver Sprg, Md 587-4774
Fla Standard Elec Time Co, 3662 Henderson Blvd Tampa 876-8685
Ga Standard Elec Time Co, 3133 Maple Dr NE Atlanta 237-7971
Haw Merrill R Conner Co, 2829 Puuhonua St Honolulu 507-363
Ill Standard Elec Time Co, 5829 W Irving Park Rd Chicago 736-3946
Ind Standard Elec Time Co, 5416 N College Ave Indpls .... CL 3-2434
Iowa Standard Elec Time Co, 1428 Brady Davenport 326-5431
La Somar, Inc, 4500 Milpomene St New Orleans 866-1846
Mass Standard Elec Time Co, 9 Court St Arlington .... MI 8-2900
Mich Standard Elec Time Co, 24634 Five Mile Rd Detroit .... KE 7-1060
Minn Standard Elec Time Co, 6106 Excelsior Blvd Mnpls 929-8183
Mo Standard Elec Time Co, 4528 Main St Kansas City .... JE 1-1352
Mo Standard Elec Time Co, 70 Grasso Plaza St Louis .... PL 2-8000
Neb Duffield Radio & TV Clinic, 1617 S 17th St Lincoln .... 402 GA 3-2747
NJ Standard Elec Time Co, 622 Bloomfield Ave Bloomfield 743-1120
NY Standard Elec Time Co, 1 Herbert Dr Latham .... ST 5-6060
NY Standard Elec Time Co, 3036 E Tremont Ave New York .... TA 4-0700
NY Standard Elec Time Co, 2360 James St Syracuse 463-1684
NY Standard Elec Time Corp, 2070 Sheridan Dr Kenmore 874-2300
NC Standard Elec Time Co, 1415 E Blvd Charlotte 334-8336
Ohio Standard Elec Time Co, 6785 W 130th St Cleveland 842-2577
Ohio Standard Elec Time Co, 2266 1/2 E Main St Columbus 237-8276
Ore Standard Elec Time Co of Cal, 8665 SW Canyon Rd Portland 292-3554
Pa Standard Elec Time Co, 4210 Tilghman St Allentown 395-3639
Pa Standard Elec Time Co, 1 Wynnewood Rd Wynnewood .... MI 2-5825
Pa L K Porter & Assoc Inc, 119 Fedl St Pittsbgh 322-1900
Tex Standard Elec Time Co, 12803 Demetra St Dallas .... CH 1-3171
Tex Electrical Eng & Sales Co, 2001 E Yandell El Paso 533-1395
Tex Audio Electronics, Box 7033, Amarillo 355-4161
Tex Standard Elec Time Co, 3262 Sul Ross Houston .... JA 8-6349
Utah J W Reynolds Co, 747 S 1st W St Salt Lake City 322-3111
Va Standard Elec Time Co, 2405 Westwood Ave Richmond 355-0152
Wis Standard Elec Time Corp, 417 E Chicago St Milwaukee 272-3895

STANDARD ELECTRONICS DIV GULTON INDUS
3012 W 77TH ST, CHICAGO
ILL, 60652 .... 312 778-4222
C SCHEIRMAN, EMP 70, ENG 4, $500-$1,000M
Mass QRC Co, 1643 Beacon St, Waban 332-9600
Mich L T Martensen, 46 Ridge Rd Pleasant Ridge 543-3633
Minn Rhode Electronic Sales, 2510 E 7th Ave St Paul 777-8197

STANDARD GLOVE CO OF N J INC, 29 HAYNES AVE
NEWARK, N J, 07114 .... 201 248-3344
M MORRIS, EMP 80, ENG 4, $500-$1,000M
Cal Darmac & Assoc, 801 N Bush St Santa Ana 547-8501
Neb Midwest Micronics Corp, 3555 Farnam St Omaha 342-1616
NC Associated Tech Reprs, Box 5484 Winston-Salem 784-0529
Va A & A Assoc, Box 1111, Alexandria 931-3600
For Moriss Salis, Box 37, Roosevelt, PR

STANDARD GRIGSBY CO, 920 RATHBONE AVE, AURORA
ILL, 60507, TWX 910-232-3138 .... 312 897-8417
J UDISCHES, EMP 400, ENG 32, $2,500-$5,000M
ADV PG 672
Cal L H Harriss Co, 204 E Hillsdale Blvd San Mateo .... FI 1-2909
Cal Penwarden Assoc, 14547 Titus St Van Nuys 782-4920
Conn Gerber Sales Co, Box 2917 New Haven 777-6279
Fla Henry Sarkis, 671 Dommerich Dr Maitland .... MI 7-3671
Ill Standard Grigsby Co, 920 Rathbone Aurora .... BI 2-4080
Ind Southern Sales Co, 105 Lakeshore Dr Angola 665-3961
Ind Temco, 118 S Rogers St, Bloomington 332-2462
Iowa Electric Sales Co, 1310 Hertz Dr Cedar Rapids 364-4342
Md Mount & Co, 4853 Cordell Ave Bethesda 652-5612
Mass Gerber Sales Co, Inc, 176 2nd Ave Waltham 891-8040
Mass Gerber Sales Co, 26 Maple Ct E Longmeadow 525-3059
Mich Carter, McCormic & Pierce, Inc 16239 Wyoming Ave, Detroit 863-4600
Minn R G Ragon, Inc, 1136 W Larpenteur Ave St Paul 488-6634
NJ J F Norton, Box 176 Mountain Lakes, N J .... DE 4-2921
NY Jack McDonough Assoc, 4541 Main St Buffalo .... TF 9-2044
NY McDonough & Assoc, 4541 Main St Snyder 839-4170
NY McDonough & Assoc, 4455 E Genesee St DeWitt 446-5920
NY McDonough & Assoc, Box 483, Rt 44 Pleasant Valley 635-3923
NY McDonough & Assoc, 7 Limekiln Rd Whitesboro 736-5951
NC Mount & Co, Box 17365, Raleigh 787-8731
Ohio R O Whitesell & Assoc, 4133 S Dixie Ave Dayton 298-9546
Ohio R O Whitesell & Assoc, 1172 W Galbraith Cincinnati 521-2290
Ohio R O Whitesell & Assoc, 21139 Lorain Ave Cleveland 333-2585
Ore Dale G Weber Co, Weatherly Bldg Portland 234-7671
Pa Quinlan Co, D G, 242 E Butler Ave Ambler .... MI 6-7250
Pa R O Whitesell & Assoc, Penn Center Bldg Pittsburgh 242-0100
Tex Engineering International, Box 35601 Dallas 352-2666
Can Standard Grigsby Ltd, 37 Drummond St, Toronto, Ont
For Sylvan Ginsbury Ltd, 72 W 45th St New York, N Y .... LO 4-7585

STANDARD INDUSTRIES, 5900 DALE ST, BUENA PARK
CAL, 90620 213-868-0891
C REESE, EMP 80, ENG 9, $1,000-$2,500M

STANDARD INSERT CO INC, 12270 MONTAGUE ST
PACOIMA, CAL, 91331 .... 213 896-4529
F KORBER, EMP 22, ENG 2, $250-$500M
Ariz El Kap Sales Co, 7050 E Moreland St, Scottsdale
Cal Connelly & Co, Inc, 914 Rengstorff Ave Mountain View 967-6988
Cal P J Hildebrand, 6132 Tarragona Dr San Diego 582-4677
Fla R F Carlson Co, 3900 S Lockwood Ridge Rd Sarasota
Ill R A Stemm, 662 Irving Park Rd Chicago 525-8333
Mass R A Johnson Jr, 71 Tedford Dr Longmeadow 413 567-5090
Minn P L Copini Sales Co, 2907 E Franklin Ave Mnpls .... FE 9-2719
Mo R F Carlson Co, 9401 Richmond Ave, Kansas City
Mo R F Carlson Co, 8721 Manchester Rd St Louis .... WO 1-4485
NY Harold Heft, Box 623, Lynbrook .... LY 9-3351
Va Virginia Maryland Assoc, 700 Duke St Alexandria 703 967-6988

STANDARD INSTRUMENT CORP DIV AUTOMATIC
TIMING & CONTROLS INC, 201 S GULPH RD
KING OF PRUSSIA
PA, 19406, TWX 84-6437 .... 215 265-0200
W PARKER, EMP 300, ENG 20, $5,000-$10,000M
Ala Control Equipment Co, 2830 S 19 St Birmingham .... 205 TR 9-8211
Ariz Portis & Assoc, 132 E Stetson Dr Scottsdale 602 945-4925
Cal Time-Trol Inc, 14552 Friar St Van Nuys .... 213 TR 3-5151
Cal Time-Trol Inc, 1485 Bayshore Blvd, San Francisco
Colo Electronic Components Sales Inc, 2340 W Main St Littleton 303 798-8575
Conn Zaslow Sales Inc, 526 Farmington Ave Hartford 203 236-3265
Fla Control Equipment Co, 2590 Forest Hill Blvd West Palm Beach 305 965-3465
Ga Control Equipment Co, 3166 Maple Dr NE Atlanta 404 237-1688
Haw Chapson Bros, 125-A Puuhale Rd Honolulu 810-951
Ill Rockford Controls Co, 21 W 181 Hill Ave Glen Ellyn 312 469-6016
Ind Rockwell Engineering Co, 21212 E 45th St Indianapolis .... 317 CL 1-9453
Ky Air-Hydro Power Co, 4400 Bishop La Louisville 502 451-1000
La Williams Equipment Co, 249 S Fairfax Baton Rouge 504 344-4162
La Williams Equipment Co, 7012 Magnolis Ct Metairie 504 835-9417
Md Jobe & Co, 2857 Greenmount Ave Baltimore 301 235-3502
Mass Zaslow Sales Co Inc, 371 Howard St Northboro 617 393-8150
Mich H H Barnum Co, 12201 Merriman Rd Livonia 313 261-1150
Minn Volco Co, 831 S 6th St Minneapolis .... 612 FE 6-6631
Mo Duncan Sales & Engrg, 6225 Brookside Blvd Kansas City .... 816 JA 3-2908
Mo Edw W Mooney Co, 7505 Delmar Blvd University City 314 725-8875
NM Stepco, 5102 Grand Ave NE Albuquerque 505 256-9893
NY Ross Co, 140 Hart St, Yonkers .... 212 TA 4-5424
NY Shorts Technical Sales Co, Box 284 Orchard Park 716 662-7290
NC Brown & Morrison, 1900 E 7th St Charlotte .... 704 ED 3-0774
Ohio Anderson-Bolds Inc, 5725 Dragon Way Cincinnati 513 272-3351
Ohio Anderson-Blods Inc, 10001 Carnegie Ave Cleveland 216 229-4700
Ohio Anderson-Bolds Inc, Box 123, Worthington
Okla Paul King Co, 840 N Fulton, Tulsa .... 918 TE 6-2501
Ore J A Tudor & Assoc, 1004 SE Belmont Portland 503 233-4421
Pa L H Boleky Co, 534 Lincoln Ave Pittsburgh 412 761-8994

Pa ATC INC, King of Prussia 215 265-0200
Tenn Engineered Instruments Inc, 2367 Lamar Ave
Memphis .... 901 FA 4-3871
Tex Eads Co, 1511 Bryan St, Dallas 214 747-9101
Tex Gettys-Eads-Adair, 8020 Westglen Dr
Houston 713 781-3000
Tex Stepco, 1035 E Side Rd, El Paso 915 772-5274
Utah Control Equipment Co, 2255 S 2nd W
Salt Lake City 801 487-7741
Va Jobe & Co, 707 Medical Tower Bldg
Norfolk 703 625-6643
Va Jobe & Co, 2508 Grenoble Rd
Richmond 703 282-6508
Wash J A Tudor & Assoc, 2605 Western Ave
Seattle .... 206 MU 2-7444
Wash J A Tudor & Assoc, Term Box 2624 N 1413 Div
Spokane .... 509 FA 7-3328
Wis Automation Engineering Co Inc
12740 N River Rd 43W, Mequon 414 242-1520
Can Standard Instr (Can) Ltd, 524 Ellesmere Rd
Scarborough, Ont 293-8243
Can Standard Instr Div, 524 Ellesmere Rd
Scarborough Ont 416 293-8243
Can Associated Instr Controls Ltd, 2261 Rockland Rd
Montreal 16 Que .... 514 RE 8-1167
Can George M Fraser Ltd, 1670 Bayview Ave
Toronto 17 Ont 416 487-5436
Can R L Brews & Son Ltd, 504 51st Ave SE
Calgary Alb 403 252-0151
Can R L Brews & Son Ltd, 10810-119 St
Edmonton Alb .... 403 HU 8-4817
Can Norman L Haney Agency Ltd, 84 Lockwood Rd
Regina Sas 306 536-9679
Can Norman L Haney Agency Ltd, 875 Wall St
Winnipeg 10 Man .... 204 SP 2-1219
GB Automatic Timing & Controls Inc, 47 Stations Rd
Gerrards Cross Bucks .... Gerrads Cross 86803
BC Southwell Controls Ltd, 1332 Powerll St
Vancouver 6 .... 604 255-9141

STANDARD LOCKNUT & LOCKWASHER INC
2725 TOBEY DR, INDIANAPOLIS, IND, 46226

STANDARD METALS DIV EDW N COOK PLATE CO, INC
262 BROAD ST, NORTH ATTLEBORO
MASS, 02761 .... 617 695-9395
G DOCHETY, EMP 70, ENG 2

STANDARD PLASTICS CO INC, 62 WATER ST
ATTLEBORO, MASS, 02703 .... 617 222-4040
J BRENNAN, EMP 100
NY Fred Kay, 303 5th Ave, New York 686-0327

STANDARD PNEUMATIC MOTOR CO
12468 E LAMBERT RD, WHITTIER
CAL, 90608 .... 213 698-8715
D FEESE, EMP 50, ENG 2
Cal R R Cannon Co, Box 5026
Pasadena 213 449-6157
Colo Pneumatics Unltd, 1000 Yuma St
Denver 303 222-4858
Ga Sherman of Atlanta, 518 Timberland Dr ne
Atlanta .... 404 BL 5-4150
Ill H F Wilson Engr Co, 22 W 342 Balsam Ave
Glen Ellyn 312 469-8473
Minn Allied Industrial Equip, 5825 W 25-1/2 St
St Louis Park 612 929-1131
RI Market Development Corp, 1365 Wampanoag Trail
E Providence 401 433-4404
Tex Challenge Prods Corp, Box 22082
Houston .... 713 NA 2-1491
Tex Challenge Prods Corp, Box 447
Richardson .... 214 AD 1-5231
Can Wainbee Ltd, 121 City View Dr
Toronto 416 248-5621
Can Wainbee Ltd, 675 Orly Ave
Montreal 604 636-4870

STANDARD POLYMER INC, 7933 HASKELL, VAN NUYS
CAL, 91406 .... 213 781-6834
K KILBOURNE, EMP 21, ENG 3, $500-$1,000M

STANDARD PRECISION INC ACCURIDE DIV
12311 S SHOEMAKER AVE, SANTA FE SPRINGS
CAL, 90670 .... 213 944-6236
R HARRISON, EMP 85, ENG 3
Ariz Unistrut Arizona, 2232 W Willetta
Phoenix 252-3093
Cal McKnight Co, 115 Spruce Ave
Menlo Park 325-2844
Colo Edw W Johnson Co, 10130 W Asbury Ave
Denver 303 985-4810
Conn William McCoy Co, 896 Main St SE
Branford 488-2012
Fla Orbe, Inc, 300 31st St N, St Petersburg 894-0687
Fla Orbe, Inc, Box 7777, Orlando 424-0978
Ill Accuride Div, 1804 Harrison St
Glenview 729-3666
Mass William McCoy Co, 55 Prospect St
Holliston 617 429-2369
Mich John E Mackay Co, 822 Cherry St SE
Grand Rapids 616 451-4990
Minn Bonament Heyda, 3830 Rustic Pl
St Paul 612 484-8531
Mo R F Carlson Co, 8721 Manchester Rd
St Louis .... 314 WO 1-4485
Mo R F Carlson Co, 9401 Richmond
Kansas City 816 761-4569
NJ Accuride Div, Berkshire Valley Rd
Wharton 201 366-0070
NY Components for Industry, 416 Franklin St
Fayetteville 637-9601
NY Penhall Assoc, Farmington Rd
Manlius 315 682-9816
Ohio Servisales Co, 2440 Santa Rosa Dr
Dayton 513 298-3247
Pa Accuride Div, 402 Bethlehem Pike
Philadelphia 233-3000
Pa Servisales Co, 800 Park Ave
Meadville 814 335-1891
Tex Blair Engrg Sales Co, 2930 Merrell Rd
Dallas .... FL 2-2556
Tex Blair Engrg Sales Co, 2400 W Loop S
Houston .... 713 NA 1-0818
Wash Ledbetter Assoc, 431 109th Ave
Bellevue 454-2749
Wis Mueller Elctns Sales Inc, 10721 W Capitol Dr
Milwaukee 414 464-4210
Can Sterling Aircraft Prods Ltd, 65 Martin Ross Rd
Downsview Ont 636-6052
For Alfred Imhof, Ltd, Ashley Wks, Cowley Mill Rd
England .... UX 37123

STANDARD PRECISION DIV ELECTRONIC COMMUN
INC, 4105 W PAWNEE, WICHITA
KAN, 67201 .... 316 WH 2-3241
W SMITH, EMP 250, ENG 17, $2,500-$5,000M

STANDARD RELAY CORP, 77 STAGG ST, BROOKLYN
N Y, 11206 .... 212 388-0220
H BERGER, EMP 8, ENG 1, $100-$250M

STANDARD TELEPHONES & CABLES LTD, 190 STRAND
LONDON WC 2, ENGLAND .... TEM 8055
K WOOD, EMP 30000, OVER $10,000M

STANDARD TOOL & MFG CO, 738 SCHUYLER AVE
LYNDHURST, N J, 07071 .... 201 939-5500
L THEES, JR, EMP 385, ENG 55
Cal Ellison Mach Co, 160 W 33rd St, Los Angeles
Cal Harron Rickard & McCone Co, 2050 Bryant St
San Francisco 415 282-2202
Conn R A Bode, Box 243, Simsbury .... OL 8-5090
Ill Luther & Pedersen, Inc, 108 Higgins Rd
Park Ridge 825-3166
Ill Burkhardt Mach Co, 221 N LaSalle Ave
Chicago 312 726-6821
Mich M Kendall, 18240 W McNichols Rd
Detroit 535-6880
Minn Chas W Stone Co, 1914 La Salle Ave
Mnpls 339-0611
Mo Robt R Stephens Machy Co, 8145 Olive St
St Louis 991-0502
NC Crotts & Saunders Engrg Inc, 235 N Main St
Winston-Salem 723-3643
RI R Kaminski, 99 High Service Rd
North Providence 401 353-1166
Tex Automated Mach & Equip Sales Co, Box 767
Grand Prairie 214 262-1516

STANDARD TV TUBE CO, 536 E 4TH ST
JACKSONVILLE, FLA, 32206 .... 904 355-9006
M DONZIGER, EMP 40, ENG 2, $500-$1,000M
La Empire Electronics, 250 Montgomery St
Shreveport 423-6292
Va Video Products, 1103 Whitmell St
Danville 792-3872

STANDARD WINDING CO DIV OVITRON CORP
44-62 JOHNES ST, NEWBURGH
N Y, 12550 .... 914 JO 1-1541
K DRAKE, EMP 350, ENG 8, $5,000-$10,000M

STANDARD WIRE & CABLE CO, 3434 OVERLAND AVE
LOS ANGELES
CAL, 90034, TWX 910-340-6758 .... 213 870-9231
M HARRIS, EMP 35, ENG 3, $2,500-$5,000M
Cal Standard Wire & Cable Co, 644 Emerson St
Palo Alto 328-3082
Fla Tech-Rep Assoc, Box 2095, Melbourne 391-0008
Md R Wafer Assoc, 3809 Victoria Ave
Baltimore 655-1565
Minn Edson Elctns, 27 8th Ave N, Hopkins 935-0777
NY Friedman Smith Elctn Sales, 519 S Fifth Ave
Mt Vernon 664-4866
Ohio Mulligan & Mathias Co, 2011 Riverside Dr
Columbus 486-2976
RI Standard Wire & Cable Co, 637 Armistice Blvd
Pawtucket 723-1180

STANDARD X-RAY CO, 2600 S KOSTNER, CHICAGO
ILL, 60623 .... 312 277-8300
S FAHAR

STANFORD INTERNATIONAL, 569 LAUREL ST
SAN CARLOS, CAL, 94070 .... 415 592-1331
J DOBBS, EMP 4, $1,000-$2,500M

STANLEY INDUSTRIAL HARDWARE DIV STANLEY
WORKS, 100 CURTIS ST, NEW BRITAIN
CONN, 06050 .... 203 BA 5-5111
R STEEN, EMP 9000

STANPAT PRODUCTS INC, COVERT & MAIN STS
PORT WASHINGTON, N Y, 11050 .... 516 883-8400
F NOLAN, EMP 20, ENG 1

STANWYCK WINDING CO, 137 WALSH AVE
NEWBURGH, N Y, 12550 .... 914 JO 1-3360
N STANWYCK, EMP 250, ENG 6, $1,000-$2,500M
Ariz R Romero, 2201 E Elvira, Tucson 294-0762
Cal Ruby Sales Corp, Box 511
San Fernando .... EM 1-1201
Cal Ruby Sales Corp, Box 487, Santa Clara 243-1694
Colo Ruby Sales Corp, 1200 S Alton, Denver 755-1714
Ill Ruby Sales Corp, Box 391, Park Ridge 763-2255
Ind McDonald Sales Co, 227 S Cornell Cir
Fort Wayne 745-9214
Md Stitzer Assoc, 212 Washington Ave
Baltimore 823-2600
Mass Coakley, Boyd & Abbett Inc, Box 248
Needham .... HI 4-5470
Minn E C Elctn Sales, 10108 Abbott Ave S
Minneapolis 888-4624
NJ Peterson Rudnick Assoc, 484 Clifton Ave
Newark .... CA 6-4363
NY ABW Agents Inc, 815 Sibley Tower Bldg
Rochester 546-8061
Ohio M Meacham, 137 Lakeview Dr, Dayton 433-2511
Pa Stitzer Assoc, 24 State Rd, Paoli .... NI 4-5500
Tex Ruby Sales Corp, Box 9894, Dallas 827-6630

STAR-A ELECTRIC MFG CO INC, 41 VARICK AVE
BROOKLYN, N Y, 11237 .... 212 NY 7-5353
J FRIED, EMP 50, ENG 1

STARK ELECTRONIC INSTRUMENTS LTD
180 STATION ST, AJAX, ONT 942-2120
L SAMUEL, EMP 229, ENG 4, $1,000-$2,500M
Can Ben Manis & Assoc Reg'd, 7365 Mountain Sights
Montreal 731-7748

STAR PORCELAIN CO, 61 MUIRHEAD AVE, TRENTON
N J, 08638 .... 609 392-3154
C LAWTON JR, EMP 205, ENG 4, $1,000-$2,500M
ADV PG 131

STARRETT CO, L S, 165 CRESCENT ST, ATHOL
MASS, 01331 617-249-3551
C NEWTON
Cal L S Starrett Co, 5946 E Washington Blvd
Los Angeles 213 685-8840
Ill L S Starrett Co, 4949 W Harrison St
Chicago 312 626-1160
NJ L S Starrett Co, 48 Commerce St
Springfield 201 376-3233

STAR STAINLESS SCREW CO, 685 UNION BLVD, PATERSON
N J, 07511 .... 201 256-2300
B STRIKE, EMP 60, ENG 2, $2,500-$5,000M
ADV PG 205

STAR TRONICS INC, MOULTON ST, GEORGETOWN
MASS, 01830, TWX 710 347 0310 .... 617 352-6200
W GEORGE, EMP 220, ENG 7, $2,500-$5,000M
Cal R A Strassner Co, 885 N San Antonio Rd
Los Altos 326-5240
Cal Richard A Strassner Co, 3112 Los Feliz Blvd
Los Angeles
Colo Williams Assoc, 4971 Jackson St, Denver
Fla J J Smith Assoc, Box 460, Winter Park
Ga Estes Assoc, Decatur Federal Bldg, Decatur
Haw Bill Kolans & Co, Box 2098, Honolulu 811-628
Ill Gassner & Clark, 6644 N Western Ave
Chicago 764-6121
Md S & W Assoc, 9018 St Andrews Pl
College Park .... UN 4-5757
Mich Component/Insulation Corp, 14235 Detroit Ave
Cleveland 521-3570
Mo Buse Sales, 610 1/2 S Main St, St Charles
NY ERA Inc, 330 Great Neck Rd, Great Neck
NY Telesco-Messina, 3254 Winton Rd S, Rochester
Pa Lundy Assoc, 224 Wickford Rd
Havertown 449-2211
Tex Blackburn Assoc, Box 20073, Dallas 899-8518
Wash N R Schultz Co, 305 112th Ave NE, Bellevue
Can H W Brieger Sales Co, 5253 DeCarie Blvd
Montreal 489-0725

STATES ELECTRONICS CORP, BLUDWORTH MARINE
DIV, 10 ADAMS ST, LINDEN
N J, 07036 .... 201 925-8650
A STIANSEN, EMP 10, ENG 2, $100-$250M
Ala R H Sassaman Co, Inc, 2756 Dauphin Island Pkwy
Mobile 433-1541
Cal Marine Radio Service, Berth 73
San Pedro .... TE 1-1213
Fla L B Harvey, 252 SW 6th St, Miami .... FR 1-1583
Fla Jacksonville Marine Radio, 2256 Atlantic Blvd
Jacksonville .... FL 9-4152
Fla Tampa Marine Electronics, 102 S 22nd St
Tampa 244-7411
Ga Marine Ind Electronics, 69 Ross Rd
Savannah 232-3489
La F L Beier Inc, 8622 Oak St
New Orleans .... UN 6-2764
Me Henry R Hinckley & Co, Southwest Harbor 402
Me Harris Co, 188 Commercial St
Portland .... SP 5-5601
Mass James L Clark Co, 892 Washington St
Lynn 592-9595
Mass Whitehead Marine Radio, 48 N Water St
New Bedford .... NE 5-7183
Mich Detroit Basin Inc, 9666 Jefferson Ave
Detroit .... VA 2-1322
Miss Southeastern Electronics, 1542 Andrew Ely St
Pascagoula 762-1069

NJ Charles Rogers & Son, Curtis & Union Ave
Manasquan .... CA 3-1949
Ore Progress Electronics Inc, 5652 N Lagoon Ave
Swan Island, Portland .... BU 5-8388
Pa Maritime Electronics Co, 40 Chester Pike
Darby .... MA 6-2131
RI Merriam Marine Radio, Tillinghast Rd
East Greenwich 783-7335
Tex Gulf Radiotelephone Inc, 3333 Watters Rd
Pasadena 944-6000
Va Robinson Marine Elect, 121 Randolph St
Norfolk .... MA 2-6775
Wash Northwest Instrument Co, 5245 Shilshole Ave, NW
Seattle .... SU 4-8444

STATHAM INSTRUMENTS INC
12401 W OLYMPIC BLVD, LOS ANGELES
CAL, 90064 .... 213 272-0371
L STATHAM, EMP 1000, ENG 125, OVER $10,000M
Ala Murphy & Cota, 904 Bob Wallace Ave
Huntsville 536-9121
Ariz Vinson Assoc, 44 E Indian School Rd
Scottsdale 602 947-7371
Cal Statham Instruments Inc, 2221 Statham Blvd
Oxnard .... HU 6-8386
Cal Dynamic Assoc, 1101 E Cadillac Way
Burlingame 344-2521
Cal Dynamic Assocs, 5190 Washington Blvd
Los Angeles 933-5833
Cal Statham Instr Inc, 1400 Coleman Ave
Santa Clara 408 246-2277
Cal Miad Inc, 8816 S Sepulveda Blvd, Los Angeles
Colo Space Systems Sales & Engr, 280 Columbine
Denver 388-9225
Conn Howard J Schuft Co, 965 Dixwell Ave
Hamden 865-1365
Fla Statham Insts, Inc, 601 New York Ave, N
Winter Park 644-0632
Ga Bostick & Assoc, Box 28378, Atlanta
Ill Torkelson Assoc, 464 Central Ave
Northfield 446-8450
Ill Mauer Co, 2000 Harrison St, Evanston 869-1644
Ind Delta Sales, Inc, 1407 N Illinois
Indianapolis 631-4136
Ind Torkelson Assoc, 3512 Rockville Rd
Indianapolis 317 241-0725
Md S & S Assoc Inc, 4405 East West Hwy
Bethesda 654-2420
Md S & S Assoc, 574 Sue Grove Rd
Baltimore 687-8523
Mass Howard J Schuft Co, 815 Washington St
Newtonville 527-5304
Mass Edcom Inc, 815 Washington St, Newtonville
Minn Torkelson Assoc, 4820 W 77th St
Minneapolis 920-1046
Minn Mark Sales Co, 908 W 46th St
Minneapolis 825-0911
Mo Space Systems Sales & Engrg, Box 176
Florissant 291-3228
Mo Engineering Services Co, 6717 Vernon Ave
St Louis 314 726-2233
NJ Henry Reid Assoc, 530 Main St, Ft Lee ... 944-9323
NJ Statham Insts, 1429 Route 22
Mountainside 232-5648
NM C T Carlberg & Assoc, 2611 Quincy St NE
Albuq 265-1579
NM Space Systems Sales & Engr, 1401 Valencia SE
Albuq 255-7058
NY Tesco Assoc, 2002 Teall Ave, Syracuse ... 463-4566
NY Rocke Intl Corp, 13 E 40th St
New York 212 689-0200
NC Murphy & Cota, 1106 Burke St
Winston-Salem 724-0750
Ohio Statham Instr Inc, 3570 Warrensville Ctr Rd 11
Shaker Heights 216 283-2244
Pa S & S Assoc Inc, Boro Line Rd
King of Prussia 265-3450
Pa H A Lucas Inc, Box 34, Flourtown
Tex Space Syst Sales & Engrg, 8383 Stemmons Pkwy
Dallas 631-1740
Tex P J Scanlon Co, 724 C S Sherman St
Richardson 231-4661
Tex Statham Insts, Inc, Fannin Bank Bldg
Houston .... RI 7-0303
Utah Space Systems Sales & Engrg, Box 89
Bountiful 295-6464
Va Statham Insts, 207 Park Ave
Falls Church 534-2870
Wash D A Preston, 11009 SE 27th Pl
Bellevue 206 454-2257
Can Atlas Instr Corp Ltd, 50 Wingold Ave, Toronto Ont

STA-TITE MFG CO, BOX G, SOUTH HWY 13
LEXINGTON, MO, 64067 .... 816 259-4323
L SETTLE, EMP 19, ENG 1, $250-$500M
Cal James C Pope & Assoc, 2720 S San Pedro St
Los Angeles .... AD 1-4693
Colo Jim Dawson Co, 2970 W Short Pl
Denver 255-7194
Ill H M Kloppenburg & Sons, 513 S Grand E
Springfield 528-1700
Mo Walker-Loudermilk Co, Box 7403
North Kansas City 842-0909
NY Steve Fisher Elctn Sales Corp, 800 Greenwood Ave
Brooklyn 508-2896
Ohio M E Doney, 7969 Kenwood Rd
Cincinnati 891-9948
Pa David D Bleiman & Son, 444-48 Fairmount Ave
Philadelphia 627-1800
Tex Geo E Anderson Co, Inc, 1700 S Ervay St
Dallas 428-3731

STAUFFER CHEMICAL CO SILICONE DIV
299 PARK AVE, NEW YORK
N Y, 10017 .... 212 421-5000
F JANDA, EMP 250
Cal R C Westfall, 500 S Virgil Ave
Los Angeles 213 385-5341
Conn Geza P Lux, 61 Kingswood La, Wolcott ... 879-2785
Ill Walter F Brown, 10 S Riverside Plaza
Chicago 726-4956
Ill R A Willis, 10 S Riverside Plaza
Chicago 312 726-4956
NJ Andy J Lamond, Line Rd, Matawan 566-0300
Ohio A F Klatt, 32 Edgerton Rd, Akron 216 762-9381
Tex J R Galloway, 6910 Fannin St, Houston .. 881-5562

STAVER CO INC, 41-51 N SAXON AVE, BAY SHORE
N Y, 11706 .... 516 MO 6-8000
J LAZARUS, EMP 85, ENG 1, $1,000-$2,500M
Cal Mann & Smith, 8949 Reseda Blvd
Northridge .... DI 9-2073
Ill J J McBride Sales Inc, 328 E Burlington St
Riverside .... HI 7-8131
Mass Tom Crawford & Son, 24 Linden St, Norwood
Mich ELKO Sales Co, 3119 Midland Dr,SE
Grand Rapids 949-1451
NJ Kaygar Assoc, Box 98, Haddonfield 227-5100
NY Bowser & Sapecky, 4317 E Genesee St
DeWitt .... GI 6-5920
NY Levison Sales Co, 5 Sunrise Plaza
Valley Stream .... LO 1-9696
Okla Gordon V Peck Co, 3909 4th Pl, Tulsa 939-3047
Pa D M Middleton Co Inc, 221 4th Ave
Pittsburgh 412 261-5326
Tex Gordon V Peck Co, 210 Casa Linda Plaza
Dallas .... LA 8-3511
Va F B D Sales Corp, 1806 Leslie Dr
Cheasapeake 484-3162
Wash James J Backer Co, 221 W Galer
Seattle .... AT 3-6470
Can Munro Fastenings Ltd, 67 Portland St
Toronto 363-0438
Jap F Kanematsu Co Ltd, New Kaijo Bldg, Tokyo

STA-WARM ELECTRIC CO INC, 23 N CHESTNUT ST
RAVENNA
OHIO, 44266, TWX 810-437-2402 .... 216 296-6461
E LITTRELL, EMP 25, ENG 1, $500-$1,000M
Ala Applebee-Church, Inc, 13 Office Park Cir
Birmingham 879-4417
Ariz Montgomery Bros Inc, 4247 E Windsor Ave
Phoenix 602 955-7825
Ark M Robinson Co, 400 Shall St
Little Rock 501 374-8495
Cal Montgomery Bros, 1831 Bayshore Hwy
Burlingame 697-6500
Cal Montgomery Bros, 4800 District Blvd
Los Angeles 589-6321
Cal Montgomery Bros Inc, 3530 Addison St
San Diego 224-4513
Colo E & M Sales Inc, 2660 Walnut St
Denver 244-4291
Conn Dittman & Greer Inc, Randolph Rd
Middletown 346-9606
Fla J J Galleher Co, 617 A Cleveland St
Clearwater 446-7706
Ga Applebee-Church Inc, 1958 A Monroe Dr NE
Atlanta 875-7244
Ill F I Tourtelot Co, 407 S Dearborn St
Chicago 427-5464
Ill Electric Thermal Sys Inc, 1041 Gordon Ave
Deerfield 312 945-1320
Ind Couchman-Conant Inc, 1400 N Illinois St
Indianapolis 635-5313
Iowa Volco Co, 214 Kahl Bldg, Davenport 326-5233
La Ross & Pethtel Inc, 3170 Florida Blvd
Baton Rouge 348-7206
Md Renoff Assoc, 333 E 25th St, Baltimore ... 467-3280
Mass L C Pelkus Inc, 204 Worcester St
Boston 235-8040
Mich Randy Smith Inc, 18038 Mack Ave
Detroit 886-3930
Minn Volco Co, 831 S 6th St, Minneapolis 336-6631
Mo Brandwine Equip Co, 729 Hanley Ind Ct
St Louis 781-6432
Mo Brandwine Equip Co, 647 W 39th St
Kansas City 561-1665
NJ R L Faber & Assoc Inc, 460 Colfax Ave
Clifton 773-8900
NY Niagara Electric Sls Co, 55 Canterbury Rd
Rochester 271-1223
NY R P Smith Co Inc, 1510 Central Ave
Albany 869-8515
NY Niagara Electric Sls Co, 505 Delaware Ave
Buffalo 886-4000
NC Carolina Tech Reps, Box 17726
Charlotte 364-0163
Ohio Anderson-Bolds Inc, Box 123
Worthington 885-3933
Ohio Arnold & Assoc, 597 E Galbraith Rd
Cincinnati 761-5566
Ohio Anderson-Bolds Inc, 10001 Carnegie Ave
Cleveland 229-4700
Ohio Arnold & Assoc, Inc, Dayton .... EN 5560
Okla Don Shuhart Co, 310 Thompson Bldg
Tulsa 582-5520
Ore Montgomery Bros, 1632 NW Johnson St
Portland 223-4197
Pa Woessner-McKnight Co
640 Allenby Ave Edgewood
Pittsburgh 244-1240
Pa J P Clark Co Inc, 139 E Glenside Ave
Glenside 887-1776
SC Applebee-Church Inc, 1599 Broad River Rd
Columbia 772-3142
Tenn H R Miles & Assoc, 2500 B Franklin Rd
Nashville 291-8188
Tenn H R Miles & Assoc, Box 172
Chattanooga 265-3862
Tenn H R Miles & Assoc, 4727 Poplar Ave
Memphis 901 682-2665
Tex Don Shuhart Co, 4509 Greenville Ave
Dallas 363-5436
Tex John F Gaumer Co, 3701 Piney Woods Dr
Houston 686-3483
Utah Montgomery Bros Inc, Box 6079
Salt Lake City 484-8871
Va Woessner-McKnight Co, 112 Kirk Ave SW
Roanoke 344-1100
Va Virginia Technical Assoc, Inc, Box 9524
Richmond 266-9654
Va Va Tech Assoc, Box 12322
Norfolk 703 627-7982
Wash Montgomery Bros, 911 Western Ave
Seattle 624-7297

STEEL HEDDLE MFG CO, 2100 W ALLEGHENY AVE
PHILADELPHIA, PA, 19132 .... 215 228-2460
F JUSTICE JR, EMP 1500
Cal Paul I Kenner Co, Box 77107
San Francisco .... EX 2-1017
SC Steel Heddle Mfg Co, Box 1867
Greenville 244-4110
Can Steel Heddle Mfg Co of Can Ltd, 310 St Hubert St
Granby, Que .... FR 8-3901

STEEL INDUSTRIES INC, 905 LOUISE AVE
CRAWFORDSVILLE
IND, 47933, TWX 317-362-4558 .... 317 362-0800
R THIELKER, EMP 208, ENG 6, $2,500-$5,000M
Cal Heim & Smolen, 3360 Barham Blvd
Hollywood .... HO 2-7357
Ill Fred Meeder Co, 919 Ashland Ave
Wilmette 256-1718
Ind W A Dentel Co, Box 20091
Indianapolis .... CL 3-0336
Mass L K Ingber Co, 842 Commonwealth Ave
Newton Centre .... DE 2-8574
Mich McCortney Sales & Eng, 2222 E Maple Rd
Birmingham .... JO 4-5874
Mo Custom Industrials Co, 211 S Central
Clayton .... PA 6-2110
NJ Talbot Assoc, 1865 Morris Ave, Union .. MU 6-0833
NY Stetler & Stetler, 1807 Elmwood Ave
Buffalo .... TR 3-6435
Pa Arthur Diamond, 100 West Ave
Jenkintown .... TU 7-5281
Wis Gerald A Kosnar, 1106 Ridgeway Blvd
De Pere 336-3287

STEINER-IVES CO, 50 TEMPCOR BLVD, RIVERTON
NJ, 08077 .... 609 829-3900
EMP 40, ENG 2

STELLARMETRICS INC, 416 E COTA ST
SANTA BARBARA, CAL, 93102 .... 805 963-3566
J THOMASON, SLS MGR, EMP 89, ENG 8
$1,000-$2,500M
Cal Stellarmetrics, Inc, Box 2369
Palos Verdes 377-5581
Kan Leemark Engineers, Inc, Box 6175, Leawood
Md Electronic Sales Assoc, 12050 Tech Rd
Silver Spring
Mass Telemetry Systems Engrg, 93 Main St, Andover
Mo Leemark Engineers, Inc, 2001 Big Bend Blvd
St Louis
NY Henley & Co Inc, 202 E 44th St, New York

STELMA INC, 17 AMELIA PL, STAMFORD
CONN, 06902 .... 203 DA 54161
C JOHNSON, EMP 750, ENG 75, OVER $10,000M
Cal Westec Assoc, 201 Town & Country Vlg
Palo Alto 322-8964
DC Stelma, Inc, 1200 18th St NW
Washington 338-8230
Can Tele-Radio System, Inc, 1015 Finch Ave, W
Toronto, Ont .... RO 2-8224
Aust Kenelec Imports Pty Ltd, 49 Essex Rd
Waverley, Vic 272-818

STEPHEN & CO LTD, R A, MILES RD, MITCHAM
ENGLAND 01-648-1668
T REDMOND, EMP 110, ENG 4, OVER $10,000M
Can Assoc Electrical Industries, 766 King St W
Toronto 2B, Ont 364-9281
For Siemens & Halske GmBH, Apostelgasse 12
Vienna 72 66 11
Den Semler & Matthiassen, Aebelogade 1
Copenhagen 29 03 11
Fr Ets R Bernas, 52 rue de Dunkerque
Paris 9 .... TRU 83-82
Ger Siemens & Halske, Rheinbruckenstr 50
Karlsruhe 8951
Holl Philips Bedrifjsapparatuur Nederlands NV
Eindhoven 33333
Ital Ing S Garrone, 40, Via Marco Besso
Rome 320.305
Nor Lehmkuhl Elektronikk, A/S Lehmkuhl
Hovfaret 11, Skoyen, Oslo 55 48 90
Swed Sciandia Ab., Box 314, Gothenburg .. 031-23 29 11
Swit Siemens-Elektrizitatserzeugnisse A G, Lowenstr 35
Zurich 25 36 00
Belg Nucleobel S A, 266b, ave de Tervueren
Brussels 70 82 36
Aust Consolidated Nucleonics Pty Ltd, 813 Dowling St
Waterloo NSW 69 7581

STEPHENS ELECTRONICS, 2302 N ONTARIO ST
BURBANK, CAL, 91504 .... 213 842-5116
T STEPHENS, EMP 4, ENG 1, UP TO $100M

STERLING ELECTRIC MOTORS INC
5401 TELEGRAPH RD, LOS ANGELES
CAL, 90022 .... 213 723-6211
R JORGENSEN, EMP 200, ENG 9, $2,500-$5,000M
Cal R L Hanley & Assoc, 257 N Bayshore Blvd San Mateo 347-1492
Colo Clyde P Elliott, 661 Delaware St Denver 255-2844
Fla E R Crockett & Assoc, 5445 Mariner St Tampa 877-1187
Ga W Sessel Waters & Assoc, 3400 Peachtree, N E Atlanta 237-9284
Haw Foster Equip Co, 719 Ahua, Honolulu 893-588
Ill Sterling Elec Motors Inc, 6120 W North Ave Chicago 237-1730
Kan H F Ziegler, 1909 W 43rd St Kansas City .... AD 6-7352
Mass Donald E Woody, Lakeside Office Pk Wakefield 245-8210
Mich D G Mitchell, 1026 E 11 Mile Rd Royal Oak .... LI 7-0117
Minn E E Rempfer & Assoc, 215 6th St SE Minneapolis .... FE 6-4616
Mo G R McFarland, 4378 Lindell Blvd St Louis .... OL 2-0431
NJ C J Kitching & Assoc, 5075 Central Hwy Pennsauken .... VI 4-7085
NY H D McCleery, 411 Main St, E Aurora .... NL 2-1042
NY Robt H Schaub, 1201 Kellogg Ave Utica 724-8689
NY Sales To Industry, 1120 Old Country Rd Plainview 822-2050
NC Max I Miller, 706 Nottingham Dr Greensboro .... BR 3-7955
Ohio Girkins Electric Co, 2056 Canton St Toledo .... CH 3-9238
Ohio Edwin B Conliff, 4610 Smith Rd Cincinnati .... RE 1-5432
Ohio Robert R Smith, 114 College St Wadsworth .... FE 4-2518
Ohio S B Reese, 3219 Hyde Park, Cleveland .... YE 2-8079
Ohio W W Parsons, 2077 Embury Park Rd Dayton 277-2862
Ore C Curtis Conley, 5561 N E Halsey St Portland 284-0110
Pa John C Magnus, 3045 W Liberty Ave Pittsburgh .... LO 1-6412
Tenn Clyde L Wells, 740 Eaton St, Memphis 683-6922
Tex W A Carey & Assoc, 725 Preston Forest Shop Ctr Dallas .... EM 1-6234
Tex W A Carey & Assoc, 3315 W 12th St Houston .... UN 9-3623
Wash H M Denny Co, 3410 16th Ave W Seattle .... AT 2-7200
Wis Fred H Newman, 155 E Silver Spring Dr Milwaukee .... ED 2-7755
Can Canadian Sterling Elec Ltd, 799 Rennie St Hamilton, Ont 547-2345
For Kerby Intl Inc, 80 Wall St New York, NY .... WH 3-3370
BC Crossman Machy Co, 806 Beach Ave Vancouver .... MU 1-5221

STERLING INSTRUMENT DIV, DESIGNATRONICS INC
76 E 2ND ST, MINEOLA
N Y, 11501, TWX 510-222-5089 .... 516 PI 1-7070
P TERONE, EMP 150, ENG 6, $1,000-$2,500M
Cal Sterling Instrument, 18141 Napa St, Northridge

STERLING MFG CO, 2880 DETROIT AVE, CLEVELAND
OHIO, 44113 .... 216 781-7171
G CULL, EMP 75, ENG 2
Cal Rep Assoc, 1645 S La Cienga Blvd Los Angeles 274-8485
Cal MacPherson Sales Co, Box 2266, San Francisco
Colo R G Bowen Co Inc, 1440 S Santa Fe Denver 722-5641
Conn R Russ, 6 Arrowhead Dr, W Simsbury 658-6261
Fla Hollingsworth & Still, Inc, 1010 Executive Ctr Dr Orlando 841-1623
Ga Hollingworth & Still, Inc, 3098 Piedmont Rd, N E Atlanta 261-5838
Haw Max Kelley & Assoc, 1107 Fort St, Honolulu
Ill Saffro & Assoc, 3736 W Dempster St Skokie 588-0905
Ind Thomas & Sukup Inc, 2060 E 54th St Indpls 251-4574
Iowa Thomas & Modrcin Assoc, 890 17th Ave Marion 838-6446
Kan Thomas & Modrcin Assoc, 5450 Buena Vista Dr Shawnee Mission 432-2131
Mass Anchor Engineering, 336 Washington St Wellesley Hills 235-6330
Mich Hermann D Mysing, 18450 W McNichols Detroit 537-5460
Minn Rhode Electronic Sales, 2510 E 7th Ave St Paul 777-8197
Mo Thomas & Modrcin Assoc, 47 Village Sq Hazelwood 838-6446
NJ Leo Freed & Co, 18 Johnson Ave, Englewood-Cliffs
NJ J S Van Gieson, Box 122, Hackensack 487-1767
NM C T Carlberg & Assoc, 2611 Quincy NE Albuquerque 265-1579
NY Leo Freed & Co, Box 417, Larchmont 834-6510
NY Marchese-Davis Assoc, 97 Park Ave Rochester 442-9120
NY Marchese-Davis Assoc, 107 James St Utica 724-5773
NC Fraser Lyon, 6717 Woodstock Dr Charlotte 523-3327
Ohio Walter J Brauer & Assoc Inc, Box 305 Wickliffe, Ohio 943-0601
Ohio Walter J Brauer & Assoc, Inc, Box 3085 Dayton 426-1692
Pa Beebe & Aikman, 237 Lancaster Ave Devon 688-5173
Pa Walter J Brauer & Assoc, Inc, Box 8466 Pittsburgh 921-3213
Tex John B Guenther, 4533 N Central Expwy Dallas 528-6286
Wash Wm R Lanphear Co Inc, 4031 Stoneway Ave N Seattle 633-4900
Can Stark Elctn Instr, Stark Bldg Ajax Ont 416 942-2122
For E D Magnus & Assoc, 5715 N Lincoln Ave Chicago, Ill 334-1503
For J & B Elctns Systems Inc, Box 1346, Hoto Rey PR

STERLING TRANSFORMER CORP, 510 DRIGGS AVE
BROOKLYN, N Y, 11211 .... 212 782-4200
P ODESSEY, EMP 70, ENG 5, $500-$1,000M
Cal Mauldin Co, 441 Calif Ave, Palo Alto 326-5291
Cal Tim-Co Sales, 16024 Sherman Way Van Nuys 781-7370
Ill English Sales Co, 411 S Oak St, Itasca 773-9449
Md Globe Assoc, 8121 Georgia Ave Silver Spring 587-0060
Mass Anelco Inc, 430 Lexington St Newton 617 332-4547
NJ Mid-Eastern Assoc Inc, 1759 Country Club Rd Cherry Hill 428-7977
NY Willgold Elec Sales, 100 N Village Ave Rockville Ctr .... RO 4-4022

STERLING VARNISH CO, HAYSVILLE BOROUGH
SEWICKLEY, PA, 15143 .... 412 741-5432
W MCCLELLAND, EMP 125, ENG 15, $2,500-$5,000M
Ala Vulcan Electric Distr Inc, 3110 S 7th Ave Birmingham 328-5952
Cal C D LaMoree, 2433 Birkdale St Los Angeles .... CA 5-5666
Cal C D LaMoree, 2221 4th St, Berkeley 841-0601
Conn David H Rausch, Forest View Rd Northford 484-0094
Fla J Carl Turner Assoc, 411 W 28th St Hialeah 888-1761
Ill Sterling Varnish Co, 1440 N Halsted St Chicago .... WH 3-0762
Ind Dean W Looman, 6813 Waveland Ave Hammond 844-2295
Ind Thomas J King, 17 W 670, Plainfield Rd Westmont .... EX 7-8379
Mich McNaughton-McKay Elec Co, 7000 Intervale Ave Detroit .... TE 4-7600
Minn C R Bergquist Co, 3529 Webster Ave S Mnpls 929-6082
Mo D A James Co, 7116 Oakland Ave St Louis .... MA 1-7554
NJ Robt McKeown Co Inc, 99 Dorsa Ave Livingston 992-0700
NY Robt McKeown Co, Inc, 233 Broadway New York 267-9264
NC Robt W Chapman & Co, 1215 Greenwood Cliff Charlotte .... FR 5-7215
Ohio Electrolock Inc, 1 N Franklin St Chagrin Falls 247-4245
Ohio Electrolock Inc, 2077 Embury Park Rd Dayton 277-3221
Ore C E Riggs Inc, 422 NW 8th Ave Portland 226-3286
Pa O H Wilson, R D 4, Gettysburg .... ED 4-4570
Pa Smith of Phila Inc, S E Cor 2nd & Somerset Sts Phila .... GA 5-6869
Tex Cline Supply Inc, 3215 Ave E East Arlington .... CR 4-5331
Wash C E Riggs Inc, 314 Second Ave S Seattle 623-5707
Wash C E Riggs, Inc, 710 Hutton Bldg, Spokane
W Va Charleston Elec Supply Co, 312 MacCorkle Ave SE Charleston 346-0321
W Va Gee Electric Co, 1406 Main St Wheeling 233-3200
Wis Donald R Stackowicz, 3811 N 51st Blvd Milwaukee 871-7525
Can Sterling Varnish Co of Can Ltd, Box 554 St Catharines, Ont .... MU 5-7641
GB Sterling Varnish Co Ltd, Fraser Rd, Trafford Park Manchester 0282
Mex Industrias Aries, S A, Apartado Postal 2740 Monterrey, N L 3-49-93

STERN CO INC M L, BOX 17826, CHARLOTTE
N C, 28211 .... 704 847-9144
M STERN, EMP 7, ENG 2, $100-$250M
NY Herb Shprentz Co, 126 Deertrack La Irvington .... 914 LY 1-7970
NC Systems Service Corp, Box 17525 Charlotte 704 377-3407

STETTNER-TRUSH INC, 67 ALBANY ST, CAZENOVIA
N Y, 13035 .... 315 655-8141
J TRUSH JR, EMP 4, ENG 1
Ariz El-Kap Sales Co, 7050 E Moreland Ave Scottsdale 602 946-2457
Cal C-Wright Co, 5901 Fulton Ave Van Nuys 873-3416
Cal J J Colbert Co, Box 17194, San Diego 278-2630
Cal El-Kap Sales Co, 2808 Santa Monica Blvd Santa Monica 451-9881
Cal Melvin Sales Co, 113 El Camino Real Millbrae 415 697-2457
Cal J F Fenole Co Inc, Box 128, Goleta 805 964-5811
Fla Barrett Assoc, Box 14205, Orlando 277-2857
Ill Crest Assoc, 7001 N Clark St, Chicago 274-2640
Mo Airborne Elctns Co, 7759 Loma Vista Dr, Kansas City
NJ Trainor Sales Inc, 30 Haddon Ave Haddonfield 428-7997
NY K B C Engrg Co, 300 North Blvd, Great Neck
NC Rudisill Assoc, 2009 N Tryon St Charlotte 377-6901
Utah Arrowhead Sales Corp, 1966 W 6255 South Salt Lake City
Can Tri-Tel Assoc Ltd, 55 Brisbane Rd Downsview Ont 633-4325

STEVENS-ARNOLD INC, 7 ELKINS ST, SOUTH BOSTON
MASS, 02127 .... 617 268-1170
E STEVENS
ADV PG 144
For complete information of all products, see our Advertisement in the Yellow Product Listings Section under Choppers. Stevens-Arnold has sales engineering representatives in principal cities of the US and Canada - for immediate referral to your nearest representative, please telephone collect and ask for Customer Service. Foreign Representatives in Australia Belgium, France, India, Israel, Netherlands, Sweden, Switzerland and West Germany.

STEVENS MFG CO INC, GEO, 6001 N KEYSTONE AVE
CHICAGO
ILL, 60646, TWX 910-221-5139 .... 312 588-1300
J STEVENS, EMP 60, ENG 2, $1,000-$2,500M
Ala W A Brown & Assoc, 1314 Buford St N W Huntsville 536-8393
Ariz Electrical Specialty Co, 120 S 29th Phoenix 275-5739
Cal Electrical Specialty Co, 213 E Harris S San Francisco 589-9611
Cal Electrical Specialty Co, 2820 E 12th St Los Angeles 269-9511
Colo Electrical Specialty Co, 2026 Arapahoe Denver .... CH 4-4588
Fla W A Brown & Assoc, 3039 NE 32nd Ave Ft Lauderdale 564-8000
Fla W A Brown & Assoc, 222 Weber Orlando 305 425-5505
Ind Harrison Blind & Assoc, 1635 N Gent St Indpls 635-9761
Mass Production Devices Corp, 489 Main St Stoneham 617 438-2772
Mich R A Staff Co, 9141 E Jefferson Detroit .... VA 1-4223
NJ L A Garten & Assoc, 375 Passaic Ave Caldwell .... CA 6-7800
NY Advanced Components Corp, 119 Luther Ave Liverpool .... GR 2-7886
NC W A Brown & Assoc, 1108 Burke St Winston Salem 725-5384
Ohio R A Staff Co, 19680 Center Ridge Rd Rocky River 216 331-5100
Ore Electrical Specialty Co, 2630 NW Quimby Portland .... CA 7-3601
Pa L A Garten & Assoc, 947 Old York Rd Abington .... WA 7-1200
Tex P J Scanlon & Co, 724 C S Sherman St Richardson .... AD 1-4661
Va W A Brown & Assoc, 325 1st St Alexandria .... TE 6-1800
Wash Electrical Specialty Co, 2442 1st Ave S Seattle .... MU 1-3434
Can Paisley Prods of Can Ltd, 36 Upton Rd Scarboro, Ont
For MESCO, 2170 Pasong Tamo Makati, Rizal, Philip
Ital Metroelettronica, Viale Cirene N 18, Milano
Jap Iwai-Takachiho Trading Co Ltd 6-7, 1-Chome, Yushima, Bunkyo-Ku, Tokyo

STEVENSON BRO & CO, 110 RACE ST, PHILADELPHIA
PA, 19106 .... 215 MA 70760
F FENIMORE, EMP 10, ENG 1, $500-$1,000M

STEVENSON ENGINEERING & MFG CO, BOX 25070
PORTLAND, ORE, 97225 .... 503 292-9201
J STEVENSON, EMP 15, ENG 4, $100-$250M

STEVENS PAPER MILLS INC, BOX 159, WINDSOR
CONN, 06095 .... 203 688-3661
E ARMSTRONG, EMP 350, ENG 5
Cal Yarbrough Sales Co, 1608 Orange St Alhambra 283-0668
Mich E H Radecky, Box 3904, Detroit 836-1229
Mo O'Brien & Reynolds, 155 Hanley Ind Ct St Louis 645-3665

STEVENS PRODUCTS INC, 128 N PARK ST
EAST ORANGE, N J, 07019 .... 201 672-2140
J THOMSON, $250-$500M

STEVENS TUBING CORP, 128 N PARK ST
EAST ORANGE, N J, 07019 .... 201 672-2140
J THOMSON

STEWARD MFG CO, D M, BOX 510, CHATTANOOGA
TENN, 37401 .... 615 624-9055
R PALMQUIST, EMP 200, ENG 12, $2,500-$5,000M
Ariz Electrical Specialty Co, 120 S 29th St Phoenix 295-5739
Cal Electrical Specialty Co, 2820 E 12th St Los Angeles 269-9511
Cal Electrical Specialty Co, 213 E Harris Ave SO San Francisco 589-9611
Colo Electrical Specialty Co, 2026 Arapahoe St Denver 244-4588

Fla Hi-Co Assoc, Box 1317, Winter Park 647-5030
Ill Knoblock & Assoc, Inc, 4902 Tollview Dr
Rolling Meadows 392-8586
Ill Pat Malone Engrg Assoc, Inc, 7640 W North Ave
Elmwood Park 456-4031
Mass Richard Gale, Box 6, Reading 944-1829
Mich Dan Clifford, 631 Fisher Bldg, Detroit 875-3544
Minn Art A Gustafson, Box 4333, Mnpls 781-6365
Miss Charles R Herron Jr, 4394 18th Ave
Meridian 482-1878
Mo A O Woerner & Sons, 209 Chouteau Bldg
St Louis 371-2780
NJ William S Mills, 4 Claremont Rd
Bernardsville .... FR 7-7747
NY B H Tollefson Assoc, 11 State St
Pittsford 381-2500
NC Manufacturers Sales Co, Box 20005
Greensboro 274-1401
Ohio Petrie-Ingram Co, 5767 Mayfield Rd
Cleveland 442-5530
Ore Electrical Specialty Co, 2360 N W Quimby St
Portland 227-3601
Tenn Herron & Co, 15 Cinderella Rd
Lookout Mtn 831-6783
Tex KSE Inc, Box 35184, Dallas 352-8431
Wash Electrical Specialty Co, 2442 1st Ave S
Seattle 682-3434
Can Glendon Co Ltd, 603 Evans Ave
Toronto .... CL 5-5001
Can Glendon Co Ltd, Box 101, Ile Perrot Sud, Que
For Carlos Brena, Apartado Postal 29-320
Mexico 1, D F 10-01-12

STEWART-WARNER MICROCIRCUITS INC
730 E EVELYN AVE, SUNNYVALE
CAL, 94086, TWX 910 339-9210 .... 408 245-9200
H BUTLER, EMP 152, ENG 35
Ala Young & Lawrence Assoc, 601 N New York Ave
Winter Park 305 647-6929
Cal Dorado Electronics, Inc, 13615 Victory Blvd
Van Nuys 213 873-4124
Cal Stewart-Warner Microcircuits, 1811 W Katella Ave
Anaheim 714 635-6460
Colo Waugaman Assoc, 2785 N Speer
Denver 303 255-5000
Fla Tech-Rep Assoc, Inc, Box 2095
Melbourne 305 723-9140
Fla Tech-Rep Assoc, Inc, Box 8218, Madeira Beach
St Petersburg 813 391-0008
Ill Berndt Assoc, 6414 W Belmont Ave
Chicago 312 283-0713
Mass V J Huntoon Assoc, Inc, 272 Centre St
Newton 617 244-5871
Mich Jefco Sales Inc, 700 Maple E
Birmingham 313 642-3830
Minn Stan Clothier Co, 7400 Lyndale Ave
Minneapolis 612 869-3231
Mo Harris-Hanson Co, 2814 S Brentwood Blvd
St Louis 314 647-4350
Mo Harris-Hanson Co, 7916 Pasco Blvd
Kansas City 816 444-9494
NJ Mid-Eastern Assoc, Inc, 1759 Country Club Dr
Cherry Hill 609 428-7977
NJ Stewart-Warner Microcircuits, 848 Main St
Hackensack 201 342-1437
NY Garrettson Co, 99 Hillside Ave
Williston Park 516 747-6610
NY Advanced Components Corp, 119 Luther Ave
Liverpool 315 472-7886
NY Advanced Components Corp Inc, 1 Shamrock Circle
Poughkeepsie 914 471-1623
NY Advanced Components Corp Inc, Box 3514
Rochester 716 484-2153
NY Advanced Components Corp Inc, 5 Sanhurst Dr
Scottsville 716 889-1429
NY Advanced Components Corp Inc, Box B
Whitesboro 315 736-9195
NC Candor Co, Bethania 919 924-1480
Ohio R G Sidnell & Co, 14701 Detroit Ave
Cleveland 216 221-1313
Ohio R G Sidnell & Co, 3400 S Dixie Dr
Dayton 513 292-1194
Pa R G Sidnell & Co, 1029 Wood St
Pittsburgh 412 242-1476
Tex William Reese Assoc, 3130 Springwood
Dallas 214 339-4280
Wash Ray Johnston Co, 1011 NE 69th St
Seattle 206 524-5170
Can Canadian Micro Electronics, Box 6157, Sta J
Ottawa 14, Ont 613 725-2332

STICHT CO INC, HERMAN H, 27 PARK PL, NEW YORK
N Y, 10007 .... 212 RE 2-8163
A VOLKER, EMP 26, ENG 5, $1,000-$2,500M
Ala James Spader Co, 2805 Crescent Ave
Birmingham 879-1366
Cal Charles L Repp Co, 12121 Wilshire Blvd
Los Angeles .... GR 7-4475
Cal Pacific Coast Instr Co, 1161 Folsom St
San Francisco 621-1753
Fla Ward Eng Co Inc, 2727 Phyllis St
Jacksonville .... EV 8-7656
Fla Ward Eng Co Inc, 7040 Lake Ellenor Dr
Orlando 851-0725
Ga Hooker Reid Co, Box 11754, Atlanta .... CE 7-9385
Ill Murphy & Dickey, 537 S Dearborn St
Chicago .... HA 7-7953
La Mid-South Sales Co Inc, 4414 Calliope St
New Orleans 822-3030
Mich George R Peters Assoc, 3347 Coolidge Hwy
Berkley 564-6325
Minn Volco Co, 831 S 6th St, Mnpls .... FE 6-6631
Mo C O Leaver Co, 2800 S Brentwood Blvd
St Louis .... WO 8-1500
NY Thos Carse Sales Co Inc, Meadow La
Newtonville .... ST 5-5844
NY Robert F Lamb Co, 1865 Kenmore Ave
Buffalo 874-4900
Ohio Beedle Equip Co, 6900 Silverton Ave
Cincinnati 793-0140
Ohio Martin-Rettger Inc, 11955 Shaker Blvd
Cleveland .... SW 1-8787
Ore James L Kearns Co, 6055 NE Glisan St
Portland .... BE 6-1165
Pa Wistex, 1 Belmont Ave, Bala-Cynwyd ... TE 9-7086
Pa Russell F Clark Co, 10517 Lindberg Ave
Pittsburgh .... CH 2-9500
Tex William E Brice Co, 1402 Dunlavy
Houston .... JA 6-3197
Wis Morris F Jacobs Co, 2218 N 3rd St
Milwaukee .... LO 2-5690
For Mario R Franceschini Inc, Box 9393, Santurce, PR

STIMPSON CO INC, EDWIN B, 74 FRANKLIN AVE, BROOKLYN
N Y, 11205 .... 212 855-3131
J LARSON, EMP 800, OVER $10,000M
ADV PG 283
Fla B Stimpson Co, Inc, 1515 S W 13th Ct
Pompano Beach 305 933-3355
Ill Bern D Hector, 4856 W North Ave
Chicago 312 622-8252

STINGER ANTENNA CO INC
2512 IRVING BLVD BOX 10605, DALLAS
TEX, 75205 .... 214 631-2540
W BARR SR, EMP 12, ENG 3, $100-$250M

STM CORP, 2904 CHAPMAN ST, OAKLAND
EMP 65, ENG 5, $1,000-$2,500M
Cal Interstate Mktg Assoc, Box 487
Woodland Hills 213 883-7606
Cal Components Unltd, Box 801
San Carlos 415 326-1033
Colo Lindberg Co, 2654 So Krameria, Denver
Conn Nelson & Schoonmaker, Inc, Box 179
Thomaston 283-5959
Ill Heth, Inc, 6282 N Cicero Ave, Chicago ... 282-8737
Ill Lightner Assoc Inc, 6322 N Milwaukee Ave, Chicago
Mass Nelson & Schoonmaker, Inc, Box 91
North Abington 878-3352
Mich Elko Sales Corp, 3119 Midland Dr SE, Grand Rapids
Mo Hippler Sales Co, 1135 Cheshire La
Webster Groves 961-8499
NY J F Harm & Assoc, Inc, 7952 Boxford Circle
Clay 699-2342
NY S-J Sales Assoc, 148-05 Archer Ave
Jamaica 291-3232
Ohio Del Steffen & Assoc, 904 E 222 St
Cleveland 216 261-5055
Okla Components, Inc, Box 502777, Tulsa 583-9149
Tex Stevens Sales, Box 34493, Dallas 521-9409
Va Potomac Electronics, Inc, Box 36
Alexandria 836-1630

STOCKER & YALE INC, RTE 128 & BRIMBAL AVE
BEVERLY, MASS, 01915 .... 617 927-3940
R HALL, EMP 135, ENG 12, $2,500-$5,000M
Ala Moore-Handley, Inc, Box 2572
Birmingham 252-4121
Ariz Roy J Heyne Machine Co, 707 W Buchanan
Phoenix 252-4847
Cal Mike Donley Co, 1104 Morena Blvd
San Diego 276-1934
Cal Precision Tool Dist, 2624 Bayshore Frontage Rd
Mt View 961-1160
Colo Met-Cor Tool & Eng Co, Inc, 3988 Ulster St
Denver 756-1154
Fla Gulf Coast Industrial Supply, 2226 Fairfield Ave
St Petersburg 862-6561
Ill E Johnson & Son, 9500 W Ogden Ave
Brookfield 485-1686
Ind Clark & Osborne, 6325 Guilford Ave
Indianapolis 255-5668
Iowa E Johnson & Son, 9500 W Ogden Ave, Des Moines
Kan Helco, 4450 Virginia Ave, Missouri 352-4450
Md W C Chapman & Sons, 6212 Eastern Ave
Baltimore 633-8200
Mich John T Cochran Assoc, 26105 W 8 Mile Rd
Detroit 535-2100
Minn W K Nelson Co, 807 13th Ave S
Minneapolis 333-1215
Mo Helco, 4450 Virginia Ave, St Louis 352-4450
NJ Benson & Church, 23 Broad Ave
Palisades Park 945-8650
NM Equipment Sales Co, 1018 4th St N W
Albuquerque 247-3781
NY Mausner Richlin Co, 580 Mineola Ave
Carle Pl 333-9444
NC H Walke Co, 860 Huffman St
Greensboro 275-9513
Ohio Harry Lynch, 1727 Tod N W, Warren 399-3147
Okla Hart Industrial Supply Co, 726 W Sheridan
Oklahoma City 239-2541
Ore Portland Machinery Co, 208 S W 1st St
Portland 228-9633
Pa Farndale Tool & Gauge, 1150 York Rd
Abington 885-1292
Tenn Moore-Handley, Inc, 721 E 11 St
Chattanooga 265-3451
Tenn Moore-Handley, Inc, 492 Craighead St
Nashville 269-5631
Tex M M Wiseman & Assoc, 4613 Creekbend Dr
Houston 723-1627
Can Frank J Cox Sales Ltd, 38 Chauncey St
Toronto, Ont 239-3009
Can Hall Distributors, 1954 Dorchester Blvd W
Montreal 935-4778

STOCKLI, 18 RUE GALILEE, 93, MONTREUIL
FRANCE 287-62-90
L STOCKLI, EMP 100, ENG 3, $500-$1,000M
NY Robert W Neill, 524 Sibley Tower Bldg
Rochester 716 454-1420

STODDART ELECTRO SYSTEMS
2045 W ROSECRANS AVE, GARDENA
CAL, 90249, TWX 910-346-6334 .... 213 770-0270
D BLACK, EMP 130, ENG 45, $2,500-$5,000M
Ala Gentry Assoc, Inc, 2109 W Clinton Ave
Huntsville 534-9771
Fla Gentry Assoc, Inc, Box 11096, Orlando ... 841-7740
Ga Gentry Assoc, Inc, Box 10513, Sta K
Atlanta 233-3816
Tex Martin Assoc, Inc, Box 1002, Bellaire 668-3877
Tex Martin Assoc, Box 64513, Dallas .... FL 8-3704
Can David R Beattie Ltd, 1260 Lakeshore Rd E
Port Credit 274-3445
For Radiotronix Comm Labs, 741 Washington St
New York .... AL 5-8900
For Nissho Pacific Corp, 643 S Grand St
Los Angeles 627-7691
For Taiwan Development Co Ltd, Box 1227
Taipei Taiwan
Fr Comsetec, 134 Ave Malakoff, Paris 16
GB Aveley Electric Ltd, South Ockendon, Essex 3444
Jap Nissho Pacific Corp, 2, 1-chome Ohtemachi
Chiyoda-ku, Tokyo
Aust Amalgamated Wireless Ltd, 47 York St
Sydney 2 0233

STOELTING CO, C H, 424 N HOMAN AVE, CHICAGO
ILL, 60624 .... 312 SA 2-3833
J HEGER JR, EMP 30, ENG 3, $500-$1,000M

STONE LABORATORIES INC, 1312 TREMONT ST
BOSTON, MASS, 02120 .... 617 427-3600
S STONE, EMP 17, ENG 3, $250-$500M
Cal Stone Labs Inc, 15918 Arminta St
Van Nuys 781-2400

STONE PAPER TUBE CO DIV STONE IND CORP
900 FRANKLIN ST NE, WASHINGTON
D C, 20017 .... 202 832-5000
J NELLIGAN, EMP 323

STORNO, VED AMAGERBANEN 21, COPENHAGEN S
DEN .... AS 6800
B KERNERT, EMP 1400, ENG 60, OVER $10,000M

STOW LABS, INC, 53 BARTON RD, STOW
MASS, 01775 .... 617 562-9347
G DOERING, EMP 20, ENG 5, $250-$500M
ADV PG 724
Ariz Compar Rocky Mtn, Box 1607
Scottsdale 602 947-4336
Cal Compar San Francisco, 1817 Bayshore Hwy
Burlingame 415 347-8244
Cal Compar Los Angeles, Box 1923
Glendale 213 245-6573
Colo Compar Rocky Mtn, 300 E Hampden Ave
Englewood 303 781-0912
Conn Forsberg Sales Inc, 22 Broadway
North Haven 203 239-5111
Ill Compar Midwest, 2 Talcott Rd
Park Ridge 312 775-7883
Kan Technical Mktg Assoc, 5827 Outlook
Mission 913 831-2888
Md Barnhill & Assoc, 1931 Greenspring Dr
Timonium 301 252-5610
Mass Forsberg Sales Inc, 646 Summer St
Brockton 617 522-6300
Mich Skip Greiner Assoc, 15318 Mack Ave
Detroit 313 882-7570
Minn Beta Engineering Corp, 128 Jackson Ave N
Hopkins 612 938-2551
Mo Technical Marketing Assoc, 2050 Woodson Rd
St Louis 314 427-3600
NJ Barnhill & Assoc, 1 MacArthur Blvd
Westmont 609 854-5858
NM Compar Rocky Mtn, 2125 San Mateo Blvd N E
Albuquerque 505 265-1020
NY Andrew-Douglas Corp, 222 Beach 145th St
Neponsit 212 474-6000
Ohio Gibson Electronics Mktg Inc, 2801 Far Hills Ave
Dayton 513 298-7683
Tex Lawrence Sales Co, Box 1038
Richardson 214 235-5504
Va Barnhill & Assoc, Box 1104
Lynchburg 703 384-2062
Wash G M Gillett & Assoc, Box 99035
Seattle 206 284-3344
Can Anbak Sales Canada Ltd, 3202 Lenworth Dr
Cooksville Ont 416 625-1061
Can Anabak Sales Canada Ltd, 2180 Boulevard Perrot
Ile Perrot Sud Que 514 453-6375
For Machine & Prods Co, 52 Wall St, New York
Fr Technique et Products
Cite des Bruyeres Rue Carle Vernet, 92 Sevres
Ger Tekelec Airtronic GmbH, Alte Poststr 5, 7 Stuttgart
GB Guest Electronics, Brigstock Rd
Thornton Heath Surrey
Ital Secial - IND, Via d Manin, 33 Milan
SAfr Associated Elctns PTY Ltd, Box 31094
Braamfontein Johannesburg
Belg Technique et Produits, 16 Rue Marcq, Bruxelles

STOW MFG CO, 101 SHEAR ST, BINGHAMTON
N Y, 13902
J DICKINSON

Cal J Roberts, 40749 Ambar Pl, Freemont 657-5244
Ill Rodney Int-Hout, 333 Sunset Trail
New Lexox 485-6817
Mich G Anderson, 504 N 2nd St
Brighton 313 227-5041
NY G H Karlen, 519 S 5th St, Mt Vernon... MO 4-1111
NY T J Mallen, 8 Blueberry Rd
Liverpool 315 652-5831
Pa T Beeby, 275 Bryn Mawr
Bryn Mawr 215 527-0868
Tex Lloyd Laney, Box 687, Conroe .... MO 7-8011

STRAINDYNE ENGINEERING CO
13661 LA PALOMA RD, LOS ALTOS HILLS
EMP 10, ENG 2, UP TO $100M

STRAINSERT CO, 24 SUMMIT GROVE AVE
BRYN MAWR, PA, 19010 .... 215 525-0685
EMP 12, ENG 3, $100-$250M
Ill Joe Popp Sales Co, 5719 W Chicago Ave
Chicago 261-7423
Mich Elias Electronics, 26817 W 7 Mile Rd
Detroit 255-2111
Utah Applied Engineering Prods Co
6375 Emigration Canyon
Salt Lake City .... EM 4-4942
Can Intertechnology Ltd, Box 219
Don Mills Ont 416 447-0738

STRANCO PRODUCTS INC, 1534 W VAN BUREN ST
CHICAGO, ILL, 60607 .... 312 738-1580
R HARMS, EMP 40, ENG 3
Cal R Furness, 6825 Stockton Ave
El Cerrito 415 526-7627
Mass R Richter, 16 Alcott St, Acton 617 369-5929
NJ J Nolan, 15 Gover St
Spots Wood .... 215 TU 4-9946

STRANDBERG ENGINEERING LABS INC
1001 S ELM ST, GREENSBORO
N C, 27406 .... 919 274-0121
C STRANDBERG JR, EMP 70, ENG 3, $1,000-$2,500M

STRATOCON CORP, 65 CLINTON ST, NEWARK
N J, 07102 .... 201 623-0202
A HELMS, EMP 15, ENG 2, $100-$250M

STRAT-O-SEAL MFG CO, 3039 W FULLERTON AVE
CHICAGO, ILL, 60647 .... 312 HU 9-1282
H WALSH, EMP 8, ENG 1, UP TO $100M

STRAZA INDUSTRIES DIV AMETEK INC
790 GREENFIELD DR, EL CAJON
CAL, 92021, TWX 910331-1162 .... 714 442-3451
H OSBORN, EMP 620, ENG 140, OVER $10,000M

STREETER-AMET, SLUSSER & WICKS, GRAYSLAKE
ILL, 60030 .... 312 BA 3-4801
W DANIELS, EMP 180, ENG 30, $2,500-$5,000M
Ala Streeter Amet, 337 1st Ave N
Birmingham 324-2459
Cal Streeter Amet, 3530 Golden Gateway
Lafayette 284-5733
Colo N W Early, Box 96, Keenesburg 732-4378
Mich Streeter Amet, 19459 James Couzens Hwy
Detroit 342-9098
NY R J Hermreiter, 13 Lincoln Rd, Buffalo ... 839-1664
Ohio Streeter Amet, 1172 W Galbraith Rd
Cinc 522-8220
Pa Streeter Amet, 1227 Walnut St
Allentown 434-4581
Pa Streeter Amet, 466 Castle Shannon Blvd
Pittsbgh 561-4042
Tex Streeter Amet, 6711 Bellfort Blvd
Houston 643-4953

STRIPPIT DIV HOUDAILLE INDUSTRIES INC
12975 CLARENCE CENTER RD, AKRON
N Y, 14001 .... 716 542-4511
N WEYLAND, EMP 450, ENG 20
Ala D W Elliott, 512 N 18th St
Birmingham 205 322-5219
Cal Strippit Div, 6440 E Corvette St
Los Angeles 685-8250
Cal Homer C Gray, 201 Town & Country Vlg
Palo Alto 326-3985
Cal Alan F Pederson, 1326 Washington Ave
San Leandro 357-0918
Cal Alan F Pederson, 1326 Washington Ave
San Leandro 357-0918
Colo Chas R Merryman, 529 E Ohio St
Denver 722-1201
Fla K H Muller, 23 S Magnolia Ave
Orlando 305 241-3163
Ga Strippit Div, 524 Armour Cir NE
Atlanta 875-7075
Ill Strippit Div, 408 W Madison, Oak Park ... 848-3800
Ind N V Dykins, 2060 E 54th St
Indianapolis 317 251-7134
Iowa Chas J Templin, 611 Kahl Bldg
Davenport 326-2721
Md C H Sorensen, 2627 N Charles St
Baltimore 301 254-2700
Mass N W Karro, 419 Boylston St
Boston 617 536-3194
Mich G F Totzkay, 424 Book Bldg
Detroit 313 873-0745
Minn D S Flint, 324 S 4th St
Minneapolis 612 336-7404
Mo W J McCally, 34 N Brentwood Blvd
Clayton 314 725-2505
NY Strippit Div, 11 Ridge Plaza
Port Chester 939-1600
NY S J Necel, 12975 Clarence Center Rd
Akron 716 542-4511
NC T DiRosato, 412 W Market St
Greensboro 919 273-4575
Ohio Walter L Kaiser, 1296 Hayden Ave
Cleveland 451-1882
Ohio F C Luckey, 211 E 4th St
Cincinnati 513 421-1931
Okla A M Pritzos, 1412 S Howard
Tulsa 918 939-6820
Pa R R Lancia, 23 Maplewood Ave, Phila 438-7673
Pa Paul J Shonborn, 508 Grant St
Pittsburgh 261-4953
Tex J R Lemon, 613 Continental Bank Bldg
Ft Worth 817 336-2997
Wash A Hunter, 101 Jones Bldg, Seattle ... 206 623-8306
Wis J W Gaul, 2450 W Wells St
Milwaukee 414 933-0858

STROBLITE CO INC, 77 W 45TH ST, NEW YORK
N Y, 10036 .... 212 CI 5-7911
R ANDERSEN, EMP 5, ENG 1, UP TO $100M

STROMBERG-CARLSON SUB GEN DYNAMICS
100 CARLSON RD, ROCHESTER
EMP 6500, OVER $10,000M
Ark Camden Plant, Box 646, Camden ... 609 TE 6-5071
Cal Telecommunication Sls Br, 1805 Rollins Rd
Burlingame .... OX 7-3630
DC Stromberg-Carlson, 1710 H St NW
Washington 684-5974
Ga Telecommunication Sls Br
750 Ponce de Leon Place NE, Atlanta... 875-7467
Ill Telecommunication Sls Br, 2777 Mannheim Rd
Des Plaines 824-7111
Mo Telecommunication Sls Br, 1901 Bedford Rd
N Kansas City .... HA 1-6618
NY Telecommunication Sls Br, 1040 University Ave
Rochester .... HU 2-2200
Okla Ardmore Div, Box 3246, Ardmore .... DU 9-5411
Va Telecommunication Plant, Box 1288
Charlottesville 973-3331

STRONG ELECTRIC CORP, 87 CITY PARK AVE, TOLEDO
OHIO, 43601 .... 419 248-3741
N ALEXANDER, EMP 140, ENG 15

STRUTHERS-DUNN INC, LAMB'S RD, PITMAN
N J, 08071, TWX 510-686-7510 .... 609 589-7500
W CAPEWELL, EMP 487, ENG 10, $5,000-$10,000M
Ala REP Inc, 8100 S Memorial Pkwy
Huntsville 205 881-9270
Ariz Vinson Assoc, Inc, 44 E Indian School Rd
Scottsdale 947-7371
Cal Ledbetter Assoc, 16618 Ventura Blvd
Encino 789-8115
Cal Ledbetter Assoc, 2124 Arthur Ave
Belmont 591-7774
Colo Vinson Assoc, 3600 S Lincoln
Englewood 789-2203
Fla Ludlum Assoc Co, 4471 N W 36th St
Miami 885-3611
Ga Rep Assoc Inc, 1483 Monroe Dr NE
Atlanta 876-1591
Ill Rockford Controls Co, 21W181 Hill Ave
Glen Ellyn 469-6016
Iowa Reid Assocs, Inc, 526 MNB Bldg
Cedar Rapids 362-3602
Kan Avionics Engrg Sales Co, 230 Ida
Wichita 264-6201
Mass Electrical Appar Co, 1200 Soldiers Fld Rd
Boston 782-7440
Mich R McBride Co, Inc, 20830 Rutland
Southfield 356-5724
Minn Ed Melius & Assoc Inc, 3758 N Dunlap St
St Paul 488-7293
Mo Carl P Lohr Co, 1110 S Brentwood Blvd
St Louis 725-9794
Mo E A Mais Co, 2201 Grand Ave
Kansas City 761-3124
Mo Kunkel Electrical Sales Co
Box 13058 Webster Groves Sta
St Louis 314 968-3366
NJ Grimm, Siegel Assoc Inc, 246 Clifton Ave
Clifton 773-5010
NM Vinson Assoc, Box 3295, Sta D
Albuquer 298-7442
NC Jake Rudisill & Assoc, 2009 N Tryon St
Charlotte 377-6901
Ohio Beedle Equip Co, 6900 Silverton Ave
Cinc 793-0140
Ohio J L Finnicum & Assoc, 1495 Warren Rd
Cleveland 216 226-7076
Pa Russell F Clark Co, 10517 Lindberg Ave
Pittsbgh 242-9500
Tenn Ransom Inc, 100 N Main Bldg
Memphis 362-6302
Tex Vista Engrg Assoc, First Bank & Trust Co
Richardson .... AD 5-4547
Wash Eicher-Richards, Co, 2727 N E Blakeley St
Seattle 523-7888
Can Struthers-Dunn Relay Div, 349 Carlaw Ave
Toronto 461-3511
For Struthers-Dunn, 1505 Race St, Phila 564-4020
For Omni Ray AG Zurich, Mollardgasse 154
Wien V1 573280
For Casa Suiza-Henrique Schmidli y Cia
Apartado 1214, Ed Paris
Plaza Candelaria, Caracas, Ven 55-84-49
For Akhtar Trading Corp, McLeod Rd, Box 4852
Karachi 2, West Pak 223156
Den Hans Buch A/S, 6, Svanevej
Copenhagen V .... TAGA 5170
Fr S P I A Dept Electronique, 11, Rue de Provence
Paris 9 .... PRO 75-46
Ger Omni Ray GmbH, Nymphenburgerstr 164
Munich 5132059
GB Kemptston Electrical Co, Ltd, Shirley Rd
Rushden, Northamptenshire .... RUS 4351
Holl De Buizerd N V, 16 Nassau Dillenburgstr
Hague 630977
Ital S I M E R, 8, Piazza Duca d'Aosta
Milano 276-679
Jap Sankyo Intl Corp, 20-2 Chome Misaki-Cho, Kanda
Chiyoda-Ku, Tokyo 262-6376
SAfr G H Langler & Co Ltd, Box 3762
Johannesburg 22-4402
Swed Olof Klevestav AB OKAB, Eva Bonniers Gata 6
Stockholm-Hagersten 08/88 88 30
Swit Omni Ray AG, Dufourstr 56, Zurich 47-82-00
Belg Daniel Delgay, 58a, Chausse de Charleroi
Brussels 37-70-90
Spn Tecnologica de Automacion, SA
Ave Del Gen Franco 354
Barcelona 13 .... 225 60 77

STUART, MATTHEW & CO INC, 3650 DYRE AVE
BRONX, NY, 10466 .... 212 994-7000
R PFEFFER, EMP 15

STUECK INC, W WHITNEY, BOX 355EG
OLD SAYBROOK, CONN, 06475 .... 203 EV 8-9309
W STUECK, EMP 20, ENG 1, $250-$500M

STURTEVANT CO, P A, ADDISON
ILL, 60101 .... 312 834-2000
L STURTEVANT, EMP 70, ENG 3, $1,000-$2,500M
Cal Dillon Stevens & Co, 1610 S Bonnie Brae St
Los Angeles 747-9221
Cal Dillon Stevens & Co, 833 Mahler Rd
Burlingame 697-3022
Conn R W Secor, 66 Brightwood La
W Hartford 521-1969
Fla J W George, 5401 78th Ave
Pinellas Park 544-4348
Ga J O King, Inc, 711 Trabert Ave NW
Atlanta 355-7660
Ill Don E Williams Co, 5402 Fourth Ave
Moline 764-8393
Ill C Rahn, 333 W First St, Elmhurst 834-2000
Ind R H Thompson, 333 N Penna Dr
Indianapolis 635-9393
Ind Carl Beyerlein, 2816 Whitegate Dr
Fort Wayne 483-5904
Iowa J R Yockum, 4324 Beaver Crest Dr
Des Moines 255-5416
Ky W Whinnery, 1947 Meadow Creek Dr
Louisville 458-4361
Mich A A Geisler Co, 12675 Marlin Dr
Detroit 313 255-1450
Minn Smith Engineering Assoc, 2278 Como Ave
St Paul 646-4851
Mo Arnold Holtan & Co, 12511 Monroe St
Grandview .... SO 3-2888
Mo Louis A Hoppe Co, 148 Hanley Industrial Ct
St Louis .... MI 7-3420
NJ H R Williams Assoc, Inc, Box 344
Ridgewood 444-5392
NY Godfrey & Cercone, 2690 Sheridan Dr
Tonawanda .... TF 7-3163
NC Crotts & Saunders Engrg, 235 N Main St
Winston-Salem 723-3643
Ohio W Lewis Sales Co, 1300 Hayden Ave
E Cleveland .... MU 1-6600
Okla Tulsa Measurement & Gage Lab
600 S 129th East Ave, Tulsa .... GE 7-3245
Pa Peter Jacobson Assoc, 302 Cottman St
Jenkintown .... TU 4-5524
Pa G P Jeffers, 40 S Main St, Dayton
SC V Miller, Box 115, Greenville 244-4552
Va G O Davis, Box 4206, Virginia Beach 428-8081
Can Gray Forgings & Stampings Ltd
St Clarens Ave & Dupont St, Toronto... LE 1-5731

SUFLEX CORP, 33-30 57TH ST, WOODSIDE
N Y, 11377 .... 212 NE 95530
V GOLDSMITH, EMP 130, ENG 7, $1,000-$2,500M

SULZER BROTHERS LTD, INDUSTRIAL ELCTNS DIV
WINTERTHUR, SWITZERLAND 052/81 11 22
A LUTHI, EMP 60, ENG 20, $500-$1,000M
NY Sulzer Bros Inc, 19 Rector St, New York
Fr Cie de Construction Mecanique
19 Rue Cognacq-Jay, 75 Paris 7e
GB Sulzer Bros (London) Ltd, Bainbridge St
London W C 1
Ital Loro & Parisini SpA, Via Savona 129, Milano

SUMITOMO SPECIAL METALS CO LTD
22, 5-CHOME, KITAHAMA, HIGASHI-KU, OSAKA
JAPAN 203-2321
R MASATOMO, SLS MGR, EMP 1000, ENG 100, OVER $10,000M
Jap Sumitomo Spec Metals Co Ltd
2-4-3 Chome, Kasumigaseki, Chiyoda-Ku
Tokyo 581-4611

SUMMIT FINISHING DIV BERYLLIUM CORP
1430 WATERBURY RD, THOMASTON
CONN, 06787 .... 203 283-4391
A BRAZAUSKAS, EMP 180, ENG 5, $2,500-$5,000M

SUNAIR ELECTRONICS INC, 3101 SW 3RD AVE
FT LAUDERDALE, FLA, 33315 .... 305 525-1505
R MACKAY, EMP 92, ENG 9, $1,000-$2,500M

SUNBANK ELECTRONICS INC, 2428 N ONTARIO ST
EMP 125, ENG 20, $1,000-$2,500M
Fla Aerodyne Engineering, Box 17057
Orlando 295-4440
Ill Technical Devices, 6416 N Central Ave
Chicago 312 774-8252
Md Kraft Sales, 510 Woodbine Ave
Towson 828-5838
Mass Underwood Sales, 109 Great Rd
Bedford 275-8656
Minn Countryman, Wagner & Bennen Co
1955 University Ave, St Paul 645-9151
Mo Dipro Inc, 11657 Adie Rd
Maayland Heights 314 432-3444
NJ Robert Horne Assoc, Box 31
Pompton Lakes 835-7400
NY Floring & Murray Inc, 6585 Kinne Rd
Syracuse 446-5555
Ohio Luebbe Sales, Box 8955, Cincinnati 871-4211
Pa E S Components Sales, 4733 N Marshall
Phila 609 667-5341
Tex E B Robertson, 1339 Plowman Ave
Dallas 942-8486
Wash H S Thorpe Co, Seattle 206 454-0667
GB Autonetics & Co, 90 Saltergate, Chester Field
Derbyshire

SUNBEAM ELECTRONICS, INDUSTRIAL AIRPARK
FORT LAUDERDALE
FLA, 33307, TWX 510/955-9859 .... 305 565-3311
A BARBACCIA, EMP 850, ENG 27, OVER $10,000M
Cal W W Hubbard, 8833 Sunset Blvd
Los Angeles 652-3228
DC Arco Engrg, 1000 16th St NW
Washington .... 202 EX 3-5991
Md Barnhill & Assoc, 1931 Greenspring Dr
Timonium 301 252-5610
NJ O W Homer, 997 Crystal Lake Terr
Franklin Lakes 201 337-4348
Ohio E Stipek, 3020 Crickett La, Dayton 513 228-7643
Tex Colmac Industries Inc, 1148 107th St
Arlington 817 277-5533
Wis E Wojcik, 1405 16th St, Racine 637-4445

SUNBEAM EQUIPMENT CORP, 216 MERCER ST
MEADVILLE, PA, 16335 .... 814 336-1131
J WILLIAMS, EMP 200, ENG 20, $2,500-$5,000M
Cal Thermco Prods Co, 1465 N Batavia St
Orange 714 639-2340
Conn Etter Eng Co, Box 5126, Hamden 203 288-3575
Ga Dilcher Eng Co, 3376 Peachtree Rd NE
Atlanta 404 231-1678
Ill Ade Equipment Co, 315 Stanton Rd
Glen Ellyn 312 469-3340
Ill W E Swanson & Assoc, 6135 N Elston Ave
Chicago 312 774-8575
Ind Thermal Equip Co, 5817 E 79th St
Indianapolis 317 849-3181
Kan Switzer Co, J A, 4323 W 67th St
Shawnee Mission 913 262-5385
Mass Etter Eng Co Inc, Box 47, Waltham 617 893-8658
Mich PAF Industries, 12489 Hartel Ave
Livonia 313 538-4355
NY A C Towne & Assoc Inc, 1456 Niagara Falls Blvd
Tonawanda 716 832-1468
NY Inman Assoc, 200 Park Ave
New York 212 986-3390
Ohio Thermal Equip Co, 1205 Lamar St
Dayton 513 223-9131
Ohio Mettalurgical Assoc, 8905 Lake Ave
Cleveland 216 651-5599
Pa Blumfeldt Engineering Co, Box 402
Bridgeville 412 833-3113
Pa Day Engr Co, 1032 Park Ave
Audubon 215 666-7700
Tex Production Eng Sls Organ, Box 30393
Dallas 214 369-3181
Tex Haylett O'Neill & Son, Box 22553
Houston 713 622-4938
Wis W E Swanson & Assoc Inc, 2336 N 124th St
Milwaukee 414 771-5820
Can Caneng Mfg Co Ltd, Box 628
Niagra Falls, Ont 416 356-1327
Fr Ripoche Fours Pour Toutes Industries
3a9 Rue Ferrus, Paris 14e 707-31-91
GB Fuel Furnaces Ltd, Shady La, Great Barr
Birmingham 22A .... Great Barr 1784
Ital Officine Bernotti, Via XXV Aprile, 49
20091 Bresso Milano
Braz Industria Brasilera De Fornos Ltda
Av Brig Luiz Antonio 993, Sao Paulo
Mex Soc Electro Mecanica, SA
Manuel Ma Contreras 25
Mexico 4, DF 35-81-40

SUNBEAM VACUUM FURNACE CORP, 49 POLLARD ST
NORTH BILLERICA, MASS, 01862 .... 617 663-3493
D THOMAS, EMP 35, ENG 3, $500-$1,000M
Conn Etter Engrg Co, Box 5126, Hamden 203 288-3575
Ga Dilcher Engrg Co, 3376 Peachtree Rd NE
Atlanta 404 231-1678
Ill Ade Equip Co, 315 Stanton Rd, Glenn Ellyn
Ill W E Swanson & Assoc, 6135 N Elston Ave, Chicago
Ind Thermal Equip Co, Box 20207
Indianapolis 317 849-3181
Kan Switzer Co, 4323 Q 67th St, Shawnee Mission
Mass Etter Engrg Co, Box 47, Waltham 617 893-8658
Mich Paf Industries, Inc, 12489 Hartel Ave
Livonia 313 538-4355
NY Inman Assoc, Box 338, Tarrytown 914 631-0109
NY A C Towne Assoc Inc, 1456 Niagara Falls Blvd
Tonawanda 716 832-1468
Ohio Metallurgical Assoc, 8905 Lake Ave
Cleveland 216 651-5656
Ohio Thermal Equipment Co, 1205 Lamar St
Dayton 513 223-9131
Ohio Metallurgical Assoc, 64 Edgewood Dr
Grafton 216 458-5091
Pa Day Engineering Co Inc, 1032 Park Ave
Auduborn 215 666-7700
Pa Blumfeldt Engrg Co, Box 402
Bridgeville 412 833-3113
Tex Haylett O'Neill & Son, Box 22553
Houston 713 622-4938

SUN CAPACITORS, 2554 W LAWRENCE AVE, CHICAGO
ILL, 60625 312-561-4975
W TIMMINGS, EMP 30, ENG 2, $250-$500M

SUN DIAL & PANEL CORP, BOX 326, CALDWELL
N J, 07006 .... 201 226-4334
C LOKKER, EMP 40, ENG 3, $500-$1,000M
Mass Gilway Co, Box 584, Newburyport .... HO 5-7568

SUN ELECTRIC CORP, 6323 AVONDALE AVE, CHICAGO
ILL, 60631, TWX 910-221-2928 .... 312 631-6000
R ESVANG, EMP 1200, ENG 31, OVER $10,000M

SUNSHINE SCIENTIFIC INSTRUMENTS INC
1810 GRANT AVE, PHILADELPHIA
PA, 19115 .... 215 OR 3-5600
A STILES, EMP 38, ENG 5, $500-$1,000M
Cal P H DuBois, 15605 Calverton Dr
La Mrirada 714 521-1481
Md Sunshine Scientific Inst Inc, 5600 Main St
Elkridge 301 796-5600

SUPEREX ELECTRONICS CORP, 4 RADFORD PL
YONKERS, N Y, 10701 .... 914 YO 56906
C RAY, EMP 50, ENG 3, $500-$1,000M

SUPERIOR CARBON PRODUCTS INC
9115 GEORGE AVE, CLEVELAND
OHIO, 44105 216-883-4880
T LIEBERT, EMP 120, ENG 8
Cal A W Nash Co, 8560 Roland St
Buena Park 521-6192
Ill Superior Carbon Prods, 21606 Gailine
Sauk Village 758-4036
NY Al W Schmitz & Sons, 82 St Paul St
Rochester 546-7628
NY Robert Moore & Co, 350 Main St
Port Washington .... TU 3-7660
Ohio Superior Carbon Prods, 20027 Westhaven La
Rocky River 331-9420
Ohio Superior Carbon Prods Inc, 133 Bryn Mawr Dr
Painesville 352-2006
Tex Max Daggett Jr & Assoc, Box 30152
Dallas .... FL 7-1256

SUPERIOR CONTINENTAL CORP, BOX 489, HICKORY
N C, 28601, TWX 510-934-1495 .... 704 328-2171
J BOWMAN, EMP 290, ENG 25, OVER $10,000M
Ala C Oxford, 3018 First Ct, Tuscaloosa
Cal R Westwood, 161 W 25th Ave
San Mateo 415 349-3003
Cal F Boedecker, Box 391, Etna
Ga L K Powley, 175 W Wieuca Rd NE
Atlanta 404 255-2030
Ill T Lyons, 650 Roosevelt Rd
Glen Ellyn 312 858-2880
Iowa Ed Lindquist, 544 7th St NE, Mason City
Ky C J Johnson, 425 W Ormsby Ave
Louisville 502 634-8331
Mo R Wohlberg, 1605 Little St
Grandview 816 761-9800
NJ E G Scheer, Box 623, Cresskill
NY C E Schnegelsberger, 256 Orange Ave
Walden 914 778-3042
Ohio H Roelle, Wyandot Bldg, Galion 419 468-4715
Ore D F Larkin, 558 35th St NW
Salem 503 585-5556
Tex M Chenault W Pitts, 130 Casa Linda Plaza
Dallas 214 321-3242

SUPERIOR ELECTRIC CO THE, 383 MIDDLE ST, BRISTOL
CONN, 06010, TWX 203-582-5293 .... 203 582-9561
B DEMING, EMP 1000, ENG 30, OVER $10,000M
ADV PG 184, 201, 206, 384, 386, 440, 482, 585, 738
Cal Superior Electric Co, 14663 Titus St
Van Nuys 786-3626
Cal Superior Electric Co, 645 Marshall Ct
Redwood City 369-8203
Ga Superior Electric Co, Box 20841 Airport Br
Atlanta 766-5638
Ill Superior Electric Co, 6328 W Roosevelt Rd
Oak Park 383-5430
Md Superior Electric Co, 7100 Baltimore Ave
College Park 301 277-3235
Mass Superior Electric Co, 6 Abbott Rd
Wellesley Hills 237-0750
Mich Superior Electric Co, 13530 Michigan Ave
Dearborn 582-5225
Mo Superior Electric Co, 10726 Manchester Rd
Kirkwood 314 966-5066
NY Superior Electric Co, 250 Park Ave
New York 986-7930
Ohio Superior Electric Co, 124 W Washington St
Medina 723-1515
Pa Superior Electric Co, Ft Wash Ind Park
Ft Washington 248-3537
Tex Superior Electric Co, 317 Meadows Bldg
Dallas 368-4688
Can American Superior Elec Co Ltd, 38 Torlake Crescent
Toronto Ont 255-2318
Can American Superior Elec Co Ltd
3285 Cavendish Blvd, Montreal 514 484-1161
Holl Superior Elec Nederland NV, Zwarteweg 12
The Hague 070-184872

SUPERIOR ELECTRONICS CO DIV AIKEN INDUS, INC
474 GETTY AVE, CLIFTON
N J, 07011, TWX 710-989-7051 .... 201 478-5400
P CAGNEY, EMP 240, ENG 10
Cal Tel-A-Mount Elctns, 8432 Standustrial
Stanton 714 826-7130
For Milano Brothers, 250 W 57th St
New York 246-0375
For Singer Products Co, Inc, 95 Broad St
New York 944-8700
GB Electrode Welding Co Ltd
Cobbold Rd, Willesden NW 10
London WIL-6655
Holl Daviro N V, 136 Van Beethovensingel
Vlaardingen 01898-7722
Arg O R Klein & Cia S R L, Casilla De Correo 568
Buenos Aires 34-8357

SUPERIOR FLUX & MFG CO, 1536 ST CLAIR AVE
CLEVELAND, OHIO, 44114 .... 216 SU 1-9373
B GARFINKEL, EMP 6, ENG 1, $100-$250M
Ariz Claude Michael Inc, 15 N 40th Pl
Phoenix 273-7376
Cal Claude Michael Inc, 703 W Ivy St
Glendale 245-8401
Ill Ames Metal Prod Co, 4323 S Western Blvd
Chicago .... LA 3-3230
Mich Welding Metals, Inc, 1604 E 14 Mile Rd
Madison Hts 566-9892

SUPERIOR INSULATED WIRE CORP, WASHBURN'S LN
STONY POINT, N Y, 10980 .... 914 942-1433
A CLARK, EMP 44, ENG 3, $1,000-$2,500M
Ill Markal Sales Corp, 5787 N Lincoln Ave
Chicago .... LO 1-7920
Ill Markal Sales Corp, 9234 Lavergne
Skokie 674-4114
Ind B F Homsher Co, 418 E Berry St
Fort Wayne 219 432-1164
Md Art Cerf & Co, 7 Mellonbrook Rd
Ellicott City 465-1493
NJ Art Cerf & Co, 512 Bloomfield Ave
Caldwell 226-2263
NJ Art Cerf & Co, 27 Arcadia Way
Hillsdale 391-2039
NY Callahan-Ferguson Co, 107 Greenhedge Dr
Camillus 488-5518
NY Callahan-Ferguson Co, 117 Fayette St
Manlius 682-9301
Pa Art Cerf & Co, 19 Fern Ave
Willow Grove 657-0282

SUPERIOR MFG & INSTRUMENT CO, 36-07 20TH AVE
LONG ISLAND CITY
N Y, 11105, TWX 212-672-1610 .... 212 YE 21800
F MCGRAIL, EMP 300, ENG 15, $5,000-$10,000M
Cal El-Corn Sales, 3600 Motor Ave
Los Angeles 870-4707
DC B Adams, Rte 2, Box 229, Edgewater 956-3452
Fla Essco Engrg Sales, 526 Langholm Dr
Winter Park .... MI 7-6551
Md R Trainor Sales, 210 W Penna Ave
Towson 828-1737
Mo Mfg Sales & Services, 1023 Woodbine Dr
St Louis .... WO 2-3247
NH T Clarke, Jr, Box 57, Rindge 899-6662
NY Electro-Rep Co, 1170 Pt Wash Blvd
Port Washington .... PO 7-7890
Can Geo Altschuler, 2325 Nantell St
Ville Ste Laurent, Mont

SUPERIOR PLASTICS INC, 7301 MADISON ST
PARAMOUNT, CAL, 90723 .... 213 636-0601
J GAMACHE, EMP 30, $250-$500M

SUPERIOR STEATITE & CERAMIC CORP, 91 W FOREST AVE
ENGLEWOOD, N J, 07631 .... 201 568-4555
T CHURCH, EMP 90, ENG 2, $500-$1,000M
ADV PG 130
Cal Yarbrough Sales Co, 1608 Orange St
Alhambra 283-0668
NJ S Dixon, 135 Dumas Rd, Haddonfield 428-3455
NJ Harry Thaw Sales Co, 46 Springbrook Rd
Livingston 992-2711

SUPERIOR TUBE CO, 2504 GERMANTOWN PIKE, NORRISTOWN
PA, 19404 .... 215 489-7221
J BOWE, EMP 1100, ENG 10
ADV PG 762

SUPERITE GEAR & INSTRUMENT CORP
140 OAK DRIVE, SYOSSET
N Y, 11791 .... 516 921-6840
G MACDONALD, EMP 75, ENG 3, $500-$1,000M
Cal Electro-Mechanical Instr, 1388 E Walnut
Pasadena .... MU 1-2748
Cal Kelton Assoc, 80 Stonestown
San Francisco .... SE 1-9277
Md H E Tobias, 1005 E Northern Pkwy
Baltimore 301 433-9211
Mich R C Nordstrom & Co, Box 32
Lathrop Village 313 444-4417
Mo Midland Tool & Supply, 7271 Olive St RD
St Louis .... 314 PA 5-4826
NH Bell Assoc, 743 Hanover St
Manchester 603 669-3734

SUPERSCOPE INC, 8150 VINELAND AVE, SUN VALLEY
CAL, 91352, TWX 213 765-5402 .... 213 875-0810
F TUSHINSKY, ENG 14, OVER $10,000M
Cal Superscope Direct, 8150 Vineland Ave
Sun Valley 767-9750
Cal H & K Sales, 3695 Haven Rd
Menlo Park 368-2986
Colo Satter Sales Co, 3835 Elm St, Denver 388-6376
Fla J & B Assocs, 380 NE 67th St, Miami .. PL 1-9752
Haw Gene Piety Factors, Inc, 160 Mokauea St
Honolulu 810-185
Ill Superscope Chicago Inc, 152 Burlington Ave
Clarendon Hills 762-4140
Md Estersohn Assoc, 1923 Brookdale Rd
Baltimore 944-5610
Mass Superscope N E, Box 124, Accord 305 751-9752
Mich Superscope Detroit Inc, 17220 N Eight Mile Rd
Southfield 353-0212
Minn More Sales, Inc, 200 W Benson Ave
Wilmar 235-0034
Minn Northern States Sales, 1109 N 78 1/2 St
Minneapolis 333-2431
NY Superscope N Y Inc, 37-09 56th St
Woodside 446-7227
Ohio M S Sales Corp, 670 S Green Rd
Cleveland 216 382-2060
Ore Superscope Northwest Inc, 6241 SW Wayzata Ct
Lake Oswego 639-1315
Pa Estersohn Assoc, 1014 Bethlehem Pike
Phila 233-2900
Pa Estersohn Assoc, 21 Cactus Rd
Levittown 945-9377
Pa Estersohn Assoc, 195 Kirk La, Ivyland 672-4548
Tex Miller & Assocs, Inc, 1450 Preston Forest Sq
Dallas 239-3789
Wash Superscope Northwest Inc, 15000 NE 15th St
Bellevue 746-1550

SUPER TOOL CO, ELK RAPIDS
MICH, 49629 .... 616 264-8151
R CANTON, EMP 200, ENG 4, $2,500-$5,000M
Cal Super Tool Co, 5908 E Washington Blvd
L A 685-4457
Ill Super Tool Co, 5428 N Milwaukee
Chicago 774-6306
Mich Super Tool Co, Eastland Center, Detroit ... 371-7900
NY Super Tool Co, 350 Hudson St
New York 732-1462
NC Super Tool Co, 525 Enterprise Dr
Charlotte 704 372-3823

SURFACE CONDUCTION INC, 1501 BROADWAY
NEW YORK, N Y, 10036 .... 212 LO 55535
E HALL, EMP 4, ENG 2, UP TO $100M
Cal Guided Space Transmissions, 250 N Canon Dr
Bev Hills .... CR 6-7123
Fr C Arnal, 91 Rue du Faubourg, St Antoine Paris 11
Belg Electrobel, 1 Place du Trone, Brussels

SUSUMU INDUSTRIAL CO LTD
6 SHONOUCHI, CHUDOJI, SHIMOGYO, KYOTO
JAPAN 311-7589
P OZAWA, EMP 250, ENG 15, $1,000-$2,500M
ADV PG 620
Jap Susumu Industrial Co Ltd, 1 Ebisu-minami
Shibuya-ku Tokyo 719-7227

SVENSKA ACKUMULATOR AKTIEBOLAGET JUNGNER
OSKARSHAMN, SWEDEN 0491/16000
P WIESLANDER, EMP 2500, ENG 90, OVER $10,000M
NY Nife Inc, 21 Dixon Ave, Copiague 691-3240
Tex R Allen, 3701 Kirby Dr, Houston 713 528-6250
For Acumuladores Nife do Brasil S A
Av Sen Queiros, 498 - 7 C P 5903
Sao Paulo 37-1181
For Acumuladores Nife Arg S A I y C, Tacuari 147 4 P
Buenos Aires 740 0355-1924
For Nife Stahlakkumulatoren GMBH, Brunnerstr 69
Wien 23 Liesing 86 93 68
Ger Nife Stahlakkumulatoren GmbH, Nicolaistr 2-6
1 Berlin 46 .... 72 04 56
Holl Nife Accumulatoren N V, Kleine Houtweg 12-14
Haarlem 02500-18950
Ital Soc Ital Accumulatori Nife S p A
Viale Cembrano 11, Genova-Quarto 39 42 41
Jap Nissho Co Ltd, 10, Nihonbashi-Edobashi, 1-Chome
Chuo-ku Toyko 273-5111
Nor Norsk Jungner Akkumulatorfabrik A/S
Hegdehaugsveien 31, Homansbyen
Oslo 60 48 90
Swit Nife Akkumulatoren AG, Fellenbergstr 244
8047 Zurich 051/52 35 50
Belg Nife Belge S A, 10 Rue du Pepin
Brussels 1 131546
Spn Acumuladores Nife SA
Apar 9 078, Calle de Hermosilla 115
Madrid 256 06 07
Fin Ackumulatorindustri AB, Jungfrustigen 1 b
Helsingfors Helsinki 11912

SWANSON ELECTRONICS CO, 5016 N AUSTIN AVE
CHICAGO, ILL, 60630 .... 312 SP 4-4025

SWANSON ENGINEERING & MFG CO
1133 E REDONDO BLVD, INGLEWOOD
CAL, 90302 213-678-5104
M GUNN, EMP 150, ENG 10

SWEENEY MFG CO, B K, 6300 STAPLETON SOUTH DR
DENVER
COLO, 80216, TWX 910 931-0450 .... 303 355-2355
A LINBURG, EMP 125, ENG 10, $1,000-$2,500M
Cal James L Randall, 18532 Saugus
Santa Ana 544-6435
Ill W W Gardner, 612 Maple St
Downers Grove 908-4096
Pa Earl W Foote, 3049 Edmonds Rd
Lafayette Hill 828-8084
Tex V P Neilon, 7011 Westlake Dr, Dallas 321-1901
For E D Magnus & Assoc Inc, 5715 Lincoln Ave
Chicago, Ill 334-1503

SWEEP SYSTEMS INC, BOX 616, INDIANAPOLIS
IND, 46206 .... 317 787-8275
R WELSH, EMP 72, ENG 9
Ala Collins Co Inc, Box 4246, Huntsville
Cal IFM North, 2269 E Middlefield Rd, Mountain View
Cal IFM South, 3455 Cahuenga Blvd, Hollywood
Fla Collins Co Inc, Box 13189 1313 44th St, Orlando
Ga Collins Co Inc, 200 Carrington Way
Marietta 404 422-8327
Ill Carter Electronics, Inc, 7203 S Western Ave
Chicago 776-1601
Ind Carter Electronics, Inc, 6333 Hollister Dr
Indianapolis 293-9696
Minn Carter Elctns, 2401 W 66th St
Minneapolis 612 869-3261
NY Sylvan Ginsbury Ltd, 72 W 45th St
New York 687-3213
NY Salsbury Assoc, 331 W John St, Hicksville
NC Collins Co Inc, Box 5597, Winston-Salem
Can Aeromotive Engineering Prods, Ltd
1912 A Avenue Rd, Toronto 783-4288
Can Aeromotive Engineering Prods, Ltd
887 Montee De Liesse
St Laurent, Mont Que 747-4781

SWIFT & SONS INC, M, 10 LOVE LN, HARTFORD
CONN, 06101 .... 203 522-1181
D RANSOM, EMP 200, $2,500-$5,000M
Cal M Swift & Sons Inc, 1644 Victory Blvd
Glendale 245-7181
Ga M Swift & Sons, Inc, 26 Cain St NW
Atlanta 525-5061
Ill M Swift & Sons Inc, 5241 N Elston Ave
Chicago 777-8900
Mo M Swift & Sons Inc, 610 N Kingshwy Blvd
St Louis .... FO 1-5857
NY M Swift & Sons Inc, 276 Park Ave S
New York .... OR 7-7720
Ohio M Swift & Sons Inc, 2413 N High St
Columbus .... AM 7-5461
Can Marking Products Ltd, 1801 Favard St
Montreal, Que .... WE 2-5541
Belg Marking Industries, SA, 13, Place Rogier
Brussels 18-00-21

SWINGOLITE INC, 13 E MOONACHIE RD
HACKENSACK, N J, 07601 .... 201 DI 25887
W ROSEN, EMP 20, ENG 1, $250-$500M

SWISSAIR, 608 FIFTH AVE, NEW YORK
N Y, 10020 .... 212 995-3800
W SEILER, EMP 580
Cal R Kahl, 510 W 6 St Bldg, Los Angeles ... 629-2375
Cal P Rhein, 185 Post St, San Francisco 392-2967
Colo a arquisch, 817 17th St Guaranty Bank Bldg
Denver 303 222-3523
Conn M Novkovic, 21 Pine Dr, Madison 267-4849
DC W Hofmann, 17-17 K St, Washington 296-5380
Fla R Minton, 2915 31 St N, St Petersburg ... 898-1734
Fla W Riely, 25 SE Second Ave, Miami 377-9581
Ga F Lutz, 40 E Marietta St, Atlanta 524-4276
Ill M Wirz, 106 S Michigan Ave, Chicago ... DE 2-4395
La D Walsh, 87-24 Westgate St, Metairie ... 721-1366
Md F Hansen, 221 Ridgemede Rd
Baltimore 243-0389
Mass G Alessandria, 20 Providence St
Boston 423-4640
Mich R Wendt, 1249 Washington Blvd
Detroit 962-8070
Minn H Schori, 110 S 7 St, Minneapolis 339-0796
Mo W Brown, 1015 Locust St, St Louis .... GE 6-3767
NJ N Reid, 1180 Raymond Blvd, ... MA 4-8855
NY K Hartnett, 90 State St, Albany 465 4523
NY D Hogan, 420 Main St, Buffalo .... TL 2-2111
NY R Haberstich, Blue Stone, Westchester ... 856-5429
NC K Forrest, 6109 Channing Ct, Charlotte ... 536-3156
Ohio J Corbett, 84-21 Flamingo La
Cincinnati 521-4945
Ohio V Poturica, 1422 Euclid Ave, Cleveland ... 781-7510
Pa P O'Brien, 123 S Broad St
Philadelphia .... PE 5-1030
Pa J Beekmans, 330 Grant Bldg
Pittsburgh 471-3216
Tenn H Thompson, 1118 Craft Rd, Memphis 396-4626
Tex B Daigler, 1712 Commerce St, Dallas ... RI 2-1461
Utah K Roethlisberger, 1515 S Post Oak Lane
Houston .... NA 2-2371
Wash W Arkins, 1316 4th St, Seattle .... MU 2-3510
Can R Stalder, 1253 McGill College Ave
Montreal 866-7613
Can W Achermann, 2 Carleton St, Toronto .... EM 4-3361
Den Swissair, Ved Vesterport 5
Copenhagen .... (01) 12 80 90
Fr Swissair, 38 ave de l'Opera, Paris 2e ... JUS 51 41
Ger Swissair, Am Hauptbahnhof 6
Frankfurt 690 33 05
GB Swissair, 10 Wardour St, London, W 1 ... Reg 90-71
Holl Swissair, Hobbemastr 15
Amsterdam Z .... (020) 73-04-32
Ital Swissair, Via Albricci 10 Airport Linate
Milano 71 74 75
Jap Swissair, Nikkatsu Int'l Bldg, Hibiya
Tokyo 212-10 11/6
Nor Swissair, Fr Nansens pl 8, Oslo 1 .... 41 21 18/24
SAfr Swissair, 91 Commissioner St
Johannesburg 8 38 50 14
Swed Swissair, Strandvagen 1
Stockholm O .... (08) 63 16 25
Swit Swissair, Geneva Airport, Geneva ... (022) 33 52 70
Mex A Schiesser, 66 Calle de Hamburgo
Mexico 149-626

SWISS INDUSTRIES, 2930 COLLEGE, COSTA MESA
CAL, 92626 .... 714 546-4950
G L'AFRICAIN, EMP 40, ENG 2, $100-$250M

SWISS JEWEL CO, LAFAYETTE BLDG, PHILADELPHIA
PA, 19106 .... 215 WA 5-2867
P STEEL JR, EMP 4, ENG 1
Swit Swiss Jewel Co S A, Locarno

SWITCHCRAFT INC, 5537 ELSTON AVE, CHICAGO
ILL, 60630, TWX 910-221-5199 .... 312 774-1515
C SCHULTZ, EMP 350, ENG 10
Cal David H Ross Co, 534 El Camino Real
San Carlos .... LY 1-4411
Cal Paul F Wiley Co, 1632 Silverlake Blvd
Los Angeles 2 .... NO 3-8028
Colo G Moss Electronics Inc, 1530 13th Ave
Greeley 353-1452
Conn Anderson Sales Co, 133 Mansfield Ave
Waterbury 753-2487
Fla Cartwright & Bean, 779 John Anderson Dr
Ormond Beach .... OR 7-3480
Fla Cartwright & Bean, 20100 NE 25th Ct
N Miami Bch 945-2962
Ga Cartwright & Bean, 3223 Cain's Hill Pl NW
Atlanta 237-2273
Haw Dougherty Enterprises, 1164 Waimanu St
Honolulu 504-987
Ind Thomas & Sukup Inc, 2060 E 54th St
Indpls .... CL 1-4574
Kan Thomas L Dowell Co, Inc, 6007 W 94th Terr
Overland Park 649-6069
Mass Anderson Sales Co, 177 State St
Boston .... CA 7-2980
Mich R C Merchant & Co Inc, 18411 W McNichols Rd
Detroit 535-6000
Minn Mel Foster Co Inc, 228 S Cedar Lake Rd
Mnpls 374-2612
Mo Thomas L Dowell Co, Inc, 9176 Villaridge
St Louis .... ME 1-3936
NJ Trinkle Sales Co, 500 N Kings Hwy
Cherry Hill 667-3500
NY Frank W Taylor Inc, 4455 E Genessee St
De Witt 446-0422
NY Callahan-Ferguson Co, 107 Greenhedge Dr
Camillus 488-5518
NY O F Masin Co, Inc, 140 Boston Post Rd
Larchmont 834-7500
NC Cartwright & Bean, 625 Harwyn Dr
Charlotte 333-6457
Ohio Neal Bear Corp, 1563 E Dorothy La
Dayton 299-3566
Ohio Neal Bear Corp, 3435 Streetsboro Rd
W Richfield 659-3331
Ore Ron Merritt Co, 2035 SW 58th Ave
Portland .... CA 2-7337
Pa NEBCO Assoc, 1974 Gregory Ave
Monroeville 824-2111
Tenn Cartwright & Bean, 560 S Cooper St
Memphis 276-4442
Tex Branum Sales, Inc, 747 Sherman St
Richardson .... AD 1-6148
Wash Ron Merritt Co, 1320 Prospect St
Seattle .... MU 2-7337
Wis Klem-Steffen, 13845 Capitol Dr
Brookfield .... SU 1-7596
Can Atlas Radio Corp Ltd, 50 Wingold Ave
Toronto .... RU 1-6174
For Comet Corp, 540 Lake Shore Dr
Chicago, Ill .... DE 7-2292
For J A Fernandez, Ponce DeLeon 400
Puerto De Tierra, PR 724-2854

SWITCHING CONTROLS CORP, 11910 VALERIO ST
NORTH HOLLYWOOD, CAL, 91605 .... 213 765-2205
R PALMA, EMP 18, ENG 2, $100-$250M

SYLVANIA ELECTRIC PRODUCTS INC, SUB GEN TEL &
ELECTRONICS CORP, 730 3RD AVE, NEW YORK
NY, 10017 .... 212 551-1000
A VIEBRANZ SR, EMP 38,000, ENG 5000, OVER
$10,000M
Ala Sylvania, 3322 Memorial Pkwy
Huntsville 539-0891

Ariz Sylvania, 301 W Indian School Rd, Phoenix
Cal Sylvania, 6505 E Gayhart St
Los Angeles 723-5371
Cal Sylvania, 1811 Adrian Rd, Burlingame 697-3500
Cal Sylvania, 233 A St, San Diego 714 233-7218
Colo Sylvania, 4675 Holly St, Denver 355-2303
Conn Sylvania, 100 Constitution Plaza
Hartford 249-7611
DC Sylvania, 1120 Conn Ave NW
Washington 337-6600
Fla Sylvania, 3625 E 11th Ave, Hialeah 696-1971
Fla Sylvania, 1010 Executive Ctr Dr
Orlando 241-9681
Ga Sylvania, 2115 Sylvan Rd SW, Atlanta ... 766-3633
Ill Sylvania, 2001 N Cornell Ave
Melrose Park 345-0100
Ind Sylvania, 4740 Coldwater Rd, Ft Wayne .. 483-1145
Kan Sylvania, 450 Funston Rd, Kansas City ... 371-3773
La Sylvania, 5510 Jefferson Hwy
New Orleans 733-6970
Md Sylvania, 31 Allegheny Ave
Towson 301 823-2550
Mass Sylvania, Estes St, Ipswich 617 356-4311
Mich Sylvania, 10800 Ford Rd, Dearborn ... 313 582-8754
Mich Sylvania, 21040 Greenfield Rd
Oak Park 313 398-5110
Minn Sylvania, 2211 E Hennepin Ave
Mnpls 612 339-7437
Mo Sylvania, 5010 Kemper St, St Louis 664-8974
Neb Sylvania, 8998 L St, Omaha 393-7701
NJ Sylvania, 1000 Huyler St
Teterboro 201 288-9484
NJ Sylvania, 121 Monmouth Pkwy
West Long Branch 201 229-6600
NY Sylvania, 225 N Washington St, Rome 337-1100
NY Sylvania, 5700 W Genesee St
Camillus 672-3111
NY Sylvania, Greenville Industrial Pk
Buffalo 716 675-0500
NC Sylvania, 3811 Davidson St N
Charlotte 334-4671
Ohio Sylvania, 1014 Vine St, Cincinnati 721-2114
Ohio Sylvania, 4848 W 130th St, Cleveland 252-0500
Ohio Sylvania, 333 W 1st Ave, Dayton 223-6227
Ore Sylvania, 2828 S W Corbett Ave
Portland 227-1188
Pa Sylvania, 4700 Parkside Ave, Phila 477-5000
Pa Sylvania, 1910 Cochran Rd, Pittsburgh 531-4974
Tex Sylvania, 100 Fordyce St, Dallas 741-4836
Va Sylvania, 6610 Electronic Dr
Springfield 354-3100
Wash Sylvania, 750 S Michigan St, Seattle 763-2660
Wis Sylvania, 10721 W Capitol Dr
Milwaukee 463-7300

SYLVANIA ELEC PRODS INC, CHEM & MET DIV

TOWANDA, PA, 18848 .... 717 265-2121
J KRATZ, EMP 1400, ENG 100, OVER $10,000M
Cal Sylvania - Chem & Met, 6505 E Gayhart St
Los Angeles 723-5371
Conn Sylvania Chem & Met, 100 Constitution Pl
Hartford 246-0608
Ill Sylvania-Chem & Met, 2001 N Cornell Ave
Melrose Park 379-2525
Mass Sylvania-Chem & Met, 100 Sylvan Rd
Woburn 933-3500
Mich Sylvania Chem & Met, 10800 Ford Rd
Dearborn 582-8754
NJ Sylvania-Chem & Met, 1000 Huyler St
Teterboro 288-9484
NY Sylvania Chem & Met, 5700 W Genesee St
Camillus 672-3111
Ohio Sylvania-Chem & Met, 333 W 1st St
Dayton 223-6227
Pa Sylvania-Chem & Met, 4700 Parkside Ave
Phila 477-5000
Pa Sylvania-Chem & Met, 1910 Cochran Rd
Pittsburgh 531-4974

SYLVANIA ELECTRIC PRODS INC, COML ELCTNS DIV

BURLINGTON RD, BEDFORD
MASS, 01730 .... 617 275-0300
T SHEPHERD, EMP 300, ENG 40, $5,000-$10,000M
Cal Sylvania, 1811 Adrian Rd, Burlingame ... OX 7-3500
Cal Sylvania, 6505 E Gayhart St
Los Angeles .... RA 3-5371
Fla J C Vining, 507 Jackson St, Tampa 229-9111
Ga Sylvania, 2115 Sylvan Rd SW, Atlanta .. PO 6-3633
Ill Sylvania, 2001 N Cornell Ave
Melrose Park .... FI 5-0100
Md L Frankwitz, 901 DeVere Dr, Silver Spring
Mass Sylvania, Burlington Rd, Bedford 275-0300
Ohio Russell Pilcher, 365 Deerfield Rd
Columbus 878-6108
Tex Sylvania, 7007 Gulf Frwy, Houston

SYLVANIA ELECTRIC PRODS INC, ELECTRONIC TUBE DIV, SENECA FALLS, N Y, 13148 .... 315 LO 85881

W BUSCHMANN, EMP 7800, OVER $10,000M
Cal Sylvania, 6505 E Gayhart St
Los Angeles 723-5371
Cal Sylvania, 1811 Adrian Rd, Burlingame 697-3500
Ga Sylvania, 2115 Sylvan Rd SW, Atlanta ... 766-3633
Ill Sylvania, 2001 N Cornell Ave
Melrose Park 345-0100
Ind Sylvania, 4740 Coldwater Rd
Fort Wayne 483-1145
Kan Sylvania, 450 Funston Rd, Kansas City ... 371-3773
Md Sylvania, 31 Allegheny Ave, Towson 823-2550
Mass Sylvania, Estes St, Ipswich 356-4311
NJ Sylvania, 1000 Huyler St, Teterboro 288-9484
NY Sylvania, 730 Third Ave, New York 551-1000
Ohio Sylvania, 4848 W 130th St
Cleveland 216 267-6800
Okla Sylvania, 333 W First St, Dayton 223-6227

Tex Sylvania, 100 Fordyce St, Dallas 741-4836
Va Sylvania, 6610 Electronic Dr
Springfield 354-3100

SYLVANIA ELECTRIC PRODS INC LAMP DIV

100 ENDICOTT ST, DANVERS
MASS, 01923, TWX 0949456 617-777-1900
R FRANKLIN, EMP 3300, ENG 144
Cal Sylvania, 1811 Adrian Rd
Burlingame 415 697-3500
Cal Sylvania, 6505 E Gayhart St
Los Angeles 213 723-5371
Cal Sylvania, 233 A St, San Diego 714 233-7218
Colo Sylvania, 4675 Holly St, Denver 303 399-1760
Conn Sylvania, 100 Constitution Plaza
Hartford 203 249-7611
Fla Sylvania, 1010 Executive Ctr Dr
Orlando 305 841-1330
Ga Sylvania, 2115 Sylvan Rd SW
Atlanta 404 762-1781
Ill Sylvania, 2001 N Cornell Ave
Melrose Park 312 345-0100
Kan Sylvania, 450 Funston Rd
Kansas City 913 371-3773
La Sylvania, 5510 Jefferson Hwy
New Orleans 504 733-6970
Mass Sylvania, 60 Boston St, Salem 617 745-4500
Mich Sylvania, 10800 Ford Rd, Dearborn ... 313 582-8754
Mich Sylvania, 21040 Greenfield Rd
Oak Park 313 398-5110
Minn Sylvania, 2211 E Hennepin Ave
Mnpls 612 331-9363
Mo Sylvania, 5010 Kemper Ave
St Louis 314 664-8974
NJ Sylvania, 1000 Huyler St
Teterboro 201 288-9484
NY Sylvania, 25 Dewberry La Gardenville Ind Park
Buffalo 716 675-0500
NY Sylvania, Franklin Natl Bank Bldg
Garden City 516 747-5370
NY Sylvania, 730 Third Ave, New York ... 212 551-1762
NC Sylvania, 3811 N Davidson St
Charlotte 704 334-4671
Ohio Sylvania, 1014 Vine St, Cincinnati ... 513 721-2114
Ohio Sylvania, 4848 W 130th St
Cleveland 216 267-6800
Ohio Sylvania, 333 W 1st St, Dayton 513 223-6227
Ore Sylvania, 2828 SW Corbett Ave
Portland 503 227-1188
Pa Sylvania, 4700 Parkside Ave, Phila .. 215 477-5000
Pa Sylvania, 1910 Cochran Rd
Pittsburgh 412 531-4974
Tex Sylvania, 100 Fordyce St, Dallas 214 741-4836
Va Sylvania, 6610 Electronic Dr
Springfield 703 354-3100
Wash Sylvania, 750 S Michigan St
Seattle 206 763-2660
Wis Sylvania, 10721 W Capitol Dr
Milwaukee 414 463-7300

SYLVANIA ELEC PRODS INC LIGHTING EQUIP DIV

100 ENDICOTT ST, DANVERS
MASS, 01923, TWX 0949456 617-777-1900
F MELANSON, EMP 2000, ENG 57, OVER $10,000M
Cal Sylvania, 1811 Adrian Rd
Burlingame 415 697-3500
Ga Sylvania, 2115 Sylvan Rd SW
Atlanta 404 762-1781
Ill Sylvania, 2001 N Cornell Ave
Melrose Park 312 345-0100
Mass Sylvania, 60 Boston St, Salem 617 482-3730
Mich Sylvania, 10800 Ford Rd, Dearborn ... 313 582-8754
NJ Sylvania, 1000 Huyler St
Teterboro 201 288-9484
NY Sylvania, 730 Third Ave, New York ... 212 551-1504
Tex Sylvania, 100 Fordyce St, Dallas 214 741-4836
Wash Columbia Ltg Inc, 2310 N Fancher Way
Spokane 509 534-9371

SYLVANIA ELECTRIC PRODS INC, PARTS DIV

12 SECOND AVE, WARREN
PA, 16365 .... 814 723-2000
F MARTIN JR, EMP 2700, ENG 75, OVER $10,000M
Cal Sylvania, 6505 E Gayhart St
Los Angeles 723-5371
Cal Sylvania, 1811 Adrian Rd, Burlingame 697-3500
Fla Sylvania, 1010 Executive Ctr Dr
Orlando 841-1330
Ill Sylvania, 2001 N Cornell Ave
Melrose Park 345-0100
Mass Sylvania, 60 Boston St, Salem 745-4500
Mich Sylvania, 10800 Ford Rd, Dearborn 582-8754
Minn Sylvania, 2211 E Hennepin Ave, Mnpls ... 331-9363
NJ Sylvania, 1000 Huyler St, Teterboro 288-9484
NY Sylvania, 5700 W Genesee St
Camillus 672-3111
NC Sylvania, 3811 N Davidson St
Charlotte 344-4671
Okla Sylvania, 1200 W Benedict St
Shawnee .... Br 3-8100
Pa Sylvania, 1128 Roosevelt Ave, York 764-9853
Pa Sylvania, 12 Second Ave, Warren 723-2000

SYLVANIA ELECTRIC PRODUCTS INC, SEMICONDUCTOR DIV, 100 SYLVAN RD, WOBURN

MASS, 01801 .... 617 WE 33500
R SWANSON, EMP 2200, OVER $10,000M
Cal Sylvania, 6505 E Gayhart St
Los Angeles 723-5371
Cal Sylvania, 1811 Adrian Rd, Burlingame 697-3500
Fla Sylvania, 1010 Executive Ctr Dr
Orlando 305 841-1330
Ill Sylvania, 2001 N Cornell Ave
Melrose Park 345-0100

Mich Sylvania, 10800 Ford Rd, Dearborn ... 313 582-8754
Minn Sylvania, 2211 E Hennepin St
Minneapolis 331-9363
NJ Sylvania, 1000 Huyler St
Teterboro 201 288-9484
NY Sylvania, 5700 W Genesee, Camillus 672-3111
Pa Sylvania, 4700 Parkside Ave
Philadelphia 215 477-5000

SYLVANIA ELEC PRODS INC SPECIAL PROD DIV

100 ENDICOTT ST, DANVERS
MASS, 01923, TWX 0949456 617-777-1900
J AVALLON, EMP 2500, ENG 160, OVER $10,000M
Cal Sylvania, 6505 E Gayhart
Los Angeles 213 RA3-5371
Ill Sylvania, 2001 N Cornell Ave
Melrose Park .... 312 FI 5-0100
Mass Sylvania, 60 Boston St, Salem 617 745-4500
Mass Sylvania, Estes St, Ipswich 617 356-4311
NJ Sylvania, 1000 Huyler St
Teterboro .... 201 AT 8-9484
NY Sylvania, 730 Third Ave
New York .... 212 CH 4-8820

SYLVANIA ELECTRONIC SYSTEMS, 40 SYLVAN RD

WALTHAM, MASS, 02154 .... 617 894-8444
R LYNCH, EMP 9000, ENG 2100, OVER $10,000M
Ala Sylvania Elctn Sys, 3322 Memorial Pky S
Huntsville 881-9424
Cal Sylvania Elctn Sys, 6505 E Gayhart St
Los Angeles 723-5371
DC Sylvania Elctn Sys, 1120 Conn Ave NW
Washington 337-6600
Fla Sylvania Elctn Sys, 1010 Executive Ctr Dr
Orlando 841-1334
Neb Sylvania Elctn Sys, 8998 L St, Omaha 393-9299
NJ Sylvania Elctn Sys, 121 Monmouth Park Hwy
West Long Branch 229-6600
NY Sylvania Elctn Sys, 225 N Washington St
Rome 337-1100
Ohio Sylvania Elctn Sys, 333 W 1st St
Dayton 223-6227

SYLVANIA ENTERTAINMENT PRODS, 700 ELLICOTT ST

BATAVIA, N Y, 14021 .... 716 343-3470
W BOSS, EMP 1500, ENG 150, OVER $10,000M
Cal L French, 5043 Cribari Vale
San Jose 408 251-8790
Cal G Hagerty, 6505 E Gayhart St
Los Angeles 213 723-5371
Cal L Petrell, 7138 54th St, Riverside 685-7555
Cal D E Carroll, 1811 Adrian Rd
Burlingame 697-3500
Cal R N Gould, 9329 Minnewawa Ave
Clovis 209 299-7059
Cal R W Payne, 5946 Lomond Dr
San Diego 273-3052
Cal J W Hines, 2740 Creekside La
Sacramento 489-7475
Cal E J Halliday, 1415 Floribudna Ave
Burlingame 415 342-1539
Cal K J Rexstrew, 921 Mower Ct
Thousand Oaks 495-2908
Cal O E Harden, 124 23rd Pl
Manhattan Beach 213 545-4358
Cal K J Benzmiller, 291 N Maplewood
Orange 714 633-4929
Colo J McDonald, 1940 Zinnia, Golden 237-9447
Conn P Sweedler, 182 Dessa Dr
Hamden 203 248-3701
Fla E M Longmire, 519 Courtney Dr
Temple Terr 988-3750
Fla G E Royster, 2305 LaMesa Dr
Jacksonville 904 733-8040
Fla D W Stephan, 1725 NE 58th St
Ft Lauderdale 933-9701
Fla W B Compton, 4955 Ortego Fores Dr
Jacksonville 389-0046
Ga I F Siekmann, 4501 Katherine Blvd, Jackson
Ill D J Duggan Jr, 2909 N 77th Ct
Elmwood Park .... 312 GL 3-5534
Ill G C Yeager, 2941-21st Ave
Rock Island 309 786-0926
Ill H Silver, 4821 Sherwin Ave
Lincolnwood 312 679-1657
Ill S L Cellmer, 1318 N President St
Wheaton 668-8256
Ill C Esler, 5755 Norwood Dr
Brook Park 216 734-4780
Ill J Amos, 2001 N Cornell Ave
Melrose Park 312 345-0100
Ill A Sokol, 560 Wellington
Elk Grove Village 312 437-8171
Ill T D Rivers, 217 W Natoma, Addison 543-4759
La R J Hardy, 3773 Preston Pl
New Orleans 504 367-1636
Md H K Frederick, 7922 Ruxway Rd
Baltimore 823-8082
Md C L Witucki, 5121 Spring Dr SE
Temple Hills 301 384-6480
Md D D Sutton, 14516 Cobblestone Dr
Silver Spring 301 384-6480
Mass G Bickford, Box 149, Hingham 617 742-0099
Mass G Williams, 36 O'Connell St
Springfield 733-0850
Mass P O'Connell, 80 Boylston St
Boston 617 742-0099
Mass L F Procopio, 87 Shore Rd
Ashland 617 881-3360
Mich W Coham, 33146 Lyndon St, Livonia 421-8092
Minn J K Landis, 10609 Verdi Rd, Mnpls 888-3797
NJ W Brinker, 18 Mullens La
Barnardsville 766-2990
NJ A Shulman, 16 Largo La
Livingston 201 992-3438

NJ R Dahdah, 113 Penna Ave Somerdale 609 783-3829
NY E C Smith, 226 Wellington Rd, Dewitt 446-5178
NY N G Michael, 303 Galahad Dr Rochester 334-4784
NY L S Schwartz, 15 Wedgewood Dr Westbury 516 333-7389
NY I Schnitzer, 8 President St Far Rockaway .... GR 1-6529
NY D Nagler, 5 Devonshire Dr White Plains 914 948-3722
NY R Memoli, 103-20 105th St Ozone Park 212 843-3903
NY L F Garson, 730 3rd Ave New York 212 551-1654
NY G Sarvis, 10 Greenhaven Way Centerport 516 757-8659
NY W Cadigan, 141-42 11th Ave Malba .... 212 IN 1-7493
Ohio W M Constable, 525 S O M Center Rd Cleveland 442-0366
Ohio G Montgomey, 6387 Danbury Dr Worthington 889-1614
Ohio R J Gartman, 8630 Big Creek Pkwy Strongsville 216 243-1513
Ore R D Gilbert, 8740 SW Birchwood Rd Portland 292-2954
Pa J R Shryock, 145 Cheswold La Haverford 215 642-8593
Pa J A Lagore Jr, 4700 Parkside Ave Philadelphia 215 477-7234
Pa B P Ryan, 5264 Sherwood Dr Pittsburgh 881-7769
Pa J Sadowy, 7117 Bingham St, Phila .. 215 745-1127
Pa M Brandt, 501 B Reigs Ct Salem Harbor Andalusia 215 639-0305
RI H Draper, 48 Rolling Acres Dr Cumberland 769-3938
Tenn R Bradley, 2045 Edgemont Ave, Bristol .. 968-1426
Tenn B Burkhardt, 4681 Kaye Rd, Memphis 685-1246
Tex L J Ulrich, 100 Fordyce St, Dallas ... 214 741-4836
Tex D E Martin, 804 Oak La New Braunfels 625-7168
Tex L W Sharp, 3014 Bryn Mawr Dallas 214 521-4195
Tex H Robinson, 6200 Del Monte Houston 713 666-1445

SYLVANIA PHOTOLAMP DIV, 100 ENDICOTT ST
DANVERS, MASS, 01923 .... 617 777-1900
P CAMERON, ENG 200, OVER $10,000M
Cal Sylvania, 1811 Adrian Rd, Burlingame 697-3500
Cal Sylvania, 6505 E Gayhart St Los Angeles 723-5371
Ga Sylvania, 2115 Sylvan Rd SW, Atlanta ... 766-3633
Ill Sylvania, 2001 N Cornell Ave Melrose Park 345-0100
Kan Sylvania, 450 Funston Rd, Kansas City ... 371-3773
La Sylvania, 5510 Jefferson Hwy New Orleans 733-6970
Me Sylvania, 55 Mallison St South Windham 892-6715
Mass Sylvania, Estes St, Ipswich 356-4311
Mich Sylvania, 21040 Greenfield Rd, Oak Park
Mich Sylvania, 10800 Ford Rd, Dearborn 582-8754
Minn Sylvania, 2211 E Hennepin Ave Minneapolis 331-9363
Mo Sylvania, 5010 Kemper Ave, St Louis 664-8974
NJ Sylvania, 1000 Huyler St, Teterboro 288-9484
NY Sylvania, 730 Third Ave, New York 551-1000
NY Sylvania, 601 Bailey Ave, Buffalo 825-5000
Ohio Sylvania, 4848 W 130th St, Cleveland 267-6800
Ohio Sylvania, 333 W First St, Dayton 223-6227
Ohio Sylvania, 5480 Creek Rd, Blue Ash
Tex Sylvania, 100 Fordyce St, Dallas 741-4836
Va Sylvania, 6610 Electronic Dr Springfield 354-3100
Wash Sylvania, 750 S Michigan St, Seattle 725-2600
Wis Sylvania, 10721 W Capitol Dr Milwaukee 463-7300

SYMETRICS ENGINEERING CORP, 1227 S PATRICK DR
SATELLITE BEACH, FLA, 32935, TWX 510-950-7885
A BEACH, EMP 170, ENG 25, $2,500-$5,000M

SYNCHRO-START PRODUCTS INC
8151 N RIDGEWAY AVE, SKOKIE
ILL, 60076 .... 312 OR 3-7730
T NEYFELDT, EMP 37, ENG 1, $500-$1,000M
Cal Western Automation Inc, Box 116 Placentia 714 525-0273
Cal Robt C Anderson, 4000 Montgomery Dr Santa Rosa 707 542-8207
Pa Robt M Stewart, 1355 Old York Rd Abington .... 215 TU 6-6563
Tex A B Woodbury Co, 504 Interurban Bldg Dallas .... 214 RI 2-4585
Can Vibron Ltd, 2400 Finch Ave W Weston, Ont 416 741-5200
Mex Soc Electro-Mecanica S A Manuel Ma Contreras 25, Mexico 4, D F

SYNCOR PRODUCTS CO, INC, 44 EASTERN AVE
MALDEN, MASS, 02148 .... 617 322-7160
S PROST, EMP 40, ENG 4, $500-$1,000M

SYNCRO CAPACITOR CORP, HICKSVILLE
OHIO, 43526, TWX 810-490-2550 ...... 419 542-2711
R LONGSWORTH, EMP 250, ENG 5, $2,500-$5,000M
Cal Jack Logan & Assoc, 801 Mahler Rd Burlingame 697-6100
Cal David A Fillmore Co, 1135 W Huntington Dr Arcadia 447-5641
Ill John G Twist Co, 5222 W Diversey Ave Chicago 777-2250
Ind Technical Reps Co, 4000 Meadows Dr Indianapolis 546-4967
Mich A K Davis Co, 21140 Centerfarm La Northville 474-8300
Minn White Sales Co, 6418 W Lake St Minneapolis 929-4661
NY R E Breuer Co, 10 Columbus Circle New York 581-8770
Tex J Rasco, 2813-A Allen St, Dallas 747-0108

SYNDICAT GEN DE LA CONSTR ELECTRIQUE
11 RUE HAMELIN, PARIS 16, FRANCE

SYNTHANE CORP, 502 RIVER RD, OAKS
PA, 19456, TWX 510-660-4750 .... 215 666-5011
C JOHNSON, EMP 750, ENG 10, OVER $10,000M

SYNTRON DIV FMC CORP, 243 LEXINGTON AVE
HOMER CITY, PA, 15748 .... 412 479-8011
H WOOD, EMP 750, ENG 25
Ala Syntron Birmingham Sales Co, 2117 Lester La Birmingham 205 822-1900
Cal Carl E Holmes, 107 North Ave 64 Los Angeles .... CL 6-2255
Cal Melchior Assoc, 820 B Cherry St San Carlos 591-7383
Colo Williams-Assoc, 4971 Jackson St Denver 388-4391
Fla Wm R Lehmann Co, 1010 Executive Ctr Dr Orlando 305 841-4901
Ga Syntron Atlanta Sales Co, 3130 Maple Dr NE Atlanta 404 237-1984
Ill Syntron Chicago Sales Co, 119 E Ogden Ave Hinsdale 325-3250
Ind Syntron Indpls Sales Co, 1010 N Beville Ave Indianapolis 317 638-0718
Md Syntron Baltimore Sales Co, 902 Leeds Ave Baltimore 301 247-0300
Mass Snyntron Boston Sales Co, 248 Cypress St Brookline Village 734-1740
Mich Hilltronics Inc, 13720 Puritan Ave Detroit 342-3242
Minn Northport Engineer Inc, 2027 Grand Ave St Paul 698-3841
Mo Ridgewood Sales Co, 8754 Big Bend Blvd St Louis 968-0303
NJ A Wetterhahn Co, 4420 Crescent Blvd Pennsauken 662-1611
NY J Lazor Assoc, Inc, 39 Saginaw Dr Rochester 473-8337
NY Syntron N Y Sales Co, 570 Yonkers Ave Yonkers 914 968-2414
NC Syntron Carolina Sales Co, 3127 S Blvd Charlotte 704 523-1941
Ohio Allen Nace Co Inc, Box 156 Brecksville 526-4323
Tenn Syntron Nashville Sales Co, 719A 17th Ave S Nashville 615 256-2429
Tex Syntron Dallas Sales Co, 2013 1/2 Young St Dallas 214 747-4328
Tex Syntron Gulf Coast Sales Co, 1915 S Shepherd Dr Houston 713 522-2577
Wash Syntron Seattle Sales Co, 14443 Ambaum Rd SW Seattle 206 243-6250
W Va Syntron Pittsburgh Sales Co, Box 116 Hurricane 304 727-6791
Can Syntron (Can) Ltd, 928 Queenston Rd Stoney Creek, Ont .... NO 2-8314
Ital Vibrazioni Industriali S P A, Via Carso, 111, Genova
Swed Elmetric AB, Box 433, Johanneshov 4
Swit Kumag A G, Postfach 8047, Zurich 40
Belg Belram S A, 83 Ave Des Mimosas, Bruxelles 15
Mex Soc Electro Mecanica, S A Manuel Maria Contreras 25, Mexico 4, D F

SYNTRONIC INSTRUMENTS INC, 100 INDUSTRIAL RD, ADDISON
ILL, 60101, TWX 910 651-2191 .... 312 543-6444
P EVANS, EMP 95, ENG 8, $1,000-$2,500M
ADV PG 817
Cal Ash M Wood Co, Box 1-A, Arcadia ... 213 283-1201
Cal Frauman Assoc, 1010 Doyle St Menlo Park 415 322-8461
Cal Torkelson Assoc, 3512 Rockville Rd Indianapolis 317 241-0725
Conn Stan Pierce Inc, 115 Bald Hill Rd New Canaan 203 966-4630
DC Massey Assoc, No 1 Thomas Circle NW Washington 202 628-1023
Fla Massey Assoc, Box 13577 St Petersburg 813 347-6183
Fla Massey Assoc, Box 1201, Winter Park 855-4510
Ill Torkelson Assoc, 540 W Frontage Rd Northfield 312 446-8450
Ind Torkelson Assoc, 3512 Rockville Rd Indianapolis 317 241-0725
Mass Stanley Pierce Inc, 24 Linden St Norwood 617 762-3164
Minn Torkelson Assoc, 4820 W 77th St Minneapolis 612 920-1046
NJ Bressler Assoc, 4808 Bergenline Ave Union City 201 864-9577
Pa Massey Assoc, 1325 W Chester Pike Havertown 215 789-2320
For Sylvan Ginsbury Ltd, 72 W 45th St New York, NY 212 687-3213

SYRACUSE ELECTRONICS CORP, BOX 566, SYRACUSE
N Y, 13201 .... 315 488-4911
T SCIBETTA, EMP 100, ENG 15, $1,000-$2,500M
Ariz Carl Hower & Co, 431 N Winfield Scott Plaza Scottsdale 947-4204
Cal Ihsan Nizam, 1442 Stanford St Santa Monica 395-2637
Conn Westwood Assoc Inc, Box 268, Suffield ... 668-5333
Ga R A Chalmer, 349 Peach tree Hill Ave Atlanta 233-3208
Ill Geo E Collins Sales Co, 1731 Evergreen La Park Ridge 825-5892
Ind Southern Sales Co, 105 Lakeshore Dr Angola 665-3961
Ky Southern Sales Co, 212 Republic Bldg Louisville 583-6902
Mass Westwood Assoc, 181 West St Waltham 891-7810
Mo Kay Sales Co, 4049 Penna, Kansas City
Mo Kay Sales, 4253 Westminster Pl St Louis OL2-5366
NJ Hy-Rel Elects Sales Co, 753 Bergen Blvd Ridgefield 945-7511
NY Carlen Reps, Box 101, Solvay 468-2908
NC Candor Co, Bethania 924-1480
Ohio Jerry Kilroy Corp, 10 N Main St Chagrin Falls 247-8951
Pa Trymac Co, 201 Penn Ctr Blvd Pittsburgh 823-8400
Pa Rothenheber & Co, Inc, 53 Cricket Ave Ardmore 642-6911
Tex J Earl Smith, 1353 Chemical St, Dallas .. 631-1727
Can Renfrew Electric Co Ltd, 349 Carlaw Ave Toronto 8, Ont 461-3511

SYSTEMATICS & MAGNE-HEAD DIVS GEN
INSTRUMENT CORP, 13040 S CERISE AVE
HAWTHORNE
CAL, 90250, TWX 910 325-6203 .... 213 679-3377
R MARTIN, EMP 375, ENG 25, $5,000-$10,000M
Cal Western Data Services, 99 E Magnolia Blvd Burbank 213 848-4151
Conn Brogan Assoc, 80 Urban Ave Westbury, N Y 516 333-6683
Fla General Corp, 321 Northlake Blvd N Palm Beach 305 842-5259
Ill R V Thoren Co, 11700 S Western Ave Chicago 312 779-4272
Mass Brogan Assoc Inc, 69 Hickory Dr Waltham 617 894-3250
Minn Hamilton, Grayden & Flemmer Inc, Hamilton Rd Hopkins 612 941-1120
Mo Systematics of Missouri Inc, 3232 Olive St St Louis 314 531-3578
NY Systematics, 55 E 9th St New York .... 212 OX 5-4141
Ohio Tower Engrg Co, 2801 Far Hills Ave Dayton 513 298-1491
Ore Bob Phillips Electrs, 918 NW 19th Ave Portland 503 227-0571
Pa Data Processing Supplies, 50 E Crafton Ave Pittsburgh 412 391-1191
Tex Thorson Co, 7700 Carpenter Fwy Dallas 214 631-5440
Va Systematics, Arlington Twrs W-425, Arlington .. 703
Wash Computer Prods Inc, 2716 Second Ave Seattle 206 682-7394

SYSTEM ENCLOSURES INC, DIV ANETSBERGER BROS
INC, 200 N ANETS DR, NORTHBROOK
ILL, 60062 312-272-0787
J VISSMAN, EMP 225, ENG 10, $2,500-$5,000M
Ala Emory Design & Equip Co, Box 9013 Birmingham .... TR 1-1369
Cal L T Sales Co, 1107 E Chapman Ave Orange 714-838-6784
Cal Nova-Tronix, 1659 Scott Blvd Santa Clara 408-243-9530
Colo D E Bond Assoc, 2149 S Clermont St Denver 756-1234
Fla Buchanan & Abrams, Inc, Box 6026 Orlando .... GA 3-8995
Ill D Dolin Sales, 3525 W Peterson Ave Chicago 588-3738
Ill W F Hess, 1780 Maple St Northfield 312 446-8077
Kan Jerry Singer, 6324 W 102nd St Overland Park 381-3684
Md Par-Nell Sales Co, 69 Main St Reisterstown 301 833-6444
Mass Schaal Assoc, 4 A St, Burlington 272-3250
Mich Electro Sales Assoc, 10745 Morang Dr Detroit 886-2280
NM D E Bond Assoc, Box 1485, Las Cruces
NM D E Bond Assoc, Box 11331, Albuquerque
NY Young & Ziff Inc, 555 Winton Rd N Rochester 716-482-1555
Ohio Electro Enterprises, 335 E 200th St Cleveland 486-1140
Ohio Electro Sales Assoc, 2621 Mardon Dr Dayton 426-5551
Pa Electro Sales Assoc, 201 Penn Ctr Blvd Pittsburgh 371-8497
Pa Par-Nell Sales Co, 421 Bustleton Pike Feasterville 215 357-7230
Tex Dunbar Assoc, Inc, 417 Meadows Bldg Dallas 363-2506

SYSTEMS ELECTRONICS INC, 9801 WALFORD AVE
CLEVELAND, OHIO, 44102 .... 216 651-8208
E BEDFORD, EMP 8, ENG 4, $250-$500M

SYSTEMS ENGINEERING LABS INC, BOX 9148
FT LAUDERDALE, FLA, 33310 .... 305 587-2900
D TALLEY, EMP 500, ENG 140, $1,000-$2,500M
Ala Marvin L Bunn, Jr, 2109 W Clinton Ave Huntsville 539-2181
Cal J H Geers, 2175 De La Crue Blvd Santa Clara 408 296-3844

Cal W Taylor/G D McCready, 747 W Katella Ave
Orange 714 532-6873
Ill H E Dyboahl, 1100 W Northwest Hwy
Mount Prospect 312 259-6060
Md A J Ruisinger, 10400 Connecticut Ave
Kensington 946-7100
Mass P J Ottowitz, 60 Hickory Dr
Waltham 617 894-5400
NJ R A Paterson, 103 E Front St
Red Bank 201 842-0910
NM D Parsons, Box 11163
Albuquerque 505 296-5441
Ohio R L Marlatt, 5100 W 164th St
Cleveland 267-6616
Tex H D Thornton, 3334 Richmond Ave
Houston 529-5701
Can J B Parsons, 151 Slater St
Ottawa Ont 613 237-0551

SYSTEMS ENGINEERING LTD, GROUSE CREEK
UTAH, 84313 .... 801 747-2338
J GUERRERO, EMP 4, ENG 2, UP TO $100M

SYSTEMS MATRIX INC, 960 E STATE ST, TRENTON
N J, 08609 .... 609 394-7124
EMP 16, ENG 2
Cal E F Van Winkle, 75 N Beacon Pl, Pasadena
Ill William Snyder, 102 S Washington St
Hinsdale 323-9191
Ohio Black, Robert, 14237 Detroit Ave
Cleveland .... AC 1-2400
Tex F A Jordan, Drawer V, Stafford

SYSTEMS RESEARCH LABS INC, 500 WOODS DR
DAYTON, OHIO, 45432 .... 513 426-4051
W CURP, EMP 400, ENG 125, $5,000-$10,000M
Mass Systems Research Labs, 1656 Massachusetts Ave
Lexington 862-2555
Tex Systems Res Labs Inc, 4614 Sinclair Rd
San Antonio 512 648-3131

SYSTRON DONNER CORP, 888 GALINDO ST, CONCORD
CAL, 94520, TWX 910-481-9478 .... 415 682-6161
J CUNNINGHAM, EMP 600, ENG 95, OVER $10,000M
ADV PG 11, 175, 231, 326, 399, 791
Ala E G Holmes & Assoc, 4862 Governor's Dr W
Huntsville 837-6900
Cal Ward-Davis Assoc, 770 S Arroyo Pkwy
Pasadena 684-2840
Cal Ward-Davis Assoc, 3921 E Bayshore
Palo Alto 968-7116
Cal Ward-Davis Assoc, 3492 Pickett St
San Diego 297-4619
Colo Williams Assoc, 4971 Jackson St
Denver 388-4391
Fla E G Holmes & Assoc, 316 1/2 S Bumby St
Orlando .... CH 1-2128
Ga E G Holmes & Assoc, 3667 Clairmont Ave
Chamblee 451-6161
Ill Carter Electronics, 7203 S Western Ave
Chicago 776-1601
Ind Carter Electronics, 6333 Hollister Dr
Indpls .... AX 3-0696
Md Burlingame Assoc, 1749 Rockville Pike
Rockville 427-1255
Mass Burlingame Assoc, 7 Wellington St
Waltham .... TW 4-1955
Mich S Sterling Co, 21250 10 1/2 Mile Rd
Southfield 442-5656
Minn Carter Electronics, 2401 W 66th St
Mnpls 869-3261
Mo Sy Sterling Co, 11734 Lackland Ind Dr
St Louis 542-3636
NM Williams Assoc, 420 Washington SE
Albuquerque 255-1638
NY Burlingame Assoc, 510 S Fulton Ave
Mount Vernon .... MO 4-7530
NY Burlingame Assoc, E Molloy Rd
Syracuse 454-2408
NC E G Holmes & Assoc, 430 W Friendly Dr
Greensboro 275-0897
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland .... HI 2-8080
Pa Burlingame Assoc, 222 Long Ln
Upper Darby .... JA 8-6080
Tex Arnold Barnes, 740 S Sherman St
Richardson 235-4541
Tex Arnold Barnes Co, 3230 Mercer St
Houston 622-3620
Tex Arnold Barnes Co, E 106 Petroleum Center
San Antonio 828-1323
Wash Rush S Drake Assoc, 6133 Maynard Ave S
Seattle 763-2755
Can Megatronix Ltd, 1800 Avenue Rd
Toronto, Ont 783-3329
Fr Antares, 9 Rue Ernest Cognacq
92 Levallois-Perret 737-54-82
GB Newmark Instruments Ltd, 143 Great Portland St
London .... MUS 8666
Holl C N Rood nv, Box 4042, Rijswijk 98 51 53
Ital Elettronucleonica SpA, Piazza de Angeli 7
Milan 463.520/286
Jap Taiyo Shoji Co, 9-2 5-Chome
Minato-Ku Tokyo 432 5030
Nor Reidar Holmsen A/S, Jose Fines Tate, 26
Oslo 33 53 80
Swed Scantele A B, Tengdahlsgaten 24
Stockholm So 08/24 58 25
Swit Baerlocher AG, Forrlibuck Str 110
Zurich 42-99-00
Aust Sample Electronics, 9-11 Cremorne St
Richmond Vic 42-4757

TABER INSTRUMENTS A TELEDYNE CO, 455 BRYANT ST
NORTH TONAWANDA
N Y, 14120, TWX 710 262 1264 .... 716 694-4000
D FLAVIN, EMP 125, ENG 10, $2,500-$5,000M
ADV PG 725
Ala Medco Assoc, Inc, Holiday Office Ctr
Huntsville 881-3721
Ariz W E Sanderson & Assoc, 5045 N 12th St
Phoenix 277-0077
Cal Dale-Dahl Assoc, 16000 Ventura Blvd
Encino 788-7963
Cal Dale-Dahl Assoc, Box 2145, Fair Oaks ... 967-2786
Fla Medco Assoc, Inc, 115-5th Ave
Indialantic 723-6924
Fla Medco Assoc, Inc, 4010 Bobolink La
Orlando 841-2215
Ga Medco Assoc, Inc, 3847 Roswell Rd NE
Atlanta 261-5459
Ill R Edw Stemm, Inc, 17W480 Lake St
Addison 279-2440
Mass Andruss-Peskin Corp, Box 268, Natick ... 653-3919
Mich Electro Sales Assoc, 15324 Mack Ave
Detroit 886-2280
Minn R Edw Stemm, Inc, 2713 Lyndale Ave S
Minneapolis 822-8404
NJ Tek-Sel Inc, 19 Locust Pl
Rochelle Park 843-3210
NJ Tek Sel, Inc, 440 N Midland Ave
Saddle Brook 491-5545
Ohio Electro Sales Assoc, Dabel Sta Box 143
Dayton 426-5551
Ohio Electro Sales Assoc, 335 E 200th St
Cleveland 486-1140
Okla Cordel Corp, 4580 E 50th St, Tulsa 627-4975
Pa Electro-Sales Assoc, 201 Penn Ctr Blvd
Pittsburgh 371-9449
Tex Cordel Corp, 3130 Southwest Frwy
Houston 529-2230
Tex Cordel Corp, 4025 W Rosedale
Fort Worth 738-9161
Va Mark-Lund Assoc, 2828 Mary St
Falls Church 560-8400

TABUCHI ELECTRIC CO LTD
1-10, MITEJIMA-HIGASHI, NISHIYODOGAWA-KU
OSAKA, JAPAN 472-1951
K SAEKI, EMP 550, ENG 20, $5,000-$10,000M
Jap Tabuchi Electric Co, Ltd
6-7, 1-Chome, Oojt-Kita-Ku, Tokyo 912-9341

TACHTRONIC INSTRUMENTS INC, 1500 N FRONT ST
NEW ULM
MINN, 56073, TWX 910-565-2251 ...... 507 354-3105
W LIEBERMAN, EMP 96, ENG 4, $1,000-$2,500M
Ill Compar Midwest Corp, 2 Talcott Rd
Park Ridge 312 775-7883
Iowa H B Kirkland & Assoc, 286 Tomahawk Trail SE
Cedar Rapids 319 363-6425
Mich S Sterling Co, 21250 10-1/2 Mile Rd
Southfield 313 357-3700
Mo Compar Midwest Corp, 11734 Lackland Ind Dr
St Louis 314 542-3399
Pa Sencor, Inc, 2222 Glendale Ave
Philadelphia 215 342-0223
For Dage Corp, 757 Main St
Stamford, Conn 203 324-3123

TACO (TECHNICAL APPLIANCE CORP SUB JERROLD
CORP), ONE TACO ST, SHERBURNE
NY, 13460, TWX 710-670-1737 .... 607 674-2211
G NAGOLIAN, EMP 768, ENG 21
Ala Beacon Electronic Assoc, Box 3127
Huntsville 536-5065
Fla Beacon Electronic Assoc, 540 S Maitland Ave
Maitland 647-3498
Ga Beacon Electronics, 2235 Plaster Rd NE
Atlanta 636-7526
Ill Scientific Sales Co, 7132 N Harlem Ave
Chicago 775-7595
Mass Zieco Inc, 18 Muzzey, Lexington 617 861-8300
NM Electronic Enterprises, 1900 Washington St NE
Albuq 256-1585
NM Electronic Enterprises, Box 116
Las Cruces 524-0126
NC Beacon Electronics, 4030 C Providence Rd
Charlotte 366-9761
Pa Sherman & Assoc, 141 Academy Rd
Hatboro 675-8770
Can Jerrold Elctns Can Ltd, 60 Wingold Ave
Toronto 781-5638
For Joseph Plasencia Inc, 521 5th Ave
New York, NY 867-8084
For Technitron, 41 W 57th St
New York N Y 212 758-2790

TAC TECHNICAL INSTRUMENT CORP
SCOTCH RD, MERCER ARPT, TRENTON
N J, 08628 .... 609 882-2894
W SHEPLEY, EMP 15, ENG 4, $250-$500M
Ga J W Jackson, 2210 Fisher Tr NE
Atlanta 404 636-0155
Ohio Orbit Industries, 3841 Ridge Rd
Cleveland 216 281-2673
Can L E Baxter Ltd, 6077 St James St W
Montreal, Que 514 489-5751

TADCO MFG INC, BOX 741, GLOUCESTER
MASS, 01930 .... 617 283-6060
EMP 28, ENG 4, $500-$1,000M

TAD PRODUCTS CORP, 639 MASSACHUSETTS AVE
CAMBRIDGE, MASS, 02139 .... 617 491-1743
T COOK, EMP 20, ENG 2, $100-$250M

TAFA DIV HUMPHREYS CORP, 180 N MAIN ST
CONCORD, N H, 03301 .... 603 225-3366
J WINZELER, EMP 40, ENG 6, $1,000-$2,500M

TAFFET ELECTRONICS INC
27-01 BROOKLYN-QNS EXPWY W, WOODSIDE
N Y, 11377 .... 212 RA 13500
I TAFFET, EMP 150, ENG 6, $2,500-$5,000M

TAFT-PEIRCE MFG CO, 32 MECHANIC AVE
WOONSOCKET
R I, 02895, TWX 927675 .... 401 762-1000
R TRACY, EMP 400, ENG 25

TAIYO DENKI CO LTD, 1-12, 3-CHOME, SUNAMICHI
SAKAI-C., OSAKA, JAPAN 38-9251
M YAMAGUCHI, EMP 1000, ENG 30, $1,000-$2,500M

TAIYO YUDEN CO LTD, 15-11, 6 CHOME, SOTO KANDA
CHIYODA-KU, TOKYO
JAPAN, TWX 0265-5169 833-5441
I WAKAI, EMP 2000, ENG 98, OVER $10,000M
Jap Taiyo Yuden Co Ltd, 72 Umegae-cho, Kita-ku
Osaka 363-2678

TAKAMISAWA ELECTRIC CO, LTD
35-4, 1-CHOME, KOYAMA, SHINAGAWA-KU, TOKYO
JAPAN 492-2131
S OGIWARA, EMP 1300, ENG 80, $5,000-$10,000M
ADV PG 610
Jap Takamisawa Electric Co, 19, Suehiro-Cho, Kita-Ku
Osaka 313-3784

TAKEDA RIKEN INDUSTRY CO LTD
285 ASAHI-CHO, NERIMA-KU, TOKYO
JAPAN 930-4111
M KIMURA, EMP 420, ENG 200, $5,000-$10,000M
Den Semler & Matthiassen, 1, Abeloegade, Copenhagen
Fr Litton Prec Prods Int Inc, 120 Champs Elysees 75
Paris 8
Ger Litton Prec Prods Int Inc
8 Munchen 61, Stolzing Str 6, Munchen
Ital G Belotti, Piazza Trento 8, Milano
SAfr P Jones Electronic Equip Ltd
124/5 Pan Africa House Troye St, Johannesburg
Swed C-E Larsson AB, Sturevagen 66, Lidingo 1
Swit Litton Prec Prods Int Inc, Box 125, 110 Morgens
Belg Litton Prec Prods Int Inc
16 Rue Du Musee Brussels 1, Belgium
NZ Sonophone Elctns Ltd, 394 Khyber Pass Rd
Aukland 1
Fin Nores & Co Oy, Fabianinkatu 32, Helsinki 10
Aust Warburton Franki Ltd, 307 Kent St, Sydney

TAKK CORP, BOX 346, NEWARK
OHIO, 43055 .... 614 DI 4-3115
W KRAUSE, EMP 8, ENG 1

TALK-A PHONE CO, 5013 N KEDZIE AVE, CHICAGO
ILL, 60625 .... 312 KE 9-1100
Cal David Muir, 2909 N Lake Ave
Altadena 681-2516
Cal F W Moulthrop Co, 1530 E 12th St
Oakland .... AN 1-7676
Colo Nelson Co Inc, 1294 S Bannock
Denver 733-5528
Fla Stanley K Wallace Assoc, Box 67, Lutz ... 949-1817
Ill D Hale Darnold, 5865 N Lincoln Ave
Chicago .... LO 1-9839
Ind Delta Sales Inc, 1407 N Illinois St
Indpls .... ME 1-4136
Kan Koenig-Myers Assoc, 5500 Buena Vista Dr
Shawnee Mission .... HE 2-8300
Mass Coakley Boyd & Abbett Inc, Box 248
Needham 444-5470
Mich Robert Milsk Co, 19375 James Couzens Hwy
Detroit 342-6660
Minn Northern States Sales Co, 1109 W 78-1/2 St
Mnpls 866-3468
NY L-C-A Sales Inc, 76 Main St
Tuckahoe .... WO 1-4700
NY Wm Tauber Co, 151 Fayette Blvd
Syracuse 446-7094
Ohio Les A Morrow Co, 5100 W 164th St
Cleveland 267-2282
Tex Mil F Klicpera Co, Box 2668, Houston ... RI 7-3868
Wash Vector Corp, 307 Wall St, Seattle 623-6891
Can Ind & Institutional Comm Ltd, McNaughton Ave
Wallaceburg, Ont 627-2132
For Ortiz Bros Intl, 3555 W Peterson Ave
Chicago, Ill 478-3685

TALLY CORP, 1310 MERCER ST, SEATTLE
WASH, 98109, TWX 910 444-2039 .... 206 MA 40760
T TRACY, EMP 450, ENG 50, $5,000-$10,000M
Ala Mekco Assoc, Holiday Off Ctr
Huntsville 881-3721
Ariz Moxon Elctns Corp, 15 N 40th Pl
Phoenix 602 273-7363
Cal Moxon Electronics Corp, 15 W 41st Ave
San Mateo 345-7961
Cal Moxon Electronics Corp, 2311 Pontius Ave
Los Angeles 272-9311

Cal Moxon Electronics Corp, 2054 Garnet St
San Diego 274-6525
Colo B F A, 1309 S Inca St, Denver 744-3301
Conn Instrument Assoc Inc, 234 Murphy Rd
Hartford 203 525-9367
Fla Mekco Assoc, 3165 McCrory Rd
Orlando 841-2215
Ill Pivan Engineering Co, 3535 W Peterson Ave
Chicago 539-4838
Ind Pivan Engineering Co, 8545 Northcrest Ct
Indpls 253-1681
Iowa Pivan Engineering Co, 4403 1st Ave SE
Cedar Rapids 365-6635
Md Bartlett Assoc, 7979 Old Georgetown Rd
Bethesda 656-3061
Mass Instrument Assoc Inc, 30 Park Ave
Arlington 648-2922
Mich W K M Assoc, 1474 E Outer Dr, Detroit .. 892-2500
Minn Pivan Engineering, 3203 North Hwy 100
Minneapolis 537-4501
Mo Pivan Engrg Co, 40 Brooks Dr
Hazelwood 731-3000
NJ S B M Assoc, 1519 Stuyvesant Ave
Union 687-8737
NM BFA, 1238 Ortiz SE, Albuquerque 268-4387
NY S B M Assoc , 5858 E Molloy Rd
Syracuse 454-9378
NY S B M Assoc, 800 Linden Ave
Rochester 716 381-8330
NY S B M Assoc, 28 Hobby St
Pleasantville 516 769-1811
NC Pivan Engrg Co, 100B Lindsey St
Burlington 266-7177
Ohio W K M Assoc, Inc, 6741 Ridge Rd
Cleveland 885-5616
Ohio W K M Assoc, 5335 Far Hills Ave
Dayton 513 434-7500
Ore Showalter-Judd Inc, 1445 NE Arlington
Hillsboro 648-6372
Pa Bartlett Assoc, 130 W Lancaster Ave
Wayne 688-7325
Pa W K M Assoc, Inc, 90 Clairton Blvd
Pittsburg 892-2953
Tex Dannemiller-Smith Inc, 5760 Rice Ave
Houston 668-4461
Tex Dannemiller-Smith Inc, 2720 W Mockingbird La
Dallas 357-8249
Va Tally Corp, 1901 Fort Myer Dr
Arlington 525-8500
Wash Showalter-Judd Inc, 1806 S Bush Pl
Seattle 324-7911
Wis Pivan Engrg Co, Box 437, Waukesha 547-5131
Can R-O-R Assoc Ltd, 3330 Cavendish Blvd
Montreal, Que 482-8430
Can R-O-R Assoc Ltd, 1470 Don Mills Rd
Don Mills, Ont 444-4403
Fr I E R, 92 Courbevoie, Seine .... DEF 6781
Ger Ernst Fey, Elektronische Messgeraete
Horemansstr 28, 8 Muenchen 2 60459
GB Tally Ltd, Croydon Cr 9 1XD, Surrey ..... MUN 6836
Holl Line-A-Data, Bldg 112A
Schiphol Airport, Amsterdam
Ital Telemeccanica Elettronica, Via Montefeltro, 8
Milano 306591
Jap Mitsubishi Shoji Kaisha Ltd
20 Marunouchi, 2-Chome, Tokyo 211-1490
SAfr Protea Phys & Nuc Inst (Pty) Ltd, 7 Newton St
Johannesburg 838-8351
Swed Tel Inter Aktiebolag, Fack 59, Farsta 1
Stockholm 08/641800
Swit Munzig Intl, Inc, 6 Av De Frontenex
1207 Geneva 35 84 14
Arg Coasin S A, Virrey del Pino 4071
Buenos Aires 52 3185
Braz Ambriex, S A, Ave Graca Aranha 226
Rio de Janeiro 42-7990
Gr Marios Dalleggio, 2 Alopekis St, Athens ... 710 669
Isrl Eastronics Ltd, 75 Haifa Rd, Tel Aviv 446060
NZ Sample Electronics (NZ) Ltd, 8 Matipo St
Onehunga, Auckland 6 838-8351
Aust Sample Electronics Aust Pty Ltd, 9-11 Cremorne St
Richmond, Vic 42-4757
Aust Sample Electronics Aust Pty Ltd, 82 Alexander St
Crow's Nest, NSW
Aust Sample Electronics (Aust) Pty Ltd, 171 Gilbert St
Adelaide, S A

TALLY CORP, BUSINESS SYSTEMS, 1310 MERCER ST
SEATTLE
WASH, 98109, TWX 910 444-2039 ..... 206 624-0760
W DELVALLE, EMP 450, ENG 50, $5,000-$10,000M
Ala Teletran, Inc, 2054B Lamb Ave W
Birmingham 785-9943
Cal Tally Corp, 420 Market St
San Francisco 989-5375
Conn Alan L Rowen, Box 98, Huntington ... 203 375-2228
DC Data/Comm Assoc, 1629 "K" St, NW
Washington 202 296-1954
Fla Business Mach of Miami Inc, 302 Bird St
Coral Gables 444-6146
Ga Teletran, Inc, 1670 NE Freeway
Atlanta 633-0301
Idah Office Service Ctr, Inc, 1009 Vista Ave
Boise 342-4651
Ill Tally Corp, 33 N Addison Rd, Addison 279-9200
Ind Business Systems Eqpt Co, 2204 Lancaster Dr
Muncie 289-2248
Iowa Automation Products Co, Box 1965
Cedar Rapids 365-2966
La Teletran, Inc, 725 Main St
Baton Rouge 343-3419
Me Process Inc, 169 Front St, S Portland 799-2294
Mass John Melanson, 39 Pine St, Danvers 774-7389
Mich Beuthien Systems Co, 923 Southfield Dr
Williamston 655-3376
Minn Northwest Office Mach Corp, 7740 Morgan Ave S
Mnpls 866-5461
Mo Bishop Assoc, 3705 SW Trafficway
Kansas City 816 753-7278
Mo Systematics of Mo, Inc, 3232 Olive St
St Louis 314 531-3579
Mont Northern Office Equip, Box 1463
Great Falls 454-1329
Neb Bilmar Service Co, 3873 Farnam St
Omaha 341-6466
NY Tally Corp, 45 N Village Ave
Rockville Centre 678-4220
Ohio Sheridan Assoc, Inc, Box 37646
Cincinnati 761-5432
Ohio Sheridan Assoc, Inc, Box 8226
Cleveland 216 237-9145
Ohio Sheridan Assoc, Inc, Box 37, Dayton 277-8911
Pa Sheridan Assoc, Inc, 201 Penn Ctr Blvd
Pittsburgh 243-6655
Tex Computer Marketing Corp, 777 S Central Expwy
Richardson 231-3396
Tex Computer Marketing Corp, 2990 Richmond
Houston 524-4204
Wash Data Rep, 8611 NE 133rd St, Kirkland ... 822-4688
Wis Dura Business Mach Inc, 7918 Harwood Ave
Milwaukee 414 258-4920

TAMURA ELECTRIC WORKS LTD
2-3 2-CHOME SHIMOMEGURO MEGURO, TOKYO
JAPAN 492-7101
H HIRATSUKA, EMP 2000, ENG 200, OVER $10,000M
Cal ITT Controls & Inst Div, 1838 Flower St
Glendale 213 842-6131
Ill ITT General Controls, Inc, 2000 S Walf Rd
Des Plaines

TAMURA SEISAKUSHO CO, LTD
433 HIGASHI OIZUMI-MACHI, NERIMA-KU, TOKYO
JAPAN, TWX 0 272-2201 924-1111
Y KAWAHARA, EMP 1440, ENG 140, OVER $10,000M

TANSITOR ELECTRONICS INC, WEST RD, BENNINGTON
VT, 05201, TWX 710-360-1782 .... 802 442-5473
R ANDERSEN, EMP 300, ENG 12, $2,500-$5,000M
ADV PG 104
Ariz Hecht, Henschen & Assoc, 3825 N 39th Ave
Phoenix 949-0144
Cal Ash Wood Co, Box 1A, Arcadia 283-1201
Cal Pritchard & Haney Co, Box 102
Los Altos 961-8218
Colo Arrowhead Sales Corp, 6460 Brentwood
Arvada 798-0319
Fla Conley-May Assoc, Box 668, Oviedo 365-3283
Ill J R Sales Engrg Co, 7132 N Harlem Ave
Chicago 774-8550
Iowa J R Sales Eng, 3550 Cottage Grove Ave SE
Cedar Rapids 365-5259
Kan Poly-Onics, Inc, 4434 W 90th Terr
Leawood .... NI 8-4173
Md Burgin-Kreh Assoc, 202 W Penna Ave
Towson 661-1120
Mass Alexander Hubert Co, Box 143
Brookline .... CO 2-0027
Mich Skip Greiner Assoc, 15318 Mack Ave
Detroit 882-7570
Minn Howard A Cullen & Assoc, 1595 Selby Ave
St Paul 646-7371
NJ H J White Co Inc, 801 W Marlton Pike
Cherry Hill .... HA 8-2304
NY LRC Assoc, Box 114, Valley Cottage 298-8964
NY J V Costello, 2030 Erie Blvd E
Syracuse 472-0322
Ohio Augey Natalino Assoc, 209 Harmony Hills
Akron 253-8136
Tex Titan Reps, Inc, 6434 Maple Ave
Dallas .... FL 1-9760
Wash Blair Hirsh Co, 4013 Leary Way NW
Seattle 783-3423
Wis Irvin I Aaron & Assoc, 829 N Marshall St
Milwaukee .... BR 6-8515
Can Kaytronics Engrg, 5800 Monkland Ave
Montreal 28, Que 489-9335
For Irvin I Aaron Assoc, 829 N Marshall St
Milwaukee, Wis .... BR 6-8515

TAPE-ATHON, 523 S HINDRY AVE, INGLEWOOD
CAL, 90307, TWX 65-3430 .... 213 678-5445
W RUBIN, EMP 30, ENG 3, $1,000-$2,500M
Cal Thos M Morris Assoc, 1315 El Solyo Ave
Campbell 408 377-6600
Cal T L Aye, 796 The Dalles
Sunnyvale 408 738-1406
Colo Tandy's Elctn Sales, 1664 S Monroe St
Denver 303 756-1909
Fla Sproch Sales Inc, 3520 W Broward Blvd
Ft Lauderdale 305 597-3792
Ga Guyer & Assoc, 110 Robin Rd, RFD 3
Marietta 404 428-4261
Haw Bill Kolans & Co, Box 1932, Honolulu 811628
Ill Edward N Seversen, 11435 Circle Dr
La Grange 246-4883
Kan T H Eillis Sales Co, Box 8297
Prairie Village 913 269-4522
La Scott Ormsby Sales Co, 787 1/2 Harrison St
New Orleans 488-2414
Md A B & T Sales Corp, 208 Queen Mary Dr
Olney .... WA 4-4976
Mass W R Hatfield Co, Box 342, Lexington.... VO 2-9336
Mich Butchart-Rathsburg Assoc, Inc
16637 E Warren Ave, Detroit 882-1717
Mo J G Braley Sales, 11336 High Ridge Rd
Independence 816 353-3376
NM Lee Davis Co, 1415 Richmond Dr NE
Albuquerque 256-1749
NY Paston-Hunter Co Inc, Box 129 DeWitt Sta
Syracuse .... GI 6-2180
NY Gilbert E Miller Assoc, 47 Birchwood Park Dr
Jericho .... BO 3-0617
Ohio Doug Cook & Assoc, 4992 Medfield Way
Columbus 614 878-3341
Pa A B & T Sales Corp, 7618 Langdon St
Phila 746-7618
Tex Bill Wylds Co, 1247 Caudle, Houston 468-8411
Wash M K Widdekind Co, 815 W Ewing St
Seattle .... AT 4-8020
Can E S Gould Co Ltd, 11 Louvain St W
Montreal 288-5225
For J D Marshall Intl Inc, 170 W Washington St
Chicago, Ill 726-8746

TAPE CABLE CORP, 15 LINDEN PARK, ROCHESTER
N Y, 14625, TWX 510-254-2922 .... 716 586-0330
W RICHTER, EMP 30, ENG 2

TAPECON INC, 475 RIVER ST, ROCHESTER
N Y, 14612 .... 716 621-8400
W FRYKBERG, EMP 11, ENG 2, $250-$500M
Ill Kennedy Engineering Inc, 6713 N Oliphant Ave
Chicago 312 631-8283
Mass Samuel C Hooker Inc, 2 Winchester Pl
Winchester 617 729-4279
NJ D J Fisher Co, Box 146
Ho-Ho-Kus 201 652-0090
NC L & D Inc, Box 7243, Greensboro 919 292-3201
Ohio Electrolock Inc, Box 368
Chagrin Falls 216 247-4245
Pa S R Assoc, 465 Pinewood Rd
Philadelphia .... 215 OR 6-4743
Tex Ev Smith Sales, Box 12583
Houston 713 649-5756
Wash Paratech Inc, 2208 NW Market St, Seattle
Can Munro Elctn Components Ltd, Box 147
Ajax Ont 416 942-2192

TAPESWITCH CORP OF AMERICA
320 BROAD HOLLOW RD, FARMINGDALE
N Y, 11735 .... 516 694-6312
R KOENIG, EMP 25, ENG 3
Cal Monitor Sales Co, 803 Alandele St
Los Angeles 213 934-8145
Colo Electron Mfrs Consult, 1610 N Royer
Colorado Spgs 303 636-5131
Ga Paul Hayden & Assoc, Box 331
East Point 766-0261
Ill Audio Sound Sales, 2919 1/2 W Armitage
Chicago 342-1600
Md Moler-Eader Assoc, 320 Hillen Rd
Baltimore .... VA 5-1130
Mass Bordewieck Engrg Sales Co, 221 Grove St
Braintree 843-0845
Mich J L Miner Assoc, 15318 Mack Ave
Grosse Pointe Park 886-5878
Minn John E M Anderson Co, 5231 Humbolt Ave S
Minneapolis 823-6459
Mo Gordon Fixman Eng Co, 8160 Stanford Ave
St Louis .... PA 5-5219
Mo Fleming & Co, 3021 Main St
Kansas City .... PL 3-0111
NJ Peterson-Rudneck Assoc, Box 822
W Caldwell .... CA 6-4363
NJ Moler-Eader Assoc, Box 240
Haddonfield 428-2440
Ohio Midwest Sales, 3219 W 117th St
Cleveland .... WI 1-2700
Ore Wayne C Wells, 6055 NE Glisan
Portland .... BE 5-2437
Tex Techno Assoc, Box 20544, Dallas....... FL 7-9213
Tex General Sales Reps, 10063 Haddington
Houston 923-7371
Fr Les Cables De Lyon, Boite Post 453 RP
Lyon 72-35-61
Ger Herion Werke, Postfach 2970, Stuttgart ... 56-61-81

TASK CORP, 1009 E VERMONT AVE, ANAHEIM
CAL, 92805, TWX 910 591-1165 .... 714 774-3100
W BUCKLEY, EMP 250, ENG 30, $2,500-$5,000M
Ga Airsupply Co, 3272 Peachtree Rd NE
Atlanta 404 237-8636
Tex R F McKee Assoc, 4719 Skillman Ave
Dallas 214 368-8233
Wash Airsupply Co, 10633 NE 8th St
Bellevue .... GL 4-7922

TASKER INDUSTRIES, 7838 ORION AVE, VAN NUYS
CAL, 91409 .... 213 781-3150
M FORGEY, EMP 400, ENG 80, $5,000-$10,000M
Ala Col-Ins-Co, Inc, Box 4246, Huntsville..... 539-1711
Cal Costello & Co, 5795 W Washington Blvd
Culver City 937-2980
Cal Costello-Little & Co, 575 Middlefield Rd
Palo Alto 321-3745
Cal Costello-Little & Co, 8737 Venice Blvd
Los Angeles 213 870-5951
DC Tasker Industries, 1730 Rhode Island Ave NW
Washington 202 223-5538
Fla Col-Ins-Co, Inc, 1313 44 St, Orlando 423-7615
Ga Col-Ins-Co, 200 Carrington Way
Marietta 404 422-8327
NY S Fred Greenberg, 404 W Cedar St
Rome 336-9062
NC Col-Ins-Co, Inc, Box 5597
Winston-Salem 919 765-2650
Ohio Geo G MacDermut, 1563 E Dorothy Ln
Kettering 513 299-8146
Tex Costello Little & Co, 5635 Yale Blvd
Dallas 363-9031

TATEISI ELECTRONICS CO
10 TSUCHIDO-CHO, HANAZONO, UKYO-KU, KYOTO
JAPAN 463-1161
N TATEISI, EMP 3671, ENG 1054, OVER $10,000M
NY Tateisi Electronics Co, 23 E 26th St
New York .... OR 9-6858
Can Aztec Engrg Co, 136 Tower Dr
Scarbough Ont 755-7824
For C Gavazzi GMBH, Schwedenplatz 2 1011
Vienna 0222 63 68 05
For Sigma Instrument Inc
South Braintrees 617 843-5000
For Hai Nan Trading Co Ltd
12-1 126 La 1 Sec N Chung Shang Rd
Formosa 47303
For Sheng Ching Trading Co Ltd, 188 Kung Ming St
Formosa 33618
Fr C Gavazzi S A R L, 74 Rue de Maubeuge
Paris 9 .... 878 89-15
Ger C Gavazzi Mess & Regeltechnic GmbH
6 Frankfurt Main Berger Str, ... 0611 43 84 14
GB Keyswitch Relays Ltd, 120-132 Cricklewood La
London NW 2 .... GLA 1152
Holl C Gavazzi N V, Radbout 35
Amsterdam (Buitenveldert) 42 85 32
Ital C Gavazzi S P A, Via G Ciardi 9
Milano 40 50 51
Jap Tateisi Electronics Co, Nagaoka-cho, Otokuni-gun
Kyoto 92-5111
Jap Tateisi Electronics Co
Toa Bldg, Yonbancho, Chiyoda-Ku
Tokyo 265-4611
SAfr P J Yelland & Co Pty Ltd, 110 Gale St Durban St
.... 34 2487
Swed Billman Regulator AB Agency Dept
Fack Huddinge 1 .... 774 00 00
Swit C Gavazzi AG, Kanzleistr 80 Postfath CH-8026
Zurich 051 44 93 30
Mex Schultz Y Cia S A, Aptdo Postal 53-987
Lago Xochimieco 345 Mexico 17 D F ... 45 66 50
Aust H Rowe & Co Pty Ltd, 7 Flinders Ct, Melbourne

TATSUTA ELECTRIC WIRE & CABLE CO LTD
3-1, 2-CHOME IWATA-CHO, HIGASHI, OSAKA
JAPAN 721-3331
B TANAKA, EMP 1200, ENG 90, OVER $10,000M

TAURUS CORP, WASHINGTON ST, LAMBERTVILLE
N J, 08530 .... 609 397-2390
J KREUTER, EMP 50, ENG 3
Ala Brennan Assoc, Inc, Box 1074, Huntsville
Ariz Electronic Mfrs Consultants, Inc, 4012 N 54th Pl
Phoenix 602 959-3525
Cal Ray Sweet & Son, 11150 Tenn Ave
Los Angeles 477-4517
Cal Scientific Sales, Box 5324, Pasadena ... SY 1-3778
Colo Electronic Mfrs Consultants, Inc, Box 503
Colorado Springs 303 636-5131
Conn Forsberg Sales, 22 Broadway
North Haven 239-5111
Fla Brennan Assoc, Inc, Box 5006
Clearwater 446-5006
Ill Gianaras Sales, W Wilson Ave
Norridge 774-4600
Ind Hoemig Sales, Butler Ct, Fort Wayne 483-6913
Mass Forsberg Sales, 646 Summer St
Brockton 522-6300
NJ H S Bancroft Co, Rockhill Rd
Cherry Hill 854-8000
NJ Ken Hughes Co, Lemoine Ave, Fort Lee ... 944-1600
NY Kenneth E Hughes Co, Box 193, Hauppauge
Ohio W J Brauer Assoc, Box 305, Wickliffe 943-0601
Pa W J Brauer Assoc, Box 8466
Pittsburgh 921-3213
RI Forsberg Sales, Esek Hopkins La
Cumberland 333-6453
Tex R R Clark, Allen Pkwy, Houston 713 526-4908
Utah Electronic Mfrs Consultants, Inc, P O 1421
Salt Lake City

TAVCO, INC, 612 COLORADO AVE, SANTA MONICA
CAL, 90401, TWX 910-343-6240 .... 213 UP 0-8679
R HENRY, EMP 75, ENG 4, $1,000-$2,500M
Cal Townsend Tech Sales, Box 265
Saratoga 408 252-3478
Ill Inland Marketing Assoc, Box 1113
La Grange Park 352-7480
Tex F Roberts, Box 20259, Dallas 351-5070
Wis Inland Marketing Assoc, Box 1113
La Grange Park, Ill 352-7480

TAYLOR CORP, VALLEY FORGE
PA, 19481, TWX 215-666-0659 .... 215 666-0300
J POOL, EMP 606, ENG 32, OVER $10,000M
Cal Taylor Corp, LaVerne .... LY 3-1341
Conn Taylor Corp, Box 2254, Hartford 528-2101
Ga Taylor Corp, 3272 Peachtree Rd
Atlanta .... CE 7-0416
Ill Taylor Corp, 602 Green St, Bensonville ... 766-6620
Ohio Taylor Corp, 2600 Fair Hills Ave
Dayton 293-9605

TAYLOR ELECTRIC INC, 5835 FISHER RD, HOWELL
MICH, 48843 .... 313 546-0450
B TAYLOR, EMP 30, ENG 1
Ariz Coronado Elctns Assoc, Box 3176
Scottsdale 602 947-9060
Cal K M Ryals Co, 9 1st St
San Francisco 415 982-8729
Cal Calrepco, 2445 Whittier Blvd
Whittier 213 723-7138
Colo Byerrum Eng Sales Co, 1193 W Shepperd
Littleton 303 798-5682

Fla Geartner Assoc Inc, 350 Lincoln Rd
Miami Beach 305 531-0200
Ill K G A Eng Co Inc, Box 646, Elgin ... 312 742-7465
Mass Macdonald-Wadman Co Inc, 1195 Chestnut St
Newton Upper Falls 617 969-8980
Mich Robt McBride Co, 20830 Rutland
Southfield 313 356-5724
Minn Control Design, 2529 Minnehaha
Minneapolis 721-1629
Mo Maury E Bettis Co, 3706 Broadway
Kansas City .... 816 LO 1-0772
NJ Waldron Assoc, 15 Pond Hill Rd
Morristown 201 538-5607
NY H J Rittenhouse Co, 291 Howland Ave
Rochester 716 442-1380
Ohio McNay Equipment Co, 4850 Cooper Rd
Cincinnati .... 513 TW 1-7122
Ohio Matthew M Haley Co, 6364 Pearl Rd
Cleveland .... 216 TU 4-8460
Ore David Fry Co, Box 3803, Portland ... 503 CA 6-3903
Pa Walter H Schmitt, Box 201
W Newton 412 872-5007
Pa Jacobson Assoc, 302 Cottman St
Jenkintown 215 884-5524
Tenn Industrial Electric Co, 123 S 11th St
Nashville 615 227-3812
Tex Corwin Assoc Inc, Box 18112
Dallas .... 214 DI 8-4623
Va Electronex Assoc, 2904 W Clay St
Richmond .... 703 EL 8-5040
Can Anbak Sales, Canada, Ltd, 3208 Lenworth Dr
Cooksville, Ont 416 625-1061

TAYLOR INSTRUMENT COS, 95 AMES ST, ROCHESTER
N Y, 14601, TWX 716-235-4893 .... 716 235-5000
R REYNOLDS, EMP 4350, ENG 173
Ala F Clarke Douglas, Box 5843
Birmingham .... TR 9-5942
Ala Taylor Instr Cos, 267 Houston St
Mobile 205 478-9103
Ariz Taylor Instr Cos, 4 W Greenock Dr
Tucson 602 297-3544
Cal Taylor Instr Cos, 2455 Riverside Dr
Los Angeles .... NO 2-3191
Cal Taylor Instr Cos, 1661 Timothy Dr
San Leandro 415 569-1661
Colo R G Ellinger, Jr, 70 W6th Ave
Denver 303 825-1353
Del Taylor Instr Cos, 4010 Concord Pike
Wilmington 478-2440
Fla Taylor Instr Cos, 3151 3rd Ave N
St Petersburg 813 898-9332
Ga Taylor Instr Cos, 4224 Northeast Frwy
Atlanta 457-4441
Ga Taylor Instr Cos, 1506 Wheaton St
Savannah 912 233-8589
Ill Taylor Instr Cos, 423 South Blvd
Oak Park .... ES 9-0876
Ill Taylor Instr Cos, 276 14th St
Chicago Hgts 312 755-3103
Ind J B Carver, Jr, 3969 Meadows Dr
Indpls 547-5961
Iowa Taylor Instr Cos, 2709 41st St Pl
Des Moines 515 283-1422
Kan Taylor Instr Cos, 522 State St
Augusta 316 775-2977
Ky J W Herald, 3624 Frankfort Ave
Louisville .... TW 5-4675
La Walter T Gonzales, Jr, 4833 Conti St
New Orleans 482-4145
La Taylor Instr Cos, 4523 North Blvd
Baton Rouge 504 821-8111
La Taylor Instr Cos, 2008 Roselawn Ave
Monroe 318 322-4284
Md Taylor Instr Cos, 26 Montgomery Rd
Ellicott City 465-2440
Mass Taylor Instr Cos, 945 Great Plain Ave
Needham .... HI 4-4130
Mass Taylor Instr Co, Box 611
Springfield 413 733-3721
Mich LeRoy W Barnett, Box 2060, Dearborn ... CR 8-4000
Mich Taylor Instr Cos, 117 W Cedar St
Kalamazoo 616 345-7931
Mich Taylor Instr Cos, 400 Darthmouth Dr
Midland 517 631-3353
Minn Taylor Instr Cos, 420 Excelsior Ave E
Hopkins 935-7771
Mo R G Ellis, 12230 Manchester Rd
St Louis 314 966-5660
Mo Taylor Instr Cos, 1101 A Westport Rd
Kansas City 816 931-1118
NJ Taylor Instr Cos, 151 Bergen Mall
Paramus .... HU 8-7877
NY Taylor Instr Cos, 111 W 50th St
New York .... JU 6-3544
NY Taylor Instr Cos, 959 Kenmore Ave
Buffalo 716 877-5245
NY Taylor Instr Cos, 46 Prince St
Rochester 716 244-0430
NY Taylor Instr Cos, 527 Charlis St
Syracuse 315 488-9437
NY Taylor Instr Cos, 433 Liberty St
Schenectady 518 374-8403
NC Taylor Instr Cos, 153 E Lindsay St
Greensboro 273-0818
NC Taylor Instr Cos, 1169 Commercial Ave
Charlotte 704 372-2360
Ohio Taylor Instr Cos, 3121 Euclid Ave
Cleveland 391-1330
Ohio G R McMillin, 557 E Tallmadge Ave
Akron 216 535-1545
Ohio Taylor Instr Cos, 3047 Madison Rd
Cincinnati 513 351-3636
Ohio Taylor Instr Cos, 16 Leland Ave
Columbus 614 888-6733
Ohio Taylor Instr Cos, Oregon Rd
Perrysville 419 693-0483

Okla Taylor Instr Cos, 613 E 4th St, Tulsa .... LU 3-7139
Ore Taylor Instr Cos, 1511 S E 122nd Ave
Portland 503 252-1191
Pa Taylor Instr Cos, 1617 J F Kennedy Blvd
Phila .... LO 3-1156
Pa Taylor Instr Cos, 2882 W Liberty Ave
Pittsburgh 412 531-3301
SC G T Larson, 902 N Pleasantburg Dr
Greenville 233-7464
Tenn Andre L F Caradec, 6601 Deane Hill Dr
Knoxville 588-2485
Tenn Taylor Instr Cos, 1037 E Parkway S
Memphis 901 275-0062
Tex Taylor Instr Cos, 5001 Navigation Blvd
Houston .... WA 6-4486
Tex R L Saunders, 3305 Lometa Dr
Amarillo 806 353-4781
Tex Taylor Instr Cos, 3195 Calder Ave
Beaumont 713 835-2428
Tex Taylor Instr Cos, 1800 S Staples St
Corpus Christi 512 882-1171
Tex Taylor Instr Cos, 4024 Swiss Ave
Dallas 214 823-1776
Tex Taylor Instr Cos, 401 N Colorado Ave
Midland 915 682-5759
Utah T G Steinmetz, 138 S 2nd E St
Salt Lake City .... EM 3-8575
Va Taylor Instr Cos, 2839 Stratford Hills Ctr
Richmond 272-1461
Wash D L Wass, 4005 Aurora Ave, N, Seattle ... 633-5828
W Va F M Griffin, 411 1/2 D St
S Charleston .... RI 4-3473
Wis E R Campbell, 1348 N 37th St
Milwaukee .... DI 2-1404

TAYLOR-WINFIELD CORP, 1052 MAHONING AVE NW
WARREN
OHIO, 44482, TWX 810-436-2657 ...... 216 399-8861
L MURTO, EMP 750, ENG 100, OVER $10,000M
Cal Denton & Anderson Co, Box 488
Temple City 283-8436
Cal Denton & Anderson Co, 800 Welch Rd
Palo Alto 327-3191
Colo Duboc-Lane & Monckton Inc, 637 Osage St
Denver 303 623-1261
Conn Denton & Anderson Co, 9 High Ridge Rd
Stamford 324-9573
Ill Denton & Anderson Co, 9845 W Roosevelt Rd
Westchester 681-4120
Md Wheaton Co, 24 Dunvale Rd
Towson 301 828-4055
Mich Denton & Anderson Co, 26125 Woodward Ave
Huntington Woods 564-5766
Minn Parker Sales & Eng Co, 5804 W 68th St
Mnpls 920-1323
Mo Denton & Anderson Co, 519 Oak Hill Dr
Edwardsville, Ill 656-4141
NJ Wheaton Co, 709 Boulevard Ave
Kenilworth 201 245-1976
NY Denton & Anderson Co, 1059 McDonald Ave
Wantagh 221-5483
NC J W Fraser & Co, 109 W Griffith St
Charlotte 523-2414
Ohio Denton & Anderson Co, 3733 Lee Rd
Cleveland 991-4200
Ohio Denton & Anderson Co, 3740 Salem Ave
Dayton 277-9327
Ore Industrial Specialties Co, 940 SE 7th Ave
Portland 234-0621
Pa Denton & Anderson Co, 1048 Elizabeth Dr
Bridgeville 343-3944
Pa Wheaton Co, 655 Mary St, Warminster ... 672-7050
Tenn Jones-Sylar Co Inc, Manufacturers Rd
Chattanooga 265-1601
Tex B C Myers, 932 1/2 W Jefferson Blvd
Dallas 942-4363
Wis Denton & Anderson Co, 9730 W Blue Mound Rd
Milwaukee 771-5420
Wis AKO Eng Sales & Serv Co, 12819 W Silver Spring
Butler 781-8360
Can F-H Welding Machines Ltd, 92 N Queen St
Toronto 233-3265

TDK ELECTRONICS CO LTD
14-6, 2-CHOME, UCHIKANDA, CHIYODA-KU, TOKYO
JAPAN 256-6111
T YAMAZAKI, EMP 3500, ENG 400, OVER $10,000M
Cal TDK Electronics Corp, 6151 W Century Blvd
Los Angeles .... OR 0-5515
Ill TDK Electronics Corp, 2906 W Peterson Ave
Chicago 312 973-1222
NY TDK Electronics Corp, 82 Wall St
New York 212 425-7070

TEALE MACHINE CO INC, BOX 936, ROCHESTER
N Y, 14603, TWX 510-253-2344 .... 716 CH 4-6700
S TRAVIS, EMP 75, ENG 2, $1,000-$2,500M
Conn J M Murphy & Co, Box 627
Manchester 649-2129
Ill H F Spath & Co, 5413 W Diversey Ave
Chicago 237-1020
Ky G W Thelen Co, 5257 Taylor Mill Rd
Covington 431-0753
Mich Aaron L Evans, 191 Ridgemont Rd
Grosse Pointe Farms 884-1697
Minn W O Kjeldsen & Assoc Inc, 2454 Pascal Ave
St Paul 645-3979
NJ Affiliated Sales Inc, 400 Delancey St
Newark 623-8113
NY A J Murphy Co Inc, Box 100
E Syracuse 458-1365
Ohio H Q Gamble Co, Cleve Hopkins Airport
Cleveland 267-3855
Va Royall B Ferguson, Box 254, Lynchburg ... 846-7117

Wis Carl A Hokans, 7230 W Capital Dr
Milwaukee........................464-8700

TECA CORP, 220 FERRIS AVE, WHITE PLAINS
N Y, 10603........................914 WH 6-4593
J LENCHINER, EMP 28, ENG 3, $500-$1,000M

TECH-ETCH, INC, 10 INDUSTRIAL PARK RD, HINGHAM
MASS, 02043........................617 749-0993
R GURWITCH, EMP 35, ENG 2
Cal Bearings, Seals & Gears Inc, 1650 Broadway
Redwood City........................365-5444
Cal Bearings, Seals & Gears Inc, 20122 Camden St
Glendora........................963-1404
Cal Bearings, Seals & Gears Inc, Box 4200
Torrance........................213 375-8333
Colo Bearings Seals & Gears Inc, 13605 Wide Acres Rd
Golden........................304 238-2411
Fla Geartner Assoc, 350 Lincoln Rd
Miami Beach........................305 531-0200
Fla Geartner Assoc, 2101 Mohawk Trail
Maitland........................305 647-4000
Ill Raymond P Waue, 1739 N 75th Ave
Elmwood Park........................354-7304
Md Bemar Assoc, 120 Derwood Cir
Rockville........................301 762-8880
Mass Geo Miller, 9 Spring St, Waltham........899-1600
NY R P Kennedy Co Inc, 39 Saginaw Dr
Rochester........................716 271-6322
NY R P Kennedy Co Inc, Greentree Dr N
Hyde Park........................914 229-2269
NY R P Kennedy Co Inc, Box 54
Fayetteville........................315 637-9531
Pa Bemar Assoc, 7217A Rising Sun Ave
Philadelphia........................215 728-6333
Va Bemar Assoc, Box 556
Falls Church........................301 762-8880
Wash Bearings, Seals & Gears Inc, 6867 84th Ave, SE
Mercer Island........................232-6070

TECHFORM LABS INC, 707 W WASHINGTON BLVD
VENICE, CAL, 90291........................213 396-4219
J WOOLF, EMP 6, ENG 2, $250-$500M
Ariz Howe & Howe Sales, 4344 E Indian School Rd
Phoenix........................265-9185
Cal Westglas, 739 Bryant St
San Francisco........................SU 1-5967
Cal Raymarg, Box 515, Santa Clara........248-5199
Cal Westglas, 4423 Fruitland, Los Angeles .. LU 8-3211
Cal Westglas, 888 Gull St, San Diego........233-8575
Cal Grove Specialties, 416 N Glendale Ave, Glendale
Ill Rothchild Assoc, 227 Richmond St
Evanston........................DA 8-6910
Kan Kangas Penzner Inc, Box 362
Overland Park........................NI 8-4965
Mass Anderson/Goode Assoc, 1357 Wash St
West Newton........................DE 2-7058
NJ H P Woodit Assoc, Box 475
East Orange........................334-2693
Ore Van Voorhees Assoc, Box 4383
Portland........................BE 2-6633
Utah Westglas, 455 E 2nd S, Salt Lake City....364-5611
Wash Westglas, 2915 1st Ave S, Seattle.....MA 4-7250
For Impex, 3850 W St Barbara Ave
Los Angeles, Cal........................294-1663

TECH LABORATORIES INC, BERGEN & EDSALL BLVDS
PALISADES PARK, N J, 07650........................201 944-2221
M BJORNDAL, EMP 115, ENG 6
ADV PG 664
Ariz Portis & Assoc, POB 3109, Scottsdale....945-4925
Cal Held & Mollard, 1494 Oddstad Dr
Redwood City........................369-4871
Cal Elsner-Rambo Co, 2526 Hyperion Ave
Los Angeles........................321-4257
Colo Engineering Res Assoc, 231 Detroit St
Denver........................377-8306
Conn Edward V Z Lane, Box 301, Cheshire.....272-6081
Ill Ryan & Assoc, 7132 N Harlem
Chicago........................775-5717
La William S Huey, 8726 Oak St
New Orleans........................866-6341
Mass Selmark Assocs, 195 West St, Waltham ..899-8110
Mo M L Seyffert & Assoc, 910 Jefferson St
St Charles........................RA 3-1185
NJ Floyd W Churchill, 50 Upland Way
Haddonfield........................429-7871
NJ Irwin Brill, 326 Hillside Ave, Nutley.....667-0653
NY James K Savage, 124 Kinne Rd
Syracuse........................682-6663
NY Elton Nachman, 37 Park Circle
White Plains........................946-2477
Ohio Midwest Sales Co, 3219 W 117th St
Cleveland........................941-2700
Pa Russell F Clark Co, 10517 Lindberg Ave
Pittsburgh........................242-9500
Pa W F Satterthwaite, 237 N Lansdowne Ave
Lansdowne........................623-5100
Tex Texport Co, 2411 Farrington St, Dallas...ME 1-6270
Utah Cannon Eng & Sales Co, 2250 E 17 South
Salt Lake City........................485-9253
Wash Harry Levinson Co, 1211 E Denny Way
Seattle........................206 323-5100
Can A Deskin Sales Co, 1565 Louvain St
Montreal........................688-1020
Can William Balfour, 25 Valhalla Blvd, Scarborough

TECHMAR CORP, 1124 S BEVERLY DR, LOS ANGELES
CAL, 90035........................213 278-4924
A RADER

TECHMETRIC CO, 2449 HARDING AVE, REDWOOD CITY
CAL, 94062........................415 365-2545
D HANSON
ADV PG 203
Ill Techmetric Sales Co, 245 E Madison
Elmhurst........................312 834-8555

TECHNIBILT CORP, 905 AIR WAY, GLENDALE
CAL, 91201........................213 245-7521
J SAMALION, EMP 200, ENG 1, $2,500-$5,000M
Colo F Y Gates Co, 3401 S Bannock
Englewood........................SU 1-8566
Conn EDCOM Inc, 965 Dixwell Ave
New Haven........................MA 4-7921
Ill R Edw Stemm, Inc, 17 W 480 Lake St, Addison
Md Taylor Engineering Inc, 11 E 21st St
Baltimore........................685-1669
Mass EDCOM Inc, 815 Washington St
Newtonville........................WO 9-9710
Minn R Edward Stemm Inc, 2713 Lyndale Ave S
Mnpls........................822-8404
Mo Engineering Services Co, 6717 Vernon Ave
St Louis........................PA 6-2333
Mo Engineering Services Co, 7546 Troost Ave
Kansas City........................EM 3-6000
NJ SBM Assoc, Inc, 1519 Stuyvesant Ave
Union........................687-8737
NM F Y Gates Co, 2631 Texas NE
Albuquerque........................298-1875
NY SBM Assoc Inc, 1700 University Ave
Rochester........................BR 1-7430
NY SBM Assoc Inc, 5858 E Malloy Rd
Syracuse........................454-9377
NY SBM Assoc Inc, 655 Commerce St
Thornwood........................RO 9-1811
NY SBM Assoc, Inc, 528 Old Country Rd
Plainview........................433-1421
Ohio Ohio Instrument Co, 505 Whitney Rd
Worthington........................885-0743
Tex Southland Sales Co, 4801 Richmond Ave
Houston........................MO 6-1262
Tex Southland Sales Co, 3707 Rawlins St
Dallas........................LA 8-2790
Utah F Y Gates Co, 455 E 4th S
Salt Lake City........................359-1101
Can Bayly Engineering Ltd, Hunt St
Ajax, Ont........................WH 2-1029

TECHNICAL APPARATUS BUILDERS DIV POWER
ALTERNATING DIRECT CORP, 56 PEARL ST
BROOKLYN, N Y, 11201........................212 522-7300
M BLUMBERG, EMP 45, ENG 3, $500-$1,000M

TECHNICAL CERAMIC CORP, 10829 E SLACK RD
SOUTH EL MONTE, CAL, 91733........213 CU 3-6577
L SISSELL, EMP 5, ENG 1, UP TO $100M

TECHNICAL COMPONENTS CO INC, 6633 W 99TH ST
CHICAGO RIDGE, ILL, 66415............312 735-7363
S LANASA, EMP 125, ENG 1, $1,000-$2,500M
Ariz E J Foley & Assoc, 3840 N Jokake Dr
Scottsdale........................945-4290
Cal Nat Nesbitt, 602 S Euclid Ave
Anaheim........................535-2814
Ill Progressive Specialties Co, 185th & Torrence
Lansing........................474-7500
Minn Rohage Co, Box 367, Hopkins............866-2462
NY Hoyt Sales, Inc, 87 Walker St, New York
Ohio Arthur D Lewis, 134 Raff Rd NW, Canton
Tex C C S Butt, Box 18045, Houston

TECHNICAL DEVELOPMENT CO, 305 S CHESTER PIKE
GLENOLDEN, PA, 19036..............215 LU 3-3330
G O'NEAL, EMP 50, ENG 5, $500-$1,000M
Ala R E Stuart, 2516 N Memorial Pkwy
Huntsville........................539-7211
Cal R S Stipanou, 3951 E Huntington Dr
Pasadena........................795-9521
Fla P S Ragan, 211 W Fairbanks
Winter Park........................MI 7-2251
Ga R Templeton, 6427 Roswell Rd, Atlanta ..255-8422
Ill R W Donovan, 3618 W Elm St
McHenry........................385-4220
Md C A Fry, Rockford Bldg, Washington Ave
Baltimore........................VA 3-3350
Mass V N Lamparelli, 235 Bear Hill Rd
Waltham........................891-5640
Mich W J Wentzel, 24634 Five Mile Rd
Detroit........................KE 2-5770
NJ P R Hollenbach, 47 E Blackwell St
Dover........................366-7377
NY A H Haas, 165 Orinoco Dr
Brightwaters........................MO 6-6500
NY P S Montgomery, 6789 Main St
Buffalo........................634-3377
Ohio R D Thirkield, 4 Eswin St, Cincinnati.....825-0930
GB B H Ward, Garth Rd, Morden, Surry......DER 6644

TECHNICAL DEVICES CO, 11242 PLAYA COURT
CULVER CITY, CAL, 90230..............213 870-3751
N KIRK, EMP 40, ENG 3, $250-$500M
Ark Carlton-Bates Co, 1210 E 6th St
Little Rock........................501 375-5375
Cal Weightman & Assoc, 1226 W Olive Ave
Burbank........................213 849-7711
Cal Weightman & Assoc, 120 Santa Margarita
Menlo Park........................415 325-2885
Colo C F L Co, 1391 S Inca St, Denver....303 777-4381
Fla W Ben Wimberly Co, 532 S Fort Harrison
Clearwater........................813 446-7072
Fla W Ben Wimberly Co, 500 S Osceola St
Orlando........................305 425-3083
Ga K & E Assoc, Blue Springs Park
Kennesaw........................404 974-4264
Ill Ringland M Krueger Co Inc, 5755 W Irving Park
Chicago........................312 282-8444
Kan Smith-Williams Co, 13024 Santa Fe
Lenexa........................913 888-3995
Md Berkley Fuller, 11657 Lockwood Dr
Silver Spring........................301 593-6986
Minn Sales Service Machine Tool Co
2363 University Ave, St Paul......612 046-8663
Ohio Perry Lohse & Co, 537 Richmond Rd
Cleveland........................216 381-7788
Tex Robert E Nesbitt Co, 2930 Merrell Rd
Dallas........................214 357-4601
Tex Robert E Nesbitt Co, 4810 Hazard St
Houston........................713 528-3811
Can Paisley Prdts of Canada Ltd, 40 Upton Rd
Scarborough, Ont........................755-2216
For Southern Intl Sales Co, Box 1896, San Juan, P R
Den Ditz Schweitzer A/S, St Kongensgade 59
Copenhagen-K........................15 0057
GB Technical Representation Ltd
Astmoor Industrial Est
Runcorn Cheshire........................PO 2613
Holl Westmercuur Handelmij N/V, Singel 510
Amsterdam........................23 2833
Ital F Lli Pluda S N C, via Vallazze 45
Milano........................292 290
Jap McFarlane Co Ltd, 3 Ginza 2-Chome Chuo-ku
Tokyo........................5141
Swed Elektroholm, Dalvagen 12, Solna.........82-02-80
Swit Baerlocher A G, Box 8021, Zurich.... 051 25 09 36
Isrl Eastronics, 75 Haifa Rd, Tel-Aviv..........446060
Mex Distrimex S A, Ave San Antonio 319-10
Mexico City........................10-01-12
Aust Servo Mechanism Corp
503 Lygon St E Brunswick N, 11 Vic 36 3711

TECHNICAL MATERIEL CORP, 700 FENIMORE RD
MAMARONECK
N Y, 10543, TWX 710-566-1100........914 698-4800
E TUCKER, EMP 1058, OVER $10,000M
Ariz TMC Systems, Inc, 930 W 23rd St
Tempe........................602 966-7248
Cal R J Homer & Assoc, 14436 Sherman Way
Van Nuys........................213 781-1236
Cal Westec Elctns, 110 First St
Los Altos........................415 327-5850
Cal Westec Elctns, 14125 Inglewood Ave
Hawthorne........................213 772-4479
Conn Geist Assoc, Inc, 19 Baywater Dr
Darien........................655-1133
Fla Gentry Assoc, Inc, 6646 Central Ave
St Petersburg........................813 347-5131
Fla TMC Systems W H Inc, Box 1525
Pompano Beach........................305 943-4310
Ill Frank Gassner & Clark, 6644 Northwestern Ave
Chicago........................312 764-6121
La Aeromarine Corp, 1112 Magazine St
New Orleans........................504 522-0217
Mass Techcom Assoc, Box 71
Chelmsford........................617 256-3431
NJ John W Richardt, Rte 46
Pine Brook........................201 227-0600
Tex Dyna Reps, 200 S Grants La
Fort Worth........................817 732-6621
Tex Dyna Reps, 6400 S W Frwy
Houston........................713 782-0311
Va TMC Systems & Power Corp, 6621 Electronics Dr
Springfield........................703 354-7400
Wash Westec Elctns Inc, Box 66521 Burien Branch
Seattle........................206 243-7070
Can TMC (Canada) Ltd, RR 5
Ottawa, Ont........................613 822-0244
Swit TMC Systems AG, Haldenstr 37, Luzern......20144

TECHNICAL OPERATIONS INC, SOUTH AVE
BURLINGTON, MASS, 01803............617 272-2000
$2,500-$5,000M
Cal Technical Oper Inc, 1400 Coleman Ave
Santa Clara........................408 243-1118
Ill Technical Oper Inc, 6124 Milwaukee Ave
Chicago........................312 774-8331

TECHNICAL PRODUCTS CO OF L A
6670 LEXINGTON AVE, LOS ANGELES
CAL, 90038........................213 464-8121
R MOODY, EMP 200, ENG 8, $1,000-$2,500M
Ala Col-Ins-Co, Inc, 2109 W Clinton Ave
Huntsville........................539-1771
Ariz Hyde Electronics Co, Inc, 4710 N 16th St
Phoenix........................264-5609
Cal Tucul Engineering Co, 6402 Crenshaw Blvd
Los Angeles........................750-0338
Cal Howard & Co, 294 Lawrence Ave
S San Francisco........................589-3050
Colo Hyde Electronics Co, Inc, 888 S Lipan St
Denver........................939-3456
Conn H J Schuft Co, Inc, 965 Dixwell Ave
New Haven........................865-1365
Fla Col-Ins-Co, Inc, 1313 44th St, Orlando ...423-7615
Ga Col-Ins-Co, Inc, 418-A Armour Cir, NE
Atlanta........................873-5118
Md Gawler-Knoop Co, 1751 Rockville Pike
Rockville........................427-3950
Md Gawler-Knoop Co, 807 E Seminary Ave
Towson........................825-3151
Mass H J Schuft Co, Inc, 815 Washington
Newtonville........................527-5304
Mich Anderson Electronics Co
19471 James Couzens Hwy, Detroit....342-7133
Miss Col-Ins-Co, Inc, Box 1292, Bay St Louis ..833-1116
NJ Gawler-Knoop Co, 14 Beaufort Ave
Roseland........................CA 6-4545

NM	Hyde Electronics Co, Inc 5206 Constitution Ave, NE Albuquerque	265-8895
NC	Col-Ins-Co, Box 5597, Winston-Salem	765-3650
Ohio	Measurement Instruments, Inc, 2074 Arlington Ave Columbus	488-9753
Ohio	Measurement Instruments, Inc, 19115 Detroit Rd Cleveland	333-6611
Ohio	Measurements, Inc, 338 Ridgeway Cincinnati	531-2729
Okla	Southwest Electronics Industries, Box 15796 Tulsa	835-2481
Pa	Gawler-Knoop Co, Box 414, Richboro	925-7550
Pa	Measurement Instruments, Inc, 908 Perry Hwy Pittsburgh	366-1906
Tex	Southwest Electronics Industries, Meadows Bldg Dallas	363-1671
Tex	Southwest ElctnsIndustries, 1405 S Post Oak Rd Houston	621-3760
Can	Beechey Assoc, 3218 West Rd Weston, Ont	244-8051
Fr	Imex-France, 2 Rue Novoiseau Montreuil-sous-Bois, Seine	808-19-20
GB	Environmental Equip Ltd, Denton Rd Wokingham Berks	1502
Jap	A R Brown, McFarlane & Co, Inc 3, Ginza 2-Chome, CHuo-Ku, Tokyo	561-5141
Swed	Erik Ferner AB, Box 56, Bromma	25 28 70
Swit	Omni Ray AG, 8008 Zurich Dufourstr 56	(051) 47-82-00
Aust	Jacoby, Mitchell & Co, Ltd, 469 Kent St Sydney, N S W	62-8411
Aust	Jacoby, Mitchell & Co, Ltd, 15 Abbotsford St North Melbourne Vict	
Aust	Jacoby Mitchell Electronics, 652 South Rd, Glandore	

TECHNICAL SERVICE CORP, 2618 S FOURTH ST
LOUISVILLE, KY, 40208 ... 502 636-1496
M SNEAD, EMP 10

TECHNICAL TAPE CORP, 240 NORTH AVE
NEW ROCHELLE, N Y, 10801 ... 914 BE 5-1000
R HEINTZ, EMP 2000, ENG 12, OVER $10,000M

Cal	Technical Tape Corp, 15715 Heron St La Mirada	868-0861
Ill	Technical Tape Corp, 2801 W Grant St Bellwood	800 323-3692

TECHNICAL WIRE PRODUCTS INC, 129 DERMODY ST
CRANFORD
N J, 07016, TWX 710-996-5961 ... 201 272-5500
E STEEL, EMP 125, ENG 15, $1,000-$2,500M

Ariz	Williams Assoc, 1110 E McDowell Rd Phoenix	602 254-6085
Cal	El-Com Sales Co, 3600 Motor Ave Los Angeles	870-4707
Cal	James S Heaton Co, Box 2087 Menlo Park	369-4671
Cal	Technical Wire Prods Inc, 427 Olive St Santa Barbara	805 963-1867
Colo	Williams Assoc, 4971 Jackson St Denver	388-4391
Fla	Willett-Burnside Co, 1260A S Highland Ave Clearwater	446-0075
Ill	J C Angel & Co, 2743 W Peterson Ave Chicago	878-0653
Iowa	Engineering Services Inc, 1026 3rd Ave SE Cedar Rapids	366-1591
Kan	Engineering Services Inc, 7924A State Line Prairie Village	649-4000
Md	Kaufholz Assoc, Box 6232, Baltimore	488-6561
Mass	Gerald Rosen Co Inc, 563 Worcester Rd Natick	655-2211
Minn	Bonament Heyda Co, 3830 Rustic Pl St Paul	484-8531
Mo	Engineering Services Inc, 6717 Vernon Ave St Louis	726-2233
NM	Williams Assoc, 420 Washington S E Albuquerque	255-1638
NY	Trionic Assoc, 320 Northern Blvd Great Neck	466-2300
NY	C Floring & H Murray Inc, 6585 Kinne Rd Syracuse	446-5555
Ohio	Augey Natalino Assoc, 209 Harmony Hills Rd Akron	666-1447
Ohio	Augey Natalino Assoc, 333 W 1st St Dayton	223-5002
Pa	Kaufholz Assoc, Box 227, Newtown Sq	356-5000
Pa	Augey Natalino Assoc, 530 Sixth Ave Pittsburgh	281-8283
Tex	Corwin Assoc Inc, Box 18112, Dallas	348-4623
Utah	Williams Assoc, 2461 S Main St Salt Lake City	466-8709
Wash	G M Gillett & Assoc, Box 99035 Seattle	284-3344
Can	David R Beattie Ltd, 1260 Lakeshore Rd E Port Credit	274-3445
Fr	Altoflex-France, 34 Rue des Maraichers Paris 20	628 46 85
GB	Stephenson, Mills Ltd, 448 Basingstoke Rd Reading, Berks	84571

TECHNIC INC, 88 SPECTACLE ST, CRANSTON
RI, 02910, TWX 701 381-1508 ... 401 ST 16100
A WEISBERG, EMP 55, ENG 10, $5,000-$10,000M
ADV PG 479

Ill	Technic Inc, 7001 N Clark St, Chicago	AM 2-2662
GB	Silvercrown Ltd, 660 Ajax Ave, Bucks, Slough	

TECHNICON CORP, ARDSLEY
N Y, 10502, TWX 914-693-2028 ... 914-OW 3-1000
J EVANS, EMP 800, ENG 50, OVER $10,000M

TECHNIPOWER INC, SUB BENRUS WATCH CO INC
BENRUS CENTER, RIDGEFIELD
CONN, 06877, TWX 710 450 3631 ... 203 438-0333
R ECK, EMP 250, ENG 20, $2,500-$5,000M
ADV PG 544

Cal	Luscombe Engineering Co, 610 S Arroyo Pky Pasadena	648-2000
Cal	Luscombe Engineering Co, 213 E Third Ave San Mateo	342-7057
Colo	Aztec Enterprises, 3385 S Bannock Englewood	345-3441
Conn	Abbott-Allison Co, Box 467, Meriden	237-9232
Fla	Floyd Fausett & Co, Inc, 685 Selkirk Dr Winter Park	644-6672
Ga	Floyd Fausett Co, Inc, 2264 Melinda Dr NE Atlanta	633-3561
Ill	Crest Assoc, 7001 N Clark St, Chicago	274-2640
Kan	Technical Mktg Assoc, 5827 Outlook Mission	TE 1-2888
Md	Whitcomb Assoc, 730 Deepdene Rd Baltimore	TU 9-1245
Mass	Abbott-Allison Co, Box 96 North Andover	245-0250
Mich	Chandler Assoc, 32401 W Eight Mile Rd Livonia	476-5800
Minn	R J Sales & Eng, 7100 S France Ave Mnpls	922-1425
Mo	Technical Marketing Assoc, 2050 Woodson Rd St Louis	427-3600
NJ	Instrumentation Sales Co Inc, Box 403 Ridgewood	GI 5-5210
NY	R P Kennedy & Co Inc, Box 8417 Rochester	BR 1-6322
NY	R P Kennedy & Co Inc, Box 56 Fayetteville	NE 7-9531
NY	R P Kennedy & Co Inc, Green Tree Dr N Hyde Park	229-2269
Ohio	Chandler Assoc, 9701 Brookpark Rd Cleveland	661-9835
Tex	Scientific Sales Co, 777 S Central Expwy Richardson	AD 1-6541
Tex	Scientific Sales Co, 6400 Westpark Dr Houston	781-2711
Wash	Assoc Industries, 3711 S Hudson St Seattle	PA 3-5600
Can	BRH Assoc, Ltd, 6338 Victoria Ave Montreal	733-5331
Can	BRH Assoc, Ltd, 1300 Carling Ave Ottawa, Ont	728-0113
Can	BRH Assoc, Ltd, 184 Finch Ave W Willowdale, Ont	223-4008
For	Frathom Co, 202 E 44th St, New York	MU 7-9390
Swit	Benrus Technical, 22 Av des Planches 1820 Montreux	021 623 651

TECHNIQUES, INC, 235 JACKSON ST, ENGLEWOOD
N J, 07631 ... 201 569-5900
L SILVAN, EMP 75, ENG 5

Conn	R H Robinson Co, Box 368 Coventry	203 742-7323
Fla	Scott & Assoc, Inc, 101 Executive Center Dr Orlando	841-4840
Mass	R H Robinson Co, Hangar 4, Hanscom Fld	Bedford
NY	Advanced Components Inc, 119 Luther Ave Liverpool	315 472-7886
Pa	H J Heffernan Co, Box 395 Fort Washington	215 VE 6-4411
Vt	R H Robinson Co, Grafton	802 869-3656
Va	H J Heffernan Co, 1123 N Irving St Arlington	703 JA 2-6666

TECHNI-RITE ELECTRONICS INC, 65 CENTERVILLE RD
WARWICK, R I, 02887 ... 401 737-2000
E PIZZUTI, EMP 85, ENG 10, $1,000-$2,500M

Ala	Technical Assoc, Box 1443 Huntsville	205 881-8494
Alas	Arva Inc, Box 759, Anchorage	907 272-5231
Cal	Techni-Rite Electronics, 6363 Wilshire Blvd Los Angeles	653-2562
Cal	Electronic Engrg Assoc, Box 997 San Carlos	415 593-2189
Cal	IFM-South, 3455 Cahuenga Blvd, Los Angeles	
Fla	Technical Assoc, 2319 E South St Orlando	305 424-5681
Haw	Industrial Elctns Inc, 616 Queen St Honolulu	506095
Ill	Systems Engrg Assoc, 6253 Milwaukee Ave Chicago	312 252-5437
Ind	Systems Engrg Assoc, 1010 E 86th St Indianapolis	317 846-2593
La	Technical Assoc, Box 731, Slidell	504 288-7122
Md	Burlingame Assoc, 1749 Rockville Pike Rockville	301 427-1255
Mass	Burlingame Assoc, 7 Wellington Ave Waltham	617 TW 4-1955
Minn	Systems Engrg Assoc, 8633 Harrison S Minneapolis	612 729-6161
NY	Brooks Delektro Inc, 41 E 42nd St New York	212 687-4940
Ore	Arva Inc, 2035 SW 58th Ave Portland	503 292-8762
Pa	Burlingame Assoc, 416A Barclay Ave Bala Cynwyd	215 835-2080
SC	Technical Assoc, Box 5583 Spartanburg	803 585-3864
Va	Technt-Rite Electronics, Inc, Box 394 Vienna	528-8300
Wash	Arva Inc, 1320 Prospect St, Seattle	206 622-0177
Fr	Equipements Scientifiques, 35 Chemin des Roses 92 Suresnes	
Ital	Mario Vianello, Via L Anelli 13, Milan	
Swit	Metravel SA, Chemin de la Dode, Onex Geneve	
BC	Arva Inc, 1624 W 3rd Ave Vancouver 9, B C	604 736-6377

TECHNI-TOOL INC, 1216 ARCH ST, PHILADELPHIA
PA, 19107 ... 215 LO 8-4457
W BEZAR, EMP 25

TECHNITROL INC, 1952 E ALLEGHENY AVE, PHILADELPHIA
PA, 19134, TWX 834 245 ... 215 GA 6-9105
EMP 936, ENG 51, OVER $10,000M
ADV PG 249, 740

Cal	Technitrol Inc, Box 297, La Mirada	944-4993
Fla	Geartner Assoc, Inc, 350 Lincoln Rd Miami Beach	531-0200
Fla	Geartner Assoc, 2101 Mohawk Trail Maitland	647-4000
Ill	Robert J Kennedy, 6713 N Oliphant Ave Chicago	NE 1-8283
Mass	Normell Assoc, 10 Day St, Auburndale	969-5478
Mich	Sheridan Assoc, 25625 Southfield Southfield	358-3333
Minn	International Sales, 8703 Beard Rd Minneapolis	881-6683
Mo	Sheridan Assoc, Inc, 10137 W Florissant Ave St Louis	524-4800
NJ	Howard Kagan, 18 Tilghman Dr, Wayne	684-7682
NY	S A M Assoc, 150-08 87th Ave Jamaica	OL 8-8881
NY	Elec Prod Sales Co, 1 Butternut Dr Pittsford	381-1137
Ohio	Sheridan Assoc, Inc, 10 Knoll Crest Dr Reading	761-5432
Ohio	Sheridan Assoc, Inc, 6368 Pearl Rd Cleveland	884-2001
Ohio	Sheridan Assoc, 26 W Nottingham Rd Dayton	277-8911
Ohio	Sheridan Assoc, Inc, 201 Penn Center Blvd Pittsburgh	243-6655
For	Sylvan Ginsbury Ltd, 72 W 45th St New York, NY	MU 7-3213

TECHNO-COMPONENTS CORP, 7803 LEMONA AVE
VAN NUYS
CAL, 91405, TWX 910-495-2015 ... 213 781-1642
D PARMALEY, EMP 190, ENG 3, $1,000-$2,500M

Ariz	Southwest Engineering, 8341 N 7th St Phoenix	944-1521
Cal	McKnight Co, 115 Spruce Ave Menlo Park	325-2844
Cal	Elsner-Rambo Co, 2526 Hyperion Ave Los Angeles	664-2928
Colo	I W Strong & Assoc, 635 Canosa Ct Denver	292-6900
Conn	Vector Sales, Inc, 662 Bridgeport Ave Milford	874-2112
Fla	Oak Electro/Netics Corp, 1040 Bayview Dr Ft Lauderdale	305 563-2681
Ill	R L Hanna Co, 540 N Cummock Rd Palatine	358-3940
Md	Biechler Assoc, 7353 Yorktowne Dr Baltimore	825-8222
Md	Biechler Assoc, 822 Baltimore Rd Rockville	710 232-1850
Mass	Vector Sales, Inc, 774 Pleasant St Belmont	617 489-1400
Minn	Lloyd F Murphy Assoc, 730 Chicago Ave Minneapolis	333-4511
Mo	Ridgewood Sales Co, 1225 Tahiti Dr St Louis	314 961-0992
NJ	Robert Horne Assoc, Box31 Pompton Lakes	201 835-7400
NY	William J Wall Co, Rt 52, Fishkill	831-6480
NY	James M Glass Assoc, 220 Delaware Ave Buffalo	716 856-9272
Ohio	A H Baier Co & Assoc, 4399 Industrial Pkwy Willoughby	946-6080
Ohio	A H Baier Co & Assoc, 3300 S Dixie Dr Dayton	298-9897
Pa	Biechler Assoc, Box 414, Narberth	215 667-1827
Tex	W Pat Fralia Co, Inc, 6100 Camp Bowie Blvd Fort Worth	738-2002
Wash	Hamilton Electro of the Pacific, 2320 6th Ave Seattle	624-5930
Can	E G Lomas, Ltd, 227 Laurier Ave W Ottawa, Ont	232-7106

TECHNOLOGY INC, 7400 COL GLENN HWY, DAYTON
OHIO, 45431 ... 513 426-2405

TECHNOGRAPH, INC, WINSTON-SALEM
N C, 27103 ... 919 723-0767
H SHORTT, EMP 100, ENG 10, $100-$250M

TECHNOLOGY INSTRUMENT CORP SUB BOWMAR
INSTR CORP, 850 LAWRENCE DR, NEWBURY PARK
CAL, 91320, TWX 910-336-1265 ... 805 498-2161
H BAUER, EMP 260, ENG 18, $250-$500M

Ariz	Gramer & Co, 110 W Camelback Rd Phoenix	279-1231
Cal	Winco Inc, 257 Castro St Mountain View	961-8510
Cal	Technology Instr Corp, 3407 W Olive St Burbank	843-4545
Fla	Massey Assocs, Inc, Box 13577 St Petersburg	347-6183
Ill	M Q & Assoc, 6713 N Oliphant Ave Chicago	744-8844
Ind	Bowmar Instrument Corp, 8000 Bluffton Rd Ft Wayne	747-3121
Ind	Bowmar Instrument Corp, 8000 Bluffton Rd Ft Wayne	747-3121
Md	Doss Electronics Inc, 6660 Security Blvd Baltimore	944-1900
Mass	Foster C Kneeland Assoc, 67 Brockton Ave Haverhill	372-5354

Minn H A Cullen & Assoc, 1595 Selby Ave
St Paul 646-7371
Mo Pem Sales Co, 9537 Lackland Rd
St Louis .... HA 7-7200
NJ Bowmar Instrument Corp, 40 Grove St
Somerville 526-0400
NY R P Kennedy Co Inc, 15 Warrington Dr
Rochester 271-6322
NY Bowmar Instrument Corp, 75 Plandome Rd
Manhasset .... MA 7-8790
Ohio Technology Instr Corp, 3300 S Dixie Dr
Dayton .... AX 9-0212
Ohio Frank J Campisano, 3985 Race Rd
Cincinnati 662-1616
Can Bowmar Instrument Corp, 4797 Clemenceau St
Chemedey, Que 681-5020
GB Bowmar Instrument Ltd, Drakes Way
Swindon, Wiltshire

TECHNOLOGY/VERSATRONICS INC, 506 S HIGH ST
YELLOW SPRINGS
OHIO, 45387, TWX 810-450-2620 ...... 513 767-7366
R MASSA, EMP 20, ENG 10, $500-$1,000M
Ariz Electronic Mfrs Consultants, 1112 W Mission La
Phoenix 602 997-8049
Cal Technology Inc, 8820 S Sepulveda Blvd
Los Angeles 670-8787
Cal Tekmar Instr Inc, 901 Dover Dr
Newport Beach 714 540-4435
Colo Electronic Mfrs Consultants, 1619 N Royer
Colorado Springs 303 636-5131
Ill Olson Engrg & Sales Corp, 1921 N Harlem Ave
Chicago 312 622-9777
Mo Cal-Aero Engrg Co, 210 Humes La, Florissant
NJ NLR Assoc, 617 Bloomfield Ave
Verona 201 239-4747
Ore Richard Legg Co, 4475 SW Scholls Ferry Rd
Portland 503 292-8824
Pa NLR Assoc, 529 Shoemaker Rd
Philadelphia 215 224-1663
Tex Technology Inc, 5731 Gulf Fwy
Houston 926-1484
Va Technology Inc, 6461 Edsall Rd
Alexandria 354-6311

TECH-OHM ELECTRONICS INC, 36-11 33RD ST
LONG ISLAND CITY, N Y, 11106 .... 212 786-2274
B FUTCH, EMP 135, ENG 2, $1,000-$2,500M
Cal El-Kap Sales Co, 2808 Santa Monica Blvd
Santa Monica 451-9881
Ga K & E Assoc, Blue Springs Mobile Home Pk
7A Rte 2 Kennessaw 404 974-4264
Ill M Q & Assoc, 6713 N Oliphant Ave
Chicago 774-8844
Md Be-Mar Assoc, 120 Derwood Cir, Rockville
Mass Near, Inc, 99 Highland Ave
Somerville .... PR 6-2262
Mich Hilltronics Inc, 13720 Puritan Ave
Detroit .... BR 2-4320
NJ Be-Mar Assoc, 7217 Rising Sun Ave
Philadelphia, Pa RA8-6333
Ohio John Cutts Sales Co, 24039 Ambour Dr
North Olmsted 216 777-0992
Va Be-Mar Assoc, Box 556, Falls Church
Wis M Q Assoc, 6312 S 27 St, Oak Creek

TECHRAND CORP OF AMERICA, 2044 HENRY ST
MUSKEGON, MICH, 49441 .... 616 755-2216
R THOMPSON, EMP 7, ENG 3, UP TO $100M

TECHRON CORP, 20 SIMMONS ST, BOSTON
MASS, 02120 .... 617 445-2150
G GANJIAN, EMP 51, ENG 2, $250-$500M

TECH SERV INC, 5451 HOLLAND DR, BELTSVILLE
MD, 20705 .... 301 474-2900
F GOODWIN, EMP 40, ENG 4, $500-$1,000M
Ill Tech Serv, Inc, 1353 N State Pkwy
Chicago 337-1311
NM Tech Serv, Inc, Box 127, Alamogordo 437-7590

TECHSONICS, BOX 1215, TAOS
N M, 87571 .... 505 758-4555
A SOWERS, EMP 8, ENG 2, $250-$500M
Ga Floyd Fausett & Co Inc, 2264 Melinda Dr NE
Atlanta 404 633-3561
Ill Sherertz-Henderson Co, 5707 W Lake St
Chicago 312 261-1032
Ind Delta Sales, 1407 N Illinois St
Indpls 317 631-4136
Mass R J Zygadlo, Box 14, Rockland 617 878-6294
Mich King Sales Corp, 12638 Woodrow Wilson Ave
Detroit 313 868-2123
Mo Fennco, 3800 Summit, Kansas City .. 816 531-2551
NJ Howard W. Johnson, Box 428
Summit 201 273-2434
NY H J Rittenhouse Co, 291 Howland Ave
Rochester 716 442-1380
Ohio King-Gage Sales Corp, 3432 Memphis Ave
Cleveland 216 661-7010
Pa Research Appliance Co, Rte 8 & Craighead Rd
Allison Park 412 961-0588
Pa W J Gallaher Controls, 510 Penna Ave
Ft Washington 215 646-5710

TECNICA ELETTRONICA SYSTEMS S A S
VIA MOSCOVA 40/7, MILAN, ITALY 667326
E CREMONA, EMP 34, ENG 4, $250-$500M
Ital p i Sergio Pandini, Via Francesco Redi, 3
Roma 869202

TE COMPANY, 505 E MONTECITO ST
SANTA BARBARA, CAL, 93103 .... 805 966-7136
M GROVER, EMP 26, ENG 10, $500-$1,000M
DC James Guttridge, 2125 R St, NW
Washington 202 667-2730
Mass Harold Fienman, 251 Harvard St
Brookline 617 232-6687

TEC SEAL CORP, 22624 AVALON BLVD, WILMINGTON
CAL, 90744 .... 213 775-2611
R GARDNER, EMP 11, ENG 3, $250-$500M
Ariz Rex Ingram, 1748 E Claremont
Phoenix .... 602 AM 5-7021
Colo Haskel Engrg, 2262 Broadway
Denver 303 744-6656
Ill Tech-Syn Corp, 225 E Prospect
Mt Prospect 312 744-1600
Md Beemer Engrg Co, 2103 Fountainhill
Baltimore 301 252-1705
Mich Roger Zatkoff Co, 15110 Plymouth
Detroit 313 273-6800
NJ Beemer Engrg Co, 1865 Morris
Union 201 686-0834
NY Beemer Engrg Co, 122 E 42nd St
New York 212 697-3860
NY Beemer Engrg Co, 67 Oakgrove Dr
Williamsville 716 632-4363
NY Beemer Engrg Co, 108 Dawley Rd
Fayetteville 315 446-5197
Pa Beemer Engrg Co, Industrial Pk
Ft Washington .... 215 MI 6-8440
RI J Royal Co, 40 Bay Spring
W Barrington 401 245-5500
Tex J Oechsner, 2402 Inwood Rd
Dallas .... 214 ME 1-0402
GB High Temperature Engrg, 67D High St
Fareham, Hants .... Fareham 2352
Swit Gummi Maag AG, 8051 Zurich, Ueberlandstr 241

TEDFORD CRYSTAL LABS, INC, 4914 GRAY RD
CINCINNATI
OHIO, 45232, TWX 810-461-2476 ...... 513 542-5555
W CHIDESTER, EMP 160, ENG 4, $500-$1,000M

TED MFG CORP, 11415 JOHNSON DR
SHAWNEE MISSION, KANS, 66203 ....913-ME 1-6211
E MCGRADE, ENG 4, $500-$1,000M
Conn R B Scanlon, 10 Halliwell Dr, Stamford .. 325-2718
Minn K L Tannehill, 7800 Computer Ave
Mnpls 927-5681
Ohio Hugh Stobbs, 2279 Seminole Ave, Springfield

TEIKOKU TSUSHIN KOGYO CO, LTD
335 NISHINAKAMACHI, KARIYADO, KAWASAKI CITY
JAPAN 044 42-3171
A OHTA, EMP 2500, ENG 300, OVER $10,000M
Jap Teikoku Tsushin Kogyo Co Ltd
2863-1, Yamadashita, Suita City 06-878 0657

T & E INDUSTRIES, INC, 260 PENNSYLVANIA AVE
HILLSIDE, N J, 07205 .... 201 351-6262
V ALBANO, EMP 100, ENG 6, $1,000-$2,500M
Ariz E J Foley & Assoc, 3840 N Jokake Dr
Scottsdale 945-2665
Cal Alan Davis & Assoc, 1907 Valleta Dr
San Pedro 574-1288
Ill Escor Assoc, 6580 N Northwest Hwy
Chicago 763-1570
Mass Tecsales Corp, 52 N Washington St
North Attleboro 617 695-9402
NJ R H B Sales, 65 Carpenter St
Belleville 751-1415
Ohio Jay Engineering Co, 4712 W 130th St
Cleveland 252-0486
SC G E Younginer Assoc, 249 Lancewood Rd
Columbia 803 256-1358
Tex Texas-Scott Tech Sales, 6636 Brian Cove
Dallas 214 352-7698

TEINER CO INC, ROLAND, 134 TREMONT ST, EVERETT
MASS, 02149 .... 617 387-7800
K SOWDON, EMP 50

TEKFORM PRODUCTS CO SUB BLISS & LAUGHLIN
INDUS, 2780 CORONADO ST, ANAHEIM
CAL, 92806 .... 714 630-2340
K SATOR, EMP 65, ENG 3, $500-$1,000M
Cal G E Woods Assoc, 2415 S Manchester Ave
Anaheim 714 633-9370
Cal G E Woods Assoc, 1184 Los Altos Ave
Los Altos 415 941-3343
Cal G E Woods Assoc, 7969 Engineer Rd
San Diego 714 279-7120

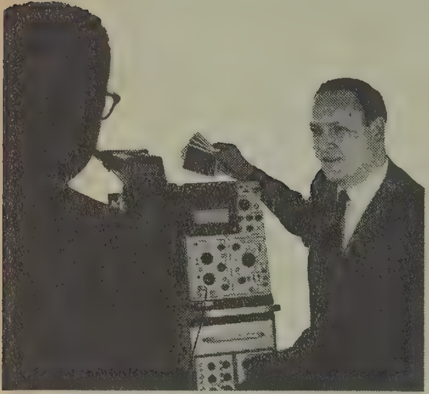
TEKNA PRODUCTS CO, 82 ST PAUL ST, ROCHESTER
N Y, 14604 .... 716 232-1291
J KLING, EMP 135, ENG 6, $1,000-$2,500M
Cal Bivar Co, Inc, 725 Loma Verde Ave
Palo Alto 327-1202
Conn Joe Peyser, Box 656
Newton, Lower Falls 969-9523
Fla Sproch Sales Co, 3321 W Broward Blvd
Ft Lauderdale 587-3792
Ill D J M Elect Sales Co Inc, 5356 N Milwaukee Ave
Chicago 774-1212
Minn Servco, 521 7th St, Minneapolis 612 339-8611
Pa W Reeves Assoc, 2973 N Providence Rd
Media 215 566-6709

TEKNI-LABELS CO, 8160 ORION AVE, VAN NUYS
CAL, 91406 .... 213 782-9901
R ANDREW, EMP 5, UP TO $100M

TEK-SEL LABS INC, 440 N MIDLAND AVE
SADDLE BROOK
N J, 07662, TWX 710-988-2288 .... 201 791-5545
G SCHOENBERG, EMP 15, ENG 3, $250-$500M

TEKTRONIX INC, BOX 500, BEAVERTON
ORE, 97005, TWX 503-291-6805 .... 503 644-0161
K WILLIAMS, EMP 7200, OVER $10,000M
ADV PGS; 462, 463, 1348
Ala Tektronix Inc, 3322 S Memorial Pkwy
Huntsville 205 881-2912
Ariz Tektronix Inc, 7045 E Camelback Rd
Scottsdale 602 946-4273
Cal Tektronix Inc, 3750 Fabian Way
Palo Alto 415 326-8500
Cal Tektronix Inc, 6150 Mission Gorge Rd
San Diego 714 283-6225
Cal Tektronix Inc, 1722 E Rose Ave
Orange 714 633-3450
Cal Tektronix Inc, 16930 Sherman Way
Van Nuys 213 987-2600
Cal Tektronix Inc, 1709 Mt Diablo Blvd
Walnut Creek 415 935-6101
Cal Tektronix, Inc, 1310 Santa Barbara St
Santa Barbara 805 963-1848
Cal Tektronix Inc, 1525 S Garfield Ave
Alhambra 213 576-1601
Colo Tektronix Inc, 2120 S Ash St
Denver 303 757-1249
Conn Tektronix Inc, 125 Strawberry Hill Ave
Stamford 203 325-3817
Conn Tektronix Inc, 809 Main St
East Hartford 203 289-8695
Fla Tektronix Inc, 1010 Executive Center Dr
Orlando 305 841-2382
Fla Tektronix Inc, Cape Kennedy 636-0343
Ga Tektronix Inc, 1680 Tullie Circle NE
Atlanta 404 633-0344
Ill Tektronix Inc, 400 Higgins Rd
Park Ridge 312 825-6666
Ill Tektronix, Inc, 119 E Ogden Ave
Hinsdale 312 325-3050
Ind Tektronix Inc, 3937 N Keystone Ave
Indpls 317 546-2408
Kan Tektronix Inc, 5845 Horton
Mission .... 913 HE 2-1003
Md Tektronix Inc, 1045 Taylor Ave
Towson 301 825-9000
Md Tektronix, Inc, 1500 E Jefferson St
Rockville 301 427-0700
Mass Tektronix Inc, 244 Second Ave
Waltham 617 894-4550
Mich Tektronix Inc, Box 363, Southfield 313 358-3122
Minn Tektronix Inc, 7515 Wayzata Blvd
Mnpls 612 545-2581
Minn Tektronix Inc, 4930 W 77th St
Edina 612 920-1860
Mo Tektronix, Inc, 119 N Harvey
St Louis .... 314 JA 4-0900
NJ Tektronix Inc, 909 Kings Hwy N
Cherry Hill 609 667-4333
NJ Tektronix Inc, 964 S Springfield Ave
Springfield 201 379-1670
NM Tektronix Inc, 1258 Ortiz Dr, SE
Albuq 505 268-3373
NY Tektronix Inc, Box 155, Syracuse 315 455-6666
NY Tektronix Inc, 965 Maryvale Dr
Buffalo 716 633-7861
NY Tektronix Inc, 125 Mineola Ave
Roslyn Hgts .... 516 HT 4-2300
NY Tektronix Inc, 12 Raymond Ave
Poughkeepsie 914 471-3620
NY Tektronix Inc, 3214 Watson Blvd
Endwell .... 607 PI 8-8291
NC Tektronix Inc, 1011 Homeland Ave
Greensboro 919 274-4647
Ohio Tektronix Inc, 5562 Pearl Rd
Cleveland 216 884-6558
Ohio Tektronix Inc, 3309 Office Pk Dr
Dayton 513 293-4175
Ohio Tektronix Inc, 12 W Selby Blvd
Worthington 614 888-4040
Pa Tektronix Inc, 126 Presidential Blvd N
Bala-Cynwyd .... 215 TE 9-3111
Pa Tektronix Inc, 3834 Northern Pike
Monroeville 412 351-3345
Tex Tektronix Inc, 2600 Stemmons Frwy
Dallas .... 214 ME 1-4560
Tex Tektronix Inc, 3723 Westheimer
Houston .... 713 NA 2-8141
Tex Tektronix Inc, 8031 Broadway
San Antonio .... 512 TA 6-0686
Utah Tektronix Inc, 65 W 2950 S
Salt Lake City 801 484-8501
Va Tektronix, Inc, 201 Lincolnia Rd
Alexandria 703 751-6096
Va Tektronix, Inc, 618C Dresden Dr
Newport News 703 595-3301
Wash Tektronix Inc, 410 Baker Blvd
Seattle .... 206 CH 3-2494
Wis Tektronix Inc, 2421 N Mayfair Rd
Milwaukee 414 476-6850
Can Tektronix Canada Ltd, 5050 de Sorel St
Montreal 514 731-3761
Can Tektronix Canada Ltd, 1177 Finch Ave W
Downsview 416 638-6404
Can Tektronix Canada Ltd, 28A Northside Rd
Ottawa, Ont 613 828-5171
Fr Relations Tech Intercontinentales
166, Ave Berthelot, (69) Lyon 7 .... (78) 72.00.70
Fr Relations Tech Intercontinentales
11, Ave Valdiletta, (6) Nice .... (93) 84.05.93

Your nearby Tektronix Field Engineer can help solve your measurement problems



Selection — Completely familiar with the Tektronix line of laboratory oscilloscopes and associated instruments, the field engineer can quickly determine which instrument will best suit your measurement needs. Whether you need a plug-in oscilloscope, a portable or a specialized oscilloscope, he can help you make a practical choice for the job.

Operation — Your nearby Tektronix field engineer can help you learn the operation of your oscilloscope, and get the most out of it for your particular measurement situation. He can slant operational training to a professional, technical or semi-technical level, and instruct individual or groups of engineers.

Application — The field engineer's specialty is knowing how to measure electrical and physical phenomena and present this information as a useful display on the oscilloscope. Besides saving you time, he can help you produce the most meaningful data from the particular application, whether in R&D, production or service.

Maintenance — The field engineer can help you establish your own maintenance facility, conduct maintenance courses in your plant or arrange to enroll your personnel in a factory training course. And he can make arrangements for repair, modification or recalibration of your oscilloscope at one of more than 20 Tektronix Service Centers in the U. S.

Tektronix, Inc.

P.O. Box 500
Beaverton, Oregon 97005

Fr Relations Tech Intercontinentales
134, Ave de Malakoff, Paris XVI 727-43.09
Fr Relations Tech Intercontinentales, 6, Ave Barthou
(35) Rennes ....(99) 00.84.42
Fr . Relations Tech Intercontinentales, 15 rue Jos Vie
(31) Toulouse ....(61) 42.04.50
GB Tektronix UK Ltd, Beaverton House, Sta Approach
Harpenden .... HA 6-1251
Jap Sony/Tektronix Corp, Box 14 Haneda Airport
Tokyo 03 493-3311
Swit Tektronix Intl AG, Alpenstr 9
6300 Zug 042-49192
BC Tektronix Canada Ltd, 2180 W Broadway
Vancouver 604 736-0265
Aust Tektronix Australia Pty Ltd, 4-14 Foster St
Sydney, NSW 211-2666
Aust Tektronix Aust Pty Ltd, 67 Queen's Rd
Melbourne, Vict. 51-1592
Aust Tektronix Aust Pty Ltd, 128 Gilles St
Adelaide. 23-2811

TEK-WAVE INC, RAYMOND RD, PRINCETON
N J, 08540 .... 609 921-8910
S LEHRFELD, EMP 12, ENG 2
Cal Blair Assoc, 421 N Brookhurst St
Anaheim. 714 635-1350
Cal Townsend Technical Sales, Box 265
Saratoga. 408 252-3478
Fla C E Snow Co, 2400 E Oakland Park Bldg
Ft Lauderdale. 305 563-2448
Md C E Snow Co, 10442 Baltimore Ave
Beltsville 301 345-2211
Mass John Q Neenan Assoc, Box 203
Sudbury 617 485-7100
NJ John W Richardt Co, Rte 46
Pine Brook. 201 227-0600
NY J D Ryerson Assoc Inc, Box 8369
Rochester. 716 442-1900
Pa C E Snow Co, 258 N Main St
Ambler 215 224-2626
Tex Spacetronics Inc, 4515 Prentice St
Dallas. .... 214 EM 8-1215
Can Electrodesign Ltd, 9124 St Lawrence Blvd
Montreal Que 514 389-5914
Fr Polarad France, 85 r Peri
Montrouge 92 735-19-19
Ger Wacker GMBH, Stettenstr 9, 6 Frankfurt .. 55-53-54

TELAUTOGRAPH CORP, 8700 BELLANCA AVE
LOS ANGELES, CAL, 90045 .... 213 678-4756
W GRAHAM, EMP 275, ENG 8, $5,000-$10,000M
Ga Telautograph Corp, 443 Plasamour Dr NE, Atlanta
Ill Telautograph Corp, 44 Madison St, Oak Park
Mass C Atkins, 950 Boylston St, Newton Highlands
NJ Telautograph Corp, 7 S Springfield Ave, Springfield
Tex Telautograph Corp, 3410 Marquart St, Houston
Can Telautograph Corp, 523 The Queensway, Toronto, Ont
Fr Cie Gen de Constructions, 17119 Cite Canrobert
Paris, 15
GB Telautograph Corp, 6 Princesway, Wallesey

TEL-COM INSTRUMENTS INC, 6 GREAT MEADOW LA
HANOVER
N J, 07936, TWX 710-986-8255 .... 201 887-8700
D FOREMAN, EMP 14, ENG 6
Cal Tel-Com Instr Inc, 17715 Chatsworth St
Granada Hills 213 360-2278

TELE COIL CO INC, 2733 SAUNDERS ST, CAMDEN
N J, 08105 .... 609 EM 57528
S FELDMAN, EMP 37, ENG 1
Md B White & Co Inc, 7 Church La
Baltimore 484-5400
Md Bernard White & Co, Inc, 5132 Baltimore Blvd
Hyattsville 927-7222
NY Frank Tylinski Co, Inc, 338 Northern Blvd
Great Neck. .... HN 69070
Pa Argus Assoc, Box 68, Warminster .. 215 WA 2-4009

TELECONTROL CORP, 143 SOUND BEACH AVE
OLD GREENWICH, CONN, 06870 .... 203 637-4321
G TURNER, EMP 80, ENG 12, $1,000-$2,500M
Mich J S McLean/W M Sheahan, 5928 2nd Blvd
Detroit 874-4222
GB Plessey Co Ltd, Sopers La, Poole, Dorset 5161

TELECTRON CO, 4050 14TH AVE S W
FORT LAUDERDALE
FLA, 33310, TWX 514 444 .... 305 525-6711
L DONLIN, EMP 300, ENG 4, $5,000-$10,000M

TELECTRO SYSTEMS CORP, 96-18 43RD AVE, CORONA
N Y, 11368 .... 212 651-8900
H SUSSMAN, EMP 50, ENG 10, $500-$1,000M

TELEDATA INC, 98-05 217TH ST, QUEENS VILLAGE
N Y, 11429 .... 212 479-0099
A SANDBERG, EMP 60, ENG 4, $500-$1,000M
For EMEC Inc, 160 Terminal Dr
Plainview, N Y .... 516 WE 1-3700

TELE-DYNAMICS DIV, AMERICAN BOSCH ARMA CORP
5000 PARKSIDE AVE, PHILADELPHIA
PA, 19131, TWX 710-670-0128......... 215 878-3000
J FAMILETTI, EMP 400, ENG 60, $5,000-$10,000M
Ala Amer Bosch Arma Corp, 3322 S Memorial Hwy
Huntsville 205 883-0411
Cal Tech Marketing Assoc, 355 W Olive Ave
Sunnyvale 736-3687
Cal Tele-Dynamics Div, 7151 W Manchester
Los Angeles. 213 776-4500
Colo Space Sys Sales & Engrg, 101 University Blvd
Denver 303 388-9225
DC American Bosch Arma Corp, 1701 Penna Ave
Wash 298-8450
Haw Intelect Inc, 30 N School St, Honolulu 566-366
NM Space Systems Sales & Engr Co
1401 Valencia, SE, Albuq 255-8716
Tex Space Sys Sales & Engr Co, 810 Stemmons Twrs S
Dallas. .... ME 1-1740
Utah Space Systems Sls & Engrg Co, Box 89
Bountiful 295-6464
Wash Rush S Drake Assocs, Inc, 6133 Maynard Ave, S
Seattle 725-2700

TELEDYNE RELAYS A TELEDYNE CO
3155 W EL SEGUNDO BLVD, HAWTHORNE
CAL, 90250 .... 213 772-4357
M FIELD, EMP 146, ENG 8, $1,000-$2,500M
Cal Gene C Woempner Co, 821 Malcolm Rd
Burlingame 697-5131
Cal Cairns Engrg Sales Corp, 6151 W Century Blvd
Los Angeles. 213 670-1700
Colo R P Smith Co, 3600 S Lincoln St
Englewood .... SU 9-2273
Fla Reynolds & Assoc, Box 1043
Eau Gallie 581-6611
Ga Bostick & Assoc, Box 28378
Atlanta 404 252-1958
Ill Burt Anderson & Assoc, 5969 N Elston Ave
Chicago 774-4174
Mass Tritek Inc, 165A Bedford St
Burlington 617 272-4550
Mo PEM Sales Co, 9537 Lackland Rd
St Louis .... 314 HA 7-7200
NJ C D Stalker, 42 Monmouth Rd
Eatontown 201 542-6884
NY Freidman-Smith Elctns, 519 S Fifth Ave
Mount Vernon .... MO 4-6110
NY I A Hotze Co, 112 DeWitt St
Syracuse. .... GR 9-6641
Ohio Electronics Mktg Corp, 814 W Third Ave
Columbus 229-4161
Tex Solid State Sales Co, Box 20054
Dallas. .... 214 FL 2-2601
Wash Showalter-Judd Inc, 1806 S Bush Pl
Seattle .... 206 EA 4-7911
Can A Deskin Sales, 1565 Louvain St W
Montreal, Que 384-1420
For Amelco Semiconductor, 1300 Terra Bella Ave
Mountain View, Cal 968-9241

TELEDYNE SYSTEMS CONTROL SYS A TELEDYNE CO
200 N AVIATION BLVD, EL SEGUNDO
CAL, 90245 .... 213 675-7111
J KEMMER, EMP 416, ENG 54, $5,000-$10,000M
DC F Buck, 1700 Penna Ave NW
Washington 202 223-5307
Mass N Schlegel, 11 Baker's Hill Rd
Weston. 617 899-1703
Ohio R Kaak, 118 W 1st St, Dayton 513 222-6369
Can Aircraft Appliances & Equip Ltd, 585 Dixon Rd
Rexdale, Ont 249-8411
Ger Vincent V DeSousa, Bleichstr 10, 11 Etage
4 Dusseldorf 353970
Ger Vincent V DeSousa, 4041 Norf, Herderstr 5, W Ger
Jap Ishimoto Trading Co, 3500 8th Ave
LA, Cal. 733-4508

TELEDYNE TELEMETRY CO, 9320 LINCOLN BLVD
LOS ANGELES
CAL, 90045, TWX 910 328-6529........ 213 670-7256
T GREGORY, EMP 300, ENG 30, $5,000-$10,000M
Ala Kemp Instru Inc, 4306 Governors Dr, W
Huntsville 837-4304
Cal Egbert Engineering Assoc, 801 Welch Rd
Palo Alto 326-1387
Colo Applied Engrg Co, Box 88, Golden ... 303 279-4608
Fla Beacon Electronic Assoc, 417 N W 28th St
Fort Lauderdale 564-4298
Fla Beacon Electronic Assoc, Box 1278
Maitland. 647-3498
Ga Beacon Electronic Assoc, 2285 Peachtree Rd NE
Atlanta 404 351-3654
Mass G Neuman & Co, Inc, 91 Fairfield St
Needham 444-4342
Mich Carter McCormic & Peirce Inc, 16239 Wyoming
Detroit 313 863-4600
Mo Kemp Engineering Co, Inc, 10702 Manchester Rd
St Louis 968-0300
NJ Dynamic Sales Co, 39 E Front St
Red Bank 747-5353
NJ Teledyne Telemetry Co, Box 341
Princeton 452-2550
NY Technitron Inc, 41 W 57th St
New York .... 212 PL 8-2790
NC Beacon Electronic Assoc, Box 503
Jamestown 919 454-1010
Ohio Carter McCormic & Peirce Inc, 3691 Lee Rd
Cleveland. 216 921-1360
Ohio Carter McCormic & Peirce Inc, 3406 N Main St
Dayton 513 278-5873
Tex Kemp Engrg Co, Inc, 6001 Gulf Frwy
Houston 928-5426
Tex Kemp Engrg Co, Inc, 102 W Rector
San Antonio. 344-1841
Tex Kemp Engrg Co, Inc, 2618 Manana Dr
Dallas. 357-6663
Utah Applied Engrg Co, 6375 Emigration Canyon
Salt Lake City 364-4942
Va Gans-Fryling, Inc, 2030 16th St N
Arlington 527-3262

TELEFUNKEN SALES CORP
SOUTH ST, ROOSEVELT FLD, GARDEN CITY
N Y, 11530 516 741-1390
B JACOBS, EMP 55, ENG 5
Ala World Wide Products Inc, Box 9212
Birmingham 595-7114
Cal Ruby Sales Corp, Box 511
San Fernando 361-1201
Cal Ruby Sales Corp, Box 487, Santa Clara 243-1694
Colo Ruby Sales Corp, 1200 So Alton
Denver 303 755-1714
Fla World Wide Products Inc, Box 429
N Miami Beach 949-3457
Mass Keene Sales Co, 156 Broad St, Lynn 595-1001
Mass Herb Mandell Co, Box 24, Revere 289-3787
Mich Satullo Co, 4514 N Woodward Ave
Royal Oak 549-3910
NY W Kaufman, 157 Rawlinson Rd
Rochester 266-2728
NY J Brown Assoc, 207 Rosedale Rd
Yonkers 779-7330
NY R E Breuer Co Inc, 10 Columbus Circle
N Y 581-8770
NC World Wide Products Inc, 1507 Guest St
Greensboro 274-0693
Ohio Harvey Teplitz & Co, 3718 Salem Ave
Dayton 277-9178
Ohio H Teplitz & Co, 3945 Meadowbrook Blvd
Cleveland 371-2044
Ohio Hank Miller Sales Co, 4087 Meadowbrook Blvd
Cleveland 321-3900
Ore J T Neuville Co, 10636 NE Fargo
Portland 252-3111
Pa H A Goodman, 401 W Mt Airy Ave
Philadelphia 247-7116
Pa F P Yarussi Co, 312 Rockfield Rd
Pittsburgh 221-4676
Tex Ruby Sales Corp, Box 9894, Dallas 214 827-6630

TELE MEASUREMENTS INC, 145 MAIN AVE, CLIFTON
N J, 07014 201 473-8822
W ENDRES, EMP 21, ENG 3, $500-$1,000M

TELEMET CO, VIDEO PRODS & AIRBORNE TELEMETRY
185 DIXON AVE, AMITYVILLE
N Y, 11701 516 541-3600
A BOLLETINO, EMP 185, ENG 25, $1,000-$2,500M
Cal J Guerrero, 3841 S Main St
Santa Ana 714 KI 5-7171
Ga Charles Golsen, 1539 Beechcliff Dr NE, Atlanta
Ill D E Chapman, 670 N Elizabeth St
Lombard MA 7-6026
Can Aeromotive Eng Prods Ltd
1700 Montee de Liesse Rd
Montreal 9 P Q 514 332-1020
For Sylvan Ginsbury Ltd, 72 W 45th St, New York

TELE-NORM CORP, 32-31 57TH ST, WOODSIDE
N Y, 11377 212 274-3131
K TIMMERMANN, EMP 124, ENG 8, $2,500-$5,000M

TELEPHONE COMPONENTS INC
40 GRAVESEND NECK RD, BROOKLYN
N Y, 11223 212 HI 9-4222
P COSTA, EMP 15, ENG 1, $250-$500M
Cal Wallace & Wallace, 1206 Maple Ave, Los Angeles
Fla World-Wide Products Co, Box 429
N Miami Beach 949-3457
Ill Ellinger Sales Corp, 6580 Northwest Hwy
Chicago 763-1570
Mass Near Inc, 99 Highland Ave, Boston

TELEPHONE DYNAMICS CORP, 1333 NEWBRIDGE RD
NORTH BELLMORE, N Y, 11710 516 221-9870
L YOUNG, EMP 14, ENG 1, $500-$1,000M

TELEPHONICS DIV, INSTRUMENT SYSTEMS CORP
770 PARK AVE, HUNTINGTON
NY, 11743, TWX 510-226-6983 516 HA 36200
L FABER, EMP 600, ENG 40, $1,000-$2,500M

TELE-SIGNAL CORP, 250 CROSSWAYS PARK DR, WOODBURY
N Y, 11797 516 921-9400
F SIEGRIST, EMP 650, ENG 50, OVER $10,000M
ADV PG 44, 167, 220, 319, 364, 614
Cal Glen Vought, 1613 Kalispell Ct
Sunnyvale 408 245-8323
Mass C P Pappas, 1 Birchmeadow Circle
Framingham Ctr 617 899-4728
NY F W Siegrist, RT 1
Blossvale, Rome 315 337-5610
Okla T R Campbell, 708 Brightside
Midwest City 405 737-2555
Pa T Noe, 1023 Edgemoor Rd
Cherry Hill, N J 215 WA 2-2506
Tex W H Bigger Consulting Eng, Meadow Bldg
Dallas 214 361-5522
Va Tele-Signal Corp, 2400 Wilson Blvd
Arlington 703 524-5885
Can R Dreyer, Box 4084, Sta E
Ottawa, Ont 613 731-5490
Can A M Tele-Signal Ltd, Box 4084 Sta E
Ottawa, Ont 613 731-5490
GB C Buff, Reg Dir, 2 Holly Rd, Twickenham, Mdsx

TELETRONICS LABS INC, 140 OREGON ST
EL SEGUNDO, CAL, 90245 213 678-6148
D ROSE JR, EMP 20, ENG 3, $100-$250M

TELETYPE CORP, 5555 W TOUHY AVE, SKOKIE
ILL, 60076, TWX 910 223-3611 312 676-1000
D CORKLE, EMP 6000, OVER $10,000M
DC Teletype Corp, 425 13th St NW
Washington ME 8-1016

TELEVISION MANUFACTURERS OF AMERICA CO
1020 NOEL AVE, WHEELING
ILL, 60090 312 LE 7-5700
J SIMBERG, EMP 355, ENG 14, OVER $10,000M

TELEX COMMUNICATIONS DIV, 9600 ALDRICH AVE S
MINNEAPOLIS, MINN, 55420 612 881-2636
P BUNKER, EMP 700, ENG 6, OVER $10,000M
Alas Ron Merritt Co, Box 759
Anchorage 907 272-5231
Ariz Koessler Sales Co, 4614 N 7th
Phoenix 602 264-4031
Cal Evans Marketing, 845 Malcolm Rd
Burlingame 697-6575
Cal Koessler Sales Co, 818 N Fairfax Ave
Los Angeles 213 653-1605
Colo R & D Sales Co, 429 S Federal Blvd
Denver 303 934-5445
Conn Michael Scott Co, 46 Rockefeller Ave
West Haven 203 934-0261
Fla World Wide Prods, 1999 N E 150th St
North Miami Beach 305 949-3457
Fla World Wide Prods, Box 7102
Tampa 812 227-5051
Fla World Wide Prods, Box 1301
Winter Park 305 645-2475
Ga Harris & Assoc, 580 14th St NW
Atlanta 404 875-1658
Ga World Wide Prods, 1271 Cornwall Rd
Decatur 404 284-7500
Ill Loren F Green, 5218 W Diversey Ave
Chicago 312 286-6824
Iowa Kelly-Schmitz-Winkeler, 3831 43rd St
Des Moines 515 279-9235
Md Brothers & Conneen Assoc, 1620 Myamby Rd
Baltimore 301 823-5063
Md Brothers & Conneen Assoc, 4391 Crestheights Rd
Baltimore 301 486-6127
Md Brothers & Conneen Assoc, 6302 Lincoln Ave
Baltimore 301 764-7189
Mass Michael Scott Co, 336 Washington St
Wellesley Hills 617 235-0102
Mich Riley & Petchell, 401 Chippewa St
Buchanan 616 695-6356
Mich Riley & Petchell, 16515 Schoolcraft
Detroit 313 838-9100
Mich Fisher Sales Co Inc, 4820 W 77th St
Minneapolis 612 920-6577
Mo Kelly Schmitz Winkeler, 7546 Troost Ave
Kansas City 816 363-5651
Mo Kelly Schmitz Winkeler, 2319 Hampton Ave
St Louis 314 781-6111
NY LSM Assoc, 109 Easton Ave
Buffalo 716 892-6551
NY LSM Assoc, 218 E Lake Rd
DeRuyter 315 662-3296
NY Marty Bettan Sales Co, 77-15 164th St
Flushing 212 657-6659
NY LSM Assoc, Orchard Park, Phelps 315 548-4891
NC World Wide Prods, Box 8430
Asheville 704 242-7092
Ohio Schroeder Sales Co, 2084 Noble Rd
Cleveland 216 268-3636
Ore Ron Merritt Co, 2035 S W 58th Ave
Portland 503 292-8762
Pa Brothers & Conneen, 131 Harned Rd
Springfield 214 543-8641
Tex J Y Schoonmaker Co, 2995 Ladybird La
Dallas 214 357-8481
Tex J Y Schoonmaker Co, 6001 Gulf Frwy
Houston 713 926-9510
Tex J Y Schoonmaker Co, 107 Winnetka Rd
San Antonio 512 342-0251
Wash Ron Merritt Co, 1320 Prospect St
Seattle 206 682-7337
Can Alex L Clark Ltd, 3751 Bloor St W
Islington Ont 416 231-3303
Can Alex L Clark Ltd, 1070 Bleury
Montreal Que 514 739-3231
For Royal Sound Co Inc, 409 N Main St
Freeport 516 645-1808
For Rocke Intl Corp, 13 E 40th St
New York 212 MU 9-0200
BC Electro Tec Marketers Ltd, 1624 W 3rd Ave
Vancouver 606 736-6377

TEL-INSTRUMENT ELECTRONICS CORP
728 GARDEN ST, CARLSTADT
N J, 07072 201 933-1600
E BRINKERHOFF, EMP 42, ENG 4, $500-$1,000M
NJ Landfear Enterprises, Box 68, Nutley NO 7-2900
For Ad Auriema Inc, 85 Broad St
New York, NY BO 9-7750

TEL-LABS INC, 1050 SECOND ST, MANCHESTER
N H, 03102, TWX 710 220-1844 603 623-5711
R TOBEY, EMP 100, ENG 2, $500-$1,000M
Cal Carter & Rossney Assoc, 2600 W Olive Ave
Burbank 213 843-3292
Cal Daniels-Padgett Assoc, 2620 Bayshore Frontage Rd
Mountain View 415 969-1700
Conn A&M Elctns Rep Inc, Ailene Dr
Madison 203 245-1031
Fla Sproch Sales Inc, 3520 W Broward Blvd
Fort Lauderdale 305 587-3792
Mass A & M Elctns Rep Inc, 1492 Highland Ave
Needham 617 444-8170
Minn Robt W Marshall Co, 6106 Excelsior Blvd
Mnpls 612 929-0457
NJ A Wetterhahn Co, 4420 Crescent Blvd
Pennsauken 662-1611
NY Ossmann Component Sales Corp, 39 Saginaw Dr
Rochester 716 442-3290
NY G Clark, 1901 Vestal Pkwy E
Vestal 607 785-9949
NY John Sparrow, 132 Pickard Bldg
Syracuse 315 454-4477
NY F Green, 77 Kelly Rd, Red Hook 914 297-7773
NY Bittan Assoc, 381 Sunrise Hwy
Lynbrook 516 593-3833
Ohio Steve Vereb & Assoc, 4619 E 93rd St
Cleveland 216 271-2066

TELONIC ENGINEERING CO DIV, TELONIC INDUSTRIES
INC, BOX 277, LAGUNA BEACH
CAL, 92652, TWX 510 596-1320 714 494-9401
R CAMPBELL, EMP 60, ENG 12, $1,000-$2,500M
Ala Gentry Assoc, 2109 W Clinton St
Huntsville 534-9771
Ariz T Louis Snitzer Co, 15 N 40th Pl
Phoenix 273-1673
Cal T Louis Snitzer Co, 1150 Amino
Del Mar 454-2191
Cal T Louis Snitzer Co, 1020 Corporation Way
Palo Alto 968-8304
Cal T Louis Snitzer Co, 90005 Exposition Blvd
Los Angeles 938-2073
Colo D E Bond Assoc, 2149 S Clermont St
Denver 756-1234
Fla Gentry Assoc, 550 N Bumby Ave
Orlando 424-0730
Fla Gentry Assoc, 4152 49th Ave S
St Petersburg 867-7820
Ga Gentry Assoc, Box 13513, Sta K
Atlanta 233-3816
Ill Berndt Assoc, 6414 W Belmont Ave
Chicago 283-0713
Kan Technical Reps, Inc, 6814 Farmview La
Wichita MU 2-4140
Md E-A Inc, 1406 Shoemaker Rd
Baltimore 825-2385
Mass Microwave Consultants MC2, 195 West St
Waltham 617 899-4400
Mo Technical Reps, Inc, 7049 Laupher La
Hazelwood JA 1-1000
NJ F & F Assoc, 58 Arcadia Rd
Woodcliff Lake 778-6767
NJ SONCO, Crystal Brook Prof Bldg
Eatontown 542-1441
NM D E Bond Assoc, Box 11331
Albuquerque 247-3442
NY F & F Assoc, 461 Old Country Rd
Westbury 334-1160
NY Tesco Assoc, 2002 Teall Ave, Syracuse 463-4566
NC Gentry Assoc, 119 N Ireland, Burlington 454-1919
Ore Seatronics, Inc, 6415 Canyon Ct
Portland 292-8887
Pa SONCO, Park Pl Office Bldg, Camp Hill 761-0577
Pa SONCO, 107 Town Center Rd
King of Prussia 265-3250
Tex Texas Avionics Co, 4515 Prentice St
Dallas 368-3566
Wash Seatronics Inc, 5931 4th Ave S
Seattle PA 5-4328
Can Whittaker Elctns Ltd, 1885 Wilson Ave
Weston, Ont 247-7454
Can Whittaker Elctns Ltd, Box 216
Roxboro, Que 684-3000
Can Whittaker Elctns Ltd, 42 Howden Ave
Ottawa, Ont 224-1221
For Guevara & Sons, Inc, Volkswagen House, T. Kalaw
Manila, Phili 4-53-61
Fr Equip Scientifiques, 35, Chemin des Roses
92 Suresnes 772.15.18
Ger Telonic Industries, Gmbh, 16 Holzhausenstr
6 Frankfurt Am Main 55-10-86
GB Telonic Industries, U K
The Summit 2 Castle Hill Terr
Maidenhead, Berks 28057
Holl Inelco Holland N V, Arent Janszoon Ernststr 801
Amsterdam 42-17-22
Ital Telonie Italia SpA, Via Messina, 43
Milan 314 686
Jap Cornes & Co, Ltd, CPO Box 158, Tokyo 272-5771
Nor Morgenstierne & Co, Wessels Gate 6
Oslo 42 99 93
Swed Scantele AB, Tengdahlsgatan 24, Stockholm
Swit Metravel S A, Chemin De La Dode
Onex, Geneva 87233
BC Whittaker Electronics, Ltd, 1144 Millstream Rd
W Vancouver, B C 926-3411
Belg Inelco, 20-24 Rue de l'Hopital
Brussels 11.22.20
Ind Forbes, Forbes & Campbell, Home St
Bombay 268081
NZ W & K McLean, Box 3097, Auckland 34-541
Spn A T A I O Ing, Enrique Larreta, 12
Madrid 2 35 43 44
Spn Ataio Ing, Urgel, 259, Barcelona
Aust Jacoby, Mitchell & Co, Pty Ltd, 469-475 Kent St
Sydney, N S W 262651

TELONIC INSTRUMENTS DIV TELONIC INDUS INC
60 N FIRST AVE, BEECH GROVE
IND, 46107 317 787-3231
W GREESON, EMP 200, ENG 12, $5,000-$10,000M
Ala Gentry Assoc, 2109 W Clinton St
Huntsville 534-9771
Ariz T L Snitzer Co, 15 N 40th Pl, Phoenix 273-1673
Cal T L Snitzer Co, 1020 Corporation Way
Palo Alto 968-8304
Cal T L Snitzer Co, 1150 Camino Del Mar
Del Mar 454-2191

Cal T L Snitzer Co, 9005 Exposition Blvd
Los Angeles 836-6170
Colo D E Bond Assoc, 2149 S Clermont St
Denver 756-1234
Fla Gentry Assoc, 550 N Bumby Ave
Orlando 841-7740
Ga Gentry Assoc, Box 13513, Sta K
Atlanta 233-3816
Haw Har-Kom Hawaii Inc, 2933 Koapaka St
Honolulu 815-617
Kan Technical Reps Inc, 6814 Farmview La
Wichita 682-4140
Kan Technical Representatives, Inc, 809 Sheridan Circle
Olathe 782-3775
Md C E Snow Co, 10442 Baltimore Rd
Beltsville 345-2211
Mass Addelco Corp, 56 Pickering St
Needham 444-4754
Mo Technical Reps Inc, 7049 Laupher La
Hazelwood 521-1000
NJ F & F Assoc, 58 Arcadia Rd
Woodcliff Lake 778-6767
NM D E Bond Assoc, Box 11331
Albuquerque 247-3442
NY F & F Assoc, 461 Old Country Rd
Westbury 334-1160
NY Tesco Assoc, 2002 Teall Ave, Syracuse ... 463-4566
Pa C E Snow Co, 258 Main St N, Ambler
Tex Texas Avionics Co, 4515 Prentice St
Dallas 368-3566
Wash Rush Drake Assoc, 6133 Maynard Ave S
Seattle 725-2700
Can Whittaker Elctns Ltd, 1885 Wilson Ave
Weston, Ont 247-7454
Can Whittaker Elctns Ltd, Box 216
Roxboro, Que 684-3000
Can Whittaker Elctns Ltd, 42 Howden Ave
Ottawa, Ont 224-1221
For Guevara & Sons, Box 3130, Manila, Philippines
Den Tage Olsen A/S, 1, Ronnegade, Copenhagen
Fr Equip Scientifiques, 35 Chemin Des Roses
92 Suresnes
Ger Telonic Industries, GMBH, Holzhausenstr 16
Frankfurt
GB Telonic Industries, U K, 2 Castle Hill Ter
Maidenhead, Berks
Ital Telonic, Italia S P A, Via Messina 43, Milan
Jap Cornes & Co Ltd, Box 158, Tokyo
Jap Cornes & Co Ltd, C P O Box 329, Osaka
Nor Morgenstierne & Co, Wessels Gate 6, Oslo
SAfr Protea Physical & Nuclear Instr, 7 Newton St
Wemmer, Johannesburg
Arg O R Klein & Cia, S R L, Carlos Calvo 225/29
Buenos Aires
BC Whittaker Electr Ltd, 1144 Millstream Rd
West Vancouver 926-3411
Belg Inelco, Belgium, S A, 2024 Rue de L'Hopital
Brussels
Braz E H Staub, Caixa Postal, Box 30 318, Sao Paulo
Ind Forbes/Forbes-Campbell & Co Ltd, Home St, Bombay
Isrl Racom Electronic Co Ltd, 74, Nordau Blvd, Tel-Aviv
Mex Industrias Comerciales, S A, Medellin 184,
Neth Inelco, Holland, N Y, Arent Janszoon Ernstr 801
Amsterdam
NZ W & K McLean Ltd, Box 3097, Auckland
NZ W & K McLean Ltd, 437 Hutt Rd, Wellington
Spn A T A I O, Enrique Larreta 12, Madrid
Spn A T A I O, Campo 69, Barcelona
Spn Telectra, Rue Rodrigo Da Fonseca, 103, Lisbon
Aust Jacoby-Mitchell & Co Pty Ltd, 469 Kent St
Sydney, NSW

TELREX COMMUNICATION ENGINEERING LABS
ASBURY PARK, N J, 07712 .... 201 775-7252
R ERCOLINO

TELSTAR ELECTRONICS CORP
565 S HARBOR RD DEPT EB, SOUTHOLD
N Y, 11971 .... 516 765-2963
M MARSTON, EMP 15, ENG 4, $100-$250M
For Telesco Intl, 171 Madison Ave, New York

TELTRONICS INC, BOX 466, NASHUA
N H, 03060 .... 603 889-6694
E SCHWARM, EMP 20, ENG 3, $250-$500M
Ala Theall Eng Sales Co, Box 3122
Huntsville 852-1525
Cal Waldman Assoc, 1094 W Evelyn
Sunnyvale 245-2500
Cal CDH Assoc, 18075 Ventura Blvd
Encino 213 345-1644
Fla Theall Eng Sales Co, Box 922
Maitland 305 647-4469
Md Gawler-Knoop Co, 1751 Rockville Pike
Rockville 427-3950
Md Gawler-Knoop Co, 807 E Seminary Ave
Towson 825-3151
Mass Parsons Assoc, 599 Main St, Waltham ... 899-2447
NJ Gawler-Knoop Co, 14 Beaufort Ave
Roseland 226-4545
Ohio McShane, 3633 Trails End Dr
Medina 216 725-4283
Ohio McShane, Dayton 513 434-8672
Pa Gawler-Knoop Co, Box 414, Richboro 925-7550
Tex Spacetronics Co, 4515 Prentice St
Dallas 368-1215
Wash J K Dooley Co Inc, 4110 Stone Way N
Seattle 632-1618
Can Conway Elctn Enterprises Ltd, 88-90 Arrow Rd
Weston, Ont 416 742-6631
For EMEC Inc, 55 E Old Country Rd
Hicksville, NY 516 931-3700

TELVAC INSTRUMENT CO, 18531 VENTURA BLVD
TARZANA, CAL, 91356 .... 213 881-2626
C BALDRICK, EMP 5, OVER $10,000M
Ill Ed Flaxman Co, 52 James Ct, Glenview .. 729-1880
Md Milan Assoc Inc, 7215 York Rd, Baltimore
Minn Maynard Assoc, 7728 Morgan Ave S
Minneapolis 823-8459
NJ Component Marketers Inc, 109 Valley Rd
Montclair 746-6717
NY E Dutcher & Son, 1596 Westmoreland Ave
Syracuse 472-3039
Pa Tanner Co, 486 Broadmoor Ave
Pittsburgh 561-4687
Tex R L Wright & Assoc, Box 17447, Dallas
For Balzak Brothers, 1629, P R

TELVISION LABS INC, 333 S MILL ST, WAUCONDA
ILL, 60084 .... 312 RO 3-3800
F NIENABER, EMP 50, ENG 5

TEMPEL STEEL CO, 1939 BRYN MAWR AVE, CHICAGO
ILL, 60626, TWX JFS 312 282-9400
J IHRIG, EMP 500, ENG 10, OVER $10,000M
Cal Tempel Steel Co, 2501 S Garfield Ave
Los Angeles .... OV 5-8544
Mo L Malnassy, 4224 Crestland Dr
St Louis .... EV 9-4390
NJ J Austin, Box 415, Passaic .... GR 2-0356
NJ K Robertson, Box 156, Cranford 201 472-0356
Ohio G Liszak, 1525 Marilyn Ave, Kettering 254-4045

TEMPERATURE ENGINEERING CORP
ONE TEMPCOR BLVD & US HWY 130, RIVERTON
N J, 08077 .... 609 829-3880
S PERLMAN, EMP 83, ENG 5, $1,000-$2,500M
Ala Vaughn Electrosources Co, Box 1369
Huntsville 881-8830
Cal Gordon-Elliot Inc, 13615 Victory Blvd
Van Nuys 873-6862
Cal Peninsula Assoc, 1447 Bayshore
Palo Alto 322-1804
Fla Vaughn Electrosources Co, 106 Dixie La
Coca Beach 784-0784
Ill George E Collins Co, Box 321
Mt Prospect 825-5892
Mass L J Maroni Assoc, 15 Arbetter Dr
Framingham 875-5414
Mich Michigan Precision Prods, Box 66, Eaton Rapids
Ohio E Lipaj Sales & Eng Co, 24524 Lake Rd, Bay Village

TEMPIL CORP, 132 W 22ND ST, NEW YORK
N Y, 10011, TWX (212)640-5478 ...... 212 OR 5-6610
L FEIN, EMP 25, ENG 5, $500-$1,000M

TEMPRESS RESEARCH CO, 566 SAN XAVIER AVE
SUNNYVALE
CAL, 94086, TWX 910-339-9250 .... 408 739-0422
K WORTHEN, EMP 170, ENG 8, $2,500-$5,000M

TEMTECH, 2208 S WRIGHT ST, SANTA ANA
CAL, 92705 .... 714 549-2283
D DEHAVEN, EMP 61, ENG 9, $500-$1,000M
Cal L L Stoakes Inc, 4438 Ingraham St
San Diego 274-6281
Cal Western Aircraft Supply Co, 815 Moraga Dr
Los Angeles 213 476-1931
Cal Western Aircraft Supply Co, Box 58
Los Altos 415 948-9349
Can Aeromotive Engrg Prods Ltd, 887 Montee de Liesse
St Laurent, Montreal 747-4781
Can Aeromotive Engrg Prods Ltd, 1912A Ave Rd
Toronto, Ont 783-4288

TENATRONICS LTD, 3001 CHESTER AVE, CLEVELAND
OHIO, 44114 .... 216 781-7136
J FINE, ENG 3
Ariz B-G Sales Co, 305 E Indian School Rd
Phoenix .... AM 4-4761
Cal Sy Lewis & Assoc, Box 352
N Hollywood 877-0461
Cal MacPherson Sales Co, 999 Green St
San Francisco 415 775-0303
Fla Dixie Electronics Assoc, Box 2214, Lakeland
Haw Earl Assoc, Box 2845, Honolulu
Ill Maury Bender & Co, 5616 N Virginia Ave
Chicago 561-9383
Ind N M Haycox, 2235 E Kessler Blvd, Indnpls
Iowa Thomas-Modrcin Assoc, 1605 K Ave NE
Cedar Rapids 362-7825
Kan Thomas-Modrcin Assoc, Box 189
Shawnee Mission 432-2131
Md G B Pearlman, 2815 Shanandale Dr
Silver Spring 301 572-4477
Mich A B M Sales, 10116 Puritan Ave
Detroit 862-1300
Mo Thomas-Modrcin Assoc, Box 545
Hazelwood 838-6446
NM C T Carlburg, Box 3177 Sta D
Albuquerque 265-1579
NY Irv Brown Co Inc, 401 Kingston
Brooklyn .... HY 3-1379
NY L J McTaggart & Assoc, 2451 Wehrle Dr
Buffalo .... NF 4-2030
Ohio C L Pugh & Assoc, 2144 Riverside Dr
Columbus 614 486-9678
Tenn Dixie Electronics Assoc, 102 Webster St
Madison .... TW 5-5666
Tex Berthold Sales, 4411 Maple Ave
Dallas .... LA 6-8329
Wash William Lanphear, 159 Western Ave W
Seattle .... AT 4-8150

For E D Magnus & Assoc, 5717 N Lincoln
Chicago, Ill 334-1503

TENCO ELECTRONICS INC, 40 LEON ST, BOSTON
MASS, 02115 .... 617 442-3250
H SHARAF, EMP 35, ENG 5, $250-$500M

TENNA CORP, 19201 CRANWOOD PKWY
WARRENSVILLE HTS, OHIO, 44122

TENNEY ENGINEERING INC, 1090 SPRINGFIELD RD
UNION
N J, 07083, TWX 710 985-4725 .... 201 MU 67870
M SCHLETTER, EMP 220, ENG 35, $5,000-$10,000M

TENOR CO INC, 17020 W ROGERS DR, NEW BERLIN
WIS, 53151 .... 414 782-3800
R TURNBULL, EMP 28, ENG 9

TENSITRON INC, 200-204 DEPOT RD, HARVARD
MASS, 01451 .... 617 456-3511
E SAXL, EMP 8, ENG 2, UP TO $100M
Cal Morse Assoc, 1721 Chestnut St
San Francisco 415 567-6871
Conn W R Fox, 6 Ozone Rd, Branford 203 488-6348
Ga Estes Assoc, 533 Decatur Fed Bldg
Decatur 404 373-8266
Ill Olson Engrg & Sales Corp, 1921 N Harlem Ave
Chicago 312 622-9777
Mass Geo Neuman & Co Inc, 91 Fairfield St
Needham 444-4342
NY WEI Inc, Box 399, Liverpool 315 652-8111
Ohio Tiby Co, 2245 Warrensville Center Rd
Cleveland 216 371-5335
Pa Stein Instrumentation Co, Box 161
Wyncote 886-8876
Pa Stein Instr Corp, 413 Johnson St
Jenkintown 885-2370
Can Bayley-Milley Ltd, 8 Taber Rd
Rexdale Ont 244-5511
Can H J Anderson & Co Ltd, 777 Warden Ave
Scarborough Ont 757-6444

TENSOLITE INSULATED WIRE CO INC, W MAIN ST
TARRYTOWN, N Y 10591 TWX 710 567-1202 914 631-2300
J TAVANO EMP 225 ENG 10
Ariz Carter Assoc, Inc, 201 W First St
Scottsdale 602 947-4355
Cal Storm Products, 2251 Federal Ave
Los Angeles .... 213 GR 9-0769
Cal Storm Products, 4039 Transport St
Palo Alto 415 326-2913
Colo C F L Co, 1391 S Inca St, Denver 303 777-4381
Conn G M Hathaway Electronics Inc, Ducillo Bldg
Canaan 203 824-7721
DC Massey Assoc, 1 Thomas Cir NW
Washington 202 628-1023
Fla Alex Corbett Jr & Assoc, 2411 Covina Way
St Petersburg 813 867-2201
Ill Jerry Golten Co Inc, 2750 W North Ave
Chicago .... 312 EV 4-5959
Mass G M Hathaway Electronics Inc, 7-11 Mystic St
Arlington 617 646-1380
Mo Buse Sales Co, Box 68
St Charles .... 314 RA 4-6667
NY John Lazor Assoc, Inc, 39 Saginaw Dr
Rochester .... 716 GR 3-8337
Pa Griffin-Campbell, Inc, 25 Skippack Pike
Ambler .... 215 MI 6-7535
Tex Blackburn Assoc, 137 Walnut Hill Vlg
Dallas .... 214 FL 1-9991
Tex Farwest Agencies Div Inc, 12410 S E 32nd St
Bellevue 206 747-1515
Can Canada Wire & Cable, Postal Station R
Toronto, Ont 421-0440

TENVAC, INC, OAK ST, PEMBROKE
MASS, 02359 .... 617 826-2317
R DREW, EMP 25, ENG 4
Cal West Kennington Engrg, 1025 Glendale Blvd
Los Angeles 384-2010
Mass R W Hatfield Co, 18 Sarah St
Burlington 256-3611

TEPRO ELECTRIC CORP, 961 LYELL AVE, ROCHESTER
N Y, 14606 .... 716 647-1810
M WARNE, EMP 45, ENG 1

TEPRO OF FLORIDA INC, 375 PATRICIA AVE, DUNEDIN
FLA, 33528, TWX 810 866-0439 .... 813 733-2147
R BROWN, EMP 150, ENG 2
Ariz E V Roberts & Assoc Inc, 412 N Marshall Way
Scottsdale 947-1381
Cal E V Roberts & Assoc Inc, 9601 W Jefferson Blvd
Culver City 870-9561
Fla Wm M Jones Co Inc, 2317 E South St
Orlando 424-6298
Ga Wm M Jones Co Inc, 2666 Redding Rd, NE
Atlanta 261-8275
Md Wm M Jones Co Inc, 1107 Echo Ct N
Towson 823-5721
Minn E C Electronic Sales, 10108 Abbott Ave S
Mnpls 888-0102
NY Pacent Engineering Co, 300 Northern Blvd
Great Neck 482-4678
NY R W Mitscher Co Inc, 487 Ellicott Sq
Buffalo 854-2517
Ohio Rockford Controls Ohio Inc, 2077 Embury Park Rd
Dayton 274-1911

Tex Techno Assoc, Box 20544, Dallas........ 357-9213

TERADO CORP, 1068 RAYMOND AVE, ST PAUL
MINN, 55108 .... 612 646-2868
D MUNSON, EMP 25, ENG 3, $250-$500M
Cal Barstow & Doran Inc, 1406 S Grand Ave Los Angeles.................. RI 9-0438
Cal Sinai-Johnson Inc, 817 Douglas St Redwood City 365-6263
Colo A-E-S Inc, 1549 Chester St, Aurora....... 366-0208
Ga J E Joyner & Assoc, Box 10821 Sta A Atlanta 758-7496
Ill Royal A Stemm, 662 Irving Park Rd Chicago .... LA 5-8333
Minn Wm Engelbretson, 906 Ottawa Ave St Paul 222-2338
Miss Florence & Meyer Inc, 406 W 34th St Kansas City .... LO 1-7282
NJ Art Cerf & Co, 512 Bloomfield Ave Caldwell.................. 226-2263
Ohio Thos Shelby & Co, 17 S Walnut St New Bremen 629-6511
RI Wm Pray, 8 Larchwood Dr Cumberland 401 333-5440
Tex Maynard Sales Co, 158 Express, Dallas.. RI 2-2384
Tex Ron Merritt Co, 1320 Prospect St Seattle 998-0733

TERADYNE INC, 183 ESSEX ST, BOSTON
MASS, 02111, TWX 710 321-1055...... 617 426-6560
A D'ARBELOFF, EMP 300, ENG 20, $5,000-$10,000M
Ala BCS Assoc Inc, 2317 Bob Wallace Ave SW Huntsville 810 726-2109
Ariz E J Foley & Assoc, 3840 N Jokake Dr Scottsdale 602 945-2665
Cal Instrument Specialists Inc, 2870 Los Feliz Pl Los Angeles.................. 213 665-5181
Cal Instrument Specialists, 2359 DeLaCruz Blvd Santa Clara 408 244-1505
Cal Instrument Specialists Inc, 1909 State St San Diego 714 232-2017
DC Sonco, 4720 Montgomery La Washington.................. 301 654-5226
Fla BCS Assoc Inc, 940 N Fern Creek Ave Orlando 305 425-2764
Ill Cozzens & Cudahy Inc, 9501 W Devon Ave Rosemont.................. 312 825-1144
Ind Cozzens & Cudahy Inc, 44 Kirk Dr Indianapolis.................. 317 244-2456
La BCS Assoc, Box 7371, Metairie 504 888-2266
Mass Teradyne New England, Lakeside Office Pk Wakfield.................. 617 245-5340
Mich Cozzens & Cudahy Inc, 127 Edmund St Royal Oak 313 585-5159
Minn Cozzens & Cudahy Inc, 7710 Computer Ave Minneapolis.................. 612 920-1022
Mo Cozzens & Cudahy Inc, 10534 Nat'l Bridge Rd Edmundson 314 423-1234
NJ Sonco, Crystal Brook Prof Bldg Eatontown 201 542-1441
NY Ossmann Instruments, 101 Pickard Dr Syracuse.................. 315 454-2461
NY Ossmann Instruments, 3100 Monroe Ave Rochester.................. 716 586-0380
NY Ossmann Instruments, Vestal Pkwy E Vestal.................. 607 785-9947
NY Ossman Instruments Inc, Box 207 Wappinger Falls 914 297-7777
NY Crane & Egert Corp, 146 Meacham Ave Elmont 516 488-2100
NC BCS Assoc Inc, 1039 E Wendover Ave Greensboro.................. 510 925-1173
Ohio Cozzens & Cudahy Inc, 735 S Court St Medina 216 725-5660
Pa Sonco, Park Pl Office Bldg Camp Hill 717 761-0577
Pa Sonco, 107 Town Ctr Rd King of Prussia 215 265-3250
Tex T Paine, 1333 N Central Expwy Dallas.................. 214 231-2003
Wash Instrument Specialist Inc, 5950 Sixth Ave S Seattle 206 767-4260
Can Allan Crawford Assoc Ltd, 65 Martin Ross Ave Downsview, Ont 416 636-4910
Can Allan Crawford Assoc Ltd, 376 Churchill Ave Ottowa, Ont.................. 613 725-1288
Can Allan Crawford Assoc Ltd, 6999 Cote Des Neiges Montreal, Que 514 739-6776
Fr Technique Et Prod Rue Carle Vernet Cite Des Bruyeres Sevres 626-02-35
Fr Teradyne Europe S A, 8 Ave Gourgaud Paris 17E.................. 622-2792
GB Teradyne (UK) Ltd, 12 Swallow St London W 1.................. 01-437-0737
Holl Groenpol Sales Group, 13-15 Prinsengracht Amsterdam 020-64474
Ital La Commissionaria Merc, 1, Via U Foscolo Milan 808297, 803374
Jap Midoriya Electric Co Ltd 3 2-Chome Kyobashi Chuo-ku, Tokyo.... 561-8851
Swed Erik Ferner AB, Box 56, Bromma.......... 252870
Swit Kulicke & Soffa Sales Ag, Postr 14 6300 Zug .... (042)48033
BC Allan Crawford Assoc Ltd, 5901 E Broadway Burnaby 2 298-6242
Belg Multitechnic S A, 30, Pl Saincteletle Brussels.................. 02-25.16.36

TERRA CORP, BOX 11602, ALBUQUERQUE
N M, 87112.................. 505 255-0157
M CLARK, EMP 4, ENG 3, UP TO $100M
Cal Crown Electronics, Box 2573, Van Nuys... 873-1266
Cal Garner Laine Electr, Box 31388 San Francisco .... AT 5-3475

Colo D E Bond Assoc, 2149 S Clermont St Denver 756-1234
Ill Audio Sonno Sales Co, 2919 1/2 W Armitage Ave Chicago 342-1600
Kan Technical Mktg Assoc, 5827 Outlook Mission .... 913 TE 1-2888
Md Ben E Shriver Co, 817 Silver Spring Ave Silver Spring 587-5115
Mass Roger LaPierre, 46 Lake Rd, Cochituate ... 653-8229
Mo Technical Mktg Assoc, 2050 Woodson Rd St Louis .... 314 HA 7-3600
NM D E Bond Assoc, Box 11331 Albuquerque.................. 247-3442
NY Wm H Goudy & Assoc, Box 70 Centerport 271-8833
Pa Andeo Sales-Engrg Inc, 10 E School House La Philadelphia .... 215 VI 4-9100
Tex D E Bond Assoc, Box 12293, El Paso

TESCOM CORP, 2633 SE 4TH ST, MINNEAPOLIS
MINN, 55414 .... 612 331-1311
N MERRIWHETHER, EMP 200, ENG 15
$2,500-$5,000M

TEST EQUIPMENT CORP, 2925 MERRELL RD, DALLAS
TEX, 75229, TWX 910 861-4101 .... 214 357-6271
J BOUGH, EMP 100, ENG 9, $1,000-$2,500M
Ariz R A Mayes Co, 4747 N 16th St Phoenix 602 279-5243
Cal W K Geist Co, 1205 Air Way Glendale 213 245-9501
Cal W K Geist Co, Box 746, Cupertino ... 415 968-1608
Colo R A Mayes Co, Box 314 Broomfield.................. 303 421-0706
Conn J & J Assoc, 953 Dixwell Ave Hamden 203 624-7800
Fla Gra-Mar Inc, 3113 Lawton Rd Orlando 305 841-2330
Md J E Cuesta & Co Inc, 8501 Glendale Rd Greenbelt.................. 301 552-1200
Mass J & J Assoc, 225 Crescent St Waltham 617 899-0160
Mich Electro Enterprises Inc, 10745 Morang Dr Detroit 313 886-2281
Minn Heimann Co, 5603 Lyndale Ave S Minneapolis.................. 612 827-5457
NM R A Mayes Co, 8016 Zuni Rd SE Albuquerque.................. 505 265-7989
NY Industron Assoc Inc, 300 Northern Blvd Great Neck.................. 516 487-2620
NY RJC Assoc, 219 Oakridge Terr Liverpool 315 457-3220
NY RJC Assoc, 294 2nd St, Ilion......... 315 724-6111
Ohio Electro Enterprises Inc, 335 E 200th St Cleveland.................. 216 486-7040
Ohio Electro Enterprises Inc, 2621 Mardon Dr Dayton 513 426-6071
Pa J E Cuesta & Co Inc, Valley Forge
Pa J E Cuesta & Co Inc, Allendale Rd King of Prussia 215 265-5800
Pa Electro Enterprises Inc, 201 Penn Ctr Blvd Pittsburgh.................. 412 371-8497
Wash Comptronics, 3220 16th Ave W, Seattle .. 284-4842
Fr Tranchant Electronique 19-21 Rue Madame de Sanzillon, 92 Clichy
Jap American Commercial Inc, 212 Fifth Ave New York 212 646-1590
Jap American Commercial Inc 8-7 4- Chome IIDABASHI, Chiyoda-ku Tokyo
Ind Bombay Machy & Instr Corp, Gunbow St Bombay 1 BR
Aust Kenelec Imports Pty Ltd, 49 Alexandra Ave Canterbury 833-161

TESTEX INC, BOX 867, NEWARK
DEL, 19711 .... 302 368-5693
J DONAGHY, EMP 6, ENG 3, UP TO $100M
Cal Don Richetts Co Inc, 828 E Valley Blvd San Gabriel .... 213 CU 3-8515
Pa Optical Apparatus Co Inc, 128 Coulter Ave Ardmore 649-6622

TEVCO INSULATED WIRE, 1747 FLOWER ST
GLENDALE, CAL, 91201, TWX 677394 .. 213 245-8494
B NELSON, EMP 85, ENG 5, $1,000-$2,500M

TEXAS CAPACITOR CO INC, 7830 WESTGLEN DR
HOUSTON, TEX, 77042.................. 713 SU 2-9232
L WOLFF, EMP 50, ENG 3, $250-$500M
Ala Brennan Assoc, Box 1074, Huntsville..... 536-3715
Cal Schilling & Assoc, 20722 Goshawk Huntington Beach 536-3975
Cal B & J Sales Co, 535 Middlefield Rd Palo Alto 326-5144
Colo Cummings & Assoc, 4772 S Kalamath Englewood.................. 789-3449
Conn William McCoy Co, Box 387, Branford.... 488-2012
Fla Brennan Assoc, Box 907, Clearwater 446-5006
Fla Brennan Assoc, Box 8489 Fort Lauderdale.................. 587-8077
Fla Brennan Assoc, Box 7773, Orlando....... 425-8161
Ill Sumer, Inc, 1032 E Northwest Hwy Mount Prospect.................. 392-1191
Md Component Sales Inc, 7 Church La Baltimore.................. 484-3647
Mass William McCoy Co, 306 Water St Clinton 365-9154
Mass William McCoy, 55 Prospect St Holliston 429-2369
Mich Component/Insulation Corp, 610 N Woodward Birmingham
NJ Braddock Assoc, Box 305, Haddonfield ... 429-0087

NY F Tylinski Co, 338 Northern Blvd Great Neck.................. HN 6-9070
Ohio Component/Insulation Corp, 14235 Detroit Ave Cleveland.................. 521-3570
Ore L A Lawson, 1201 SW Comus, Portland... 244-2082

TEXAS CRYSTAL DIV WHITEHALL ELECTRONICS
1000 CRYSTAL DR, FT MYERS
FLA, 33901, TWX 510-951-6388 .... 813 936-2109
L MELPIGNANO, EMP 100, ENG 5, $1,000-$2,500M
Cal Technical Sales Assoc, 1485 Bayshore Blvd San Francisco 467-1434
Cal Paul Nurches Co, 2396 E Foothill Ave, Pasadena
Cal Lou Erickson Sales Co, 729 Ceres Ave, Los Angeles
Colo Hyde Electronics Co, 888 S Lipan St Denver 936-3455
Conn Robert S Reiss Assoc, 70 Jessie Dr West Haven.................. 933-8542
Ga Grady-Duckett Sales Co, 24 E Andrews Dr NW Atlanta 451-3529
Haw Gene Piety Factors, Inc, 160 Mokauea St Honolulu 837-185
Ill Ellinger Sales Corp, 6580 Northwest Hwy Chicago.................. 763-1570
La S B Ormsby, 230 20th St, New Orleans
Mass Edcom Inc, 815 Washington St, Newtonville
Minn Heimann Co Inc, 5603 Lyndale Ave S Minneapolis.................. 827-5457
NJ Jackson Electronic Sales Corp, 71 Valley St South Orange.................. 763-7900
NY Verter Sales CO, 2352 E 66th St Brooklyn.................. 444-3880
Ohio Pery Lohse & Co, 529 Richmond Rd Cleveland.................. 381-7788
Pa F P Yarussi Co, 312 Rockfield Rd Pittsburgh.................. 221-4676
Tex TexElex, 4222 Richmond Ave, Houston ... 666-1636
Wash Wm Lamphear Co, 159 Western Ave W Seattle 284-8150
Can Robert J Buckland Co, Box 367, Sta B London, Ont.................. 432-7731
For E D Magnus & Assoc Inc, 5715 N Lincoln Ave Chicago, Ill 334-1503

TEXAS INSTRUMENTS FRANCE, VILLENEUVE-LOUBET
FRANCE, TWX 46 045 .... 31 03 64
R BAYLE, EMP 1200
Fr Texas Instruments France, 11, rue de Madrid Paris.................. 522-01-59
Fr Texas Instruments France, 7 Rue Michel Ange 92 Vanves 736.30.3o
Fr Texas Instruments France, 31, Quai Rambaud 69 Lyon 33 08 33
Fr Texas Instruments France, 20, Ave H Serre 31 Toulouse.................. 62 19 64
Fr Texas Instruments France, 3 Rue Lafayette 35 Rennes 30 56 85

TEXAS INSTRUMENTS INCORPORATED, BOX 5474
DALLAS, TEX, 75222.................. 214 238-2011
EMP 40000, OVER $10,000M
Ala TI, 3313 Memorial Pkwy SW Huntsville 881-4061
Ariz TI, 2535 W Camelback Rd, Phoenix 279-5531
Cal TI, 1800 N Argyle, Hollywood 466-7251
Cal TI, 5005 W Century Blvd, Inglewood 673-3943
Cal TI, 230 California Ave, Palo Alto .... DA 6-6770
Cal TI, 4185 Adams Ave, San Diego......... 284-1181
Cal TI, 1505 E 17th St, Santa Ana.......... KI 7-6506
Cal TI, 1651 10th St, Santa Monica......... 393-6731
Cal TI, 1409 N Norma St, Ridgecrest
Colo TI, 2149 S Holly St, Denver............ 757-8329
Conn TI, 300 Amity Rd, Woodbridge.......... 389-4521
DC TI, 1875 Connecticut Ave NW Washington.................. AD 4-9320
Fla TI, 618 E South St, Orlando............ GA 2-9894
Ga TI, 34 Old Ivy Rd, N E, Atlanta 233-3509
Ill TI, 5901 N Cicero Ave, Chicago 286-1000
Ill TI Supply, 7135 N Barry Ave, Chicago
Kan TI Supply, 2916 Holmes St, Kansas City
Md TI, 311 E Penna Ave, Towson 828-9120
Mass TI, 34 Forest St, Attleboro 222-2800
Mass TI, 480 Neponset Ed, Canton 828-5020
Mass TI, 60 Hickory Dr, Waltham
Mich TI, Northland Towers Bldg, Southfield 357-1703
Mich TI, Box 185, Central Lake............. 544-5411
Mich TI, 950 28th St, S E, Grand Rapids 241-0243
Mich TI, Concourse A Fairplane Plaza, Benton Harbor
Minn TI, 7615 Metro Blvd, Edina 941-3166
Minn TI, 7615 Metro Blvd, Minneapolis
Mo TI, 1750 S Brentwood Blvd, St Louis 968-0773
NJ TI, U S Hwy 22, Union 687-7200
NJ TI Supply, 301 Central Ave, Clark
NY TI, 2209 E Main, Endicott............... ST 5-9987
NY TI, 600 Old Country Rd, Garden City...... PI 2-1515
NY TI, 131 Fulton Ave, Poughkeepsie....... GR 1-6095
NY TI, 21 Prince St, Rochester............. CH 4-8090
NY TI, 6563 Ridings Rd, Syracuse.......... 463-9291
NY TI, 230 Newton Rd, Plainview........... 989-1600
Ohio TI, 22035 Chagrin Blvd, Cleveland 751-2600
Ohio TI, 3300 S Dixie Dr, Dayton .... AX 8-7513
Okla TI, 400 Lincoln Blvd, Oklahoma City .... JA 4-8344
Okla TI, Box 5005 Whittier Sta, Tulsa......... 583-8121
Pa TI, 1015 Barclay Bldg, Bala Cynwyd 839-6380
Pa TI, 54 E Main St, Lansdale.............. 855-1761
Tex TI, Box 5012, Dallas.................. 238-2011
Tex TI, 5240 Elm St, Bellaire.............. 666-2175
Tex TI, 825 E 531/2 St, Austin............. 453-3856
Tex TI Supply, 6000 Denton Dr, Dallas........ 357-6121
Tex Industrial Prods Stafford, Box 66027, Houston
Wash TI, 5801 6th Ave S, Seattle
Can TI, 663 Orly Ave, Dorval, Que 631-6010
Can TI, 280 Centre St E, Richmond Hill, Ont .. 925-1035
For TI Supply, Frederikinkatu 56 D38, Helsinki 10
Den TI A/S, Rathsackvej 10, Copenhaven

Fr Texas Instr France SA, Boite Postale 5
Villeneuve-Loubet (AM)
Fr TI, 11 Rue de Madrid, Paris 8
Fr TI Supply, 30-31 Quai Rambaud, Lyon
Fr TI Supply, 20 Ave Honore Serre, 31 Toulouse,
Ger Texas Instr Deutsch GmbH, Wolframstr 26
7000 Stuttgart
Ger TI Deutschland GmbH, Hildesheimerstr 19
3 Hannover
Ger TI Deutschland GmbH, Clemenstr 30, 8 Munich 23
Ger TI Deutschland GmbH, Koeningslacherstr 22
6 Frankfurt
Ger TI Supply, Kuntzelstr 57, 43 Essen
Ger Texas Instr Deutschland GmbH, Keperstr 33
Freising 805
GB Texas Instruments Ltd, Manton La, Bedford
GB TI Supply, 12 Wellcroft Rd, Slough, Buckinghamshire
GB TI Supply, 2259/61 Coventry Rd
Sheldon, Birmingham
GB TI Supply, 119 High St, Southampton
GB Texas Instruments Ltd, 12 York St, Manchester 2
GB Texas Instr Ltd, Dallas Rd, Bedford
Holl TI Holland N V, Postbox 43, Kolthofsingel 8, Almelo
Holl Texas Instr Holland N V, Enschedesestr 19
Hangelo (OV)
Ital TI Italia S p A, Varianta S S 7 Bis, Aversa
Ital TI Italia S p A, Via Colautii 1, Milano
Ital Texas Instruments Supply, Via Padre Semeria 63
Rome
Jap Texas Instr Asia Ltd, 10-2 Nagatacho 2 Chome
Chiyoda-Ku/Tokyo
Swed TI Sweden AB, Timmermansgaten 34, Box 17116
Stockholm
Swit TI Switzerland SA, 118 rue du Rhone, 1204 Geneva
Arg TI Argentina S A I C F, Pasaje Portugal 561
Buenos Aires, Suc
Braz TI Electronicos do Brasil Ltda
Rua Cesario Alvim 770, Caixa Postal 30.103
Sao Paulo
Mex Texas Instr de Mex S A, Poniente 116 489
Col Ind Vallejo
Aust TI, Oldham Rd, Elizabeth
Aust TI Australia, 38 Railway Parade, Burwood, N S W

TEXAS INSTRUMENTS INC INDL PRODS DIV, BOX 66027
HOUSTON, TEX, 77006 .... 713 227-3611
F GLEASON, EMP 1000
ADV PG 324
Ala Lee Assoc, 5 Traylor Island NW
Huntsville 205 539-0761
Ala Medco Assoc, Holiday Office Ctr
Huntsville 205 881-3721
Ala Murphy & Cota, 904 Bob Wallace Ave
Huntsville 205 536-9121
Ala Texas Instr Inc, 3313 Memorial Pkwy SW
Huntsville 205 881-4061
Ariz Brooks Feeger & Assoc, 4710 N 16th St
Phoenix 602 264-6536
Ariz Tech-Ser Inc, 1805 E Indian School Rd
Phoenix 602 265-3629
Ariz Texas Instr Inc, 2535 Camel Back Rd
Phoenix 602 279-5531
Cal Robert Olander & Co, 540 Hollywood Way
Burbank 213 843-5200
Cal Costello-Little, 8737 Venice Blvd
Los Angeles 213 870-5951
Cal Instruments for Measurements
3455 Cahuenge Blvd, Hollywood ... 213 469-1641
Cal Texas Instr Inc, 5005 W Century Blvd
Inglewood 213 673-0845
Cal Gado Instr Sales, 80 El Camino Real
Mountain View 415 961-2222
Cal Costello-Little & Co, 575 Middlefield Rd
Palo Alto 415 321-3745
Cal Texas Instr Inc, 230 California Ave
Palo Alto 415 326-6770
Cal Electronic Engrg Assoc, 1293 Laurel Ave
San Carlos 415 593-2189
Cal Instruments for Measurements
2269 E Middlefield Rd
Mountain View 415 961-2828
Cal Gordon-Elliott Inc, 13615 Victory Blvd
Van Nuys 213 873-6862
Colo Brooks Feeger & Assoc, 1309 S Inca
Denver 303 744-3301
Colo PLS Assoc, 7895 E Prentive Ave
Englewood 303 771-0140
Conn Applied Measurements Inc, Box 5181
Hamden 203 288-5288
Conn Howard J Schuft Co, 965 Dixwell Ave
New Haven 203 865-1365
DC Texas Instr Inc, 1875 Connecticut Ave NW
Washington 202 234-9320
Fla Lee Assoc, 200 E Marks, Orlando 305 241-4445
Fla Medco Assoc, 4010 Bobolink La
Orlando 305 841-2215
Fla Murphy & Cota, 712 Vassar
Orlando 305 424-2407
Fla Texas Instr Inc, 618 E South St
Orlando 305 422-9894
Ill HH Sales, 1255 Sandburg, Chicago .. 312 642-4464
Ill Texas Instr Inc, 5901 N Cicero Ave
Chicago 312 286-1000
Ill Bard Assoc, 40 N Beach, LaGrange
Ind Bard Assoc, 6806 Farmleigh Dr
Indianapolis 317 849-2723
La Gilbert & Assoc, 8130 Willow St
New Orleans 504 866-7444
Md Lee Assoc, 12550 Wilkins Ave
Rockville 301 949-4800
Md Gawler-Knoop Co, 807 E Seminary Ave
Towson 301 365-3151
Mass Applied Measurements Inc, 86 Haywood Rd
Acton 617 263-2766
Mass Texas Instr Inc, 480 Neponset St
Canton 617 828-5024
Mass Wild & Assoc, 570 Hillside Ave
Needham 617 444-2366
Mass Howard J Schuft Co, 815 Washington St
Newtonville 617 527-5304
Mass Burlingame Assoc, 7 Wellington St
Waltham 617 894-1955
Mich Anger Assoc, 13126 Michigan Ave
Dearborn 313 584-9853
Mich Tower Engrg Co, 19471 Jas Couzens Hwy
Detroit 313 341-2332
Mich St Sterling Co, 21250 10 1/2 Mile Rd
Southfield 313 357-3700
Minn Bard Assoc, 7710 Morgan Ave S
Minneapolis 612 866-1700
Minn Texas Instr Inc, 7615 Metro Blvd
Minneapolis 612 941-3166
Mo S Sterling Co, 11734 Lackland Industrial Dr
St Louis 314 542-3636
NJ Texas Instr Inc, Box 798, Clark 201 382-9800
NJ Wild & Assoc, Box 300, Ramsey 201 327-4244
NJ Gawler-Knoop, 14 Beaufort Ave
Roseland 201 226-4545
NM Brooks Feeger & Assoc, 1238 Ortiz SE
Albuquerque 505 268-4387
NM PLS Assoc, 4200 B Silver Ave SE
Albuquerque 505 255-2330
NY Martin P Andrews Inc, 319 Mott Rd
Fayetteville 315 637-3144
NY Wild & Assoc, Box 266
Hastings-on-Hudson 914 963-3803
NY Burlingame Assoc, 510 S Fulton Ave
Mt Vernon 914 664-7530
NY Wild & Assoc, 200 Michael Dr
Syosset 516 921-7100
NY Burlingame Assoc, E Malloy Rd
Syracuse 315 454-2408
NC Medco Assoc Inc, 310 W Third St
Burlington 919 226-7177
NC Lee Assoc, 432 W End Blvd
Winston-Salem 919 724-2406
NC Murphy & Cota, 1107 Burke St
Winston-Salem 919 724-0750
Ohio Space Assoc, 1717 Section Rd
Cincinnati 513 631-0402
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland 216 442-8080
Ohio S Sterling Co, 2673 Culver Ave
Dayton 513 298-7573
Ohio Tower Engrg Co, 2801 Far Hills Ave
Dayton 513 298-1491
Okla Data Engrg Corp, 4580 E 50th St, Tulsa
Pa Texas Instr Inc, 1015 Barclay Bldg
Bala Cynwyd 215 839-6380
Pa Russell F Clark Co, 10517 Lindberg Ave
Pittsburgh 412 242-9500
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh 412 884-5515
Pa Gawler-Knoop Co, Box 414
Richboro 215 925-7550
Pa Wild & Assoc, 80 Second St Pike
Southampton 215 357-6645
Tenn Gilbert & Assoc, Box 28522
Memphis 901 388-0571
Tex Data Engrg Corp, 5641 Yale Blvd
Dallas 214 363-9351
Tex Servo Elctns Prods Co, Box 20371
Dallas 214 238-3881
Tex Texas Instr Inc, Box 6015, Dallas 214 238-3881
Tex Arnold Barnes Co, 3230 Mercer
Houston 713 622-3620
Tex Data Engrg Corp, 2120 S Post Oak
Houston 713 622-2800
Tex Pan Tech Engrg Co, 3815 Richmond Ave
Houston 713 666-0248
Tex Arnold Barnes Co, 740 S Sherman
Richardson 214 235-4541
Tex Scientific Sales Co, 777 S Central Expwy
Richardson 214 231-6541
Tex Arnold Barnes Co, Box 13069
San Antonio 512 828-1323
Va Wild & Assoc, 1011 N Highland St
Arlington 202 524-2274

TEXSCAN CORP, 2446 N SHADELAND AVE, INDIANAPOLIS
IND, 46219 .... 317 357-8781
R SHEVLOT, EMP 100, ENG 12
ADV PG 61, 258, 293, 297, 325, 464, 569
Cal R F Assoc, 1621 Pontius Ave
Los Angeles 478-1586
Cal R F Assoc, 800 San Antonio Rd
Palo Alto 327-5531
Conn Instrument Consultants, Inc, 2381 Whitney Ave
Hamden 203 248-4174
Fla Theall Corp, 245 S Maitland Ave
Maitland 305 647-4469
Ill Bard Assoc, LaGrange Ind Park
LaGrange 354-0660
Ind Bard Assoc, 6806 Farmleigh Dr
Indianapolis 849-2723
Kan Impala, Inc, 6917 W 76th St
Overland Park 648-6901
Md Eastern Instrumentation Inc, 1002 Ingleside Ave
Baltimore 744-3675
Mass Instrument Consultants, Inc, 252 Waban Ave
Waban 969-9881
Minn Bard Assoc, 7700 Morgan Ave S
Minneapolis 866-1700
Mo Impala Inc, 47 Vlg Sq Shop Ctr
Hazelwood 522-1600
NM A L S Electronics, Box 11626
Albuquerque 298-2575
NY Eastern Instrumentation Inc, 350 Northern Blvd
Great Neck 466-9505
NY K L M Assoc, 9 Hollywood Dr
Whitesboro 736-2450
NY K L M Assoc, 201 S Main St
North Syracuse 458-6214
NY K L M Assoc, 8 Bear Hill Dr, Palmyra 597-9776
NC Technical Mktg Assoc, 5100 N Glen Dr
Raleigh 919 787-7244
Ohio Micro Sales Corp, 2000 Lee Rd
Cleveland 371-0522
Ohio Micro Sales Corp, 1250 W Dorothy La
Dayton 298-3033
Pa Eastern Instrumentation Inc, 613 Cheltenham Ave
Philadelphia 927-6269
Tex Dannemiller-Smith Inc, 2712 W Mockingbird
Dallas 357-8249
Tex Dannemiller-Smith Inc, 5760 Rice Ave
Houston 668-4461
Tex Dannemiller-Smith Inc, 7077 San Pedro
San Antonio 341-1356
Wash Dewar & Assoc, 6361 First Ave
Seattle 206 763-2233
Can BRH Assoc Ltd, 6338 Victoria Ave
Montreal, Que 733-5331
Can BRH Assoc Ltd, 12A Finch Ave W
Willowdale, Ont 223-4008
Can BRH Assoc Ltd, 1300 Carling Ave
Ottawa, Ont 728-0113

TEXTOOL PRODUCTS INC, 1410 PIONEER DR, IRVING
TEX, 75060 .... 214 ME 1-5585
T FRY, EMP 125, ENG 6, $1,000-$2,500M
Ariz J Hagestad, Box 1469, Scottsdale ... 602 945-8415
Cal Mulvin & Co, 3843 E Colorado Blvd
Pasadena 213 681-4591
Cal Components Unltd, 499 Hamilton Ave
Palo Alto 415 326-1033
Fla Barrett Assoc, 1616 N Orange Ave
Orlando 305 277-2857
Kan D D Darnell, 6005 Martway
Mission .... 913 RA 2-1736
Mass Representatives Corp, 10 High St
Boston 617 426-0541
NJ C K Wall Co, 303 Claremont Ave
Montclair .... 201 PL 6-4832
NC K O Brown & Co, Box 9231
Greensboro 919 288-2651
Tex K O Brown & Co, Box 20845
Dallas 214 357-3996
For B Freudenberg Inc, 50 Rockefeller Plaza
New York, N Y .... 212 PL 7-9130
Jap Seishin Trading Co Ltd, Mori Bldg No 11, Tokyo

TEXWIPE CO, BOX 278, HILLSDALE
N J, 07642 .... 201 664-0555
E PALEY, EMP 43, ENG 6, $250-$500M

THE NUCLEUS, 121 E IRVING LN, OAK RIDGE
TENN, 37830 .... 615 483-0008
S LEWIS JR, EMP 15, ENG 2, UP TO $100M

THER ELECTRIC & MACHINE WORKS INC
17 S JEFFERSON ST, CHICAGO
ILL, 60606 .... 213 FR 2-9855
P WATT, EMP 110, ENG 7, $1,000-$2,500M
NY Ther Elec & Mach Works Inc, 249-06 Jericho Tpk
Bellerose 347-8980

THERMAL AMERICAN FUSED QUARTZ CO
RT 202 & CHANGE BRIDGE RD, MONTVILLE
N J, 07045 .... 201 334-7770
J VON STERNBERG, EMP 42, ENG 2, $1,000-$2,500M
Ariz Howe & Howe Sales Inc, Box 10497
Phoenix 264-7971
Cal Connolly & Co Inc, 914 Rengstorff Ave
Mt View 967-6988
Cal A-F Sales Engrg Inc, 94 S Los Robles
Pasadena .... 213 MU 1-5631
NJ D & R Assoc, 248 Lorraine Ave
Upper Montclair 744-8378
Ger Berliner Quarz-Schmelze, GmbH, Rheinallee 143
Mainz
GB Thermal Syndicate Ltd, Wallsend
Northumberland .... WAL 623242

THERMAL CIRCUITS INC, 4 JEFFERSON AVE, SALEM
MASS, 01970 .... 617 745-1162
D CHATTERTON, EMP 35, ENG 5, $250-$500M
Cal Belilove Co, 960 Arlington Ave
Oakland 658-9011
Cal Western Controls, 2630 Seaman Ave
El Monte 443-9376
Colo Kenneth G Boyd Co, 15 Morningside Dr
Denver 279-3391
Conn Godfrey & Assoc, Box 189
West Hartford 203 521-0838
Conn Godfrey & Assoc, Box 5447
Hamden 203 288-1795
Ill Electric Thermal Systems, 211 N Lincoln St
Hinsdale 325-1960
Md Rothenheber & Co Inc, 14211 Chesterfield Rd
Rockville 929-3388
Minn Countryman, Wagner, Behnen Co
1955 University Ave, St Paul 645-9151
NJ Hemmel Co, Box 764, Caldwell 228-2220
NY Hemmel Co, Box 764, Buffalo 716 634-9873
NY Hemmel Co, Box 647, Syracuse 315 471-0284
Ohio J R Howe Co, 815 Wakefield
Cincinnati 321-3245
Pa Rothenheber & Co Inc, 53 Cricket Ave
Ardmore 642-6912
Tex Woodard-Leake Co, 326 Merchants St, Bk Bldg
Dallas 826-6350
Can Electrodesign Ltd, 9124 St Lawrence Blvd
Montreal, Que 514 389-5914

THERMAL CONTROLS INC, 75 RUTGERS ST
BELLEVILLE, N J, 07109 .... 201 759-7474
J RILEY, EMP 30, ENG 2, $100-$250M
Cal Prichard & Haney, 387 Fremont Ave
Los Altos 941-2240
Ill Malovac Sales Co, 1726 N 76th Ct
Elmwood Park 654-4110
Iowa J Taylor Hersey, 2120 Greenwood Ave, S E
Cedar Rapids 362-2031
Mass Lundy Sales Corp, 694 Main St
Waltham .... TW 3-6064
NY O F Masin Inc, 140 Boston Post Rd
Larchmont 834-7500
NC A B Andrews & Co, Insurance Bldg
Raleigh .... TE 3-5567
Ohio J A Lombard Co, Box 481, Dayton 275-6336
Tex Texport Co, 8811 Gaylord St, Houston ... ME 1-6270
Wash Ron Merritt Co, 1320 Prospect St
Seattle 682-7337

THERMAL ENGINEERING & DESIGN CO, 217 ASH ST
AKRON
OHIO, 44308, TWX MR ROBERT M W ... 216 535-5761
R WELLS, EMP 1

THERMALLOY CO, 8717 DIPLOMACY ROW, DALLAS
TEX, 75247, TWX 910 861-4410 .... 214 ME 7-3333
W THOMPSON, EMP 85, ENG 5, $1,000-$2,500M
Ala Young & Lawrence, 2907 Governors Dr SW
Huntsville 205 539-6575
Ariz Carter Assoc, Box 99, Scottsdale 947-4355
Cal Dewco Sales Inc, 3240 Hillview
Palo Alto 321-2950
Cal Dewco Sales Inc, 7903 Balboa Blvd
San Diego 278-7405
Cal Dewco Sales Inc, 6915 San Fernando Rd
Glendale 213 849-6101
Colo Lindberg Co, 2654 S Krameria, Denver ... 757-6489
Conn Nelson & Schoonmaker, Box 179
Thomaston 203 283-5959
Fla Young & Lawrence Assoc Inc, 300 31st St N
St Petersburg Beach 813 894-0026
Fla Young & Lawrence Assoc Inc
601 W New York Ave
Winter Park 305 647-6929
Ill Berndt Assoc, 6416 W Belmont Ave
Chicago 312 283-0713
Ind R O Whitesell & Assoc Inc, Central Bldg
Ft Wayne 743-4411
Ind R O Whitesell & Assoc Inc, 6620 E Washington
Indnpls .... FL 9-5374
Iowa Engineering Services Co, 1026 3rd Ave SE
Cedar Rapids 366-1591
Kan Ensco, 7924 A State Line
Prairie Village 913 649-4000
Ky R O Whitesell & Assoc Inc, 3620 Lexington Rd
Louisville 893-7303
Md Doss Electronics, 666 Security Blvd
Baltimore 944-1900
Mass Nelson & Schoonmaker, Box 189
Arlington 617 643-5454
Mich R O Whitesell & Assoc Inc, 303 Fidelity Bldg
Benton Harbor 616 927-2041
Minn Wenco Sales, 7728 Morgan Ave S
Mnpls 866-3639
Miss Ensco, 6717 Vernon, St Louis 726-2233
NJ J A Rudy & Assoc, 409 Grand Ave
Englewood .... LA 7-5880
NY Rep Tech Inc, Box 156, Clarence 716 684-6250
NY Rep Tech Inc, Box 98, Syracuse 315 454-0761
NY J A Rudy & Assoc, New York 695-7850
Ohio R O Whitesell & Assoc, 21139 Lorain Ave
Cleveland 333-2585
Ohio R O Whitesell & Assoc, 1172 W Galbraith
Cincinnati 521-2290
Ohio R O Whitesell & Assoc, 4133 S Dixie Ave
Dayton 513 298-9546
Pa Elcom, Inc, 130 S Easton Rd, Glenside ... 885-1325
Pa R O Whitesell & Assoc Inc, 201 Penn Ctr Blvd
Pittsburgh 242-0100
Tex Carter Assoc, 154 S Garland Ave
Garland .... BR 6-7151
Utah Arrowhead Sales, 1966 W 6255 South
Salt Lake City 298-2751
Wash Ray Johnston Co, 1011 NE 69th St
Seattle 206 524-5170
Can A Deskin Sales, 1565 Louvain St W
Montreal 384-1420
Can A Deskin Sales, 110 Westhumber Blvd
Rexdale, Ont 416 742-6871
BC A Deskin Sales, 1641 Venables St
Vancouver, B C 604 253-6396

THERMAL RESEARCH INC
FLORENCE AVE & BROADWAY, UNION BEACH
N J, 07735 .... 201 264-8400
V CAMERON, SLS MGR, EMP 90, ENG 15
$1,000-$2,500M
Ga Scientific Instr, 2 Collier Rd NW
Atlanta 404 351-6726
Ill Winfield Engrg Sales Co, 407 S Dearborn St
Chicago 312 939-0648
Md Lewis Assoc, 4925 Fairmont Ave
Bethesda 657-3844
Mass D H Stewart Inc, 216 Burroughs Rd
Braintree 617 848-1477
Mich Mager Scientific Inc, 2200 Fuller Rd
Ann Arbor 313 662-1472
NJ R N Juntwait & Co, Box 295
Ridgewood 201 652-9191
NJ Professional Sales Corp, Box 905
Englewood Cliffs 201 567-0522
Pa W F Assoc, Broad & Chestnut Sts
Phila 215 546-4121

THERMAL SYSTEMS INC, 13920 S BROADWAY
LOS ANGELES
CAL, 90061, TWX 910-346-6774 .... 213 321-4350
T HYNES, EMP 60, ENG 7, $1,000-$2,500M
Ala Kemp Engrg Co, 4306 Governors Dr W
Huntsville 837-4304
Cal Mauldin Co, 441 Calif Ave, Palo Alto ... DA 6-5291
Colo F Y Gates CO, 3401 S Bannock
Englewood 761-0591
Fla W R Lehmann Co, Box 20275, Orlando ... 422-9848
Mass New England Mktg Assoc, 55 Salem St
Lynnfield 245-9530
Mass New England Mktg Assoc, 55 Salem St
Lynnfield 617 245-9530
NM F Y Gates Co, 2631 Texas, N E
Albuquerque 298-1875
NY H C Johnson Agencies, 111 Mt Hope Ave
Rochester 232-2688
NY H C Johnson Agencies, 8 Los Robles St
Williamsville 632-7880
NY C F Russell Co, Inc, 50 Park Ave
Bay Shore 665-2623
Tex Apogee Engineering, 137 Walnut Hill Vlg
Dallas .... 214 FL 2-2083
Utah F Y Gates Co, 455 E Fourth St
Salt Lake City 359-1101
Wash Bob Chase & Assoc, 12422 68th Ave NE
Kirkland 206 454-2514

THERMAL WIRE & ELECTRONICS CORP, KEELER'S BAY
SOUTH HERO, VT, 05486 .... 802 863-6811
M ZITER, EMP 300, ENG 2
Cal Yarbrough Sales Co, 1608 Orange St
Alhambra 283-0668
Cal Special Products, Inc, 15122 S Broadway
Gardena 321-9910
Fla Geartner Assoc, 235 Lincoln Rd
Miami Beach .... JE 1-0200
Ill Edw G Kostal & Assoc, 6272 W North Ave
Chicago .... TU 9-1521
Ind Jedco Inc, 4727 Foxgrove, Ft Wayne 483-4126
Mass Harco, Box 203, Stow 263-7748
Minn Walt Schmitt Assoc,,3881 Hwy 100
Minneapolis 920-3883
Mo Mid West Insulation, Box 1427
Maryland Heights 314 432-3444
NJ M D Industries, 240 Grand Ave, Leonia ... 944-2212
NY Kaelber & Mack Inc, 1 Park Ave
Manhasset .... MA 7-6620
NY A B W Agents Inc, 633 Sibley Tower Bldg
Rochester 546-8061
Can Prelco Elctns Ltd, 480 Port Royal St W
Montreal 389-8051
For Du-Val Ind For Trade Corp, Gulf States Bldg
Dallas, Tex .... RI 8-7755

THERMATRON DIV WILCOX & GIBBS INC
1040 AVE OF THE AMERICAS, NEW YORK
N Y, 10018 .... 212 LO 5-7900
P BLACK, EMP 55, ENG 5, $1,000-$2,500M
Cal Richard Speir, 4833 Telegraph Rd
Los Angeles 268-1711
Ga William Wallace, 771 Miami Circle, N E
Atlanta 261-6134
Ill Thermatron Div, 323 S Franklin St
Chicago .... HA 7-2825
Mich Martin J Foley Co, 6402 E Jefferson Ave
Detroit .... LO 8-0900
Mo Refco, 525 St Francois, St Louis .... TE 7-3933
Pa Thermatron Div, 548 Penn St, Yeadon .. MA 2-1650
Can All Plastics Enterprises, 1570 Midland Ave
Scarborough Ont 416 755-9898

THERMAX WIRE CORP, 304 E 45TH ST, NEW YORK
N Y, 10017, TWX 710 581-6581 .... 212 939-8300
R PRUSAK, EMP 65, ENG 5
Cal Sonic Wire Sales Inc, 7105 Gerald Ave
Van Nuys 781-3490
Fla Varrelman-Gorman Co, Box 23214
Ft Lauderdale 305 943-7300
Ind C Given & Assoc, 921 E 3rd St
Mishawaka 219 255-6439
Kan Thunderbird Engrg sales & Serv Inc, 7707 E Osie
Wichita .... 316 MU 4-3941
Kan Thunderbird Engrg Sales & Serv Inc
4014A W 95th St
Prairie Village .... 913 NI 2-7220
Md Barn Hill & Assoc, 1831 Greenspring Dr
Timonium 301 252-5610
Mass Robert J Hoey Co, 17 Orchard Dr
West Acton 617 891-4510
Mich Heick & Ralph Assoc, 26847 Grand River Ave
Detroit 538-3350
Mo Thunderbird Engrg Sales & Serv Inc
400 Brookes Dr, Hazelwood ...... 314 PE 1-4343
NJ Varrelman Gorman Co, Box 206
Livingston .... 201 WY 2-2505
NY Kauterskill Elctns & Sales Co, RD 1 Box 358B
Kingston 331-8812
Ohio J Cutts & Assoc, 24039 Ambour Dr
North Olmsted 301 252-5610
Tex Thunderbird Engrg Sales & Serv Inc, 5526 Dyer
Dallas .... 214 EM 8-3064
Va Glen White Assoc, Box 1104
Lynchburg 384-2062

THERMIONIC PRODUCTS ELECTRONICS LTD
SHORE RD, HYTHE, SOUTHAMPTON
ENGLAND, TWX 47600 .... HYTHE 3265
K BOON, EMP 300, ENG 12, $1,000-$2,500M
Can Instronics Ltd, Box 100, Stittsville
Ottawa, Ont 836-4411
For C E Bleck LTDA, Rua Serpa Pinto 15-30D
Lisbon 2, Port 367471
For Telecom Ltd, Box 1812, Tehran, Iran 43850
For Iraqi Machine Parts Ltd, 3/10/1 Sadoon St
Baghdad, Iran 87098
For Eastern Bureau, Box 813, Brazil St
Damascus, Syria 39340
For Atberk Machy & Elctns Trade Co Ltd
Ataturk Bulvari, Yenisehir, Ankara 1724 24
Den Tage Olsen a/s, Ronnegade 1
Copenhagen O 294800
Fr Sadelec, 62 Rue Des Mathurins
Paris 8E .... Anjou 53-68
Ger Willy List, 6, Frankfurt/Main-W 13
Franz Rucker Allee 42 776-90
Holl Radikor Electronics, Emmastr 13A
Hilversum 14678
Ital Conway Dolman, Via Flaminia N 388
Rome 304947
Jap Kyokko Trading Co Ltd, Ginza-Higashi Chuo-Ku
Tokyo 541-1401
Nor J M Feiring a/s, Lilletorvet 1, Oslo 331358
SAfr Field Agencies, 202 Main St
Johannesburg 23-5766
Swed Scantele AB, Tengdahlsgatan 24
Stockholm SO 245825
Swit Dewald Ltd, Seestr 561, 8038 Zurich 451300
Belg Intair S A, Hall Hermes 1301, Ctr Intl Pl Rogier
Brussels 17 23 46
Gr P C Lycourezos Ltd, 3 Stadiou St
Athens 125 .... 230 145
Ind Hind Ind & Merc Corp Pty Ltd
205-A Dr Annie Besant Rd, Bombay 18 30061
Isrl Atalla Eng Co, Box 1838, Amman, Jordan 23567
Fin Nores & Co Oy, Fabianinkatu 32
Helsinki 10 13360
Aust Tape Recorders Pty Ltd, 49-51 York St
Sydney 29-1571
Aust Sonophone Dist Ltd, 5-7 Kingston St
Auckland C 1 44-265

THERMO-COUPLE PRODUCTS CO INC
27W230 BEECHER, WINFIELD
ILL, 60190 .... 312 653-1400
D RANDICK, EMP 48

THERM-O-DISC INC, 1320 S MAIN ST, MANSFIELD
OHIO, 44907 .... 419 756-5911
R CLANCY, EMP 800, ENG 20, OVER $10,000M
Cal Glen Martin, 2367 Jefferson St
Torrance 213 755-3803
Ill R F Cox, 12 John St, North Aurora ... 312 892-5811
Ind G P Barker, 2921 Mishawaka Ave
South Bend 219 288-8018
NJ J F Kindel, 2 Godwin Ave
Ridgewood 201 652-2155
NY J E Zimmerman, 1629 Monroe Ave
Rochester 716 271-2604
Tenn W R Sinks, 327 W Main St
Hendersonville 615 824-2614
Tex D H Hale, 8609 Northwest Plaza Dr
Dallas 214 368-1645
Wis C M O'Brien, 4447 N Oakland Ave
Milwaukee 414 332-5010

THERMO ELECTRIC CO INC, 109 FIFTH ST
SADDLE BROOK
N J, 07662, TWX 710-990-5108 .... 201 843-5800
F LEITZELL, EMP 397, ENG 12, $5,000-$10,000M
Cal Pacific Coast Instrument Co, 1161 Folsom St
San Francisco 621-1753
Cal Thermo Elec Co Inc, 12125 Riverside Dr
North Hollywood 985-7470
Colo J B Drummond Co, 3021 S Broadway
Englewood 789-2281
Conn Thermo Elec Co Inc, 914 Main St
East Hartford 289-7436
Ga Thermo-Elec Co Inc, 3550 Broad St
Atlanta 451-6194
Ill Thermo-Electric Co Inc, 120 E Ogden Ave
Hinsdale 325-2840
La Thermo-Electric Co Inc, 1737 Bellmeade St
Baton Rouge 924-3371
Mass Thermo-Electric Co Inc, 1420 Providence Hwy
Norwood 769-2370
Mich H H Barnum Co, 12201 Merriman Rd
Livonia 261-1150
Mo Thermo Elec Co Inc, Box 12861
Creve Coeur 968-3141
NJ Thermo Elec Co Inc, 96 Vreeland Ave
South Hackensack 487-5400
NY Thermo-Electric Co Inc, 5981 E Seneca Tpk
Jamesville 469-4411
NC Thermo-Electric Co Inc, 3900 Conway Ave
Charlotte 523-8671
Ohio Thermo-Electric Co Inc, 8348 Vine St
Cincinnati 821-8875
Ohio Thermo-Electric Co Inc, 21190 Center Ridge Rd
Cleveland 333-0247
Pa Arobone & Cline Inc, 333 W Mt Pleasant Ave
Phila 248-1243
Pa Thermo-Electric Co Inc, 901 Wood St
Pittsburgh 241-1200
Tex Thermo-Electric Co Inc, 6434 Maple Ave
Dallas 352-7778
Tex Thermo-Electric Co Inc, 2711 Broad St
Houston 644-5466
Va Arobone & Cline Inc, Box 2921
Richmond 643-7373

Wash Trans Dynamics, Inc, 7834 SE 32nd St
Mercer Island 232-1094
Can Thermo-Electric (Can) Ltd, 335 11th Ave SW
Calgary, Alb 269-8343
Can Thermo-Electric (Can) Ltd, 300 Decaire Blvd
Montreal, Que 747-7511
Can Thermo Electric (Can) Ltd, Box10
Toronto Ont 677-1100
Fr Aeromaritime Electronique, 57, Ave D'Lena, Paris 16
Holl Air-Parts Intl N V, 149, Haagweg, Ryswyk ... 31672
Ital C Pavone, S A S, Vianatale Battaglia 10
Milan 283 889
SAfr Bellanca Pty Ltd, 18 Loveday St
Johannesburg 835-4231
Swed Telemetric Instr AB, Scheelegatan 13
Malmoe 4 .... 040/185500
Swed Telemetric Instr Co, Humble Gatan 15
Sundyberg 3 .... 08/293090
BC Northern Columbia Process Equip Ltd
1234 Marine Dr, N Vancouver 987-5711
Belg Bureau Jean Andre, 23, Blvd de Waterloo, Brussels
Mex Inge Termo Industrial S A, Puebla 326-2
Mexico 7, D F 25 21 50
Aust H Rowe & Co Pty Ltd, 7 Flinders Cts
Melbourne 626511

THERMO ELECTRON ENGINEERING CORP
85 FIRST AVE, WALTHAM
MASS, 02154 .... 617 TW 4-8700
T JOHNSON, EMP 170, ENG 50, $2,500-$5,000M

THERMOLYNE CORP, 2555 KERPER BLVD, DUBUQUE
IOWA, 52001 .... 319 583-3501
J LARSON, EMP 90, ENG 6

THERMO-PHYSICS CORP, 17 WEBSTER AVE
CAMBRIDGE, MASS, 02141 .... 617 864-6500
J SPARRELL, EMP 16, ENG 5, $250-$500M
Colo Thermo-Physics Corp, 2150 S Josephine St, Denver

THERMO PRODUCTS CO DIV WEB PRESS ENG
213 W PIONEER RD, CEDARBURG
WISC, 53012 .... 414 377-1200
J BROWN, EMP 85, ENG 3, $500-$1,000M
Cal AmTEC, 1248 Marlin Ave
San Mateo 415 342-6502
Ill Traco Engineering Co, 5308 W Lawrence
Chicago 286-3555
Wis Hydro Electric, Cedarburg 414 377-5700
Mex Termopares y Assesorios, Madero 1244 Pte
Monterrey 3-29-64

THERMOSEN INC, 375 FAIRFIELD AVE, STAMFORD
CONN, 06904 .... 203 324-6125
N MAGIDA, EMP 22, ENG 3, $100-$250M
Cal Electronic Engr Assoc Ltd, 1293 Laurel St
San Carlos 593-2189
Cal Tucul Engineering Co, 6402 Crenshaw Blvd
Los Angeles 213 750-0338
Ind Coy Co, 3501 Fairfield Ave, Fort Wayne
Mass Normell Assoc, 10 Day St
Auburndale 617 969-5478
Minn International Sales Co, 8703 Beard Rd
Mnpls 881-6683
Mo Edemco Inc, 2605 S Hanley Rd
St Louis 647-5505
Mo ECI Semiconductors Inc, 3265 Gillham Rd
Kansas City 931-0829
NJ Magyar Assoc, Box 222, Metuchen 482-2076
NY L-Tron Corp, Box 114, Latham 785-5032
NY L-Tron Corp, Box 147, Skaneateles 685-6172
NY L-Tron Corp, 140 Keller St, Rochester 436-4410
Ohio Coy Co, Box 2078 Kettering Sta, Dayton
Ohio Coy Co, Box 5303, Akron
Pa Magyar Assoc, Box 8506, Phila 763-5044
Tex Southland Sales Co, 5810 Schumacher La
Houston 782-4575
Tex Southland Sales Co, Box 765
Richardson 231-2373
Can Gerry McKee Enterprises, 3300 Cavendish Blvd
Montreal 482-1810
Den K Kamuk, Prebens Vaenge 7, Lingby
Ger Sorensen-GmbH, Wilhelm-Leuschner Str 93
6 Frankfurt am Main
GB B & K Instruments Ltd, 59, Union St, London, S E 1
Holl Ingenieursbureau Projecto, Prinsengracht 530
Amsterdam
Ital Volta S p A, Via Vanga, 41 Cas Postale 257
Bolzano
Jap Japan Telescomm Corp, 17-1, 1 Chome, Shinbashi
Minatu-ku, Tokyo
Swed Ingeniorsfirman Stig Wahlstrom AB, Box 52, Farsta 1
Swit Sorensen Ardag, Binzstr 18, Zurich
Belg Belram S A, 83 Ave des Mimosas, Brussels 15

THERMO-SYSTEMS INC, 2500 CLEVELAND AVE N
ST PAUL, MINN, 55113 .... 612 633-0550
B DOLVEN, EMP 50, ENG 7
Wash Gordon McLaren, 7419 S E 24th St, Mercer Island
Can Willer Engrg & Sales Co, 1800 Avenue Rd
Toronto 12
Fr Mesureur, 30 Rue Sedaine, Paris, 11e .. ROQ 93-19

THERMOTECH INDUSTRIES INC, 1202 S 5TH ST
HOPKINS, MINN, 55343 .... 612 938-7671
E OSTERGARD, EMP 400, ENG 15, $5,000-$10,000M
Ariz Hamilton Reps, 9800 N Oracle Rd
Tucson 602 297-2279
Cal R Provence, Box 963, San Carlos
Cal R Provence, 804 Alameda
Belmont 415 591-6715

Cal Secana Co, 1613 W Burbank Blvd
Burbank 213 849-6848
Conn Don Kelley, 28 Whiting La, W Hartford ... 233-0870
Fla F Schraffenberger, 8114 Causeway Blvd
St Petersburg .... DI 5-7351
Ill J Robinson & Assoc, 1721 W Division St
Chicago 252-3400
Ind R McCampbell, 3715 Nokomis Rd
Ft Wayne 219 747-9697
Ky M F Eubank Sales Co, 424 vista Ct
Mt Sterling 498-5955
Md Ralph Matarazzo, 322 S Eden St
Baltimore .... EA 7-3907
Mich Gay Hall, 10432 W McNichols Rd
Detroit .... UN 4-1368
Minn William J Houlihan, 6030 Wayzata Blvd
Mnpls 545-2535
Mo D A James Co, 7116 Oakland Ave
St Louis .... 314 MI 4-0411
NJ Sphere Sales Co, 25 Amity St
Little Falls 201 256-2550
NY A J Orsi & Assoc, 39 Lackawanna Pl
Bloomfield, N J 743-7940
NY P Schumacher, Box 8399
Rochester 716 271-2132
NC Frank Clark, 532 Jefferson Dr, Charlotte ... 366-5253
NC Manufacturer Sales Co, Box 20005
Greensboro 919 274-2474
Ohio John Barto, 17090 Broadway Ave
Maple Heights 216 663-6595
Ore C E Riggs Inc, 422 NW 8th Ave
Portland 503 226-3286
Tex Gillett Industries Co, 5635 Yale Blvd
Dallas .... EM 3-0107
Wis Val Ove, 1348 N 37th St, Milwaukee .... DI 2-7220

THERMOTRON CORP, 937 S WASHINGTON AVE
HOLLAND, MICH, 49423 .... 616 396-3553
K DADD, EMP 100, ENG 14, $2,500-$5,000M
Ala Ridge Instrument Co, 7220 Governors Dr W
Huntsville 205 837-3211
Cal Thermotron Corp, 7033 N Canoga Ave
Canoga Park 213 345-9800
Fla Ridge Instr Co, 2227 Seely Dr
Orlando 305 293-4711
Ga Ridge Instrument Co Inc, 3094 McCully Dr NE
Atlanta 404 939-1554
Ill Bard Assoc Inc, La Grange Ind Pk
La Grange 312 354-0660
Ind Bard Assoc Inc, 4002 Meadows Dr
Indianapolis 317 849-2723
Mich S Sterling Co, 21250 10 1/2 Mi Rd
Southfield 313 357-3700
Minn Bard Assoc Inc, 7700 Morgan Ave S
Minneapolis 612 866-1700
NM Electronic Enterprises, 1900 Washington NE
Albuq 505 256-1585
NM Electronic Enterprises, Box 116
Las Cruces 505 524-0126
NY Spacetronics Inc, 1705 Merrick Ave
N Merrick 516 868-1800
Ohio S Sterling Co, 5827 Mayfield Rd
Cleve 216 442-8080
Ohio S Sterling Co, 2673 Culver Ave
Dayton 513 298-7573
Pa S Sterling Co, 4232 Brownsville Rd
Pittsburgh 412 884-5515
Tenn Ridge Instrument Co, 140 E Division Rd
Oak Ridge 615 483-1311
Tex Merit Co, 10044 Monroe St, Dallas .. 214 352-8040
Wash Walsh-Ehlers Inc, 1138 Poplar Pl S
Seattle 206 322-1155
Can Beechey Enterprises, 3218 Weston Rd
Weston, Ont 416 472-7122

THERMO-VAC INC, 16850 S STATE ST
SOUTH HOLLAND, ILL, 60473 .... 312 339-2020
M PATTERSON, EMP 60, $1,000-$2,500M

THETA INSTRUMENT CORP, 22 SPIELMAN RD
FAIRFIELD
N J, 07006, TWX 710 734-4331 .... 201 227-1700
S HANDELMAN, EMP 200, ENG 15, $1,000-$2,500M
Ala Technical Assoc, Inc, Box 4088
Huntsville 205 881-8494
Ariz R A Mayes Co, 4747 N 16th St
Phoenix 602 279-5243
Cal Dynamic Assoc, 1011 Cadillac Way
Burlingame 415 344-2521
Cal Dynamic Assoc, 5190 W Washington Blvd
Los Angeles 213 933-5833
Colo R A Mayes Co, Box 314
Broomfield 303 421-0706
Conn Measurement Equipment Co, Box 272
Milford 874-9222
Conn Measurement Equip Co, Box 8192
East Hartford 203 874-9222
Fla Technical Assoc Inc, 2319 E South St
Orlando 305 424-5681
Ill Systems Engrg Assoc, 6253 Milwaukee Ave
Chicago 312 774-1452
Ind Systems Engrg Assoc, 1010 E 86th St
Indianapolis 317 846-2593
La Technical Assoc, Box 731, Slidel 504 288-7122
Md Paddock Joslow Co, Box 192
Silver Spring 301 588-7866
Mass Measurement Equip Co, 591 North Ave
Wakefield 617 245-4870
Mich Anderson Elctns, 19471 James Couzens Hwy
Detroit 313 342-7133
Minn Systems Engrg Assoc, 3040 Snelling Ave S
Minneapolis 612 729-6161
Mo Ozark Elctn Mktg Inc, 2573 Woodson Rd
St Louis 314 423-7200

NM R A Mayes Co, 8016 Zuni Rd SE
Albuquerque 505 265-7989
NY Labtronics, 130 Pickard Bldg
Syracuse 315 454-9314
NY Harvey J Krasner Assoc, 33 Great Neck Rd
Great Neck 516 487-0690
NC Technical Assoc, 3809 Weona Ave
Charlotte 523-9121
Ohio Twin-Region Elctn Sales, 21010 Center Ridge Rd
Cleveland 216 331-7650
Ohio Twin Region Elctn Sales, 5700 Far Hills Ave
Dayton 513 434-8000
Pa Denco, 500A E Godfrey Ave
Philadelphia 215 725-9000
Pa Twin Region Elctn Sales, 201 Penn Ctr Blvd
Pittsburgh 412 824-1120
SC Technical Assoc, Box 5583
Spartanburg 803 585-3864
Tex Noakes Engrg, 1006 N Britain, Irving 255-0441
Tex R A Mayes Co, El Paso .... 915 Ent 750
Tex Noakes Engrg, Box 36258, Houston .. 713 529-6213
Utah Ramco, Salt Lake City 36-750
Utah R A Mayes Co, Salt Lake City .... 801 Ent 750
Wash McLaren & Assoc, 7419 SE 24th
Mercer Island 206 232-5164
Wis Systems Engrg Assoc, Box 526
Waukesha 414 782-3388
Can Radionics, Ltd, 8230 Mayrand St
Montreal, Que 739-5517
For International Engrg Service, Veitingergasse 159
A-1130 Wien Aus 82 46 732
Den Telemetric Instr A B, Box 4179
Malmoe 040/36629
Fr Technique et Produits, Cite Des Bruyeres
Rue Carle-Vernet 92 Sevres 626-02-35
Ger Tekelec-Airtronic GmbH, Alte Postr 5
7000 Stuttgart .... (0711) 22 53 15
GB Walmore Elctns Ltd, 11-15 Betterton St
London, WC2 .... TEm 0201-5
Ital Europavia-Italia, Viale Dell'Esperanto N 71
00144 Roma 5916641
Nor Hugo Riso A S, Box 8 Taasen, Oslo 23 25 80
Nor HUGO RISO A/S, Box 8 Taasen, Oslo 23 25 80
Swed Telemetric Instr A B, Box 341
Sundyberg 08/29 30 90
Swit Resistronic AG, Postcheckkonto 25-9837
2500 Biel 032 35666
Belg Equipment Electronique, 184 Chaussee de Vleurgat
Bruxelles 02 47 06 13
Isrl STG International Ltd, Box 1276, Tel-Aviv 53459
Neth Control Systems & Instr N V, Waalkade 100-106
Nijmegen .... (08800)-20141
Spn Unitronics, Torre de Madrid Princesa 1
Madrid 241 14 96
Fin INTO O/Y, Box 10153, Helsinki 1 11 23

THIEM-TRANSREX INC, 825 NASH ST, EL SEGUNDO
CAL, 90245 .... 213 722-1476
R OLANDER, EMP 45, ENG 4, $1,000-$2,500M
Ariz Brooks, Feeger Assoc, 4710 N 16th St
Phoenix 264-6536
Colo Brooks, Feeger Assoc, 1309 S Inca St
Denver 744-3301
NM Brooks, Feeger Assoc, 1238 Ortiz SE
Albuquerque 268-4387
Okla Brooks, Feeger Assoc, Box 15656
Tulsa 835-7942
Pa Elk Engineering Co, Box 388, Paoli 644-6278
Tex Brooks, Feeger, Puckett, Box 57888
Webster 744-3301
Tex Brooks, Feeger, Puckett, Box 426
Euless 264-3363

THIOKOL CHEMICAL CORP, PANELYTE IND DIV
ENTERPRISE AVE, TRENTON
N J, 08638 .... 609 EX 2-2181
J MCLUSKY, EMP 550, ENG 35, OVER $10,000M
Ariz Electrical Specialty Co, 120 S 29th St
Phoenix 275-5739
Cal Electrical Specialty Co, 2820 E 12th St
Los Angeles .... AN 9-9511
Cal Electrical Specialty Co, 213 E Harris Ave
S San Francisco 589-9611
Cal Thiokol-Panelyte, 730 N Euclid St
Anaheim 714 635-2572
Colo Electrical Specialty Co, 2026 Arapahoe St
Denver .... CH 4-4588
Conn Thiokol-Panelyte, 2464 Whitney Ave
Hamden .... CH 8-2678
DC Thiokol-Paneyte, 8227 Woodmont Ave
Washington 202 654-8976
Fla Thiokol-Panelyte, Bay Shore Ave
Cape Coral .... LI 2-2298
Ill Thiokol-Panelyte, 7314 N Ridgeway Ave
Skokie .... OR 5-7337
Mass Thiokol-Panelyte, 594 Marrett Rd
Lexington .... VO 2-6350
Mich Thiokol-Panelyte, 2250 Monroe
Dearborn 561-1820
Mo F R Hearn Co, 9131 Watson Ind Pk
St Louis .... WO 1-6257
Ohio Thiokol-Panelyte, 20545 Center Ridge Rd
Cleveland 331-6720
Ore Electrical Specialty Co, 2360 NW Quimby St
Portland .... CA 7-3601
Wash Electrical Specialty Co, 2442 First Ave S
Seattle .... MU 2-3434
Wis Hamlet & Smith, 836 N 12 St
Milwaukee 272-2789

THOMAS & BETTS CO INC, 36 BUTLER ST, ELIZABETH
N J, 07207, TWX 710-741-4771 .... 201 354-4321
E OSBORNE, EMP 1211, UP TO $100M
Cal Thomas & Betts Co, 145 S Anderson St
Los Angeles .... AN 8-3191

Cal	Thomas & Betts Co, 23 N Broderick Rd Burlingame	692-2323
Colo	I W Strong & Assoc, 635 Canosa Ct Denver	292-6900
Ga	Thomas & Betts Co, Box 19875, Sta N Atlanta	355-6260
Ill	Thomas & Betts Co, 930 Lee St Elk Grove Vlg	439-3100
Mass	Thomas & Betts Co, 178 Forbes Rd Braintree	843-0373
Mich	Thomas & Betts Co, 8414 W McNichols Rd Detroit	UN 4-5077
Mo	Thomas & Betts Co, Box 12417 N Kansas City	VI 2-0337
NJ	Thomas & Betts Co, 5425 Marlton Pike Pennsauken	665-2484
NJ	Thomas & Betts Co, 520 Westfield Ave Elizabeth	352-2266
NY	Thomas & Betts Co, Davis Bldg Fayetteville	637-9691
NC	Thomas & Betts Co, 310 S Eugene St Greensboro	288-2213
Ohio	Thomas & Betts Co, 5826 State Rd Cleveland	888-0245
Ohio	Thomas & Betts Co, 6104 Ridge St Cincinnati	631-0815
Tex	Thomas & Betts Co, Box 6445 Houston	JA 8-1610
Tex	Thomas & Betts Co, 4120 Main St Dallas	821-9582
Wash	Thomas & Betts Co, 2207 First Ave S Seattle	MA 3-0357
Wis	Thomas & Betts Co, 4920 Vliet St Milwaukee	GR 6-7470

THOMAS ELECTRONICS INC, 100 RIVERVIEW DR WAYNE
N J, 07470, TWX 710-988-5836 .... 201 696-5200
M CHATER, EMP 128, ENG 12

Cal	A-F Sales Engineering Inc, 94 S Los Robles Pasadena	213 681-5631
Cal	Long & Assoc Inc, 505 Middlefield Rd Redwood City	415 369-3324
Cal	A-F Sales Engrg Inc, 94 S Los Robles Pasadena	213 681-5631
Conn	New England Tech Sales, 3 Mott Ave Norwalk	203 866-6382
Ill	Torkelson Assoc, 464 Central Ave Northfield	312 446-8450
Mass	New England Technical Sales Corp, 7 Cypress Dr Burlington	617 272-0434
Minn	Torkelson Assoc, 4820 W 77th St Minneapolis	612 920-1046
NJ	Budd-Tronics Inc, 71 Grayson Pl Teaneck	201 837-1660
NJ	E B Hinck Sales Co, 139 Union St Montclair	201 746-2625
Tex	P J Scanlon Co Inc, 724 S Sherman St Richardson	214 231-4661
For	Sylvan Ginsbury Ltd, 72 W 45th St New York, N Y	212 687-3213
For	Pantronics Inc, 500 Fifth Ave New York, N Y	212 244-2855

THOMAS INSTRUMENT CO, PHOENIX
N Y, 13135 .... 315 695-5134
S THOMAS, EMP 10, ENG 1, UP TO $100M

THOMAS MOLD & DIE CO, 249 W HENRY ST
WOOSTER, OHIO, 44692 .... 216 262-5911
V THOMAS, EMP 20, ENG 1, $250-$500M

Cal	Andrew Corp, 941-E Marylind Ave Claremont	569-9525
DC	Andrew Corp, Box 5897, Washington	654-2540
Ill	Andrew Corp, Box 807, Chicago	349-3300
Mass	Andrew Corp, Box 296, Boston	326-6500
Tex	Andrew Corp, Box 30506, Dallas	235-1279
Can	Andrew Antenna Co Ltd, 606 Beach St Toronto	364-4336
Den	Andrew Corp, Hojsgaards-Alle 82 Kobenhaven Hellfrup	GEN 3103

THOMAS & SKINNER INC, 1122 E 23RD ST INDIANAPOLIS
IND, 46207, TWX 810-341-3307 .... 317 WA 3-2501
R MILLAR, EMP 250, ENG 11, $2,500-$5,000M

Cal	Melchior & MacPherson Inc, 820 B Cherry St San Carlos	591-7383
Cal	Thomas & Skinner Inc, 19900 Susana Rd Compton	213 638-9393
Colo	I W Strong Assoc, 635 Canosa Ct Denver	292-6900
Ill	Richard Fonda, 1324 Elmdale Ave Chicago	743-5511
Ind	E H Fowler, 1120 E 23rd St Indianapolis	923-2501
Md	Mount & Co, 4853 Cordell Ave Bethesda	652-5612
Mass	Howard C Jappe, 37 Hillcrest Rd Wakefield	245-9359
Minn	D A Schultz Co, 801 SE 8th St Minneapolis	339-7701
NJ	Kaelber & Mack Inc, 9-09 Walsh Pk Fairlawn	797-7782
NY	Kaelber & Mack, Inc, 75 Plandome Rd Manhassett	627-6620
NY	Kaelber & Mack Inc, 82 Seaview Ave Northport	797-7782
NC	Mount & Co, Box 17365, Raleigh	787-8731
Pa	D G Quinlan Co, 242 E Butler Ave Ambler	646-7250
Tex	Stasco, 13310 Spring Grove Ave Dallas	239-5054

Wash	Ray Johnston Co, 1011 NE 69th St Seattle	524-5170
Can	Paisley Products of Canada, 40 Upton Rd Scarboro, Ont	755-2216

THOMSON ELECTRIC CO, SUB CIE FRAN THOMSON HOUSTON, 50 ROCKEFELLER PLAZA, NEW YORK
N Y, 10020 .... 212 245-3900
E STERN, OVER $10,000M

THOMSON ELECTRIC WELDER CO INC
161 PLEASANT ST, LYNN
MASS, 01901 .... 617 592-7710
D BELFORTE, EMP 80, ENG 10, $2,500-$5,000M

Cal	Fieldtec Inc, 3822 Campus Dr Newport Beach	860-4000
Cal	Fieldtec Inc, Box 11794, Palo Alto	967-1888
Colo	Overgard Machine Tool Co, 2045 W 8th Ave Denver	643-3141
Conn	Evans Equipment Co, Sunset Hill Rd Brookfield	775-2800
Ga	G H Crossley & Assoc, 3390 Peachtree Rd NE Atlanta	231-4278
Ill	Marshall & Huschart Machy Co, 571 Washington Chicago	312 726-8860
Ind	Marshall & Huschart Machy Co of Ind Chamber of Commerce Bldg Indianapolis	317 635-6347
Mass	Nelson & Jacobi Co, 16 Buffam St Salem	745-2568
Mich	Match & Merryweather, 15565 Northland Dr Detroit	444-4920
Minn	Minnesota Supply Co, 706 Portland Ave Mnpls	336-4646
Mo	J E Rush Mach Co, 34 Brentwood Blvd St Louis	726-0332
NY	J W Hofmann Mach Co, 3135 Walden Ave Buffalo	684-7300
Ohio	Motch & Merryweather Mach Co, 1250 E 222nd St Cleveland	486-3600
Ohio	Motch & Merryweather Mach Co 7565 Kenwood Rd, Cincinnati	891-6410
Wash	Hallidie Machy Co, 4975 3rd Ave S Seattle	762-7600
Can	Williams & Wilson Ltd, 544 Inspector St Montreal	866-2851
Jap	World Export Machine Co, 360 Lexington Ave New York, NY	682-5833

THORDARSON MEISSNER INC, ELECTRONIC CENTER
MT CARMEL, ILL, 62863 .... 618 262-5121
E POWERS, EMP 300, ENG 5, $2,500-$5,000M

THORN AUTOMATION LTD, RUGELEY, STAFFS
ENGLAND .... RUG 3271
EMP 1000

THWING-ALBERT INSTRUMENT CO, 10960 DUTTON RD
PHILADELPHIA, PA, 19154 .... 215 NE 70100
J RAUDENBUSH, EMP 75, ENG 16, $1,000-$2,500M

Cal	Paul LaFrance, 2260 Pacific Ave San Francisco	415 567-1684
Del	Harry Stern Co, Box 7231 Wilmington	302 654-6800
Ill	Larpen Instru Inc, 799 Roosevelt Rd Glen Ellyn	312 859-1700
Mich	Stress Analysis Services, 18935 Grand Riv Ave Detroit	313 838-6709
NY	Cane Technical Sales, Inc, 555 E Boston Park Rd Mamaroneck	698-4411
Ohio	Stress Analysis Services, 138 Front St Berea	216 243-4444
Tex	Merit Co, Box 20356, Dallas	FL 2-8040
Can	B H McGregor, Box 156, Sta H Toronto 13, Ont	OX 9-5521
Fr	Budd SA, 52 Ave de Neuilly, Neuilly-Sur-Seine	
Ger	Mt Messtechnik-Vertriebs GmbH, Horemansstr 28 8 Munchen 2	
GB	Furness Controls Ltd, 21 Endwell Rd Bexhill-on-Sea, Sussex	
Jap	Japan Machinery Co Ltd, Box 1451, Central P O Tokyo	
SAfr	Bellanca (Pty) Ltd, 18 Loveday St, S Africa	
Swed	A Karlson Metall-och Maskinaktiebolag, Box 7005 Stockholm	
Belg	Mesurec, Bruxelles 5, 131 Rue deL'Aquedue Bruxxelles	
Ind	Rotax Aviation Corp, Box 2596, New Delhi 5	
NZ	W & K McLean Ltd, Box 3097, Auckland	

TIA ELECTRIC CO, 178 ALEXANDER ST, PRINCETON
N J, 08540 .... 609 921-2880
C SONNENSCHEIN, EMP 10, ENG 4

Ariz	E V Roberts & Assoc, 77 3rd Ave W Scottsdale	947-7695
Cal	Abbott Engineering Co, 2600 El Camino Real Palo Alto	327-0830
Cal	E V Roberts & Assoc, 9601 W Jefferson Blvd Culver City	870-9561
Fla	Conley-May Assoc, Box 668, Oviedo	365-3283
Mass	Representatives Corp, 10 High St Boston	426-0541
Minn	D Swanson Co, 2655 Brighton Ave, N E Minneapolis	789-5636
NJ	C R Mayer Co, Box 444, Old Bridge	678-8348
NY	C R Mayer Co, Box 152, Huntington	921-7876
NY	Ronald R Overs Assoc, 2671 Main St York	243-3693
Pa	W F Assoc, Broad & Chestnut Sts Phila	546-4121
Tex	Production Engineering Sales Org, Box 30393 Dallas	369-3181

Wash	Dave Miller Sales Co, Inc, 2323 N 45th Seattle	632-7070

TIBBETTS INDUSTRIES INC, COLCORD AVE, CAMDEN
MAINE, 04843 .... 207 236-3301
G TIBBETTS, PRES

TILTON ELECTRONICS CORP, BOX 218, WINNISQUAM
N H, 03289 .... 603 524-1998
A COSTA, EMP 38, ENG 2, $250-$500M

Mass	Conti-Younger Assoc, 181 West St Waltham	617 891-4582

TIMBER-TOP INC, 199 N MAIN ST, FREEPORT
N Y, 11520 .... 516 379-0850
W FISCHER, EMP 4, ENG 1, $100-$250M

Cal	El-Com Sales Co, 3600 Motor Ave Los Angeles	UP 0-4707
Conn	Underwood Sales Corp, Box 268 Suffield	203 668-2123
Ill	Joe Popp Sales Co, 5719 W Chicago Ave Chicago	312 261-7423
Md	Robt L Wilkinson Inc, 707 Stevenson La, Baltimore	
Pa	Robt L Wilkinson Inc, Box 215 Glenside	215 424-8400
Tex	Aymond Co, 4340 N Central Expwy Dallas	214 827-8043

TIMECO INC, 1035 26TH ST, HUNTINGTON
W VA, 25703 .... 304 523-5149
W MURPHY, EMP 14, ENG 2, $250-$500M

NJ	H P Woodit Assoc, Box 475, E Orange	673-7959
Ohio	Southern Ohio Controls, Box 39023 Cincinnati	241-0666

TIME-O-MATIC INC, BOX 850, DANVILLE
ILL, 61832, TWX 370-600-212 .... 217 442-0611
E SCHULENBURG SR, EMP 58, ENG 4, $500-$1,000M

Cal	Walt A Mueller, 1205 Sunset Blvd Los Angeles	213 624-4404
NY	D E Jaekle, 229 W 42nd St New York	212 524-1152

TIMES WIRE & CABLE DIV, INT L SILVER CO, 358 HALL AVE WALLINGFORD
CONN, 06493, TWX 710 476-0763 .... 203 269-3385
R BURTON, EMP 273, ENG 10, OVER $10,000M
ADV PG 82, 84, 85, 87, 179, 249

Ariz	Dorton Enterprises Inc, Box 1297 Scottsdale	946-6213
Cal	Westrep, 626 Commonwealth Ave Fullerton	213 691-2600
Colo	Electronic Components Sales, 2340 W Main St Littleton	798-8481
Conn	J F Kerrigan & Co, Box 5385 Hamden	203 238-2200
Fla	Geartner Assoc, 350 Lincoln Rd Miami Beach	531-0200
Ga	L C Estes Assoc, Decatur Fed Bldg Decatur	404 373-8266
Ill	Gassner & Clark Co, 6644 N Western Ave Chicago	764-6121
Kan	Penzner Assoc, Box 6264 Overland Park	913 381-0004
Md	J-H Electronic Sales, Box 6844 Towson	VA 5-4440
Mich	Sheridan Assoc, Box 128 Lathrup Village	313 358-3333
Minn	Scott Electronic Sales, 5209 W 60th St Minneapolis	WA 9-2985
NM	Electronic Components Sales, 209 San Pablo SE Albuquerque	505 344-3987
NY	Jos P Scanlon Co, 51 Bloomfield Pl Rochester	GR 3-7553
NC	D G W Inc, Box 5316, Winston-Salem	PA 3-4205
NC	D G W Inc, Box 6096, Charlotte	ED 4-7090
Ohio	Sheridan Assoc, Box 37646 Cincinnati	513 761-5432
Okla	Ammon & Champion Co, Box 4682 Tulsa	NA 7-7670
Pa	Precision Electronics, Inc, Box 18, Ft Wash Ind Pk Fort Washington	MI 6-8383
Tex	Ammon & Champion Co, Box 35552 Houston	PA 9-1233
Tex	Ammon & Champion Co, Box 35263 Dallas	FL 7-8441
Wash	Seatronics Inc, 5931 4th Ave Seattle	206 767-4330
Can	A Deskin Sales, 1565 Louvain St W Montreal	384-1420
For	Rocke Intl Corp, 13 E 40th St New York, NY	MU 9-0200

TIME SYSTEMS CORP, 2239 E MIDDLEFIELD RD
MOUNTAIN VIEW, CAL, 94040 .... 415 961-9321
D MINDHEIM, EMP 25, ENG 6, $500-$1,000M

Mass	Applied Measurements Inc, Box 316 Acton	617 263-2766
NJ	Data Rep, 1250 E Ridgewood Ridgewood	201 447-0660
Va	Nine Assoc, 7753 Patriot Dr Annandale	703 256-9105

TIMKEN ROLLER BEARING CO, 1835 DUEBER AVE S W CANTON
OHIO, 44706, TWX 810-432-9066 .... 216 453-4511
J PILZ

TINIUS OLSEN TESTING MACHINE CO, EASTON RD
WILLOW GROVE, PA, 19090 .... 215 OS 57100
T BROUGHTON, EMP 200

TINNERMAN PRODUCTS INC, BOX 6688, CLEVELAND
OHIO, 44101 .... 216 741-9300
T LANDFEAR, EMP 900, ENG 15, OVER $10,000M
Cal E Wachtel Co, Box 11199
Palo Alto 415 321-2430
Cal R H Hansen, 1535 E 17th St
Santa Ana 714 542-7295
Ill Tinnerman Prods Inc, 5637 W Diversey Ave
Chicago .... 312 TU 9-6464
Mich Tinnerman Prods Inc, 21559 W 8 Mile Rd
Detroit 313 538-7500
Mich Tinnerman Prods Inc, 132 N Burdick St
Kalamazoo .... 616 FI 4-3389
Minn R E Carlson Co, 2583 University Ave
St Paul 612 644-5197
Mo Tinnerman Prods Inc, 7530 Forsyth Blvd
St Louis .... 314 PA 5-1182
NJ Tinnerman Prods Inc, 585 Main St
East Orange 201 678-2323
NY Tinnerman Prods Inc, 228 Winton Rd N
Rochester .... 716 OL 4-9690
Ohio Tinnerman Prods Inc, Box 6688
Cleveland 216 741-9300
Ohio C F Marcussen, 11750 Chesterdale Rd
Cincinnati 513 771-9303
Pa Tinnerman Prods Inc, Belmont & City Aves
Bala-Cynwyd .... 215 TE 9-3827
Tenn Tinnerman Prod Inc, 11 W 8th St
Chattanooga 615 265-3132
Tex D Berry, Box 20461, Dallas .... 214 LA 8-0461
Wis Tinnerman Prods Inc, 4022 N Wilson Dr
Milwaukee 414 332-8200
Can Dominion Fasteners Ltd, Box 492
Hamilton, Ont .... LI 9-4661
Fr Rapid, S A, 3 rue Salomon de Rothschild
Suresnes Seine
Ger Mecano-Simmonds GmbH, Box 1206, Heidelberg
GB Firth Cleveland Fastenings Ltd, Treforest, Wales
Mex Reportes Mecanicos S A, Apdo Postal 14-713
Mexico 14 D F
Spn Mikalor, S A, Sabadell, Barcelona Prov
Aust Firth Cleveland Pty Ltd, Box 198, Ballarat, Vic

TIPPTRONIC INC, 510 E WASHINGTON
CHAGRIN FALLS, OHIO, 44022 .... 216 247-5100
A RULE, EMP 50, ENG 6, $1,000-$2,500M
Cal D B Cordes, 651 Port Dr 307
San Mateo 415 345-6368
Mass Rush Assoc, 141 Prospect St
E Longmeadow 413 783-7375

TI-TAL INC, 2001 MAIN ST, SANTA MONICA
CAL, 90405 .... 213 EX 2-3100
S JOUHNSON, EMP 10, ENG 2, UP TO $100M
Cal Ti-Tal Inc, 99 Brookwood Rd, Orinda 254-4641
Cal Ti-Tal Inc, 125 N Lake Ave, Pasadena .. MU 1-5281

TITCHENER & CO, E H, 16 TITCHENER PL
BINGHAMTON
N Y, 13902, TWX 510-252-1985 .... 607 772-1161
J ACKERMAN, EMP 210, ENG 2

TITEFLEX INC, 534 HENDEE ST, SPRINGFIELD
MASS, 01109 .... 413 739-5631
W DOMINIC, EMP 500, ENG 50, OVER $10,000M

T M C SYSTEMS (ARIZ) INC, 930 W 23RD ST, TEMPE
ARIZ, 85281, TWX 910 950-1943 ...... (602) 967-7874
D ROBINSON, EMP 45, ENG 6, $500-$1,000M
Ariz AR/TEC Inc, 14 E Stetson Dr
Scottsdale 602 947-6304
Cal R Homer Assoc, 14436 Sherman Way
Van Nuys 873-6670
Cal Westec Elctns Inc, 110 First St
Los Altos 415 327-5850
Fla Lynch-Gentry Assoc, Box 13248
St Petersburg 813 347-5131
Ill Gassner & Clark Co, 6644 N Western Ave
Chicago 312 764-6121
Mass Techcom Assoc, Box 71, Chelmsford 256-3431
NJ John W Richardt Co, Rte 46
Pine Brook 201 227-0600
Tex Dyna-Reps, 200 S Grants La, Ft Worth 336-0774
Tex Dyna-Reps, 6400 Southwest Frwy
Houston 782-0311
Wash Westec Elctns, Box 66521 Burien Br
Seattle 206 243-7070

T M C SYSTEMS & POWER CORP
6621 ELECTRONIC DR, SPRINGFIELD
VA, 22151, TWX 710-832-9826 .... 703 354-7400
J GALIONE, EMP 186, ENG 30, $5,000-$10,000M
Ariz W T Barry, 5324 E First St, Tucson ... 602 793-0803

T-M VACUUM PRODUCTS
WARRINGTON & ROWLAND STS, RIVERTON
N J, 08077 .... 609 829-2000
J SEITER, EMP 38, ENG 2, $1,000-$2,500M
Cal Fieldtec Inc, 3822 Campus Dr
Newport Beach 714 543-4000
Colo Engineering Research Assoc, 231 Detroit St
Denver 377-8306
Fla Ed Furey & Assoc, 417 Gulf Rd
North Palm Beach 848-2037
Ill Byron Ellis Assoc, 6242 N Kenmore Ave
Chicago 262-2038

NJ Harry O Walp Jr, Holly Dr Oakwood Lakes
Medford 829-2000
NY Upstate Tech Equip Co, Box 202
Solvay 458-5573
Ohio R A Gray & Co Inc, 12429 Cedar Rd
Cleveland 462-2669
Okla Johnson-Coates & Assoc, 1405 S Midwest Blvd
Oklahoma City 732-2141
RI Delta-Therm Engineering Co, Box 6501
Providence 467-9717
Tex Harvey Assoc, Box 22815, Houston 465-4354

TOA ELECTRIC CO LTD, HYOGO-SHIMOSAWA 5, KOBE
JAPAN 56-0226
T TOYAMA, EMP 392, ENG 35, $500-$1,000M
ADV PG 651

TOBE DEUTSCHMANN LABS INC, 550 TURNPIKE ST, CANTON
MASS, 02021 .... 617 828-3366
T DEUTSCHMANN, EMP 60, ENG 6, $500-$1,000M
ADV PG 106, 445
Cal Chas W Fowler Co, 9911 Inglewood Ave
Inglewood 213 678-5211
Cal Chas W Fowler Co, 845 Oak Grove Ave
Menlo Park 415 322-5374
Colo Chas W Fowler Co, 1345 Spruce St
Boulder 303 442-2141
NM Chas W Fowler Co, 9000 Menaul Blvd NE
Albuquerque 505 299-7676
Tex V J Sykes Assoc, 13333 N Central Expwy
Dallas 235-5289
Wash Chas W Fowler, 845-106th Ave NE
Bellevue 206 454-8600
Can Datacomp Electronics Ltd, 1477 Eglinton Ave W
Toronto 10, Ont 798-5732

TOCCO DIV OHIO CRANKSHAFT CO, BOX 1792
CLEVELAND
OHIO, 44105, TWX 098-472 .... 216 341-2300
H OSBORN JR, EMP 325, $5,000-$10,000M
Cal Tocco Div, 2202 S Hill St, Los Angeles ... 749-3091
Conn Tocco Div, 993 Farmington, W Hartford ... 233-1768
Ill TOCCO Div, Oakbrook North Bldg
Oak Brook 312 654-4790
Ky Tocco Div, 2514 Dixie Hwy, Ft Mitchell .. 331-2113
Mich Tocco Div, 30100 Stephenson Hwy
Madison Hts 564-6880
NJ Tocco Div, 423 Center St, S Orange 763-2107
Ohio Tocco Div, 4620 E 71st St, Cleveland 341-2300
Ohio TOCCO Div, 204 Omar Ave
Struthers 412 346-3035
Pa Tocco Div, Malin Rd, Broomall 356-1848
Tex Tocco Div, 2005 White Settlement Rd
Fort Worth 332-4944
Can Tocco Div, 38 Carwyn Crescent
Hamilton 527-1208

TOHOKU METAL INDUSTRIES, LTD
4, 7-CHOME, GINZAHIGASHI, CHUO-KU, TOKYO
JAPAN 542-6171
T MISU, EMP 2824, ENG 375, OVER $10,000M
ADV PG 225
Cal C Itoh & Co, Inc, 465 California St
San Francisco .... YU 6-4518
Cal C Itoh & Co, Inc, 510 W Sixth St
Los Angeles .... MA 7-3175
Ill C Itoh & Co, Inc, 69 W Washington St
Chicago 263-0404
NY C Itoh & Co, Inc, 320 Park Ave
New York .... PL 1-4330
Ore C Itoh & Co, Inc, 333 S W Oak St
Portland 227-6694
Pa C Itoh & Co, Inc, Union Trust Bldg
Pittsburgh 471-1837
Tex C Itoh & Co, Inc, Cotton Exchange Bldg
Dallas .... RI 1-4020
Tex C Itoh & Co, Inc, 1021 Main St
Houston .... CA 2-9413
Wash C Itoh & Co, Inc, 801 Second Ave
Seattle .... MA 3-3764
Can C Itoh & Co, Inc, 1450 City Councillors St
Montreal 2 .... VI 4-8461
Can C Itoh & Co, Inc, 88 University Ave
Toronto 1 366-9263
BC C Itoh & Co, Inc, 409 Granville St
Vancouver 2 683-5764

TOKYO COSMOS ELECTRIC CO LTD
303, 1-CHOME HORINOUCHI, SUGINAMI-KU, TOKYO
JAPAN 313-1111
K TAKASE, EMP 850, ENG 75, $5,000-$10,000M

TOKYO DENKI CO LTD
TOKYO DENKI CO LTD, 3-13, 5-CHOME
MINAMI-SHINAGAWA, SHINAGAWA-KU, TOKYO
JAPAN 471-7041
S KAWASHIMA, EMP 1600, ENG 150, OVER $10,000M

TOKYO ELECTRIC CO LTD
14-8 1-CHOME, UCHI-KANDA, CHIYODA-KU, TOKYO
JAPAN 03-292-1011
S TSUNODA, EMP 6400, ENG 1200, $500-$1,000M
ADV PG 712
Cal Tokyo Electric Co Ltd, 10680 W Pico Blvd
Los Angeles 836-0224
Ger Tokyo Electric Co Ltd, 4 Dusseldorf 1
Berliner Allee 26 12918

TOKYO PRINT INDUSTRIAL CO LTD
782, SHIMOISHIHARA, CHOFU-SHI, TOKYO
JAPAN 0424 83-5711
S ARAI, EMP 100, ENG 11, $1,000-$2,500M

TOLEDO COMMUTATOR CO, 1101 S CHESTNUT ST
OWOSSO, MICH, 48867 .... 517 725-8192
E BISARD, EMP 150, ENG 3, $2,500-$5,000M
Cal Tri-State-IWI Div, 544 S San Pedro
Los Angeles 628-2354
Cal Tri-State-IWI Div, 554 Bryant
San Francisco 392-8890
Ore Tri-State-IWI Div, 1900 NE 18th Ave, Portland
Tex Cline Supply Inc, 3215 Ave E E
Arlington 264-2466
Wash Tri-State-IWI Div, 325 Westlake Ave N
Seattle 622-4161
Can A Gilchrist Ltd, 5645 Pare St, Montreal ... 735-3603

TONEGEN ELECTRIC CO LTD
37 1-CHOME FURUICHI MINAMIDORI
JOTO-KU, OSAKA, JAPAN 939-1712-5
T MIKAMO, EMP 200, ENG 11, $1,000-$2,500M

TOPATRON INC, 2945 RANDOLPH AVE, COSTA MESA
CAL, 92627 .... 714 549-1177
L APPLEMAN, EMP 20, ENG 3

TOPAZ INC, 3802 HOUSTON ST, SAN DIEGO
CAL, 92110 .... 714 297-4815
H NUTTER, EMP 100, ENG 7, $1,000-$2,500M
Ala James L Highsmith & Co, Holiday Office Ctr
Huntsville 881-3294
Alas Arva Inc, Box 759, Anchorage 272-5231
Ariz Williams-Assoc Inc, 1110 E McDowell Rd
Phoenix 254-6085
Cal Ward-Davis Assoc, 770 S Arroyo Pkwy
Pasadena 684-2840
Colo Williams-Assoc, 4971 Jackson St
Denver 388-4391
Conn Instrument Assoc Inc, 742 Asylum Ave
Hartford 246-5686
Fla James L Highsmith & Co, Box 7835
Orlando 293-5202
Haw Earl Ossoc, 1638 Kona St, Honolulu 996-953
Ill Pivan Engineering Co, 8545 N Crest Court
Indianapolis 253-1681
Ill Pivan Engrg Co, 3535 W Peterson Ave
Chicago 539-4838
Iowa Pivan Engineering Co, 4403 1st AveS E
Cedar Rapids 365-6635
Ky Robt O Whitesell & Assoc Inc, 3620 Lexington Rd
Louisville 893-7303
Md Bartlett Assoc, 7979 Old Georgetown Rd
Bethesda 656-3061
Mass Instrument Assoc, 30 Park Ave
Arlington 648-2922
Mich Satullo Co, 4514 N Woodward Ave
Royal Oak 549-3910
Minn Pivan Engineering Co, 3203 N Hwy 100
Minneapolis 537-4501
NJ SBM Assoc Inc, 1519 Stuyvesant Ave
Union 687-8737
NM Williams-Assoc Inc, 3221 Silver Ave S E
Albuquerque 255-1638
NC James L Highsmith & Co, Box 9367
Charlotte 333-7743
Ohio Robt O Whitesell & Assoc Inc, 4133 S Dixie St
Dayton 298-9546
Ore Arva Inc, 2035 S W 58th Ave, Portland ... 292-8762
Pa Bartlett Assoc, 130 W Lancaster Ave
Wayne 877-7071
Tex Arnold Barnes Co, Box 709, Richardson ... 235-4541
Utah Williams-Assoc Inc, 2461 S Main
Salt Lake City 466-8709
Va James L Highsmith & Co, 5003 Brook Rd
Richmond 266-2060
Wash Arva Inc, 1320 Prospect St, Seattle 622-0177
Wis Pivan Engineering Co, Box 437
Waukesha 547-5131

TOPFLIGHT CORP, 160 E NINTH AVE, YORK
PA 717 843-9901
P MASTERSON, EMP 200, ENG 4
Cal Topflight Corp, 5721 E Washington Blvd
Los Angeles 685-7626
Ill Topflight Corp, 331 Austin Blvd
Chicago 261-8159
NY Topflight Corp, 10 E 40th St
New York .... MU 4-0106
Pa Topflight Corp, 1700 Walnut St
Philadelphia 215 546-2022

TOPPER MFG CO INC, 889 NORTHERN BLVD
GREAT NECK, N Y, 11023 .... 516 ED 43888
A DAVIDSON, EMP 24, ENG 4, UP TO $100M

TOPPER PLASTICS INC, 461 E FRONT, COVINA
CAL, 91722 .... 213 331-0561
L BEERY, EMP 25, ENG 1, $100-$250M

TOPPING ELECTRONICS LTD, 94 LAIRD DR
TORONTO 17, ONT 416 421-2270
I DEVINE, EMP 35, ENG 9, $250-$500M

TORELCO INC, 51 SMITH ST, IRVINGTON
N J, 07111 .... 201 374-8641
R HILLEBRAND, EMP 15, ENG 1, $250-$500M
Mass Charles E Godfrey Co, Box 68, Reading ... 944-2230

OR INC, BOX 8, IRWINDALE
CAL, 91706 .... 213 334-4907
M PENFOLD, EMP 21, ENG 1, OVER $10,000M

ORIT MFG CO, 1133 RANKIN ST, ST PAUL
MINN, 55116 .... 612 698-0391
F CHASE, EMP 150, ENG 4, $2,500-$5,000M
riz Thunderbird Sales Corp, 2255 W McDowell
Phoenix 254-8874
Cal Master Equip Corp, Box 531, Arcadia 446-8765
olo Clint Helton Co, 2445 S Downing St
Denver 722-5751
la E E McCarthy, Box 1219, Orlando 644-2255
Il R Bennett, 1032 Lee St, Des Plaines 827-0311
Il Ind Engr Sales Agency, 609 River Park Dr
Loves Pk 877-6727
nd B Confer, 2809 Brookside, Indianapolis 638-5240
Kan A S Kent & Co, Box 1216, Kansas City 371-5123
Ky R L Craig Co, Box 7443, Louisville 896-1759
a Fred M Erichson & Co, 3008 18th St
Metairie 834-9360
Md Taze & Hewitt, Inc, 33 E 21st St
Baltimore 752-1810
Mass Nauset Engr & Equip Inc, 259 Walnut
Newtonville 969-5090
Mich Dyment & Girk Assoc, 25511 Southfield Rd
Southfield 353-8416
Minn Pearson Assoc Inc, 4346 Xerxes Ave S
Minneapolis 920-6016
Mo R R Waites Co Inc, 2388 Centerline Ind Dr
St Louis 542-3122
NY Arnold G Landres, 17 W 60th St
New York 265-3493
NY J A Pennington, 206 Powers Bldg
Rochester 454-6396
Pa Voss Machinery Co, Box 10325
Pittsburgh 941-6160
Tenn R J Wimetz, 5733 Frontier Tr, Knoxville 573-2785
Tex Miles Ind Sales Agency, 214 N Hampton
Desoto 223-6711
Utah Sales Engr Co Inc, 205 W Utopia Ave
Salt Lake City 485-3721
Va M V Olmert, Box 7074, Arlington 534-1178
Wash F K Donnelly, 9031 SE 59th St
Mercer Island 232-1873
Wis E Schuerer, 2625 N 111th St
Milwaukee 453-2960
Ger E R Koehler, 7, Stuttgart-Zuffenhausen, Schliessfach
GB Harvey Fabrication Ltd, Woolwich Rd, London
Ital Star Aeromeccanica Europ S p A, 143 Via P Buole
Torino

TORNGREN CO INC, C W, 236 PEARL ST, SOMERVILLE
MASS, 02143 .... 617 666-3250
K CASAVANT, EMP 50, ENG 4, $1,000-$2,500M
Ohio McNeil Sales Co, Box 126, Milford 831-3281

TOROIDAL COMPONENTS CO, 1374 E WALNUT ST
PASADENA, CAL, 91106 .... 213 795-7123
J ONISKO, EMP 12, ENG 2, $100-$250M

TOROIDAL SPECIALTIES INC, 87 BEAVER BROOK RD, DANBURY
CONN, 06810 .... 203 748-5015
ADV PG 716

TOROID-TRANS ELECTRONICS CO INC, LAKE AVE EXT
DANBURY, CONN, 06810 .... 203 743-1100
P CICALA, EMP 19, ENG 4, UP TO $100M
NJ A Wetter Hahn Co, 4420 Crescent Blvd
Pennsauken 662-1611
NC Browning Communications Assoc
Box 10793, Cameron Village Sta, Raleigh

TOROTEL, INC, 13402 S 71 HWY, GRANDVIEW
MO, 64030, TWX 910-777-7037 .... 816 SO 1-6314
H FOLAND, EMP 185, ENG 5, $1,000-$2,500M
ADV PG 157, 238, 353, 716, 718, 730
Cal F Huddleston Assoc, 408 S Rosemead Blvd
Pasadena 213 681-3751
Cal Parsons Co, One 1st St, Los Altos 415 941-4745
Fla G F Bohman Assoc, 7040 Lake Ellenor Dr
Orlando 305 855-0274
Fla G F Bohman Assoc, 2350 NE 29th St
Pompano Beach 350 943-5529
Ill Gassner & Clark, 6644 N Western Ave
Chicago 312 764-6121
Kan Florence & Meyer, 2900 Woodland
Wichita .... TE 8-7226
Mass John J Goode Assoc, 44 Ledgewood Rd
Weston 235-3900
Minn Howard A Cullen & Assoc, 1595 Selby Ave
St Paul 646-7371
Mo Florence & Meyer, 406 W 34th St
Kansas City .... LO 1-7282
Mo Florence & Meyer, 6050 Brown Rd
Berkeley .... JA 1-6800
NY E W Hoyer, Box 51, Dewitt .... GI 6-3523
NY Frank Tylinski Co, 338 Northern Blvd
Great Neck 516 466-9070
Ohio R G Sidnell & Co, 14701 Detroit Ave
Cleveland 221-1313
Ohio R G Sidnell & Co, 3400 S Dixie Dr
Dayton 293-1194
Pa R G Sidnell & Co, 1007 Wood St
Pittsburgh 242-1476
Pa Jadelectronics Inc, Box 5735
Philadelphia .... GL 5-3355
Tex Norvell Assoc Inc, Box 20279, Dallas .... FL 7-6451
Tex Norvell Assoc Inc, 6440 Hillcroft
Houston 774-2568
Va Potomac Electronics Inc, Box 36
Alexandria 836-1630
Va Potomac Elctns Inc, Box 3705
Richmond 703 836-1630
Can Wilson Enterprises, 19 Abercorn Rd
Markham, Ont 297-1289

TOROTRON CO DIV STRUTHERS ELECTRONICS CORP
RAILROAD PLACE, MAMARONECK
N Y, 10543 .... 914 OW 8-3000
J ROSENBERG, EMP 7, ENG 1, $100-$250M
Cal Townsend Technical Sales, Box 265
Saratoga 408 252-3478
Cal Crown Elctns, Box 2573, Van Nuys 213 873-1266
NC TX Sales Inc, 900 Walt Whitman Rd
Huntington 516 271-5850
Va John Hopkins Assoc, 4520 Starr Jordan Dr
Annandale 703 280-2086

TORQ ENGINEERED PRODUCTS INC
32 W MONROE ST, BEDFORD
OHIO, 44014 .... 216 232-4100
J GREENHUT, EMP 70, ENG 2, $500-$1,000M

TORQUE TRONICS, 168 S SAN GABRIEL BLVD
SAN GABRIEL, CAL, 91776 .... 213 285-4503
F LOW, EMP 11, ENG 3, $100-$250M

TORRINGTON CO, SPECIALTIES DIV, 59 FIELD ST
TORRINGTON, CONN, 06790 .... 203 482-4441
C TERKUILE, EMP 3000, ENG 150, OVER $10,000M
Cal Les Sachs Assoc, 3030 E Olympic Blvd
Los Angeles .... AN 1-0168
Ill Torrington Co, 6150 S Oak Park
Chicago 586-3400
Ind R Dorntge & Assoc, Box 20081
Indianapolis 545-9000
Mass Torrington Co, 77 4th Ave
Needham Heights 617 444-2150
Mo N C Lamb & Co, 122a W Lockwood Ave
Webster Groves .... WO 2-6663
Ohio Torrington Co, 15400 Industrial Pkwy
Cleveland 216 267-1022

TORRINGTON MFG CO, 100 FRANKLIN DR
TORRINGTON
CONN, 06791, TWX 710-439-2343 .... 203 482-4422
J FERREIRA, EMP 1200, ENG 60, OVER $10,000M
Cal Torrington Mfg Co, 16300 Roscoe Blvd
Van Nuys 392-0741
Conn F J Crawford, Box 8184, East Hartford 568-3790
Ga Torrington Mfg Co, 235 E Ponce DeLeon Ave
Decatur 377-1808
Ill M A Heeren, 1325 15th St, Moline 764-7488
Ill Torrington Mfg Co, 8501 W Higgins Rd
Chicago 693-2036
Kan T G Perry, 423 N Fountain, Wichita 685-7441
Ky F D Zega, 4050 Westport Rd, Louisville 896-4363
Mich Torrington Mfg Co, 32580 Grand River Ave
Farmington 476-5151
Minn Hultgren & Strutzel, 2395 University Ave
St Paul 645-9121
Mo E J Hill, 915 Buder Bldg, St Louis 621-1818
Mo M E Bettis, 3706 Broadway
Kansas City 561-0772
NJ Torrington Mfg Co, 112 E 2nd Ave
Roselle 241-8165
NY W E Cashen, 2360 James St, Syracuse 437-4674
Ohio Torrington Mfg Co, 3537 Lee Rd
Cleveland 561-3347
Ohio Torrington Mfg Co, 2025 Riverside Dr
Columbus 486-2867
Ohio P C Faxon, 5335 Far Hills Ave, Dayton 434-1255
Pa Torrington Mfg Co, 15 W State St
Doylestown 348-5917
Tex L J Arntsen, Wynewood Prof Bldg
Dallas 942-8822

TORR LABS INC, 2228 COTNER AVE, LOS ANGELES
CAL, 90064 .... 213 477-1224
C MILEWSKI, EMP 24, ENG 4, $250-$500M
NJ M & S Assoc Inc, 31 Tanner St
Haddonfield 609 429-7055
Tex C T R Inc, Box 602, Hurst .... AT 4-9521

TORSION BALANCE CO, 35 MONHEGAN ST, CLIFTON
N J, 07013 .... 201 473-6900
C KASLINE, EMP 150, ENG 6, $1,000-$2,500M
Cal W E Zimmerman Co, 15443 Cabrito Rd
Van Nuys 787-4240
Cal Torsion Balance Co, 28 37th Ave
San Mateo .... FI 1-8182
Fla Wm M Jones Co Inc, 2317 E South St
Orlando .... GA 4-6298
Ga Wm M Jones Co, 2666 Redding Rd NE
Atlanta 261-8275
Ill Torsion Balance Co, 4950 N Harlem Ave
Chicago 867-8454
Ill Bauman & Bluzat, Box 364, Northtown 761-3630
Md Wm M Jones Co Inc, 1107 Echo Ct N
Towson .... VA 3-2434
Mass Associated Elctns Inc, 40 North Rd
Bedford 275-9020
NJ Wm M Jones Co Inc, 332 S Forklanding Rd
Maple Shade 662-0480
NY Friedman-Smith Elctn Sls, 219 S Fifth Ave
Mt Vernon .... MO 4-4866
Tex Torsion Balance Co, 206 W Tyler St
Richardson .... AD 5-0022
Can Whittaker Electronics Ltd, 42 Howden Ave
Ottawa 722-8563
Fr Radio Television Francaise, 73, Ave De Neuilly
Neuilly
GB Brooks & Green Ltd, 1 Leadenhall St, London

TORWICO ELECTRONICS, INC, RTE 70, LAKEWOOD
N J, 08701, TWX 201 363-1611 .... 201 364-1800
A MARSH, EMP 240, ENG 6, $1,000-$2,500M
ADV PG 161, 719, 735
Cal Richard Capell Co, 18376 Ventura Blvd
Tarzana 987-2233
Conn Gerald Rosen Co, 194 Plymouth St
Stratford 203 375-5456
Fla GRA-MAR Inc, Box 20493
Orlando 305 841-2330
Md Shiplett-Warrington Assoc, Box 6789
Baltimore 823-8759
Mass Gerald Rosen Co, 563 Worcester Rd
Natick 617 655-2211
Mo Buse Sales Co, 322 McDonough
St Charles .... RA 4-6667
NJ Tai, Inc, 138 Haddon Ave, Haddonfield 854-3011
NY H C Johnson Agencies, 111 Mt Hope Ave
Rochester .... HA 6-1090
NY H C Johnson Agencies, 8 Los Robles St
Williamsville 623-7880
NY Trionic Assoc, 320 Northern Blvd
Great Neck 466-2300
Tex Bellingham Sales Co, 1002 Burlington Ave
Dallas .... WH 2-6595
For Montclair Electronics Intl, 90 West St
New York, NY .... CO 7-9350

TOUCHMASTER LABS, 6750 SELMA AVE
LOS ANGELES, CAL, 90028 .... 213 466-6664
F SCHMITTHENNER, EMP 6, ENG 3, UP TO $100M

TOUCH-PLATE MFG CORP, 16530 GARFIELD
PARAMOUNT, CAL, 90723 .... 213 NE 6-8171
W MURPHY, EMP 30, $500-$1,000M
Cal Stanley Sales Co, 636 Portrero
San Francisco .... MI 8-8875
Colo L S Reed & Co, 1151 10th St, Denver 255-1777
Conn D & F Sales, Fan Hill Rd, Monroe .... AM 8-6987
Ga Biglin Assoc, 1066 Washington St, SW
Atlanta .... JA 4-1761
Haw Haneberg & Co, 1100 Ward, Honolulu 65-402
Mass D & F Sales, 1 Msgr O'Brien Hwy
Boston 547-4451
NY Art Adams, 1775 Broadway, New York .... CI 7-7055
Ohio Cam Norton Sales, 1303 Prospect Ave
Cleveland 771-1044
Ohio Gary Roof & Assoc, 1145 3rd Nat'l Bldg
Dayton .... BA 4-9813
Tex Geo E Anderson Co, 1700 S Ervay
Dallas .... HA 8-3731
Utah J R Christensen Assoc, 252 W 13th S
Salt Lake City 486-0031

TOWACO ELECTRONICS, PINE BROOK RD, TOWACO
N J, 07082 .... 201 334-4443
J BOYLE, EMP 10, ENG 3, $100-$250M

TOWER MFG CORP, 158 PINE ST, PROVIDENCE
R I, 02903 .... 401 331-2380
L SHATKIN, EMP 45, ENG 2, $500-$1,000M
Cal John Cooner, 14725 Arminta St
Van Nuys 213 787-1520
Conn J L Feinberg Assoc, 33 Shirley La
New London .... 203 GI 2-2514
Ga K & E Assoc
Blue Springs-Mobile Home Pk 7A Rte 2
Kennesaw 404 974-4264
Ill Fresen-Lambert Co, 7001 N Clark St
Chicago 312 761-3132
Ind Warner, Kesler & Assoc, Box 338
S Whitley 219 723-5353
Minn Electric Sales Corp, 9 E 22nd St
Mnpls 612 335-7734
Mo Tanler & Co, 7720 E Big Bend
St Louis .... 314 MI 5-0590
Mo Airborne Elctns Co, 7759 Loma Vista Dr
Kansas City 816 763-0585
NY Seidel Assoc, 113 Ursula Dr
Roslyn 516 621-1117
NY Mathew Orzell Co, 113 Windcrest Dr
Camillus 315 672-3988
Ohio Hiltebrant-Greenleaf Co, 20412 Center Ridge Rd
Cleveland 216 333-5480
Pa R T Pearson Sales, 1125 York Rd
Abington 215 887-0186
Can Anbak Sales Canada Ltd, 3208 Lenworth Dr
Cooksville, Ont 416 625-1061

TOWNE LABS INC, 1 US HWY 206, SOMERVILLE
N J, 08876 .... 201 722-9500
J GULDEMOND, EMP 50, ENG 5, $1,000-$2,500M
Fla Tech-Rep Assoc Inc, Box 2095
Melbourne 723-9140
Mo W A Shaw Co, 6550B Troust
Kansas City .... JA 3-4786
NJ H Wilson Rhyno Co, 1060 Broad St
Newark 642-0208
Ohio Haacke Co, Box 3032, Dayton 254-1951
Tex R S Marston Co, Box 1006
Richardson 214 235-3577
Fr B Freudenberg Ltd, 52 Ave de New York
Paris 16 .... KLE 69-69
GB B Freudenberg Ltd, Sinclair House The Ave
London W13 .... ALP-2113

TOWNSEND CO, TRS DIV, 530 WEST ST, BRAINTREE
MASS, 02185 .... 617 848-3500
R HALE, EMP 500, ENG 10, $5,000-$10,000M

Cal Townsend Co, Cherry Rivet Div
1224 E Warner Ave, Santa Ana 714 545-5511
Colo Wild Co, 1163 S Cherokee St
Denver 303 744-1253
Conn Towsend Co, TRS Div, 49 E Eldridge St
Manchester 203 643-5666
Ga K&E Assoc, Blue Spr Mobile Home Pk, Rte 2
Kennesaw 404 974-4264
Ill Towsend Co, TRS Div, 6600 S Oak Park Ave
Chicago 312 735-1134
Ind Townsend Co, TRS Div, 4745 W 71st St
Indpls 317 291-7824
Mich Townsend Co, TRS Div, 1200 Sixth Ave
Detroit 313 961-4416
Mo Townsend Co, TRS Div, 200 S Hanley Rd
St Louis 314 726-5565
NY Townsend Co Trs Div, Stanley Rd RD 2
Cazenovia 315 655-9694
NY Zauderer Assoc, Box 342
Mt Vernon 914 664-7385
NC Jake Rudisill Assoc, 2009 N Tryon St
Charlotte 704 377-6901
Ohio Townsend Co, TRS Div, 24652 Deerfield Dr
North Olmsted 216 486-5205
Ohio Townsend Co, TRS Div, Box 37427
Cincinnati 513 793-4411
Pa Layne Assoc, Box 201
Downingtown 215 269-1555
RI Townsend Co, TRS Div, 19 Cider La
Greenville 401 231-2955
Tex Hale Engineering, Inc, 8609 N W Plaza Dr
Dallas 214 368-1695
Wis Townsend Co, TRS Div, 126 N Jefferson St
Milwaukee 414 276-8383
Can Parmenter & Bulloch, Gananoque, Ont 382-2101

TOWSON LABS INC, 3500 PARKDALE AVE, DEPT E, BALTIMORE
MD, 21211 .... 301 367-4001
C BARBOUR, EMP 25, ENG 6
ADV PG 214
DC Brogger Assoc, 815 Connecticut Ave
Washington 298-7735
Mass W M Hague Co, 10 Muzzey St
Lexington 617 862-5700
NJ Hansen Assoc, 215 Brookside Dr
Hohokus 652-7055

TOYO CONE PAPER CO LTD
2-184 NAKANO-CHO MIKAKOJIMA KU, OSAKA
JAPAN 351 7791-3
T KAWAJIRI, EMP 247, ENG 4, $500-$1,000M
Jap Toyo Cone Paper Co
5-17-7 Nukui-Machi Nerima-Ku
Tokyo 992-3152

TOYO ELECTRONICS INDUSTRY CORP
21 SAIN-MISOSAKI-CHO, UKYO-KU, KYOTO
JAPAN 075 311-2121
K YAMAMOTO, EMP 1500, ENG 125, $5,000-$10,000M

TOYO MUSEN CO LTD
8-10, 1 CHOME, WAKABAYASHI, SETAGAYA-KU, TOKYO
JAPAN, TWX 242-2572 422-5181
M JOHIRO, EMP 700, ENG 100, $2,500-$5,000M
ADV PG 370
Ill Marubeni-Iida (America) Inc, 938 Merchandise Mart
Chicago 312 527-3800

TRACERLAB, DIV LAB FOR ELECTRONICS INC
1601 TRAPELO RD, WALTHAM
MASS, 02154, TWX 710-324-0681 .... 617 894-6600
D COX, EMP 345, ENG 18, $5,000-$10,000M
Ala J Little, 1406 Tillison Rd, Gadsden 492-3384
Cal P Lovely, 48340 Purpleleaf St, Fremont 657-1029
Ill C Hauptle, Rte 2, Mundelein 526-7648
Mass O Martin, 257 Atlantic Ave, Cohassett 383-1375
Mass J Wheeler, 7 Hubbard St, Concord 369-6815
NJ A Watkins, 47 Knox Blvd, Marlton 983-3462
NY D Lynch, 5 Dahlia Dr, Fairport 377-4639
NY A Stanko, 183 Eaton La, West Islip 587-0973
Ohio L Ploharski, 254 Bellingham Dr
Centerville 885-3407
Tex L Bentley, 2300 Fountain View
Houston 782-9358

TRA-CON, INC, 55 NORTH ST, MEDFORD
MASS, 02155 .... 617 391-5550
A SWARTZ, EMP 30, ENG 5, $500-$1,000M

TRACOR INC, 6500 TRACOR LA, AUSTIN
TEX, 78721, TWX 910-874-1372 .... 512 926-2800
M ORVIS, EMP 3500, ENG 500, OVER $10,000M
ADV PG 45, 46, 173, 174, 297, 300, 565, 567, 572, 576, 655 656, 657
Ariz Brooks Feeger Assoc, 4710 N 16th St
Phoenix 264-6536
Cal General Technology Corp, 9610 Bellanca Ave
Los Angeles 213 670-5541
Cal Cameron G Pierce & Assoc, 1810 Fair Oaks Ave
S Pasadena 213 682-1166
Cal Cameron G Pierce & Assoc, 363 S Taaffe
Sunnyvale 408 245-0986
Cal Tracor Analytical Inst, Box698, Danville 837-4622
Colo Brooks Feeger Assoc, 1309 S Inca St
Denver 303 744-3301
Ga Traco Analytical Inst, 1680 Tully Circle, N E
Atlanta 633-9571
Ind Tracor Analytical Inst, 1121 N Arlington Ave
Indianapolis 356-3658
Md Tracor Inc, 627 Lofstrand La
Rockville 301 762-7070
Mass Technical Enterprises, 195 West St
Waltham 617 891-5300
Mass Tracor Analytical Inst, Box 274, Stow 666-1089
NJ Tracor Analytical Inst, 1551 Oakland
Union 964-1631
NM Brooks Feeger Assoc, 1238 Ortiz SE
Albuquerque 268-4387
Utah Brooks Feeger & Assoc, 253 Rio Grande
Salt Lake City 359-2427
Wash Showalter Judd Inc, 1806 S Bush Pl
Seattle 324-7911
Can BRH Assoc Ltd, 6338 Victoria Ave
Montreal, Que 514 733-5331
Can BRH Assoc Ltd, 12A Finch Ave W
Willowdale, Ont 416 223-4008
GB Racal Instruments Ltd, Heatherdene Ave
Crowthorne, Berk .... CR 2272

TRAK MICROWAVE CORP, 4726 KENNEDY RD, TAMPA
FLA, 33614, TWX 810 876-0644 .... 813 884-1411
G MARSHALL, EMP 115, ENG 22, $2,500-$5,000M
Cal RF Assoc, 1621 Pontius Ave
Los Angeles 478-1586
Cal RF Assoc, 800 San Antonio Rd
Palo Alto 327-5531
Colo Thorson Co, 300 E Hampden Ave
Englewood .... SU 9-1841
Ill Berndt Assoc, 6414 W Belmont Ave
Chicago 283-0713
Md Doss Electronics, 6660 Security Blvd
Baltimore 944-1900
Mass Micronic Assoc, Box 162, Cochituate 653-8229
NJ Williams & Rotondi, Box 264A, Califon 691-2530
NY Williams & Rotondi, 16 Fisher Ave
Tuckahoe 961-4338
Tex Thorson Co, 7700 Carpenter Frwy
Dallas .... ME 1-5440
Tex Thorson Co, 3312 Marquart, Houston .... NA 1-0990
Va Doss Electronics, Vienna 938-9018
Wash Thorson Co, 1767 15th Ave S, Seattle .... EA 5-5000
For James Scott Ltd, Carntyne Ind Est
Glasgow, E.2 Scot .... SHE 4206-9
Fr Bureau de Liaison, Rue de l'Universite
Paris-VII 468 99-20
Aust Jacoby, Mitchell & Co, Pty Ltd, 469 Kent St
Sydney, N S W 26-2651

TRANEX INC, 1599 STIERLIN RD, MOUNTAIN VIEW
CAL, 94041 .... 415 968-9292
R BAILEY, EMP 65, ENG 4, $500-$1,000M
Colo Tranex Inc, 2527 Weston Dr, Colorado Springs

TRANS-AIRE ELECTRONICS INC, 85 DENTON AVE
NEW HYDE PARK
N Y, 11040, TWX 12-5446 .... 516 328-1300
J SHEA, EMP 50, ENG 4, $1,000-$2,500M
For Trans World Electronics Ltd, Ma Tau Wei Rd
Kowloon, HK 621887

TRANSCO MOTOR MFG INC, 5445 PECK RD, ARCADIA
CAL, 91006, TWX 910-587-3534 .... 213 442-5981
J MARINO, EMP 85, ENG 5, $1,000-$2,500M
Cal Persons & Assoc, 32 Diablo Rd, Lafayette
Ill Ellinger Sales Corp, 6580 Northwest Hwy, Chicago
NJ Budd-Tronics Inc, 71 Grayson Pl, Teaneck
Ohio Transco Products Inc, Box 129
Middletown 423-0332
Pa Transco Products Inc, Box 255
Newtown 968-2911
Tex Carey-Wolf Co, Box 12425, Fort Worth 738-1702

TRANSCON ELECTRONICS INC, 375 HALE AVE
ESCONDIDO, CAL, 92025 .... 714 746-4810
C HEISINGER, EMP 10, ENG 1, UP TO $100M
For Transcom Elctns Inc Intl Div, 64-14 Woodside Ave
Woodside, N Y 212 899-8888

TRANSCO PRODUCTS INC, 4243 GLENCOE AVE, VENICE
CAL, 90291, TWX 910-343-6469 .... 213 391-7291
W MARSHALL, EMP 300, ENG 25
ADV PG 49, 54, 296, 429, 666
Ga Transco Products Inc, 3093 Wanda Woods Dr
Doraville 436-7544
Mass Transco Products Inc, 4 Philip Ave
Peabody 617 535-4600
NJ Transco Prod, Inc, Box 566, Livingston 992-1796
Ohio Transco Products Inc, Box 129
Middletown 423-0332
Pa Transco Products Inc, Box 255
Newtown, Bucks County 968-2911
Tex Carey-Wolf Co, Box 12425, Fort Worth 738-1702
Tex Carey-Wolf Co, Box 60338, Houston 654-2114
Den Technitron, 24, Klosterstraede
Copenhagen PAL-2632
Fr Technitron, 20 rue de Boulainvilliers
Paris 527-49.65
Ger Technitron, Sonnestra 14
Munich 557 832 592 519
GB Technitron Ltd, Walmgate Rd
Perivale, Greenford, Mdsx .... PER 9949
Holl Technitron, Box 7542, Schiphol Arprt
Amstelveen .... (020) 727823
Ital Technitron, Viale Bruno Buozzi, 68, Rome 877047
Swed Technitron Sweden AB, Fack
Farsta 4, Stockholm 08/64 43 35

TRANSDUCER CONTROLS CORP, 737 N DODSWORTH
COVINA, CAL, 91722 .... 213 331-0917
A ISFORD, EMP 20, ENG 2, $100-$250M
Conn Abbott-Allison Co, Box 467
Meriden 203 237-9232
Mich Frank A Ross Assoc, 20333 Weyher Ave
Livonia 313 474-2731

TRANSDUCERS, INC, 11971 E RIVERA RD
SANTA FE SPRINGS
CAL, 90670, TWX 910 586-1899 .... 213 693-2711
W REYNOLDS, EMP 55, ENG 6, $1,000-$2,500M
Ala Currie Aerospace Assoc, Box 1424
Huntsville 205 536-5650
Cal Richards Assoc, 900 N San Antonio
Los Altos 415 941-3226
Fla Currie Aerospace Assoc, Box 13229
Orlando 305 855-0843
Ill Systems Eng Assoc, 6253 Milwaukee Ave
Chicago 312 774-1452
Ind Systems Eng Assoc, 1010 E 86th St
Indianapolis 317 846-2593
Md Kinney Tech Prods, 108 England Ter
Rockville 301 762-7303
Mich Carter, McCormic & Peirce, 16239 Wyoming
Detroit 313 863-4600
Minn Systems Eng Assoc, 8633 Harrison S
Minneapolis 612 881-6386
Mo FEN-CO Assoc, 8003 Forsyth
Clayton .... 314 PA 1-4378
NC Currie Aerospace Assoc, 519 Nissen Bldg
Winston-Salem 919 725-1927
Ohio Carter, McCormic & Peirce, 3691 Lee Rd
Cleveland 216 921-1360
Ohio Carter, McCormic & Peirce, 3406 N Main St
Dayton 513 278-5873
RI Hoder Corp, 589 Warren Ave
E Providence 401 438-2726
Tex Roger Martin Assoc, Box 1002
Bellaire 713 468-3877
Utah Peirce Bowthorpe Agency, 143 S 4th E
Salt Lake City 801 328-4513
Wash Brett Engineering Assoc, 2610 38th Ave SW
Seattle .... 206 WE 5-1062
Wis Systems Engrg Assoc, Box 526
Waukesha 414 782-3388
Can Ahearn & Soper Ltd, 833 Caledonia Rd
Toronto, Ont 416 789-4325
For American Avitron, Inc, Box 567
Rye, N Y 914 937-5300

TRANSENE CO INC, RR RTE 1 TURNPIKE, ROWLEY
MASS, 01969
B HECHT, EMP 10, ENG 3
Jap Lindberg-Japan Engineering Co
3-chome Kyobashi Chuo-ku, Tokyo

TRANSFORMER DESIGN INC OF MILWAUKEE
7377 N 76TH ST, MILWAUKEE
WIS, 53223 .... 414 353-8017
R LESGOLD, EMP 33, ENG 2, $100-$250M
Minn W Schmitt Assoc, 3881 Hwy 100
Minneapolis 920-3883

TRANSFORMER ELECTRONICS CO, INDUSTRIAL PK, BOX 910
BOULDER, COLO, 80302, TWX 910-940-3246 .... 303 442-3837
J ZORNA, EMP 50, ENG 6, $500-$1,000M
ADV PG 2ND COVER & FACING PAGE
Cal Charles W Fowler Co, 9911 Inglewood Ave
Inglewood 678-5211
Cal Chas W Fowler Co, 845 Oak Grove Ave
Menlo Park 322-5374
Colo L R Steele Co, 6841 S Clarkson
Littleton 761-1126
NJ Clarfield-Stollmack Assoc, 175 Westwood Ave
Westwood 666-8989
NM C W Fowler Co, 9000 Menual Blvd NE
Albuquerque 299-7676
NY Machine & Products Co, 52 Wall St
New York .... WH 4-4370
Tex Robt A Thomas Co, 8616 N W Plaza Dr
Dallas 363-8591
Tex Robt A Thomas Co, 4031 Broadway
Houston 644-2369
Wash C W Fowler Co, 845 106th Ave NE
Bellevue 454-8600

TRANSFORMER ENGINEERS, 1039 E VALLEY BLVD
SAN GABRIEL, CAL, 91776 .... 213 CU 3-9071
M COLEMAN, EMP 155, ENG 4
Ala Estes Assoc Inc, 8108 Craigmont Rd
Huntsville 881-5470
Ariz Ar/Tec Inc, 14 E Stetson Dr, Scottsdale 947-6304
Cal Ruby Sales Corp, Box 487, Santa Clara 243-1694
Colo Franklin Sales Co, 2149 S Clermont St, Denver
Fla Estes Assoc Inc, 629 N Lake Barton
Orlando 277-1510
Ga Estes Assoc Inc, Decatur Fed Bldg
Decatur 751-8244
Mich Burcan & Co, 18236 W McNichols
Detroit .... KE 3-7700
Minn Systems Engrg Assoc, 3040 Snelling Ave
S Minneapolis 922-2811
Mo Compar-Ozark Inc, 2573 Woodson Rd
St Louis 428-5313
NM AR/TEC Inc, 2800 Cardenas Dr N E
Albuquerque 268-3324
NY Bassin Technical Sales Co, 43 Bronx River Rd
Yonkers .... BE 7-0173
Pa Chas J McGowan, 1863 Cleveland Ave, Abington
Tex Glidden Engrg & Equip Co, 3802 Winchester St
Houston .... CA 4-6471
Tex Glidden Engrg & Equip Co, 4924 Greenville Ave
Dallas 729-0641

TRANSFORMER MANUFACTURERS INC
7051 W WILSON AVE, CHICAGO
ILL, 60656, TWX 910 221-5223........ 312 SP 4-4600
R FENTON, EMP 200, ENG 4, $1,000-$2,500M
Cal Ungar Sales Assoc, 317 Glasgow, Inglewood
Ill Gianaras Sales Co, 7051 W Wilson Ave
Chicago .... SP 4-4600
Pa W Henry Cordray Sales Co, 1 Radnor Sta, Radnor

TRANSFORMERS INC, 200 STAGE RD, VESTAL
N Y, 13850, TWX 933430........ 607 748-3311
L BRONSON, EMP 100, ENG 5, $500-$1,000M

TRANSFORMER TECHNICIANS INC
4447 W ARMITAGE AVE, CHICAGO
ILL, 60639 .... 312 276-3110
A WERNER, EMP 90, ENG 5, $500-$1,000M
Ariz Fryco, Box 464, Scottsdale........ 945-3281
Colo SL Assoc, 11481 W 29th Pl, Denver 238-1807
Fla W Ben Wimberly Co, 532 S Fort Harrison Ave
Clearwater 442-2378
Fla W Ben Wimberly Co, 500 S Osceola
Orlando 275-1358
Ga K & E Assoc, 7A, Rte 2
Kennesaw 404 974-4264
Kan Maury E Bettis Co, 423 N Fountain
Wichita........ MU 5-7441
Mass Near Inc, 99 Highland Ave, Somerville 776-2262
Mo Maury E Bettis Co, 3706 Broadway
Kansas City .... LO 1-0772
Mo Maury E Bettis Co, 9103 Bessemer Ave
St Louis .... HA 9-2099
NJ Ken Randall Co, 250 Haddon Ave
Collingswood........ 854-3323
Pa E J Wall Co, 1002 South Ave
Pittsburgh........ 412 CH 1-2507

TRANSISTOR AUTOMATION A TELEDYNE CO
10 FORBES RD, WOBURN
MASS, 01801, TWX 94-9440 .... 617 935-5400
K BARNETT, SLS MGR, EMP 100, ENG 12
$2,500-$5,000M
Ariz Allen Assoc, Box 3091, Papago Sta
Scottsdale 945-5781
Cal Scranton Engrg Assoc, 2750 Bellflower Blvd
Long Beach 421-8951
Cal R H Muenzer, Box 997, Redwood City 369-8283
Fla Gra-Mar Inc, Box 20493, Orlando 841-2330
NJ Electronic Equip Eng, Box 231
Saddle River 201 825-0033
NY Electronic Equip Engineers, 3351 Park Ave
Oceanside 699-9717
NY Alderman & Eckerson Assoc, 4 Wills Rd
Rochester........ 271-5799
NY Alderman & Eckerson Assoc, Drawer B
Pittsford 716 586-6020
Pa Precision Engineered Instruments, 947 Old York Rd
Abington........ TU 7-0727
Tex IBL Engineering, 219 Preston Royal Center
Dallas........ EM 3-2921
For B Freudenberg Inc, 50 Rockefeller Pl
New York, NY 757-9130
GB AVO Intl, 1 Torrington Pk
N Finchley, London N 12........ 01-445-3632
Holl Groenpol Industrial Sales Co, 13-15 Prinsengracht
Amsterdam 64474
Ital La Commissionaria Mercantile, Via Ugo Foscolo
Milano 1 .... 808.297
Swit Transistor Automation, Chemin Pres Guetins
La Neuveville
Swit Transistor Automation, 27a Ch Pres Guetins
2520 La Neuveville .... (038) 798 07

TRANSISTOR DEVICES INC, RT 53, MT TABOR
N J, 07878 .... 201 625-0250
B LONG, EMP 125, ENG 4, $1,000-$2,500M
Cal Paul Nurches Co, 2396 E Foothill Rd
Pasadena .... MU 1-8957
Colo Simpson Assoc, 8000 S Kendall Blvd
Littleton 798-8439
Fla Orbe, Inc, Box 7777, Orlando 424-0978
Ill Berdnt Assoc, Inc, 6414 W Belmont Ave
Chicago 283-0713
Md Burgin Kren Assoc, 202 W Penna Ave
Towson........ 825-3212
Mass E L Delfino, 75 Reed St, Lexington........ 862-1118
NJ Ebert Assoc, 50 Messenger La
Willingboro 877-8250
Ohio McShane Co, 114 Trails End Dr
Medino........ 725-4283
Wash Paratech Mfrs Rep, Box 5427, Seattle .... SU 4-6446
Can Raytheon Canada Ltd, 400 Phillip St
Waterloo, Ont 745-6831

TRANSISTOR ELECTRONICS CORP, BOX 6191
MINNEAPOLIS
MINN, 55424, TWX 910-576-2860 .... 612 941-1100
J BASTYS, EMP 220, ENG 20, $5,000-$10,000M
Ariz Hamilton Reps Inc, 9800 N Oracle Rd
Tucson 297-2279
Cal McKnight Co, 115 Spruce Ave
Menlo Park 325-2844
Cal Weightman & Assoc, 1226 W Olive Ave
Burbank 849-7711
Fla William R Lehmann Co, 1010 Executive Ctr Dr
Orlando 841-4901
Ill Lincoln, Hodges & Assoc, 5875 N Lincoln Ave
Chicago 561-8440
Md Burgin-Kreh Assoc, Box 9787, Towson........ 661-1120
Mass Bordewieck Eng Sales Co, 221 Grove St
Braintree .... VI 3-0845
Mich G & H Sales Co, 24001 Southfield Rd
Southfield 358-1910
Minn Hamilton, Grayden & Flemmer Inc, Hamilton Rd
Hopkins 941-1120
Mo Technical Mktg Assoc, Inc, 2050 Woodson Rd
St Louis .... HA 7-3600
Mo Technical Mktg Assoc Inc, 5827 Outlook
Mission .... TE 1-2888
NM Hamilton Reps Inc, 2515 Gen Bradley NE
Albuquerque........ 505 296-2803
NY Bowser & Sapecky Assoc, 4317 E Genesee St
DeWitt .... GI 6-5920
NY Bowser & Sapecky Assoc, 4541 Main St
Snyder 839-4170
NY Bowser & Sapecky Assoc, Box 1684
Poughkeepsie 452-5730
NY Friedman-Smith Elctn Sls Co, 519 S Fifth Ave
Mt Vernon .... MO 4-4866
Ohio Allen Nace Co, Box 156, Brecksville .... JA 6-4323
Ohio Allen Nace Co, Box 93, Riverdale Sta
Dayton 277-8215
Ohio Allen Nace Co, Rte 3, Galion 468-7641
Ohio G & H Sales Co, 7215 Market Pl
Cincinnati........ 761-6185
Ore Seatronics Inc, 6415 SW Canyon Ct
Portland 503 292-8887
Pa Allen Nace Co, Box 10630, Pittsburgh........ 241-3200
Pa Danco Corp, Box 245, Fairview Village 275-2600
Tex Jacobson Co, Box 9702, Dallas........ EM 3-7584
Va Burgin-Kreh Assoc Inc, 2600 Memorial Ave
Lynchburg........ 845-5600
Wash Seatronics Inc, 5931 4th Ave S
Seattle 206 767-4330
Can Willer Eng & Sales Co, 1800 Avenue Rd
Toronto, Ont........ 747-9316
Fr Litton Prec Prods Intl Inc
120 ave des Champs Elysees, Paris .... BAL 5472
Ger Litton Prec Prods Intl Inc, Stolzingstr 6
8 Munchen 61 .... 48 93 95 0811
GB Litton Prec Prods Intl Inc, 503 Uxbridge Rd
Hayes, Mdlsx .... Hay 82 32
Ital Litton Prec Prods Intl Inc, Foro Bonaparte, 54
I-20121 Milano........ 89 33 62
Swed Litton Prec Prods Intl Inc, Box 7277
103 85 Stockholm 7........ 11 43 90
Swit Litton Prec Prods Intl Inc, Gubelstr 28 Bauhof
8050 Zurich........ 48 35 44
Belg Litton Prec Prods Intl Inc, 16, rue du Musee
Brussels........ 125552

TRANSITRON ELECTRONIC CORP, 168 ALBION ST
WAKEFIELD, MASS, 01881 .... 617 245-4500
C HILL, EMP 3000, ENG 300, OVER $10,000M
Ariz Transitron Electronic Sales, 2727 N Central Ave
Phoenix .... CR 7-3366
Cal Transitron Elec Sales Corp, 3921 E Bayshore Rd
Palo Alto 961-1954
Cal Transitron Elctn Sales Corp, 3402 W Century Blvd
Inglewood 673-0100
Ill Transitron Elec Sales Corp, 6641 W North Ave
Oak Park .... VI 8-5556
Kan Transitron Elec Sales Corp, 2210 W 75th St
Prairie Village........ EN 2-6640
Md Transitron Elec Sales Corp, 1111 Park Ave
Baltimore........ 685-1070
Mich Transitron Elec Sales Corp, 15800 W McNichols Rd
Detroit 838-5884
Minn Transitron Elctn Sales Corp, 4930 W 77th St
Minneapolis........ 927-7923
NJ Transitron Elec Sales Corp, Park View Apts
Collingswood........ UL 4-7082
NY Transitron Elec Sales Corp, 22 Boston Post Rd
Larchmont 834-8000
NY Fowler Beach Corp, 3700 East Ave
Rochester........ LU 6-0468
Ohio Transitron Elec Sales Corp, 3420 S Dixie Dr
Dayton 293-6896
Tex Transitron Elec Sales Corp, 3300 W Mockingbird La
Dallas........ FL 7-9448
Wash Transitron Elec Sales Corp, 2633 E Lake Ave E
Seattle .... EA 5-6777
Can Transitron Elec Sales Corp, 1229 The Queensway
Toronto, Ont........ CL 9-5461
Fr Transitron Electronic, 29 Ave de l'Opera, Paris 1
Ger Transitron Electronic GmbH, Corneliusstra 12
Meunchen 5
GB Transitron Electronic Ltd, Gardner Rd
Maidenhead, Berks
Holl Transitron Electronic SA, 25 Cruquiusweg
Amsterdam

TRANSMAGNETICS INC, 134-25 NORTHERN BLVD, FLUSHING
N Y, 11354........ 212 539-2750
S GOLDSCHMIDT, EMP 85, ENG 8
ADV PG 218, 254, 443
Cal Cardinal Assoc, 16024 Ventura Blvd
Encino 213 788-4540
Ill Audio Sound, 2919 1/2 W Armitage Ave
Chicago 312 342-1600
Mich Villani & Pitcher, 20203 Ann Arbor Trail
Dearborn 271-4600
Minn Smith Engineering, 2278 Como Ave
St Paul........ 646-4851
Mo Gordon Fixman, 8160 Stanford Ave
St Louis .... PA 5-5219
NY Nycom Inc, 2002 Teall Ave
Syracuse........ 315 437-8343
Pa Wyncote Instr, 1616 Kenmore Dr
Dresher........ 215 643-2440
Va Nine Assoc, 7753A2 Patriot Dr
Annandale 703 256-9105
Wash G M Gillett & Assoc, Box 4035
Seattle .... MA 3-5755
Can Electrodesign Ltd, 9124 St Lawrence Blvd
Montreal 389-5914

TRANS NATIONAL FABRICATORS, 355 DALZIEL RD
LINDEN, N J, 07036 .... 201 486-4815
I BERKMAN, EMP 20, ENG 2, $250-$500M

TRANS-SONICS INC, BOX 326, LEXINGTON
MASS, 02173, TWX 710-332-1635........ 617 272-1000
J KELLY, EMP 210, ENG 25, $2,500-$5,000M
Ala Trans-Sonics, Inc, 800 Arcadia Ave NW
Huntsville 534-5500
Cal Trans-Sonics Pacific, 5300 Santa Monica Blvd
Los Angeles........ HO 2-6388
Cal Electronic Engineering Assoc, Box 997
San Carlos........ 593-2189
La Trans-Sonics Inc, Box 24068
New Orleans .... HU 2-7401
Ohio Instrumentation Systems, Inc, 600 Winding Way
Dayton 293-8095

TRANS-TEK MFG CO INC, 300 NORTH AVE, GARWOOD
N J, 07027 .... 201 789-1047
S BABER, EMP 30, ENG 2, $100-$250M
Fla Barrett Assoc, Box 14205, Orlando........ 277-2857
Mass NEECCO, 700 Main St, Acton 617 263-7566
NY Mars-Tronics Sales, 220 Jericho Tpk
Mineola 516 741-1270
Pa MCW, Inc, 700 W Atlantic St
Philadelphia .... 215 BA 8-7459
Can James D Breedon Agencies, Box 398
Unionville, Ont 297-2610
For Metropolitan Overseas Supply Co, 468 Park Ave S
New York........ 212 MU 6-2120

TRANSVAL ELECTRONICS DIV JETRONIC INDUS INC
1640 W 132ND ST, GARDENA
CAL, 90249 .... 213 321-8170
B MYATT, EMP 90, ENG 6, $1,000-$2,500M

TRELCOM ENGINEERING CO INC
4530 1/2 HARFORD RD, BALTIMORE
MD, 21214 .... 301 426-6113
H STRINGFIELD, EMP 36, ENG 5, UP TO $100M
Md S W Goodman Co, 5 W Biddle St
Baltimore........ SA 7-6116

TRENT INC, 217 LEVERINGTON AVE, PHILADELPHIA
PA, 19127 .... 215 IV 2-5000
S GIBBONS, EMP 61, ENG 5, $1,000-$2,500M
Cal E C Call & Assoc, 1330 Bayshore Blvd
Burlingame .... DI 2-9207
Cal Western Automation Inc, Box 116
Placentia 525-0273
Colo Alldredge & McCabe, 1550 S Pearl St
Denver 303 744-6351
Conn Doonan-Miles Corp, Box 216
Wallingford .... CO 9-5973
Conn Masten-Wright Corp, Box 1896
New Haven .... AT 8-1638
Ga G H Crossley & Assoc, 3390 Peachtree Rd NE
Atlanta 261-4278
Ill Stolley & Orlebeke Inc, 381 N York Rd
Elmhurst........ 834-1320
Ind W R Johnston, 7002 Avalon Dr
Fort Wayne 747-2221
Kan J A Switzer Co, 4323 W 67th St
Shawnee Mission .... CO 2-5385
Md Thomas H Closs Co, 21 W Penna Ave
Towson........ VA 5-4445
Mass Cowperthwait & Brodhead, 570 Hillside Ave
Needham Hgts .... HI 4-9410
Mich Clifford Armstrong Co, 7053 Cathedral
Birmingham........ 933-5000
Minn D G Perry & Co, 5010 France Ave S
Mnpls........ 920-3212
Mo Carol Assoc, 7701 Forsyth, St Louis .... PA 7-2240
NY L-Tron Corp, Box 147, Skaneateles 685-6172
NY David M Miller Co, 150 Broadway
New York........ CO 7-1870
NY C V Stevens Inc, 5554 Main St
Buffalo .... NF 2-0300
NC A D Penn Co, 1043-C Providence Rd
Charlotte 332-8644
Ohio Blakeslee Equipment Co, Box 597
Cleveland........ LA 1-4990
Ohio R E Surkamp Co, 4866 Cooper Rd
Cincinnati........ TW 1-1838
Pa Russell F Clark Co, Laketon & Lindberg Rds
Pittsburgh........ CH 2-9500
Pa E F Ewing Inc, Box 43, Glenside........ HA 4-2074
Tex The Sinclair Co, 11505 Chimney Rock Rd
Houston .... PA 9-3222
Tex Jack Miller Co, Box 127, Arlington........ AN 2-2363
Va Campbell & Assoc, 1715 Summit Ave
Richmond........ 359-2015
Wash Eicher-Richards Co, 2727 NE Blakeley St
Seattle .... LA 3-7888
Can Amos & Assoc, Box 343, Toronto, Ont........ 278-4050
For Modern Industries Inc, Apartado 175
Hato Rey 766-6289

TRENTON TRANSFORMER CORP, 50 INDEL AVE
RANCOCAS, N J, 08073........ 609 267-6750
T OFFENBACHER, EMP 30, ENG 3
Ala Intl Scientific Instr, 614 Madison St S
Huntsville 205 536-9686
Ill Coren-Waters & Assoc, 242 E Irving Park Rd
Woodale........ 312 595-0050
Md Mount & Co, 4853 Cordell Ave
Bethesda 301 652-5612
Mo Alfred Gleidt Assoc, 10869 Spring Garden St
St Louis 314 868-7445
Mo Airborne Elctns Inc, 7759 Loma Vista Dr
Kansas City 816 221-0312

NM A&B Sales, Box 11312 Albuquerque 505 298-0770
NC Mount & Co, Box 17365, Raleigh 919 787-8731
Ohio Martin-Rettger, Inc, 11955 Shaker Blvd Cleveland 216 791-8787
Pa Mount & Co, Box 192 Cornwells Hgts 215 639-7744
Pa Ralph M Davis Co, 814 Wainwright Dr Pittsburgh 412 341-6611
Tex I B L Engrg & Sales Inc, 219 Preston Royal Ctr Dallas 214 363-3921

TREPAC CORP OF AMERICA, 30 W HAMILTON AVE
ENGLEWOOD, N J, 07631 201 567-3810
H TRENNER, EMP 21, ENG 4, $250-$500M
Can Trepac Corp of Canada, Ltd, 507 Pl d'Armes Montreal, Que 334-2930
Jap Tominaga & Co Ltd 5 Nichome Kobunacho Nihonbashi, Tokyo
Gr Commercial Agencies of Greece 41 Sophocleous St, Athens
Ind Electronic Enterprises, New Charni Rd, Bombay 4
Aust Distributors Corp PTY Ltd, 24 Johnston St Fitzroy, Vic

TRESCO INC, 3824 TERRACE ST, PHILADELPHIA
PA, 19128 215 483-1383
F STRAUSS, EMP 619, ENG 10, $5,000-$10,000M
Cal Brooks & Day, 10700 Ventura Blvd N Hollywood 213 877-3357
Cal Richards Assoc, Box 280 Los Altos 415 941-3226
Fla Young & Lawrence Assoc, 601 N New York Ave Winter Park 305 647-6929
Ill W F Hamilton Co, Inc, 5130 N Elston Ave Chicago 312 545-7576
Md J A Dougherty Sales Co, 320 Hillen Rd Towson 301 823-0431
Mass Daner Associates, 684 Commonwealth Ave Newton 617 969-4650
Mass H F S Morris Assoc, Box 104, Newton 244-6041
Mich Plas Tronics Inc, 565 E Milwaukee Detroit 313 872-7044
NJ Marchand-Border, Box 181 Cranford 201 272-5510
NY Transformers Sub Tresco Inc, 200 Stage Rd Vestal 607 748-3311
NY Tech-Mark Inc, 19 Valley Brook Dr Fairport 716 377-5531
NY Tech-Mark Inc, Box 296 New Hartford 315 732-1602
Ohio Thorrat & Hanmer, Box 2945 Rocky River Cleveland 216 333-5950
Ohio John C Lee, 2010 Carew Tower Cincinnati 513 241-1844
Tex P Kreager Co, 9230 Cliffmere Dr Dallas 214 348-3521
Tex E Smith Sales Co, 7007 Gulf Fwy Houston 713 649-5756
Wash Mohr's Co, 819 NE 128 St, Seattle 782-6959
Can Wilson Enterprises, 19 Abercorn Rd Markham, Ont 416 297-1289

TRF INC, 6627 BACKLICK RD, SPRINGFIELD
VA, 22150 703 451-5131
K JOHNSON JR, EMP 35, ENG 10
Cal W K Geist Co, 1205 Air Way Glendale 213 245-9501
Mass Telemetry Systems Engrg, 93 Main St Andover 617 475-4086
NM A L S Electronics, Box 11626 Albuquerque 505 298-2575
NY DAL Tech Devices Inc, 336 N Broadway, Jericho
Tex E G Miller Co, Box 929 Henderson 214 657-5049
Va Schibley Assoc Inc, 10604 Warwick Ave Fairfax 703 591-3008
For TRF Intl Div, 750 Third Ave New York 212 986-2244

TRG DIV CONTROL DATA CORP, 400 BORDER ST, EAST BOSTON
MASS, 02128, TWX 710-329-6639 617 569-2110
W JOHNSON, EMP 450, ENG 10
ADV PG 418
Ala Gentry Assoc Inc, 2109 W Clinton Ave Huntsville 205 534-9771
Ariz Hyer Assoc, 301 W Indian School Rd Phoenix 602 264-0291
Cal Windsor Dynamics Inc, Box 5500 Sherman Oaks 213 ST 9-2421
Cal Windsor Dynamics Inc, 195 Greer Rd Woodside 415 851-0417
Colo Hyer Assoc, 7895 E Prentice Ave Englewood 303 771-5285
Fla Gentry Assoc Inc, Box 11096 Orlando 305 841-7740
Ga Gentry Assoc Inc, Box 13513, Sta K Atlanta 404 233-3816
Ill Loren F Green & Assoc, 5218 W Diversey Ave Chicago 312 286-6824
Iowa Engineering Serv Co, 1026 Third Ave SE Cedar Rapids 319 366-1591
Kan Engineering Serv Co, 7924 A State Line Prairie Vill 913 649-4000
Md TRG Div, 11428 Rockville Pike Rockville 301 949-8800
Mass TRG Div, 400 Border St East Boston 617 569-2110
Mich WKM Assoc Inc, 1474 E Outer Dr Detroit 313 892-2500
Minn Loren F Green & Assoc, 3037 Central Ave NE Minneapolis 612 781-1611
Mo Engineering Serv Co, 6717 Vernon Ave St Louis 314 726-2233
NM Hyer Assoc, 210 LaVeta Dr NE Albuq 505 989-1679
NY CDB Enterprises, Inc, 675 W Jericho Tpk Huntington 516 692-5200
NC Gentry Assoc Inc, Box 197 Jamestown 919 883-4521
Ohio WKM Assoc Inc, 6741 Ridge Rd Cleveland 216 885-5616
Ohio WKM Assoc Inc, 5335 Far Hills Ave Dayton 513 434-7500
Tex Vidal Electronics Co, 3403 High Bluff Dr Dallas 214 241-4491
Utah Hyer Assoc, 445 E 2nd S Salt Lake City 801 363-6773
Wash Associated Industries, 3711 S Hudson St Seattle 206 723-5600
Can Microwave Specialty Co, 8490 Lafrenaie St Montreal 514 324-1780
Den Tage Olsen A/S, 1 Ronnegade Copenhagen 29 48 00
Fr Radio Equipments, 9 Rue Ernest Conacq 92 Levallois-Perret 737 54 82
Ger Nucletron Vertriebs-GMBH, 60 Gartnerstr 8 Munich 54 54 6081
GB Claude Lyons, Ltd Instr Div, Valley Wks, Ware Rd Hoddesdon, Herts 67161
Holl Air Parts Intl NV, 149 Haagweg, Ryswyk 986568
Ital Mario Vianello, L'Anelli 13, Milan 553 081
Jap Seki & Co, 92-Chome Nihonbashi, Tokyo 4121-5
Nor Scancopter A/S, Drammernsvn 40, Oslo
Swit Omni Ray AG, Dufourstr 56, Zurich 34 44 30
Belg Ets M Ponjaert, 93 Ave Coghen, Brussels 43-0695
Gr Kostas Karayannis, Klaftmonos Square, Athens 124
Ind B N Bose & Co, 8 Waterloo St, Calcutta 23-4213
Isrl Electronics & Engineering Div of Motorola, Israel Ltd, 16 Kremenetsky St, Tel Aviv
NZ Sample Electronics (N Z) Ltd 8 Matipo St Onehunga, S E 5 Auckland 565 361
Aust Sample Electr Pty Ltd, 82 Alexander St Crows Nest N S W 439-1441

TRIAD DISTRIBUTOR DIV LITTON INDUSTRIES
305 N BRIANT ST, HUNTINGTON
IND, 46750, TWX 810-333-1532 219 356-6500
P COOK, EMP 850, ENG 25, OVER $10,000M
Ariz Hecht-Henschen & Assoc, 3825 N 39th Ave Phoenix 272-6677
Ark Dick Bellew Sales Inc, Box 1825 Eldorado 863-8325
Cal Robert Katzenmeyer, 4055 Redwood Ave Venice 390-3571
Cal Logan Sales Co, 463 Brewster Ave Redwood City 369-6726
Colo McLoud & Raymond Co, 2151 S Grape St Denver 756-1589
Fla Murphy Cota, 712 Vassar Ave, Orlando 424-2407
Ga Murphy & Cota, 586 Armour Cir NE Atlanta 875-2525
Ill Harry Bertsch, 530 N Waiola Ave La Grange Park 354-8272
Ind Burton Homsher, 4320 Dodge Ave Ft Wayne 483-1348
Md Burgin-Kreh Assoc, 1600 White Oak Ave Towson 661-1120
Mass Dan Greene Organization, Box 290 Bedford 275-6400
Mich Jack M Thorpe Co, 640 Hidden La Detroit 884-4360
Minn Clark R Gibb, 1311 W 25th St Minneapolis 377-1200
Minn Murphy & Cota, Box 6365, Greensboro 288-1923
Mo R W Farris Co, 1715 Baltimore Ave Kansas City 421-1751
Mo Dipro, Inc, 11657 Adie Rd Maryland Heights 432-3444
NJ Talcomp, Inc, 19 Sylvan Ave Englewood Cliffs 947-5038
NJ L Adezio Sales Co, 13 E Main St Moorestown 665-6007
NY Advanced Components Corp, 119 Luther Ave Liverpool 472-7886
Ohio Frank Kahsar Co, 5229-A Glenway Ave Cincinnati 471-9011
Pa Trymac Co, 201 Penn Center Blvd Pittsburgh 823-8400
Tex Branum Sales Co, 747 Sherman St Richardson AD 1-6148
Wash Dave Miller Sales Co, 2323 N 45th St Seattle 632-7070
Can Lake Engineering Co, 123 Manville Rd Scarborough, Ont PL 7-3253
For Litton International SA, Gubelstr 28 Zurich, Switzerland
BC Electro Tec Marketers, 1624 W Third Ave Vancouver RE 6-6377

TRIAD TRANSFORMER CORP, 4055 REDWOOD AVE
VENICE
CAL, 90291, TWX 910-343-6477 213 870-5381
V MILLS, EMP 315, ENG 10
Ariz Hecht-Henschen & Assoc, 3825 N 39th Ave Phoenix 272-6677
Colo McLoud & Raymond Co, 2141 S Grape St Denver 756-1589
Fla R Hodges, 4401 Roosevelt St Hollywood 981-7225
Ill Triad Transformer Corp, 6835 W Higgins Ave Chicago 775-6697
Md Burgin-Kreh Assoc, 1000 White Oak Ave Baltimore 661-1120
Mass Dan Greene Organization, 1 Hayden Rd Bedford 275-6400
Minn Clark R Gibb, 2400 Hennepin Ave Mnpls 377-1200
Miss C R Herron, Jr, 4394 18th Ave Meridian 482-1878
Mo R W Farris Co, 1714 Baltimore St Kansas City 421-1751
Nev Logan Sales, 463 Brewster Ave Redwood City 369-6726
NJ Talco Inc, 19 Sylvan Ave Englewood Cliffs 947-5038
NY Advance Components Corp, 119 Luther Ave Liverpool 472-7886
Ohio Frank Kahsar, 5229 A Glenway Ave Cincinnati 471-9011
Tex Ammon & Champion Co, Box 35263 Dallas 357-8441
Va Burgin-Kreh Assoc, 2600 Memorial Ave Lynchburg 845-5600
Wash N R Shultz Co, 220 S Hudson St Seattle 722-7800
W Va F Kahsar, 5229 A Glenway Ave Cincinnati 471-9011
Swit Litton World Trade, Schwamdingenstr, Zurich

TRIANGLE ELECTRONIC MFG CO INC, 153 GARDEN ST
POUGHKEEPSIE, N Y, 12602 914 471-5020
G DREZIN, EMP 200, ENG 8, $5,000-$10,000M
Colo Triangle Elctn Mfg Co Inc, 1027 Walnut St Boulder 444-3900
Fla Triangle Elctn Mfg Co Inc, 1501 NW 1st Ct Boca Raton 305 395-8548
RI Beam Electronics of R I, 387 Charles St Providence 521-2720

TRIANGLE INSTRUMENT CO INC, 136 OAK DR
SYOSSET, N Y, 11791 516 WA 16770
W SCHAETZL, EMP 52, ENG 4, $500-$1,000M

TRICO FUSE MFG CO, 2948 N 5TH ST, MILWAUKEE
WIS, 53212 414 264-3410
F MASEK, EMP 50, ENG 2, $500-$1,000M
Ariz Maddox Sales Co, 5709 N 19th Pl Phoenix CR 4-3807
Cal Maddox Sales Co, 2945 E 12th St Los Angeles 269-7291
Cal L E Appleton, 1118 Harrison St San Francisco MA 6-1733
Colo Wm H White, 5933 Field St Arvada Denver 424-1328
Ga Ralph Brooks & Assoc, 3110 Maple Dr NE Atlanta 237-1273
Ill Central Equip Co, Inc, 80 E Jackson Blvd Chicago 427-5401
Ind R M Crandall & Assoc, 6220 E 56th St Indianapolis LI 6-8373
Ky Riggs Engineering, 303 Shelby St Ludlow HE 1-5362
La G W Hurtt Co, 1206-A N Broad Ave New Orleans 482-9539
Mass Edgar F Hubert Co, 1 Rocky Brook Rd Dover 235-6815
Mich R B Bellamy, Box 2, Detroit 885-8710
Minn C F Vander Voort, 1279 Osage St St Paul HU 9-5222
NJ Dougherty Sales Agency Inc, 75 Grand Ave Englewood LO 7-3300
NY Cooper-Morgan, Inc, 6704 E Quaker St Orchard Park NN 2-3445
NC T H McKenzie, 6015 Lansing Dr Charlotte EM 6-0700
Ohio W S SHeets, 2364 Westmoor Rd Rocky River ED 1-9279
Ore P & M Distributing Co, 2186 NW Wilson Portland CA 6-6081
Pa Stuart N Mills, Box 488, Rosemont LA 5-4778
Tex Brice Co, 1402 Dunlavy St, Houston JA 6-3197
Tex Ahart Tool & Engrg, Box 20522, Dallas RI 7-6004
Can Irving Smith Ltd, 2095 Madison Ave Montreal, Que 484-1153
For Rocke International Corp, 13 E 40th St New York, N Y MH 9-0200

TRICRAFT PRODUCTS CORP, 1124 W NEWPORT AVE
CHICAGO, ILL, 60657 312 935-5383
J LOCK, EMP 20, ENG 1
Cal Meyer, Ross & Fleming, 113 Tenth St, San Francisco
Colo Electro-Tek Sales, 8171 Julian St, Westminister
Fla Mac-Jon Assoc, Box 8532, Orlando 424-4944
Iowa L & R Co, 132 Colfax St, Council Bluffs
Minn John E M Anderson Co, 5231 Humboldt Ave S Minneapolis
Mo R J Throckmorton Sales Co, 1042 N Clay Ave St Louis 966-4555
NY Erde-Haviland Assoc, 139 Broadway, Melverne
Ohio Ken White Assoc, 465 E Hanley Rd Mansfield 524-7181
Pa Lester T Benner, 520 W Market St, Bethlehem
Tex Southwest Electronic Assoc, 5271 Memirial Dr Houston UN 1-3819
Tex Southwest Eleetronic Assoc, Box 31156 Dallas EM 3-8446

TRIDAIR INDUSTRIES FASTENER DIV
3000 W LOMITA BLVD, TORRANCE
CAL, 90505 213 534-0800
J ROHLEEN, EMP 300, ENG 6, $5,000-$10,000M
Conn R Smith, 1007 Farmington West Hartford 203 233-7308
Ga Estes Assoc, 533 Decatur Fed Bldg Decatur 373-8266
Ill R Falace, 4406 Magnolia Rolling Meadows 312 392-9085
Mo R Volluz, 10041 Gregory Ct St Louis 314 843-6712
NJ M Cohen, 9 Largo La, Livingston 201 994-0308

NY G M Blaney, 2683 Quaker Church Rd
Yorktown Heights 914 245-2971
Ohio R Metzner, 1776 Bising Ave
Cincinnati 513 931-5048
Tex Standard Parts & Equip, 904 N Main
Ft Worth .... ED 6-2521
Wash J White, 130 150th St SE
Bellevue 206 454-5357

TRI-D CORP, JOHNSON ST, PLAINVILLE
CONN, 06062 .... 203 747-5551
EMP 50, ENG 4

TRIDEA ELECTRONICS, SUB CONDUCTRON CORP
11581 FEDERAL DR, EL MONTE
CAL, 91731, TWX 910-587-3530 .... 203 686-1740
V HUGHES, EMP 352, ENG 63

TRI-DEX CO, 2146 E MAIN ST, VISALIA
CAL, 93277, TWX 910-377-3491 .... 209 732-7415
K HOWARD, EMP 10, ENG 1, UP TO $100M

TRI-EX TOWER CORP, 7182 RASMUSSEN AVE, VISALIA
CAL, 93277 .... 209 732-8383
C BLYLEVEN, EMP 13, ENG 3, $250-$500M
Ariz Coronado Electronic Assoc, 5211 N Quail Run
Scottsdale 947-6383
Cal Wallace & Wallace, 1206 Maple St
Los Angeles 747-0401
Cal Franklin-Barry Industries, 420 Pendelton Wy
Oakland 415 562-6665
Colo Koether-Cox Co, 1325 S Inca St
Denver 292-1466
Ga Joyner & Assoc Inc, Box 10821
Atlanta 758-7496
Mass Associated Elctns Inc, 45 Kirk St
Lowell 617 454-4206
Minn E W Oszman, 932 W Montana
St Paul 612 488-1811
Mo Maury E Bettis Co, 3706 Broadway
Kansas City 561-0772
NM W M Stringfellow, Box 11626
Albuquerque 505 298-2575
NY Marty Bettan Sales, 77-15 164th St
Flushing 657-6659
Tex Ivan E Harrison Co, Box 30241
Dallas .... AD 9-2479
For Tri-Ex Export Dept, 64-14 Woodside Ave
Woodside N Y 212 899-8888

TRIM LINE CONNECTORS LTD
UNIT 21 3650 WESTON RD, WESTON
ONT 416 742-3577
A DAVY, EMP 22, ENG 3, $250-$500M
Ga K & E Assoc, Blue Springs Park, Kennesaw
Ohio Alpine Industries, 2236 Hepburn Ave
Dayton 513 278-5861

TRIMM INC, 400 W LAKE ST, LIBERTYVILLE
ILL, 60048 .... 312 362-3700
P BOTTORFF, EMP 100, ENG 3
Cal TRIMM INC, 1226 S Atlantic Blvd
Los Angeles 261-9176
Cal JM Assoc, 415 Cambridge Ave
Palo Alto 327-1260
Colo Electro-Tek Sales Inc, 3699 W 73rd Ave
Westminster 429-5305
Conn Adams-McGregor, Inc, 77 Bayberry Dr
Wallingford 269-5816
Fla Millar-Hutto Assoc, Box 1603
Winter Park 647-7407
Ga Millar-Hutto Assoc, Box 12137, Northside Sta
Atlanta 261-6160
Mass Adams-McGregor, Inc, 46 Pearl St
Quincy 472-7550
Mich Shalco, Inc, 23529 Woodward Ave
Ferndale 547-4771
Mich Shalco Inc, 5364 Kimball Ave, SE
Grand Rapids 243-7607
Minn Kirkeby & Assoc, Inc, 821 2nd Ave, N
Mnpls 377-3239
Mo Larrabee-Fontaine Co, 2725 Beloit Dr
Bridgeton 739-6857
Mo Larrabee-Fontaine Co, 3709-A Summit
Kansas City 931-0657
NY Howard F Smith, 259 W 14th St
New York 242-2398
NC Millar-Hutto Assoc, Box 17173
Raleigh 787-9564
Ohio Paul Sales, 350 Fairfield Ave
Ft Wayne Ind 744-0589
Ore James W Eckersley Co, 3150 S W Hamilton St
Portland 246-3183
Pa John Mustico, 206 Bewley Rd
Havertown 446-1961
RI Adams-McGregor, Inc, 66 Lakeview Rd
Lincoln 726-1300
Tex Techno Assoc, Box 20544, Dallas .... FL 7-9213
For Rocke Intl Corp, 13 E 40th St
New York, N Y 689-0200

TRIMTEX INC, 400 PARK AVE, WILLIAMSPORT
PA, 17701 .... 717 326-9135
C BOWER, EMP 240, ENG 2
Cal K W Lockwood Co, 15450 Cabrito Rd
Van Nuys 873-7766
Ill Winkenwerder Sales Corp, 5932 Gunnison St
Chicago 736-1332
Mo McGrath Sales, 1517 Washington Ave
St Louis .... GA 1-4825
NJ L K Detwiler, 443 Broad St, Newark 621-9080

Pa I R Blair, 123 S Main St, North Wales ... 699-5756

TRIO LABORATORIES INC, 80 DUPONT ST, PLAINVIEW
N Y, 11803, TWX 510-221-1861 .... 516 OV 10400
J CRAWFORD, EMP 150, ENG 16, $2,500-$5,000M
Ala Fact-Tronics, 614 Madison St S
Huntsville 205 536-9686
Ariz BFA, 4710 N 16th St, Phoenix 264-6536
Cal Sedillo Co, 125 E Sunnyoaks Ave
Campbell 408 264-4010
Cal 3 DBM Inc, 7424 Greenbush Ave
North Hollywood 875-0876
Colo BFA, 1309 S Inca St, Denver 744-3301
Fla Fact-Tronics, Box 745, Casselberry 838-5607
Md VPI, 561 Dorsey Rd NW
Glen Burnie 301 768-0550
Mass Research Instr Inc, 87 Terrace Hall Ave
Burlington 617 272-1800
NM BFA, 1238 Ortiz SE, Albuq 268-4387
NY B B Taylor Corp, 2270 Grand Ave
Baldwin .... BA 3-8000
NC The Candor Co, Bethania 924-1480
Pa VPI, 10714 Haldeman Ave
Philadelphia .... 215 OR 6-4133
Tex Norvell Assoc, 6440 Hillcroft, Houston ... 774-2568
Tex Norvell Assoc, Box 20279, Dallas ...... FL 7-6451
Wash Cane-Jessup Co, Inc, Box 250
Bellevue .... GL 4-0691
For EMEC, 160 Terminal Dr
Plainview, NY .... WE 1-3700
Fr Technique et Produits, 63 Bis, Rue D'Aguessean
Boulogne-S/-Seine
Ital EMEC Europe s r l, Coiso porta Vittoria 31, Milano

TRIO MFG CO, GRIGGSVILLE
ILL, 62340 .... 217 833-2393
W BRADSHAW
Ill Webster Engineering Co, 823 S Greenwood Ave
Park Ridge
Tenn Dixie Electronic Assoc, Box 200, Madison
Tex Bill Grogan Sales Co, 7508 Ridgeland Rd, Ft Worth

TRION INC, 1000 ISLAND AVE, MCKEES ROCKS
PA, 15136 .... 412 331-3300
F FORD, EMP 200, ENG 6, $1,000-$2,500M
Ala Cecil H Buck & Assoc, 333 Shadecrest Rd
Birmingham 822-2690
Ala Cecil H Buck & Assoc Inc, 2815 Crescent Ave
Birmingham 871-6165
Ark Vinsant Co, Box 2536, Little Rock 666-0029
Cal Air Filter Sales & Serv, 1261 Blackstone
Fresno 237-7458
Colo Bettco Inc, 2177 W 10th St, Denver 266-2308
Conn Dee Engineering Co, Dee La, Cromwell ... 346-7186
DC Irving M Day Co, 1330 N H Ave NW
Washington 296-2975
Fla Clark Equip of Jacksonville, 1628 San Marco Blvd
Jacksonville 359-7737
Ga McKinney & Assoc, Inc, 535A Morosgo Dr NE
Atlanta 231-4175
Ill Ryan Co, 400 N Wells, Chicago 644-5644
Ind Havel Brother Inc, 611 E Wayne St
Ft Wayne 742-1409
Iowa Hubill, Inc, 1025 W 2nd St, Davenport ... 323-8031
Kan Ray F Bauer Co, 254 Laura St, Wichita ... 264-0364
Ky R L Craig Co, Inc, Box 7443, Louisville ... 896-1759
La Engineering Sales Co, 171 Audubon Blvd
New Orleans 866-2701
Me A E Wallgreen Co, Box 2191
S Portland 779-0246
Md John J Barry Co, 501 Keyser Bldg
Baltimore 727-4451
Mass D W Noble Assoc, 355 Washington St
Braintree 843-3000
Mich Brombach-Duncan Assoc, 1460 Holden Ave
Detroit 871-2822
Miss Air Filter Sales & Serv Co, 449 Dory St
Jackson 355-2449
Mo D S Anderson Co, 341 Selma Ave
St Louis 961-8485
Neb Wain Eng Co, Benson Sta, Omaha 553-2123
NJ Martin & Assoc, 101 Chestnut ST
Cranford 276-8787
NY Geo H Britton, Inc, 33 Lois St
Rochester 254-6026
NC Chet Adams Co, 611 Templeton Ave
Charlotte 372-3590
Ohio United Equip Co, 539 E Town St
Columbus 224-8044
Okla Jones & Newby, 9 NE 23rd, Oklahoma ... 525-3341
Ore Ed Lokay & Co, 10338 NE Sandy Blvd
Portland 254-7378
Tenn A T Distrs, 283 Poplar St, Memphis 527-8401
Utah Kaymac Sales Co, 153 W 2nd St
Salt Lake City 328-3243
Va Chet Adams Co, Box 10026, Norfolk 855-0131
Wash John L Harvey Co, 121 S Monroe St
Spokane 624-3002
Wis W Classmann Corp, 2016 W Bender Rd
Milwaukee 372-1140
Can Trion Mfg Ltd, 1175 Bellamy Rd
Scarsborough, Ont 261-0551
Swit Trion A G, Case Postale 7, Zurich

TRIO-TECH INC OF CALIFORNIA, 2435 N NAOMI ST
BURBANK
CAL, 91504, TWX 910 498-2709 .... 213 846-9200
W ANHALT, EMP 50, ENG 4, $1,000-$2,500M
Ariz Tech-Ser, Inc, 1805 E Indian School Rd
Phoenix 265-3629
Cal Tech-Ser, Inc, 2435 N Naomi St
Burbank 846-9631
Cal Tech-Ser, Inc, Box 10544, San Diego 222-1121
Cal Tech-Ser, Inc, 477 Castro St
Mountain View 969-9020
Ill Maher Engineering Co, 13 Broadway
Des Plaines .... VA 4-2124
Mich Maher Engineering Co, 28418 Hoover Rd
Warren 345-4424
NY Crane & Egert Corp, 146 Meacham Ave
Elmont 488-2100
Ohio Allen Nace Co, Inc, 7601 Parkview Rd
Brecksville 526-4323
Tex Tech-Ser, Inc, 10210 Monroe Dr, Dallas .. 358-2504
For Frazar & Hansen Ltd, 150 Calif St
San Francisco, Cal .... YU 1-5262

TRIPLE A SPECIALTY CO, 5750 W 51ST ST, CHICAGO
ILL, 60638 458-7200
I BERNES, EMP 100, ENG 10, $2,500-$5,000M

TRIPLETT ELECTRICAL INSTRUMENT CO
286 HARMON RD, BLUFFTON
OHIO, 45817, TWX 810-490-2400 ...... 419 358-5015
N TRIPLETT, ENG 11
Ariz Shefler-Kahn Co, Box 1587
Phoenix 602 258-7893
Cal Howard M Saul & Assoc, 5017 San Vicente Blvd
Los Angeles 213 938-3591
Cal Polach & Bensinger Inc, 165 Eleventh St
San Francisco 415 861-6958
DC Massey Assoc Inc, 1 Thomas Cir
Washington 202 628-1023
Ga Millar-Hutto Assoc Inc, 3110 Maple Dr NE
Atlanta 404 261-6160
Haw Bill Kolans & Co, Box 2098, Honolulu 811-628
Ill Geo Petitt Co Inc, 349 N Ashland Ave
River Forest 312 369-8940
Ind Walter W Bieberich, 801 Leesburg Rd
Ft Wayne 219 742-8468
Kan Thos L Dowell Co, Inc, 6007 W 94th Terr
Overland Park 913 649-6069
Minn Heimann Co, 5603 Lyndale Ave S
Mnpls 612 827-5457
NY Frank W Taylor Co Inc, 4455 E Genesee
DeWitt 315 446-0422
NY D F Tobias Co, Inc, 48-15 31st Ave
Long Island City 212 726-4551
Ohio Chas H Dolfuss Jr & Co, 2108 Payne Ave
Cleveland 216 771-1271
Pa Gene S Root & Co, 809 Wainwright Dr
Pittsburgh 412 561-4125
Pa Massey Assoc Inc, 1325 West Chester Pike
Havertown 215 789-2320
RI Adams-McGregor Inc, 66 Lakeview Rd
Lincoln 401 726-1300
Tex Lund & Co, 2616 Manor Way
Dallas 214 358-4335
Utah F Y Gates Co, Inc, 455 E 4th S
Salt Lake City 801 359-1101
Wash James J Backer Co, 221 W Galer St
Seattle 206 283-6470
Can Len Finkler Ltd, 2 Tycos Dr
Toronto 416 781-5231
Can C M Robinson Agencies Ltd, 1550 Erin St
Winnipeg .... SP 4-1855
For Jose Arturo Fernandez
Box 5124, Puerta De Tierra Sta
Puerto Rico 724-2854

TRI-POINT INDUSTRIES INC, 1 TEFLON WAY
COMMACK, NY, 11725 .... 516 543-1600
P LEAPER, EMP 250, ENG 5
Ala Massey-Assoc, 3818 Lakewood Dr NW
Huntsville 205 852-0991
Conn P A Winton, 100 Strong Rd
So Windsor 401 521-3522
Fla D Sharp, 5600 Silver Star Rd
Orlando 305 295-9783
Ill J H Beck Assoc, Inc, Box 50, Skokie 674-5151
Kan Casdi Inc, Box 608, Derby 788-1726
Mass S Brickley, 54 Ellis Ave, Norwood ... 401 521-3522
Mich Donigan & Galla, Inc, 1565 N Woodward
Bloomfield Hills 644-2275
Mo Ryder Pratt & Assoc, Inc, 7460 Oakland Ave
St Louis 788-1726
NY R W Mercier, 4350 Ridge Rd W
Rochester 865-5887
NC Powertronics Inc, Box 403, Thomasville ... 476-4257
Ohio G E Blaney, 3169 Olmsted Dr
No Olmsted 216 734-2083
Pa A W Ballard, Box 84, Norristown 215 279-8571
RI Bud Kaplan, 163 Oakhill Ave
Pawtucket 521-3522
Tex R Davis, 101 S Weatherred
Richardson 214 235-5119
Can Atkinson & Vail Ltd, 5 Allenbury Gdns
Willowdale, Ont 416 225-7494

TRIRIDGE CORP, DRAWER A, ALIQUIPPA
PA, 15001 .... 412 378-4426
R WOOD, EMP 22, ENG 1, $250-$500M
Cal Corcoran Assoc, Box 45897
Los Angeles 213 823-2425
Cal Triridge Corp West, Box 910
Los Altos 415 327-5195
Colo Regan & Assoc, 1188 E Easter Ct
Littleton 303 794-6477
Conn Zaslow Sales Co, 6 Newberry Rd
Bloomfield 203 242-7781
Fla H G Richter Inc, 2318 Nash St
Clearwater 813 446-5631
Ga Chalmers Inc, 349 Peachtree Hills Ave N E
Atlanta 404 233-3208
Ill Crest Assoc, 7001 No Clark St
Chicago 312 274-2640

Md J A Dougherty Assoc, 320 Hillen Rd Towson 301 823-0431
Mass Zaslow Sales Co, 371 Howard St Northboro 617 393-8150
Mich Jefco Sales Inc, 700 Maple E Birmingham 313 642-3830
Minn Beta Eng Co, 128 Jackson Ave N Hopkins 612 938-2551
Mo Airborne Electronics, 7759 Loma Vista Dr Kansas City 816 221-0312
NJ H G Richter Inc, 608 Sherwood Pkwy Mountainside 201 233-4615
NY H C Richter Inc, Box 251 Fayetteville 315 736-6713
Ohio Thomas Shelby & Co, 1750 Walnut St New Brenen 419 629-6511
Pa Nebco Sales, 1974 Gregory Ave Monroeville 412 824-2111
Tex Paul Kreager Co, 9230 Cliffmere Dr Dallas 214 348-3521
Tex Everett Smith Sales Co, 7007 Gulf Fwy Houston 713 649-5756
Wash J C Plate Co, 584 Dexter, Seattle .. 206 MA 4-1673
W Va Nebco & Assoc, 1 Spotswood Ct Charleston 304 344-1111
Can Technitron Ass, 769 Lajoie Ave Dorval P Q 514 631-6859

TRI-TRONICS LAB INC, 1004 PAMELA DR, EULESS TEX, 76039 .... 817 BU 3-3751
A WOLFLE, EMP 70, ENG 3, $500-$1,000M
Colo Palmer Assoc, 1050 Yuma, Denver 255-9961
Tex T M Curtis Co, 5635 Yale Blvd Dallas .... EM 1-1666
Tex John H Smith Co, 729 Edgefield Rd Fort Worth .... MA 6-1032

TRIWEC TRANSFORMER CO, 3261 MILWAUKEE AVE CHICAGO, ILL, 60618 .... 312 282-8700
W PETERSON, EMP 450, ENG 6, $2,500-$5,000M
Cal Tedco Eng Co, 2317 Silver Tree Rd Claremont 714 621-1025
Ill Mesa, 6510 N Clark St, Chicago 338-8388
Kan Mesa, 5460 Buena Vista Dr, Mission .... CO 2-6565
Mass Bahr Sales, 91 Woodsley Rd Longmeadow 567-3488
Mich G & H Sales, 24001 Southfield Rd Southfield 358-1910
Minn Stan Clothier Co, 7400 Lyndale Ave S Minneapolis 869-3231
NY Eugene Schomburg Co, 3100 Monroe Ave Rochester 586-0725

TROMPETER ELECTRONICS INC, 8936 COMANCHE AVE CHATSWORTH
CAL, 91311, TWX 910-494-1210 .... 213 882-1020
E TROMPETER, EMP 41, ENG 4, $1,000-$2,500M
Ala Currie Aerospace Assoc, Box 1424 Huntsville 536-5650
Ariz Hyer Elctns Co, 301 W Indian School Rd Phoenix 602 264-0291
Cal Long & Assoc, Inc, 505 Middlefield Rd Redwood City 369-3324
Cal Cairns Engrg Sales Corp, 6151 W Century Blvd Los Angeles 213 670-1700
Colo Hyer Elctns Co, 7896 E Prentice Ave Englewood 303 771-5285
Fla Currie Aerospace Assoc, 2907 McCoy Rd Orlando 855-0843
Ill Scott Assoc, 663 Fairview Ave Elmhurst 312 279-5681
Md Paddock-Joslow Co, 721 Ellsworth Dr Silver Spring .... JU 8-7866
Mass Vector Sales Inc, 774 Pleasant St Belmont .... IV 9-1400
Mo Aerotronics Inc Box 6236 Lambert St Louis Intl Arprt St Louis 314 426-4060
NJ L & M Assoc, 511 Victor St Saddle Brook 843-8700
NY Martin P Andrews Inc, 319 Mott Rd Fayetteville .... NE 7-3144
Ohio J O Olsen Co, 16201 Shaker Blvd Cleveland 216 752-5444
Pa L & M Assoc, 965A Bristol Pike Andalusia 639-3100
Tex A Barnes Co, 740 S Sherman St Richardson 214 235-4541

TRONIC CORP, BOX 247E, BELMONT CAL, 94002 .... 415 593-1487
E SCHROEDER, EMP 25, ENG 4, UP TO $100M
Ala Branner Assoc, 904 Bob Wallace SW Huntsville 205 536-3329
Cal Viets Engineering Co, Box 2768 Long Beach 432-8975
Cal C B Process Equip Corp, Box 821 Belmont 415 592-4545
Colo Alldredge & McCabe, 1550 S Pearl St Denver 303 744-6351
Ill Sinclair Mineral & Chemical, 6441 North Ridge Chicago 764-9500
Ind Howell Moore Assoc, 5425 N College Ave Indianapolis 317 255-8566
Kan Jack L Grady Co, Box 412 Shawnee Mission 262-1231
Md Precision Sales Co, 104 W Joppa Rd Baltimore 301 828-4897
Mass Dawson-MacDonald Co, 141 Pearl St Boston 542-3645
Mich Metals Finishing Corp, 32571 Stephenson Hwy Madison Heights 313 588-4990
Minn Air Pnew-Tronic Corp, 1110 S Washington Ave Minneapolis 612 471-9459
NY Haker Vacu-R Cast Sales, Box 25, Elma .. 837-7893
NC Broun Finishing Equip Co, Box 162 Statesville 872-3669
Ohio Friess Vacu-B Cast Equip Co, 145 Conger Ave Akron 836-9011
Okla Tri-Mech Co, 4 NE 27th St, Okla City 524-7347
Pa Checker Industries Corp, 2210-14 9th St Altoona 814 944-5317
Tex Jules G Bennett Co, Box 294, El Paso 532-3974
Tex Swing Machinery Co, 106 W Rhapsody San Antonio 342-9588
Tex Allied Machy & Supply Co, 2611 Perth St Dallas 214 351-1124
Tex Micro-Finishing Co, 4920 W 34th St Houston 713 686-5623
Va K Snodgrass, 4420 Briarwood N 41 Annandale 703 256-9450
Wash Precision Engineering Co, 5915 1st Ave S Seattle 722-0224

TROPEL INC, 52 WEST AVE, FAIRPORT N Y, 14450 .... 716 377-3200
R MCKAY, EMP 40, ENG 15, $1,000-$2,500M

TROTT ELECTRONICS INC, 30 RIDGELAND RD ROCHESTER, N Y, 14623 .... 716 473-8010
A MCDOWELL, EMP 25, ENG 3, $250-$500M
Mass D H Stewart, Inc, 216 Burroughs Rd Braintree 617 848-1477
NY C A Schroeder, Box 12, Flushing .... 212 FL 3-9311
Pa B & A Assoc, 237 Lancaster Ave Devon 215 688-5173

TROUGHT ASSOCIATES INC, 270 WASHINGTON AVE BELLEVILLE, N J, 07109 .... 201 751-0330
N TROUGHT

TROXLER ELECTRONIC LABS INC, BOX 5997, RALEIGH N C, 27607 .... 919 787-5424
W TROXLER, EMP 36, ENG 6, $500-$1,000M
For Kofa Co Ltd, Box 3001, Taipei Taiwan 29186
For Hydro-Tech, 4-S Gulberg, Lahore West Pak
For NEL Nukleer Elektronik Ltd Ataturk Bluv 77/4 Yenisehir Ankara Tur 12 89 85
Fr COMSATEC, 134 Ave De Malakoff, Paris XVIe
Ger Physikalisch-Technische Ger Physikalisch-Technische, Beratungs & Vertriebsgesellschaft 2000 Wedel/Holstein Hamburg 26 107
GB D A Pitman Ltd, Millworks Jessamy Rd Weybridge Surrey 46327
Holl N V Technische Handelsonderneming, Veldweg 11 Hattem 05206 1214
Ital SELO, Via G Di Vittorio 307/28 Sesto San Giovanni Milano 24 87 610
Nor Solberg & Andersen A/S, Hansteensgate 5 Solli Oslo 441985
SAfr R H Harriss (Pty) Ltd, 28 Harry St Booysens Tvl Robertsham, Johannesburg 32-6241
Swit Omni Ray AG, Dufourstr 56, Zurich 8 344430
Braz Panambra Ind E Tecnica S A, Caixa Postal 5034 Sao Paulo .... 35 5171 - 34 8103
Ind Tahira Industries, 19/21 Manohardas St Bombay 1 265256
Isrl Isotechnique, 25A Lilienblum St, Tel-Aviv 51251
Spn Utilizacion Racional Del Combustible Rda Gen Mitre 239, Barcelona 245 40 37
Fin Sonar OY, Salomonkatu 17 B, Helsinki 64 01 23
Aust Consolidated Nucleonics Pty Ltd, 813 Dowling St Waterloo NSW 69 7581

TRUCO INC, HOPMEADOW ST, SIMSBURY CONN, 06070 .... 203 658-0200
G COLDWELL, EMP 5, ENG 1, $100-$250M
Cal Tucul Engineering Co, 6402 Crenshaw Blvd Los Angeles 750-0338
Cal Electro Pacific, 2524 Franklin St San Francisco 776-8582
Colo Electronic Sales Inc, 2340 W Main St Littleton 303 798-8575
Conn J L Feinberg Assoc Inc, 33 Shirley La New London 442-2514
Fla Bill Henry Assoc, 1515 Easenada Dr, Orlando
Fla Bill Henry Assoc, 4230 S W 15th St, Miami
Ill Ryan & Assoc, 7132 N Harlem Ave Chicago 384-5749
Kan Penzner Assoc, Box 6264 Overland Park .... DU 1-0004
Md R L Wilkinson Inc, 707 Stevenson La Baltimore 377-7800
Minn Charles E Bohlig Co, Box 8095 Minneapolis 922-7011
Mo Penzner Assoc, Box 1912 Bechtold Sta St Louis .... FL 1-1547
NY Friedman-Smith Electronics Sales, 519 S 5th Ave Mount Vernon 664-4866
NY Nycom Inc, 2002 Teall Ave, Syracuse 437-8343
NC Bill Henry Assoc, Box 6097, Charlotte 375-8958
NC Bill Henry Assoc, Box 351, Clemmons
Ohio R P Calhoun & Assoc, 40 Southmoor Circle Dayton 299-4144
Pa R L Wilkinson Inc, Box 215, Glenside 424-8400
Tex Texas Components Inc, 7830 Westglen Dr Houston 782-6805
Tex Texas Components, Inc, 5635 Yale Blvd Dallas 368-8728
Va R L Wilkinson Inc, Box 218 Falls Church .... JE 2-6076
Wash W J Stulgis Co Inc, 608 W Crockett St Seattle 282-7870
Swit Elektro-Apparatebau Olten AG, Tannwaldstr Olten 5-19-61

TRU-CONNECTOR CORP, 245 LYNNFIELD ST, PEABODY MASS, 01960, TWX 710-347-6683 .... 617 532-0775
R HOFF, EMP 70, ENG 2, $500-$1,000M
Ariz Shefler-Kahn Co, Box 1587, Phoenix 258-7893
Cal William J Purdy Co, 312 7th St San Fran .... UN 3-3300
Cal Charles L Repp Co, 12121 Wilshire Blvd Los Angeles .... GR 7-4475
Md Ansell Engineering Co, 816 Thayer Ave Silver Spring 588-4222
Mass Roger LaPierre, 46 Lake Rd, Cochituate 653-8229
NY R W Mitscher Co, 496 Ellicott Sq Bldg Buffalo .... TL 4-2517
Ohio W J Brauer & Assoc, 29029 Euclid Ave Wickliffe 943-0601
Ohio Scott Gutridge, 4700 Arcadia Blvd Dayton 426-1692
Pa E S Component Sales, 4733 N Marshall St Philadelphia 457-4805
Tex Jacobson Co, Box 9702, Dallas .... FL 1-3362

TRUELINE INSTRUMENTS INC, BOX 1357 ENGLEWOOD, COLO, 80110 .... 303 781-6621
C HAWORTH JR, EMP 60, ENG 3, $500-$1,000M

TRUMP ROSS INDUSTRIAL CONTROLS INC
265 BOSTON RD, NORTH BILLERICA MASS, 01862 .... 617 667-9679
E ROSS, EMP 21, ENG 3, $500-$1,000M
Ariz Luscombe Engrg Co, 3130 N Third Ave Phoenix 274-1542
Cal Luscombe Engrg Co, 220 E Third Ave San Mateo 342-7057
Cal Luscombe Engrg Co, 610 S Arroyo Pkwy Pasadena 684-2000
Ill Electrical Materials & Equip Co 6120 N Milwaukee Ave, Chicago 763-2980
NJ Kenneth E Hughes Co, 2175 Lemoine Ave Fort Lee 944-1600
NY K L M Assoc, 8 Bear Hill Dr, Palmyra 597-9776
NY K L M Assoc, 201 S Main St N Syracuse 458-6214
NY K L M Assoc, 9 Hollywood Dr Whitesboro 736-2450
Ohio Clifford Electronics Sales, Box 81, Sta F Toledo 244-2222
Ohio Clifford Electr, Box 43576, Cincinnati 561-4084
Pa Kastle Assoc, 354 N Main St Doylestown 348-4466
SC Edgar A Moore & Assoc, 199 Marlboro St Aiken .... MI 9-7100

TRUTONE ELECTRONICS INC, 14660 RAYMER ST VAN NUYS, CAL, 91405 .... 213 873-5751
M LEVENTHAL, EMP 25, ENG 2, $250-$500M
Ariz Dorton Enter, 132 E Stetson, Scottsdale 946-6213
Cal W Wainwright, 125 Cleland Ave Los Gatos 354-1411
Fla World Wide Products Inc, Box 429 North Miami Beach 949-3457
Ill Bruce Cumming & Assoc, 6029 W Belmont Chicago 637-3770
Minn Northland Assoc, Box 429 Moorhead 218 233-4616
NY G E Miller Assoc, 47 Birchwood Park Dr Jericho 263-0617
Ore McMillan Electronics, 16679 SW Maple Cir Oswego 503 636-6257
Tex Techno Assoc, Box 20544, Dallas 357-9213
Can McIntyre Agencies, 6333 Decarie Blvd Montreal, Que
Can W R Spence, 192 Bridgeland Ave, Toronto 19, Ont
For Man-Rep Corp, Box 429 N Miami Beach, Fla 947-3531

T R W CAPACITOR DIV, 112 W FIRST ST, OGALLALA NEB, 69153, TWX 910 620-0321 .... 308 284-3611
A ELLES, EMP 630, ENG 21
Ala Murphy & Cota, 904 Bob Wallace Ave Huntsville 539-8476
Ariz Fryco, 403 N Old Scottsdale Rd Scottsdale 945-3281
Cal Straube Assoc, 483 Willow Rd Menlo Park 323-2476
Cal TRW , 5410 W Imperial Hwy Los Angeles 673-5262
Colo Waugaman Assoc, 2785 N Speer Blvd Denver 255-5000
Fla Murphy & Cota, 712 W Vassar St Orlando 424-2407
Ill J G Twist Co, 5222 W Diversey Ave Chicago 777-2250
Ind R O Whitesell & Assoc, 272 Central Bldg Ft Wayne 743-4411
Ind R O Whitesell & Assoc, 6620 E Washington Indnpls 359-5374
Ky R O Whitesell & Assoc, Lex-Manor Bldg Louisville 893-7303
Mass TRW Inc, Box 603, Norwood 762-8737
Mich R O Whitesell & Assoc, 303 Fidelity Bldg Benton Harbor 927-2041
Mich R O Whitesell & Assoc, Southfield Ctr Bldg Southfield 358-2020
Minn E A Dickinson & Assoc, Box F Excelsior 474-5273
Mo L R Harry Assoc, Box 588, Grandview 763-3634
Mo L R Harry & Assoc, 7603 Forsythe Clayton 727-6123
NY Paul D Aaron & Assoc, Box 511 Pt Washington 767-8480
NY TRW Inc, Box 64, Yorkville 463-6052
NC Murphy & Cota Inc, 1106 Burke St Winston Salem 724-0750

Ohio R O Whitesell & Assoc, 4133 S Dixie Ave Dayton 298-9546
Ohio R O Whitesell & Assoc, 21139 Lorain Ave Cleveland 333-2585
Ohio R O Whitesell & Assoc, 1172 W Galbraith Rd Cincinnati 521-2290
Okla T J Ray Co, Box 45191, Tulsa 627-1515
Ore N R Schultz Co, Box 156, Beaverton 646-1345
Pa Brown-Frederick & Assoc, 88 Penn Ave Oreland 887-1325
Pa R O Whitesell & Assoc, Penn Center Bldg Pittsburgh 242-0100
Tex Vista Engrg Assoc, 1614 S Post Oak Houston 622-5680
Tex Vista Engr Assoc, 777 N Central Expwy Richardson 235-4547
Wash N R Schultz Co, 305 112th Ave NE Bellevue 454-5224
Wis E A Dickinson & Assoc, 3612 N Greenbay Ave Milwaukee 264-1080
Can TRW Elect Components Ltd, 6 Bermondsey Rd Toronto, Ont 751-3145

TRW CRYSTAL PLANT, 2303 W 8TH ST, LOVELAND
COLO, 80537, TWX 910-930-9022 303 667-2261
W SUMMERS, EMP 250, ENG 5

Cal TRW Electronics Inc, 5410 W Imperial Hwy Los Angeles 213 673-5262
Fla Florida Elect Eng Sales, 609 E Colonial Dr Orlando 305 425-0032
Ill John G Twist Co, 5222 W Diversey Chicago 312 777-2250
Iowa Vern Fester Sales, 3635 Northwood Dr Cedar Rapids 319 362-6997
Kan L R Harry Assoc, Box 388 Grand View 816 763-3634
Mass TRW Electronics Inc, Box 603 Norwood 617 762-4452
NY Paul D Aaron Assoc, Box 511 Pt Washington 516 767-8480
Pa TRW Electronics Inc, 1540 E Lancaster Paoli 215 647-2020
Tex Vista Engineering, Garland 214 235-4547
Wis E A Dickenson Assoc, 3612 N Green, Milwaukee
For TRW Electronics Inc, 14520 Aviation Lawndale Cal 213 679-4561

TRW ELECTRONIC COMPONENTS DIV TRW INC
DAVIS & COPEWOOD STS, CAMDEN
N J, 08103, TWX 710 891-7087 609 365-5500
T ARMSTRONG, EMP 400, ENG 20

Cal Wm J Anderson & Assoc, Box 45768 Los Angeles 213 670-7949
Cal Straube Assoc, 483 Willow Rd Menlo Park 415 323-2476
Colo Waugaman Assoc Inc, 2785 N Speer Blvd Denver 303 255-5000
Ind Whitesell & Assoc, 6620 E Washington Ave Indianapolis 317 359-5374
Mass Kitchen & Kutchin Inc, 17 Waltham St Lexington 617 862-8230
NY Fowler-Beach Corp, 3700 E Ave Rochester 716 586-0468

TRW INSTRUMENTS, 139 ILLINOIS ST, EL SEGUNDO
CAL, 90245, TWX 910-348-6676 213 535-0854
M JACOBS, EMP 34, ENG 10, S1,000-S2,500M

Ala Physimetrics, Box 4108, Farley Sta Huntsville 205 881-4965
Ariz V T Rupp Co, 5901 W Highland Ave Phoenix 602 266-4233
Cal V T Rupp Co, 307 Parkman Ave Los Angeles 213 387-8224
Cal V T Rupp Co, 1182 Los Altos Ave Los Altos 415 948-1483
Conn Northeast Assoc, 516 Pepper Ridge Rd Stamford 203 329-0012
Fla Physimetrics, 999 Woodcock Rd Orlando 305 841-4956
Ga Physimetrics, 3376 Peachtree Rd NE Atlanta 404 237-8278
Ill Brooks Eng Co, 227 E Walton Pl Chicago 312 944-1227
Md King Assoc, 10027 Clue Dr Bethesda 301 469-7610
Mass Northeast Assoc, Box 31 Marblehead 617 595-1000
NJ E C Smith & Assoc, 797 Springfield Ave Summit 201 273-8881
NM Southwestern Engrg & Equip Co 707 1st Natl Bank Bldg E Albuquerque 505 265-6775
NY TRW Instruments, 580 Mineola Ave Carle Pl 516 333-1414
NY E C Smith & Assoc, 60 E 42nd St New York 212 682-6890
NY E C Smith & Assoc, 941 Granite Bldg Rochester 716 546-5090
NC Physimetrics, 500 E Morehead St Charlotte 704 372-3179
Ohio BECOMP Co Inc, 5899 Huberville Ave Dayton 253-5351
Tex Southwestern Engr & Equip Co 6300 N Central Expwy, Dallas 214 363-6501
Tex Southwestern Engrg & Equip Co 4242 Richmond Ave, Houston 713 666-2313
Wash Rush S Drake Assoc Inc, 6133 Maynard Ave S Seattle 206 PA 5-2700
Can Spectra-Research Ltd, 376 Churchill Ave Ottawa, Ont 613 728-3415
Jap Midoriya Electric Co Ltd 3, 2-chome, Kyobashi, Chuo-ku Tokyo 561-9256
Swed Scantele AB, 24 Tengdahlsgatan Stockholm 24-58-25

Belg Regulation Mesure, SPRL, 22 Rue St Hubert Bruxelles 15 71-20-20
Braz Importacao, Industria e Comercio, Av Graca Aranha Rio de janiero 42-7990
Gr Marios Dalleggio Reps, 2 Alopekis St Athens 139 710-669
Isrl Eastronics Ltd, 75 Haifa Rd, Tel Aviv 446-060
Neth C N Rood, N V, 13 Cort Van Der Lindenstr Rijswijk (Z H) 9851-53
Spn Carlos Rafael Mares, S L, Valencia 233 Barcelona 257-62-00

TRW SEMICONDUCTORS INC, 1100 GLENDON AVE
LOS ANGELES
CAL, 90024, TWX 910-325-6206 213-OS 9-4561
E SHERIDAN, OVER $10,000M

Ariz Hecht-Henschen & Assoc, 3825 N 39th Ave Phoenix 272-6677
Cal Gene Straube Assoc, 483 Willow Rd Menlo Park 323-2476
Cal TRW Semiconductors, 5410 W Imperial Hwy Los Angeles 679-4561
Cal Straube Assoc, 98 W Jackson, Hayward 783-6750
Fla Cartwright & Bean, 20100 N E 25th Ct N Miami Beach 945-2962
Fla Florida Electronic Engrg Sales, 609 E Colonial Dr Orlando 425-0032
Fla Cartwright & Bean, 779 John Anderson Dr Ormond Beach 677-3480
Ga Cartwright & Bean, 3223 Cain's Hill Pl Atlanta 237-2273
Ill John G Twist Co, 5222 Diversey Ave Chicago 777-2250
Ind R O Whitesell & Assoc, 6620 E Washington St Indnpls 359-5374
Ind R O Whitesell & Assoc, Central Bldg Fort Wayne 743-4411
Iowa Vern Fester Sales Co, 3635 Northwood Dr NE Cedar Rapids 362-6997
Ky R O Whitesell & Assoc, 3620 Lexington Rd Louisville 893-7303
La Cartwright & Bean, 1812 Bullard Ave Metarie 504-887-5225
Md TRW Semiconductors, Box 8034 Ruxton 828-4246
Mass TRW Semiconductors, Box 738 Westwood 762-4452
Mich R O Whitesell & Assoc, 16801 Wyoming Ave Detroit 862-2225
Minn E A Dickinson Assoc Inc, Box F Excelsior 474-5273
Mo L R Harry & Assoc, Box 588 Grandview 763-3634
Mo L R Harry & Assoc, 7603 Forsythe Clayton 314-727-6123
NJ TRW Semiconductors, Box 554 Montvale 487-3525
NY TRW Semiconductors Inc, Box 753 Union Sta Endicott 748-0509
NY TRW Semiconductors, Box 64, Yorkville 463-6052
NC Cartwright & Bean, 625 Harwyn Dr Charlotte 537-7965
Ohio R O Whitesell & Assoc, 1172 W Galbraith Cincinnati 521-2290
Ohio R O Whitesell & Assoc, 21139 Lorain Ave Cleveland 333-2585
Ohio R O Whitesell & Assoc, 4133 S Dixie Ave Dayton 298-9546
Ore N R Schultz Co, Box 156 Beaverton 503-646-1345
Pa TRW Semiconductors Inc, Box 11587 Phila 673-3423
Pa R O Whitesell, 201 Penn Center Blvd Pittsburgh 242-0100
Pa TRW Semiconductors, 1540 E Lancaster Ave Paoli 647-2020
Tenn Cartwright & Bean, Box 4760, Memphis 276-4442
Tex Vista Engineering, 777 N Central Expwy Richardson 235-4547
Tex Vista Engineering, 1614 S Post Oak Rd Houston 622-5680
Wash N R Schultz Co, 305 112th Ave NE Bellevue 206-454-5224
Wis E A Dickinson Assoc, 3612 Greenbay Ave Milwaukee 264-1080
Can E G Lomas Ltd, 227 Laurier Ave W Ottawa, Ont 232-7106

TRW SYSTEMS GROUP, 1 SPACE PARK
REDONDO BEACH
CAL, 90278, TWX 910-325-6611 213 679-8711
J BROWN, EMP 16500, ENG 3500, OVER $10,000M

Ala TRW Systems Group, 3313 Memorial Pkwy SW Huntsville 205 881-1512
DC TRW Systems Group, 1875 Connecticut Ave NW Washington 202 234-9330
Fla TRW Systems Group, 7001 N Atlantic Ave Cape Canavéral 783-7811
Mass TRW Systems Group, 33 Third Ave Burlington 272-1617
Ohio TRW Systems Group, 211 Talbott Tower Dayton 223-6266
Ohio TRW Systems Group, 5100 W 164th St Cleveland 267-4833
Tex TRW Systems Group, Space Park Dr Houston 713 591-3133

TRYGON ELECTRONICS INC, 111 PLEASANT AVE, ROOSEVELT
N Y, 11575, TWX 510-225-3664 516 378-2800
L TORN, EMP 300, ENG 35, $2,500-$5,000M
ADV PG 506, 536

Ala W A Brown Assoc, 1314 Buford St NW Huntsville 205 539-6884
Ariz Moxon Electronics Corp, 15 N 40th Pl Phoenix 273-7363
Cal Moxon Electronics Corp, 2311 Pontius Ave Los Angeles BR 2-9311
Cal Moxon Electronics Corp, 2054 Garnet San Diego 274-6525
Cal Moxon Electronics Corp, 15 41st Ave San Mateo 345-7961
Colo D E Bond Assoc, 2149 S Clermont St Denver 756-1234
Conn Instrument Dynamics Inc, 345 N Main St West Hartford 203 233-5503
DC Brimberg Assoc, 814 Thayer AVE Silver Spring 588-7790
Fla W A Brown Assoc, 222 Weber Ave Orlando 305 425-5505
Ga W A Brown Assoc, 1590 Cooledge Rd NW Tucker 404 939-1674
Ill Marsland Assoc, 6699 Lincoln Ave Chicago OR 6-1100
Ind Marsland Assoc, 3734 Carrollton Ave Indianapolis 317 924-3568
Md Brimberg Assoc, 814 Thayer Ave Silver Spring 588-7790
Mass Instrument Dynamics Inc, Wakefield Ind Pk Wakefield 617 245-5100
Mich Anderson Electronics, 19471 James Couzens Hwy Detroit DI 2-7133
Minn Marsland Assoc, 231 N Edgewood Ave Minneapolis LI 5-4481
Mo Marsland Assoc, Box 567, Florissant 831-0015
NM D E Bond Assoc, Box 11331 Albuquerque 247-3442
NY J A Reagan Co Inc, 41 Woodberry Rd New Hartford 315 471-7274
NY J A Reagan Co Inc, 52 B Crestmont Rd Binghamton RA 3-9661
NY B D Aaron & Co, 55 Northern Blvd Greenvale MA 1-0630
NY J A Reagan Co, 6 Highland Ave Albany 518 489-4777
NY J A Reagan Co Inc, 891 Monroe Ave Rochester 716 473-2115
NY J A Reagan Co, RD 3 Meadow Hill Rd Newburgh 914 561-4510
NC W A Brown Assoc, 1108 Burke St Winston-Salem 919 725-5384
Ohio Micro Sales Corp, 1250 W Dorothy La Dayton 298-3033
Ohio Micro Sales Corp, 2000 Lee Rd Cleveland 371-0522
Pa Acromatix Assoc, 3118 Germantown Pike Fairview Village 279-0377
Tex Dannemiller-Smith Inc, 2720 W Mockingbird La Dallas 357-8249
Tex Dannemiller-Smith Inc, 5760 Rice Ave Houston MO 8-4461
Tex Dannemiller-Smith, 7077 San Pedro San Antonio DI 2-1356
Wash J K Dooley Co, 4110 Stone Way N Seattle ME 2-1618
Can Whittaker Electronics Ltd, 42 Howden Ave Ottawa 224-1221
Can Whittaker Electronics Ltd, 1885 Wilson Ave Weston 247-7454
Can Whittaker Electronics Ltd, Box 216 Roxboro, Pierre Fonds 684-3000
Fr Antares, 9, Rue Ernest-Cognacq 92 Levallois-Perret 737-54-82
Ger Trygon Electronics GMBH, 8 Munchen 60 Haidelweg 20 88-29-02
GB Claude Lyons Ltd, Valley Works, Hoddesson Herts Hoddessdon 67161
Holl Hijnen NV, Steendalerstr 56, Gennep 08851-1956
Ital Mario Vianello, Via L Anelli 13 Milano 553 081 553
Swed Tele Instrument Ab, Box 14 Stockholm Vallingby 87-03-45
Swit DeWald Electronics, 8038 Zurich Seestr 561 051/45 1300
BC Whittaker Electronics Ltd, 1144 Millstream Rd W Vancouver 926-3411
Isrl M Kochn, 12 Shamai St, Jerusalem
Aust Tecnico Electronics Pty Ltd, 2-18 Normandy Rd S Melbourne 69-6961

TRYLON INC, ELVERSON, PA, 19520 215 942-2981
G YODER, EMP 100, ENG 14, $1,000-$2,500M

DC Chadwick Industries, 1030 15th St NW Washington 202-659-2466
For Soc Com Crocker, Delaforce & Co Ltd, Box 2738 Lisbon 68 01 41
GB Coubro & Scrutton Ltd, 430 Barking Rd London, E13 ALB 4477
Swit P B Langenegger, Rhynerstr, 8712 Staefa

TRYMETRICS CORP, 204 BABYLON TPK, ROOSEVELT
N Y, 11575, TWX 510-225-3664 516 378-2800
L TORN, EMP 20, ENG 5, $100-$250M
ADV PG 791

Ala Murphy & Cota, 904 Bob Wallace Ave Huntsville 205 536-9121
Ariz Moxon Elctns, 15 North 40th Pl Phoenix 602 273-7363
Cal Moxon Elctns, 2054 Garnet San Diego 714 274-6525
Cal Moxon Elctns, 15 41st Ave San Mateo 415 345-7961
Cal Moxon Elctns, 2311 Pontius Ave Los Angeles 213 272-9311
Colo D E Bond Assoc, 2149 S Clermont St Denver 303 756-1234
Conn J & J Assoc, 953 Dixwell Ave Hamden 203 263-4470
Fla Murphy & Cota, 712 W Vassar St Orlando 305 424-2407
Ill Marsland Assoc, 6699 Lincoln Ave Chicago OR 6-1100

Ind Marsland Assoc, 3734 Carrollton Ave
Indianapolis 317 924-3568
Md Brimberg Assoc, 814 Thayer Ave
Silver Spring 588-7790
Mass Whittaker Electronics, 1885 Wilson
Weston 247-7454
Mass J & J Assoc, 225 Crescent St
Waltham 617 899-0160
Mich Anderson Electronics, 19471 James Couzens Hwy
Detroit .... DI 2-7133
Minn Marsland Assoc, 231 N Edgewood Ave
Minneapolis .... LI 5-4481
Mo Marsland Assoc, Box 567, Florissant 831-0015
NJ B D Aaron Co, 55 Northern Blvd
Greenvale .... MA 1-0630
NY J A Reagan Co Inc, 41 Woodberry Rd
New Hartford .... RE 2-3775
NY J A Reagan Co Inc, 6 Highland Ave
Albany 518 489-4777
NY J A Reagan Co, 52B Crestmont Rd
Binghamton .... RA 3-9661
NY J A Reagan Co Inc, 891 Monroe Ave
Rochester 473-2115
NY B D Aaron, 55 Northern Blvd
Greenvale .... MA 1-0630
NY J A Reagan Co, RD 3 Meadow Hill Rd
Newburgh 914 561-4510
NC Murphy & Cota, 1106 Burke St
Winston-Salem 919 724-0750
Ohio Microsales Corp, 1250 W Dorothy La
Dayton 298-3033
Ohio Microsales Corp, 2000 Lee Road
Cleveland 371-0522
Pa Acromatix Assoc Inc, 3118 Germantown Pike
Fairview Village 279-0377
Tex Dannemiller-Smith Inc, 2720 W Mockingbird La
Dallas 357-8249
Tex Dannemiller-Smith Inc, 5760 Rice Ave
Houston .... MO 8-4461
Tex Dannemiller-Smith Inc, 7077 San Pedro
San Antonio .... DI 2-1356
Wash J K Dooley & Co, 4110 Stone Way N
Seattle .... ME 2-1618
Can Whittaker Electronics, 42 Howden Ave
Ottawa 224-1221
Can Whittaker Electronics, Box 216
Roxboro Pierre Ponds 514 683-3621
Can Whittaker Elctns, 1144 Millstream Rd
West Vancouver BC 604 926-3411
Fr Antares, 9, Rue Ernest Cognacq
92 Levallois-Perret 737-54-82
Ger Trygon GmbH, 8 Munchen 60
Heidelweg 20 88-29-02
GB Claude Lyons Ltd, Valley Wks Hoddessdon
Herts .... Hod 67161
Holl Heijnen N V, Steendalerstr 56
Gennep 08851-1956
Ital Mario Vianello, Via L Anelli 13
Milan 553.811/553.081
Swed Tele Instrument AB, Box 14 Stockholm
Vallingby 87-03-45
Swit DeWald, Seestr 561, 8038 Zurich 051/45 1300
BC Whittaker Electronics, 1141 Millstream Rd
West Vancouver 926-3411
Isrl M Kochn, 12 Shamai St Box 1147, Jerusalem
Aust Tecnico Electronics Pty, 2-18 Normanby Rd
Melbourne

TT ELECTRONICS INC, BOX 180, CULVER CITY
CAL, 90230 .... 213 870-6001
J SODARO, EMP 15, ENG 3
Cal Sodaro Co, 3753 S Robertson
Culver City .... UP 0-6001

TUCK ELECTRONICS, 235 MARKET ST
NEW CUMBERLAND, PA, 17070
B HILL JR, UP TO $100M
Md Electronic Sales Assoc, 12050 Tech Rd
Silver Spring 301 622-2256
Mass Electronic Sales Assoc, 594 Marrett Rd
Lexington 617 899-1430
NJ Electronic Sales Assoc, 3 Center St
Denville 201 625-2525
NY Electronic Sales Assoc, 525 Northern Blvd
Great Neck 516 466-5577
Tex Noakes Engrg, Box 968, Irving 214 255-0441
Va S Scragg, 2601 Waldo La
Richmond 703 644-9095

TUNG-SOL DIV WAGNER ELECTRIC CORP, ONE SUMMER AVE
NEWARK, N J, 07014 .... 201 484-8500
J EMAUS, EMP 5000, ENG 350, OVER $10,000M
ADV PG 371, 534, 538, 579, 583, 775
Ariz Hyde Electronics Co Inc, 4710 N 16th St
Phoenix 264-5609
Cal Tung-Sol Div, 610 Lairport St
El Segundo 322-0708
Colo Hyde Electronics Co Inc, 888 S Lipan St
Denver 936-3456
Ill Tung-Sol Div, 1700 Elmhurst Rd
Elk Grove Village 439-1810
Kan T L Dowell, Inc, 6007 W 94th Ter
Overland Park 649-6069
NJ Tung-Sol Div, 630 W Mt Pleasant Ave
Livingston 992-1100
NJ Tung-Sol Div, 1 Summer Ave, Newark 484-8500
NC A B Andrews Co, Box 2627, Raleigh 833-5567
Ore C K Shanks & Assoc, 3104 SW 87th Ave
Portland 292-5656
Tex Parvin Sales Co, Addison Rd
Addison 214 363-6822

TUR-BO JET PRODUCTS CO INC, 5025 N EARLE ST
ROSEMEAD, CAL, 91770 .... 213 283-5191
R BLOOM, EMP 200, ENG 1, $1,000-$2,500M

TURNER CO SUB CONRAC CORP, 909 17TH ST NE
CEDAR RAPIDS, IOWA, 52402 .... 319 363-8144
D BATTIN, EMP 240, ENG 4, $1,000-$2,500M
Ala Morris F Taylor Co, 2328 3rd Way NE
Birmingham 853-3673
Cal Wes Alderson Co, 8548 Washington Blvd
Culver City .... VE 7-1398
Cal Logan Sales Co, 463 Brewster Ave
Redwood City 369-6726
Colo Gordon Moss Electronics Inc, 1530 13th Ave
Greeley 353-1452
Colo Gordon Moss Electronics Inc, Box 26172
Denver 936-4027
Conn Coakley Boyd & Abbett, Inc, 6 Gaywood Dr
Waterbury 756-8766
Fla Morris F Taylor Co, 940 Lake Elbert Dr
Winter Haven .... CY 4-2941
Ill Wm M Linz & Assoc, 4001 W Devon
Chicago .... MU 5-6060
Ind Morris-Cunningham & Assoc, 720 E 65th St
Indpls .... CL 5-2458
Iowa Kelly-Schmitz-Winkeler Assoc, 3831 43rd St
Des Moines .... CR 9-9235
La Scott Ormsby Sales, 230 20th St
New Orleans 488-2414
Md Morris F Taylor Co, 9431 Georgia Ave
Silver Spring .... JU 9-4002
Mass Coakley Boyd & Abbett, Inc, 1424 Highland Ave
Needham 444-5470
Mich R A Albrecht Co, 221 Lonesome Oak Rd
Rochester 651-7081
Minn Stan Clothier Co Inc, 7400 Lyndale Ave S
Mnpls 869-3231
Mo Kelly-Schmitz-Winkeler Assoc, 7546 Troost Ave
Kansas City .... EM 3-5651
NJ Willgold Elec Sales Corp, 18 Old Farm Rd
North Caldwell .... CA 6-8363
NJ Morris F Taylor Co, Box 23, Marlton .... MA 2-0383
NM Gordon Moss Electronics Inc
2418 Barcelona Dr SW, Albuquerque ... 877-9392
NY Marsey Sales Co, 206 Park Ave
Rochester 442-9700
NY Willgold Electronic Sales Corp, 100 N Village Ave
Rockville Centre 764-4022
NC Morris F Taylor Co, 1225 Dresden Dr W
Charlotte .... KE 7-4878
Ohio Les A Morrow Co, 3123 W 117th St
Cleveland .... CL 1-5700
Pa Morris F Taylor Co, 201 Penn Ctr Blvd
Pittsburgh 823-8400
Pa Morris F Taylor Co, 9 Richland La
Camp Hill 233-3112
Tex Ernest L Wilks Co, 1821 N Broadway
Carrollton .... CH 2-5321
Can Tri-Tel Assoc Ltd, 55 Brisbane Rd
Downsview, Ont .... BA 2-2529
For Ad Auriema Inc, 85 Broad St
New York, NY .... BO 9-7751

20TH CENTURY ELECTRONICS LTD
KING HENRY6S DRIVE, NEW ADDINGTON, SURREY
ENGLAND .... LOD 2121
F LOVELESS, EMP 350, ENG 120

TWIN CITY TESTING CORP, 107-111 GOUNDRY ST
NORTH TONAWANDA
N Y, 14120, TWX 9-1362 .... 716 693-6303
J TIEBOR, EMP 25, ENG 3, $500-$1,000M

TWINCO INC, 10 CHENEY ST, DORCHESTER
MASS, 02121, TWX FAX (FVL) 617 445-0180
J O'TOOLE, EMP 125, ENG 5, $250-$500M
Cal J C Simon Co, 5478 Wilshire Blvd
Los Angeles .... WE 9-2366
Fla Perrott Assoc, 1607 Forsyth Rd
Orlando 647-3038
Mo Airborne Electronics Co, 7759 Loma Vista Dr
Kansas City
NJ H J Pyle Assoc, 35 Oak La, Boonton
NY Andrews & Andrews, 140 E Main St
Huntington .... MY 2-8686
Ohio Ohio Instrument Co, 505 Whitney Ave
Worthington 614 885-0743
Va M D Industries, 240 Grand Ave
Leonia 201 944-2212
Can Conway Elect Enterprises, 88-90 Arrow Rd
Weston, Ont 244-5655

TWIN LOCK INC, 13115 WASHINGTON BLVD
LOS ANGELES, CAL, 90066 .... 213 EX 7-7745
P CALVERT, EMP 8, ENG 2, UP TO $100M
Cal Lee Ford & Assoc Inc, 13115 Wash Blvd
Los Angeles .... EX 7-7745
Cal Vico Sales Co, 1171 Janice Dr
Santa Clara 408 244-5934
NY DRW Electronics, 60 Milbar Blvd
Farmingdale 516 249-2660

TYLAN CORP, 4203 SPENCER ST, TORRANCE
CAL, 90503, TWX 910-344-6420 .... 213 370-3521
C DREXEL, EMP 30, ENG 6, $500-$1,000M
Ala Airsupply Co, 2003 Byrd Spring Rd SW
Huntsville 205 883-0244
Ariz Airsupply Co, 2618 E Washington St
Phoenix 602 267-3916
Cal Airsupply Co, Twn & Cnty Vlg
Palo Alto 415 326-4186
Cal Airsupply Co, 5555 Mildred St
San Diego 714 298-1121
Cal Airsupply Co, 2230 Michigan Ave
Santa Monica 213 871-0520
Fla Airsupply Co, 7000 Lake Ellenor Dr
Orlando 305 851-1210
Ga Airsupply Co, 3272 Peachtree Rd NE
Atlanta 404 237-8636
Ill Airsupply Co, 5544 St Charles Rd
Berkeley 312 544-7400
Ind Airsupply Co, 2441 N Meridian St
Indianapolis 317 925-3528
Kan Airsupply, Box 18188, Wichita 316 683-7518
Mass Airsupply Co, 235 Bear Hill Rd
Waltham 617 894-9165
Mo Airsupply Co, 4531 N Lindbergh
Bridgeton 314 731-3011
NY Airsupply Co, 1 Dupont St
Plainview 516 681-8710
NY Airsupply Co, 6443 Ridings Rd
Syracuse 315 463-8531
Ohio Airsupply Co, Box 19738 A. M. F.
Columbus 614 231-4571
Ohio Airsupply Co, 333 W First St
Dayton 513 224-0728
Pa Airsupply Co, 237 Lancaster Ave
Devon 215 688-5157
Tex Airsupply Co, Box 1906
Fort Worth 817 335-4541
Va Airsupply Co, 3865 Wilson Blvd
Arlington 703 525-1191
Wash Airsupply Co, 10806 NE 8th St
Bellevue 206 454-7922

TYLER CO, W S, 8200 TYLER BLVD, MENTOR
OHIO, 44060 .... 216 255-9131
R RAMER, EMP 1200
Cal W S Tyler Co, 1485 Bayshore Blvd
San Francisco 467-3070
Ga W S Tyler Co, 1720 Peachtree St
Atlanta 875-0658
Ill W S Tyler Co, 6 N Michigan Ave
Chicago 782-7882
NY W S Tyler Co, 633 Third Ave
New York .... YU 6-9070
Can W S Tyler Co of Can Ltd, Box 100
St Catherines, Ont 685-5425

TYNAX ENGINEERING CO, 627 E LOS ANGELES ST
MONROVIA, CAL, 91016 .... 213 445-2920
F GOODMAN, EMP 14, ENG 2, $100-$250M
Ind W H Myers Sales Co, Box 101
North Webster 834-4270
Iowa Halgin Sales Co, 4403 First Ave
Cedar Rapids 363-5119
Kan Halgin Sales Co, Box 1245, Mission 722-2441
Mo Halgin Sales Co, 201 S Central
Clayton 721-4415
Ohio Luebbe Sales Co, 2649 Erie Ave
Cincinnati 871-4211
Tex Bauer Co, 1007 Norwood St, Ft Worth 336-4884

TYTON CORP OF AMERICA
BOX 785 BRAINEY BORO STA, METUCHEN
N J, 08840 .... 201 549-5030
H BRADEN, EMP 25, ENG 6, $1,000-$2,500M
Ariz Maddox Sales Co, 5709 N 19th Pl
Phoenix 602 274-3807
Cal Maddox Sales Co, 2945 E 12th St
Los Angeles 213 269-7291
Colo Arrowhead Sales Corp, 6460 Brentwood
Arvada 303 789-0319
Conn R C Erler Jr, 573 Bush Hill Rd
Manchester 203 247-9196
Ill T J Palmer, 1654 W 105th St
Chicago 312 779-7373
Ind R McKibban, 3131 N Norfolk
Indianapolis 317 632-1461
Mass K Checicki, 24 Joy Rd, Peabody 617 531-4425
Mich S Metzger, 4728 Arbor Dr
Rolling Meadows 414 251-4803
Minn D Swanson, 2566 Brighton Ave
Minneapolis 612 789-5636
NJ W Roginski, 34 Sedgefield Dr
Morris Plains 201 267-9122
NM Maddox Sales Co, 7504 Merrow Rd, Albuquerque
NY J Power, Clintwood Dr, Rochester 716 442-5060
Ohio R E Maxfield, 21270 Endsley
Rocky River 216 333-5626
Pa Jeff Marks, 407 S Providence Rd
Wallingford .... 215 LO 6-3165
Utah Arrowhead Sales Corp, 1966 W 6255 S
Salt Lake City 801 298-2751
Can Ideal-Hellermann (Canada) Ltd, 331 Frankcom St
Ajax Ont 416 942-6312
GB Hellermann Eletric Ltd, Crawley Sussex

UBER GRAFIC INSTRUMENTS, BOX 4, PALO ALTO
CAL, 94302 .... 415 327-4732
D KROENER, EMP 2, ENG 1, UP TO $100M

UBS CHEMICAL CO, DIV A E STALEY MFG CO
491 MAIN ST, CAMBRIDGE
MASS, 02142 .... 617 UN 4-7300
A D'AMELIO, EMP 180, ENG 15, $2,500-$5,000M
Cal G Bishara, 901 Glencliff St, La Habra 691-4630
Ga G Tillison, 5 La Rose Cir, SW, Marietta ... 435-7017
Ill UBS Chemical Co, Box 178, Lemont .... CL 7-5433
Ill J Waldron, 636 N Waiola, La Grange 354-8444
Md Sumner Levine, 8 N Penfield Rd
Ellicott City 465-1985
Mass UBS Chemical Co, Bartlett St
Marlboro .... HU 5-5310

Mass J D'Jamoos, 17 Stanford Rd, Franklin 528-1060
Mass R Lind, 50 Pershing Rd, Needham Heights 617 444-9072
Mass T Lindsay, 28 Barclay St, Lowell 617 454-2425
NJ J Toms, 342 Essex Ave, Bloomfield
NY UBS Chemical Co, 733 Third Ave, New York .... MU 2-6376
NY R C O'Mara, 6 Belmont Sq, Doylestown .. 348-5071
Ohio Harold E Pickles, 1637 S James, Columbus .... BE 1-7349
Can Staley Canada Ltd, Gen Delivery, Ajax, Ont 942-3890
Can D Gillham, 1186 Lakeshore Rd W, Oakville Ont 416 845-8201

UCINITE CO DIV UNITED-CARR, 459 WATERTOWN ST
NEWTONVILLE
MASS, 02160, TWX 617-332-7560 617-527-8400
K BUSHNELL, EMP 600, ENG 12, OVER $10,000M
Ariz Ucinite Co, 77 3rd Ave W, Scottsdale
Cal Ucinite Co, 200 S Turnbull Canyon Rd, City of Industry 686-1226
Cal Ucinite Co, 2680 Bayshore Frontage Rd, Mountain View 415-969-2252
Cal Ucinite Co, 325 W 4th St, Tustin
Colo J Dunne, 1271 W Littleton Blvd, Littleton 303-798-2042
DC Fred Israel Assoc, 1707 L St NW, Washington 296-1580
Fla H Kane, 5360 Diplomat Circle, Orlando 305 645-2503
Ga R F Shepherd, 1776 Peachtree St N E, Atlanta 876-0820
Ill P A Villani, 1982 Lunt Ave, Chicago 312-437-5110
Ind W Jehs, 2511 East 46th St, Indnpls 547-2300
Md J M Moore, 10201 Grosvenor Pl, Rockville 301 493-6259
Mich T Mason, 2832 E Grand Blvd, Detroit .... TR 3-9500
Minn E L Bryon, 7615 Metro Blvd, Minneapolis 612 941-4353
Mo W D Falch, 8000 Bonhomme, St Louis .. PA 7-7370
Mo Ucinite Co, 6 E 11th St, Kansas City .... 816 VI 2-2080
NJ A Kubitz, 530 Main St, Fort Lee 201 947-7600
NY Ucinite Co, E Molloy St, Syracuse 454-9268
NY E P Di Marco, Box 425, Millbrook 677-3488
Ohio R S Boynton, 3300 S Dixie Ave, Dayton 299-1972
Pa F Cavalier, 1601 Church Rd, Glenside 887-7520
Tex R G Foley, 1066 W Mockingbird La, Dallas 214 637-6650
Tex W Stockton, 1405 S Post Oak Rd, Houston 622-3723
Wash D Smith, 2320 N 45th St, Seattle .... ME 3-3160
Can J R Johnston, Box 500, Stoney Creek, Ont 664-4401
Ger J Muller, Meisengasse 12, Frankfurt 293241
GB B L Christian, Staple Ford, Nottingham .. SAN 2661

UID ELECTRONICS CORP, 4105 PEMBROKE RD
HOLLYWOOD, FLA, 33021 .... 305 981-1211
M COHEN, EMP 250, ENG 5, $2,500-$5,000M
Ala Powertronics Inc, Box 3384, Huntsville ... 852-6347
Cal Mann & Smith, 8949 Reseda Blvd, Northridge 349-2073
Cal Long & Assoc, 505 Middlefield Rd, Redwood City 369-3324
Ill Lightner Assoc, 6322 N Milwaukee, Chicago 774-1500
Ind Jack Weber, 8150 Westfield Blvd, Indpls 255-4117
Kan Lowell-Kangas Assoc, Box 4116, Overland Park 888-3200
Mass Herb Mandell Assoc, Box 24, Revere .... AT 9-3787
Mich Butchart-Rathsburg Assoc, 16637 E Warren Ave, Detroit 882-1717
Minn R J Sales & Eng, 7100 S France Ave, Minneapolis 922-1425
Mo Lowell-Kangas Assoc, Box 12526, St Louis 647-1111
NY S J Sales Eng, 148-05 Archer Ave, Jamaica 291-3232
NY Lloyd Hart Assoc, 796 Hillside Ave, Rochester 244-3253
NC Powertronics Inc, 2454 Medway Dr, Raleigh 834-6947
NC Powertronics Inc, Box 403, Thomasville ... 476-4257
Ohio Leo Liakos, 1479 Devonhurst Dr, Columbus 866-6701
Pa Jerry Bresson Assoc, 107 Forrest Ave, Narberth 839-6770
Tex Jack Yount, 1431 Pleasant Dr, Dallas 391-4125
Can Atlas Radio Corp, 50 Wingold Ave, Toronto 781-6174
For Manrep Corp, Box 429, N Miami Beach, Fla 949-3457

ULANET CO, GEORGE, 413 MARKET ST, NEWARK
N J, 07105 .... 212 622-4876
EMP 30, ENG 3, $100-$250M
Cal Cooner Co Inc, 14725 Arminta St, Van Nuys 213-340-7417

ULANO PRODUCTS CO INC, 210 E 86TH ST
NEW YORK, N Y, 10028 .... 212 628-7960
EMP 100
Cal Ulano of Calif, 14555 Hamlin St, Van Nuys 213 787-8040
Ill Ulano Midwest, 2474 Dempster, Des Plaines 312 299-6102
Swit Ulano AG, Unter Heslibachstrasse No 22, Kusnacht-8700 905959

ULTEK DIV PERKIN-ELMER, BOX 10920, PALO ALTO
CAL, 94303, TWX 910 379-6442 .... 415 321-4117
C PIERCEY, EMP 140, ENG 30, $2,500-$5,000M
Cal Ultek Div, 318 E Hillicrest Blvd, Inglewood .... OR 4-9113
Fla Ultek Div, 1919 Beachway Rd, Jacksonville 359-3166
Ill Ultek Div, 1212 Washington Ave, Wilmette 256-2688
Mass Ultek Div, 599 North Ave, Wakefield 245-2670
NJ Ultek Div, Box 1116, Mountainside 232-1750
Ohio Ultek Div, 1313 Grandview Ave, Columbus 486-1812
Tex Ultek Div, Braniff Tower, Dallas 352-7819
Can Spectra-Research Ltd, 376 Churchill Ave, Ottawa, Ont 728-3415
For Landseas Corp, 48 W 48th St, New York 212 265-8323
Ger Ultek GmbH, Adamstr 7, Munich 0811/596701
Ital Perkin-Elmer Italiana, S.p.A., Via Edoardo Bassini 17/2, 3683 Milano
Swed Perkin-Elmer AB, Frokloversgatan 5, Goteborg/VA Frolunda
Ind International Trade Agency, Abid Rd, Hyderabad 1
Isrl Landseas (Isreal) Ltd, 29 Bezale St, Tel Aviv
Neth Perkin-Elmer Nederland N V, v Foreestweg 4, Delft 01730-35916
Aust Lab Supply & Chem Co, 48 Sydenham Rd, Marrickville, Sydney, N S W 51-6626

ULTRA CARBON CORP, 1310 N MADISON AVE
BAY CITY, MICH, 48706 .... 517 893-4575
R BANEY, EMP 85, ENG 7, $1,000-$2,500M
Ariz International Quartz Co, 11028 N 22nd Ave, Phoenix 602 944-4463
Cal John E Faloon, Box 808, Alhambra 282-8221
Cal J B Dahlin & Assoc, 12356 Obrad Dr, Saratoga 408 257-0121
Mass Andco, Box 175, Lynnfield 245-7399
NJ Budd Cato Assoc, Box 95, Brielle 201 223-3842
NY J Lazor Assoc, 39 Saginaw Dr, Rochester 716 473-8337
Ohio A Belous, 11720 Edgewater Dr, Cleveland 216 521-8725
Tex R S Marston Co, Box 1006, Richardson ... 235-3577
Can Technical Service Labs, 335 King St, Toronto 2 B Ont
GB Heyden & Son LTD, Spectrum Hse, Alderton Cres .... London N W 4

ULTRA ELECTRONICS LTD, WESTERN AVE
LONDON, W 3, ENGLAND
W HORNER, EMP 2000, ENG 400, OVER $10,000M

ULTRASONIC APPLIANCES OF AMERICA INC
121 W SUNRISE HWY, LINDENHURST
N Y, 11757 .... 516 884-7099
J MARSICO, EMP 2, ENG 1

ULTRASONIC DEVICES INC, 327 SKIDMORE RD
DEER PARK, NY, 11729 .... 516 586-6166
P PLATZMAN, EMP 10, ENG 2, $100-$250M
Ark Carlton Bates Co, 1210 E Sixth St, Little Rock .... FR 5-5375
Cal Applied Instruments, 421 e Broadway, Anaheim .... KE 5-6551
Ill Astral Instrument Co, 5550 Howard St, Skokie 673-0800
Ill American Science Center, 5700 Northwest Hy, Chicago
Ind Welding Equipment & Supply Co, 2047 E 46th St, Indpls .... CL 1-9406
Ky Preiser Scientific, 1500 Algonquin Pkwy, Louisville
Minn Servco, 521 S 7th St, Minneapolis 339-8611
NJ Edmond Scientific Corp, 101 E Glouster Pike, Barrington .... LI 7-3495
NY Instrument Specialities, 26 W 7th St, Deer Park
NC Cardinal Scientific, Box 1611, Durham
Ohio Preiser Scientific, 9974 Springfield Pike, Cincinnati
Okla William L Riggs Co, 600 S 129th E Ave, Tulsa .... TE 8-1576
Pa Jacob Kramer & Sons, 720 Sansom St, Phila .... MA 7-3679
RI Micronics Suppliers of RI, 725 Green Hill St, West Warwick .... VA 8-2838
Tex R & R, 1607 Ave G, Lubbock
Utah Retep Corp, 1410 Jefferson St, Salt Lake City 486-1331
W Va Preiser Scientific Inc, 900 MacCorkle Ave SW, Charleston

ULTRA-VIOLET PRODUCTS INC
5114 WALNUT GROVE AVE, SAN GABRIEL
CAL, 91778 .... 213 283-3193
J HAYES, EMP 40, ENG 3, $500-$1,000M

ULTRONIC SYSTEMS SUB SYLVANIA ELEC PRODS INC
MT LAUREL INDUSTRIAL PARK, MOORESTOWN
N J, 08057 .... 212 226-6820
W SARGENT, EMP 700, ENG 30, OVER $10,000M
Cal Ultronic Sys Corp, 626 S Spring St, Los Angeles 213 623-2569
Cal Ultronic Sys Corp, 405 Montgomery St, San Francisco 415 981-8565
Fla Ultronic Sys Corp, 5840 SW 51st Terrace, Miami 305 666-0812
Ill Ultronic Sys Corp, 135 LaSalle St, Chicago 312 782-7427
Mass Ultronic Sys Corp, 141 Milk St, Boston 617 423-5950
NY Ultronic Sys Corp, 44 Wall St, New York .... 212 HA 5-1470
Ohio Ultronic Sys Corp, 6th & Euclid Ave, Cleveland 216 241-2263
Pa Ultronic Sys Corp, 123 S Broad St, Philadelphia 215 735-1250
Tex Ultronic Sys Corp, 1511 Bryan St, Dallas 214 747-1533
Can Combined Mkt Quotations Ltd, 226 Bay St, Toronto 416 368-4305
For Combined Mkt Quotations Ltd, Stock Tower Bldg, Montreal 514 866-1107
GB Reuters Economic Services, 85 Fleet St, London FLE-6060
Swit Reuters Data Center, 15 Rue du Cendrier, Geneva 319-330

ULTRONIX INC, 461 N 22ND ST, GRAND JUNCTION
COLO, 81502, TWX 910 929-6965 .... 303 242-0810
E PRAETE, EMP 250, ENG 11, $1,000-$2,500M
Ala Compar Southern, 904 Bob Wallace Ave, Huntsville 539-8476
Ariz Mercury Eng Sales, 6843 E Latham, Scottsdale 602 945-1927
Cal Compar Los Angeles, Box 1923, Glendale 245-6573
Cal Dewco Sales Inc, 3240 Hillview Ave, Palo Alto 415 321-2950
Cal Dewco Sales Inc, 6915 San Fernando Rd, Glendale 213 849-6101
Conn Impact Sales Co Inc, Box 448, W Hartford 203 521-1221
Fla Compar Florida, Box 13109, Orlando 855-3964
Ill Jay C Angel & Co, 2743 W Peterson Ave, Chicago 312 878-0653
Ind Robt O Whitesell & Assoc, 6620 E Washington St, Indianapolis 317 359-5374
Ind Robt O Whitesell & Assoc, Central Bldg, Fort Wayne 219 743-4411
Md Compar Chesapeake, 7 Church La, Baltimore 484-5400
Mass Impact Sales Co, 223 Crescent St, Waltham 617 893-2950
Mich Robt O Whitesell & Assoc, 25100 Evergreen Rd, Southfield 313 358-2020
Mich Robt O Whitesell & Assoc, 303 Fidelity Bldg, Benton Harbor 616 927-2041
Minn Stan Clothier Co Inc, 7400 Lyndale Ave S, Minneapolis 612 869-3231
Mo Ozark Electric Mktg, 2573 Woodson Rd, St Louis 314 423-7200
NJ F F Sylvester Assoc, 649 Morris Ave, Springfield 201 376-3324
NY F F Sylvester Assoc, 260 Northern Blvd, Great Neck 516 487-6447
NY R P Kennedy Co, 39 Saginaw Dr, Rochester 716 271-6322
NY R P Kennedy Co, Green Tree Dr, Hyde Park 914 229-2269
NY R P Kennedy Co, Box 54, Fayetteville 315 637-9531
NC Compar Southern, 1106 Burke St, Winston-Salem 724-0750
Ohio Robt O Whitesell & Assoc, 1172 Galbraith, Cincinnati 513 521-2290
Ohio Robt O Whitesell & Assoc, 21139 Lorain Ave, Cleveland 216 333-2585
Ohio Robt O Whitesell & Assoc, 4133 S Dixie Ave, Dayton 513 298-9546
Pa Hause Assoc, Box 144, Hilltown 822-2112
Pa Robt O Whitesell & Assoc, 201 Penn Ctr Bldg, Pittsburgh 412 242-0100
Tex Compar Southwest, 8609 NW Plaza Dr, Dallas 214 363-1526
Tex Compar Southwest, 5757 Bellaire Blvd, Houston 713 667-3420
Wash Al Smith Co, 405 166 SE, Bellevue 206 746-6770
Can Wilson Enterprises, 19 Abercorn Rd, Markham, Ont 297-1289
For Dage Corp, 757 Main St, Stamford, Conn 324-3123

UMEDA NAMEPLATE MFG CO LTD
12-4 CHOME MOMOI SUGINAMI-KU, TOKYO, JAPAN
ADV PG 444

UNEX LABS DIV NICHOLS & CLARK INC
321 NEWBURYPORT TPKE, HATHORNE
MASS, 01937 .... 617 774-3300
J WOODBRIDGE, EMP 25 ENG 2, $250-$500M
Fla Andrews Airtronics, 225 Montowese St, Branford 203 448-7836
Mass Andrews Airtronics, Executive Park, Lynnfield 617 245-5220
Swit JMW Research & Devel Int'l, Rotbuchstr 43, Zurich 051 569608

UNGAR DIV ELDON INDUSTRIES INC
2701 W EL SEGUNDO BLVD, HAWTHORNE
CAL, 90252, TWX 67-3183 .... 213 757-2151
W NEHRENZ, EMP 130, ENG 3, $1,000-$2,500M
Cal Ungar Sales Assoc, 317 Glasgow Ave, Inglewood 213 678-5371
Cal Elvey-Proctor Co, 1319 Howard Ave, Burlingame 415 347-2994
Cal Phil M Wall Co, 8342 Capps Ave, Northridge 213 343-0888
Colo Koether-Cox Co, 1327 Inca St, Denver 303 733-5561
Ill G McL Cole Co, 6514 W Higgins, Chicago 312 774-3535
Ind Frank McSweeney, 4123 N Keystone Blvd, Indpls 317 547-2112
Md Morris F Taylor Co, Box 111, Silver Spring 301 589-4002

Mass S A Harris Co, 945 Great Plain Ave
Needham 617 444-4780
Mich Robert Milsk, 19375 James Couzens Hwy
Detroit 612 866-8682
Minn Ray Ripley & Assoc, 6838 Pillsbury Ave, S
Minneapolis 612 866-8682
Miss L R Massey, 304 E Jefferson St
Greenwood 601 443-3038
Mo Dipro Inc, Box 1427
Maryland Heights 314 432-3444
NY Bittan Assoc, Inc, 381 Sunrise Hwy
Lynbrook 516 593-3833
NY Leonard D Allen Co, Box 205
North Syracuse 315 478-7470
NY Louis W Appell Co, 11 Warren St
New York 212 964-4255
Ohio Baehr-Greenleaf & Assoc, 14700 Detroit Ave
Cleveland 216 221-9030
Tex M F Klicpera Co, 1201 Castle St
Dallas 214 742-2515
Wash James J Backer Co, 221 W Galer St
Seattle 206 283-6470
Can Eldon Industries of Can, 1315 Lawrence Ave E
Don Mills, Ont 416 447-8536
For Union Co, 100 Nathan Rd
Kowloon H K 8109-963
Jap Hosho Corp, 7 6 Chome Ginza Higashi
Chuoku Tokyo 542-0221

UNHOLTZ-DICKIE CORP, 2994 WHITNEY AVE, HAMDEN
CONN, 06518 .... 203 288-3358
J DICKIE, EMP 38, ENG 11
Ala W A Brown & Assoc Inc, 1314 Buford St, NW
Huntsville 205 539-6884
Ariz Kelly Scientific Sales, 412 N Marshall Way
Scottsdale 602 947-7584
Cal Unholtz-Dickie Corp, 1926 S Pacific Coast Hgwy
S San Francisco 378-9418
Cal Howard & Co, 294 Lawrence Ave
So San Francisco .... JU 9-3050
Colo Kelly Scientific Sales, 2800 Cardenas, NE
Albuquerque 505 268-3324
Conn Walter W Jarowey Co, Box 6164
Hamden 203 288-3010
Fla W A Brown & Assoc Inc, 222 Weber Ave
Orlando 425-5505
Fla W A Brown & Assoc Inc, 3039 NE 32nd Ave
Ft Lauderdale 565-3885
Ga W A Brown & Assoc, Inc, 1590 Cooledge Rd
Tucker 939-1674
Ill Bard Assoc Inc, Shawmut at Beach Ave
LaGrange 312 354-0660
Ind Bard Assoc Inc, 4002 Meadows Dr
Indianapolis 849-2723
Kan Aero-Hill Sales, 901 N Broadway
Wichita .... 316 AM 7-7167
Mass Walter Jarowey Co, 235 Bear Hill Rd
Waltham 899-3449
Mich Anderson Electronics, 19471 James Couzens Hwy
Detroit .... DI 2-7133
Minn Bard Assoc Inc, 7700 Morgan Ave S
Mnpls 866-1700
NJ Space-Tronics, Inc, 1705 Merrick Ave
N Merrick .... 516 TN 8-1800
NM Electronic Enterprises, 1900 Washington NE
Albuq 256-1585
NM Electronic Enterprises, 2605 Calle de Rosa
Las Cruces 524-0126
NY Space-Tronics Inc, 1705 Merrick Ave
N Merrick .... TN 8-1800
NY R P Kennedy Co, Inc, 39 Saginaw Dr
Rochester 271-6322
NY R P Kehnedy Co, Inc, Green Tree Dr, N
Hyde Park 229-2269
NY R P Kennedy Co, Inc, Box 54
Fayettesville (Syracuse) .... NE 7-9531
NC W A Brown & Assoc Inc, 1108 Burke St
Winston-Salem 919 725-5384
Tex Wright Industrial Products, 5619 Dyer St
Dallas 361-7108
Vt Walter Jarowey Co, Box 6164
Hamden 203 288-3010
Va W A Brown & Assoc Inc, 325 First St
Alexandria 836-1800
Va W A Brown & Assoc, 82 Huxley Pl
Newport News 245-8272
Can Beechey Enterprises, 3212 Weston Rd
Weston, Ont .... CH 4-8051
Fr Comsatec, 134 Avenue De Malakoff, 75 Paris XVI
Ger Effbe-Werk Fritz Brumme KG
6096 Raunheim (Hessen), Frankfurt/M Nr 57161
Aust Sample Neutronics Pty Ltd, 9-11 Cremorne St
Richmond, El Victoria 42 4757

UNIBRAZE CORP, 55 WEBSTER AVE, NEW ROCHELLE
N Y, 10801 .... 914 235-5105
A ASTER, EMP 75, ENG 1, $5,000-$10,000M

UNIFORM TUBES INC, COLLEGEVILLE
PA, 19426, TWX 510 660-6107 .... 215 489-7293
A MASON, JR, EMP 242, ENG 10, $2,500-$5,000M
ADV PG 84, 395
Cal Marketek Inc, 1 First St, Los Altos 941-0882
Cal F J Lacke, 425 E Green St, Pasadena ... MU 1-9534
Colo Crump Co, 2785 N Speer Blvd, Denver ... 433-6485
Conn Jon ANDERSON, 166 Converse Ave
Meriden 269-1812
Fla Hanson Assoc, Box 26, Melbourne ... 305 727-7474
Ga Emmett Rushin Co, Box 486, Roswell
Ill Uniform Tubes Inc, 4849 Scott St
Schiller Park 312 671-2717
Kan Fusion Inc, 5827 Outlook Ave
Mission 913 262-1121
Mass John Murphy, 30 Sunset Dr, Seekonk .... SO 1-7153

Mich Villani-Pitcher Inc, 20233 Ann Arbor Trail
Dearborn 313 271-4600
Minn Applied Engrg & Sales Co, 12401 Minnetonka Blvd
Hopkins 612 935-3491
NJ Eric Fagerlund, Box 282, Woodbridge 634-8449
NY Leonard A Bagley, 100 Fox Chapel Rd
Henrietta .... ED 4-4442
NY Fred Scott, 82 79th St, Brooklyn 836-8719
NC Powertronics Inc, Box 403
Thomasville 919 476-4257
Ohio Robert A Reich Co, 21010 Center Ridge Rd
Cleveland 331-0541
Pa Edward Nugent, 398 Woodlyn Dr
Collegeville 489-7293
Tex R W Mureen Co, Box 28082, Dallas 361-0735
For J James Mahler, Box 457, Reading, Pa ... 779-1666
For Ad Auriema Inc, 85 Broad St
New York, NY .... BO 9-7750

UNIMAX SWITCH DIV MAXSON ELECTRONICS CORP
IVES RD, WALLINGFORD
CONN, 06493 .... 203 269-8701
A SCHWEITZER, EMP 300, ENG 15, OVER $10,000M
Ala Rep Inc, 8100 S Memorial Pkwy
Huntsville 205 881-9270
Cal M A Stolaroff Co, 4622 W Slauson Ave
Los Angeles .... AX 5-7781
Cal Ewing-Foley Inc, 900 N San Antonio Rd
Los Altos 415 941-4525
Colo Hytronic Measurements Inc, 4940 E 39th St
Denver 303 388-4081
Conn Zaslow Sales Co, 6 Newberry Rd
Bloomfield 203 242-7781
Fla Conley-May Assoc, W Broadway
Oveido 305 365-3283
Ga Rep Inc, 1483 Monroe Dr NE
Atlanta 404 876-1591
Ill Wasson-Gallagher, 1024 North Blvd
Oak Park .... EU 3-6572
Ind John E Davidson, 1723 Overlook Dr
Marion 664-5384
Iowa J D Irvine & Assoc, 1900 Prospect
W Des Moines 279-2206
Md L G White & Co, 880 Bonifant St
Silver Spring 585-3141
Mass Zaslow Sales Co, 371 Howard St
Northboro .... EX 3-8150
Mass Zaslow Sales Co, 339 Middlesex St
Lowell 617 458-8452
Mich Skip Greiner Assoc, 15318 Mack Ave
Detroit 313 882-7570
Minn Jos-Co Sales Eng, 6621 Southcrest Dr
Mnpls 927-5858
Mo Hill & Co, 915 Buder Bldg, St Louis ... MA 1-1818
NM Hytronic Measurements Inc, 205 San Pablo SE
Albuquerque 505 268-3941
NY Alan E DeCew Agency, 27 State St
Sodus 483-4061
NY Technical Liaison Corp, 3095 Lawson Blvd
Oceanside 516 764-9003
NC L G White & Co, Box 2356
Winston Salem .... PA 5-3612
Ohio O H Bromberg & Assoc, 561 Reading Rd
Cincinnati 381-5728
Ohio J C Hofstetter Co, 742 Kenbridge Dr
Cleveland 449-0944
Ore Andrew L Polich, 5940 SW Hood Ave
Portland 246-5451
Pa L G White & Co, 100 Essex Ave
Narberth .... MO 4-6505
Tenn Ransom Sales Co, 100 N Main Bldg
Memphis 901 527-3194
Tex Southland Eng & Sales Co, 777 S Central Expwy
Richardson 231-2373
Tex Southland Eng & Sales Co, 5810 Schumacher La
Houston 782-4575
Wash Andrew L Polich, Inc, 2636 Thorndyke Ave W
Seattle 283-7100
Can Rousseau Controls Ltd, 1040 Martingrove Rd
Rexdale, Ont 247-2916
Can Rousseau Controls Ltd, 271 LaBrosse Ave
Pointe Claire Que 695-1240

UNIMETRICS CORP, 2712 SOUTHWEST FRWY
HOUSTON, TEX, 77006 .... 713 524-3157
R DABBS, EMP 3, ENG 1, UP TO $100M

UNION CARBIDE CORP, CARBON PRODUCTS DIV
270 PARK AVE, NEW YORK
N Y, 10017 .... 212 551-2345
W REDANZ
Cal UCC - Carbon Prods, 22 Battery St
San Francisco 415 982-1360
Ill UCC - Carbon Prods, 120 S Riverside Plaza
Chicago 312 822-7000
NY UCC - Carbon Products Div, 270 Park Ave
New York 212 551-4423
Pa UCC - Carbon Prods, 875 Greentree Rd
Pittsburgh 412 922-5700

UNION CARBIDE CORP CHEMICALS & PLASTICS
270 PARK AVE, NEW YORK
N Y, 10017 .... 212 551-2345
G PITZER
Cal UCC Chem & Plas, 2770 Leonis Blvd
Los Angeles 213 583-3061
Cal UCC Chem & Plas, 22 Battery St
San Francisco 415 982-1360
Conn UCC Chem & Plas, 410 Asylum St
Hartford 203 525-9345
Ga UCC Chem & Plas, 1371 Peachtree Rd NE
Atlanta 404 892-7500
Ill UCC Chem & Plas, 120 S Riverside Plaza
Chicago 312 822-7000
Mass UCC Chem & Plas, 300 1st Ave
Needham Hts 617 444-5400
Mich UCC Chem & Plas, 10421 W 7 Mile Rd
Detroit 313 341-3131
Minn UCC Chem & Plas, 3033 Excelsior Blvd
Minneapolis 612 926-1851
Mo UCC Chem & Plas, 910 Blatimore Ave
Kansas City 816 221-2400
Mo UCC Chem & Plas, 10 S Brentwood Blvd
St Louis 314 726-0324
NJ UCC Chem & Plas, 935 Allwood Rd
Clifton 201 778-2900
NJ UCC Chem & Plas, Rt 38 & Pleasant Valley Rd
Moorestown 609 235-6200
NC UCC Chem & Plas, 414 Church St
Greensboro 919 274-7696
Ohio UCC Chem & Plas, West St & Madisonville Rd
Cincinnati 513 272-0206
Ohio UCC Chem & Plas, 1300 Lakeside Ave NE
Cleveland 216 621-4202
Tenn UCC Chem & Plas, 4230 Hwy 51 S
Memphis 901 396-5375
Tex UCC Chem & Plas, 2710 Stemmons Frwy
Dallas 214 631-0010
Wis UCC Chem & Plas, 2040 W Wisconsin Ave
Milwaukee 414 344-7050
Can Union Carbide Can Ltd, 123 Eglinton Ave E
Toronto Ont 416 487-1311

UNION CARBIDE CORP, CONSUMER PRODUCTS DIV
270 PARK AVE, NEW YORK
N Y, 10017 212-551-2345
N LIVINGSTON, OVER $10,000M

UNION CARBIDE CORP, ELECTRONICS DIV, COMPNTS
DEPT, BOX 5928, GREENVILLE
S C, 29606, TWX 810 287-2536 .... 803 963-7421
T ROPER, EMP 1200, ENG 60, OVER $10,000M
Ala Powertronic Assoc, Box 3384
Huntsville 539-0876
Ariz Carter Assoc, 201 W First St
Scottsdale 602 947-4355
Cal UC Elctns Div, 13601 E Whittier Blvd
Whittier 213 696-8077
Cal U C Elctns Div, 2680 Bayshore Frontage Rd
Mountain View 969-9390
Cal Black & Strong, 1728 S La Cienega
Los Angeles 213 870-9191
Cal Black & Strong, 444 Olive St
San Diego 714 298-4711
Colo Lindberg Co, Krameria, Denver 757-6489
Fla G F Bohman Assoc, 2350 NE 29th Pl
Pompano Beach 305 943-5529
Fla G F Bohman Assoc, 7040 Lake Ellenor Dr
Orlando 305 855-3964
Ill D Dolin Sales Co, 3525 W Peterson Ave
Chicago 588-3738
Ill U C Elctns Div, 120 S Riverside Plaza
Chicago 312 822-7000
Ind Leslie M Devoe Co, 4010 Washington Blvd
Indpls 283-1395
Md Daniel & Co, Box 124, Lutherville 825-3330
Mass U C Electronics, Components Dept, 300 First Ave
Needham Hgts 444-5400
Mich R C Merchant Co, 18411 W McNichols Rd
Detroit 535-6000
Minn Stan Clothier Co, 7400 Lyndale Ave, S
Mnpls 869-3231
Miss Harris-Hanson Co, 2814 S Brentwood Blvd
St Louis 647-4350
Mo Harris-Hanson Co, 7916 Paseo St
Kansas City 444-9494
NJ U C Elctns Div, 1341 Hamburg Tpk
Wayne 696-2710
NY I A Hotze Co, Inc, 112 Dewitt St
Syracuse 479-6641
NC Powertronic Assoc, 2454 Medway Dr
Raleigh 834-6947
NC Powertronic Assoc, Box 403
Thomasville 476-4257
Ohio U C Elctns Div, 11901 Madison Ave
Cleveland 221-0600
Ohio Baehr Greenleaf & Assoc, 14700 Detroit Ave
Lakewood 216 221-9030
Ohio Baehr Greenleaf & Assoc, 9505 Montgomery Rd
Cinncinnati 513 891-3826
Ohio Baehr Greenleaf & Assoc, Box 5722
Columbus 614 486-4046
Ohio Baehr Greenleaf O Assoc, 3350 Maplewood Dr
Dayton 513 426-5485
Okla Ammon & Champion Co, Box 4682
Tulsa .... NA 7-7670
Okla Ammon & Champion Co, Box 12274
Oklahoma City 942-8222
Ore Arneson Assoc, Suite 4C 200 NE Canyon Rd
Beaverton 503 646-3416
Pa Daniel & Co, 231 S Easton Rd, Glenside
SC U C Elctns Div, Box 5928, Greenville 963-7421
Tex Ammon & Champion, Mockingbird La
Dallas 357-8441
Wash Arneson Assoc, 5950 Sixth St
Seattle 206 762-7664
Can Welwyn Intl, 1255 Brydges St
London, Ont 451-9490

UNION CARBIDE CORP, MATERIALS SYSTEMS DIV
1020 W PARK AVE, KOKOMO
IND, 46901 .... 317 457-8411
Cal UCC Matl Sys Div, 13601 E Whittier Blvd
Whittier 213 685-5654
Ill UCC Matl Sys Div, Chicago 312 726-5268
Mich UCC Matl Sys Div, Detroit 313 962-8192
NY UCC Matl Sys Div, New York 212 594-5644
Ohio UCC Matl Sys Div, Cincinnati 513 381-1832
Ohio UCC Matl Sys Div, Cleveland 216 621-3948

UNION CARBIDE CORP, MINING & METALS DIV
270 PARK AVE, NEW YORK, N Y, 10017 ... LL 1-2345
B BUCK
Cal Union Carbide Corp, 2770 Leonis Blvd
Los Angeles ... 213 583-3061
Ill Union Carbide Corp, 120 S Riverside Plaza
Chicago ... 312 822-7355
Mich Union Carbide Corp, 10421 W 7 Mile Rd
Detroit ... 313 341-3300
NJ Union Carbide Corp, 210 Prospect St
Phillipsburg ... 201 859-1600
Ohio Union Carbide Corp, 1300 Lakeside Ave
Cleveland ... 216 621-4202
Ore Union Carbide Corp, 11920 N Burgard Rd
Portland ... 503 286-1635
Pa Union Carbide Corp, 875 Greentree Rd
Pittsburgh ... 412 922-5700

UNION CARBIDE ELECTRONICS, SEMICONDUCTOR
PRODS, 365 MIDDLEFIELD RD, MOUNTAIN VIEW
CAL, 94040, TWX 910-379-6942 ... 415 961-3300
EMP 600, OVER $10,000M
Ariz Carter Assoc, 201 W 1st St
Scottsdale ... 602 947-4355
Cal W W Posey Co, 175 S San Antonio Rd
Los Altos ... 415 948-7771
Cal Union Carbide Electronics, 5115 W Century Blvd
Inglewood ... 213 677-6194
Cal Union Carbide Elctns, 2680 Bayshore Frontage Rd
Mt View ... 415 969-9390
Cal Dorado Elctns Inc, 13615 Victory Blvd
Van Nuys ... 213 873-4124
Colo Lindberg Co, 2654 S Krameria
Denver ... 303 757-6489
Conn Impact Sales Co Inc, Box 448
West Hartford ... 521-1221
Fla Bohman Assoc, 7040 Lake Ellenor Dr
Orlando ... 305 855-0274
Ill Carlson Electronic Sales Co, 7448 N Harlem Ave
Chicago ... 312 774-4812
Ill Union Carbide Electronics, 2 Talcott Rd
Park Ridge ... 312 825-7181
Ind Leslie M DeVoe Co, 4010 Washington Blvd
Indianapolis ... 317 283-1395
Md Biechler Assoc, 7353 Yorktowne Dr
Baltimore ... 301 825-8222
Md Biechler Assoc, 822 Baltimore Rd
Rockville ... 301 762-6210
Mass Impact Sales Co Inc, 223 Crescent St
Waltham ... 617 893-2850
Mich Carter, McCormick & Peirce, 16239 Wyoming Ave
Detroit ... 313 863-4600
Minn Stan Clothier Inc, 7400 Lyndale Ave S
Mnpls ... 612 869-3231
Mo Harris-Hanson Co, 2814 S Brentwood
St Louis ... 314 647-4350
Mo Harris-Hanson Co, 7916 Paseo St
Kansas City ... 816 444-9494
NJ Unicomp, 18 Sunny Ridge Rd
Wayne ... 201 696-2888
NM Carter Assoc, 9000 Menaul NE
Albuquerque ... 298-7421
NY Union Carbide Electronics, 333 N Broadway
Jericho ... 516 433-8441
NY Bob Dean Inc, 714 W Clinton St
Ithaca ... 607 272-2187
NC Candor Co, Bethania ... 919 924-1480
Ohio Carter Mc Cormic & Peirce, 3406 N Main St
Dayton ... 513 278-5873
Ohio Carter McCormic & Peirce, 3691 Lee Rd
Cleveland ... 216 921-1360
Ore Arneson Assoc, 200 N E Canyon Rd
Beaverton ... 503 646-3416
Tex Carter Assoc, 400 Forest Gate La
Garland ... 214 276-7151
Wash Arneson Assoc, 5950 6th Ave S
Seattle ... 206 762-7664
Can Avnet Electronics of Canada, 87 Wingold Ave
Toronto, Ont ... 416 789-2621
Can Avnet Electronics of Canada, 1505 Louvain St W
Montreal, Que ... 514 381-9126
For Union Carbide Intl, 270 Park Ave, New York, N Y
Fr Tranchant Electronique
19 Rue Madame de Sanzillon, Clichy, Seine
Fr Mesure et Controle Electroniques
84 Rue des Entrepreneurs, Paris
Ger Union Carbide Deutschland GMBH
200 Morsenbrotcher-Weg, Dusseldorf
GB Union Carbide Ltd, 8 Grafton St, London W I
Swit Union Carbide Europa S A, 40 Rue de Rhone
1211 Geneva
Aust Union Carbide Australia Ltd, 167-187 Kent St
SYDNEY N S W

UNION CITY FILAMENT CORP, 540 39TH ST
UNION CITY, N J, 07087 ... 201 866-3800
H LUSK, EMP 60, ENG 2, $250-$500M

UNION ULTRA-SONICS CORP, 572 DUTTON ST
LOWELL, MASS, 01853 ... 617 458-0066
R BRUNELLE, EMP 20, ENG 4, $100-$250M

UNIPUNCH PRODUCTS INC, 370 BABCOCK ST
BUFFALO, N Y, 14240, TWX 91-321 ... 716 825-7960
R WEISBECK, EMP 100, ENG 5, $2,500-$5,000M
Ala Moore-Handley Inc, 1530 S 3rd St
Birmingham ... 328-6200
Ariz Montague-Harris & Co, Box 693, Tempe
Cal Montague-Harris & Co, 1423 San Mateo Ave
S San Francisco ... 589-7611
Cal Montague-Harris & Co, 11919 E Burke St
Sante Fe Springs ... 693-8201
Colo Mine & Smelter Supply Co, 3800 Race St
Denver ... 244-4353
Conn T E Wilke Assoc, 379 Wetherell St
Manchester ... 649-9646
Ga Bolden Die Supply Co, 1084 Dill Ave SW
Atlanta ... 753-4181
Ga Florida-Bolden Die & Supply Co
1084 Dill Ave SW, Atlanta ... 753-4181
Ill Unipunch Products, Inc, 2 Talcott
Park Ridge ... 825-5539
Ind Baker Machinery, Inc, 6170 N Tuxedo St
Indianapolis ... 253-2926
Iowa McNeal Tool Co, 5501 N Towne Pl NE
Cedar Rapids ... 365-4673
Ky Allied Tool & Supply Co, 1227 Logan St
Louisville ... 636-3761
La Industrial Mach Inc, 2730 Clio St
New Orleans ... 523-1492
Md Phillips Mach & Supply Co, 4910 Lehigh Rd
College Park ... 277-0418
Mich Production Equip Systems, Inc, 5914 Executive Dr
Lansing ... 393-0520
Minn Girard Steel & Equip Co, 889 Vandalia St
St Paul ... 646-8635
Mo L J Haney Assoc, 11005 Manchester Rd
Kirkwood ... 965-5678
Neb Fuchs Mach & Supply Inc, 2401 N 11th St
Omaha ... 341-7050
NJ Carol Machine Tool Co, Box 221
Ramsey ... 327-0390
NY Snyder Industrial Sales Co, 91 Sargent Dr
Snyder ... 839-3841
NC Armentrout Mach Co Inc, 2122 Enterprise Rd
Greensboro ... 272-6142
Ohio Vorys Brothers, Inc, 834 W Third Ave
Columbus ... 294-4701
Ohio D & H Mach Consultants Inc, 5340 Enterprise Blvd
Toledo ... 726-2675
Ohio Merit Machinery, Inc, 4873 Broadview Rd
Cleveland ... 661-3600
Okla Hart Industrial Supply, 726 W Sheridan Ave
Oklahoma City ... 239-2541
Ore Fahey Mach Co, 11576 SW Barbour Blvd
Portland ... 244-7596
Pa Merit Machinery, Inc, 2311 Babcock Blvd
Pittsburgh ... 931-6800
Pa Valley Forge Mach Tool Co, 584 Lancaster Ave
Berwyn ... 644-0210
Tenn Hicks Machine Tool Co, 673 S Cooper
Memphis ... 276-2741
Tex Lay Machinery Co, 8800 Chancellor Row
Dallas ... 631-2562
Wash Hallidie Mach Co Inc, 4975 3rd Ave S
Seattle ... 762-7600
Wis Production Equip Inc, 11800 W Ripley Ave
Milwaukee ... 476-6075
Can Hamilton Tool & Engrg, 105 Mercer St
Dundas Ont ... 627-1511

UNIQUE WIRE WEAVING CO INC, 759 RAMSEY AVE
HILLSIDE, N J, 07025 ... 201 688-4600
R SAGE, EMP 14, ENG 2
Cal Aabar Assoc, Box 65675, Los Angeles ... 662-9432
Conn P E Ruark Assoc, Box 1551, Waterbury ... 758-2132
Fla H Williams, Box 247, Weirsdale ... 904 753-2239
Ill Vico Assoc, 775 N Bank La
Lake Forest ... 234-8282
Minn International Sales Co, 8703 Beard Rd
Minneapolis ... 881-6683
Minn Intl Sales Co, 8703 Beard Rd
Minneapolis ... 881-6683
NY Howard N Clark, 3100 Monroe Ave
Rochester ... 586-0371
NY Tower Sales Engineering Co, 550 Fifth Ave
New York ... 246-7611
Ohio Fred H Weber, Box 585, Ashland ... 322-1480
Pa E Hafenbrak, 151 Ryan Dr
Pittsburg ... 412 341-4712
Wash Assoc Industries, 3711 S Hudson St
Seattle ... 723-5600

UNIROYAL CHEMICAL DIV UNIROYAL INC
SPENCER ST, NAUGATUCK
CONN, 06771, TWX 203 729-4750 ... 203 729-5241
R KNAPP, EMP 2900
Cal Uniroyal, Inc, 5901 Telegraph Rd
Los Angeles ... 723-9971
Ga Uniroyal, Inc, Box 371, Dalton ... 278-1911
Ill Uniroyal, Inc, 4135 S Pulaski Rd
Chicago ... 254-5700
Mich Uniroyal, Inc, 4500 Enterprise Dr
Allen Park ... 274-3700
NC Uniroyal, Inc, 214 W Ruby Ave
Gastonia ... 864-3411
Ohio Uniroyal, Inc, 1815 W Market St, Akron ... 864-2145
Tex Uniroyal, Inc., 1011 Regal Row, Dallas ... 631-2310

UNI-SEAL DIV G-V CONTROLS
RANDOLPH IND PARK, BOX 430, DOVER
N J, 07801, TWX 710 987-7925 ... 201 361-0060
R WECKSTEIN, EMP 150, ENG 5, $1,000-$2,500M
Ariz Allen Assoc, Box 3091 - Papago Sta
Scottsdale ... 945-5781
Cal Western Controls, 2630 Seaman St
El Monte ... 443-9376
Colo J F Hurlbut Co, 2240 S Adams St
Denver ... 756-2046
Fla F C Nickerson Co, Box 13126, Tampa ... 833-4321
Ga Frank C Nickerson Co Inc, Box 1185
Decatur ... 404 377-1575
Ill Martin J Weldin Sales, 2948 Cullom Ave
Chicago ... 267-4944
Iowa Thomas & Modrcin Assoc, 890 17th Ave
Marion ... 319 377-6261
Kan Thomas & Modrcin Assoc, Box 189
Shawnee Mission ... 914 432-2131&
Mass John Goode, 44 Ledgewood Rd, Weston ... 235-3900
Mich Tant Enterprises, 16257 Meyers Rd
Detroit ... 313 UN 4-0738
Minn Christian-Richards Co, 8117 Pleasant Ave S
Minneapolis ... 612 888-9225
Mo Thomas & Modrcin Assoc, 47 Village Sq
Hazelwood ... 314 TE 8-6446
NJ Sil Venturi Assoc, 24 Silver Springs Rd
Short Hills ... 379-7636
NY S F Foster Co, Inc, 2806 Hennaberry Rd
Pompey ... 677-3333
NY S F Foster Co, 386 Culver Pkwy
Rochester ... 716 288-9912
NC L & D Inc, Box 7243, Greensboro ... 292-3201
Okla T J Ray Co, 8514 E 31st Pl, Tulsa ... 918 627-1515
Ore Richard Legg Co, Box 25327, Portland ... 292-8824
Pa Chas Donahue, Box 29, Exton ... 363-6202

UNITED AIRCRAFT CORP ELECTRONIC COMPONENTS
DIV, TREVOSE
PA, 19047, TWX 510-667-1717 ... 215 355-5000
J D'AQUILA, EMP 500, ENG 300, $2,500-$5,000M
Cal United Aircraft Corp, 128 E Katella Ave
Orange ... 714 639-4030
Conn Circuit Sales Co, 1125 Fairfield Ave
Bridgeport ... 203 335-0637
Conn Circuit Sales Co, 4 Fawn Hill Rd, Huntington
Conn Hamilton Standard Elctns, Box 300
Windsor Locks ... 203 623-1621
Fla Telemetry Sales Corp, Box 6453
Orlando ... 305 241-1292
Ill Fiat Engrg Assoc, 5133 St Charles Rd
Bellwood ... 312 547-6200
Ind Fiat Engrg Assoc, Box 1165
Muncie ... 317 289-6321
Mass Circuit Sales Co, 591 North Ave
Wakefield ... 617 245-5320
Mass G S Bedworth, Box 68
Framingham Ctr ... 617 838-7339
Minn Northport Engrg Inc, 2027 Grand Ave
St Paul ... 612 698-3841
NM Telemetry Sales Corp, 2104 San Mateo N E
Albuquerque ... 505 255-9192
NY Cooper-Simon & Co, 7 W Broad St
Mount Vernon ... 914 OW9-5400
NY Reed Elctns Inc, 2815 Monroe Ave
Rochester ... 716 473-2767
NY Reed Elctns Inc, Box 187, Vestal ... 607 748-7391
NY Reed Elctns Inc, 326 Fay Rd
Syracuse ... 315 468-5488
Ohio Allen Nace Co, Box 156
Brecksville ... 216-526-4323
Ohio Fred W Link, Box 93, Dayton ... 513 277-8215
Ohio G A Zaebst, Rte 3, Galion ... 419 468-7641
Pa J J Donovan, Box 10630
Pittsburgh ... 412 241-3200
Pa Wyncote Instr Co, 1616 Kenmare Dr
Tex Telemetry Sales Corp, Box 786
Grand Prairie ... 214 262-3365
Wash Jon B Jolly, 413 Maritime Bldg
Seattle ... 206 624-2152
Can United Aircraft of Can Ltd, Box 10, Longueuil Que

UNITED AIRCRAFT PRODUCTS INC
1116 W STEWART ST, DAYTON
OHIO, 45408 ... 513 224-0841
A KUTLER, EMP 527, ENG 30, $5,000-$10,000M
Cal United Aircraft Prods Inc, 8939 S Sepulveda Blvd
Los Angeles ... 776-6123
Mass United Aircraft Prod, Inc, 54 Main St
Topsfield ... 774-2080
NY United Aircraft Prods Inc, 50 E 42nd St
New York ... 687-1283
Tex United Aircraft Prods Inc, 7314 Bennington Dr
Dallas ... 348-6691

UNITED AIR LINES, BOX 66100, CHICAGO
ILL, 60666 ... 312 625-1400
J MISSELHORN, EMP 41000, OVER $10,000M

UNITED AMERICAN METALS DIV, 968 MEEKER AVE
BROOKLYN, N Y, 11222

UNITED-CARR INC, 4600 PRUDENTIAL CTR, BOSTON
MASS, 02199 ... 617 262-3333
F CATE, EMP 4000, ENG 175, OVER $10,000M

UNITED-CARR INC, PLAXIAL CABLE DEPT
70 JACONNET ST, NEWTON HIGHLANDS
MASS, 02161, TWX 710-335-1168 ... 617 527-6438
G SMILEY, EMP 12, ENG 5, $250-$500M

UNITED CONTROL CORP, REDMOND
WASH, 98052 ... 206 TU 5-3711
J NAVARRE, EMP 1600, ENG 126, OVER $10,000M
Cal United Control Corp, 999 N Sepulveda Blvd
El Segundo ... 213-772-5441
Cal United Control Corp, 10370 Sunnyvale-Saratoga Rd
Cupertino ... 408-253-3800
Ga Airsupply Co, 3272 Peachtree Rd NE
Atlanta ... 404 CE 7-8636
NJ United Control Corp, 24 Commerce St
Newark ... 201 MA 2-1092
Tex United Control Corp, 510 Oak Cliff Bank Tower
Dallas ... 214 941-0441
Va United Control Corp, 105 N Virginia Ave
Falls Church ... 703 533-1008

UNITED CONTROL-DATA DIV, 10650 RUSH ST
SOUTH EL MONTE, CAL, 91733 ... 213 443-3034
B HARRIGAN, EMP 220, ENG 40

Cal United Control, 999 W Sepulveda
El Segundo .... SP 2-5441
Cal United Control, 3921 E Bayshore
Palo Alto 321-7400
NJ United Control, 24 Commerce St
Newark .... MA 2-1092
Tex United Control, 510 Oak Cliff Bank Tower
Dallas .... Wh 1-0441
Wash United Control, Overlake Industrial Park, Redmond

UNITED DETECTOR TECHNOLOGY INC, BOX 5251
SANTA MONICA, CAL, 90404 .... 213 393-3785
C WENDLAND, EMP 50, $100-$250M
Cal Griot Assoc, 560 San Antonio Rd
Palo Alto 415-327-3996
Cal Griot Assoc, 3002 Midvale Ave
Los Angeles 213 474-1587
Colo Griot Assoc, 8345 W 16th Ave
Lakewood 303-237-2112
NJ R Champlin, 797 Springfield, Summit
NM Griot Assoc, 119 Richmond Dr SE
Albuquerque 505 268-7422
NY E C Smith, 60 East 42 ND St, NY
NY D Jamieson, 941 Granite Bldg, Rochester
Wash Griot Assoc, 10220 NE 1st La
Bellevue .... 206 GL 4-8592

UNITED ELECTRIC CONTROLS CO
85 SCHOOL ST DEPT-C, WATERTOWN
MASS, 02172 .... 617 926-1000
D HOLM, EMP 313, ENG 15, $5,000-$10,000M
Cal United Elec Controls Co, 423 S Brookhurst St
Anaheim 635-3730
Colo R G Davis Co, Box 12004 Alcott Sta
Denver 422-6313
Ill Sherertz, Henderson Co, 5707 W Lake St
Chicago .... CO 1-1032
Ill United Elec Controls Co, 2285 Mt Prospect Rd
Des Plaines 296-8141
Ind Law Instrument Co, Box 95, Angola 665-6016
La Mid-South Sales Co Inc, Box 13032
New Orleans 822-3030
Mich H H Barnum Co, 12201 Merriam Rd
Livonia 261-1150
Mo Jack M Gilbert Co, 131 E 70th St
Kansas City .... DE 3-8830
NY Terryberry Engrg Sales Co, Box 32
Buffalo 632-7404
NY Petro-Chem Specialties Co
Laguardia Arprt Hangar 7, Flushing .... TW 9-6400
Ohio Jerry Kilroy Corp, Box 365
Chagrin Falls 247-8997
Ohio Whelan Corp, 2975 Far Hills Ave
Dayton 298-9997
Pa Walter A Koenig Co, Box 57, Allentown .. 433-6061
Pa R R Kovach, 37 Alton Dr, Bethel Park ... TE 5-6296
Pa United Elec Controls Co, 65 E Lancaster Ave
Paoli 084-5350
Tex Meyer F Smith Co, 7417 Hillcroft Sec 2A
Houston 494-8797
Wash D J Moore, 1731 First Ave S, Seattle .. MA 4-6970
Wis Industrial Controls Co, 1810 S Calhoun Rd
New Berlin .... SU 6-6020

UNITED ELECTRONIC MFG CORP, 542 39TH ST
UNION CITY, N J, 07087 .... 201 865-4452
C WOLF, EMP 25, ENG 2
Ala John F Russell Sales Co
3040 Whispering Pines Cir
Birmingham 822-2196
Cal Wayne Dinsmore, Box 621, Encino ...... TR 3-2451
Cal W Levin, 1999 Pacific, San Francisco 775-0962
Del Ferrell S Carmine Co, 14 Knickerbocker Dr
Newark .... EN 8-7603
Ill M H Quateman Assoc, 6713 N Oliphant, 774-8844
Mich Central Electronics Sales Co, 19217 Fairport
Detroit .... LA 6-5841
NY Murray Director Assoc, 115-62 237th St
Elmont .... CU 5-6823
NY S A Shaw Co, 361 Central Park Ave
Yonkers .... YO 3-5700
Ohio Chilcote Sales Co, 2940 W Lincolnshire
Toledo .... CH 1-3826
Pa Hy Mates, 5510 Hobart St, Pittsburgh
SC Hal C Norman Sales Co, Box 5185 - Sta B
Greenville 244-6254
Tex Packard Assoc Inc, 2655 Perth St
Dallas 357-5713
For Minthorne Intl Co, 64-14 Woodside Ave
Woodside NY 212-899-8888

UNITED ELECTRONICS CO, 42 SPRING ST, NEWARK
N J, 07104 .... 201 484-6300
A DELANO, EMP 120, ENG 3, $1,000-$2,500M

UNITED FABRICATORS & ELECTRONICS INC
GREELEY ST, STILLWATER
MINN, 55082 .... 612 439-1561
R GILBERT, EMP 250, ENG 8, $2,500-$5,000M
Ill F Hubrich & A Danko, 6323 N Central Ave
Chicago 775-7373
Mich L T Martensen, 46 Ridge Rd
Pleasant Ridge .... LI 3-3633
NJ A Pezzella, 22 London St, Freehold 201 462-8276
NY R H Eisenhart, 2815 Monroe Ave
Rochester .... GR 3-2657
Pa A Pezzella, 3608 Willimson Ave
Chester .... TR 6-4357
Wis J Roberts, Box 82, Brookfield 414-781-3626

UNITED MFG DIV, UMC ELECTRONICS CO
460 SACKETT POINT RD, NORTH HAVEN
CONN, 06473 .... 203 288-7731
V STANCLIFF, EMP 100, ENG 12, $2,500-$5,000M
Ala Russell Assoc, 2516 N Memorial Pkwy
Huntsville 536-4611
Cal G M Burkhardt, 3232 Midvale
W Los Angeles 213 474-1425
Fla Russell Assoc, 243 W Park Ave
Winter Park .... MI 7-2251
Ga Russell Assoc, 6427 Roswell Rd
Atlanta 255-8922
Md Russell Assoc, 102 N Main St
BEL Air 301 838-9292
Mich Russell Assoc, 24634 Five Mile Rd
Detroit .... KE 2-5770
Mo UMC Electronics Co, 44 Graeler Dr
St Louis .... TR 2-3132
NY Russell Assoc, 165 Orinoco Dr
Brightwaters .... MO 6-6500
Ohio Russell Assoc, 4 Eswin St, Cincinnati 825-0930
For W S Kirkpatrick Co, 52 Upper Montclair Plaza
Upper Montclair, N J
Jap C Itoh America Inc, New York, NY
SAfr Astra Aircraft, Box 1923, Johannesburg
Aust Bendix Tecnico, Private Mail Bag, Rockdale, NSW

UNITED MINERAL & CHEMICAL CORP
129 HUDSON ST, NEW YORK
N Y, 10013 .... 212 966-4330
M MEEKER, EMP 125, ENG 2, $5,000-$10,000M
Cal Ungar Sales Assoc, 317 Glasgow
Inglewood 678-5371
Colo F Pease, Box 31246, Aurora 364-9391
Fla Geartner Assoc, 350 Lincoln Rd
Miami Beach 531-0200
Fla H Geartner, 2101 Mohawk Trail
Maitland Beach 647-4000
Ill Saffro & Assoc, 3736 Dempster St W
Skokie .... JU 8-0905
Ind Schroeder-loomis Inc, 810 E 64th St
Indianapolis 251-4571
Md J A Dougherty Sales Co, 320 Hillen Rd
Towson .... VA 3-0431
Mass New England Component Sales, Box 656
Newton Lower Falls 969-9523
Mich Grant Shaffer Co, 14241 Fenkell Ave
Detroit .... BR 3-5390
Minn William Englebretson, 906 Ottawa Ave
St Paul .... CA 2-2338
Mo Soor Sales Corp, 8115 Troost
Kansas City 444-2871
NJ Joe Poitras, 5 Preston Ave, Cranford 272-5931
NJ Ed Wiest, 115 Prospect Pl, Westwood 666-1122
NY Rolmar Components, 4312 W Genesee St
Syracuse 488-3251
Ohio Thomas Shelby & Co, 17 S Walnut St
New Bremen 629-6511
Pa Elcom Inc, 130 S Easton Rd, Glenside 885-1325
Tex Campion Sales Assoc, Box 949
Richardson .... AD 1-6361
Tex Ralph Marston, Box 1006, Richardson 235-3577
Can Peter J Heenan, 12 Doncliff Dr
Toronto, Ont 489-9558

UNITED PRODUCTS CO, 451 S JEFFERSON ST
ORANGE, N J, 07050 .... 201 676-7200
J WILSON, EMP 50, ENG 3, $500-$1,000M
Cal W I Carson & Assoc, 124 El Camino Real
San Carlos
Ill Croydon Electronics, Inc, 5724 W Diversey Ave
Chicago 237-4343
Mass D&P Engineering, 13 Shore Dr, Peabody
Mo Automatic Gen Elctn Sales, 6550-B Troost Ave
Kansas City
NJ Jack Onore, 555 Winchester Ave, Union
NJ J N Barrett Assoc, 812 Federal St, Camden
NY Harold Heft, Box 623, Lynbrook

UNITED REFINING & SMELTING CO
3700 N RUNGE AVE, FRANKLIN PARK
ILL, 60131, TWX URESCO 312 455-8800
B SIMS, EMP 22, ENG 2, $5,000-$10,000M
NY United Ref & Smelting Co, 14 Aster Ave
Merrick 516 485-2243
RI United Ref & Smelting Co, 20 Schofield St
Pawtucket 401 723-2550

UNITED SENSOR & CONTROL CORP, 85 SCHOOL ST
WATERTOWN
MASS, 02172, TWX 92-2445 617-926-1000
T FARRELL, EMP 12, ENG 2, $100-$250M

UNITED SHOE MACHINERY CORP, 140 FEDERAL ST
BOSTON, MASS, 02107
J STEVENS
Cal United Shoe Machy Corp, 8438 San Fernando Rd
Sun Valley 095-0030
Ga United Shoe Machy Corp, 3131 Maple Dr, N E
Atlanta 233-9439
Ind United Shoe Machy Corp, 5300 McDermott Dr
Berkeley 449-8080
NJ United Shoe Machy Corp, 67 Sanford St
E Orange .... OR 4-1060
Ohio United Shoe Machy Corp, 20545 Center Ridge Rd
Cleveland 333-3334
Tex United Shoe Machy Corp, 9102 Garland Rd
Dallas .... DA 1-6466

UNITED SHOE MACHINERY CORP, HARMONIC DRIVE
DIV, BALCH ST, BEVERLY
MASS, 01915, TWX 710-347-1393 ...... 617 922-0160
W SPRING, EMP 8000, ENG 450, OVER $10,000M
Cal USM-Harmonic Dr Div, 3235 Bayo Vista Ave
Alameda 362-7345
Cal USM-Harmonic Dr Div, 5983 Smithway St
Los Angeles 723-0731
DC USM-Harmonic Dr Div, 1629 K St, NW
Washington 296-4780
Ill USM-Harmonic Dr Div, 5300 McDermott Dr
Berkeley 626-6235
NJ USM-Harmonic Dr Div, 67 Sanford St
East Orange 674-1060

UNITED STANDARD INDUSTRIES INC, 2054 LEHIGH
GLENVIEW, ILL, 60025 .... 312 724-0350
S FELDSTEIN, EMP 23, ENG 2, $250-$500M

U S CAPACITOR CORP, 2151 N LINCOLN, BURBANK
CAL, 91504, TWX 910-498-2222 .... 213 843-4222
D WOLFORD, EMP 215, ENG 10, $2,500-$5,000M
Ala Rep Inc, 8100 S Memorial Pkwy
Huntsville 205 881-9270
Ariz Jarko Assoc, 2032 N 27th Ave
Phoenix 602 272-2684
Cal Logan Sales, 463 Brewster Ave
Redwood City 415 369-6726
Colo Brown Technical, 130 S Yarrow St
Denver 303 233-0863
Fla Orbe Inc, 300 31st St N
St Petersburg 813 894-0687
Fla Orbe Inc, Box 7777, Orlando 305 424-0978
Ga Rep Inc, 1483 Monroe Dr, N E
Atlanta 404 876-1591
Ill Lou Bacher & Assoc, 9690 W Allen Ave
Rosemont 312 678-1820
Kan Ridgewood Sales, Box 466
Shawnee Mission 913 262-1374
Md Faion Lott & Co, Box 534
Glen Burnie 301 744-4611
Mass Hatch Assoc, 32 Kearney Rd
Needham Heights 617 444-3310
Minn Technical Assco, 6121 Excelsior Blvd
Minneapolis 612 929-6721
Mo Ridgewood Sales, 8754 Big Bend Blvd
St Louis 314 961-0992
NJ Edwin F Alber, 64 Union Ave
Irvington 201 375-7458
NY Paul D Aaron, Assoc, Box 511
Pt Washington 516 767-8480
NY James M Glass Assoc, 220 Delaware Ave
Buffalo 716 856-9276
Ohio McFadden Sales Co, 150 E Broad St
Columbus 614 221-3363
Tex Robert R Thomas Co, 8616 NW Plaza Dr
Dallas 214 363-8591
Wash HS Thorpe Co, Box 1117, Bellevue ... 206 454-0667
Can Atkinson & Vail, 5 Allenbury Gardens
Willowdale, Ont 416 225-7494
Can Atkinson & Vail, 13189 Shelborne St
Pierrefonds, Que 514 626-6511
Fr France Nucleaire Elctn, 125, Rue De Rome
Paris 227-54-22
Swed Thure F Forsberg AB, Box 79 Forshagagatan 58
Farsta 08/93-01-35

U S CATHETER & INSTRUMENT CORP, BOX 787
GLEN FALLS, N Y, 12801 .... 518 793-2531
K SCHROEDER, EMP 300, ENG 4, $2,500-$5,000M

U S DIELECTRIC INC, BOX 136 P P STA, WORCESTER
MASS, 01604 .... 617 754-5316
R ROMEO, EMP 20, ENG 2, $250-$500M
Conn M Paisner, 296 Oaklawn Ave
Cranston, R I 521-3522
Fla Robert A Gravett Assoc, Box 2501
Fort Lauderdale 565-2079
NY Davis & Co, 38-12 213th St, Bayside 229-7987
For Teknis Inc, Plainville, Mass, ... 695-3591

UNITED STATES DYNAMICS, 124 SECOND AVE
NEEDHAM HEIGHTS, MASS, 02194 ..... 617 449-0210
C MILLER, EMP 25, ENG 5, $250-$500M
Cal Cleland & Co, 1263 Westwood Blvd, Los Angeles
Cal White & Co, 777 N First St
San Jose 408 292-8229
Conn Northeast Assoc, 516 Pepper Ridge Rd
Stamford 203 329-0012
Ga W L Schoonover, Inc, 6427 Roswell Rd N E
Atlanta 404 255-0776
Mass Northeast Assoc, Box 31
Marblehead 617 595-1000
Minn Automation Service Corp, 4815 W 77th St
Minneapolis 922-7587
NJ B Cato Assoc, Brielle 223-3842
Ohio Monatron, 20850 Sheldon Rd
Cleveland 243-6500
Tex Bill Hendricksen Co, Box 55565
Houston 713 464-5152
GB Advanced Semiconductor Materials (U K)
32 Reading Rd, Wokingham .... West Forest 5138
Holl Advanced Semiconductor Materials
Soestdijkseweg 28 N, Bilthoven .... (03402) 5045
Jap Nagase & Co LTD, Box 93, Osaka-Nishi

U S ELECTRICAL MOTORS, DIV EMERSON ELEC & MFG
CO, 202 E SLAUSON AVE, LOS ANGELES
CAL, 90011 .... 714 826-4220
R LIEBMANN, EMP 2000, ENG 200, OVER $10,000M
Sales Offices in all principal cities

U S ELECTRONICS CORP, ORIENT WAY, LYNDHURST
N J, 07071 .... 201 438-2400
J FELDHUSEN, EMP 60, ENG 2, $500-$1,000M

U S GRAPHITE CO DIV THE WICKES CORP
1621 HOLLAND AVE, SAGINAW
MICH, 48601 .... 517 755-0441
R AMBERGER, EMP 550

U S HEAT SINK, 437 S ISIS AVE, INGLEWOOD
CAL, 90301 .... 213 678-2796

UNITED STATES MACHINERY, SUB GEARTRONICS
CORP, 528 CHELMSFORD RD, NORTH BILLERICA
MASS, 01862 .... 617 663-6566
C BROWN, EMP 75, ENG 5, $1,000-$2,500M

U S MAGNETIC TAPE CO, HUNTLEY
ILL, 60142 .... 312 669-5181
F LIND, EMP 75, ENG 9, $1,000-$2,500M
Cal U S Magnetic Tape Co, Box 6215
San Diego 714 223-0256
NY U S Magnetic Tape Co, 150 Nassau St
New York 212 349-2353
Pa U S Magnetic Tape Co, 1001 Chestnut St
Philadelphia 215 WA2-4428

U S MICROWAVE, BOX 1028, DELRAN
N J, 08075 .... 609 829-3106
M RENZI, EMP 25, ENG 5, UP TO $100M

U S NUCLEAR CORP, 801 N LAKE ST, BURBANK
CAL, 91503 .... 213 849-6176
W BRADLEY, EMP 75, ENG 6, $1,000-$2,500M

U S POLYMERIC INC, 700 E DYER RD, SANTA ANA
CAL, 92707, TWX 910-595-1130 .... 714 549-1101
J SEWELL, EMP 241, ENG 21, OVER $10,000M
Cal J C Boswell, 3601 Orangerie Way
Carmichael 944-2380
Conn U S Polymeric, Inc, Canal & Ludlow Sts
Stamford .... DA 4-7545
Ga W F Condon, 251 Hillswick Ct, N E
Atlanta 237-4011
Tex T R Kruhmin, Box 1261, Arlington 275-3511
Wash S E Hopkins, Box 504, Bellevue 246-1860

U S PRECISION LENS & PLASTICS INC
1216 CENTRAL PKWY, CINCINNATI
OHIO, 45210 .... 513 381-0667
P ALMAND, EMP 15, ENG 2, $100-$250M
Cal A/C James Co, 13860 Saticoy St
Van Nuys 787-8560
Minn C F Vandervoort, 1270 Osage St
St Paul 489-5222
NJ H R Williams Assoc, Box 344
Ridgewood 444-5392
NY Rodgers Production Sales, 793 Laurelton Rd
Rochester 288-5157
Pa John F Orsi Assoc, Box 3023, Philadelphia
Wis Don R Manecke, 18565 Chevy Chase, Brookfield

UNITED STATES RADIUM CORP, BOX 246
MORRISTOWN
N J, 07960, TWX 710-986-7433 .... 201 JE 9-4000
R WOODWARD, EMP 450, ENG 50, OVER $10,000M
Cal U S Radium Corp, 5420 Vineland Ave
N Hollywood .... TR 7-0247
Conn U S Radium Corp, Box 61
Bloomfield .... 617 GR 3-7252
Ill U S Radium Corp, 50 Chicago Ave
Oak Park .... MA 6-4678
Mass U S Radium Corp, 76 Stella Rd
Bellingham .... GR 3-7252
NY U S Radium Corp, 8243 Jericho Tpk
Woodbury 516 692-4888
Ohio U S Radium Corp, 6613 Guyer St
Worthington 885-5613
Okla U S Radium Corp, 4712 Del Crest Dr
Oklahoma City .... OR 7-9609
Pa U S Radium Corp, 4150 Old Berwick Rd
Bloomsburg .... ST 4-3510
Pa W C Sales Reps, Box 109, Easton .... BL 2-8300
Can Radelin Ltd, 3164 Lenworth Dr
Cooksville, Ont 277-4122
Swit U S Radium Corp - Europe, 36 Ave Krieg
1208 Geneva 36-98-53

U S SCIENTIFIC INSTRUMENTS INC, 36 PLEASANT ST
WATERTOWN, MASS, 02172 617-923-0940
W WARD, EMP 12, ENG 5, $250-$500M
Cal Riner-Stillman Inc, 3402 W Century Blvd
Inglewood 213 673-0800
Cal Riner-Stillman Inc, 200 3rd St
Los Altos 415 941-4122
NJ B Kohl, 201 Crescent Ave, Leonia 201 944-6488
NY Reed Elctns Inc, 2815 Monroe Ave
Rochester 716 473-2767

U S STEEL CORP, 525 WM PENN PL, PITTSBURGH
PA, 15230 .... 412 EX 1-2345
OVER $10,000M

U S STONEWARE INC, ORVILLE PLANT, BOX 119
ORRVILLE, OHIO, 44667 .... 216 669-2217
J BROGAN
Cal U S Stoneware Inc, 6055 E Washington Blvd
Los Angeles 723-1275
Ill U S Stoneware Inc, 1515 N Harlem Ave
Oak Park 287 1611
NY U S Stoneware Inc, 60 E 42nd St
New York 682-6577
Tex U S Stoneware Inc, 3701 Kirby Bldg
Houston 528-5403

U S SWITCH CORP, SUB WESTPORT DEV & MFG CO
INC, 345 BOSTON POST RD, MILFORD
CONN, 06461 .... 203 874-6871
J ARNOLD
Cal Ash M Wood Co, Box 1158, Arcadia 283-1201

U S TESTING CO INC, 1415 PARK AVE, HOBOKEN
N J, 07030, TWX 432-6714 .... 201 792-2400
A MAXFIELD, EMP 485, ENG 42, $1,000-$2,500M
Cal UST Co, 5521 Telegraph Rd
Los Angeles 722-0608
Colo U S T Co, 2600 W 29th Ave, Denver 433-6491
Ill U S T Co, 141 W Jackson Blvd
Chicago 427-3929
Mass U S T Co, 80 Boylston St, Boston 426-8151
NY U S T Co, Port Auth Bus Term
New York 244-8130
Okla U S T Co, 609 S Peoria Ave, Tulsa 582-5134
Pa U S T Co, 3925 M St, Phila 288-0326
Pa U S T Co, Tulpehocken St & Lebanon Valley R R
Reading 373-4844
SC U S T Co, Box 7036, Charleston Hts 747-6464
Tenn U S T Co, Cotton Exchange Bldg
Memphis 526-4231
Va U S T Co, Box 1424 , Norfolk 543-2907
Wash U S T Co, 2800 Geo Washington Way
Richland 946-5157
Wash UST Co, 3416 Everett Ave, Everett 259-3070
Wash UST Co, 1202 S First St, Yakima 248-2144

U S TIME CORP, MIDDLEBURY EXT, WATERBURY
CONN, 06720 203-758-2441
H ARMSTRONG
Cal U S Time Corp, 346 Tejon Pl
Palos Verdes Estates .... FR 5-9526
NY US Time Corp, 250 Station Plaza
Hartsdale 914 472-3334

UNITED SYSTEMS CORP, 918 WOODLEY RD, DAYTON
OHIO, 45403, TWX 810-459-1728 .... 513 254-6251
L LEBOWITZ, EMP 115, ENG 6, $2,500-$5,000M
Ala BCS Assoc, 2317 Bob Wallace Ave SW
Huntsville 534-1648
Cal Dynamic Assoc, 1011 E Cadillac Way
Burlingame 344-2521
Colo Williams-assoc, 4971 Jackson St
Denver 388-4391
Del Sonco, Crystal Brook Prof Bldg
Eatontown, NJ 542-1441
DC Sonco, 4720 Montgomery La
Washington 654-5226
Fla BCS Assoc, 940 N Fern Creek Ave
Orlando 425-2764
Ill Torkelson Assoc, 464 Central Ave
Northfield 446-8450
Ind Torkelson Assoc, 3512 Rockville Rd
Indianapolis 241-0725
La BCS Assoc, Box 7371, Metairie 888-2266
Mass Carl Lueders & Co, Box 161
Needham Hts 449-0345
Mich S Sterling Co, 21250 101/2 Mile Rd
Southfield 442-5656
Minn Torkelson Assoc, 4820 w 77th St
Minneapolis 920-1046
Mo S Sterling Co, 11734 Lackland Ind Dr
St Louis 542-3636
NJ H Wilson Ryno Co, 151 Forest St
Montclair 783-9700
NM Willimas-Assoc, 420 Washington SE
Albuquerque 255-1638
NY DB Assoc Inc, 3307 Erie Blvd E
Dewitt 446-0220
NC BCS Assoc, 1039 E Wendover Ave
Greensboro 273-1918
Ohio S Sterling Co, 5827 Mayfield Rd
Cleveland .... HI 2-8080
Okla B F A Inc, 3216 E 21st St, Tulsa 936-5295
Pa Sonco, 107 Town Center Rd
King of Prussia 265-3250
Tex B F A Inc, Box 429, 708 W Euless Blvd
Euless 264-3363
Tex B F A Inc, 409 Friendswood
Friendswood 482-7563
Utah Williams-Assoc, 2469 S Main St
Salt Lake City 466-8709
Va B C S Assoc, 153 Winston Dr
Williamsburg 229-5108
Wash Rush S Drake Assoc Inc, 6133 Maynard Ave S
Seattle 763-2755
Can Megatronix Ltd, 1800 Avenue Rd
Toronto Ont 783-3329
For Kontron Ges M B H, Mariahilferstra, Wien 1060
Fr Tranchant Electronique SA
19 & 21 Rue Madam De Sangillon, Clinchy Seine
Ger Kontron GmbH & Co KG, Lerchenstr 8
8 Munchen-Feldmoching
GB D A Pitman Ltd, Mill Wks Jessamy Rd
Weybridge Surrey
Holl Radikor Electronics, Emmastr 13 A, Hilversum
Jap Toyo Trading CO Ltd
2 1-Come Hongoku-Cho Nihonbashi
Chuo-Ku Tokyo
Swit Kontron A G, Hardstr 235, 8031 Zurich
BC Aurora Technical Industries, 2-650 Clyde Ave
Vancouver B C 922-0135
Belg Belram S A, 83 Ave des Mimosas, Brussels
NZ W & K McLean Ltd, 103-105 Felton Mathew Ave
Auckland
Spn Hispano Electronia S A, Comandant Zonita No 8
Madrid
Fin Findip A B, Mannerheimintie 29C, Helsinki
Aust NIC Instrument Co
Essendon Airport Essendon N 3041, Victoria

UNITED TELECONTROL ELECTRONICS INC
3500 SUNSET AVE, ASBURY PARK
N J, 07712 .... 201 988-0400
H SHER, EMP 125, ENG 10, $1,000-$2,500M
Ala Astro-Tec, Holiday Office Ctr
Huntsville 881-1861
Conn J & J Assoc, Inc, 953 Dixwell Ave
Hamden 624-7800
Fla Astro-Tec, 1980 N Atlantic Ave
Cocoa Beach 783-6581
Mass J & J Assoc, Inc, 225 Crescent St
Waltham 899-0160
Minn Engineering Prod Assoc, 2119 Grand Ave
St Paul 698-5531
NY Harvey J Krasner Assoc, Inc, 33 Great Neck Rd
Great Neck 489-0690
Pa Stein Instrumentation Corp, 413 Johnson St
Jenkintown 885-2370
Tex Engineers Intl Co, Box 35601, Dallas 352-2666

UNITED TRANSFORMER CO DIV TRW INC, 150 VARICK ST
NEW YORK, N Y, 10013, TWX 710-581-2722 .... 212 AL 5-3500
J BARRECA
ADV PG 31, 157, 289, 301, 307, 559, 718, 727, 733, 740
Ariz Carter Assoc, 201 W 1st St
Scottsdale 602 947-4355
Cal Ellard E Strassner, 3121 Los Feliz Blvd
Los Angeles 213 666 1511
Cal Recht Assoc, 175 S San Antonio Rd
Los Altos 415 941-0336
Cal West Aironics Assoc, 1800 N Highland Ave
Hollywood 213 466-6201
Conn Gerber Sales Co, 31 Broadway
New Haven 203 777-6279
Fla Millar-Hutto Assoc, 210 Park Ave
Winter Park 305 647-7407
Ga Millar-Hutto Assoc, 3110 Maple Dr NE
Atlanta 404 261-6160
Ill Al Quackenbush, 535 N Michigan Ave
Chicago 312 321-1503
Ill Whitmore Assoc, 535 N Michigan Ave
Chicago 312 321-1503
Iowa Lorenz Sales Co, 320 30th St, S E
Cedar Rapids 319 366-0774
Md L D Lowery Inc, 6200 Annapolis Rd
Hyattsville 301 773-4977
Mass Gerber Sales Co Inc, 176 Second Ave
Waltham 617 891-8040
Minn Fred B Hill Co, 6110 Excelsior Blvd
Mnpls 612 929-6727
Mo Harris-Hanson Co, 2814 S Brentwood Blvd
St Louis 314 647-4350
Mo Harris-Hanson Co, 7916 Paseo St
Kansas City 816 444-9494
NY Ben Miller, Box 72, Little Neck 212 224-4673
NY Comtronic Assoc, 1551 Franklin Ave
Mineola 516 741-8966
NY Bob Dean Inc, 714 W Clinton St
Ithaca 607 272-2187
NC Millar-Hutto Assoc, N Hills Office Mall
Raleigh 919 787-9564
Ohio Bek Assoc, 1700 Needmore Rd
Dayton 513 278-1343
Pa L D Lowery, 2801 W Chester Pike
Broomall 215 356-5300
Pa Gene S Root & Co, 809 Wainwright Dr
Pittsburgh 412 561-4125
Tex J Y Schoonmaker Co, 2995 Ladybird La
Dallas .... 214 FL 7-8481
Tex J Y Schoonmaker Co Inc, 6001 Gulf Frwy
Houston 613 926-9510
Wash Jas J Backer Co, 221 W Galer
Seattle 206 283-6470

UNITED VAN LINES INC, 1 UNITED DR, FENTON
MO, 63024, TWX 314 326-1004 .... 314 DA 6-3100
W BURRIS, JR, EMP 250

UNITED WIRE & SUPPLY CORP, 1497 ELMWOOD AVE
PROVIDENCE
R I, 02910, TWX 92-7764 401-781-3000
E BURDON, EMP 550

UNIT PROCESS ASSEMBLIES INC, 53 - 15 37TH AVE
WOODSIDE, N Y, 11377 .... 212 899-9090
S COMO, EMP 50, ENG 6

UNITRODE CORP, 580 PLEASANT ST, WATERTOWN
MASS, 02172, TWX 710 327-1296 .... 617 926-0404
D THOSTENSON, EMP 500, ENG 19, $5,000-$10,000M
ADV PG 263
Ala Compar Southern, 904 Bob Wallace Ave
Huntsville 539-8476
Ariz Compar Rocky Mountain, 84 W First St
Scottsdale 947-4336
Cal Compar San Francisco, 1817 Bayshore Hwy
Burlingame 697-6244
Cal Compar Los Angeles, 434 W Colorado Blvd
Glendale 245-1172
Cal Unitrde Corp, 15300 Ventura Blvd
Sherman Oaks 783-1301
Cal Unitrude Corp, 1499 Bayshore Hwy
Burlingame 697-9212

Colo Compar Rocky Mtn, 300 E Hampden Ave Englewood ... 781-0912
Conn Compar New England, 2357 Whitney Ave Hamden ... 288-9276
Fla Compar Florida, 7040 Lake Ellenor Dr Orlando ... 855-3964
Fla Compar Florida, 2350 NE 29th St Pompano Beach ... 943-5529
Ill Compar Midwest, 2 Talcott Rd Park Ridge ... 692-4125
Md Daniel & Co, Box 124, Lutherville ... 825-3330
Mass Compar New England, 88 Needham St Newton Highlands ... 969-7140
Mich Compar Midwest, 21250 10 1/2 Mile Rd Southfield ... 357-5369
Minn Compar Twin Cities, Box 8095 Minneapolis ... 922-7011
Mo Compar Midwest, 11734 Lackland Ind Dr St Louis ... 542-3399
NM Compar Rocky Mountain 2125 San Mateo Blvd, N E, Albuq ... 265-1020
NY Compar Albany, 419 Central Ave Albany ... 436-8536
NY Compar Albany, Box 135, Endwell ... 723-8743
NY Compar Albany, 104 Spruce Tree La Syracuse ... 471-3356
NY Compar New York, 335 Crossways Pk-Dr Woodbury ... 921-9393
NC Compar Southern, 1106 Burke St Winston-Salem ... 724-0750
Ohio Compar Ohio, Box 388, Fairborn ... 878-2631
Ohio Compar Ohio, 19500 Center Ridge Rd Rocky River ... 333-4120
Pa Daniel & Co, Box 3, Glenside ... 887-0550
Tex Compar Southwest, 8609 Northwest Plaza Blvd Dallas ... 363-1526
Tex Compar Southwest, 5757 Bellaire Blvd Houston ... 667-3420
Wash Compar Northwest, 6133 Maynard Ave S Seattle ... 763-1711
Can Kaytronics Eng, 5800 Monkland Ave Montreal ... 489-9335
Can Kaytronics Eng, 1001 Finch Ave W Downsview, Ont ... 638-5511
For Dage Corp, 757 Main St Stamford, Conn ... 324-3123
Den A Fredslund-Pedersen, Finsensvej 39 Copenhagen F ... Godthaab 0136-9050
Fr Spetelec, 12 rue Le Chatelier Paris ... Galvania 05-23
Ger Selectron GmbH, Pappenheimstr 7/V Munich ... 59-65-38
GB G E Electronics, 182/4 Campden Hill Rd London, W 8 ... PARK 0711
Holl Koning en Hartman N V, Koperwerf 30 The Hague ... 070 67-83-80
Ital Mediterranean Trad Co S R L, Via Aurora 39 Rome ... 481-976
Ital R S T, Via Fontana 18, Milan ... 709-303
Jap Seki & Co Ltd, 92-Chome Nihonbashi Chuo-Ku, Tokyo ... 860-4121
Nor NECO A/S, Tollbugatan 4, Oslo ... 42-04-92
Swed Swedish Elektrolink AB, Stora Nygatan 39 Stockholm C ... 11-45-95
Swit Rotronic AG, Kernstr 8, 8004 Zurich ... 051-232191
Belg Koning en Hartman, 53 rue Gachard Brussels ... 482-655
Isrl S T G International, Box 1276, Tel Aviv ... 51-882
Spn Tecnica Elctn SA, Fundadores 5 Madrid 2 ... 246-01-01
Fin Nores & Co Oy, Fabianinkatu 32, Helsinki ... 13360
Aust Cema (Australia), 33 Market St Adelaide S A ... 23-2099
Aust Cema (Australia), 129 Clarendon St South Melbourne, S C 5, Victoria ... 69-3221
Aust Cema, 41 The Broadway Wahroonga NSW ... 48-5626

UNITRON DIV ELECTRIC MACHY MFG CO
1624 N FIRST ST, BOX 1331, GARLAND
TEX, 75040 ... 214 276-8591
R BEUTEL, EMP 150, ENG 8
Cal Cain & Co, 15720 Ventura Blvd, Encino ... 783-4700
Cal Cain & Co, 175 S San Antonio Rd Los Altos ... 948-6533
Cal Cain & Co, 3595 Mt Acadia Blvd San Diego ... 278-1031
Fla Gra-Mar Inc, 3113 Lawton Rd, Orlando ... 841-2330
Ill Cain & Co, 1203 Ironwood Dr Mt Prospect ... 253-3578
Mass Cain & Co, 45 Essex, Melrose ... 665-8600
NJ Cain & Co, Box 261, South Amboy ... 727-1900
NY Cain & Co, 253-16 Northern Blvd Little Neck ... 428-3636
NY Cain & Co, 324 First St, Liverpool ... 437-2933
Pa Cain & Co, 1 Bala Ave Bldg Bala-Cynwyd ... 664-3797
Va Unitron Div, 4129 Lee's Corner Rd Chantilly ... 528-2818

UNIVAC DIV, SPERRY RAND CORP, BOX 8100
PHILADELPHIA, PA, 19101 ... 215 MI 6-9000
J STURDEVANT, EMP 27,500, ENG 6900
Ariz Univac Div, 3443 N Central Ave Phoenix ... 264-9055
Cal Univac Div, 2601 Wilshire Blvd Los Angeles ... DU 1-7841
Cal Univac Div, U S Natl Bank, San Diego ... 234-0242
Cal Univac Div, 41 First St, San Francisco ... DO 2-8600
Cal Univac Div, 6151 W Century Blvd Los Angeles ... 776-5110
Colo Univac Div, 620 W Colfax Ave, Denver ... 222-1811
Conn Univac Div, 1862 E Main St, Bridgeport ... 367-7731
Conn Univac Div, 210 Washington St Hartford ... 278-1640
DC Univac Div, 2121 Wisconsin Ave NW Washington ... 338-8510
Fla Univac Div, 7300 Biscayne Blvd Miami ... 758-4761
Ga Univac Div, 3379 Peachtree RD, N E Atlanta ... 261-8833
Ill Univac Div, 444 N Michigan Ave Chicago ... 527-3000
Ind Univac Div, 4173 Millersville Rd Indianapolis ... LI 5-4261
Iowa Univac Div, 2413 Grand Ave Des Moines ... 283-2277
Ky Univac Div, 1706 Bardstown Rd Louisville ... 451-7755
La Univac Div, 1323 Gravier St New Orleans ... 951-5102
Md Univac Div, Charles St & The Beltway Baltimore ... 825-8410
Mass Univac Div, 631 Commonwealth Ave Boston ... 267-8000
Mich Univac Div, 2978 W Grand Blvd Detroit ... 874-3000
Minn Univac Div, 3300 University Ave SE Mnpls ... 335-6521
Mo Univac Div, 1901 Baltimore Ave Kansas City ... HA 1-6710
Mo Univac Div, 4100 Lindell Blvd St Louis ... JE 1-5810
NY Univac Div, 1500 Central Ave, Albany ... UN 9-0231
NY Univac Div, 334 Delaware Ave Buffalo ... TL 4-4000
NC Univac Div, 910 S Tryon St, Charlotte ... 376-2794
Ohio Univac Div, 2250 Gilbert Ave Cincinnati ... 751-5130
Ohio Univac Div 3645 Warrensville Ctr Rd (Shaker Heights) Cleveland ... 752-7000
Okla Univac Div, 1201 S Boulder Ave Tulsa ... LU 7-3377
Ore Univac Div, 3312 SW Kelly St Portland ... 226-7801
Pa Univac Div, 301 E City Line Ave Bala Cynwyd ... MO 7-0750
Pa Univac Div, 900 Market St, Harrisburg ... 238-9524
Pa Univac Div, 1624 Locust St, Phila ... 546-5300
Pa Univac Div, 312 Stanwix St, Pittsburgh ... 391-2000
Tenn Univac Div, 2277 Union Ave, Memphis ... 278-0700
Tenn Univac Div, 110 21st Ave S, Nashville ... 242-2521
Tex Univac Div, 291 Braniff Mall, Dallas ... FL 7-4511
Tex Univac Div, 3311 Richmond Ave Houston ... 528-2881
Utah Univac Div, 164 S 2nd E St Salt Lake City ... 328-4778
Va Univac Div, 5903 W Broad St Richmond ... 288-4003
Wash Univac Div, 2720 Third Ave, Seattle ... 682-4153
Wis Univac Div, 6132 W Fond du Lac Ave Milwaukee ... HO 2-1410

UNIVERSAL AUDIO, 11922 VALERIO ST
NORTH HOLLYWOOD, CAL, 90065 ... 213 764-1500
D MORRIS, EMP 25, ENG 5, $250-$500M
Cal Gillingham Assoc, 19501 Aragon Circle Huntington Beach ... 646-4871
Cal The CoMark Co, Box 2086 Santa Rosa ... 707 544-1044
Conn J Anthony, 1098 Post Rd, Darien ... 203 655-8811
DC Charles C Faulkner, 1125 Okie St NE Washington ... 832-8538
Ga Grady Duckett Sales, Box 29067 Atlanta ... 237-5331
Ill J D Boswell & Assoc, 700 N 20th St E St Louis ... GE 6-2042
La Scott Ormsby Sales, 7121 Catina St New Orleans ... 488-2414
NY Gotham Ausio Dev Corp, 2 W 46 St, New York
Tex E L Wilks Co, Box 34466, Dallas ... 242-5321
Can J B Smyth Elctn Components Ltd 165 Industrial Park Rd, Lonqueuil, Que

UNIVERSAL CIRCUITS INC, 13305 INDUS PK BLVD
MINNEAPOLIS, MINN, 55427 ... 612 544-8432
D BLACK, EMP 70, ENG 3, $500-$1,000M
Cal Aerospace Sales Corp, 6214 W Manchester Ave Los Angeles ... 670-5656
Conn Sales Engineering Co, Tauton Hill Rd Newtown ... 426-4434
Ill Ray Klipp Assoc, Box 226, Grayslake ... 223-4837
Mass Sales Engineering Co, Baker Ave West Concord ... 369-3943
Mo L L Petefish, 9322 Manchester Rd St Louis ... 968-0300
Ohio Clifford Electronics, Box 81, Toledo ... 244-2222

UNIVERSAL COMPTRONICS DIV MICROWAVE CORP OF
AMER, CLAIRMONT AVE, THORNWOOD
N Y, 10594 ... 914 RO 9-7500
S COHEN, EMP 50, ENG 9, $1,000-$2,500M

UNIVERSAL-CYCLOPS SPECIALTY STEEL DIV CYCLOPS
CORP, 650 WASHINGTON RD, PITTSBURGH
PA, 15228, TWX 510-697-0718 ... 412 561-6300
J STEWART
Cal Univ Cyclops, 6055 E Washington Blvd Los Angeles ... 685-7665
Conn Univ Cyclops, 75 Pearl St, Hartford ... 249-8613
Ga Univ Cyclops, 1720 Peachtree St Atlanta ... 875-7874
Ill Univ Cyclops, 2000 N 15th Ave Melrose Park ... 681-1140
Ind Univ Cyclops, 3901 Meadows Dr Indpls ... 547-5208
Mass Univ Cyclops, 15 Sagamore Rd Worcester ... 756-3563
Mich Univ Cyclops, 24800 Plymouth Rd Detroit ... 534-1300
Mo Univ Cyclops, 222 S Meramec Ave St Louis ... 725-9077
NJ Univ Cyclops, 40 Stern Ave, Springfield ... 682-9700
NY Univ Cyclops, 1039 Niagara St, Buffalo ... 886-2275
Ohio Univ Cyclops, 5708 Schaaf Rd Cleveland ... 524-4444
Ohio Univ Cyclops, 5335 Far Hills Ave Dayton ... 434-7200
Pa Univ Cyclops, Box 179, Haverford ... 649-2500
Pa Univ Cyclops, 1725 Washington Rd Pittsburgh ... 563-5550
Wis Univ Cyclops, 7217 W North Ave Milwaukee ... 771-3140

UNIVERSAL DRAFTING MACHINE CORP
5200 RICHMOND RD, BEDFORD HEIGHTS
OHIO, 44146 ... 216 292-7550
C WSWANSON, EMP 100, ENG 7, $1,000-$2,500M
Can Robert Morse Corp Ltd, 270 Evans Ave, Toronto
Ger UDM Eberhard M Gorisch, 505 Porz-Zundorf Sieberger Str 10
GB Compographics Intl Ltd, Croft Rd, Aldershot Hants
Jap Nissho Co Ltd, 30, Imabashi 3-Chome, Higashi-Ku Osaka

UNIVERSAL ELECTRIC CO, 300 E MAIN ST, OWOSSO
MICH, 48867, TWX 510-444-1170 ... 517 725-7174
A KERSCHER, OVER $10,000M
Cal Ivan J Ryerson, 211 11th St Santa Monica ... 393-4500
Colo Ward Electric Co, 1909 Blake St Denver ... 222-3541
Conn UE Eastern Assoc, 787 Farmington Ave West Hartford ... 233-9611
Ill A E Mack & Co, Box 38, Elsah ... 466-0651
Ill Fromm Co, 2136 N Harlem Ave Elmwood Park ... 453-3660
Ind John McNichols, 453 N Emerson Ave Indpls ... 356-2149
Ohio Universal Elec Sales Co, 1365 King Ave Columbus ... 486-6020
Tex Carl Yarborough Co, 3014 Sandage Ave Fort Worth ... 923-5769
Wash Gardner Distributing Co, 1827 Broadway Seattle ... 323-1164

UNIVERSAL ELECTRONICS CO, 1720 22ND ST
SANTA MONICA, CAL, 90404 ... 213-393-9219
D WHITE, EMP 25, ENG 3, $250-$500M
Ala L G White Southern Inc, 3305 Patton Rd Huntsville ... 205 539-9601
Cal Universal ELCTNS Co, 1720 22nd St Santa Monica ... 213 393-9219
Fla L G White Southern, Inc, Box 13542 Orlando ... 305 855-4871
Md L G White & Co, 830 Bonifant St Silver Spring ... 301 585-3141
Minn Heimann Co, 5603 Lyndale Ave S Mnpls ... 827-5457
Mo Harris Hanson Co, 2814 S Brentwood Blvd St Louis ... 314 647-4350
NC L G White Southern Inc, Box 2356 Winston-Salem ... 919 725-3612
Pa L G White & Co, 100 N Essex Ave Narberth ... 215 664-6505
Utah Applied Engrg Prods Co, 6375 Emigration Canyon Salt Lake City ... 801 364-4942
Wash Larrabee & Assoc, 2117 Second Ave Seattle ... MU 2-2358
Can Technitron Assoc Ltd, 8 Glanlynn Rd Pointe Claire, Que
Can Technitron Assoc Ltd, 769 Lajoie Ave Dorval Que ... 514 631-6859
Fr Seurelec, 39-41 Rue de L'Est Boulogne-Billancourt Seine

UNIVERSAL INSTRUMENTS CORP
139 E FREDERICK ST, BINGHAMTON
N Y, 13901, TWX 510 252-1990 ... 607 772-1710
J ROTH, EMP 325, ENG 30, $5,000-$10,000M
Cal Universal Inst Corp, 4540 Campus Dr Newport Beach ... 549-1388
Fla Duncan MacGregor, Box 1711 Clearwater ... 446-7310
Ga George MacGregor, 3473 Northlake Way Doraville ... 404 938-0681
Ill Solid State Electronics Inc, 1921 N Harlem Ave Chicago ... 889-8033
Md E Man, Jr, 11161 New Hampshire Ave Silver Spring ... 301 593-5990
NH G Mayo, 5 Hayward St Manchester ... 603 669-6500
NC Douglas MacGregor, 2501 Starbrook Dr Charlotte ... 366-9440
Ohio H E Hofferberth Machy Co, 3127 Encrete La Dayton ... 513 299-7236
Pa Don G Leslie, Box 326, Wayne ... MU 8-3311
Tex Sivright Co, 10028 Maple Ave Dallas ... 214 FL 7-6681
Can Willer Engrg & Sales Co, 1800 Avenue Rd Toronto, Ont ... 783-3373
For B Freudenberg Inc, 50 Rockefeller Plaza New York, NY ... PL 7-9130

UNIVERSAL MFG CO INC, 1168 E B GROVE ST
IRVINGTON, N J, 07111 ... 201 374-9800
A VICARI, EMP 80, ENG 5
Cal Universal Mfg Co Inc, Box 2041 Whittier ... 213 693-9800
Den Trafomo Elektroteknisk A/S, Rosenvaengets Alle 25 Kobenhavn-O

Fr Bureau Micafil a Paris, 18 rue Volney, Paris
Ger Obering, Tech Buro der Micafil, Kirchstra, Essen
GB Impag Ltd, 10 Lloyds Ave, London
Ital Eich Maumary & C, Soc p a z 8, Via Andrea Doria
Milano
Nor Haanes Import Co, Skippergaten, Oslo
SAfr E Roth & Co, Main & Von Wielligh Sts
Johannesburg
Swed Bergman & Beving AB, Karlavagen 76, Fack
Stockholm
Swit Micafil Ltd, Box 48, Zurich
Arg CUSA SA Alsina 701, Buenos Aires,
Braz Commercio Ultramarino, Av Almirante, Barroso 91
Rio De Janeiro
Mex Carlos Brena, SA, Box 29320, Rep Salvador 30
Aust Brown Boveri Pty, 567 Pacific Hwy
Crows Nest, NSW

UNIVERSAL PRECISION, INC
LEWIS ST & NEBRASKA AVE, ENDICOTT
N Y, 13760 607 748-7403
N TURNER, SLS MGR, EMP 550-600, ENG 6
$5,000-$10,000M

UNIVERSAL RELAY CORP, 42 WHITE ST, NEW YORK
N Y, 10013 212 WA 5-6900
S SOLOWAY, EMP 30, ENG 3, $500-$1,000M
ADV PG 588

UNIVERSAL SHELLAC & SUPPLY CO INC
540 IRVING AVE, BROOKLYN
N Y, 11227 212 HY 71772
T KLOS, EMP 40, $1,000-$2,500M
Ga Fran Calwell, 3141 Buford Hwy, Atlanta
Mass A W Sugalski Jr, 65 E Silver St
Westfield 568-8179
NJ Theodore T Klos, Maiden La, Spotswood
NJ Nelson Fullum, 644 C Beverly Rd
Teaneck 836-2520
Pa Louis Farace, 136 Ardmore Ave, Upper Darby

UNIVERSAL TOROID COIL WINDING INC
1190 GROVE ST, IRVINGTON
NJ, 07111 201 374-2030
U RACHNER, EMP 20, ENG 2, $100-$250M

UNIVERSAL TRANSISTOR PRODUCTS DIV LINK
380 OAK ST, COPIAGUE, N Y, 11726 516 MY 18055
H OSWAKS, EMP 20, ENG 4

UNIVERSAL VOLTRONICS CORP, RADIO CIRCLE, MOUNT KISCO
N Y, 10549 914 WH 93888
B RESSLER, EMP 50, ENG 5
ADV PG 504, 505
Ala Reynolds & Assoc, 904 Bob Wallace Ave
Huntsville 536-1941
Cal Chas W Fowler Co, 9911 Inglewood Ave
Inglewood 678-5211
Cal Chas W Fowler Co, 845 Oak Grove Ave
Menlo Park 322-5374
Colo Hilleary Assoc, 2552 Ridge Rd
Littleton 794-4279
Fla Reynolds & Assoc, 161 SW 75th Ave
Fort Lauderdale 581-6611
Ill Kenneth W Meyers Co, 7256 W Touhy Ave
Chicago SP 4-6440
Mass Waitt Electronic Assoc, 17 Boyd St
Newton 923-9799
Mich WKM Assoc, 1474 E Outer Dr, Detroit 392-2500
Minn RJ Sales & Eng, Box 6172
Minneapolis 922-1425
NJ Graydon-Sherman, 230 Madison Ave
Morristown 538-9246
NM Hilleary Assoc, 311 Washington SE
Albuquerque 265-7631
NY KLM Assoc, 8 Bear Hill Dr, Palmyra 597-9776
NY KLM Assoc, 9 Hollywood Dr
Whitesboro 736-2450
NY KLM Assoc, 201 S Main St
No Syracuse 458-6214
Ohio WKM Assoc, 6741 Ridge Rd, Cleveland 885-5616
Pa WKM Assoc, 90 Clairton, Pittsburgh 892-2953
Tex Scientific Sales Co, 3503 Lemmon Ave
Dallas LA 8-0553
Tex Scientific Sales Co, 2337 Bissourret, Houston
Va Jay Co, 2914 Annandale Rd
Falls Church 534-7800
Wash C W Fowler Co, 845 106th Ave NE
Bellevue 454-8600
Can Datacomp, 1477 Eglington Ave W
Toronto, 10, Ont 789-5732
For EMEC Inc, 160 Terminal Dr
Plainview, N Y 931-3700

UNIVERSAL X-RAY PRODUCTS CO
1140 N WESTERN AVE, CHICAGO
ILL, 60622 312 276-4488
M MOSS, EMP 50, ENG 3, $1,000-$2,500M

UNIVERSITY LABS INC, 733 ALLSTON WAY, BERKELEY
CAL, 94710 415-848-0491
H BERGER, EMP 40, ENG 8, $1,000-$2,500M
Cal Johnson Assoc, 260 Sheridan Ave
Palo Alto 415 327-1700
Cal Johnson Assoc, 5455 Wilshire Blvd
Los ANGELES 213 934-0700
Conn Measurement Equip Co, Box 8192
East Hartford 203 289-7285
DC Scientific Sys Sales Corp, 7705 Georgia Ave NW
Washington 202 726-4161
Mass Measurement Equip Co, 591 North Ave
Wakefield 617 245 4870
NY Scientific Sys Sales Corp, 376 Great Neck Rd
Great Neck
Pa Scientific-Pittsburgh, 1016 Dallett Rd
Pittsburgh 412 882-1185
Fr La Cryotechnique, 18-22 Rue d'Arras Porte B-6
92 Nanterre
Ind Electronic Enterprises
46 Karani Bldg New Charni Rd, Bombay 4

UNIVERSITY SOUND DIV LTV LING ALTEC INC
9500 W RENO AVE, OKLAHOMA CITY
OKLA, 73126 405 SU 9-1220
S NEUFELD, EMP 300, ENG 15, $5,000-$10,000M
Cal Marshank Sales Co, 7422 Melrose Ave
Los Angeles 213 WE 8-2591
Cal Straube Assoc, 483 Willow Rd
Menlo Park 415 323-2476
Cal Norm Koetke, 2110 K St
Sacramento 916 443-5392
Colo Straube Assoc, Box 1649, Boulder 303 443-8600
Conn George Smith, 188 Brewster Rd
W Hartford 203 523 0512
Fla Hollingsworth & Still Inc, 1010 Executive Center Dr
Orlando 305 841-1623
Ga Hollingsworth & Still, 3098 Piedmont Rd N E
Atlanta 404 261-5838
Haw Dougherty Enterprises, 1164 Waimanu St
Honolulu 808 510 281-50498-7
Ill George Petitt Co, Inc, 349 N Ashland Ave
River Forest 312 CO 10342
Ind Frank J McSweeney & Assoc
4123 N Keystone Ave
Indianapolis 317 547-2112
Iowa Heimann Co, Inc, 236 Seventh Ave N
Ft Dodge 515 576-2374
Kan Forristal-Young Sales Co, 5500 Buena Vista
Mission 913 432-1420
Md A B & T Sales Co, Box 4, Olney 301 924-4976
Mass Robert Smith Co, 59 Verndale St
Brookline 617 277-0017
Mich ABM Sales Inc, 10116 Puritan
Detroit 313 UN 2-1300
Minn Heimann Co, Inc, 5603 Lyndale Ave S
Minneapolis 612 827-5457
Mo Kay Sales Inc, 2600 Grand, Kansas City
Mo Forristal Young Sales Co, 7110 Oakland Ave
St Louis 314 645-2360
NY Waxman-Currant Sales, Inc, 990 Kenmore Ave
Buffalo 716 TR 30442
NY Metropolitan Sales Co, 110 Jericho Tpk
Floral Park 516 328-0120
NC Hollingsworth & Still, 6717 Woodstock Rd
Charlotte 704 523-3327
Ohio Les A Morrow Co, 5100 W 164th St
Cleveland 216 267-2282
Okla Pres Clancey & Assoc, 4840 N W 62nd Terr
Okla City 405 PA 1-2395
Ore Earl & Brown Co Inc, 2041 Southwest 58
Portland 503 292-9145
Pa Martin Weinberg Assoc, 1122 E Cliveden St
Phila 215 LI 9-1122
Pa F P Yarussi, 312 Rockfield Rd
Pittsburgh 412 CA 1-4676
Tex Clancey & Assoc, Canton Rd
Edinburg 512 DU 3-1455
Tex Clancey & Assoc, 1425 Hurstview Dr, Hurst
Tex Pres Clancey & Assoc, 3883 Turtle Creek Blvd
Dallas 214 LA 6-9722
Wash Earl & Brown CO Inc, 422 First Ave W
Seattle 206 284-1121
Wis George Petitt, 928 E Wisconsin Ave
Pewankee 414 691-1142
Can Chas L Thompson, Ltd, 1440 Erin St, Winnipeg, Man
Can J R Tilton Ltd, 51 McCormick St
Toronto Ont 416 762-7571
For Roburn Agencies, 431 Greenwich St, New York
BC C L Thompson Ltd, 3115 Lonsdale Ave
North Vancouver BC 604 987 9388

UNIVOX CORP, 321 E 45TH ST, NEW YORK
N Y, 10017 212 867-6188
G WORKMAN, EMP 25, ENG 4
Cal Univox Corp, 4301 W Jefferson Blvd
Los Angeles 213 734-4163

UOP INSTRUMENTS DIV, BOX 2001, GREENWICH
CONN, 06830 203 531-8400
V DARNELL, EMP 120, ENG 10, $2,500-$5,000M
Ariz Hyde Electronics Co, Inc, 4710 N 16th St
Phoenix 602 264 5609
Cal Ed Landa Co, 2288 Westwood Blvd
Los Angeles 213 879-0770
Cal Ed Landa Co, Box 639, Los Altos 415 948-0788
Colo Hyde Electronics Co Inc, 888 S Lipan St
Denver 303 936-3456
Ga Black Engrg Sales Co, Box 28737
Atlanta 404 252-2523
Md W A Laukaitis Assoc, 618 Ellsworth Dr
Silver Spring 301 338-2277
Mich Villani-Pitcher Inc, 20233 Ann Arbor Trail
Dearborn 313 271-4600
Mo F R Krabbe & Assoc, Box 776
Bridgeton 314 739-6817
NJ A & C Assoc, Box 585
Willingboro 609 877-5616
NY R W Jackson Co Inc, 4446 Main St
Buffalo 716 839-0200
Ohio Jay Engrg Co, 1721 E 3rd Ave
Dayton 513 253-2151
Ohio Jay Engrg Co, 4712 W 130 St
Cleveland 216 252-0486
Pa A & C Assoc, 1400 Mill Creek Rd
Gladwyne 215 642-9222
Tex Blair Engrg Sales Co 10034 Monroe St
Dallas 214 352-2556
Wash Norwest Co, Inc, 1818 Westlake N
Seattle 206 282-8047
Can T C Chown Ltd, 164 Metcalf Ave
Montreal 514 937-2881
Can T C Chown Ltd, 2970 Lakeshore Blvd W
Toronto 416 255-9148

UOP NORPLEX DIV, 1300 NORPLEX DR, LACROSSE
WIS, 54601, TWX 910-287-2574 608 784-6070
A PALMER, EMP 410, ENG 6
Ariz Hamilton Reps, 9800 N Oracle Rd
Tucson 602 297-2279
Cal Ralph Little & Assoc, 2894 W Valley Blvd
Alhambra 213 283-0001
Conn R S Pettigrew & Co, 10 N Main St
W Hartford AD 3-8533
Fla Belmar Sales & Engrg, Box 12729
St Petersburg 345-0105
Ill Norplex Sales Co, 6120 W North Ave
Chicago 622-6212
Ill J Boughner, 1019 S Edson Ave, Lombard
Ind P Myers, 4000 Meadows Dr
Indianapolis 546-4967
Kan L H Killion, Box 608, Derby 788-1726
Mass R S Pettigrew Co, 950 Watertown St
W Newton 969-5770
Mich Harvey Hohlfeldt, Eastland Ctr Prof Bldg
Detroit 839-4592
Minn Wayne Gilbertson, 7710 Computer Ave
Minneapolis 927-8181
Mo Phelan-Tramelli Sales Agency, 8011 Clayton Rd
St Louis 727-3400
NY J N Powderly, Box 227, E Rochester 381-2540
NY Midlantic Plastics Sales Co 520 5th Ave
New York 867-3188
NY Warelin Inc, Box 282 Eastwood Sta, Syracuse
Ohio R A Paisley Co, Box 2895, Cleveland 333-0569
Ohio Wms McClellan Assoc, 2801 Far Hills Ave
Dayton 299-5161
Pa Midlantic Plastics Sales Co, 9 E Athens Ave
Ardmore 649-2436
Tex Titan Reps, Inc, 6434 Maple Bldg
Dallas 357-6121
Wash Electronic Sales Corp, Box 6535
Seattle 932-0330
Wis Dick Jensen Sales, 7041 W Greenfield Ave
West Allis 771-8850
Can Andrew Gilchrist Ltd, 5645 Pare St
Montreal Que 514 735-3603
Can Andrew Gilchrist Ltd, 124 Skyway Ave
Rexdale Ont 416 677-1191
Fr Olibol, 19 Rue de LaMichodiere, Paris
Swit O E Boll, Seefeldstr 45, Zurich

UPPCO INC, 900 S DESPLAINES ST CHICAGO
ILL, 60607 312 HA 74805
R SWIN, EMP 250, ENG 5, $2,500-$5,000M
Ill Arvid Kohler, Box 21, Moline 764-0819
Ind Ritter Inc, 2537 Riverside Dr, Columbus 372-1534
Mich Paul Miller, Box 36, Grosse Ile 386-0900
Minn Paul Omelianchuk, 12401 Minnetonka
Hopkins WA 6-7434
Mo Morris Unterberger, 5568 Pershing Ave
St Louis VO 3-3136
NY B H Tollefson Assoc Inc, 11 State St
Pittsford 381-2500
Ohio Paul L Kennedy, 6914 Miami Ave
Cincinnati BR 1-4039
Ohio Jubell & Assoc, 12760 Miles Rd
Cleveland 662-2884
Wis F DuBois, 2364 N 117th St, Milwaukee 774-3100

UP-RIGHT SCAFFOLDS, DIV UP-RIGHT INC
1013 PARDEE ST, BERKELEY
CAL, 94710, TWX 910 366-7347 415 843-0770
R ESKEN, EMP 93, ENG 9
Cal Up-Right Scaffolds, 4656 Collis Ave
Los Angeles 255-5282
Colo Up-Right Scaffolds, 1515 Cleveland Pl
Denver 222-2017
DC Up Right Scaffolds, 422 Washington Bldg
Wash 393-7165
Ga Up-Right Scaffolds, 701 Bank of Ga Bldg
Atlanta 523-2263
Ill Up-Right Scaffolds, 6677 Northwest Hwy
Chicago 631-3380
La Up-Right Scaffolds, 423 Carondelet St
New Orleans 523-7965
Mass Up-Right Scaffolds, 99 Highland Ave
Somerville 666-2880
Mich Up-Right Scaffolds, 424 Book Bldg
Detroit 961-3100
Minn Up-Right Scaffolds, 324 S 4th St
Minneapolis 336-1898
Mo Up-Right Scaffolds, 1016 Baltimore Bldg
Kansas City 221-5485
Mo Up-Right Scaffolds, 705 Olive St
St Louis 241-4350
NJ Up-Right Scaffolds, 100 Huyler St
Teterboro 487-6464
Ohio Up-Right Scaffolds, 1030 Terminal Tower
Cleveland 241-7109
Ohio Up-Right Scaffolds, 720 Main St
Cincinnati 621-3758
Pa Up-Right Scaffolds, 1400 Chestnut St
Phila 564-0943
Pa Up-Right Scaffolds, 530 6th Ave
Pittsburgh 261-4696
Tenn Up-Right Scaffolds, 420 Dermon Bldg
Memphis 525-3136
Tex Up-Right Scaffolds, 616 Jefferson Tower Bldg
Dallas 946-2373

Wash Up-Right Scaffolds, 101 Jones Bldg
Seattle ... 682-0855
Can Up-Right Scaffolds Ltd, 1255 University Ave
Montreal ... 861-3937
Can Up-Right Scaffolds Ltd, 120 Russett Ave
Oshawa, Ont ... 728-5194
For Up-Right Ireland, Ltd
For Up-Right Ireland, Ltd, Indus Estate, Pottery
Rd, Kill O' The Grange, Dun Laughaire
Dublin ... 806977/8
Ger Vectur, GmbH, Meisengasse 12, An Der Borse
6 Frankfurt/Main ... 29-32-77
GB John Rusling, Ltd, Wallace Way, Hitchin ... 50666
Ital Ponteggi Instant, SRL, Via Durini 17
Milano ... 79-91-51
Swed Vectur Aluminumstallningar AB, Vretenvagen 6
Solna ... (08) 843179
Swit Vectur, S A, Gottfried Keller Stra, 7
Zurich ... 479567
Swit Vectur, S A, Rue Caroline Z
1000 Lausanne ... (021) 23 78 34
BC Up-Right Scaffolds Ltd, 1396 Richards St
Vancouver ... 681-0610
Belg Vectur, S A, 59, Rue Du Price Royal, Brussels

UPSON TOOLS INC, BOX 4750, ROCHESTER
N Y, 14612 ... 716 663-5373
H VELEPEC, EMP 25, ENG 1, $250-$500M
Ariz G C Ratcliff, 1738 E Orange Dr
Phoenix ... 602 266-8238
Cal Donald E Savard Co, 126 E Valley Blvd
Alhambra ... 213 283-0504
Fla W Ihlefeld & Assoc, 1201 San Marco Blvd
Jacksonville ... 305 FL 9-5282
Ill Anderson Sales Co, 23 W Calendar Ave
LaGrange ... 312 FL 2-1514
Mass E T Harsh Co, 15 Farm Hills La
Hingham ... 617 749-3555
Minn Siemers, Godden, Olson, 324 N 1st St
Minneapolis ... 612 FE 2-7793
Mo Chas H Koslowsky Co, 406 W 34th St
Kansas City ... 816 WE 1-8088
NY Export Agencies Corp, 50 Broadway
New York, N Y ... 212 WH 4-1141
Ohio Hipkiss & Hulbert, 143 Gougler Ave
Kent ... 216 673-4416
Pa G W K Voigt Co, 333 W State St
Media ... 215 LO 6-9021
Pa D R Weber, 2415 Swede St
Norristown ... 215 BR 5-4049
Tex Lynn & Hemphill, 2116 N Pearl St
Dallas ... 214 RI 7-4745
Utah K L Shepherd Co, 2830 Canyon View Dr
Salt Lake City ... 801 HU 4-5408
Wash Don Raymond Co, 2244 First Ave
Seattle ... 206 MU 2-0480
Can S S Lerner Agencies, 137 Wellington St W
Toronto ... 416 366-9565
Can Lyman Agencies Ltd, 3765 E 1st Ave
Burnaby, BC ... 604 299-7747

UPTIME CORP, 8455 E PRENTICE AVE, ENGLEWOOD
COLO, 80110 ... 303 771-1230
D STRAWN, EMP 165, ENG 30, $2,500-$5,000M
Cal Data Products Corp, 8535 Warner Dr
Culver City ... 213 837-4491
Cal Data Products Corp, 3712 Rosemar Ave
San Jose ... 408 258-9026
Md Data Products Corp, 4720 Montgomery La
Bethesda ... 301 652-8120
Mass Data Products Corp, 4 Broadview St
Acton ... 617 263-2220
Minn DataProducts Corp, 1015 S 6th St
Minneapolis ... 612 338-4717
NJ Data Products Corp, 9 Palfrey La
Willingboro ... 609 877-8965
Tex J MacKenzie, 1450 Preston Forest Sq
Dallas ... 214 AD 9-9641
Neth Data Products Intl, Atom Bldg Schiphol Oost
Amsterdam ... 020 156297 & 719889

URIEL CORP, 53 UNION AVE, RONKONKOMA
NY, 11779 ... 516 JU 8-6010
M KASINDORF, EMP 25, ENG 2

USECO DIV, LITTON INDUSTRIES, 13536 SATICOY ST
VAN NUYS
CAL, 91409, TWX 910 495-1700 ... 213 786-9381
G BOTTOMS, EMP 150
Ariz Shefler-Kahn Co, 2017 N 7th St
Phoenix ... 602 258-7893
Cal Litton Industries, 1001 W Maude Ave
Sunnyvale ... 738-2222
Cal Litton Industries, 13536 Saticoy St
Van Nuys ... 213 786-9381
Fla Litton Industries, Box 979, Orlando ... 425-6414
Ill Litton Industries, 5151 N Harlem Ave
Chicago ... 775-6697
Mass Litton Industries, 395 Totten Pond Rd
Waltham ... 617 899-2207
Mich Litton Industries, 1287 S Woodward
Birmingham ... 646-5321
Minn Litton Industries, 2003 E Hennepin Ave
Minneapolis ... 612 331-4282
NJ Litton Industries, 616 Palisades Ave
Englewood Cliffs ... 567-6800
Ohio Litton Industries, 5899 Huberville
Dayton ... 252-1441
Tex Litton Industries, 310 Stemmons Tower S
Dallas ... 631-5004
Wash Almac/Stroum Electronics, 5811 6th Ave S
Seattle ... 206 763-2300
Can Lake Engineering Co, 123 Manville Rd
Scarborough ... 416 751-5980
Fr Litton Precision Prod Intl Inc, Paris 8 ... 225-54-72
Ger Litton Precision Prod Intl
Zweigniederlassung Stolzingstr 6
8 Munchen 61 ... 48 93 95/96
GB Litton Prec Prod, Intl, 503 Uxbridge Rd
Hayes, Mdsx ... HAYes 82 32
Holl Litton Prec Prod, Intl, Rembrandtsingel 7
Capelle a/d YSSEL ... 0 10-20 49 77
Ital Litton Prec Prod Intl, Foro Bonaparte, 54
Milano ... 89 33 62
Jap Westrex Co, 2-Chome, Marunouchi
Chiyoda-ku, Tokyo ... (211) 47 26
Swed Litton Prec Prod Intl, Grev Turegatan 2 P O
Stockholm 7 ... 11 43 90/11 97 90
Swit Litton Prec Prod Intl, Gubelstr 28, 8050 Zurich
Belg Litton Prec Prod, Intl, 16, Rue du Musee
Brussels 1 ... 125552

USM FASTENER CO DIV UNITED SHOE MACHY CORP
510 RIVER RD, SHELTON
CONN, 06484 ... 203 735-3391
T FREEMAN, EMP 300, ENG 3, $2,500-$5,000M
Cal United Shoe Machy Corp, 5983 Smithway St
Los Angeles ... 213 723-0731
Ill United Shoe Machy Corp, 5300 McDermott Dr
Berkeley ... 312 449-8080
Mass United Shoe Machy, 140 Federal St
Boston ... LI 2-9100
NJ United Shoe Machy Corp, 67 Sanford St
E Orange ... OR 4-1060
Ohio United Shoe Machy Corp, 20545 Center Ridge Rd
Cleveland ... 333-3334
Tex United Shoe Machy Corp, 9102 Garland Rd
Dallas ... DA 1-6466

UTAH ELECTRONICS DIV, UTAH-AMERICAN CORP
1124 E FRANKLIN ST, HUNTINGTON
IND, 46750 ... 219 356-5800
F PYLE JR, EMP 200, ENG 6
Cal Bassett & Moore, 12045 Magnolia Blvd.
N Hollywood ... 877-7129
Cal L H Harriss Co, 204 E Hillsdale Blvd
San Mateo ... 341-2909
Colo Norris & Co, 915 Cheyenne Blvd
Colorado Springs ... 635-9319
Haw Bill Kolans Co, Box 2098, Honolulu ... 811-628
Ill W J Doyle Co, 7426 N Western Ave
Chicago ... 274-6685
Ind B F Homsher Co, 418 E Berry St
Fort Wayne ... 219 432-1164
Kan Mullenax Gowler Menezes Inc, 9500 Mission Rd
Overland Park ... 913 MI 9-8050
La Scott Ormsby Sales, 7121 Catina St
New Orleans ... 504 282-2097
Mass Larry Cole, Inc, 318 Weston Rd
Wellesley ... 237-1260
Mich R A Albrecht, 221 Lonesome Oak Dr
Detroit ... 651-7081
Minn Clark R Gibb Co, 1311 W 25th St, Minneapolis
NJ Steve Fisher Sales Corp, 161 Cedar La
Teaneck ... 201 836-6661
NY L J McTaggart Assoc, 2451 Wehrle Dr
Buffalo ... NF 4-2030
NC Adams & Assoc, Box 9085
Greensboro ... 919 272-6838
Ohio F A Daugherty, 6025 Mayfield Rd
Cleveland ... 449-1122
Ore Dale G Weber Co, Weatherly Bldg
Portland ... 234-7671
Pa E-K-P Assoc Inc, 1901 Washington Blvd
Easton ... 252-6373
Pa Cooper-Daugherty, 112 Oakwood Rd
McMurray ... WI 1-6473
Tex Spivey-Cole Co, Box 504, Denton ... 382-3913

UTAH RESEARCH & DEVELOPMENT CO INC
1820 S INDUSTRIAL RD, SALT LAKE CITY
UTAH, 84104 ... 801 486-1301
W BOYD, EMP 26, ENG 9, $250-$500M

UTICA-BONNEY TOOLS, KELSEY-HAYES CO
11 CAMERON RD, ORANGEBURG
S C, 29115 ... 803 534-7010
J JACKSON, EMP 750

UTICA ELECTRONICS INC, 2917 W IRVING PARK RD
CHICAGO, ILL, 60618 ... 312 588-8227
A EHRLICH, EMP 70, ENG 5, $1,000-$2,500M

UTILITY COMMUNICATION SYSTEMS INC, BOX 188
ESSINGTON, PA, 19029 ... 215 521-1050
J CARPENTER, JR, EMP 18, ENG 4
Ariz Central Station Equip Co, 2323 Aviation Hwy
Tucson ... 602 623-2493
Colo Engineering Research Assoc, 231 Detroit St
Denver ... 303 377-8306
Del Good Elctns, Box 114, Delmar ... 302 846-2663
NJ Buck Sales Inc, 934 Stuyvesant Ave
Union ... 201 687-1335
Pa Carpenter Engrg Enterprises, One Decker Sq
Bala Cynwyd ... 215 839-1129
Pa H R F Assoc, 508 Empire Bldg
Pittsburgh ... 412 261-1565
Utah Engineering Research Assoc, 2250 E 17th St
Salt Lake City ... 801 485-9253
Wash H D Fowler Co, 13440 SE 30th
Bellevue ... 206 746-8400
For Novae Electronics Inc, F-17 Park La, Bayamon P R
For Amerasia Electronics Inc, Box 4317
Manila Rep of the Phillipines
BC H D Fowler Co Ltd, Shelly Bldg 119 W Pender St
Vancouver

UTRAD CORP, 305 N BRIANT ST, HUNTINGTON
IND, 46750 ... 219 356-7100
R LEE, EMP 600, ENG 9, $5,000-$10,000M
Ariz Hecht-Henschen, 3825 N 39th Ave
Phoenix ... 602 272-6677
Cal Logan Sales Co, 463 Brewster Ave
Redwood City ... 415 369-6726
Colo McLoud & Raymond Co, 2151 S Grape St
Denver ... 303 756-1589
Fla Talbe Co, 4401 Roosevelt St
Hollywood ... 305 981-7225
Fla Talbe Co, 2031 Chippewa Trail
Maitland ... 305 647-8744
Ill Harry A Bertsch, 530 N Waiola Ave
La Grange Park ... 354-8272
Md Burgin Kreh Assoc, Box 9787
Towson ... 301 661-1120
Mass D Greene Organization, Box 290
Bedford ... 275-6400
Minn Clark R Gibb Co, 1311 W 25th St
Minneapolis ... 377-1200
Miss C R Herron, Jr, Box 3008, Meridian ... 482-1878
Mo R W Farris Co Inc, 1715 Baltimore
Kansas City ... 816 421-1751
Mo Dipro Inc, Box 1427, Maryland Heights ... 432-3444
NJ T B T Assoc, 19 Sylvan Ave
Englewood Cliffs ... 947-5038
NJ L Adezio Sales Co, Box 159
Moorestown ... 665-6007
NY Advanced Components Corp, 119 Luther Ave
Liverpool ... 472-7886
Ohio Frank Kahsar Sales, 5229-A Glenway Ave
Cincinnati ... 471-9011
Tex Ammon & Champion, Box 35263
Dallas ... 347-8441
Va Burgin Kreh Assoc
Tarkington Blvd, 2600 Memorial Ave
Lynchburg ... 703 845-5600
Wash N R Schultz Co, 220 Hudson St, Seattle ... 722-7800

VACAP CORP, 1905 SUMMIT AVE, UNION CITY
N J, 07087 ... 201 867-6699
L DOLINKO, EMP 20, ENG 2, $100-$250M
ADV PG 118
Cal Wallace & Wallace, 1206 Maple Ave
Los Angeles ... 747-0401
Ill E Schmeichel Co, 5968 W Chicago Ave
Chicago ... 378-2070
Minn Dayton Eng Sales Co, 2937 Texatonka Ave
Mnpls ... 935-7353
Ohio P E Montplaisir, 5021 Rockland Dr
Dayton ... 277-8939
For Minthorne Intl Co, 64-14 Woodside Ave
Woodside, NY ... 899-8888

VACCO ELECTRONICS DIV, VACCO INDUSTRIES
10355 VACCO ST, SOUTH EL MONTE
CAL, 91733 ... 213 443-7121
D PALMER, EMP 15, ENG 2, $100-$250M
Cal d, 521 6th Street, Manhattan Bch ... 374-2326
Cal d, P O Box 17194, San Diego ... 278-3630
Cal Electro Pacific, 2524 Franklin St
San Francisco ... 415 776-8582
Colo Hyde Electronics Co, Inc, 888 S Lipan St
Denver ... 936-3456
Fla Young & Lawrence Assoc, 601 N New York Ave
Winter Park ... 647-6929
Md Barnhill & Assoc Inc, 1931 Greenspring Dr
Baltimore ... 252-5610
Mass Andrews Airtronics Inc, Executive Park
Lynnfield ... 245-5220
NY Trush Inc, 7 Mill St, Cazenovia ... 655-8141
NY David Sonkin Assoc, 10 Fiske Pl
Mount Vernon ... 914 668-9809
Ohio Tri-State Marketing, Inc, 1717 Section Rd
Cincinnati ... 461-2697
Can Whittaker Electronics Ltd, 42 Howdon Ave
Ohawa, Ont ... 224-1221
GB Steatite Insulation, Ltd, Hagley Rd, Birmingham 16
Swed American Electronics AB, Norrlandsgatan 15 B
Stockholm C

VAC-OHM ELECTRONICS CO, BOX 444, HADDONFIELD
N J, 08033 ... 609 428-0001
N WILLIAMS, EMP 26, ENG 4, $250-$500M
Colo Inland Assoc, 1480 Hoyt St, Lakewood ... 268-0894
Iowa Inland Assoc, 606 Guarantee Bldg
Cedar Rapids ... 364-8198
Kan Inland Assoc, 4067 Howe Dr, Mission
Mass New England Elctn Sales, 590 Washington St
Canton ... 617 828-4835
Minn International Sales, 8703 Beard Rd
Minneapolis ... 881-6683
Mo Inland Assoc, 25 S Bemison Ave
Clayton ... 721-4435
NJ Vac-Ohm Elctns Co, Merion Ave
Cherry Hill ... 609 428-0001
NY I Paul, 652 Waters Edge
Valley Cottage ... 914 CO 8-7098

VACO PRODUCTS CO, 510 N DEARBORN ST, CHICAGO
ILL, 60610 ... 312 467-0123
R VETZNER, EMP 150, ENG 8, $1,000-$2,500M
Cal Federated Sales Co, 9020 E Las Tunas Dr
Temple City ... CU 3-8374
Colo Russ Taylor, 4740 E 4th Ave, Denver ... 322-3237
Colo R Taylor, 4740 E 4th Ave, Denver ... EA 2-3237
Ga Paul Hayden & Assoc, Box 331
East Pt ... PO 6-0261
Haw Ralph Matsuno, Box 3522, Honolulu ... 960-504
Ill Wm Stein, 4075 W Jarvis
Lincolnwood ... WA 2-6559
Ill Edmund Davis, 3604 S Clarence
Berwyn ... GU 4-1521

Ind C H Layman, 213 S Main St, Walton 2995
Kan Thos L Dowell Inc, 6007 W 94th Terr
Overland Park 649-6069
Mass W Kaitz, 27 Wendell Rd
Newton Centre 617 244-4090
Mich H E Ault, Box 276, Bloomfield Hills .... FE 5-9070
Minn H Fornare, 4357 Minnehaha Ave
Minneapolis 699-6126
NJ Jos Steinman, 288 Meadowbrook Pl
Maplewood .... SO 2-0791
NY H D Rabin, 2951 Ocean Ave, Brooklyn .. NI 6-7207
NY C W Pawelec, Box 744, Utica .... RE 2-4719
NY S Kamerman, 86-15 Elmhurst Ave
Elmhurst .... IL 8-6535
Ohio C R Seidel, 1287 Kenworth Rd
Columbus .... AM 3-8442
Pa Geo L Fischer, 1230 Knox Rd
Wynnewood .... MI 2-1118
Pa J Cutler, 5635 Hempsted Rd
Pittsburgh .... HA 1-8088
Tex W R Retzloff, Box 1786, San Antonio ... LE 3-7839
Wash Almac/Stroum, 621 S Michigan, Seattle .. 723-7310
Wis Arnold Ols, 4410 W Kinnickinnic Pkwy
Milwaukee 384-2934

VACTEC INC, 2423 NORTHLINE IND BLVD, MARYLAND HEIGHTS
MO, 63042 .... 301 HE 2-4200
M LEVY, EMP 125, ENG 10, $1,000-$2,500M
ADV PG 126
Cal King Way & Assoc, 11168 Santa Monica Blvd
Los Angeles 473-8000
Cal E B Schwerin, 4922 La Gama Way
Santa Barbara 967-7317
Conn A & M Elctn Reps, Ailene Dr
Madison 203 245-1031
Ill Thos B Hunter Assoc, 5653 W Irving Park Rd
Chicago 777-2500
Ind Tech Line Co, 2512 East Dr
Fort Wayne 742-4510
Kan Ridgewood Sales Co, Box 466
Shawnee Mission 913 262-1374
Mass A & M Electronic Reps, 1492 Highland Ave
Needham 444-8170
Mich Hermann D Mysing, 18450 W McNichols Rd
Detroit 537-5460
Mo Ridgewood Sales Co, 8754 Big Bend Blvd
St Louis 314 968-0303
NY C W Beach, 120 Ramsey Ave, Syracuse .. 446-9587
Ohio E C Frost Co, 30650 Pine Tree Rd
Cleveland 831-1442
Pa C J McGowan, 81 Old York Rd
Willow Grove 215 659-1788
Tex Allied Components
10468 E Northwest Hwy, Box 18146
Dallas 348-6660
Tex Allied Components, 4234 Richmond St
Houston 713 664-4203
Utah Arrowhead Sales Corp, 1966 W 6255 S
Salt Lake City 801 298-2751
Va Royelec Electronic Reps, Box 254
Lynchburg 846-7117
Wash Blair Hirsh Co, 4013 Leary Way N W
Seattle 783-3423
Wis Thomas B Hunter Assoc, Rt 2 Williams Dr
Cedarburg 377-5536
For Teknis, Plainville, Mass 695-3591

VACTRIC CONTROL EQUIPMENT LTD, GARTH RD
MORDEN, ENGLAND 01 337-6644
J CLIFT, EMP 650, ENG 60, $2,500-$5,000M

VACTRONIC LAB EQUIPMENT INC, 21 MONMOUTH CT
EAST NORTHPORT, N Y, 11731 .... 516 AN 12660
R MORRIS, EMP 21, ENG 3, $100-$250M

VACUUM ACCESSORIES CORP OF AMERICA
193 W HILLS RD, HUNTINGTON STATION
N Y, 11740 .... 516 271-7040
E KUJAWSKI, EMP 37, ENG 7, UP TO $100M

VACUUM/ATMOSPHERES CORP
7356 GREENBUSH AVE, N HOLLYWOOD
CAL, 91605 .... 213 983-0763
D ADAMS, EMP 75, ENG 5, $1,000-$2,500M
Cal Wm F Farmer,Box 206, Sta A, Box 206, Sta A
Berkeley 524-4942
Colo Edw W Johnson, 10130 W Asbury Ave
Denver 985-4810
Conn D W Stevenson, Box 82, Wilton 762-7169
Fla EAB Co, Box 363, Miami Spring 887-5361
Ill D P Corrigan & Assoc, 5306 W Lawrence Ave
Chicago 312 725-2500
NY Harold Horn, 130 W 42nd St, New York .. 947-0040
Ohio Aertronic Assoc, 5899 Huberville Ave
Dayton 253-8144
Pa James de Benedictis, 200 S Bellevue Ave
Langhorne 757-2234
Tex Wm E Brice Co, 1402 Dunlavy St
Houston 526-3197
Va G C Danch & Assoc, Box 310, McLean ... 524-0323
Can R E Benner Ltd, 844 Caledonia Rd
Tomto 416 781-2207

VACUUM BARRIER CORP, 4 BARTEN LN, WOBURN
MASS, 01802 .... 617 933-3570
W MILLER, EMP 25, ENG 3, $500-$1,000M

VACUUM CERAMICS DIV, 15 MAIN ST, CARY
ILL, 60013 .... 312 639-2186
A SEATON, EMP 50, ENG 9, $500-$1,000M

Ala Frank C Nickerson & Co, Box 1463
Huntsville 205 881-9565
Cal Woodworth Co, Box 2165
Redwood City 415 365-0252
Cal Carl E Holmes Co, 107 N Ave 64
Los Angeles 213 256-2255
Fla Ed Furey, Box 14022, North Palm Beach
Ga Frank C Nickerson & Co, Box 33185
Decatur 404 377-1575
Ill Marlan Supply Co, Edgewood Rd
Crystal Lake 459-3371
Mass Garrettson Co Inc, 10 Kearney Rd
Needham 617 449-2640
Mich OEM Sales Co, 106 S Woodward
Birmingham 647-1172
Mo Maury E Bettis Co, 3706 Broadway
Kansas City 816 561-0772
Mo Maury Bettis Co, 9103 Bessemer Ave
St Louis 314 429-2099
NY Garrettson Co Inc, 99 Hillside
Williston Park 516 747-6610
NY Reed Elctns Inc, 2815 Monroe Ave
Rochester 716 473-2767
NY Reed Elctns Inc, Box 187, Vestal 607 748-7391
NY Reed Elctns Inc, 326 Fay Rd
Syracuse 315 408-5488
NC Frank C Nickerson & Co, 329 Strickland Ave
Winston-Salem 919 788-8401
Pa W F Satterthwaite, 237 N Lansdowne Ave
Lansdowne 623-5100
Wash Whiteside Sales, Box 22, Garland 276-8382
Wis Manufacturers Technical Sales
10031 W Grantosa Dr, Milwaukee 461-1890

VACUUM INDUSTRIES INC SUB GCA CORP
34 LINDEN ST, SOMERVILLE
MASS, 02143 .... 617 666-5450
J DURANT, EMP 140, ENG 11, $2,500-$5,000M
Cal Loren Patrick Assoc, 9544 E Gidley St
Temple City 283-4352
Colo T C Jarrett Co, 15 Hillside Dr, Denver ... BE 3-2333
Conn J P Santucci, 7 Naples Ave, E Norwalk ... 866-9829
Ill Byron Ellis Assoc, 1201 Chase Ave
Chicago .... AM 2-2038
Ohio Malad Equip Co, 20666 Beachwood Dr
Cleveland .... ED 1-5847
Tex Sinclair Co, 11505 Chimney Rd
Houston .... PA 9-3222

VACUUM INSTRUMENT CORP, 6 STEPAR PL
HUNTINGTON STATION, N Y, 11746 ... 516 HA 35520
A WEBSTER, EMP 20, ENG 2, $250-$500M
Cal Fieldtec, Inc, 3822 Campus Dr
Newport Beach 860-4000
Conn Cosmo-Torr Inc, Ridge Dr-Juniper Ridge
Danbury 744-4484
Ill Marsland Distributing Corp, 6699 Lincoln Ave
Chicago .... OR 6-1104
Ill Marsland Corp, 6699 Lincoln Ave
Chicago .... OR 6-1104
Mass Cosmo Torr Inc, 154 Church St, Weston ... 899-2210
NY E J Dotter Assoc, Box 162
Huntington Sta 271-3358
Ohio R A Gray & Co Inc, 12429 Cedar Rd
Cleveland 462-2669
Pa W F Assoc, Western Savings Bldg
Phila .... KI 6-4121
Can Applied Technology Co, Box 272
Don Mills, Ont 444-1264

VACUUM METALLIZING, 15526 LANARK ST, VAN NUYS
CAL, 91406 873-4448
L KOPEL, EMP 50, ENG 3, $500-$1,000M

VACUUM PRODUCTS INC, 25 DOCK ST, MT VERNON
N Y, 10550 .... 914 664-7330
G FRANK, EMP 5, ENG 1, UP TO $100M
Conn Applied Measurements, Whitney Ave
Hamden 248-5048
Ill Saffro & Assoc, 3736 W Dempster St
Skokie 588-0905
Ind Law Instrument Co, Box 95, Angola 665-6016
Ind Law Instrument Co, Box 27062
Indianapolis .... ST 7-0009
Mass Applied Measurements, 86 Haywood Rd
Acton .... CO 3-2766
NJ Electronic Equip Eng, 135 Dimmig Rd
Upper Saddle River 201 825-0033
NY Robert F Lamb Co, 3407 Delaware Ave
Buffalo 876-3757
NY Robert F Lamb Co, Pickard Bldg
Syracuse 454-2469
NY Robert F Lamb Co, 661 Uptown Sta
Kingston 338-8833
Va Nine Assoc, Al Brairwood Ct
Annandale 256-8784

VALOR ELECTRONICS INC, 13214 CRENSHAW BLVD
GARDENA, CAL, 90249 .... 213 323-6160
D WEAVER, EMP 85, ENG 6, $1,000-$2,500M
Ariz F Y Gates Co, 732 S Elm St, Mesa ... 602 969-4421
Cal Don Weaver & Assoc Inc, 13218 Crenshaw Blvd
Gardena 213 321-8962
Cal Avionics Liaison Inc, 3235 Kifer Rd
Santa Clara 408 739-1991
Colo F Y Gates Co, 3422 S Bannock
Englewood 761-0591
Ill Technical Devices Inc, 6416 N Central Ave
Chicago 312 774-8252
Neb Marketing Assoc, Box 53938
Lincoln 402 434-5244
NM F Y Gates Co, 2631 Texas, N E
Albuquerque 298-1875

NY Bassin Tech Sales Co, 52 Fayette Rd
Scarsdale 914 723- 3334
Ohio Arthur Baier Co, 330 S Dixie Dr
Dayton 513 298-9897
Ohio Arthur Baier Co, 4399 Industrial Pkwy
Willoughby 216 946-6080
Tex Texport Co, 2411 Farrington St, Dallas ... ME 1-6270
Tex Texport Co, 8811 Gaylord St
Houston .... 713 HO 4-2828
Utah F Y Gates Co, 455 E 4th St S
Salt Lake City 359-1101
Wash Avionics Liaison Inc, 6770 Perimeter Rd
Seattle .... PA 3-7602

VALOR INSTRUMENTS INC, 13214 CRENSHAW BLVD
GARDENA, CAL, 90249, TWX SBD 213 321-2280
G SMITH, EMP 25, ENG 2, $250-$500M
Ariz F Y Gates Co, 732 So Elm St
Mesa 602 969-4421
Cal Avionics Liaison Inc, 3235 Kifer Rd
Santa Clara 408 739-1991
Cal Don Weaver & Assoc Inc, 13218 Crenshaw Blvd
Gardena 213 321-8962
Colo F Y Gates Co, 3401 So Bannock St
Englewood 303 761-0591
Ill Technical Devices Inc, 6416 N Central Ave
Chicago 312 774-8252
Mass Gilway Sales Co, Box 584, Newburyport
Neb Marketing Assoc, Box 53938, Lincoln
NM F Y Gates Co, 2631 Texas N E
Albuquerque 505 298-1875
NY Bassin Technical Sales Co, 52 Fayette Rd
Scarsdale .... 914 SC 3-3334
Ohio Arthur H Baier Co, 4399 Industrial Pkwy
Willoughby 216 946-6080
Ohio Arthur H Baier Co, 330 So Dixie Dr, Dayton
Tex Texport Co, 2411 Farrington St
Dallas .... 204 ME 1-6270
Tex Texport Co, 8811 Gaylord
Houston .... 713 HO 4-2828
Utah F Y Gates Co, 455 E 4th St So
Salt Lake City 801 359-1101
Wash Avionics Laison Inc, 6770 Perimeter Rd
Seattle .... PA 37602
Ger Telemeter Electronic GmbH, 8042 Schleissheim
Munich
Swit Telemeter Electronics GmbH
8001 Stampfenbachstr, Zurich
Ind United Engineering Enterprises
Sir Pherozeshah Menta Rd, Bombay-1

VALPEY-FISHER CORP, 1015 FIRST ST, HOLLISTON
MASS, 01746 .... 617 429-4392
R ROSS, EMP 65, ENG 4, $500-$1,000M
Cal Robert Wolff, Box 2311, Newport Beach
Cal Ewing-Foley Inc, 900 N San Antonio Rd
Los Altos 415 941-4525
Ill Bierhaus Sales Inc, 1013 E 31st St, La Grange Park
Mass Impact Sales Co, 223 Crescent St
Waltham 617 893-2850
NJ Winter Assoc, Box 104, Boonton 201 334-3434
NY M P Andrews Inc, 319 Mort Rd
Fayetteville .... 315 NE 7-3144
Ohio J O Olsen Co, 16201 Shaker Blvd, Cleveland
Can Railway & Power Eng Corp, Ltd, 3745 St James St
Montreal, Que

VALRADIO LTD, BROWELLS LA, FELTHAM, MDSX
ENG 01 890-4837
A RYAN

VANGUARD ELECTRONICS CO
930 W HYDE PARK BLVD, INGLEWOOD
CAL, 90302, TWX 910-328-6126 .... 213 678-7161
G MCHALE, EMP 250, ENG 8, $1,000-$2,500M
Ariz Howe & Howe Sales Inc, 4109 N 18th St
Phoenix 602 264-7971
Cal Deere Elctns Inc, 20440 Town Center
Cupertino 408 257-3040
Cal Don Allen Co, 7780 Othello St
San Diego 714 278-9250
Iowa Reid Assoc Inc, 526 M N B Bldg
Cedar Rapids 362-6302
Md Radio Electric Serv Co, 5 N Howard St
Baltimore 539-3835
Mass Tom Crawford & Son, Box 264
Norwood 762-6878
Mich Willard Spenser Co, 21500 Greenfield Rd
Oak Park 398-8005
Minn Fred Peterson Co, 4501 Minnetonka Blvd
Mnpls 927-4453
NJ Intl Electro-Comp Co, Box 353
Pine Brook 201 335-1822
NJ R T Reid Assoc, 530 Main St
Fort Lee 201 944-9323
Tex Blackburn Assoc, 137 Walnut Hill Vlg
Dallas 214 351-9991
Wash W J Stulgis Co Inc, 608 Crockett St
Seattle .... AT 2-7870

VANGUARD RELAY CORP, 225 CORTLAND ST, LINDENHURST
NY, 11757 .... 516 TU4-5000
B GILMAN
ADV PG [illegible]
Ala Grady Duckett Sales Co, Box 537
Hazel Green 828-3475
Cal Jack Logan Assoc, 801 Mahler Rd
Burlingame .... OX 7-6100
Fla Grady Duckett Sales Co, Box 310 Uleta Sta
Miami 947-3974
Fla Grady Duckett Sales Co, Box 15215
Tampa 876-5295

Ga Grady Duckett Sales Co, Box 29067
Atlanta 451-3529
Ill Koenig-Myers Assoc, 2721 Beloit Dr, Bridgeton, Mo
Ind Richard Scales Assoc, 550 Sommers Ave
Wabash 563-4886
Iowa Koenig-Myers Assoc, 7603 Dennis Dr
Des Moines 276-3777
Kan Koenig-Myers Assoc, 5500 Buena Vista Dr
Shawnee Mission .... HE 2-8300
Md Stitzer Assoc, 212 Washington Ave
Baltimore 823-2600
Mass Conti-Younger Assoc, 181 West St
Waltham 891-4582
Mich Grant Shaffer Co, 14241 Fenkell Ave
Detroit .... BR 3-5390
NJ Peterson-Rudnick Assoc, Box 822
West Cladwell .... CA 6-4363
NY Peterson-Rudnick Assoc, 364 Lincoln Pl
Brooklyn .... ST 9-9585
Pa Stitzer Assoc, 24 State Rd, Paoli 644-5500

VAN PRODUCTS CO, 5829 SWANVILLE RD, ERIE
PA, 16505 .... 814 833-9871
J CZARNECKI, EMP 60, ENG 4
Can Van-Air Dryers, Ltd, Box 22
Oakville, Ont 845-4351

VANTON PUMP & EQUIPMENT CORP
201 SWEETLAND AVE, HILLSIDE
N J, 07205 .... 201 WA 6-2435
G RYAN, EMP 50, ENG 5, $1,000-$2,500M
Ariz Barret Haentjens, 3850 E Indian Sch Rd
Phoenix 955-3910
Cal Ryan-Herco Products, 1311 W Magnolia Blvd
Burbank .... VI 9-1143
Colo Alldredge & McCabe, 1550 S Pearl St
Denver 744-6351
Fla Paul Sleeper Assoc, Box 1093
Jacksonville Beach 249-5905
Ill Harry Holland & Son, 9 S Clinton St
Chicago 372-0019
Ind The Laidlaw Co, 11 W 17th St
Indianapolis .... WA 3-7251
Ky Grover Equip, Box 21101, Louisville 362-5152
Md Cummins-Wagner, 800 N Hammonds Ferry Rd
Linthicum Hgts 739-3150
Mass Excelline, 1453 Great Plain Ave
Needham .... HI 4-1824
Mo All-Chemical Process Equip, 3080 Newgate Dr
Florissant .... TE 7-8811
Neb Deco Engr, 1112 Locust Dr, Omaha
NC Woodward Sales, Charlotte
Ohio Berrington & Son, Box 2874, Cleveland 333-2090
Pa Townsend Assoc, 1924 Northbrook Dr
Lancaster 394-2750
Tenn Chapman & Assoc, Box 8205
Chattanooga 266-8730
Tex Productive Equipment Inc, Box 880
Bellaire .... MO 8-2533
Va Burnett Engr, Box 3107, Richmond 359-2802
Wash Unit Process, 8247-116 Ave NE
Kirkland .... VA 2-6456
Can Hugh Millar Hydronic Assoc, Box 70
Islington, Ont 239-4141
Swit Cooper Alloy Intl S A, 20 Rue St Pierre
Flibourg 039 27464

VAPOR BLAST MFG CO, 3025 W ATKINSON AVE
MILWAUKEE, WIS, 53209 .... 414 871-6500
H PATIN, EMP 55, ENG 6, $1,000-$2,500M
Cal de Castro & Assoc, 1301 Olympic Blvd
Montebello 213 723-9477
Conn Kenneth F Thomas Indus, 34 Chelton Ave
West Hartford 203 233-8547
Fla Lorac Co, 6745 SW 59th St
Miami 305 661-1020
Ill J P Bombenger, 437 S Harvard Ave
Villa Park 312 772-7500
Ind Hugh Howard & Assoc, 13320 Timbercrest Trail
Ft Wayne 219 743-8874
Iowa C W Crossen & Co, 706 E River Dr
Davenport 319 324-9351
Kan Haman Machy & Supply Inc, 422 W 8th St
Kansas City 842-3558
La J & D Engineering Sales, Box 14683 SE Sta
Baton Rouge 504 342-7858
Mich Algoma Machinery Co, 9380 Algoma Ave NE
Rockford 616 866-0066
Minn Finishing Equip & Supply Co, 941 W 80th St
Minneapolis 612 866-4051
Mo M A Altrup Co, 2319 Hampton Ave
St Louis 314 647-0113
Neb David R Hill Co, 839 N St Joseph Ave
Hastings 402 462-8021
NJ C Burwell Inc, 30 Richmond St
Clifton 201 772-7500
NY Howard C Murray Jr, 11 Farview Cir
Camillus 315 468-3562
NC Cecil Jones & Assoc, 1605 Ilchester Ct
Greensboro 919 292-6626
Ohio John C Lee & Co, 2010 Carew Tower
Cincinnati 513 561-5486
Ohio Richards & Alstedt, 14237 Detroit Ave
Cleveland 216 221-3634
Pa Frank W Robertson, 1007 Wood St
Wilkinsburg 412 371-6252
RI Machinery Engrg & Sales Co, 160 Plainfield St
Providence 401 944-6000
Tex Armoloy Co, 206 E Daggett St
Fort Worth 817 332-4123
Tex Steel & Machine Tool Sales Co, 4747 Gulf Frwy
Houston 713 923-9456
Utah Sales Engineering Co Inc, 205 W Utopia Ave
Salt Lake City 801 485-3721

Wash Industrial Materials Inc, 1809 Minor Ave
Seattle 206 622-8575
Wis J Irving Kaul, 3025 W Atkinson Ave
Milwaukee 414 871-6500
Can B W Deane & Co, 190 Oneida Dr
Pointe Claire Que 514 697-3730

VAPOR CORP, 6420 W HOWARD ST, CHICAGO
ILL, 60648 .... 312 967-8300
O CHIESL, OVER $10,000M
Cal Vap-Air Div, 8939 Sepulveda, Los Angeles
Cal Vapor R&T Div, 1485 Bayshore Blvd, San Francisco
Fla Railroad & Transit Div, 500 Water St, Jacksonville
Minn T A Stewart, E-724 1st Natl Bank Bldg, St Paul
Mo J T Elwood, 721 Olive St, St Louis
NY J Morris/G Donohue, 230 Park Ave, New York
Pa J A Marquez, 1617 Kennedy Blvd, Philadelphia
Tex Vap-Air, 2509 W Berry St, Ft Worth
Wash W J McNabb, Box 931, Bellevue
Can J A MacDonald, 3955 Courtrai Ave, Montreal Que
For J Schickedanz Int'l Div, 6420 W Howard, Chicago

VARFLEX CORP, 512 W COURT ST, ROME
N Y, 13440 .... 315 336-4400
J FINNEGAN, EMP 94, ENG 2, $1,000-$2,500M
Mass Fred Hart, 115 Pond St, Nahant 581-0381
Mo Edward P Gund, 2551 W Dodier
St Louis 241-8645
NY Gilbert L Wolfe, 1334 Hawthorne Rd
Schenectady 393-1418
NY Wm R Murphy, Box 177
Carle Place 516 333-6122
Pa Martin Electric Co, 6741 N 13th St
Philadelphia 215 WA7-5858

VARIAN, 611 HANSEN WAY, PALO ALTO
CAL, 94303, TWX 910-373-1731 .... 415 326-4000
EMP 10,500, ENG 1,200, OVER $10,000M
Ariz Varian, 77 3rd Ave W, Scottsdale 947-5461
Cal Varian, 2901 Wilshire Blvd
Santa Monica 451-5877
Cal Varian, 4940 El Camino Real, Los Altos 968-7630
Colo Varian, 14th & Walnut Sts, Boulder
Fla Varian, 314 S Missoui, Clearwater 446-8513
Ga Varian, 3110 Maple Dr NE, Atlanta 261-4572
Ill Varian, 205 W Touhy Ave, Park Ridge 825-6686
Mass Varian, 400 Wyman St, Waltham 891-4560
Mich Varian, 20217 Ann Arbor Trail, 207-c
Dearborn Hgts 271-3440
NJ Varian, 1500 Kings Hwy
Cherry Hill 609 428-6800
NJ Varian, 2005 Rte 22, Union 201 688-8800
NM Varian, 9000 Menaul Blvd NE
Albuquerque 296-1248
NY Varian, 900 Walt Whitman Rd, Melville 549-5422
NY Varian, 113 Twin Oaks Dr, Syracuse 437-3307
Ohio Varian, 2500 Euclid Ave, Euclid 261-2105
Ohio Varian, 10 Southmoore Circle, Dayton 298-7318
Pa Varian, Pittsburg Airport, Pittsburgh 264-7502
Tex Varian, 6400 Southwest Frwy, Houston 781-0721
Tex Varian, 811/S Central Expwy
Richardson 235-2385
Va Varian, 714 Church St, Alexandria 549-8205
Wash Varian, 225 108th N E, Bellevue 454-4031
Can Varian of Canada Ltd, 45 River RDr, Georgetown Ont
Can Aerograph Div Varian
Univ 10 1040 Martin Grove Rd
Rexdale Ont 244-4256
Can Aerograph Div Varian, 10619 109th St
Edmonton Alb 429-5786
Can Aerograph Div Varian, 8472 Pl Belle Fountaine
Ville D'Anjoyu Que 351-4540
For Varian Assoc Ltd, Donibristle Ind Est
Dunfermline, Fife .... INV 886
Fr Aerograph France, SA, 91 Bes Ave, Pierre Curie
St Cyr L'Ecole S&O 923-0579
Fr Varian SA, 85 Rue Fondary, 15 Paris 98-10
Ger Varian GMBH, Breitwiesen Str 9
7 Stuttgart Vaihingen 78 33-51
Ger Varian Aerograph Gmbh, Riedstr 6
61 Darmstadt B. R. D 61- 08-34
Ger Varian Aerograph Gmbh, Driburgerstr 10
4 Dusseldorf Rath 0211-633337
Ger Varian Mat Gmbh, 28 Bremen 10
Bremen 5095 51-58
GB Varian Ltd, Molesey Rd, Walton on Thames 28766
GB Varian Aerograph UR Ltd, Haletop, Civic Ctr
Wythenshame, Manchester .... Mercury 5828
Holl Varian, Schipol Airport, Amsterdam 159410
Holl Varion Assoc Holl NV, Kamer 186 Schiphol Arprt
Amsterdam Schiphol 15 94-10
Holl Varian Aerograph Holl N V, le Helmerstr 8
Amsterdam 16 78-78
Ital Varian SPA, Via Villa Emiliani 10/7
Rome 876-129
Ital Varian SpA, Via Varian 10040 Leini, Torino
Swed Varian AB, Skytteholmsvaege 7D, Solna 85 15-35
Swit Varian AG, Baarerstr, Zug 042 4 45-55
Swit Varian Aerograph AG, Viaduktstr 65
4002 Basel 2 061-328877
Belg Varian Aerograph Belgique, 24 Blvd de la Revision
Bruxelles 7 21-49-01
Braz Varian Ind E Com Ltd
Av Paulista, 2073 18th Conj 1824
Sao Paulo ZP 3 809-927
Aust Varian Pty Ltd, 541 St Kilda Rd
Melbourne 511-361
Aust Techtron Pty Ltd, Springvale Rd N Springvale
Springvale Vic 560-7133
Aust Varian Pty Ltd, 38 Oxley St Crows Nest
Sydney NSW 43-0673
Aust Varian Aerograph Belgique, 24 Blvd De La Revision
Bruxelles 21 49-01

VARIAN AEROGRAPH, 2700 MITCHELL DR
WALNUT CREEK
CAL, 94598, TWX 910-385-6301 .... 415 939-2400
J BRAKE, EMP 339, ENG 40
Haw Product Services Co, 1487 Halekoa Dr
Honolulu 78-641
Ill Varian Aerograph, 205 W Touhy Ave
Park Ridge 825-7772
La Varian Aerograph, Box 15592
Baton Rouge 344-1878
Mass Varian Aerograph, 400 Wyman St
Waltham 891-4622
Mo Varian Aerograph, 9811 W Florissant
St Louis 524-0880
NJ Varian Aerograph, 2095 U S Rt 22
Union 687-8060
NC Varian Aerograph, Box 6185, Raleigh 833-1412
Ohio Varian Aerograph, 632 Brunner Dr
Cincinnati 621-5507
Pa Varian Aerograph, Pittsburgh Airport
Pittsburgh 264-9162
Tex Varian Aerograph, 3939 Hillcroft Ave
Houston 781-0455
Can Varian Aerograph, 1040 Martin Grove Rd
Rexdale, Ont 244-4256
Fr Aerograph France, S A, 91 bis Ave Pierre Curie
Saint Cyr L'Ecole
Ger Varian Aerograph GmbH, Riedstr 6, D-61- Darmstadt
GB Varian Aerograph (VK) Ltd
Hale Top Wythenshawe Civic Center, Manchester
Holl Aerograph Holland N V, le Helmerstr 8, Amsterdam
Swed Varian-Aerograph AB, Skytteholmsvagen 7 d, Solna
Swit Varian Aerograph, AG, Viadukstr 65, 4002 Basel 2
Belg Aerograph Belgium, 24, Blvd de la Revision 24
Brussels
Aust Varian, 541 St Kildas Rd, Melbourne Victoria

VARIAN ASSOC, PORTLAND PLANT
13645 NW SCIENCE PARK DR, PORTLAND
ORE, 97229, TWX 910 467-8700 .... 503 646-6131
D FRISBIE, EMP 50, ENG 9, $1,000-$2,500M
Cal Joe Davis, 5300 Santa Monica Blvd
Los Angeles 466-4101
Cal Ralph Duniway, 4940 El Camino Real, Los Altos
Colo M Errickson, 14th & Walnut, Boulder 444-0431
Fla John McLaughlin, 314 S Missouri Ave
Clearwater 446-8513
Ill Jack Brower, 205 W Touhy Ave
Parkridge .... TA 5-6686
Mass Frank Moore, 400 Wyman St, Waltham 891-5750
NJ Tony Messina, 2005 Rte 22, Union 688-7474
NY Dick Briggs, 847 James St, Syracuse 472-7051
Ohio Art Shivers, 25000 Euclid Ave, Euclid 261-2115
Tex Jerry White, 811 S Central Expwy
Richardson .... AD 5-2385
Va Jim Ballingall, 714 Church St
Alexandria 549-7525

VARIAN DATA MACHINES, 2722 MICHELSON DR
IRVINE
CAL, 92664, TWX 910 596-1358 .... 714 833-2400
H STOVER, EMP 400, ENG 100, OVER $10,000M
Cal D Rhoads, 216 Pico Blvd
Santa Monica 213 392-4871
Cal E Hatter, 4940 El Camino Real
Los Altos 415 968-9996
Conn R Haverl, Vernon Prof Ctr Rt 30
Vernon 203 646-2550
Ill M Dickey, 205 W Touhy Ave
Park Ridge 312 692-7184
NY R Schaper, 28 Brookwood Dr
Wyandanch 516 643-8877
Pa J Gulati, 520 Penn Ave
Fort Washington 215 643-2355
Tex L Cox, 3939 Hillcroft, Houston 713 781-0105

VARI-L CO INC, 207 GREENWICH AVE, STAMFORD
CONN, 06904 .... 203 323-2176
R LAND, EMP 20, ENG 3, $250-$500M
ADV PG 352, 419, 746
Ariz Bennewitz Assoc, 532 N Brown Ave
Scottsdale 602 947-7379
Cal J C Simon Co, 5478 Wilshire Blvd
Los Angeles 213 939-2366
Cal Parsons Co, 1 First St, Los Altos
Colo Bennewitz Assoc, 2801 E Colfax
Denver 303 399-1132
Mass E C & S, 611 Trapelo Rd, Waltham 617 894-6921
NM Bennewitz Assoc, 9720 Candelaria
Albuquerque 505 299-8651
NY Herbert Shprentz Co, 126 Deertrack La
Irvington 914 591-7970
Ohio Luebbe Sales, 2649 Erie Ave
Cincinnati 513 871-4211
Va Gordon Assoc, 44 Burgess Ave
Alexandria 703 548-9502
Wash Don Smith Sales, Seattle

VARI-OHM ELECTRONICS INC, 65 BRIGHTSIDE AVE
E NORTHPORT, N Y, 11731 .... 516 757-7220
H MCCANN, EMP 50, ENG 3, $500-$1,000M
Cal Astroel Corp, 349 1st St, Los Altos 948-3636
Fla Geartner Assoc, 350 Lincoln Rd
Miami Beach 531-0200
Ill Saffro & Assoc, 3736 Dempster St
Skokie 588-0905
Md Quality Components Inc, Box 711
Rockville 933-1623
NJ Quality Components Inc, Box 583
Cherry Hill 428-6266
NY Aerol Assoc, 170 Great Neck Rd
Great Neck 487-9650
NC Bill Henry Assoc, 1043 Providence Rd
Charlotte 375-8958

Ohio Coy Co, Box 2078 Kettering Sta
Dayton ... 885-5765

VARI TECH CO, 546 LEONARD ST NW, GRAND RAPIDS
MICH, 49504 ... 616 459-7281
M APPLEGATE, EMP 35, ENG 5, $500-$1,000M

VAR-LAC-OID CHEMICAL CO, 666 S FRONT ST
ELIZABETH, N J, 07202 ... 201 289-3630
M BRENT, EMP 14, ENG 2, $250-$500M

VARO INC, 800 W GARLAND AVE, GARLAND
TEX, 75040 ... 214 BR 2-1571
E GIBBS, EMP 2400, ENG 200, OVER $10,000M
Ala David H Wise, Box 225, Huntsville ... 539-0871
Ariz Carter Assoc Inc, Box 94, Scottsdale ... 947-4355
Ariz Runyon Co, 7140 E Earll Dr, Scottsdale ... 946-8851
Cal Varo-Electrokinetics Inc, 402 E Gutierrez St
Santa Barbara ... WO 3-2055
Cal Halbar Assoc, 1805 W 3rd St
Los Angeles ... 387-8283
Cal Engineering Liaison Assoc, 3360 Barham Blvd
Hollywood ... HO 9-2283
Cal Herb Bissell, 17220 Osborne
Northridge ... 886-0053
Cal Harry Lee, Box 93, Manhattan Beach ... 372-1384
Cal Harold Wells Assoc, 819 A St
San Rafael ... 454-5730
DC F Desmond/J Jordan, 1010 Vermont Ave NW
Washington ... 628-9430
Fla Ridge Instrument Co, 2225 S E 9th Ave
Deerfield Beach ... 399-6975
Fla Ridge Instrument Co, 85 Carib Dr
Merritt Island ... 636-8251
Fla Buchanan & Abrams Assoc Inc, Box 6026
Orlando ... 423-8995
Ill Varo-Optical Inc, 5574 N Northwest Hwy
Chicago ... RO 3-6700
Ill Walt Sanders, 4750 N Milwaukee Ave
Chicago ... 777-7766
Ill Berndt & Assoc, 6322 N Milwaukee Ave
Chicago ... SP 5-3488
Ill Olson Sales Co, 716 Wenonah Ave
Oak Park ... 383-6775
Ill Loren F Green & Assoc, 5218 W Diversey Ave
Chicago ... 286-0682
Md Moler-Eader Assoc, 320 Hillen Rd
Baltimore ... 825-1130
Mass Todino Eng Sales Co, 50 Kearney Rd
Needham Hgts ... HI 4-7925
Mass V J Huntoon Assoc Inc, 272 Centre St
Newton ... 244-5871
Mass Andrews Airtronics Inc
Civilian Term Bldg Hanscom Fld
Bedford ... 274-6800
Mich Harvey Hess Sales Co, 1488 W Wattles Rd
Troy ... 647-2861
Mich Custom Engrg Co, 2211 Monroe Blvd
Dearborn ... 274-0890
Minn Northern States Sales Co, 1421 Park Ave
Minneapolis ... 333-2431
NJ Gerald Gubbins, 11 Dumas Rd
Old Bridge ... 721-6093
NJ Bill L Cox, Box 159, Middleton ... 671-9016
NJ Instrumentation Sales Co, 170 E Ridgewood
Ridgewood ... GI 5-5210
NJ Bonn Assoc Inc, 266 Lake Ave
Metuchen ... 549-9573
NY Richard Leipsic, 328 E 93rd St, New York
NY Oem's Inc, 1784 Hempstead Tpk
Hempstead ... 485-4321
NY Frathom Co Inc, 202 E 44th St
New York ... 687-9390
NY B D Hummel Co, 2224 Maynard Ave
Utica ... 732-2370
Ohio Custom Engineering Co, 2975 Far Hills Ave
Dayton ... 298-5246
Ohio Clare Electronics, 24431 Oakhill Dr
Cleveland ... 481-5364
Ohio R G Sidnell, 15120 Edgewater Dr
Cleveland ... 221-1313
Pa Test Equip Sales Co, 4447 N Bodine St
Philadelphia ... 329-1822
Tenn Ridge Instrument Co, 110 Inn La
Oak Ridge ... 483-1311
Tex Rober E Nesbitt Co, 1925 Cedar Springs
Dallas ... 741-4411
Tex Merit Co, 10110 Monroe St, Dallas ... 352-8040
Tex Carter-Stone Assoc, 514 Garland Ave
Garland ... 276-7151
Wash John C Plate Co, 444 Dexter Horton Bldg
Seattle ... MA 4-1673
Wash Cane-Jessup Co Inc, Box 250, Bellevue ... 454-0691
Wash Farwest Agencies, Box 806, Bellevue ... 747-1515
Can Electronic Design Assoc, 2696 St Clair Ave W
Toronto, Ont ... 767-7574

VARO INC MICROCIRCUIT PRODUCTS DIV
900 N SHILOH RD, GARLAND
TEX, 75046, TWX 910 860-5186 ... 214 272-3571
J MOORE, EMP 120, ENG 17, $2,500-$5,000M

VARO INC SEMICONDUCTOR DIV, BOX 1437, 2203 WALNUT ST
GARLAND, TEX, 75040 ... 214 272-3561
ADV PG 581
Cal Corcoran Assoc, Box 45897
Los Angeles ... 213 823-2425
Cal R A Banks Sales Corp, 1029 Corporation Way
Palo Alto ... 415 964-4464
Colo J F Hurlbut Co, 2240 S Adams St
Denver ... 303 756-2046
Conn Kitchen & Kutchin, Inc, 22 Broadway
North Haven ... 203 239-0212
Fla Buchanan & Abrams Assoc, Box 6026
Orlando ... 305 423-8995
Ill Olson Sales Co, 1005 E Washington Blvd
Lombard ... 312 627-3802
Ind Technical Reps Inc, 4000 Meadows Dr
Indianapolis ... 317 546-4967
Md Wm I Duncan Assoc, 206 Washington Ave
Towson ... 301 823-2506
Mass Kitchen & Kutchin, Inc, 17 Waltham St
Lexington ... 617 862-8230
Mich Villani-Pitcher, 20233 Ann Arbor Trail
Dearborn ... 313 271-4600
Minn Loren F Green Assoc, 6225 University Ave NE
Minneapolis ... 612 781-1611
NJ Instrumentation Sales Co, 170 E Ridgewood
Ridgewood ... 201 445-5210
NY Bob Dean Inc, 714 W Clinton St
Ithaca ... 607 272-2187
Ohio J C Hofstetter Co, 742 Kenbridge Dr
Cleveland ... 216 449-0944
Ohio J C Hofstetter Co, 3300 S Dixie Dr
Dayton ... 513 298-0662
Pa Wm I Duncan Assoc, 5452 Charles St
Philadelphia ... 215 744-6110
Tex Whiteside Sales Co, Box 22
Garland ... 214 276-8382
Utah J F Hurlbut Co, 3817 W 3280 S
Granger ... 801 299-4321
Wash John C Plate, 584 Dexter Horton Bldg
Seattle ... 206 624-1673

VARO INC, STATIC POWER DIV
1600 DALLAS NORTH PKWY, PLANO
TEX, 75074, TWX 910-860-5640 ... 214 231-5111
P THOMPSON, EMP 380
Cal H Bissell, 8820 Sepulveda Blvd
Los Angeles ... 213 670-3824
DC E Wuermser, 1030 15 th St N W
Washington ... 202 223-5010
Ill Varo Static Power Div, 215 E Prospect Ave
Mt Prospect ... 312 259-8100
NJ H Lutz, 185 Chipmunk Hill
Mountainside ... 201 233-4414

VARO INC TIME & FREQUENCY PRODUCTS
402 E GUTIERREZ, SANTA BARBARA
CAL, 93101, TWX 805-449-7200 ... 805 963-2055
P DUTCHER, EMP 30, ENG 3, $500-$1,000M
Cal Halbar Assoc, 1805 W 3rd St
Los Angeles ... 213 387-8283
Cal Components Unltd, 499 Hamilton Ave
Palo Alto ... 415 326-1033
Conn Todino Engrg Sales Co, 132 N Haven Ave
Milford ... 203 874-6643
Fla Buchanan & Abrams, Box 6026
Orlando ... 305 423-8995
Ill Walt Sanders Assoc, 4750 N Milwaukee Ave
Chicago ... 312 777-7766
Kan Maury E Bettis Co, 423 N Fountain
Wichita ... 316 685-7441
Mass Todino Engrg Sales Co, 50 Kearney Rd
Needham Hts ... 617 444-7925
Minn Loren F Green & Assoc, 6225 University Ave
Minneapolis ... 612 781-1611
Mo Maury E Bettis Co, 3706 Broadway
Kansas City ... 816 561-0772
NJ Bonn Assoc, 266 Lake Ave
Metuchen ... 201 549-9573
NY NYCOM Inc, 2002 Teale Ave
Syracuse ... 315 437-8343
NY Bonn Assoc, 9 Ridge Dr
Huntington ... 516 427-4328
NC Al Over Co, 3723 Country Ridge Rd
Charlotte ... 704 366-8601
Ohio R G Sidnell & Co, 4300 S Dixie Dr
Dayton ... 513 293-1194
Ohio R G Sidnell & Co, 14701 Detroit Ave
Cleveland ... 216 221-1313
Pa Test Equip Sales Co, 4447 N Bodine St
Philadelphia ... 215 329-1822
Pa R G Sidnell & Co, 1007 Wood St
Pittsburgh ... 412 242-1476
Wash Farwest Agencies Div Inc, 12410 S E 32nd St
Belleview ... 206 747-1515
Can Datacomp Elctns Ltd, 1477 Eglinton Ave W
Toronto Ont ... 416 789-5732
For Frathom Co Inc, 202 E 44th St
New York ... 212 687-9390

VB ACTUATORS, INC, 1905 E 27TH ST, LONG BEACH
CAL, 90806 ... 213 424-8933
E WARDLE, ENG 6, $250-$500M
Fla Wm Jones Co, 2317 E South St
Orlando ... 424-6298
Ga Wm Jones Co, 2666 Redding Rd N W
Atlanta ... 261-8275
Md W M Jones Co Inc, 1107 N Echo Ct
Towson ... 823-5721
Mich Kober Sales Engrg Inc, 306 E Vermont St
Bay City ... 892-2629
Minn Applied Engrg & Sales Co, 12401 Minnetonka Blvd
Hopkins ... 935-3491
NJ Wm Jones Co, 322 S Forklanding Rd
Maple Shade ... 663-0510
NY Bradley & Assoc, 130 Van Cortlandt Ave
Bronx ... KI 9-8500
Ohio Jerry Kilroy Corp, Box 365
Chagrin Falls ... 247-8997
Swed AB Lineara, Stopvagen 75, Bromma ... 08/26 2200

VECTOR ASSOCIATES INC, 139-30 34TH RD
FLUSHING, N Y, 11354 ... 212 LE 9-3800
S BIENSTOCK, EMP 35, ENG 3, $500-$1,000M

VECTOR ELECTRONIC CO INC, 12460 GLADSTONE AVE
LOS ANGELES
CAL, 91342, TWX 910 496-1539 ... 213 365-9661
F HILL, EMP 100, ENG 7, $1,000-$2,500M

VECTOR ENGINEERING INC, 58 BROWN AVE
SPRINGFIELD
N J, 07081, TWX 710-983-4448 ... 201 379-7800
G MC CANN, EMP 300, ENG 100, $2,500-$5,000M
Cal Straube Assoc, 483 Willow Rd
Memlo Park ... 415 323-2476
Cal Straube Assoc, 98 West Jackson
Hayward ... 415 783-6750
Colo Straube Assoc, Box 1649, Boulder
Md L G White & Co, 880 Bonifant St
Silver Spring ... 301 585-3141
NJ Instrumentation Sales, Box 403
Ridgewood ... 201 445-5210
NC L G White Co Inc, Box 2356
Winston-Salem ... 919 PA5-3612
Pa L G White & Co, 100 N Essex Ave
Narberth ... 215 MO 4-6505
For Thos Moore & Co Inc, 110 Wall St
New York N Y ... 212 DI4-6300

VECTOR INDUSTRIES A TELEDYNE CO
821 SAN ANTONIO RD, PALO ALTO
CAL, 94303 ... 415 327-2955
J MONGILLO, EMP 35, ENG 7, $1,000-$2,500M
Cal Cain & Co, 15720 Ventura Blvd, Encino ... 783-4700
Cal Cain & Co, 3595 Mt Acadra
San Diego ... 714 278-1031
Fla Cain & C9, 2523 Chippewa Trail
Orlando ... 305 422-3460
Ill Cain & Co, 1203 Ironwood Dr
Mt Prospect ... 253-3578
Md Engineer Assoc, 1406 Shoemaker Rd
Baltimore ... 301 825-2385
Md Cain & Co, 7401 Nwe Hamshire Ave
Hyattsville ... 202 296-8265
Mass Triteek Inc, 165A Bedford St
Burlington ... 617 272-4550
NJ Maloy Stagnitti & Co, 7 Abbott Rd
Wayne ... 696-3747
NJ Maloy Stagnitti & Co, 4 Horizon Rd
Ft Lee ... 201 224-6911
NY Cain & Co, 3001 James St, Syracuse ... 437-2933
NY R Kreeger, 324 First St, Liverpool ... 315 437-2933
Ohio Cain & Co, 2485 Lipton Rd, Columbus ... 861-2119
Pa Cain & Co, One Bala Ave Bldg
Bala-Cynwyd ... 664-3797
Tex Cain & Co, 8609 N W Plaza Dr, Dallas ... 369-2897

VECTRON LABS INC, 146 SELLECK ST, STAMFORD
CONN, 06902 ... 203 324-9225
A CAMHI, EMP 15, ENG 4, $250-$500M
Ala Gentry Asso, 2109 W Clinton Ave
Huntsville ... 534-9771
Cal Fetty/Schoenduve Inc, 7407 Melrose Ave
Los Angeles ... 651-4050
Cal Fetty/Schoenduve Inc, 253 Twn & Cnty Vlg
Palo Alto ... 321-7041
Conn Westwood Assoc, Box 268, Suffield ... 668-5333
Fla Gentry Assoc, Box 11096, Orlando ... 841-7740
Ga Gentry Assoc, Box 13513 Sta K
Atlanta ... 233-3816
Mass Westwood Assoc, 181 West St
Waltham ... 891-7810
NJ F & F Assoc, 58 Arcadia Rd
Woodcliff Lake ... 778-6767
NY F & F Assoc, 461 Old Country Rd
Westbury ... 334-1160
NC Gentry Assoc, Box 197, Jamestown ... 454-1919
Pa Kastle Assoc, RD 1, Chalfont ... 34884466
Va Jay Co Inc, 2914 Annandale Rd
Falls Church ... 534-7800

VEECO INSTRUMENTS INC, TERMINAL DR, PLAINVIEW
N Y, 11803, TWX 510 221-1897 ... 516 681-8300
J RIVLIN, EMP 350, ENG 45, $5,000-$10,000M
Cal Veeco Instr Inc, 13425 Wyandotte St
N Hollywood ... 983-0804
Cal Veeco Instr Inc, 4546 El Camino Real
Los Altos ... 415 941-3801
Colo Veeco Instr Inc, Denver ... 238-0158
Ill Veeco Instr Inc, 8 S Michigan Ave
Chicago ... 332-3644
Md Veeco Instr Inc, 1075R Rockville Pike
Rockville ... 424-2010
Mass Veeco Instr Inc, 182 Forbes Rd
Braintree ... 617 848-1610
NJ Veeco Instr Inc, 20 Branford Pl, Newark ... 622-1027
NY Veeco Instr Inc, Syracuse ... 471-0560
Ohio Veeco Instr Inc, 1414 S Green Rd
Cleve ... 381-3610
Tex Veeco Instr Inc, 777 S Central Expwy
Richardson ... 214 231-7191
Can Radionics Ltd, 376 Churchill Ave
Ottawa ... 728-4624
Can Radionics Ltd, 505 Eglington Ave W
Toronto 12, Ont ... 416 483-7191
Can Radionics Ltd, 195 Graveline St
Montreal 19, Que ... 514 631-4568
Fr Veeco Sa, 64 a 70 Rue Des Chantiers
78 Versaille ... 951 03-34
Ger Veeco GMBH, Knorrstr 142
8000 Munich 45 ... 311 76-49
GB Veeco Instr Ltd, 21 Aston Rd
Waterlooville Portsmouth Hants ... 51181
Jap Tokyo Electron Labs, TBS Bldg, Akasaka
Tokyo ... 584-5611
Isrl Elina Ltd, 7, Rishonim St
Ramat-Gan, Tel-Aviv ... 720715

Aust National Instr Co Pty Ltd, Melbourne Airport
Essedon ... 379-1528

VEEDER-ROOT, 70 SARGEANT ST, HARTFORD
CONN, 06102, TWX 94-6481 ... 203 527-7201
R MOLLER, EMP 1250, ENG 95, OVER $10,000M
Cal Veeder-Root, 1049 Grand Central Ave
Glendale ... 245-8421
Ga C J Taylor, 3224 Peachtree Rd, N E
Atlanta ... 233-6203
Ill Veeder-Root, 455 State St, Des Plaines ... 824-0188
Md Veeder-Root, 126 Orthoridge Rd
Lutherville ... 539-7018
Mass Veeder-Root, 29 Andover St, Danvers ... 774-6110
Mich Veeder-Root, 648 Eastland Prof Bldg
Detroit ... 372-2220
Minn Veeder-Root, 2401 W 66th St, Mpls ... 866-4811
NJ Veeder-Root, 51 Lincoln St
East Orange ... 673-2661
NY Veeder-Root, 100 Allens Creek Rd
Rochester ... 244-0500
Ohio Veeder-Root Inc, 5725 Dragon Way
Cincinnati ... 271-6200
Ohio Veeder-Root, 12417 Cedar Rd
Cleveland ... 462-2634
Pa Veeder-Root Inc, 139 S Easton Rd
Glenside ... 887-0708
SC Veeder-Root Inc, Spartanburg Hy
Greenville ... 242-5733
Tex Veeder-Root Inc, 9711 Broken Bow Rd
Dallas ... 747-5483
Can Veeder-Root of Can Ltd, Box 156, Sta U
Toronto ... 239-3094
Can Veeder-Root of Can Ltd, 1495 McDonald St
St Laurent ... 747-1213
Ger Veeder-Root GmbH, Postfach 2 7303
Neuhausen/Filder ... 07158 2600
GB Veeder-Root Ltd, King Henry's Dr
New Addington, Surrey ... L H 2131

VEGA ELECTRONICS CORP, 2115 DE LA CRUZ BLVD
SANTA CLARA, CAL, 95050 ... 408 243-9777
C WILKINSON, EMP 30, ENG 4, $250-$500M
Cal Koessler Sales Co, 818 N Fairfax Ave
Los Angeles ... OL 3-1605
Cal Dobbs/Stanford, Box 269
San Carlos ... 415 591-0339
Cal CoMark Co, Box 2086, Santa Rosa ... 707 544-1044
Cal Gillingham Assoc, 19501 Aragon Cir
Huntington Beach ... 714 962-4111
Conn John B Anthony, 1098 Post Rd
Darien ... 203 655-8811
Fla Morris F Taylor Co, 940 Lake Elbert Dr
Winter Haven ... 294-2941
Ill Loren F Green & Assoc, 5218 W Diversey Ave
Chicago ... AV 6-6824
Kan Lowell Kangas & Assoc, Inc, Box 4116
Overland Park ... TU 8-3200
Md Morris F Taylor Co, 9500 Buckhorn Rd
Baltimore ... NO 8-9054
Md Morris F Taylor Co, Box 111
Silver Spring ... 301 JU 9-4002
Mass Jim Piper Assoc, 10 Haven St, Dover ... 449-1144
Mo Lowell Kangas & Assoc, Inc
Box 26, Creve Couer Sta, St Louis ... MI 7-1111
NJ Morris F Taylor Co, Box 23, Marlton ... MA 2-0383
NC Morris F Taylor Co, 1224 Dresden Dr, W
Charlotte ... 537-4878
Ohio Schroeder Sales Co, 2084 Noble Rd
Cleveland ... 216 268-3636
Pa Morris F Taylor Co, 108 Wesley Dr
Mechanicsburg ... 766-9633
Tex Charles Lucas Sales Co, Box 13632
Dallas ... WH 2-5958
Utah Duane E Parker & Assoc, 3385 S 2770 E
Salt Lake City ... 801 467-1703
For Intermedia, 26 Magazine Gap Flat 9A, Hong Kong
Swit Impetus S A, 2Via Berna, 6900 - Lugano

VEGA PRECISION LABS, 239 MAPLE AVE W, VIENNA
VA, 22180 ... 703 938-6300
D KRUCHKO, EMP 90, ENG 21, $2,500-$5,000M
For H H Munsey & Co Inc, Box 236, Huntington, NY

VEGA SERVO-CONTROL INC, 2611 ELLIOTT AVE, TROY
MICH, 48084 ... 313 585-3600
L HERNDON, JR, EMP 18, ENG 3, $250-$500M

VELLUMOID DIV FEDERAL-MOGUL CORP
54 ROCKDALE ST, WORCESTER
MASS, 01606 ... 617 853-2500
B WILLIAMS, EMP 350, ENG 4, OVER $10,000M
Cal D J Gross, 1296 Hillside St
Monterey Park ... 283-6283
Ill M P Murray, 414 N Dryden St
Arlington Hghts ... 392-6612
Mass P S Cunningham, 694 Webster St
Needham ... 444-3168
Mich D Glynn & C Cazabon, Box 1966
Detroit ... 353-6700
Ohio J L Pruss, 19794 N Sagamore Rd
Fairview Park ... 333-4447

VELONEX DIV PULSE ENGINEERING INC
560 ROBERT AVE, SANTA CLARA
CAL, 95050, TWX 910-338-0114 ... 408 244-7370
D KENNEDY
Ala Reynolds & Assoc, 904 Bob wallace
Huntsville ... 205 536-1941
Ariz R A Mayes Co, 4747 n 16th
Phoenix ... 602 279-5243
Cal Scientific Sales, Box 5324
Pasadena ... 213 791-3778
Colo R A Mayes Co, Box 314
Broomfield ... 303 421-0706
Fla Reynolds & Assoc, Box 1043
Eau Gallie ... 305 727-3205
Ga Reynolds & Assoc, 175 W Wieuca Rd NE
Atlanta ... 404 252-5360
Ill H H Sales, 1255 Sandburg
Chicago ... 312 642-4464
Mass FJM Assoc, Box 468, N Attleboro ... 617 699-7070
Mich Twin Region Elctn Sales, 2547 Monroe Blvd
Dearborn ... 313 274-4661
NJ Maloy Stagnitti & Co, 7 Abbott Rd
Wayne ... 201 696-3747
NM R A Mayes Co, 8016 Zuni Rd SE
Albuquerque ... 505 265-7989
Ohio Twin Region Elctn Sales, 21010 Center Ridge Rd
Cleveland ... 216 331-7650
Tex R A Mayes CO, 13333 N Central Expwy
Dallas ... 214 235-3043
Va Gans-Fryling Inc, 2030-16th St N
Arlington ... 703 527-3262

VELOTRON INC, BOX 98, MIDWOOD STA, BROOKLYN
N Y, 11230 ... 212 679-2770
M HERTAN, $250-$500M

VEMALINE PRODUCTS CO, INC, 455 W MAIN ST
WYCOFF, N J, 07481 ... 201 891-3200
EMP 45, ENG 6, $500-$1,000M
Cal Ruby Sales Corp, Box 487, Santa Clara ... 243-5580
Cal Ruby Sales Corp, Box 511
San Fernando ... 361-1201
Colo Ruby Sales Corp, 1200 S Alton
Denver ... 303 755-1714
Conn Electro Products Sales Co, 150 S Broad St
Meriden ... 203 235-4040
Fla Murphy Cota, 712 W Vassar St, Orlando
Ga Floyd Fausett & Co Inc, 2264 Melinda Ave NE
Atlanta ... 404 633-3561
Ill Ropek-Cahill, Inc, 5439 W Div St
Chicago ... 287-7292
Ind Richard Scales Assoc, 550 Summers Ave, Wabash
Mich Don Poulin Co, 17222 E Warren Ave
Detroit ... 886-4990
Minn L J Erger Co, Rte 1 Box 174a, Wayzata
Mo Airborne Elctns Co, 7759 Loma Vista Dr
Kansa s City
NY Ossmann Components Sales Corp, 39 Saginaw Dr
Rochester ... 442-3290
NY S-J Sales Assoc, 148-05 Archer Ave, Jamaica
Ohio Ralph M Nelson Inc, 1 Public Sq, Cleveland
Pa WC Sales Inc, Box 109, Easton ... 215 252-8300
Tex Stasco, 13310 Spring Grove Ave, Dallas
Wash Electronic Sales Corp, 5600 California Ave SW
Seattle ... 206 932-0330
Can H W Brieger Sales Inc, 5263 Decarie Blvd
Montreal, Que
For Southern Intl Sales Co, Box 1896, San Juan, PR
For Montclair Elctns Intl, 90 West St, New York

VENNER ELECTRONICS LTD, KINGSTON BY-PASS
NEW MALDEN, SURREY, ENG ... 01-942-2442
D OLLINGTON
NY Amark Corp, 31, Commercial St
Plainview ... 938-3322
Can Electrodesign Ltd, 9124 St Lawrence Blvd
Montreal, PQ ... DU 9-5914
Den National Elektro A/S, Farvergade 17
Copenhagen ... CEN 8237
Fr Tech et Produits, 63 Bis, Rue d'Aguesseau
Boulogne-sur-Seine ... 408-14-00
Holl Venner NV, Helmstr 3, Den Haag ... 559400
Ital Silverstar Ltd, 20 Via dei Gracchi
Milan ... 46 96 551
SAfr Eagle Eletric Co Ltd, 47/41 Hout St
Cape Town ... 2-9383
Swed Magnetic AB, Box 11060, Bromma 11 ... 29 04 60
Swit Venner AG, Burgenzielweg 16, Berne ... 446623

VENT-RAK INC, 525 S WEBSTER AVE, INDIANAPOLIS
IND, 46219 ... 317 359-5407
L VAUGHN, EMP 75, ENG 2
ADV PG 79
Ala Young & Lawrence Assoc, 2907 Governors Dr S W
Huntsville ... 205 539-6575
Ariz R A Mayes Co, 4747 n 16 th St
Phoenix ... 602 279-5243
Cal Dynamic Assoc, 1011 E Cadillac Way
Burlingame ... 415 344-2521
Cal Dynamic Assoc, 5190 W Washington Blvd
Los Angeles ... 213 933-5833
Colo R A Mayes Co, Box 314
Broomfield ... 303 421-0706
Conn Coakley Boyd & Abbett Inc, 6 Gaywood Drive
Waterbury ... 203 756-8766
Fla Young & Lawrence Assoc, 601 N New York Ave
Winter Park ... 305 647-6929
Ill Ringland M Krueger Co, 5755 W Irving Park Rd
Chicago ... 312 282-8444
Ind Thomas & Sukup, 2060 E 54th St
Indianapolis ... 317 251-4574
Kan Geo Kangas Assoc, Box 4116
Overland Park ... 913 888-3200
Md Gene Rosen & Assoc Inc, 9501 Wadsworth Dr
Bethesda ... 301 365-5113
Mass Coakley, Boyd & Abbett, Inc, 1424 Highland Ave
Needham ... 617 444-5470
Mich Martin Vogt, 2817 Bamlet Rd
Royal Oak ... 313 549-3355
Minn Hasse & Assoc, 3825 York Ave N
Mnpls ... 612 588-0551
Mo Lowell-Kangas & Assoc, Creve Coeur Sta Box 26
St Louis ... 314 647-1111
NJ Robert L Ringer Co, Box 114
Glen Rock ... 201 444 -1434
NM R A Mayes Co, 8016 Zuni Rd SE
Albuquerque ... 505 265-7989
NC Missiletronics Inc, 1321 E Morehead St
Charlotte ... 704 334-3994
Ohio Components Eng Co, 7461 N Linden La
Cleveland ... 216 842-2737
Okla T J Ray Co, 8514 E 31st Pl, Tulsa ... 918 627-1515
Tex Roger Martin Assoc, Box 1002
Bellaire ... 713 468-3877
Wash Electronic Sales Corp, Box 6535
Seattle ... 206 932-0330
Can Electronic Mktg Co Ltd, 3600 Barclay Ave
Montreal, Que ... 514 739-8052

VENTRON CORP METAL HYDRIDES DIV, CONGRESS ST
BEVERLY, MASS, 01915 ... 617 922-1875
J RELICK, EMP 100, ENG 15, $2,500-$5,000M
Cal Wilshire Chemical Co Inc, 15324 S Broadway
Gardena
Cal W F Graden Co, 3155 Leonis Blvd, Vernon
Ga M L Atkinson Jr, 810 San Antonio Dr NE, Atlanta
NH G E Grise, 13 Summit Dr, Atkinson
NJ D M Tanguay, 52 Pard View Ter, Summit
NC C Q Rooks, 7009 Rockledge Dr, Charlotte

VENTRON ELECTRONICS CORP, 20 LEON ST
BRADFORD, PA, 16701 ... 814 362-3586
C SMITH, EMP 120, ENG 12, $5,000-$10,000M
Cal D Binkerd, Box 3202
Granada Hills ... 213 360-2295
NJ H Degan, Olympic Prof Bldg
Upper Montclair ... 201 744-8378

VENTRON INSTRUMENTS CORP MAGNION DIV
144 MIDDLESEX TPK, BURLINGTON
MASS, 01803 ... 617 272-5200
R LOCKE, EMP 65, ENG 12, $100-$250M
Cal Southwest Scientific Co, 15452 Cabrito Rd
Van Nuys ... 873-3554
NM Southwestern Engrg & Equip Co
707 1st Nat Bank Bldg E
Albuquerque ... 265-6775
Tex Southwestern Eng & Equip Co
6300 N Central Expwy, Dallas ... Em3-6501
Tex Southwestern Engrg & Equip Co
4242 Richmond Ave, Houston ... MO 6-2313
Fr S A Tek-Elec/ Air Tronic
Cite des Bruyeres Rue Carle-Vernet, Sevres S & O
Jap Asahi Trading Co Ltd, C P O Box 49, Tokyo

VENUS SCIENTIFIC INC, 25 BLOOMINGDALE RD
HICKSVILLE, N Y, 11801 ... 516 GE 33360
P BECKWITH, EMP 26, ENG 5, $500-$1,000M
Md Tomco Sales Co, Long Point on the Severn
Crownsville ... 301 849-2401
Mass Addelco Corp, 56 Pickering St
Needham ... 617 444-4754
Ohio McShane Co, 114 Trails End Dr
Medina ... 725-4283

VERITRON WEST INC, 20245 SUNBURST ST
CHATSWORTH, CAL, 91311 ... 213 341-7770
A NEUMANN, EMP 400, ENG 15
Cal Veritron West Inc, 20245 Sunburst St
Chatsworth ... 341-7770
Cal L Rauscher, Box 8, Mountain View ... 961-5310
Fla Tech-Rep Assoc Inc, Box 8218
Madeira Beach ... 391-0008
Mass Alloys Unltd, 24 Alden Cir, Reading
NY Alloys Unltd Inc, 320 Long Island Expwy S
Melville ... 694-7900

VERNAY LAB INC, S COLLEGE ST, YELLOW SPRINGS
OHIO, 45387

VERNI TRIM CORP, 44 PROSPECT ST, YONKERS
N Y, 10701 ... 914 YO 3-5900
J WILENTCHIK, EMP 20, ENG 1

VERNITRON CORP PRECISION COMP GROUP
59 CENTRAL AVE, FARMINGDALE
N Y, 11736, TWX 510 224-6890 ... 516 MY 4-5002
S WEXLER, EMP 684, ENG 25, OVER $10,000M
Cal Vernitron Corp, 1742 S Crenshaw Blvd
Torrance ... 213 328-2504
Cal Halbar Assoc, 1805 W Third St
Los Angeles ... 213 387-8283
Conn Kitchen & Kutchin, Inc, 22 Broadway
North Haven ... 239-0212
Fla Orbe Inc, 300 31st St N, St Petersburg ... 894-0687
Ill D Dolin Sales Co, 3525 W Peterson Ave
Chicago ... JU 8-3738
Md W C Joiner, 13805 Briarwood Dr
Laurel ... 725-8292
Mass Kitchen & Kutchin Inc, 17 Waltham St
Lexington ... VO 2-8230
Mich R C Nordstrom & Co, Box 32
Lathrup Village ... 444-4417
Minn Smith Engrg Assoc, 2278 Como Ave
St Paul ... 612 646-4851
Mo Thunderbird Eng Sales, 400 Brooks Dr
Hazelwood ... PE 1-4343
NJ Ed Moskal, 242 St John's Ave
New Market ... 752-2724
NY Frank Bowser, 129 Woodspath Rd
Liverpool ... 652-5160

NY Vemitron Corp, 50 Gazza Blvd, Farmingdale
NY J Moonelis, 50 Gazza Blvd
Farmingdale 516 694-5002
NC W C Joiner, 13805 Briarwood Dr
Laurel 725-8292
Ohio Rixan Assoc, 33 W Stratford Ave
Dayton .... BA 2-0011
Pa Alvin C Lanson, 720 Selmer Rd, Phila ... OR 7-1224
Tex Jacobson Co, 8609 N W Plaza Dr
Dallas .... EM 3-7584
Wash Ray Johnston Co Inc, 1011 NE 69th St
Seattle .... LA 4-5170
Can Electrodesign Ltd, 9124 St Lawrence Blvd
Montreal .... DU 9-5914
GB Moore Reed & Co Ltd, Walworth Andover
Hampshire .... OAN 4-4155

VERO ELECTRONICS, INC, 176 CENTRAL AVE, FARMINGDALE
N Y, 11735 .... 516 694-6550
W O'DONNELL, EMP 60, ENG 6
ADV PG 72, 312
Ala Troy Engineering Assoc, Box 1074, Huntsville
Ariz Allen Assoc, Box 3091, Papago Sta
Scottsdale 945-5781
Cal. Connolly & Co, 914 Rengstorff Ave
Mt View 967-6988
Cal Westaironics Assoc, 6715 Hollywood Blvd
Hollywood 464-7315
Conn Todino Engineering Sales, Box 402
Milford 874-6643
Ill Actronic Sales Eng, Inc, 4750 N Milwaukee Ave
Chicago 286-1037
Mass Todino Electronic Sales, 50 Kearney Rd
Needham Hgts .... HI 4-7925
Mich McDonald Sales Co, 227 S Cornell Circle
Ft Wayne, Ind
NC Troy Engineering Assoc, Box 314, Burlington
Tex Elcom, 2616 W Mockingbird La, Dallas .. FL 2-5006
Can Chapman Electronic Agency, Box 650
Waterdown, Ont
GB Vero Electronics Ltd, South Mill Rd, Southampton

VERO ELECTRONICS LTD, S MILL RD REGENTS PARK
SOUTHAMPTON, ENGLAND, TWX 47551 2921
J POTTER, EMP 103, ENG 8, $500-$1,000M

VERSATEK INDUSTRIES INC, 4301 HULL ST
INDIANAPOLIS, IND, 46226 .... 317 545-2471
S SICKS, EMP 35, ENG 3, UP TO $100M

VERSATRON INC, 2455 GARDEN RD, MONTEREY
CAL, 93940 .... 408 373-3800
R RICH, EMP 14, ENG 2, $250-$500M

VERSITHERM, INC, 51 TOLEDO ST, FARMINGDALE
N Y, 11735 .... 516 694-6363
S LAMSTON, ENG 2

VERSITRON INC, 6310 CHILLUM PL NW
WASHINGTON, D C, 20011 .... 202 882-8464
H MEISINGER, EMP 50

VESTAL MODERN DESIGN CORP, VESTAL PKWY E
VESTAL, N Y, 13850 .... 607 785-9901
E CONNER, EMP 150, ENG 12, $1,000-$2,500M

VETTER CO, A R, BOX 143, REBERSBURG
PA, 16872 .... 814 349-5461
A VETTER
Holl Elphysar, Parallelweg 114, Veenendaal

VIATRAN CORP, 1720 MILITARY RD, BUFFALO
N Y, 14217 .... 716 874-3300
D JOSLYN, EMP 6, ENG 1, $100-$250M
ADV PG 724
Ala Vaughn Electro Sources Co, Box 1369
Huntsville 881-8830
Cal Research Data Corp, 110 S Euclid Ave
Pasadena 681-3451
Conn Abbott-Allison Co, Box 467, Meriden 237-9232
Ill Marsten Sales Co, 6535 Northwest Hgwy
Chicago 775-6611
Md East Coast Liaison Inc, Box 243
Lutherville 252-1288
Ohio Tiby Co, 2245 Warrensville Ctr Rd
Cleveland 371-5335
Pa Control Instrument Sales Co, 2727 Philmont Ave
Bethayres 676-1808

VIBRAC CORP, RT 129, ALPHA IND PARK
CHELMSFORD, MASS, 01824 .... 617 256-6581
C JOHNSON, JR, EMP 25, ENG 3, $500-$1,000M
Ala Roy Steckmesser Assoc, 816 Esslinger Rd SE
Huntsville 881-1750
Cal Frauman Assoc, Box 357, Menlo Park 322-8461
Cal B J Wolfe Enterprises, 10760 Burbank Blvd
N Hollywood 877-5518
Fla Roy Steckmesser Assoc, Orlando 425-0788
Ill Lightner Assoc, 6322 N Milwaukee Ave
Chicago 774-1500
Mass Daner Assoc, 684 Commonwealth Ave
Newton Centre 969-4650
Mich Measurement Instruments, Inc, 2547 Monroe Blvd
Dearborn 278-4744
Minn Northport Engineering, 2027 Grand Ave
St Paul 698-3841
NJ Ray Lawson Assoc, Box 206, Wenonah ... 857-1515
NJ Bonn Assoc, 266 Lake Ave, Metuchen ... 549-9573

NY H C Johnson Agency, 111 Mt Hope Ave
Rochester 232-2688
NY H C Johnson Agency, 8 Los Robles St
Williamsville 632-7880
NY H C Johnson Agency, Box 86, Brandywine Sta
Schenectady 374-5901
NY H C Johnson Agency, Box 215, Fayetteville
637-9595
NY Bonn Assoc, Long Island 427-4328
NC K O Brown & Co, Box 9231 Plaza Sta
Greensboro 288-2651
Ohio Measurement Instruments, Inc, 19115 Detroit Rd
Cleveland 333-6611
Ohio Measurement Instruments, Inc, 1717 Section Rd
Cincinnati 531-2729
Ohio Measurement Instruments, Inc, 2074 Arlington Ave
Columbus 448-9753
Pa Measurement Instruments, Inc, 908 Perry Hwy
Pittsburgh 366-1906
Tex K O Brown & Co, Box 20845, Dallas 357-3996
Wash Western Electro Dynamics Co
584 Dexter Horton Bldg, Seattle 682-8412
Can Bayley-Milley Ltd, 8 Tabor Rd
Rexdale Ont 244-5511

VIBRACHOC S A, 39 RUE DES MATHURINS, PARIS 8E
FRANCE 265-8061
R PELAT, EMP 180, ENG 10, $1,000-$2,500M

VIBRASLIDE INC, 95 PROSPECT AVE, BINGHAMTON
N Y, 13902 .... 607 772-0404
D CLIFT, EMP 28, ENG 2

VIBRASONICS INC, BOX 52, NEEDHAM
MASS, 02192 .... 617 444-8296
J VOGT, EMP 3, ENG 1, UP TO $100M

VIBRATION INSTRUMENTS CO
1614 ORANGETHORPE WAY, ANAHEIM
CAL, 92801 .... 714 879-6085
M MARSH, $100-$250M
Ala Space Systems Sales & Engrg Inc
912 Bob Wallace Ave, Huntsville 536-5650
Cal Thornton Assoc, 2132 Vista Laredo
Newport Beach 714 546-4107
Cal Waldman Assoc, 1094 W Evelyn
Sunnyvale 408 245-2500
Colo Space Systems Sales & Engrg Inc
101 University Blvd, Denver 388-9225
Conn Howard J Schuft Co Inc, 965 Dixwell Ave
New Haven 865-1365
Fla Currie Aerospace Assoc, 2907 McCoy Rd
Orlando 855-0843
Mass Howard J Schuft Co Inc, 815 Washington St
Newtonville 527-5304
Mich Anderson Electronics Co
19471 James Couzens Hwy, Detroit 342-7133
NJ Gawler-Knoop Co, 14 Beauford Ave
Roseland .... 201 CA 6-4545
NM Space Systems Sales & Engrg Inc
1401 Valencia S E, Albuquerque 255-7058
NC Currie Aerospace Assoc, 519 Nissen Bldg
Winston-Salem 725-1927
Ohio Instrumentation Systems Inc, 600 Winding Way
Dayton 293-8095
Ohio Instrumentation Systems Inc, 3481 Office Park Dr
Dayton 513 292-8095
Pa Engrg Technology Corp, Box 52
Bala-Cynwyd 667-5100
Tex Space Systems Sales & Engrg, Inc
810 Stemmons Tower S, Dallas 631-1740
Utah Space Systems Sales & Engrg, Inc
429 W 500 South, Bountiful 295-6464
Va Engrg Technology Corp, 6615 Backlick Rd
Springfield 451-6500
Wash Showalter-Judd Inc, 1806 S Bush Pl
Seattle .... 206 EA 4-7911

VICKERS INSTRUMENTS, INC, 15 WAITE CT, MALDEN
MASS, 02148 .... 617 324-6666
G OSGOOD JR, EMP 20, $1,000-$2,500M

VICON INSTRUMENT CO, 1353 MESITA RD
COLORADO SPRINGS, COLO, 80901 .... 303 596-5960
J HILPERT JR, EMP 90, ENG 8, $1,000-$2,500M

VICTOR-BERNARD INDUSTRIES INC, 1025 S 24TH ST
PHILADELPHIA, PA, 19146 .... 215 PE 5-5584
V COHEN, EMP 12

VICTOR COMPTOMETER CORP, BUSINESS MACH GROUP
3900 N ROCKWELL ST, CHICAGO, ILL, 60618 ... 312 KE 9-8210
T FOX, EMP 4000, OVER $10,000M
ADV PG 547
Sales offices located in principal cities in U S

VICTOR ELECTRIC WIRE & CABLE CORP, 618 MAIN ST
WEST WARWICK
R I, 02893, TWX 401 828-1151 .... 401 821-1700
N BRILL, EMP 450, ENG 1, $5,000-$10,000M
Cal R L Assoc, 14401 Gilmore St
Van Nuys 213 782-7826
Conn J L Feinberg Assoc, 33 Shirley La
New London 203 442-2514
Fla Geartner Assoc, 2101 Mohawk Tr
Maitland 647-4000
Fla Geartner Assoc, 235 Lincoln Rd
Miami Beach 531-0200

Ga K & E Assoc, 1244 Atlanta Rd
Marietta 428-4311
Ga K & E Assoc, Blue Sr Mobile Home Park-7a Rt 2
Kennesaw 404 974-4264
Ill John G Twist Co, 5222 W Diversey
Chicago 777-2250
Ind McNabb-Brase & Assoc, 4002 Meadows Dr,
Indianapolis 317 545-8167
Minn Countryman, Wagner & Behmen Co
1955 University Ave, St Paul 612 645-9151
Mo Tanler & Co, 7720 E Big Bend Blvd
St Louis 645-0590
NJ Victor Electric, 24 Outwater La
Garfield 772-7171
NY W A Franklin Sales Corp, 2 Standish Terr
Syracuse 446-1120
NY W A Franklin Sales Corp, 21 Winhurse Dr
Rochester 442-9765
Ohio Geo L Herrick Co, 845 Canterbury Rd
Westlake 871-8855
Pa R T Pearson Sales, 1125 York Rd
Abington 887-0186
Va FBD Sales Corp, 4316 Greenleaf Dr
Chesapeake 703 484-3162
Wis Wm R Bolles & Assoc
8828 N Port Washington Rd
Milwaukee 414 352-1590

VICTOR GLOVES INC, 49 E 21ST ST, NEW YORK
N Y, 10010 .... 212 AL 4-7842
R KANTOR, EMP 75, $500-$1,000M
Cal Fred C Warren, Box 75822, Sanford Sta
Los Angeles .... WE 4-3947

VICTORIA CO, 303 WILSON AVE, WEST CHICAGO
ILL, 60185 .... 312 231-0850
R NEFF, EMP 3, ENG 1, UP TO $100M
Ill Repwood Inc, 260 Sunset, Glenellyn 469-2344
Wis Repwood Inc, 8019 N 50th St
Milwaukee 354-5161

VICTOR METAL PRODUCTS CORP
810 N MAIN ST BOX AA, HARRISONBURG
VA, 22801, TWX 710 839-1393 .... 703 434-4411
H TEMPLE, EMP 100, ENG 2, $1,000-$2,500M
Ark Victor Metal Prods Corp, Highway 67 N
Newport 523-3651
Cal Victor Industries Corp, Box 1190, Chico ... 342-5614
Cal Maclise Package Co, 202 Green St
San Francisco 415 362-6177
Conn Victor Metal Prods Corp, 21 Sherwood Ave
Greenwich 939-6445
Conn Victor Metal Prods Corp, Exit 3- Conn Twpk
Greenwich 661-9800
Ill Crown Plastics Corp, 401 N Western Ave
Chicago 666-7117
Iowa Victor Metal Prods Corp, Iowa City 338-7984
Mich J Giroux, 2970 W Grand Blvd, Detroit 875-5721
Mo J C Weiler & Co, 115 N Meramec Ave
St Louis 726-2044
NJ Paul Hrebenak, 21 Chicjon La
E Hanover 887-5488
NY Victor Metal Prods Corp, 75 Bayview Dr
Oakdale 567-1064
NY Victor Metal Prods Corp, 116-55 Queens Blvd
Forest Hills 897-0880
Ohio Robt L Branson, 12417 Cedar St
Cleveland 932-2000

VICTOR R F & MICROWAVE CO, 38 W WATER ST
WAKEFIELD, MASS, 01880 .... 245 4472-4473
G VICTOR, EMP 8, ENG 1, $100-$250M

VICTOREEN INSTRUMENT DIV, 10101 WOODLAND AVE
CLEVELAND
OHIO, 44104, TWX 810 421-8287 ...... 216 795-8200
W MCCARTHY, EMP 350, ENG 25, OVER $10,000M
Ala Radiation Service Co, Box 373, Birmingham
Cal Charles W Fowler Co, 9911 Inglewood Ave
Inglewood 213 678-5211
Cal Charles W Fowler Co, 845 Oak Grove Ave
Menlo Park 415 322-5374
Cal Riner-Stillman Inc, 200 3rd St
Los Altos 415 321-8867
Cal Jordan Group, 151 Pasadena Ave, South Pasadena
Cal Allgood Assoc, 1621 Centinela Ave
Inglewood 213 776-5820
Colo Chas W Fowler Co, Silver Spruce Boulder Canyon
Boulder 303 442-8566
Fla Southeastern Atomics Lab, 3520 NW 7th Ave
Gainesville 904 372-6860
Ga S&M Instrument Co, 2451 Carolyn Dr, Smyrna
Ga R Gans, Rte 3 Holiday Rd, Buford
Ill Contemporary Science Inc, Box 205
Mt Prospect .... 312 CL 5-3793
Ill W G Brouillette & Assoc, 9855 W Roosevelt Rd
Westchester 312 345-6500
Md Victoreen Instrument Co, 9709 24th Ave
Adelphi 703 548-8446
Mass FJM Assoc, Box 468, N Attleboro 617 699-7070
Mass C Spaulding Service, 194 Pilgrim Rd, Boston
Mich ABM Sales, 10116 Puritan Ave
Detroit 313 862-1300
Mo Contemporary Science, Box 4384
Affton 314 647-8481
NJ D Love, 3 Schanck St, Freehold 201 431-1297
NM Charles W Fowler Co, 9000 Menaul Blvd NE
Albuq 505 299-7676
NY W H Zimmerman Inc, 112 DeWitt St
Syracuse 315 474-4889
NY Victoreen, RFD 1, Patterson 914 878-9438
NY Victoreen Inc, 18 E 80th St
new York 212 744-7646

NC Al Over, 3723 Country Ridge Rd Charlotte ... 704 366-8601
Ohio R G Sidnell Co, 3400 S Dixie Dr Dayton ... 513 293-1194
Ohio R G Sidnell Co, 14701 Detroit Ave Cleveland ... 216 221-1313
Ore J Kooken, 6415 Canyon Ct Portland ... 503 292-8887
Pa Danco Corp, Box 245 Fairview Village ... 215 275-2600
Pa Microntronics, 1330 W Courtland St Philadelphia ... 215 334-8391
Pa Impac Instr Service, 201 E Carson St, pittsburgh
Pa R G Sidnell Co, 1029 Wood St Pittsburgh ... 412 242-1476
Tex Southwest Electronic Ind, 621 Meadows Bldg Dallas ... 214 363-1671
Tex Victoreen Instr Div, 7302 Redding Rd Houston ... PR 4-9135
Tex SEI Inc, 1405 S Post Oak Rd, Houston
Tex Nuclear Inst Repair, 9726 Southport Dr Houston ... HU 6-6500
Tex D E Luoto, 7302 Redding Rd Houston ... 713 PR 4-9135
Va Victoreen Instr Div, 178 Main St Warrenton ... 347-4404
Wash Seatronics Inc, 5931 Fourth Ave S Seattle ... 206 767-4330
Wash Charles W Fowler Co, 845 106th Ave N E Bellevue ... 206 454-8600
Can Radionics Ltd, 195 Graveline St Montreal ... 514 631-4568
Can Kaytronics Engrg, 5800 Monkland Blvd Montreal ... 514 489-9335
Can Radionics Ltd, 505 Eglinton Ave W Toronto 12 Ont ... 416 483-7191
Can Radionics Ltd, 376 Churchill Ave Ottawa 3, Ont ... 610 728-4624
Can Kaytronics Engrg, 5800 Monkland Blvd Montreal 28, Que ... 514 489-9335
Can M Hargreaves, 1001 Finch Ave Downsview, Ont ... 416 638-5511
For Electronics of PR, Box 6412 Loiza Sta, Santurce, PR
GB Victoreen Instr Div, London Rd Grove House Isleworth, Mdsx ... ISL 0403

VICTORY ENGINEERING CORP, 122-48 SPRINGFIELD AVE
SPRINGFIELD, N J, 07081, TWX 710 983-4430 ... 201 379-5900
J BACEK, EMP 270, ENG 22
ADV PG ADVERTISEMENT FACING PAGE 1
Cal Fetty/Schoenduve, 7407 Melrose Ave Los Angeles ... 213 OL 1-4050
Colo Kelley Enterprises, 336 E 4th St Loveland ... 303 NO 7-1376
Conn New England Technical Sales, 3 Mott Ave Norwalk ... 203 866-6382
Ill J R Sales Engineering, 7132 N Harlem Ave Chicago ... 312 774-8550
Ind Scott Electronics Inc, 915 N Penna Ave Indpls ... 317 ME 5-8951
Md Habco Electronics, 603 Alleghany Ave Towson ... 301 VA 5-9637
Mass New England Technical Sales, 7 Cypress Dr Burlington ... 617 272-0434
Mich Villani-Pitcher Inc, 20233 Ann Arbor Tr Dearborn ... 313 271-4600
Minn International Sales Co, 8703 Beard Rd Mnpls ... 612 881-6683
Mo Technical Mktg Assoc, 2050 Woodson Rd St Louis ... 314 427-3600
NJ Harold Gray Assoc, 20 Foster St Bergenfield ... 201 384-3643
NJ R W Marshbank Assoc, 123 Clements Bridge Rd Barrington ... 609 546-6555
NY Fowler Beach Corp, 3700 East Ave Rochester ... 716 LU 6-0468
Ohio Scott Electronics Inc, 120 W 2nd St Dayton ... 513 BA 3-2652
Ohio Scott Electronics Inc, 1836 Euclid Ave Cleveland ... 216 TO 1-2626
Ohio Scott Electronics Inc, 81 E State St Columbus ... 614 CA 8-2313
Ohio Scott Electronics Inc, 9505 Montgomery Rd Cincinnati ... 513 791-2513
Pa Scott Electronics Inc, 507 Liberty St Pittsburgh ... 412 GR 1-5233
Tex Southwest Electronic Industries 621 Meadows Bldg, Dallas ... 214 EM 3-1671
Tex Southwest Electronic Industries 1405 S Post Oak Rd, Houston ... 713 621-3760
Wash Blair Hirsh Co, 4013 Leary Way NW Seattle ... 206 783-3423
Can Ben Manis Assoc Reg'd, 6600 St Urbain St Montreal ... 514 274-8271
For Rocke Intl Corp, 13 E 40th St New York, NY ... 212 MU 7-0200
For Moriss Saliss, Box 2307 San Juan ... 143 Trujillo Alto

VIDAR CORP, 77 ORTEGA AVE, MOUNTAIN VIEW
CAL, 94040, TWX 910 379-6933 ... 415 961-1000
R OLIVIER, EMP 320, ENG 25, $5,000-$10,000M
Ariz Thorson Co, 2505 E Thomas Rd Phoenix ... 264-5878
Cal Thorson Co, 6824 Melrose Ave Los Angeles ... 937-0790
Cal Product Data Co, 1147 S Robertson Blvd Los Angeles ... 278-3356
Colo Hytronic Measurements Inc, 14940 E 39th Ave Denver ... 388-4081
Ill Pivan Engineering, 3535 W Peterson Ave Chicago ... 539-4838
Ind Pivan Engineering, 8545 Northcrest Ct Indpls ... 253-1681
Iowa Pivan Engineering, Box 1274 Cedar Rapids ... 365-6635
La Noakes Engineering, Box 940, Slidell ... 529-3012
Mich WKM Assoc, 1474 E Outer Dr, Detroit ... 892-2500
NM Hytronic Measurements Inc, 205 San Pablo, S E Albuq ... 268-3941
Ohio WKM Assoc, 6741 Ridge Rd, Cleveland ... 885-5616
Ohio WKM Assoc, 5335 Far Hills Ave Dayton ... 434-7500
Pa WKM Assoc Inc, 90 Clairton Blvd Pittsburgh ... 892-2953
Tex Noakes Engineering, Box 968, Irving ... 255-0441
Tex Noakes Engineering, 2128 W Alabama Houston ... 529-5213
Utah Hytronics Measurements Inc, 2022 Main St Salt Lake City ... 466-4924
Wis Pivan Engineering Co, Box 437 Waukesha ... 547-5131
Can Allan Crawford Assoc Ltd, 65 Martin Ross Ave Downsview, Ont ... 636-4910
Can Allan Crawford Assoc Ltd, 376 Churchill St Ottawa, Ont ... PA 5-1288
Can Allan Crawford Assoc Ltd 6999 Cote Des Neiges Rd Montreal, Que ... 739-6776
BC Allan Crawford Assoc Ltd, 5901 E Broadway Burnby 3, B C ... 291-7161

VIDARO CORP, BOX 535, KENT
OHIO, 44240 ... 216 673-7413
E DAVIS, EMP 13, ENG B, $1,000-$2,500M

VIDCOR CO INC, 1251 W EL SEGUNDO BLVD
GARDENA, CAL, 90247 ... 213 757-0119
L JONES, EMP 24, ENG 3
Ariz Coronado Elctn Assoc, Box 3176 Scottsdale ... 602 947-9060
Cal M A Assoc, 2015 Latham St Mountain View ... 324-1339
Md Naudain Assoc, Box 1, Lutherville Timonium Baltimore ... 252-5378
Mass Ray Perron & Co, 1870 Centre St Boston ... 617 323-1008
Minn Hamilton Grayden & Flemmer, Hamilton Rd Hopkins ... 941-1120
NY W Jay Assoc, Box 56 23-25 Bell Blvd Bayside ... 212 229-0150
Pa Naudain Assoc, 1032 Suburban Bldg Philadelphia ... 564-3194
Va. Naudain Assoc, Box 245, Lynchburg ... 846-8044
For Intercontinental Aviation Services, Box 1705 Beverly Hills, Cal ... CR 4-7578

VIDEO COLOR CORP, 500 S DOUGLAS ST
EL SEGUNDO, CAL, 90245 ... 213 772-5251
M SAD[illegible]WSKY, EMP 23, ENG 3, $500-$1,000M

VIDEOCRAFT MFG CO, 2835 N WESTERN AVE
CHICAGO, ILL, 60618 ... 312 AL 2-0801
B LEEB, EMP 400, ENG 7, $2,500-$5,000M

VIDEO INDUSTRIES CO, 45 BRICK OVEN RD
PORT CHESTER, N Y, 10573 ... 914 WE 94919
S SIMONS, EMP 15, ENG 1, $250-$500M

VIDEO RESEARCH CORP, 761 N WASHINGTON ST
ROCKVILLE, MD, 20850 ... 301 762-5999
V RATNER, EMP 30, ENG 7, $100-$250M
Fr Bureau De Liason, 113 Rue De L'Uninersite, Paris

VIDMAR DIV VOLKERT STAMPINGS INC
2323 REACH RD, WILLIAMSPORT
PA, 17701 ... 717 326-0501
W DEVANEY, EMP 300, ENG 20, $5,000-$10,000M

VIKING INDUSTRIES INC, 21001 NORDHOFF ST
CHATSWORTH, CAL, 91311 ... 213 341-4330
D DUNN, EMP 365, ENG 12, $5,000-$10,000M
Ala Technical Marketing, Box 1001 Huntsville ... 205 534-2487
Ariz Howe & Howe Sales, Box 10497 Phoenix ... 602 264-7971
Cal R A Banks Sales Corp, 029 Corporation Way Palo Alto ... 415 964-4464
Colo Elcom, Box 469, Littleton ... 303 798-8481
Conn Forsberg Sales, 22 Broadway North Haven ... 203 239-5111
Fla Technical Marketing, 1511 E Robinson Ave Orlando ... 305 424-8531
Fla Technical Mktg Inc, Box 237, Largo ... 813 446-6192
Ga Technical Mktg Inc, Box 1152 Marietta ... 404 435-0079
Ill Gassner & Clark Co, 6644 N Western Ave Chicago ... 312 764-6121
Mass Forsberg Sales, 646 Summer St Brockton ... 617 522-6300
Mich G & H Sales Co, 24001 Southfield Rd Southfield ... 313 358-1910
Minn R G Ragon Inc, 1136 W Larpenteur Ave St Paul ... 612 488-6634
NJ Graydon Sherman Inc, 230 Madison Ave Morristown ... 201 538-9246
NJ Sunday-O'Brien, 15 Potter St Haddonfield ... 609 429-4013
NM Elcom, 209 San Pablo SE 4, Albuq ... 505 256-3663
NY Graydon-Sherman, Davis Bldg Fayetteville ... 315 637-9861
NC Technical Mktg Inc, Box 6664 Greensboro ... 919 274-2570
Ohio G & H Sales Co, Box 37416 Cincinnati ... 513 761-6185
Ohio G & H Sales Co, 13690 Fox Hill Rd Novelty ... 216 338-1122
Ore Arneson Assoc, 200 NE Canyon Rd Beaverton ... 503 646-3416
Pa Nebco Assoc, 1974 Gregory Ave Monroeville ... 412 824-2111
Tex Allied Components, Box 18146 Dallas ... 214 348-6660
Tex Allied Components Inc, 4234 Richmond Ave Houston ... 713 664-4203
Utah Elcom, 4480 Camille Dr Salt Lake City ... 801 278-6044
Va John Hopkins Assoc, 4520 Starr Jordan Dr Annadale ... 703 280-2086
Wash Arneson Assoc, 5950 6th Ave S Seattle ... 206 762-7664
W Va Nebco Assoc, 1 Spotswood Court Charleston ... 304 344-1111
Can Ampel Elctn Sales Ltd, 489 Champagne Dr; downsview, Ont ... 416 635-8783
Holl Koning & Hartman, Koperwerf 30, The Hague
Jap Toko Trading Inc, 6 Tsukji 3 Ch Chome, Chou-Ku Tokyo
Swed Ajgers Elektronik A B, Fack, Stockholm 32

VIKING INSTRUMENTS INC, 400 TOWN ST
EAST HADDAM, CONN, 06423 ... 203 873-8643
R DANIELSON, EMP 65, ENG 4, $1,000-$2,500M

VIKING WIRE CO INC, 100 SHELTER ROCK RD
DANBURY
CONN, 06810, TWX 710 456-1217 ... 203 744-4600
S WARSCHAUER, EMP 175, ENG 2, $5,000-$10,000M
NY Pacent Engineering Corp, 300 Northern Blvd Great Neck ... 482-4678

VIKOA INC, 400 9TH ST, HOBOKEN
N J, 07030 ... 201 656-2020
A LIPP, EMP 800, OVER $10,000M

VINCO INDUSTRIES, 344 N STATE COLLEGE BLVD
ORANGE, CAL, 92668 ... 714 639-3611
R FRANKLIN, EMP 75, ENG 3, $100-$250M
Cal Mann Communications & Elctns Inc 18669 Ventura Blvd, Tarzana
Ill Ellinger Sales Corp, 6580 N Northwest Hwy Chicago ... RO 3-1570
Ind Ellinger Sales Corp, 5214 Forest Ave Ft Wayne ... 483-4833
Iowa Ellinger Sales Corp, 309 4th Ave SE Clarion ... 532-3218

VIRGINIA ELECTRONICS CO INC, 2901 TELESTAR CT
FALLS CHURCH, VA, 22042 ... 703 560-6500
J DAWSON, EMP 90, ENG 8, $500-$1,000M
Cal Biztek Co, 10639 Riverside Dr N Hollywood ... 213 766-4890
Fla CES Assoc, Box 1152, Melbourne ... 305 723-2321
Ill Malovac Sales Co, 1726 N 76th Ct Elmwood Park ... 312 637-9090
Ind Hoster Assoc, 1627 W 75th Pl Indpls ... 317 251-2566
Mass Techcom Assoc, Box 71 Alpha Ind Pk Chelmsford ... 617 256-3431
Minn Forcey Machine Tool Sales 445 Endicott Bldg on 4th St St Paul ... 612 222-1600
NJ Megatone Inc, 240 Grand Ave Leonia ... 201 944-2212
NY Travco Assoc Inc, 142 Mineola Ave Roslyn Heights ... 516 487-9666
NY Megatone Inc, 202 Woods Path Rd Liverpool ... 315 652-8273
Ohio Clare Electronics, 24431 Oakhill Dr Cleveland ... 216 481-5364
Pa Technicraft Co, 7028 Ridge Ave Philadelphia ... 215 483-4700
Tex Texas Avionics Co, 4515 Prentice St Dallas ... 214 363-6324
Utah Arrowhead Sales Corp, 1966 W 6255 S Salt Lake City ... 801 298-2751

VIRGINIA PANEL CORP, 1400 NEW HOPE RD
WAYNESBORO, VA, 22980 ... 703 942-8376
J TAYLOR, EMP 80, ENG 3
Cal Peters-de Laet Inc, 1606 Rollins Rd Burlingame ... 697-1800
Fla J R Soblosky, 211 N Ridgewood Ave Daytona Beach ... 255-6313
Ky A Bruce Crock Inc, 2416 Frankfort Ave Louisville ... 896-6611
Md M L Councell Assoc, 721 Ellsworth Dr Silver Spring ... 587-1755
Mass TAB Prods Co of Boston, 1020 Commonwealth Ave Boston ... RE 4-4130
NJ Hansen Assoc, Box 339, Ridgewood ... 652-7055
Ohio A Bruce Crock Inc, 8286 Winton Rd Cincinnati ... 521-5040
Ohio A B Crock, Inc, 21670 Cneter Ridge Rd Cleveland ... 333-1300
Ohio A B Crock, Inc, 81 E State St Columbus ... 221-4888
Ohio A B Crock, Inc, 3864 S Kettering Blvd Dayton ... 223-7777
Pa Hilliard Assoc, Inc, Old York Rd at Noble Sta Jenkintown ... 884-6100

VISHAY RESISTOR PRODS DIV VISHAY
INTERTECHNOLOGY INC, 63 LINCOLN HWY
MALVERN, PA, 19355 ... 215 644-1300
J CURLEY, EMP 100, ENG 7, $1,000-$2,500M

Ala Emory Design & Equip Co
Apt A-9 1000 Airport Rd, Huntsville ... 881-1412
Ala Space Engineering Sales, 4306 Governors Dr, S W
Huntsville ... 205 837-6060
Cal Melchior & MacPherson, 820B Cherry St
San Carlos ... 591-7383
Cal Western Controls, 04615 Ventura Blvd
Sherman Oaks ... 789-0265
Colo I W Strong & Assoc, 110 Yuma
Denver ... SH 4-1351
Conn Comp Rep Assoc, 14 Bowling Green Ave
North Haven ... 239-9762
Fla W Ben Wimberly Co, 532 S Ft Harrison Ave
Clearwater ... 446-7072
Fla W Ben Wimberly Co, 500 S Osceola
Orlando ... 425-3083
Ill Technical Devices, Inc, 6416 W Central Ave
Chicago ... 774-8252
Md J A Dougherty Sales Co, 320 Hillen Rd
Towson ... 823-0431
Mass Comp Rep Assoc, 1116 Great Plain Ave
Needham ... 444-2484
Mich Willard Spenser Co, 20144 Livernois Ave
Detroit ... UN 3-5189
Minn Pinkney & Assoc Inc, 1925 Nicollet Ave
Minneapolis ... 338-0523
Mo Technical Mktg Assoc, 7546 Troost St
Kansas City ... JA 3-7865
Mo Technical Mktg Assoc, 2050 Woodson Rd
St Louis ... HA 7-3600
NJ Bressler Assoc, 4808 Bergenline Ave
Union City ... UN 4-9577
NJ Bressler Assoc, 4808 Bergenline Ave
Union City ... UN 4-9577
NY E E Harries & Co, Inc, 15 Canterbury La
E Aurora ... 652-1221
Pa Massey Assoc Inc, 1325 Westchester Pike
Havertown ... JA 8-6384
Tex Texas Avionics Co, 4515 Prentice St
Dallas ... EM 8-3566
Tex Stolle-Hamilton, 1108 Myer, Seabrook ... GR 4-3155
Wash Harry Levinson Co, 1211 E Denny Way
Seattle ... 206 323-5100
Can Willard Spenser Co, 3238 Curry St, Windsor
Fr SFER, 115 Blvd de la Madeleine, Nice
Ger Rosenthal-Isolatoren, GMBH, Selb, Bavaria
GB Welwyn Electric Co, Bedlington, Northumberland
Jap Kyowa Electronics Instr Ltd
19 Shiba Nishikube, Akefune-Cho, Minato-Ku
Tokyo

VISIONTRON CORP, 663 5TH AVE, NEW YORK
N Y, 10022 ... 212 752-4565
B DEDUBE, EMP 100, ENG 12, $250-$500M

VISUAL ELECTRONICS LABS AUDIO DIV
40 N DAISY AVE, PASADENA
CAL, 91107, TWX 910-588-3292 ... 213 795-9111
M BROWN, EMP 20, ENG 3, $100-$250M
NY Visual Electronics Corp, 356 W 40th St
New York N Y ... 212 736-5840

VISUAL INSPECTION PRODUCTS
112 CENTRAL AVE, DEPT 7, LYNN
MASS, 01903 ... 617 595-2366
R BORCK, EMP 14, ENG 3, $250-$500M
For Frathom Inc, 202 E 44th St
New York, NY ... 212 687-9390

VITAL INDUSTRIES INC, 3614 SW ARCHER RD
GAINESVILLE, FLA, 32601 ... 904 378-1581
N DONOYAN, EMP 30, ENG 6, $500-$1,000M
Cal Peninsula Assoc, 1447 Bayshore
Palo Alto ... 322-1803
Ga N Donoyan, 3620 Ridgewood Rd NW
Atlanta ... 904 233-9459
Can Caldwell A/V Equipment Co Ltd, 135 Midwest Rd
Scarborough, Ont ... 751-0881

VITRAMON INC, BOX 544, BRIDGEPORT
CONN, 06601, TWX 710 450-3640 ... 203 268-6261
P BROGGI, EMP 410, ENG 15, $2,500-$5,000M
Ala Spectec Div, 1314 Buford St NW
Huntsville ... 539 -6884
Ariz Barnhill Assoc, 4900 E Indian School Rd
Phoenix ... 959-2115
Cal James S Heaton Co, 3695 Haven Ave
Menlo Park ... EM 9-4671
Cal Dorado Elctns Inc, 13615 Victory Blvd
Van Nuys ... 873-4124
Colo Barnhill Assoc, 1170 S Sheridan Blvd
Denver ... 934-5505
Conn J E Boeing Co Inc, 225 Montowese St
Branford ... 488-8301
Fla Spectec, 212 Bradley Dr NW
Fort Walton Beach ... 904 243-6424
Fla Spectec, 222 Weber Ave, Orlando ... 305 425-5505
Fla Spectec, 3039 NE 32nd Ave
Ft Lauderdale ... 305 565-3885
Ga Spectec, 1590 Cooledge, Tucker ... 404 939-1674
Ill Gassner & Clark Co, 6644 N Western Ave
Chicago ... 764-6121
Md Wm I Duncan & Assoc, 206 Washington Ave
Towson ... 823-2506
Mass J E Boeing Co Inc, 18 Muzzey St
Lexington ... VO 2-2500
Mich Hilltronics, Inc, 13720 Puritan Ave
Detroit ... 342-3242
Minn Hasse & Assoc, 3825 York Ave N
Minneapolis ... 588-0551
Mo L R Harry & Assoc, 7603 Forsyth
Clayton ... 816 PA 7-6123
Mo L R Harry & Assoc, Box 588
Grandview ... 816 SO 3-3634
NM Barnhill Assoc, 6101 Anderson St S E
Albuquerque ... 265-7766
NY Tech-Mark, Inc, Box 296
New Hartford ... RE 2-1602
NY Tech-Mark, Inc, 101 Jefferson Ave
Endicott ... 748-7473
NY Bittan Assoc, Inc, 381 Sunrise Hwy
Lynbrook ... 593-3833
NY Tech-Mark Inc, 19 Valley Brook Dr
Fairport ... 377-5531
NC Candor Co Inc, Bethania ... 924-1480
Ohio Sheridan Assoc Inc, Box 7486
Cleveland ... 884-2001
Ohio Sheridan Assoc Inc, Box 37646
Cincinnati ... 761-5432
Ore Sheridan Assoc Inc, Box 37, Dayton ... 277-8911
Pa Wm I Duncan & Assoc, 5452 Charles St
Philadelphia ... PI 4-6110
Tex Norvell Assoc Inc, 6440 Hillcroft
Houston ... 774-2568
Tex Norvell Assoc Inc, 10210 Monroe Dr
Dallas ... FL 7-6451
Wash Ray Johnston Co, 1011 E 69th St
Seattle ... LA 4-5170
Can Aeromotive Engrg Prods, 1912a Ave Rd
Toronto ... RU 3-4288
Can Aeromotive Engrg Prods, 887 Montee de Liesse St
St Laurent ... 747-4781
GB Vitramon Labs Ltd, Wycombe La
Wooburn Green Bucks ... 22661

VITRO LABS DIV VITRO CORP OF AMERICA
14000 GEORGIA AVE, SILVER SPRING
MD, 20910, TWX 710 825-9642 ... 301 942-7200
G TATUM, EMP 2804, ENG 565, OVER $10,000M
Ala G J Bailey, 3322 S Memorial Pkwy
Huntsville ... 881-3316
Cal C W Stout Jr, 465 S Mathilda Ave
Sunnyvale ... 408 732-2104
Fla D C Jaeger, 999 Woodcock Rd, Orlando ... 277-5041
NJ M A Brown, 308 Second Ave
Bradley Beach ... PR 5-7829
NM R D Rachkowski, 209 San Pablo, S E
Albuquerque ... 268-0928
NY W Burkhart, R D 2, Box 115
New Paltz ... 255-0728
Ohio R D Guyton, 1388 Research Park Dr
Dayton ... 277-0401
Tex N E Pryor, 6001 Gulf Frwy, Houston ... WA 3-9184

VITRO LABS DIV VITRO CORP OF AMERICA
200 PLEASANT VALLEY WAY, W ORANGE
N J, 07052 ... 201 731-3400
G REGAN, EMP 110, ENG 24, $1,000-$2,500M
Ala Vitro Labs, 3322 Memorial Pkwy, SW
Huntsville ... 533-2453
Fla D C Jaeger Corp, 999 Woodcock Rd
Orlando ... 841-1511
NJ Maxwell Brown Assoc, 308 Second Ave
Bradley Beach ... 775-7829
NM Data Handling Co, 209 San Pablo, SE
Albuquerque ... 268-0928
NY W Burkhart, RD 2, Box 115, New Paltz ... 256-9850
NY N W Alexander & Assoc, Box 2561
Schenectady ... 377-0581
Ohio Universal Technology Corp, 1388 Research Park Dr
Dayton ... 299-6372
Tex Vitro Labs, 6001 Gulf Frwy, Houston ... 923-9184
Tex Stolle-Hamilton Co, 1108 Meyer
Seabrook ... 474-3155
For Controls & Instru Co, 15 E 40th St
New York, N Y ... New York, N Y

VITTA CORP, 382 DANBURY RD, WILTON
CONN, 06897 ... 203 762-8366
K ETTRE, EMP 18, ENG 5, $500-$1,000M
Cal Heim & Smolen, 3360 Barham Blvd
Hollywood ... 462-7357
Conn Fly Assoc, Box 304, Fairfield ... 259-0772
Ill H Halinton Engrg Assoc, 6418 N Central Ave
Chicago ... 312 763-2131
Md R L Wilkinson Inc, 707 Stevenson La, Baltimore
Mich OEM Sales Co, 106 S Woodward St, birmingham
Minn Xylem Co, 322 S 4th St, Minneapolis ... 335-5205
NY Jones-Sudders Inc, 309 Colony Park Dr, Liverpool
ND Powertronics Inc, Box 403, Thomasvile
Ohio Harry G Lake Co, 1521 N Main St
Dayton ... 277-8181
Ohio H G Lake Co, 1521 N Main St
Dayton ... 513 277-8181
Ger Teknis Inc, Irmgardstr 42, Munich-Solln ... 797457
GB General Micronetics Ltd, Boundary Hse Boston Rd
London W7 ... ALP 2358
Jap Hakuto Co, Ltd, Box 25, Tokyo Central ... 3160 5301

VLCHEK PLASTICS CO, MIDDLEFIELD
OHIO, 44062 ... 216 632-8011
D BUTLER, EMP 100, ENG 2, $1,000-$2,500M
NJ Affiliated Sales Co, 400 Delancey St
Newark ... MA 3-8113

V-M CORP, 305 TERRITORIAL RD, BENTON HARBOR
MICH, 49022 ... 616 925-8841
M CAIN
Cal O I Venzor, 2141 N Cahuenga Blvd
Los Angeles ... 268-4778
Cal O Bridges, 2727 Alvord La
Redondo Beach ... 213 542-4444
Colo M Catalan, 475 Niagara St, Denver ... 303 377-1563
Conn Gregory W Elcock, 195 Burnham Rd
Avon ... OR 3-3936
Ga John Phillips, 3172 Galangale Way
Doraville ... 938-6622
Ill Fitzsimmons Assoc Inc, 6774 Northwest Hwy
Chicago ... 775-6990
Kan Milton Peck, 4616 W 70th St
Prairie Village ... 362-2312
Mich B Bragg, 21709 Virginia Dr
Southfield ... 313 356-2983
Minn T Olsen, 6632 Xylon Ave N
Minneapolis ... 537-7974
NY Charles Goodmanson, 71 Willets Rd
Glen Cove, LI ... 676-6818
NY Irving W Woolf Assoc, 104 S Central Ave
New York ... 561-0122
NY Leonard D Allen, Inc, Brewerton Rd
North Syracuse ... 458-7470
Pa W Anderson, 438 Robin Rd, Allentown ... 434-4798
Tex H Hoover Jones, 2711 Cockrell
Ft Worth ... 927-8180
Tex Lex Lawson, 1201 Briarwood, Garland ... 278-2219
Va Robt Greer, 4208 Croatan Rd
Richmond ... 272-2707
Wash C Johnson, 13446 Greenwood Ave
N Seattle ... 362-7260

V M P INC, 11682 SHELDON ST, SUN VALLEY
CAL, 91352 ... 213 RO 7-9734
H VAN DALSEN, EMP 12
Ariz R K Jasper Sales Reps Inc, 2618 W Berridge La
Phoenix ... 602 266-6334
Cal Willard Nott Co, 1485 Bayshore Dr
San Francisco ... 415 647-0547
Ill ESCOR Assoc, 6582 Northwest Hwy
Chicago ... 312 763-4797
Iowa D Sharp, 309 Fourth Ave SE
Clarion ... 515 532-3218
Mo E Rea, 4969 Bancroft, St Louis ... 314 353-2027
NJ Jackson Elctn Sales Corp, 71 Valley St
South Orange ... 201 763-7900
NM J Jasper, 918 Central Ave SW
Albuquerque ... 505 243-1773
Ohio Midwest Sales Co, 3219 W 117th St
Cleveland ... 216 941-2700
Okla T J Ray, 8514 E 31st Pl, Tulsa ... 918 627-1515
Ore McMillan Elctns, 16679 SW Maple Cir
Lake Oswego ... 503 636-6257
Tex Gillett Industries Co, 5635 Yale Blvd
Dallas ... 214 EM 3-0107
Tex Gillett Industries, 7830 Westglen Dr
Houston ... 713 SU 2-9420

VOAK ENGINEERING CO INC, A ST, UPLAND
CAL, 91786 ... 714 982-5538
A VOAK, EMP 10, ENG 2, $100-$250M
Cal M W Riedel & Co, 2215 W Valley Blvd
Alhambra ... 283-7694
NY J C J Assoc, 56 Agnola St, Tuckahoe ... 793-3332
For Controls & Instr (Overseas) Corp, 15 E 40th St
New York, NY ... 685-5178
Aust National Atlantic Corp, 50 E 42nd St
New York, NY ... 697-2584

VOCALINE CO OF AMERICA INC, COULTER ST
OLD SAYBROOK, CONN, 06475 ... 203 388-3414
G WILLIS, EMP 175, ENG 20, $1,000-$2,500M
Cal C E Mello, 406 S Main St
Los Angeles ... MA 6-9159
Cal W I Carson & Assoc, 124 El Camino Real
San Carlos ... 593-4262
Conn Sales Engineering Co, Taunton Hill Rd
Newtown ... 247-4015
Fla Steele Technical Sales, 2106 Woodcrest Dr
Winter Park ... MI 7-1304
Ill Jerry Golten Co, 2750 W North Ave
Chicago ... EV 4-5959
Md Kaufholz Assoc, Box 6232, Baltimore ... 488-6561
Mass Sales Engineering Co, Baker Ave
West Concord ... EM 9-3943
Minn Jos-Co, 6621 Southcrest Dr
Minneapolis ... 869-2325
Mo Wells-White, 7607 Page Blvd
St Louis ... PA 6-2511
Mo Wells-White, 1200 Whitney Rd
Independence ... CL 7-2091
NY Willgold Elctn Sales Corp, 100 N Village Ave
Rockville Centre ... RO 4-4022
NC Robt W Chapman & Co, Box 4430
Charlotte ... 375-4495
Ohio Technical Assoc Inc, 19500 Center Ridge Rd
Rocky River ... 333-0035
Ohio Technical Assoc Inc, Box 388, Fairborn ... 878-2484
Pa Kaufholz Assoc, Box 227
Newtown Square ... 356-5000
Tex Koch Engineering & Sales, 309 Meadows Bldg
Dallas ... EM 1-1765
Can Burlec Sales Ltd, 1179 Decarie Blvd
Montreal, Que ... 744-0165
Can Burlec Sales Ltd, 125 Nantucket Blvd
Scarborough, Ont ... 755-3377
For R I Mendels Co, 21 Gray Oaks Ave
Yonkers ... 965-4210
GB Appliance Components Ltd
Martin Rd Cordwallis Indust Est
Maidenhead, Berks

VOGUE INSTRUMENT CORP, 31 COMMERCIAL ST
PLAINVIEW
NY, 11803, TWX 510-221-1894 ... 516 938-9500
M LESLIE, EMP 150, ENG 30, $2,500-$5,000M
Cal E E Enterprises Inc, 5901 Noble Ave
Van Nuys ... 213 787-5360
Ga Floyd Fausett & Co, 2264 Melinda Dr N E
Atlanta ... 404 633-3561

Ill Brock & Cushman Inc, 6261 W Grand Ave
Chicago 312 622-4110
Ind Waid Sales, 1303 W Ludwig Rd
Ft Wayne 219 748-8753
Md A Loscalzo, 1101 St Paul St
Baltimore 301 243-5190
Md Valley/Hamilton Electro, 8809 Satyr Hill Rd
Towson 301 668-4900
Mass Wm Beaver Assoc, 41 Indian Ridge Rd
S Natick 617 655-1529
Mo Boweng, 10414 Oak Ave, St Louis 314 429-7337
NY N W Alexander & Assocs
Box 2561 Upper Union Branch
Schenectady 518 377-0581
Ohio P E Montplaisir, 5637 Mark-Dale Dr
Dayton 513 434-4316
Ohio Monatron Corp, 20850 Sheldon Rd
Cleveland 216 243-6500
Tex J Oechsner, Box 35391, Dallas 214 631-0402
Utah Arrowhead Sales Corp, 1966 W 6255 So
Salt Lake City 801 298-2751
Wash Stanley Enterprises, 5616 4th Ave S
Seattle 206 767-3320
Can Electrodesign Ltd, 9124 St Lawrence Blvd
Montreal 11 Que 514 389-5914

VOKAR PRODUCTS INC, 2801 S STATE ST
ANN ARBOR, MICH, 48104 .... 313 668-6908
R DAILEY, S100-S250M
Ariz Shefler-Kahn Co, Box 8342, Phoenix .... AL 8-7893
Cal Erlanger Sales Co, 4217 W Jefferson Blvd
Los Angeles .... RE 1-2238
Cal Sinclair Electronic Assoc, 1085 Clarendon Crescent
Oakland .... GL 1-1835
Fla Frank Mellon Sales, 3457 Bougainvillea Dr
Winter Park
Ga Sam Little Co, 2396 Connally Dr
East Point 761-5353
Ill Wm J Doyle Co, 7426 N Western Ave
Chicago .... BR 4-6685
Mass New England Area Reps, 99 Highland Ave
Somerville .... UN 4-3696
Mich Moore Sales Co, 401 Margaret W
Detroit .... TU 3-0218
Mo K & M Sales Co, 17th & Main Sts
Kansas City .... GR 1-1355
NY Murray Director Assoc, 115-62 237th St
Elmont .... CU 5-6823
Ore Roger M Minthorne Co, 6560 S W Macadam Ave
Portland .... CH 6-4556
Pa F P Yarussi Co, 312 Rockfield Rd
Pittsburgh .... CA 1-4676
Pa Lester T Benner, 520 W Market St
Bethlehem 865-3014
Can William Cohen Ltd, 8900 Park Ave
Montreal .... DU 8-9201
For Joseph Plasencia Inc, 401 Broadway
New York, NY .... WA 5-3410

VOLKERT STAMPINGS INC SUB STANLEY WORKS
222-34 96TH AVE, QUEENS VILLAGE
N Y, 11429 .... 212 HO 48400
F RIMMLER, EMP 200, ENG 7, $2,500-$5,000M

VOLTEX CO INC, 115 MARINE ST, FARMINGDALE
N Y, 11735 .... 516 249-2336
R HOFFMANN, EMP 10, ENG 2, $100-$250M

VOLTRONICS CORP, WEST ST, HANOVER
N J, 07936, TWX 710 986-8253 .... 201 887-1517
R NEWMAN, EMP 40, ENG 4, $500-$1,000M
Ariz Runyon Co, 6825 E Thomas, Scottsdale 947-5711
Cal Riner-Stillman Inc, 3402 W Century Blvd
Inglewood 673-0800
Cal Riner-Stillman Inc, 200 Third St
Los Altos 941-4122
Colo McLoud & Raymond Co, 2151 S Grape St
Denver 756-1589
Conn S C Hooker, Inc, Box 369, Hartford 233-8000
Fla Kirkwood Assoc, 935 Orange Ave
Winter Park 645-2220
Ill Gassner & Clark Co, 6644 N Western Ave
Chicago .... RO 4-6121
Ill Cain & Co, 1203 Ironwood Dr
Mt Prospect 253-3578
Md Arnold Assoc, Box 9730 Eudowood PO
Baltimore .... VA 8-7666
Mass S C Hooker, Inc, 2 Winchester Pl
Winchester 729-5482
Minn Country, Wagner & Behnen, 1955 University Ave
St Paul 645-9151
Mo Pem Sales Co, 9537 Lackland Rd
St Louis .... HA 7-7200
NJ Comp-Tech Sales, Box 50, Riverdale 835-0332
NM McLoud & Raymond Co, 1415 Richmond Dr
Albuquerque 256-1749
NY Airsupply Co, 6443 Ridings Rd
Syracuse .... HO 3-8531
NY Comp-Tech Sales, Box 384, Lynbrook 593-2628
NC P J Nahser Co, 11709 N Church St
Burlington 226-8053
Ohio Cain & Co, 2485 Lipton Rd, Columbus 861-2119
Pa Arnold Assoc, 528 Ryers Ave
Cheltenham .... PI 2-0600
Tex Blackburn Assoc, Box 20073, Dallas .... FL 1-9991
Wash Comptronics, 3220 16th Ave, W
Seattle .... AT 4-4842
Can Lake Engineering Co Ltd, 123 Manville Rd
Scarborough, Ont .... PL 7-3253
For International Electro-Comp
Change Bridge Rd at Van Riper
Pine Brook, NJ 335-1822
Den G E Lazzary, Rygaards Alle 2, Hellerup Copenhagen
Fr Cerel, 14-16 Rue des Lilas, Paris
Ger Elektronik Davelemente, Bruderweg 26, 46 Dortmund
GB C T London, 27 Ashley Pl
Westminster, London S W 1
Ital Motordiesl, Casella Postale 116 Via Minzoni 5
La Spezia
Jap Rikei, 12 Chome Shiba Tamura Cho
Minato Au, Tokyo
Nor Odd Tvedt & Co AS, Legdesvingen 5A, Bergen
Swed M Stenhardt AB, Grimstagatan 89
Stockholm-Vallingby
Swit Metralvel SA, Chemin De La Dode, Onex, Geneve
Arg Miro SA, San Jose 583, Buenos Aires
Ind N J Intl Corp, 65 Ashok Chambers, Broach St
Bombay

VOLTRONICS, INC, 7746 W ADDISON ST, CHICAGO
ILL, 60634 .... 312 625-1779
G GLORCH, EMP 78, ENG 4, $500-$1,000M

VOLTRON PRODUCTS INC, 403 S RAYMOND AVE
PASADENA
CAL, 91101, TWX 910 588-3288 .... 213 681-2751
M WALKER, EMP 110, ENG 10, $2,500-$5,000M
Ala W A Brown & Assoc, 1314 Buford St NW
Huntsville 205 536-8393
Cal Kirk-Anderson, 666 E Ocean Blvd
Long Beach 213 436-9756
Conn Edcom Inc, 965 Dixwell Ave
New Haven 624-7291
Fla W A Brown & Assoc, 222 Weber Ave
Orlando 305 425-5505
Fla W A Brown & Assoc, 3039 NE 32nd Ave
Ft Lauderdale
Ga W A Brown & Assoc, 1590 Coolege Rd NW
Tucker 404 939-1674
Iowa Engineering Services Co, 1026 Third Ave SE
Cedar Rapids 366-1591
Kan Engineering Services, 7924 A State Line
Prairie Village 649-4000
La V J Sykes Assoc, Box 26308, New Orleans
Md Eastern Components, 6200 Annapolis Rd
Landover Hills 744-4900
Mass Edcom Inc, 815 Washington St
Newtonville 969-9710
Mo Engineerying Services Co, 6717 Vernon Ave, St Louis
NJ Engineered Prods, 28 Essex St
Lodi 201 845-6668
NY L-Tron Corp, Box 147, Skaneateles 685-6172
NY L-Tron Corp, Box 114, Latham 785-5032
NY L-Tron Corp, 74 Thornton Rd
Rochester 716 436-4410
ND W A Brown & Assoc, 1108 Burke St
Winston-Salem 919 725-5354
Ore Arneson Assoc, 200 NE Canyon Rd
Beaverton 503 646-3416
Pa Eastern Components, 1349 W Cheltenham
Phila 927-6262
Tex V J Sykes Assoc, 13333 N Central Expwy
Dallas 235-5289
Va Eastern Components, 5705 Grove Ave
Richmond 288-1855
Wash Arneson Assoc, 5950 6th Ave S
Seattle .... RO 2-7664

VOLUMETRICS, 1025 ARBOR VITAE, INGLEWOOD
CAL, 90301 .... 213 OR 4-4737
S GOTTLIEB, EMP 10, ENG 2, $100-$250M
Ala Roy Attaway Co, 900 Bob Wallace Ave S W
Huntsville 534-2811
Ariz J Portis & Assoc, 138 E Stetson
Scottsdale 945-4925
Colo Engineering Research Assoc, 231 Detroit St
Denver 388-9301
Ill Olson Engrg & Sales Co, 921 N Harlem
Chicago 622-9777
Mass Daner Assoc, 684 Commonwealth Ave
Newton Centre 969-4650
Minn Olson Engrg & Sales Co, 5533 Warden Ave
Minneapolis 929-7979
Mo Cal Aero, 210 Humes La, Florissant 838-6865
NM Vinson Assoc, Box 3295, Alburquerque
Pa Control Instrument Sales Co
Tomlinson & Tracy Rds, Bethayres 676-1808
Pa Control Instr Sales Co, Tomlinson & Tracy Rds
Bethayre 676-1808
Tex True Technology Inc, 12016 Fieldwood La
Dallas 239-7741
Utah Cannon Engrg & Sales, 2250 E 17th S
Salt Lake City 485-9253
Fr Siena, 16 Rue d'Aguesseau 16, Boulogne-Billancourt
GB Coutant Electronics, Ltd, 3 Trafford Rd
Reading, Berks
Holl Tradinca Instr & Apparatus, Meerweg 30 Berkel Z H
Box 37
SAfr Negretti & Zambra, 190 Marshall St, Johannesburg
Isrl Tedco, 8 Teyassin Rd, Tel-Aviv
Aust Duff & MacIntosh Pty, Ltd, 67 Chandos St
Crows Nest NSW

VOTATOR DIV CHEMETRON CORP
2820 W BROADWAY, LOUISVILLE
KY, 40211 .... 502 774-6911
B HOPKINS, EMP 300, ENG 20, $1,000-$2,500M
Ill Votator Div, 1479 Ellinwood St
Des Plaines 296-4245
NJ Votator Div, 141 W Farrell Ave, Trenton 882-1940
NY Votator Div, 76 Beaver St, New York 425-2220
Ohio Votator Div, Box 1158, Newark 344-5340

VP CO, 330 S FAIR OAKS AVE, PASADENA
CAL, 91101, TWX 67-5452 .... 213 449-1140
D LANE, EMP 194, ENG 8, $2,500-$5,000M

VUE-TRONICS INC, 15844 STRATHERN ST, VAN NUYS
CAL, 91406 .... 213 989-3020
M PRESCOTT, EMP 26, ENG 6, $100-$250M

VULCAN ELECTRIC ITT, DANVERS
MASS, 01923, TWX 710 347-0884 .... 617 774-1730
J MICHAELS
Ala Rep Inc, 8100 S Memorial Pkwy
Huntsville 205 881-9270
Cal P W Jasin, 3506 Skylark Dr, Concord 686-0905
Cal Western Controls, Inc, 2630 Seaman Ave
El Monte 443-9376
Colo Tepe Assoc, 845 Navajo St
Denver 303 623-3294
Conn Masten-Wright Corp, 282 State St, North Haven
Fla L W Shaw & Assoc Inc, Box 273
Clearwater 446-7008
Ga Rep Inc, 1483 Monroe Dr NE, Atlanta 876-1591
Ill D P Carrigan & Assoc, 1201 Grant St
Evanston 312 725-2500
Mass John Otis, 88 Holten St, Danvers 774-1730
Mich C & R Assoc, 322 Northwood Ave
Rochester 313 651-1890
Minn Wm Odegard Co, 6504 Walker St
Minneapolis 929-2226
Mo Jack M Gilbert Co, 131 E 70th St
Kansas City .... DE 3-8830
NY J Szabo, 420 Lexington Ave
New York .... 212 LE 2-0807
NY Thermal Systems Inc, Box 146
Orchard Park 212 662-5560
NY Thermal Systems Inc, Box 117
N Syracuse 458-5202
NY Thermal Systems Inc, Box 8459
Rochester .... 716 GR 3-5127
Ohio Beedle Equipment Co, Box 36061
Cincinnati 793-0140
Ohio Goory Sales Co, 19555 Henry Rd
Cleveland 331-2055
Pa F F Sahms Co, 419 Twickenham
Glenside .... TU 4-2559
Tenn Ransom Sales Inc, North Main Bldg
Memphis 901 527-3194
Tex Southwestern Controls, Box 22351
Houston .... MO 6-0386
Tex Southwestern Controls, 1804 N Ind Blvd
Dallas .... RI 2-6266
Wash McDougall Controls, 416 Bell St
Seattle .... MA 2-7667
Wis F C DuBois & Assoc, 2364 N 117th St
Milwaukee 774-3100
Can Setcon Test Equip Ltd, 2194 Regent St
Montreal, Que 482-9555

VULCRAFT CORP DIV NUCLEAR CORP OF AMER
W DARLINGTON ST EXT, FLORENCE, S C, 29501

WAAGE ELECTRIC INC, 820 COLFAX AVE
KENILWORTH, N J, 07033 .... 201 245-9363
C FRANTZ, EMP 20, ENG 2, $250-$500M

WABASH MAGNETICS INC, FIRST & WEBSTER STS
WABASH
IND, 46992, TWX 810 290-2722 .... 219 563-3111
R KEIPPER, EMP 1100, OVER $10,000M
Ala 20th Century Mktg Inc, 902 Bob Wallace Ave
Huntsville 536-1596
Ariz Runyon Co, Inc, Box 1567, Scottsdale 947-5711
Cal Howard C Briggs, 425 E Green St
Pasadena 681-9725
Cal Halbar Assoc, 1805 W 3rd St
Los Angeles 387-8283
Cal Halbar Assoc, 188A W 36th Ave
San Mateo 349-4700
Cal G Shane, 1150 18th St, Santa Monica 393-0072
Colo Walter-Powers Assoc, 880 Bonnie Brae Blvd
Denver 777-5585
Conn Todino Engineering Sales, Inc, 132 New Haven Ave
Milford 874-6643
Ill G H Zaret, 8709 National, Niles
Ind R G Baier, Box 225, Leesburg 453-4242
Mass Lemuel H Howe, 789 Massachusetts Ave
Lexington 862-3744
Mass Todino Engineering Sales, Inc, 50 Kearney Rd
Needham Heights 444-7925
Mich W R Hummon & Assoc, Box 501
Farmington 474-0661
NJ E L Bowman, Box 38, Magnolia 546-5750
NJ J Princiotta, Box 124, Pompton Plains 839-1221
NY A Kuna, 150 Nassau St, New York 349-2353
NY Carlen Reps, 206 E Genesee St
Syracuse 422-6155
Ohio Walter E Minch, 3734 Hilltop Dr
Parma 842-5444
Ohio Neal Bear Corp, 3435 Streetsboro Rd
West Richfield 659-3331
Ohio Neal Bear Corp, 1563 E Dorothy La
Dayton 299-3566
Ore Richard Legg Co, Box 25327, Portland 292-8824
Tex W Pat Fralia Co, Box 12625
Fort Worth 738-2394
Utah Walter-Powers Assoc, 2422 Camino Way
Salt Lake City 227-5174
Wis R S Jenzake, 1225 Post Rd, Brookfield 782-5791

WABASH METAL PRODUCTS CO INC, 1569 MORRIS ST
WABASH, IND, 46992 .... 219 563-1184
C BROWN, EMP 34, ENG 0, $500-$1,000M
Ala E H Sargent & Co, 3125 7th Ave N
Birmingham 251 5125
Cal Fernholtz Machy Co, 8468 Melrose Pl
Los Angeles 653-2360

Colo Mine & Smelter Supply Co, Box 16041 Denver 244-4353
Fla Jos A Adams Assoc, Box 1322 Melbourne 262-5946
Ga R A Stewart & Co Southern Inc 1329 Spring St NW, Atlanta 872-4787
Ill Plastic & Rubber Machy Sales, 2424 Oakton Arlington Hgts 259-3000
Iowa W M Bachmann Assoc, 2512 N Shore Dr Clear Lake 357-4664
La W B Herlinger & Assoc, 1347 Intl Trade Mart New Orleans 529-1488
Md Gray Fluid Power, 1700a White Oak Ave Baltimore 668-1423
Mass Whitty Engineering Co, 1874 Centre West Roxbury 325-5900
Mich Murray A Percival Co, 25511 Southfield Rd Southfield 356-5710
NJ Vicor Plastics Eqpmt Inc, 231 E First Ave Roselle 241-3033
NC Tidewater Supply Co, Box 3406 Greensboro 275-7281
Ohio Hunter Press Sales Co, Box 2041 Kettering Br Dayton 433-1470
Pa Fisher Scientific Co, 711 Forbes Ave, Pittsburgh
Tenn Technical Products Co, 873 Vance Ave Memphis 526-5316
Tenn Tidewater Supply Co, 1805 Hayes St Nashville 255-7679
Tex Foster A Jordan Co, Drawer V Stafford 713 498-6212
Va Tidewater Supply Co, Box 1829 Roanoke 343-1515
Can Fluid Power Ltd, 282 Belfield Rd Rexdale Ont 677-1020
For Butani & Co, Frere Rd, Karachi Pak 35530
Fr Europrim, 8, Pl du 11 Novembre 92-Malakoff 655.00.44
GB Technical Rep Ltd, Ravenoak Rd Stockport .... Hall 4855
Nor Universal Agency, Box 785 Saigon, Viet Nam 22.204
Swit Kurt Hirt A G, Scheuchzerstra 8021 Zurich Post Zurich 267808
Arg Sirex, Libertad 836, Buenos Aires
Belg J D XDamuzeaux, 239 Rue Royale Brussels 17.12.39
Ind Bali Intl Agencies, Mohatta Market Bldg Bombay 1 Br
Isrl Florence Assoc Ltd, 88 Hahashmonaim St Tel-Aviv 231490

WABER ELECTRONICS INC, 2000 N SECOND ST
PHILADELPHIA, PA, 19122 .... 215 NE 4-3200
I WABER
Ala M K Smith Co, 2805 1/2 Cahaba Rd Birmingahm .... TR 1-9341
Cal Irving Ballard Co Inc, 556 Clay St San Francisco 781-8144
Cal Sy Lewis & Assoc, Box 352 N Hollywood 877-0461
Colo Walter-Powers Assoc, 875 Bonnie Brae Blvd Denver 303 777-8220
Conn Adams-McGregor Inc, Box 353 Wallingford 269-5816
Fla Maitland K Smith Co, 897 Penna Ave Ft Lauderdale 587-7378
Ga M K Smith Co, 31 16th St NW Atlanta .... TR 5-8031
Haw Gene Piety Factors, 160 Mokauea Honolulu 837-185
Ill Hill & Gray Inc, 821 Garfield Oak Park .... ES 8-7050
Ill Knaggs-Collins-Havercamp-Hempe Inc 3 Bank Sq Box 815 East St Louis 618 397-2398
Ind R Milsk Co, 3231 N Meridian Indianapolis 923-7351
Ky R Milsk Co, 212 Republic Bldg Louisville 585-4880
Mass Adams-McGregor Inc, 46 Pearl St Quincy 472-7550
Mich R Milsk Co, 19375 James Couzens Hwy Detroit 342-6660
Mich R Milsk Co, 200 N Division Ave Grand Rapids 451-2051
Minn Clark R Gibb Co, 1311 W 25th St Minneapolis 377-1200
Mo Knaggs-Collins-Havercamp-Hempe Inc 5818 N Oak Trafficway Kansas City 816 453-3203
NY W Tauber Co, 151 Fayette Blvd Syracuse 446-7094
NY Harris & Aldrich Sales, Inc, 320 Northern Blvd Great Neck 466-4122
NC M K Smith Co, 1605 Chatham Ave Charlotte .... FR 6-5951
Ohio John O Olsen Co, 16201 Shaker Blvd Cleveland 752-5444
Ohio John O Olsen Co, 116 W Franklin Centerville 885-3722
Pa Tanner Co, 486 Brodmoor Ave Pittsburgh 561-4687
RI Adams McGregor, Inc, 66 Lake View Rd Lincoln 725-8067
Tex E L Wilks Co, 1821 N Broadway Carrollton 242-5321
Utah Walter-Powers Assoc, 2422 Camino AY Salt Lake City 801 277-5174
Wash M K Widdekind Co Inc, 815 W Ewing St Seattle 284-8020

WACKER CHEMICAL CORP, 202 E 44TH ST, NEW YORK
N Y, 10017, TWX 710-581-4382 .... 212 661-4646
W MEISSNER, EMP 80, ENG 5, $2,500-$5,000M
Cal Ray Carreau, 1011/2 Montreal St Playa Del Rey 213 391-1167
Cal Wacker Chemical Corp, 11307 Hindry Ave Los Angeles 213 678-3793

WAC LINE DIV SIMMONDS PRECISION PRODS
35 S ST CLAIR ST, DAYTON
OHIO, 45402, TWX 810-459-1741 .... 513 228-5161
J AMENDT, EMP 440, ENG 15, $2,500-$5,000M
Ala Technical Marketing, Inc, 904 Bob Wallace Dr Huntsville 534-2487
Cal R A Banks Corp, 1000 Acacia Ave Los Altos 941-0900
Cal Westrep, 626 W Commonwealth Ave Fullerton 714 879-4090
Colo S L Assoc, 11481 W 29th Pl, Denver 238-1807
Conn Henry lavin Assoc, Box 921, Meridan 237-5527
Fla Technical Mktg Inc, 1511 E Robinson St Orlando 305 424-8531
Ill Carlson Electronic Sales, 7448 N Harlem Ave Chicago 774-0277
Iowa Reid Assoc Inc, 526 MNB Bldg Cedar Rapids 362-6302
Kan Aero-Hill, 901 N Broadway, Wichita 267-7167
Mass Henry Lavin Assoc, 52 Pickering St Needham 444-3446
Mich Hal C Heym Assoc, 1688 Buckingham Rd Birmingham 644-9166
Minn Murphy Assoc, 730 Chicago Ave Minneapolis 333-4511
NY Jack Miller Co, 1 Continental Ave New York 263-4446
NY Leonard Co, 132 Burnet Ave, Syracuse 479-9191
Ohio Components Engineering Co, 7461 N Linden La Cleveland 842-2737
Ohio Components Engineering Co, 11820 Knollsprings Cincinnati 825-8606
Pa Edward Bolich, Box 401, Narberth 664-8116
Tex Braden Engineering Co, 2646 Andjon Dr Dallas 352-4626
Tex Braden Engineering Co, 3130 Southwest Frwy Houston 529-9811
Wash willis Sales Co, 2805 124th Pl NE Bellevue 454-3029
Can Aero Sales Engineering Co, 4 Racine Rd Rexdale, Ont 249-9139
For Aviquipo Inc, 90 Broad St New York N Y 943-6580

WADSWORTH ELECTRIC MFG CO INC, 20 W 11TH ST
COVINGTON, KY, 41012, TWX F V W 431-0900
H MORRISON
Cal Black & Egbert Assoc, 2025 McKinnon Ave San Francisco 282-0840
Cal S Tickle Co, 668 S Santa Fe Ave Los Angeles 624-7663
Colo R D Parsons, 6469 W 5th Pl, Denver 237-4412
Conn James F Smith, 76 Todd Dr S North Haven 239-3202
Fla James F Graff, 1518 Chandler Ave Clearwater 442-1734
Ga Robert H Hanson, 525 Glenn St, SW Atlanta 577-2648
Ill James J Smith, 431 E Illinois St Chicago 467-1245
Ind A Lee Clifford & Co, 1801 W 18th St Indianapolis 7 .... ME 6-4411
Kan Henry R Stein, 6101 W 86th Ter Overland Park .... DU 1-4303
Ky Fred A Thoeny, 1971 Alexandria Pike Highland Hts 441-2610
La S M Redmann, 643 N Scott St, "B" New Orleans 486-5421
Md Geo H Weitzel, 4A Old Station Rd Severna Park .... MI 7-0634
Mass John J O'Neill, 20-24 East St, Boston 542-7313
Mich Edward V Gallagher, 236 Piquette St Detroit 872-0277
Minn Calvin W Hendrix, 1897 Holton Ave St Paul 645-2664
NY F Walter Laver & Son Inc, 1922 Genesee St Utica .... RA 4-2304
NY Chas E McKenna, 2391 Webb Ave Bronx .... 212 Lo 8-5452
NC John H Bowers, 1846 N Elm Greensboro .... BR 5-2110
Ohio Robert H Browder, 320 W Washington, Medina
Okla Wayne G Parker Co, 222 W B St Jenks .... CY 9-5449
Ore Bruce-Emmett Co, 830 SE Alder St Portland .... BE 2-8117
Pa Geo H Kristinich, 241 Race St Philadelphia .... MA 7-1184
Pa D W Phillips, Box 10935, Pittsburgh 921-4544
Tex W Neil Keddie, 2415 Converse St Dallas .... ME 1-4572
Tex Hollis R Johnson, 5528 Timberwolf Dr El Paso .... PR 8-2818
Wis James A Cantrell, 8628 N 59th St Brown Deer .... FL 5-5550

WAGNER ELECTRIC CORP, TUNG-SOL DIV
630 W MT PLEASANT AVE, LIVINGSTON
N J, 07039 .... 201 992-1100
E HARPER, EMP 700, ENG 75, OVER $10,000M
ADV PG 371, 534, 538, 579, 583, 775
Cal Wagner Electric Corp, 610 Lairport St El Segundo 213 322-0708
DC H Roher, Barr Bldg, Washington 296-3200
Fla A B Andrews & Co, Rt 5, Box 124 Orlando 723-8333
Ga A B Andrews & Co, 34 Peach Tree St Atlanta .... JA 5-4585
Ill Tung-Sol Electric, 1975 N Hawthorne Ave Melrose Park .... MU 1-2200
Mich Tung-Sol Electric, 17500 W 8 Mile Rd Detroit .... EL 7-1400
NY H C Johnson Agency, 111 Mt Hope Ave Rochester 232-2688
NY H C Johnson Agency, 8 Los Robles St Williamsville 632-7880
NY H C Johnson Agency, Box 215 Fayetteville 637-9595
NY H C Johnson Agency, Brandywine Sta Schenectady 374-5901
NC A B Andrews & Co, Insurance Bldg, Box 2627 Raleigh 833-5567
Tex Wagner Electric Corp, 955 Slocum St Dallas 214 741-4621
Wash Wagner Elec Sales Corp, 700-108th N E Bellevue Bellevue .... 206 GI 4-7191

WAGNER INDUSTRIES, 1775 S FIRST ST, SAN JOSE
CAL 408 295-1168
E WAGNER, EMP 5, ENG 2

WAH CHANG CORP, 63 HERBHILL RD, GLEN COVE
N Y, 11542, TWX 516-671-6330 .... 516 OR 6-1313
W BELOUS, EMP 700, ENG 100, OVER $10,000M
Ore Wah Chang Corp, Box 460, Albany .... WA 6-4211

WAHL CORP, WILLIAM, 1001 COLORADO AVE
SANTA MONICA, CAL, 90404 .... 213 451-9711
M WOOD, EMP 45, ENG 5, $250-$500M
Ger Hans Werker & Co, Box 2867, 7 Stuttgart
GB A Levermore, Wimbledon, London SW 19

WAKEFIELD ENGINEERING INC, AUDUBON RD
WAKEFIELD
MASS, 01880, TWX 710 348-6713 .... 617 245-5900
B EMERY, EMP 150, ENG 5, $1,000-$2,500M
Ariz W Bert Knight Co, 444 Camelback Rd Phoenix 264-3578
Cal Wm J Purdy Co, 312 7th St San Francisco 863-3300
Cal W Bert Knight Co, 112 Glasgow Ave Inglewood 678-4711
Colo Ron G Bowen Co, 1440 S Santa Fe Denver 722-4641
Conn Sales Engrg Co, Taunton Hill Rd Newtown 426-5688
Fla W Ben Winberly Co, 532 S Ft Harrison Ave Clearwater 446-7072
Fla W Ben Wimberly Co, 500 S Osceola St Orlando 425-3083
Ga K & E Assoc, Blue Sp Mobile Home Pk Kennesaw 428-4311
Ill Burt Anderson & Assoc, 5969 N Elston Ave Chicago 774-8989
Kan Technical Reps Inc, 6814 Farmview La Wichita 682-4140
Md Bernard White & Co, 5132 Baltimore Blvd Hyattsville 927-7222
Md Bernard Wjite & Co, 7 Church La Baltimore 484-5400
Mass Sales Engineering Co, Baker Ave W Concord 369-3943
Mich Grant Shaffer Co, 14241 Fenkell Ave Detroit 273-5390
Minn Burt Anderson & Assoc, 4660 W 77th St Mnpls 922-7400
Mo Technical Reps Inc, 7049 Laupher La Hazelwood 521-1000
NJ Sunday-O'Brien, 15 Potter St Haddonfield 429-4013
NJ C R Mayer Co, Box 444, Old Bridge
NJ Jones/Sudders, Inc, Box 387, Mahwah 327-6277
NM C T Carlberg Assoc, 2611 Quincy St, NE Albuquerque 265-1579
NY Jones/Sudders Inc, 309 Colony Park Dr Liverpool 457-1180
NY C R Mayer Co, Box 152, Huntington 921-7876
NY Eltron Export Co, 159 Maiden La New York 944-7635
Ohio Mulligan & Mathias, 2011 Riverside Dr Columbus 486-2976
Ohio Mulligan & Mathias, 2011 Riverside Dr Columbus 486-2976
Ore Arneson Assoc, 200 N E Canyon Rd Beaverton 646-3416
Tex Lund & Co, 2616 Manor Way, Dallas 358-4335
Utah Ron G Bowen Co, 30 S 3rd E Salt Lake City 364-4632
Wash Arneson Assoc, 5950 6th Ave S Seattle 762-7664
Can Intl Rectifier of Can, 126 Manville Rd Scarborough 755-7793

WALCO ELECTRONICS DIV WALCO-LINCK CORP
RTE 3 & 46, CLIFTON, N J, 07015 .... 201 471-1070
W PLATT, EMP 100, ENG 2, $1,000-$2,500M
Cal Franciscan Enterprises, 93 Golden Hinde Blvd San Rafael 456-4866
Cal R Markman Co, 4142 Lankershim Cal N Hollywood .... TR 7-3368
Colo Electronix Specialties Co, 7966 E Jefferson Pl Denver 771-1459
Fla Henry Fine, 4314 E 10th Ct, Hialeah 685-2571
Ga R A Chalmers, 3110 Maple Dr NE Decatur 231-3350
Ill Markal Sales Corp, 5787 N Lincoln Ave, Chicago
Ill Russ Gawne Assoc, 6139 W Touhy Chicago 775-5381
Mass Robert Smith, 59 Verndale, Brookline
Mich Markal Sales Corp, 5787 N Lincoln Ave, Chicago, Ill
NM Lee Davis, 1415 Richmond Dr NE Albuquerque 256-1749
Pa John Stinson, 227 Haverford Ave, Narberth

Tex A Palmer, 4943 Hall St, Dallas ... LA 1-0952

WALDEN ELECTRONICS CORP, 223 CRESCENT ST
WALTHAM, MASS, 02154 ... 617 899-0510
W SANTELMANN JR, EMP 20, ENG 3, $250-$500M
Cal R A Banks Sales Corp, 1029 Corporation Way
Palo Alto ... 415 964-4464
Mass K C Stevens & Co, Box 24
Lexington ... 617 862-1812
NJ Landfear Enterprises, Box 68, Nutley ... 667-2900
NY N W Alexander & Assoc, Box 2561 Upper Union Br
Schenectady ... 518 377-0581

WALDES KOHINOOR INC, 47-16 AUSTEL PLACE
LONG ISLAND CITY
N Y, 11101, TWX 710 582-2647 ... 212 392-3100
J GEARING, EMP 800, ENG 25
Cal Waldes Kohinoor Inc, 423 E 12th St
Los Angeles ... 749-8271
Ga J O King, Inc, 711 Trabert Ave, NW
Atlanta ... 355-7660
Ill Gordon S Metcalfe & Assoc, 20 N Wacker Dr
Chicago ... FI 6-8774
Ill W E Peterson, Box 393, Moline ... 764-5856
Ind Robert G Neville, 325 Bankers Trust Bldg
Indnpls ... 637-1720
Iowa Frank J Bradley, Box 626, Bettendorf ... 355-3100
Kan Benson Engineering Co, 519 S Broadway
Wichita ... AM 2-6971
Kan Benson Eng Co, 6900 W 80th St
Shawnee Mission ... NI 8-2843
Mass U J Barsanti, 37 Woodbury St, Beverly ... 944-6154
Mich J O'Shaughnessey, 25511 Southfield Rd
Southfield ... 353-0810
Mo Ben Gerker Co, 569 Melville, St Louis ... PA 1-6700
NY Thomas G Koltes, 100 Sherbrooke Rd
Manlius ... 682-5071
NY A Bernstein, 26-16 Union St, Flushing ... IN 3-4873
NY E Daughtry, 801 Bronx River Rd
Bronxville ... BE 7-8054
Ohio Petrie-Ingram Co, 5767 Mayfield Rd
Cleveland ... 442-5530
Pa J C Botta, Valley View Apts C805
King of Prussia ... 265-0424
Tex Benson Engineering Co, 9884 Monroe Dr
Dallas ... 352-7541
Wis Gordon S Metcalfe & Assoc, Box 871
Waukesha ... 547-1024
Can Lyman Tube & Supply Co Ltd, 270 Sherman Ave N
Hamilton, Ont ... 547 5400
Can Lyman Tube & Supply Co Ltd, 5420 Pare St
Montreal, Que ... 731-7661
Can Lyman Tube & Supply Co Ltd, 72 Perth Ave
Toronto, Ont ... 534-1115
Can Lyman Tube & Supply Co Ltd, 595 Berry St
Winnipeg, Man ... 774-7423
For Harry Stickler AB, Baldersgatan 10, Goteborg C
For Harry Stickler AB, Ronneholmsv 59, Malmo 5
For Harry Stickler AB, Box 416, Stockholm-Bandhagen 4
For Ab Axel von Knorrings Tek Byra, Garverigrand 6
Helsingfors
For Adesco CA, Apartado 1941, Caracas
For Fag Peruana S A, Apartado 3156
Lima Peru ... 34993-45467
Fr Virax SA, 54 Ave Philippe-Auguste, Paris
Ger Seeger-Orbis GmbH, 6241 Schneidhaim Im Taunus
Holl M Seher & Co, Groenendaal 23, Rotterdam 1
Jap Ochiai Seisakusho Co Ltd
18-4, 2-Chome, Matsushima Edogawa-Ku
Tokyo ... 652 2121-8
Nor Per-Kr Askin A/S, Tollbodgt 28, Oslo
SAfr A D C Eng Pty Ltd, 203 Management House
Braamfontein
Swit Christen & Co AG
Quellenweg 15, Ch 3084 Wabern, Bern
Arg SPS Seeger Arg S A I C, Crespo 2791/95
Buenos Aires ... 922/6474
Belg Asemia S A, 5, Rue Hooghof, Dilbeek Brabant
Braz Rheno S A, Caixa Postal 30771
Sao Paulo ... 07-DI-R160
Mex Ing y Mantenimiento Ind SA, Campeche 367
Mexico 11, DF
Mex Ing y Mantenimiento Ind, SA, E Carranza 210 Nte
Monterrey, N L ... 3-17-42
Aust Geo Salter Pty Ltd, 16 Grosvenor St
Abbotsford N 9, Vic

WALDOM ELECTRONICS INC, 4627 W 53RD ST, CHICAGO
ILL, 60632 ... 312 585-1212
M VESCOVI
ADV PG 73, 191
Ariz B & G Sales Co, 305 E Indian School Rd
Phoenix ... 264-4761
Cal Ungar Sales Corp, 317 Glasgow Ave
Inglewood ... 678-5371
Cal Straube Assoc, 483 Willow Rd
Menlo Park ... 323-2476
Colo Connors Inc, 2241 Stacey Dr, Denver ... 428-1575
Fla Engstrom Assoc Inc, 1816 Maywood Rd
Winter Park ... 671-8944
Fla Winfield Elctns Sales Co, 666 NE 125th
North Miami ... 305 751-5566
Ga Winfield SE Co, 2291-D N Druid Hills Rd
Atlanta ... 404 636-3023
Ill Ellinger Sales Corp, 6580 N Northwest Hwy
Chicago ... 763-1570
Ill Markal Sales Corp, 5787 N Lincoln Av
Chicago ... 561-7290
Iowa Ellinger Sales Corp, 309 Fourth Ave SE
Clarion ... 532-3218
La M F Klicpera Co, 4717 Mandeville St
New Orleans ... 282-4286
Md E-K-P Assoc, 1626 Forest Park Ave
Baltimore ... RI 7-3170
Mass Larry Cole Inc, 318 Weston Rd
Wellesley Hills ... 237-1260
Minn Clark R Gibb Co, 1311 W 25th St
Mnpls ... 377-1200
Mo Ellinger Sales Corp, 4969 Bancroft
St Louis ... 352-2027
NY Jerry Kirshbaum Co, 1533 Peninsula Blvd
Hewlett ... FR 4-0111
NY L-S-M Assoc Inc, Orchard Park, Phelps ... 548-4891
Ohio Marlow Assoc, 1500 S Green Rd
Cleveland ... 216 381-9300
Okla M F Klicpera Co, 1554 N Marion
Tulsa ... WE 9-5956
Pa E-K-P Assoc Inc, 344 W Court St
Doylestown ... 345-1523
Pa E-K-P Assoc, Inc, 1901 Washington Blvd
Easton ... 252-6373
Tex M F Klicpera Co, Box 2668, Houston ... RI 7-3868
Tex M F Klicpera Co, Box 4117, Sta A
Dallas ... RI 2-2515
Wash Electronic Sales Corp, 5600 California Ave, SW
Seattle ... WE 2-0330
Can Len Finkler Ltd, 2 Tycos Dr, Toronto 19 ... 781-5231
For Roburn Agencies, 431 Greenwich St
New York, NY ... WO 6-2130

WALD SOUND, 11131 DORA ST, SUN VALLEY
CAL, 91352 ... 213 875-0480
G ERSKINE, EMP 60, ENG 2
Ariz Robert Fissell, 4614 N 7th St
Phoenix ... 602 264-4031
Cal Art Herman & Assoc, 6611 Salt Lake Ave
Bell ... 213 927-2658
Cal Straube Assoc, 483 Willow Rd
Menlo Park ... 415 323-2476
Colo Vines & Co, Box 1025, Denver ... 303 Ta 5-4471
Fla Sproch Sales, 3520 W Broward Blvd
Ft Lauderdale ... 305 587-3792
Ga Ross & Assoc, 3768 Harts Mill La
Atlanta ... 404 451-0165
Haw Bill Kolans & Co, 158 Mokauea St
Honolulu ... 811-628
Ill Markal Sales, 5787 N Lincoln Ave
Chicago ... 312 Lb 1-7290
Ind Joe Clancy Co, Box 269, Angolan ... 219 665-2561
Mass Keene Sales Co, 156 Broad St
Lynn ... 617 595-1001
Minn James Lee Co, 4241 Toledo Ave S
Mnpls ... 612 920-1525
Mo J G Braley Sales Co, 11336 High Ridge Dr
Independence ... 816 FI 3 3376
NY Sir Sales, 35 Powerhouse Rd
Roslyn Heights ... 516 621-7485
NY Al Toupkin Sales, 105 Traverse Blvd
Kenmore ... 716 873-8839
Ohio T Brigham, 2245 Warrenville Ctr Rd
Cleveland ... 216 932-9559
Pa Herman Lewis Co, 1801 J F Kennedy Blvd
Philadelphia ... 215 567-2068
Tex Wm Wylds Co, 1247 Caudle St
Houston ... 713 468-8411
Utah J E Hall Co, 205 N 2300 W
Salt Lake City ... 801 328-0921
Wash Nor Pac Sales, Rt 2 Box 118
Washaugal ... 206 835-3243
BC Reptronic Sales, 1063 Howe St
Vancouver ... 685-4436

WALKIRT CO, 10321 S LACIENEGA BLVD
LOS ANGELES , CAL, 90045 ... 213 776-0323
M LESTER, EMP 50, ENG 7, $1,000-$2,500M
Cal Cutlas Elctns, 8631 Truxton Ave
Los Angeles ... 213 776-2895
Cal J Ney, 8631 Truxton Ave
Los Angeles ... 213 322-0886
Md S W & Assoc, Box 6289, Townsend ... 823-8759
Mass J D Breslin Sales, 65 Sears Rd
Wayland ... 617 358-2613
Mich Willard Spenser Co, 20144 Livernois
Detroit ... UN 3-5189
NJ H J Sundermeyer, Box 134, Rumson ... 842-6726
NY Travco Assoc, 45 N Station Plaza
Great Neck ... HU 7-9666
Tex Hays Co, 405 Bowser St, Richardson ... AD '-1426

WALLACE & TIERNAN INC, 25 MAIN ST, BELLEVILLE
N J, 07109 ... 201 PL 98000
A ADAMS, EMP 3000, ENG 150, OVER $10,000M
Cal Wallace & Tiernan Inc, 1713 S Calif Ave
Monrovia ... 213 El 8-1838
Cal Wallace & Tiernan Inc, 606 Toland Pl
San Francisco ... 415 824-4411
Fla Wallace & Tiernan Inc, 5541 Arlington Rd
Jacksonville ... 904 725-4455
Ga Wallace & Tiernan Inc
1841-R Cheshire Bdge Rd NE
Atlanta ... 404 876-4431
Ill Wallace & Tiernan Inc, 2540 S 27th Ave
Broadview ... 312 Ma 6-8593
Ind Wallace & Tiernan Inc, 4091 Millersville Rd
Indpls ... 317 Li 6-4277
Mich Wallace & Tiernan Inc, 27260 Southfield Rd
Lathrup Village ... 313 357-1321
Minn Wallace & Tiernan Inc, 3983 Zarthan Ave, S
Minneapolis ... 612 929-8521
Mo Wallace & Tiernan Inc, 2800 Cherry St
Kansas City ... 816 We 1-5043
Mo Wallace & Tiernan Inc, 2329 Hampton Ave
St Louis ... 314 Mi 7-3215
NY Wallace & Tiernan Inc, Box 127
Latham ... 518 785-7232
NY Wallace & Tiernan Inc, 3407 Delaware Ave
Kenmore ... 716 Tr 3-3044
NC Wallace & Tiernan Inc, Box 4055
Charlotte ... 704 Ed 4-4095
Ohio Wallace & Tiernan Inc, 6785 W 130th St
Cleveland ... 216 472-7300
Okla Wallace & Tiernan Inc, 4028 Coronado Plaza
Oklahoma City ... 405 Su 9-2523
Ore Wallace & Tiernan Inc, 112 NE Holladay St
Portland ... 503 236-1200
Pa Wallace & Tiernan Inc, Valley Forge Ctr
King of Prussia ... 215 265-1550
Pa Wallace & Tiernan Inc, 300 Mt Lebanon Blvd
Pittsburgh ... 412 Lo 3-2800
Tenn Wallace & Tiernan Inc, Drawer 9280
Knoxville ... 615 573-5441
Tex Wallace & Tiernan Inc, 7267 Envoy Ct
Dallas ... 214 ME 1-3680
Tex Wallace & Tiernan Inc, 4848 Guiton
Houston ... 713 621-5531
Va Wallace & Tiernan Inc, 3561 Franklin Rd SW
Roanoke ... 703 342-2989
Wash Wallace & Tiernan Inc, 2916 Western Ave
Seattle ... 206 MA 2-2545
Wis Wallace & Tiernan Inc, 2702 Monroe St
Madison ... 608 CE 3-0875
Can Wallace & Tiernan Ltd, 925 Warden Ave
Scarborough Ont ... 416 751-7561
Ger Wallace & Tiernan GmbH, Postfach Nr 149
Gunzburg/Donau
GB Wallace & Tiernan Ltd, Priory Works
Tonbridge, Kent
Aust Wallace & Tiernan Pty Ltd, Box 71
Artamon, NSW Sydney

WALLACE MURRAY CORP, FITCHBURG, MASS, 01420
P SCOTT, $1,000-$2,500M
Cal Wallace Murray Corp, 1950 E 20th
Los Angeles ... 213 748-7221
Ill Wallace Murray Corp, 3323 W Addison St
Chicago ... 312 539-8010
NJ Wallace Murray Corp, 1160 Springfield Rd
Union ... 201 687-3000
Ore Wallace Murray Corp, 6500 NE Halsey St
Portland ... 503 282-0933

WALLER CORP, BOX 340, CRYSTAL LAKE
ILL, 60014 ... 815 459-6510
C RICHMANN, EMP 250, ENG 11, $5,000-$10,000M
Cal Stickel-McAllister & Assoc, 4357 Melrose Ave
Los Angeles ... NO 5-6621

WALLINGFORD STEEL CO, VALLEY ST, WALLINGFORD
CONN, 06492, TWX 710-476-2698 ... 203 269-3361
S BURGAN, EMP 685, ENG 10
Cal Wallingford Steel Co, 99 E Magnolia Blvd
Burbank ... 849-5468
Ill Wallingford Steel Co, 9501 Devon Ave
Rosemont ... 825-8131
Mass Wallingford Steel Co, 629 Highland Ave
Needham ... 444-8830
Mich Wallingford Steel Co, 15565 Northland Dr
Southfield ... 357-3720
Minn Ladky Assoc of Minn, 6524 W Walker St
Minneapolis ... 939-5161
NY Wallingford Steel Co, 17 Barstow Rd
Great Neck ... 466-9191
NY Wallingford Steel Co, 420 E Genesee St
Syracuse ... 478-5717
Ohio Wallingford Steel Co, 141 Pinney Dr
Worthington ... 888-2543
Wis F W Ladky Assoc Inc, 4604 N Wilson Dr
Milwaukee ... 962-2942

WALL MANUFACTURING CO, BOX 3349, KINSTON
N C, 28501 ... 919 527-4186
F HILDEBRAND, EMP 65, ENG 2
Cal Osborne & Bidwell Inc, 225 E Redondo Beach Blvd
Gardena ... 213 770-0300
Conn Adams McGregor Inc, 16 Ridgewood Cir
Wallingford ... 269-5816
Fla Frank C Nickerson Co Inc, Box 13126
Tampa ... 813 833-4321
Ga Frank C Nickerson Co Inc, 1244 Clairmont Ave
Decatur ... 404 377-1575
Ill Midwest Elctn Sales, 5707 W Division St
Chicago ... 312 626-0030
Kan Inland Assoc, 6047 Howe Dr
Mission ... 913 EN 2-2366
Md Rothenheber & Co, 14211 Chesterfield Rd
Rockville ... 929-3388
Mich Jack M Thorpe Co, 640 Hidden La
Detroit ... 884-4360
Minn Clark R Gibb Co, 2400 Hennepin Ave
Mnpls ... 321-1460
NJ H Gray Assoc, 20 Foster St, Bergenfield ... 384-3643
NY Advanced Components, 119 Luther Ave
Liverpool ... 315 472-7886
NC Frank C Nickerson Co Inc, 329 Strickland Ave
Winston-Salem ... 919 788-8401
Ohio Electro Com, 1508 N Main, Dayton ... 278-5797
Ohio Electro Com, 8761 Snow Rd, Cleveland ... 333-4169
Pa Rothenheber & Co, 53 Cricket Ave
Ardmore ... 642-6911
RI Adams McGregor Inc, 66 Lakeview Rd
Lincoln ... 726-1300
Tex R Nesbitt Co, 2930 Merrell Rd, Dallas ... FL 7-4601
Wash Dave Miller Sales Co, 2323 N 45th St
Seattle ... 632-7070
Can Jewel Sales Co, 860 90th Ave, LaSalle, Que
For E D Magnus Assoc, 5715 N Lincoln, Chicago, Ill

WANDEL & GOLTERMANN/TEL-COM
6 GREAT MEADOW LA, HANOVER
N J, 07936, TWX 710-986-8255 ... 201 887-8700
D FOREMAN, EMP 17, ENG 3, $1,000-$2,500M

Cal Tel-Com Instr Inc, 17715 Chatsworth St
Granada Hills ... 213 360-2278

WANG LABS INC, 836 NORTH ST, TEWKSBURY
MASS, 01876, TWX 710-343-6769 ... 617 851-7311
F CHEN, EMP 570, ENG 19, $5,000-$10,000M
Cal Wang Labs, Inc, 489 S Robertson
Beverly Hills ... 278-3232
Cal Wang Labs Inc, 1368 Lincoln Ave
San Raphael ... 454-4140
Colo Bishop Enterprises, 493 Jamaica St
Aurora ... 364-7361
Ill Wang Labs Inc, 6832 W North Ave
Chicago ... 889-2254
Md Wang Labs Inc, 7961 Eastern Ave
Silver Spring ... 588-3711
NM Bishop Enterprises, 601 San Pedro, NE
Albuquerque ... 255-9042
NY Wang Labs, Inc, 342 Madison Ave
New York ... 682-5921
NY Wang Labs, Inc, Box 8388, Rochester ... 381-5440
Ohio Wang Labs, Inc, 2074 Arlington Ave
Columbus ... 488-9753
Pa Wang Labs Inc, 354 Lancaster Ave
Haverford ... 642-4321
Tex Wang Labs, Inc, 2244 Holcombe Blvd
Houston ... 668-0275
Tex Wang Labs Inc, 4924 Greenville Ave
Dallas ... 361-4351
Wash H M Rosen Office Machines Co, 2008 3rd Ave
Seattle ... 622-2466

**WANLASS ELECTRIC CO, 2189 S GRAND AVE, SANTA ANA
CAL, 92705 ... 714 546-8990
G MOUSEL, EMP 70, ENG 20, $1,000-$2,500M
ADV PG 526, 527**
Ala Gentry Assoc Inc, 2109 W Clinton
Huntsville ... 534-9771
Cal O'Donnell Assoc, 1955 B El Camino Real
Palo Alto ... 327-9260
Cal R J Strassner Co, 3112 Los Feliz Blvd
Los Angeles ... 666-4040
Colo Space Systems Sales & Eng, 280 Columbine St
Denver ... 388-9225
Conn P R Sturgeon Co, Inc, Box 170
Milford ... 203 874-6080
Fla Gentry & Assoc, 550 N Bumby Ave
Orlando ... 841-7740
Fla Gentry & Assoc, 4152 49th Ave S
St Petersburg ... 867-7820
Ga Gentry & Assoc, 960 Somerset Dr, NW
Atlanta ... 233-3816
Ill Balhorn & Welch Inc, 1925 N Harlem Ave
Chicago ... 889-5011
Ind R O Whitesell & Assoc, 6620 E Washington St
Indianapolis ... 359-5374
Ind R O Whitesell & Assoc, 203 W Wayne St
Fort Wayne ... 743-4411
Iowa Balhorn & Welch Inc, Box 1521
Cedar Rapids ... 363-9970
Kan Poly-Onics Inc, 4434 W 9th Terr
Leawood ... 648-4173
Ky R O Whitesell & Assoc, 3620 Lexington Rd
Louisville ... 893-7303
Mass P R Sturgeon Co, Inc, 1330 Boylston St
Chestnut Hill ... 734-7710
Mich R O Whitesell & Assoc, 303 Fidelity Bldg
Benton Harbor ... 927-2041
Mich R O Whitesell & Assoc, 25100 Evergreen Rd
Southfield ... 358-2020
Minn Lloyd F Murphy & Assoc, 730 Chicago Ave
Minneapolis ... 333-4511
Mo Poly-Onics Inc, 47 Village Sq
Hazelwood ... 837-0597
NJ Graydon-Sherman Inc, 230 Madison Ave
Morristown ... 201 538-9246
NM Space Systems Sales & Eng, 1401 Valencia SE
Albuquerque ... 255-7058
NY David Sonkin Assoc Inc, 10 Fiske Pl
Mt Vernon ... 668-9809
NY Graydon-Sherman Inc, Davis Bldg
Fayetteville ... 637-9861
NC Gentry & Assoc, Box 197, Jamestown ... 454-1919
Ohio R O Whitesell & Assoc, 1172 W Galbraith
Cincinnati ... 521-2290
Ohio R O Whitesell & Assoc, 21139 Lorain Ave
Cleveland ... 333-2585
Ohio R O Whitesell & Assoc, 4129 S Dixie Ave
Dayton ... 298-9546
Okla J A Green Co, Box 3209, Tulsa ... 742-4657
Pa R O Whitesell & Assoc, 201 Penn Ctr Blvd
Pittsburgh ... 242-0100
Pa M C W Inc, 709 W Atlantic St
Philadelphia ... 215 228-7459
Tex J A Green Co, 7118 Envoy Ct, Dallas ... 631-7450
Tex J A Green Co, 3400 Montrose Blvd
Houston ... 526-2959
Utah Space Systems Sales & Eng, Box 89
Bountiful ... 295-6464
Va E-Tech Corp, 6615 Backlick Rd
Springfield ... 451-6500

WARCO MFG CO, 7607 PAGE AVE, ST LOUIS
MO, 63133 ... 314 PA 6-2511
J WHITE, EMP 30, ENG 2, $250-$500M
Ill Ridley Assoc, 1411A N Harlem Ave
Oak Park ... 889-2940
Ind Neal Engineering Co, 3720 N College Ave
Indpls ... WA 5-2364
Kan Thro Industrial Sales Co, 2110 W 75th
Prairie Village ... 2-2533
Mich Robt H Jackson Co, 10534 Ludlow Ave
Huntington Woods ... LI 2-5059
NY Waters Metal Products Inc, 290 Larkin
Buffalo ... TL 2-3057
Ohio Midwest Sales Co, 3219 W 117th St
Cleveland ... WI 1-2700
Can Waters Metal Products Ltd, 330 Bay St
Toronto ... 368-5334

WARD LEONARD ELECTRIC CO, 23 SOUTH ST
MOUNT VERNON
N Y, 10550, TWX 914-699-4997 ... 914 664-1000
D JARVIS, EMP 1000, ENG 54, OVER $10,000M
Cal Melvin Sales Co, 113 El Camino Real
Millbrae ... 697-6922
Cal L F Church Co, 655 Folsom St
San Francisco ... 781-1897
Cal Ward Leonard Elec Co, 10315 Woodley Ave
Granada Hills ... 213 363-5033
Colo Franklin Sales Co, 2149 S Clermont St
Denver ... 757-1371
Conn Ward Leonard Elec Co, 544 Main St
Cromwell ... 347-7443
Ga R W Allen, 1055 Stovall Blvd NE
Atlanta ... 233-2361
Ill W/L Electric Co, 7544 W Oakton St
Niles ... 631-3553
Iowa Kelly-Schmitz-Winkeler Assoc, 3831 43rd St
Des Moines ... 279-9235
La S E Morgan & Assoc, 7000 Hastings
Metairie ... 888-9811
Md W L Electric Co, 330 Hungerford Dr
Rockville ... 762-8280
Md W/L Metal Film Div, Kebler Rd
Hagerstown ... 739-8722
Mass Ward Leonard Elect Co, 109 Concord St
Framingham ... 872-4836
Mich Wm A McCall Co, 987 Oakland Ave
Birmingham ... 644-8489
Minn Kirkeby & Assoc, Inc, 821 2nd Ave N
Mnpls ... 377-3239
Mo Kelly-Schmitz-Winkler Assoc, 2319 Hampton Ave
St Louis ... 781-6111
Mo Kelly-Schmitz-Winkeler Assoc, 7546 Troost Ave
Kansas City ... 363-5651
NJ Regulators Inc, 240 W Crescent Ave
Allendale ... 201 825-0110
NY W/L Electric Co, 5459 Main St
Williamsville ... 634-4300
NC James L Highsmith & Co, 3733 Monroe Rd
Charlotte ... 333-7743
Ohio Sheldon Storer & Assoc, 5300 Vine St
Cincinnati ... 242-1191
Ohio Ward Leonard Elec Co, 1463 Warrensville Ctr Rd
Cleveland ... 382-8444
Pa W/L Electric Co, 7852 Montgomery Ave
Phila ... 224-0400
Tenn E E Rule, Box 533, Knoxville ... 525-9919
Tex Lynn Elliott Co, 701 N Dooley Rd
Addison ... 239-8533
Tex Lynn Elliott Co, Pike Rd, Missouri City
Wash Seatronics Inc, 5931 4th St, Seattle ... 767-4330
Can W/L of Canada Ltd, 1070 Birchmount Rd
Toronto 16 ... 757-4131
For ITT Export Corp, 250 Broadway
New York, N Y ... 797-3300

WARD PRODUCTS CORP, EDSON ST, AMSTERDAM
N Y, 12010 ... 518 VI 2-7220
J CEJKA, EMP 250, ENG 3, $5,000-$10,000M
Ariz B G Sales Co, 305 E Indian School Rd
Phoenix ... 264-7461
Cal Sinclair Elect Assoc, 1085 Clarendon Crsnt
Oakland ... GL 1-1835
Cal Art Herman & Assoc, 6611 Salt Lake Ave
Bell ... 588-1175
Colo A E S Inc, 1549 Chester St, Aurora ... 366-0208
Fla J Thompson, 322 Riverside Dr, Ormond Beach
Ga R A Chalmers & Co, 349 Peachtree Hills Ave
Atlanta
Haw Bill Kolans & Co, 350 E 215th St
Honolulu ... 811-628
Ill William M Linz Assoc, 4001 W Devon, Chicago
Mass Anderson Sales Co, 177 State St
Boston ... CA 7-2980
Mich Robert Milsk Co, 19375 James Couzens
Detroit ... 273-3652
Minn Mel Foster Co Inc, 228 S Cedar Lake Rd
Minneapolis ... FR 4-2612
Mo Lowell, Kangas & Assoc Inc
Box 26 Creve Coeur Sta, St Louis ... MI 7-1111
NJ Steve Fisher Elctn Sales Corp, 121 Cedar La
Teaneck
NY R W Mitscher Co Inc, 487 Ellicott Sq Bldg
Buffalo ... TL 4-2517
Ohio R W Peters Co, 25000 Euclid Ave
Cleveland ... AN 1-2330
Ore Jos V BeLusko Co, 2355 Northwest Quimby St
Portland
Pa David S Linz Co, 238 Shelmire St
Philadelphia ... ES 9-0734
Tex Ernest L Wilks Co, Box 14466, Dallas ... RI 7-2637

WARLOCK SYSTEMS INC, 81 NEWTON RD, DANBURY
CONN, 06810 ... 203 744-5544
D HEAP, EMP 30, ENG 10, $250-$500M

WARMUS ASSOCIATES, 9972 GUINIDA LA, ANAHEIM
CAL, 92804 ... 714 772-4847
$100-$250M
Colo Franklin Sales, 2149 S Clermont
Denver ... 303 757-1371
Fla Gulf Coast Ind Supply Co, 2226 Fairfield Ave S
St Petersburg ... 813 862-6561
Mass Circuit Lines Assoc, Box 261
Groton ... 617 448-5280
Mich Photo Reproduction Materials Inc
19166 Glendale Ave, Detroir ... 272-4550
Minn Litho Supply Depot, 715 S 8th St
Minneapolis ... 612 332-8911
NY Van Valkenburgh Assoc Inc, 611 Broadway
New York
Pa Henry Mann Co, 977A Bristol Pike
Cowell Hts ... 215 6396200
Va Chem Etching Equip & Supply Co, 7629 Cranford Ct
Alexandria ... 703 971-2646
Wis Eastman-Kodak Stores Inc, 1661 N Farwell Ave
Milwaukee ... 414 BR 1-1478
GB Dage Ltd, 1 Penn Pl, Rickmansworth ... 77101
Jap Muromachi Kagaku Kogyo Kaisha, No 3-4-Chome
Tokyo

WARNECKE ELECTRON TUBES INC, 175 W OAKTON ST
DES PLAINES, ILL, 60018 ... 312 299-4436
F VOLTAGGIO JR, EMP 60, ENG 10, $1,000-$2,500M
Cal Jack Pyle Co, 1611 Borel Pl
San Mateo ... 415 349-1266
Cal Kittleson Co, 416 N La Brea Ave
Los Angeles ... 213 933-7371
Mass Demitri Kaidy, 110 Union St
Rockland ... 617 899-1127
NJ Budd-Tronics Inc, 71 Grayson Pl
Teaneck ... 201 837-1660
Ohio Ashby Assoc Inc, 4130 Linden Ave
Dayton ... 513 224-0561

WARNER ELECTRIC BRAKE & CLUTCH CO
449 GARDNER, BELOIT, WISC, 53511 ... 815 389-3771
J GIBNEY, EMP 1000, ENG 50, OVER $10,000M
Cal J McFarland & D Sweeney, 644 Emerson
Palo Alto ... 415 326-3633
Cal R D McIlroy, 1951 Newport Blvd
Costra Mesa ... 213 681-7145
Colo C Whittington, 3320 Yarrow St
Wheat Ridge ... 303 237-3915
Conn David A Miller, Box 66, Ellington ... 203 623-0190
Ga Donald McCormick, 254 E Paces Ferry Rd NE
Atlanta ... 404 CE 3-2032
Ill Warner Elec Brake & Clutch Co
5151 N Harlem Ave, Chicago ... 312 775-7570
Mass J P Cosgrove & E T Austin, 571 High St
Westwood ... 617 326-7100
Mich Warner Elec Brake & Clutch Co
2766 W 11 Mile Rd, Berkley ... 313 543-5243
NJ Warner Elec Brake & Clutch Co, 26 E Redman Ave
Haddonfield ... 609 429-2103
NJ Warner Elec Brake & Clutch Co, 36 Main St
Madison ... 201 377-4800
NY Ross Equip Co Inc, 291 Cleveland Dr
Buffalo ... TF 6-7720
NY Ross Equip Co Inc, 80 Rockwood Pl
Rochester ... 235-6475
NY Ross Equip Co Inc, 213 S Wilbur Ave
Syracuse ... GR 8-2179
NY Fred Perucki, 2106 Harris Rd
Penfield ... 716 442-3140
NC Vernon Hill, 4206 Six Forks Rd
Raleigh ... 919 787-4330
NC Ray Dollar & George M Johnston
121 Greenwich Rd, Charlotte ... 704 364-0611
Ohio Edward J O'Connell, 8010 Montgomery Rd
Cincinnati ... 513 891-41813
Ohio Gerald A Handley, 2800 W Market
Akron ... 216 836-4762
Ore Wayne A Liebich, 309 SW 4th Ave
Portland ... 503 222-2625
Tex J Henderson, 11426 E Northwest Hwy
Dallas ... 214 DA 7-1268
Wis H Huegel & H Parker, 4003 W Capitol Dr
Milwaukee ... 414 UP 1-8022
Can John A Forrest, 171 Tracina Dr
Oakville, Ont ... 416 VA 7-4044

WARNER & SWASEY CO CONTROL INSTR DIV
32-16 DOWNING ST, FLUSHING
N Y, 11354 ... 212 461-4200
L MERSON, EMP 5,800, ENG 275, OVER $10,000M
Ala Newcomb Assoc, Box 1286, Huntsville ... 539-3274
Cal Abbott Instr & Engrg Co, 1736 Westwood Blvd
Los Angeles ... 474-5310
Ill L Malter, Box 252, Morton Grove ... 966-6223
Md C W Hench Assoc, Inc, 2800 Hathaway Terr
Silver Spring ... 946-7822
Mass Robroy/Scientific, 180 Spring St
Marshfield ... 837-2700
NY M J Seavy & Sons, Inc, 55 Liberty St
New York ... 267-8025
Pa M J Seavy & Sons, Inc, 100 E Lancaster Ave
Wayne ... 687-3151
Pa Fawcett Assoc, 701 Investment Bldg
Pittsburg ... 471-7748
Tex Antek Instrument Co, Box 26493
Houston ... MI 9-2915
Can International of Canada, Box 6220, Sta-J
Ottawa 13 ... 722-1161

WARREN MFG CO DIV DIELECTRIC PRODS ENG CO
INC, LITTLETON, MASS, 01460 ... 617 486-3575
D INGRAM, EMP 260, ENG 15, $2,500-$5,000M
Cal J Swartz, 307 S B St, San Mateo ... 344-9978
Ga Hugh E Allen, 2444 Hawthorne Dr NE
Atlanta ... 938-6244
Haw T R Moore, 30 N School St, Honolulu ... 566-366
Ill Richard Lund, 3802 Stanley Ave
Riverside ... 447-5562
Tex Walter Bigger, Meadows Bldg, Dallas ... 361-5522
Mex R Ponce B, Revillagigedo 104-B
Mexico 1, D F ... 10-31-12

Ind Edwin A Schulz Co, 721 Sherwood Dr
Indianapolis .... CL 5-1993
Mass Albert Reinherz, 59 Hamilton Rd
Belmont 484-7784
Mich Butchart & Rathsburg Assoc, 16637 E Warren Ave
Detroit 882-1717
Minn E W Oszman, 932 W Montana Ave
St Paul 488-1811
NY Irv Brown Co Inc, 1500 Carroll St
Brooklyn .... HY 3-1379
NY Callahan & Ferguson Co, 107 Greenhedge Dr
Camillus 488-5518
NC G T Schiffer & Co, Box 6365
Greensboro 273-6288
Ohio Miller Sales Assoc, 4087 Meadowbrook Blvd
Cleveland 321-3900
Pa E-K-P Assoc Inc, RD 1, Ferry Rd
Doylestown 345-1523
Tenn Dixie Electronic Assoc, 102 Webster St
Madison .... TW 5-5666
Tex Techno Assoc, 2621 Manana Dr
Dallas .... FL 7-9213
Wash Wm R Lamphear Co, 4031 Stoneway Ave N
Seattle .... AT 4-8150
Can LGN Finkler Ltd, 2 Trcos Dr
Toronto 19, Ont 781-5231
For Lowell Inter Amer Sales S A, 3030 LaCleae Sta Rd
St Louis .... ST 1-9058

WORKPLACE SYSTEMS, INC, 370 COMMERCIAL ST
MANCHESTER, N H, 03101 .... 603 622-3727
R CURTIN, EMP 40, ENG 2, $500-$1,000M
Cal Germer Equip Co, 600 16th St
Oakland 415 451-1880
Cal C S Dawson, Box 2357
Culver City 213 391-1187
Conn E P E Corp, 345 Highland St
Weston, Mass 899-0678
Fla Assembly Matls & Equip Systems Corp
962 Victor Herbert Dr, Largo 813 531-7377
Kan Impala Inc, 6917 W 76th St
Overland Park 913 648-6901
Mass Robert Curtin, 82 Curve St, Needham 444-4198
Mich Mager Scientific Inc, 2200 Fuller Rd
Ann Arbor 313 662-1472
Minn Electro-Serv Co, 1455 W Lake St
Minneapolis 612 827-2907
Mo Impala Inc, 47 Vlg Sq Shop Ctr
Hazelwood 314 831-5454
Pa Woltemate Assoc Inc, Box 214
Fort Washington 646-7460

WORLD MAGNETICS INC SUB FAIRCHILD CAM & INST
CORP, 215 N PIKE ST, CHARLOTTE
MICH, 48813 .... 517 543-3440
W MOEHRING, $250-$500M
Cal David Ellis Co, 123 N Marengo
Pasadena 681-9108
Ill Wadsworth Midland Mfg Assoc, 1229 Jarvis St
Chicago 312 274-0601
Mich Elko Sales Corp, 3119 Midland Dr SE
Grand Rapids 949-1451
Ore Van Voorhees Assoc, Box 4383
Portland 232-6633

WORNER ELECTRONIC DEVICES, 121 N MAIN ST
RANKIN, ILL, 60960 .... 217 397-4555
D SWANSON, EMP 12, ENG 2, $100-$250M
Cal Koessler Sales Co, 818 N Fairfax Ave
Los Angeles .... OL 3-1605
Cal Evans Marketing Co, 845 Malcolm Rd, Burlingame
Colo Gordon Moss Electronics, 1530 13th Ave
Greeley 353-1452
Ga Millar-Hutto Assoc Inc, 3110 Maple Dr NE
Atlanta 261-6160
Haw Earl Assoc, 1638 Kona St, Honolulu 815-649
Ill Arthur Peterson, 3647 W 62nd St
Chicago .... RE 5-0846
Mo H A Roes & Co, 2601 Cherry St
Kansas City .... BA 1-0866
NY L-C-A Sales Co, 76 Main St
Tuckahoe .... WO 1-4700
NY Leonard D Allen Inc, Box 205
North Syracuse 458-7470
Ohio John Olsen Co, 16201 Shaker Blvd
Cleveland .... SK 2-5444
Ore Earl & Brown Co Inc, 2041 S W 58th Ave
Portland 292-9145
Tex Myles Summers, 4012 Breakwood
Houston .... Mo 7-6900
For Crescent Intl, 540 Lake Shore Dr
Chicago Ill .... DE 7-2993

WORNOW PROCESS PAINT CO
1218 LONG BEACH AVE, LOS ANGELES
CAL, 90021 .... 213 627-3773
EMP 18, ENG 1, $500-$1,000M

WRIGHT COMPONENTS INC, 5017 SOUTH ST
CLIFTON SPRINGS
N Y, 14432, TWX 510-250-2593 .... 315 462-2010
W DUNN, EMP 70, ENG 8, $1,000-$2,500M
Md M & J Assoc, Box 24, Timonium 252-2127
NJ Horer Corp, 121 E Hamilton, Englewood 568-0217
RI Horer Corp, 589 Warren Ave
East Providence 438-2726
Tex B L Schwaller, 28 Hedwig Cir
Houston .... HO 5-1836
Tex Edmar Tech Sales, Box 818, Hurst 282-5561

WRIGHT METALCOATERS INC, 255 WEST ST
SOUTH HACKENSACK, N J, 07606 .... 201 487-5136
D CULVER, EMP 30, ENG 2, $250-$500M

WRIGHT STEEL & WIRE CO, G F, 245 STAFFORD ST
WORCESTER, MASS, 01603 .... 617 754-6824
W CARLSON, EMP 100, ENG 4
Cal Lebell-Warren Assoc, 601-603 County Rd
San Carlos 593-7688
Cal G F Wright, 2460 Malt Ave
Los Angeles 723-7224
Colo Fred Gamble, 7957 W 64th Ave
Arvada 421-5808
Fla Buck Newell Co, 2015 Perry Pl
Jacksonville 904 359-5675
Ga E L Hornibrook Co, Box 86
Avondale Estates 377-4283
Haw RMA Sales Co, 2960 Mokumoa
Honolulu 899-041
Ill G F Wright Steel & Wire Co, 4956 S Monitor Ave
Chicago 735-7800
Kan Lowell, Kangds & Assoc, Inc, Box 4116
Overland Park .... Tu 8-3200
La L J Baldwin & Son, 306 Carondelet Bldg
New Orleans 525-6705
Mo Lowell, Kangds & Assoc, Inc
Box 12526 Creve Coeur Sta
St Louis .... MI 7-1111
NJ Ferrell S Carmine Co, 14 Knickerbocker Dr
Newark 368-7603
NJ Steve Fisher Sales Corp, 161 Cedar La
Teaneck 836-6661
NY Callahn-Ferguson Co, 107 Greenhedge Dr
Camillus 488-5518
Ohio Gerald W Perry, Box 141, Sylvania 735-7800
Ohio P G MacIntosh Co, 713 Transportation Bldg
Cincinnati 621-9381
Ore Roger M Minthorne Co, 6565 S W MacAdam Ave
Rortland .... CH 6-4556
Tenn Arch McLaren, 749 W Snowden Cir
Memphis 275-1615
Tex Fred H Zimmerman, 803 Stemmons Tower W
Dallas 631-1043
Tex James Achilles, 8025 Turquoise La
Houston 465-6246
Utah Don D Gamble Co, 1908 Bryan Ave
Salt Lake City .... HU 5-9928

WROUGHT WASHER MFG CO, 2264 S BAY ST
MILWAUKEE, WIS, 53207 .... 414 744-0771
H KLEMZ

WUERTH PRODUCTS CORP, 1931 PEMBROKE RD
HOLLYWOOD, FLA, 33020 .... 305 923-1105
R WUERTH, EMP 10, ENG 1, $100-$250M

WYBAR ELECTRONICS INC, 1068 S CLINTON ST
SYRACUSE, N Y, 13201 .... 315 474-6720
K GARVEY, EMP 20, ENG 3
DC Frederick G Speidel, 2457 Medway Dr
Raleigh, N C 833-0147
Ill EMF Co, 6135 W Belmont, Chicago 889-8323
NY Lanzendorf Co, 513 Cumberland Ave
Syracuse 472-4195
NY H C Buerger Co, Inc, 1359 Oak La
East Meadow 485-6228
NC Powertronic Inc, Box 403, Thomasville 476-4257
Pa H C Buerger Co, Inc, 815 Greenwood Ave
Jenkintown 224-2442
Can Robert Neill Co, 5200 A Yonge St
Willowdale 225-5200
For Ameresco, Inc, 203 Bellevue Ave
Upper Montclair, N J 746-5300

WYCO METAL PRODUCTS, 6918 BECK AVE
NORTH HOLLYWOOD
CAL, 91609, TWX 910 499-2177 .... 213 875-0990
F WEISS, EMP 50, ENG 2
Ariz Shefler Kahn Co, 2017 N 7th Ave
Phoenix 258-7893
Cal F M Moulthrop Assoc, 1530 E 12th St
Oakland .... AN 1-7676
Colo McLoud & Raymond, Box 22044
Denver .... SK 6-1589
Fla Murphy & Cota, 712 W Vassar, Orlando 424-2167
Haw Har-Kom Hawaii, 320 Ward Ave
Honolulu 506875
Md Gary Brown Assoc, 5801 Annapolis Rd
Bladensburg 779-1500
Mo K & M Sales, 17th & Main St
Kansas City .... GR 1-1355
NH E M Assoc, Woodbury Bldg, Hampton 926-8510
NY Friedman Assoc, 189-19 Jamaica Ave
Jamaica .... SP 6-4800
NC Murphy & Cota, 1106 Burke St
Winston-Salem 724-0750
Ohio Ashby Assoc, 333 W 1st St, Dayton 224-0561
Tex Blackburn Assoc, 137 Walnut Hill Village
Dallas 899-8518
Utah McLoud & Raymond, 4407 Ebony St
Salt Lake City 266-5002
Wash J K Dooley, 4110 Stone Way N
Seattle .... ME 2-1618

WYLE LABORATORIES, 128 MARYLAND ST
EL SEGUNDO
CAL, 90245, TWX 910 348-6699 .... 213 OR 84251
D, EMP 105, ENG 20, $1,000-$2,500M
Cal Product Data Co, 1147 S Robertson Blvd
Los Angeles 213 278-3356
Cal Tech Marketing Assoc, 355 W Olive Ave
Sunnyvale 408 736-3687
Colo Brooks Feeger Assoc, 1309 S Inca St
Denver 744-3301
Ill Ridgway Assoc, 9420 W Foster Ave
Chicago 312 282-5929
Kan Leemark Engineers, Box 6175
Leawood 913 648-0124
Ky Ridgway East, Inc, Box 5385
Lexington 606 299-1057
Mass Hobart Assoc, 750 Main St
Winchester 617 729-8884
Minn Ridgway Assoc, 4901 Garfield Ave S
Minneapolis 612 824-9059
Mo Leemark Engineers, Inc, 9623 St Charles Rock Rd
St Louis 314 647-4545
NJ Engineered Products Inc, 28 Essex St
Lodi 201 845-6668
NM Brooks, Feeger & Puckett, 1238 Ortiz Dr SE
Albuquerque 505 268-4387
NY Naco Electronics, 119 Luther Ave
Liverpool 474-7481
NY Naco Electronics, 74 Park Ave
Rochester 244-4720
NY Naco Electronics, 2631 Edgewood Rd
Utica 732-1801
NY Naco Electronics, 14 Lori St
Poughkeepsie 914 462-2730
Ohio Ridgway East, Inc, 4654 Michael Ave
North Olmsted 216 777-6600
Ohio Ridgeway East, Box 68, Loveland 513 683-4356
Okla Brooks Feeger & Puckett Inc, Box 15656
Tulsa 918 936-5295
Pa E-Tech, Box 52, Bala Cynwyd 215 667-5510
Tex Brooks, Feeger & Puckett, Inc, 708 W Euless
Euless 264-3363
Tex Brooks, Feeger & Puckett
Box 16065 Lampham Sta
San Antonio 512 828-0164
Tex Brooks, Feeger & Puckett Inc, 409 Friendswood Dr
Friendswood 713 482-7563
Va E-Tech, 6615 Backlick Rd, Springfield
Wash J D Kennedy Co, 2124 SW 170th St
Seattle 206 242-8024

WYOMISSING CORP TEXTILE DIV, BOX 742, READING
PA, 19603 .... 215 376-2891
F PIERCE, EMP 850, ENG 2, OVER $10,000M
Cal M Starke, 1421 Santee St
Los Angeles .... 213 Ri 7-9238
Ga I R Noll, 218 Sandy Springs Pl NW
Atlanta 404 252-5891
Ill R R Will, 222 W Adams St
Chicago .... 312 AN 3-2057
NY N Benson, 180 Madison Ave
New York .... 212 Mu 9-5240
NC J P Rogosky, 1409 E Blvd
Charlotte 704 375-8129

WYRCO PROJECTS INC, FORSYTHE AVE, OWEGO
N Y, 13827 .... 607 687-3950
T COONRADT, EMP 4, ENG 3, $250-$500M
NY Kressilk Products Inc, 73 Murray St
New York .... BA 7-7526

X CEL CONTROLS INC, 420 S ST JOSEPH ST
SOUTH BEND, IND, 46601 .... 219 287-6477
J BRICKLEY, EMP 13, ENG 3, $250-$500M

XCELITE INC, 28 BANK ST, ORCHARD PARK
N Y, 14127 .... 716 662-4461
A HOLMES, EMP 65, ENG 2
Cal Jack Packer, 10072 Dewey Dr
Garden Grove 539-6704
Cal Lovblad-Cortez Assoc, 2825 Shannon Dr
South San Francisco 761-3513
Cal Bob Weaver & Assoc, 12841 Woodbridge
Studio City 769-0446
Colo Connors Inc, 2241 Stacey Dr, Denver 428-1575
Ga F C Nickerson Co, 1244 Clairmont Ave
Decatur 377-1575
Ill Bruce Cumming & Assoc, 6029 W Belmont Ave
Chicago .... ME 7-3770
Ind Thomas & Sukup, 2060 E 54th St
Indpls 251-4574
Mass Coakley, Boyd & Abbett, Inc, 1424 Highland Ave
Needham .... DE 2-4800
Mich Lawrence F Zaffina Co, 15620 Juliana
E Detroit 777-9191
Minn Kirkeby & Assoc, Inc, 821 Second Ave, N
Minneapolis 377-3239
Mo K & M Sales Co, Davidson Bldg
Kansas City 471-1355
Mo J Kelly Sales Co, 972 N Geyer Rd
St Louis 822-4141
Mo Jack Kelly Sales Co, 272 Treasure Cove
Ballwin 227-1711
NY Jerry Kirshbaum Co, 1533 Peninsula Blvd
Hewlett 374-0111
NY Leonard D Allen Inc, Box 205
North Syracuse 458-7470
Ohio John Olsen Co, 16201 Shaker Blvd
Cleveland 752-5444
Ore Del W Bassett, 6906 S W Terwilliger Blvd
Portland 244-4836
Pa E K P Assoc, 1901 Washington Blvd
Easton 252-6373
Tenn Al S Engelman Co, Box 12091, Memphis
Tex McClintock Sales Co, 2631-37 Commerce St
Dallas .... RI 7-1519
Va Don Miller & Assoc, 2252 Staples Mill Rd
Richmond 353-5324
Wash Blair Kline, 3432 Hunts Point Rd
Bellevue .... GL 4-8440
Can C W Pointon Ltd, 66 Racine Rd
Rexdale, Ont .... CH 7-8777

XENON CORP, 10 WHEELER CT, WATERTOWN
MASS, 02172 .... 617 926-2577
L PANICO, EMP 12, ENG 3, UP TO $100M
Cal Crown Electronics, Box 2573, Van Nuys 873-1266
Ill Crest Assoc, 7001 N Clark St, Chicago 274-2640
NJ E C Smith, 797 Springfield Ave, Summit
NY E C Smith & Assoc, 60 E 42nd St
New York .... MU 2-6890
NY Ryerson Assoc, Box 8369, Rochester
Tex Applied Engineering Sales, First Bank & Trust Bldg
Richardson .... AD 1-1322
For Telesco Intl Corp, 171 Madison Ave
New York, N Y .... MU 3-9420

XEROX CORP, MIDTOWN TOWER, ROCHESTER
N Y, 14604 .... 716 546-4500
R LAHUE, EMP 16000, OVER $10,000M
Ala Xerox Corp, 3616 7th Ct S, Birmingham 328-7930
Ariz Xerox Corp, Financial Center, Phoenix 264-4971
Cal Xerox Corp, 5316 W Imperial Hwy
Los Angeles 677-6161
Cal Xerox Corp, 5th & Laurel, San Diego 234-8771
Cal Xerox Corp, 100 Bush St, San Francisco 982-0389
Cal Xerox Corp, 901 H St, Sacramento 444-8100
Colo Xerox Corp, 5961 E 38th Ave, Denver 399-0670
Conn Xerox Corp, 924 Farmington Ave
W Hartford 236-5646
DC Xerox Corp, 1680 Wisconsin Ave NW
Washington 337-5200

XTALONIX PRODUCTS DIV HARSHAW CHEMICAL CO
1215 CHESAPEAKE AVE, COLUMBUS
OHIO, 43212 .... 614 488-5915
J CHABRIA, EMP 8, ENG 4, $100-$250M
Cal R Lowe, 2235 E Middlefield Rd
Mountain View 415 968-2171
Cal R S Villareal, 18051 E 4th St
Tustin 714 838-6340
Ill A G Murphy, 1201 Central Ave
Deerfield 945-5591
Mass F Kirrane, 789 Massachusetts Ave
Lexington 861-0628
NJ M Aquinas Jr, 9 Valley View Dr
Ramsay 327-8850
NJ J F Rothamel, 276 Linden Rd, Wayne 839-3230
Tex J Owens, 2337 Bissonnet, Houston ..... Ja 2-8377
Va W B Todd, 7109 Churchill Rd, McClean... 356-9570

X-TRON ELECTRONICS, 1869 NATIONAL AVE
HAYWARD, CAL, 94545 .... 415 783-2145
EMP 14, ENG 3, UP TO $100M

YARDLEY PRODUCTS CORP, 10 W COLLEGE AVE
YARDLEY, PA, 19067 .... 215 493-2723
C RUNK, EMP 35, ENG 1

YARDNEY ELECTRIC CORP, 40-52 LEONARD ST, NEW YORK
N Y, 10013, TWX 710-581-6211 .... 212 966-3100
A LEPARULO, EMP 850, ENG 85, $5,000-$10,000M
ADV PG 65
Cal Peter DeVere, 6399 Wilshire Blvd
Los Angeles .... OL 3-9444
DC Roger McAleer, 3621 Columbia Pike
Arlington, Va 671-7100
Tex W N Rider Co, 6211 Denton Dr, Dallas... 357-2246

YASKAWA ELECTRIC MFG CO LTD, OHTEMACHI BLDG
TOKYO, JAPAN 03 201-2511
I KODAMA, EMP 5500, ENG 600, OVER $10,000M
Ill Yaskawa Electric America Inc, 100 Bliss Dr
Oak Brook
NY SBM Assoc Inc, 528 Old Country Rd
Plainview 516 433-1421
Ohio CMP Inc, 3691 Lee Rd, Cleveland ... 216 921-1360
Ohio CMP Inc, 3406 N Main St, Dayton ... 513 278-5873

YEISER LABS, 881 W 18TH ST, COSTA MESA
CAL, 92627 .... 714 548-2458
J YEISER, EMP 8, ENG 2, $100-$250M
Cal B J Wolfe Enterprises, 10760 Burbank Blvd
N Hollywood 213 877-5518
Colo Vinson Assoc Inc, 3600 S Lincoln
Englewood 303 789-2203
Fla Griggs Assoc, 7215 S Orangeblossom Trail
Orlando 305 855-4871
Ill Loren F Green & Assoc, 5218 W Diversey Ave
Chicago 312 286-6824
Mass Daner Assoc Inc, 684 Commonwealth Ave
Newton Centre 617 969-4650
Ohio Twin Region Elctn Sales Inc
21010 Center Ridge Rd
Cleveland 216 331-7650
Wash Arva Inc, 1320 Prospect St, Seattle .. 206 622-0177
For Yeiser Labs Intn'tl Div, 750 Third Ave
New York NY 212 986-2244

YELLOW SPRINGS INSTRUMENT CO INC, BOX 279
YELLOW SPRINGS, OHIO, 45387 .... 513 767-7242
R SCHIFF, EMP 145, ENG 11, $1,000-$2,500M
Md R Heggemann, 4803 Mercury Dr
Rockville 949-8566

YOKOGAWA ELECTRIC WORKS INC
1995 PALMER AVE, LARCHMONT
N Y, 10538 .... 914 834-3550
R IMAMURA, EMP 6, ENG 3, $500-$1,000M
Ala Technical Assoc Inc, Box 225
Huntsville 536-6611
Cal L Snitzer Co, 5354 W Pico Blvd
Los Angeles .... WE 8-2073
Cal L Snitzer Co, 1020 Corporation Way
Palo Alto 968-8304
Cal L Snitzer Co, 7814 Ivanhoe Ave
La Jolla .... GL 4-2191
Conn Applied Measurements Inc, Box 392
Milford .... TR 4-3338
Conn Applied Measurements Inc, Box 5131
Hamden 248-5048
DC Brimberg Assoc Inc, 1343 H St N W
Washington .... DI 7-4234
Fla Technical Assoc Inc, 2319 E South St
Orlando 424-5681
Ill Saffro & Assoc, 3736 W Dempster St
Skokie 588-0905
Ind Law Instr Co, Box 95, Angola 665-6016
Kan Poly-Onics Inc, 4434 90th Terr
Leawood .... NI 8-4173
Md Brimberg Assoc Inc, 814 Thayer Ave
Silver Spring 588-7790
Mass Applied Measurements Inc
Box 306, 86 Hayward Rd, Acton ...... CO 3-2766
Minn Heimann Co Inc, 5603 Lymdale Ave S
Minneapolis 827-5457
Mo Poly-Onics Inc, 47 Village Sq Shop Cen
Hazelwood .... TE 7-0597
NJ Sonco, 244 Hwy 35, Eatontown 542-1441
NY R F Lamb Co, 3407 Delaware Ave
Buffalo .... TE 6-3757
NY Hallmark Standards Inc, 145 Library La
Mamaroneck .... OW 8-8460
NY R F Lamb Co, Box 661, Kingston 338-8833
NY R F Lamb Co, E Molloy Rd, Syracuse 454-2469
Ohio Portland Arva Inc, 2035 S W 58th Ave
Oregon .... CA 2-7337
Pa Sonco, 200 Church Rd, King of Prussia ... 265-3250
Pa Sonco, Park Pl, Camp Hill 761-9577
Wash Arva Inc, 1320 Prospect St, Seattle .... MA 2-0177
Can Stark Electronic Sales Co, Stark Bldg
Ajax, Ont 942-2120
Mex Proveedora Electrica Mex SA, Sidar y Rovirosa 80
Mexico DF 22-18-68

YOKOWO MFG CO LTD, 11-5, 7-CHOME, TAKINOGAWA, KITA-KU
TOKYO, JAPAN, TWX 272-2197 984-3111
B IIZUKA, EMP 1082, ENG 165, OVER $10,000M
ADV PG 53

YORK ELECTRONICS CORP, 104 S 4TH ST, BROOKLYN
N Y, 11211 .... 212 EV 7-7110
H DUBILIER, EMP 100, ENG 2, $1,000-$2,500M
Ill Knoblock & Assoc, 4912 Tollview Dr
Rolling Meadows 392-8586

YORK METAL PRODUCTS INC, 34-20 12TH ST
LONG ISLAND CITY, N Y, 11106 .... 212 932-3660
A BISNOFF, EMP 30, ENG 3

YORK RESEARCH CORP, 1 RESEARCH DR, STAMFORD
CONN, 06904 .... 203 325-1371

YORK WIRE CO, BOX 982, CLIFTON
N J, 07014 .... 201 472-8200
E YORK, EMP 25, ENG 2, $500-$1,000M

YOUNGWOOD ELECTRONIC METALS INC, DRAWER E
YOUNGWOOD, PA, 15697 .... 412 925-7254
R DOMIN, EMP 62, ENG 1, $1,000-$2,500M
Ariz E J Foley & Assoc, 3840 N Jokake Dr
Scottsdale 602 945-2665
Cal Allan Davis Assoc, 1720 Mermaid Dr
San Pedro 213 547-1288
Conn Fly Assoc, Box 304, Fairfield 203 259-0772
Fla J F Griffin & Co, 812 Lakeside Dr
N Palm Beach 305 848-4617
NJ F F Sylvester Assoc, 649 Morris Ave
Springfield 201 376-3324

Y S PORCELAIN TUBES MFG CO, LTD
58 IZUMI-CHO, SETO CITY, AICHI PREF
JAPAN .... (0561) 82-2620
T YAMADA, EMP 350, ENG 30, $1,000-$2,500M
ADV PG 129

Y T & T CORP, BOX 306, ROSLYN HEIGHTS
NY, 11577 .... 516 MA 10050
B YELSEY, EMP 3, ENG 1, $100-$250M

ZAGAR INC, 24000 LAKELAND BLVD, CLEVELAND
OHIO, 44132, TWX 098-5396 .... 216 731-0500
J MRSNIK, EMP 210, ENG 22, $2,500-$5,000M
Ala Ford Tool & Carbide Co, 3404 10th Ave N
Birmingham 252-9991
Ariz DiEugenio Tool Center Inc, 110 S 11 Ave
Phoenix .... AL 8-8364
Ark Moehlenpah Eng Inc, 312 W Pershing Rd
North Little Rock 374-8424
Cal Motch & Merryweather Machy Co, 2923 Supply Ave
Los Angeles 685-8563
Cal Harry M Smith, 1341 Old County Rd
Belmont 591-8961
Colo Industrial Western Inc, 88 Lipan St
Denver 825-6225
Fla General Equip Inc, 7131 Lake Ellenor Dr
Orlando 855-1440
Ga W-H Ind Machy Inc, 2695 E College Ave
Decatur 377-8631
Ill Zagar Inc, 5865 N Lincoln Ave, Chicago .. 271-8364
Ill Reynolds Machine & Tool Corp, 5042 W Madison
Chicago 378-1100
Ind Jas A Reeves, 2207 Columbus Ave
Anderson 642-0058
Iowa Joe W Hammill Co, 2429 E Central Pk
Davenport 355-7264
Ky Fink Equipment Co, 1045 Bardstown Rd
Louisville .... GL 1-1441
La Church-Dailing Co, 1401 S Rendon St
New Orleans 866-9632
Md Maguire & McLernon Inc, 1100 Exeter Hall Ave
Baltimore .... HO 7-6400
Mass Zagar Inc, 370 King St
Littleton Common 486-3012
Mich Zagar, Inc, 24906 Michigan Ave
Dearborn 562-5660
Mich Keldon Co, 1610 Olson St, NE
Grand Rapids 451-0922
Mich Boyd Ind Sales, 2513 Davison, Flint 239-5861
Minn Satterlee Co, 2200 E Franklin Ave
Minneapolis 333-1141
Mo Oscar E Jost Co, 10521 St Charles Rd
St Ann .... HA 8-4488
NJ Beverly D Smith Co, 29 N Dean St
Englewood 568-3360
NM Equipment Sales & Mfg Co, 1018 S 4 St NW
Albuquerque 247-3781
NY Beals McCarthy & Rogers Inc, 635 S Park Ave
Buffalo 854-4900
NC Armentrout Machy Co Inc, 2122 Enterprise Dr
Greensboro 272-6142
Ohio Zagar, Inc, 3605 N Dixie Dr, Dayton 274-7553
Ohio Block Industrial Service, 3636 Detroit Ave
Toledo 475-3711
Okla Marshall Supply & Equip Co, 1050 E Archer
Tulsa .... LU 4-5271
Okla Marshall Supply & Equip Co, 705 N Virginia
Oklahoma City .... CE 2-8836
Pa E H Hoffman Co, 242 Easton Rd
Horsham .... OS 2-6550
Pa Stanley Berg Machy Co, 108 Rosslyn Rd
Carnegie 923-1911
Pa Fay-Jan Tool Sales Co, 2171 Inwood Rd
Williamsport 326-1584
Tenn Moehlenpah Engrg Inc, 1231 E Raines Rd
Memphis 398-4691
Tenn Mitchell-Powers Hdwe Co Inc, Fifth St Extension
Bristol 764-1153
Tex Reliant Tool Products Co, 2647 Myrtle Spring
Dallas 358-2581
Tex Bob Machine Tool Co, 5115 Cornish
Houston .... UN 2-8871
Utah Fugate Ind Sales Inc, 1780 S 450 W
Salt Lake City 487-7555
Wash P & G Ind Sales-Serv Co, 1429 153rd Pl SE
Bellevue 747-2391
Wis Kel-Sir Co Inc, 2700 W Concordia Ave
Milwaukee .... HI 5-1550
Can W M Smith Assoc, 892 Long Dr
Burlington Ont 634-2880

ZARING INDUSTRIES INC, 906 W MAIN ST, CARMEL
IND, 46032 .... 317 846-2571
W ZARING, EMP 70, ENG 3, $1,000-$2,500M

ZEHNTEL INC, 1450 SIXTH ST, BERKELEY
CAL, 94810 .... 415 658-0995
W MARTIN, EMP 25, ENG 10, $500-$1,000M
Cal Anadex Instr Inc, 7833 Haskell Ave
Van Nuys 213 873-6620
Cal Jay Stone Assoc, 140 Main St
Los Altos 415 948-4563
Cal Control Devices Pacific Inc, 1485 Bayshore Blvd
San Francisco 415 467-2270
Mich CMP Inc, 16239 Wyoming Ave
Detroit 313 863-4600
NJ SBM Assoc, 1519 Stuyvesant Ave
Union 201 687-8737
NY SBM Assoc, 800 Linden Ave
Rochester 716 381-8330
NY SBM Assoc, 655 Commerce St
Thornwood 914 769-1811
NY SBM Assoc Inc, 5858 E Molloy Rd
Syracuse 315 454-9377

ZEISS INC, CARL, 444 FIFTH AVE, NEW YORK
N Y, 10018 .... 212 736-6070
S MONSON, EMP 150, OVER $10,000M
Cal Carl Zeiss, 2855 Telegraph Ave
Berkeley 841-6095
Cal Carl Zeiss, 2625 W Olive Ave, Burbank ... 849-2121
Colo R W Grover, 6215 S Harrison Dr
Littleton 771-2517
Ga Max E Kutz, 4207 McClatchey Circle N E
Atlanta 255-5811
Ill W P Nuffer, 4 S 615 Karns Rd
Naperville 355-8781
Md John Ludwig, 8720 Georgia Ave
Silver Spring 301 589-8144
Mass J Speyer, 20 Providence St, Boston .. 617 542-7051
Mo G Kuschel, 34 N Brentwood Blvd
St Louis .... VO 3-7688
NC W Brick, 2913 Harriman Ave
Durham-Ridgewood 489-4896
Ohio R Wesselmann, 2894 Chateau Circle S
Upper Arlington 486-6984
Tex R H Dietter, Box 1144, Houston 713 645-3273
Wash H H Schrader, 9561 N E First St
Bellevue 206 454-2314
Can Carl Zeiss Can Ltd, 140 Overlea Blvd
Toronto, Ont 421-6620

ZELL ELECTRIC MFG CO, INC, 466 BROOME ST
NEW YORK, N Y, 10013 .... 212 WA 5-4588
J MASSA, EMP 60, ENG 1

ZELTEX INC, 1000 CHALOMAR RD, CONCORD
CAL, 94520, TWX 910-481-9477 .... 415 686-6660
K RUTHERFORD, EMP 180, ENG 16, $2,500-$5,000M
Ala NBS Inc, Box 1343, Huntsville 205 881-3175
Ariz Tech-Ser Inc, 1805 E Indian School Rd
Phoenix 602 265-3629
Cal Tech-Ser Inc, 2435 N Naomi St
Burbank 213 846-9631
Cal Tech-Ser Inc, Box 10544
San Diego 714 222-1121
Cal Tech-Ser Inc, 477 Castro St
Mountain View 415 969-9020
Colo Hilleary Assoc, 2552 Ridge Rd
Littleton 303 794-4279
Conn Instrument Consultants Inc, 2381 Whitney Ave
Hamden 203 248-4174
Fla NBS Inc, 2813 Primrose Ct
Orlando 305 423-4856
Fla NBS Inc, 4150 SW 23rd St
Ft Lauderdale 305 584-0650
Ga NBS Inc, 893 Church St NW
Marietta 404 422-6067
Ill Marsland Assoc, 6699 Lincoln Ave
Chicago 312 676-1100
Ind Marsland Assoc, 3734 Carrollton Ave
Indianapolis 317 924-3568
Kan Technical Reps, 6814 Farmview La
Wichita 316 682-4140
Kan Technical Reps, 809 Sheridan Cir
Olathe 913 782-3775
Mass Instrument Consultants Inc, Box 25
Waban 617 969-9881
Mich Technitron Inc, 13657 Grand River Ave
Detroit 313 838-7324
Minn Marsland Assoc, 231 N Edgewood Ave
Minneapolis 612 545-4481
Mo Tech Reps, 7049 Laupher La
Hazelwood 314 521-1000
NJ Hansen Assoc, Box 339
Ridgewood 201 652-7055
NM Hilleary Assoc, 311 Washington SE
Albuquerque 505 265-7631
NY Doolittle Electronics Corp, Box 97
Fayetteville .... NE 7-3222
Ohio Technitron Inc, 23203 Lorain Rd
North Olmsted 216 734-0960
Ohio Technitron Inc, 1250 W Dorothy La
Dayton 513 298-9964
Ore Showalter-Judd, 1445 NE Arrington
Millsboro 503 648-6372
Pa Denco, 500A E Godfrey Ave
Philadelphia 215 725-9000
Pa Technitron Inc, 114 Spring Garden Rd
Pittsburgh 412 371-1231
Tex Carey Wolf Co, Box 12425
Fort Worth .... 817 Pe 8-1702
Tex Carey Wolf Co, Box 60338
Houston 713 643-2114
Va Schibley Assoc, 10604 Warwick Ave
Fairfax 703 591-3008
Wash Showalter-Judd, 1806 S Bush Pl
Seattle 206 324-7911
Can Instronics Techno-Products
Toronto Ont 416 534-9191
Can Instronics Techno-Products
Montreal Que 514 332-9395
For Terminal Radio Int Ltd, 3 W 61st St
New York N Y 212 246-2133

WELCO ELECTRIC CORP, 3801 W LINDEN ST
SOUTH BEND, IND, 46619............. 219 287-2875
C ARNT, EMP 200, ENG 2
Minn Wm B Odegard, 6504 Walker St, Minneapolis

WELDMATIC DIV UNITEK CORP, 950 ROYAL OAKS DR
MONROVIA
CAL, 91016, TWX 910-585-3236....... 213 EL 9-8361
W STREET, JR, EMP 450, ENG 6, $2,500-$5,000M
Ala W A Brown & Assoc Inc, 1314 Buford St, N W
Huntsville 539-6884
Cal Weldmatic Div, 4546 El Camino Real
Los Altos 941-1285
Colo Vinson Assoc, 3600 S Lincoln
Englewood 789-2204
Conn Technical Instruments Inc, 575 Broad St
Bridgeport 368-4582
Fla W A Brown & Assoc Inc, Box 513
Orlando 425-5505
Fla W A Brown & Assoc, Inc, 3039 N E 32nd Ave
Fort Lauderdale 565-3885
Fla W A Brown & Assoc, Inc, 212 Bradley Dr, N E
Fort Walton Beach 243-6424
Ga W A Brown & Assoc, 1590 Cooledge Rd NW
Tucker 939-1674
Ill Wm A Cockerill Co, 1808 S Fairview
Park Ridge 692-3650
Iowa Engineering Services Co, 1026 3rd Ave SE
Cedar Rapids 366-1591
Kan Engineering Serv Co, 7924 A State Line
Prairie Village 649-4000
Mass Technical Instruments Inc, 122 West St
Wilmington 944-3930
Mich Technitron, Inc, 13657 Grand River Ave
Detroit 838-7324
Mo ENSCO, 6717 Vernon, St Louis .... PA 6-2233
NJ Louis A Garten & Assoc, 375 Passaic Ave
Fairfield 226-7800
NM Vinson Assoc, Box 3295, Sta D
Albuquerque 298-7442
NY Advanced Components Corp Inc, 119 Luther Ave
Liverpool 472-7886
NY Advanced Components Corp, Inc, Box B, Clinton Rd
Whitesboro 736-9195
NY Advanced Components Corp, Inc, 5 Sanhurst Dr
Scottsville 889-1429
NY Advanced Components Corp, Inc, 1 Shamrock Cir
Poughkeepsie 471-1623
NC W A Brown & Assoc, Inc, 1108 Burke St
Winston-Salem 725-5384
Ohio Technitron, Inc, 1250 W Dorothy La
Dayton 298-9964
Ohio Technitron, Inc, 23203 Lorain Rd
North Olmstead 734-0960
Pa Louis A Garten & Assoc, 947 Old York Rd
Abington .... WA 7-1200
Pa Technitron, Inc, 114 Spring Grove Rd
Pittsburgh 371-1231
Tex P J Scanlon Co Inc, Box 70
Richardson .... AD 1-4661
Va W A Brown & Assoc Inc, 325 1st St
Alexandria 836-1800
Va W A Brown & Assoc, Inc, 82 Huxley Pl
Newport News 245-8272
Wash Stanley Enterprises, 5616 4th Ave S
Seattle .... RO 7-3320
Wis Wm A Cockerill Co, 7869 N 73rd St
Milwaukee 354-4370
Can Atlas Instrument Corp, 50 Wingold Ave
Toronto, Ont 781-6174
For Schweisstechnik GmbH, Rauscherstr 23, Vienna
Den Dansk Welomatic A/S, Kystvejen 43, Aarhus C
Fr Avialex, 85 Blvd de la Republique, Chatou-S/Oise
GB Electrautom Ltd, 408 Finchley Rd, London NW 2
Holl Weld-Equip, Indumaweg 5, Helmond
Ital Aetron, Viale Monte Grappa 14, I 20124 Milano
Jap Industrial Imports Ltd, Box 1271 CPO, Tokyo
Nor British Import A S, Box 5237, Oslo
Swed Svenska AB, Kvarnbergsvagen 25, Huddinge 1
Swit Resistronic, Hugistr 3, Biel
Ind Elkem Corp, Sonawala Cross Rd
Goregadn Bombay 63
Isrl Racom Electronics Co, 74, Nordau Blvd, Tel Aviv
Mex J Rimback, Calle Del Olivo 87-G, Mexico 20 D F

WELEX ELECTRONICS, DIV HALLIBURTON CO
2431 LINDEN LA, BOX 986, SILVER SPRING
MD, 20910 .... 301 589-5211
C STEPPE, EMP 154, ENG 36, $2,500-$5,000M

WELLER ELECTRIC CORP, 100 WELLCO RD, EASTON
PA, 18042 .... 215 258-5371
J BARRESE, EMP 200, ENG 2
Ariz B-G Sales Co, 305 E Indian School Rd
Phoenix 602 264-4761
Cal A Walt Runglin Co, 3851 S Grand
Los Angeles 748-7111
Cal Sinai-Johnson Inc, Box 591
Redwood City 365-6263
Cal Henry Feldman Co, 9724 Washington Blvd
Culver City 213 870-5973
Colo Connors Inc, 2241 Stacey, Denver 428-1575
Fla Hollingsworth & Still, Inc, 1010 Executive Ctr Dr
Orlando 841-1623
Ga Hollingsworth & Still Inc, 3098 Piedmont Rd
Atlanta 261-5838
Ill Bill Stein & Co, 4075 Jarvis Ave
Lincolnwood .... OR 4-2550
Ind L M DeVoe Co, 4010 Washington Blvd
Indpls 283-1395
Mass Coakley, Boyd & Abbett, Inc, 1424 Highland Ave
Needham 444-5470
Mich ABM Sales Co, 10116 Puritan Ave
Detroit 862-1300
Minn Dick Swanson, 2655 Brighton Ave NE
Mnpls .... ST 9-5636
Mo Kay Sales Co, 2600 Grand Ave
Kansas City 531-2014
NJ Art Cerf & Co, 512 Bloomfield Ave
Caldwell 226-2263
NY Callahan-Ferguson Co, 107 Greenhedge Dr
Camillus .... HU 8-5518
Ohio Mike Roth Sales Co, 678 S Green Rd
Cleveland 382-9090
Tex Geo Anderson Co, 1700 S Ervay St
Dallas 2 428-3731
Wash Northwestern Agencies, 4130 1st Ave S
Seattle 623-8882
Can A C Simmonds & Sons Ltd, 285 Yorkland Blvd
Agincourt Ont 445-9111
Ger Weller Elektro Werkzeuge
Box 140 7122 Besigheim, Am Neckar
GB Weller Electric Ltd, Redkiln Way, Horsham, Sussex
Jap Rocke International, 13 E 40th St
New York, NY .... MU 9-0200

WELLINGTON ELECTRONICS INC, 65 HONECK ST
ENGELWOOD, N J, 07631 .... 201 567-2620
L DOMBROWSKI, EMP 60, ENG 10, $1,000-$2,500M

WELLS CO INC, GARY, 90 NEPPERHAN AVE, YONKERS
N Y, 10701 .... 914 476-8333
M BUCHALTER, EMP 12, ENG 2, $500-$1,000M

WELLS ELECTRONICS INC, COMPONENTS DIV
1701 S MAIN ST, SOUTH BEND
IND, 46623 .... 219 288-4651
J FARRIS, EMP 135, ENG 7, $1,000-$2,500M
Ariz Allen Assoc, Box 3091, Papago Sta
Scottsdale 602 945-5781
Ga J E Joyner & Assoc Inc, Box 10678, Sta A
Atlanta 404 758-7496
Ill Actronic Sales Engrg, 4750 N Milwaukee Ave
Chicago 312 286-1037
Minn Electro-Serv Co, 1455 W Lake St
Minneapolis 612 827-2907
NJ Gray-Williams Assoc, 8 E Mt Vernon Ave
Haddonfield 609 429-5300
Tex Chas Hoffman Assoc, 777 S Central Expwy
Richardson 214 235-3611

WELLS ELECTRONICS INC EQUIPMENT DIV
1701 S MAIN ST, SOUTH BEND
IND, 46623 .... 219 288-4651
H SHULTZ, EMP 135, ENG 7, $1,000-$2,500M
Ala NBS Inc, 902 Bob Wallace Ave
Huntsville 205 536-7786
Ariz AR/TEC Inc, 14 E Stetson Dr
Scottsdale 602 947-6304
Cal F J Toffey Assoc, 2227 Mora Dr
Mountain View 415 968-0200
Cal Scrantom Engineering Assoc, 2750 Bellflower Blvd
Long Beach 213 421-8951
Fla P Slothower, Box 12, Winter Park 305 424-6298
Ga NBS Inc, 893 Church St N W
Marietta 404 422-6067
Ill Hoffman-Chicago, Inc, 4635 S Harlem Ave
Berwyn 312 788-1600
Ind Robt Schleicher Assoc, 1121 N Arlington Ave
Indianapolis 317 356-2162
Mass Contact East Inc, 7 Cypress Dr
Burlington 617 272-5051
Mich C A Geer Co, 221 Graceland St N E
Grand Rapids 616 361-9252
Minn Electro-Serv Co, 1455 W Lake St
Minneapolis 612 827-2907
Mo A F Gliedt, 10869 Spring Garden Dr
St Louis 314 868-7445
NJ Gray-Williams Assoc, 8 E Mt Vernon Ave
Haddonfield 609 429-5300
NJ H Wilson Ryno Co, 151 Forest St
Montclair 201 783-9700
NY Alderman & Eckerson Assoc, Drawer B
Pittsford 716 586-6020
NC Lee Ltd, Bethania 919 924-8245
Tex Crockett Engrg Co, Box 47287
Dallas 214 637-6120
Wash Bill Waddell Co, 10211 N E 31st Pl
Bellevue 206 822-0211
Can Brock Electronics Ltd, 27 Perth St
Lyn Ont 613 342-0152
Fr Riber S A, 22 Bis Blvd De L'Hopital Stell
Rueil-Malmaison Seine et Oise
Ger Peco, 8 Munchen-Pasing Landsberger Str 432
Munich 0811 83 1074
GB K & N Elctns Ltd, Cordwallis St
Maidenhead Berks .... MA 2 2447/9
Jap Nissho Co Ltd, 10 Nohonbashi Edobashi
1-Chome Chuo-Ko Tokyo
Swed AB Kuno Kallman, Jarntorget 7, Gothenburg
Ind Intl Trade Agencies, Abid Rd, Hyderabad
Isrl Independent Foreign Trade & Dev, 68 Hayarkon St
Tel-Aviv
Aust Cema (Australia) Pty Ltd, 33 Market St, Adelaide
Aust Cema (Australia) Pty Ltd, 41 Broadway
Wahroonga N S W

WELLS ELECTRONICS INC, PLASTICS DIV
1701 S MAIN ST, SOUTH BEND
IND, 46623 .... 219 288-4651
A MIDILI, EMP 135, ENG 7, $1,000-$2,500M
Ariz Ar/Tec Inc, 14 E Stetson Dr
Scottsdale 602 947-6304
Conn R B Scanlon Co, 10 Halliwell Dr
Stamford 203 325-2718
Conn J E O'Connor, 78 Bryan Dr
Manchester .... 203 CH 7-5434
Fla Paul Slothower, Box 12
Winter Park 305 295-7788
Mass Schutter-Young Corp, Five Ober St
Beverly 617 922-6121
Mass L E Welch, 83 Division St
North Attleboro .... 401 GA 1-9755
NJ Mech-Elec Sales Co, 16 S Main St
Medford 609 654-8209
Ohio Midwest Sales Co, 3219 W 117th St
Cleveland 216 941-2700
Tex Scott Technical Sales, Box 30324
Dallas 214 352-7698

WELLS INDUSTRIES CORP, 6880 TROOST AVE
NORTH HOLLYWOOD
CAL, 91605, TWX 910 499-2155 .... 213 875-1470
D SHIER, EMP 330, ENG 60, UP TO $100M
NJ R N Juntwait & Co, Box 295
Ridgewood 201 652-9191

WELTRONIC CO, 19500 W EIGHT MILE RD
SOUTHFIELD, MICH, 48075 .... 313 444-4880
L BRONIAK, EMP 180, ENG 20, $2,500-$5,000M
Cal Don Morgan, 5649 Alhambra
Los Angeles 225-2331
Ill Ed Topel, 11138 S Ridgeland, Worth .... HU 3-9465
Ill Al Hissong, 531 Riley Dr, Marengo ..... HU 3-9465
Mo Joe Heater, 1015 Maeville, Kirkwood ... YO 6-8636
NJ Glenn Heck, 200 Westminster
West Seneca .... NR 4-0444
Ohio Bob Moran, 50 Vickers Pl
W Carrollton .... BA 3-9545
Ohio Harold Feldhouse, 2903 Merriweather
Warren 898-5077
Pa Tom Edwards, 10157 Ferndale, Phila .... HO 4-3322

WELWYN ELECTRIC LTD, BEDLINGTON
NORTHUMBERLAND, ENGLAND .... BED 2181
R STEVEN, EMP 2200, ENG 100, $5,000-$10,000M
Ohio Welwyn Intl Inc, 811 Sharon Dr
Westlake 871-7980
Can Welwyn Canada Ltd, 1255 Brydges St, London, Ont
Den Oskar Pade, Emilievej 1, Copenhagen
Fr SFERNICE, 92 Boulogne-Billancourt, Hautsde Seine
Holl Radikor Electronics, Emmastr 13a, Hilversum
Ital SECI, Via G B Grassi 97, Milano
Nor Tandberg Trading, Collettsgt 35, Oslo 4
SAfr J Teer & Sons (Pty) Ltd, Box 1630, Johannesburg
Swed Gunnar Wiklund A B, Kungsgatan 38, Stockholm C
Swit Traco Trading Co Ltd, Jenatschstr 1, Zurich

WELWYN INTERNATIONAL INC, 811 SHARON DR
WESTLAKE, OHIO, 44145 .... 216 871-7980
N DARRAH, EMP 150, ENG 5, $1,000-$2,500M
Ariz Ruby Sales Corp, Box 11277, Tucson 294-0762
Cal Web Electronics Inc, 5716 W Manchester
Los Angeles 671-8297
Cal Ruby Sales Corp, Box 511
San Fernando 361-1201
Cal H K Foraker Co, Box 1325, Fremont
Fla Mark Elctn Sales Co, Box 291
North Miami .... WI 7-5080
Ill Lightner Assoc, 6322 N Milwaukee Ave
Chicago .... SP 4-1500
Md Bernard White & Co, 7 Church La
Baltimore 301 484-5400
Mass Cirolia-Le Blanc Sales, 976 Main St
Waltham .... TW 3-2742
Minn R W Marshall Co, 6106 Excelsior Blvd
Minneapolis 929-0457
Mo Boweng, 10414 Oak Ave, St Louis 429-7327
NY S-J Sales Assoc, 148-05 Archer Ave
Jamaica .... AX 1-3232
Pa Wm Dugger Co, 412 E Spring Ave
Ardmore 649-0889
Tex W Pat Fralia Co, 6100 Camp Bowie
Fort Worth .... PE 8-2394
Wash Farwest Agencies, 12410 S E 32nd St
Bellevue .... SH 7-1515
Can Welwyn Canada Ltd, 1255 Brydges St
London, Ont 451-9490
GB Welwyn Electric Ltd, Bedlington, Northumberland

WENCO MFG CO (SIMPLEX), 1133 W HUBBARD ST
CHICAGO, ILL, 60622 .... 312 243-3535
E MELSHEIMER, EMP 15, ENG 1
Cal R C Dudek, 600 N Sepulveda
Los Angeles .... BR 2-8097
NY J Ramsey Reese Inc, 71 Murray St
New York .... WO 2-4058

WENDON CO INC, 17 IRVING AVE, STAMFORD
CONN, 06902 .... 203 348-6271
D BOSAK, EMP 90, ENG 8, $1,000-$2,500M
Cal Rensall Inc, 500 E Dyer Rd, Santa Ana ... 540-4085
Conn John E Drake Co, 129 Oenoke La
New Canaan 203 966-2580
Fla Buchanan & Abrams Assoc, Box 6026
Orlando 305 423-8995
Mass John E Drake Co, 99 Cambridge St
Burlington 617 245-0699
NY Frank Tylinski Co Inc, 338 Northern Blvd
Great Neck 516 466-9070
Tex Brice Co, 1402 Dunlavy St
Houston 713 526-3197
Can Geo M Fraser, 1670 Bayview Ave
Toronto Ont 416 487-5436
For Intrade Inc Norcon Div, Box B
Thomaston Conn 203 283-5563

WENESCO INC, BOX 303, NORTHTOWN STA, CHICAGO
ILL, 60645 .... 312 BE 5-5405
B LOWE, EMP 40, ENG 3, UP TO $100M
Ill R B Engineering Co, 134 N Lincoln Way
Aurora .... TW 7-1764
NY Murray Salit, Box 176, Spring Valley 352-4443
For E D Magnus Assoc, 5715 N Lincoln
Chicago Ill 334-1503

WEN PRODUCTS INC, 5810 NORTHWEST HWY
CHICAGO, ILL, 60631 .... 312 763-6060
D PEEL, EMP 300, ENG 10, $5,000-$10,000M
Cal Art Herman & Assoc, 6770 E Gage
Bell Gardens 213 927-2658
Cal C A Simms & Assoc, 488 W Duarte Rd
Arcadia 213 446-9140
Cal Bob Mitchell Assoc, 5114 Westdale Dr
San Jose 408 253-8039
Cal Nickerson-Gray & Assoc, Box 11295
Palo Alto 415 326-0152
Colo Kennedy-Lee Sales Co, 1133 Speer Blvd
Denver 623-5311
Fla Harold D Hester, 189 NW 89th St
Miami 754-0992

Ill	W M Linz Assoc, 4001 W Devon Chicago	MU 5-6060
Ill	Rosenstiel-Norton, 6216 N Pulaski Chicago	KI 5-8124
Ind	Wm Dunn, 4525 E 79th St Indianapolis	849-1618
Kan	T W Lacy & Assoc, 8001 Granada Shawnee Mission	642-3357
Md	M F Taylor Co, 9431 Georgia Ave Silver Spring	589-4002
Mass	Northeastern Reps Inc, Box 64 Framingham Center	879-2300
Mass	Joslyn Bros Co, Box 697, Northboro	393-2058
Mich	W M Hamilton Inc, 1585 Sodon Lake Rd Bloomfield Hills	LO 1-0726
Minn	Heimann Co, 5603 Lyndale Ave S Mnpls	827-5457
Mo	T Lowell Assoc, Box 26, Creve Coeur Sta St Louis	MI 7-1111
NY	Dave Kubrick Co, 456 S Franklin Hempstead	IV 3-7230
NC	Sidney Butz & Assoc, 4126 Park Rd Charlotte	523-2595
NC	Caldwell Kister & Stead, 1901 Lendew St Greensboro	919 274-7780
Ohio	F A Daugherty Co, 6025 Mayfield Rd Cleveland	449-1122
Ohio	Hipkiss & Hulbert, 143 Gougler Ave Kent	673-4416
Pa	Cooper-Daugherty, 112 Oakwood Rd McMurray	941-6473
Pa	J P McGoldrick Assoc, 931 Wynnewood Rd Phila	TR 8-1900
Tenn	Allied Assoc Inc, Box 17489, Memphis	683-7886
Tenn	Al Engelman Co, Box 12096 Memphis	901 458-6263
Tex	M F Klicpera Co, 4210 S MacGregor Way Houston	RI 7-3868
Tex	S & S Sales Co, 2501 S Haywood Dallas	214 421-2151
Wash	W W Wheat & Son, 3818 E Marginal Way Seattle	624-6222

WER INDUSTRIAL CORP, 1276 MILITARY RD, BUFFALO N Y, 14217 .... 716 873-2080
H SPRIGGS, EMP 95, ENG 5, $1,000-$2,500M

Cal	McCarthy-Kelly Assoc, 279 N Bayshore Blvd San Mateo	342-8351
Cal	Devoe Engineering Co, 1462 Skyline Dr Fullterton	871-8076
Mass	Edgar F Hubert Co, Box 21, Dover	235-6815
Mich	Owen Engineering Co, 17304 Lahser Rd Detroit	538-1120
Minn	Craighead & Assoc, 3822 E Lake St Minneapolis	721-6529
NY	Ross Equipment Co Inc, 80 Rockwood Pl Rochester	BR 1-5660
NC	Industrial Drives & Control Inc, 611 Templeton Ave Charlotte	372-0383
Ohio	Albrecht Engineering Sales, Box 93 Dayton	885-3888
Ore	Joseph F Taraba Co, 1824 S E 50th Ave Portland	234-6491
Pa	Jackson Automation Inc, 211 Ford Rd Bala Cynwyd	664-9611
Pa	Foster & McClinton Inc, 1675 Washington Rd Pittsburgh	561-4803
Tex	Butler & Land Inc, Box 8085, Dallas	Em 1-6631
Wash	Joseph F Taraba Co, 1224-1st Ave S Seattle	624-3235
W Va	Foster & McClinton Inc, 6213 Brenda Ct Huntington	736-5161
Wis	WER Industrial Corp, 1933 22nd Ave Kenosha	658-1511
Can	A Juchymenko, 25 Vanguard Rd Islington Ont	416 621-2100
Ger	Mashinenfabrik Stromag, Postfach 310 Unna Westf,	
GB	Stromag Ltd, 34 Windmille St, Birmingham	

WESCO ELECTRICAL CO INC, 27 OLIVE ST GREENFIELD, MASS, 01301 .... 413 774-4358
J DESANTY, EMP 85, ENG 2, $500-$1,000M

Cal	Schwarzschild Assoc, Box 14166 San Francisco	861-8686
Ill	M Q & Assoc, 6713 N Oliphant Ave Chicago	774-8844
Md	Callas Elctns Inc, 6409 Frederick Ave Baltimore	774-7711
Mass	P J Engineering Sales Co, Box 267 Brighton	783-0510
NJ	Varrelman-Gorman Co, Box 206 Livingston	463-5000
NJ	A L Livera & Assoc, Inc, 2 Green Village Rd Madison	377-3220
NJ	Quality Components Co, Box 586 Cherry Hill	428-6266
NY	A L Livera & Assoc, Inc, 275 Warner Ave Roslyn Heights	484-1276
Pa	Lowry-Dietrich Co, 90 Clairton Blvd Pittsburgh	892-2992
Tex	Lee Sales Co, 2838 Posey Dr, Irving	
Wash	Tec-Rep Co, 169 Twelfth Ave, Seattle	623-0651
Can	Kaytronics Engineering, 5800 Monkland Ave Montreal	489-9335
Can	Kaytronics Engineering, 262 Wilson Ave Downsview, Ont	638-5511

WESCOIL CO INC, 16710 S OAK PARK AVE TINLEY PARK, ILL, 60477 .... 312 928-7100
R GISLASON, EMP 125, ENG 4, $500-$1,000M

WESTAMP INC, 1542 15TH ST, SANTA MONICA CAL, 90404 .... 213 393-0401
R HENSZEY, EMP 60, ENG 5, $1,000-$2,500M

Cal	Belilove Co, 960 Arlington Ave Oakland	658-9011
Md	J L Arthur, Baltimore	301 661-8427
Mass	Sencor N E, Lynnfield	617 245-7960
Pa	Sencor Inc, 2222 Glendale St Philadelphia	215 342-0223

WESTBERG MFG CO, 3400 WESTACH WAY, SONOMA CAL, 95476 .... 707 938-2121
V WESTBERG, EMP 15, ENG 2, $100-$250M

Colo	N G Herron, 3155 Gray St, Denver	238-6580

WEST-CAP ARIZONA DIV SAN FERNANDO ELEC MFG CO, 2201 E ELVIRA RD, TUCSON ARIZ, 85706 .... 602 294-2646
R ROMERO, EMP 200, ENG 3, $1,000-$2,500M

WEST COAST RESEARCH CORP 2100 S SEPULVEDA BLVD, LOS ANGELES CAL, 90025 .... 213 GR 8-8833
J FOX, EMP 21, ENG 12, $100-$250M

Cal	Technical Management Co, 2560 E Foothill Blvd Pasadena	449-5877
Cal	Peninsula Assoc, 1447 Bayshore Palo Alto	415 322-1803
Colo	Klein Aerospace, Box 1056, Englewood	781-4967
Md	Barnhill & Assoc, 1931 Greenspring Dr Timonium	301 252-5610
Mass	QRC Co, 1643 Beacon St, Waban	332-9600
Wash	Amadyne Inc, 8057 16th Ave NE Seattle	206 La 3-8000
Can	Electrodesign Ltd, 9124 St Lawrence Blvd Montreal	DU 9-5914
Fr	F I M E, 1, Rue Ambroise-Thomas Paris	TA 76-35
Arg	Sirex, Libertad 836, Buenos Aires, Arg	42-1927

WESTCOTT ELECTRONICS, 155 SARGEANT AVE CLIFTON, NJ, 07013 .... 201 777-8842
W HEATH JR, EMP 6, ENG 1, UP TO $100M

WESTEL CO, 298 FULLER ST, REDWOOD CITY CAL, 94063 .... 415 365-3440
R KING, EMP 35, ENG 15, $1,000-$2,500M

WESTERN ARCTRONIC, 323 W MAPLE AVE MONROVIA, CAL, 91016 .... 213 357-3236
C HALTERMAN, EMP 18, ENG 2, $500-$1,000M

WESTERN COIL & ELECTRICAL CO, 215 STATE ST RACINE, WISC, 53403 414-632-4741
W LEWIS, EMP 26, ENG 2, $250-$500M

Ill	C B Bruse, Box 47, Crystal Lake	2230
Wis	Western Plastics, 215 State St, Racine	632-4741

WESTERN ELECTRONIC PRODUCTS CO 107 LOS MOLINOS, SAN CLEMENTE CAL, 92672 .... 714 492-4677
A SCHREIBER

Ariz	Bruce Kinker Assoc, 2746 W Palm La Phoenix	272-7141
Cal	Paul Nurches Co, 2396 E Foothill Blvd Pasadena	796-5844
Cal	Paul Nurches Co, 999 Commercial St Palo Alto	326-7842
Conn	R P Mahan Co Inc, Hopkins Rd Watertown	274-2363
Fla	J P Dearie Co, 8000 E Colonial Orlando	275-1102
Ill	Charles Rossi Sales Co, 2711 N 77th Ave Chicago	456-4710
Mass	R P Mahan Co Inc, 572 Washington St Wellesley	237-1040
Minn	Xylem Co, 322 S 4th St, Minneapolis	335-5205
Mo	R M Engineering & Sales, Box 8044 Kansas City	361-5164
NH	J P Dearie Co, 14345 Land Title Bldg Philadelphia	LO 3-1818
NJ	J P Dearie Co, 60 Midvale Rd Mountain Lake	334-4848
NM	Bruce Kinkner Assoc, 2318 Wisconsin N E Albuquerque	298-2628
NY	J P Dearie Co, 3001 James St Syracuse	463-4507
Ohio	Schlemmer Assoc, 1172 W Galbraith Rd Cincinnati	522-8340
Pa	J P Dearie Co, 14345 Land Title Bldg Philadelphia	LO 3-1818
Tex	Jordan Equip Co, Inc, Drawer V Stafford	498-6212
Wash	Fred H Haight Co, 3212 Eastlake Ave Seattle	322-1818
For	EMEC Inc, 55 E Old Country Rd Hicksville N Y	931-3700

WESTERN GEAR CORP ELECTRO PRODUCTS DIV 75 W GREEN ST, PASADENA CAL, 91101 .... 213 796-4395
G NIKAS, EMP 265, ENG 20

Ariz	Jack C Agee Assoc, Box 7273, Phoenix	955-6383
Colo	Franklin Sales Co, 2149 S Clermont St Denver	757-1371
Conn	Zaslow Sales Co Inc, 6 Newberry Rd Bloomfield	242-7781
Fla	D & E Assoc, 1 N Rosalind Ave Orlando	644-3039
Ill	Croydon Elctns Inc, 1915 N Harlem Ave Chicago	237-4343
Mass	Zaslow Sales Co Inc, 371 Howard St Northboro	EX 3-8150
Mich	Carter, McCormic & Peirce Inc, 16239 Wyoming Detroit	863-4600
NJ	Electra-Mec Assoc, 1258 Teaneck Rd Teaneck	837-4262
NY	Harry H Cardozo, 4548 Main St Buffalo	TF 9-2243
NY	A Zissler, 3700 East Ave, Rochester	Lu 6-6226
Ohio	Components Inc, 7461 N Linden La Cleveland	842-2737
Ohio	Components Inc, 11820 Knollsprings Cincinnati	721-2997
Tex	STASCO, 13310 Spring Grove Ave Dallas	239-5054
Wash	James Findlay Co, 10237 Main St Bellevue	GI 4-5200

WESTERN GOLD & PLATINUM CO, 525 HARBOR BLVD BELMONT CAL, 94002, TWX 415/594-8855 .... 415 593-3121
H MASON, EMP 245, ENG 6

Cal	Wes-K Assoc, 5917 Noble Ave Van Nuys	989-3070
Mass	Marvin Orella, 1838 Mass Ave Lexington	862-0856
Minn	C R Behringer, 5112 Valley View Rd Minneapolis	612 921-1193
NM	Bowden Engrg Sales Inc, 2631-35 Texas NE Albuquerque	505 299-0473
Pa	Lawrence L Smith, 533 Lombardy Rd Drexel Hill	483-7467

WESTERN INSTRUMENT CORP, 745 HOLLYWOOD WAY BURBANK, CAL, 91505 .... 213 849-3013
A EDGERTON, EMP 5, ENG 2, UP TO $100M

Cal	H A Kittleson Co, 416 N La Brea Ave Los Angeles	WE 3-7371
Cal	H A Kittleson Co, 809 San Antonio Rd Palo Alto	DA 6-7410
Conn	Wm M Hague Co, Box 344, Fairfield	259-2657
Mass	W M Hague Co, 1776 Mass Ave Lexington	862-5700

WESTERN INDICATOR CO INC, 1710 N POTRERO AVE SOUTH EL MONTE, CAL, 91733 .... 213 283-7681
J DUPREE, EMP 24, ENG 2, $500-$1,000M

Cal	P J Hildebrand, 6132 Tarragona Dr San Diego	714 582-4677
Cal	Shannon Elctns, One First St Los Altos	415 941-2217
Ill	R A Stemm, 662 Irving Park Rd Chicago	312 525-8333
Ind	McDonald Sales Co, 227 S Cornell Cir Ft Wayne	219 745-9214
Mass	Gilway Sales Co, Box 584 Newburyport	617 465-7568
Mo	Suor Sales Corp, 8115 Troost Kansas City	816 444-2871
NY	Harold B Heft Assoc, Box 623 Lynbrook	516 LY 9-3351
Ore	Arneson Assoc, 200 N E Canyon Rd Beaverton	503 646-3416
Tex	Scott Technical Sales, Box 30324 Dallas	214 FL 2-7698
Wash	Arneson Assoc, 5950 6th Ave S Seattle	206 RO 2-7664

WESTERN INSULATED WIRE CO, 2425 E 30TH ST LOS ANGELES, CAL, 90058 .... 213 587-7103
W DROLET, JR, EMP 300, ENG 7

Ala	J E Heusser, 620 Sundale Dr Birmingham	836-3896
Cal	Electrorep Inc, 650 19th St San Francisco	626-0225
Colo	Electrical Lines Inc, 1480 W 3rd Ave Denver	222-2587
Fla	Joiner & Assoc Inc, 1709 Lemon St Tampa	253-3697
Ga	McKenzie Co Inc, 585 North Ave N W Atlanta	577-2944
Ill	Electri-Agency Inc, 224 N Ada St Chicago	733-1636
Ill	Western Insulated Wire Co, 224 N Ada St Chicago	733-1647
Ind	Roth-Mooney Electrical Agency Inc 5226 N Keystone Ave, Indiannapolis	251-3504
Kan	Curt H Conrad Co, 1401 Fairfax Trafficway Kansas City	621-3021
Ky	A L Pickens Co, 1925 Buttonwood Rd Louisville	583-3636
La	Delta Materials Inc, 605 Ninth St New Orleans	899-3404
Mass	C C Pierce Co Inc, 409-411 Dorchester Ave Boston	268-8816
Mich	J L Miner Assoc, 15318 Mack Ave Grosse Pointe Park	
Minn	R D Little Co, 6106 Excelsior Blvd Minneapolis	929-4130
Mo	R Drenkhahn, 9358 Ewers Dr, St Louis	241-4350
NM	Tom Deskin & Assoc, 116 Lomas Blvd N E Alburquerque	242-3581
NY	John C & Thomas R Fox, 3209 Seneca Tpk Marcellus	679-5081
NY	Warshaw-Cooper Co, 25 Franklin St, Brooklyn	
NC	G M Hogshead Co, 201-3 W Worthington Charlotte	377-5901
Ohio	Theodore M Gage & Co, 1836 Euclid Ave Cleveland	241-8300
Okla	J W Dodge Co, 2460 E 14th Pl, Tulsa	936-4416
Ore	Geo M Roth Co, 215 S E Morrison Portland	234-0749
Pa	William C Welde & Sons, 120 N 32nd St Philadelphia	386-0925
Pa	Stewart & Assoc, 1008 Washington Blvd Pittsburgh	441-5252
Tenn	H H Reagan, 1500 Harmony Rd Knoxville	689-2092
Tenn	Ross D Thomas Co, 111 Racine St Memphis	458-7569
Tex	Jack Morgan Co Inc, 6434 Maple Dallas	358-2431
Tex	Jack Morgan Co Inc, 614 Kipling St Houston	522-4361
Tex	N L Mauldin, Box 1678, Lubbock	795-4133
Tex	Jack Morgan Co Inc, Box 6481 San Antonio	TA 4-1473
Utah	Melville Sales Co, 328 W 2nd South St Salt Lake City	363-3363
Wash	Assoc Electrical Agents, 2917 1st Ave S Seattle	682-5232
Wis	Bardon Electric Sales, 5148 N Teutonia Ave Milwaukee	462-6060
BC	Geo D McNeil & Assoc Ltd, 2095 W 12th Ave Vancouver B C	738-5515

WESTERN MAGNETICS DIV MAGNETIC HEADS INC
1733 FLOWER ST, GLENDALE
CAL, 91201 .... 213 245-7311
R KETTLER, JR, EMP 85, ENG 10, $1,000-$2,500M
Cal Technical Liaison Co, 1626 Centinela Ave
Inglewood
Cal Spectrum Sales Co, 14106 Ventura Blvd
Sherman Oaks 213 788-9911
Cal Technical Mktg Assoc, 1485 Bayshore Blvd
San Francisco 415 467-8700
Fla World Wide Prods Inc, 1999 N E 150th St
N Miami Beach 305 949-3457
Fla World Wide Prods Inc, Box 7102
Tampa 813 227-5051
Fla World Wide Prods Inc, Box 1301
Winter Park 305 645-2475
Ga World Wide Prods Inc, Box 1106
Decatur 404 284-7500
Ill W L Wilson Co, 5938 W Montrose Ave
Chicago 312 AV2-5535
Ind Howell-Moore & Assoc, 5425 N College Ave
Indianapolis 317 255-8566
Mass Jim Piper Assoc, 10 Haven St
Dover 617 449-1144
NJ Bittan Assoc, Box 238
Princeton Junction 609 799-0087
NJ Bittan Assoc, Box 24, Ridgewood 201 891-3325
NJ Bittan Assoc, Box 154
Saddle River 201 327-7512
NY Bittan Assoc, 381 Sunrise Hwy
Lynbrook 516 593-3833
NC World Wide Prods Inc, Box 8430
Ashville 704 252-7092
Ohio Midwest Marketing Assoc, 137 Lakeview Dr
Dayton 513 433-2511

WESTERN MICROWAVE LABS INC
1045 DI GIULIO AVE, SANTA CLARA
CAL, 95050, TWX 910 338-0032 .... 408 246-4500
R HELMS, EMP 465, ENG 39, $5,000-$10,000M
Cal Sedillo Co, 125 E Sunnyoaks Ave
Campbell 408 264-4010
Cal Western Microwave Labs, 103 Sirius Cir
Thousand Oaks 805 495-4614
Fla Theall Eng Sales Co, Box 922
Maitland 647-4469
Kan Thomas & Modrcin Assoc, Inc
5450 Buena Vista Dr
Shawnee Mission 432-2131
Mass Techmar, 18 Bothwell Rd, Brighton .. 617 782-2244
Mo Thomas & Modrcin Assoc, Inc
47 Vlg Sq Shop Ctr, Box 545
Hazelwood 838-6446
NM Ramco, 8016 Zuni Rd
Albuquerque 505 265-7989
NY Western Microwave Labs, Inc, 22 Partridge Dr
Commack 543-2066
NY Syracuse Tech Reps, Box 47
Syracuse 315 488-0222
NC Candor Co, Bethania 919 924-1480
Ohio Clifford Elctn Sales, 5152 Cherrington Rd
Toledo 419 882-4000
Pa Western Microwave Labs, 8601 Gilbert St
Philadelphia 215 242-3194
Va Western Microwave Labs, 8301 Arlington Blvd
Fairfax 703 560-1807
Wash Paratech, Box 5427, Seattle 206 783-3900
Can Electrodesign Ltd, 3433 Bathurst St
Toronto 19 Ont 416 787-0991
Can Electrodesign Ltd, 83 Arthur St
Ottawa 4 Ont 613 233-8815
Can Electrodesign Ltd, 9124 St Lawrence Blvd
Montreal 11 Que 514 389-5914
For Ad Auriema Inc, 85 Broad St
New York, NY 269-7750
Fr Auriema-France S A R L, 90-98 Blvd Victor Hugo
92 Clichy 270-82-75
Ger Ad Auriema GmbH, Uhdestr 33
7100 Heilbronn-Sontheim 82324
GB Auriema Ltd, 23/31 King St, London .. 01-992 5388
Ital G G Gorgatti, Via Borromei 5
20123 Milan 870 725
Jap Midoriya/Auriema Japan Ltd
3 2-Chome Jyobashi Chuo-Ku, Tokyo 516-8851
Swed Svenska Painton AB, Erik Tegels Vag 35
Spanga (Stockholm) 13 26 53
Arg ADA S R L, Montevideo 48
Buenos Aires 49-1327
Belg Ad Auriema Europe SA, 172A Rue Brogniez
Brussels 22 28 35
Ind Cinerama Private Ltd, Box 1232
Bombay 1 24-2273
Isrl Impectron Israel, Box 3282, Tel Aviv 236666
Aust Auriema (Australia) Pty Ltd, 443 Kent St
Sydney 29-6485

WESTERN RESERVE ELECTRONICS, INC
12430 EUCLID AVE, CLEVELAND
OHIO, 44106 .... 216 791-5112
F SAWONIK, EMP 38, ENG 10, $250-$500M
Ariz Coronado Elctns Assoc, Box 3176
Scottsdale 947-9060
Colo Coronado Electronics Assoc, 2655 S Krameria
Denver 757-6489
Ill Midwest Elctn Sales, 5707 W Division St
Chicago 626-0030
Minn Wenco Sales, 7728 Morgan Ave
Minneapolis 866-3639
Mo Florence & Meyer, Inc, 406 W 34th St
Kansas City .... LO 1-7282
NM Coronado Elctns Assoc, Box 11204
Albuquerque 298-6377
NY E W Hoyer Assoc, Box 51, DeWitt 446-3523
Ohio Mark Assoc, 77-79 Bine St, Dayton 461-4784
Tex D L Ashcraft, 8515 Dudley Dr
San Antonio 344-8069
Utah Coronado Elctns Assoc, 4422 Emigration Canyon
Salt Lake City 328-4459
Wash Cane-Jessup Co, Box 250, Bellevue 454-0691

Can Electronic Systems Ltd, 6420 Victoria Ave
Montreal 26, Que 737-2744
Can Electronetic Systems Ltd, 62 Alness St
Downsview, Ont 636-3673

WESTERN SEMICONDUCTORS INC, 2200 S FAIRVIEW
SANTA ANA
CAL, 92704, TWX 714 546-2246 .... 714 546-5716
R MALLIET, EMP 35, ENG 3, $500-$1,000M
Ohio Frank J Campisano Co, 3985 Race Rd
Cincinnati 662-1616

WESTERN SKY INDUSTRIES, 21300 CLOUD WAY
HAYWARD, CAL, 94545 .... 415 783-0600
R HENDERSON, EMP 15, $500-$1,000M
Ariz Circle Sales Co, 1231 W 23rd St
Tempe 967-1044
Ga J O King, Inc, 711 Trabert Ave NW
Atlanta 355-7660
Ill S W Anderson Co, 2425 Wisconsin Ave
Downers Grove 964-2600
Mich Edwards Assoc, 11499 Conner Ave
Detroit 372-4800
Mo Industrial Metal Working Supplies, Inc
Box 6236 Lambert Fld, St Louis 426-4060
NY East Coast Sales & Service, 1405 Northern Blvd
Roslyn 621-7500
Tex Industrial Metal Wkg Supplies Inc, Box 30506
Dallas 231-7821

WESTERN TECHNOLOGY INC, 220 W CENTRAL AVE
SANTA ANA, CAL, 92707 .... 714 546-6186
W KAMMINS, EMP 125, ENG 10, $250-$500M
Cal Barker Products Inc, 2701 S Main St
Los Angeles 213 748-9651
Ill Printing Plate Supply Co, 561 W Washington St
Chicago 312 263-3937
Mass Bridgeport Engravers Supply Co, 76-82 Midway St
Boston .... 617 AN 8-8380
Minn Precision Industrial Equip Co, 2446 University Ave
St Paul 612 645-9301
Ohio Precision Industries Inc, 13410 Enterprise
Cleveland 216 267-4130
Va Chemical Etching Equip & Supply Co
7629 Crauford Ct, Alexandria 703 971-2646

WESTERN TELEMATIC INC, 5507 PECK RD, ARCADIA
CAL, 91006 .... 213 442-1862
I ROSS, EMP 22, ENG 6, $500-$1,000M

WESTINGHOUSE BRAKE & SIGNAL CO LTD
AUTOMATION DIV, CHIPPENHAM
ENGLAND, TWX 44677 .... CHI 2881
W DENMAN, EMP 350, ENG 150
For Evans & Cia, Casilla 1395, Santiago
For Jupiter Trading Co, Ltd, 152 East Ave Shah Reza
Tehran
For McKenzie & Holland NZ Ltd, Rata St
Naenae, Lower Hutt
For Evans & Thornton
Reconquista 559 P O Central 3993, Buenos Aires
For Abdulaziz, Abdulmomsin, Alresmed Kuwait
SAfr Westbell Electronics Pty Ltd, Box 453, Johannesburg
Isrl Swiss Electric Representation Ltd, Box 4541
Tel-Aviv
Spn Dimetal S A, Plono 10, Madrid
Aust McKenzie & Holland Aust Pty Ltd
Private Bag, P O Newport W15, Victoria

WESTINGHOUSE ELECTRIC CORP, BOX 2278
PITTSBURGH, PA, 15230 .... 412 255-3800
E CLARKE JR, EMP 135000, ENG 10000, OVER
$10,000M
Ala Westinghouse, 1420 Bk for Sav & Tr Bldg
Birmingham 323-2411
Ala Westinghouse, 3322 Memorial Pkwy
Huntsville 881-2591
Ariz Westinghouse, 1102 N 21st Ave
Phoenix 254-5231
Ark Westinghouse, 103 W Capital St
Little Rock 376-3462
Cal Westinghouse, 410 Bush St
San Francisco 392-5353
Cal Westinghouse, 600 St Paul Ave
Los Angeles 482-9660
Cal Westinghouse, 1365 Sixth Ave
San Diego 234-4651
Colo Westinghouse, 55 W 5th Ave, Denver 534-8121
Conn Westinghouse, 360 Market St, Hartford ... 249-5792
Del Westinghouse, 5 Germany Dr
Wilmington 655-9611
DC Westinghouse, 1625 K St NW
Washington 628-8843
Fla Westinghouse, 3400 NW 31st St
Miami 633-0473
Fla Westinghouse, 4255 Henderson Blvd
Tampa 876-0278
Ga Westinghouse, 1299 Northside Dr NW
Atlanta 873-5612
Haw Westinghouse, 680 Ala Moana Blvd
Honolulu 574-581
Idah Westinghouse, 318 S Capitol Blvd
Boise 342-3531
Ill Westinghouse, 10 S Riverside Plaza
Chicago 461-7200
Ind Westinghouse, 1560 Stadium Dr, Indpls .. 632-3301
Iowa Westinghouse, 101 12th St
Des Moines 243-0146
Ky Westinghouse, 305 W Broadway
Louisville 584-6903
La Westinghouse, 440 Third St
Baton Rouge 348-5759
La Westinghouse, 400 N Carrollton Ave
New Orleans 486-6141
Me Westinghouse, 9 Bowman St, Augusta 623-4571
Md Westinghouse, 1055 Taylor Ave
Towson 828-5400
Mass Westinghouse, Prudential Tower Bldg
Boston 542-0600
Mich Westinghouse, 5757 Trumbull Ave
Detroit 872-7010
Minn Westinghouse, 3501 S Hwy 100
Minneapolis 927-6551
Miss Westinghouse, 815 Electric Bldg
Jackson 354-2373
Mo Westinghouse, 411 N 7th St, St Louis 421-6911
Mont Westinghouse, 949 S Montana St
Butte 792-2374
Neb Westinghouse, 117 N 13th St, Omaha 341-7793
NJ Westinghouse, 1180 Raymond Blvd
Newark 465-2323
NM Westinghouse, 816 1st St NW
Albuquerque 242-2722
NY Westinghouse, 200 Park Ave, New York ... 692-3211
NC Westinghouse, 1307 Glenwood Ave
Raleigh 834-4375
Ohio Westinghouse, 940 Williams Ave
Columbus 279-7311
Ohio Westinghouse, 908 Illuminating Bldg
Cleveland 241-7600
Ohio Westinghouse, Gwynne Bldg, Cincinnati .. 421-2250
Okla Westinghouse, 120 N Robinson St
Okla City 232-5421
Ore Westinghouse, 1414 NE Grand Ave
Portland 288-6311
Pa Westinghouse, 306 4th Ave, Pittsburgh ... 391-2800
Pa Westinghouse, 3001 Walnut St, Phila 382-1200
RI Westinghouse, 1 Corliss St, Providence ... 831-7220
SC Westinghouse, 301 Security Fed Bldg
Columbia 256-1511
Tenn Westinghouse, 1717 West End Bldg
Nashville 242-3505
Tex Westinghouse, 8400 John W Carpenter Frwy
Dallas 631-2811
Tex Westinghouse, 507 Dallas Ave
Houston 224-7791
Utah Westinghouse, 1680 S Redwood Rd
Salt Lake City 486-8751
Va Westinghouse, 4000 W Broad St
Richmond 358-5573
Wash Westinghouse, 3451 E Marginal Way S
Seattle 624-6050
W Va Westinghouse, 1206 Kanawha Blvd E
Charleston 346-9606
Wis Westinghouse, 110 N Thornton Ave
Madison 257-4517
Can Westinghouse Elec Intl, 200 Park Ave
New York, NY 692-3211

WESTINGHOUSE ELECTRIC CORP, AEROSPACE DIV
BOX 746, BALTIMORE, MD, 21203

WESTINGHOUSE ELECTRIC CORP, AEROSPACE
ELECTRICAL DIV, BOX 989, LIMA
OHIO, 45802 .... 419 224-0121
R GRIFFITH, EMP 1500, ENG 275, OVER $10,000M

WESTINGHOUSE ELEC CORP CONSUMER ELCTNS DIV
EDISON, N J, 08817 .... 201 645-2331

WESTINGHOUSE ELECTRIC CORP, CRYOGENIC
SYSTEMS, BOX 8606, PITTSBURGH, PA, 15221

WESTINGHOUSE ELECTRIC CORP DISTRIBUTION
TRANSFORMER DIV, SHARON, PA, 16146

WESTINGHOUSE ELECTRIC CORP, ELECTRONIC TUBE
DIV, 3 GATEWAY CTR, PITTSBURGH
PA, 15222 .... 607 739-7951
L GRANT

WESTINGHOUSE ELECTRIC CORP, GEN CONTROL DIV
BOX 868, PITTSBURGH, PA, 15230

WESTINGHOUSE ELECTRIC CORP INDUS EQUIP DIV
2519 WILKENS AVE, BALTIMORE
MD, 21203 .... 301 233-2300

WESTINGHOUSE ELECTRIC CORP, INDUSTRIAL
MICARTA DIV, HAMPTON
S C, 29924 .... 803 943-2311
D SWEENEY, EMP 1200

WESTINGHOUSE ELECTRIC CORP INSULATING
MATERIALS DIV, TRAFFORD
PA, 15085 .... 412 256-5361
N CONSENTINE, EMP 155, ENG 12
Cal Westinghouse, 600 St Paul Ave
Los Angeles 482-9660
Cal Westinghouse, 410 Bush St
San Francisco 392-5353
Fla J P Brunson, 841 Miami Rd, Jacksonville
Mo Westinghouse, 411 N 7th St, St Louis 421-6911
NJ Westinghouse, 67 Evergreen Pl
East Orange 465-2504
NY Westinghouse, 700 Ellicott Sq Bldg
Buffalo 854-3966
NC Westinghouse, 2001 W Morehead St
Charlotte 377-3471
Tex Westinghouse, 8400 John Carpenter Frwy
Dallas 631-2811
For Westinghouse, 200 Park Ave
New York 692-4235664
Swed Westinghouse Int'l Co SA, 32 Rue de Rhone, Geneva

WESTINGHOUSE ELECTRIC CORP, LAMP DIV
ONE WESTINGHOUSE PLAZA, BLOOMFIELD
N J, 07003

WESTINGHOUSE ELECTRIC CORP, MATERIALS MFG
DIV, BOX 45, R D 2, BLAIRSVILLE
PA, 15717 .... 412 459-9400
J FLEMING, EMP 500, ENG 20

WESTINGHOUSE ELEC CORP, MOLECULAR
ELECTRONICS DIV, BOX 7377, ELKRIDGE
MD, 21227, TWX 301-761-4340 .... 301 796-3666
D MCGUINNESS, EMP 1200, ENG 100

WESTINGHOUSE ELECTRIC CORP, RELAY & INSTR
DEPT, 95 ORANGE ST, NEWARK, N J, 07101

WESTINGHOUSE ELECTRIC CORP, SCIEN & ELECTRO
OPTICAL EQUIP DEPT, BOX 8608, PITTSBURGH
PA, 15221 .... 412 256-5651
Pa Westinghouse, 7800 Susquehanna St
Pittsburgh 256-5651

WESTINGHOUSE ELECTRIC CORP, SEMICONDUCTOR DIV, YOUNGWOOD, PA, 15697 .... 412 925-7272
K SUEKER

WESTINGHOUSE ELECTRIC CORP, SPEC TRANSF DIV BOX 231, GREENVILLE, PA, 16125 ..... 412 981-1611
C HORSTMAN, EMP 325, ENG 15

WESTINGHOUSE ELECTRIC CORP, STANDARD CONTROL DIV, BEAVER, PA, 15009..... 412 775-2000
L LENNARTSON, EMP 2000, ENG 150
$2,500-$5,000M

WESTINGHOUSE ELECTRIC CORP, TUBE DIV, BOX 284
EMP 2200, ENG 1000

Ala	Westinghouse, 89 Holiday Off Ctr Huntsville	205 881-2591
Ariz	Westinghouse, Box 13649, Phoenix	602 254-5231
Cal	Westinghouse, 18020 S Santa Fe Ave Compton	213 636-0111
Cal	Westinghouse, 600 St Paul Ave Los Angeles	213 482-9660
Cal	Westinghouse, Hendy Ave Sunnyvale	408 735-2191
Colo	Westinghouse, 55 W Fifth Ave Denver	303 534-8121
Conn	Westinghouse, 360 Market St Hartford	203 249-5792
DC	Westinghouse, 1625 K St N W Washington	202 628-8843
Fla	Westinghouse, 1010 Executive Ctr Dr Orlando	305 425 4511
Ga	Westinghouse, 1299 Northside Dr N W Atlanta	404 351-5200
Ill	Westinghouse, 10 S Riverside Plaza Chicago	312 461-7040
Ind	Westinghouse, A Wayne Bank Bldg Fort Wayne	219 742-0221
Ind	Westinghouse, 1560 Stadium Dr Indianapolis	317 632-3301
Md	Westinghouse, 1055 Taylor Ave Towson	301 828-5400
Mass	Westinghouse, 800 Boylston St Boston	617 542-0600
Mich	Westinghouse, 5757 Trumbull Ave Detroit	313 872-7010
Mich	Westinghouse, 281 Leonard St N W Grand Rapids	616 456-1531
Minn	Westinghouse, 3501 S Hwy 100 Minneapolis	612 927-6551
Mo	Westinghouse, 411 N 7th St St Louis	314 421-6911
NJ	Westinghouse, 67 Evergreen Pl E Orange	201 465-2473
NY	Westinghouse, Box 148 Johnson City	607 729-2258
NY	Westinghouse, 1501 Franklin Ave Mineola	516 248-9809
NY	Westinghouse, 711 Exchange St Rochester	716 232-4380
Ohio	Westinghouse, 55 Public Sq Cleveland	216 241-7600
Ohio	Westinghouse, 7710 Reading Rd Cincinnati	513 475-7229
Ohio	Westinghouse, 1306 Farr Dr Dayton	513 461-3720
Pa	Westinghouse, One Decker Sq Bala Cynwyd	215 878-1300
Pa	Westinghouse, Box 1017 Chatham Ctr Pittsburgh	412 255-3800
Tex	Westinghouse, 8400 John W Carpenter Frwy Dallas	214 631-2811
Tex	Westinghouse, 507 Dallas Ave Houston	713 224-7791
Wash	Westinghouse, 19 W Harrison St Seattle	206 622-0808
Wis	Westinghouse, 538 N Broadway Ave Milwaukee	414 276-1800

WEST INSTRUMENT CORP, 3860 N RIVER RD SCHILLER PARK, ILL, 60176 .... 312 678-6400
A WILLER, EMP 160, ENG 20, $5,000-$10,000M

Ala	J L Highsmith & Co, Holiday Off Ctr Huntsville	205 881-3294
Cal	Instrument Lab, 644 Emerson St Palo Alto	415 328-1040
Cal	Instrument Lab, 1323 W 130th St Gardena	213 770-0650
Conn	Gibson Engineering Co, 210 South Rd Farmington	203 247-6919
Fla	Lewis M Crowe Co, 130 Golf View Dr Tequesta	305 746-7483
Fla	Lewis M Crowe Co, 337 22nd Ave N St Petersburg	813 894-0249
Ga	Lewis M Crowe Co, 174 W Wieuca Rd NE Atlanta	404 255-2700
Ill	Warner Instrument & Sales Co 6548 W Higgins Ave, Chicago	312 631-6778
Ind	Ray Welch Instruments Inc, 6336 Columbia Ave Hammond	219 932-4474
Iowa	James H Laas Inc, 1530 State St Bettendorf	319 355-6133
Iowa	James H Laas Inc, 3228 Shasta Ct NE Cedar Rapids	319 366-2174
La	Lu Mac Inc, 3608 Seneca Baton Rouge	504 357-0655
Md	W H Cooke & Co, 1440 S Charles St Baltimore	301 685-1511
Mass	Gibson Engineering Co, 90 Broadway Norwood	617 769-3600
Mich	Industrial Temperature Control Co, 23419 Ford St Dearborn	313 278-2210
Minn	Kirkeby & Assoc, Inc, 821 2nd Ave, N Minneapolis	612 377-3239
Mo	Boschert & Fitzwater Inc, 207 Westport Rd Kansas City	816 561-1880
Mo	Edward W Mooney, 7505 Delmar Blvd University City	314 725-8875
NJ	Norman Bragar Co Inc, 1060 Broad St Newark	201 622-4300
NJ	Francis J Gamble Co, 571 Fairview St Riverside	609 461-4068
NM	Lietz Equipment Co, Box 8011 Albuquerque	505 256-2843
NY	Niagara Electric Sales Co, 505 Delaware Ave Buffalo	716 886-4000
NY	Niagara Electric Sales Co, 55 Canterbury Rd Rochester	716 271-1223
NC	James L Highsmith & Co, 3733 Monroe Rd Charlotte	704 333-7743
Ohio	Instrument Service & Equip Inc, 3519 W 117th St Cleveland	216 671-4102
Ohio	Industrial Electronic Lab, 606 LaGrange St Toledo	419 244-5827
Ohio	Schlemmer Assoc, 1172 W Galbraith Rd Cincinnati	513 522-8340
Ore	Branom & Leeland Inst Co, 6019 NE Union Ave Portland	503 285-9861
Pa	Whitaker Controls, 607 Laurel Dr Monroeville	412 372-6420
Tex	Esch & Assoc Inc, 4623 Gulf Frwy Houston	713 928-3357
Va	James L Highsmith & Co, Box 9225 Richmond	703 266-2060
Wash	Branom Instrument Co, 2137 Second Ave Seattle	206 622-7320
Wis	Automation Eng Co, 12740 N River Rd, 43W Mequon	414 242-1520

WESTLAKE PLASTICS CO, W LENNI RD, LENNI PA, 19052 .... 215 459-1000
W NOONAN JR

Cal	Les Sachs Assoc, 3030 E Olympic Blvd Los Angeles	AN 1-0168
Cal	Lionel W Diaz, 713 Old County Rd San Carlos	591-7334
Ga	William DeBrule & Co, 3390 Peachtree Rd NE Atlanta	404 261-6663
Ill	Stanley J Butkevich, 861 ST Johns, Highland Park	
Mich	John Gitre Co. Inc, 18275 Parkside Detroit	342-7222
Mo	Architectural Coatings Inc, 4517 S Kingshighway St Louis	
Tex	Kanowsky Sales Engr, Box 35184 Dallas	FL 2-8431
Wis	James A Murphy & Assoc, 11715 W Diane Dr Milwaukee	414 786-8200

WESTLINE PRODUCTS, 220 S ROSE ST, LOS ANGELES CAL, 90054 .... 213 627-2641
M CONTRERAS, EMP 400, ENG 2

Ala	J Heusser, 620 Sundale Dr Birmingham	836-3896
Ariz	Jack Flook, 131 E 6th Ave, Scottsdale	946-6648
Cal	Westline Prods, 600 16th St, Oakland	451-3458
Colo	Palmer Robbins Assoc/1001, 1050 Yuma St Denver	255-9961
Fla	H E Magann & Assoc, Box 996 Coral Gables	666-8769
Fla	H E Magann & Assoc, 4147 Weber La Jacksonville	733-4174
Ga	R E Wilson, 1058 Northside Dr, N W Atlanta	876-8833
Ill	Westline Prods, 6645 N Oliphant Ave Chicago	774-2552
Kan	Don Hatfield Sales, Box 1371 Kansas City	281-0533
La	Strickland Assoc, Box 19622 New Orleans	836-3896
Mass	Westline Prods, 419 Boylston St Boston	KE 6-1012
Mich	Westline Prods, Village Sta Box 507 Warren	366-7114
Minn	D Little, 6524 Walker St, Minneapolis	929-4494
Miss	Strickland Assoc, 152 Chippewa Cir Jackson	366-6195
Mo	Ray Martin Co, 136 W Adams Kirkwood	966-8659
NJ	Westline Prods, 972 Broad St Newark	MA 4-1410
NY	Westline Products, 891 Monroe Ave Rochester	271-2138
Ohio	Westline Prods, 20160 Center Ridge Rd Cleveland	331-7017
Ohio	Westline Products, 1736 Melrose Ave Columbus	267-0996
Pa	Westline Products, 1340 Foulkrod St Phila	744-1747
SC	L P Spoon Co, 307 Lincoln St Charlotte	372-3287
Tex	McIver & Slavin Co, 3200 Audley Houston	524-1155
Tex	Rich Co, 512 Interurban Bldg, Dallas	742-1758
Wash	E H Sosine Co, 3618 39th Ave W Seattle	283-9017

WESTMORELAND PLASTICS CO, 135 GERTRUDE ST LATROBE, PA, 15650 .... 412 KE 9-1612
E HATFIELD, EMP 85, ENG 4, $1,000-$2,500M

Cal	Jacquot Agency, 3699 E Olympic Blvd Los Angeles	268-2057
Ill	Bill Brown Sales Co, 6246 N Pulaski Rd Chicago	685-7900
NJ	Rotchford Assoc, 433 North Ave E, Westfield	
Ohio	Vendere Agency, 613 Cadillac Ct Toledo	865-5700
Tenn	Superior Products Co, Box 7272 Nashville	244-1549

WESTON COMPONENTS DIV, ARCHBALD PA, 18403 .... 717 876-1500
L WILLIAMS, EMP 1218, ENG 65, OVER $10,000M
ADV PG 492, 493

Ala	REP Inc, 8100 S Memorial Pkwy Huntsville	205 881-9270
Ariz	Vinson Assoc Inc, 44 E Indian School Rd Scottsdale	602 947-7371
Cal	Weston Instr Inc, 736 Monterey Pass Rd Monterey Park	268-9271
Cal	Held & Mollard, 1494 Oddstad Dr Redwood City	369-4871
Colo	Vinson Assoc, 3600 S Lincoln St Englewood	303 789-2203
Fla	Scott & Assoc, 1010 Executive Cen Dr Orlando	841-4840
Ga	Rep Incorporated, 1483 Monroe Dr Atlanta	876-1591
Ill	Whitmore Assoc Inc, 535 N Michigan Ave Chicago	321-1503
Md	QED Electronics Inc, 880 Bonifant St Silver Spring	588-8134
Mass	Weston Instr Inc, Box H, Bedford	617 861-8950
Mich	Weston Instr Inc, 17700 McNichols Rd Detroit	KE 2-5546
Minn	R G Ragon Co Inc, 1136 W Larpenteur Ave St Paul	488-6634
Mo	R R Burton Sales Co, 9915 E 63rd St Raytown	816 358-5370
NM	Vinson Assoc, 2329 Wisconsin NE Albuquerque	505 298-7442
NY	Reagan Elctns Inc, 6 Highland Ave Albany	518 489-4777
NY	QED Electronic Sales Inc, 500 Nuber Ave Mt Vernon	968-2200
NC	J L Highsmith & Co, 3733 Monroe Rd Charlotte	333-7743
Ohio	Weston Instr Inc, 3300 S Dixie Dr Dayton	298-7511
Ohio	Weston Instruments Inc 3645 Warrensville Center Rd Cleveland	752-3030
Pa	Weston Instr Inc, 875 Greentree Rd Pittsburgh	WA 2-4545
Pa	QED Electronic Sales Inc, 2916 Federal St Camden	925-8711
Tex	Kemp Engineering Co, 2618 Manana Dr Dallas	FL 7-6663
Tex	Kemp Engrg Co, 6001 Gulf Fwy Houston	713 928-5426
Tex	Kemp Engrg Co, 102 W Rector San Antonio	512 344-1841
Utah	Vinson Assoc, Salt Lake City	Zenith 900
Wash	Weston Instr Inc, 314 First Ave W Seattle	282-3388

WESTON HYDRAULICS, 7500 TYRONE AVE, VAN NUYS CAL, 91409, TWX 910 495-1726.......... 213 781-4000
D SHERMAN, EMP 764, ENG 36, OVER $10,000M

Ga	R A Hasara, 4642 Kingsdown Rd, Dunwoody	
Mo	F R Krabbe & Assoc, Box 776, Bridgeton	
Tex	Walter Gates, Box 16279, Fort Worth	WA 4-3535
Wash	D & D Sales, 43 Logan St Renton, Wash	BA 6-4120

WESTON INSTRUMENTS DIV WESTON INSTR INC
614 FRELINGHUYSEN AVE, NEWARK
N J, 07114, TWX 710-995-4616 .... 201 243-4700
F ZOELLER, EMP 1700, OVER $10,000M
ADV PG 404, 607

Ala	Kemp Instruments, 4306 Governors Dr W Huntsville	205 837-4304
Ariz	J E Redmond Supply Co, P O Drawer 869 Phoenix	602 258-4551
Cal	Weston Instr Inc, 736 Monterey Pass Rd Los Angeles	213 268-9271
Cal	Held & Mollard Inc, 1494 Oddstad Dr Redwood City	369-4871
Colo	PLS Assoc, 7895 E Prentice Ave Englewood	771-0140
DC	Weston Instr Inc, Washington	593-5455
Fla	Scott & Assoc, Box 20341, Orlando	841-4840
Ill	Weston Instr Inc, 5080 W Harrison St Chicago	379-5454
Md	Weston Instr Inc, 11200 Lockwood Dr Silver Spring	837-0999
Mass	Weston Instr Inc, 591 North Ave Wakefield	245-6600
Mich	Weston Instr Inc, 17700 W McNichols Rd Detroit	532-5546
Minn	R G Ragon Inc, 1136 W Larpenteur Ave St Paul	488-6634
Mo	C B Fall Co, 11301 Bennington St Kansas City	761-6545
Mo	C B Fall Co, 317 N 11th St, St Louis	241-2433
NJ	Weston Instr Inc, 1 Haynes Ave Newark	243-4707
NM	PLS Assoc, 4200 B Silver Ave SE Albuquerque	855-2330
NY	Weston Instr Inc, 6443 Riding Rd Syracuse	463-9184
NC	Ranson Wallace & Co, 116 E 4th St Charlotte	334-4244
Ohio	Weston Instr Inc, 3645 Warrensville Ctr Cleveland	752-3030
Ohio	Weston Instr Inc, 3300 S Dixie Dr Dayton	298-7511
Okla	Riddle L Hubbell Co, 1427 E 41st St Tulsa	743-9851
Pa	Weston Instr Inc, 1511 N Front St Harrisburg	238-9591
Pa	Weston Instr Inc, 114 Forrest Ave Narberth	839-6255
Pa	Weston Instr Inc, 875 Greentree Rd Pittsburgh	922-4545
Tex	Kemp Engineering Co, 2618 Manana Dr Dallas	357-6663
Tex	Weston Instr Inc, Box 22261, Houston	526-4115
Tex	Kemp Engineering Co, 6001 Gulf Frwy Houston	WA 8-5426
Tex	Kemp Engineering Co, 102 W Rector San Antonio	344-1841
Wash	Weston Instr Inc, 314 First Ave W Seattle	282-3380

WESTON LEXINGTON WESTON INSTRUMENTS DIV
17 HARTWELL AVE, LEXINGTON
MASS, 02173, TWX 710 326-0596....... 617 861-9000
R LEEMAN, EMP 143, ENG 20, OVER $10,000M

Ala	Roy Attaway Co, 900 Bob Wallace Ave SW Huntsville	205 534-2811
Cal	Sedillo Co, 125 E Sunnyoaks Ave Campbell	264-4010

Cal Weston Instr Inc, 736 Monterey Pass Rd
Monterey Park 213 268-9271
Colo PLS Assoc, 7895 E Prentice Ave
Englewood 303 771-0140
Fla Roy Attaway Co, 51 E Robinson St
Orlando 305 424-9983
Ill Weston Instr, Inc, 5080 W Harrison St
Chicago 379-5454
Md QED Elctns Corp, 880 Bonifant St
Silver Spring 301 588-8134
Mass Weston Instr Inc, Box H, Bedford 617 861-8950
Mich Weston Instr, Inc, 17700 W McNichols Rd
Detroit 532-5546
Minn Heinmann Co, 5603 Lyndale Ave S
Minneapolis 612 827-5457
Mo C B Fall Co, 317 N 11th St, St Louis 241-2433
Mo C B Fall Co, 11301 Bennington St
Kansas City 761-6545
NJ QED Electronics, 2916 Federal St
Camden 215 925-8711
NM PLS Assoc, 4200 B Silver Ave SE
Albuquerque 505 255-0120
NY Weston Instr, Inc, 6443 Ridings Rd
Syracuse 463-9184
NY Q E D Electronics Corp, 500 Nuber Ave
Mt Vernon 968-2200
NC Roy Attaway Co, 614 Nissen Bldg
Winston-Salem 722-9671
ND Weston Instr, Inc, 3300 Dixie Dr
Dayton 298-7511
Ohio Weston Instr, Inc, 3645 Warrensville Ctr Rd
Cleveland 752-3030
Okla Data Engrg Corp, 4580 E 50th St
Tulsa 918 622-3753
Pa Weston Instruments Inc, 875 Greentree Rd
Pittsburgh 922-4545
Tex Data Engrg Corp, 5641 Yale Blvd
Dallas 214 363-9351
Tex Data Engrg Corp, 2121 S Post Oak Rd
Houston 713 662-2820
Wash Weston Instr, Inc, 314 First Ave W
Seattle 282-3380
Can Daystrom Ltd, 1480 Dundas Hwy
Cooksville Ont 416 277-3194
For Schlumberger Overseas Gmbh, Tivolihsddr 74/78
A1120 Vienna
For International Elctn Engrg Ltd, Box 10482, Santiago
For H A Langebaek & Cia Ltd, Aptdo Aereo 6287
Bogota 1 E E
For Centec C A, Aptdo Postal 6091 El Paraiso, Caracas
Fr S I S, 241 Ave Gambetta, Paris
Fr Soc D'Instr Schlumberger, 241 Ave Gambetta, Paris
Ger Schlumberger Overseas Messgeratebau, Bayerstr 13
Munich
GB Solartron Electronic Group Ltd, Victoria Rd
Farnbordough, Hants
Ital Ing S & G Belotti, Piazza Trento 8, Milan
Jap Hakuto Co Ltd, Box 25, Tokyo Central
Nor G A Ring System Maskiner'A/S, Ringhuset Volvat
Oslo 3
Swed Schlumberger Svenska AB, Vesslevagen 2, Lidingo-1
Swit SIS, Box 189, 1200 Geneva 6
Belg M B L E, 80 Rue des Daus-Gares, Brussells
Braz Empresa Comercial Import Ltd
Rua Araujo Porto Alegre 70-9, Rio de Janeiro
Gr Andromeda, 11 Voukourestiou St, Athens
Ind Motwane Private Ltd, 127 Mahatma Gandhi Rd
Bombay 1 BR
Mex Servo Mex S A, Aptdo Postal 6-873, Mexico 6 D F
Neth Hulsewe Ingenieursbureau, Box 1065, Rokin 85
Amsterdam
Spn Telco, Gravina 27, Madrid
Aust Solartron Australia, 112 High St, Kew Victoria
Aust Warburton Franki Ltd, Box 182, Chatswood N S W

WESTON-TRANSICOIL, WESTON INSTRUMENTS INC
WORCESTER
PA, 19490, TWX 510 660-0132 .... 215 277-1300
E HALL, EMP 390, ENG 40, $5,000-$10,000M
Ariz Runyon Co, 6825 E Thomas, Scottsdale ... 947-5711
Cal Held & Mollard Inc, 1494 Oddstad Ave
Redwood City 365-1700
Cal CESCO, 6151 W Century Blvd
Los Angeles 670-1700
Colo Peterson Co, 4949 Colorado Blvd
Denver 333-5434
Fla Aerodyne Engineering, Box 17057
Orlando 295-4440
Ill Whitmore Assoc, 535 N Michigan Ave
Chicago 321-1503
Ind Whitmore Assoc, 3139 Fairfield Ave
Fort Wayne 219 744-2317
Md T W Sprecher, 1423 Harberson Rd
Baltimore 301 744-2679
Mass Aborn Assoc, 223 Crescent St
Waltham 617 891-4850
Minn Whitmore Assoc, 7710 Computer Ave
Minneapolis 612 926-2855
Mo Fen-Co Assoc, 8003 Forsyth
Clayton 314 863-0231
NJ F C Helies, 812 Fay Court
Pt Pleasant 201 899-8110
Ohio Arthur H Baier Co & Assoc, 4399 Industrial Pkwy
Willoughby 216 946-6080
Ohio Arthur H Baier Co & Assoc, 3300 S Dixie Dr, Dayton
Utah Peterson Co, 521 W Fourth N
Salt Lake City 355-7464
Wash Weston Instruments Inc, 314 First Ave W
Seattle 282-3380

WESTREX DIV LITTON INDUSTRIES, INC
1136 N LAS PALMAS, HOLLYWOOD
CAL, 90038 .... 213 466-7795
F PONTIUS, EMP 577, ENG 208
NY Westrex, 10 Rockefeller Plaza
New York .... 212 PL 7-2775

WESTRONICS INC, 3605 MCCART ST, FORT WORTH
TEX, 76110 .... 817 926-2621
S HOLUB, EMP 120, ENG 10, $1,000-$2,500M
Ala Currie Aerospace Assoc, 2603 Artie St
Huntsville 205 536-5650
Ariz Hilleary Assoc, 3033 N Central
Phoenix 602 266-1511
Cal Westronics Inc, 430 40th St
Oakland 415 653-7909
Cal Westronics Inc, 17130 Ventura Blvd
Encino 213 783-8844
Colo Hilleary Assoc, 2552 Ridge Rd
Littleton 303 794-4279
Conn A F Hyde Co, Old Redding Rd
Weston 203 227-6206
Fla Currie Aerospace Assoc, 2907 McCoy Rd
Orlando 305 855-0843
Fla C B Metcalf Co, 3601 Swan La
Pensacola 904 476-7710
Haw Berkeley Engr & Equip Co, Box 3856
Honolulu 581-921
Ill Cypress Controls Co, 24 W 361 Hobson St
Naperville 312 355-7700
Ind Booth-Spearing Corp, 5335 W Raymond St
Indianapolis 317 244-7819
Ky Control Products, 1738 Berry Blvd
Louisville 502 367-6421
La Oil & Gas Specialties Inc, 504 St Joseph La
Harvey 504 367-7914
La Oil & Gas Specialties Inc, 2036 Woodale
Baton Rouge 504 926-2023
La Oil & Gas Specialties Inc, 123 Delta Rd
Lafayette 318 235-4444
Md Jay Co Inc, Baltimore 703 534-7800
Mass Timross Co, 815 Washington St
Newtonville 617 244-7586
Mich George Instr Co, 1440 Eastern Ave SE
Grand Rapids 616 243-5325
Mich George Instr Co, 1024 W 14 Mile Rd
Clawson 313 564-5481
Minn Environ Labs Inc, 9725 Girard Ave SE
Minneapolis 612 888-7795
Mo Golom Equip Co, 4718 Stanhope Dr
St Louis 892-8030
Mo Westronics Inc, 1828 Walnut St
Kansas City 816 221-5955
Neb H G Klug Co Inc, 2029 N 67th Ave
Omaha 402 553-1377
NJ Alison Control Inc, 954 Kinderkamack Rd
River Edge 201 265-3737
NJ Control Equip Co, 315 Market
Palmyra 215 923-1661
NJ Westronics Inc, Box 291, Ramsey 201 891-3954
NM Hilleary Assoc, 311 Washington SE
Albuquerque 505 265-7631
NY L-Tron Corp, Box 147, Skaneateles ... 315 685-6172
NY L-Tron Corp, Box 114, Latham 518 785-5032
NY L-Tron Corp, 140 Keller St
Rochester 716 436-4410
NC Systems Service Corp, 3748 Monroe Rd
Charlotte 704 377-3407
Ohio Van Hala Industrial Co, Box 2602, Lakewood Br
Cleveland 216 521-6283
Okla Myers-Aubrey Inc, 1624 S Harvard
Tulsa 918 939-4481
Pa West Penn Controls Co, 992 Perry Hwy
Pittsburgh 412 366-1144
Tenn Janis Equipment Co, 4711 Poplar Ave
Memphis 901 683-1511
Tex Gay Engineering Co, 5425 Blossom St
Houston 713 869-3306
Tex Gay Engineering Co, Box 5164
Beaumont 713 892-5711
Tex Barnco Co, 1502 W 2nd St
Odessa 915 332-0294
Va Jay Co Inc, 2914 Annandale Rd
Falls Church 703 534-7800
Wash Instrumentation Engr Sales & Co, 1331 3rd Ave
Seattle 206 682-1123
Wis Shelton F Boyd Co Inc, 7127 N Green Bay Rd
Milwaukee 414 352-3181
Can Radionics Ltd, 195 Graveline St
Montreal 9 .... 514 631-4568
Can Radionics, Ltd, 376 Churchill Ave
Ottawa 3, Ont 613 728-4624
Can Radionic Ltd, 505 Eglinton Ave W
Toronto 1 .... 416 222-3261
For Lion Enterprises Ltd, Box 1487, Taipei, Tai ... 35755
For Loxley (Bangkok) Ltd, Box 214
Bangkok, Thai 26641
For I&S Corp, Box 5025, Karachi 2, Pak
Ital Technica per l'Automazione Indust, Via Petrella, 21
Milano 204 19 41
Swed Medec Electronics AB, Vallingby 4
Stockholm-Spanga 08-564070
Swit Kontron, Ltd, Box 193, 8031 Zurich
Arg Coasin SA, Virrey Del Pino 4071, Buenos Aires
Belg C N Rood SA, 30 Rue Leon Frederic, Brussels 4
Gr Thanos Houdzoumis, Box 400, Athens 126
Ind Adair, Dutt & Co Inc Pty Ltd, 21, Asaf Ali Rd
New Delhi
Ind Adair, Dutt & Co Inc Pty Ltd, Box 2009, Calcutta
Ind Adair, Dutt & Co (India) Pty, Ltd, Box 581
Bombay 1
Isrl Chemical & Technical Suppliest Ltd
17, Miqve Israel St, Tel-Aviv
Fin G W Berg & Co, Fabianinkatu 14, Helsinki

WEYERHAEUSER CO PAPER DIV, BOX 601
FITCHBURG
MASS, 01420, TWX 710-347-0231 ...... 617 343-3051
C SMITH, EMP 1800, ENG 40, OVER $10,000M
Ill J P Birtwell, 100 S Wacker Dr
Chicago 312 221-5448
NY T Tenander, 230 Park Ave
New York 212 867-4571

WHALE ELECTRONICS INC
2950 FOSTER CREIGHTON DR, NASHVILLE
TENN, 37204, TWX 554312 .... 615 254-5576
B DREADEN, EMP 200, ENG 5, OVER $10,000M
Cal Logan Sales Co, 463 Brewster Ave
Redwood City 415 369-6726
Cal R L Assoc, Box 2255, Sepulveda 213 782-7826
Colo Walter-Powers Assoc, 880 Bonnie Brae Blvd
Denver 303 777-8220
Ill Kadell Sales Assoc, 6134 N Milwaukee
Chicago 312 774-6815
Ind Southern Sales Co, 105 Lakeshore Dr
Angola 219 665-3961
Iowa Jerry Vrbik Co, 2818 A Ave N E
Cedar Rapids 319 365-0461
Ky Southern Sales Co, 212 Republic Bldg
Louisville 502 583-6902
Md Martin Friedman & Assoc, Box 3558
Baltimore 301 435-5872
Mass Brookdale/Richter Engrg, 348 Lake Ave
Newton Highlands 244-6969
Mich J L Montgomery Inc, 24001 Southfield Rd
Southfield 313 358-2616
Minn Carl-M Co, 1926 Wellesley Ave
St Paul 612 699-8004
NY Electrical Mfg Services, 317 Veterans Mem Hwy
Bohemia 516 485-4321
Ohio Brownie & Assoc, 3066 E 116th St
Cleveland 216 795-7472
Pa Martin Friedman Assoc, 7 Heather Rd
Bala Cynwyd 215 839-3450
Tex Texas Special Elec, 8530 S Braeswood Blvd
Houston 713 774-9461
Wash Jon B Jolly, 413 Maritime Bldg
Seattle 206 624-2152
Can Centralab Canada Ltd, 106 McMaster Ave
Ajax Ont 942-1540

WHARFEDALE DIV, BRITISH INDUSTRIES CORP
SOUTH SERVICE RD, WESTBURY
N Y, 11590 .... 516 ED 4-7450
L EPSTEIN, EMP 75
For Sales Representatives See Garrard Div

WHARTON UNITOOLS, 8-10 LAKE ST, MOOSUP
CONN, 06354 .... 203 564-2254
R RICH, $250-$500M
Ill John Ratkovie, Lake Forest, ... 234-5549
Den Les Holmes, 16 Agenivej
Copenhagen .... Asta 506362
GB D Gillman, 22 Arthur St, Aldershot 21246

WHEELABRATOR CORP WHEELABRATOR DIV
1465 S BYRKIT ST, MISHAWAKA
IND, 46544 .... 219 255-2141
R ORTH, EMP 1500, ENG 200, OVER $10,000M

WHEELER LABORATORIES INC, 122 CUTTER MILL RD
GREAT NECK, N Y, 11021 .... 516 482-7876
N SPENCER, EMP 111, ENG 62, $1,000-$2,500M

WHEELOCK SIGNALS INC, 273 BRANCHPORT AVE
LONG BRANCH
N J, 07740, TWX 201 222-7091 .... 201 222-6880
C APPLEGATE, EMP 153, ENG 18, $1,000-$2,500M
Ariz Portis & Assoc, 132 E Stetson
Scottsdale 945-4925
Cal Brooks & Day, 10700 Ventura Blvd, N Hollywood
Cal Components Unltd, 499 Hamilton Ave
Palo Alto 415 326-1033
Colo Engineering Rsch, 231 Detroit St
Denver 377-8306
Conn Com/Pak, Box 12, Manchester
Ill Electro-Comp Sales, 5129 W Devon
Chicago .... RO 3-3636
Iowa J R Sales Engineering, 3316 Risewood Ct, N E
Cedar Rapids 365-5259
Mass Com/Pak, 14 Oak St, Needham
Minn Wenco Sales, 7728 Morgan Ave S
Minneapolis 866-3639
Mo Richter Equipment Co, 9567 Page Blvd
St Louis .... JA 4-4718
NJ J R Barrett, 812 Federal St
Camden .... 609 EM 5-2680
NY F T Battista Co, 223-46 Hempstead Ave
Queens Village .... GR 9-3550
NY Bob Dean, Inc, 714 W Clinton, Ithaca
Ohio Rockford Controls, 2077 Embury Park Rd
Dayton 274-1911
Utah Cannon Eng & Sales, 2250 E 17th S, Salt Lake City
Can Leonard Electric, 1008 Rangeview Rd
Pt Credit, Ont 274-3454

WHISTLER ELECTRONICS INC, 8613 YOLANDA AVE
NORTHRIDGE, CAL, 91324 .... 213 349-7100
H HUNT, EMP 16, ENG 1
Ala Mekco Assoc, Holiday Office Ctr
Huntsville 881-3721
Ariz AR/TEC Inc, Box 727, Scottsdale 602 947-6304
Cal E V Roberts & Assoc, 9601 W Jefferson Blvd
Culver City 213 870-9561
Fla Mekco Assoc, 3165 McCorry Rd, Orlando
Ill Communications Engrs, 7106 N Western Ave
Chicago .... 312 Ro 1-0548
Md Tek-Rep, 1075 Rockville Pike
Rockville 762-7777
NY Lindgren Assoc, Box 473
Huntington Sta 261-7937
Ohio G & H Sales Co, Box 37416
Cincinnati 513 761-6185
Ohio G & H Sales Co, 13690 Fox Hill Dr, Novelty
Ohio G & H Sales Co, 137 Lakeview Dr, Dayton
Can A Deskin Sales Corp, 1565 Louvain St W
Montreal 11 Que
Can A Deskin Sales Corp, 1641 Venables St
Vancouver 5 B C
For L Zettel, 7 Zollergasse 35
A-1071 Wien Vienna 93-26-81
For Organisation Engrg, 20 Blv Des Zenates
Mohammedia Morocco
Nor Ole A Nordby, Sorkedalsveien 18, Oslo 3

WHITE CO, O C, 17 HERMON ST, WORCESTER
MASS, 01608 .... 617 755-8621
R MAY, EMP 20, ENG 1, $100-$250M
Ariz Maddox Sales Co, 5709 N 19th Pl
Phoenix 602 274-3807
Cal Maddox Sales Co, 2945 E 12th St
Los Angeles 213 269-7291
Cal Maddox Sales Co, 420 Market St
San Francisco 415 362-3249

Ga Betts Paul H, 1963 Brookview Dr NW Atlanta 404 355-1289
Ill Russell Cerney, 1401 W Gregory, Chicago
Mich Machinery Electrification Inc, Box 175 St Clair Shores 313 771-3020
Minn Hennepin Sales Co, Box 773 Minneapolis 612 544-1361
NY Wm D Schofield Assoc, 5037 Broadway New York .... 212 LO 9-1600
Ohio Wilson Electrical Sales Co, Box 30028 Cincinnati 231-1494
Ohio Vikimatic Sales, Box 86, LeRoy 216 887-4211

WHITE CROSS LABS, 1860 BROADWAY, NEW YORK
NY, 10023 .... 212 CI 5-1135
$2,500-$5,000M

WHITE ELECTROMAGNETICS INC, 660 LOFSTRAND LA
ROCKVILLE, MD, 20850 .... 301 424-2900
M FEIGENBAUM, EMP 25, ENG 5, $1,000-$2,500M
Ala Roy Attaway Co, 900 Bob Wallace Ave S W Huntsville 205 534-2811
Ariz R A Mayes Co, 4747 N 16th St Phoenix 602 279-5243
Cal L & M Engineering, 2620 The Alameda Santa Clara 408 243-6661
Cal L & M Engineering, 9911 Inglewood Ave Inglewood 213 678-5409
Colo R A Mayes Co, Box 314 Broomfield 303 421-0706
Fla Roy Attaway Co, 57 E Robinson St Orlando 305 424-9983
Ill Loren Green Assoc, 5218 W Diversey Ave Chicago .... 312 AV 6-6824
Md Burlingame Assoc, 1749 Rockville Pike Rockville 301 427-1255
Mass Burlingame Assoc, 7 Wellington St Waltham 617 894-1955
Minn Loren Green Assoc, 6225 University Ave Minneapolis 612 781-1611
NM R A Mayes Co, 8017 Zuni Rd S E Albuquerque 505 265-7989
NY Burlingame Assoc, 510 S Fulton St Mt Vernon .... 914 MO 4-7530
NY Burlingame Assoc, 106 Pickard Bldg Syracuse 315 454-2408
NC Roy Attaway Co, 519 Nissen Bldg Winston-Salem 919 722-9671
Ohio Schwartz & Noyes, 2077 Embury Park Rd Dayton 513 278-5885
Pa Burlingame Assoc, 1 Belmont Ave Bala Cynwyd 215 835-2080
Tex John W Casey, Rte 10 Box 189 San Antonio .... 512 OX 2-1477
Wash Dewar Assoc, 6361 1st Ave South Seattle .... 206 RO 3-2233
Can David R Beattie Ltd, 1260 Lake Shore Rd Port Credit Ont 274-3445
For Frazer & Hansen Ltd, 150 Calif St San Francisco Cal 415 981-5262

WHITEFORD LAB, 258 BROAD ST, LYNN
MASS, 01901 .... 617 598-9119
T WHITEFORD, EMP 8, ENG 3, $100-$250M

WHITE INDUSTRIAL, S S, 201 E 42ND ST, NEW YORK
N Y, 10017 .... 212 661-3320
V GIANGRANDE, ENG 7, $5,000-$10,000M

WHITE INSTRUMENTS, INC, BOX 698, AUSTIN
TEX, 78767 .... 512 892-0752
W ROBERTSON, EMP 41, ENG 4, $250-$500M
ADV PG 287, 290

WHITEWATER ELECTRONICS INC, 136 W MAIN ST
WHITEWATER, WIS, 53190 .... 414 473-5700
R GRENN, EMP 400, ENG 7, $1,000-$2,500M
DC Intl Technical Prods Corp, 1903 North St N W Washington 332-4134
Fla G Cembree, Box 11371 Ft Lauderdale 305 564-2401
NJ Falk-Baker Assoc, 382 Franklin Ave Nutley 661-1999
Pa J Bresson Assoc, 107 Forrest Ave Narberth 839-6770

WHITMAN SADDLE MFG CO, 1725 POWERS ST
CINCINNATI, OHIO, 45223 .... 513 541-3223
S ERHARDT, EMP 8, ENG 1, $100-$250M

WHITNEY BLAKE CO, 1565 DIXWELL AVE, NEW HAVEN
CONN, 06514, TWX 710-465-1798 .... 203 248-5515
C CUMPSTONE, EMP 550, ENG 15, OVER $10,000M
Cal T Holmes, Box 808, N Hollywood 845-5442
Cal W J Gravenish, 1818 Harrison St San Francisco 861-1647
Conn J Cosmar, 350 S Main, Cheshire 272-7325
Fla W Galliher, Box 1324, Clearwater 513-4300
Ga W R Bruce, Box 28437, Atlanta 252-2119
Ill E E Finlay, 11333 Addison St Franklin Pk 455-8010
Ill J Hodges, 9218 State Line, Leawood 648-2404
Ind G Voyles, 209 Briarwood Dr, Terre Haut .... CR 2686
Minn D C Omans, 2011 3rd Ave S, Mnpls 335-3070
NC S Baker, 311 Wesley Ct, Chapel Hill 929-5515
Ohio H L Gobeille, 275 Lexington Ave Mansfield 525-1858
Ore A Adams, 18280 S W Wheeler St Aloha 646-3682
Pa H J Cluver, 100 S Broad St, Phila 563-4067
Pa W Meals, 2987 Babcock Blvd Pittsburgh 931-6627
Tenn C Moore, Box 3091, Bristol 764-3811
Tex G E McKenzie, 400 Stemmons Tower Dallas 351-4427
Tex J George, 42 Bash Dr, Houston .... MO 5-5605
Can Sutherland Electrical Prod Ltd, 9760 St Urbain St Montreal, Que
For ITT Export Corp, 250 Broadway, New York, NY
For Copperweld Steel Intl, 255 Broadway, New York, NY
For M Saliss, Box 2307, San Juan P R

WHITSO INC, 9330 BYRON ST, SCHILLER PARK
ILL, 60176 .... 312 678-5200
A PALOIAN, EMP 170, ENG 6, $2,500-$5,000M
Cal C W Saxon & Assoc, Box 517 El Segundo .... EA 2-2111
Fla Glenn W Shelhammer, 2230 Watrous Dr Dunedin 733-5585
Md Bernard White & Co, 7 Church La Baltimore 485-5400
Mass Assoc Electronics Inc, 45 Kirk St Lowell 454-4206
NY Friedman-Smith Electronic Sls, 519 S 5th Ave Mt Vernon .... MO 4-4866
Pa Samuel A Jeffries Inc, 105 Forrest Ave Narberth .... MO 4-8500
Can Electrodesign, 9124 St Lawrence Blvd Montreal, Que .... DU 9-5914
For Neuert, Wilton & Assoc, 1569 Sherman Ave Evanston 475-5488

WHITTAKER CORP GEN COM DIV, 80 EXPRESS ST, PLAINVIEW
N Y, 11803 .... 516 433-5900
F BELASCO
ADV PG 772, 773, 797
Ala Physimetrics, Box 4108 - Farley Sta Huntsville 881-4965
Ariz O'Halloran Assoc, 4747 N 16th St Phoenix 277-3223
Cal O'Halloran Assoc, 10700 Ventura Blvd North Hollywood .... TR 7-0173
Cal O'Halloran Assoc, 3921 E Bayshore Palo Alto 326-1493
Colo D E Bond Assoc, 2149 S Clermont St Denver 756-1234
Fla Physimetrics, 999 Woodcock Rd Orlando 841-4956
Ga Physimetrics, 3376 Peachtree Rd N E Atlanta 237-8278
Ill Carter Electronics, 7203 S Western Ave Chicago 776-1601
Ind Carter Electronics, 6333 Hollister Dr Indianapolis .... AX 3-0696
Md C E Snow Co, 10440 Baltimore Rd Beltsville 345-2211
Mass Addelco Corp, 56 Pickering St Needham 444-4754
Mich Carter, McCormic & Peirce, Inc 16239 Wyoming Ave, Detroit 863-4600
Minn Carter Electronics, 2401 W 66 St Minneapolis 869-3261
Nev 3921 E Bayshore, Palo Alto, Cal, DA 6-1493
NJ Friedman Assoc, 110 Halsted St East Orange 673-2500
NM D E Bond Assoc, Box 11331 Albuquerque 247-3442
NY Martin P Andrews Inc, 319 Mott Rd Fayetteville .... NE 7-3144
NC Physimetrics Inc, 500 E Morehead St Charlotte 372-3179
Ohio Carter, McCormic & Peirce, 3406 N Main St Dayton 278-5873
Pa C E Snow Co, 258 N Main St, Ambler 646-9451
Tex Southwestern Eng & Equip Co 6300 N Central Expwy, Dallas 363-6501
Tex Southwestern Eng & Equip Co, 4242 Richmond Ave Houston 666-2313
Wash N R Schultz Co, 305 - 112th Ave NE Bellevue 454-5224

WHITTAKER CORP INSTRUMENT SYS DIV
12838 SATICOY ST, NORTH HOLLYWOOD
CAL, 91605 .... 213 765-8160
G PETTLER, EMP 335, $5,000-$10,000M
Ala Col-Ins-Co Inc, Box 4246 Huntsville 205 539-1771
Colo Williams Assoc, 4971 Jackson St Denver 303 388-4391
Fla Col-Ins-Co Inc, Box 13189 Orlando 305 423-7615
Ga Col-Ins-Co Inc, 200 Carrington Way Marietta 404 422-8327
Mich Smith Instr & Equip Co, 24487 Gibson Dr Warren 313 539-3920
NM Williams Assoc, 420 Washington St SE Albuquerque 505 255-1638
Ohio Franklyn W Kirk Co, 15017 Detroit Ave Cleveland 216 226-1970
Ohio L D Bruno Co, Kettering Box 2044 Dayton 513 434-1847
Pa Test Equip Sales Co, 4447 No Bodine St Philadelphia 215 329-1822
Pa Bollinger & Bradford, Box 8088 Pittsburgh 412 561-2340
Tex Southwest Elctn Industries Inc, 621 Meadows Bldg Dallas 214 363-1671
Utah Williams Assoc, 2461 So Main St Salt Lake City 801 466-8709
Wash Rush Drake Assoc, 6133 So Maynard Ave Seattle 206 763-2755
Wis Process Measurement & Control Co, Box 7292 Milwaukee 414 774-3290
Can Xtronis Engineering, Box 875 Montreal Que 514 669-5451
Den SC Metric A/S, Naerum Hovegade 121 Naerum 01 804200
Fr Comsatec, 134 Ave de Malakoff, Paris 727-43-09
Ger Telemeter Electronic GMBH 8042 Schleissheim-Munchen, Parkstadt
Ital CT Milano S p A, Via G Fara 23, Milan 653-074
Jap Ace Co Ltd, Kato Bldg 2-2 Nihonbashi-Tori Tokyo 271-7460-8977

WHITTAKER CORP, POWER SOURCES DIV
3850 OLIVE ST, DENVER
COLO, 80207, TWX 710 931-0816 .... 303 388-4836
J REITER, EMP 200, ENG 18
Colo J W Reiter, 3850 Olive St, Denver 388-4836
DC J J Pastis, 2600 Virginia Ave NW Washington 333-9161

WHITTAKER CORP TECHNICAL PRODUCTS DIV
9601 CANOGA AVE, CHATSWORTH
CAL, 91311, TWX 213-273-4192 .... 213 341-0800
M TUCKER, EMP 1000, ENG 250, OVER $10,000M
DC C Varnell, 2600 Virginia Ave Washington 333-9161
Ga C Baugh, 3325 Rilman Rd NW, Atlanta
Mass Art Field, 235 Bear Hill Rd, Waltham 894-2180
Mo F Cockings, 10259 St Charles Rock Rd St Ann 426-0326
Ohio R Root, 131 N Ludlow St, Dayton 222-5595
Wash M Baxley, 830 Riverside Dr N, Renton 226-0650

WICKES INDUSTRIES INC, 12TH ST & FERRY AVE
CAMDEN, N J, 08101 .... 609 WO 4-4912
N OSBORNE, EMP 800, ENG 60, OVER $10,000M
Cal W Mann D Taylor & J Dierks, 4900 Cecelia St Cudahy 773-1993
Pa N Osborne H Rozelle, 152 Main St Mt Wolf 266-3681
Tex R E Fitzsimmons, 2720 Stemmons Fwy, Dallas

WIEGAND CO, EDWIN L, 7500 THOMAS BLVD
PITTSBURGH
PA, 15208, TWX 710 664-4449 .... 412 242-6400
W EYTH, EMP 2000, ENG 25, OVER $10,000M
Ala Applebee-Church Inc, 13 Office Park Cir Birmingham 205 879-4417
Ariz Montgomery Bros Inc, 4247 E Windsor Ave Phoenix 602 955-3221
Ark Jack Greene & Co, Box 2591 Little Rock .... 501 FR 6-6626
Cal Montgomery Brothers Inc, 1831 Bayshore Hwy Burlingame 415 697-6500
Cal Montgomery Brothers Inc, 4800 District Blvd Los Angeles 213 589-6321
Cal Montgomery Bros Inc, 3530 Addison St San Diego 714 224-4513
Colo E & M Sales Inc, 2660 Walnut St Denver 303 244-4291
Conn Dittman & Greer Inc, Box 780 Middletown 203 346-9606
Fla J J Galleher Co, 617-A Cleveland St Clearwater 813 446-7706
Ga Applebee-Church Inc, 1958-A Monroe Dr NE Atlanta 404 875-7244
Ill Fred I Tourtelot Co, 407 S Dearborn St Chicago 312 427-5464
Ind Couchman-Conant Inc, 1400 N Illinois St Indianapolis 317 635-5313
Iowa Midwest Equip Co of Iowa, 1163 24th St Des Moines 515 255-3116
Iowa Volco Co, 214 Kahl Bldg Davenport 319 326-5233
Iowa Volco Co, 1000 Grand Ave Des Moines 515 283-1650
La Ross & Pethtel Inc, 3170 Florida Blvd Baton Rouge 504 348-0206
Md Renoff Assoc, Inc, 333 E 25th St Baltimore .... 301 HO 7-3280
Mass Leo C Pelkus Inc, 204 Worcester St Wellesley Hills 617 235-8040
Mich Carman Adams Inc, 17360 W Eight Mile Rd Southfield 313 444-1070
Mich Carman Adams Inc, 3815 Nichols Rd Kalamazoo 616 FI5-7181
Minn Volco Co, 831 S 6th St Minneapolis 612 336-6631
Mo C B Fall Co, 317 N 11th St St Louis .... 314 CH 1-2433
Mo Conrow Co, 3300 Wyoming St Kansas City 816 531-6065
Neb Midwest Equipment Co, 1614 Izard St Omaha 402 341-7600
NJ R L Faber & Assoc Inc, 460 Colfax Ave Clifton 201 773-8900
NY R P Smith Co Inc, 6443 Ridings Rd Syracuse 315 463-6641
NY Niagara Electric Sales Co, 505 Delaware Ave Buffalo 716 886-4000
NY Niagara Electric Sls Co, 55 Canterbury Rd Rochester 716 271-1223
NY R L Faber & Assoc Inc, New York 212 947-4100
NY R P Smith Co, 1510 Central Ave Albany 518 869-8515
NC Carolina Technical Reps Inc, Box 17726 Charlotte 704 364-0163
Ohio Anderson-Bolds Inc, 10001 Carnegie Ave Cleveland 216 229-4700
Ohio Arnold & Assoc Inc, 597 E Galbraith Rd Cincinnati 513 761-5566
Ohio Anderson-Bolds Inc, Box 123 Worthington 614 885-3933
Ohio Arnold & Assoc Inc, dayton .... Ent 5560
Okla D Shuhart Co, 310 Thompson Bldg Tulsa .... 918 LU 2-5520
Ore Montgomery Brothers Inc, 1632 NW Johnson St Portland 503 223-4197
Pa J V Calhoun Co, 349 Montgomery Ave Bala-Cynwyd .... 215 TE 9-3000
Pa Woessner-McKnight Co, 640 Allenby Ave Pittsburgh 412 244-1240
Pa J V Calhoun Co, Box 70 Dallastown 717 244-4597
Pa Woessner-McKnight Co, 1039 W 24th St Erie 814 525-7201
Pa J V Calhoun Co, Box 153 Clarks Summit 717 587-1164
RI Dittman & Greer Inc, Providence 401 751-5508
SC Applebee-Church Inc, 1599 Broad River Rd Columbia 803 252-8678
Tenn H R Miles & Assoc, 2500-B Franklin Rd Nashville 615 292-7016
Tenn H R Miles & Assoc, 210 Walnut St Chattanooga 615 265-3862
Tenn H R Miles & Assoc, 518 Park St Memphis 901 682-2665
Tex Don Shuhart Co, 4509 Greenville Ave Dallas .... 214 EM 3-5436

Tex John F Gaumer Co, Box 10678
Houston .... 713 OV 6-3483
Utah Montgomery Bros Inc, Box 6079
Salt Lake City 801 484-8871
Va Virginia Technical Assoc Inc, Box 9524
Richmond 703 266-9654
Va Woessner-McKnight Co, Box 2527
Roanoke 703 344-1100
Va Virginia Technical Assoc, Box 12322
Norfolk 703 627-7982
Wash Montgomery Brothers Inc, 911 Western Ave
Seattle 206 624-7297
Wis Gordon Hatch Co Inc, 635 S 28th St
Milwaukee 414 671-6550
Can Canadian Chromalox Inc Ltd, 210 Rexdale Blvd
Toronto, Ont 241-8624
For Ballagh & Thrall, 1010 Schaff Bldg
Phila, Pa .... 215 LO 4-4020

WIGGINS INC, E B, 5000 TRIGGS ST, LOS ANGELES
CAL, 90022, TWX 910-321-3573 .... 213 269-9181
W MARTIN, EMP 200, ENG 8, $5,000-$10,000M
Cal T Noel & J Ronnow, 5000 Triggs St
Los Angeles 269-9181
Ga G A Toperzer, 3224 Peachtree Rd, N E
Atlanta 233-4953
Ill Bob Carrier, 10812 S Halsted, Chicago 928-2800
Mass A L Regan, 22 Churchill Rd, Winchester 729-4287
Mo W A Wilp, 6152 Pershing Ave, St Louis 727-1159
Ohio Jack Patterson, 385 S Selby Blvd
Worthington 885-1119
Pa Bill Stevens, 470 Easton Rd, Horsham .... OS 5-4785
Pa A W Turner, 470 Easton Rd, Horsham
Tex Marc Stevens, 3817 Rutledge
Ft Worth .... PE 2-5462
Wash R D Graham, 23037 94th Ave S, Kent 854-4610
Fr Intertechnique, P B No 1, Plaisir S-et-O

WIGGINS PLASTICS, INC, 180 KINGSLAND RD
CLIFTON, N J, 07013 .... 201 667-7200
D DYSON, EMP 80, ENG 3, $1,000-$2,500M

WILCO CORP, 4030 W 10TH ST, INDIANAPOLIS
IND, 46222 .... CH 1-2516
A KENNEDY, EMP 180, ENG 7, $1,000-$2,500M
Cal Web Electronic Assoc, 18039 Crenshaw Blvd
Torrance 213 323-8676
Ill Gene F Sales, 4750 N Milwaukee
Chicago 312 545-5562
Ind Herb Kirsch, 107 N Wabash Ave
La Fontaine 317 981-2801
Mass Herb Mendall, Box 24, Revere 617 289-3787
Mo Koenig-Myers Assoc, 5500 Buena Vista Dr
Shawnee Mission 913 432-8300
NY William Lichter Sales, 26 Teakwood La
Roslyn 516 621-2636

WILCOX ELECTRIC CO INC, 1400 CHESTNUT ST
KANSAS CITY, MO, 64127 .... 816 BE 1-2414
T PRICE, EMP 1300, ENG 115, OVER $10,000M

WILCOXON RESEARCH, 9 ERICCSON RD, BETHESDA
MD, 20034 .... 301 365-4412
K WILCOXON, EMP 12, ENG 2, UP TO $100M
Cal John Jones Co, 445 N Garey Ave
Pomona .... NA 3-1588

WILDER ENGINEERING PRODUCTS, 715 N KEDZIE AVE
CHICAGO, ILL, 60612 .... 312 826-6161
M WILDER, EMP 25, ENG 3, $100-$250M

WILKENS INC, ALWIN FR, RTE 22, STATE RD
PAWLING, N Y, 12564 .... 914 855-6440
H PFEIFFER, EMP 7, ENG 1, $250-$500M

WILKINSON CO, 31011 AGOURA RD
WESTLAKE VILLAGE, CAL, 91360 .... 213 889-0050
G HUFFORD, EMP 35, ENG 1, $1,000-$2,500M

WILKS SCIENTIFIC CORP, 140 WATER ST
SOUTH NORWALK, CONN, 06856 .... 203 838-4537
M ISZARD, EMP 15, ENG 5

WILLIAMS GOLD REFINING CO INC PRECIOUS METALS DIV
2978 MAIN ST, BUFFALO, N Y, 14214 .... 716 834-7204
ADV PG 14, 394
Ariz E J Foley & Assoc, 3840 N Jokake Dr
Scottsdale 602 945-4290
Cal Nat Nesbitt Co, 730 N Euclid Ave
Anaheim 714 535-2814
Cal Mosher Assoc, Box 877
Mountain View 415 969-9213
Kan Curtis & Co, 760 N Westlink Dr
Wichita 316 722-4391
Mass Edw J Hughes Assoc, 21 Park St
Attleboro 617 226-0050
NJ R A Poyda Assoc, 60 Sterling Rd
Watchung 201 754-2722
NY John Lazor Assoc, 39 Saginaw Dr
Rochester 716 473-8337
Tex Ralph Marston Co, Box 1006
Richardson 214 235-3577
Wash Gordon G Gallup, 3008 NE 117th St, Seattle

WILLIAMSON DEVELOPMENT CO INC, 317 MAIN ST
WEST CONCORD, MASS, 01781 .... 617 369-9607
C CLARKE, EMP 30, ENG 7, $2,500-$5,000M
Cal Tech Sources Unltd, 132-A S Glenoaks Blvd
Burbank .... VI 9-6863
Fla J H Stonhouse Co, 1221 Mardon Ave
Sarasota 355-1455
Fla C B Metcalf Co, 3601 Swan La
Pensacola 904 476-7710
Ga Shepherd Equip Co, 607 Walton Bldg
Atlanta .... JA 2-6471
Ill Metrols Co, 807 Chestnut Ave
Wilmette 312 256-4050
Mass C J Lueders, Box 161, Needham 449-0345
Minn Automation Service Corp, 4815 W 77th St
Minn 7587
NJ Unicomp, 18 Sonny Ridge Rd, Wayne 696-2888
NY L-Tron Corp, Box 147, Skaneateles 685-6172
NY Thos Carse Sales Co, 180 Old Loudon Rd
Latham 785-5844

NC Systems Service Corp, Box 17525
Charlotte 377-3407
Ohio B L Michaelson Co, Box 173, Xenia .... DR 2-5496
Pa Linn O Morrow & Son, The Schaff Bldg
Phila .... LO 7-6431
Tex Foster Jordan Co, 5326 W Bellfort
Houston .... PA 3-9544
Can Testing Machines Int'l of Can Ltd
6078 Sherbrooke St W
Montreal Que 514 489-8491
For Ameresco, Inc, 203 Bellevue Ave
Upper Montclair, NJ .... PI 6-5300

WILMAD GLASS CO INC, RT 40 & OAK RD, BUENA
N J, 08310 .... 609 697-3000
J MADDEN, EMP 120, ENG 1, $1,000-$2,500M

WILMINGTON CONTROLS DIV LEDEX INC
365 S NELSON ST, WILMINGTON
OHIO, 45177 .... 513 382-0987
J MILATA, EMP 100, ENG 3, $500-$1,000M
Ariz Barnhill Assoc, 4900 E Indian School Rd
Phoenix 602 959-2115
Cal Testco, 941 Charleston Rd, Palo Alto 326-5320
Cal O'Donnell Assoc, 18053 Crenshaw Blvd
Torrance 213 323-9243
Colo Barnhill Assoc, 1170 S Sheridan Blvd
Denver 303 934-5505
Fla W Ben Wimberly Co, 532 S Ft Harrison Ave
Clearwater 446-7072
Fla W Ben Winberly Co, 500 S Osceola
Orlando 425-3083
Fla Robert P Bennett, Box 38
Melbourne Beach 723-0127
Ill Ledex Inc, 1415 W 47th St, LaGrange 354-3442
Ill C Strain, 1040 S Edson Ave, Lombard 627-7696
Kan Thunderbird Eng Sales, 4014-A W 95th St
Kansas City 642-7220
Kan Thunderbird Eng Sales, 7707 E Osie
Wichita 684-3941
Mass K C Stevens & Co, Box 24, Lexington 862-1812
Mich R C Nordstrom & Co, Box 32
Lathrup Village 444-4417
Minn Component Sales, Inc, Box 247
Excelsior 474-9100
Mo Thunderbird Eng Sales, Box 6156
St Louis 838-6688
NJ Falk-Baker Assoc, 382 Franklin Ave
Nutley 201 661-2430
NM Barnhill Assoc, 6101 Anderson St SE
Albuquerque 505 265-7766
NY Lee Garner, Box 56, Liverpool 652-7911
NC A B Andrews Co, Box 2627, Raleigh 833-5567
Ohio Dynel Co, Box 7, Dayton 434-6467
Pa Victor S Malta, Box 4007, Philadelphia 836-5122
Tex Thunderbird Eng Sales, 5526 Dyer
Dallas 368-3064
Wash Testco, Boeing Field, Seattle .... RO 2-8220

WILMINGTON FIBRE SPECIALTY CO, BOX 192
NEW CASTLE, DEL, 19720 .... 302 328-7525
E WELSH, EMP 85, $500-$1,000M

WILMORE ELECTRONICS CO INC
BOX 2973 W DURHAM STA, DURHAM
NC, 27705 .... 919 489-3318
EMP 15, ENG 6
Ill Roper-Cahill Inc, 5439 W Division St
Chicago 312 287-7292

WILSON CO H M, 11501 CHIMNEY ROCK, HOUSTON
TEX, 77035 .... 713 729-1183
H WILSON, EMP 4, ENG 2, UP TO $100M

WILTEK, INC, 59 DANBURY RD, WILTON
CONN, 06897 .... 203 762-5521
W GUSTAVSON, EMP 85, ENG 7, $1,000-$2,500M
Cal Wright Engineering Co, 180 E Calif Blvd
Pasadena 681-2651
Tex SEI Inc, 621 Meadows Bldg, Dallas .... EM 3-1671

WILTRON CO, 930 E MEADOW DR, PALO ALTO
CAL, 94303 .... 415 321-7428
W JARVIS, EMP 50, ENG 10
Ala Mekco Assoc, 3322 Memorial Pkwy
Huntsville 205 881-3721
Cal O'Halloran Assoc, 10700 Ventura Blvd
N Hollywood 877-0173
Cal O'Halloran Assoc, 3921 E Bayshore
Palo Alto 326-1493
Cal O'Halloran Assoc, 3760 Midway Dr
San Diego 224-2824
Colo PLS Assoc, 7895 E Prentice Ave
Englewood 771-0140
Conn Applied Measurements Inc, 2531 Whitney Ave
Hamden 203 288-5288
DC J R Eberly Co, 1207 Potomac St NW
Washington 338-2277
Fla Mekco Assoc, 3165 McCrory Rd
Orlando 305 841-2215
Ga Mekco Assoc, 3847 Roswell Rd NE
Atlanta 261-5459
Ill Carter Electronics, 7203 S Western Ave
Chicago 776-1601
Ind Carter Electronics, 6333 Hollister Dr
Indianapolis 293-0696
Md James R Eberly Co, Randallstown 922-2092
Mass Applied Measurements Inc, 86 Hayward Rd
Acton 617 263-2766
Mich Harvey Teplitz & Co, 26847 Grand River Ave
Detroit 313 537-9058
Minn Carter Electronics, 2401 W 66th St
Minneapolis 869-3261
Mo S Sterling Co, 11734 Lackland Ind Dr
St Louis 314 542-3636
NJ L & M Assoc, 511 Victor St
Saddle Brook 201 843-8700
NM PLS Assoc, 4200 B Silver Ave SE
Albuquerque 505 255-0120
NY Ossmann Instruments, 3100 Monroe Ave
Rochester 586-0380
NY Ossmann Instruments, Vestal Pkwy E
Vestal 785-9947
NY L & M Assoc, 7 Mayflower Ct
Brentwood 516 231-8363
NC Mekco Assoc, 100-B Lindsey St
Burlington 919 226-7177
Ohio Harvey Teplitz & Co, 3718 Salem Ave
Dayton 513 277-9178
Ohio Harvey Teplitz & Co, 3945 Meadowbrook Blvd
Cleveland 216 371-2044
Ore Showalter-judd Inc, 1445 NE Arrington
Hillsboro 503 648-6372
Pa C E Snow Co, 258 N Main St
Ambler 215 224-2626
Pa L & M Assoc, 965A Bristol Pike
Andalusia 215 639-6372
Tex Scientific Sales Co, 777 S Central Expwy
Richardson .... 214 AD 1-6541
Tex Scientific Sales Co, 6400 Westpark Dr
Houston 713 781-2711
Wash Showalter-Judd Inc, 1806 S Bush Pl
Seattle 206 324-7911
Can Instronics Techno-Prods Ltd, Box 100
Stittsville, Ont 836-4411
For Rualdo, Lda
Rua de S Jose 9, Largo da Anunciada 19, 1
Lisboa 2 .... PPC 3-37-25
Den Intelec A/S, Holbergsgade 14
Copenhagen K, Denmark 15-28-80
Fr Technique Et Produits, Cite des Bryeres
Rue Carle Vernet 92 Sevres 626 02-35
Ger Nucletron Vertriebs GmbH, 60 Gartnerstra 54
8 Munich 0811 546-081
GB Wessex Electronic, Ltd, Baldwin St, Bristol 1
Jap Seki & Co, 9 2-Chome Nihonbashi-koamicho
Chou-ku Tokyo 669 4121-5
Nor Hugo Riso a/s Teknisk Import
Box Taasen Carl Grondahls vei 1
Oslo 8 23-25-80
SAfr A C Gowlett Pty Ltd, Box 1257
Johannesburg 724-9341
Swed Amerikanska Teleprodukter, Nybohovsgrand 56
Stockholm SV 18-29-30
Swit Kontron Electronics, Inc, 235 Hardstr
8031 Zurich 051-44-5690
BC Instronics Techno-Prods Ltd, 725 Seymour St
Vancouver
Ind Escorts Ltd, Box 187, New Delhi 40145
Ind Bali Intl Agencies, Box 1676
Bombay 1 Br 264-592
Isrl STG Intl Ltd, 52 Nachlay Benyamin St
Tel-Aviv 53459
Neth Air-Parts Intl NV, Box 4094
Netherlands 070 989392
Spn Unitronics
Spn Unitronics, Torre de Madrid Plaza de Espana
Piso 12 - Oficina 9, Madrid 13 241-14-96
Fin Havulinna OY, Box 468, Helsinki 10 61-451
Aust Jacoby, Mitchell & Co Pty Ltd, 469-475 Kent St
Sydney, NSW 26-2651

WINATIC CORP, 409 COMMERCE RD, VESTAL
N Y, 13850 .... 607 729-6318
R SEVERSON, EMP 100, ENG 2, $1,000-$2,500M
NY Stetler & Stetler, 6683 Woodchuck Hill Rd
Fayetteville .... GI 6-5382
Pa Hile Co, Box 179, St Davids 215 688-9007

WINCHESTER ELECTRONIC DIV, LITTON INDUSTRIES
MAIN ST & HILLSIDE AVE, OAKVILLE
CONN, 06779 .... 203 274-8891
J ROOS, EMP 500, ENG 35
Ariz Shefler-Kahn, 2017 N 7th St, Phoenix 258-7893
Cal Winchester Elctns Div, 1001 W Maude Ave
Sunnyvale 738-2222
Cal Winchester Elctns Div, 12444 Victory Blvd
N Hollywood 985-5212
Ill Winchester Electn Div, 5151 N Harlem Ave
Chicago 775-6697
Mass Winchester Elctns Div, 395 Totten Pond Rd
Waltham 899-2207
NJ Winchester Electn Div, 616 Palisades Ave
Englewood Cliffs 567-6800
Ohio Winchester Electronics Div, Box 144
Centerville 252-1441
Tex Winchester Electn Div, 310 Stemmons Tower S
Dallas 631-5004
Wash H S Thorpe Co, 1022 N E 1st St
Bellevue 454-8168
Can SC Hooker Canada Ltd, 144 Ronald Dr
Montreal W 488-9114
Fr Litton France Inc, 120 Ave Des Champs Elysees
Paris 8 .... Balzac 38 65
Ger Litton Pricision Prod Intl, 8 Munchen 61
Stolzingstr 6 .... 48 93 95
Ital Litton World Trade, Foro Bonaparte, 54
Milano 89 33 62
Swed Litton Industries, Box 1200
Solna 1, Stockholm 28 94 20
Swit Litton Prec Prod Intl, Gubelstrasse 28, 8050 Zurich
Swit Litton World Trade, Schwamendingenstr 5
Zurich .... 48-35-[illegible]4
Swit Litton Prec Prod Intl Inc, Gubelstrasse 28
8050 Zurich

WINEGARD CO, 3000 KIRKWOOD AVE, BURLINGTON
IOWA, 52601, TWX 319-390-1811 .... 319 753-0121
J RIDGE, EMP 400, ENG 8, OVER $10,000M
Cal D E Hedges, 4562 Newman, Cypress
Del Jon Grandrath, 2605 Drayton Dr
Wilmington .... WY 8-9020
Ga John McShane, 224 Franklin Rd - N E
Atlanta 255-0612
Mass J Jordahl, 82 High St, Turner Falls
Minn Paul Mettler, RR 1, 7 Nordic Est
Northfield 645-8981
Mo J Williams, 12512 E 49th St, Independence
NJ A A Foley & Assoc, 15 S Shirley Ave
Moorestown .... NO 3-4545
NJ E Hinck, 139 Union St, Montclair
Ohio Leo Riddle, 2841 Briggston Ave, Columbus

Tex William Gregory, 11264 Webb Chapel Ct
Dallas.... DI 8-6630
Wash Vincent Allstaedt, 9718 228th Place SW
Edmonds .... PR 6-5904
Can Tri Tel Assoc, 55 Brisbane Rd, Downsview, Ont

WIN-ELCO, 436 2ND AVE BOX 337, GOLD HILL
ORE, 97525.... 503 855-7737
D WINTERS, EMP 10, ENG 3, $500-$1,000M
Iowa J & Irvine & Assoc, 1900 Prospect
W Des Moines 279-8289
Tex Southland Engr & Sales Inc, 4801 Richmond Ave
Houston .... MO 6-1292
Tex Southland Engrg & Sales, Inc, Box 765
Richardson.... 231-2373
Wash H S Thorpe Co, 11612 N E 8th St
Bellevue.... 454-0667

WINSCO INSTRUMENTS & CONTROLS CO INC
1533 26TH ST, SANTA MONICA
CAL, 90404, TWX 910-343-6860.... 213 451-5646
T JOHNSON, EMP 105, ENG 15, $2,500-$5,000M
Ala Roy Attaway Co, 900 Bob Wallace Ave S W
Huntsville 534-2811
Cal Kersta Sales Inc, 2555 N Altadena Dr
Altadena.... 791-1984
Colo Thorson Co, 300 E Hampden Ave
Englewood 789-1841
Fla Roy Attaway Co, 57 E Robinson St
Orlando 424-9983
Ill Olson Engrg Sales Corp, 7124 W 16th St
Berwyn.... 788-2600
Ind Delta Sales Inc, 1407 N Illinois St
Indianapolis.... 631-4136
Kan Palatine Engrg Sales, 5514 Johnson Dr
Mission 262-5643
Mass Daner Assoc, 684 Commonwealth Ave
Newton Centre 631-4136
Mich W K M Assoc, 1474 E Outer Dr, Detroit .. 892-2500
NC Ray Attaway Co, 519 Nissen Bldg
Winston-Salem 722-9671
Ohio W K M Assoc, 6741 Ridge Rd
Cleveland.... 885-5616
Ohio W K M Assoc, 5335 Far Hills Ave
Dayton 434-7500
Pa Bartlett Assoc, Inc, 130 W Lancaster Ave
Wayne .... MU 8-7325
Pa W K M Assoc, 90 Clairton Blvd
Pittsburgh.... 892-2953
Pa Control Instr Sales Co, 2727 Philmont Ave
Bethayres.... 215 676-1808
Wash Cane-Jessup Co, Inc, 1433 - 130th N E
Bellevue.... GL 4-0691

WINSLOW TELE-TRONICS INC, 1005 FIRST AVE
ASBURY PARK
NJ, 07712, TWX 710-723-8625.... 201 775-6100
M DITOMAS, EMP 160, ENG 12, $2,500-$5,000M
Cal L & M Engrg, 9911 Inglewood Ave
Inglewood 213 678-5409
Fla Mekco Assoc, 1000 Woodcock Rd
Orlando 305 841-2215
Ill A Feller, 3065 University Ave
Highland Park 312 433-3646
Md Lewis Assoc, 4925 Fairmont Ave
Bethesda 301 657-3844
Mass Daner Assoc, 684 Commonwealth Ave
Newton Center 617 969-4650
Mich Electro-Mation Assoc, 1137 Cole St
Birmingham.... 313 564-6517
Minn Engineering Prdts Assoc, 2119 Grand Ave
St Paul.... 507 698-5531
Mo Aire Borne Elctns Inc, 7759 E 89th St
Kansas City.... 816 761-9550
NJ Bonn Assoc, 266 Lake Ave
Metuchen.... 201 549-9573
NY Fish Assoc, 149 Roosevelt Dr
Utica.... 315 732-1008
Pa Winslow Tele-Tronics Inc, Twp Line & Wash La
Jenkintown 215 224-2550
Wash Fred H Haight Co, 3212 Eastlake Ave E
Seattle 206 322-1818

WINSTON RESEARCH CORP, 6711 S SEPULVEDA BLVD
LOS ANGELES
CAL, 90045, TWX 910-328-6128.... 213 670-3305
R WALKER, EMP 190, ENG 35, $5,000-$10,000M
Cal Wilson & Co, 3520 The Alemeda
Menlo Park 415 854-3253
DC Winston Research Corp, 1625 I St,N W
Washington .... NA 8-2588
Ga Harry L Stiltz Sales & Engrg, 1440 Olonee Pass NE
Atlanta 404 457-4316
Md Wild Assoc, 380 Main St, Laurel 301 776-7670
Mass Wild Assoc Inc, 570 Hillside Ave
Needham 617 444-2366
Mo Winston Research Corp, 2401 Blueridge Ave
Wheaton.... 301 949-4144
NJ Wild Assoc Inc, Box 300, Ramsey ... 201 327-4244
NY Wild Assoc Inc, 200 Michael Dr
Syosset.... 516 921-7100
NY Wild Assoc Inc, Box 266
Hastings-on-Hudson 914 963-3803
Ohio E V Swenson & Assoc, 1112 Talbott Towers
Dayton 513 223-4279
Pa Wild Assoc Inc, 80 2nd St Pike
Southampton 215 357-6645
Tex Alpha Assoc, 735 Sherman St
Richardson.... 214 231-0416
Wash Rush S Drake Assoc, 6133 Maynard Ave S
Seattle 206 763-2755

WINTRISS CONTROLS DIV INDUSTRONICS CONTROLS
INC, 20 VAN DAM ST, NEW YORK
N Y, 10013 .... 212 CH 2-0105
B WELS, EMP 50, ENG 8, $500-$1,000M
Cal Western Operations Co, 830 Crescent Dr
Monrovia 358-4469
Cal Batina Machinery, 72 E 3rd Ave
San Mateo .... DI 2-1813
Conn Press Automation Equip Co, 110 Trumball Ave
Plainville .... SH 7-3535
Ga Robt W Adams Co Inc, 115 Biscayne Dr, N W
Atlanta 355-7796
Ill Production Engineering, 353 Butterfield Rd
Elmhurst.... TE 4-4818
Ind Henry J Morath, 325 Bankers Trust Bldg
Indianapolis.... ME 5-4082
Iowa Donald Kucharo, Box 727, Bettendorf.... Gr 1-0490
Kan Barry Galiger, Box 1019, Mission.... HE 2-7474
Mass Joseph Bissonette, Box 815, Billerica 663-7806
Mich Pressmetal Equip Co, Box 555
Grand Blanc.... 694-6991
Mich A Wilkins, 1130 Walsh St SE
Grand Rapids.... 452-5689
Mo Joseph E Rush Co, 34 N Brentwood Blvd
St Louis .... PA 6-0332
NJ Production Machine, 1011 Main St
Boonton .... Wo 2-7650
NC Armentrout Machinery Co, Inc, 2122 Enterprise Rd
Greensboro.... 272-6142
Ohio Besco & Assoc, 3349 Meyer Pl
Cincinnati.... 662-4967
Ohio Vaughn O'Neill, 1090 Homeland Dr
Cleveland.... 331-4273
Pa Walter N Laska, 7929 Perry Hwy
Pittsburgh.... 931-3933
Pa Kenneth B Erdman Co, 7906 Montgomery Ave
Elkins Park, Phila .... CA 4-1833
Tenn Hicks Machine Tool Co, 673 S Cooper St
Memphis 276-2741
Wis Production Equipment, Inc, 11800 W Ripley Ave
Milwaukee.... 476-6075
Can Power Press & Equip Co Ltd
9333 St Lawrence Blvd
Montreal, Que .... DU 9-8484
Can Power Press & Equip Co Ltd, 2 Thorncliffe Park Dr
Toronto, Ont.... 421-2663
GB J Broughton & Son Ltd, Pershore Rd S, Birmingham

WINTRON CO INC, 9759 RUSH ST, S EL MONTE
CAL, 91733 .... 213 CU 3-6951
R WINSLOW, EMP 15, ENG 2, $100-$250M

WIRE CLOTH ENTERPRISES INC, R I D C INDUSTRIAL PARK
PITTSBURGH, PA, 15238 .... 412 781-1390
P MILLER, EMP 10, ENG 3, $500-$1,000M
ADV PG 281

WIRE CLOTH MANUFACTURERS INC, 63 SUSSEX RD
PARSIPPANY, N J, 07054 .... 201 887-0009
J HEGARTY, EMP 17
Mass Douglas Sales Co, 11 High St, Woburn ... 935-2061
NY Davies Industrial Serv, Inc, 3923 Harlem Rd
Buffalo 839-1700
Ohio A A Betts Co, 3311 Harrison Ave
Cincinnati.... 481-7577
Pa Cunningham Co, Inc, 239 Fourth Ave
Pittsburgh.... 261-7092
Wash Unit Process Co, 516 Central Way
Kirkland 206 822-0241

WIRECRAFT PRODUCTS INC, ROUTE 9
WEST BROOKFIELD, MASS, 01585 .... 617 867-3155
W POTI, EMP 25, ENG 1, $500-$1,000M
Cal Falmat, Inc, 13666 Hawthorne Blvd
Hawthorne 772-6207
Mass Bahr Sales Co, 91 Woodsley Rd
Longmeadow 567-3488
NY L Freed & Co, 22 Boston Post Rd
Larchmont 834-6510
Wis Ridley Assoc, Williams Bay.... 245-5543

WIREMOLD CO, WOODLAWN ST, HARTFORD
CONN, 06110 .... 203 233-6251
W PARKS, EMP 630, ENG 25
Ala H G Hanson, 9820 Redcliff Rd
Birmingham.... 205 836-8474
Ark J Greene, 2312 Cantrell Rd
Bell Park .... 501 FR 4-9398
Cal Airey-Thompson Co, 2324 E Hunter St
Los Angeles.... 213 627-3844
Cal G A Gray Co, 2720 17th St
San Francisco .... 415 HE 1-1526
Colo K B Schumann Co, 1073 Galapago St
Denver 303 222-8913
Conn E W Selnau, 23 Tanglewood Rd
Farmington.... 203 673-4979
DC T J Pugh, 5501 22nd Ave SE
Hillcrest Hts 202 296-3669
Fla J D Whetsell, Box 16066, Tampa 813 988-5860
Ga R L Pace, 5169 Covington Rd
Decatur.... 404 BU 4-3354
Ill A J Massey, 20 N Wacker Dr
Chicago .... 312 ST 2&7850
Md A B French, Baltimore.... 301 825-1305
Mass R T Bennett, 10 High St, Boston.... 617 HA 6-5693
Mich M A Frazier Co, 17610 W McNichols Rd
Detroit .... 313 KE 5-0840
Minn H G Schendel, 3746 Cedar Ave S
Minneapolis.... 612 PA 2-2226
Mo V A Meier, 5335 N Jackson
Kansas City .... 816 GL 2-9076
Mo A F Tubbesing, 10315 Golterman Dr
St Louis 314 842-2455
NJ P F McGovern, 172 Belmont Ave
Jersey City.... 201 HE 3-5869
NY R C Hill, 107 Foster Ave, Elmira.... 607 RE 4-5406
NY P F McGovern, 11-15 Park Pl
New York .... 212 BE 3-3328
NY A C Bradbury, Box 176
Oak Beach .... 516 JU 7-2318
NY H S Putz, 230 Marian Dr
Syracuse.... 315 HO 8-1593
NC H M Short, Box 9243, Charlotte 704 334-7060
Ohio C J Wirtz, 2 William Penn House
Cincinnati.... 513 821-3254
Ohio R E Horn, 7021 South St
Chagrin Falls.... 216 SU 1-5135
Okla R McKnight, Box 8786
Oklahoma City.... 405 VI 2-8118
Ore D A King, 1220 SW Stark St
Portland .... 503 CA 8-1990
Pa W A Gibson, III, Box 212, R D 1
Glenmoore.... 215 469-6453
Pa R B French, 231 S Easton Rd
Glenside.... 215 TU 7-0964
Pa W Simon, 6334 Phillips Ave
Pittsburgh.... 412 421-9491
Tex W Snoots Co, 2515 Clarence St
Dallas.... 214 HA 8-5108
Tex C A Stanley, 1508 Ennis St
Houston .... 713 FA 3-6272
Utah D E Blomquist, 328 W Second St
Salt Lake City 801 363-3838
Wash Strohecker, Inc, 2207 First Ave S
Seattle .... 205 MA 3-0357
Wash W D Beach, 307 Hyde Bldg
Spokane .... 509 MA 4-2518
Can Conduits National Co, Ltd, 33 Labatt Ave
Toronto, Ont.... 416 EM 3-0231

WISCO DIV ESB INC, 1222 18TH ST, RACINE
WIS, 53403 .... 414 632-2771
G LINN, EMP 60, ENG 1

WOOD COUNTER LABORATORY INC, N
1525 E 53RD ST, CHICAGO
ILL, 60615 .... 312 324-1114
N WOOD, EMP 25

WOOD ELECTRIC CORP, 244 BROAD ST, LYNN
MASS, 01901, TWX 710 334-0185.... 617 598-5313
C GIRIBALDI, EMP 160, ENG 6, $2,500-$5,000M
Cal TransDynamics Inc, 3108 5th Ave
San Diego 298-8215
Cal TransDynamics Inc, 701 Welch Rd
Palo Alto 326-6527
Cal TransDynamics Inc, 4450 Lakeside Dr
Burbank 849-6261
Colo TransDynamics Inc, 3401 S Bannock St
Englewood 761-0455
Fla Millar-Hutto Assoc, box 1509
Winter Park 647-7407
Ga Millar-Hutto Assoc, 3110 Maple Dr NE
Atlanta 261-6160
Ill D J M Electronic Sales Inc
5356 N Milwaukee Ave, Chicago.... 774-1212
Ind Scott Electronics, 915 N Penn Ave
Indpls 635-8951
Ind Scott Electronics, 418 E Berry St
Fort Wayne 743-1586
Kan Technical Reps, Inc, 6814 Farmview La
Wichita.... 682-4140
Ky Scott Electronics, 366 Francis Bldg
Louisville 583-3220
Md L D Lowery Inc, 6200 Annapolis Rd
Hyattsville 773-4977
Minn Mel Foster Co Inc, 228 S Cedar Lake Rd
Minneapolis.... 374-2612
Mo Technical Reps, Inc, 7049 Laupher La
Hazelwood.... 521-1000
NY F Tylinski Co, 338 Northern Blvd
Great Neck.... 466-9070
NY Leonard D Allen Inc, Box 205
North Syracuse 458-7470
NC Millar-Hutto Assoc, Box 17173, Raleigh
Ohio Scott Electronics, 1836 Euclid Ave
Cleveland.... 861-2626
Ohio Scott Electronics, 9505 Montgomery Rd
Cincinnati.... 791-2513
Ohio Scott Electronics, 79 E State St
Columbus.... 228-2313
Ohio Scott Electronics, 120 W Second St
Dayton 223-2652
Pa L D Lowery Inc, 2801 West Chester Pike
Broomall 356-5300
Pa Scott Electronics, 313 Empire Bldg
Pittsburgh.... 471-5233
Tex V J Sykes Assoc, 13333 N Central Expwy
Dallas.... 235-5289
Wash TransDynamics Inc, 7834 SE 32nd St
Mercer Island 232-1094
Can D I Snell Ltd, 700 Weston Rd
Toronto Ont 767-9876
Swed Bo Palmblad Aktiebolag, Hornsgatan 58
Stockholm SV

WOODWARD MACHINE INC, ELCTNS DIV
4833 ELMHURST AVE, DETROIT
MICH, 48204.... 313 WE 3-8610
R LIEDTKE, EMP 12, ENG 3, $100-$250M

WOODWARD-SCHUMACHER ELECTRIC CORP
1725 W NORTH AVE, CHICAGO
ILL, 60622, TWX 910-221-0926.... 312 EV 4-6060
R IVERSEN, EMP 500, ENG 10, OVER $10,000M
Cal Dresco Industries, 9601 Wilshire Blvd
Beverly Hills .... CR 5-0108
Ill R M Puzerewski Sales, 8159 Balmoral
Chicago 631-9545
Mass Herb Mandell Co, Box 24, Revere.... AL 9-3787
NJ Martin Klein Assoc, Box 92, Hillsdale 664-8711

WORCESTER PRESSED STEEL CO, 100 BARBER AVE
WORCESTER, MASS, 01606 .... 617 853-6000
R DAILY, EMP 200, ENG 8, $2,500-$5,000M

WORKMAN ELECTRONIC PRODUCTS INC, BOX 3828
SARASOTA, FLA, 33578 .... 813 955-4241
S WORKMAN, EMP 130, ENG 1, $1,000-$2,500M
Ariz B & G Sales Co Inc, 305 E Indian School Rd
Phoenix .... AM 4-4761
Cal Sy Lewis & Assoc, Box 352
N Hollywood .... TR 7-0461
Cal Sinai-Johnson, Inc, 817 Douglas St
Redwood City 365-6263
Colo Norris & Co, 915 Cheyenne Blvd
Colo Spring 635-9319
Fla Geartner Assoc Inc, 350 Lincoln Dr
Miami Beach.... JE 1-0200
Haw Gene Piety Factors Inc, Box 2903, Honolulu
Ill H W Knaggs Co, 6 Banks Square
E St Louis .... EX 7-2398
Ill D Hale Darnold, 5865 N Lincoln Ave
Chicago .... LO 1-9839

Ind Edwin A Schulz Co, 721 Sherwood Dr Indianapolis ... CL 5-1993
Mass Albert Reinherz, 59 Hamilton Rd Belmont ... 484-7784
Mich Butchart & Rathsburg Assoc, 16637 E Warren Ave Detroit ... 882-1717
Minn E W Oszman, 932 W Montana Ave St Paul ... 488-1811
NY Irv Brown Co Inc, 1500 Carroll St Brooklyn ... HY 3-1379
NY Callahan & Ferguson Co, 107 Greenhedge Dr Camillus ... 488-5518
NC G T Schiffer & Co, Box 6365 Greensboro ... 273-6288
Ohio Miller Sales Assoc, 4087 Meadowbrook Blvd Cleveland ... 321-3900
Pa E-K-P Assoc Inc, RD 1, Ferry Rd Doylestown ... 345-1523
Tenn Dixie Electronic Assoc, 102 Webster St Madison ... TW 5-5666
Tex Techno Assoc, 2621 Manana Dr Dallas ... FL 7-9213
Wash Wm R Lamphear Co, 4031 Stoneway Ave N Seattle ... AT 4-8150
Can LGN Finkler Ltd, 2 Trcos Dr Toronto 19, Ont ... 781-5231
For Lowell Inter Amer Sales S A, 3030 LaCleae Sta Rd St Louis ... ST 1-9058

WORKPLACE SYSTEMS, INC, 370 COMMERCIAL ST MANCHESTER, N H, 03101 ... 603 622-3727
R CURTIN, EMP 40, ENG 2, $500-$1,000M
Cal Germer Equip Co, 600 16th St Oakland ... 415 451-1880
Cal C S Dawson, Box 2357 Culver City ... 213 391-1187
Conn E P E Corp, 345 Highland St Weston, Mass ... 899-0678
Fla Assembly Matls & Equip Systems Corp 962 Victor Herbert Dr, Largo ... 813 531-7377
Kan Impala Inc, 6917 W 76th St Overland Park ... 913 648-6901
Mass Robert Curtin, 82 Curve St, Needham ... 444-4198
Mich Mager Scientific Inc, 2200 Fuller Rd Ann Arbor ... 313 662-1472
Minn Electro-Serv Co, 1455 W Lake St Minneapolis ... 612 827-2907
Mo Impala Inc, 47 Vlg Sq Shop Ctr Hazelwood ... 314 831-5454
Pa Woltemate Assoc Inc, Box 214 Fort Washington ... 646-7460

WORLD MAGNETICS INC SUB FAIRCHILD CAM & INST CORP, 215 N PIKE ST, CHARLOTTE MICH, 48813 ... 517 543-3440
W MOEHRING, $250-$500M
Cal David Ellis Co, 123 N Marengo Pasadena ... 681-9108
Ill Wadsworth Midland Mfg Assoc, 1229 Jarvis St Chicago ... 312 274-0601
Mich Elko Sales Corp, 3119 Midland Dr SE Grand Rapids ... 949-1451
Ore Van Voorhees Assoc, Box 4383 Portland ... 232-6633

WORNER ELECTRONIC DEVICES, 121 N MAIN ST RANKIN, ILL, 60960 ... 217 397-4555
D SWANSON, EMP 12, ENG 2, $100-$250M
Cal Koessler Sales Co, 818 N Fairfax Ave Los Angeles ... OL 3-1605
Cal Evans Marketing Co, 845 Malcolm Rd, Burlingame
Colo Gordon Moss Electronics, 1530 13th Ave Greeley ... 353-1452
Ga Millar-Hutto Assoc Inc, 3110 Maple Dr NE Atlanta ... 261-6160
Haw Earl Assoc, 1638 Kona St, Honolulu ... 815-649
Ill Arthur Peterson, 3647 W 62nd St Chicago ... RE 5-0846
Mo H A Roes & Co, 2601 Cherry St Kansas City ... BA 1-0866
NY L-C-A Sales Co, 76 Main St Tuckahoe ... WO 1-4700
NY Leonard D Allen Inc, Box 205 North Syracuse ... 458-7470
Ohio John Olsen Co, 16201 Shaker Blvd Cleveland ... SK 2-5444
Ore Earl & Brown Co Inc, 2041 S W 58th Ave Portland ... 292-9145
Tex Myles Summers, 4012 Breakwood Houston ... Mo 7-6900
For Crescent Intl, 540 Lake Shore Dr Chicago Ill ... DE 7-2993

WORNOW PROCESS PAINT CO 1218 LONG BEACH AVE, LOS ANGELES CAL, 90021 ... 213 627-3773
EMP 18, ENG 1, $500-$1,000M

WRIGHT COMPONENTS INC, 5017 SOUTH ST CLIFTON SPRINGS N Y, 14432, TWX 510-250-2593 ... 315 462-2010
W DUNN, EMP 70, ENG 8, $1,000-$2,500M
Md M & J Assoc, Box 24, Timonium ... 252-2127
NJ Horer Corp, 121 E Hamilton, Englewood ... 568-0217
RI Horer Corp, 589 Warren Ave East Providence ... 438-2726
Tex B L Schwaller, 28 Hedwig Cir Houston ... HO 5-1836
Tex Edmar Tech Sales, Box 818, Hurst ... 282-5561

WRIGHT METALCOATERS INC, 255 WEST ST SOUTH HACKENSACK, N J, 07606 ... 201 487-5136
D CULVER, EMP 30, ENG 2, $250-$500M

WRIGHT STEEL & WIRE CO, G F, 245 STAFFORD ST WORCESTER, MASS, 01603 ... 617 754-6824
W CARLSON, EMP 100, ENG 4
Cal Lebell-Warren Assoc, 601-603 County Rd San Carlos ... 593-7688
Cal G F Wright, 2460 Malt Ave Los Angeles ... 723-7224
Colo Fred Gamble, 7957 W 64th Ave Arvada ... 421-5808
Fla Buck Newell Co, 2015 Perry Pl Jacksonville ... 904 359-5675
Ga E L Hornibrook Co, Box 86 Avondale Estates ... 377-4283
Haw RMA Sales Co, 2960 Mokumoa Honolulu ... 899-041
Ill G F Wright Steel & Wire Co, 4956 S Monitor Ave Chicago ... 735-7800
Kan Lowell, Kangds & Assoc, Inc, Box 4116 Overland Park ... Tu 8-3200
La L J Baldwin & Son, 306 Carondelet Bldg New Orleans ... 525-6705
Mo Lowell, Kangds & Assoc, Inc Box 12526 Creve Coeur Sta St Louis ... MI 7-1111
NJ Ferrell S Carmine Co, 14 Knickerbocker Dr Newark ... 368-7603
NJ Steve Fisher Sales Corp, 161 Cedar La Teaneck ... 836-6661
NY Callahn-Ferguson Co, 107 Greenhedge Dr Camillus ... 488-5518
Ohio Gerald W Perry, Box 141, Sylvania ... 735-7800
Ohio P G MacIntosh Co, 713 Transportation Bldg Cincinnati ... 621-9381
Ore Roger M Minthorne Co, 6565 S W MacAdam Ave Rortland ... CH 6-4556
Tenn Arch McLaren, 749 W Snowden Cir Memphis ... 275-1615
Tex Fred H Zimmerman, 803 Stemmons Tower W Dallas ... 631-1043
Tex James Achilles, 8025 Turquoise La Houston ... 465-6246
Utah Don D Gamble Co, 1908 Bryan Ave Salt Lake Citv ... HU 5-9928

WROUGHT WASHER MFG CO, 2264 S BAY ST MILWAUKEE, WIS, 53207 ... 414 744-0771
H KLEMZ

WUERTH PRODUCTS CORP, 1931 PEMBROKE RD HOLLYWOOD, FLA, 33020 ... 305 923-1105
R WUERTH, EMP 10, ENG 1, $100-$250M

WYBAR ELECTRONICS INC, 1068 S CLINTON ST SYRACUSE, N Y, 13201 ... 315 474-6720
K GARVEY, EMP 20, ENG 3
DC Frederick G Speidel, 2457 Medway Dr Raleigh, N C ... 833-0147
Ill EMF Co, 6135 W Belmont, Chicago ... 889-8323
NY Lanzendorf Co, 513 Cumberland Ave Syracuse ... 472-4195
NY H C Buerger Co, Inc, 1359 Oak La East Meadow ... 485-6228
NC Powertronic Inc, Box 403, Thomasville ... 476-4257
Pa H C Buerger Co, Inc, 815 Greenwood Ave Jenkintown ... 224-2442
Can Robert Neill Co, 5200 A Yonge St Willowdale ... 225-5200
For Ameresco, Inc, 203 Bellevue Ave Upper Montclair, N J ... 746-5300

WYCO METAL PRODUCTS, 6918 BECK AVE NORTH HOLLYWOOD CAL, 91609, TWX 910 499-2177 ... 213 875-0990
F WEISS, EMP 50, ENG 2
Ariz Shefler Kahn Co, 2017 N 7th Ave Phoenix ... 258-7893
Cal F M Moulthrop Assoc, 1530 E 12th St Oakland ... AN 1-7676
Colo McLoud & Raymond, Box 22044 Denver ... SK 6-1589
Fla Murphy & Cota, 712 W Vassar, Orlando ... 424-2167
Haw Har-Kom Hawaii, 320 Ward Ave Honolulu ... 506875
Md Gary Brown Assoc, 5801 Annapolis Rd Bladensburg ... 779-1500
Mo K & M Sales, 17th & Main St Kansas City ... GR 1-1355
NH E M Assoc, Woodbury Bldg, Hampton ... 926-8510
NY Friedman Assoc, 189-19 Jamaica Ave Jamaica ... SP 6-4800
NC Murphy & Cota, 1106 Burke St Winston-Salem ... 724-0750
Ohio Ashby Assoc, 333 W 1st St, Dayton ... 224-0561
Tex Blackburn Assoc, 137 Walnut Hill Village Dallas ... 899-8518
Utah McLoud & Raymond, 4407 Ebony St Salt Lake City ... 266-5002
Wash J K Dooley, 4110 Stone Way N Seattle ... ME 2-1618

WYLE LABORATORIES, 128 MARYLAND ST EL SEGUNDO CAL, 90245, TWX 910 348-6699 ... 213 OR 84251
D, EMP 105, ENG 20, $1,000-$2,500M
Cal Product Data Co, 1147 S Robertson Blvd Los Angeles ... 213 278-3356
Cal Tech Marketing Assoc, 355 W Olive Ave Sunnyvale ... 408 736-3687
Colo Brooks Feeger Assoc, 1309 S Inca St Denver ... 744-3301
Ill Ridgway Assoc, 9420 W Foster Ave Chicago ... 312 282-5929
Kan Leemark Engineers, Box 6175 Leawood ... 913 648-0124
Ky Ridgway East, Inc, Box 5385 Lexington ... 606 299-1057
Mass Hobart Assoc, 750 Main St Winchester ... 617 729-8884
Minn Ridgway Assoc, 4901 Garfield Ave S Minneapolis ... 612 824-9059
Mo Leemark Engineers, Inc, 9623 St Charles Rock Rd St Louis ... 314 647-4545
NJ Engineered Products Inc, 28 Essex St Lodi ... 201 845-6668
NM Brooks, Feeger & Puckett, 1238 Ortiz Dr SE Albuquerque ... 505 268-4387
NY Naco Electronics, 119 Luther Ave Liverpool ... 474-7481
NY Naco Electronics, 74 Park Ave Rochester ... 244-4720
NY Naco Electronics, 2631 Edgewood Rd Utica ... 732-1801
NY Naco Electronics, 14 Lori St Poughkeepsie ... 914 462-2730
Ohio Ridgway East, Inc, 4654 Michael Ave North Olmsted ... 216 777-6600
Ohio Ridgeway East, Box 68, Loveland ... 513 683-4356
Okla Brooks Feeger & Puckett Inc, Box 15656 Tulsa ... 918 936-5295
Pa E-Tech, Box 52, Bala Cynwyd ... 215 667-5510
Tex Brooks, Feeger & Puckett, Inc, 708 W Euless Euless ... 264-3363
Tex Brooks, Feeger & Puckett Box 16065 Lampham Sta San Antonio ... 512 828-0164
Tex Brooks, Feeger & Puckett Inc, 409 Friendswood Dr Friendswood ... 713 482-7563
Va E-Tech, 6615 Backlick Rd, Springfield
Wash J D Kennedy Co, 2124 SW 170th St Seattle ... 206 242-8024

WYOMISSING CORP TEXTILE DIV, BOX 742, READING PA, 19603 ... 215 376-2891
F PIERCE, EMP 850, ENG 2, OVER $10,000M
Cal M Starke, 1421 Santee St Los Angeles ... 213 Ri 7-9238
Ga I R Noll, 218 Sandy Springs Pl NW Atlanta ... 404 252-5891
Ill R R Will, 222 W Adams St Chicago ... 312 AN 3-2057
NY N Benson, 180 Madison Ave New York ... 212 Mu 9-5240
NC J P Rogosky, 1409 E Blvd Charlotte ... 704 375-8129

WYRCO PROJECTS INC, FORSYTHE AVE, OWEGO N Y, 13827 ... 607 687-3950
T COONRADT, EMP 4, ENG 3, $250-$500M
NY Kressilk Products Inc, 73 Murray St New York ... BA 7-7526

X CEL CONTROLS INC, 420 S ST JOSEPH ST SOUTH BEND, IND, 46601 ... 219 287-6477
J BRICKLEY, EMP 13, ENG 3, $250-$500M

XCELITE INC, 28 BANK ST, ORCHARD PARK N Y, 14127 ... 716 662-4461
A HOLMES, EMP 65, ENG 2
Cal Jack Packer, 10072 Dewey Dr Garden Grove ... 539-6704
Cal Lovblad-Cortez Assoc, 2825 Shannon Dr South San Francisco ... 761-3513
Cal Bob Weaver & Assoc, 12841 Woodbridge Studio City ... 769-0446
Colo Connors Inc, 2241 Stacey Dr, Denver ... 428-1575
Ga F C Nickerson Co, 1244 Clairmont Ave Decatur ... 377-1575
Ill Bruce Cumming & Assoc, 6029 W Belmont Ave Chicago ... ME 7-3770
Ind Thomas & Sukup, 2060 E 54th St Indpls ... 251-4574
Mass Coakley, Boyd & Abbett, Inc, 1424 Highland Ave Needham ... DE 2-4800
Mich Lawrence F Zaffina Co, 15620 Juliana E Detroit ... 777-9191
Minn Kirkeby & Assoc, Inc, 821 Second Ave, N Minneapolis ... 377-3239
Mo K & M Sales Co, Davidson Bldg Kansas City ... 471-1355
Mo J Kelly Sales Co, 972 N Geyer Rd St Louis ... 822-4141
Mo Jack Kelly Sales Co, 272 Treasure Cove Ballwin ... 227-1711
NY Jerry Kirshbaum Co, 1533 Peninsula Blvd Hewlett ... 374-0111
NY Leonard D Allen Inc, Box 205 North Syracuse ... 458-7470
Ohio John Olsen Co, 16201 Shaker Blvd Cleveland ... 752-5444
Ore Del W Bassett, 6906 S W Terwilliger Blvd Portland ... 244-4836
Pa E K P Assoc, 1901 Washington Blvd Easton ... 252-6373
Tenn Al S Engelman Co, Box 12091, Memphis
Tex McClintock Sales Co, 2631-37 Commerce St Dallas ... RI 7-1519
Va Don Miller & Assoc, 2252 Staples Mill Rd Richmond ... 353-5324
Wash Blair Kline, 3432 Hunts Point Rd Bellevue ... GL 4-8440
Can C W Pointon Ltd, 66 Racine Rd Rexdale, Ont ... CH 7-8777

XENON CORP, 10 WHEELER CT, WATERTOWN MASS, 02172 ... 617 926-2577
L PANICO, EMP 12, ENG 3, UP TO $100M
Cal Crown Electronics, Box 2573, Van Nuys ... 873-1266
Ill Crest Assoc, 7001 N Clark St, Chicago ... 274-2640
NJ E C Smith, 797 Springfield Ave, Summit
NY E C Smith & Assoc, 60 E 42nd St New York ... MU 2-6890
NY Ryerson Assoc, Box 8369, Rochester
Tex Applied Engineering Sales, First Bank & Trust Bldg Richardson ... AD 1-1322
For Telesco Intl Corp, 171 Madison Ave New York, N Y ... MU 3-9420

XEROX CORP, MIDTOWN TOWER, ROCHESTER N Y, 14604 ... 716 546-4500
R LAHUE, EMP 16000, OVER $10,000M
Ala Xerox Corp, 3616 7th Ct S, Birmingham ... 328-7930
Ariz Xerox Corp, Financial Center, Phoenix ... 264-4971
Cal Xerox Corp, 5316 W Imperial Hwy Los Angeles ... 677-6161
Cal Xerox Corp, 5th & Laurel, San Diego ... 234-8771
Cal Xerox Corp, 100 Bush St, San Francisco ... 982-0389
Cal Xerox Corp, 901 H St, Sacramento ... 444-8100
Colo Xerox Corp, 5961 E 38th Ave, Denver ... 399-0670
Conn Xerox Corp, 924 Farmington Ave W Hartford ... 236-5646
DC Xerox Corp, 1680 Wisconsin Ave NW Washington ... 337-5200

XTALONIX PRODUCTS DIV HARSHAW CHEMICAL CO
1215 CHESAPEAKE AVE, COLUMBUS
OHIO, 43212 .... 614 488-5915
J CHABRIA, EMP 8, ENG 4, $100-$250M
Cal R Lowe, 2235 E Middlefield Rd
Mountain View 415 968-2171
Cal R S Villareal, 18051 E 4th St
Tustin 714 838-6340
Ill A G Murphy, 1201 Central Ave
Deerfield 945-5591
Mass F Kirrane, 789 Massachusetts Ave
Lexington 861-0628
NJ M Aquinas Jr, 9 Valley View Dr
Ramsay 327-8850
NJ J F Rothamel, 276 Linden Rd, Wayne 839-3230
Tex J Owens, 2337 Bissonnet, Houston ..... Ja 2-8377
Va W B Todd, 7109 Churchill Rd, McClean... 356-9570

X-TRON ELECTRONICS, 1869 NATIONAL AVE
HAYWARD, CAL, 94545 .... 415 783-2145
EMP 14, ENG 3, UP TO $100M

YARDLEY PRODUCTS CORP, 10 W COLLEGE AVE
YARDLEY, PA, 19067 .... 215 493-2723
C RUNK, EMP 35, ENG 1

YARDNEY ELECTRIC CORP, 40-52 LEONARD ST, NEW YORK
N Y, 10013, TWX 710-581-6211 .... 212 966-3100
A LEPARULO, EMP 850, ENG 85, $5,000-$10,000M
ADV PG 65
Cal Peter DeVere, 6399 Wilshire Blvd
Los Angeles .... OL 3-9444
DC Roger McAleer, 3621 Columbia Pike
Arlington, Va 671-7100
Tex W N Rider Co, 6211 Denton Dr, Dallas... 357-2246

YASKAWA ELECTRIC MFG CO LTD, OHTEMACHI BLDG
TOKYO, JAPAN 03 201-2511
I KODAMA, EMP 5500, ENG 600, OVER $10,000M
Ill Yaskawa Electric America Inc, 100 Bliss Dr
Oak Brook
NY SBM Assoc Inc, 528 Old Country Rd
Plainview 516 433-1421
Ohio CMP Inc, 3691 Lee Rd, Cleveland ... 216 921-1360
Ohio CMP Inc, 3406 N Main St, Dayton ... 513 278-5873

YEISER LABS, 881 W 18TH ST, COSTA MESA
CAL, 92627 .... 714 548-2458
J YEISER, EMP 8, ENG 2, $100-$250M
Cal B J Wolfe Enterprises, 10760 Burbank Blvd
N Hollywood 213 877-5518
Colo Vinson Assoc Inc, 3600 S Lincoln
Englewood 303 789-2203
Fla Griggs Assoc, 7215 S Orangeblossom Trail
Orlando 305 855-4871
Ill Loren F Green & Assoc, 5218 W Diversey Ave
Chicago 312 286-6824
Mass Daner Assoc Inc, 684 Commonwealth Ave
Newton Centre 617 969-4650
Ohio Twin Region Elctn Sales Inc
21010 Center Ridge Rd
Cleveland 216 331-7650
Wash Arva Inc, 1320 Prospect St, Seattle .. 206 622-0177
For Yeiser Labs Intn'tl Div, 750 Third Ave
New York NY 212 986-2244

YELLOW SPRINGS INSTRUMENT CO INC, BOX 279
YELLOW SPRINGS, OHIO, 45387 .... 513 767-7242
R SCHIFF, EMP 145, ENG 11, $1,000-$2,500M
Md R Heggemann, 4803 Mercury Dr
Rockville 949-8566

YOKOGAWA ELECTRIC WORKS INC
1995 PALMER AVE, LARCHMONT
N Y, 10538 .... 914 834-3550
R IMAMURA, EMP 6, ENG 3, $500-$1,000M
Ala Technical Assoc Inc, Box 225
Huntsville 536-6611
Cal L Snitzer Co, 5354 W Pico Blvd
Los Angeles .... WE 8-2073
Cal L Snitzer Co, 1020 Corporation Way
Palo Alto 968-8304
Cal L Snitzer Co, 7814 Ivanhoe Ave
La Jolla .... GL 4-2191
Conn Applied Measurements Inc, Box 392
Milford .... TR 4-3338
Conn Applied Measurements Inc, Box 5131
Hamden 248-5048
DC Brimberg Assoc Inc, 1343 H St N W
Washington .... DI 7-4234
Fla Technical Assoc Inc, 2319 E South St
Orlando 424-5681
Ill Saffro & Assoc, 3736 W Dempster St
Skokie 588-0905
Ind Law Instr Co, Box 95, Angola 665-6016
Kan Poly-Onics Inc, 4434 90th Terr
Leawood .... NI 8-4173
Md Brimberg Assoc Inc, 814 Thayer Ave
Sivler Spring 588-7790
Mass Applied Measurements Inc
Box 306, 86 Hayward Rd, Acton ...... CO 3-2766
Minn Heimann Co Inc, 5603 Lymdale Ave S
Minneapolis 827-5457
Mo Poly-Onics Inc, 47 Village Sq Shop Cen
Hazelwood .... TE 7-0597
NJ Sonco, 244 Hwy 35, Eatontown 542-1441
NY R F Lamb Co, 3407 Delaware Ave
Buffalo .... TE 6-3757
NY Hallmark Standards Inc, 145 Library La
Mamaroneck .... OW 8-8460
NY R F Lamb Co, Box 661, Kingston 338-8833
NY R F Lamb Co, E Molloy Rd, Syracuse 454-2469
Ohio Portland Arva Inc, 2035 S W 58th Ave
Oregon .... CA 2-7337
Pa Sonco, 200 Church Rd, King of Prussia ... 265-3250
Pa Sonco, Park Pl, Camp Hill 761-9577
Wash Arva Inc, 1320 Prospect St, Seattle .... MA 2-0177
Can Stark Electronic Sales Co, Stark Bldg
Ajax, Ont 942-2120
Mex Proveedora Electrica Mex SA, Sidar y Rovirosa 80
Mexico DF 22-18-68

YOKOWO MFG CO LTD, 11-5, 7-CHOME, TAKINOGAWA, KITA-KU
TOKYO, JAPAN, TWX 272-2197 984-3111
B IIZUKA, EMP 1082, ENG 165, OVER $10,000M
ADV PG 53

YORK ELECTRONICS CORP, 104 S 4TH ST, BROOKLYN
N Y, 11211 .... 212 EV 7-7110
H DUBILIER, EMP 100, ENG 2, $1,000-$2,500M
Ill Knoblock & Assoc, 4912 Tollview Dr
Rolling Meadows 392-8586

YORK METAL PRODUCTS INC, 34-20 12TH ST
LONG ISLAND CITY, N Y, 11106 .... 212 932-3660
A BISNOFF, EMP 30, ENG 3

YORK RESEARCH CORP, 1 RESEARCH DR, STAMFORD
CONN, 06904 .... 203 325-1371

YORK WIRE CO, BOX 982, CLIFTON
N J, 07014 .... 201 472-8200
E YORK, EMP 25, ENG 2, $500-$1,000M

YOUNGWOOD ELECTRONIC METALS INC, DRAWER E
YOUNGWOOD, PA, 15697 .... 412 925-7254
R DOMIN, EMP 62, ENG 1, $1,000-$2,500M
Ariz E J Foley & Assoc, 3840 N Jokake Dr
Scottsdale 602 945-2665
Cal Allan Davis Assoc, 1720 Mermaid Dr
San Pedro 213 547-1288
Conn Fly Assoc, Box 304, Fairfield 203 259-0772
Fla J F Griffin & Co, 812 Lakeside Dr
N Palm Beach 305 848-4617
NJ F F Sylvester Assoc, 649 Morris Ave
Springfield 201 376-3324

Y S PORCELAIN TUBES MFG CO, LTD
58 IZUMI-CHO, SETO CITY, AICHI PREF
JAPAN .... (0561) 82-2620
T YAMADA, EMP 350, ENG 30, $1,000-$2,500M
ADV PG 129

Y T & T CORP, BOX 306, ROSLYN HEIGHTS
NY, 11577 .... 516 MA 10050
B YELSEY, EMP 3, ENG 1, $100-$250M

ZAGAR INC, 24000 LAKELAND BLVD, CLEVELAND
OHIO, 44132, TWX 098-5396 .... 216 731-0500
J MRSNIK, EMP 210, ENG 22, $2,500-$5,000M
Ala Ford Tool & Carbide Co, 3404 10th Ave N
Birmingham 252-9991
Ariz DiEugenio Tool Center Inc, 110 S 11 Ave
Phoenix .... AL 8-8364
Ark Moehlenpah Eng Inc, 312 W Pershing Rd
North Little Rock 374-8424
Cal Motch & Merryweather Machy Co, 2923 Supply Ave
Los Angeles 685-8563
Cal Harry M Smith, 1341 Old County Rd
Belmont 591-8961
Colo Industrial Western Inc, 88 Lipan St
Denver 825-6225
Fla General Equip Inc, 7131 Lake Ellenor Dr
Orlando 855-1440
Ga W-H Ind Machy Inc, 2695 E College Ave
Decatur 377-8631
Ill Zagar Inc, 5865 N Lincoln Ave, Chicago .. 271-8364
Ill Reynolds Machine & Tool Corp, 5042 W Madison
Chicago 378-1100
Ind Jas A Reeves, 2207 Columbus Ave
Anderson 642-0058
Iowa Joe W Hammill Co, 2429 E Central Pk
Davenport 355-7264
Ky Fink Equipment Co, 1045 Bardstown Rd
Louisville .... GL 1-1441
La Church-Dailing Co, 1401 S Rendon St
New Orleans 866-9632
Md Maguire & McLemon Inc, 1100 Exeter Hall Ave
Baltimore .... HO 7-6400
Mass Zagar Inc, 370 King St
Littleton Common 486-3012
Mich Zagar, Inc, 24906 Michigan Ave
Dearborn 562-5660
Mich Keldon Co, 1610 Olson St, NE
Grand Rapids 451-0922
Mich Boyd Ind Sales, 2513 Davison, Flint 239-5861
Minn Satterlee Co, 2200 E Franklin Ave
Minneapolis 333-1141
Mo Oscar E Jost Co, 10521 St Charles Rd
St Ann .... HA 8-4488
NJ Beverly D Smith Co, 29 N Dean St
Englewood 568-3360
NM Equipment Sales & Mfg Co, 1018 S 4 St NW
Albuquerque 247-3781
NY Beals McCarthy & Rogers Inc, 635 S Park Ave
Buffalo 854-4900
NC Armentrout Machy Co Inc, 2122 Enterprise Dr
Greensboro 272-6142
Ohio Zagar, Inc, 3605 N Dixie Dr, Dayton 274-7553
Ohio Block Industrial Service, 3636 Detroit Ave
Toledo 475-3711
Okla Marshall Supply & Equip Co, 1050 E Archer
Tulsa .... LU 4-5271
Okla Marshall Supply & Equip Co, 705 N Virginia
Oklahoma City .... CE 2-8836
Pa E H Hoffman Co, 242 Easton Rd
Horsham .... OS 2-6550
Pa Stanley Berg Machy Co, 108 Rosslyn Rd
Carnegie 923-1911
Pa Fay-Jan Tool Sales Co, 2171 Inwood Rd
Williamsport 326-1584
Tenn Moehlenpah Engrg Inc, 1231 E Raines Rd
Memphis 398-4691
Tenn Mitchell-Powers Hdwe Co Inc, Fifth St Extension
Bristol 764-1153
Tex Reliant Tool Products Co, 2647 Myrtle Spring
Dallas 358-2581
Tex Bob Machine Tool Co, 5115 Cornish
Houston .... UN 2-8871
Utah Fugate Ind Sales Inc, 1780 S 450 W
Salt Lake City 487-7555
Wash P & G Ind Sales-Serv Co, 1429 153rd Pl SE
Bellevue 747-2391
Wis Kel-Sir Co Inc, 2700 W Concordia Ave
Milwaukee .... HI 5-1550
Can W M Smith Assoc, 892 Long Dr
Burlington Ont 634-2880

ZARING INDUSTRIES INC, 906 W MAIN ST, CARMEL
IND, 46032 .... 317 846-2571
W ZARING, EMP 70, ENG 3, $1,000-$2,500M

ZEHNTEL INC, 1450 SIXTH ST, BERKELEY
CAL, 94810 .... 415 658-0995
W MARTIN, EMP 25, ENG 10, $500-$1,000M
Cal Anadex Instr Inc, 7833 Haskell Ave
Van Nuys 213 873-6620
Cal Jay Stone Assoc, 140 Main St
Los Altos 415 948-4563
Cal Control Devices Pacific Inc, 1485 Bayshore Blvd
San Francisco 415 467-2270
Mich CMP Inc, 16239 Wyoming Ave
Detroit 313 863-4600
NJ SBM Assoc, 1519 Stuyvesant Ave
Union 201 687-8737
NY SBM Assoc, 800 Linden Ave
Rochester 716 381-8330
NY SBM Assoc, 655 Commerce St
Thornwood 914 769-1811
NY SBM Assoc Inc, 5858 E Molloy Rd
Syracuse 315 454-9377

ZEISS INC, CARL, 444 FIFTH AVE, NEW YORK
N Y, 10018 .... 212 736-6070
S MONSON, EMP 150, OVER $10,000M
Cal Carl Zeiss, 2855 Telegraph Ave
Berkeley 841-6095
Cal Carl Zeiss, 2625 W Olive Ave, Burbank ... 849-2121
Colo R W Grover, 6215 S Harrison Dr
Littleton 771-2517
Ga Max E Kutz, 4207 McClatchey Circle N E
Atlanta 255-5811
Ill W P Nuffer, 4 S 615 Karns Rd
Naperville 355-8781
Md John Ludwig, 8720 Georgia Ave
Silver Spring 301 589-8144
Mass J Speyer, 20 Providence St, Boston .. 617 542-7051
Mo G Kuschel, 34 N Brentwood Blvd
St Louis .... VO 3-7688
NC W Brick, 2913 Harriman Ave
Durham-Ridgewood 489-4896
Ohio R Wesselmann, 2894 Chateau Circle S
Upper Arlington 486-6984
Tex R H Dietter, Box 1144, Houston 713 645-3273
Wash H H Schrader, 9561 N E First St
Bellevue 206 454-2314
Can Carl Zeiss Can Ltd, 140 Overlea Blvd
Toronto, Ont 421-6620

ZELL ELECTRIC MFG CO, INC, 466 BROOME ST
NEW YORK, N Y, 10013 .... 212 WA 5-4588
J MASSA, EMP 60, ENG 1

ZELTEX INC, 1000 CHALOMAR RD, CONCORD
CAL, 94520, TWX 910-481-9477 .... 415 686-6660
K RUTHERFORD, EMP 180, ENG 16, $2,500-$5,000M
Ala NBS Inc, Box 1343, Huntsville 205 881-3175
Ariz Tech-Ser Inc, 1805 E Indian School Rd
Phoenix 602 265-3629
Cal Tech-Ser Inc, 2435 N Naomi St
Burbank 213 846-9631
Cal Tech-Ser Inc, Box 10544
San Diego 714 222-1121
Cal Tech-Ser Inc, 477 Castro St
Mountain View 415 969-9020
Colo Hilleary Assoc, 2552 Ridge Rd
Littleton 303 794-4279
Conn Instrument Consultants Inc, 2381 Whitney Ave
Hamden 203 248-4174
Fla NBS Inc, 2813 Primrose Ct
Orlando 305 423-4856
Fla NBS Inc, 4150 SW 23rd St
Ft Lauderdale 305 584-0650
Ga NBS Inc, 893 Church St NW
Marietta 404 422-6067
Ill Marsland Assoc, 6699 Lincoln Ave
Chicago 312 676-1100
Ind Marsland Assoc, 3734 Carrollton Ave
Indianapolis 317 924-3568
Kan Technical Reps, 6814 Farmview La
Wichita 316 682-4140
Kan Technical Reps, 809 Sheridan Cir
Olathe 913 782-3775
Mass Instrument Consultants Inc, Box 25
Waban 617 969-9881
Mich Technitron Inc, 13657 Grand River Ave
Detroit 313 838-7324
Minn Marsland Assoc, 231 N Edgewood Ave
Minneapolis 612 545-4481
Mo Tech Reps, 7049 Laupher La
Hazelwood 314 521-1000
NJ Hansen Assoc, Box 339
Ridgewood 201 652-7055
NM Hilleary Assoc, 311 Washington SE
Albuquerque 505 265-7631
NY Doolittle Electronics Corp, Box 97
Fayetteville .... NE 7-3222
Ohio Technitron Inc, 23203 Lorain Rd
North Olmsted 216 734-0960
Ohio Technitron Inc, 1250 W Dorothy La
Dayton 513 298-9964
Ore Showalter-Judd, 1445 NE Arrington
Millsboro 503 648-6372
Pa Denco, 500A E Godfrey Ave
Philadelphia 215 725-9000
Pa Technitron Inc, 114 Spring Garden Rd
Pittsburgh 412 371-1231
Tex Carey Wolf Co, Box 12425
Fort Worth .... 817 Pe 8-1702
Tex Carey Wolf Co, Box 60338
Houston 713 643-2114
Va Schibley Assoc, 10604 Warwick Ave
Fairfax 703 591-3008
Wash Showalter-Judd, 1806 S Bush Pl
Seattle 206 324-7911
Can Instronics Techno-Products
Toronto Ont 416 534-9191
Can Instronics Techno-Products
Montreal Que 514 332-9395
For Terminal Radio Int Ltd, 3 W 61st St
New York N Y 212 246-2133

ZENITH CONTROLS INC, 152 W WALTON ST, CHICAGO
ILL, 60610 .... MI 2-3322
V HELFORD, EMP 100, ENG 4, $1,000-$2,500M
Ariz Tom Geis Agency, 4820 E Weldon
Phoenix 959-3582
Cal Mundstock-Saletta Assoc, 10567 San Pablo Ave
El Cerrito 527-0557
Cal H S Eales Co, 8334 Kenyon Ave
Los Angeles 776-4410
Colo Mundix Co, 2530 W Barberry Pl
Denver 534-5373
Fla Bryan P Fisher, 3196 NW 100th St
Miami .... MU 8-3839
Ga Kennon-Johnson Co, 7 Camdon Rd NE
Atlanta .... TR 4-5566
Ill Clagett Engrg Sales Co, 420 Ellis Ave
Rockford .... WO 5-4555
Ill Wasson-Gallagher, 1024 North Blvd
Oak Park .... EU 3-6572
Ind P R Angrick & Assoc, 909 E 38th St
Indianapolis 317 924-0670
La Al Levin & Assoc Inc, 1209 S Front St
New Orleans 524-8489
Mass E P McEleney Co, 1205A River St
Hyde Park 361-8070
Mich A J Riopelle Co, 15631 Riverside Dr
Livonia 427-9114
Minn Alton M Johnson Co, 3119 Lynn Ave
Minneapolis .... WA 7-8741
Mo Chas V Dunn & Assoc, 715 NW 23rd St
Kansas City .... BA 1-1106
Mo Chas Dellert, 4030 Chouteau Ave
St Louis .... JE 3-7100
Neb Electric Equip Sales Co, 1609 S 33rd St
Omaha 345-4335
NY Fred G Kraut & Son, 140 Mt Vernon Ave
Mt Vernon .... MO 4-7791
NY Robinson Assoc, 1280 Niagara St
Buffalo .... TT 6-7350
NC E T Green & Assoc, 3703 Kirby Dr
Greensboro 299-8820
Ohio R M Helson Inc, One Public Sq
Cleveland 216 241-4581
Okla Ray Sullens, 1941 NW 17th St
Okla City .... JA 4-3641
Pa RKW Corp, 1913 McCague, Pittsburgh 271-1000
Tenn Industrial Electric Co, Box 5086
Nashville .... PA 7-3812
Tex Ed R Boruch, 2415 Converse, Dallas .... ME 1-0276
Tex Robert R Barr, 5417 Fayette, Houston ... NA 2-0667
Tex Paul J Connington, 2137 Mills Ave
El Paso 532-3025
Wis Electric Power Co, 7930 N Lake Dr
Milwaukee .... FL 2-9590
Can Henderson-Oliver Sales, 25 Chauncey
Toronto .... BE 1-3761
Can Donald McIntyre Ltd, 1865 Sargent Ave, St James
For Elemec Corp, 903 Labra Ave, Santurce 725-2060
BC F D Bolton Ltd, 1300 W 6th Ave
Vancouver .... RO 6-0351

ZENITH OPTICAL LABORATORY, 138 PALISADE ST
DOBBS FERRY, N Y, 10522 .... 914 693-3377
M HOFFMAN, EMP 75, ENG 6, $500-$1,000M

ZENITH RADIO CO GOVT & SPECIAL PROD DIV
6501 W GRAND AVE, CHICAGO
ILL, 60635, TWX 910-221-2344 .... 312 745-4948
A DEL VECCHIO, EMP 20000, ENG 3000, OVER
$10,000M

ZEPHYR MFG CO INC, 201 HINDRY AVE, INGLEWOOD
CAL, 90307 .... 213 678-4331
W BURNS, EMP 135, ENG 6, $2,500-$5,000M
Ariz Arizona Welding Equip Co Inc
1001 Black Canyon Hwy, Phoenix 258-2651
Ariz Aweco Supply Co, 800 S Park Ave
Tucson .... MA 4-1781
Cal M C Lehmkuhl, 81 - 14th St
San Francisco .... UN 1-1785
Colo S J Morgan & Assoc, 4150 Fox St
Denver 303 433-8626
Fla Instr & Tool Co Inc, 111 NW Shore Blvd, Tampa
Ga Instrument & Tool Engrg Co, 903 Church St
Decatur 378-6655
Haw Thom Equipment Co, 463 N Nimitz Hwy, Honolulu
Ill Brown Tool Co, 4548 Milwaukee Ave
Chicago .... MU 5-1345
Kan Cummings & Co, 115 E Lewis
Wichita .... AM 4-2379
Kan B C MacDonald & Co, 4504 State Line
Kansas City .... AD 6-7434
Ky Allied Tools & Supply Co Inc, 1227 Logan St
Louisville .... ME 6-3761
La Doussan, Inc, 1100 Tchoupitoulas St
New Orleans 523-7561
Mich R & J Sales Co, 18460 Beverly Rd
Birmingham 644-3152
Minn L O Hallonquist Co, 3016 W 50th St
Minneapolis 927-7557
Mo B C MacDonald & Co, 1265 Research Blvd
St Louis .... WY 3-2833
NJ Raymond W Forbes, 8 Mountain Ave
Springfield .... DR 6-1264
Ohio Dessil Tool & Supply Co, 3400 St Clair Ave
Cleveland 881-3400
Okla Midwest Supply Co, 719 N Lewis, Tulsa .. WE 6604
Ore Paul S Falco Co, Box 4444, Portland
SC Columbia Tool Supply Co, 5411 Two Notches Rd
Columbia 782-2391
Tex Tucker Co, Box 24773, Dallas .... RI 7-3312
Utah Production Tools Inc, 559 S 3rd W
Salt Lake City 801 364-8417
Va Taylor-Parker Co, 1130 Kingwood Ave
Norfolk 855-2041
Wash Dawson Tool & Abrasive, Inc, 122 S Mead St
Seattle .... RO 3-2242
Can Holden Co Ltd, 614 St James St W
Montreal .... SP 2-4438
Den E Busch Moller A/S, 12 Sankt Kjelds Plads
Copenhagen
Fr St Chamond-Granat, 219 Blvd St Denis
Courbevoie-Seine
GB Consolidated Pneumatic Tool Co
97-107 Uxbridge Rd, London
Holl Zeevenhooven & Co, N V
Keenstr 32 Spaa NSE Polder, Rotterdam
Ital Consolidated Pneumatic Tool S P A, Via Cadore 24
Milan

ZERO MFG CO, 1121 CHESTNUT ST, BURBANK
CAL, 91503, TWX 910-498-2237 .... 213 849-5521
J GILBERT, EMP 950, ENG 90, OVER $10,000M
Ala Col-Ins-Co, Box 4246, Huntsville 539-1771
Ariz Howe & Howe, Box 10497, Phoenix 264-7971
Cal Connally & Co Inc, 914 Rengstorff Ave
Mt View 967-6988
Cal H Ray Clark, 3356 Hancock
San Diego 714 296-6351
Colo Gates Co, 3401 S Bannock St
Englewood 761-0591
Fla Col-Ins-Co, Inc, Box 13189, Orlando 423-7615
Ga Col-Ins Co, Box 14077, Atlanta 404 873-5118
Ill Carlson Electronic Sales Co, 7448 N Harlem Ave
Chicago 774-0277
Kan Technical Mktg Assoc, 5827 Outlook
Mission 913 831-2888
Md R P Luce & Co, Inc, 19 E 21st St
Baltimore 752-8200
Mass Zero Mfg Co, 288 Main St
Monnson 413 267-5561
Mass K Young, 4 Pleasant St, N Reading .. 617 369-2140
Mich Villani-Pitcher, Inc, 20233 Ann Arbor Trail
Dearborn 271-4600
Minn Stan Clothier Co, 7400 Lyndale Ave
Minneapolis 869-3231
Mo Technical Mktg Assoc, 2050 Woodson Rd
St Louis 427-3600
NJ R P Luce & Co, 630 Morris & Essex Tpk
Short Hills 379-6600
NM Gates Co, 2631 Texas NE, Albuq 298-1875
NY J A Hotze & Co Inc, 112 DeWitt St
Syracuse 479-6641
NY R P Luce & Co Inc, 1300 Jericho Tpk
New Hyde Park 437-4550
NC Col-Ins-Co, Box 5597, Winston-Salem 765-3650
Ohio Robert K Deunk & Assoc, 7390 Chippewa Rd
Cleveland 526-4317
Ore Almac/Stroum Electronics, 8888 SW Canyon Rd
Portland 292-3534
Pa R P Luce & Co, 8717 Patton Rd
Philadelphia 215 884-8365
Tex John Gibbs, Box 16040, Fort Worth 292-1065
Tex John Gibbs Assoc, Box 605
Belaire 713 668-5186
Utah Gates Co, 455 E 4th S, Salt Lake City 359-1101
Wash Almac/Stroum Electronics, 621 S Michigan St
Seattle 206 763-2300
Can A Deskin Sales Corp, 1565 Louvain St, W
Montreal, Que 384-1420
Can A Deskin Sales Corp, 110 Bosiclerc St
Quebec City Que 418 524-0906
Can A Deskin Sales Corp, 110 Westhumber Blvd
Rexdale Ont 416 241-0524
Can A Deskin Sales Corp, 840 B Cambie Rd
Richmond B C 604 278-8510
Belg Daniel Delgay, Boite Postale 919, Brussels

ZERO-MAX CO, 2845 HARRIET AVE S, MINNEAPOLIS
MINN, 55408 .... 612 827-5521
R ROOD, EMP 50, ENG 4, $2,500-$5,000M
Ala Mahx F Linster & Assoc, Box 5991
Birmingham 871-8559
Cal R Meussdorffer & Assoc, 13441 Ventura Blvd
Los Angeles 788-0771
Cal R M Hoffman Co, 1094 W Evelyn Ave
San Francisco 739-6580
Colo Hubert Kaub & Co, 4970 Jackson St
Denver 399-1520
Conn TECO, INC, 1007 Farmington Ave
Hartford 236-1208
Fla Hummel Industrial Sales, Box 3606 Norland Br
Miami 624-2774
Fla Hummel Industrial Sales, Box 5327
Orlando 425-6554
Ga Mahx F Linster & Assoc, Box 702
Decatur 633-2547
Haw E E Manke-Hawaii Inc, 965 Dn Nimita Hwy
Honolulu 501-160
Ill Zero-Max Co, 4750 N Milwaukee Ave
Chicago 282-2382
Ill Tri J Engrg Assoc, 426 E Sprint St
Greenville 664-0028
Ky Charles Gipperich, Jr, Box 386
Louisville 425-0016
Mass D E Woody Co, Lakeside Off Park, Wakefield
Boston 245-8210
Mich C H Alexander Co, 9915 Ingram St
Livonia .... GA 1-6963
Mich Cliff Engineering Co, 1104 Gladstone Dr S E
Grand Rapids .... CH 1-4070
Minn Raymond Engineering Sales Co, 7100 France Ave
Minneapolis 920-1414
Mo Jack M Gilbert Co, 131 E 70th St
Kansas City .... DE 3-8830
NJ NESCO, 111 Qumby St, Westfield 233-3833
NY Potter & Dugan, Inc, 1039 Monroe Ave
Rochester .... BR 1-4580
NC Cross Carolina Corp, 824 Winston St
Greensboro 275-6364
Ohio H C Jahn, 8829 Mockingbird La
Cincinnati .... JA 1-0172
Ohio Zenith Engineering Sales, 3344 Broadview Rd
Cleveland 661-0104
Ore Norman Rupp Co, 0112 SW Pennoyer St
Portland .... CA 8-4311
Pa Thomas F Krick Co, 110 Hess Blvd
Lancaster 569-0017
Pa Walter N Laska, 530 Sixth Ave
Pittsburgh 471-0390
Tenn James A Wills Co, 4809 Tanglewood Dr
Nashville .... CO 2-4097
Tex J T Chapman Co, 3233 Irving Blvd
Dallas 637 4220
Tex J T Chapman, 8100 Lenora, Houston 649-7491
Utah Brandon Co, 511 E 7th S
Salt Lake City 322-1061

ZEVA ELECTRIC CORP, 11 PARK PL, NEW YORK
N Y, 10007 .... 212 BA 78288
H OTTMAR, EMP 180, ENG 12, $500-$1,000M
Ariz Allen Assoc, Box 3091, Papago Sta
Scottsdale 945-5781
Cal J H S Assoc, 1911 Fairway Dr
San Leandro 483-9616
Cal Shephard O Stern Co, 4109 W Burbank Blvd
Burbank 849-6671
Colo Walter-Powers Assoc, 880 Bonnie Brae Blvd
Denver 777-5586
Conn Air Vac Engineering Co, Box 522
Milford .... TR 4-2541
Fla Ludlam Assoc Inc, Box 1337, Miami 885-3611
Ill Gardiner Metal Co, 4820 S Campbell Ave
Chicago 847-0100
Kan Burke Sales Co, 3718 W 95th St
Leawood 649-2727
Mass Tom Crawford & Son, Box 264
Norwood 762-6878
NJ A Wetterhahn Co, Inc, 4420 Crescent Blvd
Pennsauken 662-1611
NY Verter Sales Co, 2352 E 66th St
Brooklyn 444-3880
NY J V Costello, 2030 Erie Blvd E
Syracuse 472-0322
NC Electro-Rep Assoc Inc, 128 W 39th St
Charlotte 333-0451
Ohio McShane, 114 Trails End Dr, Medina 725-4283
Tex PESO, Box 30393, Dallas 363-3472
Wash Aronson Indl Supply Co, 5300 Denver Ave
Seattle 762-0700
Can Willer Engineering & Sales Co, 1800 Avenue Rd
Toronto 783-3373
Den Schuchardt & Schuette, Dansk Aktieselskab
Norregade 7 .... CEN 7531
Fr Ets R Duvauchel, 49, rue du Rocher
Paris VIIle .... LAB 59-41
Ger Zeva Elektriztaets Gesellschaft, Postfach 109
3548 Arolsen 531
GB A V O, 92 Vauxhall Bridge Rd
London SW 1 .... VIC 3404-9
Holl Zeva Verkoopkantoor NV, 261, Herengracht
Amsterdam-C 237715
Ital Orazio Botto, Via Battista Agnese 8r
Sampierdarena 459833
Nor J F Knudtzen A/S, Sivilingenior
Ringeriksveien, Sandvika 548846
Swit Sauber & Gisin AG, Hoeschgasse 45
CH 8034 Zuerich 348080

ZICON CORP, 63 E SANFORD BLVD, MT VERNON
N Y, 10550 .... 914 MO 71260
S KOREN, EMP 20, ENG 5, $500-$1,000M
Cal Zicon Corp, 745B W Katella Ave, Orange

ZIERICK MFG CORP, RADIO CIRCLE, MOUNT KISCO
N Y, 10549 .... 914 666-2911
EMP 90, ENG 6
Cal Yarbrough Sales Co, 1608 Orange St
Alhambra 283-0668
Ill Karl D Engle Co Inc, 3621 W Devon
Chicago 539-1820
Ohio Whelan Corp, 2975 Far Hills Ave
Dayton 298-9997
Pa Sanford & Co, 221 Benson E
Jenkintown .... PA 7-8780
RI James Sanek, 28 Roberta Ave
Pawtucket .... PA 5-9552

ZIMS MFG CO, 26G PAINE AVE, IRVINGTON
N J, 07111 .... 201 372-3650
EMP 11, ENG 1, $100-$250M
NJ Lewis Goodwin, Box 240, Ridgewood 652-2784
NJ Robert Deane, 29 Lexington Rd
Basking Ridge 766-0126

ZIPPERTUBING CO, 13000 S BROADWAY
LOS ANGELES
CAL, 90061, TWX 910 346-6713 .... 213 321-3901
E PLASCON, EMP 50, ENG 2
Cal Zippertubing Co, Box 36, Sunnyvale 263-0414
Ill Ray Willard Andrews, 2053 Essex Ct
Streamwood 289-3233
Md Zippertubing Co, Box 8841, Baltimore 675-3365
Mass Zippertubing Co, Box 367, Holliston 429-6780
NJ Zippertubing Co, 480 US Hwy 46
S Hackensack 487-6261
Tex Zippertubing Co, 3303 Lee Pkwy
Dallas 521-9240
Ger Zipper-Technik GmbH
527 Gummersbach Box 2047, West Germany

ZIRCONIUM CORP OF AMERICA, 31501 SOLON RD
SOLON, OHIO, 44139, TWX 098-5427 ... 216 248-0500
A BUCHTA, EMP 100, ENG 9, $2,500-$5,000M
Cal John F Svet, 826 Steele Dr, La Brea 697-7326
Ind Zirconium Corp of Amer, 701 E Maumee St
Angola 619 665-6408

NJ H A Lowenstein, 20-2A Mt Pleasant Vill
Morris Plains 267-8571

ZIVY & CIE SA, N, OBERWIL-BASEL, , SWITZERLAND

ZOPHAR MILLS INC, 115 26TH ST, BROOKLYN
N Y, 11232 .... 212 768-0907
EMP 21, ENG 2, $500-$1,000M

DIRECTORY OF TRADE NAMES

The following list of trade names of manufacturers and products in or related to the field of electronics has been prepared from data supplied by manufacturers. This list is intended for use in determining the manufacturer's name when only a trade name is known. The editors for obvious reasons have not attempted to determine a manufacturer's right to the exclusive use of any such name. Addresses can be obtained by referring to the Directory of Manufacturers (Green Section). Only coined trade names are listed as it was deemed unnecessary to include a company name inasmuch as the manufacturer's identity was immediately apparent.

ABACUS—Information Control Corp.
ABSAFIL—Fiberfil Div.
ABSAGLAS—Fiberfil Div.
ABSOLUTE—Cambridge Filter Corp.
AC—Austin Craft
ACCESS—Dialtron Corp.
ACCOPAC—Armstrong Cork Co.
ACCRA-TEMP—Nucleonic Industries
ACCRA-TROL—Nucleonic Industries
ACCUDATA—Honeywell
ACCU-FLO—Beckman Instruments Inc.
ACCULARM—Beta Corp.
ACCULINE—Julie Research Labs Inc.
ACCURIDE—Standard Precision Inc.
ACCU-PRESS—Etchomatic Inc.
ACCUVOLT—Sola-Basic Industries
ACE—Chicago Lock Co.
ACEMHO—Ace Electronics Assocs. Inc.
ACEOHM—Ace Electronics Assocs. Inc.
ACEPOT—Ace Electronics Assocs. Inc.
ACESET—Ace Electronics Assocs. Inc.
ACETRIM—Ace Electronics Assocs. Inc.
ACME—Trimm Inc.
ACRA-COTE—Pacific Universal Products Corp.
ACRA-KLEEN—Pacific Universal Products Corp.
ACRASIL—Sprague Electric Co.
ACROPOR—Gelman Instrument Co.
ACROSTAMP—Acromark Co.
ACROTIMER—General Time
ACRYFLEX F—Suflex Corp.
ACRYLACON—Fiberfil Div.
ACRYLAFIL—Fiberfil Div.
ACRYLAGLAS—Fiberfil Div.
ACRYLIGLAS—Natvar Corp.
ACRYLUX—Westlake Plastics Co.
ACTINIC—Phillips Process Co. Inc.
ACTIVATE—Nuclear Equip. Chemical Corp.
ACTO—Systron Donner Corp.
ACU-THERM—Electronic Devel. Labs. Inc.
ACUVOLT—Hevi-Duty Electric Div.
ADAC—General Precision Systems Inc.
ADAP—JAC Electronics Ltd.
ADAPTICOM—Cardion Electronics Div.
ADD-A-LENS—Dazor Mfg. Corp.
ADDALUX—Berkey Technical Div.
ADDAPLUG—Associated Engineering Corp.
ADD-A-STAC—Semtech Corp.
ADF-31 A—Narco Avionics Div.
ADI—Automation Devices Inc.
ADIOS—Electronic Associates Inc.
ADJ-A-CAPS—Chicago Condenser Corp.
ADJUSTA-POISE—Dazor Mfg. Corp.
ADLAKE—Adams & Westlake Co.
ADVANCE—EMR Computer
AECO—American Electric Cable Co.
AE16—Bow Solder Products Co.
AEROBIAX—Aero Research Instr.
AEROCOAX—Aero Research Instrument Dept.
AERODAG—Acheson Colloids Co.
AERODET—Aero Research Instr.
AERO-METEOR—Goodyear Aerospace Corp.
AERONAUTIC—Raway Bearing Inc.
AEROPAD—Aero Research Instrument Dept.
AEROPAK—Aero Research Instr. Dept.
AERORОD—Aero Research Instrument Dept.
AEROSEAL—Aero Research Instrument
AEROSOLVE—Cambridge Filter Corp.
AEROSTAT—Simco Co. Inc.
AERO-VIT—Kaman Nuclear Div.
AGAMP—Lenkurt Electric Co. Inc.
AGASWITCH—Agastat Div.
AIM—Hagan Computer Systems Div.
AIMPOINT—Goodyear Aerospace Corp.
AIRBRASIVE—White Co S S
AIRDESIGN—Tresco Inc.
AIR DOCTOR—Simco Co. Inc.
AIR-DUX—Icore Electro-Plastics
AIRFLOAT—Dinsmore Instrument Co.
AIRMAT—Goodyear Aerospace Corp.
AIROTOR—Torrington Mfg. Co.
AIROUT—Isochem Resins Inc.
AIR-STRIP—Micro-Radionics Inc.
AJAX OMATIC—Ajax Magnethermic Corp.
AJUSTRITE—Adjusto Equipment Co.
AKRA-OHM—Shallcross Mfg. Co.
AKROS—Electro Scientific Ind. Div.
ALABAX—Pass & Seymour
ALAUTRONEX—Sel-Rex Corp.
ALBION—Babcock & Wilcox Co.
ALCAP—Alcor Aviation Inc.
ALCHROME D—Driver, Wilbur B. Div.
ALCOJET—Alconox Inc.
ALCOKNOB—Alco Electronic Prods. Inc.
ALCOSTRIP—Alco Electronic Prods. Inc.
ALCOSWITCH—Alco Electronic Prods. Inc.
ALCOTABS—Alconox Inc.
ALFER—Tohoku Metal Industries Ltd.
ALGOCLAD—Sel-Rex Corp.
ALIGN-O-POT—Bourns Inc.
ALINABAL—MPB Corp.
ALKROTHAL—Kanthal Corp.
ALLBOND—Allaco Products Co.
ALLCAST—American Metal Climax
ALLISPEDE—Louis Allis Co.
ALLKOMPLETE KIT—Gabriel Electronics Div.
ALLMUL—Babcock & Wilcox Co.
ALMATE—Hull Co. Inc., R.O.
ALNICO 5Cb—Thomas & Skinner Inc.
ALPAC—Semtech Corp.
ALPHALOY—Alpha Metals, Inc.
ALPHALUX—Westlake Plastics Co.
ALPHATRON—Norton Co.
ALPHA/200—General Aviation Electronics Inc.
ALSIBASE—American Lava Corp.
ALSICOAT—American Lava Corp.
ALSIMAG—American Lava Corp.
ALSIPAK—American Lava Corp.
ALUGARD—General Electric Co.
ALUMALYTIC—General Electric Co.
ALUM-A-PAK—Sarex Corp.
ALUMAPAK—Sprague Electric Co.
ALUMA-TRAK—Zero Mfg. Co.
ALUMAWELD—Johnson Mfg. Co. Inc.
ALUMIBRAZE—Handy & Harman
ALUMINEX—Graphtex Inc.
A-LUM-O-AIRE—Carey Electronic Engrg. Co.
ALUNDUM—Norton Co.
A-M—Akro-Mils, Inc.
AMAIRCELL—American Electric Cable Co.
AMAX—American Metal Climax
AMBASSADOR—Standard Glove Co. of N.J.
AMBERYL—Vaco Products Co.
AMERAP—American Electric Cable Co.
AMERHARD—American Electric Cable Co.
AMERICAN BEAUTY—American Electrical Heater Co.
AMERICAN BRAND—Greentree Electronics Corp.
AMERICAN STAR—Greentree Electronics Corp.
AMERPLASTIC—American Electric Cable Co.
AMERSHIELD—American Electric Cable Co.
AMFLITE—American Machine & Fdry Co.
AMINCO—American Instrument Co. Inc.
AMINCO-AIRE—American Instrument Co. Inc.
AMIXALOY—AMP Inc.
AMLOC—Pall Trinity Micro Corp.
AMMOGAS—Sunbeam Equipment Corp.
AMMO-PAK—IRC Div.
AMPACT—AMP Inc.
AMP-BLADE—AMP Inc.
AMP-CRIMPAC—AMP Inc.
AMP EDGE—AMP Inc.
AMPEEZ—AMP Inc.
AMP-FINE-Y-R—AMP Inc.
AMP-FIT—AMP Inc.
AMPHIBIOUS LODGMOBILE—Cavitron Electronics Inc.
AMPILLUME—AMP Inc.
AMP-IN—AMP Inc.
AMP-INCERT—AMP Inc.
AMPIP—AMP Inc.
AMPLASTIC—AMP Inc.
AMP-LEAF—AMP Inc.
AMPLI-BOND—AMP Inc.
AMPLIBOX—American Geloso Electronics
AMPLIBRIDGE—Statham Instruments Inc.
AMPLIFILM—AMP Inc.
AMPLIMICA—AMP Inc.
AMPLITE-END—AMP Inc.
AMPLIVAR—AMP Inc.
A-MPLI-VERSAL—AMP Inc.
AMPLIVOICE—American Geloso Electronics
AMPLIVOX—Perma Power Co.
AMP-LOK—AMP Inc.
AMP-MAD—AMP Inc.
AMP-MADNETIC—AMP Inc.
AMPMODU—AMP Inc.
AMP-O-LECTRIC—AMP Inc.
AMPOMATOR—AMP Inc.
AMPORTAPOWER—AMP Inc.
AMPOWER—AMP, Inc.
AMPOWER—Technical Components Co. Inc.
AMPSEAL—AMP Inc.
AMP SHIELD—AMP Inc.
AMP-SULATION—AMP Inc.
AMP-TAB—AMP Inc.
AMP-TAPEMATIC—AMP Inc.
AMP-TAPETRONIC—AMP Inc.
AMP-UNYT—AMP Inc.
ANALOG FILTER—Spectrum Instruments
ANALYSTS—Applied Research Co.
ANDAC—Macarr Inc.
AN-ECK-OIC—Eckel Industries Inc.
ANGLETRON—RG Circuits Co.
ANIMAGRAPH—Campbell Taylor Inc.
ANNIVERSARY—Wall Mfg. Co.
ANOFAX—Feay Co. Neal
ANTEX-PRECISION—M. M. Newman Corp.
ANTI-BUG—American Systems, Inc.
ANTISTAT—Lea Mfg. Co.
ANTON—Eon Corp.
AOLUX—American Optical Co.
A P BONDEZE—Phelps Dodge Magnet Wire Corp.
APCOM—Lake Engineering Co. Ltd.
APCOR—Geartronics Corp.
AQUADAG—Acheson Colloids Co.
AQUAFLUX—Nuclear Equip. Chemical Corp.
AQUALOK—Burndy Corp.
AQUAMETER—Beckman Instruments, Inc.
AQUA-PUROMETER—McNab, Inc.
AQUA SOFT—Western Coil & Electrical Co.
AR—Mallinckrodt Chemical Works
ARALDITE—Ciba Products Co.
ARAT—Ragen Precision Industries Inc.
ARCOLYTIC—Arco Electronics, Inc.
ARISTOCRAT—Best Mfg. Co.
ARIST-O-PLATE—United States Radium Corp.
ARM—Americon Corp.
ARMAC—Packard Instrument Co. Inc.
AR-MET—Brooks Instrument Div.
ARMITE—Spaulding Fibre Co.
ARMORED—Norton Co.
ARMORED POLYTHERMALEZE 2000—Phelps Dodge Magnet Wire Corp.
ARMOR-GARD—New Departure-Hyatt Bearings
ARNOX—Amold Engrg. Co.
ARROWBLAST—Norton Co.
ARSM—Americon Corp.
ARUMEN—Arnold Engrg. Co.
ASAKA—Aikow Shoji Kaisha Ltd.
ASCO—Automatic Switch Co.
A-SCOPE—Varian
ASCOR—Berkey Technical Div.
ASCORLIGHT—Berkey Technical Div.
ASCORLUME—Berkey Technical Div.
ASCORLUX—Berkey Technical Div.
ASTRODOME—General Electric Co.
ASTROLITE—Drake Mfg. Co.
ASTROLOCK—Astrodata Inc.
ASTRO-MASTER—R F Systems Inc.
ASTRONAIRE—Elair Industries Ltd.
ASTROSCAT—R F Systems Inc.
ASTROTENNA—Video Industries Co.
ATENCO—Atmar Engraving Co. Inc.
ATOM—Sprague Electric Co.
ATOMICLAD—Gibson Electric Co.
ATRAN—Goodyear Aerospace Corp.
ATTEND-A-PHONE—Bogen Communications Div.
AUCHEC—Reeves Instrument Div.
AUDIO ANNOUNCER—Orrtronics Inc.
AUDIO BATON—Blonder-Tongue Labs. Inc.
AUDIO-LINE—Audio Accessories Inc.
AUDIOM—Goodmans Loudspeakers Ltd.
AUDIOPAK—Audio Devices Inc.
AUDIOTRAN—Ferrotran Electronics Co.
AUDIO VENDOR—Orrtronics Inc.
AUDIOVISION—Cook Co, Ken
AURION-X—Sel-Rex Corp.
AUROBOND—Sel-Rex Corp.
AUROSEAL—Granville-Philips Co.
AUSCULTATOR—Sela Electronics Co.
AUTOANALYZER—Technicon Corp.
AUTO-BIN-DICATOR—Bin Dicator Co.
AUTO-BRIDGE—Beckman Instruments Inc.
AUTOCAL—Alcor Aviation Inc.
AUTOCHEMIST—AGA Corp.
AUTOCOATER—Zicon Corp.
AUTOCON—Sprague Electric Co.
AUTO DATA—3M Instrument Products
AUTOFAX—American Systems, Inc.
AUTO-GAIN—Ithaca Inc.
AUTO-GAMMA—Packard Instrument Co.
AUTO JET-O-MATIC—Fedtro Inc.
AUTOMAC—Acme Products Co.
AUTOMAC—Cardinal Control Co.
AUTOMATE—Automatic Metal Products Corp.
AUTOMATE 8—Orrtronics Inc.
AUTO NAVIGATOR—Moran Instrument Corp.
AUTO-RANGER—Unholtz-Dickie Corp.
AUTO-RAY—Balteau Electric Corp.
AUTOREF—Thermo Electric Co.
AUTO-ROLL—Cambridge Filter Corp.
AUTO SHIM—Varian
AUTO/SUBTRACT—Nuclear-Chicago Corp.
AUTRONEX—Sel-Rex Corp.
AV-ALARM—Santa Rita Technology Inc.
AVC—Cerro Corp.
AVC—Cerro Wire & Cable Div.
AVCOMB—Avco Aerostructures Div.
AVIKRIMP—Waldom Electronics Inc.
AVTWIST—Eddy Mfg. Co.
AXIMAX—Rotron Mfg. Co. Inc.
AXIOM—Goodmans Loudspeakers Ltd.
AZAR—Leeds & Northrup Co.
AZOCOL—Colonial Printing Ink Co.

BAILATCH—Hartwell Corp.
BAKERYLUBE—Bel-Ray Co. Inc.
BALCO—Driver, Wilbur B. Div.

BALLAST—Driver, Wilbur B. Div.
BALLUTE—Goodyear Aeroscape Corp.
BALTOGRAPH—Balteau Electric Corp.
BALTOMATIC—Balteau Electric Corp.
BALTOSPOT—Balteau Electric Corp.
BANDMASTER—Birtcher Corp.
BANDOLUG—Burndy Corp.
BANDOMATIC—Burndy Corp.
BAND-SCAN—Sequential Electronic Systems Inc.
BANDSTAND—Electron Enterprises Inc.
BANTAM—Burndy Corp.
BANTAM BIN-DICATOR—Bin Dicator Co.
BANTAM ROTA-CRIMP—AMP Inc.
BARATRON—MKS Instruments Inc.
BAREX—King Laboratories, Inc.
BAROCEL—Datametrics Inc.
BAROGUIDE—Taylor Instrument Cos.
BARRATRON—Litton Industries
BASALOX—Basic Ceramics Inc.
BASAR—Avco Bay State Abrasives
BAZOOKA—Air-Vac Engineering Co.
BDT—Sel-Rex Corp.
BEAM-TROM—Automation Devices Inc.
BEAU—Beauchine & Sons
BELF—Befort Instrument Co.
BELL-O-CODER—Bell-Mark Corp.
BENCH-MATE—Akro-Mils, Inc.
BENDMASTER—Conrac Corp.
BENDWAY—Flexhaust Co. Div.
BERNHARDT-PHOENIX—Phoenix Precision Instr. Co.
BESPONDER—Vega Precision Labs.
BEST—Oxford Electric Corp.
BETALUX—Westlake Plastics Co.
BETASCOPE—Twin City Testing Corp.
BETASPRAY—JAC Electronics Ltd.
BETO—Varian
BEYER—Elpa Mktg. Industries Inc.
BG—Stackpole Carbon Co.
BI-ACT—Taylor Instrument Cos.
BIDOPS—Babcock Electronic Corp.
BIG INCH—Haydon Switch & Instr. Inc.
BIG RIG—Miller Electric Mfg. Co.
BIG SHRINKER—Hi-Shear Corp.
BIMET—Handy & Harman
BIMODE—Bomac Div. Varian Assoc.
BINA-VIEW—Industrial Electronic Engineers
BIN FLO—Bin-Dicator Co.
BINOC—Taylor Instrument Cos.
BIOSTAT—Cryogenic Engineering Co.
BIPAX—Tra-Con, Inc.
BIPCO—Burroughs Corp.
BIPLEX—Sierra Electric Corp.
BI-SEAL—Bishop Mfg. Co.
BI-THERM—Taylor Instrument Cos.
BITAXIAL—Computer Diode Corp.
BIT-250—United Transformer Co. Div.
BLACK BEAUTY—Sprague Electric Co.
BLACK DAYLIGHT—General Elec. Co.
BLENDALLOY—Magnetics Inc.
BLENDMASTER—Hull Corp.
BLENDTONE—Birtcher Corp.
BLINC—Ragen Precision Industries Inc.
BLINK-A-LITE—Spedcor Electronics Inc.
BLOW-GLOW—Fuse Indicator Corp.
BLUE DOT—Goerz Optical Co. Inc.
BLUE JACKET—Sprague Electric Co.
BLUELINE—Weinschel Engineering Co. Inc.
BOARDMASTER—Graphic Systems
BOARDMASTER—Universal Drafting Mach.
BOLITE—United States Radium Corp.
BOLOMISTOR—MSI Electronics Inc.
BOMB-TAIL—AMP Inc.
BONDAID—Shamban & Co., W.S.
BONDCHECK—Magnaflux Corp.
BONDMASTER—PPG Industries Inc.
BOOMER—Geodyne Div.
BONDOLITE—Goodyear Aerospace Corp.
BOOSTIVAC—Ultek Div.
BOPAC—Varian
BOPAD—Sterling Varnish Co.
BOUYOUCOS—Beckman Instruments Inc.
BOWSPRING—ITT Cannon Electric Div.
BOXER—IMC Magnetics Corp.
BOX SWITCH—Switchcraft, Inc.
BOYDBOLT—Tridair Industries
BRAND 5—Robins Industries Corp.
BRAZALOY—All-State Welding Alloys Co.
BRICE-PHOENIX—Phoenix Prec. Instr. Co.
BRITEBORE—Fafnir Bearing Co.
BRITE EYE—Shelly Assoc. Inc.
BRITE SHOT—Vapor Blast Mfg. Co.
BROWN DEVIL—Ohmite Mfg. Co.
BROWN-X—Pass & Seymour
BTR—Lord Mfg. Co.
BUG EYE—Circon Component Corp.
BULL DRIVER—Vaco Products Co.
BULLS-EYE—Hughes Connecting Devices
BULPLATE—Sprague Electric Co.
BURCAP—Burndy Corp.
BURGUN-D—ITT Cannon Electric Div.
BURLINK—Burndy Corp.
BUSMASTER—Heller Industries, Inc.
BUSS—Bussmann Mfg. Div.
BUSSBLOK—Olson & Co. Inc. B.W.
BUSSTRIP—Olson & Co. Inc. B.W.
BUTTITE—C. E. M. Co. Inc.
BUTTON MICA—Erie Technological Prods.
BUTTON SWITCH—Switchcraft, Inc.
B&W HYDROCHROME—Babcock & Wilcox Co.

CABINETROL—General Electric Co.
CABLE MAKER—AMP Inc.
CADIP—Hull Co. Inc., R.O.
CAI—Chicago Aerial Industries Inc.
CALCERITE—Furane Plastics Inc.
CALCHRON—Pennwood Numechron Co.
CALFAX—Tridair Industries
CALIENTE—Product Techniques, Inc.
CALIPER—Branson Instruments Co.
CALL-IDENT—Pennwood Numechron Co.
CALLINS—International Electronics Ind. Div.
CALLMITE—Codamite Div.
CALROD—General Electric Co.
CALTROL—Caltron Products Co.
CAMBI-CARD—Cambridge Thermionic Corp.
CAMBION—Cambridge Themionic Corp.
CAMBRIDGE CORD—Simplex Wire & Cable Corp.
CAMEO—Realtone Electronics Corp.
CAM-O-MATIC—Norton Co.
CAM-O-UNIT—Norton Co.
CAM-RAC—ITT Cannon Electric Div.
CAMSEAL—Shamban & Co., W.S.
CAMTRAN—Campbell/Taylor Inc.
CANNON—ITT Cannon Electric Div.
CANNON—Kingmann-White Inc.
CANOE—Fastex Div. Ill. Tool Wks.
CAPCODER—Towson Labs. Inc.
CAP-FLO—Cambridge Filter Corp.
CAPITRON—AMP Inc.
CAPLET—Pylon Co. Inc.
CAPLEXER—Towson Labs. Inc.
CAPRI—Hartley Products Corp.
CAPS—ITT Cannon Electric Div.
CAPSIL—General Instrument Corp.
CAPSITE—Sonic Engineering
CARAVEL—Rotron Mfg. Co. Inc.
CARBAGLAS—Fiberfil Div.
CARBAWAY—Oakite Products Inc.
CARBOHM—Leeds & Northrup Co.
CARBON-MET—American Components Inc.
CARBO WELD—Carboline Co.
CARBO ZINC—Carboline Co.
CARDINAL COLLECTION—Television Mfrs. of Amer. Co.
CARDIOSCRIPT—Schwarzer Corp.
CARDITRON—Datascope Corp.
CARD-O-TIMER—Taylor Instrument Cos.
CARR-KASE—Carr Fastener Co. Div.
CARRYPHONE—Signal & Communications Div.
CASEMASTER—Sunbeam Equipment Corp.
CASTIPLAST—National Engineering Prods.
CASTOMER—Isocyanate Products Inc.
CAT—United Transformer Co.
CATHALOYS—Superior Tube Co.
CAT-WHISKER—Phaostron Instrument & Elec.
CAVAMP—Sinclair Radio Labs Inc.
CAVITRON—Short Wave Plastic Forming Co.
CC-4—Photocircuits Corp.
C-DEK—Colorado Instruments Inc.
CDI—Chicago Dial Indicator Co.
CDM—Curtis Development & Mfg.
CELEBRITY—Dinsmore Instrument Co.
CELL-O-AIR—Superior Cable Corp.
CELORON—Budd Co. Polychem Div.
CEM—Varian
CENCOIL—Central Coil Co. Inc.
CENTI-K—ITT Cannon Electric Div.
CENTI-LOC—ITT Cannon Electric Div.
CENTIPIN—ITT Cannon Electric Div.
CENTISOCKET—ITT Cannon Electric Div.
CENTISTRIP—ITT Cannon Electric Div.
CENTRA GAP—Thomas & Skinner Inc.
CEN-TRI-CORE—Alpha Metals, Inc.
CENTRIMAX—Rotron Mfg. Co. Inc.
CENTRISAFE—Trio-Tech Inc. of Cal.
CENTRONIC—Bailey Co.
CENTRUM—Ericcson Centrum Inc.
CERACIRCUIT—Sprague Electric Co.
CERADOT—CTS Electronics Inc.
CERALLOY—Ronson Metals Corp.
CERA-LYTIC—Sprague Electric Co.
CERAMAG—Stackpole Carbon Co.
CERAMAGNET—Stackpole Carbon Co.
CERAMETERM—Ceramics International Corp.
CERAMICON—Erie Technological Prods. Inc.
CERAMIKE—Sonotone Corp.
CERA-MITE—Sprague Electric Co.
CERAMO—Thermo Electric Co.
CERAMOCOUPLE—Thermo Electric Co.
CERAMOLITHIC—U. S. Capacitor Corp.
CERAMVAR—Driver, Wilbur B. Div.
CERA-PHONIC—Sonotone Corp.
CERATRIM—CTS Electronics Inc.
CERATROL—CTS Electronics Inc.
CERCHIP—Sprague Electric Co.
CERLOX—General Binding Corp.
CEROC—Sprague Electric Co.
CEROD—Sprague Electric Co.
CEROX—Babcock & Wilcox Co.
CERROBASE—Cerro Corp.
CERROBASE—Cerro Copper & Brass Co.
CERROBEND—Cerro Corp.
CERROBEND—Cerro Copper & Brass Co.
CERROCAST—Cerro Corp.
CERROCAST—Cerro Copper & Brass Co.
CERRODENT—Cerro Corp.
CERRO-FLEX—Cerro Corp.
CERRO-FLEX—Cerro Wire & Cable Div.
CERROLOW—Cerro Corp.
CERROLOW—Cerro Copper & Brass Co.
CERROMATRIX—Cerro Corp.
CERROMATRIX—Cerro Copper & Brass Co.
CERROSAFE—Cerro Corp.
CERROSEAL—Cerro Corp.
CERROSEAL—Cerro Copper & Brass Co.
CERROTRU—Cerro Copper & Brass Co.
CERROTRU—Cerro Corp.
CERTI-CRIMP—AMP Inc.
CERTI-LOK—AMP Inc.
CERTIMESH—Pall Trinity Micro Corp.
CERTI-SEAL—AMP Inc.
CERVAC—Vacuum Ceramics Div.
CESCO—New Tronics Corp.
CHALLENGER—Bogen Communications Div.
CHA-MP—AMP Inc.
CH-AMP—AMP Inc.
CHAMPION-DIAL—Gudebrod Bros. Silk Co.
CHANGE-A-CYCLE—Carter Motor Co.
CHANNELEER—Ameco Inc.
CHANNELITE—Channel Industries Inc.
CHANNEL SPANNER—Antennacraft Co. Inc.
CHANNEL STOPPER—Raytheon Co.
CHANNELTRON—Bendix Corp.
CHARG-O-MATIC—General Precision Systems Inc.
CHASBESTOS—Chase & Sons Inc.
CHASEFLEX—Chase & Sons Inc.
CHASE GLASSTERRA—Chase & Sons Inc.
CHASEKOTE—Chase & Sons Inc.
CHASE LOW OHM—Chase & Sons Inc.
CHASEMAT—Chase & Sons Inc.
CHASEMOLD—Chase & Sons Inc.
CHASEPRIME—Chase & Sons Inc.
CHASEWRAP—Chase & Sons Inc.
CHASEX—Chase & Sons Inc.
CHECK-LITE—Adalet Mfg. Co. Div.
CHECK-LINE—Electromatic Equipment Co.
CHEKAR—General Railway Signal Co.
CHEMFLAT—Elmat Div.
CHEMFLUOR—Chemplast, Inc.
CHEM-GARD—Vanton Pump & Eqpt. Corp.
CHEMGLAZE—Hughson Chemical Co. Div.
CHEMI-CON—Nippon Chemical Condenser Co. Ltd.
CHEMINAX—Raychem Corp.
CHEMLEA—Chemcut Corp.
CHEMLOK—Hughson Chemical Co. Div.
CHEM-O-SEAL—Chemical Products Corp.
CHEM-O-SOL—Chemical Products Corp.
CHEM-O-THUNE—Chemical Products Corp.
CHEMTRONIC—Zicon Corp.
CHICO—ITT Cannon Electric Div.
CHINKLAK—Dolph Co., John C.
CHO-SEAL—Chomerics Inc.
CHO-TEX—Chomerics, Inc.
CHO-TRON—Chomerics Inc.
CHO-WELT—Chomerics, Inc.
CHO-WRAP—Chomerics, Inc.
CHROMALOX—Wiegand Co, Edwin L.
CHROME-X—Pass & Seymour
CHROMICOAT—Oakite Prods. Inc.
CHROMOMAX—Leeds & Northrup Co.
CHROM-O-SCOPE—Milletron Inc.
CHRONISTOR—Bergen Lab. Inc.
CHRONOFLO—B. I. F. Unit
CIFRA—Solari & C/Udine
CINDERELLA—ITT Telecommunications
CIR-BOARD—Flexible Products Inc.
CIR-CABLE—Flexible Products Inc.
CIRCA-MOUNT—Stinger Antenna Co. Inc.
CIR-CLAD—Flexible Products Inc.
CIRCLE B—Bristol Motors
CIRCLE B BRISTOL—Vocaline Co. of America
CIRCLE K—ITT Telecommunications
CIR-CONNECT—Flexible Products Inc.
CIRCUIT-COATE—Furane Plastics Inc.
CIRCUITIP—AMP Inc.
CIRCUIT RYDER—Raytek Inc.
CIRCUIT-SEAL—National Engineering Prods.
CIR-FLEX—Flexible Products Inc.
CITATION—Graphic Electronics, Inc.
CLAREED—Clare & Co. C P
CLASSIC—Carter Motor Co.
CLASSIC—Corry Jamestown Corp.
CLEAN-LINE—Sola-Basic Industries
CLEANLINER—Taylor Instrument Cos.
CLEAR PRINT—Phillips Process Co. Inc.
CLEERTREND—Leeds & Northrop Co.
CLETRON—Cleveland Electronics Inc.
CLF—General Electric Co.
CLIFF-DWELLER—New Tronics Corp.
CLIMATE-LAB—American Instrument Co.
CLIMELT—American Metal Climax
CLINAC—Varian
CLINCH-LOC—Lundey Assocs. Inc.
CLINI-METER—Ambco Electronics
C-LITE—Eldema Div.
CLORINOL—Sprague Electric Co.
CLOVER CLOSURES—G. T. I. Corp.
CMC—Micro Switch Div.
CMV TEFLON—Dixon Corp.
COA/GSCE—Da/Pro Rubber Co.
COAXICLAMP—AMP Inc.
COAXICON—AMP Inc.
COAXWITCH—Bird Electronic Corp.
CODI—Computer Diode Corp.
CODISTOR—Computer Diode Corp.
COHESITRON—Short Wave Plastic Forming Co.
COHRLASTIC—Connecticut Hard Rubber Co.
COLDSICLE—Jersey Technical Consultants
COLEMASTER—Coleman Engineering Co.
COLORATIO—Beckman Instruments Inc.
COLORCAPS—Seton Name Plate Corp.
COLOR CODER—Neotec Corp.
COLOR CORD—Pacific Electricord Co.
COLOR LUBE—Chemtronics Inc.
COLUMAX—Thomas & Skinner, Inc.
COLUMBIA—American Electric & Mach. Co.
COLVERN—British Radio Electronics
COMCO—Communications Co.
COMET—Bronson Corp.
COMFORDOME—Vaco Products Co.
COMFORTGUIDE—Taylor Instrument Cos.
COMMERCIAL—Trimm, Inc.
COMMUNICATOR—States Electronics Corp.
COMMUNO-PHONE—Bogen Communications
CO-MO-TROL—Weltronic Co.
COM-PAC—Computron Inc.
COMPAC—Semtech Corp.
COMPACT—United Transformer Co.
COMPANION TRIP—Heineman Electric Co.
COMPLOT—Houston Instrument Div.
COMPULYTIC—Sprague Electric Co.
COMPU-PAK—Computron Inc.
COMPU-PSI—Computron Inc.
COMPUTACH—Delta Products Inc.
COMPUTAPE—Computron Inc.
COMPU-THERM—RdF Corp.
COMRAC—Information Control Corp.
CONACURE—Conap Inc.
CONATHANE—Conap Inc.
CONCENTRIKIT—CTS Electronics Inc.
CONCERTMASTER—Hartley Products Corp.
CONDUCT-A-COAT—Etchomatic Inc.
CONELCO—Price Electric Corp.
CON-ELECTRON—Price Electric Corp.
CO-NETIC—Magnetic Shield Div.
CONFIDENCER—Roanwell Corp.
CONFLAT—Varian
CONFUZZ—Technical Wire Products Inc.
CONHEX—Sealectro Corp.
CONNECTO-BLOK—Thomas & Betts Co. Inc.
CONNECT-O-MATIC—Wiggins Inc., E.B.
CONNECTOPHONE—Miles Reproducer Co. Inc.
CON-O-CLAD—Conax Corp.
CON-O-MESH—Continental Sensing Inc.
CON-O-PAK—Continental Sensing, Inc.
CON-O-SAW—Continental Sensing Inc.
CON-O-TWIST—Continental Sensing Inc.
CONSARC-25—Mack Electric Devices Inc.
CONSOLE—Electro-Air Div.
CONSOTROL—Foxboro Co.
CONSTALERT—Beta Corp.
CONTACT KLEEN—Chemtronics Inc.
CONTEMPO—Sloan Co.
CONTOUR CABLE—Hughes Connecting Devices
CONTOUR/RITER—Texas Instruments Incorporated
CONTRAMATIC—U. S. Electrical Motors
CONTROFLEX—Tapeswitch Corp. Amer.
CONTROLALL—Leeds & Northrup Co.
CONTROL-A-MATIC—Rockwell Engineering Co.
CONVERTI-FUSE—General Electric Co.
COOLERMET—Improved Seamless Wire Co.
COOL GUARD—Primec Corp.
COOL SHIELD—Primec Corp.
COPAD—Sterling Varnish Co.
COPALOY—Diamond Tool & Horseshoe Co.
COPALUM—AMP Inc.
COPPERDYNE—Avco Bay State Abrasives
COPPERPLY—National Standard Co.
COR-BOND—Polymer Corp.
CORDETTE SWITCH—Switchcraft, Inc.
CORDEX—Mosinee Paper Mills Co.
CORDMASTER—Switchcraft, Inc.
CORD SWITCH—Switchcraft, Inc.
CORMAG—Weston Instruments Div.
CORO-METER—Taylor Instrument Cos.
CORONET—Corry Jamestown Corp.
CORPAK—Square D Co.
CORRELATION—Corry Jamestown Corp.
COORELATOR—Federal Scientific Corp.
CORRELATRON—Goodyear Aerospace Corp.
CORRELICON—Goodyear Aerospace Corp.
CORRIB—Ohmite Mfg. Co.
CORRO-DUTY—U. S. Electrical Motors
CORVEL—Polymer Corp.
COURIER—Ameco Inc.
COWECO—Coil Winding Eqpt. Co.
C/P CELL—Foxboro Co.
CPPC—Clifton Div.
CRADLE—Allied Control Co. Inc.
CRAMER—Conrac Corp.
CRAMOLIN—Caig Labs.
CRANK-O-LAP—Norton Co.
CRANK-O-MATIC—Norton Co.
CRESCENT—Waldes Kohinoor, Inc.
CRI/OFREEZE—Almac Cryogenics Inc.
CRONAR—E. I. du Pont de Nemours & Co. Inc.
CROSS-CRIMP—AMP Inc.
CROSSFLO—Torrington Mfg. Co.
CROSS LINKED CELULOSE—Robins Data Devices Inc.
CRUCILITE—Norton Co.
CRUSADER—Birtcher Corp.
CRYENCO—Cryogenic Engineering Co.
CRYODYNE—500 Inc.
CRYOFLASK—Texas Instruments Incorporated
CRYOSORB—Granville-Phillips Co.
CRYOTRONICS—Cryogenic Engineering Co.
CRYSCOAT—Oakite Products Inc.
CRYSTOLON—Norton Co.
CTI—Dalmo Victor
CUAL-AID—Penn Union Electric Corp.
CUBE-ALLOY—Handy & Harman
CUBETRIM—IRC Div.
CUBOND—Glidden Metals
CUFLUOREX—Sel-Rex Corp.
CUPRON—Driver, Wilbur B. Div.
CUPRONEL—Driver, Wilbur B. Div.
CUPROTHAL—Kanthal Corp.
CURTAIN OF LIGHT—Electronic Control Corp.
CURVAC—Ultek Div.
CURVE-BACK—Penn-Union Electric
CURVILINE—Information Displays Inc.
CURV-X—Campbell/Taylor Inc.
CUSTOM/POWER—Trio Laboratories Inc.
CUT-LOK—Townsend Co.
CUT-N-SAUCER—Norton Co.
CUTTS—Endevco Corp.
CV-JAX—Switchcraft, Inc.

CV PLUG—Switchcraft, Inc.
CY-AN-IN—Indium Corp. of America
CYBER-LARM—Notifier Co.
CYBERTRAN—Applied Cybernatics Systems Inc.
CYCLELOG—Foxboro Co.
CYCLEMISER—Norton Co.
CYCLOPS—Universal Cyclops Specialty Steel Div.
CYCLO-RUBBER—Hardman Inc.
CYGNUS—Justus & Justus Corp.
CYROSIEVE—Gelman Instrument Co.

DACRON—E. I. du Pont de Nemours & Co.
DAFAB—Wire Cloth Enterprises Inc.
DAFLEX—Daburn Elctns. & Cable Corp.
DAFLON—Daburn Elctns. & Cable Corp.
DAG—Acheson Colloids Co.
DAGLAS—Phelps Dodge Magnet Wire Corp.
DAISY BLIND—Huck Mfg. Co.
DAKAWARE—Davies Molding Co., Harry
DANYON—Daburn Elctns. & Cable Corp.
DATAB—Brady Co., W. H.
DATACALL—Dasa Corp.
DATACEL—Datametrics Inc.
DATACODER—Bolt Beranek & Newman
DATACON—Integrated Circuit Electronics
DATALITE—Dialight Corp.
DATALOG—Litton Datalog Div.
DATA LOGIG—Dialight Corp.
DATAMATE—Gamco Industries
DATA MATRIX—Dialight Corp.
DATANET—General Electric Co.
DATA-PANEL—Transistor Electronics Corp.
DATAPATH—Cae Industries Ltd.
DATAPLOTTER—Electronic Associates Inc.
DATA-STOR—Data-Ram Corp.
DATA STRIP—Dialight Corp.
DATATEL—Lenkurt Electric Co., Inc.
DATA VERTER—Digitronics Corp.
DATAVIEW—Swanson Engineering & Mfg. Co.
DATOR—Solari & C/Udine
DATRAC—Epsco Inc.
DAVALL—British Radio Electronics
DAYSTROM SQUARETRIM—Weston Components Div.
DB—Baker Caster Oil Co.
DB—Beckman Instruments Inc.
DCL—Signetics Corp.
D-DAS—Vidar Corp.
D-E-B—Leeds & Northrup Co.
DECAP—Dynaloy Inc.
DECI-LINE—Clifton Div.
DECIOUNCER—United Transformer Co.
DECOHM—Davis Electric Co.
DECTRON—Microwave Instruments Co.
DEKABOX—Electro Scientific Industries
DEKABRIDGE—Electro Scientific Indus. Inc.
DEKADIAL—Electro Scientific Industries
DEKAMATIC—Electro Scientific Indus. Inc.
DEKAPACITOR—Electro Scientific Ind. Inc.
DEKAPOT—Electro Scientific Industries
DEKASTAT—Electro Scientific Industries
DEKAVIDER—Electro Scientific Ind. Inc.
DEKORON—Moore & Co., Samuel
DELANCO—Anglo Amer. Vulcanized Fibre
DEL-CON—Delco Radio Div. GMC
DELTACORDER—Information Instruments, Inc.
DELTADYNE—Pall Trinity Micro Corp.
DELTAFILM—Dearborn Electns. Inc.
DELTAKIT—Delta Products Inc.
DELTAPLY—Dearborn Elctns. Inc.
DELTIME—Sealectro Corp.
DEMAG-EM—Thomas & Skinner Inc.
DEMOD—General Magnetics Inc.
DENFOIL—Dentronics Inc.
DENSICHRON—Welch Scientific Co.
DENSITROL—Precision Thermometer & Instr.
DEODOR-LITE—Atlantic Ultraviolet Corp.
DEPENDABLE—Trimm, Inc.
DEPENDEX—High Voltage Engineering Corp.
DEPTHOMETER—States Electronics Corp.
DERMITRON—Unit Process Assemblies Inc.
DESCO—Dietz Design, Inc.
DESICOTE—Beckman Instruments, Inc.
DESK-TOPPER—Universal Dftg. Mach. Corp.
DESPARD LINE—Pass & Seymour
DETECTA—Etchomatic Inc.
DETECT-A-FIRE—Fenwal Incorporated
DETECTALARM—Alarmtronics Engineering inc.
DETERMOHN—Ohmite Mfg. Co.
DEVE CO—Vari-L Co. Inc.
DEWCEL—Foxboro Co.
DEXTIR—Beckman Instruments, Inc.
DEZIFIX—Rohde & Schwarz
DIA-CROWN—Norton Co.
DIACTOR—General Electric Co.
DIADUR—Heidenhain Corp.
DIAGRAPH—Rohde & Schwartz
DIAL-A-CHARGE—Unholtz-Dickie Corp.
DIAL-A-GAIN—Unholtz-Dickie Corp.
DIALAMATIC—Wavetek
DIALATCH—Hartwell Corp.
DIALCO—Dialight Corp.
DIAL-O-VERTER—Digitronics Corp.
DIAL POWER—Action Systems Co.
DIALSET N/C—Seneca Falls Machine Co.
DIAMALLOY—Diamond Tool & Horseshoe
DIAMOND—Budd Co. Polychem Div.
DIAMOND GRIP—AMP Inc.
DIAZO-JET—Rotolite Sales Corp.
DICE CUBE—Hi-G, Inc.
DI-CLAD—Budd Co. Polychem Div.
DICO—Diamond Antenna & Microwave Corp.
DICRONITE—MPB Corp.
DICTAFILM—Miles Reproducer Co. Inc.
DIEFORM—Primec Corp.
DIEKUT STIKONS—Bishop Industries Corp.
DIELUX—Westlake Plastics Co.
DIFFERATIO—Digilog Electronics Corp.
DIFFUZOR—BTU Engineering Corp.
DIFILM—Sprague Electric Co.
DIGICARD—Digitronics Corp.
DIGICATOR—Discon Corp.
DIGICHEK—Applied Control Co.
DIGI-CODER—Fischer & Porter Co.
DIGICODER—General Devices Inc.
DIGICOM—General Devices Inc.
DIGIDAPTER—Abbey Electronics Corp.
DIGIDIAL—Beckman Instruments Inc.
DIGI-KLIPS—Components Corp.
DIGI-LOCK—Seqpential Electronic Systems Inc.
DIGILOOP—Automation Development Co.
DIGIMETER—Abbey Electronics Corp.
DIGI-POINT—Janus Control Div.
DIGIPRINTER—Abbey Electronics Corp.
DIGISEC—Wayne-George Corp.
DIGI-STORE—Wiltek, Inc.
DIGISWITCH—Digitran Co.
DIGISYN—Wayne-George Corp.
DIGITAK—Wayne-George Corp.
DIGITEC—United Systems Corp.
DIGITIZER—Coleman Engineering Co.
DIGIT-MATIC—Victor Comptometer Corp.
DIGITRONIC—Weltronic Co.
DILECTO—Budd Co. Polychem Div.
DIMATROL—Eagle Electric Mfg. Co. Inc.
DIMIE—Dearborn Electns. Inc.
DIMIE—Sprague Electric Co.
DIMPLE—Thomas & Skinner Inc.
DIPATAN—Components Inc.
DIRECT-A-CALL—ITT Telecommunications
DIRECTRON—Graphic Electronics, Inc.
DIRECTRON—Sanford Miller Corp.
DIREK READ—General Electric Co.
DIRIVOX—Ericcson Centrum Inc.
DISCFILE—Data Products Corp.
DISSOPADS—Bivar Co. Inc.
DISSOPLUGS—Bivar Co. Inc.
DI-T—United Transformer Co.
DI-T 200—United Transformer Co.
DIVCO—Division Lead Co.
DIVIDOHM—Ohmite Mfg. Co.
DK—Beckman Instruments Inc.
DL—Wiggins, Inc. E B
DOLFLEX—John C. Dolph Co.
DOLPHSEAL—Dolph Co. John C.
DOLPH-SPRAY—Dolph Co. John C.
DOM—Heidenhain Corp.
DOMINO—Sprague Electric Co.
D-1—Ultek Div.
DONWOOD—Sierra Electric Corp.
DOORBELL—Unitrode Corp.
DORIC—Corry Jamestown Corp.
DOROIDAL—Cambridge Thermionic Corp.
DOT—Carr Fastener Co. Div.
DO-T—United Transformer Co.
DOUBLE DELTA—Shamban & Co., W. S.
DOUBLE-TALK—New Tronics Corp.
DOUBLE-WIPE—Switchcraft, Inc.
DPC 2—Dynamic Precision Controls Corp.
DPR—Hardman Inc.
DRI-FILM—General Electric Co.
DRI-KOOL—Vacuum/Atmospheres Corp.
DRI-KOTE—Hysol Div.
DRI-LAB—Vacuum/Atmospheres Corp.
DRI/SLIP—Product Techniques, Inc.
DRI-TRAIN—Vacuum/Atmospheres Corp.
DROPTIP—Leeds & Northrop Co.
DRW—American Metal Climax
DRYATROL—Pall Trinity Micro Corp.
DRY/LUBE—Product Techniques, Inc.
DRY-O-LITE—Van Products Co.
DRYSEAL—Revere Copper & Brass Inc.
DU—Beckman Instruments, Inc.
DUALATCH—AMP Inc.
DUALEAD—Norton Co.
DUALFLEC—Information Displays Inc.
DUAL-SOURCE—Elasco Inc.
DUAL SNAP—Custom Component Switches
DUCO—E. I. du Pont de Nemours & Co. Inc.
DUCTOMATIC—Tinius Olsen Testing Mach. Co.
DUET—Sprague Electric Co.
DUNCO—Struthers-Dunn, Inc.
DUODIAL—Beckman Instruments
DUO GASKET—Technical Wire Products Inc.
DUOLASTIC—Technical Wire Products Inc.
DUO-LOK—Tridair Industries
DUO-METAL—Brush Beryllium Co.
DUOPAK—American Machine & Fdry Co.
DUO-SEAL—Welch Scientific Co.
DUOSTRIP—Technical Wire Products Inc.
DUO-TYNE—AMP Inc.
DUPLITRU—Norton Co.
DURACELL—Mallory Battery Co.
DURA-CLAD—Aladdin Electronics Div.
DURAD—Haveg Industries Inc.
DURAFLEX—Allaco Products Co.
DURAFOAM—Columbia Wire Products Co.
DURA-INK—Markal Co.
DURAMAG—Dura Magnetics Inc.
DURAMEG—Sprague Electric Co.
DURAPIN—ITT Cannon Electric Div.
DURASLEEVE—General Plastics Corp.
DURA-STRAND—International Wire Products
DURATRAK—General Radio Co.
DUROCK—Physical Sciences Corp.
DUROTHERM—Hexacon Electric Co.
DUTCH BOY—National Lead Co.
DUZALL—All-State Welding Alloys Co., Inc.
D&W—Dolinko & Wilkens Inc.
DW MULTI SWITCH—Switchcraft, Inc.
DYCON—Mobil Electronics Inc.
DYFLON—Southwest Products Co.
DYNABLAST—Norton Co.
DYNA-CRIMP—AMP Inc.
DYNA-DAMP—Lord Mfg. Co.
DYNADRYER—United States Dynamics
DYNAFLEX—Lord Mfg. Co.
DYNAFOCAL—Lord Mfg. Co.
DYNAFORMER—Foxboro Co.
DYNAGAP—Matthews Research Inc.
DYNAGRIP—Allstate Welding Alloys Co. Inc.
DYNAGUIDE—General Precision Systems Inc.
DYNAKIT—Dynaco Inc.
DYNALENS—Dynasciences Corp.
DYNALOG—Foxboro Co.
DYNAMIC BRIDGE—Redcor Corp.
DYNAMIKE—Dynaco Inc.
DYNAMIL—Western Technology Inc.
DYNA-MITE—Automation Devices Inc.
DYNAMITRON—Radiation Dynamics Inc.
DYNA-MOD—Dynair Electronics Inc.
DYN/AMP—Halmar Electronics Inc.
DYNAPOISE—Foxboro Co.
DYNA-Q—K-W Engineering Works
DYNA-RACE—Grant Pulley & Hardware
DYNASEAT—Goodyear Aerospace Corp.
DYNA SHIELD—Liquid Carbonic Div.
DYNASOLVE—Dynaloy, Inc.
DYNA SONIC—Vapor Blast Mfg. Co.
DYNASPHERE—Lord Mfg. Co.
DYNASTAT—Goodyear Aerospace Corp.
DYNA SURGE—Liquid Carbonic Div.
DYNATHERM—Foxboro Co.
DYNA-THRED—Long-Lok Corp.
DYNATRON—Tinius Olsen Testing Mach. Co.
DYNA-TRU—Norton Co.
DYNETIC—Shure Brothers Inc.
DYNOGRAPH—Beckman Instruments Inc.
DYN-OXO—United States Dynamics

EACO—Electronic Applications Co.
EAGALOK—Eagle Electric Mfg. Co. Inc.
EASY-FLO—Handy & Harman
EASYMATCHE—Alford Mfg. Co.
EASYPOXY—Conap Inc.
EBONOL—Enthone, Inc.
ECC—Electronic Components Corp.
ECCENTRIX—Tridair Industries
ECCOBILD—Emerson & Cuming Inc.
ECCOBOND—Emerson & Cuming Inc.
ECCOCERAM—Emerson & Cuming, Inc.
ECCOCOAT—Emerson & Cuming, Inc.
ECCOFOAM—Emerson & Cuming Inc.
ECCOGEL—Emerson & Cuming, Inc.
ECCOMOLD—Emerson & Cuming, Inc.
ECCO REFLECTOR—Emerson & Cuming Inc.
ECCOSEAL—Emerson & Cuming Inc.
ECCOSHIELD—Emerson & Cuming, Inc.
ECCOSIL—Emerson & Cuming Inc.
ECCOSORB—Emerson & Cuming Inc.
ECCOSPHERES—Emerson & Cuming Inc.
ECCOSTOCK—Emerson & Cuming, Inc.
ECDC—Sprague Electric Co.
E-CELL—Bissett-Berman Corp.
EC-44—Electronic Chemical Corp.
ECKOUSTIC—Eckel Industries Inc.
ECN—Ciba Products Co.
ECOALUBE—Everlube Corp. of America
ECONALIGN—Metal Bellows Corp.
ECONOBRITE—Hull Co. Inc., R. O.
ECONO-CRIMP—Automatic Metal Products Corp.
ECONOGLO—Drake Mfg. Co.
ECONO-GRID—Elgin Electronics Inc.
ECONOLINE—Sprague Electric Co.
ECONOSYNC—IMC Magnetics Corp.
ECONOTAN—Components Inc.
ECP—Gamco Industries
EDDYSTONE—Marcino Instruments Div.
EDGEGARD—Baker Co.
EDGE-ON—Burndy Corp.
EDITALL—Elpa Mktg. Industries Inc.
EDUCATED HOIST—Sel-Rex Corp.
EF EMBLEM—Electrofilm, Inc.
E-FORM—Epoxy Products Co.
80—Babcock & Wilcox Co.
E-GUN—Varian
EITHEREND—Anderson Power Products Inc.
E-KOTE—Epoxy Products Co.
EKTACOM—Fisher Berkeley Corp.
ELASTA-CAST—Acushnet Process Co.
ELASTA-SEAT—Acushnet Process Co.
ELASTOMET—Primec Corp.
ELASTOSEAL—Shambam & Co, W S
ELCAN—Leitz, Emst Canada Ltd.
ELCOM—Lake Engineering Co. Ltd.
ELDEMA—Nash & Harrison Ltd.
ELECTONE—Electron Enterprises Inc.
ELECTRACE—Gubelman Chart Div.
ELECTRIC LACQUER—Dolph Co., John C.
ELECTRICORD—Pacific Electricord Co.
ELECTRIDUCT—Ideas, Inc.
ELECTRO—Allaco Products Co.
ELECTROBOND—Electrofilm Inc.
ELECTRO-CAP—Cambridge Filter Corp.
ELECTRO-CHEMOGRAPH—Leeds & Northrup Co.
ELECTROCODER—General Devices Inc.
ELECTROCOM—General Devices, Inc.
ELECTRO-COOL—Roberts & Assoc. E V
ELECTRO-FLO—Cambridge Filter Corp,
ELECTROGRAPH—Electrofilm Inc.
ELECTRO ION—Granville-Philips Co.
ELECTROKNIT—Primec Corp.
ELECTROLOK—ITT Telecommunications
ELECTROLUBE—Electrofilm, Inc.
ELECTROMATIC—Tinius Olsen Testing Mach. Co.
ELECTROMAX—Leeds & Northrup Co.
ELECTRO-MECH—Reaction Research Labs of Amer.
ELECTROMESH—Electrofilm Inc.
ELECTRO-MITE—Fedtro Inc.
ELECTRO MODULE—Warner Electric Brake & Clutch
ELECTRO-MOLY—Electrofilm Inc.
ELECTRO-PAC—Clare-Electroseal Corp.
ELECTRO PACK—Warner Electric Brake & Clutch
ELECTROPHORESIS BIBLIOGRAPHY—American Insrtument Co.
ELECTROPLY—Electrofilm Inc.
ELECTROPOT—Digiloy Electronics Corp.
ELECTR-O-PROBE—In-Val-Co.
ELECTRO-ROLL—Cambridge Filter Corp.
ELECTROSEAL—Clare-Electroseal Corp.
ELECTROSECTILIS—Birtcher Corp.
ELECTRO-SHIELD—Estes Engineering Co.
ELECTROSHIFT—Bowmar Instrument Corp.
ELECTRO-WIPE—Duotone Co. Inc.
ELECTROWRITER—Victor Comptometer Corp.
ELECTROX—Royal Worcester Ind. Ceramics
ELEGANZIA—Goodmans Loudspeakers Ltd.
ELEVOL—Kokuyo Electric Co. Ltd.
ELFIN—Inter-Market Inc.
ELIMAG—Bulova Watch Co.
ELINCO—Electric Indicator Co.
E-LITE—Eldema Div.
ELVACITE—DuPont DeNemours & Co. E I
ELVAMIDE—DuPont DeNemours & Co. E I
EMERA—Solardi & C/Udine
EMICO—Electro-Mechanical Instr. Co.
EMICRON—Meridian Lab. Inc.
EMPIRE—Standard TV Tube Co.
EMRALON—Acheson Colloids Co.
ENBOND—Enthone, Inc.
ENDOGAS—Sunbeam Equipment Corp.
ENERGIC—Graphic Electronics, Inc.
ENERGIZED—Alpha Metals, Inc.
ENPLATE—Enthone, Inc.
ENSTRIP—Enthone, Inc.
ENTHOX—Enthone Inc.
ENVIRA-GRO—Thermal Research Inc.
ENVIRA-LITE—Thermal Research Inc.
ENVIRA-ROOM—Thermal Research Inc.
ENVIRA-TROL—Thermal Research Inc.
ENVIRO-SEAL—Electronic Seals Co.
ENVIROVAC—High Vacuum Eqpt. Corp.
EPC—Roband Electronics Ltd.
EPIBOND—Furane Plastics Inc.
EPIC—IRC Div.
EPICYC—Yaskawa Electric Mfg. Co. Ltd.
EPLAB—Eppley Lab. Inc.
EPN—Ciba Products Co.
EPO—Nikon Inc.
EPOCAST—Furane Plastics Inc.
EPOCEL—Pall Trinity Micro Corp.
EPOFILM—Furane Plastics Inc.
EPOHM—EMC Technology Inc.
EPOTUF—Reichhold Chemicals Inc.
EPOWELD—Hardman Inc.
EPOXY COAT—Devcon Corp.
EPOXYTEMP—Cerro Corp.
EPS—Roband Electronics Ltd.
EPUT—Beckman Instruments, Inc.
EPV—Roband Electronics Ltd.
EQ—I-T-E- Circuit Breaker Co.
EQUI-FLO—Cambridge Filter Corp.
EQUI-LINE—Equipto Enclosure Sys. Div.
EQUIPT-AIR—Equipto Enclosure Sys .Div.
ER—USM Fastener Co. Div.
ERDMAN 311—Microwave Instruments Co.
ERE—Ciba Products Co.
ERICOFON—Ericcson Centrum Inc.
ERICOVOX—Ericcson Centrum Inc.
ERO—Stettner-Trush Inc.
ERSA—Caig Labs. Inc.
ESCO-LITE—Electronic Specialties Co.
ESCON—Guardian Electric Mfg. Co. Cal
ESI—Electro Scientific Indus. Inc.
ESIAC—Electro Scientific Industries Inc.
ESICO—Electric Soldering Iron Co.
ESIPOT—Electro Scientific Indus. Inc.
E-SOLDER—Epoxy Products Co.
ESTAREL—Sprague Electric Co.
ET—I-T-E Circuit Breaker Co.
ETCO—Electric Terminal Corp.
ETHOFIL—Fiberfil Div.
ETHOGLAS—Fiberfil Div.
ETHYLUX—Westlake Plastics Co.
ETROMAT—Palmer Ltd, G A Stanley
EVANOHM—Driver, Wilbur B. Div.
EVENTEMP—Instrulab Inc.
EVENVOLT—Instrulab, Inc.
EVERFAST—Ambroid Co. Inc.
EVERDUR—Anaconda American Brass Co.
EVERED-AZDAR—Connolly & Co.
EVERLASTIC—Everson Electric Co.
EVERLITE—Curtis Development & Mfg.
EVERSEAL—U. S. Electrical Motors
EVER-SLIK—Everlube Corp. of America
EXCALIBER—Sinclair Radio Labs. Inc.
EXOGAS—Sunbeam Equipment Corp.
EXPANDOMATIC—Beckman Instruments
EXPEEDITER—Rotolite Sales Corp.
EXTEND-O-LET—Fedtro Inc.
EXTENSION JAX—Switchcraft, Inc.
EXTRALYTIC—Sprague Electric Co.
E-Z—Ideal Industries Inc.
E-Z-CODE—Westline Products
E-Z-DUO—Wadsworth Elec. Mfg. Co. Inc.
E-Z-PAK—Westline Products

E-Z-RED—Wadsworth Elec. Mfg. Co. Inc.
E-Z SPLICE—Duotone Co. Inc.
E-Z WIRE—Eagle Electric Mfg. Co. Inc.

FABMIKA—Sprague Electric Co.
FABRAMATIC—Strippit Div.
FACILOGIC—Roback Corp.
FACTROL—Minnetech Labs. Inc.
FAFLON—Fafnir Bearing Co.
FAIRFLEX—Fairchild Cable Div.
FANDIAL—Lutron Electronics Co. Inc.
FAN SPRAY—Sprayon Products Inc.
FANTORK—Fansteel Metallurgical Corp.
FANWELD—Fansteel Metallurgical Corp.
FASALOY—Fansteel Metallurgical Corp.
FASTELL—Fansteel Metallurgical Corp.
FASTEP—Lear Siegler Inc.
FASTIN-FASTON—AMP Inc.
FASTON—AMP Inc.
FASTLINE—Optical Gaging Products Inc.
FAT PHOEBE—Waber Electronics Inc.
FAXITRON—Field Emission Corp.
FE—United Transformer Co.
FEATHER—Rotron Mfg. Co. Inc.
FEATHER LEVER SWITCH—Switchcraft, Inc.
FEATHERWEIGHT—Trimm, Inc.
FEBETRON—Field Emission Corp.
FERRICORE—National Moldite Co.
FERRIMAG—Crucible Steel Co.
FERRITRON—Ferritronics Ltd.
FERROTRON—Polymer Corp.
FEURALON—Bemol Co.
FEXITRON—Field Emission Corp.
FFB—General-Electro Mechanical Corp.
FFC—General-Electro Mechanical Corp.
FF SWITCH—Switchcraft, Inc.
FI—Vinco Industries
FI—United Transformer Co.
FIELDIAL—Varian
50-MILSTRIP—ITT Cannon Electric Div.
FILAWOUND—Spaulding Fibre Co.
FILMCARD—Filmohm Corp.
FILMET—Morganite Resistors Ltd.
FILMGRAPH—Miles Reproducer Co. Inc.
FILMISTOR—Sprague Electric Co.
FILMITE—Sprague Electric Co.
FILTERCAP—U. S. Capacitor Corp.
FILTERCON—Erie Technological Prods. Inc.
FILTEROL—Sprague Electric Co.
FINCO—Finney Co.
FINELINE—Rayline Inc.
FINGRIP—Burndy Corp.
FIREFLY—Western Indicator Co. Inc.
FIREROD—Watlow Electric Mfg. Co.
FIRESONE 101—Cerro Corp.
FIREYE—Electronics Corp. of America
FIREZONE—Cerro Wire & Cable Div.
FISHER M-SCOPE—FRL Inc, Fisher Research Lab.
FISH-FINDER—Norton Co.
FISH LO-K-TOR—Lowrance Electronic Mfg. Corp.
FITGO—Beckman Instruments Inc.
5-WAY—Superior Electric Co.
FIXTRIM—Angstrohm Precision, Inc.
FLANATIC—Tocco Div.
FLASH-FLOW—Ewald Instruments
FLASH-FRONT—Panelgraphic Corp.
FLASH-PAK—Gems Co. Inc.
FLASH STRIPPER—Ewald Instruments
FLAT-PLUG—Switchcraft, Inc.
FLATPOT—Painton & Co. Ltd.
FLATS—United Transformer Co.
FLEXANE—Devcon Corp.
FLETCHER—Pennsalt Chemicals Corp. Eqpt. Div.
FLEX-A-PLUG—General Electric Co.
FLEXARM—Flexo International Corp.
FLEX'ATOR—Hunter Spring Div.
FLEXELECT—Leeds & Northrup Co.
FLEXFOAM—Columbia Wire Products Co.
FLEXHOT—Southwest Products Co.
FLEXIBLE RIBBON—Nanmac Corp.
FLEXI-CARDS—Roback Corp.
FLEXIFORMER—Superior Electric Co.
FLEX-I-LINER—Vanton Pump & Eqpt. Corp.
FLEXITE—Markel & Sons Inc, L Frank
FLEXITORQ—Louis Allis Co.
FLEXLEAD—Markel & Sons Inc, L Frank
FLEXLIFE—Columbia Wire Products Co.
FLEX-MIKE—Sonotone Corp.
FLEXOLON—Tensolite Insulated Wire Co.
FLEXON—Molecular Dielectrics Inc.
FLEXOPRENE—Standard Wire & Cable Co.
FLEX-O-TIMER—Norton Co.
FLEX-PAK—Bogen Communications Div.
FLEX-PLUG—Vanton Pump & Eqpt. Corp.
FLEXSHIELD—American Electric Cable Co.
FLEX-STRIP—Digital Sensors Inc.
FLEX-WELD—Digital Sensors Inc.
FLIP-LOK—Western Sky Industries
FLIP-PAK—Gems Co. Inc.
FLIPPER—Clauss Cutlery Co.
FLIP-TAB—Raytheon Co.
FLITE-PATH—Kaiser Aerospace & Elctns. Corp.
FLO-GARD—Brooks Instrument Div.
FLO-LINE—Flotron Industries, Inc.
FLORESCOAT—Ohmart Corp.
FLOW-DAC—Motorola Instrumentation & Control Inc.
FLOWRATOR—Fischer & Porter Co.
FLUIDIZED NYLO/MOLY—Product Techniques, Inc.
FLUORGLAS—Dodge Industries
FLUOROSINT—Polymer Corp.
FLUOROWELD—Shamban & Co., W. S.
FLUSHLITE—Drake Mfg. Co.
FLX-ARM—Flotron Industries Inc.
FO—United Transformer Co.
FOAMCONE—Micronetics a Teledyne Co.
FOLD-PAC—Federal Package Corp.
FOOTROL—General Control Co.
FORMAGRAPH—Swanson Engineering & Mfg. Co.
FORMAKER—Norton Co.
FORMALDAFIL—Fiberfil Div.
FORMALDAGLAS—Fiberfil Div.
FORMDAIR—Goodyear Aerospace Corp.
FORMKOTE T-50—Everlube Corp. of America
FORM PACK—Devcon Corp.
FORMVAREZE—Phelps Dodge Magnet Wire Corp.
44 WIRE—Raychem Corp.
FOSTROL—Fostoria Corp.
FOTAFLEX—Gentape Corp.
FOTOFET—Crystalonics
FOTOFOIL—Miller Dial & Name Plate Co.
FOTOLECTRIC—Worner Electronic Devices
4J—Fourjay Industries
FPL—Sequential Electronic Systems Inc.
FRAME-LOC—Vector Electronic Co. Inc.
FRAMET—Primec Corp.
FRANPLAS—Franklin Fibre-Lamitex Inc.
FREE-FLEX—Ansley Mfg. Co., Arthur
FREEZE-GUIDE—Norton Co.
FREON—E. I. duPont de Nemours & Co.
FRIGID-AIR—Electronic Chemical Corp.
FRIGIDRI—Pall Trinity Micro Corp.
FROST-AID—Chemtronics Inc.
FULL-VIEW—Brooks Instrument Div.
FULSCOPE—Norton Co.
FUNCTIONAIR—Palisades Engineering Co.
FUSETRON—Bussmann Mfg. Div.
FUSIONBRAZED—Higbie Mfg. Co.
FUSIONWELD—Higbie Mfg. Co.
FUZ-ION SEALED—Dearborn Electns. Inc.
FUZZ BUTTON—Technical Wire Products Inc.
FYRBRAND—Tensolite Insulated Wire Co.
FYRESTAN—Leeds & Northrup Co.
FYRITE—Bacharach Instrument Co.
FYR-LACE—Gudebrod Bros. Silk Co. Inc.

GACOR—Eagle Electric Mfg. Co.
GALAXY—Dixson Inc.
GAMM-O-SWITCH—In-Val-Co.
GAMM-O-TRON—In-Val-Co.
GARD-A-MATIC—Shure Brothers Inc.
GARDSMAN—West Instrument Corp.
GARDTROL—General Precision Systems Inc.
GASK-O-SEAL—Parker Seal Co.
GB—Grigsby Barton Inc.
GBT—IRC Div.
G/CO—Gruenberg Electric Co.
GEDA—Goodyear Aerospace Corp.
GELIBLOC—Quartz & Silice
GELOSO—American Geloso Electronics
GELSCAN—Gelman Instrument Co.
GEMCOR—General-Electro Mechanical Corp.
GEMLIGHT—Toyo Musen Co. Ltd.
GEMLITE—Drake Mfg. Co.
GEMSET—Avco Bay State Abrasives
GENALEX—General Electric Co.
GENALEX—Connolly & Co. Inc.
GENAVE—General Aviation Electronics Inc.
GENCLAD—General Plastics Corp.
GENELEX—Imtra Corp.
GENEMOTOR—Carter Motor Co.
GENPLY—General Plastics Corp.
GENREED—General Reed Co.
GENTRON—Gentronics, Inc.
GEODIMETER—AGA Corp.
GEODOLITE—Spectra-Physics
GEOGRIT—Geoscience Instrument Corp.
GE/PAC—General Electric Co.
GERTSCH—Singer Co.
G-FUSE—Bergen Lab. Inc.
GIBRALTAR—Quick-Set Inc.
GIBSILOY—Gibson Electric Co.
GIBSON GIRL—Robins Data Devices Inc.
GLASCOTE—Dolph Co., John C.
GLASPON—Industrial Engravers Inc.
GLASS-AMP—General Instrument Corp.
GLASWITCH—Revere Corp. of America
GLENMITE—Electra Scientific Div.
G-LINE—Surface Conduction Inc.
GLO-ANNUNCIATOR—Switchcraft, Inc.
GLO-BUTTON—Switchcraft, Inc.
GLO DOT—Industrial Devices Inc.
GLYD-RING—Shamban & Co., W. S.
GO—General Equipment & Mfg. Co.
GOLDEN-D—ITT Cannon Electric Div.
GOLDEN DAGOR—Goerz Optical Co. Inc.
GOLFGUIDE—Norton Co.
GRAFACON—Bolt Beranek & Newman
GRAFATRAN—Bolt Beranek & Newman
GRAND PRIX BOXER—IMC Magnetics Corp.
GRAPHALARM—Swanson Engineering & Mfg. Co.
GRAPHALITE—Graphic Electronics, Inc.
GRAPHALLAST—Graphite Metallizing Corp.
GRAPHALLOY—Graphic Electronics, Inc.
GRAPHALLOY—Graphite Metallizing Corp.
GRAPHILM—Graphite Metallizing Corp.
GRAPHLON—Graphite Metallizing Corp.
GRAPHMETEX—Graphite Metallizing Corp.
GRAVITAIN—Pall Trinity Micro Corp.
GREGOR—Ideas Inc.
GREENBILT—Equipment & Service Co.
GREER—Kaynar Mfg. Co. Inc.
GR 874—General Radio Co.
GRFF—General RF Fittings Inc.
GRI—Greenray Industries, Inc.
GRIDPAK—Gridcraft Inc.
GRILL-GUIDE—Norton Co.
GRIND-R-LAP—Conrac Corp.
GRIP-EZE—Phelps Dodge Magnet Wire Corp.
GRIPLOCK—Channelock Inc.
GRIPRING—Waldes Kohinoor, Inc.
GRIP STRIP—IRC Div.
GRIP STRIP—Sarex Corp.
GRIPTITE—CEM Co Inc.
GRIPWELL—Hartwell Corp.
GRISHAIRE—Uppco Inc.
GRITCLOTH—Avco Bay State Abrasives
GR 900—General Radio Co.
GROMSTRIP—Icore Electro-Plastics
GROOVE JOINT—Diamond Tool & Horseshoe Co.
GROUNDOMETER—Beckman Instrument Co.
GROUP ALERT—Multitone Electronics Ltd.
G-STRING—Surface Conduction, Inc.
GT—MacLean-Fogg Lock Nut Co.
GTC-59—Beaver Labs. Inc.
GUARDETTE—General Electric Co.
GUDE-DIAL—Gudebrod Bros. Silk Co. Inc.
GUDE-GLASS—Gudebrod Bros. Silk Co. Inc.
GUDELACE—Gudebrod Bros. Silk Co. Inc.
GUDE-NYLACE—Gudebrod Bros. Silk Co. Inc.
GUDE-Q—Gudebrod Bros. Silk Co. Inc.
GUDE-SPACE—Gudebrod Bros. Silk Co. Inc.
GUDE-TIES—Gudebrod Bros. Silk Co. Inc.
GUIDE-O-MATIC—Barrett Electronics Corp.
GYDAWL—Norton Co.
GYDEWAY—Norton Co.
GYROFLEX—General Precision Systems Inc.

HALF PINT—Hi-G, Inc.
HALL—Andar/ITI Inc.
HARLECH—Keleket Div.
HAROSYN—Harowe Servo Controls
HARTROL—Hartman Systems Co. Inc.
HASCROME—Union Carbide Corp.
HASTELLOY—Union Carbide Corp.
HATSEAL—Shamban & Co., W. S.
HAYDON—General Time
HAYNES—Union Carbide Corp.
HAYNES STELLITE—Union Carbine Corp.
HAYSTELLITE—Union Carbide Corp.
HCX—Sprague Electric Co.
HEADMASTER—AV Electronics, Inc.
HEATHKIT—Heath Co.
HEAT-LES—Pall Trinity Micro Corp.
HEATRACE—Gubelman Chart Div.
HEATRAX—Icore Electro-Plastics
HEAT SHEETS—Thermal Circuits Inc.
HEAT-SPY—Wahl Corp, Wm.
HEATZONE—Cerro Wire & Cable Div.
HECO—Heinemann Electric Co.
HEETGRID—Ulanet Co, George
HEET-O-MATIC—Ulanet Co, George
HELECON—United States Radium Corp.
HELICON—AMP Inc.
HELIDEL—Beckman Instruments Inc.
HELIFLUX—Schonstedt Instrument Co.
HELILUBE—Beckman Instruments Inc.
HELIPOT—Beckman Instruments, Inc.
HELITRIM—Beckman Instruments, Inc.
HELI-TUBE—Newman Corp., M. M.
HELM-PAK—Helm Instrument Co. Inc.
HELMSMAN—Helm Instrument Co. Inc.
HERCULES—Quick-Set Inc.
HERCULOY—Revere Copper & Brass Inc.
HERKON—ITT Europe Inc.
HERMEFLEX—General Precision Systems Inc.
HEVI-DUTY—Sola-Basic Industries
HEXO-LET—Fedtro Inc.
HEXSEALS—APM Hexseal Corp.
HEXSEALS—Multi-Flex Seals Inc.
HEYCO—Heyman Mfg. Co.
HFC ARMOR—Goodyear Aerospace Corp.
HI-BREAK—General Electric Co.
HI-CAP—Cambridge Filter Corp.
HICKORY BRAND—Superior Cable Corp.
HI-COR—Alpha Metals, Inc.
HI-D JAX—Switchcraft, Inc.
HI-ETCH—General Electric Co.
HI FI BOXER—IMC Magnetics Corp.
HI-FLO—Cambridge Filter Corp.
HI-HAT—Phillips Process Co. Inc.
HI-JUL—Dearborn Elctns. Inc.
HI-JUL—Sprague Electric Co.
HI-LO—Shakeproof Div.
HI-LO EYE—Fastex Div.
HI-MEG—Dolph Co., John C.
HIPERCO—Westinghouse Electric Co.
HIPERMALLOY—United Transformer Co.
HIPERNOM—Westinghouse Electric Corp.
HIPERSIL—Westinghouse Electric Corp.
HI-POWER—Ebert Electronics Corp.
HIS—Hi-G Inc.
HIT—United Transformer Co.
HITAC—Montedoro Corp.
HI-TEMP—Cerro Wire & Cable Div.
HI-THERM—Dolph Co., John C.
HI-TREET—Sola-Basic Industries
HI-VAR—Sprague Electric Co.
HI-VOLT—Industrial Devices, Inc.
H-LITES—Eldema Div.
HOBLIQUE—Norton Co.
HOFFCO-VAC—Hoffman Industries Div.
HOLD-E-ZEE—Upson Bros. Inc.
HOLLOSHAFT—U. S. Electrical Motors
HOLOCATOR—Nash & Harrison Ltd.
HOLTITE—Continental Screw Co.
HOLTON—Hartley Products Corp.
HOMO—Leeds & Northrup Co.
HOMOCARB—Leeds & Northrup Co.
HOMOZONE—Elair Industries Ltd.
HONEYSERTS—Tridair Industries
HOOK SWITCH—Switchcraft, Inc.
HOPLINE—Haysite Reinforced Plastics Div.
HOPPER STAKER—Cambridge Thermionic Corp.
HOP STRETCHER—Gabriel Electronics Div.
HORIZON LINE—General Electric Co.
HORNET—Hexacon Electric Co.
HOTIP—Contact Inc.
HOT-LOK—Long-Lok Corp.
HOT ROD—Norton Co.
HOWARD STEREO—Television Mfrs. of Amer. Co.
HOZ-FAS-NER—Eaton Yale & Towne Inc.
HSI—Haydon Switch & Instrument Inc.
HUBBELLOCK—Harvey Hubbell Inc.
HUBLOC—Andrew Corp.
HUCKBOLT—Huck Mfg. Co.
HUD-PAK—Hudson Wire Co.
HUDSON—Oxford Electric Corp.
HUMIDICATOR—Hygrodynamics Inc.
HUMIDIGLIDE—Norton Co.
HUMIDOLAIN—Star Porcelain Co.
HUMI SEAL—Columbia Technical Corp.
HUMISTAT—American Instrument Co. Inc.
HUMISTAT—Hygrodynamics Inc.
HUMITEX—Foxboro Co.
HUMP—Leeds & Northrup Co.
HUNTER—Ray-O-Vac Div.
HURRICLEAN—Oakite Products Inc.
HUSKY—Hexacon Electric Co.
HUSKY—Price Electric Corp.
HUSKY—Quick-Set Inc.
HUSTLER—New Tronics Corp.
HVC VARIDUCTOR—United Transformer Co.
HVEC—High Vacuum Eqpt. Corp.
HVV VARIDUCTOR—United Transformer Co.
HY-A-SIL—Sanford Miller Corp.
HY-BUTE—General Electric Co.
HYBAND—Inland Controls Inc.
HYBRIDGE—Alford Mfg. Co.
HYDAC—Electronic Associates Inc.
HYDAC—Cambridge Scientific Ind.
HYDENSEL—Mosinee Paper Mills Co.
HYDENT—Burndy Corp.
HYDRAPOWER—Di-Acro Div.
HYDRO CYCLONIC—Vapor Blast Mfg. Co.
HYCEAIRE—Atlantic Ultraviolet Corp.
HYDRASHAKER—Wyle Lab.
HYDROFEED—Components Corp.
HYDROFLUID—National Cine Equipment
HYDROGAUGE—Exactel Instrument Co.
HYDROKOOL—Durakool Inc.
HYDROLLY—National Cine Equipment
HYDRO SQUEEGEE—Cimron Div, LST
HYDROTECTOR—American Instrument Co.
HYFEMATIC—Burndy Corp.
HYFEN—Burndy Corp.
HYFLO—Hysol Div.
HYFRECATOR—Birtcher Corp.
HYGRADE—Markel & Sons Inc, L Frank
HYGROCEL—American Instrument Co.
HYGROMITE—Beckman Instruments, Inc.
HYGROSENSOR—Hygrodynamics Inc.
HYLINK—Burndy Corp.
HYLOK—Burndy Corp.
HYLUG—Burndy Corp.
HYMONOGAS—Sunbeam Equipment Corp.
HYPAC—Electronic Research Assoc.
HYPASS—Sprague Electric Co.
HYPERCON—Sprague Electric Co.
HYPIN—Burndy Corp.
HYPOPHONIC—Standard Electric Mfg. Co.
HYPOT—Associated Research, Inc.
HYPROLAP—Norton Co.
HYREL—Sprague Electric Co.
HYRING—Burndy Corp.
HYROLL—New Departure-Hyatt Bearings
HYTAFILL—General Electric Co.
HYTIP—Burndy Corp.
HYTRESS—Dynamic Precision Controls Corp.
HYTROL—Hydro-Aire Inc.
H-ZONE—Cerro Wire & Cable Div.

IC—Ionetics Corp.
ICC—Industrial Circuits Co.
ICEBERG—Waber Electronics Inc.
ICEM—Varian
I-COM—Industrial Circuits Co.
ICT—High Voltage Engineering Corp.
IDENTASLEEVE—General Plastics Corp.
IDI—Information Displays Inc.
IDIIOM—Information Displays Inc.
IEC—International Electronics Corp.
IEE—Industrial Electronic Engineers
IEI—Callis Industries Inc.
IEI—International Electronics Ind. Div.
I GARD—McLeod Optical Co. Inc.
I-LINE—Square D Co.
I-LITE—American Atomics Corp.
IMCAIR—IMC Magnetics Corp.
IMPERIAL—Ungar Div.
INCREDUCTOR—Wiltek Inc.
INCRE-LOCK—Sequential Electronic Systems
INCREMENT-O-DRIVE—Geartronics Corp.
INCRESYN—Data Technology Inc.
INCUBE—IMC Magnetics Corp.
INCUSIL—Western Gold & Platinum Co.
INDOMICA—Columbia Technical Corp.
INDUCT-A-PLATE—Radioear Corp.
INDUCTOSYN—Del Electronics Corp.
INDUCTROL—General Electric Co.
INFINIT-INDEXER—United Shoe Machinery Corp.

INFINITRON—Bourns Inc.
INFLATOPLANE—Goodyear Aerospace Corp.
INFRAMIKE—General Electric Co.
INFRASCAN—Infrared Industries Inc.
INFRATRON—Infrared Industries Inc.
INFRATUBE—Quartz & Silice
INJECTRON—Litton Industries
INK FLOW—Phillips Process Co. Inc.
INK-O-MATIC—Bell-Mark Corp.
INRESCO—Instrument Resistors Co.
INSALCOR—Babcock & Wilcox Co.
INSTANTA—Norton Co.
INST-O-MATIC—Wiggins Inc., E. B.
INSUL—Pylon Co. Inc.
INSULCAP—Electronized Chemicals Corp.
INSULET—Pylon Co. Inc.
INSULGREASE—General Electric Co.
INSULJEL—General Electric Co.
INSULKRIMP—Waldom Electronics Inc.
INSUL-PIN—Omark Industries Inc.
INSULPURE—Babcock & Wilcox Co.
INSULSTRIP—Lea Mfg. Co.
INSULSTRUC—Cincinnati Development & Mfg.
INSULTAPE—Electronized Chemicals Corp.
INSULTEK—International Electronic Research
INSULTITE—Electronized Chemicals Corp.
INSULUB—International Electronic Research
INTER-8—Magnetic Shield Div.
INTEGRID—Elgin Electronics Inc.
INTERPHONE—Action Systems Co.
INTERROSPONDER—Vega Precision Labs.
INTERZONE—Cerro Wire & Cable Div.
INTRAMAX—Sanders Assoc. Inc.
INTRINSIC—Nanmac Corp.
INTRUDALARM—Spedcor Electronics Inc.
INVERTA—Torwico Electronics, Inc.
IONOSTAT—United States Radium Corp.
IONOTRON—United States Radium Corp.
I-RAD—American Atomics Corp.
IRD—Intl. Research & Develop. Corp.
IRN—Pfizer Minerals, Pigments & Metals
ISO—Isolantite Mfg. Corp.
ISOBASE—Endevco Corp.
ISOCHEMBOND—Isochem Resins Co.
ISOCHEMCLAD—Isochem Resins Co.
ISOCHEMGEL—Isochem Resins Co.
ISOCHEMREZ—Isochem Resins Co.
ISOCHEMSTRIP—Isochem Resins Co.
ISO-CURVE—Fenwal Electronics Inc.
ISODIODE—Isofilm International
ISO-ELASTIC—Kinelogic Corp.
ISOFARAD—Sprague Electric Co.
ISOFILM—General Electric Co.
ISOFOAM—Isocyanate Products Inc.
ISOKRAFT—General Electric Co.
ISOLUME—Sun Dial & Panel
ISOMELT—Schenectady Chemicals Inc.
ISOMID—Schenectady Chemicals Inc.
ISONEL—Schenectady Chemicals Inc.
ISOPHASE—Blass Antenna Electronics Corp.
ITC—Ikegami Tsushinki Co. Ltd.
ITECO—Industrial Test Equipment Co.
IVORY-X—Pass & Seymour
IXF—Piezo Technology Inc.

JACK KNIFE—Penn-Union Electric
JACKSON—Mercury Electronics Inc.
JADE—Realtone Electronics Corp.
JAICO—Jaidinger Mfg. Co.
JANETTE—Holtzer-Cabot Corp.
JANSZEN—Neshaminy Electronics Corp.
JETLAC—Sterling Varnish Co.
JET-PAK—Sprayon Products Inc.
JET PLATER—Sel-Rex Corp.
JET STEREO 8—Lear Jet Industries Inc.
JET-TEMP—General Electric Co.
JET-TRON—Automation Devices Inc.
JIFFYBLAST—Pangborn Corp.
JIFFY-PUSH-PULL—Eagle Electric Mfg. Co.
JK—CTS Electronics Inc.
J-LITES—Eldema Div.
JOLTA—Jan Hardware Mfg. Co.
JONEL—Ransom Labs, John H.
JRL—Julie Research Labs Inc.
JUDCO—Electronized Chemicals Corp.
JUDCO—Judd Wire Div.
JUNGNER—Svenska Ackumulator Akt
JUNIOR—Babcock & Wilcox Co.

K—Babcock & Wilcox Co.
KADOMAX—Matsushita Elec Industrial Co.
KALEX—Hardman Inc.
KAO—Babcock & Wilcox Co.
KAOCAST—Babcock & Wilcox Co.
KAOCRETE—Babcock & Wilcox Co.
KAOGUN—Babcock & Wilcox Co.
KAOLITE—Babcock & Wilcox Co.
KAOMUL—Babcock & Wilcox Co.
KAO-TAB—Babcock & Wilcox Co.
KAOWOOL—Babcock & Wilcox Co.
KARADIO—ATR Electronics Inc.
KARAK—Ohio Carbon Co.
KARATCLAD—Sel-Rex Corp.
KARBATE—Union Carbide Corp.
KARTRAK—Sylvania Electric Prods. Inc.
KASIL—Philadelphia Quartz Co.
KAYLOCK—Kaynar Mfg. Co. Inc.
KB—Micro Switch Div.
KEENSERTS—Tridair Industries
KELGRAF—Vitramon Inc.
KELLERT—ITT Telecommunications
KELLOGG—ITT Telecommunications
KELLOGG K—ITT Telecommunications
KELLOGG RELAYMATIC—ITT Telecommunications
KEL-O-RAD—ITT Telecommunications
KELVIN KLAMPS—Electro Scientific Indus.
KELVIN KLIPS—Electro Scientific Indus.
KEMET—Union Carbide Corp.
KENBRITE—Conversion Chemical Corp.
KEN-RAD—General Electric Co.
KENVERT—Conversion Chemical Corp.
KEPS—Eaton Yale & Towne Inc.
KEPS—Shakeproof Div.
KEYCODE—Nutronics
KEYKODE—Nutronics
KEYTAP—Keystone Mfg. Co. Div.
KGM—Inter-Market Inc.
KILODIAL—Kilo Engineering Co.
KILOKNOB—Kilo Engineering Co.
KILOVAC—High Vacuum Electronics Inc.
KINAMATIC—General Electric Co.
KINATROL—General Electric Co.
KLEEN-SWEEP—Duotone Co. Inc.
KLEER-TUFF—Goodyear Aerospace Corp.
KLIKAX—Palmer Ltd., G. A. Stanley
KLIP-SEL—International Rectifier, Semiconductor Div.
KLIPTITE—Kulka Electric Corp.
KLIXON—Texas Instruments Incorporated
K-LOGGER—Keinath Instrument Co.
KOMLECTRO—Lamb Electric Div.
KOOLOHM—Sprague Electric Co.
KOOLPORE—Avco Bay State Abrasives
KOROSEAL—Goodrich Industrial Prods. Co.
KOVAR—Westinghouse Elec. Corp.
K-POWER—Bronson Corp.
KRALASTIC—Uniroyal Chemical Div.
K-RAMIC—Kaman Nuclear Div.
KRIMPTITE—Waldom Electronics Inc.
KROMIGHT—Babcock & Wilcox Co.
KSR—General Electric Co.
KSS—ITT Telecommunications
K-TRAN—General Instrument Corp.
KUDRIAVETS—Acushnet Process Co.
KUHLMANN—Alwin F. Wilkins Inc.
KWIKTRIM—San Fernando Electric Mfg. Co.
KYNAR—Pennsalt Chemicals Corp.
KYOCERA—Kyota Ceramic Co. Ltd.

L—Trimm Inc.
LAB—United Transformer Co.
LAB-ON-WHEELS—Waber Electronics Inc.
LACKON—Dun Dial & Panel
LA-CO—Lake Chemical Co.
LACQUER-STIK—Lake Chemical Co.
LAMCORE—Laminated Shim Co. Inc.
LAMICODE—Stranco Prods. Inc.
LAMINUM—Laminated Shim Co., Inc.
LAMISOL—Laminated Shim Co. Inc.
LAMITEX—Franklin Fibre Lamitex Corp.
LAMP JAX—Switchcraft, Inc.
LAMPLIGHTER—Acme Products Co.
LAMPLIGHTER—Cardinal Control Co.
LANCELOK—AMP Inc.
LARMOTRON—Varian
LASERSCAN—Conductron Corp.
LASHCLAD—Lash Labs. Inc.
LAVOLAIN—Star Porcelain Co.
L C TUNERS—JFD Electronics Co.
LEADMASTER—Heller Industries Inc.
LEADTEX—Revere Copper & Brass Inc.
LEAK PRUF—Alpha Metals, Inc.
LEAOX—Diamonds Unlimited, Inc.
LEC—Logan Electronics Corp.
LECTRASCAN—Ultronic Systems Sub.
LECTRODUCT—Lectro Magnetics Inc.
LECTROFILM—General Electric Co.
LECTROLESS—Sel-Rex Corp.
LECTRO-PLAQUE—Simco Co. Inc.
LECTROSHIELD—Lectro Magnetics Inc.
LECTROSPOT—Miller Electric Mfg. Co.
LECTROVENT—Lectro Magnetics Inc.
LECTRO-NIC—Sel-Rex Corp.
LED-PLATE—Armite Laboratories
LEEDAWL—Norton Co.
LEFKO—Leffingwell Chemical Co.
LEFKOWELD—Leffingwell Chemical Co.
LERLOY—Engineering & Elctn. Devices Inc.
LEROY—Keuffel & Esser Co.
LESTRA-LITE—Pacific Universal Products Corp.
LEVEL-LOG—Robertshaw Controls Co.
LEVEL-SET—Robertshaw Controls Co.
LEVEL-TEK—Robertshaw Controls Co.
LEVEL-TEL—Robertshaw Controls Co.
LEVEL-WRAP—Budd Co. Polychem Div.
LEVER-LITE SWITCH—Switchcraft, Inc.
LEVER-LOCK SWITCH—Switchcraft, Inc.
LEVOLIER—McGill Mfg. Co., Inc.
LEV-R SWITCH—Switchcraft, Inc.
LF-JAX—Switchcraft, Inc.
LGH—AMP Inc.
LIBRAFILE—Librascope Group
LIBRAQUAR—Librascope Group
LIFE-ISLAND—Matthews Research Inc.
LIFT—Dynamic Precision Controls Corp.
LIG—Nucleonic Industries
LIGHT-A-MATIC—Eagle Electric Mfg. Co.
LIMITAMP—General Electric Co.
LINDOR—Horlick Co. Inc., Wm. I.
LIN-E-AIRE—Norton Co.
LINEAR STANDARD—United Transformer Co.
LINE-MASTER—Sandefur Engineering Co. Inc.
LINE-O-LIFE—Carter Motor Co.
LINE-O-LITE—Industrial Devices Inc.
LINE/PRINTER—Data Products Corp.
LINE-VOLT—Industrial Devices Inc.
LINIPOT—Bourns Inc.
LINURMASS—Technology/Versatronics Inc.
LIONEL—Eon Corp.
LIQUIDOX—Liquid Carbonic Div.
LIQUIFLUOR—Pilot Chemicals Inc.
LIQUILITE—Controlotron Corp.
LIQUINOX—Alconox Inc.
LIQUIPLEX—Controlotron Corp.
LIQUI-STEEL—Preco Chemical Corp.
LITE MASTER—Flexo International Corp.
LITE-MIKE—E. G. & G., Inc.
LITE-MITE—Stocker & Yale Inc.
LITE PANELS—Drake Mfg. Co.
LITE-TRON—Automation Devices Inc.
LITHENCO—Atmar Engraving Co. Inc.
LITTEL-JAX—Switchcraft, Inc.
LITTEL-LITE SWITCH—Switchcraft, Inc.
LITTEL-PLUG—Switchcraft, Inc.
LITTEL SWITCH—Switchcraft, Inc.
LITTLE CAESAR—ITT Cannon Electric Div.
LITTLE DEVIL—Ohmite Mfg. Co.
LITTLE SHRINKER—Hi-Shear Corp.
LITTLE-TORCH—Tescom Corp.
LITTL-LYTIC—Sprague Electric Co.
LIVE-LOCK—Tridair Industries
LIVING PHONOGRAPH—Electronics Creations Co.
LK SWITCH—Switchcraft, Inc.
LO CAP—Tinius Olsen Testing aMch. Co.
LOCK-ON—Associated Spring Corp.
LOCKWELL—Hartwell Corp.
LODEX—General Electric Co.
LO-FLO—Fortin Laminating Corp.
LOGICATOR—Bowmar Instrument Corp.
LOGIC-LITE—Eldema Div.
LOGMATIC—Dytro Corp.
LOLAG—American Instrument Co.
LONCO—London Chemical Co.
LONCOTERGE—London Chemical Co.
LONG JOHN—Waber Electronics Inc.
LONGLIFE—JFD Electronics Co.
LO-VOLT—Industrial Devices, Inc.
LOW-VAR—Republic Electronics Corp.
LOXSWITCH—Denison Inc., R. B.
LSD—Oakite Products Inc.
LSI—Lear Siegler Inc.
L-T SWITCH—Switchcraft, Inc.
LUBE-LOK—Electrofilm Inc.
LUBRI-BOMB—Electrofilm, Inc.
LUBRI-BOND—Electrofilm Inc.
LUCALOX—General Electric Co.
LUG PLUG—Switchcraft, Inc.
LUSTERIZED—American Electric Cable Co.
LUSTERLAC—American Electric Cable Co.
LUSTRE-ZINC—Titchener & Co., E. H.
LUTON—Pacific Electricord Co.
LUXEMATIC—Lea Mfg. Co.
LUXOLENE—Wabash Magnetics Inc.
LUX-THERM—Hi-Shear Corp.
LUXTROL—Superior Electric Co.

MADT—Sprague Electric Co.
MAGACYCLER—Pioneer Magnetics Inc.
MAGAVERTER—Pioneer Magnetics Inc.
MAGCENTRIC—Cambridge Thermionic Corp.
MAG-EYE—Square D Co.
MAGICALL—Dasa Corp.
MAGIC CIRCLE—A R F Products Inc.
MAGIC-HUE—Standard TV Tube Co.
MAGIC MIRROR—Pacific Universal Products Corp.
MAGIC WIRE—Continental Sensing Inc.
MAGIKEY—Advance Industries Ic.
MAGITRAN—Electronic Research Assoc.
MAGITRAN—Era Acoustics Corp.
MAGLAG—JFD Electronics Co.
MAGMAX—Sprague Electric Co.
MAGMOD—General Magnetics, Inc.
MAGNAGLO—Magnaflux Corp.
MAGNA-MOUNT—Stinger Antenna Co. Inc.
MAGNAPAK—Westinghouse Electric Corp.
MAGNAR—Goerz Optical Co. Ic.
MAGNA-SET—Precision Thermometer & Instr. Co.
MAGNATEST—Magnaflux Corp.
MAGNA-TORC—Hansen Mfg. Co. Inc.
MAGNATRAK—Westinghouse Electric Corp.
MAG NA VUE—Brooks Instrument Div.
MAGNECELL—Yaskawa Electric Mfg. Co. Ltd.
MAGNECHARGER-EM & PM—Thomas & Skinner Inc.
MAGNE GAGE—American Instrument Co.
MAGNEPAINT—Micro-Circuits Co.
MAGNE PROBE—American Instrument Co.
MAGNESIL—Magnetics Inc.
MAGNETREATER—RFL Industries Inc.
MAGNETTE—Heinemann Electric Co.
MAGNI-FOCUSER—Edroy Products Co.
MAGNI-WHIRL—Blue M Engineering Co.
MAGNORITE—Norton Co.
MAGNUM-K—Goodmans Loudspeakers Ltd.
MAGOLITE—Varian
MAGPAK—Scientific Data Systems Inc.
MAG-PIPE—Norton Co.
MAGOLITE—Semicon Associates, Inc.
MAJORETTE—Major Electronics Corp.
MANUMATIC—Norton Co.
MANU-ROLL—Cambridge Filter Corp.
MARATHON—Gould Marathon Battery Co. Div.
MARCON—Tokyo Denki Co. Ltd.
MARI-GUIDE—States Electronics Corp.
MARINE-ARROW—States Electronics Corp.
MARINE-PILOT—States Electronics Corp.
MARKETMASTER—Ultronic Systems Sub.
MARK I—Nuclear-Chicago Corp.
MARKSMAN—West Instrument Corp.
MARK TEN—Delta Products Inc.
MARK III OMNIGATOR—Narco Avionics Div.
MARK II—Rotolite Sales Corp.
MARK II & III—American Systems, Inc.
MARK 12A—Narco Avionics Div.
MARK 24—Narco Avionics Div.
MARLOX—Marlin Mfg. Corp.
MARSHALL—Norton Vacuum Eqpt. Div.
MARTECH—Dayton Aircraft Prods. Inc.
MARVINOL—Uniroyal Chemical Div.
MAS—United Transformer Co.
MASONWARE—Mason Mfg. Co. Div.
MASS GEAR—Geartronics Corp.
MASTERLINE—Blonder-Tongue Labs.
MAT—United Transformer Co.
MATCHED COAX MAGI-TEE—Microwave Labs of America
MATE-N-LOK—AMP Inc.
MATH-MASTER—Gamco Industries
MATTIBRAZE—Johnson Matthey & Mallory Ltd.
MATTIFLUX—Johnson Matthey & Mallory Ltd.
MATTISOL—Johnson Matthey & Mallory Ltd.
MAVERAC-I—Varian
MAXAMP 30—Goodmans Loudspeakers Ltd.
MAX-C—JFD Electronics Co.
MAXIM—Goodmans Loudspeakers Ltd.
MCRT—Himmelstein & Co., S.
MDI-SPRAY—Bemol Co.
ME—Mettler Electronics Corp.
MECATORN—C. W. Torngren Co. Inc.
MECHANALYSIS—International Research & Development Corp.
MECHATRIM—Digiloy Electronics Corp.
MECPOT—Miniature Elctn. Components Ltd.
MEDIMETRIC—Pacific Metrology Labs Inc.
MEGASON—Birtcher Corp.
MEG-CHEK—Associated Research Inc.
MEGISTOR—Morganite Resistors Ltd.
MEG-O-MAX—Sprague Electric Co.
MEK—Machinery Electrification Inc.
MEKONTROL—Machinery Electrification Inc.
MEKTHERM—Rogers Corp.
MEKTRON—Rogers Corp.
MELACEL—Pall Trinity Micro Corp.
MELCOR—Materials Electronics Prods. Corp.
MELDIN—Dixon Corp.
MELEMATIC—Meletron Corp.
MEL-INK—Melpar Inc.
MELROC—Sprague Electric Co.
MEMO-LITE—Transistor Electronics Corp.
MEMOMARK—Leupold & Stevens Instrs. Inc.
MEMORY—P. A. Sturtevant Co.
MEMORYLINE—Shamban & Co., W. S.
MEMOTRON—Hughes Aircraft Co.
MENTOR—Biddle Co. James G.
MEPS—Roband Electronics Ltd.
MERAD—Central Coil Co. Inc.
MERCOTAC—Leslie Mfg. Corp.
MERCUTHAL—Precision Thermometer & Instr Co.
MERL—Miller Electro-Research Labs.
MERRITONE—Phillips Process Co. Inc.
MESSAGE—ITT Telecommunications
MET—United Transformer Co.
MET-A-APS—Chicago Condenser Corp.
METAB—A R F Products Inc.
METACOLOR—Phillips Process Co. Inc.
METAL-CAL—Brady Co. W. H.
METALMASTER—Norton Co.
METALONICS—Phiips Metalonics
METALSTAT—Graphtex Inc.
METANET—Sprague Electric Co.
METCERAM—Metalized Ceramics Corp.
METEOR—Goodyear Aerospace Corp.
METERMAX—Leeds & Northrup Co.
METFILM—Sprague Electric Co.
METLOHM—Painton & Co. Ltd.
MET-PURE—Met-Bay Inc.
METRICEL—Gelman Instrument Co.
METROLUX—Vapor Blast Mfg. Co.
METSO—Philadelphia Quartz Co.
MEXA—Raytheon Co.
MEZZO—Goodmans Loudspeakers Ltd.
MF—Drake Mfg. Co.
M-F—MacLean-Fogg Lock Nut Co.
M-F LOCK TIGHT—MacLean-Fogg Lock Nut Co.
MHOBOND—Hysol Div.
MICABOND—Budd Co. Polychem Div.
MICAPLY—Mica Corp.
MICATEMP—Cerro Wire & Cable Div.
MICAVER—Quartz & Silice
MIC-O-LITE—Aristo Grid Lamp Prods. Inc.
MICRAJUST—Tekni-Labels Co.
MICRELAY—Ebert Electronics Corp.
MICRETAIN—Cambridge Filter Corp.
MICROBALLOONS—Emerson & Cuming, Inc.
MICRO-BEAD—Victory Engineering Corp.
MICROCARB—Leeds & Northrup Co.
MICRO-CERAMIC—Sonotone Corp.
MICRO CHEK—Do All Co.
MICROCLAD—Spaulding Fibre Co.
MICROCLAREED—Clare & Co. C. P.
MICROCODER—General Devices Inc.
MICROCOM—General Devices, Inc.
MICROCON—Painton & Co. Ltd.
MICRO-D—ITT Cannon Electric Div.
MICRODAC—Microwave Instruments Co.
MICRO-DERM—Unit Process Assemblies Inc.
MICRODOME—Varian
MICRODOME—Bomac Div. Varian Assoc.
MICRO-DUSTER—Texwipe Co.
MICROFLAME—Printed Circuits Inc.
MICROFLASH—E. G. & G., Inc.
MICROFLECTOR—Microflect Co. Inc.

MICRO FLEX—American Instrument Co.
MICRO-FOIL—Rdf Corp.
MICRO-JAX—Switchcraft, Inc.
MICRO-K—ITT Cannon Electric Div.
MICROLOGIC—Fairchild Semiconductor Div.
MICRO MASK—Affiliated Manufacturers
MICRO-MASTER—Keuffel & Esser Co.
MICRO-MEG—Fedtro Inc.
MICRO-MIKE—Unex Labs Div.
MICRON-AIRE—Ray Products Inc.
MICRONOISE—Roveti Instruments
MICROPAINT—Micro-Circuits Co.
MICROPIN—Itt Cannon Electric Div.
MICROPIX—Litton Industries
MICRO-PLUG—Switchcraft, Inc.
MICROPOISE—Cook Electric Co.
MICRO-RITER—Conklin Instrument Corp.
MICROSEN—Robertshaw Controls Co.
MICROSOCKET—ITT Cannon Electric Div.
MICROSOURCE—Elasco Inc.
MICRO-SYNCLAMPS—Timber-Top Inc.
MICROTEK—Tracor
MICROTEL—Lenkurt Electric Co., Inc.
MICROTHIN—Shamban & Co., W. S.
MICROTOM-ATIC—Doall Co.
MICROTOOL—Circon Component Corp.
MICROTRON—Litton Industries
MICRO VALVE—In-Val-Co.
MICRO VERSALOGIC—Varian Data Machines
MICRO VUE—Fairchild Hiller Corp.
MICROZONE—Beckman Instruments Inc.
MIDGET—Sprague Electric Co.
MIDGI-TRIM—Duncan Electronics Inc.
MIGHTY MIKE—Hamilton Electronics Corp.
MIKE-O-METER—Sprague Electric Co.
MIL-ENE—Gore & Assoc. W. L.
MILIPOT—Voak Engineering Co.
MILITAN—Components Inc.
MILLERMATIC—Miller Electric Mfg. Co.
MILLISEC—Stevens-Arnold Inc.
MILLITEMP—Leeds & Northrup Co.
MILLITORR—Varian
MILLIVERTER—Plessey Airborne Corp.
MILRAC—Information Control Corp.
MINA—General Electric Co.
MINAC—General Precision Systems Inc.
MINEON—Drake Mfg. Co.
MINERTIA—Yaskawa Electric Mfg. Co. Ltd.
MINI BOXER—IMC Magnetics Corp.
MINIBRIDGE—Electronic Devices Inc.
MINI-CATOR—Industrial Devices Inc.
MINICHRON—Sela Electronics Co.
MINI-COAX—Wavelabs Co. Div.
MINICODER—General Devices Inc.
MINICOM—General Devices, Inc.
MINI-CON—Switchcraft, Inc.
MINICONIC—Euphonics Corp.
MINI-CONNECTOR—Statham Instruments Inc.
MINI COOL—Sarex Corp.
MINICUBE—Sanders Associates Inc.
MINIDATRAC—Epsco Inc.
MINIDUCTOR—United Transformer Co.
MINIFILTER—United Transformer Co.
MINIFORMERS—Kenyon Electronics Inc.
MINIGRIND—Norton Co.
MINI-JOINT—Falcon Machine & Tool Co.
MINI-LITE—Transistor Electronics Corp.
MINILOK—Burndy Corp.
MINILYTIC—Sprague Electric Co.
MINIMATE—Matrix Science Corp.
MINI-MAZE—Sealol Inc.
MINI-METAL—Sealol Inc.
MINIMITE—Thermo Electric Co.
MINI-MIX—Switchcraft, Inc.
MINI-MOD—Dynair Electronics Corp.
MINI-MONITOR—Bird Electronic Corp.
MINI-OHM—Sprague Electric Co.
MINIPLAX—United-Carr Inc.
MINIRON—Hexacon Electric Co.
MINISCOPE—Bradley Ltd., G. & E.
MINISEL—Electronic Devices, Inc.
MINI-SLIDE—Industrial Devices Inc.
MINISOURCE—Elasco Inc.
MINISTAC—Semtech Corp.
MINISTAT—Westcott Electronics
MINISTIC—Semtech Corp.
MINISWITCH—Digitran Co.
MINI-SYNCLAMPS—Timber-Top, Inc.
MINITAN—Components, Inc.
MINITAPE—Stancil-Hoffman Corp.
MINIT CURE—Allaco Products Co.
MINI-THIN—Thermax Wire Corp.
MINITRONIC—Allaco Products Co.
MINI-VOLT—Industrial Devices, Inc.
MINI-WASP—Malco Mfg. Co.
MIN-O-MAL—Wiggins Inc., E. B.
MIN-O-MATIC—Wiggins Inc., E. B.
MINUTEMAN—Norton Co.
MISSILITE—Marco Oak Industries
MISTOR—American Aerospace Controls Inc.
MITE-MITE—Elair Industries Ltd.
MI-T-MAG—Ferricore Div.
MI-T-MAG—National Moldite Co.
MIX-AMP—Switchcraft, Inc.
MIX-KIT—Hardman Inc.
M-JAX—Switchcraft, Inc.
MLK SWITCH—Switchcraft, Inc.
ML 6—Meridian Lab. Inc.
MOBILFONE—Mobil Electronics Inc.
MOBILMATIC—Mobil Electronics Inc.
MOBILTEL—Lenkurt Electric Co. Inc.
MOBILTONE—Mobil Electronics Inc.
MODIFILM—Industrial Condenser Corp.
MODIFLEX—Industrial Condenser Corp.
MODULAIR—Rotron Mfg. Co. Inc.
MODULE-X—Sel-Rex Corp.
MODULINE—Sprague Electric Co.
MODULOK—Burndy Corp.
MODUTRIM—JFD Electronics Co.
MOLDED HEAT—Thermal Systems Inc.
MOLDED-ON—Barker Products Co.
MOLDITE—Ferricore Div.
MOLDITE—National Moldite Co.
MOLECUTHERM—Short Wave Plastic Forming Co.
MOL-U-METER—Brooks Instrument Div.
MOLYLUBE—Bel-Ray Co. Inc.
MOLY/SPRAY—Product Techniques, Inc.
MONARCH—Carter Motor Co.
MONILOGIC—Monitor Systems Inc.
MONITROL—Swanson Engineering & Mfg. Co.
MONOBALL—Southwest Products Co.
MONOBEAM—Beckman Instruments Inc.
MONOBLOC—Erie Technological Prods. Inc.
MONOCAL—Advanced Measurements Instrs. Inc.
MONOCAST—Polymer Corp.
MONOCERAM—San Fernando Electric Mfg. Co.
MONOGAS—Sunbeam Equipment Corp.
MONOLYTHIC—Sprague Electric Co.
MONOPAK—American Machine & Fdry. Co.
MONOPASS—Optics Technology Inc.
MONOPLEX—Shure Brothers Inc.
MONO-TET—Gore & Assoc., W. L.
MONOTHERM—Goodyear Aerospace Corp.
MONO TRAK—Liquid Carbonic Div.
MOON-BOUNCE—R. F. Systems Inc.
MORGANOHM—Morganite Resistors Ltd.
MORPHO—ITT Cannon Electric Div.
MOTOGARD—Power Control Corp.
MOTOMATIC—Electro-Craft Corp.
MOTO STEEL—Norton Co.
MoTUNG—Universal-Cyclops Specialty Steel Div.
MOVIOLA—Magnasync/Moviola Corp.
MRC—Marlin-Rockwell Div.
MS—United Transformer Co. Div.
MSO—Standard Tool & Mfg. Co.
MSP—Joslyn Electronic Systems Div.
MS-SYNCLAMPS—Timber-Top Inc.
MT-JAX—Switchcraft, Inc.
MTLC—JFD Electronics Co.
MTOS—General Instrument Corp.
MU-CAPS—Republic Electronics Corp.
MUCON—Republic Electronics Corp.
MUFFIN—Rotron Mfg. Co., Inc.
MULCAST—Babcock & Wilcox Co.
MULL-KOTE—Babcock & Wilcox Co.
MULL-TEMP—Babcock & Wilcox Co.
MULRAM—Babcock & Wilcox Co.
MUL-SET—Babcock & Wilcox Co.
MULTI-CAP—American Lava Corp.
MULTICON—Painton & Co. Ltd.
MULTIDIAL—Spectrol Electronics Corp.
MULTIDUCTOR—Ajax Magnethermic Corp.
MULTIFORM—Precision Thermometer & Instr.
MULTI-LITE—Switchcraft, Inc.
MULTI-LOK—Robertshaw Controls Co.
MULTI-MATIC—United States Machy. Sub.
MULTI MEDIA—A. V. Electronics, Inc.
MULTIMET—Union Carbide Corp.
MULTIMETER—Rawson-Lush Instrument Co.
MULTI MITE—Thermo Electric Co. Inc.
MULTI-MODE TONOTRON—Hughes Aircraft Co.
MULTIPLE MICROFLASH—E. G. & G. Inc.
MULTI/RITER—Texas Instruments Incorporated
MULTISCAN—Plessey Airborne Corp.
MULTISONS—Macrosonics Corp.
MULTI-STRIP—Gore & Assoc., W. L.
MULTI-SWITCH—Switchcraft, Inc.
MULTISYN—Del Electronics Corp.
MULTI-TAP—Sola Electric Div.
MULTI-TET—W. L. Gore & Assoc. Inc.
MULTITROL—Power Control Corp.
MULTI-VIDER—Julie Research Labs. Inc.
MUNTZ TV—Television Mfrs. of Amer. Co.
MURALITE—Mura Corp.
MURA METER—Mura Corp.
MUSIC LOVERS—Shure Brothers Inc.
MU-STAT—Precision Thermometer & Instr.
MWL—Fairchild Semiconductor Div.
MYKROY—Molecular Dielectrics Inc.
MYOSYNCHRON—Birtcher Corp.
MYSTR—Waters Mfg. Inc.

N—Philadelphia Quartz Co.
NAMCO—National Acme Co.
NAME-TOUCH—ITT Telecommunications
NANO—ITT Cannon Electric Div.
NANOCOUNTER—Chronetics Inc.
NANO-K—ITT Cannon Electric Div.
NANOLOGIC—Chronetics Inc.
NANOLYZER—Nuclear-Chicago Corp.
NANOPAC—Nanmac Corp.
NANOPIN—ITT Cannon Electric Div.
NANOSEAL—Nanmac Corp.
NANOSOCKET—ITT Cannon Electric Div.
NANOSTRIP—ITT Cannon Electric Div.
NANOTRAN—Stevens-Arnold Inc.
NARCOIL—Norton Co.
NARESCOIL—Norton Co.
NARLINER—Norton Co.
NARROW-CAPS—Republic Electronics Corp.
NATALUM—National Standard Co.
NATIONAL—Matushita Electric Industrial Co.
NAUGAPOL—Uniroyal Chemical Div.
NAVCOR—Navigation Computer Corp.
N C C—Matsuo Electric Co. Ltd.
NCE—National Cine Equipment
NDUR—New Departure-Hyatt Bearings
NECO—Northern Engineering Co.
NEFERRITE—Tohoku Metal Industries Ltd.
NEG'ATOR—Hunter Spring Div.
NELCO—Chemical Products Corp.
NEOLUBE—Huron Industries
NEPTUNE—General Scientific Corp.
NEPTUNE—San Fernando Electric Mfg. Co.
NEST-CEL—Federal Paper Co.
NEST-LOC—Federal Paper Co.
NETIC—Magnetic Shield Div.
NEUTRO-STAT—Simco Co. Inc.
NEVACO—Nelson Vacuum Pump Co.
NEVERMOLD—Mosinee Paper Mills Co.
NF-LITE SWITCH—Switchcraft, Inc.
N-4—Nippert Elec. Prods. Co.
NF SWITCH—Switchcraft, Inc.
NIAGARA—American Metal Climax
NIAL—Driver, Wilbur B. Div.
NIC—Nippon Coil Co. Ltd.
NI-CAD—Gould Marathon Battery Co. Div.
NICORO—Western Gold & Platinum Co.
NICUSIL—Western Gold & Platinum Co.
NIFE—Svenska Ackumulator Akt
NIFEGON—Jungner Instrument Akt
NIFEMATIC—Jungner Instrument Akt
NIGHTSUN—Spectrolab Div.
NIKROTHAL—Kanthal Corp.
NIORO—Western Gold & Platinum Co.
NIOSTAN—Norton Co.
NIROMET—Driver Co., Wilbur B.
NIRON—Driver Co., Wilbur B.
NI-SPAN-C—Bourns Inc.
NITEHAWK—Ray-O-Vac Div.
NITRODE—General Instrument Europe
NIXIE—Burroughs Corp.
NO ARC—Chemtronics Inc.
NOBALOX—Royal Worcester Ind. Ceramics
NOBATRON—Sorensen Operation
NOBEX—Griffith Plastic Prods. Co.
NOBLE—Teikoku Tsushin Kogyo Co. Ltd.
NOBLELOY—Continental-Wirt Electronics
NOBLE-MET—American Components Inc.
NOBLETTE—Continental-Wirt Electronics
NOBLEWEST—Noble & Westbrook Div.
NO-CRO-MIST—Hull Co. Inc., R. O.
NO-FLO—Fortin Laminating Corp.
NOKORODE—Dunton Co., M. W.
NOLTE—Kingmann-White Inc.
NO-MAR—PIC Design Corp.
NO-NIK—Clauss Cutlery Co.
NO NOISE—Electronic Chemical Corp.
NON-TAMP—Eagle Electric Mfg. Co.
NO-PAK—Vapor Blast Mfg. Co.
NORBAPOWER—Norbatrol Electronics Corp.
NORBASINK—Norbatrol Electronics Corp.
NORBATHERM—Norbatrol Electronics Corp.
NORBIDE—Norton Co.
NORD—Multronics Inc.
NORELCO—Philips Electronic Instruments
NOR-MATIC—Square D Co.
NOROC—Norton Co.
NOROC ARMOUR—Norton Co.
NORTHERN SCIENTIFIC—Tracor Inc.
NORTH SEEKER—Humphrey Inc.
NORTONIZER—Norton Co.
NORWEC—Northern Engineering Co.
NO-SLIP—Pic Design Corp.
NOVACOR—C-Cor Electronics Inc.
NRC—Norton Co.
N SERIES—JFD Electronics Co.
NT-1—Photocircuits Corp.
NUALARM—ITT Telecommunications
NU-BLAC—Star Porcelain Co.
NUBLACK—Sterling Varnish Co.
NUCLEAR—Sterling Varnish Co.
NUCLEUS—Nuclear-Chicago Corp.
NUCOR—Nuclear Corp. of America
NUGGET—Rotron Mfg. Co. Inc.
NUMECHRON—Pennwood Numechron Co.
NU RAD—ITT Telecommunications
NU/RATE—U. S. Electrical Motors
NU-TRIM—Newport Instrument Corp.
NU-TRIMMER—Nutron
NYCO—New York Coil Co., Inc.
NYDURA—Angelica Uniform Co.
NYFAB—Wire Cloth Enterprises Inc.
NYLAFIL—Fiberfil Div.
NYLAFLOW—Polymer Corp.
NYLAGLAS—Fiberfil Div.
NYLAKRIMP—Waldom Electronics Inc.
NYLASINT—Polymer Corp.
NYLATCH—Hartwell Corp.
NYLATINT—Polymer Corp.
NYLATRON—Polymer Corp.
NYLAWELD—Polymer Corp.
NYLET—Heyman Mfg. Co.
NYLEZE—Phelps Dodge Magnet Wire oCrp.
NYLOBOND—AMP Inc.
NYLOCLIP—Burndy Corp.

OBSERVER—Blonder-Tongue Labs. Inc.
OCTO-LET—Fedtro Inc.
OFFSCAT—R. F. Systems Inc.
0483 GLASS—JFD Electronics Co.
OHIOHM—Ohio Carbon Co.
OHMICONE—Ohmite Mfg. Co.
OHMITRAN—Ohmite Mfg. Co.
OILDAG—Acheson Colloids Co.
OIL-MITE—Armite Labs.
OMEGALINE—Altronic Research Corp.
O M I—Omtronics Mfg. Inc.
OMNICLOSURE—Techmar Corp.
OMNI-FILL—Sprayon Products Inc.
OMNIFLUOR—Pilot Chemicals Inc.
OMNI-GLOW—Industrial Devices, Inc.
OMNIGRAPHIC—Houston Instrument Div.
OMNIMOD—Contemporary Electronics Inc.
1 PLUS 1—Bramco Controls Div.
ONKYO—Osaka Onkyo Co. Ltd.
OPCO—Organic Products Co.
OPTACH—H. H. Controls Co. Inc.
OPTECON—Data Technology Inc.
OPTICAL RESOLVER—Baldwin Electronics
OPTICATOR—Bowmar Instrument Corp.
OPTICHRON—Electrochrome Corp.
OPTIMA—Scientific-Atlanta Inc.
OPTIMAC—Hagan Computer Systems Div.
OPTI-SCAN—Sequential Electronic Systems
OPTISYN—Dynamics Research Corp.
OPTRONIC—Seneca Falls Machine Co.
ORANGE DROP—Sprague Electric Co.
ORASORB—Sel-Rex Corp.
ORB-ION—Norton Co.
ORION—Tonegen Electric Co. Ltd.
ORLON—E. I. duPont de Nemours & Co. Inc.
OROCLAD—Technic Inc.
OROMERSE—Technic Inc.
ORONITE—Chevron Chemical Co.
OROSENE—Technic Inc.
OROTEMP—Technic Inc.
OROTHERM—Technic Inc.
ORTHODOME—Varian
ORTHODUR—Thomas & Skinner Inc.
ORTHOMAT—Universal Drafting Machine
ORTHOMODE—Bomac Div. Varian Associates
ORTHONAL—Magnetics Inc.
ORTHONULL—General Radio Co.
ORTHOSIL—Thomas & Skinner, Inc.
ORTOFON—Elpa Mktg. Industries
OSCILLOSCRIPT—Schwarzer Corp.
OSCILLOTRON—Coleman Engineering Co.
OSM—Omni Spectra Inc.
OSMICTRON—Short Wave Plastic Forming Co.
OTC—Owatonna Tool Co.
OTO-CHEK—Ambco Electronics
OTOMETER—Ambco Electronics
OUNCER—United Transformer Co.
OUR PRIDE—Channelock Inc.
OVONIC—Energy Conversion Devices Inc.
OZO—Uniroyal Chemical Div.

PACE—Electronic Associates Inc.
PACEMAKER—Louis Allis Co.
PACEMAKER—Electrodyne Div.
PACER—Ameco Inc.
PACER—Sprague Electric Co.
PACER II—Ameco Inc.
PACESETTER—Ameco Inc.
PACE SETTER—Bronson Corp.
PAGE/ALERT—Vega Electronics Corp.
PAGE ALL—Action Systems Co.
PACER—Louis Allis Co.
PAGEMASTER—Bogen Communications Div.
PAINTSTIK—Markal Co.
PALCO—Western Gold & Platinum Co.
PALLADEX—Sel-Rex Corp.
PALORO—Western Gold & Platinum Co.
PAMCO—Paraplegics Mfg. Co., Inc.
PANAR RADAR—Sanders Associates Inc.
PANASONIC—Matushita Electric Industrial Co.
PAN-A-TROL—General Electric Co.
PANA VISE—Colbert Die Casting Co.
PANCAKE—Wiremold Co.
PANELIST—API Instruments Co.
PANELYTE—Thiokol Chemical Corp.
PANHANDLE—Lenkurt Electric Co. Inc.
PARACRIL—Uniroyal Chemical Div.
PARAFLECTOR—Scala Radio Corp.
PARAGON—Keuffel & Esser Co.
PARAMETRON—Conductron Corp.
PARASONIC—Goodyear Aerospace Corp.
PARD—Goodyear Aerospace Corp.
PARTEK—Magnaflux Corp.
PASSMOUR—Pass & Seymour
PATCH-OHM—Cambridge Thermionic Corp.
P&B—Potter & Brumfield Div.
PDQ—Information Instruments Inc.
PDR—McKiernan-Terry Marine Div.
PE—Elpa Mktg. Industries Inc.
PEAKLITE—Penn Keystone Corp.
PEAK-PICKER—Ircon Inc.
PEBE—Svenska Ackumulator Akt
PEECO—Automation Devices Inc.
PEMCO—Pacific Electro Magnetics Co.
PENETRANT—Oakite Products Inc.
PENN-CRIMP—Penn-Union Electric
PENN-L-TAP—Penn Union Electric Corp.
PENN-LUG—Penn-Union Electric
PENN-STEM—Penn-Union Electric
PENN-TAP—Penn-Union Electric
PENN-WRAP—Penn-Union Electric
PENN-WRAPPER—Penn-Union Electric
PENTACONTA—ITT Europe Inc.
PERFAB—Wire Cloth Enterprises Inc.
PERMA-BRITE—Hull Co. Inc., R. O.
PERMA BRUSH—General Devices, Inc.
PERM-A-CAPS—Chicago Condenser Corp.
PERMA-CHROME—Towne Labs. Inc.
PERMACOLOR—Norton Co.
PERMA-COTE—Paclic Universal Products Corp.
PERMA FLUSH—Ansley Mfg. Co., Arthur
PERMAFOAM—Columbia Wire Products Co.
PERMAFUSED—Norton Co.
PERMALEX—General Electric Co.
PERMALINE—Columbia Wire Products Co.
PERMANENTE—Product Techniques, Inc.
PERMANODE—Sel-Rex Corp.
PERMA-NUTS—Townsend Co.
PERMAREZ—Permali Inc.
PERMASCOPE—Twin City Testing Corp.
PERMASEAL—Sprague Electric Co.
PERMA-SHIELD—Brady Co., W. H.

PERMA-SLIK—Everlube Corp. of America
PERMA-TORQUE—Cambridge Thermionic Corp.
PERMAWOUND—Permali Inc.
PERMAX—Taylor Instrument Cos.
PERSONAL CALL—Multitone Electronics Ltd.
PERSONA PLATE—Colbert Die Casting Co.
PERT-O-GRAPH—Varian
PETER PAN—Electronic Creations Co.
PETROSORB—Pall Trinity Micro Corp.
P-F—Gagne Associates Inc.
PFC—Heinemann Electric Co.
P G OPTIDRESS—Precision International Corp.
P G PROFILOSCOPE—Precision International Corp.
P G PROJECTOR DRESS—Precision International Corp.
P G PROJECTORSCOPE—Precision International Corp.
PHANTOM—Foxboro Co.
PHASE/AMP—Halmar Electronics Inc.
PHASETROL—Sprague Electric Co.
PHAZOR—Industrial Test Equipment Co.
PHENOWELD—Hardman Inc.
PHENYLENEFIL—Fiberfil Div.
PHO/DOT—Nuclear-Chicago Corp.
PHO/GAMMA—Nuclear-Chicago Corp.
PHONATRACE—Birtcher Corp.
PHONEMASTER—Radioear Corp.
PHON-O-MATIC—Notifier Co.
PHOSROC—Cerro Wire & Cable Div.
PHOTOCORD—Kinelogic Corp.
PHOTOGATE—Affiliated Manufacturers Inc.
PHOTO-LATHE—Graphic Electronics Inc.
PHOTOMOD—Clairex Electronics Inc.
PHOTOSWITCH—Electronics Corp. of America
PHOTOSYN—Data Technology Inc.
PHOTOTRACE—Seneca Falls Machine Co.
PHOTRONIC—Weston Instruments Div.
PHYLATRON—Precision Systems Corp.
PHYSIOSCRIPT—Schwarzer Corp.
PIAS PREG—Furane Plastics Inc.
PICABOND—Amp Inc.
PI-CAPS—Chicago Condenser Corp.
PICCOCIZER—Pennsylvania Ind. Chemical
PICCODIENE—Pennsylvania Ind. Chemical
PICCOFLEX—Pennsylvania Ind. Chemical
PICCOLASTIC—Pennsylvania Ind. Chemical
PICCOPALE—Pennsylvania Ind. Chemical
PICCO 6000—Pennsylvania Ind. Chemical
PICCOTEX—Pennsylvania Ind. Chemical
PICCOUMARON—Pennsylvania Ind. Chemical
PICCOVAR—Pennsylvania Ind. Chemical
PICK-A-STRIP—Waber Electronics Inc.
PICO—Pacific Instrument Co.
PICOLINES—JFD Electronics Co.
PICOTRIM—Voltronics Corp.
PICTAPHONE—Kinelogic Corp.
PICTURE KING—Video Industries Co.
PIDG—AMP Inc.
PIELEFORK—Murata Mfg. Co. Ltd.
PIL—United Transformer Co.
PILL TERMINATION—EMC Technology Inc.
PIN HEAD—Sprague Electric Co.
PINPOINT—Goodyear Aerospace Corp.
PINTREX—C. E. M. Co. Inc.
PIP—United Transformer Co.
PIPE-MAT—Yaskawa Electric Mfg. Co. Ltd.
PIPIX—Litton Industries
PITRAN—Stow Labs. Inc.
PIXIE—Burroughs Corp.
PIXIEPOT—Duncan Electronics Inc.
PLANEX—Raytheon Co.
PLANT-CENTRAL—Weltronic Co.
PLASKON—Allied Chemical Corp.
PLASLODE—Fiberfil Div.
PLASLUBE—Fiberfil Div.
PLASTI-BOND—AMP Inc.
PLASTIC STEEL—Devcon Corp.
PLASTIFORM—3M Co.
PLASTI-GRIP—AMP Inc.
PLASTI-GROMMETS—Fastex Div. Ill. Tool Wks.
PLASTINITE—Fastex Div. Ill. Tool Wks.
PLASTI-PLUGS—Fastex Div. Ill. Tool Wks.
PLASTI-RINGS—Fastex Div. Ill. Tool Wks.
PLASTI-RIVETS—Fastex Div. Ill. Tool Wks.
PLASTI-SUPPORTS—Fastex Div. Ill. Tool Wks.
PLASTI-TAGS—Seton Name Plate Corp.
PLATANEX—Sel-Rex Corp.
PLATE-MATE—ITT Cannon Electric Div.
PLATING PROGRESS—Sel-Rex Corp.
PLATINUM ANODES—Sel-Rex Corp.
PLAXIAL—United-Carr Inc.
PLAYAL—Sonotone Corp.
PLIOFORM—Graphtex Inc.
PLOTAMATIC—Bolt Beranek & Newman
PLUGMOLD—Wiremold Co.
PLUGTRIM—Wiremold Co.
PLUNGE-O-MATIC—Norton Co.
PLUS-C—JFD Electronics Co.
PLUS MODULES—Ansley Mfg. Co., Arthur
PLUS-SEAL—Shamban & Co., W. S.
PLYMASTER—PPG Industries Inc.
PMB—General-Electro Mechanical Corp.
PMC—General-Electro Mechanical Corp.
PML—Pacific Metrology Labs. Inc.
P-N-R—Cerro Corp.
PNR—Cerro Wire & Cable Div.
PNRX-90—Cerro Wire & Cable Div.
POCKET-PROBE—Electronic Devel. Labs.
POGO—Pylon Co. Inc.
POGO—Western Indicator Co. Inc.
POLAR—British Radio Electronics
POLAR HEX—Hughes Connecting Devices
POLAROID—American Instrument Co.
POLITEX—Geoscience Instrument Corp.
POLYCARBAFIL—Fiberfil Div.
POLYCIN—Baker Caster Oil Co.
POLYCLAD—Atlantic Laminates Inc.
POLY-DAP—U. S. Polymeric Inc.
POLYDYNE—General Electric Co.
POLY-GLIDE—Shamban & Co., W. S.
POLYGUIDE—Electronized Chemicals Corp.
POLYLITE—Reichhold Chemicals, Inc.
POLYMET—Polymer Corp.
POLY/MOLY—Product Techniques, Inc.
POLYNOID—Skinner Polynoid Div.
POLY-OIL—Polymer Corp.
POLYPENCO—Polymer Corp.
POLY PLANAR—Era Acoustics Corp.
POLY-PLATES—Brady Co., W. H.
POLYPORE—Polymer Corp.
POLY-PREG—U. S. Polymeric Inc.
POLYSEAL—General Electric Co.
POLYSKOP—Rohde & Schwartz
POLYVOLT—General Electric Co.
POOLSITTER—Sonus Corp.
POPO—Scientific Data Systems Inc.
POROSCOPE—Twin City Testing Corp.
PORTABLE POWER FOR PROGRESS—Sonotone Corp.
PORTA-CLEAN—Electro-Air Div.
PORTAMETRIC—Electro Scientific Indus.
PORTANIM—Berkeley Nucleonics Corp.
PORT-A-TAK—Strandberg Engineering Labs.
PORTA-TRACE—Gagne Assoc. Inc.
PORTEL—Industrial Electronetics Corp.
PORTIONATOR—Glenmarc Mfg. Co.
PORT-O-PHONIC—Dynavox Electronics Corp.
PORT PILOT—States Electronics Corp.
POSISTOR—Murata Mfg. Co. Ltd.
POSITEMP—Pennsylvania Elec. Technology
POS-O-GRIP—Zero-Max Co.
POSTLITE—Drake Mfg. Co.
POWER-DET—Oakite Prods. Inc.
POWERDIAL—Lutron Electronics Co. Inc.
POWER FORM—Extrudapak Div.
POWER HANDLE—Sonotone Corp.
POWERIG—Huck Mfg. Co.
POWERLINE—Waber Electronics Inc.
POWERLOK—Continental Screw Co.
POWERLYTIC—Sprague Electric Co.
POWER MAKER—Topaz Inc.
POWER-O-MATIC—Blue M Engrg. Co.
POWERPOLE—Anderson Power Products
POWERSTAT—Superior Electric Co.
POWER STREAK—American Electric Cable
POWER-STYLE—Square D Co.
POWERTRAN—Ferrotran Electronics Co.
POWERTRON—Industrial Test Equipment
POWER/VAC—General Electric Co.
POWR AMP—Hagan Computer Systems Div.
POWRFET—Crystalonics
POW-R-GARD—Anderson Power Products
POWR-KORD—ITT Wire & Cable Div.
POWRLOG—Hagan Computer Systems Div.
POWR MAG—Hagan Computer Systems Div.
POWR-RIB—Ohmite Mfg. Co.
POXY-GARD—Sterling Varnish Co.
PRECIFIX—Rohde & Schwarz
PRECIFIX A & AA—Americon Corp.
PRECISE-OHM—Precision Inc.
PRECISOR—Taylor Instrument Cos.
PREE-SET—Sturtevant Co., P. A.
PREFCOAT—Ohmart Corp.
PREFILTRON—Pfizer Minerals, Pigments & Metal
PRELORT—Reeves Instrument Div.
PRE-MET—Sel-Rex Corp.
PREMIER—National Television Tube Inc.
PREOMAT—Impectron Inc.
PREPALLOY—Hull Co. Inc., R. O.
PREP/LAP—Taylor-Winfield Corp.
PRES-BOND—Pres-On Products Co.
PRESCO—Precision Systems Co. Inc.
PRES-CON—Electro Products Labs. Inc.
PRESS-FIT—Sealectro Corp.
PRESSLITE—Marco-Oak Industries
PRESS-O-FILM—Testex Inc.
PRESS-ON—Penn-Union Electric
PRESS-TO-TEST—Drake Mfg. Co.
PRESSWELD—Pressteel Co.
PRESTRACE—Gubelman Chart Div.
PRIMEWIRE—All-State Welding Alloys Co.
PRINCESS—Ungar Div.
PRINCO—Precision Thermometer & Instr.
PRINT-LOK—Sprague Electric Co.
PRITEC—Private Tele-Communications, Inc.
PRIVAPHONE—Miles Reproducer Co. Inc.
PROBOL—Huron Industries
PROCESS 87-D—Panelgraphic Corp.
PROCESS W-2—Coastal Dynamics Corp.
PRODAC—Hagan Computer Systems Div.
PRODAG—Acheson Colloids Co.
PROFESSIONAL—Components Corp.
PROFIL—Fiberfil Div.
PROKAR—Sprague Electric Co.
PROLOID—Micronetics a Teledyne Co.
PROMATIC—General Control Co.
PRONG-LOCK—Waldes Kohinoor, Inc.
PROPELLON—H. M. H. Industries
PROPIMAX—Rotron Mfg. Co., Inc.
PROPYLUX—Westlake Plastics Co.
PROTECT-A-TAPE—Computron Inc.
PROTECTITE—All-State Welding Alloys Co.
PRO-TEXTION RAY—Atlantic Ultraviolet Corp.
PROTO-DEP—Epec Industries Inc.
PROTOMAKA—Epec Industries Inc.
PROTOPLATA—Epec Industries Inc.
PROTYPE—Phillips Process Co. Inc.
PROVEN SOUND AROUND THE WORLD—Fedtro Inc.
PROXI-TRON—Automation Devices Inc.
PROXSWITCH—Denison Inc., R. B.
P & S—Pass & Seymour
PSS—Pall Trinity Micro Corp.
P-10—Endevco Corp.
PULSE DOT—Circon Component Corp.
PULSIGNAL—A. R. F. Products Inc.
PULSOLITE—Electronic Control Corp.
PULTEC—Pulse Techniques, Inc.
PUMP-PAC—Micro-Magnetic Industries Inc.
PUMPSICLE—Jersey Technical Consultants
PUMPTROL—Square D Co.
PUROK—Vapor Blast Mfg. Co.
PURSE-LOCK—Fastex Div.
PUSH-PUSH—Switchcraft, Inc.
PVB—Electro Scientific Indus. Inc.
PVZ—General Electric Co.
PWC AZ—Plastic Wire & Cable Corp.
PWC N-A—Plastic Wire & Cable Corp.
PWC N-A TRAY—Plastic Wire & Cable Corp.
PWC NA-X—Plastic Wire & Cable Corp.
PWC PLASTAFLEX—Plastic Wire & Gable Corp.
PYOD—Foxboro Co.
PYRAD—Haveg Industries Inc.
PYRANOL—General Electric Co.
PYROCOUPLE—General Transducer Co.
PYROID—Pfizer Minerals, Pigments & Metals
PYROMEG—Pyrofilm Resistor Co. Inc.
PYROMET—Pyrofilm Resistor Co. Inc.
PYRON—American Metal Climax
PYROSEAL—Pyrofilm Resistor Co. Inc.
PYROSHIELD—Columbia Technical Corp.
PYROTEL—Milletron, Inc.
PYRO-TEM—General Transducer Co.
PYROTEMP—Electronic Control Corp.
PYROTRAK—Lash Labs Inc.
PYROTRON—Bailey Meter Co.
PYR-O-VANE—Honeywell
PYROX—Pyro-Electric, Inc.
PZT—Clevite Corp.

Q FASTENERS—Fastex Div. Ill. Tool Wks.
Q-G—Switchcraft, Inc.
QIKLOK—Burndy Corp.
QO—Square D Co.
QR—Tridair Industries
QSR—General Electric Co.
Q-T—Sierra Electric Corp.
QT-SYNCLAMPS—Timber-Top Inc.
QUAD—Electronic Associates Inc.
QUADRID—Alford Mfg. Co.
QUANTIME—Varian
QUANTOVAC—Applied Research Labs.
QUARTZQ—Millen Mfg. Co. Inc., James
QUATRASID—Hull Co. Inc., R. O.
QUICK-LOK—Eagle Electric Mfg. Co.
QUICK-SCAN—Taylor Instrument Cos.
QUICK SEAL—Saunders Corp.
QUENCH GUARD—Sola-Basic Industries
QUICK-WEDGE—Kedman Co.
QUIET-TYPE—General Electric Co.
QUIK-LABELS—Brady Co., W. H.
QUIK-LINE—Brady Co., W. H.
QUIKTIP—Leeds & Northrup Co.
QUINT POINT—Eaton Yale & Towne Inc.

RAD-A-LERT—United States Radium Corp.
RADELIN—United States Radium Corp.
RADIODYNE—Western Coil & Electrical Co.
RADIO GRADES—Thomas & Skinner Inc.
RADIO TOUR—Multitone Electronics Ltd.
RADOX—Barrett Electronics Corp.
RADTRAC—Canoga Electronics Corp.
RAMP—Shakeproof Div.
RANDAC—Mitchell Rand Mfg. Corp.
RAPAC—Square D Co.
RATIO-SCOPE—Milletron Inc.
RAYALENE—Uniroyal Chemical Div.
RAYCARL—Camcar Screw & Mfg.
RAYDRY—Raybond Electronics Inc.
RAYFOAM—Raychem Corp.
RAYMASTER—George W. Gates & Co.
RAYMER—Trutone Electronics, Inc.
RAYMIKE—General Electric Co.
RAYNGER—Raytek Inc.
RAYOLIN NF—Raychem Corp.
RAYOSCAN—Leeds & Northrup Co.
RAYOTUBE—Leeds & Northrup Co.
RAYSEAL—Raybond Electronics Inc.
RAY WEIGH—Ohmart Corp.
RDT—Rosselli Del Turco Rossello
REAC—Reeves Instrument Div.
REACH-ALL—Armite Labs.
REACTROL—General Electric Co.
READALL—Signal & Communications Div.
REAL-AL—Acme Chemical & Insulation
REALCO—REA Express
REALI-SLIM—Kaydon Engineering Corp.
RE-CIRK-IT—Heinemann Electric Co.
RECOCO—Dynamic Precision Controls Corp.
RECORDALL—Miles Reproducer Co. Inc.
RECORD MATIC—Duotone Co. Inc.
RECORDOPHONE—Miles Reproducer Co. Inc.
RECTI/RITER—Texas Instruments Incorporated
REDARTAR—Goerz Optical Co. Inc.
RED DIAMOND—Liquid Carbonic Div.
RED-EYE—Milletron Inc.
RED H—Florida Transformer Co.
RED TOP—Sprague Electric Co.
REEDAC—Grigsby Barton Inc.
REFRACTOSYN—H. H. Controls Co.
REFRETRAN—Dynamic Precision Controls Corp.
REGALOX—Royal Worcester Ind. Ceramics
REGENT—Carter Motor Co.
REGULAR—National Specialties Co.
REJAFIX—Popper & Sons Inc.
RELIALAB—Tenney Engineering Inc.
REPCO—Phelon Co. Ic., R. E.
REPORTER—Roback Corp.
RESINBOND—Roberts & Assoc., E. V.
RESINFORM—Roberts & Assoc., E. V.
RESISTA—Stettner-Trush Inc.
RESISTOK—Glidden Metals
RESOLON—Duncan Electronics Inc.
RESONATRON—Trak Microwave Corp.
RESPONSYN—United Shoe Machinery Corp.
RETRAX—Action Systems Co.
RETRAX—Sanders Assoc. Inc.
REVALON—Revere Copper & Brass Inc.
REVERBATAPE—Schober Organ Corp.
REVER-SYNCLAMPS—Timber-Top Inc.
REVTROL—Electronic Control Corp.
REX—Trimm, Inc.
REXOLENE—Brand Rex Div.
REXOLITE—Brand Rex Div.
REZSEAL—Sprague Electric Co.
RGI—Gilmont Instruments Inc.
RHINO-HIDE—Pacific Electricord Co.
RHODEX—Sel-Rex Corp.
RIGHT ANGLE—Nanmac Corp.
RIGICHAMP—Barry Controls Div.
RIGIMESH—Pall Trinity Micro Corp.
RING BALANCE—Hagan Computer Systems Div.
RING-GUN—Waldes Kohinoor, Inc.
RING-JECTOR—Waldes Kohinoor, Inc.
RING-LOC—ITT Cannon Electric Div.
RING-MOUNT—Waldes Kohinoor, Inc.
RING-O-MAT—Waldes Kohinoor, Inc.
RINSAID—Hull Co. Inc., R. O.
RIPPLE ROUND—Alpha Metals, Inc.
RITEOHM—Ohmite Mfg. Co.
R-JAX—Switchcraft, Inc.
R-LITE—Eldema Div.
RMB—Landis & Gyr, Inc.
ROBLACK—Hull Co. Inc., R. O.
ROBOTEMP—Ulanet Co., George
ROBOTROL—Sola-Basic Industries
ROCKBESTOS—Cerro Corp.
ROCKBESTOS—Cerro Wire & Cable Div.
ROCKER-GLO—Pass & Seymour
ROCKHIDE—Cerro Wire & Cable Div.
ROCKTEMP—Cerro Wire & Cable Div.
ROCKTHERM—Cerro Corp.
ROCKTHERM—Cerro Wire & Cable Div.
ROCKZONE—Cerro Corp.
ROCKZONE—Cerro Wire & Cable Div.
RODIP—Hull Co. Inc., R. O.
ROE—Stettner-Trush Inc.
ROGARD—Hull Co. Inc., R. O.
ROHCO—Hull Co. Inc., R. O.
ROKLEEN—Hull Co. Inc., R. O.
R-OHM—Toyo Electronics Industry Corp.
ROLL-FLO—Cambridge Filter Corp.
ROLOCON—Meridian Lab. Inc.
ROLOX—Hardman Inc.
ROL-PAK—Waldes Kohinoor Inc.
ROLTITE—Upson Bros. Inc.
ROMAN BRONZE—Revere Copper & Brass Co.
ROPREPP—Hull Co. Inc., R. O.
ROSHEENE—Hull Co. Inc., R. O.
ROSITE—Rostone Corp.
ROSTRIP—Hull Co. Inc., R. O.
ROTALARM—Swanson Engineering & Mfg. Co.
ROTA-CRIMP—AMP Inc.
ROTASWITCH—Disc Instruments Inc.
ROTAX—Foxboro Co.
ROTEL—Industrial Electronetics Corp.
ROTO-BIN-DICATOR—Bin Dicator Co.
ROTOBLAST—Pangborn Corp.
ROTOCON—Meridian Lab. Inc.
ROTODOME—Dalmo Victor
ROTOFORM—Goodyear Aerospace Corp.
ROTO-GLO—Pass & Seymour
ROTO GUARD—Bin-Dicator Co.
ROTOLIN—Landis & Gyr Inc.
ROTO-NETIC—Heinemann Electric Co.
ROTOPAK 80—Precision Specialties Inc.
ROTOPULSER—Louis Allis Co.
ROTO-REED—Ansley Mfg. Co., Arthur
ROTOSYN—Data Technology Inc.
ROTOTRAN—Data Technology Inc.
ROUGHNECK—Miller Electric Mfg. Co.
ROYAL—ITT Wire & Cable Div.
ROYALAR—Uniroyal Chemical Div.
ROYAL-D—ITT Cannon Electric Div.
ROYALITIC—Industrial Condenser Corp.
ROYALOK—ITT Wire & Cable Div.
ROYAL YORK—Major Electronics Corp.
RS SWITCH—Switchcraft, Inc.
RUBBON—All-State Welding Alloys Co.
RUBRGLAS—Multi-Flex Seals Inc.
RUBRGLAS SEELS—APM Hexseal Corp.
RUBROHM—Multi-Flex Seals Inc.
RUBYLITH—Ulano Products Co. Inc.
RULON—Dixon Corp.
RUPRACTO—Vapor Blast Mfg. Co.
RUSH—Eraser Co. Inc.
RUSH-FYBRGLASS—Eraser Co. Inc.
RUST BUSTER—Armite Laboratories
RUSTRIPPER—Oakite Products Inc.

S—Solari & C/Udine
SA—Sanders Assoc. Inc.
SABER-CHAMP—Hygrodynamics Inc.
SAFE-PAK—Gems Co. Inc.
SAFE-T-KLIP—Industrial Devices, Inc.
SAFE-T-KORD—Industrial Devices Inc.

SAFE-T-LINE—Shamban & Co., W. S.
SAFE-T-TAP—Keystone Mfg. Co. Div.
SAF-T-SOLV—Preco Chemical Corp.
SAICOR—Signal Analysis Ind. Corp.
SALI—Adalet Mfg. Co.
SAL LOG—Jungner Instrument AB
SAMSON—Quick-Set Inc.
S AND DESIGN—Sierra Electric Corp.
SANDMASTER—AV Electronics, Inc.
SANITAIRE—Atlantic Ultraviolet Corp.
SANITRON—Atlantic Ultraviolet Corp.
SAUCER—Rotron Mfg. Co., Inc.
SBG—Mallinckrodt Chemical Works
SCA—Servo Corp. of America
SCAN-LINE—Fischer & Porter Co.
SCANOMARK—Leupold & Stevens Instrs. Inc.
SCAT—Keleket Div.
SCHMIDT—Electromatic Equipment Co.
SCIENCE FAIR—Waber Electronics Inc.
SCINTIBLOC—Quartz & Silice
SCINTILLATOR B—Pilot Chemicals Inc.
SCOPE-MOBILE—Tektronix Inc.
SCOTTIE—Remler Co.
SCREEN STAR—Wire Cloth Enterprise sInc.
SCREW LAUNCHER—Vaco Products Co.
SCRIMTEX—Mosinee Paper Mills Co.
SDS—Scientific Data Systems Inc.
SE—USM Fastener Co. Div.
SEAL—Philadelphia Quartz Co.
SEALCAP—JFD Electronics Co.
SEALCOR—All-State Welding Alloys Co.
SEALECTROBOARD—Sealectro Corp.
SEALECTROCARD—Sealectro Corp.
SEALECTROSWITCH—Sealectro Corp.
SEALED-CURRENT—Sel-Rex Corp.
SEALINK—Burndy Corp.
SEALIT—Burndy Corp.
SEALMORE—Armite Labs.
SEALOK—Burndy Corp.
SEAL-OFF—Taylor-Winfield Corp.
SEAL-PAC—General Electric Co.
SEALUG—Burndy Corp.
SEALVAR—Pfizer Minerals, Pigments & Metals
SEA SPEED—Airguide Instrument Co.
SEBRING—Airguide Instrument Co.
SEELBOLT—Multi-Flex Seals Inc.
SEELBOLTS—APM Hexseal Corp.
SEELNUTS—Multi-Flex Seals Inc.
SEELOC WASHERS—Multi-Flex Seals Inc.
SEELRIVITS—APM Hexseal Corp.
SEE-SAW—ITT Industrial Labs. Div.
SEL—Systems Engineering Ltd.
SELBESTOS—Sel-Rex Corp.
SELECTAFORM—Extrudapak Div.
SELECTAKRIMP—Waldom Electronics Inc.
SELECT-A-SPEDE—Louis Allis Co.
SELECTA-VOLT—Trak Microwave Corp.
SELECTO—Duotone Co. Inc.
SELECT-O-PHONE—ITT Telecommunications
SELF-LOC-K—Airborn Inc.
SELISTOR—Eastern Delta Corp.
SEMBO—Varian
SEMCOR—Components Inc.
SEMIDUCER—Conrac Corp.
SEMIFLEX A—Vacuum Barrier Corp.
SEMITRANS—Semikron International Inc.
SEMITUNG—Varian
SEMITUNG—Semicon Assoc. Inc.
SEMPAC—Semtech Corp.
SENDUST—Tohoku Metal Industries Ltd.
SENSAIRE—Taylor Instrument Cos.
SENSALL—National Sonics Corp.
SENSCOR—Sensor Corp.
SENSIPAK—Struthers-Dunn Inc.
SENSITAK—Struthers-Dunn Inc.
SENSITROL—Weston Instruments Div.
SENSITRON—Delta Semiconductors Div.
SENSORY—Sturtevant Co., P. A.
SENTRILINE—Bird Electronic Corp.
SENTRI-SEAL—New Departure-Hyatt Bearings
SEPRAPHORE—Gelman Instrument Co.
SEPT—Sprague Electric Co.
SEQUENCALARM—Beta Corp.
SERDEX—Bacharach Instrument Co.
SERVA-PRINTA—Bell-Mark Corp.
SERVIPUMP—Bacharach Instrument Co.
SERVITEMP—Bacharach Instrument Co.
SERVIVAC—Bacharach Instrument Co.
SERVIVAR—Bacharach Instrument Co.
SERVOBAROMETER—Exactel Instrument Co. Div.
SERVOBLENDER—Exactel Instrument Co. Div.
SERVOBOARD—Servo Corp. of America
SERVOCAP—U. S. Capacitor Corp.
SERVOCON—Servo Corp. of America
SERVODYNAMIC—Servo Corp. of America
SERVODYNE—Canoga Electronics Corp.
SERVOFLEX—Servo Corp. of America
SERVOFLIGHT—Servo Corp. of America
SERVOFRAX—Servo Corp. of America
SERVOGAUGE—Exactel Instrument Co. Div.
SERVOGLASS—Servo Corp. of America
SERVOGRAPH—Servo Corp. of America
SERVOLAB—Servo Corp. of America
SERVOLARM—Servo Corp. of America
SERVOMANOMETER—Exactel Instrument Co Div.
SERVOMASTER—Servo Corp. of America
SERVOMATIC—Servo Corp. of America
SERVOMATION—Servo Corp. of America
SERVOPOLE—Servo Corp. of America
SERVOPULSE—Servo Corp. of America
SERVORAIL—Servo Corp. of America
SERVOREGULATOR—Exactel Instrument Co. Div.
SERVO/RITER—Texas Instruments Incorporated
SERVOSAFE—Servo Corp. of America
SERVOSCOPE—Servo Corp. of America
SERVOSIG—Servo Corp. of America
SERVOSPEED—Electro-Devices Inc.
SERVOSYNC—Servo Corp. of America
SERVOTHERM—Servo Corp. of America
SERVOTRACK—Servo Corp. of America
SERVOTRIP—Servo Corp. of America
SERVOTRON—Servo Corp. of America
SETONITE—Seton Name Plate Corp.
SEVEN-O—Mosinee Paper Mills Co.
SF-JAX—Switchcraft, Inc.
SGP—Norton Co.
SGQ—Norton Co.
SGS—Norton Co.
SHALLX—Shallcross Mfg. Co.
SHARPLES—Pennsalt Chemicals Corp. Eqpt. Div.
SHEARITE—AMP Inc.
SHIBADEN—Shiba Electric Co. Ltd.
SHIELDED-JAX—Switchcraft, Inc.
SHIELD-KON—Thomas & Betts Co. Inc.
SHIELD-STRIPP—Gagne Associates, Inc.
SHOWCASE—Switchcraft, Inc.
SHRINKDOWN—Markel & Sons, Inc., L. Frank
SHRINK-FIT—Dielectric Materials Co.
SHRINKFLEX—Haveg Industries Inc.
SHRINK-TITE—Dielectric Materials Co.
SHUR-TAB—Shur-Lok Corp.
SHUR-TORQ—Shur-Lok Corp.
SIDE-CAP—Cambridge Filter Corp.
SIDE-FLO—Cambridge Filter Corp.
SIDELOCK—Cambridge Filter Corp.
SIDE-STEP—Hi-G Inc.
SIE—Dresser Systems Inc.
SIEGERT—British Radio Electronics
SIERRACOTE 3—Sierracin Corp.
SIERRALITE—Sierra Electric Corp.
SIERRA-LOK—Sierra Electric Corp.
SIERRA-PAK—Sierra Electric Corp.
SIERRAPLEX—Sierra Electric Corp.
SIERRATEX—Sierra Electric Corp.
SIERRA TRIPLEX—Sierra Electric Corp.
SIERRATROL—Sierra Electric Corp.
SIERRATRON—Sierra Electric Corp.
SI FE MAG—Thomas & Skinner Inc.
SIGHTMASTER—Flexo International Corp.
SIGMA—Scientific Data Systems Inc.
SIGNAL PROCESSOR—Baldwin Electronics
SILASTIC—Dow Corning Corp.
SILCAD—Yardney Electric Corp.
SILCORO—Western Gold & Platinum Co.
SILENT SENTRY—Vinco Industries
SILFLO—All-State Welding Alloys Co. Inc.
SIL-FOS—Handy & Harman
SILICOHN—Sage Electronics Corp.
SILIC-O-NETIC—Heinemann Electric Co.
SILICONTROL—Sprague Electric Co.
SILICORINGS—APM Hexseal Corp.
SILICOTRIG—Bergen Lab. Inc.
SILIKROMES—APM Hexseal Corp.
SILPAINT—Fansteel Metallurgical Corp.
SILVERCAP—Del Electronics Corp.
SILVERCEL—Yardney Electric Corp.
SILVERCOTE—Little Falls Alloys Inc.
SILVERFILM—Industrial Condenser Corp.
SILVERLINE—Clifton Div.
SILVER-SHIELD—Int'l Wire Products Corp.
SILVER SOL-U-SALT—Sel-Rex Corp.
SILVERTOP—Ameco Inc.
SILVERWELD—Bourns Inc.
SILVREX—Sel-Rex Corp.
SIMUL-TORQUE—Metal Bellows Corp.
SINCLAIR-PHOENIX—Phoenix Precision Instr. Co. Inc.
SINCOS—Farmer Electric Prods. Co.
SINELINE—Westcott Electronics
SINEVERTER—Power Sources Div.
SI-O-DRI—Stauffer Chemical Co.
SI-O-FLEX—Stauffer Chemical Co.
SI-O-KWEL—Staufer Chemical Co.
SI-O-GEL—Stauffer Chemical Co.
SITECOM—ITT Telecommunications
SITE SELECTOR—R. F. Systems Inc.
SKINNY MARIE—Waber Electronics Inc.
SKINNY MILTON—Waber Electronics Inc.
SKINSULATED—Waber Electronics Inc.
SKINTIGHT—Gilbreth Co.
SKIPPER—Rotron Mfg. Co. Inc.
SKY STREAK—American Electric Cable Co.
SKY-STROBE—Delta Products Inc.
SKY-TIE—Adalet Mfg. Co.
SL—Mallinckrodt Chemical Works
SLEEV-SCRU—Pylon Co. Inc.
SLIK-JEL—Everlube Corp. of America
SLIM CAPS—Republic Electronics Corp.
SLIM JR—Hexacon Electric Co.
SLIM LINE—Electro-Air Div.
SLIMLINE—Hartwell Corp.
SLIMLINE—Parelco, Inc.
SLIM-LINE—Switchcraft, Inc.
SLIMPAC—Semtech Corp.
SLIMSERT—Rosan Inc.
SLIM SR—Hexacon Electric Co.
SLIM-TRAN—Electronic Research Assoc.
SLO-LAG—Eagle Electric Mfg. Co. Inc.
SLO-SYN—Superior Electric Co.
SMCO—Shallcross Mfg. Co.
SMK—Showa Musen Kogyo Co. Ltd.
SMOKE SENTINEL—Pyrotector Inc.
SMOKESTOP—Cambridge Filter Corp.
SMOKE SWITCH—Pyrotector Inc.
SMOOTHCOTE—All-State Welding Alloys Co.
SMOOTHSET—Babcock & Wilcox Co.
SM-STEMAG—Impectron Inc.
S/N—Micro Measurements Inc.
SNAIL—Pylon Co. Inc.
SNAPICOIL—Wiremold Co.
SNAP-LOCK—National Acme Co.
SNAP-O-MATIC—In-Val-Co.
SNAP-OUT—Up-Right Inc.
SNAP-PAK—Waldes Kohinoor, Inc.
SNAPSEELS—APM Hexseal Corp.
SNORKEL—Electrolube Ltd.
SOCKET-MIKE—Miles Reproducer Co. Inc.
SNAPTROL—CTS Electronics Inc.
SODECO—Landis & Gyr, Inc.
SODEREZE—Phelps Dodge Magnet Wire Corp.
SOLATRON—Marconi Instruments Div.
SOLATRON—Sola-Basic Industries
SOLATRON—Sola Electric Div.
SOLDERMASTER—Hexacon Electric Co.
SOLICO—Sorenson Lighted Controls Inc.
SOLIDTHERM—Westcott Electronics
SOLISTRAND—AMP Inc.
SOLO-PHONE—Shure Brothers Inc.
SOLU BRIDGE—Beckman Instruments Inc.
SOLU CHEK—Beckman Instruments Inc.
SOLU METER—Beckman Instruments Inc.
SOL-U-SALT—Sel-Rex Corp.
SOMCO—Infrared Industries Inc.
SONABAND—Miles Reproducer Co. Inc.
SONAC—Delavan Mfg. Co.
SONARTROL—Bionic Instruments Inc.
SONATRON—Ultrasonic Devices Inc.
SONIC—Strippit Div.
SONIC RANGER—Digitrol Systems Inc.
SONIFIER—Branson Sonic Power
SONIZON—Magnaflux Corp.
SONO-CAD—Sonotone Corp.
SONO-CERAMIC—Sonotone Corp.
SONODUR—Branson Instruments Inc.
SONODYNE—Shure Brothers Inc.
SONO-FLEX—Sonotone Corp.
SONOGEN—Branson Instruments Inc.
SONOMASTER—Sonotone Corp.
SONORAMIC—Robins Industries Corp.
SONORAY—Branson Instruments, Inc.
SONOSOLDER—Sonobond Corp.
SONOWELD—Sonobond Corp.
SONULITE—Sonus Corp.
SONUSWITCH—Sonus Corp.
SOSTRE—Solid State Research Corp.
SOUND CONTROL CENTER—Switchcraft, Inc.
SOUNDESIGN—Realtone Electronics Corp.
SOUND DIRECTOR—Argos Products Co. Inc.
SOUND HOUSE—E. G. & G. Int'l Inc.
SOUNDHOUSE—Geodyne Div.
SOUND SCOPE—Shure Brothers Inc.
SOUNDTRAP—Miles Reproducer Co. Inc.
SOURCE—Corry Jamestown Corp.
SPACE SAVER—Dixson Inc.
SPADE-LOK—AMP Inc.
SPARK ARRAY—Geodyne Div.
SPARTAN—Rotron Mfg. Co. Inc.
SPAULDITE—Spaulding Fibre Co.
SPECIAL SERIES—United Transformer Co.
SPECO—Components Specialties Inc.
SPECTRA—Photo Research Corp.
SPECTRASCAN 750—Granville-Philips Co.
SPECTRAY—Leeds & Northrup Co.
SPECTROCHROM—Beckman Instruments
SPECTROGARD—Spectrolab Div.
SPECTROLINE—Black Light Eastern Div.
SPECTROSIL—Thermal American Fused Quartz
SPECTROSUN—Spectrolab Div.
SPECTRO-TECH—Ultra Carbon Corp.
SPEECHMAKER—Cognitronics Corp.
SPEED—McMahon Electronic Engineering
SPEED-AIR-BONDS—Sterling Varnish Co.
SPEED-A-MATIC—U. S. Electrical Motors
SPEED CLAMPS—Tinnerman Products, Inc.
SPEED CLINCH—Tinnerman Products Inc.
SPEED CLIPS—Tinnerman Products, Inc.
SPEED GRIPS—Tinnerman Products, Inc.
SPEEDIAL—Lutron Electronics Co. Inc.
SPEEDIVAC—Edwards High Vacuum Inc.
SPEED NUTS—Tinnerman Products, Inc.
SPEEDOMAX—Leeds & Northrup Co.
SPEEDPAK—Thermo Products Co. Div.
SPEEDRACE—Racal Communications Inc.
SPEEDREADER—Data Products Corp.
SPEEDSERTS—Tridair Industries
SPEMBLY—Numar Corp.
SPHER-O-DYNE—Shure Brothers Inc.
SPHINCTER—Pylon Co. Inc.
SPHINX—Levin & Son Inc., Louis
SPICO—Spirling Products Co.
SPIRAKORE—General Electric Co.
SPIRAL—Rotron Mfg. Co. Inc.
SPIRALEX—Perkins Machine & Gear Co.
SPIRALPOT—Conrac Corp.
SPIRAL WRAP—Icore Electro-Plastics
SPIRAMEG—Sprague Electric Co.
SPIRAP—AMP Inc.
SPIR'ATOR—Hunter Spring Div.
SPIROL PIN—CEM Co. Inc.
SPLICEALARM—Nash & Harrison Ltd.
SPORTSMAN—Ray-O-Vac Div.
SPOTCHECK—Magnaflux Corp.
SPOT CHECK—Michigan Magnetics
SPRAYALL—H. M. H. Industries
SPRAYMAT—Sierracin Corp.
SPRAYPREG—Goodyear Aerospace Corp.
SPRING-FLEX—Flexaust Co. Div.
SPRINGTER—Pylon Co. Inc.
SPRINGTITES—Eaton Yale & Towne Inc.
SPRITE—Rotron Mfg. Co. Inc.
SPYRALINE—Rayline Inc.
SQUADCAL—Racal Communications Inc.
SQUARE DUCT—Square D Co.
SRC—British Radio Electronics
SR-4—BLH Electronics Co.
S SERIES—United Transformer Co.
STABARIUM—Keleket Div.
STABELEX—Industrial Condenser Corp.
STABILFLO—Foxboro Co.
STABIL-GLOW—Blue M Engineering Co.
STABILINE—Superior Electric Co.
STABILITE—Avco Bay State Abrasives
STABILITE—Spectra-Physics
STABILITE—Stackpole Carbon Co.
STABILOG—Foxboro Co.
STABIL-THERM—Blue M Engrg. Co.
STA-CAP—American Lava Corp.
STACER—Hunter Spring Div.
STACKOHM—Sprague Electric Co.
STACPAC—Semtech Corp.
STA-FAST—Shur-Lok Corp.
STA-FLO—Handy & Harman
STAIRWAY—Up-Right Scaffolds Div.
STAKE-LOC—ITT Cannon Electric Div.
STA-KON—Thomas & Betts Co.
STA-LINE—Mosinee Paper Mills Co.
STANCOTE—Standard Wire & Cable Co.
STANDARD—Ungar Div.
STANDARD ARROW—States Electronics Corp.
STANFLEX—Standard Wire & Cable Co.
STANGARD—JFD Electronics Co.
STAPIN—Burndy Corp.
STARAN—Goodyear Aerospace Corp.
STAR-PAC—Federal Package Corp.
STATIFLUX—Magnaflux Corp.
STAT-O-MATIC—General Precision Systems Inc.
STATUS INDICATOR—Industrial Electronic Engineers
STAVIT—Kokuyo Electric Co. Ltd.
STA-VO-TROL—General Electric Co.
STAY/PRENE—Pfizer Minerals, Pigments & Metals
STAZON—Precision Thermometer & Instr.
STEDIVOLT—Kelk, Ltd., George
STEELARC PLUS—All-State Welding Alloys Co.
STELLITE—Union Carbide Corp.
STENAFAX—Fitchburg Coated Products Inc.
STENOTAPE—American Geloso Electronics
STEPCON—Automation Development Co.
STEP-SERVO—Bergen Lab. Inc.
STEREODYNE—Dynaco, Inc.
STEREO MAGIC—Waber Electronics Inc.
STEREO-MATIC—Waber Electronics Inc.
STEREOMAX—Goodmans Loudspeakers Ltd.
STEREOPTIC—Edroy Products Co.
STERILSHIELD—Baker Co. Inc.
STIKON—Rdf Corp.
STOCKMASTER—Ultronic Systems Sub.
STOKES—Pennsalt Chemicals Corp. Eqpt. Div.
STOLAB PITRAN—Stow Labs. Inc.
STOLEC—Inter-Market Inc.
STONE—Tracor Inc.
STOP-LITE—Park Products Engrg. Co. Inc.
STORMOGRAPH—Taylor Instrument Cos.
STORMOGUIDE—Taylor Instrument Cos.
STORMOSCOPE—Taylor Instrument Cos.
STRADFORD—Trutone Electronics Inc.
STRAINRITE—Star Porcelain Co.
STRAIN TEL—Industrial Electronetics Corp.
STRANCODE—Stranco Prods. Inc.
STRAPON—Rdf Corp.
STRATO CLAD—Spaulding Fibre Co.
STRAT-O-LITE—Strat-O-Seal Mfg. Co.
STRATO-THERM—AMP Inc.
STRESSCOAT—Magnaflux Corp.
STRING BEAN—Waber Electronics Inc.
STRIPALL—Kinetics
STRIPES OF QUALITY—Antenna Specialties Co.
STRIPE O MATIC—United States Machy.
STRIP-GUIDE—Applied Microwave Lab.
STRIP-LOK—Long-Lok Corp.
STRIPMASTER—Ideal Industries, Inc.
STRIP-PACK—Elgin Electronics Inc.
STROBOTAC—General Radio Co.
STRONGSET—All-State Welding Alloys Co.
STUDIO MIXMASTER—Switchcraft, Inc.
STUR-D-DIAL—Gudebrod Bros. Silk Co. Inc.
STUR-D-LACE—Gudebrod Bros. Silk Co.
STYCAST—Emerson & Cuming Inc.
STYLIST—API Instruments Co.
STYRACON—Sprague Electric Co.
STYRAFIL—Fiberfil Div.
STYRAGLAS—Fiberfil Div.
STYROLUX—Westlake Plastics Co.
SUBOUNCER—United Transformer Co.
SUB-SUBOUNCER—United Transformer Co.
SUB-TONE—Vega Electronics Corp.
SULFAMEX—Sel-Rex Corp.
SULFIL—Fiberfil Div.
SUFLEX—British Radio Electronics
SUPEPART—Allaco Products Co.
SUPER A—Kappa Networks, Inc.
SUPERBOXER—IMC Magnetics Corp.
SUPER CHAMP—AMP Inc.
SUPER COMPACT—Electro-Air Div.
SUPERCON—Norton Co.
SUPERCON—Superior Electric Co.
SUPER 50—Connolly & Co.
SUPER-FLEX—Cicoil Corp.
SUPERFLEX—Columbia Wire Products Co.
SUPER-FLEX—Pacific Electricord Co.
SUPER-INDUSTRIAL—National Specialties
SUPER IV—Angelica Uniform Co.
SUPER K—Republic Electronics Corp.
SUPER KLEEN-ALL—Preco Chemical Corp.
SUPER L—Tinius Olsen Testing Mach. Co.
SUPER MAX-C—JDF Electronics Co.
SUPERMITE—Thermo Electric Co.
SUPER 100—Angelica Uniform Co.
SUPER/REG—Trio Laboratories Inc.
SUPER-SPLICE—Superior Cable Corp.
SUPERSWITCH—JAC Electronics Ltd.
SUPER SYNCLAMPS—Timber-Top Inc.
SUPER II—Angelica Uniform Co.
SUPPRESSIKIT—Sprague Electric Co.
SUPRAMESH—Pall Trinity Micro Corp.

SUPREMIUM PACK—All-State Welding Alloys Co.
SURFACTO—Vapor Blast Mfg. Co.
SURFAMARK—Taylor Instrument Cos.
SURFAMAX—Pall Trinity Micro Corp.
SURFEX—Pass & Seymour
SURGISTOR—Wuerth Products Corp.
SURGITRON—Wuerth Products Corp.
SURPRENANT—ITT Wire & Cable Div.
SWAPTOPS—Workplace Systems Inc.
SWIDGET—Continental-Wirt Electronics
SWING BLADE—Carpenter Mfg. Co. Inc.
SWING-WA—General Electric Co.
SWITCHLITE—Fuse Indicator Corp.
SWIVALIGN—Norton Co.
SWIVLTOP—Moody Machine Products Co.
S Y BONDEZE—Phelps Dodge Magnet Wire Corp.
SYDEWYNDER—Continental-Wirt Electronics
SYLGARD—Dow Corning Corp.
SYMPHONY HALL—Electronic Creations Co.
SYNCAL—Racal Communications Inc.
SYNCH-LOCK—Sequential Electronic Systems Inc.
SYNCHRO-FILM-ED—National Cine Equipment
SYNCHRON—Hansen Mfg. Co., Inc.
SYNCHRO REEDAC—Grigsby Barton Inc.
SYNCHRO-TAPE—Communitype Corp.
SYNCLAMPS—Timber-Top, Inc.
SYNCROGEAR—U. S. Electrical Motors
SYNCROPLEX—ITT Telecommunications
SYNKOTE—Plastoid Corp.
SYNTHAR—Industrial Condenser Corp.
SYNTHERM—Plastoid Corp.
SYNTHITE—Dolph Co., John C.
SYNTHOGRAPHIC—Synthane Corp.
SYROTRON—Varian
SYSCOM—AMP Inc.
SYSTEM 600—Digitronics Corp.
SYSTRAC—Systron Donner Corp.

TABL-TOP—Sel-Rex Corp.
TABTRON—Technical Apparatus Builders
TACTIC—Tac Technical Instrument Corp.
TACKMASTER—PPG Industries Inc.
TACTICOM—Texas Instruments Incorporated
TAG RING—Glenair Inc.
TAIYOHM—Taiyo Denki Co. Ltd.
TAKE-A-PART—Cortran Mfg. Co.
TALAR—General Precision Systems Inc.
TALKMASTER—Touchmaster Labs.
TALLY TAPE—Ohmite Mfg. Co.
TAN-O-MITE—Ohmite Mfg. Co.
TANOX—Sprague Electric Co.
TANTA-CLAD—Fansteel Metallurgical Corp.
TANTACON—Erie Technological Prods.
TANTAGLAS—Fansteel Metallurgical Corp.
TANTALEX—Sprague Electric Co.
TANTALYTIC—General Electric Co.
TANTAPAK—Sprague Electric Co.
TANTOROID—Sprague Electric Co.
TANTUNG—Fansteel Metallurgical Corp.
TAPETROL—Information Instruments, Inc.
TAPETRONIC—Seneca Falls Machine Co.
TAPEWRITERS—Dymo Products
TAPIN—Burndy Corp.
TAP-LOK—Groov-Pin Corp.
TAPTITE—Continental Screw Co.
TAP-TOOL—Armite Laboratories
TARZAN—Rotron Mfg. Co. Inc.
TASK FORCE—R. F. Systems Inc.
TASKMASTER—Vinco Industries
TASKOTE—Revere Corp. of America
TATTELITE—Sittler Corp.
TAUBOLT—Huck Mfg. Co.
TAYLORCLAD—Taylor Corp.
TAYLORITE—Taylor Corp.
TBA—Sprague Electric Co.
T-BAR—Electronic Controls Inc.
TBS—Westinghouse Electric Corp.
TAYLORON—Taylor Corp.
T. C. C.—Technical Components Co. Inc.
T-CELL—Bergen Lab. Inc.
TC-TRIM—JFD Electronics Co.
TEALESOCKET—Teale Machine Co. Inc.
TEC—Transformer Electronics Corp.
TEC—Eckel Industries Inc.
TEC—Transistor Electronics Corp.
TECH-NI-CUBE—Techmetric Co.
TECHNIMASTER—Wall Mfg. Co.
TECHTRON—Cary Instruments
TECKAIRE—Technical Wire Products Inc.
TECKCELL—Technical Wire Products Inc.
TECKFELT—Technical Wire Products Inc.
TECKNIT—Technical Wire Products Inc.
TECKNIT EMC—Technical Wire Products Inc.
TECKSCREEN—Technical Wire Products Inc.
TECKSPAN—Technical Wire Products, Inc.
TECKSTIK—Technical Wire Products, Inc.
TEC-LITE—Transistor Electronics Corp.
TECO—Tilton Electronics Corp.
TEC-RING—Tec Seal Corp.
TECTIP—Leeds & Northrup Co.
TEECO—Trutone Electronics Inc.
TEENUTS—Carr Fastener Co. Div.
TEK-PADS—Tekna Products Co.
TEK-PULLS—Tekna Products Co.
TEKS—Shakeproof Div.
TELAN—General Instrument Corp.
TELEALARM—Kameco Ltd.
TELECAP—Sprague Electric Co.
TELECODER—General Devices Inc.
TELECOM—General Devices Inc.
TELE-COMMAND—Private Tele-Communications, Inc.
TELEFILTER—Sprague Electric Co.
TELEMAG—Varian
TELEMARK—Leupold & Stevens Instrs. Inc.
TELEMAT—Kameco Ltd.
TELEMEMORY—Motorola Instrumentation & Control Inc.
TELEMETRICS—Lear Siegler Inc.
TELEMIKE—Miles Reproducer Co. Inc.
TELE-MINIFILTER—United Transformer Co.
TELE-PAGE—Private Tele-Communications, Inc.
TELEPATH—Cae Industries Ltd.
TELEPULSE—General Precision Systems Inc.
TELEPUNCH—Magne-Head Div.
TELERATE—Special Devices Labs. Inc.
TELE-REPEATER—Private Tele-Communications, Inc.
TELE-REPLY—Private Tele-Communications, Inc.
TELE-RETRIEVER—Private Tele-Communications, Inc.
TELESIZE—Norton Co.
TELE-SLIM—Tele-Norm Corp.
TELESPONDER—Vega Precision Labs.
TELESWITCH—Euphonics Corp.
TELETAX—Foxboro Co.
TELETECT—Special Devices Labs. Inc.
TELETONE—Electronic Creations Co.
TELETRONIX—Universal Audio
TELEVER SWITCH—Switchcraft, Inc.
TELEVISION TUBE CADDY—Argos Products Co. Inc.
TELL-TALE—Aerodyne Controls Corp.
TEL-OHMIKE—Sprague Electric Co.
TELTRAC—Canoga Electronics Corp.
TEL-TRU—Hill Inc., E. Vernon
TEMAR—General Instrument Corp.
TEMPA-DOT—Everlube Corp. of America
TEMPCOR—Tempel Steel Co.
TEMPEREX—Sel-Rex Corp.
TEMPERITE—Sola-Basic Industries
TEMPEROHM—EMC Technology Inc.
TEMP-GUARD—Dales Co., Franklin
TEMP-LACE—Gudebrod Bros. Silk Co., Inc.
TEMPORELL—Daylen Co.
TEMP-PLATE—Wahl Corp., Wm.
TEMP-R-GLAS—Connecticut Hard Rubber Co.
TEMPRITE—Taylor Instrument Cos.
TEMPROX—Ircon Inc.
TEMP-R-TAPE—Connecticut Hard Rubber Co.
TEMPSICLE—Jersey Technical Consultants
TEMP TEL—Industrial Electronetics Corp.
TEMP-TENDOR—API Instruments Co.
TEMTIP—Leeds & Northrup Co.
TEMTROL—Power Control Corp.
TENNA-GRIP—Sierra Electric Corp.
TENNEYZPHERE—Tenney Engineering Inc.
TENSILE-FLEX—Int'l Wire Products Corp.
TENSILOCK—Eaton Yale & Towne Inc.
TENSIONUTS—C. E. M. Co. Inc.
TENSI-TESTER—Aerodyne Controls Corp.
TENSOLON—Tensolite Insulated Wire Co.
TENULINE—Bird Electronic Corp.
TENZ NUTS—Eaton Yale & Towne Inc.
TEQUIPCO—Test Equipment Corp.
TERA-OHMMETER—Rohde & Schwarz
TERE-CAST—Sterling Varnish Co.
TERE-GARD—Sterling Varnish Co.
TEREVAR—Sterling Varnish Co.
TERMALENE—Bel-Ray Co. Inc.
TERMALINE—Bird Electronic Corp.
TERMALUM—AMP Inc.
TERMASHIELD—AMP Inc.
TERMI-BLOK—AMP Inc.
TERMI-FOIL—AMP Inc.
TERMI-GRID—Amp Inc.
TERMINATOR—AMP Inc.
TERMINYL—AMP Inc.
TERMI-PLATE—Amp Inc.
TERMI-POINT—AMP Inc.
TERMI-TWIST—AMP Inc.
TERRY I, II, III, IV—Stinger Antenna Co.
TEST-GLO—Ideal Industries Inc.
TESTEAR—Unex Labs. Div.
TESTIP—Leeds & Northrup Co.
TETRA-ETCH—Gore & Assoc., W. L.
TETRAN—Pennsalt Chemicals Corp.
TETROC—Sprague Electric Co.
TETTEX—Landis & Gyr, Inc.
TEX-CAP—Texas Capacitor Co.
TEXTOLITE—General Electric Co.
TF SWITCH—Switchcraft, Inc.
TFT—General Microwave Corp.
T HEAD—AMP Inc.
THE BIG LOOK—General Electric Co.
THE MOISTURE MONITOR—Strandberg Engineering Labs. Inc.
THEODOSYN—Dynamics Research Corp.
THERMACOMB—American Lava Corp.
THERMALERT—Raytek Inc.
THERMALEZE N—Phelps Dodge Magnet Wire Corp.
THERMA-LINK—International Electronic Research
THERMALL—Larose & Assoc. Inc., W. T.
THERMALOAD—Brush Beryllium Co.
THERMALOX—Brush Beryllium Co.
THERMALOXK—Brush Beryllium Co.
THERMAL PAIRING—General Instrument Corp.
THERMAL-RIBBON—Minco Products Inc.
THERMALUX—Westlake Plastics Co.
THERMALYTIC—Pac Electronics Corp.
THERMA-MET—American Components Inc.
THERMA-REL—International Electronic Research
THERMASHIELD—Technical Wire Products Inc.
THERMASPLICE—Amp Inc.
THERMATAB—Camwil Inc.
THERMEX—Votator Div.
THERMICA—Molecular Dielectrics Inc.
THERMILINEAR—Yellow Springs Instrument
THERMISTEMP—Yellow Springs Instrument
THERMI-TEM—General Transducer Co.
THERMO-ALARM—Mack Electric Devices Inc.
THERMOBOND—Sterling Varnish Co.
THERMOBOND—Varian
THERMO-CABLE—Thermo Electric Co.
THERMODOT—Infrared Industries Inc.
THERMODUR—Sterling Varnish Co.
THERMO-F—Sterling Varnish Co.
THERMOFIT—Raychem Corp.
THERMOFOIL—Minco Products Inc.
THERMOFUZE—Pennsylvania Elec. Technology
THERMOGAUGE—Granville-Philips Co.
THERMOGEL—Sterling Varnish Co.
THERMO GRAV—American Instrument Co.
THERMOGUIDE—Taylor Instrument Cos.
THERMOGUN—Raychem Corp.
THERMOHM—Leeds & Northrup Co.
THERMOKARAT—Sel-Rex Corp.
THERMOLAIN—Star Porcelain Co.
THERMOMATIC—Beckman Instruments Inc.
THERMOMATIC—Rotolite Sales Corp.
THERMOMELT—Markal Co.
THER-MONIC—Taylor-Winfield Corp.
THERMOPLAZ—Daylen Co.
THERMOPOXY—Sterling Varnish Co.
THERMO-PROBE—Micro Ohm Corp.
THERMORAD—Raychem Corp.
THERMOSCAN—Infrared Industries Inc.
THERM-O-SCOPE—Milletron Inc.
THERMO-SHIELD—Goodyear Aerospace Corp.
THERMOSPEED—Taylor Instrument Cos.
THERMO SPOT—E. G. & G. Inc.
THERMO-STRIP—Ideal Industries Inc.
THERMOSWITCH—Fenwal Incorporated
THERMO-TECTOR—General Electric Co.
THERMOTEL—General Electric Co.
THERMO-TIP—Ideal Industries, Inc.
THERMOVISION—AGA Corp.
THERMOWIND—Daylen Co.
THERMY—Mura Corp.
THICK-PANEL JAX—Switchcraft, Inc.
THIN-COOL—Roberts & Assoc., E. V.
THINISTOR—Victory Engineering Corp.
THIN-SHELL—Kaydon Engineering Corp.
THIN-VERTER—Arnold Magnetics Corp.
THORENS—Elpa Mktg. Industries Inc.
THREAD-TITE—Armite Laboratories
THRULINE—Bird Electronics Corp.
THRU-PASS—Sprague Electric Co.
THUNDERBOLT—Miller Electric Mfg. Co.
THRUSTORQ—Hagan Computer Systems Div.
THY-MO-TROL—General Electric Co.
THYRACONTROL—Sprague Electric Co.
THYRITE—General Electric Co.
TIAC—Texas Instruments Incorporated
TIBOR—Kawecki Chemical Co.
TI-CO—Thomas Instrument Co.
TIMEFAX—Fitchburg Coated Products Inc.
TIMEMARK—Fitchburg Coated Products Inc.
TIME-PAK—Gems Co. Inc.
TINI-D JAX—Switchcraft, Inc.
TINI-JAX—Switchcraft, Inc.
TINI-PLUG—Switchcraft, Inc.
TINI-SWITCH—Switchcraft, Inc.
TINI-TEE—Switchcraft, Inc.
TINTILLATE—Conversion Chemical Corp.
TINY L—Aladdin Electronics Div.
TINYLITE—Drake Mfg. Co.
TINYMAG—Torwico Electronics, Inc.
TINYMAX—Torwico Electronics, Inc.
TINY-T—Electronic Controls Inc.
TINY TALKY—Micro Communications Co.
TIOLEKTRIK—American Lava Corp.
TIPIT—Durakool Inc.
TITAL—Kawecki Chemical Co.
TITELITE—Drake Mfg. Co.
TITEX PLUS—Fineisen Co., A. R.
TITRA-KIT—Analytical Measurements Inc.
T-JAX—Switchcraft, Inc.
TM—General RF Fittings, Inc.
TOCCOSTAT—Tocco Div.
TOCCOTROL—Tocco Div.
TOCCOTRON—Tocco Div.
TOGAS—Montedoro Corp.
TONG TEST—Columbia Electric Mfg. Co.
TONOTRON—Hughes Aircraft Co.
TOOL-MATE—Akro-Mils, Inc.
TOPHEL—Driver, Wilbur B. Div.
TOPHET—Driver, Wilbur B. Div.
TORBAL—Torsion Balance Co.
TORGETT—Andar/ITI Inc.
TORK-O-STAT—Zero-Max Co.
TORMAX—IMC Magnetics Corp.
TORMENDUR—Tohoku Metal Industries Ltd.
TORQUALIGN—Metal Bellows Corp.
TORQLINER—Cambridge Thermionic Corp.
TORQUE-PEAK—Standard Pneumatic Motor Co.
TORQUE-SEAL—Organic Products Co.
TORQUETEL—Industrial Electronetics Corp.
TORQUETROL—Electronic Control Corp.
TORQUE-WATCH—Waters Mfg. Inc.
TORR SEAL—Varian
TORX—Camcar Screw & Mfg.
TOUCH-A-MATIC—Eagle Electric Mfg. Co.
TOUCH DIAL—Action Systems Co.
TOX-EX—Erdco Engineering Corp.
TP-JAX—Switchcraft, Inc.
TRACER—Link Group
TRACER FLO—Ardel Corp.
TRACETRONIC—Seneca Falls Machine Co.
TRACMASTER—Universal Drafting Machine
TRAILBLAZER—Miller Electric Mfg. Co.
TRAINPHONE—Signal & Communications Div.
TRAMAG—Burroughs Corp.
TRANSAIRE—Taylor Instrument Cos.
TRANSAX—Palmer Ltd., G. A. Stanley
TRANS-BOX—Vichek Plastics Co.
TRANS-CHEK—Doall Co.
TRANS COM—Communications Co.
TRANSCOPE—Taylor Instrument Cos.
TRANSET—Taylor Instrument Cos.
TRANS-EYE—Shelly Associates, Inc.
TRANSFARAD—Sprague Electric Co.
TRANSFERMATIC—Wavetek
TRANSFEROMETER—Alford Mfg. Co.
TRANSFILTER—Clevite Corp.
TRANSHEAT—BTU Engineering Corp.
TRANSI-LYTIC—Sprague Electric Co.
TRANSISTAR—Mallinckrodt Chemical Works
TRANSITESTER—Delta Products Inc.
TRANSITLITE—Spectra-Physics
TRANSLAPOT—Bourns Inc.
TRANSLAUNCHER—Goodyear Aerospace Corp.
TRANSLUCTANCE—Remler Co.
TRANSNATIONAL—Cook Co., Ken
TRANS-O-NETIC—Heinemann Electric Co.
TRANSPAC—Electronic Research Assoc. Inc.
TRANSPHALT—Pennsylvania Ind. Chemical
TRANSVERTER—General Precision Systems Inc.
TRANSVERTER—Taylor Instrument Cos.
TRELCO—Transitron Electronic Corp.
TRI-ACT—Taylor Instrument Cos.
TRI ALLOY—Gardiner Solder Co.
TRI-AMP—General Instrument Corp.
TRI-BEAM—Western Coil & Elec. Co.
TRI-CARB—Packard Instrument Co. Inc.
TRI/CLAD—General Electric Co.
TRICON—Redcor Corp.
TRIGAC—General Precision Systems Inc.
TRIGARD—Gardiner Solder Co.
TRIGATE—Sprague Electric Co.
TRIGGER LOCK—Hartwell Corp.
TRIG-R-HEAT—Wall Mfg. Co.
TRIMACON—Erie Technological Prods.
TRINALLOY—Pall Trinity Micro Corp.
TRINCABLE—Pall Trinity Micro Corp.
TRICARB—Leeds & Northrup Co.
TRINOX—Pall Trinity Micro Corp.
TRI-PHASE—Taylor-Winfield Corp.
TRIPLEMATIC—Hardman Inc.
TRIPLE SEAL—Standard Electric Mfg. Co.
TRIXIE—Burroughs Corp.
TROL-AID—Chemtronics Inc.
TROLEX—CTS Electronics Inc.
TROL-KING—Seco Electronics Corp.
TRON—Bussmann Mfg. Div.
TRONA—American Potash & Chem. Corp.
TRS—Townsend Co.
TRUAC—Stevens-Arnold Inc.
TRUARC—Waldes Kohinoor, Inc.
TRUCOTE—All-State Welding Alloys Co.
TRUE CHECK—Pyro Serv Instruments, Inc.
TRUE-CUT—Penberthy Div.
TRUMUL—Babcock & Wilcox Co.
TRU-TRAK—Western Coil & Electl. Co.
TRYLAB—Trygon Electronics Inc.
TRYPACK—Trygon Electronics Inc.
T-SERT—Long-Lok Corp.
TSUGAMI—Levin & Son Inc., Louis
T-SWITCH—Switchcraft, Inc.
TUBEMASTER—Conrac Corp.
TUBEOHM—Ohmite Mfg. Co.
TUF-E-COAT—Shamban & Co., W. S.
TUF-E-NUZ—Shamban & Co., W. S.
TUF/FILM—Product Techniques, Inc.
TUFFLITE—Tensolite Insulated Wire Co.
TUFLITE—Hardman Inc.
TUFLITE INTERLOC—Hardman Inc.
TUF TEST—Gudebrod Bros. Silk Co. Inc.
TUMBLEX—Norton Co.
TUNAVERTER—Salch & Co., Herbert
TUNER-TONIC—Electronic Chemical Corp.
TUNGAR—General Electric Co.
TUN-O-LUBE—Chemtronics Inc.
TURBALARM—Wavelabs Co. Div.
TURBO—Brand-Rex Div.
TURBOCRYL—Brand-Rex Div.
TURBOGLAS—Brand-Rex Div.
TURBOLEX—Brand-Rex Div.
TURBOSIL—Brand-Rex Div.
TURBOTEMP—Brand-Rex Div.
TURBOTHERM—Brand-Rex Div.
TURBOTRANS—Brand-Rex Div.
TURBOTUF—Brand-Rex Div.
TURBOWRAP—Brand-Rex Div.
TURBOZONE—Brand-Rex Div.
TURCITE—Shamban & Co., W. S.
TURCON—Shamban & Co., W. S.
TURNER—Conrac Corp.
TURNLOK—Pass & Seymour
TUTORETTE—Audiotronics Corp.
TVC VARIDUCTOR—United Transformer Co.
TV LIFE SAVER—Wuerth Products Corp.
TVPZ—Computron Inc.
TV TROUBLE TRAPPER—Fedtro Inc.
TWENTIETH CENTURY—Bailey Co.
TWENTY TWENTY—Allaco Products Co.
20/20—Westinghouse Electric Corp.
TWIN-COM—Bogen Communications Div.
TWINCONE—Carpenter Mfg. Co.
TWINFILM—Sprague Electric Co.
TWIN-JAX—Switchcraft, Inc.
TWINPAX—Rotron Mfg. Co. Inc.
TWIN-PHONE—Bogen Communications Div.
TWIN-PLUG—Switchcraft, Inc.
TWINSHIELD—Primec Corp.
TWINSLEEVE—Alford Mfg. Co.
TWINTRON—HB Engineering Corp.

TWIST-LOK—Sprague Electric Co.
2 PLUS 2—Bramco Controls Div.
TWO-WAY—MacLean-Fogg Lock Nut Co.
TWYSTRON—Varian
TYCOS—Taylor Instrument Cos.
TYMETER—Pennwood Numechron Co.
TY-PLY—Hughson Chemical Co. Div.
TYPOTRON—Hughes Aircraft Co.
TY-RAP—Thomas & Betts Co.

UAT-1—Narco Avionics Div.
UBIQUITOUS—Federal Scientific Corp.
UCAR—Union Carbide Corp.
UCP—Ultra Carbon Corp.
UDDER—Waber Electronics Inc.
UEH—Tinius Olsen Testing Mach. Co.
UHP—Alpha Metals, Inc.
ULLR—Varian
ULTDELAY—Plessey Airborne Corp.
ULTDELAY ECONOMINI—Plessey Airborne Corp.
ULTDELAYMINI—Plessey Airborne Corp.
ULTIPOR—Pall Trinity Micro Corp.
ULTRA-COMPACT—United Transformer Co.
ULTRADEX—AA Gage Div.
ULTRA-ETHYLUX—Westlake Plastics Co.
ULTRA-GLOW—Uid Electronics Corp.
ULTRALAP—Pfizer Minerals, Pigments & Metals
ULTRALARM—Plessey Airborne Corp.
ULTRAMIST—Macrosonics Corp.
ULTRAMONITOR—Plessey Airborne Corp.
ULTRA-RO-DEX—AA Gage Div.
ULTRA-RO-DEX—A. A. Industries Inc.
ULTRARON—AA Gage Div.
ULTRASCALER—Nuclear-Chicago Corp.
ULTRAVERTER—Blonder-Tongue Labs.
ULTRAVOX—American Geloso Electronics
ULTRELAY—Plessey Airborne Corp.
UNALLOY—Hysol Div.
UNALUM—Universal Shellac & Supply Co.
UNASIL—Universal Shellac & Suppy Co.
UNDARK—United States Radium Corp.
UNEXEAR—Unex Labs. Div.
UNI-BASE—United Refining & Smelting Co.
UNI-BEND—United Refining & Smelting Co.
UNI-BRAND—United Refining & Smelting Co.
UNICABINET—Dahlstrom Mfg. Corp.
UNI-CAST—United Refining & Smelting Co.
UNICERAM—JFD Electronics Co.
UNICIRCUIT—Sprague Electric Co.
UNICLOSED—U. S. Electrical Motors
UNI-CORE—Alpha Metals, Inc.
UNICUT—Universal-Cyclops Specialty Steel Div.
UNIDYNE—Shure Brothers Inc.
UNI-FIRE—United Refining & Smelting Co.
UNIKIT—Gabriel Electronics Div.
UNI-LASER—American Optical Co.
UNILINE—Pass & Seymour
UNILOCK—Ardel Corp.
UNI-LOW—United Refining & Smelting Co.
UNILOY—Universal-Cyclops Specialty Steel
UNI/MAG—Taylor Instrument Cos.
UNI-OXIDE C—Universal Shellac & Supply
UNIPAK—Sprague Electric Co.
UNIPHONE—Action Systems Co.
UNIPLEX—Shure Brothers Inc.
UNI-POL—Geoscience Instruments Corp.
UNIPONENT—Sprague Electric Co.
UNIRING—Burndy Corp.
UNI-SAFE—United Refining & Smelting Co.
UNISEAL—Universal Cyclops Specialty Steel Div.
UNISHINE—Universal Shellac & Supply Co.
UNISPAN—Universal-Cyclops Specialty Steel Div.
UNI-SPEED—Universal Shellac & Supply Co.
UNISPHERE—Shure Brothers Inc.
UNITEMP—Universal-Cyclops Specialty Steel Div.
UNIT-MOUNT—Eon Corp.
UNI-TORQUE—MacLean-Fogg Lock Nut Co.
UNITRACK—Calabro Plastics Inc.
UNI-TRUE—United Refining & Smelting Co.
UNITIZED—General Electric Co.
UNIVERSAL—K-W Engineering Works
UNIVERSAL THREAD SEAL—Shamban & Co., W. S.
UNI-VIT—Kaman Nuclear Div.
UNI-WAFER—Clevite Corp.
URAFIL—Fiberfil Div.
URAFLEX—Allaco Products Co.
URAGLAS—Fiberfil Div.
URALANE—Furane Plastics Inc.
URESOLVE—Dynaloy Inc.
USD—United States Dynamics
USDRYER—United States Dynamics
USP—U. S. Polymeric Inc.
USR—United States Radium Corp.
UTC—United Transformer Co.
UTF—JFD Electronics Co.
UTILI-SPLICE—AMP Inc.
UTILI-TAP—AMP Inc.
UTILI-TENSHUM—AMP Inc.
UTILOGIC—Signetics Corp.

VA—Varian
VACAP—Dolinko & Wilkens Inc.
VACION—Varian
VACOA—Vacuum Accessories Corp. of America
VACOMBO—Vaco Products Co.
VAC-PAC—Hull Corp.
VACSORB—Varian
VAC-TITE BOX—G. T. I. Corp.
VACUARM—Affiliated Manufacturers Inc.
VACULOY—Alpha Metals, Inc.
VAC-U-SEL—General Electric Co.
VALCOR—Babcock & Wilcox Co.
VALVACTOR—Foxboro Co.
VALV-PRECISOR—Taylor Instrument Cos.
VAM—JFD Electronics Co.
VAMP—Link Group
VAN-AIR—Van Products Co.
VANDE GRAAFF—High Voltage Engineering Corp.
VAN-O-PADS—Sawyer Associates Inc.
VAPOCARB—Leeds & Northrup Co.
VAPODYNE—Thomson Electric Co.
VAPOR MATE II—Cambridge Systems Inc.
VAPOTRON—Thomson Electric Co.
VARACTOGRAPH—Varian
VARACTRON—Crystalonics
VAREX—Roband Electronics Ltd.
VARIAC—General Radio Co.
VARI-BOARD—Vaco Products Co.
VARIDRIVE—U. S. Electrical Motors
VARIDUCTOR—United Transformer Co.
VARIDYNE—U. S. Electrical Motors
VARI-FINE—Waber Electronics Inc.
VARI-HENRY—Magnetic Specialties Inc.
VARI-JUST—Eon Corp.
VARIMATCH—United Transformer Co.
VARIOGON—Nilsen Mfg. Co.
VARI-PAK—Gems Co. Inc.
VARIPLOTTER—Electronic Associates Inc.
VARIPOWER—United Transformer Co.
VARI-POWERLITE—Electronic Homes Co.
VARITRAN—United Transformer Co.
VARITRIM—Voltronics, Inc.
VARITRON—Coleman Engineering Co. Inc.
VARI-VAC—Vactronic Labs. Equipment
VARIZISTOR—Vacco Electronics Div.
VC-CODER—Bell-Mark Corp.
VECO—Victory Engineering Corp.
VECO VAMP—Victory Engineering Corp.
VECTORBORD—Vector Electronic Co.
VECTOR VANE—Meteorology Research Inc.
VECTROL—Sprague Electric Co.
VEE-BALLOON—Goodyear Aerospace Corp.
VEECAL—Vitramon Inc.
VEE JEM—Vitramon Inc.
VELCO—Virginia Electronics Co.
VENCO—Sunbeam Vacuum Furnace Corp.
VERITOR—Biddle Co., James G.
VERNAC—Infrared Industries Inc.
VERNISTAT—Perkin-Elmer
VERNISYN—Data Technology Inc.
VEROBOARD—Vero Electronics Inc.
VERSAFRAME—Design Products Corp.
VERSAKRIMP—Waldom Electronics Inc.
VERSA/METER—Technology/Versatronics Inc.
VERSA-MOUNT—Calabro Plastics Inc.
VERSAPOR—Gelman Instrument Co.
VERSA-RANGE—Blue M Engineering Co.
VERSASTORE—Varian Data Machines
VERSATAP—Blonder Tongue Labs. Inc.
VERSILUBE—General Electric Co.
VERSITOR—Biddle Co., James K.
VERTI-LYTIC—Sprague Electric Co.
VETEC—Advance Industries Inc.
VFC—Automation Devices Inc.
VIBRAKRIMP—Waldom Electronics Inc.
VIBRASONE—Phillips Mfg. Co.
VIBRASWITCH—Robertshaw Controls Co.
VIBRA-TEL—Robertshaw Controls Co.
VIBRATHANE—Uniroyal Chemical Div.
VIBRODE—Beckman Instruments, Inc.
VIBROFEED—Burndy Corp.
VIBRO-FLO—Armstrong Products Co.
VIBRO-FLUIDIZER—Armstrong Products Co.
VIBROGRAF—Bulova Watch Co.
VIBROGROUND—Associated Research, Inc.
VIBRON—Burgess & Assoc. Inc.
VIBROTEST—Associated Research, Inc.
VIBROX—Tohoku Metal Industries Ltd.
VICANET—Tohoku Metal Industries Ltd.
VICO—Video Industries Co.
VIC VARIDUCTOR—United Transformer Co.
VIDEODISC—MVR Corp.
VIDEOMASTER—Ultronic Systems Sub.
VIDEOTRON—Standard TV Tube Co.
VIDI GAGE—Branson Instruments, Inc.
VIGOR—Jadow & Sons Inc., B.
VINYLINK—Burndy Corp.
VINYLUG—Burndy Corp.
VISCASIL—General Electric Co.
VISCOFILM—Industrial Condenser Corp.
VISICORDER—Honeywell
VISI-GUARD—Joslyn Electronic Systems Div.
VISI-MAG—Magnecessories
VISIONEAR—Unex Labs. Div.
VISIPRINTER—Honeywell
VISSTRIP—Oakite Products, Inc.
VISTAL—Coors Porcelain Co.
VISUAL VECTOR—Justus & Justus Corp.
VITAMIN Q—Sprague Electric Co.
VI-TEL—Vidar Corp.
VI TITE—Penn-Union Electric
VITREOSIL—Thermal American Fused Quartz
VITRICON—Vitramon Inc.
VITROLAIN—Star Porcelain Co.
VK—Vitramon Inc.
V-LAM—Vitramon Inc.
VLR—Matrix Div.
VOCAL-AMP—Bogen Communications Div.
VOCAPHONE—Miles Reproducer Co. Inc.
VOICE DIRECTOR—Argos Products Co.
VOICE OF MUSIC—V-M Corp.
VOI-O-FLOW—National Instrument Labs, Inc.
VOLTAUT—Voltron Products Inc.
VOLT-PAC—General Electric Co.
VOLTRIP—Voltron Products Inc.
VOLTROL—Acme Electric Corp.
VORITE—Baker Caster Oil Co.
VOYCALL—Lake Manufacturing Co.
VRP—Western Technology Inc.
VT—Ohmite Mfg. Co.
VTB—Sunbeam Vacuum Furnace Corp.
VULCOID—Budd Co. Polyche mDiv.
VU-POINT—Remex Electronics
VX SUPER REFRACTORY—Western Gold & Platinum Co.
VY—Vitramon Inc.

WABCO—Signal & Communications Div.
WALKIE-RECORDALL—Miles Reproducer Co. Inc.
WALLBRAND—Wall Mfg. Co.
WASP—Malco Mfg. Co.
WASSCO GLO-MELT—American Electrical Heater Co.
WATCHDOG—Solid State Research Corp.
WATCHMASTER—Bulova Watch Co.
WATER-MATE—Electro-Oceanics
WATERTIGHT—MacLean-Fogg Lock Nut Co.
WATER WELDER—Henes Mfg. Co.
WATTCHER—Bird Electronic Corp.
WATTS—Elpa Mktg. Industries Inc.
WAVEMASTER—ITT Telecommunications
WAVI—Wavelabs Co. Div.
WEBLOX—Kendall Co.
WEBLOY—Kendall Co.
WEBRIL—Kendall Co.
WEDGE-CRIMP—Automatic Metal Products Corp.
WEDGE-EZE—Automatic Metal Products Corp.
WEDGELOCK—Adalet Mfg. Co. Div.
WEDGE-LOCK—Automatic Metal Products Corp.
WEECOIL—Wells Electronics Co.
WEECON—Erie Technological Prods.
WEEN—Mobil Electronics Inc.
WELDBLOC—General Precision System Inc.
WELDOX—Hardman Inc.
WELD POWER—Raytheon Co.
WELD POWER—Sorensen Operation
WELTAN—Components Inc.
WELTEK—Wells Electronics Inc.
WELTRON—Standard TV Tube Co.
WELTRONARC—Weltronic Co.
WEPCO—Wayne Electronic Products Co.
WESDIAL—Westinghouse Brake & Sig. Co. Ltd.
WESGO—Western Gold & Platinum Co.
WESLOAD—Westinghouse Brake & Sig. Co. Ltd.
WESTACH—Westberg Mfg. Co.
WEST-CAP—General Scientific Corp.
WEST-CAP—San Fernando Electric Mfg. Co.
WESTCOIL—Western Coil & Electrical Co.
WEST-FLEX—Flexible Metal Hose Mfg. Co.
WES-TOP—Furane Plastics Inc.
WESTRONIC—Westinghouse Brake & Sig. Co. Ltd.
WESTRONICS—Tracor Inc.
WHEELER—Varian
WHEELMATE—Norton Co.
WHEEL N REEL—Waber Electronics Inc.
WHEELS OF PROGRESS—Avco Bay State Abrasives
WHIRLCLAD—Polymer Corp.
WHIRLPOOL—Standard Electric Mfg. Co.
WHISPER—Rotron Mfg. Co. Inc.
WHIT—Etchomatic Inc.
WHITE BENCH—Matthews Research Inc.
WHITE DOT—Etchomatic, Inc.
WHIZ-LOCK—McLean-Fogg Lock Nut Co.
WIDEBETA—Beckman Instruments Inc.
WIDE WINDOW—Thomas & Skinner Inc.
WIG-O-FLEX—Wiggins Inc., E. B.
WILLIAMS—Pfizer Minerals, Pigments & Metals
WINDJAMMER—Lamb Electric Div.
WINDSCORE—Taylor Instrument Cos.
WINDSOR—Keleket Div.
WIRE-DIAL—Kent Corp.
WIREDUCT—Wiremold Co.
WIRE-EASY—R. C. L. Electronics Inc.
WIRE-MATE—ITT Cannon Electric Div.
WIRE-NUT—Ideal Industries Inc.
WIREWATT—Ohmite Mfg. Co.
WIRE-WRAP—Aerodyne Controls Corp.
WISCO—Weitermann Electronics
WISMOS—Montedoro Corp.
WJH—AMP Inc.
WONDERSHAFT—C. P. Corp.
WOOD WELDER—Short Wave Plastic Forming Co.
WRAP-LOK—Sprague Electric Co.
WRITE-ON-IT—Labelon Corp.

X-AIR—Isochem Resins Co.
XENOLITE—Christie Electric Corp.
X-LINK—Cerro Wire & Cable Div.
XTRADUR—Hexacon Electric Co.
XYZ JOYSTICK—Bowmar Instrument Corp.

Y-ADAPTER—Switchcraft, Inc.
Y CORES—Thomas & Skinner Inc.
YELLOW HANDLE—AMP Inc.
YELLOW JACKET—Sprague Electric Co.
Y-LAB—Yeiser Labs.
Y SERIES—JFD Electronics Co.

Z—Goodyear Aerospace Corp.
ZELUX—Westlake Plastics Co.
ZEROMATIC—Beckman Instruments Inc.
ZEVRA—Tabuchi Electric Co. Ltd.
ZIPIT—Phillips Process Co. Inc.
ZIP-STRAP—Western Coil & Electric Co.
ZIRNORITE—Norton Co.
Z-MATCH—Vari-L Co. Inc.
ZOOM-SPOUT—Armite Laboratories
ZT—Zippertubing Co.
Z-TRON—Polymer Corp.
ZYGLO—Magnaflux Corp.
ZYGLO-PENTREY—Magnaflux Corp.
ZYNOXEL—Yardney Electric Corp.

NOTES

NOTES

GENERAL INSTRUMENT CORPORATION
SEMICONDUCTOR PRODUCTS GROUP

600 WEST JOHN STREET, HICKSVILLE, N.Y. 11802

AUTHORIZED DISTRIBUTORS

ALABAMA

M. G. Electronics
3112 6th Avenue, Birmingham, Alabama
Tel: (205) 328-4525

Electronic Wholesalers, Inc.
2310 Bob Wallace Ave. S.W., Huntsville, Ala.
Tel: (205) 539-5722

CALIFORNIA—NORTHERN

Bell Electronics Corporation
1070 O'Brien Drive
Menlo Park, California 94025
Tel: (415) 322-6651

Avnet Corporation
344 Middlefield Rd., Mountain View, Calif.
Tel: (415) 961-7700

Elmar Electronics
2288 Charleston Rd., Mountain View, Calif.
Tel: (415) 961-3611
(Formerly Pencor—Palo Alto, Calif.)

Elmar Electronics
140 Eleventh Street, Oakland, California
Tel: (415) 834-3311

CALIFORNIA—SOUTHERN

Avnet
10916 Washington Blvd.
Culver City, California 90230
Tel: (213) 870-6141

Liberty Electronics, Inc.
339 S. Isis Avenue, Inglewood, California
Tel: (213) 678-8111

Kierulff Electronics, Inc.
2585 Commerce Way, Los Angeles, Calif. 90022
Tel: (213) 685-5511

Milo of California, Inc.
2060 India St., San Diego 1, California
Tel: (714) 232-8951

COLORADO

Hyer Electronics
7895 East Prentice Ave., Englewood, Colo. 80110
Tel: (303) 771-5285

CONNECTICUT

Connecticut Industrial Electronics
854 Main Street
Stamford, Connecticut
Tel: (203) 325-3591

FLORIDA

Electronic Wholesalers, Inc.
345 Graham Avenue
P.O. Box 20214, Orlando, Florida 32814
Tel: (305) 841-1550

Electronic Wholesalers, Inc.
9390 N.W. 27th Avenue, Miami, Florida
Tel: (305) 696-1620

GEORGIA

Jackson Electronic Supply Co., Inc.
1135 Chattahoochie Avenue, N.W.
Atlanta, Georgia
Tel: (404) 355-2223

ILLINOIS

CHICAGO—SUBURBS

Arco Electronics Inc.
75 Gaylord St., Elk Grove Village, Illinois 60007
Tel: (312) 439-8100

Pace/Avnet Electronics Supplies Inc.
3901 Pace Court
Schiller Park, Illinois 60176
Tel: (312) 678-6310
TWX: 910-227-3565

IOWA

Deeco, Inc.
618 First Street, N.W., Cedar Rapids, Iowa 52405
Tel: (319) 365-7551

LOUISIANA

Hall-Mark Electronics Corporation
4334 Stemway Avenue
New Orleans, Louisiana 70126
Tel: (504) 242-7581

MARYLAND-WASHINGTON, D.C.

Radio Electric Service Co. of Baltimore, Inc.
5 North Howard St., Baltimore 1, Md.
Tel: (301) 539-3835

Electronic Wholesalers, Inc.
3200 Wilkens Ave., Baltimore, Maryland 21229
Tel: (301) 646-3600

Empire Electronics Supply Co.
4907 Rugby Avenue, Bethesda 14, Md.
Tel: (301) 656-3300

Milgray Washington Inc.
5405 Lafayette Place
Hyattsville, Maryland 20781
Tel: (301) 864-1111
TWX: 710-826-1127

Electronic Wholesalers, Inc.
2345 Sherman Avenue N.W.
Washington, D.C. 20001
Tel: (202) 483-5200

MASSACHUSETTS

Avnet Corporation
207 Cambridge St., Burlington, Mass.
Tel: (617) 272-3060

R & D Electronics Supply Co., Inc.
71 Pearl St., Cambridge 39, Massachusetts
Tel: (617) 868-6644

Greene-Shaw Company
341-347 Watertown Street
Newton, Massachusetts
Tel: (617) 969-8900

MICHIGAN

Electronic Supply Corporation
429 E. Kalamazoo Avenue
Kalamazoo, Michigan 49006
Tel: (616) 381-4624

MINNESOTA

Arco Electronics
4004 East Lake Street
Minneapolis, Minnesota 55406
Tel: (612) 721-6403
TWX: 910-576-2812

MISSOURI

Hall-Mark Electronics Corporation
2707 W. 43rd Street
Kansas City, Missouri 66103
Tel: (913) 236-4343

Walters Radio Supply Co., Inc.
3635 Main St., Kansas City 11, Missouri
Tel: (816) 531-7015

Ensco Distributing
6717 Vernon Avenue
St. Louis, Missouri 63130
Tel: (314) 726-2233

NEW JERSEY

General Radio Supply
600 Penn St., Camden, New Jersey 08102
Tel: (609) 964-8560

NEW MEXICO

Electronic Parts Co., Inc.
222 Truman St., N.E., Albuquerque, N.M.
Tel: (505) 265-8401

NEW YORK (METROPOLITAN AREA)

Delburn Electronics
465 Nepperhan Avenue, Yonkers, N.Y.
Tel: (914) 423-2800

Milgray Electronics, Inc.
160 Varick St., New York 13, New York
Tel: (212) 989-1600

Terminal Hudson Electronics, Inc.
236 W. 17th St., New York 11, New York
Tel: (212) 243-5200

NEW YORK STATE

Summit Distributors
916 Main Street, Buffalo, New York
Tel: (716) 884-3450

Semiconductor Concepts
2147 Jericho Turnpike
Garden City Park, New York 11044
Tel: (516) 248-5500

Connecticut Industrial Electronics
3259 Winton Road, South
Rochester, New York
Tel: (716) 275-9000

NORTH CAROLINA

Electronics Wholesalers, Inc.
938 Burke St., Winston Salem, N.C. 27102
Tel: (919) 725-8711

OHIO

Newark-Herrlinger
112 East Liberty St., Cincinnati, Ohio 45210
Tel: (513) 421-5282

Winteradio Electronic Supply Corporation
1468 West 25th Street, Cleveland, Ohio
Tel: (216) 621-5080

OKLAHOMA

Radio, Inc.
1000 S. Main St., Tulsa 19, Oklahoma
Tel: (918) 587-9124

PENNSYLVANIA-SOUTH JERSEY

Taylor Electronics Corporation
433 Jacksonville Road
Hatboro, Pennsylvania
Tel: (215) 672-6900

Milgray Delaware Valley, Inc.
2532 N. Broad St., Philadelphia, Pa. 19132
Tel: (215) 228-2000
TWX: 215-569-8691

TEXAS

Arco Electronics, Inc.
1610 Industrial Court
P.O. Box 1001, Arlington, Texas 76010
Tel: (817) 277-2231

Contact Electronics, Inc.
2403 Farrington St., Dallas 7, Texas
Tel: (214) 638-2850

McNicol Inc.
811 North Estrella, El Paso, Texas
Tel: (915) 566-2936

Hamilton Electro Sales of Texas, Inc.
1216 W. Clay, Houston, Texas 77019
Tel: (713) 526-4661

Lenert Company
1420 Hutchins Avenue
Houston, Texas 77001
Tel: (713) 225-1465

UTAH

Kimball Electronics, Inc.
350 Pierpont Ave., Salt Lake City, Utah 84101
Tel: (810) 328-2075

VIRGINIA

Virginia Radio Supply Co., Inc.
P.O. Box 1189
715 Henry Ave., Charlottesville, Virginia
Tel: (703) 296-4184

Priest Electronics, Inc.
6431 Tidewater Drive, Norfolk 9, Virginia
Tel: (703) 855-0141

WASHINGTON-OREGON

Kierulff Electronics, Inc.
5950 Sixth Avenue, Seattle, Washington 98108
Tel: (206) 763-1550

Liberty Electronics
2117 2nd Avenue
Seattle, Washington
Tel: (206) 763-8200

WISCONSIN

Electronic Expeditors, Inc.
3501 W. Burleigh St., Milwaukee, Wisc. 53209
Tel: (414) 871-3000

See next page for product listings.

KEPCO
POWER SUPPLIES

SEE PAGES 508-513 FOR COMPLETE LISTINGS & PRICES

KEPCO, INC. • 131-38 SANFORD AVENUE • FLUSHING, N.Y. 11352 • (212) 461-7000 • TWX #710-582-2631 • Telex: 12-6055